

superior conj	3600 Oct 01 05:31	9°♌20'37	1°24'23	minimum elong	3603 Feb 28 09:12	9°♏47'44	8°25'32
minimum elong	3600 Oct 01 08:03	9°♌28'27	1°24'22	morning rise	3603 Mar 03 19:06	7°♏42'29	
	3600 Oct 17 20:39	0°♌		direct	3603 Mar 21 04:41	1°♏50'57	
evening rise	3600 Nov 07 23:26	26°♌17'05		greatest brilliancy	3603 Mar 30 08:43	3°♏26'02	-4.9m
	3600 Nov 10 23:01	0°♌			3603 May 06 09:35	0°♏	
desc. node	3600 Nov 21 04:42	12°♌45'32		desc. node	3603 May 08 23:38	2°♏29'42	
	3600 Dec 05 00:37	0°♌		morning max el	3603 May 09 23:08	3°♏27'06	46°21'47
	3600 Dec 29 02:09	0°♌			3603 Jun 04 08:54	0°♏	
	3601 Jan 22 04:59	0°♏			3603 Jul 01 02:02	0°♏	
	3601 Feb 15 12:14	0°♏			3603 Jul 26 21:22	0°♏	
	3601 Mar 12 05:37	0°♏			3603 Aug 21 03:30	0°♏	
asc. node	3601 Mar 14 07:17	2°♏28'30		asc. node	3603 Aug 30 02:28	10°♏46'17	
	3601 Apr 06 19:01	0°♏			3603 Sep 14 23:05	0°♏	
	3601 May 04 02:39	0°♏			3603 Oct 09 09:54	0°♏	
evening max el	3601 May 13 16:56	9°♏41'09	45°49'34		3603 Nov 02 14:14	0°♏	
	3601 Jun 06 06:46	0°♏		morning set	3603 Nov 04 00:04	1°♏45'24	
greatest brilliancy	3601 Jun 20 19:29	8°♏07'26	-4.7m		3603 Nov 26 14:32	0°♏	
retrograde	3601 Jul 01 18:55	10°♏18'40		max. Earth dist.	3603 Dec 11 01:11	18°♏06'06	1.71430 AU
desc. node	3601 Jul 03 21:12	10°♏13'29					
evening set	3601 Jul 17 04:58	5°♏44'41		superior conj	3603 Dec 12 22:13	20°♏27'23	0°16'11
inferior conj	3601 Jul 23 07:51	2°♏03'30	-4°23'33	minimum elong	3603 Dec 13 02:15	20°♏40'03	0°15'59
minimum elong	3601 Jul 22 23:19	2°♏16'53	4°21'24	behind sun begin	3603 Dec 12 21:43	20°♏25'49	
min. Earth dist.	3601 Jul 23 01:29	2°♏13'29	0.28996 AU	behind sun end	3603 Dec 13 06:47	20°♏54'17	
	3601 Jul 26 15:25	30°♏		desc. node	3603 Dec 19 16:28	28°♏56'33	
morning rise	3601 Jul 28 17:42	28°♏45'51			3603 Dec 20 12:41	0°♏	
direct	3601 Aug 13 21:46	23°♏47'14			3604 Jan 13 09:50	0°♏	
greatest brilliancy	3601 Aug 24 04:27	25°♏40'29	-4.7m	evening rise	3604 Jan 22 18:31	11°♏45'57	
	3601 Sep 02 07:39	0°♏			3604 Feb 06 07:02	0°♏	
morning max el	3601 Oct 01 20:01	23°♏48'57	45°54'38		3604 Mar 01 06:00	0°♏	
	3601 Oct 08 02:09	0°♏			3604 Mar 25 09:25	0°♏	
asc. node	3601 Oct 25 00:10	17°♏50'32		asc. node	3604 Apr 10 19:17	20°♏10'43	
	3601 Nov 04 21:55	0°♏			3604 Apr 18 20:32	0°♏	
	3601 Nov 30 15:17	0°♏			3604 May 13 19:26	0°♏	
	3601 Dec 25 09:48	0°♏			3604 Jun 08 12:54	0°♏	
	3602 Jan 18 17:09	0°♏			3604 Jul 05 17:15	0°♏	
	3602 Feb 11 19:22	0°♏		evening max el	3604 Jul 23 09:48	17°♏53'02	45°29'33
desc. node	3602 Feb 13 14:05	2°♏13'19		desc. node	3604 Jul 31 09:10	25°♏14'52	
	3602 Mar 07 19:39	0°♏			3604 Aug 05 21:42	0°♏	
	3602 Mar 31 20:03	0°♏		greatest brilliancy	3604 Aug 31 07:34	15°♏47'52	-4.7m
morning set	3602 Apr 06 08:57	6°♏54'30		retrograde	3604 Sep 10 01:14	17°♏29'59	
	3602 Apr 24 22:04	0°♏		evening set	3604 Sep 28 02:31	11°♏25'01	
				inferior conj	3604 Oct 01 07:26	9°♏27'02	-8°36'48
superior conj	3602 May 15 06:54	25°♏16'08	-0°50'22	minimum elong	3604 Oct 01 10:01	9°♏23'01	8°36'43
minimum elong	3602 May 15 16:31	25°♏45'50	0°49'59	min. Earth dist.	3604 Oct 01 23:15	9°♏02'29	0.28566 AU
max. Earth dist.	3602 May 18 10:37	29°♏10'18	1.72777 AU	morning rise	3604 Oct 04 17:23	7°♏21'15	
	3602 May 19 02:41	0°♏		direct	3604 Oct 22 17:57	1°♏14'16	
asc. node	3602 Jun 06 16:56	22°♏57'25		greatest brilliancy	3604 Nov 02 18:53	3°♏29'27	-4.8m
	3602 Jun 12 10:09	0°♏		asc. node	3604 Nov 21 11:48	14°♏57'27	
evening rise	3602 Jun 22 01:50	11°♏52'22			3604 Dec 08 06:56	0°♏	
	3602 Jul 06 20:13	0°♏		morning max el	3604 Dec 12 01:53	3°♏46'03	46°38'06
	3602 Jul 31 08:52	0°♏			3605 Jan 05 10:22	0°♏	
	3602 Aug 25 01:00	0°♏			3605 Jan 31 05:11	0°♏	
	3602 Sep 18 22:23	0°♏			3605 Feb 25 03:02	0°♏	
desc. node	3602 Sep 26 06:55	8°♏47'49		desc. node	3605 Mar 13 02:02	19°♏28'58	
	3602 Oct 14 03:34	0°♏			3605 Mar 21 15:54	0°♏	
	3602 Nov 08 21:14	0°♏			3605 Apr 15 01:10	0°♏	
	3602 Dec 05 16:55	0°♏			3605 May 09 09:45	0°♏	
evening max el	3602 Dec 19 02:45	14°♏02'47	47°10'13		3605 Jun 02 19:04	0°♏	
	3603 Jan 05 00:23	0°♏		morning set	3605 Jun 16 09:59	16°♏44'14	
asc. node	3603 Jan 17 09:33	9°♏31'16			3605 Jun 27 05:08	0°♏	
greatest brilliancy	3603 Jan 28 19:44	15°♏33'07	-4.9m	asc. node	3605 Jul 04 04:42	8°♏34'42	
retrograde	3603 Feb 07 22:52	17°♏31'30			3605 Jul 21 15:06	0°♏	
evening set	3603 Feb 24 23:29	11°♏52'08		max. Earth dist.	3605 Jul 22 16:52	1°♏19'12	1.73529 AU
min. Earth dist.	3603 Feb 27 23:26	10°♏02'50	0.27095 AU				
inferior conj	3603 Feb 28 16:21	9°♏36'41	8°26'19	superior conj	3605 Jul 23 07:38	2°♏04'35	0°43'32

minimum elong	3605 Jul 22 23:48	1°♌40'31	0°43'12			3608 Feb 05 01:23	0°♊	
	3605 Aug 15 00:15	0°♍		morning max el		3608 Feb 23 01:44	16°♊51'09	46°57'44
evening rise	3605 Aug 28 06:03	16°♍18'36				3608 Mar 06 15:03	0°♌	
	3605 Sep 08 08:43	0°♌				3608 Apr 02 09:09	0°♌	
	3605 Oct 02 17:24	0°♌		desc. node		3608 Apr 09 13:55	8°♌20'57	
desc. node	3605 Oct 23 18:50	25°♌53'06				3608 Apr 27 23:27	0°♍	
	3605 Oct 27 03:17	0°♍				3608 May 23 02:22	0°♍	
	3605 Nov 20 15:03	0°♎				3608 Jun 17 00:05	0°♎	
	3605 Dec 15 06:05	0°♏				3608 Jul 11 18:31	0°♏	
	3606 Jan 09 04:47	0°♏		asc. node		3608 Jul 31 16:40	24°♏15'33	
asc. node	3606 Feb 03 22:51	0°♏				3608 Aug 05 09:28	0°♏	
evening max el	3606 Feb 13 21:25	11°♏05'13		morning set		3608 Aug 23 10:24	22°♏06'34	
	3606 Mar 01 08:30	27°♏26'03	46°52'36			3608 Aug 29 20:20	0°♏	
	3606 Mar 03 22:00	0°♏				3608 Sep 23 03:17	0°♏	
greatest brilliancy	3606 Apr 10 03:17	28°♏04'05	-4.8m	max. Earth dist.		3608 Sep 25 21:12	3°♏24'12	1.72791 AU
	3606 Apr 17 20:38	0°♏						
retrograde	3606 Apr 20 18:03	0°♏09'54		superior conj		3608 Sep 28 22:22	7°♏11'00	1°24'45
	3606 Apr 23 14:27	30°♏8		minimum elong		3608 Sep 29 00:11	7°♏16'38	1°24'45
evening set	3606 May 07 00:41	24°♏58'14				3608 Oct 17 07:22	0°♏	
inferior conj	3606 May 11 21:30	21°♏58'55	5°32'01	evening rise		3608 Nov 05 13:37	23°♏58'06	
minimum elong	3606 May 12 07:21	21°♏43'27	5°29'41			3608 Nov 10 09:53	0°♏	
min. Earth dist.	3606 May 11 18:59	22°♏02'52	0.28233 AU	desc. node		3608 Nov 20 06:39	12°♏17'25	
morning rise	3606 May 17 14:31	18°♏32'09				3608 Dec 04 11:40	0°♏	
direct	3606 Jun 02 01:51	13°♏54'22				3608 Dec 28 13:25	0°♏	
desc. node	3606 Jun 05 11:16	14°♏07'40				3609 Jan 21 16:33	0°♏	
greatest brilliancy	3606 Jun 11 19:53	15°♏39'08	-4.8m			3609 Feb 15 00:15	0°♏	
	3606 Jul 05 07:05	0°♏				3609 Mar 11 18:26	0°♏	
morning max el	3606 Jul 20 22:29	13°♏54'59	45°45'14	asc. node		3609 Mar 13 09:20	1°♏56'08	
	3606 Aug 05 23:41	0°♏				3609 Apr 06 09:31	0°♏	
	3606 Sep 02 12:03	0°♏				3609 May 03 21:33	0°♏	
asc. node	3606 Sep 26 14:20	27°♏48'44		evening max el		3609 May 11 07:55	7°♏27'33	45°51'15
	3606 Sep 28 10:55	0°♏				3609 Jun 07 03:03	0°♏	
	3606 Oct 23 12:09	0°♏		greatest brilliancy		3609 Jun 18 11:11	5°♏57'46	-4.7m
	3606 Nov 16 23:40	0°♏		retrograde		3609 Jun 29 11:33	8°♏10'12	
	3606 Dec 11 03:00	0°♏		desc. node		3609 Jul 02 23:19	7°♏55'38	
	3607 Jan 04 01:58	0°♏		evening set		3609 Jul 14 19:44	3°♏37'50	
desc. node	3607 Jan 16 04:17	15°♏11'45		min. Earth dist.		3609 Jul 20 17:44	0°♏04'53	0.28983 AU
morning set	3607 Jan 17 02:33	16°♏21'45				3609 Jul 20 20:51	30°♏8	
	3607 Jan 27 22:54	0°♏		inferior conj		3609 Jul 21 00:10	29°♏54'48	-4°06'19
	3607 Feb 20 19:24	0°♏		minimum elong		3609 Jul 20 16:01	0°♏07'33	4°04'12
				morning rise		3609 Jul 26 12:22	26°♏34'04	
superior conj	3607 Feb 27 16:10	8°♏37'36	-1°20'14	direct		3609 Aug 11 13:31	21°♏38'34	
minimum elong	3607 Feb 27 07:41	8°♏10'55	1°20'04	greatest brilliancy		3609 Aug 21 20:42	23°♏32'17	-4.7m
max. Earth dist.	3607 Mar 02 10:11	12°♏04'50	1.71304 AU			3609 Sep 03 11:07	0°♏	
	3607 Mar 16 16:57	0°♏		morning max el		3609 Sep 29 11:52	21°♏38'25	45°53'33
evening rise	3607 Apr 09 05:26	29°♏23'11				3609 Oct 07 21:38	0°♏	
	3607 Apr 09 17:16	0°♏		asc. node		3609 Oct 24 02:09	17°♏12'01	
	3607 May 03 21:52	0°♏				3609 Nov 04 12:38	0°♏	
asc. node	3607 May 09 07:06	6°♏38'29				3609 Nov 30 04:12	0°♏	
	3607 May 28 07:59	0°♏				3609 Dec 24 21:50	0°♏	
	3607 Jun 22 00:52	0°♏				3610 Jan 18 04:43	0°♏	
	3607 Jul 17 02:53	0°♏				3610 Feb 11 06:36	0°♏	
	3607 Aug 11 19:02	0°♏		desc. node		3610 Feb 12 16:11	1°♏44'51	
desc. node	3607 Aug 28 21:00	19°♏22'11				3610 Mar 07 06:39	0°♏	
	3607 Sep 07 12:10	0°♏				3610 Mar 31 06:50	0°♏	
evening max el	3607 Oct 04 18:59	28°♏16'37	46°13'51	morning set		3610 Apr 03 21:38	4°♏30'50	
	3607 Oct 06 14:02	0°♏				3610 Apr 24 08:42	0°♏	
greatest brilliancy	3607 Nov 13 21:27	27°♏31'07	-4.8m					
retrograde	3607 Nov 23 05:30	29°♏08'02		superior conj		3610 May 12 22:07	23°♏01'56	-0°53'10
evening set	3607 Dec 07 21:10	24°♏58'12		minimum elong		3610 May 13 08:02	23°♏32'37	0°52'47
inferior conj	3607 Dec 13 21:18	21°♏27'53	-1°34'06	max. Earth dist.		3610 May 16 02:45	26°♏59'06	1.72732 AU
minimum elong	3607 Dec 14 00:53	21°♏22'25	1°32'58			3610 May 18 13:14	0°♏	
min. Earth dist.	3607 Dec 14 08:28	21°♏10'51	0.26749 AU	asc. node		3610 Jun 05 18:57	22°♏31'05	
asc. node	3607 Dec 19 23:39	17°♏53'18				3610 Jun 11 20:43	0°♏	
morning rise	3607 Dec 20 03:59	17°♏47'30		evening rise		3610 Jun 19 19:20	9°♏46'11	
direct	3608 Jan 03 11:39	13°♏43'00				3610 Jul 06 06:53	0°♏	
greatest brilliancy	3608 Jan 14 02:54	15°♏50'40	-4.9m			3610 Jul 30 19:46	0°♏	

	3610 Aug 24 12:18	0°♄		3613 Jan 30 18:57	0°♄	
	3610 Sep 18 10:22	0°♌		3613 Feb 24 15:38	0°♌	
desc. node	3610 Sep 25 08:54	8°♌17'11		3613 Mar 12 03:59	18°♌57'51	
	3610 Oct 13 16:39	0°♌		3613 Mar 21 03:47	0°♌	
	3610 Nov 08 12:13	0°♄		3613 Apr 14 12:34	0°♌	
	3610 Dec 05 12:00	0°♌		3613 May 08 20:48	0°♌	
evening max el	3610 Dec 16 17:15	11°♌40'48 47°09'22		3613 Jun 02 05:50	0°♌	
	3611 Jan 05 11:07	0°♌		3613 Jun 14 03:19	14°♌37'17	
asc. node	3611 Jan 16 11:43	8°♌04'46		3613 Jun 26 15:43	0°♌	
greatest brilliancy	3611 Jan 26 08:37	13°♌06'14 -4.9m		3613 Jul 03 06:51	8°♌08'52	
retrograde	3611 Feb 05 12:55	15°♌05'21		3613 Jul 20 14:22	29°♌25'29 1.73526 AU	
evening set	3611 Feb 22 08:32	9°♌32'09				
min. Earth dist.	3611 Feb 25 11:47	7°♌38'08 0.27048 AU		3613 Jul 21 01:55	0°♌00'57 0°40'48	
inferior conj	3611 Feb 26 05:17	7°♌11'08 8°17'54		3613 Jul 20 18:25	29°♌37'55 0°40'28	
minimum elong	3611 Feb 25 21:28	7°♌23'13 8°16'56		3613 Jul 21 01:36	0°♌	
morning rise	3611 Mar 01 10:37	5°♌13'24		3613 Aug 14 10:47	0°♌	
	3611 Mar 13 12:09	30°♌		3613 Aug 26 00:33	14°♌15'02	
direct	3611 Mar 18 17:39	29°♌26'08		3613 Sep 07 19:25	0°♌	
	3611 Mar 24 02:34	0°♌		3613 Oct 02 04:24	0°♌	
greatest brilliancy	3611 Mar 27 20:50	1°♌01'01 -4.9m		3613 Oct 22 20:47	25°♌24'14	
	3611 May 06 09:22	0°♌		3613 Oct 26 14:42	0°♌	
morning max el	3611 May 07 13:43	1°♌09'19 46°23'30		3613 Nov 20 03:00	0°♄	
desc. node	3611 May 08 01:34	1°♌38'26		3613 Dec 14 18:47	0°♌	
	3611 Jun 04 01:04	0°♌		3614 Jan 08 18:41	0°♌	
	3611 Jun 30 15:29	0°♌		3614 Feb 03 15:12	0°♌	
	3611 Jul 26 09:30	0°♌		3614 Feb 12 23:26	10°♌21'49	
	3611 Aug 20 14:55	0°♌		3614 Feb 26 22:49	25°♌05'35 46°54'21	
asc. node	3611 Aug 29 04:27	10°♌18'25		3614 Mar 03 21:22	0°♌	
	3611 Sep 14 10:06	0°♌		3614 Apr 07 20:21	25°♌50'01 -4.8m	
	3611 Oct 08 20:42	0°♌		3614 Apr 18 09:09	27°♌54'12	
morning set	3611 Nov 01 15:10	29°♌29'34		3614 May 04 18:56	22°♌38'51	
	3611 Nov 02 00:56	0°♌		3614 May 09 12:44	19°♌43'50 5°48'42	
	3611 Nov 26 01:15	0°♌		3614 May 09 22:46	19°♌28'04 5°46'23	
max. Earth dist.	3611 Dec 08 11:06	15°♌32'59 1.71464 AU		3614 May 09 10:24	19°♌47'31 0.28198 AU	
				3614 May 15 03:01	16°♌20'33	
superior conj	3611 Dec 10 10:02	18°♌00'06 0°19'55		3614 May 30 16:20	11°♌39'55	
minimum elong	3611 Dec 10 14:55	18°♌15'27 0°19'42		3614 Jun 04 13:24	12°♌07'00	
desc. node	3611 Dec 18 18:31	28°♌29'07		3614 Jun 09 10:08	13°♌24'06 -4.8m	
	3611 Dec 19 23:29	0°♄		3614 Jul 05 14:32	0°♌	
	3612 Jan 12 20:43	0°♌		3614 Jul 18 12:46	11°♌40'33 45°45'57	
evening rise	3612 Jan 20 04:55	9°♌13'34		3614 Aug 05 17:13	0°♌	
	3612 Feb 05 18:00	0°♌		3614 Sep 02 01:58	0°♌	
	3612 Feb 29 17:05	0°♌		3614 Sep 25 16:18	27°♌17'52	
	3612 Mar 24 20:41	0°♌		3614 Sep 27 23:18	0°♌	
asc. node	3612 Apr 09 21:13	19°♌41'33		3614 Oct 22 23:48	0°♌	
	3612 Apr 18 08:09	0°♌		3614 Nov 16 10:59	0°♌	
	3612 May 13 07:45	0°♌		3614 Dec 10 14:10	0°♌	
	3612 Jun 08 02:41	0°♌		3614 Dec 27 05:31	20°♌49'36 -3.9m	
	3612 Jul 05 10:35	0°♌		3615 Jan 03 13:02	0°♄	
evening max el	3612 Jul 21 01:34	15°♌42'51 45°28'58		3615 Jan 14 12:42	13°♄48'04	
desc. node	3612 Jul 30 11:14	24°♌20'23		3615 Jan 15 06:23	14°♄43'37	
	3612 Aug 06 05:29	0°♌		3615 Jan 27 09:55	0°♌	
greatest brilliancy	3612 Aug 28 21:21	13°♌35'04 -4.7m		3615 Feb 20 06:22	0°♌	
retrograde	3612 Sep 07 15:50	15°♌17'37				
evening set	3612 Sep 25 17:48	9°♌12'21		3615 Feb 25 02:30	6°♌04'55 -1°18'38	
inferior conj	3612 Sep 28 22:46	7°♌14'02 -8°38'35		3615 Feb 24 17:14	5°♌35'47 1°18'26	
minimum elong	3612 Sep 29 00:31	7°♌11'17 8°38'33		3615 Feb 27 13:51	9°♌11'19 1.71270 AU	
min. Earth dist.	3612 Sep 29 13:34	6°♌51'00 0.28617 AU		3615 Mar 16 03:54	0°♌	
morning rise	3612 Oct 02 07:06	5°♌10'21		3615 Apr 06 17:11	26°♌56'12	
	3612 Oct 13 09:53	30°♌		3615 Apr 09 04:12	0°♌	
direct	3612 Oct 20 10:03	29°♌00'50		3615 May 03 08:52	0°♌	
	3612 Oct 27 14:59	0°♌		3615 May 08 09:10	6°♌10'50	
greatest brilliancy	3612 Oct 31 09:35	1°♌14'17 -4.8m		3615 May 27 19:10	0°♌	
asc. node	3612 Nov 20 13:49	13°♌51'16		3615 Jun 21 12:25	0°♌	
	3612 Dec 08 05:44	0°♌		3615 Jul 16 15:09	0°♌	
morning max el	3612 Dec 09 16:24	1°♌26'53 46°36'32		3615 Aug 11 08:39	0°♌	
	3613 Jan 05 02:28	0°♌		3615 Aug 27 22:58	18°♌45'34	

	3615 Sep 07 04:40	0°♍			3618 Mar 30 18:03	0°♑	
evening max el	3615 Oct 02 07:22	25°♍54'09	46°11'34	morning set	3618 Apr 01 09:43	2°♑03'50	
	3615 Oct 06 14:51	0°♊			3618 Apr 23 19:46	0°♋	
greatest brilliancy	3615 Nov 11 10:43	25°♊06'52	-4.8m				
retrograde	3615 Nov 20 17:34	26°♊43'03		superior conj	3618 May 10 12:41	20°♋44'17	-0°55'55
evening set	3615 Dec 05 11:27	22°♊30'11		minimum elong	3618 May 10 22:50	21°♋15'45	0°55'32
inferior conj	3615 Dec 11 09:59	19°♊02'23	-1°57'37	max. Earth dist.	3618 May 13 19:18	24°♋47'48	1.72682 AU
minimum elong	3615 Dec 11 14:25	18°♊55'38	1°56'13		3618 May 18 00:12	0°♐	
min. Earth dist.	3615 Dec 11 22:47	18°♊42'53	0.26797 AU	asc. node	3618 Jun 04 21:03	22°♐03'48	
morning rise	3615 Dec 17 16:40	15°♊21'58			3618 Jun 11 07:40	0°♑	
asc. node	3615 Dec 19 01:48	14°♊39'11		evening rise	3618 Jun 17 12:25	7°♑37'32	
direct	3616 Jan 01 00:30	11°♊16'12			3618 Jul 05 17:56	0°♒	
greatest brilliancy	3616 Jan 11 18:13	13°♊26'16	-4.9m		3618 Jul 30 07:03	0°♓	
	3616 Feb 05 10:48	0°♋			3618 Aug 23 23:59	0°♑	
morning max el	3616 Feb 20 15:33	14°♋26'33	46°58'09		3618 Sep 17 22:43	0°♍	
	3616 Mar 06 10:00	0°♌		desc. node	3618 Sep 24 10:53	7°♍45'34	
	3616 Apr 02 00:14	0°♌			3618 Oct 13 06:07	0°♊	
desc. node	3616 Apr 08 15:54	7°♌44'31			3618 Nov 08 03:41	0°♋	
	3616 Apr 27 12:45	0°♑			3618 Dec 05 07:52	0°♌	
	3616 May 22 14:38	0°♋		evening max el	3618 Dec 14 08:26	9°♌20'01	47°08'20
	3616 Jun 16 11:41	0°♐			3619 Jan 06 01:50	0°♌	
	3616 Jul 11 05:41	0°♑		asc. node	3619 Jan 15 13:36	6°♌34'03	
asc. node	3616 Jul 30 18:38	23°♑48'06		greatest brilliancy	3619 Jan 23 21:27	10°♌38'36	-4.9m
	3616 Aug 04 20:22	0°♒		retrograde	3619 Feb 03 02:41	12°♌38'02	
morning set	3616 Aug 21 04:09	20°♒00'25		evening set	3619 Feb 19 17:29	7°♌11'23	
	3616 Aug 29 07:06	0°♓		min. Earth dist.	3619 Feb 23 00:15	5°♌12'12	0.27006 AU
	3616 Sep 22 14:02	0°♑		inferior conj	3619 Feb 23 18:13	4°♌44'28	8°08'25
max. Earth dist.	3616 Sep 23 17:26	1°♑24'52	1.72833 AU	minimum elong	3619 Feb 23 09:48	4°♌57'29	8°07'16
				morning rise	3619 Feb 27 02:22	2°♌42'41	
superior conj	3616 Sep 26 15:44	5°♑02'42	1°25'00		3619 Mar 04 03:03	30°♒	
minimum elong	3616 Sep 26 16:50	5°♑06'07	1°25'00	direct	3619 Mar 16 06:57	27°♒00'18	
	3616 Oct 16 18:12	0°♍		greatest brilliancy	3619 Mar 25 09:05	28°♒34'38	-4.9m
evening rise	3616 Nov 03 04:25	21°♍40'43			3619 Mar 29 01:04	0°♌	
	3616 Nov 09 20:52	0°♊		morning max el	3619 May 05 03:52	28°♌48'45	46°25'00
desc. node	3616 Nov 19 08:47	11°♊49'31			3619 May 06 08:44	0°♑	
	3616 Dec 03 22:54	0°♋		desc. node	3619 May 07 03:41	0°♑47'04	
	3616 Dec 28 00:57	0°♌			3619 Jun 03 17:31	0°♋	
	3617 Jan 21 04:27	0°♌			3619 Jun 30 05:20	0°♐	
	3617 Feb 14 12:40	0°♑			3619 Jul 25 22:02	0°♑	
	3617 Mar 11 07:43	0°♋			3619 Aug 20 02:40	0°♒	
asc. node	3617 Mar 12 11:16	1°♋22'07		asc. node	3619 Aug 28 06:24	9°♒49'24	
	3617 Apr 06 00:35	0°♐			3619 Sep 13 21:25	0°♓	
	3617 May 03 17:23	0°♑			3619 Oct 08 07:48	0°♑	
evening max el	3617 May 08 23:43	5°♑15'05	45°53'15	morning set	3619 Oct 30 06:34	27°♑13'43	
	3617 Jun 08 07:37	0°♒			3619 Nov 01 11:58	0°♍	
greatest brilliancy	3617 Jun 16 02:40	3°♒47'13	-4.7m		3619 Nov 25 12:18	0°♊	
retrograde	3617 Jun 27 04:33	6°♒01'04		max. Earth dist.	3619 Dec 05 18:56	12°♊52'23	1.71496 AU
desc. node	3617 Jul 02 01:24	5°♒32'34					
evening set	3617 Jul 12 10:47	1°♒30'13		superior conj	3619 Dec 07 22:29	15°♊34'00	0°23'34
	3617 Jul 15 01:17	30°♒		minimum elong	3619 Dec 08 04:11	15°♊51'50	0°23'18
inferior conj	3617 Jul 18 16:32	27°♒45'25	-3°48'42	desc. node	3619 Dec 17 20:37	28°♊00'51	
minimum elong	3617 Jul 18 08:50	27°♒57'28	3°46'40		3619 Dec 19 10:35	0°♋	
min. Earth dist.	3617 Jul 18 09:45	27°♒56'02	0.28965 AU		3620 Jan 12 07:52	0°♌	
morning rise	3617 Jul 24 07:01	24°♒21'48		evening rise	3620 Jan 17 15:51	6°♌41'58	
direct	3617 Aug 09 05:50	19°♒29'21			3620 Feb 05 05:14	0°♌	
greatest brilliancy	3617 Aug 19 12:25	21°♒22'57	-4.7m		3620 Feb 29 04:28	0°♑	
	3617 Sep 04 07:24	0°♒			3620 Mar 24 08:19	0°♋	
morning max el	3617 Sep 27 04:35	19°♒29'36	45°52'36	asc. node	3620 Apr 08 23:17	19°♋11'32	
	3617 Oct 07 16:47	0°♓			3620 Apr 17 20:14	0°♐	
asc. node	3617 Oct 23 04:09	16°♓33'20			3620 May 12 20:37	0°♑	
	3617 Nov 04 03:21	0°♑			3620 Jun 07 17:07	0°♒	
	3617 Nov 29 17:13	0°♍			3620 Jul 05 04:53	0°♓	
	3617 Dec 24 10:02	0°♊		evening max el	3620 Jul 18 16:35	13°♓29'27	45°28'36
	3618 Jan 17 16:29	0°♋		desc. node	3620 Jul 29 13:11	23°♓23'07	
	3618 Feb 10 18:08	0°♌			3620 Aug 06 16:49	0°♑	
desc. node	3618 Feb 11 18:08	1°♌14'56		greatest brilliancy	3620 Aug 26 11:36	11°♑21'43	-4.7m
	3618 Mar 06 18:01	0°♌		retrograde	3620 Sep 05 06:11	13°♑04'32	

evening set	3620 Sep 23 08:52	6°♌59'27		superior conj	3623 Feb 22 12:54	3°♎31'58	-1°16'52
inferior conj	3620 Sep 26 14:11	5°♌00'24	-8°39'37	minimum elong	3623 Feb 22 02:56	3°♎00'38	1°16'39
minimum elong	3620 Sep 26 15:08	4°♌58'56	8°39'36	max. Earth dist.	3623 Feb 24 16:29	6°♎13'59	1.71241 AU
min. Earth dist.	3620 Sep 27 04:15	4°♌38'29	0.28664 AU		3623 Mar 15 14:58	0°♍	
morning rise	3620 Sep 29 21:15	2°♌58'22		evening rise	3623 Apr 04 05:03	24°♍29'10	
	3620 Oct 05 06:29	30°♎			3623 Apr 08 15:15	0°♎	
direct	3620 Oct 18 01:43	26°♎46'41			3623 May 02 19:58	0°♎	
greatest brilliancy	3620 Oct 29 00:54	28°♎59'08	-4.8m	asc. node	3623 May 07 11:15	5°♎43'00	
	3620 Oct 31 10:51	0°♌			3623 May 27 06:27	0°♎	
asc. node	3620 Nov 19 15:58	12°♌46'11			3623 Jun 21 00:08	0°♎	
morning max el	3620 Dec 07 06:15	29°♌05'11	46°35'02		3623 Jul 16 03:39	0°♎	
	3620 Dec 08 03:58	0°♌			3623 Aug 10 22:37	0°♌	
	3621 Jan 04 18:36	0°♌		desc. node	3623 Aug 27 01:00	18°♌08'09	
	3621 Jan 30 08:52	0°♌			3623 Sep 06 21:43	0°♌	
	3621 Feb 24 04:24	0°♌		evening max el	3623 Sep 29 20:28	23°♌33'01	46°09'28
desc. node	3621 Mar 11 06:01	18°♌26'22			3623 Oct 06 17:17	0°♌	
	3621 Mar 20 15:52	0°♌		greatest brilliancy	3623 Nov 08 23:25	22°♌41'53	-4.8m
	3621 Apr 14 00:11	0°♍		retrograde	3623 Nov 18 06:10	24°♌18'02	
	3621 May 08 08:07	0°♎		evening set	3623 Dec 03 01:58	20°♌01'53	
	3621 Jun 01 16:57	0°♎		inferior conj	3623 Dec 08 22:40	16°♌36'44	-2°20'49
morning set	3621 Jun 11 20:16	12°♎28'03		minimum elong	3623 Dec 09 03:56	16°♌28'44	2°19'10
	3621 Jun 26 02:40	0°♎		min. Earth dist.	3623 Dec 09 12:43	16°♌15'21	0.26845 AU
asc. node	3621 Jul 02 08:49	7°♎41'20		morning rise	3623 Dec 15 05:10	12°♌56'48	
				asc. node	3623 Dec 18 03:44	11°♌29'29	
superior conj	3621 Jul 18 19:49	27°♎55'04	0°37'57	direct	3623 Dec 29 13:58	8°♌49'28	
minimum elong	3621 Jul 18 12:42	27°♎33'12	0°37'39	greatest brilliancy	3624 Jan 09 09:00	11°♌01'22	-4.9m
max. Earth dist.	3621 Jul 18 09:33	27°♎23'31	1.73523 AU		3624 Feb 05 17:40	0°♌	
	3621 Jul 20 12:28	0°♎		morning max el	3624 Feb 18 06:10	12°♌04'00	46°58'24
	3621 Aug 13 21:40	0°♎			3624 Mar 06 04:29	0°♌	
evening rise	3621 Aug 23 18:45	12°♎09'33			3624 Apr 01 15:08	0°♌	
	3621 Sep 07 06:28	0°♌		desc. node	3624 Apr 07 18:00	7°♌08'40	
	3621 Oct 01 15:44	0°♌			3624 Apr 27 01:56	0°♍	
desc. node	3621 Oct 21 22:54	24°♌55'04			3624 May 22 02:49	0°♎	
	3621 Oct 26 02:25	0°♌			3624 Jun 15 23:13	0°♎	
	3621 Nov 19 15:15	0°♌			3624 Jul 10 16:47	0°♎	
	3621 Dec 14 07:48	0°♌		asc. node	3624 Jul 29 20:37	23°♎20'49	
	3622 Jan 08 08:58	0°♌			3624 Aug 04 07:14	0°♎	
	3622 Feb 03 08:02	0°♍		morning set	3624 Aug 18 21:52	17°♎54'18	
asc. node	3622 Feb 12 01:26	9°♍37'19			3624 Aug 28 17:53	0°♎	
evening max el	3622 Feb 24 12:27	22°♍42'51	46°56'08	max. Earth dist.	3624 Sep 21 12:58	29°♎23'19	1.72877 AU
	3622 Mar 03 22:00	0°♎			3624 Sep 22 00:49	0°♌	
greatest brilliancy	3622 Apr 05 13:16	23°♎35'22	-4.8m				
retrograde	3622 Apr 16 00:15	25°♎38'23		superior conj	3624 Sep 24 08:57	2°♌53'52	1°25'07
evening set	3622 May 02 13:16	20°♎18'57		minimum elong	3624 Sep 24 09:19	2°♌55'00	1°25'07
inferior conj	3622 May 07 04:05	17°♎28'29	6°04'40		3624 Oct 16 05:04	0°♌	
minimum elong	3622 May 07 14:13	17°♎12'33	6°02'24	evening rise	3624 Oct 31 18:59	19°♌22'33	
min. Earth dist.	3622 May 07 02:01	17°♎31'44	0.28169 AU		3624 Nov 09 07:53	0°♌	
morning rise	3622 May 12 15:30	14°♎09'00		desc. node	3624 Nov 18 10:48	11°♌21'14	
direct	3622 May 28 06:34	9°♎24'56			3624 Dec 03 10:08	0°♌	
desc. node	3622 Jun 03 15:28	10°♎10'31			3624 Dec 27 12:27	0°♌	
greatest brilliancy	3622 Jun 07 01:00	11°♎09'17	-4.8m		3625 Jan 20 16:18	0°♌	
	3622 Jul 05 20:02	0°♎			3625 Feb 14 01:02	0°♍	
morning max el	3622 Jul 16 03:19	9°♎25'54	45°46'35		3625 Mar 10 20:59	0°♎	
	3622 Aug 05 10:41	0°♎		asc. node	3625 Mar 11 13:22	0°♎48'42	
	3622 Sep 01 16:04	0°♎			3625 Apr 05 15:46	0°♎	
asc. node	3622 Sep 24 18:24	26°♎46'35			3625 May 03 13:43	0°♎	
	3622 Sep 27 11:54	0°♎		evening max el	3625 May 06 16:16	3°♎04'45	45°55'14
	3622 Oct 22 11:40	0°♌			3625 Jun 10 00:48	0°♎	
	3622 Nov 15 22:29	0°♌		greatest brilliancy	3625 Jun 13 18:24	1°♎37'29	-4.7m
	3622 Dec 10 01:27	0°♌		retrograde	3625 Jun 24 21:37	3°♎52'16	
greatest brilliancy	3622 Dec 29 19:55	24°♌45'20	-3.9m	desc. node	3625 Jul 01 03:18	3°♎05'22	
	3623 Jan 03 00:13	0°♌			3625 Jul 08 22:34	30°♎	
morning set	3623 Jan 11 23:00	11°♌14'27		evening set	3625 Jul 10 02:04	29°♎23'03	
desc. node	3623 Jan 14 08:17	14°♌14'29		inferior conj	3625 Jul 16 08:53	25°♎36'30	-3°30'44
	3623 Jan 26 21:03	0°♌		minimum elong	3625 Jul 16 01:41	25°♎47'46	3°28'48
	3623 Feb 19 17:28	0°♌		min. Earth dist.	3625 Jul 16 01:38	25°♎47'50	0.28946 AU
				morning rise	3625 Jul 22 01:32	22°♎10'05	

direct	3625 Aug 06 22:32	17°☿20'50			3628 Feb 04 16:17	0°♄	
greatest brilliancy	3625 Aug 17 03:35	19°☿13'35	-4.7m		3628 Feb 28 15:38	0°♅	
	3625 Sep 04 22:11	0°♁			3628 Mar 23 19:42	0°♆	
morning max el	3625 Sep 24 21:00	17°♁20'38	45°51'26	asc. node	3628 Apr 08 01:22	18°♄42'27	
	3625 Oct 07 11:16	0°♁			3628 Apr 17 08:02	0°♂	
asc. node	3625 Oct 22 06:16	15°♁55'40			3628 May 12 09:12	0°☾	
	3625 Nov 03 17:49	0°♂			3628 Jun 07 07:22	0°♁	
	3625 Nov 29 06:05	0°♂			3628 Jul 04 23:14	0°♁	
	3625 Dec 23 22:08	0°♄		evening max el	3628 Jul 16 06:55	11°♁15'28	45°28'18
	3626 Jan 17 04:08	0°☾		desc. node	3628 Jul 28 15:18	22°♁26'06	
	3626 Feb 10 05:30	0°♁			3628 Aug 07 07:18	0°♂	
desc. node	3626 Feb 10 20:13	0°♁46'00		greatest brilliancy	3628 Aug 24 02:00	9°♂09'56	-4.7m
	3626 Mar 06 05:10	0°♄		retrograde	3628 Sep 02 20:47	10°♂53'23	
morning set	3626 Mar 29 21:41	29°♄37'06		evening set	3628 Sep 20 23:38	4°♂48'52	
	3626 Mar 30 05:01	0°♅		inferior conj	3628 Sep 24 05:47	2°♂48'37	-8°39'42
	3626 Apr 23 06:36	0°♆		minimum elong	3628 Sep 24 05:55	2°♂48'25	8°39'42
				min. Earth dist.	3628 Sep 24 19:12	2°♂27'40	0.28709 AU
superior conj	3626 May 08 03:09	18°♄26'56	-0°58'35	morning rise	3628 Sep 27 12:00	0°♂47'44	
minimum elong	3626 May 08 13:30	18°♄58'59	0°58'13		3628 Sep 28 20:03	30°♄	
max. Earth dist.	3626 May 11 13:19	22°♄41'33	1.72633 AU	direct	3628 Oct 15 17:09	24°♁34'16	
	3626 May 17 10:58	0°♂		greatest brilliancy	3628 Oct 26 16:48	26°♁46'26	-4.8m
asc. node	3626 Jun 03 23:01	21°♂36'43			3628 Nov 02 11:00	0°♂	
	3626 Jun 10 18:25	0°☾		asc. node	3628 Nov 18 17:53	11°♂43'40	
evening rise	3626 Jun 15 05:29	5°☾29'23		morning max el	3628 Dec 04 20:02	26°♂44'42	46°33'29
	3626 Jul 05 04:45	0°♁			3628 Dec 08 00:54	0°♂	
	3626 Jul 29 18:05	0°♁			3629 Jan 04 10:08	0°♄	
	3626 Aug 23 11:27	0°♂			3629 Jan 29 22:22	0°☾	
	3626 Sep 17 10:55	0°♂			3629 Feb 23 16:53	0°♁	
desc. node	3626 Sep 23 13:01	7°♂14'56		desc. node	3629 Mar 10 08:08	17°♁55'51	
	3626 Oct 12 19:32	0°♄			3629 Mar 20 03:41	0°♄	
	3626 Nov 07 19:15	0°☾			3629 Apr 13 11:33	0°♅	
	3626 Dec 05 04:17	0°♁			3629 May 07 19:09	0°♆	
evening max el	3626 Dec 11 23:20	6°♁58'42	47°07'07		3629 Jun 01 03:43	0°♂	
	3627 Jan 06 21:25	0°♄		morning set	3629 Jun 09 13:03	10°♂19'18	
asc. node	3627 Jan 14 15:39	5°♄00'21			3629 Jun 25 13:16	0°☾	
greatest brilliancy	3627 Jan 21 10:47	8°♄11'36	-4.9m	asc. node	3629 Jul 01 10:48	7°☾14'56	
retrograde	3627 Jan 31 15:58	10°♄10'29		max. Earth dist.	3629 Jul 16 04:40	25°☾22'23	1.73520 AU
evening set	3627 Feb 17 02:16	4°♄50'55					
min. Earth dist.	3627 Feb 20 12:55	2°♄45'57	0.26958 AU	superior conj	3629 Jul 16 13:47	25°☾50'26	0°35'05
inferior conj	3627 Feb 21 07:02	2°♄17'59	7°57'57	minimum elong	3629 Jul 16 07:05	25°☾29'51	0°34'46
minimum elong	3627 Feb 20 22:02	2°♄31'52	7°56'37		3629 Jul 19 23:00	0°♁	
morning rise	3627 Feb 24 18:06	0°♄11'49			3629 Aug 13 08:15	0°♁	
	3627 Feb 25 02:10	30°♄		evening rise	3629 Aug 21 13:14	10°♁06'06	
direct	3627 Mar 13 19:48	24°♁34'49			3629 Sep 06 17:11	0°♂	
greatest brilliancy	3627 Mar 22 21:35	26°♁08'49	-4.9m		3629 Oct 01 02:43	0°♂	
	3627 Mar 31 09:00	0°♄		desc. node	3629 Oct 21 00:56	24°♂26'45	
morning max el	3627 May 02 16:53	26°♄26'07	46°26'31		3629 Oct 25 13:47	0°♄	
desc. node	3627 May 06 05:46	29°♄57'25			3629 Nov 19 03:10	0°☾	
	3627 May 06 06:48	0°♅			3629 Dec 13 20:32	0°♁	
	3627 Jun 03 09:20	0°♆			3630 Jan 07 23:04	0°♄	
	3627 Jun 29 18:43	0°♂			3630 Feb 03 00:57	0°♅	
	3627 Jul 25 10:10	0°☾		asc. node	3630 Feb 11 03:32	8°♅53'07	
asc. node	3627 Aug 19 14:05	0°♁		evening max el	3630 Feb 22 02:01	20°♅20'23	46°57'47
	3627 Aug 27 08:33	9°♁21'55			3630 Mar 03 23:44	0°♆	
	3627 Sep 13 08:25	0°♁		greatest brilliancy	3630 Apr 03 05:34	21°♄19'55	-4.8m
	3627 Oct 07 18:35	0°♂		retrograde	3630 Apr 13 15:25	23°♄22'34	
morning set	3627 Oct 27 22:07	24°♂59'22		evening set	3630 Apr 30 07:26	17°♄58'41	
	3627 Oct 31 22:42	0°♂		inferior conj	3630 May 04 19:14	15°♄13'00	6°20'06
	3627 Nov 24 23:05	0°♄		minimum elong	3630 May 05 05:24	14°♄57'01	6°17'57
max. Earth dist.	3627 Dec 03 02:01	10°♄10'22	1.71539 AU	min. Earth dist.	3630 May 04 17:16	15°♄16'05	0.28139 AU
				morning rise	3630 May 10 03:39	11°♄57'50	
superior conj	3627 Dec 05 11:00	13°♄08'54	0°27'10	direct	3630 May 25 20:38	7°♄09'44	
minimum elong	3627 Dec 05 17:26	13°♄29'03	0°26'51	desc. node	3630 Jun 02 17:23	8°♄18'28	
desc. node	3627 Dec 16 22:34	27°♄32'54		greatest brilliancy	3630 Jun 04 15:40	8°♄54'36	-4.8m
	3627 Dec 18 21:27	0°☾			3630 Jul 05 23:21	0°♂	
	3628 Jan 11 18:50	0°♁		morning max el	3630 Jul 13 18:25	7°♂13'17	45°47'24
evening rise	3628 Jan 15 02:25	4°♁09'55			3630 Aug 05 03:26	0°☾	

	3630 Sep 01 05:40	0°♈			3633 Apr 05 06:58	0°♊
asc. node	3630 Sep 23 20:24	26°♈16'05			3633 May 03 10:38	0°♉
	3630 Sep 27 00:07	0°♏		evening max el	3633 May 04 09:01	0°♉55'05 45°57'02
	3630 Oct 21 23:11	0°♊		greatest brilliancy	3633 Jun 11 10:47	29°♉28'32 -4.7m
	3630 Nov 15 09:38	0°♏			3633 Jun 12 21:33	0°♈
	3630 Dec 09 12:25	0°♏		retrograde	3633 Jun 22 14:22	1°♈43'16
greatest brilliancy	3630 Dec 31 01:50	27°♏00'23 -3.9m		desc. node	3633 Jun 30 05:26	0°♈33'16
	3631 Jan 02 11:04	0°♊			3633 Jul 01 20:51	30°♏
morning set	3631 Jan 09 09:52	8°♊43'44		evening set	3633 Jul 07 17:33	27°♉15'46
desc. node	3631 Jan 13 10:24	13°♊47'04		min. Earth dist.	3633 Jul 13 17:45	23°♉39'20 0.28925 AU
	3631 Jan 26 07:52	0°♏		inferior conj	3633 Jul 14 01:15	23°♉27'35 -3°12'29
	3631 Feb 19 04:16	0°♏		minimum elong	3633 Jul 13 18:34	23°♉38'03 3°10'39
				morning rise	3633 Jul 19 19:55	19°♉58'19
superior conj	3631 Feb 19 23:22	1°♏00'04 -1°14'57		direct	3633 Aug 04 15:19	15°♉12'28
minimum elong	3631 Feb 19 12:49	0°♏26'53 1°14'42		greatest brilliancy	3633 Aug 14 18:44	17°♉04'00 -4.7m
max. Earth dist.	3631 Feb 21 21:38	3°♏25'28 1.71221 AU			3633 Sep 05 09:11	0°♈
	3631 Mar 15 01:47	0°♏		morning max el	3633 Sep 22 12:35	15°♈09'46 45°50'22
evening rise	3631 Apr 01 16:45	22°♏02'16			3633 Oct 07 05:16	0°♏
	3631 Apr 08 02:05	0°♏		asc. node	3633 Oct 21 08:14	15°♏18'01
	3631 May 02 06:52	0°♊			3633 Nov 03 08:03	0°♊
asc. node	3631 May 06 13:10	5°♊15'14			3633 Nov 28 18:49	0°♏
	3631 May 26 17:33	0°♉			3633 Dec 23 10:07	0°♏
	3631 Jun 20 11:39	0°♈			3634 Jan 16 15:44	0°♊
	3631 Jul 15 15:58	0°♏		desc. node	3634 Feb 09 22:18	0°♏17'05
	3631 Aug 10 12:27	0°♊			3634 Feb 09 16:50	0°♏
desc. node	3631 Aug 26 03:07	17°♊31'26			3634 Mar 05 16:17	0°♏
	3631 Sep 06 14:50	0°♏		morning set	3634 Mar 27 09:51	27°♏11'04
evening max el	3631 Sep 27 10:35	21°♏15'26 46°07'23			3634 Mar 29 15:57	0°♏
	3631 Oct 06 20:54	0°♏			3634 Apr 22 17:24	0°♏
greatest brilliancy	3631 Nov 06 11:50	20°♏18'02 -4.8m				
retrograde	3631 Nov 15 19:15	21°♏54'24		superior conj	3634 May 05 17:52	16°♏10'20 -1°01'09
evening set	3631 Nov 30 16:52	17°♏35'01		minimum elong	3634 May 06 04:19	16°♏42'45 1°00'47
inferior conj	3631 Dec 06 11:30	14°♏12'25 -2°43'31		max. Earth dist.	3634 May 09 09:00	20°♏40'29 1.72582 AU
minimum elong	3631 Dec 06 17:32	14°♏03'14 2°41'40			3634 May 16 21:42	0°♊
min. Earth dist.	3631 Dec 07 02:24	13°♏49'45 0.26893 AU		asc. node	3634 Jun 03 01:04	21°♊09'58
morning rise	3631 Dec 12 17:34	10°♏33'20			3634 Jun 10 05:10	0°♉
asc. node	3631 Dec 17 05:45	8°♏25'52		evening rise	3634 Jun 12 22:37	3°♉21'21
direct	3631 Dec 27 03:59	6°♏24'24			3634 Jul 04 15:38	0°♈
greatest brilliancy	3632 Jan 06 23:14	8°♏37'06 -4.9m			3634 Jul 29 05:12	0°♏
	3632 Feb 05 22:00	0°♊			3634 Aug 22 23:01	0°♊
morning max el	3632 Feb 15 21:03	9°♊43'16 46°58'36			3634 Sep 16 23:14	0°♏
	3632 Mar 05 22:10	0°♏		desc. node	3634 Sep 22 14:59	6°♏43'30
	3632 Apr 01 05:34	0°♏			3634 Oct 12 09:07	0°♏
desc. node	3632 Apr 06 20:01	6°♏33'37			3634 Nov 07 11:07	0°♊
	3632 Apr 26 14:49	0°♏			3634 Dec 05 01:27	0°♏
	3632 May 21 14:47	0°♏		evening max el	3634 Dec 09 13:14	4°♏34'43 47°05'46
	3632 Jun 15 10:35	0°♊			3635 Jan 08 00:10	0°♏
	3632 Jul 10 03:46	0°♉		asc. node	3635 Jan 13 17:48	3°♏22'59
asc. node	3632 Jul 28 22:46	22°♉54'27		greatest brilliancy	3635 Jan 19 00:43	5°♏45'02 -4.9m
	3632 Aug 03 17:58	0°♈		retrograde	3635 Jan 29 04:44	7°♏42'40
morning set	3632 Aug 16 15:35	15°♈48'39		evening set	3635 Feb 14 11:04	2°♏30'11
	3632 Aug 28 04:29	0°♏		min. Earth dist.	3635 Feb 18 02:05	0°♏18'50 0.26913 AU
max. Earth dist.	3632 Sep 19 08:02	27°♏20'55 1.72917 AU		inferior conj	3635 Feb 18 19:53	29°♏51'19 7°46'34
	3632 Sep 21 11:26	0°♊		minimum elong	3635 Feb 18 10:23	0°♏05'59 7°45'02
					3635 Feb 18 14:16	30°♏
superior conj	3632 Sep 22 02:16	0°♊45'55 1°25'06		morning rise	3635 Feb 22 09:59	27°♏40'32
minimum elong	3632 Sep 22 01:55	0°♊44'50 1°25'07		direct	3635 Mar 11 08:11	22°♏08'53
	3632 Oct 15 15:47	0°♏		greatest brilliancy	3635 Mar 20 10:51	23°♏43'18 -4.9m
evening rise	3632 Oct 29 09:46	17°♏05'34			3635 Apr 01 21:28	0°♏
	3632 Nov 08 18:47	0°♏		morning max el	3635 Apr 30 05:01	24°♏00'45 46°28'13
desc. node	3632 Nov 17 12:45	10°♏53'09		desc. node	3635 May 05 07:41	29°♏07'55
	3632 Dec 02 21:15	0°♊			3635 May 06 04:09	0°♏
	3632 Dec 26 23:51	0°♏			3635 Jun 03 00:59	0°♏
	3633 Jan 20 04:01	0°♏			3635 Jun 29 08:06	0°♊
	3633 Feb 13 13:16	0°♏			3635 Jul 24 22:23	0°♉
	3633 Mar 10 10:10	0°♏			3635 Aug 19 01:38	0°♈
asc. node	3633 Mar 10 15:25	0°♏15'36		asc. node	3635 Aug 26 10:32	8°♈53'27

	3635 Sep 12 19:34	0°♍		greatest brilliancy	3638 Mar 31 21:03	19°♌02'03	-4.9m
	3635 Oct 07 05:33	0°♊		retrograde	3638 Apr 11 06:53	21°♌05'07	
morning set	3635 Oct 25 13:40	22°♊44'24		evening set	3638 Apr 28 01:28	15°♌36'29	
	3635 Oct 31 09:37	0°♍		inferior conj	3638 May 02 10:11	12°♌55'36	6°35'08
	3635 Nov 24 10:02	0°♌		minimum elong	3638 May 02 20:20	12°♌39'41	6°33'03
max. Earth dist.	3635 Nov 30 11:50	7°♌36'29	1.71581 AU	min. Earth dist.	3638 May 02 07:57	12°♌59'06	0.28110 AU
				morning rise	3638 May 07 15:28	9°♌45'14	
superior conj	3635 Dec 02 23:36	10°♌43'40	0°30'41	direct	3638 May 23 10:57	4°♌52'36	
minimum elong	3635 Dec 03 06:43	11°♌05'58	0°30'21	desc. node	3638 Jun 01 19:33	6°♌29'07	
desc. node	3635 Dec 16 00:40	27°♌04'55		greatest brilliancy	3638 Jun 02 05:44	6°♌37'41	-4.8m
	3635 Dec 18 08:29	0°♌			3638 Jul 06 01:41	0°♌	
	3636 Jan 11 05:58	0°♌		morning max el	3638 Jul 11 10:14	5°♌01'10	45°48'20
evening rise	3636 Jan 12 13:07	1°♌37'49			3638 Aug 04 20:16	0°♌	
	3636 Feb 04 03:32	0°♌			3638 Aug 31 19:30	0°♌	
	3636 Feb 28 03:03	0°♌		asc. node	3638 Sep 22 22:25	25°♌44'46	
	3636 Mar 23 07:22	0°♌			3638 Sep 26 12:36	0°♌	
asc. node	3636 Apr 07 03:18	18°♌12'08			3638 Oct 21 11:00	0°♌	
	3636 Apr 16 20:07	0°♌			3638 Nov 14 21:08	0°♌	
	3636 May 11 22:06	0°♌			3638 Dec 08 23:45	0°♌	
	3636 Jun 06 21:58	0°♌		greatest brilliancy	3638 Dec 31 19:55	28°♌37'03	-3.9m
	3636 Jul 04 18:19	0°♌			3639 Jan 01 22:21	0°♌	
evening max el	3636 Jul 13 20:51	8°♌59'58	45°28'05	morning set	3639 Jan 06 20:33	6°♌11'06	
desc. node	3636 Jul 27 17:20	21°♌26'55		desc. node	3639 Jan 12 12:30	13°♌18'14	
	3636 Aug 08 03:15	0°♌			3639 Jan 25 19:05	0°♌	
greatest brilliancy	3636 Aug 21 15:55	6°♌56'56	-4.7m				
retrograde	3636 Aug 31 11:45	8°♌41'45		superior conj	3639 Feb 17 09:23	28°♌25'26	-1°12'52
evening set	3636 Sep 18 14:04	2°♌38'00		minimum elong	3639 Feb 16 22:19	27°♌50'39	1°12'33
inferior conj	3636 Sep 21 21:25	0°♌36'05	-8°39'01		3639 Feb 18 15:28	0°♌	
minimum elong	3636 Sep 21 20:43	0°♌37'10	8°39'01	max. Earth dist.	3639 Feb 19 05:03	0°♌42'42	1.71199 AU
min. Earth dist.	3636 Sep 22 10:05	0°♌16'19	0.28756 AU		3639 Mar 14 12:57	0°♌	
	3636 Sep 22 20:34	30°♌		evening rise	3639 Mar 30 04:10	19°♌33'22	
morning rise	3636 Sep 25 03:10	28°♌35'57			3639 Apr 07 13:17	0°♌	
direct	3636 Oct 13 08:42	22°♌20'57			3639 May 01 18:10	0°♌	
greatest brilliancy	3636 Oct 24 09:01	24°♌33'26	-4.8m	asc. node	3639 May 05 15:16	4°♌46'51	
	3636 Nov 03 19:39	0°♌			3639 May 26 05:04	0°♌	
asc. node	3636 Nov 17 19:57	10°♌41'55			3639 Jun 19 23:37	0°♌	
morning max el	3636 Dec 02 10:35	24°♌25'17	46°32'02		3639 Jul 15 04:44	0°♌	
	3636 Dec 07 21:32	0°♌			3639 Aug 10 02:47	0°♌	
	3637 Jan 04 01:44	0°♌		desc. node	3639 Aug 25 05:05	16°♌53'02	
	3637 Jan 29 12:02	0°♌			3639 Sep 06 08:40	0°♌	
	3637 Feb 23 05:31	0°♌		evening max el	3639 Sep 25 01:06	18°♌58'07	46°05'17
desc. node	3637 Mar 09 10:06	17°♌24'12			3639 Oct 07 02:47	0°♌	
	3637 Mar 19 15:43	0°♌		greatest brilliancy	3639 Nov 04 00:14	17°♌53'34	-4.8m
	3637 Apr 12 23:11	0°♌		retrograde	3639 Nov 13 08:10	19°♌29'42	
	3637 May 07 06:28	0°♌		evening set	3639 Nov 28 07:56	15°♌07'12	
	3637 May 31 14:47	0°♌		inferior conj	3639 Dec 04 00:20	11°♌47'09	-3°05'51
morning set	3637 Jun 07 05:51	8°♌09'25		minimum elong	3639 Dec 04 07:05	11°♌36'51	3°03'49
	3637 Jun 25 00:10	0°♌		min. Earth dist.	3639 Dec 04 15:57	11°♌23'21	0.26946 AU
asc. node	3637 Jun 30 12:58	6°♌48'08		morning rise	3639 Dec 10 05:41	8°♌08'59	
				asc. node	3639 Dec 16 07:55	5°♌26'00	
superior conj	3637 Jul 14 07:50	23°♌45'05	0°32'09	direct	3639 Dec 24 18:05	3°♌58'27	
minimum elong	3637 Jul 14 01:35	23°♌25'52	0°31'52	greatest brilliancy	3640 Jan 04 13:12	6°♌11'13	-4.9m
max. Earth dist.	3637 Jul 14 00:51	23°♌23'39	1.73514 AU		3640 Feb 06 01:15	0°♌	
	3637 Jul 19 09:49	0°♌		morning max el	3640 Feb 13 11:29	7°♌19'55	46°58'34
	3637 Aug 12 19:07	0°♌			3640 Mar 05 15:58	0°♌	
evening rise	3637 Aug 19 07:55	8°♌02'22			3640 Mar 31 20:16	0°♌	
	3637 Sep 06 04:14	0°♌		desc. node	3640 Apr 05 22:02	5°♌57'29	
	3637 Sep 30 14:04	0°♌			3640 Apr 26 03:59	0°♌	
desc. node	3637 Oct 20 02:53	23°♌56'58			3640 May 21 03:03	0°♌	
	3637 Oct 25 01:34	0°♌			3640 Jun 14 22:15	0°♌	
	3637 Nov 18 15:32	0°♌			3640 Jul 09 15:03	0°♌	
	3637 Dec 13 09:45	0°♌		asc. node	3640 Jul 28 00:43	22°♌26'31	
	3638 Jan 07 13:43	0°♌			3640 Aug 03 05:01	0°♌	
	3638 Feb 02 18:37	0°♌		morning set	3640 Aug 14 09:21	13°♌42'13	
asc. node	3638 Feb 10 05:32	8°♌06'56			3640 Aug 27 15:25	0°♌	
evening max el	3638 Feb 19 15:54	17°♌57'39	46°59'29	max. Earth dist.	3640 Sep 17 01:32	25°♌12'51	1.72952 AU
	3638 Mar 04 03:30	0°♌					

superior conj	3640 Sep 19 19:48	28° \mathbb{M} 37'52	1°24'59	direct	3643 Mar 08 20:13	19° \approx 42'57	
minimum elong	3640 Sep 19 18:45	28° \mathbb{M} 34'38	1°24'59	greatest brilliancy	3643 Mar 18 00:36	21° \approx 18'27	-4.9m
	3640 Sep 20 22:20	0° $\underline{\mathbf{L}}$			3643 Apr 02 23:15	0° \mathbb{H}	
	3640 Oct 15 02:45	0° \mathbb{M}		morning max el	3643 Apr 27 17:08	21° \mathbb{H} 35'04	46°29'47
evening rise	3640 Oct 27 00:49	14° \mathbb{M} 48'42		desc. node	3643 May 04 09:50	28° \mathbb{H} 19'39	
	3640 Nov 08 05:55	0° \mathbb{Z}			3643 May 06 00:49	0° \mathbb{Y}	
desc. node	3640 Nov 16 14:54	10° \mathbb{Z} 24'55			3643 Jun 02 16:29	0° \mathbb{B}	
	3640 Dec 02 08:38	0° \mathbb{Z}			3643 Jun 28 21:27	0° \mathbb{I}	
	3640 Dec 26 11:33	0° \approx			3643 Jul 24 10:33	0° \mathbb{G}	
	3641 Jan 19 16:06	0° \mathbb{H}			3643 Aug 18 13:07	0° Ω	
	3641 Feb 13 01:54	0° \mathbb{Y}		asc. node	3643 Aug 25 12:31	8° Ω 25'04	
asc. node	3641 Mar 09 17:21	29° \mathbb{Y} 40'51			3643 Sep 12 06:40	0° \mathbb{M}	
	3641 Mar 09 23:49	0° \mathbb{B}			3643 Oct 06 16:28	0° $\underline{\mathbf{L}}$	
	3641 Apr 04 22:48	0° \mathbb{I}		morning set	3643 Oct 23 05:10	20° $\underline{\mathbf{L}}$ 29'29	
evening max el	3641 May 02 00:57	28° \mathbb{I} 42'13	45°58'57		3643 Oct 30 20:30	0° \mathbb{M}	
	3641 May 03 08:46	0° \mathbb{G}			3643 Nov 23 20:57	0° \mathbb{Z}	
greatest brilliancy	3641 Jun 09 03:41	27° \mathbb{G} 19'02	-4.7m	max. Earth dist.	3643 Nov 27 23:37	5° \mathbb{Z} 08'51	1.71622 AU
retrograde	3641 Jun 20 06:34	29° \mathbb{G} 33'01					
desc. node	3641 Jun 29 07:29	27° \mathbb{G} 55'11		superior conj	3643 Nov 30 12:22	8° \mathbb{Z} 19'08	0°34'08
evening set	3641 Jul 05 09:06	25° \mathbb{G} 07'04		minimum elong	3643 Nov 30 20:08	8° \mathbb{Z} 43'26	0°33'47
inferior conj	3641 Jul 11 17:30	21° \mathbb{G} 17'34	-2°53'52	desc. node	3643 Dec 15 02:43	26° \mathbb{Z} 17'02	
minimum elong	3641 Jul 11 11:23	21° \mathbb{G} 27'09	2°52'09		3643 Dec 17 19:26	0° \mathbb{Z}	
min. Earth dist.	3641 Jul 11 10:03	21° \mathbb{G} 29'15	0.28901 AU	evening rise	3644 Jan 10 00:09	29° \mathbb{Z} 07'14	
morning rise	3641 Jul 17 14:03	17° \mathbb{G} 45'25			3644 Jan 10 16:58	0° \approx	
direct	3641 Aug 02 07:34	13° \mathbb{G} 02'59			3644 Feb 03 14:37	0° \mathbb{H}	
greatest brilliancy	3641 Aug 12 10:01	14° \mathbb{G} 53'28	-4.7m		3644 Feb 27 14:18	0° \mathbb{Y}	
	3641 Sep 05 17:38	0° Ω			3644 Mar 22 18:52	0° \mathbb{B}	
morning max el	3641 Sep 20 03:20	12° Ω 56'06	45°49'27	asc. node	3644 Apr 06 05:23	17° \mathbb{B} 42'45	
	3641 Oct 06 23:04	0° \mathbb{M}			3644 Apr 16 08:04	0° \mathbb{I}	
asc. node	3641 Oct 20 10:17	14° \mathbb{M} 40'17			3644 May 11 10:55	0° \mathbb{G}	
	3641 Nov 02 22:19	0° $\underline{\mathbf{L}}$			3644 Jun 06 12:39	0° Ω	
	3641 Nov 28 07:36	0° \mathbb{M}			3644 Jul 04 13:52	0° \mathbb{M}	
	3641 Dec 22 22:11	0° \mathbb{Z}		evening max el	3644 Jul 11 11:21	6° \mathbb{M} 46'16	45°28'04
	3642 Jan 16 03:24	0° \mathbb{Z}		desc. node	3644 Jul 26 19:18	20° \mathbb{M} 26'24	
desc. node	3642 Feb 09 00:14	29° \mathbb{Z} 47'22			3644 Aug 09 06:23	0° $\underline{\mathbf{L}}$	
	3642 Feb 09 04:17	0° \approx		greatest brilliancy	3644 Aug 19 05:14	4° $\underline{\mathbf{L}}$ 43'45	-4.7m
	3642 Mar 05 03:33	0° \mathbb{H}		retrograde	3644 Aug 29 03:18	6° $\underline{\mathbf{L}}$ 30'34	
morning set	3642 Mar 24 21:29	24° \mathbb{H} 42'39		evening set	3644 Sep 16 04:08	0° $\underline{\mathbf{L}}$ 27'58	
	3642 Mar 29 03:04	0° \mathbb{Y}			3644 Sep 16 22:42	30° \mathbb{R} \mathbb{M}	
	3642 Apr 22 04:23	0° \mathbb{B}		inferior conj	3644 Sep 19 12:59	28° \mathbb{M} 23'54	-8°37'36
				minimum elong	3644 Sep 19 11:30	28° \mathbb{M} 26'14	8°37'34
superior conj	3642 May 03 08:01	13° \mathbb{B} 51'22	-1°03'39	min. Earth dist.	3644 Sep 20 00:35	28° \mathbb{M} 05'51	0.28801 AU
minimum elong	3642 May 03 18:30	14° \mathbb{B} 23'53	1°03'17	morning rise	3644 Sep 22 18:40	26° \mathbb{M} 24'03	
max. Earth dist.	3642 May 07 02:51	18° \mathbb{B} 33'05	1.72528 AU	direct	3644 Oct 11 00:30	20° \mathbb{M} 08'06	
	3642 May 16 08:37	0° \mathbb{I}		greatest brilliancy	3644 Oct 22 00:44	22° \mathbb{M} 20'34	-4.8m
asc. node	3642 Jun 02 03:09	20° \mathbb{I} 42'48			3644 Nov 04 18:44	0° $\underline{\mathbf{L}}$	
	3642 Jun 09 16:05	0° \mathbb{G}		asc. node	3644 Nov 16 22:05	9° $\underline{\mathbf{L}}$ 42'18	
evening rise	3642 Jun 10 15:09	1° \mathbb{G} 10'58		morning max el	3644 Nov 30 02:04	22° $\underline{\mathbf{L}}$ 09'00	46°30'32
	3642 Jul 04 02:39	0° Ω			3644 Dec 07 17:18	0° \mathbb{M}	
	3642 Jul 28 16:28	0° \mathbb{M}			3645 Jan 03 16:54	0° \mathbb{Z}	
	3642 Aug 22 10:45	0° $\underline{\mathbf{L}}$			3645 Jan 29 01:21	0° \mathbb{Z}	
	3642 Sep 16 11:45	0° \mathbb{M}			3645 Feb 22 17:50	0° \approx	
desc. node	3642 Sep 21 16:59	6° \mathbb{M} 11'42		desc. node	3645 Mar 08 12:07	16° \approx 53'40	
	3642 Oct 11 22:55	0° \mathbb{Z}			3645 Mar 19 03:24	0° \mathbb{H}	
	3642 Nov 07 03:16	0° \mathbb{Z}			3645 Apr 12 10:27	0° \mathbb{Y}	
	3642 Dec 04 23:21	0° \approx			3645 May 06 17:26	0° \mathbb{B}	
evening max el	3642 Dec 07 02:09	2° \approx 08'29	47°04'28		3645 May 31 01:32	0° \mathbb{I}	
	3643 Jan 09 13:51	0° \mathbb{H}		morning set	3645 Jun 04 22:39	6° \mathbb{I} 00'27	
asc. node	3643 Jan 12 19:42	1° \mathbb{H} 41'49			3645 Jun 24 10:46	0° \mathbb{G}	
greatest brilliancy	3643 Jan 16 14:45	3° \mathbb{H} 18'45	-4.9m	asc. node	3645 Jun 29 14:54	6° \mathbb{G} 21'32	
retrograde	3643 Jan 26 17:12	5° \mathbb{H} 15'16					
evening set	3643 Feb 11 19:54	0° \mathbb{H} 09'26		superior conj	3645 Jul 12 01:42	21° \mathbb{G} 40'02	0°29'10
	3643 Feb 12 02:25	30° \mathbb{R} \approx		minimum elong	3645 Jul 11 19:56	21° \mathbb{G} 22'17	0°28'54
min. Earth dist.	3643 Feb 15 15:28	27° \approx 51'39	0.26873 AU	max. Earth dist.	3645 Jul 11 21:53	21° \mathbb{G} 28'17	1.73511 AU
inferior conj	3643 Feb 16 08:45	27° \approx 24'57	7°34'14		3645 Jul 18 20:22	0° Ω	
minimum elong	3643 Feb 15 22:51	27° \approx 40'15	7°32'30		3645 Aug 12 05:43	0° \mathbb{M}	
morning rise	3643 Feb 20 02:03	25° \approx 09'26		evening rise	3645 Aug 17 02:28	5° \mathbb{M} 59'04	

	3645 Sep 05 15:01	0°♌		desc. node	3648 Apr 05 00:05	5°♋22'52	
	3645 Sep 30 01:09	0°♍			3648 Apr 25 16:40	0°♎	
desc. node	3645 Oct 19 05:01	23°♍28'36			3648 May 20 14:50	0°♏	
	3645 Oct 24 13:04	0°♐			3648 Jun 14 09:27	0°♑	
	3645 Nov 18 03:39	0°♑			3648 Jul 09 01:51	0°♒	
	3645 Dec 12 22:46	0°♒		asc. node	3648 Jul 27 02:43	22°♑00'09	
	3646 Jan 07 04:14	0°♋			3648 Aug 02 15:35	0°♌	
	3646 Feb 02 12:18	0°♎		morning set	3648 Aug 12 03:20	11°♌37'54	
asc. node	3646 Feb 09 07:33	7°♎21'12			3648 Aug 27 01:54	0°♍	
evening max el	3646 Feb 17 06:59	15°♎39'04	47°01'15	max. Earth dist.	3648 Sep 14 18:14	23°♍03'38	1.72994 AU
	3646 Mar 04 08:30	0°♏					
greatest brilliancy	3646 Mar 29 12:18	16°♏45'33	-4.9m	superior conj	3648 Sep 17 13:33	26°♍31'46	1°24'44
retrograde	3646 Apr 08 22:57	18°♏49'18		minimum elong	3648 Sep 17 11:48	26°♍26'22	1°24'43
evening set	3646 Apr 25 19:41	13°♏16'01			3648 Sep 20 08:51	0°♌	
inferior conj	3646 Apr 30 01:15	10°♏39'52	6°49'29		3648 Oct 14 13:23	0°♍	
minimum elong	3646 Apr 30 11:21	10°♏24'04	6°47'30	evening rise	3648 Oct 24 15:56	12°♍33'13	
min. Earth dist.	3646 Apr 29 22:22	10°♏44'24	0.28078 AU		3648 Nov 07 16:44	0°♐	
morning rise	3646 May 05 03:19	7°♏34'32		desc. node	3648 Nov 15 16:53	9°♐57'17	
direct	3646 May 21 01:52	2°♏37'27			3648 Dec 01 19:42	0°♑	
greatest brilliancy	3646 May 30 19:14	4°♏21'54	-4.8m		3648 Dec 25 22:55	0°♒	
desc. node	3646 May 31 21:33	4°♏45'28			3649 Jan 19 03:52	0°♋	
	3646 Jul 06 02:01	0°♑			3649 Feb 12 14:16	0°♎	
morning max el	3646 Jul 09 02:29	2°♑51'32	45°49'06	asc. node	3649 Mar 08 19:27	29°♎07'19	
	3646 Aug 04 12:18	0°♒			3649 Mar 09 13:16	0°♏	
	3646 Aug 31 08:49	0°♌			3649 Apr 04 14:32	0°♑	
asc. node	3646 Sep 22 00:29	25°♌14'47		evening max el	3649 Apr 29 16:12	26°♑28'37	46°00'58
	3646 Sep 26 00:40	0°♍			3649 May 03 07:23	0°♒	
	3646 Oct 20 22:26	0°♌		greatest brilliancy	3649 Jun 06 21:12	25°♒11'32	-4.7m
	3646 Nov 14 08:14	0°♍		retrograde	3649 Jun 17 22:41	27°♒24'32	
	3646 Dec 08 10:42	0°♐		desc. node	3649 Jun 28 09:23	25°♒14'38	
greatest brilliancy	3646 Dec 31 15:13	29°♐03'28	-3.9m	evening set	3649 Jul 03 00:58	22°♒59'45	
	3647 Jan 01 09:13	0°♑		inferior conj	3649 Jul 09 09:57	19°♒09'26	-2°35'03
morning set	3647 Jan 04 07:19	3°♑40'05		minimum elong	3649 Jul 09 04:27	19°♒18'06	2°33'30
desc. node	3647 Jan 11 14:23	12°♑49'58		min. Earth dist.	3649 Jul 09 02:52	19°♒20'34	0.28874 AU
	3647 Jan 25 05:57	0°♒		morning rise	3649 Jul 15 08:14	15°♒34'31	
				direct	3649 Jul 30 23:27	10°♒55'18	
superior conj	3647 Feb 14 19:23	25°♒51'49	-1°10'36	greatest brilliancy	3649 Aug 10 01:55	12°♒45'18	-4.7m
minimum elong	3647 Feb 14 07:54	25°♒15'43	1°10'16		3649 Sep 05 22:59	0°♌	
max. Earth dist.	3647 Feb 16 12:59	28°♒02'38	1.71178 AU	morning max el	3649 Sep 17 17:43	10°♌42'59	45°48'32
	3647 Feb 18 02:19	0°♋			3649 Oct 06 16:00	0°♍	
	3647 Mar 13 23:46	0°♎		asc. node	3649 Oct 19 12:22	14°♍04'09	
evening rise	3647 Mar 27 15:37	17°♎05'34			3649 Nov 02 12:04	0°♌	
	3647 Apr 07 00:04	0°♏			3649 Nov 27 20:02	0°♍	
	3647 May 01 05:00	0°♑			3649 Dec 22 09:59	0°♐	
asc. node	3647 May 04 17:21	4°♑19'49			3650 Jan 15 14:51	0°♑	
	3647 May 25 16:07	0°♒		desc. node	3650 Feb 08 02:20	29°♑18'54	
	3647 Jun 19 11:07	0°♌			3650 Feb 08 15:28	0°♒	
	3647 Jul 14 17:05	0°♍			3650 Mar 04 14:32	0°♋	
	3647 Aug 09 16:48	0°♌		morning set	3650 Mar 22 08:46	22°♋13'52	
desc. node	3647 Aug 24 07:06	16°♌15'37			3650 Mar 28 13:55	0°♎	
	3647 Sep 06 02:27	0°♍			3650 Apr 21 15:09	0°♏	
evening max el	3647 Sep 22 15:41	16°♍42'11	46°03'05				
	3647 Oct 07 10:25	0°♐		superior conj	3650 Apr 30 22:03	11°♏32'41	-1°06'03
greatest brilliancy	3647 Nov 01 13:22	15°♐31'26	-4.8m	minimum elong	3650 May 01 08:29	12°♏05'04	1°05'43
retrograde	3647 Nov 10 20:43	17°♐06'31		max. Earth dist.	3650 May 04 18:24	16°♏19'13	1.72472 AU
evening set	3647 Nov 25 23:16	12°♐40'58			3650 May 15 19:20	0°♑	
inferior conj	3647 Dec 01 13:18	9°♐23'41	-3°27'40	asc. node	3650 Jun 01 05:06	20°♑15'54	
minimum elong	3647 Dec 01 20:43	9°♐12'21	3°25'28	evening rise	3650 Jun 08 07:38	29°♑01'03	
min. Earth dist.	3647 Dec 02 05:52	8°♐58'23	0.27000 AU		3650 Jun 09 02:47	0°♒	
morning rise	3647 Dec 07 17:38	5°♐46'27			3650 Jul 03 13:25	0°♌	
asc. node	3647 Dec 15 09:47	2°♐33'18			3650 Jul 28 03:29	0°♍	
direct	3647 Dec 22 08:00	1°♐34'17			3650 Aug 21 22:14	0°♌	
greatest brilliancy	3648 Jan 02 03:27	3°♐47'07	-4.9m		3650 Sep 16 00:03	0°♍	
	3648 Feb 06 02:32	0°♑		desc. node	3650 Sep 20 19:07	5°♍41'01	
morning max el	3648 Feb 11 01:00	4°♑55'27	46°58'24		3650 Oct 11 12:35	0°♐	
	3648 Mar 05 08:58	0°♒			3650 Nov 06 19:31	0°♑	
	3648 Mar 31 10:25	0°♋		evening max el	3650 Dec 04 14:36	29°♑41'23	47°02'57

	3650 Dec 04 22:02	0°♊			3653 May 30 12:29	0°♊	
asc. node	3651 Jan 11 21:45	29°♊56'29		morning set	3653 Jun 02 14:57	3°♊49'17	
	3651 Jan 12 00:59	0°♋			3653 Jun 23 21:34	0°♋	
greatest brilliancy	3651 Jan 14 04:27	0°♋51'36	-4.9m	asc. node	3653 Jun 28 16:54	5°♋54'30	
retrograde	3651 Jan 24 05:42	2°♋47'26					
	3651 Feb 04 22:53	30°♌		superior conj	3653 Jul 09 19:13	19°♌33'09	0°26'06
evening set	3651 Feb 09 04:28	27°♌47'50		minimum elong	3653 Jul 09 13:58	19°♌17'01	0°25'52
min. Earth dist.	3651 Feb 13 04:41	25°♌23'44	0.26835 AU	max. Earth dist.	3653 Jul 09 20:17	19°♌36'27	1.73502 AU
inferior conj	3651 Feb 13 21:24	24°♌57'58	7°20'44		3653 Jul 18 07:08	0°♍	
minimum elong	3651 Feb 13 11:09	25°♌13'46	7°18'50		3653 Aug 11 16:33	0°♎	
morning rise	3651 Feb 17 18:03	22°♌37'42		evening rise	3653 Aug 14 20:56	3°♎54'55	
direct	3651 Mar 06 07:56	17°♌16'11			3653 Sep 05 02:01	0°♏	
greatest brilliancy	3651 Mar 15 14:15	18°♌53'11	-4.9m		3653 Sep 29 12:25	0°♏	
	3651 Apr 03 18:15	0°♋		desc. node	3653 Oct 18 07:01	22°♏59'21	
morning max el	3651 Apr 25 05:55	19°♋11'01	46°31'27		3653 Oct 24 00:45	0°♐	
desc. node	3651 May 03 11:52	27°♋32'02			3653 Nov 17 15:56	0°♑	
	3651 May 05 20:46	0°♒			3653 Dec 12 11:59	0°♒	
	3651 Jun 02 07:39	0°♓			3654 Jan 06 19:04	0°♓	
	3651 Jun 28 10:34	0°♊			3654 Feb 02 06:39	0°♒	
	3651 Jul 23 22:34	0°♋		asc. node	3654 Feb 08 09:38	6°♒34'04	
	3651 Aug 18 00:28	0°♌		evening max el	3654 Feb 14 22:39	13°♒20'59	47°02'37
asc. node	3651 Aug 24 14:39	7°♌57'35			3654 Mar 04 16:16	0°♓	
	3651 Sep 11 17:37	0°♎		greatest brilliancy	3654 Mar 27 03:25	14°♓27'03	-4.9m
	3651 Oct 06 03:14	0°♏		retrograde	3654 Apr 06 14:40	16°♓30'56	
morning set	3651 Oct 20 21:13	18°♏16'50		evening set	3654 Apr 23 13:37	10°♓53'17	
	3651 Oct 30 07:14	0°♐		inferior conj	3654 Apr 27 15:59	8°♓21'44	7°03'15
	3651 Nov 23 07:45	0°♑		minimum elong	3654 Apr 28 01:57	8°♓06'09	7°01'25
max. Earth dist.	3651 Nov 25 14:04	2°♑49'59	1.71668 AU	min. Earth dist.	3654 Apr 27 12:20	8°♓27'27	0.28046 AU
				morning rise	3654 May 02 14:36	5°♓21'32	
superior conj	3651 Nov 28 01:31	5°♑56'07	0°37'29	direct	3654 May 18 16:41	0°♓20'04	
minimum elong	3651 Nov 28 09:50	6°♑22'09	0°37'07	greatest brilliancy	3654 May 28 08:00	2°♓03'12	-4.8m
desc. node	3651 Dec 14 04:41	26°♑09'05		desc. node	3654 May 30 23:30	3°♓03'31	
	3651 Dec 17 06:20	0°♒			3654 Jul 06 01:48	0°♊	
evening rise	3652 Jan 07 11:15	26°♒36'52		morning max el	3654 Jul 06 18:07	0°♊39'01	45°49'55
	3652 Jan 10 03:59	0°♓			3654 Aug 04 04:29	0°♋	
	3652 Feb 03 01:46	0°♋			3654 Aug 30 22:22	0°♌	
	3652 Feb 27 01:37	0°♒		asc. node	3654 Sep 21 02:29	24°♌43'42	
	3652 Mar 22 06:28	0°♓			3654 Sep 25 13:00	0°♎	
asc. node	3652 Apr 05 07:26	17°♓12'57			3654 Oct 20 10:08	0°♏	
	3652 Apr 15 20:08	0°♊			3654 Nov 13 19:35	0°♐	
	3652 May 10 23:55	0°♋			3654 Dec 07 21:53	0°♑	
	3652 Jun 06 03:37	0°♌		greatest brilliancy	3654 Dec 31 02:19	29°♑03'28	-3.9m
	3652 Jul 04 10:08	0°♎			3654 Dec 31 20:19	0°♒	
evening max el	3652 Jul 09 02:54	4°♎34'59	45°28'12	morning set	3655 Jan 01 18:44	1°♒10'22	
desc. node	3652 Jul 25 21:25	19°♎24'38		desc. node	3655 Jan 10 16:31	12°♒21'54	
	3652 Aug 10 21:18	0°♏			3655 Jan 24 17:01	0°♓	
greatest brilliancy	3652 Aug 16 18:28	2°♏30'46	-4.7m				
retrograde	3652 Aug 26 19:18	4°♏19'44		superior conj	3655 Feb 12 05:43	23°♓18'37	-1°08'13
	3652 Sep 10 19:18	30°♏		minimum elong	3655 Feb 11 17:58	22°♓41'38	1°07'51
evening set	3652 Sep 13 18:05	28°♏18'53		max. Earth dist.	3655 Feb 13 21:48	25°♓24'40	1.71161 AU
inferior conj	3652 Sep 17 04:42	26°♏12'11	-8°35'24		3655 Feb 17 13:22	0°♋	
minimum elong	3652 Sep 17 02:26	26°♏15'42	8°35'19		3655 Mar 13 10:51	0°♒	
min. Earth dist.	3652 Sep 17 14:55	25°♏56'17	0.28837 AU	evening rise	3655 Mar 25 02:56	14°♒36'21	
morning rise	3652 Sep 20 10:38	24°♏12'04			3655 Apr 06 11:11	0°♓	
direct	3652 Oct 08 16:47	17°♏55'58			3655 Apr 30 16:15	0°♊	
greatest brilliancy	3652 Oct 19 15:46	20°♏07'33	-4.8m	asc. node	3655 May 03 19:15	3°♊50'58	
	3652 Nov 05 11:33	0°♏			3655 May 25 03:37	0°♋	
asc. node	3652 Nov 15 23:59	8°♏43'48			3655 Jun 18 23:06	0°♌	
morning max el	3652 Nov 27 18:14	19°♏54'56	46°28'58		3655 Jul 14 05:59	0°♎	
	3652 Dec 07 12:25	0°♐			3655 Aug 09 07:28	0°♏	
	3653 Jan 03 07:52	0°♑		desc. node	3655 Aug 23 09:13	15°♏36'41	
	3653 Jan 28 14:38	0°♒			3655 Sep 05 21:13	0°♐	
	3653 Feb 22 06:15	0°♓		evening max el	3655 Sep 20 05:30	14°♐23'10	46°00'57
desc. node	3653 Mar 07 14:14	16°♓22'55			3655 Oct 07 21:30	0°♑	
	3653 Mar 18 15:17	0°♋		greatest brilliancy	3655 Oct 30 03:03	13°♑08'52	-4.8m
	3653 Apr 11 21:57	0°♒		retrograde	3655 Nov 08 08:44	14°♑42'28	
	3653 May 06 04:37	0°♓		evening set	3655 Nov 23 14:46	10°♑13'35	

inferior conj	3655 Nov 29 02:20	6°♊59'28	-3°49'01	max. Earth dist.	3658 May 02 08:49	14°♈01'04	1.72416 AU
minimum elong	3655 Nov 29 10:21	6°♊47'11	3°46'41		3658 May 15 06:16	0°♈	
min. Earth dist.	3655 Nov 29 20:09	6°♊32'12	0.27051 AU	asc. node	3658 May 31 07:10	19°♈48'34	
morning rise	3655 Dec 05 05:21	3°♊23'25		evening rise	3658 Jun 06 00:16	26°♈50'50	
	3655 Dec 13 10:56	30°♈			3658 Jun 08 13:45	0°♈	
asc. node	3655 Dec 14 11:52	29°♈44'56			3658 Jul 03 00:31	0°♈	
direct	3655 Dec 19 21:24	29°♈09'13			3658 Jul 27 14:52	0°♈	
	3655 Dec 26 11:43	0°♊			3658 Aug 21 10:08	0°♈	
greatest brilliancy	3655 Dec 30 18:10	1°♊22'44	-4.9m		3658 Sep 15 12:49	0°♈	
	3656 Feb 06 02:53	0°♈		desc. node	3658 Sep 19 21:04	5°♈08'29	
morning max el	3656 Feb 08 13:48	2°♈28'18	46°58'26		3658 Oct 11 02:47	0°♊	
	3656 Mar 05 01:53	0°♈			3658 Nov 06 12:27	0°♈	
	3656 Mar 31 00:40	0°♈		evening max el	3658 Dec 02 03:31	27°♈14'43	47°01'32
desc. node	3656 Apr 04 02:07	4°♈47'37			3658 Dec 04 22:06	0°♈	
	3656 Apr 25 05:34	0°♈		asc. node	3659 Jan 10 23:53	28°♈06'02	
	3656 May 20 02:56	0°♈		greatest brilliancy	3659 Jan 11 17:36	28°♈22'52	-4.9m
	3656 Jun 13 21:02	0°♈			3659 Jan 17 19:57	0°♈	
	3656 Jul 08 13:05	0°♈		retrograde	3659 Jan 21 18:39	0°♈18'44	
asc. node	3656 Jul 26 04:51	21°♈32'52			3659 Jan 25 15:47	30°♈	
	3656 Aug 02 02:37	0°♈		evening set	3659 Feb 06 13:04	25°♈24'53	
morning set	3656 Aug 09 20:54	9°♈30'57		min. Earth dist.	3659 Feb 10 17:38	22°♈55'00	0.26798 AU
	3656 Aug 26 12:49	0°♈		inferior conj	3659 Feb 11 09:58	22°♈29'52	7°06'22
max. Earth dist.	3656 Sep 12 11:08	20°♈53'49	1.73034 AU	minimum elong	3659 Feb 10 23:27	22°♈46'03	7°04'17
				morning rise	3659 Feb 15 10:02	20°♈04'59	
superior conj	3656 Sep 15 07:02	24°♈23'43	1°24'21	direct	3659 Mar 03 19:58	14°♈48'17	
minimum elong	3656 Sep 15 04:36	24°♈16'11	1°24'21	greatest brilliancy	3659 Mar 13 03:33	16°♈26'37	-4.9m
	3656 Sep 19 19:45	0°♈			3659 Apr 04 08:46	0°♈	
	3656 Oct 14 00:24	0°♈		morning max el	3659 Apr 22 19:45	16°♈48'56	46°33'16
evening rise	3656 Oct 22 07:03	10°♈16'36		desc. node	3659 May 02 13:48	26°♈44'23	
	3656 Nov 07 03:58	0°♈			3659 May 05 16:19	0°♈	
desc. node	3656 Nov 14 18:51	9°♈28'15			3659 Jun 01 22:46	0°♈	
	3656 Dec 01 07:11	0°♈			3659 Jun 27 23:44	0°♈	
	3656 Dec 25 10:41	0°♈			3659 Jul 23 10:41	0°♈	
	3657 Jan 18 15:59	0°♈			3659 Aug 17 11:58	0°♈	
	3657 Feb 12 02:58	0°♈		asc. node	3659 Aug 23 16:36	7°♈28'56	
asc. node	3657 Mar 07 21:29	28°♈32'42			3659 Sep 11 04:48	0°♈	
	3657 Mar 09 03:04	0°♈			3659 Oct 05 14:17	0°♈	
	3657 Apr 04 06:49	0°♈		morning set	3659 Oct 18 13:08	16°♈02'58	
evening max el	3657 Apr 27 06:44	24°♈12'12	46°02'51		3659 Oct 29 18:15	0°♈	
	3657 May 03 07:25	0°♈			3659 Nov 22 18:47	0°♈	
greatest brilliancy	3657 Jun 04 14:16	23°♈01'59	-4.8m	max. Earth dist.	3659 Nov 23 04:04	0°♈29'02	1.71709 AU
retrograde	3657 Jun 15 14:40	25°♈14'36					
desc. node	3657 Jun 27 11:33	22°♈27'47		superior conj	3659 Nov 25 14:31	3°♈31'56	0°40'47
evening set	3657 Jun 30 16:50	20°♈50'21		minimum elong	3659 Nov 25 23:18	3°♈59'28	0°40'23
inferior conj	3657 Jul 07 02:18	16°♈59'38	-2°15'53	desc. node	3659 Dec 13 06:47	25°♈40'56	
minimum elong	3657 Jul 06 21:26	17°♈07'18	2°14'29		3659 Dec 16 17:26	0°♈	
min. Earth dist.	3657 Jul 06 19:46	17°♈09'54	0.28854 AU	evening rise	3660 Jan 04 22:14	24°♈05'37	
morning rise	3657 Jul 13 02:14	13°♈22'12			3660 Jan 09 15:11	0°♈	
direct	3657 Jul 28 14:57	8°♈45'38			3660 Feb 02 13:07	0°♈	
greatest brilliancy	3657 Aug 07 18:22	10°♈36'02	-4.7m		3660 Feb 26 13:08	0°♈	
	3657 Sep 06 03:09	0°♈			3660 Mar 21 18:14	0°♈	
morning max el	3657 Sep 15 08:27	8°♈29'11	45°47'45	asc. node	3660 Apr 04 09:22	16°♈42'17	
	3657 Oct 06 09:07	0°♈			3660 Apr 15 08:22	0°♈	
asc. node	3657 Oct 18 14:20	13°♈26'37			3660 May 10 13:04	0°♈	
	3657 Nov 02 02:07	0°♈			3660 Jun 05 18:49	0°♈	
	3657 Nov 27 08:47	0°♈			3660 Jul 04 07:06	0°♈	
	3657 Dec 21 22:06	0°♈		evening max el	3660 Jul 06 19:10	2°♈25'27	45°28'17
	3658 Jan 15 02:36	0°♈		desc. node	3660 Jul 24 23:27	18°♈21'04	
desc. node	3658 Feb 07 04:23	28°♈49'20			3660 Aug 13 11:55	0°♈	
	3658 Feb 08 02:58	0°♈		greatest brilliancy	3660 Aug 14 07:46	0°♈17'53	-4.7m
	3658 Mar 04 01:50	0°♈		retrograde	3660 Aug 24 11:07	2°♈08'38	
morning set	3658 Mar 19 20:14	19°♈44'37			3660 Sep 03 21:09	30°♈	
	3658 Mar 28 01:02	0°♈		evening set	3660 Sep 11 07:46	26°♈10'16	
	3658 Apr 21 02:09	0°♈		inferior conj	3660 Sep 14 20:26	24°♈00'17	-8°32'23
				minimum elong	3660 Sep 14 17:25	24°♈05'00	8°32'16
superior conj	3658 Apr 28 12:22	9°♈14'05	-1°08'18	min. Earth dist.	3660 Sep 15 05:10	23°♈46'41	0.28876 AU
minimum elong	3658 Apr 28 22:43	9°♈46'11	1°08'00	morning rise	3660 Sep 18 02:57	21°♈59'16	

direct	3660 Oct 06 09:30	15° \cap 43'46		3663 Apr 05 22:10	0° B	
greatest brilliancy	3660 Oct 17 06:31	17° \cap 53'45 -4.8m		3663 Apr 30 03:20	0° II	
	3660 Nov 06 00:21	0° L	asc. node	3663 May 02 21:22	3° II 23'20	
asc. node	3660 Nov 15 02:03	7° L 46'16		3663 May 24 14:58	0° L	
morning max el	3660 Nov 25 10:17	17° L 40'08 46°27'18		3663 Jun 18 10:56	0° Ω	
	3660 Dec 07 07:16	0° M		3663 Jul 13 18:42	0° \cap	
	3661 Jan 02 22:49	0° X		3663 Aug 08 21:58	0° L	
	3661 Jan 28 03:56	0° Z	desc. node	3663 Aug 22 11:11	14° L 58'02	
	3661 Feb 21 18:40	0° \approx		3663 Sep 05 16:02	0° M	
desc. node	3661 Mar 06 16:12	15° \approx 51'37	evening max el	3663 Sep 17 18:33	12° M 03'37 45°58'51	
	3661 Mar 18 03:10	0° H		3663 Oct 08 11:31	0° X	
	3661 Apr 11 09:27	0° Y	greatest brilliancy	3663 Oct 27 16:55	10° X 48'12 -4.8m	
	3661 May 05 15:49	0° B	retrograde	3663 Nov 05 20:47	12° X 20'33	
	3661 May 29 23:26	0° II	evening set	3663 Nov 21 06:32	7° X 47'45	
morning set	3661 May 31 07:31	1° II 38'50	inferior conj	3663 Nov 26 15:38	4° X 37'07 -4°09'31	
	3661 Jun 23 08:21	0° L	minimum elong	3663 Nov 27 00:12	4° X 24'00 4°07'07	
asc. node	3661 Jun 27 19:03	5° L 28'04	min. Earth dist.	3663 Nov 27 10:49	4° X 07'44 0.27113 AU	
			morning rise	3663 Dec 02 17:09	1° X 02'34	
superior conj	3661 Jul 07 13:01	17° L 27'20 0°23'02		3663 Dec 04 17:38	30° R M	
minimum elong	3661 Jul 07 08:20	17° L 12'54 0°22'48	asc. node	3663 Dec 13 13:58	27° M 03'55	
max. Earth dist.	3661 Jul 07 19:41	17° L 47'48 1.73488 AU	direct	3663 Dec 17 10:48	26° M 45'37	
	3661 Jul 17 17:50	0° Ω	greatest brilliancy	3663 Dec 28 09:48	29° M 00'42 -4.9m	
	3661 Aug 11 03:19	0° \cap		3663 Dec 30 17:17	0° X	
evening rise	3661 Aug 12 15:46	1° \cap 52'03	morning max el	3664 Feb 06 02:48	0° Z 02'03 46°58'14	
	3661 Sep 04 12:59	0° L		3664 Feb 06 01:59	0° Z	
	3661 Sep 28 23:42	0° M		3664 Mar 04 18:22	0° \approx	
desc. node	3661 Oct 17 09:01	22° M 29'56		3664 Mar 30 14:39	0° H	
	3661 Oct 23 12:31	0° X	desc. node	3664 Apr 03 04:08	4° H 12'55	
	3661 Nov 17 04:21	0° Z		3664 Apr 24 18:13	0° Y	
	3661 Dec 12 01:23	0° \approx		3664 May 19 14:45	0° B	
	3662 Jan 06 10:08	0° H		3664 Jun 13 08:19	0° II	
	3662 Feb 02 01:29	0° Y		3664 Jul 08 00:01	0° L	
asc. node	3662 Feb 07 11:37	5° Y 45'58	asc. node	3664 Jul 25 06:48	21° L 05'58	
evening max el	3662 Feb 12 14:12	11° Y 02'29 47°04'02		3664 Aug 01 13:19	0° Ω	
	3662 Mar 05 02:45	0° B	morning set	3664 Aug 07 14:43	7° Ω 25'41	
greatest brilliancy	3662 Mar 24 19:09	12° B 09'31 -4.9m		3664 Aug 25 23:25	0° \cap	
retrograde	3662 Apr 04 06:06	14° B 12'41	max. Earth dist.	3664 Sep 10 05:33	18° \cap 49'42 1.73071 AU	
evening set	3662 Apr 21 07:39	8° B 31'01				
inferior conj	3662 Apr 25 06:48	6° B 04'01 7°16'26	superior conj	3664 Sep 13 01:00	22° \cap 18'10 1°23'52	
minimum elong	3662 Apr 25 16:32	5° B 48'46 7°14'44	minimum elong	3664 Sep 12 21:55	22° \cap 08'38 1°23'51	
min. Earth dist.	3662 Apr 25 02:32	6° B 10'42 0.28009 AU		3664 Sep 19 06:20	0° L	
morning rise	3662 Apr 30 01:46	3° B 08'58		3664 Oct 13 11:05	0° M	
	3662 May 06 11:26	30° R Y	evening rise	3664 Oct 19 22:49	8° M 03'17	
direct	3662 May 16 07:27	28° Y 03'14		3664 Nov 06 14:50	0° X	
greatest brilliancy	3662 May 25 20:59	29° Y 44'57 -4.8m	desc. node	3664 Nov 13 21:01	9° X 01'03	
	3662 May 26 14:09	0° B		3664 Nov 30 18:19	0° Z	
desc. node	3662 May 30 01:40	1° B 25'50		3664 Dec 24 22:08	0° \approx	
morning max el	3662 Jul 04 09:11	28° B 25'29 45°50'51		3665 Jan 18 03:52	0° H	
	3662 Jul 06 00:22	0° II		3665 Feb 11 15:31	0° Y	
	3662 Aug 03 20:11	0° L	asc. node	3665 Mar 06 23:26	27° Y 58'04	
	3662 Aug 30 11:36	0° Ω		3665 Mar 08 16:50	0° B	
asc. node	3662 Sep 20 04:30	24° Ω 13'25		3665 Apr 03 23:12	0° II	
	3662 Sep 25 01:04	0° \cap	evening max el	3665 Apr 24 21:09	21° II 56'04 46°05'01	
	3662 Oct 19 21:37	0° L		3665 May 03 08:24	0° L	
	3662 Nov 13 06:47	0° M	greatest brilliancy	3665 Jun 02 06:47	20° L 52'28 -4.8m	
	3662 Dec 07 08:57	0° X	retrograde	3665 Jun 13 07:02	23° L 05'32	
morning set	3662 Dec 30 05:54	28° X 40'06	desc. node	3665 Jun 26 13:33	19° L 37'59	
	3662 Dec 31 07:21	0° Z	evening set	3665 Jun 28 08:49	18° L 41'20	
desc. node	3663 Jan 09 18:36	11° Z 53'47	inferior conj	3665 Jul 04 18:36	14° L 50'34 -1°56'33	
	3663 Jan 24 04:02	0° \approx	minimum elong	3665 Jul 04 14:23	14° L 57'12 1°55'19	
			min. Earth dist.	3665 Jul 04 12:27	15° L 00'13 0.28831 AU	
superior conj	3663 Feb 09 15:40	20° \approx 44'22 -1°05'39	morning rise	3665 Jul 10 20:07	11° L 11'00	
minimum elong	3663 Feb 09 03:44	20° \approx 06'50 1°05'16	direct	3665 Jul 26 06:21	6° L 36'39	
max. Earth dist.	3663 Feb 11 02:59	22° \approx 35'27 1.71142 AU	greatest brilliancy	3665 Aug 05 10:47	8° L 27'46 -4.7m	
	3663 Feb 17 00:22	0° H		3665 Sep 06 05:11	0° Ω	
	3663 Mar 12 21:49	0° Y	morning max el	3665 Sep 13 00:09	6° Ω 18'57 45°47'08	
evening rise	3663 Mar 22 13:50	12° Y 06'06		3665 Oct 06 01:27	0° \cap	






































































































































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	3665 Nov 01 15:35	0° \mathbb{L}		evening max el	3668 Jul 04 11:37	0° \mathbb{M} 16'42	45°28'25
	3665 Nov 26 21:02	0° \mathbb{M}		desc. node	3668 Jul 24 01:25	17° \mathbb{M} 16'11	
	3665 Dec 21 09:44	0° \mathbb{X}		greatest brilliancy	3668 Aug 11 21:43	28° \mathbb{M} 06'18	-4.7m
	3666 Jan 14 13:54	0° \mathbb{Z}		retrograde	3668 Aug 22 02:38	29° \mathbb{M} 58'06	
desc. node	3666 Feb 06 06:21	28° \mathbb{Z} 20'45		evening set	3668 Sep 08 21:16	24° \mathbb{M} 02'53	
	3666 Feb 07 14:04	0° \approx		inferior conj	3668 Sep 12 12:12	21° \mathbb{M} 49'13	-8°28'47
	3666 Mar 03 12:46	0° \mathbb{X}		minimum elong	3668 Sep 12 08:26	21° \mathbb{M} 55'06	8°28'35
morning set	3666 Mar 17 07:15	17° \mathbb{X} 14'47		min. Earth dist.	3668 Sep 12 19:36	21° \mathbb{M} 37'41	0.28907 AU
	3666 Mar 27 11:52	0° \mathbb{Y}		morning rise	3668 Sep 15 19:31	19° \mathbb{M} 46'50	
	3666 Apr 20 12:54	0° \mathbb{B}		direct	3668 Oct 04 02:10	13° \mathbb{M} 32'38	
				greatest brilliancy	3668 Oct 14 21:04	15° \mathbb{M} 40'38	-4.8m
superior conj	3666 Apr 26 02:05	6° \mathbb{B} 54'13	-1°10'29		3668 Nov 06 09:27	0° \mathbb{L}	
minimum elong	3666 Apr 26 12:15	7° \mathbb{B} 25'49	1°10'12	asc. node	3668 Nov 14 04:12	6° \mathbb{L} 51'01	
max. Earth dist.	3666 Apr 29 20:34	11° \mathbb{B} 35'20	1.72362 AU	morning max el	3668 Nov 23 01:28	15° \mathbb{L} 24'10	46°25'36
	3666 May 14 16:57	0° \mathbb{I}			3668 Dec 07 01:18	0° \mathbb{M}	
asc. node	3666 May 30 09:15	19° \mathbb{I} 22'08			3669 Jan 02 13:17	0° \mathbb{X}	
evening rise	3666 Jun 03 16:23	24° \mathbb{I} 39'49			3669 Jan 27 16:51	0° \mathbb{Z}	
	3666 Jun 08 00:26	0° \mathbb{G}			3669 Feb 21 06:45	0° \approx	
	3666 Jul 02 11:18	0° \mathbb{Q}		desc. node	3669 Mar 05 18:15	15° \approx 21'39	
	3666 Jul 27 01:56	0° \mathbb{M}			3669 Mar 17 14:42	0° \mathbb{X}	
	3666 Aug 20 21:44	0° \mathbb{L}			3669 Apr 10 20:37	0° \mathbb{Y}	
	3666 Sep 15 01:16	0° \mathbb{M}			3669 May 05 02:42	0° \mathbb{B}	
desc. node	3666 Sep 18 23:06	4° \mathbb{M} 37'11		morning set	3669 May 29 00:03	29° \mathbb{B} 28'57	
	3666 Oct 10 16:42	0° \mathbb{X}			3669 May 29 10:08	0° \mathbb{I}	
	3666 Nov 06 05:11	0° \mathbb{Z}			3669 Jun 22 18:56	0° \mathbb{G}	
evening max el	3666 Nov 29 17:38	24° \mathbb{Z} 52'55	47°00'11	asc. node	3669 Jun 26 21:00	5° \mathbb{G} 01'29	
	3666 Dec 04 22:39	0° \approx					
greatest brilliancy	3667 Jan 09 06:15	25° \approx 55'35	-4.9m	superior conj	3669 Jul 05 06:37	15° \mathbb{G} 21'19	0°19'55
asc. node	3667 Jan 10 01:47	26° \approx 12'56		minimum elong	3669 Jul 05 02:31	15° \mathbb{G} 08'42	0°19'42
retrograde	3667 Jan 19 08:07	27° \approx 52'05		max. Earth dist.	3669 Jul 05 17:37	15° \mathbb{G} 55'06	1.73476 AU
evening set	3667 Feb 03 22:01	23° \approx 03'40			3669 Jul 17 04:25	0° \mathbb{Q}	
inferior conj	3667 Feb 08 22:42	20° \approx 03'39	6°51'13	evening rise	3669 Aug 10 10:15	29° \mathbb{Q} 48'32	
minimum elong	3667 Feb 08 12:00	20° \approx 20'02	6°48'58		3669 Aug 10 13:59	0° \mathbb{M}	
min. Earth dist.	3667 Feb 08 06:25	20° \approx 28'36	0.26766 AU		3669 Sep 03 23:49	0° \mathbb{L}	
morning rise	3667 Feb 13 02:14	17° \approx 34'09			3669 Sep 28 10:51	0° \mathbb{M}	
direct	3667 Mar 01 08:50	12° \approx 22'23		desc. node	3669 Oct 16 11:08	22° \mathbb{M} 01'20	
greatest brilliancy	3667 Mar 10 16:33	14° \approx 01'22	-4.9m		3669 Oct 23 00:07	0° \mathbb{X}	
	3667 Apr 04 19:02	0° \mathbb{X}			3669 Nov 16 16:39	0° \mathbb{Z}	
morning max el	3667 Apr 20 10:22	14° \mathbb{X} 29'49	46°34'41		3669 Dec 11 14:43	0° \approx	
desc. node	3667 May 01 15:59	25° \mathbb{X} 58'59			3670 Jan 06 01:15	0° \mathbb{X}	
	3667 May 05 11:00	0° \mathbb{Y}			3670 Feb 01 20:38	0° \mathbb{Y}	
	3667 Jun 01 13:27	0° \mathbb{B}		asc. node	3670 Feb 06 13:41	4° \mathbb{Y} 57'49	
	3667 Jun 27 12:35	0° \mathbb{I}		evening max el	3670 Feb 10 05:06	8° \mathbb{Y} 42'43	47°05'22
	3667 Jul 22 22:30	0° \mathbb{G}			3670 Mar 05 16:29	0° \mathbb{B}	
	3667 Aug 16 23:10	0° \mathbb{Q}		greatest brilliancy	3670 Mar 22 11:23	9° \mathbb{B} 53'04	-4.9m
asc. node	3667 Aug 22 18:37	7° \mathbb{Q} 01'28		retrograde	3670 Apr 01 21:01	11° \mathbb{B} 55'00	
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	3667 Oct 05 00:58	0° \mathbb{L}		inferior conj	3670 Apr 22 21:40	3° \mathbb{B} 47'01	7°28'54
morning set	3667 Oct 16 05:10	13° \mathbb{L} 50'40		minimum elong	3670 Apr 23 07:06	3° \mathbb{B} 32'13	7°27'20
	3667 Oct 29 04:55	0° \mathbb{M}		min. Earth dist.	3670 Apr 22 17:05	3° \mathbb{B} 54'14	0.27973 AU
max. Earth dist.	3667 Nov 20 16:10	28° \mathbb{M} 03'14	1.71748 AU	morning rise	3670 Apr 27 12:51	0° \mathbb{B} 57'10	
	3667 Nov 22 05:30	0° \mathbb{X}			3670 Apr 29 05:35	30° \mathbb{R} \mathbb{Y}	
				direct	3670 May 13 21:53	25° \mathbb{Y} 47'03	
superior conj	3667 Nov 23 03:53	1° \mathbb{X} 10'03	0°43'58	greatest brilliancy	3670 May 23 10:29	27° \mathbb{Y} 27'46	-4.8m
minimum elong	3667 Nov 23 13:06	1° \mathbb{X} 38'52	0°43'35	desc. node	3670 May 29 03:39	29° \mathbb{Y} 52'01	
desc. node	3667 Dec 12 08:50	25° \mathbb{X} 13'36			3670 May 29 10:02	0° \mathbb{B}	
	3667 Dec 16 04:13	0° \mathbb{Z}		morning max el	3670 Jul 01 23:20	26° \mathbb{B} 09'59	45°51'42
evening rise	3668 Jan 02 09:36	21° \mathbb{Z} 36'36			3670 Jul 05 21:54	0° \mathbb{I}	
	3668 Jan 09 02:03	0° \approx			3670 Aug 03 11:35	0° \mathbb{G}	
	3668 Feb 02 00:06	0° \mathbb{X}			3670 Aug 30 00:44	0° \mathbb{Q}	
	3668 Feb 26 00:18	0° \mathbb{Y}		asc. node	3670 Sep 19 06:36	23° \mathbb{Q} 43'27	
	3668 Mar 21 05:41	0° \mathbb{B}			3670 Sep 24 13:06	0° \mathbb{M}	
asc. node	3668 Apr 03 11:29	16° \mathbb{B} 13'05			3670 Oct 19 09:05	0° \mathbb{L}	
	3668 Apr 14 20:21	0° \mathbb{I}			3670 Nov 12 17:56	0° \mathbb{M}	
	3668 May 10 02:05	0° \mathbb{G}			3670 Dec 06 19:58	0° \mathbb{X}	
	3668 Jun 05 10:04	0° \mathbb{Q}		morning set	3670 Dec 27 17:03	26° \mathbb{X} 09'56	




































































































































	3670 Dec 30 18:20	0°♁	evening set	3673 Jun 26 00:58	16°♁31'17	
desc. node	3671 Jan 08 20:29	11°♁25'16	inferior conj	3673 Jul 02 10:51	12°♁40'38	-1°36'53
	3671 Jan 23 15:01	0°♁	minimum elong	3673 Jul 02 07:19	12°♁46'11	1°35'51
			min. Earth dist.	3673 Jul 02 04:48	12°♁50'06	0.28807 AU
superior conj	3671 Feb 07 01:38	18°♁10'19 -1°02'58	morning rise	3673 Jul 08 13:52	8°♁59'19	
minimum elong	3671 Feb 06 13:36	17°♁32'29 1°02'32	direct	3673 Jul 23 22:08	4°♁26'52	
max. Earth dist.	3671 Feb 08 05:11	19°♁36'57 1.71127 AU	greatest brilliancy	3673 Aug 03 02:44	6°♁18'26	-4.7m
	3671 Feb 16 11:20	0°♁		3673 Sep 06 06:07	0°♁	
	3671 Mar 12 08:46	0°♁	morning max el	3673 Sep 10 16:26	4°♁09'38	45°46'28
evening rise	3671 Mar 20 00:45	9°♁35'50		3673 Oct 05 17:45	0°♁	
	3671 Apr 05 09:08	0°♁	asc. node	3673 Oct 16 18:29	12°♁14'40	
	3671 Apr 29 14:25	0°♁		3673 Nov 01 05:17	0°♁	
asc. node	3671 May 01 23:26	2°♁55'33		3673 Nov 26 09:37	0°♁	
	3671 May 24 02:18	0°♁		3673 Dec 20 21:45	0°♁	
	3671 Jun 17 22:46	0°♁		3674 Jan 14 01:35	0°♁	
	3671 Jul 13 07:31	0°♁	desc. node	3674 Feb 05 08:27	27°♁51'32	
	3671 Aug 08 12:46	0°♁		3674 Feb 07 01:30	0°♁	
desc. node	3671 Aug 21 13:14	14°♁18'44		3674 Mar 03 00:02	0°♁	
	3671 Sep 05 11:37	0°♁	morning set	3674 Mar 14 18:01	14°♁43'12	
evening max el	3671 Sep 15 07:06	9°♁42'26 45°56'48		3674 Mar 26 23:00	0°♁	
	3671 Oct 09 06:43	0°♁		3674 Apr 19 23:57	0°♁	
greatest brilliancy	3671 Oct 25 06:26	8°♁26'32 -4.8m				
retrograde	3671 Nov 03 09:04	9°♁58'16	superior conj	3674 Apr 23 15:37	4°♁32'49	-1°12'33
evening set	3671 Nov 18 22:18	5°♁21'01	minimum elong	3674 Apr 24 01:32	5°♁03'38	1°12'17
inferior conj	3671 Nov 24 04:51	2°♁14'10 -4°29'36	max. Earth dist.	3674 Apr 27 09:53	9°♁13'23	1.72311 AU
minimum elong	3671 Nov 24 13:53	2°♁00'20 4°27'08		3674 May 14 03:57	0°♁	
min. Earth dist.	3671 Nov 25 01:16	1°♁42'54 0.27175 AU	asc. node	3674 May 29 11:12	18°♁54'16	
	3671 Nov 27 21:35	30°♁	evening rise	3674 Jun 01 08:30	22°♁27'48	
morning rise	3671 Nov 30 04:41	28°♁41'44		3674 Jun 07 11:26	0°♁	
asc. node	3671 Dec 12 15:53	24°♁28'02		3674 Jul 01 22:26	0°♁	
direct	3671 Dec 15 00:09	24°♁21'19		3674 Jul 26 13:21	0°♁	
greatest brilliancy	3671 Dec 26 01:26	26°♁38'26 -4.9m		3674 Aug 20 09:41	0°♁	
	3672 Jan 01 21:39	0°♁		3674 Sep 14 14:07	0°♁	
morning max el	3672 Feb 03 16:15	27°♁36'40 46°58'03	desc. node	3674 Sep 18 01:13	4°♁05'01	
	3672 Feb 06 00:16	0°♁		3674 Oct 10 07:08	0°♁	
	3672 Mar 04 10:39	0°♁		3674 Nov 05 22:45	0°♁	
	3672 Mar 30 04:34	0°♁	evening max el	3674 Nov 27 08:16	22°♁30'54	46°58'29
desc. node	3672 Apr 02 06:12	3°♁38'22		3674 Dec 05 01:14	0°♁	
	3672 Apr 24 06:53	0°♁	greatest brilliancy	3675 Jan 06 18:34	23°♁25'41	-4.9m
	3672 May 19 02:38	0°♁	asc. node	3675 Jan 09 03:52	24°♁12'55	
	3672 Jun 12 19:41	0°♁	retrograde	3675 Jan 16 21:21	25°♁22'32	
	3672 Jul 07 11:03	0°♁	evening set	3675 Feb 01 06:48	20°♁39'44	
asc. node	3672 Jul 24 08:49	20°♁38'58	inferior conj	3675 Feb 06 11:03	17°♁34'43	6°34'58
	3672 Aug 01 00:08	0°♁	minimum elong	3675 Feb 06 00:18	17°♁51'11	6°32'35
morning set	3672 Aug 05 08:35	5°♁20'08	min. Earth dist.	3675 Feb 05 18:54	17°♁59'27	0.26731 AU
	3672 Aug 25 10:09	0°♁	morning rise	3675 Feb 10 18:05	15°♁00'29	
max. Earth dist.	3672 Sep 08 01:43	16°♁50'28 1.73113 AU	direct	3675 Feb 26 21:44	9°♁54'04	
			greatest brilliancy	3675 Mar 08 05:00	11°♁33'12	-4.9m
superior conj	3672 Sep 10 18:52	20°♁11'44 1°23'15		3675 Apr 05 03:14	0°♁	
minimum elong	3672 Sep 10 15:09	20°♁00'15 1°23'13	morning max el	3675 Apr 18 00:19	12°♁07'36	46°36'11
	3672 Sep 18 17:07	0°♁	desc. node	3675 Apr 30 17:59	25°♁12'34	
	3672 Oct 12 22:01	0°♁		3675 May 05 05:39	0°♁	
evening rise	3672 Oct 17 14:27	5°♁48'49		3675 Jun 01 04:18	0°♁	
	3672 Nov 06 01:59	0°♁		3675 Jun 27 01:41	0°♁	
desc. node	3672 Nov 12 22:59	8°♁32'23		3675 Jul 22 10:37	0°♁	
	3672 Nov 30 05:43	0°♁		3675 Aug 16 10:41	0°♁	
	3672 Dec 24 09:51	0°♁	asc. node	3675 Aug 21 20:45	6°♁33'15	
	3673 Jan 17 16:01	0°♁		3675 Sep 10 02:50	0°♁	
	3673 Feb 11 04:22	0°♁		3675 Oct 04 12:00	0°♁	
asc. node	3673 Mar 06 01:33	27°♁23'05	morning set	3675 Oct 13 21:32	11°♁38'26	
	3673 Mar 08 06:57	0°♁		3675 Oct 28 15:55	0°♁	
	3673 Apr 03 16:10	0°♁	max. Earth dist.	3675 Nov 18 03:16	25°♁33'21	1.71794 AU
evening max el	3673 Apr 22 12:13	19°♁40'47 46°07'15				
	3673 May 03 11:06	0°♁	superior conj	3675 Nov 20 17:33	28°♁48'05	0°47'03
greatest brilliancy	3673 May 30 22:51	18°♁41'40 -4.8m	minimum elong	3675 Nov 21 03:05	29°♁17'55	0°46'39
retrograde	3673 Jun 10 23:49	20°♁55'42		3675 Nov 21 16:33	0°♁	
desc. node	3673 Jun 25 15:30	16°♁44'07	desc. node	3675 Dec 11 10:48	24°♁44'49	

	3675 Dec 15 15:23	0°♁		morning max el	3678 Jun 29 13:02	23°♁52'07	45°52'48
evening rise	3675 Dec 30 20:48	19°♁05'47			3678 Jul 05 19:04	0°♁	
	3676 Jan 08 13:22	0°♁			3678 Aug 03 03:01	0°♁	
	3676 Feb 01 11:34	0°♁			3678 Aug 29 13:58	0°♁	
	3676 Feb 25 11:57	0°♁		asc. node	3678 Sep 18 08:34	23°♁12'44	
	3676 Mar 20 17:37	0°♁			3678 Sep 24 01:15	0°♁	
asc. node	3676 Apr 02 13:31	15°♁42'10			3678 Oct 18 20:40	0°♁	
	3676 Apr 14 08:48	0°♁			3678 Nov 12 05:14	0°♁	
	3676 May 09 15:36	0°♁			3678 Dec 06 07:06	0°♁	
	3676 Jun 05 01:56	0°♁		morning set	3678 Dec 25 04:48	23°♁41'18	
evening max el	3676 Jul 02 03:26	28°♁05'19	45°28'37		3678 Dec 30 05:25	0°♁	
	3676 Jul 04 03:34	0°♁		desc. node	3679 Jan 07 22:39	10°♁57'18	
desc. node	3676 Jul 23 03:31	16°♁08'54			3679 Jan 23 02:04	0°♁	
greatest brilliancy	3676 Aug 09 12:29	25°♁54'52	-4.7m				
retrograde	3676 Aug 19 17:55	27°♁47'04		superior conj	3679 Feb 04 11:59	15°♁37'12	-1°00'09
evening set	3676 Sep 06 10:43	21°♁55'27		minimum elong	3679 Feb 03 23:58	14°♁59'23	0°59'43
inferior conj	3676 Sep 10 04:08	19°♁37'49	-8°24'26	max. Earth dist.	3679 Feb 05 08:07	16°♁40'31	1.71119 AU
minimum elong	3676 Sep 09 23:40	19°♁44'49	8°24'08		3679 Feb 15 22:23	0°♁	
min. Earth dist.	3676 Sep 10 10:32	19°♁27'48	0.28932 AU		3679 Mar 11 19:49	0°♁	
morning rise	3676 Sep 13 12:30	17°♁33'34		evening rise	3679 Mar 17 11:48	7°♁05'36	
direct	3676 Oct 01 18:28	11°♁21'09			3679 Apr 04 20:16	0°♁	
greatest brilliancy	3676 Oct 12 12:06	13°♁27'30	-4.8m		3679 Apr 29 01:41	0°♁	
	3676 Nov 06 16:19	0°♁		asc. node	3679 May 01 01:21	2°♁26'45	
asc. node	3676 Nov 13 06:04	5°♁55'32			3679 May 23 13:50	0°♁	
morning max el	3676 Nov 20 15:39	13°♁05'06	46°23'57		3679 Jun 17 10:49	0°♁	
	3676 Dec 06 19:11	0°♁			3679 Jul 12 20:34	0°♁	
	3677 Jan 02 03:52	0°♁			3679 Aug 08 03:51	0°♁	
	3677 Jan 27 06:02	0°♁		desc. node	3679 Aug 20 15:19	13°♁38'55	
	3677 Feb 20 19:10	0°♁			3679 Sep 05 07:52	0°♁	
desc. node	3677 Mar 04 20:20	14°♁50'35		evening max el	3679 Sep 12 19:59	7°♁22'14	45°54'55
	3677 Mar 17 02:39	0°♁			3679 Oct 10 08:44	0°♁	
	3677 Apr 10 08:11	0°♁		greatest brilliancy	3679 Oct 22 19:25	6°♁04'46	-4.8m
	3677 May 04 13:59	0°♁		retrograde	3679 Oct 31 22:02	7°♁36'40	
morning set	3677 May 26 16:13	27°♁16'49		evening set	3679 Nov 16 14:19	2°♁54'36	
	3677 May 28 21:10	0°♁		inferior conj	3679 Nov 21 18:11	29°♁51'37	-4°49'04
	3677 Jun 22 05:51	0°♁		minimum elong	3679 Nov 22 03:39	29°♁37'09	4°46'33
asc. node	3677 Jun 25 23:01	4°♁34'13			3679 Nov 21 12:42	30°♁	
				min. Earth dist.	3679 Nov 22 15:29	29°♁19'04	0.27240 AU
superior conj	3677 Jul 03 00:04	13°♁13'59	0°16'44	morning rise	3679 Nov 27 16:12	26°♁21'50	
minimum elong	3677 Jul 02 20:35	13°♁03'16	0°16'35	asc. node	3679 Dec 11 17:58	21°♁58'19	
max. Earth dist.	3677 Jul 03 14:38	13°♁58'46	1.73458 AU	direct	3679 Dec 12 14:03	21°♁57'28	
	3677 Jul 16 15:18	0°♁		greatest brilliancy	3679 Dec 23 16:44	24°♁16'14	-4.9m
evening rise	3677 Aug 08 04:48	27°♁44'21			3680 Jan 03 08:00	0°♁	
	3677 Aug 10 00:56	0°♁		morning max el	3680 Feb 01 06:50	25°♁14'27	46°57'58
	3677 Sep 03 10:57	0°♁			3680 Feb 05 21:39	0°♁	
	3677 Sep 27 22:17	0°♁			3680 Mar 04 02:33	0°♁	
desc. node	3677 Oct 15 13:06	21°♁31'26			3680 Mar 29 18:16	0°♁	
	3677 Oct 22 12:02	0°♁		desc. node	3680 Apr 01 08:12	3°♁04'01	
	3677 Nov 16 05:15	0°♁			3680 Apr 23 19:25	0°♁	
	3677 Dec 11 04:22	0°♁			3680 May 18 14:28	0°♁	
	3678 Jan 05 16:47	0°♁			3680 Jun 12 07:02	0°♁	
	3678 Feb 01 16:41	0°♁			3680 Jul 06 22:04	0°♁	
asc. node	3678 Feb 05 15:43	4°♁07'52		asc. node	3680 Jul 23 10:58	20°♁12'20	
evening max el	3678 Feb 07 18:52	6°♁18'53	47°06'21		3680 Jul 31 10:57	0°♁	
	3678 Mar 06 11:45	0°♁		morning set	3680 Aug 03 02:19	3°♁14'15	
greatest brilliancy	3678 Mar 20 03:37	7°♁34'47	-4.9m		3680 Aug 24 20:50	0°♁	
retrograde	3678 Mar 30 11:24	9°♁35'24		max. Earth dist.	3680 Sep 05 23:11	14°♁55'28	1.73148 AU
evening set	3678 Apr 16 19:25	3°♁45'55					
inferior conj	3678 Apr 20 12:19	1°♁28'07	7°40'40	superior conj	3680 Sep 08 12:38	18°♁05'16	1°22'31
minimum elong	3678 Apr 20 21:24	1°♁13'52	7°39'16	minimum elong	3680 Sep 08 08:18	17°♁51'51	1°22'28
min. Earth dist.	3678 Apr 20 07:40	1°♁35'26	0.27938 AU		3680 Sep 18 03:50	0°♁	
	3678 Apr 22 20:50	30°♁			3680 Oct 12 08:51	0°♁	
morning rise	3678 Apr 24 23:39	28°♁43'41		evening rise	3680 Oct 15 06:14	3°♁35'10	
direct	3678 May 11 11:36	23°♁28'47			3680 Nov 05 13:03	0°♁	
greatest brilliancy	3678 May 21 00:22	25°♁09'18	-4.8m	desc. node	3680 Nov 12 00:57	8°♁03'57	
desc. node	3678 May 28 05:36	28°♁19'52			3680 Nov 29 17:03	0°♁	
	3678 May 31 04:17	0°♁			3680 Dec 23 21:30	0°♁	

	3681 Jan 17 04:05	0° H			3683 Sep 09 13:39	0° M	
	3681 Feb 10 17:08	0° Y			3683 Oct 03 22:42	0° L	
asc. node	3681 Mar 05 03:34	26° Y 48'11		morning set	3683 Oct 11 13:50	9° L 27'07	
	3681 Mar 07 21:00	0° B			3683 Oct 28 02:35	0° M	
	3681 Apr 03 09:12	0° II		max. Earth dist.	3683 Nov 15 13:16	23° M 01'14	1.71839 AU
evening max el	3681 Apr 20 04:06	17° II 28'13	46°09'24				
	3681 May 03 15:09	0° S		superior conj	3683 Nov 18 07:21	26° M 27'43	0°50'02
greatest brilliancy	3681 May 28 14:44	16° S 31'15	-4.8m	minimum elong	3683 Nov 18 17:08	26° M 58'19	0°49'37
retrograde	3681 Jun 08 16:50	18° S 46'15			3683 Nov 21 03:15	0° X	
evening set	3681 Jun 23 17:20	14° S 21'37		desc. node	3683 Dec 10 12:55	24° X 17'42	
desc. node	3681 Jun 24 17:38	13° S 47'37			3683 Dec 15 02:10	0° Z	
inferior conj	3681 Jun 30 03:06	10° S 31'02	-1°17'02	evening rise	3683 Dec 28 08:05	16° Z 36'29	
minimum elong	3681 Jun 30 00:16	10° S 35'28	1°16'12		3684 Jan 08 00:17	0° A	
min. Earth dist.	3681 Jun 29 20:53	10° S 40'45	0.28784 AU		3684 Jan 31 22:39	0° H	
morning rise	3681 Jul 06 07:31	6° S 48'12			3684 Feb 24 23:14	0° Y	
direct	3681 Jul 21 14:30	2° S 17'36			3684 Mar 20 05:13	0° B	
greatest brilliancy	3681 Jul 31 18:15	4° S 09'01	-4.7m	asc. node	3684 Apr 01 15:27	15° B 11'57	
	3681 Sep 06 05:42	0° Q			3684 Apr 13 20:57	0° II	
morning max el	3681 Sep 08 09:05	2° Q 01'46	45°45'46		3684 May 09 04:51	0° S	
	3681 Oct 05 09:35	0° M			3684 Jun 04 17:38	0° Q	
asc. node	3681 Oct 15 20:26	11° M 38'58		evening max el	3684 Jun 29 18:22	25° Q 53'03	45°28'54
	3681 Oct 31 18:38	0° L			3684 Jul 04 02:56	0° M	
	3681 Nov 25 21:52	0° M		desc. node	3684 Jul 22 05:33	15° M 01'02	
	3681 Dec 20 09:27	0° X		greatest brilliancy	3684 Aug 07 03:30	23° M 45'02	-4.7m
	3682 Jan 13 12:58	0° Z		retrograde	3684 Aug 17 09:01	25° M 37'38	
desc. node	3682 Feb 04 10:28	27° Z 22'51		evening set	3684 Sep 03 24:00	19° M 49'48	
	3682 Feb 06 12:40	0° A		inferior conj	3684 Sep 07 20:09	17° M 27'58	-8°19'17
	3682 Mar 02 11:02	0° H		minimum elong	3684 Sep 07 15:00	17° M 36'03	8°18'53
morning set	3682 Mar 12 04:56	12° H 12'44		min. Earth dist.	3684 Sep 08 01:50	17° M 19'05	0.28960 AU
	3682 Mar 26 09:52	0° Y		morning rise	3684 Sep 11 05:52	15° M 21'28	
	3682 Apr 19 10:42	0° B		direct	3684 Sep 29 10:22	9° M 11'01	
				greatest brilliancy	3684 Oct 10 03:53	11° M 16'32	-4.8m
superior conj	3682 Apr 21 05:15	2° B 12'26	-1°14'29		3684 Nov 06 20:37	0° L	
minimum elong	3682 Apr 21 14:50	2° B 42'16	1°14'15	asc. node	3684 Nov 12 08:11	5° L 02'42	
max. Earth dist.	3682 Apr 25 01:33	6° B 59'35	1.72256 AU	morning max el	3684 Nov 18 05:26	10° L 45'59	46°22'18
	3682 May 13 14:38	0° II			3684 Dec 06 12:21	0° M	
asc. node	3682 May 28 13:17	18° II 27'46			3685 Jan 01 17:58	0° X	
evening rise	3682 May 30 00:40	20° II 16'52			3685 Jan 26 18:47	0° Z	
	3682 Jun 06 22:08	0° S			3685 Feb 20 07:10	0° A	
	3682 Jul 01 09:16	0° Q		desc. node	3685 Mar 03 22:18	14° A 20'28	
	3682 Jul 26 00:31	0° M			3685 Mar 16 14:10	0° H	
	3682 Aug 19 21:24	0° L			3685 Apr 09 19:22	0° Y	
	3682 Sep 14 02:47	0° M			3685 May 04 00:53	0° B	
desc. node	3682 Sep 17 03:08	3° M 32'58		morning set	3685 May 24 08:12	25° B 05'00	
	3682 Oct 09 21:25	0° X			3685 May 28 07:53	0° II	
	3682 Nov 05 16:21	0° Z			3685 Jun 21 16:25	0° S	
evening max el	3682 Nov 24 22:57	20° Z 10'07	46°56'43	asc. node	3685 Jun 25 01:09	4° S 08'17	
	3682 Dec 05 04:55	0° A					
greatest brilliancy	3683 Jan 04 07:17	20° A 57'28	-4.9m	superior conj	3685 Jun 30 17:32	11° S 07'43	0°13'33
asc. node	3683 Jan 08 05:57	22° A 09'03		minimum elong	3685 Jun 30 14:42	10° S 58'58	0°13'25
retrograde	3683 Jan 14 10:15	22° A 53'53		behind sun begin	3685 Jun 30 02:21	10° S 20'59	
evening set	3683 Jan 29 15:48	18° A 16'45		behind sun end	3685 Jul 01 03:03	11° S 36'56	
inferior conj	3683 Feb 03 23:25	15° A 06'50	6°17'54	max. Earth dist.	3685 Jul 01 09:47	11° S 57'39	1.73436 AU
minimum elong	3683 Feb 03 12:40	15° A 23'18	6°15'25		3685 Jul 16 01:50	0° Q	
min. Earth dist.	3683 Feb 03 07:39	15° A 30'59	0.26698 AU	evening rise	3685 Aug 05 23:28	25° Q 41'42	
morning rise	3683 Feb 08 09:52	12° A 27'45			3685 Aug 09 11:31	0° M	
direct	3683 Feb 24 10:33	7° A 26'52			3685 Sep 02 21:44	0° L	
greatest brilliancy	3683 Mar 05 17:44	9° A 06'02	-4.9m		3685 Sep 27 09:24	0° M	
	3683 Apr 05 08:43	0° H		desc. node	3685 Oct 14 15:07	21° M 02'34	
morning max el	3683 Apr 15 13:24	9° H 44'02	46°37'43		3685 Oct 21 23:40	0° X	
desc. node	3683 Apr 29 19:56	24° H 27'41			3685 Nov 15 17:38	0° Z	
	3683 May 04 23:28	0° Y			3685 Dec 10 17:52	0° A	
	3683 May 31 18:36	0° B			3686 Jan 05 08:17	0° H	
	3683 Jun 26 14:17	0° II			3686 Feb 01 13:01	0° Y	
	3683 Jul 21 22:16	0° S		asc. node	3686 Feb 04 17:43	3° Y 17'52	
	3683 Aug 15 21:48	0° Q		evening max el	3686 Feb 05 07:48	3° Y 53'45	47°07'31
asc. node	3683 Aug 20 22:41	6° Q 05'45			3686 Mar 07 13:23	0° B	




































































































































greatest brilliancy	3686 Mar 17 19:30	5°♄16'50	-4.9m			3688 Aug 24 07:28	0°♎	
retrograde	3686 Mar 28 01:50	7°♄16'43		max. Earth dist.		3688 Sep 03 20:03	12°♎58'48	1.73178 AU
evening set	3686 Apr 14 12:59	1°♄23'05						
	3686 Apr 16 19:00	30°♋♎		superior conj		3688 Sep 06 06:29	15°♎59'13	1°21'40
inferior conj	3686 Apr 18 02:56	29°♎09'57	7°51'38	minimum elong		3688 Sep 06 01:34	15°♎44'01	1°21'36
minimum elong	3686 Apr 18 11:34	28°♎56'23	7°50'24			3688 Sep 17 14:29	0°♎	
min. Earth dist.	3686 Apr 17 22:08	29°♎17'28	0.27904 AU			3688 Oct 11 19:38	0°♎	
morning rise	3686 Apr 22 10:22	26°♎31'10		evening rise		3688 Oct 12 22:15	1°♎22'31	
direct	3686 May 09 01:04	21°♎10'59				3688 Nov 05 00:01	0°♎	
greatest brilliancy	3686 May 18 14:26	22°♎51'49	-4.8m	desc. node		3688 Nov 11 03:07	7°♎36'23	
desc. node	3686 May 27 07:48	26°♎52'02				3688 Nov 29 04:18	0°♎	
	3686 Jun 01 09:00	0°♎				3688 Dec 23 09:05	0°♎	
morning max el	3686 Jun 27 03:14	21°♎36'09	45°54'00			3689 Jan 16 16:11	0°♎	
	3686 Jul 05 15:11	0°♎				3689 Feb 10 05:59	0°♎	
	3686 Aug 02 17:55	0°♎		asc. node		3689 Mar 04 05:31	26°♎12'40	
	3686 Aug 29 02:47	0°♎				3689 Mar 07 11:16	0°♎	
asc. node	3686 Sep 17 10:34	22°♎43'10				3689 Apr 03 02:44	0°♎	
	3686 Sep 23 13:03	0°♎		evening max el		3689 Apr 17 20:24	15°♎16'11	46°11'39
	3686 Oct 18 07:55	0°♎				3689 May 03 21:24	0°♎	
	3686 Nov 11 16:13	0°♎		greatest brilliancy		3689 May 26 07:00	14°♎20'46	-4.8m
	3686 Dec 05 18:01	0°♎		retrograde		3689 Jun 06 09:42	16°♎35'52	
morning set	3686 Dec 22 16:28	21°♎13'06		evening set		3689 Jun 21 09:47	12°♎11'08	
	3686 Dec 29 16:18	0°♎		desc. node		3689 Jun 23 19:38	10°♎47'58	
desc. node	3687 Jan 07 00:41	10°♎29'32		inferior conj		3689 Jun 27 19:11	8°♎20'39	-0°57'02
	3687 Jan 22 12:58	0°♎		minimum elong		3689 Jun 27 17:05	8°♎23'57	0°56'24
				min. Earth dist.		3689 Jun 27 12:46	8°♎30'42	0.28759 AU
superior conj	3687 Feb 01 21:54	13°♎03'12	-0°57'11	morning rise		3689 Jul 04 00:50	4°♎36'22	
minimum elong	3687 Feb 01 10:00	12°♎25'46	0°56'44	direct		3689 Jul 19 06:54	0°♎07'46	
max. Earth dist.	3687 Feb 02 11:45	13°♎46'45	1.71113 AU	greatest brilliancy		3689 Jul 29 09:03	1°♎58'12	-4.7m
	3687 Feb 15 09:15	0°♎		morning max el		3689 Sep 06 01:17	29°♎52'32	45°45'06
	3687 Mar 11 06:41	0°♎				3689 Sep 06 04:24	0°♎	
evening rise	3687 Mar 14 22:27	4°♎34'45				3689 Oct 05 01:15	0°♎	
	3687 Apr 04 07:11	0°♎		asc. node		3689 Oct 14 22:29	11°♎03'35	
	3687 Apr 28 12:44	0°♎				3689 Oct 31 07:57	0°♎	
asc. node	3687 Apr 30 03:28	1°♎59'11				3689 Nov 25 10:07	0°♎	
	3687 May 23 01:12	0°♎				3689 Dec 19 21:09	0°♎	
	3687 Jun 16 22:44	0°♎				3690 Jan 13 00:21	0°♎	
	3687 Jul 12 09:31	0°♎		desc. node		3690 Feb 03 12:26	26°♎53'54	
	3687 Aug 07 18:57	0°♎				3690 Feb 05 23:51	0°♎	
desc. node	3687 Aug 19 17:18	12°♎59'05				3690 Mar 01 22:06	0°♎	
	3687 Sep 05 04:32	0°♎		morning set		3690 Mar 09 15:41	9°♎41'31	
evening max el	3687 Sep 10 09:41	5°♎04'58	45°53'12			3690 Mar 25 20:51	0°♎	
	3687 Oct 11 20:47	0°♎						
greatest brilliancy	3687 Oct 20 07:49	3°♎43'36	-4.8m	superior conj		3690 Apr 18 18:26	29°♎50'08	-1°16'19
retrograde	3687 Oct 29 11:30	5°♎16'05		minimum elong		3690 Apr 19 03:37	0°♎18'42	1°16'06
evening set	3687 Nov 14 06:28	0°♎29'12				3690 Apr 18 21:37	0°♎	
	3687 Nov 15 03:09	30°♋♎		max. Earth dist.		3690 Apr 22 17:38	4°♎46'24	1.72204 AU
inferior conj	3687 Nov 19 07:33	27°♎29'58	-5°07'45			3690 May 13 01:30	0°♎	
minimum elong	3687 Nov 19 17:22	27°♎14'59	5°05'14	evening rise		3690 May 27 16:16	18°♎03'30	
min. Earth dist.	3687 Nov 20 05:15	26°♎56'50	0.27308 AU	asc. node		3690 May 27 15:19	18°♎00'35	
morning rise	3687 Nov 25 03:34	24°♎03'09				3690 Jun 06 09:01	0°♎	
direct	3687 Dec 10 04:32	19°♎34'41				3690 Jun 30 20:18	0°♎	
asc. node	3687 Dec 10 20:03	19°♎35'12				3690 Jul 25 11:54	0°♎	
greatest brilliancy	3687 Dec 21 07:25	21°♎54'09	-4.9m			3690 Aug 19 09:23	0°♎	
	3688 Jan 04 08:11	0°♎				3690 Sep 13 15:44	0°♎	
morning max el	3688 Jan 29 22:05	22°♎54'19	46°57'33	desc. node		3690 Sep 16 05:12	3°♎00'31	
	3688 Feb 05 18:12	0°♎				3690 Oct 09 12:05	0°♎	
	3688 Mar 03 18:11	0°♎				3690 Nov 05 10:33	0°♎	
	3688 Mar 29 07:50	0°♎		evening max el		3690 Nov 22 13:11	17°♎47'55	46°54'59
desc. node	3688 Mar 31 10:13	2°♎30'03				3690 Dec 05 10:36	0°♎	
	3688 Apr 23 07:50	0°♎		greatest brilliancy		3691 Jan 01 20:44	18°♎30'14	-4.9m
	3688 May 18 02:10	0°♎		asc. node		3691 Jan 07 07:51	20°♎00'11	
	3688 Jun 11 18:17	0°♎		retrograde		3691 Jan 11 22:53	20°♎25'27	
	3688 Jul 06 08:59	0°♎		evening set		3691 Jan 27 01:13	15°♎53'51	
asc. node	3688 Jul 22 12:52	19°♎45'14		inferior conj		3691 Feb 01 11:58	12°♎39'25	6°00'17
	3688 Jul 30 21:39	0°♎		minimum elong		3691 Feb 01 01:19	12°♎55'45	5°57'42
morning set	3688 Jul 31 19:59	1°♎08'25		min. Earth dist.		3691 Jan 31 20:56	13°♎02'29	0.26665 AU

morning rise	3691 Feb 06 01:45	9°  55'27		3693 Aug 08 22:27	0° 	
direct	3691 Feb 21 23:00	5°  00'03		3693 Sep 02 08:51	0° 	
greatest brilliancy	3691 Mar 03 07:07	6°  39'39 -4.9m		3693 Sep 26 20:53	0° 	
	3691 Apr 05 12:25	0° 	desc. node	3693 Oct 13 17:14	20°  32'55	
morning max el	3691 Apr 13 01:42	7°  18'01 46°39'03		3693 Oct 21 11:41	0° 	
desc. node	3691 Apr 28 22:06	23°  43'38		3693 Nov 15 06:26	0° 	
	3691 May 04 17:04	0° 		3693 Dec 10 07:52	0° 	
	3691 May 31 08:58	0° 		3694 Jan 05 00:24	0° 	
	3691 Jun 26 03:06	0° 		3694 Feb 01 10:28	0° 	
	3691 Jul 21 10:10	0° 	evening max el	3694 Feb 02 21:21	1°  29'11 47°08'42	
	3691 Aug 15 09:10	0° 	asc. node	3694 Feb 03 19:46	2°  26'04	
asc. node	3691 Aug 20 00:43	5°  37'42		3694 Mar 09 02:25	0° 	
	3691 Sep 09 00:44	0° 	greatest brilliancy	3694 Mar 15 11:00	2°  57'31 -4.9m	
	3691 Oct 03 09:39	0° 	retrograde	3694 Mar 25 16:50	4°  57'31	
morning set	3691 Oct 09 06:02	7°  14'38		3694 Apr 10 13:32	30°  R 	
	3691 Oct 27 13:31	0° 	evening set	3694 Apr 12 06:33	28°  59'37	
max. Earth dist.	3691 Nov 12 23:45	20°  32'44 1.71886 AU	inferior conj	3694 Apr 15 17:37	26°  51'06 8°01'52	
			minimum elong	3694 Apr 16 01:46	26°  38'20 8°00'48	
superior conj	3691 Nov 15 21:17	24°  30'58 0°52'54	min. Earth dist.	3694 Apr 15 12:23	26°  59'19 0.27867 AU	
minimum elong	3691 Nov 16 07:16	24°  38'10 0°52'31	morning rise	3694 Apr 19 21:12	24°  18'17	
	3691 Nov 20 14:15	0° 	direct	3694 May 06 14:48	18°  52'34	
desc. node	3691 Dec 09 14:56	23°  49'20	greatest brilliancy	3694 May 16 04:10	20°  33'36 -4.8m	
	3691 Dec 14 13:15	0° 	desc. node	3694 May 26 09:44	25°  26'28	
evening rise	3691 Dec 25 19:35	14°  30'07		3694 Jun 02 06:05	0° 	
	3692 Jan 07 11:29	0° 	morning max el	3694 Jun 24 18:19	19°  52'145 45°55'11	
	3692 Jan 31 09:58	0° 		3694 Jul 05 10:55	0° 	
	3692 Feb 24 10:44	0° 		3694 Aug 02 08:54	0° 	
	3692 Mar 19 17:01	0° 		3694 Aug 28 15:50	0° 	
asc. node	3692 Mar 31 17:34	14°  54'142	asc. node	3694 Sep 16 12:40	22°  32'59	
	3692 Apr 13 09:21	0° 		3694 Sep 23 01:07	0° 	
	3692 May 08 18:27	0° 		3694 Oct 17 19:28	0° 	
	3692 Jun 04 09:57	0° 		3694 Nov 11 03:31	0° 	
evening max el	3692 Jun 27 08:52	23°  38'43 45°29'15		3694 Dec 05 05:13	0° 	
	3692 Jul 04 03:55	0° 	morning set	3694 Dec 20 04:19	18°  54'437	
desc. node	3692 Jul 21 07:32	13°  30'09		3694 Dec 29 03:30	0° 	
greatest brilliancy	3692 Aug 04 18:22	21°  33'54 -4.7m	desc. node	3695 Jan 06 02:37	10°  30'29	
retrograde	3692 Aug 15 00:21	23° 		3695 Jan 22 00:09	0° 	
evening set	3692 Sep 01 13:05	17° 				
inferior conj	3692 Sep 05 12:13	15°  17'15 -8°13'24	superior conj	3695 Jan 30 07:46	10°  58'01 -0°54'05	
minimum elong	3692 Sep 05 06:23	15°  26'22 8°12'54	minimum elong	3695 Jan 29 20:05	9°  51'16 0°53'37	
min. Earth dist.	3692 Sep 05 17:14	15°  09'23 0.28986 AU	max. Earth dist.	3695 Jan 30 18:33	11°  51'59 1.71112 AU	
morning rise	3692 Sep 08 23:31	13°  30'17		3695 Feb 14 20:26	0° 	
direct	3692 Sep 27 02:02	6°  59'52		3695 Mar 10 17:53	0° 	
greatest brilliancy	3692 Oct 07 20:03	9°  05'14 -4.8m	evening rise	3695 Mar 12 09:09	2°  03'00	
	3692 Nov 06 23:39	0° 		3695 Apr 03 18:25	0° 	
asc. node	3692 Nov 11 10:17	4°  09'59		3695 Apr 28 00:06	0° 	
morning max el	3692 Nov 15 19:41	8°  27'13 46°20'42	asc. node	3695 Apr 29 05:30	1°  30'29	
	3692 Dec 06 05:30	0° 		3695 May 22 12:49	0° 	
	3693 Jan 01 08:16	0° 		3695 Jun 16 10:54	0° 	
	3693 Jan 26 07:46	0° 		3695 Jul 11 22:47	0° 	
	3693 Feb 19 19:26	0° 		3695 Aug 07 10:33	0° 	
desc. node	3693 Mar 03 00:21	13°  54'48	desc. node	3695 Aug 18 19:21	12°  18'09	
	3693 Mar 16 01:56	0° 		3695 Sep 05 02:19	0° 	
	3693 Apr 09 06:46	0° 	evening max el	3695 Sep 08 00:30	2°  49'35 45°51'20	
	3693 May 03 12:00	0° 		3695 Oct 14 05:08	0° 	
morning set	3693 May 22 00:22	22°  52'54	greatest brilliancy	3695 Oct 17 20:18	1°  52'155 -4.8m	
	3693 May 27 18:49	0° 	retrograde	3695 Oct 27 01:05	2°  54'45	
	3693 Jun 21 03:16	0° 		3695 Nov 08 04:22	30°  R 	
asc. node	3693 Jun 24 03:05	3°  40'54	evening set	3695 Nov 11 22:50	28°  30'20	
			inferior conj	3695 Nov 16 21:03	25°  30'45 -5°25'46	
superior conj	3693 Jun 28 11:06	9°  00'49 0°10'22	minimum elong	3695 Nov 17 07:07	24°  52'21 5°23'17	
minimum elong	3693 Jun 28 08:55	8°  54'05 0°10'14	min. Earth dist.	3695 Nov 17 18:54	24°  34'20 0.27375 AU	
behind sun begin	3693 Jun 27 15:13	7°  59'39	morning rise	3695 Nov 22 14:47	21°  34'403	
behind sun end	3693 Jun 29 02:36	9°  48'31	direct	3695 Dec 07 19:20	17°  11'36	
max. Earth dist.	3693 Jun 29 04:16	9°  53'37 1.73420 AU	asc. node	3695 Dec 09 21:57	17°  16'58	
	3693 Jul 15 12:41	0° 	greatest brilliancy	3695 Dec 18 21:38	19°  30'50 -4.9m	
evening rise	3693 Aug 03 18:09	23°  38'09		3696 Jan 05 02:24	0° 	

morning max el	3696 Jan 27 13:13	20°  33'13	46°57'00		3698 Aug 18 21:22	0° 	
	3696 Feb 05 14:23	0° 			3698 Sep 13 04:42	0° 	
	3696 Mar 03 09:50	0° 		desc. node	3698 Sep 15 07:19	2°  28'21	
	3696 Mar 28 21:31	0° 			3698 Oct 09 02:51	0° 	
desc. node	3696 Mar 30 12:20	1°  55'46			3698 Nov 05 05:11	0° 	
	3696 Apr 22 20:27	0° 		evening max el	3698 Nov 20 02:23	15°  23'05	46°52'55
	3696 May 17 14:06	0° 			3698 Dec 05 18:39	0° 	
	3696 Jun 11 05:43	0° 		greatest brilliancy	3698 Dec 30 10:33	16°  22'42	-4.9m
	3696 Jul 05 20:04	0° 		asc. node	3699 Jan 06 09:58	17°  22'45'14	
asc. node	3696 Jul 21 14:56	19°  03'33		retrograde	3699 Jan 09 10:53	17°  22'56'14	
morning set	3696 Jul 29 14:06	29°  03'33		evening set	3699 Jan 24 10:36	13°  22'29'37	
	3696 Jul 30 08:32	0° 		min. Earth dist.	3699 Jan 29 10:35	10°  22'32'24	0.26639 AU
	3696 Aug 23 18:16	0° 		inferior conj	3699 Jan 30 00:23	10°  22'11'14	5°41'40
max. Earth dist.	3696 Sep 01 16:45	11°  01'09	1.73211 AU	minimum elong	3699 Jan 29 13:55	10°  22'27'18	5°39'01
				morning rise	3699 Feb 03 17:28	7°  22'21	
superior conj	3696 Sep 04 00:42	13°  03'53'50	1°20'43	direct	3699 Feb 19 10:49	2°  22'32'05	
minimum elong	3696 Sep 03 19:15	13°  03'36'59	1°20'38	greatest brilliancy	3699 Feb 28 21:08	4°  22'13'07	-4.9m
	3696 Sep 17 01:21	0° 			3699 Apr 05 14:43	0° 	
evening rise	3696 Oct 10 14:30	29°  02'09'55		morning max el	3699 Apr 10 13:29	4°  22'50'09	46°40'30
	3696 Oct 11 06:39	0° 		desc. node	3699 Apr 28 00:06	22°  22'59'31	
	3696 Nov 04 11:16	0° 			3699 May 04 10:21	0° 	
desc. node	3696 Nov 10 05:05	7°  22'07'25			3699 May 30 23:11	0° 	
	3696 Nov 28 15:49	0° 			3699 Jun 25 15:47	0° 	
	3696 Dec 22 20:57	0° 			3699 Jul 20 21:59	0° 	
	3697 Jan 16 04:32	0° 			3699 Aug 14 20:27	0° 	
	3697 Feb 09 19:09	0° 		asc. node	3699 Aug 19 02:50	5°  22'10'10	
asc. node	3697 Mar 03 07:38	25°  22'36'46			3699 Sep 08 11:42	0° 	
	3697 Mar 07 01:55	0° 			3699 Oct 02 20:27	0° 	
	3697 Apr 02 20:54	0° 		morning set	3699 Oct 06 22:40	5°  22'04'02	
evening max el	3697 Apr 15 12:45	13°  22'03'29	46°13'48		3699 Oct 27 00:18	0° 	
	3697 May 04 06:24	0° 		max. Earth dist.	3699 Nov 10 13:47	18°  22'09'58	1.71936 AU
greatest brilliancy	3697 May 24 00:08	12°  22'10'48	-4.8m				
retrograde	3697 Jun 04 02:22	14°  22'25'03		superior conj	3699 Nov 13 11:41	21°  22'48'16	0°55'39
evening set	3697 Jun 19 02:31	10°  22'00'20		minimum elong	3699 Nov 13 21:48	22°  22'19'52	0°55'16
desc. node	3697 Jun 22 21:36	7°  22'46'30			3699 Nov 20 01:04	0° 	
inferior conj	3697 Jun 25 11:23	6°  22'10'11	-0°36'56	desc. node	3699 Dec 08 16:55	23°  22'57'21'18	
minimum elong	3697 Jun 25 10:01	6°  22'12'20	0°36'31		3699 Dec 14 00:13	0° 	
min. Earth dist.	3697 Jun 25 05:03	6°  22'20'08	0.28727 AU	evening rise	3699 Dec 23 07:21	11°  22'39'02	
morning rise	3697 Jul 01 18:02	2°  22'24'26			3700 Jan 06 22:36	0° 	
	3697 Jul 06 19:24	30°  22'08'00			3700 Jan 30 21:16	0° 	
direct	3697 Jul 16 23:09	27°  22'02'58'00			3700 Feb 23 22:14	0° 	
greatest brilliancy	3697 Jul 26 23:55	29°  22'02'47'16	-4.7m		3700 Mar 20 04:50	0° 	
	3697 Jul 27 14:13	0° 		asc. node	3700 Mar 31 19:35	14°  22'08'11'02	
morning max el	3697 Sep 03 16:41	27°  22'02'41'22	45°44'31		3700 Apr 13 21:48	0° 	
	3697 Sep 06 02:13	0° 			3700 May 09 08:09	0° 	
	3697 Oct 04 16:43	0° 			3700 Jun 05 02:29	0° 	
asc. node	3697 Oct 14 00:34	10°  22'28'30		evening max el	3700 Jun 25 23:25	21°  22'02'44'46	45°29'48
	3697 Oct 30 21:15	0° 			3700 Jul 05 06:09	0° 	
	3697 Nov 24 22:27	0° 		desc. node	3700 Jul 21 09:39	12°  22'03'37'52	
	3697 Dec 19 09:00	0° 		greatest brilliancy	3700 Aug 03 08:44	19°  22'03'22'38	-4.7m
	3698 Jan 12 11:54	0° 		retrograde	3700 Aug 13 16:11	21°  22'03'17'54	
desc. node	3698 Feb 02 14:35	26°  22'03'25'02		evening set	3700 Aug 31 02:03	15°  22'03'37'28	
	3698 Feb 05 11:12	0° 		inferior conj	3700 Sep 04 04:15	13°  22'07'03	-8°06'53
	3698 Mar 01 09:18	0° 		minimum elong	3700 Sep 03 21:48	13°  22'07'17'08	8°06'15
morning set	3698 Mar 07 02:07	7°  22'08'53		min. Earth dist.	3700 Sep 04 08:29	13°  22'07'00'26	0.29007 AU
	3698 Mar 25 07:56	0° 		morning rise	3700 Sep 07 17:23	10°  22'05'55'27	
				direct	3700 Sep 25 17:45	4°  22'04'49'16	
superior conj	3698 Apr 16 07:28	27°  22'02'26'57	-1°18'01	greatest brilliancy	3700 Oct 06 12:08	6°  22'04'47'54'47	-4.8m
minimum elong	3698 Apr 16 16:08	27°  22'02'26'57	1°17'49		3700 Nov 08 00:50	0° 	
	3698 Apr 18 08:36	0° 		asc. node	3700 Nov 11 12:11	3°  22'05'18'39	
max. Earth dist.	3698 Apr 20 09:51	2°  22'03'33'19	1.72149 AU	morning max el	3700 Nov 14 10:52	6°  22'05'11'56	46°19'17
	3698 May 12 12:27	0° 			3700 Dec 06 21:58	0° 	
evening rise	3698 May 25 07:45	15°  22'02'49'25			3701 Jan 01 22:05	0° 	
asc. node	3698 May 26 17:17	17°  22'02'32'49			3701 Jan 26 20:25	0° 	
	3698 Jun 05 20:00	0° 			3701 Feb 20 07:25	0° 	
	3698 Jun 30 07:25	0° 		desc. node	3701 Mar 03 02:26	13°  22'03'19'52	
	3698 Jul 24 23:19	0° 			3701 Mar 16 13:30	0° 	

	3701 Apr 09 18:00	0° Υ		evening max el	3703 Sep 06 15:27	0° \mathbb{M} 35'30	45°49'33
	3701 May 03 22:59	0° \mathcal{B}		greatest brilliancy	3703 Oct 16 09:06	29° \mathbb{M} 01'47	-4.8m
morning set	3701 May 20 15:57	20° \mathcal{B} 39'20			3703 Oct 20 01:29	0° \mathcal{A}	
	3701 May 28 05:36	0° \mathbb{I}		retrograde	3703 Oct 25 14:13	0° \mathcal{A} 34'22	
	3701 Jun 21 13:57	0° \mathcal{E}			3703 Oct 30 23:04	30° \mathbb{R} \mathbb{M}	
asc. node	3701 Jun 24 05:08	3° \mathcal{E} 14'25		evening set	3703 Nov 10 15:18	25° \mathbb{M} 38'35	
				inferior conj	3703 Nov 15 10:33	22° \mathbb{M} 46'44	-5°43'17
superior conj	3701 Jun 27 04:12	6° \mathcal{E} 53'05	0°07'06	minimum elong	3703 Nov 15 20:48	22° \mathbb{M} 31'00	5°40'50
minimum elong	3701 Jun 27 02:41	6° \mathcal{E} 48'24	0°07'02	min. Earth dist.	3703 Nov 16 08:38	22° \mathbb{M} 12'53	0.27439 AU
behind sun begin	3701 Jun 26 05:54	5° \mathcal{E} 44'26		morning rise	3703 Nov 21 01:45	19° \mathbb{M} 26'12	
behind sun end	3701 Jun 27 23:29	7° \mathcal{E} 52'22		direct	3703 Dec 06 10:02	14° \mathbb{M} 49'47	
max. Earth dist.	3701 Jun 27 23:34	7° \mathcal{E} 52'38	1.73400 AU	asc. node	3703 Dec 10 00:05	15° \mathbb{M} 05'08	
	3701 Jul 15 23:20	0° Ω		greatest brilliancy	3703 Dec 17 11:46	17° \mathbb{M} 08'25	-4.9m
evening rise	3701 Aug 02 12:42	21° Ω 34'51			3704 Jan 06 15:31	0° \mathcal{A}	
	3701 Aug 09 09:11	0° \mathbb{M}		morning max el	3704 Jan 26 03:43	18° \mathcal{A} 11'43	46°56'33
	3701 Sep 02 19:47	0° \mathcal{A}			3704 Feb 06 09:31	0° \mathcal{B}	
	3701 Sep 27 08:09	0° \mathbb{M}			3704 Mar 04 00:47	0° \approx	
desc. node	3701 Oct 13 19:12	20° \mathbb{M} 03'37			3704 Mar 29 10:38	0° \mathcal{H}	
	3701 Oct 21 23:28	0° \mathcal{A}		desc. node	3704 Mar 30 14:17	1° \mathcal{H} 22'42	
	3701 Nov 15 18:57	0° \mathcal{B}			3704 Apr 23 08:33	0° Υ	
	3701 Dec 10 21:34	0° \approx			3704 May 18 01:35	0° \mathcal{B}	
	3702 Jan 05 16:20	0° \mathcal{H}			3704 Jun 11 16:47	0° \mathbb{I}	
evening max el	3702 Feb 01 11:41	29° \mathcal{H} 07'40	47°09'37		3704 Jul 06 06:51	0° \mathcal{E}	
	3702 Feb 02 08:18	0° Υ		asc. node	3704 Jul 21 17:03	18° \mathcal{E} 52'02	
asc. node	3702 Feb 03 21:50	1° Υ 34'28		morning set	3704 Jul 28 07:52	26° \mathcal{E} 58'24	
	3702 Mar 12 12:01	0° \mathcal{B}			3704 Jul 30 19:07	0° Ω	
greatest brilliancy	3702 Mar 14 01:35	0° \mathcal{B} 37'22	-4.9m		3704 Aug 24 04:47	0° \mathbb{M}	
retrograde	3702 Mar 24 08:02	2° \mathcal{B} 38'03		max. Earth dist.	3704 Aug 31 11:18	8° \mathbb{M} 57'50	1.73240 AU
	3702 Apr 04 15:56	30° \mathbb{R} Υ					
evening set	3702 Apr 10 23:41	26° \mathcal{Y} 35'56		superior conj	3704 Sep 02 18:34	11° \mathbb{M} 48'21	1°19'39
inferior conj	3702 Apr 14 08:00	24° \mathcal{Y} 31'47	8°11'19	minimum elong	3704 Sep 02 12:35	11° \mathbb{M} 29'54	1°19'32
minimum elong	3702 Apr 14 15:38	24° \mathcal{Y} 19'52	8°10'24		3704 Sep 17 11:55	0° \mathcal{A}	
min. Earth dist.	3702 Apr 14 02:01	24° \mathcal{Y} 41'08	0.27836 AU	evening rise	3704 Oct 09 06:30	26° \mathcal{A} 57'36	
morning rise	3702 Apr 18 07:46	22° \mathcal{Y} 04'56			3704 Oct 11 17:22	0° \mathbb{M}	
direct	3702 May 05 04:44	16° \mathcal{Y} 33'43			3704 Nov 04 22:12	0° \mathcal{A}	
greatest brilliancy	3702 May 14 17:12	18° \mathcal{Y} 14'25	-4.8m	desc. node	3704 Nov 10 07:04	6° \mathcal{A} 39'27	
desc. node	3702 May 26 11:44	24° \mathcal{Y} 03'50			3704 Nov 29 03:02	0° \mathcal{B}	
	3702 Jun 03 21:43	0° \mathcal{B}			3704 Dec 23 08:32	0° \approx	
morning max el	3702 Jun 23 10:00	17° \mathcal{B} 09'06	45°56'24		3705 Jan 16 16:37	0° \mathcal{H}	
	3702 Jul 06 05:56	0° \mathbb{I}			3705 Feb 10 08:01	0° Υ	
	3702 Aug 02 23:28	0° \mathcal{E}		asc. node	3705 Mar 03 09:40	25° \mathcal{Y} 01'41	
	3702 Aug 29 04:32	0° Ω			3705 Mar 07 16:17	0° \mathcal{B}	
asc. node	3702 Sep 16 14:39	21° Ω 43'24			3705 Apr 03 14:59	0° \mathbb{I}	
	3702 Sep 23 12:52	0° \mathbb{M}		evening max el	3705 Apr 14 04:18	10° \mathbb{I} 50'02	46°15'53
	3702 Oct 18 06:43	0° \mathcal{A}			3705 May 05 17:51	0° \mathcal{E}	
	3702 Nov 11 14:30	0° \mathbb{M}		greatest brilliancy	3705 May 22 17:32	10° \mathcal{E} 02'10	-4.8m
	3702 Dec 05 16:05	0° \mathcal{A}		retrograde	3705 Jun 02 18:22	12° \mathcal{E} 15'12	
morning set	3702 Dec 18 16:39	16° \mathcal{A} 18'50		evening set	3705 Jun 17 19:21	7° \mathcal{E} 50'09	
	3702 Dec 29 14:19	0° \mathcal{B}		desc. node	3705 Jun 22 23:44	4° \mathcal{E} 44'23	
desc. node	3703 Jan 06 04:47	9° \mathcal{B} 33'20		inferior conj	3705 Jun 24 03:34	4° \mathcal{E} 00'42	-0°16'40
	3703 Jan 22 10:56	0° \approx		minimum elong	3705 Jun 24 02:57	4° \mathcal{E} 01'40	0°16'29
				min. Earth dist.	3705 Jun 23 21:39	4° \mathcal{E} 10'00	0.28702 AU
superior conj	3703 Jan 28 18:01	7° \approx 55'19	-0°50'54	morning rise	3705 Jun 30 11:03	0° \mathcal{E} 13'27	
minimum elong	3703 Jan 28 06:40	7° \approx 19'36	0°50'26		3705 Jun 30 20:59	30° \mathbb{R} \mathbb{I}	
max. Earth dist.	3703 Jan 29 04:40	8° \approx 28'51	1.71109 AU	direct	3705 Jul 15 15:04	25° \mathbb{I} 49'01	
	3703 Feb 15 07:12	0° \mathcal{H}		greatest brilliancy	3705 Jul 25 15:22	27° \mathbb{I} 37'33	-4.7m
evening rise	3703 Mar 10 20:07	29° \mathcal{H} 33'11			3705 Jul 31 05:39	0° \mathcal{E}	
	3703 Mar 11 04:41	0° Υ		morning max el	3705 Sep 02 07:27	25° \mathcal{E} 29'13	45°43'56
	3703 Apr 04 05:19	0° \mathcal{B}			3705 Sep 06 23:01	0° Ω	
	3703 Apr 28 11:09	0° \mathbb{I}			3705 Oct 05 07:45	0° \mathbb{M}	
asc. node	3703 Apr 29 07:26	1° \mathbb{I} 02'24		asc. node	3705 Oct 14 02:31	9° \mathbb{M} 53'53	
	3703 May 23 00:11	0° \mathcal{E}			3705 Oct 31 10:14	0° \mathcal{A}	
	3703 Jun 16 22:51	0° Ω			3705 Nov 25 10:29	0° \mathbb{M}	
	3703 Jul 12 11:54	0° \mathbb{M}			3705 Dec 19 20:31	0° \mathcal{A}	
	3703 Aug 08 02:07	0° \mathcal{A}			3706 Jan 12 23:08	0° \mathcal{B}	
desc. node	3703 Aug 18 21:26	11° \mathcal{A} 37'43		desc. node	3706 Feb 02 16:34	25° \mathcal{B} 56'29	
	3703 Sep 06 00:38	0° \mathbb{M}			3706 Feb 05 22:16	0° \approx	

	3706 Mar 01 20:14	0° H		minimum elong	3708 Sep 01 13:26	11° M 08'23	7°58'49
morning set	3706 Mar 05 12:31	4° H 36'51		min. Earth dist.	3708 Sep 01 23:32	10° M 52'37	0.29031 AU
	3706 Mar 25 18:44	0° Y		morning rise	3708 Sep 05 11:37	8° M 42'58	
				direct	3708 Sep 23 10:09	2° M 39'17	
superior conj	3706 Apr 14 20:40	25° Y 05'13	-1°19'33	greatest brilliancy	3708 Oct 04 04:00	4° M 44'32	-4.8m
minimum elong	3706 Apr 15 04:46	25° Y 30'27	1°19'24		3708 Nov 08 00:53	0° L	
	3706 Apr 18 19:17	0° B		asc. node	3708 Nov 10 14:19	2° L 28'38	
	3706 Apr 19 00:36	0° B 16'34	1.72089 AU	morning max el	3708 Nov 12 03:02	3° L 58'59	46°17'37
	3706 May 12 23:04	0° II			3708 Dec 06 14:18	0° M	
evening rise	3706 May 23 23:20	13° II 36'33			3709 Jan 01 11:58	0° J	
asc. node	3706 May 26 19:23	17° II 06'28			3709 Jan 26 09:08	0° Z	
	3706 Jun 06 06:39	0° G			3709 Feb 19 19:30	0° \approx	
	3706 Jun 30 18:17	0° Ω		desc. node	3709 Mar 02 04:25	12° \approx 49'20	
	3706 Jul 25 10:33	0° M			3709 Mar 16 01:08	0° H	
	3706 Aug 19 09:13	0° L			3709 Apr 09 05:18	0° Y	
desc. node	3706 Sep 13 17:37	0° M			3709 May 03 10:02	0° B	
	3706 Sep 15 09:13	1° M 55'50		morning set	3709 May 18 07:33	18° B 25'29	
	3706 Oct 09 17:41	0° J			3709 May 27 16:29	0° II	
	3706 Nov 06 00:10	0° Z			3709 Jun 21 00:43	0° G	
evening max el	3706 Nov 18 14:49	12° Z 56'56	46°51'00	asc. node	3709 Jun 23 07:15	2° G 47'50	
	3706 Dec 07 05:20	0° \approx					
greatest brilliancy	3706 Dec 29 00:17	13° \approx 35'25	-4.9m	superior conj	3709 Jun 24 21:27	4° G 45'24	0°03'50
asc. node	3707 Jan 06 12:02	15° \approx 25'06		minimum elong	3709 Jun 24 20:38	4° G 42'53	0°03'48
retrograde	3707 Jan 07 22:44	15° \approx 27'37		behind sun begin	3709 Jun 23 22:10	3° G 33'44	
evening set	3707 Jan 22 20:06	11° \approx 05'12		behind sun end	3709 Jun 25 19:06	5° G 52'02	
min. Earth dist.	3707 Jan 28 00:17	8° \approx 02'29	0.26616 AU	max. Earth dist.	3709 Jun 25 20:24	5° G 56'02	1.73376 AU
inferior conj	3707 Jan 28 12:44	7° \approx 43'24	5°22'15		3709 Jul 15 10:03	0° Ω	
minimum elong	3707 Jan 28 02:31	7° \approx 59'03	5°19'35	evening rise	3709 Jul 31 07:33	19° Ω 32'18	
morning rise	3707 Feb 02 09:05	4° \approx 49'54			3709 Aug 08 19:58	0° M	
direct	3707 Feb 17 22:27	0° \approx 04'08			3709 Sep 02 06:47	0° L	
greatest brilliancy	3707 Feb 27 11:27	1° \approx 47'16	-4.9m		3709 Sep 26 19:33	0° M	
	3707 Apr 06 15:28	0° H		desc. node	3709 Oct 12 21:14	19° M 34'00	
morning max el	3707 Apr 09 01:54	2° H 24'10	46°42'07		3709 Oct 21 11:27	0° J	
desc. node	3707 Apr 28 02:04	22° H 16'25			3709 Nov 15 07:48	0° Z	
	3707 May 05 03:04	0° Y			3709 Dec 10 11:42	0° \approx	
	3707 May 31 13:02	0° B			3710 Jan 05 08:54	0° H	
	3707 Jun 26 04:11	0° II		evening max el	3710 Jan 30 02:55	26° H 47'25	47°10'33
	3707 Jul 21 09:33	0° G			3710 Feb 02 07:26	0° Y	
asc. node	3707 Aug 15 07:32	0° Ω		asc. node	3710 Feb 02 23:48	0° Y 40'38	
	3707 Aug 19 04:47	4° Ω 42'36		greatest brilliancy	3710 Mar 11 15:54	28° Y 15'53	-4.9m
	3707 Sep 08 22:33	0° M			3710 Mar 18 04:34	0° B	
	3707 Oct 03 07:13	0° L		retrograde	3710 Mar 21 23:22	0° B 17'12	
morning set	3707 Oct 05 15:10	2° L 53'11			3710 Mar 25 16:28	30° B 11'18	
	3707 Oct 27 11:03	0° M		evening set	3710 Apr 08 16:37	24° Y 11'18	
max. Earth dist.	3707 Nov 09 04:45	15° M 53'07	1.71985 AU	inferior conj	3710 Apr 11 22:16	22° Y 11'13	8°20'00
				minimum elong	3710 Apr 12 05:18	22° Y 00'14	8°19'14
superior conj	3707 Nov 12 01:54	19° M 29'00	0°58'19	min. Earth dist.	3710 Apr 11 15:18	22° Y 22'06	0.27798 AU
minimum elong	3707 Nov 12 12:04	20° M 00'45	0°57'56	morning rise	3710 Apr 15 18:12	19° Y 50'16	
	3707 Nov 20 11:54	0° J		direct	3710 May 02 18:57	14° Y 13'52	
	3707 Dec 08 19:02	22° J 53'46		greatest brilliancy	3710 May 12 05:37	15° Y 53'33	-4.8m
desc. node	3707 Dec 14 11:09	0° Z		desc. node	3710 May 25 13:55	22° Y 43'26	
	3707 Dec 21 18:58	9° Z 10'40			3710 Jun 04 09:43	0° B	
	3708 Jan 07 09:41	0° \approx		morning max el	3710 Jun 21 01:44	14° B 55'51	45°57'40
	3708 Jan 31 08:31	0° H			3710 Jul 06 00:41	0° II	
	3708 Feb 24 09:42	0° Y			3710 Aug 02 14:04	0° G	
	3708 Mar 19 16:40	0° B			3710 Aug 28 17:20	0° Ω	
asc. node	3708 Mar 30 21:32	13° B 40'14		asc. node	3710 Sep 15 16:40	21° Ω 13'29	
	3708 Apr 13 10:16	0° II			3710 Sep 23 00:43	0° M	
	3708 May 08 21:54	0° G			3710 Oct 17 18:05	0° L	
	3708 Jun 04 19:14	0° Ω			3710 Nov 11 01:41	0° M	
evening max el	3708 Jun 23 14:49	19° Ω 13'27	45°30'32		3710 Dec 05 03:13	0° J	
	3708 Jul 05 09:45	0° M		morning set	3710 Dec 16 04:59	13° J 52'14	
desc. node	3708 Jul 20 11:39	11° M 23'52			3710 Dec 29 01:27	0° Z	
greatest brilliancy	3708 Jul 31 22:33	17° M 11'31	-4.7m	desc. node	3711 Jan 05 06:47	9° Z 04'40	
retrograde	3708 Aug 11 08:33	19° M 09'07			3711 Jan 21 22:04	0° \approx	
evening set	3708 Aug 28 15:05	13° M 32'23					
inferior conj	3708 Sep 01 20:26	10° M 57'27	-7°59'35	superior conj	3711 Jan 26 03:54	5° \approx 20'20	-0°47'34

minimum elong	3711 Jan 25 17:00	4°  46'01	0°47'07			3713 Jun 24 17:59	30° 	
max. Earth dist.	3711 Jan 26 12:06	5°  46'07	1.71109 AU	morning rise		3713 Jun 28 03:47	28° 	00'58
	3711 Feb 14 18:22	0° 		direct		3713 Jul 13 06:22	23° 	38'10
evening rise	3711 Mar 08 06:29	27°  00'14		greatest brilliancy		3713 Jul 23 07:13	25° 	26'46 -4.7m
	3711 Mar 10 15:52	0° 				3713 Aug 01 21:51	0° 	
	3711 Apr 03 16:34	0° 		morning max el		3713 Aug 30 22:02	23° 	15'24 45°43'34
	3711 Apr 27 22:34	0° 				3713 Sep 06 19:33	0° 	
asc. node	3711 Apr 28 09:34	0°  33'50				3713 Oct 04 22:55	0° 	
	3711 May 22 11:54	0° 		asc. node		3713 Oct 13 04:36	9° 	18'56
	3711 Jun 16 11:11	0° 				3713 Oct 30 23:25	0° 	
	3711 Jul 12 01:26	0° 				3713 Nov 24 22:44	0° 	
	3711 Aug 07 18:13	0° 				3713 Dec 19 08:17	0° 	
desc. node	3711 Aug 17 23:24	10°  55'49				3714 Jan 12 10:37	0° 	
evening max el	3711 Sep 04 06:07	28°  20'12	45°47'53	desc. node		3714 Feb 01 18:33	25° 	37'10
	3711 Sep 06 00:09	0° 				3714 Feb 05 09:35	0° 	
greatest brilliancy	3711 Oct 13 22:35	26°  14'24	-4.8m			3714 Mar 01 07:27	0° 	
retrograde	3711 Oct 23 03:05	28°  14'33		morning set		3714 Mar 02 22:51	2° 	03'36
evening set	3711 Nov 08 08:07	23°  14'25				3714 Mar 25 05:53	0° 	
inferior conj	3711 Nov 13 00:25	20°  12'21	-5°59'45					
minimum elong	3711 Nov 13 10:47	20°  10'25	5°57'22	superior conj		3714 Apr 12 09:30	22° 	41'04 -1°20'57
min. Earth dist.	3711 Nov 13 22:52	19°  15'50	0.27507 AU	minimum elong		3714 Apr 12 16:58	23° 	04'20 1°20'50
morning rise	3711 Nov 18 12:54	17°  09'02		max. Earth dist.		3714 Apr 16 11:42	27° 	47'05 1.72035 AU
direct	3711 Dec 04 00:43	12°  28'30				3714 Apr 18 06:22	0° 	
asc. node	3711 Dec 09 02:08	12°  58'38				3714 May 12 10:07	0° 	
greatest brilliancy	3711 Dec 15 02:37	14°  46'50	-4.9m	evening rise		3714 May 21 14:17	11° 	20'23
	3712 Jan 07 01:31	0° 		asc. node		3714 May 25 21:25	16° 	38'33
morning max el	3712 Jan 23 17:23	15°  47'02	46°55'44			3714 Jun 05 17:45	0° 	
	3712 Feb 06 04:32	0° 				3714 Jun 30 05:33	0° 	
	3712 Mar 03 16:01	0° 				3714 Jul 24 22:10	0° 	
	3712 Mar 29 00:09	0° 				3714 Aug 18 21:28	0° 	
desc. node	3712 Mar 29 16:20	0°  48'27				3714 Sep 13 06:58	0° 	
	3712 Apr 22 21:06	0° 		desc. node		3714 Sep 14 11:18	1° 	22'41
	3712 May 17 13:29	0° 				3714 Oct 09 09:01	0° 	
	3712 Jun 11 04:13	0° 				3714 Nov 05 19:59	0° 	
	3712 Jul 05 17:58	0° 		evening max el		3714 Nov 16 03:32	10° 	31'09 46°49'12
asc. node	3712 Jul 20 18:57	18°  52'41				3714 Dec 07 19:49	0° 	
morning set	3712 Jul 26 01:36	24°  52'08		greatest brilliancy		3714 Dec 26 13:36	11° 	07'36 -4.9m
	3712 Jul 30 06:03	0° 		retrograde		3715 Jan 05 11:10	12° 	59'23
	3712 Aug 23 15:40	0° 		asc. node		3715 Jan 05 13:57	12° 	59'22
max. Earth dist.	3712 Aug 29 04:40	6°  49'54	1.73266 AU	evening set		3715 Jan 20 06:00	8° 	40'25
				min. Earth dist.		3715 Jan 25 13:53	5° 	33'02 0.26597 AU
superior conj	3712 Aug 31 12:44	9°  42'48	1°18'28	inferior conj		3715 Jan 26 01:15	5° 	15'39 5°02'18
minimum elong	3712 Aug 31 06:17	9°  22'54	1°18'21	minimum elong		3715 Jan 25 15:22	5° 	30'45 4°59'37
	3712 Sep 16 22:49	0° 		morning rise		3715 Jan 31 00:49	2° 	51'55
evening rise	3712 Oct 06 23:01	24°  46'00				3715 Feb 04 14:48	30° 	
	3712 Oct 11 04:24	0° 		direct		3715 Feb 15 10:30	27° 	36'12
	3712 Nov 04 09:26	0° 		greatest brilliancy		3715 Feb 25 01:38	29° 	21'19 -4.9m
desc. node	3712 Nov 09 09:13	6°  41'05				3715 Feb 26 18:49	0° 	
	3712 Nov 28 14:34	0° 		morning max el		3715 Apr 06 15:21	0° 	00'15 46°43'28
	3712 Dec 22 20:28	0° 				3715 Apr 06 15:15	0° 	
	3713 Jan 16 05:07	0° 		desc. node		3715 Apr 27 04:15	21° 	43'51
	3713 Feb 09 21:24	0° 				3715 May 04 19:44	0° 	
asc. node	3713 Mar 02 11:36	24°  43'35				3715 May 31 03:03	0° 	
	3713 Mar 07 07:21	0° 				3715 Jun 25 16:51	0° 	
	3713 Apr 03 10:12	0° 				3715 Jul 20 21:25	0° 	
evening max el	3713 Apr 11 18:57	8°  32'22	46°18'02			3715 Aug 14 18:55	0° 	
	3713 May 06 10:22	0° 		asc. node		3715 Aug 18 06:50	4° 	14'30
greatest brilliancy	3713 May 20 11:02	7°  51'40	-4.8m			3715 Sep 08 09:37	0° 	
retrograde	3713 May 31 10:05	10°  50'32				3715 Oct 02 18:09	0° 	
evening set	3713 Jun 15 12:12	5°  57'44		morning set		3715 Oct 03 07:40	0° 	41'48
inferior conj	3713 Jun 21 19:40	1°  49'28	0°03'38			3715 Oct 26 21:59	0° 	
minimum elong	3713 Jun 21 19:48	1°  49'15	0°03'35	max. Earth dist.		3715 Nov 06 20:36	13° 	38'33 1.72032 AU
transit middle	3713 Jun 21 19:48	1°  49'15	0°03'35					
transit begin	3713 Jun 21 15:51	1°  55'28		superior conj		3715 Nov 09 16:19	17° 	09'50 1°00'52
transit end	3713 Jun 21 23:45	1°  53'02		minimum elong		3715 Nov 10 02:27	17° 	41'29 1°00'31
min. Earth dist.	3713 Jun 21 14:25	1°  57'43	0.28672 AU			3715 Nov 19 22:54	0° 	
desc. node	3713 Jun 22 01:42	1°  59'57		desc. node		3715 Dec 07 21:01	22° 	42'13

	3715 Dec 13 22:16	0° Z		morning max el	3718 Jun 18 16:40	12° Z 41'15	45°58'50
evening rise	3715 Dec 19 06:57	6° Z 42'58			3718 Jul 05 18:42	0° II	
	3716 Jan 06 20:55	0° \approx			3718 Aug 02 04:19	0° G	
	3716 Jan 30 19:53	0° H			3718 Aug 28 05:55	0° Ω	
	3716 Feb 23 21:16	0° Y		asc. node	3718 Sep 14 18:45	20° Ω 44'05	
	3716 Mar 19 04:36	0° B			3718 Sep 22 12:28	0° M	
asc. node	3716 Mar 29 23:40	13° Z 09'41			3718 Oct 17 05:23	0° $\underline{\text{A}}$	
	3716 Apr 12 22:55	0° II			3718 Nov 10 12:45	0° M	
	3716 May 08 11:57	0° G			3718 Dec 04 14:11	0° X	
	3716 Jun 04 12:35	0° Ω		morning set	3718 Dec 13 17:21	11° X 26'17	
evening max el	3716 Jun 21 07:01	17° Ω 03'14	45°31'11		3718 Dec 28 12:23	0° Z	
	3716 Jul 05 15:42	0° M		desc. node	3719 Jan 04 08:44	8° Z 36'22	
desc. node	3716 Jul 19 13:38	10° M 06'36			3719 Jan 21 09:00	0° \approx	
greatest brilliancy	3716 Jul 29 12:17	14° M 59'18	-4.7m				
retrograde	3716 Aug 09 00:58	16° M 59'02		superior conj	3719 Jan 23 13:54	2° \approx 46'21	-0°44'10
evening set	3716 Aug 26 03:55	11° M 26'27		minimum elong	3719 Jan 23 03:32	2° \approx 13'45	0°43'43
inferior conj	3716 Aug 30 12:27	8° M 46'45	-7°51'35	max. Earth dist.	3719 Jan 23 17:22	2° \approx 57'14	1.71111 AU
minimum elong	3716 Aug 30 04:55	8° M 58'29	7°50'42		3719 Feb 14 05:19	0° H	
min. Earth dist.	3716 Aug 30 14:10	8° M 44'04	0.29048 AU	evening rise	3719 Mar 05 16:52	24° H 27'52	
morning rise	3716 Sep 03 05:50	6° M 29'07			3719 Mar 10 02:51	0° Y	
direct	3716 Sep 21 02:47	0° M 28'33			3719 Apr 03 03:37	0° B	
greatest brilliancy	3716 Oct 01 19:03	2° M 32'44	-4.8m	asc. node	3719 Apr 27 11:35	0° II 05'39	
	3716 Nov 07 24:00	0° $\underline{\text{A}}$			3719 Apr 27 09:45	0° II	
asc. node	3716 Nov 09 16:23	1° $\underline{\text{A}}$ 39'06			3719 May 21 23:23	0° G	
morning max el	3716 Nov 09 19:13	1° $\underline{\text{A}}$ 46'04	46°15'58		3719 Jun 15 23:18	0° Ω	
	3716 Dec 06 06:24	0° M			3719 Jul 11 14:49	0° M	
	3717 Jan 01 01:44	0° X			3719 Aug 07 10:23	0° $\underline{\text{A}}$	
	3717 Jan 25 21:49	0° Z		desc. node	3719 Aug 17 01:28	10° $\underline{\text{A}}$ 14'14	
	3717 Feb 19 07:32	0° \approx		evening max el	3719 Sep 01 19:46	26° $\underline{\text{A}}$ 02'55	45°46'01
desc. node	3717 Mar 01 06:28	12° \approx 19'06			3719 Sep 06 00:39	0° M	
	3717 Mar 15 12:43	0° H		greatest brilliancy	3719 Oct 11 12:20	24° M 24'01	-4.8m
	3717 Apr 08 16:33	0° Y		retrograde	3719 Oct 20 15:35	25° M 55'03	
	3717 May 02 21:02	0° B		evening set	3719 Nov 06 00:47	20° M 50'20	
morning set	3717 May 15 23:14	16° B 11'54		inferior conj	3719 Nov 10 14:11	18° M 06'17	-6°15'31
	3717 May 27 03:20	0° II		minimum elong	3719 Nov 11 00:34	17° M 50'18	6°13'15
	3717 Jun 20 11:29	0° G		min. Earth dist.	3719 Nov 11 13:16	17° M 30'45	0.27574 AU
asc. node	3717 Jun 22 09:08	2° G 20'31		morning rise	3719 Nov 15 23:46	14° M 52'32	
				direct	3719 Dec 01 14:47	10° M 07'23	
superior conj	3717 Jun 22 14:32	2° G 37'10	0°00'33	asc. node	3719 Dec 08 04:02	10° M 57'10	
minimum elong	3717 Jun 22 14:24	2° G 36'44	0°00'31	greatest brilliancy	3719 Dec 12 17:54	12° M 26'14	-4.9m
behind sun begin	3717 Jun 21 15:26	1° G 26'03			3720 Jan 07 08:37	0° X	
behind sun end	3717 Jun 23 13:22	3° G 47'25		morning max el	3720 Jan 21 06:15	13° X 20'58	46°55'04
max. Earth dist.	3717 Jun 23 18:31	4° G 03'17	1.73356 AU		3720 Feb 05 22:47	0° Z	
	3717 Jul 14 20:49	0° Ω			3720 Mar 03 06:44	0° \approx	
evening rise	3717 Jul 29 02:06	17° Ω 28'41		desc. node	3720 Mar 28 18:25	0° H 15'32	
	3717 Aug 08 06:49	0° M			3720 Mar 28 13:15	0° H	
	3717 Sep 01 17:52	0° $\underline{\text{A}}$			3720 Apr 22 09:16	0° Y	
	3717 Sep 26 07:00	0° M			3720 May 17 01:01	0° B	
desc. node	3717 Oct 11 23:20	19° M 04'36			3720 Jun 10 15:19	0° II	
	3717 Oct 20 23:29	0° X			3720 Jul 05 04:45	0° G	
	3717 Nov 14 20:40	0° Z		asc. node	3720 Jul 19 21:03	17° G 57'56	
	3717 Dec 10 01:55	0° \approx		morning set	3720 Jul 23 19:30	22° G 47'20	
	3718 Jan 05 01:41	0° H			3720 Jul 29 16:38	0° Ω	
evening max el	3718 Jan 27 18:39	24° H 28'38	47°11'20		3720 Aug 23 02:12	0° M	
asc. node	3718 Feb 02 01:52	29° H 46'18		max. Earth dist.	3720 Aug 26 23:08	4° M 46'22	1.73298 AU
	3718 Feb 02 07:29	0° Y					
greatest brilliancy	3718 Mar 09 06:33	25° Y 55'11	-4.9m	superior conj	3720 Aug 29 07:02	7° M 38'41	1°17'11
retrograde	3718 Mar 19 14:29	27° Y 56'33		minimum elong	3720 Aug 29 00:08	7° M 17'27	1°17'03
evening set	3718 Apr 06 09:24	21° Y 47'33			3720 Sep 16 09:26	0° $\underline{\text{A}}$	
min. Earth dist.	3718 Apr 09 04:34	20° Y 03'37	0.27756 AU	evening rise	3720 Oct 04 15:37	22° $\underline{\text{A}}$ 35'33	
inferior conj	3718 Apr 09 12:34	19° Y 51'08	8°27'52		3720 Oct 10 15:11	0° M	
minimum elong	3718 Apr 09 18:56	19° Y 41'12	8°27'16		3720 Nov 03 20:27	0° X	
morning rise	3718 Apr 13 04:41	17° Y 35'53		desc. node	3720 Nov 08 11:11	5° X 42'51	
direct	3718 Apr 30 09:20	11° Y 54'46			3720 Nov 28 01:53	0° Z	
greatest brilliancy	3718 May 09 17:54	13° Y 33'03	-4.8m		3720 Dec 22 08:10	0° \approx	
desc. node	3718 May 24 15:50	21° Y 25'52			3721 Jan 15 17:23	0° H	
	3718 Jun 04 18:17	0° B			3721 Feb 09 10:33	0° Y	




























































































































asc. node	3721 Mar 01 13:44	23° Υ 48'52			3723 Aug 14 05:56	0° Ω	
	3721 Mar 06 22:14	0° \mathcal{B}		asc. node	3723 Aug 17 08:55	3° Ω 47'33	
	3721 Apr 03 05:31	0° Π			3723 Sep 07 20:23	0° \mathfrak{M}	
evening max el	3721 Apr 09 08:59	6° Π 14'14	46°20'15	morning set	3723 Oct 01 00:36	28° \mathfrak{M} 32'50	
	3721 May 07 07:56	0° \mathfrak{E}			3723 Oct 02 04:47	0° \mathfrak{L}	
greatest brilliancy	3721 May 18 04:13	5° \mathfrak{E} 41'48	-4.8m		3723 Oct 26 08:35	0° \mathfrak{M}	
retrograde	3721 May 29 02:02	7° \mathfrak{E} 53'12		max. Earth dist.	3723 Nov 04 12:35	11° \mathfrak{M} 25'28	1.72078 AU
evening set	3721 Jun 13 05:12	3° \mathfrak{E} 26'04					
	3721 Jun 18 22:39	30° $\mathfrak{R}\Pi$		superior conj	3723 Nov 07 07:10	14° \mathfrak{M} 53'08	1°03'16
inferior conj	3721 Jun 19 11:47	29° Π 39'22	0°23'58	minimum elong	3723 Nov 07 17:13	15° \mathfrak{M} 24'30	1°02'57
minimum elong	3721 Jun 19 12:40	29° Π 37'58	0°23'42		3723 Nov 19 09:35	0° \mathfrak{X}	
min. Earth dist.	3721 Jun 19 07:12	29° Π 46'34	0.28645 AU	desc. node	3723 Dec 06 23:02	21° \mathfrak{X} 57'42	
desc. node	3721 Jun 21 03:42	28° Π 36'49			3723 Dec 13 09:07	0° \mathfrak{Z}	
morning rise	3721 Jun 25 20:26	25° Π 50'01		evening rise	3723 Dec 16 19:07	4° \mathfrak{Z} 16'45	
direct	3721 Jul 10 21:28	21° Π 28'18			3724 Jan 06 07:56	0° \approx	
greatest brilliancy	3721 Jul 20 23:28	23° Π 17'37	-4.7m		3724 Jan 30 07:05	0° \mathfrak{H}	
	3721 Aug 03 01:05	0° \mathfrak{E}			3724 Feb 23 08:41	0° Υ	
morning max el	3721 Aug 28 13:03	21° \mathfrak{E} 03'54	45°43'19		3724 Mar 18 16:24	0° \mathcal{B}	
	3721 Sep 06 14:58	0° Ω		asc. node	3724 Mar 29 01:39	12° \mathcal{B} 39'08	
	3721 Oct 04 13:29	0° \mathfrak{M}			3724 Apr 12 11:26	0° Π	
asc. node	3721 Oct 12 06:39	8° \mathfrak{M} 45'17			3724 May 08 01:54	0° \mathfrak{E}	
	3721 Oct 30 12:10	0° \mathfrak{L}			3724 Jun 04 06:00	0° Ω	
	3721 Nov 24 10:39	0° \mathfrak{M}		evening max el	3724 Jun 18 23:36	14° Ω 54'47	45°31'58
	3721 Dec 18 19:45	0° \mathfrak{X}			3724 Jul 05 23:33	0° \mathfrak{M}	
	3722 Jan 11 21:50	0° \mathfrak{Z}		desc. node	3724 Jul 18 15:45	8° \mathfrak{M} 48'08	
desc. node	3722 Jan 31 20:41	24° \mathfrak{Z} 59'08		greatest brilliancy	3724 Jul 27 02:44	12° \mathfrak{M} 49'05	-4.7m
	3722 Feb 04 20:38	0° \approx		retrograde	3724 Aug 06 17:20	14° \mathfrak{M} 50'07	
morning set	3722 Feb 28 08:49	29° \approx 30'00		evening set	3724 Aug 23 16:57	9° \mathfrak{M} 21'59	
	3722 Feb 28 18:23	0° \mathfrak{H}		inferior conj	3724 Aug 28 04:37	6° \mathfrak{M} 37'21	-7°43'04
	3722 Mar 24 16:41	0° Υ		minimum elong	3724 Aug 27 20:37	6° \mathfrak{M} 49'50	7°42'02
				min. Earth dist.	3724 Aug 28 05:02	6° \mathfrak{M} 36'42	0.29060 AU
superior conj	3722 Apr 09 22:07	20° Υ 17'14	-1°22'14	morning rise	3724 Sep 01 00:15	4° \mathfrak{M} 16'20	
minimum elong	3722 Apr 10 04:53	20° Υ 38'19	1°22'08		3724 Sep 09 15:17	30° $\mathfrak{R}\Omega$	
max. Earth dist.	3722 Apr 13 21:44	25° Υ 15'26	1.71981 AU	direct	3724 Sep 18 19:45	28° Ω 19'17	
	3722 Apr 17 17:05	0° \mathcal{B}			3724 Sep 28 09:10	0° \mathfrak{M}	
	3722 May 11 20:48	0° Π		greatest brilliancy	3724 Sep 29 09:49	0° \mathfrak{M} 21'44	-4.8m
evening rise	3722 May 19 05:12	9° Π 05'13		morning max el	3724 Nov 07 10:59	29° \mathfrak{M} 33'12	46°14'24
asc. node	3722 May 24 23:22	16° Π 11'31			3724 Nov 07 21:49	0° \mathfrak{L}	
	3722 Jun 05 04:30	0° \mathfrak{E}		asc. node	3724 Nov 08 18:16	0° \mathfrak{L} 50'49	
	3722 Jun 29 16:29	0° Ω			3724 Dec 05 21:57	0° \mathfrak{M}	
	3722 Jul 24 09:27	0° \mathfrak{M}			3724 Dec 31 15:09	0° \mathfrak{X}	
	3722 Aug 18 09:23	0° \mathfrak{L}			3725 Jan 25 10:13	0° \mathfrak{Z}	
	3722 Sep 12 20:00	0° \mathfrak{M}			3725 Feb 18 19:21	0° \approx	
desc. node	3722 Sep 13 13:25	0° \mathfrak{M} 50'42		desc. node	3725 Feb 28 08:33	11° \approx 49'29	
	3722 Oct 09 00:11	0° \mathfrak{X}			3725 Mar 15 00:09	0° \mathfrak{H}	
	3722 Nov 05 16:04	0° \mathfrak{Z}			3725 Apr 08 03:41	0° Υ	
evening max el	3722 Nov 13 16:41	8° \mathfrak{Z} 07'27	46°47'09		3725 May 02 07:57	0° \mathcal{B}	
	3722 Dec 08 14:54	0° \approx		morning set	3725 May 13 14:33	13° \mathcal{B} 57'23	
greatest brilliancy	3722 Dec 24 02:04	8° \approx 38'55	-4.9m		3725 May 26 14:04	0° Π	
retrograde	3723 Jan 02 23:47	10° \approx 30'49			3725 Jun 19 22:07	0° \mathfrak{E}	
asc. node	3723 Jan 04 16:03	10° \approx 27'22					
evening set	3723 Jan 17 15:48	6° \approx 14'55		superior conj	3725 Jun 20 07:20	0° \mathfrak{E} 28'23	-0°02'49
min. Earth dist.	3723 Jan 23 02:56	3° \approx 03'20	0.26582 AU	minimum elong	3725 Jun 20 07:56	0° \mathfrak{E} 30'15	0°02'47
inferior conj	3723 Jan 23 13:24	2° \approx 47'22	4°41'29	behind sun begin	3725 Jun 19 09:06	29° Π 19'58	
minimum elong	3723 Jan 23 03:57	3° \approx 01'48	4°38'50	behind sun end	3725 Jun 21 06:46	1° \mathfrak{E} 40'32	
	3723 Jan 28 05:54	30° $\mathfrak{R}\mathfrak{Z}$		asc. node	3725 Jun 21 11:14	1° \mathfrak{E} 54'18	
morning rise	3723 Jan 28 16:11	29° \mathfrak{Z} 45'36		max. Earth dist.	3725 Jun 21 17:19	2° \mathfrak{E} 13'00	1.73328 AU
direct	3723 Feb 12 22:53	25° \mathfrak{Z} 07'48			3725 Jul 14 07:25	0° Ω	
greatest brilliancy	3723 Feb 22 15:10	26° \mathfrak{Z} 54'30	-4.9m	evening rise	3725 Jul 26 20:38	15° Ω 25'27	
	3723 Mar 01 11:41	0° \approx			3725 Aug 07 17:32	0° \mathfrak{M}	
morning max el	3723 Apr 04 05:17	27° \approx 38'02	46°44'54		3725 Sep 01 04:49	0° \mathfrak{L}	
	3723 Apr 06 13:49	0° \mathfrak{H}			3725 Sep 25 18:22	0° \mathfrak{M}	
desc. node	3723 Apr 26 06:12	20° \mathfrak{H} 51'53		desc. node	3725 Oct 11 01:17	18° \mathfrak{M} 35'04	
	3723 May 04 11:48	0° Υ			3725 Oct 20 11:25	0° \mathfrak{X}	
	3723 May 30 16:36	0° \mathcal{B}			3725 Nov 14 09:27	0° \mathfrak{Z}	
	3723 Jun 25 05:06	0° Π			3725 Dec 09 16:04	0° \approx	
	3723 Jul 20 08:54	0° \mathfrak{E}			3726 Jan 04 18:35	0° \mathfrak{H}	

evening max el	3726 Jan 25 09:41	22° X 08'25	47°11'49			3728 Aug 22 12:56	0° M	
asc. node	3726 Feb 01 03:55	28° X 51'18		max. Earth dist.		3728 Aug 24 18:47	2° M 45'56	1.73326 AU
	3726 Feb 02 08:31	0° Y						
greatest brilliancy	3726 Mar 06 21:34	23° Y 34'56	-4.9m	superior conj		3728 Aug 27 01:14	5° M 33'44	1°15'48
retrograde	3726 Mar 17 05:03	25° Y 35'37		minimum elong		3728 Aug 26 17:56	5° M 11'14	1°15'37
evening set	3726 Apr 04 01:56	19° Y 24'00				3728 Sep 15 20:13	0° L	
inferior conj	3726 Apr 07 02:49	17° Y 30'54	8°34'58	evening rise		3728 Oct 02 08:20	20° L 25'05	
minimum elong	3726 Apr 07 08:28	17° Y 22'03	8°34'29			3728 Oct 10 02:07	0° M	
min. Earth dist.	3726 Apr 06 18:06	17° Y 44'31	0.27717 AU			3728 Nov 03 07:38	0° X	
morning rise	3726 Apr 10 15:14	15° Y 21'02		desc. node		3728 Nov 07 13:10	5° X 14'12	
direct	3726 Apr 27 23:29	9° Y 35'28				3728 Nov 27 13:24	0° Z	
greatest brilliancy	3726 May 07 06:40	11° Y 12'33	-4.8m			3728 Dec 21 20:08	0° \approx	
desc. node	3726 May 23 17:52	20° Y 10'35				3729 Jan 15 05:55	0° X	
	3726 Jun 05 00:31	0° X				3729 Feb 08 23:59	0° Y	
morning max el	3726 Jun 16 06:42	10° X 24'02	46°00'04	asc. node		3729 Feb 28 15:44	23° Y 12'01	
	3726 Jul 05 12:22	0° II				3729 Mar 06 13:29	0° X	
	3726 Aug 01 18:25	0° L				3729 Apr 03 01:35	0° II	
	3726 Aug 27 18:24	0° L		evening max el		3729 Apr 06 23:15	3° II 56'17	46°22'33
asc. node	3726 Sep 13 20:44	20° L 14'36				3729 May 08 14:11	0° L	
	3726 Sep 22 00:06	0° M		greatest brilliancy		3729 May 15 20:47	3° L 30'48	-4.8m
	3726 Oct 16 16:36	0° L		retrograde		3729 May 26 18:27	5° L 42'36	
	3726 Nov 09 23:47	0° M		evening set		3729 Jun 10 22:24	1° L 13'40	
	3726 Dec 04 01:09	0° X				3729 Jun 13 01:45	30° R II	
morning set	3726 Dec 11 06:09	9° X 01'44		inferior conj		3729 Jun 17 03:57	27° II 28'44	0°44'19
	3726 Dec 27 23:18	0° Z		minimum elong		3729 Jun 17 05:35	27° II 26'10	0°43'49
desc. node	3727 Jan 03 10:54	8° Z 08'52		min. Earth dist.		3729 Jun 16 23:44	27° II 35'20	0.28621 AU
	3727 Jan 20 19:54	0° \approx		desc. node		3729 Jun 20 05:51	25° II 34'00	
				morning rise		3729 Jun 23 13:03	23° II 38'58	
superior conj	3727 Jan 21 00:25	0° \approx 14'10	-0°40'42	direct		3729 Jul 08 12:52	19° II 17'45	
minimum elong	3727 Jan 20 14:39	29° Z 43'28	0°40'16	greatest brilliancy		3729 Jul 18 15:37	21° II 07'49	-4.7m
max. Earth dist.	3727 Jan 20 20:37	0° \approx 02'14	1.71113 AU			3729 Aug 03 21:17	0° L	
	3727 Feb 13 16:14	0° X		morning max el		3729 Aug 26 05:05	18° L 54'03	45°43'04
evening rise	3727 Mar 03 03:35	21° X 56'36				3729 Sep 06 10:10	0° L	
	3727 Mar 09 13:49	0° Y				3729 Oct 04 04:12	0° M	
	3727 Apr 02 14:41	0° X		asc. node		3729 Oct 11 08:37	8° M 10'41	
asc. node	3727 Apr 26 13:31	29° X 37'04				3729 Oct 30 01:07	0° L	
	3727 Apr 26 20:59	0° II				3729 Nov 23 22:45	0° M	
	3727 May 21 10:59	0° L				3729 Dec 18 07:25	0° X	
	3727 Jun 15 11:35	0° L				3730 Jan 11 09:17	0° Z	
	3727 Jul 11 04:27	0° M		desc. node		3730 Jan 30 22:40	24° Z 29'45	
	3727 Aug 07 02:58	0° L				3730 Feb 04 07:57	0° \approx	
desc. node	3727 Aug 16 03:33	9° L 31'57		morning set		3730 Feb 25 18:46	26° \approx 55'25	
evening max el	3727 Aug 30 08:38	23° L 43'43	45°44'24			3730 Feb 28 05:35	0° X	
	3727 Sep 06 02:30	0° M				3730 Mar 24 03:47	0° Y	
greatest brilliancy	3727 Oct 09 02:06	22° M 05'43	-4.8m					
retrograde	3727 Oct 18 04:28	23° M 36'20		superior conj		3730 Apr 07 10:44	17° Y 52'24	-1°23'21
evening set	3727 Nov 03 17:38	18° M 26'36		minimum elong		3730 Apr 07 16:43	18° Y 11'05	1°23'16
inferior conj	3727 Nov 08 04:10	15° M 46'44	-6°30'33	max. Earth dist.		3730 Apr 11 07:42	22° Y 42'30	1.71926 AU
minimum elong	3727 Nov 08 14:30	15° M 30'49	6°28'24			3730 Apr 17 04:04	0° X	
min. Earth dist.	3727 Nov 09 03:51	15° M 10'16	0.27645 AU			3730 May 11 07:45	0° II	
morning rise	3727 Nov 13 10:45	12° M 36'55		evening rise		3730 May 16 20:16	6° II 49'38	
direct	3727 Nov 29 04:48	7° M 46'29		asc. node		3730 May 24 01:30	15° II 44'14	
asc. node	3727 Dec 07 06:11	9° M 00'41				3730 Jun 04 15:31	0° L	
greatest brilliancy	3727 Dec 10 09:42	10° M 06'31	-4.9m			3730 Jun 29 03:42	0° L	
	3728 Jan 07 13:39	0° X				3730 Jul 23 21:03	0° M	
morning max el	3728 Jan 18 19:48	10° X 56'24	46°54'31			3730 Aug 17 21:41	0° L	
	3728 Feb 05 16:41	0° Z				3730 Sep 12 09:29	0° M	
	3728 Mar 02 21:21	0° \approx		desc. node		3730 Sep 12 15:19	0° M 16'57	
desc. node	3728 Mar 27 20:24	29° \approx 42'12				3730 Oct 08 15:57	0° X	
	3728 Mar 28 02:19	0° X				3730 Nov 05 13:11	0° Z	
	3728 Apr 21 21:26	0° Y		evening max el		3730 Nov 11 06:50	5° Z 45'40	46°45'13
	3728 May 16 12:37	0° X				3730 Dec 09 17:12	0° \approx	
	3728 Jun 10 02:31	0° II		greatest brilliancy		3730 Dec 21 14:20	6° \approx 09'40	-4.9m
	3728 Jul 04 15:41	0° L		retrograde		3730 Dec 31 12:45	8° \approx 01'49	
asc. node	3728 Jul 18 23:08	17° L 31'06		asc. node		3731 Jan 03 18:06	7° \approx 48'59	
morning set	3728 Jul 21 13:17	20° L 41'32		evening set		3731 Jan 15 02:05	3° \approx 48'49	
	3728 Jul 29 03:25	0° L		min. Earth dist.		3731 Jan 20 15:53	0° \approx 33'29	0.26570 AU

inferior conj	3731 Jan 21 01:41	0°≈18'34	4°20'06	behind sun end	3733 Jun 18 23:04	29°II29'16	
minimum elong	3731 Jan 20 16:45	0°≈32'11	4°17'32		3733 Jun 19 09:03	0°☾	
	3731 Jan 21 13:53	30°☿☾		max. Earth dist.	3733 Jun 19 14:35	0°☾17'03	1.73296 AU
morning rise	3731 Jan 26 07:34	27°☾12'55		asc. node	3733 Jun 20 13:20	1°☾27'04	
direct	3731 Feb 10 11:53	22°☾39'06			3733 Jul 13 18:19	0°♈	
greatest brilliancy	3731 Feb 20 04:20	24°☾26'31	-4.9m	evening rise	3733 Jul 24 15:11	13°♈21'20	
	3731 Mar 03 04:23	0°≈			3733 Aug 07 04:31	0°♍	
morning max el	3731 Apr 01 19:34	25°≈15'40	46°46'10		3733 Aug 31 16:03	0°♊	
	3731 Apr 06 11:52	0°♋			3733 Sep 25 06:01	0°♌	
desc. node	3731 Apr 25 08:12	20°♋09'32		desc. node	3733 Oct 10 03:21	18°♌05'03	
	3731 May 04 03:57	0°♌			3733 Oct 19 23:41	0°♍	
	3731 May 30 06:22	0°♎			3733 Nov 13 22:38	0°☾	
	3731 Jun 24 17:36	0°♊			3733 Dec 09 06:44	0°≈	
	3731 Jul 19 20:40	0°☾			3734 Jan 04 12:15	0°♋	
	3731 Aug 13 17:15	0°♈		evening max el	3734 Jan 22 23:38	19°♋44'07	47°12'19
asc. node	3731 Aug 16 10:53	3°♈19'15		asc. node	3734 Jan 31 05:55	27°♋53'46	
	3731 Sep 07 07:27	0°♍			3734 Feb 02 11:28	0°♌	
morning set	3731 Sep 28 17:34	26°♍23'00		greatest brilliancy	3734 Mar 04 12:59	21°♌13'43	-4.9m
	3731 Oct 01 15:45	0°♊		retrograde	3734 Mar 14 19:06	23°♌13'13	
	3731 Oct 25 19:34	0°♌		evening set	3734 Apr 01 18:03	16°♌59'30	
max. Earth dist.	3731 Nov 02 02:14	9°♌04'02	1.72124 AU	inferior conj	3734 Apr 04 16:56	15°♌09'20	8°41'07
				minimum elong	3734 Apr 04 21:50	15°♌01'40	8°40'45
superior conj	3731 Nov 04 22:04	12°♌35'30	1°05'35	min. Earth dist.	3734 Apr 04 07:48	15°♌23'40	0.27675 AU
minimum elong	3731 Nov 05 07:57	13°♌06'19	1°05'15	morning rise	3734 Apr 08 01:49	13°♌04'35	
	3731 Nov 18 20:40	0°♍		direct	3734 Apr 25 12:54	7°♌14'45	
desc. node	3731 Dec 06 01:10	21°♍29'29		greatest brilliancy	3734 May 04 19:47	8°♌51'15	-4.8m
	3731 Dec 12 20:18	0°☾		desc. node	3734 May 22 20:02	18°♌56'51	
evening rise	3731 Dec 14 07:09	1°☾49'04			3734 Jun 05 05:08	0°♎	
	3732 Jan 05 19:16	0°≈		morning max el	3734 Jun 13 19:52	8°♎03'39	46°01'23
	3732 Jan 29 18:36	0°♋			3734 Jul 05 05:54	0°♊	
	3732 Feb 22 20:29	0°♌			3734 Aug 01 08:36	0°☾	
	3732 Mar 18 04:38	0°♎			3734 Aug 27 07:01	0°♈	
asc. node	3732 Mar 28 03:38	12°♎07'20		asc. node	3734 Sep 12 22:46	19°♈44'42	
	3732 Apr 12 00:25	0°♊			3734 Sep 21 11:55	0°♍	
	3732 May 07 16:25	0°☾			3734 Oct 16 03:59	0°♊	
	3732 Jun 04 00:15	0°♈			3734 Nov 09 10:58	0°♌	
evening max el	3732 Jun 16 16:03	12°♈44'54	45°32'48		3734 Dec 03 12:15	0°♍	
	3732 Jul 06 10:47	0°♍		morning set	3734 Dec 08 18:58	6°♍36'41	
desc. node	3732 Jul 17 17:46	7°♍26'07			3734 Dec 27 10:24	0°☾	
greatest brilliancy	3732 Jul 24 17:53	10°♍38'50	-4.7m	desc. node	3735 Jan 02 12:54	7°☾40'10	
retrograde	3732 Aug 04 09:23	12°♍40'25					
evening set	3732 Aug 21 06:04	7°♍16'58		superior conj	3735 Jan 18 10:36	27°☾40'15	-0°37'07
inferior conj	3732 Aug 25 20:52	4°♍27'24	-7°33'54	minimum elong	3735 Jan 18 01:31	27°☾11'41	0°36'42
minimum elong	3732 Aug 25 12:28	4°♍40'33	7°32'44	max. Earth dist.	3735 Jan 17 22:49	27°☾03'11	1.71124 AU
min. Earth dist.	3732 Aug 25 20:15	4°♍28'22	0.29069 AU		3735 Jan 20 07:02	0°≈	
morning rise	3732 Aug 29 18:50	2°♍02'41			3735 Feb 13 03:24	0°♋	
	3732 Sep 02 10:23	30°♋♈		evening rise	3735 Feb 28 13:45	19°♋22'52	
direct	3732 Sep 16 12:33	26°♈09'34			3735 Mar 09 01:01	0°♌	
greatest brilliancy	3732 Sep 27 00:44	28°♈10'06	-4.8m		3735 Apr 02 01:57	0°♎	
	3732 Oct 01 07:54	0°♍		asc. node	3735 Apr 25 15:40	29°♎08'32	
morning max el	3732 Nov 05 01:51	27°♍17'08	46°12'40		3735 Apr 26 08:25	0°♊	
asc. node	3732 Nov 07 20:27	0°♊02'59			3735 May 20 22:47	0°☾	
	3732 Nov 07 19:16	0°♊			3735 Jun 15 00:06	0°♈	
	3732 Dec 05 13:41	0°♌			3735 Jul 10 18:22	0°♍	
	3732 Dec 31 04:50	0°♍			3735 Aug 06 20:01	0°♊	
	3733 Jan 24 22:55	0°☾		desc. node	3735 Aug 15 05:31	8°♊48'27	
	3733 Feb 18 07:27	0°≈		evening max el	3735 Aug 27 21:37	21°♊24'43	45°43'00
desc. node	3733 Feb 27 10:31	11°≈18'38			3735 Sep 06 05:58	0°♌	
	3733 Mar 14 11:50	0°♋		greatest brilliancy	3735 Oct 06 15:27	19°♌47'14	-4.8m
	3733 Apr 07 15:05	0°♌		retrograde	3735 Oct 15 17:55	21°♌18'14	
	3733 May 01 19:09	0°♎		evening set	3735 Nov 01 10:33	16°♌03'15	
morning set	3733 May 11 05:40	11°♎41'20		inferior conj	3735 Nov 05 18:15	13°♌27'37	-6°44'43
	3733 May 26 01:07	0°♊		minimum elong	3735 Nov 06 04:29	13°♌11'52	6°42'41
				min. Earth dist.	3735 Nov 06 18:15	12°♌50'42	0.27716 AU
superior conj	3733 Jun 18 00:07	28°♊18'38	-0°06'08	morning rise	3735 Nov 10 21:48	10°♌22'08	
minimum elong	3733 Jun 18 01:27	28°♊22'43	0°06'03	direct	3735 Nov 26 19:10	5°♌26'03	
behind sun begin	3733 Jun 17 03:50	27°♊16'09		asc. node	3735 Dec 06 08:12	7°♌08'58	

greatest brilliancy	3735 Dec 08 01:23	7° \mathbb{M} 47'18	-4.9m		3738 Jun 28 14:45	0° Ω	
	3736 Jan 07 16:52	0° \mathcal{A}			3738 Jul 23 08:29	0° \mathbb{M}	
morning max el	3736 Jan 16 10:12	8° \mathcal{A} 34'09	46°53'43		3738 Aug 17 09:49	0° Ω	
	3736 Feb 05 10:14	0° \mathcal{B}		desc. node	3738 Sep 11 17:25	29° Ω 44'10	
	3736 Mar 02 11:55	0° \approx			3738 Sep 11 22:52	0° \mathbb{M}	
desc. node	3736 Mar 26 22:26	29° \approx 08'48			3738 Oct 08 07:44	0° \mathcal{A}	
	3736 Mar 27 15:26	0° \mathcal{H}			3738 Nov 05 10:47	0° \mathcal{B}	
	3736 Apr 21 09:41	0° \mathcal{Y}		evening max el	3738 Nov 08 21:35	3° \mathcal{B} 26'14	46°43'14
	3736 May 16 00:17	0° \mathcal{B}			3738 Dec 11 05:31	0° \approx	
	3736 Jun 09 13:45	0° \mathbb{I}		greatest brilliancy	3738 Dec 19 02:59	3° \approx 42'05	-4.9m
	3736 Jul 04 02:38	0° \mathcal{C}		retrograde	3738 Dec 29 01:44	5° \approx 33'51	
asc. node	3736 Jul 18 01:03	17° \mathcal{C} 03'43		asc. node	3739 Jan 02 20:02	5° \approx 05'47	
morning set	3736 Jul 19 06:51	18° \mathcal{C} 35'00		evening set	3739 Jan 12 12:42	1° \approx 23'51	
	3736 Jul 28 14:13	0° Ω			3739 Jan 15 00:17	30° \mathcal{R} \mathcal{B}	
	3736 Aug 21 23:41	0° \mathbb{M}		min. Earth dist.	3739 Jan 18 05:00	28° \mathcal{B} 04'48	0.26554 AU
max. Earth dist.	3736 Aug 22 15:45	0° \mathbb{M} 49'30	1.73352 AU	inferior conj	3739 Jan 18 14:00	27° \mathcal{B} 51'04	3°58'14
				minimum elong	3739 Jan 18 05:38	28° \mathcal{B} 03'50	3°55'47
superior conj	3736 Aug 24 19:21	3° \mathbb{M} 28'30	1°14'17	morning rise	3739 Jan 23 22:47	24° \mathcal{B} 41'36	
minimum elong	3736 Aug 24 11:40	3° \mathbb{M} 04'50	1°14'06	direct	3739 Feb 08 00:51	20° \mathcal{B} 12'00	
	3736 Sep 15 07:01	0° Ω		greatest brilliancy	3739 Feb 17 17:21	21° \mathcal{B} 59'38	-4.9m
evening rise	3736 Sep 30 01:13	18° Ω 15'15			3739 Mar 04 07:58	0° \approx	
	3736 Oct 09 13:03	0° \mathbb{M}		morning max el	3739 Mar 30 09:12	22° \approx 52'59	46°47'17
	3736 Nov 02 18:46	0° \mathcal{A}			3739 Apr 06 08:36	0° \mathcal{H}	
desc. node	3736 Nov 06 15:19	4° \mathcal{A} 46'16		desc. node	3739 Apr 24 10:22	19° \mathcal{H} 29'20	
	3736 Nov 27 00:51	0° \mathcal{B}			3739 May 03 19:25	0° \mathcal{Y}	
	3736 Dec 21 08:00	0° \approx			3739 May 29 19:40	0° \mathcal{B}	
	3737 Jan 14 18:24	0° \mathcal{H}			3739 Jun 24 05:45	0° \mathbb{I}	
	3737 Feb 08 13:29	0° \mathcal{Y}			3739 Jul 19 08:06	0° \mathcal{C}	
asc. node	3737 Feb 27 17:42	22° \mathcal{Y} 34'49			3739 Aug 13 04:15	0° Ω	
	3737 Mar 06 04:57	0° \mathcal{B}		asc. node	3739 Aug 15 12:57	2° Ω 52'14	
	3737 Apr 02 22:24	0° \mathbb{I}			3739 Sep 06 18:11	0° \mathbb{M}	
evening max el	3737 Apr 04 14:14	1° \mathbb{I} 39'49	46°24'50	morning set	3739 Sep 26 10:20	24° \mathbb{M} 13'40	
	3737 May 10 11:22	0° \mathcal{C}			3739 Oct 01 02:22	0° Ω	
greatest brilliancy	3737 May 13 12:53	1° \mathcal{C} 18'41	-4.8m		3739 Oct 25 06:13	0° \mathbb{M}	
retrograde	3737 May 24 11:08	3° \mathcal{C} 31'06		max. Earth dist.	3739 Oct 30 14:18	6° \mathbb{M} 38'51	1.72172 AU
	3737 Jun 06 18:25	30° \mathcal{R} \mathbb{I}					
evening set	3737 Jun 08 15:32	29° \mathbb{I} 00'15		superior conj	3739 Nov 02 13:00	10° \mathbb{M} 19'08	1°07'46
inferior conj	3737 Jun 14 19:50	25° \mathbb{I} 17'10	1°04'47	minimum elong	3739 Nov 02 22:38	10° \mathbb{M} 49'10	1°07'28
minimum elong	3737 Jun 14 22:13	25° \mathbb{I} 13'25	1°04'04		3739 Nov 18 07:25	0° \mathcal{A}	
min. Earth dist.	3737 Jun 14 15:42	25° \mathbb{I} 23'38	0.28595 AU	desc. node	3739 Dec 05 03:08	21° \mathcal{A} 01'44	
desc. node	3737 Jun 19 07:47	22° \mathbb{I} 31'50		evening rise	3739 Dec 11 19:14	29° \mathcal{A} 22'36	
morning rise	3737 Jun 21 05:15	21° \mathbb{I} 27'25			3739 Dec 12 07:12	0° \mathcal{B}	
direct	3737 Jul 06 04:25	17° \mathbb{I} 06'28			3740 Jan 05 06:17	0° \approx	
greatest brilliancy	3737 Jul 16 06:52	18° \mathbb{I} 56'45	-4.7m		3740 Jan 29 05:45	0° \mathcal{H}	
	3737 Aug 04 12:19	0° \mathcal{C}			3740 Feb 22 07:52	0° \mathcal{Y}	
morning max el	3737 Aug 23 21:33	16° \mathcal{C} 45'31	45°42'49		3740 Mar 17 16:26	0° \mathcal{B}	
	3737 Sep 06 04:45	0° Ω		asc. node	3740 Mar 27 05:46	11° \mathcal{B} 37'25	
	3737 Oct 03 18:36	0° \mathbb{M}			3740 Apr 11 13:00	0° \mathbb{I}	
asc. node	3737 Oct 10 10:42	7° \mathbb{M} 37'02			3740 May 07 06:36	0° \mathcal{C}	
	3737 Oct 29 13:51	0° Ω			3740 Jun 03 18:28	0° Ω	
	3737 Nov 23 10:39	0° \mathbb{M}		evening max el	3740 Jun 14 07:53	10° Ω 34'35	45°33'32
	3737 Dec 17 18:52	0° \mathcal{A}			3740 Jul 07 01:17	0° \mathbb{M}	
	3738 Jan 10 20:28	0° \mathcal{B}		desc. node	3740 Jul 16 19:45	6° \mathbb{M} 02'21	
desc. node	3738 Jan 30 00:40	24° \mathcal{B} 01'17		greatest brilliancy	3740 Jul 22 09:38	8° \mathbb{M} 30'12	-4.7m
	3738 Feb 03 19:00	0° \approx		retrograde	3740 Aug 02 01:04	10° \mathbb{M} 31'50	
morning set	3738 Feb 23 04:56	24° \approx 22'18		evening set	3740 Aug 18 19:12	5° \mathbb{M} 13'07	
	3738 Feb 27 16:31	0° \mathcal{H}		inferior conj	3740 Aug 23 13:09	2° \mathbb{M} 18'42	-7°24'00
	3738 Mar 23 14:38	0° \mathcal{Y}		minimum elong	3740 Aug 23 04:23	2° \mathbb{M} 32'27	7°22'42
				min. Earth dist.	3740 Aug 23 11:55	2° \mathbb{M} 20'40	0.29076 AU
superior conj	3738 Apr 04 23:07	15° \mathcal{Y} 27'19	-1°24'18		3740 Aug 27 06:55	30° \mathcal{R} Ω	
minimum elong	3738 Apr 05 04:17	15° \mathcal{Y} 43'25	1°24'16	morning rise	3740 Aug 27 13:33	29° Ω 50'06	
max. Earth dist.	3738 Apr 08 18:55	20° \mathcal{Y} 13'59	1.71879 AU	direct	3740 Sep 14 04:46	24° Ω 00'59	
	3738 Apr 16 14:52	0° \mathcal{B}		greatest brilliancy	3740 Sep 24 16:11	26° Ω 00'12	-4.8m
	3738 May 10 18:33	0° \mathbb{I}			3740 Oct 03 01:24	0° \mathbb{M}	
evening rise	3738 May 14 10:51	4° \mathbb{I} 33'05		morning max el	3740 Nov 02 16:00	25° \mathbb{M} 00'30	46°11'00
asc. node	3738 May 23 03:31	15° \mathbb{I} 17'07		asc. node	3740 Nov 06 22:30	29° \mathbb{M} 16'43	
	3738 Jun 04 02:23	0° \mathcal{C}			3740 Nov 07 15:31	0° Ω	

	3740 Dec 05 04:46	0°♍			3743 Jul 10 08:03	0°♎		
	3740 Dec 30 18:02	0°♊			3743 Aug 06 13:02	0°♌		
	3741 Jan 24 11:10	0°♎		desc. node	3743 Aug 14 07:36	8°♌05'38		
	3741 Feb 17 19:07	0°♍		evening max el	3743 Aug 25 11:31	19°♌09'05	45°41'33	
desc. node	3741 Feb 26 12:34	10°♍49'15			3743 Sep 06 10:50	0°♍		
	3741 Mar 13 23:06	0°♋		greatest brilliancy	3743 Oct 04 04:11	17°♍29'07	-4.8m	
	3741 Apr 07 02:03	0°♐		retrograde	3743 Oct 13 07:54	19°♍01'05		
	3741 May 01 05:53	0°♉		evening set	3743 Oct 30 03:30	13°♍40'49		
morning set	3741 May 08 21:02	9°♉27'23		inferior conj	3743 Nov 03 08:24	11°♍09'15	-6°58'00	
	3741 May 25 11:42	0°♊		minimum elong	3743 Nov 03 18:27	10°♍53'48	6°56'07	
				min. Earth dist.	3743 Nov 04 08:20	10°♍32'28	0.27790 AU	
superior conj	3741 Jun 15 17:08	26°♊10'58	-0°09'24	morning rise	3743 Nov 08 08:50	8°♍08'22		
minimum elong	3741 Jun 15 19:10	26°♊17'14	0°09'18	direct	3743 Nov 24 10:07	3°♍06'29		
behind sun begin	3741 Jun 15 00:08	25°♊18'35		asc. node	3743 Dec 05 10:08	5°♍21'57		
behind sun end	3741 Jun 16 14:13	27°♊15'53		greatest brilliancy	3743 Dec 05 16:39	5°♍28'23	-4.9m	
max. Earth dist.	3741 Jun 17 10:49	28°♊19'17	1.73266 AU		3744 Jan 07 18:23	0°♊		
	3741 Jun 18 19:32	0°♎		morning max el	3744 Jan 14 01:37	6°♊15'08	46°52'52	
asc. node	3741 Jun 19 15:16	1°♎00'45			3744 Feb 05 03:14	0°♎		
	3741 Jul 13 04:49	0°♏			3744 Mar 02 02:07	0°♍		
evening rise	3741 Jul 22 09:47	11°♏18'41		desc. node	3744 Mar 26 00:32	28°♍36'18		
	3741 Aug 06 15:08	0°♎			3744 Mar 27 04:17	0°♋		
	3741 Aug 31 02:56	0°♌			3744 Apr 20 21:43	0°♐		
	3741 Sep 24 17:19	0°♍			3744 May 15 11:45	0°♉		
desc. node	3741 Oct 09 05:26	17°♍36'08			3744 Jun 09 00:48	0°♊		
	3741 Oct 19 11:37	0°♊			3744 Jul 03 13:23	0°♎		
	3741 Nov 13 11:31	0°♎		morning set	3744 Jul 17 00:44	16°♎30'03		
	3741 Dec 08 21:12	0°♍		asc. node	3744 Jul 17 03:09	16°♎37'27		
	3742 Jan 04 05:56	0°♋			3744 Jul 28 00:48	0°♏		
evening max el	3742 Jan 20 12:51	17°♋18'58	47°12'41	max. Earth dist.	3744 Aug 20 14:52	29°♏00'19	1.73375 AU	
asc. node	3742 Jan 30 07:59	26°♋56'09			3744 Aug 21 10:14	0°♎		
	3742 Feb 02 15:38	0°♐						
greatest brilliancy	3742 Mar 02 04:34	18°♐53'28	-4.9m	superior conj	3744 Aug 22 13:44	1°♎24'43	1°12'42	
retrograde	3742 Mar 12 09:02	20°♐51'54		minimum elong	3744 Aug 22 05:44	1°♎00'06	1°12'30	
evening set	3742 Mar 30 09:47	14°♐36'30			3744 Sep 14 17:39	0°♌		
inferior conj	3742 Apr 02 07:04	12°♐48'53	8°46'21	evening rise	3744 Sep 27 18:26	16°♌06'55		
minimum elong	3742 Apr 02 11:08	12°♐42'30	8°46'07		3744 Oct 08 23:51	0°♍		
min. Earth dist.	3742 Apr 01 21:39	13°♐03'38	0.27631 AU		3744 Nov 02 05:50	0°♊		
morning rise	3742 Apr 05 12:39	10°♐49'01		desc. node	3744 Nov 05 17:16	4°♊17'53		
direct	3742 Apr 23 01:51	4°♐54'55			3744 Nov 26 12:17	0°♎		
greatest brilliancy	3742 May 02 09:14	6°♐31'30	-4.8m		3744 Dec 20 19:54	0°♍		
desc. node	3742 May 21 21:56	17°♐46'01			3745 Jan 14 06:56	0°♋		
	3742 Jun 05 07:27	0°♉			3745 Feb 08 03:02	0°♐		
morning max el	3742 Jun 11 09:12	5°♉44'56	46°02'55	asc. node	3745 Feb 26 19:50	21°♐57'48		
	3742 Jul 04 22:32	0°♊			3745 Mar 05 20:37	0°♉		
	3742 Jul 31 22:10	0°♎		evening max el	3745 Apr 02 06:04	29°♉25'31	46°27'06	
	3742 Aug 26 19:11	0°♏			3745 Apr 02 19:56	0°♊		
asc. node	3742 Sep 12 00:51	19°♏16'09		greatest brilliancy	3745 May 11 05:03	29°♊06'37	-4.8m	
	3742 Sep 20 23:20	0°♎			3745 May 13 18:58	0°♎		
	3742 Oct 15 15:02	0°♌		retrograde	3745 May 22 03:56	1°♎19'19		
	3742 Nov 08 21:50	0°♍			3745 May 30 05:14	30°♎♊		
	3742 Dec 02 23:03	0°♊		evening set	3745 Jun 06 08:50	26°♊46'39		
morning set	3742 Dec 06 07:53	4°♊12'58		inferior conj	3745 Jun 12 11:40	23°♊05'25	1°25'12	
	3742 Dec 26 21:12	0°♎		minimum elong	3745 Jun 12 14:48	23°♊00'31	1°24'16	
desc. node	3743 Jan 01 14:52	7°♎12'23		min. Earth dist.	3745 Jun 12 07:28	23°♊11'59	0.28565 AU	
max. Earth dist.	3743 Jan 15 04:44	24°♎16'49	1.71140 AU	desc. node	3745 Jun 18 09:49	19°♊31'31		
				morning rise	3745 Jun 18 21:12	19°♊15'52		
superior conj	3743 Jan 15 20:46	25°♎07'17	-0°33'28	direct	3745 Jul 03 20:19	14°♊55'13		
minimum elong	3743 Jan 15 12:27	24°♎41'06	0°33'05	greatest brilliancy	3745 Jul 13 21:31	16°♊44'57	-4.7m	
	3743 Jan 19 17:51	0°♍			3745 Aug 04 23:26	0°♎		
	3743 Feb 12 14:16	0°♋		morning max el	3745 Aug 21 14:06	14°♎37'27	45°42'44	
evening rise	3743 Feb 26 00:01	16°♋50'19			3745 Sep 05 22:46	0°♏		
	3743 Mar 08 11:57	0°♐			3745 Oct 03 08:44	0°♎		
	3743 Apr 01 12:57	0°♉		asc. node	3745 Oct 09 12:44	7°♎03'38		
asc. node	3743 Apr 24 17:40	28°♉40'23			3745 Oct 29 02:25	0°♌		
	3743 Apr 25 19:35	0°♊			3745 Nov 22 22:29	0°♍		
	3743 May 20 10:17	0°♎			3745 Dec 17 06:21	0°♊		
	3743 Jun 14 12:19	0°♏			3746 Jan 10 07:46	0°♎		

desc. node	3746 Jan 29 02:48	23°  32'50	greatest brilliancy	3748 Jul 20 01:21	6°  20'03	-4.7m
	3746 Feb 03 06:11	0° 	retrograde	3748 Jul 30 16:35	8°  22'01	
morning set	3746 Feb 20 14:46	21°  47'43	evening set	3748 Aug 16 08:14	3°  07'42	
	3746 Feb 27 03:36	0° 	inferior conj	3748 Aug 21 05:24	0°  08'45	-7°13'33
	3746 Mar 23 01:36	0° 	minimum elong	3748 Aug 20 20:17	0°  23'02	7°12'06
			min. Earth dist.	3748 Aug 21 03:50	0°  11'13	0.29080 AU
superior conj	3746 Apr 02 11:05	13°  00'29		3748 Aug 21 10:58	30°  R δ	
minimum elong	3746 Apr 02 15:22	13°  13'51	morning rise	3748 Aug 25 08:16	27°  δ 36'14	
max. Earth dist.	3746 Apr 06 08:01	17°  50'51	direct	3748 Sep 11 20:31	21°  δ 50'56	
	3746 Apr 16 01:47	0° 	greatest brilliancy	3748 Sep 22 08:13	23°  δ 49'45	-4.8m
	3746 May 10 05:28	0° 		3748 Oct 04 06:37	0° 	
evening rise	3746 May 12 01:10	2°  15'10	morning max el	3748 Oct 31 06:07	22°  142'53	46°09'39
asc. node	3746 May 22 05:28	14°  149'25	asc. node	3748 Nov 06 00:23	28°  11'46	
	3746 Jun 03 13:24	0° 		3748 Nov 07 11:32	0° 	
	3746 Jun 28 01:57	0° 		3748 Dec 04 19:57	0° 	
	3746 Jul 22 20:04	0° 		3748 Dec 30 07:23	0° 	
	3746 Aug 16 22:05	0° 		3749 Jan 23 23:38	0° 	
desc. node	3746 Sep 10 19:30	29°  11'03		3749 Feb 17 07:04	0° 	
	3746 Sep 11 12:26	0° 	desc. node	3749 Feb 25 14:38	10°  18'57	
	3746 Oct 07 23:50	0° 		3749 Mar 13 10:43	0° 	
	3746 Nov 05 09:21	0° 		3749 Apr 06 13:26	0° 	
evening max el	3746 Nov 06 11:57	1°  305'39		3749 Apr 30 17:05	0° 	
	3746 Dec 13 14:02	0° 	morning set	3749 May 06 11:43	7°  809'42	
greatest brilliancy	3746 Dec 16 16:02	1°  14'18		3749 May 24 22:44	0° 	
retrograde	3746 Dec 26 14:03	3° 				
asc. node	3747 Jan 01 22:09	2°  15'14	superior conj	3749 Jun 13 09:33	24°  11'00'00	-0°12'43
	3747 Jan 07 22:20	30°  R δ	minimum elong	3749 Jun 13 12:19	24°  11'08'30	0°12'35
evening set	3747 Jan 09 23:28	28°  357'31	behind sun begin	3749 Jun 12 21:54	23°  11'24'07	
inferior conj	3747 Jan 16 02:14	25°  322'34	behind sun end	3749 Jun 14 02:43	24°  11'52'53	
minimum elong	3747 Jan 15 18:31	25°  34'21	max. Earth dist.	3749 Jun 15 04:55	26°  11'33'32	1.73232 AU
min. Earth dist.	3747 Jan 15 18:29	25°  34'23		3749 Jun 18 06:28	0° 	
morning rise	3747 Jan 21 13:44	22°  309'06	asc. node	3749 Jun 18 17:21	0° 	
direct	3747 Feb 05 13:28	17°  343'37		3749 Jul 12 15:45	0° 	
greatest brilliancy	3747 Feb 15 07:01	19°  331'57	evening rise	3749 Jul 20 03:58	9°  13'27	
	3747 Mar 05 04:46	0° 		3749 Aug 06 02:13	0° 	
morning max el	3747 Mar 27 21:49	20°  126'21		3749 Aug 30 14:17	0° 	
	3747 Apr 06 05:07	0° 		3749 Sep 24 05:05	0° 	
desc. node	3747 Apr 23 12:19	18°  147'47	desc. node	3749 Oct 08 07:22	17°  11'05'27	
	3747 May 03 11:02	0° 		3749 Oct 19 00:01	0° 	
	3747 May 29 09:11	0° 		3749 Nov 13 00:51	0° 	
	3747 Jun 23 18:07	0° 		3749 Dec 08 12:08	0° 	
	3747 Jul 18 19:47	0° 		3750 Jan 04 00:19	0° 	
	3747 Aug 12 15:29	0° 	evening max el	3750 Jan 18 01:50	14°  145'28	47°13'01
asc. node	3747 Aug 14 15:01	2°  124'25	asc. node	3750 Jan 29 10:01	25°  145'6'20	
	3747 Sep 06 05:10	0° 		3750 Feb 02 22:09	0° 	
morning set	3747 Sep 24 03:25	22°  1104'33	greatest brilliancy	3750 Feb 27 19:29	16°  11'31'18	-4.9m
	3747 Sep 30 13:14	0° 	retrograde	3750 Mar 09 23:05	18°  11'29'29	
	3747 Oct 24 17:04	0° 	evening set	3750 Mar 28 01:01	12°  11'12'33	
max. Earth dist.	3747 Oct 28 03:15	4°  11'51'51	inferior conj	3750 Mar 30 21:07	10°  11'26'59	8°50'40
			minimum elong	3750 Mar 31 00:20	10°  11'21'56	8°50'31
superior conj	3747 Oct 31 04:31	8°  11'04'02	min. Earth dist.	3750 Mar 30 11:17	10°  11'42'20	0.27595 AU
minimum elong	3747 Oct 31 13:52	8°  11'33'11	morning rise	3750 Apr 02 23:47	8°  11'31'38	
	3747 Nov 17 18:22	0° 	direct	3750 Apr 20 14:47	2°  11'33'21	
desc. node	3747 Dec 04 05:09	20°  11'33'33	greatest brilliancy	3750 Apr 29 22:45	4°  11'10'21	-4.8m
evening rise	3747 Dec 09 07:51	26°  11'57'12	desc. node	3750 May 20 24:00	16°  11'35'58	
	3747 Dec 11 18:17	0° 		3750 Jun 05 09:00	0° 	
	3748 Jan 04 17:34	0° 	morning max el	3750 Jun 08 23:27	3°  11'26'43	46°04'21
	3748 Jan 28 17:15	0° 		3750 Jul 04 15:26	0° 	
	3748 Feb 21 19:40	0° 		3750 Jul 31 12:08	0° 	
	3748 Mar 17 04:42	0° 		3750 Aug 26 07:44	0° 	
asc. node	3748 Mar 26 07:43	11°  11'805'30	asc. node	3750 Sep 11 02:49	18°  11'45'59	
	3748 Apr 11 02:06	0° 		3750 Sep 20 11:09	0° 	
	3748 May 06 21:24	0° 		3750 Oct 15 02:27	0° 	
	3748 Jun 03 13:42	0°		3750 Nov 08 09:05	0°	
evening max el	3748 Jun 11 22:45	8° 11'20'32		3750 Dec 02 10:13	0°	
	3748 Jul 07 21:42	0°	morning set	3750 Dec 03 21:04	1° 11'49'02	
desc. node	3748 Jul 15 21:52	4° 11'34'32		3750 Dec 26 08:19	0°	

desc. node	3750 Dec 31 17:01	6°♁44'12		desc. node	3753 Jun 17 11:56	16°♁34'15	
max. Earth dist.	3751 Jan 12 13:44	21°♁39'11	1.71150 AU	direct	3753 Jul 01 12:30	12°♁44'19	
				greatest brilliancy	3753 Jul 11 12:05	14°♁32'56	-4.7m
superior conj	3751 Jan 13 07:18	22°♁34'26	-0°29'46		3753 Aug 05 07:44	0°♁	
minimum elong	3751 Jan 12 23:47	22°♁10'49	0°29'24	morning max el	3753 Aug 19 06:16	12°♁28'01	45°42'25
	3751 Jan 19 04:59	0°♁			3753 Sep 05 16:34	0°♁	
	3751 Feb 12 01:25	0°♁			3753 Oct 02 22:57	0°♁	
evening rise	3751 Feb 23 10:44	14°♁18'23		asc. node	3753 Oct 08 14:42	6°♁29'38	
	3751 Mar 07 23:08	0°♁			3753 Oct 28 15:07	0°♁	
	3751 Apr 01 00:14	0°♁			3753 Nov 22 10:27	0°♁	
asc. node	3751 Apr 23 19:37	28°♁11'07			3753 Dec 16 17:55	0°♁	
	3751 Apr 25 07:05	0°♁			3754 Jan 09 19:09	0°♁	
	3751 May 19 22:13	0°♁		desc. node	3754 Jan 28 04:46	23°♁03'41	
	3751 Jun 14 01:03	0°♁			3754 Feb 02 17:25	0°♁	
	3751 Jul 09 22:21	0°♁		morning set	3754 Feb 18 00:36	19°♁12'53	
	3751 Aug 06 06:59	0°♁			3754 Feb 26 14:43	0°♁	
desc. node	3751 Aug 13 09:39	7°♁20'43			3754 Mar 22 12:37	0°♁	
evening max el	3751 Aug 23 02:10	16°♁53'58	45°40'14				
	3751 Sep 06 18:33	0°♁		superior conj	3754 Mar 30 23:10	10°♁33'49	-1°25'47
greatest brilliancy	3751 Oct 01 16:26	15°♁09'28	-4.8m	minimum elong	3754 Mar 31 02:29	10°♁44'13	1°25'45
retrograde	3751 Oct 10 22:00	16°♁42'32		max. Earth dist.	3754 Apr 03 21:26	15°♁28'31	1.71774 AU
evening set	3751 Oct 27 20:22	11°♁17'15			3754 Apr 15 12:42	0°♁	
inferior conj	3751 Oct 31 22:25	8°♁49'35	-7°10'39	evening rise	3754 May 09 15:34	29°♁57'32	
minimum elong	3751 Nov 01 08:13	8°♁34'31	7°08'55		3754 May 09 16:22	0°♁	
min. Earth dist.	3751 Nov 01 21:55	8°♁13'27	0.27861 AU	asc. node	3754 May 21 07:36	14°♁22'24	
morning rise	3751 Nov 05 19:36	5°♁53'26			3754 Jun 03 00:21	0°♁	
direct	3751 Nov 22 01:21	0°♁45'51			3754 Jun 27 13:07	0°♁	
greatest brilliancy	3751 Dec 03 07:11	3°♁07'28	-4.9m		3754 Jul 22 07:40	0°♁	
asc. node	3751 Dec 04 12:18	3°♁37'49			3754 Aug 16 10:28	0°♁	
	3752 Jan 07 19:03	0°♁		desc. node	3754 Sep 09 21:24	28°♁36'55	
morning max el	3752 Jan 11 17:24	3°♁56'14	46°52'04		3754 Sep 11 02:13	0°♁	
	3752 Feb 04 20:12	0°♁			3754 Oct 07 16:20	0°♁	
	3752 Mar 01 16:25	0°♁		evening max el	3754 Nov 04 01:33	28°♁43'02	46°38'43
desc. node	3752 Mar 25 02:29	28°♁02'54			3754 Nov 05 09:01	0°♁	
	3752 Mar 26 17:14	0°♁		greatest brilliancy	3754 Dec 14 05:35	28°♁47'02	-4.9m
	3752 Apr 20 09:52	0°♁			3754 Dec 18 12:40	0°♁	
	3752 May 14 23:21	0°♁		retrograde	3754 Dec 24 01:43	0°♁35'37	
	3752 Jun 08 12:02	0°♁			3754 Dec 29 11:24	30°♁	
	3752 Jul 03 00:24	0°♁		asc. node	3755 Jan 01 00:10	29°♁18'44	
morning set	3752 Jul 14 18:26	14°♁23'41		evening set	3755 Jan 07 10:27	26°♁30'49	
asc. node	3752 Jul 16 05:14	16°♁10'19		inferior conj	3755 Jan 13 14:28	22°♁54'16	3°12'59
	3752 Jul 27 11:41	0°♁		minimum elong	3755 Jan 13 07:27	23°♁04'59	3°10'49
max. Earth dist.	3752 Aug 18 12:46	27°♁06'31	1.73397 AU	min. Earth dist.	3755 Jan 13 08:21	23°♁03'37	0.26542 AU
				morning rise	3755 Jan 19 04:31	19°♁36'58	
superior conj	3752 Aug 20 07:47	29°♁19'01	1°11'00	direct	3755 Feb 03 01:35	15°♁15'14	
minimum elong	3752 Aug 19 23:32	28°♁53'36	1°10'46	greatest brilliancy	3755 Feb 12 21:17	17°♁05'04	-4.9m
	3752 Aug 20 21:05	0°♁			3755 Mar 05 20:12	0°♁	
	3752 Sep 14 04:33	0°♁		morning max el	3755 Mar 25 09:51	17°♁58'15	46°49'31
evening rise	3752 Sep 25 11:20	13°♁56'49			3755 Apr 06 00:53	0°♁	
	3752 Oct 08 10:55	0°♁		desc. node	3755 Apr 22 14:21	18°♁07'16	
	3752 Nov 01 17:11	0°♁			3755 May 03 02:17	0°♁	
desc. node	3752 Nov 04 19:17	3°♁48'58			3755 May 28 22:26	0°♁	
	3752 Nov 25 23:59	0°♁			3755 Jun 23 06:15	0°♁	
	3752 Dec 20 08:04	0°♁			3755 Jul 18 07:14	0°♁	
	3753 Jan 13 19:43	0°♁			3755 Aug 12 02:31	0°♁	
	3753 Feb 07 16:52	0°♁		asc. node	3755 Aug 13 16:58	1°♁56'55	
asc. node	3753 Feb 25 21:49	21°♁19'42			3755 Sep 05 15:58	0°♁	
	3753 Mar 05 12:37	0°♁		morning set	3755 Sep 21 20:30	19°♁55'53	
evening max el	3753 Mar 30 22:28	27°♁12'25	46°29'26		3755 Sep 29 23:58	0°♁	
	3753 Apr 02 18:20	0°♁			3755 Oct 24 03:52	0°♁	
greatest brilliancy	3753 May 08 21:38	26°♁55'17	-4.8m	max. Earth dist.	3755 Oct 25 16:51	1°♁55'07	1.72272 AU
retrograde	3753 May 19 20:38	29°♁07'39					
evening set	3753 Jun 04 02:28	24°♁33'15		superior conj	3755 Oct 28 19:59	5°♁49'03	1°11'43
inferior conj	3753 Jun 10 03:40	20°♁53'54	1°45'27	minimum elong	3755 Oct 29 05:00	6°♁17'08	1°11'29
minimum elong	3753 Jun 10 07:31	20°♁47'52	1°44'18		3755 Nov 17 05:16	0°♁	
min. Earth dist.	3753 Jun 09 23:23	21°♁00'37	0.28537 AU	desc. node	3755 Dec 03 07:17	20°♁05'56	
morning rise	3753 Jun 16 13:06	17°♁04'35		evening rise	3755 Dec 06 20:16	24°♁31'35	

	3755 Dec 11 05:19	0°☾			3758 Jun 05 08:54	0°☾	
	3756 Jan 04 04:44	0°♊		morning max el	3758 Jun 06 14:26	1°☾11'19	46°05'53
	3756 Jan 28 04:37	0°♋			3758 Jul 04 07:34	0°♊	
	3756 Feb 21 07:20	0°♌			3758 Jul 31 01:32	0°♋	
	3756 Mar 16 16:50	0°♍			3758 Aug 25 19:48	0°♌	
asc. node	3756 Mar 25 09:42	10°☾34'08		asc. node	3758 Sep 10 04:51	18°☾17'20	
	3756 Apr 10 15:04	0°♎			3758 Sep 19 22:30	0°♍	
	3756 May 06 12:07	0°♏			3758 Oct 14 13:27	0°♎	
	3756 Jun 03 09:06	0°♐			3758 Nov 07 19:54	0°♏	
evening max el	3756 Jun 09 13:34	6°☾07'21	45°35'36	morning set	3758 Dec 01 10:40	29°♐27'44	
	3756 Jul 09 00:46	0°♑			3758 Dec 01 20:59	0°♑	
desc. node	3756 Jul 14 23:52	3°♑05'07			3758 Dec 25 19:07	0°☾	
greatest brilliancy	3756 Jul 17 16:43	4°♑11'03	-4.7m	desc. node	3758 Dec 30 19:00	6°☾16'28	
retrograde	3756 Jul 28 08:36	6°♑14'19		max. Earth dist.	3759 Jan 09 23:20	19°☾04'18	1.71169 AU
evening set	3756 Aug 13 21:36	1°♑03'53					
	3756 Aug 15 16:50	30°♋♏		superior conj	3759 Jan 10 17:44	20°☾02'09	-0°26'00
inferior conj	3756 Aug 18 21:54	28°☾00'39	-7°02'32	minimum elong	3759 Jan 10 11:06	19°☾41'17	0°25'40
minimum elong	3756 Aug 18 12:32	28°☾15'21	7°00'57		3759 Jan 18 15:50	0°♊	
min. Earth dist.	3756 Aug 18 19:53	28°☾03'49	0.29086 AU		3759 Feb 11 12:19	0°♋	
morning rise	3756 Aug 23 03:20	25°☾24'22		evening rise	3759 Feb 20 20:59	11°♋45'42	
direct	3756 Sep 09 12:30	19°☾42'39			3759 Mar 07 10:06	0°♌	
greatest brilliancy	3756 Sep 20 00:48	21°☾41'40	-4.7m		3759 Mar 31 11:16	0°♍	
	3756 Oct 05 03:02	0°♎		asc. node	3759 Apr 22 21:46	27°☾43'17	
morning max el	3756 Oct 28 21:01	20°♎28'18	46°08'06		3759 Apr 24 18:19	0°♊	
asc. node	3756 Nov 05 02:34	27°♎45'04			3759 May 19 09:52	0°♋	
	3756 Nov 07 06:38	0°♌			3759 Jun 13 13:30	0°☾	
	3756 Dec 04 10:44	0°♍			3759 Jul 09 12:25	0°♎	
	3756 Dec 29 20:30	0°♏			3759 Aug 06 00:52	0°♏	
	3757 Jan 23 11:53	0°☾		desc. node	3759 Aug 12 11:39	6°♏36'19	
	3757 Feb 16 18:47	0°♊		evening max el	3759 Aug 20 17:43	14°♏42'33	45°39'03
desc. node	3757 Feb 24 16:38	9°♊49'08			3759 Sep 07 04:08	0°♐	
	3757 Mar 12 22:04	0°♋		greatest brilliancy	3759 Sep 29 05:12	12°♐52'49	-4.8m
	3757 Apr 06 00:31	0°♌		retrograde	3759 Oct 08 12:15	14°♐26'38	
	3757 Apr 30 03:58	0°♍		evening set	3759 Oct 25 13:35	8°♐56'47	
morning set	3757 May 04 02:16	4°☾52'25		inferior conj	3759 Oct 29 12:52	6°♐32'47	-7°22'23
	3757 May 24 09:27	0°♎		minimum elong	3759 Oct 29 22:21	6°♐18'10	7°20'49
				min. Earth dist.	3759 Oct 30 11:45	5°♐57'33	0.27929 AU
superior conj	3757 Jun 11 02:07	21°♎50'21	-0°16'01	morning rise	3759 Nov 03 06:44	3°♐41'14	
minimum elong	3757 Jun 11 05:35	22°♎01'03	0°15'51		3759 Nov 11 01:20	30°♋♏	
behind sun begin	3757 Jun 11 03:20	21°♎54'08		direct	3759 Nov 19 17:08	28°♏28'20	
behind sun end	3757 Jun 11 07:50	22°♎07'59			3759 Nov 28 15:59	0°♐	
max. Earth dist.	3757 Jun 12 22:15	24°♎06'20	1.73197 AU	greatest brilliancy	3759 Nov 30 21:37	0°♐48'50	-4.9m
asc. node	3757 Jun 17 19:25	0°☾07'09		asc. node	3759 Dec 03 14:17	1°♐59'33	
	3757 Jun 17 17:05	0°♋			3760 Jan 07 18:00	0°♑	
	3757 Jul 12 02:22	0°☾		morning max el	3760 Jan 09 08:41	1°♑37'40	46°50'53
evening rise	3757 Jul 17 22:29	7°☾10'19			3760 Feb 04 12:27	0°☾	
	3757 Aug 05 12:56	0°♎			3760 Mar 01 06:17	0°♊	
	3757 Aug 30 01:15	0°♌		desc. node	3760 Mar 24 04:33	27°♊30'41	
desc. node	3757 Sep 23 16:30	0°♍			3760 Mar 26 05:53	0°♋	
	3757 Oct 07 09:28	16°♍36'16			3760 Apr 19 21:45	0°♌	
	3757 Oct 18 12:06	0°♏			3760 May 14 10:42	0°♍	
	3757 Nov 12 13:59	0°☾			3760 Jun 07 23:00	0°♎	
	3757 Dec 08 03:03	0°♊			3760 Jul 02 11:06	0°♋	
	3758 Jan 03 18:59	0°♋		morning set	3760 Jul 12 12:06	12°☾18'14	
evening max el	3758 Jan 15 15:38	12°♋28'34	47°13'19	asc. node	3760 Jul 15 07:08	15°☾43'41	
asc. node	3758 Jan 28 12:00	24°♋55'19			3760 Jul 26 22:15	0°☾	
	3758 Feb 03 06:58	0°♌		max. Earth dist.	3760 Aug 16 09:29	25°☾10'05	1.73414 AU
greatest brilliancy	3758 Feb 25 09:47	14°♌08'35	-4.9m				
retrograde	3758 Mar 07 13:31	16°♌07'16		superior conj	3760 Aug 18 02:03	27°☾14'59	1°09'12
evening set	3758 Mar 25 15:43	9°♌49'15		minimum elong	3760 Aug 17 17:33	26°☾48'52	1°08'57
inferior conj	3758 Mar 28 11:00	8°♌05'12	8°54'04		3760 Aug 20 07:37	0°♎	
minimum elong	3758 Mar 28 13:22	8°♌01'30	8°53'59		3760 Sep 13 15:08	0°♏	
min. Earth dist.	3758 Mar 28 00:30	8°♌21'34	0.27554 AU	evening rise	3760 Sep 23 04:39	11°♏49'03	
morning rise	3758 Mar 31 11:09	6°♌13'57			3760 Oct 07 21:39	0°♐	
direct	3758 Apr 18 03:59	0°♌12'03			3760 Nov 01 04:10	0°♑	
greatest brilliancy	3758 Apr 27 11:42	1°♌49'13	-4.8m	desc. node	3760 Nov 03 21:26	3°♑21'34	
desc. node	3758 May 20 02:10	15°♌28'54			3760 Nov 25 11:19	0°☾	

	3760 Dec 19 19:52	0°♊		asc. node	3763 Aug 12 19:03	1°♏29'45	
	3761 Jan 13 08:13	0°♋			3763 Sep 05 02:45	0°♐	
	3761 Feb 07 06:31	0°♌		morning set	3763 Sep 19 13:27	17°♐46'58	
asc. node	3761 Feb 24 23:48	20°♌41'58			3763 Sep 29 10:40	0°♑	
	3761 Mar 05 04:41	0°♍		max. Earth dist.	3763 Oct 23 09:10	29°♑43'07	1.72323 AU
evening max el	3761 Mar 28 14:20	24°♍58'05	46°31'30		3763 Oct 23 14:36	0°♒	
	3761 Apr 02 17:36	0°♎					
greatest brilliancy	3761 May 06 14:47	24°♎44'18	-4.8m	superior conj	3763 Oct 26 11:30	3°♒34'29	1°13'32
retrograde	3761 May 17 12:39	26°♎55'24		minimum elong	3763 Oct 26 20:08	4°♒01'20	1°13'18
evening set	3761 Jun 01 20:02	22°♎19'19			3763 Nov 16 16:07	0°♓	
inferior conj	3761 Jun 07 19:27	18°♎42'08	2°05'46	desc. node	3763 Dec 02 09:14	19°♓37'52	
minimum elong	3761 Jun 08 00:00	18°♎34'59	2°04'25	evening rise	3763 Dec 04 08:59	22°♓07'05	
min. Earth dist.	3761 Jun 07 15:25	18°♎48'28	0.28506 AU		3763 Dec 10 16:18	0°♈	
morning rise	3761 Jun 14 04:33	14°♎53'04			3764 Jan 03 15:52	0°♉	
desc. node	3761 Jun 16 13:53	13°♎39'44			3764 Jan 27 15:57	0°♊	
direct	3761 Jun 29 04:12	10°♎33'14			3764 Feb 20 18:57	0°♋	
greatest brilliancy	3761 Jul 09 02:44	12°♎20'54	-4.7m		3764 Mar 16 04:56	0°♌	
	3761 Aug 05 13:26	0°♍		asc. node	3764 Mar 24 11:52	10°♌03'24	
morning max el	3761 Aug 16 21:20	10°♍16'32	45°42'18		3764 Apr 10 04:04	0°♎	
	3761 Sep 05 09:41	0°♏			3764 May 06 03:02	0°♐	
	3761 Oct 02 12:42	0°♑			3764 Jun 03 05:14	0°♒	
asc. node	3761 Oct 07 16:48	5°♑57'04		evening max el	3764 Jun 07 04:35	3°♒54'18	45°36'38
	3761 Oct 28 03:27	0°♑			3764 Jul 10 16:31	0°♒	
	3761 Nov 21 22:04	0°♒		desc. node	3764 Jul 14 01:52	1°♒31'44	
	3761 Dec 16 05:11	0°♓		greatest brilliancy	3764 Jul 15 07:27	2°♒00'26	-4.7m
	3762 Jan 09 06:12	0°♈		retrograde	3764 Jul 26 01:00	4°♒05'32	
desc. node	3762 Jan 27 06:46	22°♈35'39			3764 Aug 09 14:28	30°♒♏	
	3762 Feb 02 04:21	0°♉		evening set	3764 Aug 11 10:46	28°♒58'50	
morning set	3762 Feb 15 10:42	16°♉39'46		inferior conj	3764 Aug 16 14:11	25°♒51'23	-6°50'42
	3762 Feb 26 01:33	0°♊		minimum elong	3764 Aug 16 04:36	26°♒06'22	6°49'01
	3762 Mar 21 23:23	0°♋		min. Earth dist.	3764 Aug 16 11:31	25°♒55'33	0.29090 AU
				morning rise	3764 Aug 20 22:18	23°♒11'20	
superior conj	3762 Mar 28 11:09	8°♋07'31	-1°26'15	direct	3764 Sep 07 04:29	17°♒33'12	
minimum elong	3762 Mar 28 13:30	8°♋14'50	1°26'15	greatest brilliancy	3764 Sep 17 17:01	19°♒32'28	-4.7m
max. Earth dist.	3762 Apr 01 09:38	13°♋02'58	1.71726 AU		3764 Oct 05 18:30	0°♒	
	3762 Apr 14 23:28	0°♌		morning max el	3764 Oct 26 12:36	18°♒15'10	46°06'42
evening rise	3762 May 07 05:30	27°♌38'40		asc. node	3764 Nov 04 04:36	27°♒00'13	
	3762 May 09 03:09	0°♎			3764 Nov 07 01:22	0°♑	
asc. node	3762 May 20 09:36	13°♎55'16			3764 Dec 04 01:25	0°♒	
	3762 Jun 02 11:13	0°♐			3764 Dec 29 09:35	0°♓	
	3762 Jun 27 00:12	0°♑			3765 Jan 23 00:08	0°♈	
	3762 Jul 21 19:10	0°♒			3765 Feb 16 06:32	0°♉	
	3762 Aug 15 22:46	0°♓		desc. node	3765 Feb 23 18:42	9°♉19'22	
desc. node	3762 Sep 08 23:32	28°♓03'45			3765 Mar 12 09:29	0°♊	
	3762 Sep 10 15:57	0°♔			3765 Apr 05 11:40	0°♋	
	3762 Oct 07 08:57	0°♕			3765 Apr 29 14:55	0°♌	
evening max el	3762 Nov 01 14:24	26°♕19'21	46°36'32	morning set	3765 May 01 16:57	2°♌35'15	
	3762 Nov 05 09:32	0°♖			3765 May 23 20:15	0°♎	
greatest brilliancy	3762 Dec 11 19:32	26°♖21'22	-4.9m				
retrograde	3762 Dec 21 13:28	28°♖08'18		superior conj	3765 Jun 08 18:43	19°♎40'28	-0°19'17
asc. node	3762 Dec 31 02:08	26°♖18'15		minimum elong	3765 Jun 08 22:53	19°♎53'20	0°19'05
evening set	3763 Jan 04 21:54	24°♖05'06		max. Earth dist.	3765 Jun 10 17:10	22°♎03'39	1.73166 AU
inferior conj	3763 Jan 11 02:58	20°♖27'35	2°49'47	asc. node	3765 Jun 16 21:22	29°♎40'07	
minimum elong	3763 Jan 10 20:42	20°♖37'09	2°47'51		3765 Jun 17 03:49	0°♐	
min. Earth dist.	3763 Jan 10 22:37	20°♖34'13	0.26540 AU		3765 Jul 11 13:08	0°♑	
morning rise	3763 Jan 16 19:24	17°♖06'47		evening rise	3765 Jul 15 17:00	5°♑06'39	
direct	3763 Jan 31 13:37	12°♖48'12			3765 Aug 04 23:52	0°♒	
greatest brilliancy	3763 Feb 10 12:10	14°♖40'14	-4.9m		3765 Aug 29 12:28	0°♓	
	3763 Mar 06 07:15	0°♗			3765 Sep 23 04:11	0°♔	
morning max el	3763 Mar 22 22:02	15°♗31'19	46°50'36	desc. node	3765 Oct 06 11:32	16°♔06'14	
	3763 Apr 05 19:48	0°♘			3765 Oct 18 00:28	0°♕	
desc. node	3763 Apr 21 16:30	17°♘28'08			3765 Nov 12 03:25	0°♖	
	3763 May 02 17:08	0°♙			3765 Dec 07 18:22	0°♗	
	3763 May 28 11:29	0°♚			3766 Jan 03 14:23	0°♘	
	3763 Jun 22 18:19	0°♛		evening max el	3766 Jan 13 06:21	10°♘06'29	47°13'32
	3763 Jul 17 18:40	0°♜		asc. node	3766 Jan 27 14:06	23°♘52'30	
	3763 Aug 11 13:32	0°♝			3766 Feb 03 19:11	0°♙	

greatest brilliancy	3766 Feb 22 23:28	11° Υ 44'27	-4.9m		3768 Jul 26 09:08	0° Ω	
retrograde	3766 Mar 05 04:17	13° Υ 44'04		max. Earth dist.	3768 Aug 14 05:20	23° Ω 10'07	1.73430 AU
evening set	3766 Mar 23 05:52	7° Υ 25'44					
min. Earth dist.	3766 Mar 25 13:17	6° Υ 00'17	0.27511 AU	superior conj	3768 Aug 15 20:27	25° Ω 10'31	1°07'18
inferior conj	3766 Mar 26 00:48	5° Υ 42'22	8°56'27	minimum elong	3768 Aug 15 11:48	24° Ω 43'52	1°07'03
minimum elong	3766 Mar 26 02:17	5° Υ 40'03	8°56'26		3768 Aug 19 18:28	0° \mathbb{M}	
morning rise	3766 Mar 28 22:51	3° Υ 54'34			3768 Sep 13 02:04	0° $\underline{\Omega}$	
	3766 Apr 05 10:23	30° \mathbb{R} \mathbb{H}		evening rise	3768 Sep 20 22:05	9° $\underline{\Omega}$ 40'37	
direct	3766 Apr 15 17:37	27° \mathbb{H} 49'55			3768 Oct 07 08:47	0° \mathbb{M}	
greatest brilliancy	3766 Apr 24 24:00	29° \mathbb{H} 26'32	-4.8m		3768 Oct 31 15:36	0° \mathbb{H}	
	3766 Apr 26 13:30	0° Υ		desc. node	3768 Nov 02 23:22	2° \mathbb{H} 52'09	
desc. node	3766 May 19 04:03	14° Υ 22'27			3768 Nov 24 23:08	0° \mathbb{Z}	
morning max el	3766 Jun 04 05:42	28° Υ 56'01	46°07'25		3768 Dec 19 08:11	0° \approx	
	3766 Jun 05 07:57	0° \mathbb{B}			3769 Jan 12 21:12	0° \mathbb{H}	
	3766 Jul 03 23:38	0° \mathbb{I}			3769 Feb 06 20:42	0° Υ	
	3766 Jul 30 15:03	0° \mathbb{G}		asc. node	3769 Feb 24 01:56	20° Υ 03'05	
	3766 Aug 25 08:06	0° Ω			3769 Mar 04 21:26	0° \mathbb{B}	
asc. node	3766 Sep 09 06:57	17° Ω 48'04		evening max el	3769 Mar 26 05:07	22° \mathbb{B} 39'45	46°33'37
	3766 Sep 19 10:09	0° \mathbb{M}			3769 Apr 02 18:27	0° \mathbb{I}	
	3766 Oct 14 00:45	0° $\underline{\Omega}$		greatest brilliancy	3769 May 04 08:15	22° \mathbb{I} 32'28	-4.8m
	3766 Nov 07 07:02	0° \mathbb{M}		retrograde	3769 May 15 04:11	24° \mathbb{I} 42'04	
morning set	3766 Nov 29 00:13	27° \mathbb{M} 05'20		evening set	3769 May 30 13:43	20° \mathbb{I} 03'57	
	3766 Dec 01 08:04	0° \mathbb{H}		inferior conj	3769 Jun 05 11:15	16° \mathbb{I} 29'17	2°25'52
	3766 Dec 25 06:12	0° \mathbb{Z}		minimum elong	3769 Jun 05 16:29	16° \mathbb{I} 21'04	2°24'20
desc. node	3766 Dec 29 21:00	5° \mathbb{Z} 47'57		min. Earth dist.	3769 Jun 05 07:45	16° \mathbb{I} 34'49	0.28475 AU
max. Earth dist.	3767 Jan 07 08:28	16° \mathbb{Z} 27'14	1.71185 AU	morning rise	3769 Jun 11 19:47	12° \mathbb{I} 40'37	
				desc. node	3769 Jun 15 15:57	10° \mathbb{I} 47'34	
superior conj	3767 Jan 08 04:07	17° \mathbb{Z} 29'00	-0°22'10	direct	3769 Jun 26 19:29	8° \mathbb{I} 20'55	
minimum elong	3767 Jan 07 22:25	17° \mathbb{Z} 11'04	0°21'54	greatest brilliancy	3769 Jul 06 17:56	10° \mathbb{I} 08'15	-4.7m
	3767 Jan 18 02:57	0° \approx			3769 Aug 05 17:40	0° \mathbb{G}	
	3767 Feb 10 23:30	0° \mathbb{H}		morning max el	3769 Aug 14 11:46	8° \mathbb{G} 02'21	45°42'22
evening rise	3767 Feb 18 07:14	9° \mathbb{H} 12'04			3769 Sep 05 02:47	0° Ω	
	3767 Mar 06 21:20	0° Υ			3769 Oct 02 02:40	0° \mathbb{M}	
	3767 Mar 30 22:37	0° \mathbb{B}		asc. node	3769 Oct 06 18:50	5° \mathbb{M} 23'28	
asc. node	3767 Apr 21 23:44	27° \mathbb{B} 13'56			3769 Oct 27 16:03	0° $\underline{\Omega}$	
	3767 Apr 24 05:52	0° \mathbb{I}			3769 Nov 21 10:01	0° \mathbb{M}	
	3767 May 18 21:51	0° \mathbb{G}			3769 Dec 15 16:49	0° \mathbb{H}	
	3767 Jun 13 02:19	0° Ω			3770 Jan 08 17:41	0° \mathbb{Z}	
	3767 Jul 09 02:56	0° \mathbb{M}		desc. node	3770 Jan 26 08:56	22° \mathbb{Z} 06'44	
	3767 Aug 05 19:34	0° $\underline{\Omega}$			3770 Feb 01 15:42	0° \approx	
desc. node	3767 Aug 11 13:44	5° $\underline{\Omega}$ 50'27		morning set	3770 Feb 12 20:17	14° \approx 03'39	
evening max el	3767 Aug 18 08:50	12° $\underline{\Omega}$ 29'01	45°37'38		3770 Feb 25 12:47	0° \mathbb{H}	
	3767 Sep 07 17:50	0° \mathbb{M}			3770 Mar 21 10:32	0° Υ	
greatest brilliancy	3767 Sep 26 18:17	10° \mathbb{M} 35'05	-4.8m				
retrograde	3767 Oct 06 01:50	12° \mathbb{M} 09'00		superior conj	3770 Mar 25 22:48	5° Υ 38'57	-1°26'34
evening set	3767 Oct 23 06:36	6° \mathbb{M} 34'52		minimum elong	3770 Mar 26 00:08	5° Υ 43'07	1°26'35
inferior conj	3767 Oct 27 03:12	4° \mathbb{M} 14'24	-7°33'21	max. Earth dist.	3770 Mar 29 19:30	10° Υ 28'57	1.71673 AU
minimum elong	3767 Oct 27 12:17	4° \mathbb{M} 00'21	7°31'57		3770 Apr 14 10:34	0° \mathbb{B}	
min. Earth dist.	3767 Oct 28 01:38	3° \mathbb{M} 39'45	0.27997 AU	evening rise	3770 May 04 19:11	25° \mathbb{B} 18'02	
morning rise	3767 Oct 31 17:38	1° \mathbb{M} 27'25			3770 May 08 14:15	0° \mathbb{I}	
	3767 Nov 03 09:09	30° \mathbb{R} $\underline{\Omega}$		asc. node	3770 May 19 11:34	13° \mathbb{I} 27'06	
direct	3767 Nov 17 08:33	26° $\underline{\Omega}$ 09'14			3770 Jun 01 22:25	0° \mathbb{G}	
greatest brilliancy	3767 Nov 28 12:06	28° $\underline{\Omega}$ 28'34	-4.9m		3770 Jun 26 11:37	0° Ω	
	3767 Dec 01 22:00	0° \mathbb{M}			3770 Jul 21 07:02	0° \mathbb{M}	
asc. node	3767 Dec 02 16:14	0° \mathbb{M} 22'58			3770 Aug 15 11:26	0° $\underline{\Omega}$	
morning max el	3768 Jan 06 22:51	29° \mathbb{M} 14'51	46°49'48	desc. node	3770 Sep 08 01:36	27° $\underline{\Omega}$ 29'23	
	3768 Jan 07 16:36	0° \mathbb{H}			3770 Sep 10 06:06	0° \mathbb{M}	
	3768 Feb 04 04:51	0° \mathbb{Z}			3770 Oct 07 02:11	0° \mathbb{H}	
	3768 Feb 29 20:22	0° \approx		evening max el	3770 Oct 30 02:33	23° \mathbb{H} 53'23	46°34'15
desc. node	3768 Mar 23 06:39	26° \approx 57'47			3770 Nov 05 11:41	0° \mathbb{Z}	
	3768 Mar 25 18:47	0° \mathbb{H}		greatest brilliancy	3770 Dec 09 08:52	23° \mathbb{Z} 53'48	-4.9m
	3768 Apr 19 09:54	0° Υ		retrograde	3770 Dec 19 01:15	25° \mathbb{Z} 39'44	
	3768 May 13 22:20	0° \mathbb{B}		asc. node	3770 Dec 30 04:15	23° \mathbb{Z} 10'37	
	3768 Jun 07 10:17	0° \mathbb{I}		evening set	3771 Jan 02 09:22	21° \mathbb{Z} 37'20	
	3768 Jul 01 22:08	0° \mathbb{G}		inferior conj	3771 Jan 08 15:16	17° \mathbb{Z} 59'14	2°26'09
morning set	3768 Jul 10 05:54	10° \mathbb{G} 12'07		minimum elong	3771 Jan 08 09:48	18° \mathbb{Z} 07'34	2°24'26
asc. node	3768 Jul 14 09:16	15° \mathbb{G} 16'42		min. Earth dist.	3771 Jan 08 12:37	18° \mathbb{Z} 03'16	0.26548 AU

morning rise	3771 Jan 14 10:01	14° Z 35'23		evening rise	3773 Jul 13 11:13	3° Q 02'04	
direct	3771 Jan 29 01:39	10° Z 19'12			3773 Aug 04 10:47	0° M	
greatest brilliancy	3771 Feb 08 03:00	12° Z 13'45	-4.9m		3773 Aug 28 23:41	0° L	
	3771 Mar 06 16:04	0° \approx			3773 Sep 22 15:51	0° M	
morning max el	3771 Mar 20 10:56	13° \approx 04'37	46°51'44	desc. node	3773 Oct 05 13:28	15° M 35'48	
	3771 Apr 05 14:42	0° H			3773 Oct 17 12:50	0° Z	
desc. node	3771 Apr 20 18:26	16° H 47'35			3773 Nov 11 16:53	0° Z	
	3771 May 02 08:12	0° Y			3773 Dec 07 09:45	0° \approx	
	3771 May 28 00:46	0° B			3774 Jan 03 10:09	0° H	
	3771 Jun 22 06:34	0° II		evening max el	3774 Jan 10 21:33	7° H 46'14	47°13'34
	3771 Jul 17 06:16	0° G		asc. node	3774 Jan 26 16:08	22° H 48'30	
	3771 Aug 11 00:44	0° Q			3774 Feb 04 11:11	0° Y	
asc. node	3771 Aug 11 21:07	1° Q 02'01		greatest brilliancy	3774 Feb 20 12:57	9° Y 20'34	-4.9m
	3771 Sep 04 13:43	0° M		retrograde	3774 Mar 02 18:59	11° Y 20'56	
morning set	3771 Sep 17 06:43	15° M 38'25		evening set	3774 Mar 20 19:30	5° Y 03'14	
	3771 Sep 28 21:33	0° L		min. Earth dist.	3774 Mar 23 01:52	3° Y 39'24	0.27471 AU
max. Earth dist.	3771 Oct 21 03:36	27° L 37'11	1.72370 AU	inferior conj	3774 Mar 23 14:32	3° Y 19'42	8°57'57
	3771 Oct 23 01:30	0° M		minimum elong	3774 Mar 23 15:07	3° Y 18'48	8°57'57
				morning rise	3774 Mar 26 10:54	1° Y 34'34	
superior conj	3771 Oct 24 03:25	1° M 20'40	1°15'11		3774 Mar 29 04:00	30° R H	
minimum elong	3771 Oct 24 11:36	1° M 46'07	1°15'00	direct	3774 Apr 13 07:34	25° H 28'08	
	3771 Nov 16 03:06	0° Z		greatest brilliancy	3774 Apr 22 12:04	27° H 03'38	-4.8m
desc. node	3771 Dec 01 11:17	19° Z 09'40			3774 Apr 29 07:53	0° Y	
evening rise	3771 Dec 01 22:06	19° Z 43'28		desc. node	3774 May 18 06:09	13° Y 18'17	
	3771 Dec 10 03:26	0° Z		morning max el	3774 Jun 01 20:36	26° Y 39'48	46°08'49
	3772 Jan 03 03:12	0° \approx			3774 Jun 05 06:02	0° B	
	3772 Jan 27 03:32	0° H			3774 Jul 03 15:23	0° II	
	3772 Feb 20 06:52	0° Y			3774 Jul 30 04:23	0° G	
	3772 Mar 15 17:21	0° B			3774 Aug 24 20:12	0° Q	
asc. node	3772 Mar 23 13:48	9° B 30'58		asc. node	3774 Sep 08 08:54	17° Q 18'58	
	3772 Apr 09 17:25	0° II			3774 Sep 18 21:36	0° M	
	3772 May 05 18:24	0° G			3774 Oct 13 11:51	0° L	
	3772 Jun 03 02:16	0° Q			3774 Nov 06 17:58	0° M	
evening max el	3772 Jun 04 20:15	1° Q 42'26	45°37'59	morning set	3774 Nov 26 13:59	24° M 44'19	
greatest brilliancy	3772 Jul 12 22:02	29° Q 49'30	-4.7m		3774 Nov 30 18:56	0° Z	
desc. node	3772 Jul 13 03:58	29° Q 54'59			3774 Dec 24 17:05	0° Z	
	3772 Jul 13 09:31	0° M		desc. node	3774 Dec 28 23:09	5° Z 20'31	
retrograde	3772 Jul 23 17:51	1° M 56'37		max. Earth dist.	3775 Jan 04 14:52	13° Z 42'15	1.71199 AU
	3772 Aug 02 15:14	30° R Q					
evening set	3772 Aug 09 00:09	26° Q 53'34		superior conj	3775 Jan 05 14:57	14° Z 57'55	-0°18'20
inferior conj	3772 Aug 14 06:30	23° Q 41'56	-6°38'25	minimum elong	3775 Jan 05 10:12	14° Z 43'02	0°18'06
minimum elong	3772 Aug 13 20:46	23° Q 57'10	6°36'36		3775 Jan 17 13:51	0° \approx	
min. Earth dist.	3772 Aug 14 02:52	23° Q 47'37	0.29090 AU		3775 Feb 10 10:26	0° H	
morning rise	3772 Aug 18 17:20	20° Q 58'12		evening rise	3775 Feb 15 17:48	6° H 40'11	
direct	3772 Sep 04 20:59	15° Q 23'45			3775 Mar 06 08:18	0° Y	
greatest brilliancy	3772 Sep 15 08:43	17° Q 22'40	-4.7m		3775 Mar 30 09:42	0° B	
	3772 Oct 06 06:04	0° M		asc. node	3775 Apr 21 01:44	26° B 45'23	
morning max el	3772 Oct 24 04:55	16° M 03'56	46°05'20		3775 Apr 23 17:11	0° II	
asc. node	3772 Nov 03 06:31	26° M 15'38			3775 May 18 09:38	0° G	
	3772 Nov 06 19:39	0° L			3775 Jun 12 15:00	0° Q	
	3772 Dec 03 15:56	0° M			3775 Jul 08 17:24	0° M	
	3772 Dec 28 22:34	0° Z			3775 Aug 05 14:30	0° L	
	3773 Jan 22 12:19	0° Z		desc. node	3775 Aug 10 15:46	5° L 04'32	
	3773 Feb 15 18:16	0° \approx		evening max el	3775 Aug 15 23:16	10° L 14'36	45°36'26
desc. node	3773 Feb 22 20:45	8° \approx 49'34			3775 Sep 08 11:32	0° M	
	3773 Mar 11 20:55	0° H		greatest brilliancy	3775 Sep 24 08:08	8° M 19'37	-4.8m
	3773 Apr 04 22:54	0° Y		retrograde	3775 Oct 03 15:20	9° M 53'12	
morning set	3773 Apr 29 07:09	0° B 16'10		evening set	3775 Oct 20 23:42	4° M 15'00	
	3773 Apr 29 01:57	0° B		inferior conj	3775 Oct 24 17:47	1° M 57'56	-7°43'24
	3773 May 23 07:08	0° II		minimum elong	3775 Oct 25 02:25	1° M 44'34	7°42'11
				min. Earth dist.	3775 Oct 25 15:59	1° M 23'35	0.28063 AU
superior conj	3773 Jun 06 10:48	17° II 28'44	-0°22'34		3775 Oct 27 22:41	30° R L	
minimum elong	3773 Jun 06 15:40	17° II 43'44	0°22'21	morning rise	3775 Oct 29 04:47	29° L 15'30	
max. Earth dist.	3773 Jun 08 13:00	20° II 03'31	1.73130 AU	direct	3775 Nov 14 23:35	23° L 51'55	
asc. node	3773 Jun 15 23:28	29° II 13'24		greatest brilliancy	3775 Nov 26 03:12	26° L 10'36	-4.8m
	3773 Jun 16 14:36	0° G		asc. node	3775 Dec 01 18:25	28° L 51'21	
	3773 Jul 10 23:55	0° Q			3775 Dec 03 18:18	0° M	

morning max el	3776 Jan 04 12:26	26° \mathbb{M} 51'38	46°48'41	desc. node	3778 Sep 07 03:31	26° \mathbb{L} 55'25	
	3776 Jan 07 13:55	0° \mathbb{X}			3778 Sep 09 20:03	0° \mathbb{M}	
	3776 Feb 03 20:38	0° \mathbb{Z}			3778 Oct 06 19:25	0° \mathbb{X}	
	3776 Feb 29 09:59	0° \approx		evening max el	3778 Oct 27 15:17	21° \mathbb{X} 30'11	46°32'07
desc. node	3776 Mar 22 08:34	26° \approx 25'35			3778 Nov 05 14:54	0° \mathbb{Z}	
	3776 Mar 25 07:14	0° \mathbb{H}		greatest brilliancy	3778 Dec 06 21:40	21° \mathbb{Z} 26'59	-4.9m
	3776 Apr 18 21:37	0° \mathbb{Y}		retrograde	3778 Dec 16 13:38	23° \mathbb{Z} 12'39	
	3776 May 13 09:34	0° \mathbb{B}		asc. node	3778 Dec 29 06:15	19° \mathbb{Z} 59'43	
	3776 Jun 06 21:11	0° \mathbb{I}		evening set	3778 Dec 30 21:07	19° \mathbb{Z} 10'30	
	3776 Jul 01 08:49	0° \mathbb{G}		inferior conj	3779 Jan 06 03:33	15° \mathbb{Z} 32'05	2°02'19
morning set	3776 Jul 07 23:36	8° \mathbb{G} 06'40		minimum elong	3779 Jan 05 22:56	15° \mathbb{Z} 39'07	2°00'50
asc. node	3776 Jul 13 11:19	14° \mathbb{G} 50'29		min. Earth dist.	3779 Jan 06 02:16	15° \mathbb{Z} 34'03	0.26559 AU
	3776 Jul 25 19:42	0° \mathbb{Q}		morning rise	3779 Jan 12 00:30	12° \mathbb{Z} 05'37	
max. Earth dist.	3776 Aug 11 23:34	21° \mathbb{Q} 06'08	1.73447 AU	direct	3779 Jan 26 14:08	7° \mathbb{Z} 51'27	
				greatest brilliancy	3779 Feb 05 17:17	9° \mathbb{Z} 47'59	-4.9m
superior conj	3776 Aug 13 14:45	23° \mathbb{Q} 06'43	1°05'20		3779 Mar 06 21:56	0° \approx	
minimum elong	3776 Aug 13 05:58	22° \mathbb{Q} 39'42	1°05'03	morning max el	3779 Mar 18 00:52	10° \approx 41'39	46°52'42
	3776 Aug 19 04:59	0° \mathbb{P}			3779 Apr 05 08:44	0° \mathbb{H}	
	3776 Sep 12 12:39	0° \mathbb{L}		desc. node	3779 Apr 19 20:29	16° \mathbb{H} 08'51	
evening rise	3776 Sep 18 15:27	7° \mathbb{L} 33'09			3779 May 01 22:43	0° \mathbb{Y}	
	3776 Oct 06 19:33	0° \mathbb{M}			3779 May 27 13:36	0° \mathbb{B}	
	3776 Oct 31 02:40	0° \mathbb{X}			3779 Jun 21 18:24	0° \mathbb{I}	
desc. node	3776 Nov 02 01:25	2° \mathbb{X} 24'14			3779 Jul 16 17:28	0° \mathbb{G}	
	3776 Nov 24 10:37	0° \mathbb{Z}			3779 Aug 10 11:33	0° \mathbb{Q}	
	3776 Dec 18 20:09	0° \approx		asc. node	3779 Aug 10 23:04	0° \mathbb{Q} 35'04	
	3777 Jan 12 09:55	0° \mathbb{H}			3779 Sep 04 00:20	0° \mathbb{P}	
	3777 Feb 06 10:39	0° \mathbb{Y}		morning set	3779 Sep 14 24:00	13° \mathbb{P} 31'05	
asc. node	3777 Feb 23 03:55	19° \mathbb{Y} 24'37			3779 Sep 28 08:08	0° \mathbb{L}	
	3777 Mar 04 14:05	0° \mathbb{B}		max. Earth dist.	3779 Oct 18 21:25	25° \mathbb{L} 30'16	1.72418 AU
evening max el	3777 Mar 23 19:04	20° \mathbb{B} 20'31	46°35'49				
	3777 Apr 02 20:00	0° \mathbb{I}		superior conj	3779 Oct 21 19:17	29° \mathbb{L} 07'32	1°16'44
greatest brilliancy	3777 May 02 01:40	20° \mathbb{I} 21'59	-4.8m	minimum elong	3779 Oct 22 02:58	29° \mathbb{L} 31'28	1°16'34
retrograde	3777 May 12 19:50	22° \mathbb{I} 30'30			3779 Oct 22 12:08	0° \mathbb{M}	
evening set	3777 May 28 07:33	17° \mathbb{I} 49'53			3779 Nov 15 13:51	0° \mathbb{X}	
inferior conj	3777 Jun 03 03:10	14° \mathbb{I} 18'06	2°45'40	evening rise	3779 Nov 29 11:03	17° \mathbb{X} 20'11	
minimum elong	3777 Jun 03 09:02	14° \mathbb{I} 08'51	2°43'58	desc. node	3779 Nov 30 13:24	18° \mathbb{X} 42'28	
min. Earth dist.	3777 Jun 03 00:14	14° \mathbb{I} 22'42	0.28446 AU		3779 Dec 09 14:19	0° \mathbb{Z}	
morning rise	3777 Jun 09 10:57	10° \mathbb{I} 30'10			3780 Jan 02 14:16	0° \approx	
desc. node	3777 Jun 14 18:01	8° \mathbb{I} 01'17			3780 Jan 26 14:51	0° \mathbb{H}	
direct	3777 Jun 24 10:27	6° \mathbb{I} 10'05			3780 Feb 19 18:31	0° \mathbb{Y}	
greatest brilliancy	3777 Jul 04 09:37	7° \mathbb{I} 57'40	-4.7m		3780 Mar 15 05:32	0° \mathbb{B}	
	3777 Aug 05 19:39	0° \mathbb{G}		asc. node	3780 Mar 22 15:48	8° \mathbb{B} 59'31	
morning max el	3777 Aug 12 02:27	5° \mathbb{G} 50'00	45°42'25		3780 Apr 09 06:36	0° \mathbb{I}	
	3777 Sep 04 19:08	0° \mathbb{Q}			3780 May 05 09:42	0° \mathbb{G}	
	3777 Oct 01 16:05	0° \mathbb{P}		evening max el	3780 Jun 02 12:47	29° \mathbb{G} 33'26	45°39'22
asc. node	3777 Oct 05 20:48	4° \mathbb{P} 51'03			3780 Jun 10 23:45	0° \mathbb{Q}	
	3777 Oct 27 04:12	0° \mathbb{L}		greatest brilliancy	3780 Jul 12 12:53	27° \mathbb{Q} 39'48	-4.7m
	3777 Nov 20 21:32	0° \mathbb{M}		desc. node	3780 Jul 12 05:58	28° \mathbb{Q} 15'36	
	3777 Dec 15 04:01	0° \mathbb{X}		retrograde	3780 Jul 21 10:44	29° \mathbb{Q} 48'25	
	3778 Jan 08 04:42	0° \mathbb{Z}		evening set	3780 Aug 06 13:42	24° \mathbb{Q} 49'12	
desc. node	3778 Jan 25 10:51	21° \mathbb{Z} 38'29		inferior conj	3780 Aug 11 22:49	21° \mathbb{Q} 33'21	-6°25'38
	3778 Feb 01 02:37	0° \approx		minimum elong	3780 Aug 11 13:00	21° \mathbb{Q} 48'43	6°23'42
morning set	3778 Feb 10 05:53	11° \approx 28'45		min. Earth dist.	3780 Aug 11 18:06	21° \mathbb{Q} 40'44	0.29085 AU
	3778 Feb 24 23:38	0° \mathbb{H}		morning rise	3780 Aug 16 12:20	18° \mathbb{Q} 45'51	
	3778 Mar 20 21:18	0° \mathbb{Y}		direct	3780 Sep 02 13:51	13° \mathbb{Q} 15'26	
				greatest brilliancy	3780 Sep 12 23:41	15° \mathbb{Q} 13'02	-4.7m
superior conj	3778 Mar 23 10:26	3° \mathbb{Y} 11'26	-1°26'43		3780 Oct 06 14:11	0° \mathbb{P}	
minimum elong	3778 Mar 23 10:43	3° \mathbb{Y} 12'21	1°26'43	morning max el	3780 Oct 21 21:05	13° \mathbb{P} 53'18	46°03'47
max. Earth dist.	3778 Mar 27 02:03	7° \mathbb{Y} 45'39	1.71622 AU	asc. node	3780 Nov 02 08:42	25° \mathbb{P} 33'02	
	3778 Apr 13 21:17	0° \mathbb{B}			3780 Nov 06 13:16	0° \mathbb{L}	
evening rise	3778 May 02 08:51	22° \mathbb{B} 58'29			3780 Dec 03 06:08	0° \mathbb{M}	
	3778 May 08 00:58	0° \mathbb{I}			3780 Dec 28 11:20	0° \mathbb{X}	
asc. node	3778 May 18 13:43	13° \mathbb{I} 00'42			3781 Jan 22 00:21	0° \mathbb{Z}	
	3778 Jun 01 09:11	0° \mathbb{G}			3781 Feb 15 05:51	0° \approx	
	3778 Jun 25 22:36	0° \mathbb{Q}		desc. node	3781 Feb 21 22:45	8° \approx 20'06	
	3778 Jul 20 18:30	0° \mathbb{P}			3781 Mar 11 08:11	0° \mathbb{H}	
	3778 Aug 14 23:47	0° \mathbb{L}			3781 Apr 04 09:56	0° \mathbb{Y}	

morning set	3781 Apr 26 21:08	27° Υ 56'52	greatest brilliancy	3783 Sep 21 22:16	6° \mathbb{M} 04'07	-4.8m
	3781 Apr 28 12:48	0° \mathcal{B}	retrograde	3783 Oct 01 04:51	7° \mathbb{M} 37'29	
	3781 May 22 17:51	0° \mathbb{I}	evening set	3783 Oct 18 16:42	1° \mathbb{M} 55'08	
				3783 Oct 21 20:31	30° \mathcal{R} $\underline{\mathcal{A}}$	
superior conj	3781 Jun 04 02:44	15° \mathbb{I} 16'46 -0°25'51	inferior conj	3783 Oct 22 08:27	29° $\underline{\mathcal{A}}$ 41'30 -7°52'40	
minimum elong	3781 Jun 04 08:16	15° \mathbb{I} 33'52 0°25'35	minimum elong	3783 Oct 22 16:34	29° $\underline{\mathcal{A}}$ 28'56 7°51'36	
max. Earth dist.	3781 Jun 06 09:35	18° \mathbb{I} 05'59 1.73093 AU	min. Earth dist.	3783 Oct 23 06:35	29° $\underline{\mathcal{A}}$ 07'12 0.28127 AU	
asc. node	3781 Jun 15 01:30	28° \mathbb{I} 46'50	morning rise	3783 Oct 26 16:03	27° $\underline{\mathcal{A}}$ 03'43	
	3781 Jun 16 01:16	0° \mathcal{E}	direct	3783 Nov 12 14:14	21° $\underline{\mathcal{A}}$ 34'28	
	3781 Jul 10 10:37	0° \mathcal{O}	greatest brilliancy	3783 Nov 23 18:45	23° $\underline{\mathcal{A}}$ 53'15 -4.8m	
evening rise	3781 Jul 11 05:21	0° \mathcal{O} 57'32	asc. node	3783 Nov 30 20:22	27° $\underline{\mathcal{A}}$ 22'25	
	3781 Aug 03 21:37	0° \mathbb{M}		3783 Dec 05 00:32	0° \mathbb{M}	
	3781 Aug 28 10:47	0° $\underline{\mathcal{A}}$	morning max el	3784 Jan 02 01:49	24° \mathbb{M} 27'39 46°47'33	
	3781 Sep 22 03:25	0° \mathbb{M}		3784 Jan 07 10:38	0° \mathcal{X}	
desc. node	3781 Oct 04 15:36	15° \mathbb{M} 06'14		3784 Feb 03 12:19	0° \mathcal{Z}	
	3781 Oct 17 01:09	0° \mathcal{X}		3784 Feb 28 23:42	0° \approx	
	3781 Nov 11 06:24	0° \mathcal{Z}	desc. node	3784 Mar 21 10:40	25° \approx 53'17	
	3781 Dec 07 01:23	0° \approx		3784 Mar 24 19:52	0° \mathcal{H}	
	3782 Jan 03 06:39	0° \mathcal{H}		3784 Apr 18 09:35	0° Υ	
evening max el	3782 Jan 08 12:41	5° \mathcal{H} 25'21 47°13'24		3784 May 12 21:04	0° \mathcal{B}	
asc. node	3782 Jan 25 18:06	21° \mathcal{H} 42'19		3784 Jun 06 08:20	0° \mathbb{I}	
	3782 Feb 05 09:03	0° Υ		3784 Jun 30 19:45	0° \mathcal{E}	
greatest brilliancy	3782 Feb 18 02:54	6° Υ 56'31 -4.9m	morning set	3784 Jul 05 16:58	5° \mathcal{E} 59'22	
retrograde	3782 Feb 28 09:11	8° Υ 56'39	asc. node	3784 Jul 12 13:14	14° \mathcal{E} 23'05	
evening set	3782 Mar 18 08:30	2° Υ 40'42		3784 Jul 25 06:31	0° \mathcal{O}	
min. Earth dist.	3782 Mar 20 14:31	1° Υ 17'20 0.27424 AU	max. Earth dist.	3784 Aug 09 18:22	19° \mathcal{O} 03'09 1.73464 AU	
inferior conj	3782 Mar 21 04:05	0° Υ 56'13 8°58'33				
minimum elong	3782 Mar 21 03:45	0° Υ 56'44 8°58'33	superior conj	3784 Aug 11 08:54	21° \mathcal{O} 01'41 1°03'15	
	3782 Mar 22 16:21	30° \mathcal{R} \mathcal{H}	minimum elong	3784 Aug 11 00:01	20° \mathcal{O} 34'22 1°02'57	
morning rise	3782 Mar 23 23:11	29° \mathcal{H} 12'58		3784 Aug 18 15:47	0° \mathbb{M}	
direct	3782 Apr 10 21:12	23° \mathcal{H} 05'44		3784 Sep 11 23:32	0° $\underline{\mathcal{A}}$	
greatest brilliancy	3782 Apr 20 00:05	24° \mathcal{H} 40'01 -4.8m	evening rise	3784 Sep 16 08:56	5° $\underline{\mathcal{A}}$ 25'13	
	3782 May 01 00:56	0° Υ		3784 Oct 06 06:38	0° \mathbb{M}	
	3782 May 17 08:17	12° Υ 15'43		3784 Oct 30 14:02	0° \mathcal{X}	
morning max el	3782 May 30 10:19	24° Υ 20'31 46°10'13	desc. node	3784 Nov 01 03:31	1° \mathcal{X} 55'38	
	3782 Jun 05 03:19	0° \mathcal{B}		3784 Nov 23 22:20	0° \mathcal{Z}	
	3782 Jul 03 06:53	0° \mathbb{I}		3784 Dec 18 08:23	0° \approx	
	3782 Jul 29 17:37	0° \mathcal{E}		3785 Jan 11 22:54	0° \mathcal{H}	
	3782 Aug 24 08:17	0° \mathcal{O}		3785 Feb 06 01:00	0° Υ	
asc. node	3782 Sep 07 10:57	16° \mathcal{O} 50'08	asc. node	3785 Feb 22 05:54	18° Υ 44'59	
	3782 Sep 18 09:02	0° \mathbb{M}		3785 Mar 04 07:25	0° \mathcal{B}	
	3782 Oct 12 22:56	0° $\underline{\mathcal{A}}$	evening max el	3785 Mar 21 08:40	17° \mathcal{B} 59'13 46°37'54	
	3782 Nov 06 04:54	0° \mathbb{M}		3785 Apr 02 23:40	0° \mathbb{I}	
morning set	3782 Nov 24 04:00	22° \mathbb{M} 24'02	greatest brilliancy	3785 Apr 29 18:35	18° \mathbb{I} 09'05 -4.8m	
	3782 Nov 30 05:50	0° \mathcal{X}	retrograde	3785 May 10 11:35	20° \mathbb{I} 17'05	
	3782 Dec 24 04:01	0° \mathcal{Z}	evening set	3785 May 26 01:18	15° \mathbb{I} 33'26	
desc. node	3782 Dec 28 01:07	4° \mathcal{Z} 52'20	inferior conj	3785 May 31 18:52	12° \mathbb{I} 04'54 3°05'28	
max. Earth dist.	3783 Jan 01 19:37	10° \mathcal{Z} 51'57 1.71223 AU	minimum elong	3785 Jun 01 01:21	11° \mathbb{I} 54'41 3°03'36	
			min. Earth dist.	3785 May 31 16:26	12° \mathbb{I} 08'42 0.28419 AU	
superior conj	3783 Jan 03 01:49	12° \mathcal{Z} 26'51 -0°14'29	morning rise	3785 Jun 07 01:46	8° \mathbb{I} 18'11	
minimum elong	3783 Jan 02 22:04	12° \mathcal{Z} 15'03 0°14'17	desc. node	3785 Jun 13 19:58	5° \mathbb{I} 17'34	
behind sun begin	3783 Jan 02 09:23	11° \mathcal{Z} 35'13	direct	3785 Jun 22 01:03	3° \mathbb{I} 57'06	
behind sun end	3783 Jan 03 10:45	12° \mathcal{Z} 54'54	greatest brilliancy	3785 Jul 02 01:11	5° \mathbb{I} 45'21 -4.7m	
	3783 Jan 17 00:52	0° \approx		3785 Aug 05 20:50	0° \mathcal{E}	
	3783 Feb 09 21:30	0° \mathcal{H}	morning max el	3785 Aug 09 17:41	3° \mathcal{E} 37'41 45°42'34	
evening rise	3783 Feb 13 03:59	4° \mathcal{H} 06'33		3785 Sep 04 11:34	0° \mathcal{O}	
	3783 Mar 05 19:26	0° Υ		3785 Oct 01 05:46	0° \mathbb{M}	
	3783 Mar 29 20:56	0° \mathcal{B}	asc. node	3785 Oct 04 22:55	4° \mathbb{M} 18'11	
asc. node	3783 Apr 20 03:51	26° \mathcal{B} 16'42		3785 Oct 26 16:38	0° $\underline{\mathcal{A}}$	
	3783 Apr 23 04:41	0° \mathbb{I}		3785 Nov 20 09:22	0° \mathbb{M}	
	3783 May 17 21:37	0° \mathcal{E}		3785 Dec 14 15:32	0° \mathcal{X}	
	3783 Jun 12 03:55	0° \mathcal{O}		3786 Jan 07 16:02	0° \mathcal{Z}	
	3783 Jul 08 08:15	0° \mathbb{M}	desc. node	3786 Jan 24 12:53	21° \mathcal{Z} 09'41	
	3783 Aug 05 10:13	0° $\underline{\mathcal{A}}$		3786 Jan 31 13:48	0° \approx	
desc. node	3783 Aug 09 17:45	4° $\underline{\mathcal{A}}$ 17'13	morning set	3786 Feb 07 15:55	8° \approx 54'24	
evening max el	3783 Aug 13 12:59	7° $\underline{\mathcal{A}}$ 58'00 45°35'20		3786 Feb 24 10:43	0° \mathcal{H}	
	3783 Sep 09 11:50	0° \mathbb{M}		3786 Mar 20 08:21	0° Υ	

superior conj	3786 Mar 20 22:09	0° Υ 43'14	-1°26'42			3788 Oct 06 20:21	0° \mathbb{M}	
minimum elong	3786 Mar 20 21:23	0° Υ 40'49	1°26'42	morning max el		3788 Oct 19 12:44	11° \mathbb{M} 40'37	46°02'14
max. Earth dist.	3786 Mar 24 08:48	5° Υ 02'04	1.71579 AU	asc. node		3788 Nov 01 10:41	24° \mathbb{M} 49'37	
	3786 Apr 13 08:19	0° \mathcal{B}				3788 Nov 06 06:49	0° \mathcal{A}	
evening rise	3786 Apr 29 22:23	20° \mathcal{B} 37'28				3788 Dec 02 20:28	0° \mathbb{M}	
	3786 May 07 12:01	0° \mathbb{I}				3788 Dec 28 00:18	0° \mathcal{A}	
asc. node	3786 May 17 15:40	12° \mathbb{I} 32'31				3789 Jan 21 12:36	0° \mathcal{B}	
	3786 May 31 20:21	0° \mathcal{B}				3789 Feb 14 17:40	0° \approx	
	3786 Jun 25 10:01	0° Ω		desc. node		3789 Feb 21 00:48	7° \approx 50'01	
	3786 Jul 20 06:25	0° \mathbb{M}				3789 Mar 10 19:43	0° \mathcal{H}	
	3786 Aug 14 12:37	0° \mathcal{A}				3789 Apr 03 21:12	0° Υ	
desc. node	3786 Sep 06 05:38	26° \mathcal{A} 20'40		morning set		3789 Apr 24 11:23	25° Υ 37'40	
	3786 Sep 09 10:34	0° \mathbb{M}				3789 Apr 27 23:51	0° \mathcal{B}	
	3786 Oct 06 13:30	0° \mathcal{A}				3789 May 22 04:45	0° \mathbb{I}	
evening max el	3786 Oct 25 04:56	19° \mathcal{A} 08'13	46°29'56					
	3786 Nov 05 20:29	0° \mathcal{B}		superior conj		3789 Jun 01 18:58	13° \mathbb{I} 05'13	-0°29'03
greatest brilliancy	3786 Dec 04 10:11	18° \mathcal{B} 58'48	-4.9m	minimum elong		3789 Jun 02 01:08	13° \mathbb{I} 24'17	0°28'46
retrograde	3786 Dec 14 02:26	20° \mathcal{B} 44'24		max. Earth dist.		3789 Jun 04 07:26	16° \mathbb{I} 11'49	1.73052 AU
evening set	3786 Dec 28 09:09	16° \mathcal{B} 42'23		asc. node		3789 Jun 14 03:27	28° \mathbb{I} 19'28	
asc. node	3786 Dec 28 08:14	16° \mathcal{B} 43'36				3789 Jun 15 12:06	0° \mathcal{B}	
inferior conj	3787 Jan 03 15:48	13° \mathcal{B} 03'46	1°38'07	evening rise		3789 Jul 08 23:42	28° \mathcal{B} 53'06	
minimum elong	3787 Jan 03 12:04	13° \mathcal{B} 09'27	1°36'55			3789 Jul 09 21:30	0° Ω	
min. Earth dist.	3787 Jan 03 15:42	13° \mathcal{B} 03'56	0.26568 AU			3789 Aug 03 08:40	0° \mathbb{M}	
morning rise	3787 Jan 09 14:46	9° \mathcal{B} 34'59				3789 Aug 27 22:08	0° \mathcal{A}	
direct	3787 Jan 24 03:05	5° \mathcal{B} 22'46				3789 Sep 21 15:16	0° \mathbb{M}	
greatest brilliancy	3787 Feb 03 06:59	7° \mathcal{B} 20'34	-4.9m	desc. node		3789 Oct 03 17:37	14° \mathbb{M} 35'36	
	3787 Mar 07 02:12	0° \approx				3789 Oct 16 13:46	0° \mathcal{A}	
morning max el	3787 Mar 15 15:19	8° \approx 19'18	46°53'43			3789 Nov 10 20:16	0° \mathcal{B}	
	3787 Apr 05 02:36	0° \mathcal{H}				3789 Dec 06 17:30	0° \approx	
desc. node	3787 Apr 18 22:37	15° \mathcal{H} 30'04				3790 Jan 03 04:07	0° \mathcal{H}	
	3787 May 01 13:19	0° Υ		evening max el		3790 Jan 06 03:04	3° \mathcal{H} 01'53	47°13'03
	3787 May 27 02:38	0° \mathcal{B}		asc. node		3790 Jan 24 20:11	20° \mathcal{H} 33'56	
	3787 Jun 21 06:32	0° \mathbb{I}				3790 Feb 06 15:42	0° Υ	
	3787 Jul 16 05:01	0° \mathcal{B}		greatest brilliancy		3790 Feb 15 17:29	4° Υ 32'23	-4.9m
	3787 Aug 09 22:44	0° Ω		retrograde		3790 Feb 25 22:55	6° Υ 31'31	
asc. node	3787 Aug 10 01:10	0° Ω 07'25		evening set		3790 Mar 15 20:59	0° Υ 18'21	
	3787 Sep 03 11:19	0° \mathbb{M}				3790 Mar 16 08:59	30° \mathcal{R} \mathcal{H}	
morning set	3787 Sep 12 17:15	11° \mathbb{M} 22'39		min. Earth dist.		3790 Mar 18 03:36	28° \mathcal{H} 53'59	0.27376 AU
	3787 Sep 27 19:03	0° \mathcal{A}		inferior conj		3790 Mar 18 17:38	28° \mathcal{H} 32'07	8°58'09
max. Earth dist.	3787 Oct 16 14:09	23° \mathcal{A} 19'02	1.72465 AU	minimum elong		3790 Mar 18 16:23	28° \mathcal{H} 34'03	8°58'08
				morning rise		3790 Mar 21 11:58	26° \mathcal{H} 49'54	
superior conj	3787 Oct 19 11:11	26° \mathcal{A} 53'37	1°18'09	direct		3790 Apr 08 10:14	20° \mathcal{H} 42'39	
minimum elong	3787 Oct 19 18:20	27° \mathcal{A} 15'52	1°18'01	greatest brilliancy		3790 Apr 17 12:41	22° \mathcal{H} 16'16	-4.8m
	3787 Oct 21 23:07	0° \mathbb{M}				3790 May 02 05:41	0° Υ	
	3787 Nov 15 00:57	0° \mathcal{A}		desc. node		3790 May 16 10:10	11° Υ 13'45	
evening rise	3787 Nov 27 00:05	14° \mathcal{A} 56'03		morning max el		3790 May 27 23:20	21° Υ 58'55	46°11'53
desc. node	3787 Nov 29 15:19	18° \mathcal{A} 13'30				3790 Jun 04 23:58	0° \mathcal{B}	
	3787 Dec 09 01:35	0° \mathcal{B}				3790 Jul 02 22:13	0° \mathbb{I}	
	3788 Jan 02 01:43	0° \approx				3790 Jul 29 06:47	0° \mathcal{B}	
	3788 Jan 26 02:31	0° \mathcal{H}				3790 Aug 23 20:22	0° Ω	
	3788 Feb 19 06:29	0° Υ		asc. node		3790 Sep 06 13:02	16° Ω 21'17	
	3788 Mar 14 18:01	0° \mathcal{B}				3790 Sep 17 20:32	0° \mathbb{M}	
asc. node	3788 Mar 21 17:57	8° \mathcal{B} 27'40				3790 Oct 12 10:08	0° \mathcal{A}	
	3788 Apr 08 20:05	0° \mathbb{I}				3790 Nov 05 15:57	0° \mathbb{M}	
	3788 May 05 01:28	0° \mathcal{B}		morning set		3790 Nov 21 18:04	20° \mathbb{M} 03'32	
evening max el	3788 May 31 05:42	27° \mathcal{B} 24'34	45°40'36			3790 Nov 29 16:51	0° \mathcal{A}	
	3788 Jun 02 22:24	0° Ω				3790 Dec 23 15:03	0° \mathcal{B}	
greatest brilliancy	3788 Jul 08 04:30	25° Ω 30'14	-4.7m	desc. node		3790 Dec 27 03:08	4° \mathcal{B} 24'00	
desc. node	3788 Jul 11 07:59	26° Ω 32'00		max. Earth dist.		3790 Dec 30 00:51	8° \mathcal{B} 02'58	1.71249 AU
retrograde	3788 Jul 19 03:27	27° Ω 39'24						
evening set	3788 Aug 04 03:31	22° Ω 44'10		superior conj		3790 Dec 31 12:44	9° \mathcal{B} 55'40	-0°10'36
inferior conj	3788 Aug 09 15:16	19° Ω 24'11	-6°12'13	minimum elong		3790 Dec 31 09:59	9° \mathcal{B} 47'01	0°10'28
minimum elong	3788 Aug 09 05:26	19° Ω 39'35	6°10'14	behind sun begin		3790 Dec 30 13:52	8° \mathcal{B} 43'49	
min. Earth dist.	3788 Aug 09 09:45	19° Ω 32'49	0.29080 AU	behind sun end		3791 Jan 01 06:07	10° \mathcal{B} 50'14	
morning rise	3788 Aug 14 07:27	16° Ω 32'42				3791 Jan 16 11:58	0° \approx	
direct	3788 Aug 31 06:49	11° Ω 06'39				3791 Feb 09 08:39	0° \mathcal{H}	
greatest brilliancy	3788 Sep 10 14:37	13° Ω 02'31	-4.7m	evening rise		3791 Feb 10 14:10	1° \mathcal{H} 32'43	

	3791 Mar 05 06:39	0°♄			3793 Sep 30 19:02	0°♍	
	3791 Mar 29 08:18	0°♄		asc. node	3793 Oct 04 00:54	3°♍45'57	
asc. node	3791 Apr 19 05:48	25°♄47'12			3793 Oct 26 04:45	0°♌	
	3791 Apr 22 16:18	0°♌			3793 Nov 19 20:55	0°♌	
	3791 May 17 09:42	0°♌			3793 Dec 14 02:49	0°♌	
	3791 Jun 11 16:54	0°♌			3794 Jan 07 03:10	0°♌	
	3791 Jul 07 23:11	0°♍		desc. node	3794 Jan 23 15:03	20°♌41'41	
desc. node	3791 Aug 05 06:25	0°♌			3794 Jan 31 00:51	0°♌	
	3791 Aug 08 19:52	3°♌29'48		morning set	3794 Feb 05 01:37	6°♌19'23	
evening max el	3791 Aug 11 02:28	5°♌41'16	45°34'17		3794 Feb 23 21:41	0°♌	
	3791 Sep 10 21:35	0°♌					
greatest brilliancy	3791 Sep 19 11:57	3°♌48'40	-4.8m	superior conj	3794 Mar 18 09:16	28°♌13'28	-1°26'29
retrograde	3791 Sep 28 18:45	5°♌22'36		minimum elong	3794 Mar 18 07:25	28°♌07'42	1°26'29
	3791 Oct 15 17:13	30°♌			3794 Mar 19 19:15	0°♄	
evening set	3791 Oct 16 09:39	29°♌35'59			3794 Mar 21 16:15	2°♄20'58	1.71537 AU
inferior conj	3791 Oct 19 23:17	27°♌25'37	-8°01'00	max. Earth dist.	3794 Apr 12 19:11	0°♄	
minimum elong	3791 Oct 20 06:50	27°♌13'55	8°00'06	evening rise	3794 Apr 27 11:31	18°♌15'41	
min. Earth dist.	3791 Oct 20 21:17	26°♌51'32	0.28196 AU		3794 May 06 22:54	0°♌	
morning rise	3791 Oct 24 03:38	24°♌52'32		asc. node	3794 May 16 17:41	12°♌05'05	
direct	3791 Nov 10 05:06	19°♌17'21			3794 May 31 07:20	0°♌	
greatest brilliancy	3791 Nov 21 10:48	21°♌36'51	-4.8m		3794 Jun 24 21:15	0°♌	
asc. node	3791 Nov 29 22:20	25°♌56'35			3794 Jul 19 18:09	0°♌	
	3791 Dec 05 22:23	0°♌			3794 Aug 14 01:15	0°♌	
morning max el	3791 Dec 30 16:13	22°♌06'12	46°46'25	desc. node	3794 Sep 05 07:42	25°♌46'33	
	3792 Jan 07 06:45	0°♌			3794 Sep 09 00:53	0°♌	
	3792 Feb 03 03:50	0°♌			3794 Oct 06 07:32	0°♌	
	3792 Feb 28 13:17	0°♌		evening max el	3794 Oct 22 19:30	16°♌50'07	46°27'46
desc. node	3792 Mar 20 12:45	25°♌21'10			3794 Nov 06 03:35	0°♌	
	3792 Mar 24 08:25	0°♌		greatest brilliancy	3794 Dec 01 22:38	16°♌32'22	-4.9m
	3792 Apr 17 21:28	0°♄		retrograde	3794 Dec 11 15:16	18°♌17'40	
	3792 May 12 08:29	0°♄		evening set	3794 Dec 25 21:37	14°♌15'45	
	3792 Jun 05 19:26	0°♌		asc. node	3794 Dec 27 10:21	13°♌25'37	
	3792 Jun 30 06:36	0°♌		inferior conj	3795 Jan 01 04:12	10°♌36'57	1°13'49
morning set	3792 Jul 03 10:34	3°♌52'58		minimum elong	3795 Jan 01 01:22	10°♌41'15	1°12'55
asc. node	3792 Jul 11 15:22	13°♌56'39		min. Earth dist.	3795 Jan 01 05:10	10°♌35'29	0.26586 AU
	3792 Jul 24 17:13	0°♌		morning rise	3795 Jan 07 04:57	7°♌05'57	
max. Earth dist.	3792 Aug 07 15:27	17°♌07'32	1.73477 AU	direct	3795 Jan 21 16:32	2°♌55'40	
				greatest brilliancy	3795 Jan 31 20:42	4°♌54'07	-4.9m
superior conj	3792 Aug 09 03:24	18°♌58'10	1°01'06		3795 Mar 07 04:35	0°♌	
minimum elong	3792 Aug 08 18:28	18°♌30'42	1°00'48	morning max el	3795 Mar 13 05:39	5°♌57'11	46°54'24
	3792 Aug 18 02:26	0°♌			3795 Apr 04 19:55	0°♌	
	3792 Sep 11 10:16	0°♌		desc. node	3795 Apr 18 00:32	14°♌51'30	
evening rise	3792 Sep 14 02:57	3°♌19'33			3795 May 01 03:35	0°♄	
	3792 Oct 05 17:35	0°♌			3795 May 26 15:21	0°♄	
	3792 Oct 30 01:18	0°♌			3795 Jun 20 18:21	0°♌	
desc. node	3792 Oct 31 05:29	1°♌26'51			3795 Jul 15 16:15	0°♌	
	3792 Nov 23 10:01	0°♌		asc. node	3795 Aug 09 03:12	29°♌40'31	
	3792 Dec 17 20:36	0°♌			3795 Aug 09 09:36	0°♌	
	3793 Jan 11 11:55	0°♌			3795 Sep 02 22:01	0°♌	
	3793 Feb 05 15:27	0°♄		morning set	3795 Sep 10 10:41	9°♌15'43	
asc. node	3793 Feb 21 08:02	18°♄05'33			3795 Sep 27 05:41	0°♌	
	3793 Mar 04 01:03	0°♄		max. Earth dist.	3795 Oct 14 05:15	21°♌03'49	1.72506 AU
evening max el	3793 Mar 18 22:55	15°♄39'45	46°40'07				
	3793 Apr 03 05:03	0°♌		superior conj	3795 Oct 17 03:35	24°♌42'22	1°19'26
greatest brilliancy	3793 Apr 27 10:54	15°♌55'39	-4.8m	minimum elong	3795 Oct 17 10:09	25°♌02'45	1°19'19
retrograde	3793 May 08 03:43	18°♌03'52			3795 Oct 21 09:45	0°♌	
evening set	3793 May 23 19:07	13°♌16'51			3795 Nov 14 11:39	0°♌	
inferior conj	3793 May 29 10:29	9°♌51'44	3°25'02	evening rise	3795 Nov 24 13:36	12°♌34'45	
minimum elong	3793 May 29 17:34	9°♌40'36	3°23'02	desc. node	3795 Nov 28 17:25	17°♌46'16	
min. Earth dist.	3793 May 29 08:19	9°♌55'08	0.28392 AU		3795 Dec 08 12:27	0°♌	
morning rise	3793 Jun 04 16:22	6°♌06'43			3796 Jan 01 12:48	0°♌	
desc. node	3793 Jun 12 22:04	2°♌38'44			3796 Jan 25 13:52	0°♌	
direct	3793 Jun 19 15:56	1°♌44'08			3796 Feb 18 18:13	0°♄	
greatest brilliancy	3793 Jun 29 16:20	3°♌32'54	-4.7m		3796 Mar 14 06:20	0°♄	
	3793 Aug 05 20:34	0°♌		asc. node	3796 Mar 20 19:52	7°♌55'38	
morning max el	3793 Aug 07 09:55	1°♌28'25	45°42'58		3796 Apr 08 09:30	0°♌	
	3793 Sep 04 03:26	0°♌			3796 May 04 17:19	0°♌	

evening max el	3796 May 28 21:57	25°☿14'26	45°41'58			3798 Nov 29 03:38	0°♊
	3796 Jun 02 21:52	0°♋				3798 Dec 23 01:52	0°♌
greatest brilliancy	3796 Jul 05 20:34	23°♋21'28	-4.7m	desc. node		3798 Dec 26 05:16	3°♌56'47
desc. node	3796 Jul 10 10:05	24°♋45'00		max. Earth dist.		3798 Dec 27 07:52	5°♌20'17 1.71273 AU
retrograde	3796 Jul 16 19:30	25°♋30'31					
evening set	3796 Aug 01 17:16	20°♋39'15		superior conj		3798 Dec 28 23:52	7°♌25'57 -0°06'43
inferior conj	3796 Aug 07 07:33	17°♋15'22	-5°58'15	minimum elong		3798 Dec 28 22:08	7°♌20'29 0°06'38
minimum elong	3796 Aug 06 21:44	17°♋30'46	5°56'12	behind sun begin		3798 Dec 27 22:16	6°♌05'30
min. Earth dist.	3796 Aug 07 01:37	17°♋24'40	0.29069 AU	behind sun end		3798 Dec 29 22:00	8°♌35'28
morning rise	3796 Aug 12 02:18	14°♋19'49				3799 Jan 15 22:48	0°♍
direct	3796 Aug 28 23:13	8°♋58'11		evening rise		3799 Feb 08 00:44	29°♍01'05
greatest brilliancy	3796 Sep 08 05:48	10°♋52'40	-4.7m			3799 Feb 08 19:30	0°♎
	3796 Oct 07 00:12	0°♎				3799 Mar 04 17:34	0°♏
morning max el	3796 Oct 17 03:29	9°♎26'35	46°00'55			3799 Mar 28 19:21	0°♐
asc. node	3796 Oct 31 12:38	24°♎07'37		asc. node		3799 Apr 18 07:50	25°♐18'46
	3796 Nov 05 23:39	0°♑				3799 Apr 22 03:39	0°♒
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	3796 Dec 27 12:46	0°♊				3799 Jun 11 05:48	0°♋
	3797 Jan 21 00:24	0°♌				3799 Jul 07 14:14	0°♎
	3797 Feb 14 05:04	0°♍				3799 Aug 05 03:15	0°♑
desc. node	3797 Feb 20 02:52	7°♍21'13		desc. node		3799 Aug 07 21:54	2°♑41'37
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morning set	3797 Apr 22 01:07	23°♏17'35		greatest brilliancy		3799 Sep 17 00:55	1°♒32'45 -4.7m
	3797 Apr 27 10:38	0°♐		retrograde		3799 Sep 26 09:05	3°♒08'01
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				evening set		3799 Oct 14 02:19	27°♑17'13
superior conj	3797 May 30 10:38	10°♒52'34	-0°32'16	inferior conj		3799 Oct 17 14:00	25°♑09'51 -8°08'29
minimum elong	3797 May 30 17:25	11°♒13'32	0°31'57	minimum elong		3799 Oct 17 20:57	24°♑59'06 8°07'45
max. Earth dist.	3797 Jun 02 03:16	14°♒12'06	1.73009 AU	min. Earth dist.		3799 Oct 18 11:32	24°♑36'32 0.28263 AU
asc. node	3797 Jun 13 05:35	27°♒53'22		morning rise		3799 Oct 21 15:13	22°♑41'31
	3797 Jun 14 22:42	0°♓		direct		3799 Nov 07 20:17	17°♑00'27
evening rise	3797 Jul 06 17:29	26°♓47'36		greatest brilliancy		3799 Nov 19 02:27	19°♑20'32 -4.8m
	3797 Jul 09 08:08	0°♋		asc. node		3799 Nov 29 00:32	24°♑34'15
	3797 Aug 02 19:28	0°♎				3799 Dec 06 14:25	0°♒
	3797 Aug 27 09:15	0°♑		morning max el		3799 Dec 28 07:28	19°♒47'32 46°45'17
	3797 Sep 21 02:53	0°♒				3800 Jan 07 02:07	0°♊
desc. node	3797 Oct 02 19:34	14°♒05'28				3800 Feb 02 18:56	0°♌
	3797 Oct 16 02:11	0°♊				3800 Feb 28 02:34	0°♍
	3797 Nov 10 09:56	0°♌		desc. node		3800 Mar 20 14:41	24°♍49'22
	3797 Dec 06 09:27	0°♍				3800 Mar 24 20:41	0°♎
	3798 Jan 03 01:48	0°♎				3800 Apr 18 09:04	0°♏
evening max el	3798 Jan 03 16:35	0°♎37'35	47°12'46			3800 May 12 19:40	0°♐
asc. node	3798 Jan 23 22:14	19°♎25'14				3800 Jun 06 06:20	0°♒
	3798 Feb 08 11:09	0°♏				3800 Jun 30 17:19	0°♓
greatest brilliancy	3798 Feb 13 08:24	2°♏10'11	-4.9m	morning set		3800 Jul 02 04:06	1°♓46'43
retrograde	3798 Feb 23 12:25	4°♏08'11		asc. node		3800 Jul 11 17:24	13°♓30'16
	3798 Mar 09 20:57	30°♎♋				3800 Jul 25 03:49	0°♋
evening set	3798 Mar 13 09:02	27°♎58'29		max. Earth dist.		3800 Aug 06 13:10	15°♋14'06 1.73493 AU
min. Earth dist.	3798 Mar 15 17:07	26°♎31'57	0.27333 AU				
inferior conj	3798 Mar 16 07:21	26°♎09'45	8°56'41	superior conj		3800 Aug 07 21:37	16°♋53'56 0°58'51
minimum elong	3798 Mar 16 05:10	26°♎13'09	8°56'37	minimum elong		3800 Aug 07 12:42	16°♋26'30 0°58'32
morning rise	3798 Mar 19 01:27	24°♎27'45				3800 Aug 18 13:02	0°♎
direct	3798 Apr 05 22:59	18°♎20'56				3800 Sep 11 20:58	0°♑
greatest brilliancy	3798 Apr 15 02:09	19°♎54'42	-4.8m	evening rise		3800 Sep 12 20:41	1°♑13'08
	3798 May 03 02:03	0°♏				3800 Oct 06 04:30	0°♒
desc. node	3798 May 15 12:18	10°♏14'49				3800 Oct 30 12:32	0°♊
morning max el	3798 May 25 12:15	19°♏37'40	46°13'21	desc. node		3800 Oct 31 07:32	0°♊58'30
	3798 Jun 04 19:41	0°♐				3800 Nov 23 21:41	0°♌
	3798 Jul 02 13:08	0°♒				3800 Dec 18 08:50	0°♍
	3798 Jul 28 19:42	0°♓				3801 Jan 12 00:59	0°♎
	3798 Aug 23 08:13	0°♋				3801 Feb 06 06:00	0°♏
asc. node	3798 Sep 05 15:01	15°♋52'47		asc. node		3801 Feb 21 10:00	17°♏25'32
	3798 Sep 17 07:48	0°♎				3801 Mar 04 18:59	0°♐
	3798 Oct 11 21:04	0°♑		evening max el		3801 Mar 17 14:18	13°♐23'28 46°42'25
	3798 Nov 05 02:45	0°♒				3801 Apr 04 12:27	0°♒
morning set	3798 Nov 19 08:08	17°♒43'49		greatest brilliancy		3801 Apr 26 02:50	13°♒42'25 -4.8m
































































































































































retrograde	3801 May 06 20:19	15° Π 51'13		superior conj	3803 Oct 15 20:05	22° Ω 30'45	1°20'34
evening set	3801 May 22 13:09	11° Π 00'49		minimum elong	3803 Oct 16 02:02	22° Ω 49'14	1°20'29
inferior conj	3801 May 28 02:10	7° Π 39'03	3°44'10		3803 Oct 21 20:38	0° Π	
minimum elong	3801 May 28 09:49	7° Π 27'05	3°42'04		3803 Nov 14 22:41	0° \mathcal{A}	
min. Earth dist.	3801 May 27 23:52	7° Π 42'40	0.28364 AU	evening rise	3803 Nov 23 02:58	10° \mathcal{A} 12'02	
morning rise	3801 Jun 03 06:52	3° Π 56'05		desc. node	3803 Nov 28 19:31	17° \mathcal{A} 18'03	
desc. node	3801 Jun 13 00:08	0° Π 05'41			3803 Dec 08 23:39	0° \mathcal{Z}	
	3801 Jun 13 11:16	30° $\mathcal{R}\mathcal{B}$			3804 Jan 02 00:13	0° \approx	
direct	3801 Jun 18 07:26	29° \mathcal{B} 31'51			3804 Jan 26 01:34	0° \mathcal{H}	
	3801 Jun 23 06:50	0° Π			3804 Feb 19 06:16	0° \mathcal{Y}	
greatest brilliancy	3801 Jun 28 06:56	1° Π 20'22	-4.7m		3804 Mar 14 18:59	0° \mathcal{B}	
morning max el	3801 Aug 06 02:44	29° Π 20'44	45°43'06	asc. node	3804 Mar 20 21:54	7° \mathcal{B} 22'59	
	3801 Aug 06 19:10	0° \mathcal{G}			3804 Apr 08 23:19	0° Π	
	3801 Sep 04 19:04	0° Ω			3804 May 05 09:45	0° \mathcal{G}	
	3801 Oct 01 08:17	0° Π		evening max el	3804 May 27 13:40	23° \mathcal{G} 02'13	45°43'26
asc. node	3801 Oct 04 02:54	3° Π 13'43			3804 Jun 03 22:46	0° Ω	
	3801 Oct 26 16:55	0° \mathcal{L}		greatest brilliancy	3804 Jul 04 13:09	21° Ω 12'58	-4.7m
	3801 Nov 20 08:33	0° Π		desc. node	3804 Jul 10 12:04	22° Ω 53'58	
	3801 Dec 14 14:10	0° \mathcal{A}		retrograde	3804 Jul 15 11:26	23° Ω 21'51	
	3802 Jan 07 14:21	0° \mathcal{Z}		evening set	3804 Jul 31 07:24	18° Ω 34'12	
desc. node	3802 Jan 23 16:58	20° \mathcal{Z} 12'50		inferior conj	3804 Aug 06 00:07	15° Ω 06'50	-5°43'57
	3802 Jan 31 11:56	0° \approx		minimum elong	3804 Aug 05 14:22	15° Ω 22'09	5°41'49
morning set	3802 Feb 03 11:18	3° \approx 44'11		min. Earth dist.	3804 Aug 05 18:01	15° Ω 16'24	0.29057 AU
	3802 Feb 24 08:42	0° \mathcal{H}		morning rise	3804 Aug 10 21:24	12° Ω 07'19	
				direct	3804 Aug 27 15:26	6° Ω 49'56	
superior conj	3802 Mar 16 20:17	25° \mathcal{H} 43'07	-1°26'07	greatest brilliancy	3804 Sep 06 21:46	8° Ω 43'40	-4.7m
minimum elong	3802 Mar 16 17:24	25° \mathcal{H} 34'03	1°26'06		3804 Oct 08 02:36	0° Π	
max. Earth dist.	3802 Mar 20 01:40	29° \mathcal{H} 45'41	1.71494 AU	morning max el	3804 Oct 15 17:45	7° Π 10'57	45°59'29
	3802 Mar 20 06:14	0° \mathcal{Y}		asc. node	3804 Oct 31 14:49	23° Π 26'08	
	3802 Apr 13 06:07	0° \mathcal{B}			3804 Nov 06 16:24	0° \mathcal{L}	
evening rise	3802 Apr 26 00:40	15° \mathcal{B} 53'43			3804 Dec 03 00:16	0° Π	
	3802 May 07 09:49	0° Π			3804 Dec 28 01:35	0° \mathcal{A}	
asc. node	3802 May 16 19:49	11° Π 37'53			3805 Jan 21 12:35	0° \mathcal{Z}	
	3802 May 31 18:20	0° \mathcal{G}			3805 Feb 14 16:52	0° \approx	
	3802 Jun 25 08:32	0° Ω		desc. node	3805 Feb 20 04:52	6° \approx 50'57	
	3802 Jul 20 05:59	0° Π			3805 Mar 10 18:22	0° \mathcal{H}	
	3802 Aug 14 14:04	0° \mathcal{L}			3805 Apr 03 19:26	0° \mathcal{Y}	
desc. node	3802 Sep 05 09:37	25° \mathcal{L} 11'16		morning set	3805 Apr 20 14:35	20° \mathcal{Y} 55'35	
	3802 Sep 09 15:35	0° Π			3805 Apr 27 21:44	0° \mathcal{B}	
	3802 Oct 07 02:20	0° \mathcal{A}			3805 May 22 02:23	0° Π	
evening max el	3802 Oct 21 10:15	14° \mathcal{A} 31'40	46°25'26				
	3802 Nov 07 13:47	0° \mathcal{Z}		superior conj	3805 May 29 02:20	8° Π 39'00	-0°35'25
greatest brilliancy	3802 Nov 30 11:28	14° \mathcal{Z} 05'34	-4.9m	minimum elong	3805 May 29 09:42	9° Π 01'46	0°35'06
retrograde	3802 Dec 10 03:37	15° \mathcal{Z} 49'48		max. Earth dist.	3805 May 31 21:23	12° Π 06'02	1.72963 AU
evening set	3802 Dec 24 10:16	11° \mathcal{Z} 48'02		asc. node	3805 Jun 13 07:36	27° Π 25'48	
asc. node	3802 Dec 27 12:20	10° \mathcal{Z} 03'59			3805 Jun 15 09:38	0° \mathcal{G}	
inferior conj	3802 Dec 30 16:31	8° \mathcal{Z} 09'19	0°49'28	evening rise	3805 Jul 05 11:24	24° \mathcal{G} 41'32	
minimum elong	3802 Dec 30 14:36	8° \mathcal{Z} 12'13	0°48'51		3805 Jul 09 19:07	0° Ω	
min. Earth dist.	3802 Dec 30 18:46	8° \mathcal{Z} 05'52	0.26603 AU		3805 Aug 03 06:34	0° Π	
morning rise	3803 Jan 05 18:47	4° \mathcal{Z} 36'05			3805 Aug 27 20:39	0° \mathcal{L}	
direct	3803 Jan 20 05:40	0° \mathcal{Z} 27'50			3805 Sep 21 14:48	0° Π	
greatest brilliancy	3803 Jan 30 10:28	2° \mathcal{Z} 26'50	-4.9m	desc. node	3805 Oct 02 21:42	13° Π 35'00	
	3803 Mar 08 05:50	0° \approx			3805 Oct 16 14:57	0° \mathcal{A}	
morning max el	3803 Mar 11 18:59	3° \approx 31'52	46°55'03		3805 Nov 11 00:06	0° \mathcal{Z}	
	3803 Apr 05 13:04	0° \mathcal{H}			3805 Dec 07 02:11	0° \approx	
desc. node	3803 Apr 18 02:38	14° \mathcal{H} 13'20		evening max el	3806 Jan 02 05:29	28° \approx 10'03	47°12'12
	3803 May 01 17:52	0° \mathcal{Y}			3806 Jan 04 01:04	0° \mathcal{H}	
	3803 May 27 04:11	0° \mathcal{B}		asc. node	3806 Jan 24 00:12	18° \mathcal{H} 12'24	
	3803 Jun 21 06:17	0° Π		greatest brilliancy	3806 Feb 11 22:55	29° \mathcal{H} 44'55	-4.9m
	3803 Jul 16 03:37	0° \mathcal{G}			3806 Feb 12 15:41	0° \mathcal{Y}	
asc. node	3803 Aug 09 05:10	29° \mathcal{G} 12'57		retrograde	3806 Feb 22 01:35	1° \mathcal{Y} 42'13	
	3803 Aug 09 20:37	0° Ω			3806 Mar 03 03:47	30° $\mathcal{R}\mathcal{H}$	
	3803 Sep 03 08:51	0° Π		evening set	3806 Mar 11 20:13	25° \mathcal{H} 36'31	
morning set	3803 Sep 09 04:18	7° Π 08'51		inferior conj	3806 Mar 14 20:44	23° \mathcal{H} 44'42	8°54'13
	3803 Sep 27 16:30	0° \mathcal{L}		minimum elong	3806 Mar 14 17:37	23° \mathcal{H} 49'34	8°54'05
max. Earth dist.	3803 Oct 12 19:07	18° \mathcal{L} 44'09	1.72557 AU	min. Earth dist.	3806 Mar 14 06:23	24° \mathcal{H} 07'02	0.27289 AU
				morning rise	3806 Mar 17 15:08	22° \mathcal{H} 02'20	

direct	3806 Apr 04 11:16	15° K 56'20		evening rise	3808 Sep 10 14:33	29° M 06'26	
greatest brilliancy	3806 Apr 13 15:33	17° K 30'53	-4.8m		3808 Sep 11 07:55	0° L	
	3806 May 04 18:01	0° Y			3808 Oct 05 15:39	0° M	
desc. node	3806 May 15 14:24	9° Y 15'40			3808 Oct 29 23:59	0° X	
morning max el	3806 May 24 01:21	17° Y 15'22	46°15'03	desc. node	3808 Oct 30 09:38	0° X 29'42	
	3806 Jun 05 15:18	0° B			3808 Nov 23 09:30	0° Z	
	3806 Jul 03 04:15	0° II			3808 Dec 17 21:13	0° \approx	
	3806 Jul 29 08:51	0° E			3809 Jan 11 14:15	0° K	
	3806 Aug 23 20:21	0° L			3809 Feb 05 20:54	0° Y	
asc. node	3806 Sep 05 17:03	15° L 23'33		asc. node	3809 Feb 20 12:01	16° Y 44'42	
	3806 Sep 17 19:20	0° M			3809 Mar 04 13:39	0° B	
	3806 Oct 12 08:17	0° L		evening max el	3809 Mar 15 06:13	11° B 07'33	46°44'20
	3806 Nov 05 13:49	0° M			3809 Apr 04 23:14	0° II	
morning set	3806 Nov 17 22:45	15° M 25'04		greatest brilliancy	3809 Apr 23 18:43	11° II 27'30	-4.8m
	3806 Nov 29 14:41	0° X		retrograde	3809 May 04 12:37	13° II 36'20	
	3806 Dec 23 12:59	0° Z		evening set	3809 May 20 07:03	8° II 42'44	
max. Earth dist.	3806 Dec 25 18:20	2° Z 47'29	1.71308 AU	inferior conj	3809 May 25 17:33	5° II 24'21	4°03'17
desc. node	3806 Dec 26 07:13	3° Z 27'58		minimum elong	3809 May 26 01:42	5° II 11'36	4°01'04
				min. Earth dist.	3809 May 25 15:02	5° II 28'17	0.28336 AU
superior conj	3806 Dec 27 11:12	4° Z 55'50	-0°02'50	morning rise	3809 May 31 20:49	1° II 43'38	
minimum elong	3806 Dec 27 10:29	4° Z 53'33	0°02'48		3809 Jun 04 07:14	30° R B	
behind sun begin	3806 Dec 26 08:58	3° Z 33'27		desc. node	3809 Jun 12 02:04	27° B 35'45	
behind sun end	3806 Dec 28 11:59	6° Z 13'40		direct	3809 Jun 15 22:56	27° B 17'47	
	3807 Jan 16 10:00	0° \approx		greatest brilliancy	3809 Jun 25 20:54	29° B 05'29	-4.7m
evening rise	3807 Feb 06 11:10	26° \approx 27'41			3809 Jun 28 06:14	0° II	
	3807 Feb 09 06:46	0° K		morning max el	3809 Aug 03 18:53	27° II 10'38	45°43'23
	3807 Mar 05 04:56	0° Y			3809 Aug 06 17:14	0° E	
	3807 Mar 29 06:53	0° B			3809 Sep 04 10:39	0° L	
asc. node	3807 Apr 18 09:57	24° B 49'16			3809 Sep 30 21:33	0° M	
	3807 Apr 22 15:27	0° II		asc. node	3809 Oct 03 05:01	2° M 41'37	
	3807 May 17 09:54	0° E			3809 Oct 26 05:07	0° L	
	3807 Jun 11 19:10	0° L			3809 Nov 19 20:12	0° M	
	3807 Jul 08 05:50	0° M			3809 Dec 14 01:31	0° X	
	3807 Aug 06 01:11	0° L			3810 Jan 07 01:32	0° Z	
evening max el	3807 Aug 07 07:09	1° L 11'54	45°32'44	desc. node	3810 Jan 22 19:01	19° Z 44'26	
desc. node	3807 Aug 07 23:52	1° L 51'42			3810 Jan 30 23:00	0° \approx	
greatest brilliancy	3807 Sep 15 13:37	29° L 16'33	-4.7m	morning set	3810 Jan 31 21:36	1° \approx 11'01	
	3807 Sep 18 01:35	0° M			3810 Feb 23 19:42	0° K	
retrograde	3807 Sep 25 00:08	0° M 53'36					
	3807 Oct 01 17:14	30° R L		superior conj	3810 Mar 14 07:35	23° K 13'36	-1°25'34
evening set	3807 Oct 12 19:04	24° L 59'04		minimum elong	3810 Mar 14 03:39	23° K 01'15	1°25'32
inferior conj	3807 Oct 16 04:59	22° L 54'18	-8°15'10	max. Earth dist.	3810 Mar 17 13:40	27° K 18'28	1.71457 AU
minimum elong	3807 Oct 16 11:17	22° L 44'33	8°14'35		3810 Mar 19 17:12	0° Y	
min. Earth dist.	3807 Oct 17 01:34	22° L 22'29	0.28325 AU		3810 Apr 12 17:04	0° B	
morning rise	3807 Oct 20 03:13	20° L 30'33		evening rise	3810 Apr 23 13:42	13° B 31'01	
direct	3807 Nov 06 12:10	14° L 44'06			3810 May 06 20:49	0° II	
greatest brilliancy	3807 Nov 17 17:37	17° L 03'55	-4.8m	asc. node	3810 May 15 21:46	11° II 09'51	
asc. node	3807 Nov 29 02:26	23° L 14'06			3810 May 31 05:28	0° E	
	3807 Dec 08 02:25	0° M			3810 Jun 24 19:58	0° L	
morning max el	3807 Dec 26 23:19	17° M 30'19	46°43'58		3810 Jul 19 17:57	0° M	
	3808 Jan 07 21:06	0° X			3810 Aug 14 03:03	0° L	
	3808 Feb 03 10:03	0° Z		desc. node	3810 Sep 04 11:46	24° L 36'20	
	3808 Feb 28 16:02	0° \approx			3810 Sep 09 06:28	0° M	
desc. node	3808 Mar 19 16:46	24° \approx 17'08			3810 Oct 06 21:38	0° X	
	3808 Mar 24 09:13	0° K		evening max el	3810 Oct 19 00:12	12° X 11'29	46°23'08
	3808 Apr 17 21:02	0° Y			3810 Nov 08 03:17	0° Z	
	3808 May 12 07:13	0° B		greatest brilliancy	3810 Nov 28 00:59	11° Z 40'09	-4.9m
	3808 Jun 05 17:33	0° II		retrograde	3810 Dec 07 15:30	13° Z 22'40	
morning set	3808 Jun 29 21:21	29° II 38'39		evening set	3810 Dec 21 23:17	9° Z 20'44	
	3808 Jun 30 04:18	0° E		asc. node	3810 Dec 26 14:20	6° Z 41'21	
asc. node	3808 Jul 10 19:20	13° E 02'41		inferior conj	3810 Dec 28 04:59	5° Z 42'34	0°25'06
	3808 Jul 24 14:40	0° L		minimum elong	3810 Dec 28 04:01	5° Z 44'03	0°24'46
max. Earth dist.	3808 Aug 04 11:56	13° L 23'05	1.73502 AU	min. Earth dist.	3810 Dec 28 08:52	5° Z 36'39	0.26621 AU
				morning rise	3811 Jan 03 08:30	2° Z 07'13	
superior conj	3808 Aug 05 15:40	14° L 48'26	0°56'31		3811 Jan 07 21:15	30° R X	
minimum elong	3808 Aug 05 06:49	14° L 21'10	0°56'11	direct	3811 Jan 17 18:28	28° X 00'45	
	3808 Aug 17 23:52	0° M			3811 Jan 27 23:57	0° Z	

greatest brilliancy	3811 Jan 28 00:53	0° Z 00'53	-4.9m	desc. node	3813 Oct 01 23:42	13° M 04'50	
	3811 Mar 08 05:40	0° \approx			3813 Oct 16 03:32	0° X	
morning max el	3811 Mar 09 07:21	1° \approx 04'29	46°55'45		3813 Nov 10 14:06	0° Z	
	3811 Apr 05 05:40	0° X			3813 Dec 06 18:52	0° \approx	
desc. node	3811 Apr 17 04:44	13° X 36'02		evening max el	3813 Dec 30 18:27	25° \approx 43'54	47°11'43
	3811 May 01 07:49	0° Y			3814 Jan 04 00:55	0° X	
	3811 May 26 16:47	0° B		asc. node	3814 Jan 23 02:17	16° X 58'48	
	3811 Jun 20 18:05	0° II		greatest brilliancy	3814 Feb 09 12:41	27° X 19'46	-4.9m
	3811 Jul 15 14:54	0° E		retrograde	3814 Feb 19 15:04	29° X 17'20	
asc. node	3811 Aug 08 07:17	28° E 45'54		evening set	3814 Mar 09 06:53	23° X 15'51	
	3811 Aug 09 07:35	0° O		inferior conj	3814 Mar 12 10:01	21° X 20'25	8°50'44
	3811 Sep 02 19:39	0° M		minimum elong	3814 Mar 12 06:00	21° X 26'38	8°50'30
morning set	3811 Sep 06 21:34	5° M 01'09		min. Earth dist.	3814 Mar 11 19:17	21° X 43'16	0.27245 AU
	3811 Sep 27 03:13	0° E		morning rise	3814 Mar 15 05:16	19° X 37'01	
max. Earth dist.	3811 Oct 10 09:59	16° E 28'03	1.72604 AU	direct	3814 Apr 01 23:44	13° X 32'26	
				greatest brilliancy	3814 Apr 11 04:35	15° X 07'42	-4.8m
superior conj	3811 Oct 13 12:28	20° E 19'14	1°21'36		3814 May 05 05:28	0° Y	
minimum elong	3811 Oct 13 17:47	20° E 35'46	1°21'32	desc. node	3814 May 14 16:17	8° Y 18'35	
	3811 Oct 21 07:24	0° M		morning max el	3814 May 21 15:22	14° Y 56'23	46°16'52
	3811 Nov 14 09:34	0° X			3814 Jun 05 09:54	0° B	
evening rise	3811 Nov 20 16:25	7° X 50'10			3814 Jul 02 18:42	0° II	
desc. node	3811 Nov 27 21:26	16° X 49'45			3814 Jul 28 21:30	0° E	
	3811 Dec 08 10:43	0° Z			3814 Aug 23 08:01	0° O	
	3812 Jan 01 11:30	0° \approx		asc. node	3814 Sep 04 19:08	14° O 55'41	
	3812 Jan 25 13:05	0° X			3814 Sep 17 06:29	0° M	
	3812 Feb 18 18:07	0° Y			3814 Oct 11 19:10	0° E	
	3812 Mar 14 07:25	0° B			3814 Nov 05 00:36	0° M	
asc. node	3812 Mar 20 00:02	6° B 51'23		morning set	3814 Nov 15 13:13	13° M 06'51	
	3812 Apr 08 12:56	0° II			3814 Nov 29 01:27	0° X	
	3812 May 05 02:09	0° E			3814 Dec 22 23:47	0° Z	
evening max el	3812 May 25 04:24	20° E 48'11	45°44'46	max. Earth dist.	3814 Dec 23 05:49	0° Z 18'57	1.71337 AU
	3812 Jun 04 00:44	0° O					
greatest brilliancy	3812 Jul 02 05:22	19° O 04'11	-4.7m	superior conj	3814 Dec 24 22:21	2° Z 26'11	0°01'07
desc. node	3812 Jul 09 14:05	20° O 58'59		minimum elong	3814 Dec 24 22:38	2° Z 27'07	0°01'06
retrograde	3812 Jul 13 03:18	21° O 13'24		behind sun begin	3814 Dec 23 21:00	1° Z 06'37	
evening set	3812 Jul 28 21:27	16° O 28'48		behind sun end	3814 Dec 26 00:16	3° Z 47'36	
inferior conj	3812 Aug 03 16:31	12° O 58'21	-5°29'00	desc. node	3814 Dec 25 09:18	3° Z 00'38	
minimum elong	3812 Aug 03 06:54	13° O 13'26	5°26'49		3815 Jan 15 20:50	0° \approx	
min. Earth dist.	3812 Aug 03 10:28	13° O 07'51	0.29049 AU	evening rise	3815 Feb 03 21:32	23° \approx 55'19	
morning rise	3812 Aug 08 16:23	9° O 54'58			3815 Feb 08 17:40	0° X	
direct	3812 Aug 25 07:12	4° O 41'30			3815 Mar 04 15:56	0° Y	
greatest brilliancy	3812 Sep 04 14:17	6° O 35'26	-4.7m		3815 Mar 28 18:02	0° B	
	3812 Oct 08 03:29	0° M		asc. node	3815 Apr 17 11:53	24° B 20'19	
morning max el	3812 Oct 13 08:08	4° M 56'01	45°58'14		3815 Apr 22 02:54	0° II	
asc. node	3812 Oct 30 16:47	22° M 45'03			3815 May 16 21:53	0° E	
	3812 Nov 06 08:39	0° E			3815 Jun 11 08:12	0° O	
	3812 Dec 02 13:53	0° M			3815 Jul 07 21:13	0° M	
	3812 Dec 27 14:02	0° X		evening max el	3815 Aug 04 22:34	29° M 00'47	45°31'58
	3813 Jan 21 00:25	0° Z			3815 Aug 05 23:29	0° E	
	3813 Feb 14 04:20	0° \approx		desc. node	3815 Aug 07 01:59	1° E 02'30	
desc. node	3813 Feb 19 06:55	6° \approx 21'55		greatest brilliancy	3815 Sep 13 02:04	27° E 01'16	-4.7m
	3813 Mar 10 05:34	0° X		retrograde	3815 Sep 22 15:03	28° E 39'54	
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morning set	3813 Apr 18 04:03	18° Y 34'28		inferior conj	3815 Oct 13 19:52	20° E 39'29	-8°21'06
	3813 Apr 27 08:29	0° B		minimum elong	3815 Oct 14 01:30	20° E 30'47	8°20'37
	3813 May 21 13:01	0° II		min. Earth dist.	3815 Oct 14 15:14	20° E 09'32	0.28389 AU
				morning rise	3815 Oct 17 15:14	18° E 19'58	
superior conj	3813 May 26 18:08	6° II 26'46	-0°38'32	direct	3815 Nov 04 04:17	12° E 28'38	
minimum elong	3813 May 27 02:02	6° II 51'13	0°38'10	greatest brilliancy	3815 Nov 15 08:09	14° E 47'13	-4.8m
max. Earth dist.	3813 May 29 14:43	9° II 58'37	1.72918 AU	asc. node	3815 Nov 28 04:28	21° E 57'10	
asc. node	3813 Jun 12 09:34	26° II 59'15			3815 Dec 08 11:03	0° M	
	3813 Jun 14 20:14	0° E		morning max el	3815 Dec 24 15:04	15° M 13'35	46°42'35
evening rise	3813 Jul 03 05:21	22° E 36'38			3816 Jan 07 15:22	0° X	
	3813 Jul 09 05:45	0° O			3816 Feb 03 00:43	0° Z	
	3813 Aug 02 17:24	0° M			3816 Feb 28 05:04	0° \approx	
	3813 Aug 27 07:48	0° E		desc. node	3816 Mar 18 18:51	23° \approx 46'02	
	3813 Sep 21 02:31	0° M			3816 Mar 23 21:21	0° X	

	3816 Apr 17 08:35	0°♄			3818 Nov 08 20:55	0°♄	
	3816 May 11 18:22	0°♄		greatest brilliancy	3818 Nov 25 14:40	9°♄15'35	-4.9m
	3816 Jun 05 04:25	0°♄		retrograde	3818 Dec 05 03:00	10°♄56'22	
morning set	3816 Jun 27 14:45	27°♄32'07		evening set	3818 Dec 19 12:28	6°♄53'33	
	3816 Jun 29 14:56	0°♄		inferior conj	3818 Dec 25 17:29	3°♄16'25	0°00'41
asc. node	3816 Jul 09 21:28	12°♄36'45		minimum elong	3818 Dec 25 17:27	3°♄16'28	0°00'41
	3816 Jul 24 01:11	0°♄		transit middle	3818 Dec 25 17:27	3°♄16'28	0°00'41
max. Earth dist.	3816 Aug 02 10:44	11°♄33'17	1.73507 AU	transit begin	3818 Dec 25 13:23	3°♄22'41	
				transit end	3818 Dec 25 21:32	3°♄10'15	
superior conj	3816 Aug 03 09:55	12°♄44'35	0°54'06	asc. node	3818 Dec 25 16:26	3°♄18'02	
minimum elong	3816 Aug 03 01:09	12°♄17'37	0°53'46	min. Earth dist.	3818 Dec 25 23:12	3°♄07'42	0.26649 AU
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evening rise	3816 Sep 08 08:38	27°♄01'30		morning rise	3818 Dec 31 22:03	29°♄39'13	
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	3816 Oct 05 02:30	0°♄		greatest brilliancy	3819 Jan 25 15:55	27°♄35'50	-4.9m
desc. node	3816 Oct 29 11:34	0°♄01'14			3819 Jan 30 23:05	0°♄	
	3816 Oct 29 11:10	0°♄		morning max el	3819 Mar 06 19:26	28°♄36'02	46°56'22
	3816 Nov 22 21:09	0°♄			3819 Mar 08 04:35	0°♄	
	3816 Dec 17 09:29	0°♄			3819 Apr 04 22:05	0°♄	
	3817 Jan 11 03:27	0°♄		desc. node	3819 Apr 16 06:38	12°♄58'16	
	3817 Feb 05 11:46	0°♄			3819 Apr 30 21:43	0°♄	
asc. node	3817 Feb 19 14:07	16°♄04'23			3819 May 26 05:20	0°♄	
	3817 Mar 04 08:31	0°♄			3819 Jun 20 05:48	0°♄	
evening max el	3817 Mar 12 22:00	8°♄51'57	46°46'24		3819 Jul 15 02:06	0°♄	
	3817 Apr 05 13:11	0°♄		asc. node	3819 Aug 07 09:17	28°♄18'47	
greatest brilliancy	3817 Apr 21 11:04	9°♄14'07	-4.8m		3819 Aug 08 18:28	0°♄	
retrograde	3817 May 02 04:35	11°♄22'15			3819 Sep 02 06:22	0°♄	
evening set	3817 May 18 01:08	6°♄25'32		morning set	3819 Sep 04 15:01	2°♄54'11	
inferior conj	3817 May 23 08:59	3°♄10'36	4°22'05		3819 Sep 26 13:54	0°♄	
minimum elong	3817 May 23 17:36	2°♄57'07	4°19'47	max. Earth dist.	3819 Oct 08 02:56	14°♄18'33	1.72650 AU
min. Earth dist.	3817 May 23 06:19	3°♄14'48	0.28304 AU				
	3817 May 28 14:40	30°♄♂		superior conj	3819 Oct 11 05:16	18°♄09'12	1°22'30
morning rise	3817 May 29 10:34	29°♄32'10		minimum elong	3819 Oct 11 09:55	18°♄23'39	1°22'26
desc. node	3817 Jun 11 04:11	25°♄11'47			3819 Oct 20 18:07	0°♄	
direct	3817 Jun 13 14:29	25°♄04'45			3819 Nov 13 20:24	0°♄	
greatest brilliancy	3817 Jun 23 10:50	26°♄51'18	-4.7m	evening rise	3819 Nov 18 06:25	5°♄30'19	
	3817 Jun 30 13:21	0°♄		desc. node	3819 Nov 26 23:31	16°♄22'06	
morning max el	3817 Aug 01 10:19	24°♄59'36	45°43'43		3819 Dec 07 21:44	0°♄	
	3817 Aug 06 14:06	0°♄			3819 Dec 31 22:46	0°♄	
	3817 Sep 04 01:41	0°♄			3820 Jan 25 00:38	0°♄	
	3817 Sep 30 10:25	0°♄			3820 Feb 18 06:04	0°♄	
asc. node	3817 Oct 02 06:58	2°♄10'03			3820 Mar 13 20:03	0°♄	
	3817 Oct 25 16:59	0°♄		asc. node	3820 Mar 19 01:56	6°♄18'30	
	3817 Nov 19 07:36	0°♄			3820 Apr 08 02:52	0°♄	
	3817 Dec 13 12:40	0°♄			3820 May 04 19:04	0°♄	
	3818 Jan 06 12:34	0°♄		evening max el	3820 May 22 18:57	18°♄33'19	45°46'28
desc. node	3818 Jan 21 21:08	19°♄16'31			3820 Jun 04 04:26	0°♄	
morning set	3818 Jan 29 07:27	28°♄36'43		greatest brilliancy	3820 Jun 29 21:14	16°♄54'48	-4.7m
	3818 Jan 30 09:58	0°♄		desc. node	3820 Jul 08 16:11	18°♄59'44	
	3818 Feb 23 06:37	0°♄		retrograde	3820 Jul 10 19:43	19°♄05'05	
				evening set	3820 Jul 26 11:43	14°♄23'02	
superior conj	3818 Mar 11 18:21	20°♄42'42	-1°24'50	inferior conj	3820 Aug 01 09:00	10°♄49'47	-5°13'32
minimum elong	3818 Mar 11 13:23	20°♄27'07	1°24'47	minimum elong	3820 Jul 31 23:34	11°♄04'34	5°11'21
max. Earth dist.	3818 Mar 14 23:32	24°♄44'50	1.71414 AU	min. Earth dist.	3820 Aug 01 02:47	10°♄59'31	0.29038 AU
	3818 Mar 19 04:03	0°♄		morning rise	3820 Aug 06 11:25	7°♄42'50	
	3818 Apr 12 03:53	0°♄		direct	3820 Aug 22 23:02	2°♄32'55	
evening rise	3818 Apr 21 02:13	11°♄07'09		greatest brilliancy	3820 Sep 02 06:53	4°♄27'21	-4.7m
	3818 May 06 07:38	0°♄			3820 Oct 08 03:14	0°♄	
asc. node	3818 May 14 23:46	10°♄42'28		morning max el	3820 Oct 10 23:24	2°♄43'16	45°57'05
	3818 May 30 16:26	0°♄		asc. node	3820 Oct 29 18:45	22°♄04'18	
	3818 Jun 24 07:14	0°♄			3820 Nov 06 00:41	0°♄	
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	3818 Aug 13 15:56	0°♄			3820 Dec 27 02:29	0°♄	
desc. node	3818 Sep 03 13:47	24°♄01'27			3821 Jan 20 12:17	0°♄	
	3818 Sep 08 21:21	0°♄			3821 Feb 13 15:52	0°♄	
	3818 Oct 06 17:14	0°♄		desc. node	3821 Feb 18 08:57	5°♄52'28	
evening max el	3818 Oct 16 13:06	9°♄49'31	46°20'47		3821 Mar 09 16:51	0°♄	




































































































































	3821 Apr 02 17:29	0°♄	evening set	3823 Oct 08 03:56	20°♊25'33	
morning set	3821 Apr 15 17:09	16°♄11'26	inferior conj	3823 Oct 11 10:58	18°♊24'30	-8°26'08
	3821 Apr 26 19:27	0°♄	minimum elong	3823 Oct 11 15:53	18°♊16'52	8°25'47
	3821 May 20 23:53	0°♊	min. Earth dist.	3823 Oct 12 05:10	17°♊56'16	0.28447 AU
			morning rise	3823 Oct 15 03:39	16°♊08'45	
superior conj	3821 May 24 09:30	4°♊12'25 -0°41'36	direct	3823 Nov 01 20:30	10°♊13'10	
minimum elong	3821 May 24 17:56	4°♊38'27 0°41'14	greatest brilliancy	3823 Nov 12 22:33	12°♊29'57	-4.8m
max. Earth dist.	3821 May 27 06:34	7°♊45'50 1.72872 AU	asc. node	3823 Nov 27 06:37	20°♊42'13	
asc. node	3821 Jun 11 11:41	26°♊32'24		3823 Dec 08 17:33	0°♊	
	3821 Jun 14 07:03	0°♄	morning max el	3823 Dec 22 06:08	12°♊54'26	46°41'04
evening rise	3821 Jun 30 22:59	20°♄30'08		3824 Jan 07 09:30	0°♊	
	3821 Jul 08 16:37	0°♊		3824 Feb 02 15:31	0°♄	
	3821 Aug 02 04:25	0°♊		3824 Feb 27 18:20	0°♄	
	3821 Aug 26 19:11	0°♊	desc. node	3824 Mar 17 20:46	23°♄13'32	
desc. node	3821 Sep 20 14:28	0°♊		3824 Mar 23 09:45	0°♄	
	3821 Oct 01 01:40	12°♊33'51		3824 Apr 16 20:24	0°♄	
	3821 Oct 15 16:25	0°♊		3824 May 11 05:47	0°♄	
	3821 Nov 10 04:28	0°♄		3824 Jun 04 15:32	0°♊	
	3821 Dec 06 12:03	0°♄	morning set	3824 Jun 25 08:15	25°♊24'58	
evening max el	3821 Dec 28 08:24	23°♄20'04 47°11'16		3824 Jun 29 01:52	0°♄	
	3822 Jan 04 02:04	0°♄	asc. node	3824 Jul 08 23:29	12°♄09'28	
asc. node	3822 Jan 22 04:19	15°♄42'37		3824 Jul 23 12:01	0°♊	
greatest brilliancy	3822 Feb 07 01:56	24°♄53'54 -4.9m	max. Earth dist.	3824 Jul 31 07:57	9°♊37'36	1.73512 AU
retrograde	3822 Feb 17 05:14	26°♄52'24				
evening set	3822 Mar 06 17:15	20°♄55'35	superior conj	3824 Aug 01 04:09	10°♊39'44	0°51'37
inferior conj	3822 Mar 09 23:24	18°♄55'53 8°46'10	minimum elong	3824 Jul 31 19:33	10°♊13'17	0°51'17
minimum elong	3822 Mar 09 18:32	19°♄03'25 8°45'50		3824 Aug 16 21:13	0°♊	
min. Earth dist.	3822 Mar 09 07:56	19°♄19'49 0.27203 AU	evening rise	3824 Sep 06 02:41	24°♊55'24	
morning rise	3822 Mar 12 19:59	17°♄10'47		3824 Sep 10 05:30	0°♊	
direct	3822 Mar 30 12:52	11°♄08'26		3824 Oct 04 13:41	0°♊	
greatest brilliancy	3822 Apr 08 17:12	12°♄43'45 -4.9m	desc. node	3824 Oct 28 13:39	29°♊32'14	
	3822 May 05 14:07	0°♄		3824 Oct 28 22:41	0°♊	
desc. node	3822 May 13 18:26	7°♄22'45		3824 Nov 22 09:08	0°♄	
morning max el	3822 May 19 06:08	12°♄38'32 46°18'26		3824 Dec 16 22:06	0°♄	
	3822 Jun 05 04:21	0°♄		3825 Jan 10 17:04	0°♄	
	3822 Jul 02 09:21	0°♊		3825 Feb 05 03:11	0°♄	
	3822 Jul 28 10:24	0°♄	asc. node	3825 Feb 18 16:04	15°♄22'09	
	3822 Aug 22 19:58	0°♊		3825 Mar 04 04:18	0°♄	
asc. node	3822 Sep 03 21:05	14°♊26'33	evening max el	3825 Mar 10 13:10	6°♄33'31	46°48'21
	3822 Sep 16 17:53	0°♊		3825 Apr 06 08:32	0°♊	
	3822 Oct 11 06:16	0°♊	greatest brilliancy	3825 Apr 19 04:07	7°♊00'32	-4.8m
	3822 Nov 04 11:37	0°♊	retrograde	3825 Apr 29 20:12	9°♊07'18	
morning set	3822 Nov 13 03:58	10°♊48'48	evening set	3825 May 15 19:22	4°♊07'28	
	3822 Nov 28 12:29	0°♊	inferior conj	3825 May 21 00:29	0°♊56'11	4°40'19
max. Earth dist.	3822 Dec 20 16:27	27°♊46'55 1.71365 AU	minimum elong	3825 May 21 09:30	0°♊42'03	4°37'59
			min. Earth dist.	3825 May 20 21:53	1°♊00'17	0.28270 AU
superior conj	3822 Dec 22 09:51	29°♊56'51 0°05'00		3825 May 22 12:23	30°♊	
minimum elong	3822 Dec 22 11:08	0°♄00'52 0°04'56	morning rise	3825 May 27 00:08	27°♄20'09	
behind sun begin	3822 Dec 21 10:29	28°♊43'30	desc. node	3825 Jun 10 06:13	22°♄52'13	
behind sun end	3822 Dec 23 11:46	1°♄18'14	direct	3825 Jun 11 05:43	22°♄51'05	
	3822 Dec 22 10:51	0°♄	greatest brilliancy	3825 Jun 21 01:05	24°♄36'40	-4.7m
desc. node	3822 Dec 24 11:23	2°♄32'20		3825 Jul 02 01:26	0°♊	
	3823 Jan 15 07:57	0°♄	morning max el	3825 Jul 30 00:55	22°♊45'41	45°44'03
evening rise	3823 Feb 01 08:12	21°♄22'58		3825 Aug 06 10:36	0°♄	
	3823 Feb 08 04:50	0°♄		3825 Sep 03 16:50	0°♊	
	3823 Mar 04 03:11	0°♄		3825 Sep 29 23:34	0°♊	
	3823 Mar 28 05:27	0°♄	asc. node	3825 Oct 01 09:00	1°♊37'48	
asc. node	3823 Apr 16 13:55	23°♄50'56		3825 Oct 25 05:11	0°♊	
	3823 Apr 21 14:37	0°♊		3825 Nov 18 19:17	0°♊	
	3823 May 16 10:12	0°♄		3825 Dec 13 00:06	0°♊	
	3823 Jun 10 21:41	0°♊		3826 Jan 05 23:51	0°♄	
	3823 Jul 07 13:16	0°♊	desc. node	3826 Jan 20 23:05	18°♄47'17	
evening max el	3823 Aug 02 14:24	26°♊49'33 45°31'18	morning set	3826 Jan 26 17:20	26°♄01'40	
	3823 Aug 05 23:15	0°♊		3826 Jan 29 21:11	0°♄	
desc. node	3823 Aug 06 04:00	0°♊11'02		3826 Feb 22 17:48	0°♄	
greatest brilliancy	3823 Sep 10 15:21	24°♄46'17 -4.7m				
retrograde	3823 Sep 20 05:50	26°♄25'41	superior conj	3826 Mar 09 05:05	18°♄10'44	-1°23'55

minimum elong	3826 Mar 08 23:08	17°  52'05	1°23'51	direct	3828 Aug 20 15:02	0°  23'49	
max. Earth dist.	3826 Mar 12 06:11	22°  00'08	1.71375 AU	greatest brilliancy	3828 Aug 30 22:50	2°  18'22	-4.7m
	3826 Mar 18 15:12	0°  Y			3828 Oct 08 02:00	0°  Y	
	3826 Apr 11 15:01	0°  B		morning max el	3828 Oct 08 15:26	0°  Y32'24	45°55'57
evening rise	3826 Apr 18 14:35	8°  B41'43		asc. node	3828 Oct 28 20:56	21°  Y24'28	
	3826 May 05 18:47	0°  II			3828 Nov 05 16:30	0°  B	
asc. node	3826 May 14 01:55	10°  II14'38			3828 Dec 01 16:59	0°  Y	
	3826 May 30 03:42	0°  B			3828 Dec 26 15:00	0°  B	
	3826 Jun 23 18:48	0°  B			3829 Jan 20 00:16	0°  B	
	3826 Jul 18 17:58	0°  Y			3829 Feb 13 03:29	0°  B	
	3826 Aug 13 05:11	0°  B		desc. node	3829 Feb 17 10:59	5°  B22'46	
desc. node	3826 Sep 02 15:44	23°  B25'10			3829 Mar 09 04:12	0°  B	
	3826 Sep 08 12:46	0°  Y			3829 Apr 02 04:36	0°  Y	
	3826 Oct 06 13:51	0°  B		morning set	3829 Apr 13 05:54	13°  Y47'12	
evening max el	3826 Oct 14 01:28	7°  B25'30	46°18'29		3829 Apr 26 06:25	0°  B	
	3826 Nov 09 21:16	0°  B			3829 May 20 10:46	0°  II	
greatest brilliancy	3826 Nov 23 04:26	6°  B50'25	-4.9m				
retrograde	3826 Dec 02 14:52	8°  B29'52		superior conj	3829 May 22 00:39	1°  II57'11	-0°44'37
evening set	3826 Dec 17 01:56	4°  B25'29		minimum elong	3829 May 22 09:33	2°  II24'43	0°44'15
inferior conj	3826 Dec 23 06:06	0°  B49'53	-0°23'32	max. Earth dist.	3829 May 24 23:11	5°  II35'17	1.72829 AU
minimum elong	3826 Dec 23 07:01	0°  B48'30	0°23'14	asc. node	3829 Jun 10 13:41	26°  II05'07	
min. Earth dist.	3826 Dec 23 13:38	0°  B38'24	0.26680 AU		3829 Jun 13 17:55	0°  B	
asc. node	3826 Dec 24 18:25	29°  B54'36		evening rise	3829 Jun 28 16:34	18°  B23'19	
	3826 Dec 24 14:51	30°  B 			3829 Jul 08 03:31	0°  B	
morning rise	3826 Dec 29 11:32	27°  B 			3829 Aug 01 15:29	0°  Y	
direct	3827 Jan 12 19:18	23°  B 			3829 Aug 26 06:34	0°  B	
greatest brilliancy	3827 Jan 23 07:09	25°  B 	-4.9m		3829 Sep 20 02:26	0°  Y	
	3827 Feb 01 18:11	0°  B		desc. node	3829 Sep 30 03:49	12°  Y03'36	
morning max el	3827 Mar 04 08:15	26°  B08'51	46°56'54		3829 Oct 15 05:18	0°  B	
	3827 Mar 08 02:46	0°  B			3829 Nov 09 18:55	0°  B	
	3827 Apr 04 14:23	0°  B			3829 Dec 06 05:35	0°  B	
desc. node	3827 Apr 15 08:47	12°  B 		evening max el	3829 Dec 25 23:09	20°  B 	47°10'32
	3827 Apr 30 11:40	0°  Y			3830 Jan 04 04:42	0°  B	
	3827 May 25 18:01	0°  B		asc. node	3830 Jan 21 06:18	14°  B 	
	3827 Jun 19 17:42	0°  II		greatest brilliancy	3830 Feb 04 14:47	22°  B 	-4.9m
	3827 Jul 14 13:29	0°  B		retrograde	3830 Feb 14 19:22	24°  B 	
asc. node	3827 Aug 06 11:17	27°  B 		evening set	3830 Mar 04 02:59	18°  B 	
	3827 Aug 08 05:32	0°  B		min. Earth dist.	3830 Mar 06 20:08	16°  B 	0.27159 AU
	3827 Sep 01 17:16	0°  Y		inferior conj	3830 Mar 07 12:28	16°  B 	8°40'36
morning set	3827 Sep 02 08:38	0°  Y47'16		minimum elong	3830 Mar 07 06:47	16°  B 	8°40'08
	3827 Sep 26 00:46	0°  B		morning rise	3830 Mar 10 10:45	14°  B 	
max. Earth dist.	3827 Oct 05 21:52	12°  B 	1.72700 AU	direct	3830 Mar 28 02:06	8°  B 	
				greatest brilliancy	3830 Apr 06 05:04	10°  B 	-4.9m
superior conj	3827 Oct 08 22:09	15°  B 	1°23'15		3830 May 05 20:25	0°  Y	
minimum elong	3827 Oct 09 02:07	16°  B 	1°23'13	desc. node	3830 May 12 20:32	6°  Y 	
	3827 Oct 20 05:02	0°  Y		morning max el	3830 May 16 20:36	10°  Y 	46°20'00
	3827 Nov 13 07:28	0°  B			3830 Jun 04 22:18	0°  B	
evening rise	3827 Nov 15 20:26	3°  B 			3830 Jul 01 23:43	0°  II	
desc. node	3827 Nov 26 01:37	15°  B 			3830 Jul 27 23:06	0°  B	
	3827 Dec 07 08:59	0°  B			3830 Aug 22 07:45	0°  B	
	3827 Dec 31 10:15	0°  B		asc. node	3830 Sep 02 23:09	13°  B 	
	3828 Jan 24 12:23	0°  B			3830 Sep 16 05:08	0°  Y	
	3828 Feb 17 18:13	0°  Y			3830 Oct 10 17:14	0°  B	
	3828 Mar 13 08:55	0°  B			3830 Nov 03 22:28	0°  Y	
asc. node	3828 Mar 18 04:00	5°  B45'34		morning set	3830 Nov 10 19:03	8°  Y 	
	3828 Apr 07 17:07	0°  II			3830 Nov 27 23:19	0°  B	
	3828 May 04 12:33	0°  B		max. Earth dist.	3830 Dec 18 02:09	25°  B 	1.71397 AU
evening max el	3828 May 20 10:10	16°  B 	45°48'11				
	3828 Jun 04 10:21	0°  B		superior conj	3830 Dec 19 21:39	27°  B 	0°08'49
greatest brilliancy	3828 Jun 27 12:41	14°  B 	-4.7m	minimum elong	3830 Dec 19 23:53	27°  B 	0°08'42
desc. node	3828 Jul 07 18:11	16°  B 		behind sun begin	3830 Dec 19 02:02	26°  B 	
retrograde	3828 Jul 08 12:36	16°  B 		behind sun end	3830 Dec 20 21:44	28°  B 	
evening set	3828 Jul 24 02:02	12°  B 			3830 Dec 21 21:44	0°  B	
inferior conj	3828 Jul 30 01:22	8° B	-4°57'37	desc. node	3830 Dec 23 13:20	2° B	
minimum elong	3828 Jul 29 16:10	8° B	4°55'24		3831 Jan 14 18:54	0° B	
min. Earth dist.	3828 Jul 29 18:45	8° B	0.29023 AU	evening rise	3831 Jan 29 18:43	18° B	
morning rise	3828 Aug 04 06:20	5° B			3831 Feb 07 15:52	0° B	

	3831 Mar 03 14:20	0°♄			3833 Sep 29 12:17	0°♍		
	3831 Mar 27 16:47	0°♌		asc. node	3833 Sep 30 11:07	1°♍06'55		
asc. node	3831 Apr 15 16:02	23°♌22'01			3833 Oct 24 16:59	0°♌		
	3831 Apr 21 02:16	0°♍			3833 Nov 18 06:37	0°♍		
	3831 May 15 22:26	0°♎			3833 Dec 12 11:10	0°♎		
	3831 Jun 10 11:07	0°♏			3834 Jan 05 10:46	0°♏		
	3831 Jul 07 05:25	0°♐		desc. node	3834 Jan 20 01:08	18°♏19'33		
evening max el	3831 Jul 31 05:46	24°♐37'38	45°30'37	morning set	3834 Jan 24 03:36	23°♏28'57		
desc. node	3831 Aug 05 06:00	29°♐19'01			3834 Jan 29 08:01	0°♏		
	3831 Aug 05 23:59	0°♑			3834 Feb 22 04:35	0°♏		
greatest brilliancy	3831 Sep 08 05:17	22°♑32'38	-4.7m					
retrograde	3831 Sep 17 20:09	24°♑12'12		superior conj	3834 Mar 06 16:08	15°♏41'08	-1°22'51	
evening set	3831 Oct 05 20:05	18°♑10'17		minimum elong	3834 Mar 06 09:16	15°♏19'33	1°22'44	
inferior conj	3831 Oct 09 02:06	16°♑10'28	-8°30'23	max. Earth dist.	3834 Mar 09 11:03	19°♏11'11	1.71338 AU	
minimum elong	3831 Oct 09 06:15	16°♑04'00	8°30'09		3834 Mar 18 01:56	0°♏		
min. Earth dist.	3831 Oct 09 19:27	15°♑43'28	0.28499 AU		3834 Apr 11 01:43	0°♏		
morning rise	3831 Oct 12 16:15	13°♑58'09		evening rise	3834 Apr 16 03:06	6°♏17'57		
direct	3831 Oct 30 12:13	7°♑58'41			3834 May 05 05:32	0°♍		
greatest brilliancy	3831 Nov 10 13:12	10°♑13'54	-4.8m	asc. node	3834 May 13 03:51	9°♍47'19		
asc. node	3831 Nov 26 08:32	19°♑29'53			3834 May 29 14:37	0°♎		
	3831 Dec 08 21:37	0°♍			3834 Jun 23 06:04	0°♏		
morning max el	3831 Dec 19 20:14	10°♍33'52	46°39'40		3834 Jul 18 05:50	0°♐		
	3832 Jan 07 02:51	0°♎			3834 Aug 12 18:11	0°♑		
	3832 Feb 02 05:48	0°♏		desc. node	3834 Sep 01 17:53	22°♑50'16		
	3832 Feb 27 07:13	0°♏			3834 Sep 08 04:02	0°♍		
desc. node	3832 Mar 16 22:54	22°♏42'38			3834 Oct 06 10:47	0°♎		
	3832 Mar 22 21:49	0°♏		evening max el	3834 Oct 11 13:53	5°♎02'52	46°16'16	
	3832 Apr 16 07:59	0°♏			3834 Nov 11 06:26	0°♏		
	3832 May 10 16:58	0°♌		greatest brilliancy	3834 Nov 20 17:42	4°♏25'45	-4.8m	
	3832 Jun 04 02:25	0°♍		retrograde	3834 Nov 30 03:06	6°♏04'30		
morning set	3832 Jun 23 01:23	23°♍17'22		evening set	3834 Dec 14 15:33	1°♏57'59		
	3832 Jun 28 12:32	0°♎			3834 Dec 18 03:07	30°♎♌		
asc. node	3832 Jul 08 01:26	11°♎42'49		inferior conj	3834 Dec 20 18:38	28°♎24'12	-0°47'43	
	3832 Jul 22 22:35	0°♏		minimum elong	3834 Dec 20 20:28	28°♎21'24	0°47'07	
max. Earth dist.	3832 Jul 29 03:55	7°♏38'57	1.73515 AU	min. Earth dist.	3834 Dec 21 03:50	28°♎10'12	0.26715 AU	
				asc. node	3834 Dec 23 20:26	26°♎32'48		
superior conj	3832 Jul 29 22:11	8°♏35'04	0°49'04	morning rise	3834 Dec 27 00:47	24°♎44'49		
minimum elong	3832 Jul 29 13:47	8°♏09'16	0°48'43	direct	3835 Jan 10 07:58	20°♎39'37		
	3832 Aug 16 07:48	0°♐		greatest brilliancy	3835 Jan 20 22:09	22°♎46'21	-4.9m	
evening rise	3832 Sep 03 20:40	22°♐50'00			3835 Feb 02 23:21	0°♏		
	3832 Sep 09 16:13	0°♑		morning max el	3835 Mar 01 22:09	23°♏45'34	46°57'37	
	3832 Oct 04 00:38	0°♍			3835 Mar 07 23:42	0°♏		
desc. node	3832 Oct 27 15:43	29°♍04'02			3835 Apr 04 05:57	0°♏		
	3832 Oct 28 09:57	0°♎		desc. node	3835 Apr 14 10:50	11°♏44'54		
	3832 Nov 21 20:49	0°♏			3835 Apr 30 01:01	0°♏		
	3832 Dec 16 10:25	0°♏			3835 May 25 06:11	0°♌		
	3833 Jan 10 06:23	0°♏			3835 Jun 19 05:09	0°♍		
	3833 Feb 04 18:23	0°♏			3835 Jul 14 00:30	0°♎		
asc. node	3833 Feb 17 18:08	14°♏40'59		asc. node	3835 Aug 05 13:22	27°♎24'40		
	3833 Mar 04 00:16	0°♌			3835 Aug 07 16:16	0°♏		
evening max el	3833 Mar 08 03:16	4°♌13'20	46°50'05	morning set	3835 Aug 31 02:10	28°♏41'02		
	3833 Apr 07 10:29	0°♍			3835 Sep 01 03:51	0°♐		
greatest brilliancy	3833 Apr 16 21:21	4°♍47'34	-4.8m		3835 Sep 25 11:17	0°♑		
retrograde	3833 Apr 27 11:22	6°♍52'41		max. Earth dist.	3835 Oct 03 17:41	10°♑14'31	1.72745 AU	
evening set	3833 May 13 13:31	1°♍49'27						
	3833 May 16 14:10	30°♎♌		superior conj	3835 Oct 06 14:55	13°♑49'12	1°23'53	
inferior conj	3833 May 18 15:52	28°♌42'07	4°58'17	minimum elong	3835 Oct 06 18:12	13°♑59'24	1°23'52	
minimum elong	3833 May 19 01:13	28°♌27'26	4°55'55		3835 Oct 19 15:38	0°♍		
min. Earth dist.	3833 May 18 13:38	28°♌45'38	0.28241 AU		3835 Nov 12 18:13	0°♎		
morning rise	3833 May 24 13:23	25°♌08'44		evening rise	3835 Nov 13 10:30	0°♎50'42		
direct	3833 Jun 08 20:17	20°♌37'32		desc. node	3835 Nov 25 03:32	15°♎25'58		
desc. node	3833 Jun 09 08:11	20°♌37'49			3835 Dec 06 19:58	0°♏		
greatest brilliancy	3833 Jun 18 15:50	22°♌22'53	-4.7m		3835 Dec 30 21:28	0°♏		
	3833 Jul 03 02:41	0°♍			3836 Jan 23 23:53	0°♏		
morning max el	3833 Jul 27 15:06	20°♍31'15	45°44'33		3836 Feb 17 06:07	0°♏		
	3833 Aug 06 06:09	0°♎			3836 Mar 12 21:30	0°♌		
	3833 Sep 03 07:28	0°♏		asc. node	3836 Mar 17 06:08	5°♌13'46		

	3836 Apr 07 07:06	0° Π			3838 Nov 03 09:20	0° \mathbb{M}	
	3836 May 04 05:55	0° \mathfrak{D}		morning set	3838 Nov 08 10:07	6° \mathbb{M} 16'01	
evening max el	3836 May 18 02:17	14° \mathfrak{D} 09'17	45°49'55		3838 Nov 27 10:12	0° \mathfrak{A}	
	3836 Jun 04 17:57	0° Ω		max. Earth dist.	3838 Dec 15 09:04	22° \mathfrak{A} 29'40	1.71430 AU
greatest brilliancy	3836 Jun 25 04:02	12° Ω 35'03	-4.7m				
retrograde	3836 Jul 06 05:44	14° Ω 48'18		superior conj	3838 Dec 17 09:29	25° \mathfrak{A} 01'27	0°12'36
desc. node	3836 Jul 06 20:11	14° Ω 47'52		minimum elong	3838 Dec 17 12:38	25° \mathfrak{A} 11'22	0°12'27
evening set	3836 Jul 21 16:40	10° Ω 10'55		behind sun begin	3838 Dec 16 20:04	24° \mathfrak{A} 19'24	
inferior conj	3836 Jul 27 17:49	6° Ω 32'26	-4°41'18	behind sun end	3838 Dec 18 05:12	26° \mathfrak{A} 03'20	
minimum elong	3836 Jul 27 08:54	6° Ω 46'22	4°39'06		3838 Dec 21 08:39	0° \mathfrak{Z}	
min. Earth dist.	3836 Jul 27 10:38	6° Ω 43'40	0.29011 AU	desc. node	3838 Dec 22 15:24	1° \mathfrak{Z} 36'28	
morning rise	3836 Aug 02 01:16	3° Ω 18'52			3839 Jan 14 05:53	0° \approx	
	3836 Aug 08 23:11	30° $\mathfrak{R}\mathfrak{D}$		evening rise	3839 Jan 27 05:08	16° \approx 17'48	
direct	3836 Aug 18 07:38	28° \mathfrak{D} 15'52			3839 Feb 07 02:57	0° \mathfrak{H}	
	3836 Aug 28 02:56	0° Ω			3839 Mar 03 01:34	0° \mathfrak{Y}	
greatest brilliancy	3836 Aug 28 14:25	0° Ω 09'55	-4.7m		3839 Mar 27 04:13	0° \mathfrak{B}	
morning max el	3836 Oct 06 08:05	28° Ω 23'59	45°54'44	asc. node	3839 Apr 14 17:58	22° \mathfrak{B} 52'18	
	3836 Oct 07 23:35	0° \mathfrak{M}			3839 Apr 20 14:00	0° Π	
asc. node	3836 Oct 27 22:51	20° \mathfrak{M} 44'57			3839 May 15 10:47	0° \mathfrak{D}	
	3836 Nov 05 07:49	0° \mathfrak{L}			3839 Jun 10 00:43	0° Ω	
	3836 Dec 01 06:10	0° \mathbb{M}			3839 Jul 06 21:51	0° \mathfrak{M}	
	3836 Dec 26 03:13	0° \mathfrak{A}		evening max el	3839 Jul 28 20:27	22° \mathfrak{M} 24'15	45°30'04
	3837 Jan 19 11:58	0° \mathfrak{Z}		desc. node	3839 Aug 04 08:07	28° \mathfrak{M} 26'26	
	3837 Feb 12 14:52	0° \approx			3839 Aug 06 01:57	0° \mathfrak{L}	
desc. node	3837 Feb 16 13:02	4° \approx 53'47		greatest brilliancy	3839 Sep 05 19:37	20° \mathfrak{L} 19'56	-4.7m
	3837 Mar 08 15:19	0° \mathfrak{H}		retrograde	3839 Sep 15 10:25	21° \mathfrak{L} 59'38	
	3837 Apr 01 15:32	0° \mathfrak{Y}		evening set	3839 Oct 03 12:07	15° \mathfrak{L} 56'15	
morning set	3837 Apr 10 18:46	11° \mathfrak{Y} 23'49		inferior conj	3839 Oct 06 17:31	13° \mathfrak{L} 57'14	-8°33'50
	3837 Apr 25 17:11	0° \mathfrak{B}		minimum elong	3839 Oct 06 20:53	13° \mathfrak{L} 52'00	8°33'40
				min. Earth dist.	3839 Oct 07 10:16	13° \mathfrak{L} 31'08	0.28554 AU
superior conj	3837 May 19 15:57	29° \mathfrak{B} 43'07	-0°47'35	morning rise	3839 Oct 10 05:26	11° \mathfrak{L} 47'57	
minimum elong	3837 May 20 01:17	0° Π 11'58	0°47'11	direct	3839 Oct 28 03:44	5° \mathfrak{L} 44'44	
	3837 May 19 21:25	0° Π		greatest brilliancy	3839 Nov 08 04:46	7° \mathfrak{L} 59'10	-4.8m
max. Earth dist.	3837 May 22 17:57	3° Π 32'03	1.72781 AU	asc. node	3839 Nov 25 10:34	18° \mathfrak{L} 19'33	
asc. node	3837 Jun 09 15:40	25° Π 38'38			3839 Dec 09 00:12	0° \mathbb{M}	
	3837 Jun 13 04:30	0° \mathfrak{D}		morning max el	3839 Dec 17 10:08	8° \mathbb{M} 12'20	46°38'07
evening rise	3837 Jun 26 10:22	16° \mathfrak{D} 17'59			3840 Jan 06 20:04	0° \mathfrak{A}	
	3837 Jul 07 14:10	0° Ω			3840 Feb 01 20:09	0° \mathfrak{Z}	
	3837 Aug 01 02:19	0° \mathfrak{M}			3840 Feb 26 20:13	0° \approx	
	3837 Aug 25 17:48	0° \mathfrak{L}		desc. node	3840 Mar 16 00:57	22° \approx 10'58	
	3837 Sep 19 14:18	0° \mathbb{M}			3840 Mar 22 10:03	0° \mathfrak{H}	
desc. node	3837 Sep 29 05:47	11° \mathbb{M} 33'06			3840 Apr 15 19:42	0° \mathfrak{Y}	
	3837 Oct 14 18:09	0° \mathfrak{A}			3840 May 10 04:19	0° \mathfrak{B}	
	3837 Nov 09 09:24	0° \mathfrak{Z}			3840 Jun 03 13:30	0° Π	
	3837 Dec 05 23:23	0° \approx		morning set	3840 Jun 20 18:31	21° Π 09'04	
evening max el	3837 Dec 23 14:13	18° \approx 37'22	47°09'40		3840 Jun 27 23:25	0° \mathfrak{D}	
	3838 Jan 04 08:50	0° \mathfrak{H}		asc. node	3840 Jul 07 03:35	11° \mathfrak{D} 16'08	
asc. node	3838 Jan 20 08:23	13° \mathfrak{H} 01'59			3840 Jul 22 09:21	0° Ω	
greatest brilliancy	3838 Feb 02 03:54	20° \mathfrak{H} 00'12	-4.9m	max. Earth dist.	3840 Jul 26 23:09	5° Ω 37'29	1.73512 AU
retrograde	3838 Feb 12 09:13	21° \mathfrak{H} 59'38					
evening set	3838 Mar 01 12:28	16° \mathfrak{H} 14'21		superior conj	3840 Jul 27 16:24	6° Ω 30'29	0°46'26
min. Earth dist.	3838 Mar 04 08:31	14° \mathfrak{H} 30'38	0.27113 AU	minimum elong	3840 Jul 27 08:14	6° Ω 05'25	0°46'05
inferior conj	3838 Mar 05 01:29	14° \mathfrak{H} 04'23	8°34'07		3840 Aug 15 18:34	0° \mathfrak{M}	
minimum elong	3838 Mar 04 19:00	14° \mathfrak{H} 14'24	8°33'28	evening rise	3840 Sep 01 15:01	20° \mathfrak{M} 45'17	
morning rise	3838 Mar 08 01:46	12° \mathfrak{H} 14'01			3840 Sep 09 03:06	0° \mathfrak{L}	
direct	3838 Mar 25 15:20	6° \mathfrak{H} 18'42			3840 Oct 03 11:45	0° \mathbb{M}	
greatest brilliancy	3838 Apr 03 17:04	7° \mathfrak{H} 52'33	-4.9m	desc. node	3840 Oct 26 17:40	28° \mathbb{M} 34'51	
	3838 May 06 00:40	0° \mathfrak{Y}			3840 Oct 27 21:25	0° \mathfrak{A}	
desc. node	3838 May 11 22:24	5° \mathfrak{Y} 33'42			3840 Nov 21 08:49	0° \mathfrak{Z}	
morning max el	3838 May 14 10:35	8° \mathfrak{Y} 00'04	46°21'41		3840 Dec 15 23:07	0° \approx	
	3838 Jun 04 15:45	0° \mathfrak{B}			3841 Jan 09 20:11	0° \mathfrak{H}	
	3838 Jul 01 13:48	0° Π			3841 Feb 04 10:13	0° \mathfrak{Y}	
	3838 Jul 27 11:36	0° \mathfrak{D}		asc. node	3841 Feb 16 20:13	13° \mathfrak{Y} 58'06	
	3838 Aug 21 19:22	0° Ω			3841 Mar 03 21:22	0° \mathfrak{B}	
asc. node	3838 Sep 02 01:13	13° Ω 30'06		evening max el	3841 Mar 05 16:40	1° \mathfrak{B} 50'04	46°51'56
	3838 Sep 15 16:17	0° \mathfrak{M}			3841 Apr 09 00:35	0° Π	
	3838 Oct 10 04:10	0° \mathfrak{L}		greatest brilliancy	3841 Apr 14 14:13	2° Π 32'38	-4.8m




































































































































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	3841 May 10 10:11	30°♋♌					
evening set	3841 May 11 07:35	29°♌29'31		superior conj	3843 Oct 04 07:52	11°♊38'54	1°24'24
inferior conj	3841 May 16 07:07	26°♌26'31	5°15'55	minimum elong	3843 Oct 04 10:26	11°♊46'53	1°24'23
minimum elong	3841 May 16 16:46	26°♌11'22	5°13'33		3843 Oct 19 02:37	0°♌	
min. Earth dist.	3841 May 16 05:18	26°♌29'22	0.28211 AU	evening rise	3843 Nov 11 00:53	28°♌31'30	
morning rise	3841 May 22 02:17	22°♌56'11			3843 Nov 12 05:19	0°♌	
direct	3841 Jun 06 10:22	18°♌22'13		desc. node	3843 Nov 24 05:38	14°♌57'41	
desc. node	3841 Jun 08 10:18	18°♌26'49			3843 Dec 06 07:15	0°♌	
greatest brilliancy	3841 Jun 16 06:44	20°♌07'56	-4.8m		3843 Dec 30 08:59	0°♌	
	3841 Jul 03 21:50	0°♌			3844 Jan 23 11:43	0°♌	
morning max el	3841 Jul 25 05:49	18°♌17'02	45°45'16		3844 Feb 16 18:25	0°♌	
	3841 Aug 06 01:31	0°♌			3844 Mar 12 10:36	0°♌	
	3841 Sep 02 22:14	0°♌		asc. node	3844 Mar 16 08:00	4°♌39'42	
	3841 Sep 29 01:11	0°♌			3844 Apr 06 21:45	0°♌	
asc. node	3841 Sep 29 13:03	0°♌34'50			3844 May 04 00:21	0°♌	
	3841 Oct 24 04:59	0°♌		evening max el	3844 May 15 18:58	11°♌58'40	45°51'42
	3841 Nov 17 18:10	0°♌			3844 Jun 05 05:22	0°♌	
	3841 Dec 11 22:30	0°♌		greatest brilliancy	3844 Jun 22 19:38	10°♌24'13	-4.7m
	3842 Jan 04 22:01	0°♌		retrograde	3844 Jul 03 22:32	12°♌38'13	
desc. node	3842 Jan 19 03:15	17°♌50'56		desc. node	3844 Jul 05 22:16	12°♌33'31	
morning set	3842 Jan 21 13:43	20°♌54'36		evening set	3844 Jul 19 07:18	8°♌03'17	
	3842 Jan 28 19:14	0°♌		inferior conj	3844 Jul 25 10:02	4°♌22'16	-4°24'27
	3842 Feb 21 15:46	0°♌		minimum elong	3844 Jul 25 01:29	4°♌35'39	4°22'17
				min. Earth dist.	3844 Jul 25 02:19	4°♌34'21	0.28992 AU
superior conj	3842 Mar 04 02:38	13°♌08'21	-1°21'35	morning rise	3844 Jul 30 19:54	1°♌05'25	
minimum elong	3842 Mar 03 18:51	12°♌43'54	1°21'26		3844 Aug 01 19:50	30°♌♍	
max. Earth dist.	3842 Mar 06 13:41	16°♌13'48	1.71307 AU	direct	3844 Aug 16 00:17	26°♌06'08	
	3842 Mar 17 13:04	0°♌		greatest brilliancy	3844 Aug 26 05:21	27°♌59'02	-4.7m
	3842 Apr 10 12:51	0°♌			3844 Aug 31 00:52	0°♌	
evening rise	3842 Apr 13 15:02	3°♌51'05		morning max el	3844 Oct 04 00:14	26°♌13'10	45°53'35
	3842 May 04 16:43	0°♌			3844 Oct 07 20:53	0°♌	
asc. node	3842 May 12 05:52	9°♌18'59		asc. node	3844 Oct 27 00:53	20°♌04'59	
	3842 May 29 01:58	0°♌			3844 Nov 04 23:19	0°♌	
	3842 Jun 22 17:46	0°♌			3844 Nov 30 19:35	0°♌	
	3842 Jul 17 18:11	0°♌			3844 Dec 25 15:40	0°♌	
	3842 Aug 12 07:42	0°♌			3845 Jan 18 23:53	0°♌	
desc. node	3842 Aug 31 19:53	22°♌13'31			3845 Feb 12 02:26	0°♌	
	3842 Sep 07 19:54	0°♌		desc. node	3845 Feb 15 15:03	4°♌24'06	
	3842 Oct 06 08:48	0°♌			3845 Mar 08 02:39	0°♌	
evening max el	3842 Oct 09 03:21	2°♌42'18	46°14'15		3845 Apr 01 02:42	0°♌	
	3842 Nov 13 08:14	0°♌		morning set	3845 Apr 08 07:26	8°♌58'54	
greatest brilliancy	3842 Nov 18 06:22	2°♌00'21	-4.8m		3845 Apr 25 04:15	0°♌	
retrograde	3842 Nov 27 15:52	3°♌39'06					
	3842 Dec 11 06:34	30°♌♍		superior conj	3845 May 17 06:47	27°♌26'21	-0°50'29
evening set	3842 Dec 12 05:33	29°♌30'09		minimum elong	3845 May 17 16:27	27°♌56'19	0°50'06
inferior conj	3842 Dec 18 07:20	25°♌58'13	-1°11'38		3845 May 19 08:25	0°♌	
minimum elong	3842 Dec 18 10:04	25°♌54'03	1°10'45	max. Earth dist.	3845 May 20 12:49	1°♌27'54	1.72736 AU
min. Earth dist.	3842 Dec 18 17:44	25°♌42'24	0.26756 AU	asc. node	3845 Jun 08 17:47	25°♌11'22	
asc. node	3842 Dec 22 22:31	23°♌12'48			3845 Jun 12 15:28	0°♌	
morning rise	3842 Dec 24 13:59	22°♌18'26		evening rise	3845 Jun 24 03:32	14°♌09'28	
direct	3843 Jan 07 21:30	18°♌12'42			3845 Jul 07 01:11	0°♌	
greatest brilliancy	3843 Jan 18 12:45	20°♌21'03	-4.9m		3845 Jul 31 13:32	0°♌	
	3843 Feb 03 20:58	0°♌			3845 Aug 25 05:24	0°♌	
morning max el	3843 Feb 27 13:00	21°♌23'31	46°57'55		3845 Sep 19 02:33	0°♌	
	3843 Mar 07 20:26	0°♌		desc. node	3845 Sep 28 07:45	11°♌01'29	
	3843 Apr 03 21:49	0°♌			3845 Oct 14 07:25	0°♌	
desc. node	3843 Apr 13 12:45	11°♌07'11			3845 Nov 09 00:22	0°♌	
	3843 Apr 29 14:48	0°♌			3845 Dec 05 17:51	0°♌	
	3843 May 24 18:49	0°♌		evening max el	3845 Dec 21 05:02	16°♌15'25	47°08'50
	3843 Jun 18 17:03	0°♌			3846 Jan 04 15:03	0°♌	
	3843 Jul 13 11:56	0°♌		asc. node	3846 Jan 19 10:25	11°♌37'29	
asc. node	3843 Aug 04 15:23	26°♌56'44		greatest brilliancy	3846 Jan 30 17:42	17°♌34'22	-4.9m
	3843 Aug 07 03:25	0°♌		retrograde	3846 Feb 09 22:46	19°♌33'06	
morning set	3843 Aug 28 19:38	26°♌33'25		evening set	3846 Feb 26 21:55	13°♌54'29	
	3843 Aug 31 14:50	0°♌		min. Earth dist.	3846 Mar 01 21:25	12°♌05'34	0.27066 AU
	3843 Sep 24 22:14	0°♌		inferior conj	3846 Mar 02 14:38	11°♌38'53	8°26'38

minimum elong	3846 Mar 02 07:27	11°  50'01	8°25'50	evening rise	3848 Aug 30 09:16	18°  40'34	
morning rise	3846 Mar 05 17:13	9°  44'59			3848 Sep 08 13:55	0°  ♁	
direct	3846 Mar 23 04:21	3°  54'11			3848 Oct 02 22:48	0°  ♂	
greatest brilliancy	3846 Apr 01 05:45	5°  27'36	-4.9m	desc. node	3848 Oct 25 19:45	28°  ♂06'17	
	3846 May 06 03:20	0°  ♂			3848 Oct 27 08:50	0°  ♂	
desc. node	3846 May 11 00:35	4°  ♂41'04			3848 Nov 20 20:45	0°  ♂	
morning max el	3846 May 11 23:37	5°  ♂37'28	46°23'07		3848 Dec 15 11:47	0°  ♂	
	3846 Jun 04 08:59	0°  ♂			3849 Jan 09 09:58	0°  ♂	
	3846 Jul 01 03:59	0°  ♂			3849 Feb 04 02:08	0°  ♂	
	3846 Jul 27 00:16	0°  ♂		asc. node	3849 Feb 15 22:10	13°  ♂14'50	
	3846 Aug 21 07:12	0°  ♂		evening max el	3849 Mar 03 06:27	29°  ♂28'22	46°53'56
asc. node	3846 Sep 01 03:11	13°  ♂01'02			3849 Mar 03 18:59	0°  ♂	
	3846 Sep 15 03:37	0°  ♂			3849 Apr 11 12:02	0°  ♂	
	3846 Oct 09 15:16	0°  ♂		greatest brilliancy	3849 Apr 12 06:39	0°  ♂18'06	-4.8m
	3846 Nov 02 20:20	0°  ♂		retrograde	3849 Apr 22 18:03	2°  ♂21'59	
morning set	3846 Nov 06 00:59	3°  ♂58'36			3849 May 03 13:15	30°  ♂	
	3846 Nov 26 21:13	0°  ♂		evening set	3849 May 09 01:50	27°  ♂10'32	
max. Earth dist.	3846 Dec 12 15:12	19°  ♂43'48	1.71466 AU	inferior conj	3849 May 13 22:29	24°  ♂12'04	5°32'55
				minimum elong	3849 May 14 08:23	23°  ♂56'33	5°30'34
superior conj	3846 Dec 14 21:24	22°  ♂33'43	0°16'22	min. Earth dist.	3849 May 13 20:50	24°  ♂14'40	0.28179 AU
minimum elong	3846 Dec 15 01:27	22°  ♂46'27	0°16'10	morning rise	3849 May 19 15:14	20°  ♂45'18	
behind sun begin	3846 Dec 14 23:11	22°  ♂39'20		direct	3849 Jun 04 00:39	16°  ♂08'02	
behind sun end	3846 Dec 15 03:43	22°  ♂53'33		desc. node	3849 Jun 07 12:18	16°  ♂21'59	
	3846 Dec 20 19:42	0°  ♂		greatest brilliancy	3849 Jun 13 21:32	17°  ♂54'14	-4.8m
desc. node	3846 Dec 21 17:29	1°  ♂08'19			3849 Jul 04 11:29	0°  ♂	
	3847 Jan 13 16:59	0°  ♂		morning max el	3849 Jul 22 21:27	16°  ♂06'05	45°45'54
evening rise	3847 Jan 24 15:43	13°  ♂45'16			3849 Aug 05 19:57	0°  ♂	
	3847 Feb 06 14:07	0°  ♂			3849 Sep 02 12:32	0°  ♂	
	3847 Mar 02 12:48	0°  ♂		asc. node	3849 Sep 28 15:05	0°  ♂03'49	
	3847 Mar 26 15:37	0°  ♂			3849 Sep 28 13:47	0°  ♂	
asc. node	3847 Apr 13 20:01	22°  ♂23'01			3849 Oct 23 16:46	0°  ♂	
	3847 Apr 20 01:45	0°  ♂			3849 Nov 17 05:31	0°  ♂	
	3847 May 14 23:12	0°  ♂			3849 Dec 11 09:37	0°  ♂	
	3847 Jun 09 14:29	0°  ♂		greatest brilliancy	3850 Jan 04 00:39	29°  ♂33'46	-3.9m
	3847 Jul 06 14:46	0°  ♂		desc. node	3850 Jan 04 09:01	0°  ♂	
evening max el	3847 Jul 26 10:25	20°  ♂08'41	45°29'31	morning set	3850 Jan 18 05:10	17°  ♂22'28	
desc. node	3847 Aug 03 10:06	27°  ♂31'53			3850 Jan 18 23:50	18°  ♂21'08	
	3847 Aug 06 05:47	0°  ♂			3850 Jan 28 06:11	0°  ♂	
greatest brilliancy	3847 Sep 03 09:41	18°  ♂06'15	-4.7m		3850 Feb 21 02:41	0°  ♂	
retrograde	3847 Sep 13 00:40	19°  ♂46'37					
evening set	3847 Oct 01 03:41	13°  ♂42'00		superior conj	3850 Mar 01 12:59	10°  ♂35'53	-1°20'08
inferior conj	3847 Oct 04 08:48	11°  ♂43'28	-8°36'23	minimum elong	3850 Mar 01 04:22	10°  ♂08'47	1°19'58
minimum elong	3847 Oct 04 11:23	11°  ♂39'28	8°36'17	max. Earth dist.	3850 Mar 03 18:55	13°  ♂25'17	1.71279 AU
min. Earth dist.	3847 Oct 05 01:06	11°  ♂18'05	0.28608 AU		3850 Mar 16 23:57	0°  ♂	
morning rise	3847 Oct 07 18:51	9°  ♂36'53			3850 Apr 09 23:41	0°  ♂	
direct	3847 Oct 25 18:54	3°  ♂30'07		evening rise	3850 Apr 11 03:02	1°  ♂25'10	
greatest brilliancy	3847 Nov 05 20:44	5°  ♂44'42	-4.8m		3850 May 04 03:36	0°  ♂	
asc. node	3847 Nov 24 12:43	17°  ♂11'04		asc. node	3850 May 11 07:59	8°  ♂51'56	
	3847 Dec 09 01:27	0°  ♂			3850 May 28 12:59	0°  ♂	
morning max el	3847 Dec 15 00:02	5°  ♂50'49	46°36'41		3850 Jun 22 05:07	0°  ♂	
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	3848 Feb 01 10:19	0°  ♂			3850 Aug 11 20:55	0°  ♂	
	3848 Feb 26 09:05	0°  ♂		desc. node	3850 Aug 30 21:50	21°  ♂37'23	
desc. node	3848 Mar 15 02:51	21°  ♂39'11			3850 Sep 07 11:41	0°  ♂	
	3848 Mar 21 22:09	0°  ♂			3850 Oct 06 07:26	0°  ♂	
	3848 Apr 15 07:16	0°  ♂		evening max el	3850 Oct 06 17:38	0°  ♂24'39	46°11'59
	3848 May 09 15:29	0°  ♂		greatest brilliancy	3850 Nov 15 18:40	29°  ♂35'12	-4.8m
	3848 Jun 03 00:23	0°  ♂			3850 Nov 17 02:13	0°  ♂	
morning set	3848 Jun 18 11:44	19°  ♂01'27		retrograde	3850 Nov 25 04:42	1°  ♂13'57	
	3848 Jun 27 10:07	0°  ♂			3850 Dec 02 23:57	30°  ♂	
asc. node	3848 Jul 06 05:33	10°  ♂49'23		evening set	3850 Dec 09 19:40	27°  ♂02'40	
	3848 Jul 21 20:00	0°  ♂		inferior conj	3850 Dec 15 19:53	23°  ♂32'35	-1°35'27
				minimum elong	3850 Dec 15 23:31	23°  ♂27'04	1°34'17
superior conj	3848 Jul 25 10:34	4°  ♂26'06	0°43'45	min. Earth dist.	3850 Dec 16 07:17	23°  ♂15'15	0.26799 AU
minimum elong	3848 Jul 25 02:42	4°  ♂01'54	0°43'24	morning rise	3850 Dec 22 02:49	19°  ♂52'40	
max. Earth dist.	3848 Jul 24 18:32	3°  ♂36'48	1.73518 AU	asc. node	3850 Dec 22 00:29	19°  ♂55'47	
	3848 Aug 15 05:15	0°  ♂		direct	3851 Jan 05 11:17	15°  ♂46'25	

greatest brilliancy	3851 Jan 16 02:46	17° ♁ 55'32	-4.9m		3853 Jul 31 00:24	0° ♁	
	3851 Feb 04 12:45	0° ♁			3853 Aug 24 16:38	0° ♁	
morning max el	3851 Feb 25 03:43	19° ♁ 02'02	46°58'11		3853 Sep 18 14:25	0° ♁	
	3851 Mar 07 16:11	0° ♁		desc. node	3853 Sep 27 09:55	10° ♁ 31'42	
	3851 Apr 03 13:05	0° ♁			3853 Oct 13 20:19	0° ♁	
desc. node	3851 Apr 12 14:54	10° ♁ 31'27			3853 Nov 08 15:06	0° ♁	
	3851 Apr 29 04:05	0° ♁			3853 Dec 05 12:25	0° ♁	
	3851 May 24 06:59	0° ♁		evening max el	3853 Dec 18 18:48	13° ♁ 51'31	47°07'32
	3851 Jun 18 04:32	0° ♁			3854 Jan 04 23:26	0° ♁	
	3851 Jul 12 22:56	0° ♁		asc. node	3854 Jan 18 12:22	10° ♁ 10'00	
asc. node	3851 Aug 03 17:22	26° ♁ 30'03		greatest brilliancy	3854 Jan 28 07:42	15° ♁ 08'31	-4.9m
	3851 Aug 06 14:07	0° ♁		retrograde	3854 Feb 07 11:27	17° ♁ 06'01	
morning set	3851 Aug 26 13:32	24° ♁ 28'36		evening set	3854 Feb 24 06:50	11° ♁ 34'27	
	3851 Aug 31 01:22	0° ♁		min. Earth dist.	3854 Feb 27 10:30	9° ♁ 39'23	0.27022 AU
	3851 Sep 24 08:44	0° ♁		inferior conj	3854 Feb 28 03:32	9° ♁ 12'59	8°17'59
max. Earth dist.	3851 Sep 29 06:40	6° ♁ 05'02	1.72827 AU	minimum elong	3854 Feb 27 19:39	9° ♁ 25'13	8°17'00
				morning rise	3854 Mar 03 08:41	7° ♁ 15'08	
superior conj	3851 Oct 02 01:09	9° ♁ 31'01	1°24'47	direct	3854 Mar 20 16:36	1° ♁ 28'59	
minimum elong	3851 Oct 02 03:00	9° ♁ 36'45	1°24'46	greatest brilliancy	3854 Mar 29 18:58	3° ♁ 02'50	-4.9m
	3851 Oct 18 13:13	0° ♁			3854 May 06 04:28	0° ♁	
evening rise	3851 Nov 08 15:23	26° ♁ 13'39		morning max el	3854 May 09 11:46	3° ♁ 12'47	46°24'47
	3851 Nov 11 16:07	0° ♁		desc. node	3854 May 10 02:37	3° ♁ 49'23	
desc. node	3851 Nov 23 07:43	14° ♁ 30'16			3854 Jun 04 01:40	0° ♁	
	3851 Dec 05 18:17	0° ♁			3854 Jun 30 17:43	0° ♁	
	3851 Dec 29 20:15	0° ♁			3854 Jul 26 12:34	0° ♁	
	3852 Jan 22 23:17	0° ♁			3854 Aug 20 18:40	0° ♁	
	3852 Feb 16 06:27	0° ♁		asc. node	3854 Aug 31 05:14	12° ♁ 33'14	
	3852 Mar 11 23:26	0° ♁			3854 Sep 14 14:38	0° ♁	
asc. node	3852 Mar 15 10:05	4° ♁ 07'09			3854 Oct 09 02:03	0° ♁	
	3852 Apr 06 12:11	0° ♁			3854 Nov 02 07:02	0° ♁	
	3852 May 03 18:46	0° ♁		morning set	3854 Nov 03 16:33	1° ♁ 44'20	
evening max el	3852 May 13 11:48	9° ♁ 49'32	45°53'33		3854 Nov 26 07:54	0° ♁	
	3852 Jun 05 19:50	0° ♁		max. Earth dist.	3854 Dec 10 01:07	17° ♁ 10'53	1.71508 AU
greatest brilliancy	3852 Jun 20 12:09	8° ♁ 16'06	-4.7m				
retrograde	3852 Jul 01 15:14	10° ♁ 29'58		superior conj	3854 Dec 12 09:57	20° ♁ 09'00	0°20'03
desc. node	3852 Jul 05 00:15	10° ♁ 16'25		minimum elong	3854 Dec 12 14:51	20° ♁ 24'21	0°19'48
evening set	3852 Jul 16 22:21	5° ♁ 57'33			3854 Dec 20 06:27	0° ♁	
inferior conj	3852 Jul 23 02:30	2° ♁ 14'10	-4°07'17	desc. node	3854 Dec 20 19:26	0° ♁ 40'44	
minimum elong	3852 Jul 22 18:21	2° ♁ 26'57	4°05'11		3855 Jan 13 03:50	0° ♁	
min. Earth dist.	3852 Jul 22 18:27	2° ♁ 26'47	0.28968 AU	evening rise	3855 Jan 22 02:35	11° ♁ 14'22	
	3852 Jul 26 17:24	30° ♁			3855 Feb 06 01:06	0° ♁	
morning rise	3852 Jul 28 14:38	28° ♁ 54'01			3855 Mar 01 23:57	0° ♁	
direct	3852 Aug 13 17:01	23° ♁ 58'39			3855 Mar 26 02:57	0° ♁	
greatest brilliancy	3852 Aug 23 20:26	25° ♁ 50'10	-4.7m	asc. node	3855 Apr 12 22:06	21° ♁ 54'00	
	3852 Sep 01 17:37	0° ♁			3855 Apr 19 13:26	0° ♁	
morning max el	3852 Oct 01 15:40	24° ♁ 02'21	45°52'25		3855 May 14 11:34	0° ♁	
	3852 Oct 07 16:48	0° ♁			3855 Jun 09 04:16	0° ♁	
asc. node	3852 Oct 26 03:01	19° ♁ 27'13			3855 Jul 06 07:51	0° ♁	
	3852 Nov 04 14:03	0° ♁		evening max el	3855 Jul 24 00:27	17° ♁ 53'55	45°29'14
	3852 Nov 30 08:29	0° ♁		desc. node	3855 Aug 02 12:07	26° ♁ 36'52	
	3852 Dec 25 03:44	0° ♁			3855 Aug 06 11:11	0° ♁	
	3853 Jan 18 11:29	0° ♁		greatest brilliancy	3855 Aug 31 23:23	15° ♁ 53'16	-4.7m
	3853 Feb 11 13:44	0° ♁		retrograde	3855 Sep 10 15:37	17° ♁ 35'08	
desc. node	3853 Feb 14 17:04	3° ♁ 55'10		evening set	3855 Sep 28 19:05	11° ♁ 29'32	
	3853 Mar 07 13:44	0° ♁		inferior conj	3855 Oct 02 00:18	9° ♁ 31'02	-8°38'06
	3853 Mar 31 13:35	0° ♁		minimum elong	3855 Oct 02 02:04	9° ♁ 28'16	8°38'04
morning set	3853 Apr 05 19:40	6° ♁ 33'33		min. Earth dist.	3855 Oct 02 15:51	9° ♁ 06'50	0.28657 AU
	3853 Apr 24 15:00	0° ♁		morning rise	3855 Oct 05 08:50	7° ♁ 26'51	
				direct	3855 Oct 23 10:26	1° ♁ 16'51	
superior conj	3853 May 14 21:26	25° ♁ 10'03	-0°53'19	greatest brilliancy	3855 Nov 03 12:50	3° ♁ 31'50	-4.8m
minimum elong	3853 May 15 07:24	25° ♁ 40'57	0°52'56	asc. node	3855 Nov 23 14:37	16° ♁ 04'52	
max. Earth dist.	3853 May 18 08:05	29° ♁ 26'02	1.72685 AU		3855 Dec 09 01:06	0° ♁	
	3853 May 18 19:04	0° ♁		morning max el	3855 Dec 12 14:53	3° ♁ 32'48	46°35'21
asc. node	3853 Jun 07 19:45	24° ♁ 44'43			3856 Jan 06 05:11	0° ♁	
	3853 Jun 12 02:05	0° ♁			3856 Feb 01 00:07	0° ♁	
evening rise	3853 Jun 21 20:41	12° ♁ 01'57			3856 Feb 25 21:43	0° ♁	
	3853 Jul 06 11:51	0° ♁		desc. node	3856 Mar 14 05:00	21° ♁ 08'34	

	3856 Mar 21 10:07	0° H		evening max el	3858 Oct 04 08:14	28° M 07'19	46°09'50
	3856 Apr 14 18:47	0° Y			3858 Oct 06 07:20	0° X	
	3856 May 09 02:40	0° B		greatest brilliancy	3858 Nov 13 07:18	27° X 10'26	-4.8m
	3856 Jun 02 11:17	0° II		retrograde	3858 Nov 22 17:25	28° X 48'36	
morning set	3856 Jun 16 04:30	16° II 52'18		evening set	3858 Dec 07 10:09	24° X 35'05	
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asc. node	3856 Jul 05 07:32	10° D 22'40		minimum elong	3858 Dec 13 13:03	21° X 00'06	1°57'29
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superior conj	3856 Jul 23 04:27	2° O 20'53	0°40'58	direct	3859 Jan 03 01:09	13° X 20'13	
minimum elong	3856 Jul 22 20:55	1° O 57'42	0°40'39	greatest brilliancy	3859 Jan 13 16:45	15° X 29'37	-4.9m
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evening rise	3856 Aug 28 03:36	16° M 36'19		morning max el	3859 Feb 22 17:43	16° Z 38'19	46°58'28
	3856 Sep 08 00:43	0° A			3859 Mar 07 11:29	0° \approx	
	3856 Oct 02 09:50	0° M			3859 Apr 03 04:15	0° H	
desc. node	3856 Oct 24 21:49	27° M 37'45		desc. node	3859 Apr 11 16:56	9° H 55'20	
	3856 Oct 26 20:14	0° X			3859 Apr 28 17:23	0° Y	
	3856 Nov 20 08:38	0° Z			3859 May 23 19:16	0° B	
	3856 Dec 15 00:23	0° \approx			3859 Jun 17 16:11	0° II	
	3857 Jan 08 23:44	0° H			3859 Jul 12 10:12	0° D	
	3857 Feb 03 18:10	0° Y		asc. node	3859 Aug 02 19:28	26° D 02'51	
asc. node	3857 Feb 15 00:14	12° Y 31'38			3859 Aug 06 01:07	0° O	
evening max el	3857 Feb 28 20:55	27° Y 08'28	46°55'36	morning set	3859 Aug 24 07:10	22° O 21'55	
	3857 Mar 03 17:24	0° B			3859 Aug 30 12:13	0° M	
greatest brilliancy	3857 Apr 09 22:11	28° B 01'47	-4.8m		3859 Sep 23 19:34	0° A	
	3857 Apr 18 03:37	0° II		max. Earth dist.	3859 Sep 26 22:57	3° A 53'18	1.72867 AU
retrograde	3857 Apr 20 09:48	0° II 06'08					
	3857 Apr 22 15:26	30° R B		superior conj	3859 Sep 29 18:17	7° A 21'46	1°25'02
evening set	3857 May 06 19:54	24° B 50'09		minimum elong	3859 Sep 29 19:25	7° A 25'16	1°25'02
inferior conj	3857 May 11 13:36	21° B 56'14	5°49'31		3859 Oct 18 00:08	0° M	
minimum elong	3857 May 11 23:41	21° B 40'28	5°47'12	evening rise	3859 Nov 06 05:48	23° M 54'46	
min. Earth dist.	3857 May 11 11:49	21° B 59'03	0.28154 AU		3859 Nov 11 03:12	0° X	
morning rise	3857 May 17 03:45	18° B 33'28		desc. node	3859 Nov 22 09:37	14° X 01'28	
direct	3857 Jun 01 15:21	13° B 52'27			3859 Dec 05 05:34	0° Z	
desc. node	3857 Jun 06 14:17	14° B 20'32			3859 Dec 29 07:48	0° \approx	
greatest brilliancy	3857 Jun 11 11:49	15° B 38'51	-4.8m		3860 Jan 22 11:09	0° H	
	3857 Jul 04 22:03	0° II			3860 Feb 15 18:48	0° Y	
morning max el	3857 Jul 20 13:35	13° II 55'36	45°46'36		3860 Mar 11 12:37	0° B	
	3857 Aug 05 14:10	0° D		asc. node	3860 Mar 14 12:11	3° B 33'43	
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asc. node	3857 Sep 27 17:12	29° O 32'52			3860 May 03 13:58	0° D	
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	3857 Oct 23 04:34	0° A			3860 Jun 06 15:59	0° O	
	3857 Nov 16 16:54	0° M		greatest brilliancy	3860 Jun 18 05:02	6° O 07'13	-4.7m
	3857 Dec 10 20:47	0° X		retrograde	3860 Jun 29 07:19	8° O 20'27	
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morning set	3858 Jan 16 10:34	15° Z 49'26		inferior conj	3860 Jul 20 18:53	0° O 04'51	-3°49'46
desc. node	3858 Jan 17 07:16	16° Z 54'25		minimum elong	3860 Jul 20 11:10	0° O 16'58	3°47'43
	3858 Jan 27 17:11	0° \approx		min. Earth dist.	3860 Jul 20 10:55	0° O 17'23	0.28949 AU
	3858 Feb 20 13:37	0° H			3860 Jul 20 21:59	30° R D	
				morning rise	3860 Jul 26 09:10	26° D 41'18	
superior conj	3858 Feb 26 23:40	8° H 04'14	-1°18'32	direct	3860 Aug 11 09:18	21° D 49'43	
minimum elong	3858 Feb 26 14:18	7° H 34'48	1°18'20	greatest brilliancy	3860 Aug 21 12:06	23° D 40'23	-4.7m
max. Earth dist.	3858 Mar 01 04:04	10° H 48'52	1.71253 AU		3860 Sep 02 22:32	0° O	
	3858 Mar 16 10:51	0° Y		morning max el	3860 Sep 29 06:11	21° O 47'54	45°51'19
evening rise	3858 Apr 08 15:09	28° Y 59'21			3860 Oct 07 12:40	0° M	
	3858 Apr 09 10:37	0° B		asc. node	3860 Oct 25 04:57	18° M 47'54	
	3858 May 03 14:37	0° II			3860 Nov 04 05:05	0° A	
asc. node	3858 May 10 09:55	8° II 23'48			3860 Nov 29 21:43	0° M	
	3858 May 28 00:14	0° D			3860 Dec 24 16:06	0° X	
	3858 Jun 21 16:43	0° O			3861 Jan 17 23:23	0° Z	
	3858 Jul 16 18:28	0° M			3861 Feb 11 01:19	0° \approx	
	3858 Aug 11 10:31	0° A		desc. node	3861 Feb 13 19:09	3° \approx 25'34	
desc. node	3858 Aug 29 24:00	21° A 00'46			3861 Mar 07 01:06	0° H	
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


































































































































morning set	3861 Apr 03 07:53	4° Υ 07'00		inferior conj	3863 Sep 29 15:46	7° Ω 17'39	-8°39'02
	3861 Apr 24 02:04	0° \mathcal{B}		minimum elong	3863 Sep 29 16:43	7° Ω 16'10	8°39'02
				min. Earth dist.	3863 Sep 30 06:07	6° Ω 55'20	0.28710 AU
superior conj	3861 May 12 12:14	22° \mathcal{B} 53'12	-0°56'04	morning rise	3863 Oct 02 23:09	5° Ω 15'23	
minimum elong	3861 May 12 22:27	23° \mathcal{B} 24'52	0°55'41		3863 Oct 14 05:23	30° \mathcal{R} \mathcal{M}	
max. Earth dist.	3861 May 16 02:36	27° \mathcal{B} 20'47	1.72630 AU	direct	3863 Oct 21 02:23	29° \mathcal{M} 02'44	
	3861 May 18 06:01	0° Π			3863 Oct 28 04:56	0° Ω	
asc. node	3861 Jun 06 21:46	24° Π 17'19		greatest brilliancy	3863 Nov 01 04:24	1° Ω 17'34	-4.8m
	3861 Jun 11 13:00	0° \mathcal{E}		asc. node	3863 Nov 22 16:41	14° Ω 59'34	
evening rise	3861 Jun 19 13:55	9° \mathcal{E} 53'39			3863 Dec 09 00:13	0° \mathcal{M}	
	3861 Jul 05 22:51	0° Ω		morning max el	3863 Dec 10 06:36	1° \mathcal{M} 15'56	46°33'50
	3861 Jul 30 11:38	0° \mathcal{M}			3864 Jan 05 21:36	0° \mathcal{A}	
	3861 Aug 24 04:19	0° Ω			3864 Jan 31 14:11	0° \mathcal{Z}	
	3861 Sep 18 02:47	0° \mathcal{M}			3864 Feb 25 10:37	0° \approx	
desc. node	3861 Sep 26 11:52	9° \mathcal{M} 59'47		desc. node	3864 Mar 13 07:02	20° \approx 36'49	
	3861 Oct 13 09:47	0° \mathcal{A}			3864 Mar 20 22:19	0° \mathcal{H}	
	3861 Nov 08 06:29	0° \mathcal{Z}			3864 Apr 14 06:30	0° Υ	
	3861 Dec 05 07:58	0° \approx			3864 May 08 14:02	0° \mathcal{B}	
evening max el	3861 Dec 16 07:32	11° \approx 23'55	47°06'24		3864 Jun 01 22:23	0° Π	
	3862 Jan 05 11:18	0° \mathcal{H}		morning set	3864 Jun 13 21:18	14° Π 42'29	
asc. node	3862 Jan 17 14:29	8° \mathcal{H} 38'40			3864 Jun 26 07:46	0° \mathcal{E}	
greatest brilliancy	3862 Jan 25 21:46	12° \mathcal{H} 41'43	-4.9m	asc. node	3864 Jul 04 09:40	9° \mathcal{E} 55'46	
retrograde	3862 Feb 05 00:00	14° \mathcal{H} 38'15					
evening set	3862 Feb 21 15:41	9° \mathcal{H} 13'26		superior conj	3864 Jul 20 22:25	0° Ω 15'12	0°38'09
min. Earth dist.	3862 Feb 24 23:45	7° \mathcal{H} 12'07	0.26980 AU	minimum elong	3864 Jul 20 15:15	29° \mathcal{E} 53'09	0°37'49
inferior conj	3862 Feb 25 16:29	6° \mathcal{H} 46'13	8°08'28	max. Earth dist.	3864 Jul 20 13:04	29° \mathcal{E} 46'27	1.73514 AU
minimum elong	3862 Feb 25 07:57	6° \mathcal{H} 59'25	8°07'17		3864 Jul 20 17:29	0° Ω	
morning rise	3862 Mar 01 00:24	4° \mathcal{H} 44'15			3864 Aug 14 02:46	0° \mathcal{M}	
	3862 Mar 11 08:18	30° \mathcal{R} \approx		evening rise	3864 Aug 25 22:09	14° \mathcal{M} 32'06	
direct	3862 Mar 18 04:36	29° \approx 02'37			3864 Sep 07 11:42	0° Ω	
	3862 Mar 25 06:14	0° \mathcal{H}			3864 Oct 01 21:04	0° \mathcal{M}	
greatest brilliancy	3862 Mar 27 08:38	0° \mathcal{H} 37'35	-4.9m	desc. node	3864 Oct 23 23:47	27° \mathcal{M} 08'15	
	3862 May 06 04:48	0° Υ			3864 Oct 26 07:51	0° \mathcal{A}	
morning max el	3862 May 07 00:12	0° Υ 47'39	46°26'31		3864 Nov 19 20:49	0° \mathcal{Z}	
desc. node	3862 May 09 04:33	2° Υ 57'26			3864 Dec 14 13:23	0° \approx	
	3862 Jun 03 18:23	0° \mathcal{B}			3865 Jan 08 13:57	0° \mathcal{H}	
	3862 Jun 30 07:40	0° Π			3865 Feb 03 10:50	0° Υ	
	3862 Jul 26 01:07	0° \mathcal{E}		asc. node	3865 Feb 14 02:18	11° Υ 46'50	
	3862 Aug 20 06:27	0° Ω		evening max el	3865 Feb 26 12:13	24° Υ 49'44	46°57'27
asc. node	3862 Aug 30 07:19	12° Ω 04'35			3865 Mar 03 17:09	0° \mathcal{B}	
	3862 Sep 14 01:59	0° \mathcal{M}		greatest brilliancy	3865 Apr 07 13:23	25° \mathcal{B} 44'24	-4.8m
	3862 Oct 08 13:12	0° Ω		retrograde	3865 Apr 18 01:47	27° \mathcal{B} 49'22	
morning set	3862 Nov 01 07:53	29° Ω 28'08		evening set	3865 May 04 14:00	22° \mathcal{B} 28'58	
	3862 Nov 01 18:08	0° \mathcal{M}		inferior conj	3865 May 09 04:38	19° \mathcal{B} 39'32	6°05'42
	3862 Nov 25 19:00	0° \mathcal{A}		minimum elong	3865 May 09 14:50	19° \mathcal{B} 23'36	6°03'26
max. Earth dist.	3862 Dec 07 12:38	14° \mathcal{A} 41'39	1.71547 AU	min. Earth dist.	3865 May 09 02:17	19° \mathcal{B} 43'13	0.28124 AU
				morning rise	3865 May 14 16:00	16° \mathcal{B} 21'06	
superior conj	3862 Dec 09 22:13	17° \mathcal{A} 42'05	0°23'42	direct	3865 May 30 06:23	11° \mathcal{B} 36'21	
minimum elong	3862 Dec 10 03:55	17° \mathcal{A} 59'58	0°23'26	desc. node	3865 Jun 05 16:24	12° \mathcal{B} 23'08	
desc. node	3862 Dec 19 21:32	0° \mathcal{Z} 12'19		greatest brilliancy	3865 Jun 09 01:21	13° \mathcal{B} 22'04	-4.8m
	3862 Dec 19 17:36	0° \mathcal{Z}			3865 Jul 05 05:56	0° Π	
	3863 Jan 12 15:03	0° \approx		morning max el	3865 Jul 18 05:50	11° Π 45'04	45°47'19
evening rise	3863 Jan 19 13:14	8° \approx 41'49			3865 Aug 05 08:04	0° \mathcal{E}	
	3863 Feb 05 12:25	0° \mathcal{H}			3865 Sep 01 17:02	0° Ω	
	3863 Mar 01 11:24	0° Υ		asc. node	3865 Sep 26 19:07	29° Ω 01'12	
	3863 Mar 25 14:38	0° \mathcal{B}			3865 Sep 27 15:03	0° \mathcal{M}	
asc. node	3863 Apr 12 00:01	21° \mathcal{B} 23'26			3865 Oct 22 16:24	0° Ω	
	3863 Apr 19 01:29	0° Π			3865 Nov 16 04:19	0° \mathcal{M}	
	3863 May 14 00:21	0° \mathcal{E}			3865 Dec 10 08:01	0° \mathcal{A}	
	3863 Jun 08 18:31	0° Ω			3866 Jan 03 07:15	0° \mathcal{Z}	
	3863 Jul 06 01:37	0° \mathcal{M}		greatest brilliancy	3866 Jan 07 07:01	5° \mathcal{Z} 00'30	-3.9m
evening max el	3863 Jul 21 15:01	15° \mathcal{M} 39'46	45°29'04	morning set	3866 Jan 13 21:08	13° \mathcal{Z} 16'52	
desc. node	3863 Aug 01 14:15	25° \mathcal{M} 40'11		desc. node	3866 Jan 16 09:22	16° \mathcal{Z} 26'01	
	3863 Aug 06 19:16	0° Ω			3866 Jan 27 04:20	0° \approx	
greatest brilliancy	3863 Aug 29 12:23	13° Ω 38'55	-4.7m		3866 Feb 20 00:44	0° \mathcal{H}	
retrograde	3863 Sep 08 07:08	15° Ω 22'54					
evening set	3863 Sep 26 10:05	9° Ω 16'47		superior conj	3866 Feb 24 09:47	5° \mathcal{H} 30'14	-1°16'45

minimum elong	3866 Feb 23 23:44	4°  58'40	1°16'30	greatest brilliancy	3868 Aug 19 04:14	21°  31'50	-4.7m
max. Earth dist.	3866 Feb 26 12:41	8°  10'13	1.71227 AU		3868 Sep 03 19:06	0° 	
	3866 Mar 15 21:55	0° 		morning max el	3868 Sep 26 20:24	19°  33'34	45°50'20
evening rise	3866 Apr 06 02:40	26°  31'08			3868 Oct 07 07:37	0° 	
	3866 Apr 08 21:40	0° 		asc. node	3868 Oct 24 06:59	18°  10'08	
	3866 May 03 01:44	0° 			3868 Nov 03 19:37	0° 	
asc. node	3866 May 09 11:58	7°  55'49			3868 Nov 29 10:33	0° 	
	3866 May 27 11:31	0° 			3868 Dec 24 04:06	0° 	
	3866 Jun 21 04:23	0° 			3869 Jan 17 10:54	0° 	
	3866 Jul 16 06:50	0° 			3869 Feb 10 12:32	0° 	
	3866 Aug 11 00:14	0° 		desc. node	3869 Feb 12 21:09	2°  56'50	
desc. node	3866 Aug 29 01:58	20°  23'25			3869 Mar 06 12:06	0° 	
	3866 Sep 06 20:33	0° 			3869 Mar 30 11:40	0° 	
evening max el	3866 Oct 01 22:39	25°  49'58	46°07'42	morning set	3869 Mar 31 19:58	1°  40'55	
	3866 Oct 06 08:14	0° 			3869 Apr 23 12:50	0° 	
greatest brilliancy	3866 Nov 10 20:33	24°  47'23	-4.8m				
retrograde	3866 Nov 20 05:47	26°  24'23		superior conj	3869 May 10 02:48	20°  36'25	-0°58'44
evening set	3866 Dec 05 01:00	22°  08'32		minimum elong	3869 May 10 13:11	21°  08'36	0°58'21
inferior conj	3866 Dec 10 21:29	18°  42'33	-2°21'51	max. Earth dist.	3869 May 13 18:19	25°  07'41	1.72578 AU
minimum elong	3866 Dec 11 02:46	18°  34'29	2°20'12		3869 May 17 16:42	0° 	
min. Earth dist.	3866 Dec 11 11:02	18°  21'54	0.26886 AU	asc. node	3869 Jun 05 23:53	23°  51'01	
morning rise	3866 Dec 17 04:04	15°  02'33			3869 Jun 10 23:40	0° 	
asc. node	3866 Dec 20 04:36	13°  33'23		evening rise	3869 Jun 17 06:44	7°  44'53	
direct	3866 Dec 31 14:51	10°  55'13			3869 Jul 05 09:35	0° 	
greatest brilliancy	3867 Jan 11 07:11	13°  04'59	-4.9m		3869 Jul 29 22:35	0° 	
	3867 Feb 05 09:25	0° 			3869 Aug 23 15:41	0° 	
morning max el	3867 Feb 20 06:53	14°  32'29	46°58'27		3869 Sep 17 14:51	0° 	
	3867 Mar 07 06:15	0° 		desc. node	3869 Sep 25 13:51	9°  28'53	
	3867 Apr 02 19:15	0° 			3869 Oct 12 22:59	0° 	
desc. node	3867 Apr 10 18:51	9°  18'57			3869 Nov 07 21:41	0° 	
	3867 Apr 28 06:38	0° 			3869 Dec 05 03:38	0° 	
	3867 May 23 07:30	0° 		evening max el	3869 Dec 13 20:10	8°  57'29	47°05'18
	3867 Jun 17 03:45	0° 			3870 Jan 06 02:21	0° 	
	3867 Jul 11 21:20	0° 		asc. node	3870 Jan 16 16:29	7°  05'17	
asc. node	3867 Aug 01 21:28	25°  35'47		greatest brilliancy	3870 Jan 23 11:33	10°  15'57	-4.9m
	3867 Aug 05 11:58	0° 		retrograde	3870 Feb 02 12:58	12°  12'16	
morning set	3867 Aug 22 00:50	20°  01'52		evening set	3870 Feb 19 00:32	6°  53'50	
	3867 Aug 29 22:56	0° 		min. Earth dist.	3870 Feb 22 12:56	4°  46'32	0.26940 AU
	3867 Sep 23 06:15	0° 		inferior conj	3870 Feb 23 05:29	4°  20'59	7°57'55
max. Earth dist.	3867 Sep 24 14:44	1°  40'31	1.72907 AU	minimum elong	3870 Feb 22 20:23	4°  35'01	7°56'32
				morning rise	3870 Feb 26 16:25	2°  14'46	
superior conj	3867 Sep 27 11:43	5°  14'01	1°25'10		3870 Mar 02 18:21	30° 	
minimum elong	3867 Sep 27 12:08	5°  15'18	1°25'10	direct	3870 Mar 15 16:45	26°  37'41	
	3867 Oct 17 10:53	0° 		greatest brilliancy	3870 Mar 24 22:10	28°  13'51	-4.9m
evening rise	3867 Nov 03 20:39	21°  37'54			3870 Mar 29 08:11	0° 	
	3867 Nov 10 14:06	0° 		morning max el	3870 May 04 13:25	28°  25'43	46°28'10
desc. node	3867 Nov 21 11:45	13°  33'57			3870 May 06 03:29	0° 	
	3867 Dec 04 16:40	0° 		desc. node	3870 May 08 06:43	2°  08'23	
	3867 Dec 28 19:09	0° 			3870 Jun 03 10:21	0° 	
	3868 Jan 21 22:51	0° 			3870 Jun 29 21:06	0° 	
	3868 Feb 15 07:01	0° 			3870 Jul 25 13:14	0° 	
	3868 Mar 11 01:45	0° 			3870 Aug 19 17:50	0° 	
asc. node	3868 Mar 13 14:05	2°  59'50		asc. node	3870 Aug 29 09:16	11°  03'41	
	3868 Apr 05 17:59	0° 			3870 Sep 13 12:56	0° 	
	3868 May 03 09:38	0° 			3870 Oct 07 23:57	0° 	
evening max el	3868 May 08 18:39	5°  22'41	45°57'06	morning set	3870 Oct 29 23:19	27°  13'41	
	3868 Jun 07 19:29	0° 			3870 Nov 01 04:48	0° 	
greatest brilliancy	3868 Jun 15 22:08	3°  01'58	-4.7m		3870 Nov 25 05:41	0° 	
retrograde	3868 Jun 26 23:16	6°  01'17		max. Earth dist.	3870 Dec 05 02:17	12°  20'29	1.71589 AU
desc. node	3868 Jul 03 04:21	5°  02'53					
evening set	3868 Jul 12 04:43	1°  43'00		superior conj	3870 Dec 07 10:38	15°  21'59	0°27'18
	3868 Jul 15 03:33	30° 		minimum elong	3870 Dec 07 17:05	15°  21'13	0°27'00
inferior conj	3868 Jul 18 11:17	27°  56'07	-3°31'54	desc. node	3870 Dec 18 23:36	29°  21'45'04	
minimum elong	3868 Jul 18 04:03	28°  07'29	3°29'56		3870 Dec 19 04:21	0° 	
min. Earth dist.	3868 Jul 18 03:36	28°  08'11	0.28925 AU		3871 Jan 12 01:54	0° 	
morning rise	3868 Jul 24 03:38	24°  29'23		evening rise	3871 Jan 17 00:09	6°  11'16	
direct	3868 Aug 09 01:06	19°  41'21			3871 Feb 04 23:21	0° 	

	3871 Feb 28 22:27	0°♄		asc. node	3873 Sep 25 21:12	28°♊31'00	
	3871 Mar 25 01:51	0°♌			3873 Sep 27 03:21	0°♍	
asc. node	3871 Apr 11 02:07	20°♌54'44			3873 Oct 22 03:57	0°♎	
	3871 Apr 18 13:06	0°♏			3873 Nov 15 15:30	0°♐	
	3871 May 13 12:43	0°♑			3873 Dec 09 19:01	0°♒	
	3871 Jun 08 08:28	0°♓			3874 Jan 02 18:10	0°♑	
	3871 Jul 05 19:23	0°♍		greatest brilliancy	3874 Jan 06 16:41	4°♑56'37	-3.9m
evening max el	3871 Jul 19 06:38	13°♍29'22	45°28'55	morning set	3874 Jan 11 07:48	10°♑45'29	
desc. node	3871 Jul 31 16:12	24°♍42'55		desc. node	3874 Jan 15 11:17	15°♑57'55	
	3871 Aug 07 05:40	0°♎			3874 Jan 26 15:12	0°♒	
greatest brilliancy	3871 Aug 27 01:25	11°♎25'57	-4.7m		3874 Feb 19 11:35	0°♈	
retrograde	3871 Sep 05 22:57	13°♎11'56					
evening set	3871 Sep 24 00:54	7°♎06'03		superior conj	3874 Feb 21 19:56	2°♈57'09	-1°14'48
inferior conj	3871 Sep 27 07:19	5°♎05'44	-8°39'15	minimum elong	3874 Feb 21 09:18	2°♈23'45	1°14'32
minimum elong	3871 Sep 27 07:29	5°♎05'29	8°39'14	max. Earth dist.	3874 Feb 23 20:36	5°♈30'09	1.71204 AU
min. Earth dist.	3871 Sep 27 20:14	4°♎45'39	0.28755 AU		3874 Mar 15 08:46	0°♄	
morning rise	3871 Sep 30 13:53	3°♎04'46		evening rise	3874 Apr 03 14:07	24°♄03'10	
	3871 Oct 06 04:06	30°♌♍			3874 Apr 08 08:32	0°♌	
direct	3871 Oct 18 18:46	26°♍50'22			3874 May 02 12:41	0°♏	
greatest brilliancy	3871 Oct 29 19:19	29°♍04'07	-4.8m	asc. node	3874 May 08 14:05	7°♏28'31	
	3871 Nov 01 00:55	0°♎			3874 May 26 22:38	0°♑	
asc. node	3871 Nov 21 18:49	13°♎57'23			3874 Jun 20 15:52	0°♓	
morning max el	3871 Dec 07 22:38	29°♎01'31	46°32'12		3874 Jul 15 19:02	0°♍	
	3871 Dec 08 21:52	0°♐			3874 Aug 10 13:52	0°♎	
	3872 Jan 05 13:16	0°♒		desc. node	3874 Aug 28 03:57	19°♎46'15	
	3872 Jan 31 03:42	0°♑			3874 Sep 06 13:17	0°♏	
	3872 Feb 24 23:03	0°♒		evening max el	3874 Sep 29 12:07	23°♏30'38	46°05'24
desc. node	3872 Mar 12 08:57	20°♒06'01			3874 Oct 06 10:25	0°♒	
	3872 Mar 20 10:05	0°♈		greatest brilliancy	3874 Nov 08 10:20	22°♒24'58	-4.8m
	3872 Apr 13 17:48	0°♄		retrograde	3874 Nov 17 17:39	24°♒00'18	
	3872 May 08 00:58	0°♌		evening set	3874 Dec 02 15:55	19°♒41'42	
	3872 Jun 01 09:04	0°♏		inferior conj	3874 Dec 08 10:23	16°♒18'21	-2°44'35
morning set	3872 Jun 11 14:18	12°♏34'31		minimum elong	3874 Dec 08 16:26	16°♒09'06	2°42'43
	3872 Jun 25 18:18	0°♑		min. Earth dist.	3874 Dec 09 01:24	15°♒55'24	0.26934 AU
asc. node	3872 Jul 03 11:39	9°♑29'36		morning rise	3874 Dec 14 16:21	12°♒38'34	
				asc. node	3874 Dec 19 06:34	10°♒29'18	
superior conj	3872 Jul 18 16:25	28°♑10'43	0°35'16	direct	3874 Dec 29 03:57	8°♒30'08	
minimum elong	3872 Jul 18 09:39	27°♑49'54	0°34'57	greatest brilliancy	3875 Jan 08 22:05	10°♒41'00	-4.9m
max. Earth dist.	3872 Jul 18 11:57	27°♑57'00	1.73511 AU		3875 Feb 05 15:38	0°♑	
	3872 Jul 20 03:57	0°♓		morning max el	3875 Feb 17 19:20	11°♑44'56	46°58'30
	3872 Aug 13 13:18	0°♍			3875 Mar 07 00:27	0°♒	
evening rise	3872 Aug 23 16:39	12°♍28'49			3875 Apr 02 09:56	0°♈	
	3872 Sep 06 22:22	0°♎		desc. node	3875 Apr 09 21:01	8°♈43'55	
	3872 Oct 01 07:59	0°♏			3875 Apr 27 19:41	0°♄	
desc. node	3872 Oct 23 01:52	26°♏40'08			3875 May 22 19:37	0°♌	
	3872 Oct 25 19:10	0°♒			3875 Jun 16 15:16	0°♏	
	3872 Nov 19 08:43	0°♑			3875 Jul 11 08:24	0°♑	
	3872 Dec 14 02:05	0°♒		asc. node	3875 Jul 31 23:27	25°♑08'47	
	3873 Jan 08 03:58	0°♈			3875 Aug 04 22:45	0°♓	
	3873 Feb 03 03:28	0°♄		morning set	3875 Aug 19 18:36	18°♓10'14	
asc. node	3873 Feb 13 04:15	11°♄02'03			3875 Aug 29 09:35	0°♍	
evening max el	3873 Feb 24 03:56	22°♄32'48	46°59'05	max. Earth dist.	3875 Sep 22 08:10	29°♍33'00	1.72950 AU
	3873 Mar 03 17:41	0°♌			3875 Sep 22 16:54	0°♎	
greatest brilliancy	3873 Apr 05 04:59	23°♌28'10	-4.9m				
retrograde	3873 Apr 15 17:41	25°♌32'58		superior conj	3875 Sep 25 05:16	3°♎06'49	1°25'10
evening set	3873 May 02 08:09	20°♌08'28		minimum elong	3875 Sep 25 04:58	3°♎05'52	1°25'10
inferior conj	3873 May 06 19:36	17°♌23'29	6°21'22		3875 Oct 16 21:39	0°♏	
minimum elong	3873 May 07 05:51	17°♌07'26	6°19'10	evening rise	3875 Nov 01 11:35	19°♏21'20	
min. Earth dist.	3873 May 06 16:39	17°♌28'05	0.28090 AU		3875 Nov 10 01:03	0°♒	
morning rise	3873 May 12 03:57	14°♌09'27		desc. node	3875 Nov 20 13:48	13°♒05'58	
direct	3873 May 27 21:26	9°♌21'07			3875 Dec 04 03:51	0°♑	
desc. node	3873 Jun 04 18:24	10°♌30'53			3875 Dec 28 06:36	0°♒	
greatest brilliancy	3873 Jun 06 14:23	11°♌05'28	-4.8m		3876 Jan 21 10:39	0°♈	
	3873 Jul 05 11:05	0°♏			3876 Feb 14 19:22	0°♄	
morning max el	3873 Jul 15 21:24	9°♏33'51	45°48'02		3876 Mar 10 15:02	0°♌	
	3873 Aug 05 01:10	0°♑		asc. node	3876 Mar 12 16:11	2°♌26'14	
	3873 Sep 01 06:48	0°♓			3876 Apr 05 09:11	0°♏	

	3876 May 03 06:02	0°☿			3878 Oct 07 11:01	0°♊	
evening max el	3876 May 06 09:00	3°☿06'17 45°59'01		morning set	3878 Oct 27 15:09	24°♊59'31	
	3876 Jun 09 11:38	0°♋			3878 Oct 31 15:47	0°♋	
greatest brilliancy	3876 Jun 13 14:55	1°♋49'25 -4.7m			3878 Nov 24 16:40	0°♌	
retrograde	3876 Jun 24 15:23	4°♋02'03		max. Earth dist.	3878 Dec 02 16:20	9°♌59'38 1.71627 AU	
desc. node	3876 Jul 02 06:21	2°♋52'35					
	3876 Jul 09 01:20	30°♋☿		superior conj	3878 Dec 04 23:28	12°♌52'18 0°30'48	
evening set	3876 Jul 09 20:00	29°☿34'48		minimum elong	3878 Dec 05 06:36	13°♌14'39 0°30'28	
inferior conj	3876 Jul 16 03:36	25°☿46'49 -3°13'31		desc. node	3878 Dec 18 01:32	29°♌16'28	
minimum elong	3876 Jul 15 20:53	25°☿57'21 3°11'41			3878 Dec 18 15:25	0°♍	
min. Earth dist.	3876 Jul 15 20:17	25°☿58'18 0.28902 AU			3879 Jan 11 13:04	0°♍	
morning rise	3876 Jul 21 21:57	22°☿17'11		evening rise	3879 Jan 14 11:16	3°♍40'22	
direct	3876 Aug 06 16:31	17°☿32'13			3879 Feb 04 10:40	0°♎	
greatest brilliancy	3876 Aug 16 20:35	19°☿23'08 -4.7m			3879 Feb 28 09:55	0°♎	
	3876 Sep 04 10:30	0°♋			3879 Mar 24 13:33	0°♏	
morning max el	3876 Sep 24 11:12	17°♋20'26 45°49'32		asc. node	3879 Apr 10 04:10	20°♏24'27	
	3876 Oct 07 02:09	0°♐			3879 Apr 18 01:12	0°♐	
asc. node	3876 Oct 23 09:08	17°♐32'44			3879 May 13 01:38	0°☿	
	3876 Nov 03 10:04	0°♊			3879 Jun 07 23:03	0°♋	
	3876 Nov 28 23:26	0°♋			3879 Jul 05 14:07	0°♐	
	3876 Dec 23 16:14	0°♌		evening max el	3879 Jul 16 22:47	11°♐18'56 45°28'51	
	3877 Jan 16 22:37	0°♍		desc. node	3879 Jul 30 18:13	23°♐43'11	
	3877 Feb 09 23:59	0°♍			3879 Aug 07 20:28	0°♊	
desc. node	3877 Feb 11 23:11	2°♍27'28		greatest brilliancy	3879 Aug 24 14:45	9°♊12'05 -4.7m	
	3877 Mar 05 23:22	0°♎		retrograde	3879 Sep 03 14:27	10°♊59'29	
morning set	3877 Mar 29 07:32	29°♎12'22		evening set	3879 Sep 21 15:23	4°♊54'38	
	3877 Mar 29 22:46	0°♏		inferior conj	3879 Sep 24 22:49	2°♊52'31 -8°38'40	
	3877 Apr 22 23:48	0°♏		minimum elong	3879 Sep 24 22:11	2°♊53'30 8°38'40	
				min. Earth dist.	3879 Sep 25 10:18	2°♊34'39 0.28796 AU	
superior conj	3877 May 07 17:03	18°♏17'56 -1°01'19		morning rise	3879 Sep 28 04:53	0°♊52'14	
minimum elong	3877 May 08 03:32	18°♏50'27 1°00'57			3879 Sep 29 16:08	30°♋♐	
max. Earth dist.	3877 May 11 08:30	22°♏49'07 1.72525 AU		direct	3879 Oct 16 11:15	24°♐36'52	
	3877 May 17 03:36	0°♐		greatest brilliancy	3879 Oct 27 09:39	26°♐48'45 -4.8m	
asc. node	3877 Jun 05 01:49	23°♐23'26			3879 Nov 03 02:45	0°♊	
	3877 Jun 10 10:33	0°☿		asc. node	3879 Nov 20 20:42	12°♊55'02	
evening rise	3877 Jun 14 23:23	5°☿34'58		morning max el	3879 Dec 05 14:19	26°♊45'17 46°30'42	
	3877 Jul 04 20:34	0°♋			3879 Dec 08 19:09	0°♋	
	3877 Jul 29 09:48	0°♐			3880 Jan 05 05:02	0°♌	
	3877 Aug 23 03:19	0°♊			3880 Jan 30 17:25	0°♍	
	3877 Sep 17 03:11	0°♋			3880 Feb 24 11:45	0°♍	
desc. node	3877 Sep 24 16:00	8°♋57'45		desc. node	3880 Mar 11 11:06	19°♍34'56	
	3877 Oct 12 12:30	0°♌			3880 Mar 19 22:11	0°♎	
	3877 Nov 07 13:21	0°♍			3880 Apr 13 05:28	0°♏	
	3877 Dec 05 00:16	0°♍			3880 May 07 12:19	0°♏	
evening max el	3877 Dec 11 09:18	6°♍31'34 47°03'58			3880 May 31 20:11	0°♐	
	3878 Jan 06 23:22	0°♎		morning set	3880 Jun 09 06:54	10°♐23'56	
asc. node	3878 Jan 15 18:28	5°♎26'46			3880 Jun 25 05:15	0°☿	
greatest brilliancy	3878 Jan 21 00:26	7°♎47'24 -4.9m		asc. node	3880 Jul 02 13:37	9°☿02'07	
retrograde	3878 Jan 31 02:09	9°♎44'08					
evening set	3878 Feb 16 08:58	4°♎31'55		superior conj	3880 Jul 16 10:01	26°☿03'48 0°32'18	
min. Earth dist.	3878 Feb 20 01:34	2°♎18'51 0.26903 AU		minimum elong	3880 Jul 16 03:43	25°☿44'25 0°32'01	
inferior conj	3878 Feb 20 18:08	1°♎53'22 7°46'09		max. Earth dist.	3880 Jul 16 10:39	26°☿05'45 1.73503 AU	
minimum elong	3878 Feb 20 08:33	2°♎08'07 7°44'36			3880 Jul 19 14:51	0°♋	
	3878 Feb 23 20:38	30°♎♍			3880 Aug 13 00:13	0°♐	
morning rise	3878 Feb 24 08:20	29°♍42'42		evening rise	3880 Aug 21 10:57	10°♐23'42	
direct	3878 Mar 13 05:01	24°♍10'21			3880 Sep 06 09:26	0°♊	
greatest brilliancy	3878 Mar 22 11:04	25°♍47'23 -4.9m			3880 Sep 30 19:20	0°♋	
	3878 Mar 31 12:37	0°♎		desc. node	3880 Oct 22 03:53	26°♋10'24	
morning max el	3878 May 02 03:21	26°♎04'08 46°29'52			3880 Oct 25 06:57	0°♌	
	3878 May 06 01:48	0°♏			3880 Nov 18 21:03	0°♍	
desc. node	3878 May 07 08:44	1°♏18'26			3880 Dec 13 15:13	0°♍	
	3878 Jun 03 02:27	0°♏			3881 Jan 07 18:25	0°♎	
	3878 Jun 29 10:46	0°♐			3881 Feb 02 20:42	0°♏	
	3878 Jul 25 01:39	0°☿		asc. node	3881 Feb 12 06:20	10°♏16'13	
	3878 Aug 19 05:31	0°♋		evening max el	3881 Feb 21 19:16	20°♏13'58 47°00'31	
asc. node	3878 Aug 28 11:20	11°♋08'10			3881 Mar 03 19:51	0°♏	
	3878 Sep 13 00:13	0°♐		greatest brilliancy	3881 Apr 02 21:04	21°♏11'25 -4.9m	

retrograde	3881 Apr 13 09:04	23°♄15'13		superior conj	3883 Sep 22 22:49	0°♁59'09	1°25'02
evening set	3881 Apr 30 02:19	17°♄46'47		minimum elong	3883 Sep 22 21:48	0°♁56'00	1°25'02
inferior conj	3881 May 04 10:34	15°♄06'14	6°36'23		3883 Oct 16 08:34	0°♄	
minimum elong	3881 May 04 20:48	14°♄50'12	6°34'17	evening rise	3883 Oct 30 02:39	17°♄04'55	
min. Earth dist.	3881 May 04 07:15	15°♄11'26	0.28058 AU		3883 Nov 09 12:08	0°♄	
morning rise	3881 May 09 15:41	11°♄56'38		desc. node	3883 Nov 19 15:43	12°♄37'12	
direct	3881 May 25 12:21	7°♄04'41			3883 Dec 03 15:10	0°♄	
desc. node	3881 Jun 03 20:22	8°♄41'33			3883 Dec 27 18:12	0°♄	
greatest brilliancy	3881 Jun 04 03:45	8°♄47'46	-4.8m		3884 Jan 20 22:38	0°♄	
	3881 Jul 05 14:58	0°♄			3884 Feb 14 07:54	0°♄	
morning max el	3881 Jul 13 12:09	7°♄19'16	45°48'45		3884 Mar 10 04:29	0°♄	
	3881 Aug 04 18:23	0°♄		asc. node	3884 Mar 11 18:15	1°♄52'08	
	3881 Aug 31 20:49	0°♄			3884 Apr 05 00:36	0°♄	
asc. node	3881 Sep 24 23:16	27°♄59'48			3884 May 03 03:01	0°♄	
	3881 Sep 26 15:55	0°♄		evening max el	3884 May 03 23:41	0°♄50'59	46°01'07
	3881 Oct 21 15:48	0°♄		greatest brilliancy	3884 Jun 11 07:16	29°♄40'04	-4.7m
	3881 Nov 15 02:58	0°♄			3884 Jun 12 04:45	0°♄	
	3881 Dec 09 06:20	0°♄		retrograde	3884 Jun 22 08:07	1°♄53'31	
	3882 Jan 02 05:24	0°♄		desc. node	3884 Jul 01 08:21	0°♄16'08	
greatest brilliancy	3882 Jan 05 21:50	4°♄37'36	-3.9m		3884 Jul 02 01:48	30°♄	
morning set	3882 Jan 08 18:43	8°♄13'52		evening set	3884 Jul 07 11:40	27°♄26'59	
desc. node	3882 Jan 14 13:21	15°♄29'18		inferior conj	3884 Jul 13 20:07	23°♄38'10	-2°55'03
	3882 Jan 26 02:22	0°♄		minimum elong	3884 Jul 13 13:57	23°♄47'49	2°53'19
	3882 Feb 18 22:40	0°♄		min. Earth dist.	3884 Jul 13 12:57	23°♄49'24	0.28883 AU
				morning rise	3884 Jul 19 16:24	20°♄06'00	
superior conj	3882 Feb 19 06:25	0°♄24'21	-1°12'42	direct	3884 Aug 04 08:15	15°♄23'39	
minimum elong	3882 Feb 18 19:19	29°♄49'27	1°12'25	greatest brilliancy	3884 Aug 14 13:06	17°♄15'09	-4.7m
max. Earth dist.	3882 Feb 21 02:14	2°♄42'07	1.71177 AU		3884 Sep 04 21:51	0°♄	
	3882 Mar 14 19:49	0°♄		morning max el	3884 Sep 22 03:13	15°♄10'25	45°48'40
evening rise	3882 Apr 01 01:45	21°♄35'04			3884 Oct 06 20:14	0°♄	
	3882 Apr 07 19:37	0°♄		asc. node	3884 Oct 22 11:01	16°♄54'58	
	3882 May 01 23:51	0°♄			3884 Nov 03 00:24	0°♄	
asc. node	3882 May 07 15:59	6°♄59'55			3884 Nov 28 12:14	0°♄	
	3882 May 26 10:01	0°♄			3884 Dec 23 04:17	0°♄	
	3882 Jun 20 03:39	0°♄			3885 Jan 16 10:15	0°♄	
	3882 Jul 15 07:36	0°♄			3885 Feb 09 11:22	0°♄	
	3882 Aug 10 03:57	0°♄		desc. node	3885 Feb 11 01:15	1°♄58'23	
desc. node	3882 Aug 27 06:06	19°♄08'23			3885 Mar 05 10:34	0°♄	
	3882 Sep 06 06:42	0°♄		morning set	3885 Mar 26 18:58	26°♄43'27	
evening max el	3882 Sep 27 00:46	21°♄08'45	46°03'13		3885 Mar 29 09:50	0°♄	
	3882 Oct 06 14:32	0°♄			3885 Apr 22 10:43	0°♄	
greatest brilliancy	3882 Nov 06 00:14	20°♄02'12	-4.8m				
retrograde	3882 Nov 15 05:32	21°♄36'06		superior conj	3885 May 05 07:20	15°♄59'38	-1°03'48
evening set	3882 Nov 30 07:00	17°♄14'06		minimum elong	3885 May 05 17:52	16°♄32'22	1°03'27
inferior conj	3882 Dec 05 23:21	13°♄53'49	-3°06'46	max. Earth dist.	3885 May 08 22:09	20°♄29'03	1.72469 AU
minimum elong	3882 Dec 06 06:07	13°♄43'27	3°04'44		3885 May 16 14:24	0°♄	
min. Earth dist.	3882 Dec 06 16:00	13°♄28'19	0.26987 AU	asc. node	3885 Jun 04 03:52	22°♄56'34	
morning rise	3882 Dec 12 04:31	10°♄14'39			3885 Jun 09 21:18	0°♄	
asc. node	3882 Dec 18 08:36	7°♄29'44		evening rise	3885 Jun 12 16:14	3°♄26'01	
direct	3882 Dec 26 16:52	6°♄04'20			3885 Jul 04 07:25	0°♄	
greatest brilliancy	3883 Jan 06 13:35	8°♄17'09	-4.9m		3885 Jul 28 20:54	0°♄	
	3883 Feb 05 20:10	0°♄			3885 Aug 22 14:52	0°♄	
morning max el	3883 Feb 15 08:15	9°♄17'48	46°58'43		3885 Sep 16 15:29	0°♄	
	3883 Mar 06 18:25	0°♄		desc. node	3885 Sep 23 17:56	8°♄26'04	
	3883 Apr 02 00:37	0°♄			3885 Oct 12 02:02	0°♄	
desc. node	3883 Apr 08 23:00	8°♄08'08			3885 Nov 07 05:11	0°♄	
	3883 Apr 27 08:46	0°♄			3885 Dec 04 21:29	0°♄	
	3883 May 22 07:46	0°♄		evening max el	3885 Dec 08 23:27	4°♄08'45	47°02'40
	3883 Jun 16 02:50	0°♄			3886 Jan 08 03:48	0°♄	
	3883 Jul 10 19:35	0°♄		asc. node	3886 Jan 14 20:33	3°♄45'08	
asc. node	3883 Jul 31 01:33	24°♄41'44		greatest brilliancy	3886 Jan 18 12:55	5°♄18'54	-4.9m
	3883 Aug 04 09:41	0°♄		retrograde	3886 Jan 28 15:42	7°♄16'19	
morning set	3883 Aug 17 12:20	16°♄04'00		evening set	3886 Feb 13 17:28	2°♄10'16	
	3883 Aug 28 20:23	0°♄			3886 Feb 17 08:37	30°♄	
max. Earth dist.	3883 Sep 20 02:57	27°♄29'12	1.72993 AU	min. Earth dist.	3886 Feb 17 13:58	29°♄51'46	0.26867 AU
	3883 Sep 22 03:42	0°♄		inferior conj	3886 Feb 18 06:45	29°♄26'01	7°33'34
				minimum elong	3886 Feb 17 20:45	29°♄41'23	7°31'48

morning rise	3886 Feb 22 00:15	27°  10'50	evening rise	3888 Aug 19 05:31	8°  20'31
direct	3886 Mar 10 17:45	21°  43'27		3888 Sep 05 20:08	0° 
greatest brilliancy	3886 Mar 19 23:33	23°  20'45 -4.9m		3888 Sep 30 06:18	0° 
	3886 Apr 01 23:01	0° 	desc. node	3888 Oct 21 05:53	25°  14'50
morning max el	3886 Apr 29 17:54	23°  44'30 46°31'32		3888 Oct 24 18:21	0° 
	3886 May 05 23:07	0° 		3888 Nov 18 09:04	0° 
desc. node	3886 May 06 10:40	0°  29'39		3888 Dec 13 04:07	0° 
	3886 Jun 02 18:05	0° 		3889 Jan 07 08:46	0° 
	3886 Jun 29 00:04	0° 		3889 Feb 02 14:04	0° 
	3886 Jul 24 13:44	0° 	asc. node	3889 Feb 11 08:23	9°  30'13
	3886 Aug 18 16:54	0° 	evening max el	3889 Feb 19 09:48	17°  53'26 47°01'54
asc. node	3886 Aug 27 13:23	10°  04'33		3889 Mar 03 23:21	0° 
	3886 Sep 12 11:13	0° 	greatest brilliancy	3889 Mar 31 13:32	18°  55'21 -4.9m
	3886 Oct 06 21:50	0° 	retrograde	3889 Apr 10 23:51	20°  57'40
morning set	3886 Oct 25 07:07	22°  46'35	evening set	3889 Apr 27 20:22	15°  25'19
	3886 Oct 31 02:33	0° 	inferior conj	3889 May 02 01:25	12°  49'21 6°50'52
	3886 Nov 24 03:28	0° 	minimum elong	3889 May 02 11:32	12°  33'28 6°48'53
max. Earth dist.	3886 Nov 30 03:27	7°  30'18 1.71668 AU	min. Earth dist.	3889 May 01 22:00	12°  54'42 0.28024 AU
			morning rise	3889 May 07 03:05	9°  44'22
superior conj	3886 Dec 02 12:25	10°  28'35 0°34'14	direct	3889 May 23 02:35	4°  48'32
minimum elong	3886 Dec 02 20:09	10°  52'49 0°33'53	greatest brilliancy	3889 Jun 01 17:27	6°  30'49 -4.8m
desc. node	3886 Dec 17 03:39	28°  49'02	desc. node	3889 Jun 02 22:31	6°  56'53
	3886 Dec 18 02:17	0° 		3889 Jul 05 16:56	0° 
	3887 Jan 11 00:03	0° 	morning max el	3889 Jul 11 02:15	5°  103'43 45°49'38
evening rise	3887 Jan 11 22:13	1°  09'34		3889 Aug 04 10:55	0° 
	3887 Feb 03 21:45	0° 		3889 Aug 31 10:21	0° 
	3887 Feb 27 21:09	0° 	asc. node	3889 Sep 24 01:11	27°  029'23
	3887 Mar 24 01:02	0° 		3889 Sep 26 04:04	0° 
asc. node	3887 Apr 09 06:05	19°  05'42		3889 Oct 21 03:13	0° 
	3887 Apr 17 13:07	0° 		3889 Nov 14 14:02	0° 
	3887 May 12 14:24	0° 		3889 Dec 08 17:15	0° 
	3887 Jun 07 13:31	0° 		3890 Jan 01 16:16	0° 
	3887 Jul 05 08:57	0° 	greatest brilliancy	3890 Jan 04 07:10	3°  17'25 -3.9m
evening max el	3887 Jul 14 15:02	9°  09'49 45°28'55	morning set	3890 Jan 06 05:47	5°  43'49
desc. node	3887 Jul 29 20:21	22°  04'38	desc. node	3890 Jan 13 15:27	15°  01'51
	3887 Aug 08 15:26	0° 		3890 Jan 25 13:13	0° 
greatest brilliancy	3887 Aug 22 04:51	7°  00'52 -4.7m			
retrograde	3887 Sep 01 05:48	8°  49'03	superior conj	3890 Feb 16 16:36	27°  51'22 -1°10'27
evening set	3887 Sep 19 05:49	2°  46'01	minimum elong	3890 Feb 16 05:07	27°  15'17 1°10'06
inferior conj	3887 Sep 22 14:38	0°  41'32 -8°37'19	max. Earth dist.	3890 Feb 18 04:26	29°  44'02 1.71161 AU
minimum elong	3887 Sep 22 13:12	0°  43'45 8°37'18		3890 Feb 18 09:31	0° 
min. Earth dist.	3887 Sep 23 00:50	0°  25'36 0.28833 AU		3890 Mar 14 06:39	0° 
	3887 Sep 23 17:16	30°  08'10	evening rise	3890 Mar 29 12:44	19°  05'35
morning rise	3887 Sep 25 20:29	28°  04'18		3890 Apr 07 06:29	0° 
direct	3887 Oct 14 03:50	22°  02'54		3890 May 01 10:49	0° 
greatest brilliancy	3887 Oct 25 00:20	24°  03'33 -4.8m	asc. node	3890 May 06 18:03	6°  132'26
	3887 Nov 04 10:51	0° 		3890 May 25 21:11	0° 
asc. node	3887 Nov 19 22:47	11°  05'54		3890 Jun 19 15:14	0° 
morning max el	3887 Dec 03 05:23	24°  08'39 46°28'55		3890 Jul 14 20:00	0° 
	3887 Dec 08 15:20	0° 		3890 Aug 09 17:55	0° 
	3888 Jan 04 20:18	0° 	desc. node	3890 Aug 26 08:04	18°  43'33
	3888 Jan 30 06:48	0° 		3890 Sep 06 00:08	0° 
	3888 Feb 24 00:10	0° 	evening max el	3890 Sep 24 13:27	18°  048'17 46°01'19
desc. node	3888 Mar 10 13:07	19°  04'22		3890 Oct 06 19:58	0° 
	3888 Mar 19 09:58	0° 	greatest brilliancy	3890 Nov 03 13:48	17°  40'59 -4.8m
	3888 Apr 12 16:49	0° 	retrograde	3890 Nov 12 18:00	19°  41'20
	3888 May 06 23:21	0° 	evening set	3890 Nov 27 22:25	14°  48'23
	3888 May 31 06:59	0° 	inferior conj	3890 Dec 03 12:34	11°  31'25 -3°28'17
morning set	3888 Jun 06 23:25	8°  13'57	minimum elong	3890 Dec 03 20:00	11°  42'04 3°26'06
	3888 Jun 24 15:55	0° 	min. Earth dist.	3890 Dec 04 06:35	11°  43'53 0.27043 AU
asc. node	3888 Jul 01 15:45	8°  03'05	morning rise	3890 Dec 09 16:45	7°  43'53'28
			asc. node	3890 Dec 17 10:40	4°  43'59
superior conj	3888 Jul 14 03:45	23°  05'13 0°29'19	direct	3890 Dec 24 06:13	3°  40'39
minimum elong	3888 Jul 13 21:56	23°  04'21 0°29'01	greatest brilliancy	3891 Jan 04 05:10	5°  45'33 -4.9m
max. Earth dist.	3888 Jul 14 08:03	24°  01'25 1.73488 AU		3891 Feb 05 22:27	0° 
	3888 Jul 19 01:25	0° 	morning max el	3891 Feb 12 22:09	6°  54'26 46°58'37
	3888 Aug 12 10:48	0° 		3891 Mar 06 11:38	0° 

	3891 Apr 01 14:52	0° H			3893 Dec 04 19:27	0° \approx	
desc. node	3891 Apr 08 00:58	7° H 33'15		evening max el	3893 Dec 06 14:33	1° \approx 48'33	47°01'21
	3891 Apr 26 21:34	0° Y			3894 Jan 09 20:18	0° H	
	3891 May 21 19:42	0° B		asc. node	3894 Jan 13 22:34	2° H 00'02	
	3891 Jun 15 14:11	0° II		greatest brilliancy	3894 Jan 16 01:39	2° H 51'17	-4.9m
	3891 Jul 10 06:32	0° E		retrograde	3894 Jan 26 05:19	4° H 48'58	
asc. node	3891 Jul 30 03:32	24° E 15'00			3894 Feb 10 18:43	30° R \approx	
	3891 Aug 03 20:23	0° Ω		evening set	3894 Feb 11 02:15	29° \approx 49'17	
morning set	3891 Aug 15 05:50	13° Ω 57'45		min. Earth dist.	3894 Feb 15 02:32	27° \approx 25'22	0.26825 AU
	3891 Aug 28 06:58	0° M		inferior conj	3894 Feb 15 19:28	26° \approx 59'23	7°20'10
max. Earth dist.	3891 Sep 17 22:48	25° M 29'24	1.73031 AU	minimum elong	3894 Feb 15 09:09	27° \approx 15'13	7°18'13
				morning rise	3894 Feb 19 16:20	24° \approx 39'30	
superior conj	3891 Sep 20 16:19	28° M 52'00	1°24'47	direct	3894 Mar 08 06:54	19° \approx 17'36	
minimum elong	3891 Sep 20 14:37	28° M 46'44	1°24'47	greatest brilliancy	3894 Mar 17 11:55	20° \approx 54'39	-4.9m
	3891 Sep 21 14:18	0° E			3894 Apr 02 23:09	0° H	
	3891 Oct 15 19:15	0° M		morning max el	3894 Apr 27 07:57	21° H 24'08	46°32'59
evening rise	3891 Oct 27 17:59	14° M 50'05		desc. node	3894 May 05 12:51	29° H 42'51	
	3891 Nov 08 22:58	0° A			3894 May 05 19:28	0° Y	
desc. node	3891 Nov 18 17:51	12° A 09'54			3894 Jun 02 09:23	0° B	
	3891 Dec 03 02:12	0° Z			3894 Jun 28 13:17	0° II	
	3891 Dec 27 05:30	0° \approx			3894 Jul 24 01:50	0° E	
	3892 Jan 20 10:20	0° H			3894 Aug 18 04:22	0° Ω	
	3892 Feb 13 20:11	0° Y		asc. node	3894 Aug 26 15:20	10° Ω 12'19	
	3892 Mar 09 17:49	0° B			3894 Sep 11 22:19	0° M	
asc. node	3892 Mar 10 20:09	1° B 18'01			3894 Oct 06 08:44	0° E	
	3892 Apr 04 16:06	0° II		morning set	3894 Oct 22 22:54	20° E 32'54	
evening max el	3892 May 01 15:09	28° II 37'37	46°03'09		3894 Oct 30 13:23	0° M	
	3892 May 03 00:47	0° E			3894 Nov 23 14:20	0° A	
greatest brilliancy	3892 Jun 08 22:57	27° E 29'26	-4.8m	max. Earth dist.	3894 Nov 27 12:43	4° A 55'05	1.71710 AU
retrograde	3892 Jun 20 00:54	29° E 44'04					
desc. node	3892 Jun 30 10:27	27° E 34'12		superior conj	3894 Nov 30 01:23	8° A 04'52	0°37'36
evening set	3892 Jul 05 03:11	25° E 18'04		minimum elong	3894 Nov 30 09:40	8° A 30'48	0°37'14
min. Earth dist.	3892 Jul 11 05:03	21° E 39'53	0.28861 AU	desc. node	3894 Dec 16 05:41	28° A 21'03	
inferior conj	3892 Jul 11 12:16	21° E 28'34	-2°36'05		3894 Dec 17 13:15	0° Z	
minimum elong	3892 Jul 11 06:43	21° E 37'16	2°34'30	evening rise	3895 Jan 09 09:11	28° Z 38'36	
morning rise	3892 Jul 17 10:28	17° E 54'06			3895 Jan 10 11:07	0° \approx	
direct	3892 Aug 02 00:08	13° E 14'13			3895 Feb 03 08:55	0° H	
greatest brilliancy	3892 Aug 12 04:49	15° E 05'57	-4.7m		3895 Feb 27 08:26	0° Y	
	3892 Sep 05 06:13	0° Ω			3895 Mar 23 12:32	0° B	
morning max el	3892 Sep 19 19:39	13° Ω 01'43	45°47'52	asc. node	3895 Apr 08 08:12	19° B 24'52	
	3892 Oct 06 13:49	0° M			3895 Apr 17 01:05	0° II	
asc. node	3892 Oct 21 13:07	16° M 18'26			3895 May 12 03:15	0° E	
	3892 Nov 02 14:27	0° E			3895 Jun 07 04:14	0° Ω	
	3892 Nov 28 00:50	0° M			3895 Jul 05 04:31	0° M	
	3892 Dec 22 16:09	0° A		evening max el	3895 Jul 12 06:35	6° M 58'22	45°28'47
	3893 Jan 15 21:41	0° Z		desc. node	3895 Jul 28 22:19	21° M 41'34	
	3893 Feb 08 22:32	0° \approx			3895 Aug 09 18:03	0° E	
desc. node	3893 Feb 10 03:14	1° \approx 29'45		greatest brilliancy	3895 Aug 19 19:26	4° E 49'10	-4.7m
	3893 Mar 04 21:33	0° H		retrograde	3895 Aug 29 20:38	6° E 37'40	
morning set	3893 Mar 24 06:34	24° H 15'33		evening set	3895 Sep 16 19:49	0° E 37'00	
	3893 Mar 28 20:41	0° Y			3895 Sep 17 20:13	30° R M	
	3893 Apr 21 21:29	0° B		inferior conj	3895 Sep 20 06:22	28° M 29'43	-8°35'14
superior conj	3893 May 02 21:23	13° B 40'53	-1°06'12	minimum elong	3895 Sep 20 04:09	28° M 33'12	8°35'09
minimum elong	3893 May 03 07:54	14° B 13'33	1°05'51	min. Earth dist.	3895 Sep 20 15:41	28° M 15'09	0.28869 AU
max. Earth dist.	3893 May 06 12:39	18° B 11'50	1.72422 AU	morning rise	3895 Sep 23 12:21	26° M 29'02	
	3893 May 16 01:06	0° II		direct	3895 Oct 11 19:52	20° M 13'37	
asc. node	3893 Jun 03 05:58	22° II 29'57		greatest brilliancy	3895 Oct 22 15:33	22° M 22'06	-4.8m
	3893 Jun 09 08:02	0° E			3895 Nov 05 10:17	0° E	
evening rise	3893 Jun 10 08:41	1° E 15'53		asc. node	3895 Nov 19 00:54	10° E 57'17	
	3893 Jul 03 18:15	0° Ω		morning max el	3895 Nov 30 19:20	22° E 08'33	46°27'13
	3893 Jul 28 08:01	0° M			3895 Dec 08 11:10	0° M	
	3893 Aug 22 02:27	0° E			3896 Jan 04 11:34	0° A	
	3893 Sep 16 03:50	0° M			3896 Jan 29 20:16	0° Z	
desc. node	3893 Sep 22 19:57	7° M 54'35			3896 Feb 23 12:41	0° \approx	
	3893 Oct 11 15:42	0° A		desc. node	3896 Mar 09 15:03	18° \approx 33'04	
	3893 Nov 06 21:16	0° Z			3896 Mar 18 21:53	0° H	
					3896 Apr 12 04:18	0° Y	

	3896 May 06 10:29	0°♄	evening set	3898 Nov 25 13:52	12°♄20'53	
	3896 May 30 17:54	0°♂	inferior conj	3898 Dec 01 01:38	9°♄07'18 -3°49'30	
morning set	3896 Jun 04 16:12	6°♂04'26	minimum elong	3898 Dec 01 09:41	8°♄55'02 3°47'11	
	3896 Jun 24 02:42	0°♄	min. Earth dist.	3898 Dec 01 20:41	8°♄38'14 0.27105 AU	
asc. node	3896 Jun 30 17:43	8°♄09'03	morning rise	3898 Dec 07 04:41	5°♄31'06	
			asc. node	3898 Dec 16 12:38	1°♄50'12	
superior conj	3896 Jul 11 21:41	21°♄52'48 0°26'17	direct	3898 Dec 21 20:04	1°♄15'15	
minimum elong	3896 Jul 11 16:23	21°♄36'33 0°26'02	greatest brilliancy	3899 Jan 01 20:21	3°♄31'55 -4.9m	
max. Earth dist.	3896 Jul 12 04:35	22°♄14'02 1.73478 AU		3899 Feb 05 23:56	0°♄	
	3896 Jul 18 12:10	0°♂	morning max el	3899 Feb 10 12:48	4°♄31'42 46°58'34	
	3896 Aug 11 21:36	0°♄		3899 Mar 06 04:56	0°♄	
evening rise	3896 Aug 17 00:08	6°♄16'47		3899 Apr 01 05:21	0°♄	
	3896 Sep 05 07:07	0°♄	desc. node	3899 Apr 07 03:08	6°♄58'11	
	3896 Sep 29 17:36	0°♄		3899 Apr 26 10:38	0°♄	
desc. node	3896 Oct 20 07:59	25°♄12'36		3899 May 21 07:55	0°♄	
	3896 Oct 24 06:05	0°♄		3899 Jun 15 01:50	0°♂	
	3896 Nov 17 21:25	0°♄		3899 Jul 09 17:46	0°♄	
	3896 Dec 12 17:22	0°♄	asc. node	3899 Jul 29 05:33	23°♄47'29	
	3897 Jan 06 23:33	0°♄		3899 Aug 03 07:21	0°♂	
	3897 Feb 02 08:08	0°♄	morning set	3899 Aug 12 23:48	11°♂52'07	
asc. node	3897 Feb 10 10:20	8°♄42'29		3899 Aug 27 17:49	0°♄	
evening max el	3897 Feb 16 23:27	15°♄29'44 47°03'15	max. Earth dist.	3899 Sep 15 20:15	23°♄33'48 1.73069 AU	
	3897 Mar 04 05:03	0°♄				
greatest brilliancy	3897 Mar 29 06:13	16°♄38'37 -4.9m	superior conj	3899 Sep 18 10:12	26°♄45'18 1°24'26	
retrograde	3897 Apr 08 14:34	18°♄39'33	minimum elong	3899 Sep 18 07:49	26°♄37'55 1°24'25	
evening set	3897 Apr 25 14:28	13°♄03'04		3899 Sep 21 01:10	0°♄	
inferior conj	3897 Apr 29 16:20	10°♄31'56 7°04'43		3899 Oct 15 06:14	0°♄	
minimum elong	3897 Apr 30 02:18	10°♄16'16 7°02'52	evening rise	3899 Oct 25 09:37	12°♄35'18	
min. Earth dist.	3897 Apr 29 13:03	10°♄37'04 0.27988 AU		3899 Nov 08 10:09	0°♄	
morning rise	3897 May 04 14:25	7°♄31'49	desc. node	3899 Nov 17 19:53	11°♄41'10	
direct	3897 May 20 16:22	2°♄31'38		3899 Dec 02 13:38	0°♄	
greatest brilliancy	3897 May 30 07:41	4°♄13'54 -4.8m		3899 Dec 26 17:15	0°♄	
desc. node	3897 Jun 02 00:29	5°♄15'28		3900 Jan 19 22:30	0°♄	
	3897 Jul 05 17:44	0°♂		3900 Feb 13 08:58	0°♄	
morning max el	3897 Jul 08 16:19	2°♂47'30 45°50'39		3900 Mar 10 07:40	0°♄	
	3897 Aug 04 03:19	0°♄	asc. node	3900 Mar 10 22:16	0°♄43'11	
	3897 Aug 30 23:59	0°♂		3900 Apr 05 08:14	0°♂	
asc. node	3897 Sep 23 03:17	26°♂58'48	evening max el	3900 Apr 30 07:23	26°♂25'09 46°05'17	
	3897 Sep 25 16:26	0°♄		3900 May 03 23:51	0°♄	
	3897 Oct 20 14:57	0°♄	greatest brilliancy	3900 Jun 07 14:51	25°♄18'21 -4.8m	
	3897 Nov 14 01:28	0°♄	retrograde	3900 Jun 18 17:57	27°♄33'51	
	3897 Dec 08 04:32	0°♄	desc. node	3900 Jun 30 12:25	24°♄47'51	
	3898 Jan 01 03:28	0°♄	evening set	3900 Jul 03 19:03	23°♄08'31	
greatest brilliancy	3898 Jan 02 13:33	1°♄46'57 -3.9m	inferior conj	3900 Jul 10 04:31	19°♄18'19 -2°16'49	
morning set	3898 Jan 03 16:46	3°♄12'24	minimum elong	3900 Jul 09 23:36	19°♄26'00 2°15'25	
desc. node	3898 Jan 12 17:23	14°♄32'49	min. Earth dist.	3900 Jul 09 21:02	19°♄30'01 0.28835 AU	
	3898 Jan 25 00:22	0°♄	morning rise	3900 Jul 16 04:29	15°♄41'44	
			direct	3900 Jul 31 16:34	11°♄04'24	
superior conj	3898 Feb 14 02:36	25°♄16'51 -1°08'01	greatest brilliancy	3900 Aug 10 20:03	12°♄55'39 -4.7m	
minimum elong	3898 Feb 13 14:49	24°♄39'47 1°07'39		3900 Sep 06 12:25	0°♂	
max. Earth dist.	3898 Feb 15 06:52	26°♄45'44 1.71147 AU	morning max el	3900 Sep 18 12:15	10°♂53'03 45°47'08	
	3898 Feb 17 20:39	0°♄		3900 Oct 07 07:13	0°♄	
	3898 Mar 13 17:49	0°♄	asc. node	3900 Oct 21 15:12	15°♄41'42	
evening rise	3898 Mar 26 23:44	16°♄35'04		3900 Nov 03 04:34	0°♄	
	3898 Apr 06 17:41	0°♄		3900 Nov 28 13:35	0°♄	
	3898 Apr 30 22:05	0°♂		3900 Dec 23 04:15	0°♄	
asc. node	3898 May 05 20:09	6°♂04'02		3901 Jan 16 09:25	0°♄	
	3898 May 25 08:39	0°♄		3901 Feb 09 10:03	0°♄	
	3898 Jun 19 03:07	0°♂	desc. node	3901 Feb 10 05:17	1°♄00'11	
	3898 Jul 14 08:42	0°♄		3901 Mar 05 08:55	0°♄	
	3898 Aug 09 08:17	0°♄	morning set	3901 Mar 22 17:39	21°♄44'56	
desc. node	3898 Aug 25 10:04	17°♄51'40		3901 Mar 29 07:53	0°♄	
	3898 Sep 05 18:20	0°♄		3901 Apr 22 08:33	0°♄	
evening max el	3898 Sep 22 02:32	16°♄27'57 45°59'15				
	3898 Oct 07 04:16	0°♄	superior conj	3901 May 01 11:04	11°♄19'54 -1°08'30	
greatest brilliancy	3898 Nov 01 02:36	15°♄17'40 -4.8m	minimum elong	3901 May 01 21:28	11°♄52'14 1°08'10	
retrograde	3898 Nov 10 06:48	16°♄51'07	max. Earth dist.	3901 May 05 05:00	15°♄59'22 1.72369 AU	

	3901 May 16 12:06	0°II		greatest brilliancy	3903 Oct 21 07:27	20°II09'57	-4.8m
asc. node	3901 Jun 03 07:55	22°II02'02			3903 Nov 07 03:22	0°II	
evening rise	3901 Jun 09 00:59	29°II04'27		asc. node	3903 Nov 19 02:48	9°II59'57	
	3901 Jun 09 19:02	0°II		morning max el	3903 Nov 29 09:12	19°II48'43	46°25'45
	3901 Jul 04 05:22	0°II			3903 Dec 09 06:16	0°II	
	3901 Jul 28 19:22	0°II			3904 Jan 05 02:28	0°II	
	3901 Aug 22 14:15	0°II			3904 Jan 30 09:29	0°II	
	3901 Sep 16 16:24	0°II			3904 Feb 24 01:01	0°II	
desc. node	3901 Sep 22 22:06	7°II22'57		desc. node	3904 Mar 09 17:13	18°II02'54	
	3901 Oct 12 05:36	0°II			3904 Mar 19 09:40	0°II	
	3901 Nov 07 13:44	0°II			3904 Apr 12 15:42	0°II	
evening max el	3901 Dec 05 05:21	29°II27'11	46°59'39		3904 May 06 21:38	0°II	
	3901 Dec 05 18:30	0°II			3904 May 31 04:50	0°II	
	3902 Jan 13 14:46	0°II		morning set	3904 Jun 03 08:24	3°II52'55	
asc. node	3902 Jan 14 00:33	0°II09'35			3904 Jun 24 13:29	0°II	
greatest brilliancy	3902 Jan 14 14:32	0°II22'46	-4.9m	asc. node	3904 Jun 30 19:43	7°II42'12	
retrograde	3902 Jan 24 18:15	2°II19'56					
	3902 Feb 04 09:37	30°II		superior conj	3904 Jul 10 15:09	19°II46'03	0°23'11
evening set	3902 Feb 09 10:55	27°II26'47		minimum elong	3904 Jul 10 10:25	19°II31'31	0°22'57
min. Earth dist.	3902 Feb 13 15:18	24°II56'50	0.26790 AU	max. Earth dist.	3904 Jul 10 23:26	20°II11'33	1.73462 AU
inferior conj	3902 Feb 14 07:59	24°II31'11	7°05'37		3904 Jul 18 22:52	0°II	
minimum elong	3902 Feb 13 21:26	24°II47'23	7°03'31		3904 Aug 12 08:19	0°II	
morning rise	3902 Feb 18 08:17	22°II06'19		evening rise	3904 Aug 15 18:32	4°II12'41	
direct	3902 Mar 06 19:44	16°II50'08			3904 Sep 05 18:00	0°II	
greatest brilliancy	3902 Mar 16 00:42	18°II27'10	-4.9m		3904 Sep 30 04:48	0°II	
	3902 Apr 04 17:39	0°II		desc. node	3904 Oct 20 09:58	24°II43'23	
morning max el	3902 Apr 25 20:57	18°II59'43	46°34'30		3904 Oct 24 17:43	0°II	
desc. node	3902 May 05 14:50	28°II55'09			3904 Nov 18 09:40	0°II	
	3902 May 06 15:37	0°II			3904 Dec 13 06:31	0°II	
	3902 Jun 03 00:47	0°II			3905 Jan 07 14:15	0°II	
	3902 Jun 29 02:36	0°II			3905 Feb 03 02:19	0°II	
	3902 Jul 24 14:02	0°II		asc. node	3905 Feb 10 12:27	7°II55'22	
	3902 Aug 18 15:55	0°II		evening max el	3905 Feb 15 12:36	13°II05'32	47°04'29
asc. node	3902 Aug 26 17:26	9°II44'12			3905 Mar 05 12:42	0°II	
	3902 Sep 12 09:29	0°II		greatest brilliancy	3905 Mar 27 22:08	14°II21'18	-4.9m
	3902 Oct 06 19:42	0°II		retrograde	3905 Apr 07 05:13	16°II21'44	
morning set	3902 Oct 21 15:07	18°II20'24		evening set	3905 Apr 24 08:21	10°II40'42	
	3902 Oct 31 00:16	0°II		inferior conj	3905 Apr 28 07:06	8°II14'29	7°17'49
	3902 Nov 24 01:15	0°II		minimum elong	3905 Apr 28 16:51	7°II59'12	7°16'06
max. Earth dist.	3902 Nov 25 22:27	2°II21'21	1.71753 AU	min. Earth dist.	3905 Apr 28 03:52	8°II19'35	0.27960 AU
				morning rise	3905 May 03 01:35	5°II19'38	
superior conj	3902 Nov 28 15:01	5°II43'12	0°40'51	direct	3905 May 19 06:05	0°II14'26	
minimum elong	3902 Nov 28 23:46	6°II10'36	0°40'27	greatest brilliancy	3905 May 28 22:04	1°II57'13	-4.8m
desc. node	3902 Dec 16 07:39	27°II52'45		desc. node	3905 Jun 02 02:29	3°II37'50	
	3902 Dec 18 00:15	0°II			3905 Jul 06 17:19	0°II	
evening rise	3903 Jan 07 20:35	26°II08'53		morning max el	3905 Jul 07 06:58	0°II32'41	45°51'42
	3903 Jan 10 22:14	0°II			3905 Aug 04 19:21	0°II	
	3903 Feb 03 20:11	0°II			3905 Aug 31 13:21	0°II	
	3903 Feb 27 19:52	0°II		asc. node	3905 Sep 23 05:21	26°II28'48	
	3903 Mar 24 00:14	0°II			3905 Sep 26 04:32	0°II	
asc. node	3903 Apr 08 10:14	18°II54'28			3905 Oct 21 02:25	0°II	
	3903 Apr 17 13:17	0°II			3905 Nov 14 12:36	0°II	
	3903 May 12 16:22	0°II			3905 Dec 08 15:31	0°II	
	3903 Jun 07 19:17	0°II			3906 Jan 01 14:23	0°II	
	3903 Jul 06 00:48	0°II		morning set	3906 Jan 02 04:07	0°II43'04	
evening max el	3903 Jul 10 21:13	4°II44'27	45°28'55	desc. node	3906 Jan 12 19:28	14°II05'08	
desc. node	3903 Jul 29 00:20	20°II38'05			3906 Jan 25 11:14	0°II	
	3903 Aug 12 07:59	0°II					
greatest brilliancy	3903 Aug 18 10:12	2°II37'50	-4.7m	superior conj	3906 Feb 12 12:55	22°II44'16	-1°05'28
retrograde	3903 Aug 28 11:33	4°II26'54		minimum elong	3906 Feb 12 00:56	22°II06'33	1°05'05
	3903 Sep 12 18:15	30°II		max. Earth dist.	3906 Feb 13 11:57	23°II56'42	1.71134 AU
evening set	3903 Sep 15 09:41	28°II28'48			3906 Feb 18 07:28	0°II	
inferior conj	3903 Sep 18 22:15	26°II18'28	-8°32'25		3906 Mar 14 04:38	0°II	
minimum elong	3903 Sep 18 19:16	26°II23'09	8°32'17	evening rise	3906 Mar 25 11:06	14°II06'47	
min. Earth dist.	3903 Sep 19 06:53	26°II04'58	0.28901 AU		3906 Apr 07 04:31	0°II	
morning rise	3903 Sep 22 04:42	24°II16'55			3906 May 01 09:02	0°II	
direct	3903 Oct 10 11:33	18°II01'58		asc. node	3906 May 05 22:05	5°II36'07	

	3906 May 25 19:50	0°☿			3908 Dec 22 15:57	0°♊	
	3906 Jun 19 14:46	0°♋			3909 Jan 15 20:45	0°♌	
	3906 Jul 14 21:16	0°♍			3909 Feb 08 21:10	0°♎	
	3906 Aug 09 22:36	0°♏		desc. node	3909 Feb 09 07:20	0°♐31'49	
desc. node	3906 Aug 25 12:12	17°♑13'33			3909 Mar 04 19:52	0°♒	
	3906 Sep 06 12:42	0°♓		morning set	3909 Mar 20 04:38	19°♑15'07	
evening max el	3906 Sep 20 16:27	14°♓10'42	45°57'25		3909 Mar 28 18:43	0°♑	
	3906 Oct 08 15:00	0°♊			3909 Apr 21 19:15	0°♒	
greatest brilliancy	3906 Oct 30 14:57	12°♊55'19	-4.8m				
retrograde	3906 Nov 08 20:03	14°♊29'14		superior conj	3909 Apr 29 00:43	8°♑59'54	-1°10'40
evening set	3906 Nov 24 05:34	9°♊54'44		minimum elong	3909 Apr 29 10:56	9°♑31'40	1°10'23
inferior conj	3906 Nov 29 14:46	6°♊44'28	-4°10'11	max. Earth dist.	3909 May 02 22:28	13°♑51'22	1.72313 AU
minimum elong	3906 Nov 29 23:22	6°♊31'21	4°07'45		3909 May 15 22:42	0°♑	
min. Earth dist.	3906 Nov 30 10:24	6°♊14'31	0.27167 AU	asc. node	3909 Jun 02 09:58	21°♑35'39	
morning rise	3906 Dec 05 16:27	3°♊10'21		evening rise	3909 Jun 06 17:14	26°♑53'59	
	3906 Dec 12 23:53	30°♋♓			3909 Jun 09 05:38	0°☿	
asc. node	3906 Dec 16 14:43	29°♓09'30			3909 Jul 03 16:05	0°♋	
direct	3906 Dec 20 10:25	28°♓51'26			3909 Jul 28 06:22	0°♍	
	3906 Dec 28 02:35	0°♊			3909 Aug 22 01:45	0°♏	
greatest brilliancy	3906 Dec 31 10:53	1°♊08'53	-4.9m		3909 Sep 16 04:44	0°♑	
	3907 Feb 06 23:45	0°♌		desc. node	3909 Sep 22 00:00	6°♓51'20	
morning max el	3907 Feb 09 03:58	2°♌11'30	46°58'25		3909 Oct 11 19:23	0°♊	
	3907 Mar 06 21:29	0°♎			3909 Nov 07 06:17	0°♌	
	3907 Apr 01 19:15	0°♑		evening max el	3909 Dec 02 19:11	27°♌04'07	46°57'59
desc. node	3907 Apr 07 05:04	6°♑23'53			3909 Dec 05 18:18	0°♎	
	3907 Apr 26 23:11	0°♑		greatest brilliancy	3910 Jan 12 03:58	27°♎55'42	-4.9m
	3907 May 21 19:40	0°♒		asc. node	3910 Jan 13 02:39	28°♎15'37	
	3907 Jun 15 13:02	0°♑		retrograde	3910 Jan 22 06:39	29°♎51'38	
	3907 Jul 10 04:37	0°☿		evening set	3910 Feb 06 19:41	25°♎04'53	
asc. node	3907 Jul 29 07:39	23°☿21'13		min. Earth dist.	3910 Feb 11 04:23	22°♎28'41	0.26754 AU
	3907 Aug 03 18:00	0°♋		inferior conj	3910 Feb 11 20:28	22°♎03'57	6°50'16
morning set	3907 Aug 11 17:32	9°♋46'46		minimum elong	3910 Feb 11 09:46	22°♎20'25	6°48'01
	3907 Aug 28 04:23	0°♍		morning rise	3910 Feb 16 00:08	19°♎34'01	
max. Earth dist.	3907 Sep 14 16:17	21°♍34'46	1.73102 AU	direct	3910 Mar 04 07:58	14°♎23'29	
				greatest brilliancy	3910 Mar 13 14:00	16°♎01'04	-4.9m
superior conj	3907 Sep 17 03:47	24°♍38'39	1°23'56		3910 Apr 05 07:03	0°♑	
minimum elong	3907 Sep 17 00:44	24°♍29'13	1°23'55	morning max el	3910 Apr 23 08:57	16°♑33'35	46°36'00
	3907 Sep 21 11:43	0°♏		desc. node	3910 May 04 16:48	28°♑09'09	
	3907 Oct 15 16:53	0°♓			3910 May 06 10:48	0°♑	
evening rise	3907 Oct 24 00:59	10°♓20'46			3910 Jun 02 15:36	0°♒	
	3907 Nov 08 20:58	0°♊			3910 Jun 28 15:29	0°♑	
desc. node	3907 Nov 17 21:48	11°♊13'10			3910 Jul 24 01:52	0°☿	
	3907 Dec 03 00:43	0°♌			3910 Aug 18 03:08	0°♋	
	3907 Dec 27 04:40	0°♎		asc. node	3910 Aug 25 19:28	9°♋16'51	
	3908 Jan 20 10:20	0°♑			3910 Sep 11 20:21	0°♍	
	3908 Feb 13 21:25	0°♑			3910 Oct 06 06:24	0°♏	
	3908 Mar 09 21:12	0°♒		morning set	3910 Oct 19 07:11	16°♏08'08	
asc. node	3908 Mar 10 00:19	0°♒09'14			3910 Oct 30 10:57	0°♓	
	3908 Apr 05 00:09	0°♑			3910 Nov 23 12:00	0°♊	
evening max el	3908 Apr 27 23:52	24°♑14'37	46°07'25	max. Earth dist.	3910 Nov 23 08:50	29°♓50'06	1.71801 AU
	3908 May 03 23:19	0°☿					
greatest brilliancy	3908 Jun 05 07:09	23°☿09'13	-4.8m	superior conj	3910 Nov 26 04:27	3°♊21'29	0°44'02
retrograde	3908 Jun 16 10:47	25°☿24'47		minimum elong	3910 Nov 26 13:37	3°♊50'08	0°43'38
desc. node	3908 Jun 29 14:27	21°☿58'54		desc. node	3910 Dec 15 09:45	27°♊25'22	
evening set	3908 Jul 01 11:07	21°☿00'10			3910 Dec 17 11:06	0°♌	
inferior conj	3908 Jul 07 20:45	17°☿09'18	-1°57'23	evening rise	3911 Jan 05 07:38	23°♌38'42	
minimum elong	3908 Jul 07 16:30	17°☿15'59	1°56'10		3911 Jan 10 09:12	0°♎	
min. Earth dist.	3908 Jul 07 13:04	17°☿21'22	0.28810 AU		3911 Feb 03 07:15	0°♑	
morning rise	3908 Jul 13 22:19	13°☿30'38			3911 Feb 27 07:06	0°♑	
direct	3908 Jul 29 09:12	8°☿55'58			3911 Mar 23 11:46	0°♒	
greatest brilliancy	3908 Aug 08 11:04	10°☿46'09	-4.7m	asc. node	3911 Apr 07 12:10	18°♒24'22	
	3908 Sep 06 16:11	0°♋			3911 Apr 17 01:19	0°♑	
morning max el	3908 Sep 16 04:11	8°♋43'43	45°46'15		3911 May 12 05:21	0°☿	
	3908 Oct 06 23:55	0°♍			3911 Jun 07 10:18	0°♋	
asc. node	3908 Oct 20 17:06	15°♍05'36			3911 Jul 05 21:29	0°♍	
	3908 Nov 02 18:14	0°♏		evening max el	3911 Jul 08 11:24	2°♍30'11	45°29'13
	3908 Nov 28 01:57	0°♓		desc. node	3911 Jul 28 02:28	19°♍33'59	

	3911 Aug 14 19:14	0°♎		desc. node	3914 Jan 11 21:32	13°♊36'58	
greatest brilliancy	3911 Aug 16 00:40	0°♎27'01	-4.7m		3914 Jan 24 22:15	0°♊	
retrograde	3911 Aug 26 02:52	2°♎17'21					
	3911 Sep 05 22:40	30°♋♏		superior conj	3914 Feb 09 22:54	20°♊09'53	-1°02'45
evening set	3911 Sep 12 23:17	26°♏21'58		minimum elong	3914 Feb 09 10:50	19°♊31'57	1°02'20
inferior conj	3911 Sep 16 14:13	24°♏08'13	-8°28'42	max. Earth dist.	3914 Feb 10 18:47	21°♊12'26	1.71129 AU
minimum elong	3911 Sep 16 10:29	24°♏14'04	8°28'31		3914 Feb 17 18:31	0°♋	
min. Earth dist.	3911 Sep 16 22:04	23°♏55'57	0.28934 AU		3914 Mar 13 15:41	0°♌	
morning rise	3911 Sep 19 21:31	22°♏05'24		evening rise	3914 Mar 22 21:54	11°♌35'53	
direct	3911 Oct 08 03:14	15°♏51'11			3914 Apr 06 15:37	0°♍	
greatest brilliancy	3911 Oct 18 23:39	17°♏59'11	-4.8m		3914 Apr 30 20:13	0°♎	
	3911 Nov 07 15:48	0°♎		asc. node	3914 May 05 00:08	5°♎07'56	
asc. node	3911 Nov 18 04:54	9°♎04'47			3914 May 25 07:14	0°♏	
morning max el	3911 Nov 26 23:36	17°♎30'44	46°24'06		3914 Jun 19 02:40	0°♐	
	3911 Dec 09 00:47	0°♏			3914 Jul 14 10:05	0°♑	
	3912 Jan 04 17:11	0°♑			3914 Aug 09 13:16	0°♒	
	3912 Jan 29 22:38	0°♓		desc. node	3914 Aug 24 14:08	16°♒33'58	
	3912 Feb 23 13:18	0°♓			3914 Sep 06 07:45	0°♓	
desc. node	3912 Mar 08 19:11	17°♓32'16		evening max el	3914 Sep 18 07:17	11°♓55'29	45°55'37
	3912 Mar 18 21:23	0°♋			3914 Oct 09 05:30	0°♋	
	3912 Apr 12 03:01	0°♌		greatest brilliancy	3914 Oct 28 03:32	10°♋33'40	-4.8m
	3912 May 06 08:40	0°♍		retrograde	3914 Nov 06 09:32	12°♋07'41	
	3912 May 30 15:40	0°♎		evening set	3914 Nov 21 21:38	7°♋29'11	
morning set	3912 Jun 01 00:30	1°♎41'16		inferior conj	3914 Nov 27 04:09	4°♋22'09	-4°30'02
	3912 Jun 24 00:11	0°♏		minimum elong	3914 Nov 27 13:13	4°♋08'18	4°27'34
asc. node	3912 Jun 29 21:50	7°♏15'50		min. Earth dist.	3914 Nov 28 00:06	3°♋51'40	0.27228 AU
				morning rise	3914 Dec 03 04:12	0°♋50'14	
superior conj	3912 Jul 08 08:42	17°♏39'44	0°20'03		3914 Dec 04 18:34	30°♋♏	
minimum elong	3912 Jul 08 04:34	17°♏27'01	0°19'51	asc. node	3914 Dec 15 16:44	26°♏35'08	
max. Earth dist.	3912 Jul 08 18:15	18°♏09'07	1.73447 AU	direct	3914 Dec 18 01:05	26°♏28'21	
	3912 Jul 18 09:30	0°♐		greatest brilliancy	3914 Dec 29 00:59	28°♏45'30	-4.9m
	3912 Aug 11 19:00	0°♑			3914 Dec 31 21:07	0°♑	
evening rise	3912 Aug 13 13:11	2°♑09'41			3915 Feb 06 22:42	0°♓	
	3912 Sep 05 04:50	0°♎		morning max el	3915 Feb 06 18:50	29°♑50'10	46°57'57
	3912 Sep 29 15:57	0°♏			3915 Mar 06 13:59	0°♓	
desc. node	3912 Oct 19 11:58	24°♏14'22			3915 Apr 01 09:21	0°♋	
	3912 Oct 24 05:21	0°♑		desc. node	3915 Apr 06 07:03	5°♋48'52	
	3912 Nov 17 21:58	0°♓			3915 Apr 26 12:02	0°♌	
	3912 Dec 12 19:50	0°♓			3915 May 21 07:43	0°♍	
	3913 Jan 07 05:18	0°♋			3915 Jun 15 00:33	0°♎	
	3913 Feb 02 21:12	0°♌			3915 Jul 09 15:45	0°♏	
asc. node	3913 Feb 09 14:27	7°♌06'30		asc. node	3915 Jul 28 09:36	22°♏53'45	
evening max el	3913 Feb 13 02:17	10°♌41'59	47°05'47		3915 Aug 03 04:53	0°♐	
	3913 Mar 05 23:32	0°♍		morning set	3915 Aug 09 11:15	7°♐40'38	
greatest brilliancy	3913 Mar 25 13:23	12°♍02'17	-4.9m		3915 Aug 27 15:11	0°♑	
retrograde	3913 Apr 04 20:14	14°♍03'01		max. Earth dist.	3915 Sep 12 11:15	19°♑31'44	1.73135 AU
evening set	3913 Apr 22 02:03	8°♍17'17					
inferior conj	3913 Apr 25 21:43	5°♍56'00	7°30'15	superior conj	3915 Sep 14 21:34	22°♑31'50	1°23'20
minimum elong	3913 Apr 26 07:10	5°♍41'12	7°28'42	minimum elong	3915 Sep 14 17:53	22°♑20'28	1°23'18
min. Earth dist.	3913 Apr 25 18:05	6°♍01'42	0.27926 AU		3915 Sep 20 22:34	0°♎	
morning rise	3913 Apr 30 12:28	3°♍06'51			3915 Oct 15 03:50	0°♏	
	3913 May 06 17:34	30°♋♌		evening rise	3915 Oct 21 16:43	8°♏06'32	
direct	3913 May 16 19:56	27°♌56'19			3915 Nov 08 08:05	0°♑	
greatest brilliancy	3913 May 26 11:45	29°♌39'16	-4.8m	desc. node	3915 Nov 16 23:56	10°♑44'59	
	3913 May 27 11:07	0°♍			3915 Dec 02 12:04	0°♓	
desc. node	3913 Jun 01 04:37	2°♍03'25			3915 Dec 26 16:20	0°♓	
morning max el	3913 Jul 04 22:19	28°♍19'23	45°52'50		3916 Jan 19 22:26	0°♋	
	3913 Jul 06 15:58	0°♎			3916 Feb 13 10:11	0°♌	
	3913 Aug 04 11:08	0°♏		asc. node	3916 Mar 09 02:12	29°♌33'36	
	3913 Aug 31 02:39	0°♐			3916 Mar 09 11:10	0°♍	
asc. node	3913 Sep 22 07:15	25°♐58'11			3916 Apr 04 16:47	0°♎	
	3913 Sep 25 16:38	0°♑		evening max el	3916 Apr 25 16:05	22°♎01'55	46°09'25
	3913 Oct 20 13:54	0°♎			3916 May 04 00:35	0°♏	
	3913 Nov 13 23:48	0°♏		greatest brilliancy	3916 Jun 03 00:14	20°♏59'18	-4.8m
	3913 Dec 08 02:35	0°♑		retrograde	3916 Jun 14 03:11	23°♏13'59	
morning set	3913 Dec 30 15:44	28°♑14'20		desc. node	3916 Jun 28 16:31	19°♏04'47	
	3914 Jan 01 01:25	0°♓		evening set	3916 Jun 29 03:19	18°♏50'05	

min. Earth dist.	3916 Jul 05 05:21	15°☿10'47	0.28780 AU	evening rise	3919 Jan 02 19:03	21°♄08'51	
inferior conj	3916 Jul 05 12:57	14°☿58'52	-1°37'47		3919 Jan 09 20:27	0°♄	
minimum elong	3916 Jul 05 09:23	15°☿04'28	1°36'43		3919 Feb 02 18:37	0°♄	
morning rise	3916 Jul 11 15:56	11°☿18'03			3919 Feb 26 18:37	0°♄	
direct	3916 Jul 27 01:27	6°☿46'12			3919 Mar 22 23:34	0°♄	
greatest brilliancy	3916 Aug 06 02:08	8°☿35'17	-4.7m	asc. node	3919 Apr 06 14:17	17°♄54'05	
	3916 Sep 06 18:49	0°♄			3919 Apr 16 13:38	0°♄	
morning max el	3916 Sep 13 19:10	6°♄31'05	45°45'30		3919 May 11 18:40	0°☿	
	3916 Oct 06 16:39	0°♄			3919 Jun 07 01:48	0°♄	
asc. node	3916 Oct 19 19:13	14°♄29'29			3919 Jul 05 19:18	0°♄	
	3916 Nov 02 08:06	0°♄		evening max el	3919 Jul 06 02:03	0°♄16'16	45°29'31
	3916 Nov 27 14:34	0°♄		desc. node	3919 Jul 27 04:24	18°♄26'51	
	3916 Dec 22 03:55	0°♄		greatest brilliancy	3919 Aug 13 14:40	28°♄14'45	-4.7m
	3917 Jan 15 08:22	0°♄			3919 Aug 21 07:30	0°♄	
desc. node	3917 Feb 08 09:19	0°♄02'24		retrograde	3919 Aug 23 18:45	0°♄07'01	
	3917 Feb 08 08:33	0°♄			3919 Aug 26 05:19	30°♄	
	3917 Mar 04 07:06	0°♄		evening set	3919 Sep 10 12:40	24°♄14'31	
morning set	3917 Mar 17 15:50	16°♄45'03		inferior conj	3919 Sep 14 06:12	21°♄57'04	-8°24'18
	3917 Mar 28 05:49	0°♄		minimum elong	3919 Sep 14 01:44	22°♄04'03	8°24'01
	3917 Apr 21 06:16	0°♄		min. Earth dist.	3919 Sep 14 13:03	21°♄46'23	0.28966 AU
				morning rise	3919 Sep 17 14:38	19°♄52'42	
superior conj	3917 Apr 26 14:22	6°♄38'50	-1°12'44	direct	3919 Oct 05 19:09	13°♄39'34	
minimum elong	3917 Apr 27 00:19	7°♄09'47	1°12'28	greatest brilliancy	3919 Oct 16 15:40	15°♄47'37	-4.8m
max. Earth dist.	3917 Apr 30 15:22	11°♄40'29	1.72261 AU		3919 Nov 08 01:21	0°♄	
	3917 May 15 09:41	0°♄		asc. node	3919 Nov 17 06:59	8°♄10'01	
asc. node	3917 Jun 01 12:03	21°♄08'08		morning max el	3919 Nov 24 14:56	15°♄14'34	46°22'31
evening rise	3917 Jun 04 09:10	24°♄41'14			3919 Dec 08 19:05	0°♄	
	3917 Jun 08 16:39	0°☿			3920 Jan 04 07:56	0°♄	
	3917 Jul 03 03:13	0°♄			3920 Jan 29 11:52	0°♄	
	3917 Jul 27 17:46	0°♄			3920 Feb 23 01:43	0°♄	
	3917 Aug 21 13:39	0°♄		desc. node	3920 Mar 07 21:09	17°♄01'02	
	3917 Sep 15 17:30	0°♄			3920 Mar 18 09:16	0°♄	
desc. node	3917 Sep 21 02:02	6°♄18'55			3920 Apr 11 14:31	0°♄	
	3917 Oct 11 09:40	0°♄			3920 May 05 19:52	0°♄	
	3917 Nov 06 23:32	0°♄		morning set	3920 May 29 16:44	29°♄29'23	
evening max el	3917 Nov 30 08:15	24°♄38'13	46°56'15		3920 May 30 02:39	0°♄	
	3917 Dec 05 19:41	0°♄			3920 Jun 23 11:01	0°☿	
greatest brilliancy	3918 Jan 09 17:58	25°♄28'28	-4.9m	asc. node	3920 Jun 28 23:47	6°☿48'32	
asc. node	3918 Jan 12 04:38	26°♄16'12					
retrograde	3918 Jan 19 18:52	27°♄22'58		superior conj	3920 Jul 06 02:19	15°☿33'09	0°16'54
evening set	3918 Feb 04 04:43	22°♄42'05		minimum elong	3920 Jul 05 22:48	15°☿22'17	0°16'43
min. Earth dist.	3918 Feb 08 17:57	19°♄59'39	0.26719 AU	max. Earth dist.	3920 Jul 06 14:42	16°☿11'12	1.73433 AU
inferior conj	3918 Feb 09 09:06	19°♄36'21	6°34'10		3920 Jul 17 20:17	0°♄	
minimum elong	3918 Feb 08 22:19	19°♄52'57	6°31'45	evening rise	3920 Aug 11 07:57	0°♄06'29	
morning rise	3918 Feb 13 16:09	17°♄01'26			3920 Aug 11 05:51	0°♄	
direct	3918 Mar 01 19:52	11°♄56'12			3920 Sep 04 15:53	0°♄	
greatest brilliancy	3918 Mar 11 03:55	13°♄35'06	-4.9m		3920 Sep 29 03:19	0°♄	
	3918 Apr 05 17:15	0°♄		desc. node	3920 Oct 18 14:04	23°♄45'01	
morning max el	3918 Apr 20 20:47	14°♄06'14	46°37'34		3920 Oct 23 17:12	0°♄	
desc. node	3918 May 03 18:59	27°♄23'45			3920 Nov 17 10:29	0°♄	
	3918 May 06 05:42	0°♄			3920 Dec 12 09:21	0°♄	
	3918 Jun 02 06:31	0°♄			3921 Jan 06 20:39	0°♄	
	3918 Jun 28 04:37	0°♄			3921 Feb 02 16:45	0°♄	
	3918 Jul 23 14:01	0°☿		asc. node	3921 Feb 08 16:25	6°♄16'29	
	3918 Aug 17 14:41	0°♄		evening max el	3921 Feb 10 16:51	8°♄20'25	47°06'58
asc. node	3918 Aug 24 21:25	8°♄48'14			3921 Mar 06 14:15	0°♄	
	3918 Sep 11 07:33	0°♄		greatest brilliancy	3921 Mar 23 04:11	9°♄42'15	-4.9m
	3918 Oct 05 17:25	0°♄		retrograde	3921 Apr 02 11:43	11°♄43'39	
morning set	3918 Oct 16 23:20	13°♄55'17		evening set	3921 Apr 19 19:42	5°♄53'17	
	3918 Oct 29 21:55	0°♄		inferior conj	3921 Apr 23 12:15	3°♄36'47	7°42'04
max. Earth dist.	3918 Nov 20 22:28	27°♄28'17	1.71850 AU	minimum elong	3921 Apr 23 21:21	3°♄22'34	7°40'40
	3918 Nov 22 23:01	0°♄		min. Earth dist.	3921 Apr 23 07:53	3°♄43'36	0.27893 AU
				morning rise	3921 Apr 27 23:13	0°♄53'32	
superior conj	3918 Nov 23 18:07	0°♄59'42	0°47'05		3921 Apr 29 13:00	30°♄	
minimum elong	3918 Nov 24 03:38	1°♄29'26	0°46'42	direct	3921 May 14 10:10	25°♄37'39	
desc. node	3918 Dec 14 11:47	26°♄56'51		greatest brilliancy	3921 May 24 00:46	27°♄20'08	-4.8m
	3918 Dec 16 22:14	0°♄			3921 May 30 06:11	0°♄	

desc. node	3921 May 31 06:35	0°♄31'50			3923 Dec 26 03:57	0°♁	
morning max el	3921 Jul 02 14:07	26°♄06'58	45°54'01		3924 Jan 19 10:30	0°♄	
	3921 Jul 06 13:47	0°♄			3924 Feb 12 22:55	0°♄	
	3921 Aug 04 02:42	0°♄		asc. node	3924 Mar 08 04:21	28°♄59'01	
	3921 Aug 30 15:53	0°♄			3924 Mar 09 01:08	0°♄	
asc. node	3921 Sep 21 09:23	25°♄28'12			3924 Apr 04 09:33	0°♄	
	3921 Sep 25 04:45	0°♄		evening max el	3924 Apr 23 07:16	19°♄46'58	46°11'27
	3921 Oct 20 01:28	0°♄			3924 May 04 03:02	0°♄	
	3921 Nov 13 11:05	0°♄		greatest brilliancy	3924 May 31 17:43	18°♄50'09	-4.8m
morning set	3921 Dec 07 13:44	0°♄		retrograde	3924 Jun 11 19:07	21°♄03'33	
	3921 Dec 28 03:27	25°♄45'49		evening set	3924 Jun 26 19:35	16°♄40'00	
	3921 Dec 31 12:29	0°♄		desc. node	3924 Jun 27 18:30	16°♄07'53	
desc. node	3922 Jan 10 23:30	13°♄08'19		inferior conj	3924 Jul 03 05:06	12°♄48'51	-1°17'51
	3922 Jan 24 09:18	0°♁		minimum elong	3924 Jul 03 02:15	12°♄53'20	1°17'00
				min. Earth dist.	3924 Jul 02 21:58	13°♄00'03	0.28751 AU
superior conj	3922 Feb 07 08:49	17°♁35'19	-0°59'54	morning rise	3924 Jul 09 09:21	9°♄05'56	
minimum elong	3922 Feb 06 20:47	16°♁57'29	0°59'28	direct	3924 Jul 24 17:07	4°♄36'41	
max. Earth dist.	3922 Feb 08 03:39	18°♁34'34	1.71123 AU	greatest brilliancy	3924 Aug 03 17:40	6°♄25'15	-4.7m
	3922 Feb 17 05:34	0°♄			3924 Sep 06 19:46	0°♄	
evening rise	3922 Mar 13 02:46	0°♄		morning max el	3924 Sep 11 09:38	4°♄17'48	45°44'59
	3922 Mar 20 08:40	9°♄04'45			3924 Oct 06 08:48	0°♄	
	3922 Apr 06 02:44	0°♄		asc. node	3924 Oct 18 21:16	13°♄54'15	
	3922 Apr 30 07:26	0°♄			3924 Nov 01 21:33	0°♄	
asc. node	3922 May 04 02:13	4°♄39'39			3924 Nov 27 02:51	0°♄	
	3922 May 24 18:42	0°♄			3924 Dec 21 15:36	0°♄	
	3922 Jun 18 14:36	0°♄			3925 Jan 14 19:45	0°♄	
	3922 Jul 13 22:58	0°♄		desc. node	3925 Feb 07 11:23	29°♄33'48	
desc. node	3922 Aug 09 04:05	0°♄			3925 Feb 07 19:45	0°♁	
	3922 Aug 23 16:11	15°♄54'29			3925 Mar 03 18:09	0°♄	
evening max el	3922 Sep 06 03:19	0°♄		morning set	3925 Mar 15 02:26	14°♄13'32	
	3922 Sep 15 22:01	9°♄40'06	45°53'39		3925 Mar 27 16:43	0°♄	
	3922 Oct 10 00:57	0°♄			3925 Apr 20 17:02	0°♄	
greatest brilliancy	3922 Oct 25 16:33	8°♄12'30	-4.8m				
retrograde	3922 Nov 03 22:27	9°♄45'51		superior conj	3925 Apr 24 03:37	4°♄17'10	-1°14'41
evening set	3922 Nov 19 13:44	5°♄03'29		minimum elong	3925 Apr 24 13:13	4°♄47'00	1°14'26
inferior conj	3922 Nov 24 17:29	1°♄59'50	-4°49'25	max. Earth dist.	3925 Apr 28 06:13	9°♄23'56	1.72203 AU
minimum elong	3922 Nov 25 02:57	1°♄45'20	4°46'56		3925 May 14 20:24	0°♄	
min. Earth dist.	3922 Nov 25 13:59	1°♄28'26	0.27291 AU	asc. node	3925 May 31 13:59	20°♄40'58	
	3922 Nov 28 00:34	30°♄		evening rise	3925 Jun 02 00:47	22°♄28'17	
morning rise	3922 Nov 30 15:36	28°♄30'07			3925 Jun 08 03:24	0°♄	
asc. node	3922 Dec 14 18:43	24°♄06'09			3925 Jul 02 14:07	0°♄	
direct	3922 Dec 15 15:30	24°♄05'15			3925 Jul 27 04:57	0°♄	
greatest brilliancy	3922 Dec 26 15:16	26°♄22'03	-4.9m		3925 Aug 21 01:20	0°♄	
	3923 Jan 02 22:30	0°♄			3925 Sep 15 06:03	0°♄	
morning max el	3923 Feb 04 08:48	27°♄26'29	46°57'31	desc. node	3925 Sep 20 04:11	5°♄47'40	
	3923 Feb 06 20:46	0°♄			3925 Oct 10 23:45	0°♄	
	3923 Mar 06 06:09	0°♁			3925 Nov 06 16:44	0°♄	
desc. node	3923 Mar 31 23:12	0°♄		evening max el	3925 Nov 27 20:36	22°♄11'51	46°54'27
	3923 Apr 05 09:14	5°♄15'02			3925 Dec 05 21:59	0°♁	
	3923 Apr 26 00:41	0°♄		greatest brilliancy	3926 Jan 07 07:33	23°♁01'27	-4.9m
	3923 May 20 19:37	0°♄		asc. node	3926 Jan 11 06:37	24°♁12'28	
asc. node	3923 Jun 14 11:55	0°♄		retrograde	3926 Jan 17 07:02	24°♁55'03	
	3923 Jul 09 02:45	0°♄		evening set	3926 Feb 01 13:43	20°♁19'16	
	3923 Jul 27 11:38	22°♄26'45		inferior conj	3926 Feb 06 21:36	17°♁09'09	6°17'03
	3923 Aug 02 15:41	0°♄		minimum elong	3926 Feb 06 10:50	17°♁25'42	6°14'31
morning set	3923 Aug 07 05:08	5°♄35'25		min. Earth dist.	3926 Feb 06 07:27	17°♁30'53	0.26693 AU
	3923 Aug 27 01:52	0°♄		morning rise	3926 Feb 11 08:06	14°♁29'23	
max. Earth dist.	3923 Sep 10 05:26	17°♄26'46	1.73165 AU	direct	3926 Feb 27 07:35	9°♁28'59	
				greatest brilliancy	3926 Mar 08 18:00	11°♁09'44	-4.9m
superior conj	3923 Sep 12 15:37	20°♄26'25	1°22'37		3926 Apr 06 00:32	0°♄	
minimum elong	3923 Sep 12 11:20	20°♄13'11	1°22'34	morning max el	3926 Apr 18 09:27	11°♄41'17	46°39'08
	3923 Sep 20 09:14	0°♄		desc. node	3926 May 02 20:56	26°♄38'55	
evening rise	3923 Oct 14 14:37	0°♄			3926 May 05 23:54	0°♄	
	3923 Oct 19 08:42	5°♄53'36			3926 Jun 01 21:00	0°♄	
	3923 Nov 07 19:05	0°♄			3926 Jun 27 17:22	0°♄	
desc. node	3923 Nov 16 01:58	10°♄16'54			3926 Jul 23 01:48	0°♄	
	3923 Dec 01 23:20	0°♄			3926 Aug 17 01:54	0°♄	

asc. node	3926 Aug 23 23:31	8°♌20'57			3929 Mar 07 09:12	0°♏	
	3926 Sep 10 18:26	0°♎		greatest brilliancy	3929 Mar 20 18:54	7°♏23'35	-4.9m
	3926 Oct 05 04:07	0°♍		retrograde	3929 Mar 31 03:23	9°♏25'27	
morning set	3926 Oct 14 15:42	11°♍44'04		evening set	3929 Apr 17 13:23	3°♏30'46	
	3926 Oct 29 08:34	0°♌		inferior conj	3929 Apr 21 02:53	1°♏18'48	7°53'05
max. Earth dist.	3926 Nov 18 13:55	25°♌13'11	1.71894 AU	minimum elong	3929 Apr 21 11:35	1°♏05'13	7°51'50
				min. Earth dist.	3929 Apr 20 21:34	1°♏27'05	0.27860 AU
superior conj	3926 Nov 21 08:08	28°♌40'06	0°50'04		3929 Apr 23 05:39	30°♏	
minimum elong	3926 Nov 21 17:56	29°♌10'43	0°49'40	morning rise	3929 Apr 25 10:01	28°♏41'22	
	3926 Nov 22 09:42	0°♏		direct	3929 May 12 00:52	23°♏20'23	
desc. node	3926 Dec 13 13:45	26°♏29'20		greatest brilliancy	3929 May 21 13:28	25°♏01'37	-4.8m
	3926 Dec 16 09:01	0°♏		desc. node	3929 May 30 08:36	29°♏04'28	
evening rise	3926 Dec 31 06:52	18°♏41'27			3929 May 31 22:33	0°♏	
	3927 Jan 09 07:20	0°♏		morning max el	3929 Jun 30 05:57	23°♏55'16	45°55'01
	3927 Feb 02 05:38	0°♏			3929 Jul 06 10:31	0°♏	
	3927 Feb 26 05:51	0°♏			3929 Aug 03 17:49	0°♏	
	3927 Mar 22 11:07	0°♏			3929 Aug 30 04:49	0°♏	
asc. node	3927 Apr 05 16:18	17°♏24'13		asc. node	3929 Sep 20 11:25	24°♏58'40	
	3927 Apr 16 01:44	0°♏			3929 Sep 24 16:37	0°♏	
	3927 May 11 07:49	0°♏			3929 Oct 19 12:47	0°♏	
	3927 Jun 06 17:15	0°♏			3929 Nov 12 22:08	0°♏	
evening max el	3927 Jul 03 17:26	28°♏04'58	45°30'00		3929 Dec 07 00:40	0°♏	
	3927 Jul 05 17:39	0°♏		morning set	3929 Dec 25 15:18	23°♏18'19	
desc. node	3927 Jul 26 06:27	17°♏18'53			3929 Dec 30 23:21	0°♏	
greatest brilliancy	3927 Aug 11 04:08	26°♏02'47	-4.7m	desc. node	3930 Jan 10 01:36	12°♏40'44	
retrograde	3927 Aug 21 10:56	27°♏57'18			3930 Jan 23 20:09	0°♏	
evening set	3927 Sep 08 01:48	22°♏07'59					
inferior conj	3927 Sep 11 22:04	19°♏46'31	-8°19'14	superior conj	3930 Feb 04 18:57	15°♏02'04	-0°56'56
minimum elong	3927 Sep 11 16:56	19°♏54'32	8°18'50	minimum elong	3930 Feb 04 07:04	14°♏24'41	0°56'29
min. Earth dist.	3927 Sep 12 03:38	19°♏37'50	0.28994 AU	max. Earth dist.	3930 Feb 05 11:12	15°♏53'10	1.71112 AU
morning rise	3927 Sep 15 07:55	17°♏40'10			3930 Feb 16 16:24	0°♏	
direct	3927 Oct 03 11:24	11°♏28'38			3930 Mar 12 13:35	0°♏	
greatest brilliancy	3927 Oct 14 07:01	13°♏36'06	-4.8m	evening rise	3930 Mar 17 19:40	6°♏35'01	
	3927 Nov 08 07:56	0°♏			3930 Apr 05 13:36	0°♏	
asc. node	3927 Nov 16 08:53	7°♏16'46			3930 Apr 29 18:25	0°♏	
morning max el	3927 Nov 22 07:09	13°♏01'45	46°21'04	asc. node	3930 May 03 04:09	4°♏11'46	
	3927 Dec 08 12:38	0°♏			3930 May 24 05:56	0°♏	
	3928 Jan 03 22:09	0°♏			3930 Jun 18 02:24	0°♏	
	3928 Jan 29 00:38	0°♏			3930 Jul 13 11:47	0°♏	
	3928 Feb 22 13:41	0°♏			3930 Aug 08 18:57	0°♏	
desc. node	3928 Mar 06 23:19	16°♏31'38		desc. node	3930 Aug 22 18:19	15°♏15'09	
	3928 Mar 17 20:45	0°♏			3930 Sep 05 23:20	0°♏	
	3928 Apr 11 01:39	0°♏		evening max el	3930 Sep 13 12:16	7°♏24'01	45°51'45
	3928 May 05 06:46	0°♏			3930 Oct 11 03:05	0°♏	
morning set	3928 May 27 08:39	27°♏17'19		greatest brilliancy	3930 Oct 23 06:11	5°♏52'50	-4.8m
	3928 May 29 13:22	0°♏		retrograde	3930 Nov 01 10:52	7°♏25'04	
	3928 Jun 22 21:35	0°♏		evening set	3930 Nov 17 06:04	2°♏38'38	
asc. node	3928 Jun 28 01:49	6°♏22'17			3930 Nov 21 17:04	30°♏	
				inferior conj	3930 Nov 22 07:01	29°♏38'35	-5°08'08
superior conj	3928 Jul 03 19:34	13°♏26'06	0°13'41	minimum elong	3930 Nov 22 16:48	29°♏23'33	5°05'37
minimum elong	3928 Jul 03 16:40	13°♏17'12	0°13'33	min. Earth dist.	3930 Nov 23 04:18	29°♏05'55	0.27355 AU
behind sun begin	3928 Jul 03 04:36	12°♏40'03		morning rise	3930 Nov 28 02:57	26°♏11'15	
behind sun end	3928 Jul 04 04:45	13°♏54'22		direct	3930 Dec 13 05:38	21°♏43'02	
max. Earth dist.	3928 Jul 04 12:08	14°♏17'03	1.73416 AU	asc. node	3930 Dec 13 20:47	21°♏43'30	
	3928 Jul 17 06:48	0°♏		greatest brilliancy	3930 Dec 24 06:10	24°♏00'01	-4.9m
evening rise	3928 Aug 09 02:30	28°♏03'25			3931 Jan 04 07:12	0°♏	
	3928 Aug 10 16:26	0°♏		morning max el	3931 Feb 01 22:08	25°♏01'24	46°57'03
	3928 Sep 04 02:41	0°♏			3931 Feb 06 17:55	0°♏	
	3928 Sep 28 14:28	0°♏			3931 Mar 05 21:57	0°♏	
desc. node	3928 Oct 17 16:03	23°♏16'01			3931 Mar 31 12:50	0°♏	
	3928 Oct 23 04:50	0°♏		desc. node	3931 Apr 04 11:09	4°♏40'54	
	3928 Nov 16 22:48	0°♏			3931 Apr 25 13:07	0°♏	
	3928 Dec 11 22:42	0°♏			3931 May 20 07:18	0°♏	
	3929 Jan 06 11:51	0°♏			3931 Jun 13 23:06	0°♏	
	3929 Feb 02 12:24	0°♏			3931 Jul 08 13:37	0°♏	
asc. node	3929 Feb 07 18:33	5°♏27'19		asc. node	3931 Jul 26 13:44	22°♏00'21	
evening max el	3929 Feb 08 08:22	6°♏02'32	47°08'08		3931 Aug 02 02:22	0°♏	

morning set	3931 Aug 04 23:05	3°Ω30'36		min. Earth dist.	3934 Feb 03 20:42	15°≈01'25	0.26670 AU
	3931 Aug 26 12:29	0°Π		morning rise	3934 Feb 08 24:00	11°≈56'36	
max. Earth dist.	3931 Sep 07 22:44	15°Π19'18	1.73199 AU	direct	3934 Feb 24 19:35	7°≈00'42	
				greatest brilliancy	3934 Mar 06 07:48	8°≈43'11	-4.9m
superior conj	3931 Sep 10 09:42	18°Π21'15	1°21'47		3934 Apr 06 05:58	0°⋈	
minimum elong	3931 Sep 10 04:49	18°Π06'13	1°21'43	morning max el	3934 Apr 15 23:07	9°⋈17'58	46°40'38
	3931 Sep 19 19:54	0°Δ		desc. node	3934 May 01 22:57	25°⋈54'02	
	3931 Oct 14 01:23	0°Π			3934 May 05 17:58	0°Υ	
evening rise	3931 Oct 17 00:40	3°Π40'53			3934 Jun 01 11:36	0°⋈	
	3931 Nov 07 06:03	0°♁			3934 Jun 27 06:19	0°Π	
desc. node	3931 Nov 15 03:54	9°♁48'33			3934 Jul 22 13:48	0°☾	
	3931 Dec 01 10:36	0°☾			3934 Aug 16 13:18	0°Ω	
	3931 Dec 25 15:36	0°≈		asc. node	3934 Aug 23 01:33	7°Ω52'54	
	3932 Jan 18 22:38	0°⋈			3934 Sep 10 05:30	0°Π	
	3932 Feb 12 11:45	0°Υ			3934 Oct 04 15:02	0°Δ	
asc. node	3932 Mar 07 06:22	28°Υ23'41		morning set	3934 Oct 12 08:18	9°Δ32'59	
	3932 Mar 08 15:15	0°⋈			3934 Oct 28 19:29	0°Π	
	3932 Apr 04 02:39	0°Π		max. Earth dist.	3934 Nov 16 05:15	22°Π56'51	1.71942 AU
evening max el	3932 Apr 20 21:51	17°Π30'32	46°13'39				
	3932 May 04 07:00	0°☾		superior conj	3934 Nov 18 22:13	26°Π19'44	0°52'56
greatest brilliancy	3932 May 29 11:14	16°☾41'25	-4.8m	minimum elong	3934 Nov 19 08:12	26°Π50'55	0°52'32
retrograde	3932 Jun 09 11:07	18°☾53'59			3934 Nov 21 20:43	0°♁	
evening set	3932 Jun 24 12:11	14°☾30'14		desc. node	3934 Dec 12 15:53	26°♁01'12	
desc. node	3932 Jun 26 20:32	13°☾09'21			3934 Dec 15 20:08	0°☾	
inferior conj	3932 Jun 30 21:28	10°☾39'36	-0°57'55	evening rise	3934 Dec 28 18:29	16°☾12'21	
minimum elong	3932 Jun 30 19:19	10°☾42'58	0°57'18		3935 Jan 08 18:35	0°≈	
min. Earth dist.	3932 Jun 30 14:58	10°☾49'49	0.28722 AU		3935 Feb 01 17:02	0°⋈	
morning rise	3932 Jul 07 02:49	6°☾54'52			3935 Feb 25 17:27	0°Υ	
direct	3932 Jul 22 08:36	2°☾27'44			3935 Mar 21 23:04	0°⋈	
greatest brilliancy	3932 Aug 01 09:54	4°☾16'30	-4.7m	asc. node	3935 Apr 04 18:15	16°⋈52'59	
	3932 Sep 06 19:30	0°Ω			3935 Apr 15 14:16	0°Π	
morning max el	3932 Sep 09 00:23	2°Ω05'13	45°44'24		3935 May 10 21:27	0°☾	
	3932 Oct 06 00:45	0°Π			3935 Jun 06 09:21	0°Ω	
asc. node	3932 Oct 17 23:11	13°Π18'36		evening max el	3935 Jul 01 09:52	25°Ω55'21	45°30'39
	3932 Nov 01 11:00	0°Δ			3935 Jul 05 17:21	0°Π	
	3932 Nov 26 15:11	0°Π		desc. node	3935 Jul 25 08:34	16°Π08'28	
	3932 Dec 21 03:23	0°♁		greatest brilliancy	3935 Aug 08 17:56	23°Π50'56	-4.7m
	3933 Jan 14 07:14	0°☾		retrograde	3935 Aug 19 03:21	25°Π47'25	
desc. node	3933 Feb 06 13:26	29°☾04'51		evening set	3935 Sep 05 15:05	20°Π01'47	
	3933 Feb 07 07:03	0°≈		inferior conj	3935 Sep 09 14:11	17°Π35'59	-8°13'26
	3933 Mar 03 05:18	0°⋈		minimum elong	3935 Sep 09 08:25	17°Π45'00	8°12'56
morning set	3933 Mar 12 12:48	11°⋈40'47		min. Earth dist.	3935 Sep 09 18:16	17°Π29'37	0.29015 AU
	3933 Mar 27 03:45	0°Υ		morning rise	3935 Sep 13 01:38	15°Π27'17	
	3933 Apr 20 03:59	0°⋈		direct	3935 Oct 01 04:14	9°Π18'03	
				greatest brilliancy	3935 Oct 11 21:54	11°Π24'02	-4.8m
superior conj	3933 Apr 21 16:52	1°⋈54'53	-1°16'30		3935 Nov 08 12:38	0°Δ	
minimum elong	3933 Apr 22 02:01	2°⋈23'24	1°16'17	asc. node	3935 Nov 15 11:02	6°Δ24'30	
max. Earth dist.	3933 Apr 25 17:56	6°⋈57'04	1.72144 AU	morning max el	3935 Nov 19 23:27	10°Δ48'41	46°19'19
	3933 May 14 07:18	0°Π			3935 Dec 08 06:06	0°Π	
evening rise	3933 May 30 16:27	20°Π15'03			3936 Jan 03 12:36	0°♁	
asc. node	3933 May 30 16:04	20°Π13'52			3936 Jan 28 13:45	0°☾	
	3933 Jun 07 14:18	0°☾			3936 Feb 22 02:03	0°≈	
	3933 Jul 02 01:08	0°Ω		desc. node	3936 Mar 06 01:17	16°≈00'20	
	3933 Jul 26 16:14	0°Π			3936 Mar 17 08:37	0°⋈	
	3933 Aug 20 13:10	0°Δ			3936 Apr 10 13:11	0°Υ	
	3933 Sep 14 18:51	0°Π			3936 May 04 18:03	0°⋈	
desc. node	3933 Sep 19 06:05	5°Π14'59		morning set	3936 May 25 00:21	25°⋈03'21	
	3933 Oct 10 14:14	0°♁			3936 May 29 00:27	0°Π	
	3933 Nov 06 10:38	0°☾			3936 Jun 22 08:33	0°☾	
evening max el	3933 Nov 25 09:24	19°☾46'00	46°52'42	asc. node	3936 Jun 27 03:55	5°☾55'03	
	3933 Dec 06 02:17	0°≈					
greatest brilliancy	3934 Jan 04 20:39	20°≈33'02	-4.9m	superior conj	3936 Jul 01 12:41	11°☾17'25	0°10'27
asc. node	3934 Jan 10 08:44	22°≈02'45		minimum elong	3936 Jul 01 10:28	11°☾10'35	0°10'20
retrograde	3934 Jan 14 19:38	22°≈26'24		behind sun begin	3936 Jun 30 16:49	10°☾16'17	
evening set	3934 Jan 29 22:51	17°≈55'07		behind sun end	3936 Jul 02 04:06	12°☾04'53	
inferior conj	3934 Feb 04 10:02	14°≈40'58	5°59'03	max. Earth dist.	3936 Jul 02 10:21	12°☾24'04	1.73395 AU
minimum elong	3934 Feb 03 23:22	14°≈57'20	5°56'27		3936 Jul 16 17:43	0°Ω	

evening rise	3936 Aug 06 21:06	25°Ω59'24			3939 Jan 05 06:41	0°♊	
	3936 Aug 10 03:24	0°♎		morning max el	3939 Jan 30 11:11	22°♊35'17	46°56'30
	3936 Sep 03 13:50	0°♌			3939 Feb 06 14:28	0°♊	
	3936 Sep 28 01:55	0°♍			3939 Mar 05 13:41	0°♋	
desc. node	3936 Oct 16 18:05	22°♍46'16			3939 Mar 31 02:35	0°♋	
	3936 Oct 22 16:46	0°♊		desc. node	3939 Apr 03 13:09	4°♋06'25	
	3936 Nov 16 11:29	0°♊			3939 Apr 25 01:47	0°♌	
	3936 Dec 11 12:33	0°♋			3939 May 19 19:16	0°♌	
	3937 Jan 06 03:47	0°♋			3939 Jun 13 10:34	0°♍	
	3937 Feb 02 09:22	0°♌			3939 Jul 08 00:45	0°♍	
evening max el	3937 Feb 05 23:57	3°♌42'49	47°08'58	asc. node	3939 Jul 25 15:41	21°♍32'43	
asc. node	3937 Feb 06 20:32	4°♌35'01			3939 Aug 01 13:18	0°♎	
	3937 Mar 08 12:36	0°♌		morning set	3939 Aug 02 16:36	1°♎23'41	
greatest brilliancy	3937 Mar 18 09:49	5°♌02'38	-4.9m		3939 Aug 25 23:20	0°♎	
retrograde	3937 Mar 28 18:23	7°♌04'08		max. Earth dist.	3939 Sep 05 16:48	13°♎13'31	1.73231 AU
evening set	3937 Apr 15 06:39	1°♌05'39					
	3937 Apr 17 01:26	30°♌♌		superior conj	3939 Sep 08 03:33	16°♎14'49	1°20'49
inferior conj	3937 Apr 18 17:08	28°♌58'02	8°03'22	minimum elong	3939 Sep 07 22:07	15°♎58'03	1°20'45
minimum elong	3937 Apr 19 01:20	28°♌45'13	8°02'17		3939 Sep 19 06:46	0°♌	
min. Earth dist.	3937 Apr 18 11:02	29°♌07'35	0.27823 AU		3939 Oct 13 12:22	0°♍	
morning rise	3937 Apr 22 20:19	26°♌26'23		evening rise	3939 Oct 14 16:45	1°♍27'56	
direct	3937 May 09 15:10	21°♌00'33			3939 Nov 06 17:13	0°♊	
greatest brilliancy	3937 May 19 01:47	22°♌40'18	-4.8m	desc. node	3939 Nov 14 06:02	9°♊20'20	
desc. node	3937 May 29 10:44	27°♌38'11			3939 Nov 30 22:01	0°♊	
	3937 Jun 02 03:38	0°♌			3939 Dec 25 03:21	0°♋	
morning max el	3937 Jun 27 20:43	21°♌39'27	45°56'07		3940 Jan 18 10:50	0°♋	
	3937 Jul 06 07:06	0°♍			3940 Feb 12 00:41	0°♌	
	3937 Aug 03 09:08	0°♍		asc. node	3940 Mar 06 08:18	27°♌47'40	
	3937 Aug 29 18:02	0°♎			3940 Mar 08 05:36	0°♌	
asc. node	3937 Sep 19 13:19	24°♎27'43			3940 Apr 03 20:17	0°♍	
	3937 Sep 24 04:46	0°♎		evening max el	3940 Apr 18 12:03	15°♍12'29	46°15'42
	3937 Oct 19 00:23	0°♌			3940 May 04 13:21	0°♍	
	3937 Nov 12 09:26	0°♍		greatest brilliancy	3940 May 27 04:01	14°♍30'28	-4.8m
	3937 Dec 06 11:49	0°♊		retrograde	3940 Jun 07 03:07	16°♍42'57	
morning set	3937 Dec 23 03:31	20°♊51'14		evening set	3940 Jun 22 04:37	12°♍18'26	
	3937 Dec 30 10:29	0°♊		desc. node	3940 Jun 25 22:36	10°♍06'47	
desc. node	3938 Jan 09 03:38	12°♊12'08		inferior conj	3940 Jun 28 13:31	8°♍28'44	-0°37'43
	3938 Jan 23 07:18	0°♋		minimum elong	3940 Jun 28 12:07	8°♍30'55	0°37'18
				min. Earth dist.	3940 Jun 28 07:37	8°♍37'59	0.28697 AU
superior conj	3938 Feb 02 05:06	12°♋27'55	-0°53'50	morning rise	3940 Jul 04 19:55	4°♍42'33	
minimum elong	3938 Feb 01 17:29	11°♋51'22	0°53'23	direct	3940 Jul 19 23:40	0°♍17'02	
max. Earth dist.	3938 Feb 02 16:15	13°♋02'59	1.71112 AU	greatest brilliancy	3940 Jul 30 02:07	2°♍06'33	-4.7m
	3938 Feb 16 03:35	0°♋		morning max el	3940 Sep 06 15:37	29°♍53'15	45°43'59
	3938 Mar 12 00:48	0°♌			3940 Sep 06 18:27	0°♎	
evening rise	3938 Mar 15 06:09	4°♌02'23			3940 Oct 05 16:34	0°♎	
	3938 Apr 05 00:51	0°♌		asc. node	3940 Oct 17 01:20	12°♎43'31	
	3938 Apr 29 05:47	0°♍			3940 Nov 01 00:25	0°♌	
asc. node	3938 May 02 06:14	3°♍43'04			3940 Nov 26 03:30	0°♍	
	3938 May 23 17:36	0°♍			3940 Dec 20 15:08	0°♊	
	3938 Jun 17 14:37	0°♎			3941 Jan 13 18:40	0°♊	
	3938 Jul 13 01:04	0°♎		desc. node	3941 Feb 05 15:24	28°♊35'47	
	3938 Aug 08 10:24	0°♌			3941 Feb 06 18:16	0°♋	
desc. node	3938 Aug 21 20:14	14°♌33'46			3941 Mar 02 16:22	0°♋	
	3938 Sep 05 20:24	0°♍		morning set	3941 Mar 09 23:29	9°♋09'15	
evening max el	3938 Sep 11 01:45	5°♍05'16	45°50'00		3941 Mar 26 14:40	0°♌	
	3938 Oct 12 16:29	0°♊					
greatest brilliancy	3938 Oct 20 20:12	3°♊33'16	-4.8m	superior conj	3941 Apr 19 06:10	29°♌33'01	-1°18'10
retrograde	3938 Oct 29 23:22	5°♊04'31		minimum elong	3941 Apr 19 14:51	0°♌00'04	1°17'59
evening set	3938 Nov 14 22:35	0°♊13'41			3941 Apr 19 14:50	0°♌	
	3938 Nov 15 08:16	30°♌♍		max. Earth dist.	3941 Apr 23 04:39	4°♌27'20	1.72094 AU
inferior conj	3938 Nov 19 20:45	27°♍17'33	-5°26'01		3941 May 13 18:07	0°♍	
minimum elong	3938 Nov 20 06:47	27°♍02'06	5°23'32	evening rise	3941 May 28 07:57	18°♍01'23	
min. Earth dist.	3938 Nov 20 18:57	26°♍43'24	0.27418 AU	asc. node	3941 May 29 18:08	19°♍46'49	
morning rise	3938 Nov 25 14:18	23°♍52'58			3941 Jun 07 01:11	0°♍	
direct	3938 Dec 10 19:28	19°♍20'54			3941 Jul 01 12:09	0°♎	
asc. node	3938 Dec 12 22:49	19°♍26'21			3941 Jul 26 03:34	0°♎	
greatest brilliancy	3938 Dec 21 21:38	21°♍38'50	-4.9m		3941 Aug 20 01:03	0°♌	

	3941 Sep 14 07:43	0°♌			3944 May 04 04:56	0°♏	
desc. node	3941 Sep 18 08:08	4°♌42'42		morning set	3944 May 22 16:18	22°♏51'24	
	3941 Oct 10 04:52	0°♏			3944 May 28 11:07	0°♐	
	3941 Nov 06 04:54	0°♐			3944 Jun 21 19:03	0°♑	
evening max el	3941 Nov 22 23:05	17°♐22'47	46°50'57	asc. node	3944 Jun 26 05:52	5°♑28'42	
	3941 Dec 06 08:24	0°♑					
greatest brilliancy	3942 Jan 02 09:12	18°♑04'19	-4.9m	superior conj	3944 Jun 29 06:02	9°♑10'49	0°07'13
asc. node	3942 Jan 09 10:43	19°♑47'48		minimum elong	3944 Jun 29 04:30	9°♑06'03	0°07'08
retrograde	3942 Jan 12 08:37	19°♑58'02		behind sun begin	3944 Jun 28 07:43	8°♑02'08	
evening set	3942 Jan 27 08:09	15°♑30'58		behind sun end	3944 Jun 30 01:16	10°♑09'59	
inferior conj	3942 Feb 01 22:23	12°♑13'01	5°40'21	max. Earth dist.	3944 Jun 30 09:26	10°♑35'08	1.73372 AU
minimum elong	3942 Feb 01 11:53	12°♑29'04	5°37'41		3944 Jul 16 04:12	0°♒	
min. Earth dist.	3942 Feb 01 09:35	12°♑32'34	0.26645 AU	evening rise	3944 Aug 04 15:50	23°♒57'04	
morning rise	3942 Feb 06 15:45	9°♑24'15			3944 Aug 09 13:59	0°♓	
direct	3942 Feb 22 08:08	4°♑32'53			3944 Sep 03 00:38	0°♓	
greatest brilliancy	3942 Mar 03 20:57	6°♑16'30	-4.9m		3944 Sep 27 13:05	0°♌	
	3942 Apr 06 09:13	0°♏		desc. node	3944 Oct 15 20:10	22°♌17'35	
morning max el	3942 Apr 13 13:21	6°♏56'57	46°42'09		3944 Oct 22 04:27	0°♏	
desc. node	3942 May 01 01:05	25°♏10'59			3944 Nov 15 23:55	0°♐	
	3942 May 05 11:17	0°♑			3944 Dec 11 02:10	0°♑	
	3942 Jun 01 01:45	0°♏			3945 Jan 05 19:36	0°♏	
	3942 Jun 26 18:57	0°♐			3945 Feb 02 06:37	0°♑	
	3942 Jul 22 01:34	0°♑		evening max el	3945 Feb 03 14:45	1°♑22'08	47°09'43
	3942 Aug 16 00:32	0°♒		asc. node	3945 Feb 05 22:30	3°♑42'49	
asc. node	3942 Aug 22 03:30	7°♒25'03			3945 Mar 10 02:53	0°♏	
	3942 Sep 09 16:24	0°♓		greatest brilliancy	3945 Mar 16 01:20	2°♏43'27	-4.9m
	3942 Oct 04 01:48	0°♓		retrograde	3945 Mar 26 08:52	4°♏43'50	
morning set	3942 Oct 10 00:42	7°♓21'52			3945 Apr 10 18:47	30°♏	
	3942 Oct 28 06:13	0°♌		evening set	3945 Apr 12 23:50	28°♑41'58	
max. Earth dist.	3942 Nov 13 19:28	20°♌37'47	1.71987 AU	inferior conj	3945 Apr 16 07:26	26°♑38'33	8°12'58
				minimum elong	3945 Apr 16 15:04	26°♑26'36	8°12'03
superior conj	3942 Nov 16 12:13	23°♌59'52	0°55'42	min. Earth dist.	3945 Apr 16 00:51	26°♑48'51	0.27781 AU
minimum elong	3942 Nov 16 22:18	24°♌31'22	0°55'20	morning rise	3945 Apr 20 06:34	24°♑12'38	
	3942 Nov 21 07:31	0°♏		direct	3945 May 07 05:08	18°♑41'58	
desc. node	3942 Dec 11 17:52	25°♏33'22		greatest brilliancy	3945 May 16 14:42	20°♑20'44	-4.8m
	3942 Dec 15 07:03	0°♐		desc. node	3945 May 28 12:40	26°♑15'43	
evening rise	3942 Dec 26 06:04	13°♐43'52			3945 Jun 03 00:06	0°♏	
	3943 Jan 08 05:36	0°♑		morning max el	3945 Jun 25 10:37	19°♏22'46	45°57'25
	3943 Feb 01 04:12	0°♏			3945 Jul 06 02:27	0°♐	
	3943 Feb 25 04:49	0°♑			3945 Aug 02 23:42	0°♑	
	3943 Mar 21 10:43	0°♏			3945 Aug 29 06:39	0°♒	
asc. node	3943 Apr 03 20:22	16°♏23'19		asc. node	3945 Sep 18 15:28	23°♒58'56	
	3943 Apr 15 02:28	0°♐			3945 Sep 23 16:26	0°♓	
	3943 May 10 10:46	0°♑			3945 Oct 18 11:34	0°♓	
	3943 Jun 06 01:16	0°♒			3945 Nov 11 20:24	0°♌	
evening max el	3943 Jun 29 02:31	23°♒47'11	45°31'05		3945 Dec 05 22:41	0°♏	
	3943 Jul 05 17:47	0°♓		morning set	3945 Dec 20 15:37	18°♏24'42	
desc. node	3943 Jul 24 10:28	14°♓56'20			3945 Dec 29 21:18	0°♐	
greatest brilliancy	3943 Aug 06 08:09	21°♓40'13	-4.7m	desc. node	3946 Jan 08 05:36	11°♐44'17	
retrograde	3943 Aug 16 19:19	23°♓37'54			3946 Jan 22 18:07	0°♑	
evening set	3943 Sep 03 04:09	17°♓56'30					
inferior conj	3943 Sep 07 06:13	15°♓25'59	-8°06'53	superior conj	3946 Jan 30 15:08	9°♑54'31	-0°50'38
minimum elong	3943 Sep 06 23:50	15°♓35'58	8°06'17	minimum elong	3946 Jan 30 03:52	9°♑19'05	0°50'10
min. Earth dist.	3943 Sep 07 08:58	15°♓21'42	0.29036 AU	max. Earth dist.	3946 Jan 30 18:43	10°♑05'46	1.71110 AU
morning rise	3943 Sep 10 19:27	13°♓14'30			3946 Feb 15 14:25	0°♏	
direct	3943 Sep 28 21:07	7°♓08'07			3946 Mar 11 11:40	0°♑	
greatest brilliancy	3943 Oct 09 12:37	9°♓12'14	-4.8m	evening rise	3946 Mar 12 16:33	1°♑30'33	
	3943 Nov 08 15:22	0°♓			3946 Apr 04 11:45	0°♏	
asc. node	3943 Nov 14 13:03	5°♓33'33			3946 Apr 28 16:49	0°♐	
morning max el	3943 Nov 17 14:52	8°♓34'16	46°17'35	asc. node	3946 May 01 08:17	3°♐15'22	
	3943 Dec 07 22:56	0°♌			3946 May 23 04:54	0°♑	
	3944 Jan 03 02:35	0°♏			3946 Jun 17 02:27	0°♒	
	3944 Jan 28 02:27	0°♐			3946 Jul 12 13:58	0°♓	
	3944 Feb 21 14:01	0°♑			3946 Aug 08 01:33	0°♓	
desc. node	3944 Mar 05 03:15	15°♑30'11		desc. node	3946 Aug 20 22:18	13°♓53'46	
	3944 Mar 16 20:07	0°♏			3946 Sep 05 17:39	0°♌	
	3944 Apr 10 00:21	0°♑		evening max el	3946 Sep 08 14:30	2°♌46'19	45°48'11

	3946 Oct 15 01:17	0°♊		morning set	3949 Mar 07 09:37	6°♋35'59	
greatest brilliancy	3946 Oct 18 09:50	1°♊14'39	-4.8m		3949 Mar 26 01:35	0°♌	
retrograde	3946 Oct 27 12:03	2°♊45'29					
	3946 Nov 08 09:13	30°♌		superior conj	3949 Apr 16 18:50	27°♌09'07	-1°19'43
evening set	3946 Nov 12 15:08	27°♌49'42		minimum elong	3949 Apr 17 02:57	27°♌34'24	1°19'34
inferior conj	3946 Nov 17 10:30	24°♌57'40	-5°43'08		3949 Apr 19 01:39	0°♍	
minimum elong	3946 Nov 17 20:43	24°♌41'57	5°40'43	max. Earth dist.	3949 Apr 20 15:33	1°♍58'08	1.72040 AU
min. Earth dist.	3946 Nov 18 09:36	24°♌22'10	0.27491 AU		3949 May 13 04:54	0°♎	
morning rise	3946 Nov 23 01:35	21°♌36'17		evening rise	3949 May 25 23:04	15°♎46'40	
direct	3946 Dec 08 09:23	16°♌59'35		asc. node	3949 May 28 20:03	19°♎19'28	
asc. node	3946 Dec 12 00:47	17°♌15'15			3949 Jun 06 12:00	0°♏	
greatest brilliancy	3946 Dec 19 13:36	19°♌19'10	-4.9m		3949 Jun 30 23:06	0°♐	
	3947 Jan 05 23:46	0°♑			3949 Jul 25 14:50	0°♑	
morning max el	3947 Jan 28 00:48	20°♑11'12	46°55'59		3949 Aug 19 12:53	0°♒	
	3947 Feb 06 10:11	0°♓			3949 Sep 13 20:33	0°♓	
	3947 Mar 05 04:57	0°♐		desc. node	3949 Sep 17 10:15	4°♓10'51	
	3947 Mar 30 15:56	0°♋			3949 Oct 09 19:30	0°♊	
desc. node	3947 Apr 02 15:20	3°♋33'30			3949 Nov 05 23:24	0°♓	
	3947 Apr 24 14:04	0°♌		evening max el	3949 Nov 20 13:29	15°♓02'10	46°49'03
	3947 May 19 06:51	0°♍			3949 Dec 06 16:38	0°♐	
	3947 Jun 12 21:42	0°♎		greatest brilliancy	3949 Dec 30 21:20	15°♐35'42	-4.9m
	3947 Jul 07 11:33	0°♏		asc. node	3950 Jan 08 12:42	17°♐27'28	
asc. node	3947 Jul 24 17:42	21°♏06'18		retrograde	3950 Jan 09 21:39	17°♐29'46	
morning set	3947 Jul 31 10:26	29°♏18'45		evening set	3950 Jan 24 17:45	13°♐06'46	
	3947 Jul 31 23:53	0°♐		inferior conj	3950 Jan 30 10:42	9°♐45'02	5°20'53
	3947 Aug 25 09:50	0°♑		minimum elong	3950 Jan 30 00:29	10°♐00'38	5°18'12
max. Earth dist.	3947 Sep 03 13:14	11°♑16'12	1.73261 AU	min. Earth dist.	3950 Jan 29 22:22	10°♐03'53	0.26627 AU
				morning rise	3950 Feb 04 07:27	6°♐51'52	
superior conj	3947 Sep 05 21:50	14°♑10'48	1°19'46	direct	3950 Feb 19 21:11	2°♐05'09	
minimum elong	3947 Sep 05 15:54	13°♑52'27	1°19'40	greatest brilliancy	3950 Mar 01 09:56	3°♐49'13	-4.9m
	3947 Sep 18 17:16	0°♒			3950 Apr 06 11:11	0°♋	
evening rise	3947 Oct 12 09:23	29°♒17'50		morning max el	3950 Apr 11 03:32	4°♋35'14	46°43'26
	3947 Oct 12 23:00	0°♓		desc. node	3950 Apr 30 03:02	24°♋27'21	
	3947 Nov 06 04:06	0°♊			3950 May 05 04:28	0°♌	
desc. node	3947 Nov 13 08:02	8°♊52'35			3950 May 31 15:56	0°♍	
	3947 Nov 30 09:14	0°♓			3950 Jun 26 07:37	0°♎	
	3947 Dec 24 14:58	0°♐			3950 Jul 21 13:21	0°♏	
	3948 Jan 17 22:57	0°♋			3950 Aug 15 11:47	0°♐	
	3948 Feb 11 13:35	0°♌		asc. node	3950 Aug 21 05:36	6°♐57'31	
asc. node	3948 Mar 05 10:26	27°♌12'25			3950 Sep 09 03:20	0°♑	
	3948 Mar 07 19:58	0°♍			3950 Oct 03 12:35	0°♒	
	3948 Apr 03 14:09	0°♎		morning set	3950 Oct 07 17:28	5°♒11'53	
evening max el	3948 Apr 16 02:35	12°♎55'49	46°18'00		3950 Oct 27 17:00	0°♓	
	3948 May 04 21:51	0°♏		max. Earth dist.	3950 Nov 11 08:20	18°♓14'30	1.72029 AU
greatest brilliancy	3948 May 24 20:20	12°♏19'38	-4.8m				
retrograde	3948 Jun 04 19:38	14°♏32'44		superior conj	3950 Nov 14 02:55	21°♓42'13	0°58'20
evening set	3948 Jun 19 21:15	10°♏07'06		minimum elong	3950 Nov 14 13:03	22°♓13'51	0°57'58
desc. node	3948 Jun 25 00:35	7°♏03'54			3950 Nov 20 18:21	0°♊	
inferior conj	3948 Jun 26 05:36	6°♏18'29	-0°17'25	desc. node	3950 Dec 10 19:51	25°♊05'28	
minimum elong	3948 Jun 26 04:57	6°♏19'30	0°17'13		3950 Dec 14 17:58	0°♓	
min. Earth dist.	3948 Jun 26 00:01	6°♏27'14	0.28669 AU	evening rise	3950 Dec 23 18:14	11°♓17'15	
morning rise	3948 Jul 02 12:56	2°♏31'18			3951 Jan 07 16:39	0°♐	
	3948 Jul 07 21:12	30°♒			3951 Jan 31 15:26	0°♋	
direct	3948 Jul 17 15:04	28°♒06'56			3951 Feb 24 16:18	0°♌	
	3948 Jul 27 21:20	0°♏			3951 Mar 20 22:35	0°♍	
greatest brilliancy	3948 Jul 27 18:05	29°♒57'10	-4.7m	asc. node	3951 Apr 02 22:21	15°♍52'25	
morning max el	3948 Sep 04 07:51	27°♏44'34	45°43'44		3951 Apr 14 14:58	0°♎	
	3948 Sep 06 16:08	0°♐			3951 May 10 00:31	0°♏	
	3948 Oct 05 07:48	0°♑			3951 Jun 05 17:49	0°♐	
asc. node	3948 Oct 16 03:20	12°♑09'10		evening max el	3951 Jun 26 18:38	21°♐36'48	45°31'44
	3948 Oct 31 13:25	0°♒			3951 Jul 05 19:54	0°♑	
	3948 Nov 25 15:30	0°♓		desc. node	3951 Jul 23 12:34	13°♑41'40	
	3948 Dec 20 02:40	0°♊		greatest brilliancy	3951 Aug 03 23:10	19°♑29'47	-4.7m
	3949 Jan 13 05:58	0°♓		retrograde	3951 Aug 14 11:00	21°♑27'55	
desc. node	3949 Feb 04 17:29	28°♓07'22		evening set	3951 Aug 31 17:15	15°♑51'00	
	3949 Feb 06 05:25	0°♐		inferior conj	3951 Sep 04 22:19	13°♑15'43	-7°59'51
	3949 Mar 02 03:23	0°♋		minimum elong	3951 Sep 04 15:22	13°♑26'36	7°59'05

min. Earth dist.	3951 Sep 05 00:02	13° \cap 13'02	0.29050 AU	max. Earth dist.	3954 Jan 27 20:58	7° \approx 06'55	1.71112 AU
morning rise	3951 Sep 08 13:27	11° \cap 01'09			3954 Feb 15 01:33	0° H	
direct	3951 Sep 26 13:41	4° \cap 57'56		evening rise	3954 Mar 10 03:15	28° H 58'47	
greatest brilliancy	3951 Oct 07 03:35	7° \cap 00'17	-4.8m		3954 Mar 10 22:47	0° Y	
	3951 Nov 08 16:51	0° $\underline{\text{L}}$			3954 Apr 03 22:56	0° B	
asc. node	3951 Nov 13 14:59	4° $\underline{\text{L}}$ 42'46			3954 Apr 28 04:08	0° II	
morning max el	3951 Nov 15 05:29	6° $\underline{\text{L}}$ 17'29	46°16'00	asc. node	3954 Apr 30 10:13	2° II 46'26	
	3951 Dec 07 15:36	0° M			3954 May 22 16:33	0° D	
	3952 Jan 02 16:33	0° A			3954 Jun 16 14:45	0° Ω	
	3952 Jan 27 15:11	0° Z			3954 Jul 12 03:26	0° \cap	
	3952 Feb 21 02:04	0° \approx			3954 Aug 07 17:28	0° $\underline{\text{L}}$	
desc. node	3952 Mar 04 05:24	15° \approx 00'15		desc. node	3954 Aug 20 00:25	13° $\underline{\text{L}}$ 11'54	
	3952 Mar 16 07:45	0° H			3954 Sep 05 16:21	0° M	
	3952 Apr 09 11:42	0° Y		evening max el	3954 Sep 06 03:27	0° M 26'34	45°46'37
	3952 May 03 16:04	0° B		greatest brilliancy	3954 Oct 15 22:53	28° M 54'19	-4.8m
morning set	3952 May 20 07:50	20° B 37'04			3954 Oct 20 07:40	0° A	
	3952 May 27 22:05	0° II		retrograde	3954 Oct 25 01:16	0° A 25'33	
	3952 Jun 21 05:55	0° D			3954 Oct 29 16:32	30° R M	
asc. node	3952 Jun 25 07:55	5° D 01'38		evening set	3954 Nov 10 07:43	25° M 24'31	
				inferior conj	3954 Nov 15 00:15	22° M 36'39	-5°59'39
superior conj	3952 Jun 26 22:55	7° D 01'41	0°03'55	minimum elong	3954 Nov 15 10:35	22° M 20'47	5°57'18
minimum elong	3952 Jun 26 22:05	6° D 59'06	0°03'53	min. Earth dist.	3954 Nov 15 23:50	22° M 00'27	0.27562 AU
behind sun begin	3952 Jun 25 23:37	5° D 49'56		morning rise	3954 Nov 20 12:44	19° M 19'01	
behind sun end	3952 Jun 27 20:34	8° D 08'17		direct	3954 Dec 05 23:36	14° M 37'14	
max. Earth dist.	3952 Jun 28 06:19	8° D 38'17	1.73345 AU	asc. node	3954 Dec 11 02:52	15° M 08'09	
	3952 Jul 15 15:01	0° Ω		greatest brilliancy	3954 Dec 17 05:08	16° M 58'13	-4.9m
evening rise	3952 Aug 02 10:10	21° Ω 52'29			3955 Jan 06 12:59	0° A	
	3952 Aug 09 00:53	0° \cap		morning max el	3955 Jan 25 15:21	17° A 48'37	46°55'26
	3952 Sep 02 11:45	0° $\underline{\text{L}}$			3955 Feb 06 05:42	0° Z	
	3952 Sep 27 00:34	0° M			3955 Mar 04 20:21	0° \approx	
desc. node	3952 Oct 14 22:08	21° M 47'35			3955 Mar 30 05:30	0° H	
	3952 Oct 21 16:28	0° A		desc. node	3955 Apr 01 17:13	2° H 58'57	
	3952 Nov 15 12:42	0° Z			3955 Apr 24 02:34	0° Y	
	3952 Dec 10 16:10	0° \approx			3955 May 18 18:41	0° B	
	3953 Jan 05 11:52	0° H			3955 Jun 12 09:04	0° II	
evening max el	3953 Feb 01 04:40	28° H 58'39	47°10'27		3955 Jul 06 22:39	0° D	
	3953 Feb 02 04:51	0° Y		asc. node	3955 Jul 23 19:48	20° D 39'09	
asc. node	3953 Feb 05 00:39	2° Y 49'42		morning set	3955 Jul 29 04:12	27° D 12'28	
	3953 Mar 12 16:10	0° B			3955 Jul 31 10:50	0° Ω	
greatest brilliancy	3953 Mar 13 17:07	0° B 24'12	-4.9m		3955 Aug 24 20:43	0° \cap	
retrograde	3953 Mar 23 23:05	2° B 23'25		max. Earth dist.	3955 Sep 01 10:21	9° \cap 19'40	1.73293 AU
	3953 Apr 03 18:36	30° R Y					
evening set	3953 Apr 10 16:59	26° Y 18'16		superior conj	3955 Sep 03 15:53	12° \cap 04'47	1°18'36
inferior conj	3953 Apr 13 21:55	24° Y 18'51	8°21'39	minimum elong	3955 Sep 03 09:27	11° \cap 44'56	1°18'28
minimum elong	3953 Apr 14 04:56	24° Y 07'52	8°20'53		3955 Sep 18 04:11	0° $\underline{\text{L}}$	
min. Earth dist.	3953 Apr 13 15:02	24° Y 29'39	0.27746 AU	evening rise	3955 Oct 10 01:48	27° $\underline{\text{L}}$ 05'53	
morning rise	3953 Apr 17 17:06	21° Y 58'36			3955 Oct 12 10:03	0° M	
direct	3953 May 04 18:49	16° Y 22'56			3955 Nov 05 15:22	0° A	
greatest brilliancy	3953 May 14 04:21	18° Y 01'19	-4.8m	desc. node	3955 Nov 12 10:00	8° A 23'33	
desc. node	3953 May 27 14:43	24° Y 55'18			3955 Nov 29 20:48	0° Z	
	3953 Jun 03 15:40	0° B			3955 Dec 24 02:55	0° \approx	
morning max el	3953 Jun 23 00:08	17° B 03'52	45°58'34		3956 Jan 17 11:25	0° H	
	3953 Jul 05 21:43	0° II			3956 Feb 11 02:52	0° Y	
	3953 Aug 02 14:34	0° D		asc. node	3956 Mar 04 12:25	26° Y 35'30	
	3953 Aug 28 19:38	0° Ω			3956 Mar 07 10:49	0° B	
asc. node	3953 Sep 17 17:29	23° Ω 28'35			3956 Apr 03 08:46	0° II	
	3953 Sep 23 04:29	0° \cap		evening max el	3956 Apr 13 18:04	10° II 40'42	46°20'23
	3953 Oct 17 23:06	0° $\underline{\text{L}}$			3956 May 05 09:47	0° D	
	3953 Nov 11 07:40	0° M		greatest brilliancy	3956 May 22 12:21	10° D 07'53	-4.8m
	3953 Dec 05 09:51	0° A		retrograde	3956 Jun 02 12:32	12° D 21'50	
morning set	3953 Dec 18 03:54	15° A 57'47		evening set	3956 Jun 17 14:09	7° D 55'00	
	3953 Dec 29 08:26	0° Z		inferior conj	3956 Jun 23 21:42	4° D 07'30	0°02'57
desc. node	3954 Jan 07 07:42	11° Z 15'55		minimum elong	3956 Jun 23 21:49	4° D 07'19	0°02'55
	3954 Jan 22 05:15	0° \approx		transit middle	3956 Jun 23 21:49	4° D 07'19	0°02'55
				transit begin	3956 Jun 23 17:49	4° D 13'34	
superior conj	3954 Jan 28 01:25	7° \approx 20'55	-0°47'20	transit end	3956 Jun 24 01:48	4° D 01'05	
minimum elong	3954 Jan 27 14:34	6° \approx 46'47	0°46'52	min. Earth dist.	3956 Jun 23 16:05	4° D 16'18	0.28643 AU

desc. node	3956 Jun 24 02:38	3°☿59'47		desc. node	3958 Dec 09 22:00	24°♊37'33	
morning rise	3956 Jun 30 05:51	0°☿19'37			3958 Dec 14 05:04	0°♊	
	3956 Jun 30 20:23	30°♋II		evening rise	3958 Dec 21 06:04	8°♊49'02	
direct	3956 Jul 15 07:06	25°II56'15			3959 Jan 07 03:53	0°♋	
greatest brilliancy	3956 Jul 25 09:30	27°II46'32	-4.7m		3959 Jan 31 02:49	0°♋	
	3956 Jul 30 16:30	0°☿			3959 Feb 24 03:54	0°♋	
morning max el	3956 Sep 02 00:28	25°☿36'03	45°43'17		3959 Mar 20 10:33	0°♋	
	3956 Sep 06 13:22	0°♋		asc. node	3959 Apr 02 00:19	15°♋21'12	
	3956 Oct 04 23:12	0°♋			3959 Apr 14 03:34	0°II	
asc. node	3956 Oct 15 05:16	11°♋33'41			3959 May 09 14:24	0°☿	
	3956 Oct 31 02:44	0°♋			3959 Jun 05 10:42	0°♋	
	3956 Nov 25 03:51	0°♋		evening max el	3959 Jun 24 10:03	19°♋24'42	45°32'25
	3956 Dec 19 14:31	0°♊			3959 Jul 05 23:33	0°♋	
	3957 Jan 12 17:31	0°♊		desc. node	3959 Jul 22 14:40	12°♋24'58	
desc. node	3957 Feb 03 19:33	27°♊38'10		greatest brilliancy	3959 Aug 01 14:45	17°♋20'16	-4.7m
	3957 Feb 05 16:48	0°♋		retrograde	3959 Aug 12 02:33	19°♋18'37	
	3957 Mar 01 14:37	0°♋		evening set	3959 Aug 29 06:23	13°♋46'16	
morning set	3957 Mar 04 19:43	4°♋01'51		inferior conj	3959 Sep 02 14:35	11°♋06'13	-7°52'01
	3957 Mar 25 12:42	0°♋		minimum elong	3959 Sep 02 07:07	11°♋17'56	7°51'08
				min. Earth dist.	3959 Sep 02 15:36	11°♋04'37	0.29062 AU
superior conj	3957 Apr 14 07:27	24°♋44'09	-1°21'08	morning rise	3959 Sep 06 07:47	8°♋48'17	
minimum elong	3957 Apr 14 14:54	25°♋07'25	1°21'00	direct	3959 Sep 24 05:48	2°♋48'27	
max. Earth dist.	3957 Apr 18 04:13	29°♋33'31	1.71987 AU	greatest brilliancy	3959 Oct 04 19:10	4°♋49'40	-4.8m
	3957 Apr 18 12:43	0°♋			3959 Nov 08 16:59	0°♋	
	3957 May 12 15:56	0°II		asc. node	3959 Nov 12 17:07	3°♋53'36	
evening rise	3957 May 23 14:12	13°II31'17		morning max el	3959 Nov 12 19:22	3°♋59'08	46°14'20
asc. node	3957 May 27 22:10	18°II52'04			3959 Dec 07 07:57	0°♋	
	3957 Jun 05 23:01	0°☿			3960 Jan 02 06:26	0°♊	
	3957 Jun 30 10:16	0°♋			3960 Jan 27 03:54	0°♊	
	3957 Jul 25 02:19	0°♋			3960 Feb 20 14:08	0°♋	
	3957 Aug 19 01:00	0°♋		desc. node	3960 Mar 03 07:22	14°♋29'37	
	3957 Sep 13 09:45	0°♋			3960 Mar 15 19:23	0°♋	
desc. node	3957 Sep 16 12:10	3°♋37'20			3960 Apr 08 23:00	0°♋	
	3957 Oct 09 10:40	0°♊			3960 May 03 03:07	0°♋	
	3957 Nov 05 18:50	0°♊		morning set	3960 May 17 23:10	18°♋22'25	
evening max el	3957 Nov 18 04:13	12°♊41'21	46°47'05		3960 May 27 08:56	0°II	
	3957 Dec 07 04:20	0°♋			3960 Jun 20 16:39	0°☿	
greatest brilliancy	3957 Dec 28 09:56	13°♋06'45	-4.9m	asc. node	3960 Jun 24 10:00	4°☿35'00	
retrograde	3958 Jan 07 10:29	15°♋00'21					
asc. node	3958 Jan 07 14:49	15°♋00'19		superior conj	3960 Jun 24 15:55	4°☿53'17	0°00'36
evening set	3958 Jan 22 03:35	10°♋41'35		minimum elong	3960 Jun 24 15:46	4°☿52'48	0°00'36
inferior conj	3958 Jan 27 22:59	7°♋16'16	5°00'43	behind sun begin	3960 Jun 23 16:47	3°☿42'03	
minimum elong	3958 Jan 27 13:08	7°♋31'18	4°58'03	behind sun end	3960 Jun 25 14:45	6°☿03'33	
min. Earth dist.	3958 Jan 27 11:19	7°♋34'06	0.26606 AU	max. Earth dist.	3960 Jun 26 01:47	6°☿37'29	1.73317 AU
morning rise	3958 Feb 01 22:57	4°♋18'40			3960 Jul 15 01:44	0°♋	
	3958 Feb 13 02:16	30°♋♊		evening rise	3960 Jul 31 04:43	19°♋48'57	
direct	3958 Feb 17 10:05	29°♊36'53			3960 Aug 08 11:41	0°♋	
	3958 Feb 21 19:44	0°♋			3960 Sep 01 22:44	0°♋	
greatest brilliancy	3958 Feb 26 22:54	1°♋21'11	-4.9m		3960 Sep 26 11:53	0°♋	
	3958 Apr 06 11:59	0°♋		desc. node	3960 Oct 14 00:11	21°♋18'20	
morning max el	3958 Apr 08 16:44	2°♋10'33	46°44'38		3960 Oct 21 04:19	0°♊	
desc. node	3958 Apr 29 05:05	23°♋44'12			3960 Nov 15 01:23	0°♊	
	3958 May 04 21:26	0°♋			3960 Dec 10 06:11	0°♋	
	3958 May 31 06:05	0°♋			3961 Jan 05 04:23	0°♋	
	3958 Jun 25 20:20	0°II		evening max el	3961 Jan 29 17:40	26°♋32'42	47°11'00
	3958 Jul 21 01:12	0°☿			3961 Feb 02 04:03	0°♋	
	3958 Aug 14 23:05	0°♋		asc. node	3961 Feb 04 02:36	1°♋54'48	
asc. node	3958 Aug 20 07:38	6°♋29'35		greatest brilliancy	3961 Mar 11 08:43	28°♋04'01	-4.9m
	3958 Sep 08 14:21	0°♋			3961 Mar 20 03:37	0°♋	
	3958 Oct 02 23:29	0°♋		retrograde	3961 Mar 21 13:09	0°♋02'22	
morning set	3958 Oct 05 10:19	3°♋01'52			3961 Mar 22 22:28	30°♋♋	
	3958 Oct 27 03:55	0°♋		evening set	3961 Apr 08 09:40	23°♋54'03	
max. Earth dist.	3958 Nov 08 19:48	15°♋46'29	1.72079 AU	min. Earth dist.	3961 Apr 11 05:04	22°♋09'38	0.27707 AU
				inferior conj	3961 Apr 11 12:09	21°♋58'31	8°29'28
superior conj	3958 Nov 11 17:37	19°♋24'11	1°00'52	minimum elong	3961 Apr 11 18:30	21°♋48'35	8°28'51
minimum elong	3958 Nov 12 03:43	19°♋55'41	1°00'31	morning rise	3961 Apr 15 03:30	19°♋43'57	
	3958 Nov 20 05:20	0°♊		direct	3961 May 02 07:52	14°♋03'08	

greatest brilliancy	3961 May 11 18:00	15° Υ 41'45	-4.8m		3963 Dec 23 14:29	0° \approx	
desc. node	3961 May 26 16:50	23° Υ 37'35			3964 Jan 16 23:29	0° H	
	3961 Jun 04 03:12	0° B			3964 Feb 10 15:47	0° Υ	
morning max el	3961 Jun 20 13:48	14° B 45'38	45°59'56	asc. node	3964 Mar 03 14:23	25° Υ 59'33	
	3961 Jul 05 16:13	0° II			3964 Mar 07 01:24	0° B	
	3961 Aug 02 04:58	0° C			3964 Apr 03 03:28	0° II	
	3961 Aug 28 08:16	0° Ω		evening max el	3964 Apr 11 10:16	8° II 28'15	46°22'30
asc. node	3961 Sep 16 19:24	22° Ω 58'53			3964 May 06 01:24	0° C	
	3961 Sep 22 16:12	0° M		greatest brilliancy	3964 May 20 04:35	7° C 56'56	-4.8m
	3961 Oct 17 10:20	0° L		retrograde	3964 May 31 05:23	10° C 11'04	
	3961 Nov 10 18:39	0° M		evening set	3964 Jun 15 07:06	5° C 43'13	
	3961 Dec 04 20:42	0° A		inferior conj	3964 Jun 21 13:39	1° C 56'48	0°23'28
morning set	3961 Dec 15 16:41	13° A 33'26		minimum elong	3964 Jun 21 14:32	1° C 55'26	0°23'12
	3961 Dec 28 19:16	0° B		min. Earth dist.	3964 Jun 21 07:55	2° C 05'47	0.28614 AU
desc. node	3962 Jan 06 09:45	10° B 48'17		desc. node	3964 Jun 23 04:41	0° C 55'57	
	3962 Jan 21 16:07	0° \approx			3964 Jun 24 17:12	30° R II	
				morning rise	3964 Jun 27 22:27	28° II 08'25	
superior conj	3962 Jan 25 11:44	4° \approx 48'11	-0°43'56	direct	3964 Jul 12 23:15	23° II 46'09	
minimum elong	3962 Jan 25 01:25	4° \approx 15'42	0°43'29	greatest brilliancy	3964 Jul 23 00:14	25° II 35'42	-4.7m
max. Earth dist.	3962 Jan 25 02:31	4° \approx 19'11	1.71124 AU		3964 Aug 01 08:57	0° C	
	3962 Feb 14 12:27	0° H		morning max el	3964 Aug 30 16:48	23° C 27'55	45°42'55
evening rise	3962 Mar 07 13:43	26° H 26'48			3964 Sep 06 09:29	0° Ω	
	3962 Mar 10 09:44	0° Υ			3964 Oct 04 13:57	0° M	
	3962 Apr 03 09:56	0° B		asc. node	3964 Oct 14 07:26	11° M 00'19	
	3962 Apr 27 15:17	0° II			3964 Oct 30 15:30	0° L	
asc. node	3962 Apr 29 12:19	2° II 18'34			3964 Nov 24 15:44	0° M	
	3962 May 22 04:01	0° C			3964 Dec 19 01:56	0° A	
	3962 Jun 16 02:49	0° Ω			3965 Jan 12 04:41	0° B	
	3962 Jul 11 16:41	0° M		desc. node	3965 Feb 02 21:30	27° B 09'53	
	3962 Aug 07 09:16	0° L			3965 Feb 05 03:46	0° \approx	
desc. node	3962 Aug 19 02:20	12° L 29'59			3965 Mar 01 01:25	0° H	
evening max el	3962 Sep 03 17:25	28° L 10'35	45°45'09	morning set	3965 Mar 02 06:10	1° H 30'12	
	3962 Sep 05 15:34	0° M			3965 Mar 24 23:25	0° Υ	
greatest brilliancy	3962 Oct 13 11:39	26° M 35'32	-4.8m				
retrograde	3962 Oct 22 15:19	28° M 07'37		superior conj	3965 Apr 11 20:14	22° Υ 20'56	-1°22'23
evening set	3962 Nov 08 00:36	23° M 01'24		minimum elong	3965 Apr 12 02:59	22° Υ 42'00	1°22'18
inferior conj	3962 Nov 12 14:14	20° M 17'36	-6°15'21	max. Earth dist.	3965 Apr 15 19:14	27° Υ 17'26	1.71938 AU
minimum elong	3962 Nov 13 00:36	20° M 01'40	6°13'05		3965 Apr 17 23:22	0° B	
min. Earth dist.	3962 Nov 13 13:52	19° M 41'20	0.27631 AU		3965 May 12 02:34	0° II	
morning rise	3962 Nov 17 23:58	17° M 04'00		evening rise	3965 May 21 05:17	11° II 16'44	
direct	3962 Dec 03 14:30	12° M 17'05		asc. node	3965 May 27 00:13	18° II 25'34	
asc. node	3962 Dec 10 04:54	13° M 07'49			3965 Jun 05 09:43	0° C	
greatest brilliancy	3962 Dec 14 20:08	14° M 38'37	-4.9m		3965 Jun 29 21:07	0° Ω	
	3963 Jan 06 22:08	0° A			3965 Jul 24 13:30	0° M	
morning max el	3963 Jan 23 06:49	15° A 29'58	46°54'45		3965 Aug 18 12:49	0° L	
	3963 Feb 06 00:12	0° B			3965 Sep 12 22:40	0° M	
	3963 Mar 04 11:08	0° \approx		desc. node	3965 Sep 15 14:15	3° M 05'17	
	3963 Mar 29 18:36	0° H			3965 Oct 09 01:38	0° A	
desc. node	3963 Mar 31 19:16	2° H 26'03			3965 Nov 05 14:21	0° B	
	3963 Apr 23 14:44	0° Υ		evening max el	3965 Nov 15 18:28	10° B 20'37	46°44'58
	3963 May 18 06:13	0° B			3965 Dec 07 19:14	0° \approx	
	3963 Jun 11 20:10	0° II		greatest brilliancy	3965 Dec 25 23:14	10° \approx 39'52	-4.9m
	3963 Jul 06 09:27	0° C		retrograde	3966 Jan 04 22:51	12° \approx 32'06	
asc. node	3963 Jul 22 21:46	20° C 12'37		asc. node	3966 Jan 06 16:48	12° \approx 28'23	
morning set	3963 Jul 26 21:54	25° C 07'07		evening set	3966 Jan 19 13:42	8° \approx 17'21	
	3963 Jul 30 21:26	0° Ω		inferior conj	3966 Jan 25 11:20	4° \approx 48'51	4°39'55
	3963 Aug 24 07:14	0° M		minimum elong	3966 Jan 25 01:55	5° \approx 03'14	4°37'17
max. Earth dist.	3963 Aug 30 08:34	7° M 27'47	1.73319 AU	min. Earth dist.	3966 Jan 25 00:45	5° \approx 05'01	0.26587 AU
				morning rise	3966 Jan 30 14:22	1° \approx 46'46	
superior conj	3963 Sep 01 09:58	10° M 00'05	1°17'19		3966 Feb 03 01:55	30° R B	
minimum elong	3963 Sep 01 03:04	9° M 38'49	1°17'11	direct	3966 Feb 14 22:31	27° B 09'48	
	3963 Sep 17 14:44	0° L		greatest brilliancy	3966 Feb 24 12:27	28° B 54'44	-4.9m
evening rise	3963 Oct 07 18:28	24° L 55'55			3966 Feb 27 06:46	0° \approx	
	3963 Oct 11 20:44	0° M		morning max el	3966 Apr 06 05:04	29° \approx 44'40	46°45'58
	3963 Nov 05 02:17	0° A			3966 Apr 06 11:12	0° H	
desc. node	3963 Nov 11 12:08	7° A 56'11		desc. node	3966 Apr 28 07:12	23° H 02'58	
	3963 Nov 29 08:01	0° B			3966 May 04 13:38	0° Υ	

	3966 May 30 19:41	0°♄			3969 Jan 04 21:11	0°♁	
	3966 Jun 25 08:37	0°♂		evening max el	3969 Jan 27 06:38	24°♁06'40	47°11'32
	3966 Jul 20 12:42	0°♄			3969 Feb 02 04:20	0°♁	
	3966 Aug 14 10:07	0°♂		asc. node	3969 Feb 03 04:37	0°♁58'57	
asc. node	3966 Aug 19 09:35	6°♂02'17		greatest brilliancy	3969 Mar 08 23:41	25°♁42'35	-4.9m
	3966 Sep 08 01:05	0°♄		retrograde	3969 Mar 19 03:23	27°♁40'49	
	3966 Oct 02 10:06	0°♂		evening set	3969 Apr 06 01:54	21°♁29'24	
morning set	3966 Oct 03 03:05	0°♂52'29		inferior conj	3969 Apr 09 02:14	19°♁37'24	8°36'23
	3966 Oct 26 14:32	0°♂		minimum elong	3969 Apr 09 07:50	19°♁28'38	8°35'55
max. Earth dist.	3966 Nov 06 08:20	13°♂22'48	1.72128 AU	min. Earth dist.	3969 Apr 08 18:44	19°♁49'08	0.27672 AU
				morning rise	3969 Apr 12 13:55	17°♁28'30	
superior conj	3966 Nov 09 08:26	17°♂07'32	1°03'17	direct	3969 Apr 29 20:57	11°♁42'21	
minimum elong	3966 Nov 09 18:26	17°♂38'41	1°02'57	greatest brilliancy	3969 May 09 07:23	13°♁21'19	-4.8m
	3966 Nov 19 16:02	0°♄		desc. node	3969 May 25 18:48	22°♁21'31	
desc. node	3966 Dec 08 23:58	24°♄09'57			3969 Jun 04 11:52	0°♄	
	3966 Dec 13 15:53	0°♄		morning max el	3969 Jun 18 04:13	12°♄28'53	46°01'30
evening rise	3966 Dec 18 18:06	6°♄22'23			3969 Jul 05 10:20	0°♂	
	3967 Jan 06 14:52	0°♄			3969 Aug 01 19:16	0°♄	
	3967 Jan 30 14:00	0°♁			3969 Aug 27 20:53	0°♂	
	3967 Feb 23 15:19	0°♁		asc. node	3969 Sep 15 21:34	22°♂29'47	
	3967 Mar 19 22:18	0°♄			3969 Sep 22 03:58	0°♄	
asc. node	3967 Apr 01 02:28	14°♄51'13			3969 Oct 16 21:39	0°♂	
	3967 Apr 13 15:58	0°♂			3969 Nov 10 05:45	0°♂	
	3967 May 09 04:07	0°♄			3969 Dec 04 07:44	0°♄	
	3967 Jun 05 03:37	0°♂		morning set	3969 Dec 13 05:25	11°♄08'28	
evening max el	3967 Jun 22 00:48	17°♂11'43	45°33'06		3969 Dec 28 06:17	0°♄	
	3967 Jul 06 04:44	0°♄		desc. node	3970 Jan 05 11:42	10°♄19'53	
desc. node	3967 Jul 21 16:34	11°♄06'13			3970 Jan 21 03:08	0°♄	
greatest brilliancy	3967 Jul 30 06:11	15°♄11'05	-4.7m				
retrograde	3967 Aug 09 18:07	17°♄10'06		superior conj	3970 Jan 22 21:50	2°♄14'18	-0°40'25
evening set	3967 Aug 26 19:27	11°♄42'04		minimum elong	3970 Jan 22 12:07	1°♄43'45	0°39'59
inferior conj	3967 Aug 31 06:53	8°♄57'23	-7°43'28	max. Earth dist.	3970 Jan 22 11:09	1°♄40'40	1.71134 AU
minimum elong	3967 Aug 30 22:56	9°♄09'51	7°42'27		3970 Feb 13 23:30	0°♁	
min. Earth dist.	3967 Aug 31 07:24	8°♄56'34	0.29075 AU	evening rise	3970 Mar 05 00:06	23°♁54'12	
morning rise	3967 Sep 04 02:19	6°♄35'59			3970 Mar 09 20:49	0°♁	
direct	3967 Sep 21 21:38	0°♄39'24			3970 Apr 02 21:06	0°♄	
greatest brilliancy	3967 Oct 02 11:25	2°♄40'21	-4.8m		3970 Apr 27 02:39	0°♂	
	3967 Nov 08 15:51	0°♂		asc. node	3970 Apr 28 14:22	1°♂49'52	
morning max el	3967 Nov 10 09:32	1°♂42'07	46°12'48		3970 May 21 15:43	0°♄	
asc. node	3967 Nov 11 19:09	3°♂05'27			3970 Jun 15 15:08	0°♂	
	3967 Dec 06 23:49	0°♂			3970 Jul 11 06:14	0°♄	
	3968 Jan 01 19:59	0°♄			3970 Aug 07 01:32	0°♂	
	3968 Jan 26 16:22	0°♄		desc. node	3970 Aug 18 04:26	11°♂47'34	
	3968 Feb 20 02:00	0°♄		evening max el	3970 Sep 01 08:10	25°♂56'09	45°43'42
desc. node	3968 Mar 02 09:22	13°♄59'41			3970 Sep 05 16:06	0°♂	
	3968 Mar 15 06:51	0°♁		greatest brilliancy	3970 Oct 11 00:03	24°♂15'58	-4.8m
	3968 Apr 08 10:11	0°♁		retrograde	3970 Oct 20 05:17	25°♂48'49	
	3968 May 02 14:03	0°♄		evening set	3970 Nov 05 17:27	20°♂37'38	
morning set	3968 May 15 14:30	16°♄07'52		inferior conj	3970 Nov 10 04:09	17°♂57'43	-6°30'16
	3968 May 26 19:40	0°♂		minimum elong	3970 Nov 10 14:30	17°♂41'50	6°28'07
	3968 Jun 20 03:16	0°♄		min. Earth dist.	3970 Nov 11 03:34	17°♂21'47	0.27703 AU
				morning rise	3970 Nov 15 10:59	14°♂48'13	
superior conj	3968 Jun 22 08:58	2°♄45'20	-0°02'43	direct	3970 Dec 01 05:44	9°♂56'15	
minimum elong	3968 Jun 22 09:34	2°♄47'10	0°02'42	asc. node	3970 Dec 09 06:53	11°♂11'01	
behind sun begin	3968 Jun 21 10:42	1°♄36'45		greatest brilliancy	3970 Dec 12 10:36	12°♂17'23	-4.9m
behind sun end	3968 Jun 23 08:26	3°♄57'35			3971 Jan 07 05:14	0°♄	
asc. node	3968 Jun 23 11:57	4°♄08'25		morning max el	3971 Jan 20 22:21	13°♄10'28	46°53'55
max. Earth dist.	3968 Jun 23 20:16	4°♄34'01	1.73287 AU		3971 Feb 05 18:38	0°♄	
	3968 Jul 14 12:21	0°♂			3971 Mar 04 02:04	0°♄	
evening rise	3968 Jul 28 23:23	17°♂46'09			3971 Mar 29 07:55	0°♁	
	3968 Aug 07 22:25	0°♄		desc. node	3971 Mar 30 21:25	1°♁52'45	
	3968 Sep 01 09:42	0°♂			3971 Apr 23 03:06	0°♁	
	3968 Sep 25 23:13	0°♂			3971 May 17 17:59	0°♄	
desc. node	3968 Oct 13 02:16	20°♂49'06			3971 Jun 11 07:32	0°♂	
	3968 Oct 20 16:13	0°♄			3971 Jul 05 20:32	0°♄	
	3968 Nov 14 14:08	0°♄		asc. node	3971 Jul 21 23:48	19°♄45'20	
	3968 Dec 09 20:20	0°♄		morning set	3971 Jul 24 15:37	23°♄00'51	

	3971 Jul 30 08:20	0°♈		inferior conj	3974 Jan 22 23:43	2°♊20'37	4°18'39
	3971 Aug 23 18:02	0°♍		minimum elong	3974 Jan 22 14:49	2°♊34'15	4°16'05
max. Earth dist.	3971 Aug 28 06:08	5°♍32'57	1.73339 AU	min. Earth dist.	3974 Jan 22 14:36	2°♊34'34	0.26576 AU
					3974 Jan 26 21:18	30°♋	
superior conj	3971 Aug 30 04:08	7°♍54'44	1°15'55	morning rise	3974 Jan 28 05:41	29°♋14'09	
minimum elong	3971 Aug 29 20:51	7°♍32'17	1°15'46	direct	3974 Feb 12 10:33	24°♋41'31	
	3971 Sep 17 01:34	0°♌		greatest brilliancy	3974 Feb 22 02:45	26°♋27'56	-4.9m
evening rise	3971 Oct 05 11:18	22°♌45'35			3974 Mar 01 17:45	0°♌	
	3971 Oct 11 07:43	0°♍		morning max el	3974 Apr 03 17:03	27°♌16'14	46°47'09
	3971 Nov 04 13:32	0°♎			3974 Apr 06 10:03	0°♍	
desc. node	3971 Nov 10 14:07	7°♎27'21		desc. node	3974 Apr 27 09:08	22°♍20'10	
	3971 Nov 28 19:35	0°♏			3974 May 04 06:07	0°♎	
	3971 Dec 23 02:28	0°♐			3974 May 30 09:41	0°♏	
	3972 Jan 16 12:03	0°♑			3974 Jun 24 21:17	0°♐	
	3972 Feb 10 05:16	0°♒			3974 Jul 20 00:34	0°♑	
asc. node	3972 Mar 02 16:31	25°♒22'27			3974 Aug 13 21:30	0°♒	
	3972 Mar 06 16:39	0°♓		asc. node	3974 Aug 18 11:42	5°♓34'20	
	3972 Apr 02 23:13	0°♈			3974 Sep 07 12:12	0°♓	
evening max el	3972 Apr 09 02:19	6°♈14'00	46°24'43	morning set	3974 Sep 30 19:49	28°♈41'47	
	3972 May 06 23:24	0°♉			3974 Oct 01 21:07	0°♉	
greatest brilliancy	3972 May 17 21:19	5°♉45'08	-4.8m		3974 Oct 26 01:32	0°♊	
retrograde	3972 May 28 21:51	7°♉58'32		max. Earth dist.	3974 Nov 03 22:13	11°♊02'13	1.72176 AU
evening set	3972 Jun 13 00:08	3°♊29'42					
	3972 Jun 18 19:37	30°♋		superior conj	3974 Nov 06 23:31	14°♋50'35	1°05'34
inferior conj	3972 Jun 19 05:30	29°♋44'31	0°44'00	minimum elong	3974 Nov 07 09:22	15°♋21'17	1°05'16
minimum elong	3972 Jun 19 07:08	29°♋41'58	0°43'31		3974 Nov 19 03:05	0°♌	
min. Earth dist.	3972 Jun 18 23:48	29°♋53'26	0.28583 AU	desc. node	3974 Dec 08 01:57	23°♌41'26	
desc. node	3972 Jun 22 06:40	27°♌51'12			3974 Dec 13 03:01	0°♍	
morning rise	3972 Jun 25 14:41	25°♌55'34		evening rise	3974 Dec 16 06:31	3°♍56'09	
direct	3972 Jul 10 15:13	21°♌34'31			3975 Jan 06 02:08	0°♎	
greatest brilliancy	3972 Jul 20 14:43	23°♌22'57	-4.7m		3975 Jan 30 01:28	0°♏	
	3972 Aug 02 13:42	0°♍			3975 Feb 23 03:03	0°♐	
morning max el	3972 Aug 28 08:27	21°♍16'50	45°42'40		3975 Mar 19 10:26	0°♑	
	3972 Sep 06 05:26	0°♎		asc. node	3975 Mar 31 04:25	14°♑19'25	
	3972 Oct 04 04:54	0°♏			3975 Apr 13 04:48	0°♒	
asc. node	3972 Oct 13 09:25	10°♏25'31			3975 May 08 18:24	0°♓	
	3972 Oct 30 04:34	0°♐			3975 Jun 04 21:23	0°♔	
	3972 Nov 24 03:54	0°♑		evening max el	3975 Jun 19 15:22	14°♔57'03	45°34'02
	3972 Dec 18 13:41	0°♒			3975 Jul 06 12:48	0°♕	
	3973 Jan 11 16:12	0°♓		desc. node	3975 Jul 20 18:40	9°♕44'03	
desc. node	3973 Feb 01 23:35	26°♓40'48		greatest brilliancy	3975 Jul 27 21:03	13°♕00'04	-4.7m
	3973 Feb 04 15:08	0°♔		retrograde	3975 Aug 07 10:02	15°♕00'34	
morning set	3973 Feb 27 16:08	28°♔55'29		evening set	3975 Aug 24 08:25	9°♕36'33	
	3973 Feb 28 12:41	0°♕		inferior conj	3975 Aug 28 23:08	6°♕47'20	-7°34'20
	3973 Mar 24 10:35	0°♖		minimum elong	3975 Aug 28 14:44	7°♕00'29	7°33'10
				min. Earth dist.	3975 Aug 28 23:00	6°♕47'31	0.29086 AU
superior conj	3973 Apr 09 08:25	19°♖54'23	-1°23'30	morning rise	3975 Sep 01 20:55	4°♖22'29	
minimum elong	3973 Apr 09 14:23	20°♖13'00	1°23'26		3975 Sep 10 19:32	30°♖	
max. Earth dist.	3973 Apr 13 09:29	24°♖57'25	1.71883 AU	direct	3975 Sep 19 13:23	28°♖29'03	
	3973 Apr 17 10:28	0°♗			3975 Sep 28 16:28	0°♗	
	3973 May 11 13:38	0°♘		greatest brilliancy	3975 Sep 30 03:42	0°♗30'11	-4.8m
evening rise	3973 May 18 19:46	8°♘58'54		morning max el	3975 Nov 08 00:40	29°♗26'39	46°11'21
asc. node	3973 May 26 02:08	17°♘57'20			3975 Nov 08 14:12	0°♘	
	3973 Jun 04 20:49	0°♙		asc. node	3975 Nov 10 21:06	2°♘16'54	
	3973 Jun 29 08:24	0°♚			3975 Dec 06 15:45	0°♙	
	3973 Jul 24 01:11	0°♛			3976 Jan 01 09:41	0°♚	
	3973 Aug 18 01:09	0°♜			3976 Jan 26 04:59	0°♛	
	3973 Sep 12 12:08	0°♝			3976 Feb 19 14:00	0°♞	
desc. node	3973 Sep 14 16:20	2°♝31'48		desc. node	3976 Mar 01 11:30	13°♞29'44	
	3973 Oct 08 17:13	0°♞			3976 Mar 14 18:28	0°♟	
	3973 Nov 05 10:53	0°♟			3976 Apr 07 21:31	0°♠	
evening max el	3973 Nov 13 07:45	7°♟56'38	46°42'52		3976 May 02 01:10	0°♔	
	3973 Dec 08 15:42	0°♠		morning set	3976 May 13 05:35	13°♔51'48	
greatest brilliancy	3973 Dec 23 12:55	8°♠12'35	-4.9m		3976 May 26 06:37	0°♕	
retrograde	3974 Jan 02 10:42	10°♠03'04			3976 Jun 19 14:08	0°♖	
asc. node	3974 Jan 05 18:47	9°♠49'30					
evening set	3974 Jan 17 00:04	5°♠51'42		superior conj	3976 Jun 20 01:42	0°♖35'39	-0°06'02

minimum elong	3976 Jun 20 03:01	0° \mathfrak{D} 39'41	0°05'59	asc. node	3978 Dec 08 08:57	9° \mathfrak{M} .19'23	
behind sun begin	3976 Jun 19 05:19	29° \mathfrak{I} 32'51		greatest brilliancy	3978 Dec 10 00:55	9° \mathfrak{M} .56'41	-4.9m
behind sun end	3976 Jun 21 00:43	1° \mathfrak{D} 46'30			3979 Jan 07 10:01	0° \mathfrak{X}	
max. Earth dist.	3976 Jun 21 13:59	2° \mathfrak{D} 27'21	1.73259 AU	morning max el	3979 Jan 18 13:20	10° \mathfrak{X} 50'05	46°52'56
asc. node	3976 Jun 22 14:01	3° \mathfrak{D} 41'21			3979 Feb 05 12:29	0° \mathfrak{Z}	
	3976 Jul 13 23:12	0° Ω			3979 Mar 03 16:41	0° \approx	
evening rise	3976 Jul 26 17:45	15° Ω 41'48			3979 Mar 28 20:58	0° \mathfrak{H}	
	3976 Aug 07 09:21	0° \mathfrak{M}		desc. node	3979 Mar 29 23:17	1° \mathfrak{H} 19'16	
	3976 Aug 31 20:52	0° \mathfrak{L}			3979 Apr 22 15:13	0° \mathfrak{Y}	
	3976 Sep 25 10:46	0° \mathfrak{M}			3979 May 17 05:29	0° \mathfrak{B}	
desc. node	3976 Oct 12 04:12	20° \mathfrak{M} .18'45			3979 Jun 10 18:38	0° \mathfrak{I}	
	3976 Oct 20 04:23	0° \mathfrak{X}			3979 Jul 05 07:21	0° \mathfrak{D}	
	3976 Nov 14 03:12	0° \mathfrak{Z}		asc. node	3979 Jul 21 01:53	19° \mathfrak{D} 19'02	
	3976 Dec 09 10:49	0° \approx		morning set	3979 Jul 22 09:33	20° \mathfrak{D} 56'04	
	3977 Jan 04 14:28	0° \mathfrak{H}			3979 Jul 29 18:58	0° Ω	
evening max el	3977 Jan 24 20:45	21° \mathfrak{H} 43'28	47°12'10		3979 Aug 23 04:37	0° \mathfrak{M}	
asc. node	3977 Feb 02 06:45	0° \mathfrak{Y} 02'05		max. Earth dist.	3979 Aug 26 02:13	3° \mathfrak{M} 34'20	1.73363 AU
	3977 Feb 02 05:52	0° \mathfrak{Y}					
greatest brilliancy	3977 Mar 06 14:01	23° \mathfrak{Y} 20'36	-4.9m	superior conj	3979 Aug 27 22:25	5° \mathfrak{M} 50'30	1°14'27
retrograde	3977 Mar 16 18:15	25° \mathfrak{Y} 19'35		minimum elong	3979 Aug 27 14:47	5° \mathfrak{M} 26'57	1°14'15
evening set	3977 Apr 03 17:59	19° \mathfrak{Y} 05'17			3979 Sep 16 12:12	0° \mathfrak{L}	
inferior conj	3977 Apr 06 16:23	17° \mathfrak{Y} 16'27	8°42'30	evening rise	3979 Oct 03 04:10	20° \mathfrak{L} 36'01	
minimum elong	3977 Apr 06 21:14	17° \mathfrak{Y} 08'53	8°42'08		3979 Oct 10 18:31	0° \mathfrak{M}	
min. Earth dist.	3977 Apr 06 08:04	17° \mathfrak{Y} 29'25	0.27635 AU		3979 Nov 04 00:34	0° \mathfrak{X}	
morning rise	3977 Apr 10 00:38	15° \mathfrak{Y} 13'01		desc. node	3979 Nov 09 16:06	6° \mathfrak{X} 59'06	
direct	3977 Apr 27 10:34	9° \mathfrak{Y} 21'54			3979 Nov 28 06:57	0° \mathfrak{Z}	
greatest brilliancy	3977 May 06 20:17	11° \mathfrak{Y} 00'40	-4.8m		3979 Dec 22 14:16	0° \approx	
desc. node	3977 May 24 20:50	21° \mathfrak{Y} 08'06			3980 Jan 16 00:26	0° \mathfrak{H}	
	3977 Jun 04 18:03	0° \mathfrak{B}			3980 Feb 09 18:37	0° \mathfrak{Y}	
morning max el	3977 Jun 15 19:39	10° \mathfrak{B} 14'30	46°02'51	asc. node	3980 Mar 01 18:29	24° \mathfrak{Y} 45'15	
	3977 Jul 05 04:04	0° \mathfrak{I}			3980 Mar 06 07:52	0° \mathfrak{B}	
	3977 Aug 01 09:29	0° \mathfrak{D}			3980 Apr 02 19:15	0° \mathfrak{I}	
	3977 Aug 27 09:31	0° Ω		evening max el	3980 Apr 06 18:07	3° \mathfrak{I} 59'47	46°26'57
asc. node	3977 Sep 14 23:33	22° Ω 00'01			3980 May 08 05:04	0° \mathfrak{D}	
	3977 Sep 21 15:45	0° \mathfrak{M}		greatest brilliancy	3980 May 15 14:47	3° \mathfrak{D} 35'23	-4.8m
	3977 Oct 16 08:59	0° \mathfrak{L}		retrograde	3980 May 26 14:00	5° \mathfrak{D} 47'26	
	3977 Nov 09 16:51	0° \mathfrak{M}		evening set	3980 Jun 10 17:30	1° \mathfrak{D} 17'34	
	3977 Dec 03 18:45	0° \mathfrak{X}			3980 Jun 12 23:08	30° \mathfrak{R} \mathfrak{I}	
morning set	3977 Dec 10 18:17	8° \mathfrak{X} 43'58		inferior conj	3980 Jun 16 21:33	27° \mathfrak{I} 33'58	1°04'25
	3977 Dec 27 17:18	0° \mathfrak{Z}		minimum elong	3980 Jun 16 23:55	27° \mathfrak{I} 30'14	1°03'42
desc. node	3978 Jan 04 13:48	9° \mathfrak{Z} 51'53		min. Earth dist.	3980 Jun 16 16:12	27° \mathfrak{I} 42'21	0.28549 AU
				desc. node	3980 Jun 21 08:43	24° \mathfrak{I} 49'45	
superior conj	3978 Jan 20 08:02	29° \mathfrak{Z} 40'40	-0°36'50	morning rise	3980 Jun 23 06:55	23° \mathfrak{I} 44'29	
minimum elong	3978 Jan 19 23:01	29° \mathfrak{Z} 12'18	0°36'25	direct	3980 Jul 08 07:01	19° \mathfrak{I} 24'40	
max. Earth dist.	3978 Jan 19 20:27	29° \mathfrak{Z} 04'14	1.71142 AU	greatest brilliancy	3980 Jul 18 05:44	21° \mathfrak{I} 12'13	-4.7m
	3978 Jan 20 14:11	0° \approx			3980 Aug 03 09:48	0° \mathfrak{D}	
	3978 Feb 13 10:32	0° \mathfrak{H}		morning max el	3980 Aug 25 23:23	19° \mathfrak{D} 05'17	45°42'22
evening rise	3978 Mar 02 10:40	21° \mathfrak{H} 22'10			3980 Sep 06 00:18	0° Ω	
	3978 Mar 09 07:50	0° \mathfrak{Y}			3980 Oct 03 19:18	0° \mathfrak{M}	
	3978 Apr 02 08:11	0° \mathfrak{B}		asc. node	3980 Oct 12 11:22	9° \mathfrak{M} 51'55	
	3978 Apr 26 13:53	0° \mathfrak{I}			3980 Oct 29 17:14	0° \mathfrak{L}	
asc. node	3978 Apr 27 16:18	1° \mathfrak{I} 21'14			3980 Nov 23 15:46	0° \mathfrak{M}	
	3978 May 21 03:19	0° \mathfrak{D}			3980 Dec 18 01:07	0° \mathfrak{X}	
	3978 Jun 15 03:24	0° Ω			3981 Jan 11 03:23	0° \mathfrak{Z}	
	3978 Jul 10 19:48	0° \mathfrak{M}		desc. node	3981 Feb 01 01:38	26° \mathfrak{Z} 12'37	
	3978 Aug 06 18:01	0° \mathfrak{L}			3981 Feb 04 02:09	0° \approx	
desc. node	3978 Aug 17 06:30	11° \mathfrak{L} 04'43		morning set	3981 Feb 25 01:57	26° \approx 21'22	
evening max el	3978 Aug 29 23:36	23° \mathfrak{L} 43'37	45°42'15		3981 Feb 27 23:36	0° \mathfrak{H}	
	3978 Sep 05 17:50	0° \mathfrak{M}			3981 Mar 23 21:26	0° \mathfrak{Y}	
greatest brilliancy	3978 Oct 08 12:52	21° \mathfrak{M} .57'37	-4.8m				
retrograde	3978 Oct 17 19:02	23° \mathfrak{M} .30'44		superior conj	3981 Apr 06 20:35	17° \mathfrak{Y} 28'39	-1°24'28
evening set	3978 Nov 03 10:28	18° \mathfrak{M} .14'57		minimum elong	3981 Apr 07 01:41	17° \mathfrak{Y} 44'35	1°24'24
inferior conj	3978 Nov 07 18:14	15° \mathfrak{M} .38'48	-6°44'24	max. Earth dist.	3981 Apr 10 21:29	22° \mathfrak{Y} 31'22	1.71829 AU
minimum elong	3978 Nov 08 04:27	15° \mathfrak{M} .23'04	6°42'23		3981 Apr 16 21:15	0° \mathfrak{B}	
min. Earth dist.	3978 Nov 08 17:21	15° \mathfrak{M} .03'15	0.27773 AU		3981 May 11 00:23	0° \mathfrak{I}	
morning rise	3978 Nov 12 21:59	12° \mathfrak{M} .33'24		evening rise	3981 May 16 10:08	6° \mathfrak{I} 41'40	
direct	3978 Nov 28 21:06	7° \mathfrak{M} .36'33		asc. node	3981 May 25 04:16	17° \mathfrak{I} 30'44	

	3981 Jun 04 07:35	0°☿		asc. node	3983 Nov 09 23:13	1°♊31'02	
	3981 Jun 28 19:19	0°♌			3983 Dec 06 06:58	0°♍	
	3981 Jul 23 12:27	0°♍			3983 Dec 31 22:55	0°♎	
	3981 Aug 17 13:06	0°♏			3984 Jan 25 17:16	0°♐	
	3981 Sep 12 01:17	0°♑			3984 Feb 19 01:45	0°♒	
desc. node	3981 Sep 13 18:15	1°♌58'51		desc. node	3984 Feb 29 13:27	12°♑59'53	
	3981 Oct 08 08:38	0°♎			3984 Mar 14 05:51	0°♈	
	3981 Nov 05 07:45	0°♐			3984 Apr 07 08:37	0°♑	
evening max el	3981 Nov 10 20:22	5°♐31'59 46°40'38			3984 May 01 12:02	0°♉	
	3981 Dec 09 19:05	0°♑		morning set	3984 May 10 20:15	11°♉35'06	
greatest brilliancy	3981 Dec 21 02:40	5°♑46'01 -4.9m			3984 May 25 17:19	0°♊	
retrograde	3981 Dec 30 22:23	7°♑34'59					
asc. node	3982 Jan 04 20:54	7°♑05'14		superior conj	3984 Jun 17 18:09	28°♊25'45 -0°09'23	
evening set	3982 Jan 14 10:33	3°♑26'14		minimum elong	3984 Jun 17 20:11	28°♊32'03 0°09'17	
min. Earth dist.	3982 Jan 20 04:37	0°♑04'33 0.26569 AU		behind sun begin	3984 Jun 17 01:04	27°♊33'06	
	3982 Jan 20 07:35	30°♋♐		behind sun end	3984 Jun 18 15:19	29°♊31'00	
inferior conj	3982 Jan 20 12:02	29°♐53'11 3°56'42			3984 Jun 19 00:44	0°☿	
minimum elong	3982 Jan 20 03:43	0°♑05'55 3°54'15		max. Earth dist.	3984 Jun 19 09:05	0°☿25'44 1.73230 AU	
morning rise	3982 Jan 25 20:52	26°♐42'38		asc. node	3984 Jun 21 16:05	3°☿15'04	
direct	3982 Feb 09 22:21	22°♐13'46			3984 Jul 13 09:49	0°♌	
greatest brilliancy	3982 Feb 19 17:25	24°♐02'27 -4.9m		evening rise	3984 Jul 24 12:09	13°♌38'15	
	3982 Mar 03 07:03	0°♑			3984 Aug 06 20:03	0°♍	
morning max el	3982 Apr 01 05:16	24°♑49'18 46°48'23			3984 Aug 31 07:46	0°♏	
	3982 Apr 06 07:35	0°♈			3984 Sep 24 22:03	0°♑	
desc. node	3982 Apr 26 11:12	21°♈39'23		desc. node	3984 Oct 11 06:18	19°♑49'48	
	3982 May 03 21:56	0°♑			3984 Oct 19 16:14	0°♎	
	3982 May 29 23:10	0°♉			3984 Nov 13 15:59	0°♐	
	3982 Jun 24 09:30	0°♊			3984 Dec 09 01:09	0°♑	
	3982 Jul 19 12:00	0°☿			3985 Jan 04 07:51	0°♈	
	3982 Aug 13 08:27	0°♌		evening max el	3985 Jan 22 11:43	19°♈22'54 47°12'27	
asc. node	3982 Aug 17 13:41	5°♌07'18		asc. node	3985 Feb 01 08:41	29°♈03'48	
	3982 Sep 06 22:53	0°♍			3985 Feb 02 08:44	0°♑	
morning set	3982 Sep 28 12:55	26°♍33'38		greatest brilliancy	3985 Mar 04 03:49	20°♑57'39 -4.9m	
	3982 Oct 01 07:41	0°♏		retrograde	3985 Mar 14 09:08	22°♑57'23	
	3982 Oct 25 12:07	0°♑		evening set	3985 Apr 01 09:27	16°♑40'53	
max. Earth dist.	3982 Nov 01 14:52	8°♑51'29 1.72229 AU		inferior conj	3985 Apr 04 06:14	14°♑54'36 8°47'40	
				minimum elong	3985 Apr 04 10:17	14°♑48'17 8°47'25	
superior conj	3982 Nov 04 14:51	12°♑35'44 1°07'44		min. Earth dist.	3985 Apr 03 20:54	15°♑09'08 0.27598 AU	
minimum elong	3982 Nov 05 00:30	13°♑05'46 1°07'27		morning rise	3985 Apr 07 11:17	12°♑56'11	
	3982 Nov 18 13:45	0°♎		direct	3985 Apr 25 00:19	7°♑00'46	
desc. node	3982 Dec 07 04:06	23°♎14'24		greatest brilliancy	3985 May 04 08:29	8°♑38'43 -4.8m	
	3982 Dec 12 13:50	0°♐		desc. node	3985 May 23 22:57	19°♑56'56	
evening rise	3982 Dec 13 19:02	1°♐31'16			3985 Jun 04 22:12	0°♉	
	3983 Jan 05 13:08	0°♑		morning max el	3985 Jun 13 11:02	8°♉00'11 46°04'14	
	3983 Jan 29 12:39	0°♈			3985 Jul 04 21:18	0°♊	
	3983 Feb 22 14:29	0°♑			3985 Jul 31 23:25	0°☿	
	3983 Mar 18 22:16	0°♉			3985 Aug 26 21:55	0°♌	
asc. node	3983 Mar 30 06:24	13°♉48'34		asc. node	3985 Sep 14 01:29	21°♌30'42	
	3983 Apr 12 17:24	0°♊			3985 Sep 21 03:20	0°♍	
	3983 May 08 08:31	0°☿			3985 Oct 15 20:07	0°♏	
	3983 Jun 04 15:12	0°♌			3985 Nov 09 03:45	0°♑	
evening max el	3983 Jun 17 06:39	12°♌45'13 45°35'08			3985 Dec 03 05:33	0°♎	
	3983 Jul 06 23:12	0°♍		morning set	3985 Dec 08 07:46	6°♎22'12	
desc. node	3983 Jul 19 20:46	8°♍20'30			3985 Dec 27 04:07	0°♐	
greatest brilliancy	3983 Jul 25 11:33	10°♍49'55 -4.7m		desc. node	3986 Jan 03 15:51	9°♐24'21	
retrograde	3983 Aug 05 02:36	12°♍52'31		max. Earth dist.	3986 Jan 17 05:29	26°♐27'37 1.71156 AU	
evening set	3983 Aug 21 21:30	7°♍32'26					
inferior conj	3983 Aug 26 15:27	4°♍38'43 -7°24'32		superior conj	3986 Jan 17 18:38	27°♐08'58 -0°33'12	
minimum elong	3983 Aug 26 06:41	4°♍52'27 7°23'14		minimum elong	3986 Jan 17 10:23	26°♐43'01 0°32'49	
min. Earth dist.	3983 Aug 26 14:26	4°♍40'19 0.29092 AU			3986 Jan 20 01:01	0°♑	
morning rise	3983 Aug 30 15:43	2°♍10'23			3986 Feb 12 21:25	0°♈	
	3983 Sep 03 13:12	30°♋♌		evening rise	3986 Feb 27 21:09	18°♈50'07	
direct	3983 Sep 17 05:33	26°♌20'18			3986 Mar 08 18:48	0°♑	
greatest brilliancy	3983 Sep 27 19:39	28°♌21'22 -4.8m			3986 Apr 01 19:15	0°♉	
	3983 Oct 01 17:46	0°♍			3986 Apr 26 01:09	0°♊	
morning max el	3983 Nov 05 16:35	27°♍14'47 46°09'52		asc. node	3986 Apr 26 18:25	0°♊53'03	
	3983 Nov 08 11:07	0°♏			3986 May 20 14:56	0°☿	

	3986 Jun 14 15:43	0°♌			3989 Jan 10 14:44	0°♊	
	3986 Jul 10 09:30	0°♍		desc. node	3989 Jan 31 03:36	25°♊43'40	
	3986 Aug 06 10:50	0°♎			3989 Feb 03 13:19	0°♋	
desc. node	3986 Aug 16 08:26	10°♎20'52		morning set	3989 Feb 22 12:06	23°♋47'44	
evening max el	3986 Aug 27 14:33	21°♎29'55	45°40'51		3989 Feb 27 10:39	0°♌	
	3986 Sep 05 21:04	0°♏			3989 Mar 23 08:23	0°♍	
greatest brilliancy	3986 Oct 06 02:21	19°♏40'19	-4.8m				
retrograde	3986 Oct 15 08:22	21°♏13'05		superior conj	3989 Apr 04 09:03	15°♍03'32	-1°25'15
evening set	3986 Nov 01 03:35	15°♏52'52		minimum elong	3989 Apr 04 13:15	15°♍16'39	1°25'14
inferior conj	3986 Nov 05 08:26	13°♏20'34	-6°57'53	max. Earth dist.	3989 Apr 08 08:15	20°♍01'01	1.71776 AU
minimum elong	3986 Nov 05 18:28	13°♏05'05	6°56'00		3989 Apr 16 08:09	0°♎	
min. Earth dist.	3986 Nov 06 07:28	12°♏45'02	0.27837 AU		3989 May 10 11:16	0°♏	
morning rise	3986 Nov 10 08:55	10°♏19'21		evening rise	3989 May 14 00:36	4°♏24'10	
direct	3986 Nov 26 12:09	5°♏17'33		asc. node	3989 May 24 06:17	17°♏03'16	
asc. node	3986 Dec 07 10:58	7°♏32'24			3989 Jun 03 18:33	0°♐	
greatest brilliancy	3986 Dec 07 15:31	7°♏36'53	-4.9m		3989 Jun 28 06:30	0°♑	
	3987 Jan 07 12:50	0°♒			3989 Jul 23 00:03	0°♒	
morning max el	3987 Jan 16 03:18	8°♒27'39	46°52'01		3989 Aug 17 01:25	0°♓	
	3987 Feb 05 05:46	0°♊			3989 Sep 11 14:53	0°♏	
	3987 Mar 03 06:59	0°♋		desc. node	3989 Sep 12 20:21	1°♏25'17	
	3987 Mar 28 09:52	0°♌			3989 Oct 08 00:39	0°♒	
desc. node	3987 Mar 29 01:22	0°♌46'47			3989 Nov 05 05:45	0°♊	
	3987 Apr 22 03:18	0°♍		evening max el	3989 Nov 08 08:45	3°♊06'08	46°38'32
	3987 May 16 17:03	0°♎			3989 Dec 11 10:42	0°♋	
	3987 Jun 10 05:49	0°♏		greatest brilliancy	3989 Dec 18 15:56	3°♋18'03	-4.9m
	3987 Jul 04 18:15	0°♐		retrograde	3989 Dec 28 10:23	5°♋06'16	
morning set	3987 Jul 20 03:05	18°♐49'40		asc. node	3990 Jan 03 22:52	4°♋14'13	
asc. node	3987 Jul 20 03:51	18°♐52'02		evening set	3990 Jan 11 21:14	0°♋59'25	
	3987 Jul 29 05:42	0°♑			3990 Jan 13 16:17	30°♌♊	
	3987 Aug 22 15:17	0°♒		inferior conj	3990 Jan 18 00:19	27°♊24'49	3°34'10
max. Earth dist.	3987 Aug 23 20:45	1°♒30'43	1.73383 AU	minimum elong	3990 Jan 17 16:38	27°♊36'32	3°31'52
				min. Earth dist.	3990 Jan 17 18:23	27°♊33'52	0.26562 AU
superior conj	3987 Aug 25 16:27	3°♒45'17	1°12'51	morning rise	3990 Jan 23 11:55	24°♊10'38	
minimum elong	3987 Aug 25 08:29	3°♒20'44	1°12'38	direct	3990 Feb 07 10:17	19°♊44'55	
	3987 Sep 15 22:56	0°♓		greatest brilliancy	3990 Feb 17 07:54	21°♊35'59	-4.9m
evening rise	3987 Sep 30 20:59	18°♓26'05			3990 Mar 04 09:45	0°♋	
	3987 Oct 10 05:26	0°♏		morning max el	3990 Mar 29 18:28	22°♋24'10	46°49'46
	3987 Nov 03 11:44	0°♒			3990 Apr 06 04:36	0°♌	
desc. node	3987 Nov 08 18:14	6°♒31'01		desc. node	3990 Apr 25 13:20	20°♌58'44	
	3987 Nov 27 18:25	0°♊			3990 May 03 13:39	0°♍	
	3987 Dec 22 02:07	0°♋			3990 May 29 12:41	0°♎	
	3988 Jan 15 12:52	0°♌			3990 Jun 23 21:51	0°♏	
	3988 Feb 09 08:02	0°♍			3990 Jul 18 23:40	0°♐	
asc. node	3988 Feb 29 20:28	24°♍07'57			3990 Aug 12 19:42	0°♑	
	3988 Mar 05 23:16	0°♎		asc. node	3990 Aug 16 15:41	4°♑39'20	
	3988 Apr 02 16:02	0°♏			3990 Sep 06 09:55	0°♒	
evening max el	3988 Apr 04 08:51	1°♏42'32	46°28'55	morning set	3990 Sep 26 05:50	24°♒23'54	
	3988 May 10 01:32	0°♐			3990 Sep 30 18:38	0°♓	
greatest brilliancy	3988 May 13 08:16	1°♐24'36	-4.8m		3990 Oct 24 23:03	0°♏	
retrograde	3988 May 24 05:31	3°♐35'14		max. Earth dist.	3990 Oct 30 08:11	6°♏41'50	1.72277 AU
	3988 Jun 06 16:44	30°♑♏					
evening set	3988 Jun 08 10:48	29°♏03'50		superior conj	3990 Nov 02 06:02	10°♏19'18	1°09'48
inferior conj	3988 Jun 14 13:26	25°♏22'13	1°24'57	minimum elong	3990 Nov 02 15:23	10°♏48'26	1°09'31
minimum elong	3988 Jun 14 16:33	25°♏17'19	1°24'00		3990 Nov 18 00:46	0°♒	
min. Earth dist.	3988 Jun 14 08:45	25°♏29'34	0.28521 AU	desc. node	3990 Dec 06 06:04	22°♒45'43	
desc. node	3988 Jun 20 10:46	21°♏48'55		evening rise	3990 Dec 11 07:29	29°♒05'15	
morning rise	3988 Jun 20 22:48	21°♏32'22			3990 Dec 12 01:00	0°♊	
direct	3988 Jul 05 22:14	17°♏13'21			3991 Jan 05 00:29	0°♋	
greatest brilliancy	3988 Jul 15 21:17	19°♏00'48	-4.7m		3991 Jan 29 00:12	0°♌	
	3988 Aug 04 01:15	0°♐			3991 Feb 22 02:17	0°♍	
morning max el	3988 Aug 23 13:51	16°♐51'34	45°42'12		3991 Mar 18 10:27	0°♎	
	3988 Sep 05 19:00	0°♑		asc. node	3991 Mar 29 08:32	13°♎17'17	
	3988 Oct 03 09:47	0°♒			3991 Apr 12 06:19	0°♏	
asc. node	3988 Oct 11 13:32	9°♒18'28			3991 May 07 23:00	0°♐	
	3988 Oct 29 06:02	0°♓			3991 Jun 04 09:42	0°♑	
	3988 Nov 23 03:47	0°♏		evening max el	3991 Jun 14 22:46	10°♑34'47	45°36'11
	3988 Dec 17 12:43	0°♒			3991 Jul 07 13:39	0°♒	

desc. node	3991 Jul 18 22:40	6° \mathbb{M} 53'14			3993 Dec 26 15:17	0° \mathcal{Z}	
greatest brilliancy	3991 Jul 23 01:44	8° \mathbb{M} 38'43	-4.7m	desc. node	3994 Jan 02 17:50	8° \mathcal{Z} 55'33	
retrograde	3991 Aug 02 19:21	10° \mathbb{M} 43'30		max. Earth dist.	3994 Jan 14 10:48	23° \mathcal{Z} 38'21	1.71168 AU
evening set	3991 Aug 19 10:40	5° \mathbb{M} 27'25					
inferior conj	3991 Aug 24 07:46	2° \mathbb{M} 29'06	-7°14'00	superior conj	3994 Jan 15 05:00	24° \mathcal{Z} 35'33	-0°29'29
minimum elong	3991 Aug 23 22:41	2° \mathbb{M} 43'17	7°12'35	minimum elong	3994 Jan 14 21:35	24° \mathcal{Z} 12'14	0°29'08
min. Earth dist.	3991 Aug 24 05:36	2° \mathbb{M} 32'30	0.29101 AU		3994 Jan 19 12:12	0° \approx	
morning rise	3991 Aug 28 10:38	29° Ω 57'07			3994 Feb 12 08:36	0° \mathcal{H}	
	3991 Aug 28 08:42	30° $\mathcal{R}\Omega$		evening rise	3994 Feb 25 07:20	16° \mathcal{H} 16'11	
direct	3991 Sep 14 22:19	24° Ω 10'38			3994 Mar 08 06:01	0° Υ	
greatest brilliancy	3991 Sep 25 11:13	26° Ω 11'01	-4.7m		3994 Apr 01 06:35	0° \mathcal{B}	
	3991 Oct 03 13:27	0° \mathbb{M}		asc. node	3994 Apr 25 20:26	0° \mathbb{I} 23'45	
morning max el	3991 Nov 03 08:58	25° \mathbb{M} 03'00	46°08'18		3994 Apr 25 12:42	0° \mathbb{I}	
	3991 Nov 08 07:51	0° $\underline{\Omega}$			3994 May 20 02:50	0° \mathcal{G}	
asc. node	3991 Nov 09 01:14	0° $\underline{\Omega}$ 44'17			3994 Jun 14 04:19	0° Ω	
	3991 Dec 05 22:27	0° \mathbb{M}			3994 Jul 09 23:30	0° \mathbb{M}	
	3991 Dec 31 12:26	0° \mathcal{X}			3994 Aug 06 04:07	0° $\underline{\Omega}$	
	3992 Jan 25 05:52	0° \mathcal{Z}		desc. node	3994 Aug 15 10:34	9° $\underline{\Omega}$ 36'46	
	3992 Feb 18 13:48	0° \approx		evening max el	3994 Aug 25 04:41	19° $\underline{\Omega}$ 14'06	45°39'29
desc. node	3992 Feb 28 15:30	12° \approx 29'26			3994 Sep 06 02:10	0° \mathbb{M}	
	3992 Mar 13 17:33	0° \mathcal{H}		greatest brilliancy	3994 Oct 03 16:15	17° \mathbb{M} 23'40	-4.8m
	3992 Apr 06 20:01	0° Υ		retrograde	3994 Oct 12 21:34	18° \mathbb{M} 55'58	
	3992 Apr 30 23:11	0° \mathcal{B}		evening set	3994 Oct 29 20:48	13° \mathbb{M} 31'12	
morning set	3992 May 08 11:07	9° \mathcal{B} 18'01		inferior conj	3994 Nov 02 22:53	11° \mathbb{M} 02'43	-7°10'19
	3992 May 25 04:17	0° \mathbb{I}		minimum elong	3994 Nov 03 08:39	10° \mathbb{M} 47'36	7°08'36
				min. Earth dist.	3994 Nov 03 22:02	10° \mathbb{M} 26'56	0.27908 AU
superior conj	3992 Jun 15 10:52	26° \mathbb{I} 15'49	-0°12'41	morning rise	3994 Nov 07 20:03	8° \mathbb{M} 05'45	
minimum elong	3992 Jun 15 13:38	26° \mathbb{I} 24'21	0°12'32	direct	3994 Nov 24 03:01	2° \mathbb{M} 58'42	
behind sun begin	3992 Jun 14 23:04	25° \mathbb{I} 39'27		greatest brilliancy	3994 Dec 05 06:59	5° \mathbb{M} 17'56	-4.9m
behind sun end	3992 Jun 16 04:12	27° \mathbb{I} 09'15		asc. node	3994 Dec 06 12:58	5° \mathbb{M} 49'04	
max. Earth dist.	3992 Jun 17 06:31	28° \mathbb{I} 30'20	1.73196 AU		3995 Jan 07 14:34	0° \mathcal{X}	
	3992 Jun 18 11:37	0° \mathcal{G}		morning max el	3995 Jan 13 16:40	6° \mathcal{X} 02'44	46°50'56
asc. node	3992 Jun 20 18:02	2° \mathcal{G} 47'40			3995 Feb 04 23:03	0° \mathcal{Z}	
	3992 Jul 12 20:41	0° Ω			3995 Mar 02 21:28	0° \approx	
evening rise	3992 Jul 22 06:52	11° Ω 34'54			3995 Mar 27 22:56	0° \mathcal{H}	
	3992 Aug 06 07:02	0° \mathbb{M}		desc. node	3995 Mar 28 03:31	0° \mathcal{H} 13'51	
	3992 Aug 30 19:00	0° $\underline{\Omega}$			3995 Apr 21 15:32	0° Υ	
	3992 Sep 24 09:42	0° \mathbb{M}			3995 May 16 04:44	0° \mathcal{B}	
desc. node	3992 Oct 10 08:21	19° \mathbb{M} 19'29			3995 Jun 09 17:07	0° \mathbb{I}	
	3992 Oct 19 04:34	0° \mathcal{X}			3995 Jul 04 05:16	0° \mathcal{G}	
	3992 Nov 13 05:17	0° \mathcal{Z}		morning set	3995 Jul 17 20:49	16° \mathcal{G} 43'32	
	3992 Dec 08 16:03	0° \approx		asc. node	3995 Jul 19 05:54	18° \mathcal{G} 24'54	
	3993 Jan 04 02:02	0° \mathcal{H}			3995 Jul 28 16:32	0° Ω	
evening max el	3993 Jan 20 03:07	17° \mathcal{H} 02'19	47°12'42	max. Earth dist.	3995 Aug 21 15:04	29° Ω 26'11	1.73400 AU
asc. node	3993 Jan 31 10:43	28° \mathcal{H} 03'26			3995 Aug 22 02:03	0° \mathbb{M}	
	3993 Feb 02 13:45	0° Υ					
greatest brilliancy	3993 Mar 01 17:45	18° Υ 33'52	-4.9m	superior conj	3995 Aug 23 10:56	1° \mathbb{M} 41'16	1°11'09
retrograde	3993 Mar 11 23:52	20° Υ 33'56		minimum elong	3995 Aug 23 02:42	1° \mathbb{M} 15'53	1°10'56
evening set	3993 Mar 30 00:34	14° Υ 16'04			3995 Sep 15 09:44	0° $\underline{\Omega}$	
inferior conj	3993 Apr 01 20:04	12° Υ 31'42	8°51'58	evening rise	3995 Sep 28 14:23	16° $\underline{\Omega}$ 17'56	
minimum elong	3993 Apr 01 23:17	12° Υ 26'40	8°51'49		3995 Oct 09 16:24	0° \mathbb{M}	
min. Earth dist.	3993 Apr 01 09:42	12° Υ 47'49	0.27555 AU		3995 Nov 02 22:57	0° \mathcal{X}	
morning rise	3993 Apr 04 22:11	10° Υ 37'46		desc. node	3995 Nov 07 20:13	6° \mathcal{X} 02'15	
direct	3993 Apr 22 14:20	4° Υ 38'45			3995 Nov 27 05:59	0° \mathcal{Z}	
greatest brilliancy	3993 May 01 20:33	6° Υ 15'30	-4.8m		3995 Dec 21 14:09	0° \approx	
desc. node	3993 May 23 00:55	18° Υ 46'40			3996 Jan 15 01:34	0° \mathcal{H}	
	3993 Jun 05 01:04	0° \mathcal{B}			3996 Feb 08 21:48	0° Υ	
morning max el	3993 Jun 11 01:53	5° \mathcal{B} 43'41	46°05'44	asc. node	3996 Feb 28 22:37	23° Υ 30'05	
	3993 Jul 04 14:26	0° \mathbb{I}			3996 Mar 05 15:10	0° \mathcal{B}	
	3993 Jul 31 13:25	0° \mathcal{G}		evening max el	3996 Apr 01 22:40	29° \mathcal{B} 22'14	46°31'07
	3993 Aug 26 10:27	0° Ω			3996 Apr 02 13:48	0° \mathbb{I}	
asc. node	3993 Sep 13 03:40	21° Ω 01'36		greatest brilliancy	3996 May 11 01:32	29° \mathbb{I} 13'02	-4.8m
	3993 Sep 20 15:06	0° \mathbb{M}			3996 May 13 07:38	0° \mathcal{G}	
	3993 Oct 15 07:28	0° $\underline{\Omega}$		retrograde	3996 May 21 21:09	1° \mathcal{G} 22'47	
	3993 Nov 08 14:56	0° \mathbb{M}			3996 May 30 03:49	30° $\mathcal{R}\mathbb{I}$	
	3993 Dec 02 16:42	0° \mathcal{X}		evening set	3996 Jun 06 04:12	26° \mathbb{I} 49'21	
morning set	3993 Dec 05 21:06	3° \mathcal{X} 58'53		inferior conj	3996 Jun 12 05:18	23° \mathbb{I} 10'07	1°45'17

minimum elong	3996 Jun 12 09:09	23°II04'04	1°44'09			3998 Nov 17 11:32	0°♊
min. Earth dist.	3996 Jun 12 01:21	23°II16'21	0.28491 AU	desc. node		3998 Dec 05 08:04	22°♊18'07
morning rise	3996 Jun 18 14:30	19°II20'17		evening rise		3998 Dec 08 20:25	26°♊41'43
desc. node	3996 Jun 19 12:45	18°II50'36				3998 Dec 11 11:52	0°♊
direct	3996 Jul 03 13:05	15°II01'32				3999 Jan 04 11:30	0°♊
greatest brilliancy	3996 Jul 13 13:12	16°II49'36	-4.7m			3999 Jan 28 11:26	0°♊
	3996 Aug 04 12:47	0°♊				3999 Feb 21 13:48	0°♊
morning max el	3996 Aug 21 04:44	14°♊38'52	45°42'18			3999 Mar 17 22:26	0°♊
	3996 Sep 05 13:10	0°♊		asc. node		3999 Mar 28 10:30	12°♊46'00
	3996 Oct 03 00:01	0°♊				3999 Apr 11 19:08	0°♊
asc. node	3996 Oct 10 15:29	8°♊44'49				3999 May 07 13:32	0°♊
	3996 Oct 28 18:41	0°♊				3999 Jun 04 04:35	0°♊
	3996 Nov 22 15:39	0°♊		evening max el		3999 Jun 12 15:21	8°♊25'46 45°37'20
	3996 Dec 17 00:12	0°♊				3999 Jul 08 08:54	0°♊
	3997 Jan 10 02:00	0°♊		desc. node		3999 Jul 18 00:47	5°♊23'42
desc. node	3997 Jan 30 05:43	25°♊15'13		greatest brilliancy		3999 Jul 20 16:24	6°♊28'30 -4.7m
	3997 Feb 03 00:29	0°♊		retrograde		3999 Jul 31 12:00	8°♊34'42
morning set	3997 Feb 19 21:48	21°♊12'30		evening set		3999 Aug 16 23:51	3°♊22'57
	3997 Feb 26 21:45	0°♊		inferior conj		3999 Aug 21 24:00	0°♊19'56 -7°02'58
	3997 Mar 22 19:25	0°♊		minimum elong		3999 Aug 21 14:39	0°♊34'33 7°01'25
				min. Earth dist.		3999 Aug 21 20:35	0°♊25'15 0.29101 AU
superior conj	3997 Apr 01 20:53	12°♊36'07	-1°25'53			3999 Aug 22 12:45	30°♊
minimum elong	3997 Apr 02 00:09	12°♊46'19	1°25'53	morning rise		3999 Aug 26 05:27	27°♊44'13
max. Earth dist.	3997 Apr 05 15:33	17°♊19'36	1.71725 AU	direct		3999 Sep 12 15:12	22°♊01'44
	3997 Apr 15 19:06	0°♊		greatest brilliancy		3999 Sep 23 02:02	24°♊00'37 -4.7m
	3997 May 09 22:11	0°♊				3999 Oct 04 18:44	0°♊
evening rise	3997 May 11 14:30	2°♊04'50		morning max el		3999 Nov 01 01:00	22°♊51'29 46°06'46
asc. node	3997 May 23 08:14	16°♊35'31		asc. node		3999 Nov 08 03:13	29°♊59'10
	3997 Jun 03 05:31	0°♊				3999 Nov 08 03:32	0°♊
	3997 Jun 27 17:40	0°♊				3999 Dec 05 13:18	0°♊
	3997 Jul 22 11:37	0°♊				3999 Dec 31 01:28	0°♊
	3997 Aug 16 13:42	0°♊				4000 Jan 24 17:59	0°♊
	3997 Sep 11 04:25	0°♊				4000 Feb 18 01:24	0°♊
desc. node	3997 Sep 11 22:26	0°♊52'00		desc. node		4000 Feb 27 17:36	12°♊00'32
	3997 Oct 07 16:41	0°♊				4000 Mar 13 04:47	0°♊
	3997 Nov 05 04:15	0°♊				4000 Apr 06 07:00	0°♊
evening max el	3997 Nov 05 21:52	0°♊43'20	46°36'32			4000 Apr 30 09:58	0°♊
	3997 Dec 13 23:55	0°♊		morning set		4000 May 06 01:46	7°♊01'17
greatest brilliancy	3997 Dec 16 04:39	0°♊51'00	-4.9m			4000 May 24 14:57	0°♊
retrograde	3997 Dec 25 23:05	2°♊39'15					
asc. node	3998 Jan 03 00:53	1°♊19'12		superior conj		4000 Jun 13 03:08	24°♊05'16 -0°16'00
	3998 Jan 06 10:11	30°♊		minimum elong		4000 Jun 13 06:37	24°♊16'01 0°15'50
evening set	3998 Jan 09 08:25	28°♊33'43		behind sun begin		4000 Jun 13 04:08	24°♊08'21
inferior conj	3998 Jan 15 12:47	24°♊57'47	3°11'23	behind sun end		4000 Jun 13 09:07	24°♊23'41
minimum elong	3998 Jan 15 05:48	25°♊08'25	3°09'14	max. Earth dist.		4000 Jun 15 03:55	26°♊35'40 1.73164 AU
min. Earth dist.	3998 Jan 15 07:58	25°♊05'06	0.26566 AU			4000 Jun 17 22:13	0°♊
morning rise	3998 Jan 21 03:03	21°♊40'20		asc. node		4000 Jun 19 20:08	2°♊21'28
direct	3998 Feb 04 23:04	17°♊17'25				4000 Jul 12 07:17	0°♊
greatest brilliancy	3998 Feb 14 22:07	19°♊10'17	-4.9m	evening rise		4000 Jul 20 01:02	9°♊30'42
	3998 Mar 05 05:01	0°♊				4000 Aug 05 17:43	0°♊
morning max el	3998 Mar 27 08:42	20°♊01'55	46°50'46			4000 Aug 30 05:56	0°♊
	3998 Apr 06 00:49	0°♊				4000 Sep 23 21:04	0°♊
desc. node	3998 Apr 24 15:14	20°♊18'05		desc. node		4000 Oct 09 10:18	18°♊49'51
	3998 May 03 05:06	0°♊				4000 Oct 18 16:35	0°♊
	3998 May 29 02:04	0°♊				4000 Nov 12 18:19	0°♊
	3998 Jun 23 10:04	0°♊				4000 Dec 08 06:44	0°♊
	3998 Jul 18 11:10	0°♊				4001 Jan 03 20:11	0°♊
	3998 Aug 12 06:45	0°♊		evening max el		4001 Jan 17 18:17	14°♊42'23 47°12'52
asc. node	3998 Aug 15 17:48	4°♊12'19		asc. node		4001 Jan 30 12:52	27°♊03'26
	3998 Sep 05 20:44	0°♊				4001 Feb 02 20:11	0°♊
morning set	3998 Sep 23 22:56	22°♊15'26		greatest brilliancy		4001 Feb 27 08:09	16°♊12'12 -4.9m
	3998 Sep 30 05:20	0°♊		retrograde		4001 Mar 09 14:14	18°♊11'54
	3998 Oct 24 09:45	0°♊		evening set		4001 Mar 27 15:21	11°♊53'37
max. Earth dist.	3998 Oct 28 01:08	4°♊31'48	1.72320 AU	inferior conj		4001 Mar 30 09:59	10°♊10'26 8°55'21
				minimum elong		4001 Mar 30 12:20	10°♊06'47 8°55'16
superior conj	3998 Oct 30 21:36	8°♊04'57	1°11'43	min. Earth dist.		4001 Mar 29 22:45	10°♊27'57 0.27513 AU
minimum elong	3998 Oct 31 06:37	8°♊33'01	1°11'29	morning rise		4001 Apr 02 09:29	8°♊20'22

direct	4001 Apr 20 04:16	2°♄18'30			4003 Nov 26 17:21	0°♁	
greatest brilliancy	4001 Apr 29 08:56	3°♄54'01	-4.8m		4003 Dec 21 01:59	0°♁	
desc. node	4001 May 22 02:58	17°♄39'57			4004 Jan 14 14:05	0°♄	
	4001 Jun 05 01:57	0°♄			4004 Feb 08 11:27	0°♄	
morning max el	4001 Jun 08 15:44	3°♄25'48	46°07'01	asc. node	4004 Feb 28 00:33	22°♄52'03	
	4001 Jul 04 06:51	0°♄			4004 Mar 05 07:03	0°♄	
	4001 Jul 31 02:59	0°♄		evening max el	4004 Mar 30 12:34	27°♄02'51	46°33'22
	4001 Aug 25 22:39	0°♄			4004 Apr 02 12:08	0°♄	
asc. node	4001 Sep 12 05:37	20°♄32'43		greatest brilliancy	4004 May 08 18:17	27°♄01'27	-4.8m
	4001 Sep 20 02:32	0°♄		retrograde	4004 May 19 13:11	29°♄11'08	
	4001 Oct 14 18:29	0°♄		evening set	4004 Jun 03 21:41	24°♄35'11	
	4001 Nov 08 01:45	0°♄		inferior conj	4004 Jun 09 21:09	20°♄58'38	2°05'31
	4001 Dec 02 03:28	0°♄		minimum elong	4004 Jun 10 01:42	20°♄51'30	2°04'11
morning set	4001 Dec 03 10:26	1°♄36'48		min. Earth dist.	4004 Jun 09 17:39	21°♄04'07	0.28462 AU
	4001 Dec 26 02:03	0°♁		morning rise	4004 Jun 16 06:03	17°♄09'19	
desc. node	4002 Jan 01 19:56	8°♁28'17		desc. node	4004 Jun 18 14:49	15°♄56'19	
max. Earth dist.	4002 Jan 11 14:00	20°♁43'42	1.71184 AU	direct	4004 Jul 01 03:58	12°♄50'16	
				greatest brilliancy	4004 Jul 11 04:55	14°♄39'04	-4.7m
superior conj	4002 Jan 12 15:33	22°♁03'57	-0°25'43		4004 Aug 04 20:54	0°♄	
minimum elong	4002 Jan 12 09:01	21°♁43'25	0°25'24	morning max el	4004 Aug 18 20:16	12°♄28'27	45°42'20
	4002 Jan 18 22:59	0°♁			4004 Sep 05 06:40	0°♄	
	4002 Feb 11 19:25	0°♄			4004 Oct 02 13:57	0°♄	
evening rise	4002 Feb 22 17:40	13°♄43'53		asc. node	4004 Oct 09 17:28	8°♄11'56	
	4002 Mar 07 16:52	0°♄			4004 Oct 28 07:09	0°♄	
	4002 Mar 31 17:31	0°♄			4004 Nov 22 03:25	0°♄	
asc. node	4002 Apr 24 22:24	29°♄55'39			4004 Dec 16 11:35	0°♄	
	4002 Apr 24 23:49	0°♄			4005 Jan 09 13:10	0°♁	
	4002 May 19 14:21	0°♄		desc. node	4005 Jan 29 07:44	24°♁46'56	
	4002 Jun 13 16:35	0°♄			4005 Feb 02 11:30	0°♁	
	4002 Jul 09 13:19	0°♄		morning set	4005 Feb 17 07:25	18°♁37'31	
	4002 Aug 05 21:31	0°♄			4005 Feb 26 08:41	0°♄	
desc. node	4002 Aug 14 12:37	8°♄52'33			4005 Mar 22 06:17	0°♄	
evening max el	4002 Aug 22 18:03	16°♄57'08	45°38'09				
	4002 Sep 06 09:08	0°♄		superior conj	4005 Mar 30 08:35	10°♄08'36	-1°26'22
greatest brilliancy	4002 Oct 01 06:09	15°♄07'42	-4.8m	minimum elong	4005 Mar 30 10:51	10°♄15'43	1°26'21
retrograde	4002 Oct 10 10:51	16°♄39'49		max. Earth dist.	4005 Apr 02 22:51	14°♄38'29	1.71678 AU
evening set	4002 Oct 27 13:52	11°♄10'23			4005 Apr 15 05:56	0°♄	
inferior conj	4002 Oct 31 13:18	8°♄45'47	-7°21'57	evening rise	4005 May 09 04:21	29°♄45'38	
minimum elong	4002 Oct 31 22:44	8°♄31'11	7°20'25		4005 May 09 08:59	0°♄	
min. Earth dist.	4002 Nov 01 12:37	8°♄09'43	0.27976 AU	asc. node	4005 May 22 10:21	16°♄08'35	
morning rise	4002 Nov 05 07:08	5°♄53'22			4005 Jun 02 16:24	0°♄	
direct	4002 Nov 21 17:27	0°♄40'38			4005 Jun 27 04:45	0°♄	
greatest brilliancy	4002 Dec 02 22:43	3°♄00'27	-4.9m		4005 Jul 21 23:06	0°♄	
asc. node	4002 Dec 05 15:03	4°♄10'33			4005 Aug 16 01:56	0°♄	
	4003 Jan 07 14:37	0°♄			4005 Sep 10 18:02	0°♄	
morning max el	4003 Jan 11 06:06	3°♄39'05	46°49'55	desc. node	4005 Sep 11 00:20	0°♄18'09	
	4003 Feb 04 15:36	0°♁			4005 Oct 07 09:03	0°♄	
	4003 Mar 02 11:24	0°♁		evening max el	4005 Nov 03 11:46	28°♄22'16	46°34'22
desc. node	4003 Mar 27 05:22	29°♁41'16			4005 Nov 05 03:54	0°♁	
	4003 Mar 27 11:34	0°♄		greatest brilliancy	4005 Dec 13 16:54	28°♁22'40	-4.9m
	4003 Apr 21 03:23	0°♄			4005 Dec 20 11:01	0°♁	
	4003 May 15 16:03	0°♄		retrograde	4005 Dec 23 11:50	0°♁10'59	
	4003 Jun 09 04:03	0°♄			4005 Dec 26 11:37	30°♄3	
	4003 Jul 03 15:57	0°♄		asc. node	4006 Jan 02 02:59	28°♁17'15	
morning set	4003 Jul 15 14:32	14°♄38'14		evening set	4006 Jan 06 19:37	26°♁06'45	
asc. node	4003 Jul 18 07:59	17°♄58'55		inferior conj	4006 Jan 13 00:56	22°♁29'32	2°48'02
	4003 Jul 28 03:04	0°♄		minimum elong	4006 Jan 12 18:43	22°♁38'59	2°46'05
max. Earth dist.	4003 Aug 19 10:14	27°♄25'03	1.73424 AU	min. Earth dist.	4006 Jan 12 21:05	22°♁35'23	0.26569 AU
				morning rise	4006 Jan 18 17:45	19°♁09'03	
superior conj	4003 Aug 21 05:16	29°♄37'33	1°09'23	direct	4006 Feb 02 12:01	14°♁49'01	
minimum elong	4003 Aug 20 20:48	29°♄11'29	1°09'08	greatest brilliancy	4006 Feb 12 11:30	16°♁42'51	-4.9m
	4003 Aug 21 12:33	0°♄			4006 Mar 05 19:35	0°♁	
	4003 Sep 14 20:20	0°♄		morning max el	4006 Mar 24 22:51	17°♁39'24	46°51'46
evening rise	4003 Sep 26 07:37	14°♄09'58			4006 Apr 05 20:28	0°♄	
	4003 Oct 09 03:10	0°♄		desc. node	4006 Apr 23 17:21	19°♄38'25	
	4003 Nov 02 09:58	0°♄			4006 May 02 20:20	0°♄	
desc. node	4003 Nov 06 22:13	5°♄34'10			4006 May 28 15:20	0°♄	

	4006 Jun 22 22:14	0°♂		evening max el	4009 Jan 15 08:17	12°♂18'04	47°12'38
	4006 Jul 17 22:40	0°♂		asc. node	4009 Jan 29 14:46	25°♂59'51	
	4006 Aug 11 17:50	0°♂			4009 Feb 03 05:54	0°♂	
asc. node	4006 Aug 14 19:46	3°♂44'47		greatest brilliancy	4009 Feb 24 22:57	13°♂48'45	-4.9m
	4006 Sep 05 07:34	0°♂		retrograde	4009 Mar 07 03:54	15°♂47'20	
morning set	4006 Sep 21 16:14	20°♂07'39		evening set	4009 Mar 25 05:25	9°♂29'28	
	4006 Sep 29 16:05	0°♂		inferior conj	4009 Mar 27 23:38	7°♂46'49	8°57'49
	4006 Oct 23 20:31	0°♂		minimum elong	4009 Mar 28 01:04	7°♂44'34	8°57'47
max. Earth dist.	4006 Oct 25 17:13	2°♂18'58	1.72369 AU	min. Earth dist.	4009 Mar 27 11:58	8°♂05'02	0.27469 AU
				morning rise	4009 Mar 30 20:54	5°♂59'58	
superior conj	4006 Oct 28 13:20	5°♂50'52	1°13'30		4009 Apr 15 20:23	30°♂	
minimum elong	4006 Oct 28 21:57	6°♂17'42	1°13'18	direct	4009 Apr 17 17:19	29°♂55'47	
	4006 Nov 16 22:25	0°♂			4009 Apr 19 14:38	0°♂	
desc. node	4006 Dec 04 10:13	21°♂50'19		greatest brilliancy	4009 Apr 26 21:43	1°♂30'43	-4.8m
evening rise	4006 Dec 06 09:12	24°♂17'07		desc. node	4009 May 21 05:04	16°♂33'31	
	4006 Dec 10 22:56	0°♂			4009 Jun 05 02:16	0°♂	
	4007 Jan 03 22:46	0°♂		morning max el	4009 Jun 06 04:33	1°♂03'42	46°08'33
	4007 Jan 27 22:54	0°♂			4009 Jul 03 23:23	0°♂	
	4007 Feb 21 01:32	0°♂			4009 Jul 30 16:47	0°♂	
	4007 Mar 17 10:37	0°♂			4009 Aug 25 11:05	0°♂	
asc. node	4007 Mar 27 12:29	12°♂14'13		asc. node	4009 Sep 11 07:35	20°♂02'59	
	4007 Apr 11 08:12	0°♂			4009 Sep 19 14:14	0°♂	
	4007 May 07 04:24	0°♂			4009 Oct 14 05:48	0°♂	
	4007 Jun 04 00:11	0°♂			4009 Nov 07 12:53	0°♂	
evening max el	4007 Jun 10 08:01	6°♂16'30	45°38'31	morning set	4009 Dec 01 00:18	29°♂15'30	
	4007 Jul 09 11:33	0°♂			4009 Dec 01 14:32	0°♂	
desc. node	4007 Jul 17 02:51	3°♂50'48			4009 Dec 25 13:08	0°♂	
greatest brilliancy	4007 Jul 18 07:58	4°♂19'04	-4.7m	desc. node	4009 Dec 31 21:56	7°♂59'48	
retrograde	4007 Jul 29 04:28	6°♂25'42		max. Earth dist.	4010 Jan 08 19:12	17°♂54'22	1.71208 AU
evening set	4007 Aug 14 13:17	1°♂18'26					
	4007 Aug 16 18:03	30°♂		superior conj	4010 Jan 10 02:32	19°♂32'48	-0°21'57
inferior conj	4007 Aug 19 16:22	28°♂10'48	-6°51'25	minimum elong	4010 Jan 09 20:55	19°♂15'08	0°21'40
minimum elong	4007 Aug 19 06:49	28°♂25'45	6°49'43		4010 Jan 18 10:06	0°♂	
min. Earth dist.	4007 Aug 19 12:02	28°♂17'35	0.29097 AU		4010 Feb 11 06:35	0°♂	
morning rise	4007 Aug 24 00:24	25°♂31'09		evening rise	4010 Feb 20 04:07	11°♂10'44	
direct	4007 Sep 10 08:04	19°♂53'00			4010 Mar 07 04:08	0°♂	
greatest brilliancy	4007 Sep 20 16:52	21°♂50'03	-4.7m		4010 Mar 31 04:55	0°♂	
	4007 Oct 05 15:59	0°♂		asc. node	4010 Apr 24 00:30	29°♂26'28	
morning max el	4007 Oct 29 16:09	20°♂37'35	46°05'12		4010 Apr 24 11:25	0°♂	
asc. node	4007 Nov 07 05:21	29°♂14'47			4010 May 19 02:20	0°♂	
	4007 Nov 07 22:46	0°♂			4010 Jun 13 05:21	0°♂	
	4007 Dec 05 04:09	0°♂			4010 Jul 09 03:41	0°♂	
	4007 Dec 30 14:39	0°♂			4010 Aug 05 15:45	0°♂	
	4008 Jan 24 06:22	0°♂		desc. node	4010 Aug 13 14:32	8°♂06'20	
	4008 Feb 17 13:19	0°♂		evening max el	4010 Aug 20 07:16	14°♂38'57	45°37'03
desc. node	4008 Feb 26 19:32	11°♂30'02			4010 Sep 06 19:14	0°♂	
	4008 Mar 12 16:21	0°♂		greatest brilliancy	4010 Sep 28 19:49	12°♂50'55	-4.8m
	4008 Apr 05 18:17	0°♂		retrograde	4010 Oct 08 00:43	14°♂23'31	
	4008 Apr 29 21:03	0°♂		evening set	4010 Oct 25 07:01	8°♂49'10	
morning set	4008 May 03 16:08	4°♂42'42		inferior conj	4010 Oct 29 03:54	6°♂28'27	-7°32'51
	4008 May 24 01:53	0°♂		minimum elong	4010 Oct 29 12:56	6°♂14'28	7°31'27
				min. Earth dist.	4010 Oct 30 03:13	5°♂52'25	0.28045 AU
superior conj	4008 Jun 10 19:18	21°♂53'36	-0°19'19	morning rise	4010 Nov 02 18:23	3°♂40'51	
minimum elong	4008 Jun 10 23:30	22°♂06'33	0°19'07		4010 Nov 10 08:57	30°♂	
max. Earth dist.	4008 Jun 13 01:30	24°♂40'43	1.73126 AU	direct	4010 Nov 19 08:07	28°♂22'04	
	4008 Jun 17 09:04	0°♂			4010 Nov 28 16:01	0°♂	
asc. node	4008 Jun 18 22:10	1°♂54'17		greatest brilliancy	4010 Nov 30 14:36	0°♂42'47	-4.8m
	4008 Jul 11 18:09	0°♂		asc. node	4010 Dec 04 17:03	2°♂34'55	
evening rise	4008 Jul 17 19:15	7°♂25'49			4011 Jan 07 13:53	0°♂	
	4008 Aug 05 04:42	0°♂		morning max el	4011 Jan 08 20:34	1°♂17'26	46°48'59
	4008 Aug 29 17:09	0°♂			4011 Feb 04 08:06	0°♂	
	4008 Sep 23 08:42	0°♂			4011 Mar 02 01:30	0°♂	
desc. node	4008 Oct 08 12:23	18°♂19'50		desc. node	4011 Mar 26 07:28	29°♂38'34	
	4008 Oct 18 04:54	0°♂			4011 Mar 27 00:27	0°♂	
	4008 Nov 12 07:41	0°♂			4011 Apr 20 15:33	0°♂	
	4008 Dec 07 21:55	0°♂			4011 May 15 03:45	0°♂	
	4009 Jan 03 15:13	0°♂			4011 Jun 08 15:23	0°♂	

	4011 Jul 03 03:00	0°☿		inferior conj	4014 Jan 10 13:12	20°☿01'16	2°24'20
morning set	4011 Jul 13 07:57	12°☿30'47		minimum elong	4014 Jan 10 07:47	20°☿09'30	2°22'38
asc. node	4011 Jul 17 09:55	17°☿31'15		min. Earth dist.	4014 Jan 10 10:22	20°☿05'34	0.26573 AU
	4011 Jul 27 13:57	0°♌		morning rise	4014 Jan 16 08:20	16°☿37'47	
max. Earth dist.	4011 Aug 17 07:15	25°♌28'37	1.73441 AU	direct	4014 Jan 31 01:09	12°☿20'44	
				greatest brilliancy	4014 Feb 10 00:51	14°☿15'00	-4.9m
superior conj	4011 Aug 18 23:24	27°♌32'13	1°07'29		4014 Mar 06 06:36	0°♍	
minimum elong	4011 Aug 18 14:43	27°♌05'31	1°07'13	morning max el	4014 Mar 22 12:47	15°♍15'56	46°52'47
	4011 Aug 20 23:24	0°♎			4014 Apr 05 15:38	0°♋	
	4011 Sep 14 07:15	0°♏		desc. node	4014 Apr 22 19:25	18°♋58'53	
evening rise	4011 Sep 24 00:59	12°♏01'31			4014 May 02 11:24	0°♌	
	4011 Oct 08 14:16	0°♐			4014 May 28 04:31	0°♍	
	4011 Nov 01 21:20	0°♑			4014 Jun 22 10:23	0°♎	
desc. node	4011 Nov 06 00:20	5°♑05'25			4014 Jul 17 10:11	0°☿	
	4011 Nov 26 05:04	0°☿			4014 Aug 11 04:58	0°♌	
	4011 Dec 20 14:09	0°♍		asc. node	4014 Aug 13 21:47	3°♌17'07	
	4012 Jan 14 02:56	0°♋			4014 Sep 04 18:29	0°♎	
	4012 Feb 08 01:26	0°♌		morning set	4014 Sep 19 09:31	17°♎59'32	
asc. node	4012 Feb 27 02:34	22°♌13'17			4014 Sep 29 02:54	0°♏	
	4012 Mar 04 23:27	0°♋			4014 Oct 23 07:20	0°♐	
evening max el	4012 Mar 28 03:10	24°♋44'23	46°35'29	max. Earth dist.	4014 Oct 23 07:21	0°♐00'03	1.72414 AU
	4012 Apr 02 11:46	0°♎					
greatest brilliancy	4012 May 06 10:26	24°♎47'59	-4.8m	superior conj	4014 Oct 26 05:10	3°♐37'06	1°15'11
retrograde	4012 May 17 05:34	26°♎58'08		minimum elong	4014 Oct 26 13:20	4°♐02'31	1°14'59
evening set	4012 Jun 01 15:14	22°♎19'24			4014 Nov 16 09:19	0°♑	
inferior conj	4012 Jun 07 12:53	18°♎45'37	2°25'46	evening rise	4014 Dec 03 22:06	21°♑52'59	
minimum elong	4012 Jun 07 18:07	18°♎37'25	2°24'14	desc. node	4014 Dec 03 12:10	21°♑21'58	
min. Earth dist.	4012 Jun 07 09:34	18°♎50'48	0.28436 AU		4014 Dec 10 10:00	0°☿	
morning rise	4012 Jun 13 21:22	14°♎57'16			4015 Jan 03 10:02	0°♍	
desc. node	4012 Jun 17 16:51	13°♎04'31			4015 Jan 27 10:23	0°♋	
direct	4012 Jun 28 19:12	10°♎37'29			4015 Feb 20 13:19	0°♌	
greatest brilliancy	4012 Jul 08 20:10	12°♎26'41	-4.7m		4015 Mar 16 22:52	0°♋	
	4012 Aug 05 03:12	0°☿		asc. node	4015 Mar 26 14:37	11°♋42'49	
morning max el	4012 Aug 16 12:39	10°☿19'02	45°42'27		4015 Apr 10 21:19	0°♎	
	4012 Sep 05 00:10	0°♌			4015 May 06 19:24	0°☿	
	4012 Oct 02 04:03	0°♎			4015 Jun 03 20:18	0°♌	
asc. node	4012 Oct 08 19:37	7°♎38'55		evening max el	4015 Jun 08 00:06	4°♌05'56	45°39'40
	4012 Oct 27 19:48	0°♏			4015 Jul 11 01:32	0°♎	
	4012 Nov 21 15:22	0°♐		greatest brilliancy	4015 Jul 16 00:01	2°♎10'22	-4.7m
	4012 Dec 15 23:09	0°♑		desc. node	4015 Jul 16 04:45	2°♎14'44	
	4013 Jan 09 00:31	0°☿		retrograde	4015 Jul 26 20:29	4°♎16'58	
desc. node	4013 Jan 28 09:41	24°☿17'43			4015 Aug 10 17:59	30°♎♏	
	4013 Feb 01 22:44	0°♍		evening set	4015 Aug 12 02:50	29°♌14'06	
morning set	4013 Feb 14 17:27	16°♍03'07		inferior conj	4015 Aug 17 08:47	26°♌02'04	-6°39'13
	4013 Feb 25 19:49	0°♋		minimum elong	4015 Aug 16 23:06	26°♌17'17	6°37'25
	4013 Mar 21 17:20	0°♌		min. Earth dist.	4015 Aug 17 03:56	26°♌09'41	0.29093 AU
				morning rise	4015 Aug 21 19:25	23°♌18'18	
superior conj	4013 Mar 27 20:29	7°♌41'06	-1°26'40	direct	4015 Sep 08 00:31	17°♌44'34	
minimum elong	4013 Mar 27 21:44	7°♌44'59	1°26'40	greatest brilliancy	4015 Sep 18 08:18	19°♌40'13	-4.7m
max. Earth dist.	4013 Mar 31 08:46	12°♌04'56	1.71633 AU		4015 Oct 06 07:42	0°♎	
	4013 Apr 14 16:54	0°♋		morning max el	4015 Oct 27 06:40	18°♎22'12	46°03'41
evening rise	4013 May 06 18:21	27°♋26'18		asc. node	4015 Nov 06 07:19	28°♎30'41	
	4013 May 08 19:58	0°♎			4015 Nov 07 17:28	0°♏	
asc. node	4013 May 21 12:22	15°♎40'47			4015 Dec 04 18:47	0°♐	
	4013 Jun 02 03:28	0°☿			4015 Dec 30 03:40	0°♑	
	4013 Jun 26 16:03	0°♌			4016 Jan 23 18:35	0°☿	
	4013 Jul 21 10:51	0°♎			4016 Feb 17 01:03	0°♍	
	4013 Aug 15 14:28	0°♏		desc. node	4016 Feb 25 21:37	11°♍00'28	
desc. node	4013 Sep 10 02:28	29°♏44'11			4016 Mar 12 03:46	0°♋	
	4013 Sep 10 07:58	0°♐			4016 Apr 05 05:27	0°♌	
	4013 Oct 07 01:53	0°♑			4016 Apr 29 08:00	0°♋	
evening max el	4013 Nov 01 02:19	26°♑02'41	46°32'12	morning set	4016 May 01 06:20	2°♋23'51	
	4013 Nov 05 04:49	0°☿			4016 May 23 12:41	0°♎	
greatest brilliancy	4013 Dec 11 05:22	25°☿54'43	-4.9m				
retrograde	4013 Dec 21 00:37	27°☿42'35		superior conj	4016 Jun 08 11:29	19°♎42'24	-0°22'36
asc. node	4014 Jan 01 04:56	25°☿10'21		minimum elong	4016 Jun 08 16:22	19°♎57'28	0°22'22
evening set	4014 Jan 04 07:14	23°☿39'40		max. Earth dist.	4016 Jun 10 21:32	22°♎41'28	1.73083 AU

	4016 Jun 16 19:47	0°☿		greatest brilliancy	4018 Nov 28 06:06	28°☿25'53	-4.8m
asc. node	4016 Jun 18 00:08	1°☿27'21			4018 Dec 01 18:17	0°♊	
	4016 Jul 11 04:50	0°♊		asc. node	4018 Dec 03 19:03	1°♊03'34	
evening rise	4016 Jul 15 13:30	5°♊21'30		morning max el	4019 Jan 06 12:02	28°♊59'11	46°47'52
	4016 Aug 04 15:30	0°♋			4019 Jan 07 11:57	0°♋	
	4016 Aug 29 04:14	0°♌			4019 Feb 04 00:07	0°♌	
	4016 Sep 22 20:16	0°♍			4019 Mar 01 15:14	0°♍	
desc. node	4016 Oct 07 14:27	17°♍50'02		desc. node	4019 Mar 25 09:36	28°♍36'51	
	4016 Oct 17 17:10	0°♎			4019 Mar 26 13:00	0°♎	
	4016 Nov 11 21:03	0°♏			4019 Apr 20 03:23	0°♏	
	4016 Dec 07 13:08	0°♐			4019 May 14 15:05	0°♐	
	4017 Jan 03 10:32	0°♑			4019 Jun 08 02:21	0°♑	
evening max el	4017 Jan 12 21:22	9°♑52'00	47°12'30		4019 Jul 02 13:44	0°☿	
asc. node	4017 Jan 28 16:49	24°♑55'46		morning set	4019 Jul 11 01:22	10°☿24'16	
	4017 Feb 03 18:33	0°♒		asc. node	4019 Jul 16 11:59	17°☿04'56	
greatest brilliancy	4017 Feb 22 13:55	11°♒26'04	-4.9m		4019 Jul 27 00:32	0°♊	
retrograde	4017 Mar 04 17:20	13°♒23'32		max. Earth dist.	4019 Aug 15 05:25	23°♊36'40	1.73456 AU
evening set	4017 Mar 22 18:56	7°♒06'45					
min. Earth dist.	4017 Mar 25 01:25	5°♒42'28	0.27428 AU	superior conj	4019 Aug 16 17:37	25°♊28'05	1°05'30
inferior conj	4017 Mar 25 13:18	5°♒23'55	8°59'14	minimum elong	4019 Aug 16 08:48	25°♊00'56	1°05'13
minimum elong	4017 Mar 25 13:49	5°♒23'06	8°59'14		4019 Aug 20 09:56	0°♋	
morning rise	4017 Mar 28 08:51	3°♒39'36			4019 Sep 13 17:51	0°♌	
	4017 Apr 04 05:44	30°♋		evening rise	4019 Sep 21 18:37	9°♌54'57	
direct	4017 Apr 15 05:55	27°♋33'27			4019 Oct 08 01:02	0°♍	
greatest brilliancy	4017 Apr 24 11:01	29°♋08'36	-4.8m		4019 Nov 01 08:22	0°♎	
	4017 Apr 26 19:00	0°♏		desc. node	4019 Nov 05 02:18	4°♎37'20	
desc. node	4017 May 20 07:02	15°♏29'13			4019 Nov 25 16:28	0°♏	
morning max el	4017 Jun 03 17:28	28°♏42'19	46°10'11		4019 Dec 20 02:05	0°♐	
	4017 Jun 05 01:13	0°♑			4020 Jan 13 15:36	0°♑	
	4017 Jul 03 15:23	0°♒			4020 Feb 07 15:20	0°♒	
	4017 Jul 30 06:10	0°☿		asc. node	4020 Feb 26 04:42	21°♒35'08	
	4017 Aug 24 23:11	0°♊			4020 Mar 04 15:54	0°♓	
asc. node	4017 Sep 10 09:45	19°♊34'47		evening max el	4020 Mar 25 18:36	22°♓28'41	46°37'45
	4017 Sep 19 01:38	0°♋			4020 Apr 02 12:14	0°♑	
	4017 Oct 13 16:50	0°♌		greatest brilliancy	4020 May 04 02:23	22°♑34'57	-4.8m
	4017 Nov 06 23:47	0°♍		retrograde	4020 May 14 22:09	24°♑45'29	
morning set	4017 Nov 28 14:05	26°♍54'34		evening set	4020 May 30 08:51	20°♑03'59	
	4017 Dec 01 01:25	0°♎		inferior conj	4020 Jun 05 04:29	16°♑32'57	2°45'50
	4017 Dec 25 00:00	0°♏		minimum elong	4020 Jun 05 10:23	16°♑23'43	2°44'07
desc. node	4017 Dec 30 23:57	7°♏31'56		min. Earth dist.	4020 Jun 05 01:05	16°♑38'16	0.28408 AU
max. Earth dist.	4018 Jan 06 02:25	15°♏12'01	1.71232 AU	morning rise	4020 Jun 11 12:22	12°♑45'51	
				desc. node	4020 Jun 16 18:52	10°♑17'20	
superior conj	4018 Jan 07 13:16	17°♏01'30	-0°18'06	direct	4020 Jun 26 10:45	8°♑25'15	
minimum elong	4018 Jan 07 08:36	16°♏46'50	0°17'52	greatest brilliancy	4020 Jul 06 10:40	10°♑14'06	-4.7m
	4018 Jan 17 20:59	0°♐			4020 Aug 05 07:07	0°☿	
	4018 Feb 10 17:30	0°♑		morning max el	4020 Aug 14 05:16	8°☿11'05	45°42'34
evening rise	4018 Feb 17 14:22	8°♑37'51			4020 Sep 04 16:57	0°♊	
	4018 Mar 06 15:07	0°♒			4020 Oct 01 17:40	0°♋	
	4018 Mar 30 16:01	0°♓		asc. node	4020 Oct 07 21:33	7°♋06'20	
asc. node	4018 Apr 23 02:30	28°♓57'49			4020 Oct 27 08:03	0°♌	
	4018 Apr 23 22:45	0°♑			4020 Nov 21 02:56	0°♍	
	4018 May 18 14:06	0°☿			4020 Dec 15 10:22	0°♎	
	4018 Jun 12 17:55	0°♊			4021 Jan 08 11:33	0°♏	
	4018 Jul 08 17:56	0°♋		desc. node	4021 Jan 27 11:49	23°♏50'01	
	4018 Aug 05 10:04	0°♌			4021 Feb 01 09:41	0°♐	
desc. node	4018 Aug 12 16:42	7°♌21'03		morning set	4021 Feb 12 03:19	13°♐29'05	
evening max el	4018 Aug 17 21:10	12°♌23'36	45°36'06		4021 Feb 25 06:42	0°♑	
	4018 Sep 07 08:11	0°♍			4021 Mar 21 04:09	0°♒	
greatest brilliancy	4018 Sep 26 08:41	10°♍34'36	-4.8m				
retrograde	4018 Oct 05 15:03	12°♍08'29		superior conj	4021 Mar 25 07:50	5°♒12'25	-1°26'47
evening set	4018 Oct 23 00:03	6°♍29'14		minimum elong	4021 Mar 25 08:02	5°♒13'02	1°26'48
inferior conj	4018 Oct 26 18:29	4°♍12'12	-7°42'51	max. Earth dist.	4021 Mar 28 19:25	9°♒34'14	1.71589 AU
minimum elong	4018 Oct 27 03:06	3°♍58'53	7°41'37		4021 Apr 14 03:40	0°♓	
min. Earth dist.	4018 Oct 27 17:25	3°♍36'47	0.28116 AU	evening rise	4021 May 04 07:43	25°♓05'41	
morning rise	4018 Oct 31 05:42	1°♍29'31			4021 May 08 06:43	0°♑	
	4018 Nov 02 22:03	30°♋		asc. node	4021 May 20 14:19	15°♑13'29	
direct	4018 Nov 16 23:21	26°♋04'39			4021 Jun 01 14:18	0°☿	

	4021 Jun 26 03:08	0°♌			4024 Jan 23 06:40	0°♊
	4021 Jul 20 22:23	0°♍			4024 Feb 16 12:39	0°♋
	4021 Aug 15 02:49	0°♎		desc. node	4024 Feb 24 23:42	10°♋31'17
desc. node	4021 Sep 09 04:31	29°♎10'34			4024 Mar 11 15:01	0°♌
	4021 Sep 09 21:48	0°♏			4024 Apr 04 16:27	0°♍
	4021 Oct 06 18:45	0°♐		morning set	4024 Apr 28 20:33	0°♎05'20
evening max el	4021 Oct 29 16:54	23°♐44'14	46°30'03		4024 Apr 28 18:51	0°♏
	4021 Nov 05 06:38	0°♑			4024 May 22 23:25	0°♐
greatest brilliancy	4021 Dec 08 18:28	23°♑28'59	-4.9m			
retrograde	4021 Dec 18 13:04	25°♑15'36		superior conj	4024 Jun 06 03:38	17°♐31'12 -0°25'51
asc. node	4021 Dec 31 06:58	22°♑00'13		minimum elong	4024 Jun 06 09:11	17°♐48'20 0°25'36
evening set	4022 Jan 01 19:16	21°♑13'54		max. Earth dist.	4024 Jun 08 15:28	20°♐35'47 1.73044 AU
inferior conj	4022 Jan 08 01:37	17°♑34'42	2°00'31		4024 Jun 16 06:28	0°♑
minimum elong	4022 Jan 07 21:03	17°♑41'39	1°59'04	asc. node	4024 Jun 17 02:13	1°♑00'55
min. Earth dist.	4022 Jan 08 00:06	17°♑37'01	0.26580 AU		4024 Jul 10 15:32	0°♒
morning rise	4022 Jan 13 22:49	14°♑08'10		evening rise	4024 Jul 13 07:34	3°♒16'42
direct	4022 Jan 28 14:09	9°♑54'06			4024 Aug 04 02:19	0°♓
greatest brilliancy	4022 Feb 07 14:43	11°♑48'59	-4.9m		4024 Aug 28 15:20	0°♎
	4022 Mar 06 14:16	0°♏			4024 Sep 22 07:52	0°♏
morning max el	4022 Mar 20 01:51	12°♏51'01	46°53'30	desc. node	4024 Oct 06 16:24	17°♏19'49
	4022 Apr 05 10:02	0°♌			4024 Oct 17 05:31	0°♐
desc. node	4022 Apr 21 21:22	18°♌19'56			4024 Nov 11 10:32	0°♑
	4022 May 02 02:05	0°♍			4024 Dec 07 04:36	0°♒
	4022 May 27 17:28	0°♎			4025 Jan 03 06:28	0°♓
	4022 Jun 21 22:19	0°♏		evening max el	4025 Jan 10 10:26	7°♓25'57 47°12'25
	4022 Jul 16 21:29	0°♐		asc. node	4025 Jan 27 18:57	23°♓50'16
	4022 Aug 10 15:54	0°♑			4025 Feb 04 11:22	0°♒
asc. node	4022 Aug 12 23:53	2°♑50'23		greatest brilliancy	4025 Feb 20 04:44	9°♒03'19 -4.9m
	4022 Sep 04 05:12	0°♒		retrograde	4025 Mar 02 07:05	11°♒00'23
morning set	4022 Sep 17 02:40	15°♒51'39		evening set	4025 Mar 20 08:01	4°♒45'11
	4022 Sep 28 13:32	0°♓		min. Earth dist.	4025 Mar 22 14:54	3°♒20'32 0.27384 AU
max. Earth dist.	4022 Oct 20 20:16	27°♓37'53	1.72460 AU	inferior conj	4025 Mar 23 03:06	3°♒01'30 8°59'40
	4022 Oct 22 18:00	0°♏		minimum elong	4025 Mar 23 02:41	3°♒02'10 8°59'41
				morning rise	4025 Mar 25 21:27	1°♒19'07
superior conj	4022 Oct 23 21:10	1°♏24'28	1°16'44		4025 Mar 28 03:13	30°♓♌
minimum elong	4022 Oct 24 04:50	1°♏48'18	1°16'34	direct	4025 Apr 12 18:34	25°♓11'29
	4022 Nov 15 20:05	0°♐		greatest brilliancy	4025 Apr 22 00:26	26°♓47'09 -4.8m
evening rise	4022 Dec 01 11:14	19°♐30'16			4025 Apr 29 08:36	0°♒
desc. node	4022 Dec 02 14:11	20°♐54'22		desc. node	4025 May 19 09:06	14°♒27'10
	4022 Dec 09 20:54	0°♑		morning max el	4025 Jun 01 07:17	26°♒23'19 46°11'47
	4023 Jan 02 21:06	0°♒			4025 Jun 04 23:09	0°♓
	4023 Jan 26 21:39	0°♓			4025 Jul 03 07:05	0°♏
	4023 Feb 20 00:52	0°♔			4025 Jul 29 19:30	0°♐
	4023 Mar 16 10:58	0°♕			4025 Aug 24 11:19	0°♑
asc. node	4023 Mar 25 16:33	11°♕11'18		asc. node	4025 Sep 09 11:41	19°♑05'34
	4023 Apr 10 10:23	0°♒			4025 Sep 18 13:06	0°♒
	4023 May 06 10:30	0°♓			4025 Oct 13 03:58	0°♓
	4023 Jun 03 17:01	0°♔			4025 Nov 06 10:46	0°♏
evening max el	4023 Jun 05 15:25	1°♑53'33	45°40'53	morning set	4025 Nov 26 04:00	24°♏33'54
greatest brilliancy	4023 Jul 13 16:17	0°♒01'54	-4.7m		4025 Nov 30 12:22	0°♐
	4023 Jul 13 14:15	0°♑			4025 Dec 24 10:59	0°♑
desc. node	4023 Jul 15 06:55	0°♒35'34		desc. node	4025 Dec 30 02:03	7°♑03'58
retrograde	4023 Jul 24 12:15	2°♒08'31		max. Earth dist.	4026 Jan 03 12:00	12°♑36'46 1.71259 AU
	4023 Aug 03 22:43	30°♒♑				
evening set	4023 Aug 09 16:25	27°♑09'42		superior conj	4026 Jan 05 00:03	14°♑29'59 -0°14'13
inferior conj	4023 Aug 15 01:13	23°♑53'38	-6°26'25	minimum elong	4026 Jan 04 20:22	14°♑18'24 0°14'02
minimum elong	4023 Aug 14 15:25	24°♑09'01	6°24'31	behind sun begin	4026 Jan 04 07:01	13°♑36'29
min. Earth dist.	4023 Aug 14 20:09	24°♑01'35	0.29088 AU	behind sun end	4026 Jan 05 09:42	15°♑00'19
morning rise	4023 Aug 19 14:26	21°♑05'47			4026 Jan 17 08:01	0°♒
direct	4023 Sep 05 16:28	15°♑36'15			4026 Feb 10 04:35	0°♓
greatest brilliancy	4023 Sep 16 00:18	17°♑31'18	-4.7m	evening rise	4026 Feb 15 00:46	6°♓04'58
	4023 Oct 06 19:15	0°♒			4026 Mar 06 02:16	0°♔
morning max el	4023 Oct 24 20:52	16°♒06'21	46°02'15		4026 Mar 30 03:15	0°♕
asc. node	4023 Nov 05 09:20	27°♒47'31		asc. node	4026 Apr 22 04:29	28°♕28'53
	4023 Nov 07 11:36	0°♓			4026 Apr 23 10:11	0°♏
	4023 Dec 04 09:10	0°♏			4026 May 18 01:57	0°♐
	4023 Dec 29 16:32	0°♐			4026 Jun 12 06:38	0°♑

	4026 Jul 08 08:27	0°♍		desc. node	4029 Jan 26 13:51	23°♂20'54	
	4026 Aug 05 05:05	0°♌			4029 Jan 31 20:57	0°♍	
desc. node	4026 Aug 11 18:44	6°♌34'12		morning set	4029 Feb 09 13:04	10°♍53'42	
evening max el	4026 Aug 15 12:14	10°♌10'42	45°35'07		4029 Feb 24 17:54	0°♋	
	4026 Sep 08 01:55	0°♌			4029 Mar 20 15:18	0°♍	
greatest brilliancy	4026 Sep 23 21:16	8°♌17'51	-4.8m				
retrograde	4026 Oct 03 05:51	9°♌53'15		superior conj	4029 Mar 22 19:01	2°♍42'07	-1°26'45
evening set	4026 Oct 20 17:07	4°♌09'31		minimum elong	4029 Mar 22 18:09	2°♍39'25	1°26'45
inferior conj	4026 Oct 24 09:13	1°♌55'47	-7°51'56	max. Earth dist.	4029 Mar 26 06:49	7°♍04'42	1.71546 AU
minimum elong	4026 Oct 24 17:20	1°♌43'15	7°50'53		4029 Apr 13 14:46	0°♌	
min. Earth dist.	4026 Oct 25 07:21	1°♌21'37	0.28185 AU	evening rise	4029 May 01 20:56	22°♌43'15	
	4026 Oct 27 12:50	30°♋♌			4029 May 07 17:50	0°♌	
morning rise	4026 Oct 28 17:12	29°♌17'58		asc. node	4029 May 19 16:27	14°♌45'43	
direct	4026 Nov 14 15:09	23°♌47'22			4029 Jun 01 01:31	0°♌	
greatest brilliancy	4026 Nov 25 21:05	26°♌08'12	-4.8m		4029 Jun 25 14:33	0°♌	
asc. node	4026 Dec 02 21:08	29°♌35'09			4029 Jul 20 10:15	0°♍	
	4026 Dec 03 14:01	0°♌			4029 Aug 14 15:29	0°♌	
morning max el	4027 Jan 04 04:03	26°♌41'59	46°46'34	desc. node	4029 Sep 08 06:27	28°♌35'37	
	4027 Jan 07 09:24	0°♌			4029 Sep 09 12:02	0°♌	
	4027 Feb 03 16:05	0°♌			4029 Oct 06 12:19	0°♌	
	4027 Mar 01 05:04	0°♌		evening max el	4029 Oct 27 06:47	21°♌23'05	46°27'38
desc. node	4027 Mar 24 11:28	28°♌03'42			4029 Nov 05 10:29	0°♌	
	4027 Mar 26 01:44	0°♋		greatest brilliancy	4029 Dec 06 08:05	21°♌02'34	-4.9m
	4027 Apr 19 15:25	0°♍		retrograde	4029 Dec 16 00:48	22°♌47'22	
	4027 May 14 02:36	0°♌		evening set	4029 Dec 30 07:29	18°♌46'27	
	4027 Jun 07 13:30	0°♌		asc. node	4029 Dec 30 09:04	18°♌44'21	
	4027 Jul 02 00:37	0°♌		inferior conj	4030 Jan 05 14:02	15°♌06'58	1°36'29
morning set	4027 Jul 08 19:10	8°♌18'21		minimum elong	4030 Jan 05 10:21	15°♌12'35	1°35'18
asc. node	4027 Jul 15 14:04	16°♌38'06		min. Earth dist.	4030 Jan 05 14:13	15°♌06'42	0.26593 AU
	4027 Jul 26 11:18	0°♌		morning rise	4030 Jan 11 13:05	11°♌37'30	
max. Earth dist.	4027 Aug 13 04:39	21°♌47'21	1.73471 AU	direct	4030 Jan 26 02:43	7°♌26'02	
				greatest brilliancy	4030 Feb 05 05:16	9°♌22'19	-4.9m
superior conj	4027 Aug 14 12:03	23°♌23'59	1°03'27		4030 Mar 06 20:15	0°♌	
minimum elong	4027 Aug 14 03:09	22°♌56'34	1°03'09	morning max el	4030 Mar 17 14:01	10°♌22'25	46°54'14
	4027 Aug 19 20:42	0°♍			4030 Apr 05 04:24	0°♋	
	4027 Sep 13 04:43	0°♌		desc. node	4030 Apr 20 23:29	17°♋40'42	
evening rise	4027 Sep 19 12:25	7°♌48'05			4030 May 01 16:57	0°♍	
	4027 Oct 07 12:04	0°♌			4030 May 27 06:40	0°♌	
	4027 Oct 31 19:41	0°♌			4030 Jun 21 10:34	0°♌	
desc. node	4027 Nov 04 04:19	4°♌08'29			4030 Jul 16 09:08	0°♌	
	4027 Nov 25 04:11	0°♌			4030 Aug 10 03:08	0°♌	
	4027 Dec 19 14:20	0°♌		asc. node	4030 Aug 12 01:51	2°♌22'15	
	4028 Jan 13 04:38	0°♋			4030 Sep 03 16:12	0°♍	
	4028 Feb 07 05:41	0°♍		morning set	4030 Sep 14 20:11	13°♍44'05	
asc. node	4028 Feb 25 06:38	20°♍55'04			4030 Sep 28 00:25	0°♌	
	4028 Mar 04 09:02	0°♌		max. Earth dist.	4030 Oct 18 11:43	25°♌22'53	1.72509 AU
evening max el	4028 Mar 23 10:52	20°♌13'53	46°39'54				
	4028 Apr 02 14:27	0°♌		superior conj	4030 Oct 21 13:37	29°♌12'28	1°18'07
greatest brilliancy	4028 May 01 18:44	20°♌21'23	-4.8m	minimum elong	4030 Oct 21 20:45	29°♌34'40	1°18'00
retrograde	4028 May 12 14:40	22°♌31'39			4030 Oct 22 04:54	0°♌	
evening set	4028 May 28 02:39	17°♌47'38			4030 Nov 15 07:07	0°♌	
inferior conj	4028 Jun 02 20:06	14°♌19'24	3°05'39	evening rise	4030 Nov 29 00:40	17°♌07'37	
minimum elong	4028 Jun 03 02:38	14°♌09'10	3°03'48	desc. node	4030 Dec 01 16:20	20°♌26'15	
min. Earth dist.	4028 Jun 02 16:35	14°♌24'54	0.28374 AU		4030 Dec 09 08:08	0°♌	
morning rise	4028 Jun 09 03:08	10°♌33'39			4031 Jan 02 08:32	0°♌	
desc. node	4028 Jun 15 20:56	7°♌33'48			4031 Jan 26 09:19	0°♋	
direct	4028 Jun 24 02:29	6°♌12'24			4031 Feb 19 12:52	0°♍	
greatest brilliancy	4028 Jul 04 00:44	8°♌00'12	-4.7m		4031 Mar 15 23:31	0°♌	
	4028 Aug 05 09:40	0°♌		asc. node	4031 Mar 24 18:35	10°♌38'45	
morning max el	4028 Aug 11 21:24	6°♌01'22	45°42'44		4031 Apr 09 23:57	0°♌	
	4028 Sep 04 09:39	0°♌			4031 May 06 02:14	0°♌	
	4028 Oct 01 07:27	0°♍		evening max el	4031 Jun 03 06:08	29°♌38'33	45°42'14
asc. node	4028 Oct 06 23:34	6°♍33'23			4031 Jun 03 14:57	0°♌	
	4028 Oct 26 20:34	0°♌		greatest brilliancy	4031 Jul 11 08:14	27°♌51'59	-4.7m
	4028 Nov 20 14:48	0°♌		desc. node	4031 Jul 14 08:57	28°♌51'40	
	4028 Dec 14 21:55	0°♌		retrograde	4031 Jul 22 04:12	29°♌59'20	
	4029 Jan 07 22:55	0°♌		evening set	4031 Aug 07 06:04	25°♌04'06	

inferior conj	4031 Aug 12 17:38	21° Ω 44'22	-6°13'08	minimum elong	4034 Jan 02 08:36	11° \mathfrak{Z} 51'38	0°10'14
minimum elong	4031 Aug 12 07:47	21° Ω 59'50	6°11'08	behind sun begin	4034 Jan 01 12:12	10° \mathfrak{Z} 47'34	
min. Earth dist.	4031 Aug 12 12:26	21° Ω 52'33	0.29079 AU	behind sun end	4034 Jan 03 05:00	12° \mathfrak{Z} 55'43	
morning rise	4031 Aug 17 09:28	18° Ω 52'38			4034 Jan 16 18:59	0° \approx	
direct	4031 Sep 03 08:12	13° Ω 27'01			4034 Feb 09 15:37	0° \mathfrak{H}	
greatest brilliancy	4031 Sep 13 16:45	15° Ω 22'18	-4.7m	evening rise	4034 Feb 12 11:26	3° \mathfrak{H} 33'01	
	4031 Oct 07 04:00	0° \mathfrak{M}			4034 Mar 05 13:24	0° \mathfrak{Y}	
morning max el	4031 Oct 22 11:28	13° \mathfrak{M} 51'08	46°01'02		4034 Mar 29 14:33	0° \mathfrak{B}	
asc. node	4031 Nov 04 11:27	27° \mathfrak{M} 04'44		asc. node	4034 Apr 21 06:35	28° \mathfrak{B} 00'00	
	4031 Nov 07 05:27	0° \mathfrak{L}			4034 Apr 22 21:43	0° \mathfrak{I}	
	4031 Dec 03 23:32	0° \mathfrak{M}			4034 May 17 13:57	0° \mathfrak{G}	
	4031 Dec 29 05:30	0° \mathfrak{X}			4034 Jun 11 19:33	0° Ω	
	4032 Jan 22 18:56	0° \mathfrak{Z}			4034 Jul 07 23:16	0° \mathfrak{M}	
	4032 Feb 16 00:29	0° \approx			4034 Aug 05 00:45	0° \mathfrak{L}	
desc. node	4032 Feb 24 01:39	10° \approx 00'49		desc. node	4034 Aug 10 20:39	5° \mathfrak{L} 46'08	
	4032 Mar 11 02:33	0° \mathfrak{H}		evening max el	4034 Aug 13 03:40	7° \mathfrak{L} 58'32	45°34'14
	4032 Apr 04 03:45	0° \mathfrak{Y}			4034 Sep 09 02:03	0° \mathfrak{M}	
morning set	4032 Apr 26 10:11	27° \mathfrak{Y} 43'53		greatest brilliancy	4034 Sep 21 09:54	6° \mathfrak{M} 01'14	-4.7m
	4032 Apr 28 05:58	0° \mathfrak{B}		retrograde	4034 Sep 30 20:26	7° \mathfrak{M} 37'46	
	4032 May 22 10:25	0° \mathfrak{I}		evening set	4034 Oct 18 10:01	1° \mathfrak{M} 50'04	
					4034 Oct 21 10:31	30° \mathfrak{R} \mathfrak{L}	
superior conj	4032 Jun 03 19:23	15° \mathfrak{I} 17'55	-0°29'06	inferior conj	4034 Oct 21 23:52	29° \mathfrak{L} 39'23	-8°00'26
minimum elong	4032 Jun 04 01:35	15° \mathfrak{I} 37'05	0°28'49	minimum elong	4034 Oct 22 07:26	29° \mathfrak{L} 27'41	7°59'32
max. Earth dist.	4032 Jun 06 08:09	18° \mathfrak{I} 25'29	1.73003 AU	min. Earth dist.	4034 Oct 22 21:03	29° \mathfrak{L} 06'38	0.28247 AU
	4032 Jun 15 17:23	0° \mathfrak{G}		morning rise	4034 Oct 26 04:33	27° \mathfrak{L} 06'18	
asc. node	4032 Jun 16 04:16	0° \mathfrak{G} 33'32		direct	4034 Nov 12 07:03	21° \mathfrak{L} 30'20	
	4032 Jul 10 02:28	0° Ω		greatest brilliancy	4034 Nov 23 11:27	23° \mathfrak{L} 49'57	-4.8m
evening rise	4032 Jul 11 01:29	1° Ω 10'42		asc. node	4034 Dec 01 23:09	28° \mathfrak{L} 09'41	
	4032 Aug 03 13:23	0° \mathfrak{M}			4034 Dec 04 19:47	0° \mathfrak{M}	
	4032 Aug 28 02:40	0° \mathfrak{L}		morning max el	4035 Jan 01 19:34	24° \mathfrak{M} 24'07	46°45'25
	4032 Sep 21 19:39	0° \mathfrak{M}			4035 Jan 07 05:56	0° \mathfrak{X}	
desc. node	4032 Oct 05 18:30	16° \mathfrak{M} 49'39			4035 Feb 03 07:33	0° \mathfrak{Z}	
	4032 Oct 16 18:01	0° \mathfrak{X}			4035 Feb 28 18:33	0° \approx	
	4032 Nov 11 00:12	0° \mathfrak{Z}		desc. node	4035 Mar 23 13:36	27° \approx 32'12	
	4032 Dec 06 20:21	0° \approx			4035 Mar 25 14:10	0° \mathfrak{H}	
	4033 Jan 03 03:10	0° \mathfrak{H}			4035 Apr 19 03:13	0° \mathfrak{Y}	
evening max el	4033 Jan 07 23:45	5° \mathfrak{H} 00'10	47°12'03		4035 May 13 13:59	0° \mathfrak{B}	
asc. node	4033 Jan 26 20:51	22° \mathfrak{H} 41'40			4035 Jun 07 00:33	0° \mathfrak{I}	
	4033 Feb 05 10:38	0° \mathfrak{Y}			4035 Jul 01 11:26	0° \mathfrak{G}	
greatest brilliancy	4033 Feb 17 18:33	6° \mathfrak{Y} 38'02	-4.9m	morning set	4035 Jul 06 12:29	6° \mathfrak{G} 11'14	
retrograde	4033 Feb 27 20:53	8° \mathfrak{Y} 35'29		asc. node	4035 Jul 14 16:01	16° \mathfrak{G} 11'07	
evening set	4033 Mar 17 20:10	2° \mathfrak{Y} 22'25			4035 Jul 25 21:59	0° Ω	
min. Earth dist.	4033 Mar 20 03:48	0° \mathfrak{Y} 56'51	0.27347 AU	max. Earth dist.	4035 Aug 11 02:33	19° Ω 54'15	1.73480 AU
inferior conj	4033 Mar 20 16:32	0° \mathfrak{Y} 37'04	8°59'04				
minimum elong	4033 Mar 20 15:10	0° \mathfrak{Y} 39'12	8°59'02	superior conj	4035 Aug 12 06:01	21° Ω 18'47	1°01'17
	4033 Mar 21 16:26	30° \mathfrak{R} \mathfrak{H}		minimum elong	4035 Aug 11 21:05	20° Ω 51'16	1°00'58
morning rise	4033 Mar 23 10:17	28° \mathfrak{H} 55'50			4035 Aug 19 07:21	0° \mathfrak{M}	
direct	4033 Apr 10 07:18	22° \mathfrak{H} 47'25			4035 Sep 12 15:27	0° \mathfrak{L}	
greatest brilliancy	4033 Apr 19 13:23	24° \mathfrak{H} 23'34	-4.8m	evening rise	4035 Sep 17 05:54	5° \mathfrak{L} 40'43	
	4033 May 01 00:12	0° \mathfrak{Y}			4035 Oct 06 22:59	0° \mathfrak{M}	
desc. node	4033 May 18 11:11	13° \mathfrak{Y} 25'30			4035 Oct 31 06:53	0° \mathfrak{X}	
morning max el	4033 May 29 21:40	24° \mathfrak{Y} 04'39	46°13'26	desc. node	4035 Nov 03 06:26	3° \mathfrak{X} 40'19	
	4033 Jun 04 20:38	0° \mathfrak{B}			4035 Nov 24 15:46	0° \mathfrak{Z}	
	4033 Jul 02 22:47	0° \mathfrak{I}			4035 Dec 19 02:26	0° \approx	
	4033 Jul 29 08:53	0° \mathfrak{G}			4036 Jan 12 17:29	0° \mathfrak{H}	
	4033 Aug 23 23:31	0° Ω			4036 Feb 06 19:50	0° \mathfrak{Y}	
asc. node	4033 Sep 08 13:41	18° Ω 36'17		asc. node	4036 Feb 24 08:41	20° \mathfrak{Y} 16'06	
	4033 Sep 18 00:39	0° \mathfrak{M}			4036 Mar 04 02:05	0° \mathfrak{B}	
	4033 Oct 12 15:10	0° \mathfrak{L}		evening max el	4036 Mar 21 02:42	17° \mathfrak{B} 58'56	46°41'51
	4033 Nov 05 21:47	0° \mathfrak{M}			4036 Apr 02 17:45	0° \mathfrak{I}	
morning set	4033 Nov 23 18:25	22° \mathfrak{M} 14'49		greatest brilliancy	4036 Apr 29 11:24	18° \mathfrak{I} 08'57	-4.8m
	4033 Nov 29 23:19	0° \mathfrak{X}		retrograde	4036 May 10 06:36	20° \mathfrak{I} 18'13	
	4033 Dec 23 21:55	0° \mathfrak{Z}		evening set	4036 May 25 20:32	15° \mathfrak{I} 31'40	
desc. node	4033 Dec 29 04:03	6° \mathfrak{Z} 35'52		inferior conj	4036 May 31 11:39	12° \mathfrak{I} 06'21	3°25'21
max. Earth dist.	4033 Dec 31 23:50	10° \mathfrak{Z} 08'42	1.71284 AU	minimum elong	4036 May 31 18:46	11° \mathfrak{I} 55'11	3°23'20
				min. Earth dist.	4036 May 31 08:13	12° \mathfrak{I} 11'44	0.28345 AU
superior conj	4034 Jan 02 11:17	12° \mathfrak{Z} 00'05	-0°10'22	morning rise	4036 Jun 06 17:35	8° \mathfrak{I} 21'58	

desc. node	4036 Jun 14 22:57	4°Ⅱ55'20		4039 Jan 25 20:39	0°Ⅹ	
direct	4036 Jun 21 18:04	4°Ⅱ00'01		4039 Feb 19 00:32	0°Ⅴ	
greatest brilliancy	4036 Jul 01 15:02	5°Ⅱ46'47	-4.7m	4039 Mar 15 11:43	0°Ⅲ	
	4036 Aug 05 10:39	0°Ⅴ		asc. node	4039 Mar 23 20:42	10°Ⅲ07'37
morning max el	4036 Aug 09 12:41	3°Ⅴ49'57	45°42'51		4039 Apr 09 13:10	0°Ⅱ
	4036 Sep 04 01:52	0°Ⅱ			4039 May 05 17:39	0°Ⅴ
	4036 Sep 30 20:53	0°Ⅳ		evening max el	4039 May 31 20:58	27°Ⅴ25'32 45°43'46
asc. node	4036 Oct 06 01:44	6°Ⅳ01'37			4039 Jun 03 13:04	0°Ⅱ
	4036 Oct 26 08:45	0°Ⅲ		greatest brilliancy	4039 Jul 08 23:34	25°Ⅱ43'08 -4.7m
	4036 Nov 20 02:22	0°Ⅳ		desc. node	4039 Jul 13 10:51	27°Ⅱ05'39
	4036 Dec 14 09:09	0°Ⅲ		retrograde	4039 Jul 19 20:43	27°Ⅱ52'03
	4037 Jan 07 09:59	0°Ⅴ		evening set	4039 Aug 04 19:56	22°Ⅱ59'53
desc. node	4037 Jan 25 15:47	22°Ⅴ52'32		inferior conj	4039 Aug 10 10:09	19°Ⅱ36'42 -5°59'17
	4037 Jan 31 07:54	0°Ⅵ		minimum elong	4039 Aug 10 00:19	19°Ⅱ52'07 5°57'12
morning set	4037 Feb 06 23:02	8°Ⅵ19'55		min. Earth dist.	4039 Aug 10 04:32	19°Ⅱ45'31 0.29074 AU
	4037 Feb 24 04:45	0°Ⅹ		morning rise	4039 Aug 15 04:40	16°Ⅱ41'15
				direct	4039 Sep 01 00:14	11°Ⅱ19'15
superior conj	4037 Mar 20 06:31	0°Ⅴ14'02 -1°26'32		greatest brilliancy	4039 Sep 11 09:18	13°Ⅱ14'57 -4.7m
minimum elong	4037 Mar 20 04:36	0°Ⅴ07'59 1°26'32			4039 Oct 07 09:47	0°Ⅳ
	4037 Mar 20 02:03	0°Ⅴ		morning max el	4039 Oct 20 03:05	11°Ⅳ39'31 45°59'42
max. Earth dist.	4037 Mar 23 18:00	4°Ⅴ35'43 1.71498 AU		asc. node	4039 Nov 03 13:25	26°Ⅳ22'56
	4037 Apr 13 01:27	0°Ⅲ			4039 Nov 06 22:35	0°Ⅲ
evening rise	4037 Apr 29 10:19	20°Ⅲ22'34			4039 Dec 03 13:29	0°Ⅳ
	4037 May 07 04:32	0°Ⅱ			4039 Dec 28 18:06	0°Ⅲ
asc. node	4037 May 18 18:27	14°Ⅱ18'44			4040 Jan 22 06:50	0°Ⅴ
	4037 May 31 12:20	0°Ⅴ			4040 Feb 15 11:57	0°Ⅵ
	4037 Jun 25 01:39	0°Ⅱ		desc. node	4040 Feb 23 03:44	9°Ⅵ31'54
	4037 Jul 19 21:49	0°Ⅳ			4040 Mar 10 13:43	0°Ⅹ
	4037 Aug 14 03:56	0°Ⅲ			4040 Apr 03 14:42	0°Ⅴ
desc. node	4037 Sep 07 08:34	28°Ⅲ01'49		morning set	4040 Apr 23 23:45	25°Ⅴ23'11
	4037 Sep 09 02:08	0°Ⅳ			4040 Apr 27 16:45	0°Ⅲ
	4037 Oct 06 05:58	0°Ⅲ			4040 May 21 21:03	0°Ⅱ
evening max el	4037 Oct 24 19:31	19°Ⅲ00'08 46°25'19				
	4037 Nov 05 15:46	0°Ⅴ		superior conj	4040 Jun 01 11:15	13°Ⅱ06'04 -0°32'18
greatest brilliancy	4037 Dec 03 21:48	18°Ⅲ37'16 -4.9m		minimum elong	4040 Jun 01 18:05	13°Ⅱ27'10 0°31'59
retrograde	4037 Dec 13 12:14	20°Ⅲ20'21		max. Earth dist.	4040 Jun 04 01:07	16°Ⅱ17'06 1.72958 AU
evening set	4037 Dec 27 19:51	16°Ⅲ19'30		asc. node	4040 Jun 15 06:13	0°Ⅴ07'06
asc. node	4037 Dec 29 11:02	15°Ⅲ25'56			4040 Jun 15 03:55	0°Ⅴ
inferior conj	4038 Jan 03 02:24	12°Ⅲ40'17 1°12'12		evening rise	4040 Jul 08 19:38	29°Ⅴ06'44
minimum elong	4038 Jan 02 23:39	12°Ⅲ44'30 1°11'19			4040 Jul 09 12:59	0°Ⅱ
min. Earth dist.	4038 Jan 03 04:30	12°Ⅲ37'05 0.26609 AU			4040 Aug 03 00:03	0°Ⅳ
morning rise	4038 Jan 09 03:07	9°Ⅲ08'13			4040 Aug 27 13:39	0°Ⅲ
direct	4038 Jan 23 14:52	4°Ⅲ58'42			4040 Sep 21 07:10	0°Ⅳ
greatest brilliancy	4038 Feb 02 20:16	6°Ⅲ57'11 -4.9m		desc. node	4040 Oct 04 20:32	16°Ⅳ20'01
	4038 Mar 06 23:51	0°Ⅵ			4040 Oct 16 06:20	0°Ⅲ
morning max el	4038 Mar 15 02:13	7°Ⅵ54'53 46°55'11			4040 Nov 10 13:45	0°Ⅴ
	4038 Apr 04 21:53	0°Ⅹ			4040 Dec 06 12:10	0°Ⅵ
desc. node	4038 Apr 20 01:31	17°Ⅹ02'58			4041 Jan 03 00:23	0°Ⅹ
	4038 May 01 07:09	0°Ⅴ		evening max el	4041 Jan 05 13:58	2°Ⅹ37'24 47°11'45
	4038 May 26 19:17	0°Ⅲ		asc. node	4041 Jan 25 22:56	21°Ⅹ32'09
	4038 Jun 20 22:16	0°Ⅱ			4041 Feb 06 18:31	0°Ⅴ
	4038 Jul 15 20:17	0°Ⅴ		greatest brilliancy	4041 Feb 15 07:42	4°Ⅴ12'35 -4.9m
	4038 Aug 09 13:57	0°Ⅱ		retrograde	4041 Feb 25 11:04	6°Ⅴ11'00
asc. node	4038 Aug 11 03:53	1°Ⅱ55'31		evening set	4041 Mar 15 07:46	0°Ⅴ00'44
	4038 Sep 03 02:49	0°Ⅳ			4041 Mar 15 08:15	30°Ⅹ
morning set	4038 Sep 12 13:28	11°Ⅳ36'51		min. Earth dist.	4041 Mar 17 16:17	28°Ⅹ34'02 0.27305 AU
	4038 Sep 27 10:58	0°Ⅲ		inferior conj	4041 Mar 18 05:52	28°Ⅹ12'58 8°57'29
max. Earth dist.	4038 Oct 16 04:22	23°Ⅲ12'41 1.72559 AU		minimum elong	4041 Mar 18 03:35	28°Ⅹ16'30 8°57'24
				morning rise	4041 Mar 20 23:33	26°Ⅹ32'08
superior conj	4038 Oct 19 05:49	27°Ⅲ00'48 1°19'25		direct	4041 Apr 07 20:30	20°Ⅹ23'53
minimum elong	4038 Oct 19 12:24	27°Ⅲ21'15 1°19'18		greatest brilliancy	4041 Apr 17 01:40	21°Ⅹ59'50 -4.8m
	4038 Oct 21 15:30	0°Ⅳ			4041 May 02 03:29	0°Ⅴ
	4038 Nov 14 17:50	0°Ⅲ		desc. node	4041 May 17 13:09	12°Ⅴ25'46
evening rise	4038 Nov 26 13:58	14°Ⅲ45'44		morning max el	4041 May 27 12:36	21°Ⅴ48'03 46°15'07
desc. node	4038 Nov 30 18:15	19°Ⅲ58'30			4041 Jun 04 17:04	0°Ⅲ
	4038 Dec 08 19:01	0°Ⅴ			4041 Jul 02 13:56	0°Ⅱ
	4039 Jan 01 19:37	0°Ⅵ			4041 Jul 28 21:51	0°Ⅴ

	4041 Aug 23 11:21	0°♌			4044 Feb 06 10:22	0°♍
asc. node	4041 Sep 07 15:50	18°♌08'25		asc. node	4044 Feb 23 10:47	19°♍35'57
	4041 Sep 17 11:52	0°♍			4044 Mar 03 19:50	0°♎
	4041 Oct 12 02:05	0°♎		evening max el	4044 Mar 18 17:34	15°♎40'24 46°43'49
	4041 Nov 05 08:36	0°♏			4044 Apr 02 23:19	0°♐
morning set	4041 Nov 21 08:52	19°♏56'25		greatest brilliancy	4044 Apr 27 04:34	15°♐55'57 -4.8m
	4041 Nov 29 10:07	0°♐		retrograde	4044 May 07 21:57	18°♐03'39
	4041 Dec 23 08:45	0°♑		evening set	4044 May 23 14:25	13°♐14'25
desc. node	4041 Dec 28 06:03	6°♑08'05		inferior conj	4044 May 29 03:08	9°♐52'22 3°44'48
max. Earth dist.	4041 Dec 29 09:18	7°♑33'36 1.71311 AU		minimum elong	4044 May 29 10:48	9°♐40'19 3°42'40
				min. Earth dist.	4044 May 29 00:03	9°♐57'12 0.28312 AU
superior conj	4041 Dec 30 22:20	9°♑29'54 -0°06'29		morning rise	4044 Jun 04 07:42	6°♐09'29
minimum elong	4041 Dec 30 20:40	9°♑24'38 0°06'23		desc. node	4044 Jun 14 00:57	2°♐20'38
behind sun begin	4041 Dec 29 20:42	8°♑09'21		direct	4044 Jun 19 09:07	1°♐46'40
behind sun end	4041 Dec 31 20:39	10°♑39'56		greatest brilliancy	4044 Jun 29 05:40	3°♐32'52 -4.7m
	4042 Jan 16 05:52	0°♒			4044 Aug 05 10:39	0°♑
	4042 Feb 09 02:35	0°♓		morning max el	4044 Aug 07 03:05	1°♑35'49 45°43'09
evening rise	4042 Feb 09 21:44	1°♓00'09			4044 Sep 03 17:56	0°♒
	4042 Mar 05 00:27	0°♍			4044 Sep 30 10:20	0°♎
	4042 Mar 29 01:43	0°♎		asc. node	4044 Oct 05 03:37	5°♎28'51
asc. node	4042 Apr 20 08:34	27°♎31'08			4044 Oct 25 20:59	0°♏
	4042 Apr 22 09:08	0°♐			4044 Nov 19 13:59	0°♌
	4042 May 17 01:51	0°♑			4044 Dec 13 20:27	0°♐
	4042 Jun 11 08:23	0°♒			4045 Jan 06 21:10	0°♑
	4042 Jul 07 14:04	0°♎		desc. node	4045 Jan 24 17:56	22°♑24'17
	4042 Aug 04 20:45	0°♏			4045 Jan 30 19:02	0°♒
desc. node	4042 Aug 09 22:50	4°♏58'37		morning set	4045 Feb 04 08:57	5°♒45'23
evening max el	4042 Aug 10 19:20	5°♏47'44 45°33'27			4045 Feb 23 15:50	0°♓
	4042 Sep 10 10:58	0°♌				
greatest brilliancy	4042 Sep 18 23:15	3°♌46'53 -4.7m		superior conj	4045 Mar 17 17:36	27°♓43'37 -1°26'08
retrograde	4042 Sep 28 10:53	5°♌23'59		minimum elong	4045 Mar 17 14:36	27°♓34'12 1°26'08
	4042 Oct 15 08:35	30°♓♏			4045 Mar 19 13:06	0°♍
evening set	4042 Oct 16 03:05	29°♏32'48		max. Earth dist.	4045 Mar 21 01:04	1°♍52'48 1.71457 AU
inferior conj	4042 Oct 19 14:53	27°♏24'47 -8°08'00			4045 Apr 12 12:29	0°♎
minimum elong	4042 Oct 19 21:52	27°♏13'58 8°07'14		evening rise	4045 Apr 26 22:57	17°♎58'26
min. Earth dist.	4042 Oct 20 11:08	26°♏53'25 0.28311 AU			4045 May 06 15:35	0°♐
morning rise	4042 Oct 23 16:23	24°♏56'05		asc. node	4045 May 17 20:24	13°♐50'37
direct	4042 Nov 09 23:12	19°♏15'09			4045 May 30 23:30	0°♑
greatest brilliancy	4042 Nov 21 02:05	21°♏33'09 -4.8m			4045 Jun 24 13:03	0°♒
asc. node	4042 Dec 01 01:08	26°♏47'43			4045 Jul 19 09:43	0°♎
	4042 Dec 05 16:54	0°♌			4045 Aug 13 16:45	0°♏
morning max el	4042 Dec 30 10:21	22°♌04'37 46°43'53		desc. node	4045 Sep 06 10:36	27°♏26'41
	4043 Jan 07 01:47	0°♐			4045 Sep 08 16:40	0°♌
	4043 Feb 02 22:53	0°♑			4045 Oct 06 00:17	0°♐
	4043 Feb 28 08:03	0°♒		evening max el	4045 Oct 22 07:51	16°♐36'01 46°23'12
desc. node	4043 Mar 22 15:40	27°♒00'16			4045 Nov 05 23:25	0°♑
	4043 Mar 25 02:40	0°♓		greatest brilliancy	4045 Dec 01 11:27	16°♑12'08 -4.9m
	4043 Apr 18 15:04	0°♍		retrograde	4045 Dec 11 00:15	17°♑54'08
	4043 May 13 01:21	0°♎		evening set	4045 Dec 25 08:41	13°♑52'34
	4043 Jun 06 11:35	0°♐		asc. node	4045 Dec 28 13:03	12°♑05'31
	4043 Jun 30 22:15	0°♑		inferior conj	4045 Dec 31 15:03	10°♑14'03 0°48'00
morning set	4043 Jul 04 05:53	4°♑04'16		minimum elong	4045 Dec 31 13:12	10°♑16'52 0°47'25
asc. node	4043 Jul 13 18:05	15°♑44'29		min. Earth dist.	4045 Dec 31 18:53	10°♑08'13 0.26632 AU
	4043 Jul 25 08:40	0°♒		morning rise	4046 Jan 06 17:17	6°♑39'54
max. Earth dist.	4043 Aug 08 22:52	17°♒56'19 1.73485 AU		direct	4046 Jan 21 03:18	2°♑31'37
				greatest brilliancy	4046 Jan 31 11:30	4°♑32'32 -4.9m
superior conj	4043 Aug 10 00:16	19°♒14'29 0°59'02			4046 Mar 07 02:06	0°♒
minimum elong	4043 Aug 09 15:20	18°♒46'59 0°58'42		morning max el	4046 Mar 12 15:12	5°♒28'34 46°55'49
	4043 Aug 18 18:00	0°♎			4046 Apr 04 15:19	0°♓
	4043 Sep 12 02:10	0°♏		desc. node	4046 Apr 19 03:28	16°♓24'05
evening rise	4043 Sep 14 23:48	3°♏34'43			4046 Apr 30 21:37	0°♍
	4043 Oct 06 09:53	0°♌			4046 May 26 08:16	0°♎
	4043 Oct 30 18:05	0°♐			4046 Jun 20 10:23	0°♐
desc. node	4043 Nov 02 08:24	3°♐11'47			4046 Jul 15 07:49	0°♑
	4043 Nov 24 03:24	0°♑			4046 Aug 09 01:06	0°♒
	4043 Dec 18 14:39	0°♒		asc. node	4046 Aug 10 05:59	1°♒27'58
	4044 Jan 12 06:34	0°♓			4046 Sep 02 13:46	0°♎

morning set	4046 Sep 10 06:42	9° \cap 28'31		min. Earth dist.	4049 Mar 15 04:38	26° H 11'01	0.27260 AU
	4046 Sep 26 21:51	0° $\underline{\text{A}}$		inferior conj	4049 Mar 15 19:17	25° H 48'20	8°54'53
max. Earth dist.	4046 Oct 13 22:51	21° $\underline{\text{A}}$ 07'09	1.72605 AU	minimum elong	4049 Mar 15 16:06	25° H 53'15	8°54'45
				morning rise	4049 Mar 18 13:22	24° H 07'02	
superior conj	4046 Oct 16 22:13	24° $\underline{\text{A}}$ 48'44	1°20'35	direct	4049 Apr 05 10:07	18° H 00'09	
minimum elong	4046 Oct 17 04:12	25° $\underline{\text{A}}$ 07'17	1°20'29	greatest brilliancy	4049 Apr 14 13:34	19° H 35'09	-4.8m
	4046 Oct 21 02:25	0° \cap			4049 May 02 23:38	0° Y	
	4046 Nov 14 04:52	0° Z		desc. node	4049 May 16 15:14	11° Y 27'09	
evening rise	4046 Nov 24 03:44	12° Z 24'26		morning max el	4049 May 25 03:16	19° Y 30'10	46°16'35
desc. node	4046 Nov 29 20:17	19° Z 30'12			4049 Jun 04 13:04	0° B	
	4046 Dec 08 06:12	0° Z			4049 Jul 02 05:09	0° II	
	4047 Jan 01 06:58	0° \approx			4049 Jul 28 11:04	0° G	
	4047 Jan 25 08:14	0° H			4049 Aug 22 23:30	0° Ω	
	4047 Feb 18 12:30	0° Y		asc. node	4049 Sep 06 17:45	17° Ω 38'45	
	4047 Mar 15 00:18	0° B			4049 Sep 16 23:27	0° \cap	
asc. node	4047 Mar 22 22:37	9° B 34'44			4049 Oct 11 13:21	0° $\underline{\text{A}}$	
	4047 Apr 09 02:53	0° II			4049 Nov 04 19:43	0° \cap	
	4047 May 05 09:50	0° G		morning set	4049 Nov 18 23:16	17° \cap 37'07	
evening max el	4047 May 29 12:26	25° G 12'25	45°45'18		4049 Nov 28 21:11	0° Z	
	4047 Jun 03 12:53	0° Ω			4049 Dec 22 19:51	0° Z	
greatest brilliancy	4047 Jul 06 14:35	23° Ω 31'57	-4.7m	max. Earth dist.	4049 Dec 26 16:58	4° Z 52'09	1.71338 AU
desc. node	4047 Jul 12 13:00	25° Ω 13'48		desc. node	4049 Dec 27 08:09	5° Z 39'48	
retrograde	4047 Jul 17 13:35	25° Ω 42'38					
evening set	4047 Aug 02 09:45	20° Ω 53'29		superior conj	4049 Dec 28 09:32	6° Z 59'27	-0°02'35
inferior conj	4047 Aug 08 02:28	17° Ω 26'55	-5°44'46	minimum elong	4049 Dec 28 08:53	6° Z 57'23	0°02'33
minimum elong	4047 Aug 07 16:41	17° Ω 42'12	5°42'38	behind sun begin	4049 Dec 27 07:24	5° Z 37'26	
min. Earth dist.	4047 Aug 07 20:11	17° Ω 36'45	0.29064 AU	behind sun end	4049 Dec 29 10:21	8° Z 17'22	
morning rise	4047 Aug 12 23:39	14° Ω 27'54			4050 Jan 15 17:02	0° \approx	
direct	4047 Aug 29 16:26	9° Ω 09'33		evening rise	4050 Feb 07 08:08	28° \approx 26'45	
greatest brilliancy	4047 Sep 09 01:06	11° Ω 05'11	-4.7m		4050 Feb 08 13:49	0° H	
	4047 Oct 07 14:13	0° \cap			4050 Mar 04 11:44	0° Y	
morning max el	4047 Oct 17 19:12	9° \cap 28'08	45°58'26		4050 Mar 28 13:07	0° B	
asc. node	4047 Nov 02 15:27	25° \cap 40'40		asc. node	4050 Apr 19 10:34	27° B 01'41	
	4047 Nov 06 15:48	0° $\underline{\text{A}}$			4050 Apr 21 20:46	0° II	
	4047 Dec 03 03:39	0° \cap			4050 May 16 13:59	0° G	
	4047 Dec 28 06:59	0° Z			4050 Jun 10 21:32	0° Ω	
	4048 Jan 21 19:00	0° Z			4050 Jul 07 05:22	0° \cap	
	4048 Feb 14 23:41	0° \approx			4050 Aug 04 17:50	0° $\underline{\text{A}}$	
desc. node	4048 Feb 22 05:48	9° \approx 02'05		evening max el	4050 Aug 08 10:16	3° $\underline{\text{A}}$ 34'04	45°32'29
	4048 Mar 10 01:09	0° H		desc. node	4050 Aug 09 00:49	4° $\underline{\text{A}}$ 08'43	
	4048 Apr 03 01:55	0° Y			4050 Sep 12 13:50	0° \cap	
morning set	4048 Apr 21 13:20	23° Y 01'34		greatest brilliancy	4050 Sep 16 13:09	1° \cap 31'50	-4.7m
	4048 Apr 27 03:50	0° B		retrograde	4050 Sep 26 00:50	3° \cap 08'53	
	4048 May 21 08:02	0° II			4050 Oct 08 18:22	30° R $\underline{\text{A}}$	
				evening set	4050 Oct 13 19:49	27° $\underline{\text{A}}$ 14'41	
superior conj	4048 May 30 02:51	10° II 52'07	-0°35'28	inferior conj	4050 Oct 17 05:48	25° $\underline{\text{A}}$ 09'04	-8°14'42
minimum elong	4048 May 30 10:17	11° II 15'04	0°35'09	minimum elong	4050 Oct 17 12:07	24° $\underline{\text{A}}$ 59'14	8°14'06
max. Earth dist.	4048 Jun 01 19:04	14° II 10'33	1.72921 AU	min. Earth dist.	4050 Oct 18 01:26	24° $\underline{\text{A}}$ 38'34	0.28370 AU
asc. node	4048 Jun 14 08:20	29° II 39'55		morning rise	4050 Oct 21 04:12	22° $\underline{\text{A}}$ 44'35	
	4048 Jun 14 14:51	0° G		direct	4050 Nov 07 14:37	16° $\underline{\text{A}}$ 58'50	
evening rise	4048 Jul 06 13:26	27° G 00'15		greatest brilliancy	4050 Nov 18 16:56	19° $\underline{\text{A}}$ 15'38	-4.8m
	4048 Jul 08 23:58	0° Ω		asc. node	4050 Nov 30 03:13	25° $\underline{\text{A}}$ 27'26	
	4048 Aug 02 11:11	0° \cap			4050 Dec 06 09:01	0° \cap	
	4048 Aug 27 01:06	0° $\underline{\text{A}}$		morning max el	4050 Dec 28 00:04	19° \cap 41'46	46°42'30
	4048 Sep 20 19:08	0° \cap			4051 Jan 06 21:17	0° Z	
desc. node	4048 Oct 03 22:29	15° \cap 48'51			4051 Feb 02 14:11	0° Z	
	4048 Oct 15 19:06	0° Z			4051 Feb 27 21:34	0° \approx	
	4048 Nov 10 03:49	0° Z		desc. node	4051 Mar 21 17:34	26° \approx 27'30	
	4048 Dec 06 04:37	0° \approx			4051 Mar 24 15:13	0° H	
	4049 Jan 02 22:45	0° H			4051 Apr 18 02:59	0° Y	
evening max el	4049 Jan 03 05:04	0° H 16'00	47°11'23		4051 May 12 12:48	0° B	
asc. node	4049 Jan 25 01:02	20° H 19'52			4051 Jun 05 22:42	0° II	
	4049 Feb 08 18:26	0° Y			4051 Jun 30 09:07	0° G	
greatest brilliancy	4049 Feb 12 20:49	1° Y 46'31	-4.9m	morning set	4051 Jul 01 23:25	1° G 57'30	
retrograde	4049 Feb 23 01:31	3° Y 45'48		asc. node	4051 Jul 12 20:09	15° G 17'39	
	4049 Mar 08 15:53	30° R H			4051 Jul 24 19:26	0° Ω	
evening set	4049 Mar 12 18:59	27° H 39'20		max. Earth dist.	4051 Aug 06 18:23	15° Ω 55'43	1.73494 AU

superior conj	4051 Aug 07 18:37	17° Ω 10'13	0°56'43	direct	4054 Jan 18 15:55	0° \mathfrak{Z} 03'42	
minimum elong	4051 Aug 07 09:44	16° Ω 42'55	0°56'23	greatest brilliancy	4054 Jan 29 02:10	2° \mathfrak{Z} 06'50	-4.9m
	4051 Aug 18 04:47	0° \mathfrak{M}			4054 Mar 07 03:00	0° \approx	
	4051 Sep 11 13:03	0° $\underline{\Omega}$		morning max el	4054 Mar 10 05:01	3° \approx 04'33	46°56'36
evening rise	4051 Sep 12 17:41	1° $\underline{\Omega}$ 28'18			4054 Apr 04 08:15	0° \mathfrak{H}	
	4051 Oct 05 20:58	0° \mathfrak{M}		desc. node	4054 Apr 18 05:36	15° \mathfrak{H} 46'39	
	4051 Oct 30 05:28	0° \mathfrak{J}			4054 Apr 30 11:43	0° \mathfrak{Y}	
desc. node	4051 Nov 01 10:26	2° \mathfrak{J} 42'54			4054 May 25 20:57	0° \mathfrak{B}	
	4051 Nov 23 15:12	0° \mathfrak{Z}			4054 Jun 19 22:13	0° \mathfrak{I}	
	4051 Dec 18 03:02	0° \approx			4054 Jul 14 19:06	0° \mathfrak{G}	
	4052 Jan 11 19:48	0° \mathfrak{H}			4054 Aug 08 12:01	0° Ω	
	4052 Feb 06 01:06	0° \mathfrak{Y}		asc. node	4054 Aug 09 07:55	1° Ω 00'39	
asc. node	4052 Feb 22 12:42	18° \mathfrak{Y} 54'45			4054 Sep 02 00:27	0° \mathfrak{M}	
	4052 Mar 03 14:00	0° \mathfrak{B}		morning set	4054 Sep 08 00:21	7° \mathfrak{M} 22'16	
evening max el	4052 Mar 16 07:31	13° \mathfrak{B} 19'20	46°45'47		4054 Sep 26 08:28	0° $\underline{\Omega}$	
	4052 Apr 03 07:10	0° \mathfrak{I}		max. Earth dist.	4054 Oct 11 18:49	19° $\underline{\Omega}$ 07'05	1.72651 AU
greatest brilliancy	4052 Apr 24 21:55	13° \mathfrak{I} 43'00	-4.8m				
retrograde	4052 May 05 13:15	15° \mathfrak{I} 49'17		superior conj	4054 Oct 14 14:57	22° $\underline{\Omega}$ 38'31	1°21'36
evening set	4052 May 21 08:26	10° \mathfrak{I} 56'58		minimum elong	4054 Oct 14 20:17	22° $\underline{\Omega}$ 55'07	1°21'32
inferior conj	4052 May 26 18:40	7° \mathfrak{I} 38'31	4°03'49		4054 Oct 20 13:05	0° \mathfrak{M}	
minimum elong	4052 May 27 02:51	7° \mathfrak{I} 25'41	4°01'36		4054 Nov 13 15:41	0° \mathfrak{J}	
min. Earth dist.	4052 May 26 16:07	7° \mathfrak{I} 42'33	0.28279 AU	evening rise	4054 Nov 21 17:40	10° \mathfrak{J} 04'23	
morning rise	4052 Jun 01 21:42	3° \mathfrak{I} 57'29		desc. node	4054 Nov 28 22:25	19° \mathfrak{J} 02'49	
	4052 Jun 12 05:57	30° \mathfrak{R} \mathfrak{B}			4054 Dec 07 17:12	0° \mathfrak{Z}	
desc. node	4052 Jun 13 03:03	29° \mathfrak{B} 50'59			4054 Dec 31 18:11	0° \approx	
direct	4052 Jun 16 23:45	29° \mathfrak{B} 33'19			4055 Jan 24 19:43	0° \mathfrak{H}	
	4052 Jun 21 20:14	0° \mathfrak{I}			4055 Feb 18 00:21	0° \mathfrak{Y}	
greatest brilliancy	4052 Jun 26 20:45	1° \mathfrak{I} 19'35	-4.7m		4055 Mar 14 12:45	0° \mathfrak{B}	
morning max el	4052 Aug 04 17:22	29° \mathfrak{I} 21'28	45°43'34	asc. node	4055 Mar 22 00:39	9° \mathfrak{B} 02'42	
	4052 Aug 05 09:29	0° \mathfrak{G}			4055 Apr 08 16:28	0° \mathfrak{I}	
	4052 Sep 03 09:40	0° Ω			4055 May 05 01:59	0° \mathfrak{G}	
	4052 Sep 29 23:38	0° \mathfrak{M}		evening max el	4055 May 27 04:46	23° \mathfrak{G} 02'23	45°46'57
asc. node	4052 Oct 04 05:40	4° \mathfrak{M} 56'48			4055 Jun 03 13:24	0° Ω	
	4052 Oct 25 09:11	0° $\underline{\Omega}$		greatest brilliancy	4055 Jul 04 05:51	21° Ω 22'21	-4.7m
	4052 Nov 19 01:38	0° \mathfrak{M}		desc. node	4055 Jul 11 15:01	23° Ω 19'05	
	4052 Dec 13 07:50	0° \mathfrak{J}		retrograde	4055 Jul 15 06:41	23° Ω 34'27	
	4053 Jan 06 08:23	0° \mathfrak{Z}		evening set	4055 Jul 30 23:53	18° Ω 48'24	
desc. node	4053 Jan 23 19:56	21° \mathfrak{Z} 55'39		inferior conj	4055 Aug 05 18:53	15° Ω 18'28	-5°29'51
	4053 Jan 30 06:08	0° \approx		minimum elong	4055 Aug 05 09:14	15° Ω 33'33	5°27'40
morning set	4053 Feb 01 18:44	3° \approx 10'23		min. Earth dist.	4055 Aug 05 11:46	15° Ω 29'34	0.29050 AU
	4053 Feb 23 02:51	0° \mathfrak{H}		morning rise	4055 Aug 10 18:42	12° Ω 15'54	
				direct	4055 Aug 27 09:10	7° Ω 01'24	
superior conj	4053 Mar 15 04:33	25° \mathfrak{H} 13'04	-1°25'34	greatest brilliancy	4055 Sep 06 16:21	8° Ω 56'11	-4.7m
minimum elong	4053 Mar 15 00:31	25° \mathfrak{H} 00'23	1°25'33		4055 Oct 07 16:25	0° \mathfrak{M}	
max. Earth dist.	4053 Mar 18 06:02	29° \mathfrak{H} 03'32	1.71416 AU	morning max el	4055 Oct 15 11:36	7° \mathfrak{M} 18'51	45°57'12
	4053 Mar 19 00:03	0° \mathfrak{Y}		asc. node	4055 Nov 01 17:32	25° \mathfrak{M} 00'16	
	4053 Apr 11 23:25	0° \mathfrak{B}			4055 Nov 06 08:13	0° $\underline{\Omega}$	
evening rise	4053 Apr 24 11:35	15° \mathfrak{B} 34'34			4055 Dec 02 17:18	0° \mathfrak{M}	
	4053 May 06 02:33	0° \mathfrak{I}			4055 Dec 27 19:26	0° \mathfrak{J}	
asc. node	4053 May 16 22:32	13° \mathfrak{I} 23'19			4056 Jan 21 06:51	0° \mathfrak{Z}	
	4053 May 30 10:34	0° \mathfrak{G}			4056 Feb 14 11:09	0° \approx	
	4053 Jun 24 00:22	0° Ω		desc. node	4056 Feb 21 07:44	8° \approx 32'35	
	4053 Jul 18 21:31	0° \mathfrak{M}			4056 Mar 09 12:22	0° \mathfrak{H}	
	4053 Aug 13 05:29	0° $\underline{\Omega}$			4056 Apr 02 12:56	0° \mathfrak{Y}	
desc. node	4053 Sep 05 12:33	26° $\underline{\Omega}$ 51'34		morning set	4056 Apr 19 02:26	20° \mathfrak{Y} 39'07	
	4053 Sep 08 07:14	0° \mathfrak{M}			4056 Apr 26 14:39	0° \mathfrak{B}	
	4053 Oct 05 18:59	0° \mathfrak{J}			4056 May 20 18:42	0° \mathfrak{I}	
evening max el	4053 Oct 19 20:23	14° \mathfrak{J} 12'44	46°20'53				
	4053 Nov 06 09:52	0° \mathfrak{Z}		superior conj	4056 May 27 18:08	8° \mathfrak{I} 38'04	-0°38'37
greatest brilliancy	4053 Nov 29 00:22	13° \mathfrak{Z} 45'47	-4.9m	minimum elong	4056 May 28 02:08	9° \mathfrak{I} 02'46	0°38'16
retrograde	4053 Dec 08 12:30	15° \mathfrak{Z} 27'21		max. Earth dist.	4056 May 30 14:47	12° \mathfrak{I} 10'17	1.72877 AU
evening set	4053 Dec 22 21:29	11° \mathfrak{Z} 24'34		asc. node	4056 Jun 13 10:19	29° \mathfrak{I} 13'24	
asc. node	4053 Dec 27 15:09	8° \mathfrak{Z} 42'02			4056 Jun 14 01:27	0° \mathfrak{G}	
inferior conj	4053 Dec 29 03:25	7° \mathfrak{Z} 47'01	0°23'33	evening rise	4056 Jul 04 07:10	24° \mathfrak{G} 54'41	
minimum elong	4053 Dec 29 02:31	7° \mathfrak{Z} 48'24	0°23'15		4056 Jul 08 10:36	0° Ω	
min. Earth dist.	4053 Dec 29 08:48	7° \mathfrak{Z} 38'50	0.26660 AU		4056 Aug 01 21:58	0° \mathfrak{M}	
morning rise	4054 Jan 04 07:02	4° \mathfrak{Z} 11'16			4056 Aug 26 12:13	0° $\underline{\Omega}$	

	4056 Sep 20 06:44	0°♌			4059 Jan 06 15:49	0°♏		
desc. node	4056 Oct 03 00:36	15°♌19'21			4059 Feb 02 04:52	0°♐		
	4056 Oct 15 07:31	0°♏			4059 Feb 27 10:36	0°♑		
	4056 Nov 09 17:33	0°♐		desc. node	4059 Mar 20 19:42	25°♑56'46		
	4056 Dec 05 20:53	0°♑			4059 Mar 24 03:21	0°♒		
evening max el	4056 Dec 31 20:04	27°♑55'26 47°10'37			4059 Apr 17 14:32	0°♓		
	4057 Jan 02 21:37	0°♒			4059 May 11 23:57	0°♈		
asc. node	4057 Jan 24 02:55	19°♒05'41			4059 Jun 05 09:33	0°♉		
greatest brilliancy	4057 Feb 10 10:11	29°♒21'09 -4.9m		morning set	4059 Jun 29 16:40	29°♉50'24		
	4057 Feb 12 07:41	0°♓			4059 Jun 29 19:47	0°♊		
retrograde	4057 Feb 20 15:26	1°♓20'23		asc. node	4059 Jul 11 22:06	14°♊51'09		
	4057 Feb 28 15:45	30°♒♋			4059 Jul 24 05:59	0°♋		
evening set	4057 Mar 10 05:34	25°♒18'45		max. Earth dist.	4059 Aug 04 13:11	13°♋53'38 1.73499 AU		
min. Earth dist.	4057 Mar 12 17:04	23°♒47'31 0.27217 AU						
inferior conj	4057 Mar 13 08:28	23°♒23'40 8°51'19		superior conj	4059 Aug 05 12:46	15°♋06'10 0°54'19		
minimum elong	4057 Mar 13 04:24	23°♒29'59 8°51'05		minimum elong	4059 Aug 05 04:00	14°♋39'12 0°53'58		
morning rise	4057 Mar 16 03:25	21°♒41'05			4059 Aug 17 15:18	0°♌		
direct	4057 Apr 02 23:31	15°♒36'29		evening rise	4059 Sep 10 11:38	29°♌22'59		
greatest brilliancy	4057 Apr 12 01:37	17°♒10'32 -4.9m			4059 Sep 10 23:39	0°♍		
	4057 May 03 14:29	0°♓			4059 Oct 05 07:47	0°♎		
desc. node	4057 May 15 17:18	10°♓30'12			4059 Oct 29 16:37	0°♏		
morning max el	4057 May 22 16:57	17°♓10'15 46°18'10		desc. node	4059 Oct 31 12:32	2°♏15'00		
	4057 Jun 04 08:15	0°♈			4059 Nov 23 02:48	0°♐		
	4057 Jul 01 19:51	0°♉			4059 Dec 17 15:13	0°♑		
	4057 Jul 27 23:49	0°♊			4060 Jan 11 08:50	0°♒		
	4057 Aug 22 11:14	0°♋			4060 Feb 05 15:42	0°♓		
asc. node	4057 Sep 05 19:46	17°♋10'36		asc. node	4060 Feb 21 14:48	18°♓14'38		
	4057 Sep 16 10:36	0°♌			4060 Mar 03 08:16	0°♈		
	4057 Oct 11 00:13	0°♍		evening max el	4060 Mar 13 20:56	10°♈57'49 46°47'42		
	4057 Nov 04 06:27	0°♎			4060 Apr 03 17:24	0°♉		
morning set	4057 Nov 16 14:11	15°♎20'38		greatest brilliancy	4060 Apr 22 14:50	11°♉30'09 -4.8m		
	4057 Nov 28 07:52	0°♏		retrograde	4060 May 03 04:43	13°♉35'40		
	4057 Dec 22 06:33	0°♐		evening set	4060 May 19 02:29	8°♉39'44		
max. Earth dist.	4057 Dec 24 00:01	2°♐10'05 1.71367 AU		inferior conj	4060 May 24 10:12	5°♉25'11 4°22'32		
				minimum elong	4060 May 24 18:49	5°♉11'38 4°20'14		
superior conj	4057 Dec 25 21:22	4°♐32'22 0°01'18		min. Earth dist.	4060 May 24 08:07	5°♉28'28 0.28253 AU		
minimum elong	4057 Dec 25 21:43	4°♐33'26 0°01'17		morning rise	4060 May 30 11:31	1°♉46'25		
behind sun begin	4057 Dec 24 20:11	3°♐13'18			4060 Jun 02 23:59	30°♒♈		
behind sun end	4057 Dec 26 23:15	5°♐53'34		desc. node	4060 Jun 12 05:02	27°♒26'53		
desc. node	4057 Dec 26 10:11	5°♐12'35		direct	4060 Jun 14 14:10	27°♒20'12		
	4058 Jan 15 03:47	0°♑		greatest brilliancy	4060 Jun 24 12:06	29°♒07'00 -4.7m		
evening rise	4058 Feb 04 18:50	25°♑55'30			4060 Jun 26 20:08	0°♉		
	4058 Feb 08 00:40	0°♒		morning max el	4060 Aug 02 08:28	27°♉09'21 45°44'03		
	4058 Mar 03 22:42	0°♓			4060 Aug 05 07:17	0°♊		
	4058 Mar 28 00:14	0°♈			4060 Sep 03 01:02	0°♋		
asc. node	4058 Apr 18 12:40	26°♒33'18			4060 Sep 29 12:41	0°♌		
	4058 Apr 21 08:10	0°♉		asc. node	4060 Oct 03 07:48	4°♌25'32		
	4058 May 16 01:55	0°♊			4060 Oct 24 21:09	0°♍		
	4058 Jun 10 10:30	0°♋			4060 Nov 18 13:04	0°♎		
	4058 Jul 06 20:33	0°♌			4060 Dec 12 18:59	0°♏		
	4058 Aug 04 15:16	0°♍			4061 Jan 05 19:25	0°♐		
evening max el	4058 Aug 06 00:26	1°♍19'39 45°31'45		desc. node	4061 Jan 22 21:54	21°♐27'22		
desc. node	4058 Aug 08 02:46	3°♍18'57			4061 Jan 29 17:06	0°♑		
greatest brilliancy	4058 Sep 14 03:32	29°♍18'50 -4.7m		morning set	4061 Jan 30 04:43	0°♑36'30		
	4058 Sep 16 11:57	0°♎			4061 Feb 22 13:44	0°♒		
retrograde	4058 Sep 23 14:52	0°♎55'50						
	4058 Sep 30 12:17	30°♒♎		superior conj	4061 Mar 12 15:39	22°♒43'16 -1°24'50		
evening set	4058 Oct 11 12:29	24°♎58'46		minimum elong	4061 Mar 12 10:35	22°♒27'22 1°24'46		
inferior conj	4058 Oct 14 20:58	22°♎55'19 -8°20'35		max. Earth dist.	4061 Mar 15 10:32	26°♒13'08 1.71377 AU		
minimum elong	4058 Oct 15 02:35	22°♎46'35 8°20'07			4061 Mar 18 10:52	0°♓		
min. Earth dist.	4058 Oct 15 16:13	22°♎25'21 0.28428 AU			4061 Apr 11 10:12	0°♈		
morning rise	4058 Oct 18 16:25	20°♎34'54		evening rise	4061 Apr 22 00:24	13°♒11'40		
direct	4058 Nov 05 05:46	14°♎44'14			4061 May 05 13:22	0°♉		
greatest brilliancy	4058 Nov 16 08:35	17°♎00'40 -4.8m		asc. node	4061 May 16 00:32	12°♉56'02		
asc. node	4058 Nov 29 05:14	24°♎10'47			4061 May 29 21:31	0°♊		
	4058 Dec 06 20:27	0°♏			4061 Jun 23 11:36	0°♋		
morning max el	4058 Dec 25 13:46	17°♏20'06 46°41'15			4061 Jul 18 09:18	0°♌		

	4061 Aug 12 18:16	0°♄		4063 Dec 27 08:04	0°♁
desc. node	4061 Sep 04 14:41	26°♄16'49		4064 Jan 20 18:51	0°♁
	4061 Sep 07 21:56	0°♄		4064 Feb 13 22:46	0°♁
	4061 Oct 05 14:08	0°♁	desc. node	4064 Feb 20 09:52	8°♁03'14
evening max el	4061 Oct 17 09:57	11°♁52'35 46°18'47		4064 Mar 08 23:44	0°♁
	4061 Nov 06 23:36	0°♁		4064 Apr 02 00:08	0°♁
greatest brilliancy	4061 Nov 26 12:55	11°♁20'00 -4.9m	morning set	4064 Apr 16 15:25	18°♁15'27
retrograde	4061 Dec 06 01:20	13°♁01'32		4064 Apr 26 01:42	0°♁
evening set	4061 Dec 20 10:44	8°♁57'19		4064 May 20 05:39	0°♁
inferior conj	4061 Dec 26 15:56	5°♁20'45 -0°00'45			
minimum elong	4061 Dec 26 15:58	5°♁20'42 0°00'44	superior conj	4064 May 25 09:22	6°♁22'54 -0°41'43
transit middle	4061 Dec 26 15:58	5°♁20'42 0°00'44	minimum elong	4064 May 25 17:52	6°♁49'12 0°41'20
transit begin	4061 Dec 26 11:54	5°♁26'54	max. Earth dist.	4064 May 28 10:37	10°♁09'28 1.72829 AU
transit end	4061 Dec 26 20:03	5°♁14'31	asc. node	4064 Jun 12 12:19	28°♁46'02
asc. node	4061 Dec 26 17:06	5°♁19'00		4064 Jun 13 12:19	0°♁
min. Earth dist.	4061 Dec 26 22:30	5°♁10'46 0.26691 AU	evening rise	4064 Jul 02 00:52	22°♁48'05
morning rise	4062 Jan 01 20:44	1°♁43'45		4064 Jul 07 21:29	0°♁
	4062 Jan 05 10:18	30°♁♁		4064 Aug 01 09:02	0°♁
direct	4062 Jan 16 05:16	27°♁36'40		4064 Aug 25 23:36	0°♁
greatest brilliancy	4062 Jan 26 16:26	29°♁41'13 -4.9m		4064 Sep 19 18:42	0°♁
	4062 Jan 27 11:40	0°♁	desc. node	4064 Oct 02 02:37	14°♁48'24
	4062 Mar 07 02:40	0°♁		4064 Oct 14 20:21	0°♁
morning max el	4062 Mar 07 19:52	0°♁43'17 46°57'12		4064 Nov 09 07:50	0°♁
	4062 Apr 04 00:50	0°♁		4064 Dec 05 13:53	0°♁
desc. node	4062 Apr 17 07:37	15°♁09'13	evening max el	4064 Dec 29 10:31	25°♁32'17 47°09'52
	4062 Apr 30 01:40	0°♁		4065 Jan 02 21:59	0°♁
	4062 May 25 09:32	0°♁	asc. node	4065 Jan 23 05:03	17°♁48'37
	4062 Jun 19 10:00	0°♁	greatest brilliancy	4065 Feb 08 00:08	26°♁55'22 -4.9m
	4062 Jul 14 06:21	0°♁	retrograde	4065 Feb 18 04:49	28°♁53'44
	4062 Aug 07 22:57	0°♁	evening set	4065 Mar 07 15:46	22°♁57'42
asc. node	4062 Aug 08 09:59	0°♁33'38	min. Earth dist.	4065 Mar 10 05:53	21°♁22'28 0.27173 AU
	4062 Sep 01 11:13	0°♁	inferior conj	4065 Mar 10 21:39	20°♁58'00 8°46'47
morning set	4062 Sep 05 17:56	5°♁15'39	minimum elong	4065 Mar 10 16:43	21°♁05'39 8°46'25
	4062 Sep 25 19:11	0°♁	morning rise	4065 Mar 13 17:53	19°♁13'23
max. Earth dist.	4062 Oct 09 12:59	17°♁01'12 1.72693 AU	direct	4065 Mar 31 12:23	13°♁11'44
			greatest brilliancy	4065 Apr 09 14:12	14°♁45'15 -4.9m
superior conj	4062 Oct 12 07:36	20°♁27'52 1°22'30		4065 May 04 02:02	0°♁
minimum elong	4062 Oct 12 12:18	20°♁42'27 1°22'26	desc. node	4065 May 14 19:17	9°♁33'15
	4062 Oct 19 23:52	0°♁	morning max el	4065 May 20 05:48	14°♁46'59 46°19'43
	4062 Nov 13 02:35	0°♁		4065 Jun 04 03:18	0°♁
evening rise	4062 Nov 19 07:31	7°♁43'54		4065 Jul 01 10:46	0°♁
desc. node	4062 Nov 28 00:21	18°♁34'33		4065 Jul 27 12:52	0°♁
	4062 Dec 07 04:16	0°♁		4065 Aug 21 23:17	0°♁
	4062 Dec 31 05:29	0°♁	asc. node	4065 Sep 04 21:56	16°♁41'55
	4063 Jan 24 07:19	0°♁		4065 Sep 15 22:06	0°♁
	4063 Feb 17 12:22	0°♁		4065 Oct 10 11:25	0°♁
	4063 Mar 14 01:25	0°♁		4065 Nov 03 17:32	0°♁
asc. node	4063 Mar 21 02:46	8°♁30'13	morning set	4065 Nov 14 04:59	13°♁02'35
	4063 Apr 08 06:20	0°♁		4065 Nov 27 18:57	0°♁
	4063 May 04 18:34	0°♁	max. Earth dist.	4065 Dec 21 06:15	29°♁24'09 1.71402 AU
evening max el	4063 May 24 21:34	20°♁53'02 45°48'39		4065 Dec 21 17:41	0°♁
	4063 Jun 03 15:23	0°♁			
greatest brilliancy	4063 Jul 01 21:34	19°♁12'55 -4.7m	superior conj	4065 Dec 23 09:00	2°♁03'20 0°05'10
desc. node	4063 Jul 10 16:57	21°♁19'39	minimum elong	4065 Dec 23 10:19	2°♁07'28 0°05'07
retrograde	4063 Jul 12 23:34	21°♁25'39	behind sun begin	4065 Dec 22 09:51	0°♁50'43
evening set	4063 Jul 28 14:13	16°♁42'47	behind sun end	4065 Dec 24 10:47	3°♁24'14
inferior conj	4063 Aug 03 11:16	13°♁09'32 -5°14'32	desc. node	4065 Dec 25 12:11	4°♁43'54
minimum elong	4063 Aug 03 01:49	13°♁24'20 5°12'19		4066 Jan 14 14:59	0°♁
min. Earth dist.	4063 Aug 03 03:28	13°♁21'46 0.29034 AU	evening rise	4066 Feb 02 05:10	23°♁21'48
morning rise	4063 Aug 08 13:38	10°♁03'21		4066 Feb 07 11:56	0°♁
direct	4063 Aug 25 02:02	4°♁52'57		4066 Mar 03 10:04	0°♁
greatest brilliancy	4063 Sep 04 07:14	6°♁46'11 -4.7m		4066 Mar 27 11:45	0°♁
	4063 Oct 07 17:32	0°♁	asc. node	4066 Apr 17 14:38	26°♁03'13
morning max el	4063 Oct 13 03:36	5°♁08'00 45°55'52		4066 Apr 20 19:59	0°♁
asc. node	4063 Oct 31 19:31	24°♁19'14		4066 May 15 14:19	0°♁
	4063 Nov 06 00:38	0°♁		4066 Jun 10 00:01	0°♁
	4063 Dec 02 07:06	0°♁		4066 Jul 06 12:26	0°♁

evening max el	4066 Aug 03 14:14	29° \cap 03'16	45°31'13	morning set	4069 Jan 27 14:54	28° C 02'29	
	4066 Aug 04 14:03	0° $\underline{\cap}$			4069 Jan 29 04:18	0° \approx	
desc. node	4066 Aug 07 04:57	2° $\underline{\cap}$ 27'38			4069 Feb 22 00:53	0° H	
greatest brilliancy	4066 Sep 11 17:31	27° $\underline{\cap}$ 04'30	-4.7m				
retrograde	4066 Sep 21 05:09	28° $\underline{\cap}$ 42'13		superior conj	4069 Mar 10 02:23	20° H 11'18	-1°23'54
evening set	4066 Oct 09 04:56	22° $\underline{\cap}$ 42'22		minimum elong	4069 Mar 09 20:18	19° H 52'15	1°23'49
inferior conj	4066 Oct 12 12:12	20° $\underline{\cap}$ 40'50	-8°25'40	max. Earth dist.	4069 Mar 12 16:16	23° H 25'37	1.71347 AU
minimum elong	4066 Oct 12 17:05	20° $\underline{\cap}$ 33'14	8°25'18		4069 Mar 17 21:58	0° Y	
min. Earth dist.	4066 Oct 13 07:01	20° $\underline{\cap}$ 11'33	0.28486 AU		4069 Apr 10 21:18	0° B	
morning rise	4066 Oct 16 04:58	18° $\underline{\cap}$ 24'20		evening rise	4069 Apr 19 12:41	10° B 46'02	
direct	4066 Nov 02 20:54	12° $\underline{\cap}$ 28'46			4069 May 05 00:30	0° II	
greatest brilliancy	4066 Nov 14 00:34	14° $\underline{\cap}$ 45'30	-4.8m	asc. node	4069 May 15 02:29	12° II 27'39	
asc. node	4066 Nov 28 07:14	22° $\underline{\cap}$ 55'24			4069 May 29 08:47	0° C	
	4066 Dec 07 05:19	0° M			4069 Jun 22 23:08	0° Ω	
morning max el	4066 Dec 23 03:59	14° M 58'41	46°39'50		4069 Jul 17 21:24	0° \cap	
	4067 Jan 06 10:21	0° A			4069 Aug 12 07:25	0° $\underline{\cap}$	
	4067 Feb 01 19:51	0° C		desc. node	4069 Sep 03 16:41	25° $\underline{\cap}$ 40'33	
	4067 Feb 27 00:02	0° \approx			4069 Sep 07 13:09	0° M	
desc. node	4067 Mar 19 21:46	25° \approx 24'26			4069 Oct 05 10:08	0° A	
	4067 Mar 23 15:53	0° H		evening max el	4069 Oct 15 00:32	9° A 34'26	46°16'44
	4067 Apr 17 02:29	0° Y			4069 Nov 07 18:13	0° C	
	4067 May 11 11:28	0° B		greatest brilliancy	4069 Nov 24 01:28	8° C 54'12	-4.8m
	4067 Jun 04 20:47	0° II		retrograde	4069 Dec 03 14:19	10° C 35'32	
morning set	4067 Jun 27 09:39	27° II 41'18		evening set	4069 Dec 18 00:20	6° C 30'01	
	4067 Jun 29 06:49	0° C		inferior conj	4069 Dec 24 04:32	2° C 54'29	-0°24'59
asc. node	4067 Jul 11 00:11	14° C 23'52		minimum elong	4069 Dec 24 05:30	2° C 53'01	0°24'40
	4067 Jul 23 16:55	0° Ω		min. Earth dist.	4069 Dec 24 12:08	2° C 42'55	0.26721 AU
max. Earth dist.	4067 Aug 02 08:33	11° Ω 52'04	1.73504 AU	asc. node	4069 Dec 25 19:09	1° C 55'55	
					4069 Dec 29 02:22	30° R A	
superior conj	4067 Aug 03 06:50	13° Ω 00'35	0°51'49	morning rise	4069 Dec 30 10:16	29° A 16'25	
minimum elong	4067 Aug 02 22:12	12° Ω 34'01	0°51'28	direct	4070 Jan 13 18:59	25° A 09'57	
	4067 Aug 17 02:13	0° \cap		greatest brilliancy	4070 Jan 24 06:19	27° A 15'07	-4.9m
evening rise	4067 Sep 08 05:43	27° \cap 16'56			4070 Jan 30 04:11	0° C	
	4067 Sep 10 10:39	0° $\underline{\cap}$		morning max el	4070 Mar 05 10:26	28° C 21'11	46°57'34
	4067 Oct 04 18:57	0° M			4070 Mar 07 01:23	0° \approx	
	4067 Oct 29 04:07	0° A			4070 Apr 03 17:13	0° H	
desc. node	4067 Oct 30 14:29	1° A 45'36		desc. node	4070 Apr 16 09:34	14° H 31'30	
	4067 Nov 22 14:46	0° C			4070 Apr 29 15:38	0° Y	
	4067 Dec 17 03:49	0° \approx			4070 May 24 22:15	0° B	
	4068 Jan 10 22:23	0° H			4070 Jun 18 21:55	0° II	
	4068 Feb 05 06:57	0° Y			4070 Jul 13 17:45	0° C	
asc. node	4068 Feb 20 16:52	17° Y 32'22			4070 Aug 07 09:59	0° Ω	
	4068 Mar 03 03:37	0° B		asc. node	4070 Aug 07 12:04	0° Ω 06'21	
evening max el	4068 Mar 11 10:48	8° B 35'49	46°49'40		4070 Aug 31 22:04	0° \cap	
	4068 Apr 04 08:11	0° II		morning set	4070 Sep 03 11:21	3° \cap 08'19	
greatest brilliancy	4068 Apr 20 07:01	9° II 14'27	-4.8m		4070 Sep 25 06:00	0° $\underline{\cap}$	
retrograde	4068 Apr 30 20:21	11° II 19'56		max. Earth dist.	4070 Oct 07 05:23	14° $\underline{\cap}$ 49'41	1.72736 AU
evening set	4068 May 16 20:23	6° II 20'01					
inferior conj	4068 May 22 01:27	3° II 09'37	4°41'01	superior conj	4070 Oct 10 00:17	18° $\underline{\cap}$ 17'05	1°23'16
minimum elong	4068 May 22 10:30	2° II 55'26	4°38'40	minimum elong	4070 Oct 10 04:17	18° $\underline{\cap}$ 29'31	1°23'14
min. Earth dist.	4068 May 21 23:35	3° II 12'33	0.28225 AU		4070 Oct 19 10:44	0° M	
	4068 May 27 06:11	30° R B			4070 Nov 12 13:35	0° A	
morning rise	4068 May 28 00:55	29° B 33'38		evening rise	4070 Nov 16 21:29	5° A 23'30	
desc. node	4068 Jun 11 07:03	25° B 05'47		desc. node	4070 Nov 27 02:24	18° A 06'24	
direct	4068 Jun 12 04:31	25° B 04'51			4070 Dec 06 15:26	0° C	
greatest brilliancy	4068 Jun 22 02:52	26° B 52'10	-4.7m		4070 Dec 30 16:50	0° \approx	
	4068 Jun 29 04:46	0° II			4071 Jan 23 18:55	0° H	
morning max el	4068 Jul 31 00:14	24° II 57'39	45°44'35		4071 Feb 17 00:22	0° Y	
	4068 Aug 05 04:44	0° C			4071 Mar 13 14:04	0° B	
	4068 Sep 02 16:33	0° Ω		asc. node	4071 Mar 20 04:41	7° B 57'13	
	4068 Sep 29 01:59	0° \cap			4071 Apr 07 20:16	0° II	
asc. node	4068 Oct 02 09:41	3° \cap 52'42			4071 May 04 11:28	0° C	
	4068 Oct 24 09:23	0° $\underline{\cap}$		evening max el	4071 May 22 14:11	18° C 42'59	45°50'13
	4068 Nov 18 00:44	0° M			4071 Jun 03 19:01	0° Ω	
	4068 Dec 12 06:23	0° A		greatest brilliancy	4071 Jun 29 13:59	17° Ω 03'57	-4.7m
	4069 Jan 05 06:41	0° C		desc. node	4071 Jul 09 19:06	19° Ω 15'34	
desc. node	4069 Jan 22 00:02	20° C 58'55		retrograde	4071 Jul 10 16:00	19° Ω 16'27	

evening set	4071 Jul 26 04:40	14°Ω36'49			4073 Dec 21 04:28	0°⊖	
inferior conj	4071 Aug 01 03:39	11°Ω00'32	-4°58'38	desc. node	4073 Dec 24 14:16	4°⊖16'33	
minimum elong	4071 Jul 31 18:28	11°Ω14'57	4°56'25		4074 Jan 14 01:52	0°≈	
min. Earth dist.	4071 Jul 31 19:32	11°Ω13'16	0.29016 AU	evening rise	4074 Jan 30 15:40	20°≈49'38	
morning rise	4071 Aug 06 08:29	7°Ω50'35			4074 Feb 06 22:54	0°✕	
direct	4071 Aug 22 18:35	2°Ω44'29			4074 Mar 02 21:07	0°Υ	
greatest brilliancy	4071 Sep 01 22:22	4°Ω36'19	-4.7m		4074 Mar 26 22:55	0°⋈	
	4071 Oct 07 17:24	0°♍		asc. node	4074 Apr 16 16:39	25°⋈34'27	
morning max el	4071 Oct 10 18:38	2°♍54'59	45°54'32		4074 Apr 20 07:26	0°♊	
asc. node	4071 Oct 30 21:33	23°♍39'01			4074 May 15 02:19	0°♊	
	4071 Nov 05 16:42	0°♊			4074 Jun 09 13:08	0°♊	
	4071 Dec 01 20:42	0°♊			4074 Jul 06 04:03	0°♍	
	4071 Dec 26 20:33	0°♊		evening max el	4074 Aug 01 04:20	26°♍49'02	45°30'40
	4072 Jan 20 06:42	0°⊖			4074 Aug 04 13:17	0°♊	
	4072 Feb 13 10:15	0°≈		desc. node	4074 Aug 06 06:54	1°♊36'05	
desc. node	4072 Feb 19 11:52	7°≈33'55		greatest brilliancy	4074 Sep 09 06:57	24°♊50'58	-4.7m
	4072 Mar 08 10:56	0°✕		retrograde	4074 Sep 18 20:00	26°♊30'11	
	4072 Apr 01 11:07	0°Υ		evening set	4074 Oct 06 21:09	20°♊27'45	
morning set	4072 Apr 14 04:38	15°Υ53'11		inferior conj	4074 Oct 10 03:31	18°♊27'44	-8°29'49
	4072 Apr 25 12:32	0°⋈		minimum elong	4074 Oct 10 07:40	18°♊21'16	8°29'33
	4072 May 19 16:22	0°♊		min. Earth dist.	4074 Oct 10 21:39	17°♊59'32	0.28546 AU
				morning rise	4074 Oct 13 17:56	16°♊14'54	
superior conj	4072 May 23 00:43	4°♊08'44	-0°44'44	direct	4074 Oct 31 12:25	10°♊14'42	
minimum elong	4072 May 23 09:40	4°♊36'26	0°44'21	greatest brilliancy	4074 Nov 11 16:33	12°♊31'51	-4.8m
max. Earth dist.	4072 May 26 06:25	8°♊09'07	1.72783 AU	asc. node	4074 Nov 27 09:18	21°♊43'31	
asc. node	4072 Jun 11 14:26	28°♊19'39			4074 Dec 07 11:11	0°♊	
	4072 Jun 12 22:59	0°♊		morning max el	4074 Dec 20 19:10	12°♊41'06	46°38'25
evening rise	4072 Jun 29 18:25	20°♊41'33			4075 Jan 06 04:00	0°♊	
	4072 Jul 07 08:13	0°♊			4075 Feb 01 10:15	0°⊖	
	4072 Jul 31 19:56	0°♍			4075 Feb 26 12:58	0°≈	
	4072 Aug 25 10:51	0°♊		desc. node	4075 Mar 18 23:38	24°≈52'54	
	4072 Sep 19 06:30	0°♊			4075 Mar 23 03:59	0°✕	
desc. node	4072 Oct 01 04:34	14°♊17'45			4075 Apr 16 14:00	0°Υ	
	4072 Oct 14 09:03	0°♊			4075 May 10 22:35	0°⋈	
	4072 Nov 08 22:03	0°⊖			4075 Jun 04 07:35	0°♊	
	4072 Dec 05 07:02	0°≈		morning set	4075 Jun 25 02:57	25°♊34'23	
evening max el	4072 Dec 27 00:05	23°≈07'28	47°08'58		4075 Jun 28 17:24	0°♊	
	4073 Jan 02 23:21	0°✕		asc. node	4075 Jul 10 02:14	13°♊57'57	
asc. node	4073 Jan 22 07:07	16°✕29'36			4075 Jul 23 03:23	0°♊	
greatest brilliancy	4073 Feb 05 14:36	24°✕30'39	-4.9m	max. Earth dist.	4075 Jul 31 06:27	9°♊59'43	1.73510 AU
retrograde	4073 Feb 15 17:52	26°✕27'48					
evening set	4073 Mar 05 01:36	20°✕37'56		superior conj	4075 Aug 01 01:08	10°♊57'08	0°49'16
inferior conj	4073 Mar 08 10:50	18°✕33'15	8°41'10	minimum elong	4075 Jul 31 16:40	10°♊31'08	0°48'56
minimum elong	4073 Mar 08 05:05	18°✕42'11	8°40'41		4075 Aug 16 12:41	0°♍	
min. Earth dist.	4073 Mar 07 19:08	18°✕57'37	0.27125 AU	evening rise	4075 Sep 06 00:05	25°♍13'11	
morning rise	4073 Mar 11 08:44	16°✕46'00			4075 Sep 09 21:13	0°♊	
direct	4073 Mar 29 00:39	10°✕47'42			4075 Oct 04 05:46	0°♊	
greatest brilliancy	4073 Apr 07 03:24	12°✕21'32	-4.9m		4075 Oct 28 15:16	0°♊	
	4073 May 04 10:04	0°Υ		desc. node	4075 Oct 29 16:33	1°♊17'36	
desc. node	4073 May 13 21:20	8°Υ38'51			4075 Nov 22 02:23	0°⊖	
morning max el	4073 May 17 18:13	12°Υ23'40	46°21'25		4075 Dec 16 16:05	0°≈	
	4073 Jun 03 21:23	0°⋈			4076 Jan 10 11:37	0°✕	
	4073 Jul 01 01:04	0°♊			4076 Feb 04 22:00	0°Υ	
	4073 Jul 27 01:28	0°♊		asc. node	4076 Feb 19 18:47	16°Υ50'23	
	4073 Aug 21 10:58	0°♊			4076 Mar 02 23:05	0°⋈	
asc. node	4073 Sep 03 23:49	16°♊13'23		evening max el	4076 Mar 09 01:42	6°⋈17'31	46°51'34
	4073 Sep 15 09:16	0°♍			4076 Apr 05 03:23	0°♊	
	4073 Oct 09 22:18	0°♊		greatest brilliancy	4076 Apr 17 22:43	6°♊59'12	-4.8m
	4073 Nov 03 04:17	0°♊		retrograde	4076 Apr 28 12:24	9°♊05'07	
morning set	4073 Nov 11 19:48	10°♊45'41		evening set	4076 May 14 14:22	4°♊01'07	
	4073 Nov 27 05:41	0°♊		inferior conj	4076 May 19 16:39	0°♊54'54	4°59'05
max. Earth dist.	4073 Dec 18 15:08	26°♊47'40	1.71442 AU	minimum elong	4076 May 20 02:04	0°♊40'11	4°56'42
				min. Earth dist.	4076 May 19 14:41	0°♊57'59	0.28194 AU
superior conj	4073 Dec 20 20:43	29°♊35'40	0°09'00		4076 May 21 03:50	30°♊	
minimum elong	4073 Dec 20 22:59	29°♊42'48	0°08'53	morning rise	4076 May 25 14:06	27°♊22'09	
behind sun begin	4073 Dec 20 01:23	28°♊35'03		direct	4076 Jun 09 19:21	22°♊50'32	
behind sun end	4073 Dec 21 20:35	0°⊖50'33		desc. node	4076 Jun 10 09:08	22°♊50'56	
















greatest brilliancy	4076 Jun 19 17:02	24°♄37'50	-4.8m		4078 Dec 30 04:03	0°♁	
	4076 Jun 30 16:28	0°♂			4079 Jan 23 06:27	0°♄	
morning max el	4076 Jul 28 16:39	22°♂48'58	45°45'16		4079 Feb 16 12:20	0°♃	
	4076 Aug 05 00:53	0°♄			4079 Mar 13 02:44	0°♄	
	4076 Sep 02 07:18	0°♂		asc. node	4079 Mar 19 06:44	7°♄24'38	
	4076 Sep 28 14:41	0°♄			4079 Apr 07 10:16	0°♂	
asc. node	4076 Oct 01 11:46	3°♄22'02			4079 May 04 04:40	0°♄	
	4076 Oct 23 21:08	0°♂		evening max el	4079 May 20 05:52	16°♄30'41	45°51'52
	4076 Nov 17 12:01	0°♄			4079 Jun 04 00:26	0°♂	
	4076 Dec 11 17:28	0°♄		greatest brilliancy	4079 Jun 27 06:44	14°♂55'22	-4.7m
	4077 Jan 04 17:39	0°♄		retrograde	4079 Jul 08 07:52	17°♂07'21	
desc. node	4077 Jan 21 02:02	20°♄31'02		desc. node	4079 Jul 08 21:05	17°♂06'59	
morning set	4077 Jan 25 01:05	25°♄29'31		evening set	4079 Jul 23 19:11	12°♂30'37	
	4077 Jan 28 15:10	0°♁		inferior conj	4079 Jul 29 20:00	8°♂51'41	-4°42'16
	4077 Feb 21 11:41	0°♄		minimum elong	4079 Jul 29 11:05	9°♂05'40	4°40'05
				min. Earth dist.	4079 Jul 29 11:55	9°♂04'22	0.28994 AU
superior conj	4077 Mar 07 12:53	17°♄39'37	-1°22'47	morning rise	4079 Aug 04 03:12	5°♂38'01	
minimum elong	4077 Mar 07 05:52	17°♄17'36	1°22'41	direct	4079 Aug 20 10:38	0°♂36'02	
max. Earth dist.	4077 Mar 10 01:11	20°♄49'02	1.71318 AU	greatest brilliancy	4079 Aug 30 14:04	2°♂27'08	-4.7m
	4077 Mar 17 08:45	0°♃			4079 Oct 07 16:06	0°♄	
	4077 Apr 10 08:06	0°♄		morning max el	4079 Oct 08 08:57	0°♄40'35	45°53'30
evening rise	4077 Apr 17 00:50	8°♄20'56		asc. node	4079 Oct 29 23:38	22°♄59'48	
	4077 May 04 11:21	0°♂			4079 Nov 05 08:20	0°♂	
asc. node	4077 May 14 04:38	12°♂00'45			4079 Dec 01 10:01	0°♄	
	4077 May 28 19:44	0°♄			4079 Dec 26 08:50	0°♄	
	4077 Jun 22 10:22	0°♂			4080 Jan 19 18:27	0°♄	
	4077 Jul 17 09:11	0°♄			4080 Feb 12 21:41	0°♁	
	4077 Aug 11 20:16	0°♂		desc. node	4080 Feb 18 13:50	7°♁04'35	
desc. node	4077 Sep 02 18:39	25°♂05'15			4080 Mar 07 22:10	0°♄	
	4077 Sep 07 04:07	0°♄			4080 Mar 31 22:11	0°♃	
	4077 Oct 05 06:19	0°♄		morning set	4080 Apr 11 17:07	13°♃28'15	
evening max el	4077 Oct 12 15:18	7°♄18'00	46°14'26		4080 Apr 24 23:26	0°♄	
	4077 Nov 08 18:49	0°♄			4080 May 19 03:09	0°♂	
greatest brilliancy	4077 Nov 21 14:13	6°♄29'40	-4.8m				
retrograde	4077 Dec 01 02:47	8°♄10'08		superior conj	4080 May 20 15:30	1°♂52'34	-0°47'42
evening set	4077 Dec 15 14:08	4°♄03'18		minimum elong	4080 May 21 00:52	2°♂21'33	0°47'20
inferior conj	4077 Dec 21 17:06	0°♄28'57	-0°49'10	max. Earth dist.	4080 May 24 00:18	6°♂02'38	1.72731 AU
minimum elong	4077 Dec 21 19:00	0°♄26'04	0°48'32	asc. node	4080 Jun 10 16:24	27°♂52'34	
min. Earth dist.	4077 Dec 22 01:53	0°♄15'35	0.26757 AU		4080 Jun 12 09:44	0°♄	
	4077 Dec 22 12:07	30°♄♄		evening rise	4080 Jun 27 11:32	18°♄33'28	
asc. node	4077 Dec 24 21:13	28°♄34'18			4080 Jul 06 19:02	0°♂	
morning rise	4077 Dec 27 23:29	26°♄49'49			4080 Jul 31 06:57	0°♄	
direct	4078 Jan 11 08:38	22°♄43'56			4080 Aug 24 22:12	0°♂	
greatest brilliancy	4078 Jan 21 20:20	24°♄49'31	-4.9m		4080 Sep 18 18:24	0°♄	
	4078 Jan 31 20:04	0°♄		desc. node	4080 Sep 30 06:41	13°♄47'21	
morning max el	4078 Mar 03 00:08	25°♄57'14	46°57'52		4080 Oct 13 21:51	0°♄	
	4078 Mar 06 23:04	0°♁			4080 Nov 08 12:24	0°♄	
	4078 Apr 03 09:09	0°♄			4080 Dec 05 00:30	0°♁	
desc. node	4078 Apr 15 11:43	13°♄55'16		evening max el	4080 Dec 24 12:48	20°♁40'38	47°07'59
	4078 Apr 29 05:16	0°♃			4081 Jan 03 02:06	0°♄	
	4078 May 24 10:39	0°♄		asc. node	4081 Jan 21 09:00	15°♄07'35	
	4078 Jun 18 09:34	0°♂		greatest brilliancy	4081 Feb 03 04:44	22°♄05'07	-4.9m
	4078 Jul 13 04:53	0°♄		retrograde	4081 Feb 13 06:37	24°♄01'28	
asc. node	4078 Aug 06 14:00	29°♄39'18		evening set	4081 Mar 02 10:59	18°♄17'47	
	4078 Aug 06 20:47	0°♂		inferior conj	4081 Mar 05 23:57	16°♄07'49	8°34'27
	4078 Aug 31 08:40	0°♄		minimum elong	4081 Mar 05 17:22	16°♄18'00	8°33'48
morning set	4078 Sep 01 05:04	1°♄02'41		min. Earth dist.	4081 Mar 05 08:23	16°♄31'56	0.27087 AU
	4078 Sep 24 16:33	0°♂		morning rise	4081 Mar 08 23:54	14°♄17'30	
max. Earth dist.	4078 Oct 04 21:17	12°♂37'29	1.72776 AU	direct	4081 Mar 26 12:48	8°♄22'34	
				greatest brilliancy	4081 Apr 04 17:04	9°♄57'29	-4.9m
superior conj	4078 Oct 07 17:27	16°♂08'42	1°23'54		4081 May 04 16:07	0°♃	
minimum elong	4078 Oct 07 20:45	16°♂18'57	1°23'53	desc. node	4081 May 12 23:25	7°♃44'46	
	4078 Oct 18 21:21	0°♄		morning max el	4081 May 15 06:59	10°♃00'07	46°23'06
	4078 Nov 12 00:20	0°♄			4081 Jun 03 15:21	0°♄	
evening rise	4078 Nov 14 11:51	3°♄05'14			4081 Jun 30 15:28	0°♂	
desc. node	4078 Nov 26 04:31	17°♄39'09			4081 Jul 26 14:13	0°♄	
	4078 Dec 06 02:23	0°♄			4081 Aug 20 22:48	0°♂	

asc. node	4081 Sep 03 01:52	15°♎44'51		evening max el	4084 Mar 06 17:20	4°♊00'30	46°53'30
	4081 Sep 14 20:36	0°♏			4084 Apr 06 06:00	0°♊	
	4081 Oct 09 09:22	0°♎		greatest brilliancy	4084 Apr 15 14:14	4°♊43'23	-4.8m
	4081 Nov 02 15:14	0°♏		retrograde	4084 Apr 26 04:38	6°♊49'41	
morning set	4081 Nov 09 10:57	8°♏29'15		evening set	4084 May 12 08:33	1°♊41'42	
	4081 Nov 26 16:36	0°♏			4084 May 15 04:17	30°♏	
max. Earth dist.	4081 Dec 16 03:08	24°♏20'29	1.71476 AU	inferior conj	4084 May 17 07:57	28°♏39'32	5°16'38
				minimum elong	4084 May 17 17:40	28°♏24'21	5°14'15
superior conj	4081 Dec 18 08:53	27°♏09'02	0°12'46	min. Earth dist.	4084 May 17 05:34	28°♏43'15	0.28167 AU
minimum elong	4081 Dec 18 12:05	27°♏19'03	0°12'36	morning rise	4084 May 23 03:11	25°♏10'11	
behind sun begin	4081 Dec 17 19:50	26°♏28'05		direct	4084 Jun 07 10:44	20°♏35'43	
behind sun end	4081 Dec 19 04:20	28°♏10'00		desc. node	4084 Jun 09 11:08	20°♏40'29	
	4081 Dec 20 15:25	0°♏		greatest brilliancy	4084 Jun 17 06:52	22°♏22'14	-4.8m
desc. node	4081 Dec 23 16:14	3°♏48'24			4084 Jul 01 18:10	0°♊	
	4082 Jan 13 12:53	0°♏		morning max el	4084 Jul 26 09:04	20°♊39'04	45°45'42
evening rise	4082 Jan 28 02:40	18°♏18'45			4084 Aug 04 20:51	0°♏	
	4082 Feb 06 09:59	0°♏			4084 Sep 01 22:20	0°♎	
	4082 Mar 02 08:19	0°♏			4084 Sep 28 03:45	0°♏	
	4082 Mar 26 10:20	0°♏		asc. node	4084 Sep 30 13:52	2°♏50'14	
asc. node	4082 Apr 15 18:44	25°♏04'59			4084 Oct 23 09:14	0°♎	
	4082 Apr 19 19:12	0°♊			4084 Nov 16 23:40	0°♏	
	4082 May 14 14:43	0°♏			4084 Dec 11 04:53	0°♏	
	4082 Jun 09 02:45	0°♎		greatest brilliancy	4084 Dec 29 21:38	23°♏21'17	-3.9m
	4082 Jul 05 20:22	0°♏			4085 Jan 04 04:56	0°♏	
evening max el	4082 Jul 29 19:00	24°♏35'06	45°30'19	desc. node	4085 Jan 20 03:59	20°♏01'54	
	4082 Aug 04 14:09	0°♎		morning set	4085 Jan 22 11:20	22°♏55'44	
desc. node	4082 Aug 05 08:53	0°♎42'29			4085 Jan 28 02:23	0°♏	
greatest brilliancy	4082 Sep 06 19:42	22°♎35'41	-4.7m		4085 Feb 20 22:50	0°♏	
retrograde	4082 Sep 16 11:14	24°♎16'56					
evening set	4082 Oct 04 12:57	18°♎12'21		superior conj	4085 Mar 04 23:30	15°♏07'15	-1°21'30
inferior conj	4082 Oct 07 18:42	16°♎13'18	-8°33'12	minimum elong	4085 Mar 04 15:37	14°♏42'30	1°21'22
minimum elong	4082 Oct 07 22:05	16°♎08'02	8°33'03	max. Earth dist.	4085 Mar 07 11:24	18°♏15'26	1.71282 AU
min. Earth dist.	4082 Oct 08 11:45	15°♎46'49	0.28601 AU		4085 Mar 16 19:50	0°♏	
morning rise	4082 Oct 11 06:59	14°♎03'49			4085 Apr 09 19:09	0°♏	
direct	4082 Oct 29 04:19	7°♎59'29		evening rise	4085 Apr 14 13:08	5°♏55'23	
greatest brilliancy	4082 Nov 09 07:54	10°♎16'28	-4.8m		4085 May 03 22:26	0°♊	
asc. node	4082 Nov 26 11:20	20°♎32'32		asc. node	4085 May 13 06:35	11°♊32'27	
	4082 Dec 07 15:33	0°♏			4085 May 28 06:58	0°♏	
morning max el	4082 Dec 18 11:01	10°♏24'28	46°37'07		4085 Jun 21 21:56	0°♎	
	4083 Jan 05 21:35	0°♏			4085 Jul 16 21:23	0°♏	
	4083 Feb 01 00:44	0°♏			4085 Aug 11 09:38	0°♎	
	4083 Feb 26 02:01	0°♏		desc. node	4085 Sep 01 20:47	24°♎28'48	
desc. node	4083 Mar 18 01:49	24°♏21'47			4085 Sep 06 19:47	0°♏	
	4083 Mar 22 16:13	0°♏			4085 Oct 05 03:45	0°♏	
	4083 Apr 16 01:43	0°♏		evening max el	4085 Oct 10 05:20	4°♏58'33	46°12'09
	4083 May 10 09:56	0°♏			4085 Nov 10 06:10	0°♏	
	4083 Jun 03 18:41	0°♊		greatest brilliancy	4085 Nov 19 03:30	4°♏04'43	-4.8m
morning set	4083 Jun 22 19:54	23°♊25'17		retrograde	4085 Nov 28 14:43	5°♏43'42	
	4083 Jun 28 04:21	0°♏		evening set	4085 Dec 13 04:08	1°♏35'19	
asc. node	4083 Jul 09 04:10	13°♏30'30			4085 Dec 15 23:48	30°♏	
	4083 Jul 22 14:14	0°♎		inferior conj	4085 Dec 19 05:43	28°♏02'32	-1°13'03
max. Earth dist.	4083 Jul 29 04:45	8°♎07'20	1.73512 AU	minimum elong	4085 Dec 19 08:30	27°♏58'16	1°12'09
				min. Earth dist.	4085 Dec 19 15:55	27°♏46'57	0.26794 AU
superior conj	4083 Jul 29 18:59	8°♎51'07	0°46'37	asc. node	4085 Dec 23 23:09	25°♏13'37	
minimum elong	4083 Jul 29 10:46	8°♎25'52	0°46'17	morning rise	4085 Dec 25 12:26	24°♏22'26	
	4083 Aug 15 23:31	0°♏		direct	4086 Jan 08 21:50	20°♏16'54	
evening rise	4083 Sep 03 18:08	23°♏07'21		greatest brilliancy	4086 Jan 19 10:48	22°♏23'18	-4.9m
	4083 Sep 09 08:10	0°♎			4086 Feb 02 00:29	0°♏	
	4083 Oct 03 16:57	0°♏		morning max el	4086 Feb 28 12:54	23°♏29'42	46°58'13
	4083 Oct 28 02:50	0°♏			4086 Mar 06 20:23	0°♏	
desc. node	4083 Oct 28 18:36	0°♏48'23			4086 Apr 03 01:09	0°♏	
	4083 Nov 21 14:26	0°♏		desc. node	4086 Apr 14 13:42	13°♏17'59	
	4083 Dec 16 04:46	0°♏			4086 Apr 28 19:04	0°♏	
	4084 Jan 10 01:17	0°♏			4086 May 23 23:14	0°♏	
	4084 Feb 04 13:32	0°♏			4086 Jun 17 21:23	0°♊	
asc. node	4084 Feb 18 20:54	16°♏07'51			4086 Jul 12 16:12	0°♏	
	4084 Mar 02 19:23	0°♏		asc. node	4086 Aug 05 16:04	29°♏11'55	

	4086 Aug 06 07:49	0°♈		retrograde	4089 Feb 10 19:38	21°♋34'32	
morning set	4086 Aug 29 22:47	28°♈56'06		evening set	4089 Feb 27 20:03	15°♋56'55	
	4086 Aug 30 19:35	0°♍		min. Earth dist.	4089 Mar 02 21:16	14°♋05'45	0.27047 AU
	4086 Sep 24 03:27	0°♊		inferior conj	4089 Mar 03 12:56	13°♋41'32	8°26'47
max. Earth dist.	4086 Oct 02 12:25	10°♊21'58	1.72822 AU	minimum elong	4089 Mar 03 05:37	13°♋52'52	8°25'56
				morning rise	4089 Mar 06 15:19	11°♋47'52	
superior conj	4086 Oct 05 10:35	13°♊59'18	1°24'25	direct	4089 Mar 24 01:02	5°♋56'36	
minimum elong	4086 Oct 05 13:12	14°♊07'23	1°24'24	greatest brilliancy	4089 Apr 02 06:19	7°♋32'32	-4.9m
	4086 Oct 18 08:19	0°♌			4089 May 04 20:19	0°♍	
	4086 Nov 11 11:26	0°♎		desc. node	4089 May 12 01:24	6°♍51'22	
evening rise	4086 Nov 12 02:08	0°♎45'43		morning max el	4089 May 12 20:34	7°♍38'21	46°24'51
desc. node	4086 Nov 25 06:26	17°♎10'14			4089 Jun 03 08:56	0°♏	
	4086 Dec 05 13:40	0°♐			4089 Jun 30 05:44	0°♑	
	4086 Dec 29 15:34	0°♑			4089 Jul 26 02:52	0°♒	
	4087 Jan 22 18:18	0°♋			4089 Aug 20 10:34	0°♈	
	4087 Feb 16 00:38	0°♍		asc. node	4089 Sep 02 03:59	15°♈16'47	
	4087 Mar 12 15:45	0°♏			4089 Sep 14 07:51	0°♍	
asc. node	4087 Mar 18 08:49	6°♏51'11			4089 Oct 08 20:21	0°♊	
	4087 Apr 07 00:40	0°♑			4089 Nov 02 02:07	0°♌	
	4087 May 03 22:25	0°♒		morning set	4089 Nov 07 02:24	6°♌14'02	
evening max el	4087 May 17 20:51	14°♒16'10	45°53'42		4089 Nov 26 03:30	0°♎	
	4087 Jun 04 08:15	0°♈		max. Earth dist.	4089 Dec 13 15:59	21°♎55'55	1.71517 AU
greatest brilliancy	4087 Jun 24 23:37	12°♈46'58	-4.7m				
retrograde	4087 Jul 05 23:58	14°♈58'52		superior conj	4089 Dec 15 21:02	24°♎42'12	0°16'30
desc. node	4087 Jul 07 23:02	14°♈54'20		minimum elong	4089 Dec 16 01:07	24°♎55'00	0°16'18
evening set	4087 Jul 21 10:07	10°♈24'27			4089 Dec 20 02:24	0°♐	
min. Earth dist.	4087 Jul 27 04:41	6°♈55'47	0.28975 AU	desc. node	4089 Dec 22 18:18	3°♐20'24	
inferior conj	4087 Jul 27 12:37	6°♈43'19	-4°25'42		4090 Jan 12 23:58	0°♑	
minimum elong	4087 Jul 27 04:03	6°♈56'47	4°23'32	evening rise	4090 Jan 25 13:21	15°♑46'39	
morning rise	4087 Aug 01 22:07	3°♈26'09			4090 Feb 05 21:09	0°♋	
	4087 Aug 09 06:16	30°♋06			4090 Mar 01 19:34	0°♍	
direct	4087 Aug 18 02:36	28°♋27'54			4090 Mar 25 21:46	0°♏	
	4087 Aug 27 07:52	0°♈		asc. node	4090 Apr 14 20:42	24°♏35'09	
greatest brilliancy	4087 Aug 28 06:33	0°♈19'00	-4.7m		4090 Apr 19 06:58	0°♑	
morning max el	4087 Oct 05 23:28	28°♈26'16	45°52'19		4090 May 14 03:08	0°♒	
	4087 Oct 07 14:05	0°♍			4090 Jun 08 16:24	0°♈	
asc. node	4087 Oct 29 01:36	22°♍19'58			4090 Jul 05 12:50	0°♍	
	4087 Nov 04 24:00	0°♊		evening max el	4090 Jul 27 10:48	22°♍24'35	45°30'09
	4087 Nov 30 23:32	0°♌		desc. node	4090 Aug 04 11:04	29°♍48'59	
	4087 Dec 25 21:20	0°♎			4090 Aug 04 16:02	0°♊	
	4088 Jan 19 06:24	0°♐		greatest brilliancy	4090 Sep 04 08:38	20°♊22'07	-4.7m
	4088 Feb 12 09:18	0°♑		retrograde	4090 Sep 14 02:56	22°♊05'17	
desc. node	4088 Feb 17 15:59	6°♑35'13		evening set	4090 Oct 02 04:49	15°♊59'21	
	4088 Mar 07 09:34	0°♋		inferior conj	4090 Oct 05 10:12	14°♊00'39	-8°35'49
	4088 Mar 31 09:24	0°♍		minimum elong	4090 Oct 05 12:49	13°♊56'36	8°35'43
morning set	4088 Apr 09 05:24	11°♍02'05		min. Earth dist.	4090 Oct 06 01:46	13°♊36'29	0.28652 AU
	4088 Apr 24 10:30	0°♏		morning rise	4090 Oct 08 20:39	11°♊54'00	
				direct	4090 Oct 26 20:50	5°♊46'24	
superior conj	4088 May 18 06:24	29°♋36'13	-0°50'37	greatest brilliancy	4090 Nov 06 22:43	8°♊02'06	-4.8m
minimum elong	4088 May 18 16:08	0°♑06'21	0°50'14	asc. node	4090 Nov 25 13:18	19°♊24'35	
	4088 May 18 14:05	0°♑			4090 Dec 07 17:51	0°♌	
max. Earth dist.	4088 May 21 16:01	3°♑48'56	1.72677 AU	morning max el	4090 Dec 16 03:03	8°♌09'19	46°35'27
asc. node	4088 Jun 09 18:24	27°♑25'12			4091 Jan 05 14:36	0°♎	
	4088 Jun 11 20:37	0°♒			4091 Jan 31 14:59	0°♐	
evening rise	4088 Jun 25 04:53	16°♒25'48			4091 Feb 25 14:57	0°♑	
	4088 Jul 06 05:57	0°♈		desc. node	4091 Mar 17 03:50	23°♑50'24	
	4088 Jul 30 18:02	0°♍			4091 Mar 22 04:23	0°♋	
	4088 Aug 24 09:38	0°♊			4091 Apr 15 13:20	0°♍	
	4088 Sep 18 06:26	0°♌			4091 May 09 21:10	0°♏	
desc. node	4088 Sep 29 08:42	13°♌16'12			4091 Jun 03 05:39	0°♑	
	4088 Oct 13 10:53	0°♎		morning set	4091 Jun 20 12:47	21°♑16'29	
	4088 Nov 08 03:08	0°♐			4091 Jun 27 15:07	0°♒	
	4088 Dec 04 18:37	0°♑		asc. node	4091 Jul 08 06:16	13°♒04'07	
evening max el	4088 Dec 22 01:39	18°♑13'34	47°06'59		4091 Jul 22 00:53	0°♈	
	4089 Jan 03 06:50	0°♋		max. Earth dist.	4091 Jul 27 03:24	6°♈16'39	1.73508 AU
asc. node	4089 Jan 20 11:08	13°♋42'33					
greatest brilliancy	4089 Jan 31 18:16	19°♋38'05	-4.9m	superior conj	4091 Jul 27 12:56	6°♈45'57	0°43'55

minimum elong	4091 Jul 27 05:00	6°♌21'35	0°43'34	asc. node	4093 Dec 23 01:15	21°♊58'36	
	4091 Aug 15 10:09	0°♍		direct	4094 Jan 06 10:54	17°♊52'32	
evening rise	4091 Sep 01 12:31	21°♍03'13		greatest brilliancy	4094 Jan 17 02:01	20°♊00'25	-4.9m
	4091 Sep 08 18:53	0°♎			4094 Feb 02 20:13	0°♋	
	4091 Oct 03 03:53	0°♏		morning max el	4094 Feb 26 01:14	21°♋02'41	46°58'22
desc. node	4091 Oct 27 20:35	0°♊19'50			4094 Mar 06 16:22	0°♌	
	4091 Oct 27 14:07	0°♋			4094 Apr 02 16:27	0°♍	
	4091 Nov 21 02:12	0°♌		desc. node	4094 Apr 13 15:41	12°♍42'12	
	4091 Dec 15 17:13	0°♍			4094 Apr 28 08:23	0°♎	
	4092 Jan 09 14:50	0°♍			4094 May 23 11:28	0°♏	
	4092 Feb 04 05:11	0°♎			4094 Jun 17 08:56	0°♐	
asc. node	4092 Feb 17 22:56	15°♎24'47			4094 Jul 12 03:16	0°♑	
	4092 Mar 02 16:20	0°♏		asc. node	4094 Aug 04 18:09	28°♑45'29	
evening max el	4092 Mar 04 09:09	1°♏43'47	46°55'08		4094 Aug 05 18:34	0°♒	
	4092 Apr 07 20:23	0°♐		morning set	4094 Aug 27 16:14	26°♒49'43	
greatest brilliancy	4092 Apr 13 06:05	2°♐27'28	-4.8m		4094 Aug 30 06:10	0°♓	
retrograde	4092 Apr 23 20:24	4°♐33'18			4094 Sep 23 14:00	0°♑	
	4092 May 08 23:41	30°♑♏		max. Earth dist.	4094 Sep 30 05:36	8°♑13'50	1.72865 AU
evening set	4092 May 10 02:35	29°♑21'36					
inferior conj	4092 May 14 22:58	26°♑23'33	5°33'56	superior conj	4094 Oct 03 03:43	11°♑50'59	1°24'48
minimum elong	4092 May 15 08:55	26°♑07'58	5°31'33	minimum elong	4094 Oct 03 05:37	11°♑56'51	1°24'48
min. Earth dist.	4092 May 14 20:15	26°♑27'47	0.28134 AU		4094 Oct 17 18:56	0°♒	
morning rise	4092 May 20 15:42	22°♑57'45		evening rise	4094 Nov 09 16:40	28°♒28'14	
direct	4092 Jun 05 01:54	18°♑20'32			4094 Nov 10 22:11	0°♋	
desc. node	4092 Jun 08 13:09	18°♑34'31		desc. node	4094 Nov 24 08:30	16°♋42'54	
greatest brilliancy	4092 Jun 14 20:14	20°♑05'51	-4.8m		4094 Dec 05 00:35	0°♌	
	4092 Jul 02 12:56	0°♐			4094 Dec 29 02:44	0°♍	
morning max el	4092 Jul 24 00:24	18°♐27'03	45°46'19		4095 Jan 22 05:45	0°♍	
	4092 Aug 04 15:59	0°♑			4095 Feb 15 12:31	0°♎	
	4092 Sep 01 12:51	0°♒			4095 Mar 12 04:23	0°♏	
	4092 Sep 27 16:24	0°♓		asc. node	4095 Mar 17 10:45	6°♏18'25	
asc. node	4092 Sep 29 15:45	2°♓18'55			4095 Apr 06 14:50	0°♐	
	4092 Oct 22 20:58	0°♑			4095 May 03 16:18	0°♑	
	4092 Nov 16 10:56	0°♒		evening max el	4095 May 15 11:14	12°♑00'41	45°55'22
	4092 Dec 10 15:54	0°♋			4095 Jun 04 18:47	0°♒	
	4093 Jan 03 15:51	0°♌		greatest brilliancy	4095 Jun 22 15:57	10°♒37'44	-4.7m
greatest brilliancy	4093 Jan 06 13:18	3°♌37'44	-3.9m	retrograde	4095 Jul 03 16:09	12°♒50'05	
desc. node	4093 Jan 19 06:09	19°♌34'35		desc. node	4095 Jul 07 01:13	12°♒36'31	
morning set	4093 Jan 19 22:02	20°♌24'27		evening set	4095 Jul 19 00:51	8°♒17'31	
	4093 Jan 27 13:13	0°♍		inferior conj	4095 Jul 25 04:55	4°♒34'33	-4°08'27
	4093 Feb 20 09:40	0°♎		minimum elong	4095 Jul 24 20:44	4°♒47'24	4°06'20
				min. Earth dist.	4095 Jul 24 21:11	4°♒46'42	0.28957 AU
superior conj	4093 Mar 02 10:03	12°♎35'32	-1°20'04	morning rise	4095 Jul 30 16:44	1°♒14'09	
minimum elong	4093 Mar 02 01:22	12°♎08'14	1°19'53		4095 Aug 01 23:27	30°♑♑	
max. Earth dist.	4093 Mar 04 19:38	15°♎36'28	1.71257 AU	direct	4095 Aug 15 18:06	26°♑19'16	
	4093 Mar 16 06:41	0°♎		greatest brilliancy	4095 Aug 25 23:00	28°♑10'57	-4.7m
	4093 Apr 09 06:00	0°♏			4095 Aug 30 09:01	0°♒	
evening rise	4093 Apr 12 00:52	3°♏28'32		morning max el	4095 Oct 03 14:20	26°♒13'32	45°51'22
	4093 May 03 09:20	0°♐			4095 Oct 07 11:00	0°♓	
asc. node	4093 May 12 08:35	11°♐04'53		asc. node	4095 Oct 28 03:41	21°♓41'48	
	4093 May 27 18:00	0°♑			4095 Nov 04 15:06	0°♑	
	4093 Jun 21 09:17	0°♒			4095 Nov 30 12:35	0°♒	
	4093 Jul 16 09:21	0°♓			4095 Dec 25 09:25	0°♋	
	4093 Aug 10 22:48	0°♑			4096 Jan 18 17:58	0°♌	
desc. node	4093 Aug 31 22:46	23°♑52'42			4096 Feb 11 20:32	0°♍	
	4093 Sep 06 11:20	0°♒		desc. node	4096 Feb 16 17:57	6°♍06'31	
	4093 Oct 05 01:28	0°♋			4096 Mar 06 20:34	0°♎	
evening max el	4093 Oct 07 18:44	2°♋38'54	46°10'02		4096 Mar 30 20:12	0°♏	
	4093 Nov 12 09:53	0°♌		morning set	4096 Apr 06 17:52	8°♏37'33	
greatest brilliancy	4093 Nov 16 17:34	1°♌42'47	-4.8m		4096 Apr 23 21:10	0°♐	
retrograde	4093 Nov 26 02:43	3°♌20'07					
	4093 Dec 09 03:29	30°♑♋		superior conj	4096 May 15 21:20	27°♑20'56	-0°53'26
evening set	4093 Dec 10 18:39	29°♋09'42		minimum elong	4096 May 16 07:21	27°♑51'59	0°53'03
inferior conj	4093 Dec 16 18:43	25°♋38'58	-1°36'32		4096 May 18 00:40	0°♐	
minimum elong	4093 Dec 16 22:22	25°♋33'22	1°35'22	max. Earth dist.	4096 May 19 07:05	1°♐34'11	1.72630 AU
min. Earth dist.	4093 Dec 17 06:33	25°♋20'52	0.26832 AU	asc. node	4096 Jun 08 20:31	26°♐59'04	
morning rise	4093 Dec 23 01:33	21°♋58'12			4096 Jun 11 07:12	0°♑	

evening rise	4096 Jun 22 22:04	14°☿18'24			4099 Feb 25 03:46	0°≈	
	4096 Jul 05 16:38	0°♌		desc. node	4099 Mar 16 05:45	23°≈18'56	
	4096 Jul 30 04:55	0°♍			4099 Mar 21 16:26	0°♋	
	4096 Aug 23 20:52	0°♎			4099 Apr 15 00:53	0°♐	
	4096 Sep 17 18:18	0°♏			4099 May 09 08:22	0°♑	
desc. node	4096 Sep 28 10:39	12°♏45'31			4099 Jun 02 16:35	0°♒	
	4096 Oct 12 23:46	0°♐		morning set	4099 Jun 18 05:51	19°♒08'16	
	4096 Nov 07 17:46	0°♑			4099 Jun 27 01:51	0°☿	
	4096 Dec 04 12:53	0°≈		asc. node	4099 Jul 07 08:18	12°☿37'32	
evening max el	4096 Dec 19 15:09	15°≈49'12	47°06'01		4099 Jul 21 11:31	0°♌	
	4097 Jan 03 13:14	0°♋					
asc. node	4097 Jan 19 13:12	12°♋15'24		superior conj	4099 Jul 25 06:59	4°♌41'09	0°41'09
greatest brilliancy	4097 Jan 29 07:15	17°♋11'14	-4.9m	minimum elong	4099 Jul 24 23:23	4°♌17'48	0°40'49
retrograde	4097 Feb 08 09:17	19°♋08'24		max. Earth dist.	4099 Jul 25 02:01	4°♌25'54	1.73504 AU
evening set	4097 Feb 25 04:56	13°♋36'53			4099 Aug 14 20:48	0°♍	
min. Earth dist.	4097 Feb 28 09:49	11°♋40'36	0.27006 AU	evening rise	4099 Aug 30 06:55	18°♍58'59	
inferior conj	4097 Mar 01 01:52	11°♋15'53	8°18'02		4099 Sep 08 05:41	0°♎	
minimum elong	4097 Feb 28 17:52	11°♋28'13	8°17'01		4099 Oct 02 14:58	0°♏	
morning rise	4097 Mar 04 06:58	9°♋18'30		desc. node	4099 Oct 26 22:39	29°♏51'01	
direct	4097 Mar 21 13:39	3°♋31'22			4099 Oct 27 01:34	0°♐	
greatest brilliancy	4097 Mar 30 18:56	5°♋07'46	-4.9m		4099 Nov 20 14:09	0°♑	
	4097 May 04 22:26	0°♐			4099 Dec 15 05:53	0°≈	
morning max el	4097 May 10 10:50	5°♐19'15	46°26'34		4100 Jan 09 04:39	0°♋	
desc. node	4097 May 11 03:28	6°♐00'17			4100 Feb 03 21:11	0°♐	
	4097 Jun 03 01:47	0°♑		asc. node	4100 Feb 17 00:52	14°♐40'38	
	4097 Jun 29 19:33	0°♒		evening max el	4100 Mar 03 00:13	29°♐24'43	46°56'43
	4097 Jul 25 15:14	0°☿			4100 Mar 03 14:11	0°♋	
	4097 Aug 19 22:09	0°♌			4100 Apr 11 10:16	0°♒	
asc. node	4097 Sep 01 05:53	14°♌48'25		greatest brilliancy	4100 Apr 11 22:28	0°♒11'43	-4.8m
	4097 Sep 13 18:59	0°♍		retrograde	4100 Apr 22 11:38	2°♒16'18	
	4097 Oct 08 07:13	0°♎			4100 May 03 00:55	30°♒♋	
	4097 Nov 01 12:52	0°♏		evening set	4100 May 08 20:42	27°♋00'55	
morning set	4097 Nov 04 17:42	3°♏58'52		inferior conj	4100 May 13 13:58	24°♋07'07	5°50'46
	4097 Nov 25 14:16	0°♐		minimum elong	4100 May 14 00:06	23°♋51'14	5°48'24
max. Earth dist.	4097 Dec 11 04:39	19°♐31'22	1.71554 AU	min. Earth dist.	4100 May 13 11:08	24°♋11'33	0.28100 AU
				morning rise	4100 May 19 03:58	20°♋44'57	
superior conj	4097 Dec 13 09:08	22°♐15'48	0°20'13	direct	4100 Jun 03 16:45	16°♋04'53	
minimum elong	4097 Dec 13 14:04	22°♐31'15	0°19'59	desc. node	4100 Jun 08 15:15	16°♋32'52	
	4097 Dec 19 13:14	0°♑		greatest brilliancy	4100 Jun 13 09:50	17°♋49'06	-4.8m
desc. node	4097 Dec 21 20:22	2°♑52'54			4100 Jul 04 03:05	0°♒	
	4098 Jan 12 10:53	0°≈		morning max el	4100 Jul 22 14:52	16°♒12'29	45°47'03
evening rise	4098 Jan 23 00:03	13°≈15'06			4100 Aug 05 10:41	0°☿	
	4098 Feb 05 08:10	0°♋			4100 Sep 02 03:19	0°♌	
	4098 Mar 01 06:41	0°♐			4100 Sep 28 05:07	0°♍	
	4098 Mar 25 09:04	0°♋		asc. node	4100 Sep 29 17:52	1°♍47'58	
asc. node	4098 Apr 13 22:44	24°♋05'59			4100 Oct 23 08:52	0°♎	
	4098 Apr 18 18:37	0°♒			4100 Nov 16 22:26	0°♏	
	4098 May 13 15:25	0°☿			4100 Dec 11 03:13	0°♐	
	4098 Jun 08 05:59	0°♌			4101 Jan 04 03:02	0°♑	
	4098 Jul 05 05:28	0°♍		greatest brilliancy	4101 Jan 09 17:07	7°♑00'27	-3.9m
evening max el	4098 Jul 25 02:47	20°♍14'39	45°29'46	morning set	4101 Jan 18 08:23	17°♑51'12	
desc. node	4098 Aug 03 13:00	28°♍53'53		desc. node	4101 Jan 19 08:07	19°♑05'44	
	4098 Aug 04 19:26	0°♎			4101 Jan 28 00:21	0°≈	
greatest brilliancy	4098 Sep 01 21:59	18°♎08'43	-4.7m		4101 Feb 20 20:44	0°♋	
retrograde	4098 Sep 11 18:10	19°♎52'58					
evening set	4098 Sep 29 20:13	13°♎46'30		superior conj	4101 Feb 28 20:22	10°♋02'21	-1°18'25
inferior conj	4098 Oct 03 01:34	11°♎47'34	-8°37'41	minimum elong	4101 Feb 28 10:55	9°♋32'40	1°18'13
minimum elong	4098 Oct 03 03:24	11°♎44'44	8°37'38	max. Earth dist.	4101 Mar 03 00:58	12°♋47'38	1.71227 AU
min. Earth dist.	4098 Oct 03 15:46	11°♎25'30	0.28701 AU		4101 Mar 16 17:44	0°♐	
morning rise	4098 Oct 06 10:26	9°♎43'08			4101 Apr 09 17:04	0°♋	
direct	4098 Oct 24 13:15	3°♎33'00		evening rise	4101 Apr 10 12:26	1°♋00'25	
greatest brilliancy	4098 Nov 04 13:04	5°♎46'45	-4.8m		4101 May 03 20:27	0°♒	
asc. node	4098 Nov 24 15:25	18°♎18'22		asc. node	4101 May 12 10:43	10°♒36'58	
	4098 Dec 07 18:54	0°♏			4101 May 28 05:17	0°☿	
morning max el	4098 Dec 13 18:23	5°♏52'20	46°33'51		4101 Jun 21 20:54	0°♌	
	4099 Jan 05 07:19	0°♐			4101 Jul 16 21:37	0°♍	
	4099 Jan 31 05:03	0°♑			4101 Aug 11 12:17	0°♎	

desc. node	4101 Sep 01 00:46	23°  15'41	
	4101 Sep 07 03:22	0° 	
	4101 Oct 06 00:25	0° 	
evening max el	4101 Oct 06 07:07	0°  16'10	46°07'46
greatest brilliancy	4101 Nov 15 07:16	29°  19'07	-4.8m
	4101 Nov 17 14:53	0° 	
retrograde	4101 Nov 24 14:32	0°  55'07	
	4101 Dec 01 09:18	30° 	
evening set	4101 Dec 09 09:04	26°  41'55	
inferior conj	4101 Dec 15 07:30	23°  13'38	-1°59'56
minimum elong	4101 Dec 15 12:01	23°  06'45	1°58'30
min. Earth dist.	4101 Dec 15 21:04	22°  52'54	0.26880 AU
morning rise	4101 Dec 21 14:15	19°  32'39	
asc. node	4101 Dec 23 03:17	18°  44'59	
direct	4102 Jan 04 23:35	15°  26'01	