

superior conj	4601 Jul 25 22:42	5°♌09'20	0°35'45	minimum elong	4603 Dec 15 13:35	22°♊32'30	2°44'58
minimum elong	4601 Jul 25 15:49	4°♌48'08	0°35'26	min. Earth dist.	4603 Dec 16 00:24	22°♊15'58	0.27075 AU
max. Earth dist.	4601 Jul 26 05:53	5°♌31'25	1.73448 AU	morning rise	4603 Dec 21 13:30	19°♊01'19	
	4601 Aug 15 03:20	0°♎		asc. node	4603 Dec 26 08:24	16°♊46'13	
evening rise	4601 Aug 31 01:19	19°♎34'48		direct	4604 Jan 05 01:29	14°♊50'12	
	4601 Sep 08 12:36	0°♏		greatest brilliancy	4604 Jan 15 23:43	17°♊04'25	-4.9m
	4601 Oct 02 22:33	0°♐			4604 Feb 05 07:49	0°♋	
	4601 Oct 27 10:08	0°♊		morning max el	4604 Feb 24 16:51	18°♋00'29	46°58'50
desc. node	4601 Oct 30 04:09	3°♊21'51			4604 Mar 07 03:42	0°♌	
	4601 Nov 21 00:00	0°♋			4604 Apr 02 21:17	0°♍	
	4601 Dec 15 17:15	0°♌		desc. node	4604 Apr 15 23:17	15°♍16'58	
	4602 Jan 09 17:27	0°♎			4604 Apr 28 09:22	0°♏	
	4602 Feb 04 11:02	0°♏			4604 May 23 09:27	0°♐	
asc. node	4602 Feb 20 06:02	17°♏31'17			4604 Jun 17 04:32	0°♑	
evening max el	4602 Mar 03 05:19	29°♏00'52	47°01'16		4604 Jul 11 21:14	0°♒	
	4602 Mar 04 04:43	0°♐			4604 Aug 05 11:49	0°♓	
	4602 Apr 12 08:11	0°♑		asc. node	4604 Aug 07 01:13	1°♓54'16	
greatest brilliancy	4602 Apr 12 09:16	0°♑01'00	-4.9m	morning set	4604 Aug 26 02:26	25°♓14'11	
retrograde	4602 Apr 22 18:46	2°♑02'37			4604 Aug 29 23:30	0°♎	
	4602 May 02 19:11	30°♒♋			4604 Sep 23 08:00	0°♏	
evening set	4602 May 09 09:45	26°♒39'27		max. Earth dist.	4604 Sep 29 01:37	7°♏05'09	1.73050 AU
inferior conj	4602 May 13 20:06	23°♒56'02	6°25'09				
minimum elong	4602 May 14 06:28	23°♒39'47	6°22'55	superior conj	4604 Oct 01 13:08	10°♏09'11	1°25'18
min. Earth dist.	4602 May 13 17:16	24°♒00'28	0.27937 AU	minimum elong	4604 Oct 01 12:58	10°♏08'38	1°25'18
morning rise	4602 May 19 03:35	20°♒43'07			4604 Oct 17 13:54	0°♐	
direct	4602 Jun 03 20:36	15°♒56'44		evening rise	4604 Nov 07 17:01	26°♐12'40	
desc. node	4602 Jun 11 20:47	17°♒08'28			4604 Nov 10 18:17	0°♊	
greatest brilliancy	4602 Jun 13 12:52	17°♒40'06	-4.8m	desc. node	4604 Nov 26 16:04	19°♊45'14	
	4602 Jul 04 10:01	0°♑			4604 Dec 04 21:59	0°♋	
morning max el	4602 Jul 22 20:16	16°♑12'11	45°50'09		4604 Dec 29 01:25	0°♌	
	4602 Aug 05 15:34	0°♒			4605 Jan 22 05:32	0°♍	
	4602 Sep 02 08:06	0°♓			4605 Feb 15 12:58	0°♎	
	4602 Sep 28 10:52	0°♎			4605 Mar 12 05:09	0°♏	
asc. node	4602 Oct 02 22:55	5°♎17'24		asc. node	4605 Mar 19 17:55	9°♏00'08	
	4602 Oct 23 16:07	0°♏			4605 Apr 06 16:01	0°♑	
	4602 Nov 17 07:14	0°♐			4605 May 03 19:29	0°♒	
	4602 Dec 11 13:16	0°♊		evening max el	4605 May 13 11:27	9°♒50'18	46°05'29
	4603 Jan 04 13:59	0°♋			4605 Jun 05 12:32	0°♓	
morning set	4603 Jan 18 02:02	16°♋55'47		greatest brilliancy	4605 Jun 20 19:56	8°♓46'11	-4.8m
desc. node	4603 Jan 22 13:37	22°♋33'28		retrograde	4605 Jul 01 22:50	11°♓01'43	
	4603 Jan 28 11:48	0°♌		desc. node	4605 Jul 09 08:40	9°♓55'14	
	4603 Feb 21 08:17	0°♍		evening set	4605 Jul 17 02:41	6°♓33'06	
				inferior conj	4605 Jul 23 10:02	2°♓45'55	-3°16'40
superior conj	4603 Feb 28 11:00	8°♍56'57	-1°14'24	minimum elong	4605 Jul 23 03:13	2°♓56'35	3°14'47
minimum elong	4603 Feb 28 00:13	8°♍23'03	1°14'07	min. Earth dist.	4605 Jul 23 00:39	3°♓00'36	0.28848 AU
max. Earth dist.	4603 Mar 01 15:14	10°♍25'44	1.71161 AU		4605 Jul 27 22:27	30°♒♋	
	4603 Mar 17 04:53	0°♏		morning rise	4605 Jul 29 04:02	29°♒17'34	
evening rise	4603 Apr 10 05:48	0°♐07'37		direct	4605 Aug 13 21:34	24°♒32'22	
	4603 Apr 10 03:21	0°♑		greatest brilliancy	4605 Aug 24 00:32	26°♒22'51	-4.7m
	4603 May 04 05:36	0°♑			4605 Aug 31 23:45	0°♓	
asc. node	4603 May 15 15:48	14°♑07'58		morning max el	4605 Oct 01 16:50	24°♓20'15	45°46'58
	4603 May 28 13:15	0°♒			4605 Oct 07 11:35	0°♎	
	4603 Jun 22 03:53	0°♓		asc. node	4605 Oct 30 10:56	24°♎18'52	
	4603 Jul 17 03:53	0°♎			4605 Nov 04 13:16	0°♏	
	4603 Aug 11 18:10	0°♏			4605 Nov 30 11:01	0°♐	
desc. node	4603 Sep 04 06:14	26°♏33'27			4605 Dec 25 08:30	0°♊	
	4603 Sep 07 09:31	0°♐			4606 Jan 18 17:29	0°♋	
	4603 Oct 06 08:32	0°♊			4606 Feb 11 20:05	0°♌	
evening max el	4603 Oct 06 08:15	29°♐59'17	46°00'32	desc. node	4606 Feb 19 01:26	9°♌01'31	
greatest brilliancy	4603 Nov 15 06:52	28°♊50'42	-4.8m		4606 Mar 07 19:40	0°♍	
	4603 Nov 19 19:32	0°♋			4606 Mar 31 18:24	0°♎	
retrograde	4603 Nov 24 12:47	0°♋25'35		morning set	4606 Apr 05 00:31	5°♏19'36	
	4603 Nov 29 03:39	30°♒♊			4606 Apr 24 18:08	0°♑	
evening set	4603 Dec 09 12:51	26°♊05'02					
inferior conj	4603 Dec 15 07:28	22°♊41'52	-2°46'50	superior conj	4606 May 14 14:14	24°♒42'48	-1°01'48

minimum elong	4606 May 15 00:55	25°♄16'00	1°01'26	asc. node	4608 Nov 26 22:33	19°♊39'03	
max. Earth dist.	4606 May 18 05:52	29°♄15'04	1.72376 AU		4608 Dec 08 04:41	0°♌	
	4606 May 18 20:20	0°♍		morning max el	4608 Dec 11 15:37	3°♌24'31	46°26'01
asc. node	4606 Jun 12 03:38	0°♎05'40			4609 Jan 05 11:47	0°♏	
	4606 Jun 12 01:47	0°♎			4609 Jan 31 07:52	0°♐	
evening rise	4606 Jun 22 02:03	12°♎20'51			4609 Feb 25 05:20	0°♑	
	4606 Jul 06 10:32	0°♒		desc. node	4609 Mar 18 13:23	26°♑08'21	
	4606 Jul 30 22:39	0°♓			4609 Mar 21 16:38	0°♒	
	4606 Aug 24 15:00	0°♑			4609 Apr 14 23:33	0°♓	
	4606 Sep 18 13:33	0°♌			4609 May 09 05:20	0°♄	
desc. node	4606 Oct 01 18:14	15°♌41'56			4609 Jun 02 11:55	0°♍	
	4606 Oct 13 21:15	0°♎		morning set	4609 Jun 16 09:23	17°♍08'27	
	4606 Nov 08 19:13	0°♐			4609 Jun 26 19:54	0°♎	
	4606 Dec 05 21:39	0°♑		asc. node	4609 Jul 09 15:23	15°♎46'27	
evening max el	4606 Dec 18 08:09	12°♑53'03	46°58'25		4609 Jul 21 04:51	0°♒	
	4607 Jan 05 19:57	0°♒					
asc. node	4607 Jan 22 20:17	11°♒41'51		superior conj	4609 Jul 23 16:37	3°♒03'47	0°32'48
greatest brilliancy	4607 Jan 27 18:37	13°♒51'55	-4.9m	minimum elong	4609 Jul 23 10:10	2°♒43'58	0°32'31
retrograde	4607 Feb 06 21:44	15°♒48'48		max. Earth dist.	4609 Jul 24 01:52	3°♒32'14	1.73433 AU
evening set	4607 Feb 23 02:05	10°♒38'42			4609 Aug 14 14:05	0°♓	
inferior conj	4607 Feb 27 11:51	7°♒59'21	7°44'55	evening rise	4609 Aug 28 19:56	17°♓31'11	
minimum elong	4607 Feb 27 02:04	8°♒14'23	7°43'17		4609 Sep 07 23:29	0°♑	
min. Earth dist.	4607 Feb 26 20:15	8°♒23'19	0.26866 AU		4609 Oct 02 09:42	0°♌	
morning rise	4607 Mar 03 02:19	5°♒48'47			4609 Oct 26 21:39	0°♎	
direct	4607 Mar 20 00:09	0°♒16'58		desc. node	4609 Oct 29 06:12	2°♎52'43	
greatest brilliancy	4607 Mar 29 05:16	1°♒54'08	-4.9m		4609 Nov 20 12:04	0°♐	
	4607 May 06 14:02	0°♓			4609 Dec 15 06:05	0°♑	
morning max el	4607 May 09 01:54	2°♓26'55	46°34'24		4610 Jan 09 07:32	0°♒	
desc. node	4607 May 14 11:06	7°♓51'58			4610 Feb 04 03:31	0°♓	
	4607 Jun 04 04:42	0°♄		asc. node	4610 Feb 19 08:05	16°♓45'13	
	4607 Jun 30 17:07	0°♍		evening max el	4610 Feb 28 18:31	26°♓36'09	47°02'29
	4607 Jul 26 10:00	0°♎			4610 Mar 04 03:50	0°♄	
	4607 Aug 20 15:44	0°♒		greatest brilliancy	4610 Apr 10 01:45	27°♄43'39	-4.9m
asc. node	4607 Sep 04 13:05	17°♒54'49		retrograde	4610 Apr 20 09:20	29°♄43'59	
	4607 Sep 14 12:34	0°♓		evening set	4610 May 07 03:41	24°♄16'31	
	4607 Oct 09 01:34	0°♑		inferior conj	4610 May 11 10:49	21°♄38'00	6°40'24
	4607 Nov 02 08:19	0°♌		minimum elong	4610 May 11 21:10	21°♄21'48	6°38'15
morning set	4607 Nov 03 19:52	1°♌50'18		min. Earth dist.	4610 May 11 08:17	21°♄41'59	0.27904 AU
	4607 Nov 26 10:51	0°♎		morning rise	4610 May 16 14:57	18°♄29'41	
max. Earth dist.	4607 Dec 09 07:58	16°♎05'14	1.71770 AU	direct	4610 Jun 01 10:10	13°♄39'06	
				desc. node	4610 Jun 10 22:44	15°♄19'01	
superior conj	4607 Dec 11 23:17	19°♎23'09	0°31'05	greatest brilliancy	4610 Jun 11 03:07	15°♄22'44	-4.8m
minimum elong	4607 Dec 12 06:23	19°♎45'21	0°30'45		4610 Jul 04 20:39	0°♍	
	4607 Dec 20 10:51	0°♐		morning max el	4610 Jul 20 10:26	13°♍56'06	45°51'20
desc. node	4607 Dec 25 03:50	5°♐53'46			4610 Aug 05 09:51	0°♎	
	4608 Jan 13 09:17	0°♑			4610 Sep 01 22:23	0°♒	
evening rise	4608 Jan 21 04:46	9°♑48'08			4610 Sep 27 23:28	0°♓	
	4608 Feb 06 07:00	0°♒		asc. node	4610 Oct 02 01:06	4°♓47'14	
	4608 Mar 01 05:33	0°♓			4610 Oct 23 03:55	0°♑	
	4608 Mar 25 07:31	0°♄			4610 Nov 16 18:37	0°♌	
asc. node	4608 Apr 16 05:57	27°♄01'36			4610 Dec 11 00:28	0°♎	
	4608 Apr 18 16:20	0°♍			4611 Jan 04 01:05	0°♐	
	4608 May 13 12:24	0°♎		morning set	4611 Jan 15 13:06	14°♐25'05	
	4608 Jun 08 02:46	0°♒		desc. node	4611 Jan 21 15:38	22°♐05'01	
	4608 Jul 05 03:39	0°♓			4611 Jan 27 22:51	0°♑	
evening max el	4608 Jul 23 02:57	18°♓15'08	45°30'53		4611 Feb 20 19:18	0°♒	
	4608 Aug 05 02:52	0°♑					
desc. node	4608 Aug 05 20:30	0°♑36'46		superior conj	4611 Feb 25 21:11	6°♒23'23	-1°12'14
greatest brilliancy	4608 Aug 30 18:09	16°♑10'09	-4.7m	minimum elong	4611 Feb 25 09:56	5°♒48'00	1°11'56
retrograde	4608 Sep 09 17:44	17°♑57'21		max. Earth dist.	4611 Feb 26 18:11	7°♒29'28	1.71149 AU
evening set	4608 Sep 27 20:10	11°♑51'46			4611 Mar 16 15:53	0°♓	
inferior conj	4608 Oct 01 03:46	9°♑48'42	-8°37'54	evening rise	4611 Apr 07 16:48	27°♓37'36	
minimum elong	4608 Oct 01 03:15	9°♑49'30	8°37'53		4611 Apr 09 14:22	0°♄	
min. Earth dist.	4608 Oct 01 14:08	9°♑32'28	0.28895 AU		4611 May 03 16:40	0°♍	
morning rise	4608 Oct 04 10:14	7°♑47'05		asc. node	4611 May 14 17:48	13°♍39'43	
direct	4608 Oct 22 17:02	1°♑32'09			4611 May 28 00:30	0°♎	
greatest brilliancy	4608 Nov 02 13:20	3°♑41'04	-4.8m		4611 Jun 21 15:27	0°♒	

	4611 Jul 16 16:05	0°♎			4614 Feb 11 07:20	0°♏	
	4611 Aug 11 07:35	0°♏		desc. node	4614 Feb 18 03:33	8°♏33'10	
desc. node	4611 Sep 03 08:23	25°♏56'30			4614 Mar 07 06:45	0°♐	
	4611 Sep 07 01:35	0°♐			4614 Mar 31 05:20	0°♐	
evening max el	4611 Oct 03 21:48	27°♐41'02 45°58'40		morning set	4614 Apr 02 11:45	2°♐50'19	
	4611 Oct 06 08:15	0°♑			4614 Apr 24 04:56	0°♑	
greatest brilliancy	4611 Nov 12 19:40	26°♑28'35 -4.8m					
retrograde	4611 Nov 22 01:56	28°♑03'42		superior conj	4614 May 12 03:47	22°♑22'17 -1°04'19	
evening set	4611 Dec 07 04:12	23°♑39'17		minimum elong	4614 May 12 14:30	22°♑55'37 1°03'58	
inferior conj	4611 Dec 12 20:42	20°♑19'02 -3°08'44		max. Earth dist.	4614 May 15 22:29	27°♑04'13 1.72323 AU	
minimum elong	4611 Dec 13 03:31	20°♑08'37 3°06'41			4614 May 18 07:04	0°♒	
min. Earth dist.	4611 Dec 13 14:35	19°♑51'43 0.27136 AU		asc. node	4614 Jun 11 05:34	29°♒38'38	
morning rise	4611 Dec 19 02:03	16°♑39'38			4614 Jun 11 12:29	0°♓	
asc. node	4611 Dec 25 10:23	13°♑49'49		evening rise	4614 Jun 19 18:12	10°♓09'49	
direct	4612 Jan 02 15:35	12°♑26'11			4614 Jul 05 21:17	0°♓	
greatest brilliancy	4612 Jan 13 14:49	14°♑41'50 -4.9m			4614 Jul 30 09:34	0°♎	
	4612 Feb 05 18:07	0°♓			4614 Aug 24 02:18	0°♏	
morning max el	4612 Feb 22 08:01	15°♓39'55 46°58'40			4614 Sep 18 01:30	0°♐	
	4612 Mar 06 22:41	0°♏		desc. node	4614 Sep 30 20:18	15°♐11'17	
	4612 Apr 02 12:21	0°♐			4614 Oct 13 10:16	0°♑	
desc. node	4612 Apr 15 01:23	14°♐41'54			4614 Nov 08 10:11	0°♒	
	4612 Apr 27 22:38	0°♐			4614 Dec 05 16:55	0°♏	
	4612 May 22 21:42	0°♑		evening max el	4614 Dec 15 22:44	10°♏32'27 46°56'51	
	4612 Jun 16 16:06	0°♒			4615 Jan 06 09:06	0°♐	
	4612 Jul 11 08:22	0°♓		asc. node	4615 Jan 21 22:19	10°♐00'38	
asc. node	4612 Aug 04 22:39	0°♓		greatest brilliancy	4615 Jan 25 07:50	11°♐25'37 -4.9m	
morning set	4612 Aug 06 03:17	1°♓27'29		retrograde	4615 Feb 04 10:43	13°♐21'44	
	4612 Aug 23 20:14	23°♓08'44		evening set	4615 Feb 20 10:43	8°♐18'33	
	4612 Aug 29 10:11	0°♎		min. Earth dist.	4615 Feb 24 09:11	5°♐56'49 0.26836 AU	
	4612 Sep 22 18:36	0°♏		inferior conj	4615 Feb 25 00:35	5°♐33'07 7°31'58	
max. Earth dist.	4612 Sep 26 23:07	5°♏10'29 1.73081 AU		minimum elong	4615 Feb 24 14:25	5°♐48'45 7°30'09	
				morning rise	4615 Feb 28 18:23	3°♐17'31	
superior conj	4612 Sep 29 06:58	8°♏03'05 1°25'12			4615 Mar 07 06:29	30°♒♏	
minimum elong	4612 Sep 29 06:05	8°♏00'21 1°25'12		direct	4615 Mar 17 12:58	27°♏51'21	
	4612 Oct 17 00:32	0°♐		greatest brilliancy	4615 Mar 26 18:19	29°♏28'31 -4.9m	
evening rise	4612 Nov 05 08:44	23°♐59'07			4615 Mar 28 05:12	0°♐	
	4612 Nov 10 05:04	0°♑		morning max el	4615 May 06 14:43	0°♐03'02 46°35'47	
desc. node	4612 Nov 25 18:02	19°♑17'20			4615 May 06 13:30	0°♐	
	4612 Dec 04 09:00	0°♓		desc. node	4615 May 13 13:01	7°♐03'43	
	4612 Dec 28 12:45	0°♏			4615 Jun 03 21:01	0°♑	
	4613 Jan 21 17:14	0°♐			4615 Jun 30 06:47	0°♒	
	4613 Feb 15 01:11	0°♐			4615 Jul 25 22:17	0°♓	
asc. node	4613 Mar 11 18:13	0°♑			4615 Aug 20 03:12	0°♓	
	4613 Mar 18 20:01	8°♑26'27		asc. node	4615 Sep 03 15:10	17°♓27'24	
	4613 Apr 06 06:47	0°♒			4615 Sep 13 23:34	0°♎	
	4613 May 03 14:32	0°♓			4615 Oct 08 12:18	0°♏	
evening max el	4613 May 11 03:49	7°♓38'51 46°07'35		morning set	4615 Nov 01 11:57	29°♏38'13	
	4613 Jun 06 07:13	0°♓			4615 Nov 01 18:58	0°♐	
greatest brilliancy	4613 Jun 18 11:53	6°♓35'44 -4.8m			4615 Nov 25 21:30	0°♑	
retrograde	4613 Jun 29 15:47	8°♓51'52		max. Earth dist.	4615 Dec 06 17:49	13°♑32'45 1.71811 AU	
desc. node	4613 Jul 08 10:41	7°♓18'21					
evening set	4613 Jul 14 18:05	4°♓24'35		superior conj	4615 Dec 09 12:51	17°♑02'14 0°34'28	
min. Earth dist.	4613 Jul 20 16:29	0°♓51'16 0.28818 AU		minimum elong	4615 Dec 09 20:33	17°♑26'16 0°34'06	
inferior conj	4613 Jul 21 02:11	0°♓36'06 -2°57'55			4615 Dec 19 21:32	0°♓	
minimum elong	4613 Jul 20 19:55	0°♓45'54 2°56'11		desc. node	4615 Dec 24 05:52	5°♓26'36	
	4613 Jul 22 01:17	30°♒♓			4616 Jan 12 20:02	0°♏	
morning rise	4613 Jul 26 22:10	27°♓05'15		evening rise	4616 Jan 18 16:23	7°♏20'07	
direct	4613 Aug 11 13:57	22°♓23'06			4616 Feb 05 17:52	0°♐	
greatest brilliancy	4613 Aug 21 15:27	24°♓12'46 -4.7m			4616 Feb 29 16:35	0°♐	
	4613 Sep 02 07:04	0°♓			4616 Mar 24 18:48	0°♑	
morning max el	4613 Sep 29 09:15	22°♓11'50 45°46'19		asc. node	4616 Apr 15 07:53	26°♑31'57	
	4613 Oct 07 07:14	0°♎			4616 Apr 18 04:01	0°♒	
asc. node	4613 Oct 29 12:50	23°♎41'51			4616 May 13 00:48	0°♓	
	4613 Nov 04 03:55	0°♏			4616 Jun 07 16:37	0°♓	
	4613 Nov 29 23:48	0°♐			4616 Jul 04 20:56	0°♎	
	4613 Dec 24 20:26	0°♑		evening max el	4616 Jul 20 17:19	16°♎01'13 45°31'04	
	4614 Jan 18 04:59	0°♓		desc. node	4616 Aug 04 22:39	29°♎37'24	





































































































































	4616 Aug 05 09:48	0°♌			4619 Feb 20 06:10	0°♏	
greatest brilliancy	4616 Aug 28 08:52	13°♌59'17	-4.7m				
retrograde	4616 Sep 07 08:38	15°♌47'09		superior conj	4619 Feb 23 07:23	3°♏50'20	-1°09'55
evening set	4616 Sep 25 10:37	9°♌43'03		minimum elong	4619 Feb 22 19:47	3°♏13'49	1°09'35
inferior conj	4616 Sep 28 19:37	7°♌37'57	-8°36'41	max. Earth dist.	4619 Feb 23 23:54	4°♏42'19	1.71139 AU
minimum elong	4616 Sep 28 18:17	7°♌40'02	8°36'40		4619 Mar 16 02:44	0°♐	
min. Earth dist.	4616 Sep 29 05:19	7°♌22'44	0.28929 AU	evening rise	4619 Apr 05 04:00	25°♐08'44	
morning rise	4616 Oct 02 01:49	5°♌36'36			4619 Apr 09 01:12	0°♑	
	4616 Oct 14 15:12	30°♏♐			4619 May 03 03:33	0°♒	
direct	4616 Oct 20 08:34	29°♏20'53		asc. node	4619 May 13 19:46	13°♒12'02	
	4616 Oct 26 05:42	0°♌			4619 May 27 11:33	0°♓	
greatest brilliancy	4616 Oct 31 05:17	1°♌29'30	-4.8m		4619 Jun 21 02:54	0°♌	
asc. node	4616 Nov 26 00:34	18°♌39'52			4619 Jul 16 04:14	0°♎	
	4616 Dec 08 03:14	0°♍			4619 Aug 10 21:05	0°♌	
morning max el	4616 Dec 09 05:44	1°♍05'51	46°24'32	desc. node	4619 Sep 02 10:24	25°♌18'49	
	4617 Jan 05 03:38	0°♎			4619 Sep 06 17:57	0°♍	
	4617 Jan 30 21:23	0°♏		evening max el	4619 Oct 01 12:16	25°♍25'06	45°56'52
	4617 Feb 24 17:42	0°♐			4619 Oct 06 09:11	0°♎	
desc. node	4617 Mar 17 15:25	25°♐38'22		greatest brilliancy	4619 Nov 10 08:10	24°♎06'27	-4.8m
	4617 Mar 21 04:21	0°♏		retrograde	4619 Nov 19 15:17	25°♎41'50	
	4617 Apr 14 10:50	0°♐		evening set	4619 Dec 04 19:45	21°♎13'43	
	4617 May 08 16:20	0°♑		inferior conj	4619 Dec 10 09:54	17°♎56'20	-3°30'07
	4617 Jun 01 22:41	0°♒		minimum elong	4619 Dec 10 17:23	17°♎44'55	3°27'56
morning set	4617 Jun 14 01:36	14°♒57'37		min. Earth dist.	4619 Dec 11 04:24	17°♎28'05	0.27195 AU
	4617 Jun 26 06:30	0°♓		morning rise	4619 Dec 16 14:19	14°♎18'20	
asc. node	4617 Jul 08 17:28	15°♓20'21		asc. node	4619 Dec 24 12:28	10°♎58'50	
	4617 Jul 20 15:23	0°♌		direct	4619 Dec 31 06:04	10°♎02'36	
				greatest brilliancy	4620 Jan 11 05:16	12°♎18'45	-4.9m
superior conj	4617 Jul 21 10:04	0°♌57'28	0°29'48		4620 Feb 06 01:36	0°♏	
minimum elong	4617 Jul 21 04:07	0°♌39'10	0°29'30	morning max el	4620 Feb 19 23:19	13°♏19'59	46°58'20
max. Earth dist.	4617 Jul 21 20:04	1°♌28'12	1.73420 AU		4620 Mar 06 17:07	0°♐	
	4617 Aug 14 00:38	0°♎			4620 Apr 02 03:10	0°♏	
evening rise	4617 Aug 26 14:11	15°♎27'07		desc. node	4620 Apr 14 03:14	14°♏06'27	
	4617 Sep 07 10:09	0°♌			4620 Apr 27 11:45	0°♐	
	4617 Oct 01 20:37	0°♍			4620 May 22 09:48	0°♑	
	4617 Oct 26 08:57	0°♎			4620 Jun 16 03:34	0°♒	
desc. node	4617 Oct 28 08:07	2°♎23'58			4620 Jul 10 19:26	0°♓	
	4617 Nov 19 23:55	0°♏			4620 Aug 04 09:28	0°♌	
	4617 Dec 14 18:44	0°♐		asc. node	4620 Aug 05 05:20	1°♌00'44	
	4618 Jan 08 21:28	0°♏		morning set	4620 Aug 21 14:03	21°♌03'20	
	4618 Feb 03 19:57	0°♐			4620 Aug 28 20:52	0°♎	
asc. node	4618 Feb 18 10:12	15°♐59'47			4620 Sep 22 05:16	0°♌	
evening max el	4618 Feb 26 07:50	24°♐12'49	47°03'49	max. Earth dist.	4620 Sep 24 18:39	3°♌09'33	1.73115 AU
	4618 Mar 04 03:30	0°♑					
greatest brilliancy	4618 Apr 07 17:38	25°♑26'47	-4.9m	superior conj	4620 Sep 27 00:38	5°♌56'19	1°24'59
retrograde	4618 Apr 18 00:13	27°♑26'45		minimum elong	4620 Sep 26 23:04	5°♌51'28	1°24'59
evening set	4618 May 04 21:37	21°♑54'35			4620 Oct 16 11:16	0°♍	
inferior conj	4618 May 09 01:36	19°♑21'03	6°54'50	evening rise	4620 Nov 03 00:08	21°♍44'17	
minimum elong	4618 May 09 11:50	19°♑05'02	6°52'50		4620 Nov 09 15:58	0°♎	
min. Earth dist.	4618 May 08 23:05	19°♑24'59	0.27876 AU	desc. node	4620 Nov 24 20:03	18°♎49'18	
morning rise	4618 May 14 02:18	16°♑17'43			4620 Dec 03 20:09	0°♏	
direct	4618 May 29 23:51	11°♑22'21			4620 Dec 28 00:11	0°♐	
greatest brilliancy	4618 Jun 08 17:23	13°♑06'25	-4.8m		4621 Jan 21 05:03	0°♏	
desc. node	4618 Jun 10 00:47	13°♑34'48			4621 Feb 14 13:31	0°♐	
	4618 Jul 05 04:05	0°♒			4621 Mar 11 07:28	0°♑	
morning max el	4618 Jul 18 01:34	11°♒42'50	45°52'20	asc. node	4621 Mar 17 21:55	7°♑51'45	
	4618 Aug 05 03:30	0°♓			4621 Apr 05 21:50	0°♒	
	4618 Sep 01 12:25	0°♌			4621 May 03 10:14	0°♓	
	4618 Sep 27 11:55	0°♎		evening max el	4621 May 08 20:32	5°♓27'58	46°09'41
asc. node	4618 Oct 01 03:01	4°♎16'40			4621 Jun 07 08:50	0°♌	
	4618 Oct 22 15:33	0°♌		greatest brilliancy	4621 Jun 16 04:26	4°♌25'59	-4.8m
	4618 Nov 16 05:49	0°♍		retrograde	4621 Jun 27 08:32	6°♌41'54	
	4618 Dec 10 11:27	0°♎		desc. node	4621 Jul 07 12:45	4°♌37'03	
	4619 Jan 03 11:59	0°♏		evening set	4621 Jul 12 09:46	2°♌16'00	
morning set	4619 Jan 13 00:16	11°♏55'21			4621 Jul 16 06:18	30°♏♐	
desc. node	4619 Jan 20 17:42	21°♏37'18		inferior conj	4621 Jul 18 18:24	28°♓26'23	-2°39'03
	4619 Jan 27 09:43	0°♐		minimum elong	4621 Jul 18 12:45	28°♓35'15	2°37'26

min. Earth dist.	4621 Jul 18 08:33	28° Ω 41'49	0.28785 AU		4624 Jan 12 07:14	0° \approx	
morning rise	4621 Jul 24 16:14	24° Ω 52'59		evening rise	4624 Jan 16 03:44	4° \approx 50'00	
direct	4621 Aug 09 06:24	20° Ω 14'03			4624 Feb 05 05:12	0° \mathcal{H}	
greatest brilliancy	4621 Aug 19 06:16	22° Ω 02'28	-4.7m		4624 Feb 29 04:04	0° \mathcal{Y}	
	4621 Sep 03 05:34	0° Ω			4624 Mar 24 06:31	0° \mathcal{B}	
morning max el	4621 Sep 27 00:57	20° Ω 01'25	45°45'27	asc. node	4624 Apr 14 09:54	26° \mathcal{B} 01'19	
	4621 Oct 07 02:27	0° \mathcal{M}			4624 Apr 17 16:07	0° Π	
asc. node	4621 Oct 28 14:52	23° \mathcal{M} 04'54			4624 May 12 13:39	0° Ω	
	4621 Nov 03 18:36	0° $\underline{\Omega}$			4624 Jun 07 06:58	0° Ω	
	4621 Nov 29 12:46	0° \mathcal{M}			4624 Jul 04 14:58	0° \mathcal{M}	
	4621 Dec 24 08:35	0° \mathcal{A}		evening max el	4624 Jul 18 07:45	13° \mathcal{M} 46'36	45°31'27
	4622 Jan 17 16:42	0° \mathcal{B}		desc. node	4624 Aug 04 00:39	28° \mathcal{M} 35'33	
	4622 Feb 10 18:47	0° \approx			4624 Aug 05 19:48	0° $\underline{\Omega}$	
desc. node	4622 Feb 17 05:33	8° \approx 03'51		greatest brilliancy	4624 Aug 25 23:13	11° $\underline{\Omega}$ 47'34	-4.7m
	4622 Mar 06 17:59	0° \mathcal{H}		retrograde	4624 Sep 05 00:08	13° $\underline{\Omega}$ 36'59	
morning set	4622 Mar 30 22:48	0° \mathcal{Y} 19'57		evening set	4624 Sep 23 00:57	7° $\underline{\Omega}$ 34'34	
	4622 Mar 30 16:26	0° \mathcal{Y}		inferior conj	4624 Sep 26 11:41	5° $\underline{\Omega}$ 27'04	-8°34'43
	4622 Apr 23 15:56	0° \mathcal{B}		minimum elong	4624 Sep 26 09:33	5° $\underline{\Omega}$ 30'23	8°34'39
				min. Earth dist.	4624 Sep 26 20:31	5° $\underline{\Omega}$ 13'14	0.28962 AU
superior conj	4622 May 09 17:19	20° \mathcal{B} 01'00	-1°06'44	morning rise	4624 Sep 29 18:00	3° $\underline{\Omega}$ 25'37	
minimum elong	4622 May 10 03:59	20° \mathcal{B} 34'12	1°06'24		4624 Oct 06 00:52	30° \mathcal{R} \mathcal{M}	
max. Earth dist.	4622 May 13 15:08	24° \mathcal{B} 52'46	1.72268 AU	direct	4624 Oct 18 00:24	27° \mathcal{M} 09'28	
	4622 May 17 18:00	0° Π		greatest brilliancy	4624 Oct 28 21:31	29° \mathcal{M} 18'13	-4.8m
asc. node	4622 Jun 10 07:42	29° Π 11'35			4624 Oct 30 15:06	0° $\underline{\Omega}$	
	4622 Jun 10 23:23	0° Ω		asc. node	4624 Nov 25 02:40	17° $\underline{\Omega}$ 41'42	
evening rise	4622 Jun 17 10:19	7° Ω 57'56		morning max el	4624 Dec 06 20:36	28° $\underline{\Omega}$ 48'30	46°22'56
	4622 Jul 05 08:13	0° Ω			4624 Dec 08 01:11	0° \mathcal{M}	
	4622 Jul 29 20:41	0° \mathcal{M}			4625 Jan 04 19:35	0° \mathcal{A}	
	4622 Aug 23 13:49	0° $\underline{\Omega}$			4625 Jan 30 11:12	0° \mathcal{B}	
	4622 Sep 17 13:43	0° \mathcal{M}			4625 Feb 24 06:29	0° \approx	
desc. node	4622 Sep 29 22:12	14° \mathcal{M} 39'20		desc. node	4625 Mar 16 17:22	25° \approx 06'37	
	4622 Oct 12 23:42	0° \mathcal{A}			4625 Mar 20 16:31	0° \mathcal{H}	
	4622 Nov 08 01:45	0° \mathcal{B}			4625 Apr 13 22:34	0° \mathcal{Y}	
	4622 Dec 05 13:19	0° \approx			4625 May 08 03:44	0° \mathcal{B}	
evening max el	4622 Dec 13 12:28	8° \approx 08'18	46°55'07		4625 Jun 01 09:50	0° Π	
	4623 Jan 07 03:36	0° \mathcal{H}		morning set	4625 Jun 11 17:37	12° Π 44'49	
asc. node	4623 Jan 21 00:24	8° \mathcal{H} 13'41			4625 Jun 25 17:29	0° Ω	
greatest brilliancy	4623 Jan 22 21:27	8° \mathcal{H} 58'01	-4.9m	asc. node	4625 Jul 07 19:29	14° Ω 52'52	
retrograde	4623 Feb 01 22:59	10° \mathcal{H} 52'47					
evening set	4623 Feb 17 19:14	5° \mathcal{H} 56'25		superior conj	4625 Jul 19 03:31	28° Ω 49'59	0°26'44
min. Earth dist.	4623 Feb 21 22:20	3° \mathcal{H} 28'01	0.26802 AU	minimum elong	4625 Jul 18 22:05	28° Ω 33'17	0°26'27
inferior conj	4623 Feb 22 13:07	3° \mathcal{H} 05'15	7°18'10	max. Earth dist.	4625 Jul 19 15:12	29° Ω 25'55	1.73405 AU
minimum elong	4623 Feb 22 02:39	3° \mathcal{H} 21'23	7°16'08		4625 Jul 20 02:16	0° Ω	
morning rise	4623 Feb 26 10:18	0° \mathcal{H} 44'32			4625 Aug 13 11:32	0° \mathcal{M}	
	4623 Feb 27 17:36	30° \mathcal{R} \approx		evening rise	4625 Aug 24 08:42	13° \mathcal{M} 22'53	
direct	4623 Mar 15 01:01	25° \approx 23'56			4625 Sep 06 21:10	0° $\underline{\Omega}$	
greatest brilliancy	4623 Mar 24 07:46	27° \approx 01'51	-4.9m		4625 Oct 01 07:52	0° \mathcal{M}	
	4623 Mar 31 02:07	0° \mathcal{H}			4625 Oct 25 20:34	0° \mathcal{A}	
morning max el	4623 May 04 02:41	27° \mathcal{H} 35'52	46°37'17	desc. node	4625 Oct 27 10:13	1° \mathcal{A} 54'50	
	4623 May 06 12:21	0° \mathcal{Y}			4625 Nov 19 12:06	0° \mathcal{B}	
desc. node	4623 May 12 15:08	6° \mathcal{Y} 15'49			4625 Dec 14 07:46	0° \approx	
	4623 Jun 03 13:20	0° \mathcal{B}			4626 Jan 08 11:54	0° \mathcal{H}	
	4623 Jun 29 20:36	0° Π			4626 Feb 03 13:11	0° \mathcal{Y}	
	4623 Jul 25 10:47	0° Ω		asc. node	4626 Feb 17 12:05	15° \mathcal{Y} 11'28	
	4623 Aug 19 14:55	0° Ω		evening max el	4626 Feb 23 21:53	21° \mathcal{Y} 49'44	47°04'53
asc. node	4623 Sep 02 17:07	16° Ω 58'47			4626 Mar 04 05:05	0° \mathcal{B}	
	4623 Sep 13 10:49	0° \mathcal{M}		greatest brilliancy	4626 Apr 05 08:43	23° \mathcal{B} 06'33	-4.9m
	4623 Oct 07 23:19	0° $\underline{\Omega}$		retrograde	4626 Apr 15 15:14	25° \mathcal{B} 06'48	
morning set	4623 Oct 30 04:12	27° $\underline{\Omega}$ 25'49		evening set	4626 May 02 15:16	19° \mathcal{B} 29'47	
	4623 Nov 01 05:55	0° \mathcal{M}		inferior conj	4626 May 06 16:01	17° \mathcal{B} 01'21	7°08'51
	4623 Nov 25 08:30	0° \mathcal{A}		minimum elong	4626 May 07 02:06	16° \mathcal{B} 45'36	7°06'58
max. Earth dist.	4623 Dec 04 05:32	11° \mathcal{A} 05'02	1.71862 AU	min. Earth dist.	4626 May 06 13:16	17° \mathcal{B} 05'38	0.27847 AU
				morning rise	4626 May 11 13:09	14° \mathcal{B} 03'29	
superior conj	4623 Dec 07 02:27	14° \mathcal{A} 40'18	0°37'46	direct	4626 May 27 13:42	9° \mathcal{B} 02'58	
minimum elong	4623 Dec 07 10:41	15° \mathcal{A} 06'01	0°37'25	greatest brilliancy	4626 Jun 06 06:54	10° \mathcal{B} 47'13	-4.8m
	4623 Dec 19 08:37	0° \mathcal{B}		desc. node	4626 Jun 09 02:52	11° \mathcal{B} 52'25	
desc. node	4623 Dec 23 07:59	4° \mathcal{B} 58'29			4626 Jul 05 09:56	0° Π	

morning max el	4626 Jul 15 17:08	9° Π 29'20	45°53'30	asc. node	4629 Mar 16 23:59	7° \mathcal{B} 17'26	
	4626 Aug 04 21:10	0° \mathcal{B}			4629 Apr 05 13:04	0° Π	
	4626 Sep 01 02:37	0° \mathcal{Q}			4629 May 03 06:36	0° \mathcal{B}	
	4626 Sep 27 00:34	0° \mathcal{M}		evening max el	4629 May 06 12:33	3° \mathcal{B} 14'58	46°11'32
asc. node	4626 Sep 30 05:00	3° \mathcal{M} 45'33			4629 Jun 08 21:48	0° \mathcal{Q}	
	4626 Oct 22 03:25	0° \mathcal{L}		greatest brilliancy	4629 Jun 13 21:30	2° \mathcal{Q} 16'07	-4.8m
	4626 Nov 15 17:15	0° \mathcal{M}		retrograde	4629 Jun 25 00:39	4° \mathcal{Q} 31'04	
	4626 Dec 09 22:40	0° \mathcal{A}		desc. node	4629 Jul 06 14:44	1° \mathcal{Q} 50'36	
	4627 Jan 02 23:06	0° \mathcal{B}		evening set	4629 Jul 10 01:29	0° \mathcal{Q} 06'26	
morning set	4627 Jan 10 12:05	9° \mathcal{B} 27'03			4629 Jul 10 06:08	30° \mathcal{R} \mathcal{B}	
desc. node	4627 Jan 19 19:41	21° \mathcal{B} 08'41		inferior conj	4629 Jul 16 10:31	26° \mathcal{B} 16'01	-2°19'43
	4627 Jan 26 20:49	0° \approx		minimum elong	4629 Jul 16 05:30	26° \mathcal{B} 23'54	2°18'16
	4627 Feb 19 17:17	0° \mathcal{H}		min. Earth dist.	4629 Jul 16 00:56	26° \mathcal{B} 31'05	0.28753 AU
				morning rise	4629 Jul 22 10:02	22° \mathcal{B} 40'01	
superior conj	4627 Feb 20 17:44	1° \mathcal{H} 16'55	-1°07'29	direct	4629 Aug 06 22:24	18° \mathcal{B} 04'22	
minimum elong	4627 Feb 20 05:52	0° \mathcal{H} 39'36	1°07'05	greatest brilliancy	4629 Aug 16 21:33	19° \mathcal{B} 51'58	-4.7m
max. Earth dist.	4627 Feb 21 08:39	2° \mathcal{H} 03'50	1.71137 AU		4629 Sep 03 22:22	0° \mathcal{Q}	
	4627 Mar 15 13:52	0° \mathcal{Y}		morning max el	4629 Sep 24 15:39	17° \mathcal{Q} 48'25	45°44'46
evening rise	4627 Apr 02 15:00	22° \mathcal{Y} 38'06			4629 Oct 06 21:10	0° \mathcal{M}	
	4627 Apr 08 12:22	0° \mathcal{B}		asc. node	4629 Oct 27 17:01	22° \mathcal{M} 28'42	
	4627 May 02 14:47	0° Π			4629 Nov 03 09:04	0° \mathcal{L}	
asc. node	4627 May 12 21:52	12° Π 43'38			4629 Nov 29 01:34	0° \mathcal{M}	
	4627 May 26 22:59	0° \mathcal{B}			4629 Dec 23 20:36	0° \mathcal{A}	
	4627 Jun 20 14:42	0° \mathcal{Q}			4630 Jan 17 04:17	0° \mathcal{B}	
	4627 Jul 15 16:45	0° \mathcal{M}			4630 Feb 10 06:06	0° \approx	
	4627 Aug 10 10:59	0° \mathcal{L}		desc. node	4630 Feb 16 07:30	7° \approx 34'40	
desc. node	4627 Sep 01 12:19	24° \mathcal{L} 39'54			4630 Mar 06 05:06	0° \mathcal{H}	
	4627 Sep 06 10:53	0° \mathcal{M}		morning set	4630 Mar 28 10:05	27° \mathcal{H} 50'38	
evening max el	4627 Sep 29 03:21	23° \mathcal{M} 10'13	45°55'08		4630 Mar 30 03:23	0° \mathcal{Y}	
	4627 Oct 06 11:41	0° \mathcal{A}			4630 Apr 23 02:46	0° \mathcal{B}	
greatest brilliancy	4627 Nov 07 21:07	21° \mathcal{A} 45'02	-4.8m				
retrograde	4627 Nov 17 04:39	23° \mathcal{A} 20'12		superior conj	4630 May 07 07:03	17° \mathcal{B} 40'48	-1°09'02
evening set	4627 Dec 02 11:40	18° \mathcal{A} 48'35		minimum elong	4630 May 07 17:34	18° \mathcal{B} 13'34	1°08'43
inferior conj	4627 Dec 07 23:21	15° \mathcal{A} 34'07	-3°50'58	max. Earth dist.	4630 May 11 07:41	22° \mathcal{B} 41'28	1.72215 AU
minimum elong	4627 Dec 08 07:25	15° \mathcal{A} 21'46	3°48'40		4630 May 17 04:46	0° Π	
min. Earth dist.	4627 Dec 08 18:23	15° \mathcal{A} 05'00	0.27252 AU	asc. node	4630 Jun 09 09:41	28° Π 44'27	
morning rise	4627 Dec 14 02:33	11° \mathcal{A} 57'37			4630 Jun 10 10:09	0° \mathcal{B}	
asc. node	4627 Dec 23 14:28	8° \mathcal{A} 13'55		evening rise	4630 Jun 15 02:21	5° \mathcal{B} 46'09	
direct	4627 Dec 28 20:48	7° \mathcal{A} 39'41			4630 Jul 04 19:04	0° \mathcal{Q}	
greatest brilliancy	4628 Jan 08 19:37	9° \mathcal{A} 55'41	-4.9m		4630 Jul 29 07:45	0° \mathcal{M}	
	4628 Feb 06 06:53	0° \mathcal{B}			4630 Aug 23 01:17	0° \mathcal{L}	
morning max el	4628 Feb 17 13:54	10° \mathcal{B} 58'10	46°57'55		4630 Sep 17 01:54	0° \mathcal{M}	
	4628 Mar 06 11:10	0° \approx		desc. node	4630 Sep 29 00:19	14° \mathcal{M} 08'15	
	4628 Apr 01 17:53	0° \mathcal{H}			4630 Oct 12 13:05	0° \mathcal{A}	
desc. node	4628 Apr 13 05:22	13° \mathcal{H} 31'41			4630 Nov 07 17:21	0° \mathcal{B}	
	4628 Apr 27 00:55	0° \mathcal{Y}			4630 Dec 05 10:08	0° \approx	
	4628 May 21 22:04	0° \mathcal{B}		evening max el	4630 Dec 11 01:10	5° \approx 42'18	46°53'22
	4628 Jun 15 15:15	0° Π			4631 Jan 08 04:10	0° \mathcal{H}	
	4628 Jul 10 06:42	0° \mathcal{B}		asc. node	4631 Jan 20 02:21	6° \mathcal{H} 22'57	
	4628 Aug 03 20:27	0° \mathcal{Q}		greatest brilliancy	4631 Jan 20 11:10	6° \mathcal{H} 31'06	-4.9m
asc. node	4628 Aug 04 07:16	0° \mathcal{Q} 33'07		retrograde	4631 Jan 30 11:02	8° \mathcal{H} 24'42	
morning set	4628 Aug 19 07:39	18° \mathcal{Q} 56'50		evening set	4631 Feb 15 03:48	3° \mathcal{H} 34'33	
	4628 Aug 28 07:40	0° \mathcal{M}		min. Earth dist.	4631 Feb 19 11:46	0° \mathcal{H} 59'29	0.26773 AU
	4628 Sep 21 16:01	0° \mathcal{L}		inferior conj	4631 Feb 20 01:40	0° \mathcal{H} 38'05	7°03'21
max. Earth dist.	4628 Sep 22 13:06	1° \mathcal{L} 05'04	1.73145 AU	minimum elong	4631 Feb 19 14:59	0° \mathcal{H} 54'33	7°01'10
					4631 Feb 21 02:28	30° \mathcal{R} \approx	
superior conj	4628 Sep 24 18:17	3° \mathcal{L} 49'17	1°24'39	morning rise	4631 Feb 24 02:19	28° \approx 12'17	
minimum elong	4628 Sep 24 16:02	3° \mathcal{L} 42'20	1°24'38	direct	4631 Mar 12 12:49	22° \approx 56'53	
	4628 Oct 15 22:06	0° \mathcal{M}		greatest brilliancy	4631 Mar 21 21:46	24° \approx 36'25	-4.9m
evening rise	4628 Oct 31 15:42	19° \mathcal{M} 29'46			4631 Apr 01 19:47	0° \mathcal{H}	
	4628 Nov 09 02:59	0° \mathcal{A}		morning max el	4631 May 01 14:47	25° \mathcal{H} 09'38	46°38'57
desc. node	4628 Nov 23 22:08	18° \mathcal{A} 21'14			4631 May 06 10:00	0° \mathcal{Y}	
	4628 Dec 03 07:23	0° \mathcal{B}		desc. node	4631 May 11 17:10	5° \mathcal{Y} 29'14	
	4628 Dec 27 11:42	0° \approx			4631 Jun 03 05:05	0° \mathcal{B}	
	4629 Jan 20 16:54	0° \mathcal{H}			4631 Jun 29 09:59	0° Π	
	4629 Feb 14 01:54	0° \mathcal{Y}			4631 Jul 24 22:57	0° \mathcal{B}	
	4629 Mar 10 20:47	0° \mathcal{B}			4631 Aug 19 02:22	0° \mathcal{Q}	

asc. node	4631 Sep 01 19:08	16°♊31'01			4634 Mar 04 07:35	0°♋	
	4631 Sep 12 21:50	0°♍		greatest brilliancy	4634 Apr 02 23:10	20°♋46'41	-4.9m
	4631 Oct 07 10:07	0°♌		retrograde	4634 Apr 13 06:29	22°♋47'36	
morning set	4631 Oct 27 20:22	25°♌13'53		evening set	4634 Apr 30 08:52	17°♋05'47	
	4631 Oct 31 16:38	0°♍		inferior conj	4634 May 04 06:20	14°♋42'18	7°22'11
	4631 Nov 24 19:13	0°♎		minimum elong	4634 May 04 16:12	14°♋26'55	7°20'26
max. Earth dist.	4631 Dec 01 20:00	8°♎46'48	1.71909 AU	min. Earth dist.	4634 May 04 02:58	14°♋47'32	0.27817 AU
				morning rise	4634 May 08 23:47	11°♋50'07	
superior conj	4631 Dec 04 16:04	12°♎19'22	0°41'00	direct	4634 May 25 03:58	6°♋44'27	
minimum elong	4631 Dec 05 00:47	12°♎46'35	0°40'38	greatest brilliancy	4634 Jun 03 19:46	8°♋28'08	-4.8m
	4631 Dec 18 19:24	0°♏		desc. node	4634 Jun 08 04:48	10°♋14'31	
desc. node	4631 Dec 22 09:54	4°♏30'39			4634 Jul 05 13:25	0°♐	
	4632 Jan 11 18:07	0°♑		morning max el	4634 Jul 13 08:57	7°♐17'32	45°54'42
evening rise	4632 Jan 13 15:18	2°♑21'34			4634 Aug 04 14:02	0°♑	
	4632 Feb 04 16:14	0°♒			4634 Aug 31 16:16	0°♊	
	4632 Feb 28 15:17	0°♓			4634 Sep 26 12:46	0°♋	
	4632 Mar 23 17:57	0°♌		asc. node	4634 Sep 29 07:08	3°♋16'10	
asc. node	4632 Apr 13 12:00	25°♌31'55			4634 Oct 21 14:52	0°♌	
	4632 Apr 17 03:56	0°♐			4634 Nov 15 04:21	0°♍	
	4632 May 12 02:12	0°♑			4634 Dec 09 09:35	0°♎	
	4632 Jun 06 21:05	0°♊			4635 Jan 02 09:57	0°♏	
	4632 Jul 04 09:03	0°♋		morning set	4635 Jan 07 23:43	6°♏59'04	
evening max el	4632 Jul 15 22:30	11°♋33'53	45°31'49	desc. node	4635 Jan 18 21:42	20°♏40'56	
desc. node	4632 Aug 03 02:35	27°♋32'52			4635 Jan 26 07:39	0°♑	
	4632 Aug 06 08:46	0°♌					
greatest brilliancy	4632 Aug 23 12:53	9°♌35'54	-4.7m	superior conj	4635 Feb 18 03:45	28°♑43'26	-1°04'51
retrograde	4632 Sep 02 16:06	11°♌27'31		minimum elong	4635 Feb 17 15:45	28°♑05'39	1°04'27
evening set	4632 Sep 20 14:55	5°♌27'02		max. Earth dist.	4635 Feb 18 17:13	29°♑25'46	1.71130 AU
inferior conj	4632 Sep 24 03:37	3°♌16'40	-8°32'00		4635 Feb 19 04:06	0°♒	
minimum elong	4632 Sep 24 00:45	3°♌21'10	8°31'53		4635 Mar 15 00:40	0°♓	
min. Earth dist.	4632 Sep 24 11:18	3°♌04'40	0.28995 AU	evening rise	4635 Mar 31 01:45	20°♓07'39	
morning rise	4632 Sep 27 10:26	1°♌14'41			4635 Apr 07 23:11	0°♌	
	4632 Sep 29 13:01	30°♒♍			4635 May 02 01:42	0°♐	
direct	4632 Oct 15 16:30	24°♍58'37		asc. node	4635 May 11 23:50	12°♐15'49	
greatest brilliancy	4632 Oct 26 13:25	27°♍07'19	-4.8m		4635 May 26 10:06	0°♑	
	4632 Nov 01 18:58	0°♌			4635 Jun 20 02:13	0°♊	
asc. node	4632 Nov 24 04:36	16°♌45'04			4635 Jul 15 04:59	0°♋	
morning max el	4632 Dec 04 12:18	26°♌34'13	46°21'23		4635 Aug 10 00:38	0°♌	
	4632 Dec 07 22:02	0°♍		desc. node	4635 Aug 31 14:28	24°♌02'13	
	4633 Jan 04 10:56	0°♎			4635 Sep 06 03:46	0°♍	
	4633 Jan 30 00:32	0°♏		evening max el	4635 Sep 26 17:57	20°♍55'15	45°53'18
	4633 Feb 23 18:48	0°♑			4635 Oct 06 15:21	0°♎	
desc. node	4633 Mar 15 19:27	24°♑36'34		greatest brilliancy	4635 Nov 05 10:20	19°♎25'00	-4.8m
	4633 Mar 20 04:15	0°♒		retrograde	4635 Nov 14 17:22	20°♎59'23	
	4633 Apr 13 09:55	0°♓		evening set	4635 Nov 30 03:39	16°♎24'11	
	4633 May 07 14:46	0°♌		inferior conj	4635 Dec 05 12:47	13°♎12'47	-4°11'22
	4633 May 31 20:37	0°♐		minimum elong	4635 Dec 05 21:22	12°♎59'36	4°08'57
morning set	4633 Jun 09 09:36	10°♐32'59		min. Earth dist.	4635 Dec 06 08:29	12°♎42'33	0.27314 AU
	4633 Jun 25 04:04	0°♑		morning rise	4635 Dec 11 14:28	9°♎37'50	
asc. node	4633 Jul 06 21:26	14°♑26'24		asc. node	4635 Dec 22 16:26	5°♎35'03	
				direct	4635 Dec 26 11:11	5°♎17'32	
superior conj	4633 Jul 16 20:55	26°♑43'32	0°23'37	greatest brilliancy	4636 Jan 06 10:12	7°♎33'25	-4.9m
minimum elong	4633 Jul 16 16:03	26°♑28'33	0°23'23		4636 Feb 06 10:12	0°♏	
max. Earth dist.	4633 Jul 17 12:13	27°♑30'35	1.73388 AU	morning max el	4636 Feb 15 03:31	8°♏34'14	46°57'24
	4633 Jul 19 12:46	0°♊			4636 Mar 06 04:39	0°♑	
	4633 Aug 12 22:04	0°♋			4636 Apr 01 08:16	0°♒	
evening rise	4633 Aug 22 03:16	11°♋20'03		desc. node	4636 Apr 12 07:26	12°♒57'27	
	4633 Sep 06 07:50	0°♌			4636 Apr 26 13:46	0°♓	
	4633 Sep 30 18:48	0°♍			4636 May 21 10:01	0°♌	
	4633 Oct 25 07:55	0°♎			4636 Jun 15 02:37	0°♐	
desc. node	4633 Oct 26 12:15	1°♎26'21			4636 Jul 09 17:41	0°♑	
	4633 Nov 19 00:02	0°♏		asc. node	4636 Aug 03 09:20	0°♊06'36	
	4633 Dec 13 20:36	0°♑			4636 Aug 03 07:11	0°♋	
	4634 Jan 08 02:10	0°♒		morning set	4636 Aug 17 01:18	16°♊51'14	
	4634 Feb 03 06:22	0°♓			4636 Aug 27 18:15	0°♌	
asc. node	4634 Feb 16 14:10	14°♓24'02		max. Earth dist.	4636 Sep 20 06:22	28°♍57'42	1.73173 AU
evening max el	4634 Feb 21 12:41	19°♓29'44	47°05'58		4636 Sep 21 02:33	0°♍	

superior conj	4636 Sep 22 12:11	1°♄43'48	1°24'11	morning rise	4639 Feb 21 18:25	25°♊40'21	
minimum elong	4636 Sep 22 09:16	1°♄34'47	1°24'10	direct	4639 Mar 10 00:48	20°♊29'45	
	4636 Oct 15 08:42	0°♌		greatest brilliancy	4639 Mar 19 11:44	22°♊11'00	-4.9m
evening rise	4636 Oct 29 07:34	17°♌16'59			4639 Apr 03 00:40	0°♋	
	4636 Nov 08 13:45	0°♋		morning max el	4639 Apr 29 03:42	22°♋44'59	46°40'27
desc. node	4636 Nov 23 00:04	17°♋53'25			4639 May 06 07:02	0°♌	
	4636 Dec 02 18:25	0°♌		desc. node	4639 May 10 19:06	4°♌42'42	
	4636 Dec 26 23:03	0°♍			4639 Jun 02 20:45	0°♍	
	4637 Jan 20 04:39	0°♋			4639 Jun 28 23:26	0°♎	
	4637 Feb 13 14:14	0°♌			4639 Jul 24 11:10	0°♏	
	4637 Mar 10 10:07	0°♍			4639 Aug 18 13:52	0°♐	
asc. node	4637 Mar 16 02:03	6°♍43'10		asc. node	4639 Aug 31 21:13	16°♐03'15	
	4637 Apr 05 04:26	0°♎			4639 Sep 12 08:55	0°♑	
	4637 May 03 03:32	0°♏			4639 Oct 06 21:00	0°♒	
evening max el	4637 May 04 03:28	0°♏59'27	46°13'35	morning set	4639 Oct 25 12:38	23°♒02'01	
	4637 Jun 11 07:48	0°♐			4639 Oct 31 03:27	0°♓	
greatest brilliancy	4637 Jun 11 14:47	0°♐06'47	-4.8m		4639 Nov 24 06:03	0°♊	
retrograde	4637 Jun 22 16:22	2°♐20'42		max. Earth dist.	4639 Nov 29 11:42	6°♊32'00	1.71953 AU
	4637 Jul 03 12:58	30°♑					
desc. node	4637 Jul 05 16:45	29°♑00'23		superior conj	4639 Dec 02 05:57	9°♊58'52	0°44'09
evening set	4637 Jul 07 17:20	27°♑56'51		minimum elong	4639 Dec 02 15:04	10°♊27'21	0°43'46
min. Earth dist.	4637 Jul 13 17:32	24°♑20'23	0.28721 AU		4639 Dec 18 06:18	0°♋	
inferior conj	4637 Jul 14 02:39	24°♑06'05	-2°00'07	desc. node	4639 Dec 21 11:57	4°♋02'53	
minimum elong	4637 Jul 13 22:18	24°♑12'55	1°58'51	evening rise	4640 Jan 11 03:13	29°♋54'03	
morning rise	4637 Jul 20 03:42	20°♑27'36			4640 Jan 11 05:07	0°♌	
direct	4637 Aug 04 13:57	15°♑54'53			4640 Feb 04 03:21	0°♋	
greatest brilliancy	4637 Aug 14 13:23	17°♑42'20	-4.7m		4640 Feb 28 02:34	0°♌	
	4637 Sep 04 10:42	0°♐			4640 Mar 23 05:30	0°♍	
morning max el	4637 Sep 22 05:54	15°♐34'39	45°44'15	asc. node	4640 Apr 12 13:54	25°♍01'23	
	4637 Oct 06 15:15	0°♑			4640 Apr 16 15:56	0°♎	
asc. node	4637 Oct 26 18:53	21°♑52'22			4640 May 11 15:01	0°♏	
	4637 Nov 02 23:13	0°♒			4640 Jun 06 11:37	0°♐	
	4637 Nov 28 14:09	0°♓			4640 Jul 04 03:53	0°♑	
	4637 Dec 23 08:26	0°♊		evening max el	4640 Jul 13 14:10	9°♑22'44	45°32'24
	4638 Jan 16 15:44	0°♋		desc. node	4640 Aug 02 04:44	26°♑28'23	
	4638 Feb 09 17:19	0°♌			4640 Aug 07 02:36	0°♒	
desc. node	4638 Feb 15 09:37	7°♌06'19		greatest brilliancy	4640 Aug 21 02:25	7°♒23'47	-4.7m
	4638 Mar 05 16:10	0°♋		retrograde	4640 Aug 31 08:28	9°♒17'37	
morning set	4638 Mar 25 20:50	25°♋19'31		evening set	4640 Sep 18 04:43	3°♒19'36	
	4638 Mar 29 14:20	0°♌		inferior conj	4640 Sep 21 19:38	1°♒05'54	-8°28'30
	4638 Apr 22 13:38	0°♍		minimum elong	4640 Sep 21 16:02	1°♒11'32	8°28'19
				min. Earth dist.	4640 Sep 22 01:49	0°♒56'16	0.29024 AU
superior conj	4638 May 04 20:17	15°♍18'57	-1°11'13		4640 Sep 23 13:57	30°♑	
minimum elong	4638 May 05 06:35	15°♍51'02	1°10'56	morning rise	4640 Sep 25 03:15	29°♑02'51	
max. Earth dist.	4638 May 08 21:16	20°♍20'51	1.72157 AU	direct	4640 Oct 13 09:05	22°♑47'35	
	4638 May 16 15:33	0°♎		greatest brilliancy	4640 Oct 24 04:41	24°♑55'23	-4.8m
asc. node	4638 Jun 08 11:37	28°♎17'15			4640 Nov 03 05:08	0°♒	
	4638 Jun 09 20:54	0°♏		asc. node	4640 Nov 23 06:39	15°♒49'18	
evening rise	4638 Jun 12 17:55	3°♏32'54		morning max el	4640 Dec 02 04:32	24°♒20'54	46°19'45
	4638 Jul 04 05:54	0°♐			4640 Dec 07 18:25	0°♓	
	4638 Jul 28 18:49	0°♑			4641 Jan 04 02:18	0°♊	
	4638 Aug 22 12:47	0°♒			4641 Jan 29 13:58	0°♋	
	4638 Sep 16 14:09	0°♓			4641 Feb 23 07:16	0°♌	
desc. node	4638 Sep 28 02:20	13°♓36'42		desc. node	4641 Mar 14 21:29	24°♌05'54	
	4638 Oct 12 02:35	0°♊			4641 Mar 19 16:07	0°♋	
	4638 Nov 07 09:11	0°♌			4641 Apr 12 21:24	0°♌	
	4638 Dec 05 07:37	0°♍			4641 May 07 01:58	0°♍	
evening max el	4638 Dec 08 13:31	3°♍15'50	46°51'41		4641 May 31 07:35	0°♎	
	4639 Jan 09 14:17	0°♋		morning set	4641 Jun 07 01:36	8°♎20'25	
greatest brilliancy	4639 Jan 18 00:25	4°♋03'54	-4.9m		4641 Jun 24 14:55	0°♏	
asc. node	4639 Jan 19 04:22	4°♋28'00		asc. node	4641 Jul 05 23:32	13°♏59'36	
retrograde	4639 Jan 27 23:20	5°♋57'07					
evening set	4639 Feb 12 12:30	1°♋12'28		superior conj	4641 Jul 14 14:10	24°♏35'42	0°20'27
	4639 Feb 14 14:33	30°♌		minimum elong	4641 Jul 14 09:54	24°♏22'33	0°20'15
min. Earth dist.	4639 Feb 17 01:03	28°♌31'19	0.26750 AU	max. Earth dist.	4641 Jul 15 09:52	25°♏36'19	1.73371 AU
inferior conj	4639 Feb 17 14:15	28°♌11'03	6°47'36		4641 Jul 18 23:33	0°♐	
minimum elong	4639 Feb 17 03:25	28°♌27'41	6°45'17		4641 Aug 12 08:52	0°♑	

evening rise	4641 Aug 19 21:43	9°  15'56		desc. node	4644 Apr 11 09:18	12°  21'53	
	4641 Sep 05 18:47	0° 			4644 Apr 26 02:50	0° 	
	4641 Sep 30 06:00	0° 			4644 May 20 22:13	0° 	
	4641 Oct 24 19:34	0° 			4644 Jun 14 14:14	0° 	
desc. node	4641 Oct 25 14:11	0°  56'42			4644 Jul 09 04:54	0° 	
	4641 Nov 18 12:20	0° 		asc. node	4644 Aug 02 11:22	29°  39'17	
	4641 Dec 13 09:49	0° 			4644 Aug 02 18:09	0° 	
	4642 Jan 07 16:54	0° 		morning set	4644 Aug 14 19:11	14°  45'33	
	4642 Feb 03 00:14	0° 			4644 Aug 27 05:05	0° 	
asc. node	4642 Feb 15 16:16	13°  35'08		max. Earth dist.	4644 Sep 17 23:50	26°  50'06	1.73206 AU
evening max el	4642 Feb 19 04:14	17°  10'49	47°07'01				
	4642 Mar 04 11:59	0° 		superior conj	4644 Sep 20 06:18	29°  38'10	1°23'36
greatest brilliancy	4642 Mar 31 13:56	18°  26'55	-4.9m	minimum elong	4644 Sep 20 02:44	29°  27'10	1°23'35
retrograde	4642 Apr 10 21:57	20°  28'05			4644 Sep 20 13:23	0° 	
evening set	4642 Apr 28 02:37	14°  41'52			4644 Oct 14 19:38	0° 	
inferior conj	4642 May 01 20:50	12°  23'07	7°34'41	evening rise	4644 Oct 26 23:36	15°  10'03'52	
minimum elong	4642 May 02 06:24	12°  08'12	7°33'06		4644 Nov 08 00:52	0° 	
min. Earth dist.	4642 May 01 16:39	12°  29'37	0.27783 AU	desc. node	4644 Nov 22 02:08	17°  25'00	
morning rise	4642 May 06 10:28	9°  36'36			4644 Dec 02 05:46	0° 	
direct	4642 May 22 18:39	4°  26'04			4644 Dec 26 10:43	0° 	
greatest brilliancy	4642 Jun 01 08:24	6°  08'26	-4.8m		4645 Jan 19 16:44	0° 	
desc. node	4642 Jun 07 06:53	8°  40'02			4645 Feb 13 02:57	0° 	
	4642 Jul 05 15:34	0° 			4645 Mar 09 23:54	0° 	
morning max el	4642 Jul 11 00:25	5°  10'49	45°55'43	asc. node	4645 Mar 15 03:58	6°  07'14	
	4642 Aug 04 06:51	0° 			4645 Apr 04 20:23	0° 	
	4642 Aug 31 06:07	0° 		evening max el	4645 May 01 17:44	28°  14'18	46°15'42
	4642 Sep 26 01:14	0° 			4645 May 03 01:39	0° 	
asc. node	4642 Sep 28 09:03	2°  45'10		greatest brilliancy	4645 Jun 09 08:03	27°  56'36	-4.8m
	4642 Oct 21 02:37	0° 			4645 Jun 17 10:11	0° 	
	4642 Nov 14 15:43	0° 		retrograde	4645 Jun 20 08:23	0°  09'58	
	4642 Dec 08 20:47	0° 			4645 Jun 23 05:43	30°  R 	
	4643 Jan 01 21:06	0° 		desc. node	4645 Jul 04 18:49	26°  50'05	
morning set	4643 Jan 05 11:31	4°  30'42		evening set	4645 Jul 05 09:24	25°  54'22	
desc. node	4643 Jan 17 23:47	20°  21'29		inferior conj	4645 Jul 11 18:52	21°  55'42	-1°40'27
	4643 Jan 25 18:48	0° 		minimum elong	4645 Jul 11 15:11	22°  50'128	1°39'22
				min. Earth dist.	4645 Jul 11 10:19	22°  50'07	0.28687 AU
superior conj	4643 Feb 15 13:55	26°  59'21	-1°02'06	morning rise	4645 Jul 17 21:20	18°  51'08	
minimum elong	4643 Feb 15 01:54	25°  31'31	1°01'41	direct	4645 Aug 02 05:13	13°  54'44'54	
max. Earth dist.	4643 Feb 15 22:54	26°  37'37	1.71124 AU	greatest brilliancy	4645 Aug 12 05:33	15°  52'46	-4.7m
	4643 Feb 18 15:15	0° 			4645 Sep 04 20:00	0° 	
	4643 Mar 14 11:47	0° 		morning max el	4645 Sep 19 20:35	13°  52'26	45°43'47
evening rise	4643 Mar 28 12:33	17°  36'16			4645 Oct 06 09:06	0° 	
	4643 Apr 07 10:19	0° 		asc. node	4645 Oct 25 20:56	21°  51'16'10	
	4643 May 01 12:55	0° 			4645 Nov 02 13:27	0° 	
asc. node	4643 May 11 01:50	11°  47'16			4645 Nov 28 02:57	0° 	
	4643 May 25 21:31	0° 			4645 Dec 22 20:32	0° 	
	4643 Jun 19 14:02	0° 			4646 Jan 16 03:26	0° 	
	4643 Jul 14 17:35	0° 			4646 Feb 09 04:46	0° 	
	4643 Aug 09 14:47	0° 		desc. node	4646 Feb 14 11:37	6°  53'6'50	
desc. node	4643 Aug 30 16:28	23°  22'41			4646 Mar 05 03:26	0° 	
	4643 Sep 05 21:24	0° 		morning set	4646 Mar 23 07:18	22°  54'46'48	
evening max el	4643 Sep 24 07:55	18°  37'49	45°51'29		4646 Mar 29 01:29	0° 	
	4643 Oct 06 21:22	0° 			4646 Apr 22 00:43	0° 	
greatest brilliancy	4643 Nov 03 00:20	17°  25'18	-4.8m				
retrograde	4643 Nov 12 05:57	18°  28'27		superior conj	4646 May 02 09:23	12°  55'51	-1°13'17
evening set	4643 Nov 27 19:57	13°  29'59'26		minimum elong	4646 May 02 19:24	13°  52'7'05	1°13'02
inferior conj	4643 Dec 03 02:28	10°  25'12'24	-4°30'56	max. Earth dist.	4646 May 06 08:19	17°  51'32	1.72103 AU
minimum elong	4643 Dec 03 11:31	10°  27'37'30	4°28'29		4646 May 16 02:34	0° 	
min. Earth dist.	4643 Dec 03 23:05	10°  29'19'42	0.27377 AU	asc. node	4646 Jun 07 13:46	27°  51'49'56	
morning rise	4643 Dec 09 02:25	7°  28'18'14			4646 Jun 09 07:54	0° 	
asc. node	4643 Dec 21 18:31	3°  29'01'29		evening rise	4646 Jun 10 09:25	1°  51'18'44	
direct	4643 Dec 24 01:16	2°  29'55'10			4646 Jul 03 16:57	0° 	
greatest brilliancy	4644 Jan 04 01:27	5°  29'11'33	-4.9m		4646 Jul 28 06:04	0° 	
	4644 Feb 06 12:20	0° 			4646 Aug 22 00:28	0° 	
morning max el	4644 Feb 12 16:32	6°  29'07'49	46°56'48		4646 Sep 16 02:36	0° 	
	4644 Mar 05 22:06	0° 		desc. node	4646 Sep 27 04:17	13°  51'04'27	
	4644 Mar 31 22:48	0° 			4646 Oct 11 16:20	0° 	

	4646 Nov 07 01:28	0° Z			4649 Apr 12 08:52	0° Y	
	4646 Dec 05 06:13	0° \approx			4649 May 06 13:07	0° B	
evening max el	4646 Dec 06 02:31	0° \approx 50'35	46°49'54		4649 May 30 18:31	0° II	
	4647 Jan 11 18:23	0° H		morning set	4649 Jun 04 17:14	6° II 06'51	
greatest brilliancy	4647 Jan 15 13:08	1° H 35'13	-4.9m		4649 Jun 24 01:41	0° G	
asc. node	4647 Jan 18 06:27	2° H 27'23		asc. node	4649 Jul 05 01:31	13° G 32'40	
retrograde	4647 Jan 25 12:11	3° H 28'43					
	4647 Feb 07 15:50	30° R \approx		superior conj	4649 Jul 12 07:09	22° G 27'14	0°17'15
evening set	4647 Feb 09 21:18	28° \approx 49'05		minimum elong	4649 Jul 12 03:31	22° G 16'01	0°17'03
min. Earth dist.	4647 Feb 14 13:57	26° \approx 02'30	0.26728 AU	max. Earth dist.	4649 Jul 13 08:03	23° G 43'50	1.73350 AU
inferior conj	4647 Feb 15 02:43	25° \approx 42'59	6°30'59		4649 Jul 18 10:16	0° Ω	
minimum elong	4647 Feb 14 15:49	25° \approx 59'40	6°28'31		4649 Aug 11 19:37	0° M	
morning rise	4647 Feb 19 10:27	23° \approx 07'33		evening rise	4649 Aug 17 16:06	7° M 11'50	
direct	4647 Mar 07 13:04	18° \approx 01'41			4649 Sep 05 05:39	0° L	
greatest brilliancy	4647 Mar 17 01:07	19° \approx 44'14	-4.9m		4649 Sep 29 17:07	0° M	
	4647 Apr 03 22:00	0° H			4649 Oct 24 07:04	0° X	
morning max el	4647 Apr 26 17:30	20° H 22'02	46°41'54	desc. node	4649 Oct 24 16:19	0° X 28'07	
	4647 May 06 03:31	0° Y			4649 Nov 18 00:27	0° Z	
desc. node	4647 May 09 21:14	3° Y 56'56			4649 Dec 12 22:52	0° \approx	
	4647 Jun 02 12:18	0° B			4650 Jan 07 07:34	0° H	
	4647 Jun 28 12:52	0° II			4650 Feb 02 18:19	0° Y	
	4647 Jul 23 23:27	0° G		asc. node	4650 Feb 14 18:08	12° Y 45'05	
	4647 Aug 18 01:26	0° Ω		evening max el	4650 Feb 16 19:24	14° Y 51'06	47°07'40
asc. node	4647 Aug 30 23:10	15° Ω 34'47			4650 Mar 04 18:22	0° B	
	4647 Sep 11 20:04	0° M		greatest brilliancy	4650 Mar 29 05:01	16° B 06'58	-4.9m
	4647 Oct 06 07:56	0° L		retrograde	4650 Apr 08 12:41	18° B 07'24	
morning set	4647 Oct 23 05:21	20° L 51'31		evening set	4650 Apr 25 20:04	12° B 17'10	
	4647 Oct 30 14:18	0° M		inferior conj	4650 Apr 29 11:02	10° B 03'03	7°46'34
	4647 Nov 23 16:56	0° X		minimum elong	4650 Apr 29 20:13	9° B 48'43	7°45'09
max. Earth dist.	4647 Nov 27 03:54	4° X 18'46	1.72000 AU	min. Earth dist.	4650 Apr 29 06:16	10° B 10'29	0.27750 AU
				morning rise	4650 May 03 20:40	7° B 22'15	
superior conj	4647 Nov 29 20:08	7° X 39'15	0°47'11	direct	4650 May 20 08:53	2° B 06'54	
minimum elong	4647 Nov 30 05:35	8° X 08'44	0°46'48	greatest brilliancy	4650 May 29 20:57	3° B 47'57	-4.8m
	4647 Dec 17 17:16	0° Z		desc. node	4650 Jun 06 08:56	7° B 08'20	
desc. node	4647 Dec 20 14:04	3° Z 35'10			4650 Jul 05 16:21	0° II	
evening rise	4648 Jan 08 15:07	27° Z 26'11		morning max el	4650 Jul 08 14:39	2° II 47'44	45°56'51
	4648 Jan 10 16:13	0° \approx			4650 Aug 03 23:14	0° G	
	4648 Feb 03 14:36	0° H			4650 Aug 30 19:40	0° Ω	
	4648 Feb 27 14:00	0° Y			4650 Sep 25 13:27	0° M	
	4648 Mar 22 17:11	0° B		asc. node	4650 Sep 27 11:03	2° M 15'08	
asc. node	4648 Apr 11 15:57	24° B 30'56			4650 Oct 20 14:07	0° L	
	4648 Apr 16 04:04	0° II			4650 Nov 14 02:50	0° M	
	4648 May 11 04:01	0° G			4650 Dec 08 07:42	0° X	
	4648 Jun 06 02:25	0° Ω			4651 Jan 01 07:56	0° Z	
	4648 Jul 03 23:21	0° M		morning set	4651 Jan 02 23:48	2° Z 04'53	
evening max el	4648 Jul 11 06:36	7° M 13'14	45°33'00	desc. node	4651 Jan 17 01:46	19° Z 44'46	
desc. node	4648 Aug 01 06:43	25° M 21'43			4651 Jan 25 05:37	0° \approx	
	4648 Aug 08 02:55	0° L					
greatest brilliancy	4648 Aug 18 16:23	5° L 12'10	-4.7m	superior conj	4651 Feb 13 00:26	23° \approx 37'28	-0°59'15
retrograde	4648 Aug 29 00:48	7° L 07'40		minimum elong	4651 Feb 12 12:29	22° \approx 59'54	0°58'49
evening set	4648 Sep 15 18:21	1° L 12'52		max. Earth dist.	4651 Feb 13 03:20	23° \approx 46'37	1.71125 AU
	4648 Sep 17 18:11	30° R M			4651 Feb 18 02:03	0° H	
inferior conj	4648 Sep 19 11:40	28° M 55'24	-8°24'21		4651 Mar 13 22:37	0° Y	
minimum elong	4648 Sep 19 07:21	29° M 02'08	8°24'05	evening rise	4651 Mar 25 23:15	15° Y 05'22	
min. Earth dist.	4648 Sep 19 16:15	28° M 48'14	0.29044 AU		4651 Apr 06 21:12	0° B	
morning rise	4648 Sep 22 20:17	26° M 50'49			4651 Apr 30 23:55	0° II	
direct	4648 Oct 11 01:52	20° M 37'08		asc. node	4651 May 10 03:55	11° II 19'37	
greatest brilliancy	4648 Oct 21 19:11	22° M 43'05	-4.8m		4651 May 25 08:45	0° G	
	4648 Nov 04 05:09	0° L			4651 Jun 19 01:40	0° Ω	
asc. node	4648 Nov 22 08:44	14° L 55'12			4651 Jul 14 06:01	0° M	
morning max el	4648 Nov 29 20:28	22° L 07'31	46°18'06		4651 Aug 09 04:50	0° L	
	4648 Dec 07 13:59	0° M		desc. node	4651 Aug 29 18:24	22° L 43'16	
	4649 Jan 03 17:19	0° X			4651 Sep 05 15:12	0° M	
	4649 Jan 29 03:14	0° Z		evening max el	4651 Sep 21 21:01	16° M 19'04	45°49'47
	4649 Feb 22 19:39	0° \approx			4651 Oct 07 05:24	0° X	
desc. node	4649 Mar 13 23:26	23° \approx 35'00		greatest brilliancy	4651 Oct 31 14:31	14° X 46'40	-4.8m
	4649 Mar 19 03:59	0° H		retrograde	4651 Nov 09 18:31	16° X 18'45	

evening set	4651 Nov 25 12:16	11°♊35'26			4654 May 15 13:09	0°♊	
inferior conj	4651 Nov 30 16:10	8°♊31'10	-4°49'59	asc. node	4654 Jun 06 15:44	27°♊23'22	
minimum elong	4651 Dec 01 01:35	8°♊16'39	4°47'31	evening rise	4654 Jun 08 01:08	29°♊06'28	
min. Earth dist.	4651 Dec 01 13:53	7°♊57'44	0.27438 AU		4654 Jun 08 18:29	0°♊	
morning rise	4651 Dec 06 14:10	5°♊00'12			4654 Jul 03 03:38	0°♊	
asc. node	4651 Dec 20 20:30	0°♊34'28			4654 Jul 27 17:01	0°♊	
direct	4651 Dec 21 14:56	0°♊33'45			4654 Aug 21 11:54	0°♊	
greatest brilliancy	4652 Jan 01 17:05	2°♊51'25	-4.9m		4654 Sep 15 14:49	0°♊	
	4652 Feb 06 12:37	0°♊		desc. node	4654 Sep 26 06:23	12°♊33'21	
morning max el	4652 Feb 10 05:37	3°♊42'55	46°56'25		4654 Oct 11 05:56	0°♊	
	4652 Mar 05 14:41	0°♊			4654 Nov 06 17:45	0°♊	
	4652 Mar 31 12:42	0°♊		evening max el	4654 Dec 03 16:22	28°♊28'28	46°48'08
desc. node	4652 Apr 10 11:27	11°♊48'40			4654 Dec 05 05:27	0°♊	
	4652 Apr 25 15:25	0°♊		greatest brilliancy	4655 Jan 13 01:27	29°♊06'55	-4.9m
	4652 May 20 10:01	0°♊			4655 Jan 15 20:06	0°♊	
	4652 Jun 14 01:32	0°♊		asc. node	4655 Jan 17 08:24	0°♊22'22	
	4652 Jul 08 15:50	0°♊		retrograde	4655 Jan 23 01:21	1°♊00'51	
asc. node	4652 Aug 01 13:19	29°♊12'34			4655 Jan 30 01:08	30°♊	
	4652 Aug 02 04:49	0°♊		evening set	4655 Feb 07 06:13	26°♊26'05	
morning set	4652 Aug 12 12:40	12°♊39'26		min. Earth dist.	4655 Feb 12 02:39	23°♊34'22	0.26705 AU
	4652 Aug 26 15:37	0°♊		inferior conj	4655 Feb 12 15:03	23°♊15'24	6°13'34
max. Earth dist.	4652 Sep 15 18:44	24°♊47'53	1.73237 AU	minimum elong	4655 Feb 12 04:12	23°♊32'00	6°10'59
				morning rise	4655 Feb 17 02:20	20°♊35'17	
superior conj	4652 Sep 18 00:06	27°♊32'33	1°22'54	direct	4655 Mar 05 01:45	15°♊34'15	
minimum elong	4652 Sep 17 19:56	27°♊19'40	1°22'52	greatest brilliancy	4655 Mar 14 14:00	17°♊17'29	-4.9m
	4652 Sep 19 23:53	0°♊			4655 Apr 04 13:30	0°♊	
	4652 Oct 14 06:15	0°♊		morning max el	4655 Apr 24 07:50	18°♊01'27	46°43'29
evening rise	4652 Oct 24 15:35	12°♊51'39			4655 May 05 22:59	0°♊	
	4652 Nov 07 11:41	0°♊		desc. node	4655 May 08 23:15	3°♊12'32	
desc. node	4652 Nov 21 04:12	16°♊57'32			4655 Jun 02 03:14	0°♊	
	4652 Dec 01 16:50	0°♊			4655 Jun 28 01:48	0°♊	
	4652 Dec 25 22:03	0°♊			4655 Jul 23 11:18	0°♊	
	4653 Jan 19 04:27	0°♊			4655 Aug 17 12:39	0°♊	
	4653 Feb 12 15:16	0°♊		asc. node	4655 Aug 30 01:12	15°♊07'35	
	4653 Mar 09 13:18	0°♊			4655 Sep 11 06:56	0°♊	
asc. node	4653 Mar 14 06:03	5°♊33'05			4655 Oct 05 18:38	0°♊	
	4653 Apr 04 12:04	0°♊		morning set	4655 Oct 20 21:57	18°♊41'26	
evening max el	4653 Apr 29 07:53	26°♊24'10	46°17'43		4655 Oct 30 00:57	0°♊	
	4653 May 03 00:05	0°♊			4655 Nov 23 03:36	0°♊	
greatest brilliancy	4653 Jun 07 00:40	25°♊46'26	-4.8m	max. Earth dist.	4655 Nov 24 18:03	1°♊59'54	1.72044 AU
retrograde	4653 Jun 18 00:38	27°♊59'57					
evening set	4653 Jul 03 01:29	23°♊36'03		superior conj	4655 Nov 27 10:16	5°♊20'11	0°50'08
desc. node	4653 Jul 03 20:47	23°♊09'12		minimum elong	4655 Nov 27 19:58	5°♊50'27	0°49'45
inferior conj	4653 Jul 09 10:56	19°♊45'48	-1°20'26		4655 Dec 17 04:01	0°♊	
minimum elong	4653 Jul 09 07:59	19°♊50'27	1°19'33	desc. node	4655 Dec 19 15:58	3°♊07'26	
min. Earth dist.	4653 Jul 09 02:53	19°♊58'27	0.28660 AU	evening rise	4656 Jan 06 02:54	24°♊58'39	
morning rise	4653 Jul 15 14:48	16°♊03'27			4656 Jan 10 03:07	0°♊	
direct	4653 Jul 30 20:22	11°♊35'10			4656 Feb 03 01:41	0°♊	
greatest brilliancy	4653 Aug 09 21:45	13°♊23'50	-4.7m		4656 Feb 27 01:16	0°♊	
	4653 Sep 05 02:23	0°♊			4656 Mar 22 04:43	0°♊	
morning max el	4653 Sep 17 12:05	11°♊10'58	45°43'23	asc. node	4656 Apr 10 18:03	24°♊01'09	
	4653 Oct 06 02:15	0°♊			4656 Apr 15 16:02	0°♊	
asc. node	4653 Oct 24 23:05	20°♊41'21			4656 May 10 16:51	0°♊	
	4653 Nov 02 03:15	0°♊			4656 Jun 05 17:05	0°♊	
	4653 Nov 27 15:21	0°♊			4656 Jul 03 19:01	0°♊	
	4653 Dec 22 08:15	0°♊		evening max el	4656 Jul 08 23:08	5°♊04'54	45°33'36
	4654 Jan 15 14:47	0°♊		desc. node	4656 Jul 31 08:40	24°♊14'10	
	4654 Feb 08 15:51	0°♊			4656 Aug 09 12:26	0°♊	
desc. node	4654 Feb 13 13:34	6°♊08'20		greatest brilliancy	4656 Aug 16 07:00	3°♊02'20	-4.7m
	4654 Mar 04 14:21	0°♊		retrograde	4656 Aug 26 16:49	4°♊58'43	
morning set	4654 Mar 20 18:01	20°♊15'57			4656 Sep 11 20:07	30°♊	
	4654 Mar 28 12:16	0°♊		evening set	4656 Sep 13 07:59	29°♊07'36	
	4654 Apr 21 11:22	0°♊		inferior conj	4656 Sep 17 03:51	26°♊45'58	-8°19'33
				minimum elong	4656 Sep 16 22:52	26°♊53'47	8°19'11
superior conj	4654 Apr 29 22:44	10°♊34'47	-1°15'13	min. Earth dist.	4656 Sep 17 07:07	26°♊40'52	0.29064 AU
minimum elong	4654 Apr 30 08:24	11°♊04'56	1°14'58	morning rise	4656 Sep 20 13:43	24°♊39'21	
max. Earth dist.	4654 May 03 19:47	15°♊24'48	1.72049 AU	direct	4656 Oct 08 18:45	18°♊27'47	

greatest brilliancy	4656 Oct 19 09:53	20° \cap 31'36	-4.8m	evening rise	4659 Mar 23 09:39	12° Υ 32'48	
	4656 Nov 04 22:33	0° Ω			4659 Apr 06 08:18	0° \mathcal{B}	
asc. node	4656 Nov 21 10:41	14° Ω 02'03			4659 Apr 30 11:09	0° Π	
morning max el	4656 Nov 27 11:52	19° Ω 53'07	46°16'20	asc. node	4659 May 09 05:53	10° Π 50'54	
	4656 Dec 07 08:56	0° \mathcal{M}			4659 May 24 20:12	0° \mathcal{E}	
	4657 Jan 03 08:05	0° \mathcal{Z}			4659 Jun 18 13:34	0° Ω	
	4657 Jan 28 16:19	0° \mathcal{Z}			4659 Jul 13 18:43	0° \cap	
	4657 Feb 22 07:53	0° \approx			4659 Aug 08 19:12	0° Ω	
desc. node	4657 Mar 13 01:33	23° \approx 05'01		desc. node	4659 Aug 28 20:34	22° Ω 03'42	
	4657 Mar 18 15:42	0° \mathcal{H}			4659 Sep 05 09:33	0° \mathcal{M}	
	4657 Apr 11 20:13	0° Υ		evening max el	4659 Sep 19 09:59	14° \mathcal{M} 00'04	45°48'16
	4657 May 06 00:12	0° \mathcal{B}			4659 Oct 07 16:21	0° \mathcal{Z}	
	4657 May 30 05:21	0° Π		greatest brilliancy	4659 Oct 29 04:17	12° \mathcal{Z} 27'56	-4.8m
morning set	4657 Jun 02 09:00	3° Π 53'49		retrograde	4659 Nov 07 07:34	13° \mathcal{Z} 59'46	
	4657 Jun 23 12:22	0° \mathcal{E}		evening set	4659 Nov 23 04:52	9° \mathcal{Z} 11'36	
asc. node	4657 Jul 04 03:30	13° \mathcal{E} 06'02		inferior conj	4659 Nov 28 06:07	6° \mathcal{Z} 11'14	-5°08'16
				minimum elong	4659 Nov 28 15:51	5° \mathcal{Z} 56'15	5°05'47
superior conj	4657 Jul 10 00:23	20° \mathcal{E} 19'48	0°14'02	min. Earth dist.	4659 Nov 29 04:42	5° \mathcal{Z} 36'30	0.27508 AU
minimum elong	4657 Jul 09 21:23	20° \mathcal{E} 10'35	0°13'52	morning rise	4659 Dec 04 02:03	2° \mathcal{Z} 42'57	
behind sun begin	4657 Jul 09 10:01	19° \mathcal{E} 35'35			4659 Dec 09 20:02	30° $\mathcal{R}\mathcal{M}$	
behind sun end	4657 Jul 10 08:46	20° \mathcal{E} 45'36		direct	4659 Dec 19 05:00	28° \mathcal{M} 12'23	
max. Earth dist.	4657 Jul 11 06:10	21° \mathcal{E} 51'30	1.73322 AU	asc. node	4659 Dec 19 22:30	28° \mathcal{M} 13'01	
	4657 Jul 17 20:52	0° Ω			4659 Dec 28 23:20	0° \mathcal{Z}	
	4657 Aug 11 06:14	0° \cap		greatest brilliancy	4659 Dec 30 09:06	0° \mathcal{Z} 31'40	-4.9m
evening rise	4657 Aug 15 10:45	5° \cap 08'54			4660 Feb 06 12:13	0° \mathcal{Z}	
	4657 Sep 04 16:25	0° Ω		morning max el	4660 Feb 07 19:54	1° \mathcal{Z} 20'00	46°55'45
	4657 Sep 29 04:11	0° \mathcal{M}			4660 Mar 05 07:24	0° \approx	
desc. node	4657 Oct 23 18:19	29° \mathcal{M} 59'06			4660 Mar 31 02:54	0° \mathcal{H}	
	4657 Oct 23 18:37	0° \mathcal{Z}		desc. node	4660 Apr 09 13:29	11° \mathcal{H} 14'00	
	4657 Nov 17 12:41	0° \mathcal{Z}			4660 Apr 25 04:19	0° Υ	
	4657 Dec 12 12:08	0° \approx			4660 May 19 22:08	0° \mathcal{B}	
	4658 Jan 06 22:31	0° \mathcal{H}			4660 Jun 13 13:07	0° Π	
	4658 Feb 02 12:57	0° Υ			4660 Jul 08 03:04	0° \mathcal{E}	
asc. node	4658 Feb 13 20:15	11° Υ 54'30		asc. node	4660 Jul 31 15:24	28° \mathcal{E} 45'19	
evening max el	4658 Feb 14 09:40	12° Υ 28'40	47°08'18		4660 Aug 01 15:48	0° Ω	
	4658 Mar 05 03:21	0° \mathcal{B}		morning set	4660 Aug 10 06:15	10° Ω 32'40	
greatest brilliancy	4658 Mar 26 20:38	13° \mathcal{B} 47'11	-4.9m		4660 Aug 26 02:27	0° \cap	
retrograde	4658 Apr 06 02:54	15° \mathcal{B} 46'16		max. Earth dist.	4660 Sep 13 15:18	22° \cap 49'55	1.73262 AU
evening set	4658 Apr 23 13:25	9° \mathcal{B} 52'11					
inferior conj	4658 Apr 27 01:13	7° \mathcal{B} 42'40	7°57'47	superior conj	4660 Sep 15 18:12	25° \cap 26'56	1°22'06
minimum elong	4658 Apr 27 09:57	7° \mathcal{B} 29'01	7°56'31	minimum elong	4660 Sep 15 13:25	25° \cap 12'12	1°22'02
min. Earth dist.	4658 Apr 26 20:11	7° \mathcal{B} 50'32	0.27715 AU		4660 Sep 19 10:42	0° Ω	
morning rise	4658 May 01 06:44	5° \mathcal{B} 07'37			4660 Oct 13 17:08	0° \mathcal{M}	
	4658 May 14 16:26	30° $\mathcal{R}\mathcal{Y}$		evening rise	4660 Oct 22 08:05	10° \mathcal{M} 40'21	
direct	4658 May 17 22:33	29° Υ 47'16			4660 Nov 06 22:44	0° \mathcal{Z}	
	4658 May 21 05:52	0° \mathcal{B}		desc. node	4660 Nov 20 06:09	16° \mathcal{Z} 28'57	
greatest brilliancy	4658 May 27 09:58	1° \mathcal{B} 27'27	-4.8m		4660 Dec 01 04:09	0° \mathcal{Z}	
desc. node	4658 Jun 05 10:54	5° \mathcal{B} 39'17			4660 Dec 25 09:44	0° \approx	
	4658 Jul 05 16:05	0° Π			4661 Jan 18 16:36	0° \mathcal{H}	
morning max el	4658 Jul 06 04:20	0° Π 29'31	45°58'13		4661 Feb 12 04:07	0° Υ	
	4658 Aug 03 15:22	0° \mathcal{E}			4661 Mar 09 03:20	0° \mathcal{B}	
	4658 Aug 30 09:07	0° Ω		asc. node	4661 Mar 13 08:06	4° \mathcal{B} 56'59	
	4658 Sep 25 01:37	0° \cap			4661 Apr 04 04:35	0° Π	
asc. node	4658 Sep 26 13:12	1° \cap 45'32		evening max el	4661 Apr 26 22:46	24° Π 07'12	46°19'56
	4658 Oct 20 01:38	0° Ω			4661 May 03 00:14	0° \mathcal{E}	
	4658 Nov 13 14:01	0° \mathcal{M}		greatest brilliancy	4661 Jun 04 16:42	23° \mathcal{E} 33'53	-4.8m
	4658 Dec 07 18:46	0° \mathcal{Z}		retrograde	4661 Jun 15 17:11	25° \mathcal{E} 48'08	
morning set	4658 Dec 31 11:56	29° \mathcal{Z} 37'55		evening set	4661 Jun 30 17:37	21° \mathcal{E} 23'41	
	4658 Dec 31 18:59	0° \mathcal{Z}		desc. node	4661 Jul 02 22:48	20° \mathcal{E} 07'46	
desc. node	4659 Jan 16 03:47	19° \mathcal{Z} 16'30		inferior conj	4661 Jul 07 02:51	17° \mathcal{E} 34'01	-1°00'07
	4659 Jan 24 16:40	0° \approx		minimum elong	4661 Jul 07 00:37	17° \mathcal{E} 37'30	0°59'28
				min. Earth dist.	4661 Jul 06 19:00	17° \mathcal{E} 46'19	0.28629 AU
superior conj	4659 Feb 10 10:37	21° \approx 03'51	-0°56'15	morning rise	4661 Jul 13 07:59	13° \mathcal{E} 50'16	
minimum elong	4659 Feb 09 22:51	20° \approx 26'49	0°55'47	direct	4661 Jul 28 11:44	9° \mathcal{E} 23'38	
max. Earth dist.	4659 Feb 10 05:24	20° \approx 47'27	1.71128 AU	greatest brilliancy	4661 Aug 07 13:20	11° \mathcal{E} 12'47	-4.7m
	4659 Feb 17 13:06	0° \mathcal{H}			4661 Sep 05 07:17	0° Ω	
	4659 Mar 13 09:40	0° Υ		morning max el	4661 Sep 15 04:28	9° Ω 01'33	45°43'08

	4661 Oct 05 19:26	0°♎		4664 Jun 05 08:24	0°♏
asc. node	4661 Oct 24 00:56	20°♎05'00		4664 Jul 03 15:55	0°♎
	4661 Nov 01 17:14	0°♏	evening max el	4664 Jul 06 15:04	2°♎53'35 45°34'11
	4661 Nov 27 03:58	0°♎	desc. node	4664 Jul 30 10:48	23°♎03'30
	4661 Dec 21 20:12	0°♏		4664 Aug 11 17:11	0°♏
	4662 Jan 15 02:22	0°♏	greatest brilliancy	4664 Aug 13 22:06	0°♏51'29 -4.7m
	4662 Feb 08 03:14	0°♏	retrograde	4664 Aug 24 08:16	2°♏48'11
desc. node	4662 Feb 12 15:42	5°♏39'24		4664 Sep 05 07:30	30°♏♎
	4662 Mar 04 01:37	0°♏	evening set	4664 Sep 10 21:19	27°♎01'12
morning set	4662 Mar 18 04:24	17°♏42'41	inferior conj	4664 Sep 14 19:56	24°♎35'14 -8°14'00
	4662 Mar 27 23:28	0°♏	minimum elong	4664 Sep 14 14:18	24°♎44'04 8°13'31
	4662 Apr 20 22:30	0°♏	min. Earth dist.	4664 Sep 14 22:15	24°♎31'35 0.29079 AU
			morning rise	4664 Sep 18 07:15	22°♎26'08
superior conj	4662 Apr 27 11:24	8°♏09'56 -1°17'02	direct	4664 Oct 06 11:03	16°♎17'08
minimum elong	4662 Apr 27 20:36	8°♏38'40 1°16'49	greatest brilliancy	4664 Oct 17 00:57	18°♎19'21 -4.8m
max. Earth dist.	4662 May 01 06:40	12°♏54'36 1.71999 AU		4664 Nov 05 11:59	0°♏
	4662 May 15 00:13	0°♏	asc. node	4664 Nov 20 12:44	13°♏09'16
evening rise	4662 Jun 05 16:09	26°♏50'33	morning max el	4664 Nov 25 02:14	17°♏35'20 46°14'41
asc. node	4662 Jun 05 17:41	26°♏55'18		4664 Dec 07 03:40	0°♎
	4662 Jun 08 05:32	0°♏		4665 Jan 02 22:54	0°♏
	4662 Jul 02 14:47	0°♏		4665 Jan 28 05:31	0°♏
	4662 Jul 27 04:26	0°♎		4665 Feb 21 20:14	0°♏
	4662 Aug 20 23:47	0°♏	desc. node	4665 Mar 12 03:32	22°♏34'20
	4662 Sep 15 03:31	0°♎		4665 Mar 18 03:31	0°♏
desc. node	4662 Sep 25 08:23	12°♎00'31		4665 Apr 11 07:40	0°♏
	4662 Oct 10 20:04	0°♏		4665 May 05 11:22	0°♏
	4662 Nov 06 10:39	0°♏		4665 May 29 16:20	0°♏
evening max el	4662 Dec 01 07:11	26°♏08'16 46°46'25	morning set	4665 May 31 00:38	1°♏39'53
	4662 Dec 05 06:02	0°♏		4665 Jun 22 23:14	0°♏
greatest brilliancy	4663 Jan 10 13:47	26°♏38'30 -4.9m	asc. node	4665 Jul 03 05:37	12°♏39'10
asc. node	4663 Jan 16 10:26	28°♏11'55			
retrograde	4663 Jan 20 14:31	28°♏32'36	superior conj	4665 Jul 07 17:19	18°♏10'50 0°10'45
evening set	4663 Feb 04 15:34	24°♏02'39	minimum elong	4665 Jul 07 15:00	18°♏03'42 0°10'38
min. Earth dist.	4663 Feb 09 15:26	21°♏06'00 0.26687 AU	behind sun begin	4665 Jul 06 21:39	17°♏10'16
inferior conj	4663 Feb 10 03:32	20°♏47'31 5°55'23	behind sun end	4665 Jul 08 08:21	18°♏57'09
minimum elong	4663 Feb 09 16:50	21°♏03'53 5°52'44	max. Earth dist.	4665 Jul 09 02:08	19°♏51'53 1.73297 AU
morning rise	4663 Feb 14 18:18	18°♏02'39		4665 Jul 17 07:42	0°♏
direct	4663 Mar 02 14:57	13°♏06'41		4665 Aug 10 17:06	0°♎
greatest brilliancy	4663 Mar 12 02:53	14°♏50'03 -4.9m	evening rise	4665 Aug 13 04:57	3°♎03'54
	4663 Apr 05 01:28	0°♏		4665 Sep 04 03:25	0°♏
morning max el	4663 Apr 21 21:54	15°♏38'57 46°44'37		4665 Sep 28 15:28	0°♎
	4663 May 05 18:22	0°♏	desc. node	4665 Oct 22 20:15	29°♎29'13
desc. node	4663 May 08 01:11	2°♏27'13		4665 Oct 23 06:23	0°♏
	4663 Jun 01 18:28	0°♏		4665 Nov 17 01:09	0°♏
	4663 Jun 27 15:08	0°♏		4665 Dec 12 01:38	0°♏
	4663 Jul 22 23:35	0°♏		4666 Jan 06 13:46	0°♏
	4663 Aug 17 00:17	0°♏		4666 Feb 02 08:10	0°♏
asc. node	4663 Aug 29 03:17	14°♏39'17	evening max el	4666 Feb 11 23:12	10°♏04'08 47°08'59
	4663 Sep 10 18:11	0°♎	asc. node	4666 Feb 12 22:19	11°♏02'45
	4663 Oct 05 05:41	0°♏		4666 Mar 05 15:24	0°♏
morning set	4663 Oct 18 14:28	16°♏30'07	greatest brilliancy	4666 Mar 24 12:34	11°♏27'53 -4.9m
	4663 Oct 29 11:55	0°♎	retrograde	4666 Apr 03 17:02	13°♏25'37
max. Earth dist.	4663 Nov 22 05:51	29°♎32'46 1.72086 AU	evening set	4666 Apr 21 06:46	7°♏27'44
	4663 Nov 22 14:35	0°♏	inferior conj	4666 Apr 24 15:32	5°♏22'47 8°08'01
			minimum elong	4666 Apr 24 23:45	5°♏09'56 8°06'56
superior conj	4663 Nov 25 00:41	3°♏01'08 0°52'59	min. Earth dist.	4666 Apr 24 10:27	5°♏30'45 0.27680 AU
minimum elong	4663 Nov 25 10:34	3°♏31'58 0°52'36	morning rise	4666 Apr 28 16:58	2°♏53'33
	4663 Dec 16 15:05	0°♏		4666 May 04 05:54	30°♏♏
desc. node	4663 Dec 18 18:02	2°♏39'16	direct	4666 May 15 11:49	27°♏27'57
evening rise	4664 Jan 03 15:03	22°♏31'27	greatest brilliancy	4666 May 24 23:36	29°♏08'01 -4.8m
	4664 Jan 09 14:17	0°♏		4666 May 27 07:20	0°♏
	4664 Feb 02 12:59	0°♏	desc. node	4666 Jun 04 12:57	4°♏13'45
	4664 Feb 26 12:45	0°♏	morning max el	4666 Jul 03 17:54	28°♏11'01 45°59'27
	4664 Mar 21 16:29	0°♏		4666 Jul 05 14:43	0°♏
asc. node	4664 Apr 09 19:57	23°♏29'53		4666 Aug 03 07:16	0°♏
	4664 Apr 15 04:19	0°♏		4666 Aug 29 22:33	0°♏
	4664 May 10 06:07	0°♏		4666 Sep 24 13:50	0°♎

asc. node	4666 Sep 25 15:05	1°♎14'59		evening max el	4669 Apr 24 14:40	21°♊53'44	46°22'12
	4666 Oct 19 13:11	0°♊			4669 May 03 01:08	0°♊	
	4666 Nov 13 01:13	0°♋		greatest brilliancy	4669 Jun 02 08:43	21°♊22'30	-4.8m
	4666 Dec 07 05:49	0°♌		retrograde	4669 Jun 13 10:04	23°♊37'27	
morning set	4666 Dec 29 00:04	27°♌11'05		evening set	4669 Jun 28 10:04	19°♊12'29	
	4666 Dec 31 06:00	0°♍		desc. node	4669 Jul 02 00:52	17°♊05'46	
desc. node	4667 Jan 15 05:51	18°♍48'30		inferior conj	4669 Jul 04 18:50	15°♊23'26	-0°39'46
	4667 Jan 24 03:40	0°♎		minimum elong	4669 Jul 04 17:21	15°♊25'45	0°39'19
				min. Earth dist.	4669 Jul 04 10:55	15°♊35'48	0.28596 AU
superior conj	4667 Feb 07 20:50	18°♎30'27	-0°53'08	morning rise	4669 Jul 11 01:05	11°♊38'34	
minimum elong	4667 Feb 07 09:19	17°♎54'13	0°52'40	direct	4669 Jul 26 03:38	7°♊13'32	
max. Earth dist.	4667 Feb 07 08:46	17°♎52'28	1.71135 AU	greatest brilliancy	4669 Aug 05 04:21	9°♊02'27	-4.7m
	4667 Feb 17 00:05	0°♏			4669 Sep 05 09:51	0°♏	
	4667 Mar 12 20:40	0°♐		morning max el	4669 Sep 12 21:07	6°♏54'10	45°42'45
evening rise	4667 Mar 20 20:12	10°♐00'52			4669 Oct 05 11:51	0°♐	
	4667 Apr 05 19:20	0°♑		asc. node	4669 Oct 23 03:01	19°♐30'34	
	4667 Apr 29 22:16	0°♒			4669 Nov 01 06:46	0°♑	
asc. node	4667 May 08 07:53	10°♒22'41			4669 Nov 26 16:16	0°♋	
	4667 May 24 07:32	0°♊			4669 Dec 21 07:54	0°♌	
	4667 Jun 18 01:20	0°♋			4670 Jan 14 13:42	0°♍	
	4667 Jul 13 07:23	0°♌			4670 Feb 07 14:22	0°♎	
	4667 Aug 08 09:40	0°♍		desc. node	4670 Feb 11 17:41	5°♎10'53	
desc. node	4667 Aug 27 22:30	21°♍23'05			4670 Mar 03 12:35	0°♏	
	4667 Sep 05 04:24	0°♎		morning set	4670 Mar 15 14:38	15°♏10'03	
evening max el	4667 Sep 16 23:22	11°♎42'08	45°46'44		4670 Mar 27 10:19	0°♐	
	4667 Oct 08 07:10	0°♏			4670 Apr 20 09:15	0°♑	
greatest brilliancy	4667 Oct 26 17:21	10°♏08'20	-4.8m				
retrograde	4667 Nov 04 21:00	11°♏40'36		superior conj	4670 Apr 24 23:58	5°♑45'47	-1°18'42
evening set	4667 Nov 20 21:24	6°♏47'23		minimum elong	4670 Apr 25 08:39	6°♑12'55	1°18'32
inferior conj	4667 Nov 25 19:54	3°♏51'01	-5°25'59	max. Earth dist.	4670 Apr 28 19:50	10°♑32'31	1.71949 AU
minimum elong	4667 Nov 26 05:54	3°♏35'39	5°23'31		4670 May 14 10:55	0°♒	
min. Earth dist.	4667 Nov 26 19:02	3°♏15'29	0.27578 AU	evening rise	4670 Jun 03 07:13	24°♒35'47	
morning rise	4667 Dec 01 13:37	0°♏25'56		asc. node	4670 Jun 04 19:49	26°♒28'50	
	4667 Dec 02 08:38	30°♏♋			4670 Jun 07 16:14	0°♊	
direct	4667 Dec 16 19:27	25°♋50'53			4670 Jul 02 01:35	0°♋	
asc. node	4667 Dec 19 00:34	25°♋56'45			4670 Jul 26 15:28	0°♌	
greatest brilliancy	4667 Dec 28 00:35	28°♋11'33	-4.9m		4670 Aug 20 11:17	0°♍	
	4667 Dec 31 23:58	0°♌			4670 Sep 14 15:52	0°♎	
morning max el	4668 Feb 05 10:50	28°♌59'22	46°55'05	desc. node	4670 Sep 24 10:21	11°♎28'40	
	4668 Feb 06 10:39	0°♍			4670 Oct 10 09:55	0°♏	
	4668 Mar 04 23:37	0°♎			4670 Nov 06 03:35	0°♐	
	4668 Mar 30 16:45	0°♏		evening max el	4670 Nov 28 21:56	23°♐48'33	46°44'19
desc. node	4668 Apr 08 15:22	10°♏39'46			4670 Dec 05 07:41	0°♑	
	4668 Apr 24 16:55	0°♐		greatest brilliancy	4671 Jan 08 02:27	24°♑10'34	-4.9m
	4668 May 19 09:58	0°♑		asc. node	4671 Jan 15 12:29	25°♑55'49	
	4668 Jun 13 00:26	0°♒		retrograde	4671 Jan 18 03:05	26°♑03'57	
	4668 Jul 07 14:00	0°♊		evening set	4671 Feb 02 00:53	21°♑38'56	
asc. node	4668 Jul 30 17:25	28°♊18'45		min. Earth dist.	4671 Feb 07 04:23	18°♑36'59	0.26667 AU
	4668 Aug 01 02:29	0°♋		inferior conj	4671 Feb 07 15:46	18°♑19'34	5°36'19
morning set	4668 Aug 07 23:59	8°♋27'10		minimum elong	4671 Feb 07 05:17	18°♑35'36	5°33'38
	4668 Aug 25 13:01	0°♌		morning rise	4671 Feb 12 09:54	15°♑29'51	
max. Earth dist.	4668 Sep 11 12:57	20°♌55'59	1.73293 AU	direct	4671 Feb 28 03:39	10°♑39'10	
				greatest brilliancy	4671 Mar 09 15:56	12°♑22'48	-4.9m
superior conj	4668 Sep 13 12:14	23°♌21'49	1°21'10		4671 Apr 05 10:04	0°♏	
minimum elong	4668 Sep 13 06:53	23°♌05'20	1°21'06	morning max el	4671 Apr 19 10:48	13°♏14'18	46°45'53
	4668 Sep 18 21:18	0°♍			4671 May 05 12:51	0°♐	
	4668 Oct 13 03:52	0°♎		desc. node	4671 May 07 03:20	1°♐44'07	
evening rise	4668 Oct 20 00:27	8°♎29'09			4671 Jun 01 09:05	0°♑	
	4668 Nov 06 09:40	0°♏			4671 Jun 27 03:57	0°♒	
desc. node	4668 Nov 19 08:12	16°♏01'09			4671 Jul 22 11:23	0°♊	
	4668 Nov 30 15:19	0°♐			4671 Aug 16 11:28	0°♋	
	4668 Dec 24 21:14	0°♑		asc. node	4671 Aug 28 05:12	14°♋11'51	
	4669 Jan 18 04:34	0°♏			4671 Sep 10 05:00	0°♌	
	4669 Feb 11 16:47	0°♐			4671 Oct 04 16:18	0°♍	
	4669 Mar 08 17:12	0°♑		morning set	4671 Oct 16 07:25	14°♍21'25	
asc. node	4669 Mar 12 09:59	4°♑21'02			4671 Oct 28 22:29	0°♎	
	4669 Apr 03 21:04	0°♒		max. Earth dist.	4671 Nov 19 17:44	27°♎07'13	1.72136 AU

	4671 Nov 22 01:12	0°♊		inferior conj	4674 Apr 22 05:35	3°♋02'11	8°17'27
				minimum elong	4674 Apr 22 13:13	2°♋50'17	8°16'32
superior conj	4671 Nov 22 15:31	0°♊44'37 0°55'43		min. Earth dist.	4674 Apr 22 00:28	3°♋10'11	0.27648 AU
minimum elong	4671 Nov 23 01:30	1°♊15'44 0°55'20		morning rise	4674 Apr 26 02:57	0°♋38'58	
	4671 Dec 16 01:50	0°♋			4674 Apr 27 05:46	30°♋♊	
desc. node	4671 Dec 17 20:08	2°♋12'14		direct	4674 May 13 00:46	25°♊07'38	
evening rise	4672 Jan 01 03:12	20°♋05'12		greatest brilliancy	4674 May 22 13:18	26°♊48'13	-4.8m
	4672 Jan 09 01:11	0°♌			4674 May 29 19:09	0°♋	
	4672 Feb 02 00:03	0°♌		desc. node	4674 Jun 03 15:01	2°♋50'47	
	4672 Feb 26 00:01	0°♊		morning max el	4674 Jul 01 07:50	25°♋53'25	46°00'56
	4672 Mar 21 04:01	0°♋			4674 Jul 05 12:25	0°♊	
asc. node	4672 Apr 08 22:00	22°♋59'52			4674 Aug 02 22:44	0°♌	
	4672 Apr 14 16:21	0°♊			4674 Aug 29 11:39	0°♋	
	4672 May 09 19:08	0°♌			4674 Sep 24 01:46	0°♎	
	4672 Jun 04 23:33	0°♋		asc. node	4674 Sep 24 17:07	0°♎45'36	
	4672 Jul 03 13:04	0°♎			4674 Oct 19 00:30	0°♌	
evening max el	4672 Jul 04 06:21	0°♎41'52 45°34'55			4674 Nov 12 12:14	0°♍	
desc. node	4672 Jul 29 12:47	21°♎52'04			4674 Dec 06 16:41	0°♊	
greatest brilliancy	4672 Aug 11 13:39	28°♎42'43 -4.7m		morning set	4674 Dec 26 12:57	24°♊47'16	
	4672 Aug 16 00:18	0°♌			4674 Dec 30 16:48	0°♋	
retrograde	4672 Aug 21 23:48	0°♌39'51		desc. node	4675 Jan 14 07:50	18°♋20'50	
	4672 Aug 27 19:26	30°♋♎			4675 Jan 23 14:28	0°♌	
evening set	4672 Sep 08 10:44	24°♎57'04		max. Earth dist.	4675 Feb 04 16:21	15°♌11'24	1.71148 AU
inferior conj	4672 Sep 12 12:18	22°♎26'41 -8°07'42					
minimum elong	4672 Sep 12 06:02	22°♎36'30 8°07'07		superior conj	4675 Feb 05 07:28	15°♌58'57	-0°49'56
min. Earth dist.	4672 Sep 12 13:54	22°♎24'10 0.29091 AU		minimum elong	4675 Feb 04 20:19	15°♌23'51	0°49'28
morning rise	4672 Sep 16 01:16	20°♎14'54			4675 Feb 16 10:54	0°♌	
direct	4672 Oct 04 03:07	14°♎08'33			4675 Mar 12 07:32	0°♊	
greatest brilliancy	4672 Oct 14 16:49	16°♎09'56 -4.8m		evening rise	4675 Mar 18 06:55	7°♊29'53	
	4672 Nov 05 21:12	0°♌			4675 Apr 05 06:17	0°♋	
asc. node	4672 Nov 19 14:48	12°♌19'01			4675 Apr 29 09:22	0°♊	
morning max el	4672 Nov 22 16:17	15°♌18'23 46°13'05		asc. node	4675 May 07 09:58	9°♊54'45	
	4672 Dec 06 21:25	0°♍			4675 May 23 18:52	0°♌	
	4673 Jan 02 13:07	0°♊			4675 Jun 17 13:07	0°♋	
	4673 Jan 27 18:19	0°♋			4675 Jul 12 20:05	0°♎	
	4673 Feb 21 08:17	0°♌			4675 Aug 08 00:16	0°♌	
desc. node	4673 Mar 11 05:30	22°♌04'15		desc. node	4675 Aug 27 00:30	20°♌42'26	
	4673 Mar 17 15:06	0°♌			4675 Sep 04 23:41	0°♍	
	4673 Apr 10 18:54	0°♊		evening max el	4675 Sep 14 13:43	9°♍27'03	45°45'23
	4673 May 04 22:19	0°♋			4675 Oct 09 02:44	0°♊	
morning set	4673 May 28 15:52	29°♋25'19		greatest brilliancy	4675 Oct 24 06:02	7°♊49'21	-4.8m
	4673 May 29 03:05	0°♊		retrograde	4675 Nov 02 11:00	9°♊22'30	
	4673 Jun 22 09:50	0°♌		evening set	4675 Nov 18 14:13	4°♊24'17	
asc. node	4673 Jul 02 07:33	12°♌12'40		inferior conj	4675 Nov 23 09:52	1°♊31'46	-5°42'56
				minimum elong	4675 Nov 23 20:04	1°♊16'06	5°40'32
superior conj	4673 Jul 05 10:08	16°♌02'22 0°07'29		min. Earth dist.	4675 Nov 24 09:07	0°♊56'05	0.27647 AU
minimum elong	4673 Jul 05 08:31	15°♌57'24 0°07'23			4675 Nov 25 21:56	30°♍♌	
behind sun begin	4673 Jul 04 11:49	14°♌53'39		morning rise	4675 Nov 29 01:14	28°♍10'12	
behind sun end	4673 Jul 06 05:14	17°♌01'10		direct	4675 Dec 14 10:35	23°♍30'36	
max. Earth dist.	4673 Jul 06 21:04	17°♌49'55 1.73268 AU		asc. node	4675 Dec 18 02:33	23°♍46'37	
	4673 Jul 16 18:15	0°♋		greatest brilliancy	4675 Dec 25 15:38	25°♍51'44	-4.9m
	4673 Aug 10 03:41	0°♎			4676 Jan 02 18:39	0°♊	
evening rise	4673 Aug 10 23:19	1°♎00'20		morning max el	4676 Feb 03 02:26	26°♊40'59	46°54'25
	4673 Sep 03 14:09	0°♌			4676 Feb 06 08:05	0°♋	
	4673 Sep 28 02:30	0°♍			4676 Mar 04 15:25	0°♌	
desc. node	4673 Oct 21 22:23	29°♍00'53			4676 Mar 30 06:22	0°♌	
	4673 Oct 22 17:52	0°♊		desc. node	4676 Apr 07 17:32	10°♌06'48	
	4673 Nov 16 13:19	0°♋			4676 Apr 24 05:25	0°♊	
	4673 Dec 11 14:53	0°♌			4676 May 18 21:47	0°♋	
	4674 Jan 06 04:55	0°♌			4676 Jun 12 11:47	0°♊	
	4674 Feb 02 03:41	0°♊			4676 Jul 07 01:01	0°♌	
evening max el	4674 Feb 09 12:10	7°♊38'40 47°09'20		asc. node	4676 Jul 29 19:22	27°♌51'43	
asc. node	4674 Feb 12 00:12	10°♊10'02			4676 Jul 31 13:15	0°♋	
	4674 Mar 06 07:31	0°♋		morning set	4676 Aug 05 17:33	6°♋20'55	
greatest brilliancy	4674 Mar 22 03:55	9°♋07'24 -4.9m			4676 Aug 24 23:41	0°♎	
retrograde	4674 Apr 01 06:55	11°♋04'24		max. Earth dist.	4676 Sep 09 10:46	19°♎02'25	1.73315 AU
evening set	4674 Apr 18 23:38	5°♋02'38					

superior conj	4676 Sep 11 06:12	21° \cap 16'20	1°20'07			4679 Apr 05 16:32	0° H	
minimum elong	4676 Sep 11 00:20	20° \cap 58'14	1°20'02	morning max el		4679 Apr 16 22:55	10° H 46'43	46°47'11
	4676 Sep 18 07:57	0° $\underline{\text{L}}$				4679 May 05 07:08	0° Y	
	4676 Oct 12 14:38	0° M		desc. node		4679 May 06 05:19	1° Y 00'26	
evening rise	4676 Oct 17 16:58	6° M 18'21				4679 May 31 23:45	0° B	
	4676 Nov 05 20:38	0° Z				4679 Jun 26 16:56	0° II	
desc. node	4676 Nov 18 10:15	15° Z 33'08				4679 Jul 21 23:24	0° D	
	4676 Nov 30 02:34	0° Z				4679 Aug 15 22:56	0° Ω	
	4676 Dec 24 08:49	0° \approx		asc. node		4679 Aug 27 07:16	13° Ω 43'55	
	4677 Jan 17 16:37	0° H				4679 Sep 09 16:08	0° \cap	
	4677 Feb 11 05:32	0° Y				4679 Oct 04 03:17	0° $\underline{\text{L}}$	
	4677 Mar 08 07:13	0° B		morning set		4679 Oct 14 00:11	12° $\underline{\text{L}}$ 11'04	
asc. node	4677 Mar 11 12:07	3° B 45'30				4679 Oct 28 09:25	0° M	
	4677 Apr 03 13:52	0° II		max. Earth dist.		4679 Nov 17 06:43	24° M 44'00	1.72184 AU
evening max el	4677 Apr 22 07:00	19° II 41'06	46°24'14					
	4677 May 03 03:30	0° D		superior conj		4679 Nov 20 06:19	28° M 27'04	0°58'20
greatest brilliancy	4677 May 31 00:57	19° D 10'52	-4.8m	minimum elong		4679 Nov 20 16:22	28° M 58'20	0°57'59
retrograde	4677 Jun 11 02:44	21° D 25'49				4679 Nov 21 12:09	0° Z	
evening set	4677 Jun 26 02:38	17° D 00'25				4679 Dec 15 12:53	0° Z	
desc. node	4677 Jul 01 02:50	14° D 01'46		desc. node		4679 Dec 16 22:03	1° Z 43'38	
inferior conj	4677 Jul 02 10:44	13° D 11'58	-0°19'15	evening rise		4679 Dec 29 15:24	17° Z 38'19	
minimum elong	4677 Jul 02 10:01	13° D 13'05	0°19'02			4680 Jan 08 12:24	0° \approx	
min. Earth dist.	4677 Jul 02 02:48	13° D 24'21	0.28565 AU			4680 Feb 01 11:26	0° H	
morning rise	4677 Jul 08 17:57	9° D 26'01				4680 Feb 25 11:37	0° Y	
direct	4677 Jul 23 19:49	5° D 02'40				4680 Mar 20 15:56	0° B	
greatest brilliancy	4677 Aug 02 19:08	6° D 50'50	-4.7m	asc. node		4680 Apr 08 00:04	22° B 28'40	
	4677 Sep 05 11:20	0° Ω				4680 Apr 14 04:49	0° II	
morning max el	4677 Sep 10 13:14	4° Ω 44'44	45°42'25			4680 May 09 08:38	0° D	
	4677 Oct 05 04:14	0° \cap				4680 Jun 04 15:17	0° Ω	
asc. node	4677 Oct 22 05:07	18° \cap 55'51		evening max el		4680 Jul 01 20:46	28° Ω 27'01	45°35'43
	4677 Oct 31 20:22	0° $\underline{\text{L}}$				4680 Jul 03 11:28	0° \cap	
	4677 Nov 26 04:40	0° M		desc. node		4680 Jul 28 14:45	20° \cap 37'28	
	4677 Dec 20 19:41	0° Z		greatest brilliancy		4680 Aug 09 04:46	26° \cap 32'15	-4.7m
	4678 Jan 14 01:10	0° Z		retrograde		4680 Aug 19 15:25	28° \cap 30'27	
	4678 Feb 07 01:38	0° \approx		evening set		4680 Sep 05 23:55	22° \cap 51'39	
desc. node	4678 Feb 10 19:38	4° \approx 41'49		inferior conj		4680 Sep 10 04:35	20° \cap 16'51	-8°00'46
	4678 Mar 02 23:44	0° H		minimum elong		4680 Sep 09 21:44	20° \cap 27'36	8°00'02
morning set	4678 Mar 13 01:04	12° H 37'23		min. Earth dist.		4680 Sep 10 05:31	20° \cap 15'22	0.29106 AU
	4678 Mar 26 21:21	0° Y		morning rise		4680 Sep 13 19:26	18° \cap 02'12	
	4678 Apr 19 20:11	0° B		direct		4680 Oct 01 18:58	11° \cap 58'27	
				greatest brilliancy		4680 Oct 12 09:10	13° \cap 59'49	-4.8m
superior conj	4678 Apr 22 12:41	3° B 21'31	-1°20'14			4680 Nov 06 04:28	0° $\underline{\text{L}}$	
minimum elong	4678 Apr 22 20:47	3° B 46'48	1°20'05	asc. node		4680 Nov 18 16:44	11° $\underline{\text{L}}$ 27'56	
max. Earth dist.	4678 Apr 26 11:08	8° B 16'26	1.71897 AU	morning max el		4680 Nov 20 06:44	13° $\underline{\text{L}}$ 01'03	46°11'34
	4678 May 13 21:47	0° II				4680 Dec 06 15:17	0° M	
evening rise	4678 May 31 22:18	22° II 20'27				4681 Jan 02 03:39	0° Z	
asc. node	4678 Jun 03 21:47	26° II 01'16				4681 Jan 27 07:25	0° Z	
	4678 Jun 07 03:07	0° D				4681 Feb 20 20:37	0° \approx	
	4678 Jul 01 12:37	0° Ω		desc. node		4681 Mar 10 07:38	21° \approx 33'52	
	4678 Jul 26 02:47	0° \cap				4681 Mar 17 02:58	0° H	
	4678 Aug 19 23:08	0° $\underline{\text{L}}$				4681 Apr 10 06:26	0° Y	
	4678 Sep 14 04:35	0° M				4681 May 04 09:36	0° B	
desc. node	4678 Sep 23 12:28	10° M 56'15		morning set		4681 May 26 06:59	27° B 09'09	
	4678 Oct 10 00:13	0° Z				4681 May 28 14:11	0° II	
	4678 Nov 05 21:09	0° Z				4681 Jun 21 20:49	0° D	
evening max el	4678 Nov 26 11:51	21° Z 26'16	46°42'16	asc. node		4681 Jul 01 09:34	11° D 45'14	
	4678 Dec 05 11:03	0° \approx						
greatest brilliancy	4679 Jan 05 15:48	21° \approx 43'12	-4.9m	superior conj		4681 Jul 03 03:01	13° D 52'57	0°04'10
asc. node	4679 Jan 14 14:26	23° \approx 33'53		minimum elong		4681 Jul 03 02:06	13° D 50'08	0°04'07
retrograde	4679 Jan 15 15:13	23° \approx 35'10		behind sun begin		4681 Jul 02 03:34	12° D 40'42	
evening set	4679 Jan 30 10:37	19° \approx 14'42		behind sun end		4681 Jul 04 00:38	14° D 59'34	
min. Earth dist.	4679 Feb 04 17:53	16° \approx 07'20	0.26650 AU	max. Earth dist.		4681 Jul 04 15:11	15° D 44'22	1.73237 AU
inferior conj	4679 Feb 05 04:11	15° \approx 51'34	5°16'44			4681 Jul 16 05:09	0° Ω	
minimum elong	4679 Feb 04 18:00	16° \approx 07'10	5°14'01	evening rise		4681 Aug 08 17:51	28° Ω 56'16	
morning rise	4679 Feb 10 01:33	12° \approx 57'01				4681 Aug 09 14:36	0° \cap	
direct	4679 Feb 25 16:03	8° \approx 11'20				4681 Sep 03 01:14	0° $\underline{\text{L}}$	
greatest brilliancy	4679 Mar 07 05:48	9° \approx 55'54	-4.9m			4681 Sep 27 13:55	0° M	

desc. node	4681 Oct 21 00:23	28°♍30'47		4684 Mar 29 20:11	0°♋	
	4681 Oct 22 05:48	0°♊		desc. node	4684 Apr 06 19:32	9°♋32'41
	4681 Nov 16 02:00	0°♊			4684 Apr 23 18:06	0°♊
	4681 Dec 11 04:41	0°♋			4684 May 18 09:46	0°♋
	4682 Jan 05 20:44	0°♋			4684 Jun 11 23:16	0°♌
	4682 Feb 02 00:14	0°♊			4684 Jul 06 12:09	0°♌
evening max el	4682 Feb 07 01:24	5°♊12'48	47°09'53	asc. node	4684 Jul 28 21:28	27°♌24'38
asc. node	4682 Feb 11 02:20	9°♊15'52			4684 Jul 31 00:10	0°♌
	4682 Mar 07 05:51	0°♋		morning set	4684 Aug 03 11:07	4°♌14'13
greatest brilliancy	4682 Mar 19 18:30	6°♋44'59	-4.9m		4684 Aug 24 10:29	0°♍
retrograde	4682 Mar 29 21:11	8°♋42'15		max. Earth dist.	4684 Sep 07 07:15	17°♍04'19 1.73333 AU
evening set	4682 Apr 16 16:20	2°♋36'26				
inferior conj	4682 Apr 19 19:37	0°♋40'19	8°26'06	superior conj	4684 Sep 09 00:17	19°♍10'47 1°18'59
minimum elong	4682 Apr 20 02:36	0°♋29'26	8°25'21	minimum elong	4684 Sep 08 17:55	18°♍51'10 1°18'52
min. Earth dist.	4682 Apr 19 14:02	0°♋49'00	0.27618 AU		4684 Sep 17 18:45	0°♎
	4682 Apr 20 21:31	30°♋♊			4684 Oct 12 01:31	0°♎
morning rise	4682 Apr 23 12:59	28°♊23'17		evening rise	4684 Oct 15 09:40	4°♎07'49
direct	4682 May 10 14:02	22°♊46'02			4684 Nov 05 07:41	0°♊
greatest brilliancy	4682 May 20 02:37	24°♊26'57	-4.8m	desc. node	4684 Nov 17 12:12	15°♊04'33
	4682 May 31 09:44	0°♋			4684 Nov 29 13:54	0°♊
desc. node	4682 Jun 02 17:00	1°♋29'25			4684 Dec 23 20:32	0°♋
morning max el	4682 Jun 28 22:42	23°♋36'58	46°02'26		4685 Jan 17 04:51	0°♋
	4682 Jul 05 09:43	0°♌			4685 Feb 10 18:32	0°♊
	4682 Aug 02 14:20	0°♌			4685 Mar 07 21:34	0°♋
	4682 Aug 29 00:59	0°♌		asc. node	4685 Mar 10 14:08	3°♋08'47
asc. node	4682 Sep 23 19:15	0°♍15'44			4685 Apr 03 07:15	0°♌
	4682 Sep 23 13:57	0°♍		evening max el	4685 Apr 19 23:03	17°♌26'57 46°26'20
	4682 Oct 18 12:05	0°♎			4685 May 03 07:46	0°♌
	4682 Nov 11 23:31	0°♎		greatest brilliancy	4685 May 28 17:43	16°♌59'14 -4.8m
	4682 Dec 06 03:53	0°♊		retrograde	4685 Jun 08 18:57	19°♌13'20
morning set	4682 Dec 24 01:43	22°♊22'05		evening set	4685 Jun 23 19:17	14°♌47'33
	4682 Dec 30 03:59	0°♊		inferior conj	4685 Jun 30 02:31	10°♌59'54 0°01'26
desc. node	4683 Jan 13 09:53	17°♊52'17		minimum elong	4685 Jun 30 02:34	10°♌59'49 0°01'24
	4683 Jan 23 01:38	0°♋		transit middle	4685 Jun 30 02:34	10°♌59'49 0°01'24
max. Earth dist.	4683 Feb 02 00:54	12°♋32'10	1.71159 AU	transit begin	4685 Jun 29 22:32	11°♌06'08
				transit end	4685 Jun 30 06:37	10°♌53'30
superior conj	4683 Feb 02 17:41	13°♋24'58	-0°46'35	min. Earth dist.	4685 Jun 29 18:45	11°♌12'04 0.28530 AU
minimum elong	4683 Feb 02 07:00	12°♋51'20	0°46'07	desc. node	4685 Jun 30 04:53	10°♌56'12
	4683 Feb 15 22:04	0°♋		morning rise	4685 Jul 06 10:29	7°♌12'52
	4683 Mar 11 18:43	0°♊		direct	4685 Jul 21 11:43	2°♌51'21
evening rise	4683 Mar 15 17:18	4°♊56'50		greatest brilliancy	4685 Jul 31 09:48	4°♌38'33 -4.7m
	4683 Apr 04 17:32	0°♋			4685 Sep 05 11:37	0°♌
	4683 Apr 28 20:44	0°♌		morning max el	4685 Sep 08 04:24	2°♌32'50 45°42'09
asc. node	4683 May 06 11:55	9°♌25'29			4685 Oct 04 20:20	0°♍
	4683 May 23 06:30	0°♌		asc. node	4685 Oct 21 06:59	18°♍20'43
	4683 Jun 17 01:15	0°♌			4685 Oct 31 09:52	0°♎
	4683 Jul 12 09:11	0°♍			4685 Nov 25 16:59	0°♎
	4683 Aug 07 15:20	0°♎			4685 Dec 20 07:23	0°♊
desc. node	4683 Aug 26 02:40	20°♎01'04			4686 Jan 13 12:32	0°♊
	4683 Sep 04 19:50	0°♎			4686 Feb 06 12:49	0°♋
evening max el	4683 Sep 12 04:44	7°♎13'06	45°44'05	desc. node	4686 Feb 09 21:47	4°♋13'32
	4683 Oct 10 05:47	0°♊			4686 Mar 02 10:49	0°♋
greatest brilliancy	4683 Oct 21 18:38	5°♊30'12	-4.8m	morning set	4686 Mar 10 11:15	10°♋04'04
retrograde	4683 Oct 31 01:04	7°♊04'00			4686 Mar 26 08:21	0°♊
evening set	4683 Nov 16 07:10	2°♊01'06			4686 Apr 19 07:06	0°♋
	4683 Nov 19 16:48	30°♋♌				
inferior conj	4683 Nov 20 23:55	29°♌12'15	-5°59'11	superior conj	4686 Apr 20 00:59	0°♋55'52 -1°21'38
minimum elong	4683 Nov 21 10:13	28°♌56'26	5°56'51	minimum elong	4686 Apr 20 08:23	1°♋18'58 1°21'30
min. Earth dist.	4683 Nov 21 22:55	28°♌36'54	0.27717 AU	max. Earth dist.	4686 Apr 24 00:49	5°♋55'12 1.71844 AU
morning rise	4683 Nov 26 12:42	25°♌54'17			4686 May 13 08:39	0°♌
direct	4683 Dec 12 01:57	21°♌10'17		evening rise	4686 May 29 12:46	20°♌03'07
asc. node	4683 Dec 17 04:33	21°♌41'05		asc. node	4686 Jun 02 23:45	25°♌33'49
greatest brilliancy	4683 Dec 23 06:07	23°♌30'50	-4.9m		4686 Jun 06 13:59	0°♌
	4684 Jan 04 00:15	0°♊			4686 Jun 30 23:36	0°♌
morning max el	4684 Jan 31 17:48	24°♊21'16	46°53'25		4686 Jul 25 14:03	0°♍
	4684 Feb 06 05:05	0°♊			4686 Aug 19 10:55	0°♎
	4684 Mar 04 07:18	0°♋			4686 Sep 13 17:17	0°♎

desc. node	4686 Sep 22 14:26	10° \mathbb{M} 23'33		morning set	4689 May 23 22:14	24° \mathcal{B} 54'35	
	4686 Oct 09 14:34	0° \mathcal{A}			4689 May 28 00:50	0° \mathbb{I}	
	4686 Nov 05 14:56	0° \mathcal{B}			4689 Jun 21 07:22	0° \mathcal{C}	
evening max el	4686 Nov 24 00:56	19° \mathcal{B} 02'38	46°40'18	asc. node	4689 Jun 30 11:41	11° \mathcal{C} 19'20	
	4686 Dec 05 15:52	0° \mathcal{A}					
greatest brilliancy	4687 Jan 03 05:33	19° \mathcal{A} 17'18	-4.9m	superior conj	4689 Jun 30 19:50	11° \mathcal{C} 44'29	0°00'50
retrograde	4687 Jan 13 03:08	21° \mathcal{A} 07'47		minimum elong	4689 Jun 30 19:39	11° \mathcal{C} 43'56	0°00'49
asc. node	4687 Jan 13 16:30	21° \mathcal{A} 07'24		behind sun begin	4689 Jun 29 20:30	10° \mathcal{C} 32'36	
evening set	4687 Jan 27 20:42	16° \mathcal{A} 51'12		behind sun end	4689 Jul 01 18:48	12° \mathcal{C} 55'16	
inferior conj	4687 Feb 02 16:45	13° \mathcal{A} 24'56	4°56'33	max. Earth dist.	4689 Jul 02 09:31	13° \mathcal{C} 40'35	1.73210 AU
minimum elong	4687 Feb 02 06:57	13° \mathcal{A} 39'57	4°53'51		4689 Jul 15 15:39	0° \mathcal{Q}	
min. Earth dist.	4687 Feb 02 07:47	13° \mathcal{A} 38'40	0.26638 AU	evening rise	4689 Aug 06 12:17	26° \mathcal{Q} 53'04	
morning rise	4687 Feb 07 17:16	10° \mathcal{A} 25'45			4689 Aug 09 01:09	0° \mathbb{M}	
direct	4687 Feb 23 04:11	5° \mathcal{A} 44'37			4689 Sep 02 11:57	0° \mathcal{Q}	
greatest brilliancy	4687 Mar 04 20:15	7° \mathcal{A} 30'49	-4.9m		4689 Sep 27 00:57	0° \mathbb{M}	
	4687 Apr 05 20:37	0° \mathcal{H}		desc. node	4689 Oct 20 02:20	28° \mathbb{M} 01'46	
morning max el	4687 Apr 14 10:47	8° \mathcal{H} 19'05	46°48'19		4689 Oct 21 17:22	0° \mathcal{A}	
desc. node	4687 May 05 07:18	0° \mathcal{Y} 17'53			4689 Nov 15 14:20	0° \mathcal{B}	
	4687 May 05 00:46	0° \mathcal{Y}			4689 Dec 10 18:12	0° \mathcal{A}	
	4687 May 31 14:06	0° \mathcal{B}			4690 Jan 05 12:22	0° \mathcal{H}	
	4687 Jun 26 05:41	0° \mathbb{I}			4690 Feb 01 21:02	0° \mathcal{Y}	
	4687 Jul 21 11:13	0° \mathcal{C}		evening max el	4690 Feb 04 15:39	2° \mathcal{Y} 50'48	47°10'22
	4687 Aug 15 10:11	0° \mathcal{Q}		asc. node	4690 Feb 10 04:23	8° \mathcal{Y} 21'41	
asc. node	4687 Aug 26 09:20	13° \mathcal{Q} 16'41			4690 Mar 08 11:49	0° \mathcal{B}	
	4687 Sep 09 03:02	0° \mathbb{M}		greatest brilliancy	4690 Mar 17 08:38	4° \mathcal{B} 23'20	-4.9m
	4687 Oct 03 13:59	0° \mathcal{Q}		retrograde	4690 Mar 27 12:03	6° \mathcal{B} 21'24	
morning set	4687 Oct 11 16:56	10° \mathcal{Q} 01'26		evening set	4690 Apr 14 08:50	0° \mathcal{B} 11'51	
	4687 Oct 27 20:04	0° \mathbb{M}			4690 Apr 14 16:39	30° \mathcal{R} \mathcal{Y}	
max. Earth dist.	4687 Nov 14 21:45	22° \mathbb{M} 28'02	1.72233 AU	inferior conj	4690 Apr 17 09:36	28° \mathcal{Y} 19'43	8°33'51
				minimum elong	4690 Apr 17 15:55	28° \mathcal{Y} 09'54	8°33'14
superior conj	4687 Nov 17 21:17	26° \mathbb{M} 10'49	1°00'51	min. Earth dist.	4690 Apr 17 03:14	28° \mathcal{Y} 29'38	0.27583 AU
minimum elong	4687 Nov 18 07:20	26° \mathbb{M} 42'04	1°00'30	morning rise	4690 Apr 20 23:10	26° \mathcal{Y} 08'42	
	4687 Nov 20 22:52	0° \mathcal{A}		direct	4690 May 08 03:45	20° \mathcal{Y} 25'57	
	4687 Dec 14 23:42	0° \mathcal{B}		greatest brilliancy	4690 May 17 15:14	22° \mathcal{Y} 06'29	-4.8m
desc. node	4687 Dec 16 00:08	1° \mathcal{B} 16'20			4690 Jun 01 11:54	0° \mathcal{B}	
evening rise	4687 Dec 27 03:55	15° \mathcal{B} 13'22		desc. node	4690 Jun 01 19:03	0° \mathcal{B} 12'24	
	4688 Jan 07 23:20	0° \mathcal{A}		morning max el	4690 Jun 26 14:03	21° \mathcal{B} 23'16	46°03'52
	4688 Jan 31 22:31	0° \mathcal{H}			4690 Jul 05 05:41	0° \mathbb{I}	
	4688 Feb 24 22:52	0° \mathcal{Y}			4690 Aug 02 05:11	0° \mathcal{C}	
	4688 Mar 20 03:31	0° \mathcal{B}			4690 Aug 28 13:46	0° \mathcal{Q}	
asc. node	4688 Apr 07 02:00	21° \mathcal{B} 58'03		asc. node	4690 Sep 22 21:07	29° \mathcal{Q} 46'24	
	4688 Apr 13 16:59	0° \mathbb{I}			4690 Sep 23 01:41	0° \mathbb{M}	
	4688 May 08 21:54	0° \mathcal{C}			4690 Oct 17 23:15	0° \mathcal{Q}	
	4688 Jun 04 06:58	0° \mathcal{Q}			4690 Nov 11 10:25	0° \mathbb{M}	
evening max el	4688 Jun 29 11:27	26° \mathcal{Q} 13'35	45°36'39		4690 Dec 05 14:39	0° \mathcal{A}	
	4688 Jul 03 10:29	0° \mathbb{M}		morning set	4690 Dec 21 14:37	19° \mathcal{A} 58'45	
desc. node	4688 Jul 27 16:54	19° \mathbb{M} 21'47			4690 Dec 29 14:43	0° \mathcal{B}	
greatest brilliancy	4688 Aug 06 19:29	24° \mathbb{M} 22'10	-4.7m	desc. node	4691 Jan 12 11:56	17° \mathcal{B} 25'00	
retrograde	4688 Aug 17 07:38	26° \mathbb{M} 22'09			4691 Jan 22 12:23	0° \mathcal{A}	
evening set	4688 Sep 03 13:05	20° \mathbb{M} 47'14		max. Earth dist.	4691 Jan 30 09:49	9° \mathcal{A} 55'22	1.71174 AU
inferior conj	4688 Sep 07 20:54	18° \mathbb{M} 08'00	-7°53'07				
minimum elong	4688 Sep 07 13:31	18° \mathbb{M} 19'34	7°52'15	superior conj	4691 Jan 31 03:57	10° \mathcal{A} 52'23	-0°43'09
min. Earth dist.	4688 Sep 07 20:58	18° \mathbb{M} 07'54	0.29117 AU	minimum elong	4691 Jan 30 17:48	10° \mathcal{A} 20'30	0°42'42
morning rise	4688 Sep 11 13:50	15° \mathbb{M} 50'23			4691 Feb 15 08:51	0° \mathcal{H}	
direct	4688 Sep 29 10:57	9° \mathbb{M} 49'25			4691 Mar 11 05:33	0° \mathcal{Y}	
greatest brilliancy	4688 Oct 10 01:23	11° \mathbb{M} 50'54	-4.8m	evening rise	4691 Mar 13 03:44	2° \mathcal{Y} 24'57	
	4688 Nov 06 09:02	0° \mathcal{Q}			4691 Apr 04 04:25	0° \mathcal{B}	
asc. node	4688 Nov 17 18:49	10° \mathcal{Q} 39'17			4691 Apr 28 07:43	0° \mathbb{I}	
morning max el	4688 Nov 17 21:58	10° \mathcal{Q} 47'00	46°10'02	asc. node	4691 May 05 13:57	8° \mathbb{I} 57'45	
	4688 Dec 06 08:20	0° \mathbb{M}			4691 May 22 17:42	0° \mathcal{C}	
	4689 Jan 01 17:38	0° \mathcal{A}			4691 Jun 16 12:58	0° \mathcal{Q}	
	4689 Jan 26 20:04	0° \mathcal{B}			4691 Jul 11 21:53	0° \mathbb{M}	
	4689 Feb 20 08:33	0° \mathcal{A}			4691 Aug 07 06:10	0° \mathcal{Q}	
desc. node	4689 Mar 09 09:36	21° \mathcal{A} 04'11		desc. node	4691 Aug 25 04:35	19° \mathcal{Q} 19'46	
	4689 Mar 16 14:24	0° \mathcal{H}			4691 Sep 04 16:12	0° \mathbb{M}	
	4689 Apr 09 17:30	0° \mathcal{Y}		evening max el	4691 Sep 09 20:01	5° \mathbb{M} 00'57	45°42'41
	4689 May 03 20:25	0° \mathcal{B}			4691 Oct 11 19:25	0° \mathcal{A}	

greatest brilliancy	4691 Oct 19 07:58	3°♊13'13	-4.8m	superior conj	4694 Apr 17 13:09	28°♊30'02	-1°22'52
retrograde	4691 Oct 28 14:52	4°♊46'52		minimum elong	4694 Apr 17 19:47	28°♊50'44	1°22'47
	4691 Nov 13 09:52	30°♋			4694 Apr 18 17:56	0°♋	
evening set	4691 Nov 14 00:19	29°♋39'33		max. Earth dist.	4694 Apr 21 12:35	3°♋28'13	1.71794 AU
inferior conj	4691 Nov 18 14:09	26°♋54'25	-6°14'43		4694 May 12 19:27	0°♌	
minimum elong	4691 Nov 19 00:28	26°♋38'30	6°12'28	evening rise	4694 May 27 03:04	17°♌45'18	
min. Earth dist.	4691 Nov 19 13:01	26°♋19'11	0.27784 AU	asc. node	4694 Jun 02 01:53	25°♌06'54	
morning rise	4691 Nov 24 00:07	23°♋40'00			4694 Jun 06 00:50	0°♍	
direct	4691 Dec 09 17:18	18°♋51'43			4694 Jun 30 10:35	0°♎	
asc. node	4691 Dec 16 06:37	19°♋41'49			4694 Jul 25 01:18	0°♏	
greatest brilliancy	4691 Dec 20 20:36	21°♋11'18	-4.9m		4694 Aug 18 22:40	0°♐	
	4692 Jan 04 21:05	0°♋			4694 Sep 13 05:58	0°♑	
morning max el	4692 Jan 29 08:19	22°♋00'36	46°52'19	desc. node	4694 Sep 21 16:25	9°♑50'59	
	4692 Feb 06 00:58	0°♌			4694 Oct 09 05:00	0°♊	
	4692 Mar 03 22:34	0°♍			4694 Nov 05 09:09	0°♋	
	4692 Mar 29 09:32	0°♌		evening max el	4694 Nov 21 13:14	16°♋37'05	46°38'09
desc. node	4692 Apr 05 21:26	8°♌59'27			4694 Dec 05 22:56	0°♍	
	4692 Apr 23 06:25	0°♎		greatest brilliancy	4694 Dec 31 19:02	16°♍50'21	-4.9m
	4692 May 17 21:24	0°♏		retrograde	4695 Jan 10 14:59	18°♍39'44	
	4692 Jun 11 10:25	0°♌		asc. node	4695 Jan 12 18:32	18°♍34'07	
	4692 Jul 05 22:56	0°♍		evening set	4695 Jan 25 06:45	14°♍26'15	
asc. node	4692 Jul 27 23:28	26°♍58'23		inferior conj	4695 Jan 31 05:08	10°♍57'20	4°35'28
	4692 Jul 30 10:44	0°♎		minimum elong	4695 Jan 30 19:47	11°♍11'38	4°32'51
morning set	4692 Aug 01 04:57	2°♎09'24		min. Earth dist.	4695 Jan 30 21:35	11°♍08'52	0.26632 AU
	4692 Aug 23 20:57	0°♏		morning rise	4695 Feb 05 08:46	7°♍53'48	
max. Earth dist.	4692 Sep 05 02:54	15°♏04'44	1.73354 AU	direct	4695 Feb 20 15:59	3°♍16'37	
				greatest brilliancy	4695 Mar 02 10:47	5°♍04'58	-4.9m
superior conj	4692 Sep 06 18:35	17°♏06'58	1°17'44		4695 Apr 05 23:18	0°♋	
minimum elong	4692 Sep 06 11:45	16°♏45'57	1°17'36	morning max el	4695 Apr 11 23:14	5°♋52'15	46°49'32
	4692 Sep 17 05:16	0°♐		desc. node	4695 May 04 09:26	29°♋35'57	
	4692 Oct 11 12:09	0°♑			4695 May 04 18:09	0°♎	
evening rise	4692 Oct 13 02:30	1°♑58'31			4695 May 31 04:24	0°♏	
	4692 Nov 04 18:32	0°♊			4695 Jun 25 18:27	0°♌	
desc. node	4692 Nov 16 14:18	14°♊37'02			4695 Jul 20 23:07	0°♍	
	4692 Nov 29 01:01	0°♋			4695 Aug 14 21:31	0°♎	
	4692 Dec 23 08:03	0°♌		asc. node	4695 Aug 25 11:15	12°♎48'40	
	4693 Jan 16 16:54	0°♍			4695 Sep 08 14:02	0°♏	
	4693 Feb 10 07:24	0°♎			4695 Oct 03 00:48	0°♐	
	4693 Mar 07 11:52	0°♏		morning set	4695 Oct 09 09:57	7°♐52'25	
asc. node	4693 Mar 09 16:03	2°♏32'09			4695 Oct 27 06:49	0°♑	
	4693 Apr 03 00:48	0°♌		max. Earth dist.	4695 Nov 12 15:27	20°♑20'05	1.72281 AU
evening max el	4693 Apr 17 14:16	15°♌11'03	46°28'21				
	4693 May 03 13:48	0°♍		superior conj	4695 Nov 15 12:33	23°♑55'12	1°03'15
greatest brilliancy	4693 May 26 11:10	14°♍48'42	-4.8m	minimum elong	4695 Nov 15 22:30	24°♑26'11	1°02'55
retrograde	4693 Jun 06 10:44	17°♍01'16			4695 Nov 20 09:40	0°♊	
evening set	4693 Jun 21 12:05	12°♍34'54			4695 Dec 14 10:39	0°♋	
inferior conj	4693 Jun 27 18:19	8°♍48'27	0°22'10	desc. node	4695 Dec 15 02:12	0°♌48'35	
minimum elong	4693 Jun 27 19:09	8°♍47'10	0°21'54	evening rise	4695 Dec 24 16:38	12°♌48'39	
min. Earth dist.	4693 Jun 27 11:03	8°♍59'52	0.28491 AU		4696 Jan 07 10:28	0°♍	
desc. node	4693 Jun 29 06:56	7°♍51'13			4696 Jan 31 09:49	0°♋	
morning rise	4693 Jul 04 02:49	5°♍00'25			4696 Feb 24 10:24	0°♎	
direct	4693 Jul 19 03:07	0°♍40'37			4696 Mar 19 15:24	0°♏	
greatest brilliancy	4693 Jul 29 00:49	2°♍27'12	-4.7m	asc. node	4696 Apr 06 04:04	21°♏26'56	
	4693 Sep 05 10:29	0°♎			4696 Apr 13 05:29	0°♌	
morning max el	4693 Sep 05 18:48	0°♎19'47	45°42'02		4696 May 08 11:34	0°♍	
	4693 Oct 04 11:55	0°♏			4696 Jun 03 23:12	0°♎	
asc. node	4693 Oct 20 09:06	17°♏47'11		evening max el	4696 Jun 27 02:46	24°♎00'55	45°37'42
	4693 Oct 30 23:02	0°♐			4696 Jul 03 10:58	0°♏	
	4693 Nov 25 05:05	0°♑		desc. node	4696 Jul 26 18:50	18°♏02'31	
	4693 Dec 19 18:57	0°♊		greatest brilliancy	4696 Aug 04 09:44	22°♏10'38	-4.7m
	4694 Jan 12 23:49	0°♋		retrograde	4696 Aug 15 00:16	24°♏12'45	
	4694 Feb 05 23:56	0°♌		evening set	4696 Sep 01 02:05	18°♏41'49	
desc. node	4694 Feb 08 23:45	3°♌44'58		inferior conj	4696 Sep 05 13:05	15°♏58'01	-7°44'42
	4694 Mar 01 21:49	0°♍		minimum elong	4696 Sep 05 05:13	16°♏10'19	7°43'43
morning set	4694 Mar 07 21:13	7°♍30'15		min. Earth dist.	4696 Sep 05 12:01	15°♏59'41	0.29124 AU
	4694 Mar 25 19:15	0°♎		morning rise	4696 Sep 09 08:17	13°♏37'13	
				direct	4696 Sep 27 03:08	7°♏39'21	

greatest brilliancy	4696 Oct 07 16:54	9° \mathbb{M} 40'24	-4.8m		4699 Mar 10 16:42	0° Υ	
	4696 Nov 06 12:10	0° $\underline{\mathbf{a}}$			4699 Apr 03 15:40	0° \mathcal{B}	
morning max el	4696 Nov 15 14:00	8° $\underline{\mathbf{a}}$ 34'34	46°08'39		4699 Apr 27 19:07	0° \mathbb{I}	
asc. node	4696 Nov 16 20:52	9° $\underline{\mathbf{a}}$ 50'46		asc. node	4699 May 04 16:01	8° \mathbb{I} 28'45	
	4696 Dec 06 01:15	0° \mathbb{M}			4699 May 22 05:23	0° \mathcal{C}	
	4697 Jan 01 07:41	0° \mathcal{Z}			4699 Jun 16 01:12	0° Ω	
	4697 Jan 26 08:53	0° \mathcal{Z}			4699 Jul 11 11:12	0° \mathbb{M}	
	4697 Feb 19 20:42	0° \approx			4699 Aug 06 21:45	0° $\underline{\mathbf{a}}$	
desc. node	4697 Mar 08 11:35	20° \approx 33'39		desc. node	4699 Aug 24 06:35	18° $\underline{\mathbf{a}}$ 36'45	
	4697 Mar 16 02:08	0° \mathcal{H}			4699 Sep 04 13:55	0° \mathbb{M}	
	4697 Apr 09 04:56	0° Υ		evening max el	4699 Sep 07 10:37	2° \mathbb{M} 45'42	45°41'20
	4697 May 03 07:38	0° \mathcal{B}			4699 Oct 14 08:14	0° \mathcal{Z}	
morning set	4697 May 21 12:54	22° \mathcal{B} 36'59		greatest brilliancy	4699 Oct 16 21:47	0° \mathcal{Z} 55'25	-4.8m
	4697 May 27 11:52	0° \mathbb{I}		retrograde	4699 Oct 26 04:02	2° \mathcal{Z} 28'23	
	4697 Jun 20 18:16	0° \mathcal{C}			4699 Nov 06 09:25	30° \mathbb{R} \mathbb{M}	
				evening set	4699 Nov 11 17:26	27° \mathbb{M} 16'37	
superior conj	4697 Jun 28 12:08	9° \mathcal{C} 33'18	-0°02'35	inferior conj	4699 Nov 16 04:20	24° \mathbb{M} 35'20	-6°29'34
minimum elong	4697 Jun 28 12:42	9° \mathcal{C} 35'02	0°02'34	minimum elong	4699 Nov 16 14:36	24° \mathbb{M} 19'27	6°27'25
behind sun begin	4697 Jun 27 13:38	8° \mathcal{C} 23'55		min. Earth dist.	4699 Nov 17 03:22	23° \mathbb{M} 59'44	0.27850 AU
behind sun end	4697 Jun 29 11:46	10° \mathcal{C} 46'08		morning rise	4699 Nov 21 11:18	21° \mathbb{M} 24'37	
asc. node	4697 Jun 29 13:36	10° \mathcal{C} 51'48		direct	4699 Dec 07 08:08	16° \mathbb{M} 31'48	
max. Earth dist.	4697 Jun 30 05:07	11° \mathcal{C} 39'37	1.73181 AU	asc. node	4699 Dec 15 08:36	17° \mathbb{M} 45'37	
	4697 Jul 15 02:30	0° Ω		greatest brilliancy	4699 Dec 18 11:27	18° \mathbb{M} 50'50	-4.9m
evening rise	4697 Aug 04 06:28	24° Ω 48'00			4700 Jan 05 13:11	0° \mathcal{Z}	
	4697 Aug 08 12:04	0° \mathbb{M}		morning max el	4700 Jan 26 22:02	19° \mathcal{Z} 36'44	46°51'28
	4697 Sep 01 23:03	0° $\underline{\mathbf{a}}$			4700 Feb 05 20:39	0° \mathcal{Z}	
	4697 Sep 26 12:24	0° \mathbb{M}			4700 Mar 04 13:56	0° \approx	
desc. node	4697 Oct 19 04:27	27° \mathbb{M} 32'06			4700 Mar 29 23:03	0° \mathcal{H}	
	4697 Oct 21 05:19	0° \mathcal{Z}		desc. node	4700 Apr 05 23:37	8° \mathcal{H} 26'24	
	4697 Nov 15 03:02	0° \mathcal{Z}			4700 Apr 23 18:56	0° Υ	
	4697 Dec 10 08:06	0° \approx			4700 May 18 09:18	0° \mathcal{B}	
	4698 Jan 05 04:32	0° \mathcal{H}			4700 Jun 11 21:53	0° \mathbb{I}	
	4698 Feb 01 18:58	0° Υ			4700 Jul 06 10:06	0° \mathcal{C}	
evening max el	4698 Feb 02 06:36	0° Υ 29'36	47°10'34	asc. node	4700 Jul 28 01:26	26° \mathcal{C} 30'44	
asc. node	4698 Feb 09 06:15	7° Υ 24'54		morning set	4700 Jul 30 22:26	0° Ω 02'15	
	4698 Mar 10 09:08	0° \mathcal{B}			4700 Jul 30 21:42	0° Ω	
greatest brilliancy	4698 Mar 14 22:17	1° \mathcal{B} 59'29	-4.9m		4700 Aug 24 07:49	0° \mathbb{M}	
retrograde	4698 Mar 25 02:50	3° \mathcal{B} 58'12		max. Earth dist.	4700 Sep 03 21:15	13° \mathbb{M} 00'00	1.73372 AU
	4698 Apr 08 03:03	30° \mathbb{R} Υ					
evening set	4698 Apr 12 00:49	27° Υ 45'31		superior conj	4700 Sep 05 12:35	15° \mathbb{M} 01'09	1°16'21
inferior conj	4698 Apr 14 23:21	25° Υ 56'48	8°40'41	minimum elong	4700 Sep 05 05:21	14° \mathbb{M} 38'52	1°16'12
minimum elong	4698 Apr 15 04:56	25° Υ 48'07	8°40'13		4700 Sep 17 16:08	0° $\underline{\mathbf{a}}$	
min. Earth dist.	4698 Apr 14 15:57	26° Υ 08'18	0.27550 AU	evening rise	4700 Oct 11 19:10	29° $\underline{\mathbf{a}}$ 47'42	
morning rise	4698 Apr 18 09:12	23° Υ 51'30			4700 Oct 11 23:09	0° \mathbb{M}	
direct	4698 May 05 17:38	18° Υ 03'44			4700 Nov 05 05:45	0° \mathcal{Z}	
greatest brilliancy	4698 May 15 03:13	19° Υ 43'08	-4.8m	desc. node	4700 Nov 16 16:18	14° \mathcal{Z} 08'06	
desc. node	4698 May 31 21:06	28° Υ 55'58			4700 Nov 29 12:33	0° \mathcal{Z}	
	4698 Jun 02 07:59	0° \mathcal{B}			4700 Dec 23 19:58	0° \approx	
morning max el	4698 Jun 24 05:09	19° \mathcal{B} 07'13	46°05'16		4701 Jan 17 05:20	0° \mathcal{H}	
	4698 Jul 05 01:39	0° \mathbb{I}			4701 Feb 10 20:36	0° Υ	
	4698 Aug 01 20:21	0° \mathcal{C}			4701 Mar 08 02:31	0° \mathcal{B}	
	4698 Aug 28 02:54	0° Ω		asc. node	4701 Mar 09 18:11	1° \mathcal{B} 55'18	
asc. node	4698 Sep 21 23:11	29° Ω 16'28			4701 Apr 03 18:55	0° \mathbb{I}	
	4698 Sep 22 13:47	0° \mathbb{M}		evening max el	4701 Apr 16 04:34	12° \mathbb{I} 52'20	46°30'23
	4698 Oct 17 10:49	0° $\underline{\mathbf{a}}$			4701 May 04 22:25	0° \mathcal{C}	
	4698 Nov 10 21:42	0° \mathbb{M}		greatest brilliancy	4701 May 25 04:43	12° \mathcal{C} 37'42	-4.8m
	4698 Dec 05 01:48	0° \mathcal{Z}		retrograde	4701 Jun 05 02:21	14° \mathcal{C} 48'56	
morning set	4698 Dec 19 03:57	17° \mathcal{Z} 35'37		evening set	4701 Jun 20 05:06	10° \mathcal{C} 21'24	
	4698 Dec 29 01:48	0° \mathcal{Z}		inferior conj	4701 Jun 26 10:15	6° \mathcal{C} 36'35	0°42'48
desc. node	4699 Jan 11 13:54	16° \mathcal{Z} 56'22		minimum elong	4701 Jun 26 11:50	6° \mathcal{C} 34'05	0°42'18
	4699 Jan 21 23:27	0° \approx		min. Earth dist.	4701 Jun 26 03:42	6° \mathcal{C} 46'51	0.28460 AU
max. Earth dist.	4699 Jan 27 18:22	7° \approx 16'32	1.71185 AU	desc. node	4701 Jun 29 08:54	4° \mathcal{C} 46'51	
				morning rise	4701 Jul 02 19:06	2° \mathcal{C} 47'44	
superior conj	4699 Jan 28 14:42	8° \approx 20'26	-0°39'40		4701 Jul 08 23:52	30° \mathbb{R} \mathbb{I}	
minimum elong	4699 Jan 28 05:12	7° \approx 50'33	0°39'15	direct	4701 Jul 17 18:13	28° \mathbb{I} 29'09	
	4699 Feb 14 19:57	0° \mathcal{H}			4701 Jul 26 21:25	0° \mathcal{C}	
evening rise	4699 Mar 10 14:25	29° \mathcal{H} 52'49		greatest brilliancy	4701 Jul 27 16:35	0° \mathcal{C} 15'54	-4.7m

morning max el	4701 Sep 04 09:17	28°☿05'52	45°41'55		4704 Apr 13 18:00	0°♄	
	4701 Sep 06 08:50	0°♄			4704 May 09 01:15	0°☿	
	4701 Oct 05 03:36	0°♄			4704 Jun 04 15:32	0°♄	
asc. node	4701 Oct 20 11:10	17°♄12'52		evening max el	4704 Jun 25 19:08	21°♄51'32	45°38'55
	4701 Oct 31 12:25	0°♄			4704 Jul 04 12:22	0°♄	
	4701 Nov 25 17:24	0°♄		desc. node	4704 Jul 26 20:50	16°♄42'01	
	4701 Dec 20 06:43	0°♄		greatest brilliancy	4704 Aug 03 00:08	20°♄00'33	-4.7m
	4702 Jan 13 11:18	0°☿		retrograde	4704 Aug 13 17:11	22°♄04'38	
	4702 Feb 06 11:16	0°♄		evening set	4704 Aug 30 15:23	16°♄37'53	
desc. node	4702 Feb 09 01:42	3°♄15'41		inferior conj	4704 Sep 04 05:32	13°♄49'23	-7°35'46
	4702 Mar 02 09:01	0°♄		minimum elong	4704 Sep 03 21:14	14°♄02'22	7°34'38
morning set	4702 Mar 06 07:11	4°♄55'45		min. Earth dist.	4704 Sep 04 03:07	13°♄53'10	0.29130 AU
	4702 Mar 26 06:19	0°♄		morning rise	4704 Sep 08 03:04	11°♄25'16	
				direct	4704 Sep 25 20:01	5°♄30'49	
superior conj	4702 Apr 16 01:33	26°♄04'24	-1°23'57	greatest brilliancy	4704 Oct 06 08:06	7°♄30'40	-4.7m
minimum elong	4702 Apr 16 07:22	26°♄22'38	1°23'53		4704 Nov 07 13:36	0°♄	
	4702 Apr 19 04:54	0°♄		morning max el	4704 Nov 14 06:36	6°♄24'08	46°07'01
max. Earth dist.	4702 Apr 19 22:04	0°♄53'39	1.71738 AU	asc. node	4704 Nov 16 22:48	9°♄03'14	
	4702 May 13 06:21	0°♄			4704 Dec 06 17:46	0°♄	
evening rise	4702 May 25 17:35	15°♄27'53			4705 Jan 01 21:33	0°♄	
asc. node	4702 Jun 02 03:49	24°♄39'05			4705 Jan 26 21:33	0°☿	
	4702 Jun 06 11:46	0°☿			4705 Feb 20 08:42	0°♄	
	4702 Jun 30 21:40	0°♄		desc. node	4705 Mar 08 13:43	20°♄04'05	
	4702 Jul 25 12:42	0°♄			4705 Mar 16 13:41	0°♄	
	4702 Aug 19 10:38	0°♄			4705 Apr 09 16:12	0°♄	
	4702 Sep 13 18:55	0°♄			4705 May 03 18:40	0°♄	
desc. node	4702 Sep 21 18:31	9°♄18'04		morning set	4705 May 20 03:34	20°♄19'52	
	4702 Oct 09 19:50	0°♄			4705 May 27 22:43	0°♄	
	4702 Nov 06 04:04	0°☿			4705 Jun 21 04:59	0°☿	
evening max el	4702 Nov 20 01:42	14°☿11'44	46°36'06				
	4702 Dec 07 08:52	0°♄		superior conj	4705 Jun 27 04:35	7°☿23'03	-0°05'56
greatest brilliancy	4702 Dec 30 07:59	14°♄22'21	-4.9m	minimum elong	4705 Jun 27 05:53	7°☿27'05	0°05'53
retrograde	4703 Jan 09 03:15	16°♄11'19		behind sun begin	4705 Jun 26 07:58	6°☿19'26	
asc. node	4703 Jan 12 20:28	15°♄54'22		behind sun end	4705 Jun 28 03:49	8°☿34'42	
evening set	4703 Jan 23 16:58	12°♄00'14		max. Earth dist.	4705 Jun 29 02:05	9°☿43'21	1.73145 AU
inferior conj	4703 Jan 29 17:24	8°♄29'04	4°13'53	asc. node	4705 Jun 29 15:38	10°☿25'07	
minimum elong	4703 Jan 29 08:35	8°♄42'33	4°11'20		4705 Jul 15 13:08	0°♄	
min. Earth dist.	4703 Jan 29 11:08	8°♄38'39	0.26630 AU	evening rise	4705 Aug 03 00:56	22°♄44'36	
morning rise	4703 Feb 04 00:05	5°♄21'35			4705 Aug 08 22:43	0°♄	
direct	4703 Feb 19 04:03	0°♄47'51			4705 Sep 02 09:54	0°♄	
greatest brilliancy	4703 Mar 01 01:03	2°♄38'20	-4.9m		4705 Sep 26 23:36	0°♄	
	4703 Apr 07 00:42	0°♄		desc. node	4705 Oct 19 06:27	27°♄02'47	
morning max el	4703 Apr 10 12:50	3°♄28'00	46°50'52		4705 Oct 21 17:04	0°♄	
desc. node	4703 May 04 11:23	28°♄53'51			4705 Nov 15 15:37	0°☿	
	4703 May 05 11:14	0°♄			4705 Dec 10 22:00	0°♄	
	4703 May 31 18:32	0°♄			4706 Jan 05 20:51	0°♄	
	4703 Jun 26 07:07	0°♄		evening max el	4706 Jan 31 21:52	28°♄09'32	47°10'42
	4703 Jul 21 10:55	0°☿			4706 Feb 02 17:38	0°♄	
	4703 Aug 15 08:48	0°♄		asc. node	4706 Feb 09 08:25	6°♄28'02	
asc. node	4703 Aug 25 13:20	12°♄21'15		greatest brilliancy	4706 Mar 13 12:19	29°♄36'32	-4.9m
	4703 Sep 09 01:00	0°♄			4706 Mar 14 14:56	0°♄	
	4703 Oct 03 11:37	0°♄		retrograde	4706 Mar 23 17:22	1°♄35'11	
morning set	4703 Oct 08 03:01	5°♄43'32			4706 Apr 01 10:57	30°♄	
	4703 Oct 27 17:37	0°♄		evening set	4706 Apr 10 16:33	25°♄20'08	
max. Earth dist.	4703 Nov 11 08:59	18°♄11'31	1.72328 AU	min. Earth dist.	4706 Apr 13 04:43	23°♄47'19	0.27513 AU
				inferior conj	4706 Apr 13 13:03	23°♄34'21	8°46'44
superior conj	4703 Nov 14 03:47	21°♄39'26	1°05'32	minimum elong	4706 Apr 13 17:50	23°♄26'55	8°46'24
minimum elong	4703 Nov 14 13:35	22°♄09'56	1°05'13	morning rise	4706 Apr 16 19:18	21°♄34'25	
	4703 Nov 20 20:32	0°♄		direct	4706 May 04 07:28	15°♄42'11	
	4703 Dec 14 21:38	0°☿		greatest brilliancy	4706 May 13 15:09	17°♄20'12	-4.8m
desc. node	4703 Dec 15 04:07	0°☿20'15		desc. node	4706 May 31 23:04	27°♄42'28	
evening rise	4703 Dec 23 05:17	10°☿23'44			4706 Jun 03 22:37	0°♄	
	4704 Jan 07 21:36	0°♄		morning max el	4706 Jun 22 19:41	16°♄50'28	46°06'44
	4704 Jan 31 21:08	0°♄			4706 Jul 05 20:42	0°♄	
	4704 Feb 24 21:57	0°♄			4706 Aug 02 10:57	0°☿	
	4704 Mar 20 03:19	0°♄			4706 Aug 28 15:34	0°♄	
asc. node	4704 Apr 06 06:07	20°♄55'49		asc. node	4706 Sep 22 01:16	28°♄47'45	

	4706 Sep 23 01:28	0°♎		evening max el	4709 Apr 13 18:27	10°♊32'49	46°32'27
	4706 Oct 17 21:58	0°♏			4709 May 05 10:00	0°♏	
	4706 Nov 11 08:37	0°♎		greatest brilliancy	4709 May 22 21:45	10°♏26'04	-4.8m
	4706 Dec 05 12:38	0°♏		retrograde	4709 Jun 02 17:59	12°♏36'35	
morning set	4706 Dec 17 17:22	15°♏13'46		evening set	4709 Jun 17 22:00	8°♏07'22	
	4706 Dec 29 12:38	0°♏		inferior conj	4709 Jun 24 01:56	4°♏24'37	1°03'32
desc. node	4707 Jan 11 15:58	16°♏28'51		minimum elong	4709 Jun 24 04:18	4°♏20'55	1°02'50
	4707 Jan 22 10:18	0°♏		min. Earth dist.	4709 Jun 23 20:09	4°♏33'42	0.28427 AU
max. Earth dist.	4707 Jan 25 22:58	4°♏26'00	1.71202 AU	desc. node	4709 Jun 28 10:56	1°♏43'30	
				morning rise	4709 Jun 30 11:00	0°♏35'22	
superior conj	4707 Jan 27 01:17	5°♏48'42	-0°36'06		4709 Jul 01 13:41	30°♊	
minimum elong	4707 Jan 26 16:30	5°♏21'06	0°35'41	direct	4709 Jul 15 08:48	26°♊17'27	
	4707 Feb 15 06:50	0°♏		greatest brilliancy	4709 Jul 25 08:20	28°♊04'55	-4.7m
evening rise	4707 Mar 09 00:36	27°♏19'46			4709 Jul 30 00:34	0°♏	
	4707 Mar 11 03:38	0°♏		morning max el	4709 Sep 02 00:20	25°♏54'08	45°42'01
	4707 Apr 04 02:39	0°♏			4709 Sep 06 05:59	0°♏	
	4707 Apr 28 06:14	0°♊			4709 Oct 04 18:42	0°♎	
asc. node	4707 May 04 17:58	8°♊00'15		asc. node	4709 Oct 19 13:02	16°♎39'11	
	4707 May 22 16:48	0°♏			4709 Oct 31 01:20	0°♏	
	4707 Jun 16 13:11	0°♏			4709 Nov 25 05:17	0°♎	
	4707 Jul 12 00:17	0°♎			4709 Dec 19 18:04	0°♏	
	4707 Aug 07 13:08	0°♏			4710 Jan 12 22:23	0°♏	
desc. node	4707 Aug 24 08:45	17°♏54'58			4710 Feb 05 22:12	0°♏	
	4707 Sep 05 11:52	0°♎		desc. node	4710 Feb 08 03:51	2°♏48'10	
evening max el	4707 Sep 06 00:40	0°♎30'37	45°40'09		4710 Mar 01 19:52	0°♏	
greatest brilliancy	4707 Oct 15 12:04	28°♎40'23	-4.8m	morning set	4710 Mar 03 17:11	2°♏22'18	
	4707 Oct 21 08:46	0°♏			4710 Mar 25 17:07	0°♏	
retrograde	4707 Oct 24 17:21	0°♏12'47					
	4707 Oct 28 00:38	30°♎		superior conj	4710 Apr 13 13:29	23°♏37'55	-1°24'53
evening set	4707 Nov 10 10:47	24°♎56'25		minimum elong	4710 Apr 13 18:26	23°♏53'25	1°24'49
inferior conj	4707 Nov 14 18:55	22°♎19'03	-6°43'22	max. Earth dist.	4710 Apr 17 04:16	28°♏09'22	1.71693 AU
minimum elong	4707 Nov 15 05:03	22°♎03'20	6°41'23		4710 Apr 18 15:39	0°♏	
min. Earth dist.	4707 Nov 15 18:15	21°♎42'56	0.27919 AU		4710 May 12 17:05	0°♊	
morning rise	4707 Nov 19 22:48	19°♎12'13		evening rise	4710 May 23 07:25	13°♊08'51	
direct	4707 Dec 05 22:52	14°♎14'28		asc. node	4710 Jun 01 05:49	24°♊12'02	
asc. node	4707 Dec 15 10:35	15°♎56'04			4710 Jun 05 22:33	0°♏	
greatest brilliancy	4707 Dec 17 03:09	16°♎33'40	-4.9m		4710 Jun 30 08:35	0°♏	
	4708 Jan 07 00:27	0°♏			4710 Jul 24 23:55	0°♎	
morning max el	4708 Jan 25 11:37	17°♏13'42	46°50'18		4710 Aug 18 22:25	0°♏	
	4708 Feb 06 15:24	0°♏			4710 Sep 13 07:45	0°♎	
	4708 Mar 04 04:50	0°♏		desc. node	4710 Sep 20 20:29	8°♎45'18	
	4708 Mar 29 12:15	0°♏			4710 Oct 09 10:35	0°♏	
desc. node	4708 Apr 05 01:34	7°♏53'31			4710 Nov 05 23:08	0°♏	
	4708 Apr 23 07:10	0°♏		evening max el	4710 Nov 17 15:29	11°♏50'59	46°34'15
	4708 May 17 20:53	0°♏			4710 Dec 07 21:26	0°♏	
	4708 Jun 11 09:01	0°♊		greatest brilliancy	4710 Dec 27 20:39	11°♏55'58	-4.9m
	4708 Jul 05 20:54	0°♏		retrograde	4711 Jan 06 16:14	13°♏45'08	
asc. node	4708 Jul 27 03:31	26°♏04'32		asc. node	4711 Jan 11 22:34	13°♏10'59	
morning set	4708 Jul 28 15:51	27°♏55'57		evening set	4711 Jan 21 03:48	9°♏36'07	
	4708 Jul 30 08:18	0°♏		inferior conj	4711 Jan 27 05:58	6°♏02'55	3°52'00
	4708 Aug 23 18:21	0°♎		minimum elong	4711 Jan 26 21:44	6°♏15'28	3°49'33
max. Earth dist.	4708 Sep 01 15:29	10°♎56'03	1.73388 AU	min. Earth dist.	4711 Jan 27 00:35	6°♏11'07	0.26629 AU
				morning rise	4711 Feb 01 15:34	2°♏51'47	
superior conj	4708 Sep 03 06:50	12°♎57'12	1°14'54		4711 Feb 07 19:07	30°♊	
minimum elong	4708 Sep 02 23:13	12°♎33'46	1°14'43	direct	4711 Feb 16 17:03	28°♏21'25	
	4708 Sep 17 02:39	0°♏			4711 Feb 25 23:47	0°♏	
evening rise	4708 Oct 09 12:21	27°♏39'48		greatest brilliancy	4711 Feb 26 14:58	0°♏13'17	-4.9m
	4708 Oct 11 09:45	0°♎			4711 Apr 07 00:23	0°♏	
	4708 Nov 04 16:32	0°♏		morning max el	4711 Apr 08 03:22	1°♏07'18	46°51'47
desc. node	4708 Nov 15 18:17	13°♏40'27		desc. node	4711 May 03 13:24	28°♏13'14	
	4708 Nov 28 23:38	0°♏			4711 May 05 03:40	0°♏	
	4708 Dec 23 07:29	0°♏			4711 May 31 08:20	0°♏	
	4709 Jan 16 17:26	0°♏			4711 Jun 25 19:35	0°♊	
	4709 Feb 10 09:35	0°♏			4711 Jul 20 22:35	0°♏	
	4709 Mar 07 17:06	0°♏			4711 Aug 14 19:57	0°♏	
asc. node	4709 Mar 08 20:10	1°♏18'24		asc. node	4711 Aug 24 15:23	11°♏54'07	
	4709 Apr 03 13:20	0°♊			4711 Sep 08 11:49	0°♎	

	4711 Oct 02 22:17	0°♄		evening set	4714 Apr 08 08:04	22°♑55'31	
morning set	4711 Oct 05 19:59	3°♄34'54		min. Earth dist.	4714 Apr 10 17:56	21°♑26'06	0.27472 AU
	4711 Oct 27 04:15	0°♌		inferior conj	4714 Apr 11 02:52	21°♑12'11	8°51'53
max. Earth dist.	4711 Nov 09 01:21	15°♌59'56	1.72371 AU	minimum elong	4714 Apr 11 06:49	21°♑06'02	8°51'39
				morning rise	4714 Apr 14 05:45	19°♑17'07	
superior conj	4711 Nov 11 19:09	19°♌24'35	1°07'42	direct	4714 May 01 21:02	13°♑20'57	
minimum elong	4711 Nov 12 04:44	19°♌54'27	1°07'25	greatest brilliancy	4714 May 11 03:40	14°♑57'56	-4.8m
	4711 Nov 20 07:14	0°♊		desc. node	4714 May 31 01:09	26°♑31'31	
desc. node	4711 Dec 14 06:13	29°♊52'59			4714 Jun 04 09:26	0°♋	
	4711 Dec 14 08:28	0°♋		morning max el	4714 Jun 20 09:14	14°♋31'14	46°08'07
evening rise	4711 Dec 20 18:11	8°♋00'09			4714 Jul 05 15:13	0°♌	
	4712 Jan 07 08:33	0°♌			4714 Aug 02 01:27	0°♍	
	4712 Jan 31 08:14	0°♈			4714 Aug 28 04:20	0°♎	
	4712 Feb 24 09:17	0°♑		asc. node	4714 Sep 21 03:10	28°♎17'55	
	4712 Mar 19 15:01	0°♋			4714 Sep 22 13:19	0°♏	
asc. node	4712 Apr 05 08:02	20°♋24'53			4714 Oct 17 09:20	0°♐	
	4712 Apr 13 06:23	0°♌			4714 Nov 10 19:44	0°♑	
	4712 May 08 14:56	0°♍			4714 Dec 04 23:38	0°♊	
	4712 Jun 04 08:10	0°♎		morning set	4714 Dec 15 06:43	12°♊51'06	
evening max el	4712 Jun 23 11:59	19°♎43'03	45°39'57		4714 Dec 28 23:36	0°♋	
	4712 Jul 04 15:24	0°♏		desc. node	4715 Jan 10 18:01	16°♋00'44	
desc. node	4712 Jul 25 22:59	15°♏18'28			4715 Jan 21 21:18	0°♌	
greatest brilliancy	4712 Jul 31 14:54	17°♏50'11	-4.7m	max. Earth dist.	4715 Jan 23 02:36	1°♌32'02	1.71223 AU
retrograde	4712 Aug 11 09:38	19°♏55'27					
evening set	4712 Aug 28 04:29	14°♏33'15		superior conj	4715 Jan 24 11:54	3°♌16'38	-0°32'27
inferior conj	4712 Sep 01 21:44	11°♏39'56	-7°26'10	minimum elong	4715 Jan 24 03:53	2°♌51'28	0°32'03
minimum elong	4712 Sep 01 13:03	11°♏53'31	7°24'53		4715 Feb 14 17:53	0°♈	
min. Earth dist.	4712 Sep 01 18:06	11°♏45'36	0.29129 AU	evening rise	4715 Mar 06 10:51	24°♈46'23	
morning rise	4712 Sep 05 21:40	9°♏12'12			4715 Mar 10 14:45	0°♑	
direct	4712 Sep 23 12:51	3°♏21'40			4715 Apr 03 13:50	0°♋	
greatest brilliancy	4712 Oct 03 22:45	5°♏19'47	-4.7m		4715 Apr 27 17:33	0°♌	
	4712 Nov 07 13:49	0°♐		asc. node	4715 May 03 20:00	7°♌31'31	
morning max el	4712 Nov 11 22:22	4°♐11'45	46°05'28		4715 May 22 04:24	0°♍	
asc. node	4712 Nov 16 00:55	8°♐16'52			4715 Jun 16 01:22	0°♎	
	4712 Dec 06 09:57	0°♑			4715 Jul 11 13:38	0°♏	
	4713 Jan 01 11:14	0°♊			4715 Aug 07 05:03	0°♐	
	4713 Jan 26 10:05	0°♋		desc. node	4715 Aug 23 10:39	17°♐11'05	
	4713 Feb 19 20:34	0°♌		evening max el	4715 Sep 03 13:58	28°♐12'49	45°38'51
desc. node	4713 Mar 07 15:39	19°♌34'11			4715 Sep 05 11:12	0°♑	
	4713 Mar 16 01:08	0°♈		greatest brilliancy	4715 Oct 13 02:02	26°♑23'39	-4.8m
	4713 Apr 09 03:20	0°♑		retrograde	4715 Oct 22 06:42	27°♑55'57	
	4713 May 03 05:35	0°♋		evening set	4715 Nov 08 03:59	22°♑34'38	
morning set	4713 May 17 18:24	18°♋03'27		inferior conj	4715 Nov 12 09:22	20°♑01'22	-6°56'35
	4713 May 27 09:30	0°♌		minimum elong	4715 Nov 12 19:19	19°♑45'57	6°54'44
	4713 Jun 20 15:39	0°♍		min. Earth dist.	4715 Nov 13 09:04	19°♑24'41	0.27989 AU
				morning rise	4715 Nov 17 10:06	16°♑58'49	
superior conj	4713 Jun 24 20:56	5°♍12'29	-0°09'17	direct	4715 Dec 03 13:22	11°♑55'32	
minimum elong	4713 Jun 24 22:59	5°♍18'50	0°09'12	asc. node	4715 Dec 14 12:41	14°♑09'23	
behind sun begin	4713 Jun 24 03:38	4°♍19'05		greatest brilliancy	4715 Dec 14 19:13	14°♑15'47	-4.8m
behind sun end	4713 Jun 25 18:21	6°♍18'34			4716 Jan 07 09:16	0°♊	
max. Earth dist.	4713 Jun 26 23:35	7°♍48'43	1.73115 AU	morning max el	4716 Jan 23 01:24	14°♊50'12	46°49'17
asc. node	4713 Jun 28 17:44	9°♍58'40			4716 Feb 06 10:01	0°♋	
	4713 Jul 14 23:48	0°♎			4716 Mar 03 19:49	0°♌	
evening rise	4713 Jul 31 19:07	20°♎40'03			4716 Mar 29 01:36	0°♈	
	4713 Aug 08 09:28	0°♏		desc. node	4716 Apr 04 03:32	7°♈20'01	
	4713 Sep 01 20:52	0°♐			4716 Apr 22 19:36	0°♑	
	4713 Sep 26 10:56	0°♑			4716 May 17 08:42	0°♋	
desc. node	4713 Oct 18 08:24	26°♑33'00			4716 Jun 10 20:23	0°♌	
	4713 Oct 21 04:57	0°♊			4716 Jul 05 07:57	0°♍	
	4713 Nov 15 04:21	0°♋		morning set	4716 Jul 26 09:30	25°♍49'29	
	4713 Dec 10 12:06	0°♌		asc. node	4716 Jul 26 05:31	25°♍37'17	
	4714 Jan 05 13:33	0°♈			4716 Jul 29 19:09	0°♎	
evening max el	4714 Jan 29 12:44	25°♈48'10	47°10'45		4716 Aug 23 05:08	0°♏	
	4714 Feb 02 17:21	0°♑		max. Earth dist.	4716 Aug 30 11:29	8°♏56'37	1.73409 AU
asc. node	4714 Feb 08 10:26	5°♑29'32					
greatest brilliancy	4714 Mar 11 03:04	27°♑14'23	-4.9m	superior conj	4716 Sep 01 01:12	10°♑52'47	1°13'20
retrograde	4714 Mar 21 07:28	29°♑12'09		minimum elong	4716 Aug 31 17:15	10°♑28'17	1°13'07

	4716 Sep 16 13:29	0°♄	greatest brilliancy	4719 Feb 24 04:24	27°♄45'20	-4.9m
evening rise	4716 Oct 07 05:38	25°♄31'11		4719 Mar 01 07:36	0°♄	
	4716 Oct 10 20:43	0°♄	morning max el	4719 Apr 05 17:37	28°♄44'18	46°52'46
	4716 Nov 04 03:45	0°♄		4719 Apr 06 23:41	0°♄	
desc. node	4716 Nov 14 20:23	13°♄11'51	desc. node	4719 May 02 15:32	27°♄32'07	
	4716 Nov 28 11:10	0°♄		4719 May 04 20:16	0°♄	
	4716 Dec 22 19:27	0°♄		4719 May 30 22:23	0°♄	
	4717 Jan 16 05:58	0°♄		4719 Jun 25 08:18	0°♄	
	4717 Feb 09 23:01	0°♄		4719 Jul 20 10:31	0°♄	
	4717 Mar 07 08:13	0°♄		4719 Aug 14 07:21	0°♄	
asc. node	4717 Mar 07 22:07	0°♄40'06	asc. node	4719 Aug 23 17:19	11°♄25'44	
	4717 Apr 03 08:36	0°♄		4719 Sep 07 22:54	0°♄	
evening max el	4717 Apr 11 08:38	8°♄13'07 46°34'35		4719 Oct 02 09:11	0°♄	
	4717 May 06 02:08	0°♄	morning set	4719 Oct 03 13:23	1°♄26'56	
greatest brilliancy	4717 May 20 14:17	8°♄12'50 -4.8m		4719 Oct 26 15:08	0°♄	
retrograde	4717 May 31 10:04	10°♄23'26	max. Earth dist.	4719 Nov 06 17:03	13°♄45'39	1.72415 AU
evening set	4717 Jun 15 15:05	5°♄52'05				
inferior conj	4717 Jun 21 17:39	2°♄11'39 1°24'20	superior conj	4719 Nov 09 11:00	17°♄10'40	1°09'44
minimum elong	4717 Jun 21 20:46	2°♄06'46 1°23'22	minimum elong	4719 Nov 09 20:19	17°♄39'38	1°09'28
min. Earth dist.	4717 Jun 21 12:23	2°♄19'54 0.28395 AU		4719 Nov 19 18:12	0°♄	
	4717 Jun 25 06:56	30°♄	desc. node	4719 Dec 13 08:17	29°♄24'48	
desc. node	4717 Jun 27 13:02	28°♄41'28		4719 Dec 13 19:34	0°♄	
morning rise	4717 Jun 28 02:49	28°♄22'28	evening rise	4719 Dec 18 07:18	5°♄36'25	
direct	4717 Jul 12 23:35	24°♄04'42		4720 Jan 06 19:49	0°♄	
greatest brilliancy	4717 Jul 22 23:55	25°♄52'57 -4.7m		4720 Jan 30 19:43	0°♄	
	4717 Jul 31 20:57	0°♄		4720 Feb 23 21:03	0°♄	
morning max el	4717 Aug 30 16:14	23°♄43'40 45°42'11		4720 Mar 19 03:11	0°♄	
	4717 Sep 06 02:44	0°♄	asc. node	4720 Apr 04 10:08	19°♄53'09	
	4717 Oct 04 09:54	0°♄		4720 Apr 12 19:14	0°♄	
asc. node	4717 Oct 18 15:10	16°♄05'34		4720 May 08 05:05	0°♄	
	4717 Oct 30 14:29	0°♄		4720 Jun 04 01:27	0°♄	
	4717 Nov 24 17:31	0°♄	evening max el	4720 Jun 21 04:31	17°♄32'57 45°41'07	
	4717 Dec 19 05:50	0°♄		4720 Jul 04 20:30	0°♄	
	4718 Jan 12 09:55	0°♄	desc. node	4720 Jul 25 00:54	13°♄51'25	
	4718 Feb 05 09:35	0°♄	greatest brilliancy	4720 Jul 29 06:29	15°♄40'22	-4.7m
desc. node	4718 Feb 07 05:49	2°♄18'40	retrograde	4720 Aug 09 01:53	17°♄46'03	
morning set	4718 Mar 01 02:54	29°♄46'41	evening set	4720 Aug 25 17:49	12°♄28'33	
	4718 Mar 01 07:08	0°♄	inferior conj	4720 Aug 30 14:07	9°♄30'27 -7°15'57	
	4718 Mar 25 04:17	0°♄	minimum elong	4720 Aug 30 05:07	9°♄44'33 7°14'33	
			min. Earth dist.	4720 Aug 30 09:35	9°♄37'34 0.29123 AU	
superior conj	4718 Apr 11 01:11	21°♄09'30 -1°25'38	morning rise	4720 Sep 03 16:30	6°♄58'55	
minimum elong	4718 Apr 11 05:12	21°♄22'04 1°25'37	direct	4720 Sep 21 05:38	1°♄12'36	
max. Earth dist.	4718 Apr 14 12:21	25°♄29'50 1.71647 AU	greatest brilliancy	4720 Oct 01 13:42	3°♄08'59 -4.7m	
	4718 Apr 18 02:44	0°♄		4720 Nov 07 13:05	0°♄	
	4718 May 12 04:10	0°♄	morning max el	4720 Nov 09 13:23	1°♄57'19 46°04'00	
evening rise	4718 May 20 21:16	10°♄48'46	asc. node	4720 Nov 15 02:56	7°♄30'43	
asc. node	4718 May 31 07:57	23°♄44'15		4720 Dec 06 01:59	0°♄	
	4718 Jun 05 09:41	0°♄		4721 Jan 01 00:55	0°♄	
	4718 Jun 29 19:51	0°♄		4721 Jan 25 22:42	0°♄	
	4718 Jul 24 11:29	0°♄		4721 Feb 19 08:36	0°♄	
	4718 Aug 18 10:33	0°♄	desc. node	4721 Mar 06 17:40	19°♄03'49	
	4718 Sep 12 20:57	0°♄		4721 Mar 15 12:48	0°♄	
desc. node	4718 Sep 19 22:30	8°♄11'39		4721 Apr 08 14:45	0°♄	
	4718 Oct 09 01:52	0°♄		4721 May 02 16:47	0°♄	
	4718 Nov 05 19:13	0°♄	morning set	4721 May 15 08:43	15°♄44'34	
evening max el	4718 Nov 15 05:48	9°♄30'32 46°32'04		4721 May 26 20:31	0°♄	
	4718 Dec 08 15:08	0°♄		4721 Jun 20 02:32	0°♄	
greatest brilliancy	4718 Dec 25 08:47	9°♄27'13 -4.9m				
retrograde	4719 Jan 04 05:02	11°♄16'29	superior conj	4721 Jun 22 12:58	3°♄00'20 -0°12'40	
asc. node	4719 Jan 11 00:35	10°♄19'14	minimum elong	4721 Jun 22 15:46	3°♄08'58 0°12'31	
evening set	4719 Jan 18 14:38	7°♄09'31	behind sun begin	4721 Jun 22 01:03	2°♄23'31	
inferior conj	4719 Jan 24 18:13	3°♄34'19 3°29'17	behind sun end	4721 Jun 23 06:30	3°♄54'24	
minimum elong	4719 Jan 24 10:39	3°♄45'49 3°27'01	max. Earth dist.	4721 Jun 24 20:33	5°♄51'49 1.73075 AU	
min. Earth dist.	4719 Jan 24 13:42	3°♄41'10 0.26632 AU	asc. node	4721 Jun 27 19:40	9°♄31'09	
morning rise	4719 Jan 30 06:38	0°♄19'37		4721 Jul 14 10:38	0°♄	
	4719 Jan 30 21:09	30°♄	evening rise	4721 Jul 29 13:12	18°♄34'40	
direct	4719 Feb 14 06:14	25°♄52'41		4721 Aug 07 20:23	0°♄	

	4721 Sep 01 07:59	0°♄			4724 Apr 22 07:42	0°♃		
	4721 Sep 25 22:24	0°♍			4724 May 16 20:14	0°♄		
desc. node	4721 Oct 17 10:32	26°♍03'27			4724 Jun 10 07:31	0°♂		
	4721 Oct 20 16:58	0°♂			4724 Jul 04 18:49	0°♄		
	4721 Nov 14 17:12	0°♄		morning set	4724 Jul 24 02:50	23°♄42'33		
	4721 Dec 10 02:20	0°♂		asc. node	4724 Jul 25 07:30	25°♄10'30		
	4722 Jan 05 06:33	0°♂			4724 Jul 29 05:51	0°♂		
evening max el	4722 Jan 27 02:29	23°♂23'48	47°10'28		4724 Aug 22 15:43	0°♄		
	4722 Feb 02 18:16	0°♃		max. Earth dist.	4724 Aug 28 08:28	7°♄00'51	1.73425 AU	
asc. node	4722 Feb 07 12:20	4°♃29'11						
greatest brilliancy	4722 Mar 08 17:55	24°♃51'31	-4.9m	superior conj	4724 Aug 29 19:15	8°♄47'59	1°11'38	
retrograde	4722 Mar 18 20:53	26°♃48'08		minimum elong	4724 Aug 29 11:00	8°♄22'34	1°11'26	
evening set	4722 Apr 05 22:55	20°♃30'36			4724 Sep 16 00:05	0°♄		
inferior conj	4722 Apr 08 16:31	18°♃49'03	8°55'57	evening rise	4724 Oct 04 22:49	23°♄23'06		
minimum elong	4722 Apr 08 19:36	18°♃44'15	8°55'49		4724 Oct 10 07:26	0°♍		
min. Earth dist.	4722 Apr 08 07:21	19°♃03'20	0.27438 AU		4724 Nov 03 14:41	0°♂		
morning rise	4722 Apr 11 16:26	16°♃58'18		desc. node	4724 Nov 13 22:22	12°♂43'50		
direct	4722 Apr 29 09:59	10°♃58'26			4724 Nov 27 22:28	0°♄		
greatest brilliancy	4722 May 08 16:49	12°♃35'14	-4.8m		4724 Dec 22 07:10	0°♂		
desc. node	4722 May 30 03:10	25°♃21'37			4725 Jan 15 18:17	0°♂		
	4722 Jun 04 17:44	0°♄			4725 Feb 09 12:12	0°♃		
morning max el	4722 Jun 17 22:11	12°♄09'30	46°09'41		4725 Mar 06 23:09	0°♄		
	4722 Jul 05 09:30	0°♂		asc. node	4725 Mar 07 00:16	0°♄03'11		
	4722 Aug 01 15:55	0°♄			4725 Apr 03 03:58	0°♂		
	4722 Aug 27 17:03	0°♂		evening max el	4725 Apr 08 23:35	5°♂56'30	46°36'42	
asc. node	4722 Sep 20 05:16	27°♂48'47			4725 May 06 23:10	0°♄		
	4722 Sep 22 01:08	0°♄		greatest brilliancy	4725 May 18 06:08	5°♄59'52	-4.8m	
	4722 Oct 16 20:40	0°♄		retrograde	4725 May 29 02:25	8°♄11'07		
	4722 Nov 10 06:48	0°♍		evening set	4725 Jun 13 08:16	3°♄37'27		
	4722 Dec 04 10:35	0°♂		inferior conj	4725 Jun 19 09:16	29°♂59'22	1°44'58	
morning set	4722 Dec 12 20:31	10°♂30'06		minimum elong	4725 Jun 19 13:08	29°♂53'20	1°43'48	
	4722 Dec 28 10:30	0°♄		min. Earth dist.	4725 Jun 19 04:11	0°♄07'18	0.28366 AU	
desc. node	4723 Jan 09 19:59	15°♄32'40			4725 Jun 19 08:52	30°♄♂		
max. Earth dist.	4723 Jan 20 08:43	28°♄46'11	1.71245 AU	morning rise	4725 Jun 25 18:25	26°♂10'38		
	4723 Jan 21 08:12	0°♂		desc. node	4725 Jun 26 14:57	25°♂43'16		
				direct	4725 Jul 10 14:57	21°♂52'41		
superior conj	4723 Jan 21 23:03	0°♂46'37	-0°28'46	greatest brilliancy	4725 Jul 20 15:03	23°♂41'17	-4.7m	
minimum elong	4723 Jan 21 15:51	0°♂24'00	0°28'26		4725 Aug 02 02:42	0°♄		
	4723 Feb 14 04:50	0°♂		morning max el	4725 Aug 28 08:43	21°♄35'26	45°42'17	
evening rise	4723 Mar 03 21:34	22°♂14'47			4725 Sep 05 22:29	0°♂		
	4723 Mar 10 01:45	0°♃			4725 Oct 04 00:36	0°♄		
	4723 Apr 03 00:56	0°♄		asc. node	4725 Oct 17 17:13	15°♄32'45		
	4723 Apr 27 04:49	0°♂			4725 Oct 30 03:14	0°♄		
asc. node	4723 May 02 22:05	7°♂03'00			4725 Nov 24 05:19	0°♍		
	4723 May 21 16:00	0°♄			4725 Dec 18 17:11	0°♂		
	4723 Jun 15 13:36	0°♂			4726 Jan 11 21:01	0°♄		
	4723 Jul 11 03:05	0°♄			4726 Feb 04 20:34	0°♂		
	4723 Aug 06 21:09	0°♄		desc. node	4726 Feb 06 07:48	1°♂50'29		
desc. node	4723 Aug 22 12:41	16°♄27'15		morning set	4726 Feb 26 12:49	27°♂12'53		
evening max el	4723 Sep 01 03:22	25°♄55'49	45°37'54		4726 Feb 28 18:01	0°♂		
	4723 Sep 05 11:26	0°♍			4726 Mar 24 15:03	0°♃		
greatest brilliancy	4723 Oct 10 15:30	24°♍07'26	-4.8m					
retrograde	4723 Oct 19 20:44	25°♍40'31		superior conj	4726 Apr 08 12:58	18°♃42'28	-1°26'14	
evening set	4723 Nov 05 21:19	20°♍13'59		minimum elong	4726 Apr 08 16:01	18°♃52'00	1°26'14	
inferior conj	4723 Nov 09 24:00	17°♍44'47	-7°08'59	max. Earth dist.	4726 Apr 11 22:47	22°♃58'41	1.71601 AU	
minimum elong	4723 Nov 10 09:43	17°♍29'45	7°07'16		4726 Apr 17 13:26	0°♄		
min. Earth dist.	4723 Nov 10 23:42	17°♍08'09	0.28058 AU		4726 May 11 14:50	0°♂		
morning rise	4723 Nov 14 21:34	14°♍46'52		evening rise	4726 May 18 11:13	8°♂30'13		
direct	4723 Dec 01 04:19	9°♍37'44		asc. node	4726 May 30 09:53	23°♂17'13		
greatest brilliancy	4723 Dec 12 11:14	11°♍59'03	-4.8m		4726 Jun 04 20:23	0°♄		
asc. node	4723 Dec 13 14:40	12°♍27'27			4726 Jun 29 06:43	0°♂		
	4724 Jan 07 15:17	0°♂			4726 Jul 23 22:41	0°♄		
morning max el	4724 Jan 20 16:17	12°♂30'26	46°48'20		4726 Aug 17 22:23	0°♄		
	4724 Feb 06 03:54	0°♄			4726 Sep 12 09:56	0°♍		
	4724 Mar 03 10:20	0°♂		desc. node	4726 Sep 19 00:35	7°♍39'02		
	4724 Mar 28 14:35	0°♂			4726 Oct 08 17:01	0°♂		
desc. node	4724 Apr 03 05:41	6°♂48'04			4726 Nov 05 15:31	0°♄		

evening max el	4726 Nov 12 20:27	7° Z 12'14	46°30'00		4729 May 02 03:40	0° B	
	4726 Dec 09 14:07	0° \approx		morning set	4729 May 12 22:51	13° B 25'56	
greatest brilliancy	4726 Dec 22 21:19	7° \approx 00'41	-4.9m		4729 May 26 07:14	0° II	
retrograde	4727 Jan 01 17:42	8° \approx 49'24			4729 Jun 19 13:08	0° E	
asc. node	4727 Jan 10 02:32	7° \approx 23'28					
evening set	4727 Jan 16 01:54	4° \approx 44'28		superior conj	4729 Jun 20 05:00	0° E 48'57	-0°16'00
inferior conj	4727 Jan 22 06:34	1° \approx 07'26	3°06'19	minimum elong	4729 Jun 20 08:32	0° E 59'51	0°15'51
minimum elong	4727 Jan 21 23:44	1° \approx 17'51	3°04'14	behind sun begin	4729 Jun 20 05:54	0° E 51'43	
min. Earth dist.	4727 Jan 22 03:01	1° \approx 12'51	0.26637 AU	behind sun end	4729 Jun 20 11:10	1° E 07'59	
	4727 Jan 24 03:00	30° R Z		max. Earth dist.	4729 Jun 22 15:40	3° E 50'00	1.73032 AU
morning rise	4727 Jan 27 21:35	27° Z 49'13		asc. node	4729 Jun 26 21:42	9° E 04'43	
direct	4727 Feb 11 19:30	23° Z 25'49			4729 Jul 13 21:11	0° Ω	
greatest brilliancy	4727 Feb 21 17:56	25° Z 18'54	-4.9m	evening rise	4729 Jul 27 07:15	16° Ω 30'06	
	4727 Mar 03 04:53	0° \approx			4729 Aug 07 07:01	0° M	
morning max el	4727 Apr 03 07:07	26° \approx 20'36	46°53'37		4729 Aug 31 18:49	0° Ω	
	4727 Apr 06 21:32	0° H			4729 Sep 25 09:37	0° M	
desc. node	4727 May 01 17:28	26° H 52'06		desc. node	4729 Oct 16 12:30	25° M 34'03	
	4727 May 04 12:09	0° Y			4729 Oct 20 04:47	0° X	
	4727 May 30 11:53	0° B			4729 Nov 14 05:57	0° Z	
	4727 Jun 24 20:32	0° II			4729 Dec 09 16:37	0° \approx	
	4727 Jul 19 21:58	0° E			4730 Jan 04 23:49	0° H	
	4727 Aug 13 18:20	0° Ω		evening max el	4730 Jan 24 15:14	20° H 57'11	47°10'17
asc. node	4727 Aug 22 19:25	10° Ω 59'09			4730 Feb 02 20:25	0° Y	
	4727 Sep 07 09:36	0° M		asc. node	4730 Feb 06 14:30	3° Y 28'16	
morning set	4727 Oct 01 06:36	29° M 19'27		greatest brilliancy	4730 Mar 06 08:39	22° Y 28'40	-4.9m
	4727 Oct 01 19:45	0° Ω		retrograde	4730 Mar 16 10:09	24° Y 24'27	
	4727 Oct 26 01:42	0° M		evening set	4730 Apr 03 13:12	18° Y 06'30	
max. Earth dist.	4727 Nov 04 06:36	11° M 25'44	1.72460 AU	inferior conj	4730 Apr 06 06:05	16° Y 26'08	8°59'05
				minimum elong	4730 Apr 06 08:15	16° Y 22'47	8°59'01
superior conj	4727 Nov 07 02:44	14° M 57'27	1°11'39	min. Earth dist.	4730 Apr 05 20:42	16° Y 40'46	0.27401 AU
minimum elong	4727 Nov 07 11:43	15° M 25'20	1°11'25	morning rise	4730 Apr 09 03:25	14° Y 39'18	
	4727 Nov 19 04:51	0° X		direct	4730 Apr 26 22:30	8° Y 35'58	
desc. node	4727 Dec 12 10:11	28° X 57'11		greatest brilliancy	4730 May 06 06:08	10° Y 13'09	-4.8m
	4727 Dec 13 06:19	0° Z		desc. node	4730 May 29 05:10	24° Y 14'07	
evening rise	4727 Dec 15 20:13	3° Z 13'11			4730 Jun 04 23:25	0° B	
	4728 Jan 06 06:44	0° \approx		morning max el	4730 Jun 15 11:14	9° B 48'30	46°11'17
	4728 Jan 30 06:50	0° H			4730 Jul 05 03:06	0° II	
	4728 Feb 23 08:28	0° Y			4730 Aug 01 06:00	0° E	
	4728 Mar 18 15:01	0° B			4730 Aug 27 05:31	0° Ω	
asc. node	4728 Apr 03 12:09	19° B 22'15		asc. node	4730 Sep 19 07:18	27° Ω 20'03	
	4728 Apr 12 07:46	0° II			4730 Sep 21 12:43	0° M	
	4728 May 07 18:59	0° E			4730 Oct 16 07:47	0° Ω	
	4728 Jun 03 18:39	0° Ω			4730 Nov 09 17:42	0° M	
evening max el	4728 Jun 18 20:12	15° Ω 21'50	45°42'20		4730 Dec 03 21:25	0° X	
	4728 Jul 05 03:10	0° M		morning set	4730 Dec 10 10:18	8° X 09'26	
desc. node	4728 Jul 24 02:56	12° M 22'47			4730 Dec 27 21:20	0° Z	
greatest brilliancy	4728 Jul 26 22:30	13° M 32'13	-4.7m	desc. node	4731 Jan 08 22:03	15° Z 04'59	
retrograde	4728 Aug 06 17:46	15° M 37'58		max. Earth dist.	4731 Jan 17 16:28	26° Z 05'36	1.71273 AU
evening set	4728 Aug 23 07:11	10° M 25'05					
inferior conj	4728 Aug 28 06:32	7° M 22'22	-7°05'07	superior conj	4731 Jan 19 09:51	28° Z 15'34	-0°25'01
minimum elong	4728 Aug 27 21:16	7° M 36'57	7°03'36	minimum elong	4731 Jan 19 03:31	27° Z 55'42	0°24'42
min. Earth dist.	4728 Aug 28 01:24	7° M 30'26	0.29118 AU		4731 Jan 20 19:06	0° \approx	
morning rise	4728 Sep 01 11:23	4° M 46'54			4731 Feb 13 15:47	0° H	
	4728 Sep 12 01:54	30° R Ω		evening rise	4731 Mar 01 07:50	19° H 41'51	
direct	4728 Sep 18 21:57	29° Ω 04'48			4731 Mar 09 12:44	0° Y	
	4728 Sep 25 23:01	0° M			4731 Apr 02 12:00	0° B	
greatest brilliancy	4728 Sep 29 05:16	0° M 59'59	-4.7m		4731 Apr 26 16:03	0° II	
morning max el	4728 Nov 07 03:32	29° M 41'38	46°02'28	asc. node	4731 May 01 24:00	6° II 34'09	
	4728 Nov 07 11:03	0° Ω			4731 May 21 03:35	0° E	
asc. node	4728 Nov 14 04:54	6° Ω 45'53			4731 Jun 15 01:50	0° Ω	
	4728 Dec 05 17:30	0° M			4731 Jul 10 16:37	0° M	
	4728 Dec 31 14:16	0° X			4731 Aug 06 13:30	0° Ω	
	4729 Jan 25 11:00	0° Z		desc. node	4731 Aug 21 14:50	15° Ω 43'11	
	4729 Feb 18 20:17	0° \approx		evening max el	4731 Aug 29 17:32	23° Ω 40'57	45°37'04
desc. node	4729 Mar 05 19:48	18° \approx 34'51			4731 Sep 05 12:51	0° M	
	4729 Mar 15 00:07	0° H		greatest brilliancy	4731 Oct 08 04:23	21° M 51'09	-4.8m
	4729 Apr 08 01:48	0° Y		retrograde	4731 Oct 17 11:22	23° M 25'35	

evening set	4731 Nov 03 14:37	17° \mathbb{M} 53'59		minimum elong	4734 Apr 06 02:34	16° \mathbb{Y} 20'08	1°26'40
inferior conj	4731 Nov 07 14:40	15° \mathbb{M} 28'36	-7°20'27	max. Earth dist.	4734 Apr 09 10:19	20° \mathbb{Y} 30'02	1.71560 AU
minimum elong	4731 Nov 08 00:04	15° \mathbb{M} 14'03	7°18'54		4734 Apr 17 00:26	0° \mathcal{B}	
min. Earth dist.	4731 Nov 08 13:52	14° \mathbb{M} 52'45	0.28128 AU		4734 May 11 01:50	0° \mathbb{I}	
morning rise	4731 Nov 12 09:03	12° \mathbb{M} 35'28		evening rise	4734 May 16 00:40	6° \mathbb{I} 08'58	
direct	4731 Nov 28 19:46	7° \mathbb{M} 20'31		asc. node	4734 May 29 11:53	22° \mathbb{I} 49'25	
greatest brilliancy	4731 Dec 10 02:35	9° \mathbb{M} 42'04	-4.8m		4734 Jun 04 07:26	0° \mathcal{C}	
asc. node	4731 Dec 12 16:40	10° \mathbb{M} 49'32			4734 Jun 28 17:54	0° \mathcal{Q}	
	4732 Jan 07 19:18	0° \mathcal{A}			4734 Jul 23 10:13	0° \mathbb{P}	
morning max el	4732 Jan 18 07:53	10° \mathcal{A} 12'39	46°47'06		4734 Aug 17 10:35	0° \mathcal{L}	
	4732 Feb 05 21:27	0° \mathcal{Z}			4734 Sep 11 23:20	0° \mathbb{M}	
	4732 Mar 03 00:49	0° \approx		desc. node	4734 Sep 18 02:32	7° \mathbb{M} 04'53	
	4732 Mar 28 03:38	0° \mathcal{H}			4734 Oct 08 08:46	0° \mathcal{A}	
desc. node	4732 Apr 02 07:37	6° \mathcal{H} 15'04			4734 Nov 05 12:54	0° \mathcal{Z}	
	4732 Apr 21 19:54	0° \mathbb{Y}		evening max el	4734 Nov 10 10:51	4° \mathcal{Z} 52'29	46°27'51
	4732 May 16 07:50	0° \mathcal{B}			4734 Dec 10 22:26	0° \approx	
	4732 Jun 09 18:43	0° \mathbb{I}		greatest brilliancy	4734 Dec 20 10:36	4° \approx 34'32	-4.9m
	4732 Jul 04 05:44	0° \mathcal{C}		retrograde	4734 Dec 30 06:01	6° \approx 21'55	
morning set	4732 Jul 21 20:06	21° \mathcal{C} 35'07		asc. node	4735 Jan 09 04:38	4° \approx 21'44	
asc. node	4732 Jul 24 09:34	24° \mathcal{C} 43'45		evening set	4735 Jan 13 13:33	2° \approx 18'50	
	4732 Jul 28 16:36	0° \mathcal{Q}			4735 Jan 17 14:41	30° \mathcal{R} \mathcal{Z}	
	4732 Aug 22 02:25	0° \mathbb{P}		inferior conj	4735 Jan 19 19:04	28° \mathcal{Z} 40'24	2°43'11
max. Earth dist.	4732 Aug 26 06:24	5° \mathbb{P} 07'43	1.73439 AU	minimum elong	4735 Jan 19 13:01	28° \mathcal{Z} 49'39	2°41'17
				min. Earth dist.	4735 Jan 19 16:48	28° \mathcal{Z} 43'53	0.26641 AU
superior conj	4732 Aug 27 13:19	6° \mathbb{P} 42'54	1°09'52	morning rise	4735 Jan 25 12:27	25° \mathcal{Z} 18'41	
minimum elong	4732 Aug 27 04:49	6° \mathbb{P} 16'44	1°09'37	direct	4735 Feb 09 08:22	20° \mathcal{Z} 58'45	
	4732 Sep 15 10:48	0° \mathcal{L}		greatest brilliancy	4735 Feb 19 07:54	22° \mathcal{Z} 52'29	-4.9m
evening rise	4732 Oct 02 16:13	21° \mathcal{L} 15'22			4735 Mar 04 11:58	0° \approx	
	4732 Oct 09 18:16	0° \mathbb{M}		morning max el	4735 Mar 31 19:40	23° \approx 53'42	46°54'22
	4732 Nov 03 01:45	0° \mathcal{A}			4735 Apr 06 18:51	0° \mathcal{H}	
desc. node	4732 Nov 13 00:21	12° \mathcal{A} 15'25		desc. node	4735 Apr 30 19:29	26° \mathcal{H} 11'51	
	4732 Nov 27 09:52	0° \mathcal{Z}			4735 May 04 04:04	0° \mathbb{Y}	
	4732 Dec 21 19:02	0° \approx			4735 May 30 01:36	0° \mathcal{B}	
	4733 Jan 15 06:46	0° \mathcal{H}			4735 Jun 24 09:05	0° \mathbb{I}	
	4733 Feb 09 01:42	0° \mathbb{Y}			4735 Jul 19 09:46	0° \mathcal{C}	
asc. node	4733 Mar 06 02:13	29° \mathbb{Y} 24'36			4735 Aug 13 05:38	0° \mathcal{Q}	
	4733 Mar 06 14:34	0° \mathcal{B}		asc. node	4735 Aug 21 21:26	10° \mathcal{Q} 31'12	
	4733 Apr 03 00:19	0° \mathbb{I}			4735 Sep 06 20:36	0° \mathbb{P}	
evening max el	4733 Apr 06 15:21	3° \mathbb{I} 40'50	46°38'49	morning set	4735 Sep 28 23:45	27° \mathbb{P} 10'50	
	4733 May 08 05:09	0° \mathcal{C}			4735 Oct 01 06:38	0° \mathcal{L}	
greatest brilliancy	4733 May 15 21:59	3° \mathcal{C} 45'45	-4.8m		4735 Oct 25 12:35	0° \mathbb{M}	
retrograde	4733 May 26 18:51	5° \mathcal{C} 57'17		max. Earth dist.	4735 Nov 01 20:39	9° \mathbb{M} 06'26	1.72508 AU
evening set	4733 Jun 11 01:32	1° \mathcal{C} 21'26					
	4733 Jun 13 09:37	30° \mathcal{R} \mathbb{I}		superior conj	4735 Nov 04 18:40	12° \mathbb{M} 43'54	1°13'27
inferior conj	4733 Jun 17 00:45	27° \mathbb{I} 45'39	2°05'34	minimum elong	4735 Nov 05 03:16	13° \mathbb{M} 10'35	1°13'15
minimum elong	4733 Jun 17 05:20	27° \mathbb{I} 38'30	2°04'12		4735 Nov 18 15:50	0° \mathcal{A}	
min. Earth dist.	4733 Jun 16 19:34	27° \mathbb{I} 53'44	0.28333 AU	desc. node	4735 Dec 11 12:18	28° \mathcal{A} 29'06	
morning rise	4733 Jun 23 09:40	23° \mathbb{I} 57'41			4735 Dec 12 17:26	0° \mathcal{Z}	
desc. node	4733 Jun 25 17:01	22° \mathbb{I} 46'45		evening rise	4735 Dec 13 09:25	0° \mathcal{Z} 49'50	
direct	4733 Jul 08 06:33	19° \mathbb{I} 39'35			4736 Jan 05 18:00	0° \approx	
greatest brilliancy	4733 Jul 18 05:22	21° \mathbb{I} 27'41	-4.7m		4736 Jan 29 18:18	0° \mathcal{H}	
	4733 Aug 03 00:38	0° \mathcal{C}			4736 Feb 22 20:11	0° \mathbb{Y}	
morning max el	4733 Aug 26 01:00	19° \mathcal{C} 26'05	45°42'23		4736 Mar 18 03:09	0° \mathcal{B}	
	4733 Sep 05 17:54	0° \mathcal{Q}		asc. node	4736 Apr 02 14:05	18° \mathcal{B} 50'13	
	4733 Oct 03 15:19	0° \mathbb{P}			4736 Apr 11 20:38	0° \mathbb{I}	
asc. node	4733 Oct 16 19:05	14° \mathbb{P} 58'55			4736 May 07 09:21	0° \mathcal{C}	
	4733 Oct 29 16:07	0° \mathcal{L}			4736 Jun 03 12:39	0° \mathcal{Q}	
	4733 Nov 23 17:19	0° \mathbb{M}		evening max el	4736 Jun 16 11:13	13° \mathcal{Q} 07'53	45°43'32
	4733 Dec 18 04:44	0° \mathcal{A}			4736 Jul 05 13:03	0° \mathbb{P}	
	4734 Jan 11 08:20	0° \mathcal{Z}		desc. node	4736 Jul 23 05:03	10° \mathbb{P} 49'54	
	4734 Feb 04 07:44	0° \approx		greatest brilliancy	4736 Jul 24 14:42	11° \mathbb{P} 22'56	-4.7m
desc. node	4734 Feb 05 09:55	1° \approx 22'06		retrograde	4736 Aug 04 09:38	13° \mathbb{P} 28'56	
morning set	4734 Feb 23 22:56	24° \approx 39'04		evening set	4736 Aug 20 20:38	8° \mathbb{P} 20'19	
	4734 Feb 28 05:06	0° \mathcal{H}		inferior conj	4736 Aug 25 23:02	5° \mathbb{P} 13'19	-6°53'43
	4734 Mar 24 02:04	0° \mathbb{Y}		minimum elong	4736 Aug 25 13:31	5° \mathbb{P} 28'16	6°52'03
				min. Earth dist.	4736 Aug 25 17:32	5° \mathbb{P} 21'57	0.29111 AU
superior conj	4734 Apr 06 00:32	16° \mathbb{Y} 13'45	-1°26'40	morning rise	4736 Aug 30 06:25	2° \mathbb{P} 33'55	

	4736 Sep 04 00:35	30° κ Ω			4739 Apr 01 23:18	0° C	
direct	4736 Sep 16 13:53	26° Ω 55'54			4739 Apr 26 03:31	0° Π	
greatest brilliancy	4736 Sep 26 21:25	28° Ω 50'42	-4.7m	asc. node	4739 May 01 02:04	6° Π 05'07	
	4736 Sep 29 19:08	0° η			4739 May 20 15:23	0° C	
morning max el	4736 Nov 04 17:37	27° η 24'55	46°01'03		4739 Jun 14 14:17	0° Ω	
	4736 Nov 07 08:34	0° A			4739 Jul 10 06:23	0° η	
asc. node	4736 Nov 13 06:59	6° A 01'05			4739 Aug 06 06:18	0° A	
	4736 Dec 05 09:07	0° \mathcal{M}		desc. node	4739 Aug 20 16:43	14° A 57'24	
	4736 Dec 31 03:48	0° X		evening max el	4739 Aug 27 08:42	21° A 28'14	45°36'10
	4737 Jan 24 23:33	0° C			4739 Sep 05 15:55	0° \mathcal{M}	
	4737 Feb 18 08:17	0° \approx		greatest brilliancy	4739 Oct 05 17:12	19° \mathcal{M} 34'40	-4.8m
desc. node	4737 Mar 04 21:43	18° \approx 04'12		retrograde	4739 Oct 15 02:16	21° \mathcal{M} 10'21	
	4737 Mar 14 11:44	0° X		evening set	4739 Nov 01 07:58	15° \mathcal{M} 34'04	
	4737 Apr 07 13:09	0° Υ		inferior conj	4739 Nov 05 05:26	13° \mathcal{M} 12'15	-7°31'13
	4737 May 01 14:47	0° C		minimum elong	4739 Nov 05 14:28	12° \mathcal{M} 58'17	7°29'50
morning set	4737 May 10 13:08	11° C 06'49		min. Earth dist.	4739 Nov 06 03:52	12° \mathcal{M} 37'35	0.28196 AU
	4737 May 25 18:11	0° Π		morning rise	4739 Nov 09 20:34	10° \mathcal{M} 23'53	
				direct	4739 Nov 26 11:41	5° \mathcal{M} 03'23	
superior conj	4737 Jun 17 21:10	28° Π 37'09	-0°19'20	greatest brilliancy	4739 Dec 07 17:24	7° \mathcal{M} 24'14	-4.8m
minimum elong	4737 Jun 18 01:25	28° Π 50'17	0°19'08	asc. node	4739 Dec 11 18:44	9° \mathcal{M} 14'49	
	4737 Jun 18 24:00	0° C			4740 Jan 07 21:53	0° X	
max. Earth dist.	4737 Jun 20 09:28	1° C 43'19	1.72993 AU	morning max el	4740 Jan 15 23:44	7° X 55'15	46°45'48
asc. node	4737 Jun 25 23:48	8° C 37'42			4740 Feb 05 14:46	0° C	
	4737 Jul 13 08:03	0° Ω			4740 Mar 02 15:16	0° \approx	
evening rise	4737 Jul 25 01:21	14° Ω 24'45			4740 Mar 27 16:42	0° X	
	4737 Aug 06 17:58	0° η		desc. node	4740 Apr 01 09:37	5° X 42'07	
	4737 Aug 31 06:00	0° A			4740 Apr 21 08:09	0° Υ	
	4737 Sep 24 21:10	0° \mathcal{M}			4740 May 15 19:32	0° C	
desc. node	4737 Oct 15 14:28	25° \mathcal{M} 03'41			4740 Jun 09 06:00	0° Π	
	4737 Oct 19 16:57	0° X			4740 Jul 03 16:44	0° C	
	4737 Nov 13 19:05	0° C		morning set	4740 Jul 19 13:38	19° C 28'23	
	4737 Dec 09 07:22	0° \approx		asc. node	4740 Jul 23 11:34	24° C 16'39	
	4738 Jan 04 17:49	0° X			4740 Jul 28 03:24	0° Ω	
evening max el	4738 Jan 22 03:59	18° X 29'41	47°10'01		4740 Aug 21 13:08	0° η	
	4738 Feb 03 00:33	0° Υ		max. Earth dist.	4740 Aug 24 05:16	3° η 17'23	1.73449 AU
asc. node	4738 Feb 05 16:29	2° Υ 24'26					
greatest brilliancy	4738 Mar 03 23:02	20° Υ 04'18	-4.9m	superior conj	4740 Aug 25 07:38	4° η 38'33	1°08'00
retrograde	4738 Mar 13 23:47	21° Υ 59'57		minimum elong	4740 Aug 24 22:56	4° η 11'46	1°07'44
evening set	4738 Apr 01 02:58	15° Υ 42'02			4740 Sep 14 21:32	0° A	
inferior conj	4738 Apr 03 19:39	14° Υ 02'16	9°01'17	evening rise	4740 Sep 30 09:54	19° A 08'22	
minimum elong	4738 Apr 03 20:52	14° Υ 00'22	9°01'15		4740 Oct 09 05:09	0° \mathcal{M}	
min. Earth dist.	4738 Apr 03 09:54	14° Υ 17'26	0.27363 AU		4740 Nov 02 12:54	0° X	
morning rise	4738 Apr 06 14:52	12° Υ 18'47		desc. node	4740 Nov 12 02:28	11° X 47'13	
direct	4738 Apr 24 11:06	6° Υ 12'26			4740 Nov 26 21:23	0° C	
greatest brilliancy	4738 May 03 19:15	7° Υ 50'10	-4.8m		4740 Dec 21 07:00	0° \approx	
desc. node	4738 May 28 07:14	23° Υ 07'57			4741 Jan 14 19:21	0° X	
	4738 Jun 05 03:25	0° C			4741 Feb 08 15:19	0° Υ	
morning max el	4738 Jun 13 01:03	7° C 28'40	46°13'03	asc. node	4741 Mar 05 04:10	28° Υ 45'33	
	4738 Jul 04 20:31	0° Π			4741 Mar 06 06:14	0° C	
	4738 Jul 31 20:08	0° C			4741 Apr 02 21:25	0° Π	
	4738 Aug 26 18:07	0° Ω		evening max el	4741 Apr 04 07:15	1° Π 25'18	46°40'45
asc. node	4738 Sep 18 09:12	26° Ω 50'11			4741 May 10 01:31	0° C	
	4738 Sep 21 00:32	0° η		greatest brilliancy	4741 May 13 14:23	1° C 31'56	-4.8m
	4738 Oct 15 19:10	0° A		retrograde	4741 May 24 11:06	3° C 42'49	
	4738 Nov 09 04:51	0° \mathcal{M}			4741 Jun 07 02:07	30° κ Π	
	4738 Dec 03 08:27	0° X		evening set	4741 Jun 08 18:53	29° Π 04'57	
morning set	4738 Dec 08 00:22	5° X 49'03		inferior conj	4741 Jun 14 16:08	25° Π 31'33	2°26'12
	4738 Dec 27 08:22	0° C		minimum elong	4741 Jun 14 21:26	25° Π 23'18	2°24'38
desc. node	4739 Jan 08 00:06	14° C 36'45		min. Earth dist.	4741 Jun 14 11:00	25° Π 39'36	0.28298 AU
max. Earth dist.	4739 Jan 15 03:47	23° C 35'36	1.71303 AU	morning rise	4741 Jun 21 00:35	21° Π 44'23	
				desc. node	4741 Jun 24 19:05	19° Π 53'31	
superior conj	4739 Jan 16 20:47	25° C 44'20	-0°21'13	direct	4741 Jul 05 22:04	17° Π 26'16	
minimum elong	4739 Jan 16 15:22	25° C 27'22	0°20'57	greatest brilliancy	4741 Jul 15 19:22	19° Π 13'22	-4.7m
	4739 Jan 20 06:11	0° \approx			4741 Aug 03 16:54	0° C	
	4739 Feb 13 02:56	0° X		morning max el	4741 Aug 23 16:36	17° C 15'10	45°42'38
evening rise	4739 Feb 26 18:17	17° X 08'48			4741 Sep 05 12:41	0° Ω	
	4739 Mar 08 23:58	0° Υ			4741 Oct 03 05:45	0° η	

asc. node	4741 Oct 15 21:15	14° \cap 26'25		4744 May 06 23:41	0° \ominus	
	4741 Oct 29 04:48	0° Ω		4744 Jun 03 06:54	0° Ω	
	4741 Nov 23 05:11	0° \cap	evening max el	4744 Jun 14 01:39	10° Ω 53'01	45°44'55
	4741 Dec 17 16:12	0° \nearrow		4744 Jul 06 02:07	0° \cap	
	4742 Jan 10 19:36	0° \beth	desc. node	4744 Jul 22 06:58	9° \cap 13'56	
	4742 Feb 03 18:53	0° \approx	greatest brilliancy	4744 Jul 22 06:22	9° \cap 13'22	-4.7m
desc. node	4742 Feb 04 11:53	0° \approx 53'20	retrograde	4744 Aug 02 01:43	11° \cap 20'21	
morning set	4742 Feb 21 08:47	22° \approx 04'33	evening set	4744 Aug 18 09:59	6° \cap 15'34	
	4742 Feb 27 16:08	0° \nearrow	inferior conj	4744 Aug 23 15:22	3° \cap 04'32	-6°41'38
	4742 Mar 23 13:02	0° Υ	minimum elong	4744 Aug 23 05:41	3° \cap 19'44	6°39'51
			min. Earth dist.	4744 Aug 23 09:32	3° \cap 13'41	0.29102 AU
superior conj	4742 Apr 03 11:46	13° Υ 44'15 -1°26'56	morning rise	4744 Aug 28 01:22	0° \cap 21'19	
minimum elong	4742 Apr 03 12:45	13° Υ 47'19 1°26'56		4744 Aug 28 15:56	30° \Re Ω	
max. Earth dist.	4742 Apr 06 22:04	18° Υ 02'13 1.71517 AU	direct	4744 Sep 14 05:30	24° Ω 47'06	
	4742 Apr 16 11:21	0° \bowtie	greatest brilliancy	4744 Sep 24 13:41	26° Ω 42'07	-4.7m
	4742 May 10 12:45	0° \cap		4744 Oct 01 19:52	0° \cap	
evening rise	4742 May 13 13:47	3° \cap 46'49	morning max el	4744 Nov 02 08:31	25° \cap 11'09	45°59'55
asc. node	4742 May 28 13:59	22° \cap 22'06		4744 Nov 07 05:01	0° Ω	
	4742 Jun 03 18:25	0° \ominus	asc. node	4744 Nov 12 09:00	5° Ω 17'33	
	4742 Jun 28 05:02	0° Ω		4744 Dec 05 00:09	0° \cap	
	4742 Jul 22 21:41	0° \cap		4744 Dec 30 16:52	0° \nearrow	
	4742 Aug 16 22:43	0° Ω		4745 Jan 24 11:41	0° \beth	
	4742 Sep 11 12:40	0° \cap		4745 Feb 17 19:53	0° \approx	
desc. node	4742 Sep 17 04:35	6° \cap 31'22	desc. node	4745 Mar 03 23:45	17° \approx 35'01	
	4742 Oct 08 00:31	0° \nearrow		4745 Mar 13 23:02	0° \nearrow	
	4742 Nov 05 10:50	0° \beth		4745 Apr 07 00:14	0° Υ	
evening max el	4742 Nov 08 00:12	2° \beth 30'52 46°25'33		4745 May 01 01:41	0° \bowtie	
	4742 Dec 12 21:48	0° \approx	morning set	4745 May 08 02:47	8° \bowtie 46'20	
greatest brilliancy	4742 Dec 18 00:17	2° \approx 09'16 -4.9m		4745 May 25 04:55	0° \cap	
retrograde	4742 Dec 27 17:46	3° \approx 54'50				
asc. node	4743 Jan 08 06:37	1° \approx 15'01	superior conj	4745 Jun 15 12:48	26° \cap 24'24	-0°22'41
	4743 Jan 10 20:04	30° \Re \beth	minimum elong	4745 Jun 15 17:46	26° \cap 39'44	0°22'26
evening set	4743 Jan 11 01:21	29° \beth 53'02	max. Earth dist.	4745 Jun 18 01:46	29° \cap 32'42	1.72952 AU
inferior conj	4743 Jan 17 07:33	26° \beth 13'47 2°19'35		4745 Jun 18 10:37	0° \ominus	
minimum elong	4743 Jan 17 02:19	26° \beth 21'47 2°17'56	asc. node	4745 Jun 25 01:43	8° \ominus 10'54	
min. Earth dist.	4743 Jan 17 06:59	26° \beth 14'40 0.26653 AU		4745 Jul 12 18:39	0° Ω	
morning rise	4743 Jan 23 03:07	22° \beth 48'39	evening rise	4745 Jul 22 19:08	12° Ω 19'17	
direct	4743 Feb 06 20:44	18° \beth 31'41		4745 Aug 06 04:40	0° \cap	
greatest brilliancy	4743 Feb 16 22:36	20° \beth 27'00 -4.9m		4745 Aug 30 16:56	0° Ω	
	4743 Mar 05 10:24	0° \approx		4745 Sep 24 08:30	0° \cap	
morning max el	4743 Mar 29 07:41	21° \approx 25'30 46°55'08	desc. node	4745 Oct 14 16:36	24° \cap 34'36	
	4743 Apr 06 15:22	0° \nearrow		4745 Oct 19 04:53	0° \nearrow	
desc. node	4743 Apr 29 21:38	25° \nearrow 32'42		4745 Nov 13 07:57	0° \beth	
	4743 May 03 19:36	0° Υ		4745 Dec 08 21:52	0° \approx	
	4743 May 29 15:02	0° \bowtie		4746 Jan 04 11:43	0° \nearrow	
	4743 Jun 23 21:22	0° \cap	evening max el	4746 Jan 19 17:30	16° \nearrow 05'41	47°09'44
	4743 Jul 18 21:20	0° \ominus		4746 Feb 03 05:58	0° Υ	
	4743 Aug 12 16:44	0° Ω	asc. node	4746 Feb 04 18:25	1° Υ 20'14	
asc. node	4743 Aug 20 23:22	10° Ω 03'38	greatest brilliancy	4746 Mar 01 12:34	17° Υ 40'08	-4.9m
	4743 Sep 06 07:24	0° \cap	retrograde	4746 Mar 11 13:51	19° Υ 36'31	
morning set	4743 Sep 26 17:06	25° \cap 03'31	evening set	4746 Mar 29 16:07	13° Υ 19'09	
	4743 Sep 30 17:18	0° Ω	inferior conj	4746 Apr 01 09:08	11° Υ 39'06	9°02'23
	4743 Oct 24 23:14	0° \cap	minimum elong	4746 Apr 01 09:26	11° Υ 38'38	9°02'22
max. Earth dist.	4743 Oct 30 12:46	6° \cap 54'25 1.72553 AU	min. Earth dist.	4746 Mar 31 22:40	11° Υ 55'19	0.27332 AU
			morning rise	4746 Apr 04 02:52	9° Υ 58'08	
superior conj	4743 Nov 02 11:00	10° \cap 32'29 1°15'07	direct	4746 Apr 22 00:08	3° Υ 49'37	
minimum elong	4743 Nov 02 19:11	10° \cap 57'53 1°14'56	greatest brilliancy	4746 May 01 07:56	5° Υ 27'25	-4.8m
	4743 Nov 18 02:32	0° \nearrow	desc. node	4746 May 27 09:16	22° Υ 04'05	
evening rise	4743 Dec 10 23:02	28° \nearrow 28'49		4746 Jun 05 05:32	0° \bowtie	
desc. node	4743 Dec 10 14:21	28° \nearrow 01'44	morning max el	4746 Jun 10 15:49	5° \bowtie 11'45	46°14'38
	4743 Dec 12 04:16	0° \beth		4746 Jul 04 13:20	0° \cap	
	4744 Jan 05 05:02	0° \approx		4746 Jul 31 09:53	0° \ominus	
	4744 Jan 29 05:34	0° \nearrow		4746 Aug 26 06:25	0° Ω	
	4744 Feb 22 07:45	0° Υ	asc. node	4746 Sep 17 11:19	26° Ω 21'53	
	4744 Mar 17 15:10	0° \bowtie		4746 Sep 20 12:02	0° \cap	
asc. node	4744 Apr 01 16:11	18° \bowtie 18'59		4746 Oct 15 06:13	0° Ω	
	4744 Apr 11 09:24	0° \cap		4746 Nov 08 15:41	0° \cap	

	4746 Dec 02 19:12	0°♊		evening set	4749 Jun 06 12:35	26°♊49'43	
morning set	4746 Dec 05 14:39	3°♊30'19		inferior conj	4749 Jun 12 07:45	23°♊18'56	2°46'28
	4746 Dec 26 19:06	0°♊		minimum elong	4749 Jun 12 13:42	23°♊09'37	2°44'42
desc. node	4747 Jan 07 02:03	14°♊09'13		min. Earth dist.	4749 Jun 12 02:52	23°♊26'35	0.28265 AU
max. Earth dist.	4747 Jan 12 15:32	21°♊08'05	1.71326 AU	morning rise	4749 Jun 18 15:28	19°♊32'32	
				desc. node	4749 Jun 23 21:02	17°♊06'05	
superior conj	4747 Jan 14 08:04	23°♊15'18	-0°17'25	direct	4749 Jul 03 13:33	15°♊14'21	
minimum elong	4747 Jan 14 03:36	23°♊01'17	0°17'11	greatest brilliancy	4749 Jul 13 09:52	17°♊00'29	-4.7m
	4747 Jan 19 16:55	0°♊			4749 Aug 04 04:38	0°♊	
	4747 Feb 12 13:43	0°♊		morning max el	4749 Aug 21 07:36	15°♊03'13	45°42'45
evening rise	4747 Feb 24 05:07	14°♊38'11			4749 Sep 05 06:49	0°♊	
	4747 Mar 08 10:47	0°♊			4749 Oct 02 19:55	0°♊	
	4747 Apr 01 10:14	0°♊		asc. node	4749 Oct 14 23:15	13°♊53'53	
	4747 Apr 25 14:40	0°♊			4749 Oct 28 17:20	0°♊	
asc. node	4747 Apr 30 04:07	5°♊36'57			4749 Nov 22 16:56	0°♊	
	4747 May 20 02:56	0°♊			4749 Dec 17 03:33	0°♊	
	4747 Jun 14 02:33	0°♊			4750 Jan 10 06:46	0°♊	
	4747 Jul 09 20:03	0°♊			4750 Feb 03 05:55	0°♊	
	4747 Aug 05 23:12	0°♊		desc. node	4750 Feb 03 13:53	0°♊24'59	
desc. node	4747 Aug 19 18:48	14°♊11'58		morning set	4750 Feb 18 18:33	19°♊30'00	
evening max el	4747 Aug 25 00:18	19°♊17'11	45°35'21		4750 Feb 27 03:04	0°♊	
	4747 Sep 05 20:27	0°♊			4750 Mar 22 23:54	0°♊	
greatest brilliancy	4747 Oct 03 06:11	17°♊19'09	-4.7m				
retrograde	4747 Oct 12 16:45	18°♊55'33		superior conj	4750 Mar 31 23:09	11°♊15'26	-1°27'01
evening set	4747 Oct 30 01:13	13°♊15'00		minimum elong	4750 Mar 31 23:03	11°♊15'07	1°27'01
inferior conj	4747 Nov 02 20:08	10°♊56'32	-7°41'20	max. Earth dist.	4750 Apr 04 07:01	15°♊25'48	1.71469 AU
minimum elong	4747 Nov 03 04:44	10°♊43'13	7°40'06		4750 Apr 15 22:10	0°♊	
min. Earth dist.	4747 Nov 03 17:44	10°♊23'06	0.28260 AU		4750 May 09 23:32	0°♊	
morning rise	4747 Nov 07 07:56	8°♊12'50		evening rise	4750 May 11 03:02	1°♊25'26	
direct	4747 Nov 24 03:34	2°♊47'01		asc. node	4750 May 27 15:56	21°♊54'46	
greatest brilliancy	4747 Dec 05 07:44	5°♊06'24	-4.8m		4750 Jun 03 05:14	0°♊	
asc. node	4747 Dec 10 20:43	7°♊43'43			4750 Jun 27 16:02	0°♊	
	4748 Jan 07 22:49	0°♊			4750 Jul 22 09:05	0°♊	
morning max el	4748 Jan 13 15:11	5°♊37'38	46°44'34		4750 Aug 16 10:50	0°♊	
	4748 Feb 05 07:27	0°♊			4750 Sep 11 02:07	0°♊	
	4748 Mar 02 05:14	0°♊		desc. node	4750 Sep 16 06:40	5°♊57'45	
	4748 Mar 27 05:20	0°♊			4750 Oct 07 16:34	0°♊	
desc. node	4748 Mar 31 11:45	5°♊10'47			4750 Nov 05 09:43	0°♊	
	4748 Apr 20 19:58	0°♊		evening max el	4750 Nov 05 12:51	0°♊07'37	46°23'21
	4748 May 15 06:50	0°♊		greatest brilliancy	4750 Dec 15 14:07	29°♊44'12	-4.9m
	4748 Jun 08 16:58	0°♊			4750 Dec 16 09:06	0°♊	
	4748 Jul 03 03:28	0°♊		retrograde	4750 Dec 25 05:27	1°♊28'09	
morning set	4748 Jul 17 07:01	17°♊21'49			4751 Jan 02 18:26	30°♊	
asc. node	4748 Jul 22 13:33	23°♊50'11		asc. node	4751 Jan 07 08:35	28°♊03'44	
	4748 Jul 27 14:00	0°♊		evening set	4751 Jan 08 13:24	27°♊26'49	
	4748 Aug 20 23:39	0°♊		inferior conj	4751 Jan 14 20:06	23°♊47'19	1°55'45
max. Earth dist.	4748 Aug 22 02:31	1°♊22'41	1.73457 AU	minimum elong	4751 Jan 14 15:43	23°♊54'01	1°54'22
				min. Earth dist.	4751 Jan 14 21:22	23°♊45'23	0.26670 AU
superior conj	4748 Aug 23 01:40	2°♊33'55	1°06'02	morning rise	4751 Jan 20 17:40	20°♊19'09	
minimum elong	4748 Aug 22 16:49	2°♊06'39	1°05'45	direct	4751 Feb 04 08:58	16°♊04'27	
	4748 Sep 14 08:05	0°♊		greatest brilliancy	4751 Feb 14 13:46	18°♊02'05	-4.9m
evening rise	4748 Sep 28 03:16	17°♊01'04			4751 Mar 06 03:06	0°♊	
	4748 Oct 08 15:52	0°♊		morning max el	4751 Mar 26 20:11	18°♊58'15	46°55'57
	4748 Nov 01 23:53	0°♊			4751 Apr 06 11:18	0°♊	
desc. node	4748 Nov 11 04:26	11°♊19'08		desc. node	4751 Apr 28 23:33	24°♊53'11	
	4748 Nov 26 08:44	0°♊			4751 May 03 10:58	0°♊	
	4748 Dec 20 18:49	0°♊			4751 May 29 04:23	0°♊	
	4749 Jan 14 07:50	0°♊			4751 Jun 23 09:35	0°♊	
	4749 Feb 08 04:51	0°♊			4751 Jul 18 08:50	0°♊	
asc. node	4749 Mar 04 06:20	28°♊07'35		asc. node	4751 Aug 12 03:47	0°♊	
	4749 Mar 05 21:52	0°♊			4751 Aug 20 01:30	9°♊36'44	
evening max el	4749 Apr 01 22:50	29°♊09'50	46°42'44		4751 Sep 05 18:13	0°♊	
	4749 Apr 02 18:53	0°♊		morning set	4751 Sep 24 10:33	22°♊56'20	
greatest brilliancy	4749 May 11 07:24	29°♊20'08	-4.8m		4751 Sep 30 04:02	0°♊	
	4749 May 13 04:39	0°♊			4751 Oct 24 10:00	0°♊	
retrograde	4749 May 22 02:58	1°♊29'41		max. Earth dist.	4751 Oct 28 06:09	4°♊45'56	1.72602 AU
	4749 May 30 16:37	30°♊					

superior conj	4751 Oct 31 03:19	8° \mathbb{M} 20'38	1°16'40	direct	4754 Apr 19 13:22	1° Υ 24'57	
minimum elong	4751 Oct 31 11:01	8° \mathbb{M} 44'32	1°16'29	greatest brilliancy	4754 Apr 28 19:53	3° Υ 02'10	-4.8m
	4751 Nov 17 13:23	0° \mathbb{X}		desc. node	4754 May 26 11:16	21° Υ 00'27	
evening rise	4751 Dec 08 12:34	26° \mathbb{X} 07'10			4754 Jun 05 06:47	0° \mathbb{B}	
desc. node	4751 Dec 09 16:17	27° \mathbb{X} 33'34		morning max el	4754 Jun 08 06:48	2° \mathbb{B} 54'11	46°16'16
	4751 Dec 11 15:16	0° \mathbb{Z}			4754 Jul 04 06:11	0° \mathbb{I}	
	4752 Jan 04 16:12	0° \approx			4754 Jul 30 23:51	0° \mathbb{G}	
	4752 Jan 28 16:59	0° \mathbb{H}			4754 Aug 25 18:57	0° \mathbb{Q}	
	4752 Feb 21 19:30	0° Υ		asc. node	4754 Sep 16 13:21	25° \mathbb{Q} 52'31	
	4752 Mar 17 03:23	0° \mathbb{B}			4754 Sep 19 23:47	0° \mathbb{P}	
asc. node	4752 Mar 31 18:11	17° \mathbb{B} 46'52			4754 Oct 14 17:32	0° \mathbb{L}	
	4752 Apr 10 22:26	0° \mathbb{I}			4754 Nov 08 02:46	0° \mathbb{M}	
	4752 May 06 14:21	0° \mathbb{G}			4754 Dec 02 06:13	0° \mathbb{X}	
	4752 Jun 03 01:44	0° \mathbb{Q}		morning set	4754 Dec 03 05:14	1° \mathbb{X} 11'44	
evening max el	4752 Jun 11 16:48	8° \mathbb{Q} 39'44	45°46'32		4754 Dec 26 06:10	0° \mathbb{Z}	
	4752 Jul 06 19:42	0° \mathbb{P}		desc. node	4755 Jan 06 04:10	13° \mathbb{Z} 41'01	
greatest brilliancy	4752 Jul 19 21:38	7° \mathbb{P} 03'35	-4.7m	max. Earth dist.	4755 Jan 10 00:52	18° \mathbb{Z} 31'48	1.71357 AU
desc. node	4752 Jul 21 09:02	7° \mathbb{P} 34'56					
retrograde	4752 Jul 30 18:30	9° \mathbb{P} 12'18		superior conj	4755 Jan 11 19:20	20° \mathbb{Z} 45'06	-0°13'34
evening set	4752 Aug 15 23:39	4° \mathbb{P} 11'02		minimum elong	4755 Jan 11 15:52	20° \mathbb{Z} 34'11	0°13'24
inferior conj	4752 Aug 21 07:55	0° \mathbb{P} 56'09	-6°29'00	behind sun begin	4755 Jan 11 01:03	19° \mathbb{Z} 47'41	
minimum elong	4752 Aug 20 22:07	1° \mathbb{P} 11'31	6°27'08	behind sun end	4755 Jan 12 06:41	21° \mathbb{Z} 20'41	
min. Earth dist.	4752 Aug 21 01:28	1° \mathbb{P} 06'16	0.29093 AU		4755 Jan 19 04:04	0° \approx	
	4752 Aug 22 19:48	30° \mathbb{R} \mathbb{Q}			4755 Feb 12 00:56	0° \mathbb{H}	
morning rise	4752 Aug 25 20:35	28° \mathbb{Q} 09'15		evening rise	4755 Feb 21 15:31	12° \mathbb{H} 04'44	
direct	4752 Sep 11 21:35	22° \mathbb{Q} 38'45			4755 Mar 07 22:05	0° Υ	
greatest brilliancy	4752 Sep 22 05:54	24° \mathbb{Q} 33'53	-4.7m		4755 Mar 31 21:37	0° \mathbb{B}	
	4752 Oct 03 04:08	0° \mathbb{P}			4755 Apr 25 02:16	0° \mathbb{I}	
morning max el	4752 Oct 31 00:29	22° \mathbb{P} 59'47	45°58'33	asc. node	4755 Apr 29 06:03	5° \mathbb{I} 07'07	
	4752 Nov 07 00:58	0° \mathbb{L}			4755 May 19 14:56	0° \mathbb{G}	
asc. node	4752 Nov 11 10:58	4° \mathbb{L} 33'59			4755 Jun 13 15:18	0° \mathbb{Q}	
	4752 Dec 04 15:13	0° \mathbb{M}			4755 Jul 09 10:15	0° \mathbb{P}	
	4752 Dec 30 06:08	0° \mathbb{X}			4755 Aug 05 16:51	0° \mathbb{L}	
	4753 Jan 24 00:03	0° \mathbb{Z}		desc. node	4755 Aug 18 20:55	13° \mathbb{L} 24'58	
	4753 Feb 17 07:45	0° \approx		evening max el	4755 Aug 22 15:58	17° \mathbb{L} 05'25	45°34'40
desc. node	4753 Mar 03 01:54	17° \approx 05'21			4755 Sep 06 03:24	0° \mathbb{M}	
	4753 Mar 13 10:35	0° \mathbb{H}		greatest brilliancy	4755 Sep 30 20:05	15° \mathbb{M} 04'37	-4.7m
	4753 Apr 06 11:33	0° Υ		retrograde	4755 Oct 10 07:07	16° \mathbb{M} 41'10	
	4753 Apr 30 12:48	0° \mathbb{B}		evening set	4755 Oct 27 18:43	10° \mathbb{M} 56'46	
morning set	4753 May 05 16:16	6° \mathbb{B} 24'25		inferior conj	4755 Oct 31 11:15	8° \mathbb{M} 41'29	-7°50'28
	4753 May 24 15:53	0° \mathbb{I}		minimum elong	4755 Oct 31 19:22	8° \mathbb{M} 28'53	7°49'24
				min. Earth dist.	4755 Nov 01 08:09	8° \mathbb{M} 09'02	0.28320 AU
superior conj	4753 Jun 13 04:26	24° \mathbb{I} 10'43	-0°25'59	morning rise	4755 Nov 04 19:44	6° \mathbb{M} 02'14	
minimum elong	4753 Jun 13 10:05	24° \mathbb{I} 28'13	0°25'44	direct	4755 Nov 21 19:32	0° \mathbb{M} 31'25	
max. Earth dist.	4753 Jun 15 18:20	27° \mathbb{I} 22'00	1.72908 AU	greatest brilliancy	4755 Dec 02 22:30	2° \mathbb{M} 49'19	-4.8m
	4753 Jun 17 21:30	0° \mathbb{G}		asc. node	4755 Dec 09 22:44	6° \mathbb{M} 15'41	
asc. node	4753 Jun 24 03:46	7° \mathbb{G} 43'44			4756 Jan 07 22:46	0° \mathbb{X}	
	4753 Jul 12 05:31	0° \mathbb{Q}		morning max el	4756 Jan 11 05:49	3° \mathbb{X} 17'28	46°43'01
evening rise	4753 Jul 20 13:06	10° \mathbb{Q} 13'40			4756 Feb 05 00:09	0° \mathbb{Z}	
	4753 Aug 05 15:37	0° \mathbb{P}			4756 Mar 01 19:28	0° \approx	
	4753 Aug 30 04:05	0° \mathbb{L}			4756 Mar 26 18:20	0° \mathbb{H}	
	4753 Sep 23 20:03	0° \mathbb{M}		desc. node	4756 Mar 30 13:41	4° \mathbb{H} 37'31	
desc. node	4753 Oct 13 18:34	24° \mathbb{M} 04'12			4756 Apr 20 08:14	0° Υ	
	4753 Oct 18 17:06	0° \mathbb{X}			4756 May 14 18:35	0° \mathbb{B}	
	4753 Nov 12 21:14	0° \mathbb{Z}			4756 Jun 08 04:21	0° \mathbb{I}	
	4753 Dec 08 12:58	0° \approx			4756 Jul 02 14:36	0° \mathbb{G}	
	4754 Jan 04 06:36	0° \mathbb{H}		morning set	4756 Jul 15 00:11	15° \mathbb{G} 13'27	
evening max el	4754 Jan 17 08:02	13° \mathbb{H} 42'53	47°09'18	asc. node	4756 Jul 21 15:39	23° \mathbb{G} 22'57	
asc. node	4754 Feb 03 20:34	0° Υ 13'12			4756 Jul 27 00:57	0° \mathbb{Q}	
	4754 Feb 03 14:23	0° Υ		max. Earth dist.	4756 Aug 19 22:22	29° \mathbb{Q} 22'34	1.73461 AU
greatest brilliancy	4754 Feb 27 01:37	15° Υ 13'39	-4.9m		4756 Aug 20 10:32	0° \mathbb{P}	
retrograde	4754 Mar 09 04:08	17° Υ 10'54					
evening set	4754 Mar 27 04:29	10° Υ 55'06		superior conj	4756 Aug 20 19:44	0° \mathbb{P} 28'19	1°03'58
inferior conj	4754 Mar 29 22:23	9° Υ 13'51	9°02'27	minimum elong	4756 Aug 20 10:47	0° \mathbb{P} 00'47	1°03'40
minimum elong	4754 Mar 29 21:44	9° Υ 14'50	9°02'28		4756 Sep 13 18:59	0° \mathbb{L}	
min. Earth dist.	4754 Mar 29 10:59	9° Υ 31'30	0.27295 AU	evening rise	4756 Sep 25 20:54	14° \mathbb{L} 53'33	
morning rise	4754 Apr 01 15:07	7° Υ 34'35			4756 Oct 08 02:54	0° \mathbb{M}	

	4756 Nov 01 11:10	0°♊		4759 Jun 22 21:52	0°♊	
desc. node	4756 Nov 10 06:25	10°♊50'14		4759 Jul 17 20:28	0°♊	
	4756 Nov 25 20:21	0°♊		4759 Aug 11 14:58	0°♊	
	4756 Dec 20 06:55	0°♊	asc. node	4759 Aug 19 03:29	9°♊08'59	
	4757 Jan 13 20:38	0°♊		4759 Sep 05 05:09	0°♊	
	4757 Feb 07 18:50	0°♊	morning set	4759 Sep 22 03:40	20°♊47'54	
asc. node	4757 Mar 03 08:16	27°♊27'14		4759 Sep 29 14:50	0°♊	
	4757 Mar 05 14:13	0°♊		4759 Oct 23 20:48	0°♊	
evening max el	4757 Mar 30 13:27	26°♊50'03 46°44'27	max. Earth dist.	4759 Oct 26 00:55	2°♊41'40 1.72647 AU	
	4757 Apr 02 17:54	0°♊				
greatest brilliancy	4757 May 09 00:36	27°♊06'05 -4.8m	superior conj	4759 Oct 28 19:27	6°♊08'08 1°18'05	
retrograde	4757 May 19 18:04	29°♊13'53	minimum elong	4759 Oct 29 02:38	6°♊30'26 1°17'57	
evening set	4757 Jun 04 06:02	24°♊31'35		4759 Nov 17 00:16	0°♊	
inferior conj	4757 Jun 09 23:01	21°♊03'50 3°06'38	evening rise	4759 Dec 06 02:10	23°♊45'44	
minimum elong	4757 Jun 10 05:37	20°♊53'30 3°04'44	desc. node	4759 Dec 08 18:22	27°♊05'46	
min. Earth dist.	4757 Jun 09 18:45	21°♊10'31 0.28231 AU		4759 Dec 11 02:17	0°♊	
morning rise	4757 Jun 16 05:45	17°♊18'24		4760 Jan 04 03:24	0°♊	
desc. node	4757 Jun 22 23:06	14°♊20'05		4760 Jan 28 04:23	0°♊	
direct	4757 Jul 01 04:09	12°♊59'51		4760 Feb 21 07:11	0°♊	
greatest brilliancy	4757 Jul 11 00:32	14°♊45'42 -4.7m		4760 Mar 16 15:31	0°♊	
	4757 Aug 04 13:58	0°♊	asc. node	4760 Mar 30 20:09	17°♊14'53	
morning max el	4757 Aug 18 21:48	12°♊48'01 45°43'08		4760 Apr 10 11:24	0°♊	
	4757 Sep 05 00:54	0°♊		4760 May 06 05:05	0°♊	
	4757 Oct 02 10:13	0°♊		4760 Jun 02 21:05	0°♊	
asc. node	4757 Oct 14 01:10	13°♊20'23	evening max el	4760 Jun 09 08:42	6°♊28'18 45°47'58	
	4757 Oct 28 06:02	0°♊		4760 Jul 07 19:55	0°♊	
	4757 Nov 22 04:52	0°♊	greatest brilliancy	4760 Jul 17 12:22	4°♊52'38 -4.7m	
	4757 Dec 16 15:05	0°♊	desc. node	4760 Jul 20 11:07	5°♊51'42	
	4758 Jan 09 18:03	0°♊	retrograde	4760 Jul 28 11:21	7°♊03'17	
desc. node	4758 Feb 02 16:00	29°♊56'38	evening set	4760 Aug 13 13:09	2°♊05'34	
	4758 Feb 02 17:04	0°♊		4760 Aug 17 01:16	30°♊	
morning set	4758 Feb 16 04:45	16°♊56'17	min. Earth dist.	4760 Aug 18 16:55	28°♊58'14 0.29083 AU	
	4758 Feb 26 14:09	0°♊	inferior conj	4760 Aug 19 00:12	28°♊46'50 -6°15'42	
	4758 Mar 22 10:57	0°♊	minimum elong	4760 Aug 18 14:20	29°♊02'16 6°13'43	
			morning rise	4760 Aug 23 15:34	25°♊56'16	
superior conj	4758 Mar 29 10:33	8°♊46'02 -1°26'55	direct	4760 Sep 09 13:53	20°♊29'36	
minimum elong	4758 Mar 29 09:24	8°♊42'24 1°26'56	greatest brilliancy	4760 Sep 19 21:25	22°♊24'24 -4.7m	
max. Earth dist.	4758 Apr 01 13:13	12°♊40'10 1.71433 AU		4760 Oct 04 03:23	0°♊	
	4758 Apr 15 09:13	0°♊	morning max el	4760 Oct 28 16:48	20°♊49'31 45°57'16	
evening rise	4758 May 08 15:50	29°♊01'42		4760 Nov 06 20:19	0°♊	
	4758 May 09 10:36	0°♊	asc. node	4760 Nov 10 13:05	3°♊51'25	
asc. node	4758 May 26 17:58	21°♊26'47		4760 Dec 04 06:00	0°♊	
	4758 Jun 02 16:22	0°♊		4760 Dec 29 19:10	0°♊	
	4758 Jun 27 03:21	0°♊		4761 Jan 23 12:13	0°♊	
	4758 Jul 21 20:47	0°♊		4761 Feb 16 19:26	0°♊	
	4758 Aug 15 23:17	0°♊	desc. node	4761 Mar 02 03:46	16°♊35'26	
	4758 Sep 10 15:55	0°♊		4761 Mar 12 21:55	0°♊	
desc. node	4758 Sep 15 08:36	5°♊22'45		4761 Apr 05 22:38	0°♊	
	4758 Oct 07 09:08	0°♊		4761 Apr 29 23:40	0°♊	
evening max el	4758 Nov 03 01:28	27°♊44'07 46°21'19	morning set	4761 May 03 06:01	4°♊04'02	
	4758 Nov 05 09:49	0°♊		4761 May 24 02:36	0°♊	
greatest brilliancy	4758 Dec 13 03:38	27°♊18'52 -4.9m				
retrograde	4758 Dec 22 17:39	29°♊02'02	superior conj	4761 Jun 10 20:08	21°♊57'54 -0°29'15	
evening set	4759 Jan 06 01:49	25°♊00'30	minimum elong	4761 Jun 11 02:28	22°♊17'30 0°28'58	
asc. node	4759 Jan 06 10:42	24°♊48'42	max. Earth dist.	4761 Jun 13 13:09	25°♊18'56 1.72870 AU	
inferior conj	4759 Jan 12 08:45	21°♊21'10 1°31'51		4761 Jun 17 08:08	0°♊	
minimum elong	4759 Jan 12 05:14	21°♊26'32 1°30'44	asc. node	4761 Jun 23 05:51	7°♊17'22	
min. Earth dist.	4759 Jan 12 11:39	21°♊16'45 0.26688 AU		4761 Jul 11 16:10	0°♊	
morning rise	4759 Jan 18 08:12	17°♊50'33	evening rise	4761 Jul 18 07:01	8°♊08'26	
direct	4759 Feb 01 21:26	13°♊37'31		4761 Aug 05 02:23	0°♊	
greatest brilliancy	4759 Feb 12 04:50	15°♊37'34 -4.9m		4761 Aug 29 15:06	0°♊	
	4759 Mar 06 15:27	0°♊		4761 Sep 23 07:29	0°♊	
morning max el	4759 Mar 24 09:37	16°♊33'34 46°56'40	desc. node	4761 Oct 12 20:33	23°♊34'14	
	4759 Apr 06 06:35	0°♊		4761 Oct 18 05:12	0°♊	
desc. node	4759 Apr 28 01:35	24°♊14'22		4761 Nov 12 10:27	0°♊	
	4759 May 03 02:06	0°♊		4761 Dec 08 04:04	0°♊	
	4759 May 28 17:42	0°♊		4762 Jan 04 01:44	0°♊	

evening max el	4762 Jan 14 23:13	11° K 22'26	47°08'46		4764 May 14 05:54	0° B	
asc. node	4762 Feb 02 22:32	29° K 04'39			4764 Jun 07 15:19	0° II	
	4762 Feb 04 01:22	0° Y			4764 Jul 02 01:17	0° B	
greatest brilliancy	4762 Feb 24 14:47	12° Y 48'03	-4.9m	morning set	4764 Jul 12 17:32	13° B 06'52	
retrograde	4762 Mar 06 18:17	14° Y 45'44		asc. node	4764 Jul 20 17:36	22° B 56'37	
evening set	4762 Mar 24 16:21	8° Y 32'37			4764 Jul 26 11:27	0° Q	
inferior conj	4762 Mar 27 11:35	6° Y 49'19	9°01'40	max. Earth dist.	4764 Aug 17 17:43	27° Q 22'22	1.73466 AU
minimum elong	4762 Mar 27 10:00	6° Y 51'46	9°01'38				
min. Earth dist.	4762 Mar 26 23:15	7° Y 08'24	0.27254 AU	superior conj	4764 Aug 18 14:02	28° Q 24'53	1°01'50
morning rise	4762 Mar 30 03:47	5° Y 10'56		minimum elong	4764 Aug 18 05:02	27° Q 57'11	1°01'31
	4762 Apr 10 05:15	30° K			4764 Aug 19 20:57	0° H	
direct	4762 Apr 17 02:48	29° K 01'17			4764 Sep 13 05:28	0° A	
	4762 Apr 24 05:50	0° Y		evening rise	4764 Sep 23 14:45	12° A 48'06	
greatest brilliancy	4762 Apr 26 07:39	0° Y 37'28	-4.9m		4764 Oct 07 13:34	0° M	
desc. node	4762 May 25 13:19	19° Y 59'37			4764 Oct 31 22:08	0° J	
	4762 Jun 05 06:21	0° B		desc. node	4764 Nov 09 08:32	10° J 22'39	
morning max el	4762 Jun 05 21:11	0° B 36'14	46°17'55		4764 Nov 25 07:43	0° Z	
	4762 Jul 03 22:18	0° II			4764 Dec 19 18:47	0° \approx	
	4762 Jul 30 13:17	0° B			4765 Jan 13 09:13	0° K	
	4762 Aug 25 07:06	0° Q			4765 Feb 07 08:37	0° Y	
asc. node	4762 Sep 15 15:15	25° Q 23'41		asc. node	4765 Mar 02 10:14	26° Y 47'40	
	4762 Sep 19 11:13	0° H			4765 Mar 05 06:29	0° B	
	4762 Oct 14 04:34	0° A		evening max el	4765 Mar 28 03:06	24° B 28'55	46°46'18
	4762 Nov 07 13:36	0° M			4765 Apr 02 17:26	0° II	
morning set	4762 Nov 30 19:39	28° M 53'32		greatest brilliancy	4765 May 06 17:46	24° II 53'06	-4.8m
	4762 Dec 01 16:59	0° J		retrograde	4765 May 17 09:11	26° II 59'34	
	4762 Dec 25 16:56	0° Z		evening set	4765 Jun 01 23:37	22° II 14'24	
desc. node	4763 Jan 05 06:10	13° Z 13'31		inferior conj	4765 Jun 07 14:22	18° II 50'04	3°26'36
max. Earth dist.	4763 Jan 07 08:02	15° Z 49'54	1.71387 AU	minimum elong	4765 Jun 07 21:33	18° II 38'47	3°24'33
				min. Earth dist.	4765 Jun 07 10:51	18° II 55'34	0.28197 AU
superior conj	4763 Jan 09 06:35	18° Z 15'55	-0°09'43	morning rise	4765 Jun 13 19:56	15° II 05'57	
minimum elong	4763 Jan 09 04:06	18° Z 08'07	0°09'35	desc. node	4765 Jun 22 01:09	11° II 40'16	
behind sun begin	4763 Jan 08 07:06	17° Z 02'14		direct	4765 Jun 28 18:26	10° II 46'28	
behind sun end	4763 Jan 10 01:06	19° Z 14'00		greatest brilliancy	4765 Jul 08 15:47	12° II 32'48	-4.7m
	4763 Jan 18 14:54	0° \approx			4765 Aug 04 20:07	0° B	
	4763 Feb 11 11:49	0° K		morning max el	4765 Aug 16 12:17	10° B 34'43	45°43'41
evening rise	4763 Feb 19 01:54	9° K 32'11			4765 Sep 04 18:03	0° Q	
	4763 Mar 07 09:02	0° Y			4765 Oct 01 23:54	0° H	
	4763 Mar 31 08:41	0° B		asc. node	4765 Oct 13 03:18	12° H 49'02	
	4763 Apr 24 13:32	0° II			4765 Oct 27 18:16	0° A	
asc. node	4763 Apr 28 08:08	4° II 38'46			4765 Nov 21 16:24	0° M	
	4763 May 19 02:33	0° B			4765 Dec 16 02:18	0° J	
	4763 Jun 13 03:39	0° Q			4766 Jan 09 05:06	0° Z	
	4763 Jul 09 00:07	0° H		desc. node	4766 Feb 01 17:56	29° Z 28'24	
	4763 Aug 05 10:26	0° A			4766 Feb 02 04:00	0° \approx	
desc. node	4763 Aug 17 22:48	12° A 37'47		morning set	4766 Feb 13 14:31	14° \approx 21'54	
evening max el	4763 Aug 20 06:41	14° A 52'28	45°33'48		4766 Feb 26 01:01	0° K	
	4763 Sep 06 12:27	0° M			4766 Mar 21 21:45	0° Y	
greatest brilliancy	4763 Sep 28 10:13	12° M 51'05	-4.7m				
retrograde	4763 Oct 07 20:57	14° M 27'30		superior conj	4766 Mar 26 21:32	6° Y 16'05	-1°26'39
evening set	4763 Oct 25 11:53	8° M 39'28		minimum elong	4766 Mar 26 19:18	6° Y 09'03	1°26'38
inferior conj	4763 Oct 29 02:17	6° M 27'09	-7°58'47	max. Earth dist.	4766 Mar 29 17:41	9° Y 49'54	1.71394 AU
minimum elong	4763 Oct 29 09:50	6° M 15'24	7°57'53		4766 Apr 14 19:58	0° B	
min. Earth dist.	4763 Oct 29 22:47	5° M 55'14	0.28383 AU	evening rise	4766 May 06 04:26	26° B 38'16	
morning rise	4763 Nov 02 07:28	3° M 52'20			4766 May 08 21:21	0° II	
	4763 Nov 10 04:15	30° K A		asc. node	4766 May 25 20:03	20° II 59'55	
direct	4763 Nov 19 10:58	28° A 16'20			4766 Jun 02 03:11	0° B	
	4763 Nov 29 01:35	0° M			4766 Jun 26 14:22	0° Q	
greatest brilliancy	4763 Nov 30 13:53	0° M 33'33	-4.8m		4766 Jul 21 08:12	0° H	
asc. node	4763 Dec 09 00:48	4° M 51'05			4766 Aug 15 11:26	0° A	
	4764 Jan 07 21:25	0° J			4766 Sep 10 05:27	0° M	
morning max el	4764 Jan 08 19:29	0° J 55'33	46°41'37	desc. node	4766 Sep 14 10:40	4° M 49'05	
	4764 Feb 04 16:14	0° Z			4766 Oct 07 01:34	0° J	
	4764 Mar 01 09:12	0° \approx		evening max el	4766 Oct 31 14:29	25° J 22'55	46°19'11
	4764 Mar 26 06:52	0° K			4766 Nov 05 10:39	0° Z	
desc. node	4764 Mar 29 15:42	4° K 05'53		greatest brilliancy	4766 Dec 10 16:20	24° Z 53'28	-4.9m
	4764 Apr 19 20:02	0° Y		retrograde	4766 Dec 20 06:11	26° Z 36'33	

evening set	4767 Jan 03 14:22	22° ♁ 34'18		minimum elong	4769 Jun 08 18:14	20° ♁ 04'29	0°32'12
asc. node	4767 Jan 05 12:39	21° ♁ 30'50		max. Earth dist.	4769 Jun 11 08:47	23° ♁ 17'58	1.72825 AU
inferior conj	4767 Jan 09 21:16	18° ♁ 55'16	1°07'43		4769 Jun 16 18:53	0° ♁	
minimum elong	4767 Jan 09 18:40	18° ♁ 59'14	1°06'52	asc. node	4769 Jun 22 07:46	6° ♁ 50'12	
min. Earth dist.	4767 Jan 10 01:32	18° ♁ 48'47	0.26717 AU		4769 Jul 11 02:54	0° ♁	
morning rise	4767 Jan 15 22:30	15° ♁ 22'33		evening rise	4769 Jul 16 00:34	6° ♁ 01'49	
direct	4767 Jan 30 10:31	11° ♁ 10'42			4769 Aug 04 13:14	0° ♁	
greatest brilliancy	4767 Feb 09 19:34	13° ♁ 12'48	-4.9m		4769 Aug 29 02:11	0° ♁	
	4767 Mar 07 00:36	0° ♁			4769 Sep 22 19:00	0° ♁	
morning max el	4767 Mar 21 23:56	14° ♁ 11'11	46°57'18	desc. node	4769 Oct 11 22:40	23° ♁ 04'26	
	4767 Apr 06 01:18	0° ♁			4769 Oct 17 17:25	0° ♁	
desc. node	4767 Apr 27 03:42	23° ♁ 36'23			4769 Nov 11 23:46	0° ♁	
	4767 May 02 16:58	0° ♁			4769 Dec 07 19:20	0° ♁	
	4767 May 28 06:46	0° ♁			4770 Jan 03 21:21	0° ♁	
	4767 Jun 22 09:53	0° ♁		evening max el	4770 Jan 12 14:08	9° ♁ 01'27	47°08'01
	4767 Jul 17 07:49	0° ♁		asc. node	4770 Feb 02 00:28	27° ♁ 54'14	
	4767 Aug 11 01:55	0° ♁			4770 Feb 04 16:00	0° ♁	
asc. node	4767 Aug 18 05:25	8° ♁ 41'50		greatest brilliancy	4770 Feb 22 04:14	10° ♁ 22'50	-4.9m
	4767 Sep 04 15:51	0° ♁		retrograde	4770 Mar 04 07:56	12° ♁ 20'17	
morning set	4767 Sep 19 21:14	18° ♁ 41'35		evening set	4770 Mar 22 03:44	6° ♁ 10'50	
	4767 Sep 29 01:26	0° ♁		min. Earth dist.	4770 Mar 24 11:50	4° ♁ 44'44	0.27217 AU
	4767 Oct 23 07:22	0° ♁		inferior conj	4770 Mar 25 00:50	4° ♁ 24'35	8°59'52
max. Earth dist.	4767 Oct 23 20:21	0° ♁ 40'14	1.72687 AU	minimum elong	4770 Mar 24 22:19	4° ♁ 28'29	8°59'46
				morning rise	4770 Mar 27 17:03	2° ♁ 46'06	
superior conj	4767 Oct 26 12:09	3° ♁ 58'08	1°19'22		4770 Apr 01 16:27	30° ♁	
minimum elong	4767 Oct 26 18:47	4° ♁ 18'44	1°19'16	direct	4770 Apr 14 16:14	26° ♁ 37'24	
	4767 Nov 16 10:56	0° ♁		greatest brilliancy	4770 Apr 23 19:56	28° ♁ 12'41	-4.9m
evening rise	4767 Dec 03 16:18	21° ♁ 26'40			4770 Apr 28 07:04	0° ♁	
desc. node	4767 Dec 07 20:24	26° ♁ 38'28		desc. node	4770 May 24 15:21	18° ♁ 59'29	
	4767 Dec 10 13:06	0° ♁		morning max el	4770 Jun 03 10:43	28° ♁ 15'15	46°19'25
	4768 Jan 03 14:27	0° ♁			4770 Jun 05 05:13	0° ♁	
	4768 Jan 27 15:43	0° ♁			4770 Jul 03 14:26	0° ♁	
	4768 Feb 20 18:52	0° ♁			4770 Jul 30 02:53	0° ♁	
	4768 Mar 16 03:42	0° ♁			4770 Aug 24 19:23	0° ♁	
asc. node	4768 Mar 29 22:14	16° ♁ 43'07		asc. node	4770 Sep 14 17:24	24° ♁ 55'10	
	4768 Apr 10 00:28	0° ♁			4770 Sep 18 22:46	0° ♁	
	4768 May 05 20:00	0° ♁			4770 Oct 13 15:43	0° ♁	
	4768 Jun 02 16:59	0° ♁			4770 Nov 07 00:34	0° ♁	
evening max el	4768 Jun 07 01:13	4° ♁ 18'30	45°49'39	morning set	4770 Nov 28 10:24	26° ♁ 35'52	
	4768 Jul 09 05:48	0° ♁			4770 Dec 01 03:54	0° ♁	
greatest brilliancy	4768 Jul 15 03:32	2° ♁ 42'42	-4.7m		4770 Dec 25 03:53	0° ♁	
desc. node	4768 Jul 19 13:01	4° ♁ 05'09		desc. node	4771 Jan 04 08:08	12° ♁ 45'24	
retrograde	4768 Jul 26 04:20	4° ♁ 54'45		max. Earth dist.	4771 Jan 04 14:04	13° ♁ 04'00	1.71417 AU
evening set	4768 Aug 11 03:00	0° ♁ 00'37					
	4768 Aug 11 03:26	30° ♁		superior conj	4771 Jan 06 18:26	15° ♁ 48'14	-0°05'54
inferior conj	4768 Aug 16 16:35	26° ♁ 38'03	-6°02'00	minimum elong	4771 Jan 06 16:56	15° ♁ 43'30	0°05'48
minimum elong	4768 Aug 16 06:44	26° ♁ 53'29	5°59'56	behind sun begin	4771 Jan 05 16:48	14° ♁ 27'49	
min. Earth dist.	4768 Aug 16 08:21	26° ♁ 50'57	0.29066 AU	behind sun end	4771 Jan 07 17:04	16° ♁ 59'12	
morning rise	4768 Aug 21 10:37	23° ♁ 43'49			4771 Jan 18 01:52	0° ♁	
direct	4768 Sep 07 06:42	18° ♁ 21'13			4771 Feb 10 22:50	0° ♁	
greatest brilliancy	4768 Sep 17 12:29	20° ♁ 14'55	-4.7m	evening rise	4771 Feb 16 12:45	7° ♁ 00'47	
	4768 Oct 04 20:15	0° ♁			4771 Mar 06 20:07	0° ♁	
morning max el	4768 Oct 26 09:11	18° ♁ 40'01	45°56'03		4771 Mar 30 19:55	0° ♁	
	4768 Nov 06 14:56	0° ♁			4771 Apr 24 01:01	0° ♁	
asc. node	4768 Nov 09 15:04	3° ♁ 09'29		asc. node	4771 Apr 27 10:09	4° ♁ 09'33	
	4768 Dec 03 20:27	0° ♁			4771 May 18 14:30	0° ♁	
	4768 Dec 29 07:59	0° ♁			4771 Jun 12 16:24	0° ♁	
	4769 Jan 23 00:14	0° ♁			4771 Jul 08 14:30	0° ♁	
	4769 Feb 16 07:02	0° ♁			4771 Aug 05 04:50	0° ♁	
desc. node	4769 Mar 01 05:50	16° ♁ 06'18		desc. node	4771 Aug 17 00:54	11° ♁ 49'26	
	4769 Mar 12 09:15	0° ♁		evening max el	4771 Aug 17 20:35	12° ♁ 36'38	45°33'12
	4769 Apr 05 09:46	0° ♁			4771 Sep 07 01:11	0° ♁	
	4769 Apr 29 10:38	0° ♁		greatest brilliancy	4771 Sep 26 00:32	10° ♁ 37'16	-4.7m
morning set	4769 Apr 30 19:13	1° ♁ 41'29		retrograde	4771 Oct 05 11:02	12° ♁ 13'51	
	4769 May 23 13:26	0° ♁		evening set	4771 Oct 23 05:03	6° ♁ 22'06	
				inferior conj	4771 Oct 26 17:29	4° ♁ 12'42	-8°06'22
superior conj	4769 Jun 08 11:15	19° ♁ 42'53	-0°32'32	minimum elong	4771 Oct 27 00:26	4° ♁ 01'53	8°05'37

min. Earth dist.	4771 Oct 27 13:40	3° \mathbb{M} 41'16	0.28443 AU	evening rise	4774 May 03 17:05	24° \mathcal{B} 13'54	
morning rise	4771 Oct 30 19:30	1° \mathbb{M} 42'20			4774 May 08 08:26	0° \mathbb{I}	
	4771 Nov 02 20:08	30° \mathcal{R} $\underline{\mathcal{A}}$		asc. node	4774 May 24 21:58	20° \mathbb{I} 31'32	
direct	4771 Nov 17 02:08	26° $\underline{\mathcal{A}}$ 00'59			4774 Jun 01 14:19	0° \mathcal{E}	
greatest brilliancy	4771 Nov 28 05:49	28° $\underline{\mathcal{A}}$ 18'13	-4.8m		4774 Jun 26 01:43	0° \mathcal{O}	
	4771 Dec 02 01:02	0° \mathbb{M}			4774 Jul 20 20:00	0° \mathbb{M}	
asc. node	4771 Dec 08 02:47	3° \mathbb{M} 28'34			4774 Aug 15 00:03	0° $\underline{\mathcal{A}}$	
morning max el	4772 Jan 06 09:18	28° \mathbb{M} 33'24	46°40'17		4774 Sep 09 19:34	0° \mathbb{M}	
	4772 Jan 07 19:27	0° \mathcal{A}		desc. node	4774 Sep 13 12:44	4° \mathbb{M} 13'54	
	4772 Feb 04 08:18	0° \mathcal{B}			4774 Oct 06 18:49	0° \mathcal{A}	
	4772 Feb 29 23:02	0° \approx		evening max el	4774 Oct 29 04:29	23° \mathcal{A} 03'06	46°17'11
	4772 Mar 25 19:33	0° \mathcal{H}			4774 Nov 05 13:23	0° \mathcal{B}	
desc. node	4772 Mar 28 17:49	3° \mathcal{H} 34'01		greatest brilliancy	4774 Dec 08 04:43	22° \mathcal{B} 27'01	-4.8m
	4772 Apr 19 08:01	0° \mathcal{Y}		retrograde	4774 Dec 17 19:06	24° \mathcal{B} 10'14	
	4772 May 13 17:26	0° \mathcal{B}		evening set	4775 Jan 01 03:16	20° \mathcal{B} 07'16	
	4772 Jun 07 02:32	0° \mathbb{I}		asc. node	4775 Jan 04 14:38	18° \mathcal{B} 09'47	
	4772 Jul 01 12:17	0° \mathcal{E}		inferior conj	4775 Jan 07 09:50	16° \mathcal{B} 28'33	0°43'28
morning set	4772 Jul 10 10:40	10° \mathcal{E} 58'31		minimum elong	4775 Jan 07 08:10	16° \mathcal{B} 31'06	0°42'56
asc. node	4772 Jul 19 19:37	22° \mathcal{E} 29'24		min. Earth dist.	4775 Jan 07 15:06	16° \mathcal{B} 20'32	0.26744 AU
	4772 Jul 25 22:19	0° \mathcal{O}		morning rise	4775 Jan 13 12:38	12° \mathcal{B} 54'04	
max. Earth dist.	4772 Aug 15 12:07	25° \mathcal{O} 18'06	1.73471 AU	direct	4775 Jan 28 00:07	8° \mathcal{B} 43'26	
				greatest brilliancy	4775 Feb 07 09:39	10° \mathcal{B} 46'37	-4.9m
superior conj	4772 Aug 16 08:07	26° \mathcal{O} 19'37	0°59'35		4775 Mar 07 07:33	0° \approx	
minimum elong	4772 Aug 15 23:06	25° \mathcal{O} 51'53	0°59'16	morning max el	4775 Mar 19 14:33	11° \approx 48'51	46°57'44
	4772 Aug 19 07:45	0° \mathbb{M}			4775 Apr 05 19:52	0° \mathcal{H}	
	4772 Sep 12 16:19	0° $\underline{\mathcal{A}}$		desc. node	4775 Apr 26 05:38	22° \mathcal{H} 57'23	
evening rise	4772 Sep 21 08:31	10° $\underline{\mathcal{A}}$ 41'20			4775 May 02 07:56	0° \mathcal{Y}	
	4772 Oct 07 00:36	0° \mathbb{M}			4775 May 27 20:01	0° \mathcal{B}	
	4772 Oct 31 09:26	0° \mathcal{A}			4775 Jun 21 22:08	0° \mathbb{I}	
desc. node	4772 Nov 08 10:29	9° \mathcal{A} 53'35			4775 Jul 16 19:26	0° \mathcal{E}	
	4772 Nov 24 19:24	0° \mathcal{B}			4775 Aug 10 13:07	0° \mathcal{O}	
	4772 Dec 19 07:00	0° \approx		asc. node	4775 Aug 17 07:33	8° \mathcal{O} 14'26	
	4773 Jan 12 22:12	0° \mathcal{H}			4775 Sep 04 02:50	0° \mathbb{M}	
	4773 Feb 06 22:52	0° \mathcal{Y}		morning set	4775 Sep 17 14:47	16° \mathbb{M} 34'21	
asc. node	4773 Mar 01 12:24	26° \mathcal{Y} 07'23			4775 Sep 28 12:20	0° $\underline{\mathcal{A}}$	
	4773 Mar 04 23:20	0° \mathcal{B}		max. Earth dist.	4775 Oct 21 14:05	28° $\underline{\mathcal{A}}$ 32'31	1.72730 AU
evening max el	4773 Mar 25 16:41	22° \mathcal{B} 06'49	46°48'13		4775 Oct 22 18:18	0° \mathbb{M}	
	4773 Apr 02 18:26	0° \mathbb{I}		superior conj	4775 Oct 24 04:45	1° \mathbb{M} 46'51	1°20'33
greatest brilliancy	4773 May 04 10:20	22° \mathbb{I} 38'42	-4.8m	minimum elong	4775 Oct 24 10:48	2° \mathbb{M} 05'35	1°20'27
retrograde	4773 May 15 00:36	24° \mathbb{I} 44'45			4775 Nov 15 21:57	0° \mathcal{A}	
evening set	4773 May 30 17:22	19° \mathbb{I} 56'10		evening rise	4775 Dec 01 06:11	19° \mathcal{A} 05'48	
inferior conj	4773 Jun 05 05:47	16° \mathbb{I} 35'32	3°46'13	desc. node	4775 Dec 06 22:21	26° \mathcal{A} 09'48	
minimum elong	4773 Jun 05 13:32	16° \mathbb{I} 23'24	3°44'02		4775 Dec 10 00:16	0° \mathcal{B}	
min. Earth dist.	4773 Jun 05 02:48	16° \mathbb{I} 40'11	0.28169 AU		4776 Jan 03 01:49	0° \approx	
morning rise	4773 Jun 11 10:03	12° \mathbb{I} 53'14			4776 Jan 27 03:20	0° \mathcal{H}	
desc. node	4773 Jun 21 03:05	9° \mathbb{I} 04'54			4776 Feb 20 06:49	0° \mathcal{Y}	
direct	4773 Jun 26 08:50	8° \mathbb{I} 32'07			4776 Mar 15 16:10	0° \mathcal{B}	
greatest brilliancy	4773 Jul 06 07:10	10° \mathbb{I} 19'15	-4.7m	asc. node	4776 Mar 29 00:12	16° \mathcal{B} 10'03	
	4773 Aug 05 00:43	0° \mathcal{E}			4776 Apr 09 13:54	0° \mathbb{I}	
morning max el	4773 Aug 14 03:35	8° \mathcal{E} 22'08	45°44'11		4776 May 05 11:25	0° \mathcal{E}	
	4773 Sep 04 11:17	0° \mathcal{O}			4776 Jun 02 13:52	0° \mathcal{O}	
	4773 Oct 01 13:54	0° \mathbb{M}		evening max el	4776 Jun 04 17:57	2° \mathcal{O} 08'18	45°51'18
asc. node	4773 Oct 12 05:18	12° \mathbb{M} 16'10			4776 Jul 11 10:30	0° \mathbb{M}	
	4773 Oct 27 06:52	0° $\underline{\mathcal{A}}$		greatest brilliancy	4776 Jul 12 19:20	0° \mathbb{M} 32'47	-4.7m
	4773 Nov 21 04:18	0° \mathbb{M}		desc. node	4776 Jul 18 15:07	2° \mathbb{M} 14'05	
	4773 Dec 15 13:50	0° \mathcal{A}		retrograde	4776 Jul 23 21:02	2° \mathbb{M} 45'17	
	4774 Jan 08 16:26	0° \mathcal{B}			4776 Aug 04 15:53	30° \mathcal{R} \mathcal{O}	
desc. node	4774 Jan 31 19:58	28° \mathcal{B} 59'33		evening set	4776 Aug 08 16:58	27° \mathcal{O} 54'58	
	4774 Feb 01 15:14	0° \approx		inferior conj	4776 Aug 14 08:56	24° \mathcal{O} 28'38	-5°47'41
morning set	4774 Feb 11 00:26	11° \approx 47'00		minimum elong	4776 Aug 13 23:10	24° \mathcal{O} 43'57	5°45'34
	4774 Feb 25 12:11	0° \mathcal{H}		min. Earth dist.	4776 Aug 13 23:57	24° \mathcal{O} 42'43	0.29047 AU
	4774 Mar 21 08:53	0° \mathcal{Y}		morning rise	4776 Aug 19 05:35	21° \mathcal{O} 30'36	
superior conj	4774 Mar 24 08:31	3° \mathcal{Y} 44'58	-1°26'12	direct	4776 Sep 04 23:33	16° \mathcal{O} 12'24	
minimum elong	4774 Mar 24 05:11	3° \mathcal{Y} 34'31	1°26'11	greatest brilliancy	4776 Sep 15 03:18	18° \mathcal{O} 04'32	-4.7m
max. Earth dist.	4774 Mar 26 22:24	6° \mathcal{Y} 59'14	1.71359 AU		4776 Oct 05 09:05	0° \mathbb{M}	
	4774 Apr 14 07:04	0° \mathcal{B}		morning max el	4776 Oct 24 00:37	16° \mathbb{M} 27'33	45°54'42




































































































































	4776 Nov 06 09:22	0°♌		4779 Apr 23 12:32	0°♊
asc. node	4776 Nov 08 17:02	2°♌27'19	asc. node	4779 Apr 26 12:06	3°♊40'02
	4776 Dec 03 11:02	0°♌		4779 May 18 02:26	0°♋
	4776 Dec 28 21:01	0°♍		4779 Jun 12 05:09	0°♌
	4777 Jan 22 12:30	0°♎		4779 Jul 08 04:59	0°♏
	4777 Feb 15 18:51	0°♐		4779 Aug 04 23:39	0°♑
desc. node	4777 Feb 28 07:58	15°♐36'43	evening max el	4779 Aug 15 10:13	10°♑20'26 45°32'44
	4777 Mar 11 20:46	0°♋	desc. node	4779 Aug 16 03:00	11°♑00'29
	4777 Apr 04 21:02	0°♌		4779 Sep 07 18:02	0°♒
morning set	4777 Apr 28 08:14	29°♌17'57	greatest brilliancy	4779 Sep 23 14:34	8°♒23'41 -4.7m
	4777 Apr 28 21:44	0°♍	retrograde	4779 Oct 03 01:36	10°♒01'07
	4777 May 23 00:24	0°♎	evening set	4779 Oct 20 22:03	4°♒05'45
			inferior conj	4779 Oct 24 08:46	1°♒59'02 -8°13'03
superior conj	4777 Jun 06 02:20	17°♎27'11 -0°35'45	minimum elong	4779 Oct 24 15:05	1°♒49'11 8°12'26
minimum elong	4777 Jun 06 09:54	17°♎50'38 0°35'25	min. Earth dist.	4779 Oct 25 04:30	1°♒28'18 0.28501 AU
max. Earth dist.	4777 Jun 09 04:49	21°♎17'41 1.72779 AU		4779 Oct 27 13:52	30°♒♌
	4777 Jun 16 05:47	0°♋	morning rise	4779 Oct 28 07:48	29°♌33'06
asc. node	4777 Jun 21 09:50	6°♋22'58	direct	4779 Nov 14 17:20	23°♌46'23
	4777 Jul 10 13:49	0°♌	greatest brilliancy	4779 Nov 25 21:52	26°♌04'03 -4.8m
evening rise	4777 Jul 13 18:05	3°♌54'34		4779 Dec 03 19:04	0°♍
	4777 Aug 04 00:13	0°♏	asc. node	4779 Dec 07 04:47	2°♍09'25
	4777 Aug 28 13:24	0°♑	morning max el	4780 Jan 03 23:43	26°♍13'33 46°38'53
	4777 Sep 22 06:40	0°♒		4780 Jan 07 16:27	0°♍
desc. node	4777 Oct 11 00:38	22°♒33'43		4780 Feb 03 23:57	0°♎
	4777 Oct 17 05:50	0°♍		4780 Feb 29 12:38	0°♏
	4777 Nov 11 13:23	0°♎		4780 Mar 25 08:05	0°♋
	4777 Dec 07 11:04	0°♐	desc. node	4780 Mar 27 19:44	3°♋01'51
	4778 Jan 03 17:54	0°♑		4780 Apr 18 19:53	0°♌
evening max el	4778 Jan 10 04:06	6°♑37'13 47°07'09		4780 May 13 04:51	0°♍
asc. node	4778 Feb 01 02:38	26°♑41'23		4780 Jun 06 13:36	0°♎
	4778 Feb 05 12:06	0°♌		4780 Jun 30 23:06	0°♋
greatest brilliancy	4778 Feb 19 18:17	7°♌57'18 -4.9m	morning set	4780 Jul 08 03:35	8°♋50'01
retrograde	4778 Mar 01 21:05	9°♌53'48	asc. node	4780 Jul 18 21:42	22°♋03'01
evening set	4778 Mar 19 14:31	3°♌49'03		4780 Jul 25 08:58	0°♌
min. Earth dist.	4778 Mar 22 00:41	2°♌19'44 0.27176 AU	max. Earth dist.	4780 Aug 13 07:49	23°♌18'26 1.73476 AU
inferior conj	4778 Mar 22 13:59	1°♌59'07 8°56'58			
minimum elong	4778 Mar 22 10:33	2°♌04'26 8°56'48	superior conj	4780 Aug 14 02:07	24°♌14'44 0°57'15
morning rise	4778 Mar 25 06:45	0°♌19'42	minimum elong	4780 Aug 13 17:08	23°♌47'05 0°56'56
	4778 Mar 25 19:54	30°♒♋		4780 Aug 18 18:21	0°♏
direct	4778 Apr 12 04:56	24°♋12'45		4780 Sep 12 03:00	0°♑
greatest brilliancy	4778 Apr 21 08:39	25°♋47'44 -4.9m	evening rise	4780 Sep 19 02:27	8°♑35'47
	4778 Apr 30 10:40	0°♌		4780 Oct 06 11:26	0°♒
desc. node	4778 May 23 17:22	18°♌00'30		4780 Oct 30 20:32	0°♍
morning max el	4778 May 31 23:09	25°♌51'08 46°20'59	desc. node	4780 Nov 07 12:30	9°♍25'23
	4778 Jun 05 03:14	0°♍		4780 Nov 24 06:51	0°♎
	4778 Jul 03 06:19	0°♎		4780 Dec 18 18:58	0°♏
	4778 Jul 29 16:22	0°♋		4781 Jan 12 10:58	0°♋
	4778 Aug 24 07:38	0°♌		4781 Feb 06 13:00	0°♌
asc. node	4778 Sep 13 19:22	24°♌26'11	asc. node	4781 Feb 28 14:18	25°♌26'37
	4778 Sep 18 10:19	0°♏		4781 Mar 04 16:19	0°♍
	4778 Oct 13 02:52	0°♑	evening max el	4781 Mar 23 06:48	19°♍46'29 46°49'59
	4778 Nov 06 11:31	0°♒		4781 Apr 02 20:39	0°♎
morning set	4778 Nov 26 01:20	24°♒18'51	greatest brilliancy	4781 May 02 02:16	20°♎23'27 -4.8m
	4778 Nov 30 14:48	0°♍	retrograde	4781 May 12 16:21	22°♎29'43
	4778 Dec 24 14:49	0°♎	evening set	4781 May 28 11:02	17°♎37'25
max. Earth dist.	4779 Jan 01 21:48	10°♎23'27 1.71456 AU	inferior conj	4781 Jun 02 20:57	14°♎20'39 4°05'35
desc. node	4779 Jan 03 10:15	12°♎17'40	minimum elong	4781 Jun 03 05:14	14°♎07'42 4°03'18
			min. Earth dist.	4781 Jun 02 18:11	14°♎24'58 0.28139 AU
superior conj	4779 Jan 04 06:16	13°♎20'27 -0°02'02	morning rise	4781 Jun 08 23:46	10°♎40'42
minimum elong	4779 Jan 04 05:44	13°♎18'48 0°02'00	desc. node	4781 Jun 20 05:11	6°♎34'24
behind sun begin	4779 Jan 03 04:23	11°♎59'18	direct	4781 Jun 23 23:20	6°♎17'31
behind sun end	4779 Jan 05 07:06	14°♎38'18	greatest brilliancy	4781 Jul 03 21:50	8°♎05'09 -4.8m
	4779 Jan 17 12:53	0°♏		4781 Aug 05 03:19	0°♋
	4779 Feb 10 09:54	0°♋	morning max el	4781 Aug 11 19:27	6°♋11'45 45°44'46
evening rise	4779 Feb 13 23:17	4°♋28'12		4781 Sep 04 03:51	0°♌
	4779 Mar 06 07:16	0°♌		4781 Oct 01 03:27	0°♏
	4779 Mar 30 07:12	0°♍	asc. node	4781 Oct 11 07:13	11°♏44'12

	4781 Oct 26 19:04	0°♄	evening max el	4784 Jun 02 10:15	29°♄58'12	45°52'46
	4781 Nov 20 15:50	0°♍	greatest brilliancy	4784 Jul 10 11:52	28°♌24'43	-4.7m
	4781 Dec 15 01:00	0°♎		4784 Jul 15 20:00	0°♏	
	4782 Jan 08 03:24	0°♏	desc. node	4784 Jul 17 17:11	0°♏20'04	
greatest brilliancy	4782 Jan 29 06:56	26°♏29'18	retrograde	4784 Jul 21 13:22	0°♏36'54	
desc. node	4782 Jan 30 22:05	28°♏32'06		4784 Jul 27 02:52	30°♏	
	4782 Feb 01 02:05	0°♐	evening set	4784 Aug 06 07:08	25°♏50'19	
morning set	4782 Feb 08 10:50	9°♐14'52	min. Earth dist.	4784 Aug 11 16:00	22°♏35'10	0.29027 AU
	4782 Feb 24 22:59	0°♑	inferior conj	4784 Aug 12 01:22	22°♏20'28	-5°32'51
	4782 Mar 20 19:39	0°♑	minimum elong	4784 Aug 11 15:43	22°♏35'38	5°30'42
			morning rise	4784 Aug 17 00:33	19°♏18'32	
superior conj	4782 Mar 21 19:32	1°♑15'00	direct	4784 Sep 02 16:02	14°♏04'49	
minimum elong	4782 Mar 21 15:09	1°♑01'15	greatest brilliancy	4784 Sep 12 18:34	15°♏55'35	-4.7m
max. Earth dist.	4782 Mar 24 06:07	4°♑19'00		4784 Oct 05 18:05	0°♑	
	4782 Apr 13 17:49	0°♒	morning max el	4784 Oct 21 15:17	14°♑14'19	45°53'28
evening rise	4782 May 01 05:33	21°♒49'53		4784 Nov 06 02:57	0°♒	
	4782 May 07 19:12	0°♓	asc. node	4784 Nov 07 19:10	1°♒47'08	
asc. node	4782 May 24 00:02	20°♓04'29		4784 Dec 03 01:03	0°♓	
	4782 Jun 01 01:10	0°♓		4784 Dec 28 09:35	0°♓	
	4782 Jun 25 12:47	0°♓		4785 Jan 22 00:22	0°♓	
	4782 Jul 20 07:31	0°♓		4785 Feb 15 06:18	0°♓	
	4782 Aug 14 12:23	0°♓	desc. node	4785 Feb 27 09:50	15°♓07'25	
	4782 Sep 09 09:27	0°♓		4785 Mar 11 07:56	0°♓	
desc. node	4782 Sep 12 14:40	3°♓39'12		4785 Apr 04 07:58	0°♓	
	4782 Oct 06 12:01	0°♓	morning set	4785 Apr 25 21:27	26°♓56'02	
evening max el	4782 Oct 26 19:11	20°♓46'19		4785 Apr 28 08:27	0°♓	
	4782 Nov 05 17:14	0°♓		4785 May 22 10:59	0°♓	
greatest brilliancy	4782 Dec 05 17:24	20°♓02'29				
retrograde	4782 Dec 15 08:07	21°♓45'20	superior conj	4785 Jun 03 17:41	15°♓13'30	-0°38'53
evening set	4782 Dec 29 16:34	17°♓41'45	minimum elong	4785 Jun 04 01:49	15°♓38'41	0°38'33
asc. node	4783 Jan 03 16:45	14°♓48'40	max. Earth dist.	4785 Jun 07 00:34	19°♓17'37	1.72730 AU
inferior conj	4783 Jan 04 22:30	14°♓03'27		4785 Jun 15 16:19	0°♓	
minimum elong	4783 Jan 04 21:45	14°♓04'35	asc. node	4785 Jun 20 11:55	5°♓56'57	
min. Earth dist.	4783 Jan 05 04:45	13°♓53'56		4785 Jul 10 00:22	0°♓	
morning rise	4783 Jan 11 02:36	10°♓27'19	evening rise	4785 Jul 11 11:43	1°♓48'43	
direct	4783 Jan 25 13:49	6°♓18'00		4785 Aug 03 10:54	0°♓	
greatest brilliancy	4783 Feb 04 23:26	8°♓21'31		4785 Aug 28 00:21	0°♓	
	4783 Mar 07 11:48	0°♓		4785 Sep 21 18:04	0°♓	
morning max el	4783 Mar 17 04:47	9°♓27'02	desc. node	4785 Oct 10 02:37	22°♓03'52	
	4783 Apr 05 13:26	0°♓		4785 Oct 16 18:00	0°♓	
desc. node	4783 Apr 25 07:41	22°♓20'31		4785 Nov 11 02:48	0°♓	
	4783 May 01 22:14	0°♓		4785 Dec 07 02:43	0°♓	
	4783 May 27 08:45	0°♓		4786 Jan 03 14:48	0°♓	
	4783 Jun 21 09:57	0°♓	evening max el	4786 Jan 07 17:04	4°♓11'18	47°06'11
	4783 Jul 16 06:39	0°♓	asc. node	4786 Jan 31 04:35	25°♓26'42	
	4783 Aug 09 23:58	0°♓		4786 Feb 06 15:03	0°♓	
asc. node	4783 Aug 16 09:32	7°♓47'42	greatest brilliancy	4786 Feb 17 08:34	5°♓32'33	-4.9m
	4783 Sep 03 13:27	0°♓	retrograde	4786 Feb 27 09:53	7°♓27'56	
morning set	4783 Sep 15 08:18	14°♓28'14	evening set	4786 Mar 17 00:43	1°♓28'26	
	4783 Sep 27 22:51	0°♓		4786 Mar 19 10:27	30°♓	
max. Earth dist.	4783 Oct 19 06:43	26°♓22'43	min. Earth dist.	4786 Mar 19 13:48	29°♓54'49	0.27136 AU
			inferior conj	4786 Mar 20 03:05	29°♓34'12	8°53'01
superior conj	4783 Oct 21 21:28	29°♓37'12	minimum elong	4786 Mar 19 22:44	29°♓40'58	8°52'46
minimum elong	4783 Oct 22 02:52	29°♓53'57	morning rise	4786 Mar 22 20:52	27°♓53'11	
	4783 Oct 22 04:50	0°♓	direct	4786 Apr 09 17:07	21°♓48'19	
	4783 Nov 15 08:35	0°♓	greatest brilliancy	4786 Apr 18 21:53	23°♓23'47	-4.9m
evening rise	4783 Nov 28 20:13	16°♓46'36		4786 May 01 20:30	0°♓	
desc. node	4783 Dec 06 00:28	25°♓42'49	desc. node	4786 May 22 19:25	17°♓03'43	
	4783 Dec 09 11:05	0°♓	morning max el	4786 May 29 11:26	23°♓27'14	46°22'49
	4784 Jan 02 12:50	0°♓		4786 Jun 05 00:09	0°♓	
	4784 Jan 26 14:36	0°♓		4786 Jul 02 21:39	0°♓	
	4784 Feb 19 18:24	0°♓		4786 Jul 29 05:28	0°♓	
	4784 Mar 15 04:16	0°♓		4786 Aug 23 19:35	0°♓	
asc. node	4784 Mar 28 02:12	15°♓38'20	asc. node	4786 Sep 12 21:19	23°♓57'52	
	4784 Apr 09 02:57	0°♓		4786 Sep 17 21:36	0°♓	
	4784 May 05 02:34	0°♓		4786 Oct 12 13:48	0°♓	
	4784 Jun 02 11:00	0°♓		4786 Nov 05 22:18	0°♓	

morning set	4786 Nov 23 16:16	22° \mathbb{M} 02'25		greatest brilliancy	4789 Apr 29 17:45	18° \mathbb{II} 06'47	-4.8m
	4786 Nov 30 01:33	0° \mathbb{A}		retrograde	4789 May 10 08:18	20° \mathbb{II} 13'23	
	4786 Dec 24 01:36	0° \mathbb{Z}		evening set	4789 May 26 04:40	15° \mathbb{II} 17'19	
max. Earth dist.	4786 Dec 30 08:42	7° \mathbb{Z} 53'21	1.71495 AU	inferior conj	4789 May 31 11:55	12° \mathbb{II} 04'23	4°24'43
				minimum elong	4789 May 31 20:41	11° \mathbb{II} 50'43	4°22'22
superior conj	4787 Jan 01 18:05	10° \mathbb{Z} 53'13	0°01'51	min. Earth dist.	4789 May 31 09:05	12° \mathbb{II} 08'48	0.28110 AU
minimum elong	4787 Jan 01 18:33	10° \mathbb{Z} 54'39	0°01'50	morning rise	4789 Jun 06 13:05	8° \mathbb{II} 27'09	
behind sun begin	4786 Dec 31 17:14	9° \mathbb{Z} 35'18		desc. node	4789 Jun 19 07:14	4° \mathbb{II} 07'55	
behind sun end	4787 Jan 02 19:51	12° \mathbb{Z} 13'59		direct	4789 Jun 21 14:11	4° \mathbb{II} 01'39	
desc. node	4787 Jan 02 12:15	11° \mathbb{Z} 50'11		greatest brilliancy	4789 Jul 01 11:45	5° \mathbb{II} 49'06	-4.8m
	4787 Jan 16 23:43	0° \approx			4789 Aug 05 04:48	0° \mathbb{G}	
	4787 Feb 09 20:49	0° \mathbb{H}		morning max el	4789 Aug 09 11:41	4° \mathbb{G} 01'30	45°45'29
evening rise	4787 Feb 11 09:55	1° \mathbb{H} 56'31			4789 Sep 03 20:19	0° \mathbb{Q}	
	4787 Mar 05 18:18	0° \mathbb{Y}			4789 Sep 30 17:02	0° \mathbb{P}	
	4787 Mar 29 18:24	0° \mathbb{B}		asc. node	4789 Oct 10 09:22	11° \mathbb{P} 12'38	
	4787 Apr 22 23:59	0° \mathbb{II}			4789 Oct 26 07:23	0° \mathbb{L}	
asc. node	4787 Apr 25 14:12	3° \mathbb{II} 11'13			4789 Nov 20 03:31	0° \mathbb{M}	
	4787 May 17 14:18	0° \mathbb{G}			4789 Dec 14 12:23	0° \mathbb{A}	
	4787 Jun 11 17:51	0° \mathbb{Q}			4790 Jan 07 14:38	0° \mathbb{Z}	
	4787 Jul 07 19:28	0° \mathbb{P}		desc. node	4790 Jan 29 24:00	28° \mathbb{Z} 03'06	
	4787 Aug 04 18:46	0° \mathbb{L}		greatest brilliancy	4790 Jan 31 17:24	0° \approx 13'02	-3.9m
evening max el	4787 Aug 13 00:25	8° \mathbb{L} 06'18	45°32'20		4790 Jan 31 13:15	0° \approx	
desc. node	4787 Aug 15 04:53	10° \mathbb{L} 10'44		morning set	4790 Feb 05 21:01	6° \approx 41'06	
	4787 Sep 08 16:31	0° \mathbb{M}			4790 Feb 24 10:06	0° \mathbb{H}	
greatest brilliancy	4787 Sep 21 03:56	6° \mathbb{M} 10'00	-4.7m				
retrograde	4787 Sep 30 16:42	7° \mathbb{M} 49'01		superior conj	4790 Mar 19 06:07	28° \mathbb{H} 42'40	-1°24'46
evening set	4787 Oct 18 14:52	1° \mathbb{M} 50'12		minimum elong	4790 Mar 19 00:44	28° \mathbb{H} 25'45	1°24'42
	4787 Oct 21 14:57	30° \mathbb{R} \mathbb{L}			4790 Mar 20 06:44	0° \mathbb{Y}	
inferior conj	4787 Oct 22 00:07	29° \mathbb{L} 45'46	-8°18'51	max. Earth dist.	4790 Mar 21 15:19	1° \mathbb{Y} 42'23	1.71302 AU
minimum elong	4787 Oct 22 05:46	29° \mathbb{L} 36'59	8°18'23		4790 Apr 13 04:52	0° \mathbb{B}	
min. Earth dist.	4787 Oct 22 19:05	29° \mathbb{L} 16'17	0.28562 AU	evening rise	4790 Apr 28 17:41	19° \mathbb{B} 23'48	
morning rise	4787 Oct 25 20:23	27° \mathbb{L} 24'07			4790 May 07 06:16	0° \mathbb{II}	
direct	4787 Nov 12 09:03	21° \mathbb{L} 32'11		asc. node	4790 May 23 02:06	19° \mathbb{II} 36'26	
greatest brilliancy	4787 Nov 23 13:45	23° \mathbb{L} 50'06	-4.8m		4790 May 31 12:21	0° \mathbb{G}	
	4787 Dec 04 23:50	0° \mathbb{M}			4790 Jun 25 00:13	0° \mathbb{Q}	
asc. node	4787 Dec 06 06:52	0° \mathbb{M} 52'56			4790 Jul 19 19:24	0° \mathbb{P}	
morning max el	4788 Jan 01 15:14	23° \mathbb{M} 56'37	46°37'27		4790 Aug 14 01:06	0° \mathbb{L}	
	4788 Jan 07 12:45	0° \mathbb{A}			4790 Sep 08 23:46	0° \mathbb{M}	
	4788 Feb 03 15:21	0° \mathbb{Z}		desc. node	4790 Sep 11 16:45	3° \mathbb{M} 03'50	
	4788 Feb 29 02:06	0° \approx			4790 Oct 06 05:53	0° \mathbb{A}	
	4788 Mar 24 20:32	0° \mathbb{H}		evening max el	4790 Oct 24 09:46	18° \mathbb{A} 28'39	46°13'01
desc. node	4788 Mar 26 21:48	2° \mathbb{H} 30'21			4790 Nov 05 23:19	0° \mathbb{Z}	
	4788 Apr 18 07:44	0° \mathbb{Y}		greatest brilliancy	4790 Dec 03 06:31	17° \mathbb{Z} 37'58	-4.8m
	4788 May 12 16:16	0° \mathbb{B}		retrograde	4790 Dec 12 20:40	19° \mathbb{Z} 19'39	
	4788 Jun 06 00:43	0° \mathbb{II}		evening set	4790 Dec 27 06:07	15° \mathbb{Z} 15'19	
	4788 Jun 30 09:58	0° \mathbb{G}		inferior conj	4791 Jan 02 11:14	11° \mathbb{Z} 37'42	-0°04'50
morning set	4788 Jul 05 20:36	6° \mathbb{G} 41'31		minimum elong	4791 Jan 02 11:25	11° \mathbb{Z} 37'25	0°04'46
asc. node	4788 Jul 17 23:39	21° \mathbb{G} 36'04		transit middle	4791 Jan 02 11:25	11° \mathbb{Z} 37'25	0°04'46
	4788 Jul 24 19:39	0° \mathbb{Q}		transit begin	4791 Jan 02 07:31	11° \mathbb{Z} 43'22	
max. Earth dist.	4788 Aug 11 05:32	21° \mathbb{Q} 24'52	1.73476 AU	transit end	4791 Jan 02 15:19	11° \mathbb{Z} 31'27	
				asc. node	4791 Jan 02 18:42	11° \mathbb{Z} 26'18	
superior conj	4788 Aug 11 20:15	22° \mathbb{Q} 10'07	0°54'52	min. Earth dist.	4791 Jan 02 18:43	11° \mathbb{Z} 26'16	0.26804 AU
minimum elong	4788 Aug 11 11:21	21° \mathbb{Q} 42'44	0°54'31	morning rise	4791 Jan 08 16:21	7° \mathbb{Z} 59'50	
	4788 Aug 18 04:59	0° \mathbb{P}		direct	4791 Jan 23 03:23	3° \mathbb{Z} 51'46	
	4788 Sep 11 13:41	0° \mathbb{L}		greatest brilliancy	4791 Feb 02 13:40	5° \mathbb{Z} 55'43	-4.9m
evening rise	4788 Sep 16 20:40	6° \mathbb{L} 31'01			4791 Mar 07 14:58	0° \approx	
	4788 Oct 05 22:19	0° \mathbb{M}		morning max el	4791 Mar 14 18:13	7° \approx 01'37	46°58'21
	4788 Oct 30 07:44	0° \mathbb{A}			4791 Apr 05 07:10	0° \mathbb{H}	
desc. node	4788 Nov 06 14:37	8° \mathbb{A} 57'04		desc. node	4791 Apr 24 09:47	21° \mathbb{H} 42'39	
	4788 Nov 23 18:28	0° \mathbb{Z}			4791 May 01 12:51	0° \mathbb{Y}	
	4788 Dec 18 07:10	0° \approx			4791 May 26 21:50	0° \mathbb{B}	
	4789 Jan 12 00:00	0° \mathbb{H}			4791 Jun 20 22:08	0° \mathbb{II}	
	4789 Feb 06 03:28	0° \mathbb{Y}			4791 Jul 15 18:15	0° \mathbb{G}	
asc. node	4789 Feb 27 16:19	24° \mathbb{Y} 45'08			4791 Aug 09 11:12	0° \mathbb{Q}	
	4789 Mar 04 09:52	0° \mathbb{B}		asc. node	4791 Aug 15 11:29	7° \mathbb{Q} 19'37	
evening max el	4789 Mar 20 21:37	17° \mathbb{B} 27'17	46°51'47		4791 Sep 03 00:28	0° \mathbb{P}	
	4789 Apr 03 00:45	0° \mathbb{II}		morning set	4791 Sep 13 01:48	12° \mathbb{P} 20'51	

	4791 Sep 27 09:45	0°♄		inferior conj	4794 Mar 17 16:14	27°♄08'40	8°48'06
max. Earth dist.	4791 Oct 16 22:14	24°♄08'25	1.72807 AU	minimum elong	4794 Mar 17 11:00	27°♄16'46	8°47'41
superior conj	4791 Oct 19 14:27	27°♄27'19	1°22'29	morning rise	4794 Mar 20 11:31	25°♄25'29	
minimum elong	4791 Oct 19 19:13	27°♄42'05	1°22'27	direct	4794 Apr 07 05:16	19°♄22'59	
	4791 Oct 21 15:43	0°♍		greatest brilliancy	4794 Apr 16 11:17	20°♄59'20	-4.9m
	4791 Nov 14 19:33	0°♊			4794 May 02 21:06	0°♊	
evening rise	4791 Nov 26 10:35	14°♊27'29		desc. node	4794 May 21 21:26	16°♊07'04	
desc. node	4791 Dec 05 02:27	25°♊14'21		morning max el	4794 May 27 00:38	21°♊04'21	46°24'27
	4791 Dec 08 22:13	0°♋			4794 Jun 04 20:47	0°♋	
	4792 Jan 02 00:13	0°♌			4794 Jul 02 13:11	0°♌	
	4792 Jan 26 02:17	0°♍			4794 Jul 28 18:52	0°♌	
	4792 Feb 19 06:26	0°♎		asc. node	4794 Aug 23 07:50	0°♍	
	4792 Mar 14 16:53	0°♏			4794 Sep 11 23:27	23°♍29'06	
asc. node	4792 Mar 27 04:17	15°♏05'10			4794 Sep 17 09:12	0°♎	
	4792 Apr 08 16:39	0°♐			4794 Oct 12 01:02	0°♏	
	4792 May 04 18:32	0°♑		morning set	4794 Nov 05 09:23	0°♐	
evening max el	4792 May 31 01:27	27°♑43'38	45°54'24		4794 Nov 21 07:13	19°♐45'10	
	4792 Jun 02 09:37	0°♒			4794 Nov 29 12:36	0°♑	
greatest brilliancy	4792 Jul 08 04:36	26°♒15'01	-4.7m	max. Earth dist.	4794 Dec 23 12:40	0°♋	
desc. node	4792 Jul 16 19:05	28°♒19'57			4794 Dec 27 20:57	5°♋26'38	1.71530 AU
retrograde	4792 Jul 19 05:14	28°♒26'42		superior conj	4794 Dec 30 06:04	8°♋25'38	0°05'40
evening set	4792 Aug 03 21:14	23°♒43'28		minimum elong	4794 Dec 30 07:30	8°♋30'07	0°05'37
inferior conj	4792 Aug 09 17:40	20°♒10'31	-5°17'35	behind sun begin	4794 Dec 29 07:28	7°♋14'46	
minimum elong	4792 Aug 09 08:10	20°♒25'26	5°15'22	behind sun end	4794 Dec 31 07:33	9°♋45'29	
min. Earth dist.	4792 Aug 09 08:18	20°♒25'15	0.29004 AU	desc. node	4795 Jan 01 14:12	11°♋21'35	
morning rise	4792 Aug 14 19:20	17°♒04'41			4795 Jan 16 10:48	0°♌	
direct	4792 Aug 31 07:48	11°♒55'14		evening rise	4795 Feb 08 20:55	29°♌25'22	
greatest brilliancy	4792 Sep 10 10:16	13°♒45'23	-4.7m		4795 Feb 09 07:57	0°♍	
	4792 Oct 06 01:14	0°♎			4795 Mar 05 05:31	0°♎	
morning max el	4792 Oct 19 05:30	11°♎58'37	45°52'27		4795 Mar 29 05:46	0°♏	
	4792 Nov 05 20:36	0°♏			4795 Apr 22 11:36	0°♐	
asc. node	4792 Nov 06 21:08	1°♏05'46		asc. node	4795 Apr 24 16:12	2°♐41'35	
	4792 Dec 02 15:19	0°♐			4795 May 17 02:24	0°♑	
	4792 Dec 27 22:26	0°♑			4795 Jun 11 06:52	0°♒	
	4793 Jan 21 12:30	0°♋			4795 Jul 07 10:26	0°♎	
	4793 Feb 14 18:02	0°♌			4795 Aug 04 14:53	0°♏	
desc. node	4793 Feb 26 11:55	14°♌37'46		evening max el	4795 Aug 10 15:31	5°♏53'30	45°32'03
	4793 Mar 10 19:25	0°♍		desc. node	4795 Aug 14 07:00	9°♏19'41	
	4793 Apr 03 19:16	0°♎			4795 Sep 10 00:34	0°♐	
morning set	4793 Apr 23 10:05	24°♎30'51		greatest brilliancy	4795 Sep 18 16:49	3°♐55'04	-4.7m
	4793 Apr 27 19:37	0°♏		retrograde	4795 Sep 28 08:06	5°♐35'58	
	4793 May 21 22:02	0°♐			4795 Oct 15 13:57	30°♐♄	
				evening set	4795 Oct 16 07:24	29°♏34'11	
superior conj	4793 Jun 01 08:28	12°♐56'32	-0°42'02	inferior conj	4795 Oct 19 15:23	27°♏31'36	-8°23'58
minimum elong	4793 Jun 01 17:07	13°♐23'21	0°41'39	minimum elong	4795 Oct 19 20:20	27°♏23'55	8°23'36
max. Earth dist.	4793 Jun 04 17:20	17°♐06'59	1.72680 AU	min. Earth dist.	4795 Oct 20 09:11	27°♏03'56	0.28620 AU
	4793 Jun 15 03:18	0°♑		morning rise	4795 Oct 23 09:01	25°♏14'00	
asc. node	4793 Jun 19 13:49	5°♑28'56		direct	4795 Nov 10 01:06	19°♏17'20	
evening rise	4793 Jul 09 04:46	29°♑39'44		greatest brilliancy	4795 Nov 21 04:51	21°♏34'39	-4.8m
	4793 Jul 09 11:21	0°♒		asc. node	4795 Dec 05 08:50	29°♏37'54	
	4793 Aug 02 22:00	0°♎			4795 Dec 05 21:03	0°♐	
	4793 Aug 27 11:44	0°♏		morning max el	4795 Dec 30 07:26	21°♐41'03	46°35'59
	4793 Sep 21 05:58	0°♐			4796 Jan 07 08:39	0°♑	
desc. node	4793 Oct 09 04:43	21°♐32'58			4796 Feb 03 06:42	0°♋	
	4793 Oct 16 06:41	0°♑			4796 Feb 28 15:35	0°♌	
	4793 Nov 10 16:45	0°♋			4796 Mar 24 09:00	0°♍	
	4793 Dec 06 18:58	0°♌		desc. node	4796 Mar 25 23:52	1°♍58'47	
	4794 Jan 03 12:44	0°♍			4796 Apr 17 19:34	0°♎	
evening max el	4794 Jan 05 05:37	1°♍43'42	47°05'19		4796 May 12 03:41	0°♏	
asc. node	4794 Jan 30 06:33	24°♍09'13			4796 Jun 05 11:49	0°♐	
	4794 Feb 08 05:51	0°♎			4796 Jun 29 20:50	0°♑	
greatest brilliancy	4794 Feb 14 22:31	3°♎06'44	-4.9m	morning set	4796 Jul 03 13:38	4°♑32'58	
retrograde	4794 Feb 24 22:50	5°♎01'42		asc. node	4796 Jul 17 01:41	21°♑09'09	
	4794 Mar 12 22:49	30°♎♄			4796 Jul 24 06:24	0°♒	
evening set	4794 Mar 14 10:35	29°♎07'33		max. Earth dist.	4796 Aug 09 04:00	19°♒33'19	1.73478 AU
min. Earth dist.	4794 Mar 17 02:53	27°♎29'20	0.27102 AU				

superior conj	4796 Aug 09 14:10	20°Ω04'34	0°52'22	greatest brilliancy	4799 Jan 31 04:29	3°Σ31'24	-4.9m
minimum elong	4796 Aug 09 05:24	19°Ω37'36	0°52'01		4799 Mar 07 16:21	0°≈	
	4796 Aug 17 15:42	0°Π		morning max el	4799 Mar 12 06:49	4°≈34'44	46°58'31
	4796 Sep 11 00:29	0°Ω			4799 Apr 05 00:14	0°Χ	
evening rise	4796 Sep 14 14:38	4°Ω25'17		desc. node	4799 Apr 23 11:42	21°Χ05'25	
	4796 Oct 05 09:18	0°Π			4799 May 01 03:02	0°Υ	
	4796 Oct 29 19:00	0°♁			4799 May 26 10:33	0°Ϡ	
desc. node	4796 Nov 05 16:33	8°♁28'02			4799 Jun 20 09:56	0°Π	
	4796 Nov 23 06:11	0°Σ			4799 Jul 15 05:28	0°Ϡ	
	4796 Dec 17 19:28	0°≈			4799 Aug 08 22:02	0°Ω	
	4797 Jan 11 13:11	0°Χ		asc. node	4799 Aug 14 13:37	6°Ω53'20	
	4797 Feb 05 18:08	0°Υ			4799 Sep 02 11:05	0°Π	
asc. node	4797 Feb 26 18:28	24°Υ03'40		morning set	4799 Sep 10 19:31	10°Π15'19	
	4797 Mar 04 03:45	0°Ϡ			4799 Sep 26 20:18	0°Ω	
evening max el	4797 Mar 18 13:30	15°Ϡ10'58	46°53'38	max. Earth dist.	4799 Oct 14 14:13	21°Ω56'37	1.72852 AU
	4797 Apr 03 06:35	0°Π					
greatest brilliancy	4797 Apr 27 09:29	15°Π51'13	-4.8m	superior conj	4799 Oct 17 07:38	25°Ω19'07	1°23'17
retrograde	4797 May 08 00:27	17°Π57'47		minimum elong	4799 Oct 17 11:44	25°Ω31'50	1°23'14
evening set	4797 May 23 22:37	12°Π58'12			4799 Oct 21 02:18	0°Π	
inferior conj	4797 May 29 03:03	9°Π49'03	4°43'25		4799 Nov 14 06:16	0°♁	
minimum elong	4797 May 29 12:14	9°Π34'43	4°41'00	evening rise	4799 Nov 24 01:00	12°♁09'31	
min. Earth dist.	4797 May 28 23:56	9°Π53'54	0.28077 AU	desc. node	4799 Dec 04 04:26	24°♁46'40	
morning rise	4797 Jun 04 02:21	6°Π14'42			4799 Dec 08 09:07	0°Σ	
desc. node	4797 Jun 18 09:08	1°Π47'53			4800 Jan 01 11:21	0°≈	
direct	4797 Jun 19 05:26	1°Π47'02			4800 Jan 25 13:40	0°Χ	
greatest brilliancy	4797 Jun 29 01:17	3°Π33'27	-4.8m		4800 Feb 18 18:12	0°Υ	
	4797 Aug 05 04:46	0°Ϡ			4800 Mar 14 05:16	0°Ϡ	
morning max el	4797 Aug 07 03:45	1°Ϡ51'23	45°45'59	asc. node	4800 Mar 26 06:15	14°Ϡ32'31	
	4797 Sep 03 12:20	0°Ω			4800 Apr 08 06:08	0°Π	
	4797 Sep 30 06:26	0°Π			4800 May 04 10:24	0°Ϡ	
asc. node	4797 Oct 09 11:19	10°Π40'50		evening max el	4800 May 28 16:18	25°Ϡ29'17	45°56'13
	4797 Oct 25 19:35	0°Ω			4800 Jun 02 08:44	0°Ω	
	4797 Nov 19 15:06	0°Π		greatest brilliancy	4800 Jul 05 21:20	24°Ω06'51	-4.7m
	4797 Dec 13 23:39	0°♁		desc. node	4800 Jul 15 21:12	26°Ω17'28	
	4798 Jan 07 01:44	0°Σ		retrograde	4800 Jul 16 21:22	26°Ω18'39	
desc. node	4798 Jan 29 02:03	27°Σ34'57		evening set	4800 Aug 01 11:43	21°Ω38'13	
	4798 Jan 31 00:16	0°≈		inferior conj	4800 Aug 07 10:12	18°Ω02'41	-5°01'52
greatest brilliancy	4798 Jan 31 18:34	0°≈57'28	-3.9m	minimum elong	4800 Aug 07 00:56	18°Ω17'14	4°59'39
morning set	4798 Feb 03 07:12	4°≈07'47		min. Earth dist.	4800 Aug 07 00:57	18°Ω17'12	0.28979 AU
	4798 Feb 23 21:05	0°Χ		morning rise	4800 Aug 12 14:18	14°Ω53'11	
				direct	4800 Aug 28 23:29	9°Ω47'41	
superior conj	4798 Mar 16 16:39	26°Χ10'36	-1°23'47	greatest brilliancy	4800 Sep 08 02:37	11°Ω23'56	-4.7m
minimum elong	4798 Mar 16 10:17	25°Χ50'34	1°23'42		4800 Oct 06 05:26	0°Π	
max. Earth dist.	4798 Mar 18 23:51	29°Χ04'02	1.71271 AU	morning max el	4800 Oct 16 20:06	9°Π45'33	45°51'23
	4798 Mar 19 17:40	0°Υ		asc. node	4800 Nov 05 23:07	0°Ω26'23	
	4798 Apr 12 15:45	0°Ϡ			4800 Nov 05 13:20	0°Ω	
evening rise	4798 Apr 26 05:45	16°Ϡ57'57			4800 Dec 02 05:01	0°Π	
	4798 May 06 17:08	0°Π			4800 Dec 27 10:53	0°♁	
asc. node	4798 May 22 04:01	19°Π08'40			4801 Jan 21 00:19	0°Σ	
	4798 May 30 23:17	0°Ϡ			4801 Feb 14 05:28	0°≈	
	4798 Jun 24 11:22	0°Ω		desc. node	4801 Feb 25 14:02	14°≈09'12	
	4798 Jul 19 07:02	0°Π			4801 Mar 10 06:34	0°Χ	
	4798 Aug 13 13:37	0°Ω			4801 Apr 03 06:12	0°Υ	
	4798 Sep 08 14:00	0°Π		morning set	4801 Apr 20 22:25	22°Υ05'43	
desc. node	4798 Sep 10 18:47	2°Π28'47			4801 Apr 27 06:24	0°Ϡ	
	4798 Oct 05 23:59	0°♁			4801 May 21 08:43	0°Π	
evening max el	4798 Oct 21 23:51	16°♁10'21	46°10'49				
	4798 Nov 06 07:32	0°Σ		superior conj	4801 May 29 23:10	10°Π40'25	-0°45'06
greatest brilliancy	4798 Nov 30 20:12	15°Σ14'47	-4.8m	minimum elong	4801 May 30 08:18	11°Π08'42	0°44'43
retrograde	4798 Dec 10 08:37	16°Σ54'46		max. Earth dist.	4801 Jun 02 07:57	14°Π50'41	1.72629 AU
evening set	4798 Dec 24 19:54	12°Σ49'23			4801 Jun 14 13:56	0°Ϡ	
inferior conj	4798 Dec 31 00:01	9°Σ12'56	-0°28'48	asc. node	4801 Jun 18 15:54	5°Ϡ02'35	
minimum elong	4798 Dec 31 01:08	9°Σ11'14	0°28'27	evening rise	4801 Jul 06 21:54	27°Ϡ32'09	
min. Earth dist.	4798 Dec 31 09:04	8°Σ59'06	0.26840 AU		4801 Jul 08 21:59	0°Ω	
asc. node	4799 Jan 01 20:41	8°Σ04'51			4801 Aug 02 08:43	0°Π	
morning rise	4799 Jan 06 05:54	5°Σ33'30			4801 Aug 26 22:42	0°Ω	
direct	4799 Jan 20 16:31	1°Σ26'21			4801 Sep 20 17:25	0°Π	

desc. node	4801 Oct 08 06:41	21°  03'00		4804 Feb 02 21:29	0° 	
	4801 Oct 15 18:58	0° 		4804 Feb 28 04:41	0° 	
	4801 Nov 10 06:23	0° 		4804 Mar 23 21:13	0° 	
	4801 Dec 06 11:08	0° 		desc. node	4804 Mar 25 01:47	1°  27'22
evening max el	4802 Jan 02 18:39	29°  18'11	47°04'14	4804 Apr 17 07:14	0° 	
	4802 Jan 03 11:17	0° 		4804 May 11 14:57	0° 	
asc. node	4802 Jan 29 08:42	22°  50'01		4804 Jun 04 22:46	0° 	
	4802 Feb 10 18:57	0° 		4804 Jun 29 07:33	0° 	
greatest brilliancy	4802 Feb 12 11:49	0°  40'14	-4.9m	morning set	4804 Jul 01 06:18	2°  23'44
retrograde	4802 Feb 22 12:02	2°  35'29		asc. node	4804 Jul 16 03:44	20°  42'50
	4802 Mar 05 18:06	30° 		4804 Jul 23 16:59	0° 	
evening set	4802 Mar 11 19:49	26° 				
min. Earth dist.	4802 Mar 14 15:34	25°  03'53	0.27068 AU	superior conj	4804 Aug 07 07:52	17°  58'51 0°49'47
inferior conj	4802 Mar 15 05:08	24°  42'57	8°42'00	minimum elong	4804 Aug 06 23:17	17°  32'28 0°49'26
minimum elong	4802 Mar 14 23:03	24°  52'20	8°41'27	max. Earth dist.	4804 Aug 07 02:41	17°  42'55 1.73474 AU
morning rise	4802 Mar 18 02:24	22°  57'01			4804 Aug 17 02:16	0° 
direct	4802 Apr 04 17:32	16°  57'31			4804 Sep 10 11:07	0° 
greatest brilliancy	4802 Apr 14 00:12	18°  34'41	-4.9m	evening rise	4804 Sep 12 08:41	2°  20'15
	4802 May 03 14:59	0° 			4804 Oct 04 20:07	0° 
desc. node	4802 May 20 23:27	15°  07'12'29			4804 Oct 29 06:05	0° 
morning max el	4802 May 24 14:33	18°  44'02	46°26'11	desc. node	4804 Nov 04 18:34	7°  59'54
	4802 Jun 04 16:26	0° 			4804 Nov 22 17:40	0° 
	4802 Jul 02 04:09	0° 			4804 Dec 17 07:32	0° 
	4802 Jul 28 07:48	0° 			4805 Jan 11 02:10	0° 
	4802 Aug 22 19:40	0° 			4805 Feb 05 08:42	0° 
asc. node	4802 Sep 11 01:24	23°  01'02		asc. node	4805 Feb 25 20:21	23°  07'32
	4802 Sep 16 20:23	0° 			4805 Mar 03 21:55	0° 
	4802 Oct 11 11:51	0° 		evening max el	4805 Mar 16 05:13	12°  54'15 46°55'02
	4802 Nov 04 20:02	0° 			4805 Apr 03 14:49	0° 
morning set	4802 Nov 18 22:48	17°  31'15		greatest brilliancy	4805 Apr 25 01:31	13°  35'17 -4.8m
	4802 Nov 28 23:14	0° 		retrograde	4805 May 05 15:55	15° 
	4802 Dec 22 23:21	0° 		evening set	4805 May 21 16:24	10° 
max. Earth dist.	4802 Dec 25 10:37	3°  05'35	1.71572 AU	inferior conj	4805 May 26 17:55	7°  32'39 5°01'51
				minimum elong	4805 May 27 03:28	7°  17'43 4°59'24
superior conj	4802 Dec 27 18:26	6°  00'23	0°09'26	min. Earth dist.	4805 May 26 14:46	7°  37'34 0.28045 AU
minimum elong	4802 Dec 27 20:47	6°  07'48	0°09'20	morning rise	4805 Jun 01 15:03	4° 
behind sun begin	4802 Dec 26 23:50	5°  02'09			4805 Jun 11 23:17	30° 
behind sun end	4802 Dec 28 17:44	7°  13'26		direct	4805 Jun 16 20:19	29°  31'23
desc. node	4802 Dec 31 16:20	10°  05'43'38		desc. node	4805 Jun 17 11:16	29°  31'51
	4803 Jan 15 21:35	0° 			4805 Jun 21 20:12	0° 
evening rise	4803 Feb 06 07:53	26°  54'55		greatest brilliancy	4805 Jun 26 14:43	1°  16'40 -4.8m
	4803 Feb 08 18:50	0° 		morning max el	4805 Aug 04 18:49	29°  38'30 45°46'37
	4803 Mar 04 16:31	0° 			4805 Aug 05 03:48	0° 
	4803 Mar 28 16:56	0° 			4805 Sep 03 04:06	0° 
	4803 Apr 21 23:01	0° 			4805 Sep 29 19:41	0° 
asc. node	4803 Apr 23 18:08	2°  12'22		asc. node	4805 Oct 08 13:16	10°  09'16
	4803 May 16 14:18	0° 			4805 Oct 25 07:40	0° 
	4803 Jun 10 19:44	0° 			4805 Nov 19 02:36	0° 
	4803 Jul 07 01:20	0° 			4805 Dec 13 10:48	0° 
	4803 Aug 04 11:18	0° 			4806 Jan 06 12:43	0° 
evening max el	4803 Aug 08 07:32	3°  43'52	45°31'54	desc. node	4806 Jan 28 04:08	27°  07'13
desc. node	4803 Aug 13 09:04	8°  28'36			4806 Jan 30 11:10	0° 
	4803 Sep 11 23:06	0° 		greatest brilliancy	4806 Jan 31 00:45	0°  42'38 -3.9m
greatest brilliancy	4803 Sep 16 06:04	1°  42'07	-4.7m	morning set	4806 Jan 31 17:59	1°  36'45
retrograde	4803 Sep 25 23:40	3°  42'43'33			4806 Feb 23 07:56	0° 
	4803 Oct 09 04:43	30° 				
evening set	4803 Oct 13 23:57	27°  20'32		superior conj	4806 Mar 14 03:33	23°  39'57 -1°22'38
inferior conj	4803 Oct 17 06:53	25°  19'19	-8°28'20	minimum elong	4806 Mar 13 20:16	23°  17'02 1°22'31
minimum elong	4803 Oct 17 11:07	25°  12'44	8°28'04	max. Earth dist.	4806 Mar 16 08:03	26°  42'53 1.71246 AU
min. Earth dist.	4803 Oct 17 23:19	24°  53'45	0.28669 AU		4806 Mar 19 04:31	0° 
morning rise	4803 Oct 20 22:05	23°  05'20			4806 Apr 12 02:36	0° 
direct	4803 Nov 07 17:36	17°  04'39		evening rise	4806 Apr 23 17:41	14°  31'35
greatest brilliancy	4803 Nov 18 19:30	19°  20'28	-4.8m		4806 May 06 04:02	0° 
asc. node	4803 Dec 04 10:51	28°  26'43		asc. node	4806 May 21 06:05	18°  41'05
	4803 Dec 06 12:00	0° 			4806 May 30 10:19	0° 
morning max el	4803 Dec 27 23:28	19°  46'36	46°34'22		4806 Jun 23 22:41	0° 
	4804 Jan 07 03:29	0° 			4806 Jul 18 18:51	0° 

	4806 Aug 13 02:22	0°♄		desc. node	4809 Feb 24 15:53	13°♊39'04
	4806 Sep 08 04:33	0°♌			4809 Mar 09 17:58	0°♋
desc. node	4806 Sep 09 20:44	1°♌52'52			4809 Apr 02 17:23	0°♌
	4806 Oct 05 18:41	0°♍		morning set	4809 Apr 18 10:54	19°♌40'11
evening max el	4806 Oct 19 12:58	13°♍49'30 46°08'43			4809 Apr 26 17:25	0°♎
	4806 Nov 06 18:47	0°♏			4809 May 20 19:37	0°♐
greatest brilliancy	4806 Nov 28 10:15	12°♏52'01 -4.8m				
retrograde	4806 Dec 07 20:27	14°♏30'23		superior conj	4809 May 27 14:04	8°♐24'10 -0°48'05
evening set	4806 Dec 22 09:57	10°♏23'19		minimum elong	4809 May 27 23:37	8°♐53'47 0°47'42
inferior conj	4806 Dec 28 12:56	6°♏48'32 -0°52'43		max. Earth dist.	4809 May 30 22:52	12°♐34'36 1.72580 AU
minimum elong	4806 Dec 28 14:58	6°♏45'27 0°52'02			4809 Jun 14 00:46	0°♑
min. Earth dist.	4806 Dec 28 23:46	6°♏31'58 0.26875 AU		asc. node	4809 Jun 17 17:57	4°♑35'27
asc. node	4806 Dec 31 22:49	4°♏44'41		evening rise	4809 Jul 04 15:12	25°♑24'18
morning rise	4807 Jan 03 19:22	3°♏07'54			4809 Jul 08 08:51	0°♒
	4807 Jan 11 07:00	30°♋♍			4809 Aug 01 19:45	0°♓
direct	4807 Jan 18 05:21	29°♍01'03			4809 Aug 26 10:04	0°♄
	4807 Jan 25 08:30	0°♏			4809 Sep 20 05:19	0°♌
greatest brilliancy	4807 Jan 28 19:53	1°♏08'01 -4.9m		desc. node	4809 Oct 07 08:41	20°♌31'54
	4807 Mar 07 16:28	0°♊			4809 Oct 15 07:43	0°♍
morning max el	4807 Mar 09 19:21	2°♊07'46 46°58'51			4809 Nov 09 20:33	0°♏
	4807 Apr 04 16:55	0°♋			4809 Dec 06 03:59	0°♊
desc. node	4807 Apr 22 13:46	20°♋29'01		evening max el	4809 Dec 31 08:33	26°♊54'03 47°03'13
	4807 Apr 30 17:03	0°♌			4810 Jan 03 11:12	0°♋
	4807 May 25 23:13	0°♎		asc. node	4810 Jan 28 10:36	21°♋26'49
	4807 Jun 19 21:49	0°♐		greatest brilliancy	4810 Feb 10 00:28	28°♋12'03 -4.9m
	4807 Jul 14 16:51	0°♑			4810 Feb 17 11:30	0°♌
asc. node	4807 Aug 08 09:05	0°♒		retrograde	4810 Feb 20 01:39	0°♌08'09
	4807 Aug 13 15:33	6°♒25'43			4810 Feb 22 15:04	30°♋♋
	4807 Sep 01 21:56	0°♓		evening set	4810 Mar 09 04:46	24°♋25'31
morning set	4807 Sep 08 12:53	8°♓07'58		min. Earth dist.	4810 Mar 12 03:53	22°♋37'42 0.27032 AU
	4807 Sep 26 07:03	0°♄		inferior conj	4810 Mar 12 17:58	22°♋16'01 8°34'52
max. Earth dist.	4807 Oct 12 07:36	19°♄48'31 1.72894 AU		minimum elong	4810 Mar 12 11:06	22°♋26'35 8°34'10
				morning rise	4810 Mar 15 17:35	20°♋26'53
superior conj	4807 Oct 15 00:36	23°♄09'43 1°23'56		direct	4810 Apr 02 06:20	14°♋30'59
minimum elong	4807 Oct 15 04:00	23°♄20'16 1°23'55		greatest brilliancy	4810 Apr 11 12:37	16°♋08'21 -4.9m
	4807 Oct 20 13:04	0°♌			4810 May 04 04:45	0°♌
	4807 Nov 13 17:10	0°♍		desc. node	4810 May 20 01:31	14°♌18'19
evening rise	4807 Nov 21 15:28	9°♍51'14		morning max el	4810 May 22 05:07	16°♌24'28 46°27'57
desc. node	4807 Dec 03 06:32	24°♍18'47			4810 Jun 04 11:49	0°♎
	4807 Dec 07 20:13	0°♏			4810 Jul 01 19:10	0°♐
	4807 Dec 31 22:41	0°♊			4810 Jul 27 20:53	0°♑
	4808 Jan 25 01:16	0°♋			4810 Aug 22 07:44	0°♒
	4808 Feb 18 06:09	0°♌		asc. node	4810 Sep 10 03:22	22°♒31'59
asc. node	4808 Mar 13 17:48	0°♎			4810 Sep 16 07:53	0°♓
	4808 Mar 25 08:15	13°♎59'35			4810 Oct 10 23:03	0°♄
	4808 Apr 07 19:49	0°♐			4810 Nov 04 07:07	0°♌
	4808 May 04 02:39	0°♑		morning set	4810 Nov 16 14:12	15°♌15'34
evening max el	4808 May 26 06:56	23°♑13'52 45°57'54			4810 Nov 28 10:17	0°♍
	4808 Jun 02 09:11	0°♒			4810 Dec 22 10:25	0°♏
greatest brilliancy	4808 Jul 03 13:16	21°♒56'34 -4.7m		max. Earth dist.	4810 Dec 22 22:35	0°♏38'03 1.71608 AU
retrograde	4808 Jul 14 13:38	24°♒09'19				
desc. node	4808 Jul 14 23:14	24°♒09'08		superior conj	4810 Dec 25 06:38	3°♏33'33 0°13'13
evening set	4808 Jul 30 02:06	19°♒31'10		minimum elong	4810 Dec 25 09:54	3°♏43'48 0°13'03
min. Earth dist.	4808 Aug 04 17:19	16°♒07'44 0.28960 AU		behind sun begin	4810 Dec 24 18:44	2°♏56'17
inferior conj	4808 Aug 05 02:32	15°♒53'16 -4°45'28		behind sun end	4810 Dec 26 01:04	4°♏31'18
minimum elong	4808 Aug 04 17:33	16°♒07'22 4°43'16		desc. node	4810 Dec 30 18:20	10°♏26'07
morning rise	4808 Aug 10 09:07	12°♒40'21			4811 Jan 15 08:42	0°♊
direct	4808 Aug 26 15:04	7°♒38'20		evening rise	4811 Feb 03 18:44	24°♊23'02
greatest brilliancy	4808 Sep 05 19:04	9°♒29'12 -4.7m			4811 Feb 08 06:03	0°♋
	4808 Oct 06 08:30	0°♓			4811 Mar 04 03:52	0°♌
morning max el	4808 Oct 14 11:27	7°♓33'10 45°50'27			4811 Mar 28 04:27	0°♎
asc. node	4808 Nov 05 01:13	29°♓46'39			4811 Apr 21 10:49	0°♐
	4808 Nov 05 06:09	0°♄		asc. node	4811 Apr 22 20:14	1°♐42'32
	4808 Dec 01 18:56	0°♌			4811 May 16 02:35	0°♑
	4808 Dec 26 23:32	0°♍			4811 Jun 10 09:00	0°♒
	4809 Jan 20 12:21	0°♏			4811 Jul 06 16:45	0°♓
	4809 Feb 13 17:08	0°♊			4811 Aug 04 08:48	0°♄

evening max el	4811 Aug 05 23:36	1° Ω 33'26	45°31'38	desc. node	4814 Jan 27 06:05	26° \mathcal{Z} 38'10	
desc. node	4811 Aug 12 10:58	7° Ω 35'17		morning set	4814 Jan 29 04:23	29° \mathcal{Z} 03'32	
greatest brilliancy	4811 Sep 13 19:36	29° Ω 28'33	-4.7m		4814 Jan 29 22:22	0° \approx	
	4811 Sep 15 11:58	0° \mathcal{M}			4814 Feb 22 19:06	0° \mathcal{H}	
retrograde	4811 Sep 23 14:45	1° \mathcal{M} 11'57					
	4811 Oct 01 09:45	30° $\mathcal{R}\Omega$		superior conj	4814 Mar 11 13:59	21° \mathcal{H} 06'54	-1°21'17
evening set	4811 Oct 11 16:10	25° Ω 06'21		minimum elong	4814 Mar 11 05:50	20° \mathcal{H} 41'19	1°21'09
inferior conj	4811 Oct 14 22:22	23° Ω 05'56	-8°31'48	max. Earth dist.	4814 Mar 13 12:01	23° \mathcal{H} 31'34	1.71218 AU
minimum elong	4811 Oct 15 01:51	23° Ω 00'31	8°31'38		4814 Mar 18 15:38	0° \mathcal{Y}	
min. Earth dist.	4811 Oct 15 13:33	22° Ω 42'17	0.28720 AU		4814 Apr 11 13:41	0° \mathcal{B}	
morning rise	4811 Oct 18 11:23	20° Ω 55'03		evening rise	4814 Apr 21 05:11	12° \mathcal{B} 03'08	
direct	4811 Nov 05 10:11	14° Ω 50'55			4814 May 05 15:08	0° \mathcal{H}	
greatest brilliancy	4811 Nov 16 10:08	17° Ω 04'53	-4.8m	asc. node	4814 May 20 08:08	18° \mathcal{H} 12'55	
asc. node	4811 Dec 03 12:55	27° Ω 16'09			4814 May 29 21:33	0° \mathcal{B}	
	4811 Dec 06 23:50	0° \mathcal{M}			4814 Jun 23 10:11	0° Ω	
morning max el	4811 Dec 25 14:40	17° \mathcal{M} 08'36	46°32'44		4814 Jul 18 06:51	0° \mathcal{M}	
	4812 Jan 06 22:23	0° \mathcal{X}			4814 Aug 12 15:17	0° Ω	
	4812 Feb 02 12:32	0° \mathcal{Z}			4814 Sep 07 19:20	0° \mathcal{M}	
	4812 Feb 27 18:05	0° \approx		desc. node	4814 Sep 08 22:50	1° \mathcal{M} 16'57	
	4812 Mar 23 09:44	0° \mathcal{H}			4814 Oct 05 13:54	0° \mathcal{X}	
desc. node	4812 Mar 24 03:53	0° \mathcal{H} 55'37		evening max el	4814 Oct 17 01:28	11° \mathcal{X} 27'26	46°06'41
	4812 Apr 16 19:11	0° \mathcal{Y}			4814 Nov 07 09:45	0° \mathcal{Z}	
	4812 May 11 02:30	0° \mathcal{B}		greatest brilliancy	4814 Nov 25 23:57	10° \mathcal{Z} 29'14	-4.8m
	4812 Jun 04 10:01	0° \mathcal{H}		retrograde	4814 Dec 05 08:36	12° \mathcal{Z} 06'39	
morning set	4812 Jun 28 23:13	0° \mathcal{B} 14'17		evening set	4814 Dec 20 00:15	7° \mathcal{Z} 57'07	
	4812 Jun 28 18:34	0° \mathcal{B}		inferior conj	4814 Dec 26 01:59	4° \mathcal{Z} 24'22	-1°16'13
asc. node	4812 Jul 15 05:42	20° \mathcal{B} 15'19		minimum elong	4814 Dec 26 04:53	4° \mathcal{Z} 19'55	1°15'17
	4812 Jul 23 03:51	0° Ω		min. Earth dist.	4814 Dec 26 14:27	4° \mathcal{Z} 05'17	0.26923 AU
				asc. node	4814 Dec 31 00:43	1° \mathcal{Z} 27'12	
superior conj	4812 Aug 05 01:53	15° Ω 53'18	0°47'09	morning rise	4815 Jan 01 08:47	0° \mathcal{Z} 43'03	
minimum elong	4812 Aug 04 17:33	15° Ω 27'40	0°46'49		4815 Jan 02 18:01	30° $\mathcal{R}\mathcal{X}$	
max. Earth dist.	4812 Aug 05 00:45	15° Ω 49'50	1.73465 AU	direct	4815 Jan 15 18:24	26° \mathcal{X} 35'41	
	4812 Aug 16 13:05	0° \mathcal{M}		greatest brilliancy	4815 Jan 26 11:40	28° \mathcal{X} 45'03	-4.9m
	4812 Sep 09 22:02	0° Ω			4815 Jan 29 09:44	0° \mathcal{Z}	
evening rise	4812 Sep 10 03:02	0° Ω 15'23		morning max el	4815 Mar 07 08:39	29° \mathcal{Z} 41'58	46°58'58
	4812 Oct 04 07:13	0° \mathcal{M}			4815 Mar 07 15:46	0° \approx	
	4812 Oct 28 17:32	0° \mathcal{X}			4815 Apr 04 09:33	0° \mathcal{H}	
desc. node	4812 Nov 03 20:42	7° \mathcal{X} 31'00		desc. node	4815 Apr 21 15:52	19° \mathcal{H} 52'15	
	4812 Nov 22 05:34	0° \mathcal{Z}			4815 Apr 30 07:09	0° \mathcal{Y}	
	4812 Dec 16 20:06	0° \approx			4815 May 25 11:58	0° \mathcal{B}	
	4813 Jan 10 15:40	0° \mathcal{H}			4815 Jun 19 09:44	0° \mathcal{H}	
	4813 Feb 04 23:53	0° \mathcal{Y}			4815 Jul 14 04:15	0° \mathcal{B}	
asc. node	4813 Feb 24 22:23	22° \mathcal{Y} 38'15			4815 Aug 07 20:08	0° Ω	
	4813 Mar 03 16:55	0° \mathcal{B}		asc. node	4815 Aug 12 17:33	5° Ω 58'18	
evening max el	4813 Mar 13 20:02	10° \mathcal{B} 34'09	46°56'34		4815 Sep 01 08:46	0° \mathcal{M}	
	4813 Apr 04 02:26	0° \mathcal{H}		morning set	4815 Sep 06 06:29	6° \mathcal{M} 01'23	
greatest brilliancy	4813 Apr 22 18:08	11° \mathcal{H} 19'14	-4.8m		4815 Sep 25 17:47	0° Ω	
retrograde	4813 May 03 06:53	13° \mathcal{H} 23'19		max. Earth dist.	4815 Oct 10 03:01	17° Ω 46'49	1.72932 AU
evening set	4813 May 19 10:22	8° \mathcal{H} 16'50					
inferior conj	4813 May 24 08:53	5° \mathcal{H} 15'44	5°19'45	superior conj	4815 Oct 12 18:00	21° Ω 01'44	1°24'28
minimum elong	4813 May 24 18:44	5° \mathcal{H} 00'19	5°17'18	minimum elong	4815 Oct 12 20:43	21° Ω 10'08	1°24'28
min. Earth dist.	4813 May 24 05:57	5° \mathcal{H} 20'20	0.28011 AU		4815 Oct 19 23:49	0° \mathcal{M}	
morning rise	4813 May 30 03:35	1° \mathcal{H} 47'20			4815 Nov 13 04:01	0° \mathcal{X}	
	4813 Jun 02 16:17	30° $\mathcal{R}\mathcal{B}$		evening rise	4815 Nov 19 06:30	7° \mathcal{X} 34'59	
direct	4813 Jun 14 10:56	27° \mathcal{B} 15'10		desc. node	4815 Dec 02 08:31	23° \mathcal{X} 50'48	
desc. node	4813 Jun 16 13:18	27° \mathcal{B} 20'18			4815 Dec 07 07:15	0° \mathcal{Z}	
greatest brilliancy	4813 Jun 24 04:43	28° \mathcal{B} 59'46	-4.8m		4815 Dec 31 09:57	0° \approx	
	4813 Jun 26 19:47	0° \mathcal{H}			4816 Jan 24 12:50	0° \mathcal{H}	
morning max el	4813 Aug 02 09:10	27° \mathcal{H} 23'11	45°47'24		4816 Feb 17 18:09	0° \mathcal{Y}	
	4813 Aug 05 02:06	0° \mathcal{B}			4816 Mar 13 06:29	0° \mathcal{B}	
	4813 Sep 02 19:49	0° Ω		asc. node	4816 Mar 24 10:20	13° \mathcal{B} 26'29	
	4813 Sep 29 09:01	0° \mathcal{M}			4816 Apr 07 09:45	0° \mathcal{H}	
asc. node	4813 Oct 07 15:25	9° \mathcal{M} 37'59			4816 May 03 09:18	0° \mathcal{B}	
	4813 Oct 24 19:52	0° Ω		evening max el	4816 May 23 22:02	20° \mathcal{B} 59'30	45°59'53
	4813 Nov 18 14:14	0° \mathcal{M}			4816 Jun 02 11:00	0° Ω	
	4813 Dec 12 22:11	0° \mathcal{X}		greatest brilliancy	4816 Jul 01 04:50	19° Ω 45'55	-4.7m
	4814 Jan 05 23:58	0° \mathcal{Z}		retrograde	4816 Jul 12 06:28	22° Ω 00'06	

desc. node	4816 Jul 14 01:09	21°Ω56'20		desc. node	4818 Dec 29 20:17	9°♄58'31	
evening set	4816 Jul 27 16:39	17°Ω23'59			4819 Jan 14 19:30	0°♁	
inferior conj	4816 Aug 02 18:50	13°Ω43'54	-4°28'46	evening rise	4819 Feb 01 05:54	21°♁53'16	
minimum elong	4816 Aug 02 10:10	13°Ω57'29	4°26'34		4819 Feb 07 16:55	0°♁	
min. Earth dist.	4816 Aug 02 09:19	13°Ω58'49	0.28936 AU		4819 Mar 03 14:50	0°♁	
morning rise	4816 Aug 08 03:51	10°Ω27'52			4819 Mar 27 15:35	0°♁	
direct	4816 Aug 24 06:57	5°Ω29'10			4819 Apr 20 22:14	0°♁	
greatest brilliancy	4816 Sep 03 11:03	7°Ω20'22	-4.7m	asc. node	4819 Apr 21 22:15	1°♁13'39	
	4816 Oct 06 09:53	0°♁			4819 May 15 14:33	0°♁	
morning max el	4816 Oct 12 03:39	5°♁23'30	45°49'36		4819 Jun 09 22:02	0°♁	
asc. node	4816 Nov 04 03:11	29°♁07'31			4819 Jul 06 08:05	0°♁	
	4816 Nov 04 22:26	0°♁		evening max el	4819 Aug 03 15:08	29°♁22'33	45°31'27
	4816 Dec 01 08:30	0°♁			4819 Aug 04 06:48	0°♁	
	4816 Dec 26 11:55	0°♁		desc. node	4819 Aug 11 13:06	6°♁42'19	
	4817 Jan 20 00:07	0°♁		greatest brilliancy	4819 Sep 11 09:57	27°♁17'03	-4.7m
	4817 Feb 13 04:33	0°♁		retrograde	4819 Sep 21 05:36	29°♁00'47	
desc. node	4817 Feb 23 18:01	13°♁10'26		evening set	4819 Oct 09 08:13	22°♁54'17	
	4817 Mar 09 05:09	0°♁		inferior conj	4819 Oct 12 14:01	20°♁54'13	-8°34'34
	4817 Apr 02 04:24	0°♁		minimum elong	4819 Oct 12 16:42	20°♁50'01	8°34'28
morning set	4817 Apr 15 22:58	17°♁13'41		min. Earth dist.	4819 Oct 13 04:08	20°♁32'09	0.28764 AU
	4817 Apr 26 04:19	0°♁		morning rise	4819 Oct 16 01:03	18°♁46'00	
	4817 May 20 06:26	0°♁		direct	4819 Nov 03 02:21	12°♁38'55	
				greatest brilliancy	4819 Nov 14 01:06	14°♁51'15	-4.8m
superior conj	4817 May 25 04:24	6°♁06'17	-0°51'01	asc. node	4819 Dec 02 14:54	26°♁08'47	
minimum elong	4817 May 25 14:20	6°♁37'06	0°50'38		4819 Dec 07 07:55	0°♁	
max. Earth dist.	4817 May 28 13:44	10°♁18'31	1.72531 AU	morning max el	4819 Dec 23 04:56	14°♁49'45	46°31'03
	4817 Jun 13 11:31	0°♁			4820 Jan 06 16:18	0°♁	
asc. node	4817 Jun 16 19:53	4°♁08'13			4820 Feb 02 02:56	0°♁	
evening rise	4817 Jul 02 08:02	23°♁15'24			4820 Feb 27 06:57	0°♁	
	4817 Jul 07 19:36	0°♁			4820 Mar 22 21:45	0°♁	
	4817 Aug 01 06:37	0°♁		desc. node	4820 Mar 23 05:55	0°♁25'03	
	4817 Aug 25 21:14	0°♁			4820 Apr 16 06:39	0°♁	
	4817 Sep 19 17:02	0°♁			4820 May 10 13:35	0°♁	
desc. node	4817 Oct 06 10:47	20°♁01'42			4820 Jun 03 20:47	0°♁	
	4817 Oct 14 20:18	0°♁		morning set	4820 Jun 26 16:03	28°♁05'48	
	4817 Nov 09 10:34	0°♁			4820 Jun 28 05:10	0°♁	
	4817 Dec 05 20:48	0°♁		asc. node	4820 Jul 14 07:44	19°♁49'11	
evening max el	4817 Dec 28 23:21	24°♁33'28	47°02'10		4820 Jul 22 14:21	0°♁	
	4818 Jan 03 11:46	0°♁					
asc. node	4818 Jan 27 12:38	20°♁02'27		superior conj	4820 Aug 02 19:43	13°♁48'18	0°44'27
greatest brilliancy	4818 Feb 07 12:55	25°♁45'14	-4.9m	minimum elong	4820 Aug 02 11:40	13°♁23'34	0°44'06
retrograde	4818 Feb 17 15:30	27°♁42'13		max. Earth dist.	4820 Aug 02 20:35	13°♁51'00	1.73458 AU
evening set	4818 Mar 06 13:43	22°♁05'53			4820 Aug 15 23:35	0°♁	
min. Earth dist.	4818 Mar 09 16:08	20°♁13'16	0.26998 AU	evening rise	4820 Sep 07 21:07	28°♁10'49	
inferior conj	4818 Mar 10 06:55	19°♁50'31	8°26'49		4820 Sep 09 08:36	0°♁	
minimum elong	4818 Mar 09 23:20	20°♁02'12	8°25'56		4820 Oct 03 17:58	0°♁	
morning rise	4818 Mar 13 09:08	17°♁57'43			4820 Oct 28 04:35	0°♁	
direct	4818 Mar 30 19:42	12°♁06'06		desc. node	4820 Nov 02 22:36	7°♁02'39	
greatest brilliancy	4818 Apr 09 00:49	13°♁42'59	-4.9m		4820 Nov 21 17:06	0°♁	
	4818 May 04 14:33	0°♁			4820 Dec 16 08:18	0°♁	
desc. node	4818 May 19 03:32	13°♁25'57			4821 Jan 10 04:53	0°♁	
morning max el	4818 May 19 19:35	14°♁05'28	46°29'25		4821 Feb 04 14:51	0°♁	
	4818 Jun 04 06:24	0°♁		asc. node	4821 Feb 24 00:31	21°♁55'55	
	4818 Jul 01 09:47	0°♁			4821 Mar 03 12:00	0°♁	
	4818 Jul 27 09:41	0°♁		evening max el	4821 Mar 11 09:56	8°♁12'42	46°58'02
	4818 Aug 21 19:30	0°♁			4821 Apr 04 17:20	0°♁	
asc. node	4818 Sep 09 05:31	22°♁04'23		greatest brilliancy	4821 Apr 20 10:53	9°♁04'23	-4.9m
	4818 Sep 15 19:03	0°♁		retrograde	4821 Apr 30 21:34	11°♁06'57	
	4818 Oct 10 09:55	0°♁		evening set	4821 May 17 04:19	5°♁56'45	
	4818 Nov 03 17:51	0°♁		inferior conj	4821 May 21 23:50	3°♁00'02	5°37'09
morning set	4818 Nov 14 05:45	13°♁01'29		minimum elong	4821 May 22 09:54	2°♁44'15	5°34'43
	4818 Nov 27 20:59	0°♁		min. Earth dist.	4821 May 21 21:15	3°♁04'04	0.27978 AU
max. Earth dist.	4818 Dec 20 08:15	28°♁04'32	1.71645 AU		4821 May 26 22:13	30°♁	
	4818 Dec 21 21:09	0°♁		morning rise	4821 May 27 15:54	29°♁35'00	
				direct	4821 Jun 12 01:03	25°♁00'00	
superior conj	4818 Dec 22 19:13	1°♁09'04	0°16'54	desc. node	4821 Jun 15 15:12	25°♁14'50	
minimum elong	4818 Dec 22 23:21	1°♁22'00	0°16'43	greatest brilliancy	4821 Jun 21 19:06	26°♁44'31	-4.8m




































































































































	4821 Jun 29 02:48	0°♂			4824 Jan 24 00:20	0°♄		
morning max el	4821 Jul 30 23:06	25°♂07'51	45°48'11		4824 Feb 17 06:05	0°♄		
	4821 Aug 04 23:07	0°♄			4824 Mar 12 19:08	0°♄		
	4821 Sep 02 10:55	0°♂		asc. node	4824 Mar 23 12:17	12°♄53'13		
	4821 Sep 28 21:55	0°♄			4824 Apr 06 23:41	0°♂		
asc. node	4821 Oct 06 17:21	9°♄07'03			4824 May 03 12:11	0°♄		
	4821 Oct 24 07:43	0°♂		evening max el	4824 May 21 14:02	18°♄47'29	46°01'52	
	4821 Nov 18 01:32	0°♄			4824 Jun 02 14:13	0°♂		
	4821 Dec 12 09:11	0°♄		greatest brilliancy	4824 Jun 28 20:20	17°♂35'23	-4.7m	
desc. node	4822 Jan 05 10:51	0°♄		retrograde	4824 Jul 09 23:30	19°♂50'51		
	4822 Jan 26 08:07	26°♄10'33		desc. node	4824 Jul 13 03:17	19°♂38'52		
morning set	4822 Jan 26 14:49	26°♄31'35		evening set	4824 Jul 25 07:22	15°♂16'46		
	4822 Jan 29 09:12	0°♄		inferior conj	4824 Jul 31 11:04	11°♂34'34	-4°11'35	
	4822 Feb 22 05:55	0°♄		minimum elong	4824 Jul 31 02:47	11°♂47'31	4°09'26	
				min. Earth dist.	4824 Jul 31 01:01	11°♂50'16	0.28909 AU	
superior conj	4822 Mar 09 00:23	18°♄34'51	-1°19'47	morning rise	4824 Aug 05 22:28	8°♂15'32		
minimum elong	4822 Mar 08 15:27	18°♄06'45	1°19'36	direct	4824 Aug 21 23:17	3°♂20'15		
max. Earth dist.	4822 Mar 10 13:42	20°♄32'08	1.71198 AU	greatest brilliancy	4824 Sep 01 02:18	5°♂11'01	-4.7m	
	4822 Mar 18 02:25	0°♄			4824 Oct 06 09:53	0°♄		
	4822 Apr 11 00:27	0°♄		morning max el	4824 Oct 09 19:59	3°♄14'34	45°48'41	
evening rise	4822 Apr 18 16:41	9°♄35'35		asc. node	4824 Nov 03 05:11	28°♄29'01		
	4822 May 05 01:56	0°♂			4824 Nov 04 14:23	0°♂		
asc. node	4822 May 19 10:04	17°♂45'24			4824 Nov 30 21:58	0°♄		
	4822 May 29 08:27	0°♄			4824 Dec 26 00:19	0°♄		
	4822 Jun 22 21:21	0°♂			4825 Jan 19 11:57	0°♄		
	4822 Jul 17 18:32	0°♄			4825 Feb 12 16:01	0°♄		
	4822 Aug 12 03:59	0°♂		desc. node	4825 Feb 22 20:04	12°♄41'22		
desc. node	4822 Sep 07 10:02	0°♄			4825 Mar 08 16:22	0°♄		
	4822 Sep 08 00:52	0°♄41'18			4825 Apr 01 15:27	0°♄		
	4822 Oct 05 09:29	0°♄		morning set	4825 Apr 13 10:48	14°♄46'16		
evening max el	4822 Oct 14 14:16	9°♄06'52	46°04'43		4825 Apr 25 15:14	0°♄		
	4822 Nov 08 05:33	0°♄			4825 May 19 17:16	0°♂		
greatest brilliancy	4822 Nov 23 13:07	8°♄06'28	-4.8m					
retrograde	4822 Dec 02 21:16	9°♄43'38		superior conj	4825 May 22 18:32	3°♂47'35	-0°53'54	
evening set	4822 Dec 17 14:42	5°♄31'13		minimum elong	4825 May 23 04:47	4°♂19'23	0°53'31	
inferior conj	4822 Dec 23 14:57	2°♄00'43	-1°39'32	max. Earth dist.	4825 May 26 06:31	8°♂08'14	1.72483 AU	
minimum elong	4822 Dec 23 18:43	1°♄54'57	1°38'20		4825 Jun 12 22:18	0°♄		
min. Earth dist.	4822 Dec 24 04:44	1°♄39'39	0.26971 AU	asc. node	4825 Jun 15 21:57	3°♄41'19		
	4822 Dec 26 22:48	30°♄		evening rise	4825 Jun 30 00:47	21°♄06'00		
morning rise	4822 Dec 29 21:58	28°♄19'16			4825 Jul 07 06:25	0°♂		
asc. node	4822 Dec 30 02:45	28°♄12'53			4825 Jul 31 17:34	0°♄		
direct	4823 Jan 13 07:44	24°♄10'54			4825 Aug 25 08:30	0°♂		
greatest brilliancy	4823 Jan 24 02:53	26°♄22'19	-4.9m		4825 Sep 19 04:51	0°♄		
	4823 Jan 31 12:25	0°♄		desc. node	4825 Oct 05 12:44	19°♄30'47		
morning max el	4823 Mar 04 22:46	27°♄19'12	46°59'02		4825 Oct 14 09:01	0°♄		
	4823 Mar 07 13:48	0°♄			4825 Nov 09 00:51	0°♄		
	4823 Apr 04 01:36	0°♄			4825 Dec 05 14:10	0°♄		
desc. node	4823 Apr 20 17:46	19°♄16'00		evening max el	4825 Dec 26 14:06	22°♄11'56	47°00'45	
	4823 Apr 29 20:50	0°♄			4826 Jan 03 14:03	0°♄		
	4823 May 25 00:24	0°♄		asc. node	4826 Jan 26 14:45	18°♄33'48		
	4823 Jun 18 21:25	0°♂		greatest brilliancy	4826 Feb 05 01:35	23°♄17'05	-4.9m	
	4823 Jul 13 15:24	0°♄		retrograde	4826 Feb 15 04:47	25°♄14'03		
	4823 Aug 07 06:57	0°♂		evening set	4826 Mar 03 22:13	19°♄44'38		
asc. node	4823 Aug 11 19:40	5°♂31'53		min. Earth dist.	4826 Mar 07 04:22	17°♄46'26	0.26961 AU	
	4823 Aug 31 19:22	0°♄		inferior conj	4826 Mar 07 19:31	17°♄23'05	8°17'43	
morning set	4823 Sep 04 00:09	3°♄55'40		minimum elong	4826 Mar 07 11:17	17°♄35'47	8°16'38	
	4823 Sep 25 04:20	0°♂		morning rise	4826 Mar 11 00:33	15°♄26'08		
max. Earth dist.	4823 Oct 07 23:43	15°♄49'34	1.72972 AU	direct	4826 Mar 28 08:42	9°♄39'30		
				greatest brilliancy	4826 Apr 06 12:52	11°♄15'46	-4.9m	
superior conj	4823 Oct 10 11:19	18°♄53'58	1°24'52		4826 May 04 22:06	0°♄		
minimum elong	4823 Oct 10 13:20	19°♄00'13	1°24'52	morning max el	4826 May 17 08:48	11°♄42'24	46°30'57	
	4823 Oct 19 10:26	0°♄		desc. node	4826 May 18 05:32	12°♄33'45		
	4823 Nov 12 14:47	0°♄			4826 Jun 04 00:45	0°♄		
evening rise	4823 Nov 16 21:22	5°♄18'34			4826 Jul 01 00:24	0°♄		
desc. node	4823 Dec 01 10:30	23°♄23'00			4826 Jul 26 22:34	0°♄		
	4823 Dec 06 18:13	0°♄			4826 Aug 21 07:25	0°♂		
	4823 Dec 30 21:09	0°♄		asc. node	4826 Sep 08 07:26	21°♄35'30		







































































































































	4826 Sep 15 06:25	0°♍	retrograde	4829 Apr 28 12:13	8°♊48'38	
	4826 Oct 09 20:58	0°♌	evening set	4829 May 14 22:10	3°♊34'12	
	4826 Nov 03 04:46	0°♍	inferior conj	4829 May 19 14:36	0°♊42'13	5°54'10
morning set	4826 Nov 11 21:33	10°♍47'42	minimum elong	4829 May 20 00:52	0°♊26'09	5°51'46
	4826 Nov 27 07:53	0°♌	min. Earth dist.	4829 May 19 12:27	0°♊45'35	0.27949 AU
max. Earth dist.	4826 Dec 17 17:39	25°♌29'36		4829 May 20 17:37	30°♌8	
			morning rise	4829 May 25 03:53	27°♌21'00	
superior conj	4826 Dec 20 08:05	28°♌44'51	direct	4829 Jun 09 14:42	22°♌42'30	
minimum elong	4826 Dec 20 13:01	29°♌00'19	desc. node	4829 Jun 14 17:20	23°♌12'11	
	4826 Dec 21 08:06	0°♍	greatest brilliancy	4829 Jun 19 09:38	24°♌27'31	-4.8m
desc. node	4826 Dec 28 22:24	9°♍30'44		4829 Jun 30 15:28	0°♊	
	4827 Jan 14 06:33	0°♌	morning max el	4829 Jul 28 13:25	22°♊51'52	45°49'10
evening rise	4827 Jan 29 16:55	19°♌22'11		4829 Aug 04 19:57	0°♌	
	4827 Feb 07 04:06	0°♌		4829 Sep 02 02:14	0°♌	
	4827 Mar 03 02:09	0°♍		4829 Sep 28 11:07	0°♍	
	4827 Mar 27 03:04	0°♌	asc. node	4829 Oct 05 19:20	8°♍35'16	
	4827 Apr 20 10:01	0°♊		4829 Oct 23 19:53	0°♌	
asc. node	4827 Apr 21 00:11	0°♊43'25		4829 Nov 17 13:10	0°♍	
	4827 May 15 02:53	0°♌		4829 Dec 11 20:32	0°♌	
	4827 Jun 09 11:30	0°♌		4830 Jan 04 22:04	0°♍	
	4827 Jul 06 00:01	0°♍	morning set	4830 Jan 24 01:50	24°♍00'26	
evening max el	4827 Aug 01 05:48	27°♍08'34	desc. node	4830 Jan 25 10:12	25°♍42'00	
	4827 Aug 04 06:09	0°♌		4830 Jan 28 20:21	0°♌	
desc. node	4827 Aug 10 15:07	5°♌47'01		4830 Feb 21 17:01	0°♌	
greatest brilliancy	4827 Sep 09 00:46	25°♌05'10				
retrograde	4827 Sep 18 20:20	26°♌49'02	superior conj	4830 Mar 06 11:07	16°♌02'50	-1°18'07
evening set	4827 Oct 06 23:59	20°♌42'03	minimum elong	4830 Mar 06 01:26	15°♌32'25	1°17'54
inferior conj	4827 Oct 10 05:43	18°♌41'57	max. Earth dist.	4830 Mar 07 17:42	17°♌39'01	1.71182 AU
minimum elong	4827 Oct 10 07:36	18°♌38'59		4830 Mar 17 13:29	0°♍	
min. Earth dist.	4827 Oct 10 19:06	18°♌20'59		4830 Apr 10 11:32	0°♌	
morning rise	4827 Oct 13 15:04	16°♌36'00	evening rise	4830 Apr 16 04:20	7°♌07'27	
direct	4827 Oct 31 17:59	10°♌26'12		4830 May 04 13:05	0°♊	
greatest brilliancy	4827 Nov 11 16:36	12°♌37'37	asc. node	4830 May 18 12:09	17°♊17'12	
asc. node	4827 Dec 01 16:55	25°♌02'31		4830 May 28 19:46	0°♌	
	4827 Dec 07 13:59	0°♍		4830 Jun 22 08:57	0°♌	
morning max el	4827 Dec 20 18:37	12°♍28'43		4830 Jul 17 06:40	0°♍	
	4828 Jan 06 10:04	0°♌		4830 Aug 11 17:09	0°♌	
	4828 Feb 01 17:28	0°♍	desc. node	4830 Sep 07 02:48	0°♍04'03	
	4828 Feb 26 20:04	0°♌		4830 Sep 07 01:20	0°♍	
desc. node	4828 Mar 22 07:50	29°♌53'03		4830 Oct 05 06:06	0°♌	
	4828 Mar 22 10:06	0°♌	evening max el	4830 Oct 12 03:53	6°♌47'32	46°02'50
	4828 Apr 15 18:30	0°♍		4830 Nov 09 09:08	0°♍	
	4828 May 10 01:03	0°♌	greatest brilliancy	4830 Nov 21 01:53	5°♍42'41	-4.8m
	4828 Jun 03 07:58	0°♊	retrograde	4830 Nov 30 10:27	7°♍19'59	
morning set	4828 Jun 24 08:30	25°♊54'53	evening set	4830 Dec 15 05:26	3°♍04'33	
	4828 Jun 27 16:08	0°♌		4830 Dec 20 12:24	30°♌♌	
asc. node	4828 Jul 13 09:48	19°♌22'00	inferior conj	4830 Dec 21 03:57	29°♌36'17	-2°02'40
	4828 Jul 22 01:12	0°♌	minimum elong	4830 Dec 21 08:34	29°♌29'16	2°01'13
			min. Earth dist.	4830 Dec 21 18:45	29°♌13'44	0.27021 AU
superior conj	4828 Jul 31 13:22	11°♌41'43	morning rise	4830 Dec 27 10:58	25°♌55'06	
minimum elong	4828 Jul 31 05:39	11°♌17'58	asc. node	4830 Dec 29 04:52	25°♌01'19	
max. Earth dist.	4828 Jul 31 15:22	11°♌47'52	direct	4831 Jan 10 21:39	21°♌45'29	
	4828 Aug 15 10:25	0°♍	greatest brilliancy	4831 Jan 21 17:34	23°♌58'11	-4.9m
evening rise	4828 Sep 05 15:16	26°♍05'24		4831 Feb 01 22:29	0°♍	
	4828 Sep 08 19:32	0°♌	morning max el	4831 Mar 02 13:47	24°♍58'00	46°59'10
	4828 Oct 03 05:07	0°♍		4831 Mar 07 11:19	0°♌	
	4828 Oct 27 16:03	0°♌		4831 Apr 03 17:36	0°♌	
desc. node	4828 Nov 02 00:38	6°♌33'30	desc. node	4831 Apr 19 19:51	18°♌39'50	
	4828 Nov 21 05:01	0°♍		4831 Apr 29 10:37	0°♍	
	4828 Dec 15 20:53	0°♌		4831 May 24 13:00	0°♌	
	4829 Jan 09 18:30	0°♌		4831 Jun 18 09:19	0°♊	
	4829 Feb 04 06:21	0°♍		4831 Jul 13 02:50	0°♌	
asc. node	4829 Feb 23 02:24	21°♍11'11		4831 Aug 06 18:03	0°♌	
	4829 Mar 03 08:06	0°♌	asc. node	4831 Aug 10 21:36	5°♌04'00	
evening max el	4829 Mar 08 22:58	5°♌47'46		4831 Aug 31 06:16	0°♍	
	4829 Apr 05 14:22	0°♊	morning set	4831 Sep 01 17:44	1°♍48'51	
greatest brilliancy	4829 Apr 18 03:17	6°♊47'07		4831 Sep 24 15:09	0°♌	

max. Earth dist.	4831 Oct 05 20:14	13°♌51'04	1.73008 AU	direct	4834 Mar 25 21:13	7°♎12'56	
				greatest brilliancy	4834 Apr 04 01:35	8°♎49'04	-4.9m
superior conj	4831 Oct 08 04:35	16°♌45'21	1°25'10		4834 May 05 03:27	0°♎	
minimum elong	4831 Oct 08 05:53	16°♌49'21	1°25'09	morning max el	4834 May 14 21:17	9°♎17'20	46°32'38
	4831 Oct 18 21:17	0°♌		desc. node	4834 May 17 07:36	11°♎42'40	
	4831 Nov 12 01:47	0°♌			4834 Jun 03 18:37	0°♎	
evening rise	4831 Nov 14 12:20	3°♌01'44			4834 Jun 30 14:45	0°♎	
desc. node	4831 Nov 30 12:36	22°♌54'50			4834 Jul 26 11:15	0°♎	
	4831 Dec 06 05:27	0°♎			4834 Aug 20 19:11	0°♎	
	4831 Dec 30 08:38	0°♎		asc. node	4834 Sep 07 09:25	21°♎07'13	
	4832 Jan 23 12:07	0°♎			4834 Sep 14 17:39	0°♎	
	4832 Feb 16 18:17	0°♎			4834 Oct 09 07:56	0°♎	
	4832 Mar 12 08:01	0°♎			4834 Nov 02 15:37	0°♌	
asc. node	4832 Mar 22 14:18	12°♎19'30		morning set	4834 Nov 09 13:23	8°♌34'11	
	4832 Apr 06 13:54	0°♎			4834 Nov 26 18:43	0°♌	
	4832 May 03 05:30	0°♎		max. Earth dist.	4834 Dec 15 03:21	22°♌55'53	1.71731 AU
evening max el	4832 May 19 06:38	16°♎36'38	46°03'46				
	4832 Jun 02 19:23	0°♎		superior conj	4834 Dec 17 21:04	26°♌21'21	0°24'09
greatest brilliancy	4832 Jun 26 12:19	15°♎25'06	-4.8m	minimum elong	4834 Dec 18 02:46	26°♌39'12	0°23'52
retrograde	4832 Jul 07 16:31	17°♎41'06			4834 Dec 20 18:58	0°♎	
desc. node	4832 Jul 12 05:16	17°♎16'20		desc. node	4834 Dec 28 00:24	9°♎02'50	
evening set	4832 Jul 22 22:23	13°♎09'09			4835 Jan 13 17:29	0°♎	
min. Earth dist.	4832 Jul 28 16:50	9°♎41'17	0.28881 AU	evening rise	4835 Jan 27 04:03	16°♎51'50	
inferior conj	4832 Jul 29 03:22	9°♎24'49	-3°53'57		4835 Feb 06 15:10	0°♎	
minimum elong	4832 Jul 28 19:31	9°♎37'06	3°51'53		4835 Mar 02 13:22	0°♎	
morning rise	4832 Aug 03 17:03	6°♎02'47			4835 Mar 26 14:29	0°♎	
direct	4832 Aug 19 15:57	1°♎11'08			4835 Apr 19 21:44	0°♎	
greatest brilliancy	4832 Aug 29 17:14	3°♎00'46	-4.7m	asc. node	4835 Apr 20 02:17	0°♎13'57	
	4832 Oct 06 09:04	0°♎			4835 May 14 15:11	0°♎	
morning max el	4832 Oct 07 12:08	1°♎04'44	45°47'43		4835 Jun 09 00:55	0°♎	
asc. node	4832 Nov 02 07:17	27°♎50'40			4835 Jul 05 16:00	0°♎	
	4832 Nov 04 06:15	0°♎		evening max el	4835 Jul 29 19:59	24°♎54'14	45°31'25
	4832 Nov 30 11:28	0°♌			4835 Aug 04 06:16	0°♎	
	4832 Dec 25 12:45	0°♌		desc. node	4835 Aug 09 17:03	4°♎51'08	
	4833 Jan 18 23:50	0°♎		greatest brilliancy	4835 Sep 06 15:22	22°♎54'03	-4.7m
	4833 Feb 12 03:35	0°♎		retrograde	4835 Sep 16 11:19	24°♎38'44	
desc. node	4833 Feb 21 21:56	12°♎11'23		evening set	4835 Oct 04 15:31	18°♎31'28	
	4833 Mar 08 03:42	0°♎		inferior conj	4835 Oct 07 21:35	16°♎30'56	-8°37'42
	4833 Apr 01 02:36	0°♎		minimum elong	4835 Oct 07 22:42	16°♎29'12	8°37'41
morning set	4833 Apr 10 22:42	12°♎18'47		min. Earth dist.	4835 Oct 08 10:18	16°♎11'01	0.28849 AU
	4833 Apr 25 02:15	0°♎		morning rise	4835 Oct 11 05:42	14°♎26'47	
	4833 May 19 04:08	0°♎		direct	4835 Oct 29 09:34	8°♎14'30	
				greatest brilliancy	4835 Nov 09 08:45	10°♎25'48	-4.8m
superior conj	4833 May 20 08:49	1°♎29'06	-0°56'41	asc. node	4835 Nov 30 18:58	23°♎58'36	
minimum elong	4833 May 20 19:17	2°♎01'38	0°56'17		4835 Dec 07 17:50	0°♌	
max. Earth dist.	4833 May 24 01:00	6°♎02'57	1.72429 AU	morning max el	4835 Dec 18 08:58	10°♌09'57	46°27'55
	4833 Jun 12 09:06	0°♎			4836 Jan 06 03:18	0°♌	
asc. node	4833 Jun 14 24:00	3°♎14'15			4836 Feb 01 07:42	0°♎	
evening rise	4833 Jun 27 17:38	18°♎56'48			4836 Feb 26 08:56	0°♎	
	4833 Jul 06 17:15	0°♎		desc. node	4836 Mar 21 09:57	29°♎22'22	
	4833 Jul 31 04:35	0°♎			4836 Mar 21 22:12	0°♎	
	4833 Aug 24 19:51	0°♎			4836 Apr 15 06:06	0°♎	
	4833 Sep 18 16:46	0°♌			4836 May 09 12:17	0°♎	
desc. node	4833 Oct 04 14:45	18°♌59'47			4836 Jun 02 18:56	0°♎	
	4833 Oct 13 21:53	0°♌		morning set	4836 Jun 22 00:51	23°♎44'11	
	4833 Nov 08 15:20	0°♎			4836 Jun 27 02:53	0°♎	
	4833 Dec 05 07:56	0°♎		asc. node	4836 Jul 12 11:44	18°♎55'07	
evening max el	4833 Dec 24 04:18	19°♎49'00	46°59'15		4836 Jul 21 11:50	0°♎	
	4834 Jan 03 17:54	0°♎					
asc. node	4834 Jan 25 16:38	17°♎01'38		superior conj	4836 Jul 29 07:06	9°♎36'04	0°38'49
greatest brilliancy	4834 Feb 02 14:52	20°♎49'44	-4.9m	minimum elong	4836 Jul 28 23:45	9°♎13'27	0°38'30
retrograde	4834 Feb 12 17:35	22°♎45'51		max. Earth dist.	4836 Jul 29 09:53	9°♎44'36	1.73435 AU
evening set	4834 Mar 01 06:42	17°♎23'39			4836 Aug 14 21:01	0°♎	
min. Earth dist.	4834 Mar 04 17:04	15°♎19'06	0.26925 AU	evening rise	4836 Sep 03 09:42	24°♎01'44	
inferior conj	4834 Mar 05 08:10	14°♎55'49	8°07'34		4836 Sep 08 06:12	0°♎	
minimum elong	4834 Mar 04 23:20	15°♎09'26	8°06'18		4836 Oct 02 15:58	0°♌	
morning rise	4834 Mar 08 16:13	12°♎54'17			4836 Oct 27 03:15	0°♌	




























































































































desc. node	4836 Nov 01 02:45	6°♄05'27		desc. node	4839 Apr 18 21:54	18°♄04'28	
	4836 Nov 20 16:44	0°♄			4839 Apr 29 00:03	0°♄	
	4836 Dec 15 09:20	0°♄			4839 May 24 01:18	0°♄	
	4837 Jan 09 08:02	0°♄			4839 Jun 17 20:54	0°♄	
	4837 Feb 03 21:51	0°♄			4839 Jul 12 13:56	0°♄	
asc. node	4837 Feb 22 04:27	20°♄27'01			4839 Aug 06 04:50	0°♄	
	4837 Mar 03 04:33	0°♄		asc. node	4839 Aug 09 23:36	4°♄37'13	
evening max el	4837 Mar 06 12:15	3°♄24'09	47°00'41	morning set	4839 Aug 30 11:16	29°♄42'46	
	4837 Apr 06 18:50	0°♄			4839 Aug 30 16:52	0°♄	
greatest brilliancy	4837 Apr 15 19:02	4°♄29'41	-4.9m		4839 Sep 24 01:41	0°♄	
retrograde	4837 Apr 26 03:10	6°♄30'59		max. Earth dist.	4839 Oct 03 14:56	11°♄47'52	1.73038 AU
evening set	4837 May 12 15:57	1°♄11'55					
	4837 May 14 15:58	30°♄		superior conj	4839 Oct 05 22:01	14°♄38'10	1°25'19
inferior conj	4837 May 17 05:17	28°♄24'49	6°10'33	minimum elong	4839 Oct 05 22:35	14°♄39'57	1°25'19
minimum elong	4837 May 17 15:39	28°♄08'36	6°08'13		4839 Oct 18 07:52	0°♄	
min. Earth dist.	4837 May 17 03:16	28°♄27'57	0.27922 AU		4839 Nov 11 12:29	0°♄	
morning rise	4837 May 22 15:38	25°♄07'55		evening rise	4839 Nov 12 03:34	0°♄46'47	
direct	4837 Jun 07 04:26	20°♄25'18		desc. node	4839 Nov 29 14:34	22°♄27'23	
desc. node	4837 Jun 13 19:21	21°♄14'41			4839 Dec 05 16:19	0°♄	
greatest brilliancy	4837 Jun 16 23:51	22°♄10'51	-4.8m		4839 Dec 29 19:45	0°♄	
	4837 Jul 01 17:01	0°♄			4840 Jan 22 23:34	0°♄	
morning max el	4837 Jul 26 04:39	20°♄38'50	45°50'13		4840 Feb 16 06:13	0°♄	
	4837 Aug 04 15:48	0°♄			4840 Mar 11 20:44	0°♄	
	4837 Sep 01 17:02	0°♄		asc. node	4840 Mar 21 16:21	11°♄46'27	
	4837 Sep 27 23:52	0°♄			4840 Apr 06 04:04	0°♄	
asc. node	4837 Oct 04 21:27	8°♄05'00			4840 May 02 23:02	0°♄	
	4837 Oct 23 07:38	0°♄		evening max el	4840 May 16 23:03	14°♄25'34	46°05'41
	4837 Nov 17 00:24	0°♄			4840 Jun 03 02:34	0°♄	
	4837 Dec 11 07:32	0°♄		greatest brilliancy	4840 Jun 24 04:52	13°♄15'39	-4.8m
	4838 Jan 04 08:59	0°♄		retrograde	4840 Jul 05 09:01	15°♄31'12	
morning set	4838 Jan 21 12:48	21°♄30'02		desc. node	4840 Jul 11 07:12	14°♄48'55	
desc. node	4838 Jan 24 12:08	25°♄13'55		evening set	4840 Jul 20 13:25	11°♄01'27	
	4838 Jan 28 07:15	0°♄		inferior conj	4840 Jul 26 19:30	7°♄15'13	-3°35'56
	4838 Feb 21 03:53	0°♄		minimum elong	4840 Jul 26 12:08	7°♄26'45	3°33'57
				min. Earth dist.	4840 Jul 26 08:49	7°♄31'57	0.28851 AU
superior conj	4838 Mar 03 21:20	13°♄29'54	-1°16'15	morning rise	4840 Aug 01 11:18	3°♄50'04	
minimum elong	4838 Mar 03 11:01	12°♄57'27	1°16'00		4840 Aug 10 08:36	30°♄	
max. Earth dist.	4838 Mar 04 23:12	14°♄51'14	1.71169 AU	direct	4840 Aug 17 08:14	29°♄02'11	
	4838 Mar 17 00:19	0°♄			4840 Aug 24 13:26	0°♄	
	4838 Apr 09 22:21	0°♄		greatest brilliancy	4840 Aug 27 08:03	0°♄50'32	-4.7m
evening rise	4838 Apr 13 15:29	4°♄38'37		morning max el	4840 Oct 05 03:25	28°♄53'23	45°46'51
	4838 May 03 23:57	0°♄			4840 Oct 06 07:03	0°♄	
asc. node	4838 May 17 14:10	16°♄49'40		asc. node	4840 Nov 01 09:14	27°♄12'52	
	4838 May 28 06:47	0°♄			4840 Nov 03 21:38	0°♄	
	4838 Jun 21 20:16	0°♄			4840 Nov 30 00:36	0°♄	
	4838 Jul 16 18:34	0°♄			4840 Dec 25 00:51	0°♄	
	4838 Aug 11 06:07	0°♄			4841 Jan 18 11:23	0°♄	
desc. node	4838 Sep 06 04:55	29°♄27'56			4841 Feb 11 14:47	0°♄	
	4838 Sep 06 16:31	0°♄		desc. node	4841 Feb 21 00:05	11°♄43'17	
	4838 Oct 05 02:57	0°♄			4841 Mar 07 14:42	0°♄	
evening max el	4838 Oct 09 18:28	4°♄31'58	46°01'05		4841 Mar 31 13:29	0°♄	
	4838 Nov 10 23:14	0°♄		morning set	4841 Apr 08 10:26	9°♄51'28	
greatest brilliancy	4838 Nov 18 14:29	3°♄20'38	-4.8m		4841 Apr 24 13:01	0°♄	
retrograde	4838 Nov 27 23:46	4°♄57'59					
evening set	4838 Dec 12 20:29	0°♄39'38		superior conj	4841 May 17 22:43	29°♄09'55	-0°59'23
	4838 Dec 14 01:10	30°♄		minimum elong	4841 May 18 09:22	29°♄42'59	0°59'01
inferior conj	4838 Dec 18 17:05	27°♄13'35	-2°25'20		4841 May 18 14:50	0°♄	
minimum elong	4838 Dec 18 22:29	27°♄05'20	2°23'39	max. Earth dist.	4841 May 21 18:27	3°♄54'51	1.72378 AU
min. Earth dist.	4838 Dec 19 08:36	26°♄49'54	0.27074 AU		4841 Jun 11 19:46	0°♄	
morning rise	4838 Dec 24 23:51	23°♄32'50		asc. node	4841 Jun 14 01:55	2°♄47'16	
asc. node	4838 Dec 28 06:44	21°♄55'54		evening rise	4841 Jun 25 09:56	16°♄46'14	
direct	4839 Jan 08 12:03	19°♄22'00			4841 Jul 06 03:56	0°♄	
greatest brilliancy	4839 Jan 19 07:53	21°♄35'03	-4.9m		4841 Jul 30 15:27	0°♄	
	4839 Feb 02 22:10	0°♄			4841 Aug 24 07:05	0°♄	
morning max el	4839 Feb 28 04:50	22°♄37'49	46°58'54		4841 Sep 18 04:36	0°♄	
	4839 Mar 07 07:45	0°♄		desc. node	4841 Oct 03 16:50	18°♄29'16	
	4839 Apr 03 09:06	0°♄			4841 Oct 13 10:42	0°♄	

	4841 Nov 08 05:50	0°☾			4844 Jun 26 13:37	0°☾	
	4841 Dec 05 01:54	0°≈		asc. node	4844 Jul 11 13:48	18°☾28'37	
evening max el	4841 Dec 21 17:48	17°≈25'07 46°57'53			4844 Jul 20 22:29	0°♌	
	4842 Jan 03 23:12	0°✎					
asc. node	4842 Jan 24 18:41	15°✎27'27		superior conj	4844 Jul 27 00:53	7°♌30'22 0°35'56	
greatest brilliancy	4842 Jan 31 04:48	18°✎24'22 -4.9m		minimum elong	4844 Jul 26 17:56	7°♌09'00 0°35'36	
retrograde	4842 Feb 10 06:13	20°✎19'16		max. Earth dist.	4844 Jul 27 05:51	7°♌45'38 1.73429 AU	
evening set	4842 Feb 26 15:23	15°✎04'11			4844 Aug 14 07:41	0°♍	
inferior conj	4842 Mar 02 21:04	12°✎30'15 7°56'34		evening rise	4844 Sep 01 04:07	21°♍57'48	
minimum elong	4842 Mar 02 11:41	12°✎44'43 7°55'07			4844 Sep 07 16:58	0°♎	
min. Earth dist.	4842 Mar 02 06:21	12°✎52'58 0.26889 AU			4844 Oct 02 02:58	0°♏	
morning rise	4842 Mar 06 08:12	10°✎23'59			4844 Oct 26 14:36	0°♐	
direct	4842 Mar 23 09:24	4°✎47'49		desc. node	4844 Oct 31 04:40	5°♐36'18	
greatest brilliancy	4842 Apr 01 15:08	6°✎24'36 -4.9m			4844 Nov 20 04:38	0°♑	
	4842 May 05 06:34	0°♑			4844 Dec 14 21:59	0°≈	
morning max el	4842 May 12 09:28	6°♑52'08 46°34'06			4845 Jan 08 21:49	0°✎	
desc. node	4842 May 16 09:37	10°♑53'09			4845 Feb 03 13:46	0°♑	
	4842 Jun 03 11:51	0°♒		asc. node	4845 Feb 21 06:34	19°♑41'56	
	4842 Jun 30 04:50	0°♓			4845 Mar 03 01:53	0°♒	
	4842 Jul 25 23:47	0°☾		evening max el	4845 Mar 04 02:47	1°♒03'22 47°02'09	
	4842 Aug 20 06:50	0°♌			4845 Apr 08 12:13	0°♓	
asc. node	4842 Sep 06 11:34	20°♌39'36		greatest brilliancy	4845 Apr 13 10:23	2°♓11'41 -4.9m	
	4842 Sep 14 04:48	0°♍		retrograde	4845 Apr 23 18:46	4°♓13'23	
	4842 Oct 08 18:49	0°♎			4845 May 08 08:04	30°♒♒	
	4842 Nov 02 02:23	0°♏		evening set	4845 May 10 09:54	28°♒49'37	
morning set	4842 Nov 07 05:04	6°♏20'26		inferior conj	4845 May 14 20:04	26°♒07'23 6°26'19	
	4842 Nov 26 05:28	0°♐		minimum elong	4845 May 15 06:29	25°♒51'07 6°24'04	
max. Earth dist.	4842 Dec 12 14:31	20°♐27'00 1.71776 AU		min. Earth dist.	4845 May 14 17:47	26°♒10'55 0.27890 AU	
				morning rise	4845 May 20 03:21	22°♒55'13	
superior conj	4842 Dec 15 10:05	23°♐58'11 0°27'41		direct	4845 Jun 04 18:45	18°♒08'16	
minimum elong	4842 Dec 15 16:31	24°♐18'18 0°27'23		desc. node	4845 Jun 12 21:17	19°♒21'46	
	4842 Dec 20 05:46	0°♑		greatest brilliancy	4845 Jun 14 13:30	19°♒53'45 -4.8m	
desc. node	4842 Dec 27 02:22	8°♑35'04			4845 Jul 02 11:41	0°♓	
	4843 Jan 13 04:23	0°≈		morning max el	4845 Jul 23 20:45	18°♓27'53 45°51'12	
evening rise	4843 Jan 24 15:23	14°≈22'29			4845 Aug 04 11:04	0°☾	
	4843 Feb 06 02:08	0°✎			4845 Sep 01 07:44	0°♌	
	4843 Mar 02 00:27	0°♑			4845 Sep 27 12:43	0°♍	
	4843 Mar 26 01:44	0°♒		asc. node	4845 Oct 03 23:23	7°♍33'46	
asc. node	4843 Apr 19 04:16	29°♒44'35			4845 Oct 22 19:35	0°♎	
	4843 Apr 19 09:18	0°♓			4845 Nov 16 11:52	0°♏	
	4843 May 14 03:24	0°☾			4845 Dec 10 18:46	0°♐	
	4843 Jun 08 14:24	0°♌			4846 Jan 03 20:07	0°♑	
	4843 Jul 05 08:16	0°♍		morning set	4846 Jan 18 23:50	18°♑59'18	
evening max el	4843 Jul 27 10:19	22°♍40'04 45°31'32		desc. node	4846 Jan 23 14:13	24°♑45'40	
	4843 Aug 04 07:44	0°♎			4846 Jan 27 18:20	0°≈	
desc. node	4843 Aug 08 19:12	3°♎54'11			4846 Feb 20 14:57	0°✎	
greatest brilliancy	4843 Sep 04 05:20	20°♎41'54 -4.7m					
retrograde	4843 Sep 14 02:40	22°♎28'11		superior conj	4846 Mar 01 07:28	10°✎55'54 -1°14'14	
evening set	4843 Oct 02 06:34	16°♎20'58		minimum elong	4846 Feb 28 20:37	10°✎21'47 1°13'57	
inferior conj	4843 Oct 05 13:22	14°♎19'29 -8°37'58		max. Earth dist.	4846 Mar 02 07:28	12°✎11'27 1.71158 AU	
minimum elong	4843 Oct 05 13:40	14°♎19'01 8°37'58			4846 Mar 16 11:22	0°♑	
min. Earth dist.	4843 Oct 06 01:12	14°♎00'58 0.28892 AU			4846 Apr 09 09:26	0°♒	
morning rise	4843 Oct 08 20:36	12°♎16'46		evening rise	4846 Apr 11 02:40	2°♒08'58	
direct	4843 Oct 27 01:14	6°♎02'22			4846 May 03 11:05	0°♓	
greatest brilliancy	4843 Nov 07 00:47	8°♎13'48 -4.8m		asc. node	4846 May 16 16:07	16°♓21'14	
asc. node	4843 Nov 29 20:57	22°♎55'52			4846 May 27 18:02	0°☾	
	4843 Dec 07 20:09	0°♏			4846 Jun 21 07:48	0°♌	
morning max el	4843 Dec 16 00:07	7°♏53'11 46°26'21			4846 Jul 16 06:40	0°♍	
	4844 Jan 05 20:13	0°♐			4846 Aug 10 19:23	0°♎	
	4844 Jan 31 21:49	0°♑		desc. node	4846 Sep 05 06:56	28°♎50'31	
	4844 Feb 25 21:46	0°≈			4846 Sep 06 08:11	0°♏	
desc. node	4844 Mar 20 11:59	28°≈51'26			4846 Oct 05 00:59	0°♐	
	4844 Mar 21 10:16	0°✎		evening max el	4846 Oct 07 09:37	2°♐16'58 45°59'06	
	4844 Apr 14 17:39	0°♑			4846 Nov 13 12:18	0°♑	
	4844 May 08 23:28	0°♒		greatest brilliancy	4846 Nov 16 03:31	0°♑58'17 -4.8m	
	4844 Jun 02 05:50	0°♓		retrograde	4846 Nov 25 12:48	2°♑35'02	
morning set	4844 Jun 19 17:26	21°♓34'08			4846 Dec 06 22:10	30°♒♐	

evening set	4846 Dec 10 11:47	28°  13'53		minimum elong	4849 May 15 23:12	27°  22'31	1°01'38
inferior conj	4846 Dec 16 06:18	24°  50'11	-2°47'32		4849 May 18 01:52	0°  II	
minimum elong	4846 Dec 16 12:27	24°  40'46	2°45'40	max. Earth dist.	4849 May 19 10:27	1°  II41'12	1.72323 AU
min. Earth dist.	4846 Dec 16 22:38	24°  25'13	0.27127 AU		4849 Jun 11 06:45	0°  ☿	
morning rise	4846 Dec 22 12:31	21°  09'55		asc. node	4849 Jun 13 04:01	2°  ☿19'48	
asc. node	4846 Dec 27 08:49	18°  53'57		evening rise	4849 Jun 23 02:09	14°  ☿34'21	
direct	4847 Jan 06 02:26	16°  57'55			4849 Jul 05 14:59	0°  ♊	
greatest brilliancy	4847 Jan 16 22:13	19°  10'57	-4.9m		4849 Jul 30 02:39	0°  ♊	
	4847 Feb 03 16:08	0°  ☿			4849 Aug 23 18:37	0°  ♊	
morning max el	4847 Feb 25 19:08	20°  ☿14'47	46°58'34		4849 Sep 17 16:43	0°  ♊	
	4847 Mar 07 03:54	0°  ☿		desc. node	4849 Oct 02 18:47	17°  ♊57'36	
	4847 Apr 03 00:42	0°  ☿			4849 Oct 12 23:48	0°  ♊	
desc. node	4847 Apr 17 23:52	17°  ☿28'08			4849 Nov 07 20:45	0°  ☿	
	4847 Apr 28 13:40	0°  ☿			4849 Dec 04 20:40	0°  ☿	
	4847 May 23 13:51	0°  ☿		evening max el	4849 Dec 19 06:26	14°  ☿58'04	46°56'10
	4847 Jun 17 08:45	0°  II			4850 Jan 04 07:22	0°  ☿	
	4847 Jul 12 01:19	0°  ☿		asc. node	4850 Jan 23 20:48	13°  ☿47'55	
	4847 Aug 05 15:52	0°  ♊		greatest brilliancy	4850 Jan 28 18:32	15°  ☿56'44	-4.9m
asc. node	4847 Aug 09 01:44	4°  ♊10'07		retrograde	4850 Feb 07 18:24	17°  ☿50'37	
morning set	4847 Aug 28 05:14	27°  ♊37'22		evening set	4850 Feb 23 23:41	12°  ☿42'17	
	4847 Aug 30 03:43	0°  ♊		inferior conj	4850 Feb 28 09:42	10°  ☿02'28	7°44'27
	4847 Sep 23 12:29	0°  ♊		minimum elong	4850 Feb 27 23:50	10°  ☿17'40	7°42'46
max. Earth dist.	4847 Oct 01 08:58	9°  ♊41'53	1.73073 AU	min. Earth dist.	4850 Feb 27 19:37	10°  ☿24'11	0.26860 AU
				morning rise	4850 Mar 04 00:07	7°  ☿51'21	
superior conj	4847 Oct 03 15:51	12°  ♊31'28	1°25'21	direct	4850 Mar 20 21:12	2°  ☿20'08	
minimum elong	4847 Oct 03 15:43	12°  ♊31'05	1°25'22	greatest brilliancy	4850 Mar 30 04:58	3°  ☿58'25	-4.9m
	4847 Oct 17 18:45	0°  ♊			4850 May 05 08:47	0°  ☿	
evening rise	4847 Nov 09 18:58	28°  ♊31'25		morning max el	4850 May 09 21:46	4°  ☿25'40	46°35'46
	4847 Nov 10 23:32	0°  ☿		desc. node	4850 May 15 11:38	10°  ☿03'05	
desc. node	4847 Nov 28 16:35	21°  ☿58'54			4850 Jun 03 05:10	0°  ☿	
	4847 Dec 05 03:35	0°  ☿			4850 Jun 29 19:05	0°  II	
	4847 Dec 29 07:16	0°  ☿			4850 Jul 25 12:32	0°  ☿	
	4848 Jan 22 11:26	0°  ☿			4850 Aug 19 18:44	0°  ♊	
	4848 Feb 15 18:35	0°  ☿		asc. node	4850 Sep 05 13:28	20°  ♊10'32	
	4848 Mar 11 09:54	0°  ☿			4850 Sep 13 16:11	0°  ☿	
asc. node	4848 Mar 20 18:19	11°  ☿11'46			4850 Oct 08 05:54	0°  ♊	
	4848 Apr 05 18:45	0°  II			4850 Nov 01 13:20	0°  ♊	
	4848 May 02 17:23	0°  ☿		morning set	4850 Nov 04 21:19	4°  ♊07'59	
evening max el	4848 May 14 14:59	12°  ☿12'05	46°07'36		4850 Nov 25 16:23	0°  ☿	
	4848 Jun 03 13:00	0°  ♊		max. Earth dist.	4850 Dec 10 05:28	18°  ☿09'25	1.71823 AU
greatest brilliancy	4848 Jun 21 22:06	11°  ♊06'02	-4.8m				
retrograde	4848 Jul 03 01:10	13°  ♊20'40		superior conj	4850 Dec 12 23:36	21°  ☿36'06	0°31'07
desc. node	4848 Jul 10 09:22	12°  ♊15'58		minimum elong	4850 Dec 13 06:41	21°  ☿58'17	0°30'48
evening set	4848 Jul 18 04:45	8°  ♊52'54			4850 Dec 19 16:45	0°  ☿	
inferior conj	4848 Jul 24 11:47	5°  ♊05'12	-3°17'42	desc. node	4850 Dec 26 04:29	8°  ☿07'15	
minimum elong	4848 Jul 24 04:56	5°  ♊15'56	3°15'48		4851 Jan 12 15:29	0°  ☿	
min. Earth dist.	4848 Jul 24 01:19	5°  ♊21'38	0.28816 AU	evening rise	4851 Jan 22 02:58	11°  ☿53'18	
morning rise	4848 Jul 30 05:35	1°  ♊36'58			4851 Feb 05 13:24	0°  ☿	
	4848 Aug 02 08:05	30°  ☿			4851 Mar 01 11:52	0°  ☿	
direct	4848 Aug 15 00:12	26°  ☿52'50			4851 Mar 25 13:20	0°  ☿	
greatest brilliancy	4848 Aug 24 23:27	28°  ☿40'22	-4.7m	asc. node	4851 Apr 18 06:14	29°  ☿14'01	
	4848 Aug 28 08:27	0°  ♊			4851 Apr 18 21:16	0°  II	
morning max el	4848 Oct 02 17:58	26°  ♊39'42	45°46'05		4851 May 13 16:00	0°  ☿	
	4848 Oct 06 04:27	0°  ☿			4851 Jun 08 04:18	0°  ♊	
asc. node	4848 Oct 31 11:15	26°  ☿34'56			4851 Jul 05 01:09	0°  ☿	
	4848 Nov 03 13:02	0°  ♊		evening max el	4851 Jul 25 01:20	20°  ☿27'02	45°31'51
	4848 Nov 29 13:57	0°  ♊			4851 Aug 04 10:58	0°  ♊	
	4848 Dec 24 13:16	0°  ☿		desc. node	4851 Aug 07 21:11	2°  ♊54'59	
	4849 Jan 17 23:18	0°  ☿		greatest brilliancy	4851 Sep 01 18:53	18°  ♊29'05	-4.7m
	4849 Feb 11 02:24	0°  ☿		retrograde	4851 Sep 11 18:39	20°  ♊17'32	
desc. node	4849 Feb 20 02:08	11°  ☿13'36		evening set	4851 Sep 29 21:26	14°  ♊10'49	
	4849 Mar 07 02:07	0°  ☿		inferior conj	4851 Oct 03 05:15	12°  ♊07'56	-8°37'37
	4849 Mar 31 00:44	0°  ☿		minimum elong	4851 Oct 03 04:45	12°  ♊08'43	8°37'37
morning set	4849 Apr 05 21:45	7°  ☿21'35		min. Earth dist.	4851 Oct 03 15:52	11°  ♊51'21	0.28927 AU
	4849 Apr 24 00:09	0°  ☿		morning rise	4851 Oct 06 11:53	10°  ♊06'18	
				direct	4851 Oct 24 17:26	3°  ♊50'22	
superior conj	4849 May 15 12:28	26°  ☿49'09	-1°02'00	greatest brilliancy	4851 Nov 04 16:26	6°  ♊01'34	-4.8m

asc. node	4851 Nov 28 23:00	21°  54'45		4854 May 27 05:10	0° 		
	4851 Dec 07 21:05	0° 		4854 Jun 20 19:16	0° 		
morning max el	4851 Dec 13 16:05	5°  38'47	46°24'51	4854 Jul 15 18:45	0° 		
	4852 Jan 05 12:48	0° 		4854 Aug 10 08:40	0° 		
	4852 Jan 31 11:48	0° 		desc. node	4854 Sep 04 08:52	28°  12'51	
	4852 Feb 25 10:34	0° 			4854 Sep 05 24:00	0° 	
desc. node	4852 Mar 19 13:54	28°  19'54			4854 Oct 04 23:45	0° 	
	4852 Mar 20 22:24	0° 		evening max el	4854 Oct 05 00:03	0°  00'42	45°57'14
	4852 Apr 14 05:21	0° 		greatest brilliancy	4854 Nov 13 17:04	28°  37'18	-4.8m
	4852 May 08 10:49	0° 			4854 Nov 19 16:50	0° 	
	4852 Jun 01 16:56	0° 		retrograde	4854 Nov 23 01:16	0°  312'52	
morning set	4852 Jun 17 09:29	19°  21'50			4854 Nov 26 08:19	30°  R 	
	4852 Jun 26 00:32	0° 		evening set	4854 Dec 08 03:16	25°  48'48	
asc. node	4852 Jul 10 15:51	18°  01'36		inferior conj	4854 Dec 13 19:34	22°  27'43	-3°09'26
	4852 Jul 20 09:18	0° 		minimum elong	4854 Dec 14 02:24	22°  17'14	3°07'23
				min. Earth dist.	4854 Dec 14 12:56	22°  01'06	0.27179 AU
superior conj	4852 Jul 24 18:13	5°  022'50	0°32'57	morning rise	4854 Dec 20 00:56	18°  48'03	
minimum elong	4852 Jul 24 11:43	5°  02'50	0°32'38	asc. node	4854 Dec 26 10:54	15°  57'36	
max. Earth dist.	4852 Jul 25 03:12	5°  050'30	1.73416 AU	direct	4855 Jan 03 16:25	14°  34'41	
	4852 Aug 13 18:28	0° 		greatest brilliancy	4855 Jan 14 12:58	16°  48'06	-4.9m
evening rise	4852 Aug 29 22:25	19°  053'10			4855 Feb 04 05:12	0° 	
	4852 Sep 07 03:51	0° 		morning max el	4855 Feb 23 08:27	17°  350'08	46°58'22
	4852 Oct 01 14:03	0° 			4855 Mar 06 23:06	0° 	
	4852 Oct 26 02:03	0° 			4855 Apr 02 15:41	0° 	
desc. node	4852 Oct 30 06:43	5°  07'26		desc. node	4855 Apr 17 01:54	16°  453'25	
	4852 Nov 19 16:34	0° 			4855 Apr 28 02:49	0° 	
	4852 Dec 14 10:38	0° 			4855 May 23 01:59	0° 	
	4853 Jan 08 11:38	0° 			4855 Jun 16 20:15	0° 	
	4853 Feb 03 05:49	0° 			4855 Jul 11 12:23	0° 	
asc. node	4853 Feb 20 08:27	18°  055'42			4855 Aug 05 02:39	0° 	
evening max el	4853 Mar 01 17:58	28°  044'13	47°03'13	asc. node	4855 Aug 08 03:38	3°  043'00	
	4853 Mar 02 24:00	0° 		morning set	4855 Aug 25 22:45	25°  031'12	
greatest brilliancy	4853 Apr 11 01:07	29°  052'11	-4.9m		4855 Aug 29 14:20	0° 	
	4853 Apr 11 09:36	0° 			4855 Sep 22 23:03	0° 	
retrograde	4853 Apr 21 10:12	1°  054'16		max. Earth dist.	4855 Sep 29 01:15	7°  031'19	1.73105 AU
	4853 May 01 00:46	30°  R 					
evening set	4853 May 08 03:36	26°  025'52		superior conj	4855 Oct 01 09:21	10°  024'33	1°25'16
inferior conj	4853 May 12 10:30	23°  048'26	6°41'39	minimum elong	4855 Oct 01 08:31	10°  021'59	1°25'16
minimum elong	4853 May 12 20:54	23°  032'13	6°39'30		4855 Oct 17 05:22	0° 	
min. Earth dist.	4853 May 12 07:46	23°  052'41	0.27864 AU	evening rise	4855 Nov 07 10:11	26°  016'25	
morning rise	4853 May 17 14:31	20°  041'15			4855 Nov 10 10:18	0° 	
direct	4853 Jun 02 09:13	15°  049'51		desc. node	4855 Nov 27 18:39	21°  031'30	
desc. node	4853 Jun 11 23:25	17°  031'59			4855 Dec 04 14:34	0° 	
greatest brilliancy	4853 Jun 12 02:30	17°  034'38	-4.8m		4855 Dec 28 18:31	0° 	
	4853 Jul 03 02:00	0° 			4856 Jan 21 23:02	0° 	
morning max el	4853 Jul 21 12:39	16°  015'52	45°52'13		4856 Feb 15 06:40	0° 	
	4853 Aug 04 06:00	0° 			4856 Mar 10 22:46	0° 	
	4853 Aug 31 22:20	0° 		asc. node	4856 Mar 19 20:21	10°  038'19	
	4853 Sep 27 01:29	0° 			4856 Apr 05 09:09	0° 	
asc. node	4853 Oct 03 01:23	7°  002'51			4856 May 02 11:40	0° 	
	4853 Oct 22 07:24	0° 		evening max el	4856 May 12 05:50	9°  057'11	46°09'29
	4853 Nov 15 23:13	0° 			4856 Jun 04 02:18	0° 	
	4853 Dec 10 05:53	0° 		greatest brilliancy	4856 Jun 19 15:10	8°  057'14	-4.8m
	4854 Jan 03 07:07	0° 		retrograde	4856 Jun 30 16:56	11°  011'11	
morning set	4854 Jan 16 11:22	16°  030'40		desc. node	4856 Jul 09 11:18	9°  039'18	
desc. node	4854 Jan 22 16:15	24°  017'44		evening set	4856 Jul 15 20:08	6°  044'50	
	4854 Jan 27 05:16	0° 		inferior conj	4856 Jul 22 04:01	2°  056'05	-2°59'00
	4854 Feb 20 01:49	0° 		minimum elong	4856 Jul 21 21:44	3°  005'57	2°57'14
				min. Earth dist.	4856 Jul 21 18:01	3°  011'47	0.28788 AU
superior conj	4854 Feb 26 18:00	8°  023'52	-1°12'05		4856 Jul 26 23:05	30°  R 	
minimum elong	4854 Feb 26 06:43	7°  048'22	1°11'45	morning rise	4856 Jul 27 23:43	29°  024'54	
max. Earth dist.	4854 Feb 27 17:10	9°  036'43	1.71146 AU	direct	4856 Aug 12 15:45	24°  044'07	
	4854 Mar 15 22:13	0° 		greatest brilliancy	4856 Aug 22 15:33	26°  031'40	-4.7m
evening rise	4854 Apr 08 14:02	29°  040'21			4856 Aug 30 08:51	0° 	
	4854 Apr 08 20:19	0° 		morning max el	4856 Sep 30 08:22	24°  026'21	45°45'23
	4854 May 02 22:03	0° 			4856 Oct 06 00:50	0° 	
asc. node	4854 May 15 18:12	15°  053'40		asc. node	4856 Oct 30 13:20	25°  058'17	

	4856 Nov 03 03:57	0°♌			4859 Jun 07 17:57	0°♏	
	4856 Nov 29 02:53	0°♍			4859 Jul 04 17:54	0°♐	
	4856 Dec 24 01:16	0°♑	evening max el		4859 Jul 22 17:12	18°♐17'21	45°32'17
	4857 Jan 17 10:48	0°♒			4859 Aug 04 15:21	0°♑	
	4857 Feb 10 13:36	0°♓	desc. node		4859 Aug 06 23:08	1°♑55'37	
desc. node	4857 Feb 19 04:00	10°♓44'36	greatest brilliancy		4859 Aug 30 08:07	16°♑17'27	-4.7m
	4857 Mar 06 13:08	0°♈	retrograde		4859 Sep 09 10:50	18°♑08'10	
	4857 Mar 30 11:36	0°♉	evening set		4859 Sep 27 12:03	12°♑02'33	
morning set	4857 Apr 03 09:00	4°♉52'37	inferior conj		4859 Sep 30 21:11	9°♑57'36	-8°36'28
	4857 Apr 23 10:52	0°♊	minimum elong		4859 Sep 30 19:54	9°♑59'35	8°36'26
			min. Earth dist.		4859 Oct 01 06:13	9°♑43'30	0.28965 AU
superior conj	4857 May 13 02:22	24°♊30'07	morning rise		4859 Oct 04 03:38	7°♑56'22	
minimum elong	4857 May 13 13:07	25°♊03'32	direct		4859 Oct 22 10:10	1°♑39'44	
max. Earth dist.	4857 May 17 00:39	29°♊23'15	greatest brilliancy		4859 Nov 02 07:32	3°♑49'47	-4.8m
	4857 May 17 12:28	0°♋	asc. node		4859 Nov 28 01:02	20°♑55'42	
	4857 Jun 10 17:18	0°♌			4859 Dec 07 20:36	0°♍	
asc. node	4857 Jun 12 06:03	1°♌53'30	morning max el		4859 Dec 11 08:24	3°♍25'59	46°23'07
evening rise	4857 Jun 20 18:29	12°♌24'11			4860 Jan 05 04:57	0°♎	
	4857 Jul 05 01:35	0°♏			4860 Jan 31 01:32	0°♒	
	4857 Jul 29 13:28	0°♐			4860 Feb 24 23:08	0°♓	
	4857 Aug 23 05:48	0°♑	desc. node		4860 Mar 18 16:02	27°♓49'50	
	4857 Sep 17 04:33	0°♒			4860 Mar 20 10:17	0°♈	
desc. node	4857 Oct 01 20:48	17°♒26'54			4860 Apr 13 16:46	0°♉	
	4857 Oct 12 12:42	0°♑			4860 May 07 21:54	0°♊	
	4857 Nov 07 11:33	0°♒			4860 Jun 01 03:46	0°♋	
evening max el	4857 Dec 04 15:34	0°♓	morning set		4860 Jun 15 01:37	17°♋10'27	
	4857 Dec 16 18:56	12°♓31'56			4860 Jun 25 11:12	0°♌	
	4858 Jan 04 17:50	0°♈	asc. node		4860 Jul 09 17:47	17°♌35'00	
asc. node	4858 Jan 22 22:41	12°♈05'24			4860 Jul 19 19:51	0°♏	
greatest brilliancy	4858 Jan 26 07:38	13°♈29'30					
retrograde	4858 Feb 05 06:50	15°♈23'17	superior conj		4860 Jul 22 11:40	3°♏16'24	0°29'55
evening set	4858 Feb 21 08:00	10°♈21'04	minimum elong		4860 Jul 22 05:40	2°♏57'54	0°29'38
inferior conj	4858 Feb 25 22:15	7°♈35'39	max. Earth dist.		4860 Jul 23 01:39	3°♏59'26	1.73398 AU
minimum elong	4858 Feb 25 12:01	7°♈51'24			4860 Aug 13 05:00	0°♐	
min. Earth dist.	4858 Feb 25 08:35	7°♈56'39	evening rise		4860 Aug 27 16:57	17°♐50'06	
morning rise	4858 Mar 01 16:08	5°♈19'43			4860 Sep 06 14:27	0°♑	
	4858 Mar 16 00:54	30°♉			4860 Oct 01 00:54	0°♒	
direct	4858 Mar 18 09:11	29°♓53'17			4860 Oct 25 13:18	0°♑	
	4858 Mar 20 18:09	0°♈	desc. node		4860 Oct 29 08:49	4°♑39'16	
greatest brilliancy	4858 Mar 27 18:33	1°♈33'05			4860 Nov 19 04:25	0°♒	
	4858 May 05 09:12	0°♉			4860 Dec 13 23:17	0°♓	
morning max el	4858 May 07 11:05	2°♉02'48			4861 Jan 08 01:33	0°♈	
desc. node	4858 May 14 13:42	9°♉15'10			4861 Feb 02 22:09	0°♉	
	4858 Jun 02 21:40	0°♊	asc. node		4861 Feb 19 10:31	18°♉09'18	
	4858 Jun 29 08:45	0°♋	evening max el		4861 Feb 27 09:29	26°♉25'51	47°04'21
	4858 Jul 25 00:46	0°♌			4861 Mar 02 23:00	0°♊	
	4858 Aug 19 06:09	0°♏	greatest brilliancy		4861 Apr 08 16:05	27°♊33'07	-4.9m
asc. node	4858 Sep 04 15:30	19°♏43'09	retrograde		4861 Apr 19 01:23	29°♊35'00	
	4858 Sep 13 03:09	0°♐	evening set		4861 May 05 21:21	24°♊02'15	
	4858 Oct 07 16:38	0°♑	inferior conj		4861 May 10 00:53	21°♊29'35	6°56'24
	4858 Oct 31 23:59	0°♒	minimum elong		4861 May 10 11:12	21°♊13'29	6°54'22
morning set	4858 Nov 02 13:23	1°♒55'56	min. Earth dist.		4861 May 09 21:38	21°♊34'39	0.27831 AU
	4858 Nov 25 03:02	0°♑	morning rise		4861 May 15 01:24	18°♊27'26	
max. Earth dist.	4858 Dec 07 20:20	15°♑52'29	direct		4861 May 30 23:47	13°♊31'46	
			greatest brilliancy		4861 Jun 09 15:13	15°♊15'19	-4.8m
superior conj	4858 Dec 10 12:51	19°♑14'05	desc. node		4861 Jun 11 01:25	15°♊46'26	
minimum elong	4858 Dec 10 20:34	19°♑38'09			4861 Jul 03 12:28	0°♋	
	4858 Dec 19 03:28	0°♒	morning max el		4861 Jul 19 03:52	14°♋02'28	45°53'17
desc. node	4858 Dec 25 06:27	7°♒39'48			4861 Aug 04 00:15	0°♌	
	4859 Jan 12 02:18	0°♓			4861 Aug 31 12:34	0°♏	
evening rise	4859 Jan 19 14:21	9°♓24'29			4861 Sep 26 13:59	0°♐	
	4859 Feb 05 00:20	0°♈	asc. node		4861 Oct 02 03:29	6°♐32'51	
	4859 Feb 28 22:57	0°♉			4861 Oct 21 19:02	0°♑	
	4859 Mar 25 00:38	0°♊			4861 Nov 15 10:25	0°♒	
asc. node	4859 Apr 17 08:20	28°♊44'48			4861 Dec 09 16:54	0°♑	
	4859 Apr 18 08:56	0°♋			4862 Jan 02 18:04	0°♒	
	4859 May 13 04:20	0°♌	morning set		4862 Jan 13 22:49	14°♒01'46	







































































































































desc. node	4862 Jan 21 18:12	23°  49'30	minimum elong	4864 Jul 19 14:30	0°  54'39	2°38'21
	4862 Jan 26 16:12	0° 	min. Earth dist.	4864 Jul 19 10:39	1°  00'40	0.28756 AU
	4862 Feb 19 12:45	0° 		4864 Jul 21 01:21	30° 	
			morning rise	4864 Jul 25 17:42	27° 	11'56
superior conj	4862 Feb 24 04:08	5°  50'17	direct	4864 Aug 10 06:59	22° 	34'02
minimum elong	4862 Feb 23 16:30	5°  13'44	greatest brilliancy	4864 Aug 20 07:53	24° 	22'16
max. Earth dist.	4862 Feb 24 22:34	6°  48'15		4864 Aug 31 17:40	0° 	-4.7m
	4862 Mar 15 09:10	0° 	morning max el	4864 Sep 27 23:12	22° 	13'17
evening rise	4862 Apr 06 00:45	27°  09'24		4864 Oct 05 20:51	0° 	45°44'50
	4862 Apr 08 07:16	0° 	asc. node	4864 Oct 29 15:17	25° 	20'52
	4862 May 02 09:05	0° 		4864 Nov 02 18:55	0° 	
asc. node	4862 May 14 20:12	15°  25'37		4864 Nov 28 15:57	0° 	
	4862 May 26 16:21	0° 		4864 Dec 23 13:26	0° 	
	4862 Jun 20 06:46	0° 		4865 Jan 16 22:29	0° 	
	4862 Jul 15 06:55	0° 		4865 Feb 10 01:01	0° 	
	4862 Aug 09 22:05	0° 	desc. node	4865 Feb 18 06:09	10° 	15'53
desc. node	4862 Sep 03 10:59	27°  23'52'23		4865 Mar 06 00:22	0° 	
	4862 Sep 05 16:03	0° 		4865 Mar 29 22:44	0° 	
evening max el	4862 Oct 02 13:45	27°  43'02	morning set	4865 Mar 31 20:08	2° 	22'18
	4862 Oct 04 23:26	0° 		4865 Apr 22 21:54	0° 	
greatest brilliancy	4862 Nov 11 07:08	26°  21'48				-4.8m
retrograde	4862 Nov 20 13:37	27°  22'03	superior conj	4865 May 10 15:54	22° 	08'42
evening set	4862 Dec 05 19:06	23°  24'36	minimum elong	4865 May 11 02:36	22° 	41'58
inferior conj	4862 Dec 11 09:09	20°  27'06'29	max. Earth dist.	4865 May 14 12:15	26° 	56'01
minimum elong	4862 Dec 11 16:37	19°  25'51'01		4865 May 16 23:27	0° 	1.72213 AU
min. Earth dist.	4862 Dec 12 03:42	19°  27'37'59		4865 Jun 10 04:15	0° 	
morning rise	4862 Dec 17 13:26	16°  27'40	asc. node	4865 Jun 11 07:58	1° 	25'35
asc. node	4862 Dec 25 12:47	13°  27'46	evening rise	4865 Jun 18 10:17	10° 	21'09
direct	4862 Jan 01 06:18	12°  21'25		4865 Jul 04 12:36	0° 	
greatest brilliancy	4863 Jan 12 04:28	14°  26'49		4865 Jul 29 00:40	0° 	
	4863 Feb 04 14:53	0° 		4865 Aug 22 17:23	0° 	
morning max el	4863 Feb 20 21:15	15°  23'44		4865 Sep 16 16:46	0° 	
	4863 Mar 06 17:56	0° 	desc. node	4865 Sep 30 22:53	16° 	55'11
	4863 Apr 02 06:44	0° 		4865 Oct 12 02:02	0° 	
desc. node	4863 Apr 16 03:58	16°  18'07		4865 Nov 07 02:53	0° 	
	4863 Apr 27 16:09	0° 		4865 Dec 04 11:21	0° 	
	4863 May 22 14:20	0° 	evening max el	4865 Dec 14 08:18	10° 	07'24
	4863 Jun 16 07:57	0° 		4866 Jan 05 08:12	0° 	46°53'11
	4863 Jul 10 23:37	0° 	asc. node	4866 Jan 22 00:45	10° 	
	4863 Aug 04 13:35	0° 	greatest brilliancy	4866 Jan 23 20:16	11° 	18'37
asc. node	4863 Aug 07 05:39	3°  15'52	retrograde	4866 Jan 23 20:16	11° 	01'20
morning set	4863 Aug 23 16:18	23°  24'41	evening set	4866 Feb 02 20:02	12° 	55'44
	4863 Aug 29 01:06	0° 	inferior conj	4866 Feb 18 16:33	7° 	59'18
	4863 Sep 22 09:47	0° 	minimum elong	4866 Feb 23 10:55	5° 	08'25
max. Earth dist.	4863 Sep 26 18:23	5°  22'54	min. Earth dist.	4866 Feb 23 00:22	5° 	24'35
		1.73137 AU	morning rise	4866 Feb 22 21:20	5° 	29'13
superior conj	4863 Sep 29 03:10	8°  18'13		4866 Feb 27 08:19	2° 	47'43
minimum elong	4863 Sep 29 01:37	8°  13'28		4866 Mar 04 17:03	30° 	
	4863 Oct 16 16:09	0° 	direct	4866 Mar 15 21:46	27° 	26'09
evening rise	4863 Nov 05 01:57	24°  18'02'46	greatest brilliancy	4866 Mar 25 07:41	29° 	06'52
	4863 Nov 09 21:12	0° 		4866 Mar 27 15:56	0° 	-4.9m
desc. node	4863 Nov 26 20:36	21°  27'03'19	morning max el	4866 May 05 01:10	29° 	41'07
	4863 Dec 04 01:40	0° 		4866 May 05 08:46	0° 	46°38'57
	4863 Dec 28 05:55	0° 	desc. node	4866 May 13 15:41	8° 	27'01
	4864 Jan 21 10:49	0° 		4866 Jun 02 14:12	0° 	
	4864 Feb 14 19:00	0° 		4866 Jun 28 22:41	0° 	
	4864 Mar 10 12:00	0° 		4866 Jul 24 13:22	0° 	
asc. node	4864 Mar 18 22:24	10°  03'46	asc. node	4866 Aug 18 17:58	0° 	
	4864 Apr 05 00:07	0° 		4866 Sep 03 17:36	19° 	14'49
	4864 May 02 06:55	0° 		4866 Sep 12 14:30	0° 	
evening max el	4864 May 09 20:04	7°  39'21	morning set	4866 Oct 07 03:43	0° 	
	4864 Jun 04 21:03	0° 		4866 Oct 31 05:34	29° 	43'19
greatest brilliancy	4864 Jun 17 08:00	6°  46'42		4866 Oct 31 10:57	0° 	
retrograde	4864 Jun 28 08:54	9° 00'33		4866 Nov 24 14:00	0°	
desc. node	4864 Jul 08 13:15	6° 56'45	max. Earth dist.	4866 Dec 05 10:57	13°	33'52
evening set	4864 Jul 13 11:35	4° 35'04				1.71911 AU
inferior conj	4864 Jul 19 20:11	0° 45'43	superior conj	4866 Dec 08 02:24	16°	27'00
		-2°39'57	minimum elong	4866 Dec 08 10:38	17°	17'43
						0°37'29

	4866 Dec 18 14:31	0°♁		desc. node	4869 Jun 10 03:20	14°♁04'16	
desc. node	4866 Dec 24 08:26	7°♁11'22			4869 Jul 03 20:19	0°♁	
	4867 Jan 11 13:28	0°♁		morning max el	4869 Jul 16 18:05	11°♁46'06	45°54'19
evening rise	4867 Jan 17 02:04	6°♁55'40			4869 Aug 03 18:14	0°♁	
	4867 Feb 04 11:36	0°♁			4869 Aug 31 02:52	0°♁	
	4867 Feb 28 10:20	0°♁			4869 Sep 26 02:41	0°♁	
	4867 Mar 24 12:13	0°♁		asc. node	4869 Oct 01 05:24	6°♁01'37	
asc. node	4867 Apr 16 10:18	28°♁14'15			4869 Oct 21 06:55	0°♁	
	4867 Apr 17 20:54	0°♁			4869 Nov 14 21:52	0°♁	
	4867 May 12 17:03	0°♁			4869 Dec 09 04:09	0°♁	
	4867 Jun 07 08:07	0°♁			4870 Jan 02 05:13	0°♁	
	4867 Jul 04 11:30	0°♁		morning set	4870 Jan 11 10:20	11°♁32'35	
evening max el	4867 Jul 20 09:34	16°♁07'26	45°32'37	desc. node	4870 Jan 20 20:18	23°♁21'19	
	4867 Aug 04 22:33	0°♁			4870 Jan 26 03:18	0°♁	
desc. node	4867 Aug 06 01:16	0°♁53'43			4870 Feb 18 23:50	0°♁	
greatest brilliancy	4867 Aug 27 21:59	14°♁05'02	-4.7m				
retrograde	4867 Sep 07 02:51	15°♁57'11		superior conj	4870 Feb 21 14:21	3°♁16'36	-1°07'16
evening set	4867 Sep 25 02:22	9°♁53'34		minimum elong	4870 Feb 21 02:30	2°♁39'21	1°06'54
inferior conj	4867 Sep 28 13:05	7°♁46'00	-8°34'32	max. Earth dist.	4870 Feb 22 01:38	3°♁52'06	1.71132 AU
minimum elong	4867 Sep 28 11:03	7°♁49'11	8°34'29		4870 Mar 14 20:16	0°♁	
min. Earth dist.	4867 Sep 28 20:32	7°♁34'22	0.28994 AU	evening rise	4870 Apr 03 11:28	24°♁37'54	
morning rise	4867 Oct 01 19:39	5°♁44'33			4870 Apr 07 18:24	0°♁	
	4867 Oct 14 23:28	30°♁			4870 May 01 20:16	0°♁	
direct	4867 Oct 20 02:58	29°♁28'08		asc. node	4870 May 13 22:09	14°♁56'56	
	4867 Oct 25 09:21	0°♁			4870 May 26 03:41	0°♁	
greatest brilliancy	4867 Oct 30 22:03	1°♁36'14	-4.8m		4870 Jun 19 18:26	0°♁	
asc. node	4867 Nov 27 03:00	19°♁56'47			4870 Jul 14 19:14	0°♁	
	4867 Dec 07 19:30	0°♁			4870 Aug 09 11:45	0°♁	
morning max el	4867 Dec 09 00:05	1°♁10'49	46°21'22	desc. node	4870 Sep 02 12:58	26°♁56'43	
	4868 Jan 04 21:08	0°♁			4870 Sep 05 08:36	0°♁	
	4868 Jan 30 15:26	0°♁		evening max el	4870 Sep 30 02:33	25°♁22'38	45°53'34
	4868 Feb 24 11:55	0°♁			4870 Oct 05 00:36	0°♁	
desc. node	4868 Mar 17 18:01	27°♁18'25		greatest brilliancy	4870 Nov 08 21:07	23°♁57'19	-4.8m
	4868 Mar 19 22:25	0°♁		retrograde	4870 Nov 18 02:03	25°♁30'35	
	4868 Apr 13 04:25	0°♁		evening set	4870 Dec 03 10:54	20°♁59'12	
	4868 May 07 09:13	0°♁		inferior conj	4870 Dec 08 22:37	17°♁44'28	-3°51'22
	4868 May 31 14:51	0°♁		minimum elong	4870 Dec 09 06:40	17°♁32'05	3°49'04
morning set	4868 Jun 12 17:51	14°♁58'34		min. Earth dist.	4870 Dec 09 18:27	17°♁13'59	0.27298 AU
	4868 Jun 24 22:08	0°♁		morning rise	4870 Dec 15 01:38	14°♁07'01	
asc. node	4868 Jul 08 19:51	17°♁07'57		asc. node	4870 Dec 24 14:51	10°♁22'17	
	4868 Jul 19 06:42	0°♁		direct	4870 Dec 29 19:44	9°♁49'11	
				greatest brilliancy	4871 Jan 09 20:10	12°♁05'15	-4.9m
superior conj	4868 Jul 20 05:03	1°♁08'46	0°26'51		4871 Feb 04 22:08	0°♁	
minimum elong	4868 Jul 19 23:35	0°♁51'56	0°26'35	morning max el	4871 Feb 18 10:18	12°♁57'38	46°57'31
max. Earth dist.	4868 Jul 21 00:10	2°♁07'37	1.73383 AU		4871 Mar 06 12:22	0°♁	
	4868 Aug 12 15:51	0°♁			4871 Apr 01 21:36	0°♁	
evening rise	4868 Aug 25 11:19	15°♁45'23		desc. node	4871 Apr 15 05:55	15°♁42'45	
	4868 Sep 06 01:26	0°♁			4871 Apr 27 05:23	0°♁	
	4868 Sep 30 12:07	0°♁			4871 May 22 02:37	0°♁	
	4868 Oct 25 00:55	0°♁			4871 Jun 15 19:37	0°♁	
desc. node	4868 Oct 28 10:43	4°♁09'28			4871 Jul 10 10:50	0°♁	
	4868 Nov 18 16:35	0°♁			4871 Aug 04 00:29	0°♁	
	4868 Dec 13 12:16	0°♁		asc. node	4871 Aug 06 07:46	2°♁49'01	
	4869 Jan 07 15:51	0°♁		morning set	4871 Aug 21 09:59	21°♁18'36	
	4869 Feb 02 15:03	0°♁			4871 Aug 28 11:50	0°♁	
asc. node	4869 Feb 18 12:36	17°♁21'29			4871 Sep 21 20:29	0°♁	
evening max el	4869 Feb 25 00:36	24°♁05'34	47°05'18	max. Earth dist.	4871 Sep 24 13:54	3°♁21'54	1.73172 AU
	4869 Mar 02 23:22	0°♁					
greatest brilliancy	4869 Apr 06 07:41	25°♁14'05	-4.9m	superior conj	4871 Sep 26 21:03	6°♁12'11	1°24'42
retrograde	4869 Apr 16 16:13	27°♁15'01		minimum elong	4871 Sep 26 18:50	6°♁05'20	1°24'43
evening set	4869 May 03 15:09	21°♁38'12			4871 Oct 16 02:57	0°♁	
inferior conj	4869 May 07 15:20	19°♁10'16	7°10'22	evening rise	4871 Nov 02 17:46	21°♁49'18	
minimum elong	4869 May 08 01:29	18°♁54'26	7°08'29		4871 Nov 09 08:10	0°♁	
min. Earth dist.	4869 May 07 11:44	19°♁15'54	0.27796 AU	desc. node	4871 Nov 25 22:39	20°♁35'12	
morning rise	4869 May 12 12:10	16°♁13'15			4871 Dec 03 12:51	0°♁	
direct	4869 May 28 14:10	11°♁13'19			4871 Dec 27 17:23	0°♁	
greatest brilliancy	4869 Jun 07 04:08	12°♁55'41	-4.8m		4872 Jan 20 22:39	0°♁	

	4872 Feb 14 07:23	0°♄		4874 Jul 24 01:36	0°♄	
	4872 Mar 10 01:16	0°♄		4874 Aug 18 05:28	0°♄	
asc. node	4872 Mar 18 00:19	9°♄28'49	asc. node	4874 Sep 02 19:30	18°♄46'48	
	4872 Apr 04 15:10	0°♄		4874 Sep 12 01:32	0°♄	
	4872 May 02 02:39	0°♄		4874 Oct 06 14:30	0°♄	
evening max el	4872 May 07 10:27	5°♄22'10 46°13'35	morning set	4874 Oct 28 22:07	27°♄32'52	
	4872 Jun 05 22:29	0°♄		4874 Oct 30 21:36	0°♄	
greatest brilliancy	4872 Jun 15 00:18	4°♄35'39 -4.8m		4874 Nov 24 00:40	0°♄	
retrograde	4872 Jun 26 01:20	6°♄50'06	max. Earth dist.	4874 Dec 03 00:43	11°♄13'40 1.71954 AU	
desc. node	4872 Jul 07 15:25	4°♄09'52				
evening set	4872 Jul 11 03:09	2°♄25'03	superior conj	4874 Dec 05 16:23	14°♄32'22 0°41'03	
	4872 Jul 15 05:58	30°♄♄	minimum elong	4874 Dec 06 01:04	14°♄59'29 0°40'41	
min. Earth dist.	4872 Jul 17 02:59	28°♄49'54 0.28725 AU		4874 Dec 18 01:16	0°♄	
inferior conj	4872 Jul 17 12:16	28°♄35'22 -2°20'37	desc. node	4874 Dec 23 10:34	6°♄44'24	
minimum elong	4872 Jul 17 07:13	28°♄43'18 2°19'09		4875 Jan 11 00:20	0°♄	
morning rise	4872 Jul 23 11:34	24°♄59'22	evening rise	4875 Jan 14 13:54	4°♄28'12	
direct	4872 Aug 07 22:16	20°♄23'56		4875 Feb 03 22:36	0°♄	
greatest brilliancy	4872 Aug 17 23:56	22°♄12'52 -4.7m		4875 Feb 27 21:29	0°♄	
	4872 Sep 01 16:56	0°♄		4875 Mar 23 23:37	0°♄	
morning max el	4872 Sep 25 14:48	20°♄02'38 45°44'23	asc. node	4875 Apr 15 12:16	27°♄44'20	
	4872 Oct 05 16:06	0°♄		4875 Apr 17 08:42	0°♄	
asc. node	4872 Oct 28 17:18	24°♄44'25		4875 May 12 05:35	0°♄	
	4872 Nov 02 09:32	0°♄		4875 Jun 06 22:08	0°♄	
	4872 Nov 28 04:49	0°♄		4875 Jul 04 05:09	0°♄	
	4872 Dec 23 01:28	0°♄	evening max el	4875 Jul 18 01:45	13°♄57'58 45°33'00	
	4873 Jan 16 10:05	0°♄	desc. node	4875 Aug 05 03:15	29°♄51'02	
	4873 Feb 09 12:21	0°♄		4875 Aug 05 07:52	0°♄	
desc. node	4873 Feb 17 08:11	9°♄47'01	greatest brilliancy	4875 Aug 25 12:36	11°♄54'40 -4.7m	
	4873 Mar 05 11:32	0°♄	retrograde	4875 Sep 04 18:30	13°♄47'25	
morning set	4873 Mar 29 06:53	29°♄51'06	evening set	4875 Sep 22 16:31	7°♄46'30	
	4873 Mar 29 09:44	0°♄	inferior conj	4875 Sep 26 05:05	5°♄35'50 -8°31'56	
	4873 Apr 22 08:46	0°♄	minimum elong	4875 Sep 26 02:17	5°♄40'14 8°31'50	
			min. Earth dist.	4875 Sep 26 11:14	5°♄26'12 0.29018 AU	
superior conj	4873 May 08 05:10	19°♄46'54 -1°09'13	morning rise	4875 Sep 29 11:59	3°♄33'40	
minimum elong	4873 May 08 15:44	20°♄19'50 1°08'55		4875 Oct 06 02:49	30°♄♄	
max. Earth dist.	4873 May 12 00:20	24°♄30'44 1.72161 AU	direct	4875 Oct 17 19:36	27°♄18'01	
	4873 May 16 10:13	0°♄	greatest brilliancy	4875 Oct 28 12:42	29°♄24'04 -4.8m	
	4873 Jun 09 15:01	0°♄		4875 Oct 30 00:56	0°♄	
asc. node	4873 Jun 10 10:04	0°♄58'50	asc. node	4875 Nov 26 05:04	19°♄00'33	
evening rise	4873 Jun 16 02:03	7°♄58'32	morning max el	4875 Dec 06 14:57	28°♄54'55 46°19'45	
	4873 Jul 03 23:27	0°♄		4875 Dec 07 17:02	0°♄	
	4873 Jul 28 11:42	0°♄		4876 Jan 04 12:38	0°♄	
	4873 Aug 22 04:47	0°♄		4876 Jan 30 04:49	0°♄	
	4873 Sep 16 04:49	0°♄		4876 Feb 24 00:16	0°♄	
desc. node	4873 Sep 30 00:50	16°♄23'43	desc. node	4876 Mar 16 19:58	26°♄48'07	
	4873 Oct 11 15:13	0°♄		4876 Mar 19 10:09	0°♄	
	4873 Nov 06 18:12	0°♄		4876 Apr 12 15:45	0°♄	
	4873 Dec 04 07:33	0°♄		4876 May 06 20:15	0°♄	
evening max el	4873 Dec 11 22:23	7°♄45'22 46°51'27		4876 May 31 01:39	0°♄	
	4874 Jan 06 03:18	0°♄	morning set	4876 Jun 10 09:44	12°♄46'26	
asc. node	4874 Jan 21 02:49	8°♄27'25		4876 Jun 24 08:45	0°♄	
greatest brilliancy	4874 Jan 21 08:21	8°♄32'31 -4.9m	asc. node	4876 Jul 07 21:53	16°♄41'46	
retrograde	4874 Jan 31 09:15	10°♄27'35				
evening set	4874 Feb 16 00:58	5°♄36'59	superior conj	4876 Jul 17 22:13	29°♄01'31 0°23'44	
inferior conj	4874 Feb 20 23:17	2°♄40'36 7°02'18	minimum elong	4876 Jul 17 17:19	28°♄46'26 0°23'29	
minimum elong	4874 Feb 20 12:31	2°♄57'04 7°00'06		4876 Jul 18 17:13	0°♄	
min. Earth dist.	4874 Feb 20 09:41	3°♄01'25 0.26780 AU	max. Earth dist.	4876 Jul 18 21:36	0°♄13'29 1.73360 AU	
morning rise	4874 Feb 25 00:16	0°♄15'04		4876 Aug 12 02:22	0°♄	
	4874 Feb 25 10:46	30°♄♄	evening rise	4876 Aug 23 05:37	13°♄41'37	
direct	4874 Mar 13 10:35	24°♄58'40		4876 Sep 05 12:04	0°♄	
greatest brilliancy	4874 Mar 22 20:11	26°♄39'39 -4.9m		4876 Sep 29 23:01	0°♄	
	4874 Mar 30 06:09	0°♄		4876 Oct 24 12:13	0°♄	
morning max el	4874 May 02 15:17	27°♄19'49 46°40'27	desc. node	4876 Oct 27 12:47	3°♄41'10	
	4874 May 05 07:13	0°♄		4876 Nov 18 04:27	0°♄	
desc. node	4874 May 12 17:43	7°♄40'14		4876 Dec 13 00:56	0°♄	
	4874 Jun 02 06:14	0°♄		4877 Jan 07 05:51	0°♄	
	4874 Jun 28 12:13	0°♄		4877 Feb 02 07:47	0°♄	

asc. node	4877 Feb 17 14:30	16° Υ 33'45			4879 Sep 21 07:02	0° $\underline{\Omega}$	
evening max el	4877 Feb 22 14:37	21° Υ 43'38	47°06'04	max. Earth dist.	4879 Sep 22 10:46	1° $\underline{\Omega}$ 25'37	1.73202 AU
	4877 Mar 03 00:26	0° \mathcal{B}					
greatest brilliancy	4877 Apr 03 23:41	22° \mathcal{B} 56'20	-4.9m	superior conj	4879 Sep 24 14:55	4° $\underline{\Omega}$ 06'34	1°24'16
retrograde	4877 Apr 14 06:33	24° \mathcal{B} 55'48		minimum elong	4879 Sep 24 12:02	3° $\underline{\Omega}$ 57'42	1°24'15
evening set	4877 May 01 08:53	19° \mathcal{B} 14'54			4879 Oct 15 13:33	0° \mathcal{M}	
inferior conj	4877 May 05 05:46	16° \mathcal{B} 51'45	7°23'44	evening rise	4879 Oct 31 09:42	19° \mathcal{M} 36'52	
minimum elong	4877 May 05 15:39	16° \mathcal{B} 36'18	7°21'59		4879 Nov 08 18:55	0° \mathcal{X}	
min. Earth dist.	4877 May 05 02:07	16° \mathcal{B} 57'29	0.27765 AU	desc. node	4879 Nov 25 00:43	20° \mathcal{X} 07'45	
morning rise	4877 May 09 22:44	14° \mathcal{B} 00'00			4879 Dec 02 23:51	0° \mathcal{Z}	
direct	4877 May 26 04:00	8° \mathcal{B} 55'27			4879 Dec 27 04:43	0° \approx	
greatest brilliancy	4877 Jun 04 17:41	10° \mathcal{B} 37'14	-4.8m		4880 Jan 20 10:24	0° \mathcal{H}	
desc. node	4877 Jun 09 05:30	12° \mathcal{B} 26'43			4880 Feb 13 19:42	0° Υ	
	4877 Jul 04 01:34	0° \mathcal{I}			4880 Mar 09 14:29	0° \mathcal{B}	
morning max el	4877 Jul 14 07:42	9° \mathcal{I} 28'43	45°55'29	asc. node	4880 Mar 17 02:24	8° \mathcal{B} 54'34	
	4877 Aug 03 11:30	0° \mathcal{E}			4880 Apr 04 06:14	0° \mathcal{I}	
	4877 Aug 30 16:41	0° \mathcal{Q}			4880 May 01 22:43	0° \mathcal{E}	
	4877 Sep 25 14:56	0° \mathcal{M}		evening max el	4880 May 05 01:43	3° \mathcal{E} 07'51	46°15'45
asc. node	4877 Sep 30 07:26	5° \mathcal{M} 31'54			4880 Jun 07 10:02	0° \mathcal{Q}	
	4877 Oct 20 18:23	0° $\underline{\Omega}$		greatest brilliancy	4880 Jun 12 16:16	2° \mathcal{Q} 25'03	-4.8m
	4877 Nov 14 08:58	0° \mathcal{M}		retrograde	4880 Jun 23 18:16	4° \mathcal{Q} 40'28	
	4877 Dec 08 15:03	0° \mathcal{X}		desc. node	4880 Jul 06 17:21	1° \mathcal{Q} 20'23	
	4878 Jan 01 16:02	0° \mathcal{Z}		evening set	4880 Jul 08 19:02	0° \mathcal{Q} 15'37	
morning set	4878 Jan 08 22:11	9° \mathcal{Z} 05'27			4880 Jul 09 06:19	30° \mathcal{R} \mathcal{E}	
desc. node	4878 Jan 19 22:18	22° \mathcal{Z} 53'48		inferior conj	4880 Jul 15 04:27	26° \mathcal{E} 25'40	-2°01'05
	4878 Jan 25 14:04	0° \approx		minimum elong	4880 Jul 15 00:03	26° \mathcal{E} 32'33	1°59'48
	4878 Feb 18 10:34	0° \mathcal{H}		min. Earth dist.	4880 Jul 14 19:08	26° \mathcal{E} 40'14	0.28696 AU
				morning rise	4880 Jul 21 05:26	22° \mathcal{E} 47'45	
superior conj	4878 Feb 19 00:56	0° \mathcal{H} 45'11	-1°04'41	direct	4880 Aug 05 14:08	18° \mathcal{E} 14'31	
minimum elong	4878 Feb 18 12:58	0° \mathcal{H} 07'31	1°04'16	greatest brilliancy	4880 Aug 15 15:35	20° \mathcal{E} 03'38	-4.7m
max. Earth dist.	4878 Feb 19 03:54	0° \mathcal{H} 54'30	1.71127 AU		4880 Sep 02 09:51	0° \mathcal{Q}	
	4878 Mar 14 07:00	0° Υ		morning max el	4880 Sep 23 07:24	17° \mathcal{Q} 54'44	45°43'53
evening rise	4878 Mar 31 22:29	22° Υ 08'23			4880 Oct 05 10:44	0° \mathcal{M}	
	4878 Apr 07 05:11	0° \mathcal{B}		asc. node	4880 Oct 27 19:24	24° \mathcal{M} 08'38	
	4878 May 01 07:08	0° \mathcal{I}			4880 Nov 01 23:56	0° $\underline{\Omega}$	
asc. node	4878 May 13 00:15	14° \mathcal{I} 29'42			4880 Nov 27 17:32	0° \mathcal{M}	
	4878 May 25 14:44	0° \mathcal{E}			4880 Dec 22 13:24	0° \mathcal{X}	
	4878 Jun 19 05:51	0° \mathcal{Q}			4881 Jan 15 21:35	0° \mathcal{Z}	
	4878 Jul 14 07:22	0° \mathcal{M}			4881 Feb 08 23:37	0° \approx	
	4878 Aug 09 01:15	0° $\underline{\Omega}$		desc. node	4881 Feb 16 10:04	9° \approx 17'50	
desc. node	4878 Sep 01 14:57	26° $\underline{\Omega}$ 18'31			4881 Mar 04 22:39	0° \mathcal{H}	
	4878 Sep 05 01:08	0° \mathcal{M}		morning set	4881 Mar 26 17:37	27° \mathcal{H} 19'45	
evening max el	4878 Sep 27 15:16	23° \mathcal{M} 03'12	45°51'55		4881 Mar 28 20:43	0° Υ	
	4878 Oct 05 02:42	0° \mathcal{X}			4881 Apr 21 19:39	0° \mathcal{B}	
greatest brilliancy	4878 Nov 06 10:45	21° \mathcal{X} 37'51	-4.8m				
retrograde	4878 Nov 15 15:00	23° \mathcal{X} 10'48		superior conj	4881 May 05 18:27	17° \mathcal{B} 25'03	-1°11'24
evening set	4878 Dec 01 02:57	18° \mathcal{X} 34'58		minimum elong	4881 May 06 04:49	17° \mathcal{B} 57'22	1°11'06
inferior conj	4878 Dec 06 12:14	15° \mathcal{X} 23'47	-4°11'31	max. Earth dist.	4881 May 09 13:36	22° \mathcal{B} 09'00	1.72107 AU
minimum elong	4878 Dec 06 20:48	15° \mathcal{X} 10'37	4°09'08		4881 May 15 21:00	0° \mathcal{I}	
min. Earth dist.	4878 Dec 07 09:08	14° \mathcal{X} 51'41	0.27363 AU		4881 Jun 09 01:46	0° \mathcal{E}	
morning rise	4878 Dec 12 13:49	11° \mathcal{X} 48'13		asc. node	4881 Jun 09 12:05	0° \mathcal{E} 31'54	
asc. node	4878 Dec 23 16:57	7° \mathcal{X} 43'48		evening rise	4881 Jun 13 17:59	5° \mathcal{E} 46'27	
direct	4878 Dec 27 09:31	7° \mathcal{X} 27'06			4881 Jul 03 10:16	0° \mathcal{Q}	
greatest brilliancy	4879 Jan 07 12:00	9° \mathcal{X} 45'03	-4.9m		4881 Jul 27 22:44	0° \mathcal{M}	
	4879 Feb 05 02:53	0° \mathcal{Z}			4881 Aug 21 16:13	0° $\underline{\Omega}$	
morning max el	4879 Feb 16 00:37	10° \mathcal{Z} 35'35	46°57'13		4881 Sep 15 16:58	0° \mathcal{M}	
	4879 Mar 06 06:04	0° \approx		desc. node	4881 Sep 29 02:53	15° \mathcal{M} 52'15	
	4879 Apr 01 12:01	0° \mathcal{H}			4881 Oct 11 04:34	0° \mathcal{X}	
desc. node	4879 Apr 14 07:59	15° \mathcal{H} 08'53			4881 Nov 06 09:49	0° \mathcal{Z}	
	4879 Apr 26 18:14	0° Υ			4881 Dec 04 04:28	0° \approx	
	4879 May 21 14:34	0° \mathcal{B}		evening max el	4881 Dec 09 13:09	5° \approx 25'02	46°49'44
	4879 Jun 15 06:58	0° \mathcal{I}			4882 Jan 07 05:15	0° \mathcal{H}	
	4879 Jul 09 21:47	0° \mathcal{E}		greatest brilliancy	4882 Jan 18 20:42	6° \mathcal{H} 04'09	-4.9m
	4879 Aug 03 11:11	0° \mathcal{Q}		asc. node	4882 Jan 20 04:43	6° \mathcal{H} 31'37	
asc. node	4879 Aug 05 09:40	2° \mathcal{Q} 22'10		retrograde	4882 Jan 28 22:24	7° \mathcal{H} 59'18	
morning set	4879 Aug 19 03:39	19° \mathcal{Q} 12'59		evening set	4882 Feb 13 09:42	3° \mathcal{H} 14'33	
	4879 Aug 27 22:24	0° \mathcal{M}		inferior conj	4882 Feb 18 11:44	0° \mathcal{H} 12'45	6°46'31

minimum elong	4882 Feb 18 00:52	0° H 29'23	6°44'09	max. Earth dist.	4884 Jul 16 16:53	28° G 11'37	1.73334 AU
min. Earth dist.	4882 Feb 17 22:14	0° H 33'24	0.26756 AU		4884 Jul 18 04:06	0° Q	
	4882 Feb 18 20:03	30° R \approx			4884 Aug 11 13:14	0° P	
morning rise	4882 Feb 22 16:16	27° \approx 42'12		evening rise	4884 Aug 21 00:02	11° P 37'08	
direct	4882 Mar 10 23:38	22° \approx 31'17			4884 Sep 04 23:02	0° L	
greatest brilliancy	4882 Mar 20 08:45	24° \approx 12'06	-4.9m		4884 Sep 29 10:15	0° M	
	4882 Mar 31 21:27	0° H			4884 Oct 23 23:52	0° J	
morning max el	4882 Apr 30 05:06	24° H 57'16	46°41'51	desc. node	4884 Oct 26 14:52	3° J 11'52	
	4882 May 05 04:57	0° Y			4884 Nov 17 16:42	0° Z	
desc. node	4882 May 11 19:47	6° Y 53'47			4884 Dec 12 14:05	0° \approx	
	4882 Jun 01 22:08	0° B			4885 Jan 06 20:29	0° H	
	4882 Jun 28 01:46	0° II			4885 Feb 02 01:27	0° Y	
	4882 Jul 23 13:54	0° G		asc. node	4885 Feb 16 16:35	15° Y 44'11	
	4882 Aug 17 17:02	0° Q		evening max el	4885 Feb 20 03:46	19° Y 17'52	47°06'50
asc. node	4882 Sep 01 21:33	18° Q 18'59			4885 Mar 03 03:38	0° B	
	4882 Sep 11 12:40	0° P		greatest brilliancy	4885 Apr 01 15:38	20° B 36'31	-4.9m
	4882 Oct 06 01:25	0° L		retrograde	4885 Apr 11 20:34	22° B 34'38	
morning set	4882 Oct 26 14:41	25° L 22'01		evening set	4885 Apr 29 02:24	16° B 49'26	
	4882 Oct 30 08:27	0° M		inferior conj	4885 May 02 20:01	14° B 31'14	7°36'22
	4882 Nov 23 11:32	0° J		minimum elong	4885 May 03 05:35	14° B 16'16	7°34'47
max. Earth dist.	4882 Nov 30 11:52	8° J 44'43	1.71998 AU	min. Earth dist.	4885 May 02 16:28	14° B 36'48	0.27734 AU
				morning rise	4885 May 07 09:02	11° B 45'02	
superior conj	4882 Dec 03 06:26	12° J 12'21	0°44'11	direct	4885 May 23 17:10	6° B 35'21	
minimum elong	4882 Dec 03 15:30	12° J 40'41	0°43'48	greatest brilliancy	4885 Jun 02 07:25	8° B 17'13	-4.8m
	4882 Dec 17 12:13	0° Z		desc. node	4885 Jun 08 07:28	10° B 50'47	
desc. node	4882 Dec 22 12:31	6° Z 16'11			4885 Jul 04 05:36	0° II	
	4883 Jan 10 11:24	0° \approx		morning max el	4885 Jul 11 21:20	7° II 09'49	45°56'47
evening rise	4883 Jan 12 01:36	1° \approx 59'40			4885 Aug 03 04:53	0° G	
	4883 Feb 03 09:48	0° H			4885 Aug 30 06:48	0° Q	
	4883 Feb 27 08:52	0° Y			4885 Sep 25 03:33	0° P	
	4883 Mar 23 11:17	0° B		asc. node	4885 Sep 29 09:32	5° P 01'17	
asc. node	4883 Apr 14 14:22	27° B 13'53			4885 Oct 20 06:13	0° L	
	4883 Apr 16 20:49	0° II			4885 Nov 13 20:23	0° M	
	4883 May 11 18:28	0° G			4885 Dec 08 02:18	0° J	
	4883 Jun 06 12:35	0° Q			4886 Jan 01 03:12	0° Z	
	4883 Jul 03 23:29	0° P		morning set	4886 Jan 06 10:10	6° Z 37'33	
evening max el	4883 Jul 15 17:23	11° P 46'29	45°33'32	desc. node	4886 Jan 19 00:16	22° Z 24'57	
desc. node	4883 Aug 04 05:13	28° P 46'17			4886 Jan 25 01:13	0° \approx	
	4883 Aug 05 20:46	0° L					
greatest brilliancy	4883 Aug 23 03:46	9° L 44'34	-4.7m	superior conj	4886 Feb 16 11:10	28° \approx 11'14	-1°01'55
retrograde	4883 Sep 02 09:56	11° L 37'39		minimum elong	4886 Feb 15 23:09	27° \approx 33'25	1°01'29
evening set	4883 Sep 20 06:36	5° L 39'47		max. Earth dist.	4886 Feb 16 07:16	27° \approx 58'56	1.71133 AU
inferior conj	4883 Sep 23 21:17	3° L 25'44	-8°28'41		4886 Feb 17 21:45	0° H	
minimum elong	4883 Sep 23 17:44	3° L 31'18	8°28'29		4886 Mar 13 18:12	0° Y	
min. Earth dist.	4883 Sep 24 02:27	3° L 17'36	0.29041 AU	evening rise	4886 Mar 29 08:59	19° Y 35'48	
morning rise	4883 Sep 27 04:48	1° L 22'20			4886 Apr 06 16:25	0° B	
	4883 Sep 29 12:51	30° R P			4886 Apr 30 18:26	0° II	
direct	4883 Oct 15 11:51	25° P 07'52		asc. node	4886 May 12 02:14	14° II 00'38	
greatest brilliancy	4883 Oct 26 03:58	27° P 12'20	-4.8m		4886 May 25 02:14	0° G	
	4883 Nov 01 06:41	0° L			4886 Jun 18 17:44	0° Q	
asc. node	4883 Nov 25 07:05	18° L 04'45			4886 Jul 13 20:01	0° P	
morning max el	4883 Dec 04 05:15	26° L 36'49	46°18'00		4886 Aug 08 15:22	0° L	
	4883 Dec 07 14:08	0° M		desc. node	4886 Aug 31 17:03	25° L 39'02	
	4884 Jan 04 04:16	0° J			4886 Sep 04 18:29	0° M	
	4884 Jan 29 18:27	0° Z		evening max el	4886 Sep 25 04:57	20° M 45'13	45°50'29
	4884 Feb 23 12:54	0° \approx			4886 Oct 05 06:53	0° J	
desc. node	4884 Mar 15 22:06	26° \approx 17'28		greatest brilliancy	4886 Nov 03 23:52	19° J 17'26	-4.8m
	4884 Mar 18 22:10	0° H		retrograde	4886 Nov 13 04:34	20° J 50'47	
	4884 Apr 12 03:22	0° Y		evening set	4886 Nov 28 19:14	16° J 10'21	
	4884 May 06 07:35	0° B		inferior conj	4886 Dec 04 01:59	13° J 02'47	-4°31'04
	4884 May 30 12:47	0° II		minimum elong	4886 Dec 04 11:01	12° J 48'55	4°28'37
morning set	4884 Jun 08 01:25	10° II 32'33		min. Earth dist.	4886 Dec 04 23:31	12° J 29'46	0.27428 AU
	4884 Jun 23 19:44	0° G		morning rise	4886 Dec 10 01:59	9° J 29'34	
asc. node	4884 Jul 06 23:49	16° G 14'09		asc. node	4886 Dec 22 18:49	5° J 10'56	
				direct	4886 Dec 25 00:02	5° J 04'54	
superior conj	4884 Jul 15 15:23	26° G 53'08	0°20'33	greatest brilliancy	4887 Jan 05 03:21	7° J 24'06	-4.9m
minimum elong	4884 Jul 15 11:05	26° G 39'54	0°20'20		4887 Feb 05 06:11	0° Z	

morning max el	4887 Feb 13 15:50	8°  15'09	46°56'35			4889 Sep 15 05:18	0° 		
	4887 Mar 05 23:45	0° 		desc. node		4889 Sep 28 04:55	15°  20'10		
	4887 Apr 01 02:41	0° 				4889 Oct 10 18:12	0° 		
desc. node	4887 Apr 13 10:01	14°  33'45				4889 Nov 06 01:51	0° 		
	4887 Apr 26 07:27	0° 				4889 Dec 04 02:18	0° 		
	4887 May 21 02:54	0° 		evening max el		4889 Dec 07 03:52	3°  04'20	46°47'59	
	4887 Jun 14 18:42	0° 				4890 Jan 08 17:49	0° 		
	4887 Jul 09 09:07	0° 		greatest brilliancy		4890 Jan 16 09:47	3°  36'50	-4.9m	
	4887 Aug 02 22:15	0° 		asc. node		4890 Jan 19 06:49	4°  31'27		
asc. node	4887 Aug 04 11:43	1°  05'41		retrograde		4890 Jan 26 11:16	5°  31'09		
morning set	4887 Aug 16 21:04	17°  05'32		evening set		4890 Feb 10 18:43	0°  52'21		
	4887 Aug 27 09:19	0° 				4890 Feb 12 07:15	30°  R 		
max. Earth dist.	4887 Sep 20 08:03	29°  09'32	1.73229 AU	min. Earth dist.		4890 Feb 15 11:17	28°  05'20	0.26728 AU	
	4887 Sep 20 17:55	0° 		inferior conj		4890 Feb 16 00:16	27°  45'26	6°29'54	
				minimum elong		4890 Feb 15 13:22	28°  02'08	6°27'26	
superior conj	4887 Sep 22 08:39	1°  59'31	1°23'41	morning rise		4890 Feb 20 08:16	25°  09'47		
minimum elong	4887 Sep 22 05:07	1°  48'37	1°23'39	direct		4890 Mar 08 12:22	20°  04'33		
	4887 Oct 15 00:30	0° 		greatest brilliancy		4890 Mar 17 21:49	21°  45'30	-4.9m	
evening rise	4887 Oct 29 01:45	17°  02'35				4890 Apr 02 00:40	0° 		
	4887 Nov 08 06:00	0° 		morning max el		4890 Apr 27 17:54	22°  32'33	46°43'07	
desc. node	4887 Nov 24 02:39	19°  39'00				4890 May 05 01:44	0° 		
	4887 Dec 02 11:08	0° 		desc. node		4890 May 10 21:46	6°  08'20		
	4887 Dec 26 16:18	0° 				4890 Jun 01 13:41	0° 		
	4888 Jan 19 22:24	0° 				4890 Jun 27 15:09	0° 		
	4888 Feb 13 08:17	0° 				4890 Jul 23 02:10	0° 		
	4888 Mar 09 04:06	0° 				4890 Aug 17 04:35	0° 		
asc. node	4888 Mar 16 04:26	8°  19'03		asc. node		4890 Aug 31 23:39	17°  05'11'17		
	4888 Apr 03 21:54	0° 				4890 Sep 10 23:48	0° 		
	4888 May 01 20:01	0° 				4890 Oct 05 12:17	0° 		
evening max el	4888 May 02 17:47	0°  54'08	46°17'50	morning set		4890 Oct 24 07:00	23°  10'31		
	4888 Jun 09 19:25	0° 				4890 Oct 29 19:14	0° 		
greatest brilliancy	4888 Jun 10 08:08	0°  12'34	-4.8m			4890 Nov 22 22:21	0° 		
retrograde	4888 Jun 21 11:03	2°  02'33		max. Earth dist.		4890 Nov 27 22:36	6°  14'45	1.72046 AU	
	4888 Jul 02 13:15	30°  R 							
desc. node	4888 Jul 05 19:19	28°  02'51		superior conj		4890 Nov 30 20:28	9°  52'35	0°47'14	
evening set	4888 Jul 06 10:50	28°  04'01		minimum elong		4890 Dec 01 05:52	10°  21'55	0°46'51	
inferior conj	4888 Jul 12 20:19	24°  01'35'2	-1°41'05			4890 Dec 16 23:08	0° 		
minimum elong	4888 Jul 12 16:36	24°  01'40	1°40'00	desc. node		4890 Dec 21 14:31	5°  34'8'14		
min. Earth dist.	4888 Jul 12 10:52	24°  02'37	0.28663 AU	evening rise		4891 Jan 09 13:22	29°  31'36		
morning rise	4888 Jul 18 22:51	20°  03'41'0				4891 Jan 09 22:26	0° 		
direct	4888 Aug 03 06:05	16°  03'15				4891 Feb 02 20:55	0° 		
greatest brilliancy	4888 Aug 13 06:23	17°  05'15'2	-4.7m			4891 Feb 26 20:07	0° 		
	4888 Sep 02 23:02	0° 				4891 Mar 22 22:46	0° 		
morning max el	4888 Sep 20 23:46	15°  04'52'4	45°43'23	asc. node		4891 Apr 13 16:20	26°  04'34'41		
	4888 Oct 05 05:14	0° 				4891 Apr 16 08:43	0° 		
asc. node	4888 Oct 26 21:21	23°  09'32'01				4891 May 11 07:11	0° 		
	4888 Nov 01 14:25	0° 				4891 Jun 06 02:57	0° 		
	4888 Nov 27 06:24	0° 				4891 Jul 03 18:06	0° 		
	4888 Dec 22 01:27	0° 		evening max el		4891 Jul 13 08:16	9°  09'33'32	45°33'58	
	4889 Jan 15 09:11	0° 		desc. node		4891 Aug 03 07:21	27°  09'40'29		
	4889 Feb 08 10:58	0° 				4891 Aug 06 13:57	0° 		
desc. node	4889 Feb 15 12:14	8°  49'19		greatest brilliancy		4891 Aug 20 19:01	7°  03'43'38	-4.7m	
	4889 Mar 04 09:50	0° 		retrograde		4891 Aug 31 01:15	9°  02'8'14		
morning set	4889 Mar 24 04:31	24°  04'48'44		evening set		4891 Sep 17 20:19	3°  03'33'42		
	4889 Mar 28 07:47	0° 		inferior conj		4891 Sep 21 13:27	1°  16'00	-8°24'32	
	4889 Apr 21 06:37	0° 		minimum elong		4891 Sep 21 09:11	1°  02'24'41	8°24'16	
				min. Earth dist.		4891 Sep 21 17:58	1°  08'08'55	0.29063 AU	
superior conj	4889 May 03 07:31	15°  01'59	-1°13'28			4891 Sep 23 14:01	30°  R 		
minimum elong	4889 May 03 17:35	15°  03'33'21	1°13'12	morning rise		4891 Sep 24 21:57	29°  09'10'56		
max. Earth dist.	4889 May 07 04:10	19°  05'04'45	1.72060 AU	direct		4891 Oct 13 03:40	22°  09'57'54		
	4889 May 15 07:55	0° 		greatest brilliancy		4891 Oct 23 19:54	25°  01'01'46	-4.8m	
asc. node	4889 Jun 08 14:01	0°  04'05				4891 Nov 02 17:22	0° 		
	4889 Jun 08 12:42	0° 		asc. node		4891 Nov 24 09:04	17°  02'10'27		
evening rise	4889 Jun 11 09:23	3°  03'22'07		morning max el		4891 Dec 01 19:18	24°  01'18'42	46°16'21	
	4889 Jul 02 21:16	0° 				4891 Dec 07 10:20	0° 		
	4889 Jul 27 09:57	0° 				4892 Jan 03 19:28	0° 		
	4889 Aug 21 03:50	0° 				4892 Jan 29 07:46	0° 		

	4892 Feb 23 01:15	0°♊			4894 Oct 05 12:23	0°♊	
desc. node	4892 Mar 15 00:03	25°♊47'04		greatest brilliancy	4894 Nov 01 12:29	16°♊57'54	-4.8m
	4892 Mar 18 09:55	0°♋		retrograde	4894 Nov 10 18:21	18°♊31'52	
	4892 Apr 11 14:41	0°♌		evening set	4894 Nov 26 11:39	13°♊46'53	
	4892 May 05 18:35	0°♍		inferior conj	4894 Dec 01 15:43	10°♊42'48	-4°50'02
	4892 May 29 23:33	0°♎		minimum elong	4894 Dec 02 01:09	10°♊28'19	4°47'32
morning set	4892 Jun 05 17:24	8°♎20'31		min. Earth dist.	4894 Dec 02 13:33	10°♊09'19	0.27497 AU
	4892 Jun 23 06:20	0°♏		morning rise	4894 Dec 07 13:55	7°♊12'12	
asc. node	4892 Jul 06 01:55	15°♏48'07		asc. node	4894 Dec 21 20:55	2°♊44'37	
				direct	4894 Dec 22 15:01	2°♊43'56	
superior conj	4892 Jul 13 08:46	24°♏46'31	0°17'22	greatest brilliancy	4895 Jan 02 18:11	5°♊03'31	-4.9m
minimum elong	4892 Jul 13 05:06	24°♏35'12	0°17'11		4895 Feb 05 07:36	0°♋	
max. Earth dist.	4892 Jul 14 11:43	26°♏09'30	1.73313 AU	morning max el	4895 Feb 11 07:24	5°♋56'44	46°55'54
	4892 Jul 17 14:37	0°♌			4895 Mar 05 16:42	0°♋	
	4892 Aug 10 23:47	0°♍			4895 Mar 31 16:48	0°♋	
evening rise	4892 Aug 18 18:34	9°♍34'00		desc. node	4895 Apr 12 11:58	13°♋59'51	
	4892 Sep 04 09:44	0°♎			4895 Apr 25 20:10	0°♌	
	4892 Sep 28 21:14	0°♏			4895 May 20 14:47	0°♍	
	4892 Oct 23 11:16	0°♊			4895 Jun 14 06:01	0°♎	
desc. node	4892 Oct 25 16:46	2°♊42'47			4895 Jul 08 20:00	0°♏	
	4892 Nov 17 04:43	0°♋			4895 Aug 02 08:52	0°♌	
	4892 Dec 12 03:02	0°♌		asc. node	4895 Aug 03 13:47	1°♌28'33	
	4893 Jan 06 10:59	0°♍		morning set	4895 Aug 14 14:53	15°♌00'42	
	4893 Feb 01 19:10	0°♎			4895 Aug 26 19:48	0°♍	
asc. node	4893 Feb 15 18:39	14°♎54'42		max. Earth dist.	4895 Sep 18 05:50	27°♍36'27	1.73254 AU
evening max el	4893 Feb 17 16:50	16°♎52'47	47°07'35				
	4893 Mar 03 08:08	0°♏		superior conj	4895 Sep 20 02:45	29°♍55'03	1°23'00
greatest brilliancy	4893 Mar 30 07:14	18°♏17'09	-4.9m	minimum elong	4895 Sep 19 22:36	29°♍42'14	1°22'58
retrograde	4893 Apr 09 10:53	20°♏14'40			4895 Sep 20 04:21	0°♎	
evening set	4893 Apr 26 19:50	14°♏24'58			4895 Oct 14 11:01	0°♏	
inferior conj	4893 Apr 30 10:17	12°♏11'48	7°48'11	evening rise	4895 Oct 26 18:07	15°♏13'03	
minimum elong	4893 Apr 30 19:28	11°♏57'28	7°46'46		4895 Nov 07 16:42	0°♊	
min. Earth dist.	4893 Apr 30 06:43	12°♏17'22	0.27700 AU	desc. node	4895 Nov 23 04:43	19°♊11'39	
morning rise	4893 May 04 19:18	9°♏31'30			4895 Dec 01 22:07	0°♋	
direct	4893 May 21 06:14	4°♏16'14			4895 Dec 26 03:38	0°♌	
greatest brilliancy	4893 May 30 21:07	5°♏58'32	-4.8m		4896 Jan 19 10:10	0°♍	
desc. node	4893 Jun 07 09:25	9°♏19'39			4896 Feb 12 20:39	0°♎	
	4893 Jul 04 07:21	0°♎			4896 Mar 08 17:30	0°♏	
morning max el	4893 Jul 09 11:49	4°♎54'23	45°58'13	asc. node	4896 Mar 15 06:22	7°♏44'00	
	4893 Aug 02 21:20	0°♏			4896 Apr 03 13:28	0°♎	
	4893 Aug 29 20:16	0°♊		evening max el	4896 Apr 30 10:18	28°♎42'29	46°19'55
	4893 Sep 24 15:39	0°♋			4896 May 01 17:42	0°♏	
asc. node	4893 Sep 28 11:26	4°♋31'32		greatest brilliancy	4896 Jun 08 00:35	28°♏01'52	-4.8m
	4893 Oct 19 17:38	0°♌			4896 Jun 15 06:13	0°♌	
	4893 Nov 13 07:27	0°♍		retrograde	4896 Jun 19 03:41	0°♌17'36	
	4893 Dec 07 13:11	0°♎			4896 Jun 22 23:16	30°♎	
	4893 Dec 31 14:00	0°♏		evening set	4896 Jul 04 02:55	25°♏53'31	
morning set	4894 Jan 03 22:12	4°♏11'03		desc. node	4896 Jul 04 21:28	25°♏27'36	
desc. node	4894 Jan 18 02:23	21°♏57'42		min. Earth dist.	4896 Jul 10 02:47	22°♏18'02	0.28625 AU
	4894 Jan 24 12:00	0°♊		inferior conj	4896 Jul 10 12:14	22°♏03'14	-1°20'57
				minimum elong	4896 Jul 10 09:15	22°♏07'55	1°20'05
superior conj	4894 Feb 13 21:18	25°♊38'08	-0°59'01	morning rise	4896 Jul 16 16:09	18°♏21'47	
minimum elong	4894 Feb 13 09:21	25°♊00'31	0°58'35	direct	4896 Jul 31 22:12	13°♏53'21	
max. Earth dist.	4894 Feb 13 14:11	25°♊15'45	1.71140 AU	greatest brilliancy	4896 Aug 10 20:59	15°♏40'59	-4.7m
	4894 Feb 17 08:33	0°♋			4896 Sep 03 08:13	0°♌	
	4894 Mar 13 05:02	0°♌		morning max el	4896 Sep 18 15:38	13°♌36'12	45°43'01
evening rise	4894 Mar 26 19:32	17°♌04'32			4896 Oct 04 22:46	0°♍	
	4894 Apr 06 03:17	0°♍		asc. node	4896 Oct 25 23:21	22°♍57'10	
	4894 Apr 30 05:22	0°♎			4896 Nov 01 04:17	0°♎	
asc. node	4894 May 11 04:12	13°♎32'44			4896 Nov 26 18:47	0°♏	
	4894 May 24 13:20	0°♏			4896 Dec 21 13:08	0°♊	
	4894 Jun 18 05:12	0°♊			4897 Jan 14 20:32	0°♋	
	4894 Jul 13 08:14	0°♋			4897 Feb 07 22:08	0°♌	
	4894 Aug 08 05:05	0°♌		desc. node	4897 Feb 14 14:13	8°♌20'49	
desc. node	4894 Aug 30 19:03	25°♌00'22			4897 Mar 03 20:51	0°♍	
	4894 Sep 04 11:39	0°♍		morning set	4897 Mar 21 14:57	22°♍16'47	
evening max el	4894 Sep 22 19:31	18°♍30'55	45°48'54		4897 Mar 27 18:40	0°♎	

	4897 Apr 20 17:23	0°♄		inferior conj	4899 Sep 19 05:35	29°♍06'03	-8°19'42
				minimum elong	4899 Sep 19 00:37	29°♍13'50	8°19'20
superior conj	4897 Apr 30 20:13	12°♄38'20 -1°15'24		min. Earth dist.	4899 Sep 19 09:22	29°♍00'08	0.29082 AU
minimum elong	4897 May 01 05:54	13°♄08'33 1°15'11		morning rise	4899 Sep 22 15:20	26°♍59'10	
max. Earth dist.	4897 May 04 19:34	17°♄35'41 1.72007 AU		direct	4899 Oct 10 19:24	20°♍47'36	
	4897 May 14 18:37	0°♄		greatest brilliancy	4899 Oct 21 12:10	22°♍51'35	-4.8m
asc. node	4897 Jun 07 16:08	29°♄37'30			4899 Nov 03 17:59	0°♄	
	4897 Jun 07 23:25	0°♄		asc. node	4899 Nov 23 11:07	16°♄17'25	
evening rise	4897 Jun 09 00:31	1°♄17'34		morning max el	4899 Nov 29 09:58	22°♄02'16	46°14'58
	4897 Jul 02 08:05	0°♄			4899 Dec 07 05:55	0°♄	
	4897 Jul 26 20:58	0°♄			4900 Jan 03 10:25	0°♄	
	4897 Aug 20 15:15	0°♄			4900 Jan 28 20:56	0°♄	
	4897 Sep 14 17:26	0°♄			4900 Feb 22 13:31	0°♄	
desc. node	4897 Sep 27 06:53	14°♄48'41		desc. node	4900 Mar 15 02:01	25°♄16'39	
	4897 Oct 10 07:37	0°♄			4900 Mar 18 21:40	0°♄	
	4897 Nov 05 17:48	0°♄			4900 Apr 12 02:06	0°♄	
	4897 Dec 04 00:39	0°♄			4900 May 06 05:46	0°♄	
evening max el	4897 Dec 04 17:39	0°♄42'13 46°45'56			4900 May 30 10:33	0°♄	
	4898 Jan 11 01:52	0°♄		morning set	4900 Jun 04 08:40	6°♄05'29	
greatest brilliancy	4898 Jan 13 23:09	1°♄10'04 -4.9m			4900 Jun 23 17:10	0°♄	
asc. node	4898 Jan 18 08:51	2°♄26'23		asc. node	4900 Jul 06 03:55	15°♄21'05	
retrograde	4898 Jan 23 23:18	3°♄02'58					
	4898 Feb 05 06:12	30°♄		superior conj	4900 Jul 12 01:32	22°♄37'15	0°14'07
evening set	4898 Feb 08 03:45	28°♄29'46		minimum elong	4900 Jul 11 22:31	22°♄27'58	0°13'57
min. Earth dist.	4898 Feb 13 00:41	25°♄36'33 0.26710 AU		behind sun begin	4900 Jul 11 11:20	21°♄53'32	
inferior conj	4898 Feb 13 12:41	25°♄18'07 6°12'20		behind sun end	4900 Jul 12 09:42	23°♄02'24	
minimum elong	4898 Feb 13 01:51	25°♄34'45 6°09'46		max. Earth dist.	4900 Jul 13 05:48	24°♄04'19	1.73288 AU
morning rise	4898 Feb 18 00:08	22°♄37'16			4900 Jul 18 01:21	0°♄	
direct	4898 Mar 06 00:35	17°♄37'23			4900 Aug 11 10:32	0°♄	
greatest brilliancy	4898 Mar 15 11:41	19°♄19'20 -4.9m		evening rise	4900 Aug 17 12:45	7°♄29'15	
	4898 Apr 02 20:43	0°♄			4900 Sep 04 20:39	0°♄	
morning max el	4898 Apr 25 05:52	20°♄05'17 46°44'27			4900 Sep 29 08:26	0°♄	
	4898 May 04 21:54	0°♄			4900 Oct 23 22:53	0°♄	
desc. node	4898 May 09 23:48	5°♄23'31		desc. node	4900 Oct 25 18:51	2°♄13'37	
	4898 Jun 01 05:00	0°♄			4900 Nov 17 16:57	0°♄	
	4898 Jun 27 04:24	0°♄			4900 Dec 12 16:11	0°♄	
	4898 Jul 22 14:16	0°♄			4901 Jan 07 01:44	0°♄	
	4898 Aug 16 16:00	0°♄			4901 Feb 02 13:20	0°♄	
asc. node	4898 Aug 31 01:31	17°♄23'15		asc. node	4901 Feb 15 20:32	14°♄03'48	
	4898 Sep 10 10:48	0°♄		evening max el	4901 Feb 16 06:26	14°♄28'57	47°08'16
	4898 Oct 04 23:03	0°♄			4901 Mar 04 14:46	0°♄	
morning set	4898 Oct 21 23:45	21°♄00'45		greatest brilliancy	4901 Mar 28 21:56	15°♄56'14	-4.9m
	4898 Oct 29 05:54	0°♄		retrograde	4901 Apr 08 01:28	17°♄54'03	
	4898 Nov 22 09:02	0°♄		evening set	4901 Apr 25 13:04	11°♄59'40	
max. Earth dist.	4898 Nov 25 12:08	3°♄54'02 1.72092 AU		inferior conj	4901 Apr 29 00:28	9°♄51'22	7°59'11
				minimum elong	4901 Apr 29 09:12	9°♄37'46	7°57'56
superior conj	4898 Nov 28 11:09	7°♄35'25 0°50'09		min. Earth dist.	4901 Apr 28 20:33	9°♄57'28	0.27674 AU
minimum elong	4898 Nov 28 20:49	8°♄05'32 0°49'45		morning rise	4901 May 03 05:29	7°♄17'11	
	4898 Dec 16 09:54	0°♄		direct	4901 May 19 19:50	1°♄56'00	
desc. node	4898 Dec 20 16:38	5°♄21'09		greatest brilliancy	4901 May 29 10:34	3°♄38'34	-4.8m
evening rise	4899 Jan 07 01:43	27°♄05'55		desc. node	4901 Jun 07 11:34	7°♄51'01	
	4899 Jan 09 09:19	0°♄			4901 Jul 05 08:17	0°♄	
	4899 Feb 02 07:59	0°♄		morning max el	4901 Jul 08 03:06	2°♄39'43	45°59'31
	4899 Feb 26 07:24	0°♄			4901 Aug 03 13:54	0°♄	
	4899 Mar 22 10:21	0°♄			4901 Aug 30 10:00	0°♄	
asc. node	4899 Apr 12 18:19	26°♄13'09			4901 Sep 25 04:01	0°♄	
	4899 Apr 15 20:47	0°♄		asc. node	4901 Sep 28 13:29	4°♄01'17	
	4899 May 10 20:05	0°♄			4901 Oct 20 05:18	0°♄	
	4899 Jun 05 17:37	0°♄			4901 Nov 13 18:46	0°♄	
	4899 Jul 03 13:23	0°♄			4901 Dec 08 00:20	0°♄	
evening max el	4899 Jul 10 22:38	7°♄18'59 45°34'40			4902 Jan 01 01:04	0°♄	
desc. node	4899 Aug 02 09:17	26°♄32'17		morning set	4902 Jan 02 10:37	1°♄44'59	
	4899 Aug 07 13:29	0°♄		desc. node	4902 Jan 18 04:21	21°♄29'14	
greatest brilliancy	4899 Aug 18 09:45	5°♄23'53 -4.7m			4902 Jan 24 23:02	0°♄	
retrograde	4899 Aug 28 16:46	7°♄18'50					
evening set	4899 Sep 15 09:47	1°♄27'33		superior conj	4902 Feb 12 07:48	23°♄05'29	-0°56'02
	4899 Sep 17 19:06	30°♄		minimum elong	4902 Feb 11 20:02	22°♄28'27	0°55'34

max. Earth dist.	4902 Feb 11 23:31	22° \approx 39'26	1.71143 AU	morning max el	4904 Sep 17 06:45	11° Ω 23'54	45°42'30
	4902 Feb 17 19:34	0° \mathcal{H}			4904 Oct 05 16:24	0° \mathcal{M}	
	4902 Mar 13 16:04	0° \mathcal{Y}		asc. node	4904 Oct 26 01:27	22° \mathcal{M} 21'28	
evening rise	4902 Mar 25 06:29	14° \mathcal{Y} 33'53			4904 Nov 01 18:29	0° \mathcal{L}	
	4902 Apr 06 14:21	0° \mathcal{B}			4904 Nov 27 07:33	0° \mathcal{M}	
	4902 Apr 30 16:33	0° \mathcal{I}			4904 Dec 22 01:11	0° \mathcal{J}	
asc. node	4902 May 11 06:18	13° \mathcal{I} 04'25			4905 Jan 15 08:12	0° \mathcal{Z}	
	4902 May 25 00:44	0° \mathcal{E}			4905 Feb 08 09:35	0° \approx	
	4902 Jun 18 17:04	0° Ω		desc. node	4905 Feb 14 16:08	7° \approx 51'07	
	4902 Jul 13 20:56	0° \mathcal{M}			4905 Mar 04 08:09	0° \mathcal{H}	
	4902 Aug 08 19:25	0° \mathcal{L}		morning set	4905 Mar 20 01:18	19° \mathcal{H} 43'29	
desc. node	4902 Aug 30 21:01	24° \mathcal{L} 19'54			4905 Mar 28 05:50	0° \mathcal{Y}	
	4902 Sep 05 05:44	0° \mathcal{M}			4905 Apr 21 04:27	0° \mathcal{B}	
evening max el	4902 Sep 21 10:30	16° \mathcal{M} 16'21	45°47'25				
	4902 Oct 06 20:51	0° \mathcal{J}		superior conj	4905 Apr 29 09:01	10° \mathcal{B} 14'02	-1°17'13
greatest brilliancy	4902 Oct 31 01:12	14° \mathcal{J} 37'32	-4.8m	minimum elong	4905 Apr 29 18:14	10° \mathcal{B} 42'49	1°17'01
retrograde	4902 Nov 09 07:59	16° \mathcal{J} 11'42		max. Earth dist.	4905 May 03 10:00	15° \mathcal{B} 16'39	1.71950 AU
evening set	4902 Nov 25 04:11	11° \mathcal{J} 22'25			4905 May 15 05:37	0° \mathcal{I}	
inferior conj	4902 Nov 30 05:26	8° \mathcal{J} 21'47	-5°08'23	evening rise	4905 Jun 07 15:43	29° \mathcal{I} 02'19	
minimum elong	4902 Nov 30 15:11	8° \mathcal{J} 06'48	5°05'54	asc. node	4905 Jun 07 18:07	29° \mathcal{I} 09'42	
min. Earth dist.	4902 Dec 01 03:24	7° \mathcal{J} 48'03	0.27563 AU		4905 Jun 08 10:23	0° \mathcal{E}	
morning rise	4902 Dec 06 01:34	4° \mathcal{J} 53'55			4905 Jul 02 19:08	0° Ω	
direct	4902 Dec 21 06:05	0° \mathcal{J} 22'06			4905 Jul 27 08:15	0° \mathcal{M}	
asc. node	4902 Dec 21 22:58	0° \mathcal{J} 22'42			4905 Aug 21 02:59	0° \mathcal{L}	
greatest brilliancy	4903 Jan 01 08:35	2° \mathcal{J} 41'19	-4.9m		4905 Sep 15 06:00	0° \mathcal{M}	
	4903 Feb 06 08:13	0° \mathcal{Z}		desc. node	4905 Sep 27 08:56	14° \mathcal{M} 16'09	
morning max el	4903 Feb 09 22:26	3° \mathcal{Z} 35'57	46°55'15		4905 Oct 10 21:37	0° \mathcal{J}	
	4903 Mar 06 09:38	0° \approx			4905 Nov 06 10:31	0° \mathcal{Z}	
	4903 Apr 01 07:04	0° \mathcal{H}		evening max el	4905 Dec 03 06:25	28° \mathcal{Z} 16'26	46°43'58
desc. node	4903 Apr 12 14:03	13° \mathcal{H} 25'43			4905 Dec 05 00:30	0° \approx	
	4903 Apr 26 09:04	0° \mathcal{Y}		greatest brilliancy	4906 Jan 12 12:42	28° \approx 42'22	-4.9m
	4903 May 21 02:52	0° \mathcal{B}			4906 Jan 17 01:44	0° \mathcal{H}	
	4903 Jun 14 17:34	0° \mathcal{I}		asc. node	4906 Jan 18 10:45	0° \mathcal{H} 14'58	
	4903 Jul 09 07:13	0° \mathcal{E}		retrograde	4906 Jan 22 11:03	0° \mathcal{H} 33'58	
	4903 Aug 02 19:51	0° Ω			4906 Jan 27 17:32	30° $\mathcal{R}\approx$	
asc. node	4903 Aug 03 15:42	1° Ω 00'46		evening set	4906 Feb 06 12:56	26° \approx 05'42	
morning set	4903 Aug 13 08:30	12° Ω 54'05		min. Earth dist.	4906 Feb 11 14:15	23° \approx 06'32	0.26691 AU
	4903 Aug 27 06:41	0° \mathcal{M}		inferior conj	4906 Feb 12 01:06	22° \approx 49'54	5°54'08
max. Earth dist.	4903 Sep 17 01:13	25° \mathcal{M} 34'45	1.73278 AU	minimum elong	4906 Feb 11 14:23	23° \approx 06'20	5°51'28
				morning rise	4906 Feb 16 15:57	20° \approx 04'05	
superior conj	4903 Sep 18 20:36	27° \mathcal{M} 48'32	1°22'11	direct	4906 Mar 04 12:26	15° \approx 09'06	
minimum elong	4903 Sep 18 15:52	27° \mathcal{M} 33'56	1°22'08	greatest brilliancy	4906 Mar 14 01:56	16° \approx 52'49	-4.9m
	4903 Sep 20 15:13	0° \mathcal{L}			4906 Apr 04 12:02	0° \mathcal{H}	
	4903 Oct 14 21:57	0° \mathcal{M}		morning max el	4906 Apr 23 17:50	17° \mathcal{H} 37'10	46°45'50
evening rise	4903 Oct 25 10:12	13° \mathcal{M} 00'12			4906 May 05 17:43	0° \mathcal{Y}	
	4903 Nov 08 03:49	0° \mathcal{J}		desc. node	4906 May 10 01:53	4° \mathcal{Y} 38'47	
desc. node	4903 Nov 23 06:46	18° \mathcal{J} 43'03			4906 Jun 01 20:19	0° \mathcal{B}	
	4903 Dec 02 09:30	0° \mathcal{Z}			4906 Jun 27 17:44	0° \mathcal{I}	
	4903 Dec 26 15:21	0° \approx			4906 Jul 23 02:30	0° \mathcal{E}	
	4904 Jan 19 22:20	0° \mathcal{H}			4906 Aug 17 03:34	0° Ω	
	4904 Feb 13 09:26	0° \mathcal{Y}		asc. node	4906 Aug 31 03:37	16° Ω 55'21	
	4904 Mar 09 07:20	0° \mathcal{B}			4906 Sep 10 21:57	0° \mathcal{M}	
asc. node	4904 Mar 15 08:26	7° \mathcal{B} 08'11			4906 Oct 05 10:01	0° \mathcal{L}	
	4904 Apr 04 05:34	0° \mathcal{I}		morning set	4906 Oct 20 16:27	18° \mathcal{L} 50'05	
evening max el	4904 Apr 29 02:22	26° \mathcal{I} 28'48	46°22'01		4906 Oct 29 16:49	0° \mathcal{M}	
	4904 May 02 16:33	0° \mathcal{E}			4906 Nov 22 20:01	0° \mathcal{J}	
greatest brilliancy	4904 Jun 06 17:35	25° \mathcal{E} 51'15	-4.8m	max. Earth dist.	4906 Nov 24 02:51	1° \mathcal{J} 36'03	1.72143 AU
retrograde	4904 Jun 17 19:55	28° \mathcal{E} 06'03					
evening set	4904 Jul 02 19:17	23° \mathcal{E} 42'16		superior conj	4906 Nov 27 01:41	5° \mathcal{J} 16'47	0°52'58
desc. node	4904 Jul 04 23:22	22° \mathcal{E} 27'35		minimum elong	4906 Nov 27 11:32	5° \mathcal{J} 47'31	0°52'36
inferior conj	4904 Jul 09 04:17	19° \mathcal{E} 52'06	-1°00'48		4906 Dec 16 20:59	0° \mathcal{Z}	
minimum elong	4904 Jul 09 02:02	19° \mathcal{E} 55'38	1°00'08	desc. node	4906 Dec 20 18:35	4° \mathcal{Z} 52'32	
min. Earth dist.	4904 Jul 08 19:03	20° \mathcal{E} 06'34	0.28592 AU	evening rise	4907 Jan 05 13:47	24° \mathcal{Z} 38'33	
morning rise	4904 Jul 15 09:23	16° \mathcal{E} 08'50			4907 Jan 09 20:30	0° \approx	
direct	4904 Jul 30 14:14	11° \mathcal{E} 42'54			4907 Feb 02 19:18	0° \mathcal{H}	
greatest brilliancy	4904 Aug 09 12:03	13° \mathcal{E} 29'37	-4.7m		4907 Feb 26 18:54	0° \mathcal{Y}	
	4904 Sep 04 15:18	0° Ω			4907 Mar 22 22:09	0° \mathcal{B}	

asc. node	4907 Apr 12 20:24	25°♄42'23		4909 Aug 03 06:02	0°♄	
	4907 Apr 16 09:03	0°♄		4909 Aug 29 23:27	0°♄	
	4907 May 11 09:14	0°♄		4909 Sep 24 16:11	0°♄	
	4907 Jun 06 08:37	0°♄		4909 Sep 27 15:33	3°♄31'40	
	4907 Jul 04 09:19	0°♄		4909 Oct 19 16:47	0°♄	
evening max el	4907 Jul 09 13:29	5°♄05'32	45°35'33	4909 Nov 13 05:54	0°♄	
desc. node	4907 Aug 02 11:19	25°♄22'29		4909 Dec 07 11:17	0°♄	
	4907 Aug 09 22:22	0°♄		4909 Dec 30 23:21	29°♄20'29	
greatest brilliancy	4907 Aug 17 00:03	3°♄12'56	-4.7m	4909 Dec 31 11:59	0°♄	
retrograde	4907 Aug 27 09:03	5°♄10'00		4910 Jan 17 06:21	21°♄01'11	
	4907 Sep 12 21:17	30°♄		4910 Jan 24 09:58	0°♄	
evening set	4907 Sep 13 23:16	29°♄				
inferior conj	4907 Sep 17 21:54	26°♄56'30	-8°14'11	superior conj	4910 Feb 09 18:06	20°♄32'24 -0°52'54
minimum elong	4907 Sep 17 16:17	27°♄05'18	8°13'42	minimum elong	4910 Feb 09 06:37	19°♄56'17 0°52'26
min. Earth dist.	4907 Sep 18 00:33	26°♄52'20	0.29101 AU	max. Earth dist.	4910 Feb 09 07:48	20°♄00'00 1.71153 AU
morning rise	4907 Sep 21 09:10	24°♄47'31			4910 Feb 17 06:33	0°♄
direct	4907 Oct 09 11:35	18°♄37'46			4910 Mar 13 03:04	0°♄
greatest brilliancy	4907 Oct 20 04:17	20°♄41'43	-4.8m	evening rise	4910 Mar 22 16:53	12°♄01'28
	4907 Nov 05 12:01	0°♄			4910 Apr 06 01:23	0°♄
asc. node	4907 Nov 23 13:09	15°♄25'10			4910 Apr 30 03:40	0°♄
morning max el	4907 Nov 28 01:35	19°♄48'06	46°13'20	asc. node	4910 May 10 08:16	12°♄35'58
	4907 Dec 08 01:05	0°♄			4910 May 24 12:04	0°♄
	4908 Jan 04 01:25	0°♄			4910 Jun 18 04:50	0°♄
	4908 Jan 29 10:15	0°♄			4910 Jul 13 09:32	0°♄
	4908 Feb 23 01:57	0°♄			4910 Aug 08 09:40	0°♄
desc. node	4908 Mar 14 04:11	24°♄46'22		desc. node	4910 Aug 29 23:09	23°♄40'14
	4908 Mar 18 09:32	0°♄			4910 Sep 04 23:56	0°♄
	4908 Apr 11 13:36	0°♄		evening max el	4910 Sep 19 01:41	14°♄03'20 45°46'01
	4908 May 05 17:00	0°♄			4910 Oct 07 07:38	0°♄
	4908 May 29 21:33	0°♄		greatest brilliancy	4910 Oct 28 14:42	12°♄19'58 -4.8m
morning set	4908 Jun 01 23:55	3°♄50'11		retrograde	4910 Nov 06 21:31	13°♄53'45
	4908 Jun 23 04:01	0°♄		evening set	4910 Nov 22 21:07	9°♄00'21
asc. node	4908 Jul 05 05:52	14°♄53'46		inferior conj	4910 Nov 27 19:33	6°♄03'13 -5°25'56
				minimum elong	4910 Nov 28 05:32	5°♄47'50 5°23'28
superior conj	4908 Jul 09 18:27	20°♄28'20	0°10'51	min. Earth dist.	4910 Nov 28 17:41	5°♄29'09 0.27628 AU
minimum elong	4908 Jul 09 16:07	20°♄21'07	0°10'43	morning rise	4910 Dec 03 13:24	2°♄38'06
behind sun begin	4908 Jul 08 22:48	19°♄27'48			4910 Dec 09 01:38	30°♄
behind sun end	4908 Jul 10 09:25	21°♄14'26		direct	4910 Dec 18 21:14	28°♄02'50
max. Earth dist.	4908 Jul 11 00:55	22°♄02'10	1.73262 AU	asc. node	4910 Dec 21 00:51	28°♄08'22
	4908 Jul 17 12:07	0°♄			4910 Dec 29 00:58	0°♄
	4908 Aug 10 21:19	0°♄		greatest brilliancy	4910 Dec 29 23:17	0°♄21'22 -4.9m
evening rise	4908 Aug 15 07:18	5°♄25'41			4911 Feb 06 07:16	0°♄
	4908 Sep 04 07:33	0°♄		morning max el	4911 Feb 07 12:36	1°♄14'05 46°54'15
	4908 Sep 28 19:36	0°♄			4911 Mar 06 02:00	0°♄
	4908 Oct 23 10:30	0°♄			4911 Mar 31 21:00	0°♄
desc. node	4908 Oct 24 20:56	1°♄44'35		desc. node	4911 Apr 11 16:03	12°♄52'00
	4908 Nov 17 05:14	0°♄			4911 Apr 25 21:45	0°♄
	4908 Dec 12 05:30	0°♄			4911 May 20 14:46	0°♄
	4909 Jan 06 16:48	0°♄			4911 Jun 14 04:55	0°♄
	4909 Feb 02 08:11	0°♄			4911 Jul 08 18:10	0°♄
evening max el	4909 Feb 13 21:03	12°♄07'13	47°08'54		4911 Aug 02 06:34	0°♄
asc. node	4909 Feb 14 22:39	13°♄12'02		asc. node	4911 Aug 02 17:47	0°♄34'21
	4909 Mar 05 00:14	0°♄		morning set	4911 Aug 11 02:05	10°♄48'12
greatest brilliancy	4909 Mar 26 12:03	13°♄34'01	-4.9m		4911 Aug 26 17:15	0°♄
retrograde	4909 Apr 05 16:24	15°♄32'37		max. Earth dist.	4911 Sep 14 19:28	23°♄30'32 1.73299 AU
evening set	4909 Apr 23 06:08	9°♄33'44				
inferior conj	4909 Apr 26 14:30	7°♄30'10	8°09'31	superior conj	4911 Sep 16 14:40	25°♄43'43 1°21'17
minimum elong	4909 Apr 26 22:43	7°♄17'23	8°08'25	minimum elong	4911 Sep 16 09:22	25°♄27'23 1°21'12
min. Earth dist.	4909 Apr 26 09:50	7°♄37'25	0.27642 AU		4911 Sep 20 01:47	0°♄
morning rise	4909 Apr 30 15:28	5°♄02'17			4911 Oct 14 08:35	0°♄
	4909 May 12 21:57	30°♄		evening rise	4911 Oct 23 02:42	10°♄49'40
direct	4909 May 17 09:45	29°♄35'20			4911 Nov 07 14:36	0°♄
	4909 May 22 00:11	0°♄		desc. node	4911 Nov 22 08:43	18°♄15'14
greatest brilliancy	4909 May 26 23:11	1°♄17'25	-4.8m		4911 Dec 01 20:32	0°♄
desc. node	4909 Jun 06 13:32	6°♄25'06			4911 Dec 26 02:43	0°♄
	4909 Jul 05 07:56	0°♄			4912 Jan 19 10:08	0°♄
morning max el	4909 Jul 05 18:39	0°♄25'54	46°00'53		4912 Feb 12 21:54	0°♄

	4912 Mar 08 20:59	0°♄	morning set	4914 Oct 18 09:08	16°♌40'34	
asc. node	4912 Mar 14 10:28	6°♄32'56		4914 Oct 29 03:23	0°♌	
	4912 Apr 03 21:42	0°♄	max. Earth dist.	4914 Nov 21 20:10	29°♌27'24	1.72191 AU
evening max el	4912 Apr 26 17:28	24°♄12'59 46°23'57		4914 Nov 22 06:38	0°♌	
	4912 May 02 16:15	0°♄				
greatest brilliancy	4912 Jun 04 11:00	23°♄41'02 -4.8m	superior conj	4914 Nov 24 16:19	2°♌59'43 0°55'43	
retrograde	4912 Jun 15 11:36	25°♄54'27	minimum elong	4914 Nov 25 02:18	3°♌30'51 0°55'21	
evening set	4912 Jun 30 11:38	21°♄30'42		4914 Dec 16 07:42	0°♌	
desc. node	4912 Jul 04 01:23	19°♄25'09	desc. node	4914 Dec 19 20:36	4°♌25'17	
inferior conj	4912 Jul 06 20:10	17°♄41'07 -0°40'19	evening rise	4915 Jan 03 02:08	22°♌13'14	
minimum elong	4912 Jul 06 18:40	17°♄43'28 0°39'52		4915 Jan 09 07:20	0°♌	
min. Earth dist.	4912 Jul 06 11:31	17°♄54'41 0.28555 AU		4915 Feb 02 06:17	0°♌	
morning rise	4912 Jul 13 02:16	13°♄56'09		4915 Feb 26 06:05	0°♌	
direct	4912 Jul 28 05:36	9°♄32'33		4915 Mar 22 09:36	0°♌	
greatest brilliancy	4912 Aug 07 03:28	11°♄18'59 -4.7m	asc. node	4915 Apr 11 22:22	25°♌12'19	
	4912 Sep 04 19:51	0°♌		4915 Apr 15 20:59	0°♄	
morning max el	4912 Sep 14 20:56	9°♌10'16 45°42'14		4915 May 10 22:05	0°♄	
	4912 Oct 05 09:14	0°♌		4915 Jun 05 23:26	0°♌	
asc. node	4912 Oct 25 03:23	21°♌46'47		4915 Jul 04 05:36	0°♌	
	4912 Nov 01 08:07	0°♌	evening max el	4915 Jul 07 05:03	2°♌54'36 45°36'20	
	4912 Nov 26 19:49	0°♌	desc. node	4915 Aug 01 13:26	24°♌11'21	
	4912 Dec 21 12:47	0°♌		4915 Aug 11 23:42	0°♌	
	4913 Jan 14 19:26	0°♌	greatest brilliancy	4915 Aug 14 14:02	1°♌02'05 -4.7m	
	4913 Feb 07 20:36	0°♌	retrograde	4915 Aug 25 01:41	3°♌01'22	
desc. node	4913 Feb 13 18:18	7°♌23'32		4915 Sep 06 11:21	30°♌	
	4913 Mar 03 19:01	0°♌	evening set	4915 Sep 11 12:31	27°♌17'01	
morning set	4913 Mar 17 11:49	17°♌11'58	inferior conj	4915 Sep 15 14:05	24°♌47'11 -8°07'56	
	4913 Mar 27 16:36	0°♌	minimum elong	4915 Sep 15 07:51	24°♌56'56 8°07'20	
	4913 Apr 20 15:08	0°♌	min. Earth dist.	4915 Sep 15 15:24	24°♌45'08 0.29115 AU	
			morning rise	4915 Sep 19 03:06	22°♌35'46	
superior conj	4913 Apr 26 21:47	7°♌50'41 -1°18'53	direct	4915 Oct 07 04:02	16°♌28'21	
minimum elong	4913 Apr 27 06:26	8°♌17'44 1°18'43	greatest brilliancy	4915 Oct 17 19:42	18°♌31'40 -4.8m	
max. Earth dist.	4913 Apr 30 22:15	12°♌51'47 1.71899 AU		4915 Nov 06 01:07	0°♌	
	4913 May 14 16:17	0°♄	asc. node	4915 Nov 22 15:08	14°♌34'34	
evening rise	4913 Jun 05 06:32	26°♄46'44	morning max el	4915 Nov 25 17:43	17°♌36'12 46°11'46	
asc. node	4913 Jun 06 20:04	28°♄42'44		4915 Dec 07 19:26	0°♌	
	4913 Jun 07 21:05	0°♄		4916 Jan 03 15:53	0°♌	
	4913 Jul 02 05:55	0°♌		4916 Jan 28 23:08	0°♌	
	4913 Jul 26 19:14	0°♌		4916 Feb 22 14:00	0°♌	
	4913 Aug 20 14:26	0°♌	desc. node	4916 Mar 13 06:06	24°♌16'18	
	4913 Sep 14 18:15	0°♌		4916 Mar 17 21:05	0°♌	
desc. node	4913 Sep 26 10:59	13°♌44'40		4916 Apr 11 00:48	0°♌	
	4913 Oct 10 11:19	0°♌		4916 May 05 03:56	0°♌	
	4913 Nov 06 03:06	0°♌		4916 May 29 08:16	0°♄	
evening max el	4913 Nov 30 18:51	25°♌51'22 46°42'05	morning set	4916 May 30 15:20	1°♄36'10	
	4913 Dec 05 00:55	0°♌		4916 Jun 22 14:35	0°♄	
greatest brilliancy	4914 Jan 10 02:13	26°♌16'22 -4.9m	asc. node	4916 Jul 04 07:58	14°♄27'45	
asc. node	4914 Jan 17 12:53	28°♌00'09				
retrograde	4914 Jan 19 23:17	28°♌07'15	superior conj	4916 Jul 07 11:22	18°♄20'06 0°07'33	
evening set	4914 Feb 03 22:30	23°♌43'06	minimum elong	4916 Jul 07 09:43	18°♄15'02 0°07'28	
min. Earth dist.	4914 Feb 09 03:58	20°♌38'35 0.26677 AU	behind sun begin	4916 Jul 06 13:01	17°♄11'15	
inferior conj	4914 Feb 09 13:42	20°♌23'41 5°35'10	behind sun end	4916 Jul 08 06:25	19°♄18'49	
minimum elong	4914 Feb 09 03:12	20°♌39'45 5°32'28	max. Earth dist.	4916 Jul 08 22:01	20°♄06'51 1.73238 AU	
morning rise	4914 Feb 14 07:55	17°♌33'12		4916 Jul 16 22:38	0°♌	
direct	4914 Mar 02 00:28	12°♌42'39		4916 Aug 10 07:53	0°♌	
greatest brilliancy	4914 Mar 11 16:20	14°♌28'22 -4.9m	evening rise	4916 Aug 13 01:48	3°♌22'32	
	4914 Apr 04 22:44	0°♌		4916 Sep 03 18:18	0°♌	
morning max el	4914 Apr 21 06:35	15°♌12'25 46°47'10		4916 Sep 28 06:38	0°♌	
	4914 May 05 12:25	0°♌		4916 Oct 22 21:59	0°♌	
desc. node	4914 May 09 03:51	3°♌55'48	desc. node	4916 Oct 23 22:49	1°♌15'21	
	4914 Jun 01 11:00	0°♌		4916 Nov 16 17:23	0°♌	
	4914 Jun 27 06:37	0°♄		4916 Dec 11 18:43	0°♌	
	4914 Jul 22 14:23	0°♄		4917 Jan 06 07:52	0°♌	
	4914 Aug 16 14:49	0°♌		4917 Feb 02 03:21	0°♌	
asc. node	4914 Aug 30 05:41	16°♌28'17	evening max el	4917 Feb 11 12:11	9°♌47'16 47°09'21	
	4914 Sep 10 08:48	0°♌	asc. node	4917 Feb 14 00:42	12°♌19'39	
	4914 Oct 04 20:39	0°♌		4917 Mar 05 12:44	0°♌	

greatest brilliancy	4917 Mar 24 02:03	11°♄11'56	-4.9m		4919 Aug 26 04:00	0°♎	
retrograde	4917 Apr 03 07:18	13°♄10'59		max. Earth dist.	4919 Sep 12 13:39	21°♎25'40	1.73321 AU
evening set	4917 Apr 20 22:59	7°♄08'03					
inferior conj	4917 Apr 24 04:23	5°♄08'52	8°19'00	superior conj	4919 Sep 14 08:53	23°♎38'54	1°20'15
minimum elong	4917 Apr 24 12:03	4°♄56'57	8°18'04	minimum elong	4919 Sep 14 03:02	23°♎20'54	1°20'10
min. Earth dist.	4917 Apr 23 22:48	5°♄17'33	0.27609 AU		4919 Sep 19 12:29	0°♎	
morning rise	4917 Apr 28 01:18	2°♄47'08			4919 Oct 13 19:23	0°♎	
	4917 May 03 07:28	30°♄		evening rise	4919 Oct 20 19:20	8°♎39'03	
direct	4917 May 14 23:48	27°♄14'48			4919 Nov 07 01:37	0°♄	
greatest brilliancy	4917 May 24 11:14	28°♄55'39	-4.8m	desc. node	4919 Nov 21 10:47	17°♄47'01	
	4917 May 27 06:41	0°♄			4919 Dec 01 07:51	0°♄	
desc. node	4917 Jun 05 15:30	5°♄02'19			4919 Dec 25 14:25	0°♄	
morning max el	4917 Jul 03 09:45	28°♄11'15	46°02'16		4920 Jan 18 22:17	0°♄	
	4917 Jul 05 06:24	0°♄			4920 Feb 12 10:44	0°♄	
	4917 Aug 02 21:44	0°♄			4920 Mar 08 11:02	0°♄	
	4917 Aug 29 12:41	0°♄		asc. node	4920 Mar 13 12:25	5°♄56'21	
	4917 Sep 24 04:14	0°♄			4920 Apr 03 14:25	0°♄	
asc. node	4917 Sep 26 17:29	3°♄01'52		evening max el	4920 Apr 24 07:30	21°♄53'39	46°25'58
	4917 Oct 19 04:14	0°♄			4920 May 02 17:29	0°♄	
	4917 Nov 12 17:01	0°♄		greatest brilliancy	4920 Jun 02 04:18	21°♄29'37	-4.8m
	4917 Dec 06 22:15	0°♄		retrograde	4920 Jun 13 03:09	23°♄41'59	
morning set	4917 Dec 28 12:02	26°♄55'53		evening set	4920 Jun 28 04:02	19°♄17'40	
	4917 Dec 30 22:52	0°♄		desc. node	4920 Jul 03 03:33	16°♄19'57	
desc. node	4918 Jan 16 08:27	20°♄33'36		inferior conj	4920 Jul 04 12:00	15°♄29'06	-0°19'38
	4918 Jan 23 20:51	0°♄		minimum elong	4920 Jul 04 11:16	15°♄30'15	0°19'26
max. Earth dist.	4918 Feb 06 14:40	17°♄16'22	1.71162 AU	min. Earth dist.	4920 Jul 04 04:05	15°♄41'31	0.28520 AU
				morning rise	4920 Jul 10 18:58	11°♄42'43	
superior conj	4918 Feb 07 04:23	17°♄59'30	-0°49'40	direct	4920 Jul 25 20:32	7°♄20'55	
minimum elong	4918 Feb 06 17:17	17°♄24'37	0°49'12	greatest brilliancy	4920 Aug 04 19:17	9°♄07'45	-4.7m
	4918 Feb 16 17:28	0°♄			4920 Sep 04 23:03	0°♄	
	4918 Mar 12 14:02	0°♄		morning max el	4920 Sep 12 11:19	6°♄56'12	45°42'10
evening rise	4918 Mar 20 03:16	9°♄28'59			4920 Oct 05 02:02	0°♄	
	4918 Apr 05 12:24	0°♄		asc. node	4920 Oct 24 05:25	21°♄11'49	
	4918 Apr 29 14:48	0°♄			4920 Oct 31 21:54	0°♄	
asc. node	4918 May 09 10:14	12°♄07'28			4920 Nov 26 08:19	0°♄	
	4918 May 23 23:25	0°♄			4920 Dec 21 00:40	0°♄	
	4918 Jun 17 16:38	0°♄			4921 Jan 14 07:02	0°♄	
	4918 Jul 12 22:12	0°♄			4921 Feb 07 08:01	0°♄	
	4918 Aug 08 00:05	0°♄		desc. node	4921 Feb 12 20:16	6°♄54'05	
desc. node	4918 Aug 29 01:06	22°♄59'32			4921 Mar 03 06:17	0°♄	
	4918 Sep 04 18:41	0°♄		morning set	4921 Mar 14 21:49	14°♄37'29	
evening max el	4918 Sep 16 15:54	11°♄47'42	45°44'26		4921 Mar 27 03:44	0°♄	
	4918 Oct 07 22:24	0°♄			4921 Apr 20 02:12	0°♄	
greatest brilliancy	4918 Oct 26 04:36	10°♄02'12	-4.8m				
retrograde	4918 Nov 04 10:26	11°♄35'04		superior conj	4921 Apr 24 10:10	5°♄24'59	-1°20'24
evening set	4918 Nov 20 14:00	6°♄37'22		minimum elong	4921 Apr 24 18:12	5°♄50'06	1°20'16
inferior conj	4918 Nov 25 09:34	3°♄43'57	-5°42'57	max. Earth dist.	4921 Apr 28 08:01	10°♄18'05	1.71845 AU
minimum elong	4918 Nov 25 19:44	3°♄28'16	5°40'32		4921 May 14 03:18	0°♄	
min. Earth dist.	4918 Nov 26 08:11	3°♄09'04	0.27694 AU	evening rise	4921 Jun 02 21:07	24°♄29'21	
morning rise	4918 Dec 01 00:53	0°♄21'47		asc. node	4921 Jun 05 22:11	28°♄15'10	
	4918 Dec 01 16:45	30°♄			4921 Jun 07 08:07	0°♄	
direct	4918 Dec 16 11:45	25°♄42'38			4921 Jul 01 17:03	0°♄	
asc. node	4918 Dec 20 02:59	25°♄58'15			4921 Jul 26 06:37	0°♄	
greatest brilliancy	4918 Dec 27 14:23	28°♄01'05	-4.9m		4921 Aug 20 02:17	0°♄	
	4918 Dec 31 22:02	0°♄			4921 Sep 14 06:57	0°♄	
morning max el	4919 Feb 05 01:54	28°♄49'19	46°53'24	desc. node	4921 Sep 25 12:56	13°♄11'43	
	4919 Feb 06 05:39	0°♄			4921 Oct 10 01:32	0°♄	
	4919 Mar 05 18:13	0°♄			4921 Nov 05 20:23	0°♄	
	4919 Mar 31 10:54	0°♄		evening max el	4921 Nov 28 07:31	23°♄26'07	46°40'07
desc. node	4919 Apr 10 18:03	12°♄18'06			4921 Dec 05 03:05	0°♄	
	4919 Apr 25 10:27	0°♄		greatest brilliancy	4922 Jan 07 14:53	23°♄47'51	-4.9m
	4919 May 20 02:43	0°♄		asc. node	4922 Jan 16 14:53	25°♄37'50	
	4919 Jun 13 16:22	0°♄		retrograde	4922 Jan 17 11:47	25°♄38'45	
	4919 Jul 08 05:17	0°♄		evening set	4922 Feb 01 08:02	21°♄18'06	
asc. node	4919 Aug 01 19:50	0°♄07'20		min. Earth dist.	4922 Feb 06 17:12	18°♄08'49	0.26669 AU
	4919 Aug 01 17:26	0°♄		inferior conj	4922 Feb 07 02:02	17°♄55'19	5°15'17
morning set	4919 Aug 08 19:43	8°♄41'59		minimum elong	4922 Feb 06 15:51	18°♄10'53	5°12'35

morning rise	4922 Feb 11 23:38	15° \approx 00'25			4924 Jul 16 09:31	0° Ω	
direct	4922 Feb 27 12:43	10° \approx 13'57			4924 Aug 09 18:48	0° Π	
greatest brilliancy	4922 Mar 09 06:13	12° \approx 01'23	-4.9m	evening rise	4924 Aug 10 20:02	1° Π 17'33	
	4922 Apr 05 07:23	0° X			4924 Sep 03 05:22	0° Ω	
morning max el	4922 Apr 18 20:15	12° X 48'14	46°48'29		4924 Sep 27 18:00	0° Π	
	4922 May 05 07:15	0° Υ			4924 Oct 22 09:50	0° X	
desc. node	4922 May 08 05:54	3° Υ 11'59		desc. node	4924 Oct 23 00:55	0° X 45'45	
	4922 Jun 01 02:01	0° X			4924 Nov 16 05:56	0° Z	
	4922 Jun 26 19:51	0° Π			4924 Dec 11 08:20	0° \approx	
	4922 Jul 22 02:36	0° O			4925 Jan 05 23:23	0° X	
	4922 Aug 16 02:24	0° Ω			4925 Feb 01 23:16	0° Υ	
asc. node	4922 Aug 29 07:34	15° Ω 59'31		evening max el	4925 Feb 09 03:18	7° Υ 26'42	47°09'40
	4922 Sep 09 20:01	0° Π		asc. node	4925 Feb 13 02:37	11° Υ 25'26	
	4922 Oct 04 07:39	0° Ω			4925 Mar 06 05:44	0° X	
morning set	4922 Oct 16 02:02	14° Ω 30'34		greatest brilliancy	4925 Mar 21 16:30	8° X 49'55	-4.9m
	4922 Oct 28 14:20	0° Π		retrograde	4925 Mar 31 21:55	10° X 48'38	
max. Earth dist.	4922 Nov 19 13:44	27° Π 18'30	1.72234 AU	evening set	4925 Apr 18 15:43	4° X 42'15	
	4922 Nov 21 17:36	0° X		inferior conj	4925 Apr 21 18:20	2° X 47'05	8°27'34
				minimum elong	4925 Apr 22 01:21	2° X 36'10	8°26'49
superior conj	4922 Nov 22 07:16	0° X 42'35	0°58'20	min. Earth dist.	4925 Apr 21 11:58	2° X 57'01	0.27576 AU
minimum elong	4922 Nov 22 17:19	1° X 13'51	0°57'58	morning rise	4925 Apr 25 11:13	0° X 31'16	
	4922 Dec 15 18:45	0° Z			4925 Apr 26 08:40	30° R Υ	
desc. node	4922 Dec 18 22:42	3° Z 57'14		direct	4925 May 12 13:54	24° Υ 53'53	
evening rise	4922 Dec 31 14:47	19° Z 47'48		greatest brilliancy	4925 May 21 23:32	26° Υ 33'21	-4.8m
	4923 Jan 08 18:31	0° \approx			4925 May 29 16:20	0° X	
	4923 Feb 01 17:39	0° X		desc. node	4925 Jun 04 17:39	3° X 41'48	
	4923 Feb 25 17:42	0° Υ		morning max el	4925 Jul 01 00:07	25° X 53'51	46°03'34
	4923 Mar 21 21:32	0° X			4925 Jul 05 04:20	0° Π	
asc. node	4923 Apr 11 00:22	24° X 40'50			4925 Aug 02 13:30	0° O	
	4923 Apr 15 09:26	0° Π			4925 Aug 29 02:05	0° Ω	
	4923 May 10 11:30	0° O			4925 Sep 23 16:27	0° Π	
	4923 Jun 05 14:57	0° Ω		asc. node	4925 Sep 25 19:33	2° Π 31'54	
	4923 Jul 04 03:07	0° Π			4925 Oct 18 15:49	0° Ω	
evening max el	4923 Jul 04 21:21	0° Π 44'14	45°37'21		4925 Nov 12 04:16	0° Π	
desc. node	4923 Jul 31 15:21	22° Π 56'38			4925 Dec 06 09:21	0° X	
greatest brilliancy	4923 Aug 12 04:12	28° Π 50'26	-4.7m	morning set	4925 Dec 26 00:54	24° X 31'25	
	4923 Aug 15 23:12	0° Ω			4925 Dec 30 09:56	0° Z	
retrograde	4923 Aug 22 18:18	0° Ω 51'31		desc. node	4926 Jan 15 10:25	20° Z 05'01	
	4923 Aug 29 07:48	30° R Π			4926 Jan 23 07:54	0° \approx	
evening set	4923 Sep 09 01:43	25° Π 11'11		max. Earth dist.	4926 Feb 03 18:48	14° \approx 23'46	1.71170 AU
inferior conj	4923 Sep 13 06:16	22° Π 36'46	-8°00'59				
minimum elong	4923 Sep 12 23:29	22° Π 47'24	8°00'17	superior conj	4926 Feb 04 15:02	15° \approx 27'22	-0°46'21
min. Earth dist.	4923 Sep 13 06:06	22° Π 37'02	0.29125 AU	minimum elong	4926 Feb 04 04:25	14° \approx 54'00	0°45'53
morning rise	4923 Sep 16 21:12	20° Π 22'33			4926 Feb 16 04:31	0° X	
direct	4923 Oct 04 20:51	14° Π 18'02			4926 Mar 12 01:05	0° Υ	
greatest brilliancy	4923 Oct 15 10:29	16° Π 19'51	-4.8m	evening rise	4926 Mar 17 13:56	6° Υ 57'06	
	4923 Nov 06 11:19	0° Ω			4926 Apr 04 23:29	0° X	
asc. node	4923 Nov 21 17:12	13° Ω 44'03			4926 Apr 29 02:00	0° Π	
morning max el	4923 Nov 23 09:56	15° Ω 23'42	46°10'15	asc. node	4926 May 08 12:21	11° Π 39'13	
	4923 Dec 07 13:43	0° Π			4926 May 23 10:53	0° O	
	4924 Jan 03 06:30	0° X			4926 Jun 17 04:35	0° Ω	
	4924 Jan 28 12:13	0° Z			4926 Jul 12 11:04	0° Π	
	4924 Feb 22 02:18	0° \approx			4926 Aug 07 14:49	0° Ω	
desc. node	4924 Mar 12 08:05	23° \approx 45'33		desc. node	4926 Aug 28 03:06	22° Ω 18'10	
	4924 Mar 17 08:55	0° X			4926 Sep 04 14:05	0° Π	
	4924 Apr 10 12:20	0° Υ		evening max el	4926 Sep 14 05:26	9° Π 30'16	45°43'05
	4924 May 04 15:13	0° X			4926 Oct 08 18:13	0° X	
morning set	4924 May 28 06:23	29° X 19'46		greatest brilliancy	4926 Oct 23 18:56	7° X 45'14	-4.8m
	4924 May 28 19:22	0° Π		retrograde	4926 Nov 01 23:28	9° X 17'17	
	4924 Jun 22 01:32	0° O		evening set	4926 Nov 18 07:04	4° X 14'55	
asc. node	4924 Jul 03 09:58	14° O 00'15		inferior conj	4926 Nov 22 23:50	1° X 25'28	-5°59'02
				minimum elong	4926 Nov 23 10:05	1° X 09'37	5°56'42
superior conj	4924 Jul 05 03:53	16° O 09'27	0°04'14	min. Earth dist.	4926 Nov 23 23:05	0° X 49'32	0.27763 AU
minimum elong	4924 Jul 05 02:57	16° O 06'35	0°04'10		4926 Nov 25 07:21	30° R Π	
behind sun begin	4924 Jul 04 04:22	14° O 56'58		morning rise	4926 Nov 28 12:29	28° Π 06'33	
behind sun end	4924 Jul 06 01:32	17° O 16'12		direct	4926 Dec 14 02:04	23° Π 22'58	
max. Earth dist.	4924 Jul 06 19:32	18° O 11'41	1.73208 AU	asc. node	4926 Dec 19 05:00	23° Π 53'31	

greatest brilliancy	4926 Dec 25 06:12	25° \mathbb{M} 42'09	-4.9m		4929 Jun 06 18:52	0° \mathfrak{C}	
	4927 Jan 02 15:41	0° \mathfrak{A}			4929 Jul 01 03:52	0° \mathcal{O}	
morning max el	4927 Feb 02 15:21	26° \mathfrak{A} 24'56	46°52'33		4929 Jul 25 17:41	0° \mathfrak{M}	
	4927 Feb 06 03:12	0° \mathfrak{Z}			4929 Aug 19 13:52	0° \mathfrak{L}	
	4927 Mar 05 10:12	0° \approx			4929 Sep 13 19:25	0° \mathbb{M}	
	4927 Mar 31 00:40	0° \mathfrak{H}		desc. node	4929 Sep 24 15:00	12° \mathbb{M} 39'47	
desc. node	4927 Apr 09 20:06	11° \mathfrak{H} 44'39			4929 Oct 09 15:37	0° \mathfrak{A}	
	4927 Apr 24 23:02	0° \mathfrak{Y}			4929 Nov 05 13:45	0° \mathfrak{Z}	
	4927 May 19 14:33	0° \mathfrak{B}		evening max el	4929 Nov 25 21:17	21° \mathfrak{Z} 04'39	46°38'12
	4927 Jun 13 03:42	0° \mathbb{I}			4929 Dec 05 06:25	0° \approx	
	4927 Jul 07 16:17	0° \mathfrak{C}		greatest brilliancy	4930 Jan 05 03:11	21° \approx 20'05	-4.9m
asc. node	4927 Jul 31 21:44	29° \mathfrak{C} 40'05		retrograde	4930 Jan 15 00:46	23° \approx 11'18	
	4927 Aug 01 04:14	0° \mathcal{O}		asc. node	4930 Jan 15 16:47	23° \approx 10'45	
morning set	4927 Aug 06 13:19	6° \mathcal{O} 35'46		evening set	4930 Jan 29 17:54	18° \approx 53'55	
	4927 Aug 25 14:41	0° \mathfrak{M}		inferior conj	4930 Feb 04 14:23	15° \approx 27'57	4°54'54
max. Earth dist.	4927 Sep 10 08:00	19° \mathfrak{M} 21'30	1.73344 AU	minimum elong	4930 Feb 04 04:35	15° \approx 42'54	4°52'12
				min. Earth dist.	4930 Feb 04 06:12	15° \approx 40'26	0.26663 AU
superior conj	4927 Sep 12 03:01	21° \mathfrak{M} 34'02	1°19'06	morning rise	4930 Feb 09 15:17	12° \approx 28'50	
minimum elong	4927 Sep 11 20:41	21° \mathfrak{M} 14'31	1°19'00	direct	4930 Feb 25 01:31	7° \approx 46'26	
	4927 Sep 18 23:09	0° \mathfrak{L}		greatest brilliancy	4930 Mar 06 19:37	9° \approx 34'54	-4.9m
	4927 Oct 13 06:08	0° \mathbb{M}			4930 Apr 05 13:11	0° \mathfrak{H}	
evening rise	4927 Oct 18 11:59	6° \mathbb{M} 28'49		morning max el	4930 Apr 16 10:41	10° \mathfrak{H} 27'00	46°49'37
	4927 Nov 06 12:34	0° \mathfrak{A}			4930 May 05 01:16	0° \mathfrak{Y}	
desc. node	4927 Nov 20 12:49	17° \mathfrak{A} 19'02		desc. node	4930 May 07 07:57	2° \mathfrak{Y} 29'40	
	4927 Nov 30 19:06	0° \mathfrak{Z}			4930 May 31 16:31	0° \mathfrak{B}	
	4927 Dec 25 02:02	0° \approx			4930 Jun 26 08:39	0° \mathbb{I}	
	4928 Jan 18 10:23	0° \mathfrak{H}			4930 Jul 21 14:24	0° \mathfrak{C}	
	4928 Feb 11 23:33	0° \mathfrak{Y}			4930 Aug 15 13:34	0° \mathcal{O}	
	4928 Mar 08 01:08	0° \mathfrak{B}		asc. node	4930 Aug 28 09:41	15° \mathcal{O} 32'40	
asc. node	4928 Mar 12 14:29	5° \mathfrak{B} 20'17			4930 Sep 09 06:48	0° \mathfrak{M}	
	4928 Apr 03 07:18	0° \mathbb{I}			4930 Oct 03 18:17	0° \mathfrak{L}	
evening max el	4928 Apr 21 21:25	19° \mathbb{I} 34'34	46°28'09	morning set	4930 Oct 13 19:07	12° \mathfrak{L} 22'23	
	4928 May 02 19:48	0° \mathfrak{C}			4930 Oct 28 00:56	0° \mathbb{M}	
greatest brilliancy	4928 May 30 21:14	19° \mathfrak{C} 18'40	-4.8m	max. Earth dist.	4930 Nov 17 05:19	25° \mathbb{M} 04'28	1.72281 AU
retrograde	4928 Jun 10 19:12	21° \mathfrak{C} 30'46					
evening set	4928 Jun 25 20:42	17° \mathfrak{C} 05'21		superior conj	4930 Nov 19 22:22	28° \mathbb{M} 26'55	1°00'50
inferior conj	4928 Jul 02 03:57	13° \mathfrak{C} 18'10	0°00'52	minimum elong	4930 Nov 20 08:22	28° \mathbb{M} 58'06	1°00'30
minimum elong	4928 Jul 02 03:59	13° \mathfrak{C} 18'07	0°00'51		4930 Nov 21 04:15	0° \mathfrak{A}	
transit middle	4928 Jul 02 03:59	13° \mathfrak{C} 18'07	0°00'51		4930 Dec 15 05:30	0° \mathfrak{Z}	
transit begin	4928 Jul 01 23:56	13° \mathfrak{C} 24'27		desc. node	4930 Dec 18 00:39	3° \mathfrak{Z} 29'39	
transit end	4928 Jul 02 08:02	13° \mathfrak{C} 11'46		evening rise	4930 Dec 29 03:20	17° \mathfrak{Z} 23'03	
min. Earth dist.	4928 Jul 01 20:39	13° \mathfrak{C} 29'37	0.28487 AU		4931 Jan 08 05:24	0° \approx	
desc. node	4928 Jul 02 05:23	13° \mathfrak{C} 15'55			4931 Feb 01 04:42	0° \mathfrak{H}	
morning rise	4928 Jul 08 11:41	9° \mathfrak{C} 30'47			4931 Feb 25 04:58	0° \mathfrak{Y}	
direct	4928 Jul 23 11:26	5° \mathfrak{C} 10'16			4931 Mar 21 09:09	0° \mathfrak{B}	
greatest brilliancy	4928 Aug 02 11:18	6° \mathfrak{C} 57'51	-4.7m	asc. node	4931 Apr 10 02:27	24° \mathfrak{B} 10'37	
	4928 Sep 05 00:24	0° \mathcal{O}			4931 Apr 14 21:35	0° \mathbb{I}	
morning max el	4928 Sep 10 02:43	4° \mathcal{O} 45'19	45°42'02		4931 May 10 00:41	0° \mathfrak{C}	
	4928 Oct 04 18:16	0° \mathfrak{M}			4931 Jun 05 06:21	0° \mathcal{O}	
asc. node	4928 Oct 23 07:29	20° \mathfrak{M} 37'40		evening max el	4931 Jul 02 14:09	28° \mathcal{O} 36'03	45°38'24
	4928 Oct 31 11:22	0° \mathfrak{L}			4931 Jul 04 01:01	0° \mathfrak{M}	
	4928 Nov 25 20:34	0° \mathbb{M}		desc. node	4931 Jul 30 17:23	21° \mathfrak{M} 41'08	
	4928 Dec 20 12:19	0° \mathfrak{A}		greatest brilliancy	4931 Aug 09 19:05	26° \mathfrak{M} 41'00	-4.7m
	4929 Jan 13 18:21	0° \mathfrak{Z}		retrograde	4931 Aug 20 10:44	28° \mathfrak{M} 43'06	
	4929 Feb 06 19:09	0° \approx		evening set	4931 Sep 06 15:01	23° \mathfrak{M} 07'16	
desc. node	4929 Feb 11 22:12	6° \approx 25'22		inferior conj	4931 Sep 10 22:35	20° \mathfrak{M} 28'05	-7°53'28
	4929 Mar 02 17:18	0° \mathfrak{H}		minimum elong	4931 Sep 10 15:15	20° \mathfrak{M} 39'34	7°52'38
morning set	4929 Mar 12 07:43	12° \mathfrak{H} 03'26		min. Earth dist.	4931 Sep 10 21:04	20° \mathfrak{M} 30'26	0.29129 AU
	4929 Mar 26 14:39	0° \mathfrak{Y}		morning rise	4931 Sep 14 15:30	18° \mathfrak{M} 10'46	
	4929 Apr 19 13:02	0° \mathfrak{B}		direct	4931 Oct 02 13:45	12° \mathfrak{M} 09'40	
				greatest brilliancy	4931 Oct 13 01:01	14° \mathfrak{M} 09'23	-4.8m
superior conj	4929 Apr 21 22:27	2° \mathfrak{B} 59'35	-1°21'48		4931 Nov 06 18:05	0° \mathfrak{L}	
minimum elong	4929 Apr 22 05:50	3° \mathfrak{B} 22'38	1°21'41	asc. node	4931 Nov 20 19:12	12° \mathfrak{L} 55'33	
max. Earth dist.	4929 Apr 25 15:46	7° \mathfrak{B} 38'41	1.71793 AU	morning max el	4931 Nov 21 01:33	13° \mathfrak{L} 11'10	46°08'34
	4929 May 13 14:05	0° \mathbb{I}			4931 Dec 07 07:07	0° \mathbb{M}	
evening rise	4929 May 31 11:42	22° \mathbb{I} 12'44			4932 Jan 02 20:36	0° \mathfrak{A}	
asc. node	4929 Jun 05 00:10	27° \mathbb{I} 48'06			4932 Jan 28 00:56	0° \mathfrak{Z}	

	4932 Feb 21 14:16	0°♊		4934 Aug 07 05:34	0°♎
desc. node	4932 Mar 11 10:15	23°♊16'17	desc. node	4934 Aug 27 05:13	21°♎37'01
	4932 Mar 16 20:25	0°♋		4934 Sep 04 09:52	0°♎
	4932 Apr 09 23:31	0°♌	evening max el	4934 Sep 11 18:40	7°♎12'46 45°41'53
	4932 May 04 02:09	0°♍		4934 Oct 09 20:51	0°♏
morning set	4932 May 25 21:11	27°♍03'37	greatest brilliancy	4934 Oct 21 08:56	5°♏28'46 -4.8m
	4932 May 28 06:07	0°♎	retrograde	4934 Oct 30 12:51	7°♏00'42
	4932 Jun 21 12:09	0°♏	evening set	4934 Nov 16 00:09	1°♏53'19
asc. node	4932 Jul 02 11:55	13°♏33'34		4934 Nov 19 04:24	30°♏♎
			inferior conj	4934 Nov 20 14:09	29°♎08'01 -6°14'25
superior conj	4932 Jul 02 20:13	13°♏59'13 0°00'51	minimum elong	4934 Nov 21 00:26	28°♎52'08 6°12'11
minimum elong	4932 Jul 02 20:03	13°♏58'41 0°00'49	min. Earth dist.	4934 Nov 21 13:56	28°♎31'16 0.27830 AU
behind sun begin	4932 Jul 01 20:50	12°♏47'07	morning rise	4934 Nov 26 00:02	25°♎52'49
behind sun end	4932 Jul 03 19:15	15°♏10'14	direct	4934 Dec 11 16:24	21°♎04'15
max. Earth dist.	4932 Jul 04 16:40	16°♏16'14 1.73175 AU	asc. node	4934 Dec 18 06:54	21°♎54'28
	4932 Jul 15 20:04	0°♐	greatest brilliancy	4934 Dec 22 22:09	23°♎24'38 -4.9m
evening rise	4932 Aug 08 14:14	29°♐13'25		4935 Jan 03 19:53	0°♑
	4932 Aug 09 05:24	0°♑	morning max el	4935 Jan 31 05:24	24°♑03'02 46°51'39
	4932 Sep 02 16:06	0°♒		4935 Feb 05 23:41	0°♑
	4932 Sep 27 05:01	0°♓		4935 Mar 05 01:41	0°♒
	4932 Oct 21 21:19	0°♑		4935 Mar 30 14:09	0°♋
desc. node	4932 Oct 22 02:59	0°♑17'10	desc. node	4935 Apr 08 22:06	11°♋11'33
	4932 Nov 15 18:09	0°♌		4935 Apr 24 11:26	0°♌
	4932 Dec 10 21:44	0°♍		4935 May 19 02:17	0°♍
	4933 Jan 05 14:52	0°♋		4935 Jun 12 14:58	0°♎
	4933 Feb 01 19:36	0°♌		4935 Jul 07 03:13	0°♏
evening max el	4933 Feb 06 17:47	5°♌04'52 47°09'46	asc. node	4935 Jul 30 23:49	29°♏13'37
asc. node	4933 Feb 12 04:43	10°♌31'04		4935 Jul 31 14:57	0°♐
	4933 Mar 07 04:31	0°♍	morning set	4935 Aug 04 06:35	4°♐28'45
greatest brilliancy	4933 Mar 19 07:27	6°♍28'31 -4.9m		4935 Aug 25 01:17	0°♑
retrograde	4933 Mar 29 11:50	8°♍26'07	max. Earth dist.	4935 Sep 08 03:59	17°♑22'33 1.73367 AU
evening set	4933 Apr 16 08:04	2°♍16'49			
inferior conj	4933 Apr 19 08:07	0°♍25'23 8°35'24	superior conj	4935 Sep 09 20:59	19°♑28'50 1°17'52
minimum elong	4933 Apr 19 14:25	0°♍15'35 8°34'47	minimum elong	4935 Sep 09 14:11	19°♑07'53 1°17'43
min. Earth dist.	4933 Apr 19 01:16	0°♍36'04 0.27540 AU		4935 Sep 18 09:45	0°♒
	4933 Apr 20 00:25	30°♑♌		4935 Oct 12 16:50	0°♓
morning rise	4933 Apr 22 20:58	28°♌15'20	evening rise	4935 Oct 16 04:45	4°♓19'11
direct	4933 May 10 03:18	22°♌33'02		4935 Nov 05 23:29	0°♑
greatest brilliancy	4933 May 19 12:06	24°♌11'33 -4.8m	desc. node	4935 Nov 19 14:45	16°♑50'53
	4933 May 31 05:07	0°♍		4935 Nov 30 06:16	0°♌
desc. node	4933 Jun 03 19:35	2°♍23'58		4935 Dec 24 13:33	0°♍
morning max el	4933 Jun 28 13:28	23°♍34'31 46°04'56		4936 Jan 17 22:22	0°♋
	4933 Jul 05 01:10	0°♎		4936 Feb 11 12:18	0°♌
	4933 Aug 02 04:44	0°♏		4936 Mar 07 15:15	0°♍
	4933 Aug 28 15:05	0°♐	asc. node	4936 Mar 11 16:30	4°♍44'03
	4933 Sep 23 04:20	0°♑		4936 Apr 03 00:30	0°♎
asc. node	4933 Sep 24 21:35	2°♑02'48	evening max el	4936 Apr 19 11:58	17°♑16'55 46°30'13
	4933 Oct 18 03:04	0°♒		4936 May 02 23:53	0°♏
	4933 Nov 11 15:12	0°♓	greatest brilliancy	4936 May 28 13:31	17°♏06'06 -4.8m
	4933 Dec 05 20:08	0°♑	retrograde	4936 Jun 08 11:26	19°♏18'31
morning set	4933 Dec 23 14:05	22°♑08'53	evening set	4936 Jun 23 13:18	14°♏51'37
	4933 Dec 29 20:40	0°♌	inferior conj	4936 Jun 29 19:40	11°♏06'02 0°21'42
desc. node	4934 Jan 14 12:25	19°♌37'30	minimum elong	4936 Jun 29 20:29	11°♏04'46 0°21'27
	4934 Jan 22 18:41	0°♍	min. Earth dist.	4936 Jun 29 12:47	11°♏16'49 0.28456 AU
max. Earth dist.	4934 Jan 31 22:24	11°♍30'21 1.71189 AU	desc. node	4936 Jul 01 07:27	10°♏10'11
			morning rise	4936 Jul 06 04:03	7°♏18'05
superior conj	4934 Feb 02 01:42	12°♍56'07 -0°42'56	direct	4936 Jul 21 02:24	2°♏58'22
minimum elong	4934 Feb 01 15:38	12°♍24'31 0°42'29	greatest brilliancy	4936 Jul 31 02:50	4°♏46'38 -4.7m
	4934 Feb 15 15:21	0°♋		4936 Sep 05 00:39	0°♐
	4934 Mar 11 11:57	0°♌	morning max el	4936 Sep 07 18:45	2°♐35'41 45°41'58
evening rise	4934 Mar 15 00:12	4°♌24'32		4936 Oct 04 10:18	0°♑
	4934 Apr 04 10:24	0°♍	asc. node	4936 Oct 22 09:26	20°♑03'15
	4934 Apr 28 13:03	0°♎		4936 Oct 31 00:47	0°♒
asc. node	4934 May 07 14:16	11°♎10'50		4936 Nov 25 08:49	0°♓
	4934 May 22 22:12	0°♏		4936 Dec 19 23:59	0°♑
	4934 Jun 16 16:25	0°♐		4937 Jan 13 05:42	0°♌
	4934 Jul 11 23:51	0°♑		4937 Feb 06 06:17	0°♍





































































































































desc. node	4937 Feb 11 00:21	5°≈57'18		inferior conj	4939 Sep 08 14:58	18°♐18'46	-7°45'16
	4937 Mar 02 04:16	0°♏		minimum elong	4939 Sep 08 07:10	18°♐31'01	7°44'17
morning set	4937 Mar 09 18:04	9°♏30'48		min. Earth dist.	4939 Sep 08 12:33	18°♐22'33	0.29133 AU
	4937 Mar 26 01:32	0°♐		morning rise	4939 Sep 12 10:01	15°♐58'01	
	4937 Apr 18 23:52	0°♑		direct	4939 Sep 30 06:26	10°♐00'37	
				greatest brilliancy	4939 Oct 10 16:10	11°♐58'37	-4.7m
superior conj	4937 Apr 19 10:51	0°♑34'22	-1°23'01		4939 Nov 06 23:11	0°♑	
minimum elong	4937 Apr 19 17:28	0°♑55'04	1°22'56	morning max el	4939 Nov 18 16:18	10°♑55'31	46°06'55
max. Earth dist.	4937 Apr 23 01:28	5°♑05'13	1.71748 AU	asc. node	4939 Nov 19 21:11	12°♑06'48	
	4937 May 13 00:54	0°♒			4939 Dec 07 00:29	0°♒	
evening rise	4937 May 29 02:10	19°♒55'29			4940 Jan 02 10:53	0°♒	
asc. node	4937 Jun 04 02:07	27°♒20'37			4940 Jan 27 13:52	0°♓	
	4937 Jun 06 05:43	0°♓			4940 Feb 21 02:29	0°♓	
	4937 Jun 30 14:51	0°♈		desc. node	4940 Mar 10 12:09	22°♓45'20	
	4937 Jul 25 04:57	0°♈			4940 Mar 16 08:13	0°♈	
	4937 Aug 19 01:39	0°♉			4940 Apr 09 10:59	0°♐	
	4937 Sep 13 08:09	0°♊			4940 May 03 13:21	0°♑	
desc. node	4937 Sep 23 17:02	12°♊07'05		morning set	4940 May 23 12:15	24°♑47'27	
	4937 Oct 09 06:03	0°♊			4940 May 27 17:05	0°♒	
	4937 Nov 05 07:44	0°♓			4940 Jun 20 22:58	0°♓	
evening max el	4937 Nov 23 11:56	18°♓44'54	46°36'14				
	4937 Dec 05 11:49	0°♈		superior conj	4940 Jun 30 12:57	11°♈49'29	-0°02'32
greatest brilliancy	4938 Jan 02 15:34	18°♈52'01	-4.9m	minimum elong	4940 Jun 30 13:30	11°♈51'11	0°02'31
retrograde	4938 Jan 12 13:46	20°♈43'14		behind sun begin	4940 Jun 29 14:23	10°♈39'54	
asc. node	4938 Jan 14 18:57	20°♈37'12		behind sun end	4940 Jul 01 12:36	13°♈02'27	
evening set	4938 Jan 27 04:05	16°♈29'09		asc. node	4940 Jul 01 14:01	13°♈06'49	
inferior conj	4938 Feb 02 02:43	13°♈00'09	4°33'54	max. Earth dist.	4940 Jul 02 13:53	14°♈20'23	1.73140 AU
minimum elong	4938 Feb 01 17:23	13°♈14'23	4°31'15		4940 Jul 15 06:52	0°♉	
min. Earth dist.	4938 Feb 01 19:13	13°♈11'35	0.26653 AU	evening rise	4940 Aug 06 08:41	27°♉09'18	
morning rise	4938 Feb 07 06:46	9°♈56'53			4940 Aug 08 16:15	0°♊	
direct	4938 Feb 22 14:39	5°♈18'46			4940 Sep 02 03:09	0°♊	
greatest brilliancy	4938 Mar 04 08:44	7°♈07'41	-4.9m		4940 Sep 26 16:23	0°♋	
	4938 Apr 05 17:08	0°♈		desc. node	4940 Oct 21 04:53	29°♋46'59	
morning max el	4938 Apr 14 00:48	8°♈04'50	46°50'46		4940 Oct 21 09:11	0°♊	
	4938 May 04 18:54	0°♐			4940 Nov 15 06:49	0°♓	
desc. node	4938 May 06 09:56	1°♐47'31			4940 Dec 10 11:37	0°♈	
	4938 May 31 06:54	0°♑			4941 Jan 05 06:58	0°♈	
	4938 Jun 25 21:29	0°♒			4941 Feb 01 17:03	0°♐	
	4938 Jul 21 02:19	0°♓		evening max el	4941 Feb 04 07:15	2°♐39'20	47°09'47
	4938 Aug 15 00:57	0°♈		asc. node	4941 Feb 11 06:44	9°♐34'11	
asc. node	4938 Aug 27 11:43	15°♈04'51			4941 Mar 08 12:58	0°♑	
	4938 Sep 08 17:50	0°♈		greatest brilliancy	4941 Mar 16 22:47	4°♑06'16	-4.9m
	4938 Oct 03 05:09	0°♉		retrograde	4941 Mar 27 01:27	6°♑02'29	
morning set	4938 Oct 11 12:04	10°♉13'08			4941 Apr 13 17:59	30°♑	
	4938 Oct 27 11:46	0°♊		evening set	4941 Apr 14 00:11	29°♐50'36	
max. Earth dist.	4938 Nov 14 19:20	22°♊45'00	1.72326 AU	inferior conj	4941 Apr 16 21:56	28°♐02'40	8°42'20
				minimum elong	4941 Apr 17 03:28	27°♐54'01	8°41'52
superior conj	4938 Nov 17 13:27	26°♊10'40	1°03'14	min. Earth dist.	4941 Apr 16 14:59	28°♐13'30	0.27503 AU
minimum elong	4938 Nov 17 23:23	26°♊41'34	1°02'55	morning rise	4941 Apr 20 06:55	25°♐58'12	
	4938 Nov 20 15:08	0°♊		direct	4941 May 07 16:08	20°♐10'54	
	4938 Dec 14 16:30	0°♓		greatest brilliancy	4941 May 17 01:19	21°♐49'18	-4.8m
desc. node	4938 Dec 17 02:40	3°♓01'34			4941 Jun 01 07:35	0°♑	
evening rise	4938 Dec 26 15:52	14°♓57'30		desc. node	4941 Jun 02 21:36	1°♑07'40	
	4939 Jan 07 16:34	0°♈		morning max el	4941 Jun 26 02:37	21°♑13'40	46°06'35
	4939 Jan 31 16:02	0°♈			4941 Jul 04 21:36	0°♒	
	4939 Feb 24 16:31	0°♐			4941 Aug 01 19:58	0°♓	
	4939 Mar 20 20:59	0°♑			4941 Aug 28 04:13	0°♈	
asc. node	4939 Apr 09 04:24	23°♑39'26			4941 Sep 22 16:26	0°♈	
	4939 Apr 14 09:57	0°♒		asc. node	4941 Sep 23 23:31	1°♈32'39	
	4939 May 09 14:06	0°♓			4941 Oct 17 14:37	0°♉	
	4939 Jun 04 22:08	0°♈			4941 Nov 11 02:28	0°♊	
evening max el	4939 Jun 30 06:33	26°♈26'16	45°39'15		4941 Dec 05 07:16	0°♊	
	4939 Jul 04 00:06	0°♈		morning set	4941 Dec 21 03:18	19°♊45'23	
desc. node	4939 Jul 29 19:30	20°♈22'36			4941 Dec 29 07:47	0°♓	
greatest brilliancy	4939 Aug 07 10:38	24°♈31'31	-4.7m	desc. node	4942 Jan 13 14:33	19°♓09'18	
retrograde	4939 Aug 18 02:43	26°♈33'54			4942 Jan 22 05:48	0°♈	
evening set	4939 Sep 04 04:20	21°♈02'47		max. Earth dist.	4942 Jan 29 03:49	8°♈41'32	1.71210 AU

superior conj	4942 Jan 30 12:17	10° \approx 23'35	-0°39'26	direct	4944 Jul 18 17:50	0° \approx 45'38	
minimum elong	4942 Jan 30 02:51	9° \approx 53'57	0°39'00	greatest brilliancy	4944 Jul 28 17:45	2° \approx 34'01	-4.7m
	4942 Feb 15 02:30	0° \approx			4944 Sep 04 23:58	0° \approx	
	4942 Mar 10 23:09	0° \approx		morning max el	4944 Sep 05 11:23	0° \approx 27'08	45°42'05
evening rise	4942 Mar 12 10:31	1° \approx 51'00			4944 Oct 04 02:10	0° \approx	
	4942 Apr 03 21:41	0° \approx		asc. node	4944 Oct 21 11:28	19° \approx 29'01	
	4942 Apr 28 00:28	0° \approx			4944 Oct 30 14:09	0° \approx	
asc. node	4942 May 06 16:18	10° \approx 41'40			4944 Nov 24 21:05	0° \approx	
	4942 May 22 09:53	0° \approx			4944 Dec 19 11:43	0° \approx	
	4942 Jun 16 04:35	0° \approx			4945 Jan 12 17:10	0° \approx	
	4942 Jul 11 12:58	0° \approx			4945 Feb 05 17:35	0° \approx	
	4942 Aug 06 20:44	0° \approx		desc. node	4945 Feb 10 02:19	5° \approx 28'05	
desc. node	4942 Aug 26 07:11	20° \approx 54'25			4945 Mar 01 15:28	0° \approx	
	4942 Sep 04 06:32	0° \approx		morning set	4945 Mar 07 03:58	6° \approx 56'00	
evening max el	4942 Sep 09 08:14	4° \approx 55'40	45°40'42		4945 Mar 25 12:38	0° \approx	
	4942 Oct 11 11:13	0° \approx					
greatest brilliancy	4942 Oct 18 22:16	3° \approx 11'15	-4.8m	superior conj	4945 Apr 16 22:37	28° \approx 06'27	-1°24'06
retrograde	4942 Oct 28 02:48	4° \approx 43'55		minimum elong	4945 Apr 17 04:24	28° \approx 24'32	1°24'02
	4942 Nov 12 21:00	30° \approx			4945 Apr 18 10:54	0° \approx	
evening set	4942 Nov 13 17:23	29° \approx 31'13		max. Earth dist.	4945 Apr 20 12:30	2° \approx 35'11	1.71702 AU
inferior conj	4942 Nov 18 04:36	26° \approx 50'03	-6°29'04		4945 May 12 11:53	0° \approx	
minimum elong	4942 Nov 18 14:51	26° \approx 34'14	6°26'57	evening rise	4945 May 26 16:11	17° \approx 36'17	
min. Earth dist.	4942 Nov 19 04:35	26° \approx 13'02	0.27904 AU	asc. node	4945 Jun 03 04:14	26° \approx 53'14	
morning rise	4942 Nov 23 11:39	23° \approx 38'57			4945 Jun 05 16:43	0° \approx	
direct	4942 Dec 09 07:23	18° \approx 44'57			4945 Jun 30 01:58	0° \approx	
asc. node	4942 Dec 17 09:03	19° \approx 59'20			4945 Jul 24 16:21	0° \approx	
greatest brilliancy	4942 Dec 20 14:08	21° \approx 06'30	-4.9m		4945 Aug 18 13:34	0° \approx	
	4943 Jan 04 16:54	0° \approx			4945 Sep 12 21:00	0° \approx	
morning max el	4943 Jan 28 20:34	21° \approx 42'55	46°50'40	desc. node	4945 Sep 22 19:00	11° \approx 34'01	
	4943 Feb 05 19:58	0° \approx			4945 Oct 08 20:35	0° \approx	
	4943 Mar 04 17:20	0° \approx			4945 Nov 05 02:01	0° \approx	
	4943 Mar 30 03:52	0° \approx		evening max el	4945 Nov 21 02:47	16° \approx 26'16	46°34'09
desc. node	4943 Apr 08 00:06	10° \approx 37'38			4945 Dec 05 19:11	0° \approx	
	4943 Apr 24 00:05	0° \approx		greatest brilliancy	4945 Dec 31 04:12	16° \approx 25'00	-4.9m
	4943 May 18 14:15	0° \approx		retrograde	4946 Jan 10 02:26	18° \approx 15'34	
	4943 Jun 12 02:29	0° \approx		asc. node	4946 Jan 13 20:54	17° \approx 58'10	
	4943 Jul 06 14:25	0° \approx		evening set	4946 Jan 24 14:40	14° \approx 04'41	
asc. node	4943 Jul 30 01:52	28° \approx 46'15		inferior conj	4946 Jan 30 15:11	10° \approx 32'49	4°12'18
	4943 Jul 31 01:55	0° \approx		minimum elong	4946 Jan 30 06:24	10° \approx 46'14	4°09'46
morning set	4943 Aug 02 00:12	2° \approx 21'58		min. Earth dist.	4946 Jan 30 08:34	10° \approx 42'55	0.26652 AU
	4943 Aug 24 12:06	0° \approx		morning rise	4946 Feb 04 22:13	7° \approx 25'21	
max. Earth dist.	4943 Sep 06 02:03	15° \approx 29'22	1.73383 AU	direct	4946 Feb 20 03:52	2° \approx 51'32	
				greatest brilliancy	4946 Mar 01 22:20	4° \approx 40'51	-4.9m
superior conj	4943 Sep 07 15:20	17° \approx 24'16	1°16'31		4946 Apr 05 19:38	0° \approx	
minimum elong	4943 Sep 07 08:06	17° \approx 01'58	1°16'21	morning max el	4946 Apr 11 14:10	5° \approx 40'14	46°51'39
	4943 Sep 17 20:32	0° \approx			4946 May 04 12:20	0° \approx	
	4943 Oct 12 03:44	0° \approx		desc. node	4946 May 05 11:59	1° \approx 05'35	
evening rise	4943 Oct 13 22:03	2° \approx 10'40			4946 May 30 21:16	0° \approx	
	4943 Nov 05 10:36	0° \approx			4946 Jun 25 10:18	0° \approx	
desc. node	4943 Nov 18 16:52	16° \approx 22'38			4946 Jul 20 14:14	0° \approx	
	4943 Nov 29 17:43	0° \approx			4946 Aug 14 12:17	0° \approx	
	4943 Dec 24 01:22	0° \approx		asc. node	4946 Aug 26 13:37	14° \approx 36'44	
	4944 Jan 17 10:44	0° \approx			4946 Sep 08 04:50	0° \approx	
	4944 Feb 11 01:28	0° \approx			4946 Oct 02 15:58	0° \approx	
	4944 Mar 07 05:52	0° \approx		morning set	4946 Oct 09 05:13	8° \approx 04'42	
asc. node	4944 Mar 10 18:27	4° \approx 06'21			4946 Oct 26 22:31	0° \approx	
	4944 Apr 02 18:25	0° \approx		max. Earth dist.	4946 Nov 12 08:30	20° \approx 23'17	1.72368 AU
evening max el	4944 Apr 17 03:19	15° \approx 00'25	46°32'22				
	4944 May 03 06:21	0° \approx		superior conj	4946 Nov 15 05:07	23° \approx 56'36	1°05'31
greatest brilliancy	4944 May 26 05:23	14° \approx 52'16	-4.8m	minimum elong	4946 Nov 15 14:53	24° \approx 27'00	1°05'12
retrograde	4944 Jun 06 03:56	17° \approx 05'16			4946 Nov 20 01:54	0° \approx	
evening set	4944 Jun 21 06:03	12° \approx 36'51			4946 Dec 14 03:21	0° \approx	
inferior conj	4944 Jun 27 11:18	8° \approx 52'54	0°42'39	desc. node	4946 Dec 16 04:46	2° \approx 34'15	
minimum elong	4944 Jun 27 12:53	8° \approx 50'25	0°42'09	evening rise	4946 Dec 24 04:56	12° \approx 34'14	
min. Earth dist.	4944 Jun 27 04:33	9° \approx 03'26	0.28422 AU		4947 Jan 07 03:33	0° \approx	
desc. node	4944 Jun 30 09:35	7° \approx 04'12			4947 Jan 31 03:14	0° \approx	
morning rise	4944 Jul 03 20:11	5° \approx 04'42			4947 Feb 24 03:58	0° \approx	

	4947 Mar 20 08:48	0°♄		4949 Aug 27 17:04	0°♋
asc. node	4947 Apr 08 06:24	23°♄08'18		4949 Sep 22 04:14	0°♎
	4947 Apr 13 22:22	0°♈	asc. node	4949 Sep 23 01:36	1°♎03'45
	4947 May 09 03:40	0°♊		4949 Oct 17 01:51	0°♊
	4947 Jun 04 14:16	0°♌		4949 Nov 10 13:23	0°♍
evening max el	4947 Jun 27 21:56	24°♌13'46 45°40'19		4949 Dec 04 18:04	0°♊
	4947 Jul 04 00:19	0°♎	morning set	4949 Dec 18 16:36	17°♊23'13
desc. node	4947 Jul 28 21:24	19°♎01'09		4949 Dec 28 18:33	0°♊
greatest brilliancy	4947 Aug 05 02:22	22°♎22'05 -4.7m	desc. node	4950 Jan 12 16:28	18°♊41'33
retrograde	4947 Aug 15 18:18	24°♎24'42		4950 Jan 21 16:36	0°♊
evening set	4947 Sep 01 17:28	18°♎58'14	max. Earth dist.	4950 Jan 26 11:41	6°♊01'33 1.71229 AU
inferior conj	4947 Sep 06 07:15	16°♎09'31 -7°36'23			
minimum elong	4947 Sep 05 23:01	16°♎22'29 7°35'16	superior conj	4950 Jan 27 23:02	7°♊52'41 -0°35'51
min. Earth dist.	4947 Sep 06 04:14	16°♎14'16 0.29132 AU	minimum elong	4950 Jan 27 14:18	7°♊25'14 0°35'27
morning rise	4947 Sep 10 04:32	13°♎45'10		4950 Feb 14 13:17	0°♈
direct	4947 Sep 27 22:29	7°♎51'32	evening rise	4950 Mar 09 21:11	29°♈19'59
greatest brilliancy	4947 Oct 08 07:49	9°♎48'36 -4.7m		4950 Mar 10 09:56	0°♈
	4947 Nov 07 02:18	0°♊		4950 Apr 03 08:32	0°♄
morning max el	4947 Nov 16 06:24	8°♊38'52 46°05'32		4950 Apr 27 11:28	0°♈
asc. node	4947 Nov 18 23:17	11°♊19'35	asc. node	4950 May 05 18:24	10°♈14'05
	4947 Dec 06 17:17	0°♍		4950 May 21 21:11	0°♊
	4948 Jan 02 00:44	0°♊		4950 Jun 15 16:26	0°♌
	4948 Jan 27 02:25	0°♊		4950 Jul 11 01:51	0°♎
	4948 Feb 20 14:21	0°♊		4950 Aug 06 11:50	0°♊
desc. node	4948 Mar 09 14:10	22°♊15'47	desc. node	4950 Aug 25 09:12	20°♊12'01
	4948 Mar 15 19:40	0°♈		4950 Sep 04 03:39	0°♍
	4948 Apr 08 22:10	0°♈	evening max el	4950 Sep 06 22:30	2°♍41'07 45°39'40
	4948 May 03 00:19	0°♄		4950 Oct 13 23:05	0°♊
morning set	4948 May 21 02:48	22°♄30'04	greatest brilliancy	4950 Oct 16 10:57	0°♊54'00 -4.8m
	4948 May 27 03:54	0°♈	retrograde	4950 Oct 25 17:06	2°♊27'51
	4948 Jun 20 09:40	0°♊		4950 Nov 05 21:19	30°♍♍
			evening set	4950 Nov 11 10:33	27°♍09'56
superior conj	4948 Jun 28 05:06	9°♊38'24 -0°05'55	inferior conj	4950 Nov 15 18:56	24°♍32'46 -6°43'01
minimum elong	4948 Jun 28 06:24	9°♊42'25 0°05'52	minimum elong	4950 Nov 16 05:05	24°♍17'06 6°41'01
behind sun begin	4948 Jun 27 08:27	8°♊34'41	min. Earth dist.	4950 Nov 16 18:40	23°♍56'11 0.27975 AU
behind sun end	4948 Jun 29 04:22	10°♊50'09	morning rise	4950 Nov 20 23:02	21°♍26'03
max. Earth dist.	4948 Jun 30 08:19	12°♊16'18 1.73103 AU	direct	4950 Dec 06 22:45	16°♍26'38
asc. node	4948 Jun 30 16:01	12°♊40'03	asc. node	4950 Dec 16 11:02	18°♍09'12
	4948 Jul 14 17:31	0°♌	greatest brilliancy	4950 Dec 18 05:21	18°♍48'33 -4.8m
evening rise	4948 Aug 04 02:38	25°♌04'09		4951 Jan 05 08:03	0°♊
	4948 Aug 08 02:57	0°♎	morning max el	4951 Jan 26 12:14	19°♊25'20 46°49'38
	4948 Sep 01 14:00	0°♊		4951 Feb 05 15:14	0°♊
	4948 Sep 26 03:34	0°♍		4951 Mar 04 08:21	0°♊
desc. node	4948 Oct 20 07:00	29°♍18'04		4951 Mar 29 17:01	0°♈
	4948 Oct 20 20:53	0°♊	desc. node	4951 Apr 07 02:10	10°♈05'21
	4948 Nov 14 19:17	0°♊		4951 Apr 23 12:12	0°♈
	4948 Dec 10 01:19	0°♊		4951 May 18 01:44	0°♄
	4949 Jan 04 22:55	0°♈		4951 Jun 11 13:32	0°♈
	4949 Feb 01 14:45	0°♈		4951 Jul 06 01:10	0°♊
evening max el	4949 Feb 01 20:07	0°♈13'40 47°09'53	asc. node	4951 Jul 29 03:47	28°♊19'42
asc. node	4949 Feb 10 08:41	8°♈37'22	morning set	4951 Jul 30 17:41	0°♌15'58
	4949 Mar 10 11:52	0°♄		4951 Jul 30 12:29	0°♌
greatest brilliancy	4949 Mar 14 13:48	1°♄45'05 -4.9m		4951 Aug 23 22:34	0°♎
retrograde	4949 Mar 24 15:05	3°♄40'36	max. Earth dist.	4951 Sep 03 23:48	13°♎36'14 1.73401 AU
	4949 Apr 07 03:42	30°♍♍			
evening set	4949 Apr 11 15:59	27°♍26'17	superior conj	4951 Sep 05 09:22	15°♎19'38 1°15'02
inferior conj	4949 Apr 14 11:50	25°♍41'24 8°48'09	minimum elong	4951 Sep 05 01:45	14°♎56'09 1°14'51
minimum elong	4949 Apr 14 16:34	25°♍34'02 8°47'49		4951 Sep 17 07:02	0°♊
min. Earth dist.	4949 Apr 14 04:44	25°♍52'29 0.27473 AU	evening rise	4951 Oct 11 14:58	0°♍01'56
morning rise	4949 Apr 17 17:17	23°♍42'15		4951 Oct 11 14:21	0°♍
direct	4949 May 05 05:00	17°♍49'54		4951 Nov 04 21:25	0°♊
greatest brilliancy	4949 May 14 15:00	19°♍28'48 -4.8m	desc. node	4951 Nov 17 18:52	15°♊55'00
desc. node	4949 Jun 01 23:45	29°♍54'52		4951 Nov 29 04:50	0°♊
	4949 Jun 02 02:29	0°♄		4951 Dec 23 12:54	0°♊
morning max el	4949 Jun 23 16:16	18°♄54'39 46°08'03		4952 Jan 16 22:48	0°♈
	4949 Jul 04 17:07	0°♈		4952 Feb 10 14:22	0°♈
	4949 Aug 01 10:48	0°♊		4952 Mar 06 20:17	0°♄

asc. node	4952 Mar 09 20:33	3°♄29'52			4954 Oct 02 02:38	0°♊	
	4952 Apr 02 12:19	0°♈		morning set	4954 Oct 06 22:26	5°♊56'54	
evening max el	4952 Apr 14 19:23	12°♈46'53	46°34'33		4954 Oct 26 09:11	0°♈	
	4952 May 03 14:37	0°♄		max. Earth dist.	4954 Nov 09 22:14	18°♈03'32	1.72419 AU
greatest brilliancy	4952 May 23 21:26	12°♄40'08	-4.8m				
retrograde	4952 Jun 03 20:32	14°♄53'19		superior conj	4954 Nov 12 20:45	21°♈42'43	1°07'40
evening set	4952 Jun 18 23:04	10°♄23'29		minimum elong	4954 Nov 13 06:19	22°♈12'25	1°07'23
inferior conj	4952 Jun 25 02:59	6°♄41'08	1°03'25		4954 Nov 19 12:38	0°♄	
minimum elong	4952 Jun 25 05:20	6°♄37'27	1°02'41		4954 Dec 13 14:13	0°♄	
min. Earth dist.	4952 Jun 24 20:12	6°♄51'44	0.28389 AU	desc. node	4954 Dec 15 06:43	2°♄06'20	
desc. node	4952 Jun 29 11:27	4°♄01'37		evening rise	4954 Dec 21 17:44	10°♄10'10	
morning rise	4952 Jul 01 12:10	2°♄52'50			4955 Jan 06 14:36	0°♄	
	4952 Jul 07 23:02	30°♈♈			4955 Jan 30 14:28	0°♈	
direct	4952 Jul 16 09:43	28°♈♈34'30			4955 Feb 23 15:27	0°♈	
	4952 Jul 25 05:09	0°♄			4955 Mar 19 20:38	0°♄	
greatest brilliancy	4952 Jul 26 08:15	0°♄22'13	-4.7m	asc. node	4955 Apr 07 08:30	22°♄37'23	
morning max el	4952 Sep 03 03:39	28°♄18'45	45°41'57		4955 Apr 13 10:49	0°♈	
	4952 Sep 04 21:53	0°♊			4955 May 08 17:19	0°♄	
	4952 Oct 03 17:28	0°♈			4955 Jun 04 06:37	0°♊	
asc. node	4952 Oct 20 13:32	18°♈55'48		evening max el	4955 Jun 25 12:43	21°♊59'59	45°41'31
	4952 Oct 30 03:11	0°♊			4955 Jul 04 01:39	0°♈	
	4952 Nov 24 09:05	0°♈		desc. node	4955 Jul 27 23:29	17°♈37'48	
	4952 Dec 18 23:12	0°♄		greatest brilliancy	4955 Aug 02 18:11	20°♈13'14	-4.7m
	4953 Jan 12 04:20	0°♄		retrograde	4955 Aug 13 10:12	22°♈16'34	
	4953 Feb 05 04:35	0°♄		evening set	4955 Aug 30 06:48	16°♈54'26	
desc. node	4953 Feb 09 04:16	4°♄59'46		inferior conj	4955 Sep 03 23:46	14°♈01'13	-7°26'51
	4953 Mar 01 02:22	0°♈		minimum elong	4955 Sep 03 15:07	14°♈14'48	7°25'36
morning set	4953 Mar 04 13:47	4°♈21'57		min. Earth dist.	4955 Sep 03 20:12	14°♈06'49	0.29130 AU
	4953 Mar 24 23:28	0°♈		morning rise	4955 Sep 07 23:24	11°♈33'17	
				direct	4955 Sep 25 14:24	5°♈43'17	
superior conj	4953 Apr 14 10:23	25°♈39'16	-1°25'01	greatest brilliancy	4955 Oct 06 00:04	7°♈40'06	-4.7m
minimum elong	4953 Apr 14 15:16	25°♈54'36	1°24'59		4955 Nov 07 03:46	0°♊	
	4953 Apr 17 21:40	0°♄		morning max el	4955 Nov 13 20:41	6°♊22'58	46°04'01
max. Earth dist.	4953 Apr 18 01:05	0°♄10'41	1.71654 AU	asc. node	4955 Nov 18 01:15	10°♊32'59	
	4953 May 11 22:36	0°♈			4955 Dec 06 09:45	0°♈	
evening rise	4953 May 24 06:12	15°♈17'50			4956 Jan 01 14:33	0°♄	
asc. node	4953 Jun 02 06:12	26°♈26'12			4956 Jan 26 15:05	0°♄	
	4953 Jun 05 03:25	0°♄			4956 Feb 20 02:23	0°♄	
	4953 Jun 29 12:47	0°♊		desc. node	4956 Mar 08 16:19	21°♄46'01	
	4953 Jul 24 03:28	0°♈			4956 Mar 15 07:18	0°♈	
	4953 Aug 18 01:16	0°♊			4956 Apr 08 09:29	0°♈	
	4953 Sep 12 09:42	0°♈			4956 May 02 11:24	0°♄	
desc. node	4953 Sep 21 21:04	11°♈01'37		morning set	4956 May 18 17:07	20°♄11'32	
	4953 Oct 08 11:10	0°♄			4956 May 26 14:47	0°♈	
	4953 Nov 04 20:42	0°♄			4956 Jun 19 20:27	0°♄	
evening max el	4953 Nov 18 16:53	14°♄05'56	46°31'58				
	4953 Dec 06 05:13	0°♄		superior conj	4956 Jun 25 21:18	7°♄27'05	-0°09'17
greatest brilliancy	4953 Dec 28 17:26	13°♄58'44	-4.9m	minimum elong	4956 Jun 25 23:21	7°♄33'27	0°09'12
retrograde	4954 Jan 07 14:29	15°♄47'53		behind sun begin	4956 Jun 25 03:58	6°♄33'37	
asc. node	4954 Jan 12 22:51	15°♄12'58		behind sun end	4956 Jun 26 18:44	8°♄33'15	
evening set	4954 Jan 22 01:24	11°♄39'58		max. Earth dist.	4956 Jun 28 01:35	10°♄08'24	1.73065 AU
inferior conj	4954 Jan 28 03:33	8°♄05'44	3°50'13	asc. node	4956 Jun 29 17:58	12°♄12'55	
minimum elong	4954 Jan 27 19:23	8°♄18'13	3°47'48		4956 Jul 14 04:16	0°♊	
min. Earth dist.	4954 Jan 27 22:12	8°♄13'54	0.26649 AU	evening rise	4956 Aug 01 20:48	22°♊59'22	
morning rise	4954 Feb 02 13:23	4°♄54'04			4956 Aug 07 13:45	0°♈	
direct	4954 Feb 17 16:26	0°♄24'26			4956 Sep 01 00:57	0°♊	
greatest brilliancy	4954 Feb 27 12:19	2°♄14'39	-4.9m		4956 Sep 25 14:50	0°♈	
	4954 Apr 05 20:34	0°♈		desc. node	4956 Oct 19 09:02	28°♈48'37	
morning max el	4954 Apr 09 02:21	3°♈13'00	46°52'33		4956 Oct 20 08:41	0°♄	
	4954 May 04 05:12	0°♈			4956 Nov 14 07:56	0°♄	
desc. node	4954 May 04 14:03	0°♈24'40			4956 Dec 09 15:21	0°♄	
	4954 May 30 11:17	0°♄			4957 Jan 04 15:27	0°♈	
	4954 Jun 24 22:52	0°♈		evening max el	4957 Jan 30 09:05	27°♈47'02	47°09'44
	4954 Jul 20 01:55	0°♄			4957 Feb 01 13:50	0°♈	
	4954 Aug 13 23:25	0°♊		asc. node	4957 Feb 09 10:47	7°♈38'12	
asc. node	4954 Aug 25 15:45	14°♊09'53		greatest brilliancy	4957 Mar 12 03:59	29°♈20'52	-4.9m
	4954 Sep 07 15:39	0°♈			4957 Mar 14 02:25	0°♄	

retrograde	4957 Mar 22 04:45	1°♄16'31		max. Earth dist.	4959 Sep 01 21:36	11°♎42'10	1.73414 AU
	4957 Mar 30 01:21	30°♈♂					
evening set	4957 Apr 09 07:02	25°♈00'04		superior conj	4959 Sep 03 03:22	13°♎13'50	1°13'28
min. Earth dist.	4957 Apr 11 17:50	23°♈29'29	0.27440 AU	minimum elong	4959 Sep 02 19:25	12°♎49'20	1°13'16
inferior conj	4957 Apr 12 01:22	23°♈17'47	8°53'05		4959 Sep 16 17:53	0°♎	
minimum elong	4957 Apr 12 05:14	23°♈11'46	8°52'52	evening rise	4959 Oct 09 08:06	27°♎52'44	
morning rise	4957 Apr 15 03:32	21°♈23'46			4959 Oct 11 01:20	0°♎	
direct	4957 May 02 17:44	15°♈26'34			4959 Nov 04 08:37	0°♈	
greatest brilliancy	4957 May 12 03:58	17°♈05'55	-4.8m	desc. node	4959 Nov 16 20:49	15°♈26'05	
desc. node	4957 Jun 01 01:39	28°♈42'30			4959 Nov 28 16:19	0°♈	
	4957 Jun 02 17:08	0°♈			4959 Dec 23 00:45	0°♈	
morning max el	4957 Jun 21 06:25	16°♈35'52	46°09'43		4960 Jan 16 11:12	0°♈	
	4957 Jul 04 12:23	0°♈			4960 Feb 10 03:39	0°♈	
	4957 Aug 01 01:40	0°♈			4960 Mar 06 11:13	0°♈	
	4957 Aug 27 06:02	0°♈		asc. node	4960 Mar 08 22:33	2°♈51'45	
	4957 Sep 21 16:12	0°♈			4960 Apr 02 07:08	0°♈	
asc. node	4957 Sep 22 03:37	0°♈34'06		evening max el	4960 Apr 12 11:25	10°♈31'42	46°36'22
	4957 Oct 16 13:15	0°♈			4960 May 04 02:47	0°♈	
	4957 Nov 10 00:29	0°♈		greatest brilliancy	4960 May 21 13:58	10°♈26'32	-4.8m
	4957 Dec 04 05:03	0°♈		retrograde	4960 Jun 01 12:38	12°♈38'53	
morning set	4957 Dec 16 06:28	15°♈02'20		evening set	4960 Jun 16 16:04	8°♈07'46	
	4957 Dec 28 05:33	0°♈		inferior conj	4960 Jun 22 18:28	4°♈27'11	1°24'18
desc. node	4958 Jan 11 18:31	18°♈13'27		minimum elong	4960 Jun 22 21:35	4°♈22'18	1°23'21
	4958 Jan 21 03:38	0°♈		min. Earth dist.	4960 Jun 22 11:51	4°♈37'31	0.28353 AU
max. Earth dist.	4958 Jan 23 22:21	3°♈29'33	1.71257 AU	desc. node	4960 Jun 28 13:31	0°♈58'19	
				morning rise	4960 Jun 29 03:44	0°♈38'49	
superior conj	4958 Jan 25 09:56	5°♈21'20	-0°32'13		4960 Jun 30 09:17	30°♈♈	
minimum elong	4958 Jan 25 01:58	4°♈56'20	0°31'51	direct	4960 Jul 14 01:21	26°♈21'20	
	4958 Feb 14 00:23	0°♈		greatest brilliancy	4960 Jul 23 22:33	28°♈08'08	-4.7m
evening rise	4958 Mar 07 07:39	26°♈47'03			4960 Jul 28 12:01	0°♈	
	4958 Mar 09 21:06	0°♈		morning max el	4960 Aug 31 18:53	26°♈06'27	45°42'00
	4958 Apr 02 19:47	0°♈			4960 Sep 04 19:32	0°♈	
	4958 Apr 26 22:53	0°♈			4960 Oct 03 08:57	0°♈	
asc. node	4958 May 04 20:19	9°♈44'39		asc. node	4960 Oct 19 15:29	18°♈21'27	
	4958 May 21 08:53	0°♈			4960 Oct 29 16:28	0°♈	
	4958 Jun 15 04:40	0°♈			4960 Nov 23 21:21	0°♈	
	4958 Jul 10 15:11	0°♈			4960 Dec 18 10:56	0°♈	
	4958 Aug 06 03:30	0°♈			4961 Jan 11 15:47	0°♈	
desc. node	4958 Aug 24 11:17	19°♈28'24			4961 Feb 04 15:51	0°♈	
	4958 Sep 04 01:56	0°♈		desc. node	4961 Feb 08 06:26	4°♈31'16	
evening max el	4958 Sep 04 13:48	0°♈28'22	45°38'46		4961 Feb 28 13:31	0°♈	
greatest brilliancy	4958 Oct 13 23:51	28°♈37'01	-4.8m	morning set	4961 Mar 02 00:06	1°♈48'37	
	4958 Oct 20 02:32	0°♈			4961 Mar 24 10:33	0°♈	
retrograde	4958 Oct 23 07:50	0°♈11'53					
	4958 Oct 26 11:48	30°♈♈		superior conj	4961 Apr 11 22:24	23°♈12'02	-1°25'46
evening set	4958 Nov 09 04:01	24°♈49'09		minimum elong	4961 Apr 12 02:22	23°♈24'27	1°25'44
inferior conj	4958 Nov 13 09:34	22°♈15'43	-6°56'05	max. Earth dist.	4961 Apr 15 14:03	27°♈46'31	1.71610 AU
minimum elong	4958 Nov 13 19:33	22°♈00'19	6°54'14		4961 Apr 17 08:42	0°♈	
min. Earth dist.	4958 Nov 14 08:39	21°♈40'06	0.28041 AU		4961 May 11 09:37	0°♈	
morning rise	4958 Nov 18 10:36	19°♈13'27		evening rise	4961 May 21 20:03	12°♈57'43	
direct	4958 Dec 04 14:35	14°♈08'54		asc. node	4961 Jun 01 08:11	25°♈58'11	
asc. node	4958 Dec 15 12:57	16°♈23'03			4961 Jun 04 14:29	0°♈	
greatest brilliancy	4958 Dec 15 20:01	16°♈30'00	-4.8m		4961 Jun 28 24:00	0°♈	
	4959 Jan 05 19:28	0°♈			4961 Jul 23 14:59	0°♈	
morning max el	4959 Jan 24 03:55	17°♈07'28	46°48'25		4961 Aug 17 13:22	0°♈	
	4959 Feb 05 10:11	0°♈			4961 Sep 11 22:50	0°♈	
	4959 Mar 03 23:27	0°♈		desc. node	4961 Sep 20 23:04	10°♈27'49	
	4959 Mar 29 06:27	0°♈			4961 Oct 08 02:15	0°♈	
desc. node	4959 Apr 06 04:09	9°♈31'48			4961 Nov 04 16:13	0°♈	
	4959 Apr 23 00:42	0°♈		evening max el	4961 Nov 16 06:01	11°♈42'33	46°29'49
	4959 May 17 13:39	0°♈			4961 Dec 06 19:00	0°♈	
	4959 Jun 11 01:02	0°♈		greatest brilliancy	4961 Dec 26 07:13	11°♈32'34	-4.9m
	4959 Jul 05 12:21	0°♈		retrograde	4962 Jan 05 02:15	13°♈20'01	
morning set	4959 Jul 28 11:00	28°♈08'16		asc. node	4962 Jan 12 01:00	12°♈21'21	
asc. node	4959 Jul 28 05:54	27°♈52'36		evening set	4962 Jan 19 12:28	9°♈14'24	
	4959 Jul 29 23:26	0°♈		inferior conj	4962 Jan 25 16:03	5°♈38'26	3°27'47
	4959 Aug 23 09:24	0°♈		minimum elong	4962 Jan 25 08:33	5°♈49'55	3°25'31

min. Earth dist.	4962 Jan 25 12:18	5°  44'10	0.26649 AU	asc. node	4964 Jun 28 20:05	11°  46'21	
morning rise	4962 Jan 31 04:32	2°  22'47			4964 Jul 13 15:00	0° 	
	4962 Feb 05 03:24	30°  8'3		evening rise	4964 Jul 30 15:02	20°  54'54	
direct	4962 Feb 15 04:39	27°  356'50			4964 Aug 07 00:33	0° 	
greatest brilliancy	4962 Feb 25 02:57	29°  348'45	-4.9m		4964 Aug 31 11:57	0° 	
	4962 Feb 25 15:09	0° 			4964 Sep 25 02:11	0° 	
	4962 Apr 05 20:31	0° 		desc. node	4964 Oct 18 10:56	28°  18'29	
morning max el	4962 Apr 06 14:09	0°  44'10	46°53'35		4964 Oct 19 20:36	0° 	
desc. node	4962 May 03 16:00	29°  43'26			4964 Nov 13 20:43	0° 	
	4962 May 03 21:55	0° 			4964 Dec 09 05:30	0° 	
	4962 May 30 01:20	0° 			4965 Jan 04 08:15	0° 	
	4962 Jun 24 11:33	0° 		evening max el	4965 Jan 27 22:45	25°  22'33	47°09'40
	4962 Jul 19 13:48	0° 			4965 Feb 01 13:50	0° 	
	4962 Aug 13 10:48	0° 		asc. node	4965 Feb 08 12:47	6°  37'42	
asc. node	4962 Aug 24 17:46	13°  541'52		greatest brilliancy	4965 Mar 09 17:32	26°  56'13	-4.9m
	4962 Sep 07 02:44	0° 		retrograde	4965 Mar 19 18:59	28°  52'39	
	4962 Oct 01 13:33	0° 		evening set	4965 Apr 06 21:42	22°  34'28	
morning set	4962 Oct 04 15:27	3°  547'46		inferior conj	4965 Apr 09 14:51	20°  54'10	8°57'10
	4962 Oct 25 20:02	0° 		minimum elong	4965 Apr 09 17:51	20°  49'31	8°57'01
max. Earth dist.	4962 Nov 07 14:22	15°  50'42	1.72467 AU	min. Earth dist.	4965 Apr 09 06:32	21°  07'04	0.27407 AU
				morning rise	4965 Apr 12 14:06	19°  04'50	
superior conj	4962 Nov 10 12:23	19°  528'18	1°09'42	direct	4965 Apr 30 06:54	13°  03'22	
minimum elong	4962 Nov 10 21:41	19°  57'11	1°09'27	greatest brilliancy	4965 May 09 16:23	14°  42'34	-4.8m
	4962 Nov 18 23:33	0° 		desc. node	4965 May 31 03:42	27°  32'46	
	4962 Dec 13 01:15	0° 			4965 Jun 03 03:56	0° 	
desc. node	4962 Dec 14 08:44	1°  338'14		morning max el	4965 Jun 18 21:19	14°  519'17	46°11'26
evening rise	4962 Dec 19 06:46	7°  346'27			4965 Jul 04 06:59	0° 	
	4963 Jan 06 01:48	0° 			4965 Jul 31 16:11	0° 	
	4963 Jan 30 01:52	0° 			4965 Aug 26 18:45	0° 	
	4963 Feb 23 03:05	0° 		asc. node	4965 Sep 21 05:33	0° 	
	4963 Mar 19 08:36	0° 			4965 Sep 21 03:58	0° 	
asc. node	4963 Apr 06 10:25	22°  505'36			4965 Oct 16 00:31	0° 	
	4963 Apr 12 23:24	0° 			4965 Nov 09 11:31	0° 	
	4963 May 08 07:09	0° 			4965 Dec 03 15:59	0° 	
	4963 Jun 03 23:21	0° 		morning set	4965 Dec 13 20:15	12°  541'29	
evening max el	4963 Jun 23 03:12	19°  5445'09	45°42'40		4965 Dec 27 16:27	0° 	
	4963 Jul 04 04:38	0° 		desc. node	4966 Jan 10 20:37	17°  345'53	
desc. node	4963 Jul 27 01:33	16°  511'00			4966 Jan 20 14:33	0° 	
greatest brilliancy	4963 Jul 31 09:25	18°  502'55	-4.7m	max. Earth dist.	4966 Jan 21 08:52	0° 	
retrograde	4963 Aug 11 02:24	20°  507'40				0° 	1.71279 AU
evening set	4963 Aug 27 19:58	14°  549'36		superior conj	4966 Jan 22 20:40	2° 	-0°28'31
inferior conj	4963 Sep 01 16:09	11°  551'58	-7°16'39	minimum elong	4966 Jan 22 13:33	2° 	0°28'10
minimum elong	4963 Sep 01 07:09	12°  506'06	7°15'15		4966 Feb 13 11:19	0° 	
min. Earth dist.	4963 Sep 01 11:59	11°  558'31	0.29130 AU	evening rise	4966 Mar 04 18:03	24°  514'30	
morning rise	4963 Sep 05 18:16	9°  520'28			4966 Mar 09 08:05	0° 	
direct	4963 Sep 23 06:14	3°  533'58			4966 Apr 02 06:52	0° 	
greatest brilliancy	4963 Oct 03 16:25	5°  531'02	-4.7m		4966 Apr 26 10:08	0° 	
	4963 Nov 07 04:12	0° 		asc. node	4966 May 03 22:20	9°  5216'02	
morning max el	4963 Nov 11 11:41	4°  508'26	46°02'40		4966 May 20 20:26	0° 	
asc. node	4963 Nov 17 03:15	9°  546'37			4966 Jun 14 16:46	0° 	
	4963 Dec 06 02:04	0° 			4966 Jul 10 04:23	0° 	
	4964 Jan 01 04:19	0° 			4966 Aug 05 19:09	0° 	
	4964 Jan 26 03:42	0° 		desc. node	4966 Aug 23 13:15	18°  544'37	
	4964 Feb 19 14:23	0° 		evening max el	4966 Sep 02 05:12	28°  516'39	45°37'46
desc. node	4964 Mar 07 18:12	21°  515'33			4966 Sep 04 00:50	0° 	
	4964 Mar 14 18:55	0° 		greatest brilliancy	4966 Oct 11 13:01	26°  521'04	-4.8m
	4964 Apr 07 20:48	0° 		retrograde	4966 Oct 20 22:06	27°  556'16	
	4964 May 01 22:29	0° 		evening set	4966 Nov 06 21:23	22°  529'03	
morning set	4964 May 16 07:27	17°  552'54		inferior conj	4966 Nov 11 00:09	19°  559'15	-7°08'31
	4964 May 26 01:40	0° 		minimum elong	4966 Nov 11 09:52	19°  544'13	7°06'48
	4964 Jun 19 07:14	0° 		min. Earth dist.	4966 Nov 11 22:38	19°  524'27	0.28109 AU
				morning rise	4966 Nov 15 21:57	17°  501'18	
superior conj	4964 Jun 23 13:33	5°  515'56	-0°12'39	direct	4966 Dec 02 06:20	11°  551'44	
minimum elong	4964 Jun 23 16:21	5°  524'36	0°12'31	greatest brilliancy	4966 Dec 13 10:28	14°  511'30	-4.8m
behind sun begin	4964 Jun 23 01:34	4°  538'59		asc. node	4966 Dec 14 15:06	14° 	
behind sun end	4964 Jun 24 07:08	6°  510'13			4967 Jan 06 03:47	0° 	
max. Earth dist.	4964 Jun 25 19:16	8°  501'43	1.73028 AU	morning max el	4967 Jan 21 18:57	14°  548'15	46°47'09

	4967 Feb 05 04:31	0°♁			4969 Sep 11 11:42	0°♍	
	4967 Mar 03 14:10	0°♊		desc. node	4969 Sep 20 01:04	9°♍54'52	
	4967 Mar 28 19:32	0°♋			4969 Oct 07 17:08	0°♌	
desc. node	4967 Apr 05 06:10	8°♋59'15			4969 Nov 04 11:49	0°♋	
	4967 Apr 22 12:52	0°♌		evening max el	4969 Nov 13 18:25	9°♋18'51	46°27'41
	4967 May 17 01:14	0°♍			4969 Dec 07 12:40	0°♊	
	4967 Jun 10 12:12	0°♎		greatest brilliancy	4969 Dec 23 20:48	9°♊07'28	-4.9m
	4967 Jul 04 23:13	0°♏		retrograde	4970 Jan 02 14:03	10°♊53'40	
morning set	4967 Jul 26 04:26	26°♏01'46		asc. node	4970 Jan 11 02:56	9°♊25'18	
asc. node	4967 Jul 27 07:53	27°♏25'59		evening set	4970 Jan 16 23:43	6°♊49'30	
	4967 Jul 29 10:05	0°♐		inferior conj	4970 Jan 23 04:33	3°♊12'18	3°04'52
	4967 Aug 22 19:56	0°♑		minimum elong	4970 Jan 22 21:47	3°♊22'40	3°02'47
max. Earth dist.	4967 Aug 30 18:18	9°♑45'43	1.73422 AU	min. Earth dist.	4970 Jan 23 02:28	3°♊15'30	0.26659 AU
				morning rise	4970 Jan 28 19:36	29°♋53'02	
superior conj	4967 Aug 31 21:34	11°♑09'38	1°11'48		4970 Jan 28 14:31	30°♌♁	
minimum elong	4967 Aug 31 13:19	10°♑44'14	1°11'34	direct	4970 Feb 12 16:46	25°♋30'02	
	4967 Sep 16 04:25	0°♒		greatest brilliancy	4970 Feb 22 17:55	27°♋24'13	-4.9m
evening rise	4967 Oct 07 01:27	25°♒45'15			4970 Feb 28 12:53	0°♑	
	4967 Oct 10 12:00	0°♓		morning max el	4970 Apr 04 02:46	28°♑17'50	46°54'30
	4967 Nov 03 19:31	0°♈			4970 Apr 05 19:13	0°♋	
desc. node	4967 Nov 15 22:56	14°♈58'33		desc. node	4970 May 02 18:04	29°♋03'34	
	4967 Nov 28 03:32	0°♉			4970 May 03 14:07	0°♌	
	4967 Dec 22 12:25	0°♊			4970 May 29 15:01	0°♍	
	4968 Jan 15 23:28	0°♋			4970 Jun 23 23:54	0°♎	
	4968 Feb 09 16:50	0°♌			4970 Jul 19 01:20	0°♏	
	4968 Mar 06 02:05	0°♍			4970 Aug 12 21:50	0°♐	
asc. node	4968 Mar 08 00:30	2°♍13'54		asc. node	4970 Aug 23 19:39	13°♐14'35	
	4968 Apr 02 02:07	0°♎			4970 Sep 06 13:29	0°♑	
evening max el	4968 Apr 10 02:35	8°♎15'04	46°38'21		4970 Oct 01 00:09	0°♒	
	4968 May 04 18:30	0°♏		morning set	4970 Oct 02 08:38	1°♒40'06	
greatest brilliancy	4968 May 19 07:04	8°♏14'33	-4.8m		4970 Oct 25 06:36	0°♓	
retrograde	4968 May 30 04:15	10°♏25'25		max. Earth dist.	4970 Nov 05 08:06	13°♓43'47	1.72511 AU
evening set	4968 Jun 14 09:14	5°♏52'50					
inferior conj	4968 Jun 20 09:58	2°♏14'16	1°45'11	superior conj	4970 Nov 08 04:23	17°♓15'55	1°11'38
minimum elong	4968 Jun 20 13:50	2°♏08'13	1°44'00	minimum elong	4970 Nov 08 13:22	17°♓43'52	1°11'23
min. Earth dist.	4968 Jun 20 03:46	2°♏23'59	0.28317 AU		4970 Nov 18 10:09	0°♈	
	4968 Jun 24 01:09	30°♒♎			4970 Dec 12 11:58	0°♉	
morning rise	4968 Jun 26 19:05	28°♒25'53		desc. node	4970 Dec 13 10:50	1°♉11'18	
desc. node	4968 Jun 27 15:39	27°♒58'37		evening rise	4970 Dec 16 20:16	5°♉25'18	
direct	4968 Jul 11 16:35	24°♒09'08			4971 Jan 05 12:41	0°♊	
greatest brilliancy	4968 Jul 21 13:11	25°♒55'14	-4.7m		4971 Jan 29 12:58	0°♋	
	4968 Jul 30 08:47	0°♓			4971 Feb 22 14:27	0°♌	
morning max el	4968 Aug 29 09:27	23°♓53'32	45°42'10		4971 Mar 18 20:22	0°♍	
	4968 Sep 04 15:59	0°♐		asc. node	4971 Apr 05 12:28	21°♌34'41	
	4968 Oct 02 23:49	0°♑			4971 Apr 12 11:52	0°♎	
asc. node	4968 Oct 18 17:30	17°♑48'36			4971 May 07 20:57	0°♏	
	4968 Oct 29 05:16	0°♒			4971 Jun 03 16:15	0°♐	
	4968 Nov 23 09:12	0°♓		evening max el	4971 Jun 20 18:26	17°♐32'46	45°44'06
	4968 Dec 17 22:18	0°♈			4971 Jul 04 09:04	0°♑	
	4969 Jan 11 02:55	0°♉		desc. node	4971 Jul 26 03:28	14°♑41'58	
	4969 Feb 04 02:51	0°♊		greatest brilliancy	4971 Jul 29 00:14	15°♑53'01	-4.7m
desc. node	4969 Feb 07 08:21	4°♊02'53		retrograde	4971 Aug 08 19:11	17°♑59'44	
morning set	4969 Feb 27 09:53	29°♊14'19		evening set	4971 Aug 25 09:16	12°♑45'30	
	4969 Feb 28 00:25	0°♋		inferior conj	4971 Aug 30 08:34	9°♑43'34	-7°05'50
	4969 Mar 23 21:23	0°♌		minimum elong	4971 Aug 29 23:17	9°♑58'06	7°04'18
				min. Earth dist.	4971 Aug 30 03:30	9°♑51'30	0.29126 AU
superior conj	4969 Apr 09 09:53	20°♌43'55	-1°26'21	morning rise	4971 Sep 03 13:16	7°♑08'28	
minimum elong	4969 Apr 09 12:50	20°♌53'11	1°26'20	direct	4971 Sep 20 22:25	1°♑25'33	
max. Earth dist.	4969 Apr 12 23:37	25°♌12'28	1.71561 AU	greatest brilliancy	4971 Oct 01 08:20	3°♑22'30	-4.7m
	4969 Apr 16 19:28	0°♍			4971 Nov 07 03:12	0°♒	
	4969 May 10 20:20	0°♎		morning max el	4971 Nov 09 03:48	1°♒57'35	46°01'21
evening rise	4969 May 19 09:23	10°♎36'56		asc. node	4971 Nov 16 05:21	9°♒01'57	
asc. node	4969 May 31 10:17	25°♎31'30			4971 Dec 05 17:49	0°♓	
	4969 Jun 04 01:14	0°♏			4971 Dec 31 17:42	0°♈	
	4969 Jun 28 10:54	0°♐			4972 Jan 25 16:00	0°♉	
	4969 Jul 23 02:13	0°♑			4972 Feb 19 02:06	0°♊	
	4969 Aug 17 01:11	0°♒		desc. node	4972 Mar 06 20:15	20°♊46'26	

	4972 Mar 14 06:15	0° H		greatest brilliancy	4974 Oct 09 03:01	24° M 06'14	-4.8m
	4972 Apr 07 07:52	0° Y		retrograde	4974 Oct 18 12:00	25° M 41'10	
	4972 May 01 09:21	0° B		evening set	4974 Nov 04 14:55	20° M 09'42	
morning set	4972 May 13 21:32	15° B 33'54		inferior conj	4974 Nov 08 14:59	17° M 43'29	-7°20'06
	4972 May 25 12:24	0° II		minimum elong	4974 Nov 09 00:23	17° M 28'54	7°18'32
	4972 Jun 18 17:52	0° E		min. Earth dist.	4974 Nov 09 13:08	17° M 09'08	0.28174 AU
				morning rise	4974 Nov 13 09:28	14° M 49'50	
superior conj	4972 Jun 21 05:25	3° E 03'58	-0°16'01	direct	4974 Nov 29 21:54	9° M 35'16	
minimum elong	4972 Jun 21 08:58	3° E 14'56	0°15'51	greatest brilliancy	4974 Dec 11 01:23	11° M 53'55	-4.8m
behind sun begin	4972 Jun 21 06:11	3° E 06'19		asc. node	4974 Dec 13 17:04	13° M 03'03	
behind sun end	4972 Jun 21 11:46	3° E 23'34			4975 Jan 06 09:42	0° X	
max. Earth dist.	4972 Jun 23 12:57	5° E 55'25	1.72990 AU	morning max el	4975 Jan 19 09:10	12° X 26'57	46°45'46
asc. node	4972 Jun 27 22:03	11° E 19'43			4975 Feb 04 22:28	0° Z	
	4972 Jul 13 01:36	0° Q			4975 Mar 03 04:48	0° \approx	
evening rise	4972 Jul 28 09:01	18° Q 50'05			4975 Mar 28 08:37	0° H	
	4972 Aug 06 11:12	0° M		desc. node	4975 Apr 04 08:13	8° H 26'43	
	4972 Aug 30 22:47	0° L			4975 Apr 22 01:05	0° Y	
	4972 Sep 24 13:23	0° M			4975 May 16 12:52	0° B	
desc. node	4972 Oct 17 13:04	27° M 49'26			4975 Jun 09 23:25	0° II	
	4972 Oct 19 08:24	0° X			4975 Jul 04 10:08	0° E	
	4972 Nov 13 09:25	0° Z		morning set	4975 Jul 23 22:00	23° E 55'25	
	4972 Dec 08 19:39	0° \approx		asc. node	4975 Jul 26 09:50	26° E 58'58	
	4973 Jan 04 01:10	0° H			4975 Jul 28 20:49	0° Q	
evening max el	4973 Jan 25 13:35	23° H 01'48	47°09'34		4975 Aug 22 06:37	0° M	
	4973 Feb 01 14:43	0° Y		max. Earth dist.	4975 Aug 28 13:24	7° M 43'51	1.73433 AU
asc. node	4973 Feb 07 14:45	5° Y 36'28					
greatest brilliancy	4973 Mar 07 06:53	24° Y 32'19	-4.9m	superior conj	4975 Aug 29 15:52	9° M 05'21	1°10'02
retrograde	4973 Mar 17 09:39	26° Y 29'38		minimum elong	4975 Aug 29 07:22	8° M 39'12	1°09'47
evening set	4973 Apr 04 12:02	20° Y 10'35			4975 Sep 15 15:08	0° L	
inferior conj	4973 Apr 07 04:28	18° Y 31'26	9°00'12	evening rise	4975 Oct 04 18:51	23° L 37'29	
minimum elong	4973 Apr 07 06:35	18° Y 28'09	9°00'08		4975 Oct 09 22:51	0° M	
min. Earth dist.	4973 Apr 06 19:05	18° Y 45'57	0.27372 AU		4975 Nov 03 06:36	0° X	
morning rise	4973 Apr 10 01:15	16° Y 46'01		desc. node	4975 Nov 15 00:56	14° X 30'08	
direct	4973 Apr 27 20:38	10° Y 41'18			4975 Nov 27 14:56	0° Z	
greatest brilliancy	4973 May 07 04:24	12° Y 19'32	-4.8m		4975 Dec 22 00:16	0° \approx	
desc. node	4973 May 30 05:49	26° Y 25'43			4976 Jan 15 11:57	0° H	
	4973 Jun 03 11:37	0° B			4976 Feb 09 06:19	0° Y	
morning max el	4973 Jun 16 12:27	12° B 03'34	46°12'54		4976 Mar 05 17:23	0° B	
	4973 Jul 04 01:00	0° II		asc. node	4976 Mar 07 02:36	1° B 35'27	
	4973 Jul 31 06:29	0° E			4976 Apr 01 21:56	0° II	
	4973 Aug 26 07:21	0° Q		evening max el	4976 Apr 07 17:02	5° II 55'46	46°40'18
asc. node	4973 Sep 20 07:39	29° Q 36'05			4976 May 05 16:07	0° E	
	4973 Sep 20 15:39	0° M		greatest brilliancy	4976 May 17 00:38	6° E 02'28	-4.8m
	4973 Oct 15 11:41	0° L		retrograde	4976 May 27 19:42	8° E 11'38	
	4973 Nov 08 22:26	0° M		evening set	4976 Jun 12 02:36	3° E 37'14	
	4973 Dec 03 02:50	0° X		inferior conj	4976 Jun 18 01:35	0° E 01'09	2°05'47
morning set	4973 Dec 11 10:15	10° X 21'33		minimum elong	4976 Jun 18 06:11	29° II 53'57	2°04'24
	4973 Dec 27 03:19	0° Z		min. Earth dist.	4976 Jun 17 20:05	0° E 09'46	0.28280 AU
desc. node	4974 Jan 09 22:32	17° Z 17'51			4976 Jun 18 02:19	30° R II	
max. Earth dist.	4974 Jan 18 17:14	28° Z 18'54	1.71301 AU	morning rise	4976 Jun 24 10:19	26° II 12'56	
				desc. node	4976 Jun 26 17:30	25° II 02'24	
superior conj	4974 Jan 20 07:42	0° \approx 19'40	-0°24'46	direct	4976 Jul 09 07:25	21° II 56'33	
minimum elong	4974 Jan 20 01:27	0° \approx 00'03	0°24'27	greatest brilliancy	4976 Jul 19 04:22	23° II 42'33	-4.7m
	4974 Jan 20 01:26	0° \approx			4976 Jul 31 15:23	0° E	
	4974 Feb 12 22:13	0° H		morning max el	4976 Aug 26 23:47	21° E 39'26	45°42'23
evening rise	4974 Mar 02 04:39	21° H 42'37			4976 Sep 04 11:59	0° Q	
	4974 Mar 08 19:02	0° Y			4976 Oct 02 14:45	0° M	
	4974 Apr 01 17:54	0° B		asc. node	4976 Oct 17 19:35	17° M 15'21	
	4974 Apr 25 21:20	0° II			4976 Oct 28 18:16	0° L	
asc. node	4974 May 03 00:27	8° II 47'49			4976 Nov 22 21:18	0° M	
	4974 May 20 07:57	0° E			4976 Dec 17 09:56	0° X	
	4974 Jun 14 04:53	0° Q			4977 Jan 10 14:17	0° Z	
	4974 Jul 09 17:43	0° M			4977 Feb 03 14:04	0° \approx	
	4974 Aug 05 11:09	0° L		desc. node	4977 Feb 06 10:22	3° \approx 34'04	
desc. node	4974 Aug 22 15:18	18° L 00'10		morning set	4977 Feb 24 19:36	26° \approx 39'01	
evening max el	4974 Aug 30 20:27	26° L 04'21	45°36'48		4977 Feb 27 11:35	0° H	
	4974 Sep 04 00:55	0° M			4977 Mar 23 08:30	0° Y	

superior conj	4977 Apr 06 21:19	18° Υ 14'39	-1°26'46	morning rise	4979 Sep 01 08:12	4° \mathfrak{M} 55'04	
minimum elong	4977 Apr 06 23:15	18° Υ 20'41	1°26'46		4979 Sep 12 13:17	30° \mathfrak{R} \mathfrak{Q}	
max. Earth dist.	4977 Apr 10 05:41	22° Υ 26'29	1.71517 AU	direct	4979 Sep 18 14:53	29° \mathfrak{Q} 16'02	
	4977 Apr 16 06:32	0° \mathfrak{B}			4979 Sep 24 21:16	0° \mathfrak{M}	
	4977 May 10 07:23	0° \mathfrak{I}		greatest brilliancy	4979 Sep 28 23:26	1° \mathfrak{M} 12'07	-4.7m
evening rise	4977 May 16 22:38	8° \mathfrak{I} 14'48		morning max el	4979 Nov 06 20:14	29° \mathfrak{M} 46'55	46°00'00
asc. node	4977 May 30 12:14	25° \mathfrak{I} 03'22			4979 Nov 07 01:36	0° \mathfrak{A}	
	4977 Jun 03 12:18	0° \mathfrak{E}		asc. node	4979 Nov 15 07:19	8° \mathfrak{A} 16'47	
	4977 Jun 27 22:06	0° \mathfrak{Q}			4979 Dec 05 09:38	0° \mathfrak{M}	
	4977 Jul 22 13:45	0° \mathfrak{M}			4979 Dec 31 07:20	0° \mathfrak{X}	
	4977 Aug 16 13:20	0° \mathfrak{A}			4980 Jan 25 04:38	0° \mathfrak{Z}	
	4977 Sep 11 00:58	0° \mathfrak{M}			4980 Feb 18 14:11	0° \approx	
desc. node	4977 Sep 19 03:09	9° \mathfrak{M} 21'05		desc. node	4980 Mar 05 22:23	20° \approx 16'24	
	4977 Oct 07 08:35	0° \mathfrak{X}			4980 Mar 13 17:58	0° \mathfrak{H}	
	4977 Nov 04 08:31	0° \mathfrak{Z}			4980 Apr 06 19:18	0° Υ	
evening max el	4977 Nov 11 07:07	6° \mathfrak{Z} 55'02	46°25'36		4980 Apr 30 20:33	0° \mathfrak{B}	
	4977 Dec 08 13:13	0° \approx		morning set	4980 May 11 11:18	13° \mathfrak{B} 12'47	
greatest brilliancy	4977 Dec 21 10:07	6° \approx 41'08	-4.9m		4980 May 24 23:28	0° \mathfrak{I}	
retrograde	4977 Dec 31 02:25	8° \approx 26'42			4980 Jun 18 04:51	0° \mathfrak{E}	
asc. node	4978 Jan 10 04:55	6° \approx 23'06					
evening set	4978 Jan 14 11:19	4° \approx 23'20		superior conj	4980 Jun 18 21:01	0° \mathfrak{E} 49'58	-0°19'23
inferior conj	4978 Jan 20 17:08	0° \approx 45'20	2°41'35	minimum elong	4980 Jun 19 01:19	1° \mathfrak{E} 03'15	0°19'12
minimum elong	4978 Jan 20 11:08	0° \approx 54'30	2°39'43	max. Earth dist.	4980 Jun 21 08:07	3° \mathfrak{E} 52'32	1.72953 AU
min. Earth dist.	4978 Jan 20 16:31	0° \approx 46'16	0.26672 AU	asc. node	4980 Jun 27 00:01	10° \mathfrak{E} 52'00	
	4978 Jan 21 22:52	30° \mathfrak{R} \mathfrak{Z}			4980 Jul 12 12:34	0° \mathfrak{Q}	
morning rise	4978 Jan 26 10:37	27° \mathfrak{Z} 22'54		evening rise	4980 Jul 26 02:54	16° \mathfrak{Q} 43'48	
direct	4978 Feb 10 05:11	23° \mathfrak{Z} 02'20			4980 Aug 05 22:13	0° \mathfrak{M}	
greatest brilliancy	4978 Feb 20 08:46	24° \mathfrak{Z} 58'49	-4.9m		4980 Aug 30 09:59	0° \mathfrak{A}	
	4978 Mar 02 07:36	0° \approx			4980 Sep 24 00:56	0° \mathfrak{M}	
morning max el	4978 Apr 01 16:24	25° \approx 53'10	46°55'16	desc. node	4980 Oct 16 15:05	27° \mathfrak{M} 19'09	
	4978 Apr 05 17:22	0° \mathfrak{H}			4980 Oct 18 20:32	0° \mathfrak{X}	
desc. node	4978 May 01 20:09	28° \mathfrak{H} 23'08			4980 Nov 12 22:28	0° \mathfrak{Z}	
	4978 May 03 06:23	0° Υ			4980 Dec 08 10:14	0° \approx	
	4978 May 29 04:56	0° \mathfrak{B}			4981 Jan 03 18:48	0° \mathfrak{H}	
	4978 Jun 23 12:34	0° \mathfrak{I}		evening max el	4981 Jan 23 04:47	20° \mathfrak{H} 40'45	47°09'07
	4978 Jul 18 13:13	0° \mathfrak{E}			4981 Feb 01 17:31	0° Υ	
	4978 Aug 12 09:13	0° \mathfrak{Q}		asc. node	4981 Feb 06 16:51	4° Υ 32'39	
asc. node	4978 Aug 22 21:49	12° \mathfrak{Q} 47'03		greatest brilliancy	4981 Mar 04 20:17	22° Υ 06'35	-4.9m
	4978 Sep 06 00:33	0° \mathfrak{M}		retrograde	4981 Mar 14 23:49	24° Υ 04'04	
morning set	4978 Sep 30 02:04	29° \mathfrak{M} 32'15		evening set	4981 Apr 02 01:33	17° Υ 45'22	
	4978 Sep 30 11:05	0° \mathfrak{A}		inferior conj	4981 Apr 04 17:46	16° Υ 06'28	9°02'14
	4978 Oct 24 17:30	0° \mathfrak{M}		minimum elong	4981 Apr 04 18:57	16° Υ 04'37	9°02'13
max. Earth dist.	4978 Nov 03 03:02	11° \mathfrak{M} 39'35	1.72558 AU	min. Earth dist.	4981 Apr 04 07:27	16° Υ 22'28	0.27336 AU
				morning rise	4981 Apr 07 12:29	14° Υ 24'10	
superior conj	4978 Nov 05 20:31	15° \mathfrak{M} 02'54	1°13'25	direct	4981 Apr 25 10:08	8° Υ 17'12	
minimum elong	4978 Nov 06 05:07	15° \mathfrak{M} 29'39	1°13'12	greatest brilliancy	4981 May 04 16:06	9° Υ 54'10	-4.8m
	4978 Nov 17 21:08	0° \mathfrak{X}		desc. node	4981 May 29 07:44	25° Υ 18'43	
	4978 Dec 11 23:06	0° \mathfrak{Z}			4981 Jun 03 17:36	0° \mathfrak{B}	
desc. node	4978 Dec 12 12:46	0° \mathfrak{Z} 42'39		morning max el	4981 Jun 14 02:42	9° \mathfrak{B} 44'27	46°14'24
evening rise	4978 Dec 14 09:46	3° \mathfrak{Z} 02'54			4981 Jul 03 18:59	0° \mathfrak{I}	
	4979 Jan 05 00:00	0° \approx			4981 Jul 30 20:56	0° \mathfrak{E}	
	4979 Jan 29 00:30	0° \mathfrak{H}			4981 Aug 25 20:09	0° \mathfrak{Q}	
	4979 Feb 22 02:14	0° Υ		asc. node	4981 Sep 19 09:39	29° \mathfrak{Q} 06'25	
	4979 Mar 18 08:34	0° \mathfrak{B}			4981 Sep 20 03:33	0° \mathfrak{M}	
asc. node	4979 Apr 04 14:31	21° \mathfrak{B} 02'27			4981 Oct 14 23:05	0° \mathfrak{A}	
	4979 Apr 12 00:48	0° \mathfrak{I}			4981 Nov 08 09:34	0° \mathfrak{M}	
	4979 May 07 11:20	0° \mathfrak{E}			4981 Dec 02 13:52	0° \mathfrak{X}	
	4979 Jun 03 10:01	0° \mathfrak{Q}		morning set	4981 Dec 09 00:36	8° \mathfrak{X} 02'19	
evening max el	4979 Jun 18 10:35	15° \mathfrak{Q} 21'17	45°45'33		4981 Dec 26 14:19	0° \mathfrak{Z}	
	4979 Jul 04 16:16	0° \mathfrak{M}		desc. node	4982 Jan 09 00:35	16° \mathfrak{Z} 49'47	
desc. node	4979 Jul 25 05:34	13° \mathfrak{M} 08'45		max. Earth dist.	4982 Jan 16 00:11	25° \mathfrak{Z} 35'28	1.71329 AU
greatest brilliancy	4979 Jul 26 14:56	13° \mathfrak{M} 41'40	-4.7m				
retrograde	4979 Aug 06 12:09	15° \mathfrak{M} 50'16		superior conj	4982 Jan 17 19:02	27° \mathfrak{Z} 49'56	-0°21'00
evening set	4979 Aug 22 22:34	10° \mathfrak{M} 40'06		minimum elong	4982 Jan 17 13:42	27° \mathfrak{Z} 33'13	0°20'44
inferior conj	4979 Aug 28 00:52	7° \mathfrak{M} 33'48	-6°54'20		4982 Jan 19 12:28	0° \approx	
minimum elong	4979 Aug 27 15:22	7° \mathfrak{M} 48'41	6°52'42		4982 Feb 12 09:19	0° \mathfrak{H}	
min. Earth dist.	4979 Aug 27 18:44	7° \mathfrak{M} 43'25	0.29116 AU	evening rise	4982 Feb 27 15:08	19° \mathfrak{H} 09'42	

	4982 Mar 08 06:13	0°♿			4984 Oct 02 05:23	0°♎	
	4982 Apr 01 05:12	0°♄	asc. node		4984 Oct 16 21:32	16°♎42'15	
	4982 Apr 25 08:48	0°♂			4984 Oct 28 07:04	0°♎	
asc. node	4982 May 02 02:21	8°♂18'09			4984 Nov 22 09:12	0°♎	
	4982 May 19 19:44	0°♎			4984 Dec 16 21:22	0°♄	
	4982 Jun 13 17:19	0°♂			4985 Jan 10 01:27	0°♄	
	4982 Jul 09 07:24	0°♎			4985 Feb 03 01:05	0°♎	
	4982 Aug 05 03:40	0°♎	desc. node		4985 Feb 05 12:29	3°♎06'12	
desc. node	4982 Aug 21 17:23	17°♎14'36	morning set		4985 Feb 22 05:41	24°♎05'31	
evening max el	4982 Aug 28 10:52	23°♎49'22 45°35'54			4985 Feb 26 22:29	0°♄	
	4982 Sep 04 02:30	0°♎			4985 Mar 22 19:19	0°♿	
greatest brilliancy	4982 Oct 06 17:23	21°♎51'23 -4.7m					
retrograde	4982 Oct 16 01:40	23°♎25'56	superior conj		4985 Apr 04 09:02	15°♿47'08 -1°27'00	
evening set	4982 Nov 02 08:21	17°♎50'14	minimum elong		4985 Apr 04 09:56	15°♿49'56 1°27'01	
inferior conj	4982 Nov 06 05:51	15°♎27'40 -7°30'52	max. Earth dist.		4985 Apr 07 11:23	19°♿40'12 1.71476 AU	
minimum elong	4982 Nov 06 14:52	15°♎13'38 7°29'29			4985 Apr 15 17:17	0°♄	
min. Earth dist.	4982 Nov 07 03:55	14°♎53'22 0.28235 AU			4985 May 09 18:07	0°♂	
morning rise	4982 Nov 10 20:59	12°♎38'28	evening rise		4985 May 14 12:01	5°♂53'56	
direct	4982 Nov 27 12:56	7°♎18'39	asc. node		4985 May 29 14:15	24°♂36'11	
greatest brilliancy	4982 Dec 08 16:48	9°♎36'56 -4.8m			4985 Jun 02 23:07	0°♎	
asc. node	4982 Dec 12 19:01	11°♎28'14			4985 Jun 27 09:06	0°♂	
	4983 Jan 06 13:41	0°♄			4985 Jul 22 01:06	0°♎	
morning max el	4983 Jan 16 22:48	10°♄04'13 46°44'32			4985 Aug 16 01:18	0°♎	
	4983 Feb 04 15:59	0°♄			4985 Sep 10 14:07	0°♎	
	4983 Mar 02 19:14	0°♎	desc. node		4985 Sep 18 05:08	8°♎47'29	
	4983 Mar 27 21:38	0°♄			4985 Oct 07 00:02	0°♄	
desc. node	4983 Apr 03 10:12	7°♄54'03			4985 Nov 04 05:40	0°♄	
	4983 Apr 21 13:18	0°♿	evening max el		4985 Nov 08 20:27	4°♄33'44 46°23'34	
	4983 May 16 00:33	0°♄			4985 Dec 09 23:00	0°♎	
	4983 Jun 09 10:44	0°♂	greatest brilliancy		4985 Dec 18 22:46	4°♎14'46 -4.9m	
	4983 Jul 03 21:09	0°♎	retrograde		4985 Dec 28 15:05	6°♎00'19	
morning set	4983 Jul 21 15:08	21°♎47'24	asc. node		4986 Jan 09 07:04	3°♎16'09	
asc. node	4983 Jul 25 11:57	26°♎32'17	evening set		4986 Jan 11 23:03	1°♎57'24	
	4983 Jul 28 07:37	0°♂			4986 Jan 15 10:24	30°♄♄	
	4983 Aug 21 17:20	0°♎	inferior conj		4986 Jan 18 05:33	28°♄18'45 2°17'58	
max. Earth dist.	4983 Aug 26 07:56	5°♎40'17 1.73443 AU	minimum elong		4986 Jan 18 00:21	28°♄26'40 2°16'20	
			min. Earth dist.		4986 Jan 18 06:10	28°♄17'49 0.26687 AU	
superior conj	4983 Aug 27 09:52	7°♎00'03 1°08'09	morning rise		4986 Jan 24 01:20	24°♄53'32	
minimum elong	4983 Aug 27 01:10	6°♎33'18 1°07'54	direct		4986 Feb 07 18:08	20°♄35'08	
	4983 Sep 15 01:53	0°♎	greatest brilliancy		4986 Feb 17 23:01	22°♄33'25 -4.9m	
evening rise	4983 Oct 02 12:10	21°♎29'26			4986 Mar 03 12:39	0°♎	
	4983 Oct 09 09:44	0°♎	morning max el		4986 Mar 30 06:49	23°♎31'38 46°56'12	
	4983 Nov 02 17:42	0°♄			4986 Apr 05 14:17	0°♄	
desc. node	4983 Nov 14 02:53	14°♄01'29	desc. node		4986 Apr 30 22:04	27°♄44'02	
	4983 Nov 27 02:21	0°♄			4986 May 02 21:55	0°♿	
	4983 Dec 21 12:05	0°♎			4986 May 28 18:15	0°♄	
	4984 Jan 15 00:23	0°♄			4986 Jun 23 00:42	0°♂	
	4984 Feb 08 19:44	0°♿			4986 Jul 18 00:39	0°♎	
	4984 Mar 05 08:43	0°♄			4986 Aug 11 20:13	0°♂	
asc. node	4984 Mar 06 04:36	0°♄56'56	asc. node		4986 Aug 21 23:48	12°♂20'03	
	4984 Apr 01 18:12	0°♂			4986 Sep 05 11:17	0°♎	
evening max el	4984 Apr 05 06:45	3°♂34'52 46°42'04	morning set		4986 Sep 27 19:21	27°♎25'00	
	4984 May 06 22:05	0°♎			4986 Sep 29 21:40	0°♎	
greatest brilliancy	4984 May 14 17:42	3°♎49'22 -4.8m			4986 Oct 24 04:03	0°♎	
retrograde	4984 May 25 10:56	5°♎57'26	max. Earth dist.		4986 Oct 31 21:20	9°♎34'31 1.72601 AU	
evening set	4984 Jun 09 19:51	1°♎20'36					
	4984 Jun 12 03:17	30°♄♂	superior conj		4986 Nov 03 12:30	12°♎50'36 1°15'06	
inferior conj	4984 Jun 15 17:01	27°♂47'25 2°26'21	minimum elong		4986 Nov 03 20:41	13°♎16'00 1°14'55	
minimum elong	4984 Jun 15 22:18	27°♂39'07 2°24'46			4986 Nov 17 07:45	0°♄	
min. Earth dist.	4984 Jun 15 12:20	27°♂54'44 0.28249 AU			4986 Dec 11 09:53	0°♄	
morning rise	4984 Jun 22 01:12	23°♂59'45	evening rise		4986 Dec 11 23:09	0°♄41'23	
desc. node	4984 Jun 25 19:36	22°♂08'55	desc. node		4986 Dec 11 14:50	0°♄15'28	
direct	4984 Jul 06 21:44	19°♂43'08			4987 Jan 04 10:59	0°♎	
greatest brilliancy	4984 Jul 16 19:50	21°♂29'48 -4.7m			4987 Jan 28 11:42	0°♄	
	4984 Aug 01 13:36	0°♎			4987 Feb 21 13:41	0°♿	
morning max el	4984 Aug 24 14:28	19°♎26'02 45°42'44			4987 Mar 17 20:25	0°♄	
	4984 Sep 04 07:21	0°♂	asc. node		4987 Apr 03 16:28	20°♄31'07	

	4987 Apr 11 13:22	0°♄			4989 Nov 07 20:22	0°♄	
	4987 May 07 01:20	0°♅			4989 Dec 02 00:36	0°♄	
	4987 Jun 03 03:33	0°♆		morning set	4989 Dec 06 14:53	5°♄43'42	
evening max el	4987 Jun 16 03:24	13°♆13'04 45°46'58			4989 Dec 26 01:04	0°♅	
	4987 Jul 05 01:14	0°♆		desc. node	4990 Jan 08 02:42	16°♅22'40	
greatest brilliancy	4987 Jul 24 06:00	11°♆32'27 -4.7m		max. Earth dist.	4990 Jan 13 05:13	22°♅46'56 1.71359 AU	
desc. node	4987 Jul 24 07:36	11°♆33'57					
retrograde	4987 Aug 04 05:00	13°♆42'21		superior conj	4990 Jan 15 06:17	25°♅20'51 -0°17'12	
evening set	4987 Aug 20 12:06	8°♆36'21		minimum elong	4990 Jan 15 01:54	25°♅07'07 0°16'58	
inferior conj	4987 Aug 25 17:18	5°♆25'39 -6°42'21			4990 Jan 18 23:14	0°♅	
minimum elong	4987 Aug 25 07:37	5°♆40'48 6°40'35			4990 Feb 11 20:08	0°♅	
min. Earth dist.	4987 Aug 25 10:05	5°♆36'57 0.29107 AU		evening rise	4990 Feb 25 01:30	16°♅37'16	
morning rise	4987 Aug 30 03:15	2°♆43'08			4990 Mar 07 17:07	0°♆	
	4987 Sep 04 06:16	30°♆♄			4990 Mar 31 16:14	0°♆	
direct	4987 Sep 16 07:50	27°♄08'15			4990 Apr 24 20:01	0°♄	
greatest brilliancy	4987 Sep 26 14:26	29°♄02'56 -4.7m		asc. node	4990 May 01 04:24	7°♄49'43	
	4987 Sep 29 00:56	0°♆			4990 May 19 07:17	0°♅	
morning max el	4987 Nov 04 12:25	27°♆36'53 45°58'34			4990 Jun 13 05:29	0°♆	
	4987 Nov 06 22:42	0°♅			4990 Jul 08 20:51	0°♆	
asc. node	4987 Nov 14 09:19	7°♅33'26			4990 Aug 04 20:05	0°♅	
	4987 Dec 05 00:50	0°♄		desc. node	4990 Aug 20 19:20	16°♅29'19	
	4987 Dec 30 20:28	0°♅		evening max el	4990 Aug 26 00:33	21°♅34'01 45°35'09	
	4988 Jan 24 16:48	0°♅			4990 Sep 04 04:57	0°♄	
	4988 Feb 18 01:50	0°♅		greatest brilliancy	4990 Oct 04 07:36	19°♄38'00 -4.7m	
desc. node	4988 Mar 05 00:16	19°♅46'53		retrograde	4990 Oct 13 15:37	21°♄12'44	
	4988 Mar 13 05:15	0°♅		evening set	4990 Oct 31 01:49	15°♄32'34	
	4988 Apr 06 06:19	0°♆		inferior conj	4990 Nov 03 20:57	13°♄13'33 -7°40'43	
	4988 Apr 30 07:22	0°♆		minimum elong	4990 Nov 04 05:30	13°♄00'13 7°39'30	
morning set	4988 May 09 01:12	10°♆53'21		min. Earth dist.	4990 Nov 04 18:56	12°♄39'21 0.28302 AU	
	4988 May 24 10:06	0°♄		morning rise	4990 Nov 08 08:47	10°♄28'55	
				direct	4990 Nov 25 04:02	5°♄03'26	
superior conj	4988 Jun 16 12:52	28°♄38'06 -0°22'43		greatest brilliancy	4990 Dec 06 09:03	7°♄22'12 -4.8m	
minimum elong	4988 Jun 16 17:53	28°♄53'36 0°22'29		asc. node	4990 Dec 11 21:10	9°♄58'00	
	4988 Jun 17 15:22	0°♅			4991 Jan 06 15:49	0°♅	
max. Earth dist.	4988 Jun 19 05:13	1°♅56'59 1.72909 AU		morning max el	4991 Jan 14 12:50	7°♅43'01 46°43'11	
asc. node	4988 Jun 26 02:09	10°♅26'16			4991 Feb 04 09:00	0°♅	
	4988 Jul 11 23:02	0°♆			4991 Mar 02 09:24	0°♅	
evening rise	4988 Jul 23 21:02	14°♆39'46			4991 Mar 27 10:26	0°♅	
	4988 Aug 05 08:45	0°♆		desc. node	4991 Apr 02 12:14	7°♅22'03	
	4988 Aug 29 20:44	0°♅			4991 Apr 21 01:19	0°♆	
	4988 Sep 23 12:06	0°♄			4991 May 15 12:03	0°♆	
desc. node	4988 Oct 15 17:00	26°♄49'37			4991 Jun 08 21:50	0°♄	
	4988 Oct 18 08:20	0°♅			4991 Jul 03 07:58	0°♅	
	4988 Nov 12 11:14	0°♅		morning set	4991 Jul 19 08:19	19°♅39'58	
	4988 Dec 08 00:36	0°♅		asc. node	4991 Jul 24 13:55	26°♅05'36	
	4989 Jan 03 12:25	0°♅			4991 Jul 27 18:15	0°♆	
evening max el	4989 Jan 20 19:28	18°♅19'20 47°08'33			4991 Aug 21 03:53	0°♆	
	4989 Feb 01 21:29	0°♆		max. Earth dist.	4991 Aug 24 03:10	3°♆39'19 1.73448 AU	
asc. node	4989 Feb 05 18:50	3°♆28'02					
greatest brilliancy	4989 Mar 02 10:11	19°♆42'24 -4.9m		superior conj	4991 Aug 25 04:07	4°♆56'05 1°06'12	
retrograde	4989 Mar 12 13:26	21°♆39'13		minimum elong	4991 Aug 24 19:15	4°♆28'49 1°05'55	
evening set	4989 Mar 30 14:33	15°♆21'53			4991 Sep 14 12:27	0°♅	
inferior conj	4989 Apr 02 07:02	13°♆42'26 9°03'24		evening rise	4991 Sep 30 05:57	19°♅23'31	
minimum elong	4989 Apr 02 07:16	13°♆42'04 9°03'24			4991 Oct 08 20:25	0°♄	
min. Earth dist.	4989 Apr 01 20:08	13°♆59'20 0.27298 AU			4991 Nov 02 04:38	0°♅	
morning rise	4989 Apr 05 00:07	12°♆02'29		desc. node	4991 Nov 13 05:00	13°♅33'51	
direct	4989 Apr 22 23:20	5°♆53'59			4991 Nov 26 13:39	0°♅	
greatest brilliancy	4989 May 02 04:23	7°♆30'07 -4.8m			4991 Dec 20 23:54	0°♅	
desc. node	4989 May 28 09:48	24°♆14'50			4992 Jan 14 12:53	0°♅	
	4989 Jun 03 21:12	0°♅			4992 Feb 08 09:19	0°♆	
morning max el	4989 Jun 11 16:06	7°♅24'09 46°16'05		asc. node	4992 Mar 05 06:33	0°♅17'43	
	4989 Jul 03 12:07	0°♄			4992 Mar 05 00:20	0°♅	
	4989 Jul 30 10:45	0°♅			4992 Apr 01 15:14	0°♄	
	4989 Aug 25 08:24	0°♆		evening max el	4992 Apr 02 20:25	1°♄13'41 46°44'02	
asc. node	4989 Sep 18 11:37	28°♄38'03			4992 May 08 18:24	0°♅	
	4989 Sep 19 14:58	0°♆		greatest brilliancy	4992 May 12 10:05	1°♅35'09 -4.8m	
	4989 Oct 14 10:04	0°♅		retrograde	4992 May 23 02:27	3°♅42'59	

	4992 Jun 05 18:57	30° $\mathbb{R}\mathbb{I}$		superior conj	4994 Nov 01 04:49	10° \mathbb{M} 38'37	1°16'39
evening set	4992 Jun 07 13:08	29° \mathbb{I} 03'14		minimum elong	4994 Nov 01 12:32	11° \mathbb{M} 02'34	1°16'30
inferior conj	4992 Jun 13 08:19	25° \mathbb{I} 33'13	2°46'50		4994 Nov 16 18:38	0° \mathbb{X}	
minimum elong	4992 Jun 13 14:17	25° \mathbb{I} 23'53	2°45'05	evening rise	4994 Dec 09 12:58	28° \mathbb{X} 20'33	
min. Earth dist.	4992 Jun 13 04:15	25° \mathbb{I} 39'36	0.28218 AU	desc. node	4994 Dec 10 16:53	29° \mathbb{X} 47'31	
morning rise	4992 Jun 19 15:49	21° \mathbb{I} 46'36			4994 Dec 10 20:53	0° \mathbb{Z}	
desc. node	4992 Jun 24 21:41	19° \mathbb{I} 19'22			4995 Jan 03 22:10	0° \approx	
direct	4992 Jul 04 12:02	17° \mathbb{I} 29'06			4995 Jan 27 23:05	0° \mathbb{H}	
greatest brilliancy	4992 Jul 14 11:07	19° \mathbb{I} 16'37	-4.7m		4995 Feb 21 01:23	0° \mathbb{Y}	
	4992 Aug 02 06:05	0° \mathbb{G}			4995 Mar 17 08:36	0° \mathbb{B}	
morning max el	4992 Aug 22 06:03	17° \mathbb{G} 14'51	45°43'16	asc. node	4995 Apr 02 18:30	19° \mathbb{G} 58'54	
	4992 Sep 04 02:10	0° \mathbb{O}			4995 Apr 11 02:22	0° \mathbb{I}	
	4992 Oct 01 19:48	0° \mathbb{N}			4995 May 06 15:57	0° \mathbb{G}	
asc. node	4992 Oct 15 23:34	16° \mathbb{N} 09'49			4995 Jun 02 22:05	0° \mathbb{O}	
	4992 Oct 27 19:43	0° \mathbb{L}		evening max el	4995 Jun 13 20:02	11° \mathbb{O} 02'46	45°48'24
	4992 Nov 21 21:00	0° \mathbb{M}			4995 Jul 05 14:23	0° \mathbb{N}	
	4992 Dec 16 08:44	0° \mathbb{X}		greatest brilliancy	4995 Jul 21 21:38	9° \mathbb{N} 22'09	-4.7m
	4993 Jan 09 12:37	0° \mathbb{Z}		desc. node	4995 Jul 23 09:31	9° \mathbb{N} 53'58	
	4993 Feb 02 12:10	0° \approx		retrograde	4995 Aug 01 21:22	11° \mathbb{N} 32'27	
desc. node	4993 Feb 04 14:24	2° \approx 37'32		evening set	4995 Aug 18 01:37	6° \mathbb{N} 30'48	
morning set	4993 Feb 19 15:33	21° \approx 31'00		inferior conj	4995 Aug 23 09:34	3° \mathbb{N} 15'46	-6°29'47
	4993 Feb 26 09:31	0° \mathbb{H}		minimum elong	4995 Aug 22 23:47	3° \mathbb{N} 31'07	6°27'54
	4993 Mar 22 06:18	0° \mathbb{Y}		min. Earth dist.	4995 Aug 23 01:32	3° \mathbb{N} 28'22	0.29091 AU
				morning rise	4995 Aug 27 22:08	0° \mathbb{N} 29'19	
superior conj	4993 Apr 01 20:08	13° \mathbb{Y} 16'57	-1°27'05		4995 Aug 28 18:25	30° \mathbb{R} 0	
minimum elong	4993 Apr 01 19:56	13° \mathbb{Y} 16'22	1°27'04	direct	4995 Sep 14 00:33	24° \mathbb{O} 58'54	
max. Earth dist.	4993 Apr 04 17:02	16° \mathbb{Y} 53'06	1.71440 AU	greatest brilliancy	4995 Sep 24 05:14	26° \mathbb{O} 51'57	-4.7m
	4993 Apr 15 04:14	0° \mathbb{B}			4995 Oct 01 04:49	0° \mathbb{N}	
	4993 May 09 05:02	0° \mathbb{I}		morning max el	4995 Nov 02 03:37	25° \mathbb{N} 23'21	45°57'13
evening rise	4993 May 12 00:49	3° \mathbb{I} 30'39			4995 Nov 06 19:32	0° \mathbb{L}	
asc. node	4993 May 28 16:20	24° \mathbb{I} 08'42		asc. node	4995 Nov 13 11:25	6° \mathbb{L} 49'50	
	4993 Jun 02 10:06	0° \mathbb{G}			4995 Dec 04 16:10	0° \mathbb{M}	
	4993 Jun 26 20:16	0° \mathbb{O}			4995 Dec 30 09:50	0° \mathbb{X}	
	4993 Jul 21 12:38	0° \mathbb{N}			4996 Jan 24 05:13	0° \mathbb{Z}	
	4993 Aug 15 13:29	0° \mathbb{L}			4996 Feb 17 13:41	0° \approx	
	4993 Sep 10 03:29	0° \mathbb{M}		desc. node	4996 Mar 04 02:19	19° \approx 17'09	
desc. node	4993 Sep 17 07:07	8° \mathbb{M} 13'20			4996 Mar 12 16:46	0° \mathbb{H}	
	4993 Oct 06 15:48	0° \mathbb{X}			4996 Apr 05 17:36	0° \mathbb{Y}	
	4993 Nov 04 03:37	0° \mathbb{Z}			4996 Apr 29 18:29	0° \mathbb{B}	
evening max el	4993 Nov 06 10:47	2° \mathbb{Z} 15'08	46°21'38	morning set	4996 May 06 14:52	8° \mathbb{B} 31'59	
	4993 Dec 12 01:20	0° \approx			4996 May 23 21:08	0° \mathbb{I}	
greatest brilliancy	4993 Dec 16 11:05	1° \approx 48'43	-4.9m				
retrograde	4993 Dec 26 04:05	3° \approx 34'27		superior conj	4996 Jun 14 04:14	26° \mathbb{I} 23'21	-0°26'04
asc. node	4994 Jan 08 08:58	0° \approx 05'48		minimum elong	4996 Jun 14 09:56	26° \mathbb{I} 41'00	0°25'48
	4994 Jan 08 13:35	30° \mathbb{R} 0		max. Earth dist.	4996 Jun 17 01:06	29° \mathbb{I} 56'16	1.72868 AU
evening set	4994 Jan 09 11:18	29° \mathbb{Z} 31'53			4996 Jun 17 02:19	0° \mathbb{G}	
inferior conj	4994 Jan 15 18:10	25° \mathbb{Z} 52'35	1°54'15	asc. node	4996 Jun 25 04:05	9° \mathbb{G} 58'28	
minimum elong	4994 Jan 15 13:49	25° \mathbb{Z} 59'11	1°52'52		4996 Jul 11 09:57	0° \mathbb{O}	
min. Earth dist.	4994 Jan 15 19:41	25° \mathbb{Z} 50'17	0.26708 AU	evening rise	4996 Jul 21 14:31	12° \mathbb{O} 32'20	
morning rise	4994 Jan 21 16:05	22° \mathbb{Z} 24'47			4996 Aug 04 19:45	0° \mathbb{N}	
direct	4994 Feb 05 07:48	18° \mathbb{Z} 08'33			4996 Aug 29 07:58	0° \mathbb{L}	
greatest brilliancy	4994 Feb 15 12:59	20° \mathbb{Z} 07'41	-4.9m		4996 Sep 22 23:44	0° \mathbb{M}	
	4994 Mar 04 09:54	0° \approx		desc. node	4996 Oct 14 19:08	26° \mathbb{M} 19'19	
morning max el	4994 Mar 27 21:29	21° \approx 10'02	46°56'40		4996 Oct 17 20:37	0° \mathbb{X}	
	4994 Apr 05 10:48	0° \mathbb{H}			4996 Nov 12 00:31	0° \mathbb{Z}	
desc. node	4994 Apr 30 00:10	27° \mathbb{H} 04'46			4996 Dec 07 15:34	0° \approx	
	4994 May 02 13:35	0° \mathbb{Y}			4997 Jan 03 06:50	0° \mathbb{H}	
	4994 May 28 07:51	0° \mathbb{B}		evening max el	4997 Jan 18 09:23	15° \mathbb{H} 55'04	47°08'03
	4994 Jun 22 13:08	0° \mathbb{I}			4997 Feb 02 03:44	0° \mathbb{Y}	
	4994 Jul 17 12:23	0° \mathbb{G}		asc. node	4997 Feb 04 20:49	2° \mathbb{Y} 21'03	
	4994 Aug 11 07:29	0° \mathbb{O}		greatest brilliancy	4997 Feb 28 00:36	17° \mathbb{Y} 18'16	-4.9m
asc. node	4994 Aug 21 01:43	11° \mathbb{O} 52'04		retrograde	4997 Mar 10 02:42	19° \mathbb{Y} 14'04	
	4994 Sep 04 22:16	0° \mathbb{N}		evening set	4997 Mar 28 03:10	12° \mathbb{Y} 59'00	
morning set	4994 Sep 25 12:39	25° \mathbb{N} 17'08		inferior conj	4997 Mar 30 20:29	11° \mathbb{Y} 18'14	9°03'34
	4994 Sep 29 08:31	0° \mathbb{L}		minimum elong	4997 Mar 30 19:46	11° \mathbb{Y} 19'21	9°03'33
	4994 Oct 23 14:52	0° \mathbb{M}		min. Earth dist.	4997 Mar 30 09:17	11° \mathbb{Y} 35'39	0.27260 AU
max. Earth dist.	4994 Oct 29 13:53	7° \mathbb{M} 23'20	1.72639 AU	morning rise	4997 Apr 02 12:29	9° \mathbb{Y} 39'46	

direct	4997 Apr 20 12:12	3°♄30'30			4999 Nov 01 15:52	0°♁	
greatest brilliancy	4997 Apr 29 17:22	5°♄06'22	-4.9m	desc. node	4999 Nov 12 06:59	13°♁04'50	
desc. node	4997 May 27 11:54	23°♄12'01			4999 Nov 26 01:14	0°♁	
	4997 Jun 03 23:32	0°♁			4999 Dec 20 11:59	0°♁	
morning max el	4997 Jun 09 04:46	5°♁00'57	46°17'34		5000 Jan 14 01:41	0°♁	
	4997 Jul 03 05:16	0°♁			5000 Feb 07 23:13	0°♄	
	4997 Jul 30 00:53	0°♁		asc. node	5000 Mar 05 08:39	29°♄37'58	
	4997 Aug 24 21:04	0°♁			5000 Mar 05 16:24	0°♁	
asc. node	4997 Sep 17 13:41	28°♁08'43		evening max el	5000 Apr 01 11:02	28°♁54'19	46°46'05
	4997 Sep 19 02:48	0°♁			5000 Apr 02 13:14	0°♁	
	4997 Oct 13 21:27	0°♁		greatest brilliancy	5000 May 11 02:04	29°♁20'14	-4.8m
	4997 Nov 07 07:32	0°♁			5000 May 12 23:12	0°♁	
	4997 Dec 01 11:42	0°♁		retrograde	5000 May 21 18:33	1°♁28'28	
morning set	4997 Dec 04 05:06	3°♁23'49			5000 May 30 06:30	30°♁	
	4997 Dec 25 12:09	0°♁		evening set	5000 Jun 06 06:40	26°♁45'35	
desc. node	4998 Jan 07 04:35	15°♁53'45		inferior conj	5000 Jun 11 23:42	23°♁18'52	3°07'03
max. Earth dist.	4998 Jan 10 11:52	20°♁02'23	1.71391 AU	minimum elong	5000 Jun 12 06:20	23°♁08'31	3°05'07
				min. Earth dist.	5000 Jun 11 19:51	23°♁24'53	0.28185 AU
superior conj	4998 Jan 12 17:38	22°♁51'02	-0°13'22	morning rise	5000 Jun 18 06:23	19°♁33'47	
minimum elong	4998 Jan 12 14:13	22°♁40'20	0°13'10	desc. node	5000 Jun 24 23:33	16°♁34'56	
behind sun begin	4998 Jan 11 22:58	21°♁52'28		direct	5000 Jul 03 02:57	15°♁15'04	
behind sun end	4998 Jan 13 05:29	23°♁28'11		greatest brilliancy	5000 Jul 13 01:56	17°♁03'02	-4.7m
	4998 Jan 18 10:21	0°♁			5000 Aug 03 18:21	0°♁	
	4998 Feb 11 07:18	0°♁		morning max el	5000 Aug 20 22:15	15°♁05'05	45°43'39
evening rise	4998 Feb 22 12:05	14°♁04'35			5000 Sep 04 20:33	0°♁	
	4998 Mar 07 04:20	0°♄			5000 Oct 02 10:11	0°♁	
	4998 Mar 31 03:32	0°♁		asc. node	5000 Oct 16 01:37	15°♁37'06	
	4998 Apr 24 07:29	0°♁			5000 Oct 28 08:28	0°♁	
asc. node	4998 Apr 30 06:29	7°♁20'33			5000 Nov 22 08:57	0°♁	
	4998 May 18 19:06	0°♁			5000 Dec 16 20:16	0°♁	
	4998 Jun 12 18:01	0°♁			5001 Jan 09 23:55	0°♁	
	4998 Jul 08 10:50	0°♁			5001 Feb 02 23:21	0°♁	
	4998 Aug 04 13:19	0°♁		desc. node	5001 Feb 04 16:27	2°♁08'52	
desc. node	4998 Aug 19 21:22	15°♁42'09		morning set	5001 Feb 18 01:24	18°♁56'15	
evening max el	4998 Aug 23 14:07	19°♁17'01	45°34'26		5001 Feb 26 20:38	0°♁	
	4998 Sep 04 09:49	0°♁			5001 Mar 22 17:21	0°♄	
greatest brilliancy	4998 Oct 01 21:15	17°♁22'29	-4.7m				
retrograde	4998 Oct 11 05:54	18°♁58'09		superior conj	5001 Mar 31 07:06	10°♄46'06	-1°26'58
evening set	4998 Oct 28 19:03	13°♁13'26		minimum elong	5001 Mar 31 05:48	10°♄42'03	1°26'58
inferior conj	4998 Nov 01 11:55	10°♁57'55	-7°49'53	max. Earth dist.	5001 Apr 03 01:21	14°♄14'03	1.71405 AU
minimum elong	4998 Nov 01 19:59	10°♁45'22	7°48'48		5001 Apr 15 15:14	0°♁	
min. Earth dist.	4998 Nov 02 09:36	10°♁24'14	0.28368 AU		5001 May 09 16:01	0°♁	
morning rise	4998 Nov 05 20:31	8°♁18'05		evening rise	5001 May 10 13:37	1°♁07'07	
direct	4998 Nov 22 19:09	2°♁46'44		asc. node	5001 May 28 18:16	23°♁40'38	
greatest brilliancy	4998 Dec 04 01:07	5°♁06'16	-4.8m		5001 Jun 02 21:08	0°♁	
asc. node	4998 Dec 10 23:05	8°♁29'20			5001 Jun 27 07:27	0°♁	
	4999 Jan 06 17:01	0°♁			5001 Jul 22 00:10	0°♁	
morning max el	4999 Jan 12 03:25	5°♁22'21	46°41'53		5001 Aug 16 01:42	0°♁	
	4999 Feb 04 02:00	0°♁			5001 Sep 10 16:59	0°♁	
	4999 Mar 01 23:42	0°♁		desc. node	5001 Sep 17 09:13	7°♁39'18	
	4999 Mar 26 23:26	0°♁			5001 Oct 07 07:55	0°♁	
desc. node	4999 Apr 01 14:16	6°♁49'27		evening max el	5001 Nov 05 01:28	29°♁57'02	46°19'24
	4999 Apr 20 13:31	0°♄			5001 Nov 05 02:41	0°♁	
	4999 May 14 23:43	0°♁		greatest brilliancy	5001 Dec 14 23:36	29°♁22'18	-4.9m
	4999 Jun 08 09:06	0°♁			5001 Dec 16 23:36	0°♁	
	4999 Jul 02 18:58	0°♁		retrograde	5001 Dec 24 16:47	1°♁07'31	
morning set	4999 Jul 17 01:37	17°♁32'10			5002 Jan 01 03:11	30°♁	
asc. node	4999 Jul 23 15:52	25°♁38'15		evening set	5002 Jan 07 23:40	27°♁05'27	
	4999 Jul 27 05:06	0°♁		asc. node	5002 Jan 08 10:57	26°♁50'20	
	4999 Aug 20 14:41	0°♁		inferior conj	5002 Jan 14 06:35	23°♁25'39	1°30'09
max. Earth dist.	4999 Aug 21 23:30	1°♁40'58	1.73461 AU	minimum elong	5002 Jan 14 03:08	23°♁30'54	1°29'03
				min. Earth dist.	5002 Jan 14 09:09	23°♁21'44	0.26727 AU
superior conj	4999 Aug 22 22:17	2°♁51'05	1°04'09	morning rise	5002 Jan 20 06:24	19°♁55'19	
minimum elong	4999 Aug 22 13:18	2°♁23'26	1°03'51	direct	5002 Feb 03 21:16	15°♁41'25	
	4999 Sep 13 23:19	0°♁		greatest brilliancy	5002 Feb 14 02:41	17°♁40'59	-4.9m
evening rise	4999 Sep 27 23:37	17°♁16'24			5002 Mar 06 01:52	0°♁	
	4999 Oct 08 07:26	0°♁		morning max el	5002 Mar 26 11:10	18°♁45'49	46°57'10

	5002 Apr 06 06:41	0° H			5004 Oct 18 08:34	0° X	
desc. node	5002 Apr 30 02:12	26° H 25'55			5004 Nov 12 13:30	0° Z	
	5002 May 03 04:57	0° Y			5004 Dec 08 06:19	0° \approx	
	5002 May 28 21:13	0° B			5005 Jan 04 01:24	0° H	
	5002 Jun 23 01:25	0° II	evening max el		5005 Jan 16 22:10	13° H 28'36	47°07'09
	5002 Jul 17 23:57	0° G			5005 Feb 03 12:11	0° Y	
asc. node	5002 Aug 11 18:35	0° Ω	asc. node		5005 Feb 04 22:54	1° Y 12'52	
	5002 Aug 21 03:52	11° Ω 25'13	greatest brilliancy		5005 Feb 26 14:55	14° Y 53'44	-4.9m
	5002 Sep 05 09:05	0° M	retrograde		5005 Mar 08 15:33	16° Y 48'38	
morning set	5002 Sep 24 06:18	23° M 10'52	evening set		5005 Mar 26 14:52	10° Y 36'37	
	5002 Sep 29 19:11	0° $\underline{\text{A}}$	inferior conj		5005 Mar 29 09:41	8° Y 53'41	9°02'32
	5002 Oct 24 01:33	0° M	minimum elong		5005 Mar 29 08:01	8° Y 56'17	9°02'30
max. Earth dist.	5002 Oct 28 05:44	5° M 10'29	1.72683 AU	min. Earth dist.	5005 Mar 28 22:25	9° Y 11'11	0.27224 AU
				morning rise	5005 Apr 01 01:15	7° Y 15'51	
superior conj	5002 Oct 30 21:27	8° M 28'04	1°18'04	direct	5005 Apr 19 00:25	1° Y 06'22	
minimum elong	5002 Oct 31 04:39	8° M 50'23	1°17'56	greatest brilliancy	5005 Apr 28 06:37	2° Y 42'47	-4.9m
	5002 Nov 17 05:25	0° X		desc. node	5005 May 27 13:49	22° Y 10'44	
evening rise	5002 Dec 08 02:47	25° X 59'54			5005 Jun 05 00:19	0° B	
desc. node	5002 Dec 10 18:50	29° X 19'29		morning max el	5005 Jun 07 17:19	2° B 37'49	46°19'18
	5002 Dec 11 07:51	0° Z			5005 Jul 03 21:48	0° II	
	5003 Jan 04 09:20	0° \approx			5005 Jul 30 14:31	0° G	
	5003 Jan 28 10:28	0° H			5005 Aug 25 09:16	0° Ω	
	5003 Feb 21 13:03	0° Y		asc. node	5005 Sep 17 15:41	27° Ω 40'19	
	5003 Mar 17 20:43	0° B			5005 Sep 19 14:14	0° M	
asc. node	5003 Apr 02 20:33	19° B 27'02			5005 Oct 14 08:26	0° $\underline{\text{A}}$	
	5003 Apr 11 15:20	0° II			5005 Nov 07 18:18	0° M	
	5003 May 07 06:33	0° G			5005 Dec 01 22:23	0° X	
	5003 Jun 03 16:51	0° Ω		morning set	5005 Dec 02 20:03	1° X 07'30	
evening max el	5003 Jun 12 12:04	8° Ω 51'32	45°49'55		5005 Dec 25 22:50	0° Z	
	5003 Jul 07 07:27	0° M		desc. node	5006 Jan 07 06:42	15° Z 26'48	
greatest brilliancy	5003 Jul 20 14:10	7° M 13'55	-4.7m	max. Earth dist.	5006 Jan 08 22:58	17° Z 33'05	1.71429 AU
desc. node	5003 Jul 23 11:39	8° M 11'50					
retrograde	5003 Jul 31 13:37	9° M 24'00		superior conj	5006 Jan 11 05:31	20° Z 24'09	-0°09'33
evening set	5003 Aug 16 15:28	4° M 26'36		minimum elong	5006 Jan 11 03:04	20° Z 16'29	0°09'25
min. Earth dist.	5003 Aug 21 17:35	1° M 20'51	0.29071 AU	behind sun begin	5006 Jan 10 05:57	19° Z 10'12	
inferior conj	5003 Aug 22 02:05	1° M 07'31	-6°16'39	behind sun end	5006 Jan 12 00:12	21° Z 22'46	
minimum elong	5003 Aug 21 16:15	1° M 22'58	6°14'41		5006 Jan 18 21:04	0° \approx	
	5003 Aug 23 21:13	30° R Ω			5006 Feb 11 18:06	0° H	
morning rise	5003 Aug 26 17:13	28° Ω 17'03		evening rise	5006 Feb 20 22:55	11° H 33'44	
direct	5003 Sep 12 16:58	22° Ω 51'12			5006 Mar 07 15:16	0° Y	
greatest brilliancy	5003 Sep 22 20:37	24° Ω 42'57	-4.7m		5006 Mar 31 14:35	0° B	
	5003 Oct 03 14:03	0° M			5006 Apr 24 18:45	0° II	
morning max el	5003 Oct 31 18:02	23° M 09'01	45°55'55	asc. node	5006 Apr 30 08:23	6° II 51'34	
	5003 Nov 07 15:15	0° $\underline{\text{A}}$			5006 May 19 06:43	0° G	
asc. node	5003 Nov 13 13:21	6° $\underline{\text{A}}$ 07'29			5006 Jun 13 06:22	0° Ω	
	5003 Dec 05 06:59	0° M			5006 Jul 09 00:37	0° M	
	5003 Dec 30 22:51	0° X			5006 Aug 05 06:32	0° $\underline{\text{A}}$	
	5004 Jan 24 17:24	0° Z		desc. node	5006 Aug 19 23:27	14° $\underline{\text{A}}$ 55'33	
	5004 Feb 18 01:24	0° \approx		evening max el	5006 Aug 22 04:23	17° $\underline{\text{A}}$ 03'04	45°33'58
desc. node	5004 Mar 04 04:26	18° \approx 48'03			5006 Sep 05 16:08	0° M	
	5004 Mar 13 04:08	0° H		greatest brilliancy	5006 Sep 30 10:33	15° M 08'26	-4.7m
	5004 Apr 06 04:43	0° Y		retrograde	5006 Oct 09 21:02	16° M 45'38	
	5004 Apr 30 05:25	0° B		evening set	5006 Oct 27 12:23	10° M 56'32	
morning set	5004 May 05 04:08	6° B 09'59		inferior conj	5006 Oct 31 03:06	8° M 44'14	-7°58'12
	5004 May 24 07:54	0° II		minimum elong	5006 Oct 31 10:39	8° M 32'30	7°57'17
				min. Earth dist.	5006 Nov 01 00:04	8° M 11'41	0.28429 AU
superior conj	5004 Jun 12 19:31	24° II 09'11	-0°29'22	morning rise	5006 Nov 04 08:34	6° M 09'13	
minimum elong	5004 Jun 13 01:54	24° II 28'53	0°29'04	direct	5006 Nov 21 10:52	0° M 32'09	
max. Earth dist.	5004 Jun 15 20:12	27° II 53'57	1.72821 AU	greatest brilliancy	5006 Dec 02 16:44	2° M 51'51	-4.8m
	5004 Jun 17 12:59	0° G		asc. node	5006 Dec 11 01:05	7° M 05'27	
asc. node	5004 Jun 25 06:05	9° G 31'45			5007 Jan 07 16:23	0° X	
	5004 Jul 11 20:36	0° Ω		morning max el	5007 Jan 10 19:07	3° X 06'16	46°40'37
evening rise	5004 Jul 20 08:08	10° Ω 26'05			5007 Feb 04 18:09	0° Z	
	5004 Aug 05 06:28	0° M			5007 Mar 02 13:24	0° \approx	
	5004 Aug 29 18:54	0° $\underline{\text{A}}$			5007 Mar 27 11:57	0° H	
	5004 Sep 23 11:03	0° M		desc. node	5007 Apr 01 16:16	6° H 18'00	
desc. node	5004 Oct 14 21:09	25° M 49'49			5007 Apr 21 01:21	0° Y	

	5007 May 15 11:05	0°♄		evening set	5010 Jan 05 12:30	24°♄40'11	
	5007 Jun 08 20:07	0°♂		asc. node	5010 Jan 07 13:07	23°♄33'00	
	5007 Jul 03 05:42	0°♄		inferior conj	5010 Jan 11 19:16	21°♄00'14	1°06'04
morning set	5007 Jul 15 18:34	15°♄24'09		minimum elong	5010 Jan 11 16:43	21°♄04'07	1°05'16
asc. node	5007 Jul 23 18:00	25°♄12'17		min. Earth dist.	5010 Jan 11 23:08	20°♄54'20	0.26749 AU
	5007 Jul 27 15:39	0°♂		morning rise	5010 Jan 17 20:42	17°♄27'23	
max. Earth dist.	5007 Aug 20 21:29	29°♂48'41	1.73465 AU	direct	5010 Feb 01 10:33	13°♄15'41	
	5007 Aug 21 01:10	0°♄		greatest brilliancy	5010 Feb 11 16:55	15°♄15'52	-4.9m
					5010 Mar 06 13:26	0°♄	
superior conj	5007 Aug 21 16:13	0°♄46'20	1°01'59	morning max el	5010 Mar 24 00:09	16°♄20'26	46°57'41
minimum elong	5007 Aug 21 07:10	0°♄18'29	1°01'41		5010 Apr 06 01:42	0°♄	
	5007 Sep 14 09:50	0°♄		desc. node	5010 Apr 29 04:09	25°♄47'54	
evening rise	5007 Sep 26 17:24	15°♄10'42			5010 May 02 19:51	0°♄	
	5007 Oct 08 18:06	0°♄			5010 May 28 10:16	0°♄	
	5007 Nov 02 02:47	0°♄			5010 Jun 22 13:27	0°♂	
desc. node	5007 Nov 12 08:57	12°♄36'51			5010 Jul 17 11:22	0°♄	
	5007 Nov 26 12:31	0°♄			5010 Aug 11 05:37	0°♂	
	5007 Dec 20 23:44	0°♄		asc. node	5010 Aug 20 05:49	10°♂57'57	
	5008 Jan 14 14:08	0°♄			5010 Sep 04 19:52	0°♄	
	5008 Feb 08 12:47	0°♄		morning set	5010 Sep 21 23:44	21°♄03'59	
asc. node	5008 Mar 04 10:39	28°♄58'53			5010 Sep 29 05:50	0°♄	
	5008 Mar 05 08:17	0°♄			5010 Oct 23 12:11	0°♄	
evening max el	5008 Mar 30 02:23	26°♄37'53	46°47'49	max. Earth dist.	5010 Oct 25 20:49	2°♄55'29	1.72725 AU
	5008 Apr 02 11:42	0°♂					
greatest brilliancy	5008 May 08 17:36	27°♂05'13	-4.8m	superior conj	5010 Oct 28 14:01	6°♄17'34	1°19'22
retrograde	5008 May 19 10:38	29°♂13'50		minimum elong	5010 Oct 28 20:38	6°♄38'07	1°19'15
evening set	5008 Jun 04 00:09	24°♂27'48			5010 Nov 16 16:09	0°♄	
inferior conj	5008 Jun 09 14:52	21°♂04'18	3°27'06	evening rise	5010 Dec 05 16:36	23°♄39'43	
minimum elong	5008 Jun 09 22:06	20°♂53'01	3°25'02	desc. node	5010 Dec 09 20:54	28°♄52'00	
min. Earth dist.	5008 Jun 09 10:58	21°♂10'23	0.28156 AU		5010 Dec 10 18:44	0°♄	
morning rise	5008 Jun 15 20:31	17°♂21'04			5011 Jan 03 20:25	0°♄	
desc. node	5008 Jun 24 01:42	13°♂54'57			5011 Jan 27 21:48	0°♄	
direct	5008 Jun 30 18:10	13°♂01'00			5011 Feb 21 00:42	0°♄	
greatest brilliancy	5008 Jul 10 16:06	14°♂48'41	-4.7m		5011 Mar 17 08:52	0°♄	
	5008 Aug 04 03:18	0°♄		asc. node	5011 Apr 01 22:30	18°♄54'52	
morning max el	5008 Aug 18 14:29	12°♄55'51	45°44'07		5011 Apr 11 04:19	0°♂	
	5008 Sep 04 14:17	0°♂			5011 May 06 21:16	0°♄	
	5008 Oct 02 00:10	0°♄			5011 Jun 03 12:05	0°♂	
asc. node	5008 Oct 15 03:35	15°♄05'08		evening max el	5011 Jun 10 03:07	6°♂37'52	45°51'22
	5008 Oct 27 20:51	0°♄			5011 Jul 08 06:44	0°♄	
	5008 Nov 21 20:33	0°♄		greatest brilliancy	5011 Jul 18 06:40	5°♄05'17	-4.7m
	5008 Dec 16 07:29	0°♄		desc. node	5011 Jul 22 13:40	6°♄25'35	
	5009 Jan 09 10:56	0°♄		retrograde	5011 Jul 29 05:29	7°♄15'15	
	5009 Feb 02 10:15	0°♄		evening set	5011 Aug 14 05:16	2°♄21'41	
desc. node	5009 Feb 03 18:33	1°♄41'20			5011 Aug 18 03:33	30°♄	
morning set	5009 Feb 15 11:46	16°♄24'01		inferior conj	5011 Aug 19 18:30	28°♂58'53	-6°02'56
	5009 Feb 26 07:27	0°♄		minimum elong	5011 Aug 19 08:40	29°♂14'22	6°00'53
	5009 Mar 22 04:05	0°♄		min. Earth dist.	5011 Aug 19 09:53	29°♂12'28	0.29055 AU
				morning rise	5011 Aug 24 12:12	26°♂04'26	
superior conj	5009 Mar 28 18:22	8°♄17'07	-1°26'40	direct	5011 Sep 10 08:52	20°♂42'50	
minimum elong	5009 Mar 28 16:01	8°♄09'43	1°26'41	greatest brilliancy	5011 Sep 20 12:39	22°♂34'09	-4.7m
max. Earth dist.	5009 Mar 31 12:23	11°♄44'23	1.71371 AU		5011 Oct 04 13:58	0°♄	
	5009 Apr 15 01:55	0°♄		morning max el	5011 Oct 29 08:07	20°♄53'26	45°54'44
evening rise	5009 May 08 02:31	28°♄44'39			5011 Nov 07 10:36	0°♄	
	5009 May 09 02:44	0°♂		asc. node	5011 Nov 12 15:24	5°♄25'28	
asc. node	5009 May 27 20:18	23°♂13'33			5011 Dec 04 21:45	0°♄	
	5009 Jun 02 07:56	0°♄			5011 Dec 30 11:54	0°♄	
	5009 Jun 26 18:29	0°♂			5012 Jan 24 05:36	0°♄	
	5009 Jul 21 11:34	0°♄			5012 Feb 17 13:06	0°♄	
	5009 Aug 15 13:48	0°♄		desc. node	5012 Mar 03 06:19	18°♄18'05	
	5009 Sep 10 06:25	0°♄			5012 Mar 12 15:32	0°♄	
desc. node	5009 Sep 16 11:12	7°♄05'14			5012 Apr 05 15:54	0°♄	
	5009 Oct 07 00:07	0°♄			5012 Apr 29 16:26	0°♄	
evening max el	5009 Nov 02 15:55	27°♄39'16	46°17'17	morning set	5012 May 02 17:20	3°♄47'18	
	5009 Nov 05 02:29	0°♄			5012 May 23 18:46	0°♂	
greatest brilliancy	5009 Dec 12 12:53	26°♄58'04	-4.8m				
retrograde	5009 Dec 22 05:11	28°♄41'58		superior conj	5012 Jun 10 10:56	21°♂55'00	-0°32'36

minimum elong	5012 Jun 10 17:56	22° Π 16'42	0°32'18	min. Earth dist.	5014 Oct 29 14:07	5° \mathbb{M} 58'37	0.28491 AU
max. Earth dist.	5012 Jun 13 13:40	25° Π 46'11	1.72771 AU	morning rise	5014 Nov 01 20:39	3° \mathbb{M} 59'04	
	5012 Jun 16 23:45	0° \mathfrak{S}			5014 Nov 09 21:53	30° \mathbb{R} $\underline{\mathfrak{A}}$	
asc. node	5012 Jun 24 08:12	9° \mathfrak{S} 05'04		direct	5014 Nov 19 02:58	28° $\underline{\mathfrak{A}}$ 16'39	
	5012 Jul 11 07:21	0° Ω			5014 Nov 28 17:10	0° \mathbb{M}	
evening rise	5012 Jul 18 01:49	8° Ω 19'44		greatest brilliancy	5014 Nov 30 07:42	0° \mathbb{M} 35'34	-4.8m
	5012 Aug 04 17:19	0° \mathbb{M}		asc. node	5014 Dec 10 03:13	5° \mathbb{M} 43'19	
	5012 Aug 29 06:00	0° $\underline{\mathfrak{A}}$			5015 Jan 07 15:20	0° \mathfrak{A}	
	5012 Sep 22 22:37	0° \mathbb{M}		morning max el	5015 Jan 08 11:13	0° \mathfrak{A} 49'58	46°39'07
desc. node	5012 Oct 13 23:04	25° \mathbb{M} 19'16			5015 Feb 04 10:33	0° \mathfrak{Z}	
	5012 Oct 17 20:49	0° \mathfrak{A}			5015 Mar 02 03:28	0° \approx	
	5012 Nov 12 02:49	0° \mathfrak{Z}			5015 Mar 27 00:51	0° \mathfrak{H}	
	5012 Dec 07 21:32	0° \approx		desc. node	5015 Mar 31 18:18	5° \mathfrak{H} 45'29	
	5013 Jan 03 20:43	0° \mathfrak{H}			5015 Apr 20 13:32	0° \mathbb{Y}	
evening max el	5013 Jan 14 10:33	11° \mathfrak{H} 00'37	47°06'28		5015 May 14 22:45	0° \mathfrak{B}	
	5013 Feb 03 23:54	0° \mathbb{Y}			5015 Jun 08 07:26	0° Π	
asc. node	5013 Feb 04 00:53	0° \mathbb{Y} 01'58			5015 Jul 02 16:47	0° \mathfrak{S}	
greatest brilliancy	5013 Feb 24 04:49	12° \mathbb{Y} 28'06	-4.9m	morning set	5015 Jul 13 11:34	13° \mathfrak{S} 15'03	
retrograde	5013 Mar 06 04:39	14° \mathbb{Y} 22'47		asc. node	5015 Jul 22 19:57	24° \mathfrak{S} 44'34	
evening set	5013 Mar 24 01:58	8° \mathbb{Y} 14'13			5015 Jul 27 02:35	0° Ω	
inferior conj	5013 Mar 26 22:52	6° \mathbb{Y} 28'24	9°00'30				
minimum elong	5013 Mar 26 20:13	6° \mathbb{Y} 32'29	9°00'25	superior conj	5015 Aug 19 10:13	28° Ω 40'34	0°59'45
min. Earth dist.	5013 Mar 26 11:21	6° \mathbb{Y} 46'14	0.27191 AU	minimum elong	5015 Aug 19 01:10	28° Ω 12'42	0°59'25
morning rise	5013 Mar 29 14:34	4° \mathbb{Y} 50'31		max. Earth dist.	5015 Aug 18 19:53	27° Ω 56'27	1.73466 AU
	5013 Apr 08 12:24	30° \mathbb{R} \mathfrak{H}			5015 Aug 20 12:02	0° \mathbb{M}	
direct	5013 Apr 16 12:41	28° \mathfrak{H} 41'17			5015 Sep 13 20:44	0° $\underline{\mathfrak{A}}$	
	5013 Apr 24 20:42	0° \mathbb{Y}		evening rise	5015 Sep 24 11:19	13° $\underline{\mathfrak{A}}$ 04'19	
greatest brilliancy	5013 Apr 25 19:49	0° \mathbb{Y} 18'28	-4.9m		5015 Oct 08 05:07	0° \mathbb{M}	
desc. node	5013 May 26 15:55	21° \mathbb{Y} 10'42			5015 Nov 01 14:05	0° \mathfrak{A}	
	5013 Jun 05 00:13	0° \mathfrak{B}		desc. node	5015 Nov 11 11:05	12° \mathfrak{A} 08'15	
morning max el	5013 Jun 05 06:43	0° \mathfrak{B} 15'55	46°21'05		5015 Nov 26 00:12	0° \mathfrak{Z}	
	5013 Jul 03 14:15	0° Π			5015 Dec 20 11:59	0° \approx	
	5013 Jul 30 04:16	0° \mathfrak{S}			5016 Jan 14 03:08	0° \mathfrak{H}	
	5013 Aug 24 21:39	0° Ω			5016 Feb 08 03:01	0° \mathbb{Y}	
asc. node	5013 Sep 16 17:39	27° Ω 11'08		asc. node	5016 Mar 03 12:36	28° \mathbb{Y} 17'42	
	5013 Sep 19 01:52	0° \mathbb{M}			5016 Mar 05 01:00	0° \mathfrak{B}	
	5013 Oct 13 19:41	0° $\underline{\mathfrak{A}}$		evening max el	5016 Mar 27 18:06	24° \mathfrak{B} 20'42	46°49'40
	5013 Nov 07 05:23	0° \mathbb{M}			5016 Apr 02 11:48	0° Π	
morning set	5013 Nov 30 10:47	28° \mathbb{M} 49'32		greatest brilliancy	5016 May 06 09:28	24° Π 49'10	-4.8m
	5013 Dec 01 09:24	0° \mathfrak{A}		retrograde	5016 May 17 02:39	26° Π 57'25	
	5013 Dec 25 09:51	0° \mathfrak{Z}		evening set	5016 Jun 01 17:44	22° Π 08'26	
desc. node	5014 Jan 06 08:46	14° \mathfrak{Z} 58'35		inferior conj	5016 Jun 07 05:56	18° Π 48'10	3°46'55
max. Earth dist.	5014 Jan 06 11:16	15° \mathfrak{Z} 06'25	1.71463 AU	minimum elong	5016 Jun 07 13:45	18° Π 35'59	3°44'44
				min. Earth dist.	5016 Jun 07 01:54	18° Π 54'27	0.28123 AU
superior conj	5014 Jan 08 17:04	17° \mathfrak{Z} 55'07	-0°05'42	morning rise	5016 Jun 13 10:19	15° Π 06'54	
minimum elong	5014 Jan 08 15:36	17° \mathfrak{Z} 50'33	0°05'37	desc. node	5016 Jun 23 03:45	11° Π 18'34	
behind sun begin	5014 Jan 07 15:24	16° \mathfrak{Z} 34'39		direct	5016 Jun 28 09:24	10° Π 45'35	
behind sun end	5014 Jan 09 15:48	19° \mathfrak{Z} 06'27		greatest brilliancy	5016 Jul 08 05:42	12° Π 32'14	-4.8m
	5014 Jan 18 08:08	0° \approx			5016 Aug 04 10:16	0° \mathfrak{S}	
	5014 Feb 11 05:15	0° \mathfrak{H}		morning max el	5016 Aug 16 06:14	10° \mathfrak{S} 44'12	45°44'35
evening rise	5014 Feb 18 09:31	9° \mathfrak{H} 01'14			5016 Sep 04 08:03	0° Ω	
	5014 Mar 07 02:29	0° \mathbb{Y}			5016 Oct 01 14:23	0° \mathbb{M}	
	5014 Mar 31 01:57	0° \mathfrak{B}		asc. node	5016 Oct 14 05:37	14° \mathbb{M} 32'25	
	5014 Apr 24 06:19	0° Π			5016 Oct 27 09:32	0° $\underline{\mathfrak{A}}$	
asc. node	5014 Apr 29 10:27	6° Π 22'05			5016 Nov 21 08:28	0° \mathbb{M}	
	5014 May 18 18:42	0° \mathfrak{S}			5016 Dec 15 19:00	0° \mathfrak{A}	
	5014 Jun 12 19:06	0° Ω			5017 Jan 08 22:17	0° \mathfrak{Z}	
	5014 Jul 08 14:54	0° \mathbb{M}			5017 Feb 01 21:31	0° \approx	
	5014 Aug 05 00:30	0° $\underline{\mathfrak{A}}$		desc. node	5017 Feb 02 20:28	1° \approx 12'00	
desc. node	5014 Aug 19 01:25	14° $\underline{\mathfrak{A}}$ 06'59		greatest brilliancy	5017 Feb 08 19:56	8° \approx 42'13	-3.9m
evening max el	5014 Aug 19 19:30	14° $\underline{\mathfrak{A}}$ 50'18	45°33'34	morning set	5017 Feb 12 21:52	13° \approx 49'44	
	5014 Sep 06 01:27	0° \mathbb{M}			5017 Feb 25 18:40	0° \mathfrak{H}	
greatest brilliancy	5014 Sep 27 23:24	12° \mathbb{M} 53'11	-4.7m		5017 Mar 21 15:16	0° \mathbb{Y}	
retrograde	5014 Oct 07 12:20	14° \mathbb{M} 32'02					
evening set	5014 Oct 25 05:30	8° \mathbb{M} 38'58		superior conj	5017 Mar 26 05:07	5° \mathbb{Y} 45'05	-1°26'13
inferior conj	5014 Oct 28 18:14	6° \mathbb{M} 29'27	-8°05'41	minimum elong	5017 Mar 26 01:42	5° \mathbb{Y} 34'21	1°26'11
minimum elong	5014 Oct 29 01:13	6° \mathbb{M} 18'38	8°04'56	max. Earth dist.	5017 Mar 28 21:31	9° \mathbb{Y} 07'17	1.71336 AU




































































































































	5017 Apr 14 13:03	0°♄		morning max el	5019 Oct 26 22:51	18°♎39'18	45°53'37
evening rise	5017 May 05 14:46	26°♄18'46			5019 Nov 07 05:29	0°♊	
	5017 May 08 13:52	0°♊		asc. node	5019 Nov 11 17:29	4°♊43'55	
asc. node	5017 May 26 22:23	22°♊45'28			5019 Dec 04 12:25	0°♋	
	5017 Jun 01 19:09	0°♋			5019 Dec 30 00:55	0°♌	
	5017 Jun 26 05:53	0°♌			5020 Jan 23 17:46	0°♍	
	5017 Jul 20 23:21	0°♍			5020 Feb 17 00:47	0°♎	
	5017 Aug 15 02:20	0°♎		desc. node	5020 Mar 02 08:24	17°♎48'48	
	5017 Sep 09 20:22	0°♏			5020 Mar 12 02:53	0°♏	
desc. node	5017 Sep 15 13:11	6°♏29'58			5020 Apr 05 03:02	0°♐	
	5017 Oct 06 16:59	0°♐			5020 Apr 29 03:25	0°♑	
evening max el	5017 Oct 31 05:39	25°♐19'00	46°15'12	morning set	5020 Apr 30 06:26	1°♑24'17	
	5017 Nov 05 03:49	0°♒			5020 May 23 05:39	0°♒	
greatest brilliancy	5017 Dec 10 02:44	24°♒34'05	-4.8m				
retrograde	5017 Dec 19 17:11	26°♒16'15		superior conj	5020 Jun 08 02:07	19°♒40'01	-0°35'50
evening set	5018 Jan 03 01:39	22°♒14'17		minimum elong	5020 Jun 08 09:44	20°♒03'36	0°35'30
asc. node	5018 Jan 06 14:59	20°♒13'25		max. Earth dist.	5020 Jun 11 04:36	23°♒30'32	1.72725 AU
inferior conj	5018 Jan 09 08:05	18°♒34'44	0°42'07		5020 Jun 16 10:33	0°♓	
minimum elong	5018 Jan 09 06:27	18°♒37'13	0°41'36	asc. node	5020 Jun 23 10:08	8°♓37'43	
min. Earth dist.	5018 Jan 09 13:33	18°♒26'21	0.26775 AU		5020 Jul 10 18:07	0°♑	
morning rise	5018 Jan 15 10:54	14°♒59'29		evening rise	5020 Jul 15 19:12	6°♑12'25	
direct	5018 Jan 29 23:27	10°♒49'35			5020 Aug 04 04:11	0°♒	
greatest brilliancy	5018 Feb 09 07:49	12°♒51'02	-4.9m		5020 Aug 28 17:07	0°♓	
	5018 Mar 06 22:19	0°♈			5020 Sep 22 10:09	0°♋	
morning max el	5018 Mar 21 12:36	13°♈52'38	46°58'00	desc. node	5020 Oct 13 01:12	24°♋49'22	
	5018 Apr 05 20:34	0°♏			5020 Oct 17 09:04	0°♌	
desc. node	5018 Apr 28 06:15	25°♏09'30			5020 Nov 11 16:12	0°♍	
	5018 May 02 10:56	0°♐			5020 Dec 07 12:54	0°♎	
	5018 May 27 23:37	0°♑			5021 Jan 03 16:31	0°♏	
	5018 Jun 22 01:46	0°♒		evening max el	5021 Jan 11 23:56	8°♏35'38	47°05'48
	5018 Jul 16 23:03	0°♓		asc. node	5021 Feb 03 02:53	28°♏49'32	
	5018 Aug 10 16:51	0°♑			5021 Feb 04 15:18	0°♐	
asc. node	5018 Aug 19 07:47	10°♑30'02		greatest brilliancy	5021 Feb 21 18:13	10°♐02'25	-4.9m
	5018 Sep 04 06:50	0°♒		retrograde	5021 Mar 03 18:22	11°♐57'41	
morning set	5018 Sep 19 17:05	18°♒56'13		evening set	5021 Mar 21 12:39	5°♐53'04	
	5018 Sep 28 16:41	0°♓		min. Earth dist.	5021 Mar 24 00:02	4°♐22'21	0.27157 AU
	5018 Oct 22 23:03	0°♋		inferior conj	5021 Mar 24 12:05	4°♐03'44	8°57'31
max. Earth dist.	5018 Oct 23 12:30	0°♋41'41	1.72767 AU	minimum elong	5021 Mar 24 08:31	4°♐09'15	8°57'20
				morning rise	5021 Mar 27 04:27	2°♐25'05	
superior conj	5018 Oct 26 06:45	4°♋07'00	1°20'32		5021 Mar 31 10:59	30°♑♏	
minimum elong	5018 Oct 26 12:49	4°♋25'46	1°20'27	direct	5021 Apr 14 01:24	26°♑16'57	
	5018 Nov 16 03:06	0°♌		greatest brilliancy	5021 Apr 23 08:32	27°♑54'29	-4.9m
evening rise	5018 Dec 03 06:47	21°♌20'07			5021 Apr 28 10:42	0°♐	
desc. node	5018 Dec 08 22:57	28°♌23'53		desc. node	5021 May 25 17:58	20°♐12'41	
	5018 Dec 10 05:49	0°♑		morning max el	5021 Jun 02 21:05	27°♐57'05	46°22'45
	5019 Jan 03 07:40	0°♒			5021 Jun 04 22:48	0°♑	
	5019 Jan 27 09:17	0°♏			5021 Jul 03 06:13	0°♒	
	5019 Feb 20 12:32	0°♐			5021 Jul 29 17:43	0°♓	
	5019 Mar 16 21:14	0°♑			5021 Aug 24 09:50	0°♑	
asc. node	5019 Apr 01 00:34	18°♑22'22		asc. node	5021 Sep 15 19:45	26°♑42'50	
	5019 Apr 10 17:36	0°♒			5021 Sep 18 13:20	0°♒	
	5019 May 06 12:25	0°♓			5021 Oct 13 06:45	0°♓	
	5019 Jun 03 08:13	0°♑			5021 Nov 06 16:15	0°♋	
evening max el	5019 Jun 07 17:43	4°♑22'19	45°53'00	morning set	5021 Nov 28 01:39	26°♋32'49	
	5019 Jul 09 15:56	0°♒			5021 Nov 30 20:12	0°♌	
greatest brilliancy	5019 Jul 15 22:55	2°♒55'35	-4.7m		5021 Dec 24 20:40	0°♍	
desc. node	5019 Jul 21 15:35	4°♒34'43		max. Earth dist.	5022 Jan 03 23:44	12°♒41'04	1.71499 AU
retrograde	5019 Jul 26 21:35	5°♒06'04		desc. node	5022 Jan 05 10:39	14°♒30'30	
evening set	5019 Aug 11 19:09	0°♒15'50					
	5019 Aug 12 06:15	30°♒♑		superior conj	5022 Jan 06 04:46	15°♒27'16	-0°01'51
inferior conj	5019 Aug 17 10:55	26°♑49'45	-5°48'45	minimum elong	5022 Jan 06 04:17	15°♒25'45	0°01'48
minimum elong	5019 Aug 17 01:08	27°♑05'09	5°46'37	behind sun begin	5022 Jan 05 02:56	14°♒06'18	
min. Earth dist.	5019 Aug 17 02:10	27°♑03'31	0.29036 AU	behind sun end	5022 Jan 07 05:37	16°♒45'13	
morning rise	5019 Aug 22 07:13	23°♑51'30			5022 Jan 17 19:01	0°♎	
direct	5019 Sep 08 00:28	18°♑33'53			5022 Feb 10 16:12	0°♏	
greatest brilliancy	5019 Sep 18 04:56	20°♑25'22	-4.7m	evening rise	5022 Feb 15 20:19	6°♏29'59	
	5019 Oct 05 07:43	0°♒			5022 Mar 06 13:30	0°♐	

	5022 Mar 30 13:03	0°♄		asc. node	5024 Oct 13 07:40	14°♑01'11	
	5022 Apr 23 17:37	0°♅			5024 Oct 26 21:43	0°♁	
asc. node	5022 Apr 28 12:32	5°♅53'32			5024 Nov 20 19:58	0°♎	
	5022 May 18 06:24	0°♄			5024 Dec 15 06:08	0°♊	
	5022 Jun 12 07:36	0°♊			5025 Jan 08 09:14	0°♈	
	5022 Jul 08 05:01	0°♑			5025 Feb 01 08:23	0°♏	
	5022 Aug 04 18:36	0°♁		desc. node	5025 Feb 01 22:31	0°♏44'21	
evening max el	5022 Aug 17 11:35	12°♁40'43	45°33'08	greatest brilliancy	5025 Feb 07 17:15	7°♏59'48	-3.9m
desc. node	5022 Aug 18 03:28	13°♁18'34		morning set	5025 Feb 10 07:59	11°♏16'46	
	5022 Sep 06 13:32	0°♎			5025 Feb 25 05:28	0°♏	
greatest brilliancy	5022 Sep 25 12:40	10°♎39'33	-4.7m		5025 Mar 21 02:01	0°♑	
retrograde	5022 Oct 05 03:34	12°♎19'33					
evening set	5022 Oct 22 22:36	6°♎23'13		superior conj	5025 Mar 23 15:51	3°♑14'13	-1°25'34
inferior conj	5022 Oct 26 09:33	4°♎16'06	-8°12'26	minimum elong	5025 Mar 23 11:22	3°♑00'09	1°25'31
minimum elong	5022 Oct 26 15:54	4°♎06'15	8°11'49	max. Earth dist.	5025 Mar 26 04:34	6°♑24'53	1.71305 AU
min. Earth dist.	5022 Oct 27 04:12	3°♎47'06	0.28549 AU		5025 Apr 13 23:48	0°♄	
morning rise	5022 Oct 30 08:57	1°♎50'03		evening rise	5025 May 03 02:51	23°♄53'23	
	5022 Nov 02 15:18	30°♎♁			5025 May 08 00:38	0°♅	
direct	5022 Nov 16 19:23	26°♁02'50		asc. node	5025 May 26 00:18	22°♅18'00	
greatest brilliancy	5022 Nov 27 22:16	28°♁20'09	-4.8m		5025 Jun 01 05:59	0°♄	
	5022 Dec 01 16:03	0°♎			5025 Jun 25 16:54	0°♊	
asc. node	5022 Dec 09 05:08	4°♎24'35			5025 Jul 20 10:45	0°♑	
morning max el	5023 Jan 06 02:59	28°♎34'06	46°37'29		5025 Aug 14 14:29	0°♁	
	5023 Jan 07 12:56	0°♊			5025 Sep 09 09:58	0°♎	
	5023 Feb 04 02:17	0°♈		desc. node	5025 Sep 14 15:17	5°♎56'05	
	5023 Mar 01 17:03	0°♏			5025 Oct 06 09:44	0°♊	
	5023 Mar 26 13:20	0°♏		evening max el	5025 Oct 28 18:31	22°♊57'47	46°12'58
desc. node	5023 Mar 30 20:20	5°♏14'04			5025 Nov 05 06:08	0°♈	
	5023 Apr 20 01:20	0°♑		greatest brilliancy	5025 Dec 07 16:42	22°♈11'01	-4.8m
	5023 May 14 10:04	0°♄		retrograde	5025 Dec 17 04:57	23°♈51'32	
	5023 Jun 07 18:22	0°♅		evening set	5025 Dec 31 14:53	19°♈48'39	
	5023 Jul 02 03:28	0°♄		asc. node	5026 Jan 05 17:01	16°♈52'31	
morning set	5023 Jul 11 04:49	11°♄07'59		inferior conj	5026 Jan 06 20:50	16°♈10'03	0°17'59
asc. node	5023 Jul 21 21:56	24°♄18'14		minimum elong	5026 Jan 06 20:08	16°♈11'07	0°17'46
	5023 Jul 26 13:07	0°♊		min. Earth dist.	5026 Jan 07 04:11	15°♈58'48	0.26807 AU
				morning rise	5026 Jan 13 00:51	12°♈32'47	
superior conj	5023 Aug 17 04:20	26°♊36'21	0°57'26	direct	5026 Jan 27 12:01	8°♈23'59	
minimum elong	5023 Aug 16 19:19	26°♊08'36	0°57'05	greatest brilliancy	5026 Feb 06 23:13	10°♈27'37	-4.9m
max. Earth dist.	5023 Aug 16 18:17	26°♊05'24	1.73468 AU		5026 Mar 07 04:21	0°♏	
	5023 Aug 19 22:31	0°♑		morning max el	5026 Mar 19 01:03	11°♏25'44	46°58'22
	5023 Sep 13 07:16	0°♁			5026 Apr 05 14:36	0°♏	
evening rise	5023 Sep 22 05:16	10°♁59'06		desc. node	5026 Apr 27 08:16	24°♏32'13	
	5023 Oct 07 15:49	0°♎			5026 May 02 01:28	0°♑	
	5023 Nov 01 01:02	0°♊			5026 May 27 12:30	0°♄	
desc. node	5023 Nov 10 13:02	11°♊40'08			5026 Jun 21 13:43	0°♅	
	5023 Nov 25 11:33	0°♈			5026 Jul 16 10:23	0°♄	
	5023 Dec 19 23:53	0°♏			5026 Aug 10 03:45	0°♊	
	5024 Jan 13 15:49	0°♏		asc. node	5026 Aug 18 09:54	10°♊03'35	
	5024 Feb 07 17:00	0°♑			5026 Sep 03 17:27	0°♑	
asc. node	5024 Mar 02 14:42	27°♑37'35		morning set	5026 Sep 17 10:39	16°♑50'11	
	5024 Mar 04 17:38	0°♄			5026 Sep 28 03:11	0°♁	
evening max el	5024 Mar 25 09:40	22°♄04'00	46°51'20	max. Earth dist.	5026 Oct 21 06:52	28°♁37'18	1.72811 AU
	5024 Apr 02 12:38	0°♅			5026 Oct 22 09:34	0°♎	
greatest brilliancy	5024 May 04 02:03	22°♅34'53	-4.8m				
retrograde	5024 May 14 18:16	24°♅41'50		superior conj	5026 Oct 23 23:44	1°♎58'17	1°21'34
evening set	5024 May 30 11:26	19°♅50'04		minimum elong	5026 Oct 24 05:11	2°♎15'09	1°21'30
inferior conj	5024 Jun 04 21:01	16°♅33'14	4°06'30		5026 Nov 15 13:44	0°♊	
minimum elong	5024 Jun 05 05:20	16°♅20'13	4°04'11	evening rise	5026 Nov 30 21:09	19°♊02'06	
min. Earth dist.	5024 Jun 04 17:08	16°♅39'18	0.28086 AU	desc. node	5026 Dec 08 00:53	27°♊56'18	
morning rise	5024 Jun 10 23:49	12°♅53'59			5026 Dec 09 16:38	0°♈	
desc. node	5024 Jun 22 05:36	8°♅48'35			5027 Jan 02 18:42	0°♏	
direct	5024 Jun 26 00:22	8°♅31'29			5027 Jan 26 20:34	0°♏	
greatest brilliancy	5024 Jul 05 19:25	10°♅17'04	-4.8m		5027 Feb 20 00:10	0°♑	
	5024 Aug 04 14:28	0°♄			5027 Mar 16 09:24	0°♄	
morning max el	5024 Aug 13 21:05	8°♄31'44	45°45'08	asc. node	5027 Mar 31 02:35	17°♄50'24	
	5024 Sep 04 00:52	0°♊			5027 Apr 10 06:44	0°♅	
	5024 Oct 01 03:59	0°♑			5027 May 06 03:31	0°♄	

	5027 Jun 03 04:43	0°♌			5029 Nov 06 03:08	0°♍		
evening max el	5027 Jun 05 08:28	2°♌07'46	45°54'43	morning set	5029 Nov 25 16:56	24°♍17'25		
	5027 Jul 11 17:46	0°♍			5029 Nov 30 07:00	0°♎		
greatest brilliancy	5027 Jul 13 14:37	0°♍45'44	-4.7m		5029 Dec 24 07:28	0°♏		
desc. node	5027 Jul 20 17:43	2°♍40'21		max. Earth dist.	5030 Jan 01 11:17	10°♏12'57	1.71533 AU	
retrograde	5027 Jul 24 14:05	2°♍57'26						
	5027 Aug 05 20:08	30°♎♌		superior conj	5030 Jan 03 16:56	13°♏01'00	0°02'01	
evening set	5027 Aug 09 09:03	28°♌10'08		minimum elong	5030 Jan 03 17:26	13°♏02'33	0°02'00	
inferior conj	5027 Aug 15 03:15	24°♌41'01	-5°33'52	behind sun begin	5030 Jan 02 16:12	11°♏43'29		
minimum elong	5027 Aug 14 17:34	24°♌56'13	5°31'42	behind sun end	5030 Jan 04 18:40	14°♏21'37		
min. Earth dist.	5027 Aug 14 18:16	24°♌55'07	0.29015 AU	desc. node	5030 Jan 04 12:45	14°♏03'07		
morning rise	5027 Aug 20 02:09	21°♌39'10			5030 Jan 17 05:53	0°♐		
direct	5027 Sep 05 16:03	16°♌25'17			5030 Feb 10 03:10	0°♑		
greatest brilliancy	5027 Sep 15 21:04	18°♌17'09	-4.7m	evening rise	5030 Feb 13 07:20	3°♑59'16		
	5027 Oct 05 20:32	0°♒			5030 Mar 06 00:36	0°♑		
morning max el	5027 Oct 24 14:27	16°♒28'14	45°52'39		5030 Mar 30 00:18	0°♒		
	5027 Nov 06 23:34	0°♓			5030 Apr 23 05:06	0°♒		
asc. node	5027 Nov 10 19:24	4°♓03'14		asc. node	5030 Apr 27 14:25	5°♒23'52		
	5027 Dec 04 02:37	0°♓			5030 May 17 18:19	0°♓		
	5027 Dec 29 13:36	0°♑			5030 Jun 11 20:22	0°♌		
	5028 Jan 23 05:43	0°♏			5030 Jul 07 19:31	0°♍		
	5028 Feb 16 12:18	0°♐			5030 Aug 04 13:25	0°♑		
desc. node	5028 Mar 01 10:29	17°♐19'50		evening max el	5030 Aug 15 03:22	10°♑29'46	45°32'44	
	5028 Mar 11 14:08	0°♑		desc. node	5030 Aug 17 05:31	12°♑28'41		
	5028 Apr 04 14:06	0°♒			5030 Sep 07 06:13	0°♒		
morning set	5028 Apr 27 19:01	28°♒59'49		greatest brilliancy	5030 Sep 23 02:25	8°♒25'50	-4.7m	
	5028 Apr 28 14:18	0°♓		retrograde	5030 Oct 02 18:15	10°♒06'19		
	5028 May 22 16:24	0°♒		evening set	5030 Oct 20 15:29	4°♒07'10		
				inferior conj	5030 Oct 24 00:47	2°♒02'11	-8°18'30	
superior conj	5028 Jun 05 16:54	17°♒24'03	-0°39'02	minimum elong	5030 Oct 24 06:29	1°♒53'20	8°18'00	
minimum elong	5028 Jun 06 01:06	17°♒49'26	0°38'40	min. Earth dist.	5030 Oct 24 18:27	1°♒34'40	0.28600 AU	
max. Earth dist.	5028 Jun 08 19:42	21°♒15'40	1.72679 AU		5030 Oct 27 08:02	30°♒♑		
	5028 Jun 15 21:13	0°♓		morning rise	5030 Oct 27 21:16	29°♑40'11		
asc. node	5028 Jun 22 12:08	8°♓10'54		direct	5030 Nov 14 11:31	23°♑48'30		
	5028 Jul 10 04:48	0°♌		greatest brilliancy	5030 Nov 25 12:46	26°♑04'02	-4.8m	
evening rise	5028 Jul 13 12:25	4°♌04'55			5030 Dec 03 10:38	0°♒		
	5028 Aug 03 14:59	0°♍		asc. node	5030 Dec 08 07:08	3°♒07'47		
	5028 Aug 28 04:10	0°♑		morning max el	5031 Jan 03 17:54	26°♒15'45	46°36'02	
	5028 Sep 21 21:38	0°♒			5031 Jan 07 09:56	0°♑		
desc. node	5028 Oct 12 03:11	24°♒19'23			5031 Feb 03 17:53	0°♏		
	5028 Oct 16 21:14	0°♑			5031 Mar 01 06:37	0°♐		
	5028 Nov 11 05:32	0°♏			5031 Mar 26 01:52	0°♑		
	5028 Dec 07 04:21	0°♐		desc. node	5031 Mar 29 22:18	4°♑42'12		
	5029 Jan 03 12:52	0°♑			5031 Apr 19 13:14	0°♒		
evening max el	5029 Jan 09 14:04	6°♑12'51	47°04'49		5031 May 13 21:33	0°♓		
asc. node	5029 Feb 02 04:58	27°♑34'47			5031 Jun 07 05:33	0°♒		
	5029 Feb 05 12:10	0°♒			5031 Jul 01 14:25	0°♓		
greatest brilliancy	5029 Feb 19 06:48	7°♒35'10	-4.9m	morning set	5031 Jul 08 21:37	8°♓58'40		
retrograde	5029 Mar 01 08:10	9°♒31'20		asc. node	5031 Jul 21 00:02	23°♓51'25		
evening set	5029 Mar 18 22:32	3°♒31'23			5031 Jul 25 23:55	0°♌		
min. Earth dist.	5029 Mar 21 12:12	1°♒57'24	0.27124 AU					
inferior conj	5029 Mar 22 00:57	1°♒37'43	8°53'21	superior conj	5031 Aug 14 22:04	24°♌30'11	0°55'00	
minimum elong	5029 Mar 21 20:30	1°♒44'35	8°53'03	minimum elong	5031 Aug 14 13:08	24°♌02'43	0°54'40	
morning rise	5029 Mar 24 18:35	29°♑57'26		max. Earth dist.	5031 Aug 14 15:20	24°♌09'28	1.73464 AU	
	5029 Mar 24 16:52	30°♑♑			5031 Aug 19 09:16	0°♍		
direct	5029 Apr 11 14:18	23°♑51'23			5031 Sep 12 18:04	0°♑		
greatest brilliancy	5029 Apr 20 20:36	25°♑28'42	-4.9m	evening rise	5031 Sep 19 23:01	8°♑52'30		
	5029 Apr 30 11:07	0°♒			5031 Oct 07 02:47	0°♒		
desc. node	5029 May 24 19:53	19°♒15'05			5031 Oct 31 12:18	0°♑		
morning max el	5029 May 31 11:45	25°♒38'31	46°24'26	desc. node	5031 Nov 09 15:00	11°♑11'10		
	5029 Jun 04 20:39	0°♓			5031 Nov 24 23:14	0°♏		
	5029 Jul 02 22:00	0°♒			5031 Dec 19 12:06	0°♐		
	5029 Jul 29 07:06	0°♓			5032 Jan 13 04:48	0°♑		
	5029 Aug 23 21:59	0°♌			5032 Feb 07 07:17	0°♒		
asc. node	5029 Sep 14 21:42	26°♌14'01		asc. node	5032 Mar 01 16:41	26°♒56'17		
	5029 Sep 18 00:48	0°♍			5032 Mar 04 10:44	0°♓		
	5029 Oct 12 17:51	0°♑		evening max el	5032 Mar 23 00:22	19°♓44'30	46°52'51	

	5032 Apr 02 15:02	0°II		morning set	5034 Sep 15 04:10	14°II42'56	
greatest brilliancy	5032 May 01 18:55	20°II20'07	-4.8m		5034 Sep 27 14:03	0°II	
retrograde	5032 May 12 09:14	22°II25'24		max. Earth dist.	5034 Oct 19 02:13	26°II34'53	1.72853 AU
evening set	5032 May 28 05:15	17°II30'34					
inferior conj	5032 Jun 02 12:07	14°II17'27	4°25'39	superior conj	5034 Oct 21 16:38	29°II48'11	1°22'29
minimum elong	5032 Jun 02 20:55	14°II03'40	4°23'16	minimum elong	5034 Oct 21 21:26	0°II03'02	1°22'26
min. Earth dist.	5032 Jun 02 08:41	14°II22'49	0.28055 AU		5034 Oct 21 20:27	0°II	
morning rise	5032 Jun 08 13:08	10°II40'19			5034 Nov 15 00:44	0°II	
desc. node	5032 Jun 21 07:46	6°II22'34		evening rise	5034 Nov 28 11:31	16°II43'06	
direct	5032 Jun 23 14:59	6°II16'18		desc. node	5034 Dec 07 02:59	27°II28'10	
greatest brilliancy	5032 Jul 03 09:48	8°II01'24	-4.8m		5034 Dec 09 03:48	0°II	
	5032 Aug 04 17:30	0°II			5035 Jan 02 06:05	0°II	
morning max el	5032 Aug 11 11:22	6°II16'32	45°45'42		5035 Jan 26 08:14	0°II	
	5032 Sep 03 17:47	0°II			5035 Feb 19 12:12	0°II	
	5032 Sep 30 17:50	0°II			5035 Mar 15 21:59	0°II	
asc. node	5032 Oct 12 09:37	13°II28'41		asc. node	5035 Mar 30 04:31	17°II17'03	
	5032 Oct 26 10:12	0°II			5035 Apr 09 20:15	0°II	
	5032 Nov 20 07:45	0°II			5035 May 05 19:04	0°II	
	5032 Dec 14 17:35	0°II		evening max el	5035 Jun 03 00:07	29°II55'01	45°56'37
	5033 Jan 07 20:31	0°II			5035 Jun 03 02:10	0°II	
	5033 Jan 31 19:34	0°II		greatest brilliancy	5035 Jul 11 05:55	28°II35'16	-4.7m
desc. node	5033 Feb 01 00:36	0°II15'46			5035 Jul 15 17:49	0°II	
greatest brilliancy	5033 Feb 05 23:46	6°II29'50	-3.9m	desc. node	5035 Jul 19 19:42	0°II41'35	
morning set	5033 Feb 07 18:19	8°II43'28		retrograde	5035 Jul 22 07:09	0°II48'44	
	5033 Feb 24 16:34	0°II			5035 Jul 28 15:49	30°II	
	5033 Mar 20 13:02	0°II		evening set	5035 Aug 06 23:21	26°II04'07	
				inferior conj	5035 Aug 12 19:45	22°II32'04	-5°18'35
superior conj	5033 Mar 21 02:55	0°II43'36	-1°24'45	minimum elong	5035 Aug 12 10:14	22°II46'59	5°16'23
minimum elong	5033 Mar 20 21:26	0°II26'21	1°24'42	min. Earth dist.	5035 Aug 12 10:12	22°II47'01	0.28997 AU
max. Earth dist.	5033 Mar 23 09:38	3°II35'30	1.71271 AU	morning rise	5035 Aug 17 21:16	19°II26'48	
	5033 Apr 13 10:47	0°II		direct	5035 Sep 03 08:21	14°II16'30	
evening rise	5033 Apr 30 15:10	21°II27'58		greatest brilliancy	5035 Sep 13 13:01	16°II08'24	-4.7m
	5033 May 07 11:39	0°II			5035 Oct 06 06:20	0°II	
asc. node	5033 May 25 02:21	21°II50'08		morning max el	5035 Oct 22 06:58	14°II18'43	45°51'32
	5033 May 31 17:06	0°II			5035 Nov 06 17:34	0°II	
	5033 Jun 25 04:14	0°II		asc. node	5035 Nov 09 21:28	3°II22'23	
	5033 Jul 19 22:32	0°II			5035 Dec 03 17:02	0°II	
	5033 Aug 14 03:06	0°II			5035 Dec 29 02:33	0°II	
	5033 Sep 09 00:10	0°II			5036 Jan 22 17:55	0°II	
desc. node	5033 Sep 13 17:15	5°II20'21			5036 Feb 16 00:04	0°II	
	5033 Oct 06 03:19	0°II		desc. node	5036 Feb 29 12:23	16°II49'33	
evening max el	5033 Oct 26 07:00	20°II34'44	46°10'54		5036 Mar 11 01:39	0°II	
	5033 Nov 05 10:36	0°II			5036 Apr 04 01:25	0°II	
greatest brilliancy	5033 Dec 05 06:12	19°II46'27	-4.8m	morning set	5036 Apr 25 07:32	26°II34'12	
retrograde	5033 Dec 14 16:59	21°II26'06			5036 Apr 28 01:27	0°II	
evening set	5033 Dec 29 04:19	17°II21'34			5036 May 22 03:24	0°II	
inferior conj	5034 Jan 04 09:34	13°II44'17	-0°06'11				
minimum elong	5034 Jan 04 09:48	13°II43'55	0°06'05	superior conj	5036 Jun 03 07:45	15°II07'23	-0°42'09
transit middle	5034 Jan 04 09:48	13°II43'55	0°06'05	minimum elong	5036 Jun 03 16:28	15°II34'27	0°41'47
transit begin	5034 Jan 04 06:01	13°II49'43		max. Earth dist.	5036 Jun 06 12:13	19°II04'21	1.72628 AU
transit end	5034 Jan 04 13:36	13°II38'07			5036 Jun 15 08:06	0°II	
asc. node	5034 Jan 04 19:09	13°II29'39		asc. node	5036 Jun 21 14:15	7°II43'51	
min. Earth dist.	5034 Jan 04 18:39	13°II30'25	0.26844 AU		5036 Jul 09 15:40	0°II	
morning rise	5034 Jan 10 14:38	10°II05'32		evening rise	5036 Jul 11 05:52	1°II57'30	
direct	5034 Jan 25 00:44	5°II57'04			5036 Aug 03 01:58	0°II	
greatest brilliancy	5034 Feb 04 14:40	8°II03'14	-4.9m		5036 Aug 27 15:25	0°II	
	5034 Mar 07 08:55	0°II			5036 Sep 21 09:21	0°II	
morning max el	5034 Mar 16 14:30	9°II00'13	46°58'54	desc. node	5036 Oct 11 05:08	23°II48'28	
	5034 Apr 05 08:35	0°II			5036 Oct 16 09:43	0°II	
desc. node	5034 Apr 26 10:13	23°II54'09			5036 Nov 10 19:16	0°II	
	5034 May 01 16:08	0°II			5036 Dec 06 20:21	0°II	
	5034 May 27 01:34	0°II			5037 Jan 03 10:14	0°II	
	5034 Jun 21 01:52	0°II		evening max el	5037 Jan 07 04:58	3°II51'14	47°03'50
	5034 Jul 15 21:56	0°II		asc. node	5037 Feb 01 06:55	26°II16'39	
	5034 Aug 09 14:56	0°II			5037 Feb 06 17:15	0°II	
asc. node	5034 Aug 17 11:51	9°II35'40		greatest brilliancy	5037 Feb 16 19:23	5°II07'17	-4.9m
	5034 Sep 03 04:25	0°II		retrograde	5037 Feb 26 21:55	7°II04'04	

evening set	5037 Mar 16 08:05	1°Υ09'36			5039 Jul 25 10:42	0°Ω	
	5037 Mar 18 05:59	30°κκ					
min. Earth dist.	5037 Mar 19 00:18	29°κ31'48	0.27089 AU	superior conj	5039 Aug 12 16:03	22°Ω24'56	0°52'32
inferior conj	5037 Mar 19 13:49	29°κ10'58	8°48'12	minimum elong	5039 Aug 12 07:16	21°Ω57'55	0°52'11
minimum elong	5037 Mar 19 08:30	29°κ19'10	8°47'47	max. Earth dist.	5039 Aug 12 10:36	22°Ω08'13	1.73456 AU
morning rise	5037 Mar 22 09:04	27°κ28'23			5039 Aug 18 19:58	0°η	
direct	5037 Apr 09 03:32	21°κ25'19			5039 Sep 12 04:47	0°Δ	
greatest brilliancy	5037 Apr 18 08:32	23°κ01'57	-4.9m	evening rise	5039 Sep 17 17:10	6°Δ47'31	
	5037 May 01 19:58	0°Υ			5039 Oct 06 13:38	0°ι	
desc. node	5037 May 23 22:02	18°Υ18'39			5039 Oct 30 23:26	0°ϑ	
morning max el	5037 May 29 02:06	23°Υ18'30	46°26'05	desc. node	5039 Nov 08 17:09	10°ϑ43'15	
	5037 Jun 04 17:55	0°ϑ			5039 Nov 24 10:48	0°ϑ	
	5037 Jul 02 13:41	0°Π			5039 Dec 19 00:15	0°≈	
	5037 Jul 28 20:30	0°ϑ			5040 Jan 12 17:48	0°κ	
	5037 Aug 23 10:11	0°Ω			5040 Feb 06 21:44	0°Υ	
asc. node	5037 Sep 13 23:42	25°Ω45'11		asc. node	5040 Feb 29 18:39	26°Υ14'17	
	5037 Sep 17 12:19	0°η			5040 Mar 04 04:17	0°ϑ	
	5037 Oct 12 05:00	0°Δ		evening max el	5040 Mar 20 14:03	17°ϑ22'03	46°54'22
	5037 Nov 05 14:08	0°ι			5040 Apr 02 19:11	0°Π	
morning set	5037 Nov 23 08:20	22°ι01'59		greatest brilliancy	5040 Apr 29 11:46	18°Π04'48	-4.8m
	5037 Nov 29 17:57	0°ϑ		retrograde	5040 May 09 23:56	20°Π08'33	
	5037 Dec 23 18:28	0°ϑ		evening set	5040 May 25 22:57	15°Π10'17	
max. Earth dist.	5037 Dec 29 19:43	7°ϑ34'32	1.71571 AU	inferior conj	5040 May 31 03:05	12°Π01'14	4°44'26
				minimum elong	5040 May 31 12:18	11°Π46'49	4°42'00
superior conj	5038 Jan 01 05:07	10°ϑ34'18	0°05'50	min. Earth dist.	5040 May 31 00:16	12°Π05'38	0.28023 AU
minimum elong	5038 Jan 01 06:35	10°ϑ38'52	0°05'46	morning rise	5040 Jun 06 02:04	8°Π26'36	
behind sun begin	5037 Dec 31 06:43	9°ϑ24'06		desc. node	5040 Jun 20 09:48	4°Π01'16	
behind sun end	5038 Jan 02 06:27	11°ϑ53'38		direct	5040 Jun 21 04:57	4°Π00'31	
desc. node	5038 Jan 03 14:50	13°ϑ35'04		greatest brilliancy	5040 Jul 01 00:32	5°Π45'54	-4.8m
	5038 Jan 16 16:57	0°≈			5040 Aug 04 18:58	0°ϑ	
	5038 Feb 09 14:18	0°κ		morning max el	5040 Aug 09 01:33	4°ϑ01'14	45°46'29
evening rise	5038 Feb 10 18:05	1°κ27'16			5040 Sep 03 10:14	0°Ω	
	5038 Mar 05 11:50	0°Υ			5040 Sep 30 07:21	0°η	
	5038 Mar 29 11:40	0°ϑ		asc. node	5040 Oct 11 11:39	12°η57'11	
	5038 Apr 22 16:43	0°Π			5040 Oct 25 22:23	0°Δ	
asc. node	5038 Apr 26 16:30	4°Π54'24			5040 Nov 19 19:15	0°ι	
	5038 May 17 06:25	0°ϑ			5040 Dec 14 04:46	0°ϑ	
	5038 Jun 11 09:20	0°Ω			5041 Jan 07 07:33	0°ϑ	
	5038 Jul 07 10:15	0°η		desc. node	5041 Jan 31 02:32	29°ϑ47'27	
	5038 Aug 04 08:43	0°Δ			5041 Jan 31 06:32	0°≈	
evening max el	5038 Aug 12 18:39	8°Δ17'43	45°32'29	greatest brilliancy	5041 Feb 03 10:10	3°≈57'24	-3.9m
desc. node	5038 Aug 16 07:30	11°Δ37'53		morning set	5041 Feb 05 04:45	6°≈11'07	
	5038 Sep 08 04:22	0°ι			5041 Feb 24 03:29	0°κ	
greatest brilliancy	5038 Sep 20 16:53	6°ι13'48	-4.7m				
retrograde	5038 Sep 30 08:52	7°ι54'29		superior conj	5041 Mar 18 13:34	28°κ12'01	-1°23'44
evening set	5038 Oct 18 08:25	1°ι53'00		minimum elong	5041 Mar 18 07:07	27°κ51'44	1°23'40
	5038 Oct 21 09:51	30°κΔ			5041 Mar 19 23:56	0°Υ	
inferior conj	5038 Oct 21 16:26	29°Δ49'44	-8°23'35	max. Earth dist.	5041 Mar 20 12:02	0°Υ38'00	1.71248 AU
minimum elong	5038 Oct 21 21:24	29°Δ41'57	8°23'12		5041 Apr 12 21:41	0°ϑ	
min. Earth dist.	5038 Oct 22 09:17	29°Δ23'25	0.28652 AU	evening rise	5041 Apr 28 02:51	19°ϑ00'47	
morning rise	5038 Oct 25 10:12	27°Δ31'26			5041 May 06 22:34	0°Π	
direct	5038 Nov 12 03:36	21°Δ35'35		asc. node	5041 May 24 04:25	21°Π22'40	
greatest brilliancy	5038 Nov 23 04:07	23°Δ49'51	-4.8m		5041 May 31 04:06	0°ϑ	
	5038 Dec 04 15:28	0°ι			5041 Jun 24 15:27	0°Ω	
asc. node	5038 Dec 07 09:16	1°ι53'58			5041 Jul 19 10:11	0°η	
morning max el	5039 Jan 01 08:04	23°ι55'36	46°34'19		5041 Aug 13 15:36	0°Δ	
	5039 Jan 07 06:14	0°ϑ			5041 Sep 08 14:16	0°ι	
	5039 Feb 03 09:22	0°ϑ		desc. node	5041 Sep 12 19:16	4°ι45'15	
	5039 Feb 28 20:12	0°≈			5041 Oct 05 20:57	0°ϑ	
	5039 Mar 25 14:26	0°κ		evening max el	5041 Oct 23 20:09	18°ϑ14'44	46°09'05
desc. node	5039 Mar 29 00:22	4°κ10'25			5041 Nov 05 16:27	0°ϑ	
	5039 Apr 19 01:10	0°Υ		greatest brilliancy	5041 Dec 02 19:19	17°ϑ23'34	-4.8m
	5039 May 13 09:01	0°ϑ		retrograde	5041 Dec 12 05:54	19°ϑ03'09	
	5039 Jun 06 16:41	0°Π		evening set	5041 Dec 26 18:16	14°ϑ56'36	
	5039 Jul 01 01:20	0°ϑ		inferior conj	5042 Jan 01 22:37	11°ϑ20'46	-0°29'56
morning set	5039 Jul 06 14:24	6°ϑ49'16		minimum elong	5042 Jan 01 23:46	11°ϑ19'01	0°29'33
asc. node	5039 Jul 20 01:58	23°ϑ24'09		min. Earth dist.	5042 Jan 02 08:57	11°ϑ05'00	0.26883 AU

asc. node	5042 Jan 03 21:01	10°  10'12		5044 Aug 02 12:42	0° 		
morning rise	5042 Jan 08 04:34	7°  41'04		5044 Aug 27 02:25	0° 		
direct	5042 Jan 22 14:16	3°  32'34		5044 Sep 20 20:50	0° 		
greatest brilliancy	5042 Feb 02 05:51	5°  40'43	-4.9m	desc. node	5044 Oct 10 07:16	23°  18'51	
	5042 Mar 07 11:12	0° 		5044 Oct 15 21:59	0° 		
morning max el	5042 Mar 14 05:00	6°  38'42	46°59'01	5044 Nov 10 08:49	0° 		
	5042 Apr 05 01:47	0° 		5044 Dec 06 12:17	0° 		
desc. node	5042 Apr 25 12:19	23°  17'36		5045 Jan 03 07:59	0° 		
	5042 May 01 06:23	0° 		evening max el	5045 Jan 04 20:00	1°  31'05	47°02'48
	5042 May 26 14:22	0° 		asc. node	5045 Jan 31 08:57	24°  15'29	
	5042 Jun 20 13:47	0° 		5045 Feb 08 10:06	0° 		
	5042 Jul 15 09:15	0° 		greatest brilliancy	5045 Feb 14 08:32	2°  41'38	-4.9m
	5042 Aug 09 01:51	0° 		retrograde	5045 Feb 24 11:28	4°  38'18	
asc. node	5042 Aug 16 13:49	9°  08'36		5045 Mar 11 17:17	30°  18'18		
	5042 Sep 02 15:05	0° 		evening set	5045 Mar 13 17:34	28°  18'03	
morning set	5042 Sep 12 21:31	12°  18'04		min. Earth dist.	5045 Mar 16 12:46	27°  18'43	0.27049 AU
	5042 Sep 27 00:38	0° 		inferior conj	5045 Mar 17 02:51	26°  18'00	8°42'11
max. Earth dist.	5042 Oct 16 21:50	24°  18'10	1.72890 AU	minimum elong	5045 Mar 16 20:42	26°  18'29	8°41'37
				morning rise	5045 Mar 20 00:00	25°  18'31	
superior conj	5042 Oct 19 09:34	27°  18'09	1°23'17	direct	5045 Apr 06 16:50	19°  18'14	
minimum elong	5042 Oct 19 13:42	27°  18'57	1°23'15	greatest brilliancy	5045 Apr 15 20:45	20°  18'06	-4.9m
	5042 Oct 21 07:03	0° 		5045 May 02 18:43	0° 		
	5042 Nov 14 11:25	0° 		desc. node	5045 May 23 00:03	17°  18'35	
evening rise	5042 Nov 26 02:09	14°  18'01		morning max el	5045 May 26 15:28	20°  18'22	46°27'34
desc. node	5042 Dec 06 04:59	27°  18'00'50		5045 Jun 04 13:55	0° 		
	5042 Dec 08 14:37	0° 		5045 Jul 02 04:43	0° 		
	5043 Jan 01 17:04	0° 		5045 Jul 28 09:28	0° 		
	5043 Jan 25 19:29	0° 		5045 Aug 22 22:04	0° 		
	5043 Feb 18 23:50	0° 		asc. node	5045 Sep 13 01:48	25°  18'18	
	5043 Mar 15 10:13	0° 		5045 Sep 16 23:36	0° 		
asc. node	5043 Mar 29 06:36	16°  18'45'04		5045 Oct 11 15:55	0° 		
	5043 Apr 09 09:33	0° 		5045 Nov 05 00:52	0° 		
	5043 May 05 10:37	0° 		morning set	5045 Nov 20 23:32	19°  18'46'46	
evening max el	5043 May 31 16:26	27°  18'44'11	45°58'22	5045 Nov 29 04:38	0° 		
	5043 Jun 03 00:17	0° 		5045 Dec 23 05:11	0° 		
greatest brilliancy	5043 Jul 08 21:07	26°  18'24'35	-4.7m	max. Earth dist.	5045 Dec 27 03:27	4°  18'54'57	1.71611 AU
desc. node	5043 Jul 18 21:39	28°  18'37'59					
retrograde	5043 Jul 20 00:02	28°  18'39'24		superior conj	5045 Dec 29 17:20	8°  18'08'39	0°09'36
evening set	5043 Aug 04 13:29	23°  18'57'39		minimum elong	5045 Dec 29 19:44	8°  18'06'08	0°09'30
inferior conj	5043 Aug 10 11:55	20°  18'22'39	-5°02'43	behind sun begin	5045 Dec 28 23:03	7°  18'11'23	
minimum elong	5043 Aug 10 02:36	20°  18'37'12	5°00'30	behind sun end	5045 Dec 30 16:25	9°  18'20'54	
min. Earth dist.	5043 Aug 10 01:39	20°  18'38'41	0.28973 AU	desc. node	5046 Jan 02 16:43	13°  18'30'19	
morning rise	5043 Aug 15 15:59	17°  18'01'40'00		5046 Jan 16 03:45	0° 		
direct	5043 Sep 01 00:46	12°  18'07'33		evening rise	5046 Feb 08 04:55	28°  18'36'19	
greatest brilliancy	5043 Sep 11 04:03	13°  18'05'43	-4.7m	5046 Feb 09 01:12	0° 		
	5043 Oct 06 13:12	0° 		5046 Mar 04 22:47	0° 		
morning max el	5043 Oct 19 23:15	12°  18'09'30	45°50'30	5046 Mar 28 22:44	0° 		
	5043 Nov 06 10:52	0° 		5046 Apr 22 04:02	0° 		
asc. node	5043 Nov 08 23:33	2°  18'42'53		asc. node	5046 Apr 25 18:33	4°  18'25'50	
	5043 Dec 03 06:58	0° 		5046 May 16 18:12	0° 		
	5043 Dec 28 15:03	0° 		5046 Jun 10 22:01	0° 		
	5044 Jan 22 05:41	0° 		5046 Jul 07 00:52	0° 		
	5044 Feb 15 11:25	0° 		5046 Aug 04 04:24	0° 		
desc. node	5044 Feb 28 14:28	16°  18'36'21'08		evening max el	5046 Aug 10 09:02	6°  18'03'53	45°32'06
	5044 Mar 10 12:42	0° 		desc. node	5046 Aug 15 09:33	10°  18'46'39	
	5044 Apr 03 12:17	0° 		5046 Sep 09 11:05	0° 		
morning set	5044 Apr 22 20:13	24°  18'09'10'22		greatest brilliancy	5046 Sep 18 07:25	4°  18'01'49	-4.7m
	5044 Apr 27 12:11	0° 		retrograde	5046 Sep 27 23:18	5°  18'42'45	
	5044 May 21 14:01	0° 		5046 Oct 15 10:57	30°  18'18'18		
				evening set	5046 Oct 16 00:53	29°  18'43'14	
superior conj	5044 May 31 22:25	12°  18'11'51'08	-0°45'13	inferior conj	5046 Oct 19 07:56	27°  18'43'21	-8°27'53
minimum elong	5044 Jun 01 07:38	13°  18'19'43	0°44'51	minimum elong	5046 Oct 19 12:09	27°  18'30'44	8°27'38
max. Earth dist.	5044 Jun 04 06:08	16°  18'11'58'18	1.72586 AU	min. Earth dist.	5046 Oct 20 00:12	27°  18'11'53	0.28703 AU
	5044 Jun 14 18:41	0° 		morning rise	5046 Oct 22 23:13	25°  18'42'33	
asc. node	5044 Jun 20 16:10	7°  18'06'17'06		direct	5046 Nov 09 19:04	19°  18'22'34	
evening rise	5044 Jul 08 22:55	29°  18'49'40		greatest brilliancy	5046 Nov 20 19:53	21°  18'43'23	-4.8m
	5044 Jul 09 02:17	0° 		5046 Dec 05 12:16	0° 		

asc. node	5046 Dec 06 11:10	0° \mathbb{M} 42'00		5049 Jul 18 21:55	0° \mathbb{M}	
morning max el	5046 Dec 29 21:41	21° \mathbb{M} 34'30	46°32'45	5049 Aug 13 04:12	0° \mathbb{L}	
	5047 Jan 07 01:46	0° \mathbb{X}		5049 Sep 08 04:35	0° \mathbb{M}	
	5047 Feb 03 00:26	0° \mathbb{Z}		5049 Sep 11 21:21	4° \mathbb{M} 09'51	
	5047 Feb 28 09:28	0° \approx		5049 Oct 05 15:10	0° \mathbb{X}	
	5047 Mar 25 02:45	0° \mathbb{H}		5049 Oct 21 10:00	15° \mathbb{X} 56'01	46°07'03
desc. node	5047 Mar 28 02:23	3° \mathbb{H} 39'15		5049 Nov 06 01:03	0° \mathbb{Z}	
	5047 Apr 18 12:50	0° \mathbb{Y}		5049 Nov 30 07:51	14° \mathbb{Z} 59'03	-4.8m
	5047 May 12 20:15	0° \mathbb{B}		5049 Dec 09 18:55	16° \mathbb{Z} 38'46	
	5047 Jun 06 03:36	0° \mathbb{I}		5049 Dec 24 08:16	12° \mathbb{Z} 30'05	
	5047 Jun 30 12:01	0° \mathbb{G}		5049 Dec 30 11:25	8° \mathbb{Z} 55'42	-0°53'46
morning set	5047 Jul 04 07:22	4° \mathbb{G} 41'04		5049 Dec 30 13:29	8° \mathbb{Z} 52'34	0°53'06
asc. node	5047 Jul 19 03:59	22° \mathbb{G} 57'50		5049 Dec 30 22:46	8° \mathbb{Z} 38'24	0.26927 AU
	5047 Jul 24 21:16	0° \mathbb{Q}		5050 Jan 02 23:05	6° \mathbb{Z} 49'42	
				5050 Jan 05 18:04	5° \mathbb{Z} 15'23	
superior conj	5047 Aug 10 10:07	20° \mathbb{Q} 20'31	0°49'59	5050 Jan 20 04:08	1° \mathbb{Z} 06'40	
minimum elong	5047 Aug 10 01:30	19° \mathbb{Q} 54'04	0°49'37	5050 Jan 30 20:19	3° \mathbb{Z} 16'00	-4.9m
max. Earth dist.	5047 Aug 10 05:28	20° \mathbb{Q} 06'14	1.73454 AU	5050 Mar 07 12:32	0° \approx	
	5047 Aug 18 06:30	0° \mathbb{M}		5050 Mar 11 19:45	4° \approx 16'57	46°59'11
	5047 Sep 11 15:24	0° \mathbb{L}		5050 Apr 04 18:55	0° \mathbb{H}	
evening rise	5047 Sep 15 11:19	4° \mathbb{L} 42'51		5050 Apr 24 14:21	22° \mathbb{H} 40'26	
	5047 Oct 06 00:27	0° \mathbb{M}		5050 Apr 30 20:41	0° \mathbb{Y}	
	5047 Oct 30 10:34	0° \mathbb{X}		5050 May 26 03:15	0° \mathbb{B}	
desc. node	5047 Nov 07 19:05	10° \mathbb{X} 14'41		5050 Jun 20 01:49	0° \mathbb{I}	
	5047 Nov 23 22:21	0° \mathbb{Z}		5050 Jul 14 20:43	0° \mathbb{G}	
	5047 Dec 18 12:24	0° \approx		5050 Aug 08 12:55	0° \mathbb{Q}	
	5048 Jan 12 06:50	0° \mathbb{H}		5050 Aug 15 15:58	8° \mathbb{Q} 41'34	
	5048 Feb 06 12:17	0° \mathbb{Y}		5050 Sep 02 01:56	0° \mathbb{M}	
asc. node	5048 Feb 28 20:45	25° \mathbb{Y} 32'19		5050 Sep 10 15:19	10° \mathbb{M} 30'08	
	5048 Mar 03 22:09	0° \mathbb{B}		5050 Sep 26 11:23	0° \mathbb{L}	
evening max el	5048 Mar 18 03:17	14° \mathbb{B} 58'37	46°55'55	5050 Oct 14 17:56	22° \mathbb{L} 34'33	1.72928 AU
	5048 Apr 03 01:13	0° \mathbb{I}				
greatest brilliancy	5048 Apr 27 04:16	15° \mathbb{I} 49'06	-4.8m	5050 Oct 17 02:53	25° \mathbb{L} 30'48	1°23'57
retrograde	5048 May 07 14:51	17° \mathbb{I} 52'03		5050 Oct 17 06:21	25° \mathbb{L} 41'31	1°23'56
evening set	5048 May 23 16:43	12° \mathbb{I} 49'50		5050 Oct 20 17:50	0° \mathbb{M}	
inferior conj	5048 May 28 18:02	9° \mathbb{I} 45'12	5°02'50	5050 Nov 13 22:19	0° \mathbb{X}	
minimum elong	5048 May 29 03:37	9° \mathbb{I} 30'13	5°00'23	5050 Nov 23 16:59	12° \mathbb{X} 08'47	
min. Earth dist.	5048 May 28 15:45	9° \mathbb{I} 48'47	0.27991 AU	5050 Dec 05 06:57	26° \mathbb{X} 32'31	
morning rise	5048 Jun 03 14:50	6° \mathbb{I} 13'33		5050 Dec 08 01:43	0° \mathbb{Z}	
direct	5048 Jun 18 18:48	1° \mathbb{I} 44'45		5051 Jan 01 04:26	0° \approx	
desc. node	5048 Jun 19 11:41	1° \mathbb{I} 45'20		5051 Jan 25 07:09	0° \mathbb{H}	
greatest brilliancy	5048 Jun 28 15:20	3° \mathbb{I} 30'51	-4.8m	5051 Feb 18 11:54	0° \mathbb{Y}	
	5048 Aug 04 18:59	0° \mathbb{G}		5051 Mar 14 22:53	0° \mathbb{B}	
morning max el	5048 Aug 06 16:14	1° \mathbb{G} 47'27	45°47'22	5051 Mar 28 08:37	16° \mathbb{B} 11'37	
	5048 Sep 03 02:15	0° \mathbb{Q}		5051 Apr 08 23:18	0° \mathbb{I}	
	5048 Sep 29 20:43	0° \mathbb{M}		5051 May 05 02:45	0° \mathbb{G}	
asc. node	5048 Oct 10 13:42	12° \mathbb{M} 25'52		5051 May 29 09:04	25° \mathbb{G} 33'14	46°00'12
	5048 Oct 25 10:32	0° \mathbb{L}		5051 Jun 02 23:42	0° \mathbb{Q}	
	5048 Nov 19 06:49	0° \mathbb{M}		5051 Jul 06 13:09	24° \mathbb{Q} 14'17	-4.7m
	5048 Dec 13 16:03	0° \mathbb{X}		5051 Jul 17 16:55	26° \mathbb{Q} 29'29	
	5049 Jan 06 18:41	0° \mathbb{Z}		5051 Jul 17 23:47	26° \mathbb{Q} 29'24	
desc. node	5049 Jan 30 04:37	29° \mathbb{Z} 19'23		5051 Aug 02 03:59	21° \mathbb{Q} 50'42	
	5049 Jan 30 17:34	0° \approx		5051 Aug 07 17:23	18° \mathbb{Q} 29'47	0.28943 AU
greatest brilliancy	5049 Feb 01 19:27	2° \approx 36'35	-3.9m	5051 Aug 08 04:12	18° \mathbb{Q} 12'50	-4°46'28
morning set	5049 Feb 02 15:04	3° \approx 38'10		5051 Aug 07 19:11	18° \mathbb{Q} 26'57	4°44'14
	5049 Feb 23 14:27	0° \mathbb{H}		5051 Aug 13 10:45	15° \mathbb{Q} 00'47	
				5051 Aug 29 17:28	9° \mathbb{Q} 58'25	
superior conj	5049 Mar 16 00:02	25° \mathbb{H} 39'35	-1°22'34	5051 Sep 08 18:52	11° \mathbb{Q} 48'17	-4.7m
minimum elong	5049 Mar 15 16:39	25° \mathbb{H} 16'21	1°22'27	5051 Oct 06 18:11	0° \mathbb{M}	
max. Earth dist.	5049 Mar 17 16:04	27° \mathbb{H} 45'26	1.71227 AU	5051 Oct 17 15:01	9° \mathbb{M} 58'32	45°49'30
	5049 Mar 19 10:53	0° \mathbb{Y}		5051 Nov 06 04:01	0° \mathbb{L}	
	5049 Apr 12 08:38	0° \mathbb{B}		5051 Nov 08 01:28	2° \mathbb{L} 02'45	
evening rise	5049 Apr 25 14:33	16° \mathbb{B} 33'24		5051 Dec 02 20:59	0° \mathbb{M}	
	5049 May 06 09:34	0° \mathbb{I}		5051 Dec 28 03:47	0° \mathbb{X}	
asc. node	5049 May 23 06:21	20° \mathbb{I} 54'34		5052 Jan 21 17:46	0° \mathbb{Z}	
	5049 May 30 15:11	0° \mathbb{G}		5052 Feb 14 23:08	0° \approx	
	5049 Jun 24 02:44	0° \mathbb{Q}		5052 Feb 27 16:33	15° \approx 51'25	




































































































































	5052 Mar 10 00:12	0° H		desc. node	5054 Aug 14 11:35	9° L 53'25	
	5052 Apr 02 23:36	0° Y			5054 Sep 11 09:05	0° M	
morning set	5052 Apr 20 08:23	21° Y 43'30		greatest brilliancy	5054 Sep 15 21:48	1° M 49'06	-4.7m
	5052 Apr 26 23:20	0° B		retrograde	5054 Sep 25 14:11	3° M 30'55	
	5052 May 21 01:02	0° II			5054 Oct 09 02:02	30° R L	
				evening set	5054 Oct 13 17:15	27° L 25'25	
superior conj	5052 May 29 12:45	10° II 32'35	-0°48'15	inferior conj	5054 Oct 16 23:36	25° L 24'41	-8°31'30
minimum elong	5052 May 29 22:22	11° II 02'28	0°47'52	minimum elong	5054 Oct 17 03:04	25° L 19'15	8°31'19
max. Earth dist.	5052 Jun 02 01:18	14° II 54'53	1.72534 AU	min. Earth dist.	5054 Oct 17 15:14	25° L 00'15	0.28751 AU
	5052 Jun 14 05:38	0° E		morning rise	5054 Oct 20 12:40	23° L 13'11	
asc. node	5052 Jun 19 18:12	6° E 49'35		direct	5054 Nov 07 10:29	17° L 09'08	
evening rise	5052 Jul 06 15:50	27° E 40'14		greatest brilliancy	5054 Nov 18 12:02	19° L 23'07	-4.8m
	5052 Jul 08 13:15	0° L		asc. node	5054 Dec 05 13:13	29° L 31'43	
	5052 Aug 01 23:48	0° M			5054 Dec 06 03:56	0° M	
	5052 Aug 26 13:47	0° L		morning max el	5054 Dec 27 12:09	19° M 15'05	46°31'21
	5052 Sep 20 08:40	0° M			5055 Jan 06 20:57	0° X	
desc. node	5052 Oct 09 09:13	22° M 47'43			5055 Feb 02 15:29	0° Z	
	5052 Oct 15 10:35	0° X			5055 Feb 27 22:50	0° \approx	
	5052 Nov 09 22:46	0° Z			5055 Mar 24 15:11	0° H	
	5052 Dec 06 04:48	0° \approx		desc. node	5055 Mar 27 04:21	3° H 07'20	
evening max el	5053 Jan 02 09:55	29° \approx 07'04	47°01'23		5055 Apr 18 00:43	0° Y	
	5053 Jan 03 07:02	0° H			5055 May 12 07:45	0° B	
asc. node	5053 Jan 30 11:01	23° H 34'09			5055 Jun 05 14:50	0° II	
	5053 Feb 11 06:38	0° Y			5055 Jun 29 23:04	0° E	
greatest brilliancy	5053 Feb 11 21:58	0° Y 14'26	-4.9m	morning set	5055 Jul 01 23:52	2° E 30'17	
retrograde	5053 Feb 22 00:15	2° Y 10'14		asc. node	5055 Jul 18 06:06	22° E 30'47	
	5053 Mar 04 06:55	30° R H			5055 Jul 24 08:09	0° L	
evening set	5053 Mar 11 02:29	26° H 28'46					
min. Earth dist.	5053 Mar 14 01:29	24° H 40'40	0.27015 AU	superior conj	5055 Aug 08 03:48	18° L 14'02	0°47'20
inferior conj	5053 Mar 14 15:38	24° H 18'50	8°35'00	minimum elong	5055 Aug 07 19:25	17° L 48'15	0°46'58
minimum elong	5053 Mar 14 08:42	24° H 29'31	8°34'16	max. Earth dist.	5055 Aug 08 00:24	18° L 03'34	1.73447 AU
morning rise	5053 Mar 17 15:06	22° H 29'44			5055 Aug 17 17:19	0° M	
direct	5053 Apr 04 05:22	16° H 34'43			5055 Sep 11 02:15	0° L	
greatest brilliancy	5053 Apr 13 09:33	18° H 10'28	-4.9m	evening rise	5055 Sep 13 05:22	2° L 37'15	
	5053 May 03 12:30	0° Y			5055 Oct 05 11:30	0° M	
desc. node	5053 May 22 01:59	16° Y 29'32			5055 Oct 29 21:56	0° X	
morning max el	5053 May 24 03:44	18° Y 31'29	46°29'12	desc. node	5055 Nov 06 21:04	9° X 45'35	
	5053 Jun 04 09:57	0° B			5055 Nov 23 10:10	0° Z	
	5053 Jul 01 20:03	0° II			5055 Dec 18 00:48	0° \approx	
	5053 Jul 27 22:46	0° E			5056 Jan 11 20:06	0° H	
	5053 Aug 22 10:17	0° L			5056 Feb 06 03:07	0° Y	
asc. node	5053 Sep 12 03:45	24° L 48'04		asc. node	5056 Feb 27 22:44	24° Y 49'15	
	5053 Sep 16 11:10	0° M			5056 Mar 03 16:33	0° B	
	5053 Oct 11 03:08	0° L		evening max el	5056 Mar 15 16:54	12° B 35'55	46°57'23
	5053 Nov 04 11:54	0° M			5056 Apr 03 09:47	0° II	
morning set	5053 Nov 18 15:11	17° M 32'03		greatest brilliancy	5056 Apr 24 19:56	13° II 31'51	-4.9m
	5053 Nov 28 15:36	0° X		retrograde	5056 May 05 06:06	15° II 34'54	
	5053 Dec 22 16:11	0° Z		evening set	5056 May 21 10:29	10° II 28'18	
max. Earth dist.	5053 Dec 24 13:33	2° Z 21'54	1.71652 AU	inferior conj	5056 May 26 08:54	7° II 28'12	5°20'49
				minimum elong	5056 May 26 18:47	7° II 12'46	5°18'20
superior conj	5053 Dec 27 06:10	5° Z 44'07	0°13'18	min. Earth dist.	5056 May 26 06:48	7° II 31'28	0.27966 AU
minimum elong	5053 Dec 27 09:27	5° Z 54'23	0°13'10	morning rise	5056 Jun 01 03:23	4° II 00'03	
behind sun begin	5053 Dec 26 18:35	5° Z 07'52			5056 Jun 11 05:07	30° R B	
behind sun end	5053 Dec 28 00:18	6° Z 40'53		direct	5056 Jun 16 08:56	29° B 27'56	
desc. node	5054 Jan 01 18:50	12° Z 39'27		desc. node	5056 Jun 18 13:50	29° B 33'35	
	5054 Jan 15 14:49	0° \approx			5056 Jun 21 16:21	0° II	
evening rise	5054 Feb 05 16:09	26° \approx 25'49		greatest brilliancy	5056 Jun 26 05:47	1° II 14'35	-4.8m
	5054 Feb 08 12:22	0° H		morning max el	5056 Aug 04 07:50	29° II 35'01	45°48'16
	5054 Mar 04 10:06	0° Y			5056 Aug 04 18:16	0° E	
	5054 Mar 28 10:14	0° B			5056 Sep 02 18:14	0° L	
	5054 Apr 21 15:49	0° II			5056 Sep 29 10:08	0° M	
asc. node	5054 Apr 24 20:27	3° II 55'21		asc. node	5056 Oct 09 15:39	11° M 53'56	
	5054 May 16 06:29	0° E			5056 Oct 24 22:45	0° L	
	5054 Jun 10 11:16	0° L			5056 Nov 18 18:26	0° M	
	5054 Jul 06 16:06	0° M			5056 Dec 13 03:21	0° X	
	5054 Aug 04 01:09	0° L			5057 Jan 06 05:50	0° Z	
evening max el	5054 Aug 07 22:50	3° L 47'46	45°32'02	desc. node	5057 Jan 29 06:39	28° Z 51'01	

	5057 Jan 30 04:38	0°♊	evening set	5059 Jul 30 18:39	19°♎44'22	
morning set	5057 Jan 31 01:47	1°♊06'23	inferior conj	5059 Aug 05 20:30	16°♎03'52	-4°29'43
	5057 Feb 23 01:28	0°♋	minimum elong	5059 Aug 05 11:50	16°♎17'28	4°27'32
			min. Earth dist.	5059 Aug 05 09:25	16°♎21'15	0.28916 AU
superior conj	5057 Mar 13 10:45	23°♋07'50 -1°21'13	morning rise	5059 Aug 11 05:24	12°♎48'17	
minimum elong	5057 Mar 13 02:29	22°♋41'51 1°21'04	direct	5059 Aug 27 09:54	7°♎50'07	
max. Earth dist.	5057 Mar 14 23:00	25°♋01'52 1.71206 AU	greatest brilliancy	5059 Sep 06 09:55	9°♎38'40	-4.7m
	5057 Mar 18 21:51	0°♌		5059 Oct 06 21:08	0°♍	
	5057 Apr 11 19:35	0°♍	morning max el	5059 Oct 15 05:58	7°♍46'09	45°48'27
evening rise	5057 Apr 23 02:30	14°♍06'51		5059 Nov 05 20:38	0°♎	
	5057 May 05 20:32	0°♎	asc. node	5059 Nov 07 03:31	1°♎23'51	
asc. node	5057 May 22 08:24	20°♎26'53		5059 Dec 02 10:42	0°♏	
	5057 May 30 02:15	0°♏		5059 Dec 27 16:13	0°♐	
	5057 Jun 23 14:04	0°♐		5060 Jan 21 05:32	0°♑	
	5057 Jul 18 09:45	0°♑		5060 Feb 14 10:32	0°♒	
	5057 Aug 12 16:58	0°♒	desc. node	5060 Feb 26 18:26	15°♒22'08	
	5057 Sep 07 19:09	0°♓		5060 Mar 09 11:22	0°♋	
desc. node	5057 Sep 10 23:18	3°♓33'33		5060 Apr 02 10:36	0°♌	
	5057 Oct 05 09:53	0°♋	morning set	5060 Apr 17 20:21	19°♌16'55	
evening max el	5057 Oct 19 00:37	13°♋39'27 46°05'12		5060 Apr 26 10:11	0°♍	
	5057 Nov 06 12:33	0°♌		5060 May 20 11:45	0°♎	
greatest brilliancy	5057 Nov 27 20:27	12°♌35'23 -4.8m				
retrograde	5057 Dec 07 08:04	14°♌14'57	superior conj	5060 May 27 03:02	8°♎14'46	-0°51'12
evening set	5057 Dec 21 22:38	10°♌04'14	minimum elong	5060 May 27 13:01	8°♎45'46	0°50'49
inferior conj	5057 Dec 28 00:20	6°♌31'19 -1°17'25	max. Earth dist.	5060 May 30 19:28	12°♎49'10	1.72479 AU
minimum elong	5057 Dec 28 03:17	6°♌26'49 1°16'27		5060 Jun 13 16:16	0°♏	
min. Earth dist.	5057 Dec 28 12:31	6°♌12'45 0.26971 AU	asc. node	5060 Jun 18 20:17	6°♏23'13	
asc. node	5058 Jan 02 01:11	3°♌31'54	evening rise	5060 Jul 04 08:39	25°♏31'28	
morning rise	5058 Jan 03 07:24	2°♌50'31		5060 Jul 07 23:54	0°♐	
	5058 Jan 09 19:14	30°♌♊		5060 Aug 01 10:34	0°♑	
direct	5058 Jan 17 18:15	28°♌41'40		5060 Aug 26 00:51	0°♒	
	5058 Jan 25 23:21	0°♓		5060 Sep 19 20:14	0°♓	
greatest brilliancy	5058 Jan 28 10:24	0°♓51'18 -4.9m	desc. node	5060 Oct 08 11:11	22°♓17'17	
	5058 Mar 07 12:32	0°♊		5060 Oct 14 23:01	0°♋	
morning max el	5058 Mar 09 10:27	1°♊55'24 46°59'12		5060 Nov 09 12:38	0°♌	
	5058 Apr 04 11:37	0°♋		5060 Dec 05 21:23	0°♍	
desc. node	5058 Apr 23 16:16	22°♋03'36	evening max el	5060 Dec 30 22:54	26°♋41'27	47°00'05
	5058 Apr 30 10:43	0°♌		5061 Jan 03 06:48	0°♋	
	5058 May 25 15:55	0°♍	asc. node	5061 Jan 29 12:57	22°♋08'37	
	5058 Jun 19 13:39	0°♎	greatest brilliancy	5061 Feb 09 11:50	27°♋48'34	-4.9m
	5058 Jul 14 08:01	0°♏	retrograde	5061 Feb 19 12:42	29°♋43'13	
	5058 Aug 07 23:52	0°♐	evening set	5061 Mar 08 11:12	24°♋08'40	
asc. node	5058 Aug 14 17:52	8°♐14'07	min. Earth dist.	5061 Mar 11 14:31	22°♋14'16	0.26980 AU
	5058 Sep 01 12:41	0°♑	inferior conj	5061 Mar 12 04:25	21°♋52'46	8°26'46
morning set	5058 Sep 08 08:53	8°♑23'49	minimum elong	5061 Mar 11 20:46	22°♋04'35	8°25'52
	5058 Sep 25 22:04	0°♒	morning rise	5061 Mar 15 06:30	19°♋59'41	
max. Earth dist.	5058 Oct 12 11:48	20°♒28'18 1.72962 AU	direct	5061 Apr 01 17:21	14°♋09'02	
			greatest brilliancy	5061 Apr 10 22:52	15°♋45'27	-4.9m
superior conj	5058 Oct 14 20:01	23°♒22'13 1°24'30		5061 May 04 01:19	0°♌	
minimum elong	5058 Oct 14 22:46	23°♒30'44 1°24'28	desc. node	5061 May 21 04:07	15°♌37'11	
	5058 Oct 20 04:32	0°♓	morning max el	5061 May 21 15:45	16°♌05'51	46°30'51
	5058 Nov 13 09:07	0°♋		5061 Jun 04 04:59	0°♍	
evening rise	5058 Nov 21 07:37	9°♋51'26		5061 Jul 01 10:48	0°♎	
desc. node	5058 Dec 04 09:02	26°♋05'00		5061 Jul 27 11:35	0°♏	
	5058 Dec 07 12:40	0°♌		5061 Aug 21 22:04	0°♐	
	5058 Dec 31 15:38	0°♍	asc. node	5061 Sep 11 05:44	24°♐20'10	
	5059 Jan 24 18:40	0°♋		5061 Sep 15 22:21	0°♑	
	5059 Feb 17 23:49	0°♌		5061 Oct 10 13:59	0°♒	
	5059 Mar 14 11:25	0°♍		5061 Nov 03 22:36	0°♓	
asc. node	5059 Mar 27 10:33	15°♍38'23	morning set	5061 Nov 16 06:45	15°♓18'05	
	5059 Apr 08 12:57	0°♎		5061 Nov 28 02:17	0°♋	
	5059 May 04 18:53	0°♏	max. Earth dist.	5061 Dec 22 01:04	29°♋54'13	1.71698 AU
evening max el	5059 May 27 01:21	23°♏22'09 46°02'02		5061 Dec 22 02:55	0°♌	
	5059 Jun 02 23:51	0°♐				
greatest brilliancy	5059 Jul 04 05:42	22°♐05'24 -4.7m	superior conj	5061 Dec 24 18:47	3°♓19'45	0°17'01
retrograde	5059 Jul 15 09:21	24°♐20'14	minimum elong	5061 Dec 24 22:55	3°♓32'43	0°16'49
desc. node	5059 Jul 17 01:44	24°♐16'53	desc. node	5061 Dec 31 20:52	12°♓12'07	



































































































































	5062 Jan 15 01:39	0°♊		greatest brilliancy	5064 Jun 23 19:21	28°♊57'43	-4.8m
evening rise	5062 Feb 03 03:08	23°♊55'27			5064 Jun 26 12:12	0°♊	
	5062 Feb 07 23:16	0°♋		morning max el	5064 Aug 01 23:51	27°♊24'21	45°49'08
	5062 Mar 03 21:05	0°♌			5064 Aug 04 16:16	0°♋	
	5062 Mar 27 21:23	0°♍			5064 Sep 02 09:40	0°♌	
	5062 Apr 21 03:16	0°♎			5064 Sep 28 23:10	0°♍	
asc. node	5062 Apr 23 22:33	3°♎26'33		asc. node	5064 Oct 08 17:41	11°♎23'11	
	5062 May 15 18:28	0°♏			5064 Oct 24 10:39	0°♎	
	5062 Jun 10 00:13	0°♐			5064 Nov 18 05:46	0°♏	
	5062 Jul 06 07:10	0°♑			5064 Dec 12 14:24	0°♐	
	5062 Aug 03 22:10	0°♒			5065 Jan 05 16:45	0°♑	
evening max el	5062 Aug 05 13:06	1°♒33'56	45°32'07	desc. node	5065 Jan 28 08:34	28°♑23'03	
desc. node	5062 Aug 13 13:34	9°♒00'07		morning set	5065 Jan 28 12:42	28°♑36'01	
greatest brilliancy	5062 Sep 13 11:33	29°♒37'06	-4.7m		5065 Jan 29 15:28	0°♒	
	5062 Sep 14 16:06	0°♓			5065 Feb 22 12:17	0°♋	
retrograde	5062 Sep 23 05:36	1°♓20'35					
	5062 Oct 01 11:32	30°♓♊		superior conj	5065 Mar 10 21:07	20°♋35'23	-1°19'40
evening set	5062 Oct 11 09:16	25°♊13'28		minimum elong	5065 Mar 10 12:04	20°♋06'57	1°19'30
inferior conj	5062 Oct 14 15:18	23°♊13'21	-8°34'10	max. Earth dist.	5065 Mar 12 07:07	22°♋22'21	1.71191 AU
minimum elong	5062 Oct 14 18:01	23°♊09'07	8°34'03		5065 Mar 18 08:41	0°♌	
min. Earth dist.	5062 Oct 15 06:00	22°♊50'24	0.28800 AU		5065 Apr 11 06:26	0°♍	
morning rise	5062 Oct 18 02:32	21°♊04'45		evening rise	5065 Apr 20 13:51	11°♍38'38	
direct	5062 Nov 05 02:14	14°♊57'04			5065 May 05 07:24	0°♎	
greatest brilliancy	5062 Nov 16 03:57	17°♊11'09	-4.8m	asc. node	5065 May 21 10:26	19°♎59'26	
asc. node	5062 Dec 04 15:18	28°♊24'31			5065 May 29 13:13	0°♏	
	5062 Dec 06 15:05	0°♓			5065 Jun 23 01:16	0°♐	
morning max el	5062 Dec 25 03:30	16°♓59'03	46°29'45		5065 Jul 17 21:29	0°♑	
	5063 Jan 06 15:19	0°♒			5065 Aug 12 05:40	0°♒	
	5063 Feb 02 06:08	0°♓			5065 Sep 07 09:45	0°♓	
	5063 Feb 27 11:53	0°♊		desc. node	5065 Sep 10 01:20	2°♓57'40	
	5063 Mar 24 03:21	0°♋			5065 Oct 05 04:56	0°♒	
desc. node	5063 Mar 26 06:24	2°♋36'33		evening max el	5065 Oct 16 15:34	11°♒24'16	46°03'19
	5063 Apr 17 12:18	0°♌			5065 Nov 07 03:33	0°♓	
	5063 May 11 18:56	0°♍		greatest brilliancy	5065 Nov 25 09:43	10°♓13'34	-4.8m
	5063 Jun 05 01:44	0°♎		retrograde	5065 Dec 04 21:01	11°♓52'13	
	5063 Jun 29 09:45	0°♏		evening set	5065 Dec 19 13:22	7°♓39'33	
morning set	5063 Jun 29 16:15	0°♏20'04		inferior conj	5065 Dec 25 13:27	4°♓08'20	-1°40'38
asc. node	5063 Jul 17 08:00	22°♏04'08		minimum elong	5065 Dec 25 17:16	4°♓02'30	1°39'24
	5063 Jul 23 18:42	0°♐		min. Earth dist.	5065 Dec 26 02:37	3°♓48'12	0.27015 AU
				morning rise	5065 Dec 31 20:38	0°♓27'02	
superior conj	5063 Aug 05 21:29	16°♐08'24	0°44'36	asc. node	5066 Jan 01 03:02	0°♓18'33	
minimum elong	5063 Aug 05 13:22	15°♐43'28	0°44'15		5066 Jan 01 17:19	30°♓♊	
max. Earth dist.	5063 Aug 05 20:29	16°♐05'21	1.73440 AU	direct	5066 Jan 15 08:20	26°♒18'06	
	5063 Aug 17 03:49	0°♑		greatest brilliancy	5066 Jan 26 00:42	28°♒27'48	-4.9m
evening rise	5063 Sep 10 23:38	0°♒33'16			5066 Jan 29 12:50	0°♓	
	5063 Sep 10 12:49	0°♓		morning max el	5066 Mar 07 00:20	29°♓32'17	46°59'00
	5063 Oct 04 22:14	0°♓			5066 Mar 07 11:16	0°♊	
	5063 Oct 29 08:59	0°♒			5066 Apr 04 03:54	0°♋	
desc. node	5063 Nov 05 23:13	9°♒17'58		desc. node	5066 Apr 22 18:24	21°♋27'49	
	5063 Nov 22 21:41	0°♓			5066 Apr 30 00:35	0°♌	
	5063 Dec 17 12:57	0°♊			5066 May 25 04:31	0°♍	
	5064 Jan 11 09:14	0°♋			5066 Jun 19 01:28	0°♎	
	5064 Feb 05 17:58	0°♌			5066 Jul 13 19:16	0°♏	
asc. node	5064 Feb 27 00:42	24°♌05'56			5066 Aug 07 10:46	0°♐	
	5064 Mar 03 11:18	0°♍		asc. node	5066 Aug 13 19:53	7°♐47'12	
evening max el	5064 Mar 13 07:27	10°♍15'53	46°58'53		5066 Aug 31 23:22	0°♑	
	5064 Apr 03 21:16	0°♎		morning set	5066 Sep 06 02:25	6°♑17'32	
greatest brilliancy	5064 Apr 22 11:09	11°♎14'13	-4.9m		5066 Sep 25 08:42	0°♒	
retrograde	5064 May 02 21:42	13°♎17'38		max. Earth dist.	5066 Oct 10 04:18	18°♒18'02	1.72997 AU
evening set	5064 May 19 04:13	8°♎06'37					
inferior conj	5064 May 23 23:34	5°♎11'04	5°38'19	superior conj	5066 Oct 12 13:21	21°♒14'26	1°24'54
minimum elong	5064 May 24 09:43	4°♎55'15	5°35'52	minimum elong	5066 Oct 12 15:24	21°♒20'45	1°24'54
min. Earth dist.	5064 May 23 21:17	5°♎14'38	0.27936 AU		5066 Oct 19 15:12	0°♓	
morning rise	5064 May 29 15:33	1°♎46'52			5066 Nov 12 19:54	0°♒	
	5064 Jun 02 02:59	30°♓♋		evening rise	5066 Nov 18 22:35	7°♒35'12	
direct	5064 Jun 13 23:20	27°♋11'14		desc. node	5066 Dec 03 11:02	25°♒37'15	
desc. node	5064 Jun 17 15:50	27°♋26'59			5066 Dec 06 23:38	0°♓	

	5066 Dec 31 02:49	0°♊		asc. node	5069 Sep 10 07:49	23°♏51'47	
	5067 Jan 24 06:08	0°♋			5069 Sep 15 09:46	0°♎	
	5067 Feb 17 11:43	0°♌			5069 Oct 10 01:04	0°♍	
	5067 Mar 13 23:57	0°♍			5069 Nov 03 09:31	0°♌	
asc. node	5067 Mar 26 12:38	15°♌05'28		morning set	5069 Nov 13 22:27	13°♌03'53	
	5067 Apr 08 02:43	0°♎			5069 Nov 27 13:12	0°♏	
evening max el	5067 May 04 11:24	0°♏		max. Earth dist.	5069 Dec 19 15:09	27°♏33'49	1.71743 AU
	5067 May 24 16:59	21°♏08'53	46°03'47		5069 Dec 21 13:54	0°♐	
	5067 Jun 03 01:28	0°♐					
greatest brilliancy	5067 Jul 01 22:51	19°♐56'29	-4.8m	superior conj	5069 Dec 22 07:33	0°♐55'14	0°20'39
retrograde	5067 Jul 13 01:25	22°♐10'29		minimum elong	5069 Dec 22 12:31	1°♐10'45	0°20'26
desc. node	5067 Jul 16 03:42	21°♐59'06		desc. node	5069 Dec 30 22:47	11°♐43'39	
evening set	5067 Jul 28 09:27	17°♐37'15			5070 Jan 14 12:44	0°♊	
min. Earth dist.	5067 Aug 03 01:52	14°♐11'45	0.28884 AU	evening rise	5070 Jan 31 14:22	21°♊25'08	
inferior conj	5067 Aug 03 12:49	13°♐54'33	-4°12'35		5070 Feb 07 10:27	0°♋	
minimum elong	5067 Aug 03 04:31	14°♐07'35	4°10'27		5070 Mar 03 08:23	0°♌	
morning rise	5067 Aug 08 23:58	10°♐35'29			5070 Mar 27 08:50	0°♍	
direct	5067 Aug 25 01:45	5°♐41'23			5070 Apr 20 15:00	0°♎	
greatest brilliancy	5067 Sep 04 01:28	7°♐29'11	-4.7m	asc. node	5070 Apr 23 00:34	2°♎56'39	
	5067 Oct 06 22:41	0°♎			5070 May 15 06:43	0°♏	
morning max el	5067 Oct 12 20:18	5°♎32'04	45°47'32		5070 Jun 09 13:30	0°♐	
	5067 Nov 05 13:01	0°♏			5070 Jul 05 22:43	0°♑	
asc. node	5067 Nov 06 05:36	0°♏45'18		evening max el	5070 Aug 03 04:24	29°♑21'49	45°32'10
	5067 Dec 02 00:21	0°♐			5070 Aug 03 20:21	0°♒	
	5067 Dec 27 04:40	0°♑		desc. node	5070 Aug 12 15:38	8°♒05'00	
	5068 Jan 20 17:22	0°♒		greatest brilliancy	5070 Sep 11 00:53	27°♒23'49	-4.7m
	5068 Feb 13 22:00	0°♊		retrograde	5070 Sep 20 21:30	29°♒09'24	
desc. node	5068 Feb 25 20:32	14°♊53'19		evening set	5070 Oct 09 01:01	23°♒01'13	
	5068 Mar 08 22:36	0°♋		inferior conj	5070 Oct 12 07:03	21°♒01'08	-8°36'02
	5068 Apr 01 21:38	0°♌		minimum elong	5070 Oct 12 08:59	20°♒58'08	8°36'00
morning set	5068 Apr 15 08:31	16°♌50'37		min. Earth dist.	5070 Oct 12 20:29	20°♒40'12	0.28846 AU
	5068 Apr 25 21:05	0°♍		morning rise	5070 Oct 15 16:45	18°♒55'01	
	5068 May 19 22:34	0°♎		direct	5070 Nov 02 18:32	12°♒44'20	
				greatest brilliancy	5070 Nov 13 19:24	14°♒57'53	-4.8m
superior conj	5068 May 24 17:25	5°♎56'50	-0°54'03	asc. node	5070 Dec 03 17:12	27°♒17'48	
minimum elong	5068 May 25 03:42	6°♎28'46	0°53'41		5070 Dec 06 23:40	0°♐	
max. Earth dist.	5068 May 28 11:44	10°♎37'13	1.72429 AU	morning max el	5070 Dec 22 19:42	14°♐44'27	46°28'07
	5068 Jun 13 03:04	0°♏			5071 Jan 06 09:34	0°♑	
asc. node	5068 Jun 17 22:12	5°♏55'48			5071 Feb 01 20:54	0°♒	
evening rise	5068 Jul 02 01:17	23°♏21'33			5071 Feb 27 01:08	0°♊	
	5068 Jul 07 10:44	0°♐			5071 Mar 23 15:46	0°♋	
	5068 Jul 31 21:33	0°♑		desc. node	5071 Mar 25 08:26	2°♋04'49	
	5068 Aug 25 12:07	0°♒			5071 Apr 17 00:10	0°♌	
	5068 Sep 19 08:01	0°♓			5071 May 11 06:25	0°♍	
desc. node	5068 Oct 07 13:19	21°♓46'42			5071 Jun 04 12:55	0°♎	
	5068 Oct 14 11:41	0°♏		morning set	5071 Jun 27 08:54	28°♎09'41	
	5068 Nov 09 02:50	0°♐			5071 Jun 28 20:43	0°♏	
	5068 Dec 05 14:30	0°♑		asc. node	5071 Jul 16 10:02	21°♏37'02	
evening max el	5068 Dec 28 11:33	24°♑14'35	46°58'44		5071 Jul 23 05:31	0°♐	
	5069 Jan 03 07:59	0°♒					
asc. node	5069 Jan 28 15:00	20°♒39'49		superior conj	5071 Aug 03 15:19	14°♒02'22	0°41'50
greatest brilliancy	5069 Feb 07 01:42	25°♒22'08	-4.9m	minimum elong	5071 Aug 03 07:32	13°♒38'25	0°41'29
retrograde	5069 Feb 17 01:18	27°♒16'05		max. Earth dist.	5071 Aug 03 18:51	14°♒13'15	1.73433 AU
evening set	5069 Mar 05 19:50	21°♒48'15			5071 Aug 16 14:37	0°♑	
min. Earth dist.	5069 Mar 09 03:40	19°♒47'28	0.26946 AU	evening rise	5071 Sep 08 18:05	28°♑28'55	
inferior conj	5069 Mar 09 17:18	19°♒26'26	8°17'34		5071 Sep 09 23:42	0°♒	
minimum elong	5069 Mar 09 08:57	19°♒39'19	8°16'29		5071 Oct 04 09:21	0°♓	
morning rise	5069 Mar 12 22:11	17°♒29'14			5071 Oct 28 20:26	0°♏	
direct	5069 Mar 30 05:17	11°♒42'54		desc. node	5071 Nov 05 01:08	8°♏48'29	
greatest brilliancy	5069 Apr 08 12:25	13°♒20'29	-4.9m		5071 Nov 22 09:34	0°♐	
	5069 May 04 10:55	0°♌			5071 Dec 17 01:30	0°♊	
morning max el	5069 May 19 04:30	13°♌41'40	46°32'35		5072 Jan 10 22:48	0°♋	
desc. node	5069 May 20 06:07	14°♌45'12			5072 Feb 05 09:22	0°♌	
	5069 Jun 03 23:37	0°♍		asc. node	5072 Feb 26 02:48	23°♌21'25	
	5069 Jul 01 01:30	0°♎			5072 Mar 03 06:59	0°♍	
	5069 Jul 27 00:33	0°♏		evening max el	5072 Mar 10 22:56	7°♏57'05	47°00'13
	5069 Aug 21 10:03	0°♐			5072 Apr 04 13:21	0°♎	

greatest brilliancy	5072 Apr 20 02:21	8° Π 55'20	-4.9m		5074 Sep 24 19:32	0° Ω	
retrograde	5072 Apr 30 13:23	10° Π 58'49		max. Earth dist.	5074 Oct 07 21:07	16° Ω 08'13	1.73031 AU
evening set	5072 May 16 21:59	5° Π 43'35					
inferior conj	5072 May 21 14:10	2° Π 52'31	5°55'23	superior conj	5074 Oct 10 06:59	19° Ω 07'06	1°25'11
minimum elong	5072 May 22 00:30	2° Π 36'26	5°52'59	minimum elong	5074 Oct 10 08:20	19° Ω 11'15	1°25'12
min. Earth dist.	5072 May 21 11:33	2° Π 56'36	0.27904 AU		5074 Oct 19 02:02	0° Π	
	5072 May 26 07:58	30° \mathbb{R} 8			5074 Nov 12 06:51	0° \mathbb{X}	
morning rise	5072 May 27 03:24	29° \mathbb{X} 32'28		evening rise	5074 Nov 16 13:50	5° \mathbb{X} 19'26	
direct	5072 Jun 11 14:00	24° \mathbb{X} 53'20		desc. node	5074 Dec 02 13:01	25° \mathbb{X} 08'53	
desc. node	5072 Jun 16 17:45	25° \mathbb{X} 23'56			5074 Dec 06 10:47	0° \mathbb{Z}	
greatest brilliancy	5072 Jun 21 08:22	26° \mathbb{X} 38'55	-4.8m		5074 Dec 30 14:14	0° \approx	
	5072 Jun 28 20:02	0° Π			5075 Jan 23 17:54	0° \mathbb{X}	
morning max el	5072 Jul 30 15:42	25° Π 12'19	45°50'08		5075 Feb 16 23:54	0° \mathbb{Y}	
	5072 Aug 04 13:48	0° \mathbb{G}			5075 Mar 13 12:49	0° \mathbb{X}	
	5072 Sep 02 01:10	0° Ω		asc. node	5075 Mar 25 14:37	14° \mathbb{X} 31'19	
	5072 Sep 28 12:25	0° Π			5075 Apr 07 16:52	0° Π	
asc. node	5072 Oct 07 19:44	10° Π 51'39			5075 May 04 04:30	0° \mathbb{G}	
	5072 Oct 23 22:50	0° Ω		evening max el	5075 May 22 07:35	18° \mathbb{G} 52'16	46°05'37
	5072 Nov 17 17:25	0° Π			5075 Jun 03 04:54	0° Ω	
	5072 Dec 12 01:48	0° \mathbb{X}		greatest brilliancy	5075 Jun 29 15:46	17° Ω 46'20	-4.8m
	5073 Jan 05 04:00	0° \mathbb{Z}		retrograde	5075 Jul 10 17:12	19° Ω 59'52	
morning set	5073 Jan 25 23:39	26° \mathbb{Z} 04'43		desc. node	5075 Jul 15 05:50	19° Ω 35'26	
desc. node	5073 Jan 27 10:41	27° \mathbb{Z} 54'37		evening set	5075 Jul 26 00:13	15° Ω 28'43	
	5073 Jan 29 02:39	0° \approx		inferior conj	5075 Aug 01 05:00	11° Ω 44'18	-3°54'59
	5073 Feb 21 23:26	0° \mathbb{X}		minimum elong	5075 Jul 31 21:08	11° Ω 56'40	3°52'54
				min. Earth dist.	5075 Jul 31 18:28	12° Ω 00'51	0.28854 AU
superior conj	5073 Mar 08 07:23	18° \mathbb{X} 01'42	-1°17'59	morning rise	5075 Aug 06 18:20	8° Ω 21'53	
minimum elong	5073 Mar 07 21:39	17° \mathbb{X} 31'05	1°17'46	direct	5075 Aug 22 17:05	3° Ω 31'29	
max. Earth dist.	5073 Mar 09 15:45	19° \mathbb{X} 43'28	1.71176 AU	greatest brilliancy	5075 Sep 01 17:32	5° Ω 19'27	-4.7m
	5073 Mar 17 19:50	0° \mathbb{Y}			5075 Oct 06 23:09	0° Π	
	5073 Apr 10 17:35	0° \mathbb{X}		morning max el	5075 Oct 10 10:41	3° Π 17'41	45°46'54
evening rise	5073 Apr 18 01:05	9° \mathbb{X} 08'54		asc. node	5075 Nov 05 07:30	0° Ω 06'20	
	5073 May 04 18:36	0° Π			5075 Nov 05 05:11	0° Ω	
asc. node	5073 May 20 12:22	19° Π 30'34			5075 Dec 01 13:55	0° Π	
	5073 May 29 00:33	0° \mathbb{G}			5075 Dec 26 17:05	0° \mathbb{X}	
	5073 Jun 22 12:51	0° Ω			5076 Jan 20 05:14	0° \mathbb{Z}	
	5073 Jul 17 09:34	0° Π			5076 Feb 13 09:33	0° \approx	
	5073 Aug 11 18:44	0° Ω		desc. node	5076 Feb 24 22:35	14° \approx 24'04	
	5073 Sep 07 00:48	0° Π			5076 Mar 08 09:57	0° \mathbb{X}	
desc. node	5073 Sep 09 03:25	2° Π 20'53			5076 Apr 01 08:49	0° \mathbb{Y}	
	5073 Oct 05 00:52	0° \mathbb{X}		morning set	5076 Apr 12 20:01	14° \mathbb{Y} 21'42	
evening max el	5073 Oct 14 05:52	9° \mathbb{X} 06'48	46°01'17		5076 Apr 25 08:06	0° \mathbb{X}	
	5073 Nov 08 00:14	0° \mathbb{Z}			5076 May 19 09:28	0° Π	
greatest brilliancy	5073 Nov 22 23:28	7° \mathbb{Z} 51'30	-4.8m				
retrograde	5073 Dec 02 09:16	9° \mathbb{Z} 28'40		superior conj	5076 May 22 07:19	3° Π 37'05	-0°56'52
evening set	5073 Dec 17 04:17	5° \mathbb{Z} 13'46		minimum elong	5076 May 22 17:50	4° Π 09'46	0°56'29
inferior conj	5073 Dec 23 02:38	1° \mathbb{Z} 44'38	-2°03'32	max. Earth dist.	5076 May 26 01:45	8° Π 17'58	1.72375 AU
minimum elong	5073 Dec 23 07:16	1° \mathbb{Z} 37'32	2°02'04		5076 Jun 12 13:55	0° \mathbb{G}	
min. Earth dist.	5073 Dec 23 17:07	1° \mathbb{Z} 22'26	0.27064 AU	asc. node	5076 Jun 17 00:14	5° \mathbb{G} 28'36	
	5073 Dec 25 23:28	30° \mathbb{R} \mathbb{X}		evening rise	5076 Jun 29 17:37	21° \mathbb{G} 10'30	
morning rise	5073 Dec 29 09:39	28° \mathbb{X} 02'57			5076 Jul 06 21:38	0° Ω	
asc. node	5073 Dec 31 05:08	27° \mathbb{X} 07'22			5076 Jul 31 08:36	0° Π	
direct	5074 Jan 12 22:03	23° \mathbb{X} 53'37			5076 Aug 24 23:28	0° Ω	
greatest brilliancy	5074 Jan 23 15:41	26° \mathbb{X} 04'04	-4.9m		5076 Sep 18 19:53	0° Π	
	5074 Jan 31 13:11	0° \mathbb{Z}		desc. node	5076 Oct 06 15:15	21° Π 15'25	
morning max el	5074 Mar 04 13:20	27° \mathbb{Z} 05'49	46°58'49		5076 Oct 14 00:26	0° \mathbb{X}	
	5074 Mar 07 09:31	0° \approx			5076 Nov 08 17:07	0° \mathbb{Z}	
	5074 Apr 03 20:13	0° \mathbb{X}			5076 Dec 05 07:52	0° \approx	
desc. node	5074 Apr 21 20:23	20° \mathbb{X} 51'06		evening max el	5076 Dec 26 00:16	21° \approx 48'27	46°57'21
	5074 Apr 29 14:35	0° \mathbb{Y}			5077 Jan 03 10:24	0° \mathbb{X}	
	5074 May 24 17:17	0° \mathbb{X}		asc. node	5077 Jan 27 17:03	19° \mathbb{X} 07'57	
	5074 Jun 18 13:28	0° Π		greatest brilliancy	5077 Feb 04 14:46	22° \mathbb{X} 54'46	-4.9m
	5074 Jul 13 06:45	0° \mathbb{G}		retrograde	5077 Feb 14 14:08	24° \mathbb{X} 48'53	
	5074 Aug 06 21:54	0° Ω		evening set	5077 Mar 03 04:13	19° \mathbb{X} 27'25	
asc. node	5074 Aug 12 21:59	7° Ω 19'51		min. Earth dist.	5077 Mar 06 16:31	17° \mathbb{X} 20'28	0.26919 AU
	5074 Aug 31 10:18	0° Π		inferior conj	5077 Mar 07 06:01	16° \mathbb{X} 59'40	8°07'19
morning set	5074 Sep 03 20:06	4° Π 11'02		minimum elong	5077 Mar 06 21:04	17° \mathbb{X} 13'28	8°06'00

morning rise	5077 Mar 10 14:02	14°  58'06			5079 Oct 28 07:37	0° 		
direct	5077 Mar 27 17:27	9°  16'09		desc. node	5079 Nov 04 03:08	8°  20'03		
greatest brilliancy	5077 Apr 06 01:48	10°  54'57	-4.9m		5079 Nov 21 21:14	0° 		
	5077 May 04 18:02	0° 			5079 Dec 16 13:49	0° 		
morning max el	5077 May 16 18:12	11°  19'28	46°34'13		5080 Jan 10 12:07	0° 		
desc. node	5077 May 19 08:03	13°  53'49			5080 Feb 05 00:32	0° 		
	5077 Jun 03 17:51	0° 		asc. node	5080 Feb 25 04:47	22°  37'29		
	5077 Jun 30 16:04	0° 			5080 Mar 03 02:41	0° 		
	5077 Jul 26 13:23	0° 		evening max el	5080 Mar 08 14:38	5°  40'16	47°01'30	
	5077 Aug 20 21:55	0° 			5080 Apr 05 09:58	0° 		
asc. node	5077 Sep 09 09:46	23°  02'18		greatest brilliancy	5080 Apr 17 17:51	6°  38'32	-4.9m	
	5077 Sep 14 21:04	0° 		retrograde	5080 Apr 28 04:47	8°  41'29		
	5077 Oct 09 12:03	0° 		evening set	5080 May 14 15:56	3°  22'12		
	5077 Nov 02 20:21	0° 		inferior conj	5080 May 19 04:53	0°  35'36	6°11'54	
morning set	5077 Nov 11 14:23	10°  50'47		minimum elong	5080 May 19 15:19	0°  19'19	6°09'32	
	5077 Nov 26 23:59	0° 		min. Earth dist.	5080 May 19 01:56	0°  40'12	0.27874 AU	
max. Earth dist.	5077 Dec 17 06:04	25°  16'37	1.71781 AU		5080 May 20 03:44	30°  08		
				morning rise	5080 May 24 15:08	27°  19'43		
superior conj	5077 Dec 19 20:42	28°  32'26	0°24'14	direct	5080 Jun 09 04:50	22°  37'08		
minimum elong	5077 Dec 20 02:26	28°  50'20	0°23'58	desc. node	5080 Jun 15 19:55	23°  27'11		
	5077 Dec 21 00:42	0° 		greatest brilliancy	5080 Jun 18 21:31	24°  21'29	-4.8m	
desc. node	5077 Dec 30 00:56	11°  36'31			5080 Jun 30 07:22	0° 		
	5078 Jan 13 23:36	0° 		morning max el	5080 Jul 28 07:00	22°  59'54	45°50'56	
evening rise	5078 Jan 29 02:00	18°  56'44			5080 Aug 04 10:09	0° 		
	5078 Feb 06 21:24	0° 			5080 Sep 01 16:05	0° 		
	5078 Mar 02 19:28	0° 			5080 Sep 28 01:13	0° 		
	5078 Mar 26 20:08	0° 		asc. node	5080 Oct 06 21:41	10°  21'03		
	5078 Apr 20 02:38	0° 			5080 Oct 23 10:38	0° 		
asc. node	5078 Apr 22 02:29	2°  26'45			5080 Nov 17 04:42	0° 		
	5078 May 14 18:55	0° 			5080 Dec 11 12:48	0° 		
	5078 Jun 09 02:47	0° 			5081 Jan 04 14:53	0° 		
	5078 Jul 05 14:24	0° 		morning set	5081 Jan 23 10:36	23°  34'32		
evening max el	5078 Jul 31 20:15	27°  11'27	45°32'21	desc. node	5081 Jan 26 12:42	27°  26'58		
	5078 Aug 03 19:20	0° 			5081 Jan 28 13:28	0° 		
desc. node	5078 Aug 11 17:39	7°  09'02			5081 Feb 21 10:13	0° 		
greatest brilliancy	5078 Sep 08 14:03	25°  09'51	-4.7m					
retrograde	5078 Sep 18 13:20	26°  58'20		superior conj	5081 Mar 05 17:51	15°  29'48	-1°16'07	
evening set	5078 Oct 06 16:25	20°  49'47		minimum elong	5081 Mar 05 07:30	14°  57'14	1°15'52	
inferior conj	5078 Oct 09 22:41	18°  49'12	-8°37'19	max. Earth dist.	5081 Mar 06 21:58	16°  58'14	1.71156 AU	
minimum elong	5078 Oct 09 23:49	18°  47'26	8°37'17		5081 Mar 17 06:34	0° 		
min. Earth dist.	5078 Oct 10 10:37	18°  30'35	0.28887 AU		5081 Apr 10 04:18	0° 		
morning rise	5078 Oct 13 07:06	16°  45'04		evening rise	5081 Apr 15 12:30	6°  41'03		
direct	5078 Oct 31 11:02	10°  32'04			5081 May 04 05:20	0° 		
greatest brilliancy	5078 Nov 11 10:09	12°  44'17	-4.8m	asc. node	5081 May 19 14:28	19°  03'40		
asc. node	5078 Dec 02 19:18	26°  13'42			5081 May 28 11:24	0° 		
	5078 Dec 07 05:36	0° 			5081 Jun 22 00:00	0° 		
morning max el	5078 Dec 20 11:57	12°  30'51	46°26'37		5081 Jul 16 21:17	0° 		
	5079 Jan 06 03:08	0° 			5081 Aug 11 07:30	0° 		
	5079 Feb 01 11:10	0° 			5081 Sep 06 15:40	0° 		
	5079 Feb 26 13:56	0° 		desc. node	5081 Sep 08 05:21	1°  44'25		
	5079 Mar 23 03:45	0° 			5081 Oct 04 21:00	0° 		
desc. node	5079 Mar 24 10:25	1°  34'11		evening max el	5081 Oct 11 19:15	6°  48'12	45°59'20	
	5079 Apr 16 11:39	0° 			5081 Nov 09 03:46	0° 		
	5079 May 10 17:33	0° 		greatest brilliancy	5081 Nov 20 13:27	5°  30'55	-4.8m	
	5079 Jun 03 23:49	0° 		retrograde	5081 Nov 29 21:16	7°  06'38		
morning set	5079 Jun 25 01:16	25°  59'11		evening set	5081 Dec 14 19:21	2°  48'56		
	5079 Jun 28 07:25	0° 			5081 Dec 19 15:15	30°  08		
asc. node	5079 Jul 15 12:08	21°  05'55		inferior conj	5081 Dec 20 15:52	29°  22'18	-2°26'07	
	5079 Jul 22 16:06	0° 		minimum elong	5081 Dec 20 21:16	29°  14'00	2°24'26	
				min. Earth dist.	5081 Dec 21 07:51	28°  57'46	0.27116 AU	
superior conj	5079 Aug 01 08:45	11°  55'48	0°38'58	morning rise	5081 Dec 26 22:29	25°  40'35		
minimum elong	5079 Aug 01 01:20	11°  32'59	0°38'38	asc. node	5081 Dec 30 07:12	24°  40'13		
max. Earth dist.	5079 Aug 01 17:32	12°  02'50	1.73421 AU	direct	5082 Jan 10 11:25	21°  43'01		
	5079 Aug 16 01:09	0° 		greatest brilliancy	5082 Jan 21 07:13	23°  42'12	-4.9m	
evening rise	5079 Sep 06 12:13	26°  24'23			5082 Feb 01 21:06	0° 		
	5079 Sep 09 10:20	0° 		morning max el	5082 Mar 02 02:08	24°  39'47	46°58'42	
	5079 Oct 03 20:11	0° 			5082 Mar 07 06:33	0° 		

	5082 Apr 03 11:52	0° H			5084 Dec 05 01:34	0° \approx	
desc. node	5082 Apr 20 22:20	20° H 15'47		evening max el	5084 Dec 23 13:56	19° \approx 25'00	46°55'57
	5082 Apr 29 04:02	0° Y			5085 Jan 03 14:23	0° H	
	5082 May 24 05:32	0° B		asc. node	5085 Jan 26 19:00	17° H 32'39	
	5082 Jun 18 00:57	0° II		greatest brilliancy	5085 Feb 02 03:12	20° H 26'42	-4.9m
	5082 Jul 12 17:45	0° G		retrograde	5085 Feb 12 03:21	22° H 21'33	
	5082 Aug 06 08:35	0° Ω		evening set	5085 Feb 28 12:28	17° H 06'22	
asc. node	5082 Aug 11 23:54	6° Ω 53'13		min. Earth dist.	5085 Mar 04 04:57	14° H 53'38	0.26891 AU
	5082 Aug 30 20:50	0° M		inferior conj	5085 Mar 04 18:37	14° H 32'39	7°55'58
morning set	5082 Sep 01 13:49	2° M 05'47		minimum elong	5085 Mar 04 09:09	14° H 47'12	7°54'28
	5082 Sep 24 06:00	0° $\underline{\Omega}$		morning rise	5085 Mar 08 05:57	12° H 26'31	
max. Earth dist.	5082 Oct 05 14:27	14° $\underline{\Omega}$ 01'06	1.73068 AU	direct	5085 Mar 25 06:07	6° H 49'18	
				greatest brilliancy	5085 Apr 03 14:33	8° H 28'44	-4.9m
superior conj	5082 Oct 08 00:35	17° $\underline{\Omega}$ 00'46	1°25'21		5085 May 04 22:56	0° Y	
minimum elong	5082 Oct 08 01:13	17° $\underline{\Omega}$ 02'42	1°25'21	morning max el	5085 May 14 08:30	8° Y 58'56	46°35'49
	5082 Oct 18 12:33	0° M		desc. node	5085 May 18 10:13	13° Y 04'07	
	5082 Nov 11 17:29	0° Z			5085 Jun 03 11:35	0° B	
evening rise	5082 Nov 14 05:02	3° Z 04'39			5085 Jun 30 06:23	0° II	
desc. node	5082 Dec 01 15:06	24° Z 41'47			5085 Jul 26 02:03	0° G	
	5082 Dec 05 21:38	0° Z			5085 Aug 20 09:40	0° Ω	
	5082 Dec 30 01:22	0° \approx		asc. node	5085 Sep 08 11:47	22° Ω 55'26	
	5083 Jan 23 05:23	0° H			5085 Sep 14 08:14	0° M	
	5083 Feb 16 11:50	0° Y			5085 Oct 08 22:54	0° $\underline{\Omega}$	
	5083 Mar 13 01:28	0° B			5085 Nov 02 07:05	0° M	
asc. node	5083 Mar 24 16:35	13° B 57'52		morning set	5085 Nov 09 06:34	8° M 38'48	
	5083 Apr 07 06:50	0° II			5085 Nov 26 10:45	0° Z	
	5083 May 03 21:32	0° G		max. Earth dist.	5085 Dec 14 19:38	22° Z 55'09	1.71827 AU
evening max el	5083 May 19 22:06	16° G 36'39	46°07'40				
	5083 Jun 03 09:30	0° Ω		superior conj	5085 Dec 17 09:54	26° Z 09'44	0°27'45
greatest brilliancy	5083 Jun 27 08:18	15° Ω 37'21	-4.8m	minimum elong	5085 Dec 17 16:20	26° Z 29'51	0°27'28
retrograde	5083 Jul 08 09:28	17° Ω 51'21			5085 Dec 20 11:34	0° Z	
desc. node	5083 Jul 14 07:46	17° Ω 09'11		desc. node	5085 Dec 29 02:55	10° Z 48'43	
evening set	5083 Jul 23 15:21	13° Ω 21'40			5086 Jan 13 10:33	0° \approx	
inferior conj	5083 Jul 29 21:24	9° Ω 35'56	-3°37'05	evening rise	5086 Jan 26 13:19	16° \approx 27'09	
minimum elong	5083 Jul 29 14:00	9° Ω 47'32	3°35'05		5086 Feb 06 08:28	0° H	
min. Earth dist.	5083 Jul 29 11:07	9° Ω 52'03	0.28825 AU		5086 Mar 02 06:39	0° Y	
morning rise	5083 Aug 04 12:53	6° Ω 10'33			5086 Mar 26 07:32	0° B	
direct	5083 Aug 20 08:35	1° Ω 23'20			5086 Apr 19 14:22	0° II	
greatest brilliancy	5083 Aug 30 10:01	3° Ω 11'56	-4.7m	asc. node	5086 Apr 21 04:36	1° II 57'10	
	5083 Oct 06 22:02	0° M			5086 May 14 07:15	0° G	
morning max el	5083 Oct 08 01:57	1° M 06'37	45°46'09		5086 Jun 08 16:15	0° Ω	
asc. node	5083 Nov 04 09:36	29° M 29'11			5086 Jul 05 06:25	0° M	
	5083 Nov 04 20:47	0° $\underline{\Omega}$		evening max el	5086 Jul 29 12:42	25° M 02'27	45°32'40
	5083 Dec 01 03:09	0° M			5086 Aug 03 19:22	0° $\underline{\Omega}$	
	5083 Dec 26 05:15	0° Z		desc. node	5086 Aug 10 19:38	6° $\underline{\Omega}$ 11'52	
	5084 Jan 19 16:50	0° Z		greatest brilliancy	5086 Sep 06 03:59	22° $\underline{\Omega}$ 59'25	-4.7m
	5084 Feb 12 20:51	0° \approx		retrograde	5086 Sep 16 05:09	24° $\underline{\Omega}$ 48'09	
desc. node	5084 Feb 24 00:30	13° \approx 55'06		evening set	5086 Oct 04 07:50	18° $\underline{\Omega}$ 40'02	
	5084 Mar 07 21:03	0° H		inferior conj	5086 Oct 07 14:39	16° $\underline{\Omega}$ 38'23	-8°37'47
	5084 Mar 31 19:45	0° Y		minimum elong	5086 Oct 07 15:01	16° $\underline{\Omega}$ 37'49	8°37'47
morning set	5084 Apr 10 07:19	11° Y 52'43		min. Earth dist.	5086 Oct 08 01:04	16° $\underline{\Omega}$ 22'06	0.28922 AU
	5084 Apr 24 18:55	0° B		morning rise	5086 Oct 10 22:06	14° $\underline{\Omega}$ 35'36	
	5084 May 18 20:12	0° II		direct	5086 Oct 29 03:58	8° $\underline{\Omega}$ 21'10	
				greatest brilliancy	5086 Nov 09 00:47	10° $\underline{\Omega}$ 31'22	-4.8m
superior conj	5084 May 19 21:14	1° II 17'51	-0°59'35	asc. node	5086 Dec 01 21:21	25° $\underline{\Omega}$ 11'29	
minimum elong	5084 May 20 07:55	1° II 51'05	0°59'11		5086 Dec 07 09:28	0° M	
max. Earth dist.	5084 May 23 13:51	5° II 53'16	1.72319 AU	morning max el	5086 Dec 18 03:29	10° M 15'37	46°24'46
	5084 Jun 12 00:35	0° G			5087 Jan 05 20:24	0° Z	
asc. node	5084 Jun 16 02:20	5° G 02'09			5087 Feb 01 01:28	0° Z	
evening rise	5084 Jun 27 10:06	19° G 00'37			5087 Feb 26 02:54	0° \approx	
	5084 Jul 06 08:19	0° Ω			5087 Mar 22 15:57	0° H	
	5084 Jul 30 19:24	0° M		desc. node	5087 Mar 23 12:27	1° H 03'01	
	5084 Aug 24 10:33	0° $\underline{\Omega}$			5087 Apr 15 23:22	0° Y	
	5084 Sep 18 07:34	0° M			5087 May 10 04:55	0° B	
desc. node	5084 Oct 05 17:15	20° M 44'49			5087 Jun 03 10:55	0° II	
	5084 Oct 13 13:05	0° Z		morning set	5087 Jun 22 17:26	23° II 47'24	
	5084 Nov 08 07:27	0° Z			5087 Jun 27 18:19	0° G	

asc. node	5087 Jul 14 14:01	20°  43'25		inferior conj	5089 Dec 18 05:21	27°  00'03	-2°48'11
	5087 Jul 22 02:53	0° 		minimum elong	5089 Dec 18 11:30	26°  50'37	2°46'18
				min. Earth dist.	5089 Dec 18 22:45	26°  33'22	0.27170 AU
superior conj	5087 Jul 30 02:09	9°  48'29	0°36'02	morning rise	5089 Dec 24 11:24	23°  18'51	
minimum elong	5087 Jul 29 19:09	9°  26'58	0°35'43	asc. node	5089 Dec 29 09:04	21°  00'53	
max. Earth dist.	5087 Jul 30 15:26	10°  29'23	1.73404 AU	direct	5090 Jan 08 00:52	19°  06'48	
	5087 Aug 15 11:55	0° 		greatest brilliancy	5090 Jan 18 23:06	21°  20'48	-4.9m
evening rise	5087 Sep 04 06:31	24°  19'43			5090 Feb 02 20:13	0° 	
	5087 Sep 08 21:10	0° 		morning max el	5090 Feb 27 15:25	22°  14'21	46°58'25
	5087 Oct 03 07:13	0° 			5090 Mar 07 03:08	0° 	
	5087 Oct 27 18:57	0° 			5090 Apr 03 03:37	0° 	
desc. node	5087 Nov 03 05:16	7°  15'31		desc. node	5090 Apr 20 00:26	19°  40'00	
	5087 Nov 21 09:04	0° 			5090 Apr 28 17:47	0° 	
	5087 Dec 16 02:22	0° 			5090 May 23 18:11	0° 	
	5088 Jan 10 01:50	0° 			5090 Jun 17 12:54	0° 	
	5088 Feb 04 16:21	0° 			5090 Jul 12 05:14	0° 	
asc. node	5088 Feb 24 06:45	21°  05'30			5090 Aug 05 19:45	0° 	
	5088 Mar 02 23:36	0° 		asc. node	5090 Aug 11 01:56	6°  25'31	
evening max el	5088 Mar 06 05:30	3°  19'35	47°02'29	morning set	5090 Aug 30 07:08	29°  25'59	
	5088 Apr 06 15:49	0° 			5090 Aug 30 07:48	0° 	
greatest brilliancy	5088 Apr 15 09:44	4°  19'54	-4.9m		5090 Sep 23 16:54	0° 	
retrograde	5088 Apr 25 19:22	6°  21'29		max. Earth dist.	5090 Oct 03 09:28	11°  25'55	1.73103 AU
evening set	5088 May 12 09:39	0° 					
	5088 May 14 00:28	30° 		superior conj	5090 Oct 05 18:01	14°  52'38	1°25'24
inferior conj	5088 May 16 19:17	28°  16'19	6°27'54	minimum elong	5090 Oct 05 17:55	14°  52'20	1°25'24
minimum elong	5088 May 17 05:46	27°  59'57	6°25'38		5090 Oct 17 23:29	0° 	
min. Earth dist.	5088 May 16 16:20	28°  20'56	0.27841 AU		5090 Nov 11 04:32	0° 	
morning rise	5088 May 22 02:17	25°  04'45		evening rise	5090 Nov 11 20:24	0°  49'10	
direct	5088 Jun 06 19:00	20°  18'37		desc. node	5090 Nov 30 17:03	24°  13'04	
desc. node	5088 Jun 14 21:52	21°  32'42			5090 Dec 05 08:52	0° 	
greatest brilliancy	5088 Jun 16 10:45	22°  02'04	-4.8m		5090 Dec 29 12:51	0° 	
	5088 Jul 01 09:17	0° 			5091 Jan 22 17:10	0° 	
morning max el	5088 Jul 25 21:03	20°  43'02	45°51'56		5091 Feb 16 00:04	0° 	
	5088 Aug 04 06:19	0° 			5091 Mar 12 14:27	0° 	
	5088 Sep 01 07:11	0° 		asc. node	5091 Mar 23 18:41	13°  23'44	
	5088 Sep 27 14:17	0° 			5091 Apr 06 21:18	0° 	
asc. node	5088 Oct 05 23:44	9°  49'52			5091 May 03 15:26	0° 	
	5088 Oct 22 22:41	0° 		evening max el	5091 May 17 12:52	14°  20'13	46°09'34
	5088 Nov 16 16:13	0° 			5091 Jun 03 17:04	0° 	
	5088 Dec 11 00:03	0° 		greatest brilliancy	5091 Jun 25 00:08	13°  25'21	-4.8m
	5089 Jan 04 01:59	0° 		retrograde	5091 Jul 06 01:58	15°  24'02	
morning set	5089 Jan 20 22:01	21°  30'52		desc. node	5091 Jul 13 09:44	14°  35'36	
desc. node	5089 Jan 25 14:38	26°  35'15		evening set	5091 Jul 21 06:20	11°  21'49	
	5089 Jan 28 00:33	0° 		min. Earth dist.	5091 Jul 27 03:13	7°  24'58	0.28796 AU
	5089 Feb 20 21:18	0° 		inferior conj	5091 Jul 27 13:27	7°  24'57	-3°18'35
				minimum elong	5091 Jul 27 06:34	7°  35'44	3°16'41
superior conj	5089 Mar 03 04:20	12°  15'56	-1°14'06	morning rise	5091 Aug 02 07:04	3°  56'54	
minimum elong	5089 Mar 02 17:27	12°  22'44	1°13'49		5091 Aug 11 16:21	30° 	
max. Earth dist.	5089 Mar 04 01:00	14°  01'55	1.71149 AU	direct	5091 Aug 18 00:01	29°  12'35	
	5089 Mar 16 17:42	0° 			5091 Aug 24 13:06	0° 	
	5089 Apr 09 15:27	0° 		greatest brilliancy	5091 Aug 28 01:57	1°  20'47	-4.7m
evening rise	5089 Apr 12 23:25	4°  10'12		morning max el	5091 Oct 05 17:45	28°  55'32	45°45'31
	5089 May 03 16:32	0° 			5091 Oct 06 20:34	0° 	
asc. node	5089 May 18 16:28	18°  35'00		asc. node	5091 Nov 03 11:39	28°  15'04	
	5089 May 27 22:44	0° 			5091 Nov 04 12:33	0° 	
	5089 Jun 21 11:38	0° 			5091 Nov 30 16:37	0° 	
	5089 Jul 16 09:30	0° 			5091 Dec 25 17:41	0° 	
	5089 Aug 10 20:49	0° 			5092 Jan 19 04:44	0° 	
	5089 Sep 06 07:13	0° 			5092 Feb 12 08:25	0° 	
desc. node	5089 Sep 07 07:23	1°  06'41		desc. node	5092 Feb 23 02:35	13°  25'55	
	5089 Oct 04 18:18	0° 			5092 Mar 07 08:23	0° 	
evening max el	5089 Oct 09 08:02	4°  27'18	45°57'36		5092 Mar 31 06:54	0° 	
	5089 Nov 10 19:38	0° 		morning set	5092 Apr 07 18:54	9°  23'55	
greatest brilliancy	5089 Nov 18 03:31	3°  30'05	-4.8m		5092 Apr 24 05:55	0° 	
retrograde	5089 Nov 27 09:49	4°  34'54					
evening set	5089 Dec 12 10:47	0° 		superior conj	5092 May 17 11:08	28°  57'47	-1°02'10
	5089 Dec 13 04:07	30° 		minimum elong	5092 May 17 21:56	29°  31'21	1°01'49

	5092 May 18 07:08	0°♂			5094 Dec 07 11:55	0°♂	
max. Earth dist.	5092 May 21 03:19	3°♂32'01	1.72272 AU	morning max el	5094 Dec 15 17:58	7°♂57'30	46°23'03
	5092 Jun 11 11:32	0°♂			5095 Jan 05 13:23	0°♂	
asc. node	5092 Jun 15 04:14	4°♂34'14			5095 Jan 31 15:38	0°♂	
evening rise	5092 Jun 25 02:22	16°♂49'07			5095 Feb 25 15:45	0°♂	
	5092 Jul 05 19:18	0°♂			5095 Mar 22 04:04	0°♂	
	5092 Jul 30 06:33	0°♂		desc. node	5095 Mar 22 14:29	0°♂32'04	
	5092 Aug 23 22:02	0°♂			5095 Apr 15 11:00	0°♂	
	5092 Sep 17 19:38	0°♂			5095 May 09 16:12	0°♂	
desc. node	5092 Oct 04 19:21	20°♂13'23			5095 Jun 02 21:55	0°♂	
	5092 Oct 13 02:10	0°♂		morning set	5095 Jun 20 09:49	21°♂36'35	
	5092 Nov 07 22:16	0°♂			5095 Jun 27 05:05	0°♂	
	5092 Dec 04 19:59	0°♂		asc. node	5095 Jul 13 16:05	20°♂16'54	
evening max el	5092 Dec 21 04:23	17°♂02'52	46°54'30		5095 Jul 21 13:31	0°♂	
	5093 Jan 03 20:38	0°♂					
asc. node	5093 Jan 25 21:03	15°♂53'13		superior conj	5095 Jul 27 19:47	7°♂42'19	0°33'05
greatest brilliancy	5093 Jan 30 15:22	17°♂57'44	-4.9m	minimum elong	5095 Jul 27 13:15	7°♂22'13	0°32'47
retrograde	5093 Feb 09 16:48	19°♂53'23		max. Earth dist.	5095 Jul 28 12:47	8°♂34'39	1.73387 AU
evening set	5093 Feb 25 20:47	14°♂44'40			5095 Aug 14 22:33	0°♂	
min. Earth dist.	5093 Mar 01 17:09	12°♂26'24	0.26859 AU	evening rise	5095 Sep 02 00:56	22°♂15'50	
inferior conj	5093 Mar 02 07:10	12°♂04'55	7°43'42		5095 Sep 08 07:55	0°♂	
minimum elong	5093 Mar 01 21:14	12°♂20'09	7°42'01		5095 Oct 02 18:12	0°♂	
morning rise	5093 Mar 05 21:52	9°♂54'06			5095 Oct 27 06:18	0°♂	
direct	5093 Mar 22 19:06	4°♂22'06		desc. node	5095 Nov 02 07:10	7°♂22'19	
greatest brilliancy	5093 Apr 01 02:45	6°♂01'24	-4.9m		5095 Nov 20 20:55	0°♂	
	5093 May 05 02:09	0°♂			5095 Dec 15 14:58	0°♂	
morning max el	5093 May 11 22:40	6°♂37'53	46°37'22		5096 Jan 09 15:35	0°♂	
desc. node	5093 May 17 12:09	12°♂14'35			5096 Feb 04 08:16	0°♂	
	5093 Jun 03 05:00	0°♂		asc. node	5096 Feb 23 08:51	21°♂05'42	
	5093 Jun 29 20:38	0°♂			5096 Mar 02 21:04	0°♂	
	5093 Jul 25 14:48	0°♂		evening max el	5096 Mar 03 19:17	0°♂56'30	47°03'29
	5093 Aug 19 21:32	0°♂			5096 Apr 08 10:55	0°♂	
asc. node	5093 Sep 07 13:51	22°♂27'08		greatest brilliancy	5096 Apr 13 02:01	2°♂02'11	-4.9m
	5093 Sep 13 19:36	0°♂		retrograde	5096 Apr 23 09:38	4°♂02'13	
	5093 Oct 08 09:58	0°♂			5096 May 07 15:11	30°♂	
	5093 Nov 01 18:01	0°♂		evening set	5096 May 10 03:26	28°♂34'55	
morning set	5093 Nov 06 22:33	6°♂25'42		inferior conj	5096 May 14 09:46	25°♂57'47	6°43'15
	5093 Nov 25 21:40	0°♂		minimum elong	5096 May 14 20:13	25°♂41'28	6°41'06
max. Earth dist.	5093 Dec 12 07:30	20°♂28'09	1.71869 AU	min. Earth dist.	5096 May 14 07:02	26°♂02'05	0.27807 AU
				morning rise	5096 May 19 13:20	22°♂50'50	
superior conj	5093 Dec 14 23:05	23°♂46'41	0°31'14	direct	5096 Jun 04 08:45	18°♂00'43	
minimum elong	5093 Dec 15 06:09	24°♂08'49	0°30'54	desc. node	5096 Jun 13 23:49	19°♂43'18	
	5093 Dec 19 22:32	0°♂		greatest brilliancy	5096 Jun 14 00:33	19°♂43'56	-4.8m
desc. node	5093 Dec 28 04:50	10°♂20'18			5096 Jul 02 03:56	0°♂	
	5094 Jan 12 21:37	0°♂		morning max el	5096 Jul 23 10:37	18°♂25'38	45°53'07
evening rise	5094 Jan 24 00:40	13°♂57'15			5096 Aug 04 01:31	0°♂	
	5094 Feb 05 19:38	0°♂			5096 Aug 31 21:44	0°♂	
	5094 Mar 01 17:58	0°♂			5096 Sep 27 02:57	0°♂	
	5094 Mar 25 19:01	0°♂		asc. node	5096 Oct 05 01:45	9°♂19'37	
	5094 Apr 19 02:10	0°♂			5096 Oct 22 10:27	0°♂	
asc. node	5094 Apr 20 06:35	1°♂27'03			5096 Nov 16 03:32	0°♂	
	5094 May 13 19:37	0°♂			5096 Dec 10 11:08	0°♂	
	5094 Jun 08 05:48	0°♂			5097 Jan 03 12:58	0°♂	
	5094 Jul 04 22:42	0°♂		morning set	5097 Jan 18 09:15	18°♂35'24	
evening max el	5094 Jul 27 04:35	22°♂51'51	45°32'45	desc. node	5097 Jan 24 16:46	26°♂30'39	
	5094 Aug 03 20:45	0°♂			5097 Jan 27 11:28	0°♂	
desc. node	5094 Aug 09 21:41	5°♂13'18			5097 Feb 20 08:12	0°♂	
greatest brilliancy	5094 Sep 03 18:27	20°♂47'58	-4.7m				
retrograde	5094 Sep 13 20:25	22°♂37'15		superior conj	5097 Feb 28 14:36	10°♂24'05	-1°11'54
evening set	5094 Oct 01 22:45	16°♂30'21		minimum elong	5097 Feb 28 03:18	9°♂48'32	1°11'35
inferior conj	5094 Oct 05 06:30	14°♂27'00	-8°37'24	max. Earth dist.	5097 Mar 01 02:38	11°♂01'56	1.71140 AU
minimum elong	5094 Oct 05 06:04	14°♂27'40	8°37'25		5097 Mar 16 04:34	0°♂	
min. Earth dist.	5094 Oct 05 15:43	14°♂12'34	0.28956 AU		5097 Apr 09 02:20	0°♂	
morning rise	5094 Oct 08 13:18	12°♂24'57		evening rise	5097 Apr 10 10:16	1°♂39'55	
direct	5094 Oct 26 20:26	6°♂09'42			5097 May 03 03:28	0°♂	
greatest brilliancy	5094 Nov 06 15:36	8°♂18'00	-4.8m	asc. node	5097 May 17 18:24	18°♂06'55	
asc. node	5094 Nov 30 23:14	24°♂09'56			5097 May 27 09:48	0°♂	

	5097 Jun 20 23:00	0°♌		5099 Nov 30 05:31	0°♍
	5097 Jul 15 21:26	0°♍		5099 Dec 25 05:38	0°♎
	5097 Aug 10 09:50	0°♎		5100 Jan 18 16:12	0°♏
	5097 Sep 05 22:33	0°♏		5100 Feb 11 19:39	0°♐
desc. node	5097 Sep 06 09:29	0°♏30'00	desc. node	5100 Feb 22 04:37	12°♐57'31
	5097 Oct 04 15:57	0°♎		5100 Mar 07 19:25	0°♑
evening max el	5097 Oct 06 20:47	2°♎07'36 45°55'47		5100 Mar 31 17:48	0°♒
	5097 Nov 13 10:19	0°♏	morning set	5100 Apr 06 05:56	6°♒54'02
greatest brilliancy	5097 Nov 15 16:50	0°♏49'20 -4.8m		5100 Apr 24 16:42	0°♓
retrograde	5097 Nov 24 22:41	2°♏23'58			
	5097 Dec 05 22:59	30°♏♎	superior conj	5100 May 16 00:28	26°♓36'36 -1°04'42
evening set	5097 Dec 10 02:14	27°♎58'57	minimum elong	5100 May 16 11:17	27°♓10'17 1°04'21
inferior conj	5097 Dec 15 18:43	24°♎38'15 -3°09'51		5100 May 18 17:49	0°♑
minimum elong	5097 Dec 16 01:34	24°♎27'45 3°07'48	max. Earth dist.	5100 May 19 18:06	1°♑15'33 1.72220 AU
min. Earth dist.	5097 Dec 16 13:17	24°♎09'48 0.27233 AU		5100 Jun 11 22:10	0°♒
morning rise	5097 Dec 22 00:03	20°♎58'04	asc. node	5100 Jun 15 06:17	4°♒07'42
asc. node	5097 Dec 28 11:11	18°♎05'24	evening rise	5100 Jun 23 18:19	14°♒37'32
direct	5098 Jan 05 14:36	16°♎43'39		5100 Jul 06 05:59	0°♌
greatest brilliancy	5098 Jan 16 14:47	18°♎59'37 -4.9m		5100 Jul 30 17:23	0°♍
	5098 Feb 03 13:11	0°♏		5100 Aug 24 09:12	0°♎
morning max el	5098 Feb 25 05:39	19°♏51'49 46°58'12		5100 Sep 18 07:24	0°♏
	5098 Mar 06 22:55	0°♐	desc. node	5100 Oct 04 21:17	19°♏42'34
	5098 Apr 02 18:55	0°♑		5100 Oct 13 14:55	0°♎
desc. node	5098 Apr 19 02:25	19°♑04'56		5100 Nov 08 12:49	0°♏
	5098 Apr 28 07:07	0°♒		5100 Dec 05 14:21	0°♐
	5098 May 23 06:26	0°♓	evening max el	5100 Dec 19 19:07	14°♐42'56 46°52'50
	5098 Jun 17 00:27	0°♑		5101 Jan 05 04:36	0°♑
	5098 Jul 11 16:19	0°♒	asc. node	5101 Jan 25 23:05	14°♑11'15
asc. node	5098 Aug 05 06:31	0°♌	greatest brilliancy	5101 Jan 29 03:46	15°♑30'24 -4.9m
morning set	5098 Aug 10 04:01	5°♌59'09	retrograde	5101 Feb 08 05:59	17°♑26'07
	5098 Aug 28 00:49	27°♌52'29	evening set	5101 Feb 24 05:13	12°♑24'03
	5098 Aug 29 18:22	0°♍	min. Earth dist.	5101 Feb 28 05:37	9°♑59'49 0.26833 AU
	5098 Sep 23 03:23	0°♎	inferior conj	5101 Feb 28 19:44	9°♑38'11 7°30'32
max. Earth dist.	5098 Oct 01 06:55	10°♎03'28 1.73134 AU	minimum elong	5101 Feb 28 09:26	9°♑53'58 7°28'39
			morning rise	5101 Mar 04 13:53	7°♑22'22
superior conj	5098 Oct 03 11:52	12°♎47'04 1°25'18	direct	5101 Mar 21 08:14	1°♑55'55
minimum elong	5098 Oct 03 11:05	12°♎44'37 1°25'19	greatest brilliancy	5101 Mar 30 15:17	3°♑34'53 -4.9m
	5098 Oct 17 09:59	0°♏		5101 May 06 03:43	0°♒
evening rise	5098 Nov 09 12:14	28°♏36'29	morning max el	5101 May 10 12:10	4°♒15'26 46°38'46
	5098 Nov 10 15:11	0°♎	desc. node	5101 May 17 14:08	11°♒26'25
desc. node	5098 Nov 29 19:04	23°♎45'38		5101 Jun 03 21:55	0°♓
	5098 Dec 04 19:46	0°♏		5101 Jun 30 10:34	0°♑
	5098 Dec 29 00:03	0°♐		5101 Jul 26 03:14	0°♒
	5099 Jan 22 04:44	0°♑		5101 Aug 20 09:06	0°♌
	5099 Feb 15 12:07	0°♒	asc. node	5101 Sep 07 15:47	21°♌59'17
	5099 Mar 12 03:17	0°♓		5101 Sep 14 06:38	0°♍
asc. node	5099 Mar 22 20:38	12°♓49'49		5101 Oct 08 20:43	0°♎
	5099 Apr 06 11:38	0°♑		5101 Nov 02 04:40	0°♏
	5099 May 03 09:23	0°♒	morning set	5101 Nov 05 14:55	4°♏14'44
evening max el	5099 May 15 04:22	12°♒06'39 46°11'42		5101 Nov 26 08:18	0°♎
	5099 Jun 04 02:48	0°♌	max. Earth dist.	5101 Dec 10 18:29	17°♎59'21 1.71909 AU
greatest brilliancy	5099 Jun 22 15:53	11°♌14'34 -4.8m			
retrograde	5099 Jul 03 18:55	13°♌30'39	superior conj	5101 Dec 13 12:57	21°♎26'53 0°34'34
desc. node	5099 Jul 12 11:53	11°♌58'49	minimum elong	5101 Dec 13 20:37	21°♎50'49 0°34'14
evening set	5099 Jul 18 21:37	9°♌03'10		5101 Dec 20 09:13	0°♏
inferior conj	5099 Jul 25 05:34	5°♌15'13 -2°59'52	desc. node	5101 Dec 28 06:59	9°♏53'32
minimum elong	5099 Jul 24 23:14	5°♌25'07 2°58'05		5102 Jan 13 08:21	0°♐
min. Earth dist.	5099 Jul 24 19:06	5°♌31'34 0.28764 AU			
morning rise	5099 Jul 31 01:13	1°♌44'44			
	5099 Aug 03 10:24	30°♌♒			
direct	5099 Aug 15 16:00	27°♒03'14			
greatest brilliancy	5099 Aug 25 17:23	28°♒52'26 -4.7m			
	5099 Aug 28 15:13	0°♌			
morning max el	5099 Oct 03 10:13	26°♌47'31 45°44'59			
	5099 Oct 06 17:39	0°♍			
asc. node	5099 Nov 02 13:31	28°♍14'17			
	5099 Nov 04 03:34	0°♎			