

superior conj	00 Jun 10 j 17:53	16°♊46'02	0°25'51	direct	02 Nov 23 j 09:27	1°♍09'18	
minimum elong	00 Jun 10 j 12:54	16°♊30'45	0°25'37	greatest brilliancy	02 Dec 05 j 22:10	4°♍04'28	-4.7m
	00 Jun 21 j 11:57	0°♌			03 Jan 08 j 15:14	0°♌	
	00 Jul 15 j 19:33	0°♍		morning max el	03 Jan 12 j 21:44	4°♌14'42	46°49'42
evening rise	00 Jul 16 j 11:07	0°♌48'03			03 Feb 06 j 00:42	0°♌	
	00 Aug 09 j 01:42	0°♍			03 Mar 04 j 08:18	0°♍	
	00 Sep 02 j 07:46	0°♎		desc. node	03 Mar 07 j 00:52	3°♍07'38	
desc. node	00 Sep 19 j 05:46	20°♎53'08			03 Mar 29 j 21:40	0°♎	
	00 Sep 26 j 15:15	0°♏			03 Apr 24 j 02:17	0°♏	
	00 Oct 21 j 01:36	0°♐			03 May 19 j 01:22	0°♐	
	00 Nov 14 j 17:33	0°♑			03 Jun 12 j 19:27	0°♑	
	00 Dec 09 j 22:05	0°♒		asc. node	03 Jun 28 j 03:53	18°♑44'41	
	01 Jan 05 j 09:42	0°♓			03 Jul 07 j 08:06	0°♒	
asc. node	01 Jan 10 j 08:39	5°♓18'34		morning set	03 Jul 12 j 17:36	6°♓38'19	
evening max el	01 Jan 18 j 08:49	13°♓35'31	46°36'59		03 Jul 31 j 15:13	0°♓	
	01 Feb 05 j 00:52	0°♈		max. Earth dist.	03 Aug 14 j 14:09	17°♓20'30	1.72345 AU
greatest brilliancy	01 Feb 23 j 00:30	12°♈13'01	-4.6m				
retrograde	01 Mar 09 j 11:48	15°♈58'36		superior conj	03 Aug 18 j 08:37	22°♓02'17	1°23'50
evening set	01 Mar 26 j 09:34	10°♈25'25		minimum elong	03 Aug 18 j 06:15	21°♓54'53	1°23'50
inferior conj	01 Mar 30 j 19:25	7°♈40'31	6°36'23		03 Aug 24 j 17:50	0°♏	
minimum elong	01 Mar 31 j 04:46	7°♈25'40	6°34'40		03 Sep 17 j 17:50	0°♎	
min. Earth dist.	01 Mar 30 j 20:07	7°♈39'24	0.28814 AU	evening rise	03 Sep 25 j 06:58	9°♎26'47	
morning rise	01 Apr 05 j 00:16	4°♈28'24			03 Oct 11 j 17:04	0°♏	
	01 Apr 15 j 19:42	30°♈		desc. node	03 Oct 17 j 17:45	7°♏32'42	
direct	01 Apr 21 j 05:49	29°♈25'03			03 Nov 04 j 16:48	0°♐	
	01 Apr 26 j 19:24	0°♉			03 Nov 28 j 18:10	0°♑	
desc. node	01 May 01 j 22:19	1°♉28'47			03 Dec 22 j 23:15	0°♒	
greatest brilliancy	01 May 03 j 13:00	2°♉06'37	-4.5m		04 Jan 16 j 12:15	0°♓	
morning max el	01 Jun 08 j 23:51	29°♉12'03	45°44'43	asc. node	04 Feb 07 j 20:30	26°♓39'29	
	01 Jun 09 j 19:54	0°♊			04 Feb 10 j 17:00	0°♈	
	01 Jul 08 j 19:26	0°♋			04 Mar 08 j 04:58	0°♉	
	01 Aug 04 j 08:24	0°♌		evening max el	04 Mar 30 j 04:35	22°♈44'12	45°29'32
asc. node	01 Aug 23 j 01:28	22°♌03'29			04 Apr 06 j 22:59	0°♊	
	01 Aug 29 j 16:19	0°♍		greatest brilliancy	04 May 03 j 09:53	19°♋02'34	-4.5m
	01 Sep 23 j 06:14	0°♎		retrograde	04 May 17 j 20:35	22°♋40'48	
	01 Oct 17 j 09:20	0°♏		desc. node	04 May 29 j 10:22	20°♋02'31	
	01 Nov 10 j 07:06	0°♐		evening set	04 Jun 01 j 21:14	18°♋19'53	
	01 Dec 04 j 03:24	0°♑		inferior conj	04 Jun 08 j 07:52	14°♋29'54	-2°-17'-28
morning set	01 Dec 07 j 07:48	4°♑00'17		minimum elong	04 Jun 08 j 02:57	14°♋37'34	2°16'04
desc. node	01 Dec 12 j 15:21	10°♑41'17		min. Earth dist.	04 Jun 08 j 11:16	14°♋24'37	0.28953 AU
	01 Dec 28 j 00:20	0°♒		morning rise	04 Jun 14 j 08:25	10°♋52'44	
				direct	04 Jun 29 j 23:51	6°♋11'32	
superior conj	02 Jan 18 j 05:59	26°♒36'54	-1°-12'-43	greatest brilliancy	04 Jul 14 j 05:33	9°♋42'24	-4.5m
minimum elong	02 Jan 17 j 19:31	26°♒04'09	1°12'27		04 Aug 11 j 05:20	0°♌	
	02 Jan 20 j 22:57	0°♓		morning max el	04 Aug 18 j 06:15	6°♓38'18	46°06'15
max. Earth dist.	02 Jan 22 j 09:39	1°♓48'28	1.71674 AU		04 Sep 09 j 16:23	0°♍	
	02 Feb 14 j 00:11	0°♈		asc. node	04 Sep 19 j 13:28	11°♓02'07	
evening rise	02 Feb 27 j 11:02	16°♈41'52			04 Oct 05 j 22:11	0°♎	
	02 Mar 10 j 05:07	0°♉			04 Oct 30 j 20:51	0°♏	
	02 Apr 03 j 14:49	0°♊			04 Nov 24 j 05:12	0°♐	
asc. node	02 Apr 04 j 18:22	1°♊24'17			04 Dec 18 j 07:54	0°♑	
	02 Apr 28 j 06:14	0°♋		desc. node	05 Jan 09 j 03:06	27°♑10'55	
	02 May 23 j 04:40	0°♌			05 Jan 11 j 09:22	0°♒	
	02 Jun 17 j 12:56	0°♍			05 Feb 04 j 11:42	0°♓	
	02 Jul 13 j 13:26	0°♎		morning set	05 Feb 21 j 22:54	21°♓41'19	
desc. node	02 Jul 25 j 07:54	13°♎09'26			05 Feb 28 j 15:47	0°♈	
	02 Aug 09 j 22:08	0°♏			05 Mar 24 j 22:03	0°♉	
evening max el	02 Aug 24 j 13:20	14°♏52'34	46°36'11				
	02 Sep 10 j 05:01	0°♐		superior conj	05 Apr 01 j 11:21	9°♏19'05	-1°-4'-23
greatest brilliancy	02 Oct 02 j 20:35	14°♐20'12	-4.6m	minimum elong	05 Apr 01 j 20:55	9°♏48'35	1°04'05
retrograde	02 Oct 13 j 10:43	16°♐25'01		max. Earth dist.	05 Apr 03 j 15:19	11°♏59'12	1.73209 AU
evening set	02 Oct 28 j 09:49	12°♐03'58			05 Apr 18 j 06:35	0°♑	
inferior conj	02 Nov 03 j 00:39	8°♐46'56	-3°-9'-33	asc. node	05 May 02 j 06:19	17°♑11'06	
minimum elong	02 Nov 03 j 07:32	8°♐36'28	3°07'28	evening rise	05 May 08 j 16:55	25°♑05'18	
min. Earth dist.	02 Nov 03 j 08:38	8°♐34'48	0.26441 AU		05 May 12 j 17:05	0°♒	
morning rise	02 Nov 09 j 04:51	5°♐11'09			05 Jun 06 j 05:10	0°♓	
asc. node	02 Nov 15 j 10:58	2°♐27'23			05 Jun 30 j 19:05	0°♈	

	05 Jul 25 j 12:06	0°♍			08 Jan 01 j 06:09	0°♁		
	05 Aug 19 j 10:29	0°♊			08 Jan 25 j 23:27	0°♁		
desc. node	05 Aug 21 j 19:51	2°♊51'25		desc. node	08 Feb 06 j 15:00	14°♁12'53		
	05 Sep 13 j 17:54	0°♌			08 Feb 19 j 12:56	0°♁		
	05 Oct 09 j 18:28	0°♁			08 Mar 15 j 01:19	0°♁		
evening max el	05 Nov 05 j 11:40	28°♁52'46	47°24'41		08 Apr 08 j 13:35	0°♁		
	05 Nov 06 j 14:11	0°♁		morning set	08 May 03 j 03:09	0°♁04'16		
asc. node	05 Dec 12 j 22:53	29°♁17'15			08 May 03 j 01:45	0°♁		
greatest brilliancy	05 Dec 13 j 12:52	29°♁33'32	-4.7m		08 May 27 j 13:09	0°♁		
	05 Dec 14 j 12:42	0°♁		asc. node	08 May 29 j 18:06	2°♁42'27		
retrograde	05 Dec 26 j 12:53	2°♁43'55		max. Earth dist.	08 Jun 06 j 13:24	12°♁17'32	1.73584 AU	
	06 Jan 06 j 23:42	30°♁						
evening set	06 Jan 11 j 16:12	27°♁31'12		superior conj	08 Jun 08 j 12:33	14°♁42'23	0°22'53	
min. Earth dist.	06 Jan 15 j 06:57	25°♁19'18	0.27280 AU	minimum elong	08 Jun 08 j 08:06	14°♁28'42	0°22'40	
inferior conj	06 Jan 16 j 07:38	24°♁40'49	7°21'37		08 Jun 20 j 22:53	0°♁		
minimum elong	06 Jan 15 j 22:24	24°♁55'14	7°20'03	evening rise	08 Jul 14 j 05:45	28°♁43'19		
morning rise	06 Jan 20 j 05:05	22°♁18'03			08 Jul 15 j 06:35	0°♁		
direct	06 Feb 05 j 21:39	16°♁51'47			08 Aug 08 j 12:57	0°♍		
greatest brilliancy	06 Feb 16 j 10:40	18°♁56'19	-4.6m		08 Sep 01 j 19:21	0°♊		
	06 Mar 07 j 00:31	0°♁		desc. node	08 Sep 18 j 07:55	20°♊23'03		
morning max el	06 Mar 27 j 07:43	17°♁55'39	46°09'33		08 Sep 26 j 03:18	0°♌		
desc. node	06 Apr 03 j 12:39	25°♁04'36			08 Oct 20 j 14:15	0°♁		
	06 Apr 08 j 07:58	0°♁			08 Nov 14 j 07:03	0°♁		
	06 May 06 j 00:44	0°♁			08 Dec 09 j 13:06	0°♁		
	06 Jun 01 j 07:13	0°♁			09 Jan 05 j 04:17	0°♁		
	06 Jun 26 j 19:36	0°♁		asc. node	09 Jan 09 j 10:40	4°♁31'58		
	06 Jul 21 j 18:53	0°♁		evening max el	09 Jan 15 j 22:43	11°♁14'14	46°39'35	
asc. node	06 Jul 25 j 15:38	4°♁41'40			09 Feb 05 j 11:00	0°♁		
	06 Aug 15 j 07:19	0°♁		greatest brilliancy	09 Feb 20 j 18:04	10°♁01'32	-4.6m	
	06 Sep 08 j 11:20	0°♍		retrograde	09 Mar 07 j 03:42	13°♁46'08		
morning set	06 Sep 20 j 15:14	15°♍12'57		evening set	09 Mar 24 j 04:30	8°♁08'59		
	06 Oct 02 j 09:58	0°♊		inferior conj	09 Mar 28 j 11:38	5°♁28'11	6°49'02	
	06 Oct 26 j 06:10	0°♌		minimum elong	09 Mar 28 j 20:50	5°♁13'34	6°47'25	
				min. Earth dist.	09 Mar 28 j 12:04	5°♁27'30	0.28790 AU	
superior conj	06 Oct 29 j 23:53	4°♌42'22	0°35'11	morning rise	09 Apr 02 j 13:23	2°♁20'17		
minimum elong	06 Oct 30 j 08:15	5°♌08'43	0°34'48		09 Apr 07 j 00:15	30°♁		
max. Earth dist.	06 Oct 29 j 22:48	4°♌38'59	1.71069 AU	direct	09 Apr 18 j 20:56	27°♁13'04		
desc. node	06 Nov 14 j 05:36	23°♌53'33		greatest brilliancy	09 May 01 j 03:16	29°♁53'11	-4.5m	
	06 Nov 19 j 02:05	0°♁		desc. node	09 May 01 j 00:27	29°♁50'18		
evening rise	06 Dec 10 j 17:00	27°♁10'24			09 May 01 j 09:49	0°♁		
	06 Dec 12 j 23:03	0°♁		morning max el	09 Jun 06 j 14:44	26°♁58'45	45°44'55	
	07 Jan 05 j 22:07	0°♁			09 Jun 09 j 17:58	0°♁		
	07 Jan 30 j 01:00	0°♁			09 Jul 08 j 11:09	0°♁		
	07 Feb 23 j 10:21	0°♁			09 Aug 03 j 21:49	0°♁		
asc. node	07 Mar 07 j 08:32	14°♁29'39		asc. node	09 Aug 22 j 03:39	21°♁32'29		
	07 Mar 20 j 05:50	0°♁			09 Aug 29 j 04:40	0°♁		
	07 Apr 14 j 16:48	0°♁			09 Sep 22 j 18:03	0°♍		
	07 May 11 j 05:41	0°♁			09 Oct 16 j 20:54	0°♊		
	07 Jun 09 j 03:24	0°♁			09 Nov 09 j 18:34	0°♌		
evening max el	07 Jun 10 j 03:19	0°♁57'16	45°26'51		09 Dec 03 j 14:48	0°♁		
desc. node	07 Jun 26 j 22:09	15°♁42'38		morning set	09 Dec 04 j 17:27	1°♁23'48		
greatest brilliancy	07 Jul 17 j 04:12	28°♁10'16	-4.5m	desc. node	09 Dec 11 j 17:20	10°♁11'46		
	07 Jul 23 j 08:01	0°♍			09 Dec 27 j 11:39	0°♁		
retrograde	07 Jul 28 j 19:05	0°♍33'04						
	07 Aug 03 j 02:43	30°♁		superior conj	10 Jan 15 j 16:28	24°♁04'21	-1°-10'-35	
evening set	07 Aug 15 j 15:07	24°♁39'50		minimum elong	10 Jan 15 j 05:31	23°♁30'04	1°10'18	
inferior conj	07 Aug 18 j 22:55	22°♁38'38	-8°-42'-4	max. Earth dist.	10 Jan 19 j 16:10	29°♁03'39	1.71622 AU	
minimum elong	07 Aug 18 j 20:16	22°♁42'43	8°41'59		10 Jan 20 j 10:11	0°♁		
min. Earth dist.	07 Aug 19 j 12:00	22°♁18'29	0.28138 AU		10 Feb 13 j 11:22	0°♁		
morning rise	07 Aug 22 j 01:13	20°♁45'13		evening rise	10 Feb 24 j 23:56	14°♁18'27		
direct	07 Sep 09 j 06:07	14°♁34'07			10 Mar 09 j 16:20	0°♁		
greatest brilliancy	07 Sep 23 j 12:14	18°♁13'17	-4.6m		10 Apr 03 j 02:10	0°♁		
	07 Oct 11 j 00:42	0°♍		asc. node	10 Apr 03 j 20:30	0°♁56'05		
asc. node	07 Oct 18 j 01:11	6°♍06'40			10 Apr 27 j 17:53	0°♁		
morning max el	07 Oct 29 j 18:36	17°♍27'54	46°46'58		10 May 22 j 16:53	0°♁		
	07 Nov 10 j 16:06	0°♊			10 Jun 17 j 02:10	0°♁		
	07 Dec 07 j 02:01	0°♌			10 Jul 13 j 04:35	0°♍		

desc. node	10 Jul 24 j 10:00	12°♎29'40			13 Feb 03 j 22:56	0°≈	
	10 Aug 09 j 17:39	0°♌		morning set	13 Feb 19 j 11:52	19°≈18'13	
evening max el	10 Aug 22 j 01:37	12°♌27'11	46°33'34		13 Feb 28 j 02:51	0°✕	
	10 Sep 10 j 18:15	0°♍			13 Mar 24 j 09:00	0°♑	
greatest brilliancy	10 Sep 30 j 09:08	11°♍51'44	-4.6m				
retrograde	10 Oct 10 j 22:41	13°♍56'05		superior conj	13 Mar 30 j 03:10	7°♑06'13	-1°-6'-33
evening set	10 Oct 26 j 00:16	9°♍31'12		minimum elong	13 Mar 30 j 12:40	7°♑35'30	1°06'16
inferior conj	10 Oct 31 j 12:44	6°♍17'45	-3°-32'-19	max. Earth dist.	13 Apr 01 j 11:38	10°♑00'17	1.73169 AU
minimum elong	10 Oct 31 j 20:20	6°♍06'14	3°30'03		13 Apr 17 j 17:28	0°♞	
min. Earth dist.	10 Oct 31 j 22:09	6°♍03'28	0.26476 AU	asc. node	13 May 01 j 08:17	16°♞43'41	
morning rise	10 Nov 06 j 15:56	2°♍43'36		evening rise	13 May 06 j 10:53	22°♞59'48	
	10 Nov 12 j 20:41	30°♌			13 May 12 j 04:00	0°♐	
asc. node	10 Nov 14 j 12:58	29°♌29'55			13 Jun 05 j 16:16	0°♍	
direct	10 Nov 20 j 21:58	28°♌39'13			13 Jun 30 j 06:34	0°♌	
	10 Nov 29 j 06:18	0°♍			13 Jul 25 j 00:09	0°♎	
greatest brilliancy	10 Dec 03 j 13:47	1°♍38'16	-4.7m		13 Aug 18 j 23:23	0°♌	
	11 Jan 08 j 15:58	0°♍		desc. node	13 Aug 20 j 22:00	2°♌19'03	
morning max el	11 Jan 10 j 11:52	1°♍50'11	46°50'37		13 Sep 13 j 08:10	0°♍	
	11 Feb 05 j 17:52	0°♎			13 Oct 09 j 11:17	0°♍	
	11 Mar 03 j 22:41	0°≈		evening max el	13 Nov 03 j 03:19	26°♍32'51	47°24'39
desc. node	11 Mar 06 j 03:01	2°≈32'31			13 Nov 06 j 13:46	0°♎	
	11 Mar 29 j 10:37	0°✕		greatest brilliancy	13 Dec 11 j 05:05	27°♎11'34	-4.7m
	11 Apr 23 j 14:23	0°♑		asc. node	13 Dec 12 j 00:51	27°♎33'28	
	11 May 18 j 12:55	0°♞			13 Dec 20 j 03:37	0°≈	
	11 Jun 12 j 06:41	0°♐		retrograde	13 Dec 24 j 03:32	0°≈19'19	
asc. node	11 Jun 27 j 05:52	18°♐16'49			13 Dec 28 j 01:29	30°♎	
	11 Jul 06 j 19:08	0°♍		evening set	14 Jan 09 j 02:36	25°♎12'44	
morning set	11 Jul 10 j 11:17	4°♍31'04		min. Earth dist.	14 Jan 12 j 20:26	22°♎56'17	0.27211 AU
	11 Jul 31 j 02:12	0°♌		inferior conj	14 Jan 13 j 21:23	22°♎17'21	7°09'21
max. Earth dist.	11 Aug 12 j 07:53	15°♌12'03	1.72396 AU	minimum elong	14 Jan 13 j 11:50	22°♎32'15	7°07'38
				morning rise	14 Jan 17 j 21:37	19°♎50'33	
superior conj	11 Aug 16 j 01:22	19°♌50'36	1°23'21	direct	14 Feb 03 j 11:16	14°♎29'44	
minimum elong	11 Aug 15 j 22:18	19°♌41'04	1°23'19	greatest brilliancy	14 Feb 13 j 22:41	16°♎32'54	-4.6m
	11 Aug 24 j 04:52	0°♎			14 Mar 07 j 13:13	0°≈	
	11 Sep 17 j 04:59	0°♌		morning max el	14 Mar 24 j 21:43	15°≈37'16	46°10'47
evening rise	11 Sep 22 j 20:30	7°♌04'01		desc. node	14 Apr 02 j 14:45	24°≈18'26	
	11 Oct 11 j 04:22	0°♍			14 Apr 08 j 02:53	0°✕	
desc. node	11 Oct 16 j 19:49	7°♍03'42			14 May 05 j 15:27	0°♑	
	11 Nov 04 j 04:18	0°♍			14 May 31 j 20:06	0°♞	
	11 Nov 28 j 05:56	0°♎			14 Jun 26 j 07:31	0°♐	
	11 Dec 22 j 11:23	0°≈			14 Jul 21 j 06:15	0°♍	
asc. node	12 Jan 16 j 01:02	0°✕		asc. node	14 Jul 24 j 17:49	4°♍13'53	
	12 Feb 06 j 22:38	26°♞05'20			14 Aug 14 j 18:26	0°♌	
	12 Feb 10 j 06:59	0°♑			14 Sep 07 j 22:20	0°♎	
	12 Mar 07 j 21:46	0°♞		morning set	14 Sep 18 j 05:23	12°♎52'32	
evening max el	12 Mar 27 j 21:02	20°♞34'19	45°31'09		14 Oct 01 j 20:57	0°♌	
	12 Apr 07 j 01:45	0°♐			14 Oct 25 j 17:11	0°♍	
greatest brilliancy	12 May 01 j 00:43	16°♐51'51	-4.5m	max. Earth dist.	14 Oct 27 j 01:35	1°♍41'59	1.71083 AU
retrograde	12 May 15 j 13:23	20°♐31'46					
desc. node	12 May 28 j 12:18	17°♐14'21		superior conj	14 Oct 27 j 10:55	2°♍11'20	0°38'41
evening set	12 May 30 j 13:15	16°♐11'06		minimum elong	14 Oct 27 j 19:52	2°♍39'32	0°38'16
inferior conj	12 Jun 06 j 00:08	12°♐20'21	-1°-58'-14	desc. node	14 Nov 13 j 07:36	23°♍25'01	
minimum elong	12 Jun 05 j 19:52	12°♐27'00	1°57'02		14 Nov 18 j 13:09	0°♍	
min. Earth dist.	12 Jun 06 j 03:17	12°♐15'27	0.28962 AU	evening rise	14 Dec 08 j 02:43	24°♍35'26	
morning rise	12 Jun 12 j 02:20	8°♐41'00			14 Dec 12 j 10:08	0°♎	
direct	12 Jun 27 j 16:42	4°♐01'54			15 Jan 05 j 09:15	0°≈	
greatest brilliancy	12 Jul 11 j 20:51	7°♐31'39	-4.5m		15 Jan 29 j 12:14	0°✕	
	12 Aug 11 j 06:19	0°♍			15 Feb 22 j 21:51	0°♑	
morning max el	12 Aug 15 j 22:47	4°♍27'48	46°04'55	asc. node	15 Mar 06 j 10:37	14°♑00'25	
	12 Sep 09 j 08:54	0°♌			15 Mar 19 j 17:55	0°♞	
asc. node	12 Sep 18 j 15:30	10°♌24'29			15 Apr 14 j 06:02	0°♐	
	12 Oct 05 j 12:04	0°♎			15 May 10 j 21:25	0°♍	
	12 Oct 30 j 09:34	0°♌		evening max el	15 Jun 07 j 17:19	28°♍41'37	45°25'30
	12 Nov 23 j 17:17	0°♍			15 Jun 09 j 02:21	0°♌	
	12 Dec 17 j 19:35	0°♍		desc. node	15 Jun 26 j 00:17	14°♌37'35	
desc. node	13 Jan 08 j 05:12	26°♍41'47		greatest brilliancy	15 Jul 14 j 16:35	25°♌53'09	-4.5m
	13 Jan 10 j 20:48	0°♎		retrograde	15 Jul 26 j 08:31	28°♌17'32	

evening set	15 Aug 13 j 03:10	22°♁27'27		minimum elong	18 Jan 12 j 15:28	20°♁56'51	1°07'59
inferior conj	15 Aug 16 j 13:31	20°♁22'32	-8°-38'-27	max. Earth dist.	18 Jan 16 j 21:12	26°♁15'15	1.71573 AU
minimum elong	15 Aug 16 j 10:02	20°♁27'53	8°38'17		18 Jan 19 j 21:04	0°≈	
min. Earth dist.	15 Aug 17 j 02:22	20°♁02'43	0.28191 AU		18 Feb 12 j 22:12	0°✕	
morning rise	15 Aug 19 j 16:41	18°♁27'39		evening rise	18 Feb 22 j 12:53	11°✕56'15	
direct	15 Sep 06 j 20:46	12°♁17'02			18 Mar 09 j 03:09	0°♃	
greatest brilliancy	15 Sep 21 j 04:07	15°♁56'33	-4.6m		18 Apr 02 j 13:05	0°♄	
	15 Oct 11 j 09:32	0°♅		asc. node	18 Apr 02 j 22:30	0°♄28'47	
asc. node	15 Oct 17 j 03:13	5°♅07'54			18 Apr 27 j 05:05	0°♅	
morning max el	15 Oct 27 j 07:53	15°♅03'27	46°45'54		18 May 22 j 04:40	0°♆	
	15 Nov 10 j 10:34	0°♇			18 Jun 16 j 15:01	0°♁	
	15 Dec 06 j 16:52	0°♈			18 Jul 12 j 19:31	0°♃	
	15 Dec 31 j 19:23	0°♉		desc. node	18 Jul 23 j 12:08	11°♃50'44	
	16 Jan 25 j 11:45	0°♊			18 Aug 09 j 13:22	0°♄	
desc. node	16 Feb 05 j 17:10	13°♋43'01		evening max el	18 Aug 19 j 15:02	10°♄05'50	46°30'51
	16 Feb 19 j 00:35	0°♌			18 Sep 11 j 11:18	0°♅	
	16 Mar 14 j 12:31	0°♍		greatest brilliancy	18 Sep 27 j 20:58	9°♅23'43	-4.6m
	16 Apr 08 j 00:28	0°♎		retrograde	18 Oct 08 j 11:04	11°♅28'11	
morning set	16 Apr 30 j 21:16	28°♏00'02		evening set	18 Oct 23 j 14:55	6°♅59'25	
	16 May 02 j 12:27	0°♐		inferior conj	18 Oct 29 j 00:48	3°♅49'33	-3°-54'-32
	16 May 26 j 23:46	0°♑		minimum elong	18 Oct 29 j 09:03	3°♅37'04	3°52'08
asc. node	16 May 28 j 20:09	2°♑16'14		min. Earth dist.	18 Oct 29 j 11:18	3°♅33'40	0.26513 AU
max. Earth dist.	16 Jun 04 j 09:28	10°♑19'14	1.73603 AU	morning rise	18 Nov 04 j 02:46	0°♆17'26	
					18 Nov 04 j 16:01	30°♇	
superior conj	16 Jun 06 j 07:18	12°♒40'00	0°19'53	asc. node	18 Nov 13 j 15:00	26°♇39'35	
minimum elong	16 Jun 06 j 03:23	12°♒27'59	0°19'42	direct	18 Nov 18 j 11:00	26°♇10'23	
	16 Jun 20 j 09:30	0°♓		greatest brilliancy	18 Dec 01 j 04:29	29°♇12'03	-4.7m
evening rise	16 Jul 12 j 00:28	26°♓39'51			18 Dec 02 j 21:09	0°♈	
	16 Jul 14 j 17:19	0°♁		morning max el	19 Jan 08 j 02:34	29°♈28'10	46°51'25
	16 Aug 07 j 23:54	0°♂			19 Jan 08 j 15:09	0°♉	
	16 Sep 01 j 06:39	0°♃			19 Feb 05 j 10:19	0°♊	
desc. node	16 Sep 17 j 09:56	19°♃53'34			19 Mar 03 j 12:32	0°♋	
	16 Sep 25 j 15:03	0°♌		desc. node	19 Mar 05 j 05:00	1°≈58'14	
	16 Oct 20 j 02:37	0°♍			19 Mar 28 j 23:07	0°♌	
	16 Nov 13 j 20:19	0°♎			19 Apr 23 j 02:03	0°♍	
	16 Dec 09 j 03:56	0°♏			19 May 18 j 00:03	0°♎	
	17 Jan 04 j 22:55	0°♐			19 Jun 11 j 17:28	0°♏	
asc. node	17 Jan 08 j 12:53	3°♐46'29		asc. node	19 Jun 26 j 08:04	17°♏50'54	
evening max el	17 Jan 13 j 12:48	8°♐54'32	46°42'21		19 Jul 06 j 05:45	0°♑	
	17 Feb 05 j 23:49	0°♒		morning set	19 Jul 08 j 05:24	2°♑26'31	
greatest brilliancy	17 Feb 18 j 10:50	7°♒50'30	-4.6m		19 Jul 30 j 12:47	0°♒	
retrograde	17 Mar 04 j 20:06	11°♒35'43		max. Earth dist.	19 Aug 10 j 00:35	13°♒01'39	1.72453 AU
evening set	17 Mar 21 j 23:34	5°♒54'23					
inferior conj	17 Mar 26 j 04:03	3°♒17'47	7°00'55	superior conj	19 Aug 13 j 18:25	17°♒41'05	1°22'44
minimum elong	17 Mar 26 j 13:02	3°♒03'30	6°59'25	minimum elong	19 Aug 13 j 14:42	17°♒29'29	1°22'42
min. Earth dist.	17 Mar 26 j 04:02	3°♒17'48	0.28762 AU		19 Aug 23 j 15:33	0°♓	
morning rise	17 Mar 31 j 02:42	0°♓14'25			19 Sep 16 j 15:50	0°♁	
	17 Mar 31 j 12:38	30°♔		evening rise	19 Sep 20 j 10:09	4°♁42'29	
direct	17 Apr 16 j 12:10	25°♔02'58			19 Oct 10 j 15:25	0°♂	
greatest brilliancy	17 Apr 28 j 18:04	27°♔42'22	-4.5m	desc. node	19 Oct 15 j 21:49	6°♂35'11	
desc. node	17 Apr 30 j 02:25	28°♔17'02			19 Nov 03 j 15:33	0°♉	
	17 May 03 j 14:20	0°♕			19 Nov 27 j 17:27	0°♊	
morning max el	17 Jun 04 j 06:36	24°♕49'21	45°45'02		19 Dec 21 j 23:18	0°♋	
	17 Jun 09 j 14:36	0°♌			20 Jan 15 j 13:36	0°♌	
	17 Jul 08 j 02:09	0°♍		asc. node	20 Feb 06 j 00:41	25°♌31'36	
	17 Aug 03 j 10:45	0°♎			20 Feb 09 j 20:49	0°♍	
asc. node	17 Aug 21 j 05:43	21°♎02'20			20 Mar 07 j 14:35	0°♎	
	17 Aug 28 j 16:36	0°♏		evening max el	20 Mar 25 j 14:00	18°♎26'30	45°32'49
	17 Sep 22 j 05:30	0°♐			20 Apr 07 j 05:45	0°♏	
	17 Oct 16 j 08:05	0°♑		greatest brilliancy	20 Apr 28 j 17:06	14°♏44'21	-4.5m
	17 Nov 09 j 05:39	0°♒		retrograde	20 May 13 j 06:04	18°♏24'15	
morning set	17 Dec 02 j 03:08	28°♒48'40		desc. node	20 May 27 j 14:26	14°♏24'24	
	17 Dec 03 j 01:49	0°♓		evening set	20 May 28 j 05:43	14°♏03'54	
desc. node	17 Dec 10 j 19:24	9°♓43'45		inferior conj	20 Jun 03 j 16:38	10°♐12'35	-1°-38'-59
	17 Dec 26 j 22:35	0°♔		minimum elong	20 Jun 03 j 13:02	10°♐18'12	1°37'59
				min. Earth dist.	20 Jun 03 j 19:38	10°♐07'53	0.28966 AU
superior conj	18 Jan 13 j 02:48	21°♔32'21	-1°-8'-18	morning rise	20 Jun 09 j 20:17	6°♐31'04	

direct	20 Jun 25 j 09:43	1°♁54'15			23 Feb 22 j 09:34	0°♃	
greatest brilliancy	20 Jul 09 j 11:02	5°♁21'04	-4.5m	asc. node	23 Mar 05 j 12:38	13°♃30'22	
	20 Aug 11 j 05:35	0°♁			23 Mar 19 j 06:14	0°♃	
morning max el	20 Aug 13 j 14:40	2°♁17'06	46°03'29		23 Apr 13 j 19:34	0°♁	
	20 Sep 09 j 00:45	0°♁			23 May 10 j 13:36	0°♁	
asc. node	20 Sep 17 j 17:32	9°♁48'07		evening max el	23 Jun 05 j 07:03	26°♁25'00	45°24'22
	20 Oct 05 j 01:35	0°♁			23 Jun 09 j 02:32	0°♁	
	20 Oct 29 j 22:02	0°♁		desc. node	23 Jun 25 j 02:26	13°♁30'30	
	20 Nov 23 j 05:12	0°♁		greatest brilliancy	23 Jul 12 j 04:09	23°♁35'04	-4.5m
	20 Dec 17 j 07:08	0°♁		retrograde	23 Jul 23 j 22:27	26°♁02'25	
desc. node	21 Jan 07 j 07:23	26°♁13'17		evening set	23 Aug 10 j 15:01	20°♁15'35	
	21 Jan 10 j 08:05	0°♁		inferior conj	23 Aug 14 j 04:12	18°♁06'38	-8°-33'-57
	21 Feb 03 j 10:00	0°♁		minimum elong	23 Aug 13 j 23:56	18°♁13'13	8°33'44
morning set	21 Feb 17 j 00:31	16°♁54'33		min. Earth dist.	23 Aug 14 j 16:41	17°♁47'26	0.28239 AU
	21 Feb 27 j 13:45	0°♁		morning rise	23 Aug 17 j 08:36	16°♁10'00	
	21 Mar 23 j 19:47	0°♁		direct	23 Sep 04 j 11:30	10°♁00'11	
				greatest brilliancy	23 Sep 18 j 20:53	13°♁41'25	-4.6m
superior conj	21 Mar 27 j 18:52	4°♁53'23	-1°-8'-37		23 Oct 11 j 15:50	0°♁	
minimum elong	21 Mar 28 j 04:14	5°♁22'17	1°08'22	asc. node	23 Oct 16 j 05:17	4°♁10'41	
max. Earth dist.	21 Mar 30 j 08:23	8°♁03'07	1.73126 AU	morning max el	23 Oct 24 j 21:45	12°♁40'43	46°44'54
	21 Apr 17 j 04:12	0°♁			23 Nov 10 j 04:34	0°♁	
asc. node	21 Apr 30 j 10:23	16°♁17'08			23 Dec 06 j 07:35	0°♁	
evening rise	21 May 04 j 04:53	20°♁54'44			23 Dec 31 j 08:39	0°♁	
	21 May 11 j 14:46	0°♁			24 Jan 25 j 00:11	0°♁	
	21 Jun 05 j 03:13	0°♁		desc. node	24 Feb 04 j 19:07	13°♁11'48	
	21 Jun 29 j 17:51	0°♁			24 Feb 18 j 12:28	0°♁	
	21 Jul 24 j 11:59	0°♁			24 Mar 13 j 23:58	0°♁	
	21 Aug 18 j 12:06	0°♁			24 Apr 07 j 11:37	0°♁	
desc. node	21 Aug 20 j 00:01	1°♁46'56		morning set	24 Apr 28 j 14:51	25°♁53'18	
	21 Sep 12 j 22:22	0°♁			24 May 01 j 23:24	0°♁	
	21 Oct 09 j 04:18	0°♁			24 May 26 j 10:37	0°♁	
evening max el	21 Oct 31 j 18:16	24°♁11'02	47°24'09	asc. node	24 May 27 j 22:18	1°♁49'29	
	21 Nov 06 j 14:29	0°♁		max. Earth dist.	24 Jun 02 j 06:41	8°♁23'39	1.73620 AU
greatest brilliancy	21 Dec 08 j 21:53	24°♁49'23	-4.7m				
asc. node	21 Dec 11 j 03:05	25°♁45'09		superior conj	24 Jun 04 j 01:43	10°♁35'50	0°16'50
retrograde	21 Dec 21 j 17:19	27°♁53'23		minimum elong	24 Jun 03 j 22:22	10°♁25'35	0°16'40
evening set	22 Jan 06 j 12:45	22°♁53'09			24 Jun 19 j 20:22	0°♁	
min. Earth dist.	22 Jan 10 j 10:10	20°♁31'29	0.27144 AU	evening rise	24 Jul 09 j 19:11	24°♁35'39	
inferior conj	22 Jan 11 j 10:53	19°♁52'52	6°56'03		24 Jul 14 j 04:18	0°♁	
minimum elong	22 Jan 11 j 01:05	20°♁08'11	6°54'11		24 Aug 07 j 11:06	0°♁	
morning rise	22 Jan 15 j 13:59	17°♁21'48			24 Aug 31 j 18:11	0°♁	
direct	22 Feb 01 j 00:12	12°♁06'32		desc. node	24 Sep 16 j 11:58	19°♁23'31	
greatest brilliancy	22 Feb 11 j 11:34	14°♁09'24	-4.6m		24 Sep 25 j 03:01	0°♁	
	22 Mar 07 j 22:50	0°♁			24 Oct 19 j 15:11	0°♁	
morning max el	22 Mar 22 j 10:34	13°♁15'37	46°12'11		24 Nov 13 j 09:48	0°♁	
desc. node	22 Apr 01 j 16:47	23°♁32'43			24 Dec 08 j 19:08	0°♁	
	22 Apr 07 j 21:21	0°♁			25 Jan 04 j 18:21	0°♁	
	22 May 05 j 05:59	0°♁		asc. node	25 Jan 07 j 14:52	2°♁58'50	
	22 May 31 j 08:52	0°♁		evening max el	25 Jan 11 j 03:21	6°♁35'05	46°44'51
	22 Jun 25 j 19:21	0°♁			25 Feb 06 j 17:56	0°♁	
	22 Jul 20 j 17:35	0°♁		greatest brilliancy	25 Feb 16 j 02:37	5°♁36'24	-4.6m
asc. node	22 Jul 23 j 19:52	3°♁45'51		retrograde	25 Mar 02 j 12:37	9°♁23'01	
	22 Aug 14 j 05:28	0°♁		evening set	25 Mar 19 j 18:14	3°♁37'21	
	22 Sep 07 j 09:16	0°♁		inferior conj	25 Mar 23 j 20:07	1°♁04'53	7°12'15
morning set	22 Sep 15 j 20:07	10°♁34'11		minimum elong	25 Mar 24 j 04:50	0°♁51'03	7°10'53
	22 Oct 01 j 07:52	0°♁		min. Earth dist.	25 Mar 23 j 19:24	1°♁06'00	0.28739 AU
max. Earth dist.	22 Oct 24 j 05:50	28°♁49'45	1.71110 AU		25 Mar 25 j 13:10	30°♁	
				morning rise	25 Mar 28 j 15:37	28°♁06'22	
superior conj	22 Oct 24 j 22:24	29°♁41'53	0°42'03	direct	25 Apr 14 j 03:26	22°♁50'20	
minimum elong	22 Oct 25 j 07:51	0°♁11'38	0°41'38	greatest brilliancy	25 Apr 26 j 08:40	25°♁29'21	-4.5m
	22 Oct 25 j 04:09	0°♁		desc. node	25 Apr 29 j 04:33	26°♁45'13	
desc. node	22 Nov 12 j 09:44	22°♁56'57			25 May 05 j 01:47	0°♁	
	22 Nov 18 j 00:13	0°♁		morning max el	25 Jun 01 j 22:57	22°♁39'38	45°45'15
evening rise	22 Dec 05 j 12:20	21°♁59'56			25 Jun 09 j 11:07	0°♁	
	22 Dec 11 j 21:19	0°♁			25 Jul 07 j 17:23	0°♁	
	23 Jan 04 j 20:32	0°♁			25 Aug 02 j 23:57	0°♁	
	23 Jan 28 j 23:39	0°♁		asc. node	25 Aug 20 j 07:41	20°♁30'56	

	25 Aug 28 j 04:50	0°♁		evening max el	28 Mar 23 j 06:15	16°♁15'58	45°34'20
	25 Sep 21 j 17:14	0°♁			28 Apr 07 j 12:08	0°♁	
	25 Oct 15 j 19:34	0°♁		greatest brilliancy	28 Apr 26 j 09:51	12°♁36'10	-4.5m
	25 Nov 08 j 17:00	0°♁		retrograde	28 May 10 j 22:09	16°♁15'27	
morning set	25 Nov 29 j 13:26	26°♁14'38		evening set	28 May 25 j 22:16	11°♁55'13	
	25 Dec 02 j 13:03	0°♁		desc. node	28 May 26 j 16:33	11°♁29'55	
desc. node	25 Dec 09 j 21:34	9°♁15'15		inferior conj	28 Jun 01 j 09:05	8°♁03'37	-1°-19'-38
	25 Dec 26 j 09:45	0°♁		minimum elong	28 Jun 01 j 06:11	8°♁08'10	1°18'48
				min. Earth dist.	28 Jun 01 j 12:17	7°♁58'36	0.28973 AU
superior conj	26 Jan 10 j 13:20	19°♁00'08	-1°-5'-53	morning rise	28 Jun 07 j 14:01	4°♁19'53	
minimum elong	26 Jan 10 j 01:43	18°♁23'47	1°05'32		28 Jun 19 j 13:23	30°♁	
max. Earth dist.	26 Jan 14 j 05:52	23°♁37'21	1.71530 AU	direct	28 Jun 23 j 02:25	29°♁45'16	
	26 Jan 19 j 08:11	0°♁			28 Jun 26 j 16:51	0°♁	
	26 Feb 12 j 09:19	0°♁		greatest brilliancy	28 Jul 07 j 01:15	3°♁09'02	-4.5m
evening rise	26 Feb 20 j 01:51	9°♁33'09			28 Aug 11 j 04:28	0°♁	
	26 Mar 08 j 14:20	0°♁		morning max el	28 Aug 11 j 05:38	0°♁02'50	46°02'06
	26 Apr 02 j 00:25	0°♁			28 Sep 08 j 16:49	0°♁	
asc. node	26 Apr 02 j 00:36	0°♁00'32		asc. node	28 Sep 16 j 19:42	9°♁11'14	
	26 Apr 26 j 16:45	0°♁			28 Oct 04 j 15:22	0°♁	
	26 May 21 j 16:56	0°♁			28 Oct 29 j 10:46	0°♁	
	26 Jun 16 j 04:26	0°♁			28 Nov 22 j 17:21	0°♁	
	26 Jul 12 j 11:08	0°♁			28 Dec 16 j 18:56	0°♁	
desc. node	26 Jul 22 j 14:06	11°♁09'44		desc. node	29 Jan 06 j 09:18	25°♁43'10	
	26 Aug 09 j 10:12	0°♁			29 Jan 09 j 19:37	0°♁	
evening max el	26 Aug 17 j 05:03	7°♁44'57	46°28'10		29 Feb 02 j 21:20	0°♁	
	26 Sep 12 j 10:55	0°♁		morning set	29 Feb 14 j 13:16	14°♁30'19	
greatest brilliancy	26 Sep 25 j 08:52	6°♁55'00	-4.6m		29 Feb 27 j 00:53	0°♁	
retrograde	26 Oct 05 j 23:29	8°♁59'11			29 Mar 23 j 06:46	0°♁	
evening set	26 Oct 21 j 05:45	4°♁26'42					
inferior conj	26 Oct 26 j 12:51	1°♁20'25	-4°-16'-15	superior conj	29 Mar 25 j 10:46	2°♁40'30	-1°-10'-34
minimum elong	26 Oct 26 j 21:42	1°♁07'02	4°13'45	minimum elong	29 Mar 25 j 19:57	3°♁08'49	1°10'20
min. Earth dist.	26 Oct 27 j 00:16	1°♁03'09	0.26548 AU	max. Earth dist.	29 Mar 28 j 05:17	6°♁05'43	1.73078 AU
	26 Oct 28 j 18:15	30°♁			29 Apr 16 j 15:07	0°♁	
morning rise	26 Nov 01 j 13:17	27°♁50'30		asc. node	29 Apr 29 j 12:33	15°♁50'08	
asc. node	26 Nov 12 j 17:12	23°♁54'21		evening rise	29 May 01 j 22:57	18°♁49'17	
direct	26 Nov 16 j 00:16	23°♁40'50			29 May 11 j 01:46	0°♁	
greatest brilliancy	26 Nov 28 j 18:20	26°♁43'47	-4.7m		29 Jun 04 j 14:27	0°♁	
	26 Dec 04 j 22:00	0°♁			29 Jun 29 j 05:28	0°♁	
morning max el	27 Jan 05 j 16:49	27°♁04'11	46°52'16		29 Jul 24 j 00:12	0°♁	
	27 Jan 08 j 13:40	0°♁			29 Aug 18 j 01:15	0°♁	
	27 Feb 05 j 02:43	0°♁		desc. node	29 Aug 19 j 02:03	1°♁13'41	
	27 Mar 03 j 02:31	0°♁			29 Sep 12 j 13:03	0°♁	
desc. node	27 Mar 04 j 07:05	1°♁23'41			29 Oct 08 j 22:00	0°♁	
	27 Mar 28 j 11:50	0°♁		evening max el	29 Oct 29 j 08:04	21°♁45'27	47°23'40
	27 Apr 22 j 14:02	0°♁			29 Nov 06 j 16:49	0°♁	
	27 May 17 j 11:33	0°♁		greatest brilliancy	29 Dec 06 j 14:40	22°♁26'14	-4.7m
	27 Jun 11 j 04:39	0°♁		asc. node	29 Dec 10 j 05:05	23°♁51'28	
asc. node	27 Jun 25 j 10:06	17°♁23'08		retrograde	29 Dec 19 j 06:33	25°♁26'40	
	27 Jul 05 j 16:47	0°♁		evening set	30 Jan 03 j 22:54	20°♁32'23	
morning set	27 Jul 05 j 23:15	0°♁19'54		min. Earth dist.	30 Jan 08 j 00:10	18°♁05'21	0.27077 AU
	27 Jul 29 j 23:47	0°♁		inferior conj	30 Jan 09 j 00:21	17°♁27'36	6°42'00
max. Earth dist.	27 Aug 07 j 15:45	10°♁45'22	1.72506 AU	minimum elong	30 Jan 08 j 14:22	17°♁43'12	6°39'59
				morning rise	30 Jan 13 j 06:21	14°♁52'14	
superior conj	27 Aug 11 j 11:18	15°♁29'57	1°21'58	direct	30 Jan 29 j 12:38	9°♁42'17	
minimum elong	27 Aug 11 j 06:57	15°♁16'26	1°21'56	greatest brilliancy	30 Feb 09 j 01:31	11°♁46'11	-4.6m
	27 Aug 23 j 02:38	0°♁			30 Mar 08 j 06:04	0°♁	
	27 Sep 16 j 03:04	0°♁		morning max el	30 Mar 19 j 23:11	10°♁52'45	46°13'47
evening rise	27 Sep 17 j 23:45	2°♁19'44		desc. node	30 Mar 31 j 18:54	22°♁47'25	
	27 Oct 10 j 02:49	0°♁			30 Apr 07 j 15:30	0°♁	
desc. node	27 Oct 14 j 23:57	6°♁06'04			30 May 04 j 20:26	0°♁	
	27 Nov 03 j 03:11	0°♁			30 May 30 j 21:40	0°♁	
	27 Nov 27 j 05:21	0°♁			30 Jun 25 j 07:16	0°♁	
	27 Dec 21 j 11:35	0°♁			30 Jul 20 j 05:02	0°♁	
	28 Jan 15 j 02:30	0°♁		asc. node	30 Jul 22 j 21:53	3°♁17'15	
asc. node	28 Feb 05 j 02:43	24°♁56'56			30 Aug 13 j 16:42	0°♁	
	28 Feb 09 j 11:01	0°♁			30 Sep 06 j 20:24	0°♁	
	28 Mar 07 j 08:01	0°♁		morning set	30 Sep 13 j 10:38	8°♁14'32	

	30 Sep 30 j 18:59	0°♁			33 Mar 19 j 17:08	30°♁	
max. Earth dist.	30 Oct 21 j 11:44	26°♁02'10	1.71135 AU	inferior conj	33 Mar 21 j 12:08	28°♁52'07	7°23'07
				minimum elong	33 Mar 21 j 20:33	28°♁38'48	7°21'53
superior conj	30 Oct 22 j 09:40	27°♁11'12	0°45'20	min. Earth dist.	33 Mar 21 j 10:20	28°♁54'58	0.28709 AU
minimum elong	30 Oct 22 j 19:33	27°♁42'18	0°44'55	morning rise	33 Mar 26 j 04:26	25°♁58'38	
	30 Oct 24 j 15:19	0°♁		direct	33 Apr 11 j 19:09	20°♁38'04	
desc. node	30 Nov 11 j 11:50	22°♁28'13		greatest brilliancy	33 Apr 23 j 22:27	23°♁15'50	-4.5m
	30 Nov 17 j 11:27	0°♁		desc. node	33 Apr 28 j 06:40	25°♁16'58	
evening rise	30 Dec 02 j 21:49	19°♁23'38			33 May 06 j 02:41	0°♁	
	30 Dec 11 j 08:38	0°♁		morning max el	33 May 30 j 15:46	20°♁31'44	45°45'34
	31 Jan 04 j 07:55	0°♁			33 Jun 09 j 06:46	0°♁	
	31 Jan 28 j 11:12	0°♁			33 Jul 07 j 08:08	0°♁	
	31 Feb 21 j 21:24	0°♁			33 Aug 02 j 12:47	0°♁	
asc. node	31 Mar 04 j 14:46	13°♁00'25		asc. node	33 Aug 19 j 09:54	20°♁01'10	
	31 Mar 18 j 18:41	0°♁			33 Aug 27 j 16:44	0°♁	
	31 Apr 13 j 09:14	0°♁			33 Sep 21 j 04:41	0°♁	
	31 May 10 j 06:02	0°♁			33 Oct 15 j 06:50	0°♁	
evening max el	31 Jun 02 j 21:08	24°♁09'37	45°23'21		33 Nov 08 j 04:11	0°♁	
	31 Jun 09 j 03:51	0°♁		morning set	33 Nov 26 j 23:28	23°♁40'09	
desc. node	31 Jun 24 j 04:21	12°♁21'22			33 Dec 02 j 00:11	0°♁	
greatest brilliancy	31 Jul 09 j 14:33	21°♁16'08	-4.5m	desc. node	33 Dec 08 j 23:32	8°♁46'29	
retrograde	31 Jul 21 j 13:02	23°♁47'45			33 Dec 25 j 20:49	0°♁	
evening set	31 Aug 08 j 02:41	18°♁04'16					
inferior conj	31 Aug 11 j 18:58	15°♁50'54	-8°-28'-40	superior conj	34 Jan 07 j 23:12	16°♁26'03	-1°-3'-17
minimum elong	31 Aug 11 j 13:56	15°♁58'38	8°28'19	minimum elong	34 Jan 07 j 11:25	15°♁49'06	1°02'54
min. Earth dist.	31 Aug 12 j 06:42	15°♁32'53	0.28293 AU	max. Earth dist.	34 Jan 11 j 15:30	21°♁02'43	1.71485 AU
morning rise	31 Aug 15 j 00:56	13°♁52'03			34 Jan 18 j 19:11	0°♁	
direct	31 Sep 02 j 02:42	7°♁43'27			34 Feb 11 j 20:17	0°♁	
greatest brilliancy	31 Sep 16 j 14:19	11°♁27'12	-4.6m	evening rise	34 Feb 17 j 14:17	7°♁08'47	
	31 Oct 11 j 20:19	0°♁			34 Mar 08 j 01:19	0°♁	
asc. node	31 Oct 15 j 07:26	3°♁14'25		asc. node	34 Apr 01 j 02:44	29°♁33'05	
morning max el	31 Oct 22 j 12:41	10°♁20'28	46°43'46		34 Apr 01 j 11:33	0°♁	
	31 Nov 09 j 22:20	0°♁			34 Apr 26 j 04:11	0°♁	
	31 Dec 05 j 22:17	0°♁			34 May 21 j 05:00	0°♁	
	31 Dec 30 j 21:54	0°♁			34 Jun 15 j 17:38	0°♁	
	32 Jan 24 j 12:35	0°♁			34 Jul 12 j 02:36	0°♁	
desc. node	32 Feb 03 j 21:15	12°♁41'14		desc. node	34 Jul 21 j 16:14	10°♁29'53	
	32 Feb 18 j 00:16	0°♁			34 Aug 09 j 07:15	0°♁	
	32 Mar 13 j 11:22	0°♁		evening max el	34 Aug 14 j 19:15	5°♁25'54	46°25'27
	32 Apr 06 j 22:42	0°♁			34 Sep 13 j 18:24	0°♁	
morning set	32 Apr 26 j 08:39	23°♁47'16		greatest brilliancy	34 Sep 22 j 21:18	4°♁28'46	-4.6m
	32 May 01 j 10:17	0°♁		retrograde	34 Oct 03 j 11:33	6°♁31'57	
	32 May 25 j 21:24	0°♁		evening set	34 Oct 18 j 20:53	1°♁55'49	
asc. node	32 May 27 j 00:20	1°♁22'39			34 Oct 22 j 04:51	30°♁	
max. Earth dist.	32 May 31 j 05:36	6°♁33'38	1.73631 AU	inferior conj	34 Oct 24 j 01:07	28°♁53'07	-4°-37'-14
				minimum elong	34 Oct 24 j 10:27	28°♁38'58	4°34'39
superior conj	32 Jun 01 j 20:25	8°♁32'50	0°13'47	min. Earth dist.	34 Oct 24 j 13:25	28°♁34'28	0.26591 AU
minimum elong	32 Jun 01 j 17:40	8°♁24'22	0°13'39	morning rise	34 Oct 29 j 23:43	25°♁25'27	
behind sun begin	32 Jun 01 j 06:16	7°♁49'23		asc. node	34 Nov 11 j 19:12	21°♁16'57	
behind sun end	32 Jun 02 j 05:03	8°♁59'21		direct	34 Nov 13 j 13:41	21°♁13'05	
	32 Jun 19 j 07:08	0°♁		greatest brilliancy	34 Nov 26 j 08:18	24°♁16'46	-4.7m
evening rise	32 Jul 07 j 14:18	22°♁33'10			34 Dec 06 j 06:16	0°♁	
	32 Jul 13 j 15:10	0°♁		morning max el	35 Jan 03 j 06:14	24°♁38'32	46°52'47
	32 Aug 06 j 22:13	0°♁			35 Jan 08 j 11:09	0°♁	
	32 Aug 31 j 05:41	0°♁			35 Feb 04 j 18:42	0°♁	
desc. node	32 Sep 15 j 14:08	18°♁53'54			35 Mar 02 j 16:14	0°♁	
	32 Sep 24 j 15:01	0°♁		desc. node	35 Mar 03 j 09:13	0°♁49'55	
	32 Oct 19 j 03:50	0°♁			35 Mar 28 j 00:18	0°♁	
	32 Nov 12 j 23:25	0°♁			35 Apr 22 j 01:42	0°♁	
	32 Dec 08 j 10:34	0°♁			35 May 16 j 22:43	0°♁	
	33 Jan 04 j 14:22	0°♁			35 Jun 10 j 15:31	0°♁	
asc. node	33 Jan 06 j 16:55	2°♁10'39		asc. node	35 Jun 24 j 12:06	16°♁56'19	
evening max el	33 Jan 08 j 18:46	4°♁17'47	46°47'31	morning set	35 Jul 03 j 17:14	28°♁14'45	
	33 Feb 07 j 18:28	0°♁			35 Jul 05 j 03:29	0°♁	
greatest brilliancy	33 Feb 13 j 18:45	3°♁22'59	-4.6m		35 Jul 29 j 10:27	0°♁	
retrograde	33 Feb 28 j 05:28	7°♁10'26		max. Earth dist.	35 Aug 05 j 06:35	8°♁29'13	1.72558 AU
evening set	33 Mar 17 j 12:53	1°♁20'34					

superior conj	35 Aug 09 j 04:36	13°♍21'21	1°21'07	direct	38 Jan 27 j 00:58	7°♌19'10	
minimum elong	35 Aug 08 j 23:41	13°♍06'02	1°21'03	greatest brilliancy	38 Feb 06 j 16:09	9°♌25'01	-4.6m
	35 Aug 22 j 13:21	0°♎			38 Mar 08 j 10:40	0°♍	
evening rise	35 Sep 15 j 13:57	0°♌00'10		morning max el	38 Mar 17 j 12:17	8°♍31'48	46°15'14
	35 Sep 15 j 13:54	0°♌		desc. node	38 Mar 30 j 20:58	22°♍03'30	
	35 Oct 09 j 13:50	0°♍			38 Apr 07 j 08:56	0°♎	
desc. node	35 Oct 14 j 02:01	5°♍37'56			38 May 04 j 10:31	0°♏	
	35 Nov 02 j 14:27	0°♎			38 May 30 j 10:10	0°♐	
	35 Nov 26 j 16:56	0°♏			38 Jun 24 j 18:55	0°♑	
	35 Dec 20 j 23:36	0°♐			38 Jul 19 j 16:12	0°♒	
	36 Jan 14 j 15:14	0°♑		asc. node	38 Jul 22 j 00:03	2°♒49'59	
asc. node	36 Feb 04 j 04:52	24°♑23'01			38 Aug 13 j 03:37	0°♓	
	36 Feb 09 j 01:09	0°♒			38 Sep 06 j 07:12	0°♈	
	36 Mar 07 j 01:36	0°♓		morning set	38 Sep 11 j 01:15	5°♈56'16	
evening max el	36 Mar 20 j 21:31	14°♈03'31	45°36'05		38 Sep 30 j 05:48	0°♉	
	36 Apr 07 j 20:41	0°♉		max. Earth dist.	38 Oct 18 j 20:35	23°♉24'45	1.71162 AU
greatest brilliancy	36 Apr 24 j 02:24	10°♉28'18	-4.5m				
retrograde	36 May 08 j 14:01	14°♉07'35		superior conj	38 Oct 19 j 21:13	24°♉42'15	0°48'31
evening set	36 May 23 j 14:57	9°♉47'02		minimum elong	38 Oct 20 j 07:27	25°♉14'27	0°48'06
desc. node	36 May 25 j 18:28	8°♉33'52			38 Oct 24 j 02:11	0°♊	
inferior conj	36 May 30 j 01:33	5°♉55'36	-1°00'-10	desc. node	38 Nov 10 j 13:48	22°♊00'03	
minimum elong	36 May 29 j 23:21	5°♉59'03	0°59'32		38 Nov 16 j 22:24	0°♋	
min. Earth dist.	36 May 30 j 05:11	5°♉49'54	0.28976 AU	evening rise	38 Nov 30 j 07:39	16°♋49'24	
morning rise	36 Jun 05 j 07:37	2°♉09'50			38 Dec 10 j 19:38	0°♌	
	36 Jun 09 j 17:16	30°♌			39 Jan 03 j 18:59	0°♍	
direct	36 Jun 20 j 18:38	27°♌37'11			39 Jan 27 j 22:25	0°♎	
	36 Jul 02 j 08:32	0°♍			39 Feb 21 j 08:58	0°♏	
greatest brilliancy	36 Jul 04 j 16:09	0°♍58'49	-4.5m	asc. node	39 Mar 03 j 16:50	12°♏31'08	
morning max el	36 Aug 08 j 20:02	27°♍48'23	46°00'54		39 Mar 18 j 06:54	0°♐	
	36 Aug 11 j 01:59	0°♎			39 Apr 12 j 22:47	0°♑	
	36 Sep 08 j 08:11	0°♏			39 May 09 j 22:36	0°♒	
asc. node	36 Sep 15 j 21:43	8°♏35'26		evening max el	39 May 31 j 12:03	21°♒56'42	45°22'27
	36 Oct 04 j 04:36	0°♐			39 Jun 09 j 06:28	0°♓	
	36 Oct 28 j 22:59	0°♑		desc. node	39 Jun 23 j 06:30	11°♓10'58	
	36 Nov 22 j 05:01	0°♒		greatest brilliancy	39 Jul 07 j 00:57	18°♓57'38	-4.5m
	36 Dec 16 j 06:16	0°♓		retrograde	39 Jul 19 j 03:57	21°♓33'24	
desc. node	37 Jan 05 j 11:25	25°♓14'54		evening set	39 Aug 05 j 14:11	15°♓53'39	
	37 Jan 09 j 06:45	0°♌		inferior conj	39 Aug 09 j 09:40	13°♓35'35	-8°-22'-39
	37 Feb 02 j 08:18	0°♍		minimum elong	39 Aug 09 j 03:57	13°♓44'23	8°22'10
morning set	37 Feb 12 j 01:35	12°♍05'36		min. Earth dist.	39 Aug 09 j 20:21	13°♓19'10	0.28341 AU
	37 Feb 26 j 11:43	0°♎		morning rise	39 Aug 12 j 17:28	11°♓34'08	
	37 Mar 22 j 17:29	0°♏		direct	39 Aug 30 j 18:18	5°♓27'23	
				greatest brilliancy	39 Sep 14 j 06:48	9°♓12'36	-4.6m
superior conj	37 Mar 23 j 02:10	0°♏26'51	-1°-12'-27		39 Oct 11 j 22:51	0°♈	
minimum elong	37 Mar 23 j 11:05	0°♏54'19	1°12'14	asc. node	39 Oct 14 j 09:27	2°♈19'42	
max. Earth dist.	37 Mar 25 j 23:27	4°♏00'38	1.73030 AU	morning max el	39 Oct 20 j 04:07	8°♈02'25	46°42'33
	37 Apr 16 j 01:47	0°♉			39 Nov 09 j 15:29	0°♉	
asc. node	37 Apr 28 j 14:30	15°♉23'19			39 Dec 05 j 12:35	0°♊	
evening rise	37 Apr 29 j 16:25	16°♉42'49			39 Dec 30 j 10:51	0°♋	
	37 May 10 j 12:30	0°♊			40 Jan 24 j 00:42	0°♌	
	37 Jun 04 j 01:23	0°♋		desc. node	40 Feb 02 j 23:21	12°♌11'20	
	37 Jun 28 j 16:47	0°♌			40 Feb 17 j 11:50	0°♍	
	37 Jul 23 j 12:07	0°♍			40 Mar 12 j 22:31	0°♎	
	37 Aug 17 j 14:07	0°♎			40 Apr 06 j 09:35	0°♏	
desc. node	37 Aug 18 j 04:12	0°♎41'44		morning set	40 Apr 24 j 02:21	21°♏41'30	
	37 Sep 12 j 03:32	0°♏			40 Apr 30 j 21:01	0°♐	
	37 Oct 08 j 15:39	0°♐			40 May 25 j 08:03	0°♑	
evening max el	37 Oct 26 j 21:09	19°♐19'30	47°23'12	asc. node	40 May 26 j 02:23	0°♒56'14	
	37 Nov 06 j 20:06	0°♑		max. Earth dist.	40 May 29 j 04:53	4°♒44'57	1.73644 AU
greatest brilliancy	37 Dec 04 j 06:45	20°♑03'33	-4.7m				
asc. node	37 Dec 09 j 07:05	21°♑54'44		superior conj	40 May 30 j 14:51	6°♒29'18	0°10'42
retrograde	37 Dec 16 j 19:55	23°♑01'38		minimum elong	40 May 30 j 12:42	6°♒22'41	0°10'36
evening set	38 Jan 01 j 09:09	18°♑12'39		behind sun begin	40 May 29 j 19:55	5°♒31'08	
min. Earth dist.	38 Jan 05 j 14:15	15°♑40'33	0.27016 AU	behind sun end	40 May 31 j 05:29	7°♒14'14	
inferior conj	38 Jan 06 j 13:51	15°♑03'46	6°27'04		40 Jun 18 j 17:49	0°♓	
minimum elong	38 Jan 06 j 03:46	15°♑19'30	6°24'54	evening rise	40 Jul 05 j 09:06	20°♓29'56	
morning rise	38 Jan 10 j 22:50	12°♑24'11			40 Jul 13 j 01:59	0°♈	

	40 Aug 06 j 09:17	0°♄		43 Jan 08 j 08:04	0°♁		
	40 Aug 30 j 17:06	0°♁		43 Feb 04 j 10:35	0°♁		
desc. node	40 Sep 14 j 16:07	18°♁24'03		43 Mar 02 j 05:58	0°≈		
	40 Sep 24 j 02:57	0°♄		43 Mar 02 j 11:11	0°≈15'24		
	40 Oct 18 j 16:26	0°♁		43 Mar 27 j 12:52	0°♁		
	40 Nov 12 j 13:03	0°♁		43 Apr 21 j 13:32	0°♄		
	40 Dec 08 j 02:08	0°≈		43 May 16 j 10:03	0°♁		
asc. node	41 Jan 04 j 10:55	0°♁		43 Jun 10 j 02:32	0°♁		
	41 Jan 05 j 19:07	1°♁22'22		43 Jun 23 j 14:18	16°♁29'31		
evening max el	41 Jan 06 j 10:53	2°♁02'26	46°50'06	43 Jul 01 j 11:20	26°♁09'28		
	41 Feb 09 j 04:55	0°♄		43 Jul 04 j 14:21	0°♁		
greatest brilliancy	41 Feb 11 j 12:02	1°♄11'21	-4.6m	43 Jul 28 j 21:20	0°♁		
retrograde	41 Feb 25 j 22:22	4°♄57'52		43 Aug 02 j 22:46	6°♁16'38	1.72618 AU	
	41 Mar 13 j 17:48	30°♁					
evening set	41 Mar 15 j 07:29	29°♁04'11		43 Aug 06 j 21:59	11°♁12'18	1°20'09	
inferior conj	41 Mar 19 j 04:09	26°♁39'31	7°33'17	43 Aug 06 j 16:29	10°♁55'14	1°20'03	
minimum elong	41 Mar 19 j 12:12	26°♁26'45	7°32'10	43 Aug 22 j 00:21	0°♄		
min. Earth dist.	41 Mar 19 j 01:00	26°♁44'29	0.28676 AU	43 Aug 22 j 00:21	0°♄		
morning rise	41 Mar 23 j 17:11	23°♁51'00		43 Sep 13 j 04:08	27°♄39'38		
direct	41 Apr 09 j 11:11	18°♁26'15		43 Sep 15 j 01:04	0°♁		
greatest brilliancy	41 Apr 21 j 11:01	21°♁01'14	-4.5m	43 Sep 15 j 01:04	0°♁		
desc. node	41 Apr 27 j 08:36	23°♁51'45		43 Oct 09 j 01:12	0°♄		
	41 May 06 j 20:47	0°♄		43 Oct 13 j 04:01	5°♄08'30		
morning max el	41 May 28 j 08:12	18°♄23'09	45°45'43	43 Nov 02 j 02:03	0°♁		
	41 Jun 09 j 01:46	0°♁		43 Nov 26 j 04:50	0°♁		
	41 Jun 09 j 01:46	0°♁		43 Dec 20 j 11:55	0°≈		
	41 Jul 06 j 22:44	0°♁		44 Jan 14 j 04:17	0°♁		
asc. node	41 Aug 02 j 01:36	0°♁		44 Feb 03 j 06:52	23°♁47'43		
	41 Aug 18 j 11:55	19°♁30'38		44 Feb 08 j 15:41	0°♄		
	41 Aug 27 j 04:42	0°♁		44 Mar 06 j 19:54	0°♁		
	41 Sep 20 j 16:13	0°♄		44 Mar 18 j 12:08	11°♁48'39	45°37'54	
	41 Oct 14 j 18:08	0°♁		44 Apr 08 j 08:44	0°♁		
morning set	41 Nov 07 j 15:22	0°♄		44 Apr 21 j 18:10	8°♁18'44	-4.5m	
	41 Nov 24 j 09:34	21°♄05'52		44 May 06 j 06:10	11°♁59'23		
	41 Dec 01 j 11:18	0°♁		44 May 21 j 07:51	7°♁38'00		
desc. node	41 Dec 08 j 01:37	8°♁18'04		44 May 24 j 20:38	5°♁35'02		
	41 Dec 25 j 07:54	0°♁		44 May 27 j 18:07	3°♁47'09	0°-40'-36	
				44 May 27 j 16:38	3°♁49'29	0°40'11	
superior conj	42 Jan 05 j 09:00	13°♁51'38	-1°00'-33	44 May 27 j 22:17	3°♁40'38	0.28979 AU	
minimum elong	42 Jan 04 j 21:09	13°♁14'28	1°00'09	44 Jun 03 j 01:12	29°♁59'41		
max. Earth dist.	42 Jan 09 j 02:32	18°♁32'14	1.71441 AU	44 Jun 03 j 00:59	30°♁		
	42 Jan 18 j 06:14	0°≈		44 Jun 18 j 10:31	25°♁28'32		
	42 Feb 11 j 07:19	0°♁		44 Jun 18 j 10:31	25°♁28'32		
evening rise	42 Feb 15 j 02:38	4°♁43'51		44 Jul 02 j 08:00	28°♁49'19	-4.5m	
	42 Mar 07 j 12:23	0°♄		44 Jul 04 j 18:28	0°♁		
asc. node	42 Mar 31 j 04:43	29°♄04'59		44 Aug 06 j 10:48	25°♁34'11	45°59'43	
	42 Mar 31 j 22:44	0°♁		44 Aug 10 j 23:03	0°♁		
	42 Apr 25 j 15:42	0°♁		44 Sep 07 j 23:39	0°♁		
	42 May 20 j 17:11	0°♁		44 Sep 14 j 23:46	7°♁59'02		
	42 Jun 15 j 07:05	0°♁		44 Oct 03 j 18:05	0°♄		
	42 Jul 11 j 18:32	0°♄		44 Oct 28 j 11:34	0°♁		
desc. node	42 Jul 20 j 18:19	9°♄48'46		44 Nov 21 j 17:06	0°♄		
	42 Aug 09 j 05:27	0°♁		44 Dec 15 j 18:02	0°♁		
evening max el	42 Aug 12 j 08:39	3°♁04'08	46°22'32	45 Jan 04 j 13:35	24°♁45'33		
	42 Sep 15 j 17:32	0°♄		45 Jan 08 j 18:17	0°♁		
greatest brilliancy	42 Sep 20 j 10:43	2°♄02'35	-4.6m	45 Feb 01 j 19:37	0°≈		
retrograde	42 Sep 30 j 23:01	4°♄03'35		45 Feb 09 j 13:32	9°≈38'35		
	42 Oct 15 j 09:17	30°♁		45 Feb 25 j 22:51	0°♁		
evening set	42 Oct 16 j 12:01	29°♁23'45					
inferior conj	42 Oct 21 j 13:17	26°♁24'54	-4°-57'-43	45 Mar 20 j 17:30	28°♁11'56	-1°-14'-12	
minimum elong	42 Oct 21 j 23:02	26°♁10'04	4°55'06	45 Mar 21 j 02:05	28°♁38'25	1°14'01	
min. Earth dist.	42 Oct 22 j 02:45	26°♁04'25	0.26632 AU	45 Mar 22 j 04:30	0°♄		
morning rise	42 Oct 27 j 09:43	22°♁59'42		45 Mar 23 j 16:10	1°♄50'04	1.72981 AU	
direct	42 Nov 11 j 02:18	18°♁44'20		45 Apr 15 j 12:47	0°♁		
asc. node	42 Nov 10 j 21:13	18°♁44'23		45 Apr 27 j 09:58	14°♁35'33		
greatest brilliancy	42 Nov 23 j 22:26	21°♁49'06	-4.7m	45 Apr 27 j 16:36	14°♁55'55		
	42 Dec 07 j 05:52	0°♄		45 Apr 29 j 01:20	16°♁36'17	-3.9m	
morning max el	42 Dec 31 j 18:33	22°♄09'25	46°53'23	45 May 09 j 23:35	0°♁		
				45 Jun 03 j 12:40	0°♁		
				45 Jun 28 j 04:26	0°♁		

	45 Jul 23 j 00:24	0°♎			48 Mar 12 j 10:01	0°♋		
	45 Aug 17 j 03:25	0°♌			48 Apr 05 j 20:48	0°♍		
desc. node	45 Aug 17 j 06:12	0°♌08'14		morning set	48 Apr 21 j 19:49	19°♍34'02		
	45 Sep 11 j 18:34	0°♍			48 Apr 30 j 08:01	0°♎		
	45 Oct 08 j 10:13	0°♎			48 May 24 j 18:58	0°♏		
evening max el	45 Oct 24 j 10:17	16°♎52'12	47°22'27	asc. node	48 May 25 j 04:31	0°♏29'19		
	45 Nov 07 j 01:58	0°♏		max. Earth dist.	48 May 27 j 04:28	2°♏56'31	1.73651 AU	
greatest brilliancy	45 Dec 01 j 21:51	17°♏37'11	-4.7m					
asc. node	45 Dec 08 j 09:17	19°♏50'47		superior conj	48 May 28 j 09:11	4°♏24'41	0°07'35	
retrograde	45 Dec 14 j 09:21	20°♏33'54		minimum elong	48 May 28 j 07:39	4°♏19'58	0°07'31	
evening set	45 Dec 29 j 19:06	15°♏49'49		behind sun begin	48 May 27 j 11:46	3°♏18'55		
min. Earth dist.	46 Jan 03 j 03:49	13°♏13'03	0.26955 AU	behind sun end	48 May 29 j 03:32	5°♏21'02		
inferior conj	46 Jan 04 j 02:59	12°♏37'05	6°11'02		48 Jun 18 j 04:44	0°♐		
minimum elong	46 Jan 03 j 16:51	12°♏52'49	6°08'46	evening rise	48 Jul 03 j 04:01	18°♐26'23		
morning rise	46 Jan 08 j 15:03	9°♏53'28			48 Jul 12 j 13:03	0°♑		
direct	46 Jan 24 j 13:08	4°♏53'10			48 Aug 05 j 20:36	0°♒		
greatest brilliancy	46 Feb 04 j 06:17	7°♏01'04	-4.6m		48 Aug 30 j 04:48	0°♓		
	46 Mar 08 j 14:11	0°♓		desc. node	48 Sep 13 j 18:10	17°♓53'41		
morning max el	46 Mar 15 j 01:58	6°♓10'47	46°16'53		48 Sep 23 j 15:07	0°♔		
desc. node	46 Mar 29 j 23:01	21°♓18'53			48 Oct 18 j 05:16	0°♕		
	46 Apr 07 j 02:24	0°♔			48 Nov 12 j 02:56	0°♖		
	46 May 04 j 00:47	0°♕			48 Dec 07 j 18:04	0°♗		
	46 May 29 j 22:56	0°♖		evening max el	49 Jan 04 j 02:57	29°♗46'13	46°52'24	
	46 Jun 24 j 06:52	0°♗			49 Jan 04 j 08:24	0°♘		
asc. node	46 Jul 19 j 03:41	0°♘		asc. node	49 Jan 04 j 21:04	0°♘32'03		
	46 Jul 21 j 02:04	2°♘21'15		greatest brilliancy	49 Feb 09 j 06:14	28°♘59'52	-4.6m	
	46 Aug 12 j 14:50	0°♙			49 Feb 11 j 10:58	0°♚		
	46 Sep 05 j 18:19	0°♚		retrograde	49 Feb 23 j 14:54	2°♚43'58		
morning set	46 Sep 08 j 16:23	3°♚38'50			49 Mar 07 j 04:05	30°♛		
	46 Sep 29 j 16:55	0°♛		evening set	49 Mar 13 j 01:57	26°♛46'58		
max. Earth dist.	46 Oct 16 j 08:03	20°♛54'35	1.71193 AU	inferior conj	49 Mar 16 j 20:06	24°♛25'50	7°42'47	
				minimum elong	49 Mar 17 j 03:44	24°♛13'44	7°41'49	
superior conj	46 Oct 17 j 09:08	22°♛13'30	0°51'35	min. Earth dist.	49 Mar 16 j 15:48	24°♛32'40	0.28641 AU	
minimum elong	46 Oct 17 j 19:37	22°♛46'28	0°51'10	morning rise	49 Mar 21 j 05:49	21°♛42'11		
	46 Oct 23 j 13:24	0°♜		direct	49 Apr 07 j 03:10	16°♛13'31		
desc. node	46 Nov 09 j 15:58	21°♜31'23		greatest brilliancy	49 Apr 18 j 23:12	18°♛45'04	-4.5m	
	46 Nov 16 j 09:43	0°♝		desc. node	49 Apr 26 j 10:46	22°♛28'38		
evening rise	46 Nov 27 j 17:28	14°♝13'52			49 May 07 j 10:43	0°♞		
	46 Dec 10 j 07:02	0°♞		morning max el	49 May 25 j 23:50	16°♞11'50	45°45'58	
	47 Jan 03 j 06:30	0°♟			49 Jun 08 j 20:30	0°♟		
	47 Jan 27 j 10:05	0°♠			49 Jul 06 j 13:18	0°♡		
asc. node	47 Feb 20 j 20:58	0°♡			49 Aug 01 j 14:27	0°♢		
	47 Mar 02 j 18:49	12°♡00'19		asc. node	49 Aug 17 j 13:54	18°♢59'50		
	47 Mar 17 j 19:35	0°♣			49 Aug 26 j 16:42	0°♣		
	47 Apr 12 j 12:50	0°♤			49 Sep 20 j 03:48	0°♤		
	47 May 09 j 15:52	0°♥			49 Oct 14 j 05:32	0°♥		
evening max el	47 May 29 j 03:54	19°♥45'14	45°21'39		49 Nov 07 j 02:38	0°♦		
	47 Jun 09 j 11:07	0°♧		morning set	49 Nov 21 j 20:09	18°♦32'52		
desc. node	47 Jun 22 j 08:38	9°♧57'41			49 Nov 30 j 22:29	0°♧		
greatest brilliancy	47 Jul 04 j 12:13	16°♧39'45	-4.5m	desc. node	49 Dec 07 j 03:46	7°♧49'40		
retrograde	47 Jul 16 j 18:59	19°♧18'41			49 Dec 24 j 19:00	0°♨		
evening set	47 Aug 03 j 01:45	13°♨43'13						
inferior conj	47 Aug 07 j 00:33	11°♨20'04	-8°-15'-49	superior conj	50 Jan 02 j 19:11	11°♨18'16	0°-57'-42	
minimum elong	47 Aug 06 j 18:10	11°♨29'52	8°15'14	minimum elong	50 Jan 02 j 07:23	10°♨41'16	0°57'17	
min. Earth dist.	47 Aug 07 j 10:06	11°♨05'23	0.28383 AU	max. Earth dist.	50 Jan 06 j 13:25	16°♨01'09	1.71396 AU	
morning rise	47 Aug 10 j 10:24	9°♨15'34			50 Jan 17 j 17:18	0°♩		
direct	47 Aug 28 j 10:20	3°♨11'24			50 Feb 10 j 18:23	0°♪		
greatest brilliancy	47 Sep 11 j 22:09	6°♨56'17	-4.6m	evening rise	50 Feb 12 j 15:04	2°♪18'57		
	47 Oct 12 j 00:13	0°♫			50 Mar 06 j 23:29	0°♫		
asc. node	47 Oct 13 j 11:31	1°♫25'38		asc. node	50 Mar 30 j 06:49	28°♫37'01		
morning max el	47 Oct 17 j 19:33	5°♫44'01	46°41'18		50 Mar 31 j 10:00	0°♬		
	47 Nov 09 j 08:31	0°♭			50 Apr 25 j 03:20	0°♭		
	47 Dec 05 j 02:59	0°♧			50 May 20 j 05:30	0°♧		
	47 Dec 29 j 23:59	0°♨			50 Jun 14 j 20:42	0°♨		
	48 Jan 23 j 13:05	0°♩			50 Jul 11 j 10:44	0°♩		
desc. node	48 Feb 02 j 01:19	11°♩39'59		desc. node	50 Jul 19 j 20:19	9°♩06'57		
	48 Feb 16 j 23:42	0°♪			50 Aug 09 j 04:29	0°♪		

evening max el	50 Aug 09 j 21:08	0°♁40'24	46°19'41		53 Feb 01 j 06:40	0°≈	
greatest brilliancy	50 Sep 18 j 00:41	29°♁37'32	-4.6m	morning set	53 Feb 07 j 01:20	7°≈11'45	
	50 Sep 19 j 02:32	0°♁			53 Feb 25 j 09:43	0°✕	
retrograde	50 Sep 28 j 10:21	1°♁36'10					
	50 Oct 07 j 09:37	30°♁		superior conj	53 Mar 18 j 08:50	25°✕57'52	-1°-15'-51
evening set	50 Oct 14 j 03:21	26°♁52'11		minimum elong	53 Mar 18 j 17:03	26°✕23'15	1°15'41
inferior conj	50 Oct 19 j 01:37	23°♁57'32	-5°-17'-23	max. Earth dist.	53 Mar 21 j 08:08	29°✕38'06	1.72930 AU
minimum elong	50 Oct 19 j 11:44	23°♁42'09	5°14'46		53 Mar 21 j 15:14	0°♁	
min. Earth dist.	50 Oct 19 j 16:33	23°♁34'49	0.26678 AU		53 Apr 14 j 23:29	0°♁	
morning rise	50 Oct 24 j 19:40	20°♁35'06		evening rise	53 Apr 25 j 03:38	12°♁29'40	
direct	50 Nov 08 j 14:38	16°♁16'02		asc. node	53 Apr 26 j 18:46	14°♁29'42	
asc. node	50 Nov 09 j 23:25	16°♁18'17			53 May 09 j 10:21	0°♁	
greatest brilliancy	50 Nov 21 j 13:44	19°♁23'15	-4.7m		53 Jun 02 j 23:40	0°♁	
	50 Dec 07 j 23:15	0°♁			53 Jun 27 j 15:50	0°♁	
morning max el	50 Dec 29 j 06:50	19°♁40'17	46°54'08		53 Jul 22 j 12:27	0°♁	
	51 Jan 08 j 04:13	0°♁		desc. node	53 Aug 16 j 08:15	29°♁35'35	
	51 Feb 04 j 02:05	0°♁			53 Aug 16 j 16:31	0°♁	
desc. node	51 Mar 01 j 13:17	29°♁41'50			53 Sep 11 j 09:28	0°♁	
	51 Mar 01 j 19:27	0°≈			53 Oct 08 j 04:52	0°♁	
	51 Mar 27 j 01:13	0°✕		evening max el	53 Oct 22 j 00:14	14°♁28'21	47°21'45
	51 Apr 21 j 01:11	0°♁			53 Nov 07 j 09:31	0°♁	
	51 May 15 j 21:15	0°♁		greatest brilliancy	53 Nov 29 j 12:10	15°♁11'04	-4.7m
	51 Jun 09 j 13:28	0°♁		asc. node	53 Dec 07 j 11:16	17°♁42'43	
asc. node	51 Jun 22 j 16:18	16°♁02'23		retrograde	53 Dec 11 j 23:16	18°♁07'15	
morning set	51 Jun 29 j 05:25	24°♁04'22		evening set	53 Dec 27 j 05:13	13°♁27'40	
	51 Jul 04 j 01:09	0°♁		min. Earth dist.	53 Dec 31 j 17:06	10°♁46'47	0.26899 AU
	51 Jul 28 j 08:07	0°♁		inferior conj	54 Jan 01 j 16:05	10°♁11'13	5°54'17
max. Earth dist.	51 Jul 31 j 16:53	4°♁10'29	1.72674 AU	minimum elong	54 Jan 01 j 05:59	10°♁26'51	5°51'54
				morning rise	54 Jan 06 j 07:15	7°♁23'41	
superior conj	51 Aug 04 j 15:25	9°♁03'54	1°19'02	direct	54 Jan 22 j 01:49	2°♁28'02	
minimum elong	51 Aug 04 j 09:24	8°♁45'14	1°18'57	greatest brilliancy	54 Feb 01 j 19:44	4°♁37'14	-4.6m
	51 Aug 21 j 11:12	0°♁			54 Mar 08 j 15:47	0°≈	
evening rise	51 Sep 10 j 18:38	25°♁20'45		morning max el	54 Mar 12 j 16:39	3°≈53'07	46°18'31
	51 Sep 14 j 12:04	0°♁		desc. node	54 Mar 29 j 01:06	20°≈35'55	
	51 Oct 08 j 12:25	0°♁			54 Apr 06 j 19:10	0°✕	
desc. node	51 Oct 12 j 06:10	4°♁40'05			54 May 03 j 14:33	0°♁	
	51 Nov 01 j 13:32	0°♁			54 May 29 j 11:15	0°♁	
	51 Nov 25 j 16:38	0°♁			54 Jun 23 j 18:24	0°♁	
	51 Dec 20 j 00:08	0°≈			54 Jul 18 j 14:47	0°♁	
	52 Jan 13 j 17:13	0°✕		asc. node	54 Jul 20 j 04:06	1°♁53'39	
asc. node	52 Feb 02 j 08:56	23°♁13'03			54 Aug 12 j 01:43	0°♁	
	52 Feb 08 j 06:08	0°♁			54 Sep 05 j 05:08	0°♁	
	52 Mar 06 j 14:20	0°♁		morning set	54 Sep 06 j 07:34	1°♁22'31	
evening max el	52 Mar 16 j 02:37	9°♁34'17	45°39'50		54 Sep 29 j 03:45	0°♁	
	52 Apr 09 j 00:23	0°♁		max. Earth dist.	54 Oct 13 j 17:44	18°♁19'50	1.71221 AU
greatest brilliancy	52 Apr 19 j 08:46	6°♁08'31	-4.5m				
retrograde	52 May 03 j 22:43	9°♁52'12		superior conj	54 Oct 14 j 21:06	19°♁45'54	0°54'32
evening set	52 May 19 j 00:57	5°♁29'27		minimum elong	54 Oct 15 j 07:43	20°♁19'19	0°54'07
desc. node	52 May 23 j 22:43	2°♁35'46			54 Oct 23 j 00:18	0°♁	
inferior conj	52 May 25 j 10:45	1°♁39'29	0°-21'-4	desc. node	54 Nov 08 j 18:02	21°♁03'29	
minimum elong	52 May 25 j 09:58	1°♁40'42	0°20'52		54 Nov 15 j 20:41	0°♁	
min. Earth dist.	52 May 25 j 15:18	1°♁32'21	0.28987 AU	evening rise	54 Nov 25 j 03:09	11°♁38'59	
	52 May 28 j 02:39	30°♁			54 Dec 09 j 18:05	0°♁	
morning rise	52 May 31 j 18:45	27°♁50'43			55 Jan 02 j 17:40	0°≈	
direct	52 Jun 16 j 02:28	23°♁20'29			55 Jan 26 j 21:27	0°✕	
greatest brilliancy	52 Jun 30 j 00:47	26°♁41'44	-4.5m		55 Feb 20 j 08:43	0°♁	
	52 Jul 06 j 07:01	0°♁		asc. node	55 Mar 01 j 20:58	11°♁30'51	
morning max el	52 Aug 04 j 02:40	23°♁23'23	45°58'37		55 Mar 17 j 08:01	0°♁	
	52 Aug 10 j 19:11	0°♁			55 Apr 12 j 02:41	0°♁	
	52 Sep 07 j 14:40	0°♁			55 May 09 j 09:04	0°♁	
asc. node	52 Sep 14 j 01:54	7°♁23'51		evening max el	55 May 26 j 20:00	17°♁35'33	45°20'54
	52 Oct 03 j 07:13	0°♁			55 Jun 09 j 17:12	0°♁	
	52 Oct 27 j 23:48	0°♁		desc. node	55 Jun 21 j 10:33	8°♁43'08	
	52 Nov 21 j 04:51	0°♁		greatest brilliancy	55 Jul 02 j 00:25	14°♁24'24	-4.5m
	52 Dec 15 j 05:30	0°♁		retrograde	55 Jul 14 j 09:44	17°♁05'20	
desc. node	53 Jan 03 j 15:29	24°♁16'12		evening set	55 Jul 31 j 13:20	11°♁34'35	
	53 Jan 08 j 05:32	0°♁		inferior conj	55 Aug 04 j 15:31	9°♁06'08	-8°-8'-18

minimum elong	55 Aug 04 j 08:32	9°♁16'54	8°07'35	minimum elong	57 Dec 30 j 17:12	8°♁07'05	0°54'16
min. Earth dist.	55 Aug 05 j 00:06	8°♁52'54	0.28425 AU	max. Earth dist.	58 Jan 03 j 19:59	13°♁16'52	1.71353 AU
morning rise	55 Aug 08 j 03:33	6°♁58'09			58 Jan 17 j 04:15	0°♁	
direct	55 Aug 26 j 02:21	0°♁57'02		evening rise	58 Feb 10 j 02:51	29°♁52'18	
greatest brilliancy	55 Sep 09 j 12:34	4°♁39'56	-4.6m		58 Feb 10 j 05:19	0°♁	
	55 Oct 12 j 00:03	0°♁			58 Mar 06 j 10:28	0°♁	
asc. node	55 Oct 12 j 13:39	0°♁33'32		asc. node	58 Mar 29 j 08:56	28°♁09'29	
morning max el	55 Oct 15 j 10:25	3°♁25'09	46°39'53		58 Mar 30 j 21:09	0°♁	
	55 Nov 09 j 00:59	0°♁			58 Apr 24 j 14:52	0°♁	
	55 Dec 04 j 16:58	0°♁			58 May 19 j 17:47	0°♁	
	55 Dec 29 j 12:45	0°♁			58 Jun 14 j 10:18	0°♁	
	56 Jan 23 j 01:06	0°♁			58 Jul 11 j 03:03	0°♁	
desc. node	56 Feb 01 j 03:27	11°♁10'16		desc. node	58 Jul 18 j 22:27	8°♁25'28	
	56 Feb 16 j 11:13	0°♁		evening max el	58 Aug 07 j 09:10	28°♁16'22	46°17'01
	56 Mar 11 j 21:10	0°♁			58 Aug 09 j 04:18	0°♁	
	56 Apr 05 j 07:42	0°♁		greatest brilliancy	58 Sep 15 j 13:59	27°♁12'51	-4.6m
morning set	56 Apr 19 j 13:14	17°♁27'17		retrograde	58 Sep 25 j 21:51	29°♁10'13	
	56 Apr 29 j 18:44	0°♁		evening set	58 Oct 11 j 18:49	24°♁21'32	
	56 May 24 j 05:34	0°♁		inferior conj	58 Oct 16 j 14:06	21°♁31'21	-5°-36'-11
asc. node	56 May 24 j 06:32	0°♁02'56		minimum elong	58 Oct 17 j 00:28	21°♁15'35	5°33'37
max. Earth dist.	56 May 25 j 02:53	1°♁05'24	1.73651 AU	min. Earth dist.	58 Oct 17 j 06:24	21°♁06'35	0.26729 AU
				morning rise	58 Oct 22 j 05:36	18°♁12'10	
superior conj	56 May 26 j 03:36	2°♁21'18	0°04'29	direct	58 Nov 06 j 03:07	13°♁48'39	
minimum elong	56 May 26 j 02:42	2°♁18'30	0°04'26	asc. node	58 Nov 09 j 01:23	13°♁58'54	
behind sun begin	56 May 25 j 05:04	1°♁12'05		greatest brilliancy	58 Nov 19 j 05:49	16°♁59'25	-4.7m
behind sun end	56 May 27 j 00:20	3°♁24'57			58 Dec 08 j 12:00	0°♁	
	56 Jun 17 j 15:21	0°♁		morning max el	58 Dec 26 j 19:51	17°♁13'13	46°54'39
evening rise	56 Jun 30 j 23:06	16°♁24'18			59 Jan 07 j 23:42	0°♁	
	56 Jul 11 j 23:47	0°♁			59 Feb 03 j 17:23	0°♁	
	56 Aug 05 j 07:37	0°♁		desc. node	59 Feb 28 j 15:25	29°♁08'27	
	56 Aug 29 j 16:12	0°♁			59 Mar 01 j 08:51	0°♁	
desc. node	56 Sep 12 j 20:20	17°♁24'30			59 Mar 26 j 13:32	0°♁	
	56 Sep 23 j 03:03	0°♁			59 Apr 20 j 12:49	0°♁	
	56 Oct 17 j 17:55	0°♁			59 May 15 j 08:25	0°♁	
	56 Nov 11 j 16:44	0°♁			59 Jun 09 j 00:22	0°♁	
	56 Dec 07 j 10:04	0°♁		asc. node	59 Jun 21 j 18:21	15°♁35'27	
evening max el	57 Jan 01 j 18:17	27°♁28'25	46°54'44	morning set	59 Jun 26 j 23:23	21°♁58'55	
asc. node	57 Jan 03 j 23:09	29°♁41'41			59 Jul 03 j 11:56	0°♁	
	57 Jan 04 j 06:29	0°♁			59 Jul 27 j 18:54	0°♁	
greatest brilliancy	57 Feb 07 j 00:45	26°♁49'03	-4.6m	max. Earth dist.	59 Jul 29 j 12:01	2°♁07'31	1.72726 AU
	57 Feb 16 j 05:03	0°♁					
retrograde	57 Feb 21 j 06:52	0°♁30'12		superior conj	59 Aug 02 j 08:54	6°♁55'40	1°17'50
	57 Feb 26 j 05:40	30°♁		minimum elong	59 Aug 02 j 02:25	6°♁35'32	1°17'43
evening set	57 Mar 10 j 20:13	24°♁30'12			59 Aug 20 j 22:03	0°♁	
inferior conj	57 Mar 14 j 11:58	22°♁12'27	7°51'41	evening rise	59 Sep 08 j 09:28	23°♁03'05	
minimum elong	57 Mar 14 j 19:06	22°♁01'07	7°50'52		59 Sep 13 j 23:03	0°♁	
min. Earth dist.	57 Mar 14 j 06:45	22°♁20'43	0.28603 AU		59 Oct 07 j 23:35	0°♁	
morning rise	57 Mar 18 j 18:17	19°♁33'35		desc. node	59 Oct 11 j 08:12	4°♁11'29	
direct	57 Apr 04 j 18:34	14°♁01'02			59 Nov 01 j 00:58	0°♁	
greatest brilliancy	57 Apr 16 j 11:35	16°♁29'23	-4.5m		59 Nov 25 j 04:24	0°♁	
desc. node	57 Apr 25 j 12:52	21°♁08'24			59 Dec 19 j 12:23	0°♁	
	57 May 07 j 20:51	0°♁			60 Jan 13 j 06:17	0°♁	
morning max el	57 May 23 j 14:39	13°♁59'02	45°46'20	asc. node	60 Feb 01 j 11:05	22°♁38'01	
	57 Jun 08 j 14:31	0°♁			60 Feb 07 j 20:52	0°♁	
	57 Jul 06 j 03:27	0°♁			60 Mar 06 j 09:30	0°♁	
	57 Aug 01 j 02:58	0°♁		evening max el	60 Mar 13 j 17:47	7°♁21'00	45°41'54
asc. node	57 Aug 16 j 16:06	18°♁30'29			60 Apr 09 j 22:04	0°♁	
	57 Aug 26 j 04:25	0°♁		greatest brilliancy	60 Apr 16 j 23:02	3°♁57'11	-4.5m
	57 Sep 19 j 15:07	0°♁		retrograde	60 May 01 j 15:32	7°♁44'07	
	57 Oct 13 j 16:40	0°♁		evening set	60 May 16 j 18:04	3°♁19'49	
	57 Nov 06 j 13:42	0°♁			60 May 22 j 08:33	30°♁	
morning set	57 Nov 19 j 06:32	15°♁59'41		inferior conj	60 May 23 j 03:12	29°♁30'49	0°-1'-28
	57 Nov 30 j 09:30	0°♁		minimum elong	60 May 23 j 03:09	29°♁30'55	0°01'27
desc. node	57 Dec 06 j 05:45	7°♁21'14		transit begin	60 May 22 j 23:06	29°♁37'14	
	57 Dec 24 j 05:59	0°♁		transit end	60 May 23 j 07:12	29°♁24'35	
				min. Earth dist.	60 May 23 j 07:53	29°♁23'31	0.28993 AU
superior conj	57 Dec 31 j 04:50	8°♁43'36	0°-54'-42	desc. node	60 May 23 j 00:40	29°♁34'48	

morning rise	60 May 29 j 12:02	25°♄41'07		63 Jan 02 j 05:04	0°≈	
direct	60 Jun 13 j 18:44	21°♄11'31		63 Jan 26 j 09:02	0°✠	
greatest brilliancy	60 Jun 27 j 17:16	24°♄33'17	-4.5m	63 Feb 19 j 20:39	0°♃	
	60 Jul 07 j 09:05	0°♁		asc. node	63 Feb 28 j 23:02	11°♃00'28
morning max el	60 Aug 01 j 19:16	21°♁14'05	45°57'31		63 Mar 16 j 20:42	0°♄
	60 Aug 10 j 14:53	0°♁			63 Apr 11 j 16:54	0°♁
	60 Sep 07 j 05:38	0°♁			63 May 09 j 02:59	0°♁
asc. node	60 Sep 13 j 03:57	6°♁48'13		evening max el	63 May 24 j 11:46	15°♁24'07 45°20'06
	60 Oct 02 j 20:22	0°♁			63 Jun 10 j 02:14	0°♁
	60 Oct 27 j 12:04	0°♁		desc. node	63 Jun 20 j 12:45	7°♁25'43
	60 Nov 20 j 16:38	0°♁		greatest brilliancy	63 Jun 29 j 13:38	12°♁09'16 -4.5m
	60 Dec 14 j 16:59	0°♁		retrograde	63 Jul 12 j 00:02	14°♁51'19
desc. node	61 Jan 02 j 17:39	23°♁47'36		evening set	63 Jul 29 j 00:59	9°♁25'30
	61 Jan 07 j 16:49	0°♁		inferior conj	63 Aug 02 j 06:38	6°♁51'43 -8°00'5
	61 Jan 31 j 17:47	0°≈		minimum elong	63 Aug 01 j 23:05	7°♁03'23 7°59'13
morning set	61 Feb 04 j 13:06	4°≈44'25		min. Earth dist.	63 Aug 02 j 14:38	6°♁39'22 0.28465 AU
	61 Feb 24 j 20:42	0°✠		morning rise	63 Aug 05 j 20:59	4°♁39'59
					63 Aug 15 j 16:13	30°♁
superior conj	61 Mar 15 j 23:52	23°♁42'13	-1°-17'-23	direct	63 Aug 23 j 18:03	28°♁42'10
minimum elong	61 Mar 16 j 07:38	24°♁06'15	1°17'14		63 Sep 01 j 01:58	0°♁
max. Earth dist.	61 Mar 18 j 23:54	27°♁24'50	1.72884 AU	greatest brilliancy	63 Sep 07 j 02:54	2°♁22'45 -4.6m
	61 Mar 21 j 02:08	0°♃		asc. node	63 Oct 11 j 15:42	29°♁41'16
	61 Apr 14 j 10:22	0°♄			63 Oct 11 j 23:12	0°♁
evening rise	61 Apr 22 j 20:54	10°♄21'59		morning max el	63 Oct 13 j 00:16	1°♁02'55 46°38'23
asc. node	61 Apr 25 j 20:43	14°♄02'15			63 Nov 08 j 17:29	0°♁
	61 May 08 j 21:20	0°♁			63 Dec 04 j 07:08	0°♁
	61 Jun 02 j 10:53	0°♁			63 Dec 29 j 01:45	0°♁
	61 Jun 27 j 03:28	0°♁			64 Jan 22 j 13:22	0°♁
desc. node	61 Jul 22 j 00:47	0°♁		desc. node	64 Jan 31 j 05:33	10°♁39'37
	61 Aug 15 j 10:23	29°♁02'17			64 Feb 15 j 22:57	0°≈
	61 Aug 16 j 05:58	0°♁			64 Mar 11 j 08:32	0°✠
	61 Sep 11 j 00:50	0°♁			64 Apr 04 j 18:48	0°♃
	61 Oct 08 j 00:15	0°♁		morning set	64 Apr 17 j 06:51	15°♃20'30
evening max el	61 Oct 19 j 15:22	12°♁07'02	47°21'03		64 Apr 29 j 05:40	0°♄
	61 Nov 07 j 19:58	0°♁		max. Earth dist.	64 May 23 j 00:10	29°♄10'01 1.73655 AU
greatest brilliancy	61 Nov 27 j 02:38	12°♁45'00	-4.7m	asc. node	64 May 23 j 08:37	29°♄35'59
asc. node	61 Dec 06 j 13:19	15°♁29'16			64 May 23 j 16:27	0°♁
retrograde	61 Dec 09 j 13:33	15°♁40'20				
evening set	61 Dec 24 j 15:40	11°♁05'13		superior conj	64 May 23 j 22:11	0°♁17'36 0°01'22
min. Earth dist.	61 Dec 29 j 06:22	8°♁20'30	0.26839 AU	minimum elong	64 May 23 j 21:54	0°♁16'45 0°01'20
inferior conj	61 Dec 30 j 05:14	7°♁45'11	5°36'52	behind sun begin	64 May 22 j 23:37	29°♄08'20
minimum elong	61 Dec 29 j 19:16	8°♁00'34	5°34'25	behind sun end	64 May 24 j 20:11	1°♁25'11
morning rise	62 Jan 03 j 23:27	4°♁53'47			64 Jun 17 j 02:15	0°♁
direct	62 Jan 19 j 15:01	0°♁03'01		evening rise	64 Jun 28 j 18:11	14°♁21'24
greatest brilliancy	62 Jan 30 j 08:17	2°♁12'17	-4.6m		64 Jul 11 j 10:52	0°♁
	62 Mar 08 j 16:13	0°≈			64 Aug 04 j 18:58	0°♁
morning max el	62 Mar 10 j 07:26	1°≈35'20	46°19'55		64 Aug 29 j 03:57	0°♁
desc. node	62 Mar 28 j 03:12	19°≈53'05		desc. node	64 Sep 11 j 22:19	16°♁53'43
	62 Apr 06 j 11:46	0°✠			64 Sep 22 j 15:20	0°♁
	62 May 03 j 04:25	0°♃			64 Oct 17 j 06:59	0°♁
	62 May 28 j 23:47	0°♄			64 Nov 11 j 07:01	0°♁
	62 Jun 23 j 06:11	0°♁			64 Dec 07 j 02:44	0°≈
	62 Jul 18 j 02:08	0°♁		evening max el	64 Dec 30 j 08:50	25°≈07'27 46°57'01
asc. node	62 Jul 19 j 06:18	1°♁25'49		asc. node	65 Jan 03 j 01:21	28°≈49'38
	62 Aug 11 j 12:50	0°♁			65 Jan 04 j 05:55	0°✠
morning set	62 Sep 03 j 22:40	29°♁05'19		greatest brilliancy	65 Feb 04 j 19:11	24°♁36'58 -4.6m
	62 Sep 04 j 16:11	0°♁		retrograde	65 Feb 18 j 22:38	28°♁15'40
	62 Sep 28 j 14:51	0°♁		evening set	65 Mar 08 j 14:23	22°♁12'51
max. Earth dist.	62 Oct 11 j 00:34	15°♁35'23	1.71252 AU	inferior conj	65 Mar 12 j 03:53	19°♁58'29 7°59'55
				minimum elong	65 Mar 12 j 10:30	19°♁47'58 7°59'12
superior conj	62 Oct 12 j 09:11	17°♁17'57	0°57'21	min. Earth dist.	65 Mar 11 j 22:05	20°♁07'43 0.28560 AU
minimum elong	62 Oct 12 j 19:53	17°♁51'34	0°56'59	morning rise	65 Mar 16 j 06:52	17°♁24'20
	62 Oct 22 j 11:29	0°♁		direct	65 Apr 02 j 09:25	11°♁47'51
desc. node	62 Nov 07 j 20:01	20°♁34'26		greatest brilliancy	65 Apr 14 j 00:42	14°♁13'56 -4.5m
	62 Nov 15 j 07:57	0°♁		desc. node	65 Apr 24 j 14:49	19°♁49'54
evening rise	62 Nov 22 j 12:52	9°♁03'17			65 May 08 j 04:27	0°♃
	62 Dec 09 j 05:24	0°♁		morning max el	65 May 21 j 05:10	11°♃44'49 45°46'49

	65 Jun 08 j 08:19	0°♄		68 Feb 07 j 12:00	0°♃	
	65 Jul 05 j 17:42	0°♁		68 Mar 06 j 05:25	0°♄	
	65 Jul 31 j 15:42	0°♁	evening max el	68 Mar 11 j 09:51	5°♄09'26	45°44'02
asc. node	65 Aug 15 j 18:07	17°♁59'43		68 Apr 11 j 04:25	0°♁	
	65 Aug 25 j 16:25	0°♁	greatest brilliancy	68 Apr 14 j 14:24	1°♁47'03	-4.5m
	65 Sep 19 j 02:44	0°♁	retrograde	68 Apr 29 j 08:43	5°♁35'47	
	65 Oct 13 j 04:06	0°♁	evening set	68 May 14 j 11:27	1°♁10'02	
	65 Nov 06 j 01:02	0°♁		68 May 16 j 12:38	30°♄	
morning set	65 Nov 16 j 16:55	13°♁25'36	inferior conj	68 May 20 j 19:43	27°♄22'00	0°18'12
	65 Nov 29 j 20:47	0°♁	minimum elong	68 May 20 j 20:23	27°♄20'58	0°18'00
desc. node	65 Dec 05 j 07:52	6°♁52'24	min. Earth dist.	68 May 21 j 00:13	27°♄14'57	0.28994 AU
	65 Dec 23 j 17:15	0°♁	desc. node	68 May 22 j 02:50	26°♄33'23	
			morning rise	68 May 27 j 05:13	23°♄31'40	
superior conj	65 Dec 28 j 14:24	6°♁07'44	0°-51'-33	direct	68 Jun 11 j 11:27	19°♄02'41
minimum elong	65 Dec 28 j 03:00	5°♁31'56	0°51'07	greatest brilliancy	68 Jun 25 j 08:49	22°♄23'50
max. Earth dist.	66 Jan 01 j 00:00	10°♁23'40	1.71315 AU		68 Jul 08 j 04:08	0°♁
	66 Jan 16 j 15:30	0°♁		morning max el	68 Jul 30 j 12:14	19°♁05'59
evening rise	66 Feb 07 j 14:34	27°♁24'29			68 Aug 10 j 09:57	0°♁
	66 Feb 09 j 16:34	0°♁			68 Sep 06 j 20:22	0°♁
	66 Mar 05 j 21:44	0°♁	asc. node		68 Sep 12 j 05:59	6°♁12'53
asc. node	66 Mar 28 j 10:56	27°♁40'49			68 Oct 02 j 09:26	0°♁
	66 Mar 30 j 08:34	0°♁			68 Oct 27 j 00:20	0°♁
	66 Apr 24 j 02:39	0°♁			68 Nov 20 j 04:30	0°♁
	66 May 19 j 06:18	0°♁			68 Dec 14 j 04:36	0°♁
	66 Jun 14 j 00:14	0°♁	desc. node		69 Jan 01 j 19:47	23°♁18'32
	66 Jul 10 j 19:56	0°♁			69 Jan 07 j 04:13	0°♁
desc. node	66 Jul 18 j 00:32	7°♁42'35			69 Jan 31 j 04:59	0°♁
evening max el	66 Aug 04 j 21:24	25°♁52'13	46°14'16	morning set	69 Feb 02 j 00:24	2°♁15'14
	66 Aug 09 j 05:39	0°♁			69 Feb 24 j 07:45	0°♁
greatest brilliancy	66 Sep 13 j 02:15	24°♁46'15	-4.6m			
retrograde	66 Sep 23 j 09:46	26°♁43'35		superior conj	69 Mar 13 j 14:29	21°♁25'00
evening set	66 Oct 09 j 10:19	21°♁49'47		minimum elong	69 Mar 13 j 21:45	21°♁47'28
inferior conj	66 Oct 14 j 02:33	19°♁04'11	-5°-54'-19	max. Earth dist.	69 Mar 16 j 17:13	25°♁16'07
minimum elong	66 Oct 14 j 13:07	18°♁48'09	5°51'48		69 Mar 20 j 13:05	0°♁
min. Earth dist.	66 Oct 14 j 19:56	18°♁37'49	0.26785 AU		69 Apr 13 j 21:19	0°♁
morning rise	66 Oct 19 j 15:21	15°♁48'50		evening rise	69 Apr 20 j 14:00	8°♁13'33
direct	66 Nov 03 j 16:00	11°♁20'15		asc. node	69 Apr 24 j 22:51	13°♁35'12
asc. node	66 Nov 08 j 03:28	11°♁44'06			69 May 08 j 08:22	0°♁
greatest brilliancy	66 Nov 16 j 22:03	14°♁35'00	-4.7m		69 Jun 01 j 22:07	0°♁
	66 Dec 08 j 21:53	0°♁			69 Jun 26 j 15:06	0°♁
morning max el	66 Dec 24 j 09:44	14°♁47'36	46°55'08		69 Jul 21 j 13:04	0°♁
	67 Jan 07 j 18:56	0°♁		desc. node	69 Aug 14 j 12:23	28°♁28'46
	67 Feb 03 j 08:43	0°♁			69 Aug 15 j 19:23	0°♁
desc. node	67 Feb 27 j 17:24	28°♁34'06			69 Sep 10 j 16:17	0°♁
	67 Feb 28 j 22:23	0°♁			69 Oct 07 j 20:08	0°♁
	67 Mar 26 j 02:01	0°♁	evening max el		69 Oct 17 j 06:44	9°♁46'22
	67 Apr 20 j 00:36	0°♁			69 Nov 08 j 10:05	0°♁
	67 May 14 j 19:45	0°♁		greatest brilliancy	69 Nov 24 j 17:21	10°♁18'24
	67 Jun 08 j 11:24	0°♁		asc. node	69 Dec 05 j 15:30	13°♁08'59
asc. node	67 Jun 20 j 20:33	15°♁08'39		retrograde	69 Dec 07 j 03:13	13°♁11'42
morning set	67 Jun 24 j 17:44	19°♁54'23		evening set	69 Dec 22 j 01:54	8°♁41'13
	67 Jul 02 j 22:50	0°♁		min. Earth dist.	69 Dec 26 j 19:31	5°♁52'19
	67 Jul 27 j 05:48	0°♁		inferior conj	69 Dec 27 j 17:59	5°♁17'37
max. Earth dist.	67 Jul 27 j 08:45	0°♁09'09	1.72780 AU	minimum elong	69 Dec 27 j 08:15	5°♁32'39
				morning rise	70 Jan 01 j 15:15	2°♁22'11
superior conj	67 Jul 31 j 02:40	4°♁48'00	1°16'32		70 Jan 06 j 08:30	30°♁
minimum elong	67 Jul 30 j 19:45	4°♁26'32	1°16'23	direct	70 Jan 17 j 03:59	27°♁36'35
	67 Aug 20 j 09:03	0°♁		greatest brilliancy	70 Jan 27 j 20:38	29°♁45'39
evening rise	67 Sep 06 j 00:33	20°♁45'41			70 Jan 28 j 11:16	0°♁
	67 Sep 13 j 10:13	0°♁		morning max el	70 Mar 07 j 21:11	29°♁14'28
	67 Oct 07 j 11:00	0°♁			70 Mar 08 j 15:44	0°♁
desc. node	67 Oct 10 j 10:13	3°♁42'06		desc. node	70 Mar 27 j 05:13	19°♁10'21
	67 Oct 31 j 12:39	0°♁			70 Apr 06 j 04:08	0°♁
	67 Nov 24 j 16:26	0°♁			70 May 02 j 18:09	0°♁
	67 Dec 19 j 00:53	0°♁			70 May 28 j 12:12	0°♁
	68 Jan 12 j 19:38	0°♁			70 Jun 22 j 17:51	0°♁
asc. node	68 Jan 31 j 13:05	22°♁01'48			70 Jul 17 j 13:20	0°♁

asc. node	70 Jul 18 j 08:17	0°♁57'43		asc. node	73 Jan 02 j 03:16	27°♁57'07	
	70 Aug 10 j 23:48	0°♁			73 Jan 04 j 05:56	0°♁	
morning set	70 Sep 01 j 14:12	26°♁50'03		greatest brilliancy	73 Feb 02 j 12:16	22°♁23'42	-4.6m
	70 Sep 04 j 03:04	0°♁		retrograde	73 Feb 16 j 14:10	26°♁01'39	
	70 Sep 28 j 01:45	0°♁		evening set	73 Mar 06 j 08:11	19°♁55'56	
max. Earth dist.	70 Oct 08 j 06:42	12°♁49'31	1.71286 AU	min. Earth dist.	73 Mar 09 j 13:22	17°♁54'50	0.28524 AU
				inferior conj	73 Mar 09 j 19:41	17°♁44'48	8°07'18
superior conj	70 Oct 09 j 21:55	14°♁52'44	1°00'02	minimum elong	73 Mar 10 j 01:43	17°♁35'12	8°06'43
minimum elong	70 Oct 10 j 08:34	15°♁26'15	0°59'40	morning rise	73 Mar 13 j 19:27	15°♁15'23	
	70 Oct 21 j 22:27	0°♁		direct	73 Mar 31 j 00:01	9°♁34'40	
desc. node	70 Nov 06 j 22:11	20°♁06'37		greatest brilliancy	73 Apr 11 j 15:01	12°♁00'06	-4.5m
	70 Nov 14 j 19:01	0°♁		desc. node	73 Apr 23 j 16:59	18°♁34'29	
evening rise	70 Nov 19 j 22:48	6°♁28'52			73 May 08 j 09:38	0°♁	
	70 Dec 08 j 16:35	0°♁		morning max el	73 May 18 j 19:56	9°♁31'38	45°47'22
	71 Jan 01 j 16:23	0°♁			73 Jun 08 j 01:31	0°♁	
	71 Jan 25 j 20:34	0°♁			73 Jul 05 j 07:33	0°♁	
	71 Feb 19 j 08:35	0°♁			73 Jul 31 j 04:05	0°♁	
asc. node	71 Feb 28 j 01:02	10°♁29'57		asc. node	73 Aug 14 j 20:08	17°♁29'58	
	71 Mar 16 j 09:23	0°♁			73 Aug 25 j 04:04	0°♁	
	71 Apr 11 j 07:11	0°♁			73 Sep 18 j 14:02	0°♁	
	71 May 08 j 21:14	0°♁			73 Oct 12 j 15:12	0°♁	
evening max el	71 May 22 j 02:34	13°♁10'41	45°19'27		73 Nov 05 j 12:01	0°♁	
	71 Jun 10 j 14:12	0°♁		morning set	73 Nov 14 j 03:41	10°♁53'50	
desc. node	71 Jun 19 j 14:48	6°♁06'00			73 Nov 29 j 07:42	0°♁	
greatest brilliancy	71 Jun 27 j 02:53	9°♁54'37	-4.5m	desc. node	73 Dec 04 j 09:58	6°♁24'44	
retrograde	71 Jul 09 j 14:05	12°♁38'03			73 Dec 23 j 04:07	0°♁	
evening set	71 Jul 26 j 12:33	7°♁17'03					
inferior conj	71 Jul 30 j 21:45	4°♁38'04	-7°-51'-9	superior conj	73 Dec 26 j 00:18	3°♁34'06	0°-48'-19
minimum elong	71 Jul 30 j 13:41	4°♁50'32	7°50'08	minimum elong	73 Dec 25 j 13:14	2°♁59'21	0°47'54
min. Earth dist.	71 Jul 31 j 05:29	4°♁26'05	0.28500 AU	max. Earth dist.	73 Dec 29 j 04:40	7°♁33'47	1.71276 AU
morning rise	71 Aug 03 j 14:34	2°♁22'25			74 Jan 16 j 02:20	0°♁	
	71 Aug 07 j 21:38	30°♁		evening rise	74 Feb 05 j 02:34	24°♁58'49	
direct	71 Aug 21 j 09:16	26°♁27'57			74 Feb 09 j 03:23	0°♁	
	71 Sep 04 j 11:47	0°♁			74 Mar 05 j 08:37	0°♁	
greatest brilliancy	71 Sep 04 j 18:07	0°♁07'30	-4.6m	asc. node	74 Mar 27 j 13:02	27°♁13'27	
morning max el	71 Oct 10 j 13:31	28°♁40'13	46°37'10		74 Mar 29 j 19:39	0°♁	
asc. node	71 Oct 10 j 17:45	28°♁50'55			74 Apr 23 j 14:10	0°♁	
	71 Oct 11 j 21:04	0°♁			74 May 18 j 18:37	0°♁	
	71 Nov 08 j 09:20	0°♁			74 Jun 13 j 14:02	0°♁	
	71 Dec 03 j 20:49	0°♁			74 Jul 10 j 12:51	0°♁	
	71 Dec 28 j 14:20	0°♁		desc. node	74 Jul 17 j 02:31	6°♁59'40	
	72 Jan 22 j 01:18	0°♁		evening max el	74 Aug 02 j 10:10	23°♁30'31	46°11'39
desc. node	72 Jan 30 j 07:31	10°♁09'22			74 Aug 09 j 08:01	0°♁	
	72 Feb 15 j 10:28	0°♁		greatest brilliancy	74 Sep 10 j 13:21	22°♁19'30	-4.6m
	72 Mar 10 j 19:43	0°♁		retrograde	74 Sep 20 j 22:07	24°♁17'50	
	72 Apr 04 j 05:44	0°♁		evening set	74 Oct 07 j 01:49	19°♁18'44	
morning set	72 Apr 14 j 23:52	13°♁12'14		inferior conj	74 Oct 11 j 14:53	16°♁37'41	-6°-11'-46
	72 Apr 28 j 16:25	0°♁		minimum elong	74 Oct 12 j 01:34	16°♁21'29	6°09'19
max. Earth dist.	72 May 20 j 20:05	27°♁11'09	1.73655 AU	min. Earth dist.	74 Oct 12 j 08:56	16°♁10'20	0.26841 AU
				morning rise	74 Oct 17 j 00:47	13°♁26'36	
superior conj	72 May 21 j 16:18	28°♁13'11	0°-1'-50	direct	74 Nov 01 j 05:20	8°♁52'40	
minimum elong	72 May 21 j 16:40	28°♁14'19	0°01'49	asc. node	74 Nov 07 j 05:38	9°♁35'26	
behind sun begin	72 May 20 j 18:23	27°♁05'56		greatest brilliancy	74 Nov 14 j 13:38	12°♁10'44	-4.7m
behind sun end	72 May 22 j 14:56	29°♁22'42			74 Dec 09 j 04:43	0°♁	
asc. node	72 May 22 j 10:45	29°♁09'50		morning max el	74 Dec 22 j 00:19	12°♁24'48	46°55'44
	72 May 23 j 03:06	0°♁			75 Jan 07 j 13:15	0°♁	
	72 Jun 16 j 12:57	0°♁			75 Feb 02 j 23:25	0°♁	
evening rise	72 Jun 26 j 13:03	12°♁18'36		desc. node	75 Feb 26 j 19:30	28°♁01'38	
	72 Jul 10 j 21:43	0°♁			75 Feb 28 j 11:21	0°♁	
	72 Aug 04 j 06:06	0°♁			75 Mar 25 j 14:00	0°♁	
	72 Aug 28 j 15:28	0°♁			75 Apr 19 j 11:57	0°♁	
desc. node	72 Sep 11 j 00:22	16°♁23'56			75 May 14 j 06:43	0°♁	
	72 Sep 22 j 03:22	0°♁			75 Jun 07 j 22:09	0°♁	
	72 Oct 16 j 19:45	0°♁		asc. node	75 Jun 19 j 22:30	14°♁41'57	
	72 Nov 10 j 21:00	0°♁		morning set	75 Jun 22 j 11:53	17°♁50'06	
	72 Dec 06 j 19:13	0°♁			75 Jul 02 j 09:29	0°♁	
evening max el	72 Dec 27 j 22:37	22°♁45'36	46°59'08	max. Earth dist.	75 Jul 25 j 04:19	28°♁08'07	1.72830 AU

	75 Jul 26 j 16:26	0°♁		minimum elong	77 Dec 24 j 21:18	3°♁04'56	4°56'46
					77 Dec 30 j 00:21	30°♁	
superior conj	75 Jul 28 j 20:10	2°♁40'22	1°15'06	morning rise	77 Dec 30 j 06:54	29°♁50'47	
minimum elong	75 Jul 28 j 12:51	2°♁17'42	1°14'56	direct	78 Jan 14 j 16:37	25°♁10'23	
	75 Aug 19 j 19:46	0°♁		greatest brilliancy	78 Jan 25 j 09:34	27°♁19'41	-4.6m
evening rise	75 Sep 03 j 15:29	18°♁28'41			78 Jan 31 j 03:37	0°♁	
	75 Sep 12 j 21:07	0°♁		morning max el	78 Mar 05 j 10:03	26°♁51'31	46°22'57
	75 Oct 06 j 22:09	0°♁			78 Mar 08 j 14:08	0°♁	
desc. node	75 Oct 09 j 12:22	3°♁13'56		desc. node	78 Mar 26 j 07:20	18°♁28'45	
	75 Oct 31 j 00:06	0°♁			78 Apr 05 j 20:05	0°♁	
	75 Nov 24 j 04:12	0°♁			78 May 02 j 07:37	0°♁	
	75 Dec 18 j 13:08	0°♁			78 May 28 j 00:24	0°♁	
	76 Jan 12 j 08:42	0°♁			78 Jun 22 j 05:20	0°♁	
asc. node	76 Jan 30 j 15:09	21°♁26'40			78 Jul 17 j 00:26	0°♁	
	76 Feb 07 j 02:53	0°♁		asc. node	78 Jul 17 j 10:19	0°♁30'09	
	76 Mar 06 j 01:26	0°♁			78 Aug 10 j 10:44	0°♁	
evening max el	76 Mar 09 j 02:21	3°♁00'11	45°46'12	morning set	78 Aug 30 j 05:39	24°♁34'33	
greatest brilliancy	76 Apr 12 j 06:45	29°♁39'30	-4.5m		78 Sep 03 j 13:58	0°♁	
	76 Apr 13 j 00:08	0°♁			78 Sep 27 j 12:42	0°♁	
retrograde	76 Apr 27 j 01:47	3°♁28'32		max. Earth dist.	78 Oct 05 j 11:53	10°♁00'28	1.71325 AU
	76 May 10 j 08:35	30°♁					
evening set	76 May 12 j 05:05	29°♁01'23		superior conj	78 Oct 07 j 10:33	12°♁27'06	1°02'36
inferior conj	76 May 18 j 12:17	25°♁14'18	0°37'46	minimum elong	78 Oct 07 j 21:06	13°♁00'15	1°02'15
minimum elong	76 May 18 j 13:40	25°♁12'08	0°37'22		78 Oct 21 j 09:30	0°♁	
min. Earth dist.	76 May 18 j 16:32	25°♁07'39	0.28998 AU	desc. node	78 Nov 06 j 00:13	19°♁38'10	
desc. node	76 May 21 j 04:53	23°♁33'54			78 Nov 14 j 06:09	0°♁	
morning rise	76 May 24 j 22:17	21°♁23'21		evening rise	78 Nov 17 j 08:29	3°♁53'28	
direct	76 Jun 09 j 04:33	16°♁55'03			78 Dec 08 j 03:48	0°♁	
greatest brilliancy	76 Jun 22 j 23:37	20°♁14'15	-4.5m		79 Jan 01 j 03:45	0°♁	
	76 Jul 08 j 17:59	0°♁			79 Jan 25 j 08:10	0°♁	
morning max el	76 Jul 28 j 04:48	16°♁57'35	45°55'15		79 Feb 18 j 20:34	0°♁	
	76 Aug 10 j 04:20	0°♁		asc. node	79 Feb 27 j 03:11	9°♁59'45	
	76 Sep 06 j 10:47	0°♁			79 Mar 15 j 22:09	0°♁	
asc. node	76 Sep 11 j 08:08	5°♁38'33			79 Apr 10 j 21:36	0°♁	
	76 Oct 01 j 22:15	0°♁			79 May 08 j 15:51	0°♁	
	76 Oct 26 j 12:22	0°♁		evening max el	79 May 19 j 16:49	10°♁56'18	45°19'00
	76 Nov 19 j 16:07	0°♁			79 Jun 11 j 05:56	0°♁	
	76 Dec 13 j 15:58	0°♁		desc. node	79 Jun 18 j 16:46	4°♁44'13	
desc. node	76 Dec 31 j 21:41	22°♁49'27		greatest brilliancy	79 Jun 24 j 15:25	7°♁39'55	-4.5m
	77 Jan 06 j 15:23	0°♁		retrograde	79 Jul 07 j 04:39	10°♁26'06	
morning set	77 Jan 30 j 11:42	29°♁46'43		evening set	79 Jul 24 j 00:22	5°♁09'30	
	77 Jan 30 j 15:58	0°♁		inferior conj	79 Jul 28 j 13:10	2°♁25'26	-7°-41'-27
	77 Feb 23 j 18:34	0°♁		minimum elong	79 Jul 28 j 04:38	2°♁38'38	7°40'18
				min. Earth dist.	79 Jul 28 j 20:37	2°♁13'54	0.28540 AU
superior conj	77 Mar 11 j 05:12	19°♁08'47	-1°-20'-4	morning rise	79 Aug 01 j 08:35	0°♁05'49	
minimum elong	77 Mar 11 j 11:55	19°♁29'33	1°19'59		79 Aug 01 j 12:31	30°♁	
max. Earth dist.	77 Mar 14 j 12:32	23°♁14'15	1.72782 AU	direct	79 Aug 19 j 00:34	24°♁14'31	
	77 Mar 19 j 23:47	0°♁		greatest brilliancy	79 Sep 02 j 10:46	27°♁54'39	-4.6m
	77 Apr 13 j 08:00	0°♁			79 Sep 06 j 09:45	0°♁	
evening rise	77 Apr 18 j 07:15	6°♁06'22		morning max el	79 Oct 08 j 03:18	26°♁18'37	46°35'42
asc. node	77 Apr 24 j 00:58	13°♁08'55		asc. node	79 Oct 09 j 19:53	28°♁01'12	
	77 May 07 j 19:09	0°♁			79 Oct 11 j 18:19	0°♁	
	77 Jun 01 j 09:09	0°♁			79 Nov 08 j 01:10	0°♁	
	77 Jun 26 j 02:35	0°♁			79 Dec 03 j 10:38	0°♁	
	77 Jul 21 j 01:20	0°♁			79 Dec 28 j 03:06	0°♁	
desc. node	77 Aug 13 j 14:26	27°♁55'24			80 Jan 21 j 13:25	0°♁	
	77 Aug 15 j 08:52	0°♁		desc. node	80 Jan 29 j 09:40	9°♁39'16	
	77 Sep 10 j 07:55	0°♁			80 Feb 14 j 22:07	0°♁	
	77 Oct 07 j 16:34	0°♁			80 Mar 10 j 07:02	0°♁	
evening max el	77 Oct 14 j 21:31	7°♁24'22	47°18'39		80 Apr 03 j 16:48	0°♁	
	77 Nov 09 j 04:46	0°♁		morning set	80 Apr 12 j 16:52	11°♁03'27	
greatest brilliancy	77 Nov 22 j 08:57	7°♁53'06	-4.7m		80 Apr 28 j 03:18	0°♁	
retrograde	77 Dec 04 j 16:22	10°♁43'05		max. Earth dist.	80 May 18 j 16:02	25°♁11'57	1.73652 AU
asc. node	77 Dec 04 j 17:27	10°♁43'05					
evening set	77 Dec 19 j 12:20	6°♁17'12		superior conj	80 May 19 j 10:41	26°♁09'11	0°-4'-57
min. Earth dist.	77 Dec 24 j 09:02	3°♁23'52	0.26727 AU	minimum elong	80 May 19 j 11:42	26°♁12'18	0°04'56
inferior conj	77 Dec 25 j 06:44	2°♁50'20	4°59'15	behind sun begin	80 May 18 j 14:12	25°♁06'17	

behind sun end	80 May 20 j 09:12	27°♄18'18			82 Dec 09 j 09:45	0°♌	
asc. node	80 May 21 j 12:44	28°♄42'46		morning max el	82 Dec 19 j 15:06	10°♌01'43	46°55'50
	80 May 22 j 13:54	0°♄			83 Jan 07 j 07:34	0°♄	
	80 Jun 15 j 23:46	0°♄			83 Feb 02 j 14:26	0°♄	
evening rise	80 Jun 24 j 08:21	10°♄16'53		desc. node	83 Feb 25 j 21:36	27°♄27'50	
	80 Jul 10 j 08:42	0°♄			83 Feb 28 j 00:45	0°♄	
	80 Aug 03 j 17:22	0°♄			83 Mar 25 j 02:25	0°♄	
	80 Aug 28 j 03:10	0°♄			83 Apr 18 j 23:43	0°♄	
desc. node	80 Sep 10 j 02:32	15°♄53'49			83 May 13 j 18:04	0°♄	
	80 Sep 21 j 15:39	0°♄			83 Jun 07 j 09:15	0°♄	
	80 Oct 16 j 08:53	0°♄		asc. node	83 Jun 19 j 00:34	14°♄14'30	
	80 Nov 10 j 11:31	0°♄		morning set	83 Jun 20 j 06:09	15°♄45'09	
	80 Dec 06 j 12:28	0°♄			83 Jul 01 j 20:29	0°♄	
evening max el	80 Dec 25 j 12:36	20°♄23'00	47°01'24	max. Earth dist.	83 Jul 22 j 22:39	26°♄02'16	1.72876 AU
asc. node	81 Jan 01 j 05:22	27°♄02'44			83 Jul 26 j 03:25	0°♄	
	81 Jan 04 j 07:43	0°♄					
greatest brilliancy	81 Jan 31 j 04:35	20°♄08'04	-4.6m	superior conj	83 Jul 26 j 14:02	0°♄32'53	1°13'34
retrograde	81 Feb 14 j 06:01	23°♄46'24		minimum elong	83 Jul 26 j 06:23	0°♄09'12	1°13'23
evening set	81 Mar 04 j 01:41	17°♄37'49			83 Aug 19 j 06:50	0°♄	
inferior conj	81 Mar 07 j 11:22	15°♄29'42	8°14'00	evening rise	83 Sep 01 j 06:59	16°♄12'33	
minimum elong	81 Mar 07 j 16:46	15°♄21'08	8°13'33		83 Sep 12 j 08:20	0°♄	
min. Earth dist.	81 Mar 07 j 04:13	15°♄41'03	0.28482 AU		83 Oct 06 j 09:35	0°♄	
morning rise	81 Mar 11 j 08:03	13°♄05'09		desc. node	83 Oct 08 j 14:23	2°♄44'35	
direct	81 Mar 28 j 14:36	7°♄20'05			83 Oct 30 j 11:49	0°♄	
greatest brilliancy	81 Apr 09 j 05:23	9°♄45'23	-4.5m		83 Nov 23 j 16:17	0°♄	
desc. node	81 Apr 22 j 19:04	17°♄20'16			83 Dec 18 j 01:45	0°♄	
	81 May 08 j 13:20	0°♄			84 Jan 11 j 22:17	0°♄	
morning max el	81 May 16 j 11:29	7°♄19'33	45°48'03	asc. node	84 Jan 29 j 17:17	20°♄50'01	
	81 Jun 07 j 18:36	0°♄			84 Feb 06 j 18:31	0°♄	
	81 Jul 04 j 21:29	0°♄			84 Mar 05 j 22:51	0°♄	
	81 Jul 30 j 16:36	0°♄		evening max el	84 Mar 06 j 18:46	0°♄48'54	45°48'19
asc. node	81 Aug 13 j 22:18	17°♄00'10		greatest brilliancy	84 Apr 10 j 00:19	27°♄31'39	-4.5m
	81 Aug 24 j 15:53	0°♄			84 Apr 16 j 06:54	0°♄	
	81 Sep 18 j 01:30	0°♄		retrograde	84 Apr 24 j 18:25	1°♄19'22	
	81 Oct 12 j 02:30	0°♄			84 May 02 j 21:46	30°♄	
	81 Nov 04 j 23:16	0°♄		evening set	84 May 09 j 22:48	26°♄50'56	
morning set	81 Nov 11 j 14:35	8°♄21'31		inferior conj	84 May 16 j 04:47	23°♄05'00	0°57'15
	81 Nov 28 j 18:58	0°♄		minimum elong	84 May 16 j 06:52	23°♄01'44	0°56'39
desc. node	81 Dec 03 j 11:56	5°♄55'31		min. Earth dist.	84 May 16 j 08:57	22°♄58'28	0.28995 AU
	81 Dec 22 j 15:23	0°♄		desc. node	84 May 20 j 06:51	20°♄33'54	
				morning rise	84 May 22 j 15:03	19°♄13'27	
superior conj	81 Dec 23 j 09:38	0°♄57'18	0°-44'-57	direct	84 Jun 06 j 21:26	14°♄45'59	
minimum elong	81 Dec 22 j 23:01	0°♄23'59	0°44'31	greatest brilliancy	84 Jun 20 j 13:30	18°♄02'08	-4.5m
max. Earth dist.	81 Dec 26 j 09:31	4°♄43'01	1.71246 AU		84 Jul 09 j 04:51	0°♄	
	82 Jan 15 j 13:35	0°♄		morning max el	84 Jul 25 j 20:25	14°♄45'50	45°54'10
evening rise	82 Feb 02 j 13:55	22°♄29'45			84 Aug 09 j 22:39	0°♄	
	82 Feb 08 j 14:37	0°♄			84 Sep 06 j 01:19	0°♄	
	82 Mar 04 j 19:54	0°♄		asc. node	84 Sep 10 j 10:09	5°♄03'11	
asc. node	82 Mar 26 j 15:08	26°♄44'52			84 Oct 01 j 11:15	0°♄	
	82 Mar 29 j 07:08	0°♄			84 Oct 26 j 00:37	0°♄	
	82 Apr 23 j 02:06	0°♄			84 Nov 19 j 03:57	0°♄	
	82 May 18 j 07:22	0°♄			84 Dec 13 j 03:33	0°♄	
	82 Jun 13 j 04:18	0°♄		desc. node	84 Dec 30 j 23:52	22°♄20'35	
	82 Jul 10 j 06:25	0°♄			85 Jan 06 j 02:45	0°♄	
desc. node	82 Jul 16 j 04:41	6°♄15'56		morning set	85 Jan 27 j 22:59	27°♄17'15	
evening max el	82 Jul 31 j 00:10	21°♄11'25	46°09'11		85 Jan 30 j 03:11	0°♄	
	82 Aug 09 j 12:12	0°♄			85 Feb 23 j 05:41	0°♄	
greatest brilliancy	82 Sep 08 j 00:14	19°♄53'01	-4.6m				
retrograde	82 Sep 18 j 11:00	21°♄52'34		superior conj	85 Mar 08 j 19:36	16°♄50'26	-1°-21'-14
evening set	82 Oct 04 j 17:40	16°♄48'27		minimum elong	85 Mar 09 j 01:41	17°♄09'16	1°21'10
inferior conj	82 Oct 09 j 03:33	14°♄11'42	-6°-28'-6	max. Earth dist.	85 Mar 12 j 07:29	21°♄10'05	1.72732 AU
minimum elong	82 Oct 09 j 14:16	13°♄55'28	6°25'47		85 Mar 19 j 10:51	0°♄	
min. Earth dist.	82 Oct 09 j 21:46	13°♄44'06	0.26900 AU		85 Apr 12 j 19:04	0°♄	
morning rise	82 Oct 14 j 10:25	11°♄04'59		evening rise	85 Apr 15 j 23:56	3°♄56'13	
direct	82 Oct 29 j 19:21	6°♄25'55		asc. node	85 Apr 23 j 02:56	12°♄40'58	
asc. node	82 Nov 06 j 07:35	7°♄32'02			85 May 07 j 06:18	0°♄	
greatest brilliancy	82 Nov 12 j 04:27	9°♄45'31	-4.7m		85 May 31 j 20:32	0°♄	

	85 Jun 25 j 14:26	0°♋			87 Dec 03 j 00:19	0°♌		
	85 Jul 20 j 13:57	0°♌			87 Dec 27 j 15:46	0°♍		
desc. node	85 Aug 12 j 16:34	27°♌21'17			88 Jan 21 j 01:26	0°♎		
	85 Aug 14 j 22:45	0°♍		desc. node	88 Jan 28 j 11:45	9°♎09'09		
	85 Sep 10 j 00:03	0°♌			88 Feb 14 j 09:41	0°♏		
	85 Oct 07 j 13:55	0°♍			88 Mar 09 j 18:15	0°♐		
evening max el	85 Oct 12 j 11:29	4°♍59'51	47°17'24		88 Apr 03 j 03:45	0°♑		
	85 Nov 10 j 06:07	0°♎		morning set	88 Apr 10 j 09:55	8°♑54'57		
greatest brilliancy	85 Nov 20 j 01:18	5°♎28'32	-4.7m		88 Apr 27 j 14:06	0°♒		
retrograde	85 Dec 02 j 05:11	8°♎14'41		max. Earth dist.	88 May 16 j 13:08	23°♒16'23	1.73655 AU	
asc. node	85 Dec 03 j 19:32	8°♎11'33						
evening set	85 Dec 16 j 23:10	3°♎52'58		superior conj	88 May 17 j 05:02	24°♒05'10	0°-8'-4	
min. Earth dist.	85 Dec 21 j 23:05	0°♎55'14	0.26673 AU	minimum elong	88 May 17 j 06:41	24°♒10'15	0°08'01	
inferior conj	85 Dec 22 j 19:41	0°♎23'24	4°39'39	behind sun begin	88 May 16 j 11:05	23°♒10'04		
minimum elong	85 Dec 22 j 10:37	0°♎37'25	4°37'10	behind sun end	88 May 18 j 02:17	25°♒10'26		
	85 Dec 23 j 10:49	30°♍		asc. node	88 May 20 j 14:51	28°♒16'16		
morning rise	85 Dec 27 j 22:39	27°♍19'48			88 May 22 j 00:39	0°♓		
direct	86 Jan 12 j 04:56	22°♍44'20			88 Jun 15 j 10:36	0°♈		
greatest brilliancy	86 Jan 22 j 23:31	24°♍54'50	-4.6m	evening rise	88 Jun 22 j 03:34	8°♈14'56		
	86 Feb 01 j 19:41	0°♎			88 Jul 09 j 19:42	0°♉		
morning max el	86 Mar 02 j 22:11	24°♎26'15	46°24'22		88 Aug 03 j 04:40	0°♊		
	86 Mar 08 j 11:48	0°♏		desc. node	88 Aug 27 j 14:52	0°♋		
desc. node	86 Mar 25 j 09:24	17°♏47'06			88 Sep 09 j 04:30	15°♋23'11		
	86 Apr 05 j 11:58	0°♐			88 Sep 21 j 03:56	0°♌		
	86 May 01 j 21:13	0°♑			88 Oct 15 j 22:01	0°♍		
	86 May 27 j 12:48	0°♒			88 Nov 10 j 02:04	0°♎		
	86 Jun 21 j 17:03	0°♓			88 Dec 06 j 05:55	0°♏		
	86 Jul 16 j 11:44	0°♈		evening max el	88 Dec 23 j 03:25	18°♏02'54	47°03'38	
asc. node	86 Jul 16 j 12:31	0°♈02'22		asc. node	88 Dec 31 j 07:33	26°♏07'55		
	86 Aug 09 j 21:50	0°♉			89 Jan 04 j 10:46	0°♐		
morning set	86 Aug 27 j 21:05	22°♉18'36		greatest brilliancy	89 Jan 28 j 20:39	17°♐52'26	-4.6m	
	86 Sep 03 j 01:01	0°♊		retrograde	89 Feb 11 j 22:27	21°♐31'27		
	86 Sep 26 j 23:47	0°♋		evening set	89 Mar 01 j 18:57	15°♐20'15		
max. Earth dist.	86 Oct 02 j 20:23	7°♋21'32	1.71367 AU	min. Earth dist.	89 Mar 04 j 18:40	13°♐28'03	0.28438 AU	
				inferior conj	89 Mar 05 j 03:01	13°♐14'49	8°19'59	
superior conj	86 Oct 04 j 23:23	10°♋01'44	1°05'01	minimum elong	89 Mar 05 j 07:46	13°♐07'18	8°19'39	
minimum elong	86 Oct 05 j 09:46	10°♋34'22	1°04'42	morning rise	89 Mar 08 j 20:47	10°♐54'58		
	86 Oct 20 j 20:39	0°♌		direct	89 Mar 26 j 05:31	5°♐05'53		
desc. node	86 Nov 05 j 02:13	19°♌09'14		greatest brilliancy	89 Apr 06 j 19:00	7°♐30'24	-4.5m	
	86 Nov 13 j 17:23	0°♍		desc. node	89 Apr 21 j 21:02	16°♐08'37		
evening rise	86 Nov 14 j 18:26	1°♍18'39			89 May 08 j 15:11	0°♑		
	86 Dec 07 j 15:08	0°♎		morning max el	89 May 14 j 03:38	5°♑09'35	45°48'43	
	86 Dec 31 j 15:11	0°♏			89 Jun 07 j 11:07	0°♒		
	87 Jan 24 j 19:49	0°♐			89 Jul 04 j 11:07	0°♓		
	87 Feb 18 j 08:38	0°♑		asc. node	89 Jul 30 j 04:57	0°♈		
asc. node	87 Feb 26 j 05:13	9°♑28'57			89 Aug 13 j 00:20	16°♈30'22		
	87 Mar 15 j 11:03	0°♒			89 Aug 24 j 03:35	0°♉		
	87 Apr 10 j 12:19	0°♓			89 Sep 17 j 12:51	0°♊		
	87 May 08 j 11:13	0°♈			89 Oct 11 j 13:41	0°♋		
evening max el	87 May 17 j 07:01	8°♈41'15	45°18'33		89 Nov 04 j 10:21	0°♌		
	87 Jun 12 j 03:41	0°♉		morning set	89 Nov 09 j 01:34	5°♌50'04		
desc. node	87 Jun 17 j 18:57	3°♉19'14			89 Nov 28 j 06:00	0°♍		
greatest brilliancy	87 Jun 22 j 03:01	5°♉23'17	-4.5m	desc. node	89 Dec 02 j 14:06	5°♍27'35		
retrograde	87 Jul 04 j 19:37	8°♉13'23						
evening set	87 Jul 21 j 12:01	3°♉00'59		superior conj	89 Dec 20 j 18:53	28°♍20'57	0°-41'-28	
inferior conj	87 Jul 26 j 04:25	0°♉11'58	-7°-31'-5	minimum elong	89 Dec 20 j 08:49	27°♍49'20	0°41'02	
minimum elong	87 Jul 25 j 19:28	0°♉25'47	7°29'46		89 Dec 22 j 02:25	0°♎		
min. Earth dist.	87 Jul 26 j 11:29	0°♉01'03	0.28578 AU	max. Earth dist.	89 Dec 23 j 17:41	2°♎03'22	1.71217 AU	
	87 Jul 26 j 12:09	30°♏			90 Jan 15 j 00:36	0°♏		
morning rise	87 Jul 30 j 02:35	27°♏48'23		evening rise	90 Jan 31 j 01:19	20°♏01'27		
direct	87 Aug 16 j 15:46	22°♏00'17			90 Feb 08 j 01:37	0°♐		
greatest brilliancy	87 Aug 31 j 03:57	25°♏42'14	-4.6m		90 Mar 04 j 06:59	0°♑		
	87 Sep 07 j 17:06	0°♐		asc. node	90 Mar 25 j 17:08	26°♑16'41		
morning max el	87 Oct 05 j 17:45	23°♐58'45	46°34'21		90 Mar 28 j 18:24	0°♒		
asc. node	87 Oct 08 j 21:55	27°♐11'55			90 Apr 22 j 13:47	0°♓		
	87 Oct 11 j 14:54	0°♑			90 May 17 j 19:53	0°♈		
	87 Nov 07 j 16:47	0°♒			90 Jun 12 j 18:26	0°♉		

	90 Jul 10 j 00:07	0°♄			93 Jan 29 j 14:08	0°≈	
desc. node	90 Jul 15 j 06:44	5°♄31'56			93 Feb 22 j 16:29	0°✕	
evening max el	90 Jul 28 j 14:25	18°♄53'28	46°06'26				
	90 Aug 09 j 18:07	0°♁		superior conj	93 Mar 06 j 09:47	14°✕32'22	-1°-22'-16
greatest brilliancy	90 Sep 05 j 11:48	17°♁27'32	-4.6m	minimum elong	93 Mar 06 j 15:10	14°✕49'02	1°22'13
retrograde	90 Sep 15 j 23:27	19°♁27'06		max. Earth dist.	93 Mar 10 j 01:40	19°✕04'32	1.72675 AU
evening set	90 Oct 02 j 09:25	14°♁18'20			93 Mar 18 j 21:35	0°♃	
inferior conj	90 Oct 06 j 16:03	11°♁45'49	-6°-43'-51		93 Apr 12 j 05:47	0°♄	
minimum elong	90 Oct 07 j 02:41	11°♁29'40	6°41'39	evening rise	93 Apr 13 j 16:33	1°♄46'47	
min. Earth dist.	90 Oct 07 j 10:28	11°♁17'53	0.26958 AU	asc. node	93 Apr 22 j 05:05	12°♄14'36	
morning rise	90 Oct 11 j 19:36	8°♁43'34			93 May 06 j 17:08	0°♂	
direct	90 Oct 27 j 09:10	3°♁59'23			93 May 31 j 07:37	0°♁	
asc. node	90 Nov 05 j 09:42	5°♁33'42			93 Jun 25 j 01:58	0°♁	
greatest brilliancy	90 Nov 09 j 18:17	7°♁19'15	-4.7m		93 Jul 20 j 02:15	0°♄	
	90 Dec 09 j 12:50	0°♂		desc. node	93 Aug 11 j 18:35	26°♄47'48	
morning max el	90 Dec 17 j 05:03	7°♂37'03	46°56'02		93 Aug 14 j 12:21	0°♁	
	91 Jan 07 j 01:10	0°♃			93 Sep 09 j 16:03	0°♂	
	91 Feb 02 j 04:55	0°♄			93 Oct 07 j 11:40	0°♃	
desc. node	91 Feb 24 j 23:36	26°♄54'59		evening max el	93 Oct 10 j 00:18	2°♃33'23	47°15'50
	91 Feb 27 j 13:42	0°≈			93 Nov 11 j 17:22	0°♄	
	91 Mar 24 j 14:26	0°✕		greatest brilliancy	93 Nov 17 j 17:12	3°♄03'23	-4.7m
	91 Apr 18 j 11:08	0°♃		retrograde	93 Nov 29 j 17:32	5°♄46'07	
	91 May 13 j 05:04	0°♄		asc. node	93 Dec 02 j 21:43	5°♄33'39	
	91 Jun 06 j 20:01	0°♂		evening set	93 Dec 14 j 09:51	1°♄27'53	
morning set	91 Jun 18 j 00:38	13°♂42'01			93 Dec 16 j 23:11	30°♃	
asc. node	91 Jun 18 j 02:46	13°♂48'32		min. Earth dist.	93 Dec 19 j 13:08	28°♃25'45	0.26626 AU
	91 Jul 01 j 07:07	0°♁		inferior conj	93 Dec 20 j 08:21	27°♃56'06	4°19'05
max. Earth dist.	91 Jul 20 j 16:24	23°♁55'47	1.72925 AU	minimum elong	93 Dec 19 j 23:44	28°♃09'25	4°16'40
				morning rise	93 Dec 25 j 14:06	24°♃48'38	
superior conj	91 Jul 24 j 08:05	28°♁27'08	1°11'57	direct	94 Jan 09 j 16:38	20°♃17'34	
minimum elong	91 Jul 24 j 00:09	28°♁02'36	1°11'45	greatest brilliancy	94 Jan 20 j 14:15	22°♃30'36	-4.6m
	91 Jul 25 j 14:04	0°♁			94 Feb 02 j 23:39	0°♄	
	91 Aug 18 j 17:35	0°♄		morning max el	94 Feb 28 j 10:28	22°♄01'28	46°26'00
evening rise	91 Aug 29 j 22:34	13°♄57'39			94 Mar 08 j 08:33	0°≈	
	91 Sep 11 j 19:17	0°♁		desc. node	94 Mar 24 j 11:27	17°≈06'32	
	91 Oct 05 j 20:48	0°♂			94 Apr 05 j 03:21	0°✕	
desc. node	91 Oct 07 j 16:26	2°♂15'54			94 May 01 j 10:24	0°♃	
	91 Oct 29 j 23:20	0°♃			94 May 27 j 00:51	0°♄	
	91 Nov 23 j 04:09	0°♄			94 Jun 21 j 04:25	0°♂	
	91 Dec 17 j 14:08	0°≈		asc. node	94 Jul 15 j 14:29	29°♂34'50	
	92 Jan 11 j 11:39	0°✕			94 Jul 15 j 22:44	0°♁	
asc. node	92 Jan 28 j 19:17	20°✕13'47			94 Aug 09 j 08:38	0°♁	
	92 Feb 06 j 10:00	0°♃		morning set	94 Aug 25 j 13:00	20°♁05'07	
evening max el	92 Mar 04 j 10:26	28°♃36'40	45°50'29		94 Sep 02 j 11:46	0°♄	
	92 Mar 05 j 20:37	0°♄			94 Sep 26 j 10:35	0°♁	
greatest brilliancy	92 Apr 07 j 18:07	25°♄25'09	-4.5m	max. Earth dist.	94 Sep 30 j 08:25	4°♁54'38	1.71409 AU
retrograde	92 Apr 22 j 10:43	29°♄11'29					
evening set	92 May 07 j 16:43	24°♄41'32		superior conj	94 Oct 02 j 12:44	7°♁38'57	1°07'18
inferior conj	92 May 13 j 21:23	20°♄57'05	1°16'44	minimum elong	94 Oct 02 j 22:52	8°♁10'49	1°07'00
minimum elong	92 May 14 j 00:09	20°♄52'43	1°15'56		94 Oct 20 j 07:31	0°♂	
min. Earth dist.	92 May 14 j 01:46	20°♄50'11	0.28992 AU	desc. node	94 Nov 04 j 04:25	18°♂41'45	
desc. node	92 May 19 j 09:04	17°♄36'38		evening rise	94 Nov 12 j 04:46	28°♂45'54	
morning rise	92 May 20 j 07:42	17°♄05'00			94 Nov 13 j 04:22	0°♃	
direct	92 Jun 04 j 13:54	12°♄38'15			94 Dec 07 j 02:15	0°≈	
greatest brilliancy	92 Jun 18 j 03:31	15°♄51'20	-4.5m		94 Dec 31 j 02:29	0°≈	
	92 Jul 09 j 12:17	0°♂			95 Jan 24 j 07:21	0°✕	
morning max el	92 Jul 23 j 11:21	12°♂33'40	45°53'13		95 Feb 17 j 20:36	0°♃	
	92 Aug 09 j 16:03	0°♁		asc. node	95 Feb 25 j 07:15	8°♃58'29	
	92 Sep 05 j 15:18	0°♁			95 Mar 14 j 23:53	0°♄	
asc. node	92 Sep 09 j 12:13	4°♁29'22			95 Apr 10 j 03:00	0°♂	
	92 Sep 30 j 23:50	0°♄			95 May 08 j 06:54	0°♁	
	92 Oct 25 j 12:32	0°♁		evening max el	95 May 14 j 22:01	6°♁28'59	45°18'22
	92 Nov 18 j 15:32	0°♂			95 Jun 13 j 09:03	0°♁	
	92 Dec 12 j 14:53	0°♃		desc. node	95 Jun 16 j 21:00	1°♁52'13	
desc. node	92 Dec 30 j 01:58	21°♃52'13		greatest brilliancy	95 Jun 19 j 14:07	3°♁07'11	-4.5m
	93 Jan 05 j 13:53	0°♄		retrograde	95 Jul 02 j 11:09	6°♁01'53	
morning set	93 Jan 25 j 09:46	24°♄46'57		evening set	95 Jul 18 j 23:55	0°♁53'30	

	95 Jul 20 j 12:42	30°☿		minimum elong	97 Dec 17 j 19:01	25°♁15'49	0°37'31
inferior conj	95 Jul 23 j 19:48	27°☿59'35	-7°-20'-6	max. Earth dist.	97 Dec 21 j 03:20	29°♁28'12	1.71184 AU
minimum elong	95 Jul 23 j 10:31	28°☿13'54	7°18'39		97 Dec 21 j 13:27	0°☾	
min. Earth dist.	95 Jul 24 j 02:11	27°☿49'44	0.28612 AU		98 Jan 14 j 11:36	0°♁	
morning rise	95 Jul 27 j 20:49	25°☿32'01		evening rise	98 Jan 28 j 12:54	17°♁33'37	
direct	95 Aug 14 j 07:33	19°☿47'13			98 Feb 07 j 12:38	0°♁	
greatest brilliancy	95 Aug 28 j 21:03	23°☿30'50	-4.6m		98 Mar 03 j 18:05	0°♁	
	95 Sep 08 j 15:12	0°♁		asc. node	98 Mar 24 j 19:17	25°♁48'43	
morning max el	95 Oct 03 j 09:23	21°♁42'56	46°33'05		98 Mar 28 j 05:45	0°♁	
asc. node	95 Oct 08 j 00:01	26°♁24'26			98 Apr 22 j 01:37	0°♁	
	95 Oct 11 j 10:33	0°♁			98 May 17 j 08:35	0°☿	
	95 Nov 07 j 07:53	0°♁			98 Jun 12 j 08:50	0°♁	
	95 Dec 02 j 13:37	0°♁			98 Jul 09 j 18:21	0°♁	
	95 Dec 27 j 04:08	0°♁		desc. node	98 Jul 14 j 08:44	4°♁46'57	
	96 Jan 20 j 13:15	0°☾		evening max el	98 Jul 26 j 04:25	16°♁34'50	46°03'48
desc. node	96 Jan 27 j 13:43	8°☾39'11			98 Aug 10 j 02:26	0°♁	
	96 Feb 13 j 21:07	0°♁		greatest brilliancy	98 Sep 03 j 00:19	15°♁03'27	-4.6m
	96 Mar 09 j 05:24	0°♁		retrograde	98 Sep 13 j 11:30	17°♁02'04	
	96 Apr 02 j 14:39	0°♁		evening set	98 Sep 30 j 01:22	11°♁48'46	
morning set	96 Apr 08 j 02:37	6°♁45'27		inferior conj	98 Oct 04 j 04:48	9°♁20'29	-6°-58'-41
	96 Apr 27 j 00:49	0°♁		minimum elong	98 Oct 04 j 15:16	9°♁04'32	6°56'38
max. Earth dist.	96 May 14 j 11:34	21°♁25'09	1.73650 AU	min. Earth dist.	98 Oct 04 j 23:37	8°♁51'51	0.27017 AU
				morning rise	98 Oct 09 j 04:49	6°♁22'42	
superior conj	96 May 14 j 23:05	22°♁00'30	0°-11'-13	direct	98 Oct 24 j 22:47	1°♁33'17	
minimum elong	96 May 15 j 01:22	22°♁07'33	0°11'06	asc. node	98 Nov 04 j 11:51	3°♁40'05	
behind sun begin	96 May 14 j 09:08	21°♁17'41		greatest brilliancy	98 Nov 07 j 08:25	4°♁53'17	-4.7m
behind sun end	96 May 15 j 17:37	22°♁57'24			98 Dec 09 j 14:35	0°♁	
asc. node	96 May 19 j 16:58	27°♁50'05		morning max el	98 Dec 14 j 18:17	5°♁10'08	46°56'11
	96 May 21 j 11:18	0°♁			99 Jan 06 j 18:32	0°♁	
	96 Jun 14 j 21:18	0°☿			99 Feb 01 j 19:23	0°☾	
evening rise	96 Jun 19 j 22:43	6°☿13'14		desc. node	99 Feb 24 j 01:42	26°☾22'14	
	96 Jul 09 j 06:36	0°♁			99 Feb 27 j 02:40	0°♁	
	96 Aug 02 j 15:52	0°♁			99 Mar 24 j 02:30	0°♁	
	96 Aug 27 j 02:30	0°♁			99 Apr 17 j 22:39	0°♁	
desc. node	96 Sep 08 j 06:35	14°♁53'07			99 May 12 j 16:15	0°♁	
	96 Sep 20 j 16:09	0°♁			99 Jun 06 j 06:58	0°♁	
	96 Oct 15 j 11:07	0°♁		morning set	99 Jun 15 j 19:02	11°♁37'57	
	96 Nov 09 j 16:37	0°☾		asc. node	99 Jun 17 j 04:44	13°♁21'11	
	96 Dec 05 j 23:35	0°♁			99 Jun 30 j 17:59	0°☿	
evening max el	96 Dec 20 j 19:08	15°♁45'29	47°05'40	max. Earth dist.	99 Jul 18 j 09:23	21°☿46'17	1.72973 AU
asc. node	96 Dec 30 j 09:30	25°♁11'48					
	97 Jan 04 j 15:23	0°♁		superior conj	99 Jul 22 j 02:05	26°☿20'43	1°10'14
greatest brilliancy	97 Jan 26 j 12:51	15°♁37'03	-4.6m	minimum elong	99 Jul 21 j 17:55	25°☿55'24	1°10'00
retrograde	97 Feb 09 j 14:59	19°♁16'06			99 Jul 25 j 00:55	0°♁	
evening set	97 Feb 27 j 11:54	13°♁02'47			99 Aug 18 j 04:32	0°♁	
min. Earth dist.	97 Mar 02 j 08:47	11°♁15'01	0.28395 AU	evening rise	99 Aug 27 j 14:13	11°♁42'29	
inferior conj	97 Mar 02 j 18:33	10°♁59'33	8°25'11		99 Sep 11 j 06:27	0°♁	
minimum elong	97 Mar 02 j 22:38	10°♁53'05	8°24'56		99 Oct 05 j 08:14	0°♁	
morning rise	97 Mar 06 j 09:36	8°♁44'03		desc. node	99 Oct 06 j 18:34	1°♁46'54	
direct	97 Mar 23 j 20:50	2°♁51'24			99 Oct 29 j 11:05	0°♁	
greatest brilliancy	97 Apr 04 j 07:44	5°♁14'05	-4.5m		99 Nov 22 j 16:17	0°☾	
desc. node	97 Apr 20 j 23:13	14°♁59'12			99 Dec 17 j 02:51	0°♁	
	97 May 08 j 15:49	0°♁			100 Jan 11 j 01:23	0°♁	
morning max el	97 May 11 j 19:58	2°♁59'49	45°49'22	asc. node	100 Jan 27 j 21:23	19°♁36'50	
	97 Jun 07 j 03:25	0°♁			100 Feb 06 j 01:58	0°♁	
	97 Jul 04 j 00:40	0°♁		evening max el	100 Mar 02 j 01:14	26°♁21'40	45°52'44
	97 Jul 29 j 17:14	0°☿			100 Mar 05 j 19:30	0°♁	
asc. node	97 Aug 12 j 02:22	16°☿00'45		greatest brilliancy	100 Apr 05 j 10:57	23°♁16'53	-4.5m
	97 Aug 23 j 15:13	0°♁		retrograde	100 Apr 20 j 02:56	27°♁03'23	
	97 Sep 17 j 00:10	0°♁		evening set	100 May 05 j 10:47	22°♁31'26	
	97 Oct 11 j 00:51	0°♁		inferior conj	100 May 11 j 14:05	18°♁48'50	1°36'00
	97 Nov 03 j 21:27	0°♁		minimum elong	100 May 11 j 17:32	18°♁43'25	1°35'00
morning set	97 Nov 06 j 12:52	3°♁19'36		min. Earth dist.	100 May 11 j 18:56	18°♁41'13	0.28990 AU
	97 Nov 27 j 17:05	0°♁		morning rise	100 May 18 j 00:18	14°♁56'26	
desc. node	97 Dec 01 j 16:10	4°♁59'19		desc. node	100 May 18 j 11:03	14°♁41'48	
				direct	100 Jun 02 j 05:59	10°♁29'58	
superior conj	97 Dec 18 j 04:26	25°♁45'25	0°-37'-55	greatest brilliancy	100 Jun 15 j 18:30	13°♁41'04	-4.5m

	100 Jul 09 j 17:51	0° II
morning max el	100 Jul 21 j 02:19	10° II 20'40 45°52'17
	100 Aug 09 j 09:26	0° ☿