

superior conj	15600 Oct 02 22:32	27° $\Omega$ 21'54	0°04'05	min. Earth dist.	15603 Feb 24 14:44	18° $\Upsilon$ 17'46	0.28607 AU
minimum elong	15600 Oct 02 21:26	27° $\Omega$ 18'28	0°04'22	morning rise	15603 Mar 02 04:55	14° $\Upsilon$ 55'10	
behind sun begin	15600 Oct 01 21:18	26° $\Omega$ 02'54		direct	15603 Mar 17 15:32	10° $\Upsilon$ 17'49	
behind sun end	15600 Oct 03 21:34	28° $\Omega$ 34'02		asc. node	15603 Mar 18 23:33	10° $\Upsilon$ 19'53	
max. Earth dist.	15600 Oct 03 19:44	28° $\Omega$ 28'19	1.71643 AU	greatest brilliancy	15603 Mar 28 08:56	12° $\Upsilon$ 23'43	-4.8m
	15600 Oct 05 01:02	0° $\mathbb{M}$			15603 Apr 23 20:33	0° $\Upsilon$	
	15600 Oct 29 00:32	0° $\Upsilon$		morning max el	15603 May 05 21:05	11° $\Upsilon$ 10'28	45°57'52
evening rise	15600 Nov 10 14:45	15° $\Upsilon$ 43'24			15603 May 24 02:23	0° $\Upsilon$	
	15600 Nov 22 01:52	0° $\Upsilon$			15603 Jun 19 19:59	0° $\mathbb{I}$	
	15600 Dec 16 06:59	0° $\approx$		desc. node	15603 Jul 09 01:20	22° $\mathbb{I}$ 35'45	
	15601 Jan 09 18:15	0° $\Upsilon$			15603 Jul 15 06:00	0° $\Upsilon$	
desc. node	15601 Jan 20 21:58	13° $\Upsilon$ 32'30			15603 Aug 08 23:44	0° $\Omega$	
	15601 Feb 03 13:51	0° $\Upsilon$			15603 Sep 02 08:35	0° $\mathbb{M}$	
	15601 Feb 28 19:50	0° $\Upsilon$			15603 Sep 26 12:58	0° $\Omega$	
	15601 Mar 26 16:26	0° $\mathbb{I}$			15603 Oct 20 15:22	0° $\mathbb{M}$	
	15601 Apr 22 17:08	0° $\Upsilon$		asc. node	15603 Oct 29 20:31	11° $\mathbb{M}$ 28'59	
evening max el	15601 May 09 14:43	17° $\Upsilon$ 24'20	46°13'33	morning set	15603 Nov 06 14:15	21° $\mathbb{M}$ 07'50	
asc. node	15601 May 13 17:31	21° $\Upsilon$ 23'15			15603 Nov 13 17:00	0° $\Upsilon$	
	15601 May 23 04:52	0° $\Omega$			15603 Dec 07 18:46	0° $\Upsilon$	
greatest brilliancy	15601 Jun 18 17:04	17° $\Omega$ 06'21	-4.8m				
retrograde	15601 Jun 28 04:29	18° $\Omega$ 46'36		superior conj	15603 Dec 14 18:09	8° $\Upsilon$ 40'57	1°23'31
evening set	15601 Jul 16 02:47	12° $\Omega$ 38'29		minimum elong	15603 Dec 14 12:44	8° $\Upsilon$ 24'06	1°24'20
inferior conj	15601 Jul 18 22:01	10° $\Omega$ 54'56	8°48'53	max. Earth dist.	15603 Dec 17 01:14	11° $\Upsilon$ 32'14	1.72402 AU
minimum elong	15601 Jul 19 03:45	10° $\Omega$ 46'00	8°47'40		15603 Dec 31 21:52	0° $\approx$	
min. Earth dist.	15601 Jul 19 12:24	10° $\Omega$ 32'35	0.27579 AU	evening rise	15604 Jan 21 02:17	24° $\approx$ 59'12	
morning rise	15601 Jul 22 04:40	8° $\Omega$ 54'04			15604 Jan 25 03:47	0° $\Upsilon$	
direct	15601 Aug 08 21:06	2° $\Omega$ 54'57		desc. node	15604 Feb 18 11:43	29° $\Upsilon$ 54'21	
greatest brilliancy	15601 Aug 18 23:57	4° $\Omega$ 50'56	-4.9m		15604 Feb 18 13:34	0° $\Upsilon$	
desc. node	15601 Sep 02 19:13	13° $\Omega$ 07'30			15604 Mar 14 03:20	0° $\Upsilon$	
	15601 Sep 22 13:33	0° $\mathbb{M}$			15604 Apr 07 20:54	0° $\mathbb{I}$	
morning max el	15601 Sep 28 08:35	5° $\mathbb{M}$ 41'20	46°54'30		15604 May 02 19:09	0° $\Upsilon$	
	15601 Oct 21 06:18	0° $\Omega$			15604 May 28 02:06	0° $\Omega$	
	15601 Nov 16 14:20	0° $\mathbb{M}$		asc. node	15604 Jun 10 04:27	15° $\Omega$ 14'14	
	15601 Dec 12 00:37	0° $\Upsilon$			15604 Jun 23 03:52	0° $\mathbb{M}$	
asc. node	15601 Dec 24 19:26	15° $\Upsilon$ 19'11			15604 Jul 21 04:57	0° $\Omega$	
	15602 Jan 05 23:21	0° $\Upsilon$		evening max el	15604 Jul 21 12:13	0° $\Omega$ 18'09	46°37'08
	15602 Jan 30 15:03	0° $\approx$			15604 Aug 28 18:42	0° $\mathbb{M}$	
	15602 Feb 24 02:39	0° $\Upsilon$		greatest brilliancy	15604 Aug 30 08:33	0° $\mathbb{M}$ 37'18	-4.9m
	15602 Mar 20 12:07	0° $\Upsilon$		retrograde	15604 Sep 09 15:49	2° $\mathbb{M}$ 36'55	
morning set	15602 Mar 28 14:16	9° $\Upsilon$ 57'57			15604 Sep 21 02:08	30° $\mathbb{R}$ $\Omega$	
	15602 Apr 13 20:12	0° $\Upsilon$		evening set	15604 Sep 24 03:48	28° $\Omega$ 30'02	
desc. node	15602 Apr 15 14:03	2° $\Upsilon$ 09'12		inferior conj	15604 Sep 30 09:42	24° $\Omega$ 52'05	-0°03'16
max. Earth dist.	15602 May 03 17:27	24° $\Upsilon$ 34'39	1.72729 AU	minimum elong	15604 Sep 30 09:35	24° $\Omega$ 52'16	0°02'57
				transit middle	15604 Sep 30 09:35	24° $\Omega$ 52'16	0°02'57
superior conj	15602 May 06 00:32	27° $\Upsilon$ 25'07	-0°47'10	transit begin	15604 Sep 30 05:34	24° $\Omega$ 58'23	
minimum elong	15602 May 05 14:45	26° $\Upsilon$ 54'49	0°47'26	transit end	15604 Sep 30 13:36	24° $\Omega$ 46'10	
	15602 May 08 02:35	0° $\mathbb{I}$		desc. node	15604 Sep 30 04:43	24° $\Omega$ 59'41	
	15602 Jun 01 06:54	0° $\Upsilon$		min. Earth dist.	15604 Sep 30 07:27	24° $\Omega$ 55'31	0.26953 AU
evening rise	15602 Jun 13 18:24	15° $\Upsilon$ 31'07		morning rise	15604 Oct 06 15:26	21° $\Omega$ 14'00	
	15602 Jun 25 09:31	0° $\Omega$		direct	15604 Oct 21 02:50	17° $\Omega$ 07'58	
	15602 Jul 19 11:41	0° $\mathbb{M}$		greatest brilliancy	15604 Oct 31 01:14	18° $\Omega$ 56'48	-4.8m
asc. node	15602 Aug 06 04:24	22° $\mathbb{M}$ 00'10			15604 Nov 19 00:36	0° $\mathbb{M}$	
	15602 Aug 12 15:06	0° $\Omega$		morning max el	15604 Dec 09 18:07	18° $\mathbb{M}$ 17'55	46°19'31
	15602 Sep 05 21:52	0° $\mathbb{M}$			15604 Dec 21 08:08	0° $\Upsilon$	
	15602 Sep 30 11:20	0° $\Upsilon$			15605 Jan 17 19:55	0° $\Upsilon$	
	15602 Oct 25 14:02	0° $\Upsilon$		asc. node	15605 Jan 21 06:14	3° $\Upsilon$ 53'38	
	15602 Nov 20 19:55	0° $\approx$			15605 Feb 12 19:00	0° $\approx$	
desc. node	15602 Nov 25 23:12	5° $\approx$ 37'17			15605 Mar 10 00:19	0° $\Upsilon$	
evening max el	15602 Dec 15 14:54	25° $\approx$ 57'03	46°12'53		15605 Apr 03 19:51	0° $\Upsilon$	
	15602 Dec 19 20:14	0° $\Upsilon$			15605 Apr 28 09:18	0° $\Upsilon$	
greatest brilliancy	15603 Jan 23 23:00	24° $\Upsilon$ 51'08	-4.8m	desc. node	15605 May 13 03:27	18° $\Upsilon$ 08'22	
retrograde	15603 Feb 02 22:24	26° $\Upsilon$ 39'49			15605 May 22 18:05	0° $\mathbb{I}$	
evening set	15603 Feb 19 07:40	21° $\Upsilon$ 32'11		morning set	15605 Jun 08 11:05	20° $\mathbb{I}$ 41'36	
inferior conj	15603 Feb 24 08:28	18° $\Upsilon$ 27'37	-5°14'04		15605 Jun 15 22:47	0° $\Upsilon$	
minimum elong	15603 Feb 24 18:19	18° $\Upsilon$ 12'08	5°11'20		15605 Jul 10 00:09	0° $\Omega$	

max. Earth dist.	15605 Jul 15 19:15	7°Ω14'52	1.71760 AU	minimum elong	15607 Dec 12 23:39	7°Ξ22'00	8°36'23
				morning rise	15607 Dec 16 06:56	5°Ξ20'51	
superior conj	15605 Jul 18 02:31	10°Ω07'45	-1°24'41		15607 Dec 28 06:17	30°℞♂	
minimum elong	15605 Jul 18 08:35	10°Ω26'45	1°25'19	direct	15608 Jan 03 08:44	29°♂15'30	
	15605 Aug 02 23:29	0°♏			15608 Jan 09 15:18	0°Ξ	
	15605 Aug 26 22:20	0°♎		greatest brilliancy	15608 Jan 12 23:34	0°Ξ57'20	-4.8m
evening rise	15605 Aug 27 04:31	0°♎19'22		asc. node	15608 Feb 18 16:06	27°Ξ01'19	
asc. node	15605 Sep 02 18:31	8°♎33'42		morning max el	15608 Feb 21 10:24	29°Ξ40'08	45°45'50
	15605 Sep 19 22:03	0°♏			15608 Feb 21 18:35	0°≈	
	15605 Oct 14 00:08	0°♂			15608 Mar 21 09:21	0°℞	
	15605 Nov 07 06:56	0°Ξ			15608 Apr 16 17:28	0°Υ	
	15605 Dec 01 22:20	0°≈			15608 May 12 02:16	0°♄	
desc. node	15605 Dec 23 10:55	25°≈38'21			15608 Jun 05 21:56	0°♅	
	15605 Dec 27 04:12	0°℞		desc. node	15608 Jun 09 15:52	4°♅34'26	
	15606 Jan 22 10:06	0°Υ			15608 Jun 30 08:41	0°♄	
	15606 Feb 19 15:55	0°♄			15608 Jul 24 13:14	0°Ω	
evening max el	15606 Feb 24 12:29	4°♄46'15	45°59'21		15608 Aug 17 14:01	0°♏	
	15606 Mar 28 00:26	0°♅		morning set	15608 Aug 21 20:14	5°♏19'41	
greatest brilliancy	15606 Apr 04 14:23	3°♅28'58	-4.8m		15608 Sep 10 13:08	0°♎	
retrograde	15606 Apr 14 17:16	5°♅22'09					
asc. node	15606 Apr 15 09:15	5°♅21'37		superior conj	15608 Sep 30 11:12	24°♎57'05	0°00'17
evening set	15606 Apr 29 21:35	0°♅50'12		minimum elong	15608 Sep 30 11:04	24°♎56'40	0°00'34
	15606 May 01 08:43	30°℞♄		behind sun begin	15608 Sep 29 10:15	23°♎38'58	
inferior conj	15606 May 05 19:56	27°♄15'41	4°51'08	behind sun end	15608 Oct 01 11:53	26°♎14'22	
minimum elong	15606 May 05 10:27	27°♄30'34	4°47'57	asc. node	15608 Sep 30 08:32	24°♎48'41	
min. Earth dist.	15606 May 05 17:39	27°♄19'17	0.28221 AU	max. Earth dist.	15608 Oct 01 07:56	26°♎01'59	1.71625 AU
morning rise	15606 May 10 23:10	24°♄07'53			15608 Oct 04 11:57	0°♏	
direct	15606 May 26 23:26	19°♄06'11			15608 Oct 28 11:27	0°♂	
greatest brilliancy	15606 Jun 06 05:35	21°♄04'05	-4.8m	evening rise	15608 Nov 08 05:24	13°♂25'12	
	15606 Jun 22 00:48	0°♅			15608 Nov 21 12:50	0°Ξ	
morning max el	15606 Jul 16 01:46	21°♅13'24	46°39'42		15608 Dec 15 18:06	0°≈	
	15606 Jul 24 15:24	0°♄			15609 Jan 09 05:39	0°℞	
desc. node	15606 Aug 05 11:46	12°♄46'37		desc. node	15609 Jan 19 23:53	13°℞03'21	
	15606 Aug 20 18:18	0°Ω			15609 Feb 03 01:45	0°Υ	
	15606 Sep 15 07:21	0°♏			15609 Feb 28 08:36	0°♄	
	15606 Oct 10 04:22	0°♎			15609 Mar 26 06:51	0°♅	
	15606 Nov 03 17:55	0°♏			15609 Apr 22 11:17	0°♄	
asc. node	15606 Nov 26 09:26	27°♏50'34		evening max el	15609 May 07 04:05	15°♄03'10	46°12'28
	15606 Nov 28 03:26	0°♂		asc. node	15609 May 12 19:18	20°♄28'08	
	15606 Dec 22 10:25	0°Ξ			15609 May 23 13:07	0°Ω	
	15607 Jan 15 16:09	0°≈		greatest brilliancy	15609 Jun 16 06:56	14°Ω45'02	-4.8m
morning set	15607 Jan 16 06:24	0°≈44'05		retrograde	15609 Jun 25 17:11	16°Ω24'26	
	15607 Feb 08 22:04	0°℞		evening set	15609 Jul 13 18:13	10°Ω13'23	
				inferior conj	15609 Jul 16 11:39	8°Ω32'26	8°54'17
superior conj	15607 Feb 22 05:00	16°℞24'55	0°53'50	minimum elong	15609 Jul 16 16:33	8°Ω24'49	8°53'13
minimum elong	15607 Feb 22 14:42	16°℞54'53	0°53'45	min. Earth dist.	15609 Jul 17 01:50	8°Ω10'20	0.27616 AU
max. Earth dist.	15607 Feb 23 14:25	18°℞08'05	1.73085 AU	morning rise	15609 Jul 19 14:47	6°Ω36'33	
	15607 Mar 05 05:12	0°Υ		direct	15609 Aug 06 10:31	0°Ω31'45	
desc. node	15607 Mar 18 01:55	15°Υ51'12		greatest brilliancy	15609 Aug 16 14:00	2°Ω27'47	-4.9m
	15607 Mar 29 13:34	0°♄		desc. node	15609 Sep 01 21:13	11°Ω50'17	
evening rise	15607 Apr 01 02:37	3°♄07'54			15609 Sep 22 14:24	0°♏	
	15607 Apr 22 22:27	0°♅		morning max el	15609 Sep 25 21:28	3°♏16'01	46°55'01
	15607 May 17 07:20	0°♄			15609 Oct 20 23:15	0°♎	
	15607 Jun 10 16:57	0°Ω			15609 Nov 16 04:28	0°♏	
	15607 Jul 05 05:37	0°♏			15609 Dec 11 13:19	0°♂	
asc. node	15607 Jul 08 16:53	4°♏13'13		asc. node	15609 Dec 23 21:19	14°♂47'59	
	15607 Jul 30 01:17	0°♎			15610 Jan 05 11:13	0°Ξ	
	15607 Aug 24 11:11	0°♏			15610 Jan 30 02:24	0°≈	
	15607 Sep 20 04:57	0°♂			15610 Feb 23 13:41	0°℞	
evening max el	15607 Oct 02 19:09	13°♂05'52	46°37'14		15610 Mar 19 22:59	0°Υ	
	15607 Oct 21 04:20	0°Ξ		morning set	15610 Mar 26 06:30	7°Υ46'45	
desc. node	15607 Oct 28 14:34	5°Ξ40'07			15610 Apr 13 06:58	0°♄	
greatest brilliancy	15607 Nov 11 04:00	13°Ξ10'47	-4.8m	desc. node	15610 Apr 14 15:49	1°♄41'23	
retrograde	15607 Nov 21 23:59	15°Ξ20'09		max. Earth dist.	15610 May 01 09:28	22°♄22'25	1.72761 AU
evening set	15607 Dec 09 16:35	9°Ξ22'49					
min. Earth dist.	15607 Dec 12 12:25	7°Ξ39'21	0.28205 AU	superior conj	15610 May 03 15:18	25°♄08'57	-0°44'07
inferior conj	15607 Dec 13 05:35	7°Ξ12'49	-8°37'45	minimum elong	15610 May 03 05:56	24°♄40'00	0°44'23

	15610 May 07 13:21	0° $\Pi$			15612 Nov 19 14:24	0° $\mathbb{M}$		
	15610 May 31 17:46	0° $\mathfrak{D}$		morning max el	15612 Dec 07 08:51	16° $\mathbb{M}$ 00'07	46°21'09	
evening rise	15610 Jun 11 08:00	13° $\mathfrak{D}$ 10'07			15612 Dec 21 03:17	0° $\mathfrak{A}$		
	15610 Jun 24 20:33	0° $\Omega$			15613 Jan 17 10:40	0° $\mathfrak{Z}$		
	15610 Jul 18 22:55	0° $\mathbb{P}$		asc. node	15613 Jan 20 08:16	3° $\mathfrak{Z}$ 18'13		
asc. node	15610 Aug 05 06:18	21° $\mathbb{P}$ 30'38			15613 Feb 12 07:51	0° $\approx$		
	15610 Aug 12 02:37	0° $\underline{\mathfrak{A}}$			15613 Mar 09 12:10	0° $\mathfrak{H}$		
	15610 Sep 05 09:47	0° $\mathbb{M}$			15613 Apr 03 07:08	0° $\mathfrak{Y}$		
	15610 Sep 29 23:55	0° $\mathfrak{A}$			15613 Apr 27 20:16	0° $\mathfrak{B}$		
	15610 Oct 25 03:50	0° $\mathfrak{Z}$		desc. node	15613 May 12 05:13	17° $\mathfrak{B}$ 40'21		
	15610 Nov 20 12:21	0° $\approx$			15613 May 22 04:54	0° $\Pi$		
desc. node	15610 Nov 25 01:04	4° $\approx$ 55'50		morning set	15613 Jun 06 00:04	18° $\Pi$ 19'39		
evening max el	15610 Dec 13 04:38	23° $\approx$ 39'09	46°13'47		15613 Jun 15 09:30	0° $\mathfrak{D}$		
	15610 Dec 19 20:58	0° $\mathfrak{H}$			15613 Jul 09 10:50	0° $\Omega$		
greatest brilliancy	15611 Jan 21 14:50	22° $\mathfrak{H}$ 39'00	-4.8m	max. Earth dist.	15613 Jul 13 09:06	4° $\Omega$ 54'40	1.71784 AU	
retrograde	15611 Jan 31 13:37	24° $\mathfrak{H}$ 27'40						
evening set	15611 Feb 17 02:07	19° $\mathfrak{H}$ 15'37		superior conj	15613 Jul 15 15:10	7° $\Omega$ 43'43	-1°25'35	
inferior conj	15611 Feb 22 00:10	16° $\mathfrak{H}$ 15'20	-5°30'49	minimum elong	15613 Jul 15 20:21	7° $\Omega$ 59'56	1°26'17	
minimum elong	15611 Feb 22 10:17	15° $\mathfrak{H}$ 59'28	5°28'05		15613 Aug 02 10:11	0° $\mathbb{P}$		
min. Earth dist.	15611 Feb 22 06:40	16° $\mathfrak{H}$ 05'09	0.28618 AU	evening rise	15613 Aug 24 16:52	27° $\mathbb{P}$ 54'06		
morning rise	15611 Feb 27 18:20	12° $\mathfrak{H}$ 46'06			15613 Aug 26 09:05	0° $\underline{\mathfrak{A}}$		
direct	15611 Mar 15 06:38	8° $\mathfrak{H}$ 05'24		asc. node	15613 Sep 01 20:17	8° $\underline{\mathfrak{A}}$ 05'29		
asc. node	15611 Mar 18 01:28	8° $\mathfrak{H}$ 14'23			15613 Sep 19 08:57	0° $\mathbb{M}$		
greatest brilliancy	15611 Mar 26 01:04	10° $\mathfrak{H}$ 11'55	-4.8m		15613 Oct 13 11:15	0° $\mathfrak{A}$		
	15611 Apr 24 00:11	0° $\mathfrak{Y}$			15613 Nov 06 18:22	0° $\mathfrak{Z}$		
morning max el	15611 May 03 12:04	8° $\mathfrak{Y}$ 55'45	45°56'53		15613 Dec 01 10:19	0° $\approx$		
	15611 May 23 19:19	0° $\mathfrak{B}$		desc. node	15613 Dec 22 12:52	25° $\approx$ 06'28		
	15611 Jun 19 09:52	0° $\Pi$			15613 Dec 26 17:12	0° $\mathfrak{H}$		
desc. node	15611 Jul 08 03:22	22° $\Pi$ 03'31			15614 Jan 22 01:15	0° $\mathfrak{Y}$		
	15611 Jul 14 18:35	0° $\mathfrak{D}$			15614 Feb 19 12:47	0° $\mathfrak{B}$		
	15611 Aug 08 11:38	0° $\Omega$		evening max el	15614 Feb 22 04:49	2° $\mathfrak{B}$ 36'06	45°59'29	
	15611 Sep 01 20:06	0° $\mathbb{P}$			15614 Mar 30 02:37	0° $\Pi$		
	15611 Sep 26 00:13	0° $\underline{\mathfrak{A}}$		greatest brilliancy	15614 Apr 02 04:47	1° $\Pi$ 14'11	-4.8m	
	15611 Oct 20 02:24	0° $\mathbb{M}$		retrograde	15614 Apr 12 08:33	3° $\Pi$ 07'36		
asc. node	15611 Oct 28 22:18	11° $\mathbb{M}$ 00'17		asc. node	15614 Apr 14 11:07	3° $\Pi$ 02'17		
morning set	15611 Nov 04 04:03	18° $\mathbb{M}$ 47'09			15614 Apr 24 20:16	30° $\mathfrak{R}$ $\mathfrak{B}$		
	15611 Nov 13 03:52	0° $\mathfrak{A}$		evening set	15614 Apr 27 10:52	28° $\mathfrak{B}$ 38'24		
	15611 Dec 07 05:32	0° $\mathfrak{Z}$		inferior conj	15614 May 03 11:07	25° $\mathfrak{B}$ 00'52	4°32'28	
				minimum elong	15614 May 03 02:03	25° $\mathfrak{B}$ 15'07	4°29'21	
superior conj	15611 Dec 12 09:46	6° $\mathfrak{Z}$ 26'45	1°22'31	min. Earth dist.	15614 May 03 08:37	25° $\mathfrak{B}$ 04'49	0.28229 AU	
minimum elong	15611 Dec 12 03:39	6° $\mathfrak{Z}$ 07'43	1°23'18	morning rise	15614 May 08 17:08	21° $\mathfrak{B}$ 49'05		
max. Earth dist.	15611 Dec 14 14:05	9° $\mathfrak{Z}$ 09'33	1.72370 AU	direct	15614 May 24 15:19	16° $\mathfrak{B}$ 51'32		
	15611 Dec 31 08:36	0° $\approx$		greatest brilliancy	15614 Jun 03 20:45	18° $\mathfrak{B}$ 48'58	-4.8m	
evening rise	15612 Jan 18 18:03	22° $\approx$ 46'28			15614 Jun 22 15:45	0° $\Pi$		
	15612 Jan 24 14:34	0° $\mathfrak{H}$		morning max el	15614 Jul 13 17:07	18° $\Pi$ 58'00	46°38'23	
desc. node	15612 Feb 17 13:36	29° $\mathfrak{H}$ 26'37			15614 Jul 24 10:12	0° $\mathfrak{D}$		
	15612 Feb 18 00:30	0° $\mathfrak{Y}$		desc. node	15614 Aug 04 13:38	12° $\mathfrak{D}$ 06'03		
	15612 Mar 13 14:34	0° $\mathfrak{B}$			15614 Aug 20 08:56	0° $\Omega$		
	15612 Apr 07 08:35	0° $\Pi$			15614 Sep 14 20:13	0° $\mathbb{P}$		
	15612 May 02 07:34	0° $\mathfrak{D}$			15614 Oct 09 16:20	0° $\underline{\mathfrak{A}}$		
	15612 May 27 15:45	0° $\Omega$			15614 Nov 03 05:19	0° $\mathbb{M}$		
asc. node	15612 Jun 09 06:26	14° $\Omega$ 37'49		asc. node	15614 Nov 25 11:19	27° $\mathbb{M}$ 22'18		
	15612 Jun 22 20:02	0° $\mathbb{P}$			15614 Nov 27 14:27	0° $\mathfrak{A}$		
evening max el	15612 Jul 19 01:34	27° $\mathbb{P}$ 55'11	46°36'30		15614 Dec 21 21:11	0° $\mathfrak{Z}$		
	15612 Jul 21 04:03	0° $\underline{\mathfrak{A}}$		morning set	15615 Jan 13 22:51	28° $\mathfrak{Z}$ 33'42		
greatest brilliancy	15612 Aug 27 22:12	28° $\underline{\mathfrak{A}}$ 13'01	-4.9m		15615 Jan 15 02:44	0° $\approx$		
	15612 Sep 03 23:36	0° $\mathbb{M}$			15615 Feb 08 08:33	0° $\mathfrak{H}$		
retrograde	15612 Sep 07 05:13	0° $\mathbb{M}$ 12'26						
	15612 Sep 10 09:45	30° $\mathfrak{R}$ $\underline{\mathfrak{A}}$		superior conj	15615 Feb 19 21:11	14° $\mathfrak{H}$ 14'25	0°56'28	
evening set	15612 Sep 21 17:32	26° $\underline{\mathfrak{A}}$ 04'03		minimum elong	15615 Feb 20 07:03	14° $\mathfrak{H}$ 44'52	0°56'25	
inferior conj	15612 Sep 27 22:23	22° $\underline{\mathfrak{A}}$ 27'40	0°21'07	max. Earth dist.	15615 Feb 21 10:22	16° $\mathfrak{H}$ 09'12	1.73072 AU	
minimum elong	15612 Sep 27 23:14	22° $\underline{\mathfrak{A}}$ 26'24	0°21'06		15615 Mar 04 15:40	0° $\mathfrak{Y}$		
min. Earth dist.	15612 Sep 27 21:24	22° $\underline{\mathfrak{A}}$ 29'10	0.26945 AU	desc. node	15615 Mar 17 03:35	15° $\mathfrak{Y}$ 24'01		
desc. node	15612 Sep 29 06:36	21° $\underline{\mathfrak{A}}$ 38'51			15615 Mar 29 00:07	0° $\mathfrak{B}$		
morning rise	15612 Oct 04 05:01	18° $\underline{\mathfrak{A}}$ 48'46		evening rise	15615 Mar 29 18:14	0° $\mathfrak{B}$ 55'44		
direct	15612 Oct 18 15:37	14° $\underline{\mathfrak{A}}$ 43'13			15615 Apr 22 09:10	0° $\Pi$		
greatest brilliancy	15612 Oct 28 14:40	16° $\underline{\mathfrak{A}}$ 33'10	-4.8m		15615 May 16 18:18	0° $\mathfrak{D}$		

	15615 Jun 10 04:18	0°♎		morning max el	15617 Sep 23 10:52	0°♎53'24	46°55'31
	15615 Jul 04 17:32	0°♎			15617 Oct 20 15:22	0°♎	
asc. node	15615 Jul 07 18:48	3°♎42'34			15617 Nov 15 17:59	0°♎	
	15615 Jul 29 14:08	0°♎			15617 Dec 11 01:29	0°♎	
	15615 Aug 24 01:43	0°♎		asc. node	15617 Dec 22 23:18	14°♎18'35	
	15615 Sep 19 23:24	0°♎			15618 Jan 04 22:35	0°♎	
evening max el	15615 Sep 30 10:17	10°♎48'55	46°37'40		15618 Jan 29 13:17	0°♎	
	15615 Oct 21 15:53	0°♎			15618 Feb 23 00:17	0°♎	
desc. node	15615 Oct 27 16:26	4°♎23'26			15618 Mar 19 09:26	0°♎	
greatest brilliancy	15615 Nov 08 18:45	10°♎54'20	-4.8m	morning set	15618 Mar 23 22:36	5°♎36'14	
retrograde	15615 Nov 19 14:44	13°♎03'29			15618 Apr 12 17:22	0°♎	
evening set	15615 Dec 07 03:47	7°♎12'10		desc. node	15618 Apr 13 17:39	1°♎14'57	
min. Earth dist.	15615 Dec 10 02:21	5°♎24'34	0.28160 AU	max. Earth dist.	15618 Apr 29 02:22	20°♎14'02	1.72793 AU
inferior conj	15615 Dec 10 20:08	4°♎57'03	-8°31'32				
minimum elong	15615 Dec 10 13:26	5°♎07'24	8°30'00	superior conj	15618 May 01 05:48	22°♎53'08	-0°40'59
morning rise	15615 Dec 13 23:21	3°♎02'09		minimum elong	15618 Apr 30 20:56	22°♎25'42	0°41'13
	15615 Dec 19 14:20	30°♎♎			15618 May 06 23:46	0°♎	
direct	15615 Dec 31 23:10	27°♎00'40			15618 May 31 04:15	0°♎	
greatest brilliancy	15616 Jan 10 12:45	28°♎41'10	-4.8m	evening rise	15618 Jun 08 21:29	10°♎50'05	
	15616 Jan 13 22:17	0°♎			15618 Jun 24 07:10	0°♎	
asc. node	15616 Feb 17 17:58	26°♎10'45			15618 Jul 18 09:45	0°♎	
morning max el	15616 Feb 19 00:06	27°♎23'23	45°46'15	asc. node	15618 Aug 04 08:04	21°♎01'58	
	15616 Feb 21 16:11	0°♎			15618 Aug 11 13:44	0°♎	
	15616 Mar 21 00:36	0°♎			15618 Sep 04 21:20	0°♎	
	15616 Apr 16 06:25	0°♎			15618 Sep 29 12:09	0°♎	
	15616 May 11 14:08	0°♎			15618 Oct 24 17:20	0°♎	
	15616 Jun 05 09:11	0°♎			15618 Nov 20 04:37	0°♎	
desc. node	15616 Jun 08 17:49	4°♎06'08		desc. node	15618 Nov 24 03:06	4°♎15'41	
	15616 Jun 29 19:36	0°♎		evening max el	15618 Dec 10 18:47	21°♎23'42	46°14'46
	15616 Jul 23 23:58	0°♎			15618 Dec 19 22:24	0°♎	
	15616 Aug 17 00:39	0°♎		greatest brilliancy	15619 Jan 19 05:55	20°♎27'29	-4.8m
morning set	15616 Aug 19 08:43	2°♎55'25		retrograde	15619 Jan 29 05:19	22°♎17'00	
	15616 Sep 09 23:41	0°♎		evening set	15619 Feb 14 20:35	17°♎00'14	
				inferior conj	15619 Feb 19 15:52	14°♎04'17	-5°47'02
superior conj	15616 Sep 28 00:11	22°♎34'36	-0°03'31	minimum elong	15619 Feb 20 02:10	13°♎48'10	5°44'19
minimum elong	15616 Sep 28 01:00	22°♎37'09	0°03'14	min. Earth dist.	15619 Feb 19 22:15	13°♎54'17	0.28631 AU
behind sun begin	15616 Sep 27 00:27	21°♎20'15		morning rise	15619 Feb 25 07:37	10°♎38'43	
behind sun end	15616 Sep 29 01:33	23°♎54'02		direct	15619 Mar 12 22:02	5°♎54'12	
max. Earth dist.	15616 Sep 28 17:54	23°♎30'06	1.71606 AU	asc. node	15619 Mar 17 03:24	6°♎14'43	
asc. node	15616 Sep 29 10:20	24°♎21'33		greatest brilliancy	15619 Mar 23 17:01	8°♎01'16	-4.8m
	15616 Oct 03 22:26	0°♎			15619 Apr 24 01:46	0°♎	
	15616 Oct 27 21:55	0°♎		morning max el	15619 May 01 03:56	6°♎44'15	45°55'46
evening rise	15616 Nov 05 20:14	11°♎09'04			15619 May 23 11:35	0°♎	
	15616 Nov 20 23:21	0°♎			15619 Jun 18 23:21	0°♎	
	15616 Dec 15 04:46	0°♎		desc. node	15619 Jul 07 05:15	21°♎31'50	
	15617 Jan 08 16:39	0°♎			15619 Jul 14 06:48	0°♎	
desc. node	15617 Jan 19 01:44	12°♎35'07			15619 Aug 07 23:11	0°♎	
	15617 Feb 02 13:18	0°♎			15619 Sep 01 07:13	0°♎	
	15617 Feb 27 21:04	0°♎			15619 Sep 25 11:03	0°♎	
	15617 Mar 25 21:03	0°♎			15619 Oct 19 13:03	0°♎	
	15617 Apr 22 05:27	0°♎		asc. node	15619 Oct 28 00:11	10°♎33'06	
evening max el	15617 May 04 16:50	12°♎41'53	46°11'39	morning set	15619 Nov 01 17:48	16°♎27'21	
asc. node	15617 May 11 21:19	19°♎33'42			15619 Nov 12 14:24	0°♎	
	15617 May 23 23:37	0°♎			15619 Dec 06 15:59	0°♎	
greatest brilliancy	15617 Jun 13 20:46	12°♎25'19	-4.8m				
retrograde	15617 Jun 23 06:04	14°♎04'24		superior conj	15619 Dec 10 01:19	4°♎13'17	1°21'22
evening set	15617 Jul 11 09:21	7°♎50'42		minimum elong	15619 Dec 09 18:32	3°♎52'08	1°22'07
inferior conj	15617 Jul 14 01:27	6°♎11'50	8°58'44	max. Earth dist.	15619 Dec 12 04:19	6°♎52'01	1.72340 AU
minimum elong	15617 Jul 14 05:26	6°♎05'37	8°57'45		15619 Dec 30 19:01	0°♎	
min. Earth dist.	15617 Jul 14 15:26	5°♎50'01	0.27653 AU	evening rise	15620 Jan 16 09:52	20°♎34'54	
morning rise	15617 Jul 17 01:24	4°♎20'37			15620 Jan 24 01:02	0°♎	
	15617 Jul 25 12:50	30°♎♎		desc. node	15620 Feb 16 15:19	28°♎59'23	
direct	15617 Aug 03 23:57	28°♎10'16			15620 Feb 17 11:08	0°♎	
	15617 Aug 13 20:46	0°♎			15620 Mar 13 01:30	0°♎	
greatest brilliancy	15617 Aug 14 04:34	0°♎07'02	-4.9m		15620 Apr 06 20:01	0°♎	
desc. node	15617 Aug 31 23:06	10°♎36'40			15620 May 01 19:49	0°♎	
	15617 Sep 22 13:31	0°♎			15620 May 27 05:21	0°♎	

asc. node	15620 Jun 08 08:21	14°01'19"			15622 Dec 21 07:58	0°30'	
	15620 Jun 22 12:20	0°00'		morning set	15623 Jan 11 15:07	26°32'33"	
evening max el	15620 Jul 16 15:45	25°03'45"	46°36'00"		15623 Jan 14 13:21	0°00'	
	15620 Jul 21 04:02	0°00'			15623 Feb 07 19:07	0°00'	
greatest brilliancy	15620 Aug 25 11:35	25°04'08"	-4.9m				
retrograde	15620 Sep 04 18:46	27°04'19"		superior conj	15623 Feb 17 13:28	12°03'52"	0°59'01"
evening set	15620 Sep 19 07:28	23°03'25"		minimum elong	15623 Feb 17 23:25	12°03'36"	0°59'00"
inferior conj	15620 Sep 25 11:00	20°03'40"	0°45'33"	max. Earth dist.	15623 Feb 19 04:29	14°04'20"	1.73057 AU
minimum elong	15620 Sep 25 12:48	20°00'56"	0°45'11"		15623 Mar 04 02:16	0°00'	
min. Earth dist.	15620 Sep 25 11:01	20°03'39"	0.26936 AU	desc. node	15623 Mar 16 05:28	14°05'70"	
desc. node	15620 Sep 28 08:33	18°19'07"		evening rise	15623 Mar 27 09:57	28°04'33"	
morning rise	15620 Oct 01 18:17	16°02'41"			15623 Mar 28 10:48	0°00'	
direct	15620 Oct 16 04:44	12°01'06"			15623 Apr 21 20:00	0°00'	
greatest brilliancy	15620 Oct 26 03:29	14°09'23"	-4.8m		15623 May 16 05:23	0°00'	
	15620 Nov 20 00:20	0°00'			15623 Jun 09 15:47	0°00'	
morning max el	15620 Dec 04 23:33	13°04'25"	46°22'39"		15623 Jul 04 05:39	0°00'	
	15620 Dec 20 21:39	0°00'		asc. node	15623 Jul 06 20:34	3°00'10"	56"
	15621 Jan 17 01:01	0°00'			15623 Jul 29 03:16	0°00'	
asc. node	15621 Jan 19 10:03	2°03'43"	00"		15623 Aug 23 16:42	0°00'	
	15621 Feb 11 20:24	0°00'			15623 Sep 19 18:43	0°00'	
	15621 Mar 08 23:45	0°00'		evening max el	15623 Sep 28 00:32	8°02'28"	37"
	15621 Apr 02 18:11	0°00'			15623 Oct 22 08:05	0°00'	
	15621 Apr 27 07:02	0°00'		desc. node	15623 Oct 26 18:30	3°03'23"	
desc. node	15621 May 11 07:09	17°08'13"	24"	greatest brilliancy	15623 Nov 06 09:48	8°03'36"	52"
	15621 May 21 15:33	0°00'		retrograde	15623 Nov 17 04:55	10°03'45"	34"
morning set	15621 Jun 03 12:58	15°05'57"	53"	evening set	15623 Dec 04 14:40	5°03'00"	29"
	15621 Jun 14 20:07	0°00'		min. Earth dist.	15623 Dec 07 16:31	3°03'08"	05"
	15621 Jul 08 21:27	0°00'		inferior conj	15623 Dec 08 10:34	2°03'40"	08"
max. Earth dist.	15621 Jul 10 19:55	2°02'25"	13"	minimum elong	15623 Dec 08 03:11	2°03'51"	34"
			1.71810 AU	morning rise	15623 Dec 11 15:56	0°03'41"	55"
superior conj	15621 Jul 13 03:30	5°08'18"	57"		15623 Dec 12 20:32	30°08'00"	21"
minimum elong	15621 Jul 13 07:44	5°03'21"	12"	direct	15623 Dec 29 12:58	24°02'44"	33"
	15621 Aug 01 20:50	0°00'		greatest brilliancy	15624 Jan 08 02:23	26°02'24"	30"
evening rise	15621 Aug 22 04:39	25°00'27"	14"		15624 Jan 16 02:59	0°00'	
	15621 Aug 25 19:49	0°00'		morning max el	15624 Feb 16 13:10	25°03'04"	17"
asc. node	15621 Aug 31 22:02	7°02'37"	21"	asc. node	15624 Feb 16 19:58	25°03'20"	45"
	15621 Sep 18 19:47	0°00'			15624 Feb 21 13:15	0°00'	
	15621 Oct 12 22:16	0°00'			15624 Mar 20 15:51	0°00'	
	15621 Nov 06 05:43	0°00'			15624 Apr 15 19:31	0°00'	
	15621 Nov 30 22:15	0°00'			15624 May 11 02:11	0°00'	
desc. node	15621 Dec 21 14:42	24°03'34"	17"		15624 Jun 04 20:39	0°00'	
	15621 Dec 26 06:15	0°00'		desc. node	15624 Jun 07 19:39	3°02'36"	52"
	15622 Jan 21 16:35	0°00'			15624 Jun 29 06:44	0°00'	
	15622 Feb 19 10:24	0°00'			15624 Jul 23 10:54	0°00'	
evening max el	15622 Feb 19 20:52	0°08'25"	20"		15624 Aug 16 11:30	0°00'	
greatest brilliancy	15622 Mar 30 19:43	29°08'00"	18"	morning set	15624 Aug 16 21:15	0°00'	
	15622 Apr 03 02:17	0°00'			15624 Sep 09 10:30	0°00'	
retrograde	15622 Apr 09 23:21	0°02'53"	17"				
asc. node	15622 Apr 13 13:07	0°02'37"	57"	superior conj	15624 Sep 25 13:00	20°02'10"	37"
	15622 Apr 16 14:39	30°08'08"		minimum elong	15624 Sep 25 14:46	20°02'16"	11"
evening set	15622 Apr 25 00:24	26°08'26"	40"	behind sun begin	15624 Sep 24 16:00	19°02'04"	53"
inferior conj	15622 May 01 02:19	22°08'46"	29"	behind sun end	15624 Sep 26 13:32	21°02'27"	28"
minimum elong	15622 Apr 30 17:43	23°08'00"	00"	max. Earth dist.	15624 Sep 26 01:47	20°02'50"	41"
min. Earth dist.	15622 Apr 30 23:53	22°08'50"	19"	asc. node	15624 Sep 28 12:17	23°02'53"	49"
morning rise	15622 May 06 10:58	19°08'30"	41"		15624 Oct 03 09:15	0°00'	
direct	15622 May 22 06:58	14°08'37"	19"		15624 Oct 27 08:43	0°00'	
greatest brilliancy	15622 Jun 01 12:11	16°08'34"	22"	evening rise	15624 Nov 03 10:44	8°02'50"	45"
	15622 Jun 23 02:46	0°00'			15624 Nov 20 10:13	0°00'	
morning max el	15622 Jul 11 07:24	16°02'39"	56"		15624 Dec 14 15:49	0°00'	
	15622 Jul 24 04:33	0°00'			15625 Jan 08 04:01	0°00'	
desc. node	15622 Aug 03 15:32	11°02'25"	43"	desc. node	15625 Jan 18 03:29	12°02'05"	33"
	15622 Aug 19 23:29	0°00'			15625 Feb 02 01:13	0°00'	
	15622 Sep 14 09:10	0°00'			15625 Feb 27 09:59	0°00'	
	15622 Oct 09 04:23	0°00'			15625 Mar 25 11:49	0°00'	
	15622 Nov 02 16:48	0°00'			15625 Apr 22 00:31	0°00'	
asc. node	15622 Nov 24 13:13	26°02'53"	56"	evening max el	15625 May 02 05:50	10°02'20"	19"
	15622 Nov 27 01:32	0°00'		asc. node	15625 May 10 23:18	18°02'37"	00"

	15625 May 24 14:20	0°♌			15627 Dec 06 02:44	0°♊		
greatest brilliancy	15625 Jun 11 10:04	10°♌04'23	-4.8m					
retrograde	15625 Jun 20 19:32	11°♌44'01		superior conj	15627 Dec 07 17:02	1°♊59'15	1°20'06	
evening set	15625 Jul 09 00:08	5°♌28'03		minimum elong	15627 Dec 07 09:36	1°♊36'07	1°20'49	
inferior conj	15625 Jul 11 15:19	3°♌50'40	9°02'14	max. Earth dist.	15627 Dec 09 21:01	4°♊41'07	1.72313 AU	
minimum elong	15625 Jul 11 18:25	3°♌45'51	9°01'19		15627 Dec 30 05:46	0°♊		
min. Earth dist.	15625 Jul 12 04:50	3°♌29'38	0.27688 AU	evening rise	15628 Jan 14 01:47	18°♊22'25		
morning rise	15625 Jul 14 12:35	2°♌03'40			15628 Jan 23 11:52	0°♊		
	15625 Jul 18 01:56	30°♋		desc. node	15628 Feb 15 17:12	28°♋31'28		
direct	15625 Aug 01 13:39	25°♋48'15			15628 Feb 16 22:09	0°♋		
greatest brilliancy	15625 Aug 11 18:53	27°♋45'41	-4.9m		15628 Mar 12 12:51	0°♋		
	15625 Aug 16 20:54	0°♌			15628 Apr 06 07:53	0°♌		
desc. node	15625 Aug 31 01:05	9°♌24'45			15628 May 01 08:29	0°♋		
morning max el	15625 Sep 21 01:06	28°♌32'08	46°55'55		15628 May 26 19:27	0°♌		
	15625 Sep 22 11:58	0°♍		asc. node	15628 Jun 07 10:09	13°♌23'10		
	15625 Oct 20 07:32	0°♌			15628 Jun 22 05:21	0°♍		
	15625 Nov 15 07:45	0°♍		evening max el	15628 Jul 14 06:29	23°♍15'01	46°35'21	
	15625 Dec 10 13:59	0°♎			15628 Jul 21 05:42	0°♌		
asc. node	15625 Dec 22 01:05	13°♎47'23		greatest brilliancy	15628 Aug 23 01:27	23°♌25'03	-4.9m	
	15626 Jan 04 10:19	0°♊		retrograde	15628 Sep 02 08:12	25°♌23'19		
	15626 Jan 29 00:32	0°♊		evening set	15628 Sep 16 21:47	21°♌12'02		
	15626 Feb 22 11:15	0°♋		inferior conj	15628 Sep 22 23:43	17°♌39'03	1°09'56	
	15626 Mar 18 20:15	0°♋		minimum elong	15628 Sep 23 02:28	17°♌34'52	1°09'12	
morning set	15626 Mar 21 14:41	3°♋24'40		min. Earth dist.	15628 Sep 23 00:47	17°♌37'25	0.26925 AU	
	15626 Apr 12 04:07	0°♋		desc. node	15628 Sep 27 10:34	15°♌00'27		
desc. node	15626 Apr 12 19:30	0°♋47'27		morning rise	15628 Sep 29 07:21	13°♌59'05		
max. Earth dist.	15626 Apr 26 21:07	18°♋10'17	1.72824 AU	direct	15628 Oct 13 18:05	9°♌54'35		
				greatest brilliancy	15628 Oct 23 16:15	11°♌44'46	-4.8m	
superior conj	15626 Apr 28 20:19	20°♋36'14	-0°37'47		15628 Nov 20 07:49	0°♍		
minimum elong	15626 Apr 28 11:59	20°♋10'28	0°38'01	morning max el	15628 Dec 02 13:28	11°♍23'14	46°24'11	
	15626 May 06 10:33	0°♌			15628 Dec 20 15:45	0°♎		
	15626 May 30 15:08	0°♋			15629 Jan 16 15:24	0°♊		
evening rise	15626 Jun 06 11:13	8°♋29'39		asc. node	15629 Jan 18 12:01	2°♊07'53		
	15626 Jun 23 18:12	0°♌			15629 Feb 11 09:07	0°♊		
	15626 Jul 17 20:57	0°♍			15629 Mar 08 11:35	0°♋		
asc. node	15626 Aug 03 09:54	20°♍32'24			15629 Apr 02 05:31	0°♋		
	15626 Aug 11 01:11	0°♌			15629 Apr 26 18:06	0°♋		
	15626 Sep 04 09:12	0°♍		desc. node	15629 May 10 08:56	16°♋45'06		
	15626 Sep 29 00:46	0°♎			15629 May 21 02:28	0°♌		
	15626 Oct 24 07:18	0°♊		morning set	15629 Jun 01 01:56	13°♌35'36		
	15626 Nov 19 21:38	0°♊			15629 Jun 14 06:59	0°♋		
desc. node	15626 Nov 23 04:55	3°♊33'11		max. Earth dist.	15629 Jul 08 05:05	29°♋49'57	1.71839 AU	
evening max el	15626 Dec 08 09:55	19°♊09'25	46°15'40		15629 Jul 08 08:18	0°♌		
	15626 Dec 20 01:58	0°♋						
greatest brilliancy	15627 Jan 16 20:29	18°♋14'03	-4.8m	superior conj	15629 Jul 10 15:58	2°♌53'56	-1°26'57	
retrograde	15627 Jan 26 21:23	20°♋04'48		minimum elong	15629 Jul 10 19:12	3°♌04'03	1°27'42	
evening set	15627 Feb 12 15:07	14°♋43'20			15629 Aug 01 07:44	0°♍		
inferior conj	15627 Feb 17 07:31	11°♋51'43	-6°02'48	evening rise	15629 Aug 19 16:29	22°♍59'36		
minimum elong	15627 Feb 17 17:57	11°♋35'24	6°00'05		15629 Aug 25 06:49	0°♌		
min. Earth dist.	15627 Feb 17 13:26	11°♋42'28	0.28643 AU	asc. node	15629 Aug 30 23:58	7°♌08'58		
morning rise	15627 Feb 22 20:43	8°♋30'09			15629 Sep 18 06:55	0°♍		
direct	15627 Mar 10 13:55	3°♋41'40			15629 Oct 12 09:34	0°♎		
asc. node	15627 Mar 16 05:25	4°♋18'08			15629 Nov 05 17:19	0°♊		
greatest brilliancy	15627 Mar 21 08:22	5°♋48'43	-4.8m		15629 Nov 30 10:26	0°♊		
	15627 Apr 24 02:31	0°♋		desc. node	15629 Dec 20 16:33	24°♊01'32		
morning max el	15627 Apr 28 20:13	4°♋32'47	45°54'39		15629 Dec 25 19:34	0°♋		
	15627 May 23 03:57	0°♋			15630 Jan 21 08:20	0°♋		
	15627 Jun 18 13:04	0°♌		evening max el	15630 Feb 17 12:08	28°♋12'08	45°59'31	
desc. node	15627 Jul 06 07:02	20°♌58'54			15630 Feb 19 09:07	0°♋		
	15627 Jul 13 19:19	0°♋		greatest brilliancy	15630 Mar 28 11:17	26°♋46'34	-4.8m	
	15627 Aug 07 11:03	0°♌		retrograde	15630 Apr 07 13:52	28°♋38'40		
	15627 Aug 31 18:40	0°♍		asc. node	15630 Apr 12 15:05	28°♋08'04		
	15627 Sep 24 22:13	0°♌		evening set	15630 Apr 22 14:13	24°♋14'17		
	15627 Oct 19 00:00	0°♍		inferior conj	15630 Apr 28 17:40	20°♋31'53	3°53'56	
asc. node	15627 Oct 27 01:59	10°♍04'44		minimum elong	15630 Apr 28 09:35	20°♋44'35	3°51'03	
morning set	15627 Oct 30 07:56	14°♍07'48		min. Earth dist.	15630 Apr 28 15:40	20°♋35'01	0.28247 AU	
	15627 Nov 12 01:13	0°♎		morning rise	15630 May 04 04:50	17°♋12'10		

direct	15630 May 19 22:19	12°♄22'47			15632 Oct 26 19:27	0°♁	
greatest brilliancy	15630 May 30 04:24	14°♄20'11	-4.8m	evening rise	15632 Nov 01 01:09	6°♁32'24	
	15630 Jun 23 11:03	0°♄			15632 Nov 19 21:02	0°♁	
morning max el	15630 Jul 08 20:51	14°♄19'13	46°35'22		15632 Dec 14 02:48	0°♁	
	15630 Jul 23 22:37	0°♄			15633 Jan 07 15:19	0°♁	
desc. node	15630 Aug 02 17:34	10°♄45'46		desc. node	15633 Jan 17 05:26	11°♁36'47	
	15630 Aug 19 14:00	0°♄			15633 Feb 01 13:03	0°♁	
	15630 Sep 13 22:08	0°♄			15633 Feb 26 22:47	0°♁	
	15630 Oct 08 16:32	0°♄			15633 Mar 25 02:32	0°♄	
	15630 Nov 02 04:24	0°♄			15633 Apr 21 19:54	0°♄	
asc. node	15630 Nov 23 14:59	26°♄24'44		evening max el	15633 Apr 29 19:23	8°♄01'02	46°10'10
	15630 Nov 26 12:44	0°♁		asc. node	15633 May 10 01:06	17°♄39'12	
	15630 Dec 20 18:52	0°♁			15633 May 25 09:48	0°♄	
morning set	15631 Jan 09 07:39	24°♁11'53		greatest brilliancy	15633 Jun 08 22:41	7°♄43'15	-4.8m
	15631 Jan 14 00:03	0°♁		retrograde	15633 Jun 18 09:30	9°♄24'05	
	15631 Feb 07 05:43	0°♁		evening set	15633 Jul 06 14:24	3°♄06'26	
				inferior conj	15633 Jul 09 05:10	1°♄29'45	9°04'42
superior conj	15631 Feb 15 06:09	9°♁54'29	1°01'26	minimum elong	15633 Jul 09 07:22	1°♄26'21	9°03'51
minimum elong	15631 Feb 15 16:08	10°♁25'18	1°01'27	min. Earth dist.	15633 Jul 09 17:49	1°♄10'06	0.27726 AU
max. Earth dist.	15631 Feb 16 21:48	11°♁56'53	1.73043 AU		15633 Jul 11 15:11	30°♄	
	15631 Mar 03 12:54	0°♁		morning rise	15633 Jul 12 00:13	29°♄46'14	
desc. node	15631 Mar 15 07:21	14°♁30'07		direct	15633 Jul 30 03:52	23°♄26'37	
evening rise	15631 Mar 25 01:58	26°♁32'05		greatest brilliancy	15633 Aug 09 08:46	25°♄24'10	-4.9m
	15631 Mar 27 21:33	0°♁			15633 Aug 18 15:40	0°♄	
	15631 Apr 21 06:55	0°♄		desc. node	15633 Aug 30 03:05	8°♄15'08	
	15631 May 15 16:35	0°♄		morning max el	15633 Sep 18 16:08	26°♄13'17	46°56'13
	15631 Jun 09 03:24	0°♄			15633 Sep 22 09:25	0°♄	
	15631 Jul 03 17:54	0°♄			15633 Oct 19 23:15	0°♄	
asc. node	15631 Jul 05 22:29	2°♄39'21			15633 Nov 14 21:10	0°♄	
	15631 Jul 28 16:34	0°♄			15633 Dec 10 02:11	0°♁	
	15631 Aug 23 07:57	0°♄		asc. node	15633 Dec 21 03:00	13°♁17'25	
	15631 Sep 19 14:41	0°♁			15634 Jan 03 21:48	0°♁	
evening max el	15631 Sep 25 13:50	6°♁05'41	46°38'26		15634 Jan 28 11:34	0°♁	
	15631 Oct 23 06:07	0°♁			15634 Feb 21 22:00	0°♁	
desc. node	15631 Oct 25 20:22	1°♁40'08			15634 Mar 18 06:49	0°♁	
greatest brilliancy	15631 Nov 04 00:42	6°♁18'45	-4.8m	morning set	15634 Mar 19 07:07	1°♁14'53	
retrograde	15631 Nov 14 19:06	8°♁27'25		desc. node	15634 Apr 11 21:16	0°♁20'34	
evening set	15631 Dec 02 01:15	2°♁48'31			15634 Apr 11 14:36	0°♁	
min. Earth dist.	15631 Dec 05 06:46	0°♁50'56	0.28061 AU	max. Earth dist.	15634 Apr 24 17:06	16°♁11'14	1.72848 AU
inferior conj	15631 Dec 06 00:55	0°♁22'52	-8°16'20				
minimum elong	15631 Dec 05 16:53	0°♁35'18	8°14'29	superior conj	15634 Apr 26 11:10	18°♁21'14	-0°34'32
	15631 Dec 06 15:42	30°♄		minimum elong	15634 Apr 26 03:25	17°♁57'19	0°34'47
morning rise	15631 Dec 09 08:43	28°♁21'06			15634 May 05 21:03	0°♄	
direct	15631 Dec 27 02:20	22°♁27'54			15634 May 30 01:44	0°♄	
greatest brilliancy	15632 Jan 05 16:29	24°♁08'05	-4.8m	evening rise	15634 Jun 04 01:15	6°♄11'09	
	15632 Jan 17 13:33	0°♁			15634 Jun 23 04:57	0°♄	
morning max el	15632 Feb 14 02:27	22°♁45'46	45°47'33		15634 Jul 17 07:55	0°♄	
asc. node	15632 Feb 15 21:56	24°♁31'42		asc. node	15634 Aug 02 11:48	20°♄03'43	
	15632 Feb 21 09:31	0°♁			15634 Aug 10 12:27	0°♄	
	15632 Mar 20 06:47	0°♁			15634 Sep 03 20:57	0°♄	
	15632 Apr 15 08:25	0°♁			15634 Sep 28 13:16	0°♁	
	15632 May 10 14:05	0°♁			15634 Oct 23 21:13	0°♁	
	15632 Jun 04 08:02	0°♄			15634 Nov 19 14:46	0°♁	
desc. node	15632 Jun 06 21:28	3°♄07'43		desc. node	15634 Nov 22 06:51	2°♁51'06	
	15632 Jun 28 17:49	0°♄		evening max el	15634 Dec 06 01:31	16°♁56'47	46°16'35
	15632 Jul 22 21:50	0°♄			15634 Dec 20 07:07	0°♁	
morning set	15632 Aug 14 09:29	28°♄04'42		greatest brilliancy	15635 Jan 14 10:53	16°♁00'59	-4.8m
	15632 Aug 15 22:20	0°♄		retrograde	15635 Jan 24 13:20	17°♁52'45	
	15632 Sep 08 21:15	0°♄		evening set	15635 Feb 10 09:35	12°♁26'46	
				inferior conj	15635 Feb 14 22:59	9°♁39'24	-6°18'04
superior conj	15632 Sep 23 01:32	17°♄46'01	-0°11'05	minimum elong	15635 Feb 15 09:29	9°♁22'58	6°15'24
minimum elong	15632 Sep 23 04:16	17°♄54'34	0°10'46	min. Earth dist.	15635 Feb 15 04:10	9°♁31'17	0.28652 AU
behind sun begin	15632 Sep 22 09:20	16°♄55'15		morning rise	15635 Feb 20 09:25	6°♁22'03	
behind sun end	15632 Sep 23 23:12	18°♄53'53		direct	15635 Mar 08 05:58	1°♁29'38	
max. Earth dist.	15632 Sep 23 10:17	18°♄13'26	1.71584 AU	asc. node	15635 Mar 15 07:21	2°♁26'11	
asc. node	15632 Sep 27 14:01	23°♄25'44		greatest brilliancy	15635 Mar 18 22:56	3°♁35'46	-4.8m
	15632 Oct 02 19:58	0°♄			15635 Apr 24 01:45	0°♁	

morning max el	15635 Apr 26 12:20	2° $\Upsilon$ 21'52	45°53'43		15637 Dec 25 08:43	0° $\text{H}$	
	15635 May 22 19:38	0° $\text{B}$			15638 Jan 21 00:04	0° $\Upsilon$	
	15635 Jun 18 02:16	0° $\Pi$		evening max el	15638 Feb 15 02:21	25° $\Upsilon$ 57'11	45°59'36
desc. node	15635 Jul 05 09:06	20° $\Pi$ 28'11			15638 Feb 19 08:33	0° $\text{B}$	
	15635 Jul 13 07:23	0° $\text{G}$		greatest brilliancy	15638 Mar 26 02:47	24° $\text{B}$ 33'27	-4.8m
	15635 Aug 06 22:30	0° $\Omega$		retrograde	15638 Apr 05 04:15	26° $\text{B}$ 24'52	
	15635 Aug 31 05:46	0° $\text{M}$		asc. node	15638 Apr 11 16:58	25° $\text{B}$ 33'37	
	15635 Sep 24 09:04	0° $\text{A}$		evening set	15638 Apr 20 04:04	22° $\text{B}$ 02'04	
	15635 Oct 18 10:41	0° $\text{M}$		inferior conj	15638 Apr 26 08:54	18° $\text{B}$ 17'58	3°34'04
asc. node	15635 Oct 26 03:47	9° $\text{M}$ 37'11		minimum elong	15638 Apr 26 01:23	18° $\text{B}$ 29'48	3°31'19
morning set	15635 Oct 27 21:39	11° $\text{M}$ 47'45		min. Earth dist.	15638 Apr 26 07:31	18° $\text{B}$ 20'08	0.28257 AU
	15635 Nov 11 11:47	0° $\text{A}$		morning rise	15638 May 01 22:28	14° $\text{B}$ 54'36	
				direct	15638 May 17 13:07	10° $\text{B}$ 08'40	
superior conj	15635 Dec 05 08:18	29° $\text{A}$ 44'41	1°18'40	greatest brilliancy	15638 May 27 20:59	12° $\text{B}$ 07'08	-4.8m
minimum elong	15635 Dec 05 00:18	29° $\text{A}$ 19'46	1°19'22		15638 Jun 23 16:35	0° $\Pi$	
	15635 Dec 05 13:12	0° $\text{B}$		morning max el	15638 Jul 06 10:20	11° $\Pi$ 59'29	46°34'06
max. Earth dist.	15635 Dec 07 14:19	2° $\text{B}$ 32'59	1.72281 AU		15638 Jul 23 15:54	0° $\text{G}$	
	15635 Dec 29 16:13	0° $\approx$		desc. node	15638 Aug 01 19:28	10° $\text{G}$ 06'51	
evening rise	15636 Jan 11 17:24	16° $\approx$ 09'54			15638 Aug 19 03:58	0° $\Omega$	
	15636 Jan 22 22:23	0° $\text{H}$			15638 Sep 13 10:38	0° $\text{M}$	
desc. node	15636 Feb 14 19:04	28° $\text{H}$ 04'23			15638 Oct 08 04:12	0° $\text{A}$	
	15636 Feb 16 08:52	0° $\Upsilon$			15638 Nov 01 15:33	0° $\text{M}$	
	15636 Mar 11 23:54	0° $\text{B}$		asc. node	15638 Nov 22 16:54	25° $\text{M}$ 57'11	
	15636 Apr 05 19:27	0° $\Pi$			15638 Nov 25 23:32	0° $\text{A}$	
	15636 Apr 30 20:51	0° $\text{G}$			15638 Dec 20 05:26	0° $\text{B}$	
	15636 May 26 09:14	0° $\Omega$		morning set	15639 Jan 06 23:51	22° $\text{B}$ 00'59	
asc. node	15636 Jun 06 12:10	12° $\Omega$ 46'39			15639 Jan 13 10:29	0° $\approx$	
	15636 Jun 21 22:11	0° $\text{M}$			15639 Feb 06 16:07	0° $\text{H}$	
evening max el	15636 Jul 11 20:40	20° $\text{M}$ 55'13	46°34'36				
	15636 Jul 21 08:11	0° $\text{A}$		superior conj	15639 Feb 12 22:31	7° $\text{H}$ 44'48	1°03'47
greatest brilliancy	15636 Aug 20 15:41	21° $\text{A}$ 02'49	-4.9m	minimum elong	15639 Feb 13 08:29	8° $\text{H}$ 15'33	1°03'51
retrograde	15636 Aug 30 21:04	22° $\text{A}$ 59'29		max. Earth dist.	15639 Feb 14 13:33	9° $\text{H}$ 45'18	1.73030 AU
evening set	15636 Sep 14 12:18	18° $\text{A}$ 46'39			15639 Mar 02 23:18	0° $\Upsilon$	
inferior conj	15636 Sep 20 12:28	15° $\text{A}$ 15'37	1°34'06	desc. node	15639 Mar 14 09:02	14° $\Upsilon$ 03'10	
minimum elong	15636 Sep 20 16:09	15° $\text{A}$ 10'02	1°33'03	evening rise	15639 Mar 22 17:40	24° $\Upsilon$ 20'29	
min. Earth dist.	15636 Sep 20 14:48	15° $\text{A}$ 12'05	0.26921 AU		15639 Mar 27 08:03	0° $\text{B}$	
morning rise	15636 Sep 26 20:10	11° $\text{A}$ 35'14			15639 Apr 20 17:37	0° $\Pi$	
desc. node	15636 Sep 26 12:28	11° $\text{A}$ 45'28			15639 May 15 03:34	0° $\text{G}$	
direct	15636 Oct 11 07:12	7° $\text{A}$ 31'09			15639 Jun 08 14:50	0° $\Omega$	
greatest brilliancy	15636 Oct 21 05:28	9° $\text{A}$ 21'21	-4.8m		15639 Jul 03 06:00	0° $\text{M}$	
	15636 Nov 20 12:45	0° $\text{M}$		asc. node	15639 Jul 05 00:23	2° $\text{M}$ 08'19	
morning max el	15636 Nov 30 02:30	9° $\text{M}$ 01'50	46°25'36		15639 Jul 28 05:42	0° $\text{A}$	
	15636 Dec 20 09:09	0° $\text{A}$			15639 Aug 22 23:05	0° $\text{M}$	
	15637 Jan 16 05:20	0° $\text{B}$			15639 Sep 19 10:52	0° $\text{A}$	
asc. node	15637 Jan 17 14:02	1° $\text{B}$ 34'03		evening max el	15639 Sep 23 03:08	3° $\text{A}$ 44'00	46°38'59
	15637 Feb 10 21:26	0° $\approx$			15639 Oct 24 11:43	0° $\text{B}$	
	15637 Mar 07 23:02	0° $\text{H}$		desc. node	15639 Oct 24 22:17	0° $\text{B}$ 15'35	
	15637 Apr 01 16:29	0° $\Upsilon$		greatest brilliancy	15639 Nov 01 15:04	4° $\text{B}$ 01'17	-4.8m
	15637 Apr 26 04:49	0° $\text{B}$		retrograde	15639 Nov 12 09:45	6° $\text{B}$ 10'49	
desc. node	15637 May 09 10:45	16° $\text{B}$ 17'58		evening set	15639 Nov 29 11:51	0° $\text{B}$ 37'46	
	15637 May 20 13:03	0° $\Pi$			15639 Nov 30 13:22	30° $\text{B}$ 12'17	
morning set	15637 May 29 14:59	11° $\Pi$ 14'39		min. Earth dist.	15639 Dec 02 20:53	28° $\text{A}$ 35'24	0.28016 AU
	15637 Jun 13 17:28	0° $\text{G}$		inferior conj	15639 Dec 03 15:23	28° $\text{A}$ 06'52	-8°07'25
max. Earth dist.	15637 Jul 05 13:07	27° $\text{G}$ 12'27	1.71864 AU	minimum elong	15639 Dec 03 06:44	28° $\text{A}$ 20'13	8°05'24
	15637 Jul 07 18:46	0° $\Omega$		morning rise	15639 Dec 07 01:49	26° $\text{A}$ 01'24	
				direct	15639 Dec 24 15:56	20° $\text{A}$ 12'17	
superior conj	15637 Jul 08 04:45	0° $\Omega$ 31'13	-1°27'23	greatest brilliancy	15640 Jan 03 06:39	21° $\text{A}$ 52'53	-4.8m
minimum elong	15637 Jul 08 07:00	0° $\Omega$ 38'13	1°28'10		15640 Jan 18 13:33	0° $\text{B}$	
	15637 Jul 31 18:13	0° $\text{M}$		morning max el	15640 Feb 11 16:38	20° $\text{B}$ 30'03	45°48'14
evening rise	15637 Aug 17 04:32	20° $\text{M}$ 34'05		asc. node	15640 Feb 14 23:49	23° $\text{B}$ 43'50	
	15637 Aug 24 17:23	0° $\text{A}$			15640 Feb 21 04:56	0° $\approx$	
asc. node	15637 Aug 30 01:43	6° $\text{A}$ 41'21			15640 Mar 19 21:22	0° $\text{H}$	
	15637 Sep 17 17:38	0° $\text{M}$			15640 Apr 14 21:07	0° $\Upsilon$	
	15637 Oct 11 20:30	0° $\text{A}$			15640 May 10 01:50	0° $\text{B}$	
	15637 Nov 05 04:36	0° $\text{B}$			15640 Jun 03 19:15	0° $\Pi$	
	15637 Nov 29 22:22	0° $\approx$		desc. node	15640 Jun 05 23:26	2° $\Pi$ 39'31	
desc. node	15637 Dec 19 18:31	23° $\approx$ 29'43			15640 Jun 28 04:46	0° $\text{G}$	



	15640 Jul 22 08:38	0°♈			15642 Dec 20 14:32	0°♏	
morning set	15640 Aug 11 21:38	25°♈39'05		greatest brilliancy	15643 Jan 12 02:00	13°♏49'02	-4.8m
	15640 Aug 15 09:02	0°♏		retrograde	15643 Jan 22 05:16	15°♏41'04	
	15640 Sep 08 07:54	0°♎		evening set	15643 Feb 08 04:19	10°♏10'53	
				inferior conj	15643 Feb 12 14:41	7°♏27'39	-6°32'37
superior conj	15640 Sep 20 14:08	15°♎21'55	-0°14'51	minimum elong	15643 Feb 13 01:12	7°♏11'13	6°30'01
minimum elong	15640 Sep 20 17:49	15°♎33'26	0°14'31	min. Earth dist.	15643 Feb 12 19:06	7°♏20'45	0.28656 AU
behind sun begin	15640 Sep 20 06:33	14°♎58'08		morning rise	15643 Feb 17 22:11	4°♏14'32	
behind sun end	15640 Sep 21 05:05	16°♎08'45			15643 Feb 28 01:17	30°♏	
max. Earth dist.	15640 Sep 20 20:08	15°♎40'42	1.71572 AU	direct	15643 Mar 05 22:18	29°♏18'21	
asc. node	15640 Sep 26 15:48	22°♎58'08			15643 Mar 11 23:03	0°♏	
	15640 Oct 02 06:32	0°♎		asc. node	15643 Mar 14 09:16	0°♏38'41	
	15640 Oct 26 06:01	0°♏		greatest brilliancy	15643 Mar 16 13:21	1°♏22'53	-4.8m
evening rise	15640 Oct 29 15:49	4°♏15'24		morning max el	15643 Apr 24 03:51	0°♏09'07	45°52'32
	15640 Nov 19 07:40	0°♏			15643 Apr 24 00:07	0°♏	
	15640 Dec 13 13:38	0°♏			15643 May 22 11:18	0°♏	
	15641 Jan 07 02:29	0°♏			15643 Jun 17 15:40	0°♏	
desc. node	15641 Jan 16 07:17	11°♏08'03		desc. node	15643 Jul 04 10:56	19°♏55'59	
	15641 Feb 01 00:50	0°♏			15643 Jul 12 19:42	0°♏	
	15641 Feb 26 11:38	0°♏			15643 Aug 06 10:13	0°♏	
	15641 Mar 24 17:27	0°♏			15643 Aug 30 17:07	0°♏	
	15641 Apr 21 15:56	0°♏			15643 Sep 23 20:10	0°♏	
evening max el	15641 Apr 27 09:55	5°♏44'12	46°09'28		15643 Oct 17 21:38	0°♏	
asc. node	15641 May 09 03:09	16°♏40'35		morning set	15643 Oct 25 11:16	9°♏26'33	
	15641 May 26 12:34	0°♏		asc. node	15643 Oct 25 05:40	9°♏09'05	
greatest brilliancy	15641 Jun 06 11:01	5°♏21'58	-4.8m		15643 Nov 10 22:37	0°♏	
retrograde	15641 Jun 15 23:40	7°♏04'03					
evening set	15641 Jul 04 04:10	0°♏45'40		superior conj	15643 Dec 02 23:36	27°♏29'22	1°17'08
	15641 Jul 05 10:00	30°♏		minimum elong	15643 Dec 02 15:05	27°♏02'49	1°17'47
inferior conj	15641 Jul 06 19:01	29°♏08'48	9°06'12		15643 Dec 04 23:58	0°♏	
minimum elong	15641 Jul 06 20:17	29°♏06'49	9°05'24	max. Earth dist.	15643 Dec 05 06:13	0°♏19'30	1.72246 AU
min. Earth dist.	15641 Jul 07 06:27	28°♏51'00	0.27761 AU		15643 Dec 29 02:56	0°♏	
morning rise	15641 Jul 09 12:19	27°♏27'58		evening rise	15644 Jan 09 09:09	13°♏56'56	
direct	15641 Jul 27 18:31	21°♏05'10			15644 Jan 22 09:10	0°♏	
greatest brilliancy	15641 Aug 06 21:59	23°♏01'55	-4.9m	desc. node	15644 Feb 13 20:48	27°♏36'13	
	15641 Aug 19 21:01	0°♏			15644 Feb 15 19:50	0°♏	
desc. node	15641 Aug 29 05:00	7°♏07'12			15644 Mar 11 11:13	0°♏	
morning max el	15641 Sep 16 07:27	23°♏55'10	46°56'26		15644 Apr 05 07:18	0°♏	
	15641 Sep 22 06:09	0°♏			15644 Apr 30 09:36	0°♏	
	15641 Oct 19 14:45	0°♏			15644 May 25 23:34	0°♏	
	15641 Nov 14 10:29	0°♏		asc. node	15644 Jun 05 14:02	12°♏08'12	
	15641 Dec 09 14:19	0°♏			15644 Jun 21 15:53	0°♏	
asc. node	15641 Dec 20 04:57	12°♏47'44		evening max el	15644 Jul 09 09:54	18°♏31'35	46°33'46
	15642 Jan 03 09:13	0°♏			15644 Jul 21 13:03	0°♏	
	15642 Jan 27 22:33	0°♏		greatest brilliancy	15644 Aug 18 06:28	18°♏39'36	-4.9m
	15642 Feb 21 08:43	0°♏		retrograde	15644 Aug 28 09:29	20°♏34'05	
morning set	15642 Mar 16 23:43	29°♏05'30		evening set	15644 Sep 12 02:54	16°♏19'19	
	15642 Mar 17 17:24	0°♏		inferior conj	15644 Sep 18 01:10	12°♏50'44	1°58'04
desc. node	15642 Apr 10 23:07	29°♏53'39		minimum elong	15644 Sep 18 05:43	12°♏43'46	1°56'43
	15642 Apr 11 01:11	0°♏		min. Earth dist.	15644 Sep 18 05:03	12°♏44'47	0.26919 AU
max. Earth dist.	15642 Apr 22 11:51	14°♏08'03	1.72874 AU	morning rise	15644 Sep 24 08:37	9°♏10'07	
				desc. node	15644 Sep 25 14:25	8°♏31'55	
superior conj	15642 Apr 24 01:57	16°♏05'46	-0°31'15	direct	15644 Oct 08 19:33	5°♏06'02	
minimum elong	15642 Apr 23 18:52	15°♏43'52	0°31'28	greatest brilliancy	15644 Oct 18 19:05	6°♏56'53	-4.9m
	15642 May 05 07:41	0°♏			15644 Nov 20 16:24	0°♏	
	15642 May 29 12:28	0°♏		morning max el	15644 Nov 27 14:52	6°♏37'22	46°27'08
evening rise	15642 Jun 01 15:05	3°♏51'39			15644 Dec 20 02:36	0°♏	
	15642 Jun 22 15:51	0°♏			15645 Jan 15 19:30	0°♏	
	15642 Jul 16 19:02	0°♏		asc. node	15645 Jan 16 15:47	0°♏58'32	
asc. node	15642 Aug 01 13:34	19°♏34'03			15645 Feb 10 10:02	0°♏	
	15642 Aug 09 23:54	0°♏			15645 Mar 07 10:47	0°♏	
	15642 Sep 03 08:54	0°♏			15645 Apr 01 03:45	0°♏	
	15642 Sep 28 02:02	0°♏			15645 Apr 25 15:50	0°♏	
	15642 Oct 23 11:28	0°♏		desc. node	15645 May 08 12:40	15°♏50'17	
	15642 Nov 19 08:26	0°♏			15645 May 19 23:56	0°♏	
desc. node	15642 Nov 21 08:53	2°♏08'26		morning set	15645 May 27 04:15	8°♏53'21	
evening max el	15642 Dec 03 17:28	14°♏44'43	46°17'35		15645 Jun 13 04:20	0°♏	

max. Earth dist.	15645 Jul 02 21:40	24°☿35'18	1.71900 AU	minimum elong	15647 Nov 30 20:15	26°♂02'13	7°55'23
				morning rise	15647 Dec 04 18:44	23°♂38'45	
superior conj	15645 Jul 05 17:30	28°☿07'06	-1°27'39	direct	15647 Dec 22 05:31	17°♂54'01	
minimum elong	15645 Jul 05 18:44	28°☿10'59	1°28'27	greatest brilliancy	15647 Dec 31 19:54	19°♂34'39	-4.8m
	15645 Jul 07 05:39	0°♂			15648 Jan 19 08:01	0°♂	
	15645 Jul 31 05:11	0°♂		morning max el	15648 Feb 09 07:23	18°♂14'26	45°49'03
evening rise	15645 Aug 14 16:13	18°♂05'57		asc. node	15648 Feb 14 01:49	22°♂55'49	
	15645 Aug 24 04:27	0°♂			15648 Feb 21 00:15	0°♂	
asc. node	15645 Aug 29 03:29	6°♂12'15			15648 Mar 19 12:09	0°♂	
	15645 Sep 17 04:49	0°♂			15648 Apr 14 10:01	0°♂	
	15645 Oct 11 07:54	0°♂			15648 May 09 13:48	0°♂	
	15645 Nov 04 16:23	0°♂			15648 Jun 03 06:41	0°♂	
	15645 Nov 29 10:49	0°♂		desc. node	15648 Jun 05 01:14	2°♂10'09	
desc. node	15645 Dec 18 20:21	22°♂56'03			15648 Jun 27 15:53	0°♂	
	15645 Dec 24 22:27	0°♂			15648 Jul 21 19:36	0°♂	
	15646 Jan 20 16:33	0°♂		morning set	15648 Aug 09 10:14	23°♂14'18	
evening max el	15646 Feb 12 16:28	23°♂41'03	45°59'55		15648 Aug 14 19:55	0°♂	
	15646 Feb 19 09:35	0°♂			15648 Sep 07 18:45	0°♂	
greatest brilliancy	15646 Mar 23 18:15	22°♂19'50	-4.8m				
retrograde	15646 Apr 02 19:15	24°♂11'13		superior conj	15648 Sep 18 02:45	12°♂57'01	-0°18'35
asc. node	15646 Apr 10 18:59	22°♂54'18		minimum elong	15648 Sep 18 07:21	13°♂11'26	0°18'15
evening set	15646 Apr 17 18:23	19°♂49'22		max. Earth dist.	15648 Sep 18 08:32	13°♂15'10	1.71569 AU
inferior conj	15646 Apr 24 00:24	16°♂04'03	3°14'07	asc. node	15648 Sep 25 17:44	22°♂30'14	
minimum elong	15646 Apr 23 17:29	16°♂14'55	3°11'31		15648 Oct 01 17:23	0°♂	
min. Earth dist.	15646 Apr 23 23:31	16°♂05'25	0.28268 AU		15648 Oct 25 16:54	0°♂	
morning rise	15646 Apr 29 16:17	12°♂37'26		evening rise	15648 Oct 27 06:12	1°♂56'27	
direct	15646 May 15 04:03	7°♂54'28			15648 Nov 18 18:40	0°♂	
greatest brilliancy	15646 May 25 13:48	9°♂54'20	-4.8m		15648 Dec 13 00:48	0°♂	
	15646 Jun 23 20:27	0°♂			15649 Jan 06 14:00	0°♂	
morning max el	15646 Jul 04 00:45	9°♂41'23	46°32'38	desc. node	15649 Jan 15 09:02	10°♂38'04	
	15646 Jul 23 09:10	0°♂			15649 Jan 31 12:57	0°♂	
desc. node	15646 Jul 31 21:20	9°♂27'13			15649 Feb 26 00:52	0°♂	
	15646 Aug 18 18:13	0°♂			15649 Mar 24 08:52	0°♂	
	15646 Sep 12 23:33	0°♂			15649 Apr 21 12:54	0°♂	
	15646 Oct 07 16:22	0°♂		evening max el	15649 Apr 25 01:15	3°♂28'50	46°08'51
	15646 Nov 01 03:12	0°♂		asc. node	15649 May 08 05:06	15°♂39'58	
asc. node	15646 Nov 21 18:46	25°♂128'05			15649 May 28 03:05	0°♂	
	15646 Nov 25 10:48	0°♂		greatest brilliancy	15649 Jun 03 23:50	3°♂01'22	-4.8m
	15646 Dec 19 16:26	0°♂		retrograde	15649 Jun 13 13:56	4°♂44'10	
morning set	15647 Jan 04 15:50	19°♂48'00			15649 Jun 29 01:57	30°♂R☿	
	15647 Jan 12 21:20	0°♂		evening set	15649 Jul 01 17:42	28°♂26'12	
	15647 Feb 06 02:54	0°♂		inferior conj	15649 Jul 04 09:03	26°♂48'18	9°06'54
				minimum elong	15649 Jul 04 09:24	26°♂47'46	9°06'05
superior conj	15647 Feb 10 14:53	5°♂33'44	1°06'02	min. Earth dist.	15649 Jul 04 19:15	26°♂32'26	0.27789 AU
minimum elong	15647 Feb 11 00:47	6°♂04'19	1°06'10	morning rise	15649 Jul 07 01:03	25°♂09'21	
max. Earth dist.	15647 Feb 12 06:15	7°♂35'20	1.73016 AU	direct	15649 Jul 25 09:20	18°♂44'32	
	15647 Mar 02 10:07	0°♂		greatest brilliancy	15649 Aug 04 11:02	20°♂39'51	-4.9m
desc. node	15647 Mar 13 10:56	13°♂35'43			15649 Aug 20 18:07	0°♂	
evening rise	15647 Mar 20 09:35	22°♂08'25		desc. node	15649 Aug 28 06:58	6°♂01'28	
	15647 Mar 26 18:56	0°♂		morning max el	15649 Sep 13 22:19	21°♂36'06	46°56'25
	15647 Apr 20 04:39	0°♂			15649 Sep 22 02:09	0°♂	
	15647 May 14 14:53	0°♂			15649 Oct 19 06:02	0°♂	
	15647 Jun 08 02:36	0°♂			15649 Nov 13 23:48	0°♂	
	15647 Jul 02 18:27	0°♂			15649 Dec 09 02:33	0°♂	
asc. node	15647 Jul 04 02:10	1°♂35'53		asc. node	15649 Dec 19 06:43	12°♂17'00	
	15647 Jul 27 19:20	0°♂			15650 Jan 02 20:48	0°♂	
	15647 Aug 22 14:56	0°♂			15650 Jan 27 09:42	0°♂	
	15647 Sep 19 08:26	0°♂			15650 Feb 20 19:35	0°♂	
evening max el	15647 Sep 20 17:06	1°♂22'16	46°39'20	morning set	15650 Mar 14 16:00	26°♂54'49	
desc. node	15647 Oct 24 00:20	28°♂46'05			15650 Mar 17 04:07	0°♂	
	15647 Oct 26 09:05	0°♂		desc. node	15650 Apr 10 00:57	29°♂26'23	
greatest brilliancy	15647 Oct 30 04:44	1°♂40'33	-4.8m		15650 Apr 10 11:51	0°♂	
retrograde	15647 Nov 10 00:36	3°♂51'28		max. Earth dist.	15650 Apr 20 05:20	12°♂00'47	1.72896 AU
	15647 Nov 24 00:41	30°♂R♂					
evening set	15647 Nov 26 22:02	28°♂24'17		superior conj	15650 Apr 21 16:36	13°♂49'45	-0°27'54
min. Earth dist.	15647 Nov 30 10:24	26°♂17'22	0.27968 AU	minimum elong	15650 Apr 21 10:12	13°♂29'59	0°28'07
inferior conj	15647 Dec 01 05:27	25°♂48'04	-7°57'36		15650 May 04 18:23	0°♂	

	15650 May 28 23:17	0°☿		morning max el	15652 Nov 25 03:33	4°♊14'48	46°28'48
evening rise	15650 May 30 04:58	1°☿32'08			15652 Dec 19 19:10	0°♊	
	15650 Jun 22 02:47	0°♊			15653 Jan 15 09:04	0°♊	
	15650 Jul 16 06:09	0°♊		asc. node	15653 Jan 15 17:48	0°♊25'14	
asc. node	15650 Jul 31 15:25	19°♊04'46			15653 Feb 09 22:11	0°♊	
	15650 Aug 09 11:19	0°♊			15653 Mar 06 22:11	0°♊	
	15650 Sep 02 20:47	0°♊			15653 Mar 31 14:45	0°♊	
	15650 Sep 27 14:45	0°♊			15653 Apr 25 02:35	0°♊	
	15650 Oct 23 01:46	0°♊		desc. node	15653 May 07 14:26	15°♊22'54	
	15650 Nov 19 02:30	0°♊			15653 May 19 10:33	0°♊	
desc. node	15650 Nov 20 10:40	1°♊24'36		morning set	15653 May 24 17:16	6°♊32'10	
evening max el	15650 Dec 01 08:51	12°♊30'58	46°18'14		15653 Jun 12 14:52	0°♊	
	15650 Dec 21 00:56	0°♊		max. Earth dist.	15653 Jun 30 08:59	22°♊07'52	1.71934 AU
greatest brilliancy	15651 Jan 09 17:32	11°♊36'45	-4.8m				
retrograde	15651 Jan 19 20:30	13°♊28'17		superior conj	15653 Jul 03 06:04	25°♊43'29	-1°27'45
evening set	15651 Feb 05 22:51	7°♊54'04		minimum elong	15653 Jul 03 06:17	25°♊44'10	1°28'34
inferior conj	15651 Feb 10 06:11	5°♊15'04	-6°46'44		15653 Jul 06 16:12	0°♊	
minimum elong	15651 Feb 10 16:37	4°♊58'43	6°44'13		15653 Jul 30 15:48	0°♊	
min. Earth dist.	15651 Feb 10 10:09	5°♊08'50	0.28661 AU	evening rise	15653 Aug 12 03:56	15°♊39'02	
morning rise	15651 Feb 15 10:29	2°♊06'16			15653 Aug 23 15:10	0°♊	
	15651 Feb 19 11:22	30°♊		asc. node	15653 Aug 28 05:25	5°♊44'40	
direct	15651 Mar 03 13:59	27°♊06'14			15653 Sep 16 15:40	0°♊	
asc. node	15651 Mar 13 11:17	28°♊54'25			15653 Oct 10 18:57	0°♊	
greatest brilliancy	15651 Mar 14 03:50	29°♊09'20	-4.8m		15653 Nov 04 03:46	0°♊	
	15651 Mar 16 06:20	0°♊			15653 Nov 28 22:52	0°♊	
morning max el	15651 Apr 21 18:18	27°♊53'36	45°51'32	desc. node	15653 Dec 17 22:12	22°♊23'44	
	15651 Apr 23 21:40	0°♊			15653 Dec 24 11:48	0°♊	
	15651 May 22 02:41	0°♊			15654 Jan 20 08:50	0°♊	
	15651 Jun 17 04:50	0°♊		evening max el	15654 Feb 10 06:56	21°♊27'06	46°00'05
desc. node	15651 Jul 03 12:45	19°♊24'17			15654 Feb 19 11:30	0°♊	
	15651 Jul 12 07:49	0°♊		greatest brilliancy	15654 Mar 21 08:58	20°♊06'00	-4.8m
	15651 Aug 05 21:45	0°♊		retrograde	15654 Mar 31 10:25	21°♊57'59	
	15651 Aug 30 04:15	0°♊		asc. node	15654 Apr 09 20:56	20°♊10'25	
	15651 Sep 23 07:03	0°♊		evening set	15654 Apr 15 08:40	17°♊36'41	
	15651 Oct 17 08:19	0°♊		inferior conj	15654 Apr 21 15:40	13°♊50'19	2°53'34
morning set	15651 Oct 23 01:15	7°♊07'14		minimum elong	15654 Apr 21 09:24	14°♊00'10	2°51'10
asc. node	15651 Oct 24 07:28	8°♊41'30		min. Earth dist.	15654 Apr 21 15:09	13°♊51'08	0.28284 AU
	15651 Nov 10 09:11	0°♊		morning rise	15654 Apr 27 09:50	10°♊20'48	
				direct	15654 May 12 19:14	5°♊40'25	
superior conj	15651 Nov 30 15:09	25°♊15'32	1°15'28	greatest brilliancy	15654 May 23 06:16	7°♊41'39	-4.8m
minimum elong	15651 Nov 30 06:09	24°♊47'30	1°16'05		15654 Jun 23 22:24	0°♊	
max. Earth dist.	15651 Dec 02 21:00	28°♊03'20	1.72216 AU	morning max el	15654 Jul 01 16:01	7°♊26'20	46°31'15
	15651 Dec 04 10:28	0°♊			15654 Jul 23 01:44	0°♊	
	15651 Dec 28 13:27	0°♊		desc. node	15654 Jul 30 23:23	8°♊49'30	
evening rise	15652 Jan 07 00:54	11°♊44'28			15654 Aug 18 07:57	0°♊	
	15652 Jan 21 19:48	0°♊			15654 Sep 12 11:58	0°♊	
desc. node	15652 Feb 12 22:41	27°♊08'51			15654 Oct 07 04:02	0°♊	
	15652 Feb 15 06:41	0°♊			15654 Oct 31 14:23	0°♊	
	15652 Mar 10 22:25	0°♊		asc. node	15654 Nov 20 20:31	24°♊59'58	
	15652 Apr 04 19:04	0°♊			15654 Nov 24 21:36	0°♊	
	15652 Apr 29 22:15	0°♊			15654 Dec 19 02:59	0°♊	
	15652 May 25 13:51	0°♊		morning set	15655 Jan 02 08:02	17°♊37'03	
asc. node	15652 Jun 04 15:52	11°♊29'53			15655 Jan 12 07:43	0°♊	
	15652 Jun 21 09:46	0°♊			15655 Feb 05 13:13	0°♊	
evening max el	15652 Jul 06 22:18	16°♊06'43	46°33'01				
	15652 Jul 21 19:41	0°♊		superior conj	15655 Feb 08 07:27	3°♊24'45	1°08'11
greatest brilliancy	15652 Aug 15 21:28	16°♊17'31	-4.9m	minimum elong	15655 Feb 08 17:13	3°♊54'56	1°08'20
retrograde	15652 Aug 25 21:50	18°♊09'58		max. Earth dist.	15655 Feb 10 01:29	5°♊34'37	1.73002 AU
evening set	15652 Sep 09 17:42	13°♊52'38			15655 Mar 01 20:28	0°♊	
inferior conj	15652 Sep 15 13:56	10°♊27'03	2°21'53	desc. node	15655 Mar 12 12:45	13°♊09'20	
minimum elong	15652 Sep 15 19:21	10°♊18'46	2°20'14	evening rise	15655 Mar 18 01:38	19°♊58'09	
min. Earth dist.	15652 Sep 15 19:35	10°♊18'25	0.26919 AU		15655 Mar 26 05:24	0°♊	
morning rise	15652 Sep 21 20:55	6°♊46'37			15655 Apr 19 15:21	0°♊	
desc. node	15652 Sep 24 16:27	5°♊23'29			15655 May 14 01:55	0°♊	
direct	15652 Oct 06 07:35	2°♊41'50			15655 Jun 07 14:05	0°♊	
greatest brilliancy	15652 Oct 16 09:08	4°♊34'06	-4.9m		15655 Jul 02 06:39	0°♊	
	15652 Nov 20 17:57	0°♊		asc. node	15655 Jul 03 04:04	1°♊04'39	

	15655 Jul 27 08:42	0°♄			15658 Jan 02 08:05	0°♄		
	15655 Aug 22 06:37	0°♌			15658 Jan 26 20:34	0°♌		
evening max el	15655 Sep 18 07:56	29°♌04'02	46°39'47		15658 Feb 20 06:11	0°♌		
	15655 Sep 19 06:20	0°♌		morning set	15658 Mar 12 08:40	24°♌46'01		
desc. node	15655 Oct 23 02:10	27°♌14'34			15658 Mar 16 14:34	0°♌		
greatest brilliancy	15655 Oct 27 18:16	29°♌21'00	-4.8m	desc. node	15658 Apr 09 02:42	28°♌59'39		
	15655 Oct 29 13:54	0°♄			15658 Apr 09 22:16	0°♄		
retrograde	15655 Nov 07 15:48	1°♄33'15		max. Earth dist.	15658 Apr 17 21:46	9°♄51'09	1.72916 AU	
	15655 Nov 16 09:39	30°♌♌						
evening set	15655 Nov 24 08:14	26°♌12'01		superior conj	15658 Apr 19 07:47	11°♄36'10	-0°24'32	
min. Earth dist.	15655 Nov 27 23:46	24°♌00'42	0.27916 AU	minimum elong	15658 Apr 19 02:06	11°♄18'37	0°24'46	
inferior conj	15655 Nov 28 19:30	23°♌30'24	-7°46'54		15658 May 04 04:51	0°♌		
minimum elong	15655 Nov 28 09:51	23°♌45'14	7°44'31	evening rise	15658 May 27 19:15	29°♌14'44		
morning rise	15655 Dec 02 11:46	21°♌17'02			15658 May 28 09:51	0°♄		
direct	15655 Dec 19 19:34	15°♌37'05			15658 Jun 21 13:31	0°♌		
greatest brilliancy	15655 Dec 29 08:38	17°♌17'05	-4.8m		15658 Jul 15 17:09	0°♌		
	15656 Jan 19 21:05	0°♄		asc. node	15658 Jul 30 17:19	18°♌35'54		
morning max el	15656 Feb 06 22:31	16°♄01'14	45°49'55		15658 Aug 08 22:41	0°♄		
asc. node	15656 Feb 13 03:47	22°♄09'59			15658 Sep 02 08:42	0°♌		
	15656 Feb 20 18:29	0°♌			15658 Sep 27 03:31	0°♌		
	15656 Mar 19 02:13	0°♌			15658 Oct 22 16:11	0°♄		
	15656 Apr 13 22:23	0°♌			15658 Nov 18 20:56	0°♌		
	15656 May 09 01:19	0°♄		desc. node	15658 Nov 19 12:36	0°♌40'51		
	15656 Jun 02 17:45	0°♌		evening max el	15658 Nov 28 23:21	10°♌15'09	46°19'07	
desc. node	15656 Jun 04 03:03	1°♌41'54			15658 Dec 21 14:42	0°♌		
	15656 Jun 27 02:43	0°♄		greatest brilliancy	15659 Jan 07 09:33	9°♌25'33	-4.8m	
	15656 Jul 21 06:18	0°♌		retrograde	15659 Jan 17 11:32	11°♌16'25		
morning set	15656 Aug 06 22:26	20°♌49'09		evening set	15659 Feb 03 17:31	5°♌37'58		
	15656 Aug 14 06:33	0°♌		inferior conj	15659 Feb 07 21:50	3°♌03'23	-7°00'11	
	15656 Sep 07 05:17	0°♄		minimum elong	15659 Feb 08 08:08	2°♌47'14	6°57'45	
				min. Earth dist.	15659 Feb 08 01:38	2°♌57'26	0.28662 AU	
superior conj	15656 Sep 15 14:59	10°♄31'56	-0°22'19	morning rise	15659 Feb 12 22:49	29°♌59'02		
minimum elong	15656 Sep 15 20:29	10°♄49'09	0°21'58		15659 Feb 12 22:09	30°♌♌		
max. Earth dist.	15656 Sep 15 21:43	10°♄53'01	1.71559 AU	direct	15659 Mar 01 05:15	24°♌54'49		
asc. node	15656 Sep 24 19:27	22°♄02'37		greatest brilliancy	15659 Mar 11 18:55	26°♌57'06	-4.8m	
	15656 Oct 01 03:54	0°♌		asc. node	15659 Mar 12 13:12	27°♌14'29		
evening rise	15656 Oct 24 20:24	29°♌37'58			15659 Mar 18 09:42	0°♌		
	15656 Oct 25 03:27	0°♌		morning max el	15659 Apr 19 08:35	25°♌38'05	45°50'43	
	15656 Nov 18 05:19	0°♄			15659 Apr 23 18:14	0°♌		
	15656 Dec 12 11:39	0°♌			15659 May 21 17:40	0°♄		
	15657 Jan 06 01:11	0°♌			15659 Jun 16 17:46	0°♌		
desc. node	15657 Jan 14 10:58	10°♌09'37		desc. node	15659 Jul 02 14:46	18°♌53'46		
	15657 Jan 31 00:45	0°♌			15659 Jul 11 19:46	0°♄		
	15657 Feb 25 13:47	0°♄			15659 Aug 05 09:09	0°♌		
	15657 Mar 24 00:05	0°♌			15659 Aug 29 15:21	0°♌		
	15657 Apr 21 10:12	0°♄			15659 Sep 22 17:58	0°♄		
evening max el	15657 Apr 22 16:14	1°♄13'45	46°08'00		15659 Oct 16 19:06	0°♌		
asc. node	15657 May 07 06:55	14°♄38'36		morning set	15659 Oct 20 14:42	4°♌45'55		
	15657 May 30 15:46	0°♌		asc. node	15659 Oct 23 09:16	8°♌13'38		
greatest brilliancy	15657 Jun 01 13:00	0°♌41'57	-4.8m		15659 Nov 09 19:51	0°♌		
retrograde	15657 Jun 11 03:35	2°♌24'42						
	15657 Jun 22 01:24	30°♌♌		superior conj	15659 Nov 28 06:14	23°♌00'00	1°13'39	
evening set	15657 Jun 29 06:36	26°♄08'13		minimum elong	15659 Nov 27 20:49	22°♌30'38	1°14'15	
inferior conj	15657 Jul 01 23:03	24°♄28'24	9°06'35	max. Earth dist.	15659 Nov 30 09:09	25°♌38'39	1.72181 AU	
minimum elong	15657 Jul 01 22:28	24°♄29'19	9°05'45		15659 Dec 03 21:02	0°♄		
min. Earth dist.	15657 Jul 02 08:21	24°♄13'52	0.27821 AU		15659 Dec 28 00:01	0°♌		
morning rise	15657 Jul 04 14:18	22°♄50'20		evening rise	15660 Jan 04 16:26	9°♌31'11		
direct	15657 Jul 22 23:51	16°♄24'20			15660 Jan 21 06:28	0°♌		
greatest brilliancy	15657 Aug 02 00:38	18°♄18'35	-4.9m	desc. node	15660 Feb 12 00:31	26°♌41'14		
	15657 Aug 21 09:39	0°♌			15660 Feb 14 17:35	0°♌		
desc. node	15657 Aug 27 08:56	4°♌57'40			15660 Mar 10 09:41	0°♄		
morning max el	15657 Sep 11 12:18	19°♌14'58	46°56'24		15660 Apr 04 06:53	0°♌		
	15657 Sep 21 21:26	0°♌			15660 Apr 29 11:00	0°♄		
	15657 Oct 18 20:57	0°♄			15660 May 25 04:18	0°♌		
	15657 Nov 13 12:48	0°♌		asc. node	15660 Jun 03 17:53	10°♌51'54		
	15657 Dec 08 14:30	0°♌			15660 Jun 21 04:03	0°♌		
asc. node	15657 Dec 18 08:40	11°♌47'40		evening max el	15660 Jul 04 10:30	13°♌41'36	46°32'16	

	15660 Jul 22 04:49	0°♄		superior conj	15663 Feb 05 23:49	1°♄13'53	1°10'14
greatest brilliancy	15660 Aug 13 11:51	13°♄54'47	-4.9m	minimum elong	15663 Feb 06 09:23	1°♄43'26	1°10'26
retrograde	15660 Aug 23 10:22	15°♄46'06		max. Earth dist.	15663 Feb 07 21:19	3°♄34'31	1.72986 AU
evening set	15660 Sep 07 08:41	11°♄25'27			15663 Mar 01 07:11	0°♄	
inferior conj	15660 Sep 13 02:44	8°♄03'10	2°45'19	desc. node	15663 Mar 11 14:28	12°♄41'27	
minimum elong	15660 Sep 13 08:59	7°♄53'38	2°43'23	evening rise	15663 Mar 15 17:28	17°♄46'04	
min. Earth dist.	15660 Sep 13 09:59	7°♄52'05	0.26929 AU		15663 Mar 25 16:14	0°♄	
morning rise	15660 Sep 19 09:05	4°♄23'27			15663 Apr 19 02:23	0°♄	
desc. node	15660 Sep 23 18:18	2°♄19'43			15663 May 13 13:17	0°♄	
direct	15660 Oct 03 19:55	0°♄17'07			15663 Jun 07 01:57	0°♄	
greatest brilliancy	15660 Oct 13 23:20	2°♄11'05	-4.9m		15663 Jul 01 19:15	0°♄	
	15660 Nov 20 18:30	0°♄		asc. node	15663 Jul 02 05:58	0°♄32'17	
morning max el	15660 Nov 22 17:18	1°♄54'02	46°30'22		15663 Jul 26 22:32	0°♄	
	15660 Dec 19 11:43	0°♄			15663 Aug 21 22:54	0°♄	
asc. node	15661 Jan 14 19:46	29°♄51'18		evening max el	15663 Sep 15 23:38	26°♄47'12	46°40'11
	15661 Jan 14 22:46	0°♄			15663 Sep 19 05:27	0°♄	
	15661 Feb 09 10:29	0°♄		desc. node	15663 Oct 22 04:07	25°♄39'22	
	15661 Mar 06 09:43	0°♄		greatest brilliancy	15663 Oct 25 08:07	27°♄01'18	-4.8m
	15661 Mar 31 01:51	0°♄		retrograde	15663 Nov 05 06:58	29°♄14'19	
	15661 Apr 24 13:27	0°♄		evening set	15663 Nov 21 18:38	23°♄59'16	
desc. node	15661 May 06 16:14	14°♄55'12		min. Earth dist.	15663 Nov 25 13:17	21°♄43'24	0.27864 AU
	15661 May 18 21:18	0°♄		inferior conj	15663 Nov 26 09:39	21°♄12'08	-7°35'23
morning set	15661 May 22 06:39	4°♄11'42		minimum elong	15663 Nov 25 23:36	21°♄27'34	7°32'51
	15661 Jun 12 01:35	0°♄		morning rise	15663 Nov 30 04:58	18°♄54'29	
max. Earth dist.	15661 Jun 27 22:24	19°♄46'28	1.71965 AU	direct	15663 Dec 17 10:00	13°♄19'42	
				greatest brilliancy	15663 Dec 26 21:18	14°♄58'31	-4.8m
superior conj	15661 Jun 30 19:01	23°♄20'39	-1°27'42		15664 Jan 20 07:09	0°♄	
minimum elong	15661 Jun 30 18:13	23°♄18'08	1°28'31	morning max el	15664 Feb 04 13:20	13°♄46'04	45°50'36
	15661 Jul 06 02:55	0°♄		asc. node	15664 Feb 12 05:39	21°♄33'28	
	15661 Jul 30 02:34	0°♄			15664 Feb 20 12:43	0°♄	
evening rise	15661 Aug 09 16:05	13°♄13'11			15664 Mar 18 16:36	0°♄	
	15661 Aug 23 02:02	0°♄			15664 Apr 13 11:08	0°♄	
asc. node	15661 Aug 27 07:09	5°♄16'07			15664 May 08 13:12	0°♄	
	15661 Sep 16 02:41	0°♄			15664 Jun 02 05:10	0°♄	
	15661 Oct 10 06:12	0°♄		desc. node	15664 Jun 03 05:02	1°♄13'04	
	15661 Nov 03 15:27	0°♄			15664 Jun 26 13:53	0°♄	
	15661 Nov 28 11:18	0°♄			15664 Jul 20 17:21	0°♄	
desc. node	15661 Dec 17 00:09	21°♄50'29		morning set	15664 Aug 04 10:41	18°♄23'05	
	15661 Dec 24 01:39	0°♄			15664 Aug 13 17:31	0°♄	
	15662 Jan 20 01:51	0°♄			15664 Sep 06 16:12	0°♄	
evening max el	15662 Feb 07 22:22	19°♄14'40	46°00'29				
	15662 Feb 19 15:27	0°♄		superior conj	15664 Sep 13 03:21	8°♄06'05	-0°26'00
greatest brilliancy	15662 Mar 18 23:22	17°♄51'23	-4.8m	minimum elong	15664 Sep 13 09:42	8°♄25'59	0°25'40
retrograde	15662 Mar 29 02:04	19°♄44'16		max. Earth dist.	15664 Sep 13 09:24	8°♄25'02	1.71549 AU
asc. node	15662 Apr 08 22:48	17°♄21'49		asc. node	15664 Sep 23 21:16	21°♄34'08	
evening set	15662 Apr 12 23:18	15°♄23'24			15664 Sep 30 14:48	0°♄	
inferior conj	15662 Apr 19 07:00	11°♄36'05	2°32'51	evening rise	15664 Oct 22 10:40	27°♄18'33	
minimum elong	15662 Apr 19 01:25	11°♄44'50	2°30'41		15664 Oct 24 14:22	0°♄	
min. Earth dist.	15662 Apr 19 06:33	11°♄36'48	0.28297 AU		15664 Nov 17 16:19	0°♄	
morning rise	15662 Apr 25 03:19	8°♄03'56			15664 Dec 11 22:50	0°♄	
direct	15662 May 10 11:01	3°♄26'03			15665 Jan 05 12:45	0°♄	
greatest brilliancy	15662 May 20 22:15	5°♄27'55	-4.8m	desc. node	15665 Jan 13 12:49	9°♄39'43	
	15662 Jun 23 23:17	0°♄			15665 Jan 30 13:00	0°♄	
morning max el	15662 Jun 29 08:08	5°♄12'53	46°29'49		15665 Feb 25 03:18	0°♄	
	15662 Jul 22 18:15	0°♄			15665 Mar 23 16:04	0°♄	
desc. node	15662 Jul 30 01:14	8°♄10'50		evening max el	15665 Apr 20 06:35	28°♄55'48	46°07'14
	15662 Aug 17 21:48	0°♄			15665 Apr 21 08:56	0°♄	
	15662 Sep 12 00:33	0°♄		asc. node	15665 May 06 08:58	13°♄34'59	
	15662 Oct 06 15:54	0°♄		greatest brilliancy	15665 May 30 02:48	28°♄22'12	-4.8m
	15662 Oct 31 01:46	0°♄			15665 Jun 06 17:38	0°♄	
asc. node	15662 Nov 19 22:27	24°♄31'36		retrograde	15665 Jun 08 16:48	0°♄04'32	
	15662 Nov 24 08:40	0°♄			15665 Jun 10 15:31	30°♄	
	15662 Dec 18 13:50	0°♄		evening set	15665 Jun 26 19:07	23°♄50'26	
morning set	15662 Dec 31 00:06	15°♄24'36		inferior conj	15665 Jun 29 13:12	22°♄07'57	9°05'17
	15663 Jan 11 18:27	0°♄		minimum elong	15665 Jun 29 11:42	22°♄10'19	9°04'26
	15663 Feb 04 23:55	0°♄		min. Earth dist.	15665 Jun 29 21:54	21°♄54'21	0.27849 AU
				morning rise	15665 Jul 02 04:14	20°♄29'59	

direct	15665 Jul 20 14:02	14°☿03'31			15668 Jan 20 17:20	0°♄	
greatest brilliancy	15665 Jul 30 14:57	15°☿57'26	-4.9m	desc. node	15668 Feb 11 02:17	26°♄12'53	
	15665 Aug 21 21:37	0°♁			15668 Feb 14 04:39	0°♄	
desc. node	15665 Aug 26 10:52	3°♁54'34			15668 Mar 09 21:07	0°♄	
morning max el	15665 Sep 09 01:29	16°♁50'52	46°56'18		15668 Apr 03 18:55	0°♁	
	15665 Sep 21 16:32	0°♁			15668 Apr 29 00:01	0°☿	
	15665 Oct 18 12:00	0°♁			15668 May 24 19:10	0°♁	
	15665 Nov 13 02:02	0°♁		asc. node	15668 Jun 02 19:45	10°♁12'26	
	15665 Dec 08 02:42	0°♄			15668 Jun 20 23:09	0°♁	
asc. node	15665 Dec 17 10:36	11°♄17'27		evening max el	15668 Jul 01 23:16	11°♁17'12	46°31'34
	15666 Jan 01 19:39	0°☿			15668 Jul 22 17:40	0°♁	
	15666 Jan 26 07:43	0°♁		greatest brilliancy	15668 Aug 11 01:38	11°♁30'30	-4.9m
	15666 Feb 19 17:05	0°♄		retrograde	15668 Aug 20 23:22	13°♁21'24	
morning set	15666 Mar 10 01:19	22°♄36'04		evening set	15668 Sep 04 23:45	8°♁57'06	
	15666 Mar 16 01:22	0°♄		inferior conj	15668 Sep 10 15:25	5°♁38'16	3°08'26
desc. node	15666 Apr 08 04:35	28°♄32'09		minimum elong	15668 Sep 10 22:27	5°♁27'34	3°06'16
	15666 Apr 09 09:03	0°♄		min. Earth dist.	15668 Sep 10 23:55	5°♁25'19	0.26939 AU
max. Earth dist.	15666 Apr 15 13:02	7°♄36'45	1.72941 AU	morning rise	15668 Sep 16 20:55	1°♁59'54	
					15668 Sep 21 01:51	30°♄	
superior conj	15666 Apr 16 22:51	9°♄21'09	-0°21'08	desc. node	15668 Sep 22 20:19	29°♁20'01	
minimum elong	15666 Apr 16 17:55	9°♄05'54	0°21'22	direct	15668 Oct 01 08:36	27°♁51'33	
	15666 May 03 15:42	0°♁		greatest brilliancy	15668 Oct 11 12:58	29°♁46'54	-4.9m
evening rise	15666 May 25 09:22	26°♁55'41			15668 Oct 12 03:09	0°♁	
	15666 May 27 20:48	0°☿		morning max el	15668 Nov 20 07:43	29°♁34'41	46°31'53
	15666 Jun 21 00:37	0°♁			15668 Nov 20 18:01	0°♁	
	15666 Jul 15 04:28	0°♁			15668 Dec 19 04:00	0°♄	
asc. node	15666 Jul 29 19:04	18°♁05'35		asc. node	15669 Jan 13 21:33	29°♄16'54	
	15666 Aug 08 10:22	0°♁			15669 Jan 14 12:23	0°☿	
	15666 Sep 01 20:57	0°♁			15669 Feb 08 22:46	0°♁	
	15666 Sep 26 16:42	0°♄			15669 Mar 05 21:16	0°♄	
	15666 Oct 22 07:07	0°☿			15669 Mar 30 12:58	0°♄	
desc. node	15666 Nov 18 14:39	29°☿55'52			15669 Apr 24 00:20	0°♄	
	15666 Nov 18 16:15	0°♁		desc. node	15669 May 05 18:11	14°♄27'54	
evening max el	15666 Nov 26 13:09	7°♁56'40	46°20'01		15669 May 18 08:03	0°♁	
	15666 Dec 22 09:48	0°♄		morning set	15669 May 19 20:15	1°♁51'58	
greatest brilliancy	15667 Jan 05 01:19	7°♄13'09	-4.8m		15669 Jun 11 12:18	0°☿	
retrograde	15667 Jan 15 02:31	9°♄03'54		max. Earth dist.	15669 Jun 25 12:30	17°☿27'10	1.72001 AU
evening set	15667 Feb 01 12:05	3°♄21'01					
inferior conj	15667 Feb 05 13:28	0°♄51'00	-7°12'51	superior conj	15669 Jun 28 07:49	20°☿57'11	-1°27'28
minimum elong	15667 Feb 05 23:34	0°♄35'10	7°10'33	minimum elong	15669 Jun 28 06:01	20°☿51'35	1°28'18
min. Earth dist.	15667 Feb 05 17:10	0°♄45'12	0.28665 AU		15669 Jul 05 13:41	0°♁	
	15667 Feb 06 22:03	30°♄			15669 Jul 29 13:25	0°♁	
morning rise	15667 Feb 10 11:03	27°♁51'25		evening rise	15669 Aug 07 03:51	10°♁45'51	
direct	15667 Feb 26 20:15	22°♁42'29		greatest brilliancy	15669 Aug 08 15:40	12°♁37'54	-3.9m
greatest brilliancy	15667 Mar 09 10:26	24°♁44'45	-4.8m		15669 Aug 22 12:58	0°♁	
asc. node	15667 Mar 11 15:08	25°♁37'29		asc. node	15669 Aug 26 08:57	4°♁47'30	
	15667 Mar 19 19:44	0°♄			15669 Sep 15 13:45	0°♁	
morning max el	15667 Apr 16 22:59	23°♄22'03	45°49'53		15669 Oct 09 17:30	0°♄	
	15667 Apr 23 14:26	0°♄			15669 Nov 03 03:11	0°☿	
	15667 May 21 08:46	0°♄			15669 Nov 27 23:47	0°♁	
	15667 Jun 16 06:57	0°♁		desc. node	15669 Dec 16 02:00	21°♁16'55	
desc. node	15667 Jul 01 16:37	18°♁21'45			15669 Dec 23 15:37	0°♄	
	15667 Jul 11 07:59	0°☿			15670 Jan 19 19:10	0°♄	
	15667 Aug 04 20:49	0°♁		evening max el	15670 Feb 05 14:32	17°♄04'13	46°00'51
	15667 Aug 29 02:40	0°♁			15670 Feb 19 21:14	0°♄	
	15667 Sep 22 05:03	0°♁		greatest brilliancy	15670 Mar 16 13:54	15°♄37'24	-4.8m
	15667 Oct 16 06:03	0°♁		retrograde	15670 Mar 26 17:45	17°♄30'47	
morning set	15667 Oct 18 04:00	2°♁23'29		asc. node	15670 Apr 08 00:51	14°♄29'16	
asc. node	15667 Oct 22 11:09	7°♁45'28		evening set	15670 Apr 10 14:12	13°♄10'31	
	15667 Nov 09 06:41	0°♄		inferior conj	15670 Apr 16 22:21	9°♄22'18	2°11'59
				minimum elong	15670 Apr 16 17:29	9°♄29'56	2°10'02
superior conj	15667 Nov 25 21:17	20°♄43'41	1°11'43	min. Earth dist.	15670 Apr 16 21:50	9°♄23'07	0.28307 AU
minimum elong	15667 Nov 25 11:30	20°♄13'11	1°12'16	morning rise	15670 Apr 22 20:38	5°♄47'39	
max. Earth dist.	15667 Nov 27 20:17	23°♄10'10	1.72151 AU	direct	15670 May 08 03:02	1°♄12'26	
	15667 Dec 03 07:49	0°☿		greatest brilliancy	15670 May 18 13:42	3°♄14'10	-4.8m
	15667 Dec 27 10:48	0°♁			15670 Jun 23 22:46	0°♁	
evening rise	15668 Jan 02 08:06	7°♁17'42		morning max el	15670 Jun 26 23:51	2°♁59'03	46°28'14

	15670 Jul 22 10:18	0°☿			15673 Mar 23 07:55	0°♄	
desc. node	15670 Jul 29 03:10	7°☿33'13		evening max el	15673 Apr 17 20:05	26°♄37'00	46°06'30
	15670 Aug 17 11:25	0°♁			15673 Apr 21 08:12	0°☿	
	15670 Sep 11 13:00	0°♂		asc. node	15673 May 05 10:54	12°☿30'43	
	15670 Oct 06 03:40	0°♂		greatest brilliancy	15673 May 27 16:51	26°☿04'05	-4.8m
	15670 Oct 30 13:02	0°♂		retrograde	15673 Jun 06 06:06	27°☿46'12	
asc. node	15670 Nov 19 00:19	24°♂03'22		evening set	15673 Jun 24 07:13	21°☿35'01	
	15670 Nov 23 19:35	0°♂		inferior conj	15673 Jun 27 03:28	19°☿49'14	9°03'05
	15670 Dec 18 00:31	0°♂		minimum elong	15673 Jun 27 01:01	19°☿53'04	9°02'10
morning set	15670 Dec 28 15:58	13°♂12'05		min. Earth dist.	15673 Jun 27 11:43	19°☿36'18	0.27875 AU
	15671 Jan 11 05:01	0°♂		morning rise	15673 Jun 29 18:46	18°☿10'43	
				direct	15673 Jul 18 03:55	11°☿44'17	
superior conj	15671 Feb 03 16:09	29°♂03'29	1°12'11	greatest brilliancy	15673 Jul 28 05:47	13°☿38'37	-4.9m
minimum elong	15671 Feb 04 01:27	29°♂32'15	1°12'27		15673 Aug 22 05:44	0°♁	
	15671 Feb 04 10:26	0°♂		desc. node	15673 Aug 25 12:50	2°♁54'44	
max. Earth dist.	15671 Feb 05 17:38	1°♂36'28	1.72967 AU	morning max el	15673 Sep 06 14:34	14°♁28'02	46°56'17
	15671 Feb 28 17:43	0°♂			15673 Sep 21 10:32	0°♂	
desc. node	15671 Mar 10 16:23	12°♂14'46			15673 Oct 18 02:20	0°♂	
evening rise	15671 Mar 13 09:20	15°♂34'34			15673 Nov 12 14:43	0°♂	
	15671 Mar 25 02:53	0°♂			15673 Dec 07 14:27	0°♂	
	15671 Apr 18 13:13	0°♄		asc. node	15673 Dec 16 12:21	10°♂47'57	
	15671 May 13 00:26	0°☿			15674 Jan 01 06:48	0°♂	
	15671 Jun 06 13:35	0°♁			15674 Jan 25 18:28	0°♂	
asc. node	15671 Jul 01 07:46	0°♂00'24			15674 Feb 19 03:35	0°♂	
	15671 Jul 01 07:38	0°♂		morning set	15674 Mar 07 17:51	20°♂27'02	
	15671 Jul 26 12:13	0°♂			15674 Mar 15 11:44	0°♂	
	15671 Aug 21 15:15	0°♂		desc. node	15674 Apr 07 06:24	28°♂05'45	
evening max el	15671 Sep 13 15:01	24°♂29'48	46°40'20		15674 Apr 08 19:25	0°♂	
	15671 Sep 19 05:32	0°♂		max. Earth dist.	15674 Apr 13 05:59	5°♂28'58	1.72964 AU
desc. node	15671 Oct 21 06:10	24°♂00'39					
greatest brilliancy	15671 Oct 22 22:27	24°♂41'57	-4.8m	superior conj	15674 Apr 14 13:55	7°♂07'32	-0°17'42
retrograde	15671 Nov 02 21:28	26°♂54'44		minimum elong	15674 Apr 14 09:45	6°♂54'38	0°17'56
evening set	15671 Nov 19 04:49	21°♂46'11			15674 May 03 02:07	0°♄	
min. Earth dist.	15671 Nov 23 02:56	19°♂25'15	0.27809 AU	evening rise	15674 May 22 23:40	24°♄38'41	
inferior conj	15671 Nov 23 23:32	18°♂53'35	-7°23'03		15674 May 27 07:19	0°☿	
minimum elong	15671 Nov 23 13:10	19°♂09'32	7°20'21		15674 Jun 20 11:18	0°♁	
morning rise	15671 Nov 27 21:56	16°♂31'24			15674 Jul 14 15:24	0°♂	
direct	15671 Dec 14 23:58	11°♂02'10		asc. node	15674 Jul 28 20:56	17°♂36'56	
greatest brilliancy	15671 Dec 24 10:00	12°♂39'56	-4.8m		15674 Aug 07 21:39	0°♂	
	15672 Jan 20 14:13	0°♂			15674 Sep 01 08:47	0°♂	
morning max el	15672 Feb 02 02:56	11°♂28'40	45°51'24		15674 Sep 26 05:27	0°♂	
asc. node	15672 Feb 11 07:40	20°♂38'53			15674 Oct 21 21:42	0°♂	
	15672 Feb 20 06:10	0°♂		desc. node	15674 Nov 17 16:26	29°♂10'59	
	15672 Mar 18 06:29	0°♂			15674 Nov 18 11:35	0°♂	
	15672 Apr 12 23:26	0°♂		evening max el	15674 Nov 24 02:55	5°♂39'25	46°20'50
	15672 May 08 00:42	0°♂			15674 Dec 23 11:07	0°♂	
	15672 Jun 01 16:13	0°♄		greatest brilliancy	15675 Jan 02 16:27	5°♂01'03	-4.8m
desc. node	15672 Jun 02 06:48	0°♄44'39		retrograde	15675 Jan 12 17:51	6°♂52'33	
	15672 Jun 26 00:42	0°☿		evening set	15675 Jan 30 06:35	1°♂04'56	
	15672 Jul 20 04:00	0°♁			15675 Feb 01 01:23	30°♂	
morning set	15672 Aug 01 23:08	15°♁58'55		inferior conj	15675 Feb 03 05:04	28°♂39'31	-7°24'55
	15672 Aug 13 04:04	0°♂		minimum elong	15675 Feb 03 14:54	28°♂24'08	7°22'44
	15672 Sep 06 02:44	0°♂		min. Earth dist.	15675 Feb 03 08:26	28°♂34'15	0.28668 AU
				morning rise	15675 Feb 07 23:12	25°♂45'08	
superior conj	15672 Sep 10 15:49	5°♂41'44	-0°29'38	direct	15675 Feb 24 11:18	20°♂31'01	
minimum elong	15672 Sep 10 22:59	6°♂04'10	0°29'18	greatest brilliancy	15675 Mar 07 02:03	22°♂33'40	-4.8m
max. Earth dist.	15672 Sep 10 19:24	5°♂52'57	1.71543 AU	asc. node	15675 Mar 10 17:09	24°♂05'02	
asc. node	15672 Sep 22 23:10	21°♂07'05			15675 Mar 20 19:15	0°♂	
	15672 Sep 30 01:20	0°♂		morning max el	15675 Apr 14 14:08	21°♂09'04	45°49'10
evening rise	15672 Oct 20 00:42	24°♂59'19			15675 Apr 23 09:34	0°♂	
	15672 Oct 24 00:58	0°♂			15675 May 20 23:14	0°♂	
	15672 Nov 17 03:01	0°♂			15675 Jun 15 19:35	0°♄	
	15672 Dec 11 09:44	0°♂		desc. node	15675 Jun 30 18:26	17°♄51'10	
	15673 Jan 05 00:01	0°♂			15675 Jul 10 19:42	0°☿	
desc. node	15673 Jan 12 14:36	9°♂10'38			15675 Aug 04 08:02	0°♁	
	15673 Jan 30 00:57	0°♂			15675 Aug 28 13:35	0°♂	
	15673 Feb 24 16:31	0°♂			15675 Sep 21 15:46	0°♂	

morning set	15675 Oct 15 17:40	0° $\mathbb{M}$ 03'22		retrograde	15678 Mar 24 09:06	15° $\mathcal{B}$ 17'49	
	15675 Oct 15 16:35	0° $\mathbb{M}$		asc. node	15678 Apr 07 02:45	11° $\mathcal{B}$ 33'42	
asc. node	15675 Oct 21 12:55	7° $\mathbb{M}$ 18'15		evening set	15678 Apr 08 05:26	10° $\mathcal{B}$ 58'05	
	15675 Nov 08 17:05	0° $\mathcal{A}$		inferior conj	15678 Apr 14 13:48	7° $\mathcal{B}$ 09'10	1°50'58
				minimum elong	15678 Apr 14 09:40	7° $\mathcal{B}$ 15'38	1°49'15
superior conj	15675 Nov 23 12:35	18° $\mathcal{A}$ 29'24	1°09'41	min. Earth dist.	15678 Apr 14 13:24	7° $\mathcal{B}$ 09'47	0.28318 AU
minimum elong	15675 Nov 23 02:29	17° $\mathcal{A}$ 57'55	1°10'11	morning rise	15678 Apr 20 13:52	3° $\mathcal{B}$ 31'58	
max. Earth dist.	15675 Nov 25 09:25	20° $\mathcal{A}$ 49'13	1.72124 AU		15678 Apr 28 18:12	30° $\mathcal{R}$ $\mathcal{Y}$	
	15675 Dec 02 18:09	0° $\mathcal{Z}$		direct	15678 May 05 19:13	28° $\mathcal{Y}$ 59'29	
	15675 Dec 26 21:10	0° $\approx$			15678 May 13 01:32	0° $\mathcal{B}$	
evening rise	15675 Dec 31 00:02	5° $\approx$ 06'17		greatest brilliancy	15678 May 16 05:19	1° $\mathcal{B}$ 00'49	-4.8m
	15676 Jan 20 03:50	0° $\mathcal{H}$			15678 Jun 23 21:11	0° $\mathbb{I}$	
desc. node	15676 Feb 10 04:11	25° $\mathcal{H}$ 46'01		morning max el	15678 Jun 24 14:46	0° $\mathbb{I}$ 43'26	46°26'36
	15676 Feb 13 15:24	0° $\mathcal{Y}$			15678 Jul 22 02:03	0° $\mathcal{E}$	
	15676 Mar 09 08:14	0° $\mathcal{B}$		desc. node	15678 Jul 28 05:11	6° $\mathcal{E}$ 56'20	
	15676 Apr 03 06:38	0° $\mathbb{I}$			15678 Aug 17 00:51	0° $\mathcal{Q}$	
	15676 Apr 28 12:47	0° $\mathcal{E}$			15678 Sep 11 01:20	0° $\mathcal{M}$	
	15676 May 24 09:53	0° $\mathcal{Q}$			15678 Oct 05 15:20	0° $\mathcal{L}$	
asc. node	15676 Jun 01 21:35	9° $\mathcal{Q}$ 33'32			15678 Oct 30 00:17	0° $\mathbb{M}$	
	15676 Jun 20 18:26	0° $\mathcal{M}$		asc. node	15678 Nov 18 02:04	23° $\mathbb{M}$ 34'47	
evening max el	15676 Jun 29 12:54	8° $\mathcal{M}$ 56'10	46°30'49		15678 Nov 23 06:31	0° $\mathcal{A}$	
	15676 Jul 23 10:21	0° $\mathcal{L}$			15678 Dec 17 11:14	0° $\mathcal{Z}$	
greatest brilliancy	15676 Aug 08 14:54	9° $\mathcal{L}$ 06'46	-4.9m	morning set	15678 Dec 26 07:56	10° $\mathcal{Z}$ 59'47	
retrograde	15676 Aug 18 12:44	10° $\mathcal{L}$ 57'35			15679 Jan 10 15:35	0° $\approx$	
evening set	15676 Sep 02 15:01	6° $\mathcal{L}$ 29'31					
inferior conj	15676 Sep 08 04:05	3° $\mathcal{L}$ 14'09	3°31'15	superior conj	15679 Feb 01 08:46	26° $\approx$ 53'55	1°14'00
minimum elong	15676 Sep 08 11:50	3° $\mathcal{L}$ 02'20	3°28'52	minimum elong	15679 Feb 01 17:45	27° $\approx$ 21'43	1°14'19
min. Earth dist.	15676 Sep 08 13:28	2° $\mathcal{L}$ 59'52	0.26951 AU	max. Earth dist.	15679 Feb 03 13:08	29° $\approx$ 35'51	1.72943 AU
	15676 Sep 13 15:54	30° $\mathcal{R}$ $\mathcal{M}$			15679 Feb 03 20:56	0° $\mathcal{H}$	
morning rise	15676 Sep 14 08:29	29° $\mathcal{M}$ 37'30			15679 Feb 28 04:15	0° $\mathcal{Y}$	
desc. node	15676 Sep 21 22:18	26° $\mathcal{M}$ 26'40		desc. node	15679 Mar 09 18:12	11° $\mathcal{Y}$ 47'47	
direct	15676 Sep 28 21:50	25° $\mathcal{M}$ 26'56		evening rise	15679 Mar 11 01:22	13° $\mathcal{Y}$ 23'40	
greatest brilliancy	15676 Oct 09 01:59	27° $\mathcal{M}$ 22'48	-4.9m		15679 Mar 24 13:33	0° $\mathcal{B}$	
	15676 Oct 14 23:08	0° $\mathcal{L}$			15679 Apr 18 00:08	0° $\mathbb{I}$	
morning max el	15676 Nov 17 22:32	27° $\mathcal{L}$ 17'14	46°33'29		15679 May 12 11:43	0° $\mathcal{E}$	
	15676 Nov 20 16:08	0° $\mathbb{M}$			15679 Jun 06 01:23	0° $\mathcal{Q}$	
	15676 Dec 18 19:37	0° $\mathcal{A}$		asc. node	15679 Jun 30 09:41	29° $\mathcal{Q}$ 28'17	
asc. node	15677 Jan 12 23:33	28° $\mathcal{A}$ 44'21			15679 Jun 30 20:14	0° $\mathcal{M}$	
	15677 Jan 14 01:31	0° $\mathcal{Z}$			15679 Jul 26 02:12	0° $\mathcal{L}$	
	15677 Feb 08 10:41	0° $\approx$			15679 Aug 21 08:07	0° $\mathbb{M}$	
	15677 Mar 05 08:30	0° $\mathcal{H}$		evening max el	15679 Sep 11 05:17	22° $\mathbb{M}$ 08'59	46°40'25
	15677 Mar 29 23:50	0° $\mathcal{Y}$			15679 Sep 19 07:05	0° $\mathcal{A}$	
	15677 Apr 23 10:59	0° $\mathcal{B}$		desc. node	15679 Oct 20 07:59	22° $\mathcal{A}$ 17'14	
desc. node	15677 May 04 19:56	14° $\mathcal{B}$ 00'38		greatest brilliancy	15679 Oct 20 13:15	22° $\mathcal{A}$ 22'20	-4.8m
morning set	15677 May 17 09:52	29° $\mathcal{B}$ 33'01		retrograde	15679 Oct 31 11:18	24° $\mathcal{A}$ 34'16	
	15677 May 17 18:36	0° $\mathbb{I}$		evening set	15679 Nov 16 15:00	19° $\mathcal{A}$ 32'03	
	15677 Jun 10 22:49	0° $\mathcal{E}$		min. Earth dist.	15679 Nov 20 16:57	17° $\mathcal{A}$ 05'35	0.27755 AU
max. Earth dist.	15677 Jun 23 02:11	15° $\mathcal{E}$ 07'17	1.72033 AU	inferior conj	15679 Nov 21 13:21	16° $\mathcal{A}$ 34'13	-7°09'52
				minimum elong	15679 Nov 21 02:43	16° $\mathcal{A}$ 50'34	7°07'00
superior conj	15677 Jun 25 20:35	18° $\mathcal{E}$ 34'20	-1°27'05	morning rise	15679 Nov 25 14:52	14° $\mathcal{A}$ 07'21	
minimum elong	15677 Jun 25 17:49	18° $\mathcal{E}$ 25'42	1°27'55	direct	15679 Dec 12 13:25	8° $\mathcal{A}$ 43'37	
	15677 Jul 05 00:14	0° $\mathcal{Q}$		greatest brilliancy	15679 Dec 21 23:20	10° $\mathcal{A}$ 20'59	-4.8m
	15677 Jul 29 00:03	0° $\mathcal{M}$			15680 Jan 20 19:24	0° $\mathcal{Z}$	
evening rise	15677 Aug 04 15:36	8° $\mathcal{M}$ 19'06		morning max el	15680 Jan 30 15:39	9° $\mathcal{Z}$ 08'17	45°52'27
greatest brilliancy	15677 Aug 08 04:57	12° $\mathcal{M}$ 46'01	-3.9m	asc. node	15680 Feb 10 09:37	19° $\mathcal{Z}$ 54'09	
	15677 Aug 21 23:44	0° $\mathcal{L}$			15680 Feb 19 23:26	0° $\approx$	
asc. node	15677 Aug 25 10:51	4° $\mathcal{L}$ 19'42			15680 Mar 17 20:22	0° $\mathcal{H}$	
	15677 Sep 15 00:41	0° $\mathbb{M}$			15680 Apr 12 11:50	0° $\mathcal{Y}$	
	15677 Oct 09 04:42	0° $\mathcal{A}$			15680 May 07 12:20	0° $\mathcal{B}$	
	15677 Nov 02 14:47	0° $\mathcal{Z}$		desc. node	15680 Jun 01 08:40	0° $\mathbb{I}$ 15'55	
	15677 Nov 27 12:10	0° $\approx$			15680 Jun 01 03:28	0° $\mathbb{I}$	
desc. node	15677 Dec 15 03:52	20° $\approx$ 43'53			15680 Jun 25 11:44	0° $\mathcal{E}$	
	15677 Dec 23 05:30	0° $\mathcal{H}$			15680 Jul 19 14:56	0° $\mathcal{Q}$	
	15678 Jan 19 12:38	0° $\mathcal{Y}$		morning set	15680 Jul 30 11:17	13° $\mathcal{Q}$ 32'51	
evening max el	15678 Feb 03 06:48	14° $\mathcal{Y}$ 54'39	46°01'07		15680 Aug 12 14:56	0° $\mathcal{M}$	
	15678 Feb 20 05:04	0° $\mathcal{B}$			15680 Sep 05 13:33	0° $\mathcal{L}$	
greatest brilliancy	15678 Mar 14 04:58	13° $\mathcal{B}$ 24'41	-4.8m				



superior conj	15680 Sep 08 04:04	3° $\Omega$ 15'50	-0°33'13	min. Earth dist.	15683 Jan 31 23:06	26° $\approx$ 21'43	0.28670 AU
minimum elong	15680 Sep 08 11:59	3° $\Omega$ 40'40	0°32'53	morning rise	15683 Feb 05 11:04	23° $\approx$ 36'56	
max. Earth dist.	15680 Sep 08 02:28	3° $\Omega$ 10'52	1.71538 AU	direct	15683 Feb 22 02:31	18° $\approx$ 17'25	
asc. node	15680 Sep 22 00:53	20° $\Omega$ 38'32		greatest brilliancy	15683 Mar 04 16:59	20° $\approx$ 20'03	-4.8m
	15680 Sep 29 12:10	0° $\mathbb{M}$		asc. node	15683 Mar 09 19:04	22° $\approx$ 33'55	
evening rise	15680 Oct 17 14:32	22° $\mathbb{M}$ 38'35			15683 Mar 21 13:21	0° $\mathbb{H}$	
	15680 Oct 23 11:51	0° $\mathbb{J}$		morning max el	15683 Apr 12 06:00	18° $\mathbb{H}$ 56'23	45°48'35
	15680 Nov 16 14:01	0° $\mathbb{Z}$			15683 Apr 23 04:43	0° $\mathbb{Y}$	
	15680 Dec 10 20:58	0° $\approx$			15683 May 20 13:59	0° $\mathbb{B}$	
	15681 Jan 04 11:39	0° $\mathbb{H}$			15683 Jun 15 08:32	0° $\mathbb{I}$	
desc. node	15681 Jan 11 16:32	8° $\mathbb{H}$ 40'56		desc. node	15683 Jun 29 20:28	17° $\mathbb{I}$ 20'04	
	15681 Jan 29 13:19	0° $\mathbb{Y}$			15683 Jul 10 07:46	0° $\mathbb{G}$	
	15681 Feb 24 06:12	0° $\mathbb{B}$			15683 Aug 03 19:36	0° $\Omega$	
	15681 Mar 23 00:21	0° $\mathbb{I}$			15683 Aug 28 00:53	0° $\mathbb{M}$	
evening max el	15681 Apr 15 09:04	24° $\mathbb{I}$ 16'18	46°05'53		15683 Sep 21 02:53	0° $\Omega$	
	15681 Apr 21 08:56	0° $\mathbb{G}$		morning set	15683 Oct 13 06:59	27° $\Omega$ 40'41	
asc. node	15681 May 04 12:43	11° $\mathbb{G}$ 23'46			15683 Oct 15 03:35	0° $\mathbb{M}$	
greatest brilliancy	15681 May 25 06:27	23° $\mathbb{G}$ 44'46	-4.8m	asc. node	15683 Oct 20 14:44	6° $\mathbb{M}$ 49'37	
retrograde	15681 Jun 03 19:46	25° $\mathbb{G}$ 27'19			15683 Nov 08 03:59	0° $\mathbb{J}$	
evening set	15681 Jun 21 18:53	19° $\mathbb{G}$ 19'19					
inferior conj	15681 Jun 24 17:46	17° $\mathbb{G}$ 29'39	8°59'57	superior conj	15683 Nov 21 03:18	16° $\mathbb{J}$ 11'41	1°07'29
minimum elong	15681 Jun 24 14:27	17° $\mathbb{G}$ 34'52	8°58'56	minimum elong	15683 Nov 20 16:58	15° $\mathbb{J}$ 39'25	1°07'57
min. Earth dist.	15681 Jun 25 01:30	17° $\mathbb{G}$ 17'34	0.27907 AU	max. Earth dist.	15683 Nov 22 23:29	18° $\mathbb{J}$ 29'32	1.72096 AU
morning rise	15681 Jun 27 09:55	15° $\mathbb{G}$ 49'53			15683 Dec 02 05:00	0° $\mathbb{Z}$	
direct	15681 Jul 15 17:53	9° $\mathbb{G}$ 23'59			15683 Dec 26 08:02	0° $\approx$	
greatest brilliancy	15681 Jul 25 20:51	11° $\mathbb{G}$ 19'06	-4.9m	evening rise	15683 Dec 28 15:30	2° $\approx$ 51'53	
	15681 Aug 22 12:03	0° $\Omega$			15684 Jan 19 14:49	0° $\mathbb{H}$	
desc. node	15681 Aug 24 14:48	1° $\Omega$ 54'56		desc. node	15684 Feb 09 05:59	25° $\mathbb{H}$ 17'21	
morning max el	15681 Sep 04 04:22	12° $\Omega$ 05'35	46°56'08		15684 Feb 13 02:38	0° $\mathbb{Y}$	
	15681 Sep 21 04:39	0° $\mathbb{M}$			15684 Mar 08 19:52	0° $\mathbb{B}$	
	15681 Oct 17 17:00	0° $\Omega$			15684 Apr 02 18:55	0° $\mathbb{I}$	
	15681 Nov 12 03:47	0° $\mathbb{M}$			15684 Apr 28 02:07	0° $\mathbb{G}$	
	15681 Dec 07 02:35	0° $\mathbb{J}$			15684 May 24 01:14	0° $\Omega$	
asc. node	15681 Dec 15 14:20	10° $\mathbb{J}$ 17'55		asc. node	15684 May 31 23:37	8° $\Omega$ 53'43	
	15681 Dec 31 18:20	0° $\mathbb{Z}$			15684 Jun 20 14:41	0° $\mathbb{M}$	
	15682 Jan 25 05:37	0° $\approx$		evening max el	15684 Jun 27 03:10	6° $\mathbb{M}$ 35'57	46°30'09
	15682 Feb 18 14:30	0° $\mathbb{H}$			15684 Jul 24 09:24	0° $\Omega$	
morning set	15682 Mar 05 10:24	18° $\mathbb{H}$ 16'37		greatest brilliancy	15684 Aug 06 04:08	6° $\Omega$ 42'35	-4.9m
	15682 Mar 14 22:33	0° $\mathbb{Y}$		retrograde	15684 Aug 16 02:09	8° $\Omega$ 33'05	
desc. node	15682 Apr 06 08:09	27° $\mathbb{Y}$ 37'55		evening set	15684 Aug 31 06:35	4° $\Omega$ 01'22	
	15682 Apr 08 06:11	0° $\mathbb{B}$		inferior conj	15684 Sep 05 16:51	0° $\Omega$ 49'24	3°53'35
max. Earth dist.	15682 Apr 11 00:38	3° $\mathbb{B}$ 25'04	1.72982 AU	minimum elong	15684 Sep 06 01:16	0° $\Omega$ 36'34	3°51'00
				min. Earth dist.	15684 Sep 06 02:50	0° $\Omega$ 34'11	0.26967 AU
superior conj	15682 Apr 12 05:07	4° $\mathbb{B}$ 53'01	-0°14'15		15684 Sep 07 01:21	30° $\mathbb{B}$ $\mathbb{M}$	
minimum elong	15682 Apr 12 01:43	4° $\mathbb{B}$ 42'32	0°14'29	morning rise	15684 Sep 11 19:53	27° $\mathbb{M}$ 14'39	
behind sun begin	15682 Apr 11 15:31	4° $\mathbb{B}$ 11'02		desc. node	15684 Sep 21 00:10	23° $\mathbb{M}$ 38'30	
behind sun end	15682 Apr 12 11:55	5° $\mathbb{B}$ 14'02		direct	15684 Sep 26 11:25	23° $\mathbb{M}$ 01'54	
	15682 May 02 12:56	0° $\mathbb{I}$		greatest brilliancy	15684 Oct 06 14:41	24° $\mathbb{M}$ 57'25	-4.9m
evening rise	15682 May 20 14:18	22° $\mathbb{I}$ 21'34			15684 Oct 16 17:09	0° $\Omega$	
	15682 May 26 18:14	0° $\mathbb{G}$		morning max el	15684 Nov 15 13:04	24° $\Omega$ 57'49	46°34'45
	15682 Jun 19 22:24	0° $\Omega$			15684 Nov 20 13:53	0° $\mathbb{M}$	
	15682 Jul 14 02:47	0° $\mathbb{M}$			15684 Dec 18 11:28	0° $\mathbb{J}$	
asc. node	15682 Jul 27 22:50	17° $\mathbb{M}$ 06'58		asc. node	15685 Jan 12 01:30	28° $\mathbb{J}$ 10'26	
	15682 Aug 07 09:27	0° $\Omega$			15685 Jan 13 15:01	0° $\mathbb{Z}$	
	15682 Aug 31 21:11	0° $\mathbb{M}$			15685 Feb 07 22:59	0° $\approx$	
	15682 Sep 25 18:51	0° $\mathbb{J}$			15685 Mar 04 20:07	0° $\mathbb{H}$	
	15682 Oct 21 13:05	0° $\mathbb{Z}$			15685 Mar 29 11:04	0° $\mathbb{Y}$	
desc. node	15682 Nov 16 18:24	28° $\mathbb{Z}$ 24'13			15685 Apr 22 21:59	0° $\mathbb{B}$	
	15682 Nov 18 08:13	0° $\approx$		desc. node	15685 May 03 21:44	13° $\mathbb{B}$ 32'25	
evening max el	15682 Nov 21 17:03	3° $\approx$ 21'23	46°21'49	morning set	15685 May 14 23:27	27° $\mathbb{B}$ 12'54	
	15682 Dec 25 00:37	0° $\mathbb{H}$			15685 May 17 05:29	0° $\mathbb{I}$	
greatest brilliancy	15682 Dec 31 06:47	2° $\mathbb{H}$ 46'18	-4.8m		15685 Jun 10 09:40	0° $\mathbb{G}$	
retrograde	15683 Jan 10 09:36	4° $\mathbb{H}$ 39'11		max. Earth dist.	15685 Jun 20 13:22	12° $\mathbb{G}$ 38'42	1.72061 AU
	15683 Jan 25 22:06	30° $\mathbb{B}$ $\approx$					
evening set	15683 Jan 28 00:51	28° $\approx$ 46'43		superior conj	15685 Jun 23 09:31	16° $\mathbb{G}$ 11'07	-1°26'33
inferior conj	15683 Jan 31 20:26	26° $\approx$ 25'52	-7°36'26	minimum elong	15685 Jun 23 05:47	15° $\mathbb{G}$ 59'29	1°27'21
minimum elong	15683 Feb 01 05:58	26° $\approx$ 10'59	7°34'22		15685 Jul 04 11:06	0° $\Omega$	

	15685 Jul 28 10:58	0°♍			15688 Jan 20 22:26	0°♊	
evening rise	15685 Aug 02 03:35	5°♍52'15		morning max el	15688 Jan 28 04:25	6°♊48'26	45°53'22
greatest brilliancy	15685 Aug 08 06:22	13°♍31'19	-3.9m	asc. node	15688 Feb 09 11:29	19°♊10'18	
	15685 Aug 21 10:44	0°♌			15688 Feb 19 16:12	0°♋	
asc. node	15685 Aug 24 12:35	3°♌50'43			15688 Mar 17 10:03	0°♌	
	15685 Sep 14 11:50	0°♍			15688 Apr 12 00:07	0°♍	
	15685 Oct 08 16:07	0°♎			15688 May 06 23:54	0°♎	
	15685 Nov 02 02:41	0°♏		desc. node	15688 May 31 10:36	29°♏47'37	
	15685 Nov 27 00:55	0°♐			15688 May 31 14:38	0°♐	
desc. node	15685 Dec 14 05:48	20°♐09'50			15688 Jun 24 22:41	0°♑	
	15685 Dec 22 19:53	0°♑			15688 Jul 19 01:45	0°♒	
	15686 Jan 19 06:57	0°♒		morning set	15688 Jul 27 23:14	11°♒06'28	
evening max el	15686 Jan 31 22:24	12°♒42'15	46°01'23		15688 Aug 12 01:40	0°♓	
	15686 Feb 20 16:28	0°♓			15688 Sep 05 00:16	0°♈	
greatest brilliancy	15686 Mar 11 20:35	11°♈11'24	-4.8m				
retrograde	15686 Mar 21 23:55	13°♈03'38		superior conj	15688 Sep 05 16:18	0°♈50'16	-0°36'45
evening set	15686 Apr 05 20:44	8°♈44'16		minimum elong	15688 Sep 06 00:56	1°♈17'19	0°36'25
asc. node	15686 Apr 06 04:39	8°♈33'19		max. Earth dist.	15688 Sep 05 08:38	0°♈26'16	1.71533 AU
inferior conj	15686 Apr 12 05:09	4°♈54'59	1°29'41	asc. node	15688 Sep 21 02:42	20°♈10'40	
minimum elong	15686 Apr 12 01:48	5°♈00'15	1°28'14		15688 Sep 28 22:52	0°♉	
min. Earth dist.	15686 Apr 12 05:11	4°♈54'56	0.28329 AU	evening rise	15688 Oct 15 04:28	20°♉18'43	
morning rise	15686 Apr 18 06:48	1°♈15'18			15688 Oct 22 22:33	0°♊	
	15686 Apr 20 16:23	30°♋♑			15688 Nov 16 00:48	0°♊	
direct	15686 May 03 10:51	26°♑45'29			15688 Dec 10 07:56	0°♋	
greatest brilliancy	15686 May 13 21:07	28°♑46'38	-4.8m		15689 Jan 03 23:02	0°♌	
	15686 May 16 20:06	0°♌		desc. node	15689 Jan 10 18:21	8°♌11'40	
morning max el	15686 Jun 22 04:48	28°♌24'47	46°25'03		15689 Jan 29 01:29	0°♍	
	15686 Jun 23 19:03	0°♍			15689 Feb 23 19:47	0°♎	
	15686 Jul 21 17:47	0°♏			15689 Mar 22 16:56	0°♏	
desc. node	15686 Jul 27 07:00	6°♏18'31		evening max el	15689 Apr 12 22:42	21°♏57'47	46°05'17
	15686 Aug 16 14:22	0°♐			15689 Apr 21 10:50	0°♐	
	15686 Sep 10 13:43	0°♑		asc. node	15689 May 03 14:47	10°♐15'47	
	15686 Oct 05 03:02	0°♒		greatest brilliancy	15689 May 22 19:30	21°♐25'15	-4.8m
	15686 Oct 29 11:32	0°♓		retrograde	15689 Jun 01 09:54	23°♐08'55	
asc. node	15686 Nov 17 04:00	23°♓06'37		evening set	15689 Jun 19 06:04	17°♐04'35	
	15686 Nov 22 17:29	0°♊		inferior conj	15689 Jun 22 08:01	15°♐10'26	8°55'46
	15686 Dec 16 22:01	0°♋		minimum elong	15689 Jun 22 03:50	15°♐16'58	8°54'40
morning set	15686 Dec 23 23:52	8°♋47'00		min. Earth dist.	15689 Jun 22 14:55	14°♐59'39	0.27937 AU
	15687 Jan 10 02:16	0°♌		morning rise	15689 Jun 25 01:30	13°♐28'44	
				direct	15689 Jul 13 08:06	7°♐04'08	
superior conj	15687 Jan 30 01:15	24°♌43'36	1°15'44	greatest brilliancy	15689 Jul 23 11:23	8°♐59'43	-4.9m
minimum elong	15687 Jan 30 09:51	25°♌10'12	1°16'04		15689 Aug 22 16:05	0°♑	
max. Earth dist.	15687 Feb 01 06:02	27°♌26'50	1.72922 AU	desc. node	15689 Aug 23 16:42	0°♑56'59	
	15687 Feb 03 07:34	0°♒		morning max el	15689 Sep 01 19:03	9°♑46'13	46°55'58
	15687 Feb 27 14:56	0°♓			15689 Sep 20 22:04	0°♒	
evening rise	15687 Mar 08 17:05	11°♓11'20			15689 Oct 17 07:14	0°♓	
desc. node	15687 Mar 08 19:53	11°♓19'59			15689 Nov 11 16:28	0°♈	
	15687 Mar 24 00:21	0°♈			15689 Dec 06 14:20	0°♉	
	15687 Apr 17 11:11	0°♉		asc. node	15689 Dec 14 16:12	9°♉48'35	
	15687 May 11 23:08	0°♊			15689 Dec 31 05:28	0°♋	
	15687 Jun 05 13:20	0°♌			15690 Jan 24 16:21	0°♍	
asc. node	15687 Jun 29 11:34	28°♌55'42			15690 Feb 18 01:01	0°♎	
	15687 Jun 30 09:00	0°♍		morning set	15690 Mar 03 03:19	16°♎08'33	
	15687 Jul 25 16:24	0°♎			15690 Mar 14 08:59	0°♏	
	15687 Aug 21 01:19	0°♏		desc. node	15690 Apr 05 10:02	27°♏11'28	
evening max el	15687 Sep 08 18:51	19°♏46'37	46°40'42		15690 Apr 07 16:38	0°♐	
	15687 Sep 19 09:57	0°♑		max. Earth dist.	15690 Apr 08 20:57	1°♐27'22	1.73006 AU
greatest brilliancy	15687 Oct 18 04:23	20°♑03'47	-4.8m				
desc. node	15687 Oct 19 09:58	20°♑30'51		superior conj	15690 Apr 09 20:26	2°♑39'51	-0°10'47
retrograde	15687 Oct 29 01:13	22°♑15'01		minimum elong	15690 Apr 09 17:50	2°♑31'50	0°11'02
evening set	15687 Nov 14 01:30	17°♑18'43		behind sun begin	15690 Apr 09 00:22	1°♑37'56	
min. Earth dist.	15687 Nov 18 07:24	14°♑46'49	0.27700 AU	behind sun end	15690 Apr 10 11:18	3°♑25'44	
inferior conj	15687 Nov 19 03:24	14°♑16'02	-6°55'56		15690 May 01 23:27	0°♒	
minimum elong	15687 Nov 18 16:35	14°♑32'41	6°52'56	evening rise	15690 May 18 04:53	20°♒05'15	
morning rise	15687 Nov 23 08:03	11°♑44'34			15690 May 26 04:52	0°♓	
direct	15687 Dec 10 02:38	6°♑26'07			15690 Jun 19 09:13	0°♈	
greatest brilliancy	15687 Dec 19 13:20	8°♑03'45	-4.8m		15690 Jul 13 13:53	0°♉	

asc. node	15690 Jul 27 00:34	16° $\cap$ 37'28		asc. node	15693 Jan 11 03:17	27° $\times$ 37'26	
	15690 Aug 06 20:57	0° $\Omega$			15693 Jan 13 03:59	0° $\Sigma$	
	15690 Aug 31 09:18	0° $\cap$			15693 Feb 07 10:48	0° $\approx$	
	15690 Sep 25 08:00	0° $\times$			15693 Mar 04 07:17	0° $\times$	
	15690 Oct 21 04:19	0° $\Sigma$			15693 Mar 28 21:49	0° $\Upsilon$	
desc. node	15690 Nov 15 20:24	27° $\Sigma$ 38'00			15693 Apr 22 08:30	0° $\times$	
	15690 Nov 18 05:05	0° $\approx$		desc. node	15693 May 02 23:40	13° $\times$ 06'01	
evening max el	15690 Nov 19 08:22	1° $\approx$ 07'30	46°22'54	morning set	15693 May 12 13:34	24° $\times$ 55'54	
	15690 Dec 27 09:56	0° $\times$			15693 May 16 15:55	0° $\cap$	
greatest brilliancy	15690 Dec 28 21:07	0° $\times$ 33'18	-4.8m		15693 Jun 09 20:07	0° $\Sigma$	
retrograde	15691 Jan 08 01:51	2° $\times$ 27'42		max. Earth dist.	15693 Jun 17 23:48	10° $\Sigma$ 09'06	1.72099 AU
	15691 Jan 19 04:16	30° $\times$ $\approx$					
evening set	15691 Jan 25 19:18	26° $\approx$ 30'42		superior conj	15693 Jun 20 22:46	13° $\Sigma$ 50'12	-1°25'51
inferior conj	15691 Jan 29 12:01	24° $\approx$ 14'13	-7°47'07	minimum elong	15693 Jun 20 18:08	13° $\Sigma$ 35'45	1°26'39
minimum elong	15691 Jan 29 21:11	23° $\approx$ 59'56	7°45'11		15693 Jul 03 21:36	0° $\cap$	
min. Earth dist.	15691 Jan 29 13:34	24° $\approx$ 11'47	0.28666 AU		15693 Jul 27 21:35	0° $\cap$	
morning rise	15691 Feb 02 23:06	21° $\approx$ 30'48		evening rise	15693 Jul 30 15:24	3° $\cap$ 25'52	
direct	15691 Feb 19 18:21	16° $\approx$ 06'09			15693 Aug 20 21:27	0° $\Omega$	
greatest brilliancy	15691 Mar 02 07:18	18° $\approx$ 07'51	-4.8m	asc. node	15693 Aug 23 14:25	3° $\Omega$ 22'50	
asc. node	15691 Mar 08 20:59	21° $\approx$ 07'52			15693 Sep 13 22:44	0° $\cap$	
	15691 Mar 22 01:50	0° $\times$			15693 Oct 08 03:18	0° $\times$	
morning max el	15691 Apr 09 22:13	16° $\times$ 46'22	45°47'50		15693 Nov 01 14:21	0° $\Sigma$	
	15691 Apr 22 22:44	0° $\Upsilon$			15693 Nov 26 13:26	0° $\approx$	
	15691 May 20 04:04	0° $\times$		desc. node	15693 Dec 13 07:38	19° $\approx$ 36'13	
	15691 Jun 14 21:02	0° $\cap$			15693 Dec 22 10:07	0° $\times$	
desc. node	15691 Jun 28 22:15	16° $\cap$ 49'22			15694 Jan 19 01:21	0° $\Upsilon$	
	15691 Jul 09 19:27	0° $\Sigma$		evening max el	15694 Jan 29 13:19	10° $\Upsilon$ 29'14	46°01'46
	15691 Aug 03 06:50	0° $\cap$			15694 Feb 21 07:01	0° $\times$	
	15691 Aug 27 11:50	0° $\cap$		greatest brilliancy	15694 Mar 09 12:52	9° $\times$ 00'22	-4.8m
	15691 Sep 20 13:39	0° $\Omega$		retrograde	15694 Mar 19 14:44	10° $\times$ 51'26	
morning set	15691 Oct 10 20:12	25° $\Omega$ 18'55		evening set	15694 Apr 03 12:24	6° $\times$ 31'57	
	15691 Oct 14 14:12	0° $\cap$		asc. node	15694 Apr 05 06:42	5° $\times$ 31'58	
asc. node	15691 Oct 19 16:37	6° $\cap$ 22'25		inferior conj	15694 Apr 09 20:44	2° $\times$ 42'51	1°08'27
	15691 Nov 07 14:29	0° $\times$		minimum elong	15694 Apr 09 18:10	2° $\times$ 46'54	1°07'17
				min. Earth dist.	15694 Apr 09 21:29	2° $\times$ 41'40	0.28337 AU
superior conj	15691 Nov 18 17:57	13° $\times$ 54'52	1°05'10		15694 Apr 14 06:28	30° $\times$ $\Upsilon$	
minimum elong	15691 Nov 18 07:27	13° $\times$ 22'06	1°05'37	morning rise	15694 Apr 15 23:47	29° $\Upsilon$ 00'54	
max. Earth dist.	15691 Nov 20 14:48	16° $\times$ 14'52	1.72068 AU	direct	15694 May 01 02:05	24° $\Upsilon$ 33'24	
	15691 Dec 01 15:27	0° $\Sigma$		greatest brilliancy	15694 May 11 13:33	26° $\Upsilon$ 35'00	-4.8m
	15691 Dec 25 18:31	0° $\approx$			15694 May 18 19:34	0° $\times$	
evening rise	15691 Dec 26 07:06	0° $\approx$ 39'03		morning max el	15694 Jun 19 18:28	26° $\times$ 06'40	46°23'31
	15692 Jan 19 01:24	0° $\times$			15694 Jun 23 15:33	0° $\cap$	
desc. node	15692 Feb 08 07:45	24° $\times$ 49'59			15694 Jul 21 08:51	0° $\Sigma$	
	15692 Feb 12 13:25	0° $\Upsilon$		desc. node	15694 Jul 26 08:56	5° $\Sigma$ 42'34	
	15692 Mar 08 07:02	0° $\times$			15694 Aug 16 03:26	0° $\cap$	
	15692 Apr 02 06:43	0° $\cap$			15694 Sep 10 01:48	0° $\cap$	
	15692 Apr 27 15:04	0° $\Sigma$			15694 Oct 04 14:32	0° $\Omega$	
	15692 May 23 16:23	0° $\cap$			15694 Oct 28 22:37	0° $\cap$	
asc. node	15692 May 31 01:28	8° $\cap$ 14'04		asc. node	15694 Nov 16 05:50	22° $\cap$ 38'42	
	15692 Jun 20 11:19	0° $\cap$			15694 Nov 22 04:16	0° $\times$	
evening max el	15692 Jun 24 17:31	4° $\cap$ 16'43	46°29'11		15694 Dec 16 08:35	0° $\Sigma$	
	15692 Jul 25 17:07	0° $\Omega$		morning set	15694 Dec 21 15:21	6° $\Sigma$ 33'30	
greatest brilliancy	15692 Aug 03 17:56	4° $\Omega$ 19'38	-4.9m		15695 Jan 09 12:42	0° $\approx$	
retrograde	15692 Aug 13 15:07	6° $\Omega$ 08'50					
evening set	15692 Aug 28 22:12	1° $\Omega$ 33'36		superior conj	15695 Jan 27 17:38	22° $\approx$ 33'38	1°17'20
	15692 Aug 31 15:00	30° $\times$ $\cap$		minimum elong	15695 Jan 28 01:48	22° $\approx$ 58'56	1°17'44
inferior conj	15692 Sep 03 05:31	28° $\cap$ 25'14	4°15'28	max. Earth dist.	15695 Jan 29 21:30	25° $\approx$ 14'05	1.72899 AU
minimum elong	15692 Sep 03 14:33	28° $\cap$ 11'27	4°12'43		15695 Feb 02 17:59	0° $\times$	
min. Earth dist.	15692 Sep 03 16:21	28° $\cap$ 08'42	0.26983 AU		15695 Feb 27 01:23	0° $\Upsilon$	
morning rise	15692 Sep 09 06:50	24° $\cap$ 52'28		evening rise	15695 Mar 06 08:55	9° $\Upsilon$ 00'05	
desc. node	15692 Sep 20 02:10	20° $\cap$ 56'22		desc. node	15695 Mar 07 21:49	10° $\Upsilon$ 53'36	
direct	15692 Sep 24 00:41	20° $\cap$ 37'30			15695 Mar 23 10:57	0° $\times$	
greatest brilliancy	15692 Oct 04 03:25	22° $\cap$ 32'37	-4.9m		15695 Apr 16 22:01	0° $\cap$	
	15692 Oct 17 21:49	0° $\Omega$			15695 May 11 10:17	0° $\Sigma$	
morning max el	15692 Nov 13 02:33	22° $\Omega$ 36'42	46°36'05		15695 Jun 05 00:59	0° $\cap$	
	15692 Nov 20 10:27	0° $\cap$		asc. node	15695 Jun 28 13:22	28° $\cap$ 23'46	
	15692 Dec 18 02:39	0° $\times$			15695 Jun 29 21:30	0° $\cap$	

	15695 Jul 25 06:27	0°♄			15698 Mar 13 19:37	0°♑		
	15695 Aug 20 18:42	0°♌		desc. node	15698 Apr 04 11:50	26°♑44'18		
evening max el	15695 Sep 06 07:48	17°♌22'59	46°40'41	max. Earth dist.	15698 Apr 06 17:39	29°♑30'20	1.73022 AU	
	15695 Sep 19 14:32	0°♊						
greatest brilliancy	15695 Oct 15 19:02	17°♊43'55	-4.8m	superior conj	15698 Apr 07 11:30	0°♊25'27	-0°07'17	
desc. node	15695 Oct 18 11:59	18°♊39'37		minimum elong	15698 Apr 07 09:44	0°♊19'59	0°07'33	
retrograde	15695 Oct 26 15:02	19°♊54'55		behind sun begin	15698 Apr 06 12:31	29°♑14'29		
evening set	15695 Nov 11 11:43	15°♊04'01		behind sun end	15698 Apr 08 06:57	1°♊25'28		
min. Earth dist.	15695 Nov 15 21:36	12°♊26'49	0.27651 AU		15698 Apr 07 03:16	0°♊		
inferior conj	15695 Nov 16 17:08	11°♊56'50	-6°41'01		15698 May 01 10:08	0°♐		
minimum elong	15695 Nov 16 06:11	12°♊13'39	6°37'54	evening rise	15698 May 15 19:26	17°♐48'22		
morning rise	15695 Nov 21 01:01	9°♊20'50			15698 May 25 15:40	0°♍		
direct	15695 Dec 07 15:17	4°♊07'18			15698 Jun 18 20:13	0°♌		
greatest brilliancy	15695 Dec 17 03:20	5°♊45'46	-4.8m		15698 Jul 13 01:10	0°♎		
	15696 Jan 21 00:02	0°♊		asc. node	15698 Jul 26 02:28	16°♎07'59		
morning max el	15696 Jan 25 17:43	4°♊29'42	45°54'30		15698 Aug 06 08:37	0°♌		
asc. node	15696 Feb 08 13:31	18°♊27'29			15698 Aug 30 21:34	0°♌		
	15696 Feb 19 08:35	0°♎			15698 Sep 24 21:20	0°♊		
	15696 Mar 16 23:31	0°♋			15698 Oct 20 19:53	0°♊		
	15696 Apr 11 12:15	0°♑		desc. node	15698 Nov 14 22:12	26°♊50'02		
	15696 May 06 11:20	0°♊		evening max el	15698 Nov 17 00:12	28°♊54'18	46°23'41	
desc. node	15696 May 30 12:22	29°♊19'10			15698 Nov 18 02:58	0°♎		
	15696 May 31 01:41	0°♐		greatest brilliancy	15698 Dec 26 11:26	28°♎19'11	-4.8m	
	15696 Jun 24 09:29	0°♍			15699 Jan 02 04:38	0°♋		
	15696 Jul 18 12:24	0°♌		retrograde	15699 Jan 05 17:44	0°♋14'32		
morning set	15696 Jul 25 11:40	8°♌42'08			15699 Jan 09 05:15	30°♋		
	15696 Aug 11 12:16	0°♎		evening set	15699 Jan 23 13:29	24°♎13'24		
				inferior conj	15699 Jan 27 03:23	22°♎00'58	-7°57'09	
superior conj	15696 Sep 03 04:47	28°♎25'49	-0°40'11	minimum elong	15699 Jan 27 12:06	21°♎47'22	7°55'21	
minimum elong	15696 Sep 03 14:05	28°♎54'55	0°39'52	min. Earth dist.	15699 Jan 27 03:46	22°♎00'22	0.28664 AU	
max. Earth dist.	15696 Sep 02 18:25	27°♎53'18	1.71537 AU	morning rise	15699 Jan 31 10:50	19°♎23'01		
	15696 Sep 04 10:51	0°♌		direct	15699 Feb 17 10:17	13°♎53'23		
asc. node	15696 Sep 20 04:37	19°♌43'24		greatest brilliancy	15699 Feb 27 21:00	15°♎53'23	-4.8m	
	15696 Sep 28 09:30	0°♌		asc. node	15699 Mar 07 23:01	19°♎43'20		
evening rise	15696 Oct 12 18:23	17°♌58'52			15699 Mar 22 11:38	0°♋		
	15696 Oct 22 09:16	0°♊		morning max el	15699 Apr 07 14:00	14°♋34'03	45°47'08	
	15696 Nov 15 11:38	0°♊			15699 Apr 22 16:45	0°♑		
	15696 Dec 09 19:01	0°♎			15699 May 19 18:21	0°♊		
	15697 Jan 03 10:35	0°♋			15699 Jun 14 09:45	0°♐		
desc. node	15697 Jan 09 20:09	7°♋41'57		desc. node	15699 Jun 28 00:08	16°♐18'13		
	15697 Jan 28 13:49	0°♑			15699 Jul 09 07:21	0°♍		
	15697 Feb 23 09:36	0°♊			15699 Aug 02 18:18	0°♌		
	15697 Mar 22 09:56	0°♐			15699 Aug 26 23:01	0°♎		
evening max el	15697 Apr 10 13:19	19°♐41'43	46°04'49		15699 Sep 20 00:38	0°♌		
	15697 Apr 21 14:22	0°♍		morning set	15699 Oct 08 09:45	22°♌57'26		
asc. node	15697 May 02 16:42	9°♍05'29			15699 Oct 14 01:01	0°♌		
greatest brilliancy	15697 May 20 08:18	19°♍05'40	-4.8m	asc. node	15699 Oct 18 18:23	5°♌54'12		
retrograde	15697 May 30 00:32	20°♍50'46			15699 Nov 07 01:12	0°♊		
evening set	15697 Jun 16 17:06	14°♍50'35						
inferior conj	15697 Jun 19 22:20	12°♍51'29	8°50'47	superior conj	15699 Nov 16 08:51	11°♊38'12	1°02'46	
minimum elong	15697 Jun 19 17:20	12°♍59'18	8°49'35	minimum elong	15699 Nov 15 22:16	11°♊05'10	1°03'10	
min. Earth dist.	15697 Jun 20 04:08	12°♍42'26	0.27960 AU	max. Earth dist.	15699 Nov 18 07:16	14°♊03'04	1.72038 AU	
morning rise	15697 Jun 22 17:30	11°♍07'20			15699 Dec 01 02:07	0°♊		
direct	15697 Jul 10 22:54	4°♍44'49		evening rise	15699 Dec 23 22:54	28°♊25'55		
greatest brilliancy	15697 Jul 21 01:22	6°♍40'07	-4.9m		15699 Dec 25 05:14	0°♎		
desc. node	15697 Aug 22 18:42	0°♌00'51			15700 Jan 18 12:17	0°♋		
	15697 Aug 22 18:21	0°♌		desc. node	15700 Feb 07 09:41	24°♋22'03		
morning max el	15697 Aug 30 10:35	7°♌29'22	46°55'46		15700 Feb 12 00:35	0°♑		
	15697 Sep 20 15:01	0°♎			15700 Mar 08 18:38	0°♊		
	15697 Oct 16 21:15	0°♌			15700 Apr 02 19:01	0°♐		
	15697 Nov 11 05:05	0°♌			15700 Apr 28 04:34	0°♍		
	15697 Dec 06 02:08	0°♊			15700 May 24 08:13	0°♌		
asc. node	15697 Dec 13 17:59	9°♊18'44		asc. node	15700 May 31 03:19	7°♌32'50		
	15697 Dec 30 16:45	0°♊			15700 Jun 21 09:08	0°♎		
	15698 Jan 24 03:17	0°♎		evening max el	15700 Jun 23 07:08	1°♎54'38	46°28'16	
	15698 Feb 17 11:45	0°♋			15700 Jul 28 17:09	0°♌		
morning set	15698 Feb 28 19:58	13°♋59'02		greatest brilliancy	15700 Aug 02 08:19	1°♌56'26	-4.9m	

retrograde	15700 Aug 12 03:35	3° $\Omega$ 43'45		superior conj	15703 Jan 26 10:18	20° $\approx$ 23'27	1°18'48
	15700 Aug 25 20:53	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	15703 Jan 26 18:01	20° $\approx$ 47'21	1°19'15
evening set	15700 Aug 27 14:01	29° $\mathbb{M}$ 04'49		max. Earth dist.	15703 Jan 28 13:13	23° $\approx$ 01'02	1.72875 AU
inferior conj	15700 Sep 01 18:18	26° $\mathbb{M}$ 00'19	4°36'47		15703 Feb 03 04:42	0° $\mathbb{H}$	
minimum elong	15700 Sep 02 03:51	25° $\mathbb{M}$ 45'42	4°33'56		15703 Feb 27 12:09	0° $\mathbb{Y}$	
min. Earth dist.	15700 Sep 02 06:13	25° $\mathbb{M}$ 42'04	0.26998 AU	evening rise	15703 Mar 05 01:03	6° $\mathbb{Y}$ 48'53	
morning rise	15700 Sep 07 17:34	22° $\mathbb{M}$ 29'44		desc. node	15703 Mar 07 23:38	10° $\mathbb{Y}$ 25'54	
desc. node	15700 Sep 20 04:11	18° $\mathbb{M}$ 19'05			15703 Mar 23 21:53	0° $\mathbb{B}$	
direct	15700 Sep 22 13:27	18° $\mathbb{M}$ 12'13			15703 Apr 17 09:13	0° $\mathbb{I}$	
greatest brilliancy	15700 Oct 02 16:43	20° $\mathbb{M}$ 07'24	-4.9m		15703 May 11 21:53	0° $\mathbb{G}$	
	15700 Oct 19 19:09	0° $\Omega$			15703 Jun 05 13:09	0° $\Omega$	
morning max el	15700 Nov 11 15:24	20° $\Omega$ 12'53	46°37'33	asc. node	15703 Jun 28 15:17	27° $\Omega$ 50'37	
	15700 Nov 21 06:39	0° $\mathbb{M}$			15703 Jun 30 10:35	0° $\mathbb{M}$	
	15700 Dec 18 17:53	0° $\mathbb{J}$			15703 Jul 25 21:09	0° $\Omega$	
asc. node	15701 Jan 11 05:18	27° $\mathbb{J}$ 04'26			15703 Aug 21 12:58	0° $\mathbb{M}$	
	15701 Jan 13 17:08	0° $\mathbb{B}$		evening max el	15703 Sep 04 21:07	14° $\mathbb{M}$ 59'17	46°40'55
	15701 Feb 07 22:53	0° $\approx$			15703 Sep 20 21:43	0° $\mathbb{J}$	
	15701 Mar 04 18:46	0° $\mathbb{H}$		greatest brilliancy	15703 Oct 14 09:08	15° $\mathbb{J}$ 22'20	-4.9m
	15701 Mar 29 08:58	0° $\mathbb{Y}$		desc. node	15703 Oct 18 13:49	16° $\mathbb{J}$ 42'49	
	15701 Apr 22 19:29	0° $\mathbb{B}$		retrograde	15703 Oct 25 05:15	17° $\mathbb{J}$ 33'52	
desc. node	15701 May 03 01:26	12° $\mathbb{B}$ 37'43		evening set	15703 Nov 09 22:04	12° $\mathbb{J}$ 47'48	
morning set	15701 May 11 03:23	22° $\mathbb{B}$ 36'35		min. Earth dist.	15703 Nov 14 11:35	10° $\mathbb{J}$ 05'56	0.27601 AU
	15701 May 17 02:48	0° $\mathbb{I}$		inferior conj	15703 Nov 15 06:49	9° $\mathbb{J}$ 36'28	-6°25'25
	15701 Jun 10 06:59	0° $\mathbb{G}$		minimum elong	15703 Nov 14 19:50	9° $\mathbb{J}$ 53'18	6°22'10
max. Earth dist.	15701 Jun 16 09:54	7° $\mathbb{G}$ 37'12	1.72134 AU	morning rise	15703 Nov 19 17:58	6° $\mathbb{J}$ 56'06	
				direct	15703 Dec 06 04:12	1° $\mathbb{J}$ 47'15	
superior conj	15701 Jun 19 11:47	11° $\mathbb{G}$ 27'21	-1°24'59	greatest brilliancy	15703 Dec 15 17:04	3° $\mathbb{J}$ 26'32	-4.8m
minimum elong	15701 Jun 19 06:17	11° $\mathbb{G}$ 10'12	1°25'47		15704 Jan 22 00:40	0° $\mathbb{B}$	
	15701 Jul 04 08:31	0° $\Omega$		morning max el	15704 Jan 24 08:04	2° $\mathbb{B}$ 12'44	45°55'45
	15701 Jul 28 08:34	0° $\mathbb{M}$		asc. node	15704 Feb 08 15:26	17° $\mathbb{B}$ 44'10	
evening rise	15701 Jul 29 03:05	0° $\mathbb{M}$ 57'54			15704 Feb 20 00:55	0° $\approx$	
	15701 Aug 21 08:34	0° $\Omega$			15704 Mar 17 13:05	0° $\mathbb{H}$	
asc. node	15701 Aug 23 16:19	2° $\Omega$ 54'00			15704 Apr 12 00:32	0° $\mathbb{Y}$	
	15701 Sep 14 10:02	0° $\mathbb{M}$			15704 May 06 22:58	0° $\mathbb{B}$	
	15701 Oct 08 14:54	0° $\mathbb{J}$		desc. node	15704 May 30 14:15	28° $\mathbb{B}$ 50'16	
	15701 Nov 02 02:27	0° $\mathbb{B}$			15704 May 31 12:58	0° $\mathbb{I}$	
	15701 Nov 27 02:23	0° $\approx$			15704 Jun 24 20:35	0° $\mathbb{G}$	
desc. node	15701 Dec 13 09:33	19° $\approx$ 01'41			15704 Jul 18 23:24	0° $\Omega$	
	15701 Dec 23 00:51	0° $\mathbb{H}$		morning set	15704 Jul 23 23:43	6° $\Omega$ 15'28	
	15702 Jan 19 20:37	0° $\mathbb{Y}$			15704 Aug 11 23:12	0° $\mathbb{M}$	
evening max el	15702 Jan 28 03:27	8° $\mathbb{Y}$ 13'26	46°02'06	max. Earth dist.	15704 Sep 01 05:31	25° $\mathbb{M}$ 23'26	1.71538 AU
	15702 Feb 23 03:25	0° $\mathbb{B}$					
greatest brilliancy	15702 Mar 08 04:43	6° $\mathbb{B}$ 47'34	-4.8m	superior conj	15704 Sep 01 16:46	25° $\mathbb{M}$ 58'40	-0°43'35
retrograde	15702 Mar 18 05:27	8° $\mathbb{B}$ 38'01		minimum elong	15704 Sep 02 02:39	26° $\mathbb{M}$ 29'39	0°43'17
evening set	15702 Apr 02 04:07	4° $\mathbb{B}$ 17'45			15704 Sep 04 21:46	0° $\Omega$	
asc. node	15702 Apr 05 08:35	2° $\mathbb{B}$ 26'54		asc. node	15704 Sep 20 06:19	19° $\Omega$ 14'35	
inferior conj	15702 Apr 08 12:15	0° $\mathbb{B}$ 29'17	0°47'07		15704 Sep 28 20:25	0° $\mathbb{M}$	
minimum elong	15702 Apr 08 10:29	0° $\mathbb{B}$ 32'04	0°46'12	evening rise	15704 Oct 11 07:58	15° $\mathbb{M}$ 37'08	
min. Earth dist.	15702 Apr 08 13:51	0° $\mathbb{B}$ 26'45	0.28353 AU		15704 Oct 22 20:14	0° $\mathbb{J}$	
	15702 Apr 09 06:52	30° $\mathbb{R}$ $\mathbb{Y}$			15704 Nov 15 22:43	0° $\mathbb{B}$	
morning rise	15702 Apr 14 16:34	26° $\mathbb{Y}$ 45'20			15704 Dec 10 06:21	0° $\approx$	
direct	15702 Apr 29 17:05	22° $\mathbb{Y}$ 19'30			15705 Jan 03 22:22	0° $\mathbb{H}$	
greatest brilliancy	15702 May 10 06:31	24° $\mathbb{Y}$ 22'23	-4.8m	desc. node	15705 Jan 09 22:07	7° $\mathbb{H}$ 12'03	
	15702 May 21 04:08	0° $\mathbb{B}$			15705 Jan 29 02:25	0° $\mathbb{Y}$	
morning max el	15702 Jun 18 08:37	23° $\mathbb{B}$ 48'06	46°22'04		15705 Feb 23 23:42	0° $\mathbb{B}$	
	15702 Jun 24 12:01	0° $\mathbb{I}$			15705 Mar 23 03:24	0° $\mathbb{I}$	
	15702 Jul 22 00:14	0° $\mathbb{G}$		evening max el	15705 Apr 09 04:46	17° $\mathbb{I}$ 27'37	46°04'19
desc. node	15702 Jul 26 10:58	5° $\mathbb{G}$ 05'36			15705 Apr 22 19:51	0° $\mathbb{G}$	
	15702 Aug 16 16:51	0° $\Omega$		asc. node	15705 May 02 18:33	7° $\mathbb{G}$ 52'50	
	15702 Sep 10 14:13	0° $\mathbb{M}$		greatest brilliancy	15705 May 18 20:57	16° $\mathbb{G}$ 46'02	-4.8m
	15702 Oct 05 02:20	0° $\Omega$		retrograde	15705 May 28 15:08	18° $\mathbb{G}$ 32'22	
	15702 Oct 29 10:01	0° $\mathbb{M}$		evening set	15705 Jun 15 03:57	12° $\mathbb{G}$ 36'56	
asc. node	15702 Nov 16 07:36	22° $\mathbb{M}$ 09'26		inferior conj	15705 Jun 18 12:43	10° $\mathbb{G}$ 32'21	8°44'58
	15702 Nov 22 15:23	0° $\mathbb{J}$		minimum elong	15705 Jun 18 06:57	10° $\mathbb{G}$ 41'23	8°43'38
	15702 Dec 16 19:31	0° $\mathbb{B}$		min. Earth dist.	15705 Jun 18 17:17	10° $\mathbb{G}$ 25'13	0.27987 AU
morning set	15702 Dec 20 06:58	4° $\mathbb{B}$ 19'08		morning rise	15705 Jun 21 09:53	8° $\mathbb{G}$ 45'09	
	15703 Jan 09 23:30	0° $\approx$		direct	15705 Jul 09 14:08	2° $\mathbb{G}$ 25'28	

greatest brilliancy	15705 Jul 19 15:12	4°☿19'53	-4.9m	desc. node	15708 Feb 07 11:28	23°♄54'13	
desc. node	15705 Aug 22 20:39	29°☿04'58			15708 Feb 12 11:34	0°♄	
	15705 Aug 23 19:33	0°♄			15708 Mar 08 06:02	0°♄	
morning max el	15705 Aug 29 02:02	5°♄11'38	46°55'17		15708 Apr 02 07:08	0°♄	
	15705 Sep 21 07:57	0°♄			15708 Apr 27 17:54	0°☿	
	15705 Oct 17 11:24	0°♄			15708 May 23 23:58	0°♄	
	15705 Nov 11 17:49	0°♄		asc. node	15708 May 30 05:21	6°♄52'38	
	15705 Dec 06 14:01	0°♄		evening max el	15708 Jun 20 19:59	29°♄31'51	46°27'24
asc. node	15705 Dec 13 19:58	8°♄49'07			15708 Jun 21 07:23	0°♄	
	15705 Dec 31 04:04	0°☿		greatest brilliancy	15708 Jul 30 23:00	29°♄35'12	-4.9m
	15706 Jan 24 14:14	0°♄			15708 Aug 01 05:12	0°♄	
	15706 Feb 17 22:31	0°♄		retrograde	15708 Aug 09 15:56	1°♄20'41	
morning set	15706 Feb 27 12:51	11°♄50'06			15708 Aug 17 19:46	30°♄	
	15706 Mar 14 06:17	0°♄		evening set	15708 Aug 25 06:05	26°♄37'34	
desc. node	15706 Apr 04 13:36	26°♄16'56		inferior conj	15708 Aug 30 07:19	23°♄37'20	4°57'22
max. Earth dist.	15706 Apr 05 13:23	27°♄30'20	1.73032 AU	minimum elong	15708 Aug 30 17:18	23°♄22'01	4°54'27
				min. Earth dist.	15708 Aug 30 20:30	23°♄17'07	0.27022 AU
superior conj	15706 Apr 06 03:00	28°♄12'21	-0°03'49	morning rise	15708 Sep 05 04:19	20°♄09'14	
minimum elong	15706 Apr 06 02:02	28°♄09'21	0°04'05	desc. node	15708 Sep 19 06:01	15°♄49'18	
behind sun begin	15706 Apr 05 02:54	26°♄57'58		direct	15708 Sep 20 02:04	15°♄48'28	
behind sun end	15706 Apr 07 01:10	29°♄20'45		greatest brilliancy	15708 Sep 30 06:49	17°♄44'33	-4.9m
	15706 Apr 07 13:53	0°♄			15708 Oct 20 10:28	0°♄	
	15706 May 01 20:48	0°♄		morning max el	15708 Nov 09 04:15	17°♄49'45	46°38'49
evening rise	15706 May 14 10:21	15°♄32'44			15708 Nov 21 01:57	0°♄	
	15706 May 26 02:27	0°☿			15708 Dec 18 08:42	0°♄	
	15706 Jun 19 07:12	0°♄		asc. node	15709 Jan 10 07:12	26°♄31'50	
asc. node	15706 Jul 13 12:28	0°♄			15709 Jan 13 06:00	0°☿	
	15706 Jul 26 04:20	15°♄38'18			15709 Feb 07 10:41	0°♄	
	15706 Aug 06 20:22	0°♄			15709 Mar 04 05:56	0°♄	
	15706 Aug 31 09:59	0°♄			15709 Mar 28 19:46	0°♄	
	15706 Sep 25 10:55	0°♄			15709 Apr 22 06:04	0°♄	
	15706 Oct 21 11:50	0°☿		desc. node	15709 May 02 03:15	12°♄10'44	
desc. node	15706 Nov 15 00:11	26°☿01'24		morning set	15709 May 08 17:20	20°♄18'48	
evening max el	15706 Nov 15 15:53	26°☿40'16	46°24'36		15709 May 16 13:19	0°♄	
	15706 Nov 19 01:54	0°♄			15709 Jun 09 17:29	0°☿	
greatest brilliancy	15706 Dec 25 02:22	26°♄05'42	-4.8m	max. Earth dist.	15709 Jun 13 21:28	5°☿11'08	1.72171 AU
retrograde	15707 Jan 04 09:17	28°♄01'13					
evening set	15707 Jan 22 07:37	21°♄56'22		superior conj	15709 Jun 17 01:04	9°☿06'31	-1°24'00
inferior conj	15707 Jan 25 18:45	19°♄47'53	-8°06'37	minimum elong	15709 Jun 16 18:44	8°☿46'47	1°24'45
minimum elong	15707 Jan 26 02:58	19°♄35'03	8°04'57		15709 Jul 03 19:03	0°♄	
min. Earth dist.	15707 Jan 25 18:10	19°♄48'49	0.28654 AU	evening rise	15709 Jul 26 15:10	28°♄32'33	
morning rise	15707 Jan 29 22:28	17°♄15'19			15709 Jul 27 19:09	0°♄	
direct	15707 Feb 16 01:59	11°♄40'57			15709 Aug 20 19:15	0°♄	
greatest brilliancy	15707 Feb 26 10:39	13°♄39'02	-4.8m	asc. node	15709 Aug 22 18:02	2°♄25'58	
asc. node	15707 Mar 08 00:55	18°♄21'34			15709 Sep 13 20:55	0°♄	
	15707 Mar 23 18:34	0°♄			15709 Oct 08 02:07	0°♄	
morning max el	15707 Apr 06 05:04	12°♄20'22	45°46'32		15709 Nov 01 14:11	0°☿	
	15707 Apr 23 10:10	0°♄			15709 Nov 26 15:04	0°♄	
	15707 May 20 08:17	0°♄		desc. node	15709 Dec 12 11:29	18°♄27'52	
	15707 Jun 14 22:10	0°♄			15709 Dec 22 15:26	0°♄	
desc. node	15707 Jun 28 02:08	15°♄48'06			15710 Jan 19 16:08	0°♄	
	15707 Jul 09 19:01	0°☿		evening max el	15710 Jan 25 17:42	5°♄58'51	46°02'36
	15707 Aug 03 05:32	0°♄			15710 Feb 24 06:45	0°♄	
	15707 Aug 27 10:01	0°♄		greatest brilliancy	15710 Mar 05 20:10	4°♄35'25	-4.8m
	15707 Sep 20 11:29	0°♄		retrograde	15710 Mar 15 20:37	6°♄26'03	
morning set	15707 Oct 06 22:59	20°♄35'17		evening set	15710 Mar 30 20:03	2°♄04'31	
	15707 Oct 14 11:45	0°♄			15710 Apr 03 09:34	30°♄	
asc. node	15707 Oct 18 20:12	5°♄26'23		asc. node	15710 Apr 04 10:30	29°♄21'35	
	15707 Nov 07 11:50	0°♄		inferior conj	15710 Apr 06 03:47	28°♄17'00	0°25'42
				minimum elong	15710 Apr 06 02:50	28°♄18'30	0°25'05
superior conj	15707 Nov 14 23:19	9°♄20'22	1°00'13	min. Earth dist.	15710 Apr 06 06:02	28°♄13'29	0.28367 AU
minimum elong	15707 Nov 14 12:43	8°♄47'16	1°00'35	morning rise	15710 Apr 12 09:17	24°♄31'34	
max. Earth dist.	15707 Nov 16 21:11	11°♄43'30	1.72007 AU	direct	15710 Apr 27 08:16	20°♄06'54	
	15707 Dec 01 12:43	0°☿		greatest brilliancy	15710 May 07 23:23	22°♄11'19	-4.8m
evening rise	15707 Dec 22 14:14	26°☿11'41			15710 May 22 02:35	0°♄	
	15707 Dec 25 15:52	0°♄		morning max el	15710 Jun 15 23:42	21°♄33'32	46°20'36
	15708 Jan 18 23:02	0°♄			15710 Jun 24 07:16	0°♄	

	15710 Jul 21 14:52	0°☿			15713 Jan 28 14:42	0°♊	
desc. node	15710 Jul 25 12:46	4°☿29'47			15713 Feb 23 13:38	0°♋	
	15710 Aug 16 05:40	0°♌			15713 Mar 22 20:59	0°♍	
	15710 Sep 10 02:04	0°♎	evening max el		15713 Apr 06 20:30	15°♎14'56	46°03'44
	15710 Oct 04 13:36	0°♏			15713 Apr 23 03:18	0°☿	
	15710 Oct 28 20:54	0°♐	asc. node		15713 May 01 20:37	6°☿38'58	
asc. node	15710 Nov 15 09:32	21°♐42'19	greatest brilliancy		15713 May 16 10:08	14°☿27'44	-4.8m
	15710 Nov 22 02:01	0°♑	retrograde		15713 May 26 05:26	16°☿14'33	
	15710 Dec 16 05:58	0°♒	evening set		15713 Jun 12 14:40	10°☿24'32	
morning set	15710 Dec 17 22:32	2°♒05'58	inferior conj		15713 Jun 16 03:07	8°☿14'08	8°38'18
	15711 Jan 09 09:51	0°♓	minimum elong		15713 Jun 15 20:38	8°☿24'18	8°36'49
			min. Earth dist.		15713 Jun 16 06:37	8°☿08'39	0.28007 AU
superior conj	15711 Jan 24 02:44	18°♓13'43	1°20'11	morning rise	15713 Jun 19 02:32	6°☿23'21	
minimum elong	15711 Jan 24 09:56	18°♓36'00	1°20'40	direct	15713 Jul 07 05:15	0°☿07'16	
max. Earth dist.	15711 Jan 26 05:32	20°♓51'00	1.72856 AU	greatest brilliancy	15713 Jul 17 05:02	2°☿00'34	-4.9m
	15711 Feb 02 15:02	0°♈		desc. node	15713 Aug 21 22:35	28°☿11'11	
	15711 Feb 26 22:33	0°♉			15713 Aug 23 19:08	0°♌	
evening rise	15711 Mar 02 16:53	4°♉37'57		morning max el	15713 Aug 26 16:30	2°♌52'29	46°54'42
desc. node	15711 Mar 07 01:21	9°♉59'05			15713 Sep 21 00:11	0°♍	
	15711 Mar 23 08:26	0°♊			15713 Oct 17 01:05	0°♎	
	15711 Apr 16 20:01	0°♋			15713 Nov 11 06:12	0°♏	
	15711 May 11 09:03	0°☿			15713 Dec 06 01:34	0°♑	
	15711 Jun 05 00:54	0°♌		asc. node	15713 Dec 12 21:49	8°♑20'02	
asc. node	15711 Jun 27 17:10	27°♌18'30			15713 Dec 30 15:05	0°♒	
	15711 Jun 29 23:17	0°♎			15714 Jan 24 00:55	0°♓	
	15711 Jul 25 11:34	0°♏			15714 Feb 17 09:00	0°♈	
	15711 Aug 21 07:11	0°♐		morning set	15714 Feb 25 05:47	9°♈42'09	
evening max el	15711 Sep 02 11:34	12°♐39'53	46°41'08		15714 Mar 13 16:42	0°♉	
	15711 Sep 21 06:50	0°♑					
greatest brilliancy	15711 Oct 11 22:43	13°♑01'41	-4.9m	superior conj	15714 Apr 03 18:27	25°♉59'43	-0°00'19
desc. node	15711 Oct 17 15:49	14°♑43'00		minimum elong	15714 Apr 03 18:18	25°♉59'15	0°00'36
retrograde	15711 Oct 22 19:53	15°♑14'18		behind sun begin	15714 Apr 02 18:40	24°♉46'21	
evening set	15711 Nov 07 08:36	10°♑32'49		behind sun end	15714 Apr 04 17:56	27°♉12'10	
min. Earth dist.	15711 Nov 12 01:16	7°♑46'50	0.27551 AU	max. Earth dist.	15714 Apr 03 07:19	25°♉25'20	1.73047 AU
inferior conj	15711 Nov 12 20:29	7°♑17'29	-6°08'58	desc. node	15714 Apr 03 15:28	25°♉50'30	
minimum elong	15711 Nov 12 09:32	7°♑34'12	6°05'40		15714 Apr 07 00:20	0°♊	
morning rise	15711 Nov 17 10:54	4°♑32'54			15714 May 01 07:19	0°♋	
	15711 Nov 28 15:15	30°♒♌		evening rise	15714 May 12 01:01	13°♋16'46	
direct	15711 Dec 03 17:43	29°♒28'45			15714 May 25 13:07	0°☿	
	15711 Dec 08 23:31	0°♑			15714 Jun 18 18:05	0°♌	
greatest brilliancy	15711 Dec 13 06:13	1°♑08'15	-4.8m		15714 Jul 12 23:39	0°♎	
	15712 Jan 21 23:32	0°♒		asc. node	15714 Jul 25 06:05	15°♎08'38	
morning max el	15712 Jan 21 23:00	29°♑58'43	45°56'50		15714 Aug 06 08:00	0°♏	
asc. node	15712 Feb 07 17:19	17°♒02'35			15714 Aug 30 22:19	0°♐	
	15712 Feb 19 16:30	0°♓			15714 Sep 25 00:27	0°♑	
	15712 Mar 17 02:09	0°♈			15714 Oct 21 03:56	0°♒	
	15712 Apr 11 12:25	0°♉		evening max el	15714 Nov 13 06:54	24°♒24'46	46°25'24
	15712 May 06 10:13	0°♊		desc. node	15714 Nov 14 02:10	25°♒12'15	
desc. node	15712 May 29 16:11	28°♋22'49			15714 Nov 19 01:44	0°♓	
	15712 May 30 23:51	0°♋		greatest brilliancy	15714 Dec 22 17:49	23°♓53'03	-4.8m
	15712 Jun 24 07:15	0°☿		retrograde	15715 Jan 02 00:19	25°♓48'13	
	15712 Jul 18 09:57	0°♌		evening set	15715 Jan 20 01:36	19°♓39'59	
morning set	15712 Jul 21 11:47	3°♌50'23		inferior conj	15715 Jan 23 10:08	17°♓35'19	-8°15'16
	15712 Aug 11 09:43	0°♎		minimum elong	15715 Jan 23 17:48	17°♓23'20	8°13'44
max. Earth dist.	15712 Aug 29 17:57	22°♎58'59	1.71540 AU	min. Earth dist.	15715 Jan 23 08:53	17°♓37'18	0.28642 AU
				morning rise	15715 Jan 27 10:07	15°♓08'01	
superior conj	15712 Aug 30 04:48	23°♎32'57	-0°46'54	direct	15715 Feb 13 17:14	9°♓28'58	
minimum elong	15712 Aug 30 15:12	24°♎05'33	0°46'38	greatest brilliancy	15715 Feb 24 00:46	11°♓25'35	-4.8m
	15712 Sep 04 08:17	0°♏		asc. node	15715 Mar 07 02:52	17°♓02'51	
asc. node	15712 Sep 19 08:09	18°♏47'21			15715 Mar 23 23:08	0°♈	
	15712 Sep 28 06:58	0°♐		morning max el	15715 Apr 03 19:09	10°♈04'34	45°45'57
evening rise	15712 Oct 08 21:37	13°♐16'50			15715 Apr 23 03:05	0°♉	
	15712 Oct 22 06:48	0°♑			15715 May 19 22:02	0°♊	
	15712 Nov 15 09:24	0°♒			15715 Jun 14 10:33	0°♋	
	15712 Dec 09 17:16	0°♓		desc. node	15715 Jun 27 03:54	15°♋17'16	
	15713 Jan 03 09:46	0°♈			15715 Jul 09 06:41	0°☿	
desc. node	15713 Jan 08 23:55	6°♈42'50			15715 Aug 02 16:48	0°♌	

	15715 Aug 26 21:02	0°♍	retrograde	15718 Mar 13 12:13	4°♎13'03	
	15715 Sep 19 22:19	0°♊		15718 Mar 28 04:46	30°♎°	
morning set	15715 Oct 04 12:03	18°♊12'35	evening set	15718 Mar 28 12:08	29°♎°50'00	
	15715 Oct 13 22:27	0°♍	inferior conj	15718 Apr 03 19:15	26°♎°03'31	0°04'11
asc. node	15715 Oct 17 22:05	4°♍58'50	minimum elong	15718 Apr 03 19:06	26°♎°03'45	0°03'51
	15715 Nov 06 22:28	0°♈	transit middle	15718 Apr 03 19:06	26°♎°03'45	0°03'51
			transit begin	15718 Apr 03 15:10	26°♎°09'55	
superior conj	15715 Nov 12 13:45	7°♈°02'24	transit end	15718 Apr 03 23:02	25°♎°57'35	
minimum elong	15715 Nov 12 03:12	6°♈°29'28	asc. node	15718 Apr 03 12:33	26°♎°14'02	
max. Earth dist.	15715 Nov 14 09:19	9°♈°18'25	min. Earth dist.	15718 Apr 03 21:49	25°♎°59'29	0.28381 AU
	15715 Nov 30 23:21	0°♎	morning rise	15718 Apr 10 01:47	22°♎°17'03	
evening rise	15715 Dec 20 05:38	23°♎°57'27	direct	15718 Apr 24 23:52	17°♎°53'14	
	15715 Dec 25 02:32	0°♏	greatest brilliancy	15718 May 05 15:45	19°♎°58'44	-4.8m
	15716 Jan 18 09:50	0°♏		15718 May 22 19:33	0°♏	
desc. node	15716 Feb 06 13:14	23°♏°26'09	morning max el	15718 Jun 13 15:26	19°♏°19'45	46°19'10
	15716 Feb 11 22:36	0°♎		15718 Jun 24 02:19	0°♏	
	15716 Mar 07 17:31	0°♏		15718 Jul 21 05:40	0°♏	
	15716 Apr 01 19:23	0°♏	desc. node	15718 Jul 24 14:42	3°♏°53'35	
	15716 Apr 27 07:28	0°♏		15718 Aug 15 18:45	0°♏	
	15716 May 23 16:12	0°♏		15718 Sep 09 14:16	0°♏	
asc. node	15716 May 29 07:11	6°♏°10'48		15718 Oct 04 01:17	0°♏	
evening max el	15716 Jun 18 08:02	27°♏°06'22		15718 Oct 28 08:14	0°♏	
	15716 Jun 21 06:57	0°♏	asc. node	15718 Nov 14 11:21	21°♏°13'26	
greatest brilliancy	15716 Jul 28 13:17	27°♏°12'07		15718 Nov 21 13:05	0°♏	
retrograde	15716 Aug 07 04:05	28°♏°56'18	morning set	15718 Dec 15 13:47	29°♏°50'34	
evening set	15716 Aug 22 22:01	24°♏°08'24		15718 Dec 15 16:50	0°♏	
inferior conj	15716 Aug 27 20:06	21°♏°12'48		15719 Jan 08 20:35	0°♏	
minimum elong	15716 Aug 28 06:29	20°♏°56'53				
min. Earth dist.	15716 Aug 28 10:34	20°♏°50'37	superior conj	15719 Jan 21 19:00	16°♏°02'13	1°21'25
morning rise	15716 Sep 02 14:37	17°♏°47'48	minimum elong	15719 Jan 22 01:37	16°♏°22'44	1°21'58
direct	15716 Sep 17 14:26	13°♏°23'00	max. Earth dist.	15719 Jan 23 23:59	18°♏°46'19	1.72835 AU
desc. node	15716 Sep 18 08:02	13°♏°23'39		15719 Feb 02 01:45	0°♏	
greatest brilliancy	15716 Sep 27 20:54	15°♏°20'34		15719 Feb 26 09:21	0°♏	
	15716 Oct 20 22:17	0°♏		15719 Feb 28 08:45	2°♏°25'48	
morning max el	15716 Nov 06 17:19	15°♏°26'22	evening rise	15719 Mar 06 03:16	9°♏°31'40	
	15716 Nov 20 20:56	0°♏	desc. node	15719 Mar 22 19:25	0°♏	
	15716 Dec 17 23:29	0°♏		15719 Apr 16 07:15	0°♏	
asc. node	15717 Jan 09 09:00	25°♏°58'36		15719 May 10 20:39	0°♏	
	15717 Jan 12 18:56	0°♏		15719 Jun 04 13:05	0°♏	
	15717 Feb 06 22:36	0°♏	asc. node	15719 Jun 26 18:59	26°♏°45'00	
	15717 Mar 03 17:16	0°♏		15719 Jun 29 12:27	0°♏	
	15717 Mar 28 06:45	0°♏		15719 Jul 25 02:35	0°♏	
	15717 Apr 21 16:51	0°♏		15719 Aug 21 02:24	0°♏	
desc. node	15717 May 01 05:09	11°♏°43'26	evening max el	15719 Aug 31 02:34	10°♏°20'30	46°41'05
morning set	15717 May 06 07:33	18°♏°01'14		15719 Sep 21 20:07	0°♏	
	15717 May 16 00:01	0°♏	greatest brilliancy	15719 Oct 09 12:10	10°♏°38'56	-4.9m
	15717 Jun 09 04:13	0°♏	desc. node	15719 Oct 16 17:47	12°♏°36'05	
max. Earth dist.	15717 Jun 11 11:58	2°♏°53'27	retrograde	15719 Oct 20 10:27	12°♏°52'12	
			evening set	15719 Nov 04 19:07	8°♏°15'24	
superior conj	15717 Jun 14 14:22	6°♏°45'02	min. Earth dist.	15719 Nov 09 14:41	5°♏°25'21	0.27501 AU
minimum elong	15717 Jun 14 07:15	6°♏°22'51	inferior conj	15719 Nov 10 09:53	4°♏°56'03	-5°51'41
	15717 Jul 03 05:51	0°♏	minimum elong	15719 Nov 09 23:05	5°♏°12'33	5°48'19
evening rise	15717 Jul 24 03:08	26°♏°05'55	morning rise	15719 Nov 15 03:33	2°♏°07'14	
greatest brilliancy	15717 Jul 25 21:40	28°♏°18'50		15719 Nov 19 06:16	30°♏°	
	15717 Jul 27 06:03	0°♏	direct	15719 Dec 01 07:23	27°♏°08'02	
	15717 Aug 20 06:18	0°♏	greatest brilliancy	15719 Dec 10 18:51	28°♏°47'10	-4.8m
asc. node	15717 Aug 21 19:53	1°♏°57'15		15719 Dec 13 23:21	0°♏	
	15717 Sep 13 08:10	0°♏	morning max el	15720 Jan 19 13:34	27°♏°42'12	45°57'59
	15717 Oct 07 13:41	0°♏		15720 Jan 21 22:04	0°♏	
	15717 Nov 01 02:17	0°♏	asc. node	15720 Feb 06 19:20	16°♏°20'26	
	15717 Nov 26 04:09	0°♏		15720 Feb 19 08:19	0°♏	
desc. node	15717 Dec 11 13:17	17°♏°52'34		15720 Mar 16 15:32	0°♏	
	15717 Dec 22 06:33	0°♏		15720 Apr 11 00:40	0°♏	
	15718 Jan 19 12:41	0°♏		15720 May 05 21:50	0°♏	
evening max el	15718 Jan 23 08:28	3°♏°44'41	desc. node	15720 May 28 17:54	27°♏°53'26	
	15718 Feb 25 23:05	0°♏		15720 May 30 11:07	0°♏	
greatest brilliancy	15718 Mar 03 11:03	2°♏°21'43		15720 Jun 23 18:19	0°♏	



	15720 Jul 17 20:54	0°♎		greatest brilliancy	15722 Dec 20 09:22	21°♊39'55	-4.8m
morning set	15720 Jul 19 00:13	1°♎25'14		retrograde	15722 Dec 30 15:09	23°♊34'56	
	15720 Aug 10 20:36	0°♎		evening set	15723 Jan 17 19:28	17°♊23'24	
				inferior conj	15723 Jan 21 01:38	15°♊22'22	-8°23'02
superior conj	15720 Aug 27 17:08	21°♎07'06	-0°50'06	minimum elong	15723 Jan 21 08:40	15°♊11'21	8°21'39
minimum elong	15720 Aug 28 03:57	21°♎41'00	0°49'52	min. Earth dist.	15723 Jan 20 23:52	15°♊25'08	0.28632 AU
max. Earth dist.	15720 Aug 27 06:17	20°♎33'06	1.71541 AU	morning rise	15723 Jan 24 21:59	13°♊00'19	
	15720 Sep 03 19:10	0°♎		direct	15723 Feb 11 08:11	7°♊16'23	
asc. node	15720 Sep 18 10:03	18°♎19'14		greatest brilliancy	15723 Feb 21 15:37	9°♊12'23	-4.8m
	15720 Sep 27 17:52	0°♎		asc. node	15723 Mar 06 04:52	15°♊45'56	
evening rise	15720 Oct 06 11:19	10°♎55'22			15723 Mar 24 02:13	0°♋	
	15720 Oct 21 17:47	0°♋		morning max el	15723 Apr 01 09:09	7°♋47'49	45°45'29
	15720 Nov 14 20:31	0°♋			15723 Apr 22 19:54	0°♋	
	15720 Dec 09 04:41	0°♋			15723 May 19 11:50	0°♋	
	15721 Jan 02 21:41	0°♋			15723 Jun 13 23:00	0°♋	
desc. node	15721 Jan 08 01:43	6°♋12'07		desc. node	15723 Jun 26 05:48	14°♋46'26	
	15721 Jan 28 03:30	0°♋			15723 Jul 08 18:28	0°♋	
	15721 Feb 23 04:08	0°♋			15723 Aug 02 04:12	0°♋	
	15721 Mar 22 15:27	0°♋			15723 Aug 26 08:12	0°♋	
evening max el	15721 Apr 04 11:30	12°♋59'20	46°03'09		15723 Sep 19 09:17	0°♋	
	15721 Apr 23 14:10	0°♋		morning set	15723 Oct 02 01:15	15°♋49'49	
asc. node	15721 Apr 30 22:29	5°♋21'19			15723 Oct 13 09:16	0°♋	
greatest brilliancy	15721 May 14 00:01	12°♋09'16	-4.8m	asc. node	15723 Oct 16 23:50	4°♋30'34	
retrograde	15721 May 23 19:19	13°♋55'54			15723 Nov 06 09:11	0°♋	
evening set	15721 Jun 10 01:20	8°♋11'41					
inferior conj	15721 Jun 13 17:37	5°♋55'15	8°30'44	superior conj	15723 Nov 10 04:24	4°♋44'55	0°54'50
minimum elong	15721 Jun 13 10:27	6°♋06'31	8°29'07	minimum elong	15723 Nov 09 17:59	4°♋12'22	0°55'09
min. Earth dist.	15721 Jun 13 20:27	5°♋50'49	0.28024 AU	max. Earth dist.	15723 Nov 11 20:32	6°♋50'13	1.71946 AU
morning rise	15721 Jun 16 19:31	4°♋00'26			15723 Nov 30 10:01	0°♋	
	15721 Jun 24 10:22	30°♋♎		evening rise	15723 Dec 17 21:22	21°♋44'08	
direct	15721 Jul 04 19:59	27°♋48'17			15723 Dec 24 13:16	0°♋	
greatest brilliancy	15721 Jul 14 19:30	29°♋40'58	-4.9m		15724 Jan 17 20:42	0°♋	
	15721 Jul 15 15:51	0°♋		desc. node	15724 Feb 05 15:10	22°♋58'18	
desc. node	15721 Aug 21 00:32	27°♋17'31			15724 Feb 11 09:45	0°♋	
	15721 Aug 23 18:04	0°♋			15724 Mar 07 05:09	0°♋	
morning max el	15721 Aug 24 06:04	0°♋30'05	46°54'15		15724 Apr 01 07:47	0°♋	
	15721 Sep 20 16:27	0°♋			15724 Apr 26 21:16	0°♋	
	15721 Oct 16 14:55	0°♋			15724 May 23 08:47	0°♋	
	15721 Nov 10 18:46	0°♋		asc. node	15724 May 28 09:04	5°♋28'24	
	15721 Dec 05 13:24	0°♋		evening max el	15724 Jun 15 20:15	24°♋41'23	46°25'32
asc. node	15721 Dec 11 23:36	7°♋49'50			15724 Jun 21 07:42	0°♋	
	15721 Dec 30 02:25	0°♋		greatest brilliancy	15724 Jul 26 02:57	24°♋48'30	-4.9m
	15722 Jan 23 11:57	0°♋		retrograde	15724 Aug 04 16:48	26°♋32'17	
	15722 Feb 16 19:51	0°♋		evening set	15724 Aug 20 14:06	21°♋39'07	
morning set	15722 Feb 22 22:35	7°♋32'39		inferior conj	15724 Aug 25 08:56	18°♋48'15	5°36'53
	15722 Mar 13 03:27	0°♋		minimum elong	15724 Aug 25 19:38	18°♋31'53	5°33'53
				min. Earth dist.	15724 Aug 26 00:20	18°♋24'42	0.27076 AU
superior conj	15722 Apr 01 09:53	23°♋46'13	0°03'13	morning rise	15724 Aug 31 00:49	15°♋26'59	
minimum elong	15722 Apr 01 10:34	23°♋48'19	0°02'55	direct	15724 Sep 15 03:11	10°♋57'29	
behind sun begin	15722 Mar 31 11:11	22°♋36'12		desc. node	15724 Sep 17 10:01	11°♋03'41	
behind sun end	15722 Apr 02 09:57	25°♋00'26		greatest brilliancy	15724 Sep 25 10:43	12°♋56'20	-4.9m
max. Earth dist.	15722 Mar 31 23:55	23°♋15'27	1.73059 AU		15724 Oct 21 07:03	0°♋	
desc. node	15722 Apr 02 17:15	25°♋22'58		morning max el	15724 Nov 04 07:30	13°♋05'43	46°41'46
	15722 Apr 06 11:04	0°♋			15724 Nov 20 15:22	0°♋	
	15722 Apr 30 18:08	0°♋			15724 Dec 17 14:02	0°♋	
evening rise	15722 May 09 15:48	11°♋00'22		asc. node	15725 Jan 08 11:01	25°♋26'26	
	15722 May 25 00:05	0°♋			15725 Jan 12 07:41	0°♋	
	15722 Jun 18 05:18	0°♋			15725 Feb 06 10:23	0°♋	
	15722 Jul 12 11:10	0°♋			15725 Mar 03 04:29	0°♋	
asc. node	15722 Jul 24 07:59	14°♋38'30			15725 Mar 27 17:38	0°♋	
	15722 Aug 05 19:56	0°♋			15725 Apr 21 03:35	0°♋	
	15722 Aug 30 10:56	0°♋		desc. node	15725 Apr 30 06:54	11°♋15'49	
	15722 Sep 24 14:19	0°♋		morning set	15725 May 03 21:55	15°♋44'22	
	15722 Oct 20 20:30	0°♋			15725 May 15 10:42	0°♋	
evening max el	15722 Nov 10 20:57	22°♋06'20	46°26'09		15725 Jun 08 14:54	0°♋	
desc. node	15722 Nov 13 03:57	24°♋21'16		max. Earth dist.	15725 Jun 09 03:57	0°♋40'38	1.72248 AU
	15722 Nov 19 02:58	0°♋					

superior conj	15725 Jun 12 03:40	4°☿23'45	-1°21'31			15727 Nov 12 07:30	30°♁♂	
minimum elong	15725 Jun 11 19:50	3°☿59'22	1°22'14	morning rise		15727 Nov 12 20:04	29°♁♂42'14	
	15725 Jul 02 16:34	0°♁		direct		15727 Nov 28 21:05	24°♁♂48'12	
evening rise	15725 Jul 21 15:10	23°♁39'53		greatest brilliancy		15727 Dec 08 07:32	26°♁♂26'41	-4.8m
greatest brilliancy	15725 Jul 25 14:10	28°♁36'39	-3.9m			15727 Dec 16 07:10	0°♁♂	
	15725 Jul 26 16:51	0°♁♂		morning max el		15728 Jan 17 03:20	25°♁♂24'29	45°59'10
	15725 Aug 19 17:15	0°♁♂				15728 Jan 21 19:22	0°♁♂	
asc. node	15725 Aug 20 21:45	1°♁♂28'53		asc. node		15728 Feb 05 21:15	15°♁♂39'28	
	15725 Sep 12 19:22	0°♁♂				15728 Feb 18 23:31	0°♁♂	
	15725 Oct 07 01:13	0°♁♂				15728 Mar 16 04:27	0°♁♂	
	15725 Oct 31 14:21	0°♁♂				15728 Apr 10 12:28	0°♁♂	
	15725 Nov 25 17:11	0°♁♂				15728 May 05 09:03	0°♁♂	
desc. node	15725 Dec 10 15:14	17°♁♂17'52		desc. node		15728 May 27 19:48	27°♁♂25'51	
	15725 Dec 21 21:41	0°♁♂				15728 May 29 22:00	0°♁♂	
	15726 Jan 19 09:38	0°♁♂				15728 Jun 23 05:01	0°☿	
evening max el	15726 Jan 21 00:09	1°♁♂33'34	46°03'49	morning set		15728 Jul 16 12:25	29°☿00'26	
	15726 Feb 28 15:42	0°♁♂				15728 Jul 17 07:31	0°♁♂	
greatest brilliancy	15726 Mar 01 01:43	0°♁♂09'00	-4.8m			15728 Aug 10 07:12	0°♁♂	
retrograde	15726 Mar 11 04:12	2°♁♂01'08		max. Earth dist.		15728 Aug 24 15:02	17°♁♂56'55	1.71544 AU
	15726 Mar 21 04:40	30°♁♂						
evening set	15726 Mar 26 04:34	27°♁♂36'34		superior conj		15728 Aug 25 05:09	18°♁♂41'10	-0°53'13
inferior conj	15726 Apr 01 10:51	23°♁♂51'06	-0°17'10	minimum elong		15728 Aug 25 16:19	19°♁♂16'08	0°53'02
minimum elong	15726 Apr 01 11:30	23°♁♂50'04	0°17'13			15728 Sep 03 05:46	0°♁♂	
min. Earth dist.	15726 Apr 01 13:25	23°♁♂47'04	0.28397 AU	asc. node		15728 Sep 17 11:45	17°♁♂51'24	
asc. node	15726 Apr 02 14:25	23°♁♂08'00				15728 Sep 27 04:29	0°♁♂	
morning rise	15726 Apr 07 18:16	20°♁♂03'51		evening rise		15728 Oct 04 00:29	8°♁♂33'11	
direct	15726 Apr 22 16:04	15°♁♂40'49				15728 Oct 21 04:27	0°♁♂	
greatest brilliancy	15726 May 03 07:44	17°♁♂46'37	-4.8m			15728 Nov 14 07:21	0°♁♂	
	15726 May 23 07:49	0°♁♂				15728 Dec 08 15:48	0°♁♂	
morning max el	15726 Jun 11 07:36	17°♁♂07'42	46°17'34			15729 Jan 02 09:20	0°♁♂	
	15726 Jun 23 20:40	0°♁♂		desc. node		15729 Jan 07 03:41	5°♁♂42'45	
	15726 Jul 20 20:07	0°☿				15729 Jan 27 16:04	0°♁♂	
desc. node	15726 Jul 23 16:43	3°☿18'20				15729 Feb 22 18:27	0°♁♂	
	15726 Aug 15 07:33	0°♁♂				15729 Mar 22 09:56	0°♁♂	
	15726 Sep 09 02:12	0°♁♂		evening max el		15729 Apr 02 01:40	10°♁♂43'01	46°02'41
	15726 Oct 03 12:42	0°♁♂				15729 Apr 24 03:55	0°☿	
	15726 Oct 27 19:19	0°♁♂		asc. node		15729 Apr 30 00:23	4°☿02'46	
asc. node	15726 Nov 13 13:07	20°♁♂45'10		greatest brilliancy		15729 May 11 14:19	9°☿52'52	-4.8m
	15726 Nov 20 23:55	0°♁♂		retrograde		15729 May 21 09:02	11°☿39'11	
morning set	15726 Dec 13 05:04	27°♁♂35'53		evening set		15729 Jun 07 12:01	6°☿00'43	
	15726 Dec 15 03:28	0°♁♂		inferior conj		15729 Jun 11 08:16	3°☿38'16	8°22'25
	15727 Jan 08 07:05	0°♁♂		minimum elong		15729 Jun 11 00:27	3°☿50'34	8°20'38
				min. Earth dist.		15729 Jun 11 10:40	3°☿34'30	0.28044 AU
superior conj	15727 Jan 19 11:25	13°♁♂51'56	1°22'33	morning rise		15729 Jun 14 12:48	1°☿39'15	
minimum elong	15727 Jan 19 17:27	14°♁♂10'37	1°23'08			15729 Jun 17 08:41	30°♁♂	
max. Earth dist.	15727 Jan 21 19:23	16°♁♂45'18	1.72807 AU	direct		15729 Jul 02 10:27	25°♁♂31'01	
	15727 Feb 01 12:13	0°♁♂		greatest brilliancy		15729 Jul 12 10:41	27°♁♂23'50	-4.9m
	15727 Feb 25 19:52	0°♁♂				15729 Jul 18 06:53	0°☿	
evening rise	15727 Feb 26 00:50	0°♁♂15'16		desc. node		15729 Aug 20 02:30	26°☿26'00	
desc. node	15727 Mar 05 05:03	9°♁♂04'48		morning max el		15729 Aug 21 19:05	28°☿07'18	46°53'35
	15727 Mar 22 06:05	0°♁♂				15729 Aug 23 15:42	0°♁♂	
	15727 Apr 15 18:11	0°♁♂				15729 Sep 20 08:08	0°♁♂	
	15727 May 10 07:59	0°☿				15729 Oct 16 04:20	0°♁♂	
	15727 Jun 04 01:03	0°♁♂				15729 Nov 10 06:59	0°♁♂	
asc. node	15727 Jun 25 20:55	26°♁♂12'22				15729 Dec 05 00:51	0°♁♂	
	15727 Jun 29 01:28	0°♁♂		asc. node		15729 Dec 11 01:36	7°♁♂21'22	
	15727 Jul 24 17:32	0°♁♂				15729 Dec 29 13:23	0°♁♂	
	15727 Aug 20 21:53	0°♁♂				15730 Jan 22 22:37	0°♁♂	
evening max el	15727 Aug 28 17:41	8°♁♂02'15	46°41'04			15730 Feb 16 06:21	0°♁♂	
	15727 Sep 22 13:25	0°♁♂		morning set		15730 Feb 20 15:17	5°♁♂23'45	
greatest brilliancy	15727 Oct 07 02:08	8°♁♂17'40	-4.9m			15730 Mar 12 13:53	0°♁♂	
desc. node	15727 Oct 15 19:38	10°♁♂24'52		max. Earth dist.		15730 Mar 29 15:54	21°♁♂04'40	1.73068 AU
retrograde	15727 Oct 18 00:42	10°♁♂30'40						
evening set	15727 Nov 02 05:51	5°♁♂58'36		superior conj		15730 Mar 30 01:31	21°♁♂34'18	0°06'40
min. Earth dist.	15727 Nov 07 04:18	3°♁♂04'21	0.27450 AU	minimum elong		15730 Mar 30 02:59	21°♁♂38'51	0°06'22
inferior conj	15727 Nov 07 23:16	2°♁♂35'24	-5°33'47	behind sun begin		15730 Mar 29 05:04	20°♁♂31'15	
minimum elong	15727 Nov 07 12:40	2°♁♂51'34	5°30'23	behind sun end		15730 Mar 31 00:54	22°♁♂46'27	

desc. node	15730 Apr 01 19:02	24° $\Upsilon$ 56'23	morning max el	15732 Nov 01 22:29	10° $\Omega$ 48'02	46°42'55
	15730 Apr 05 21:29	0° $\mathcal{B}$		15732 Nov 20 09:06	0° $\mathcal{M}$	
	15730 Apr 30 04:36	0° $\Pi$		15732 Dec 17 04:14	0° $\mathcal{A}$	
evening rise	15730 May 07 06:52	8° $\Pi$ 46'06	asc. node	15733 Jan 07 12:54	24° $\mathcal{A}$ 54'22	
	15730 May 24 10:41	0° $\mathcal{E}$		15733 Jan 11 20:14	0° $\mathcal{B}$	
	15730 Jun 17 16:06	0° $\Omega$		15733 Feb 05 22:01	0° $\approx$	
	15730 Jul 11 22:18	0° $\mathcal{M}$		15733 Mar 02 15:34	0° $\mathcal{H}$	
asc. node	15730 Jul 23 09:52	14° $\mathcal{M}$ 09'23		15733 Mar 27 04:24	0° $\Upsilon$	
	15730 Aug 05 07:33	0° $\mathcal{E}$		15733 Apr 20 14:12	0° $\mathcal{B}$	
	15730 Aug 29 23:18	0° $\mathcal{M}$	desc. node	15733 Apr 29 08:44	10° $\mathcal{B}$ 48'52	
	15730 Sep 24 04:03	0° $\mathcal{A}$	morning set	15733 May 01 12:13	13° $\mathcal{B}$ 27'42	
	15730 Oct 20 13:10	0° $\mathcal{B}$		15733 May 14 21:16	0° $\Pi$	
evening max el	15730 Nov 08 10:14	19° $\mathcal{B}$ 46'25	max. Earth dist.	15733 Jun 06 19:17	28° $\Pi$ 26'08	1.72282 AU
desc. node	15730 Nov 12 05:59	23° $\mathcal{B}$ 30'30		15733 Jun 08 01:28	0° $\mathcal{E}$	
	15730 Nov 19 05:25	0° $\approx$				
greatest brilliancy	15730 Dec 18 00:28	19° $\approx$ 26'28	superior conj	15733 Jun 09 16:55	2° $\mathcal{E}$ 02'41	-1°20'05
retrograde	15730 Dec 28 06:06	21° $\approx$ 21'58	minimum elong	15733 Jun 09 08:26	1° $\mathcal{E}$ 36'19	1°20'45
evening set	15731 Jan 15 12:54	15° $\approx$ 07'08		15733 Jul 02 03:11	0° $\Omega$	
inferior conj	15731 Jan 18 16:55	13° $\approx$ 09'34	evening rise	15733 Jul 19 03:20	21° $\Omega$ 14'37	
minimum elong	15731 Jan 18 23:17	12° $\approx$ 59'36		15733 Jul 26 03:32	0° $\mathcal{M}$	
min. Earth dist.	15731 Jan 18 14:36	13° $\approx$ 13'11		15733 Aug 19 04:04	0° $\mathcal{E}$	
morning rise	15731 Jan 22 09:44	10° $\approx$ 52'51	asc. node	15733 Aug 19 23:29	1° $\mathcal{E}$ 00'33	
direct	15731 Feb 08 22:44	5° $\approx$ 03'46		15733 Sep 12 06:23	0° $\mathcal{M}$	
greatest brilliancy	15731 Feb 19 06:31	6° $\approx$ 59'45		15733 Oct 06 12:35	0° $\mathcal{A}$	
asc. node	15731 Mar 05 06:47	14° $\approx$ 31'41		15733 Oct 31 02:18	0° $\mathcal{B}$	
	15731 Mar 24 03:30	0° $\mathcal{H}$		15733 Nov 25 06:14	0° $\approx$	
morning max el	15731 Mar 29 23:32	5° $\mathcal{H}$ 32'42	desc. node	15733 Dec 09 17:09	16° $\approx$ 43'00	
	15731 Apr 22 12:04	0° $\Upsilon$		15733 Dec 21 13:01	0° $\mathcal{H}$	
	15731 May 19 01:12	0° $\mathcal{B}$	evening max el	15734 Jan 18 16:18	29° $\mathcal{H}$ 23'25	46°04'20
	15731 Jun 13 11:05	0° $\Pi$		15734 Jan 19 07:29	0° $\Upsilon$	
desc. node	15731 Jun 25 07:47	14° $\Pi$ 17'02	greatest brilliancy	15734 Feb 26 16:42	27° $\Upsilon$ 56'14	-4.8m
	15731 Jul 08 05:52	0° $\mathcal{E}$	retrograde	15734 Mar 08 19:54	29° $\Upsilon$ 48'26	
	15731 Aug 01 15:14	0° $\Omega$	evening set	15734 Mar 23 21:03	25° $\Upsilon$ 22'31	
	15731 Aug 25 18:59	0° $\mathcal{M}$	inferior conj	15734 Mar 30 02:16	21° $\Upsilon$ 38'08	-0°38'34
	15731 Sep 18 19:55	0° $\mathcal{E}$	minimum elong	15734 Mar 30 03:44	21° $\Upsilon$ 35'50	0°38'20
morning set	15731 Sep 29 14:19	13° $\mathcal{E}$ 27'29	min. Earth dist.	15734 Mar 30 04:51	21° $\Upsilon$ 34'05	0.28411 AU
	15731 Oct 12 19:49	0° $\mathcal{M}$	asc. node	15734 Apr 01 16:20	20° $\Upsilon$ 01'37	
asc. node	15731 Oct 16 01:40	4° $\mathcal{M}$ 03'21	morning rise	15734 Apr 05 10:21	17° $\Upsilon$ 50'08	
	15731 Nov 05 19:41	0° $\mathcal{A}$	direct	15734 Apr 20 08:13	13° $\Upsilon$ 28'02	
			greatest brilliancy	15734 Apr 30 23:02	15° $\Upsilon$ 33'18	-4.8m
superior conj	15731 Nov 07 18:40	2° $\mathcal{A}$ 26'45		15734 May 23 16:55	0° $\mathcal{B}$	
minimum elong	15731 Nov 07 08:25	1° $\mathcal{A}$ 54'46	morning max el	15734 Jun 08 23:10	14° $\mathcal{B}$ 54'05	46°15'57
max. Earth dist.	15731 Nov 09 06:42	4° $\mathcal{A}$ 19'20		15734 Jun 23 14:36	0° $\Pi$	
	15731 Nov 29 20:31	0° $\mathcal{B}$		15734 Jul 20 10:24	0° $\mathcal{E}$	
evening rise	15731 Dec 15 12:41	19° $\mathcal{B}$ 30'09	desc. node	15734 Jul 22 18:31	2° $\mathcal{E}$ 42'41	
	15731 Dec 23 23:48	0° $\approx$		15734 Aug 14 20:16	0° $\Omega$	
	15732 Jan 17 07:22	0° $\mathcal{H}$		15734 Sep 08 14:05	0° $\mathcal{M}$	
desc. node	15732 Feb 04 16:57	22° $\mathcal{H}$ 30'32		15734 Oct 03 00:04	0° $\mathcal{E}$	
	15732 Feb 10 20:43	0° $\Upsilon$		15734 Oct 27 06:19	0° $\mathcal{M}$	
	15732 Mar 06 16:37	0° $\mathcal{B}$	asc. node	15734 Nov 12 15:03	20° $\mathcal{M}$ 17'38	
	15732 Mar 31 20:06	0° $\Pi$		15734 Nov 20 10:40	0° $\mathcal{A}$	
	15732 Apr 26 10:59	0° $\mathcal{E}$	morning set	15734 Dec 10 20:35	25° $\mathcal{A}$ 22'02	
	15732 May 23 01:27	0° $\Omega$		15734 Dec 14 14:03	0° $\mathcal{B}$	
asc. node	15732 May 27 11:06	4° $\Omega$ 46'40		15735 Jan 07 17:36	0° $\approx$	
evening max el	15732 Jun 13 09:28	22° $\Omega$ 20'00				
	15732 Jun 21 09:22	0° $\mathcal{M}$	superior conj	15735 Jan 17 03:55	11° $\approx$ 41'43	1°23'33
greatest brilliancy	15732 Jul 23 16:13	22° $\mathcal{M}$ 26'05	minimum elong	15735 Jan 17 09:18	11° $\approx$ 58'23	1°24'09
retrograde	15732 Aug 02 06:21	24° $\mathcal{M}$ 10'03	max. Earth dist.	15735 Jan 19 14:29	14° $\approx$ 43'10	1.72783 AU
evening set	15732 Aug 18 06:29	19° $\mathcal{M}$ 11'32		15735 Jan 31 22:44	0° $\mathcal{H}$	
inferior conj	15732 Aug 22 22:00	16° $\mathcal{M}$ 25'21	evening rise	15735 Feb 23 16:42	28° $\mathcal{H}$ 03'42	
minimum elong	15732 Aug 23 08:54	16° $\mathcal{M}$ 08'39		15735 Feb 25 06:29	0° $\Upsilon$	
min. Earth dist.	15732 Aug 23 13:46	16° $\mathcal{M}$ 01'13	desc. node	15735 Mar 04 06:48	8° $\Upsilon$ 37'26	
morning rise	15732 Aug 28 11:02	13° $\mathcal{M}$ 08'12		15735 Mar 21 16:53	0° $\mathcal{B}$	
direct	15732 Sep 12 16:38	8° $\mathcal{M}$ 33'49		15735 Apr 15 05:15	0° $\Pi$	
desc. node	15732 Sep 16 11:52	8° $\mathcal{M}$ 50'55		15735 May 09 19:30	0° $\mathcal{E}$	
greatest brilliancy	15732 Sep 22 23:59	10° $\mathcal{M}$ 33'03		15735 Jun 03 13:14	0° $\Omega$	
	15732 Oct 21 12:51	0° $\mathcal{E}$	asc. node	15735 Jun 24 22:46	25° $\Omega$ 38'51	

	15735 Jun 28 14:46	0°♎		asc. node	15737 Dec 10 03:24	6°♊51'23	
	15735 Jul 24 08:53	0°♏			15737 Dec 29 00:39	0°♎	
	15735 Aug 20 18:08	0°♌			15738 Jan 22 09:34	0°♎	
evening max el	15735 Aug 26 08:28	5°♌42'41	46°41'03		15738 Feb 15 17:07	0°♋	
	15735 Sep 23 12:56	0°♊		morning set	15738 Feb 18 08:22	3°♋15'12	
greatest brilliancy	15735 Oct 04 16:58	5°♊57'25	-4.9m		15738 Mar 12 00:34	0°♑	
desc. node	15735 Oct 14 21:40	8°♊08'42					
retrograde	15735 Oct 15 14:39	8°♊09'18		superior conj	15738 Mar 27 17:24	19°♑22'18	0°10'05
evening set	15735 Oct 30 17:01	3°♊41'49		minimum elong	15738 Mar 27 19:40	19°♑29'16	0°09'47
min. Earth dist.	15735 Nov 04 18:27	0°♊43'14	0.27397 AU	behind sun begin	15738 Mar 27 00:45	18°♑30'56	
inferior conj	15735 Nov 05 12:49	0°♊15'09	-5°15'20	behind sun end	15738 Mar 28 14:34	20°♑27'36	
minimum elong	15735 Nov 05 02:32	0°♊30'53	5°11'57	max. Earth dist.	15738 Mar 27 10:17	19°♑00'20	1.73082 AU
	15735 Nov 05 22:44	30°♌		desc. node	15738 Mar 31 20:57	24°♑29'16	
morning rise	15735 Nov 10 12:39	27°♌17'38			15738 Apr 05 08:12	0°♎	
direct	15735 Nov 26 10:33	22°♌28'48			15738 Apr 29 15:25	0°♌	
greatest brilliancy	15735 Dec 05 20:41	24°♌06'52	-4.8m	evening rise	15738 May 04 22:05	6°♌31'14	
	15735 Dec 17 19:05	0°♊			15738 May 23 21:41	0°♎	
morning max el	15736 Jan 14 16:16	23°♊04'42	46°00'18		15738 Jun 17 03:21	0°♏	
	15736 Jan 21 15:55	0°♎			15738 Jul 11 09:53	0°♎	
asc. node	15736 Feb 04 23:08	14°♎58'42		asc. node	15738 Jul 22 11:36	13°♎38'29	
	15736 Feb 18 14:36	0°♎			15738 Aug 04 19:37	0°♏	
	15736 Mar 15 17:27	0°♋			15738 Aug 29 12:10	0°♌	
	15736 Apr 10 00:27	0°♑			15738 Sep 23 18:22	0°♊	
	15736 May 04 20:28	0°♎			15738 Oct 20 06:40	0°♎	
desc. node	15736 May 26 21:45	26°♎57'41		evening max el	15738 Nov 06 00:02	17°♎26'36	46°27'55
	15736 May 29 09:06	0°♌		desc. node	15738 Nov 11 07:56	22°♎37'17	
	15736 Jun 22 15:56	0°♎			15738 Nov 19 10:08	0°♎	
morning set	15736 Jul 14 00:26	26°♎34'18		greatest brilliancy	15738 Dec 15 15:06	17°♎11'22	-4.8m
	15736 Jul 16 18:22	0°♏		retrograde	15738 Dec 25 21:40	19°♎08'05	
	15736 Aug 09 18:02	0°♎		evening set	15739 Jan 13 06:12	12°♎50'05	
max. Earth dist.	15736 Aug 21 21:29	15°♎12'52	1.71549 AU	inferior conj	15739 Jan 16 08:14	10°♎55'45	-8°36'30
				minimum elong	15739 Jan 16 13:55	10°♎46'53	8°35'20
superior conj	15736 Aug 22 17:09	16°♎14'29	-0°56'15	min. Earth dist.	15739 Jan 16 05:06	11°♎00'38	0.28605 AU
minimum elong	15736 Aug 23 04:35	16°♎50'15	0°56'05	morning rise	15739 Jan 19 21:42	8°♎44'18	
	15736 Sep 02 16:37	0°♏		direct	15739 Feb 06 13:27	2°♎50'14	
asc. node	15736 Sep 16 13:36	17°♏23'15		greatest brilliancy	15739 Feb 16 21:06	4°♎46'06	-4.8m
	15736 Sep 26 15:21	0°♌		asc. node	15739 Mar 04 08:43	13°♎18'56	
evening rise	15736 Oct 01 13:38	6°♌10'07			15739 Mar 24 03:48	0°♋	
	15736 Oct 20 15:23	0°♊		morning max el	15739 Mar 27 14:45	3°♋18'55	45°44'58
	15736 Nov 13 18:24	0°♎			15739 Apr 22 04:14	0°♑	
	15736 Dec 08 03:08	0°♎			15739 May 18 14:46	0°♎	
	15737 Jan 01 21:12	0°♋			15739 Jun 12 23:29	0°♌	
desc. node	15737 Jan 06 05:29	5°♋12'19		desc. node	15739 Jun 24 09:33	13°♌45'48	
	15737 Jan 27 04:53	0°♑			15739 Jul 07 17:40	0°♎	
	15737 Feb 22 09:11	0°♎			15739 Aug 01 02:41	0°♏	
	15737 Mar 22 05:18	0°♌			15739 Aug 25 06:13	0°♎	
evening max el	15737 Mar 30 15:23	8°♌24'40	46°02'07		15739 Sep 18 06:59	0°♏	
	15737 Apr 24 23:13	0°♎		morning set	15739 Sep 27 03:10	11°♏03'08	
asc. node	15737 Apr 29 02:26	2°♎40'43			15739 Oct 12 06:45	0°♌	
greatest brilliancy	15737 May 09 04:36	7°♎35'14	-4.8m	asc. node	15739 Oct 15 03:32	3°♌35'02	
retrograde	15737 May 18 22:54	9°♎21'35					
evening set	15737 Jun 04 22:37	3°♎48'38		superior conj	15739 Nov 05 08:41	0°♊06'37	0°48'59
inferior conj	15737 Jun 08 22:57	1°♎20'15	8°13'14	minimum elong	15739 Nov 04 22:42	29°♌35'25	0°49'15
minimum elong	15737 Jun 08 14:33	1°♎33'27	8°11'16		15739 Nov 05 06:34	0°♊	
min. Earth dist.	15737 Jun 09 01:04	1°♎16'55	0.28064 AU	max. Earth dist.	15739 Nov 06 18:43	1°♊52'58	1.71899 AU
	15737 Jun 11 02:13	30°♌			15739 Nov 29 07:24	0°♎	
morning rise	15737 Jun 12 06:21	29°♌16'47		evening rise	15739 Dec 13 04:06	17°♎15'06	
direct	15737 Jun 30 00:36	23°♌12'33			15739 Dec 23 10:44	0°♎	
greatest brilliancy	15737 Jul 10 02:14	25°♌06'08	-4.8m		15740 Jan 16 18:26	0°♋	
	15737 Jul 19 22:35	0°♎		desc. node	15740 Feb 03 18:45	22°♋01'42	
desc. node	15737 Aug 19 04:25	25°♎34'17			15740 Feb 10 08:03	0°♑	
morning max el	15737 Aug 19 08:30	25°♎44'31	46°52'58		15740 Mar 06 04:27	0°♎	
	15737 Aug 23 12:56	0°♏			15740 Mar 31 08:45	0°♌	
	15737 Sep 19 23:55	0°♎			15740 Apr 26 01:09	0°♎	
	15737 Oct 15 17:58	0°♏			15740 May 22 18:49	0°♏	
	15737 Nov 09 19:28	0°♌		asc. node	15740 May 26 12:55	4°♏02'44	
	15737 Dec 04 12:36	0°♊		evening max el	15740 Jun 10 23:32	19°♏59'37	46°23'55

	15740 Jun 21 13:11	0°♍		superior conj	15743 Jan 14 20:07	9°≈30'03	1°24'25
greatest brilliancy	15740 Jul 21 05:06	20°♍01'32	-4.9m	minimum elong	15743 Jan 15 00:47	9°≈44'32	1°25'04
retrograde	15740 Jul 30 19:46	21°♍45'33		max. Earth dist.	15743 Jan 17 08:05	12°≈35'55	1.72754 AU
evening set	15740 Aug 15 22:47	16°♍41'47			15743 Jan 31 09:25	0°♋	
inferior conj	15740 Aug 20 10:50	14°♍00'16	6°13'33	evening rise	15743 Feb 21 08:23	25°♋51'08	
minimum elong	15740 Aug 20 21:53	13°♍43'20	6°10'36		15743 Feb 24 17:16	0°♍	
min. Earth dist.	15740 Aug 21 02:47	13°♍35'50	0.27139 AU	desc. node	15743 Mar 03 08:43	8°♍10'11	
morning rise	15740 Aug 25 20:46	10°♍47'28			15743 Mar 21 03:49	0°♌	
direct	15740 Sep 10 06:18	6°♍08'08			15743 Apr 14 16:27	0°♍	
desc. node	15740 Sep 15 13:54	6°♍41'21			15743 May 09 07:05	0°♎	
greatest brilliancy	15740 Sep 20 12:37	8°♍07'00	-4.9m		15743 Jun 03 01:28	0°♎	
	15740 Oct 21 17:24	0°♎		asc. node	15743 Jun 24 00:37	25°♎05'21	
morning max el	15740 Oct 30 13:18	8°♎28'22	46°44'06		15743 Jun 28 04:07	0°♏	
	15740 Nov 20 02:54	0°♏			15743 Jul 24 00:24	0°♎	
	15740 Dec 16 18:41	0°♏			15743 Aug 20 15:05	0°♏	
asc. node	15741 Jan 06 14:43	24°♏21'12		evening max el	15743 Aug 23 22:03	3°♏19'58	46°40'41
	15741 Jan 11 09:04	0°♏			15743 Sep 24 22:16	0°♏	
	15741 Feb 05 09:56	0°≈		greatest brilliancy	15743 Oct 02 07:59	3°♏36'23	-4.9m
	15741 Mar 02 02:55	0°♋		retrograde	15743 Oct 13 03:51	5°♏46'41	
	15741 Mar 26 15:26	0°♍		desc. node	15743 Oct 13 23:38	5°♏45'53	
	15741 Apr 20 01:04	0°♌		evening set	15743 Oct 28 04:00	1°♏23'20	
desc. node	15741 Apr 28 10:38	10°♌21'20			15743 Oct 30 14:35	30°♏♏	
morning set	15741 Apr 29 03:04	11°♌12'03		min. Earth dist.	15743 Nov 02 08:50	28°♏20'04	0.27351 AU
	15741 May 14 08:04	0°♍		inferior conj	15743 Nov 03 02:06	27°♏53'39	-4°55'56
max. Earth dist.	15741 Jun 04 10:33	26°♍10'51	1.72317 AU	minimum elong	15743 Nov 02 16:11	28°♏08'50	4°52'35
				morning rise	15743 Nov 08 04:53	24°♏51'47	
superior conj	15741 Jun 07 06:34	29°♍42'18	-1°18'30	direct	15743 Nov 23 23:10	20°♏07'48	
minimum elong	15741 Jun 06 21:31	29°♍14'08	1°19'08	greatest brilliancy	15743 Dec 03 10:25	21°♏46'21	-4.8m
	15741 Jun 07 12:16	0°♎			15743 Dec 18 21:01	0°♏	
	15741 Jul 01 14:02	0°♎		morning max el	15744 Jan 12 04:37	20°♏42'36	46°01'38
evening rise	15741 Jul 16 15:37	18°♎48'50			15744 Jan 21 12:00	0°♏	
	15741 Jul 25 14:31	0°♏		asc. node	15744 Feb 04 01:09	14°♏18'23	
	15741 Aug 18 15:14	0°♎			15744 Feb 18 05:34	0°≈	
asc. node	15741 Aug 19 01:21	0°♎31'33			15744 Mar 15 06:23	0°♋	
	15741 Sep 11 17:48	0°♏			15744 Apr 09 12:21	0°♍	
	15741 Oct 06 00:21	0°♏			15744 May 04 07:48	0°♌	
	15741 Oct 30 14:40	0°♏		desc. node	15744 May 25 23:27	26°♌29'02	
	15741 Nov 24 19:43	0°≈			15744 May 28 20:06	0°♍	
desc. node	15741 Dec 08 18:58	16°≈06'39			15744 Jun 22 02:45	0°♎	
	15741 Dec 21 04:57	0°♋		morning set	15744 Jul 11 12:46	24°♎09'38	
evening max el	15742 Jan 16 08:19	27°♋12'02	46°04'54		15744 Jul 16 05:04	0°♎	
	15742 Jan 19 06:37	0°♍			15744 Aug 09 04:41	0°♏	
greatest brilliancy	15742 Feb 24 08:28	25°♍43'52	-4.8m	max. Earth dist.	15744 Aug 19 04:55	12°♏32'28	1.71557 AU
retrograde	15742 Mar 06 11:17	27°♍35'18					
evening set	15742 Mar 21 13:51	23°♍08'05		superior conj	15744 Aug 20 05:38	13°♏49'56	-0°59'08
inferior conj	15742 Mar 27 17:50	19°♍25'03	-0°59'55	minimum elong	15744 Aug 20 17:13	14°♏26'13	0°59'01
minimum elong	15742 Mar 27 20:06	19°♍21'29	0°59'25		15744 Sep 02 03:15	0°♎	
min. Earth dist.	15742 Mar 27 20:42	19°♍20'33	0.28419 AU	asc. node	15744 Sep 15 15:28	16°♎55'46	
asc. node	15742 Mar 31 18:24	16°♍56'17			15744 Sep 26 02:02	0°♏	
morning rise	15742 Apr 03 02:19	15°♍36'21		evening rise	15744 Sep 29 03:03	3°♏48'28	
direct	15742 Apr 18 00:14	11°♍15'16			15744 Oct 20 02:09	0°♏	
greatest brilliancy	15742 Apr 28 14:29	13°♍19'54	-4.8m		15744 Nov 13 05:22	0°♏	
	15742 May 23 23:32	0°♌			15744 Dec 07 14:26	0°≈	
morning max el	15742 Jun 06 13:57	12°♌38'24	46°14'28		15745 Jan 01 09:03	0°♋	
	15742 Jun 23 08:09	0°♍		desc. node	15745 Jan 05 07:18	4°♋41'57	
	15742 Jul 20 00:34	0°♎			15745 Jan 26 17:44	0°♍	
desc. node	15742 Jul 21 20:29	2°♎07'38			15745 Feb 22 00:02	0°♌	
	15742 Aug 14 09:00	0°♎			15745 Mar 22 01:09	0°♍	
	15742 Sep 08 02:04	0°♏		evening max el	15745 Mar 28 04:59	6°♍06'38	46°01'47
	15742 Oct 02 11:37	0°♎			15745 Apr 26 01:18	0°♎	
	15742 Oct 26 17:33	0°♏		asc. node	15745 Apr 28 04:17	1°♎16'10	
asc. node	15742 Nov 11 16:51	19°♏48'55		greatest brilliancy	15745 May 06 18:24	5°♎17'36	-4.8m
	15742 Nov 19 21:39	0°♏		retrograde	15745 May 16 13:10	7°♎04'39	
morning set	15742 Dec 08 11:36	23°♏05'55		evening set	15745 Jun 02 09:09	1°♎36'57	
	15742 Dec 14 00:50	0°♏			15745 Jun 05 00:58	30°♏♍	
	15743 Jan 07 04:17	0°≈		inferior conj	15745 Jun 06 13:34	29°♍02'45	8°03'10
				minimum elong	15745 Jun 06 04:39	29°♍16'45	8°01'03

min. Earth dist.	15745 Jun 06 15:16	29°II00'05	0.28082 AU		15747 Nov 28 17:47	0°З	
morning rise	15745 Jun 09 24:00	26°II54'48		evening rise	15747 Dec 10 19:47	15°З02'27	
direct	15745 Jun 27 14:49	20°II54'33			15747 Dec 22 21:10	0°≈	
greatest brilliancy	15745 Jul 07 17:38	22°II49'07	-4.8m		15748 Jan 16 05:03	0°Х	
	15745 Jul 21 01:45	0°☾		desc. node	15748 Feb 02 20:41	21°Х34'32	
morning max el	15745 Aug 16 22:58	23°☾25'26	46°52'30		15748 Feb 09 19:00	0°У	
desc. node	15745 Aug 18 06:23	24°☾44'35			15748 Mar 05 15:57	0°Б	
	15745 Aug 23 09:04	0°Ω			15748 Mar 30 21:09	0°II	
	15745 Sep 19 15:03	0°№			15748 Apr 25 15:08	0°☾	
	15745 Oct 15 07:05	0°♂			15748 May 22 12:13	0°Ω	
	15745 Nov 09 07:30	0°♂		asc. node	15748 May 25 14:49	3°Ω19'31	
	15745 Dec 03 23:59	0°♂		evening max el	15748 Jun 08 14:01	17°Ω41'24	46°23'03
asc. node	15745 Dec 09 05:12	6°♂22'26			15748 Jun 21 18:22	0°№	
	15745 Dec 28 11:38	0°З		greatest brilliancy	15748 Jul 18 18:14	17°№38'44	-4.9m
	15746 Jan 21 20:17	0°≈		retrograde	15748 Jul 28 08:54	19°№22'14	
	15746 Feb 15 03:40	0°Х		evening set	15748 Aug 13 15:13	14°№13'27	
morning set	15746 Feb 16 01:02	1°Х05'56		inferior conj	15748 Aug 17 23:42	11°№36'34	6°30'51
	15746 Mar 11 11:02	0°У		minimum elong	15748 Aug 18 10:49	11°№19'30	6°27'57
				min. Earth dist.	15748 Aug 18 15:48	11°№11'52	0.27169 AU
superior conj	15746 Mar 25 08:49	17°У09'32	0°13'32	morning rise	15748 Aug 23 06:15	8°№28'14	
minimum elong	15746 Mar 25 11:51	17°У18'54	0°13'13	direct	15748 Sep 07 19:59	3°№44'00	
behind sun begin	15746 Mar 24 22:27	16°У37'33		desc. node	15748 Sep 14 15:53	4°№38'13	
behind sun end	15746 Mar 26 01:16	18°У00'16		greatest brilliancy	15748 Sep 18 01:10	5°№42'03	-4.9m
max. Earth dist.	15746 Mar 25 05:44	17°У00'02	1.73092 AU		15748 Oct 21 19:43	0°♂	
desc. node	15746 Mar 30 22:41	24°У02'25		morning max el	15748 Oct 28 03:36	6°♂08'45	46°45'18
	15746 Apr 04 18:39	0°Б			15748 Nov 19 19:48	0°♂	
	15746 Apr 29 01:58	0°II			15748 Dec 16 08:27	0°♂	
evening rise	15746 May 02 13:01	4°II16'29		asc. node	15749 Jan 05 16:43	23°♂50'19	
	15746 May 23 08:24	0°☾			15749 Jan 10 21:18	0°З	
	15746 Jun 16 14:19	0°Ω			15749 Feb 04 21:18	0°≈	
	15746 Jul 10 21:09	0°№			15749 Mar 01 13:48	0°Х	
asc. node	15746 Jul 21 13:32	13°№09'07			15749 Mar 26 02:03	0°У	
	15746 Aug 04 07:22	0°♂			15749 Apr 19 11:34	0°Б	
	15746 Aug 29 00:42	0°♂		morning set	15749 Apr 26 17:41	8°Б56'45	
	15746 Sep 23 08:22	0°♂		desc. node	15749 Apr 27 12:22	9°Б54'23	
	15746 Oct 20 00:00	0°З			15749 May 13 18:32	0°II	
evening max el	15746 Nov 03 14:42	15°З10'24	46°28'47	max. Earth dist.	15749 Jun 01 22:38	23°II46'42	1.72352 AU
desc. node	15746 Nov 10 09:45	21°З44'15					
	15746 Nov 19 16:13	0°≈		superior conj	15749 Jun 04 19:56	27°II22'00	-1°16'46
greatest brilliancy	15746 Dec 13 04:59	14°≈56'40	-4.8m	minimum elong	15749 Jun 04 10:22	26°II52'17	1°17'23
retrograde	15746 Dec 23 13:30	16°≈55'10			15749 Jun 06 22:45	0°☾	
evening set	15747 Jan 10 23:04	10°≈34'24			15749 Jul 01 00:34	0°Ω	
inferior conj	15747 Jan 13 23:27	8°≈42'45	-8°41'55	evening rise	15749 Jul 14 03:33	16°Ω23'06	
minimum elong	15747 Jan 14 04:24	8°≈35'02	8°40'52		15749 Jul 25 01:09	0°№	
min. Earth dist.	15747 Jan 13 19:08	8°≈49'27	0.28594 AU	asc. node	15749 Aug 18 03:12	0°♂03'35	
morning rise	15747 Jan 17 09:49	6°≈36'14			15749 Aug 18 02:03	0°♂	
direct	15747 Feb 04 04:33	0°≈37'32			15749 Sep 11 04:52	0°♂	
greatest brilliancy	15747 Feb 14 11:09	2°≈32'44	-4.8m		15749 Oct 05 11:47	0°♂	
asc. node	15747 Mar 03 10:43	12°≈09'13			15749 Oct 30 02:42	0°З	
	15747 Mar 24 02:39	0°Х			15749 Nov 24 08:54	0°≈	
morning max el	15747 Mar 25 06:44	1°Х07'56	45°44'40	desc. node	15749 Dec 07 20:54	15°≈31'40	
	15747 Apr 21 19:49	0°У			15749 Dec 20 20:40	0°Х	
	15747 May 18 03:54	0°Б		evening max el	15750 Jan 13 23:41	25°Х00'25	46°05'28
	15747 Jun 12 11:28	0°II			15750 Jan 19 06:12	0°У	
desc. node	15747 Jun 23 11:28	13°II16'18		greatest brilliancy	15750 Feb 22 00:33	23°У33'22	-4.8m
	15747 Jul 07 05:02	0°☾		retrograde	15750 Mar 04 02:12	25°У23'46	
	15747 Jul 31 13:43	0°Ω		evening set	15750 Mar 19 06:50	20°У54'52	
	15747 Aug 24 17:00	0°№		inferior conj	15750 Mar 25 09:29	17°У13'31	-1°21'00
	15747 Sep 17 17:36	0°♂		minimum elong	15750 Mar 25 12:32	17°У08'44	1°20'13
morning set	15747 Sep 24 16:14	8°♂40'48		min. Earth dist.	15750 Mar 25 12:54	17°У08'09	0.28434 AU
	15747 Oct 11 17:15	0°♂		asc. node	15750 Mar 30 20:13	13°У54'46	
asc. node	15747 Oct 14 05:17	3°♂07'42		morning rise	15750 Mar 31 18:10	13°У24'11	
				direct	15750 Apr 15 15:56	9°У03'49	
superior conj	15747 Nov 02 22:55	27°♂48'30	0°45'57	greatest brilliancy	15750 Apr 26 06:34	11°У08'19	-4.8m
minimum elong	15747 Nov 02 13:16	27°♂18'21	0°46'12		15750 May 24 03:41	0°Б	
max. Earth dist.	15747 Nov 04 09:22	29°♂36'11	1.71873 AU	morning max el	15750 Jun 04 04:08	10°Б21'53	46°12'50
	15747 Nov 04 16:59	0°♂			15750 Jun 23 01:06	0°II	

	15750 Jul 19 14:24	0°☿			15753 Jan 26 06:39	0°♊	
desc. node	15750 Jul 20 22:27	1°☿33'22			15753 Feb 21 15:02	0°♋	
	15750 Aug 13 21:27	0°♌			15753 Mar 21 21:32	0°♍	
	15750 Sep 07 13:46	0°♎	evening max el		15753 Mar 25 19:36	3°♍51'32	46°01'35
	15750 Oct 01 22:50	0°♏	asc. node		15753 Apr 27 06:12	29°♍49'25	
	15750 Oct 26 04:28	0°♐			15753 Apr 27 14:05	0°☿	
asc. node	15750 Nov 10 18:38	19°♐21'08	greatest brilliancy		15753 May 04 07:42	3°☿00'08	-4.8m
	15750 Nov 19 08:19	0°♑	retrograde		15753 May 14 04:00	4°☿48'36	
morning set	15750 Dec 06 02:37	20°♑50'37			15753 May 29 20:13	30°♋♐	
	15750 Dec 13 11:20	0°♒	evening set		15753 May 30 19:53	29°♐25'54	
	15751 Jan 06 14:41	0°♓	inferior conj		15753 Jun 04 04:22	26°♐45'55	7°52'21
			minimum elong		15753 Jun 03 18:59	27°♐00'37	7°50'04
superior conj	15751 Jan 12 12:33	7°♓20'01	1°25'09	min. Earth dist.	15753 Jun 04 05:18	26°♐44'28	0.28103 AU
minimum elong	15751 Jan 12 16:31	7°♓32'18	1°25'51	morning rise	15753 Jun 07 17:57	24°♐33'25	
max. Earth dist.	15751 Jan 14 23:51	10°♓23'51	1.72721 AU	direct	15753 Jun 25 05:54	18°♐37'17	
	15751 Jan 30 19:49	0°♈		greatest brilliancy	15753 Jul 05 08:47	20°♐32'20	-4.8m
evening rise	15751 Feb 19 00:21	23°♈40'22			15753 Jul 21 21:26	0°☿	
	15751 Feb 24 03:43	0°♊		morning max el	15753 Aug 14 14:24	21°☿08'36	46°51'39
desc. node	15751 Mar 02 10:28	7°♊43'18		desc. node	15753 Aug 17 08:19	23°☿55'20	
	15751 Mar 20 14:27	0°♋			15753 Aug 23 04:45	0°♌	
	15751 Apr 14 03:23	0°♍			15753 Sep 19 06:13	0°♎	
	15751 May 08 18:30	0°☿			15753 Oct 14 20:22	0°♏	
	15751 Jun 02 13:38	0°♌			15753 Nov 08 19:43	0°♐	
asc. node	15751 Jun 23 02:32	24°♌32'04			15753 Dec 03 11:32	0°♑	
	15751 Jun 27 17:31	0°♎		asc. node	15753 Dec 08 07:12	5°♑53'33	
	15751 Jul 23 16:07	0°♏			15753 Dec 27 22:44	0°♒	
	15751 Aug 20 12:45	0°♐			15754 Jan 21 07:07	0°♓	
evening max el	15751 Aug 21 10:55	0°♐55'40	46°40'33	morning set	15754 Feb 13 17:49	28°♓56'40	
	15751 Sep 27 00:12	0°♑			15754 Feb 14 14:20	0°♈	
greatest brilliancy	15751 Sep 29 22:53	1°♑15'22	-4.9m		15754 Mar 10 21:38	0°♊	
retrograde	15751 Oct 10 17:00	3°♑24'31					
desc. node	15751 Oct 13 01:26	3°♑17'51		superior conj	15754 Mar 23 00:33	14°♊57'18	0°16'56
	15751 Oct 23 20:22	30°♋♐		minimum elong	15754 Mar 23 04:21	15°♊08'59	0°16'37
evening set	15751 Oct 25 15:08	29°♐04'33		max. Earth dist.	15754 Mar 23 02:25	15°♊03'03	1.73098 AU
min. Earth dist.	15751 Oct 30 23:18	25°♐57'00	0.27305 AU	desc. node	15754 Mar 30 00:28	23°♊35'11	
inferior conj	15751 Oct 31 15:21	25°♐32'28	-4°36'02		15754 Apr 04 05:16	0°♋	
minimum elong	15751 Oct 31 05:51	25°♐47'00	4°32'45		15754 Apr 28 12:39	0°♍	
morning rise	15751 Nov 05 20:59	22°♐26'31		evening rise	15754 Apr 30 04:25	2°♐02'46	
direct	15751 Nov 21 11:23	17°♐46'51			15754 May 22 19:15	0°☿	
greatest brilliancy	15751 Dec 01 00:30	19°♐26'35	-4.8m		15754 Jun 16 01:24	0°♌	
	15751 Dec 19 15:46	0°♑			15754 Jul 10 08:37	0°♎	
morning max el	15752 Jan 09 17:26	18°♑22'07	46°03'06	asc. node	15754 Jul 20 15:23	12°♎38'54	
	15752 Jan 21 07:15	0°♒			15754 Aug 03 19:23	0°♏	
asc. node	15752 Feb 03 03:02	13°♒38'46			15754 Aug 28 13:38	0°♐	
	15752 Feb 17 20:08	0°♓			15754 Sep 22 22:55	0°♑	
	15752 Mar 14 19:01	0°♈			15754 Oct 19 18:14	0°♒	
	15752 Apr 09 00:02	0°♊		evening max el	15754 Nov 01 06:16	12°♒55'08	46°29'41
	15752 May 03 18:57	0°♋		desc. node	15754 Nov 09 11:46	20°♒49'23	
desc. node	15752 May 25 01:22	26°♋01'30			15754 Nov 20 01:28	0°♓	
	15752 May 28 06:57	0°♍		greatest brilliancy	15754 Dec 10 18:51	12°♓40'40	-4.8m
	15752 Jun 21 13:29	0°☿		retrograde	15754 Dec 21 05:23	14°♓40'44	
morning set	15752 Jul 09 00:50	21°☿44'10		evening set	15755 Jan 08 15:38	8°♓17'50	
	15752 Jul 15 15:46	0°♌		inferior conj	15755 Jan 11 14:34	6°♓28'25	-8°46'41
	15752 Aug 08 15:24	0°♎		minimum elong	15755 Jan 11 18:45	6°♓21'55	8°45'43
max. Earth dist.	15752 Aug 16 12:36	9°♎52'41	1.71569 AU	min. Earth dist.	15755 Jan 11 08:52	6°♓37'17	0.28573 AU
				morning rise	15755 Jan 14 21:58	4°♓26'33	
superior conj	15752 Aug 17 17:37	11°♎23'35	-1°01'56		15755 Jan 23 21:22	30°♋♒	
minimum elong	15752 Aug 18 05:18	12°♎00'10	1°01'52	direct	15755 Feb 01 19:58	28°♒23'47	
	15752 Sep 01 13:58	0°♏			15755 Feb 11 03:58	0°♓	
asc. node	15752 Sep 14 17:11	16°♏27'32		greatest brilliancy	15755 Feb 12 00:27	0°♓17'33	-4.8m
	15752 Sep 25 12:45	0°♐		asc. node	15755 Mar 02 12:37	11°♓00'26	
evening rise	15752 Sep 26 15:55	1°♐24'58		morning max el	15755 Mar 22 22:41	28°♓56'11	45°44'25
	15752 Oct 19 12:57	0°♑			15755 Mar 24 00:51	0°♈	
	15752 Nov 12 16:20	0°♒			15755 Apr 21 11:24	0°♊	
	15752 Dec 07 01:45	0°♓			15755 May 17 17:09	0°♋	
	15752 Dec 31 20:55	0°♈			15755 Jun 11 23:37	0°♍	
desc. node	15753 Jan 04 09:14	4°♈11'54		desc. node	15755 Jun 22 13:24	12°♍46'16	

	15755 Jul 06 16:37	0°☿		retrograde	15758 Mar 01 17:00	23°♄10'50	
	15755 Jul 31 00:56	0°♌		evening set	15758 Mar 16 23:53	18°♄39'48	
	15755 Aug 24 04:01	0°♍		inferior conj	15758 Mar 23 01:07	15°♄00'38	-1°41'55
	15755 Sep 17 04:30	0°♎		minimum elong	15758 Mar 23 04:55	14°♄54'39	1°40'53
morning set	15755 Sep 22 05:19	6°♎17'38		min. Earth dist.	15758 Mar 23 05:18	14°♄54'04	0.28447 AU
	15755 Oct 11 04:06	0°♏		morning rise	15758 Mar 29 09:48	11°♄10'58	
asc. node	15755 Oct 13 07:08	2°♏39'35		asc. node	15758 Mar 29 22:12	10°♄54'11	
				direct	15758 Apr 13 07:07	6°♄50'52	
superior conj	15755 Oct 31 12:48	25°♏28'00	0°42'48	greatest brilliancy	15758 Apr 23 23:08	8°♄56'02	-4.8m
minimum elong	15755 Oct 31 03:34	24°♏59'09	0°43'01		15758 May 24 06:37	0°♄	
max. Earth dist.	15755 Nov 02 00:05	27°♏18'19	1.71850 AU	morning max el	15758 Jun 01 18:07	8°♄03'48	46°11'22
	15755 Nov 04 03:49	0°♅			15758 Jun 22 18:03	0°♈	
	15755 Nov 28 04:36	0°♆			15758 Jul 19 04:25	0°☿	
evening rise	15755 Dec 08 11:00	12°♆46'55		desc. node	15758 Jul 20 00:15	0°☿57'55	
	15755 Dec 22 08:02	0°♇			15758 Aug 13 10:08	0°♌	
	15756 Jan 15 16:04	0°♈			15758 Sep 07 01:44	0°♍	
desc. node	15756 Feb 01 22:25	21°♈05'36			15758 Oct 01 10:22	0°♎	
	15756 Feb 09 06:21	0°♄			15758 Oct 25 15:39	0°♏	
	15756 Mar 05 03:52	0°♄		asc. node	15758 Nov 09 20:34	18°♏52'57	
	15756 Mar 30 09:59	0°♈			15758 Nov 18 19:16	0°♅	
	15756 Apr 25 05:37	0°☿		morning set	15758 Dec 03 17:43	18°♅34'39	
	15756 May 22 06:22	0°♌			15758 Dec 12 22:08	0°♆	
asc. node	15756 May 24 16:51	2°♌35'11			15759 Jan 06 01:25	0°♇	
evening max el	15756 Jun 06 04:18	15°♌21'55	46°22'10				
	15756 Jun 22 02:08	0°♍		superior conj	15759 Jan 10 05:01	5°♇08'59	1°25'46
greatest brilliancy	15756 Jul 16 08:05	15°♍16'35	-4.9m	minimum elong	15759 Jan 10 08:14	5°♇19'00	1°26'29
retrograde	15756 Jul 25 21:49	16°♍58'57		max. Earth dist.	15759 Jan 12 14:28	8°♇07'08	1.72696 AU
evening set	15756 Aug 11 07:55	11°♍45'19			15759 Jan 30 06:34	0°♈	
inferior conj	15756 Aug 15 12:54	9°♍13'07	6°47'08	evening rise	15759 Feb 16 16:13	21°♈28'10	
minimum elong	15756 Aug 15 23:57	8°♍56'05	6°44'22		15759 Feb 23 14:35	0°♄	
min. Earth dist.	15756 Aug 16 05:16	8°♍47'54	0.27200 AU	desc. node	15759 Mar 01 12:15	7°♄15'18	
morning rise	15756 Aug 20 15:50	6°♍09'20			15759 Mar 20 01:30	0°♄	
direct	15756 Sep 05 09:34	1°♍20'06			15759 Apr 13 14:43	0°♈	
desc. node	15756 Sep 13 17:42	2°♍39'48			15759 May 08 06:18	0°☿	
greatest brilliancy	15756 Sep 15 14:22	3°♍17'34	-4.9m		15759 Jun 02 02:11	0°♌	
	15756 Oct 21 20:56	0°♎		asc. node	15759 Jun 22 04:23	23°♌57'36	
morning max el	15756 Oct 25 17:04	3°♎46'02	46°46'14		15759 Jun 27 07:19	0°♍	
	15756 Nov 19 12:45	0°♏			15759 Jul 23 08:24	0°♎	
	15756 Dec 15 22:31	0°♅		evening max el	15759 Aug 18 23:56	28°♎31'08	46°40'26
asc. node	15757 Jan 04 18:34	23°♅17'42			15759 Aug 20 11:36	0°♏	
	15757 Jan 10 09:56	0°♆		greatest brilliancy	15759 Sep 27 13:22	28°♏53'15	-4.9m
	15757 Feb 04 09:05	0°♇			15759 Sep 30 22:18	0°♅	
	15757 Mar 01 01:05	0°♈		retrograde	15759 Oct 08 06:35	1°♅02'07	
	15757 Mar 25 13:03	0°♄		desc. node	15759 Oct 12 03:31	0°♅43'55	
	15757 Apr 18 22:26	0°♄			15759 Oct 15 10:11	30°♏♏	
morning set	15757 Apr 24 08:24	6°♄40'41		evening set	15759 Oct 23 02:35	26°♏44'53	
desc. node	15757 Apr 26 14:12	9°♄26'40		min. Earth dist.	15759 Oct 28 13:42	23°♏33'43	0.27262 AU
	15757 May 13 05:21	0°♈		inferior conj	15759 Oct 29 04:41	23°♏10'52	-4°15'36
max. Earth dist.	15757 May 30 09:53	21°♈19'00	1.72388 AU	minimum elong	15759 Oct 28 19:41	23°♏24'36	4°12'24
				morning rise	15759 Nov 03 13:09	20°♏01'11	
superior conj	15757 Jun 02 09:35	25°♈01'41	-1°14'55	direct	15759 Nov 18 23:51	15°♏25'21	
minimum elong	15757 Jun 01 23:36	24°♈30'41	1°15'29	greatest brilliancy	15759 Nov 28 14:34	17°♏06'29	-4.8m
	15757 Jun 06 09:35	0°☿			15759 Dec 20 05:54	0°♅	
	15757 Jun 30 11:27	0°♌		morning max el	15760 Jan 07 07:12	16°♅03'24	46°04'32
evening rise	15757 Jul 11 15:52	13°♌57'31			15760 Jan 21 02:10	0°♆	
	15757 Jul 24 12:09	0°♍		asc. node	15760 Feb 02 04:56	12°♆59'01	
asc. node	15757 Aug 17 04:56	29°♍34'13			15760 Feb 17 10:46	0°♇	
	15757 Aug 17 13:12	0°♎			15760 Mar 14 07:52	0°♈	
	15757 Sep 10 16:15	0°♏			15760 Apr 08 11:58	0°♄	
	15757 Oct 04 23:32	0°♅			15760 May 03 06:22	0°♄	
	15757 Oct 29 15:07	0°♆		desc. node	15760 May 24 03:17	25°♄33'08	
	15757 Nov 23 22:36	0°♇			15760 May 27 18:05	0°♈	
desc. node	15757 Dec 06 22:49	14°♇55'04			15760 Jun 21 00:26	0°☿	
	15757 Dec 20 13:11	0°♈		morning set	15760 Jul 06 12:56	19°☿18'17	
evening max el	15758 Jan 11 14:13	22°♈45'13	46°05'57		15760 Jul 15 02:39	0°♌	
	15758 Jan 19 07:42	0°♄			15760 Aug 08 02:16	0°♍	
greatest brilliancy	15758 Feb 19 16:49	21°♄21'24	-4.8m	max. Earth dist.	15760 Aug 13 23:26	7°♍22'11	1.71583 AU



superior conj	15760 Aug 15 05:38	8° $\cap$ 56'48	-1°04'37			15763 Jan 16 11:06	30° $\kappa$ 3	
minimum elong	15760 Aug 15 17:19	9° $\cap$ 33'25	1°04'36	direct		15763 Jan 30 11:27	26°310'15	
	15760 Sep 01 00:51	0° $\underline{\cap}$		greatest brilliancy		15763 Feb 09 13:27	28°302'05	-4.8m
asc. node	15760 Sep 13 19:03	15° $\underline{\cap}$ 59'12				15763 Feb 14 05:47	0° $\approx$	
evening rise	15760 Sep 24 04:53	29° $\underline{\cap}$ 01'13		asc. node		15763 Mar 01 14:34	9° $\approx$ 53'58	
	15760 Sep 24 23:41	0° $\cap$		morning max el		15763 Mar 20 13:47	26° $\approx$ 42'43	45°44'14
	15760 Oct 18 23:58	0° $\nearrow$				15763 Mar 23 22:03	0° $\text{H}$	
	15760 Nov 12 03:31	0°3				15763 Apr 21 02:35	0° $\gamma$	
	15760 Dec 06 13:14	0° $\approx$				15763 May 17 06:11	0°8	
	15760 Dec 31 09:00	0° $\text{H}$				15763 Jun 11 11:39	0° $\Pi$	
desc. node	15761 Jan 03 11:03	3° $\text{H}$ 41'00		desc. node		15763 Jun 21 15:11	12° $\Pi$ 16'01	
	15761 Jan 25 19:49	0° $\gamma$				15763 Jul 06 04:06	0° $\ominus$	
	15761 Feb 21 06:27	0°8				15763 Jul 30 12:06	0° $\Omega$	
	15761 Mar 21 18:58	0° $\Pi$				15763 Aug 23 14:58	0° $\cap$	
evening max el	15761 Mar 23 11:01	1° $\Pi$ 37'47	46°01'14			15763 Sep 16 15:18	0° $\underline{\cap}$	
asc. node	15761 Apr 26 08:15	28° $\Pi$ 18'53		morning set		15763 Sep 19 18:10	3° $\underline{\cap}$ 54'03	
	15761 Apr 30 01:00	0° $\ominus$				15763 Oct 10 14:48	0° $\cap$	
greatest brilliancy	15761 May 01 20:39	0° $\ominus$ 41'24	-4.8m	asc. node		15763 Oct 12 09:00	2° $\cap$ 12'01	
retrograde	15761 May 11 18:57	2° $\ominus$ 31'20						
	15761 May 22 22:42	30° $\kappa$ $\Pi$		superior conj		15763 Oct 29 02:29	23° $\cap$ 07'31	0°39'33
evening set	15761 May 28 06:35	27° $\Pi$ 13'52		minimum elong		15763 Oct 28 17:45	22° $\cap$ 40'10	0°39'46
inferior conj	15761 Jun 01 19:01	24° $\Pi$ 28'01	7°40'47	max. Earth dist.		15763 Oct 30 14:36	25° $\cap$ 00'24	1.71825 AU
minimum elong	15761 Jun 01 09:15	24° $\Pi$ 43'18	7°38'20			15763 Nov 03 14:27	0° $\nearrow$	
min. Earth dist.	15761 Jun 01 19:00	24° $\Pi$ 28'03	0.28120 AU			15763 Nov 27 15:14	0°3	
morning rise	15761 Jun 05 11:49	22° $\Pi$ 10'52		evening rise		15763 Dec 06 02:11	10°331'44	
direct	15761 Jun 22 21:15	16° $\Pi$ 19'19				15763 Dec 21 18:44	0° $\approx$	
greatest brilliancy	15761 Jul 02 23:16	18° $\Pi$ 14'06	-4.8m			15764 Jan 15 02:57	0° $\text{H}$	
	15761 Jul 22 12:19	0° $\ominus$		desc. node		15764 Feb 01 00:15	20° $\text{H}$ 37'27	
morning max el	15761 Aug 12 05:55	18° $\ominus$ 51'47	46°50'48			15764 Feb 08 17:33	0° $\gamma$	
desc. node	15761 Aug 16 10:15	23° $\ominus$ 06'41				15764 Mar 04 15:36	0°8	
	15761 Aug 22 23:57	0° $\Omega$				15764 Mar 29 22:39	0° $\Pi$	
	15761 Sep 18 21:14	0° $\cap$				15764 Apr 24 20:01	0° $\ominus$	
	15761 Oct 14 09:34	0° $\underline{\cap}$				15764 May 22 00:44	0° $\Omega$	
	15761 Nov 08 07:56	0° $\cap$		asc. node		15764 May 23 18:40	1° $\Omega$ 50'18	
	15761 Dec 02 23:07	0° $\nearrow$		evening max el		15764 Jun 03 17:29	13° $\Omega$ 00'12	46°21'05
asc. node	15761 Dec 07 08:59	5° $\nearrow$ 23'53				15764 Jun 22 12:34	0° $\cap$	
	15761 Dec 27 09:53	0°3		greatest brilliancy		15764 Jul 13 22:11	12° $\cap$ 54'46	-4.9m
	15762 Jan 20 17:58	0° $\approx$		retrograde		15764 Jul 23 10:05	14° $\cap$ 35'41	
morning set	15762 Feb 11 10:50	26° $\approx$ 48'06		evening set		15764 Aug 09 00:30	9° $\cap$ 17'02	
	15762 Feb 14 01:00	0° $\text{H}$		inferior conj		15764 Aug 13 01:58	6° $\cap$ 49'42	7°02'48
	15762 Mar 10 08:13	0° $\gamma$		minimum elong		15764 Aug 13 12:54	6° $\cap$ 32'51	7°00'08
				min. Earth dist.		15764 Aug 13 18:55	6° $\cap$ 23'34	0.27233 AU
superior conj	15762 Mar 20 16:26	12° $\gamma$ 45'29	0°20'18	morning rise		15764 Aug 18 01:05	3° $\cap$ 50'49	
minimum elong	15762 Mar 20 20:56	12° $\gamma$ 59'24	0°19'59			15764 Aug 26 16:42	30° $\kappa$ $\Omega$	
max. Earth dist.	15762 Mar 20 23:42	13° $\gamma$ 07'53	1.73104 AU	direct		15764 Sep 02 22:32	28° $\Omega$ 56'01	
desc. node	15762 Mar 29 02:23	23° $\gamma$ 08'19				15764 Sep 10 09:39	0° $\cap$	
	15762 Apr 03 15:54	0°8		desc. node		15764 Sep 12 19:47	0° $\cap$ 46'12	
evening rise	15762 Apr 27 19:46	29°848'44		greatest brilliancy		15764 Sep 13 04:05	0° $\cap$ 53'43	-4.9m
	15762 Apr 27 23:25	0° $\Pi$				15764 Oct 21 20:47	0° $\underline{\cap}$	
	15762 May 22 06:12	0° $\ominus$		morning max el		15764 Oct 23 05:40	1° $\underline{\cap}$ 21'26	46°47'18
	15762 Jun 15 12:35	0° $\Omega$				15764 Nov 19 05:08	0° $\cap$	
	15762 Jul 09 20:08	0° $\cap$				15764 Dec 15 12:10	0° $\nearrow$	
asc. node	15762 Jul 19 17:08	12° $\cap$ 08'15		asc. node		15765 Jan 03 20:25	22° $\nearrow$ 46'08	
	15762 Aug 03 07:27	0° $\underline{\cap}$				15765 Jan 09 22:11	0°3	
	15762 Aug 28 02:37	0° $\cap$				15765 Feb 03 20:32	0° $\approx$	
	15762 Sep 22 13:36	0° $\nearrow$				15765 Feb 28 12:04	0° $\text{H}$	
	15762 Oct 19 12:53	0°3				15765 Mar 24 23:46	0° $\gamma$	
evening max el	15762 Oct 29 22:07	10°340'35	46°30'27			15765 Apr 18 09:00	0°8	
desc. node	15762 Nov 08 13:43	19°353'19		morning set		15765 Apr 21 23:25	4°826'27	
	15762 Nov 20 13:56	0° $\approx$		desc. node		15765 Apr 25 16:05	9°800'01	
greatest brilliancy	15762 Dec 08 09:04	10° $\approx$ 25'08	-4.8m			15765 May 12 15:51	0° $\Pi$	
retrograde	15762 Dec 18 20:58	12° $\approx$ 26'02		max. Earth dist.		15765 May 27 23:13	18° $\Pi$ 58'49	1.72425 AU
evening set	15763 Jan 06 07:51	6° $\approx$ 01'48						
inferior conj	15763 Jan 09 05:36	4° $\approx$ 14'04	-8°50'43	superior conj		15765 May 30 23:31	22° $\Pi$ 43'16	-1°12'58
minimum elong	15763 Jan 09 08:59	4° $\approx$ 08'48	8°49'49	minimum elong		15765 May 30 13:10	22° $\Pi$ 11'09	1°13'29
min. Earth dist.	15763 Jan 08 22:36	4° $\approx$ 24'58	0.28549 AU			15765 Jun 05 20:05	0° $\ominus$	
morning rise	15763 Jan 12 10:16	2° $\approx$ 16'20				15765 Jun 29 22:02	0° $\Omega$	

evening rise	15765 Jul 09 04:21	11°Ω33'27			15768 Feb 17 00:52	0°≈	
	15765 Jul 23 22:52	0°♐			15768 Mar 13 20:15	0°♐	
asc. node	15765 Aug 16 06:50	29°♐06'09			15768 Apr 07 23:27	0°♐	
	15765 Aug 17 00:07	0°♌			15768 May 02 17:22	0°♌	
	15765 Sep 10 03:25	0°♍		desc. node	15768 May 23 04:59	25°♌05'17	
	15765 Oct 04 11:06	0°♊			15768 May 27 04:48	0°♍	
	15765 Oct 29 03:21	0°♋			15768 Jun 20 11:01	0°♎	
	15765 Nov 23 12:09	0°≈		morning set	15768 Jul 04 01:18	16°♎54'27	
desc. node	15765 Dec 06 00:39	14°≈18'57			15768 Jul 14 13:10	0°♏	
	15765 Dec 20 05:41	0°♐			15768 Aug 07 12:45	0°♐	
evening max el	15766 Jan 09 04:03	20°♐29'20 46°06'35		max. Earth dist.	15768 Aug 11 11:59	4°♐58'17 1.71593 AU	
	15766 Jan 19 10:12	0°♐					
greatest brilliancy	15766 Feb 17 08:42	19°♐10'00 -4.8m		superior conj	15768 Aug 12 17:56	6°♐32'08 -1°07'10	
retrograde	15766 Feb 27 07:58	20°♐59'10		minimum elong	15768 Aug 13 05:32	7°♐08'27 1°07'11	
evening set	15766 Mar 14 17:02	16°♐25'24			15768 Aug 31 11:20	0°♌	
inferior conj	15766 Mar 20 16:43	12°♐48'47 -2°02'47		asc. node	15768 Sep 12 20:54	15°♌32'07	
minimum elong	15766 Mar 20 21:16	12°♐41'38 2°01'30		evening rise	15768 Sep 21 18:05	26°♌39'26	
min. Earth dist.	15766 Mar 20 21:38	12°♐41'05 0.28462 AU			15768 Sep 24 10:12	0°♍	
morning rise	15766 Mar 27 01:15	8°♐59'15			15768 Oct 18 10:36	0°♊	
asc. node	15766 Mar 29 00:14	7°♐57'49			15768 Nov 11 14:23	0°♋	
direct	15766 Apr 10 22:14	4°♐38'45			15768 Dec 06 00:27	0°≈	
greatest brilliancy	15766 Apr 21 15:59	6°♐45'14 -4.8m			15768 Dec 30 20:49	0°♐	
	15766 May 24 07:34	0°♌		desc. node	15769 Jan 02 12:53	3°♐10'56	
morning max el	15766 May 30 08:41	5°♌48'23 46°10'06			15769 Jan 25 08:47	0°♐	
	15766 Jun 22 10:13	0°♍			15769 Feb 20 21:47	0°♌	
	15766 Jul 18 17:52	0°♎		evening max el	15769 Mar 21 02:51	29°♌26'08 46°00'58	
desc. node	15766 Jul 19 02:14	0°♎24'31			15769 Mar 21 16:50	0°♍	
	15766 Aug 12 22:21	0°♏		asc. node	15769 Apr 25 10:05	26°♍46'05	
	15766 Sep 06 13:19	0°♐		greatest brilliancy	15769 Apr 29 10:04	28°♍24'34 -4.8m	
	15766 Sep 30 21:32	0°♌			15769 May 05 19:06	0°♎	
	15766 Oct 25 02:31	0°♍		retrograde	15769 May 09 09:52	0°♎15'17	
asc. node	15766 Nov 08 22:21	18°♍25'11			15769 May 12 22:57	30°♌♍	
	15766 Nov 18 05:54	0°♊		evening set	15769 May 25 17:34	25°♍03'11	
morning set	15766 Dec 01 08:26	16°♊18'18		inferior conj	15769 May 30 09:46	22°♍11'29 7°28'31	
	15766 Dec 12 08:35	0°♋		minimum elong	15769 May 29 23:43	22°♍27'15 7°25'56	
	15767 Jan 05 11:48	0°≈		min. Earth dist.	15769 May 30 08:52	22°♍12'53 0.28133 AU	
				morning rise	15769 Jun 03 05:49	19°♍49'26	
superior conj	15767 Jan 07 21:13	2°≈58'10 1°26'15		direct	15769 Jun 20 12:47	14°♍02'50	
minimum elong	15767 Jan 07 23:40	3°≈05'46 1°26'58		greatest brilliancy	15769 Jun 30 13:40	15°♍56'49 -4.8m	
max. Earth dist.	15767 Jan 10 05:16	5°≈52'02 1.72668 AU			15769 Jul 22 22:54	0°♎	
	15767 Jan 29 16:57	0°♐		morning max el	15769 Aug 09 21:02	16°♎35'01 46°49'57	
evening rise	15767 Feb 14 08:03	19°♐17'02		desc. node	15769 Aug 15 12:14	22°♎19'54	
	15767 Feb 23 01:04	0°♐			15769 Aug 22 18:16	0°♏	
desc. node	15767 Feb 28 14:10	6°♐48'52			15769 Sep 18 11:41	0°♐	
	15767 Mar 19 12:10	0°♌			15769 Oct 13 22:18	0°♌	
	15767 Apr 13 01:42	0°♍			15769 Nov 07 19:43	0°♍	
	15767 May 07 17:45	0°♎			15769 Dec 02 10:19	0°♊	
	15767 Jun 01 14:23	0°♏		asc. node	15769 Dec 06 10:49	4°♊55'26	
asc. node	15767 Jun 21 06:15	23°♏24'18			15769 Dec 26 20:43	0°♋	
	15767 Jun 26 20:48	0°♐			15770 Jan 20 04:33	0°≈	
	15767 Jul 23 00:27	0°♌		morning set	15770 Feb 09 03:47	24°≈39'56	
evening max el	15767 Aug 16 13:24	26°♌09'11 46°40'14			15770 Feb 13 11:27	0°♐	
	15767 Aug 20 10:55	0°♍			15770 Mar 09 18:36	0°♐	
greatest brilliancy	15767 Sep 25 03:07	26°♍31'14 -4.9m					
retrograde	15767 Oct 05 20:27	28°♍40'28		superior conj	15770 Mar 18 08:15	10°♐34'12 0°23'38	
desc. node	15767 Oct 11 05:26	28°♍05'10		minimum elong	15770 Mar 18 13:27	10°♐50'14 0°23'18	
evening set	15767 Oct 20 14:08	24°♍25'27		max. Earth dist.	15770 Mar 18 19:15	11°♐08'06 1.73105 AU	
min. Earth dist.	15767 Oct 26 03:42	21°♍11'14 0.27224 AU		desc. node	15770 Mar 28 04:08	22°♐41'36	
inferior conj	15767 Oct 26 17:52	20°♍49'41 -3°54'25			15770 Apr 03 02:19	0°♌	
minimum elong	15767 Oct 26 09:27	21°♍02'30 3°51'21		evening rise	15770 Apr 25 11:01	27°♌35'10	
morning rise	15767 Nov 01 05:07	17°♍36'36			15770 Apr 27 09:57	0°♍	
direct	15767 Nov 16 12:49	13°♍04'16			15770 May 21 16:55	0°♎	
greatest brilliancy	15767 Nov 26 04:13	14°♍46'29 -4.8m			15770 Jun 14 23:35	0°♏	
	15767 Dec 20 16:04	0°♊			15770 Jul 09 07:31	0°♐	
morning max el	15768 Jan 04 21:40	13°♊47'14 46°05'58		asc. node	15770 Jul 18 19:04	11°♐38'38	
	15768 Jan 20 20:15	0°♋			15770 Aug 02 19:24	0°♌	
asc. node	15768 Feb 01 06:57	12°♋20'59			15770 Aug 27 15:29	0°♍	

	15770 Sep 22 04:13	0°♊			15773 Feb 27 23:08	0°♋		
	15770 Oct 19 07:43	0°♌			15773 Mar 24 10:36	0°♍		
evening max el	15770 Oct 27 13:26	8°♌25'24	46°31'10		15773 Apr 17 19:43	0°♎		
desc. node	15770 Nov 07 15:32	18°♌56'44		morning set	15773 Apr 19 14:28	2°♏11'48		
	15770 Nov 21 06:07	0°♍		desc. node	15773 Apr 24 17:50	8°♏32'22		
greatest brilliancy	15770 Dec 05 23:54	8°♍11'14	-4.8m		15773 May 12 02:32	0°♐		
retrograde	15770 Dec 16 12:13	10°♍12'18		max. Earth dist.	15773 May 25 14:05	16°♐42'47	1.72464 AU	
evening set	15771 Jan 03 23:49	3°♍47'31						
inferior conj	15771 Jan 06 20:48	2°♍00'48	-8°53'51	superior conj	15773 May 28 13:18	20°♐23'49	-1°10'51	
minimum elong	15771 Jan 06 23:22	1°♍56'48	8°53'00	minimum elong	15773 May 28 02:39	19°♐50'47	1°11'20	
min. Earth dist.	15771 Jan 06 12:45	2°♍13'21	0.28524 AU		15773 Jun 05 06:47	0°♑		
morning rise	15771 Jan 09 23:03	0°♍06'35			15773 Jun 29 08:49	0°♒		
	15771 Jan 10 03:26	30°♒♌		evening rise	15773 Jul 06 16:45	9°♒08'39		
direct	15771 Jan 28 02:47	23°♌57'45			15773 Jul 23 09:48	0°♓		
greatest brilliancy	15771 Feb 07 02:57	25°♌47'46	-4.8m	asc. node	15773 Aug 15 08:39	28°♓37'11		
	15771 Feb 16 00:38	0°♍			15773 Aug 16 11:15	0°♑		
asc. node	15771 Feb 28 16:34	8°♍49'51			15773 Sep 09 14:51	0°♒		
morning max el	15771 Mar 18 04:09	24°♍27'41	45°44'01		15773 Oct 03 22:57	0°♊		
	15771 Mar 23 18:22	0°♋			15773 Oct 28 15:56	0°♌		
	15771 Apr 20 17:28	0°♍			15773 Nov 23 02:06	0°♍		
	15771 May 16 19:03	0°♎		desc. node	15773 Dec 05 02:37	13°♍42'09		
	15771 Jun 10 23:32	0°♐			15773 Dec 19 22:47	0°♋		
desc. node	15771 Jun 20 17:08	11°♐46'43		evening max el	15774 Jan 06 18:15	18°♋13'47	46°07'24	
	15771 Jul 05 15:27	0°♑			15774 Jan 19 14:40	0°♍		
	15771 Jul 29 23:09	0°♒		greatest brilliancy	15774 Feb 14 23:59	16°♍57'41	-4.8m	
	15771 Aug 23 01:49	0°♓		retrograde	15774 Feb 24 23:33	18°♍47'24		
	15771 Sep 16 02:03	0°♑		evening set	15774 Mar 12 10:26	14°♍10'32		
morning set	15771 Sep 17 07:01	1°♑30'37		inferior conj	15774 Mar 18 08:25	10°♍36'34	-2°23'19	
	15771 Oct 10 01:27	0°♒		minimum elong	15774 Mar 18 13:41	10°♍28'18	2°21'47	
asc. node	15771 Oct 11 10:44	1°♒44'08		min. Earth dist.	15774 Mar 18 13:40	10°♍28'20	0.28478 AU	
				morning rise	15774 Mar 24 16:41	6°♍47'42		
superior conj	15771 Oct 26 16:24	20°♒47'47	0°36'15	asc. node	15774 Mar 28 02:03	5°♍05'25		
minimum elong	15771 Oct 26 08:12	20°♒22'09	0°36'28	direct	15774 Apr 08 13:47	2°♍26'17		
max. Earth dist.	15771 Oct 28 02:57	22°♒35'50	1.71796 AU	greatest brilliancy	15774 Apr 19 08:36	4°♍33'55	-4.8m	
	15771 Nov 03 01:02	0°♊			15774 May 24 07:38	0°♎		
	15771 Nov 27 01:48	0°♌		morning max el	15774 May 28 00:16	3°♎34'42	46°08'40	
evening rise	15771 Dec 03 17:38	8°♌17'34			15774 Jun 22 02:26	0°♐		
	15771 Dec 21 05:21	0°♍		desc. node	15774 Jul 18 04:11	29°♐50'07		
	15772 Jan 14 13:46	0°♋			15774 Jul 18 07:33	0°♑		
desc. node	15772 Jan 31 02:11	20°♋09'43			15774 Aug 12 10:52	0°♒		
	15772 Feb 08 04:45	0°♍			15774 Sep 06 01:11	0°♓		
	15772 Mar 04 03:24	0°♎			15774 Sep 30 08:59	0°♑		
	15772 Mar 29 11:26	0°♐			15774 Oct 24 13:41	0°♒		
	15772 Apr 24 10:39	0°♑		asc. node	15774 Nov 08 00:09	17°♒56'29		
	15772 May 21 19:40	0°♒			15774 Nov 17 16:51	0°♊		
asc. node	15772 May 22 20:35	1°♒04'58		morning set	15774 Nov 28 23:00	14°♊00'22		
evening max el	15772 Jun 01 05:47	10°♒36'17	46°20'08		15774 Dec 11 19:25	0°♌		
	15772 Jun 23 02:39	0°♓			15775 Jan 04 22:34	0°♍		
greatest brilliancy	15772 Jul 11 12:20	10°♓33'08	-4.8m					
retrograde	15772 Jul 20 22:27	12°♓12'58		superior conj	15775 Jan 05 13:22	0°♍45'58	1°26'35	
evening set	15772 Aug 06 17:11	6°♓48'50		minimum elong	15775 Jan 05 15:02	0°♍51'07	1°27'21	
inferior conj	15772 Aug 10 15:11	4°♓26'33	7°17'30	max. Earth dist.	15775 Jan 07 20:47	3°♍37'54	1.72639 AU	
minimum elong	15772 Aug 11 01:55	4°♓10'00	7°14'57		15775 Jan 29 03:43	0°♋		
min. Earth dist.	15772 Aug 11 08:44	3°♓59'29	0.27271 AU	evening rise	15775 Feb 11 23:59	17°♋05'05		
morning rise	15772 Aug 15 10:24	1°♓32'54			15775 Feb 22 11:55	0°♍		
	15772 Aug 18 07:10	30°♒♒		desc. node	15775 Feb 27 15:55	6°♍20'51		
direct	15772 Aug 31 11:24	26°♒31'52			15775 Mar 18 23:11	0°♎		
greatest brilliancy	15772 Sep 10 18:15	28°♒30'26	-4.9m		15775 Apr 12 13:03	0°♐		
desc. node	15772 Sep 11 21:44	28°♒56'56			15775 May 07 05:38	0°♑		
	15772 Sep 14 07:24	0°♓			15775 Jun 01 03:05	0°♒		
morning max el	15772 Oct 20 18:42	28°♓57'28	46°48'24	asc. node	15775 Jun 20 08:11	22°♒49'42		
	15772 Oct 21 19:44	0°♑			15775 Jun 26 10:54	0°♓		
	15772 Nov 18 21:21	0°♒			15775 Jul 22 17:22	0°♑		
	15772 Dec 15 01:47	0°♊		evening max el	15775 Aug 14 03:42	23°♑47'49	46°40'05	
asc. node	15773 Jan 02 22:25	22°♊14'49			15775 Aug 20 12:03	0°♒		
	15773 Jan 09 10:27	0°♌		greatest brilliancy	15775 Sep 22 16:30	24°♒07'06	-4.9m	
	15773 Feb 03 08:02	0°♍		retrograde	15775 Oct 03 10:30	26°♒16'44		

desc. node	15775 Oct 10 07:17	25° $\mathbb{M}$ 18'53		desc. node	15778 Mar 27 05:55	22° $\mathbb{Y}$ 13'45	
evening set	15775 Oct 18 01:48	22° $\mathbb{M}$ 03'51			15778 Apr 02 13:08	0° $\mathcal{B}$	
min. Earth dist.	15775 Oct 23 17:15	18° $\mathbb{M}$ 47'00	0.27187 AU	evening rise	15778 Apr 23 02:17	25° $\mathcal{B}$ 20'33	
inferior conj	15775 Oct 24 06:50	18° $\mathbb{M}$ 26'21	-3°32'40		15778 Apr 26 20:52	0° $\mathbb{I}$	
minimum elong	15775 Oct 23 23:03	18° $\mathbb{M}$ 38'11	3°29'46		15778 May 21 03:59	0° $\mathcal{E}$	
morning rise	15775 Oct 29 20:45	15° $\mathbb{M}$ 10'05			15778 Jun 14 10:53	0° $\mathcal{Q}$	
direct	15775 Nov 14 02:03	10° $\mathbb{M}$ 41'16			15778 Jul 08 19:12	0° $\mathbb{P}$	
greatest brilliancy	15775 Nov 23 17:03	12° $\mathbb{M}$ 23'44	-4.8m	asc. node	15778 Jul 17 20:55	11° $\mathbb{P}$ 07'50	
	15775 Dec 21 00:08	0° $\mathcal{A}$			15778 Aug 02 07:43	0° $\mathcal{L}$	
morning max el	15776 Jan 02 12:14	11° $\mathcal{A}$ 29'46	46°07'22		15778 Aug 27 04:49	0° $\mathbb{M}$	
	15776 Jan 20 14:25	0° $\mathcal{Z}$			15778 Sep 21 19:28	0° $\mathcal{A}$	
asc. node	15776 Jan 31 08:50	11° $\mathcal{Z}$ 41'31			15778 Oct 19 03:41	0° $\mathcal{Z}$	
	15776 Feb 16 15:17	0° $\mathcal{A}$		evening max el	15778 Oct 25 03:41	6° $\mathcal{Z}$ 05'54	46°31'48
	15776 Mar 13 09:01	0° $\mathcal{H}$		desc. node	15778 Nov 06 17:34	17° $\mathcal{Z}$ 57'45	
	15776 Apr 07 11:20	0° $\mathbb{Y}$			15778 Nov 22 05:10	0° $\mathcal{A}$	
	15776 May 02 04:44	0° $\mathcal{B}$		greatest brilliancy	15778 Dec 03 15:06	5° $\mathcal{A}$ 55'44	-4.8m
desc. node	15776 May 22 06:56	24° $\mathcal{B}$ 36'59		retrograde	15778 Dec 14 02:51	7° $\mathcal{A}$ 56'31	
	15776 May 26 15:55	0° $\mathbb{I}$		evening set	15779 Jan 01 15:07	1° $\mathcal{A}$ 31'56	
	15776 Jun 19 22:01	0° $\mathcal{E}$		inferior conj	15779 Jan 04 11:46	29° $\mathcal{Z}$ 45'40	-8°56'08
morning set	15776 Jul 01 13:39	14° $\mathcal{E}$ 29'19		minimum elong	15779 Jan 04 13:27	29° $\mathcal{Z}$ 43'02	8°55'21
	15776 Jul 14 00:08	0° $\mathcal{Q}$		min. Earth dist.	15779 Jan 04 02:58	29° $\mathcal{Z}$ 59'23	0.28496 AU
	15776 Aug 06 23:42	0° $\mathbb{P}$			15779 Jan 04 02:34	30° $\mathcal{R}$ $\mathcal{Z}$	
max. Earth dist.	15776 Aug 08 23:16	2° $\mathbb{P}$ 28'57	1.71607 AU	morning rise	15779 Jan 07 11:55	27° $\mathcal{Z}$ 54'28	
				direct	15779 Jan 25 17:19	21° $\mathcal{Z}$ 43'18	
superior conj	15776 Aug 10 05:57	4° $\mathbb{P}$ 05'05	-1°09'35	greatest brilliancy	15779 Feb 04 16:42	23° $\mathcal{Z}$ 32'10	-4.8m
minimum elong	15776 Aug 10 17:21	4° $\mathbb{P}$ 40'46	1°09'40		15779 Feb 17 06:39	0° $\mathcal{A}$	
	15776 Aug 30 22:18	0° $\mathcal{L}$		asc. node	15779 Feb 27 18:28	7° $\mathcal{A}$ 45'59	
asc. node	15776 Sep 11 22:37	15° $\mathcal{L}$ 03'02		morning max el	15779 Mar 15 17:32	22° $\mathcal{A}$ 09'08	45°43'56
evening rise	15776 Sep 19 06:45	24° $\mathcal{L}$ 14'26			15779 Mar 23 14:26	0° $\mathcal{H}$	
	15776 Sep 23 21:13	0° $\mathbb{M}$			15779 Apr 20 08:29	0° $\mathbb{Y}$	
	15776 Oct 17 21:44	0° $\mathcal{A}$			15779 May 16 08:06	0° $\mathcal{B}$	
	15776 Nov 11 01:43	0° $\mathcal{Z}$			15779 Jun 10 11:37	0° $\mathbb{I}$	
	15776 Dec 05 12:09	0° $\mathcal{A}$		desc. node	15779 Jun 19 19:02	11° $\mathbb{I}$ 16'35	
	15776 Dec 30 09:10	0° $\mathcal{H}$			15779 Jul 05 02:59	0° $\mathcal{E}$	
desc. node	15777 Jan 01 14:50	2° $\mathcal{H}$ 39'41			15779 Jul 29 10:20	0° $\mathcal{Q}$	
	15777 Jan 24 22:21	0° $\mathbb{Y}$			15779 Aug 22 12:48	0° $\mathbb{P}$	
	15777 Feb 20 13:54	0° $\mathcal{B}$		morning set	15779 Sep 14 19:58	29° $\mathbb{P}$ 07'00	
evening max el	15777 Mar 18 18:37	27° $\mathcal{B}$ 13'02	46°00'45		15779 Sep 15 12:55	0° $\mathcal{L}$	
	15777 Mar 21 16:12	0° $\mathbb{I}$			15779 Oct 09 12:16	0° $\mathbb{M}$	
asc. node	15777 Apr 24 12:02	25° $\mathbb{I}$ 09'05		asc. node	15779 Oct 10 12:35	1° $\mathbb{M}$ 16'06	
greatest brilliancy	15777 Apr 27 00:12	26° $\mathbb{I}$ 07'41	-4.8m				
retrograde	15777 May 07 00:29	27° $\mathbb{I}$ 58'22		superior conj	15779 Oct 24 06:10	18° $\mathbb{M}$ 27'04	0°32'52
evening set	15777 May 23 04:47	22° $\mathbb{I}$ 51'47		minimum elong	15779 Oct 23 22:35	18° $\mathbb{M}$ 03'21	0°33'04
inferior conj	15777 May 28 00:39	19° $\mathbb{I}$ 54'23	7°15'34	max. Earth dist.	15779 Oct 25 12:35	20° $\mathbb{M}$ 02'10	1.71775 AU
minimum elong	15777 May 27 14:22	20° $\mathbb{I}$ 10'34	7°12'51		15779 Nov 02 11:49	0° $\mathcal{A}$	
min. Earth dist.	15777 May 27 23:09	19° $\mathbb{I}$ 56'46	0.28144 AU		15779 Nov 26 12:35	0° $\mathcal{Z}$	
morning rise	15777 May 31 23:53	17° $\mathbb{I}$ 27'22		evening rise	15779 Dec 01 08:44	6° $\mathcal{Z}$ 01'36	
direct	15777 Jun 18 04:08	11° $\mathbb{I}$ 45'55			15779 Dec 20 16:13	0° $\mathcal{A}$	
greatest brilliancy	15777 Jun 28 04:20	13° $\mathbb{I}$ 39'04	-4.8m		15780 Jan 14 00:50	0° $\mathcal{H}$	
	15777 Jul 23 07:01	0° $\mathcal{E}$		desc. node	15780 Jan 30 03:54	19° $\mathcal{H}$ 40'40	
morning max el	15777 Aug 07 11:08	14° $\mathcal{E}$ 14'37	46°48'50		15780 Feb 07 16:11	0° $\mathbb{Y}$	
desc. node	15777 Aug 14 14:09	21° $\mathcal{E}$ 32'37			15780 Mar 03 15:26	0° $\mathcal{B}$	
	15777 Aug 22 12:34	0° $\mathcal{Q}$			15780 Mar 29 00:31	0° $\mathbb{I}$	
	15777 Sep 18 02:25	0° $\mathbb{P}$			15780 Apr 24 01:41	0° $\mathcal{E}$	
	15777 Oct 13 11:27	0° $\mathcal{L}$		asc. node	15780 May 21 22:36	0° $\mathcal{Q}$ 18'44	
	15777 Nov 07 07:57	0° $\mathbb{M}$			15780 May 21 15:21	0° $\mathcal{Q}$	
	15777 Dec 01 21:59	0° $\mathcal{A}$		evening max el	15780 May 29 18:00	8° $\mathcal{Q}$ 11'52	46°19'21
asc. node	15777 Dec 05 12:48	4° $\mathcal{A}$ 26'05			15780 Jun 23 21:45	0° $\mathbb{P}$	
	15777 Dec 26 07:59	0° $\mathcal{Z}$		greatest brilliancy	15780 Jul 09 02:12	8° $\mathbb{P}$ 11'10	-4.8m
	15778 Jan 19 15:33	0° $\mathcal{A}$		retrograde	15780 Jul 18 11:23	9° $\mathbb{P}$ 50'38	
morning set	15778 Feb 06 20:27	22° $\mathcal{A}$ 29'40		evening set	15780 Aug 04 09:53	4° $\mathbb{P}$ 20'49	
	15778 Feb 12 22:17	0° $\mathcal{H}$		inferior conj	15780 Aug 08 04:29	2° $\mathbb{P}$ 03'39	7°31'13
	15778 Mar 09 05:24	0° $\mathbb{Y}$		minimum elong	15780 Aug 08 14:56	1° $\mathbb{P}$ 47'32	7°28'51
				min. Earth dist.	15780 Aug 08 22:23	1° $\mathbb{P}$ 36'02	0.27306 AU
superior conj	15778 Mar 16 00:02	8° $\mathbb{Y}$ 21'34	0°26'56		15780 Aug 11 13:29	30° $\mathcal{R}$ $\mathcal{Q}$	
minimum elong	15778 Mar 16 05:54	8° $\mathbb{Y}$ 39'37	0°26'37	morning rise	15780 Aug 12 19:43	29° $\mathcal{Q}$ 15'40	
max. Earth dist.	15778 Mar 16 12:41	9° $\mathbb{Y}$ 00'35	1.73105 AU	direct	15780 Aug 29 00:22	24° $\mathcal{Q}$ 08'01	

greatest brilliancy	15780 Sep 08 08:13	26°Ω07'31	-4.9m			15783 Apr 12 00:09	0°Π		
desc. node	15780 Sep 10 23:33	27°Ω12'09				15783 May 06 17:15	0°☾		
	15780 Sep 16 09:21	0°♍				15783 May 31 15:33	0°Ω		
morning max el	15780 Oct 18 08:31	26°♍35'45	46°49'25	asc. node		15783 Jun 19 10:01	22°Ω15'31		
	15780 Oct 21 17:36	0°♊				15783 Jun 26 00:50	0°♍		
	15780 Nov 18 13:12	0°♌				15783 Jul 22 10:19	0°♊		
	15780 Dec 14 15:16	0°♈		evening max el		15783 Aug 11 18:37	21°♊28'59	46°39'49	
asc. node	15781 Jan 02 00:14	21°♈43'02				15783 Aug 20 14:10	0°♌		
	15781 Jan 08 22:42	0°♊		greatest brilliancy		15783 Sep 20 06:24	21°♌44'39	-4.9m	
	15781 Feb 02 19:33	0°♋		retrograde		15783 Oct 01 00:37	23°♌53'53		
	15781 Feb 27 10:13	0°♌		desc. node		15783 Oct 09 09:21	22°♌28'10		
	15781 Mar 23 21:25	0°♍		evening set		15783 Oct 15 13:48	19°♌43'17		
morning set	15781 Apr 17 05:23	29°♍56'49		inferior conj		15783 Oct 21 19:49	16°♌04'14	-3°10'33	
	15781 Apr 17 06:25	0°♎		minimum elong		15783 Oct 21 12:44	16°♌15'00	3°07'50	
desc. node	15781 Apr 23 19:41	8°♎05'07		min. Earth dist.		15783 Oct 21 06:54	16°♌23'51	0.27145 AU	
	15781 May 11 13:11	0°♏		morning rise		15783 Oct 27 12:13	12°♌44'50		
max. Earth dist.	15781 May 23 07:00	14°♏33'12	1.72501 AU	direct		15783 Nov 11 15:22	8°♌19'46		
				greatest brilliancy		15783 Nov 21 05:33	10°♌01'52	-4.8m	
superior conj	15781 May 26 02:55	18°♏03'58	-1°08'37			15783 Dec 21 05:11	0°♈		
minimum elong	15781 May 25 16:04	17°♏30'17	1°09'05	morning max el		15783 Dec 31 02:17	9°♈12'40	46°08'49	
	15781 Jun 04 17:28	0°☾				15784 Jan 20 07:33	0°♊		
	15781 Jun 28 19:35	0°Ω		asc. node		15784 Jan 30 10:43	11°♊04'06		
evening rise	15781 Jul 04 05:14	6°Ω44'14				15784 Feb 16 05:00	0°♋		
	15781 Jul 22 20:41	0°♍				15784 Mar 12 21:13	0°♌		
asc. node	15781 Aug 14 10:23	28°♍08'15				15784 Apr 06 22:44	0°♍		
	15781 Aug 15 22:17	0°♊				15784 May 01 15:43	0°♎		
	15781 Sep 09 02:07	0°♌		desc. node		15784 May 21 08:49	24°♎09'37		
	15781 Oct 03 10:37	0°♈				15784 May 26 02:39	0°♏		
	15781 Oct 28 04:21	0°♊				15784 Jun 19 08:38	0°☾		
	15781 Nov 22 16:00	0°♋		morning set		15784 Jun 29 01:52	12°☾05'02		
desc. node	15781 Dec 04 04:30	13°♋05'22				15784 Jul 13 10:41	0°Ω		
	15781 Dec 19 16:05	0°♌				15784 Aug 06 10:15	0°♍		
evening max el	15782 Jan 04 09:16	16°♌00'37	46°08'04	max. Earth dist.		15784 Aug 06 08:55	29°Ω55'47	1.71621 AU	
	15782 Jan 19 21:05	0°♍							
greatest brilliancy	15782 Feb 12 14:52	14°♍45'01	-4.8m	superior conj		15784 Aug 07 17:55	1°♍39'09	-1°11'52	
retrograde	15782 Feb 22 15:32	16°♍35'30		minimum elong		15784 Aug 08 05:02	2°♍13'57	1°12'02	
evening set	15782 Mar 10 03:52	11°♍55'29				15784 Aug 30 08:52	0°♊		
inferior conj	15782 Mar 15 23:58	8°♍24'14	-2°43'37	asc. node		15784 Sep 11 00:29	14°♊35'36		
minimum elong	15782 Mar 16 05:56	8°♍14'54	2°41'54	evening rise		15784 Sep 16 19:17	21°♊50'07		
min. Earth dist.	15782 Mar 16 05:17	8°♍15'55	0.28496 AU			15784 Sep 23 07:52	0°♌		
morning rise	15782 Mar 22 07:48	4°♍36'24				15784 Oct 17 08:29	0°♈		
asc. node	15782 Mar 27 04:02	2°♍16'52				15784 Nov 10 12:39	0°♊		
direct	15782 Apr 06 05:35	0°♍13'52				15784 Dec 04 23:24	0°♋		
greatest brilliancy	15782 Apr 17 00:32	2°♍21'59	-4.8m			15784 Dec 29 21:02	0°♌		
	15782 May 24 06:26	0°♎		desc. node		15784 Dec 31 16:37	2°♌09'31		
morning max el	15782 May 25 16:22	1°♎22'52	46°07'14			15785 Jan 24 11:28	0°♍		
	15782 Jun 21 18:11	0°♏				15785 Feb 20 05:41	0°♎		
desc. node	15782 Jul 17 05:59	29°♏16'05		evening max el		15785 Mar 16 09:41	24°♎59'46	46°00'19	
	15782 Jul 17 20:55	0°☾				15785 Mar 21 16:02	0°♏		
	15782 Aug 11 23:06	0°Ω		asc. node		15785 Apr 23 14:03	23°♏29'47		
	15782 Sep 05 12:47	0°♍		greatest brilliancy		15785 Apr 24 14:54	23°♏52'38	-4.8m	
	15782 Sep 29 20:09	0°♊		retrograde		15785 May 04 14:37	25°♏42'46		
	15782 Oct 24 00:32	0°♌		evening set		15785 May 20 16:06	20°♏41'29		
asc. node	15782 Nov 07 02:04	17°♌29'11		inferior conj		15785 May 25 15:35	17°♏38'41	7°01'55	
	15782 Nov 17 03:28	0°♈		minimum elong		15785 May 25 05:06	17°♏55'11	6°59'04	
morning set	15782 Nov 26 14:00	11°♈44'50		min. Earth dist.		15785 May 25 13:54	17°♏41'20	0.28157 AU	
	15782 Dec 11 05:53	0°♊		morning rise		15785 May 29 18:01	15°♏06'34		
				direct		15785 Jun 15 19:01	9°♏30'11		
superior conj	15783 Jan 03 05:46	28°♊35'31	1°26'48	greatest brilliancy		15785 Jun 25 19:42	11°♏23'14	-4.8m	
minimum elong	15783 Jan 03 06:39	28°♊38'15	1°27'34			15785 Jul 23 12:19	0°☾		
	15783 Jan 04 08:59	0°♋		morning max el		15785 Aug 05 00:29	11°☾53'30	46°47'46	
max. Earth dist.	15783 Jan 05 14:45	1°♋32'26	1.72615 AU	desc. node		15785 Aug 13 16:04	20°☾47'13		
	15783 Jan 28 14:10	0°♌				15785 Aug 22 05:59	0°Ω		
evening rise	15783 Feb 09 16:00	14°♌54'16				15785 Sep 17 16:33	0°♍		
	15783 Feb 21 22:28	0°♍				15785 Oct 13 00:04	0°♊		
desc. node	15783 Feb 26 17:42	5°♍53'48				15785 Nov 06 19:43	0°♌		
	15783 Mar 18 09:57	0°♎				15785 Dec 01 09:11	0°♈		

asc. node	15785 Dec 04 14:33	3°♊57'18			15788 Jun 24 23:24	0°♎	
	15785 Dec 25 18:46	0°♊		greatest brilliancy	15788 Jul 06 15:15	5°♎48'57	-4.8m
	15786 Jan 19 02:03	0°♊		retrograde	15788 Jul 16 00:41	7°♎28'45	
morning set	15786 Feb 04 13:27	20°♊21'50		evening set	15788 Aug 02 02:26	1°♎53'05	
	15786 Feb 12 08:37	0°♋			15788 Aug 05 05:17	30°♎	
	15786 Mar 08 15:41	0°♋		inferior conj	15788 Aug 05 17:42	29°♎40'52	7°44'07
				minimum elong	15788 Aug 06 03:47	29°♎25'20	7°41'54
superior conj	15786 Mar 13 16:17	6°♋11'57	0°30'09	min. Earth dist.	15788 Aug 06 11:36	29°♎13'17	0.27350 AU
minimum elong	15786 Mar 13 22:45	6°♋31'53	0°29'50	morning rise	15788 Aug 10 04:53	26°♎58'52	
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asc. node	15786 Jul 16 22:40	10°♎37'43		asc. node	15789 Jan 01 02:06	21°♊11'51	
	15786 Aug 01 19:44	0°♎			15789 Jan 08 10:44	0°♊	
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	15786 Oct 18 23:50	0°♊			15789 Mar 23 08:06	0°♋	
evening max el	15786 Oct 22 17:12	3°♊45'35	46°32'29	morning set	15789 Apr 14 20:52	27°♋44'07	
desc. node	15786 Nov 05 19:28	16°♊58'13			15789 Apr 16 16:56	0°♌	
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greatest brilliancy	15786 Dec 01 06:22	3°♊41'16	-4.8m		15789 May 10 23:40	0°♌	
retrograde	15786 Dec 11 17:32	5°♊42'06		max. Earth dist.	15789 May 21 01:45	12°♌29'56	1.72534 AU
	15786 Dec 29 02:07	30°♋					
evening set	15786 Dec 30 06:02	29°♋18'06		superior conj	15789 May 23 17:04	15°♌46'24	-1°06'18
min. Earth dist.	15787 Jan 01 17:24	27°♋46'25	0.28465 AU	minimum elong	15789 May 23 06:06	15°♌12'19	1°06'43
inferior conj	15787 Jan 02 02:47	27°♋31'49	-8°57'41		15789 Jun 04 03:58	0°♌	
minimum elong	15787 Jan 02 03:34	27°♋30'35	8°56'54		15789 Jun 28 06:12	0°♌	
morning rise	15787 Jan 05 01:13	25°♋43'11		evening rise	15789 Jul 01 18:15	4°♌22'00	
direct	15787 Jan 23 07:29	19°♋29'59			15789 Jul 22 07:28	0°♎	
greatest brilliancy	15787 Feb 02 06:56	21°♋18'25	-4.8m	asc. node	15789 Aug 13 12:18	27°♎40'03	
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asc. node	15787 Feb 26 20:26	6°♋45'16			15789 Sep 08 13:25	0°♎	
morning max el	15787 Mar 13 07:15	19°♋52'46	45°44'07		15789 Oct 02 22:24	0°♊	
	15787 Mar 23 09:19	0°♋			15789 Oct 27 16:56	0°♊	
	15787 Apr 19 22:46	0°♋			15789 Nov 22 06:08	0°♊	
	15787 May 15 20:36	0°♌		desc. node	15789 Dec 03 06:21	12°♊27'57	
	15787 Jun 09 23:16	0°♌			15789 Dec 19 09:53	0°♋	
desc. node	15787 Jun 18 20:48	10°♌47'14		evening max el	15790 Jan 02 01:03	13°♋49'09	46°08'54
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	15787 Aug 21 23:34	0°♎		retrograde	15790 Feb 20 07:30	14°♋23'23	
morning set	15787 Sep 12 08:33	26°♎42'53		evening set	15790 Mar 07 21:28	9°♋40'19	
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	15787 Oct 08 22:50	0°♎		minimum elong	15790 Mar 13 22:07	6°♋01'26	3°01'51
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				morning rise	15790 Mar 19 22:41	2°♋25'11	
superior conj	15787 Oct 21 19:36	16°♎06'05	0°29'24		15790 Mar 25 00:35	30°♋	
minimum elong	15787 Oct 21 12:40	15°♎44'25	0°29'36	asc. node	15790 Mar 26 06:04	29°♋32'38	
max. Earth dist.	15787 Oct 22 21:23	17°♎26'43	1.71754 AU	direct	15790 Apr 03 21:42	28°♋01'32	
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	15787 Nov 25 23:06	0°♊		greatest brilliancy	15790 Apr 14 15:49	0°♋09'18	-4.8m
evening rise	15787 Nov 28 23:47	3°♊46'15		morning max el	15790 May 23 08:32	29°♋11'27	46°05'57
	15787 Dec 20 02:50	0°♊			15790 May 24 04:16	0°♌	
	15788 Jan 13 11:39	0°♋			15790 Jun 21 09:36	0°♌	
desc. node	15788 Jan 29 05:45	19°♋12'48		desc. node	15790 Jul 16 07:58	28°♌42'58	
	15788 Feb 07 03:21	0°♋			15790 Jul 17 10:06	0°♌	
	15788 Mar 03 03:12	0°♌			15790 Aug 11 11:15	0°♌	
	15788 Mar 28 13:19	0°♌			15790 Sep 05 00:21	0°♎	
	15788 Apr 23 16:31	0°♌			15790 Sep 29 07:23	0°♎	
asc. node	15788 May 21 00:25	29°♌32'18			15790 Oct 23 11:31	0°♎	
	15788 May 21 11:15	0°♌		asc. node	15790 Nov 06 03:50	17°♎00'46	
evening max el	15788 May 27 06:57	5°♌50'27	46°18'26		15790 Nov 16 14:16	0°♊	































































































































morning set	15790 Nov 24 04:25	9° $\text{♊}$ 26'54		min. Earth dist.	15793 May 23 04:57	15° $\text{♊}$ 24'18	0.28168 AU
	15790 Dec 10 16:33	0° $\text{♋}$		morning rise	15793 May 27 12:07	12° $\text{♊}$ 44'48	
				direct	15793 Jun 13 09:28	7° $\text{♊}$ 13'07	
superior conj	15790 Dec 31 21:37	26° $\text{♋}$ 22'42	1°26'53	greatest brilliancy	15793 Jun 23 11:40	9° $\text{♊}$ 06'59	-4.8m
minimum elong	15790 Dec 31 21:40	26° $\text{♋}$ 22'53	1°27'39		15793 Jul 23 16:12	0° $\text{♋}$	
max. Earth dist.	15791 Jan 03 08:50	29° $\text{♋}$ 26'37	1.72584 AU	morning max el	15793 Aug 02 13:52	9° $\text{♋}$ 31'21	46°46'53
	15791 Jan 03 19:35	0° $\text{♌}$		desc. node	15793 Aug 12 18:03	20° $\text{♋}$ 01'35	
	15791 Jan 28 00:47	0° $\text{♍}$			15793 Aug 21 23:22	0° $\text{♎}$	
evening rise	15791 Feb 07 07:37	12° $\text{♍}$ 41'38			15793 Sep 17 06:48	0° $\text{♏}$	
	15791 Feb 21 09:11	0° $\text{♐}$			15793 Oct 12 12:52	0° $\text{♐}$	
desc. node	15791 Feb 25 19:36	5° $\text{♐}$ 26'37			15793 Nov 06 07:42	0° $\text{♑}$	
	15791 Mar 17 20:54	0° $\text{♒}$			15793 Nov 30 20:38	0° $\text{♓}$	
	15791 Apr 11 11:27	0° $\text{♈}$		asc. node	15793 Dec 03 16:25	3° $\text{♓}$ 28'03	
	15791 May 06 05:06	0° $\text{♉}$			15793 Dec 25 05:53	0° $\text{♊}$	
	15791 May 31 04:13	0° $\text{♊}$			15794 Jan 18 12:56	0° $\text{♋}$	
asc. node	15791 Jun 18 11:54	21° $\text{♊}$ 41'04		morning set	15794 Feb 02 06:09	18° $\text{♋}$ 11'41	
	15791 Jun 25 14:58	0° $\text{♌}$			15794 Feb 11 19:23	0° $\text{♍}$	
	15791 Jul 22 03:37	0° $\text{♍}$			15794 Mar 08 02:26	0° $\text{♎}$	
evening max el	15791 Aug 09 09:20	19° $\text{♍}$ 09'35	46°39'24				
	15791 Aug 20 17:54	0° $\text{♎}$		superior conj	15794 Mar 11 08:12	3° $\text{♎}$ 59'53	0°33'21
greatest brilliancy	15791 Sep 17 20:46	19° $\text{♎}$ 22'33	-4.9m	minimum elong	15794 Mar 11 15:15	4° $\text{♎}$ 21'37	0°33'02
retrograde	15791 Sep 28 14:11	21° $\text{♎}$ 30'27		max. Earth dist.	15794 Mar 11 22:49	4° $\text{♎}$ 44'56	1.73106 AU
desc. node	15791 Oct 08 11:14	19° $\text{♎}$ 31'48		desc. node	15794 Mar 25 09:33	21° $\text{♎}$ 19'55	
evening set	15791 Oct 13 02:04	17° $\text{♎}$ 21'57			15794 Apr 01 10:17	0° $\text{♏}$	
inferior conj	15791 Oct 19 08:50	13° $\text{♎}$ 41'37	-2°47'58	evening rise	15794 Apr 18 09:13	20° $\text{♏}$ 54'12	
minimum elong	15791 Oct 19 02:31	13° $\text{♎}$ 51'14	2°45'29		15794 Apr 25 18:16	0° $\text{♊}$	
min. Earth dist.	15791 Oct 18 20:59	13° $\text{♎}$ 59'40	0.27111 AU		15794 May 20 01:47	0° $\text{♋}$	
morning rise	15791 Oct 25 03:32	10° $\text{♎}$ 18'57			15794 Jun 13 09:15	0° $\text{♌}$	
direct	15791 Nov 09 04:38	5° $\text{♎}$ 57'36			15794 Jul 07 18:25	0° $\text{♍}$	
greatest brilliancy	15791 Nov 18 18:40	7° $\text{♎}$ 39'33	-4.8m	asc. node	15794 Jul 16 00:38	10° $\text{♍}$ 06'57	
	15791 Dec 21 08:52	0° $\text{♏}$			15794 Aug 01 08:13	0° $\text{♍}$	
morning max el	15791 Dec 28 15:34	6° $\text{♏}$ 52'21	46°10'08		15794 Aug 26 07:27	0° $\text{♎}$	
	15792 Jan 20 00:45	0° $\text{♋}$			15794 Sep 21 02:10	0° $\text{♏}$	
asc. node	15792 Jan 29 12:44	10° $\text{♋}$ 26'10			15794 Oct 18 20:59	0° $\text{♊}$	
	15792 Feb 15 18:59	0° $\text{♌}$		evening max el	15794 Oct 20 06:42	1° $\text{♊}$ 24'30	46°33'17
	15792 Mar 12 09:41	0° $\text{♍}$		desc. node	15794 Nov 04 21:20	15° $\text{♊}$ 56'28	
	15792 Apr 06 10:24	0° $\text{♎}$			15794 Nov 25 11:38	0° $\text{♋}$	
	15792 May 01 02:56	0° $\text{♏}$		greatest brilliancy	15794 Nov 28 21:02	1° $\text{♋}$ 25'28	-4.8m
desc. node	15792 May 20 10:31	23° $\text{♏}$ 40'53		retrograde	15794 Dec 09 08:37	3° $\text{♋}$ 27'13	
	15792 May 25 13:38	0° $\text{♊}$			15794 Dec 22 14:51	30° $\text{♋}$	
	15792 Jun 18 19:30	0° $\text{♋}$		evening set	15794 Dec 27 20:31	27° $\text{♋}$ 04'12	
morning set	15792 Jun 26 14:18	9° $\text{♋}$ 40'40		inferior conj	15794 Dec 30 17:52	25° $\text{♋}$ 17'13	-8°58'16
	15792 Jul 12 21:30	0° $\text{♌}$		minimum elong	15794 Dec 30 17:48	25° $\text{♋}$ 17'20	8°57'29
max. Earth dist.	15792 Aug 03 16:50	27° $\text{♌}$ 16'38	1.71632 AU	min. Earth dist.	15794 Dec 30 07:47	25° $\text{♋}$ 32'54	0.28439 AU
				morning rise	15795 Jan 02 15:09	23° $\text{♋}$ 30'28	
superior conj	15792 Aug 05 06:23	29° $\text{♌}$ 14'10	-1°14'01	direct	15795 Jan 20 21:42	17° $\text{♋}$ 15'41	
minimum elong	15792 Aug 05 17:07	29° $\text{♌}$ 47'46	1°14'12	greatest brilliancy	15795 Jan 30 21:24	19° $\text{♋}$ 04'04	-4.8m
	15792 Aug 05 21:01	0° $\text{♎}$			15795 Feb 18 19:33	0° $\text{♌}$	
	15792 Aug 29 19:39	0° $\text{♍}$		asc. node	15795 Feb 25 22:25	5° $\text{♌}$ 44'49	
asc. node	15792 Sep 10 02:20	14° $\text{♍}$ 07'33		morning max el	15795 Mar 10 21:58	17° $\text{♌}$ 37'28	45°44'11
evening rise	15792 Sep 14 08:08	19° $\text{♍}$ 26'13			15795 Mar 23 04:13	0° $\text{♍}$	
	15792 Sep 22 18:42	0° $\text{♎}$			15795 Apr 19 13:26	0° $\text{♎}$	
	15792 Oct 16 19:29	0° $\text{♏}$			15795 May 15 09:32	0° $\text{♏}$	
	15792 Nov 09 23:53	0° $\text{♊}$			15795 Jun 09 11:18	0° $\text{♊}$	
	15792 Dec 04 11:02	0° $\text{♋}$		desc. node	15795 Jun 17 22:47	10° $\text{♊}$ 17'14	
	15792 Dec 29 09:24	0° $\text{♌}$			15795 Jul 04 01:42	0° $\text{♋}$	
desc. node	15792 Dec 30 18:28	1° $\text{♌}$ 38'09			15795 Jul 28 08:30	0° $\text{♌}$	
	15793 Jan 24 01:12	0° $\text{♎}$			15795 Aug 21 10:40	0° $\text{♍}$	
	15793 Feb 19 22:20	0° $\text{♏}$		morning set	15795 Sep 09 21:10	24° $\text{♍}$ 17'44	
evening max el	15793 Mar 13 23:51	22° $\text{♏}$ 42'54	46°00'04		15795 Sep 14 10:34	0° $\text{♍}$	
	15793 Mar 21 17:45	0° $\text{♊}$			15795 Oct 08 09:45	0° $\text{♎}$	
greatest brilliancy	15793 Apr 22 05:46	21° $\text{♊}$ 36'27	-4.8m	asc. node	15795 Oct 08 16:11	0° $\text{♎}$ 20'08	
asc. node	15793 Apr 22 15:53	21° $\text{♊}$ 45'12					
retrograde	15793 May 02 04:37	23° $\text{♊}$ 26'08		superior conj	15795 Oct 19 09:08	13° $\text{♊}$ 44'17	0°25'53
evening set	15793 May 18 03:30	18° $\text{♊}$ 29'36		minimum elong	15795 Oct 19 02:55	13° $\text{♊}$ 24'49	0°26'05
inferior conj	15793 May 23 06:29	15° $\text{♊}$ 21'53	6°47'39	max. Earth dist.	15795 Oct 20 07:55	14° $\text{♊}$ 55'35	1.71731 AU
minimum elong	15793 May 22 19:54	15° $\text{♊}$ 38'33	6°44'40		15795 Nov 01 09:10	0° $\text{♋}$	

	15795 Nov 25 09:56	0° $\text{Z}$			15798 Apr 16 22:58	0° $\text{Y}$	
evening rise	15795 Nov 26 15:07	1° $\text{Z}$ 30'53		morning max el	15798 May 21 00:09	26° $\text{Y}$ 58'10	46°04'24
	15795 Dec 19 13:45	0° $\approx$			15798 May 24 01:28	0° $\text{B}$	
	15796 Jan 12 22:48	0° $\text{H}$			15798 Jun 21 01:03	0° $\text{II}$	
desc. node	15796 Jan 28 07:42	18° $\text{H}$ 44'13		desc. node	15798 Jul 15 09:54	28° $\text{II}$ 09'04	
	15796 Feb 06 14:54	0° $\text{Y}$			15798 Jul 16 23:28	0° $\text{G}$	
	15796 Mar 02 15:25	0° $\text{B}$			15798 Aug 10 23:36	0° $\text{Q}$	
	15796 Mar 28 02:41	0° $\text{II}$			15798 Sep 04 12:07	0° $\text{M}$	
	15796 Apr 23 08:06	0° $\text{G}$			15798 Sep 28 18:44	0° $\text{L}$	
asc. node	15796 May 20 02:21	28° $\text{G}$ 43'58			15798 Oct 22 22:35	0° $\text{M}$	
	15796 May 21 08:26	0° $\text{Q}$		asc. node	15798 Nov 05 05:39	16° $\text{M}$ 32'20	
evening max el	15796 May 24 20:53	3° $\text{Q}$ 30'15	46°17'38		15798 Nov 16 01:08	0° $\text{J}$	
	15796 Jun 26 12:54	0° $\text{M}$		morning set	15798 Nov 21 18:52	7° $\text{J}$ 08'45	
greatest brilliancy	15796 Jul 04 03:49	3° $\text{M}$ 25'11	-4.8m		15798 Dec 10 03:19	0° $\text{Z}$	
retrograde	15796 Jul 13 14:18	5° $\text{M}$ 05'38					
	15796 Jul 29 18:25	30° $\text{R}$ $\text{Q}$		superior conj	15798 Dec 29 13:41	24° $\text{Z}$ 10'16	1°26'49
evening set	15796 Jul 30 18:59	29° $\text{Q}$ 24'18		minimum elong	15798 Dec 29 12:55	24° $\text{Z}$ 07'53	1°27'37
inferior conj	15796 Aug 03 06:54	27° $\text{Q}$ 16'55	7°56'14	max. Earth dist.	15799 Jan 01 02:20	27° $\text{Z}$ 18'42	1.72551 AU
minimum elong	15796 Aug 03 16:33	27° $\text{Q}$ 02'02	7°54'10		15799 Jan 03 06:17	0° $\approx$	
min. Earth dist.	15796 Aug 04 00:24	26° $\text{Q}$ 49'57	0.27389 AU		15799 Jan 27 11:29	0° $\text{H}$	
morning rise	15796 Aug 07 13:56	24° $\text{Q}$ 41'02		evening rise	15799 Feb 04 23:29	10° $\text{H}$ 29'35	
direct	15796 Aug 24 03:44	19° $\text{Q}$ 19'34			15799 Feb 20 19:58	0° $\text{Y}$	
greatest brilliancy	15796 Sep 03 10:45	21° $\text{Q}$ 19'15	-4.9m	desc. node	15799 Feb 24 21:21	4° $\text{Y}$ 58'50	
desc. node	15796 Sep 09 03:34	23° $\text{Q}$ 53'40			15799 Mar 17 07:52	0° $\text{B}$	
	15796 Sep 18 18:48	0° $\text{M}$			15799 Apr 10 22:47	0° $\text{II}$	
morning max el	15796 Oct 13 14:41	21° $\text{M}$ 57'54	46°51'16		15799 May 05 17:00	0° $\text{G}$	
	15796 Oct 21 11:21	0° $\text{L}$			15799 May 30 17:03	0° $\text{Q}$	
	15796 Nov 17 20:19	0° $\text{M}$		asc. node	15799 Jun 17 13:50	21° $\text{Q}$ 06'10	
	15796 Dec 13 17:55	0° $\text{J}$			15799 Jun 25 05:25	0° $\text{M}$	
asc. node	15796 Dec 31 04:06	20° $\text{J}$ 40'24			15799 Jul 21 21:34	0° $\text{L}$	
	15797 Jan 07 22:58	0° $\text{Z}$		evening max el	15799 Aug 06 23:22	16° $\text{L}$ 47'45	46°38'56
	15797 Feb 01 18:25	0° $\approx$			15799 Aug 20 23:52	0° $\text{M}$	
	15797 Feb 26 08:16	0° $\text{H}$		greatest brilliancy	15799 Sep 15 11:42	17° $\text{M}$ 00'22	-4.9m
	15797 Mar 22 19:01	0° $\text{Y}$		retrograde	15799 Sep 26 03:08	19° $\text{M}$ 06'23	
morning set	15797 Apr 12 12:20	25° $\text{Y}$ 30'32		desc. node	15799 Oct 07 13:07	16° $\text{M}$ 29'42	
	15797 Apr 16 03:46	0° $\text{B}$		evening set	15799 Oct 10 14:29	14° $\text{M}$ 59'40	
desc. node	15797 Apr 21 23:18	7° $\text{B}$ 10'24		inferior conj	15799 Oct 16 21:48	11° $\text{M}$ 18'35	-2°24'57
	15797 May 10 10:29	0° $\text{II}$		minimum elong	15799 Oct 16 16:17	11° $\text{M}$ 27'00	2°22'44
max. Earth dist.	15797 May 18 18:11	10° $\text{II}$ 18'31	1.72568 AU	min. Earth dist.	15799 Oct 16 11:23	11° $\text{M}$ 34'28	0.27076 AU
				morning rise	15799 Oct 22 18:34	7° $\text{M}$ 52'47	
superior conj	15797 May 21 06:57	13° $\text{II}$ 26'54	-1°03'51	direct	15799 Nov 06 17:14	3° $\text{M}$ 34'57	
minimum elong	15797 May 20 19:56	12° $\text{II}$ 52'42	1°04'13	greatest brilliancy	15799 Nov 16 08:14	5° $\text{M}$ 17'23	-4.8m
	15797 Jun 03 14:50	0° $\text{G}$			15799 Dec 21 10:55	0° $\text{J}$	
	15797 Jun 27 17:09	0° $\text{Q}$		morning max el	15799 Dec 26 04:05	4° $\text{J}$ 30'09	46°11'35
evening rise	15797 Jun 29 06:51	1° $\text{Q}$ 57'32			15800 Jan 19 17:30	0° $\text{Z}$	
	15797 Jul 21 18:33	0° $\text{M}$		asc. node	15800 Jan 28 14:37	9° $\text{Z}$ 48'29	
asc. node	15797 Aug 12 14:06	27° $\text{M}$ 10'38			15800 Feb 15 08:42	0° $\approx$	
	15797 Aug 14 20:34	0° $\text{L}$			15800 Mar 12 21:58	0° $\text{H}$	
	15797 Sep 08 01:00	0° $\text{M}$			15800 Apr 06 21:54	0° $\text{Y}$	
	15797 Oct 02 10:27	0° $\text{J}$			15800 May 01 14:00	0° $\text{B}$	
	15797 Oct 27 05:50	0° $\text{Z}$		desc. node	15800 May 20 12:29	23° $\text{B}$ 13'26	
	15797 Nov 21 20:38	0° $\approx$			15800 May 26 00:29	0° $\text{II}$	
desc. node	15797 Dec 02 08:19	11° $\approx$ 50'01			15800 Jun 19 06:15	0° $\text{G}$	
	15797 Dec 19 04:19	0° $\text{H}$		morning set	15800 Jun 25 02:47	7° $\text{G}$ 16'49	
evening max el	15797 Dec 30 17:21	11° $\text{H}$ 38'30	46°09'43		15800 Jul 13 08:12	0° $\text{Q}$	
	15798 Jan 20 18:29	0° $\text{Y}$		max. Earth dist.	15800 Aug 01 23:08	24° $\text{Q}$ 32'34	1.71653 AU
greatest brilliancy	15798 Feb 07 21:03	10° $\text{Y}$ 20'17	-4.8m				
retrograde	15798 Feb 17 23:15	12° $\text{Y}$ 11'14		superior conj	15800 Aug 03 18:38	26° $\text{Q}$ 48'43	-1°16'01
evening set	15798 Mar 05 15:21	7° $\text{Y}$ 25'16		minimum elong	15800 Aug 04 04:54	27° $\text{Q}$ 20'51	1°16'16
inferior conj	15798 Mar 11 07:10	3° $\text{Y}$ 59'29	-3°23'32		15800 Aug 06 07:44	0° $\text{M}$	
minimum elong	15798 Mar 11 14:24	3° $\text{Y}$ 48'10	3°21'25		15800 Aug 30 06:24	0° $\text{L}$	
min. Earth dist.	15798 Mar 11 12:14	3° $\text{Y}$ 51'34	0.28521 AU	asc. node	15800 Sep 10 04:03	13° $\text{L}$ 39'10	
morning rise	15798 Mar 17 13:27	0° $\text{Y}$ 14'09		evening rise	15800 Sep 12 20:26	17° $\text{L}$ 00'39	
	15798 Mar 17 23:52	30° $\text{R}$ $\text{H}$			15800 Sep 23 05:32	0° $\text{M}$	
asc. node	15798 Mar 25 07:53	26° $\text{H}$ 53'25			15800 Oct 17 06:26	0° $\text{J}$	
direct	15798 Apr 01 14:02	25° $\text{H}$ 49'30			15800 Nov 10 11:02	0° $\text{Z}$	
greatest brilliancy	15798 Apr 12 06:56	27° $\text{H}$ 56'17	-4.8m		15800 Dec 04 22:34	0° $\approx$	



	15800 Dec 29 21:41	0° $\text{H}$			15803 Jul 04 12:47	0° $\text{G}$		
desc. node	15800 Dec 30 20:25	1° $\text{H}$ 07'26			15803 Jul 28 19:18	0° $\text{Q}$		
	15801 Jan 24 14:52	0° $\text{Y}$			15803 Aug 21 21:18	0° $\text{P}$		
	15801 Feb 20 15:03	0° $\text{B}$		morning set	15803 Sep 08 10:06	21° $\text{P}$ 55'00		
evening max el	15801 Mar 12 13:57	20° $\text{B}$ 26'53	46°00'00		15803 Sep 14 21:06	0° $\text{A}$		
	15801 Mar 22 20:32	0° $\text{I}$		asc. node	15803 Oct 08 18:03	29° $\text{A}$ 53'09		
greatest brilliancy	15801 Apr 20 20:27	19° $\text{I}$ 21'30	-4.8m		15803 Oct 08 20:14	0° $\text{M}$		
asc. node	15801 Apr 22 17:52	19° $\text{I}$ 58'16						
retrograde	15801 Apr 30 19:07	21° $\text{I}$ 11'30		superior conj	15803 Oct 17 22:35	11° $\text{M}$ 23'23	0°22'19	
evening set	15801 May 16 15:17	16° $\text{I}$ 19'06		minimum elong	15803 Oct 17 17:08	11° $\text{M}$ 06'20	0°22'31	
inferior conj	15801 May 21 21:39	13° $\text{I}$ 06'54	6°32'43	max. Earth dist.	15803 Oct 18 20:46	12° $\text{M}$ 32'49	1.71718 AU	
minimum elong	15801 May 21 11:01	13° $\text{I}$ 23'38	6°29'39		15803 Nov 01 19:38	0° $\text{J}$		
min. Earth dist.	15801 May 21 20:08	13° $\text{I}$ 09'17	0.28181 AU	evening rise	15803 Nov 25 06:14	29° $\text{J}$ 15'50		
morning rise	15801 May 26 06:30	10° $\text{I}$ 25'05			15803 Nov 25 20:25	0° $\text{Z}$		
direct	15801 Jun 12 00:08	4° $\text{I}$ 57'47			15803 Dec 20 00:21	0° $\approx$		
greatest brilliancy	15801 Jun 22 04:00	6° $\text{I}$ 52'54	-4.8m		15804 Jan 13 09:37	0° $\text{H}$		
	15801 Jul 24 17:58	0° $\text{G}$		desc. node	15804 Jan 28 09:25	18° $\text{H}$ 16'02		
morning max el	15801 Aug 01 03:57	7° $\text{G}$ 12'06	46°45'46		15804 Feb 07 02:06	0° $\text{Y}$		
desc. node	15801 Aug 12 19:58	19° $\text{G}$ 17'21			15804 Mar 03 03:17	0° $\text{B}$		
	15801 Aug 22 16:04	0° $\text{Q}$			15804 Mar 28 15:42	0° $\text{I}$		
	15801 Sep 17 20:43	0° $\text{P}$			15804 Apr 23 23:25	0° $\text{G}$		
	15801 Oct 13 01:27	0° $\text{A}$		asc. node	15804 May 20 04:22	27° $\text{G}$ 56'29		
	15801 Nov 06 19:29	0° $\text{M}$			15804 May 22 05:49	0° $\text{Q}$		
	15801 Dec 01 07:53	0° $\text{J}$		evening max el	15804 May 23 11:43	1° $\text{Q}$ 13'51	46°16'52	
asc. node	15801 Dec 03 18:23	2° $\text{J}$ 59'42			15804 Jun 29 21:44	0° $\text{P}$		
	15801 Dec 25 16:44	0° $\text{Z}$		greatest brilliancy	15804 Jul 02 16:41	1° $\text{P}$ 03'56	-4.8m	
	15802 Jan 18 23:32	0° $\approx$		retrograde	15804 Jul 12 04:04	2° $\text{P}$ 44'44		
morning set	15802 Jan 31 22:46	16° $\approx$ 02'07			15804 Jul 23 19:34	30° $\text{R}$ $\text{Q}$		
	15802 Feb 12 05:51	0° $\text{H}$		evening set	15804 Jul 29 11:43	26° $\text{Q}$ 58'14		
	15802 Mar 08 12:52	0° $\text{Y}$		inferior conj	15804 Aug 01 20:23	24° $\text{Q}$ 55'24	8°07'17	
				minimum elong	15804 Aug 02 05:33	24° $\text{Q}$ 41'15	8°05'24	
superior conj	15802 Mar 10 00:15	1° $\text{Y}$ 49'09	0°36'29	min. Earth dist.	15804 Aug 02 13:17	24° $\text{Q}$ 29'18	0.27425 AU	
minimum elong	15802 Mar 10 07:50	2° $\text{Y}$ 12'33	0°36'11	morning rise	15804 Aug 05 23:13	22° $\text{Q}$ 25'31		
max. Earth dist.	15802 Mar 10 16:50	2° $\text{Y}$ 40'16	1.73106 AU	direct	15804 Aug 22 18:09	16° $\text{Q}$ 57'37		
desc. node	15802 Mar 25 11:22	20° $\text{Y}$ 53'13		greatest brilliancy	15804 Sep 01 23:34	18° $\text{Q}$ 56'17	-4.9m	
	15802 Apr 01 20:46	0° $\text{B}$		desc. node	15804 Sep 09 05:25	22° $\text{Q}$ 21'11		
evening rise	15802 Apr 17 00:53	18° $\text{B}$ 42'06			15804 Sep 20 11:44	0° $\text{P}$		
	15802 Apr 26 04:51	0° $\text{I}$		morning max el	15804 Oct 12 05:34	19° $\text{P}$ 39'50	46°51'57	
	15802 May 20 12:32	0° $\text{G}$			15804 Oct 22 06:42	0° $\text{A}$		
	15802 Jun 13 20:16	0° $\text{Q}$			15804 Nov 18 11:07	0° $\text{M}$		
	15802 Jul 08 05:53	0° $\text{P}$		asc. node	15804 Dec 14 06:46	0° $\text{J}$		
asc. node	15802 Jul 16 02:27	9° $\text{P}$ 36'59			15804 Dec 31 05:54	20° $\text{J}$ 09'39		
	15802 Aug 01 20:23	0° $\text{A}$			15805 Jan 08 10:45	0° $\text{Z}$		
	15802 Aug 26 20:46	0° $\text{M}$			15805 Feb 02 05:35	0° $\approx$		
	15802 Sep 21 17:46	0° $\text{J}$			15805 Feb 26 19:02	0° $\text{H}$		
evening max el	15802 Oct 18 20:53	29° $\text{J}$ 05'37	46°33'58		15805 Mar 23 05:33	0° $\text{Y}$		
	15802 Oct 19 18:45	0° $\text{Z}$		morning set	15805 Apr 11 03:48	23° $\text{Y}$ 18'11		
desc. node	15802 Nov 04 23:23	14° $\text{Z}$ 53'52			15805 Apr 16 14:11	0° $\text{B}$		
greatest brilliancy	15802 Nov 27 10:59	29° $\text{Z}$ 08'48	-4.8m	desc. node	15805 Apr 22 01:10	6° $\text{B}$ 44'03		
	15802 Nov 30 00:30	0° $\approx$			15805 May 10 20:52	0° $\text{I}$		
retrograde	15802 Dec 07 23:58	1° $\approx$ 12'09		max. Earth dist.	15805 May 17 09:22	8° $\text{I}$ 04'35	1.72600 AU	
	15802 Dec 15 17:17	30° $\text{R}$ $\text{Z}$						
evening set	15802 Dec 26 10:15	24° $\text{Z}$ 50'48		superior conj	15805 May 19 20:56	11° $\text{I}$ 09'10	-1°01'17	
inferior conj	15802 Dec 29 08:41	23° $\text{Z}$ 02'27	-8°57'56	minimum elong	15805 May 19 09:56	10° $\text{I}$ 35'06	1°01'39	
minimum elong	15802 Dec 29 07:43	23° $\text{Z}$ 03'57	8°57'08		15805 Jun 04 01:16	0° $\text{G}$		
min. Earth dist.	15802 Dec 28 21:37	23° $\text{Z}$ 19'36	0.28407 AU	evening rise	15805 Jun 27 19:40	29° $\text{G}$ 35'00		
morning rise	15803 Jan 01 05:17	21° $\text{Z}$ 17'00			15805 Jun 28 03:42	0° $\text{Q}$		
direct	15803 Jan 19 11:57	15° $\text{Z}$ 01'19			15805 Jul 22 05:14	0° $\text{P}$		
greatest brilliancy	15803 Jan 29 11:12	16° $\text{Z}$ 49'30	-4.8m	asc. node	15805 Aug 12 15:52	26° $\text{P}$ 42'23		
	15803 Feb 20 07:02	0° $\approx$			15805 Aug 15 07:27	0° $\text{A}$		
asc. node	15803 Feb 26 00:18	4° $\approx$ 46'27			15805 Sep 08 12:09	0° $\text{M}$		
morning max el	15803 Mar 09 13:13	15° $\approx$ 24'37	45°44'23		15805 Oct 02 22:06	0° $\text{J}$		
	15803 Mar 23 22:12	0° $\text{H}$			15805 Oct 27 18:21	0° $\text{Z}$		
	15803 Apr 20 03:29	0° $\text{Y}$			15805 Nov 22 10:53	0° $\approx$		
	15803 May 15 21:57	0° $\text{B}$		desc. node	15805 Dec 02 10:13	11° $\approx$ 12'38		
	15803 Jun 09 22:52	0° $\text{I}$			15805 Dec 19 22:49	0° $\text{H}$		
desc. node	15803 Jun 18 00:39	9° $\text{I}$ 48'18		evening max el	15805 Dec 29 09:07	9° $\text{H}$ 27'22	46°10'17	

	15806 Jan 22 10:42	0°♿		max. Earth dist.	15808 Jul 30 07:17	21°♌54'37	1.71675 AU
greatest brilliancy	15806 Feb 06 12:53	8°♿09'23	-4.8m				
retrograde	15806 Feb 16 14:27	9°♿59'33		superior conj	15808 Aug 01 06:46	24°♌23'13	-1°17'51
evening set	15806 Mar 04 09:16	5°♿10'40		minimum elong	15808 Aug 01 16:30	24°♌53'40	1°18'11
inferior conj	15806 Mar 09 22:47	1°♿47'53	-3°42'58		15808 Aug 05 18:22	0°♎	
minimum elong	15806 Mar 10 06:34	1°♿35'39	3°40'43		15808 Aug 29 17:05	0°♊	
min. Earth dist.	15806 Mar 10 04:01	1°♿39'40	0.28532 AU	asc. node	15808 Sep 09 05:56	13°♊11'29	
	15806 Mar 12 20:12	30°♋♋		evening rise	15808 Sep 10 08:44	14°♊35'22	
morning rise	15806 Mar 16 03:53	28°♋03'54			15808 Sep 22 16:20	0°♌	
asc. node	15806 Mar 25 09:54	24°♋19'17			15808 Oct 16 17:21	0°♍	
direct	15806 Mar 31 05:58	23°♋38'11			15808 Nov 09 22:10	0°♎	
greatest brilliancy	15806 Apr 10 22:19	25°♋44'12	-4.8m		15808 Dec 04 10:07	0°♏	
	15806 Apr 19 14:21	0°♿			15808 Dec 29 09:58	0°♋	
morning max el	15806 May 19 14:45	24°♿43'19	46°02'59	desc. node	15808 Dec 29 22:13	0°♋36'17	
	15806 May 24 21:34	0°♌			15809 Jan 24 04:37	0°♿	
	15806 Jun 21 15:53	0°♊			15809 Feb 20 08:06	0°♌	
desc. node	15806 Jul 15 11:43	27°♊36'07		evening max el	15809 Mar 10 04:10	18°♌11'08	45°59'50
	15806 Jul 17 12:20	0°♋			15809 Mar 23 01:12	0°♊	
	15806 Aug 11 11:31	0°♌		greatest brilliancy	15809 Apr 18 10:22	17°♊05'02	-4.8m
	15806 Sep 04 23:28	0°♎		asc. node	15809 Apr 21 19:51	18°♊06'20	
	15806 Sep 29 05:43	0°♊		retrograde	15809 Apr 28 09:52	18°♊56'01	
	15806 Oct 23 09:17	0°♌		evening set	15809 May 14 03:00	14°♊07'21	
asc. node	15806 Nov 05 07:34	16°♌05'16		inferior conj	15809 May 19 12:35	10°♊50'50	6°17'02
	15806 Nov 16 11:39	0°♍		minimum elong	15809 May 19 01:58	11°♊07'31	6°13'54
morning set	15806 Nov 20 09:35	4°♍52'28		min. Earth dist.	15809 May 19 10:52	10°♊53'32	0.28196 AU
	15806 Dec 10 13:43	0°♎		morning rise	15809 May 24 00:42	8°♊04'28	
				direct	15809 Jun 09 15:01	2°♊41'20	
superior conj	15806 Dec 28 05:57	21°♎59'30	1°26'37	greatest brilliancy	15809 Jun 19 19:56	4°♊37'36	-4.8m
minimum elong	15806 Dec 28 04:23	21°♎54'38	1°27'25		15809 Jul 24 18:40	0°♋	
max. Earth dist.	15806 Dec 30 19:02	25°♎09'17	1.72521 AU	morning max el	15809 Jul 29 18:51	4°♋54'28	46°44'44
	15807 Jan 03 16:39	0°♏		desc. node	15809 Aug 11 21:54	18°♋33'18	
	15807 Jan 27 21:53	0°♋			15809 Aug 22 08:36	0°♌	
evening rise	15807 Feb 03 15:21	8°♋18'16			15809 Sep 17 10:34	0°♎	
	15807 Feb 21 06:30	0°♿			15809 Oct 12 14:02	0°♊	
desc. node	15807 Feb 24 23:11	4°♿32'00			15809 Nov 06 07:19	0°♌	
	15807 Mar 17 18:39	0°♌			15809 Nov 30 19:13	0°♍	
	15807 Apr 11 09:57	0°♊		asc. node	15809 Dec 02 20:07	2°♍30'18	
	15807 May 06 04:45	0°♋			15809 Dec 25 03:43	0°♎	
	15807 May 31 05:44	0°♌			15810 Jan 18 10:16	0°♏	
asc. node	15807 Jun 17 15:40	20°♌31'26		morning set	15810 Jan 29 15:31	13°♏52'30	
	15807 Jun 25 19:47	0°♎			15810 Feb 11 16:28	0°♋	
	15807 Jul 22 15:40	0°♊					
evening max el	15807 Aug 05 12:21	14°♊24'01	46°38'26	superior conj	15810 Mar 07 16:26	29°♋38'21	0°39'33
	15807 Aug 22 07:52	0°♌		minimum elong	15810 Mar 08 00:31	0°♿03'15	0°39'17
greatest brilliancy	15807 Sep 14 02:45	14°♌38'52	-4.9m		15810 Mar 07 23:27	0°♿	
retrograde	15807 Sep 24 15:49	16°♌43'02		max. Earth dist.	15810 Mar 08 13:02	0°♿41'54	1.73105 AU
desc. node	15807 Oct 07 15:12	13°♌23'15		desc. node	15810 Mar 24 13:16	20°♿26'23	
evening set	15807 Oct 09 03:03	12°♌37'25			15810 Apr 01 07:25	0°♌	
inferior conj	15807 Oct 15 10:44	8°♌56'09	-2°01'37	evening rise	15810 Apr 14 16:38	16°♌29'43	
minimum elong	15807 Oct 15 06:04	9°♌03'17	1°59'40		15810 Apr 25 15:38	0°♊	
min. Earth dist.	15807 Oct 15 02:01	9°♌09'27	0.27045 AU		15810 May 19 23:32	0°♋	
morning rise	15807 Oct 21 09:25	5°♌27'28			15810 Jun 13 07:36	0°♌	
direct	15807 Nov 05 05:23	1°♌12'33			15810 Jul 07 17:41	0°♎	
greatest brilliancy	15807 Nov 14 22:20	2°♌56'17	-4.8m	asc. node	15810 Jul 15 04:14	9°♎05'48	
	15807 Dec 22 11:21	0°♍			15810 Aug 01 08:54	0°♊	
morning max el	15807 Dec 24 16:32	2°♍08'15	46°13'12		15810 Aug 26 10:29	0°♌	
	15808 Jan 20 09:42	0°♎			15810 Sep 21 09:54	0°♍	
asc. node	15808 Jan 28 16:31	9°♎11'45		evening max el	15810 Oct 16 11:49	26°♍47'48	46°34'42
	15808 Feb 15 22:05	0°♏			15810 Oct 19 17:44	0°♎	
	15808 Mar 12 10:02	0°♋		desc. node	15810 Nov 04 01:15	13°♎48'26	
	15808 Apr 06 09:17	0°♿		greatest brilliancy	15810 Nov 25 00:24	26°♎50'37	-4.8m
	15808 May 01 01:01	0°♌		retrograde	15810 Dec 05 15:29	28°♎55'54	
desc. node	15808 May 19 14:21	22°♌45'48		evening set	15810 Dec 23 23:27	22°♎36'50	
	15808 May 25 11:17	0°♊		inferior conj	15810 Dec 26 23:22	20°♎46'25	-8°56'49
	15808 Jun 18 16:56	0°♋		minimum elong	15810 Dec 26 21:31	20°♎49'18	8°55'59
morning set	15808 Jun 22 15:00	4°♋52'23		min. Earth dist.	15810 Dec 26 11:01	21°♎05'33	0.28374 AU
	15808 Jul 12 18:50	0°♌		morning rise	15810 Dec 29 19:42	19°♎01'39	

direct	15811 Jan 17 02:44	12°  45'52			15813 Jul 21 16:22	0° 		
greatest brilliancy	15811 Jan 27 00:21	14°  33'09	-4.8m	asc. node	15813 Aug 11 17:48	26°  13'11		
	15811 Feb 20 15:51	0° 			15813 Aug 14 18:48	0° 		
asc. node	15811 Feb 25 02:17	3°  48'42			15813 Sep 07 23:51	0° 		
morning max el	15811 Mar 07 04:49	13°  11'50	45°44'40		15813 Oct 02 10:20	0° 		
	15811 Mar 23 16:04	0° 			15813 Oct 27 07:30	0° 		
	15811 Apr 19 17:40	0° 			15813 Nov 22 01:50	0° 		
	15811 May 15 10:34	0° 		desc. node	15813 Dec 01 12:03	10°  33'14		
	15811 Jun 09 10:42	0° 			15813 Dec 19 18:24	0° 		
desc. node	15811 Jun 17 02:26	9°  18'08		evening max el	15813 Dec 26 23:46	7°  12'04	46°11'02	
	15811 Jul 04 00:12	0° 			15814 Jan 23 09:34	0° 		
	15811 Jul 28 06:29	0° 		greatest brilliancy	15814 Feb 04 05:02	5°  57'32	-4.8m	
	15811 Aug 21 08:21	0° 		retrograde	15814 Feb 14 05:19	7°  46'45		
morning set	15811 Sep 05 22:39	19°  29'48		evening set	15814 Mar 02 03:17	2°  54'36		
	15811 Sep 14 08:03	0° 			15814 Mar 06 22:35	30°  R 		
asc. node	15811 Oct 07 19:54	29°  24'56		inferior conj	15814 Mar 07 14:25	29°  13'50	-4°02'01	
	15811 Oct 08 07:06	0° 		minimum elong	15814 Mar 07 22:43	29°  12'05	3°59'39	
				min. Earth dist.	15814 Mar 07 20:02	29°  12'18	0.28544 AU	
superior conj	15811 Oct 15 11:39	9°  00'05	0°18'40	morning rise	15814 Mar 13 18:07	25°  12'42		
minimum elong	15811 Oct 15 07:01	8°  45'36	0°18'53	asc. node	15814 Mar 24 11:54	21°  12'48'42		
max. Earth dist.	15811 Oct 16 11:13	10°  13'51	1.71698 AU	direct	15814 Mar 28 21:27	21°  12'53'31		
	15811 Nov 01 06:28	0° 		greatest brilliancy	15814 Apr 08 14:14	23°  12'31'26	-4.8m	
evening rise	15811 Nov 22 21:12	26°  12'59'09			15814 Apr 20 18:18	0° 		
	15811 Nov 25 07:17	0° 		morning max el	15814 May 17 04:46	22°  12'54'42	46°01'45	
	15811 Dec 19 11:20	0° 			15814 May 24 17:30	0° 		
	15812 Jan 12 20:51	0° 			15814 Jun 21 06:56	0° 		
desc. node	15812 Jan 27 11:16	17°  12'47'01		desc. node	15814 Jul 14 13:41	27°  12'02'41		
	15812 Feb 06 13:44	0° 			15814 Jul 17 01:30	0° 		
	15812 Mar 02 15:35	0° 			15814 Aug 10 23:44	0° 		
	15812 Mar 28 05:14	0° 			15814 Sep 04 11:10	0° 		
	15812 Apr 23 15:25	0° 			15814 Sep 28 17:05	0° 		
asc. node	15812 May 19 06:10	27°  06'26			15814 Oct 22 20:25	0° 		
evening max el	15812 May 21 02:13	28°  05'55'24	46°15'53	asc. node	15814 Nov 04 09:18	15°  12'36'18		
	15812 May 22 04:36	0° 			15814 Nov 15 22:37	0° 		
greatest brilliancy	15812 Jun 30 05:40	28°  04'11'18	-4.8m	morning set	15814 Nov 17 23:50	2°  12'33'18		
	15812 Jul 05 09:18	0° 			15814 Dec 10 00:34	0° 		
retrograde	15812 Jul 09 17:12	0° 						
	15812 Jul 13 22:50	30°  R 		superior conj	15814 Dec 25 21:52	19°  12'46'21	1°26'18	
evening set	15812 Jul 27 04:10	24°  03'30'32		minimum elong	15814 Dec 25 19:30	19°  12'38'59	1°27'05	
inferior conj	15812 Jul 30 09:43	22°  03'15'59	8°17'28	max. Earth dist.	15814 Dec 28 09:11	22°  12'35'04'2	1.72486 AU	
minimum elong	15812 Jul 30 18:17	22°  03'18'43	8°15'46		15815 Jan 03 03:25	0° 		
min. Earth dist.	15812 Jul 31 02:07	22°  03'06'35	0.27464 AU		15815 Jan 27 08:40	0° 		
morning rise	15812 Aug 03 08:17	20°  03'08'01		evening rise	15815 Feb 01 07:01	6°  12'05'11		
direct	15812 Aug 20 08:14	14°  03'33'46			15815 Feb 20 17:25	0° 		
greatest brilliancy	15812 Aug 30 12:30	16°  03'31'21	-4.9m	desc. node	15815 Feb 24 01:03	4°  12'04'13		
desc. node	15812 Sep 08 07:29	20°  03'50'12			15815 Mar 17 05:50	0° 		
	15812 Sep 21 01:14	0° 			15815 Apr 10 21:32	0° 		
morning max el	15812 Oct 09 19:23	17°  12'17'10	46°52'37		15815 Apr 05 16:55	0° 		
	15812 Oct 22 02:10	0° 			15815 May 30 18:50	0° 		
	15812 Nov 18 02:17	0° 		asc. node	15815 Jun 16 17:33	19°  12'55'43		
	15812 Dec 13 20:00	0° 			15815 Jun 25 10:39	0° 		
asc. node	15812 Dec 30 07:48	19°  12'37'57			15815 Jul 22 10:33	0° 		
	15813 Jan 07 22:56	0° 		evening max el	15815 Aug 03 00:43	11°  12'58'08	46°37'58	
	15813 Feb 01 17:08	0° 			15815 Aug 22 19:09	0° 		
	15813 Feb 26 06:13	0° 		greatest brilliancy	15815 Sep 11 17:22	12°  12'16'04	-4.9m	
	15813 Mar 22 16:30	0° 		retrograde	15815 Sep 22 04:39	14°  12'19'09		
morning set	15813 Apr 08 19:27	21°  12'05'04		evening set	15815 Oct 06 15:51	10°  12'13'51		
	15813 Apr 16 01:01	0° 		desc. node	15815 Oct 06 17:03	10°  12'12'15		
desc. node	15813 Apr 21 02:59	6°  12'16'16		inferior conj	15815 Oct 12 23:42	6°  12'32'53	-1°38'03	
	15813 May 10 07:40	0° 		minimum elong	15815 Oct 12 19:54	6°  12'38'40	1°36'24	
max. Earth dist.	15813 May 14 23:28	5°  12'46'05	1.72630 AU	min. Earth dist.	15815 Oct 12 16:36	6°  12'43'42	0.27022 AU	
				morning rise	15815 Oct 19 00:11	3°  12'01'43		
superior conj	15813 May 17 11:13	8°  12'51'10	-0°58'39		15815 Oct 26 01:04	30°  R 		
minimum elong	15813 May 17 00:20	8°  12'17'29	0°58'59	direct	15815 Nov 02 17:36	28°  12'49'01		
	15813 Jun 03 12:07	0°			15815 Nov 10 17:00	0°		
evening rise	15813 Jun 25 08:43	27°  12'51'56		greatest brilliancy	15815 Nov 12 12:42	0°  12'34'32	-4.8m	
	15813 Jun 27 14:40	0°		morning max el	15815 Dec 22 05:43	29°  12'46'58	46°14'47	

	15815 Dec 22 11:04	0°♊			15818 Aug 26 00:14	0°♎		
	15816 Jan 20 01:58	0°♋			15818 Sep 21 02:10	0°♏		
asc. node	15816 Jan 27 18:30	8°♋34'32		evening max el	15818 Oct 14 03:27	24°♏32'18	46°35'27	
	15816 Feb 15 11:41	0°♌			15818 Oct 19 17:30	0°♋		
	15816 Mar 11 22:19	0°♍		desc. node	15818 Nov 03 03:08	12°♋42'00		
	15816 Apr 05 20:52	0°♎		greatest brilliancy	15818 Nov 22 14:09	24°♋33'51	-4.8m	
	15816 Apr 30 12:12	0°♏		retrograde	15818 Dec 03 07:11	26°♋40'33		
desc. node	15816 May 18 16:02	22°♏17'03		evening set	15818 Dec 21 12:28	20°♋24'37		
	15816 May 24 22:17	0°♐		min. Earth dist.	15818 Dec 24 00:27	18°♋52'44	0.28336 AU	
	15816 Jun 18 03:49	0°♑		inferior conj	15818 Dec 24 14:11	18°♋31'28	-8°54'56	
morning set	15816 Jun 20 03:26	2°♑27'56		minimum elong	15818 Dec 24 11:29	18°♋35'39	8°54'01	
	15816 Jul 12 05:40	0°♒		morning rise	15818 Dec 27 10:39	16°♋46'38		
max. Earth dist.	15816 Jul 27 17:40	19°♒23'01	1.71695 AU	direct	15819 Jan 14 17:57	10°♋31'47		
				greatest brilliancy	15819 Jan 24 13:10	12°♋17'26	-4.8m	
superior conj	15816 Jul 29 19:11	21°♒57'57	-1°19'33		15819 Feb 20 21:47	0°♌		
minimum elong	15816 Jul 30 04:19	22°♒26'34	1°19'56	asc. node	15819 Feb 24 04:15	2°♌52'55		
	15816 Aug 05 05:11	0°♍		morning max el	15819 Mar 04 20:09	10°♌59'04	45°44'47	
	15816 Aug 29 03:56	0°♎			15819 Mar 23 09:17	0°♍		
evening rise	15816 Sep 07 21:21	12°♎10'41			15819 Apr 19 07:30	0°♎		
asc. node	15816 Sep 08 07:45	12°♎43'13			15819 May 14 22:56	0°♏		
	15816 Sep 22 03:15	0°♎			15819 Jun 08 22:18	0°♐		
	15816 Oct 16 04:24	0°♏		desc. node	15819 Jun 16 04:24	8°♐49'13		
	15816 Nov 09 09:28	0°♋			15819 Jul 03 11:22	0°♑		
	15816 Dec 03 21:50	0°♌			15819 Jul 27 17:25	0°♒		
	15816 Dec 28 22:30	0°♍			15819 Aug 20 19:09	0°♎		
desc. node	15816 Dec 29 00:05	0°♍04'40		morning set	15819 Sep 03 11:12	17°♎05'24		
	15817 Jan 23 18:43	0°♎			15819 Sep 13 18:46	0°♎		
	15817 Feb 20 01:44	0°♏		asc. node	15819 Oct 06 21:37	28°♎57'01		
evening max el	15817 Mar 07 19:15	15°♏57'18	45°59'52		15819 Oct 07 17:44	0°♎		
	15817 Mar 23 08:08	0°♐						
greatest brilliancy	15817 Apr 16 00:04	14°♐48'29	-4.8m	superior conj	15819 Oct 13 00:44	6°♎37'31	0°14'59	
asc. node	15817 Apr 20 21:41	16°♐10'03		minimum elong	15819 Oct 12 20:58	6°♎25'43	0°15'13	
retrograde	15817 Apr 26 01:11	16°♐40'45		behind sun begin	15819 Oct 12 12:26	5°♎59'00		
evening set	15817 May 11 15:05	11°♐55'36		behind sun end	15819 Oct 13 05:30	6°♎52'26		
inferior conj	15817 May 17 03:38	8°♐34'55	6°00'54	max. Earth dist.	15819 Oct 14 00:38	7°♎52'21	1.71677 AU	
minimum elong	15817 May 16 17:06	8°♐51'25	5°57'42		15819 Oct 31 17:03	0°♏		
min. Earth dist.	15817 May 17 01:25	8°♐38'23	0.28209 AU	evening rise	15819 Nov 20 12:13	24°♏43'21		
morning rise	15817 May 21 18:57	5°♐44'09			15819 Nov 24 17:52	0°♋		
direct	15817 Jun 07 06:31	0°♐25'15			15819 Dec 18 22:02	0°♌		
greatest brilliancy	15817 Jun 17 11:24	2°♐21'58	-4.8m		15820 Jan 12 07:45	0°♍		
	15817 Jul 24 18:14	0°♑		desc. node	15820 Jan 26 13:12	17°♍19'11		
morning max el	15817 Jul 27 10:30	2°♑38'51	46°43'36		15820 Feb 06 01:04	0°♎		
desc. node	15817 Aug 10 23:51	17°♑49'43			15820 Mar 02 03:38	0°♏		
	15817 Aug 22 00:52	0°♒			15820 Mar 27 18:35	0°♐		
	15817 Sep 17 00:19	0°♒			15820 Apr 23 07:25	0°♑		
	15817 Oct 12 02:32	0°♓		asc. node	15820 May 18 08:08	26°♑16'41		
	15817 Nov 05 19:05	0°♎		evening max el	15820 May 18 16:02	26°♑36'09	46°14'56	
	15817 Nov 30 06:28	0°♏			15820 May 22 04:03	0°♒		
asc. node	15817 Dec 01 22:00	2°♏01'34		greatest brilliancy	15820 Jun 27 19:21	26°♒20'40	-4.8m	
	15817 Dec 24 14:37	0°♋		retrograde	15820 Jul 07 06:04	28°♒00'22		
	15818 Jan 17 20:58	0°♌		evening set	15820 Jul 24 20:37	22°♒04'39		
morning set	15818 Jan 27 08:16	11°♌42'55		inferior conj	15820 Jul 27 23:14	20°♒10'11	8°26'44	
	15818 Feb 11 03:04	0°♍		minimum elong	15820 Jul 28 07:08	19°♒57'54	8°25'11	
				min. Earth dist.	15820 Jul 28 15:22	19°♒45'09	0.27501 AU	
superior conj	15818 Mar 05 08:32	27°♍27'15	0°42'34	morning rise	15820 Jul 31 17:34	17°♒52'03		
minimum elong	15818 Mar 05 17:03	27°♍53'32	0°42'19	direct	15820 Aug 17 21:51	12°♒11'25		
max. Earth dist.	15818 Mar 06 09:32	28°♍44'25	1.73101 AU	greatest brilliancy	15820 Aug 28 02:02	14°♒08'26	-4.9m	
	15818 Mar 07 10:02	0°♎		desc. node	15820 Sep 07 09:23	19°♒23'16		
desc. node	15818 Mar 23 14:59	19°♎59'03			15820 Sep 21 10:45	0°♎		
	15818 Mar 31 18:02	0°♏		morning max el	15820 Oct 07 08:25	14°♎53'28	46°53'11	
evening rise	15818 Apr 12 08:14	14°♏17'03			15820 Oct 21 20:41	0°♓		
	15818 Apr 25 02:22	0°♐			15820 Nov 17 16:53	0°♎		
	15818 May 19 10:29	0°♑			15820 Dec 13 08:47	0°♏		
	15818 Jun 12 18:54	0°♒		asc. node	15820 Dec 29 09:45	19°♏07'34		
	15818 Jul 07 05:28	0°♎			15821 Jan 07 10:41	0°♋		
asc. node	15818 Jul 14 06:11	8°♎35'20			15821 Feb 01 04:16	0°♌		
	15818 Jul 31 21:25	0°♓			15821 Feb 25 16:58	0°♍		





























































































































	15821 Mar 22 03:02	0°♄		retrograde	15823 Sep 19 17:50	11°♍55'50	
morning set	15821 Apr 06 11:17	18°♄53'45		evening set	15823 Oct 04 04:45	7°♍50'17	
	15821 Apr 15 11:27	0°♄		desc. node	15823 Oct 05 18:57	6°♍58'06	
desc. node	15821 Apr 20 04:45	5°♄49'28		inferior conj	15823 Oct 10 12:30	4°♍09'53	-1°14'04
	15821 May 09 18:07	0°♄		minimum elong	15823 Oct 10 09:37	4°♍14'16	1°12'44
max. Earth dist.	15821 May 12 13:09	3°♄27'30	1.72665 AU	min. Earth dist.	15823 Oct 10 06:43	4°♍18'39	0.27001 AU
				morning rise	15823 Oct 16 14:39	0°♍36'46	
superior conj	15821 May 15 01:35	6°♄34'38	-0°55'56		15823 Oct 17 18:57	30°♋♂	
minimum elong	15821 May 14 14:53	6°♄01'29	0°56'13	direct	15823 Oct 31 06:01	26°♂25'48	
	15821 Jun 02 22:38	0°♄		greatest brilliancy	15823 Nov 10 02:25	28°♂12'46	-4.8m
evening rise	15821 Jun 22 21:44	24°♄49'59			15823 Nov 14 11:06	0°♍	
	15821 Jun 27 01:17	0°♄		morning max el	15823 Dec 19 19:41	27°♍28'33	46°16'20
	15821 Jul 21 03:08	0°♄			15823 Dec 22 09:23	0°♄	
asc. node	15821 Aug 10 19:34	25°♄44'41			15824 Jan 19 17:36	0°♄	
	15821 Aug 14 05:47	0°♂		asc. node	15824 Jan 26 20:23	7°♄58'17	
	15821 Sep 07 11:12	0°♍			15824 Feb 15 00:48	0°♄	
	15821 Oct 01 22:15	0°♄			15824 Mar 11 10:13	0°♄	
	15821 Oct 26 20:22	0°♄			15824 Apr 05 08:05	0°♄	
	15821 Nov 21 16:36	0°♄			15824 Apr 29 23:02	0°♄	
desc. node	15821 Nov 30 14:02	9°♄54'55		desc. node	15824 May 17 18:01	21°♄50'20	
	15821 Dec 19 14:10	0°♄			15824 May 24 08:55	0°♄	
evening max el	15821 Dec 24 13:43	4°♄56'05	46°11'52	morning set	15824 Jun 17 16:09	0°♄05'35	
	15822 Jan 24 16:24	0°♄			15824 Jun 17 14:21	0°♄	
greatest brilliancy	15822 Feb 01 21:12	3°♄47'06	-4.8m		15824 Jul 11 16:10	0°♄	
retrograde	15822 Feb 11 20:22	5°♄35'48		max. Earth dist.	15824 Jul 25 06:16	16°♄59'17	1.71721 AU
evening set	15822 Feb 27 21:27	0°♄39'57					
	15822 Mar 01 00:58	30°♋♄		superior conj	15824 Jul 27 07:32	19°♄33'24	-1°21'07
inferior conj	15822 Mar 05 06:10	27°♄24'10	-4°20'39	minimum elong	15824 Jul 27 15:59	19°♄59'52	1°21'32
minimum elong	15822 Mar 05 14:56	27°♄10'23	4°18'10		15824 Aug 04 15:43	0°♄	
min. Earth dist.	15822 Mar 05 12:12	27°♄14'41	0.28555 AU		15824 Aug 28 14:33	0°♂	
morning rise	15822 Mar 11 08:19	23°♄43'42		evening rise	15824 Sep 05 09:37	9°♂45'37	
asc. node	15822 Mar 23 13:42	19°♄24'56		asc. node	15824 Sep 07 09:30	12°♂15'24	
direct	15822 Mar 26 12:39	19°♄14'32			15824 Sep 21 13:57	0°♍	
greatest brilliancy	15822 Apr 06 06:31	21°♄20'54	-4.8m		15824 Oct 15 15:14	0°♄	
	15822 Apr 21 13:42	0°♄			15824 Nov 08 20:33	0°♄	
morning max el	15822 May 14 19:03	20°♄10'12	46°00'29		15824 Dec 03 09:23	0°♄	
	15822 May 24 12:18	0°♄		desc. node	15824 Dec 28 02:00	29°♄33'44	
	15822 Jun 20 21:22	0°♄			15824 Dec 28 10:54	0°♄	
desc. node	15822 Jul 13 15:36	26°♄30'17			15825 Jan 23 08:46	0°♄	
	15822 Jul 16 14:12	0°♄			15825 Feb 19 19:35	0°♄	
	15822 Aug 10 11:35	0°♄		evening max el	15825 Mar 05 11:11	13°♄46'13	45°59'57
	15822 Sep 03 22:29	0°♄			15825 Mar 23 17:23	0°♄	
	15822 Sep 28 04:03	0°♂		greatest brilliancy	15825 Apr 13 13:54	12°♄32'59	-4.8m
	15822 Oct 22 07:09	0°♍		asc. node	15825 Apr 19 23:42	14°♄10'06	
asc. node	15822 Nov 03 11:09	15°♍08'55		retrograde	15825 Apr 23 16:37	14°♄26'07	
	15822 Nov 15 09:12	0°♄		evening set	15825 May 09 03:25	9°♄44'38	
morning set	15822 Nov 15 13:50	0°♄14'25		inferior conj	15825 May 14 18:40	6°♄19'51	5°44'11
	15822 Dec 09 11:03	0°♄		minimum elong	15825 May 14 08:19	6°♄36'05	5°40'57
				min. Earth dist.	15825 May 14 15:52	6°♄24'14	0.28216 AU
superior conj	15822 Dec 23 13:40	17°♄33'49	1°25'50	morning rise	15825 May 19 13:07	3°♄24'43	
minimum elong	15822 Dec 23 10:29	17°♄23'55	1°26'36		15825 May 26 11:20	30°♋♄	
max. Earth dist.	15822 Dec 25 21:36	20°♄27'43	1.72455 AU	direct	15825 Jun 04 22:12	28°♄10'20	
	15823 Jan 02 13:51	0°♄			15825 Jun 14 18:53	0°♄	
	15823 Jan 26 19:06	0°♄		greatest brilliancy	15825 Jun 15 02:12	0°♄06'34	-4.8m
evening rise	15823 Jan 29 22:43	3°♄53'19			15825 Jul 24 16:25	0°♄	
	15823 Feb 20 03:58	0°♄		morning max el	15825 Jul 25 01:57	0°♄23'46	46°42'19
desc. node	15823 Feb 23 02:48	3°♄37'09		desc. node	15825 Aug 10 01:46	17°♄07'27	
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asc. node	15823 Jun 15 19:30	19°♄20'55			15825 Nov 29 17:36	0°♄	
	15823 Jun 25 01:21	0°♄		asc. node	15825 Nov 30 23:58	1°♄33'28	
	15823 Jul 22 05:40	0°♂			15825 Dec 24 01:24	0°♄	
evening max el	15823 Jul 31 13:28	9°♂34'05	46°37'30		15826 Jan 17 07:33	0°♄	
	15823 Aug 23 09:56	0°♍		morning set	15826 Jan 25 00:44	9°♄32'50	
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



































































































































superior conj	15826 Mar 03 00:29	25° $\text{H}$ 16'04	0°45'32	morning rise	15828 Jul 29 03:03	15° $\Omega$ 36'07	
minimum elong	15826 Mar 03 09:23	25° $\text{H}$ 43'32	0°45'17	direct	15828 Aug 15 11:08	9° $\Omega$ 48'54	
max. Earth dist.	15826 Mar 04 05:48	26° $\text{H}$ 46'31	1.73094 AU	greatest brilliancy	15828 Aug 25 16:06	11° $\Omega$ 46'09	-4.9m
	15826 Mar 06 20:30	0° $\text{Y}$		desc. node	15828 Sep 06 11:17	17° $\Omega$ 59'07	
desc. node	15826 Mar 22 16:48	19° $\text{Y}$ 32'19			15828 Sep 21 17:40	0° $\text{M}$	
	15826 Mar 31 04:34	0° $\text{B}$		morning max el	15828 Oct 04 21:14	12° $\text{M}$ 29'06	46°53'55
evening rise	15826 Apr 09 23:47	12° $\text{B}$ 04'28			15828 Oct 21 14:45	0° $\Omega$	
	15826 Apr 24 13:02	0° $\text{II}$			15828 Nov 17 07:20	0° $\text{M}$	
	15826 May 18 21:21	0° $\text{E}$			15828 Dec 12 21:35	0° $\text{A}$	
	15826 Jun 12 06:04	0° $\Omega$		asc. node	15828 Dec 28 11:34	18° $\text{A}$ 36'30	
	15826 Jul 06 17:06	0° $\text{M}$			15829 Jan 06 22:34	0° $\text{B}$	
asc. node	15826 Jul 13 08:00	8° $\text{M}$ 04'51			15829 Jan 31 15:36	0° $\approx$	
	15826 Jul 31 09:49	0° $\Omega$			15829 Feb 25 03:57	0° $\text{H}$	
	15826 Aug 25 13:58	0° $\text{M}$			15829 Mar 21 13:48	0° $\text{Y}$	
	15826 Sep 20 18:40	0° $\text{A}$		morning set	15829 Apr 04 02:55	16° $\text{Y}$ 40'58	
evening max el	15826 Oct 11 18:57	22° $\text{A}$ 16'15	46°35'55		15829 Apr 14 22:08	0° $\text{B}$	
	15826 Oct 19 18:32	0° $\text{B}$		desc. node	15829 Apr 19 06:38	5° $\text{B}$ 22'20	
desc. node	15826 Nov 02 05:10	11° $\text{B}$ 33'41			15829 May 09 04:48	0° $\text{II}$	
greatest brilliancy	15826 Nov 20 04:27	22° $\text{B}$ 16'56	-4.8m	max. Earth dist.	15829 May 10 04:45	1° $\text{II}$ 14'07	1.72700 AU
retrograde	15826 Nov 30 22:20	24° $\text{B}$ 23'59					
evening set	15826 Dec 19 00:50	18° $\text{B}$ 12'14		superior conj	15829 May 12 15:47	4° $\text{II}$ 16'50	-0°53'05
min. Earth dist.	15826 Dec 21 13:57	16° $\text{B}$ 38'32	0.28296 AU	minimum elong	15829 May 12 05:18	3° $\text{II}$ 44'24	0°53'22
inferior conj	15826 Dec 22 04:47	16° $\text{B}$ 15'34	-8°52'04		15829 Jun 02 09:25	0° $\text{E}$	
minimum elong	15826 Dec 22 01:14	16° $\text{B}$ 21'03	8°51'05	evening rise	15829 Jun 20 10:48	22° $\text{E}$ 27'28	
morning rise	15826 Dec 25 01:50	14° $\text{B}$ 29'50			15829 Jun 26 12:10	0° $\Omega$	
direct	15827 Jan 12 08:47	8° $\text{B}$ 16'52			15829 Jul 20 14:10	0° $\text{M}$	
greatest brilliancy	15827 Jan 22 01:51	10° $\text{B}$ 00'42	-4.8m	asc. node	15829 Aug 09 21:21	25° $\text{M}$ 15'20	
	15827 Feb 21 01:52	0° $\approx$			15829 Aug 13 17:02	0° $\Omega$	
asc. node	15827 Feb 23 06:09	1° $\approx$ 57'49			15829 Sep 06 22:47	0° $\text{M}$	
morning max el	15827 Mar 02 10:18	8° $\approx$ 43'07	45°44'59		15829 Oct 01 10:23	0° $\text{A}$	
	15827 Mar 23 02:12	0° $\text{H}$			15829 Oct 26 09:28	0° $\text{B}$	
	15827 Apr 18 21:15	0° $\text{Y}$			15829 Nov 21 07:44	0° $\approx$	
	15827 May 14 11:16	0° $\text{B}$		desc. node	15829 Nov 29 15:55	9° $\approx$ 15'24	
	15827 Jun 08 09:53	0° $\text{II}$			15829 Dec 19 10:49	0° $\text{H}$	
desc. node	15827 Jun 15 06:15	8° $\text{II}$ 19'57		evening max el	15829 Dec 22 03:28	2° $\text{H}$ 39'00	46°12'34
	15827 Jul 02 22:31	0° $\text{E}$			15830 Jan 26 15:08	0° $\text{Y}$	
	15827 Jul 27 04:20	0° $\Omega$		greatest brilliancy	15830 Jan 30 12:52	1° $\text{Y}$ 35'03	-4.8m
	15827 Aug 20 05:55	0° $\text{M}$		retrograde	15830 Feb 09 11:42	3° $\text{Y}$ 23'53	
morning set	15827 Sep 01 00:07	14° $\text{M}$ 42'16			15830 Feb 22 15:49	30° $\text{R}$ $\text{H}$	
	15827 Sep 13 05:26	0° $\Omega$		evening set	15830 Feb 25 15:39	28° $\text{H}$ 23'51	
asc. node	15827 Oct 05 23:30	28° $\Omega$ 29'42		inferior conj	15830 Mar 02 21:52	25° $\text{H}$ 11'58	-4°38'52
	15827 Oct 07 04:21	0° $\text{M}$		minimum elong	15830 Mar 03 07:04	24° $\text{H}$ 57'32	4°36'17
				min. Earth dist.	15830 Mar 03 04:13	25° $\text{H}$ 02'01	0.28572 AU
superior conj	15827 Oct 10 14:03	4° $\text{M}$ 15'42	0°11'17	morning rise	15830 Mar 08 22:19	21° $\text{H}$ 33'58	
minimum elong	15827 Oct 10 11:10	4° $\text{M}$ 06'41	0°11'33	asc. node	15830 Mar 22 15:45	17° $\text{H}$ 04'48	
behind sun begin	15827 Oct 09 17:34	3° $\text{M}$ 11'35		direct	15830 Mar 24 03:52	17° $\text{H}$ 02'07	
behind sun end	15827 Oct 11 04:46	5° $\text{M}$ 01'47		greatest brilliancy	15830 Apr 03 22:55	19° $\text{H}$ 09'23	-4.8m
max. Earth dist.	15827 Oct 11 12:50	5° $\text{M}$ 27'03	1.71660 AU		15830 Apr 22 04:37	0° $\text{Y}$	
	15827 Oct 31 03:40	0° $\text{A}$		morning max el	15830 May 12 10:09	17° $\text{Y}$ 55'34	45°59'18
evening rise	15827 Nov 18 03:10	22° $\text{A}$ 27'02			15830 May 24 07:03	0° $\text{B}$	
	15827 Nov 24 04:33	0° $\text{B}$			15830 Jun 20 11:59	0° $\text{II}$	
	15827 Dec 18 08:51	0° $\approx$		desc. node	15830 Jul 12 17:26	25° $\text{II}$ 56'49	
	15828 Jan 11 18:50	0° $\text{H}$			15830 Jul 16 03:10	0° $\text{E}$	
desc. node	15828 Jan 25 14:55	16° $\text{H}$ 50'07			15830 Aug 09 23:42	0° $\Omega$	
	15828 Feb 05 12:35	0° $\text{Y}$			15830 Sep 03 10:05	0° $\text{M}$	
	15828 Mar 01 15:56	0° $\text{B}$			15830 Sep 27 15:19	0° $\Omega$	
	15828 Mar 27 08:15	0° $\text{II}$			15830 Oct 21 18:11	0° $\text{M}$	
	15828 Apr 22 23:55	0° $\text{E}$		asc. node	15830 Nov 02 13:03	14° $\text{M}$ 40'49	
evening max el	15828 May 16 05:02	24° $\text{E}$ 14'20	46°14'01	morning set	15830 Nov 13 04:11	27° $\text{M}$ 55'45	
asc. node	15828 May 17 10:07	25° $\text{E}$ 25'32			15830 Nov 14 20:03	0° $\text{A}$	
	15828 May 22 04:54	0° $\Omega$			15830 Dec 08 21:45	0° $\text{B}$	
greatest brilliancy	15828 Jun 25 09:32	24° $\Omega$ 00'10	-4.8m				
retrograde	15828 Jul 04 18:48	25° $\Omega$ 38'54		superior conj	15830 Dec 21 05:49	15° $\text{B}$ 21'36	1°25'13
evening set	15828 Jul 22 12:56	19° $\Omega$ 38'53		minimum elong	15830 Dec 21 01:51	15° $\text{B}$ 09'15	1°26'00
inferior conj	15828 Jul 25 12:51	17° $\Omega$ 48'23	8°35'04	max. Earth dist.	15830 Dec 23 12:00	18° $\text{B}$ 10'06	1.72426 AU
minimum elong	15828 Jul 25 20:04	17° $\Omega$ 37'11	8°33'40		15831 Jan 02 00:30	0° $\approx$	
min. Earth dist.	15828 Jul 26 04:59	17° $\Omega$ 23'18	0.27535 AU		15831 Jan 26 05:49	0° $\text{H}$	

evening rise	15831 Jan 27 14:47	1° $\text{H}$ 41'43		morning max el	15833 Jul 22 16:55	28° $\text{II}$ 06'13	46°40'56
	15831 Feb 19 14:51	0° $\text{Y}$			15833 Jul 24 14:15	0° $\text{G}$	
desc. node	15831 Feb 22 04:39	3° $\text{Y}$ 09'25		desc. node	15833 Aug 09 03:43	16° $\text{G}$ 24'32	
	15831 Mar 16 03:47	0° $\text{B}$			15833 Aug 21 08:26	0° $\text{Q}$	
	15831 Apr 09 20:18	0° $\text{II}$			15833 Sep 16 03:26	0° $\text{M}$	
	15831 May 04 16:56	0° $\text{G}$			15833 Oct 11 03:25	0° $\text{Q}$	
	15831 May 29 20:57	0° $\text{Q}$			15833 Nov 04 18:35	0° $\text{M}$	
asc. node	15831 Jun 14 21:19	18° $\text{Q}$ 44'19		asc. node	15833 Nov 29 05:01	0° $\text{X}$	
	15831 Jun 24 16:42	0° $\text{M}$			15833 Nov 30 01:41	1° $\text{X}$ 03'37	
	15831 Jul 22 01:50	0° $\text{Q}$			15833 Dec 23 12:30	0° $\text{Z}$	
evening max el	15831 Jul 29 03:02	7° $\text{Q}$ 11'03	46°37'03		15834 Jan 16 18:25	0° $\approx$	
	15831 Aug 24 06:36	0° $\text{M}$		morning set	15834 Jan 22 17:31	7° $\approx$ 22'46	
greatest brilliancy	15831 Sep 06 21:02	7° $\text{M}$ 28'32	-4.9m		15834 Feb 10 00:17	0° $\text{H}$	
retrograde	15831 Sep 17 07:33	9° $\text{M}$ 31'10					
evening set	15831 Oct 01 17:53	5° $\text{M}$ 25'12		superior conj	15834 Feb 28 16:56	23° $\text{H}$ 05'41	0°48'23
desc. node	15831 Oct 04 21:03	3° $\text{M}$ 39'46		minimum elong	15834 Mar 01 02:09	23° $\text{H}$ 34'08	0°48'10
inferior conj	15831 Oct 08 01:14	1° $\text{M}$ 45'27	-0°49'50	max. Earth dist.	15834 Mar 02 01:47	24° $\text{H}$ 47'03	1.73082 AU
minimum elong	15831 Oct 07 23:17	1° $\text{M}$ 48'24	0°48'51		15834 Mar 06 07:13	0° $\text{Y}$	
min. Earth dist.	15831 Oct 07 20:34	1° $\text{M}$ 52'31	0.26979 AU	desc. node	15834 Mar 21 18:42	19° $\text{Y}$ 05'10	
	15831 Oct 10 23:24	30° $\text{R}$ $\text{Q}$			15834 Mar 30 15:20	0° $\text{B}$	
morning rise	15831 Oct 14 04:54	28° $\text{Q}$ 10'45		evening rise	15834 Apr 07 15:43	9° $\text{B}$ 52'24	
direct	15831 Oct 28 18:51	24° $\text{Q}$ 01'17			15834 Apr 23 23:57	0° $\text{II}$	
greatest brilliancy	15831 Nov 07 15:32	25° $\text{Q}$ 49'04	-4.8m		15834 May 18 08:30	0° $\text{G}$	
	15831 Nov 16 13:00	0° $\text{M}$			15834 Jun 11 17:35	0° $\text{Q}$	
morning max el	15831 Dec 17 10:23	25° $\text{M}$ 10'58	46°18'03		15834 Jul 06 05:10	0° $\text{M}$	
	15831 Dec 22 07:09	0° $\text{X}$		asc. node	15834 Jul 12 09:48	7° $\text{M}$ 33'09	
	15832 Jan 19 09:14	0° $\text{Z}$			15834 Jul 30 22:40	0° $\text{Q}$	
asc. node	15832 Jan 25 22:17	7° $\text{Z}$ 21'37			15834 Aug 25 04:13	0° $\text{M}$	
	15832 Feb 14 14:05	0° $\approx$			15834 Sep 20 11:54	0° $\text{X}$	
	15832 Mar 10 22:21	0° $\text{H}$		evening max el	15834 Oct 09 09:39	19° $\text{X}$ 57'02	46°36'23
	15832 Apr 04 19:37	0° $\text{Y}$			15834 Oct 19 21:24	0° $\text{Z}$	
	15832 Apr 29 10:16	0° $\text{B}$		desc. node	15834 Nov 01 07:03	10° $\text{Z}$ 22'08	
desc. node	15832 May 16 19:51	21° $\text{B}$ 21'57		greatest brilliancy	15834 Nov 17 19:21	19° $\text{Z}$ 59'38	-4.8m
	15832 May 23 19:57	0° $\text{II}$		retrograde	15834 Nov 28 12:58	22° $\text{Z}$ 06'22	
morning set	15832 Jun 15 04:47	27° $\text{II}$ 41'48		evening set	15834 Dec 16 12:48	15° $\text{Z}$ 59'30	
	15832 Jun 17 01:17	0° $\text{G}$		min. Earth dist.	15834 Dec 19 03:51	14° $\text{Z}$ 22'52	0.28252 AU
	15832 Jul 11 03:04	0° $\text{Q}$		inferior conj	15834 Dec 19 19:21	13° $\text{Z}$ 58'49	-8°48'23
max. Earth dist.	15832 Jul 22 19:08	14° $\text{Q}$ 35'12	1.71744 AU	minimum elong	15834 Dec 19 14:57	14° $\text{Z}$ 05'38	8°47'18
				morning rise	15834 Dec 22 17:18	12° $\text{Z}$ 11'36	
superior conj	15832 Jul 24 19:43	17° $\text{Q}$ 07'12	-1°22'30	direct	15835 Jan 09 23:04	6° $\text{Z}$ 01'02	
minimum elong	15832 Jul 25 03:25	17° $\text{Q}$ 31'16	1°22'59	greatest brilliancy	15835 Jan 19 14:59	7° $\text{Z}$ 43'30	-4.8m
	15832 Aug 04 02:39	0° $\text{M}$			15835 Feb 21 04:33	0° $\approx$	
	15832 Aug 28 01:32	0° $\text{Q}$		asc. node	15835 Feb 22 08:08	1° $\approx$ 03'26	
evening rise	15832 Sep 02 21:45	7° $\text{Q}$ 18'56		morning max el	15835 Feb 27 23:47	6° $\approx$ 24'54	45°45'27
asc. node	15832 Sep 06 11:23	11° $\text{Q}$ 46'52			15835 Mar 22 18:56	0° $\text{H}$	
	15832 Sep 21 01:03	0° $\text{M}$			15835 Apr 18 10:58	0° $\text{Y}$	
	15832 Oct 15 02:29	0° $\text{X}$			15835 May 13 23:38	0° $\text{B}$	
	15832 Nov 08 08:02	0° $\text{Z}$			15835 May 07 21:33	0° $\text{II}$	
	15832 Dec 02 21:20	0° $\approx$		desc. node	15835 Jun 14 08:02	7° $\text{II}$ 50'10	
desc. node	15832 Dec 27 03:49	29° $\approx$ 01'25			15835 Jul 02 09:50	0° $\text{G}$	
	15832 Dec 27 23:42	0° $\text{H}$			15835 Jul 26 15:27	0° $\text{Q}$	
	15833 Jan 22 23:15	0° $\text{Y}$			15835 Aug 19 16:55	0° $\text{M}$	
	15833 Feb 19 14:09	0° $\text{B}$		morning set	15835 Aug 29 12:35	12° $\text{M}$ 16'50	
evening max el	15833 Mar 03 03:24	11° $\text{B}$ 35'10	45°59'52		15835 Sep 12 16:21	0° $\text{Q}$	
	15833 Mar 24 06:21	0° $\text{II}$		asc. node	15835 Oct 05 01:20	28° $\text{Q}$ 01'31	
greatest brilliancy	15833 Apr 11 04:18	10° $\text{II}$ 17'26	-4.8m		15835 Oct 06 15:12	0° $\text{M}$	
asc. node	15833 Apr 19 01:40	12° $\text{II}$ 04'41					
retrograde	15833 Apr 21 07:48	12° $\text{II}$ 10'38		superior conj	15835 Oct 08 02:56	1° $\text{M}$ 51'52	0°07'33
evening set	15833 May 06 16:05	7° $\text{II}$ 32'48		minimum elong	15835 Oct 08 00:58	1° $\text{M}$ 45'43	0°07'48
inferior conj	15833 May 12 09:49	4° $\text{II}$ 04'07	5°26'53	behind sun begin	15835 Oct 07 02:58	0° $\text{M}$ 36'51	
minimum elong	15833 May 11 23:43	4° $\text{II}$ 20'00	5°23'40	behind sun end	15835 Oct 08 22:58	2° $\text{M}$ 54'35	
min. Earth dist.	15833 May 12 06:44	4° $\text{II}$ 08'59	0.28227 AU	max. Earth dist.	15835 Oct 08 22:04	2° $\text{M}$ 51'46	1.71642 AU
morning rise	15833 May 17 07:18	1° $\text{II}$ 04'28			15835 Oct 30 14:29	0° $\text{X}$	
	15833 May 19 05:28	30° $\text{R}$ $\text{B}$		evening rise	15835 Nov 15 17:49	20° $\text{X}$ 09'12	
direct	15833 Jun 02 14:00	25° $\text{B}$ 54'46			15835 Nov 23 15:25	0° $\text{Z}$	
greatest brilliancy	15833 Jun 12 17:16	27° $\text{B}$ 50'20	-4.8m		15835 Dec 17 19:51	0° $\approx$	
	15833 Jun 17 16:26	0° $\text{II}$			15836 Jan 11 06:05	0° $\text{H}$	

desc. node	15836 Jan 24 16:49	16° $\text{H}$ 21'10		15838 Aug 09 11:26	0° $\Omega$	
	15836 Feb 05 00:15	0° $\Upsilon$		15838 Sep 02 21:21	0° $\text{M}$	
	15836 Mar 01 04:21	0° $\text{B}$		15838 Sep 27 02:17	0° $\underline{\text{B}}$	
	15836 Mar 26 22:04	0° $\text{II}$		15838 Oct 21 04:59	0° $\text{M}$	
	15836 Apr 22 16:42	0° $\text{B}$		15838 Nov 01 14:47	14° $\text{M}$ 12'51	
evening max el	15836 May 13 17:39	21° $\text{B}$ 51'58	46°13'11	15838 Nov 10 18:11	25° $\text{M}$ 36'32	
asc. node	15836 May 16 11:57	24° $\text{B}$ 33'15		15838 Nov 14 06:42	0° $\text{X}$	
	15836 May 22 07:01	0° $\Omega$		15838 Dec 08 08:19	0° $\text{B}$	
greatest brilliancy	15836 Jun 22 23:20	21° $\Omega$ 39'36	-4.8m			
retrograde	15836 Jul 02 07:46	23° $\Omega$ 18'05		superior conj	15838 Dec 18 21:26	13° $\text{B}$ 08'05 1°24'28
evening set	15836 Jul 20 05:02	17° $\Omega$ 13'47		minimum elong	15838 Dec 18 16:42	12° $\text{B}$ 53'24 1°25'14
inferior conj	15836 Jul 23 02:36	15° $\Omega$ 26'52	8°42'14	max. Earth dist.	15838 Dec 21 02:48	15° $\text{B}$ 54'09 1.72397 AU
minimum elong	15836 Jul 23 09:03	15° $\Omega$ 16'51	8°41'00		15839 Jan 01 11:01	0° $\approx$
min. Earth dist.	15836 Jul 23 18:38	15° $\Omega$ 01'57	0.27577 AU	evening rise	15839 Jan 25 06:25	29° $\approx$ 29'16
morning rise	15836 Jul 26 12:55	13° $\Omega$ 20'19			15839 Jan 25 16:22	0° $\text{H}$
direct	15836 Aug 13 00:30	7° $\Omega$ 26'23			15839 Feb 19 01:33	0° $\Upsilon$
greatest brilliancy	15836 Aug 23 06:35	9° $\Omega$ 24'24	-4.9m	desc. node	15839 Feb 21 06:32	2° $\Upsilon$ 42'22
desc. node	15836 Sep 05 13:21	16° $\Omega$ 37'45			15839 Mar 15 14:45	0° $\text{B}$
	15836 Sep 21 22:38	0° $\text{M}$			15839 Apr 09 07:40	0° $\text{II}$
morning max el	15836 Oct 02 10:58	10° $\text{M}$ 06'28	46°54'28		15839 May 04 04:56	0° $\text{B}$
	15836 Oct 21 08:34	0° $\underline{\text{B}}$			15839 May 29 10:02	0° $\Omega$
	15836 Nov 16 21:47	0° $\text{M}$		asc. node	15839 Jun 13 23:14	18° $\Omega$ 08'47
	15836 Dec 12 10:24	0° $\text{X}$			15839 Jun 24 07:51	0° $\text{M}$
asc. node	15836 Dec 27 13:28	18° $\text{X}$ 05'35			15839 Jul 21 22:08	0° $\underline{\text{B}}$
	15837 Jan 06 10:27	0° $\text{B}$		evening max el	15839 Jul 26 17:36	4° $\underline{\text{B}}$ 52'08 46°36'40
	15837 Jan 31 02:54	0° $\approx$			15839 Aug 25 09:49	0° $\text{M}$
	15837 Feb 24 14:54	0° $\text{H}$		greatest brilliancy	15839 Sep 04 10:40	5° $\text{M}$ 05'50 -4.9m
	15837 Mar 21 00:33	0° $\Upsilon$		retrograde	15839 Sep 14 21:25	7° $\text{M}$ 08'09
morning set	15837 Apr 01 18:49	14° $\Upsilon$ 29'08		evening set	15839 Sep 29 07:25	3° $\text{M}$ 01'43
	15837 Apr 14 08:46	0° $\text{B}$		desc. node	15839 Oct 03 22:53	0° $\text{M}$ 21'59
desc. node	15837 Apr 18 08:27	4° $\text{B}$ 55'09			15839 Oct 04 13:27	30° $\text{R}$ $\underline{\text{B}}$
max. Earth dist.	15837 May 07 22:38	29° $\text{B}$ 08'04	1.72729 AU	inferior conj	15839 Oct 05 14:05	29° $\underline{\text{B}}$ 22'39 -0°25'42
	15837 May 08 15:25	0° $\text{II}$		minimum elong	15839 Oct 05 13:05	29° $\underline{\text{B}}$ 24'10 0°25'02
				min. Earth dist.	15839 Oct 05 10:22	29° $\underline{\text{B}}$ 28'18 0.26964 AU
superior conj	15837 May 10 06:20	2° $\text{II}$ 00'28	-0°50'11	morning rise	15839 Oct 11 19:02	25° $\underline{\text{B}}$ 46'29
minimum elong	15837 May 09 20:10	1° $\text{II}$ 28'59	0°50'27	direct	15839 Oct 26 08:15	21° $\underline{\text{B}}$ 38'32
	15837 Jun 01 20:04	0° $\text{B}$		greatest brilliancy	15839 Nov 05 04:26	23° $\underline{\text{B}}$ 26'23 -4.8m
evening rise	15837 Jun 18 00:23	20° $\text{B}$ 07'07			15839 Nov 17 21:35	0° $\text{M}$
	15837 Jun 25 22:55	0° $\Omega$		morning max el	15839 Dec 15 01:00	22° $\text{M}$ 54'07 46°19'25
	15837 Jul 20 01:05	0° $\text{M}$			15839 Dec 22 03:47	0° $\text{X}$
asc. node	15837 Aug 08 23:18	24° $\text{M}$ 46'47			15840 Jan 19 00:22	0° $\text{B}$
	15837 Aug 13 04:13	0° $\underline{\text{B}}$		asc. node	15840 Jan 25 00:17	6° $\text{B}$ 46'13
	15837 Sep 06 10:22	0° $\text{M}$			15840 Feb 14 03:01	0° $\approx$
	15837 Sep 30 22:35	0° $\text{X}$			15840 Mar 10 10:10	0° $\text{H}$
	15837 Oct 25 22:43	0° $\text{B}$			15840 Apr 04 06:49	0° $\Upsilon$
	15837 Nov 20 23:08	0° $\approx$			15840 Apr 28 21:06	0° $\text{B}$
desc. node	15837 Nov 28 17:47	8° $\approx$ 35'21		desc. node	15840 May 15 21:34	20° $\text{B}$ 54'21
	15837 Dec 19 08:14	0° $\text{H}$			15840 May 23 06:35	0° $\text{II}$
evening max el	15837 Dec 19 17:49	0° $\text{H}$ 23'22	46°13'30	morning set	15840 Jun 12 17:24	25° $\text{II}$ 19'12
greatest brilliancy	15838 Jan 28 03:49	29° $\text{H}$ 22'17	-4.8m		15840 Jun 16 11:50	0° $\text{B}$
	15838 Jan 30 02:58	0° $\Upsilon$			15840 Jul 10 13:35	0° $\Omega$
retrograde	15838 Feb 07 03:27	1° $\Upsilon$ 11'56		max. Earth dist.	15840 Jul 20 05:52	12° $\Omega$ 05'45 1.71763 AU
	15838 Feb 14 21:04	30° $\text{R}$ $\text{H}$				
evening set	15838 Feb 23 09:48	26° $\text{H}$ 07'32		superior conj	15840 Jul 22 08:07	14° $\Omega$ 42'53 -1°23'44
inferior conj	15838 Feb 28 13:24	22° $\text{H}$ 59'39	-4°56'40	minimum elong	15840 Jul 22 15:00	15° $\Omega$ 04'27 1°24'17
minimum elong	15838 Feb 28 22:59	22° $\text{H}$ 44'40	4°54'02		15840 Aug 03 13:10	0° $\text{M}$
min. Earth dist.	15838 Feb 28 19:44	22° $\text{H}$ 49'45	0.28585 AU		15840 Aug 27 12:05	0° $\underline{\text{B}}$
morning rise	15838 Mar 06 12:01	19° $\text{H}$ 24'35		evening rise	15840 Aug 31 10:05	4° $\underline{\text{B}}$ 54'14
direct	15838 Mar 21 19:18	14° $\text{H}$ 49'41		asc. node	15840 Sep 05 13:11	11° $\underline{\text{B}}$ 19'28
asc. node	15838 Mar 21 17:44	14° $\text{H}$ 49'41			15840 Sep 20 11:40	0° $\text{M}$
greatest brilliancy	15838 Apr 01 14:46	16° $\text{H}$ 57'32	-4.8m		15840 Oct 14 13:15	0° $\text{X}$
	15838 Apr 22 15:30	0° $\Upsilon$			15840 Nov 07 19:05	0° $\text{B}$
morning max el	15838 May 10 02:11	15° $\Upsilon$ 43'53	45°58'17		15840 Dec 02 08:54	0° $\approx$
	15838 May 24 01:04	0° $\text{B}$		desc. node	15840 Dec 26 05:42	28° $\approx$ 30'16
	15838 Jun 20 02:11	0° $\text{II}$			15840 Dec 27 12:12	0° $\text{H}$
desc. node	15838 Jul 11 19:24	25° $\text{II}$ 24'52			15841 Jan 22 13:35	0° $\Upsilon$
	15838 Jul 15 15:45	0° $\text{B}$			15841 Feb 19 08:54	0° $\text{B}$
































































































































evening max el	15841 Feb 28 19:07	9°  23'42	45°59'50			15843 Sep 12 02:55	0° 	
	15841 Mar 24 23:19	0° 		asc. node		15843 Oct 04 03:04	27°  33'57	
greatest brilliancy	15841 Apr 08 19:15	8°  03'20	-4.8m					
asc. node	15841 Apr 18 03:30	9°  55'12		superior conj		15843 Oct 05 15:50	29°  29'02	0°03'48
retrograde	15841 Apr 18 22:19	9°  55'55		minimum elong		15843 Oct 05 14:48	29°  25'48	0°04'03
evening set	15841 May 04 04:50	5°  21'37		behind sun begin		15843 Oct 04 14:33	28°  09'54	
inferior conj	15841 May 10 00:54	1°  49'25	5°09'11	behind sun end		15843 Oct 06 15:02	0°  11'42	
minimum elong	15841 May 09 15:06	2°  04'51	5°05'59	max. Earth dist.		15843 Oct 06 05:45	0°  12'40	1.71625 AU
min. Earth dist.	15841 May 09 21:53	1°  54'10	0.28234 AU			15843 Oct 06 01:43	0° 	
	15841 May 12 23:06	30°  R 				15843 Oct 30 01:00	0°  7	
morning rise	15841 May 15 01:16	28°  45'16		evening rise		15843 Nov 13 08:36	17°  75'25'1	
direct	15841 May 31 05:21	23°  40'12				15843 Nov 23 01:58	0°  3	
greatest brilliancy	15841 Jun 10 08:44	25°  35'34	-4.8m			15843 Dec 17 06:30	0°  ≈	
	15841 Jun 19 09:32	0°  II				15844 Jan 10 16:58	0°  H	
morning max el	15841 Jul 20 06:52	25°  47'25	46°39'35	desc. node		15844 Jan 23 18:43	15°  H53'15	
	15841 Jul 24 10:49	0°  ☿				15844 Feb 04 11:37	0°  Y	
desc. node	15841 Aug 08 05:41	15°  ☿43'29				15844 Feb 29 16:34	0°  B	
	15841 Aug 20 23:37	0°  Ω				15844 Mar 26 11:49	0°  II	
	15841 Sep 15 16:32	0°  ♍				15844 Apr 22 09:41	0°  ☿	
	15841 Oct 10 15:26	0°  ♌		evening max el		15844 May 11 06:36	19°  ☿30'55	46°12'24
	15841 Nov 04 05:55	0°  ♍		asc. node		15844 May 15 13:55	23°  ☿40'36	
	15841 Nov 28 15:54	0°  7				15844 May 22 10:38	0°  Ω	
asc. node	15841 Nov 29 03:36	0°  736'03		greatest brilliancy		15844 Jun 20 12:29	19°  Ω18'34	-4.8m
	15841 Dec 22 23:05	0°  3		retrograde		15844 Jun 29 21:10	20°  Ω57'34	
	15842 Jan 16 04:50	0°  ≈		evening set		15844 Jul 17 20:43	14°  Ω49'11	
morning set	15842 Jan 20 10:07	5°  ≈13'29		inferior conj		15844 Jul 20 16:14	13°  Ω05'29	8°48'32
	15842 Feb 09 10:39	0°  H		minimum elong		15844 Jul 20 21:52	12°  Ω56'44	8°47'26
				min. Earth dist.		15844 Jul 21 07:51	12°  Ω41'13	0.27617 AU
superior conj	15842 Feb 26 09:10	20°  H55'44	0°51'10	morning rise		15844 Jul 23 22:53	11°  Ω04'31	
minimum elong	15842 Feb 26 18:39	21°  H25'01	0°51'00	direct		15844 Aug 10 14:05	5°  Ω04'03	
max. Earth dist.	15842 Feb 27 19:08	22°  H40'35	1.73073 AU	greatest brilliancy		15844 Aug 20 20:37	7°  Ω02'41	-4.9m
	15842 Mar 05 17:35	0°  Y		desc. node		15844 Sep 04 15:15	15°  Ω19'11	
desc. node	15842 Mar 20 20:25	18°  Y38'29				15844 Sep 22 01:34	0°  ♍	
	15842 Mar 30 01:45	0°  B		morning max el		15844 Sep 30 01:31	7°  ♍46'33	46°55'00
evening rise	15842 Apr 05 07:13	7°  B40'07				15844 Oct 21 01:45	0°  ♌	
	15842 Apr 23 10:30	0°  II				15844 Nov 16 11:50	0°  ♍	
	15842 May 17 19:19	0°  ☿				15844 Dec 11 22:56	0°  7	
	15842 Jun 11 04:45	0°  Ω		asc. node		15844 Dec 26 15:25	17°  735'33	
	15842 Jul 05 16:52	0°  ♍				15845 Jan 05 22:05	0°  3	
asc. node	15842 Jul 11 11:45	7°  ♍02'55				15845 Jan 30 13:58	0°  ≈	
	15842 Jul 30 11:12	0°  ♌				15845 Feb 24 01:36	0°  H	
	15842 Aug 24 18:12	0°  ♍				15845 Mar 20 11:04	0°  Y	
	15842 Sep 20 04:59	0°  7		morning set		15845 Mar 30 10:56	12°  Y18'29	
evening max el	15842 Oct 06 23:36	17°  737'18	46°36'57			15845 Apr 13 19:15	0°  B	
	15842 Oct 20 01:17	0°  3		desc. node		15845 Apr 17 10:13	4°  B28'16	
desc. node	15842 Oct 31 08:57	9°  310'15		max. Earth dist.		15845 May 05 17:24	27°  B05'03	1.72764 AU
greatest brilliancy	15842 Nov 15 10:35	17°  344'18	-4.8m					
retrograde	15842 Nov 26 03:25	19°  350'42		superior conj		15845 May 07 20:46	29°  B43'57	-0°47'12
evening set	15842 Dec 14 00:35	13°  349'03		minimum elong		15845 May 07 10:58	29°  B13'38	0°47'26
inferior conj	15842 Dec 17 10:04	11°  344'01	-8°43'54			15845 May 08 01:57	0°  II	
minimum elong	15842 Dec 17 04:50	11°  352'08	8°42'42			15845 Jun 01 06:41	0°  ☿	
min. Earth dist.	15842 Dec 16 18:10	12°  308'42	0.28209 AU	evening rise		15845 Jun 15 13:43	17°  ☿46'05	
morning rise	15842 Dec 20 09:16	9°  354'49				15845 Jun 25 09:40	0°  Ω	
direct	15843 Jan 07 13:00	3°  346'55				15845 Jul 19 12:00	0°  ♍	
greatest brilliancy	15843 Jan 17 04:51	5°  328'49	-4.8m	asc. node		15845 Aug 08 01:02	24°  ♍17'39	
asc. node	15843 Feb 21 10:06	0°  ≈11'26				15845 Aug 12 15:24	0°  ♌	
	15843 Feb 21 05:12	0°  ≈				15845 Sep 05 21:57	0°  ♍	
morning max el	15843 Feb 25 13:07	4°  ≈07'29	45°45'48			15845 Sep 30 10:47	0°  7	
	15843 Mar 22 10:57	0°  H				15845 Oct 25 12:00	0°  3	
	15843 Apr 18 00:16	0°  Y				15845 Nov 20 14:42	0°  ≈	
	15843 May 13 11:40	0°  B		desc. node		15845 Nov 27 19:46	7°  ≈55'22	
	15843 Jun 07 08:55	0°  II		evening max el		15845 Dec 17 09:17	28°  ≈10'47	46°14'31
desc. node	15843 Jun 13 10:02	7°  II21'56				15845 Dec 19 06:24	0°  H	
	15843 Jul 01 20:49	0°  ☿		greatest brilliancy		15846 Jan 25 18:31	27°  H09'55	-4.8m
	15843 Jul 26 02:14	0°  Ω		retrograde		15846 Feb 04 19:37	29°  H00'39	
	15843 Aug 19 03:35	0°  ♍		evening set		15846 Feb 21 04:12	23°  H51'56	
morning set	15843 Aug 27 00:51	9°  ♍51'50		inferior conj		15846 Feb 26 05:05	20°  H48'00	-5°13'58

minimum elong	15846 Feb 26 14:58	20°  32'33	5°11'18	superior conj	15848 Jul 19 20:40	12°  18'16	-1°24'49
min. Earth dist.	15846 Feb 26 10:59	20°  38'46	0.28596 AU	minimum elong	15848 Jul 20 02:41	12°  37'06	1°25'23
morning rise	15846 Mar 04 01:40	17°  16'09			15848 Aug 03 00:01	0° 	
direct	15846 Mar 19 11:17	12°  38'08			15848 Aug 26 23:02	0° 	
asc. node	15846 Mar 20 19:33	12°  40'16		evening rise	15848 Aug 28 22:04	2°  27'13	
greatest brilliancy	15846 Mar 30 06:00	14°  45'42	-4.8m	asc. node	15848 Sep 04 14:56	10°  50'37	
	15846 Apr 22 23:13	0° 			15848 Sep 19 22:43	0° 	
morning max el	15846 May 07 18:40	13°  33'41	45°57'02		15848 Oct 14 00:27	0° 	
	15846 May 23 18:37	0° 			15848 Nov 07 06:35	0° 	
	15846 Jun 19 16:16	0° 			15848 Dec 01 20:55	0° 	
desc. node	15846 Jul 10 21:18	24°  15'26		desc. node	15848 Dec 25 07:37	27°  57'56	
	15846 Jul 15 04:23	0° 			15848 Dec 27 01:10	0° 	
	15846 Aug 08 23:18	0° 			15849 Jan 22 04:28	0° 	
	15846 Sep 02 08:46	0° 			15849 Feb 19 04:35	0° 	
	15846 Sep 26 13:24	0° 		evening max el	15849 Feb 26 10:15	7°  09'53	45°59'52
	15846 Oct 20 15:53	0° 			15849 Mar 25 22:47	0° 	
asc. node	15846 Oct 31 16:39	13°  45'01		greatest brilliancy	15849 Apr 06 10:47	5°  49'27	-4.8m
morning set	15846 Nov 08 08:06	23°  16'45		retrograde	15849 Apr 16 12:46	7°  41'18	
	15846 Nov 13 17:27	0° 		asc. node	15849 Apr 17 05:32	7°  40'43	
	15846 Dec 07 18:57	0° 		evening set	15849 May 01 18:03	3°  10'00	
					15849 May 07 00:16	30° 	
superior conj	15846 Dec 16 13:01	10°  54'09	1°23'36	inferior conj	15849 May 07 16:16	29°  34'48	4°51'06
minimum elong	15846 Dec 16 07:33	10°  37'09	1°24'20	minimum elong	15849 May 07 06:49	29°  49'42	4°47'56
max. Earth dist.	15846 Dec 18 19:34	13°  43'56	1.72367 AU	min. Earth dist.	15849 May 07 13:36	29°  39'01	0.28240 AU
	15846 Dec 31 21:37	0° 		morning rise	15849 May 12 19:26	26°  26'20	
evening rise	15847 Jan 22 22:12	27°  16'57		direct	15849 May 28 20:28	21°  25'37	
	15847 Jan 25 03:01	0° 		greatest brilliancy	15849 Jun 08 00:59	23°  21'28	-4.8m
	15847 Feb 18 12:20	0° 			15849 Jun 20 13:57	0° 	
desc. node	15847 Feb 20 08:14	2°  14'31		morning max el	15849 Jul 17 20:20	23°  26'42	46°38'12
	15847 Mar 15 01:48	0° 			15849 Jul 24 06:58	0° 	
	15847 Apr 08 19:08	0° 		desc. node	15849 Aug 07 07:33	15°  01'53	
	15847 May 03 17:06	0° 			15849 Aug 20 14:53	0° 	
	15847 May 28 23:24	0° 			15849 Sep 15 05:56	0° 	
asc. node	15847 Jun 13 01:10	17°  03'23			15849 Oct 10 03:51	0° 	
	15847 Jun 23 23:32	0° 			15849 Nov 03 17:43	0° 	
	15847 Jul 21 19:38	0° 		asc. node	15849 Nov 28 05:31	0°  06'58	
evening max el	15847 Jul 24 08:24	2°  32'33	46°35'57		15849 Nov 28 03:16	0° 	
	15847 Aug 27 02:17	0° 			15849 Dec 22 10:08	0° 	
greatest brilliancy	15847 Sep 02 00:34	2°  41'45	-4.9m		15850 Jan 15 15:42	0° 	
retrograde	15847 Sep 12 10:37	4°  42'53		morning set	15850 Jan 18 02:27	3°  01'55	
evening set	15847 Sep 26 20:58	0°  36'05			15850 Feb 08 21:24	0° 	
	15847 Sep 27 23:27	30° 					
inferior conj	15847 Oct 03 02:41	26°  57'55	-0°01'14	superior conj	15850 Feb 24 01:25	18°  44'39	0°53'54
minimum elong	15847 Oct 03 02:38	26°  57'58	0°00'55	minimum elong	15850 Feb 24 11:07	19°  14'37	0°53'45
transit middle	15847 Oct 03 02:38	26°  57'58	0°00'55	max. Earth dist.	15850 Feb 25 11:48	20°  30'47	1.73062 AU
transit begin	15847 Oct 02 22:34	27°  04'10			15850 Mar 05 04:19	0° 	
transit end	15847 Oct 03 06:43	26°  51'47		desc. node	15850 Mar 19 22:15	18°  10'54	
min. Earth dist.	15847 Oct 03 00:07	27°  01'48	0.26947 AU		15850 Mar 29 12:34	0° 	
desc. node	15847 Oct 03 00:48	27°  00'46		evening rise	15850 Apr 02 22:57	5°  27'26	
morning rise	15847 Oct 09 08:38	23°  20'20			15850 Apr 22 21:28	0° 	
direct	15847 Oct 23 21:20	19°  14'00			15850 May 17 06:30	0° 	
greatest brilliancy	15847 Nov 02 17:10	21°  01'45	-4.8m		15850 Jun 10 16:18	0° 	
	15847 Nov 18 21:37	0° 			15850 Jul 05 04:57	0° 	
morning max el	15847 Dec 12 14:36	20°  33'42	46°20'55	asc. node	15850 Jul 10 13:33	6°  31'14	
	15847 Dec 22 00:03	0° 			15850 Jul 30 00:08	0° 	
	15848 Jan 18 15:31	0° 			15850 Aug 24 08:43	0° 	
asc. node	15848 Jan 24 02:08	6°  10'04			15850 Sep 19 22:59	0° 	
	15848 Feb 13 16:04	0° 		evening max el	15850 Oct 04 12:59	15°  14'32	46°37'16
	15848 Mar 09 22:09	0° 			15850 Oct 20 07:59	0° 	
	15848 Apr 03 18:12	0° 		desc. node	15850 Oct 30 10:58	7°  54'29	
	15848 Apr 28 08:09	0° 		greatest brilliancy	15850 Nov 13 01:17	15°  25'59	-4.8m
desc. node	15848 May 14 23:32	20°  26'54		retrograde	15850 Nov 23 17:44	17°  32'41	
	15848 May 22 17:26	0° 		evening set	15850 Dec 11 11:46	11°  36'24	
morning set	15848 Jun 10 06:24	22°  57'10		min. Earth dist.	15850 Dec 14 08:22	9°  51'47	0.28166 AU
	15848 Jun 15 22:36	0° 		inferior conj	15850 Dec 15 00:32	9°  26'45	-8°38'25
	15848 Jul 10 00:21	0° 		minimum elong	15850 Dec 14 18:31	9°  36'04	8°37'04
max. Earth dist.	15848 Jul 17 14:37	9°  29'19	1.71791 AU	morning rise	15850 Dec 18 01:24	7°  35'07	

direct	15851 Jan 05 02:28	1° $\text{Z}$ 30'09			15853 Jul 18 23:07	0° $\text{M}$	
greatest brilliancy	15851 Jan 14 18:59	3° $\text{Z}$ 12'16	-4.8m	asc. node	15853 Aug 07 02:51	23° $\text{M}$ 48'05	
asc. node	15851 Feb 20 11:58	29° $\text{Z}$ 18'44			15853 Aug 12 02:47	0° $\text{L}$	
	15851 Feb 21 05:19	0° $\approx$			15853 Sep 05 09:43	0° $\text{M}$	
morning max el	15851 Feb 23 02:44	1° $\approx$ 49'11	45°46'26		15853 Sep 29 23:09	0° $\text{Z}$	
	15851 Mar 22 03:08	0° $\text{H}$			15853 Oct 25 01:30	0° $\text{Z}$	
	15851 Apr 17 13:48	0° $\text{Y}$			15853 Nov 20 06:38	0° $\approx$	
	15851 May 12 23:59	0° $\text{Z}$		desc. node	15853 Nov 26 21:38	7° $\approx$ 14'17	
	15851 Jun 06 20:35	0° $\text{II}$		evening max el	15853 Dec 15 01:14	25° $\approx$ 58'49	46°15'16
desc. node	15851 Jun 12 11:49	6° $\text{II}$ 52'06			15853 Dec 19 05:45	0° $\text{H}$	
	15851 Jul 01 08:08	0° $\text{Z}$		greatest brilliancy	15854 Jan 23 09:14	24° $\text{H}$ 56'45	-4.8m
	15851 Jul 25 13:20	0° $\text{O}$		retrograde	15854 Feb 02 11:29	26° $\text{H}$ 48'05	
	15851 Aug 18 14:32	0° $\text{M}$		evening set	15854 Feb 18 22:35	21° $\text{H}$ 35'16	
morning set	15851 Aug 24 13:36	7° $\text{M}$ 27'22		inferior conj	15854 Feb 23 20:37	18° $\text{H}$ 35'15	-5°30'55
	15851 Sep 11 13:47	0° $\text{L}$		minimum elong	15854 Feb 24 06:46	18° $\text{H}$ 19'23	5°28'12
				min. Earth dist.	15854 Feb 24 02:02	18° $\text{H}$ 26'46	0.28607 AU
superior conj	15851 Oct 03 04:58	27° $\text{L}$ 05'58	0°00'00	morning rise	15854 Mar 01 14:57	15° $\text{H}$ 06'45	
minimum elong	15851 Oct 03 04:52	27° $\text{L}$ 05'39	0°00'18	direct	15854 Mar 17 03:29	10° $\text{H}$ 25'39	
behind sun begin	15851 Oct 02 04:04	25° $\text{L}$ 47'59		asc. node	15854 Mar 19 21:36	10° $\text{H}$ 34'33	
behind sun end	15851 Oct 04 05:40	28° $\text{L}$ 23'19		greatest brilliancy	15854 Mar 27 20:46	12° $\text{H}$ 32'17	-4.8m
asc. node	15851 Oct 03 04:57	27° $\text{L}$ 05'56			15854 Apr 23 04:58	0° $\text{Y}$	
max. Earth dist.	15851 Oct 03 15:33	27° $\text{L}$ 39'09	1.71616 AU	morning max el	15854 May 05 10:38	11° $\text{Y}$ 21'35	45°55'52
	15851 Oct 05 12:33	0° $\text{M}$			15854 May 23 11:59	0° $\text{Z}$	
	15851 Oct 29 11:51	0° $\text{Z}$			15854 Jun 19 06:20	0° $\text{II}$	
evening rise	15851 Nov 10 23:27	15° $\text{Z}$ 35'29		desc. node	15854 Jul 09 23:08	24° $\text{II}$ 19'45	
	15851 Nov 22 12:54	0° $\text{Z}$			15854 Jul 14 17:01	0° $\text{Z}$	
	15851 Dec 16 17:35	0° $\approx$			15854 Aug 08 11:11	0° $\text{O}$	
	15852 Jan 10 04:19	0° $\text{H}$			15854 Sep 01 20:12	0° $\text{M}$	
desc. node	15852 Jan 22 20:26	15° $\text{H}$ 23'21			15854 Sep 26 00:33	0° $\text{L}$	
	15852 Feb 03 23:27	0° $\text{Y}$			15854 Oct 20 02:49	0° $\text{M}$	
	15852 Feb 29 05:16	0° $\text{Z}$		asc. node	15854 Oct 30 18:32	13° $\text{M}$ 17'07	
	15852 Mar 26 02:06	0° $\text{II}$		morning set	15854 Nov 05 22:13	20° $\text{M}$ 57'31	
	15852 Apr 22 03:26	0° $\text{Z}$			15854 Nov 13 04:12	0° $\text{Z}$	
evening max el	15852 May 08 20:30	17° $\text{Z}$ 11'30	46°11'43		15854 Dec 07 05:35	0° $\text{Z}$	
asc. node	15852 May 14 15:53	22° $\text{Z}$ 46'03					
	15852 May 22 16:33	0° $\text{O}$		superior conj	15854 Dec 14 04:47	8° $\text{Z}$ 40'41	1°22'35
greatest brilliancy	15852 Jun 18 01:10	16° $\text{O}$ 56'36	-4.8m	minimum elong	15854 Dec 13 22:36	8° $\text{Z}$ 21'28	1°23'18
retrograde	15852 Jun 27 11:09	18° $\text{O}$ 36'41		max. Earth dist.	15854 Dec 16 13:39	11° $\text{Z}$ 37'44	1.72335 AU
evening set	15852 Jul 15 12:13	12° $\text{O}$ 24'42			15854 Dec 31 08:13	0° $\approx$	
inferior conj	15852 Jul 18 05:59	10° $\text{O}$ 43'41	8°53'55	evening rise	15855 Jan 20 14:03	25° $\approx$ 04'42	
minimum elong	15852 Jul 18 10:49	10° $\text{O}$ 36'12	8°52'55		15855 Jan 24 13:42	0° $\text{H}$	
min. Earth dist.	15852 Jul 18 20:50	10° $\text{O}$ 20'39	0.27655 AU		15855 Feb 17 23:12	0° $\text{Y}$	
morning rise	15852 Jul 21 09:16	8° $\text{O}$ 47'54		desc. node	15855 Feb 19 10:07	1° $\text{Y}$ 46'58	
direct	15852 Aug 08 04:24	2° $\text{O}$ 41'32			15855 Mar 14 12:57	0° $\text{Z}$	
greatest brilliancy	15852 Aug 18 10:12	4° $\text{O}$ 40'07	-4.9m		15855 Apr 08 06:44	0° $\text{II}$	
desc. node	15852 Sep 03 17:07	14° $\text{O}$ 02'34			15855 May 03 05:24	0° $\text{Z}$	
	15852 Sep 22 03:14	0° $\text{M}$			15855 May 28 12:55	0° $\text{O}$	
morning max el	15852 Sep 27 16:45	5° $\text{M}$ 27'58	46°55'30	asc. node	15855 Jun 12 02:59	16° $\text{O}$ 55'25	
	15852 Oct 20 18:46	0° $\text{L}$			15855 Jun 23 15:28	0° $\text{M}$	
	15852 Nov 16 01:57	0° $\text{M}$			15855 Jul 21 17:55	0° $\text{L}$	
	15852 Dec 11 11:38	0° $\text{Z}$		evening max el	15855 Jul 21 22:26	0° $\text{L}$ 11'15	46°35'15
asc. node	15852 Dec 25 17:12	17° $\text{Z}$ 04'20			15855 Aug 29 19:18	0° $\text{M}$	
	15853 Jan 05 09:57	0° $\text{Z}$		greatest brilliancy	15855 Aug 30 15:07	0° $\text{M}$ 18'51	-4.9m
	15853 Jan 30 01:19	0° $\approx$		retrograde	15855 Sep 09 23:22	2° $\text{M}$ 18'05	
	15853 Feb 23 12:38	0° $\text{H}$			15855 Sep 20 15:54	30° $\text{R}$ $\text{L}$	
	15853 Mar 19 21:54	0° $\text{Y}$		evening set	15855 Sep 24 10:50	28° $\text{L}$ 10'41	
morning set	15853 Mar 28 02:57	10° $\text{Y}$ 06'44		inferior conj	15855 Sep 30 15:23	24° $\text{L}$ 33'47	0°23'17
	15853 Apr 13 06:00	0° $\text{Z}$		minimum elong	15855 Sep 30 16:19	24° $\text{L}$ 32'22	0°23'14
desc. node	15853 Apr 16 12:06	4° $\text{Z}$ 00'57		min. Earth dist.	15855 Sep 30 14:18	24° $\text{L}$ 35'26	0.26932 AU
max. Earth dist.	15853 May 03 12:34	25° $\text{Z}$ 02'36	1.72791 AU	desc. node	15855 Oct 02 02:53	23° $\text{L}$ 39'53	
				morning rise	15855 Oct 06 22:04	20° $\text{L}$ 54'50	
superior conj	15853 May 05 11:09	27° $\text{Z}$ 26'40	-0°44'07	direct	15855 Oct 21 10:08	16° $\text{L}$ 49'56	
minimum elong	15853 May 05 01:47	26° $\text{Z}$ 57'42	0°44'21	greatest brilliancy	15855 Oct 31 06:32	18° $\text{L}$ 38'02	-4.8m
	15853 May 07 12:42	0° $\text{II}$			15855 Nov 19 15:11	0° $\text{M}$	
	15853 May 31 17:30	0° $\text{Z}$		morning max el	15855 Dec 10 03:21	18° $\text{M}$ 11'24	46°22'30
evening rise	15853 Jun 13 03:15	15° $\text{Z}$ 25'06			15855 Dec 21 19:32	0° $\text{Z}$	
	15853 Jun 24 20:36	0° $\text{O}$			15856 Jan 18 06:17	0° $\text{Z}$	

asc. node	15856 Jan 23 04:03	5° $\text{Z}$ 34'49		15858 Aug 23 23:07	0° $\text{M}$	
	15856 Feb 13 04:52	0° $\approx$		15858 Sep 19 17:05	0° $\text{J}$	
	15856 Mar 09 09:57	0° $\text{H}$	evening max el	15858 Oct 02 02:26	12° $\text{J}$ 52'59	46°37'51
	15856 Apr 03 05:28	0° $\text{Y}$		15858 Oct 20 16:43	0° $\text{Z}$	
	15856 Apr 27 19:06	0° $\text{B}$	desc. node	15858 Oct 29 12:50	6° $\text{Z}$ 37'16	
desc. node	15856 May 14 01:21	19° $\text{B}$ 59'09	greatest brilliancy	15858 Nov 10 15:17	13° $\text{Z}$ 07'50	-4.8m
	15856 May 22 04:14	0° $\text{II}$	retrograde	15858 Nov 21 08:26	15° $\text{Z}$ 15'46	
morning set	15856 Jun 07 19:09	20° $\text{II}$ 34'34	evening set	15858 Dec 08 22:39	9° $\text{Z}$ 24'51	
	15856 Jun 15 09:18	0° $\text{G}$	min. Earth dist.	15858 Dec 11 22:12	7° $\text{Z}$ 36'12	0.28123 AU
	15856 Jul 09 11:02	0° $\text{O}$	inferior conj	15858 Dec 12 14:56	7° $\text{Z}$ 10'20	-8°31'59
max. Earth dist.	15856 Jul 14 21:39	6° $\text{O}$ 48'00	1.71816 AU	minimum elong	15858 Dec 12 08:10	7° $\text{Z}$ 20'47
				morning rise	15858 Dec 15 17:51	5° $\text{Z}$ 15'54
					15858 Dec 27 11:18	30° $\text{R}$ $\text{J}$
superior conj	15856 Jul 17 09:07	9° $\text{O}$ 53'48	-1°25'43	direct	15859 Jan 02 16:05	29° $\text{J}$ 14'08
minimum elong	15856 Jul 17 14:13	10° $\text{O}$ 09'43	1°26'20		15859 Jan 09 01:50	0° $\text{Z}$
	15856 Aug 02 10:43	0° $\text{M}$		greatest brilliancy	15859 Jan 12 08:53	0° $\text{Z}$ 56'32
evening rise	15856 Aug 26 09:57	0° $\text{A}$ 00'28		asc. node	15859 Feb 19 14:00	28° $\text{Z}$ 28'30
	15856 Aug 26 09:48	0° $\text{A}$		morning max el	15859 Feb 20 17:16	29° $\text{Z}$ 34'13
asc. node	15856 Sep 03 16:50	10° $\text{A}$ 22'46			15859 Feb 21 03:54	0° $\approx$
	15856 Sep 19 09:35	0° $\text{M}$			15859 Mar 21 18:38	0° $\text{H}$
	15856 Oct 13 11:30	0° $\text{J}$			15859 Apr 17 02:50	0° $\text{Y}$
	15856 Nov 06 17:56	0° $\text{Z}$			15859 May 12 11:51	0° $\text{B}$
	15856 Dec 01 08:47	0° $\approx$			15859 Jun 06 07:51	0° $\text{II}$
desc. node	15856 Dec 24 09:25	27° $\approx$ 25'49		desc. node	15859 Jun 11 13:39	6° $\text{II}$ 23'33
	15856 Dec 26 14:01	0° $\text{H}$			15859 Jun 30 19:05	0° $\text{G}$
	15857 Jan 21 19:17	0° $\text{Y}$			15859 Jul 25 00:07	0° $\text{O}$
	15857 Feb 19 00:36	0° $\text{B}$			15859 Aug 18 01:12	0° $\text{M}$
evening max el	15857 Feb 24 00:19	4° $\text{B}$ 54'14	45°59'52	morning set	15859 Aug 22 01:55	5° $\text{M}$ 02'24
	15857 Mar 27 07:17	0° $\text{II}$			15859 Sep 11 00:22	0° $\text{A}$
greatest brilliancy	15857 Apr 04 02:00	3° $\text{II}$ 35'36	-4.8m			
retrograde	15857 Apr 14 03:11	5° $\text{II}$ 27'08				
asc. node	15857 Apr 16 07:28	5° $\text{II}$ 21'28		superior conj	15859 Sep 30 17:32	24° $\text{A}$ 41'56
evening set	15857 Apr 29 07:15	0° $\text{II}$ 58'10		minimum elong	15859 Sep 30 18:25	24° $\text{A}$ 44'43
	15857 Apr 30 23:54	30° $\text{R}$ $\text{B}$		behind sun begin	15859 Sep 29 17:54	23° $\text{A}$ 27'57
inferior conj	15857 May 05 07:30	27° $\text{B}$ 20'26	4°32'23	behind sun end	15859 Oct 01 18:55	26° $\text{A}$ 01'28
minimum elong	15857 May 04 22:27	27° $\text{B}$ 34'42	4°29'18	max. Earth dist.	15859 Oct 01 02:39	25° $\text{A}$ 10'32
min. Earth dist.	15857 May 05 05:19	27° $\text{B}$ 23'53	0.28253 AU	asc. node	15859 Oct 02 06:47	26° $\text{A}$ 38'37
morning rise	15857 May 10 13:25	24° $\text{B}$ 07'53			15859 Oct 04 23:05	0° $\text{M}$
direct	15857 May 26 11:13	19° $\text{B}$ 11'00			15859 Oct 28 22:23	0° $\text{J}$
greatest brilliancy	15857 Jun 05 17:41	21° $\text{B}$ 08'09	-4.8m	evening rise	15859 Nov 08 13:59	13° $\text{J}$ 18'14
	15857 Jun 21 10:26	0° $\text{II}$			15859 Nov 21 23:29	0° $\text{Z}$
morning max el	15857 Jul 15 10:00	21° $\text{II}$ 06'52	46°36'54		15859 Dec 16 04:18	0° $\approx$
	15857 Jul 24 02:23	0° $\text{G}$			15860 Jan 09 15:20	0° $\text{H}$
desc. node	15857 Aug 06 09:32	14° $\text{G}$ 21'30		desc. node	15860 Jan 21 22:21	14° $\text{H}$ 55'05
	15857 Aug 20 05:47	0° $\text{O}$			15860 Feb 03 10:59	0° $\text{Y}$
	15857 Sep 14 19:00	0° $\text{M}$			15860 Feb 28 17:41	0° $\text{B}$
	15857 Oct 09 15:56	0° $\text{A}$			15860 Mar 25 16:08	0° $\text{II}$
	15857 Nov 03 05:10	0° $\text{M}$			15860 Apr 21 21:08	0° $\text{G}$
asc. node	15857 Nov 27 07:15	29° $\text{M}$ 38'16		evening max el	15860 Apr 06 11:07	14° $\text{G}$ 55'16
	15857 Nov 27 14:18	0° $\text{J}$		asc. node	15860 May 13 17:44	21° $\text{G}$ 51'25
	15857 Dec 21 20:53	0° $\text{Z}$			15860 May 23 00:13	0° $\text{O}$
	15858 Jan 15 02:16	0° $\approx$		greatest brilliancy	15860 Jun 15 13:23	14° $\text{O}$ 35'34
morning set	15858 Jan 15 18:47	0° $\approx$ 51'11		retrograde	15860 Jun 25 01:10	16° $\text{O}$ 16'51
	15858 Feb 08 07:51	0° $\text{H}$		evening set	15860 Jul 13 03:21	10° $\text{O}$ 02'00
				inferior conj	15860 Jul 15 19:44	8° $\text{O}$ 22'56
superior conj	15858 Feb 21 17:49	16° $\text{H}$ 34'59	0°56'31	minimum elong	15860 Jul 15 23:42	8° $\text{O}$ 16'46
minimum elong	15858 Feb 22 03:41	17° $\text{H}$ 05'26	0°56'24	min. Earth dist.	15860 Jul 16 09:26	8° $\text{O}$ 01'40
max. Earth dist.	15858 Feb 23 04:40	18° $\text{H}$ 22'33	1.73049 AU	morning rise	15860 Jul 18 19:58	6° $\text{O}$ 31'45
	15858 Mar 04 14:45	0° $\text{Y}$		direct	15860 Aug 05 19:04	0° $\text{O}$ 20'20
desc. node	15858 Mar 19 00:08	17° $\text{Y}$ 44'28		greatest brilliancy	15860 Aug 15 23:16	2° $\text{O}$ 17'55
	15858 Mar 28 23:03	0° $\text{B}$		desc. node	15860 Sep 02 19:12	12° $\text{O}$ 49'33
evening rise	15858 Mar 31 14:52	3° $\text{B}$ 16'22			15860 Sep 22 03:19	0° $\text{M}$
	15858 Apr 22 08:08	0° $\text{II}$		morning max el	15860 Sep 25 08:00	3° $\text{M}$ 10'09
	15858 May 16 17:27	0° $\text{G}$			15860 Oct 20 11:12	0° $\text{A}$
	15858 Jun 10 03:38	0° $\text{O}$			15860 Nov 15 15:40	0° $\text{M}$
	15858 Jul 04 16:50	0° $\text{M}$			15860 Dec 10 23:57	0° $\text{J}$
asc. node	15858 Jul 09 15:22	6° $\text{M}$ 00'07		asc. node	15860 Dec 24 19:08	16° $\text{J}$ 34'42
	15858 Jul 29 12:56	0° $\text{A}$			15861 Jan 04 21:26	0° $\text{Z}$

	15861 Jan 29 12:17	0°≈		evening set	15863 Sep 22 01:03	25°♁46'13	
	15861 Feb 22 23:16	0°✠		inferior conj	15863 Sep 28 04:19	22°♁11'04	0°47'29
	15861 Mar 19 08:23	0°Υ		minimum elong	15863 Sep 28 06:12	22°♁08'12	0°47'05
morning set	15861 Mar 25 19:09	7°Υ56'34		min. Earth dist.	15863 Sep 28 04:55	22°♁10'10	0.26923 AU
	15861 Apr 12 16:26	0°♂		desc. node	15863 Oct 01 04:42	20°♁21'52	
desc. node	15861 Apr 15 13:53	3°♂34'17		morning rise	15863 Oct 04 11:29	18°♁31'00	
max. Earth dist.	15861 May 01 06:20	22°♂56'52	1.72814 AU	direct	15863 Oct 18 22:39	14°♁27'00	
				greatest brilliancy	15863 Oct 28 20:35	16°♁16'04	-4.8m
superior conj	15861 May 03 01:49	25°♂11'18	-0°40'59		15863 Nov 20 03:56	0°♁	
minimum elong	15861 May 02 16:57	24°♂43'54	0°41'13	morning max el	15863 Dec 07 15:46	15°♁48'33	46°23'58
	15861 May 06 23:08	0°♁			15863 Dec 21 14:17	0°♂	
	15861 May 31 03:59	0°♄			15864 Jan 17 20:47	0°♂	
evening rise	15861 Jun 10 17:03	13°♄06'05		asc. node	15864 Jan 22 06:02	5°♂00'14	
	15861 Jun 24 07:11	0°♁			15864 Feb 12 17:31	0°≈	
	15861 Jul 18 09:54	0°♁			15864 Mar 08 21:38	0°✠	
asc. node	15861 Aug 06 04:47	23°♁19'56			15864 Apr 02 16:36	0°Υ	
	15861 Aug 11 13:52	0°♁			15864 Apr 27 05:56	0°♂	
	15861 Sep 04 21:14	0°♁		desc. node	15864 May 13 03:05	19°♂31'30	
	15861 Sep 29 11:20	0°♂			15864 May 21 14:54	0°♁	
	15861 Oct 24 14:53	0°♂		morning set	15864 Jun 05 07:58	18°♁12'26	
	15861 Nov 19 22:36	0°≈			15864 Jun 14 19:55	0°♄	
desc. node	15861 Nov 25 23:31	6°≈33'31			15864 Jul 08 21:39	0°♁	
evening max el	15861 Dec 12 17:06	23°≈47'13	46°16'08	max. Earth dist.	15864 Jul 12 05:48	4°♁10'18	1.71845 AU
	15861 Dec 19 05:53	0°✠					
greatest brilliancy	15862 Jan 21 00:28	22°✠45'10	-4.8m	superior conj	15864 Jul 14 21:45	7°♁30'07	-1°26'28
retrograde	15862 Jan 31 03:02	24°✠36'26		minimum elong	15864 Jul 15 01:54	7°♁43'05	1°27'08
evening set	15862 Feb 16 17:07	19°✠19'38			15864 Aug 01 21:22	0°♁	
inferior conj	15862 Feb 21 12:12	16°✠23'34	-5°47'15	evening rise	15864 Aug 23 22:02	27°♁34'38	
minimum elong	15862 Feb 21 22:33	16°✠07'23	5°44'33		15864 Aug 25 20:30	0°♁	
min. Earth dist.	15862 Feb 21 17:11	16°✠15'47	0.28615 AU	asc. node	15864 Sep 02 18:37	9°♁54'48	
morning rise	15862 Feb 27 04:04	12°✠58'29			15864 Sep 18 20:22	0°♁	
direct	15862 Mar 14 19:42	8°✠14'21			15864 Oct 12 22:28	0°♂	
asc. node	15862 Mar 18 23:34	8°✠34'27			15864 Nov 06 05:13	0°♂	
greatest brilliancy	15862 Mar 25 11:28	10°✠19'40	-4.8m		15864 Nov 30 20:39	0°≈	
	15862 Apr 23 08:24	0°Υ		desc. node	15864 Dec 23 11:20	26°≈53'55	
morning max el	15862 May 03 01:49	9°Υ08'23	45°54'44		15864 Dec 26 02:56	0°✠	
	15862 May 23 04:41	0°♂			15865 Jan 21 10:21	0°Υ	
	15862 Jun 18 19:58	0°♁			15865 Feb 18 21:22	0°♂	
desc. node	15862 Jul 09 01:06	23°♁48'33		evening max el	15865 Feb 21 14:23	2°♂38'34	46°00'01
	15862 Jul 14 05:15	0°♄			15865 Mar 29 08:16	0°♁	
	15862 Aug 07 22:42	0°♁		greatest brilliancy	15865 Apr 01 16:56	1°♁21'26	-4.8m
	15862 Sep 01 07:18	0°♁		retrograde	15865 Apr 11 18:05	3°♁13'19	
	15862 Sep 25 11:25	0°♁		asc. node	15865 Apr 15 09:19	2°♁57'25	
	15862 Oct 19 13:30	0°♁			15865 Apr 24 11:59	30°♂	
asc. node	15862 Oct 29 20:16	12°♁49'24		evening set	15865 Apr 26 20:44	28°♂46'07	
morning set	15862 Nov 03 12:09	18°♁38'16		inferior conj	15865 May 02 22:49	25°♂06'14	4°13'20
	15862 Nov 12 14:46	0°♂		minimum elong	15865 May 02 14:13	25°♂19'45	4°10'20
	15862 Dec 06 16:03	0°♂		min. Earth dist.	15865 May 02 20:56	25°♂09'11	0.28265 AU
				morning rise	15865 May 08 07:25	21°♂49'58	
superior conj	15862 Dec 11 20:16	6°♂26'53	1°21'25	direct	15865 May 24 02:11	16°♂56'28	
minimum elong	15862 Dec 11 13:27	6°♂05'38	1°22'07	greatest brilliancy	15865 Jun 03 10:20	18°♂55'05	-4.8m
max. Earth dist.	15862 Dec 14 05:32	9°♂25'11	1.72302 AU		15865 Jun 22 01:34	0°♁	
	15862 Dec 30 18:39	0°≈		morning max el	15865 Jul 13 00:32	18°♁49'12	46°35'34
evening rise	15863 Jan 18 05:37	22°≈52'03			15865 Jul 23 21:17	0°♄	
	15863 Jan 24 00:12	0°✠		desc. node	15865 Aug 05 11:29	13°♄41'22	
	15863 Feb 17 09:52	0°Υ			15865 Aug 19 20:32	0°♁	
desc. node	15863 Feb 18 11:59	1°Υ19'57			15865 Sep 14 08:01	0°♁	
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	15863 Apr 07 18:10	0°♁			15865 Nov 02 16:38	0°♁	
	15863 May 02 17:35	0°♄		asc. node	15865 Nov 26 09:10	29°♁10'08	
	15863 May 28 02:23	0°♁			15865 Nov 27 01:20	0°♂	
asc. node	15863 Jun 11 04:55	16°♁19'04			15865 Dec 21 07:40	0°♂	
	15863 Jun 23 07:27	0°♁		morning set	15866 Jan 13 11:16	28°♂40'37	
evening max el	15863 Jul 19 11:37	27°♁48'40	46°34'38		15866 Jan 14 12:54	0°≈	
	15863 Jul 21 16:49	0°♁			15866 Feb 07 18:25	0°✠	
greatest brilliancy	15863 Aug 28 06:07	27°♁57'37	-4.9m				
retrograde	15863 Sep 07 11:55	29°♁54'47		superior conj	15866 Feb 19 10:17	14°✠24'59	0°59'02

minimum elong	15866 Feb 19 20:16	14°  55'47	0°58'58	min. Earth dist.	15868 Jul 13 22:11	5°  41'54	0.27728 AU
max. Earth dist.	15866 Feb 20 22:20	16°  16'17	1.73041 AU	morning rise	15868 Jul 16 07:10	4°  14'12	
	15866 Mar 04 01:19	0°  Y			15868 Jul 24 11:00	30°  R 	
desc. node	15866 Mar 18 01:52	17°  Y17'05		direct	15868 Aug 03 09:45	27°  E58'38	
	15866 Mar 28 09:43	0°  B		greatest brilliancy	15868 Aug 13 12:19	29°  E54'49	-4.9m
evening rise	15866 Mar 29 06:46	1°  B04'45			15868 Aug 13 17:55	0°  J	
	15866 Apr 21 18:58	0°  II		desc. node	15868 Sep 01 21:04	11°  J37'22	
	15866 May 16 04:34	0°  E			15868 Sep 22 02:44	0°  M	
	15866 Jun 09 15:09	0°  J		morning max el	15868 Sep 22 22:28	0°  M49'23	46°55'50
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asc. node	15866 Jul 08 17:20	5°  M28'50			15868 Nov 15 05:39	0°  M	
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	15866 Aug 23 13:57	0°  M		asc. node	15868 Dec 23 21:03	16°  J03'50	
	15866 Sep 19 11:54	0°  J			15869 Jan 04 09:17	0°  B	
evening max el	15866 Sep 29 16:50	10°  J33'17	46°38'27		15869 Jan 28 23:36	0°  B	
	15866 Oct 21 04:51	0°  B			15869 Feb 22 10:16	0°  B	
desc. node	15866 Oct 28 14:46	5°  B17'19			15869 Mar 18 19:13	0°  Y	
greatest brilliancy	15866 Nov 08 04:57	10°  B48'54	-4.8m	morning set	15869 Mar 23 11:39	5°  Y46'18	
retrograde	15866 Nov 18 23:45	12°  B58'32			15869 Apr 12 03:13	0°  B	
evening set	15866 Dec 06 09:27	7°  B13'08		desc. node	15869 Apr 14 15:42	3°  B06'38	
min. Earth dist.	15866 Dec 09 11:44	5°  B20'43	0.28076 AU	max. Earth dist.	15869 Apr 28 22:52	20°  B46'18	1.72841 AU
inferior conj	15866 Dec 10 05:23	4°  B53'32	-8°24'46				
minimum elong	15866 Dec 09 21:55	5°  B05'03	8°23'07	superior conj	15869 Apr 30 16:38	22°  B55'23	-0°37'49
morning rise	15866 Dec 13 10:34	2°  B56'04		minimum elong	15869 Apr 30 08:20	22°  B29'43	0°38'02
	15866 Dec 18 20:36	30°  R  J			15869 May 06 09:57	0°  II	
direct	15866 Dec 31 06:17	26°  J57'53			15869 May 30 14:53	0°  E	
greatest brilliancy	15867 Jan 09 22:11	28°  J39'58	-4.8m	evening rise	15869 Jun 08 06:46	10°  E45'29	
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morning max el	15867 Feb 18 08:26	27°  B20'27	45°47'43		15869 Jul 17 21:09	0°  M	
asc. node	15867 Feb 18 15:55	27°  B38'34		asc. node	15869 Aug 05 06:32	22°  M49'48	
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desc. node	15867 Jun 10 15:39	5°  II54'40		desc. node	15869 Nov 25 01:31	5°  B51'08	
	15867 Jun 30 06:19	0°  E		evening max el	15869 Dec 10 08:11	21°  B32'08	46°16'56
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	15867 Aug 17 12:08	0°  M		greatest brilliancy	15870 Jan 18 16:20	20°  B32'51	-4.8m
morning set	15867 Aug 19 14:13	2°  M36'36		retrograde	15870 Jan 28 18:14	22°  B23'26	
	15867 Sep 10 11:15	0°  J		evening set	15870 Feb 14 11:39	17°  B02'45	
				inferior conj	15870 Feb 19 03:47	14°  B10'46	-6°03'04
superior conj	15867 Sep 28 06:03	22°  J16'45	-0°07'38	minimum elong	15870 Feb 19 14:14	13°  B54'23	6°00'25
minimum elong	15867 Sep 28 07:54	22°  J22'35	0°07'19	min. Earth dist.	15870 Feb 19 08:34	14°  B03'17	0.28618 AU
behind sun begin	15867 Sep 27 09:21	21°  J11'54		morning rise	15870 Feb 24 16:55	10°  B49'16	
behind sun end	15867 Sep 29 06:28	23°  J33'15		direct	15870 Mar 12 11:18	6°  B01'59	
max. Earth dist.	15867 Sep 28 15:04	22°  J45'01	1.71595 AU	asc. node	15870 Mar 18 01:23	6°  B37'39	
asc. node	15867 Oct 01 08:31	22°  J10'01		greatest brilliancy	15870 Mar 23 02:19	8°  B06'10	-4.8m
	15867 Oct 04 09:57	0°  M			15870 Apr 23 10:39	0°  Y	
	15867 Oct 28 09:16	0°  J		morning max el	15870 Apr 30 16:02	6°  Y51'49	45°53'41
evening rise	15867 Nov 06 04:35	11°  J00'05			15870 May 22 21:23	0°  B	
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	15867 Dec 15 15:21	0°  B		desc. node	15870 Jul 08 03:00	23°  II16'00	
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desc. node	15868 Jan 21 00:16	14°  B26'00			15870 Aug 07 10:38	0°  J	
	15868 Feb 02 22:50	0°  Y			15870 Aug 31 18:51	0°  M	
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	15868 Mar 25 06:42	0°  II			15870 Oct 19 00:34	0°  M	
	15868 Apr 21 15:43	0°  E		asc. node	15870 Oct 28 22:10	12°  M21'02	
evening max el	15868 May 04 02:13	12°  E39'02	46°10'12	morning set	15870 Nov 01 01:48	16°  M16'57	
asc. node	15868 May 12 19:42	20°  E54'44			15870 Nov 12 01:40	0°  J	
	15868 May 23 11:24	0°  J			15870 Dec 06 02:53	0°  B	
greatest brilliancy	15868 Jun 13 02:15	12°  J14'20	-4.8m				
retrograde	15868 Jun 22 15:07	13°  J56'00		superior conj	15870 Dec 09 11:38	4°  B11'32	1°20'08
evening set	15868 Jul 10 18:10	7°  J39'23		minimum elong	15870 Dec 09 04:11	3°  B48'21	1°20'48
inferior conj	15868 Jul 13 09:37	6°  J01'28	9°01'41	max. Earth dist.	15870 Dec 11 19:23	7°  B05'07	1.72270 AU
minimum elong	15868 Jul 13 12:41	5°  J56'41	9°00'51		15870 Dec 30 05:30	0°  B	






























































































































evening rise	15871 Jan 15 21:10	20° $\approx$ 38'05			15873 Jul 23 15:42	0° $\mathfrak{D}$	
	15871 Jan 23 11:07	0° $\mathfrak{H}$		desc. node	15873 Aug 04 13:22	13° $\mathfrak{D}$ 01'30	
	15871 Feb 16 20:56	0° $\mathfrak{Y}$			15873 Aug 19 11:08	0° $\mathfrak{Q}$	
desc. node	15871 Feb 17 13:43	0° $\mathfrak{Y}$ 51'22			15873 Sep 13 21:00	0° $\mathfrak{M}$	
	15871 Mar 13 11:15	0° $\mathfrak{B}$			15873 Oct 08 16:07	0° $\mathfrak{L}$	
	15871 Apr 07 05:57	0° $\mathfrak{II}$			15873 Nov 02 04:11	0° $\mathfrak{M}$	
	15871 May 02 06:08	0° $\mathfrak{D}$		asc. node	15873 Nov 25 11:05	28° $\mathfrak{M}$ 41'30	
	15871 May 27 16:18	0° $\mathfrak{Q}$			15873 Nov 26 12:31	0° $\mathfrak{X}$	
asc. node	15871 Jun 10 06:51	15° $\mathfrak{Q}$ 41'27			15873 Dec 20 18:34	0° $\mathfrak{Z}$	
	15871 Jun 23 00:09	0° $\mathfrak{M}$		morning set	15874 Jan 11 03:22	26° $\mathfrak{Z}$ 28'30	
evening max el	15871 Jul 16 23:50	25° $\mathfrak{M}$ 22'21	46°33'50		15874 Jan 13 23:37	0° $\approx$	
	15871 Jul 21 17:24	0° $\mathfrak{L}$			15874 Feb 07 05:03	0° $\mathfrak{H}$	
greatest brilliancy	15871 Aug 25 20:52	25° $\mathfrak{L}$ 34'05	-4.9m				
retrograde	15871 Sep 05 00:16	27° $\mathfrak{L}$ 29'31		superior conj	15874 Feb 17 02:26	12° $\mathfrak{H}$ 13'46	1°01'30
evening set	15871 Sep 19 15:12	23° $\mathfrak{L}$ 19'06		minimum elong	15874 Feb 17 12:27	12° $\mathfrak{H}$ 44'44	1°01'28
inferior conj	15871 Sep 25 17:01	19° $\mathfrak{L}$ 46'13	1°11'46	max. Earth dist.	15874 Feb 18 17:44	14° $\mathfrak{H}$ 15'09	1.73030 AU
minimum elong	15871 Sep 25 19:50	19° $\mathfrak{L}$ 41'56	1°11'03		15874 Mar 03 11:56	0° $\mathfrak{Y}$	
min. Earth dist.	15871 Sep 25 19:23	19° $\mathfrak{L}$ 42'37	0.26919 AU	desc. node	15874 Mar 17 03:42	16° $\mathfrak{Y}$ 49'48	
desc. node	15871 Sep 30 06:40	17° $\mathfrak{L}$ 02'54		evening rise	15874 Mar 26 22:29	28° $\mathfrak{Y}$ 52'29	
morning rise	15871 Oct 02 00:27	16° $\mathfrak{L}$ 05'29			15874 Mar 27 20:26	0° $\mathfrak{B}$	
direct	15871 Oct 16 10:35	12° $\mathfrak{L}$ 01'41			15874 Apr 21 05:52	0° $\mathfrak{II}$	
greatest brilliancy	15871 Oct 26 10:41	13° $\mathfrak{L}$ 52'21	-4.8m		15874 May 15 15:43	0° $\mathfrak{D}$	
	15871 Nov 20 14:00	0° $\mathfrak{M}$			15874 Jun 09 02:40	0° $\mathfrak{Q}$	
morning max el	15871 Dec 05 04:27	13° $\mathfrak{M}$ 24'59	46°25'33		15874 Jul 03 17:01	0° $\mathfrak{M}$	
	15871 Dec 21 08:57	0° $\mathfrak{X}$		asc. node	15874 Jul 07 19:07	4° $\mathfrak{M}$ 57'16	
	15872 Jan 17 11:27	0° $\mathfrak{Z}$			15874 Jul 28 15:02	0° $\mathfrak{L}$	
asc. node	15872 Jan 21 07:54	4° $\mathfrak{Z}$ 24'36			15874 Aug 23 04:50	0° $\mathfrak{M}$	
	15872 Feb 12 06:25	0° $\approx$			15874 Sep 19 07:11	0° $\mathfrak{X}$	
	15872 Mar 08 09:36	0° $\mathfrak{H}$		evening max el	15874 Sep 27 07:58	8° $\mathfrak{X}$ 15'34	46°38'47
	15872 Apr 02 04:01	0° $\mathfrak{Y}$			15874 Oct 21 21:14	0° $\mathfrak{Z}$	
	15872 Apr 26 17:01	0° $\mathfrak{B}$		desc. node	15874 Oct 27 16:47	3° $\mathfrak{Z}$ 54'37	
desc. node	15872 May 12 05:04	19° $\mathfrak{B}$ 03'53		greatest brilliancy	15874 Nov 05 18:20	8° $\mathfrak{Z}$ 29'09	-4.8m
	15872 May 21 01:48	0° $\mathfrak{II}$		retrograde	15874 Nov 16 14:57	10° $\mathfrak{Z}$ 40'14	
morning set	15872 Jun 02 21:05	15° $\mathfrak{II}$ 50'41		evening set	15874 Dec 03 19:51	5° $\mathfrak{Z}$ 00'45	
	15872 Jun 14 06:44	0° $\mathfrak{D}$		min. Earth dist.	15874 Dec 07 00:54	3° $\mathfrak{Z}$ 04'21	0.28030 AU
	15872 Jul 08 08:29	0° $\mathfrak{Q}$		inferior conj	15874 Dec 07 19:31	2° $\mathfrak{Z}$ 35'43	-8°16'36
max. Earth dist.	15872 Jul 09 17:39	1° $\mathfrak{Q}$ 43'35	1.71878 AU	minimum elong	15874 Dec 07 11:25	2° $\mathfrak{Z}$ 48'11	8°14'47
				morning rise	15874 Dec 11 03:15	0° $\mathfrak{Z}$ 34'45	
superior conj	15872 Jul 12 10:30	5° $\mathfrak{Q}$ 06'09	-1°27'03		15874 Dec 12 03:03	30° $\mathfrak{R}$ $\mathfrak{X}$	
minimum elong	15872 Jul 12 13:42	5° $\mathfrak{Q}$ 16'08	1°27'45	direct	15874 Dec 28 20:39	24° $\mathfrak{X}$ 40'52	
	15872 Aug 01 08:15	0° $\mathfrak{M}$		greatest brilliancy	15875 Jan 07 10:45	26° $\mathfrak{X}$ 21'56	-4.8m
evening rise	15872 Aug 21 10:01	25° $\mathfrak{M}$ 07'40			15875 Jan 15 13:22	0° $\mathfrak{Z}$	
	15872 Aug 25 07:28	0° $\mathfrak{L}$		morning max el	15875 Feb 15 23:24	25° $\mathfrak{Z}$ 06'10	45°48'21
asc. node	15872 Sep 01 20:24	9° $\mathfrak{L}$ 25'55		asc. node	15875 Feb 17 17:49	26° $\mathfrak{Z}$ 49'27	
	15872 Sep 18 07:27	0° $\mathfrak{M}$			15875 Feb 20 22:45	0° $\approx$	
	15872 Oct 12 09:44	0° $\mathfrak{X}$			15875 Mar 21 01:16	0° $\mathfrak{H}$	
	15872 Nov 05 16:49	0° $\mathfrak{Z}$			15875 Apr 16 05:01	0° $\mathfrak{Y}$	
	15872 Nov 30 08:51	0° $\approx$			15875 May 11 11:54	0° $\mathfrak{B}$	
desc. node	15872 Dec 22 13:14	26° $\approx$ 21'06			15875 Jun 05 06:46	0° $\mathfrak{II}$	
	15872 Dec 25 16:13	0° $\mathfrak{H}$		desc. node	15875 Jun 09 17:25	5° $\mathfrak{II}$ 25'35	
	15873 Jan 21 01:55	0° $\mathfrak{Y}$			15875 Jun 29 17:22	0° $\mathfrak{D}$	
	15873 Feb 18 19:13	0° $\mathfrak{B}$			15875 Jul 23 21:59	0° $\mathfrak{Q}$	
evening max el	15873 Feb 19 05:05	0° $\mathfrak{B}$ 23'52	46°00'15		15875 Aug 16 22:49	0° $\mathfrak{M}$	
greatest brilliancy	15873 Mar 30 07:24	29° $\mathfrak{B}$ 06'11	-4.8m	morning set	15875 Aug 17 02:52	0° $\mathfrak{M}$ 12'41	
	15873 Apr 02 04:39	0° $\mathfrak{II}$			15875 Sep 09 21:51	0° $\mathfrak{L}$	
retrograde	15873 Apr 09 09:28	0° $\mathfrak{II}$ 58'55					
asc. node	15873 Apr 14 11:23	0° $\mathfrak{II}$ 27'36		superior conj	15875 Sep 25 18:51	19° $\mathfrak{L}$ 53'22	-0°11'24
	15873 Apr 16 08:35	30° $\mathfrak{R}$ $\mathfrak{B}$		minimum elong	15875 Sep 25 21:40	20° $\mathfrak{L}$ 02'11	0°11'04
evening set	15873 Apr 24 10:24	26° $\mathfrak{B}$ 33'13		behind sun begin	15875 Sep 25 03:08	19° $\mathfrak{L}$ 04'08	
inferior conj	15873 Apr 30 14:03	22° $\mathfrak{B}$ 51'23	3°53'54	behind sun end	15875 Sep 26 16:12	21° $\mathfrak{L}$ 00'14	
minimum elong	15873 Apr 30 05:57	23° $\mathfrak{B}$ 04'05	3°51'00	max. Earth dist.	15875 Sep 26 04:54	20° $\mathfrak{L}$ 24'52	1.71584 AU
min. Earth dist.	15873 Apr 30 12:14	22° $\mathfrak{B}$ 54'15	0.28273 AU	asc. node	15875 Sep 30 10:25	25° $\mathfrak{L}$ 42'48	
morning rise	15873 May 06 01:16	19° $\mathfrak{B}$ 31'45			15875 Oct 03 20:32	0° $\mathfrak{M}$	
direct	15873 May 21 17:27	14° $\mathfrak{B}$ 41'28			15875 Oct 27 19:51	0° $\mathfrak{X}$	
greatest brilliancy	15873 Jun 01 02:21	16° $\mathfrak{B}$ 41'04	-4.8m	evening rise	15875 Nov 03 19:17	8° $\mathfrak{X}$ 43'02	
	15873 Jun 22 12:52	0° $\mathfrak{II}$			15875 Nov 20 21:04	0° $\mathfrak{Z}$	
morning max el	15873 Jul 10 15:56	16° $\mathfrak{II}$ 33'47	46°34'17		15875 Dec 15 02:10	0° $\approx$	

	15876 Jan 08 13:47	0° $\text{H}$			15878 Jul 13 05:57	0° $\text{G}$	
desc. node	15876 Jan 20 01:57	13° $\text{H}56'47$			15878 Aug 06 22:05	0° $\text{Q}$	
	15876 Feb 02 10:31	0° $\text{Y}$			15878 Aug 31 05:55	0° $\text{P}$	
	15876 Feb 27 19:08	0° $\text{B}$			15878 Sep 24 09:31	0° $\text{A}$	
	15876 Mar 24 21:13	0° $\text{II}$			15878 Oct 18 11:11	0° $\text{M}$	
	15876 Apr 21 10:34	0° $\text{G}$		asc. node	15878 Oct 28 00:00	11° $\text{M}53'51$	
evening max el	15876 May 01 16:47	10° $\text{G}22'14$	46°09'22	morning set	15878 Oct 29 15:37	13° $\text{M}57'26$	
asc. node	15876 May 11 21:40	19° $\text{G}57'27$			15878 Nov 11 12:08	0° $\text{X}$	
	15876 May 24 02:02	0° $\text{Q}$			15878 Dec 05 13:13	0° $\text{Z}$	
greatest brilliancy	15876 Jun 10 15:43	9° $\text{Q}54'30$	-4.8m				
retrograde	15876 Jun 20 04:33	11° $\text{Q}35'49$		superior conj	15878 Dec 07 03:20	1° $\text{Z}58'43$	1°18'43
evening set	15876 Jul 08 08:33	5° $\text{Q}18'21$		minimum elong	15878 Dec 06 19:17	1° $\text{Z}33'41$	1°19'21
inferior conj	15876 Jul 10 23:29	3° $\text{Q}40'56$	9°04'17	max. Earth dist.	15878 Dec 09 07:57	4° $\text{Z}42'38$	1.72234 AU
minimum elong	15876 Jul 11 01:38	3° $\text{Q}37'35$	9°03'30		15878 Dec 29 15:48	0° $\approx$	
min. Earth dist.	15876 Jul 11 11:17	3° $\text{Q}22'31$	0.27758 AU	evening rise	15879 Jan 13 13:07	18° $\approx$ 27'00	
morning rise	15876 Jul 13 18:40	1° $\text{Q}56'57$			15879 Jan 22 21:30	0° $\text{H}$	
	15876 Jul 17 03:04	30° $\text{R}5$			15879 Feb 16 07:31	0° $\text{Y}$	
direct	15876 Jul 31 23:55	25° $\text{G}37'49$		desc. node	15879 Feb 16 15:36	0° $\text{Y}24'45$	
greatest brilliancy	15876 Aug 11 01:47	27° $\text{G}33'00$	-4.9m		15879 Mar 12 22:09	0° $\text{B}$	
	15876 Aug 16 13:46	0° $\text{Q}$			15879 Apr 06 17:21	0° $\text{II}$	
desc. node	15876 Aug 31 22:59	10° $\text{Q}28'20$			15879 May 01 18:22	0° $\text{G}$	
morning max el	15876 Sep 20 12:01	28° $\text{Q}27'23$	46°56'06		15879 May 27 05:57	0° $\text{Q}$	
	15876 Sep 22 00:44	0° $\text{P}$		asc. node	15879 Jun 09 08:40	15° $\text{Q}04'26$	
	15876 Oct 19 19:28	0° $\text{A}$			15879 Jun 22 16:44	0° $\text{P}$	
	15876 Nov 14 19:01	0° $\text{M}$		evening max el	15879 Jul 14 11:56	22° $\text{P}57'08$	46°33'08
	15876 Dec 10 00:43	0° $\text{X}$			15879 Jul 21 18:45	0° $\text{A}$	
asc. node	15876 Dec 22 22:50	15° $\text{X}33'59$		greatest brilliancy	15879 Aug 23 11:08	23° $\text{A}11'12$	-4.9m
	15877 Jan 03 20:39	0° $\text{Z}$		retrograde	15879 Sep 02 12:56	25° $\text{A}05'37$	
	15877 Jan 28 10:30	0° $\approx$		evening set	15879 Sep 17 05:30	20° $\text{A}52'42$	
	15877 Feb 21 20:54	0° $\text{H}$		inferior conj	15879 Sep 23 05:40	17° $\text{A}22'25$	1°36'04
	15877 Mar 18 05:42	0° $\text{Y}$		minimum elong	15879 Sep 23 09:24	17° $\text{A}16'43$	1°35'00
morning set	15877 Mar 21 03:54	3° $\text{Y}36'16$		min. Earth dist.	15879 Sep 23 09:39	17° $\text{A}16'20$	0.26920 AU
	15877 Apr 11 13:39	0° $\text{B}$		desc. node	15879 Sep 29 08:43	13° $\text{A}47'30$	
desc. node	15877 Apr 13 17:34	2° $\text{B}40'12$		morning rise	15879 Sep 29 13:12	13° $\text{A}41'32$	
max. Earth dist.	15877 Apr 26 14:18	18° $\text{B}33'30$	1.72866 AU	direct	15879 Oct 13 22:45	9° $\text{A}37'11$	
				greatest brilliancy	15879 Oct 24 00:39	11° $\text{A}29'36$	-4.9m
superior conj	15877 Apr 28 07:16	20° $\text{B}40'03$	-0°34'34		15879 Nov 20 20:51	0° $\text{M}$	
minimum elong	15877 Apr 27 23:34	20° $\text{B}16'14$	0°34'46	morning max el	15879 Dec 02 18:16	11° $\text{M}05'21$	46°27'20
	15877 May 05 20:23	0° $\text{II}$			15879 Dec 21 02:40	0° $\text{X}$	
	15877 May 30 01:24	0° $\text{G}$			15880 Jan 17 01:27	0° $\text{Z}$	
evening rise	15877 Jun 05 20:24	8° $\text{G}25'51$		asc. node	15880 Jan 20 09:47	3° $\text{Z}50'43$	
	15877 Jun 23 04:54	0° $\text{Q}$			15880 Feb 11 18:44	0° $\approx$	
	15877 Jul 17 08:03	0° $\text{P}$			15880 Mar 07 21:01	0° $\text{H}$	
asc. node	15877 Aug 04 08:20	22° $\text{P}20'59$			15880 Apr 01 14:57	0° $\text{Y}$	
	15877 Aug 10 12:36	0° $\text{A}$			15880 Apr 26 03:41	0° $\text{B}$	
	15877 Sep 03 20:49	0° $\text{M}$		desc. node	15880 May 11 06:50	18° $\text{B}36'43$	
	15877 Sep 28 12:18	0° $\text{X}$			15880 May 20 12:20	0° $\text{II}$	
	15877 Oct 23 18:25	0° $\text{Z}$		morning set	15880 May 31 10:11	13° $\text{II}29'54$	
	15877 Nov 19 07:54	0° $\approx$			15880 Jun 13 17:14	0° $\text{G}$	
desc. node	15877 Nov 24 03:22	5° $\approx$ 09'39		max. Earth dist.	15880 Jul 07 07:02	29° $\text{G}22'40$	1.71910 AU
evening max el	15877 Dec 07 22:22	19° $\approx$ 16'30	46°17'41		15880 Jul 07 18:59	0° $\text{Q}$	
	15877 Dec 19 10:46	0° $\text{H}$					
greatest brilliancy	15878 Jan 16 08:28	18° $\text{H}22'25$	-4.8m	superior conj	15880 Jul 09 23:03	2° $\text{Q}42'35$	-1°27'29
retrograde	15878 Jan 26 09:14	20° $\text{H}12'19$		minimum elong	15880 Jul 10 01:14	2° $\text{Q}49'25$	1°28'11
evening set	15878 Feb 12 06:17	14° $\text{H}47'24$			15880 Jul 31 18:48	0° $\text{P}$	
inferior conj	15878 Feb 16 19:29	11° $\text{H}59'45$	-6°18'20	evening rise	15880 Aug 18 21:52	22° $\text{P}41'25$	
minimum elong	15878 Feb 17 06:00	11° $\text{H}43'16$	6°15'43		15880 Aug 24 18:05	0° $\text{A}$	
min. Earth dist.	15878 Feb 17 00:18	11° $\text{H}52'11$	0.28626 AU	asc. node	15880 Aug 31 22:17	8° $\text{A}58'26$	
morning rise	15878 Feb 22 05:45	8° $\text{H}42'01$			15880 Sep 17 18:12	0° $\text{M}$	
direct	15878 Mar 10 02:34	3° $\text{H}51'04$			15880 Oct 11 20:43	0° $\text{X}$	
asc. node	15878 Mar 17 03:28	4° $\text{H}46'47$			15880 Nov 05 04:10	0° $\text{Z}$	
greatest brilliancy	15878 Mar 20 17:55	5° $\text{H}54'55$	-4.8m		15880 Nov 29 20:46	0° $\approx$	
	15878 Apr 23 11:01	0° $\text{Y}$		desc. node	15880 Dec 21 15:02	25° $\approx$ 48'56	
morning max el	15878 Apr 28 06:10	4° $\text{Y}36'10$	45°52'41		15880 Dec 25 05:13	0° $\text{H}$	
	15878 May 22 13:21	0° $\text{B}$			15881 Jan 20 17:15	0° $\text{Y}$	
	15878 Jun 17 23:08	0° $\text{II}$		evening max el	15881 Feb 16 20:45	28° $\text{Y}13'03$	46°00'35
desc. node	15878 Jul 07 04:50	22° $\text{II}44'42$			15881 Feb 18 17:21	0° $\text{B}$	



greatest brilliancy	15881 Mar 27 21:42	26° $\text{♁}$ 52'32	-4.8m	superior conj	15883 Sep 23 07:15	17° $\text{♁}$ 28'14	-0°15'12
retrograde	15881 Apr 07 01:14	28° $\text{♁}$ 46'10		minimum elong	15883 Sep 23 11:00	17° $\text{♁}$ 40'00	0°14'50
asc. node	15881 Apr 13 13:16	27° $\text{♁}$ 54'40		behind sun begin	15883 Sep 23 00:46	17° $\text{♁}$ 07'56	
evening set	15881 Apr 22 00:29	24° $\text{♁}$ 21'50		behind sun end	15883 Sep 23 21:15	18° $\text{♁}$ 12'04	
inferior conj	15881 Apr 28 05:26	20° $\text{♁}$ 38'05	3°34'07	max. Earth dist.	15883 Sep 23 16:10	17° $\text{♁}$ 56'10	1.71573 AU
minimum elong	15881 Apr 27 21:54	20° $\text{♁}$ 49'53	3°31'23	asc. node	15883 Sep 29 12:13	25° $\text{♁}$ 14'53	
min. Earth dist.	15881 Apr 28 03:28	20° $\text{♁}$ 41'11	0.28287 AU		15883 Oct 03 07:15	0° $\text{♁}$	
morning rise	15881 May 03 19:11	17° $\text{♁}$ 15'12			15883 Oct 27 06:35	0° $\text{♁}$	
direct	15881 May 19 09:22	12° $\text{♁}$ 28'06		evening rise	15883 Nov 01 09:27	6° $\text{♁}$ 23'52	
greatest brilliancy	15881 May 29 18:07	14° $\text{♁}$ 27'58	-4.8m		15883 Nov 20 07:51	0° $\text{♁}$	
	15881 Jun 22 20:46	0° $\text{♁}$			15883 Dec 14 13:08	0° $\text{♁}$	
morning max el	15881 Jul 08 08:01	14° $\text{♁}$ 20'51	46°32'45		15884 Jan 08 01:05	0° $\text{♁}$	
	15881 Jul 23 09:27	0° $\text{♁}$		desc. node	15884 Jan 19 03:53	13° $\text{♁}$ 27'49	
desc. node	15881 Aug 03 15:19	12° $\text{♁}$ 22'44			15884 Feb 01 22:24	0° $\text{♁}$	
	15881 Aug 19 01:23	0° $\text{♁}$			15884 Feb 27 08:01	0° $\text{♁}$	
	15881 Sep 13 09:42	0° $\text{♁}$			15884 Mar 24 12:00	0° $\text{♁}$	
	15881 Oct 08 03:57	0° $\text{♁}$			15884 Apr 21 05:58	0° $\text{♁}$	
	15881 Nov 01 15:30	0° $\text{♁}$		evening max el	15884 Apr 29 06:44	8° $\text{♁}$ 03'56	46°08'39
asc. node	15881 Nov 24 12:47	28° $\text{♁}$ 12'54		asc. node	15884 May 10 23:30	18° $\text{♁}$ 58'45	
	15881 Nov 25 23:28	0° $\text{♁}$			15884 May 24 21:37	0° $\text{♁}$	
	15881 Dec 20 05:16	0° $\text{♁}$		greatest brilliancy	15884 Jun 08 05:41	7° $\text{♁}$ 35'43	-4.8m
morning set	15882 Jan 08 19:33	24° $\text{♁}$ 17'15		retrograde	15884 Jun 17 17:46	9° $\text{♁}$ 16'30	
	15882 Jan 13 10:08	0° $\text{♁}$		evening set	15884 Jul 05 22:38	2° $\text{♁}$ 58'55	
	15882 Feb 06 15:28	0° $\text{♁}$		inferior conj	15884 Jul 08 13:39	1° $\text{♁}$ 21'14	9°05'47
				minimum elong	15884 Jul 08 14:53	1° $\text{♁}$ 19'18	9°05'02
superior conj	15882 Feb 14 18:50	10° $\text{♁}$ 03'59	1°03'52	min. Earth dist.	15884 Jul 09 00:57	1° $\text{♁}$ 03'33	0.27792 AU
minimum elong	15882 Feb 15 04:51	10° $\text{♁}$ 34'54	1°03'52		15884 Jul 10 17:49	30° $\text{♁}$	
max. Earth dist.	15882 Feb 16 14:18	12° $\text{♁}$ 18'17	1.73011 AU	morning rise	15884 Jul 11 07:04	29° $\text{♁}$ 39'41	
	15882 Mar 02 22:20	0° $\text{♁}$		direct	15884 Jul 29 13:57	23° $\text{♁}$ 17'33	
desc. node	15882 Mar 16 05:34	16° $\text{♁}$ 23'24		greatest brilliancy	15884 Aug 08 16:11	25° $\text{♁}$ 12'29	-4.9m
evening rise	15882 Mar 24 14:32	26° $\text{♁}$ 41'56			15884 Aug 18 06:58	0° $\text{♁}$	
	15882 Mar 27 06:55	0° $\text{♁}$		desc. node	15884 Aug 31 01:02	9° $\text{♁}$ 21'09	
	15882 Apr 20 16:32	0° $\text{♁}$		morning max el	15884 Sep 18 01:16	26° $\text{♁}$ 03'50	46°56'05
	15882 May 15 02:41	0° $\text{♁}$			15884 Sep 21 22:10	0° $\text{♁}$	
	15882 Jun 08 14:04	0° $\text{♁}$			15884 Oct 19 11:19	0° $\text{♁}$	
	15882 Jul 03 05:05	0° $\text{♁}$			15884 Nov 14 08:38	0° $\text{♁}$	
asc. node	15882 Jul 06 20:57	4° $\text{♁}$ 25'54			15884 Dec 09 13:07	0° $\text{♁}$	
	15882 Jul 28 04:10	0° $\text{♁}$		asc. node	15884 Dec 22 00:48	15° $\text{♁}$ 03'46	
	15882 Aug 22 19:57	0° $\text{♁}$			15885 Jan 03 08:17	0° $\text{♁}$	
	15882 Sep 19 03:03	0° $\text{♁}$			15885 Jan 27 21:40	0° $\text{♁}$	
evening max el	15882 Sep 24 23:25	5° $\text{♁}$ 58'35	46°39'10		15885 Feb 21 07:47	0° $\text{♁}$	
	15882 Oct 22 19:26	0° $\text{♁}$			15885 Mar 17 16:27	0° $\text{♁}$	
desc. node	15882 Oct 26 18:37	2° $\text{♁}$ 28'47		morning set	15885 Mar 18 20:10	1° $\text{♁}$ 25'26	
greatest brilliancy	15882 Nov 03 08:11	6° $\text{♁}$ 09'55	-4.8m		15885 Apr 11 00:20	0° $\text{♁}$	
retrograde	15882 Nov 14 05:59	8° $\text{♁}$ 21'32		desc. node	15885 Apr 12 19:19	2° $\text{♁}$ 12'39	
evening set	15882 Dec 01 06:09	2° $\text{♁}$ 48'25		max. Earth dist.	15885 Apr 24 05:52	16° $\text{♁}$ 20'19	1.72888 AU
min. Earth dist.	15882 Dec 04 14:12	0° $\text{♁}$ 47'33	0.27979 AU				
inferior conj	15882 Dec 05 09:35	0° $\text{♁}$ 17'43	-8°07'36	superior conj	15885 Apr 25 22:13	18° $\text{♁}$ 24'57	-0°31'17
minimum elong	15882 Dec 05 00:54	0° $\text{♁}$ 31'05	8°05'37	minimum elong	15885 Apr 25 15:08	18° $\text{♁}$ 03'05	0°31'29
	15882 Dec 05 21:07	30° $\text{♁}$			15885 May 05 07:05	0° $\text{♁}$	
morning rise	15882 Dec 08 19:59	28° $\text{♁}$ 12'53			15885 May 29 12:09	0° $\text{♁}$	
direct	15882 Dec 26 10:57	22° $\text{♁}$ 23'51		evening rise	15885 Jun 03 10:33	6° $\text{♁}$ 07'21	
greatest brilliancy	15883 Jan 04 23:05	24° $\text{♁}$ 03'25	-4.8m		15885 Jun 22 15:47	0° $\text{♁}$	
	15883 Jan 16 23:44	0° $\text{♁}$			15885 Jul 16 19:09	0° $\text{♁}$	
morning max el	15883 Feb 13 13:53	22° $\text{♁}$ 50'45	45°49'06	asc. node	15885 Aug 03 10:17	21° $\text{♁}$ 51'56	
asc. node	15883 Feb 16 19:50	26° $\text{♁}$ 01'34			15885 Aug 10 00:02	0° $\text{♁}$	
	15883 Feb 20 18:58	0° $\text{♁}$			15885 Sep 03 08:45	0° $\text{♁}$	
	15883 Mar 20 16:08	0° $\text{♁}$			15885 Sep 28 01:01	0° $\text{♁}$	
	15883 Apr 15 17:48	0° $\text{♁}$			15885 Oct 23 08:34	0° $\text{♁}$	
	15883 May 10 23:41	0° $\text{♁}$			15885 Nov 19 01:19	0° $\text{♁}$	
	15883 Jun 04 18:02	0° $\text{♁}$		desc. node	15885 Nov 23 05:15	4° $\text{♁}$ 26'10	
desc. node	15883 Jun 08 19:14	4° $\text{♁}$ 56'58		evening max el	15885 Dec 05 12:01	16° $\text{♁}$ 57'52	46°18'33
	15883 Jun 29 04:21	0° $\text{♁}$			15885 Dec 19 16:10	0° $\text{♁}$	
	15883 Jul 23 08:49	0° $\text{♁}$		greatest brilliancy	15886 Jan 14 00:09	16° $\text{♁}$ 09'40	-4.8m
morning set	15883 Aug 14 15:17	27° $\text{♁}$ 47'47		retrograde	15886 Jan 24 00:12	17° $\text{♁}$ 59'29	
	15883 Aug 16 09:35	0° $\text{♁}$		evening set	15886 Feb 10 00:46	12° $\text{♁}$ 29'57	
	15883 Sep 09 08:35	0° $\text{♁}$		inferior conj	15886 Feb 14 11:01	9° $\text{♁}$ 46'54	-6°33'01

minimum elong	15886 Feb 14 21:32	9° $\text{H}$ 30'24	6°30'27	greatest brilliancy	15888 Aug 16 19:28	20° $\text{H}$ 44'34	-3.9m
min. Earth dist.	15886 Feb 14 15:53	9° $\text{H}$ 39'15	0.28632 AU		15888 Aug 24 05:04	0° $\text{H}$	
morning rise	15886 Feb 19 18:17	6° $\text{H}$ 33'22		asc. node	15888 Aug 31 00:03	8° $\text{H}$ 29'33	
direct	15886 Mar 07 17:27	1° $\text{H}$ 38'10			15888 Sep 17 05:17	0° $\text{H}$	
asc. node	15886 Mar 16 05:24	2° $\text{H}$ 58'15			15888 Oct 11 08:00	0° $\text{H}$	
greatest brilliancy	15886 Mar 18 09:36	3° $\text{H}$ 42'19	-4.8m		15888 Nov 04 15:49	0° $\text{H}$	
	15886 Apr 23 10:44	0° $\text{Y}$			15888 Nov 29 09:04	0° $\approx$	
morning max el	15886 Apr 25 20:52	2° $\text{Y}$ 20'38	45°51'52	desc. node	15888 Dec 20 16:58	25° $\approx$ 15'50	
	15886 May 22 05:26	0° $\text{H}$			15888 Dec 24 18:44	0° $\text{H}$	
	15886 Jun 17 12:40	0° $\text{H}$			15889 Jan 20 09:23	0° $\text{Y}$	
desc. node	15886 Jul 06 06:47	22° $\text{H}$ 12'57		evening max el	15889 Feb 14 13:05	26° $\text{Y}$ 02'15	46°00'47
	15886 Jul 12 18:17	0° $\text{H}$			15889 Feb 18 17:12	0° $\text{H}$	
	15886 Aug 06 09:47	0° $\Omega$		greatest brilliancy	15889 Mar 25 12:12	24° $\text{H}$ 37'17	-4.8m
	15886 Aug 30 17:15	0° $\text{H}$		retrograde	15889 Apr 04 16:39	26° $\text{H}$ 31'12	
	15886 Sep 23 20:37	0° $\text{H}$		asc. node	15889 Apr 12 15:08	25° $\text{H}$ 14'35	
	15886 Oct 17 22:08	0° $\text{H}$		evening set	15889 Apr 19 14:37	22° $\text{H}$ 08'25	
morning set	15886 Oct 27 05:15	11° $\text{H}$ 36'11		inferior conj	15889 Apr 25 20:38	18° $\text{H}$ 22'53	3°13'54
asc. node	15886 Oct 27 01:45	11° $\text{H}$ 25'13		minimum elong	15889 Apr 25 13:43	18° $\text{H}$ 33'44	3°11'21
	15886 Nov 10 22:58	0° $\text{H}$		min. Earth dist.	15889 Apr 25 18:34	18° $\text{H}$ 26'06	0.28295 AU
				morning rise	15889 May 01 12:44	14° $\text{H}$ 56'47	
superior conj	15886 Dec 04 18:33	29° $\text{H}$ 42'59	1°17'09	direct	15889 May 17 01:16	10° $\text{H}$ 13'05	
minimum elong	15886 Dec 04 09:59	29° $\text{H}$ 16'16	1°17'46	greatest brilliancy	15889 May 27 09:21	12° $\text{H}$ 12'36	-4.8m
	15886 Dec 05 00:01	0° $\text{H}$			15889 Jun 23 02:54	0° $\text{H}$	
max. Earth dist.	15886 Dec 06 19:00	2° $\text{H}$ 13'56	1.72207 AU	morning max el	15889 Jul 05 23:27	12° $\text{H}$ 05'14	46°31'13
	15886 Dec 29 02:37	0° $\approx$			15889 Jul 23 03:13	0° $\text{H}$	
evening rise	15887 Jan 11 04:33	16° $\approx$ 12'51		desc. node	15889 Aug 02 17:16	11° $\text{H}$ 43'16	
	15887 Jan 22 08:23	0° $\text{H}$			15889 Aug 18 15:49	0° $\Omega$	
desc. node	15887 Feb 15 17:26	29° $\text{H}$ 56'29			15889 Sep 12 22:38	0° $\text{H}$	
	15887 Feb 15 18:35	0° $\text{Y}$			15889 Oct 07 16:02	0° $\text{H}$	
	15887 Mar 12 09:32	0° $\text{H}$			15889 Nov 01 03:02	0° $\text{H}$	
	15887 Apr 06 05:16	0° $\text{H}$		asc. node	15889 Nov 23 14:45	27° $\text{H}$ 44'23	
	15887 May 01 07:07	0° $\text{H}$			15889 Nov 25 10:37	0° $\text{H}$	
	15887 May 26 20:12	0° $\Omega$			15889 Dec 19 16:11	0° $\text{H}$	
asc. node	15887 Jun 08 10:36	14° $\Omega$ 26'11		morning set	15890 Jan 06 11:54	22° $\text{H}$ 05'47	
	15887 Jun 22 10:06	0° $\text{H}$			15890 Jan 12 20:54	0° $\approx$	
evening max el	15887 Jul 12 01:10	20° $\text{H}$ 34'01	46°32'39		15890 Feb 06 02:10	0° $\text{H}$	
	15887 Jul 21 21:56	0° $\text{H}$					
greatest brilliancy	15887 Aug 21 00:56	20° $\text{H}$ 47'31	-4.9m	superior conj	15890 Feb 12 11:16	7° $\text{H}$ 53'17	1°06'07
retrograde	15887 Aug 31 02:20	22° $\text{H}$ 41'41		minimum elong	15890 Feb 12 21:11	8° $\text{H}$ 23'55	1°06'10
evening set	15887 Sep 14 20:13	18° $\text{H}$ 25'55		max. Earth dist.	15890 Feb 14 10:19	10° $\text{H}$ 18'40	1.72998 AU
inferior conj	15887 Sep 20 18:31	14° $\text{H}$ 58'20	1°59'56		15890 Mar 02 09:05	0° $\text{Y}$	
minimum elong	15887 Sep 20 23:09	14° $\text{H}$ 51'17	1°58'33	desc. node	15890 Mar 15 07:17	15° $\text{Y}$ 55'26	
min. Earth dist.	15887 Sep 20 23:42	14° $\text{H}$ 50'27	0.26923 AU	evening rise	15890 Mar 22 06:17	24° $\text{Y}$ 29'21	
morning rise	15887 Sep 27 01:58	11° $\text{H}$ 17'51			15890 Mar 26 17:47	0° $\text{H}$	
desc. node	15887 Sep 28 10:31	10° $\text{H}$ 36'04			15890 Apr 20 03:36	0° $\text{H}$	
direct	15887 Oct 11 11:42	7° $\text{H}$ 12'35			15890 May 14 14:02	0° $\text{H}$	
greatest brilliancy	15887 Oct 21 14:14	9° $\text{H}$ 06'06	-4.9m		15890 Jun 08 01:49	0° $\Omega$	
	15887 Nov 21 01:52	0° $\text{H}$			15890 Jul 02 17:30	0° $\text{H}$	
morning max el	15887 Nov 30 09:04	8° $\text{H}$ 47'15	46°28'45	asc. node	15890 Jul 05 22:55	3° $\text{H}$ 53'57	
	15887 Dec 20 20:22	0° $\text{H}$			15890 Jul 27 17:41	0° $\text{H}$	
	15888 Jan 16 15:45	0° $\text{H}$			15890 Aug 22 11:33	0° $\text{H}$	
asc. node	15888 Jan 19 11:46	3° $\text{H}$ 15'54			15890 Sep 18 23:50	0° $\text{H}$	
	15888 Feb 11 07:29	0° $\approx$		evening max el	15890 Sep 22 14:43	3° $\text{H}$ 40'28	46°39'33
	15888 Mar 07 08:54	0° $\text{H}$			15890 Oct 24 02:29	0° $\text{H}$	
	15888 Apr 01 02:20	0° $\text{Y}$		desc. node	15890 Oct 25 20:35	0° $\text{H}$ 59'54	
	15888 Apr 25 14:46	0° $\text{H}$		greatest brilliancy	15890 Oct 31 22:55	3° $\text{H}$ 51'25	-4.8m
desc. node	15888 May 10 08:36	18° $\text{H}$ 08'14		retrograde	15890 Nov 11 20:42	6° $\text{H}$ 02'42	
	15888 May 19 23:16	0° $\text{H}$		evening set	15890 Nov 28 16:37	0° $\text{H}$ 36'19	
morning set	15888 May 28 23:14	11° $\text{H}$ 07'53			15890 Nov 29 17:13	30° $\text{H}$ 14'17	
	15888 Jun 13 04:07	0° $\text{H}$		min. Earth dist.	15890 Dec 02 04:04	28° $\text{H}$ 30'25	0.27924 AU
max. Earth dist.	15888 Jul 04 20:37	27° $\text{H}$ 01'11	1.71939 AU	inferior conj	15890 Dec 02 23:51	27° $\text{H}$ 59'56	-7°57'48
				minimum elong	15890 Dec 02 14:38	28° $\text{H}$ 14'08	7°55'39
superior conj	15888 Jul 07 11:38	0° $\Omega$ 17'57	-1°27'44	morning rise	15890 Dec 06 12:59	25° $\text{H}$ 50'56	
minimum elong	15888 Jul 07 12:49	0° $\Omega$ 21'37	1°28'28	direct	15890 Dec 24 01:06	20° $\text{H}$ 07'05	
	15888 Jul 07 05:53	0° $\Omega$		greatest brilliancy	15891 Jan 02 12:00	21° $\text{H}$ 45'27	-4.8m
	15888 Jul 31 05:44	0° $\text{H}$			15891 Jan 18 00:06	0° $\text{H}$	
evening rise	15888 Aug 16 09:54	20° $\text{H}$ 14'38		morning max el	15891 Feb 11 03:28	20° $\text{H}$ 32'55	45°49'42

asc. node	15891 Feb 15 21:44	25°  14'04		15893 Sep 02 20:38	0° 	
	15891 Feb 20 14:38	0° 		15893 Sep 27 13:41	0° 	
	15891 Mar 20 06:57	0° 		15893 Oct 22 22:44	0° 	
	15891 Apr 15 06:45	0° 		15893 Nov 18 18:56	0° 	
	15891 May 10 11:42	0° 		15893 Nov 22 07:15	3°  42'59	
	15891 Jun 04 05:32	0° 		15893 Dec 03 02:01	14°  40'45	46°19'32
desc. node	15891 Jun 07 21:14	4°  28'04		15893 Dec 19 23:28	0° 	
	15891 Jun 28 15:32	0° 		15894 Jan 11 15:21	13°  57'19	-4.8m
	15891 Jul 22 19:49	0° 		15894 Jan 21 15:49	15°  47'54	
morning set	15891 Aug 12 03:29	25°  21'49		15894 Feb 07 19:22	10°  13'32	
	15891 Aug 15 20:28	0° 		15894 Feb 12 02:40	7°  35'09	-6°46'58
	15891 Sep 08 19:26	0° 		15894 Feb 12 13:07	7°  18'47	6°44'31
				15894 Feb 12 07:18	7°  27'53	0.28636 AU
superior conj	15891 Sep 20 19:39	15°  24'47	-0°18'57	15894 Feb 17 06:51	4°  26'17	
minimum elong	15891 Sep 21 00:19	15°  17'25	0°18'35	15894 Feb 28 01:45	30°  R 	
max. Earth dist.	15891 Sep 21 01:10	15°  20'05	1.71563 AU	15894 Mar 05 08:36	29°  26'24	
asc. node	15891 Sep 28 13:58	24°  24'23		15894 Mar 10 19:06	0° 	
	15891 Oct 02 18:05	0° 		15894 Mar 15 07:14	1°  14'47	
	15891 Oct 26 17:26	0° 		15894 Mar 16 01:12	1°  30'56	-4.8m
evening rise	15891 Oct 29 23:40	4°  04'26		15894 Apr 23 09:00	0° 	
	15891 Nov 19 18:44	0° 		15894 Apr 23 12:27	0°  08'24	45°51'03
	15891 Dec 14 00:09	0° 		15894 May 21 20:55	0° 	
	15892 Jan 07 12:26	0° 		15894 Jun 17 01:51	0° 	
desc. node	15892 Jan 18 05:47	12°  58'41		15894 Jul 05 08:39	21°  41'35	
	15892 Feb 01 10:21	0° 		15894 Jul 12 06:24	0° 	
	15892 Feb 26 21:02	0° 		15894 Aug 05 21:20	0° 	
	15892 Mar 24 03:06	0° 		15894 Aug 30 04:28	0° 	
	15892 Apr 21 02:12	0° 		15894 Sep 23 07:34	0° 	
evening max el	15892 Apr 26 19:52	5°  24'3'08	46°07'47	15894 Oct 17 08:53	0° 	
asc. node	15892 May 10 01:30	17°  25'8'13		15894 Oct 24 18:40	9°  14'47	
	15892 May 26 01:07	0° 		15894 Oct 26 03:39	10°  15'746	
greatest brilliancy	15892 Jun 05 19:33	5°  21'5'49	-4.8m	15894 Nov 10 09:34	0° 	
retrograde	15892 Jun 15 06:49	6°  21'56'21				
evening set	15892 Jul 03 11:56	0°  39'21		15894 Dec 02 09:40	27°  27'37	1°15'28
	15892 Jul 04 13:34	30°  R 		15894 Dec 02 00:37	26°  27'59'23	1°16'02
inferior conj	15892 Jul 06 03:40	29°  20'0'38	9°06'15	15894 Dec 04 10:33	0° 	
minimum elong	15892 Jul 06 03:56	29°  20'0'11	9°05'32	15894 Dec 04 08:26	29°  27'53'23	1.72179 AU
min. Earth dist.	15892 Jul 06 14:39	28°  24'3'26	0.27825 AU	15894 Dec 28 13:09	0° 	
morning rise	15892 Jul 08 19:51	27°  20'5'51		15895 Jan 08 20:14	14°  22'00'13	
direct	15892 Jul 27 03:35	20°  25'6'15		15895 Jan 21 19:00	0° 	
greatest brilliancy	15892 Aug 06 06:55	22°  25'1'51	-4.9m	15895 Feb 14 19:11	29°  28'55	
	15892 Aug 19 11:44	0° 		15895 Feb 15 05:21	0° 	
desc. node	15892 Aug 30 02:53	8°  21'4'59		15895 Mar 11 20:36	0° 	
morning max el	15892 Sep 15 14:25	23°  29'39'56	46°56'12	15895 Apr 05 16:51	0° 	
	15892 Sep 21 18:55	0° 		15895 Apr 30 19:35	0° 	
	15892 Oct 19 02:53	0° 		15895 May 26 10:14	0° 	
	15892 Nov 13 22:04	0° 		15895 Jun 07 12:33	13°  21'48'38	
	15892 Dec 09 01:22	0° 		15895 Jun 22 03:31	0° 	
asc. node	15892 Dec 21 02:40	14°  27'33'33		15895 Jul 09 15:11	18°  27'13'40	46°31'50
	15893 Jan 02 19:49	0° 		15895 Jul 22 02:40	0° 	
	15893 Jan 27 08:43	0° 		15895 Aug 18 14:13	18°  23'23'24	-4.9m
	15893 Feb 20 18:32	0° 		15895 Aug 28 15:44	20°  21'17'21	
morning set	15893 Mar 16 12:47	29°  28'16'00		15895 Sep 12 10:56	15°  25'58'46	
	15893 Mar 17 03:04	0° 		15895 Sep 18 07:06	12°  23'33'53	2°23'43
	15893 Apr 10 10:55	0° 		15895 Sep 18 12:37	12°  25'25'31	2°22'04
desc. node	15893 Apr 11 21:08	1°  28'45'37		15895 Sep 18 13:17	12°  24'24'30	0.26929 AU
max. Earth dist.	15893 Apr 21 23:22	14°  28'13'25	1.72918 AU	15895 Sep 24 14:13	8°  25'54'07	
				15895 Sep 27 12:30	7°  27'27'49	
superior conj	15893 Apr 23 13:18	16°  28'10'35	-0°27'57	15895 Oct 09 00:52	4°  27'47'49	
minimum elong	15893 Apr 23 06:53	15°  28'50'48	0°28'10	15895 Oct 19 03:10	6°  24'41'44	-4.9m
	15893 May 04 17:42	0° 		15895 Nov 21 04:54	0° 	
	15893 May 28 22:52	0° 		15895 Nov 27 23:51	6°  29'29'43	46°30'16
evening rise	15893 Jun 01 00:41	3°  24'48'56		15895 Dec 20 13:23	0° 	
	15893 Jun 22 02:40	0°		15896 Jan 16 05:34	0°	
	15893 Jul 16 06:16	0°		15896 Jan 18 13:38	2°  23'41'59	
asc. node	15893 Aug 02 12:01	21°  22'22'14		15896 Feb 10 19:45	0°	
	15893 Aug 09 11:28	0°		15896 Mar 06 20:21	0°	

	15896 Mar 31 13:17	0°♿			15898 Oct 25 23:53	0°♿	
	15896 Apr 25 01:26	0°♿		greatest brilliancy	15898 Oct 29 13:48	1°♿33'28	-4.8m
desc. node	15896 May 09 10:34	17°♿41'44		retrograde	15898 Nov 09 10:36	3°♿44'03	
	15896 May 19 09:47	0°♿			15898 Nov 23 05:13	30°♿♿	
morning set	15896 May 26 12:55	8°♿49'10		evening set	15898 Nov 26 02:49	28°♿24'21	
	15896 Jun 12 14:36	0°♿		min. Earth dist.	15898 Nov 29 18:11	26°♿12'46	0.27874 AU
max. Earth dist.	15896 Jul 02 09:44	24°♿39'39	1.71970 AU	inferior conj	15898 Nov 30 13:55	25°♿42'22	-7°47'05
				minimum elong	15898 Nov 30 04:13	25°♿57'19	7°44'45
superior conj	15896 Jul 05 00:38	27°♿55'54	-1°27'49	morning rise	15898 Dec 04 05:58	23°♿28'57	
minimum elong	15896 Jul 05 00:48	27°♿56'27	1°28'35	direct	15898 Dec 21 14:39	17°♿50'17	
	15896 Jul 06 16:23	0°♿		greatest brilliancy	15898 Dec 31 01:35	19°♿28'18	-4.8m
	15896 Jul 30 16:17	0°♿			15899 Jan 18 17:48	0°♿	
evening rise	15896 Aug 13 21:56	17°♿48'54		morning max el	15899 Feb 08 16:20	18°♿13'45	45°50'33
greatest brilliancy	15896 Aug 15 20:27	20°♿14'26	-3.9m	asc. node	15899 Feb 14 23:39	24°♿27'51	
	15896 Aug 23 15:43	0°♿			15899 Feb 20 09:28	0°♿	
asc. node	15896 Aug 30 01:51	8°♿01'44			15899 Mar 19 21:17	0°♿	
	15896 Sep 16 16:06	0°♿			15899 Apr 14 19:15	0°♿	
	15896 Oct 10 19:03	0°♿			15899 May 09 23:18	0°♿	
	15896 Nov 04 03:14	0°♿			15899 Jun 03 16:38	0°♿	
	15896 Nov 28 21:07	0°♿		desc. node	15899 Jun 06 22:59	3°♿59'38	
desc. node	15896 Dec 19 18:51	24°♿43'29			15899 Jun 28 02:21	0°♿	
	15896 Dec 24 08:00	0°♿			15899 Jul 22 06:27	0°♿	
	15897 Jan 20 01:21	0°♿		morning set	15899 Aug 09 15:59	22°♿57'49	
evening max el	15897 Feb 12 05:24	23°♿52'40	46°01'02		15899 Aug 15 07:00	0°♿	
	15897 Feb 18 17:38	0°♿			15899 Sep 08 05:55	0°♿	
greatest brilliancy	15897 Mar 23 03:26	22°♿24'41	-4.8m				
retrograde	15897 Apr 02 07:51	24°♿18'09		superior conj	15899 Sep 18 08:24	12°♿39'39	-0°22'37
asc. node	15897 Apr 11 17:13	22°♿31'35		minimum elong	15899 Sep 18 13:58	12°♿57'03	0°22'16
evening set	15897 Apr 17 05:12	19°♿56'51		max. Earth dist.	15899 Sep 18 09:29	12°♿43'00	1.71555 AU
inferior conj	15897 Apr 23 12:03	16°♿09'49	2°53'36	asc. node	15899 Sep 27 15:52	24°♿19'34	
minimum elong	15897 Apr 23 05:47	16°♿19'40	2°51'13		15899 Oct 02 04:34	0°♿	
min. Earth dist.	15897 Apr 23 10:08	16°♿12'48	0.28300 AU		15899 Oct 26 03:56	0°♿	
morning rise	15897 Apr 29 06:19	12°♿40'31		evening rise	15899 Oct 27 14:05	1°♿46'43	
direct	15897 May 14 17:12	8°♿00'17			15899 Nov 19 05:20	0°♿	
greatest brilliancy	15897 May 25 00:54	9°♿59'23	-4.8m		15899 Dec 13 10:58	0°♿	
	15897 Jun 23 06:19	0°♿			15900 Jan 06 23:36	0°♿	
morning max el	15897 Jul 03 14:09	9°♿49'29	46°29'43	desc. node	15900 Jan 17 07:30	12°♿29'36	
	15897 Jul 22 20:00	0°♿			15900 Jan 31 22:09	0°♿	
desc. node	15897 Aug 01 19:08	11°♿05'30			15900 Feb 26 09:55	0°♿	
	15897 Aug 18 05:34	0°♿			15900 Mar 24 18:08	0°♿	
	15897 Sep 12 11:02	0°♿			15900 Apr 21 22:47	0°♿	
	15897 Oct 07 03:42	0°♿		evening max el	15900 Apr 25 08:57	3°♿23'15	46°07'09
	15897 Oct 31 14:13	0°♿		asc. node	15900 May 10 03:26	16°♿57'03	
asc. node	15897 Nov 22 16:37	27°♿16'32			15900 May 28 15:41	0°♿	
	15897 Nov 24 21:29	0°♿		greatest brilliancy	15900 Jun 04 09:02	2°♿56'48	-4.8m
	15897 Dec 19 02:48	0°♿		retrograde	15900 Jun 13 20:28	4°♿37'56	
morning set	15898 Jan 04 03:53	19°♿54'07			15900 Jun 29 05:53	30°♿♿	
	15898 Jan 12 07:20	0°♿		evening set	15900 Jul 02 00:55	28°♿21'52	
	15898 Feb 05 12:30	0°♿		inferior conj	15900 Jul 04 17:51	26°♿41'26	9°05'52
				minimum elong	15900 Jul 04 17:11	26°♿42'28	9°05'07
superior conj	15898 Feb 10 03:36	5°♿43'26	1°08'16	min. Earth dist.	15900 Jul 05 04:16	26°♿25'10	0.27857 AU
minimum elong	15898 Feb 10 13:22	6°♿13'38	1°08'23	morning rise	15900 Jul 07 09:21	25°♿02'47	
max. Earth dist.	15898 Feb 12 05:17	8°♿17'00	1.72977 AU	direct	15900 Jul 25 17:31	18°♿36'16	
	15898 Mar 01 19:26	0°♿		greatest brilliancy	15900 Aug 04 21:45	20°♿32'39	-4.9m
desc. node	15898 Mar 14 09:09	15°♿29'07			15900 Aug 21 08:05	0°♿	
evening rise	15898 Mar 19 22:05	22°♿18'07		desc. node	15900 Aug 30 04:51	7°♿11'42	
	15898 Mar 26 04:16	0°♿		morning max el	15900 Sep 14 04:37	21°♿19'34	46°56'23
	15898 Apr 19 14:16	0°♿			15900 Sep 22 14:38	0°♿	
	15898 May 14 00:58	0°♿			15900 Oct 19 17:54	0°♿	
	15898 Jun 07 13:11	0°♿			15900 Nov 14 11:05	0°♿	
	15898 Jul 02 05:30	0°♿			15900 Dec 09 13:19	0°♿	
asc. node	15898 Jul 05 00:41	3°♿22'47		asc. node	15900 Dec 21 04:29	14°♿03'53	
	15898 Jul 27 06:50	0°♿			15901 Jan 03 07:06	0°♿	
	15898 Aug 22 02:54	0°♿			15901 Jan 27 19:36	0°♿	
	15898 Sep 18 20:54	0°♿			15901 Feb 21 05:12	0°♿	
evening max el	15898 Sep 20 05:00	1°♿20'53	46°39'36	morning set	15901 Mar 15 05:15	27°♿06'18	
desc. node	15898 Oct 24 22:35	29°♿28'28			15901 Mar 17 13:36	0°♿	

	15901 Apr 10 21:24	0°♄		minimum elong	15903 Sep 17 02:03	9°♄59'17	2°45'21
desc. node	15901 Apr 11 23:02	1°♄19'07		min. Earth dist.	15903 Sep 17 02:47	9°♄58'10	0.26937 AU
max. Earth dist.	15901 Apr 20 18:23	12°♄11'34	1.72941 AU	morning rise	15903 Sep 23 02:11	6°♄29'58	
				desc. node	15903 Sep 27 14:34	4°♄23'25	
superior conj	15901 Apr 22 04:11	13°♄55'54	-0°24'35	direct	15903 Oct 07 14:18	2°♄22'37	
minimum elong	15901 Apr 21 22:29	13°♄38'19	0°24'47	greatest brilliancy	15903 Oct 17 15:54	4°♄16'23	-4.9m
	15901 May 05 04:12	0°♄			15903 Nov 22 06:44	0°♄	
	15901 May 29 09:28	0°♄		morning max el	15903 Nov 26 13:59	4°♄09'47	46°31'44
evening rise	15901 May 30 14:51	1°♄31'05			15903 Dec 21 06:18	0°♄	
	15901 Jun 22 13:27	0°♄			15904 Jan 16 19:27	0°♄	
	15901 Jul 16 17:18	0°♄		asc. node	15904 Jan 18 15:32	2°♄07'45	
asc. node	15901 Aug 02 13:52	20°♄53'13			15904 Feb 11 08:11	0°♄	
	15901 Aug 09 22:50	0°♄			15904 Mar 07 07:59	0°♄	
	15901 Sep 03 08:29	0°♄			15904 Apr 01 00:28	0°♄	
	15901 Sep 28 02:20	0°♄			15904 Apr 25 12:23	0°♄	
	15901 Oct 23 12:56	0°♄		desc. node	15904 May 09 12:20	17°♄13'35	
	15901 Nov 19 12:51	0°♄			15904 May 19 20:38	0°♄	
desc. node	15901 Nov 22 09:07	2°♄59'09		morning set	15904 May 25 02:18	6°♄28'34	
evening max el	15901 Dec 01 16:40	12°♄25'32	46°20'26		15904 Jun 13 01:25	0°♄	
	15901 Dec 21 09:26	0°♄		max. Earth dist.	15904 Jun 30 19:44	22°♄07'20	1.72000 AU
greatest brilliancy	15902 Jan 10 05:43	11°♄44'02	-4.8m				
retrograde	15902 Jan 20 07:42	13°♄36'02		superior conj	15904 Jul 03 13:19	25°♄31'55	-1°27'46
evening set	15902 Feb 06 13:50	7°♄56'44		minimum elong	15904 Jul 03 12:29	25°♄29'20	1°28'31
inferior conj	15902 Feb 10 18:11	5°♄22'55	-7°00'25		15904 Jul 07 03:13	0°♄	
minimum elong	15902 Feb 11 04:30	5°♄06'48	6°58'03		15904 Jul 31 03:09	0°♄	
min. Earth dist.	15902 Feb 10 22:13	5°♄16'37	0.28644 AU	evening rise	15904 Aug 12 09:36	15°♄21'02	
morning rise	15902 Feb 15 19:10	2°♄19'01		greatest brilliancy	15904 Aug 14 13:28	18°♄03'18	-3.9m
	15902 Feb 20 05:56	30°♄			15904 Aug 24 02:41	0°♄	
direct	15902 Mar 04 00:11	27°♄14'11		asc. node	15904 Aug 30 03:44	7°♄33'13	
greatest brilliancy	15902 Mar 14 16:22	29°♄18'42	-4.8m		15904 Sep 17 03:14	0°♄	
asc. node	15902 Mar 15 09:20	29°♄34'51			15904 Oct 11 06:27	0°♄	
	15902 Mar 16 10:07	0°♄			15904 Nov 04 15:01	0°♄	
morning max el	15902 Apr 22 04:37	27°♄57'19	45°50'15		15904 Nov 29 09:34	0°♄	
	15902 Apr 24 06:32	0°♄		desc. node	15904 Dec 19 20:40	24°♄09'40	
	15902 May 22 12:16	0°♄			15904 Dec 24 21:45	0°♄	
	15902 Jun 17 14:59	0°♄			15905 Jan 20 18:00	0°♄	
desc. node	15902 Jul 05 10:32	21°♄10'14		evening max el	15905 Feb 10 20:44	21°♄39'45	46°01'17
	15902 Jul 12 18:29	0°♄			15905 Feb 19 19:50	0°♄	
	15902 Aug 06 08:51	0°♄		greatest brilliancy	15905 Mar 21 19:03	20°♄11'29	-4.8m
	15902 Aug 30 15:39	0°♄		retrograde	15905 Mar 31 22:30	22°♄04'03	
	15902 Sep 23 18:32	0°♄		asc. node	15905 Apr 11 19:04	19°♄42'50	
	15902 Oct 17 19:41	0°♄		evening set	15905 Apr 15 19:55	17°♄43'51	
morning set	15902 Oct 23 08:12	6°♄53'36		inferior conj	15905 Apr 22 03:26	13°♄55'43	2°33'01
asc. node	15902 Oct 26 05:29	10°♄29'54		minimum elong	15905 Apr 21 21:51	14°♄04'29	2°30'50
	15902 Nov 10 20:14	0°♄		min. Earth dist.	15905 Apr 22 02:00	13°♄57'58	0.28309 AU
				morning rise	15905 Apr 27 23:42	10°♄23'15	
superior conj	15902 Dec 01 00:53	25°♄12'19	1°13'39	direct	15905 May 13 08:44	5°♄46'17	
minimum elong	15902 Nov 30 15:24	24°♄42'44	1°14'11	greatest brilliancy	15905 May 23 17:00	7°♄45'30	-4.8m
max. Earth dist.	15902 Dec 03 00:01	27°♄39'19	1.72148 AU		15905 Jun 24 08:46	0°♄	
	15902 Dec 04 21:09	0°♄		morning max el	15905 Jul 02 03:52	7°♄29'45	46°28'08
	15902 Dec 28 23:45	0°♄			15905 Jul 23 13:00	0°♄	
evening rise	15903 Jan 07 12:06	11°♄47'57		desc. node	15905 Aug 01 21:07	10°♄26'51	
	15903 Jan 22 05:41	0°♄			15905 Aug 18 19:42	0°♄	
desc. node	15903 Feb 14 21:06	29°♄01'30			15905 Sep 12 23:49	0°♄	
	15903 Feb 15 16:15	0°♄			15905 Oct 07 15:43	0°♄	
	15903 Mar 12 07:52	0°♄			15905 Nov 01 01:46	0°♄	
	15903 Apr 06 04:41	0°♄		asc. node	15905 Nov 22 18:20	26°♄47'04	
	15903 May 01 08:21	0°♄			15905 Nov 25 08:42	0°♄	
	15903 May 27 00:40	0°♄			15905 Dec 19 13:47	0°♄	
asc. node	15903 Jun 07 14:22	13°♄09'43		morning set	15906 Jan 02 19:46	17°♄40'47	
	15903 Jun 22 21:35	0°♄			15906 Jan 12 18:09	0°♄	
evening max el	15903 Jul 08 05:34	15°♄53'42	46°31'07		15906 Feb 05 23:16	0°♄	
	15903 Jul 23 09:48	0°♄					
greatest brilliancy	15903 Aug 17 03:39	15°♄59'10	-4.9m	superior conj	15906 Feb 08 20:03	3°♄32'42	1°10'20
retrograde	15903 Aug 27 04:56	17°♄52'24		minimum elong	15906 Feb 09 05:37	4°♄02'16	1°10'28
evening set	15903 Sep 11 01:54	13°♄31'03		max. Earth dist.	15906 Feb 10 22:04	6°♄07'17	1.72954 AU
inferior conj	15903 Sep 16 19:43	10°♄08'55	2°47'16		15906 Mar 02 06:13	0°♄	

desc. node	15906 Mar 14 11:00	15°Υ01'34		15908 Aug 21 23:38	0°Ω	
evening rise	15906 Mar 18 13:58	20°Υ06'00		desc. node	15908 Aug 29 06:53	6°Ω09'05
	15906 Mar 26 15:09	0°Ϸ		morning max el	15908 Sep 11 19:39	19°Ω00'19 46°56'16
	15906 Apr 20 01:21	0°Π			15908 Sep 22 10:13	0°ϯ
	15906 May 14 12:22	0°ϣ			15908 Oct 19 09:10	0°Ω
	15906 Jun 08 01:02	0°Ω			15908 Nov 14 00:28	0°ϯ
	15906 Jul 02 18:06	0°ϯ			15908 Dec 09 01:37	0°Ϸ
asc. node	15906 Jul 05 02:33	2°ϯ50'09		asc. node	15908 Dec 20 06:26	13°Ϸ33'30
	15906 Jul 27 20:40	0°Ω			15909 Jan 02 18:43	0°ϣ
	15906 Aug 22 19:08	0°ϯ			15909 Jan 27 06:47	0°≈
evening max el	15906 Sep 18 18:14	28°ϯ56'56 46°39'51			15909 Feb 20 16:08	0°Ϸ
	15906 Sep 19 19:27	0°Ϸ		morning set	15909 Mar 12 21:43	24°Ϸ55'47
desc. node	15906 Oct 25 00:25	27°Ϸ51'45			15909 Mar 17 00:24	0°Υ
greatest brilliancy	15906 Oct 28 04:35	29°Ϸ13'37 -4.8m			15909 Apr 10 08:10	0°Ϸ
	15906 Oct 30 09:42	0°ϣ		desc. node	15909 Apr 11 00:46	0°Ϸ51'13
retrograde	15906 Nov 08 00:23	1°ϣ23'50		max. Earth dist.	15909 Apr 18 14:11	10°Ϸ11'11 1.72961 AU
	15906 Nov 16 08:35	30°ϷϷ				
evening set	15906 Nov 24 12:55	26°Ϸ10'25		superior conj	15909 Apr 19 19:08	11°Ϸ40'35 -0°21'09
min. Earth dist.	15906 Nov 28 08:22	23°Ϸ53'10 0.27823 AU		minimum elong	15909 Apr 19 14:11	11°Ϸ25'17 0°21'23
inferior conj	15906 Nov 29 03:53	23°Ϸ23'07 -7°35'30			15909 May 04 14:59	0°Π
minimum elong	15906 Nov 28 17:47	23°Ϸ38'40 7°32'59		evening rise	15909 May 28 05:15	29°Π13'13
morning rise	15906 Dec 02 22:57	21°Ϸ05'15			15909 May 28 20:20	0°ϣ
direct	15906 Dec 20 03:42	15°Ϸ31'35			15909 Jun 22 00:28	0°Ω
greatest brilliancy	15906 Dec 29 15:33	17°Ϸ09'59 -4.8m			15909 Jul 16 04:33	0°ϯ
	15907 Jan 20 07:36	0°ϣ		asc. node	15909 Aug 01 15:48	20°ϯ23'48
morning max el	15907 Feb 07 05:16	15°ϣ53'18 45°51'31			15909 Aug 09 10:25	0°Ω
asc. node	15907 Feb 15 01:40	23°ϣ41'20			15909 Sep 02 20:36	0°ϯ
	15907 Feb 21 04:17	0°≈			15909 Sep 27 15:20	0°Ϸ
	15907 Mar 20 11:53	0°Ϸ			15909 Oct 23 03:38	0°ϣ
	15907 Apr 15 08:06	0°Υ			15909 Nov 19 07:37	0°≈
	15907 May 10 11:16	0°Ϸ		desc. node	15909 Nov 21 11:00	2°≈13'45
	15907 Jun 04 04:07	0°Π		evening max el	15909 Nov 29 08:10	10°≈11'23 46°21'26
desc. node	15907 Jun 07 00:50	3°Π30'17			15909 Dec 21 23:29	0°Ϸ
	15907 Jun 28 13:33	0°ϣ		greatest brilliancy	15910 Jan 07 19:54	9°Ϸ29'44 -4.8m
	15907 Jul 22 17:31	0°Ω		retrograde	15910 Jan 17 23:44	11°Ϸ23'05
morning set	15907 Aug 08 04:09	20°Ω31'20		evening set	15910 Feb 04 08:19	5°Ϸ39'05
	15907 Aug 15 18:01	0°ϯ		inferior conj	15910 Feb 08 09:37	3°Ϸ09'47 -7°13'16
	15907 Sep 08 16:54	0°Ω		minimum elong	15910 Feb 08 19:46	2°Ϸ53'56 7°11'00
				min. Earth dist.	15910 Feb 08 12:40	3°Ϸ05'01 0.28646 AU
superior conj	15907 Sep 16 20:41	10°Ω13'26 -0°26'20		morning rise	15910 Feb 13 07:17	0°Ϸ11'00
minimum elong	15907 Sep 17 03:06	10°Ω33'32 0°25'57			15910 Feb 13 14:57	30°Ϸ≈
max. Earth dist.	15907 Sep 16 16:39	10°Ω00'47 1.71551 AU		direct	15910 Mar 01 16:06	25°≈01'24
asc. node	15907 Sep 27 17:40	23°Ω50'51		greatest brilliancy	15910 Mar 12 06:40	27°≈04'57 -4.8m
	15907 Oct 02 15:32	0°ϯ		asc. node	15910 Mar 14 11:12	27°≈57'38
evening rise	15907 Oct 26 04:02	29°ϯ26'05			15910 Mar 18 15:52	0°Ϸ
	15907 Oct 26 14:54	0°Ϸ		morning max el	15910 Apr 19 20:47	25°Ϸ45'54 45°49'23
	15907 Nov 19 16:23	0°ϣ			15910 Apr 24 03:26	0°Υ
	15907 Dec 13 22:12	0°≈			15910 May 22 03:30	0°Ϸ
	15908 Jan 07 11:13	0°Ϸ			15910 Jun 17 04:07	0°Π
desc. node	15908 Jan 17 09:27	11°Ϸ59'52		desc. node	15910 Jul 04 12:27	20°Π38'48
	15908 Feb 01 10:25	0°Υ			15910 Jul 12 06:36	0°ϣ
	15908 Feb 26 23:20	0°Ϸ			15910 Aug 05 20:25	0°Ω
	15908 Mar 24 09:50	0°Π			15910 Aug 30 02:52	0°ϯ
	15908 Apr 21 20:33	0°ϣ			15910 Sep 23 05:31	0°Ω
evening max el	15908 Apr 22 22:40	1°ϣ04'06 46°06'39			15910 Oct 17 06:30	0°ϯ
asc. node	15908 May 09 05:18	15°ϣ53'11		morning set	15910 Oct 20 21:49	4°ϯ32'34
	15908 May 31 06:22	0°Ω		asc. node	15910 Oct 25 07:12	10°ϯ01'35
greatest brilliancy	15908 Jun 01 21:51	0°Ω36'21 -4.8m			15910 Nov 10 06:58	0°Ϸ
retrograde	15908 Jun 11 10:43	2°Ω18'49				
	15908 Jun 22 03:11	30°Ϸϣ		superior conj	15910 Nov 28 15:52	22°Ϸ56'00 1°11'42
evening set	15908 Jun 29 13:26	26°ϣ04'19		minimum elong	15910 Nov 28 06:01	22°Ϸ25'16 1°12'12
inferior conj	15908 Jul 02 08:04	24°ϣ21'22 9°04'32		max. Earth dist.	15910 Nov 30 15:59	25°Ϸ26'04 1.72121 AU
minimum elong	15908 Jul 02 06:30	24°ϣ23'50 9°03'44			15910 Dec 04 07:50	0°ϣ
min. Earth dist.	15908 Jul 02 17:29	24°ϣ06'40 0.27891 AU			15910 Dec 08 10:26	0°≈
morning rise	15908 Jul 04 23:27	22°ϣ43'01		evening rise	15911 Jan 05 03:38	9°≈34'17
direct	15908 Jul 23 07:56	16°ϣ15'33			15911 Jan 21 16:26	0°Ϸ
greatest brilliancy	15908 Aug 02 12:00	18°ϣ12'07 -4.9m		desc. node	15911 Feb 13 22:54	28°Ϸ33'38

	15911 Feb 15 03:11	0° $\Upsilon$			15913 Aug 18 09:18	0° $\Omega$		
	15911 Mar 11 19:09	0° $\mathcal{B}$			15913 Sep 12 12:11	0° $\mathfrak{M}$		
	15911 Apr 05 16:34	0° $\Pi$			15913 Oct 07 03:21	0° $\underline{\mathfrak{A}}$		
	15911 Apr 30 21:12	0° $\mathfrak{G}$			15913 Oct 31 12:56	0° $\mathfrak{M}$		
	15911 May 26 15:15	0° $\Omega$		asc. node	15913 Nov 21 20:18	26° $\mathfrak{M}$ 19'35		
asc. node	15911 Jun 06 16:19	12° $\Omega$ 30'50			15913 Nov 24 19:31	0° $\mathcal{Z}$		
	15911 Jun 22 16:03	0° $\mathfrak{M}$			15913 Dec 19 00:20	0° $\mathfrak{Z}$		
evening max el	15911 Jul 05 19:55	13° $\mathfrak{M}$ 33'53	46°30'21	morning set	15913 Dec 31 11:50	15° $\mathfrak{Z}$ 29'15		
	15911 Jul 23 19:23	0° $\underline{\mathfrak{A}}$			15914 Jan 12 04:33	0° $\approx$		
greatest brilliancy	15911 Aug 14 17:47	13° $\underline{\mathfrak{A}}$ 36'31	-4.9m		15914 Feb 05 09:37	0° $\mathcal{H}$		
retrograde	15911 Aug 24 17:54	15° $\underline{\mathfrak{A}}$ 28'20						
evening set	15911 Sep 08 17:14	11° $\underline{\mathfrak{A}}$ 04'15		superior conj	15914 Feb 06 12:41	1° $\mathcal{H}$ 23'41	1°12'16	
inferior conj	15911 Sep 14 08:32	7° $\underline{\mathfrak{A}}$ 45'05	3°10'21	minimum elong	15914 Feb 06 21:59	1° $\mathcal{H}$ 52'26	1°12'27	
minimum elong	15911 Sep 14 15:38	7° $\underline{\mathfrak{A}}$ 34'16	3°08'10	max. Earth dist.	15914 Feb 08 13:39	3° $\mathcal{H}$ 55'04	1.72936 AU	
min. Earth dist.	15911 Sep 14 16:37	7° $\underline{\mathfrak{A}}$ 32'45	0.26944 AU		15914 Mar 01 16:38	0° $\Upsilon$		
morning rise	15911 Sep 20 14:02	4° $\underline{\mathfrak{A}}$ 07'04		desc. node	15914 Mar 13 12:44	14° $\Upsilon$ 34'44		
desc. node	15911 Sep 26 16:20	1° $\underline{\mathfrak{A}}$ 25'25		evening rise	15914 Mar 16 05:53	17° $\Upsilon$ 55'08		
	15911 Oct 04 02:21	30° $\mathfrak{R}$ $\mathfrak{M}$			15914 Mar 26 01:40	0° $\mathcal{B}$		
direct	15911 Oct 05 03:34	29° $\mathfrak{M}$ 58'40			15914 Apr 19 12:04	0° $\Pi$		
	15911 Oct 06 04:54	0° $\underline{\mathfrak{A}}$			15914 May 13 23:23	0° $\mathfrak{G}$		
greatest brilliancy	15911 Oct 15 04:56	1° $\underline{\mathfrak{A}}$ 52'12	-4.9m		15914 Jun 07 12:32	0° $\Omega$		
	15911 Nov 22 06:59	0° $\mathfrak{M}$			15914 Jul 02 06:22	0° $\mathfrak{M}$		
morning max el	15911 Nov 24 03:14	1° $\mathfrak{M}$ 48'10	46°33'03	asc. node	15914 Jul 04 04:30	2° $\mathfrak{M}$ 18'51		
	15911 Dec 20 22:42	0° $\mathcal{Z}$			15914 Jul 27 10:13	0° $\underline{\mathfrak{A}}$		
	15912 Jan 16 09:05	0° $\mathfrak{Z}$			15914 Aug 22 11:13	0° $\mathfrak{M}$		
asc. node	15912 Jan 17 17:29	1° $\mathfrak{Z}$ 34'07		evening max el	15914 Sep 16 07:17	26° $\mathfrak{M}$ 33'46	46°40'04	
	15912 Feb 10 20:27	0° $\approx$			15914 Sep 19 18:30	0° $\mathcal{Z}$		
	15912 Mar 06 19:28	0° $\mathcal{H}$		desc. node	15914 Oct 24 02:24	26° $\mathcal{Z}$ 12'51		
	15912 Mar 31 11:29	0° $\Upsilon$		greatest brilliancy	15914 Oct 25 19:03	26° $\mathcal{Z}$ 54'29	-4.8m	
	15912 Apr 24 23:09	0° $\mathcal{B}$		retrograde	15914 Nov 05 14:33	29° $\mathcal{Z}$ 05'02		
desc. node	15912 May 08 14:06	16° $\mathcal{B}$ 46'04		evening set	15914 Nov 21 23:01	23° $\mathcal{Z}$ 57'32		
	15912 May 19 07:17	0° $\Pi$		min. Earth dist.	15914 Nov 25 22:27	21° $\mathcal{Z}$ 34'58	0.27771 AU	
morning set	15912 May 22 15:45	4° $\Pi$ 08'47		inferior conj	15914 Nov 26 17:50	21° $\mathcal{Z}$ 05'10	-7°23'01	
	15912 Jun 12 12:03	0° $\mathfrak{G}$		minimum elong	15914 Nov 26 07:24	21° $\mathcal{Z}$ 21'14	7°20'21	
max. Earth dist.	15912 Jun 28 04:34	19° $\mathfrak{G}$ 32'09	1.72033 AU	morning rise	15914 Nov 30 16:03	18° $\mathcal{Z}$ 42'56		
				direct	15914 Dec 17 16:39	13° $\mathcal{Z}$ 14'07		
superior conj	15912 Jul 01 02:12	23° $\mathfrak{G}$ 09'14	-1°27'32	greatest brilliancy	15914 Dec 27 05:28	14° $\mathcal{Z}$ 53'13	-4.8m	
minimum elong	15912 Jul 01 00:22	23° $\mathfrak{G}$ 03'30	1°28'17		15915 Jan 20 17:05	0° $\mathfrak{Z}$		
	15912 Jul 06 13:52	0° $\Omega$		morning max el	15915 Feb 04 18:51	13° $\mathfrak{Z}$ 36'04	45°52'34	
	15912 Jul 30 13:50	0° $\mathfrak{M}$		asc. node	15915 Feb 14 03:33	22° $\mathfrak{Z}$ 56'45		
evening rise	15912 Aug 09 21:25	12° $\mathfrak{M}$ 54'18			15915 Feb 20 22:00	0° $\approx$		
greatest brilliancy	15912 Aug 11 15:33	15° $\mathfrak{M}$ 06'05	-3.9m		15915 Mar 20 01:47	0° $\mathcal{H}$		
	15912 Aug 23 13:27	0° $\underline{\mathfrak{A}}$			15915 Apr 14 20:24	0° $\Upsilon$		
asc. node	15912 Aug 29 05:29	7° $\underline{\mathfrak{A}}$ 05'00			15915 May 09 22:46	0° $\mathcal{B}$		
	15912 Sep 16 14:08	0° $\mathfrak{M}$			15915 Jun 03 15:09	0° $\Pi$		
	15912 Oct 10 17:34	0° $\mathcal{Z}$		desc. node	15915 Jun 06 02:48	3° $\Pi$ 02'36		
	15912 Nov 04 02:31	0° $\mathfrak{Z}$			15915 Jun 28 00:19	0° $\mathfrak{G}$		
	15912 Nov 28 21:46	0° $\approx$			15915 Jul 22 04:08	0° $\Omega$		
desc. node	15912 Dec 18 22:36	23° $\approx$ 36'54		morning set	15915 Aug 05 16:18	18° $\Omega$ 06'15		
	15912 Dec 24 11:20	0° $\mathcal{H}$			15915 Aug 15 04:34	0° $\mathfrak{M}$		
	15913 Jan 20 10:42	0° $\Upsilon$			15915 Sep 08 03:26	0° $\underline{\mathfrak{A}}$		
evening max el	15913 Feb 08 11:24	19° $\Upsilon$ 25'53	46°01'31					
	15913 Feb 19 23:18	0° $\mathcal{B}$		superior conj	15915 Sep 14 08:55	7° $\underline{\mathfrak{A}}$ 48'24	-0°29'58	
greatest brilliancy	15913 Mar 19 11:04	17° $\mathcal{B}$ 59'34	-4.8m	minimum elong	15915 Sep 14 16:09	8° $\underline{\mathfrak{A}}$ 11'04	0°29'35	
retrograde	15913 Mar 29 13:12	19° $\mathcal{B}$ 51'14		max. Earth dist.	15915 Sep 14 02:06	7° $\underline{\mathfrak{A}}$ 27'02	1.71552 AU	
asc. node	15913 Apr 10 20:57	16° $\mathcal{B}$ 50'56		asc. node	15915 Sep 26 19:24	23° $\underline{\mathfrak{A}}$ 23'20		
evening set	15913 Apr 13 10:55	15° $\mathcal{B}$ 31'37			15915 Oct 02 02:04	0° $\mathfrak{M}$		
inferior conj	15913 Apr 19 18:58	11° $\mathcal{B}$ 42'54	2°12'12	evening rise	15915 Oct 23 18:02	27° $\mathfrak{M}$ 06'49		
minimum elong	15913 Apr 19 14:06	11° $\mathcal{B}$ 50'33	2°10'15		15915 Oct 26 01:28	0° $\mathcal{Z}$		
min. Earth dist.	15913 Apr 19 18:13	11° $\mathcal{B}$ 44'04	0.28319 AU		15915 Nov 19 03:02	0° $\approx$		
morning rise	15913 Apr 25 17:06	8° $\mathcal{B}$ 07'33			15915 Dec 13 09:02	0° $\mathcal{H}$		
direct	15913 May 10 23:53	3° $\mathcal{B}$ 33'26		desc. node	15916 Jan 06 22:24	11° $\mathcal{H}$ 31'13		
greatest brilliancy	15913 May 21 09:41	5° $\mathcal{B}$ 33'30	-4.8m		15916 Jan 31 22:14	0° $\Upsilon$		
	15913 Jun 24 09:21	0° $\Pi$			15916 Feb 26 12:20	0° $\mathcal{B}$		
morning max el	15913 Jun 29 17:22	5° $\Pi$ 10'34	46°26'34		15916 Mar 24 01:16	0° $\Pi$		
	15913 Jul 23 05:15	0° $\mathfrak{G}$			15916 Apr 20 13:21	28° $\Pi$ 48'40	46°06'03	
desc. node	15913 Jul 31 23:02	9° $\mathfrak{G}$ 49'26		evening max el				

	15916 Apr 21 18:41	0°☿			15918 Oct 16 17:09	0°♍	
asc. node	15916 May 08 07:17	14°☿48'59		morning set	15918 Oct 18 11:10	2°♍11'08	
greatest brilliancy	15916 May 30 10:23	28°☿16'45 -4.8m		asc. node	15918 Oct 24 09:08	9°♍34'27	
	15916 Jun 08 08:17	0°♌			15918 Nov 09 17:31	0°♌	
retrograde	15916 Jun 09 01:13	0°♌00'36					
	15916 Jun 09 18:05	30°♌☿		superior conj	15918 Nov 26 06:37	20°♌39'26 1°09'37	
evening set	15916 Jun 27 01:26	23°☿48'34		minimum elong	15918 Nov 25 20:29	20°♌07'50 1°10'05	
inferior conj	15916 Jun 29 22:14	22°☿02'17 9°02'11		max. Earth dist.	15918 Nov 28 07:53	23°♌13'09 1.72091 AU	
minimum elong	15916 Jun 29 19:47	22°☿06'07 9°01'20			15918 Dec 03 18:20	0°♊	
min. Earth dist.	15916 Jun 30 06:26	21°☿49'31 0.27922 AU			15918 Dec 27 20:58	0°♊	
morning rise	15916 Jul 02 14:04	20°☿23'21		evening rise	15919 Jan 02 19:02	7°♊20'35	
direct	15916 Jul 20 22:48	13°☿56'06			15919 Jan 21 03:04	0°♋	
greatest brilliancy	15916 Jul 31 01:39	15°☿52'03 -4.9m		desc. node	15919 Feb 13 00:39	28°♋05'53	
	15916 Aug 22 10:42	0°♌			15919 Feb 14 14:01	0°♋	
desc. node	15916 Aug 28 08:43	5°♌08'40			15919 Mar 11 06:21	0°♌	
morning max el	15916 Sep 09 10:58	16°♌43'06 46°56'04			15919 Apr 05 04:21	0°♌	
	15916 Sep 22 04:48	0°♍			15919 Apr 30 09:58	0°☿	
	15916 Oct 18 23:48	0°♌			15919 May 26 05:50	0°♌	
	15916 Nov 13 13:19	0°♍		asc. node	15919 Jun 05 18:15	11°♌52'03	
asc. node	15916 Dec 08 13:27	0°♌			15919 Jun 22 10:51	0°♍	
	15916 Dec 19 08:18	13°♌04'06		evening max el	15919 Jul 03 09:10	11°♍11'39 46°29'21	
	15917 Jan 02 05:55	0°♊			15919 Jul 24 08:19	0°♌	
	15917 Jan 26 17:35	0°♊		greatest brilliancy	15919 Aug 12 08:18	11°♌14'04 -4.9m	
	15917 Feb 20 02:40	0°♋		retrograde	15919 Aug 22 06:13	13°♌03'50	
morning set	15917 Mar 10 14:30	22°♋47'33		evening set	15919 Sep 06 08:33	8°♌36'40	
	15917 Mar 16 10:48	0°♋		inferior conj	15919 Sep 11 21:14	5°♌20'50 3°33'05	
	15917 Apr 09 18:30	0°♌		minimum elong	15919 Sep 12 05:02	5°♌08'54 3°30'43	
desc. node	15917 Apr 10 02:36	0°♌24'59		min. Earth dist.	15919 Sep 12 06:40	5°♌06'23 0.26957 AU	
max. Earth dist.	15917 Apr 16 10:36	8°♌14'02 1.72980 AU		morning rise	15919 Sep 18 01:27	1°♌43'56	
					15919 Sep 21 15:10	30°♌♍	
superior conj	15917 Apr 17 10:20	9°♌27'19 -0°17'43		desc. node	15919 Sep 25 18:21	28°♍31'40	
minimum elong	15917 Apr 17 06:09	9°♌14'24 0°17'58		direct	15919 Oct 02 16:05	27°♍34'00	
	15917 May 04 01:22	0°♌		greatest brilliancy	15919 Oct 12 18:27	29°♍27'58 -4.9m	
evening rise	15917 May 25 19:45	26°♌56'49			15919 Oct 14 03:59	0°♌	
	15917 May 28 06:52	0°☿		morning max el	15919 Nov 21 15:41	29°♌24'09 46°34'30	
	15917 Jun 21 11:11	0°♌			15919 Nov 22 06:13	0°♍	
	15917 Jul 15 15:31	0°♍			15919 Dec 20 14:50	0°♌	
asc. node	15917 Jul 31 17:30	19°♍54'32			15920 Jan 15 22:35	0°♊	
	15917 Aug 08 21:44	0°♌		asc. node	15920 Jan 16 19:21	1°♊00'32	
	15917 Sep 02 08:27	0°♍			15920 Feb 10 08:38	0°♊	
	15917 Sep 27 04:07	0°♌			15920 Mar 06 06:54	0°♋	
	15917 Oct 22 18:12	0°♊			15920 Mar 30 22:29	0°♋	
	15917 Nov 19 02:35	0°♊			15920 Apr 24 09:55	0°♌	
desc. node	15917 Nov 20 12:59	1°♊28'45		desc. node	15920 May 07 16:04	16°♌19'09	
evening max el	15917 Nov 26 23:56	7°♊58'36 46°22'17			15920 May 18 17:56	0°♌	
	15917 Dec 22 17:55	0°♋		morning set	15920 May 20 05:28	1°♌49'53	
greatest brilliancy	15918 Jan 05 10:34	7°♋16'40 -4.8m			15920 Jun 11 22:39	0°☿	
retrograde	15918 Jan 15 15:32	9°♋10'33		max. Earth dist.	15920 Jun 25 15:05	17°☿02'20 1.72068 AU	
evening set	15918 Feb 02 02:45	3°♋22'16					
inferior conj	15918 Feb 06 00:59	0°♋57'17 -7°25'29		superior conj	15920 Jun 28 15:25	20°☿47'47 -1°27'08	
minimum elong	15918 Feb 06 10:53	0°♋41'49 7°23'20		minimum elong	15920 Jun 28 12:37	20°☿39'01 1°27'54	
min. Earth dist.	15918 Feb 06 03:04	0°♋54'01 0.28643 AU			15920 Jul 06 00:28	0°♌	
	15918 Feb 07 13:47	30°♌♋			15920 Jul 30 00:31	0°♍	
morning rise	15918 Feb 10 19:09	28°♋03'39		evening rise	15920 Aug 07 09:25	10°♍28'07	
direct	15918 Feb 27 08:02	22°♋49'28		greatest brilliancy	15920 Aug 07 21:42	11°♍06'31 -3.9m	
greatest brilliancy	15918 Mar 09 20:28	24°♋51'19 -4.8m			15920 Aug 23 00:16	0°♌	
asc. node	15918 Mar 13 13:06	26°♋24'30		asc. node	15920 Aug 28 07:18	6°♌36'49	
	15918 Mar 20 02:11	0°♋			15920 Sep 16 01:09	0°♍	
morning max el	15918 Apr 17 12:15	23°♋33'45 45°48'39			15920 Oct 10 04:50	0°♌	
	15918 Apr 23 23:14	0°♋			15920 Nov 03 14:11	0°♊	
	15918 May 21 18:10	0°♌			15920 Nov 28 10:11	0°♊	
	15918 Jun 16 16:51	0°♌		desc. node	15920 Dec 18 00:28	23°♋03'14	
desc. node	15918 Jul 03 14:19	20°♌08'07			15920 Dec 24 01:13	0°♋	
	15918 Jul 11 18:26	0°☿			15921 Jan 20 03:57	0°♋	
	15918 Aug 05 07:45	0°♌		evening max el	15921 Feb 06 01:18	17°♋09'42 46°01'51	
	15918 Aug 29 13:54	0°♍			15921 Feb 20 04:58	0°♌	
	15918 Sep 22 16:20	0°♌		greatest brilliancy	15921 Mar 17 02:43	15°♌46'28 -4.8m	






































































































































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asc. node	15921 Apr 09 23:02	13°♄53'46		asc. node	15923 Sep 25 21:19	22°♊55'34	
evening set	15921 Apr 11 01:55	13°♄18'03			15923 Oct 01 12:51	0°♋	
inferior conj	15921 Apr 17 10:21	9°♄29'13	1°51'07	evening rise	15923 Oct 21 08:20	24°♋47'46	
minimum elong	15921 Apr 17 06:13	9°♄35'42	1°49'24		15923 Oct 25 12:17	0°♌	
min. Earth dist.	15921 Apr 17 10:20	9°♄29'14	0.28329 AU		15923 Nov 18 13:58	0°♍	
morning rise	15921 Apr 23 10:15	5°♄51'21			15923 Dec 12 20:13	0°♎	
direct	15921 May 08 14:40	1°♄19'29			15924 Jan 06 10:00	0°♏	
greatest brilliancy	15921 May 19 02:26	3°♄20'57	-4.8m	desc. node	15924 Jan 15 13:02	11°♏00'54	
	15921 Jun 24 08:57	0°♐			15924 Jan 31 10:32	0°♑	
morning max el	15921 Jun 27 07:35	2°♐52'50	46°25'17		15924 Feb 26 01:55	0°♒	
	15921 Jul 22 21:19	0°♑			15924 Mar 23 17:28	0°♓	
desc. node	15921 Jul 31 00:54	9°♑11'54		evening max el	15924 Apr 18 04:41	26°♓33'35	46°05'28
	15921 Aug 17 22:51	0°♒			15924 Apr 21 18:23	0°♔	
	15921 Sep 12 00:34	0°♓		asc. node	15924 May 07 09:12	13°♔41'33	
	15921 Oct 06 15:06	0°♈		greatest brilliancy	15924 May 27 23:04	25°♔56'08	-4.8m
	15921 Oct 31 00:16	0°♉		retrograde	15924 Jun 06 15:35	27°♔40'56	
asc. node	15921 Nov 20 22:08	25°♉51'01		evening set	15924 Jun 24 13:02	21°♔32'18	
	15921 Nov 24 06:33	0°♊		inferior conj	15924 Jun 27 12:23	19°♔41'55	8°59'00
	15921 Dec 18 11:09	0°♋		minimum elong	15924 Jun 27 09:03	19°♔47'08	8°58'05
morning set	15921 Dec 29 03:25	13°♋15'20		min. Earth dist.	15924 Jun 27 19:19	19°♔31'06	0.27948 AU
	15922 Jan 11 15:13	0°♌		morning rise	15924 Jun 30 05:02	18°♔01'39	
				direct	15924 Jul 18 13:46	11°♔35'32	
superior conj	15922 Feb 04 04:56	29°♌12'39	1°14'06	greatest brilliancy	15924 Jul 28 15:00	13°♔30'16	-4.9m
minimum elong	15922 Feb 04 13:55	29°♌40'29	1°14'21		15924 Aug 22 19:23	0°♍	
	15922 Feb 04 20:14	0°♎		desc. node	15924 Aug 27 10:41	4°♍08'40	
max. Earth dist.	15922 Feb 06 05:34	1°♎43'05	1.72917 AU	morning max el	15924 Sep 07 02:06	14°♍24'15	46°55'56
	15922 Mar 01 03:17	0°♏			15924 Sep 21 23:18	0°♐	
desc. node	15922 Mar 12 14:35	14°♏07'29			15924 Oct 18 14:34	0°♑	
evening rise	15922 Mar 13 21:37	15°♏42'57			15924 Nov 13 02:21	0°♒	
	15922 Mar 25 12:29	0°♓			15924 Dec 08 01:31	0°♓	
	15922 Apr 18 23:06	0°♔		asc. node	15924 Dec 18 10:06	12°♓33'46	
	15922 May 13 10:43	0°♕			15925 Jan 01 17:23	0°♔	
	15922 Jun 07 00:21	0°♖			15925 Jan 26 04:42	0°♕	
asc. node	15922 Jul 01 18:55	0°♗			15925 Feb 19 13:35	0°♎	
	15922 Jul 03 06:16	1°♗46'14		morning set	15925 Mar 08 07:16	20°♎37'59	
	15922 Jul 27 00:05	0°♈			15925 Mar 15 21:36	0°♏	
	15922 Aug 22 03:44	0°♉		desc. node	15925 Apr 09 04:29	29°♏57'34	
evening max el	15922 Sep 13 20:55	24°♉11'42	46°40'16		15925 Apr 09 05:16	0°♐	
	15922 Sep 19 18:49	0°♊		max. Earth dist.	15925 Apr 14 05:22	6°♐10'33	1.72997 AU
desc. node	15922 Oct 23 04:22	24°♊29'23					
greatest brilliancy	15922 Oct 23 08:49	24°♊33'42	-4.8m	superior conj	15925 Apr 15 01:26	7°♐12'29	-0°14'16
retrograde	15922 Nov 03 05:04	26°♊45'19		minimum elong	15925 Apr 14 22:03	7°♐02'01	0°14'31
evening set	15922 Nov 19 09:08	21°♊43'16		behind sun begin	15925 Apr 14 11:56	6°♐30'48	
min. Earth dist.	15922 Nov 23 12:11	19°♊15'54	0.27724 AU	behind sun end	15925 Apr 15 08:10	7°♐33'15	
inferior conj	15922 Nov 24 07:43	18°♊45'58	-7°09'40		15925 May 03 12:11	0°♑	
minimum elong	15922 Nov 23 21:00	19°♊02'24	7°06'50	evening rise	15925 May 23 10:05	24°♑38'40	
morning rise	15922 Nov 28 09:12	16°♊19'23			15925 May 27 17:48	0°♒	
direct	15922 Dec 15 06:00	10°♊55'17			15925 Jun 20 22:19	0°♓	
greatest brilliancy	15922 Dec 24 19:01	12°♊34'48	-4.8m		15925 Jul 15 02:55	0°♔	
	15923 Jan 21 00:27	0°♋		asc. node	15925 Jul 30 19:23	19°♔24'28	
morning max el	15923 Feb 02 09:26	11°♋19'59	45°53'35		15925 Aug 08 09:29	0°♕	
asc. node	15923 Feb 13 05:27	22°♋11'37			15925 Sep 01 20:45	0°♖	
	15923 Feb 20 15:45	0°♌			15925 Sep 26 17:21	0°♗	
	15923 Mar 19 15:58	0°♎			15925 Oct 22 09:16	0°♘	
	15923 Apr 14 09:01	0°♏			15925 Nov 18 22:22	0°♙	
	15923 May 09 10:34	0°♓		desc. node	15925 Nov 19 14:51	0°♚42'05	
	15923 Jun 03 02:31	0°♔		evening max el	15925 Nov 24 15:30	5°♚44'36	46°23'09
desc. node	15923 Jun 05 04:32	2°♔33'11			15925 Dec 23 19:23	0°♛	
	15923 Jun 27 11:25	0°♕		greatest brilliancy	15926 Jan 03 01:56	5°♛04'07	-4.8m
	15923 Jul 21 15:06	0°♖		retrograde	15926 Jan 13 07:05	6°♛57'53	
morning set	15923 Aug 03 04:40	15°♖40'50		evening set	15926 Jan 30 21:21	1°♛05'34	
	15923 Aug 14 15:26	0°♗			15926 Feb 01 16:21	30°♜	
	15923 Sep 07 14:15	0°♈		inferior conj	15926 Feb 03 16:37	28°♜44'46	-7°36'54
				minimum elong	15926 Feb 04 02:11	28°♜29'48	7°34'54
superior conj	15923 Sep 11 21:26	5°♈23'20	-0°33'31	min. Earth dist.	15926 Feb 03 17:54	28°♜42'44	0.28641 AU
minimum elong	15923 Sep 12 05:26	5°♈48'24	0°33'09	morning rise	15926 Feb 08 07:09	25°♜56'12	

direct	15926 Feb 24 23:56	20° $\approx$ 37'30		greatest brilliancy	15928 Aug 05 10:43	8° $\cap$ 42'59	-3.9m
greatest brilliancy	15926 Mar 07 10:42	22° $\approx$ 37'36	-4.8m		15928 Aug 22 11:16	0° $\underline{\cap}$	
asc. node	15926 Mar 12 15:10	24° $\approx$ 54'11		asc. node	15928 Aug 27 09:11	6° $\underline{\cap}$ 08'14	
	15926 Mar 21 02:46	0° $\times$			15928 Sep 15 12:20	0° $\cap$	
morning max el	15926 Apr 15 03:06	21° $\times$ 19'02	45°47'48		15928 Oct 09 16:18	0° $\nearrow$	
	15926 Apr 23 18:51	0° $\Upsilon$			15928 Nov 03 02:04	0° $\searrow$	
	15926 May 21 09:03	0° $\delta$			15928 Nov 27 22:50	0° $\approx$	
	15926 Jun 16 05:55	0° $\Pi$		desc. node	15928 Dec 17 02:19	22° $\approx$ 28'56	
desc. node	15926 Jul 02 16:11	19° $\Pi$ 36'25			15928 Dec 23 15:22	0° $\times$	
	15926 Jul 11 06:35	0° $\ominus$			15929 Jan 19 21:39	0° $\Upsilon$	
	15926 Aug 04 19:24	0° $\Omega$		evening max el	15929 Feb 03 15:45	14° $\Upsilon$ 54'59	46°02'25
	15926 Aug 29 01:15	0° $\cap$			15929 Feb 20 12:50	0° $\delta$	
	15926 Sep 22 03:28	0° $\underline{\cap}$		greatest brilliancy	15929 Mar 14 17:59	13° $\delta$ 33'36	-4.8m
morning set	15926 Oct 16 00:31	29° $\underline{\cap}$ 48'42		retrograde	15929 Mar 24 19:25	15° $\delta$ 25'19	
	15926 Oct 16 04:08	0° $\cap$		evening set	15929 Apr 08 17:22	11° $\delta$ 05'05	
asc. node	15926 Oct 23 10:56	9° $\cap$ 05'55		asc. node	15929 Apr 09 00:52	10° $\delta$ 54'47	
	15926 Nov 09 04:23	0° $\nearrow$		inferior conj	15929 Apr 15 01:58	7° $\delta$ 16'24	1°30'07
				minimum elong	15929 Apr 14 22:36	7° $\delta$ 21'41	1°28'39
superior conj	15926 Nov 23 21:35	18° $\nearrow$ 22'40	1°07'26	min. Earth dist.	15929 Apr 15 02:25	7° $\delta$ 15'41	0.28343 AU
minimum elong	15926 Nov 23 11:13	17° $\nearrow$ 50'22	1°07'52	morning rise	15929 Apr 21 03:32	3° $\delta$ 36'27	
max. Earth dist.	15926 Nov 25 21:49	20° $\nearrow$ 53'13	1.72054 AU		15929 Apr 29 14:58	30° $\cap$ $\Upsilon$	
	15926 Dec 03 05:07	0° $\searrow$		direct	15929 May 06 06:03	29° $\Upsilon$ 06'22	
	15926 Dec 27 07:44	0° $\approx$			15929 May 13 02:49	0° $\delta$	
evening rise	15926 Dec 31 10:46	5° $\approx$ 07'09		greatest brilliancy	15929 May 16 19:16	1° $\delta$ 09'13	-4.8m
	15927 Jan 20 13:55	0° $\times$			15929 Jun 24 07:32	0° $\Pi$	
desc. node	15927 Feb 12 02:35	27° $\times$ 38'04		morning max el	15929 Jun 24 22:59	0° $\Pi$ 38'05	46°23'43
	15927 Feb 14 01:06	0° $\Upsilon$			15929 Jul 22 13:13	0° $\ominus$	
	15927 Mar 10 17:50	0° $\delta$		desc. node	15929 Jul 30 02:54	8° $\ominus$ 34'42	
	15927 Apr 04 16:29	0° $\Pi$			15929 Aug 17 12:26	0° $\Omega$	
	15927 Apr 29 23:09	0° $\ominus$			15929 Sep 11 13:01	0° $\cap$	
	15927 May 25 20:58	0° $\Omega$			15929 Oct 06 02:54	0° $\underline{\cap}$	
asc. node	15927 Jun 04 20:04	11° $\Omega$ 11'27			15929 Oct 30 11:37	0° $\cap$	
	15927 Jun 22 06:37	0° $\cap$		asc. node	15929 Nov 19 23:53	25° $\cap$ 22'09	
evening max el	15927 Jun 30 21:35	8° $\cap$ 46'26	46°28'28		15929 Nov 23 17:35	0° $\nearrow$	
	15927 Jul 25 02:13	0° $\underline{\cap}$			15929 Dec 17 21:57	0° $\searrow$	
greatest brilliancy	15927 Aug 09 23:03	8° $\underline{\cap}$ 51'05	-4.9m	morning set	15929 Dec 26 19:00	11° $\searrow$ 01'19	
retrograde	15927 Aug 19 18:25	10° $\underline{\cap}$ 38'51			15930 Jan 11 01:53	0° $\approx$	
evening set	15927 Sep 04 00:01	6° $\underline{\cap}$ 08'03					
inferior conj	15927 Sep 09 10:01	2° $\underline{\cap}$ 56'01	3°55'18	superior conj	15930 Feb 01 21:24	27° $\approx$ 02'14	1°15'49
minimum elong	15927 Sep 09 18:28	2° $\underline{\cap}$ 43'05	3°52'46	minimum elong	15930 Feb 02 06:02	27° $\approx$ 28'59	1°16'07
min. Earth dist.	15927 Sep 09 21:00	2° $\underline{\cap}$ 39'11	0.26973 AU	max. Earth dist.	15930 Feb 03 22:48	29° $\approx$ 35'08	1.72895 AU
	15927 Sep 14 08:06	30° $\cap$ $\cap$			15930 Feb 04 06:51	0° $\times$	
morning rise	15927 Sep 15 12:42	29° $\cap$ 20'37			15930 Feb 28 13:55	0° $\Upsilon$	
desc. node	15927 Sep 24 20:22	25° $\cap$ 42'50		evening rise	15930 Mar 11 13:44	13° $\Upsilon$ 32'10	
direct	15927 Sep 30 04:20	25° $\cap$ 08'26		desc. node	15930 Mar 11 16:27	13° $\Upsilon$ 40'32	
greatest brilliancy	15927 Oct 10 08:32	27° $\cap$ 03'37	-4.9m		15930 Mar 24 23:12	0° $\delta$	
	15927 Oct 16 19:48	0° $\underline{\cap}$			15930 Apr 18 10:00	0° $\Pi$	
morning max el	15927 Nov 19 04:26	26° $\underline{\cap}$ 59'55	46°36'03		15930 May 12 21:58	0° $\ominus$	
	15927 Nov 22 04:48	0° $\cap$			15930 Jun 06 12:07	0° $\Omega$	
	15927 Dec 20 06:54	0° $\nearrow$			15930 Jul 01 07:32	0° $\cap$	
asc. node	15928 Jan 15 21:15	0° $\searrow$ 26'39		asc. node	15930 Jul 02 08:10	1° $\cap$ 13'55	
	15928 Jan 15 12:08	0° $\searrow$			15930 Jul 26 14:07	0° $\underline{\cap}$	
	15928 Feb 09 20:52	0° $\approx$			15930 Aug 21 20:41	0° $\cap$	
	15928 Mar 05 18:24	0° $\times$		evening max el	15930 Sep 11 11:30	21° $\cap$ 51'49	46°40'29
	15928 Mar 30 09:35	0° $\Upsilon$			15930 Sep 19 20:32	0° $\nearrow$	
	15928 Apr 23 20:49	0° $\delta$		greatest brilliancy	15930 Oct 20 22:15	22° $\nearrow$ 12'10	-4.8m
desc. node	15928 May 06 17:49	15° $\delta$ 51'07		desc. node	15930 Oct 22 06:13	22° $\nearrow$ 41'27	
morning set	15928 May 17 19:17	29° $\delta$ 30'41		retrograde	15930 Oct 31 19:53	24° $\nearrow$ 24'55	
	15928 May 18 04:46	0° $\Pi$		evening set	15930 Nov 16 19:13	19° $\nearrow$ 28'18	
	15928 Jun 11 09:28	0° $\ominus$		min. Earth dist.	15930 Nov 21 01:35	16° $\nearrow$ 56'27	0.27674 AU
max. Earth dist.	15928 Jun 23 02:52	14° $\ominus$ 35'46	1.72106 AU	inferior conj	15930 Nov 21 21:23	16° $\nearrow$ 26'09	-6°55'32
				minimum elong	15930 Nov 21 10:29	16° $\nearrow$ 42'50	6°52'33
superior conj	15928 Jun 26 04:29	18° $\ominus$ 25'08	-1°26'35	morning rise	15930 Nov 26 02:09	13° $\nearrow$ 55'12	
minimum elong	15928 Jun 26 00:44	18° $\ominus$ 13'28	1°27'21	direct	15930 Dec 12 19:38	8° $\nearrow$ 36'04	
	15928 Jul 05 11:18	0° $\Omega$		greatest brilliancy	15930 Dec 22 07:49	10° $\nearrow$ 15'22	-4.8m
	15928 Jul 29 11:25	0° $\cap$			15931 Jan 21 05:30	0° $\searrow$	
evening rise	15928 Aug 04 21:11	8° $\cap$ 00'40		morning max el	15931 Jan 31 00:26	9° $\searrow$ 05'18	45°54'39

asc. node	15931 Feb 12 07:29	21° $\text{♄}$ 27'48		15933 Sep 01 08:41	0° $\text{♍}$	
	15931 Feb 20 08:58	0° $\text{♋}$		15933 Sep 26 06:20	0° $\text{♊}$	
	15931 Mar 19 05:48	0° $\text{♈}$		15933 Oct 22 00:16	0° $\text{♎}$	
	15931 Apr 13 21:21	0° $\text{♍}$	desc. node	15933 Nov 18 16:46	29° $\text{♄}$ 55'21	
	15931 May 08 22:06	0° $\text{♉}$		15933 Nov 18 18:37	0° $\text{♋}$	
	15931 Jun 02 13:35	0° $\text{♊}$	evening max el	15933 Nov 22 06:08	3° $\text{♋}$ 28'32	46°23'51
desc. node	15931 Jun 04 06:26	2° $\text{♊}$ 05'06		15933 Dec 25 07:33	0° $\text{♈}$	
	15931 Jun 26 22:15	0° $\text{♄}$	greatest brilliancy	15933 Dec 31 17:32	2° $\text{♈}$ 51'40	-4.8m
	15931 Jul 21 01:49	0° $\text{♎}$	retrograde	15934 Jan 10 21:56	4° $\text{♈}$ 44'52	
morning set	15931 Jul 31 17:03	13° $\text{♎}$ 16'09		15934 Jan 26 14:38	30° $\text{♋}$	
	15931 Aug 14 02:08	0° $\text{♎}$	evening set	15934 Jan 28 15:36	28° $\text{♋}$ 48'39	
	15931 Sep 07 00:57	0° $\text{♊}$	inferior conj	15934 Feb 01 07:56	26° $\text{♋}$ 32'08	-7°47'49
			minimum elong	15934 Feb 01 17:06	26° $\text{♋}$ 17'47	7°45'56
superior conj	15931 Sep 09 09:33	2° $\text{♊}$ 57'23	min. Earth dist.	15934 Feb 01 08:48	26° $\text{♋}$ 30'47	0.28635 AU
minimum elong	15931 Sep 09 18:16	3° $\text{♊}$ 24'42	morning rise	15934 Feb 05 18:44	23° $\text{♋}$ 48'46	
max. Earth dist.	15931 Sep 09 03:09	2° $\text{♊}$ 37'19	direct	15934 Feb 22 14:57	18° $\text{♋}$ 25'20	
asc. node	15931 Sep 24 23:06	22° $\text{♊}$ 27'43	greatest brilliancy	15934 Mar 05 01:03	20° $\text{♋}$ 24'15	-4.8m
	15931 Sep 30 23:32	0° $\text{♍}$	asc. node	15934 Mar 11 17:02	23° $\text{♋}$ 26'57	
evening rise	15931 Oct 18 22:02	22° $\text{♍}$ 27'06		15934 Mar 21 20:29	0° $\text{♈}$	
	15931 Oct 24 23:00	0° $\text{♊}$	morning max el	15934 Apr 12 17:07	19° $\text{♈}$ 03'01	45°47'11
	15931 Nov 18 00:47	0° $\text{♎}$		15934 Apr 23 13:31	0° $\text{♍}$	
	15931 Dec 12 07:15	0° $\text{♋}$		15934 May 20 23:22	0° $\text{♉}$	
	15932 Jan 05 21:27	0° $\text{♈}$		15934 Jun 15 18:28	0° $\text{♊}$	
desc. node	15932 Jan 14 15:01	10° $\text{♈}$ 31'49	desc. node	15934 Jul 01 18:08	19° $\text{♊}$ 06'21	
	15932 Jan 30 22:41	0° $\text{♍}$		15934 Jul 10 18:16	0° $\text{♄}$	
	15932 Feb 25 15:21	0° $\text{♉}$		15934 Aug 04 06:34	0° $\text{♎}$	
	15932 Mar 23 09:37	0° $\text{♊}$		15934 Aug 28 12:06	0° $\text{♎}$	
evening max el	15932 Apr 15 20:16	24° $\text{♊}$ 20'20		15934 Sep 21 14:06	0° $\text{♊}$	
	15932 Apr 21 18:43	0° $\text{♄}$	morning set	15934 Oct 13 14:00	27° $\text{♊}$ 28'05	
asc. node	15932 May 06 11:06	12° $\text{♄}$ 33'42		15934 Oct 15 14:38	0° $\text{♍}$	
greatest brilliancy	15932 May 25 12:33	23° $\text{♄}$ 38'27	asc. node	15934 Oct 22 12:41	8° $\text{♍}$ 38'38	
retrograde	15932 Jun 04 05:53	25° $\text{♄}$ 23'29		15934 Nov 08 14:49	0° $\text{♊}$	
evening set	15932 Jun 22 00:41	19° $\text{♄}$ 19'05				
inferior conj	15932 Jun 25 02:55	17° $\text{♄}$ 24'05	superior conj	15934 Nov 21 12:26	16° $\text{♊}$ 06'45	1°05'08
minimum elong	15932 Jun 24 22:44	17° $\text{♄}$ 30'38	minimum elong	15934 Nov 21 01:55	15° $\text{♊}$ 33'56	1°05'31
min. Earth dist.	15932 Jun 25 08:46	17° $\text{♄}$ 14'55	max. Earth dist.	15934 Nov 23 09:24	18° $\text{♊}$ 27'05	1.72028 AU
morning rise	15932 Jun 27 20:44	15° $\text{♄}$ 41'48		15934 Dec 02 15:33	0° $\text{♎}$	
direct	15932 Jul 16 04:49	9° $\text{♄}$ 17'39		15934 Dec 26 18:10	0° $\text{♋}$	
greatest brilliancy	15932 Jul 26 04:55	11° $\text{♄}$ 11'11	evening rise	15934 Dec 29 02:11	2° $\text{♋}$ 53'42	
	15932 Aug 23 00:55	0° $\text{♎}$		15935 Jan 20 00:28	0° $\text{♈}$	
desc. node	15932 Aug 26 12:43	3° $\text{♎}$ 11'39	desc. node	15935 Feb 11 04:23	27° $\text{♈}$ 10'40	
morning max el	15932 Sep 04 16:31	12° $\text{♎}$ 04'58		15935 Feb 13 11:53	0° $\text{♍}$	
	15932 Sep 21 16:57	0° $\text{♎}$		15935 Mar 10 05:01	0° $\text{♉}$	
	15932 Oct 18 04:52	0° $\text{♊}$		15935 Apr 04 04:19	0° $\text{♊}$	
	15932 Nov 12 15:05	0° $\text{♍}$		15935 Apr 29 12:03	0° $\text{♄}$	
	15932 Dec 07 13:19	0° $\text{♊}$		15935 May 25 11:55	0° $\text{♎}$	
asc. node	15932 Dec 17 12:05	12° $\text{♊}$ 04'41	asc. node	15935 Jun 03 22:02	10° $\text{♎}$ 32'02	
	15933 Jan 01 04:36	0° $\text{♎}$		15935 Jun 22 02:30	0° $\text{♎}$	
	15933 Jan 25 15:31	0° $\text{♋}$	evening max el	15935 Jun 28 09:54	6° $\text{♎}$ 22'23	46°27'45
	15933 Feb 19 00:10	0° $\text{♈}$		15935 Jul 26 01:27	0° $\text{♊}$	
morning set	15933 Mar 05 23:51	18° $\text{♈}$ 28'51	greatest brilliancy	15935 Aug 07 13:35	6° $\text{♊}$ 29'39	-4.9m
	15933 Mar 15 08:04	0° $\text{♍}$	retrograde	15935 Aug 17 07:00	8° $\text{♊}$ 16'15	
desc. node	15933 Apr 08 06:13	29° $\text{♍}$ 30'43	evening set	15935 Sep 01 15:48	3° $\text{♊}$ 41'11	
	15933 Apr 08 15:42	0° $\text{♉}$	inferior conj	15935 Sep 06 23:00	0° $\text{♉}$ 33'18	4°16'59
max. Earth dist.	15933 Apr 11 22:10	4° $\text{♉}$ 02'02	minimum elong	15935 Sep 07 08:02	0° $\text{♉}$ 19'28	4°14'17
			min. Earth dist.	15935 Sep 07 11:21	0° $\text{♉}$ 14'23	0.26990 AU
superior conj	15933 Apr 12 16:39	4° $\text{♉}$ 59'06		15935 Sep 07 20:46	30° $\text{♋}$	
minimum elong	15933 Apr 12 14:04	4° $\text{♉}$ 51'07	morning rise	15935 Sep 12 23:59	27° $\text{♋}$ 00'01	
behind sun begin	15933 Apr 11 20:38	3° $\text{♉}$ 57'20	desc. node	15935 Sep 23 22:11	23° $\text{♋}$ 02'09	
behind sun end	15933 Apr 13 07:30	5° $\text{♉}$ 44'54	direct	15935 Sep 27 16:49	22° $\text{♋}$ 44'51	
	15933 May 02 22:39	0° $\text{♊}$	greatest brilliancy	15935 Oct 07 22:43	24° $\text{♋}$ 41'33	-4.9m
evening rise	15933 May 21 00:41	22° $\text{♊}$ 22'32		15935 Oct 18 10:33	0° $\text{♊}$	
	15933 May 27 04:22	0° $\text{♄}$	morning max el	15935 Nov 16 18:04	24° $\text{♊}$ 39'30	46°37'27
	15933 Jun 20 09:02	0° $\text{♎}$		15935 Nov 22 01:51	0° $\text{♍}$	
	15933 Jul 14 13:52	0° $\text{♎}$		15935 Dec 19 22:14	0° $\text{♊}$	
asc. node	15933 Jul 29 21:18	18° $\text{♎}$ 55'54	asc. node	15936 Jan 14 23:13	29° $\text{♊}$ 54'16	
	15933 Aug 07 20:49	0° $\text{♊}$		15936 Jan 15 01:10	0° $\text{♎}$	

	15936 Feb 09 08:45	0°≈			15938 Aug 21 13:51	0°ℓ		
	15936 Mar 05 05:37	0°✕		evening max el	15938 Sep 09 02:53	19°ℓ34'14	46°40'38	
	15936 Mar 29 20:25	0°Υ			15938 Sep 19 23:37	0°♁		
	15936 Apr 23 07:26	0°♁		greatest brilliancy	15938 Oct 18 11:57	19°♁51'15	-4.9m	
desc. node	15936 May 05 19:37	15°♁24'14		desc. node	15938 Oct 21 08:13	20°♁49'46		
morning set	15936 May 15 08:56	27°♁12'00		retrograde	15938 Oct 29 10:40	22°♁04'32		
	15936 May 17 15:17	0°Π		evening set	15938 Nov 14 05:28	17°♁13'31		
	15936 Jun 10 19:56	0°☾		min. Earth dist.	15938 Nov 18 15:00	14°♁37'10	0.27619 AU	
max. Earth dist.	15936 Jun 20 16:57	12°☾17'26	1.72143 AU	inferior conj	15938 Nov 19 11:01	14°♁06'33	-6°40'32	
				minimum elong	15938 Nov 19 00:02	14°♁23'21	6°37'27	
superior conj	15936 Jun 23 17:25	16°☾03'11	-1°25'53	morning rise	15938 Nov 23 19:04	11°♁31'07		
minimum elong	15936 Jun 23 12:44	15°☾48'37	1°26'37	direct	15938 Dec 10 09:30	6°♁17'19		
	15936 Jul 04 21:48	0°♁		greatest brilliancy	15938 Dec 19 20:16	7°♁55'49	-4.8m	
	15936 Jul 28 21:59	0°♐			15939 Jan 21 08:31	0°♁		
evening rise	15936 Aug 02 09:05	5°♐34'43		morning max el	15939 Jan 28 14:56	6°♁49'53	45°55'43	
greatest brilliancy	15936 Aug 05 04:39	9°♐05'53	-3.9m	asc. node	15939 Feb 11 09:20	20°♁44'35		
	15936 Aug 21 21:58	0°♁			15939 Feb 20 01:39	0°≈		
asc. node	15936 Aug 26 10:55	5°♁40'16			15939 Mar 18 19:25	0°✕		
	15936 Sep 14 23:10	0°ℓ			15939 Apr 13 09:36	0°Υ		
	15936 Oct 09 03:22	0°♁			15939 May 08 09:38	0°♁		
	15936 Nov 02 13:35	0°♁			15939 Jun 02 00:44	0°Π		
	15936 Nov 27 11:09	0°≈		desc. node	15939 Jun 03 08:23	1°Π36'59		
desc. node	15936 Dec 16 04:16	21°≈55'49			15939 Jun 26 09:10	0°☾		
	15936 Dec 23 05:19	0°✕			15939 Jul 20 12:37	0°♁		
	15937 Jan 19 15:31	0°Υ		morning set	15939 Jul 29 05:09	10°♁50'31		
evening max el	15937 Feb 01 06:59	12°Υ42'53	46°02'48		15939 Aug 13 12:52	0°♐		
	15937 Feb 20 23:27	0°♁			15939 Sep 06 11:39	0°♁		
greatest brilliancy	15937 Mar 12 08:36	11°♁20'09	-4.8m					
retrograde	15937 Mar 22 11:01	13°♁12'38		superior conj	15939 Sep 06 21:33	0°♁30'59	-0°40'33	
evening set	15937 Apr 06 08:48	8°♁51'45		minimum elong	15939 Sep 07 06:54	1°♁00'17	0°40'11	
asc. node	15937 Apr 08 02:47	7°♁52'22		max. Earth dist.	15939 Sep 06 14:48	0°♁09'53	1.71549 AU	
inferior conj	15937 Apr 12 17:19	5°♁03'16	1°08'42	asc. node	15939 Sep 24 00:51	21°♁59'38		
minimum elong	15937 Apr 12 14:45	5°♁07'18	1°07'30		15939 Sep 30 10:16	0°ℓ		
min. Earth dist.	15937 Apr 12 18:01	5°♁02'12	0.28356 AU	evening rise	15939 Oct 16 11:40	20°ℓ05'59		
morning rise	15937 Apr 18 20:27	1°♁21'34			15939 Oct 24 09:46	0°♁		
	15937 Apr 21 11:10	30°♐Υ			15939 Nov 17 11:41	0°♁		
direct	15937 May 03 21:42	26°Υ53'07			15939 Dec 11 18:22	0°≈		
greatest brilliancy	15937 May 14 11:24	28°Υ56'51	-4.8m		15940 Jan 05 08:57	0°✕		
	15937 May 17 01:10	0°♁		desc. node	15940 Jan 13 16:51	10°✕02'10		
morning max el	15937 Jun 22 14:52	28°♁25'13	46°22'13		15940 Jan 30 10:55	0°Υ		
	15937 Jun 24 05:01	0°Π			15940 Feb 25 04:57	0°♁		
	15937 Jul 22 04:37	0°☾			15940 Mar 23 02:11	0°Π		
desc. node	15937 Jul 29 04:48	7°☾58'18		evening max el	15940 Apr 13 10:59	22°Π04'24	46°04'15	
	15937 Aug 17 01:39	0°♁			15940 Apr 21 20:40	0°☾		
	15937 Sep 11 01:09	0°♐		asc. node	15940 May 05 13:04	11°☾23'09		
	15937 Oct 05 14:24	0°♁		greatest brilliancy	15940 May 23 02:24	21°☾19'58	-4.8m	
	15937 Oct 29 22:42	0°ℓ		retrograde	15940 Jun 01 19:23	23°☾04'40		
asc. node	15937 Nov 19 01:51	24°ℓ54'49		evening set	15940 Jun 19 11:47	17°☾05'07		
	15937 Nov 23 04:20	0°♁		inferior conj	15940 Jun 22 17:16	15°☾05'01	8°50'05	
	15937 Dec 17 08:28	0°♁		minimum elong	15940 Jun 22 12:17	15°☾12'51	8°48'56	
morning set	15937 Dec 24 10:51	8°♁48'57		min. Earth dist.	15940 Jun 22 22:31	14°☾56'47	0.27995 AU	
	15938 Jan 10 12:17	0°≈		morning rise	15940 Jun 25 12:42	13°☾20'01		
				direct	15940 Jul 13 19:19	6°☾58'19		
superior conj	15938 Jan 30 13:56	24°≈52'41	1°17'26	greatest brilliancy	15940 Jul 23 19:26	8°☾51'28	-4.9m	
minimum elong	15938 Jan 30 22:09	25°≈18'08	1°17'45		15940 Aug 23 05:00	0°♁		
max. Earth dist.	15938 Feb 01 18:12	27°≈34'31	1.72877 AU	desc. node	15940 Aug 25 14:32	2°♁14'23		
	15938 Feb 03 17:14	0°✕		morning max el	15940 Sep 02 05:47	9°♁41'46	46°54'59	
	15938 Feb 28 00:23	0°Υ			15940 Sep 21 10:29	0°♐		
evening rise	15938 Mar 09 05:42	11°Υ21'20			15940 Oct 17 19:13	0°♁		
desc. node	15938 Mar 10 18:10	13°Υ13'31			15940 Nov 12 03:54	0°ℓ		
	15938 Mar 24 09:48	0°♁			15940 Dec 07 01:15	0°♁		
	15938 Apr 17 20:50	0°Π		asc. node	15940 Dec 16 13:54	11°♁34'40		
	15938 May 12 09:09	0°☾			15940 Dec 31 15:59	0°♁		
	15938 Jun 05 23:50	0°♁			15941 Jan 25 02:32	0°≈		
	15938 Jun 30 20:07	0°♐			15941 Feb 18 10:56	0°✕		
asc. node	15938 Jul 01 10:05	0°♐41'49		morning set	15941 Mar 03 16:48	16°✕20'10		
	15938 Jul 26 04:12	0°♁			15941 Mar 14 18:42	0°Υ		

desc. node	15941 Apr 07 08:04	29°Υ03'42		evening set	15943 Aug 30 07:28	1°♁11'44	
	15941 Apr 08 02:19	0°♄			15943 Sep 01 09:33	30°♁	
max. Earth dist.	15941 Apr 09 14:52	1°♄52'43	1.73026 AU	inferior conj	15943 Sep 04 11:43	28°♁08'07	4°38'13
				minimum elong	15943 Sep 04 21:18	27°♁53'28	4°35'24
superior conj	15941 Apr 10 08:14	2°♄46'18	-0°07'20	min. Earth dist.	15943 Sep 05 01:11	27°♁47'33	0.27017 AU
minimum elong	15941 Apr 10 06:27	2°♄40'47	0°07'37	morning rise	15943 Sep 10 10:48	24°♁37'31	
behind sun begin	15941 Apr 09 09:18	1°♄35'34		desc. node	15943 Sep 23 00:11	20°♁24'43	
behind sun end	15941 Apr 11 03:35	3°♄46'00		direct	15943 Sep 25 05:37	20°♁18'42	
	15941 May 02 09:21	0°♁		greatest brilliancy	15943 Oct 05 12:28	22°♁16'44	-4.9m
evening rise	15941 May 18 15:28	20°♁06'15			15943 Oct 19 14:48	0°♁	
	15941 May 26 15:14	0°♄		morning max el	15943 Nov 14 08:27	22°♁18'59	46°38'55
	15941 Jun 19 20:07	0°♁			15943 Nov 21 22:54	0°♁	
	15941 Jul 14 01:13	0°♁			15943 Dec 19 13:53	0°♄	
asc. node	15941 Jul 28 23:01	18°♁25'23		asc. node	15944 Jan 14 01:03	29°♄20'21	
	15941 Aug 07 08:34	0°♁			15944 Jan 14 14:35	0°♄	
	15941 Aug 31 21:04	0°♁			15944 Feb 08 20:59	0°♁	
	15941 Sep 25 19:47	0°♄			15944 Mar 04 17:11	0°♄	
	15941 Oct 21 15:51	0°♄			15944 Mar 29 07:36	0°Υ	
desc. node	15941 Nov 17 18:44	29°♄07'02			15944 Apr 22 18:24	0°♄	
	15941 Nov 18 15:57	0°♁		desc. node	15944 May 04 21:33	14°♄56'37	
evening max el	15941 Nov 19 19:54	1°♁09'19	46°24'40	morning set	15944 May 12 23:06	24°♄53'56	
	15941 Dec 27 16:53	0°♄			15944 May 17 02:08	0°♁	
greatest brilliancy	15941 Dec 29 09:14	0°♄38'27	-4.8m		15944 Jun 10 06:45	0°♄	
retrograde	15942 Jan 08 12:47	2°♄31'26		max. Earth dist.	15944 Jun 18 08:54	10°♄03'54	1.72178 AU
	15942 Jan 19 20:08	30°♁					
evening set	15942 Jan 26 09:51	26°♁31'09		superior conj	15944 Jun 21 06:48	13°♄41'35	-1°25'02
inferior conj	15942 Jan 29 23:23	24°♁19'00	-7°57'56	minimum elong	15944 Jun 21 01:15	13°♄24'18	1°25'45
minimum elong	15942 Jan 30 08:06	24°♁05'20	7°56'11		15944 Jul 04 08:38	0°♁	
min. Earth dist.	15942 Jan 29 23:59	24°♁18'02	0.28627 AU		15944 Jul 28 08:55	0°♁	
morning rise	15942 Feb 03 06:26	21°♁40'59		evening rise	15944 Jul 30 21:19	3°♁08'45	
direct	15942 Feb 20 05:44	16°♁12'26		greatest brilliancy	15944 Aug 05 23:15	10°♁44'43	-3.9m
greatest brilliancy	15942 Mar 02 16:03	18°♁11'02	-4.8m		15944 Aug 21 09:03	0°♁	
asc. node	15942 Mar 10 18:56	22°♁01'58		asc. node	15944 Aug 25 12:46	5°♁11'18	
	15942 Mar 22 09:56	0°♄			15944 Sep 14 10:28	0°♁	
morning max el	15942 Apr 10 07:17	16°♄46'39	45°46'44		15944 Oct 08 14:58	0°♄	
	15942 Apr 23 07:57	0°Υ			15944 Nov 02 01:38	0°♄	
	15942 May 20 13:47	0°♄			15944 Nov 27 00:04	0°♁	
	15942 Jun 15 07:16	0°♁		desc. node	15944 Dec 15 06:06	21°♁20'41	
desc. node	15942 Jun 30 19:58	18°♁35'03			15944 Dec 22 19:57	0°♄	
	15942 Jul 10 06:16	0°♄			15945 Jan 19 10:20	0°Υ	
	15942 Aug 03 18:08	0°♁		evening max el	15945 Jan 29 22:54	10°Υ31'19	46°03'22
	15942 Aug 27 23:23	0°♁			15945 Feb 21 14:23	0°♄	
	15942 Sep 21 01:12	0°♁		greatest brilliancy	15945 Mar 09 23:16	9°♄06'03	-4.8m
morning set	15942 Oct 11 03:03	25°♁04'33		retrograde	15945 Mar 20 02:52	10°♄59'09	
	15942 Oct 15 01:36	0°♁		evening set	15945 Apr 04 00:35	6°♄37'40	
asc. node	15942 Oct 21 14:37	8°♁10'34		asc. node	15945 Apr 07 04:51	4°♄47'05	
	15942 Nov 08 01:41	0°♄		inferior conj	15945 Apr 10 08:47	2°♄49'25	0°47'16
				minimum elong	15945 Apr 10 07:00	2°♄52'12	0°46'21
superior conj	15942 Nov 19 02:58	13°♄48'34	1°02'41	min. Earth dist.	15945 Apr 10 09:29	2°♄48'18	0.28366 AU
minimum elong	15942 Nov 18 16:22	13°♄15'26	1°03'03		15945 Apr 14 23:25	30°♁Υ	
max. Earth dist.	15942 Nov 20 20:13	15°♄57'18	1.71999 AU	morning rise	15945 Apr 16 13:17	29°Υ06'09	
	15942 Dec 02 02:22	0°♄		direct	15945 May 01 13:47	24°Υ39'22	
	15942 Dec 26 05:00	0°♁		greatest brilliancy	15945 May 12 03:05	26°Υ43'11	-4.8m
evening rise	15942 Dec 26 17:36	0°♁39'04			15945 May 19 03:05	0°♄	
	15943 Jan 19 11:25	0°♄		morning max el	15945 Jun 20 06:56	26°♄12'09	46°20'45
desc. node	15943 Feb 10 06:08	26°♄41'56			15945 Jun 24 02:01	0°♁	
	15943 Feb 12 23:04	0°Υ			15945 Jul 21 20:01	0°♄	
	15943 Mar 09 16:36	0°♄		desc. node	15945 Jul 28 06:39	7°♄21'18	
	15943 Apr 03 16:33	0°♁			15945 Aug 16 14:59	0°♁	
	15943 Apr 29 01:24	0°♄			15945 Sep 10 13:30	0°♁	
	15943 May 25 03:25	0°♁			15945 Oct 05 02:11	0°♁	
asc. node	15943 Jun 02 23:57	9°♁51'02			15945 Oct 29 10:06	0°♁	
	15943 Jun 21 23:31	0°♁		asc. node	15945 Nov 18 03:39	24°♁25'52	
evening max el	15943 Jun 25 22:23	3°♁57'46	46°26'50		15945 Nov 22 15:27	0°♄	
	15943 Jul 27 11:12	0°♁			15945 Dec 16 19:23	0°♄	
greatest brilliancy	15943 Aug 05 03:10	4°♁05'20	-4.9m	morning set	15945 Dec 22 02:17	6°♄34'02	
retrograde	15943 Aug 14 19:48	5°♁51'34			15946 Jan 09 23:04	0°♁	

superior conj	15946 Jan 28 06:07	22°  40'56	1°18'55	greatest brilliancy	15948 Jul 21 10:34	6°  33'01	-4.9m
minimum elong	15946 Jan 28 13:51	23°  04'53	1°19'18		15948 Aug 23 07:19	0° 	
max. Earth dist.	15946 Jan 30 14:06	25°  34'15	1.72852 AU	desc. node	15948 Aug 24 16:32	1°  19'03	
	15946 Feb 03 03:58	0° 		morning max el	15948 Aug 30 18:55	7°  18'30	46°54'38
	15946 Feb 27 11:09	0° 			15948 Sep 21 03:32	0° 	
evening rise	15946 Mar 06 21:27	9°  08'52			15948 Oct 17 09:17	0° 	
desc. node	15946 Mar 09 20:02	12°  45'59			15948 Nov 11 16:30	0° 	
	15946 Mar 23 20:42	0° 			15948 Dec 06 13:01	0° 	
	15946 Apr 17 07:58	0° 		asc. node	15948 Dec 15 15:43	11°  30'07	
	15946 May 11 20:38	0° 			15948 Dec 31 03:12	0° 	
	15946 Jun 05 11:52	0° 			15949 Jan 24 13:26	0° 	
asc. node	15946 Jun 30 11:51	0°  08'32			15949 Feb 17 21:38	0° 	
	15946 Jun 30 09:00	0° 		morning set	15949 Mar 01 09:28	14°  10'44	
	15946 Jul 25 18:36	0° 			15949 Mar 14 05:17	0° 	
	15946 Aug 21 07:33	0° 		desc. node	15949 Apr 06 09:55	28°  36'49	
evening max el	15946 Sep 06 18:09	17°  15'59	46°40'35				
	15946 Sep 20 04:39	0° 		superior conj	15949 Apr 07 23:31	0°  32'49	-0°03'51
greatest brilliancy	15946 Oct 16 02:02	17°  30'13	-4.9m	minimum elong	15949 Apr 07 22:33	0°  29'51	0°04'08
desc. node	15946 Oct 20 10:10	18°  53'01		behind sun begin	15949 Apr 06 23:28	29°  18'36	
retrograde	15946 Oct 27 00:56	19°  43'14		behind sun end	15949 Apr 08 21:39	1°  34'06	
evening set	15946 Nov 11 15:50	14°  57'51		max. Earth dist.	15949 Apr 07 07:10	29°  42'22	1.73040 AU
min. Earth dist.	15946 Nov 16 04:41	12°  16'40	0.27568 AU		15949 Apr 07 12:53	0° 	
inferior conj	15946 Nov 17 00:37	11°  46'10	-6°24'46		15949 May 01 19:58	0° 	
minimum elong	15946 Nov 16 13:37	12°  03'01	6°21'34	evening rise	15949 May 16 06:04	17°  49'56	
morning rise	15946 Nov 21 11:54	9°  06'07			15949 May 26 01:58	0° 	
direct	15946 Dec 07 23:19	3°  57'46			15949 Jun 19 07:02	0° 	
greatest brilliancy	15946 Dec 17 09:05	5°  35'30	-4.8m		15949 Jul 13 12:25	0° 	
	15947 Jan 21 10:25	0° 		asc. node	15949 Jul 28 00:54	17°  45'55	
morning max el	15947 Jan 26 04:38	4°  31'26	45°56'45		15949 Aug 06 20:11	0° 	
asc. node	15947 Feb 10 11:16	20°  01'15			15949 Aug 31 09:20	0° 	
	15947 Feb 19 18:20	0° 			15949 Sep 25 09:08	0° 	
	15947 Mar 18 09:09	0° 			15949 Oct 21 07:24	0° 	
	15947 Apr 12 21:58	0° 		desc. node	15949 Nov 16 20:36	28°  18'35	
	15947 May 07 21:15	0° 		evening max el	15949 Nov 17 09:25	28°  50'20	46°25'34
	15947 Jun 01 11:56	0° 			15949 Nov 18 13:43	0° 	
desc. node	15947 Jun 02 10:05	1°  47'55		greatest brilliancy	15949 Dec 27 00:13	28°  25'21	-4.8m
	15947 Jun 25 20:09	0° 			15950 Jan 02 02:17	0° 	
	15947 Jul 19 23:30	0° 		retrograde	15950 Jan 06 03:54	0°  19'05	
morning set	15947 Jul 26 17:31	8°  25'26			15950 Jan 10 03:53	30°  00'00	
	15947 Aug 12 23:41	0° 		evening set	15950 Jan 24 03:55	24°  14'36	
				inferior conj	15950 Jan 27 14:50	22°  06'40	-8°07'11
superior conj	15947 Sep 04 10:00	28°  05'53	-0°43'54	minimum elong	15950 Jan 27 23:03	21°  53'49	8°05'36
minimum elong	15947 Sep 04 19:54	28°  36'56	0°43'34	min. Earth dist.	15950 Jan 27 14:58	22°  06'27	0.28623 AU
max. Earth dist.	15947 Sep 04 00:22	27°  35'43	1.71546 AU	morning rise	15950 Jan 31 18:13	19°  34'11	
	15947 Sep 05 22:25	0° 		direct	15950 Feb 17 20:33	14°  00'11	
asc. node	15947 Sep 23 02:45	21°  31'58		greatest brilliancy	15950 Feb 28 07:21	15°  58'59	-4.8m
	15947 Sep 29 21:00	0° 		asc. node	15950 Mar 09 21:00	20°  40'43	
evening rise	15947 Oct 14 01:34	17°  45'38			15950 Mar 22 19:34	0° 	
	15947 Oct 23 20:34	0° 		morning max el	15950 Apr 07 22:08	14°  32'29	45°46'13
	15947 Nov 16 22:37	0° 			15950 Apr 23 01:45	0° 	
	15947 Dec 11 05:34	0° 			15950 May 20 03:52	0° 	
	15948 Jan 04 20:35	0° 			15950 Jun 14 19:47	0° 	
desc. node	15948 Jan 12 18:35	9°  31'50		desc. node	15950 Jun 29 21:51	18°  44'39	
	15948 Jan 29 23:19	0° 			15950 Jul 09 17:58	0° 	
	15948 Feb 24 18:49	0° 			15950 Aug 03 05:23	0° 	
	15948 Mar 22 19:13	0° 			15950 Aug 27 10:21	0° 	
evening max el	15948 Apr 11 00:48	19°  46'11	46°03'43		15950 Sep 20 11:59	0° 	
	15948 Apr 22 00:13	0° 		morning set	15950 Oct 08 16:05	22°  41'51	
asc. node	15948 May 04 14:59	10°  02'06	-4.8m		15950 Oct 14 12:16	0° 	
greatest brilliancy	15948 May 20 16:32	19°  02'06	-4.8m	asc. node	15950 Oct 20 16:23	7°  42'52	
retrograde	15948 May 30 08:52	20°  46'36			15950 Nov 07 12:16	0° 	
evening set	15948 Jun 16 22:45	14°  52'05					
inferior conj	15948 Jun 20 07:47	12°  46'36	8°44'12	superior conj	15950 Nov 16 17:32	11°  31'16	1°00'08
minimum elong	15948 Jun 20 02:00	12°  55'40	8°42'57	minimum elong	15950 Nov 16 06:54	10°  38'03	1°00'28
min. Earth dist.	15948 Jun 20 12:34	12°  39'05	0.28018 AU	max. Earth dist.	15950 Nov 18 07:25	13°  29'35	1.71971 AU
morning rise	15948 Jun 23 05:10	10°  58'28			15950 Dec 01 12:52	0° 	
direct	15948 Jul 11 09:31	4°  39'30		evening rise	15950 Dec 24 09:12	28°  26'00	

	15950 Dec 25 15:30	0°♊	morning max el	15953 Jun 17 22:08	23°♊58'02	46°19'04
	15951 Jan 18 22:02	0°♋		15953 Jun 23 21:55	0°♋	
desc. node	15951 Feb 09 08:04	26°♋14'46		15953 Jul 21 10:54	0°♌	
	15951 Feb 12 09:57	0°♍	desc. node	15953 Jul 27 08:38	6°♌45'51	
	15951 Mar 09 03:55	0°♎		15953 Aug 16 03:58	0°♍	
	15951 Apr 03 04:34	0°♏		15953 Sep 10 01:31	0°♎	
	15951 Apr 28 14:36	0°♐		15953 Oct 04 13:37	0°♏	
	15951 May 24 18:56	0°♑		15953 Oct 28 21:06	0°♐	
asc. node	15951 Jun 02 01:46	9°♑10'03	asc. node	15953 Nov 17 05:25	23°♐57'57	
	15951 Jun 21 21:00	0°♒		15953 Nov 22 02:10	0°♑	
evening max el	15951 Jun 23 11:46	1°♒36'23 46°26'08		15953 Dec 16 05:54	0°♒	
	15951 Jul 29 13:08	0°♓	morning set	15953 Dec 19 17:37	4°♒20'02	
greatest brilliancy	15951 Aug 02 16:12	1°♓41'42 -4.9m		15954 Jan 09 09:29	0°♓	
retrograde	15951 Aug 12 09:06	3°♓28'03				
	15951 Aug 25 13:31	30°♓♎	superior conj	15954 Jan 25 22:25	20°♓30'35 1°20'18	
evening set	15951 Aug 27 23:19	28°♓43'24	minimum elong	15954 Jan 26 05:38	20°♓52'56 1°20'44	
inferior conj	15951 Sep 02 00:28	25°♓44'01 4°58'49	max. Earth dist.	15954 Jan 28 08:55	23°♓31'43 1.72825 AU	
minimum elong	15951 Sep 02 10:30	25°♓28'41 4°55'56		15954 Feb 02 14:22	0°♋	
min. Earth dist.	15951 Sep 02 14:32	25°♓22'33 0.27043 AU		15954 Feb 26 21:35	0°♍	
morning rise	15951 Sep 07 21:25	22°♓16'33	evening rise	15954 Mar 04 13:16	6°♍57'42	
desc. node	15951 Sep 22 02:12	17°♓54'31	desc. node	15954 Mar 08 21:52	12°♍19'24	
direct	15951 Sep 22 18:57	17°♓53'55		15954 Mar 23 07:15	0°♎	
greatest brilliancy	15951 Oct 03 01:34	19°♓52'25 -4.9m		15954 Apr 16 18:45	0°♏	
	15951 Oct 20 10:50	0°♐		15954 May 11 07:47	0°♐	
morning max el	15951 Nov 11 23:20	20°♐00'55 46°40'15		15954 Jun 04 23:37	0°♑	
	15951 Nov 21 18:46	0°♒	asc. node	15954 Jun 29 13:46	29°♑36'20	
	15951 Dec 19 04:52	0°♓		15954 Jun 29 21:41	0°♒	
asc. node	15952 Jan 13 02:58	28°♓48'01		15954 Jul 25 08:56	0°♓	
	15952 Jan 14 03:28	0°♔		15954 Aug 21 01:27	0°♔	
	15952 Feb 08 08:44	0°♕	evening max el	15954 Sep 04 08:33	14°♔55'52 46°40'32	
	15952 Mar 04 04:18	0°♋		15954 Sep 20 11:38	0°♕	
	15952 Mar 28 18:22	0°♍	greatest brilliancy	15954 Oct 13 16:45	15°♕10'16 -4.9m	
	15952 Apr 22 05:00	0°♎	desc. node	15954 Oct 19 12:00	16°♕52'00	
desc. node	15952 May 03 23:16	14°♎29'27	retrograde	15954 Oct 24 14:37	17°♕22'12	
morning set	15952 May 10 13:14	22°♎36'50	evening set	15954 Nov 09 02:18	12°♕42'18	
	15952 May 16 12:39	0°♏	min. Earth dist.	15954 Nov 13 18:41	9°♕56'05 0.27514 AU	
	15952 Jun 09 17:16	0°♐	inferior conj	15954 Nov 14 14:08	9°♕26'18 -6°08'20	
max. Earth dist.	15952 Jun 15 23:10	7°♐46'09 1.72212 AU	minimum elong	15954 Nov 14 03:11	9°♕43'04 6°05'03	
			morning rise	15954 Nov 19 04:35	6°♕41'34	
superior conj	15952 Jun 18 19:52	11°♐20'00 -1°24'00	direct	15954 Dec 05 12:35	1°♕38'43	
minimum elong	15952 Jun 18 13:31	11°♐00'12 1°24'43	greatest brilliancy	15954 Dec 14 22:18	3°♕16'10 -4.8m	
	15952 Jul 03 19:11	0°♑		15955 Jan 21 10:37	0°♖	
	15952 Jul 27 19:33	0°♒	morning max el	15955 Jan 23 17:16	2°♖11'11 45°57'50	
evening rise	15952 Jul 28 09:10	0°♒42'33	asc. node	15955 Feb 09 13:17	19°♖19'43	
	15952 Aug 20 19:48	0°♓		15955 Feb 19 10:21	0°♔	
asc. node	15952 Aug 24 14:37	4°♓43'29		15955 Mar 17 22:26	0°♋	
	15952 Sep 13 21:24	0°♔		15955 Apr 12 09:57	0°♍	
	15952 Oct 08 02:11	0°♕		15955 May 07 08:33	0°♎	
	15952 Nov 01 13:21	0°♖		15955 May 31 22:51	0°♏	
	15952 Nov 26 12:41	0°♗	desc. node	15955 Jun 01 11:59	0°♐40'18	
desc. node	15952 Dec 14 07:57	20°♗46'32		15955 Jun 25 06:52	0°♑	
	15952 Dec 22 10:21	0°♋		15955 Jul 19 10:07	0°♒	
	15953 Jan 19 05:13	0°♍	morning set	15955 Jul 24 05:46	6°♒00'46	
evening max el	15953 Jan 27 15:07	8°♍21'44 46°03'55		15955 Aug 12 10:17	0°♎	
	15953 Feb 22 09:40	0°♎				
greatest brilliancy	15953 Mar 07 14:21	6°♎53'54 -4.8m	superior conj	15955 Sep 01 22:11	25°♎40'32 -0°47'12	
retrograde	15953 Mar 17 18:26	8°♎46'54	minimum elong	15955 Sep 02 08:35	26°♎13'08 0°46'53	
evening set	15953 Apr 01 16:36	4°♎24'54	max. Earth dist.	15955 Sep 01 06:34	24°♎51'38 1.71549 AU	
asc. node	15953 Apr 06 06:40	1°♎42'02		15955 Sep 05 09:00	0°♏	
inferior conj	15953 Apr 08 00:15	0°♎37'00 0°25'55	asc. node	15955 Sep 22 04:31	21°♏04'18	
minimum elong	15953 Apr 07 23:17	0°♎38'32 0°25'16		15955 Sep 29 07:36	0°♐	
min. Earth dist.	15953 Apr 08 01:02	0°♎35'47 0.28377 AU	evening rise	15955 Oct 11 14:55	15°♐23'59	
	15953 Apr 08 23:53	30°♎♍		15955 Oct 23 07:13	0°♑	
morning rise	15953 Apr 14 05:56	26°♍52'12		15955 Nov 16 09:24	0°♒	
direct	15953 Apr 29 05:59	22°♍27'12		15955 Dec 10 16:35	0°♓	
greatest brilliancy	15953 May 09 18:32	24°♍30'31 -4.8m		15956 Jan 04 08:03	0°♋	
	15953 May 20 11:17	0°♎	desc. node	15956 Jan 11 20:33	9°♋02'40	

	15956 Jan 29 11:36	0°Υ			15958 Aug 26 21:20	0°Π		
	15956 Feb 24 08:38	0°Ϸ			15958 Sep 19 22:48	0°Ϸ		
	15956 Mar 22 12:25	0°Π		morning set	15958 Oct 06 05:27	20°Ϸ20'04		
evening max el	15956 Apr 08 14:09	17°Π27'29 46°03'17			15958 Oct 13 22:59	0°Π		
	15956 Apr 22 05:21	0°Ϸ		asc. node	15958 Oct 19 18:09	7°Π15'02		
asc. node	15956 May 03 16:53	8°Ϸ56'33			15958 Nov 06 22:55	0°Ϸ		
greatest brilliancy	15956 May 18 06:32	16°Ϸ44'52 -4.8m						
retrograde	15956 May 27 22:48	18°Ϸ29'43		superior conj	15958 Nov 14 08:06	9°Ϸ13'39 0°57'29		
evening set	15956 Jun 14 09:34	12°Ϸ40'13		minimum elong	15958 Nov 13 21:30	8°Ϸ40'34 0°57'47		
inferior conj	15956 Jun 17 22:22	10°Ϸ29'10 8°37'31		max. Earth dist.	15958 Nov 15 20:49	11°Ϸ08'21 1.71949 AU		
minimum elong	15956 Jun 17 15:51	10°Ϸ39'25 8°36'06			15958 Nov 30 23:29	0°Ϸ		
min. Earth dist.	15956 Jun 18 02:40	10°Ϸ22'25 0.28041 AU		evening rise	15958 Dec 22 00:46	26°Ϸ12'16		
morning rise	15956 Jun 20 22:00	8°Ϸ37'37			15958 Dec 25 02:10	0°Ϸ		
direct	15956 Jul 08 23:39	2°Ϸ21'33			15959 Jan 18 08:50	0°Ϸ		
greatest brilliancy	15956 Jul 19 01:54	4°Ϸ15'50 -4.9m		desc. node	15959 Feb 08 09:51	25°Ϸ46'33		
	15956 Aug 23 07:59	0°Ω			15959 Feb 11 21:01	0°Υ		
desc. node	15956 Aug 23 18:31	0°Ω25'28			15959 Mar 08 15:26	0°Ϸ		
morning max el	15956 Aug 28 08:33	4°Ω57'05 46°54'09			15959 Apr 02 16:48	0°Π		
	15956 Sep 20 20:05	0°Π			15959 Apr 28 04:04	0°Ϸ		
	15956 Oct 16 23:07	0°Ϸ			15959 May 24 10:52	0°Ω		
	15956 Nov 11 05:01	0°Π		asc. node	15959 Jun 01 03:45	8°Ω28'31		
	15956 Dec 06 00:43	0°Ϸ		evening max el	15959 Jun 21 02:07	29°Ω16'58 46°25'20		
asc. node	15956 Dec 14 17:42	10°Ϸ36'10			15959 Jun 21 19:35	0°Π		
	15956 Dec 30 14:22	0°Ϸ		greatest brilliancy	15959 Jul 31 05:23	29°Π18'08 -4.9m		
	15957 Jan 24 00:14	0°Ϸ			15959 Aug 02 10:49	0°Ϸ		
	15957 Feb 17 08:12	0°Ϸ		retrograde	15959 Aug 09 22:37	1°Ϸ04'20		
morning set	15957 Feb 27 02:07	12°Ϸ01'31			15959 Aug 17 04:19	30°Ϸ		
	15957 Mar 13 15:46	0°Υ		evening set	15959 Aug 25 15:29	26°Π15'06		
max. Earth dist.	15957 Apr 05 01:11	27°Υ37'30 1.73056 AU		inferior conj	15959 Aug 30 13:22	23°Π19'54 5°18'49		
desc. node	15957 Apr 05 11:36	28°Υ09'36		minimum elong	15959 Aug 30 23:47	23°Π03'59 5°15'53		
				min. Earth dist.	15959 Aug 31 03:45	22°Π57'56 0.27067 AU		
superior conj	15957 Apr 05 14:58	28°Υ20'01 -0°00'21		morning rise	15959 Sep 05 07:54	19°Π55'47		
minimum elong	15957 Apr 05 14:47	28°Υ19'29 0°00'38		direct	15959 Sep 20 08:41	15°Π29'25		
behind sun begin	15957 Apr 04 15:09	27°Υ06'33		desc. node	15959 Sep 21 03:59	15°Π30'12		
behind sun end	15957 Apr 06 14:25	29°Υ32'24		greatest brilliancy	15959 Sep 30 14:11	17°Π27'25 -4.9m		
	15957 Apr 06 23:22	0°Ϸ			15959 Oct 21 01:48	0°Ϸ		
	15957 May 01 06:33	0°Π		morning max el	15959 Nov 09 14:01	17°Ϸ42'06 46°41'30		
evening rise	15957 May 13 21:00	15°Π34'46			15959 Nov 21 14:09	0°Π		
	15957 May 25 12:40	0°Ϸ			15959 Dec 18 19:47	0°Ϸ		
	15957 Jun 18 17:55	0°Ω		asc. node	15960 Jan 12 04:54	28°Ϸ15'23		
	15957 Jul 12 23:34	0°Π			15960 Jan 13 16:27	0°Ϸ		
asc. node	15957 Jul 27 02:48	17°Π26'40			15960 Feb 07 20:42	0°Ϸ		
	15957 Aug 06 07:46	0°Ϸ			15960 Mar 03 15:41	0°Ϸ		
	15957 Aug 30 21:36	0°Π			15960 Mar 28 05:24	0°Υ		
	15957 Sep 24 22:35	0°Ϸ			15960 Apr 21 15:50	0°Ϸ		
	15957 Oct 20 23:16	0°Ϸ		desc. node	15960 May 03 01:07	14°Ϸ01'56		
evening max el	15957 Nov 14 23:31	26°Ϸ32'26 46°26'27		morning set	15960 May 08 03:31	20°Ϸ19'32		
desc. node	15957 Nov 15 22:31	27°Ϸ29'09			15960 May 15 23:24	0°Π		
	15957 Nov 18 12:33	0°Ϸ			15960 Jun 09 04:00	0°Ϸ		
greatest brilliancy	15957 Dec 24 14:39	26°Ϸ11'03 -4.8m		max. Earth dist.	15960 Jun 13 12:28	5°Ϸ24'43 1.72247 AU		
retrograde	15958 Jan 03 19:35	28°Ϸ06'12						
evening set	15958 Jan 21 21:49	21°Ϸ57'33		superior conj	15960 Jun 16 09:07	8°Ϸ58'17 -1°22'51		
inferior conj	15958 Jan 25 06:12	19°Ϸ53'40 -8°15'48		minimum elong	15960 Jun 16 01:59	8°Ϸ36'08 1°23'31		
minimum elong	15958 Jan 25 13:51	19°Ϸ41'43 8°14'21			15960 Jul 03 06:00	0°Ω		
min. Earth dist.	15958 Jan 25 05:28	19°Ϸ54'47 0.28616 AU		evening rise	15960 Jul 25 21:09	28°Ω15'54		
morning rise	15958 Jan 29 05:57	17°Ϸ26'54			15960 Jul 27 06:28	0°Π		
direct	15958 Feb 15 11:32	11°Ϸ47'23			15960 Aug 20 06:51	0°Ϸ		
greatest brilliancy	15958 Feb 25 22:03	13°Ϸ46'05 -4.8m		asc. node	15960 Aug 23 16:22	4°Ϸ14'23		
asc. node	15958 Mar 08 22:51	19°Ϸ21'30			15960 Sep 13 08:37	0°Π		
	15958 Mar 23 02:34	0°Ϸ			15960 Oct 07 13:40	0°Ϸ		
morning max el	15958 Apr 05 13:43	12°Ϸ20'03 45°45'48			15960 Nov 01 01:20	0°Ϸ		
	15958 Apr 22 19:09	0°Υ			15960 Nov 26 01:36	0°Ϸ		
	15958 May 19 17:50	0°Ϸ		desc. node	15960 Dec 13 09:55	20°Ϸ11'51		
	15958 Jun 14 08:17	0°Π			15960 Dec 22 01:12	0°Ϸ		
desc. node	15958 Jun 28 23:46	17°Π34'20			15961 Jan 19 01:02	0°Υ		
	15958 Jul 09 05:42	0°Ϸ		evening max el	15961 Jan 25 07:05	6°Υ10'29 46°04'16		
	15958 Aug 02 16:40	0°Ω			15961 Feb 23 12:54	0°Ϸ		






































































































































greatest brilliancy	15961 Mar 05 06:09	4° $\text{♁}$ 41'34	-4.8m		15963 Jun 24 17:58	0° $\text{♁}$	
retrograde	15961 Mar 15 09:36	6° $\text{♁}$ 33'44			15963 Jul 18 21:07	0° $\text{♁}$	
evening set	15961 Mar 30 08:53	2° $\text{♁}$ 11'07		morning set	15963 Jul 21 17:54	3° $\text{♁}$ 34'35	
	15961 Apr 03 02:13	30° $\text{♁}$			15963 Aug 11 21:13	0° $\text{♁}$	
asc. node	15961 Apr 05 08:37	28° $\text{♁}$ 35'11		max. Earth dist.	15963 Aug 29 13:25	22° $\text{♁}$ 08'34	1.71557 AU
inferior conj	15961 Apr 05 15:50	28° $\text{♁}$ 23'51	0°04'29				
minimum elong	15961 Apr 05 15:40	28° $\text{♁}$ 24'06	0°04'08	superior conj	15963 Aug 30 10:17	23° $\text{♁}$ 13'55	-0°50'25
transit middle	15961 Apr 05 15:40	28° $\text{♁}$ 24'06	0°04'08	minimum elong	15963 Aug 30 21:07	23° $\text{♁}$ 47'51	0°50'07
transit begin	15961 Apr 05 11:45	28° $\text{♁}$ 30'15			15963 Sep 04 19:55	0° $\text{♁}$	
transit end	15961 Apr 05 19:35	28° $\text{♁}$ 17'58		asc. node	15963 Sep 21 06:18	20° $\text{♁}$ 35'32	
min. Earth dist.	15961 Apr 05 16:58	28° $\text{♁}$ 22'04	0.28387 AU		15963 Sep 28 18:33	0° $\text{♁}$	
morning rise	15961 Apr 11 22:26	24° $\text{♁}$ 37'33		evening rise	15963 Oct 09 04:13	13° $\text{♁}$ 01'07	
direct	15961 Apr 26 21:58	20° $\text{♁}$ 14'20			15963 Oct 22 18:16	0° $\text{♁}$	
greatest brilliancy	15961 May 07 10:18	22° $\text{♁}$ 17'14	-4.8m		15963 Nov 15 20:35	0° $\text{♁}$	
	15961 May 21 10:42	0° $\text{♁}$			15963 Dec 10 04:00	0° $\text{♁}$	
morning max el	15961 Jun 15 12:28	21° $\text{♁}$ 40'47	46°17'26		15964 Jan 03 19:54	0° $\text{♁}$	
	15961 Jun 23 17:33	0° $\text{♁}$		desc. node	15964 Jan 10 22:24	8° $\text{♁}$ 32'03	
	15961 Jul 21 01:55	0° $\text{♁}$			15964 Jan 29 00:16	0° $\text{♁}$	
desc. node	15961 Jul 26 10:33	6° $\text{♁}$ 09'33			15964 Feb 23 22:54	0° $\text{♁}$	
	15961 Aug 15 17:10	0° $\text{♁}$			15964 Mar 22 06:20	0° $\text{♁}$	
	15961 Sep 09 13:48	0° $\text{♁}$		evening max el	15964 Apr 06 03:53	15° $\text{♁}$ 09'07	46°02'50
	15961 Oct 04 01:21	0° $\text{♁}$			15964 Apr 22 13:11	0° $\text{♁}$	
	15961 Oct 28 08:26	0° $\text{♁}$		asc. node	15964 May 02 18:52	7° $\text{♁}$ 39'30	
asc. node	15961 Nov 16 07:23	23° $\text{♁}$ 29'41		greatest brilliancy	15964 May 15 20:01	14° $\text{♁}$ 26'09	-4.8m
	15961 Nov 21 13:12	0° $\text{♁}$		retrograde	15964 May 25 13:12	16° $\text{♁}$ 12'01	
	15961 Dec 15 16:43	0° $\text{♁}$		evening set	15964 Jun 11 20:17	10° $\text{♁}$ 27'28	
morning set	15961 Dec 17 09:14	2° $\text{♁}$ 05'52		inferior conj	15964 Jun 15 13:00	8° $\text{♁}$ 10'45	8°29'56
	15962 Jan 08 20:12	0° $\text{♁}$		minimum elong	15964 Jun 15 05:47	8° $\text{♁}$ 22'03	8°28'22
				min. Earth dist.	15964 Jun 15 16:37	8° $\text{♁}$ 05'04	0.28066 AU
superior conj	15962 Jan 23 15:05	18° $\text{♁}$ 20'26	1°21'33	morning rise	15964 Jun 18 15:11	6° $\text{♁}$ 15'26	
minimum elong	15962 Jan 23 21:43	18° $\text{♁}$ 41'01	1°22'00	direct	15964 Jul 06 14:07	0° $\text{♁}$ 02'35	
max. Earth dist.	15962 Jan 26 02:42	21° $\text{♁}$ 25'05	1.72799 AU	greatest brilliancy	15964 Jul 16 17:05	1° $\text{♁}$ 57'35	-4.9m
	15962 Feb 02 01:03	0° $\text{♁}$		desc. node	15964 Aug 22 20:22	29° $\text{♁}$ 31'40	
	15962 Feb 26 08:21	0° $\text{♁}$			15964 Aug 23 07:54	0° $\text{♁}$	
evening rise	15962 Mar 02 05:18	4° $\text{♁}$ 46'08		morning max el	15964 Aug 25 23:11	2° $\text{♁}$ 37'16	46°53'38
desc. node	15962 Mar 07 23:37	11° $\text{♁}$ 51'32			15964 Sep 20 12:39	0° $\text{♁}$	
	15962 Mar 22 18:10	0° $\text{♁}$			15964 Oct 16 13:07	0° $\text{♁}$	
	15962 Apr 16 05:55	0° $\text{♁}$			15964 Nov 10 17:43	0° $\text{♁}$	
	15962 May 10 19:21	0° $\text{♁}$			15964 Dec 05 12:39	0° $\text{♁}$	
	15962 Jun 04 11:47	0° $\text{♁}$		asc. node	15964 Dec 13 19:31	10° $\text{♁}$ 05'58	
asc. node	15962 Jun 28 15:41	29° $\text{♁}$ 02'57			15964 Dec 30 01:48	0° $\text{♁}$	
	15962 Jun 29 10:49	0° $\text{♁}$			15965 Jan 23 11:19	0° $\text{♁}$	
	15962 Jul 24 23:49	0° $\text{♁}$			15965 Feb 16 19:03	0° $\text{♁}$	
	15962 Aug 20 20:15	0° $\text{♁}$		morning set	15965 Feb 24 19:00	9° $\text{♁}$ 52'11	
evening max el	15962 Sep 01 22:00	12° $\text{♁}$ 32'11	46°40'23		15965 Mar 13 02:30	0° $\text{♁}$	
	15962 Sep 20 21:53	0° $\text{♁}$					
greatest brilliancy	15962 Oct 11 07:49	12° $\text{♁}$ 49'16	-4.9m	superior conj	15965 Apr 03 06:35	26° $\text{♁}$ 07'05	0°03'10
desc. node	15962 Oct 18 14:02	14° $\text{♁}$ 44'57		minimum elong	15965 Apr 03 07:15	26° $\text{♁}$ 09'07	0°02'52
retrograde	15962 Oct 22 04:00	14° $\text{♁}$ 59'58		behind sun begin	15965 Apr 02 07:50	24° $\text{♁}$ 56'53	
evening set	15962 Nov 06 12:53	10° $\text{♁}$ 25'03		behind sun end	15965 Apr 04 06:40	27° $\text{♁}$ 21'21	
min. Earth dist.	15962 Nov 11 09:03	7° $\text{♁}$ 33'40	0.27462 AU	max. Earth dist.	15965 Apr 02 21:40	25° $\text{♁}$ 39'32	1.73067 AU
inferior conj	15962 Nov 12 03:38	7° $\text{♁}$ 05'12	-5°51'04	desc. node	15965 Apr 04 13:32	27° $\text{♁}$ 42'32	
minimum elong	15962 Nov 11 16:50	7° $\text{♁}$ 21'45	5°47'44		15965 Apr 06 10:06	0° $\text{♁}$	
morning rise	15962 Nov 16 21:14	4° $\text{♁}$ 15'52			15965 Apr 30 17:21	0° $\text{♁}$	
	15962 Nov 27 02:44	30° $\text{♁}$		evening rise	15965 May 11 12:10	13° $\text{♁}$ 19'48	
direct	15962 Dec 03 01:19	29° $\text{♁}$ 18'11			15965 May 24 23:36	0° $\text{♁}$	
	15962 Dec 09 03:38	0° $\text{♁}$			15965 Jun 18 05:03	0° $\text{♁}$	
greatest brilliancy	15962 Dec 12 12:05	0° $\text{♁}$ 56'09	-4.8m		15965 Jul 12 11:01	0° $\text{♁}$	
morning max el	15963 Jan 21 05:36	29° $\text{♁}$ 49'07	45°59'11	asc. node	15965 Jul 26 04:32	16° $\text{♁}$ 55'55	
	15963 Jan 21 10:06	0° $\text{♁}$			15965 Aug 05 19:40	0° $\text{♁}$	
asc. node	15963 Feb 08 15:08	18° $\text{♁}$ 37'21			15965 Aug 30 10:13	0° $\text{♁}$	
	15963 Feb 19 02:25	0° $\text{♁}$			15965 Sep 24 12:27	0° $\text{♁}$	
	15963 Mar 17 11:55	0° $\text{♁}$			15965 Oct 20 15:41	0° $\text{♁}$	
	15963 Apr 11 22:14	0° $\text{♁}$		evening max el	15965 Nov 12 14:14	24° $\text{♁}$ 15'17	46°27'19
	15963 May 06 20:11	0° $\text{♁}$		desc. node	15965 Nov 15 00:30	26° $\text{♁}$ 38'11	
	15963 May 31 10:08	0° $\text{♁}$			15965 Nov 18 12:48	0° $\text{♁}$	
desc. node	15963 May 31 13:56	0° $\text{♁}$		greatest brilliancy	15965 Dec 22 04:33	23° $\text{♁}$ 55'06	-4.8m

retrograde	15966 Jan 01 11:26	25° $\approx$ 51'52		minimum elong	15968 Jun 13 14:50	6° $\approx$ 13'47	1°22'12
evening set	15966 Jan 19 15:22	19° $\approx$ 39'20			15968 Jul 02 16:37	0° $\Omega$	
inferior conj	15966 Jan 22 21:19	17° $\approx$ 39'16	-8°23'45	evening rise	15968 Jul 23 09:23	25° $\Omega$ 50'42	
minimum elong	15966 Jan 23 04:23	17° $\approx$ 28'15	8°22'25		15968 Jul 26 17:11	0° $\mathbb{M}$	
min. Earth dist.	15966 Jan 22 19:27	17° $\approx$ 42'09	0.28605 AU		15968 Aug 19 17:43	0° $\underline{\Omega}$	
morning rise	15966 Jan 26 17:28	15° $\approx$ 18'08		asc. node	15968 Aug 22 18:14	3° $\underline{\Omega}$ 46'13	
direct	15966 Feb 13 02:45	9° $\approx$ 33'19			15968 Sep 12 19:42	0° $\mathbb{M}$	
greatest brilliancy	15966 Feb 23 11:54	11° $\approx$ 31'13	-4.8m		15968 Oct 07 01:04	0° $\mathcal{X}$	
asc. node	15966 Mar 08 00:47	18° $\approx$ 04'04			15968 Oct 31 13:17	0° $\mathcal{Z}$	
	15966 Mar 23 07:41	0° $\mathcal{H}$			15968 Nov 25 14:33	0° $\approx$	
morning max el	15966 Apr 03 05:39	10° $\mathcal{H}$ 08'02	45°45'33	desc. node	15968 Dec 12 11:46	19° $\approx$ 36'50	
	15966 Apr 22 12:21	0° $\mathcal{Y}$			15968 Dec 21 16:10	0° $\mathcal{H}$	
	15966 May 19 07:46	0° $\mathcal{B}$			15969 Jan 18 21:21	0° $\mathcal{Y}$	
	15966 Jun 13 20:48	0° $\mathbb{I}$		evening max el	15969 Jan 22 21:55	3° $\mathcal{Y}$ 56'48	46°04'44
desc. node	15966 Jun 28 01:37	17° $\mathbb{I}$ 03'36			15969 Feb 25 03:48	0° $\mathcal{B}$	
	15966 Jul 08 17:29	0° $\mathcal{E}$		greatest brilliancy	15969 Mar 02 22:18	2° $\mathcal{B}$ 29'54	-4.8m
	15966 Aug 02 04:02	0° $\Omega$		retrograde	15969 Mar 13 00:20	4° $\mathcal{B}$ 20'51	
	15966 Aug 26 08:29	0° $\mathbb{M}$			15969 Mar 27 23:09	30° $\mathcal{R}$ $\mathcal{Y}$	
	15966 Sep 19 09:47	0° $\underline{\Omega}$		evening set	15969 Mar 28 01:10	29° $\mathcal{Y}$ 57'13	
morning set	15966 Oct 03 18:25	17° $\underline{\Omega}$ 56'34		inferior conj	15969 Apr 03 07:18	26° $\mathcal{Y}$ 11'03	-0°17'02
	15966 Oct 13 09:51	0° $\mathbb{M}$		minimum elong	15969 Apr 03 07:57	26° $\mathcal{Y}$ 10'01	0°17'06
asc. node	15966 Oct 18 20:05	6° $\mathbb{M}$ 47'13		min. Earth dist.	15969 Apr 03 09:08	26° $\mathcal{Y}$ 08'09	0.28397 AU
	15966 Nov 06 09:40	0° $\mathcal{X}$		asc. node	15969 Apr 04 10:40	25° $\mathcal{Y}$ 28'03	
				morning rise	15969 Apr 09 14:38	22° $\mathcal{Y}$ 23'23	
superior conj	15966 Nov 11 22:12	6° $\mathcal{X}$ 54'08	0°54'42	direct	15969 Apr 24 13:14	18° $\mathcal{Y}$ 01'36	
minimum elong	15966 Nov 11 11:44	6° $\mathcal{X}$ 21'25	0°54'58	greatest brilliancy	15969 May 05 02:28	20° $\mathcal{Y}$ 04'43	-4.8m
max. Earth dist.	15966 Nov 13 11:39	8° $\mathcal{X}$ 51'10	1.71924 AU		15969 May 22 03:42	0° $\mathcal{B}$	
	15966 Nov 30 10:12	0° $\mathcal{Z}$		morning max el	15969 Jun 13 02:19	19° $\mathcal{B}$ 22'56	46°16'03
evening rise	15966 Dec 19 16:04	23° $\mathcal{Z}$ 57'24			15969 Jun 23 12:21	0° $\mathbb{I}$	
	15966 Dec 24 12:56	0° $\approx$			15969 Jul 20 16:25	0° $\mathcal{E}$	
	15967 Jan 17 19:45	0° $\mathcal{H}$		desc. node	15969 Jul 25 12:24	5° $\mathcal{E}$ 34'17	
desc. node	15967 Feb 07 11:38	25° $\mathcal{H}$ 18'02			15969 Aug 15 05:56	0° $\Omega$	
	15967 Feb 11 08:12	0° $\mathcal{Y}$			15969 Sep 09 01:40	0° $\mathbb{M}$	
	15967 Mar 08 03:03	0° $\mathcal{B}$			15969 Oct 03 12:40	0° $\underline{\Omega}$	
	15967 Apr 02 05:07	0° $\mathbb{I}$			15969 Oct 27 19:25	0° $\mathbb{M}$	
	15967 Apr 27 17:38	0° $\mathcal{E}$		asc. node	15969 Nov 15 09:09	23° $\mathbb{M}$ 01'44	
	15967 May 24 03:02	0° $\Omega$			15969 Nov 20 23:56	0° $\mathcal{X}$	
asc. node	15967 May 31 05:40	7° $\Omega$ 46'39		morning set	15969 Dec 15 00:26	29° $\mathcal{X}$ 51'05	
evening max el	15967 Jun 18 16:26	26° $\Omega$ 57'45	46°24'26		15969 Dec 15 03:18	0° $\mathcal{Z}$	
	15967 Jun 21 19:04	0° $\mathbb{M}$			15970 Jan 08 06:40	0° $\approx$	
greatest brilliancy	15967 Jul 28 18:51	26° $\mathbb{M}$ 55'06	-4.9m				
retrograde	15967 Aug 07 11:42	28° $\mathbb{M}$ 40'25		superior conj	15970 Jan 21 07:21	16° $\approx$ 09'52	1°22'40
evening set	15967 Aug 23 07:44	23° $\mathbb{M}$ 46'42		minimum elong	15970 Jan 21 13:22	16° $\approx$ 28'30	1°23'10
inferior conj	15967 Aug 28 02:15	20° $\mathbb{M}$ 55'44	5°38'14	max. Earth dist.	15970 Jan 23 17:53	19° $\approx$ 11'10	1.72771 AU
minimum elong	15967 Aug 28 12:58	20° $\mathbb{M}$ 39'19	5°35'16		15970 Feb 01 11:30	0° $\mathcal{H}$	
min. Earth dist.	15967 Aug 28 17:03	20° $\mathbb{M}$ 33'04	0.27095 AU		15970 Feb 25 18:50	0° $\mathcal{Y}$	
morning rise	15967 Sep 02 18:03	17° $\mathbb{M}$ 35'02		evening rise	15970 Feb 27 20:58	2° $\mathcal{Y}$ 34'18	
direct	15967 Sep 17 22:17	13° $\mathbb{M}$ 04'51		desc. node	15970 Mar 07 01:29	11° $\mathcal{Y}$ 24'52	
desc. node	15967 Sep 20 06:03	13° $\mathbb{M}$ 11'18			15970 Mar 22 04:48	0° $\mathcal{B}$	
greatest brilliancy	15967 Sep 28 02:58	15° $\mathbb{M}$ 02'11	-4.9m		15970 Apr 15 16:49	0° $\mathbb{I}$	
	15967 Oct 21 13:06	0° $\underline{\Omega}$			15970 May 10 06:40	0° $\mathcal{E}$	
morning max el	15967 Nov 07 03:55	15° $\underline{\Omega}$ 20'55	46°42'37		15970 Jun 03 23:41	0° $\Omega$	
	15967 Nov 21 09:04	0° $\mathbb{M}$		asc. node	15970 Jun 27 17:27	28° $\Omega$ 30'06	
	15967 Dec 18 10:33	0° $\mathcal{X}$			15970 Jun 28 23:41	0° $\mathbb{M}$	
asc. node	15968 Jan 11 06:45	27° $\mathcal{X}$ 42'39			15970 Jul 24 14:26	0° $\underline{\Omega}$	
	15968 Jan 13 05:19	0° $\mathcal{Z}$			15970 Aug 20 14:59	0° $\mathbb{M}$	
	15968 Feb 07 08:33	0° $\approx$		evening max el	15970 Aug 30 10:50	10° $\mathbb{M}$ 08'38	46°40'21
	15968 Mar 03 02:57	0° $\mathcal{H}$			15970 Sep 21 10:44	0° $\mathcal{X}$	
	15968 Mar 27 16:21	0° $\mathcal{Y}$		greatest brilliancy	15970 Oct 08 22:34	10° $\mathcal{X}$ 29'31	-4.9m
	15968 Apr 21 02:35	0° $\mathcal{B}$		desc. node	15970 Oct 17 15:57	12° $\mathcal{X}$ 34'34	
desc. node	15968 May 02 03:02	13° $\mathcal{B}$ 34'52		retrograde	15970 Oct 19 17:34	12° $\mathcal{X}$ 39'37	
morning set	15968 May 05 17:55	18° $\mathcal{B}$ 02'58		evening set	15970 Nov 03 23:41	8° $\mathcal{X}$ 08'56	
	15968 May 15 10:02	0° $\mathbb{I}$		min. Earth dist.	15970 Nov 08 23:30	5° $\mathcal{X}$ 12'49	0.27417 AU
	15968 Jun 08 14:36	0° $\mathcal{E}$		inferior conj	15970 Nov 09 17:12	4° $\mathcal{X}$ 45'43	-5°33'04
max. Earth dist.	15968 Jun 11 00:21	2° $\mathcal{E}$ 59'29	1.72278 AU	minimum elong	15970 Nov 09 06:37	5° $\mathcal{X}$ 01'56	5°29'43
				morning rise	15970 Nov 14 13:56	1° $\mathcal{X}$ 52'00	
superior conj	15968 Jun 13 22:40	6° $\mathcal{E}$ 38'08	-1°21'33		15970 Nov 18 04:06	30° $\mathcal{R}$ $\mathbb{M}$	

direct	15970 Nov 30 13:51	26° $\text{M}$ 58'58			15973 Apr 30 03:46	0° $\text{II}$		
greatest brilliancy	15970 Dec 10 02:17	28° $\text{M}$ 37'58	-4.8m	evening rise	15973 May 09 03:08	11° $\text{II}$ 05'22		
	15970 Dec 13 15:19	0° $\text{X}$			15973 May 24 10:10	0° $\text{G}$		
morning max el	15971 Jan 18 18:49	27° $\text{X}$ 30'09	46°00'26		15973 Jun 17 15:50	0° $\Omega$		
	15971 Jan 21 08:08	0° $\text{Z}$			15973 Jul 11 22:08	0° $\text{M}$		
asc. node	15971 Feb 07 17:04	17° $\text{Z}$ 56'48		asc. node	15973 Jul 25 06:26	16° $\text{M}$ 26'47		
	15971 Feb 18 17:51	0° $\approx$			15973 Aug 05 07:17	0° $\underline{\text{A}}$		
	15971 Mar 17 00:56	0° $\text{H}$			15973 Aug 29 22:34	0° $\text{M}$		
	15971 Apr 11 10:04	0° $\text{Y}$			15973 Sep 24 02:03	0° $\text{X}$		
	15971 May 06 07:23	0° $\text{B}$			15973 Oct 20 07:57	0° $\text{Z}$		
desc. node	15971 May 30 15:39	29° $\text{B}$ 43'36		evening max el	15973 Nov 10 06:02	22° $\text{Z}$ 02'07	46°28'19	
	15971 May 30 20:59	0° $\text{II}$		desc. node	15973 Nov 14 02:21	25° $\text{Z}$ 47'28		
	15971 Jun 24 04:39	0° $\text{G}$			15973 Nov 18 13:37	0° $\approx$		
	15971 Jul 18 07:42	0° $\Omega$		greatest brilliancy	15973 Dec 19 18:41	21° $\approx$ 41'22	-4.8m	
morning set	15971 Jul 19 05:57	1° $\Omega$ 09'24		retrograde	15973 Dec 30 03:28	23° $\approx$ 39'27		
	15971 Aug 11 07:44	0° $\text{M}$		evening set	15974 Jan 17 08:58	17° $\approx$ 23'36		
max. Earth dist.	15971 Aug 26 22:23	19° $\text{M}$ 33'24	1.71561 AU	inferior conj	15974 Jan 20 12:39	15° $\approx$ 26'53	-8°30'49	
				minimum elong	15974 Jan 20 19:05	15° $\approx$ 16'53	8°29'37	
superior conj	15971 Aug 27 22:31	20° $\text{M}$ 49'01	-0°53'31	min. Earth dist.	15974 Jan 20 09:26	15° $\approx$ 31'54	0.28591 AU	
minimum elong	15971 Aug 28 09:42	21° $\text{M}$ 24'02	0°53'15	morning rise	15974 Jan 24 05:19	13° $\approx$ 11'07		
	15971 Sep 04 06:24	0° $\underline{\text{A}}$		direct	15974 Feb 10 18:33	7° $\approx$ 21'32		
asc. node	15971 Sep 20 08:12	20° $\underline{\text{A}}$ 08'38		greatest brilliancy	15974 Feb 21 01:21	9° $\approx$ 17'42	-4.8m	
	15971 Sep 28 05:02	0° $\text{M}$		asc. node	15974 Mar 07 02:50	16° $\approx$ 50'50		
evening rise	15971 Oct 06 17:48	10° $\text{M}$ 40'42			15974 Mar 23 10:22	0° $\text{H}$		
	15971 Oct 22 04:48	0° $\text{X}$		morning max el	15974 Mar 31 21:34	7° $\text{H}$ 57'17	45°45'03	
	15971 Nov 15 07:15	0° $\text{Z}$			15974 Apr 22 04:48	0° $\text{Y}$		
	15971 Dec 09 14:57	0° $\approx$			15974 May 18 21:16	0° $\text{B}$		
	15972 Jan 03 07:20	0° $\text{H}$			15974 Jun 13 08:59	0° $\text{II}$		
desc. node	15972 Jan 10 00:09	8° $\text{H}$ 02'27		desc. node	15974 Jun 27 03:30	16° $\text{II}$ 33'52		
	15972 Jan 28 12:36	0° $\text{Y}$			15974 Jul 08 04:58	0° $\text{G}$		
	15972 Feb 23 12:56	0° $\text{B}$			15974 Aug 01 15:07	0° $\Omega$		
	15972 Mar 22 00:18	0° $\text{II}$			15974 Aug 25 19:20	0° $\text{M}$		
evening max el	15972 Apr 03 18:31	12° $\text{II}$ 54'08	46°02'30		15974 Sep 18 20:30	0° $\underline{\text{A}}$		
	15972 Apr 22 23:21	0° $\text{G}$		morning set	15974 Oct 01 07:23	15° $\underline{\text{A}}$ 33'46		
asc. node	15972 May 01 20:45	6° $\text{G}$ 20'55			15974 Oct 12 20:28	0° $\text{M}$		
greatest brilliancy	15972 May 13 08:57	12° $\text{G}$ 07'58	-4.8m	asc. node	15974 Oct 17 21:50	6° $\text{M}$ 19'33		
retrograde	15972 May 23 03:56	13° $\text{G}$ 55'19			15974 Nov 05 20:12	0° $\text{X}$		
evening set	15972 Jun 09 06:48	8° $\text{G}$ 15'51						
inferior conj	15972 Jun 13 03:31	5° $\text{G}$ 53'14	8°21'27	superior conj	15974 Nov 09 12:21	4° $\text{X}$ 35'28	0°51'49	
minimum elong	15972 Jun 12 19:42	6° $\text{G}$ 05'30	8°19'44	minimum elong	15974 Nov 09 02:05	4° $\text{X}$ 03'25	0°52'04	
min. Earth dist.	15972 Jun 13 06:10	5° $\text{G}$ 49'05	0.28088 AU	max. Earth dist.	15974 Nov 11 02:19	6° $\text{X}$ 34'07	1.71895 AU	
morning rise	15972 Jun 16 08:29	3° $\text{G}$ 53'52			15974 Nov 29 20:41	0° $\text{Z}$		
	15972 Jun 23 17:26	30° $\text{K}$ $\text{II}$		evening rise	15974 Dec 17 07:34	21° $\text{Z}$ 43'50		
direct	15972 Jul 04 05:01	27° $\text{II}$ 44'42			15974 Dec 23 23:26	0° $\approx$		
greatest brilliancy	15972 Jul 14 07:37	29° $\text{II}$ 39'46	-4.8m		15975 Jan 17 06:22	0° $\text{H}$		
	15972 Jul 15 05:08	0° $\text{G}$		desc. node	15975 Feb 06 13:34	24° $\text{H}$ 50'55		
desc. node	15972 Aug 21 22:23	28° $\text{G}$ 40'28			15975 Feb 10 19:06	0° $\text{Y}$		
	15972 Aug 23 06:19	0° $\Omega$			15975 Mar 07 14:25	0° $\text{B}$		
morning max el	15972 Aug 23 14:45	0° $\Omega$ 21'08	46°53'07		15975 Apr 01 17:15	0° $\text{II}$		
	15972 Sep 20 04:28	0° $\text{M}$			15975 Apr 27 07:10	0° $\text{G}$		
	15972 Oct 16 02:31	0° $\underline{\text{A}}$			15975 May 23 19:22	0° $\Omega$		
	15972 Nov 10 05:51	0° $\text{M}$		asc. node	15975 May 30 07:29	7° $\Omega$ 04'17		
	15972 Dec 05 00:01	0° $\text{X}$		evening max el	15975 Jun 16 06:20	24° $\Omega$ 37'44	46°23'27	
asc. node	15972 Dec 12 21:20	9° $\text{X}$ 37'25			15975 Jun 21 19:37	0° $\text{M}$		
	15972 Dec 29 12:41	0° $\text{Z}$		greatest brilliancy	15975 Jul 26 08:56	24° $\text{M}$ 33'06	-4.9m	
	15973 Jan 22 21:53	0° $\approx$		retrograde	15975 Aug 05 00:16	26° $\text{M}$ 16'51		
	15973 Feb 16 05:27	0° $\text{H}$		evening set	15975 Aug 21 00:04	21° $\text{M}$ 18'37		
morning set	15973 Feb 22 11:57	7° $\text{H}$ 44'22		inferior conj	15975 Aug 25 15:12	18° $\text{M}$ 32'05	5°56'49	
	15973 Mar 12 12:50	0° $\text{Y}$		minimum elong	15975 Aug 26 02:06	18° $\text{M}$ 15'19	5°53'53	
				min. Earth dist.	15975 Aug 26 06:41	18° $\text{M}$ 08'17	0.27125 AU	
superior conj	15973 Mar 31 22:06	23° $\text{Y}$ 54'56	0°06'39	morning rise	15975 Aug 31 03:59	15° $\text{M}$ 14'57		
minimum elong	15973 Mar 31 23:34	23° $\text{Y}$ 59'28	0°06'19	direct	15975 Sep 15 11:25	10° $\text{M}$ 40'40		
behind sun begin	15973 Mar 31 01:37	22° $\text{Y}$ 51'43		desc. node	15975 Sep 19 08:00	10° $\text{M}$ 58'12		
behind sun end	15973 Apr 01 21:32	25° $\text{Y}$ 07'14		greatest brilliancy	15975 Sep 25 16:14	12° $\text{M}$ 37'46	-4.9m	
max. Earth dist.	15973 Mar 31 18:32	23° $\text{Y}$ 43'56	1.73079 AU		15975 Oct 21 21:17	0° $\underline{\text{A}}$		
desc. node	15973 Apr 03 15:22	27° $\text{Y}$ 16'15		morning max el	15975 Nov 04 16:59	12° $\underline{\text{A}}$ 57'47	46°43'45	
	15973 Apr 05 20:27	0° $\text{B}$			15975 Nov 21 03:22	0° $\text{M}$		

	15975 Dec 18 01:00	0°♊			15978 Jun 28 12:53	0°♎		
asc. node	15976 Jan 10 08:40	27°♊10'34			15978 Jul 24 05:37	0°♎		
	15976 Jan 12 18:00	0°♊			15978 Aug 20 10:48	0°♎		
	15976 Feb 06 20:15	0°♊	evening max el		15978 Aug 27 23:53	7°♎44'14	46°40'13	
	15976 Mar 02 14:04	0°♊			15978 Sep 22 05:05	0°♊		
	15976 Mar 27 03:08	0°♊	greatest brilliancy		15978 Oct 06 12:41	8°♊06'54	-4.9m	
	15976 Apr 20 13:12	0°♊	desc. node		15978 Oct 16 17:48	10°♊16'41		
desc. node	15976 May 01 04:45	13°♊07'31	retrograde		15978 Oct 17 07:15	10°♊17'03		
morning set	15976 May 03 08:32	15°♊47'16	evening set		15978 Nov 01 10:20	5°♊50'03		
	15976 May 14 20:36	0°♊	min. Earth dist.		15978 Nov 06 13:30	2°♊49'45	0.27372 AU	
	15976 Jun 08 01:11	0°♊	inferior conj		15978 Nov 07 06:27	2°♊23'52	-5°14'19	
max. Earth dist.	15976 Jun 08 11:30	0°♊32'03	1.72317 AU	minimum elong	15978 Nov 06 20:08	2°♊39'37	5°10'57	
					15978 Nov 11 06:26	30°♎		
superior conj	15976 Jun 11 12:13	4°♊18'04	-1°20'06	morning rise	15978 Nov 12 06:18	29°♎26'03		
minimum elong	15976 Jun 11 03:45	3°♊51'44	1°20'43	direct	15978 Nov 28 02:17	24°♎37'16		
	15976 Jul 02 03:17	0°♊		greatest brilliancy	15978 Dec 07 15:59	26°♎17'26	-4.8m	
evening rise	15976 Jul 20 21:23	23°♊24'39			15978 Dec 15 21:56	0°♊		
	15976 Jul 26 03:58	0°♎		morning max el	15979 Jan 16 08:44	25°♊11'40	46°01'49	
	15976 Aug 19 04:38	0°♎			15979 Jan 21 05:49	0°♊		
asc. node	15976 Aug 21 20:04	3°♎17'49		asc. node	15979 Feb 06 19:05	17°♊15'49		
	15976 Sep 12 06:50	0°♎			15979 Feb 18 09:25	0°♊		
	15976 Oct 06 12:34	0°♊			15979 Mar 16 14:11	0°♊		
	15976 Oct 31 01:22	0°♊			15979 Apr 10 22:11	0°♊		
	15976 Nov 25 03:39	0°♊			15979 May 05 18:52	0°♊		
desc. node	15976 Dec 11 13:37	19°♊01'29		desc. node	15979 May 29 17:33	29°♊15'14		
	15976 Dec 21 07:24	0°♊			15979 May 30 08:07	0°♊		
	15977 Jan 18 18:24	0°♊			15979 Jun 23 15:36	0°♊		
evening max el	15977 Jan 20 12:17	1°♊41'57	46°05'22	morning set	15979 Jul 16 18:22	28°♊44'32		
	15977 Feb 27 17:55	0°♊			15979 Jul 17 18:34	0°♊		
greatest brilliancy	15977 Feb 28 14:38	0°♊18'51	-4.8m		15979 Aug 10 18:35	0°♎		
retrograde	15977 Mar 10 15:18	2°♊08'59		max. Earth dist.	15979 Aug 24 09:52	17°♎04'57	1.71575 AU	
	15977 Mar 21 01:00	30°♎						
evening set	15977 Mar 25 17:50	27°♊43'44		superior conj	15979 Aug 25 10:44	18°♎22'50	-0°56'31	
inferior conj	15977 Mar 31 23:01	23°♊59'10	-0°38'14	minimum elong	15979 Aug 25 22:11	18°♎58'41	0°56'18	
minimum elong	15977 Apr 01 00:29	23°♊56'52	0°38'01		15979 Sep 03 17:16	0°♎		
min. Earth dist.	15977 Apr 01 01:40	23°♊55'00	0.28407 AU	asc. node	15979 Sep 19 09:57	19°♎39'56		
asc. node	15977 Apr 03 12:28	22°♊23'10			15979 Sep 27 15:58	0°♎		
morning rise	15977 Apr 07 06:56	20°♊10'27		evening rise	15979 Oct 04 07:03	8°♎17'45		
direct	15977 Apr 22 04:24	15°♊49'34			15979 Oct 21 15:49	0°♊		
greatest brilliancy	15977 May 02 19:15	17°♊53'36	-4.8m		15979 Nov 14 18:25	0°♊		
	15977 May 22 16:07	0°♊			15979 Dec 09 02:23	0°♊		
morning max el	15977 Jun 10 16:27	17°♊05'49	46°14'31		15980 Jan 02 19:18	0°♊		
	15977 Jun 23 06:41	0°♊		desc. node	15980 Jan 09 02:07	7°♊32'01		
	15977 Jul 20 06:53	0°♊			15980 Jan 28 01:30	0°♊		
desc. node	15977 Jul 24 14:24	4°♊59'14			15980 Feb 23 03:39	0°♊		
	15977 Aug 14 18:49	0°♊			15980 Mar 21 19:15	0°♊		
	15977 Sep 08 13:44	0°♎		evening max el	15980 Apr 01 10:10	10°♎40'37	46°02'17	
	15977 Oct 03 00:14	0°♎			15980 Apr 23 13:41	0°♊		
	15977 Oct 27 06:36	0°♎		asc. node	15980 Apr 30 22:41	4°♊58'59		
asc. node	15977 Nov 14 10:56	22°♎33'09		greatest brilliancy	15980 May 10 22:03	9°♊49'27	-4.8m	
	15977 Nov 20 10:52	0°♊		retrograde	15980 May 20 18:59	11°♊38'06		
morning set	15977 Dec 12 15:22	27°♊34'50		evening set	15980 Jun 06 17:33	6°♊04'02		
	15977 Dec 14 14:03	0°♊		inferior conj	15980 Jun 10 18:15	3°♊35'24	8°12'17	
	15978 Jan 07 17:21	0°♊		minimum elong	15980 Jun 10 09:51	3°♊48'34	8°10'24	
				min. Earth dist.	15980 Jun 10 19:45	3°♊33'03	0.28104 AU	
superior conj	15978 Jan 18 23:37	13°♊58'33	1°23'40	morning rise	15980 Jun 14 02:04	1°♊31'47		
minimum elong	15978 Jan 19 05:00	14°♊15'12	1°24'13		15980 Jun 16 17:00	30°♎		
max. Earth dist.	15978 Jan 21 07:55	16°♊52'59	1.72743 AU	direct	15980 Jul 01 20:27	25°♎26'49		
	15978 Jan 31 22:09	0°♊		greatest brilliancy	15980 Jul 11 21:47	27°♎21'11	-4.8m	
	15978 Feb 25 05:31	0°♊			15980 Jul 17 19:53	0°♊		
evening rise	15978 Feb 25 12:48	0°♊22'24		desc. node	15980 Aug 21 00:19	27°♊49'19		
desc. node	15978 Mar 06 03:18	10°♊57'24		morning max el	15980 Aug 21 06:21	28°♊04'26	46°52'19	
	15978 Mar 21 15:38	0°♊			15980 Aug 23 04:08	0°♊		
	15978 Apr 15 03:54	0°♊			15980 Sep 19 20:23	0°♎		
	15978 May 09 18:10	0°♊			15980 Oct 15 16:14	0°♎		
	15978 Jun 03 11:50	0°♊			15980 Nov 09 18:27	0°♎		
asc. node	15978 Jun 26 19:23	27°♊56'50			15980 Dec 04 11:55	0°♊		

asc. node	15980 Dec 11 23:18	9°♊07'40			15983 Jun 21 21:56	0°♍	
	15980 Dec 29 00:06	0°♋		greatest brilliancy	15983 Jul 23 23:24	22°♍10'49	-4.9m
	15981 Jan 22 08:57	0°♌		retrograde	15983 Aug 02 12:35	23°♍52'54	
	15981 Feb 15 16:19	0°♍		evening set	15983 Aug 18 16:31	18°♍49'54	
morning set	15981 Feb 20 04:37	5°♍34'10		inferior conj	15983 Aug 23 04:15	16°♍08'08	6°14'40
	15981 Mar 11 23:38	0°♎		minimum elong	15983 Aug 23 15:16	15°♍51'10	6°11'48
				min. Earth dist.	15983 Aug 23 20:38	15°♍42'55	0.27152 AU
superior conj	15981 Mar 29 13:30	21°♎41'02	0°10'06	morning rise	15983 Aug 28 13:46	12°♍54'57	
minimum elong	15981 Mar 29 15:46	21°♎48'01	0°09'47	direct	15983 Sep 13 00:07	8°♍16'01	
behind sun begin	15981 Mar 28 20:51	20°♎49'42		desc. node	15983 Sep 18 09:48	8°♍49'56	
behind sun end	15981 Mar 30 10:40	22°♎46'21		greatest brilliancy	15983 Sep 23 06:04	10°♍13'41	-4.9m
max. Earth dist.	15981 Mar 29 14:48	21°♎45'03	1.73085 AU		15983 Oct 22 03:14	0°♎	
desc. node	15981 Apr 02 17:04	26°♎48'09		morning max el	15983 Nov 02 05:42	10°♎33'21	46°44'59
	15981 Apr 05 07:16	0°♏			15983 Nov 20 21:18	0°♏	
	15981 Apr 29 14:40	0°♐			15983 Dec 17 15:24	0°♑	
evening rise	15981 May 06 18:08	8°♐49'37		asc. node	15984 Jan 09 10:35	26°♑38'09	
	15981 May 23 21:11	0°♑			15984 Jan 12 06:45	0°♋	
	15981 Jun 17 03:02	0°♌			15984 Feb 06 08:07	0°♌	
	15981 Jul 11 09:38	0°♍			15984 Mar 02 01:26	0°♍	
asc. node	15981 Jul 24 08:20	15°♍56'32			15984 Mar 26 14:11	0°♎	
	15981 Aug 04 19:15	0°♎			15984 Apr 20 00:04	0°♏	
	15981 Aug 29 11:19	0°♏		desc. node	15984 Apr 30 06:36	12°♏39'50	
	15981 Sep 23 16:10	0°♑		morning set	15984 Apr 30 22:52	13°♏30'01	
	15981 Oct 20 01:02	0°♋			15984 May 14 07:23	0°♐	
evening max el	15981 Nov 07 21:48	19°♋47'10	46°28'56	max. Earth dist.	15984 Jun 06 00:06	28°♐08'33	1.72356 AU
desc. node	15981 Nov 13 04:16	24°♋54'16			15984 Jun 07 11:58	0°♑	
	15981 Nov 18 16:37	0°♌					
greatest brilliancy	15981 Dec 17 09:10	19°♌25'44	-4.8m	superior conj	15984 Jun 09 01:35	1°♑56'53	-1°18'31
retrograde	15981 Dec 27 18:54	21°♌24'15		minimum elong	15984 Jun 08 16:32	1°♑28'47	1°19'06
evening set	15982 Jan 15 02:04	15°♌05'47			15984 Jul 01 14:08	0°♌	
inferior conj	15982 Jan 18 03:43	13°♌12'00	-8°37'11	evening rise	15984 Jul 18 09:25	20°♌58'18	
minimum elong	15982 Jan 18 09:26	13°♌03'06	8°36'06		15984 Jul 25 14:55	0°♍	
min. Earth dist.	15982 Jan 17 23:20	13°♌18'50	0.28574 AU		15984 Aug 18 15:43	0°♎	
morning rise	15982 Jan 21 16:56	11°♌01'19		asc. node	15984 Aug 20 21:49	2°♎48'37	
direct	15982 Feb 08 09:58	5°♌07'24			15984 Sep 11 18:06	0°♏	
greatest brilliancy	15982 Feb 18 14:28	7°♌01'33	-4.8m		15984 Oct 06 00:08	0°♑	
asc. node	15982 Mar 06 04:40	15°♌37'30			15984 Oct 30 13:30	0°♋	
	15982 Mar 23 12:18	0°♍			15984 Nov 24 16:52	0°♌	
morning max el	15982 Mar 29 12:29	5°♍42'27	45°44'40	desc. node	15984 Dec 10 15:35	18°♌26'11	
	15982 Apr 21 21:27	0°♎			15984 Dec 20 22:53	0°♍	
	15982 May 18 11:04	0°♏		evening max el	15985 Jan 18 02:20	29°♍26'06	46°05'50
	15982 Jun 12 21:29	0°♐			15985 Jan 18 16:23	0°♎	
desc. node	15982 Jun 26 05:24	16°♐03'04		greatest brilliancy	15985 Feb 26 06:13	28°♎06'11	-4.8m
	15982 Jul 07 16:47	0°♑		retrograde	15985 Mar 08 06:18	29°♎56'17	
	15982 Aug 01 02:31	0°♌		evening set	15985 Mar 23 10:26	25°♎28'53	
	15982 Aug 25 06:28	0°♍		inferior conj	15985 Mar 29 14:33	21°♎46'13	-0°59'30
	15982 Sep 18 07:29	0°♎		minimum elong	15985 Mar 29 16:48	21°♎42'41	0°59'01
morning set	15982 Sep 28 20:44	13°♎11'27		min. Earth dist.	15985 Mar 29 17:56	21°♎40'55	0.28424 AU
	15982 Oct 12 07:19	0°♏		asc. node	15985 Apr 02 14:26	19°♎18'05	
asc. node	15982 Oct 16 23:37	5°♏51'12		morning rise	15985 Apr 04 22:54	17°♎56'56	
	15982 Nov 05 07:00	0°♑		direct	15985 Apr 19 19:30	13°♎36'19	
				greatest brilliancy	15985 Apr 30 12:07	15°♎41'49	-4.8m
superior conj	15982 Nov 07 02:39	2°♑16'27	0°48'52		15985 May 23 01:34	0°♏	
minimum elong	15982 Nov 06 16:41	1°♑45'17	0°49'05	morning max el	15985 Jun 08 07:16	14°♏50'00	46°13'07
max. Earth dist.	15982 Nov 08 16:44	4°♑15'28	1.71871 AU		15985 Jun 23 00:43	0°♐	
	15982 Nov 29 07:28	0°♋			15985 Jul 19 21:16	0°♑	
evening rise	15982 Dec 14 22:55	19°♋28'42		desc. node	15985 Jul 23 16:16	4°♑23'51	
	15982 Dec 23 10:17	0°♌			15985 Aug 14 07:39	0°♌	
	15983 Jan 16 17:24	0°♍			15985 Sep 08 01:45	0°♍	
desc. node	15983 Feb 05 15:19	24°♍21'57			15985 Oct 02 11:43	0°♎	
	15983 Feb 10 06:25	0°♎			15985 Oct 26 17:44	0°♏	
	15983 Mar 07 02:13	0°♏		asc. node	15985 Nov 13 12:53	22°♏05'17	
	15983 Apr 01 05:52	0°♐			15985 Nov 19 21:43	0°♑	
	15983 Apr 26 21:13	0°♑		morning set	15985 Dec 10 06:34	25°♑19'37	
	15983 May 23 12:26	0°♌			15985 Dec 14 00:43	0°♋	
asc. node	15983 May 29 09:28	6°♌20'49			15986 Jan 07 03:54	0°♌	
evening max el	15983 Jun 13 19:18	22°♌14'29	46°22'32				

superior conj	15986 Jan 16 16:09	11°  48'21	1°24'32			15988 Jun 10 10:51	30°  II		
minimum elong	15986 Jan 16 20:51	12°  02'55	1°25'07	morning rise	15988 Jun 11 19:40	29°  II09'48			
max. Earth dist.	15986 Jan 18 23:58	14°  41'21	1.72719 AU	direct	15988 Jun 29 11:52	23°  II09'30			
	15986 Jan 31 08:41	0°  X		greatest brilliancy	15988 Jul 09 12:01	25°  II02'55	-4.8m		
evening rise	15986 Feb 23 04:51	28°  X11'27			15988 Jul 19 10:41	0°  ☾			
	15986 Feb 24 16:08	0°  Y		morning max el	15988 Aug 18 21:08	25°  ☾46'10	46°51'29		
desc. node	15986 Mar 05 05:03	10°  Y29'57		desc. node	15988 Aug 20 02:10	26°  ☾59'16			
	15986 Mar 21 02:26	0°  X			15988 Aug 23 01:00	0°  Ω			
	15986 Apr 14 15:00	0°  II			15988 Sep 19 11:50	0°  ♍			
	15986 May 09 05:42	0°  ☾			15988 Oct 15 05:33	0°  ♊			
	15986 Jun 03 00:01	0°  Ω			15988 Nov 09 06:38	0°  ♋			
asc. node	15986 Jun 25 21:16	27°  Ω23'24			15988 Dec 03 23:24	0°  ♏			
	15986 Jun 28 02:09	0°  ♍		asc. node	15988 Dec 11 01:06	8°  ♏38'34			
	15986 Jul 23 20:56	0°  ♊			15988 Dec 28 11:05	0°  ♎			
	15986 Aug 20 07:08	0°  ♋			15989 Jan 21 19:37	0°  ♏			
evening max el	15986 Aug 25 13:48	5°  ♋22'30	46°40'10		15989 Feb 15 02:48	0°  X			
	15986 Sep 23 05:41	0°  ♏		morning set	15989 Feb 17 21:37	3°  X26'17			
greatest brilliancy	15986 Oct 04 02:17	5°  ♏44'10	-4.9m		15989 Mar 11 10:01	0°  Y			
retrograde	15986 Oct 14 21:23	7°  ♏54'58							
desc. node	15986 Oct 15 19:50	7°  ♏53'54		superior conj	15989 Mar 27 05:23	19°  Y30'02	0°13'31		
evening set	15986 Oct 29 21:15	3°  ♏31'18		minimum elong	15989 Mar 27 08:25	19°  Y39'23	0°13'11		
min. Earth dist.	15986 Nov 04 03:15	0°  ♏27'23	0.27326 AU	behind sun begin	15989 Mar 26 18:57	18°  Y57'51			
inferior conj	15986 Nov 04 19:41	0°  ♏02'22	-4°54'55	behind sun end	15989 Mar 27 21:53	20°  Y20'56			
minimum elong	15986 Nov 04 09:44	0°  ♏17'31	4°51'34	max. Earth dist.	15989 Mar 27 10:17	19°  Y45'10	1.73089 AU		
	15986 Nov 04 21:14	30°  ♋		desc. node	15989 Apr 01 18:58	26°  Y22'01			
morning rise	15986 Nov 09 22:37	27°  ♋00'42			15989 Apr 04 17:39	0°  X			
direct	15986 Nov 25 15:21	22°  ♋16'05			15989 Apr 29 01:08	0°  II			
greatest brilliancy	15986 Dec 05 05:13	23°  ♋56'57	-4.8m	evening rise	15989 May 04 09:28	6°  II36'17			
	15986 Dec 17 09:08	0°  ♏			15989 May 23 07:48	0°  ☾			
morning max el	15987 Jan 13 23:24	22°  ♏55'52	46°03'16		15989 Jun 16 13:55	0°  Ω			
	15987 Jan 21 02:22	0°  ♎			15989 Jul 10 20:52	0°  ♍			
asc. node	15987 Feb 05 20:54	16°  ♎35'39		asc. node	15989 Jul 23 10:02	15°  ♍26'32			
	15987 Feb 18 00:25	0°  ♏			15989 Aug 04 07:01	0°  ♊			
	15987 Mar 16 03:03	0°  X			15989 Aug 28 23:52	0°  ♋			
	15987 Apr 10 09:59	0°  Y			15989 Sep 23 06:07	0°  ♏			
	15987 May 05 06:08	0°  X			15989 Oct 19 18:06	0°  ♎			
desc. node	15987 May 28 19:28	28°  X47'22		evening max el	15989 Nov 05 12:50	17°  ♎31'18	46°29'43		
	15987 May 29 19:06	0°  II		desc. node	15989 Nov 12 06:15	24°  ♎01'17			
	15987 Jun 23 02:26	0°  ☾			15989 Nov 18 20:47	0°  ♏			
morning set	15987 Jul 14 06:30	26°  ☾19'17		greatest brilliancy	15989 Dec 15 00:19	17°  ♏12'12	-4.8m		
	15987 Jul 17 05:17	0°  Ω		retrograde	15989 Dec 25 09:56	19°  ♏10'31			
	15987 Aug 10 05:14	0°  ♍		evening set	15990 Jan 12 19:06	12°  ♏49'55			
max. Earth dist.	15987 Aug 21 22:33	14°  ♍40'52	1.71583 AU	inferior conj	15990 Jan 15 18:54	10°  ♏58'47	-8°42'54		
				minimum elong	15990 Jan 15 23:52	10°  ♏51'02	8°41'54		
superior conj	15987 Aug 22 22:39	15°  ♍56'22	-0°59'26	min. Earth dist.	15990 Jan 15 13:41	11°  ♏06'57	0.28552 AU		
minimum elong	15987 Aug 23 10:17	16°  ♍32'47	0°59'15	morning rise	15990 Jan 19 04:47	8°  ♏52'54			
	15987 Sep 03 03:55	0°  ♊		direct	15990 Feb 06 01:05	2°  ♏54'54			
asc. node	15987 Sep 18 11:44	19°  ♊12'04		greatest brilliancy	15990 Feb 16 04:10	4°  ♏47'28	-4.8m		
	15987 Sep 27 02:40	0°  ♋		asc. node	15990 Mar 05 06:38	14°  ♏27'58			
evening rise	15987 Oct 01 20:08	5°  ♋55'07			15990 Mar 23 12:16	0°  X			
	15987 Oct 21 02:36	0°  ♏		morning max el	15990 Mar 27 02:40	3°  X27'14	45°44'28		
	15987 Nov 14 05:21	0°  ♎			15990 Apr 21 13:15	0°  Y			
	15987 Dec 08 13:34	0°  ♏			15990 May 18 00:14	0°  X			
	15988 Jan 02 06:58	0°  X			15990 Jun 12 09:27	0°  II			
desc. node	15988 Jan 08 03:55	7°  X01'59		desc. node	15990 Jun 25 07:14	15°  II33'34			
	15988 Jan 27 14:06	0°  Y			15990 Jul 07 04:07	0°  ☾			
	15988 Feb 22 18:08	0°  X			15990 Jul 31 13:31	0°  Ω			
	15988 Mar 21 14:18	0°  II			15990 Aug 24 17:18	0°  ♍			
evening max el	15988 Mar 30 02:02	8°  II28'42	46°01'50		15990 Sep 17 18:10	0°  ♊			
	15988 Apr 24 08:26	0°  ☾		morning set	15990 Sep 26 09:33	10°  ♊48'14			
asc. node	15988 Apr 30 00:39	3°  ☾35'09			15990 Oct 11 17:54	0°  ♋			
greatest brilliancy	15988 May 08 11:19	7°  ☾31'56	-4.8m	asc. node	15990 Oct 16 01:33	5°  ♋24'12			
retrograde	15988 May 18 09:33	9°  ☾21'13							
evening set	15988 Jun 04 04:13	3°  ☾52'54		superior conj	15990 Nov 04 16:31	29°  ♋56'58	0°45'47		
inferior conj	15988 Jun 08 08:52	1°  ☾18'04	8°02'18	minimum elong	15990 Nov 04 06:53	29°  ♋26'53	0°45'59		
minimum elong	15988 Jun 07 23:58	1°  ☾32'02	8°00'14		15990 Nov 04 17:29	0°  ♏			
min. Earth dist.	15988 Jun 08 09:25	1°  ☾17'12	0.28124 AU	max. Earth dist.	15990 Nov 06 04:25	1°  ♏49'12	1.71842 AU		

	15990 Nov 28 17:56	0°☾			15993 Jul 19 11:10	0°☾		
evening rise	15990 Dec 12 14:03	17°☾13'56		desc. node	15993 Jul 22 18:08	3°☾49'34		
	15990 Dec 22 20:48	0°≈			15993 Aug 13 20:07	0°☾		
	15991 Jan 16 04:05	0°☾			15993 Sep 07 13:26	0°☾		
desc. node	15991 Feb 04 17:07	23°☾54'17			15993 Oct 01 22:56	0°☾		
	15991 Feb 09 17:23	0°☾			15993 Oct 26 04:38	0°☾		
	15991 Mar 06 13:40	0°☾		asc. node	15993 Nov 12 14:39	21°☾37'18		
	15991 Mar 31 18:07	0°☾			15993 Nov 19 08:25	0°☾		
	15991 Apr 26 10:55	0°☾		morning set	15993 Dec 07 21:27	23°☾03'38		
	15991 May 23 05:18	0°☾			15993 Dec 13 11:18	0°☾		
asc. node	15991 May 28 11:23	5°☾38'07			15994 Jan 06 14:23	0°≈		
evening max el	15991 Jun 11 07:28	19°☾50'51 46°21'33						
	15991 Jun 22 01:11	0°☾		superior conj	15994 Jan 14 08:18	9°≈37'04 1°25'17		
greatest brilliancy	15991 Jul 21 13:35	19°☾49'39 -4.9m		minimum elong	15994 Jan 14 12:16	9°≈49'22 1°25'53		
retrograde	15991 Jul 31 00:54	21°☾30'38		max. Earth dist.	15994 Jan 16 16:43	12°≈32'04 1.72692 AU		
evening set	15991 Aug 16 09:01	16°☾22'15			15994 Jan 30 19:08	0°☾		
inferior conj	15991 Aug 20 17:22	13°☾45'27 6°31'44		evening rise	15994 Feb 20 20:38	25°☾59'55		
minimum elong	15991 Aug 21 04:26	13°☾28'26 6°28'55			15994 Feb 24 02:39	0°☾		
min. Earth dist.	15991 Aug 21 10:39	13°☾18'51 0.27189 AU		desc. node	15994 Mar 04 06:56	10°☾03'16		
morning rise	15991 Aug 25 23:31	10°☾36'41			15994 Mar 20 13:07	0°☾		
direct	15991 Sep 10 12:55	5°☾52'15			15994 Apr 14 02:00	0°☾		
desc. node	15991 Sep 17 11:53	6°☾47'50			15994 May 08 17:08	0°☾		
greatest brilliancy	15991 Sep 20 20:26	7°☾51'11 -4.9m			15994 Jun 02 12:07	0°☾		
	15991 Oct 22 06:58	0°☾		asc. node	15994 Jun 24 23:03	26°☾49'59		
morning max el	15991 Oct 30 18:58	8°☾10'41 46°46'09			15994 Jun 27 15:22	0°☾		
	15991 Nov 20 14:38	0°☾			15994 Jul 23 12:18	0°☾		
	15991 Dec 17 05:25	0°☾			15994 Aug 20 03:53	0°☾		
asc. node	15992 Jan 08 12:26	26°☾06'29		evening max el	15994 Aug 23 04:37	3°☾03'49 46°40'05		
	15992 Jan 11 19:10	0°☾			15994 Sep 24 15:45	0°☾		
	15992 Feb 05 19:38	0°≈		greatest brilliancy	15994 Oct 01 15:43	3°☾22'08 -4.9m		
	15992 Mar 01 12:25	0°☾		retrograde	15994 Oct 12 11:46	5°☾33'29		
	15992 Mar 26 00:52	0°☾		desc. node	15994 Oct 14 21:45	5°☾26'22		
	15992 Apr 19 10:34	0°☾		evening set	15994 Oct 27 08:33	1°☾13'02		
morning set	15992 Apr 28 13:41	11°☾15'16			15994 Oct 29 12:30	30°☾		
desc. node	15992 Apr 29 08:30	12°☾13'19		min. Earth dist.	15994 Nov 01 16:53	28°☾05'50 0.27285 AU		
	15992 May 13 17:49	0°☾		inferior conj	15994 Nov 02 08:58	27°☾41'22 -4°34'52		
max. Earth dist.	15992 Jun 03 15:24	25°☾54'37 1.72391 AU		minimum elong	15994 Nov 01 23:29	27°☾55'49 4°31'36		
				morning rise	15994 Nov 07 14:54	24°☾35'57		
superior conj	15992 Jun 06 15:28	29°☾38'30 -1°16'49		direct	15994 Nov 23 04:59	19°☾55'33		
minimum elong	15992 Jun 06 05:55	29°☾08'48 1°17'21		greatest brilliancy	15994 Dec 02 18:08	21°☾36'21 -4.8m		
	15992 Jun 06 22:24	0°☾			15994 Dec 18 09:56	0°☾		
	15992 Jul 01 00:37	0°☾		morning max el	15995 Jan 11 14:08	20°☾40'11 46°04'29		
evening rise	15992 Jul 15 22:03	18°☾35'03			15995 Jan 20 22:16	0°☾		
	15992 Jul 25 01:30	0°☾		asc. node	15995 Feb 04 22:51	15°☾56'05		
	15992 Aug 18 02:29	0°☾			15995 Feb 17 15:17	0°≈		
asc. node	15992 Aug 19 23:42	2°☾20'54			15995 Mar 15 15:53	0°☾		
	15992 Sep 11 05:07	0°☾			15995 Apr 09 21:48	0°☾		
	15992 Oct 05 11:33	0°☾			15995 May 04 17:23	0°☾		
	15992 Oct 30 01:33	0°☾		desc. node	15995 May 27 21:11	28°☾18'58		
	15992 Nov 24 06:02	0°≈			15995 May 29 06:04	0°☾		
desc. node	15992 Dec 09 17:24	17°≈50'39			15995 Jun 22 13:13	0°☾		
	15992 Dec 20 14:28	0°☾		morning set	15995 Jul 11 18:48	23°☾54'40		
evening max el	15993 Jan 15 16:50	27°☾11'59 46°06'36			15995 Jul 16 16:00	0°☾		
	15993 Jan 18 15:01	0°☾			15995 Aug 09 15:55	0°☾		
greatest brilliancy	15993 Feb 23 21:20	25°☾54'00 -4.8m		max. Earth dist.	15995 Aug 19 09:54	12°☾12'35 1.71589 AU		
retrograde	15993 Mar 05 21:56	27°☾44'45						
evening set	15993 Mar 21 03:18	23°☾14'52		superior conj	15995 Aug 20 10:50	13°☾30'42 -1°02'13		
inferior conj	15993 Mar 27 06:09	19°☾34'13 -1°20'42		minimum elong	15995 Aug 20 22:32	14°☾07'20 1°02'05		
minimum elong	15993 Mar 27 09:11	19°☾29'27 1°19'56			15995 Sep 02 14:35	0°☾		
min. Earth dist.	15993 Mar 27 09:54	19°☾28'21 0.28438 AU		asc. node	15995 Sep 17 13:38	18°☾44'33		
asc. node	15993 Apr 01 16:29	16°☾16'06			15995 Sep 26 13:22	0°☾		
morning rise	15993 Apr 02 14:49	15°☾44'51		evening rise	15995 Sep 29 09:24	3°☾32'56		
direct	15993 Apr 17 11:05	11°☾24'04			15995 Oct 20 13:23	0°☾		
greatest brilliancy	15993 Apr 28 04:40	13°☾30'45 -4.8m			15995 Nov 13 16:17	0°☾		
	15993 May 23 07:58	0°☾			15995 Dec 08 00:50	0°≈		
morning max el	15993 Jun 05 23:08	12°☾37'43 46°11'47			15996 Jan 01 18:48	0°☾		
	15993 Jun 22 18:00	0°☾		desc. node	15996 Jan 07 05:44	6°☾31'34		

	15996 Jan 27 02:59	0°♿			15998 Aug 24 04:26	0°♎		
	15996 Feb 22 09:02	0°♄			15998 Sep 17 05:11	0°♊		
	15996 Mar 21 10:12	0°♂		morning set	15998 Sep 23 22:17	8°♊23'40		
evening max el	15996 Mar 27 17:29	6°♂15'12	46°01'28		15998 Oct 11 04:49	0°♎		
	15996 Apr 25 10:26	0°♄		asc. node	15998 Oct 15 03:16	4°♎55'29		
asc. node	15996 Apr 29 02:32	2°♄07'53						
greatest brilliancy	15996 May 06 01:21	5°♄15'03	-4.8m	superior conj	15998 Nov 02 06:24	27°♎36'26	0°42'36	
retrograde	15996 May 15 23:50	7°♄04'15		minimum elong	15998 Nov 01 21:12	27°♎07'39	0°42'49	
evening set	15996 Jun 01 15:05	1°♄41'48		max. Earth dist.	15998 Nov 03 13:50	29°♎14'39	1.71817 AU	
	15996 Jun 04 09:57	30°♎♂			15998 Nov 04 04:20	0°♄		
inferior conj	15996 Jun 05 23:38	29°♂00'53	7°51'36		15998 Nov 28 04:46	0°♄		
minimum elong	15996 Jun 05 14:19	29°♂15'33	7°49'23	evening rise	15998 Dec 10 05:20	14°♄58'27		
min. Earth dist.	15996 Jun 05 23:33	29°♂01'02	0.28137 AU		15998 Dec 22 07:42	0°♄		
morning rise	15996 Jun 09 13:29	26°♂47'49			15999 Jan 15 15:07	0°♄		
direct	15996 Jun 27 03:00	20°♂52'23		desc. node	15999 Feb 03 19:04	23°♄26'00		
greatest brilliancy	15996 Jul 07 02:43	22°♂45'07	-4.8m		15999 Feb 09 04:44	0°♿		
	15996 Jul 20 13:45	0°♄			15999 Mar 06 01:31	0°♄		
morning max el	15996 Aug 16 11:00	23°♄25'23	46°50'36		15999 Mar 31 06:52	0°♂		
desc. node	15996 Aug 19 04:13	26°♄10'21			15999 Apr 26 01:18	0°♄		
	15996 Aug 22 21:16	0°♂			15999 May 22 23:10	0°♂		
	15996 Sep 19 03:09	0°♎		asc. node	15999 May 27 13:12	4°♂52'56		
	15996 Oct 14 18:53	0°♊		evening max el	15999 Jun 08 19:46	17°♂26'05	46°20'42	
	15996 Nov 08 18:53	0°♎			15999 Jun 22 07:05	0°♎		
	15996 Dec 03 10:58	0°♄		greatest brilliancy	15999 Jul 19 03:14	17°♎26'22	-4.9m	
asc. node	15996 Dec 10 02:56	8°♄09'15		retrograde	15999 Jul 28 13:43	19°♎07'05		
	15996 Dec 27 22:12	0°♄		evening set	15999 Aug 14 01:32	13°♎52'58		
	15997 Jan 21 06:28	0°♄		inferior conj	15999 Aug 18 06:28	11°♎21'15	6°48'00	
	15997 Feb 14 13:30	0°♄		minimum elong	15999 Aug 18 17:29	11°♎04'17	6°45'17	
morning set	15997 Feb 15 14:33	1°♄17'21		min. Earth dist.	15999 Aug 19 00:17	10°♎53'50	0.27226 AU	
	15997 Mar 10 20:41	0°♿		morning rise	15999 Aug 23 09:06	8°♎17'29		
				direct	15999 Sep 08 01:53	3°♎27'04		
superior conj	15997 Mar 24 21:09	17°♿17'46	0°16'55	desc. node	15999 Sep 16 13:49	4°♎49'10		
minimum elong	15997 Mar 25 00:56	17°♿29'24	0°16'34	greatest brilliancy	15999 Sep 18 10:20	5°♎27'03	-4.9m	
max. Earth dist.	15997 Mar 25 03:09	17°♿36'17	1.73094 AU		15999 Oct 22 09:34	0°♊		
desc. node	15997 Mar 31 20:49	25°♿54'45		morning max el	15999 Oct 28 08:59	5°♊48'48	46°47'15	
	15997 Apr 04 04:20	0°♄			15999 Nov 20 07:58	0°♎		
	15997 Apr 28 11:54	0°♂			15999 Dec 16 19:40	0°♄		
evening rise	15997 May 02 00:33	4°♂21'18		asc. node	16000 Jan 07 14:21	25°♄33'52		
	15997 May 22 18:43	0°♄			16000 Jan 11 07:54	0°♄		
	15997 Jun 16 01:04	0°♂			16000 Feb 05 07:31	0°♄		
	15997 Jul 10 08:24	0°♎			16000 Feb 29 23:47	0°♄		
asc. node	15997 Jul 22 11:59	14°♎56'26			16000 Mar 25 11:55	0°♿		
	15997 Aug 03 19:05	0°♊			16000 Apr 18 21:28	0°♄		
	15997 Aug 28 12:46	0°♎		morning set	16000 Apr 26 04:34	8°♄59'37		
	15997 Sep 22 20:31	0°♄		desc. node	16000 Apr 28 10:13	11°♄45'06		
	15997 Oct 19 11:52	0°♄			16000 May 13 04:39	0°♂		
evening max el	15997 Nov 03 03:00	15°♄12'19	46°30'28	max. Earth dist.	16000 Jun 01 08:09	23°♂43'47	1.72430 AU	
desc. node	15997 Nov 11 08:07	23°♄06'09						
	15997 Nov 19 03:23	0°♄		superior conj	16000 Jun 04 05:06	27°♂17'54	-1°14'57	
greatest brilliancy	15997 Dec 12 15:40	14°♄57'57	-4.8m	minimum elong	16000 Jun 03 19:06	26°♂46'49	1°15'27	
retrograde	15997 Dec 23 00:37	16°♄56'07			16000 Jun 06 09:17	0°♄		
evening set	15998 Jan 10 11:45	10°♄33'51			16000 Jun 30 11:35	0°♂		
inferior conj	15998 Jan 13 10:07	8°♄44'54	-8°47'37	evening rise	16000 Jul 13 10:19	16°♂09'14		
minimum elong	15998 Jan 13 14:19	8°♄38'22	8°46'43		16000 Jul 24 12:35	0°♎		
min. Earth dist.	15998 Jan 13 04:16	8°♄54'03	0.28532 AU		16000 Aug 17 13:42	0°♊		
morning rise	15998 Jan 16 16:58	6°♄43'26		asc. node	16000 Aug 19 01:31	1°♊51'36		
direct	15998 Feb 03 15:48	0°♄41'32			16000 Sep 10 16:34	0°♎		
greatest brilliancy	15998 Feb 13 18:26	2°♄33'12	-4.8m		16000 Oct 04 23:24	0°♄		
asc. node	15998 Mar 04 08:40	13°♄19'35			16000 Oct 29 14:03	0°♄		
	15998 Mar 23 11:34	0°♄			16000 Nov 23 19:45	0°♄		
morning max el	15998 Mar 24 16:22	1°♄09'40	45°44'14	desc. node	16000 Dec 08 19:18	17°♄13'46		
	15998 Apr 21 05:13	0°♿			16000 Dec 20 06:45	0°♄		
	15998 May 17 13:44	0°♄		evening max el	16001 Jan 13 08:12	24°♄58'51	46°07'23	
	15998 Jun 11 21:47	0°♂			16001 Jan 18 15:14	0°♿		
desc. node	15998 Jun 24 09:09	15°♂03'01		greatest brilliancy	16001 Feb 21 12:05	23°♿40'23	-4.8m	
	15998 Jul 06 15:49	0°♄		retrograde	16001 Mar 03 13:54	25°♿31'56		
	15998 Jul 31 00:52	0°♂		evening set	16001 Mar 18 20:19	20°♿59'37		



inferior conj	16001 Mar 24 21:40	17° $\Upsilon$ 21'00	-1°41'43	minimum elong	16003 Aug 18 10:41	11° $\mathbb{M}$ 41'10	1°04'48
minimum elong	16001 Mar 25 01:29	17° $\Upsilon$ 15'02	1°40'42		16003 Sep 02 01:26	0° $\underline{\mathbf{A}}$	
min. Earth dist.	16001 Mar 25 01:27	17° $\Upsilon$ 15'06	0.28451 AU	asc. node	16003 Sep 16 15:23	18° $\underline{\mathbf{A}}$ 15'59	
morning rise	16001 Mar 31 06:30	13° $\Upsilon$ 31'53			16003 Sep 26 00:16	0° $\mathbb{M}$	
asc. node	16001 Mar 31 18:16	13° $\Upsilon$ 15'57		evening rise	16003 Sep 26 22:16	1° $\mathbb{M}$ 08'51	
direct	16001 Apr 15 03:03	9° $\Upsilon$ 10'53			16003 Oct 20 00:22	0° $\mathcal{Z}$	
greatest brilliancy	16001 Apr 25 20:29	11° $\Upsilon$ 17'55	-4.8m		16003 Nov 13 03:25	0° $\mathcal{Z}$	
	16001 May 23 12:44	0° $\mathcal{Z}$			16003 Dec 07 12:15	0° $\approx$	
morning max el	16001 Jun 03 15:10	10° $\mathcal{Z}$ 25'00	46°10'17		16004 Jan 01 06:49	0° $\mathcal{H}$	
	16001 Jun 22 11:20	0° $\mathbb{I}$		desc. node	16004 Jan 06 07:41	6° $\mathcal{H}$ 01'10	
	16001 Jul 19 01:23	0° $\mathcal{E}$			16004 Jan 26 16:03	0° $\Upsilon$	
desc. node	16001 Jul 21 20:08	3° $\mathcal{E}$ 14'36			16004 Feb 22 00:13	0° $\mathcal{B}$	
	16001 Aug 13 08:57	0° $\Omega$			16004 Mar 21 06:49	0° $\mathbb{I}$	
	16001 Sep 07 01:31	0° $\mathbb{M}$		evening max el	16004 Mar 25 08:09	3° $\mathbb{I}$ 59'37	46°01'09
	16001 Oct 01 10:32	0° $\underline{\mathbf{A}}$			16004 Apr 26 23:25	0° $\mathcal{E}$	
	16001 Oct 25 15:54	0° $\mathbb{M}$		asc. node	16004 Apr 28 04:29	0° $\mathcal{E}$ 37'40	
asc. node	16001 Nov 11 16:27	21° $\mathbb{M}$ 08'25		greatest brilliancy	16004 May 03 16:05	2° $\mathcal{E}$ 59'02	-4.8m
	16001 Nov 18 19:27	0° $\mathcal{Z}$		retrograde	16004 May 13 13:54	4° $\mathcal{E}$ 47'46	
morning set	16001 Dec 05 12:11	20° $\mathcal{Z}$ 46'15			16004 May 29 06:03	30° $\mathcal{R}$ $\mathbb{I}$	
	16001 Dec 12 22:10	0° $\mathcal{Z}$		evening set	16004 May 30 02:06	29° $\mathbb{I}$ 31'03	
	16002 Jan 06 01:11	0° $\approx$		inferior conj	16004 Jun 03 14:33	26° $\mathbb{I}$ 44'18	7°40'07
				minimum elong	16004 Jun 03 04:50	26° $\mathbb{I}$ 59'36	7°37'45
superior conj	16002 Jan 12 00:23	7° $\approx$ 24'36	1°25'53	min. Earth dist.	16004 Jun 03 14:10	26° $\mathbb{I}$ 44'54	0.28148 AU
minimum elong	16002 Jan 12 03:36	7° $\approx$ 34'35	1°26'32	morning rise	16004 Jun 07 07:29	24° $\mathbb{I}$ 26'19	
max. Earth dist.	16002 Jan 14 10:46	10° $\approx$ 25'44	1.72666 AU	direct	16004 Jun 24 17:42	18° $\mathbb{I}$ 35'45	
	16002 Jan 30 05:55	0° $\mathcal{H}$		greatest brilliancy	16004 Jul 04 18:04	20° $\mathbb{I}$ 28'31	-4.8m
evening rise	16002 Feb 18 12:27	23° $\mathcal{H}$ 47'26			16004 Jul 21 09:16	0° $\mathcal{E}$	
	16002 Feb 23 13:30	0° $\Upsilon$		morning max el	16004 Aug 14 00:05	21° $\mathcal{E}$ 02'55	46°49'43
desc. node	16002 Mar 03 08:44	9° $\Upsilon$ 35'21		desc. node	16004 Aug 18 06:07	25° $\mathcal{E}$ 22'09	
	16002 Mar 20 00:08	0° $\mathcal{B}$			16004 Aug 22 16:46	0° $\Omega$	
	16002 Apr 13 13:18	0° $\mathbb{I}$			16004 Sep 18 18:11	0° $\mathbb{M}$	
	16002 May 08 04:52	0° $\mathcal{E}$			16004 Oct 14 08:04	0° $\underline{\mathbf{A}}$	
	16002 Jun 02 00:33	0° $\Omega$			16004 Nov 08 07:05	0° $\mathbb{M}$	
asc. node	16002 Jun 24 01:00	26° $\Omega$ 15'57			16004 Dec 02 22:31	0° $\mathcal{Z}$	
	16002 Jun 27 05:00	0° $\mathbb{M}$		asc. node	16004 Dec 09 04:54	7° $\mathcal{Z}$ 40'16	
	16002 Jul 23 04:18	0° $\underline{\mathbf{A}}$			16004 Dec 27 09:18	0° $\mathcal{Z}$	
	16002 Aug 20 01:59	0° $\mathbb{M}$			16005 Jan 20 17:15	0° $\approx$	
evening max el	16002 Aug 20 19:37	0° $\mathbb{M}$ 44'13	46°39'48	morning set	16005 Feb 13 07:16	29° $\approx$ 08'00	
	16002 Sep 26 21:14	0° $\mathcal{Z}$			16005 Feb 14 00:07	0° $\mathcal{H}$	
greatest brilliancy	16002 Sep 29 05:34	0° $\mathcal{Z}$ 58'52	-4.9m		16005 Mar 10 07:13	0° $\Upsilon$	
retrograde	16002 Oct 10 01:47	3° $\mathcal{Z}$ 09'47					
desc. node	16002 Oct 13 23:37	2° $\mathcal{Z}$ 51'07		superior conj	16005 Mar 22 12:55	15° $\Upsilon$ 05'55	0°20'18
	16002 Oct 22 15:20	30° $\mathcal{R}$ $\mathbb{M}$		minimum elong	16005 Mar 22 17:25	15° $\Upsilon$ 19'47	0°19'57
evening set	16002 Oct 24 19:52	28° $\mathbb{M}$ 52'44		max. Earth dist.	16005 Mar 22 19:30	15° $\Upsilon$ 26'14	1.73098 AU
inferior conj	16002 Oct 30 22:01	25° $\mathbb{M}$ 18'29	-4°14'09	desc. node	16005 Mar 30 22:30	25° $\Upsilon$ 27'26	
minimum elong	16002 Oct 30 13:02	25° $\mathbb{M}$ 32'10	4°11'00		16005 Apr 03 14:54	0° $\mathcal{B}$	
min. Earth dist.	16002 Oct 30 06:28	25° $\mathbb{M}$ 42'09	0.27241 AU		16005 Apr 27 22:33	0° $\mathbb{I}$	
morning rise	16002 Nov 05 06:47	22° $\mathbb{M}$ 09'18		evening rise	16005 Apr 29 15:47	2° $\mathbb{I}$ 07'14	
direct	16002 Nov 20 18:23	17° $\mathbb{M}$ 33'23			16005 May 22 05:31	0° $\mathcal{E}$	
greatest brilliancy	16002 Nov 30 06:43	19° $\mathbb{M}$ 13'46	-4.8m		16005 Jun 15 12:06	0° $\Omega$	
	16002 Dec 19 04:42	0° $\mathcal{Z}$			16005 Jul 09 19:46	0° $\mathbb{M}$	
morning max el	16003 Jan 09 03:48	18° $\mathcal{Z}$ 20'58	46°05'46	asc. node	16005 Jul 21 13:50	14° $\mathbb{M}$ 26'38	
	16003 Jan 20 17:50	0° $\mathcal{Z}$			16005 Aug 03 06:58	0° $\underline{\mathbf{A}}$	
asc. node	16003 Feb 04 00:52	15° $\mathcal{Z}$ 16'24			16005 Aug 28 01:30	0° $\mathbb{M}$	
	16003 Feb 17 06:09	0° $\approx$			16005 Sep 22 10:50	0° $\mathcal{Z}$	
	16003 Mar 15 04:49	0° $\mathcal{H}$			16005 Oct 19 05:52	0° $\mathcal{Z}$	
	16003 Apr 09 09:45	0° $\Upsilon$		evening max el	16005 Oct 31 16:21	12° $\mathcal{Z}$ 51'39	46°31'04
	16003 May 04 04:48	0° $\mathcal{B}$		desc. node	16005 Nov 10 10:03	22° $\mathcal{Z}$ 10'19	
desc. node	16003 May 26 23:06	27° $\mathcal{B}$ 50'45			16005 Nov 19 12:23	0° $\approx$	
	16003 May 28 17:09	0° $\mathbb{I}$		greatest brilliancy	16005 Dec 10 06:43	12° $\approx$ 43'18	-4.8m
	16003 Jun 22 00:08	0° $\mathcal{E}$		retrograde	16005 Dec 20 15:22	14° $\approx$ 41'48	
morning set	16003 Jul 09 07:15	21° $\mathcal{E}$ 30'13		evening set	16006 Jan 08 03:54	8° $\approx$ 18'10	
	16003 Jul 16 02:49	0° $\Omega$		inferior conj	16006 Jan 11 01:12	6° $\approx$ 31'00	-8°51'30
	16003 Aug 09 02:43	0° $\mathbb{M}$		minimum elong	16006 Jan 11 04:34	6° $\approx$ 25'46	8°50'42
max. Earth dist.	16003 Aug 16 18:58	9° $\mathbb{M}$ 36'45	1.71602 AU	min. Earth dist.	16006 Jan 10 18:46	6° $\approx$ 41'02	0.28510 AU
				morning rise	16006 Jan 14 05:19	4° $\approx$ 33'42	
superior conj	16003 Aug 17 23:02	11° $\mathbb{M}$ 04'40	-1°04'53		16006 Jan 23 11:03	30° $\mathcal{R}$ $\mathcal{Z}$	

direct	16006 Feb 01 06:05	28° $\text{♁}$ 28'02		asc. node	16008 Aug 18 03:16	1° $\text{♁}$ 23'20	
	16006 Feb 10 09:50	0° $\approx$			16008 Sep 10 03:37	0° $\text{♁}$	
greatest brilliancy	16006 Feb 11 08:58	0° $\approx$ 19'31	-4.8m		16008 Oct 04 10:50	0° $\text{♁}$	
asc. node	16006 Mar 03 10:28	12° $\approx$ 13'02			16008 Oct 29 02:07	0° $\text{♁}$	
morning max el	16006 Mar 22 06:19	28° $\approx$ 53'21	45°44'11		16008 Nov 23 09:00	0° $\approx$	
	16006 Mar 23 09:38	0° $\text{♁}$		desc. node	16008 Dec 07 21:16	16° $\approx$ 38'30	
	16006 Apr 20 20:37	0° $\text{♁}$			16008 Dec 19 22:41	0° $\text{♁}$	
	16006 May 17 02:48	0° $\text{♁}$		evening max el	16009 Jan 11 00:17	22° $\text{♁}$ 49'05	46°08'01
	16006 Jun 11 09:45	0° $\text{♁}$			16009 Jan 18 15:57	0° $\text{♁}$	
desc. node	16006 Jun 23 11:02	14° $\text{♁}$ 33'25		greatest brilliancy	16009 Feb 19 03:05	21° $\text{♁}$ 28'42	-4.8m
	16006 Jul 06 03:11	0° $\text{♁}$		retrograde	16009 Mar 01 05:53	23° $\text{♁}$ 20'34	
	16006 Jul 30 11:54	0° $\text{♁}$		evening set	16009 Mar 16 13:35	18° $\text{♁}$ 45'56	
	16006 Aug 23 15:15	0° $\text{♁}$		inferior conj	16009 Mar 22 13:17	15° $\text{♁}$ 09'20	-2°02'30
	16006 Sep 16 15:50	0° $\text{♁}$		minimum elong	16009 Mar 22 17:50	15° $\text{♁}$ 02'12	2°01'15
morning set	16006 Sep 21 11:22	6° $\text{♁}$ 01'16		min. Earth dist.	16009 Mar 22 16:57	15° $\text{♁}$ 03'34	0.28464 AU
	16006 Oct 10 15:21	0° $\text{♁}$		morning rise	16009 Mar 28 22:02	11° $\text{♁}$ 20'35	
asc. node	16006 Oct 14 05:04	4° $\text{♁}$ 28'10		asc. node	16009 Mar 30 20:16	10° $\text{♁}$ 20'17	
				direct	16009 Apr 12 19:21	6° $\text{♁}$ 59'25	
superior conj	16006 Oct 30 20:31	25° $\text{♁}$ 17'44	0°39'24	greatest brilliancy	16009 Apr 23 11:53	9° $\text{♁}$ 05'59	-4.8m
minimum elong	16006 Oct 30 11:47	24° $\text{♁}$ 50'27	0°39'35		16009 May 23 15:09	0° $\text{♁}$	
max. Earth dist.	16006 Nov 01 00:08	26° $\text{♁}$ 44'04	1.71797 AU	morning max el	16009 Jun 01 07:06	8° $\text{♁}$ 13'23	46°08'46
	16006 Nov 03 14:48	0° $\text{♁}$			16009 Jun 22 03:49	0° $\text{♁}$	
	16006 Nov 27 15:14	0° $\text{♁}$			16009 Jul 18 14:57	0° $\text{♁}$	
evening rise	16006 Dec 07 20:46	12° $\text{♁}$ 44'32		desc. node	16009 Jul 20 22:00	2° $\text{♁}$ 40'52	
	16006 Dec 21 18:15	0° $\approx$			16009 Aug 12 21:14	0° $\text{♁}$	
	16007 Jan 15 01:51	0° $\text{♁}$			16009 Sep 06 13:05	0° $\text{♁}$	
desc. node	16007 Feb 02 20:48	22° $\text{♁}$ 58'00			16009 Sep 30 21:40	0° $\text{♁}$	
	16007 Feb 08 15:45	0° $\text{♁}$			16009 Oct 25 02:44	0° $\text{♁}$	
	16007 Mar 05 13:04	0° $\text{♁}$		asc. node	16009 Nov 10 18:24	20° $\text{♁}$ 41'16	
	16007 Mar 30 19:19	0° $\text{♁}$			16009 Nov 18 06:03	0° $\text{♁}$	
	16007 Apr 25 15:26	0° $\text{♁}$		morning set	16009 Dec 03 03:10	18° $\text{♁}$ 30'56	
	16007 May 22 17:01	0° $\text{♁}$			16009 Dec 12 08:36	0° $\text{♁}$	
asc. node	16007 May 26 15:12	4° $\text{♁}$ 08'48			16010 Jan 05 11:30	0° $\approx$	
evening max el	16007 Jun 06 08:51	15° $\text{♁}$ 04'42	46°19'54				
	16007 Jun 22 14:42	0° $\text{♁}$		superior conj	16010 Jan 09 16:45	5° $\approx$ 14'24	1°26'21
greatest brilliancy	16007 Jul 16 16:21	15° $\text{♁}$ 04'01	-4.8m	minimum elong	16010 Jan 09 19:13	5° $\approx$ 22'01	1°27'02
retrograde	16007 Jul 26 03:13	16° $\text{♁}$ 45'04		max. Earth dist.	16010 Jan 12 05:55	8° $\approx$ 24'13	1.72635 AU
evening set	16007 Aug 11 18:08	11° $\text{♁}$ 25'07			16010 Jan 29 16:13	0° $\text{♁}$	
inferior conj	16007 Aug 15 19:35	8° $\text{♁}$ 58'25	7°03'24	evening rise	16010 Feb 16 04:27	21° $\text{♁}$ 36'57	
minimum elong	16007 Aug 16 06:30	8° $\text{♁}$ 41'38	7°00'49		16010 Feb 22 23:54	0° $\text{♁}$	
min. Earth dist.	16007 Aug 16 13:33	8° $\text{♁}$ 30'49	0.27263 AU	desc. node	16010 Mar 02 10:30	9° $\text{♁}$ 08'42	
morning rise	16007 Aug 20 18:35	6° $\text{♁}$ 00'00			16010 Mar 19 10:45	0° $\text{♁}$	
direct	16007 Sep 05 15:22	1° $\text{♁}$ 03'22			16010 Apr 13 00:13	0° $\text{♁}$	
desc. node	16007 Sep 15 15:39	2° $\text{♁}$ 56'24			16010 May 07 16:16	0° $\text{♁}$	
greatest brilliancy	16007 Sep 15 23:39	3° $\text{♁}$ 03'43	-4.9m		16010 Jun 01 12:40	0° $\text{♁}$	
	16007 Oct 22 10:09	0° $\text{♁}$		asc. node	16010 Jun 23 02:53	25° $\text{♁}$ 42'39	
morning max el	16007 Oct 25 23:56	3° $\text{♁}$ 30'43	46°48'25		16010 Jun 26 18:22	0° $\text{♁}$	
	16007 Nov 20 00:24	0° $\text{♁}$			16010 Jul 22 20:10	0° $\text{♁}$	
	16007 Dec 16 09:14	0° $\text{♁}$		evening max el	16010 Aug 18 10:05	28° $\text{♁}$ 24'25	46°39'24
asc. node	16008 Jan 06 16:15	25° $\text{♁}$ 02'51			16010 Aug 20 00:32	0° $\text{♁}$	
	16008 Jan 10 20:04	0° $\text{♁}$		greatest brilliancy	16010 Sep 26 20:01	28° $\text{♁}$ 37'15	-4.9m
	16008 Feb 04 18:54	0° $\approx$			16010 Oct 01 06:06	0° $\text{♁}$	
	16008 Feb 29 10:42	0° $\text{♁}$		retrograde	16010 Oct 07 15:11	0° $\text{♁}$ 46'48	
	16008 Mar 24 22:32	0° $\text{♁}$		desc. node	16010 Oct 13 01:38	0° $\text{♁}$ 10'49	
	16008 Apr 18 07:55	0° $\text{♁}$			16010 Oct 13 19:55	30° $\text{♁}$	
morning set	16008 Apr 23 19:32	6° $\text{♁}$ 45'31		evening set	16010 Oct 22 07:21	26° $\text{♁}$ 32'58	
desc. node	16008 Apr 27 12:06	11° $\text{♁}$ 18'41		inferior conj	16010 Oct 28 11:00	22° $\text{♁}$ 56'30	-3°52'56
	16008 May 12 15:04	0° $\text{♁}$		minimum elong	16010 Oct 28 02:37	23° $\text{♁}$ 09'17	3°49'53
max. Earth dist.	16008 May 30 01:36	21° $\text{♁}$ 36'36	1.72465 AU	min. Earth dist.	16010 Oct 27 20:26	23° $\text{♁}$ 18'43	0.27198 AU
				morning rise	16010 Nov 02 22:27	19° $\text{♁}$ 43'28	
superior conj	16008 Jun 01 18:43	24° $\text{♁}$ 58'43	-1°12'57	direct	16010 Nov 18 07:26	15° $\text{♁}$ 12'00	
minimum elong	16008 Jun 01 08:22	24° $\text{♁}$ 26'34	1°13'26	greatest brilliancy	16010 Nov 27 19:42	16° $\text{♁}$ 52'13	-4.8m
	16008 Jun 05 19:42	0° $\text{♁}$			16010 Dec 19 18:15	0° $\text{♁}$	
	16008 Jun 29 22:06	0° $\text{♁}$		morning max el	16011 Jan 06 16:37	16° $\text{♁}$ 00'35	46°07'15
evening rise	16008 Jul 10 22:45	13° $\text{♁}$ 45'18			16011 Jan 20 12:25	0° $\text{♁}$	
	16008 Jul 23 23:13	0° $\text{♁}$		asc. node	16011 Feb 03 02:39	14° $\text{♁}$ 37'41	
	16008 Aug 17 00:30	0° $\text{♁}$			16011 Feb 16 20:24	0° $\approx$	

	16011 Mar 14 17:14	0° $\text{H}$			16013 Oct 19 00:26	0° $\text{Z}$	
	16011 Apr 08 21:16	0° $\text{Y}$	evening max el		16013 Oct 29 05:40	10° $\text{Z}$ 30'39	46°31'51
	16011 May 03 15:50	0° $\text{B}$	desc. node		16013 Nov 09 12:00	21° $\text{Z}$ 12'55	
desc. node	16011 May 26 00:59	27° $\text{B}$ 23'21			16013 Nov 20 00:49	0° $\approx$	
	16011 May 28 03:56	0° $\text{II}$	greatest brilliancy		16013 Dec 07 21:06	10° $\approx$ 27'20	-4.8m
	16011 Jun 21 10:46	0° $\text{G}$	retrograde		16013 Dec 18 06:27	12° $\approx$ 26'57	
morning set	16011 Jul 06 19:31	19° $\text{G}$ 06'01	evening set		16014 Jan 05 19:31	6° $\approx$ 02'11	
	16011 Jul 15 13:23	0° $\text{Q}$	inferior conj		16014 Jan 08 16:08	4° $\approx$ 16'19	-8°54'40
	16011 Aug 08 13:15	0° $\text{M}$	minimum elong		16014 Jan 08 18:39	4° $\approx$ 12'25	8°53'54
max. Earth dist.	16011 Aug 14 02:13	6° $\text{M}$ 56'11	1.71614 AU	min. Earth dist.	16014 Jan 08 08:55	4° $\approx$ 27'34	0.28488 AU
				morning rise	16014 Jan 11 17:51	2° $\approx$ 22'50	
superior conj	16011 Aug 15 11:10	8° $\text{M}$ 39'21	-1°07'25		16014 Jan 15 22:54	30° $\text{R}$ $\text{Z}$	
minimum elong	16011 Aug 15 22:43	9° $\text{M}$ 15'31	1°07'24	direct	16014 Jan 29 20:18	26° $\text{Z}$ 13'35	
	16011 Sep 01 12:00	0° $\text{L}$		greatest brilliancy	16014 Feb 08 23:15	28° $\text{Z}$ 05'03	-4.8m
asc. node	16011 Sep 15 17:11	17° $\text{L}$ 48'28			16014 Feb 13 13:32	0° $\approx$	
evening rise	16011 Sep 24 11:00	28° $\text{L}$ 45'12		asc. node	16014 Mar 02 12:28	11° $\approx$ 08'03	
	16011 Sep 25 10:54	0° $\text{M}$		morning max el	16014 Mar 19 21:06	26° $\approx$ 38'38	45°44'19
	16011 Oct 19 11:06	0° $\text{A}$			16014 Mar 23 07:01	0° $\text{H}$	
	16011 Nov 12 14:20	0° $\text{Z}$			16014 Apr 20 11:54	0° $\text{Y}$	
	16011 Dec 06 23:31	0° $\approx$			16014 May 16 15:52	0° $\text{B}$	
	16011 Dec 31 18:39	0° $\text{H}$			16014 Jun 10 21:45	0° $\text{II}$	
desc. node	16012 Jan 05 09:28	5° $\text{H}$ 30'45		desc. node	16014 Jun 22 12:51	14° $\text{II}$ 03'25	
	16012 Jan 26 04:58	0° $\text{Y}$			16014 Jul 05 14:37	0° $\text{G}$	
	16012 Feb 21 15:19	0° $\text{B}$			16014 Jul 29 23:02	0° $\text{Q}$	
	16012 Mar 21 03:50	0° $\text{II}$			16014 Aug 23 02:14	0° $\text{M}$	
evening max el	16012 Mar 22 22:02	1° $\text{II}$ 43'04	46°00'51		16014 Sep 16 02:42	0° $\text{L}$	
asc. node	16012 Apr 27 06:26	29° $\text{II}$ 04'54		morning set	16014 Sep 19 00:05	3° $\text{L}$ 36'57	
	16012 Apr 29 08:50	0° $\text{G}$			16014 Oct 10 02:07	0° $\text{M}$	
greatest brilliancy	16012 May 01 06:42	0° $\text{G}$ 43'33	-4.8m	asc. node	16014 Oct 13 07:01	4° $\text{M}$ 00'33	
retrograde	16012 May 11 03:56	2° $\text{G}$ 32'09					
	16012 May 22 09:59	30° $\text{R}$ $\text{II}$		superior conj	16014 Oct 28 10:04	22° $\text{M}$ 56'28	0°36'03
evening set	16012 May 27 13:08	27° $\text{II}$ 20'38		minimum elong	16014 Oct 28 01:53	22° $\text{M}$ 30'52	0°36'14
inferior conj	16012 Jun 01 05:28	24° $\text{II}$ 28'20	7°27'55	max. Earth dist.	16014 Oct 29 11:07	24° $\text{M}$ 14'48	1.71776 AU
minimum elong	16012 May 31 19:26	24° $\text{II}$ 44'10	7°25'23		16014 Nov 03 01:31	0° $\text{A}$	
min. Earth dist.	16012 Jun 01 04:58	24° $\text{II}$ 29'08	0.28164 AU		16014 Nov 27 01:57	0° $\text{Z}$	
morning rise	16012 Jun 05 01:34	22° $\text{II}$ 05'29		evening rise	16014 Dec 05 11:51	10° $\text{Z}$ 28'47	
direct	16012 Jun 22 08:09	16° $\text{II}$ 19'25			16014 Dec 21 05:03	0° $\approx$	
greatest brilliancy	16012 Jul 02 09:59	18° $\text{II}$ 13'00	-4.8m		16015 Jan 14 12:51	0° $\text{H}$	
	16012 Jul 21 23:37	0° $\text{G}$		desc. node	16015 Feb 01 22:36	22° $\text{H}$ 29'22	
morning max el	16012 Aug 11 13:30	18° $\text{G}$ 41'26	46°48'49		16015 Feb 08 03:05	0° $\text{Y}$	
desc. node	16012 Aug 17 07:59	24° $\text{G}$ 34'45			16015 Mar 05 00:57	0° $\text{B}$	
	16012 Aug 22 11:40	0° $\text{Q}$			16015 Mar 30 08:09	0° $\text{II}$	
	16012 Sep 18 08:57	0° $\text{M}$			16015 Apr 25 06:00	0° $\text{G}$	
	16012 Oct 13 21:05	0° $\text{L}$			16015 May 22 11:33	0° $\text{Q}$	
	16012 Nov 07 19:07	0° $\text{M}$		asc. node	16015 May 25 17:06	3° $\text{Q}$ 23'08	
	16012 Dec 02 09:55	0° $\text{A}$		evening max el	16015 Jun 03 22:52	12° $\text{Q}$ 45'14	46°19'09
asc. node	16012 Dec 08 06:41	7° $\text{A}$ 11'05			16015 Jun 23 01:28	0° $\text{M}$	
	16012 Dec 26 20:18	0° $\text{Z}$		greatest brilliancy	16015 Jul 14 05:04	12° $\text{M}$ 40'56	-4.8m
	16013 Jan 20 03:59	0° $\approx$		retrograde	16015 Jul 23 16:50	14° $\text{M}$ 22'24	
morning set	16013 Feb 10 23:58	26° $\approx$ 58'36		evening set	16015 Aug 09 10:47	8° $\text{M}$ 56'48	
	16013 Feb 13 10:41	0° $\text{H}$		inferior conj	16015 Aug 13 08:45	6° $\text{M}$ 34'56	7°18'00
	16013 Mar 09 17:43	0° $\text{Y}$		minimum elong	16015 Aug 13 19:28	6° $\text{M}$ 18'28	7°15'33
				min. Earth dist.	16015 Aug 14 02:28	6° $\text{M}$ 07'43	0.27303 AU
superior conj	16013 Mar 20 04:50	12° $\text{Y}$ 54'41	0°23'37	morning rise	16015 Aug 18 03:55	3° $\text{M}$ 42'00	
minimum elong	16013 Mar 20 10:02	13° $\text{Y}$ 10'42	0°23'16		16015 Aug 26 03:15	30° $\text{R}$ $\text{Q}$	
max. Earth dist.	16013 Mar 20 12:54	13° $\text{Y}$ 19'32	1.73099 AU	direct	16015 Sep 03 05:22	28° $\text{Q}$ 39'10	
desc. node	16013 Mar 30 00:25	25° $\text{Y}$ 01'00			16015 Sep 11 14:40	0° $\text{M}$	
	16013 Apr 03 01:24	0° $\text{B}$		greatest brilliancy	16015 Sep 13 12:30	0° $\text{M}$ 39'01	-4.9m
evening rise	16013 Apr 27 07:16	29° $\text{B}$ 54'14		desc. node	16015 Sep 14 17:43	1° $\text{M}$ 07'23	
	16013 Apr 27 09:08	0° $\text{II}$			16015 Oct 22 10:03	0° $\text{L}$	
	16013 May 21 16:17	0° $\text{G}$		morning max el	16015 Oct 23 15:05	1° $\text{L}$ 12'02	46°49'18
	16013 Jun 14 23:09	0° $\text{Q}$			16015 Nov 19 16:58	0° $\text{M}$	
	16013 Jul 09 07:13	0° $\text{M}$			16015 Dec 15 23:07	0° $\text{A}$	
asc. node	16013 Jul 20 15:34	13° $\text{M}$ 56'10		asc. node	16016 Jan 05 18:07	24° $\text{A}$ 30'35	
	16013 Aug 02 18:59	0° $\text{L}$			16016 Jan 10 08:35	0° $\text{Z}$	
	16013 Aug 27 14:25	0° $\text{M}$			16016 Feb 04 06:37	0° $\approx$	
	16013 Sep 22 01:26	0° $\text{A}$			16016 Feb 28 21:56	0° $\text{H}$	

	16016 Mar 24 09:30	0° $\Upsilon$		evening set	16018 Oct 19 19:19	24° $\mathbb{M}$ 12'36	
	16016 Apr 17 18:45	0° $\mathcal{B}$		min. Earth dist.	16018 Oct 25 10:58	20° $\mathbb{M}$ 54'42	0.27157 AU
morning set	16016 Apr 21 10:32	4° $\mathcal{B}$ 30'29		inferior conj	16018 Oct 26 00:14	20° $\mathbb{M}$ 34'27	-3°31'21
desc. node	16016 Apr 26 13:56	10° $\mathcal{B}$ 51'02		minimum elong	16018 Oct 25 16:30	20° $\mathbb{M}$ 46'16	3°28'29
	16016 May 12 01:50	0° $\mathbb{I}$		morning rise	16018 Oct 31 14:11	17° $\mathbb{M}$ 17'42	
max. Earth dist.	16016 May 27 17:25	19° $\mathbb{I}$ 23'17	1.72495 AU	direct	16018 Nov 15 20:07	12° $\mathbb{M}$ 50'22	
				greatest brilliancy	16018 Nov 25 09:28	14° $\mathbb{M}$ 31'04	-4.8m
superior conj	16016 May 30 08:31	22° $\mathbb{I}$ 39'03	-1°10'52		16018 Dec 20 04:35	0° $\mathcal{A}$	
minimum elong	16016 May 29 21:53	22° $\mathbb{I}$ 06'04	1°11'17	morning max el	16019 Jan 04 05:08	13° $\mathcal{A}$ 38'24	46°08'35
	16016 Jun 05 06:30	0° $\mathcal{E}$			16019 Jan 20 06:52	0° $\mathcal{B}$	
	16016 Jun 29 08:56	0° $\mathcal{Q}$		asc. node	16019 Feb 02 04:38	13° $\mathcal{B}$ 58'40	
evening rise	16016 Jul 08 11:25	11° $\mathcal{Q}$ 21'12			16019 Feb 16 10:54	0° $\approx$	
	16016 Jul 23 10:09	0° $\mathbb{P}$			16019 Mar 14 06:02	0° $\mathcal{H}$	
	16016 Aug 16 11:37	0° $\mathcal{L}$			16019 Apr 08 09:10	0° $\Upsilon$	
asc. node	16016 Aug 17 05:10	0° $\mathcal{L}$ 54'37			16019 May 03 03:15	0° $\mathcal{B}$	
	16016 Sep 09 15:02	0° $\mathbb{M}$		desc. node	16019 May 25 02:43	26° $\mathcal{B}$ 54'21	
	16016 Oct 03 22:40	0° $\mathcal{A}$			16019 May 27 15:05	0° $\mathbb{I}$	
	16016 Oct 28 14:40	0° $\mathcal{B}$			16019 Jun 20 21:45	0° $\mathcal{E}$	
	16016 Nov 22 22:52	0° $\approx$		morning set	16019 Jul 04 07:38	16° $\mathcal{E}$ 40'11	
desc. node	16016 Dec 06 23:03	16° $\approx$ 00'51			16019 Jul 15 00:18	0° $\mathcal{Q}$	
	16016 Dec 19 15:31	0° $\mathcal{H}$			16019 Aug 08 00:10	0° $\mathbb{P}$	
evening max el	16017 Jan 08 16:15	20° $\mathcal{H}$ 37'23	46°08'43	max. Earth dist.	16019 Aug 11 08:26	4° $\mathbb{P}$ 11'15	1.71627 AU
	16017 Jan 18 18:47	0° $\Upsilon$					
greatest brilliancy	16017 Feb 16 18:33	19° $\Upsilon$ 15'56	-4.8m	superior conj	16019 Aug 12 23:22	6° $\mathbb{P}$ 13'07	-1°09'50
retrograde	16017 Feb 26 21:19	21° $\Upsilon$ 07'18		minimum elong	16019 Aug 13 10:43	6° $\mathbb{P}$ 48'39	1°09'51
evening set	16017 Mar 14 06:54	16° $\Upsilon$ 30'25			16019 Aug 31 22:55	0° $\mathcal{L}$	
inferior conj	16017 Mar 20 04:45	12° $\Upsilon$ 56'00	-2°23'11	asc. node	16019 Sep 14 19:04	17° $\mathcal{L}$ 20'12	
minimum elong	16017 Mar 20 10:02	12° $\Upsilon$ 47'44	2°21'42	evening rise	16019 Sep 21 23:49	26° $\mathcal{L}$ 20'55	
min. Earth dist.	16017 Mar 20 08:32	12° $\Upsilon$ 50'05	0.28476 AU		16019 Sep 24 21:50	0° $\mathbb{M}$	
morning rise	16017 Mar 26 13:10	9° $\Upsilon$ 07'38			16019 Oct 18 22:06	0° $\mathcal{A}$	
asc. node	16017 Mar 29 22:16	7° $\Upsilon$ 26'15			16019 Nov 12 01:30	0° $\mathcal{B}$	
direct	16017 Apr 10 11:24	4° $\Upsilon$ 46'20			16019 Dec 06 11:02	0° $\approx$	
greatest brilliancy	16017 Apr 21 03:03	6° $\Upsilon$ 52'04	-4.8m		16019 Dec 31 06:49	0° $\mathcal{H}$	
	16017 May 23 16:46	0° $\mathcal{B}$		desc. node	16020 Jan 04 11:18	4° $\mathcal{H}$ 59'33	
morning max el	16017 May 29 22:13	5° $\mathcal{B}$ 58'23	46°07'19		16020 Jan 25 18:18	0° $\Upsilon$	
	16017 Jun 21 20:28	0° $\mathbb{I}$			16020 Feb 21 07:04	0° $\mathcal{B}$	
	16017 Jul 18 04:50	0° $\mathcal{E}$		evening max el	16020 Mar 20 11:57	29° $\mathcal{B}$ 25'36	46°00'38
desc. node	16017 Jul 19 23:50	2° $\mathcal{E}$ 06'00			16020 Mar 21 02:09	0° $\mathbb{I}$	
	16017 Aug 12 09:49	0° $\mathcal{Q}$		asc. node	16020 Apr 26 08:19	27° $\mathbb{I}$ 27'31	
	16017 Sep 06 00:57	0° $\mathbb{P}$		greatest brilliancy	16020 Apr 28 20:56	28° $\mathbb{I}$ 26'35	-4.8m
	16017 Sep 30 09:05	0° $\mathcal{L}$			16020 May 05 02:20	0° $\mathcal{E}$	
	16017 Oct 24 13:53	0° $\mathbb{M}$		retrograde	16020 May 08 18:23	0° $\mathcal{E}$ 15'44	
asc. node	16017 Nov 09 20:08	20° $\mathbb{M}$ 12'27			16020 May 12 08:57	30° $\mathcal{R}$ $\mathbb{I}$	
	16017 Nov 17 17:02	0° $\mathcal{A}$		evening set	16020 May 25 00:15	25° $\mathbb{I}$ 08'57	
morning set	16017 Nov 30 17:56	16° $\mathcal{A}$ 13'44		inferior conj	16020 May 29 20:24	22° $\mathbb{I}$ 11'26	7°14'58
	16017 Dec 11 19:26	0° $\mathcal{B}$		minimum elong	16020 May 29 10:06	22° $\mathbb{I}$ 27'37	7°12'17
	16018 Jan 04 22:15	0° $\approx$		min. Earth dist.	16020 May 29 19:41	22° $\mathbb{I}$ 12'32	0.28181 AU
				morning rise	16020 Jun 02 19:45	19° $\mathbb{I}$ 43'46	
superior conj	16018 Jan 07 08:50	3° $\approx$ 01'53	1°26'43	direct	16020 Jun 19 22:35	14° $\mathbb{I}$ 02'04	
minimum elong	16018 Jan 07 10:29	3° $\approx$ 07'02	1°27'23	greatest brilliancy	16020 Jun 30 01:54	15° $\mathbb{I}$ 56'46	-4.8m
max. Earth dist.	16018 Jan 09 23:05	6° $\approx$ 15'06	1.72604 AU		16020 Jul 22 10:40	0° $\mathcal{E}$	
	16018 Jan 29 02:58	0° $\mathcal{H}$		morning max el	16020 Aug 09 03:53	16° $\mathcal{E}$ 21'36	46°47'53
evening rise	16018 Feb 13 20:02	19° $\mathcal{H}$ 23'42		desc. node	16020 Aug 16 10:02	23° $\mathcal{E}$ 47'39	
	16018 Feb 22 10:45	0° $\Upsilon$			16020 Aug 22 06:23	0° $\mathcal{Q}$	
desc. node	16018 Mar 01 12:22	8° $\Upsilon$ 40'59			16020 Sep 17 23:50	0° $\mathbb{P}$	
	16018 Mar 18 21:49	0° $\mathcal{B}$			16020 Oct 13 10:15	0° $\mathcal{L}$	
	16018 Apr 12 11:37	0° $\mathbb{I}$			16020 Nov 07 07:19	0° $\mathbb{M}$	
	16018 May 07 04:09	0° $\mathcal{E}$			16020 Dec 01 21:28	0° $\mathcal{A}$	
	16018 Jun 01 01:19	0° $\mathcal{Q}$		asc. node	16020 Dec 07 08:32	6° $\mathcal{A}$ 41'40	
asc. node	16018 Jun 22 04:40	25° $\mathcal{Q}$ 07'30			16020 Dec 26 07:24	0° $\mathcal{B}$	
	16018 Jun 26 08:20	0° $\mathbb{P}$			16021 Jan 19 14:50	0° $\approx$	
	16018 Jul 22 12:45	0° $\mathcal{L}$		morning set	16021 Feb 08 16:55	24° $\approx$ 49'30	
evening max el	16018 Aug 15 23:51	26° $\mathcal{L}$ 01'51	46°39'09		16021 Feb 12 21:24	0° $\mathcal{H}$	
	16018 Aug 20 00:29	0° $\mathbb{M}$			16021 Mar 09 04:24	0° $\Upsilon$	
greatest brilliancy	16018 Sep 24 11:08	26° $\mathbb{M}$ 15'56	-4.9m				
retrograde	16018 Oct 05 04:23	28° $\mathbb{M}$ 23'43		superior conj	16021 Mar 17 20:52	10° $\Upsilon$ 43'06	0°26'54
desc. node	16018 Oct 12 03:31	27° $\mathbb{M}$ 24'52		minimum elong	16021 Mar 18 02:43	11° $\Upsilon$ 01'10	0°26'33

max. Earth dist.	16021 Mar 18 07:50	11° $\Upsilon$ 16'58	1.73106 AU	direct	16023 Aug 31 19:26	26° $\Omega$ 15'19	
desc. node	16021 Mar 29 02:14	24° $\Upsilon$ 33'37		greatest brilliancy	16023 Sep 11 01:09	28° $\Omega$ 14'09	-4.9m
	16021 Apr 02 12:07	0° $\mathcal{B}$		desc. node	16023 Sep 13 19:37	29° $\Omega$ 22'25	
evening rise	16021 Apr 24 22:44	27° $\mathcal{B}$ 40'38			16023 Sep 15 03:41	0° $\mathcal{M}$	
	16021 Apr 26 19:56	0° $\Pi$		morning max el	16023 Oct 21 05:37	28° $\mathcal{M}$ 52'02	46°50'05
	16021 May 21 03:16	0° $\mathcal{E}$			16023 Oct 22 08:47	0° $\mathcal{A}$	
	16021 Jun 14 10:24	0° $\Omega$			16023 Nov 19 09:06	0° $\mathcal{M}$	
	16021 Jul 08 18:52	0° $\mathcal{M}$			16023 Dec 15 12:43	0° $\mathcal{X}$	
asc. node	16021 Jul 19 17:31	13° $\mathcal{M}$ 25'44		asc. node	16024 Jan 04 20:01	23° $\mathcal{X}$ 59'02	
	16021 Aug 02 07:14	0° $\mathcal{A}$			16024 Jan 09 20:52	0° $\mathcal{Z}$	
	16021 Aug 27 03:38	0° $\mathcal{M}$			16024 Feb 03 18:07	0° $\mathcal{A}$	
	16021 Sep 21 16:25	0° $\mathcal{X}$			16024 Feb 28 08:56	0° $\mathcal{H}$	
	16021 Oct 18 19:41	0° $\mathcal{Z}$			16024 Mar 23 20:12	0° $\Upsilon$	
evening max el	16021 Oct 26 20:15	8° $\mathcal{Z}$ 12'27	46°32'47		16024 Apr 17 05:19	0° $\mathcal{B}$	
desc. node	16021 Nov 08 13:52	20° $\mathcal{Z}$ 13'51		morning set	16024 Apr 19 02:02	2° $\mathcal{B}$ 17'49	
	16021 Nov 20 17:33	0° $\mathcal{A}$		desc. node	16024 Apr 25 15:41	10° $\mathcal{B}$ 23'51	
greatest brilliancy	16021 Dec 05 11:07	8° $\mathcal{A}$ 11'09	-4.8m		16024 May 11 12:23	0° $\Pi$	
retrograde	16021 Dec 15 22:15	10° $\mathcal{A}$ 12'32		max. Earth dist.	16024 May 25 07:57	17° $\Pi$ 06'43	1.72530 AU
evening set	16022 Jan 03 10:57	3° $\mathcal{A}$ 47'16					
inferior conj	16022 Jan 06 07:15	2° $\mathcal{A}$ 02'04	-8°56'57	superior conj	16024 May 27 22:37	20° $\Pi$ 21'04	-1°08'39
minimum elong	16022 Jan 06 08:55	1° $\mathcal{A}$ 59'29	8°56'13	minimum elong	16024 May 27 11:47	19° $\Pi$ 47'29	1°09'03
min. Earth dist.	16022 Jan 05 22:51	2° $\mathcal{A}$ 15'06	0.28461 AU		16024 Jun 04 17:06	0° $\mathcal{E}$	
morning rise	16022 Jan 09 06:59	0° $\mathcal{A}$ 11'51			16024 Jun 28 19:38	0° $\Omega$	
	16022 Jan 09 14:53	30° $\mathcal{R}$ $\mathcal{Z}$		evening rise	16024 Jul 06 00:03	8° $\Omega$ 57'26	
direct	16022 Jan 27 11:03	23° $\mathcal{Z}$ 59'49			16024 Jul 22 20:58	0° $\mathcal{M}$	
greatest brilliancy	16022 Feb 06 13:03	25° $\mathcal{Z}$ 50'40	-4.8m		16024 Aug 15 22:37	0° $\mathcal{A}$	
	16022 Feb 15 09:10	0° $\mathcal{A}$		asc. node	16024 Aug 16 06:59	0° $\mathcal{A}$ 26'02	
asc. node	16022 Mar 01 14:28	10° $\mathcal{A}$ 05'07			16024 Sep 09 02:18	0° $\mathcal{M}$	
morning max el	16022 Mar 17 12:52	24° $\mathcal{A}$ 26'39	45°44'18		16024 Oct 03 10:23	0° $\mathcal{X}$	
	16022 Mar 23 03:33	0° $\mathcal{H}$			16024 Oct 28 03:06	0° $\mathcal{Z}$	
	16022 Apr 20 02:58	0° $\Upsilon$			16024 Nov 22 12:40	0° $\mathcal{A}$	
	16022 May 16 04:54	0° $\mathcal{B}$		desc. node	16024 Dec 06 00:59	15° $\mathcal{A}$ 23'57	
	16022 Jun 10 09:47	0° $\Pi$			16024 Dec 19 08:26	0° $\mathcal{H}$	
desc. node	16022 Jun 21 14:45	13° $\Pi$ 33'27		evening max el	16025 Jan 06 07:51	18° $\mathcal{H}$ 25'27	46°09'25
	16022 Jul 05 02:08	0° $\mathcal{E}$			16025 Jan 18 22:56	0° $\Upsilon$	
	16022 Jul 29 10:14	0° $\Omega$		greatest brilliancy	16025 Feb 14 10:45	17° $\Upsilon$ 05'12	-4.8m
	16022 Aug 22 13:14	0° $\mathcal{M}$		retrograde	16025 Feb 24 12:30	18° $\Upsilon$ 55'34	
	16022 Sep 15 13:35	0° $\mathcal{A}$		evening set	16025 Mar 12 00:32	14° $\Upsilon$ 16'20	
morning set	16022 Sep 16 12:43	1° $\mathcal{A}$ 12'21		inferior conj	16025 Mar 17 20:27	10° $\Upsilon$ 44'26	-2°43'33
	16022 Oct 09 12:55	0° $\mathcal{M}$		minimum elong	16025 Mar 18 02:25	10° $\Upsilon$ 35'05	2°41'51
asc. node	16022 Oct 12 08:43	3° $\mathcal{M}$ 32'07		min. Earth dist.	16025 Mar 18 00:36	10° $\Upsilon$ 37'55	0.28483 AU
				morning rise	16025 Mar 24 04:17	6° $\Upsilon$ 56'34	
superior conj	16022 Oct 25 23:30	20° $\mathcal{M}$ 34'37	0°32'38	asc. node	16025 Mar 29 00:05	4° $\Upsilon$ 38'17	
minimum elong	16022 Oct 25 15:55	20° $\mathcal{M}$ 10'54	0°32'49	direct	16025 Apr 08 03:12	2° $\Upsilon$ 35'05	
max. Earth dist.	16022 Oct 26 23:55	21° $\mathcal{M}$ 51'02	1.71757 AU	greatest brilliancy	16025 Apr 18 18:42	4° $\Upsilon$ 40'16	-4.8m
	16022 Nov 02 12:16	0° $\mathcal{X}$			16025 May 23 16:32	0° $\mathcal{B}$	
	16022 Nov 26 12:42	0° $\mathcal{Z}$		morning max el	16025 May 27 12:34	3° $\mathcal{B}$ 42'47	46°05'52
evening rise	16022 Dec 03 03:02	8° $\mathcal{Z}$ 13'13			16025 Jun 21 12:23	0° $\Pi$	
	16022 Dec 20 15:51	0° $\mathcal{A}$			16025 Jul 17 18:14	0° $\mathcal{E}$	
	16023 Jan 13 23:47	0° $\mathcal{H}$		desc. node	16025 Jul 19 01:51	1° $\mathcal{E}$ 32'50	
desc. node	16023 Feb 01 00:33	22° $\mathcal{H}$ 01'26			16025 Aug 11 22:03	0° $\Omega$	
	16023 Feb 07 14:19	0° $\Upsilon$			16025 Sep 05 12:34	0° $\mathcal{M}$	
	16023 Mar 04 12:46	0° $\mathcal{B}$			16025 Sep 29 20:18	0° $\mathcal{A}$	
	16023 Mar 29 20:58	0° $\Pi$			16025 Oct 24 00:48	0° $\mathcal{M}$	
	16023 Apr 24 20:41	0° $\mathcal{E}$		asc. node	16025 Nov 08 21:58	19° $\mathcal{M}$ 44'41	
	16023 May 22 06:36	0° $\Omega$			16025 Nov 17 03:44	0° $\mathcal{X}$	
asc. node	16023 May 24 18:56	2° $\Omega$ 36'36		morning set	16025 Nov 28 08:23	13° $\mathcal{X}$ 56'19	
evening max el	16023 Jun 01 13:39	10° $\Omega$ 27'41	46°18'12		16025 Dec 11 05:59	0° $\mathcal{Z}$	
	16023 Jun 23 16:00	0° $\mathcal{M}$			16026 Jan 04 08:43	0° $\mathcal{A}$	
greatest brilliancy	16023 Jul 11 18:00	10° $\mathcal{M}$ 18'10	-4.8m				
retrograde	16023 Jul 21 06:13	11° $\mathcal{M}$ 59'32		superior conj	16026 Jan 05 00:51	0° $\mathcal{A}$ 50'07	1°26'55
evening set	16023 Aug 07 03:28	6° $\mathcal{M}$ 28'39		minimum elong	16026 Jan 05 01:42	0° $\mathcal{A}$ 52'44	1°27'37
inferior conj	16023 Aug 10 21:56	4° $\mathcal{M}$ 11'32	7°31'48	max. Earth dist.	16026 Jan 07 14:25	4° $\mathcal{A}$ 01'14	1.72572 AU
minimum elong	16023 Aug 11 08:21	3° $\mathcal{M}$ 55'28	7°29'29		16026 Jan 28 13:26	0° $\mathcal{H}$	
min. Earth dist.	16023 Aug 11 15:20	3° $\mathcal{M}$ 44'43	0.27341 AU	evening rise	16026 Feb 11 11:44	17° $\mathcal{H}$ 11'46	
morning rise	16023 Aug 15 13:05	1° $\mathcal{M}$ 24'10			16026 Feb 21 21:19	0° $\Upsilon$	
	16023 Aug 18 02:39	30° $\mathcal{R}$ $\Omega$		desc. node	16026 Feb 28 14:11	8° $\Upsilon$ 14'03	

	16026 Mar 18 08:33	0°♄			16028 Dec 01 08:42	0°♊	
	16026 Apr 11 22:38	0°♅		asc. node	16028 Dec 06 10:29	6°♊13'29	
	16026 May 06 15:37	0°♄			16028 Dec 25 18:15	0°♄	
	16026 May 31 13:35	0°♅			16029 Jan 19 01:25	0°♄	
asc. node	16026 Jun 21 06:39	24°♅34'04		morning set	16029 Feb 06 09:29	22°♄39'58	
	16026 Jun 25 22:00	0°♄			16029 Feb 12 07:51	0°♄	
	16026 Jul 22 05:16	0°♅			16029 Mar 08 14:47	0°♄	
evening max el	16026 Aug 13 12:44	23°♅37'53	46°38'36				
	16026 Aug 20 01:20	0°♅		superior conj	16029 Mar 15 12:34	8°♄31'29	0°30'10
greatest brilliancy	16026 Sep 22 02:06	23°♅54'24	-4.9m	minimum elong	16029 Mar 15 19:03	8°♄51'28	0°29'49
retrograde	16026 Oct 02 17:11	26°♅00'35		max. Earth dist.	16029 Mar 16 04:12	9°♄19'42	1.73106 AU
desc. node	16026 Oct 11 05:25	24°♅33'01		desc. node	16029 Mar 28 03:57	24°♄06'53	
evening set	16026 Oct 17 07:11	21°♅51'29			16029 Apr 01 22:32	0°♄	
min. Earth dist.	16026 Oct 23 01:34	18°♅30'05	0.27123 AU	evening rise	16029 Apr 22 14:08	25°♄27'44	
inferior conj	16026 Oct 23 13:14	18°♅12'16	-3°09'02		16029 Apr 26 06:27	0°♅	
minimum elong	16026 Oct 23 06:12	18°♅23'00	3°06'22		16029 May 20 13:58	0°♄	
morning rise	16026 Oct 29 05:35	14°♅52'02			16029 Jun 13 21:22	0°♅	
direct	16026 Nov 13 08:11	10°♅28'14			16029 Jul 08 06:12	0°♄	
greatest brilliancy	16026 Nov 22 23:38	12°♅10'20	-4.8m	asc. node	16029 Jul 18 19:21	12°♄56'05	
	16026 Dec 20 11:54	0°♊			16029 Aug 01 19:07	0°♅	
morning max el	16027 Jan 01 17:40	11°♊16'45	46°10'06		16029 Aug 26 16:28	0°♅	
	16027 Jan 20 00:34	0°♄			16029 Sep 21 07:09	0°♊	
asc. node	16027 Feb 01 06:38	13°♄20'59			16029 Oct 18 15:07	0°♄	
	16027 Feb 16 00:54	0°♄		evening max el	16029 Oct 24 11:31	5°♄56'53	46°33'21
	16027 Mar 13 18:23	0°♄		desc. node	16029 Nov 07 15:49	19°♄14'15	
	16027 Apr 07 20:40	0°♄			16029 Nov 21 15:58	0°♄	
	16027 May 02 14:16	0°♄		greatest brilliancy	16029 Dec 03 00:38	5°♄54'28	-4.8m
desc. node	16027 May 24 04:39	26°♄27'19		retrograde	16029 Dec 13 13:52	7°♄57'33	
	16027 May 27 01:47	0°♅		evening set	16030 Jan 01 01:33	1°♄32'36	
	16027 Jun 20 08:18	0°♄		inferior conj	16030 Jan 03 22:02	29°♄47'15	-8°58'16
morning set	16027 Jul 01 20:15	14°♄17'19		minimum elong	16030 Jan 03 22:50	29°♄46'01	8°57'34
	16027 Jul 14 10:47	0°♅		min. Earth dist.	16030 Jan 03 12:18	0°♄02'20	0.28436 AU
	16027 Aug 07 10:39	0°♄			16030 Jan 03 13:48	30°♄♄	
max. Earth dist.	16027 Aug 08 17:46	1°♄37'24	1.71649 AU	morning rise	16030 Jan 06 20:13	27°♄59'35	
				direct	16030 Jan 25 02:02	21°♄45'34	
superior conj	16027 Aug 10 11:50	3°♄49'05	-1°12'05	greatest brilliancy	16030 Feb 04 02:08	23°♄35'12	-4.8m
minimum elong	16027 Aug 10 22:54	4°♄23'43	1°12'10		16030 Feb 16 14:52	0°♄	
	16027 Aug 31 09:27	0°♅		asc. node	16030 Feb 28 16:17	9°♄03'24	
asc. node	16027 Sep 13 20:49	16°♅52'37		morning max el	16030 Mar 15 04:35	22°♄14'49	45°44'21
evening rise	16027 Sep 19 12:34	23°♅57'26			16030 Mar 22 23:17	0°♄	
	16027 Sep 24 08:27	0°♅			16030 Apr 19 17:39	0°♄	
	16027 Oct 18 08:50	0°♊			16030 May 15 17:36	0°♄	
	16027 Nov 11 12:27	0°♄			16030 Jun 09 21:32	0°♅	
	16027 Dec 05 22:19	0°♄		desc. node	16030 Jun 20 16:39	13°♅04'17	
desc. node	16027 Dec 30 18:46	0°♄			16030 Jul 04 13:22	0°♄	
	16028 Jan 03 13:16	4°♄29'31			16030 Jul 28 21:10	0°♅	
	16028 Jan 25 07:27	0°♄			16030 Aug 21 23:58	0°♄	
	16028 Feb 20 22:43	0°♄		morning set	16030 Sep 14 01:47	28°♄50'01	
evening max el	16028 Mar 18 02:29	27°♄10'52	46°00'35		16030 Sep 15 00:10	0°♅	
	16028 Mar 21 00:59	0°♅			16030 Oct 08 23:24	0°♅	
asc. node	16028 Apr 25 10:17	25°♅47'57		asc. node	16030 Oct 11 10:32	3°♅05'03	
greatest brilliancy	16028 Apr 26 10:45	26°♅10'31	-4.8m				
retrograde	16028 May 06 09:22	28°♅00'50		superior conj	16030 Oct 23 13:14	18°♅14'38	0°29'11
evening set	16028 May 22 11:35	22°♅58'29		minimum elong	16030 Oct 23 06:20	17°♅53'02	0°29'22
inferior conj	16028 May 27 11:22	19°♅55'59	7°01'17	max. Earth dist.	16030 Oct 24 15:31	19°♅36'53	1.71738 AU
minimum elong	16028 May 27 00:53	20°♅12'26	6°58'30		16030 Nov 01 22:43	0°♊	
min. Earth dist.	16028 May 27 10:12	19°♅57'48	0.28192 AU		16030 Nov 25 23:11	0°♄	
morning rise	16028 May 31 14:00	17°♅23'40		evening rise	16030 Nov 30 18:24	5°♄58'56	
direct	16028 Jun 17 13:36	11°♅46'19			16030 Dec 20 02:27	0°♄	
greatest brilliancy	16028 Jun 27 17:26	13°♅41'50	-4.8m		16031 Jan 13 10:35	0°♄	
	16028 Jul 22 18:02	0°♄		desc. node	16031 Jan 31 02:18	21°♄33'07	
morning max el	16028 Aug 06 19:07	14°♄05'43	46°46'59		16031 Feb 07 01:29	0°♄	
desc. node	16028 Aug 15 11:54	23°♄02'29			16031 Mar 04 00:33	0°♄	
	16028 Aug 22 00:03	0°♅			16031 Mar 29 09:48	0°♅	
	16028 Sep 17 14:00	0°♄			16031 Apr 24 11:30	0°♄	
	16028 Oct 12 22:53	0°♅			16031 May 22 02:07	0°♅	
	16028 Nov 06 19:05	0°♅		asc. node	16031 May 23 20:56	1°♅50'03	

evening max el	16031 May 30 04:01	8°Ω09'26	46°17'18		16033 Dec 10 16:39	0°☿	
	16031 Jun 24 11:21	0°♍					
greatest brilliancy	16031 Jul 09 07:32	7°♍56'41	-4.8m	superior conj	16034 Jan 02 17:11	28°☿38'51	1°26'59
retrograde	16031 Jul 18 19:15	9°♍37'16		minimum elong	16034 Jan 02 17:13	28°☿38'59	1°27'43
evening set	16031 Aug 04 20:13	4°♍01'20			16034 Jan 03 19:18	0°≈	
inferior conj	16031 Aug 08 11:13	1°♍48'57	7°44'43	max. Earth dist.	16034 Jan 05 05:00	1°≈44'39	1.72539 AU
minimum elong	16031 Aug 08 21:17	1°♍33'24	7°42'34		16034 Jan 28 00:02	0°✠	
min. Earth dist.	16031 Aug 09 04:32	1°♍22'12	0.27374 AU	evening rise	16034 Feb 09 03:43	15°✠00'17	
	16031 Aug 11 10:22	30°♍Ω			16034 Feb 21 08:02	0°♑	
morning rise	16031 Aug 12 22:12	29°Ω07'08		desc. node	16034 Feb 27 15:57	7°♑46'29	
direct	16031 Aug 29 09:13	23°Ω52'16			16034 Mar 17 19:30	0°♒	
greatest brilliancy	16031 Sep 08 14:14	25°Ω50'18	-4.9m		16034 Apr 11 09:57	0°♓	
desc. node	16031 Sep 12 21:29	27°Ω41'51			16034 May 06 03:28	0°♈	
	16031 Sep 17 02:57	0°♍			16034 May 31 02:16	0°Ω	
morning max el	16031 Oct 18 19:18	26°♍30'23	46°50'58	asc. node	16034 Jun 20 08:29	23°Ω58'55	
	16031 Oct 22 06:23	0°♊			16034 Jun 25 12:10	0°♍	
	16031 Nov 19 00:43	0°♌			16034 Jul 21 22:30	0°♎	
	16031 Dec 15 02:00	0°♏		evening max el	16034 Aug 11 01:15	21°♎12'15	46°38'15
asc. node	16032 Jan 03 21:55	23°♏28'07			16034 Aug 20 03:58	0°♏	
	16032 Jan 09 08:57	0°☿		greatest brilliancy	16034 Sep 19 16:29	21°♏31'14	-4.9m
	16032 Feb 03 05:30	0°≈		retrograde	16034 Sep 30 06:09	23°♏36'41	
	16032 Feb 27 19:54	0°✠		desc. node	16034 Oct 10 07:27	21°♏34'49	
	16032 Mar 23 06:56	0°♑		evening set	16034 Oct 14 19:13	19°♏28'51	
morning set	16032 Apr 16 17:15	0°♒04'01		min. Earth dist.	16034 Oct 20 15:56	16°♏04'35	0.27091 AU
	16032 Apr 16 15:56	0°♒		inferior conj	16034 Oct 21 02:09	15°♏49'01	-2°46'21
desc. node	16032 Apr 24 17:36	9°♒57'05		minimum elong	16034 Oct 20 19:53	15°♏58'35	2°43'53
	16032 May 10 22:59	0°♓		morning rise	16034 Oct 26 20:49	12°♏25'42	
max. Earth dist.	16032 May 22 20:40	14°♓44'35	1.72563 AU	direct	16034 Nov 10 20:20	8°♏04'48	
				greatest brilliancy	16034 Nov 20 13:44	9°♏48'35	-4.8m
superior conj	16032 May 25 12:27	18°♓02'18	-1°06'18		16034 Dec 20 17:20	0°♏	
minimum elong	16032 May 25 01:31	17°♓28'23	1°06'41	morning max el	16034 Dec 30 07:10	8°♏56'35	46°11'48
	16032 Jun 04 03:43	0°♈			16035 Jan 19 18:07	0°☿	
	16032 Jun 28 06:20	0°Ω		asc. node	16035 Jan 31 08:25	12°☿42'23	
evening rise	16032 Jul 03 12:33	6°Ω33'16			16035 Feb 15 14:58	0°≈	
	16032 Jul 22 07:48	0°♍			16035 Mar 13 06:54	0°✠	
asc. node	16032 Aug 15 08:44	29°♍57'06			16035 Apr 07 08:23	0°♑	
	16032 Aug 15 09:40	0°♊			16035 May 02 01:33	0°♒	
	16032 Sep 08 13:38	0°♌		desc. node	16035 May 23 06:31	25°♒59'01	
	16032 Oct 02 22:08	0°♏			16035 May 26 12:51	0°♓	
	16032 Oct 27 15:34	0°☿			16035 Jun 19 19:15	0°♈	
	16032 Nov 22 02:33	0°≈		morning set	16035 Jun 29 08:29	11°♈51'59	
desc. node	16032 Dec 05 02:57	14°≈46'56			16035 Jul 13 21:41	0°Ω	
	16032 Dec 19 01:40	0°✠		max. Earth dist.	16035 Aug 06 04:32	29°Ω06'42	1.71668 AU
evening max el	16033 Jan 03 22:24	16°✠10'57	46°09'59		16035 Aug 06 21:34	0°♍	
	16033 Jan 19 05:08	0°♑					
greatest brilliancy	16033 Feb 12 02:56	14°♑54'04	-4.8m	superior conj	16035 Aug 07 23:51	1°♍22'18	-1°14'13
retrograde	16033 Feb 22 03:16	16°♑43'28		minimum elong	16035 Aug 08 10:33	1°♍55'47	1°14'22
evening set	16033 Mar 09 18:11	12°♑01'22			16035 Aug 30 20:23	0°♊	
inferior conj	16033 Mar 15 12:06	8°♑32'21	-3°03'36	asc. node	16035 Sep 12 22:38	16°♊24'02	
minimum elong	16033 Mar 15 18:42	8°♑21'58	3°01'43	evening rise	16035 Sep 17 01:01	21°♊31'54	
min. Earth dist.	16033 Mar 15 16:52	8°♑24'51	0.28498 AU		16035 Sep 23 19:27	0°♌	
morning rise	16033 Mar 21 19:09	4°♑45'11			16035 Oct 17 19:57	0°♏	
asc. node	16033 Mar 28 02:06	1°♑53'39			16035 Nov 10 23:46	0°☿	
direct	16033 Apr 05 18:31	0°♑22'57			16035 Dec 05 10:01	0°≈	
greatest brilliancy	16033 Apr 16 10:59	2°♑28'26	-4.8m		16035 Dec 30 07:07	0°✠	
	16033 May 23 15:33	0°♒		desc. node	16036 Jan 02 15:02	3°✠57'41	
morning max el	16033 May 25 02:39	1°♒25'39	46°04'30		16036 Jan 24 21:02	0°♑	
	16033 Jun 21 04:17	0°♓			16036 Feb 20 14:57	0°♒	
	16033 Jul 17 07:43	0°♈		evening max el	16036 Mar 15 17:52	24°♒57'29	46°00'32
desc. node	16033 Jul 18 03:42	0°♈58'49			16036 Mar 21 01:14	0°♓	
	16033 Aug 11 10:24	0°Ω		greatest brilliancy	16036 Apr 24 00:03	23°♓53'09	-4.8m
	16033 Sep 05 00:16	0°♍		asc. node	16036 Apr 24 12:13	24°♓03'43	
	16033 Sep 29 07:37	0°♊		retrograde	16036 May 04 00:35	25°♓44'57	
	16033 Oct 23 11:52	0°♌		evening set	16036 May 19 23:06	20°♓46'55	
asc. node	16033 Nov 07 23:54	19°♌16'47		inferior conj	16036 May 25 02:21	17°♓39'23	6°46'58
	16033 Nov 16 14:34	0°♏		minimum elong	16036 May 24 15:45	17°♓56'00	6°44'03
morning set	16033 Nov 25 22:59	11°♏38'49		min. Earth dist.	16036 May 25 00:25	17°♓42'23	0.28208 AU

morning rise	16036 May 29 08:16	15°II02'27		evening rise	16038 Nov 28 09:17	3°З41'50	
direct	16036 Jun 15 05:13	9°II29'35			16038 Dec 19 13:25	0°≈	
greatest brilliancy	16036 Jun 25 08:34	11°II25'10	-4.8m		16039 Jan 12 21:44	0°Х	
	16036 Jul 22 23:51	0°☾		desc. node	16039 Jan 30 04:08	21°Х04'02	
morning max el	16036 Aug 04 10:52	11°☾49'38	46°45'50		16039 Feb 06 13:00	0°У	
desc. node	16036 Aug 14 13:48	22°☾16'17			16039 Mar 03 12:41	0°З	
	16036 Aug 21 17:56	0°Ω			16039 Mar 28 23:00	0°II	
	16036 Sep 17 04:35	0°൬			16039 Apr 24 02:45	0°☾	
	16036 Oct 12 11:57	0°♎			16039 May 21 22:26	0°Ω	
	16036 Nov 06 07:15	0°♌		asc. node	16039 May 22 22:50	1°Ω02'03	
	16036 Nov 30 20:17	0°♊		evening max el	16039 May 27 17:35	5°Ω48'48	46°16'25
asc. node	16036 Dec 05 12:15	5°♊43'36			16039 Jun 25 13:59	0°൬	
	16036 Dec 25 05:28	0°З		greatest brilliancy	16039 Jul 06 21:30	5°൬35'40	-4.8m
	16037 Jan 18 12:23	0°≈		retrograde	16039 Jul 16 07:56	7°൬15'12	
morning set	16037 Feb 04 02:17	20°≈30'02		evening set	16039 Aug 02 13:00	1°൬34'21	
	16037 Feb 11 18:40	0°Х			16039 Aug 05 03:08	30°℞Ω	
	16037 Mar 08 01:32	0°У		inferior conj	16039 Aug 06 00:45	29°Ω26'32	7°56'32
				minimum elong	16039 Aug 06 10:20	29°Ω11'40	7°54'34
superior conj	16037 Mar 13 04:40	6°У19'53	0°33'21	min. Earth dist.	16039 Aug 06 18:06	28°Ω59'38	0.27414 AU
minimum elong	16037 Mar 13 11:44	6°У41'40	0°33'01	morning rise	16039 Aug 10 07:30	26°Ω50'22	
max. Earth dist.	16037 Mar 14 01:24	7°У23'51	1.73101 AU	direct	16039 Aug 26 22:46	21°Ω29'10	
desc. node	16037 Mar 27 05:53	23°У39'42		greatest brilliancy	16039 Sep 06 04:07	23°Ω27'02	-4.9m
	16037 Apr 01 09:17	0°З		desc. node	16039 Sep 11 23:33	26°Ω04'46	
evening rise	16037 Apr 20 05:53	23°З14'54			16039 Sep 18 11:05	0°൬	
	16037 Apr 25 17:19	0°II		morning max el	16039 Oct 16 08:14	24°൬05'47	46°51'37
	16037 May 20 01:01	0°☾			16039 Oct 22 03:35	0°♎	
	16037 Jun 13 08:44	0°Ω			16039 Nov 18 16:31	0°♌	
	16037 Jul 07 18:00	0°൬			16039 Dec 14 15:34	0°♊	
asc. node	16037 Jul 17 21:07	12°൬24'35		asc. node	16040 Jan 02 23:46	22°♊56'07	
	16037 Aug 01 07:34	0°♎			16040 Jan 08 21:18	0°З	
	16037 Aug 26 06:00	0°♌			16040 Feb 02 17:06	0°≈	
	16037 Sep 20 22:43	0°♊			16040 Feb 27 07:03	0°Х	
	16037 Oct 18 11:50	0°З			16040 Mar 22 17:50	0°У	
evening max el	16037 Oct 22 03:12	3°З40'40	46°34'04	morning set	16040 Apr 14 08:34	27°У50'04	
desc. node	16037 Nov 06 17:46	18°З11'43			16040 Apr 16 02:43	0°З	
	16037 Nov 23 00:19	0°≈		desc. node	16040 Apr 23 19:24	9°З29'28	
greatest brilliancy	16037 Nov 30 14:29	3°≈36'50	-4.8m		16040 May 10 09:44	0°II	
retrograde	16037 Dec 11 05:20	5°≈41'01		max. Earth dist.	16040 May 20 09:58	12°II23'48	1.72595 AU
	16037 Dec 28 11:16	30°℞З					
evening set	16037 Dec 29 15:48	29°З17'18		superior conj	16040 May 23 02:38	15°II44'13	-1°03'52
min. Earth dist.	16038 Jan 01 01:43	27°З48'17	0.28403 AU	minimum elong	16040 May 22 15:39	15°II10'10	1°04'12
inferior conj	16038 Jan 01 12:47	27°З31'08	-8°58'57		16040 Jun 03 14:29	0°☾	
minimum elong	16038 Jan 01 12:42	27°З31'16	8°58'14		16040 Jun 27 17:08	0°Ω	
morning rise	16038 Jan 04 09:43	25°З45'24		evening rise	16040 Jul 01 01:32	4°Ω10'24	
direct	16038 Jan 22 17:13	19°З30'15			16040 Jul 21 18:43	0°൬	
greatest brilliancy	16038 Feb 01 14:53	21°З18'08	-4.8m	asc. node	16040 Aug 14 10:39	29°൬28'28	
	16038 Feb 17 12:49	0°≈			16040 Aug 14 20:47	0°♎	
asc. node	16038 Feb 27 18:19	8°≈02'32			16040 Sep 08 01:05	0°♌	
morning max el	16038 Mar 12 19:42	20°≈00'32	45°44'29		16040 Oct 02 10:04	0°♊	
	16038 Mar 22 18:48	0°Х			16040 Oct 27 04:18	0°З	
	16038 Apr 19 08:27	0°У			16040 Nov 21 16:49	0°≈	
	16038 May 15 06:32	0°З		desc. node	16040 Dec 04 04:44	14°≈08'24	
	16038 Jun 09 09:32	0°II			16040 Dec 18 19:34	0°Х	
desc. node	16038 Jun 19 18:28	12°II34'03		evening max el	16041 Jan 01 12:14	13°Х53'58	46°10'44
	16038 Jul 04 00:53	0°☾			16041 Jan 19 14:08	0°У	
	16038 Jul 28 08:26	0°Ω		greatest brilliancy	16041 Feb 09 18:56	12°У42'13	-4.8m
	16038 Aug 21 11:04	0°൬		retrograde	16041 Feb 19 18:14	14°У31'14	
morning set	16038 Sep 11 14:30	26°൬25'16		evening set	16041 Mar 07 11:54	9°У45'48	
	16038 Sep 14 11:10	0°♎		inferior conj	16041 Mar 13 03:45	6°У20'04	-3°23'20
	16038 Oct 08 10:20	0°♌		minimum elong	16041 Mar 13 10:57	6°У08'44	3°21'16
asc. node	16038 Oct 10 12:28	2°♌36'52		min. Earth dist.	16041 Mar 13 09:07	6°У11'37	0.28510 AU
				morning rise	16041 Mar 19 09:51	2°У34'04	
superior conj	16038 Oct 21 02:27	15°♌51'40	0°25'38		16041 Mar 24 20:45	30°℞Х	
minimum elong	16038 Oct 20 20:17	15°♌32'22	0°25'49	asc. node	16041 Mar 27 04:05	29°Х13'34	
max. Earth dist.	16038 Oct 22 04:51	17°♌14'16	1.71717 AU	direct	16041 Apr 03 09:38	28°Х10'31	
	16038 Nov 01 09:37	0°♊			16041 Apr 13 08:53	0°У	
	16038 Nov 25 10:06	0°З		greatest brilliancy	16041 Apr 14 03:37	0°У17'00	-4.8m



morning max el	16041 May 22 17:09	29° $\Upsilon$ 09'40	46°03'15	desc. node	16044 Jan 01 16:54	3° $\text{X}$ 27'04	
	16041 May 23 13:37	0° $\text{B}$			16044 Jan 24 10:26	0° $\Upsilon$	
	16041 Jun 20 19:52	0° $\Pi$			16044 Feb 20 07:12	0° $\text{B}$	
	16041 Jul 16 21:01	0° $\text{E}$		evening max el	16044 Mar 13 09:53	22° $\text{B}$ 46'25	46°00'27
desc. node	16041 Jul 17 05:32	0° $\text{E}$ 25'07			16044 Mar 21 02:28	0° $\Pi$	
	16041 Aug 10 22:35	0° $\Omega$		greatest brilliancy	16044 Apr 21 13:43	21° $\Pi$ 37'04	-4.8m
	16041 Sep 04 11:50	0° $\text{M}$		asc. node	16044 Apr 23 14:06	22° $\Pi$ 16'16	
	16041 Sep 28 18:49	0° $\text{A}$		retrograde	16044 May 01 15:50	23° $\Pi$ 29'41	
	16041 Oct 22 22:48	0° $\text{M}$		evening set	16044 May 17 10:49	18° $\Pi$ 36'12	
asc. node	16041 Nov 07 01:37	18° $\text{M}$ 48'29		inferior conj	16044 May 22 17:18	15° $\Pi$ 23'42	6°32'05
	16041 Nov 16 01:20	0° $\text{X}$		minimum elong	16044 May 22 06:40	15° $\Pi$ 40'23	6°29'03
morning set	16041 Nov 23 13:25	9° $\text{X}$ 20'53		min. Earth dist.	16044 May 22 14:38	15° $\Pi$ 27'53	0.28218 AU
	16041 Dec 10 03:18	0° $\text{Z}$		morning rise	16044 May 27 02:28	12° $\Pi$ 42'05	
				direct	16044 Jun 12 20:55	7° $\Pi$ 14'06	
superior conj	16041 Dec 31 09:12	26° $\text{Z}$ 26'34	1°26'56	greatest brilliancy	16044 Jun 22 23:14	9° $\Pi$ 09'03	-4.8m
minimum elong	16041 Dec 31 08:25	26° $\text{Z}$ 24'09	1°27'39		16044 Jul 23 03:14	0° $\text{E}$	
max. Earth dist.	16042 Jan 02 18:05	29° $\text{Z}$ 23'20	1.72510 AU	morning max el	16044 Aug 02 02:09	9° $\text{E}$ 33'42	46°44'35
	16042 Jan 03 05:54	0° $\approx$		desc. node	16044 Aug 13 15:50	21° $\text{E}$ 32'27	
	16042 Jan 27 10:39	0° $\text{X}$			16044 Aug 21 10:57	0° $\Omega$	
evening rise	16042 Feb 06 19:22	12° $\text{X}$ 47'47			16044 Sep 16 18:34	0° $\text{M}$	
	16042 Feb 20 18:45	0° $\Upsilon$			16044 Oct 12 00:30	0° $\text{A}$	
desc. node	16042 Feb 26 17:50	7° $\Upsilon$ 19'18			16044 Nov 05 18:57	0° $\text{M}$	
	16042 Mar 17 06:25	0° $\text{B}$			16044 Nov 30 07:25	0° $\text{X}$	
	16042 Apr 10 21:11	0° $\Pi$		asc. node	16044 Dec 04 14:07	5° $\text{X}$ 15'23	
	16042 May 05 15:14	0° $\text{E}$			16044 Dec 24 16:13	0° $\text{Z}$	
	16042 May 30 14:54	0° $\Omega$			16045 Jan 17 22:55	0° $\approx$	
asc. node	16042 Jun 19 10:18	23° $\Omega$ 23'57		morning set	16045 Feb 01 19:09	18° $\approx$ 21'34	
	16042 Jun 25 02:20	0° $\text{M}$			16045 Feb 11 05:04	0° $\text{X}$	
	16042 Jul 21 15:54	0° $\text{A}$			16045 Mar 07 11:54	0° $\Upsilon$	
evening max el	16042 Aug 08 14:29	18° $\text{A}$ 49'15	46°38'00				
	16042 Aug 20 07:54	0° $\text{M}$		superior conj	16045 Mar 10 20:41	4° $\Upsilon$ 09'13	0°36'30
greatest brilliancy	16042 Sep 17 06:23	19° $\text{M}$ 08'39	-4.9m	minimum elong	16045 Mar 11 04:17	4° $\Upsilon$ 32'38	0°36'11
retrograde	16042 Sep 27 19:46	21° $\text{M}$ 14'10		max. Earth dist.	16045 Mar 11 21:29	5° $\Upsilon$ 25'42	1.73099 AU
desc. node	16042 Oct 09 09:19	18° $\text{M}$ 33'23		desc. node	16045 Mar 26 07:39	23° $\Upsilon$ 13'08	
evening set	16042 Oct 12 07:38	17° $\text{M}$ 07'06			16045 Mar 31 19:42	0° $\text{B}$	
inferior conj	16042 Oct 18 15:12	13° $\text{M}$ 26'51	-2°23'25	evening rise	16045 Apr 17 21:19	21° $\text{B}$ 02'08	
minimum elong	16042 Oct 18 09:43	13° $\text{M}$ 35'11	2°21'12		16045 Apr 25 03:51	0° $\Pi$	
min. Earth dist.	16042 Oct 18 06:04	13° $\text{M}$ 40'43	0.27063 AU		16045 May 19 11:46	0° $\text{E}$	
morning rise	16042 Oct 24 12:03	10° $\text{M}$ 00'57			16045 Jun 12 19:45	0° $\Omega$	
direct	16042 Nov 08 09:08	5° $\text{M}$ 42'32			16045 Jul 07 05:27	0° $\text{M}$	
greatest brilliancy	16042 Nov 18 03:28	7° $\text{M}$ 27'37	-4.8m	asc. node	16045 Jul 16 23:04	11° $\text{M}$ 54'50	
	16042 Dec 20 20:32	0° $\text{X}$			16045 Jul 31 19:40	0° $\text{A}$	
morning max el	16042 Dec 27 21:33	6° $\text{X}$ 39'25	46°13'16		16045 Aug 25 19:11	0° $\text{M}$	
	16043 Jan 19 11:02	0° $\text{Z}$			16045 Sep 20 14:03	0° $\text{X}$	
asc. node	16043 Jan 30 10:24	12° $\text{Z}$ 05'15			16045 Oct 18 08:45	0° $\text{Z}$	
	16043 Feb 15 04:44	0° $\approx$		evening max el	16045 Oct 19 18:36	1° $\text{Z}$ 24'54	46°34'41
	16043 Mar 12 19:12	0° $\text{X}$		desc. node	16045 Nov 05 19:38	17° $\text{Z}$ 08'51	
	16043 Apr 06 19:54	0° $\Upsilon$			16045 Nov 24 23:24	0° $\approx$	
	16043 May 01 12:36	0° $\text{B}$		greatest brilliancy	16045 Nov 28 05:00	1° $\approx$ 21'20	-4.8m
desc. node	16043 May 22 08:15	25° $\text{B}$ 31'05		retrograde	16045 Dec 08 20:26	3° $\approx$ 25'47	
	16043 May 25 23:38	0° $\Pi$			16045 Dec 22 00:21	30° $\text{R}$ $\text{Z}$	
	16043 Jun 19 05:54	0° $\text{E}$		evening set	16045 Dec 27 05:40	27° $\text{Z}$ 04'17	
morning set	16043 Jun 26 20:49	9° $\text{E}$ 28'02		min. Earth dist.	16045 Dec 29 15:25	25° $\text{Z}$ 35'27	0.28366 AU
	16043 Jul 13 08:18	0° $\Omega$		inferior conj	16045 Dec 30 03:34	25° $\text{Z}$ 16'34	-8°58'47
max. Earth dist.	16043 Aug 03 16:36	26° $\Omega$ 41'01	1.71687 AU	minimum elong	16045 Dec 30 02:36	25° $\text{Z}$ 18'05	8°58'03
				morning rise	16046 Jan 01 23:41	23° $\text{Z}$ 32'01	
superior conj	16043 Aug 05 12:03	28° $\Omega$ 57'00	-1°16'13	direct	16046 Jan 20 08:09	17° $\text{Z}$ 16'40	
minimum elong	16043 Aug 05 22:18	29° $\Omega$ 29'06	1°16'25	greatest brilliancy	16046 Jan 30 03:45	19° $\text{Z}$ 02'40	-4.8m
	16043 Aug 06 08:10	0° $\text{M}$			16046 Feb 18 04:14	0° $\approx$	
	16043 Aug 30 07:01	0° $\text{A}$		asc. node	16046 Feb 26 20:17	7° $\approx$ 04'34	
asc. node	16043 Sep 12 00:31	15° $\text{A}$ 56'36		morning max el	16046 Mar 10 09:48	17° $\approx$ 45'10	45°44'33
evening rise	16043 Sep 14 13:42	19° $\text{A}$ 08'06			16046 Mar 22 13:12	0° $\text{X}$	
	16043 Sep 23 06:07	0° $\text{M}$			16046 Apr 18 22:37	0° $\Upsilon$	
	16043 Oct 17 06:42	0° $\text{X}$			16046 May 14 19:00	0° $\text{B}$	
	16043 Nov 10 10:43	0° $\text{Z}$			16046 Jun 08 21:09	0° $\Pi$	
	16043 Dec 04 21:23	0° $\approx$		desc. node	16046 Jun 18 20:22	12° $\Pi$ 05'12	
	16043 Dec 29 19:11	0° $\text{X}$			16046 Jul 03 12:02	0° $\text{E}$	

	16046 Jul 27 19:18	0°♌		greatest brilliancy	16049 Feb 07 10:24	10°♑30'27	-4.8m
	16046 Aug 20 21:46	0°♍		retrograde	16049 Feb 17 09:40	12°♑19'52	
morning set	16046 Sep 09 03:04	24°♍01'24		evening set	16049 Mar 05 05:44	7°♑30'39	
	16046 Sep 13 21:44	0°♎		inferior conj	16049 Mar 10 19:22	4°♑08'23	-3°42'49
	16046 Oct 07 20:51	0°♏		minimum elong	16049 Mar 11 03:09	3°♑56'10	3°40'36
asc. node	16046 Oct 09 14:09	2°♏09'17		min. Earth dist.	16049 Mar 11 01:04	3°♑59'27	0.28523 AU
				morning rise	16049 Mar 17 00:23	0°♑24'07	
superior conj	16046 Oct 18 15:39	13°♏29'56	0°22'02		16049 Mar 17 18:09	30°♒♎	
minimum elong	16046 Oct 18 10:16	13°♏13'04	0°22'14	asc. node	16049 Mar 26 05:53	26°♒39'13	
max. Earth dist.	16046 Oct 19 16:14	14°♏46'49	1.71697 AU	direct	16049 Apr 01 00:55	25°♒58'40	
	16046 Oct 31 20:07	0°♐		greatest brilliancy	16049 Apr 11 20:00	28°♒06'11	-4.8m
	16046 Nov 24 20:36	0°♑			16049 Apr 16 04:16	0°♑	
evening rise	16046 Nov 26 00:10	1°♑25'55		morning max el	16049 May 20 08:23	26°♑56'16	46°02'03
	16046 Dec 18 24:00	0°♒			16049 May 23 10:33	0°♒	
	16047 Jan 12 08:30	0°♓			16049 Jun 20 11:00	0°♓	
desc. node	16047 Jan 29 06:03	20°♓36'27		desc. node	16049 Jul 16 07:33	29°♓52'35	
	16047 Feb 06 00:08	0°♑			16049 Jul 16 10:04	0°♓	
	16047 Mar 03 00:28	0°♒			16049 Aug 10 10:38	0°♌	
	16047 Mar 28 11:55	0°♓			16049 Sep 03 23:20	0°♍	
	16047 Apr 23 17:53	0°♓			16049 Sep 28 05:58	0°♎	
	16047 May 21 19:11	0°♌			16049 Oct 22 09:42	0°♏	
asc. node	16047 May 22 00:40	0°♌13'48		asc. node	16049 Nov 06 03:28	18°♏20'53	
evening max el	16047 May 25 06:10	3°♌26'26	46°15'26		16049 Nov 15 12:01	0°♐	
	16047 Jun 27 03:45	0°♍		morning set	16049 Nov 21 03:35	7°♐02'20	
greatest brilliancy	16047 Jul 04 11:31	3°♍14'59	-4.8m		16049 Dec 09 13:50	0°♑	
retrograde	16047 Jul 13 20:24	4°♍53'36					
	16047 Jul 29 17:34	30°♒♌		superior conj	16049 Dec 29 01:03	24°♑14'03	1°26'44
evening set	16047 Jul 31 05:34	29°♌07'38		minimum elong	16049 Dec 28 23:26	24°♑09'03	1°27'27
inferior conj	16047 Aug 03 14:08	27°♌04'31	8°07'36	max. Earth dist.	16049 Dec 31 08:42	27°♑07'00	1.72482 AU
minimum elong	16047 Aug 03 23:12	26°♌50'28	8°05'48		16050 Jan 02 16:22	0°♒	
min. Earth dist.	16047 Aug 04 07:41	26°♌37'17	0.27452 AU		16050 Jan 26 21:10	0°♓	
morning rise	16047 Aug 07 16:38	24°♌34'18		evening rise	16050 Feb 04 11:06	10°♓35'48	
direct	16047 Aug 24 11:48	19°♌06'18			16050 Feb 20 05:24	0°♑	
greatest brilliancy	16047 Sep 03 18:12	21°♌04'43	-4.9m	desc. node	16050 Feb 25 19:36	6°♑51'57	
desc. node	16047 Sep 11 01:25	24°♌31'36			16050 Mar 16 17:16	0°♒	
	16047 Sep 19 09:49	0°♍			16050 Apr 10 08:22	0°♓	
morning max el	16047 Oct 13 21:01	21°♍41'40	46°52'23		16050 May 05 02:57	0°♓	
	16047 Oct 21 23:42	0°♎			16050 May 30 03:32	0°♌	
	16047 Nov 18 07:40	0°♏		asc. node	16050 Jun 18 12:17	22°♌49'26	
	16047 Dec 14 04:38	0°♐			16050 Jun 24 16:37	0°♍	
asc. node	16048 Jan 02 01:42	22°♐25'36			16050 Jul 21 09:43	0°♎	
	16048 Jan 08 09:14	0°♑		evening max el	16050 Aug 06 04:25	16°♎27'51	46°37'30
	16048 Feb 02 04:20	0°♒			16050 Aug 20 14:00	0°♏	
	16048 Feb 26 17:51	0°♓		greatest brilliancy	16050 Sep 14 19:46	16°♏44'32	-4.9m
	16048 Mar 22 04:23	0°♑		retrograde	16050 Sep 25 09:30	18°♏50'09	
morning set	16048 Apr 12 00:08	25°♑37'55		desc. node	16050 Oct 08 11:13	15°♏25'50	
	16048 Apr 15 13:10	0°♒		evening set	16050 Oct 09 20:03	14°♏43'45	
desc. node	16048 Apr 22 21:08	9°♒02'42		inferior conj	16050 Oct 16 03:54	11°♏03'09	-1°59'48
	16048 May 09 20:10	0°♓		minimum elong	16050 Oct 15 23:17	11°♏10'10	1°57'53
max. Earth dist.	16048 May 18 01:53	10°♓12'06	1.72633 AU	min. Earth dist.	16050 Oct 15 19:42	11°♏15'36	0.27036 AU
				morning rise	16050 Oct 22 02:50	7°♏34'54	
superior conj	16048 May 20 16:52	13°♓27'11	-1°01'20	direct	16050 Nov 05 22:07	3°♏18'57	
minimum elong	16048 May 20 05:53	12°♓53'10	1°01'38	greatest brilliancy	16050 Nov 15 16:23	5°♏04'35	-4.8m
	16048 Jun 03 00:58	0°♓			16050 Dec 20 22:23	0°♐	
	16048 Jun 27 03:44	0°♌		morning max el	16050 Dec 25 11:58	4°♐21'53	46°14'48
evening rise	16048 Jun 28 14:25	1°♌48'00			16051 Jan 19 03:41	0°♑	
	16048 Jul 21 05:29	0°♍		asc. node	16051 Jan 29 12:23	11°♑28'19	
asc. node	16048 Aug 13 12:26	28°♍59'54			16051 Feb 14 18:23	0°♒	
	16048 Aug 14 07:46	0°♎			16051 Mar 12 07:28	0°♓	
	16048 Sep 07 12:22	0°♏			16051 Apr 06 07:25	0°♑	
	16048 Oct 01 21:48	0°♐			16051 Apr 30 23:42	0°♒	
	16048 Oct 26 16:51	0°♑		desc. node	16051 May 21 10:10	25°♒03'36	
	16048 Nov 21 06:59	0°♒			16051 May 25 10:28	0°♓	
desc. node	16048 Dec 03 06:40	13°♒30'39			16051 Jun 18 16:36	0°♓	
	16048 Dec 18 13:40	0°♓		morning set	16051 Jun 24 09:34	7°♓05'17	
evening max el	16048 Dec 30 02:10	11°♓37'58	46°11'33		16051 Jul 12 18:58	0°♌	
	16049 Jan 20 01:58	0°♑		max. Earth dist.	16051 Aug 01 05:13	24°♌16'51	1.71708 AU

superior conj	16051 Aug 03 00:28	26° $\Omega$ 32'12	-1°18'03	direct	16054 Jan 17 22:37	15° $\mathcal{Z}$ 01'46	
minimum elong	16051 Aug 03 10:10	27° $\Omega$ 02'34	1°18'18	greatest brilliancy	16054 Jan 27 17:20	16° $\mathcal{Z}$ 46'35	-4.8m
	16051 Aug 05 18:51	0° $\mathcal{M}$			16054 Feb 18 16:13	0° $\approx$	
	16051 Aug 29 17:46	0° $\mathcal{L}$		asc. node	16054 Feb 25 22:06	6° $\approx$ 06'22	
asc. node	16051 Sep 11 02:14	15° $\mathcal{L}$ 28'16		morning max el	16054 Mar 07 23:11	15° $\approx$ 26'45	45°44'48
evening rise	16051 Sep 12 02:15	16° $\mathcal{L}$ 43'26			16054 Mar 22 07:33	0° $\mathcal{H}$	
	16051 Sep 22 16:56	0° $\mathcal{M}$			16054 Apr 18 12:59	0° $\mathcal{Y}$	
	16051 Oct 16 17:39	0° $\mathcal{Z}$			16054 May 14 07:43	0° $\mathcal{B}$	
	16051 Nov 09 21:55	0° $\mathcal{Z}$			16054 Jun 08 09:03	0° $\mathcal{I}$	
	16051 Dec 04 08:59	0° $\approx$		desc. node	16054 Jun 17 22:15	11° $\mathcal{I}$ 35'23	
	16051 Dec 29 07:30	0° $\mathcal{H}$			16054 Jul 02 23:30	0° $\mathcal{G}$	
desc. node	16051 Dec 31 18:50	2° $\mathcal{H}$ 55'57			16054 Jul 27 06:30	0° $\Omega$	
	16052 Jan 24 00:08	0° $\mathcal{Y}$			16054 Aug 20 08:46	0° $\mathcal{M}$	
	16052 Feb 19 23:58	0° $\mathcal{B}$		morning set	16054 Sep 06 15:55	21° $\mathcal{M}$ 37'18	
evening max el	16052 Mar 11 01:53	20° $\mathcal{B}$ 34'50	46°00'20		16054 Sep 13 08:37	0° $\mathcal{L}$	
	16052 Mar 21 05:21	0° $\mathcal{I}$			16054 Oct 07 07:40	0° $\mathcal{M}$	
greatest brilliancy	16052 Apr 19 04:09	19° $\mathcal{I}$ 21'33	-4.8m	asc. node	16054 Oct 08 16:00	1° $\mathcal{M}$ 41'15	
asc. node	16052 Apr 22 16:05	20° $\mathcal{I}$ 24'30					
retrograde	16052 Apr 29 06:46	21° $\mathcal{I}$ 14'05		superior conj	16054 Oct 16 05:12	11° $\mathcal{M}$ 08'20	0°18'25
evening set	16052 May 14 22:51	16° $\mathcal{I}$ 25'10		minimum elong	16054 Oct 16 00:37	10° $\mathcal{M}$ 54'02	0°18'38
inferior conj	16052 May 20 08:21	13° $\mathcal{I}$ 07'57	6°16'32	max. Earth dist.	16054 Oct 17 02:01	12° $\mathcal{M}$ 13'32	1.71676 AU
minimum elong	16052 May 19 21:47	13° $\mathcal{I}$ 24'34	6°13'28		16054 Oct 31 06:54	0° $\mathcal{Z}$	
min. Earth dist.	16052 May 20 05:18	13° $\mathcal{I}$ 12'46	0.28225 AU	evening rise	16054 Nov 23 15:20	29° $\mathcal{Z}$ 09'53	
morning rise	16052 May 24 20:41	10° $\mathcal{I}$ 21'29			16054 Nov 24 07:25	0° $\mathcal{Z}$	
direct	16052 Jun 10 12:30	4° $\mathcal{I}$ 58'34			16054 Dec 18 10:55	0° $\approx$	
greatest brilliancy	16052 Jun 20 14:07	6° $\mathcal{I}$ 52'48	-4.8m		16055 Jan 11 19:38	0° $\mathcal{H}$	
	16052 Jul 23 05:13	0° $\mathcal{G}$		desc. node	16055 Jan 28 07:47	20° $\mathcal{H}$ 07'06	
morning max el	16052 Jul 30 16:33	7° $\mathcal{G}$ 15'13	46°43'25		16055 Feb 05 11:41	0° $\mathcal{Y}$	
desc. node	16052 Aug 12 17:40	20° $\mathcal{G}$ 48'16			16055 Mar 02 12:42	0° $\mathcal{B}$	
	16052 Aug 21 03:46	0° $\Omega$			16055 Mar 28 01:21	0° $\mathcal{I}$	
	16052 Sep 16 08:34	0° $\mathcal{M}$			16055 Apr 23 09:38	0° $\mathcal{G}$	
	16052 Oct 11 13:10	0° $\mathcal{L}$		asc. node	16055 May 21 02:41	29° $\mathcal{G}$ 24'14	
	16052 Nov 05 06:51	0° $\mathcal{M}$			16055 May 21 17:07	0° $\Omega$	
	16052 Nov 29 18:49	0° $\mathcal{Z}$		evening max el	16055 May 22 18:28	1° $\Omega$ 02'33	46°14'35
asc. node	16052 Dec 03 16:03	4° $\mathcal{Z}$ 46'29			16055 Jun 29 16:16	0° $\mathcal{M}$	
	16052 Dec 24 03:17	0° $\mathcal{Z}$		greatest brilliancy	16055 Jul 02 01:18	0° $\mathcal{M}$ 53'20	-4.8m
	16053 Jan 17 09:44	0° $\approx$		retrograde	16055 Jul 11 09:25	2° $\mathcal{M}$ 31'42	
morning set	16053 Jan 30 11:47	16° $\approx$ 11'28			16055 Jul 22 14:45	30° $\mathcal{R}\Omega$	
	16053 Feb 10 15:45	0° $\mathcal{H}$		evening set	16055 Jul 28 22:07	26° $\Omega$ 40'27	
	16053 Mar 06 22:32	0° $\mathcal{Y}$		inferior conj	16055 Aug 01 03:41	24° $\Omega$ 41'53	8°17'39
				minimum elong	16055 Aug 01 12:10	24° $\Omega$ 28'43	8°16'00
superior conj	16053 Mar 08 12:43	1° $\mathcal{Y}$ 57'47	0°39'36	min. Earth dist.	16055 Aug 01 21:19	24° $\Omega$ 14'32	0.27493 AU
minimum elong	16053 Mar 08 20:47	2° $\mathcal{Y}$ 22'40	0°39'16	morning rise	16055 Aug 05 02:01	22° $\Omega$ 17'46	
max. Earth dist.	16053 Mar 09 16:18	3° $\mathcal{Y}$ 22'53	1.73092 AU	direct	16055 Aug 22 01:01	16° $\Omega$ 42'37	
desc. node	16053 Mar 25 09:23	22° $\mathcal{Y}$ 45'35		greatest brilliancy	16055 Sep 01 08:28	18° $\Omega$ 41'54	-4.9m
	16053 Mar 31 06:22	0° $\mathcal{B}$		desc. node	16055 Sep 10 03:19	23° $\Omega$ 00'53	
evening rise	16053 Apr 15 12:51	18° $\mathcal{B}$ 48'53			16055 Sep 20 03:06	0° $\mathcal{M}$	
	16053 Apr 24 14:40	0° $\mathcal{I}$		morning max el	16055 Oct 11 10:54	19° $\mathcal{M}$ 19'15	46°53'16
	16053 May 18 22:48	0° $\mathcal{G}$			16055 Oct 21 19:33	0° $\mathcal{L}$	
	16053 Jun 12 07:06	0° $\Omega$			16055 Nov 17 22:56	0° $\mathcal{M}$	
	16053 Jul 06 17:12	0° $\mathcal{M}$			16055 Dec 13 17:54	0° $\mathcal{Z}$	
asc. node	16053 Jul 16 00:53	11° $\mathcal{M}$ 23'49		asc. node	16056 Jan 01 03:34	21° $\mathcal{Z}$ 54'09	
	16053 Jul 31 08:04	0° $\mathcal{L}$			16056 Jan 07 21:23	0° $\mathcal{Z}$	
	16053 Aug 25 08:44	0° $\mathcal{M}$			16056 Feb 01 15:51	0° $\approx$	
	16053 Sep 20 05:53	0° $\mathcal{Z}$			16056 Feb 26 04:59	0° $\mathcal{H}$	
evening max el	16053 Oct 17 09:02	29° $\mathcal{Z}$ 05'47	46°35'06		16056 Mar 21 15:19	0° $\mathcal{Y}$	
	16053 Oct 18 06:48	0° $\mathcal{Z}$		morning set	16056 Apr 09 15:48	23° $\mathcal{Y}$ 24'51	
desc. node	16053 Nov 04 21:35	16° $\mathcal{Z}$ 03'42			16056 Apr 14 24:00	0° $\mathcal{B}$	
greatest brilliancy	16053 Nov 25 20:04	29° $\mathcal{Z}$ 05'14	-4.8m	desc. node	16056 Apr 21 23:04	8° $\mathcal{B}$ 35'21	
	16053 Nov 28 14:29	0° $\approx$			16056 May 09 06:58	0° $\mathcal{I}$	
retrograde	16053 Dec 06 11:04	1° $\approx$ 09'22		max. Earth dist.	16056 May 15 19:47	8° $\mathcal{I}$ 05'25	1.72667 AU
	16053 Dec 14 01:20	30° $\mathcal{R}\mathcal{Z}$					
evening set	16053 Dec 24 19:02	24° $\mathcal{Z}$ 50'53		superior conj	16056 May 18 07:04	11° $\mathcal{I}$ 09'03	-0°58'41
min. Earth dist.	16053 Dec 27 05:33	23° $\mathcal{Z}$ 20'50	0.28330 AU	minimum elong	16056 May 17 20:11	10° $\mathcal{I}$ 35'19	0°58'58
inferior conj	16053 Dec 27 18:23	23° $\mathcal{Z}$ 00'54	-8°57'39		16056 Jun 02 11:47	0° $\mathcal{G}$	
minimum elong	16053 Dec 27 16:32	23° $\mathcal{Z}$ 03'47	8°56'53	evening rise	16056 Jun 26 03:30	29° $\mathcal{G}$ 25'18	
morning rise	16053 Dec 30 14:10	21° $\mathcal{Z}$ 16'42			16056 Jun 26 14:39	0° $\Omega$	

	16056 Jul 20 16:34	0°♍		asc. node	16059 Jan 28 14:10	10°♊50'41	
asc. node	16056 Aug 12 14:13	28°♍30'14			16059 Feb 14 08:04	0°♊	
	16056 Aug 13 19:06	0°♊			16059 Mar 11 19:47	0°♋	
	16056 Sep 07 00:01	0°♌			16059 Apr 05 19:00	0°♌	
	16056 Oct 01 09:57	0°♍			16059 Apr 30 10:52	0°♎	
	16056 Oct 26 05:49	0°♎		desc. node	16059 May 20 12:02	24°♎35'35	
	16056 Nov 20 21:38	0°♏			16059 May 24 21:25	0°♏	
desc. node	16056 Dec 02 08:38	12°♏51'53			16059 Jun 18 03:28	0°♐	
	16056 Dec 18 08:32	0°♋		morning set	16059 Jun 21 22:13	4°♐41'46	
evening max el	16056 Dec 27 16:52	9°♋23'08	46°12'25		16059 Jul 12 05:47	0°♑	
	16057 Jan 20 18:19	0°♌		max. Earth dist.	16059 Jul 29 15:19	21°♑44'27	1.71727 AU
greatest brilliancy	16057 Feb 05 01:20	8°♌17'35	-4.8m				
retrograde	16057 Feb 15 01:42	10°♌07'53		superior conj	16059 Jul 31 12:43	24°♑06'27	-1°19'45
evening set	16057 Mar 02 23:45	5°♌14'44		minimum elong	16059 Jul 31 21:47	24°♑34'50	1°20'03
inferior conj	16057 Mar 08 11:02	1°♌55'56	-4°01'52		16059 Aug 05 05:41	0°♍	
minimum elong	16057 Mar 08 19:22	1°♌42'55	3°59'30		16059 Aug 29 04:37	0°♊	
min. Earth dist.	16057 Mar 08 16:43	1°♌47'04	0.28539 AU	evening rise	16059 Sep 09 14:29	14°♊17'25	
	16057 Mar 11 13:53	30°♋		asc. node	16059 Sep 10 04:05	14°♊59'59	
morning rise	16057 Mar 14 14:50	28°♋13'48			16059 Sep 22 03:51	0°♌	
asc. node	16057 Mar 25 07:55	24°♋09'10			16059 Oct 16 04:43	0°♍	
direct	16057 Mar 29 16:42	23°♋46'07			16059 Nov 09 09:15	0°♎	
greatest brilliancy	16057 Apr 09 11:57	25°♋54'07	-4.8m		16059 Dec 03 20:44	0°♏	
	16057 Apr 17 21:23	0°♌			16059 Dec 28 20:00	0°♋	
morning max el	16057 May 18 00:38	24°♌44'26	46°00'49	desc. node	16059 Dec 30 20:37	2°♋23'56	
	16057 May 23 07:09	0°♎			16060 Jan 23 14:03	0°♌	
	16057 Jun 20 02:16	0°♏			16060 Feb 19 17:07	0°♎	
desc. node	16057 Jul 15 09:23	29°♏18'48		evening max el	16060 Mar 08 17:18	18°♎21'50	46°00'17
	16057 Jul 15 23:18	0°♐			16060 Mar 21 09:56	0°♏	
	16057 Aug 09 22:54	0°♑		greatest brilliancy	16060 Apr 16 19:08	17°♏06'56	-4.8m
	16057 Sep 03 11:04	0°♍		asc. node	16060 Apr 21 18:01	18°♏28'45	
	16057 Sep 27 17:21	0°♊		retrograde	16060 Apr 26 21:15	18°♏58'55	
	16057 Oct 21 20:50	0°♌		evening set	16060 May 12 11:07	14°♏14'18	
asc. node	16057 Nov 05 05:23	17°♌52'32		inferior conj	16060 May 17 23:31	10°♏52'45	6°00'28
	16057 Nov 14 22:57	0°♍		minimum elong	16060 May 17 13:03	11°♏09'15	5°57'21
morning set	16057 Nov 18 17:48	4°♍43'03		min. Earth dist.	16060 May 17 20:24	10°♏57'40	0.28233 AU
	16057 Dec 09 00:38	0°♎		morning rise	16060 May 22 14:55	8°♏01'29	
				direct	16060 Jun 08 03:45	2°♏43'29	
superior conj	16057 Dec 26 17:00	22°♎01'00	1°26'23	greatest brilliancy	16060 Jun 18 05:40	4°♏37'29	-4.8m
minimum elong	16057 Dec 26 14:35	21°♎53'29	1°27'07		16060 Jul 23 05:54	0°♐	
max. Earth dist.	16057 Dec 29 01:07	24°♎55'31	1.72450 AU	morning max el	16060 Jul 28 06:16	4°♐54'54	46°42'05
	16058 Jan 02 03:06	0°♏		desc. node	16060 Aug 11 19:36	20°♐04'49	
	16058 Jan 26 07:54	0°♋			16060 Aug 20 20:21	0°♑	
evening rise	16058 Feb 02 03:05	8°♋23'53			16060 Sep 15 22:28	0°♍	
	16058 Feb 19 16:15	0°♌			16060 Oct 11 01:46	0°♊	
desc. node	16058 Feb 24 21:25	6°♌24'07			16060 Nov 04 18:40	0°♌	
	16058 Mar 16 04:21	0°♎			16060 Nov 29 06:08	0°♍	
	16058 Apr 09 19:49	0°♏		asc. node	16060 Dec 02 17:50	4°♍17'22	
	16058 May 04 14:59	0°♐			16060 Dec 23 14:15	0°♎	
	16058 May 29 16:31	0°♑			16061 Jan 16 20:30	0°♏	
asc. node	16058 Jun 17 14:07	22°♑13'31		morning set	16061 Jan 28 04:19	14°♏01'07	
	16058 Jun 24 07:19	0°♍			16061 Feb 10 02:23	0°♋	
	16058 Jul 21 04:14	0°♊					
evening max el	16058 Aug 03 19:03	14°♊07'46	46°37'05	superior conj	16061 Mar 06 04:53	29°♋46'59	0°42'36
	16058 Aug 20 22:46	0°♌		minimum elong	16061 Mar 06 13:23	0°♌13'13	0°42'18
greatest brilliancy	16058 Sep 12 09:24	14°♌20'28	-4.9m		16061 Mar 06 09:06	0°♌	
retrograde	16058 Sep 22 23:17	16°♌25'38		max. Earth dist.	16061 Mar 07 09:12	1°♌14'20	1.73081 AU
evening set	16058 Oct 07 08:50	12°♌19'53		desc. node	16061 Mar 24 11:20	22°♌18'57	
desc. node	16058 Oct 07 13:15	12°♌14'00			16061 Mar 30 16:58	0°♎	
inferior conj	16058 Oct 13 16:40	8°♌39'01	-1°36'00	evening rise	16061 Apr 13 04:33	16°♎36'33	
minimum elong	16058 Oct 13 12:56	8°♌44'41	1°34'24		16061 Apr 24 01:22	0°♏	
min. Earth dist.	16058 Oct 13 09:20	8°♌50'09	0.27012 AU		16061 May 18 09:42	0°♐	
morning rise	16058 Oct 19 17:27	5°♌08'31			16061 Jun 11 18:18	0°♑	
direct	16058 Nov 03 11:23	0°♌55'04			16061 Jul 06 04:52	0°♍	
greatest brilliancy	16058 Nov 13 05:03	2°♌40'34	-4.8m	asc. node	16061 Jul 15 02:40	10°♌52'54	
	16058 Dec 20 23:10	0°♍			16061 Jul 30 20:27	0°♊	
morning max el	16058 Dec 23 02:14	2°♍03'21	46°16'19		16061 Aug 24 22:21	0°♌	
	16059 Jan 18 20:13	0°♎			16061 Sep 19 21:57	0°♍	

evening max el	16061 Oct 14 22:32	26° $\text{♁}$ 44'22	46°35'38		16064 Mar 21 01:54	0° $\text{♁}$	
	16061 Oct 18 05:44	0° $\text{♁}$		morning set	16064 Apr 07 07:21	21° $\text{♁}$ 12'34	
desc. node	16061 Nov 03 23:32	14° $\text{♁}$ 56'57			16064 Apr 14 10:29	0° $\text{♁}$	
greatest brilliancy	16061 Nov 23 11:06	26° $\text{♁}$ 48'55	-4.8m	desc. node	16064 Apr 21 00:51	8° $\text{♁}$ 08'33	
retrograde	16061 Dec 04 01:23	28° $\text{♁}$ 52'55			16064 May 08 17:25	0° $\text{♁}$	
evening set	16061 Dec 22 07:45	22° $\text{♁}$ 37'59		max. Earth dist.	16064 May 13 14:15	6° $\text{♁}$ 01'32	1.72696 AU
inferior conj	16061 Dec 25 09:02	20° $\text{♁}$ 45'10	-8°55'39				
minimum elong	16061 Dec 25 06:16	20° $\text{♁}$ 49'27	8°54'49	superior conj	16064 May 15 21:14	8° $\text{♁}$ 51'48	-0°55'56
min. Earth dist.	16061 Dec 24 19:43	21° $\text{♁}$ 05'51	0.28294 AU	minimum elong	16064 May 15 10:31	8° $\text{♁}$ 18'37	0°56'12
morning rise	16061 Dec 28 04:56	19° $\text{♁}$ 00'44			16064 Jun 01 22:16	0° $\text{♁}$	
direct	16062 Jan 15 12:27	12° $\text{♁}$ 46'36		evening rise	16064 Jun 23 16:46	27° $\text{♁}$ 04'21	
greatest brilliancy	16062 Jan 25 07:16	14° $\text{♁}$ 31'01	-4.8m		16064 Jun 26 01:12	0° $\text{♁}$	
	16062 Feb 19 00:54	0° $\text{♁}$			16064 Jul 20 03:16	0° $\text{♁}$	
asc. node	16062 Feb 25 00:09	5° $\text{♁}$ 10'22		asc. node	16064 Aug 11 16:08	28° $\text{♁}$ 02'21	
morning max el	16062 Mar 05 12:32	13° $\text{♁}$ 08'31	45°45'11		16064 Aug 13 06:00	0° $\text{♁}$	
	16062 Mar 22 01:16	0° $\text{♁}$			16064 Sep 06 11:15	0° $\text{♁}$	
	16062 Apr 18 02:59	0° $\text{♁}$			16064 Sep 30 21:42	0° $\text{♁}$	
	16062 May 13 20:08	0° $\text{♁}$			16064 Oct 25 18:29	0° $\text{♁}$	
	16062 Jun 07 20:39	0° $\text{♁}$			16064 Nov 20 12:07	0° $\text{♁}$	
desc. node	16062 Jun 17 00:05	11° $\text{♁}$ 06'18		desc. node	16064 Dec 01 10:25	12° $\text{♁}$ 13'08	
	16062 Jul 02 10:39	0° $\text{♁}$			16064 Dec 18 03:38	0° $\text{♁}$	
	16062 Jul 26 17:23	0° $\text{♁}$		evening max el	16064 Dec 25 08:25	7° $\text{♁}$ 11'14	46°13'16
	16062 Aug 19 19:31	0° $\text{♁}$			16065 Jan 21 16:04	0° $\text{♁}$	
morning set	16062 Sep 04 04:29	19° $\text{♁}$ 12'57		greatest brilliancy	16065 Feb 02 16:02	6° $\text{♁}$ 05'04	-4.8m
	16062 Sep 12 19:17	0° $\text{♁}$		retrograde	16065 Feb 12 17:42	7° $\text{♁}$ 56'07	
	16062 Oct 06 18:17	0° $\text{♁}$		evening set	16065 Feb 28 17:44	2° $\text{♁}$ 59'11	
asc. node	16062 Oct 07 17:55	1° $\text{♁}$ 13'58			16065 Mar 05 16:11	30° $\text{♁}$	
				inferior conj	16065 Mar 06 02:31	29° $\text{♁}$ 43'52	-4°20'34
superior conj	16062 Oct 13 18:16	8° $\text{♁}$ 45'50	0°14'44	minimum elong	16065 Mar 06 11:19	29° $\text{♁}$ 30'05	4°18'07
minimum elong	16062 Oct 13 14:33	8° $\text{♁}$ 34'14	0°14'57	min. Earth dist.	16065 Mar 06 07:54	29° $\text{♁}$ 35'25	0.28552 AU
behind sun begin	16062 Oct 13 04:59	8° $\text{♁}$ 04'16		morning rise	16065 Mar 12 04:51	26° $\text{♁}$ 04'05	
behind sun end	16062 Oct 14 00:08	9° $\text{♁}$ 04'13		asc. node	16065 Mar 24 09:53	21° $\text{♁}$ 44'39	
max. Earth dist.	16062 Oct 14 09:42	9° $\text{♁}$ 34'10	1.71661 AU	direct	16065 Mar 27 08:39	21° $\text{♁}$ 34'09	
	16062 Oct 30 17:30	0° $\text{♁}$		greatest brilliancy	16065 Apr 07 03:04	23° $\text{♁}$ 41'48	-4.8m
evening rise	16062 Nov 21 06:02	26° $\text{♁}$ 53'04			16065 Apr 19 01:10	0° $\text{♁}$	
	16062 Nov 23 18:01	0° $\text{♁}$		morning max el	16065 May 15 16:53	22° $\text{♁}$ 33'42	45°59'34
	16062 Dec 17 21:36	0° $\text{♁}$			16065 May 23 02:42	0° $\text{♁}$	
	16063 Jan 11 06:34	0° $\text{♁}$			16065 Jun 19 16:55	0° $\text{♁}$	
desc. node	16063 Jan 27 09:39	19° $\text{♁}$ 38'47		desc. node	16065 Jul 14 11:16	28° $\text{♁}$ 46'30	
	16063 Feb 04 23:02	0° $\text{♁}$			16065 Jul 15 12:04	0° $\text{♁}$	
	16063 Mar 02 00:46	0° $\text{♁}$			16065 Aug 09 10:42	0° $\text{♁}$	
	16063 Mar 27 14:37	0° $\text{♁}$			16065 Sep 02 22:19	0° $\text{♁}$	
	16063 Apr 23 01:20	0° $\text{♁}$			16065 Sep 27 04:16	0° $\text{♁}$	
asc. node	16063 May 20 04:35	28° $\text{♁}$ 34'37			16065 Oct 21 07:29	0° $\text{♁}$	
evening max el	16063 May 20 07:34	28° $\text{♁}$ 41'58	46°13'57	asc. node	16065 Nov 04 07:06	17° $\text{♁}$ 25'03	
	16063 May 21 15:29	0° $\text{♁}$			16065 Nov 14 09:26	0° $\text{♁}$	
greatest brilliancy	16063 Jun 29 14:28	28° $\text{♁}$ 32'38	-4.8m	morning set	16065 Nov 16 08:12	2° $\text{♁}$ 25'44	
	16063 Jul 05 20:01	0° $\text{♁}$			16065 Dec 08 11:01	0° $\text{♁}$	
retrograde	16063 Jul 08 23:03	0° $\text{♁}$ 11'35					
	16063 Jul 12 00:59	30° $\text{♁}$		superior conj	16065 Dec 24 08:53	19° $\text{♁}$ 48'48	1°25'55
evening set	16063 Jul 26 14:33	24° $\text{♁}$ 15'10		minimum elong	16065 Dec 24 05:40	19° $\text{♁}$ 38'50	1°26'38
inferior conj	16063 Jul 29 17:20	22° $\text{♁}$ 20'51	8°26'38	max. Earth dist.	16065 Dec 26 18:22	22° $\text{♁}$ 47'38	1.72423 AU
minimum elong	16063 Jul 30 01:11	22° $\text{♁}$ 08'41	8°25'11		16066 Jan 01 13:27	0° $\text{♁}$	
min. Earth dist.	16063 Jul 30 10:37	21° $\text{♁}$ 54'05	0.27535 AU		16066 Jan 25 18:19	0° $\text{♁}$	
morning rise	16063 Aug 02 11:36	20° $\text{♁}$ 02'51		evening rise	16066 Jan 30 18:46	6° $\text{♁}$ 12'01	
direct	16063 Aug 19 14:46	14° $\text{♁}$ 20'40			16066 Feb 19 02:46	0° $\text{♁}$	
greatest brilliancy	16063 Aug 29 22:21	16° $\text{♁}$ 20'22	-4.9m	desc. node	16066 Feb 23 23:17	5° $\text{♁}$ 57'27	
desc. node	16063 Sep 09 05:23	21° $\text{♁}$ 35'07			16066 Mar 15 15:06	0° $\text{♁}$	
	16063 Sep 20 15:21	0° $\text{♁}$			16066 Apr 09 06:57	0° $\text{♁}$	
morning max el	16063 Oct 09 01:46	17° $\text{♁}$ 00'34	46°53'49		16066 May 04 02:44	0° $\text{♁}$	
	16063 Oct 21 14:26	0° $\text{♁}$			16066 May 29 05:17	0° $\text{♁}$	
	16063 Nov 17 13:41	0° $\text{♁}$		asc. node	16066 Jun 16 15:57	21° $\text{♁}$ 38'23	
	16063 Dec 13 06:47	0° $\text{♁}$			16066 Jun 23 21:52	0° $\text{♁}$	
asc. node	16063 Dec 31 05:26	21° $\text{♁}$ 23'36			16066 Jul 20 22:49	0° $\text{♁}$	
	16064 Jan 07 09:13	0° $\text{♁}$		evening max el	16066 Aug 01 09:52	11° $\text{♁}$ 49'16	46°36'40
	16064 Feb 01 03:01	0° $\text{♁}$			16066 Aug 21 09:57	0° $\text{♁}$	
	16064 Feb 25 15:46	0° $\text{♁}$		greatest brilliancy	16066 Sep 09 23:49	11° $\text{♁}$ 58'56	-4.9m

retrograde	16066 Sep 20 12:52	14° $\mathbb{M}$ 02'44		minimum elong	16069 Mar 04 06:12	28° $\mathbb{H}$ 04'53	0°45'15
evening set	16066 Oct 04 22:02	9° $\mathbb{M}$ 57'40		max. Earth dist.	16069 Mar 05 02:04	29° $\mathbb{H}$ 06'13	1.73077 AU
desc. node	16066 Oct 06 15:08	9° $\mathbb{M}$ 01'10			16069 Mar 05 19:30	0° $\mathbb{Y}$	
inferior conj	16066 Oct 11 05:37	6° $\mathbb{M}$ 16'49	-1°12'13	desc. node	16069 Mar 23 13:06	21° $\mathbb{Y}$ 52'06	
minimum elong	16066 Oct 11 02:48	6° $\mathbb{M}$ 21'07	1°10'54		16069 Mar 30 03:28	0° $\mathbb{B}$	
min. Earth dist.	16066 Oct 10 23:25	6° $\mathbb{M}$ 26'15	0.26985 AU	evening rise	16069 Apr 10 20:18	14° $\mathbb{B}$ 24'44	
morning rise	16066 Oct 17 07:59	2° $\mathbb{M}$ 44'04			16069 Apr 23 12:02	0° $\mathbb{I}$	
	16066 Oct 23 12:41	30° $\mathbb{R}$ $\underline{\mathbb{A}}$			16069 May 17 20:35	0° $\mathbb{S}$	
direct	16066 Nov 01 00:37	28° $\underline{\mathbb{A}}$ 33'14			16069 Jun 11 05:30	0° $\mathbb{Q}$	
	16066 Nov 09 19:40	0° $\mathbb{M}$			16069 Jul 05 16:32	0° $\mathbb{N}$	
greatest brilliancy	16066 Nov 10 18:02	0° $\mathbb{M}$ 18'34	-4.8m	asc. node	16069 Jul 14 04:38	10° $\mathbb{N}$ 22'32	
morning max el	16066 Dec 20 15:43	29° $\mathbb{M}$ 44'18	46°17'41		16069 Jul 30 08:54	0° $\underline{\mathbb{A}}$	
	16066 Dec 20 22:09	0° $\mathbb{A}$			16069 Aug 24 12:07	0° $\mathbb{M}$	
	16067 Jan 18 11:58	0° $\mathbb{B}$			16069 Sep 19 14:20	0° $\mathbb{A}$	
asc. node	16067 Jan 27 16:11	10° $\mathbb{B}$ 15'16		evening max el	16069 Oct 12 11:57	24° $\mathbb{A}$ 22'37	46°36'14
	16067 Feb 13 21:15	0° $\approx$			16069 Oct 18 05:45	0° $\mathbb{B}$	
	16067 Mar 11 07:44	0° $\mathbb{H}$		desc. node	16069 Nov 03 01:24	13° $\mathbb{B}$ 48'13	
	16067 Apr 05 06:16	0° $\mathbb{Y}$		greatest brilliancy	16069 Nov 21 01:50	24° $\mathbb{B}$ 32'10	-4.8m
	16067 Apr 29 21:44	0° $\mathbb{B}$		retrograde	16069 Dec 01 16:06	26° $\mathbb{B}$ 36'47	
desc. node	16067 May 19 13:46	24° $\mathbb{B}$ 08'04		evening set	16069 Dec 19 20:06	20° $\mathbb{B}$ 25'43	
	16067 May 24 08:04	0° $\mathbb{I}$		inferior conj	16069 Dec 22 23:43	18° $\mathbb{B}$ 29'38	-8°52'51
	16067 Jun 17 14:01	0° $\mathbb{S}$		minimum elong	16069 Dec 22 20:05	18° $\mathbb{B}$ 35'17	8°51'55
morning set	16067 Jun 19 10:40	2° $\mathbb{S}$ 18'36		min. Earth dist.	16069 Dec 22 09:52	18° $\mathbb{B}$ 51'06	0.28253 AU
	16067 Jul 11 16:20	0° $\mathbb{Q}$		morning rise	16069 Dec 25 20:11	16° $\mathbb{B}$ 44'30	
max. Earth dist.	16067 Jul 26 22:52	19° $\mathbb{Q}$ 05'00	1.71748 AU	direct	16070 Jan 13 02:07	10° $\mathbb{B}$ 31'33	
				greatest brilliancy	16070 Jan 22 21:17	12° $\mathbb{B}$ 15'58	-4.8m
superior conj	16067 Jul 29 00:57	21° $\mathbb{Q}$ 41'36	-1°21'17		16070 Feb 19 06:54	0° $\approx$	
minimum elong	16067 Jul 29 09:20	22° $\mathbb{Q}$ 07'49	1°21'40	asc. node	16070 Feb 24 02:05	4° $\approx$ 15'42	
	16067 Aug 04 16:15	0° $\mathbb{N}$		morning max el	16070 Mar 03 02:39	10° $\approx$ 52'32	45°45'41
	16067 Aug 28 15:13	0° $\underline{\mathbb{A}}$			16070 Mar 21 18:27	0° $\mathbb{H}$	
evening rise	16067 Sep 07 02:40	11° $\underline{\mathbb{A}}$ 52'02			16070 Apr 17 16:49	0° $\mathbb{Y}$	
asc. node	16067 Sep 09 05:56	14° $\underline{\mathbb{A}}$ 32'28			16070 May 13 08:31	0° $\mathbb{B}$	
	16067 Sep 21 14:31	0° $\mathbb{M}$			16070 Jun 07 08:20	0° $\mathbb{I}$	
	16067 Oct 15 15:30	0° $\mathbb{A}$		desc. node	16070 Jun 16 01:59	10° $\mathbb{I}$ 37'07	
	16067 Nov 08 20:15	0° $\mathbb{B}$			16070 Jul 01 21:55	0° $\mathbb{S}$	
	16067 Dec 03 08:10	0° $\approx$			16070 Jul 26 04:25	0° $\mathbb{Q}$	
	16067 Dec 28 08:12	0° $\mathbb{H}$			16070 Aug 19 06:23	0° $\mathbb{N}$	
desc. node	16067 Dec 29 22:31	1° $\mathbb{H}$ 53'13		morning set	16070 Sep 01 16:52	16° $\mathbb{N}$ 47'41	
	16068 Jan 23 03:48	0° $\mathbb{Y}$			16070 Sep 12 06:05	0° $\underline{\mathbb{A}}$	
	16068 Feb 19 10:22	0° $\mathbb{B}$			16070 Oct 06 05:03	0° $\mathbb{M}$	
evening max el	16068 Mar 06 07:58	16° $\mathbb{B}$ 07'38	46°00'07	asc. node	16070 Oct 06 19:36	0° $\mathbb{M}$ 45'33	
	16068 Mar 21 16:24	0° $\mathbb{I}$					
greatest brilliancy	16068 Apr 14 10:26	14° $\mathbb{I}$ 53'02	-4.8m	superior conj	16070 Oct 11 07:11	6° $\mathbb{M}$ 22'24	0°11'00
asc. node	16068 Apr 20 19:53	16° $\mathbb{I}$ 28'56		minimum elong	16070 Oct 11 04:22	6° $\mathbb{M}$ 13'35	0°11'14
retrograde	16068 Apr 24 11:32	16° $\mathbb{I}$ 44'21		behind sun begin	16070 Oct 10 10:16	5° $\mathbb{M}$ 16'56	
evening set	16068 May 09 23:30	12° $\mathbb{I}$ 03'31		behind sun end	16070 Oct 11 22:27	7° $\mathbb{M}$ 10'13	
inferior conj	16068 May 15 14:43	8° $\mathbb{I}$ 38'08	5°43'51	max. Earth dist.	16070 Oct 11 19:26	7° $\mathbb{M}$ 00'44	1.71650 AU
minimum elong	16068 May 15 04:23	8° $\mathbb{I}$ 54'24	5°40'41		16070 Oct 30 04:16	0° $\mathbb{A}$	
min. Earth dist.	16068 May 15 11:52	8° $\mathbb{I}$ 42'36	0.28243 AU	evening rise	16070 Nov 18 20:51	24° $\mathbb{A}$ 36'00	
morning rise	16068 May 20 09:07	5° $\mathbb{I}$ 42'10			16070 Nov 23 04:48	0° $\mathbb{B}$	
direct	16068 Jun 05 18:32	0° $\mathbb{I}$ 28'45			16070 Dec 17 08:29	0° $\approx$	
greatest brilliancy	16068 Jun 15 21:51	2° $\mathbb{I}$ 23'26	-4.8m		16071 Jan 10 17:39	0° $\mathbb{H}$	
	16068 Jul 23 05:14	0° $\mathbb{S}$		desc. node	16071 Jan 26 11:34	19° $\mathbb{H}$ 10'18	
morning max el	16068 Jul 25 19:38	2° $\mathbb{S}$ 34'12	46°40'47		16071 Feb 04 10:32	0° $\mathbb{Y}$	
desc. node	16068 Aug 10 21:39	19° $\mathbb{S}$ 22'46			16071 Mar 01 12:58	0° $\mathbb{B}$	
	16068 Aug 20 12:26	0° $\mathbb{Q}$			16071 Mar 27 04:07	0° $\mathbb{I}$	
	16068 Sep 15 12:05	0° $\mathbb{N}$			16071 Apr 22 17:28	0° $\mathbb{S}$	
	16068 Oct 10 14:08	0° $\underline{\mathbb{A}}$		evening max el	16071 May 17 21:41	26° $\mathbb{S}$ 23'18	46°13'07
	16068 Nov 04 06:17	0° $\mathbb{M}$		asc. node	16071 May 19 06:26	27° $\mathbb{S}$ 43'17	
	16068 Nov 28 17:15	0° $\mathbb{A}$			16071 May 21 15:11	0° $\mathbb{Q}$	
asc. node	16068 Dec 01 19:42	3° $\mathbb{A}$ 49'05		greatest brilliancy	16071 Jun 27 03:02	26° $\mathbb{Q}$ 10'17	-4.8m
	16068 Dec 23 01:02	0° $\mathbb{B}$		retrograde	16071 Jul 06 12:53	27° $\mathbb{Q}$ 50'09	
	16069 Jan 16 07:03	0° $\approx$		evening set	16071 Jul 24 06:44	21° $\mathbb{Q}$ 48'55	
morning set	16069 Jan 25 21:09	11° $\approx$ 52'15		inferior conj	16071 Jul 27 06:53	19° $\mathbb{Q}$ 58'28	8°34'46
	16069 Feb 09 12:48	0° $\mathbb{H}$		minimum elong	16071 Jul 27 14:02	19° $\mathbb{Q}$ 47'24	8°33'28
				min. Earth dist.	16071 Jul 27 23:27	19° $\mathbb{Q}$ 32'49	0.27578 AU
superior conj	16069 Mar 03 21:18	27° $\mathbb{H}$ 37'27	0°45'31	morning rise	16071 Jul 30 21:12	17° $\mathbb{Q}$ 46'28	

direct	16071 Aug 17 04:59	11°♊57'34			16074 Feb 18 13:45	0°♑	
greatest brilliancy	16071 Aug 27 11:37	13°♊56'57	-4.9m	desc. node	16074 Feb 23 01:04	5°♑29'05	
desc. node	16071 Sep 08 07:14	20°♊10'46			16074 Mar 15 02:18	0°♑	
	16071 Sep 21 00:54	0°♑			16074 Apr 08 18:31	0°♑	
morning max el	16071 Oct 06 17:08	14°♑42'10	46°54'20		16074 May 03 14:54	0°♑	
	16071 Oct 21 09:10	0°♑			16074 May 28 18:28	0°♑	
	16071 Nov 17 04:33	0°♑		asc. node	16074 Jun 15 17:57	21°♑02'33	
	16071 Dec 12 19:51	0°♑			16074 Jun 23 12:58	0°♑	
asc. node	16071 Dec 30 07:21	20°♑52'27			16074 Jul 20 18:25	0°♑	
	16072 Jan 06 21:17	0°♑		evening max el	16074 Jul 29 23:47	9°♑27'08	46°35'52
	16072 Jan 31 14:28	0°♑			16074 Aug 22 01:58	0°♑	
	16072 Feb 25 02:49	0°♑		greatest brilliancy	16074 Sep 07 14:27	9°♑35'29	-4.9m
	16072 Mar 20 12:43	0°♑		retrograde	16074 Sep 18 01:28	11°♑37'15	
morning set	16072 Apr 04 23:28	19°♑01'15		evening set	16074 Oct 02 11:10	7°♑32'32	
	16072 Apr 13 21:12	0°♑		desc. node	16074 Oct 05 17:01	5°♑42'42	
desc. node	16072 Apr 20 02:37	7°♑40'59		inferior conj	16074 Oct 08 18:18	3°♑52'08	-0°47'58
	16072 May 08 04:07	0°♑		minimum elong	16074 Oct 08 16:25	3°♑54'59	0°46'59
max. Earth dist.	16072 May 11 09:14	3°♑58'33	1.72727 AU	min. Earth dist.	16074 Oct 08 13:42	3°♑59'09	0.26966 AU
				morning rise	16074 Oct 14 22:01	0°♑17'09	
superior conj	16072 May 13 11:45	6°♑34'54	-0°53'07		16074 Oct 15 11:06	30°♑	
minimum elong	16072 May 13 01:17	6°♑02'31	0°53'21	direct	16074 Oct 29 13:11	26°♑08'38	
	16072 Jun 01 09:02	0°♑		greatest brilliancy	16074 Nov 08 07:33	27°♑54'30	-4.8m
evening rise	16072 Jun 21 06:10	24°♑42'49			16074 Nov 13 07:10	0°♑	
	16072 Jun 25 12:06	0°♑		morning max el	16074 Dec 18 04:09	27°♑20'33	46°19'11
	16072 Jul 19 14:21	0°♑			16074 Dec 20 20:57	0°♑	
asc. node	16072 Aug 10 17:55	27°♑32'44			16075 Jan 18 04:03	0°♑	
	16072 Aug 12 17:21	0°♑		asc. node	16075 Jan 26 18:07	9°♑38'18	
	16072 Sep 05 22:57	0°♑			16075 Feb 13 10:50	0°♑	
	16072 Sep 30 09:56	0°♑			16075 Mar 10 20:05	0°♑	
	16072 Oct 25 07:41	0°♑			16075 Apr 04 17:55	0°♑	
	16072 Nov 20 03:16	0°♑			16075 Apr 29 08:59	0°♑	
desc. node	16072 Nov 30 12:23	11°♑33'16		desc. node	16075 May 18 15:42	23°♑39'58	
	16072 Dec 17 23:50	0°♑			16075 May 23 19:05	0°♑	
evening max el	16072 Dec 23 00:37	4°♑59'35	46°14'06	morning set	16075 Jun 16 23:32	29°♑55'43	
	16073 Jan 22 23:09	0°♑			16075 Jun 17 00:55	0°♑	
greatest brilliancy	16073 Jan 31 07:09	3°♑52'06	-4.8m		16075 Jul 11 03:12	0°♑	
retrograde	16073 Feb 10 09:30	5°♑43'20		max. Earth dist.	16075 Jul 24 06:58	16°♑26'25	1.71772 AU
evening set	16073 Feb 26 11:56	0°♑42'49					
	16073 Feb 27 17:16	30°♑		superior conj	16075 Jul 26 13:41	19°♑17'27	-1°22'40
inferior conj	16073 Mar 03 18:05	27°♑31'00	-4°38'57	minimum elong	16075 Jul 26 21:19	19°♑41'18	1°23'04
minimum elong	16073 Mar 04 03:18	27°♑16'34	4°36'24		16075 Aug 04 03:07	0°♑	
min. Earth dist.	16073 Mar 03 23:10	27°♑23'03	0.28558 AU		16075 Aug 28 02:07	0°♑	
morning rise	16073 Mar 09 18:43	23°♑53'43		evening rise	16075 Sep 04 15:03	9°♑26'15	
asc. node	16073 Mar 23 11:42	19°♑24'32		asc. node	16075 Sep 08 07:41	14°♑03'36	
direct	16073 Mar 25 00:51	19°♑21'39			16075 Sep 21 01:32	0°♑	
greatest brilliancy	16073 Apr 04 17:49	21°♑28'13	-4.8m		16075 Oct 15 02:42	0°♑	
	16073 Apr 19 21:39	0°♑			16075 Nov 08 07:44	0°♑	
morning max el	16073 May 13 08:38	20°♑21'02	45°58'22		16075 Dec 02 20:06	0°♑	
	16073 May 22 21:56	0°♑			16075 Dec 27 20:58	0°♑	
	16073 Jun 19 07:40	0°♑		desc. node	16075 Dec 29 00:25	1°♑21'02	
desc. node	16073 Jul 13 13:15	28°♑13'40			16076 Jan 22 18:10	0°♑	
	16073 Jul 15 01:04	0°♑			16076 Feb 19 04:33	0°♑	
	16073 Aug 08 22:51	0°♑		evening max el	16076 Mar 03 21:59	13°♑50'41	46°00'09
	16073 Sep 02 10:00	0°♑			16076 Mar 22 02:03	0°♑	
	16073 Sep 26 15:39	0°♑		greatest brilliancy	16076 Apr 12 01:28	12°♑37'42	-4.8m
	16073 Oct 20 18:38	0°♑		asc. node	16076 Apr 19 21:52	14°♑23'26	
asc. node	16073 Nov 03 08:59	16°♑56'32		retrograde	16076 Apr 22 01:59	14°♑28'58	
morning set	16073 Nov 13 22:11	0°♑05'34		evening set	16076 May 07 12:03	9°♑51'16	
	16073 Nov 13 20:24	0°♑		inferior conj	16076 May 13 05:53	6°♑22'32	5°26'41
	16073 Dec 07 21:52	0°♑		minimum elong	16076 May 12 19:47	6°♑38'26	5°23'29
				min. Earth dist.	16076 May 13 03:23	6°♑26'28	0.28250 AU
superior conj	16073 Dec 22 00:27	17°♑34'14	1°25'18	morning rise	16076 May 18 03:17	3°♑22'10	
minimum elong	16073 Dec 21 20:27	17°♑21'46	1°26'00		16076 May 25 00:10	30°♑	
max. Earth dist.	16073 Dec 24 11:33	20°♑38'08	1.72391 AU	direct	16076 Jun 03 09:09	28°♑12'53	
	16074 Jan 01 00:16	0°♑			16076 Jun 13 04:20	0°♑	
	16074 Jan 25 05:10	0°♑		greatest brilliancy	16076 Jun 13 14:24	0°♑08'58	-4.8m
evening rise	16074 Jan 28 10:18	3°♑58'16			16076 Jul 23 03:50	0°♑	

morning max el	16076 Jul 23 09:32	0°☿14'11	46°39'42		16079 Feb 03 22:04	0°♊	
desc. node	16076 Aug 09 23:27	18°☿40'01			16079 Mar 01 01:16	0°♋	
	16076 Aug 20 04:25	0°♌			16079 Mar 26 17:46	0°♍	
	16076 Sep 15 01:43	0°♎			16079 Apr 22 09:56	0°☿	
	16076 Oct 10 02:37	0°♏		evening max el	16079 May 15 12:20	24°☿06'03	46°12'22
	16076 Nov 03 18:06	0°♐		asc. node	16079 May 18 08:26	26°☿51'24	
	16076 Nov 28 04:38	0°♑			16079 May 21 16:03	0°♒	
asc. node	16076 Nov 30 21:37	3°♑20'05		greatest brilliancy	16079 Jun 24 15:28	23°♒48'09	-4.8m
	16076 Dec 22 12:08	0°♓		retrograde	16079 Jul 04 02:39	25°♒28'45	
	16077 Jan 15 17:55	0°♈		evening set	16079 Jul 21 22:42	19°♒23'16	
morning set	16077 Jan 23 13:27	9°♈40'36		inferior conj	16079 Jul 24 20:24	17°♒36'18	8°42'06
	16077 Feb 08 23:33	0°♉		minimum elong	16079 Jul 25 02:49	17°♒26'22	8°40'55
				min. Earth dist.	16079 Jul 25 12:04	17°♒12'01	0.27616 AU
superior conj	16077 Mar 01 13:18	25°♉25'36	0°48'25	morning rise	16079 Jul 28 06:50	15°♒30'02	
minimum elong	16077 Mar 01 22:31	25°♉54'06	0°48'10	direct	16079 Aug 14 19:28	9°♒34'56	
max. Earth dist.	16077 Mar 02 19:17	26°♉58'09	1.73069 AU	greatest brilliancy	16079 Aug 25 00:30	11°♒33'19	-4.9m
	16077 Mar 05 06:13	0°♊		desc. node	16079 Sep 07 09:09	18°♒49'37	
desc. node	16077 Mar 22 14:49	21°♊24'17			16079 Sep 21 07:41	0°♋	
	16077 Mar 29 14:14	0°♋		morning max el	16079 Oct 04 08:13	12°♋23'31	46°54'53
evening rise	16077 Apr 08 11:50	12°♋11'30			16079 Oct 21 03:14	0°♌	
	16077 Apr 22 22:57	0°♍			16079 Nov 16 18:58	0°♎	
	16077 May 17 07:43	0°☿			16079 Dec 12 08:34	0°♑	
	16077 Jun 10 16:56	0°♏		asc. node	16079 Dec 29 09:13	20°♑22'02	
	16077 Jul 05 04:26	0°♐			16080 Jan 06 09:01	0°♓	
asc. node	16077 Jul 13 06:25	9°♐51'06			16080 Jan 31 01:37	0°♈	
	16077 Jul 29 21:33	0°♑			16080 Feb 24 13:40	0°♉	
	16077 Aug 24 02:04	0°♒			16080 Mar 19 23:23	0°♊	
	16077 Sep 19 07:03	0°♓		morning set	16080 Apr 02 15:21	16°♊49'44	
evening max el	16077 Oct 10 01:44	22°♓01'48	46°36'44		16080 Apr 13 07:47	0°♋	
	16077 Oct 18 07:02	0°♔		desc. node	16080 Apr 19 04:32	7°♋14'15	
desc. node	16077 Nov 02 03:22	12°♔37'29			16080 May 07 14:41	0°♌	
greatest brilliancy	16077 Nov 18 15:41	22°♔13'54	-4.8m	max. Earth dist.	16080 May 09 01:39	1°♌48'11	1.72754 AU
retrograde	16077 Nov 29 07:06	24°♔19'58					
evening set	16077 Dec 17 07:54	18°♔13'05		superior conj	16080 May 11 01:59	4°♌17'42	-0°50'12
min. Earth dist.	16077 Dec 19 23:41	16°♔35'45	0.28218 AU	minimum elong	16080 May 10 15:50	3°♌46'18	0°50'25
inferior conj	16077 Dec 20 14:16	16°♔13'11	-8°49'00		16080 May 31 19:38	0°☿	
minimum elong	16077 Dec 20 09:48	16°♔20'06	8°47'59	evening rise	16080 Jun 18 19:18	22°☿21'08	
morning rise	16077 Dec 23 11:49	14°♔26'41			16080 Jun 24 22:49	0°♏	
direct	16078 Jan 10 16:01	8°♔15'26			16080 Jul 19 01:15	0°♐	
greatest brilliancy	16078 Jan 20 11:08	9°♔59'54	-4.8m	asc. node	16080 Aug 09 19:41	27°♐03'41	
	16078 Feb 19 11:13	0°♑			16080 Aug 12 04:30	0°♑	
asc. node	16078 Feb 23 03:55	3°♑21'14			16080 Sep 05 10:26	0°♒	
morning max el	16078 Feb 28 17:36	8°♑37'52	45°46'08		16080 Sep 29 21:57	0°♓	
	16078 Mar 21 11:32	0°♒			16080 Oct 24 20:40	0°♔	
	16078 Apr 17 06:41	0°♓			16080 Nov 19 18:14	0°♕	
	16078 May 12 20:59	0°♔		desc. node	16080 Nov 29 14:19	10°♕54'09	
	16078 Jun 06 20:03	0°♍			16080 Dec 17 20:11	0°♎	
desc. node	16078 Jun 15 03:51	10°♍07'40		evening max el	16080 Dec 20 16:24	2°♎48'03	46°14'55
	16078 Jul 01 09:13	0°☿			16081 Jan 24 20:00	0°♏	
	16078 Jul 25 15:27	0°♏		greatest brilliancy	16081 Jan 28 22:41	1°♏41'00	-4.8m
	16078 Aug 18 17:16	0°♐		retrograde	16081 Feb 08 00:54	3°♏31'50	
morning set	16078 Aug 30 05:31	14°♐23'15			16081 Feb 21 10:21	30°♐♋	
	16078 Sep 11 16:51	0°♑		evening set	16081 Feb 24 06:18	28°♐27'44	
asc. node	16078 Oct 05 21:28	0°♒17'54		inferior conj	16081 Mar 01 09:44	25°♐19'29	-4°56'49
	16078 Oct 05 15:45	0°♓		minimum elong	16081 Mar 01 19:20	25°♐04'27	4°54'12
				min. Earth dist.	16081 Mar 01 14:40	25°♐11'46	0.28569 AU
superior conj	16078 Oct 08 20:21	3°♓59'54	0°07'16	morning rise	16081 Mar 07 08:25	21°♐44'43	
minimum elong	16078 Oct 08 18:27	3°♓53'57	0°07'32	direct	16081 Mar 22 16:57	17°♐10'27	
behind sun begin	16078 Oct 07 20:12	2°♓44'13		asc. node	16081 Mar 22 13:45	17°♐10'29	
behind sun end	16078 Oct 09 16:43	5°♓03'40		greatest brilliancy	16081 Apr 02 08:52	19°♐15'55	-4.8m
max. Earth dist.	16078 Oct 09 08:16	4°♓37'14	1.71635 AU		16081 Apr 20 12:22	0°♊	
	16078 Oct 29 14:55	0°♑		morning max el	16081 May 10 23:38	18°♊07'10	45°57'03
evening rise	16078 Nov 16 11:57	22°♑20'12			16081 May 22 16:24	0°♋	
	16078 Nov 22 15:29	0°♓			16081 Jun 18 22:01	0°♌	
	16078 Dec 16 19:17	0°♈		desc. node	16081 Jul 12 15:03	27°♌41'14	
	16079 Jan 10 04:44	0°♉			16081 Jul 14 13:43	0°☿	
desc. node	16079 Jan 25 13:17	18°♉41'09			16081 Aug 08 10:40	0°♏	



	16081 Sep 01 21:20	0°♎			16084 Mar 22 14:06	0°♊	
	16081 Sep 26 02:39	0°♏		greatest brilliancy	16084 Apr 09 15:59	10°♊23'48	-4.8m
	16081 Oct 20 05:24	0°♌		asc. node	16084 Apr 18 23:48	12°♊15'16	
asc. node	16081 Nov 02 10:51	16°♌29'04		retrograde	16084 Apr 19 17:02	12°♊15'53	
morning set	16081 Nov 11 12:12	27°♌46'36		evening set	16084 May 05 00:58	7°♊40'44	
	16081 Nov 13 06:59	0°♈		inferior conj	16084 May 10 21:13	4°♊08'56	5°08'59
	16081 Dec 07 08:20	0°♉		minimum elong	16084 May 10 11:24	4°♊24'22	5°05'49
				min. Earth dist.	16084 May 10 18:44	4°♊12'51	0.28263 AU
superior conj	16081 Dec 19 16:15	15°♉21'35	1°24'33	morning rise	16084 May 15 21:36	1°♊04'29	
minimum elong	16081 Dec 19 11:29	15°♉06'45	1°25'15		16084 May 17 19:45	30°♋♏	
max. Earth dist.	16081 Dec 22 03:37	18°♉26'20	1.72354 AU	direct	16084 Jun 01 00:17	25°♋58'57	
	16081 Dec 31 10:41	0°♐		greatest brilliancy	16084 Jun 11 06:52	27°♋56'19	-4.8m
	16082 Jan 24 15:36	0°♋			16084 Jun 16 01:14	0°♊	
evening rise	16082 Jan 26 02:07	1°♋46'40		morning max el	16084 Jul 21 00:29	27°♊58'00	46°38'21
	16082 Feb 18 00:18	0°♑			16084 Jul 23 01:08	0°♎	
desc. node	16082 Feb 22 02:52	5°♑02'11		desc. node	16084 Aug 09 01:23	17°♎59'02	
	16082 Mar 14 13:06	0°♌			16084 Aug 19 19:52	0°♏	
	16082 Apr 08 05:45	0°♊			16084 Sep 14 15:00	0°♎	
	16082 May 03 02:49	0°♎			16084 Oct 09 14:47	0°♏	
	16082 May 28 07:28	0°♏			16084 Nov 03 05:36	0°♌	
asc. node	16082 Jun 14 19:45	20°♏26'42			16084 Nov 27 15:41	0°♈	
	16082 Jun 23 04:00	0°♎		asc. node	16084 Nov 29 23:23	2°♈51'38	
	16082 Jul 20 14:17	0°♏			16084 Dec 21 22:51	0°♉	
evening max el	16082 Jul 27 12:40	7°♏03'21	46°35'13		16085 Jan 15 04:25	0°♐	
	16082 Aug 22 22:54	0°♌		morning set	16085 Jan 21 05:47	7°♐30'09	
greatest brilliancy	16082 Sep 05 05:18	7°♌13'21	-4.9m		16085 Feb 08 09:55	0°♋	
retrograde	16082 Sep 15 13:48	9°♌13'07					
evening set	16082 Sep 30 00:31	5°♌08'06		superior conj	16085 Feb 27 05:33	23°♋15'36	0°51'13
desc. node	16082 Oct 04 19:03	2°♌23'26		minimum elong	16085 Feb 27 15:03	23°♋44'59	0°50'59
inferior conj	16082 Oct 06 07:01	1°♌28'44	-0°23'35	max. Earth dist.	16085 Feb 28 14:02	24°♋55'53	1.73059 AU
minimum elong	16082 Oct 06 06:06	1°♌30'08	0°22'58		16085 Mar 04 16:34	0°♑	
min. Earth dist.	16082 Oct 06 04:13	1°♌33'00	0.26949 AU	desc. node	16085 Mar 21 16:46	20°♑58'15	
	16082 Oct 08 17:37	30°♋♏			16085 Mar 29 00:38	0°♌	
morning rise	16082 Oct 12 11:52	27°♏51'48		evening rise	16085 Apr 06 03:48	10°♌00'48	
direct	16082 Oct 27 01:16	23°♏45'03			16085 Apr 22 09:29	0°♊	
greatest brilliancy	16082 Nov 05 21:36	25°♏32'13	-4.8m		16085 May 16 18:29	0°♎	
	16082 Nov 15 05:52	0°♌			16085 Jun 10 04:02	0°♏	
morning max el	16082 Dec 15 16:34	24°♌57'52	46°20'51		16085 Jul 04 16:04	0°♎	
	16082 Dec 20 18:20	0°♈		asc. node	16085 Jul 12 08:14	9°♎20'31	
	16083 Jan 17 19:23	0°♉			16085 Jul 29 10:02	0°♏	
asc. node	16083 Jan 25 19:54	9°♉02'37			16085 Aug 23 16:00	0°♌	
	16083 Feb 12 23:48	0°♐			16085 Sep 18 23:59	0°♈	
	16083 Mar 10 07:52	0°♋		evening max el	16085 Oct 07 16:28	19°♈43'39	46°37'20
	16083 Apr 04 05:03	0°♑			16085 Oct 18 09:38	0°♉	
	16083 Apr 28 19:45	0°♌		desc. node	16085 Nov 01 05:17	11°♉24'55	
desc. node	16083 May 17 17:31	23°♉12'49		greatest brilliancy	16085 Nov 16 05:01	19°♉55'19	-4.8m
	16083 May 23 05:41	0°♊		retrograde	16085 Nov 26 22:23	22°♉03'15	
morning set	16083 Jun 14 12:13	27°♊33'21		evening set	16085 Dec 14 19:17	16°♉01'01	
	16083 Jun 16 11:28	0°♎		min. Earth dist.	16085 Dec 17 13:00	14°♉21'02	0.28176 AU
	16083 Jul 10 13:44	0°♏		inferior conj	16085 Dec 18 04:41	13°♉56'50	-8°44'18
max. Earth dist.	16083 Jul 21 15:00	13°♏48'33	1.71800 AU	minimum elong	16085 Dec 17 23:23	14°♉05'00	8°43'10
				morning rise	16085 Dec 21 03:40	12°♉08'28	
superior conj	16083 Jul 24 02:05	16°♏53'11	-1°23'53	direct	16086 Jan 08 06:23	5°♉59'40	
minimum elong	16083 Jul 24 08:53	17°♏14'27	1°24'21	greatest brilliancy	16086 Jan 18 00:13	7°♉43'34	-4.8m
	16083 Aug 03 13:40	0°♎			16086 Feb 19 13:30	0°♐	
	16083 Aug 27 12:43	0°♏		asc. node	16086 Feb 22 05:58	2°♐29'11	
evening rise	16083 Sep 02 03:01	7°♏00'15		morning max el	16086 Feb 26 08:58	6°♐25'05	45°46'40
asc. node	16083 Sep 07 09:32	13°♏36'05			16086 Mar 21 03:56	0°♋	
	16083 Sep 20 12:13	0°♌			16086 Apr 16 20:07	0°♑	
	16083 Oct 14 13:33	0°♈			16086 May 12 09:04	0°♌	
	16083 Nov 07 18:51	0°♉			16086 Jun 06 07:26	0°♊	
	16083 Dec 02 07:40	0°♐		desc. node	16086 Jun 14 05:39	9°♊38'58	
	16083 Dec 27 09:22	0°♋			16086 Jun 30 20:12	0°♎	
desc. node	16083 Dec 28 02:11	0°♋49'34			16086 Jul 25 02:13	0°♏	
	16084 Jan 22 08:14	0°♑			16086 Aug 18 03:56	0°♎	
	16084 Feb 18 22:36	0°♌		morning set	16086 Aug 27 18:09	11°♎59'22	
evening max el	16084 Mar 01 12:19	11°♌36'15	46°00'20		16086 Sep 11 03:29	0°♏	

asc. node	16086 Oct 04 23:21	29°♄50'35		inferior conj	16089 Feb 27 01:20	23°♄07'16	-5°14'10
	16086 Oct 05 02:22	0°♌		minimum elong	16089 Feb 27 11:14	22°♄51'43	5°11'32
				min. Earth dist.	16089 Feb 27 06:24	22°♄59'19	0.28575 AU
superior conj	16086 Oct 06 09:06	1°♌36'15	0°03'29	morning rise	16089 Mar 04 21:51	19°♄35'12	
minimum elong	16086 Oct 06 08:08	1°♌33'16	0°03'46	direct	16089 Mar 20 08:28	14°♄58'30	
behind sun begin	16086 Oct 05 07:46	0°♌16'56		asc. node	16089 Mar 21 15:41	15°♄00'29	
behind sun end	16086 Oct 07 08:31	2°♌49'37		greatest brilliancy	16089 Mar 31 00:17	17°♄03'22	-4.8m
max. Earth dist.	16086 Oct 06 21:23	2°♌14'46	1.71624 AU		16089 Apr 20 23:28	0°♈	
	16086 Oct 29 01:31	0°♈		morning max el	16089 May 08 13:42	15°♈50'32	45°55'54
evening rise	16086 Nov 14 02:31	20°♈02'51			16089 May 22 10:30	0°♈	
	16086 Nov 22 02:06	0°♈			16089 Jun 18 12:17	0°♈	
	16086 Dec 16 06:01	0°♈		desc. node	16089 Jul 11 16:57	27°♈08'49	
	16087 Jan 09 15:44	0°♈			16089 Jul 14 02:25	0°♈	
desc. node	16087 Jan 24 15:10	18°♈12'49			16089 Aug 07 22:33	0°♈	
	16087 Feb 03 09:32	0°♈			16089 Sep 01 08:45	0°♈	
	16087 Feb 28 13:31	0°♈			16089 Sep 25 13:45	0°♈	
	16087 Mar 26 07:24	0°♈			16089 Oct 19 16:16	0°♈	
	16087 Apr 22 02:31	0°♈		asc. node	16089 Nov 01 12:35	16°♌00'48	
evening max el	16087 May 13 03:21	21°♈50'30	46°11'39	morning set	16089 Nov 09 02:20	25°♌27'33	
asc. node	16087 May 17 10:19	25°♈58'56			16089 Nov 12 17:43	0°♈	
	16087 May 21 17:56	0°♈			16089 Dec 06 19:00	0°♈	
greatest brilliancy	16087 Jun 22 04:33	21°♈28'13	-4.8m				
retrograde	16087 Jul 01 16:25	23°♈08'59		superior conj	16089 Dec 17 08:01	13°♈08'07	1°23'40
evening set	16087 Jul 19 14:42	17°♈00'02		minimum elong	16089 Dec 17 02:31	12°♈51'02	1°24'21
inferior conj	16087 Jul 22 10:18	15°♈15'57	8°48'17	max. Earth dist.	16089 Dec 19 17:16	16°♈06'19	1.72325 AU
minimum elong	16087 Jul 22 15:55	15°♈07'12	8°47'15		16089 Dec 30 21:20	0°♈	
min. Earth dist.	16087 Jul 23 01:04	14°♈53'01	0.27653 AU	evening rise	16090 Jan 23 17:43	29°♈33'27	
morning rise	16087 Jul 25 17:04	13°♈14'54			16090 Jan 24 02:18	0°♈	
direct	16087 Aug 12 10:10	7°♈14'16			16090 Feb 17 11:08	0°♈	
greatest brilliancy	16087 Aug 22 13:42	9°♈11'19	-4.9m	desc. node	16090 Feb 21 04:45	4°♈34'37	
desc. node	16087 Sep 06 11:11	17°♈32'13			16090 Mar 14 00:12	0°♈	
	16087 Sep 21 12:05	0°♈			16090 Apr 07 17:16	0°♈	
morning max el	16087 Oct 01 22:28	10°♈03'12	46°55'04		16090 May 02 15:01	0°♈	
	16087 Oct 20 20:47	0°♈			16090 May 27 20:48	0°♈	
	16087 Nov 16 09:16	0°♈		asc. node	16090 Jun 13 21:36	19°♈50'05	
	16087 Dec 11 21:16	0°♈			16090 Jun 22 19:29	0°♈	
asc. node	16087 Dec 28 11:05	19°♈51'25			16090 Jul 20 11:02	0°♈	
	16088 Jan 05 20:47	0°♈		evening max el	16090 Jul 25 01:03	4°♈37'54	46°34'40
	16088 Jan 30 12:49	0°♈			16090 Aug 24 03:55	0°♈	
	16088 Feb 24 00:30	0°♈		greatest brilliancy	16090 Sep 02 20:09	4°♌51'02	-4.9m
	16088 Mar 19 10:02	0°♈		retrograde	16090 Sep 13 02:31	6°♌49'23	
morning set	16088 Mar 31 07:21	14°♈38'36		evening set	16090 Sep 27 14:17	2°♌43'20	
	16088 Apr 12 18:20	0°♈			16090 Oct 02 08:05	30°♌	
desc. node	16088 Apr 18 06:18	6°♈47'05		inferior conj	16090 Oct 03 19:59	29°♈05'29	0°00'37
max. Earth dist.	16088 May 06 16:39	29°♈33'28	1.72780 AU	minimum elong	16090 Oct 03 20:01	29°♈05'26	0°00'54
	16088 May 07 01:14	0°♈		transit middle	16090 Oct 03 20:01	29°♈05'26	0°00'54
				transit begin	16090 Oct 03 15:56	29°♈11'38	
superior conj	16088 May 08 16:34	2°♈01'38	-0°47'12	transit end	16090 Oct 04 00:05	28°♈59'14	
minimum elong	16088 May 08 06:48	1°♈31'25	0°47'25	desc. node	16090 Oct 03 20:55	29°♈04'03	
	16088 May 31 06:15	0°♈		min. Earth dist.	16090 Oct 03 18:54	29°♈07'08	0.26936 AU
evening rise	16088 Jun 16 08:54	20°♈00'52		morning rise	16090 Oct 10 01:47	25°♈27'07	
	16088 Jun 24 09:32	0°♈		direct	16090 Oct 24 13:30	21°♈21'24	
	16088 Jul 18 12:08	0°♈		greatest brilliancy	16090 Nov 03 11:58	23°♈10'19	-4.8m
asc. node	16088 Aug 08 21:37	26°♈35'19			16090 Nov 16 13:31	0°♈	
	16088 Aug 11 15:37	0°♈		morning max el	16090 Dec 13 05:38	22°♌36'14	46°22'23
	16088 Sep 04 21:55	0°♈			16090 Dec 20 15:09	0°♈	
	16088 Sep 29 10:03	0°♈			16091 Jan 17 10:45	0°♈	
	16088 Oct 24 09:51	0°♈		asc. node	16091 Jan 24 21:56	8°♈27'02	
	16088 Nov 19 09:37	0°♈			16091 Feb 12 13:01	0°♈	
desc. node	16088 Nov 28 16:07	10°♈13'30			16091 Mar 09 19:59	0°♈	
	16088 Dec 17 17:38	0°♈			16091 Apr 03 16:32	0°♈	
evening max el	16088 Dec 18 07:19	0°♈33'30	46°15'37		16091 Apr 28 06:52	0°♈	
greatest brilliancy	16089 Jan 26 14:46	29°♈29'28	-4.8m	desc. node	16091 May 16 19:18	22°♈44'28	
	16089 Jan 28 04:13	0°♈			16091 May 22 16:38	0°♈	
retrograde	16089 Feb 05 15:53	1°♈19'26		morning set	16091 Jun 12 00:55	25°♈10'06	
	16089 Feb 13 19:44	30°♈			16091 Jun 15 22:20	0°♈	
evening set	16089 Feb 22 00:40	26°♈11'38			16091 Jul 10 00:35	0°♈	

max. Earth dist.	16091 Jul 19 02:06	11°Ω19'20	1.71830 AU	minimum elong	16093 Dec 15 12:58	11°348'32	8°37'31
				morning rise	16093 Dec 18 19:45	9°348'25	
superior conj	16091 Jul 21 14:32	14°Ω28'11	-1°24'56	direct	16094 Jan 05 21:03	3°342'54	
minimum elong	16091 Jul 21 20:29	14°Ω46'47	1°25'28	greatest brilliancy	16094 Jan 15 12:42	5°325'25	-4.8m
	16091 Aug 03 00:32	0°♐			16094 Feb 19 14:46	0°≈	
	16091 Aug 26 23:38	0°♌		asc. node	16094 Feb 21 07:53	1°≈36'51	
evening rise	16091 Aug 30 15:09	4°♌33'50		morning max el	16094 Feb 23 23:59	4°≈10'31	45°47'11
asc. node	16091 Sep 06 11:23	13°♌07'33			16094 Mar 20 20:24	0°♐	
	16091 Sep 19 23:14	0°♌			16094 Apr 16 09:49	0°♐	
	16091 Oct 14 00:44	0°♌			16094 May 11 21:31	0°♌	
	16091 Nov 07 06:17	0°♌			16094 Jun 05 19:13	0°♌	
	16091 Dec 01 19:35	0°≈		desc. node	16094 Jun 13 07:36	9°♌09'21	
	16091 Dec 26 22:11	0°♐			16094 Jun 30 07:36	0°♌	
desc. node	16091 Dec 27 04:08	0°♐17'29			16094 Jul 24 13:23	0°Ω	
	16092 Jan 21 22:53	0°♐			16094 Aug 17 14:58	0°♐	
	16092 Feb 18 17:43	0°♌		morning set	16094 Aug 25 06:37	9°♐33'53	
evening max el	16092 Feb 28 03:17	9°♌22'00	46°00'26		16094 Sep 10 14:26	0°♌	
	16092 Mar 23 07:24	0°♌					
greatest brilliancy	16092 Apr 07 06:05	8°♌07'40	-4.8m	superior conj	16094 Oct 03 21:43	29°♌11'18	-0°00'21
retrograde	16092 Apr 17 08:25	10°♌00'50		minimum elong	16094 Oct 03 21:44	29°♌11'23	0°00'03
asc. node	16092 Apr 18 01:41	10°♌00'12		behind sun begin	16094 Oct 02 22:03	27°♌57'09	
evening set	16092 May 02 13:56	5°♌28'05		behind sun end	16094 Oct 04 21:26	0°♌25'36	
inferior conj	16092 May 08 12:23	1°♌53'21	4°50'45	asc. node	16094 Oct 04 01:01	29°♌21'40	
minimum elong	16092 May 08 02:54	2°♌08'13	4°47'37	max. Earth dist.	16094 Oct 04 10:51	29°♌52'27	1.71612 AU
min. Earth dist.	16092 May 08 09:41	1°♌57'35	0.28273 AU		16094 Oct 04 13:16	0°♌	
	16092 May 11 13:17	30°♌♌			16094 Oct 28 12:25	0°♌	
morning rise	16092 May 13 15:41	28°♌45'04		evening rise	16094 Nov 11 17:06	17°♌44'27	
direct	16092 May 29 15:43	23°♌43'15			16094 Nov 21 13:03	0°♌	
greatest brilliancy	16092 Jun 08 22:39	25°♌41'21	-4.8m		16094 Dec 15 17:06	0°≈	
	16092 Jun 17 19:24	0°♌			16095 Jan 09 03:04	0°♐	
morning max el	16092 Jul 18 15:57	25°♌42'06	46°37'01	desc. node	16095 Jan 23 17:05	17°♐43'39	
	16092 Jul 22 22:09	0°♌			16095 Feb 02 21:19	0°♐	
desc. node	16092 Aug 08 03:26	17°♌17'41			16095 Feb 28 02:06	0°♌	
	16092 Aug 19 11:27	0°Ω			16095 Mar 25 21:28	0°♌	
	16092 Sep 14 04:31	0°♐			16095 Apr 21 19:49	0°♌	
	16092 Oct 09 03:15	0°♌		evening max el	16095 May 10 17:31	19°♌31'38	46°10'42
	16092 Nov 02 17:25	0°♌		asc. node	16095 May 16 12:12	25°♌04'11	
	16092 Nov 27 03:03	0°♌			16095 May 21 22:00	0°Ω	
asc. node	16092 Nov 29 01:17	2°♌22'32		greatest brilliancy	16095 Jun 19 18:05	19°Ω07'11	-4.8m
	16092 Dec 21 09:53	0°♌		retrograde	16095 Jun 29 05:33	20°Ω47'24	
	16093 Jan 14 15:15	0°≈		evening set	16095 Jul 17 06:13	14°Ω35'43	
morning set	16093 Jan 18 22:22	5°≈19'22		inferior conj	16095 Jul 20 00:03	12°Ω54'01	8°53'36
	16093 Feb 07 20:39	0°♐		minimum elong	16095 Jul 20 04:49	12°Ω46'35	8°52'41
				min. Earth dist.	16095 Jul 20 14:13	12°Ω31'56	0.27688 AU
superior conj	16093 Feb 24 21:54	21°♐04'43	0°53'56	morning rise	16095 Jul 23 03:21	10°Ω57'50	
minimum elong	16093 Feb 25 07:38	21°♐34'47	0°53'44	direct	16095 Aug 10 00:05	4°Ω51'55	
max. Earth dist.	16093 Feb 26 10:23	22°♐57'23	1.73052 AU	greatest brilliancy	16095 Aug 20 03:16	6°Ω48'11	-4.9m
	16093 Mar 04 03:19	0°♐		desc. node	16095 Sep 05 13:03	16°Ω15'28	
desc. node	16093 Mar 20 18:32	20°♐30'25			16095 Sep 21 15:16	0°♐	
	16093 Mar 28 11:29	0°♌		morning max el	16095 Sep 29 11:38	7°♐38'59	46°55'22
evening rise	16093 Apr 03 19:39	7°♌48'24			16095 Oct 20 14:16	0°♌	
	16093 Apr 21 20:30	0°♌			16095 Nov 15 23:37	0°♌	
	16093 May 16 05:43	0°♌			16095 Dec 11 10:05	0°♌	
	16093 Jun 09 15:36	0°Ω		asc. node	16095 Dec 27 13:01	19°♌20'31	
	16093 Jul 04 04:10	0°♐			16096 Jan 05 08:43	0°♌	
asc. node	16093 Jul 11 10:11	8°♐49'06			16096 Jan 30 00:12	0°≈	
	16093 Jul 28 22:59	0°♌			16096 Feb 23 11:33	0°♐	
	16093 Aug 23 06:29	0°♌			16096 Mar 18 20:52	0°♐	
	16093 Sep 18 17:42	0°♌		morning set	16096 Mar 28 23:34	12°♐27'31	
evening max el	16093 Oct 05 07:52	17°♌26'00	46°37'50		16096 Apr 12 05:04	0°♌	
	16093 Oct 18 14:27	0°♌		desc. node	16096 Apr 17 08:05	6°♌19'31	
desc. node	16093 Oct 31 07:11	10°♌08'53		max. Earth dist.	16096 May 04 07:47	27°♌18'45	1.72808 AU
greatest brilliancy	16093 Nov 13 18:32	17°♌35'45	-4.8m				
retrograde	16093 Nov 24 13:45	19°♌45'05		superior conj	16096 May 06 07:19	29°♌45'41	-0°44'10
evening set	16093 Dec 12 06:23	13°♌48'11		minimum elong	16096 May 05 22:00	29°♌16'51	0°44'22
min. Earth dist.	16093 Dec 15 02:09	12°♌05'12	0.28130 AU		16096 May 06 11:57	0°♌	
inferior conj	16093 Dec 15 19:02	11°♌39'10	-8°38'47		16096 May 30 17:02	0°♌	

evening rise	16096 Jun 13 22:31	17°☿40'11			16098 Dec 20 11:15	0°♊	
	16096 Jun 23 20:28	0°♋			16099 Jan 17 01:47	0°♌	
	16096 Jul 17 23:16	0°♍	asc. node		16099 Jan 23 23:51	7°♌51'44	
asc. node	16096 Aug 07 23:24	26°♍05'37			16099 Feb 12 01:56	0°♍	
	16096 Aug 11 03:00	0°♎			16099 Mar 09 07:49	0°♏	
	16096 Sep 04 09:41	0°♐			16099 Apr 03 03:46	0°♑	
	16096 Sep 28 22:25	0°♊			16099 Apr 27 17:46	0°♋	
	16096 Oct 23 23:19	0°♌	desc. node		16099 May 15 21:13	22°♌17'15	
	16096 Nov 19 01:24	0°♍			16099 May 22 03:20	0°♎	
desc. node	16096 Nov 27 18:06	9°♍32'35	morning set		16099 Jun 09 13:59	22°♎48'49	
evening max el	16096 Dec 15 21:12	28°♍15'59 46°16'23			16099 Jun 15 08:56	0°☿	
	16096 Dec 17 16:04	0°♏			16099 Jul 09 11:09	0°♋	
greatest brilliancy	16097 Jan 24 06:49	27°♏17'31 -4.8m	max. Earth dist.		16099 Jul 16 16:13	9°♋00'26 1.71858 AU	
retrograde	16097 Feb 03 06:45	29°♏06'52					
evening set	16097 Feb 19 19:02	23°♏54'59	superior conj		16099 Jul 19 03:16	12°♋04'58 -1°25'50	
inferior conj	16097 Feb 24 16:55	20°♏54'47 -5°31'06	minimum elong		16099 Jul 19 08:20	12°♋20'47 1°26'23	
minimum elong	16097 Feb 25 03:03	20°♏38'52 5°28'27			16099 Aug 02 11:06	0°♍	
min. Earth dist.	16097 Feb 24 22:14	20°♏46'27 0.28582 AU			16099 Aug 26 10:17	0°♎	
morning rise	16097 Mar 02 11:04	17°♏25'49	evening rise		16099 Aug 28 03:29	2°♎08'57	
direct	16097 Mar 17 23:31	12°♏46'05	asc. node		16099 Sep 05 13:08	12°♎39'35	
asc. node	16097 Mar 20 17:32	12°♏54'51			16099 Sep 19 10:01	0°♐	
greatest brilliancy	16097 Mar 28 16:04	14°♏51'06 -4.8m			16099 Oct 13 11:42	0°♊	
	16097 Apr 21 07:38	0°♑			16099 Nov 06 17:33	0°♌	
morning max el	16097 May 06 03:46	13°♑33'48 45°54'57			16099 Dec 01 07:20	0°♍	
	16097 May 22 04:11	0°♋	desc. node		16099 Dec 26 06:02	29°♍45'51	
	16097 Jun 18 02:25	0°♎			16099 Dec 26 10:51	0°♏	
desc. node	16097 Jul 10 18:56	26°♎36'45			16100 Jan 21 13:26	0°♑	
	16097 Jul 13 15:04	0°☿			16100 Feb 18 13:01	0°♋	
	16097 Aug 07 10:27	0°♋	evening max el		16100 Feb 25 19:05	7°♋10'53 46°00'40	
	16097 Aug 31 20:13	0°♍			16100 Mar 25 06:06	0°♎	
	16097 Sep 25 00:55	0°♎	greatest brilliancy		16100 Apr 05 20:13	5°♎53'01 -4.8m	
	16097 Oct 19 03:13	0°♐	retrograde		16100 Apr 16 00:04	7°♎47'01	
asc. node	16097 Oct 31 14:29	15°♐32'51	asc. node		16100 Apr 18 03:41	7°♎41'26	
morning set	16097 Nov 06 16:02	23°♐06'52	evening set		16100 May 01 03:15	3°♎16'40	
	16097 Nov 12 04:29	0°♊			16100 May 06 14:15	30°♏♋	
	16097 Dec 06 05:39	0°♌	inferior conj		16100 May 07 03:36	29°♋39'05 4°32'09	
			minimum elong		16100 May 06 18:32	29°♋53'17 4°29'05	
superior conj	16097 Dec 14 23:31	10°♌53'53 1°22'39	min. Earth dist.		16100 May 07 00:35	29°♋43'49 0.28281 AU	
minimum elong	16097 Dec 14 17:19	10°♌34'35 1°23'17	morning rise		16100 May 12 09:43	26°♋27'01	
max. Earth dist.	16097 Dec 17 05:35	13°♌42'14 1.72292 AU	direct		16100 May 28 07:34	21°♋29'03	
	16097 Dec 30 07:58	0°♍	greatest brilliancy		16100 Jun 07 13:58	23°♋27'06 -4.8m	
evening rise	16098 Jan 21 09:18	27°♍20'24			16100 Jun 19 23:37	0°♎	
	16098 Jan 23 12:58	0°♏	morning max el		16100 Jul 17 07:44	23°♎28'16 46°35'43	
	16098 Feb 16 21:57	0°♑			16100 Jul 23 17:58	0°☿	
desc. node	16098 Feb 20 06:31	4°♑06'48	desc. node		16100 Aug 08 05:13	16°☿37'17	
	16098 Mar 13 11:16	0°♋			16100 Aug 20 02:20	0°♋	
	16098 Apr 07 04:46	0°♎			16100 Sep 14 17:28	0°♍	
	16098 May 02 03:11	0°☿			16100 Oct 09 15:12	0°♎	
	16098 May 27 10:07	0°♋			16100 Nov 03 04:47	0°♐	
asc. node	16098 Jun 12 23:37	19°♋14'05			16100 Nov 27 14:02	0°♊	
	16098 Jun 22 11:02	0°♍	asc. node		16100 Nov 29 03:10	1°♊54'35	
	16098 Jul 20 08:24	0°♎			16100 Dec 21 20:35	0°♌	
evening max el	16098 Jul 22 13:27	2°♎12'57 46°33'59			16101 Jan 15 01:44	0°♍	
	16098 Aug 25 22:04	0°♐	morning set		16101 Jan 17 14:45	3°♍08'59	
greatest brilliancy	16098 Aug 31 10:12	2°♐27'32 -4.9m			16101 Feb 08 07:02	0°♏	
retrograde	16098 Sep 10 15:25	4°♐25'17					
evening set	16098 Sep 25 04:02	0°♐17'35	superior conj		16101 Feb 23 14:04	18°♏54'26 0°56'34	
	16098 Sep 25 17:08	30°♏♋	minimum elong		16101 Feb 23 23:58	19°♏25'01 0°56'24	
inferior conj	16098 Oct 01 08:41	26°♎41'30 0°25'03	max. Earth dist.		16101 Feb 25 06:55	21°♏00'34 1.73038 AU	
minimum elong	16098 Oct 01 09:41	26°♎39'59 0°24'59			16101 Mar 04 13:41	0°♑	
min. Earth dist.	16098 Oct 01 09:07	26°♎40'50 0.26931 AU	desc. node		16101 Mar 20 20:17	20°♑03'49	
desc. node	16098 Oct 02 22:51	25°♎43'37			16101 Mar 28 21:55	0°♋	
morning rise	16098 Oct 07 15:19	23°♎02'13	evening rise		16101 Apr 02 11:22	5°♋36'55	
direct	16098 Oct 22 01:53	18°♎56'55			16101 Apr 22 07:04	0°♎	
greatest brilliancy	16098 Nov 01 01:52	20°♎47'28 -4.8m			16101 May 16 16:32	0°☿	
	16098 Nov 17 12:28	0°♐			16101 Jun 10 02:48	0°♋	
morning max el	16098 Dec 10 19:33	20°♐16'38 46°24'03			16101 Jul 04 15:54	0°♍	

asc. node	16101 Jul 11 11:59	8° $\cap$ 18'23	
	16101 Jul 29 11:35	0° $\Omega$	
	16101 Aug 23 20:36	0° $\cap$	
	16101 Sep 19 11:12	0° $\nearrow$	
evening max el	16101 Oct 03 23:18	15° $\nearrow$ 10'00	46°38'12
	16101 Oct 19 20:34	0° $\nearrow$	
desc. node	16101 Oct 31 09:09	8° $\searrow$ 52'11	
greatest brilliancy	16101 Nov 12 08:37	15° $\searrow$ 18'22	-4.8m
retrograde	16101 Nov 23 04:51	17° $\searrow$ 28'10	
evening set	16101 Dec 10 17:21	11° $\searrow$ 37'10	
min. Earth dist.	16101 Dec 13 15:37	9° $\searrow$ 50'23	0.28085 AU
inferior conj	16101 Dec 14 09:24	9° $\searrow$ 22'57	-8°32'26
minimum elong	16101 Dec 14 02:36	9° $\searrow$ 33'26	8°31'00
morning rise	16101 Dec 17 12:07	7° $\searrow$ 29'14	
direct	16102 Jan 04 11:42	1° $\searrow$ 27'39	
greatest brilliancy	16102 Jan 14 01:19	3° $\searrow$ 08'33	-4.8m