





















































































































superior conj	12601 Jul 23 15:13	11°Ω28'13	-1°01'07	minimum elong	12603 Dec 16 03:47	4°Ω06'34	8°40'06
minimum elong	12601 Jul 24 02:56	12°Ω05'00	1°01'28	min. Earth dist.	12603 Dec 15 22:03	4°Ω15'35	0.28945 AU
max. Earth dist.	12601 Jul 24 13:46	12°Ω39'00	1.71434 AU	morning rise	12603 Dec 19 09:38	2°Ω05'45	
	12601 Aug 07 09:46	0°Π			12603 Dec 23 01:42	30°R♂	
asc. node	12601 Aug 20 07:45	16°Π10'18		direct	12604 Jan 06 10:40	25°♂59'35	
	12601 Aug 31 09:16	0°♂		greatest brilliancy	12604 Jan 16 17:36	27°♂55'02	-4.7m
evening rise	12601 Sep 01 12:54	1°♂26'17			12604 Jan 21 14:27	0°Ω	
	12601 Sep 24 11:30	0°Π		asc. node	12604 Feb 05 08:33	9°Ω33'10	
	12601 Oct 18 17:56	0°♂		morning max el	12604 Feb 24 12:18	26°Ω31'50	45°48'34
	12601 Nov 12 06:57	0°Ω			12604 Feb 28 00:40	0°≈	
	12601 Dec 07 05:53	0°≈			12604 Mar 27 02:18	0°♂	
desc. node	12601 Dec 10 01:10	3°≈19'46			12604 Apr 22 02:28	0°Υ	
	12602 Jan 01 19:10	0°♂			12604 May 17 04:16	0°♂	
	12602 Jan 28 06:47	0°Υ		desc. node	12604 May 27 06:34	12°♂16'55	
	12602 Feb 25 17:31	0°♂			12604 Jun 10 17:18	0°Π	
evening max el	12602 Feb 27 20:13	2°♂04'28	46°07'21		12604 Jul 04 22:41	0°Ω	
asc. node	12602 Apr 02 01:38	28°♂34'38			12604 Jul 29 00:08	0°Ω	
	12602 Apr 04 23:32	0°Π			12604 Aug 22 00:24	0°Π	
greatest brilliancy	12602 Apr 08 10:45	1°Π23'29	-4.8m	morning set	12604 Aug 27 01:03	6°Π16'49	
retrograde	12602 Apr 18 07:29	3°Π11'35			12604 Sep 15 01:08	0°♂	
	12602 Apr 30 22:10	30°R♂		asc. node	12604 Sep 16 22:03	2°♂20'06	
evening set	12602 May 04 17:40	27°♂56'42					
inferior conj	12602 May 09 02:22	25°♂17'25	7°51'57	superior conj	12604 Oct 04 23:17	24°♂49'46	0°42'05
minimum elong	12602 May 08 16:33	25°♂32'41	7°49'38	minimum elong	12604 Oct 04 14:31	24°♂22'29	0°41'59
min. Earth dist.	12602 May 09 02:22	25°♂17'24	0.27605 AU	max. Earth dist.	12604 Oct 07 07:22	27°♂44'17	1.72266 AU
morning rise	12602 May 12 15:23	23°♂07'02			12604 Oct 09 03:00	0°Π	
direct	12602 May 30 01:06	17°♂17'51			12604 Nov 02 06:39	0°♂	
greatest brilliancy	12602 Jun 08 22:24	19°♂08'55	-4.9m	evening rise	12604 Nov 11 10:26	11°♂20'21	
	12602 Jun 27 07:27	0°Π			12604 Nov 26 13:10	0°Ω	
morning max el	12602 Jul 19 13:39	20°Π10'04	46°58'15		12604 Dec 20 23:59	0°≈	
desc. node	12602 Jul 23 03:34	23°Π48'44		desc. node	12605 Jan 06 13:20	20°≈09'42	
	12602 Jul 29 01:36	0°Ω			12605 Jan 14 16:10	0°♂	
	12602 Aug 25 00:59	0°Ω			12605 Feb 08 14:15	0°Υ	
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	12602 Oct 14 17:43	0°♂			12605 Mar 31 12:43	0°Π	
	12602 Nov 08 12:39	0°Π			12605 Apr 27 10:01	0°Ω	
asc. node	12602 Nov 13 00:05	5°Π26'42		asc. node	12605 Apr 29 11:05	2°Ω11'00	
	12602 Dec 03 02:58	0°♂		evening max el	12605 May 11 12:31	14°Ω38'05	46°39'35
	12602 Dec 27 13:51	0°Ω			12605 May 28 01:37	0°Ω	
morning set	12603 Jan 17 20:10	26°Ω10'37		greatest brilliancy	12605 Jun 21 01:24	15°Ω13'02	-4.9m
	12603 Jan 20 22:37	0°≈		retrograde	12605 Jun 30 16:10	16°Ω57'52	
	12603 Feb 14 06:17	0°♂		evening set	12605 Jul 17 03:51	11°Ω43'45	
max. Earth dist.	12603 Feb 22 19:26	10°♂33'10	1.72967 AU	inferior conj	12605 Jul 21 08:36	9°Ω12'38	6°47'45
				minimum elong	12605 Jul 21 19:47	8°Ω55'28	6°44'30
superior conj	12603 Feb 24 02:20	12°♂08'35	0°20'26	min. Earth dist.	12605 Jul 21 19:26	8°Ω56'01	0.27048 AU
minimum elong	12603 Feb 24 06:59	12°♂22'57	0°20'35	morning rise	12605 Jul 26 11:34	6°Ω09'20	
desc. node	12603 Mar 04 14:46	22°♂40'06		direct	12605 Aug 11 01:08	1°Ω24'44	
	12603 Mar 10 13:04	0°Υ		desc. node	12605 Aug 19 13:31	2°Ω46'42	
evening rise	12603 Apr 03 12:17	29°Υ40'48		greatest brilliancy	12605 Aug 21 04:10	3°Ω19'07	-4.9m
	12603 Apr 03 18:29	0°♂			12605 Sep 26 15:50	0°Π	
	12603 Apr 27 22:16	0°Π		morning max el	12605 Sep 30 01:46	3°Π19'33	46°32'01
	12603 May 22 01:20	0°Ω			12605 Oct 25 11:41	0°♂	
	12603 Jun 15 05:49	0°Ω			12605 Nov 21 01:17	0°Π	
asc. node	12603 Jun 25 07:02	12°Ω24'23		asc. node	12605 Dec 10 12:47	22°Π44'58	
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	12603 Aug 28 20:25	0°Π			12606 Feb 04 10:21	0°≈	
	12603 Sep 24 21:39	0°♂			12606 Feb 28 22:02	0°♂	
evening max el	12603 Oct 05 23:34	11°♂19'07	46°14'34		12606 Mar 25 05:51	0°Υ	
desc. node	12603 Oct 15 06:18	20°♂06'39		morning set	12606 Mar 28 18:17	4°Υ21'12	
	12603 Oct 27 02:07	0°Ω		desc. node	12606 Apr 01 05:08	8°Υ37'44	
greatest brilliancy	12603 Nov 14 03:42	10°Ω31'00	-4.8m		12606 Apr 18 10:15	0°♂	
retrograde	12603 Nov 24 12:24	12°Ω28'07		max. Earth dist.	12606 May 04 01:26	19°♂28'51	1.71915 AU
evening set	12603 Dec 12 22:02	6°Ω07'49					
inferior conj	12603 Dec 16 00:37	4°Ω11'33	-8°41'11	superior conj	12606 May 07 07:35	23°♂32'50	-1°13'48

minimum elong	12606 May 06 21:06	23°  00'05	1°14'12	greatest brilliancy	12608 Nov 02 03:14	16°  23'00	-4.8m
	12606 May 12 11:31	0°  II			12608 Nov 24 20:09	0°  III	
	12606 Jun 05 10:34	0°  III		morning max el	12608 Dec 11 15:31	14°  III56'22	45°50'04
evening rise	12606 Jun 16 02:40	13°  III22'36			12608 Dec 26 14:22	0°  IV	
	12606 Jun 29 09:04	0°  V		asc. node	12609 Jan 07 00:18	12°  IV13'03	
asc. node	12606 Jul 22 19:53	29°  V19'08			12609 Jan 22 23:12	0°  V	
	12606 Jul 23 08:59	0°  VI			12609 Feb 17 19:44	0°  VI	
	12606 Aug 16 12:17	0°  VII			12609 Mar 14 22:09	0°  VII	
	12606 Sep 09 21:25	0°  VIII			12609 Apr 08 13:58	0°  VIII	
	12606 Oct 04 16:32	0°  IX		desc. node	12609 Apr 28 19:07	24°  VIII52'25	
	12606 Oct 30 05:17	0°  X			12609 May 02 22:34	0°  IX	
desc. node	12606 Nov 11 16:08	14°  X08'29			12609 May 27 01:46	0°  X	
	12606 Nov 26 03:41	0°  XI		morning set	12609 Jun 11 02:48	18°  XI48'27	
evening max el	12606 Dec 15 23:42	20°  XI13'53	45°53'01		12609 Jun 20 01:12	0°  XII	
	12606 Dec 26 15:13	0°  XII			12609 Jul 13 22:51	0°  XII	
greatest brilliancy	12607 Jan 24 02:09	18°  XII33'57	-4.8m				
retrograde	12607 Feb 02 22:07	20°  XII19'59		superior conj	12609 Jul 21 02:55	8°  XII59'55	-1°03'51
evening set	12607 Feb 18 04:09	15°  XII48'52		minimum elong	12609 Jul 21 14:38	9°  XII36'42	1°04'13
inferior conj	12607 Feb 24 03:37	12°  XII13'46	-2°07'06	max. Earth dist.	12609 Jul 21 23:52	10°  XII05'39	1.71420 AU
minimum elong	12607 Feb 24 08:18	12°  XII06'27	2°05'18		12609 Aug 06 20:42	0°  I	
min. Earth dist.	12607 Feb 24 14:44	11°  XII56'24	0.28329 AU	asc. node	12609 Aug 19 09:40	15°  I42'02	
morning rise	12607 Mar 02 11:56	8°  I25'23		evening rise	12609 Aug 30 02:03	29°  I40'15	
asc. node	12607 Mar 04 18:15	7°  I14'50			12609 Aug 30 20:13	0°  II	
direct	12607 Mar 17 09:13	4°  I02'35			12609 Sep 23 22:32	0°  II	
greatest brilliancy	12607 Mar 28 07:11	6°  I14'39	-4.8m		12609 Oct 18 05:09	0°  III	
	12607 Apr 30 04:58	0°  II			12609 Nov 11 18:31	0°  III	
morning max el	12607 May 06 07:42	5°  II56'00	46°28'49		12609 Dec 06 18:08	0°  III	
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desc. node	12607 Jun 24 18:46	0°  III40'00			12610 Jan 27 22:42	0°  IV	
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asc. node	12607 Oct 15 12:14	18°  V29'50			12610 Apr 09 04:31	0°  VI	
	12607 Oct 24 19:22	0°  VI		retrograde	12610 Apr 15 20:33	0°  VI50'41	
morning set	12607 Nov 07 13:02	16°  VI59'43			12610 Apr 22 07:44	30°  VI48'00	
	12607 Nov 18 01:12	0°  VII		evening set	12610 May 02 03:27	25°  VI41'55	
	12607 Dec 12 07:17	0°  VII		inferior conj	12610 May 06 16:18	22°  VII56'26	7°39'31
				minimum elong	12610 May 06 06:08	23°  VII12'17	7°37'03
superior conj	12607 Dec 14 14:51	2°  VII51'42	1°25'27	min. Earth dist.	12610 May 06 16:19	22°  VII56'25	0.27621 AU
minimum elong	12607 Dec 14 17:14	2°  VII59'05	1°26'22	morning rise	12610 May 10 08:43	20°  VII40'43	
max. Earth dist.	12607 Dec 16 00:10	4°  VII34'40	1.73075 AU	direct	12610 May 27 15:06	14°  VII56'35	
	12608 Jan 05 14:32	0°  VIII		greatest brilliancy	12610 Jun 06 13:11	16°  VII47'55	-4.9m
evening rise	12608 Jan 20 18:58	18°  VIII42'03			12610 Jun 27 20:51	0°  VIII	
	12608 Jan 29 23:33	0°  IX		morning max el	12610 Jul 17 02:27	17°  VIII44'40	46°58'02
desc. node	12608 Feb 04 02:39	6°  IX18'00		desc. node	12610 Jul 22 05:42	22°  VIII59'50	
	12608 Feb 23 10:10	0°  X			12610 Jul 28 20:56	0°  IX	
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	12608 Jun 27 03:11	0°  XII			12610 Dec 02 14:11	0°  XII	
evening max el	12608 Jul 23 06:45	28°  XII03'39	46°45'10		12610 Dec 27 00:48	0°  XII	
	12608 Jul 25 05:27	0°  XIII		morning set	12611 Jan 15 13:10	24°  XII01'43	
greatest brilliancy	12608 Aug 31 14:04	28°  XII20'18	-4.8m		12611 Jan 20 09:27	0°  XIII	
	12608 Sep 06 02:03	0°  XIII			12611 Feb 13 17:06	0°  XIII	
retrograde	12608 Sep 11 14:42	0°  XIII35'31		max. Earth dist.	12611 Feb 20 11:12	8°  XIII20'20	1.72989 AU
desc. node	12608 Sep 15 22:53	0° XIII12'28					
	12608 Sep 16 23:54	30° XIII48'00		superior conj	12611 Feb 21 18:04	9° XIII55'36	0°23'46
evening set	12608 Sep 26 12:59	26° XIII12'04		minimum elong	12611 Feb 21 23:24	10° XIII12'04	0°23'55
min. Earth dist.	12608 Oct 01 20:33	23° XIII04'16	0.27662 AU	desc. node	12611 Mar 03 16:40	22° XIII12'28	
inferior conj	12608 Oct 02 15:49	22° XIII34'41	-4°05'57		12611 Mar 09 23:56	0° XIV	
minimum elong	12608 Oct 02 07:16	22° XIII47'48	4°03'16	evening rise	12611 Apr 01 03:02	27° XIII23'48	
morning rise	12608 Oct 08 02:16	19° XIII21'28			12611 Apr 03 05:26	0° XIV	
direct	12608 Oct 23 15:03	14° XIII43'29			12611 Apr 27 09:23	0° XIV	

	12611 May 21 12:40	0°☿		12613 Oct 25 04:12	0°♊
	12611 Jun 14 17:31	0°♋		12613 Nov 20 15:03	0°♌
asc. node	12611 Jun 24 09:02	11°♌53'58	asc. node	12613 Dec 09 14:45	22°♌13'16
	12611 Jul 09 03:09	0°♍		12613 Dec 16 04:19	0°♎
	12611 Aug 02 22:10	0°♏		12614 Jan 10 04:57	0°♐
	12611 Aug 28 11:16	0°♑		12614 Feb 03 21:34	0°♒
	12611 Sep 24 16:40	0°♓		12614 Feb 28 09:00	0°♔
evening max el	12611 Oct 03 13:38	9°♓00'56 46°15'43		12614 Mar 24 16:42	0°♕
desc. node	12611 Oct 14 08:14	19°♓10'05	morning set	12614 Mar 26 08:30	2°♕03'07
	12611 Oct 27 18:10	0°♐	desc. node	12614 Mar 31 06:51	8°♕09'28
greatest brilliancy	12611 Nov 11 19:16	8°♐18'54 -4.8m		12614 Apr 17 21:05	0°♖
retrograde	12611 Nov 22 03:51	10°♐16'31	max. Earth dist.	12614 May 01 15:33	17°♖09'14 1.71955 AU
evening set	12611 Dec 10 14:29	3°♐55'26			
inferior conj	12611 Dec 13 16:35	2°♐00'04 -8°44'00	superior conj	12614 May 04 20:14	21°♖08'32 -1°11'42
minimum elong	12611 Dec 13 18:58	1°♐56'19 8°42'59	minimum elong	12614 May 04 09:24	20°♖34'44 1°12'03
min. Earth dist.	12611 Dec 13 13:17	2°♐05'14 0.28934 AU		12614 May 11 22:23	0°♗
morning rise	12611 Dec 16 23:30	29°♓57'26		12614 Jun 04 21:30	0°☿
	12611 Dec 16 21:48	30°♒♓	evening rise	12614 Jun 13 14:15	10°☿54'11
direct	12612 Jan 04 01:53	23°♓48'24		12614 Jun 28 20:05	0°♋
greatest brilliancy	12612 Jan 14 08:59	25°♓43'30 -4.7m	asc. node	12614 Jul 21 21:48	28°♋50'28
	12612 Jan 23 07:30	0°♐		12614 Jul 22 20:06	0°♍
asc. node	12612 Feb 04 10:39	8°♐28'54		12614 Aug 15 23:37	0°♏
morning max el	12612 Feb 22 02:45	24°♐16'07 45°47'46		12614 Sep 09 09:09	0°♑
	12612 Feb 27 21:10	0°♒		12614 Oct 04 04:59	0°♓
	12612 Mar 26 17:30	0°♔		12614 Oct 29 19:10	0°♐
	12612 Apr 21 15:41	0°♕	desc. node	12614 Nov 10 18:05	13°♐32'02
	12612 May 16 16:30	0°♖		12614 Nov 25 20:50	0°♒
desc. node	12612 May 26 08:29	11°♖46'07	evening max el	12614 Dec 13 15:45	18°♖03'30 45°53'14
	12612 Jun 10 04:59	0°♗		12614 Dec 26 20:23	0°♔
	12612 Jul 04 10:02	0°☿	greatest brilliancy	12615 Jan 21 16:43	16°♔20'37 -4.7m
	12612 Jul 28 11:16	0°♋	retrograde	12615 Jan 31 13:42	18°♔07'05
	12612 Aug 21 11:25	0°♍	evening set	12615 Feb 15 21:24	13°♔33'13
morning set	12612 Aug 24 14:32	3°♍54'42	inferior conj	12615 Feb 21 19:03	10°♔00'16 -2°27'42
	12612 Sep 14 12:02	0°♏	minimum elong	12615 Feb 22 00:26	9°♔51'51 2°25'41
asc. node	12612 Sep 15 23:50	1°♏51'39	min. Earth dist.	12615 Feb 22 06:06	9°♔43'00 0.28364 AU
			morning rise	12615 Feb 28 03:04	6°♔12'28
superior conj	12612 Oct 02 14:05	22°♏32'40 0°38'56	asc. node	12615 Mar 03 20:07	4°♔21'37
minimum elong	12612 Oct 02 05:46	22°♏06'47 0°38'50	direct	12615 Mar 15 01:34	1°♔48'57
max. Earth dist.	12612 Oct 04 19:32	25°♏19'02 1.72232 AU	greatest brilliancy	12615 Mar 25 22:45	4°♔00'41 -4.8m
	12612 Oct 08 13:51	0°♑		12615 Apr 30 04:57	0°♕
	12612 Nov 01 17:29	0°♓	morning max el	12615 May 03 23:38	3°♕42'03 46°27'07
evening rise	12612 Nov 09 02:37	9°♓08'23		12615 May 28 17:44	0°♖
	12612 Nov 26 00:05	0°♐	desc. node	12615 Jun 23 20:46	0°♗05'19
	12612 Dec 20 11:06	0°♒		12615 Jun 23 18:58	0°♗
desc. node	12613 Jan 05 15:20	19°♒41'21		12615 Jul 18 19:56	0°☿
	12613 Jan 14 03:40	0°♔		12615 Aug 12 09:22	0°♋
	12613 Feb 08 02:22	0°♕		12615 Sep 05 17:43	0°♍
	12613 Mar 05 08:33	0°♖		12615 Sep 30 00:15	0°♏
	12613 Mar 31 03:38	0°♗	asc. node	12615 Oct 14 14:04	18°♏01'53
	12613 Apr 27 04:58	0°☿		12615 Oct 24 06:09	0°♑
asc. node	12613 Apr 28 13:02	1°☿24'56	morning set	12615 Nov 05 05:08	14°♑47'58
evening max el	12613 May 09 01:19	12°☿13'20 46°38'49		12615 Nov 17 11:49	0°♓
	12613 May 28 12:42	0°♋		12615 Dec 11 17:51	0°♐
greatest brilliancy	12613 Jun 18 14:53	12°♋48'38 -4.9m			
retrograde	12613 Jun 28 05:24	14°♋33'30	superior conj	12615 Dec 12 07:59	0°♐43'41 1°25'48
evening set	12613 Jul 14 20:24	9°♋13'41	minimum elong	12615 Dec 12 09:38	0°♐48'45 1°26'44
inferior conj	12613 Jul 18 21:32	6°♋47'58 7°03'43	max. Earth dist.	12615 Dec 13 20:53	2°♐37'43 1.73060 AU
minimum elong	12613 Jul 19 08:39	6°♋30'57 7°00'35		12616 Jan 05 01:08	0°♒
min. Earth dist.	12613 Jul 19 08:47	6°♋30'45 0.27063 AU	evening rise	12616 Jan 18 11:20	16°♒31'57
morning rise	12613 Jul 23 20:46	3°♋50'10		12616 Jan 29 10:16	0°♔
	12613 Aug 01 13:44	30°♒☿	desc. node	12616 Feb 03 04:30	5°♔50'39
direct	12613 Aug 08 14:04	28°☿59'27		12616 Feb 22 21:07	0°♕
	12613 Aug 15 20:22	0°♋		12616 Mar 18 09:06	0°♖
greatest brilliancy	12613 Aug 18 17:21	0°♋54'33 -4.9m		12616 Apr 11 22:31	0°♗
desc. node	12613 Aug 18 15:27	0°♋52'50		12616 May 06 15:48	0°☿
	12613 Sep 26 15:52	0°♍	asc. node	12616 May 25 23:23	23°☿08'05
morning max el	12613 Sep 27 16:23	1°♍00'17 46°33'34		12616 May 31 18:44	0°♋

	12616 Jun 26 19:33	0°♍				12619 Feb 13 03:32	0°♋	
evening max el	12616 Jul 20 22:14	25°♍46'04	46°45'40	max. Earth dist.		12619 Feb 18 04:59	6°♋14'51	1.73014 AU
	12616 Jul 25 05:03	0°♌						
greatest brilliancy	12616 Aug 29 05:19	26°♌01'36	-4.8m	superior conj		12619 Feb 19 09:59	7°♋44'21	0°27'02
retrograde	12616 Sep 09 05:21	28°♌15'54		minimum elong		12619 Feb 19 15:58	8°♋02'48	0°27'11
desc. node	12616 Sep 15 00:50	27°♌34'41		desc. node		12619 Mar 02 18:26	21°♋45'34	
evening set	12616 Sep 24 01:40	23°♌55'31				12619 Mar 09 10:26	0°♍	
min. Earth dist.	12616 Sep 29 11:07	20°♌44'55	0.27604 AU	evening rise		12619 Mar 29 17:54	25°♍08'16	
inferior conj	12616 Sep 30 05:49	20°♌16'09	-3°45'41			12619 Apr 02 16:04	0°♎	
minimum elong	12616 Sep 29 21:50	20°♌28'27	3°43'09			12619 Apr 26 20:11	0°♎	
morning rise	12616 Oct 05 18:45	16°♌59'33				12619 May 20 23:44	0°♏	
direct	12616 Oct 21 05:08	12°♌25'57				12619 Jun 14 04:57	0°♏	
greatest brilliancy	12616 Oct 30 16:35	14°♌04'57	-4.8m	asc. node		12619 Jun 23 10:57	11°♏24'09	
	12616 Nov 25 04:54	0°♎				12619 Jul 08 15:08	0°♍	
morning max el	12616 Dec 09 05:20	12°♎39'55	45°50'59			12619 Aug 02 11:04	0°♌	
	12616 Dec 26 08:08	0°♎				12619 Aug 28 01:57	0°♎	
asc. node	12617 Jan 06 02:19	11°♎35'21				12619 Sep 24 11:51	0°♎	
	12617 Jan 22 13:13	0°♏		evening max el		12619 Oct 01 03:34	6°♎43'20	46°16'53
	12617 Feb 17 08:09	0°♐		desc. node		12619 Oct 13 10:17	18°♎13'20	
	12617 Mar 14 09:46	0°♋				12619 Oct 28 15:21	0°♏	
	12617 Apr 08 01:10	0°♍		greatest brilliancy		12619 Nov 09 10:08	6°♏06'36	-4.8m
desc. node	12617 Apr 27 21:04	24°♍24'27		retrograde		12619 Nov 19 19:33	8°♏05'33	
	12617 May 02 09:32	0°♎		evening set		12619 Dec 08 06:21	1°♏44'03	
	12617 May 26 12:35	0°♎		inferior conj		12619 Dec 11 08:21	29°♎49'05	-8°45'59
morning set	12617 Jun 08 14:09	16°♎20'04		minimum elong		12619 Dec 11 09:56	29°♎46'36	8°45'01
	12617 Jun 19 11:56	0°♏		min. Earth dist.		12619 Dec 11 04:07	29°♎55'44	0.28920 AU
	12617 Jul 13 09:34	0°♏				12619 Dec 11 01:24	30°♎11'15	
superior conj	12617 Jul 18 14:39	6°♏32'29	-1°06'26	morning rise		12619 Dec 14 13:32	27°♎49'15	
minimum elong	12617 Jul 19 02:16	7°♏08'58	1°06'52	direct		12620 Jan 01 16:58	21°♎37'38	
max. Earth dist.	12617 Jul 19 07:44	7°♏26'08	1.71410 AU	greatest brilliancy		12620 Jan 12 00:10	23°♎32'43	-4.7m
	12617 Aug 06 07:26	0°♍				12620 Jan 24 11:12	0°♏	
asc. node	12617 Aug 18 11:26	15°♍13'59		asc. node		12620 Feb 03 12:29	7°♏26'44	
evening rise	12617 Aug 27 15:07	26°♍40'34		morning max el		12620 Feb 19 17:45	22°♏03'01	45°47'11
	12617 Aug 30 07:00	0°♌				12620 Feb 27 16:33	0°♐	
	12617 Sep 23 09:23	0°♎				12620 Mar 26 08:03	0°♋	
	12617 Oct 17 16:08	0°♎				12620 Apr 21 04:24	0°♍	
	12617 Nov 11 05:51	0°♏				12620 May 16 04:19	0°♎	
	12617 Dec 06 06:07	0°♐		desc. node		12620 May 25 10:27	11°♎16'39	
desc. node	12617 Dec 08 05:09	2°♐19'17				12620 Jun 09 16:19	0°♎	
	12617 Dec 31 21:53	0°♋				12620 Jul 03 21:04	0°♏	
	12618 Jan 27 14:33	0°♍				12620 Jul 27 22:07	0°♏	
evening max el	12618 Feb 23 00:16	27°♍28'15	46°05'10	morning set		12620 Aug 20 22:06	0°♍	
	12618 Feb 25 15:12	0°♎				12620 Aug 22 03:40	1°♍32'25	
asc. node	12618 Mar 31 05:34	25°♎22'51		asc. node		12620 Sep 13 22:35	0°♌	
greatest brilliancy	12618 Apr 03 14:28	26°♎43'43	-4.8m			12620 Sep 15 01:39	1°♌24'24	
retrograde	12618 Apr 13 09:40	28°♎30'50		superior conj		12620 Sep 30 04:34	20°♌15'37	0°35'43
evening set	12618 Apr 29 13:21	23°♎27'46		minimum elong		12620 Sep 29 20:46	19°♌51'21	0°35'35
inferior conj	12618 May 04 06:19	20°♎36'27	7°26'11	max. Earth dist.		12620 Oct 02 08:44	22°♌58'05	1.72200 AU
minimum elong	12618 May 03 19:51	20°♎52'46	7°23'35			12620 Oct 08 00:20	0°♎	
min. Earth dist.	12618 May 04 06:32	20°♎36'07	0.27637 AU			12620 Nov 01 03:59	0°♎	
morning rise	12618 May 08 02:11	18°♎15'27		evening rise		12620 Nov 06 18:47	6°♎57'22	
direct	12618 May 25 04:43	12°♎36'10				12620 Nov 25 10:41	0°♏	
greatest brilliancy	12618 Jun 04 04:30	14°♎28'32	-4.9m			12620 Dec 19 21:56	0°♐	
	12618 Jun 28 06:23	0°♎		desc. node		12621 Jan 04 17:10	19°♐13'32	
morning max el	12618 Jul 14 15:09	15°♎20'02	46°57'52			12621 Jan 13 14:51	0°♋	
desc. node	12618 Jul 21 07:40	22°♎12'16				12621 Feb 07 14:08	0°♍	
	12618 Jul 28 15:22	0°♏				12621 Mar 04 21:20	0°♎	
	12618 Aug 24 06:50	0°♏				12621 Mar 30 18:19	0°♎	
	12618 Sep 18 18:17	0°♍				12621 Apr 27 00:02	0°♏	
	12618 Oct 13 18:02	0°♌		asc. node		12621 Apr 27 15:04	0°♏39'29	
	12618 Nov 07 11:40	0°♎		evening max el		12621 May 06 14:51	9°♏51'33	46°37'53
asc. node	12618 Nov 11 03:54	4°♎28'47				12621 May 29 03:10	0°♏	
	12618 Dec 02 01:04	0°♎		greatest brilliancy		12621 Jun 16 03:35	10°♏23'54	-4.9m
	12618 Dec 26 11:24	0°♏		retrograde		12621 Jun 25 18:44	12°♏09'12	
morning set	12619 Jan 13 06:22	21°♏54'29		evening set		12621 Jul 12 12:47	6°♏43'41	
	12619 Jan 19 19:54	0°♐		inferior conj		12621 Jul 16 10:15	4°♏23'14	7°18'56

minimum elong	12621 Jul 16 21:13	4°06'30	7°15'56			12623 Dec 11 04:18	0°3	
min. Earth dist.	12621 Jul 16 21:30	4°06'03	0.27081 AU		max. Earth dist.	12623 Dec 11 16:11	0°36'43	1.73040 AU
morning rise	12621 Jul 21 05:33	1°03'16				12624 Jan 04 11:37	0°≈	
	12621 Jul 24 01:47	30°R			evening rise	12624 Jan 16 03:27	14°≈21'21	
direct	12621 Aug 06 03:24	26°34'19				12624 Jan 28 20:54	0°H	
greatest brilliancy	12621 Aug 16 05:48	28°29'19	-4.9m		desc. node	12624 Feb 02 06:17	5°H23'25	
desc. node	12621 Aug 17 17:24	29°03'33				12624 Feb 22 08:00	0°Y	
	12621 Aug 19 21:06	0°0				12624 Mar 17 20:21	0°B	
morning max el	12621 Sep 25 07:08	28°041'56	46°35'04			12624 Apr 11 10:14	0°II	
	12621 Sep 26 14:36	0°M				12624 May 06 04:15	0°3	
	12621 Oct 24 20:08	0°0			asc. node	12624 May 25 01:21	22°34'17	
	12621 Nov 20 04:24	0°M				12624 May 31 08:29	0°0	
asc. node	12621 Dec 08 16:40	21°M42'27				12624 Jun 26 12:01	0°M	
	12621 Dec 15 16:22	0°J			evening max el	12624 Jul 18 12:35	23°M26'07	46°46'01
	12622 Jan 09 16:17	0°3				12624 Jul 25 05:33	0°0	
	12622 Feb 03 08:28	0°≈			greatest brilliancy	12624 Aug 26 20:57	23°043'30	-4.9m
	12622 Feb 27 19:40	0°H			retrograde	12624 Sep 06 19:23	25°056'14	
morning set	12622 Mar 23 23:06	29°H47'11			desc. node	12624 Sep 14 02:54	24°051'14	
	12622 Mar 24 03:14	0°Y			evening set	12624 Sep 21 14:28	21°038'33	
desc. node	12622 Mar 30 08:49	7°Y42'56			min. Earth dist.	12624 Sep 27 02:01	18°024'55	0.27553 AU
	12622 Apr 17 07:35	0°B			inferior conj	12624 Sep 27 19:46	17°057'34	-3°24'57
max. Earth dist.	12622 Apr 29 05:36	14°B50'34	1.71991 AU		minimum elong	12624 Sep 27 12:23	18°008'57	3°22'34
					morning rise	12624 Oct 03 11:02	14°037'33	
superior conj	12622 May 02 09:10	18°B46'14	-1°09'29		direct	12624 Oct 18 18:42	10°008'07	
minimum elong	12622 May 01 22:06	18°B11'43	1°09'48		greatest brilliancy	12624 Oct 28 06:36	11°047'13	-4.8m
	12622 May 11 08:55	0°II				12624 Nov 25 11:14	0°M	
	12622 Jun 04 08:08	0°3			morning max el	12624 Dec 06 18:17	10°M21'00	45°51'57
evening rise	12622 Jun 11 01:58	8°27'07				12624 Dec 26 01:33	0°J	
	12622 Jun 28 06:50	0°0			asc. node	12625 Jan 05 04:12	10°J57'25	
asc. node	12622 Jul 20 23:34	28°022'01				12625 Jan 22 03:06	0°3	
	12622 Jul 22 07:01	0°M				12625 Feb 16 20:30	0°≈	
	12622 Aug 15 10:47	0°0				12625 Mar 13 21:21	0°H	
	12622 Sep 08 20:45	0°M				12625 Apr 07 12:21	0°Y	
	12622 Oct 03 17:20	0°J			desc. node	12625 Apr 26 22:55	23°Y56'10	
	12622 Oct 29 09:00	0°3				12625 May 01 20:30	0°B	
desc. node	12622 Nov 09 20:09	12°356'10				12625 May 25 23:25	0°II	
	12622 Nov 25 14:10	0°≈			morning set	12625 Jun 06 01:32	13°II51'45	
evening max el	12622 Dec 11 07:39	15°≈53'18	45°53'27			12625 Jun 18 22:41	0°3	
	12622 Dec 27 03:31	0°H				12625 Jul 12 20:15	0°0	
greatest brilliancy	12623 Jan 19 07:44	14°H08'19	-4.7m					
retrograde	12623 Jan 29 04:52	15°H54'26			superior conj	12625 Jul 16 02:42	4°006'10	-1°08'53
evening set	12623 Feb 13 14:44	11°H17'55			minimum elong	12625 Jul 16 14:09	4°042'09	1°09'21
inferior conj	12623 Feb 19 10:24	7°H47'14	-2°48'04		max. Earth dist.	12625 Jul 16 13:27	4°039'55	1.71396 AU
minimum elong	12623 Feb 19 16:27	7°H37'45	2°45'51			12625 Aug 05 18:07	0°M	
min. Earth dist.	12623 Feb 19 21:32	7°H29'48	0.28396 AU		asc. node	12625 Aug 17 13:19	14°M46'30	
morning rise	12623 Feb 25 17:52	4°H00'04			evening rise	12625 Aug 25 04:24	24°M18'43	
asc. node	12623 Mar 02 22:12	1°H32'30				12625 Aug 29 17:42	0°0	
	12623 Mar 08 06:45	30°R≈				12625 Sep 22 20:12	0°M	
direct	12623 Mar 12 17:45	29°≈35'51				12625 Oct 17 03:10	0°J	
	12623 Mar 17 06:48	0°H				12625 Nov 10 17:16	0°3	
greatest brilliancy	12623 Mar 23 14:06	1°H46'53	-4.8m			12625 Dec 05 18:17	0°≈	
	12623 Apr 30 03:37	0°Y			desc. node	12625 Dec 07 06:57	1°≈48'28	
morning max el	12623 May 01 14:39	1°Y26'31	46°25'35			12625 Dec 31 11:23	0°H	
	12623 May 28 09:29	0°B				12626 Jan 27 06:52	0°Y	
desc. node	12623 Jun 22 22:41	29°B31'24			evening max el	12626 Feb 20 13:19	25°Y07'55	46°04'11
	12623 Jun 23 08:21	0°II				12626 Feb 25 15:42	0°B	
	12623 Jul 18 08:11	0°3			asc. node	12626 Mar 30 07:38	23°B41'24	
	12623 Aug 11 20:58	0°0			greatest brilliancy	12626 Apr 01 04:04	24°B23'25	-4.8m
	12623 Sep 05 04:54	0°M			retrograde	12626 Apr 10 23:01	26°B10'41	
	12623 Sep 29 11:08	0°0			evening set	12626 Apr 26 23:15	21°B12'41	
asc. node	12623 Oct 13 16:03	17°034'42			inferior conj	12626 May 01 20:15	18°B15'52	7°12'06
	12623 Oct 23 16:49	0°M			minimum elong	12626 May 01 09:32	18°B32'32	7°09'22
morning set	12623 Nov 02 20:49	12°M35'14			min. Earth dist.	12626 May 01 20:37	18°B15'17	0.27655 AU
	12623 Nov 16 22:21	0°J			morning rise	12626 May 05 19:36	15°B49'43	
					direct	12626 May 22 18:16	10°B14'54	
superior conj	12623 Dec 10 00:49	28°J35'04	1°26'01		greatest brilliancy	12626 Jun 01 19:51	12°B08'42	-4.9m
minimum elong	12623 Dec 10 01:43	28°J37'49	1°26'57			12626 Jun 28 13:31	0°II	

morning max el	12626 Jul 12 04:44	12° Π 57'07	46°57'52		12629 Jan 13 02:20	0° H	
desc. node	12626 Jul 20 09:32	21° Π 24'45			12629 Feb 07 02:17	0° Υ	
	12626 Jul 28 09:29	0° S			12629 Mar 04 10:36	0° B	
	12626 Aug 23 21:23	0° Ω			12629 Mar 30 09:38	0° Π	
	12626 Sep 18 07:11	0° M		asc. node	12629 Apr 26 17:01	29° Π 51'52	
	12626 Oct 13 05:59	0° L			12629 Apr 26 20:09	0° S	
	12626 Nov 06 23:01	0° M		evening max el	12629 May 04 05:03	7° S 30'20	46°36'56
asc. node	12626 Nov 10 05:43	3° M 59'54			12629 May 29 23:21	0° Ω	
	12626 Dec 01 12:03	0° A		greatest brilliancy	12629 Jun 13 16:14	7° Ω 58'08	-4.9m
	12626 Dec 25 22:10	0° S		retrograde	12629 Jun 23 08:02	9° Ω 43'34	
morning set	12627 Jan 10 23:30	19° S 46'24		evening set	12629 Jul 10 05:11	4° Ω 12'38	
	12627 Jan 19 06:34	0° \approx		inferior conj	12629 Jul 13 22:58	1° Ω 57'17	7°33'19
	12627 Feb 12 14:11	0° H		minimum elong	12629 Jul 14 09:39	1° Ω 40'56	7°30'29
max. Earth dist.	12627 Feb 16 00:10	4° H 13'01	1.73037 AU	min. Earth dist.	12629 Jul 14 09:57	1° Ω 40'28	0.27100 AU
					12629 Jul 17 04:29	30° R S	
superior conj	12627 Feb 17 01:46	5° H 32'02	0°30'16	morning rise	12629 Jul 18 14:04	29° S 11'15	
minimum elong	12627 Feb 17 08:21	5° H 52'22	0°30'26	direct	12629 Aug 03 16:53	24° S 08'10	
desc. node	12627 Mar 01 20:21	21° H 18'31		greatest brilliancy	12629 Aug 13 17:47	26° S 02'13	-4.9m
	12627 Mar 08 21:09	0° Υ		desc. node	12629 Aug 16 19:31	27° S 17'22	
evening rise	12627 Mar 27 08:40	22° Υ 51'57			12629 Aug 22 01:00	0° Ω	
	12627 Apr 02 02:54	0° B		morning max el	12629 Sep 22 21:39	26° Ω 21'42	46°36'35
	12627 Apr 26 07:14	0° Π			12629 Sep 26 12:53	0° M	
	12627 May 20 11:04	0° S			12629 Oct 24 12:11	0° L	
	12627 Jun 13 16:41	0° Ω			12629 Nov 19 17:59	0° M	
asc. node	12627 Jun 22 12:46	10° Ω 53'11		asc. node	12629 Dec 07 18:32	21° M 10'38	
	12627 Jul 08 03:25	0° M			12629 Dec 15 04:40	0° A	
	12627 Aug 02 00:17	0° L			12630 Jan 09 03:52	0° S	
	12627 Aug 27 17:01	0° M			12630 Feb 02 19:39	0° \approx	
	12627 Sep 24 07:44	0° A			12630 Feb 27 06:38	0° H	
evening max el	12627 Sep 28 18:15	4° A 27'19	46°18'11	morning set	12630 Mar 21 13:46	27° H 30'30	
desc. node	12627 Oct 12 12:17	17° A 15'01			12630 Mar 23 14:08	0° Υ	
	12627 Oct 29 20:47	0° S		desc. node	12630 Mar 29 10:41	7° Υ 14'59	
greatest brilliancy	12627 Nov 07 00:31	3° S 53'44	-4.8m		12630 Apr 16 18:29	0° B	
retrograde	12627 Nov 17 11:55	5° S 54'42		max. Earth dist.	12630 Apr 26 16:52	12° B 22'03	1.72031 AU
	12627 Dec 05 04:14	30° R A					
evening set	12627 Dec 05 22:02	29° A 33'09		superior conj	12630 Apr 29 22:00	16° B 22'29	-1°07'08
inferior conj	12627 Dec 09 00:17	27° A 38'00	-8°47'13	minimum elong	12630 Apr 29 10:48	15° B 47'33	1°07'23
minimum elong	12627 Dec 09 01:03	27° A 36'49	8°46'17		12630 May 10 19:52	0° Π	
min. Earth dist.	12627 Dec 08 18:42	27° A 46'45	0.28907 AU		12630 Jun 03 19:09	0° S	
morning rise	12627 Dec 12 04:07	25° A 40'30		evening rise	12630 Jun 08 13:26	5° S 58'01	
direct	12627 Dec 30 08:39	19° A 26'49			12630 Jun 27 17:58	0° Ω	
greatest brilliancy	12628 Jan 09 15:04	21° A 21'25	-4.7m	asc. node	12630 Jul 20 01:30	27° Ω 52'51	
	12628 Jan 25 07:30	0° S			12630 Jul 21 18:19	0° M	
asc. node	12628 Feb 02 14:32	6° S 25'53			12630 Aug 14 22:22	0° L	
morning max el	12628 Feb 17 09:48	19° S 51'48	45°46'27		12630 Sep 08 08:47	0° M	
	12628 Feb 27 11:42	0° \approx			12630 Oct 03 06:09	0° A	
	12628 Mar 25 22:46	0° H			12630 Oct 28 23:20	0° S	
	12628 Apr 20 17:21	0° Υ		desc. node	12630 Nov 08 22:01	12° S 18'26	
	12628 May 15 16:24	0° B			12630 Nov 25 08:13	0° \approx	
desc. node	12628 May 24 12:17	10° B 45'55		evening max el	12630 Dec 08 23:11	13° \approx 41'26	45°53'48
	12628 Jun 09 03:55	0° Π			12630 Dec 27 13:38	0° H	
	12628 Jul 03 08:23	0° S		greatest brilliancy	12631 Jan 16 23:29	11° H 56'44	-4.7m
	12628 Jul 27 09:15	0° Ω		retrograde	12631 Jan 26 19:52	13° H 42'01	
morning set	12628 Aug 19 16:50	29° Ω 09'10		evening set	12631 Feb 11 08:26	9° H 02'42	
	12628 Aug 20 09:05	0° M		inferior conj	12631 Feb 17 02:04	5° H 34'32	-3°07'52
	12628 Sep 13 09:27	0° L		minimum elong	12631 Feb 17 08:44	5° H 24'04	3°05'29
asc. node	12628 Sep 14 03:36	0° L 56'38		min. Earth dist.	12631 Feb 17 13:26	5° H 16'41	0.28429 AU
				morning rise	12631 Feb 23 08:44	1° H 48'04	
superior conj	12628 Sep 27 19:09	17° L 57'52	0°32'26		12631 Feb 26 23:04	30° R \approx	
minimum elong	12628 Sep 27 11:55	17° L 35'20	0°32'17	asc. node	12631 Mar 02 00:13	28° \approx 48'15	
max. Earth dist.	12628 Sep 29 23:37	20° L 41'19	1.72163 AU	direct	12631 Mar 10 09:42	27° \approx 23'02	
	12628 Oct 07 11:06	0° M		greatest brilliancy	12631 Mar 21 05:58	29° \approx 33'29	-4.8m
	12628 Oct 31 14:44	0° A			12631 Mar 22 08:32	0° H	
evening rise	12628 Nov 04 11:15	4° A 46'29		morning max el	12631 Apr 29 05:03	29° H 08'33	46°23'48
	12628 Nov 24 21:33	0° S			12631 Apr 30 01:43	0° Υ	
	12628 Dec 19 09:01	0° \approx			12631 May 28 01:24	0° B	
desc. node	12629 Jan 03 19:02	18° \approx 44'56		desc. node	12631 Jun 22 00:35	28° B 56'19	

	12631 Jun 22 22:04	0°♄			12634 Feb 25 17:26	0°♄		
	12631 Jul 17 20:47	0°♅		asc. node	12634 Mar 29 09:32	21°♄56'32		
	12631 Aug 11 08:55	0°♆		greatest brilliancy	12634 Mar 29 17:20	22°♄03'28	-4.8m	
	12631 Sep 04 16:25	0°♇		retrograde	12634 Apr 08 13:07	23°♄51'40		
	12631 Sep 28 22:20	0°♈		evening set	12634 Apr 24 09:37	18°♄58'14		
asc. node	12631 Oct 12 17:48	17°♈05'51		inferior conj	12634 Apr 29 10:25	15°♄56'15	6°57'26	
	12631 Oct 23 03:49	0°♉		minimum elong	12634 Apr 28 23:34	16°♄13'07	6°54'34	
morning set	12631 Oct 31 12:23	10°♉21'02		min. Earth dist.	12634 Apr 29 10:38	15°♄55'55	0.27674 AU	
	12631 Nov 16 09:12	0°♊		morning rise	12634 May 03 13:17	13°♄25'08		
				direct	12634 May 20 08:30	7°♄54'45		
superior conj	12631 Dec 07 17:48	26°♊25'55	1°26'07	greatest brilliancy	12634 May 30 10:56	9°♄49'33	-4.9m	
minimum elong	12631 Dec 07 17:56	26°♊26'19	1°27'03		12634 Jun 28 18:19	0°♋		
max. Earth dist.	12631 Dec 09 09:19	28°♊28'02	1.73016 AU	morning max el	12634 Jul 09 19:23	10°♋37'16	46°57'29	
	12631 Dec 10 15:04	0°♌		desc. node	12634 Jul 19 11:39	20°♋38'42		
	12632 Jan 03 22:23	0°♍			12634 Jul 28 03:10	0°♌		
evening rise	12632 Jan 13 19:48	12°♍10'46			12634 Aug 23 11:52	0°♍		
	12632 Jan 28 07:47	0°♎			12634 Sep 17 20:09	0°♎		
desc. node	12632 Feb 01 08:15	4°♎56'00			12634 Oct 12 18:03	0°♏		
	12632 Feb 21 19:07	0°♐			12634 Nov 06 10:28	0°♐		
	12632 Mar 17 07:49	0°♑		asc. node	12634 Nov 09 07:36	3°♐30'53		
	12632 Apr 10 22:15	0°♒			12634 Nov 30 23:04	0°♑		
	12632 May 05 17:06	0°♓			12634 Dec 25 08:56	0°♒		
asc. node	12632 May 24 03:10	21°♓58'42		morning set	12635 Jan 08 16:24	17°♒37'38		
	12632 May 30 22:47	0°♈			12635 Jan 18 17:13	0°♓		
	12632 Jun 26 05:17	0°♉			12635 Feb 12 00:50	0°♔		
evening max el	12632 Jul 16 01:59	21°♉02'20	46°46'23	max. Earth dist.	12635 Feb 13 20:33	2°♔14'56	1.73056 AU	
	12632 Jul 25 08:00	0°♊						
greatest brilliancy	12632 Aug 24 12:41	21°♊23'50	-4.9m	superior conj	12635 Feb 14 17:31	3°♔19'40	0°33'28	
retrograde	12632 Sep 04 09:05	23°♊34'59		minimum elong	12635 Feb 15 00:41	3°♔41'46	0°33'38	
desc. node	12632 Sep 13 04:52	22°♊00'45		desc. node	12635 Feb 28 22:12	20°♔51'20		
evening set	12632 Sep 19 03:15	19°♊19'27			12635 Mar 08 07:50	0°♕		
min. Earth dist.	12632 Sep 24 17:00	16°♊02'55	0.27502 AU	evening rise	12635 Mar 24 23:39	20°♕36'31		
inferior conj	12632 Sep 25 09:33	15°♊37'27	-3°03'40		12635 Apr 01 13:41	0°♖		
minimum elong	12632 Sep 25 02:49	15°♊47'48	3°01'29		12635 Apr 25 18:10	0°♗		
morning rise	12632 Oct 01 03:01	12°♊14'13			12635 May 19 22:16	0°♘		
direct	12632 Oct 16 07:32	7°♊48'33			12635 Jun 13 04:16	0°♙		
greatest brilliancy	12632 Oct 25 20:54	9°♊28'27	-4.8m	asc. node	12635 Jun 21 14:46	10°♙23'14		
	12632 Nov 25 15:55	0°♋			12635 Jul 07 15:36	0°♚		
morning max el	12632 Dec 04 07:08	8°♋00'51	45°53'07		12635 Aug 01 13:29	0°♛		
	12632 Dec 25 18:50	0°♌			12635 Aug 27 08:15	0°♜		
asc. node	12633 Jan 04 06:11	10°♌19'26			12635 Sep 24 04:23	0°♝		
	12633 Jan 21 17:03	0°♍		evening max el	12635 Sep 26 09:46	2°♝13'07	46°19'24	
	12633 Feb 16 08:57	0°♎		desc. node	12635 Oct 11 14:13	16°♝14'46		
	12633 Mar 13 09:02	0°♏			12635 Oct 31 16:33	0°♞		
	12633 Apr 06 23:37	0°♐		greatest brilliancy	12635 Nov 04 14:35	1°♞39'51	-4.8m	
desc. node	12633 Apr 26 00:43	23°♐27'28		retrograde	12635 Nov 15 04:18	3°♞42'43		
	12633 May 01 07:33	0°♑			12635 Nov 28 21:33	30°♞♊		
	12633 May 25 10:22	0°♒		evening set	12635 Dec 03 13:05	27°♝21'53		
morning set	12633 Jun 03 12:58	11°♒23'08		inferior conj	12635 Dec 06 15:54	25°♝25'57	-8°47'44	
	12633 Jun 18 09:35	0°♓		minimum elong	12635 Dec 06 15:51	25°♝26'01	8°46'48	
	12633 Jul 12 07:10	0°♈		min. Earth dist.	12635 Dec 06 08:46	25°♝37'07	0.28888 AU	
				morning rise	12635 Dec 09 18:43	23°♝30'13		
superior conj	12633 Jul 13 14:28	1°♈38'14	-1°11'13	direct	12635 Dec 28 00:26	17°♝15'19		
minimum elong	12633 Jul 14 01:40	2°♈13'25	1°11'44	greatest brilliancy	12636 Jan 07 04:57	19°♝08'41	-4.7m	
max. Earth dist.	12633 Jul 13 17:37	1°♈48'09	1.71394 AU		12636 Jan 25 22:32	0°♞		
	12633 Aug 05 05:02	0°♉		asc. node	12636 Feb 01 16:37	5°♞26'34		
asc. node	12633 Aug 16 15:13	14°♉18'17		morning max el	12636 Feb 15 01:50	17°♞40'56	45°45'46	
evening rise	12633 Aug 22 17:07	21°♉54'19			12636 Feb 27 06:12	0°♟		
	12633 Aug 29 04:40	0°♊			12636 Mar 25 13:07	0°♠		
	12633 Sep 22 07:14	0°♋			12636 Apr 20 06:01	0°♑		
	12633 Oct 16 14:25	0°♌			12636 May 15 04:11	0°♒		
	12633 Nov 10 04:55	0°♍		desc. node	12636 May 23 14:10	10°♒16'11		
	12633 Dec 05 06:40	0°♎			12636 Jun 08 15:13	0°♓		
desc. node	12633 Dec 06 08:53	1°♎17'26			12636 Jul 02 19:23	0°♔		
	12633 Dec 31 01:10	0°♏			12636 Jul 26 20:04	0°♕		
	12634 Jan 26 23:35	0°♐		morning set	12636 Aug 17 06:11	26°♕47'31		
evening max el	12634 Feb 18 03:12	22°♐49'54	46°03'28		12636 Aug 19 19:46	0°♖		

	12636 Sep 12 20:02	0°♄		minimum elong	12639 Feb 15 00:51	3°♄11'03	3°24'57
asc. node	12636 Sep 13 05:21	0°♄29'04		min. Earth dist.	12639 Feb 15 05:33	3°♄03'40	0.28463 AU
					12639 Feb 20 06:45	30°♄	
superior conj	12636 Sep 25 09:30	15°♄40'02	0°29'04	morning rise	12639 Feb 20 23:15	29°♄36'54	
minimum elong	12636 Sep 25 02:54	15°♄19'28	0°28'55	asc. node	12639 Mar 01 02:07	26°♄09'03	
max. Earth dist.	12636 Sep 27 15:37	18°♄28'43	1.72134 AU	direct	12639 Mar 08 01:02	25°♄10'36	
	12636 Oct 06 21:39	0°♄		greatest brilliancy	12639 Mar 18 22:14	27°♄21'15	-4.8m
	12636 Oct 31 01:19	0°♄			12639 Mar 24 15:31	0°♄	
evening rise	12636 Nov 02 03:16	2°♄34'44		morning max el	12639 Apr 26 18:57	26°♄50'18	46°22'12
	12636 Nov 24 08:14	0°♄			12639 Apr 29 22:37	0°♄	
	12636 Dec 18 19:55	0°♄			12639 May 27 16:39	0°♄	
desc. node	12637 Jan 02 21:00	18°♄17'09		desc. node	12639 Jun 21 02:35	28°♄23'04	
	12637 Jan 12 13:39	0°♄			12639 Jun 22 11:14	0°♄	
	12637 Feb 06 14:17	0°♄			12639 Jul 17 08:54	0°♄	
	12637 Mar 03 23:44	0°♄			12639 Aug 10 20:23	0°♄	
	12637 Mar 30 00:55	0°♄			12639 Sep 04 03:27	0°♄	
asc. node	12637 Apr 25 19:00	29°♄04'26			12639 Sep 28 09:04	0°♄	
	12637 Apr 26 16:35	0°♄		asc. node	12639 Oct 11 19:39	16°♄38'49	
evening max el	12637 May 01 19:24	5°♄10'30	46°35'59		12639 Oct 22 14:19	0°♄	
	12637 May 31 02:08	0°♄		morning set	12639 Oct 29 04:10	8°♄08'59	
greatest brilliancy	12637 Jun 11 05:35	5°♄34'45	-4.9m		12639 Nov 15 19:33	0°♄	
retrograde	12637 Jun 20 21:14	7°♄19'29					
evening set	12637 Jul 07 21:46	1°♄43'34		superior conj	12639 Dec 05 10:56	24°♄18'39	1°26'05
	12637 Jul 10 18:26	30°♄		minimum elong	12639 Dec 05 10:18	24°♄16'40	1°27'00
inferior conj	12637 Jul 11 11:51	29°♄33'16	7°46'53	max. Earth dist.	12639 Dec 07 01:38	26°♄18'16	1.72999 AU
minimum elong	12637 Jul 11 22:11	29°♄17'24	7°44'12		12639 Dec 10 01:23	0°♄	
min. Earth dist.	12637 Jul 11 22:43	29°♄16'36	0.27113 AU		12640 Jan 03 08:45	0°♄	
morning rise	12637 Jul 15 22:37	26°♄53'10		evening rise	12640 Jan 11 12:11	10°♄01'24	
direct	12637 Aug 01 06:14	21°♄44'06			12640 Jan 27 18:19	0°♄	
greatest brilliancy	12637 Aug 11 06:00	23°♄37'06	-4.9m	desc. node	12640 Jan 31 10:05	4°♄29'10	
desc. node	12637 Aug 15 21:26	25°♄36'42			12640 Feb 21 05:55	0°♄	
	12637 Aug 23 10:20	0°♄			12640 Mar 16 19:00	0°♄	
morning max el	12637 Sep 20 11:17	24°♄00'44	46°37'54		12640 Apr 10 09:59	0°♄	
	12637 Sep 26 09:44	0°♄			12640 May 05 05:41	0°♄	
	12637 Oct 24 03:30	0°♄		asc. node	12640 May 23 05:14	21°♄24'42	
	12637 Nov 19 07:04	0°♄			12640 May 30 12:51	0°♄	
asc. node	12637 Dec 06 20:30	20°♄40'16			12640 Jun 25 22:31	0°♄	
	12637 Dec 14 16:35	0°♄		evening max el	12640 Jul 13 14:59	18°♄38'47	46°46'48
	12638 Jan 08 15:07	0°♄			12640 Jul 25 11:32	0°♄	
	12638 Feb 02 06:30	0°♄		greatest brilliancy	12640 Aug 22 04:14	19°♄05'05	-4.9m
	12638 Feb 26 17:15	0°♄		retrograde	12640 Sep 01 23:00	21°♄15'17	
morning set	12638 Mar 19 04:16	25°♄14'20		desc. node	12640 Sep 12 06:50	19°♄06'42	
	12638 Mar 23 00:40	0°♄		evening set	12640 Sep 16 16:17	17°♄01'12	
desc. node	12638 Mar 28 12:23	6°♄47'39		inferior conj	12640 Sep 22 23:22	13°♄18'43	-2°41'55
	12638 Apr 16 05:01	0°♄		minimum elong	12640 Sep 22 17:21	13°♄27'58	2°39'58
max. Earth dist.	12638 Apr 24 02:53	9°♄50'51	1.72071 AU	min. Earth dist.	12640 Sep 22 08:02	13°♄42'17	0.27451 AU
				morning rise	12640 Sep 28 18:58	9°♄52'38	
superior conj	12638 Apr 27 10:51	14°♄00'00	-1°04'41	direct	12640 Oct 13 20:12	5°♄30'10	
minimum elong	12638 Apr 26 23:34	13°♄24'51	1°04'52	greatest brilliancy	12640 Oct 23 11:20	7°♄11'20	-4.8m
	12638 May 10 06:28	0°♄			12640 Nov 25 18:11	0°♄	
	12638 Jun 03 05:49	0°♄		morning max el	12640 Dec 01 20:50	5°♄44'11	45°54'21
evening rise	12638 Jun 06 01:00	3°♄30'27			12640 Dec 25 11:13	0°♄	
	12638 Jun 27 04:42	0°♄		asc. node	12641 Jan 03 08:11	9°♄43'15	
asc. node	12638 Jul 19 03:24	27°♄24'54			12641 Jan 21 06:25	0°♄	
	12638 Jul 21 05:12	0°♄			12641 Feb 15 20:59	0°♄	
	12638 Aug 14 09:30	0°♄			12641 Mar 12 20:25	0°♄	
	12638 Sep 07 20:21	0°♄			12641 Apr 06 10:38	0°♄	
	12638 Oct 02 18:31	0°♄		desc. node	12641 Apr 25 02:41	23°♄00'00	
	12638 Oct 28 13:21	0°♄			12641 Apr 30 18:22	0°♄	
desc. node	12638 Nov 07 23:59	11°♄34'15			12641 May 24 21:03	0°♄	
	12638 Nov 25 02:18	0°♄		morning set	12641 Jun 01 00:12	8°♄54'45	
evening max el	12638 Dec 06 13:48	11°♄28'13	45°53'57		12641 Jun 17 20:12	0°♄	
	12638 Dec 28 02:51	0°♄					
greatest brilliancy	12639 Jan 14 15:30	9°♄45'56	-4.7m	superior conj	12641 Jul 11 02:04	29°♄10'43	-1°13'24
retrograde	12639 Jan 24 10:27	11°♄30'10		minimum elong	12641 Jul 11 12:55	29°♄44'47	1°13'58
evening set	12639 Feb 09 02:04	6°♄47'39		max. Earth dist.	12641 Jul 11 00:49	29°♄06'46	1.71393 AU
inferior conj	12639 Feb 14 17:36	3°♄22'27	-3°27'31		12641 Jul 11 17:46	0°♄	

	12641 Aug 04 15:40	0°♍		asc. node	12644 Jan 31 18:26	4°♌28'23	
asc. node	12641 Aug 15 16:59	13°♍50'32		morning max el	12644 Feb 12 17:37	15°♌29'50	45°45'11
evening rise	12641 Aug 20 05:51	19°♍30'49			12644 Feb 27 00:07	0°♌	
	12641 Aug 28 15:21	0°♌			12644 Mar 25 03:14	0°♌	
	12641 Sep 21 18:00	0°♌			12644 Apr 19 18:35	0°♌	
	12641 Oct 16 01:22	0°♌			12644 May 14 16:00	0°♌	
	12641 Nov 09 16:16	0°♌		desc. node	12644 May 22 16:08	9°♌46'30	
	12641 Dec 04 18:47	0°♌			12644 Jun 08 02:38	0°♌	
desc. node	12641 Dec 05 10:55	0°♌47'37			12644 Jul 02 06:34	0°♌	
	12641 Dec 30 14:44	0°♌			12644 Jul 26 07:04	0°♌	
evening max el	12642 Jan 26 16:19	0°♌		morning set	12644 Aug 14 19:11	24°♌24'04	
	12642 Feb 15 17:55	20°♌34'42	46°02'30		12644 Aug 19 06:37	0°♌	
	12642 Feb 25 20:30	0°♌		asc. node	12644 Sep 12 07:12	0°♌01'20	
greatest brilliancy	12642 Mar 27 06:01	19°♌43'02	-4.8m		12644 Sep 12 06:47	0°♌	
asc. node	12642 Mar 28 11:33	20°♌07'37					
retrograde	12642 Apr 06 03:22	21°♌32'19		superior conj	12644 Sep 22 23:33	13°♌20'47	0°25'38
evening set	12642 Apr 21 19:56	16°♌43'23		minimum elong	12644 Sep 22 17:38	13°♌02'21	0°25'28
inferior conj	12642 Apr 27 00:21	13°♌36'16	6°41'48	max. Earth dist.	12644 Sep 25 08:14	16°♌17'28	1.72097 AU
minimum elong	12642 Apr 26 13:27	13°♌53'11	6°38'51		12644 Oct 06 08:21	0°♌	
min. Earth dist.	12642 Apr 27 00:17	13°♌36'22	0.27694 AU	evening rise	12644 Oct 30 19:15	0°♌22'18	
morning rise	12642 May 01 06:46	11°♌00'08			12644 Oct 30 12:03	0°♌	
direct	12642 May 17 23:02	5°♌34'20			12644 Nov 23 19:05	0°♌	
greatest brilliancy	12642 May 28 01:25	7°♌29'33	-4.9m		12644 Dec 18 07:00	0°♌	
	12642 Jun 28 21:20	0°♌		desc. node	12645 Jan 01 22:50	17°♌48'32	
morning max el	12642 Jul 07 10:38	8°♌19'14	46°57'09		12645 Jan 12 01:07	0°♌	
desc. node	12642 Jul 18 13:34	19°♌53'00			12645 Feb 06 02:26	0°♌	
	12642 Jul 27 20:22	0°♌			12645 Mar 03 13:04	0°♌	
	12642 Aug 23 02:01	0°♌			12645 Mar 29 16:31	0°♌	
	12642 Sep 17 08:50	0°♌		asc. node	12645 Apr 24 21:01	28°♌15'56	
	12642 Oct 12 05:52	0°♌			12645 Apr 26 13:56	0°♌	
	12642 Nov 05 21:41	0°♌		evening max el	12645 Apr 29 09:02	2°♌48'20	46°34'43
asc. node	12642 Nov 08 09:32	3°♌02'41			12645 Jun 01 17:08	0°♌	
	12642 Nov 30 09:54	0°♌		greatest brilliancy	12645 Jun 08 19:17	3°♌10'44	-4.9m
	12642 Dec 24 19:31	0°♌		retrograde	12645 Jun 18 09:39	4°♌54'10	
morning set	12643 Jan 06 09:45	15°♌30'48			12645 Jul 04 05:58	30°♌	
	12643 Jan 18 03:41	0°♌		evening set	12645 Jul 05 14:11	29°♌13'20	
	12643 Feb 11 11:18	0°♌		inferior conj	12645 Jul 09 00:41	27°♌08'04	7°59'26
				minimum elong	12645 Jul 09 10:35	26°♌52'51	7°56'56
superior conj	12643 Feb 12 09:41	1°♌09'05	0°36'34	min. Earth dist.	12645 Jul 09 11:48	26°♌50'59	0.27133 AU
minimum elong	12643 Feb 12 17:21	1°♌32'44	0°36'45	morning rise	12645 Jul 13 06:58	24°♌33'58	
max. Earth dist.	12643 Feb 11 18:10	0°♌21'14	1.73074 AU	direct	12645 Jul 29 19:07	19°♌18'34	
desc. node	12643 Feb 27 23:59	20°♌24'25		greatest brilliancy	12645 Aug 08 18:53	21°♌11'11	-4.9m
	12643 Mar 07 18:23	0°♌		desc. node	12645 Aug 14 23:24	23°♌58'21	
evening rise	12643 Mar 22 14:51	18°♌22'04			12645 Aug 24 10:55	0°♌	
	12643 Apr 01 00:23	0°♌		morning max el	12645 Sep 18 00:05	21°♌36'10	46°39'20
	12643 Apr 25 05:07	0°♌			12645 Sep 26 06:22	0°♌	
	12643 May 19 09:31	0°♌			12645 Oct 23 18:58	0°♌	
	12643 Jun 12 15:55	0°♌			12645 Nov 18 20:22	0°♌	
asc. node	12643 Jun 20 16:39	9°♌52'42		asc. node	12645 Dec 05 22:25	20°♌08'59	
	12643 Jul 07 03:52	0°♌			12645 Dec 14 04:44	0°♌	
	12643 Aug 01 02:48	0°♌			12646 Jan 08 02:36	0°♌	
	12643 Aug 26 23:42	0°♌			12646 Feb 01 17:35	0°♌	
evening max el	12643 Sep 24 02:01	0°♌00'46	46°20'39		12646 Feb 26 04:08	0°♌	
	12643 Sep 24 01:43	0°♌		morning set	12646 Mar 16 19:20	22°♌59'11	
desc. node	12643 Oct 10 16:15	15°♌13'30			12646 Mar 22 11:26	0°♌	
greatest brilliancy	12643 Nov 02 05:09	29°♌26'52	-4.8m	desc. node	12646 Mar 27 14:23	6°♌20'30	
	12643 Nov 03 19:23	0°♌			12646 Apr 15 15:47	0°♌	
retrograde	12643 Nov 12 20:42	1°♌30'58		max. Earth dist.	12646 Apr 21 14:37	7°♌24'28	1.72112 AU
	12643 Nov 21 12:48	30°♌					
evening set	12643 Dec 01 03:56	25°♌11'42		superior conj	12646 Apr 25 00:18	11°♌38'50	-1°02'07
inferior conj	12643 Dec 04 07:38	23°♌14'19	-8°47'27	minimum elong	12646 Apr 24 13:02	11°♌03'43	1°02'17
minimum elong	12643 Dec 04 06:47	23°♌15'38	8°46'31		12646 May 09 17:17	0°♌	
min. Earth dist.	12643 Dec 03 22:57	23°♌27'54	0.28862 AU		12646 Jun 02 16:43	0°♌	
morning rise	12643 Dec 07 09:46	21°♌19'41		evening rise	12646 Jun 03 13:03	1°♌03'40	
direct	12643 Dec 25 16:30	15°♌04'27			12646 Jun 26 15:45	0°♌	
greatest brilliancy	12644 Jan 04 18:29	16°♌55'51	-4.7m	asc. node	12646 Jul 18 05:12	26°♌55'26	
	12644 Jan 26 09:29	0°♌			12646 Jul 20 16:28	0°♌	

	12646 Aug 13 21:05	0°♄			12649 Mar 12 08:08	0°♈	
	12646 Sep 07 08:25	0°♍			12649 Apr 05 21:59	0°♐	
	12646 Oct 02 07:27	0°♊	desc. node		12649 Apr 24 04:31	22°♐31'10	
	12646 Oct 28 04:00	0°♈			12649 Apr 30 05:30	0°♉	
desc. node	12646 Nov 07 02:02	11°♈03'55			12649 May 24 08:04	0°♊	
	12646 Nov 24 21:20	0°♋	morning set		12649 May 29 11:45	6°♊26'21	
evening max el	12646 Dec 04 03:47	9°♋12'23 45°54'22			12649 Jun 17 07:09	0°♌	
	12646 Dec 28 21:17	0°♈					
greatest brilliancy	12647 Jan 12 07:23	7°♈34'10 -4.7m	superior conj		12649 Jul 08 14:00	26°♌43'10 -1°15'26	
retrograde	12647 Jan 22 01:14	9°♈17'57	minimum elong		12649 Jul 09 00:25	27°♌15'53 1°16'03	
evening set	12647 Feb 06 19:56	4°♈31'41	max. Earth dist.		12649 Jul 08 10:59	26°♌33'42 1.71390 AU	
inferior conj	12647 Feb 12 09:16	1°♈09'48 -3°46'41			12649 Jul 11 04:41	0°♍	
minimum elong	12647 Feb 12 17:04	0°♈57'33 3°43'58			12649 Aug 04 02:36	0°♎	
min. Earth dist.	12647 Feb 12 21:52	0°♈50'02 0.28496 AU	asc. node		12649 Aug 14 18:53	13°♎22'21	
	12647 Feb 14 05:51	30°♋	evening rise		12649 Aug 17 18:50	17°♎07'18	
morning rise	12647 Feb 18 13:45	27°♋25'38			12649 Aug 28 02:19	0°♏	
asc. node	12647 Feb 28 04:11	23°♋34'04			12649 Sep 21 05:05	0°♐	
direct	12647 Mar 05 16:22	22°♋57'25			12649 Oct 15 12:42	0°♑	
greatest brilliancy	12647 Mar 16 15:03	25°♋09'02 -4.8m			12649 Nov 09 04:04	0°♈	
	12647 Mar 26 03:18	0°♈			12649 Dec 04 07:24	0°♋	
morning max el	12647 Apr 24 09:28	24°♈32'52 46°20'48	desc. node		12649 Dec 04 12:43	0°♋15'40	
	12647 Apr 29 19:07	0°♐			12649 Dec 30 04:54	0°♈	
	12647 May 27 07:57	0°♉			12650 Jan 26 09:53	0°♐	
desc. node	12647 Jun 20 04:29	27°♉48'52	evening max el		12650 Feb 13 09:24	18°♐20'26 46°01'44	
	12647 Jun 22 00:33	0°♊			12650 Feb 26 01:49	0°♉	
	12647 Jul 16 21:14	0°♌	greatest brilliancy		12650 Mar 24 18:56	17°♉22'22 -4.8m	
	12647 Aug 10 08:09	0°♍	asc. node		12650 Mar 27 13:37	18°♉13'51	
	12647 Sep 03 14:52	0°♎	retrograde		12650 Apr 03 17:45	19°♉12'24	
	12647 Sep 27 20:14	0°♏	evening set		12650 Apr 19 06:39	14°♉28'01	
asc. node	12647 Oct 10 21:37	16°♏10'44	inferior conj		12650 Apr 24 14:26	11°♉15'53 6°25'39	
	12647 Oct 22 01:17	0°♐	minimum elong		12650 Apr 24 03:33	11°♉32'48 6°22'38	
morning set	12647 Oct 26 19:29	5°♐53'52	min. Earth dist.		12650 Apr 24 13:59	11°♉16'35 0.27710 AU	
	12647 Nov 15 06:23	0°♑	morning rise		12650 Apr 29 00:17	8°♉34'49	
			direct		12650 May 15 13:58	3°♉13'49	
superior conj	12647 Dec 03 03:43	22°♑08'51 1°25'54	greatest brilliancy		12650 May 25 15:43	5°♉08'48 -4.9m	
minimum elong	12647 Dec 03 02:18	22°♑04'30 1°26'50			12650 Jun 28 23:07	0°♊	
max. Earth dist.	12647 Dec 04 17:25	24°♑05'24 1.72978 AU	morning max el		12650 Jul 05 01:50	6°♊00'30 46°56'43	
	12647 Dec 09 12:08	0°♈	desc. node		12650 Jul 17 15:29	19°♊07'21	
	12648 Jan 02 19:33	0°♋			12650 Jul 27 13:26	0°♌	
evening rise	12648 Jan 09 04:27	7°♋50'31			12650 Aug 22 16:13	0°♍	
	12648 Jan 27 05:17	0°♈			12650 Sep 16 21:38	0°♎	
desc. node	12648 Jan 30 11:53	4°♈01'03			12650 Oct 11 17:48	0°♏	
	12648 Feb 20 17:09	0°♐			12650 Nov 05 09:05	0°♐	
	12648 Mar 16 06:36	0°♉	asc. node		12650 Nov 07 11:22	2°♐33'34	
	12648 Apr 09 22:07	0°♊			12650 Nov 29 20:57	0°♑	
	12648 May 04 18:40	0°♌			12650 Dec 24 06:23	0°♈	
asc. node	12648 May 22 07:11	20°♌49'15	morning set		12651 Jan 04 02:54	13°♈22'30	
	12648 May 30 03:23	0°♍			12651 Jan 17 14:28	0°♋	
	12648 Jun 25 16:25	0°♎	max. Earth dist.		12651 Feb 09 13:33	28°♋19'41 1.73088 AU	
evening max el	12648 Jul 11 04:21	16°♎15'27 46°47'09					
	12648 Jul 25 17:20	0°♏	superior conj		12651 Feb 10 01:39	28°♋57'00 0°39'37	
greatest brilliancy	12648 Aug 19 19:04	16°♏44'19 -4.9m	minimum elong		12651 Feb 10 09:46	29°♋22'02 0°39'50	
retrograde	12648 Aug 30 13:14	18°♏54'23			12651 Feb 10 22:04	0°♈	
desc. node	12648 Sep 11 08:55	16°♏06'28	desc. node		12651 Feb 27 01:55	19°♈57'05	
evening set	12648 Sep 14 05:26	14°♏41'06			12651 Mar 07 05:12	0°♐	
min. Earth dist.	12648 Sep 19 22:49	11°♏20'19 0.27410 AU	evening rise		12651 Mar 20 05:47	16°♐06'02	
inferior conj	12648 Sep 20 13:07	10°♏58'23 -2°19'47			12651 Mar 31 11:20	0°♉	
minimum elong	12648 Sep 20 07:51	11°♏06'28 2°18'04			12651 Apr 24 16:16	0°♊	
morning rise	12648 Sep 26 10:45	7°♏29'52			12651 May 18 20:59	0°♌	
direct	12648 Oct 11 09:16	3°♏10'00			12651 Jun 12 03:48	0°♍	
greatest brilliancy	12648 Oct 21 01:40	4°♏52'27 -4.8m	asc. node		12651 Jun 19 18:29	9°♍21'20	
	12648 Nov 25 19:43	0°♐			12651 Jul 06 16:23	0°♎	
morning max el	12648 Nov 29 11:31	3°♐28'16 45°55'33			12651 Jul 31 16:24	0°♏	
	12648 Dec 25 03:52	0°♑			12651 Aug 26 15:33	0°♐	
asc. node	12649 Jan 02 10:03	9°♑05'26	evening max el		12651 Sep 21 18:04	27°♐47'29 46°21'49	
	12649 Jan 20 20:09	0°♈			12651 Sep 24 00:01	0°♉	
	12649 Feb 15 09:24	0°♋	desc. node		12651 Oct 09 18:17	14°♉10'26	

greatest brilliancy	12651 Oct 30 20:10	27°♊14'05	-4.8m	max. Earth dist.	12654 Apr 19 03:04	5°♊00'27	1.72157 AU
retrograde	12651 Nov 10 12:38	29°♊18'42					
evening set	12651 Nov 28 18:22	23°♊01'53		superior conj	12654 Apr 22 13:24	9°♊16'46	-0°59'26
inferior conj	12651 Dec 01 23:21	21°♊02'23	-8°46'22	minimum elong	12654 Apr 22 02:14	8°♊41'57	0°59'33
minimum elong	12651 Dec 01 21:41	21°♊05'00	8°45'26		12654 May 09 04:02	0°♊	
min. Earth dist.	12651 Dec 01 13:22	21°♊18'02	0.28837 AU	evening rise	12654 Jun 01 00:46	28°♊36'10	
morning rise	12651 Dec 05 01:09	19°♊08'10			12654 Jun 02 03:33	0°♊	
direct	12651 Dec 23 08:26	12°♊53'19			12654 Jun 26 02:41	0°♊	
greatest brilliancy	12652 Jan 02 08:13	14°♊42'41	-4.7m	asc. node	12654 Jul 17 07:08	26°♊26'55	
	12652 Jan 26 17:44	0°♊			12654 Jul 20 03:36	0°♊	
asc. node	12652 Jan 30 20:32	3°♊31'28			12654 Aug 13 08:30	0°♊	
morning max el	12652 Feb 10 08:39	13°♊16'11	45°44'29		12654 Sep 06 20:21	0°♊	
	12652 Feb 26 17:51	0°♊			12654 Oct 01 20:15	0°♊	
	12652 Mar 24 17:25	0°♊			12654 Oct 27 18:37	0°♊	
	12652 Apr 19 07:16	0°♊		desc. node	12654 Nov 06 03:56	10°♊25'49	
	12652 May 14 03:54	0°♊			12654 Nov 24 16:39	0°♊	
desc. node	12652 May 21 17:59	9°♊16'12		evening max el	12654 Dec 01 17:51	6°♊57'31	45°54'54
	12652 Jun 07 14:05	0°♊			12654 Dec 29 21:49	0°♊	
	12652 Jul 01 17:47	0°♊		greatest brilliancy	12655 Jan 09 22:32	5°♊22'35	-4.7m
	12652 Jul 25 18:06	0°♊		retrograde	12655 Jan 19 16:29	7°♊06'52	
morning set	12652 Aug 12 08:07	22°♊00'19		evening set	12655 Feb 04 13:51	2°♊16'28	
	12652 Aug 18 17:31	0°♊			12655 Feb 08 09:16	30°♊	
asc. node	12652 Sep 11 09:08	29°♊33'43		inferior conj	12655 Feb 10 00:57	28°♊58'02	-4°05'19
	12652 Sep 11 17:34	0°♊		minimum elong	12655 Feb 10 09:14	28°♊45'01	4°02'30
				min. Earth dist.	12655 Feb 10 13:51	28°♊37'48	0.28533 AU
superior conj	12652 Sep 20 13:42	11°♊01'42	0°22'10	morning rise	12655 Feb 16 04:08	25°♊15'46	
minimum elong	12652 Sep 20 08:31	10°♊45'34	0°21'59	asc. node	12655 Feb 27 06:12	21°♊05'06	
max. Earth dist.	12652 Sep 22 23:35	14°♊02'10	1.72058 AU	direct	12655 Mar 03 07:52	20°♊45'05	
	12652 Oct 05 19:04	0°♊		greatest brilliancy	12655 Mar 14 07:46	22°♊57'47	-4.8m
evening rise	12652 Oct 28 11:20	28°♊10'11			12655 Mar 27 04:03	0°♊	
	12652 Oct 29 22:47	0°♊		morning max el	12655 Apr 22 00:49	22°♊18'11	46°19'12
	12652 Nov 23 05:54	0°♊			12655 Apr 29 14:45	0°♊	
	12652 Dec 17 18:04	0°♊			12655 May 26 22:54	0°♊	
desc. node	12653 Jan 01 00:45	17°♊20'04		desc. node	12655 Jun 19 06:24	27°♊15'19	
	12653 Jan 11 12:38	0°♊			12655 Jun 21 13:39	0°♊	
	12653 Feb 05 14:43	0°♊			12655 Jul 16 09:21	0°♊	
	12653 Mar 03 02:37	0°♊			12655 Aug 09 19:41	0°♊	
	12653 Mar 29 08:30	0°♊			12655 Sep 03 02:00	0°♊	
asc. node	12653 Apr 23 22:59	27°♊26'13			12655 Sep 27 07:05	0°♊	
	12653 Apr 26 12:12	0°♊		asc. node	12655 Oct 09 23:21	15°♊42'54	
evening max el	12653 Apr 26 21:43	0°♊23'42	46°33'37		12655 Oct 21 11:56	0°♊	
	12653 Jun 04 07:10	0°♊		morning set	12655 Oct 24 10:44	3°♊39'26	
greatest brilliancy	12653 Jun 06 09:14	0°♊47'09	-4.9m		12655 Nov 14 16:54	0°♊	
retrograde	12653 Jun 15 21:48	2°♊29'19					
	12653 Jun 27 00:47	30°♊		superior conj	12655 Nov 30 20:33	20°♊00'04	1°25'37
evening set	12653 Jul 03 06:32	26°♊43'32		minimum elong	12655 Nov 30 18:24	19°♊53'23	1°26'32
inferior conj	12653 Jul 06 13:37	24°♊43'18	8°11'01	max. Earth dist.	12655 Dec 02 10:19	21°♊56'52	1.72958 AU
minimum elong	12653 Jul 06 22:58	24°♊28'53	8°08'43		12655 Dec 08 22:36	0°♊	
min. Earth dist.	12653 Jul 07 01:05	24°♊25'38	0.27152 AU		12656 Jan 02 06:03	0°♊	
morning rise	12653 Jul 10 15:20	22°♊15'27		evening rise	12656 Jan 06 20:56	5°♊41'14	
direct	12653 Jul 27 07:37	16°♊53'16			12656 Jan 26 15:56	0°♊	
greatest brilliancy	12653 Aug 06 08:21	18°♊46'20	-4.9m	desc. node	12656 Jan 29 13:52	3°♊34'25	
desc. node	12653 Aug 14 01:33	22°♊24'11			12656 Feb 20 04:02	0°♊	
	12653 Aug 25 04:54	0°♊			12656 Mar 15 17:53	0°♊	
morning max el	12653 Sep 15 12:44	19°♊11'22	46°40'45		12656 Apr 09 09:59	0°♊	
	12653 Sep 26 02:13	0°♊			12656 May 04 07:29	0°♊	
	12653 Oct 23 10:06	0°♊		asc. node	12656 May 21 09:02	20°♊13'57	
	12653 Nov 18 09:26	0°♊			12656 May 29 17:53	0°♊	
asc. node	12653 Dec 05 00:16	19°♊38'05			12656 Jun 25 10:36	0°♊	
	12653 Dec 13 16:42	0°♊		evening max el	12656 Jul 08 18:39	13°♊54'58	46°47'34
	12654 Jan 07 13:54	0°♊			12656 Jul 26 01:16	0°♊	
	12654 Feb 01 04:31	0°♊		greatest brilliancy	12656 Aug 17 09:18	14°♊23'16	-4.9m
	12654 Feb 25 14:52	0°♊		retrograde	12656 Aug 28 03:46	16°♊33'38	
morning set	12654 Mar 14 10:14	20°♊43'51		desc. node	12656 Sep 10 10:53	13°♊02'18	
	12654 Mar 21 22:08	0°♊		evening set	12656 Sep 11 18:41	12°♊21'00	
desc. node	12654 Mar 26 16:14	5°♊53'07		min. Earth dist.	12656 Sep 17 13:05	8°♊58'57	0.27367 AU
	12654 Apr 15 02:30	0°♊		inferior conj	12656 Sep 18 02:39	8°♊38'12	-1°57'16

minimum elong	12656 Sep 17 22:11	8° Ω 45'02	1°55'49			12659 Apr 24 03:05	0° Π	
morning rise	12656 Sep 24 02:14	5° Ω 07'35				12659 May 18 08:05	0° Θ	
direct	12656 Oct 08 22:39	0° Ω 50'12				12659 Jun 11 15:20	0° Ω	
greatest brilliancy	12656 Oct 18 15:12	2° Ω 33'21	-4.8m	asc. node		12659 Jun 18 20:31	8° Ω 51'41	
	12656 Nov 25 19:33	0° \mathbb{M}				12659 Jul 06 04:34	0° \mathbb{M}	
morning max el	12656 Nov 27 02:38	1° \mathbb{M} 14'28	45°56'46			12659 Jul 31 05:46	0° Ω	
	12656 Dec 24 19:46	0° \mathcal{A}				12659 Aug 26 07:23	0° \mathbb{M}	
asc. node	12657 Jan 01 12:05	8° \mathcal{A} 29'34		evening max el		12659 Sep 19 09:21	25° \mathbb{M} 32'38	46°22'52
	12657 Jan 20 09:22	0° \mathcal{B}				12659 Sep 23 23:03	0° \mathcal{A}	
	12657 Feb 14 21:21	0° \approx		desc. node		12659 Oct 08 20:12	13° \mathcal{A} 06'02	
	12657 Mar 11 19:25	0° \mathcal{H}		greatest brilliancy		12659 Oct 28 11:45	25° \mathcal{A} 02'08	-4.8m
	12657 Apr 05 08:55	0° Υ		retrograde		12659 Nov 08 03:58	27° \mathcal{A} 06'42	
desc. node	12657 Apr 23 06:20	22° Υ 03'30		evening set		12659 Nov 26 08:24	20° \mathcal{A} 52'59	
	12657 Apr 29 16:14	0° \mathcal{B}		min. Earth dist.		12659 Nov 29 04:05	19° \mathcal{A} 08'04	0.28806 AU
	12657 May 23 18:43	0° Π		inferior conj		12659 Nov 29 15:00	18° \mathcal{A} 50'56	-8°44'36
morning set	12657 May 26 23:17	3° Π 59'08		minimum elong		12659 Nov 29 12:31	18° \mathcal{A} 54'50	8°43'36
	12657 Jun 16 17:47	0° Θ		morning rise		12659 Dec 02 16:47	16° \mathcal{A} 56'36	
				direct		12659 Dec 20 23:51	10° \mathcal{A} 42'40	
superior conj	12657 Jul 06 01:33	24° Θ 15'19	-1°17'20	greatest brilliancy		12659 Dec 30 22:24	12° \mathcal{A} 30'37	-4.7m
minimum elong	12657 Jul 06 11:27	24° Θ 46'23	1°18'00			12660 Jan 26 23:11	0° \mathcal{B}	
max. Earth dist.	12657 Jul 05 21:26	24° Θ 02'23	1.71392 AU	asc. node		12660 Jan 29 22:34	2° \mathcal{B} 36'36	
	12657 Jul 10 15:20	0° Ω		morning max el		12660 Feb 07 22:37	11° \mathcal{B} 00'53	45°43'56
	12657 Aug 03 13:15	0° \mathbb{M}				12660 Feb 26 10:48	0° \approx	
asc. node	12657 Aug 13 20:47	12° \mathbb{M} 54'55				12660 Mar 24 07:06	0° \mathcal{H}	
evening rise	12657 Aug 15 07:14	14° \mathbb{M} 42'40				12660 Apr 18 19:32	0° Υ	
	12657 Aug 27 13:00	0° Ω				12660 May 13 15:27	0° \mathcal{B}	
	12657 Sep 20 15:52	0° \mathbb{M}		desc. node		12660 May 20 19:53	8° \mathcal{B} 47'04	
	12657 Oct 14 23:43	0° \mathcal{A}				12660 Jun 07 01:14	0° Π	
	12657 Nov 08 15:32	0° \mathcal{B}				12660 Jul 01 04:40	0° Θ	
desc. node	12657 Dec 03 14:42	29° \mathcal{B} 45'15				12660 Jul 25 04:48	0° Ω	
	12657 Dec 03 19:43	0° \approx		morning set		12660 Aug 09 21:15	19° Ω 38'02	
	12657 Dec 29 18:49	0° \mathcal{H}				12660 Aug 18 04:05	0° \mathbb{M}	
	12658 Jan 26 03:24	0° Υ		asc. node		12660 Sep 10 10:53	29° \mathbb{M} 06'21	
evening max el	12658 Feb 11 01:13	16° Υ 08'16	46°00'57			12660 Sep 11 04:05	0° Ω	
	12658 Feb 26 08:41	0° \mathcal{B}						
greatest brilliancy	12658 Mar 22 08:25	15° \mathcal{B} 04'07	-4.8m	superior conj		12660 Sep 18 03:53	8° Ω 43'31	0°18'39
asc. node	12658 Mar 26 15:32	16° \mathcal{B} 17'14		minimum elong		12660 Sep 17 23:29	8° Ω 29'47	0°18'28
retrograde	12658 Apr 01 07:51	16° \mathcal{B} 54'13		max. Earth dist.		12660 Sep 20 13:03	11° Ω 41'45	1.72023 AU
evening set	12658 Apr 16 17:47	12° \mathcal{B} 14'23				12660 Oct 05 05:34	0° \mathbb{M}	
inferior conj	12658 Apr 22 04:40	8° \mathcal{B} 57'28	6°09'00	evening rise		12660 Oct 26 03:15	25° \mathbb{M} 58'08	
minimum elong	12658 Apr 21 17:52	9° \mathcal{B} 14'16	6°05'57			12660 Oct 29 09:19	0° \mathcal{A}	
min. Earth dist.	12658 Apr 22 04:02	8° \mathcal{B} 58'27	0.27724 AU			12660 Nov 22 16:33	0° \mathcal{B}	
morning rise	12658 Apr 26 17:51	6° \mathcal{B} 11'23				12660 Dec 17 04:57	0° \approx	
direct	12658 May 13 04:59	0° \mathcal{B} 55'22		desc. node		12660 Dec 31 02:41	16° \approx 52'15	
greatest brilliancy	12658 May 23 06:10	2° \mathcal{B} 49'54	-4.9m			12661 Jan 10 23:59	0° \mathcal{H}	
	12658 Jun 28 23:05	0° Π				12661 Feb 05 02:49	0° Υ	
morning max el	12658 Jul 02 16:03	3° Π 40'39	46°56'01			12661 Mar 02 16:04	0° \mathcal{B}	
desc. node	12658 Jul 16 17:36	18° Π 24'06				12661 Mar 29 00:31	0° Π	
	12658 Jul 27 05:47	0° Θ		asc. node		12661 Apr 23 00:57	26° Π 36'21	
	12658 Aug 22 05:59	0° Ω		evening max el		12661 Apr 24 09:52	27° Π 58'28	46°32'31
	12658 Sep 16 10:05	0° \mathbb{M}				12661 Apr 26 11:08	0° Θ	
	12658 Oct 11 05:26	0° Ω		greatest brilliancy		12661 Jun 03 23:08	28° Θ 24'15	-4.9m
	12658 Nov 04 20:09	0° \mathbb{M}				12661 Jun 11 05:43	0° Ω	
asc. node	12658 Nov 06 13:15	2° \mathbb{M} 05'36		retrograde		12661 Jun 13 10:16	0° Ω 05'42	
	12658 Nov 29 07:39	0° \mathcal{A}				12661 Jun 15 14:21	30° \mathcal{R} Θ	
	12658 Dec 23 16:52	0° \mathcal{B}		evening set		12661 Jun 30 22:51	24° Θ 14'47	
morning set	12659 Jan 01 20:00	11° \mathcal{B} 15'10		inferior conj		12661 Jul 04 02:39	22° Θ 19'33	8°21'39
	12659 Jan 17 00:52	0° \approx		minimum elong		12661 Jul 04 11:25	22° Θ 06'03	8°19'32
				min. Earth dist.		12661 Jul 04 14:27	22° Θ 01'22	0.27172 AU
superior conj	12659 Feb 07 17:47	26° \approx 46'41	0°42'36	morning rise		12661 Jul 07 23:52	19° Θ 58'13	
minimum elong	12659 Feb 08 02:19	27° \approx 12'58	0°42'50	direct		12661 Jul 24 20:09	14° Θ 28'48	
max. Earth dist.	12659 Feb 07 07:27	26° \approx 14'46	1.73101 AU	greatest brilliancy		12661 Aug 03 22:02	16° Θ 22'46	-4.9m
	12659 Feb 10 08:28	0° \mathcal{H}		desc. node		12661 Aug 13 03:24	20° Θ 53'55	
desc. node	12659 Feb 26 03:45	19° \mathcal{H} 30'31				12661 Aug 25 17:55	0° Ω	
	12659 Mar 06 15:40	0° Υ		morning max el		12661 Sep 13 01:52	16° Ω 48'27	46°42'13
evening rise	12659 Mar 17 20:55	13° Υ 51'49				12661 Sep 25 21:12	0° \mathbb{M}	
	12659 Mar 30 21:57	0° \mathcal{B}				12661 Oct 23 00:49	0° Ω	

	12661 Nov 17 22:16	0°♍			12664 May 29 08:46	0°♍
asc. node	12661 Dec 04 02:15	19°♍08'01			12664 Jun 25 05:31	0°♍
	12661 Dec 13 04:30	0°♌	evening max el		12664 Jul 06 09:35	11°♍35'25 46°47'47
	12662 Jan 07 01:06	0°♋			12664 Jul 26 12:31	0°♌
	12662 Jan 31 15:21	0°♊	greatest brilliancy		12664 Aug 14 23:29	12°♌01'12 -4.9m
	12662 Feb 25 01:31	0°♈	retrograde		12664 Aug 25 18:19	14°♌11'30
morning set	12662 Mar 12 01:17	18°♈29'16	evening set		12664 Sep 09 08:05	9°♌59'34
	12662 Mar 21 08:43	0°♍	desc. node		12664 Sep 09 12:51	9°♌53'09
desc. node	12662 Mar 25 17:57	5°♍25'44	min. Earth dist.		12664 Sep 15 03:09	6°♌36'26 0.27322 AU
	12662 Apr 14 13:06	0°♌	inferior conj		12664 Sep 15 16:03	6°♌16'43 -1°34'16
max. Earth dist.	12662 Apr 16 18:40	2°♌46'36 1.72202 AU	minimum elong		12664 Sep 15 12:25	6°♌22'15 1°33'06
			morning rise		12664 Sep 21 17:23	2°♌44'09
superior conj	12662 Apr 20 02:36	6°♌55'22 -0°56'40			12664 Sep 27 20:04	30°♌♍
minimum elong	12662 Apr 19 15:35	6°♌21'03 0°56'43	direct		12664 Oct 06 12:18	28°♍29'19
	12662 May 08 14:43	0°♌			12664 Oct 15 13:07	0°♌
evening rise	12662 May 29 12:46	26°♌09'51	greatest brilliancy		12664 Oct 16 04:11	0°♌12'29 -4.8m
	12662 Jun 01 14:19	0°♋	morning max el		12664 Nov 24 17:25	28°♌59'10 45°58'05
	12662 Jun 25 13:36	0°♍			12664 Nov 25 18:34	0°♍
asc. node	12662 Jul 16 09:01	25°♍58'16			12664 Dec 24 11:37	0°♌
	12662 Jul 19 14:42	0°♍	asc. node		12664 Dec 31 14:03	7°♌53'18
	12662 Aug 12 19:54	0°♌			12665 Jan 19 22:41	0°♋
	12662 Sep 06 08:13	0°♍			12665 Feb 14 09:30	0°♊
	12662 Oct 01 09:03	0°♌			12665 Mar 11 06:58	0°♈
	12662 Oct 27 09:20	0°♋			12665 Apr 04 20:08	0°♍
desc. node	12662 Nov 05 05:55	9°♋47'45	desc. node		12665 Apr 22 08:17	21°♍35'19
	12662 Nov 24 12:33	0°♊			12665 Apr 29 03:16	0°♌
evening max el	12662 Nov 29 08:38	4°♊44'30 45°55'23			12665 May 23 05:38	0°♌
	12662 Dec 31 08:36	0°♈	morning set		12665 May 24 10:49	1°♌31'07
greatest brilliancy	12663 Jan 07 13:16	3°♈10'34 -4.7m			12665 Jun 16 04:40	0°♋
retrograde	12663 Jan 17 08:19	4°♈55'47				
evening set	12663 Feb 02 07:57	0°♈01'08	superior conj		12665 Jul 03 13:07	21°♋46'44 -1°19'05
	12663 Feb 02 08:45	30°♋♌	minimum elong		12665 Jul 03 22:23	22°♋15'48 1°19'47
inferior conj	12663 Feb 07 16:40	26°♋46'11 -4°23'38	max. Earth dist.		12665 Jul 03 07:23	21°♋28'42 1.71394 AU
minimum elong	12663 Feb 08 01:24	26°♋32'30 4°20'43			12665 Jul 10 02:14	0°♍
min. Earth dist.	12663 Feb 08 05:31	26°♋26'04 0.28569 AU			12665 Aug 03 00:12	0°♍
morning rise	12663 Feb 13 18:26	23°♋06'14	evening rise		12665 Aug 12 19:33	12°♍16'46
asc. node	12663 Feb 26 08:06	18°♋41'20	asc. node		12665 Aug 12 22:32	12°♍26'03
direct	12663 Feb 28 23:52	18°♋32'48			12665 Aug 27 00:01	0°♌
greatest brilliancy	12663 Mar 12 00:07	20°♋46'10 -4.8m			12665 Sep 20 03:01	0°♍
	12663 Mar 27 22:11	0°♈			12665 Oct 14 11:06	0°♌
morning max el	12663 Apr 19 16:53	20°♈05'25 46°17'36			12665 Nov 08 03:24	0°♋
	12663 Apr 29 09:50	0°♍	desc. node		12665 Dec 02 16:42	29°♋13'52
	12663 May 26 13:39	0°♌			12665 Dec 03 08:25	0°♊
desc. node	12663 Jun 18 08:24	26°♌42'12			12665 Dec 29 09:12	0°♈
	12663 Jun 21 02:40	0°♌			12666 Jan 25 21:42	0°♍
	12663 Jul 15 21:28	0°♋	evening max el		12666 Feb 08 16:14	13°♍53'11 46°00'01
	12663 Aug 09 07:16	0°♍			12666 Feb 26 18:49	0°♌
	12663 Sep 02 13:13	0°♍	greatest brilliancy		12666 Mar 19 22:29	12°♌45'15 -4.8m
	12663 Sep 26 18:02	0°♌	asc. node		12666 Mar 25 17:34	14°♌14'42
asc. node	12663 Oct 09 01:14	15°♌15'14	retrograde		12666 Mar 29 21:26	14°♌34'42
	12663 Oct 20 22:40	0°♍	evening set		12666 Apr 14 05:05	9°♌59'11
morning set	12663 Oct 22 02:14	1°♍25'30	inferior conj		12666 Apr 19 18:53	6°♌37'51 5°51'39
	12663 Nov 14 03:29	0°♌	minimum elong		12666 Apr 19 08:17	6°♌54'23 5°48'34
			min. Earth dist.		12666 Apr 19 18:29	6°♌38'29 0.27741 AU
superior conj	12663 Nov 28 13:32	17°♌51'23 1°25'13	morning rise		12666 Apr 24 11:20	3°♌46'42
minimum elong	12663 Nov 28 10:37	17°♌42'22 1°26'05			12666 May 02 11:59	30°♌♍
max. Earth dist.	12663 Nov 30 05:34	19°♌55'17 1.72939 AU	direct		12666 May 10 19:32	28°♍35'37
	12663 Dec 08 09:09	0°♋			12666 May 19 09:43	0°♌
	12664 Jan 01 16:42	0°♊	greatest brilliancy		12666 May 20 21:12	0°♌30'12 -4.9m
evening rise	12664 Jan 04 13:32	3°♊31'52			12666 Jun 28 22:32	0°♌
	12664 Jan 26 02:45	0°♈	morning max el		12666 Jun 30 05:14	1°♌16'49 46°55'20
desc. node	12664 Jan 28 15:40	3°♈06'43	desc. node		12666 Jul 15 19:29	17°♌39'31
	12664 Feb 19 15:08	0°♍			12666 Jul 26 22:17	0°♋
	12664 Mar 15 05:22	0°♌			12666 Aug 21 20:00	0°♍
	12664 Apr 08 22:05	0°♌			12666 Sep 15 22:50	0°♍
	12664 May 03 20:34	0°♋			12666 Oct 10 17:25	0°♌
asc. node	12664 May 20 11:05	19°♋38'28			12666 Nov 04 07:37	0°♍

asc. node	12666 Nov 05 15:11	1°♍36'31		greatest brilliancy	12669 Jun 01 12:06	25°♊59'12	-4.9m
	12666 Nov 28 18:47	0°♊		retrograde	12669 Jun 10 23:03	27°♊40'52	
	12666 Dec 23 03:47	0°♊		evening set	12669 Jun 28 14:51	21°♊44'38	
morning set	12666 Dec 30 13:10	9°♊06'42		inferior conj	12669 Jul 01 15:32	19°♊54'11	8°31'18
	12667 Jan 16 11:40	0°♊		minimum elong	12669 Jul 01 23:40	19°♊41'42	8°29'22
				min. Earth dist.	12669 Jul 02 03:20	19°♊36'03	0.27198 AU
superior conj	12667 Feb 05 10:10	24°♊35'59	0°45'30	morning rise	12669 Jul 05 08:22	17°♊39'27	
minimum elong	12667 Feb 05 19:03	25°♊03'22	0°45'45	direct	12669 Jul 22 08:54	12°♊02'38	
max. Earth dist.	12667 Feb 05 00:35	24°♊06'23	1.73112 AU	greatest brilliancy	12669 Aug 01 11:17	13°♊57'18	-4.9m
	12667 Feb 09 19:14	0°♊		desc. node	12669 Aug 12 05:24	19°♊25'33	
desc. node	12667 Feb 25 05:32	19°♊02'36			12669 Aug 26 04:13	0°♊	
	12667 Mar 06 02:31	0°♊		morning max el	12669 Sep 10 15:51	14°♊26'13	46°43'38
evening rise	12667 Mar 15 12:13	11°♊37'00			12669 Sep 25 16:10	0°♊	
	12667 Mar 30 08:58	0°♊			12669 Oct 22 15:45	0°♊	
	12667 Apr 23 14:22	0°♊			12669 Nov 17 11:21	0°♊	
	12667 May 17 19:41	0°♊		asc. node	12669 Dec 03 04:08	18°♊36'48	
	12667 Jun 11 03:22	0°♊			12669 Dec 12 16:33	0°♊	
asc. node	12667 Jun 17 22:23	8°♊19'56			12670 Jan 06 12:32	0°♊	
	12667 Jul 05 17:18	0°♊			12670 Jan 31 02:26	0°♊	
	12667 Jul 30 19:45	0°♊			12670 Feb 24 12:25	0°♊	
	12667 Aug 25 24:00	0°♊		morning set	12670 Mar 09 16:33	16°♊14'38	
evening max el	12667 Sep 16 23:30	23°♊13'31	46°23'57		12670 Mar 20 19:33	0°♊	
	12667 Sep 23 23:48	0°♊		desc. node	12670 Mar 24 19:56	4°♊58'21	
desc. node	12667 Oct 07 22:15	11°♊58'47			12670 Apr 13 23:56	0°♊	
greatest brilliancy	12667 Oct 26 03:20	22°♊48'30	-4.8m	max. Earth dist.	12670 Apr 14 11:49	0°♊36'58	1.72240 AU
retrograde	12667 Nov 05 19:05	24°♊53'10					
evening set	12667 Nov 23 21:57	18°♊42'55		superior conj	12670 Apr 17 16:03	4°♊34'08	-0°53'47
inferior conj	12667 Nov 27 06:34	16°♊37'52	-8°41'57	minimum elong	12670 Apr 17 05:16	4°♊00'34	0°53'49
minimum elong	12667 Nov 27 03:16	16°♊43'02	8°40'54		12670 May 08 01:34	0°♊	
min. Earth dist.	12667 Nov 26 18:58	16°♊56'04	0.28773 AU	evening rise	12670 May 27 01:08	23°♊44'13	
morning rise	12667 Nov 30 08:44	14°♊42'54			12670 Jun 01 01:16	0°♊	
direct	12667 Dec 18 14:44	8°♊30'14			12670 Jun 25 00:42	0°♊	
greatest brilliancy	12667 Dec 28 13:05	10°♊17'33	-4.7m	asc. node	12670 Jul 15 10:50	25°♊28'44	
	12668 Jan 27 03:17	0°♊			12670 Jul 19 02:02	0°♊	
asc. node	12668 Jan 29 00:24	1°♊41'11			12670 Aug 12 07:34	0°♊	
morning max el	12668 Feb 05 12:21	8°♊43'41	45°43'38		12670 Sep 05 20:25	0°♊	
	12668 Feb 26 03:50	0°♊			12670 Sep 30 22:12	0°♊	
	12668 Mar 23 21:01	0°♊			12670 Oct 27 00:33	0°♊	
	12668 Apr 18 08:06	0°♊		desc. node	12670 Nov 04 07:57	9°♊08'44	
	12668 May 13 03:21	0°♊			12670 Nov 24 09:27	0°♊	
desc. node	12668 May 19 21:49	8°♊16'57		evening max el	12670 Nov 27 00:01	2°♊32'16	45°56'01
	12668 Jun 06 12:47	0°♊			12671 Jan 02 15:02	0°♊	
	12668 Jun 30 15:59	0°♊		greatest brilliancy	12671 Jan 05 03:39	0°♊57'31	-4.7m
	12668 Jul 24 15:57	0°♊		retrograde	12671 Jan 15 00:10	2°♊43'40	
morning set	12668 Aug 07 09:54	17°♊12'45			12671 Jan 26 17:24	30°♊	
	12668 Aug 17 15:06	0°♊		evening set	12671 Jan 31 02:03	27°♊44'51	
asc. node	12668 Sep 09 12:46	28°♊38'03		inferior conj	12671 Feb 05 08:13	24°♊33'20	-4°41'37
	12668 Sep 10 15:00	0°♊		minimum elong	12671 Feb 05 17:22	24°♊19'02	4°38'37
				min. Earth dist.	12671 Feb 05 20:42	24°♊13'49	0.28603 AU
superior conj	12668 Sep 15 17:39	6°♊22'45	0°15'03	morning rise	12671 Feb 11 08:21	20°♊55'58	
minimum elong	12668 Sep 15 14:04	6°♊11'32	0°14'53	asc. node	12671 Feb 25 10:11	16°♊21'37	
behind sun begin	12668 Sep 15 04:33	5°♊41'52		direct	12671 Feb 26 16:09	16°♊19'44	
behind sun end	12668 Sep 15 23:34	6°♊41'12		greatest brilliancy	12671 Mar 09 15:38	18°♊32'53	-4.8m
max. Earth dist.	12668 Sep 18 00:30	9°♊13'47	1.71987 AU		12671 Mar 28 11:56	0°♊	
	12668 Oct 04 16:28	0°♊		morning max el	12671 Apr 17 09:10	17°♊52'51	46°16'08
evening rise	12668 Oct 23 18:57	23°♊44'10			12671 Apr 29 04:31	0°♊	
	12668 Oct 28 20:15	0°♊			12671 May 26 04:17	0°♊	
	12668 Nov 22 03:37	0°♊		desc. node	12671 Jun 17 10:15	26°♊08'43	
	12668 Dec 16 16:17	0°♊			12671 Jun 20 15:36	0°♊	
desc. node	12668 Dec 30 04:31	16°♊22'46			12671 Jul 15 09:32	0°♊	
	12669 Jan 10 11:47	0°♊			12671 Aug 08 18:49	0°♊	
	12669 Feb 04 15:24	0°♊			12671 Sep 02 00:26	0°♊	
	12669 Mar 02 05:59	0°♊			12671 Sep 26 05:00	0°♊	
	12669 Mar 28 17:09	0°♊		asc. node	12671 Oct 08 03:10	14°♊47'33	
evening max el	12669 Apr 21 22:05	25°♊32'42	46°31'25	morning set	12671 Oct 19 17:24	29°♊10'15	
asc. node	12669 Apr 22 03:00	25°♊44'54			12671 Oct 20 09:27	0°♊	
	12669 Apr 26 11:32	0°♊			12671 Nov 13 14:08	0°♊	

superior conj	12671 Nov 26 06:04	15° ♁ 41'06	1°24'39	morning rise	12674 Apr 22 04:48	1° ♁ 23'25	
minimum elong	12671 Nov 26 02:25	15° ♁ 29'48	1°25'31		12674 Apr 24 17:30	30° ♁ 1'	
max. Earth dist.	12671 Nov 28 01:04	17° ♁ 54'12	1.72915 AU	direct	12674 May 08 09:37	26° ♁ 16'51	
	12671 Dec 07 19:46	0° ♁		greatest brilliancy	12674 May 18 12:54	28° ♁ 12'19	-4.9m
	12672 Jan 01 03:22	0° ♁			12674 May 22 17:54	0° ♁	
evening rise	12672 Jan 02 05:46	1° ♁ 21'16		morning max el	12674 Jun 27 18:06	28° ♁ 53'03	46°54'44
	12672 Jan 25 13:35	0° ♁			12674 Jun 28 20:39	0° ♁	
desc. node	12672 Jan 27 17:29	2° ♁ 39'01		desc. node	12674 Jul 14 21:24	16° ♁ 56'40	
	12672 Feb 19 02:16	0° ♁			12674 Jul 26 14:09	0° ♁	
	12672 Mar 14 16:55	0° ♁			12674 Aug 21 09:30	0° ♁	
	12672 Apr 08 10:14	0° ♁			12674 Sep 15 11:05	0° ♁	
	12672 May 03 09:42	0° ♁			12674 Oct 10 04:53	0° ♁	
asc. node	12672 May 19 13:01	19° ♁ 02'42			12674 Nov 03 18:35	0° ♁	
	12672 May 28 23:43	0° ♁		asc. node	12674 Nov 04 16:59	1° ♁ 08'33	
	12672 Jun 25 00:43	0° ♁			12674 Nov 28 05:26	0° ♁	
evening max el	12672 Jul 04 00:41	9° ♁ 16'58	46°48'00		12674 Dec 22 14:16	0° ♁	
	12672 Jul 27 03:07	0° ♁		morning set	12674 Dec 28 06:20	6° ♁ 59'27	
greatest brilliancy	12672 Aug 12 14:11	9° ♁ 40'46	-4.9m		12675 Jan 15 22:04	0° ♁	
retrograde	12672 Aug 23 08:41	11° ♁ 50'13		max. Earth dist.	12675 Feb 02 17:06	21° ♁ 57'14	1.73127 AU
evening set	12672 Sep 06 21:54	7° ♁ 38'58					
desc. node	12672 Sep 08 14:55	6° ♁ 42'00		superior conj	12675 Feb 03 02:33	22° ♁ 26'25	0°48'20
min. Earth dist.	12672 Sep 12 17:27	4° ♁ 14'46	0.27282 AU	minimum elong	12675 Feb 03 11:44	22° ♁ 54'42	0°48'36
inferior conj	12672 Sep 13 05:35	3° ♁ 56'13	-1°11'09		12675 Feb 09 05:38	0° ♁	
minimum elong	12672 Sep 13 02:50	4° ♁ 00'26	1°10'18	desc. node	12675 Feb 24 07:29	18° ♁ 36'19	
morning rise	12672 Sep 19 08:27	0° ♁ 21'43			12675 Mar 05 13:00	0° ♁	
	12672 Sep 20 01:01	30° ♁		evening rise	12675 Mar 13 03:27	9° ♁ 23'13	
direct	12672 Oct 04 02:12	26° ♁ 09'31			12675 Mar 29 19:38	0° ♁	
greatest brilliancy	12672 Oct 13 17:22	27° ♁ 52'21	-4.8m		12675 Apr 23 01:16	0° ♁	
	12672 Oct 18 20:34	0° ♁			12675 May 17 06:55	0° ♁	
morning max el	12672 Nov 22 07:32	26° ♁ 42'30	45°59'12		12675 Jun 10 15:04	0° ♁	
	12672 Nov 25 16:30	0° ♁		asc. node	12675 Jun 17 00:14	7° ♁ 49'15	
	12672 Dec 24 03:06	0° ♁			12675 Jul 05 05:43	0° ♁	
asc. node	12672 Dec 30 15:54	7° ♁ 17'18			12675 Jul 30 09:26	0° ♁	
	12673 Jan 19 11:47	0° ♁			12675 Aug 25 16:25	0° ♁	
	12673 Feb 13 21:28	0° ♁		evening max el	12675 Sep 14 13:19	20° ♁ 55'09	46°25'15
	12673 Mar 10 18:20	0° ♁			12675 Sep 24 01:06	0° ♁	
	12673 Apr 04 07:10	0° ♁		desc. node	12675 Oct 07 00:16	10° ♁ 51'34	
desc. node	12673 Apr 21 10:05	21° ♁ 07'17		greatest brilliancy	12675 Oct 23 18:45	20° ♁ 36'40	-4.8m
	12673 Apr 28 14:07	0° ♁		retrograde	12675 Nov 03 10:45	22° ♁ 42'08	
morning set	12673 May 21 22:22	29° ♁ 03'44		evening set	12675 Nov 21 11:23	16° ♁ 35'35	
	12673 May 22 16:23	0° ♁		inferior conj	12675 Nov 24 22:22	14° ♁ 27'11	-8°38'28
	12673 Jun 15 15:23	0° ♁		minimum elong	12675 Nov 24 18:17	14° ♁ 33'35	8°37'21
max. Earth dist.	12673 Jun 30 14:12	18° ♁ 45'55	1.71391 AU	min. Earth dist.	12675 Nov 24 09:59	14° ♁ 46'35	0.28741 AU
				morning rise	12675 Nov 28 01:17	12° ♁ 31'09	
superior conj	12673 Jul 01 00:58	19° ♁ 19'42	-1°20'40	direct	12675 Dec 16 05:36	6° ♁ 20'02	
minimum elong	12673 Jul 01 09:31	19° ♁ 46'33	1°21'25	greatest brilliancy	12675 Dec 26 04:13	8° ♁ 07'11	-4.7m
	12673 Jul 09 12:55	0° ♁			12676 Jan 27 04:59	0° ♁	
	12673 Aug 02 10:52	0° ♁		asc. node	12676 Jan 28 02:30	0° ♁ 49'12	
evening rise	12673 Aug 10 08:04	9° ♁ 52'22		morning max el	12676 Feb 03 02:54	6° ♁ 30'04	45°43'14
asc. node	12673 Aug 12 00:27	11° ♁ 58'43			12676 Feb 25 20:00	0° ♁	
	12673 Aug 26 10:42	0° ♁			12676 Mar 23 10:22	0° ♁	
	12673 Sep 19 13:50	0° ♁			12676 Apr 17 20:13	0° ♁	
	12673 Oct 13 22:12	0° ♁			12676 May 12 14:49	0° ♁	
	12673 Nov 07 15:00	0° ♁		desc. node	12676 May 18 23:39	7° ♁ 47'52	
desc. node	12673 Dec 01 18:30	28° ♁ 42'31			12676 Jun 05 23:52	0° ♁	
	12673 Dec 02 20:56	0° ♁			12676 Jun 30 02:51	0° ♁	
	12673 Dec 28 23:30	0° ♁			12676 Jul 24 02:40	0° ♁	
	12674 Jan 25 16:12	0° ♁		morning set	12676 Aug 04 22:26	14° ♁ 48'18	
evening max el	12674 Feb 06 06:24	11° ♁ 36'50	45°59'10		12676 Aug 17 01:43	0° ♁	
	12674 Feb 27 07:58	0° ♁		asc. node	12676 Sep 08 14:40	28° ♁ 11'07	
greatest brilliancy	12674 Mar 17 13:01	10° ♁ 27'54	-4.8m		12676 Sep 10 01:32	0° ♁	
asc. node	12674 Mar 24 19:36	12° ♁ 08'22					
retrograde	12674 Mar 27 10:50	12° ♁ 16'28		superior conj	12676 Sep 13 07:25	4° ♁ 03'07	0°11'26
evening set	12674 Apr 11 16:35	7° ♁ 44'43		minimum elong	12676 Sep 13 04:40	3° ♁ 54'32	0°11'16
inferior conj	12674 Apr 17 09:12	4° ♁ 19'29	5°33'42	behind sun begin	12676 Sep 12 10:54	2° ♁ 59'04	
minimum elong	12674 Apr 16 22:49	4° ♁ 35'41	5°30'39	behind sun end	12676 Sep 13 22:26	4° ♁ 50'01	
min. Earth dist.	12674 Apr 17 09:20	4° ♁ 19'16	0.27759 AU	max. Earth dist.	12676 Sep 15 10:59	6° ♁ 44'04	1.71950 AU

	12676 Oct 04 02:57	0°♌		morning max el	12679 Apr 15 01:06	15°♎40'36	46°14'24
evening rise	12676 Oct 21 10:51	21°♌32'12			12679 Apr 28 22:23	0°♍	
	12676 Oct 28 06:43	0°♎			12679 May 25 18:32	0°♎	
	12676 Nov 21 14:11	0°♏		desc. node	12679 Jun 16 12:12	25°♎36'08	
	12676 Dec 16 03:07	0°♐			12679 Jun 20 04:18	0°♏	
desc. node	12676 Dec 29 06:27	15°♐55'07			12679 Jul 14 21:26	0°♐	
	12677 Jan 09 23:07	0°♑			12679 Aug 08 06:14	0°♑	
	12677 Feb 04 03:35	0°♒			12679 Sep 01 11:31	0°♒	
	12677 Mar 01 19:38	0°♓			12679 Sep 25 15:49	0°♓	
	12677 Mar 28 09:44	0°♏		asc. node	12679 Oct 07 04:54	14°♏19'42	
evening max el	12677 Apr 19 11:19	23°♏10'42	46°30'20	morning set	12679 Oct 17 08:27	26°♏55'06	
asc. node	12677 Apr 21 04:56	24°♏53'16			12679 Oct 19 20:05	0°♌	
	12677 Apr 26 12:45	0°♐			12679 Nov 13 00:39	0°♎	
greatest brilliancy	12677 May 30 00:33	23°♐34'50	-4.9m				
retrograde	12677 Jun 08 12:24	25°♐17'13		superior conj	12679 Nov 23 22:40	13°♎31'23	1°23'58
evening set	12677 Jun 26 06:40	19°♐15'59		minimum elong	12679 Nov 23 18:19	13°♎17'54	1°24'49
inferior conj	12677 Jun 29 04:26	17°♐29'56	8°39'53	max. Earth dist.	12679 Nov 25 20:17	15°♎52'33	1.72889 AU
minimum elong	12677 Jun 29 11:51	17°♐18'32	8°38'08		12679 Dec 07 06:16	0°♏	
min. Earth dist.	12677 Jun 29 15:47	17°♐12'30	0.27224 AU	evening rise	12679 Dec 30 22:12	29°♏11'37	
morning rise	12677 Jul 02 16:57	15°♐21'43			12679 Dec 31 13:55	0°♐	
direct	12677 Jul 19 22:11	9°♐37'47			12680 Jan 25 00:17	0°♑	
greatest brilliancy	12677 Jul 29 23:55	11°♐32'22	-4.9m	desc. node	12680 Jan 26 19:28	2°♑12'14	
desc. node	12677 Aug 11 07:32	18°♐01'41			12680 Feb 18 13:13	0°♒	
	12677 Aug 26 11:15	0°♑			12680 Mar 14 04:17	0°♓	
morning max el	12677 Sep 08 06:39	12°♑07'12	46°44'57		12680 Apr 07 22:17	0°♏	
	12677 Sep 25 10:13	0°♒			12680 May 02 22:51	0°♐	
	12677 Oct 22 06:06	0°♓		asc. node	12680 May 18 14:54	18°♐26'42	
	12677 Nov 16 23:57	0°♌			12680 May 28 14:52	0°♑	
asc. node	12677 Dec 02 06:00	18°♌06'52			12680 Jun 24 20:37	0°♒	
	12677 Dec 12 04:09	0°♎		evening max el	12680 Jul 01 15:15	6°♒56'44	46°47'58
	12678 Jan 05 23:32	0°♏			12680 Jul 27 23:09	0°♓	
	12678 Jan 30 13:05	0°♐		greatest brilliancy	12680 Aug 10 05:26	7°♓20'05	-4.9m
	12678 Feb 23 22:56	0°♑		retrograde	12680 Aug 20 22:22	9°♓27'44	
morning set	12678 Mar 07 08:11	14°♑02'26		evening set	12680 Sep 04 11:42	5°♓17'04	
	12678 Mar 20 06:02	0°♒		desc. node	12680 Sep 07 16:53	3°♓27'10	
desc. node	12678 Mar 23 21:46	4°♒31'34		inferior conj	12680 Sep 10 18:55	1°♓34'45	-0°47'46
max. Earth dist.	12678 Apr 12 04:01	28°♒25'24	1.72283 AU	minimum elong	12680 Sep 10 17:03	1°♓37'36	0°47'14
	12678 Apr 13 10:27	0°♓		min. Earth dist.	12680 Sep 10 07:57	1°♓51'33	0.27241 AU
					12680 Sep 13 09:23	30°♒♐	
superior conj	12678 Apr 15 05:34	2°♓14'05	-0°50'50	morning rise	12680 Sep 16 23:05	27°♒58'21	
minimum elong	12678 Apr 14 19:07	1°♓41'34	0°50'50	direct	12680 Oct 01 15:25	23°♒48'43	
	12678 May 07 12:10	0°♏		greatest brilliancy	12680 Oct 11 06:42	25°♒31'28	-4.8m
evening rise	12678 May 24 13:22	21°♏18'57			12680 Oct 20 18:44	0°♓	
	12678 May 31 11:57	0°♐		morning max el	12680 Nov 19 20:37	24°♓22'54	46°00'28
	12678 Jun 24 11:32	0°♑			12680 Nov 25 13:42	0°♌	
asc. node	12678 Jul 14 12:47	25°♑00'28			12680 Dec 23 18:23	0°♎	
	12678 Jul 18 13:06	0°♒		asc. node	12680 Dec 29 17:57	6°♎42'01	
	12678 Aug 11 18:59	0°♓			12681 Jan 19 00:49	0°♏	
	12678 Sep 05 08:23	0°♌			12681 Feb 13 09:24	0°♐	
	12678 Sep 30 11:12	0°♎			12681 Mar 10 05:39	0°♑	
	12678 Oct 26 15:42	0°♏			12681 Apr 03 18:09	0°♒	
desc. node	12678 Nov 03 09:50	8°♏29'47		desc. node	12681 Apr 20 11:55	20°♒39'22	
	12678 Nov 24 06:44	0°♐			12681 Apr 28 00:55	0°♓	
evening max el	12678 Nov 24 16:13	0°♐22'55	45°56'44	morning set	12681 May 19 10:13	26°♓37'19	
greatest brilliancy	12679 Jan 02 18:36	28°♐46'45	-4.7m		12681 May 22 03:08	0°♏	
	12679 Jan 07 05:52	0°♑			12681 Jun 15 02:08	0°♐	
retrograde	12679 Jan 12 16:09	0°♑33'17		max. Earth dist.	12681 Jun 27 19:05	15°♐56'52	1.71400 AU
	12679 Jan 17 22:38	30°♒♐					
evening set	12679 Jan 28 20:31	25°♒30'34		superior conj	12681 Jun 28 12:48	16°♐52'29	-1°22'04
inferior conj	12679 Feb 03 00:03	22°♒22'26	-4°58'54	minimum elong	12681 Jun 28 20:36	17°♐16'55	1°22'53
minimum elong	12679 Feb 03 09:31	22°♒07'35	4°55'51		12681 Jul 08 23:42	0°♑	
min. Earth dist.	12679 Feb 03 12:00	22°♒03'42	0.28633 AU		12681 Aug 01 21:41	0°♒	
morning rise	12679 Feb 08 22:19	18°♒47'43		evening rise	12681 Aug 07 20:04	7°♒25'44	
direct	12679 Feb 24 08:47	14°♒08'52		asc. node	12681 Aug 11 02:20	11°♒30'35	
asc. node	12679 Feb 24 12:11	14°♒08'54			12681 Aug 25 21:36	0°♓	
greatest brilliancy	12679 Mar 07 06:45	16°♒20'49	-4.8m		12681 Sep 19 00:53	0°♌	
	12679 Mar 28 21:28	0°♑			12681 Oct 13 09:33	0°♎	

	12681 Nov 07 02:51	0° Z		desc. node	12684 May 18 01:34	7° Z 17'56	
desc. node	12681 Nov 30 20:31	28° Z 11'05			12684 Jun 05 11:17	0° II	
	12681 Dec 02 09:45	0° \approx			12684 Jun 29 14:00	0° G	
	12681 Dec 28 14:11	0° X			12684 Jul 23 13:38	0° Ω	
	12682 Jan 25 11:27	0° Y		morning set	12684 Aug 02 11:21	12° Ω 24'11	
evening max el	12682 Feb 03 20:11	9° Y 19'11 45°58'31			12684 Aug 16 12:35	0° M	
	12682 Feb 28 01:51	0° Z		asc. node	12684 Sep 07 16:25	27° M 42'45	
greatest brilliancy	12682 Mar 15 03:38	8° Z 10'34 -4.8m			12684 Sep 09 12:22	0° $\underline{\text{A}}$	
asc. node	12682 Mar 23 21:32	9° Z 57'12					
retrograde	12682 Mar 25 00:33	9° Z 58'42		superior conj	12684 Sep 10 21:18	1° $\underline{\text{A}}$ 42'50 0°07'49	
evening set	12682 Apr 09 04:28	5° Z 30'02		minimum elong	12684 Sep 10 19:25	1° $\underline{\text{A}}$ 36'58 0°07'39	
inferior conj	12682 Apr 14 23:40	2° Z 01'30 5°15'23		behind sun begin	12684 Sep 09 21:31	0° $\underline{\text{A}}$ 28'35	
minimum elong	12682 Apr 14 13:35	2° Z 17'15 5°12'20		behind sun end	12684 Sep 11 17:18	2° $\underline{\text{A}}$ 45'20	
min. Earth dist.	12682 Apr 15 00:25	2° Z 00'20 0.27775 AU		max. Earth dist.	12684 Sep 12 23:37	4° $\underline{\text{A}}$ 19'55 1.71923 AU	
	12682 Apr 18 06:19	30° K Y			12684 Oct 03 13:46	0° M	
morning rise	12682 Apr 19 22:22	29° Y 00'51		evening rise	12684 Oct 19 02:44	19° M 18'58	
direct	12682 May 05 23:36	23° Y 58'20			12684 Oct 27 17:36	0° X	
greatest brilliancy	12682 May 16 04:57	25° Y 55'12 -4.9m			12684 Nov 21 01:13	0° Z	
	12682 May 24 15:22	0° Z			12684 Dec 15 14:27	0° \approx	
morning max el	12682 Jun 25 07:31	26° Z 30'37 46°54'03		desc. node	12684 Dec 28 08:24	15° \approx 26'02	
	12682 Jun 28 17:58	0° II			12685 Jan 09 10:59	0° X	
desc. node	12682 Jul 13 23:32	16° II 14'41			12685 Feb 03 16:19	0° Y	
	12682 Jul 26 05:52	0° G			12685 Mar 01 09:54	0° Z	
	12682 Aug 20 23:04	0° Ω			12685 Mar 28 03:08	0° II	
	12682 Sep 14 23:32	0° M		evening max el	12685 Apr 17 01:35	20° II 50'07 46°29'19	
	12682 Oct 09 16:39	0° $\underline{\text{A}}$		asc. node	12685 Apr 20 06:56	23° II 59'33	
	12682 Nov 03 05:53	0° M			12685 Apr 26 15:58	0° G	
asc. node	12682 Nov 03 18:53	0° M 39'50		greatest brilliancy	12685 May 27 12:57	21° G 09'32 -4.9m	
	12682 Nov 27 16:25	0° X		retrograde	12685 Jun 06 02:00	22° G 52'34	
	12682 Dec 22 01:03	0° Z		evening set	12685 Jun 23 22:24	16° G 46'54	
morning set	12682 Dec 25 23:09	4° Z 50'08		inferior conj	12685 Jun 26 17:25	15° G 04'51 8°47'37	
	12683 Jan 15 08:46	0° \approx		minimum elong	12685 Jun 27 00:04	14° G 54'39 8°46'03	
				min. Earth dist.	12685 Jun 27 04:03	14° G 48'31 0.27242 AU	
superior conj	12683 Jan 31 18:48	20° \approx 15'27 0°51'05		morning rise	12685 Jun 30 01:41	13° G 02'59	
minimum elong	12683 Feb 01 04:13	20° \approx 44'32 0°51'24		direct	12685 Jul 17 11:53	7° G 12'26	
max. Earth dist.	12683 Jan 31 11:08	19° \approx 51'51 1.73140 AU		greatest brilliancy	12685 Jul 27 12:04	9° G 06'08 -4.9m	
	12683 Feb 08 16:21	0° X		desc. node	12685 Aug 10 09:24	16° G 39'32	
desc. node	12683 Feb 23 09:18	18° X 08'40			12685 Aug 26 16:25	0° Ω	
	12683 Mar 04 23:49	0° Y		morning max el	12685 Sep 05 21:27	9° Ω 47'31 46°46'13	
evening rise	12683 Mar 10 18:46	7° Y 08'50			12685 Sep 25 04:05	0° M	
	12683 Mar 29 06:36	0° Z			12685 Oct 21 20:33	0° $\underline{\text{A}}$	
	12683 Apr 22 12:27	0° II			12685 Nov 16 12:47	0° M	
	12683 May 16 18:23	0° G		asc. node	12685 Dec 01 07:59	17° M 36'17	
	12683 Jun 10 02:59	0° Ω			12685 Dec 11 16:05	0° X	
asc. node	12683 Jun 16 02:16	7° Ω 18'30			12686 Jan 05 10:56	0° Z	
	12683 Jul 04 18:25	0° M			12686 Jan 30 00:11	0° \approx	
	12683 Jul 29 23:33	0° $\underline{\text{A}}$			12686 Feb 23 09:52	0° X	
	12683 Aug 25 09:34	0° M		morning set	12686 Mar 04 23:37	11° X 48'18	
evening max el	12683 Sep 12 03:29	18° M 36'16 46°26'20			12686 Mar 19 16:55	0° Y	
	12683 Sep 24 04:36	0° X		desc. node	12686 Mar 22 23:31	4° Y 03'18	
desc. node	12683 Oct 06 02:12	9° X 40'31		max. Earth dist.	12686 Apr 09 18:40	26° Y 07'54 1.72322 AU	
greatest brilliancy	12683 Oct 21 09:23	18° X 21'38 -4.8m					
retrograde	12683 Nov 01 02:28	20° X 28'34		superior conj	12686 Apr 12 18:53	29° Y 52'22 -0°47'47	
evening set	12683 Nov 19 00:07	14° X 25'57		minimum elong	12686 Apr 12 08:50	29° Y 21'07 0°47'44	
min. Earth dist.	12683 Nov 22 00:28	12° X 34'39 0.28709 AU			12686 Apr 12 21:21	0° Z	
inferior conj	12683 Nov 22 13:47	12° X 13'50 -8°34'08			12686 May 06 23:07	0° II	
minimum elong	12683 Nov 22 08:55	12° X 21'26 8°32'56		evening rise	12686 May 22 01:31	18° II 52'16	
morning rise	12683 Nov 25 17:51	10° X 16'18			12686 May 30 23:02	0° G	
direct	12683 Dec 13 20:17	4° X 07'05			12686 Jun 23 22:46	0° Ω	
greatest brilliancy	12683 Dec 23 18:50	5° X 54'10 -4.7m		asc. node	12686 Jul 13 14:39	24° Ω 30'51	
asc. node	12684 Jan 27 04:31	29° X 56'29			12686 Jul 18 00:32	0° M	
	12684 Jan 27 06:01	0° Z			12686 Aug 11 06:43	0° $\underline{\text{A}}$	
morning max el	12684 Jan 31 17:59	4° Z 16'19 45°43'00			12686 Sep 04 20:40	0° M	
	12684 Feb 25 12:22	0° \approx			12686 Sep 30 00:33	0° X	
	12684 Mar 23 00:02	0° X			12686 Oct 26 07:23	0° Z	
	12684 Apr 17 08:39	0° Y		desc. node	12686 Nov 02 11:51	7° Z 49'56	
	12684 May 12 02:37	0° Z		evening max el	12686 Nov 22 08:08	28° Z 11'47 45°57'09	

	12686 Nov 24 05:18	0°≈			12689 Jun 14 13:02	0°☿		
greatest brilliancy	12686 Dec 31 10:00	26°≈35'02	-4.7m	max. Earth dist.	12689 Jun 24 23:47	13°☿06'48	1.71409 AU	
retrograde	12687 Jan 10 07:32	28°≈21'08						
evening set	12687 Jan 26 14:55	23°≈14'39		superior conj	12689 Jun 26 00:23	14°☿23'58	-1°23'21	
inferior conj	12687 Jan 31 15:46	20°≈10'00	-5°15'47	minimum elong	12689 Jun 26 07:20	14°☿45'47	1°24'11	
minimum elong	12687 Feb 01 01:30	19°≈54'43	5°12'43		12689 Jul 08 10:36	0°♊		
min. Earth dist.	12687 Feb 01 03:29	19°≈51'37	0.28665 AU		12689 Aug 01 08:37	0°♋		
morning rise	12687 Feb 06 11:55	16°≈37'58		evening rise	12689 Aug 05 07:54	4°♋58'16		
direct	12687 Feb 22 01:03	11°≈56'28		asc. node	12689 Aug 10 04:06	11°♋01'49		
asc. node	12687 Feb 23 14:05	11°≈59'17			12689 Aug 25 08:37	0°♌		
greatest brilliancy	12687 Mar 04 21:57	14°≈07'11	-4.8m		12689 Sep 18 12:03	0°♍		
	12687 Mar 29 04:59	0°♎			12689 Oct 12 20:58	0°♎		
morning max el	12687 Apr 12 16:05	13°♎24'37	46°12'44		12689 Nov 06 14:46	0°♏		
	12687 Apr 28 16:18	0°♐		desc. node	12689 Nov 29 22:31	27°♏39'37		
	12687 May 25 08:59	0°♑			12689 Dec 01 22:36	0°≈		
desc. node	12687 Jun 15 14:13	25°♑02'54			12689 Dec 28 04:59	0°♒		
	12687 Jun 19 17:15	0°♓			12690 Jan 25 07:11	0°♓		
	12687 Jul 14 09:35	0°☿		evening max el	12690 Feb 01 09:56	7°♓01'50	45°57'48	
	12687 Aug 07 17:54	0°♊			12690 Mar 01 02:09	0°♔		
	12687 Aug 31 22:50	0°♋		greatest brilliancy	12690 Mar 12 17:36	5°♔52'26	-4.8m	
	12687 Sep 25 02:52	0°♌		retrograde	12690 Mar 22 14:31	7°♔40'55		
asc. node	12687 Oct 06 06:48	13°♌51'39		asc. node	12690 Mar 22 23:34	7°♔40'45		
morning set	12687 Oct 14 23:48	24°♌40'10		evening set	12690 Apr 06 16:28	3°♔14'40		
	12687 Oct 19 06:54	0°♍			12690 Apr 12 03:17	30°♕♐		
	12687 Nov 12 11:22	0°♎		inferior conj	12690 Apr 12 14:06	29°♕43'09	4°56'26	
				minimum elong	12690 Apr 12 04:22	29°♕58'19	4°53'27	
superior conj	12687 Nov 21 15:35	11°♎22'02	1°23'11	min. Earth dist.	12690 Apr 12 15:20	29°♕41'13	0.27800 AU	
minimum elong	12687 Nov 21 10:33	11°♎06'26	1°23'59	morning rise	12690 Apr 17 15:52	26°♕38'11		
max. Earth dist.	12687 Nov 23 15:12	13°♎49'27	1.72862 AU	direct	12690 May 03 13:53	21°♕39'15		
	12687 Dec 06 16:57	0°♏		greatest brilliancy	12690 May 13 21:03	23°♕37'50	-4.9m	
evening rise	12687 Dec 28 14:48	27°♏01'45			12690 May 25 22:24	0°♖		
	12687 Dec 31 00:43	0°≈		morning max el	12690 Jun 22 21:59	24°♖10'32	46°53'19	
	12688 Jan 24 11:17	0°♒			12690 Jun 28 14:43	0°♗		
desc. node	12688 Jan 25 21:17	1°♒44'06		desc. node	12690 Jul 13 01:23	15°♗32'09		
	12688 Feb 18 00:31	0°♓			12690 Jul 25 21:26	0°☿		
	12688 Mar 13 16:02	0°♔			12690 Aug 20 12:33	0°♊		
	12688 Apr 07 10:42	0°♕			12690 Sep 14 11:54	0°♋		
	12688 May 02 12:24	0°☿			12690 Oct 09 04:18	0°♌		
asc. node	12688 May 17 16:58	17°☿50'12		asc. node	12690 Nov 02 20:49	0°♍11'27		
	12688 May 28 06:32	0°♊			12690 Nov 02 17:05	0°♍		
	12688 Jun 24 17:27	0°♋			12690 Nov 27 03:18	0°♎		
evening max el	12688 Jun 29 04:46	4°♋33'06	46°47'57		12690 Dec 21 11:43	0°♏		
	12688 Jul 29 03:03	0°♌		morning set	12690 Dec 23 16:19	2°♏42'14		
greatest brilliancy	12688 Aug 07 21:10	4°♌59'11	-4.9m		12691 Jan 14 19:19	0°≈		
retrograde	12688 Aug 18 11:41	7°♌04'39						
evening set	12688 Sep 02 01:41	2°♌54'05		superior conj	12691 Jan 29 11:28	18°≈06'18	0°53'45	
desc. node	12688 Sep 06 18:52	0°♌09'58		minimum elong	12691 Jan 29 21:06	18°≈36'00	0°54'04	
	12688 Sep 07 01:25	30°♍♋		max. Earth dist.	12691 Jan 29 07:40	17°≈54'34	1.73149 AU	
inferior conj	12688 Sep 08 08:15	29°♍12'46	-0°24'09		12691 Feb 08 02:53	0°♒		
minimum elong	12688 Sep 08 07:18	29°♍14'13	0°23'57	desc. node	12691 Feb 22 11:06	17°♒41'32		
min. Earth dist.	12688 Sep 07 22:50	29°♍27'12	0.27202 AU		12691 Mar 04 10:27	0°♓		
morning rise	12688 Sep 14 13:30	25°♍34'35		evening rise	12691 Mar 08 10:30	4°♓56'22		
direct	12688 Sep 29 03:59	21°♍27'08			12691 Mar 28 17:26	0°♔		
greatest brilliancy	12688 Oct 08 20:37	23°♍10'34	-4.8m		12691 Apr 21 23:33	0°♕		
	12688 Oct 22 02:16	0°♖			12691 May 16 05:50	0°☿		
morning max el	12688 Nov 17 09:24	22°♖02'06	46°01'58		12691 Jun 09 14:57	0°♊		
	12688 Nov 25 10:15	0°♗		asc. node	12691 Jun 15 04:07	6°♊47'08		
	12688 Dec 23 09:30	0°♘			12691 Jul 04 07:11	0°♋		
asc. node	12688 Dec 28 19:53	6°♘06'32			12691 Jul 29 13:46	0°♌		
	12689 Jan 18 13:50	0°♙			12691 Aug 25 03:01	0°♍		
	12689 Feb 12 21:23	0°≈		evening max el	12691 Sep 09 18:33	16°♍19'58	46°27'37	
	12689 Mar 09 17:07	0°♒			12691 Sep 24 09:44	0°♎		
	12689 Apr 03 05:19	0°♓		desc. node	12691 Oct 05 04:16	8°♎28'09		
desc. node	12689 Apr 19 13:54	20°♓11'15		greatest brilliancy	12691 Oct 18 23:34	16°♎06'38	-4.8m	
	12689 Apr 27 11:56	0°♔		retrograde	12691 Oct 29 18:38	18°♎15'31		
morning set	12689 May 16 21:41	24°♔09'09		evening set	12691 Nov 16 12:41	12°♎17'05		
	12689 May 21 14:04	0°♕		min. Earth dist.	12691 Nov 19 14:39	10°♎23'35	0.28671 AU	

inferior conj	12691 Nov 20 05:11	10° ♊ 00'57	-8°29'06			12694 May 06 09:38	0° ♊	
minimum elong	12691 Nov 19 23:36	10° ♊ 09'39	8°27'47	evening rise		12694 May 19 14:11	16° ♊ 28'41	
morning rise	12691 Nov 23 10:40	8° ♊ 01'35				12694 May 30 09:40	0° ♊	
direct	12691 Dec 11 11:25	1° ♊ 54'47				12694 Jun 23 09:35	0° ♊	
greatest brilliancy	12691 Dec 21 08:51	3° ♊ 41'17	-4.7m	asc. node		12694 Jul 12 16:28	24° ♊ 02'14	
asc. node	12692 Jan 26 06:22	29° ♊ 05'19				12694 Jul 17 11:37	0° ♊	
	12692 Jan 27 05:29	0° ♊				12694 Aug 10 18:11	0° ♊	
morning max el	12692 Jan 29 09:59	2° ♊ 05'47	45°42'54			12694 Sep 04 08:44	0° ♊	
	12692 Feb 25 04:04	0° ♊				12694 Sep 29 13:44	0° ♊	
	12692 Mar 22 13:13	0° ♊				12694 Oct 25 23:03	0° ♊	
	12692 Apr 16 20:42	0° ♊		desc. node		12694 Nov 01 13:53	7° ♊ 10'32	
	12692 May 11 14:06	0° ♊		evening max el		12694 Nov 19 23:18	25° ♊ 59'40	45°57'48
desc. node	12692 May 17 03:30	6° ♊ 48'57				12694 Nov 24 04:29	0° ♊	
	12692 Jun 04 22:27	0° ♊		greatest brilliancy		12694 Dec 29 01:54	24° ♊ 25'08	-4.7m
	12692 Jun 29 00:58	0° ♊		retrograde		12695 Jan 07 22:31	26° ♊ 10'33	
	12692 Jul 23 00:28	0° ♊		evening set		12695 Jan 24 09:29	21° ♊ 00'08	
morning set	12692 Jul 30 23:46	9° ♊ 58'57		inferior conj		12695 Jan 29 07:37	17° ♊ 59'14	-5°32'12
	12692 Aug 15 23:19	0° ♊		minimum elong		12695 Jan 29 17:33	17° ♊ 43'35	5°29'08
asc. node	12692 Sep 06 18:19	27° ♊ 15'23		min. Earth dist.		12695 Jan 29 19:19	17° ♊ 40'49	0.28692 AU
				morning rise		12695 Feb 04 01:27	14° ♊ 30'02	
superior conj	12692 Sep 08 10:35	29° ♊ 21'10	0°04'07	direct		12695 Feb 19 16:56	9° ♊ 45'37	
minimum elong	12692 Sep 08 09:36	29° ♊ 18'07	0°03'58	asc. node		12695 Feb 22 16:12	9° ♊ 55'54	
behind sun begin	12692 Sep 07 09:34	28° ♊ 03'00		greatest brilliancy		12695 Mar 02 13:42	11° ♊ 55'39	-4.8m
behind sun end	12692 Sep 09 09:39	0° ♊ 33'14				12695 Mar 29 09:38	0° ♊	
	12692 Sep 08 23:00	0° ♊		morning max el		12695 Apr 10 06:32	11° ♊ 08'43	46°11'14
max. Earth dist.	12692 Sep 10 13:28	2° ♊ 00'07	1.71890 AU			12695 Apr 28 09:16	0° ♊	
	12692 Oct 03 00:23	0° ♊				12695 May 24 22:45	0° ♊	
evening rise	12692 Oct 16 18:18	17° ♊ 05'26		desc. node		12695 Jun 14 16:02	24° ♊ 30'48	
	12692 Oct 27 04:14	0° ♊				12695 Jun 19 05:37	0° ♊	
	12692 Nov 20 11:59	0° ♊				12695 Jul 13 21:12	0° ♊	
	12692 Dec 15 01:31	0° ♊				12695 Aug 07 05:05	0° ♊	
desc. node	12692 Dec 27 10:13	14° ♊ 57'27				12695 Aug 31 09:44	0° ♊	
	12693 Jan 08 22:34	0° ♊				12695 Sep 24 13:33	0° ♊	
	12693 Feb 03 04:45	0° ♊		asc. node		12695 Oct 05 08:43	13° ♊ 24'37	
	12693 Feb 28 23:52	0° ♊		morning set		12695 Oct 12 14:45	22° ♊ 24'51	
	12693 Mar 27 20:24	0° ♊				12695 Oct 18 17:26	0° ♊	
evening max el	12693 Apr 14 16:15	18° ♊ 32'02	46°28'07			12695 Nov 11 21:47	0° ♊	
asc. node	12693 Apr 19 08:58	23° ♊ 06'17						
	12693 Apr 26 20:17	0° ♊		superior conj		12695 Nov 19 08:04	9° ♊ 12'17	1°22'14
greatest brilliancy	12693 May 25 01:22	18° ♊ 45'41	-4.9m	minimum elong		12695 Nov 19 02:22	8° ♊ 54'35	1°23'00
retrograde	12693 Jun 03 15:14	20° ♊ 28'54		max. Earth dist.		12695 Nov 21 07:13	11° ♊ 38'15	1.72833 AU
evening set	12693 Jun 21 13:50	14° ♊ 19'29				12695 Dec 06 03:21	0° ♊	
inferior conj	12693 Jun 24 06:25	12° ♊ 40'50	8°54'20	evening rise		12695 Dec 26 07:02	24° ♊ 51'49	
minimum elong	12693 Jun 24 12:15	12° ♊ 31'52	8°52'53			12695 Dec 30 11:11	0° ♊	
min. Earth dist.	12693 Jun 24 16:22	12° ♊ 25'32	0.27267 AU			12696 Jan 23 21:55	0° ♊	
morning rise	12693 Jun 27 10:38	10° ♊ 44'49		desc. node		12696 Jan 24 23:06	1° ♊ 17'06	
direct	12693 Jul 15 01:41	4° ♊ 48'11				12696 Feb 17 11:26	0° ♊	
greatest brilliancy	12693 Jul 25 00:22	6° ♊ 40'42	-4.9m			12696 Mar 13 03:25	0° ♊	
desc. node	12693 Aug 09 11:25	15° ♊ 20'54				12696 Apr 06 22:48	0° ♊	
	12693 Aug 26 19:35	0° ♊				12696 May 02 01:39	0° ♊	
morning max el	12693 Sep 03 11:41	7° ♊ 26'46	46°47'18	asc. node		12696 May 16 18:53	17° ♊ 14'17	
	12693 Sep 24 21:23	0° ♊				12696 May 27 21:58	0° ♊	
	12693 Oct 21 10:38	0° ♊				12696 Jun 24 14:26	0° ♊	
	12693 Nov 16 01:16	0° ♊		evening max el		12696 Jun 26 17:36	2° ♊ 09'16	46°47'57
asc. node	12693 Nov 30 09:52	17° ♊ 06'21				12696 Jul 30 17:48	0° ♊	
	12693 Dec 11 03:38	0° ♊		greatest brilliancy		12696 Aug 05 12:42	2° ♊ 39'32	-4.9m
	12694 Jan 04 21:56	0° ♊		retrograde		12696 Aug 16 00:53	4° ♊ 43'20	
	12694 Jan 29 10:53	0° ♊		evening set		12696 Aug 30 15:54	0° ♊ 32'05	
	12694 Feb 22 20:25	0° ♊				12696 Aug 31 15:22	30° ♊	
morning set	12694 Mar 02 15:23	9° ♊ 36'29		inferior conj		12696 Sep 05 21:41	26° ♊ 52'17	-0°00'29
	12694 Mar 19 03:24	0° ♊		minimum elong		12696 Sep 05 21:39	26° ♊ 52'20	0°00'38
desc. node	12694 Mar 22 01:29	3° ♊ 36'58		transit middle		12696 Sep 05 21:39	26° ♊ 52'20	0°00'38
max. Earth dist.	12694 Apr 07 07:50	23° ♊ 47'15	1.72358 AU	transit begin		12696 Sep 05 17:35	26° ♊ 58'34	
				transit end		12696 Sep 06 01:43	26° ♊ 46'05	
superior conj	12694 Apr 10 08:47	27° ♊ 33'49	-0°44'41	min. Earth dist.		12696 Sep 05 13:54	27° ♊ 04'12	0.27172 AU
minimum elong	12694 Apr 09 23:11	27° ♊ 04'01	0°44'37	desc. node		12696 Sep 05 20:55	26° ♊ 53'26	
	12694 Apr 12 07:49	0° ♊		morning rise		12696 Sep 12 03:49	23° ♊ 12'39	

direct	12696 Sep 26 16:29	19° \mathbb{M} 06'39		12699 Mar 28 04:14	0° \mathcal{B}	
greatest brilliancy	12696 Oct 06 11:08	20° \mathbb{M} 51'30	-4.8m	12699 Apr 21 10:36	0° \mathbb{I}	
	12696 Oct 23 00:26	0° $\underline{\mathcal{A}}$		12699 May 15 17:14	0° \mathcal{G}	
morning max el	12696 Nov 14 22:41	19° $\underline{\mathcal{A}}$ 43'12	46°03'22	12699 Jun 09 02:53	0° Ω	
	12696 Nov 25 05:50	0° \mathbb{M}		12699 Jun 14 05:59	6° Ω 15'56	
	12696 Dec 23 00:10	0° \mathcal{A}		12699 Jul 03 19:58	0° \mathbb{M}	
asc. node	12696 Dec 27 21:45	5° \mathcal{A} 31'47		12699 Jul 29 04:05	0° $\underline{\mathcal{A}}$	
	12697 Jan 18 02:31	0° \mathcal{B}		12699 Aug 24 20:46	0° \mathbb{M}	
	12697 Feb 12 09:03	0° \approx		12699 Sep 07 10:30	14° \mathbb{M} 06'06	46°28'53
	12697 Mar 09 04:13	0° \mathcal{H}		12699 Sep 24 16:57	0° \mathcal{A}	
	12697 Apr 02 16:07	0° \mathcal{Y}		12699 Oct 04 06:15	7° \mathcal{A} 13'47	
desc. node	12697 Apr 18 15:40	19° \mathcal{Y} 43'36		12699 Oct 16 13:46	13° \mathcal{A} 52'00	-4.8m
	12697 Apr 26 22:35	0° \mathcal{B}		12699 Oct 27 10:57	16° \mathcal{A} 02'32	
morning set	12697 May 14 09:21	21° \mathcal{B} 42'39		12699 Nov 14 01:03	10° \mathcal{A} 08'51	
	12697 May 21 00:40	0° \mathbb{I}		12699 Nov 17 04:41	8° \mathcal{A} 12'58	0.28631 AU
	12697 Jun 13 23:37	0° \mathcal{G}		12699 Nov 17 20:34	7° \mathcal{A} 48'14	-8°23'11
max. Earth dist.	12697 Jun 22 06:25	10° \mathcal{G} 23'48	1.71419 AU	12699 Nov 17 14:19	7° \mathcal{A} 57'59	8°21'46
				12699 Nov 21 03:46	5° \mathcal{A} 46'31	
superior conj	12697 Jun 23 12:15	11° \mathcal{G} 57'25	-1°24'27	12699 Dec 05 08:05	30° \mathcal{R} \mathbb{M}	
minimum elong	12697 Jun 23 18:18	12° \mathcal{G} 16'26	1°25'18	12699 Dec 09 02:59	29° \mathbb{M} 42'52	
	12697 Jul 07 21:10	0° Ω		12699 Dec 12 23:44	0° \mathcal{A}	
	12697 Jul 31 19:12	0° \mathbb{M}		12699 Dec 18 22:21	1° \mathcal{A} 28'01	-4.7m
evening rise	12697 Aug 02 20:04	2° \mathbb{M} 33'01		12700 Jan 25 08:28	28° \mathcal{A} 15'40	
asc. node	12697 Aug 09 06:02	10° \mathbb{M} 34'40		12700 Jan 27 01:51	29° \mathcal{A} 54'59	45°42'35
	12697 Aug 24 19:16	0° $\underline{\mathcal{A}}$		12700 Jan 27 03:56	0° \mathcal{B}	
	12697 Sep 17 22:52	0° \mathbb{M}		12700 Feb 24 19:37	0° \approx	
	12697 Oct 12 08:07	0° \mathcal{A}		12700 Mar 23 02:27	0° \mathcal{H}	
	12697 Nov 06 02:29	0° \mathcal{B}		12700 Apr 17 08:51	0° \mathcal{Y}	
desc. node	12697 Nov 29 00:18	27° \mathcal{B} 07'58		12700 May 12 01:40	0° \mathcal{B}	
	12697 Dec 01 11:21	0° \approx		12700 May 17 05:20	6° \mathcal{B} 19'20	
	12697 Dec 27 19:50	0° \mathcal{H}		12700 Jun 05 09:40	0° \mathbb{I}	
	12698 Jan 25 03:25	0° \mathcal{Y}		12700 Jun 29 11:58	0° \mathcal{G}	
evening max el	12698 Jan 30 00:26	4° \mathcal{Y} 46'56	45°57'17	12700 Jul 23 11:21	0° Ω	
	12698 Mar 02 11:57	0° \mathcal{B}		12700 Jul 29 12:10	7° Ω 33'30	
greatest brilliancy	12698 Mar 10 07:06	3° \mathcal{B} 34'32	-4.8m	12700 Aug 16 10:07	0° \mathbb{M}	
retrograde	12698 Mar 20 05:00	5° \mathcal{B} 23'53				
asc. node	12698 Mar 22 01:36	5° \mathcal{B} 19'43		superior conj	12700 Sep 06 23:51	26° \mathbb{M} 59'06 0°00'23
evening set	12698 Apr 04 04:45	0° \mathcal{B} 59'46		minimum elong	12700 Sep 06 23:48	26° \mathbb{M} 58'56 0°00'14
	12698 Apr 05 22:57	30° \mathcal{R} \mathcal{Y}		behind sun begin	12700 Sep 05 23:16	25° \mathbb{M} 42'17
inferior conj	12698 Apr 10 04:30	27° \mathcal{Y} 25'26	4°36'59	behind sun end	12700 Sep 08 00:20	28° \mathbb{M} 15'35
minimum elong	12698 Apr 09 19:12	27° \mathcal{Y} 39'55	4°34'05	asc. node	12700 Sep 06 20:11	26° \mathbb{M} 47'36
min. Earth dist.	12698 Apr 10 05:55	27° \mathcal{Y} 23'15	0.27822 AU	max. Earth dist.	12700 Sep 09 04:34	29° \mathbb{M} 43'47 1.71857 AU
morning rise	12698 Apr 15 09:17	24° \mathcal{Y} 16'29			12700 Sep 09 09:46	0° $\underline{\mathcal{A}}$
direct	12698 May 01 04:43	19° \mathcal{Y} 21'02			12700 Oct 03 11:06	0° \mathbb{M}
greatest brilliancy	12698 May 11 12:38	21° \mathcal{Y} 20'46	-4.8m	evening rise	12700 Oct 15 09:53	14° \mathbb{M} 51'30
	12698 May 26 20:19	0° \mathcal{B}			12700 Oct 27 14:59	0° \mathcal{A}
morning max el	12698 Jun 20 13:15	21° \mathcal{B} 53'21	46°52'30		12700 Nov 20 22:52	0° \mathcal{B}
	12698 Jun 28 10:30	0° \mathbb{I}			12700 Dec 15 12:44	0° \approx
desc. node	12698 Jul 12 03:20	14° \mathbb{I} 51'05		desc. node	12700 Dec 27 12:10	14° \approx 28'53
	12698 Jul 25 12:31	0° \mathcal{G}			12701 Jan 09 10:20	0° \mathcal{H}
	12698 Aug 20 01:41	0° Ω			12701 Feb 03 17:29	0° \mathcal{Y}
	12698 Sep 13 23:58	0° \mathbb{M}			12701 Mar 01 14:17	0° \mathcal{B}
	12698 Oct 08 15:43	0° $\underline{\mathcal{A}}$			12701 Mar 28 14:27	0° \mathbb{I}
asc. node	12698 Nov 01 22:37	29° $\underline{\mathcal{A}}$ 43'18		evening max el	12701 Apr 13 06:26	16° \mathbb{I} 11'40 46°26'52
	12698 Nov 02 04:03	0° \mathbb{M}		asc. node	12701 Apr 19 10:53	22° \mathbb{I} 10'31
	12698 Nov 26 14:00	0° \mathcal{A}			12701 Apr 28 03:12	0° \mathcal{G}
	12698 Dec 20 22:15	0° \mathcal{B}		greatest brilliancy	12701 May 23 14:23	16° \mathcal{G} 21'32 -4.9m
morning set	12698 Dec 21 09:19	0° \mathcal{B} 34'09		retrograde	12701 Jun 02 03:57	18° \mathcal{G} 04'11
	12699 Jan 14 05:47	0° \approx		evening set	12701 Jun 20 04:55	11° \mathcal{G} 51'51
				inferior conj	12701 Jun 22 19:25	10° \mathcal{G} 16'05 9°00'01
superior conj	12699 Jan 27 03:50	15° \approx 56'22	0°56'21	minimum elong	12701 Jun 23 00:23	10° \mathcal{G} 08'26 8°58'42
minimum elong	12699 Jan 27 13:36	16° \approx 26'28	0°56'41	min. Earth dist.	12701 Jun 23 04:56	10° \mathcal{G} 01'25 0.27287 AU
max. Earth dist.	12699 Jan 27 04:12	15° \approx 57'30	1.73159 AU	morning rise	12701 Jun 25 19:50	8° \mathcal{G} 25'27
	12699 Feb 07 13:23	0° \mathcal{H}		direct	12701 Jul 13 15:01	2° \mathcal{G} 23'13
desc. node	12699 Feb 21 13:02	17° \mathcal{H} 14'54		greatest brilliancy	12701 Jul 23 13:04	4° \mathcal{G} 14'55 -4.9m
	12699 Mar 03 21:04	0° \mathcal{Y}		desc. node	12701 Aug 09 13:31	14° \mathcal{G} 04'13
evening rise	12699 Mar 06 01:53	2° \mathcal{Y} 42'55			12701 Aug 27 21:30	0° Ω

morning max el	12701 Sep 02 00:47	5°Ω02'29	46°48'19	asc. node	12704 May 16 20:46	16°Ω36'33	
	12701 Sep 25 14:32	0°Π			12704 May 28 14:13	0°Ω	
	12701 Oct 22 00:48	0°Ω		evening max el	12704 Jun 25 06:18	29°Ω43'17	46°47'52
	12701 Nov 16 13:55	0°Π			12704 Jun 25 12:58	0°Π	
asc. node	12701 Nov 30 11:43	16°Π35'43			12704 Aug 03 10:16	0°Ω	
	12701 Dec 11 15:24	0°♂		greatest brilliancy	12704 Aug 04 03:33	0°Ω16'42	-4.9m
	12702 Jan 05 09:10	0°Ω		retrograde	12704 Aug 14 14:10	2°Ω19'39	
	12702 Jan 29 21:49	0°≈			12704 Aug 25 08:24	30°♂Π	
	12702 Feb 23 07:13	0°♂		evening set	12704 Aug 29 06:03	28°Π07'08	
morning set	12702 Mar 01 07:12	7°♂23'55		inferior conj	12704 Sep 04 10:50	24°Π29'15	0°23'21
	12702 Mar 19 14:11	0°Υ		minimum elong	12704 Sep 04 11:44	24°Π27'52	0°22'52
desc. node	12702 Mar 22 03:17	3°Υ09'07		min. Earth dist.	12704 Sep 04 04:32	24°Π38'53	0.27141 AU
max. Earth dist.	12702 Apr 05 20:00	21°Υ22'28	1.72402 AU	desc. node	12704 Sep 05 22:52	23°Π34'18	
				morning rise	12704 Sep 10 17:44	20°Π48'45	
superior conj	12702 Apr 08 22:34	25°Υ13'57	-0°41'30	direct	12704 Sep 25 04:53	16°Π43'35	
minimum elong	12702 Apr 08 13:30	24°Υ45'46	0°41'25	greatest brilliancy	12704 Oct 05 01:13	18°Π30'03	-4.8m
	12702 Apr 12 18:39	0°♂			12704 Oct 24 17:38	0°Ω	
	12702 May 06 20:34	0°Π		morning max el	12704 Nov 13 12:36	17°Ω24'23	46°04'54
evening rise	12702 May 18 02:34	14°Π02'59			12704 Nov 26 01:20	0°Π	
	12702 May 30 20:43	0°Ω			12704 Dec 23 15:04	0°♂	
	12702 Jun 23 20:49	0°Ω		asc. node	12704 Dec 27 23:48	4°♂56'38	
asc. node	12702 Jul 12 18:26	23°Ω32'56			12705 Jan 18 15:30	0°Ω	
	12702 Jul 17 23:05	0°Π			12705 Feb 12 21:03	0°≈	
	12702 Aug 11 06:00	0°Ω			12705 Mar 09 15:41	0°♂	
	12702 Sep 04 21:12	0°Π			12705 Apr 03 03:16	0°Υ	
	12702 Sep 30 03:25	0°♂		desc. node	12705 Apr 18 17:30	19°Υ15'03	
	12702 Oct 26 15:22	0°Ω			12705 Apr 27 09:36	0°♂	
desc. node	12702 Nov 01 15:45	6°Ω29'09		morning set	12705 May 12 21:21	19°♂16'09	
evening max el	12702 Nov 18 13:40	23°Ω44'25	45°58'28		12705 May 21 11:38	0°Π	
	12702 Nov 25 05:15	0°≈			12705 Jun 14 10:35	0°Ω	
greatest brilliancy	12702 Dec 27 17:53	22°≈14'20	-4.7m	max. Earth dist.	12705 Jun 20 15:51	7°Ω48'19	1.71437 AU
retrograde	12703 Jan 06 13:28	23°≈59'19					
evening set	12703 Jan 23 04:06	18°≈44'37		superior conj	12705 Jun 22 00:04	9°Ω29'26	-1°25'22
inferior conj	12703 Jan 27 23:31	15°≈47'43	-5°47'55	minimum elong	12705 Jun 22 05:11	9°Ω45'30	1°26'16
minimum elong	12703 Jan 28 09:37	15°≈31'50	5°44'52		12705 Jul 08 08:10	0°Ω	
min. Earth dist.	12703 Jan 28 11:20	15°≈29'07	0.28720 AU	evening rise	12705 Aug 01 07:55	0°Π05'16	
morning rise	12703 Feb 02 14:54	12°≈21'41			12705 Aug 01 06:14	0°Π	
direct	12703 Feb 18 08:32	7°≈33'53		asc. node	12705 Aug 09 07:53	10°Π05'51	
asc. node	12703 Feb 22 18:09	7°≈56'10			12705 Aug 25 06:24	0°Ω	
greatest brilliancy	12703 Mar 01 05:56	9°≈43'56	-4.8m		12705 Sep 18 10:10	0°Π	
	12703 Mar 30 12:56	0°♂			12705 Oct 12 19:42	0°♂	
morning max el	12703 Apr 08 20:47	8°♂51'15	46°09'40		12705 Nov 06 14:38	0°Ω	
	12703 Apr 29 02:19	0°Υ		desc. node	12705 Nov 29 02:20	26°Ω35'44	
	12703 May 25 12:51	0°♂			12705 Dec 02 00:34	0°≈	
desc. node	12703 Jun 14 17:59	23°♂57'41			12705 Dec 28 11:18	0°♂	
	12703 Jun 19 18:25	0°Π			12706 Jan 26 00:47	0°Υ	
	12703 Jul 14 09:18	0°Ω		evening max el	12706 Jan 28 15:55	2°Υ33'33	45°56'48
	12703 Aug 07 16:44	0°Ω			12706 Mar 05 16:00	0°♂	
	12703 Aug 31 21:03	0°Π		greatest brilliancy	12706 Mar 08 20:32	1°♂16'07	-4.8m
	12703 Sep 25 00:37	0°Ω		retrograde	12706 Mar 18 19:53	3°♂06'19	
asc. node	12703 Oct 05 10:27	12°Ω55'54		asc. node	12706 Mar 22 03:32	2°♂52'58	
morning set	12703 Oct 11 05:29	20°Ω07'39			12706 Mar 31 06:45	30°♂Υ	
	12703 Oct 19 04:19	0°Π		evening set	12706 Apr 02 17:28	28°Υ44'21	
	12703 Nov 12 08:35	0°♂		inferior conj	12706 Apr 08 19:02	25°Υ07'18	4°17'10
				minimum elong	12706 Apr 08 10:13	25°Υ21'01	4°14'24
superior conj	12703 Nov 18 00:33	7°♂01'14	1°21'10	min. Earth dist.	12706 Apr 08 20:22	25°Υ05'13	0.27842 AU
minimum elong	12703 Nov 17 18:12	6°♂41'36	1°21'55	morning rise	12706 Apr 14 02:40	21°Υ54'31	
max. Earth dist.	12703 Nov 19 22:15	9°♂22'47	1.72806 AU	direct	12706 Apr 29 20:01	17°Υ02'41	
	12703 Dec 06 14:10	0°Ω		greatest brilliancy	12706 May 10 03:41	19°Υ02'39	-4.8m
evening rise	12703 Dec 24 23:27	22°Ω41'09			12706 May 28 12:45	0°♂	
	12703 Dec 30 22:04	0°≈		morning max el	12706 Jun 19 04:44	19°♂36'11	46°51'33
	12704 Jan 24 08:57	0°♂			12706 Jun 29 05:56	0°Π	
desc. node	12704 Jan 25 01:04	0°♂49'17		desc. node	12706 Jul 12 05:26	14°Π10'08	
	12704 Feb 17 22:47	0°Υ			12706 Jul 26 03:39	0°Ω	
	12704 Mar 13 15:15	0°♂			12706 Aug 20 15:02	0°Ω	
	12704 Apr 07 11:23	0°Π			12706 Sep 14 12:20	0°Π	
	12704 May 02 15:29	0°Ω			12706 Oct 09 03:28	0°Ω	

asc. node	12706 Nov 02 00:32	29° Ω 14'26		evening max el	12709 Apr 10 19:42	13° Π 49'20	46°25'35
	12706 Nov 02 15:22	0° \mathbb{M}		asc. node	12709 Apr 18 12:54	21° Π 14'04	
	12706 Nov 27 01:00	0° \mathcal{A}			12709 Apr 28 12:33	0° \mathcal{E}	
morning set	12706 Dec 20 02:14	28° \mathcal{A} 25'00		greatest brilliancy	12709 May 21 03:59	13° \mathcal{E} 58'32	-4.9m
	12706 Dec 21 09:02	0° \mathcal{Z}		retrograde	12709 May 30 16:21	15° \mathcal{E} 40'18	
	12707 Jan 14 16:30	0° \approx		evening set	12709 Jun 17 19:41	9° \mathcal{E} 25'42	
				inferior conj	12709 Jun 20 08:35	7° \mathcal{E} 52'14	9°04'38
superior conj	12707 Jan 25 20:17	13° \approx 45'58	0°58'50	minimum elong	12709 Jun 20 12:37	7° \mathcal{E} 46'00	9°03'28
minimum elong	12707 Jan 26 06:07	14° \approx 16'16	0°59'14	min. Earth dist.	12709 Jun 20 17:57	7° \mathcal{E} 37'46	0.27306 AU
max. Earth dist.	12707 Jan 26 01:11	14° \approx 01'03	1.73165 AU	morning rise	12709 Jun 23 05:32	6° \mathcal{E} 06'33	
	12707 Feb 08 00:08	0° \mathcal{H}			12709 Jul 10 05:42	30° $\mathcal{R}\Pi$	
desc. node	12707 Feb 21 14:50	16° \mathcal{H} 47'06		direct	12709 Jul 11 04:01	29° Π 58'57	
	12707 Mar 04 07:56	0° \mathcal{Y}			12709 Jul 12 02:25	0° \mathcal{E}	
evening rise	12707 Mar 04 17:27	0° \mathcal{Y} 29'18		greatest brilliancy	12709 Jul 21 02:29	1° \mathcal{E} 50'38	-4.9m
	12707 Mar 28 15:16	0° \mathcal{B}		desc. node	12709 Aug 08 15:22	12° \mathcal{E} 49'58	
	12707 Apr 21 21:52	0° Π			12709 Aug 27 21:51	0° \mathcal{Q}	
	12707 May 16 04:50	0° \mathcal{E}		morning max el	12709 Aug 30 13:12	2° \mathcal{Q} 36'58	46°49'30
	12707 Jun 09 15:00	0° \mathcal{Q}			12709 Sep 25 07:06	0° \mathcal{M}	
asc. node	12707 Jun 14 08:02	5° \mathcal{Q} 44'50			12709 Oct 21 14:34	0° \mathcal{A}	
	12707 Jul 04 08:58	0° \mathcal{M}			12709 Nov 16 02:16	0° \mathbb{M}	
	12707 Jul 29 18:43	0° \mathcal{A}		asc. node	12709 Nov 29 13:42	16° \mathbb{M} 06'04	
	12707 Aug 25 15:11	0° \mathbb{M}			12709 Dec 11 02:56	0° \mathcal{A}	
evening max el	12707 Sep 06 02:43	11° \mathbb{M} 52'07	46°29'53		12710 Jan 04 20:13	0° \mathcal{Z}	
	12707 Sep 26 03:19	0° \mathcal{A}			12710 Jan 29 08:36	0° \approx	
desc. node	12707 Oct 04 08:11	5° \mathcal{A} 56'04			12710 Feb 22 17:52	0° \mathcal{H}	
greatest brilliancy	12707 Oct 15 04:27	11° \mathcal{A} 36'54	-4.8m	morning set	12710 Feb 26 23:02	5° \mathcal{H} 11'57	
retrograde	12707 Oct 26 02:54	13° \mathcal{A} 48'13			12710 Mar 19 00:47	0° \mathcal{Y}	
evening set	12707 Nov 12 13:12	7° \mathcal{A} 59'55		desc. node	12710 Mar 21 05:04	2° \mathcal{Y} 41'49	
inferior conj	12707 Nov 16 11:53	5° \mathcal{A} 34'29	-8°16'30	max. Earth dist.	12710 Apr 03 10:25	19° \mathcal{Y} 05'24	1.72444 AU
minimum elong	12707 Nov 16 04:57	5° \mathcal{A} 45'15	8°14'58				
min. Earth dist.	12707 Nov 15 18:50	6° \mathcal{A} 01'02	0.28587 AU	superior conj	12710 Apr 06 12:28	22° \mathcal{Y} 55'10	-0°38'15
morning rise	12707 Nov 19 20:59	3° \mathcal{A} 29'59		minimum elong	12710 Apr 06 03:58	22° \mathcal{Y} 28'47	0°38'09
	12707 Nov 26 12:36	30° $\mathcal{R}\mathbb{M}$			12710 Apr 12 05:16	0° \mathcal{B}	
direct	12707 Dec 07 18:33	27° \mathbb{M} 30'08			12710 May 06 07:16	0° Π	
greatest brilliancy	12707 Dec 17 11:44	29° \mathbb{M} 13'37	-4.7m	evening rise	12710 May 15 15:12	11° Π 38'58	
	12707 Dec 19 13:46	0° \mathcal{A}			12710 May 30 07:33	0° \mathcal{E}	
asc. node	12708 Jan 25 10:27	27° \mathcal{A} 26'06			12710 Jun 23 07:50	0° \mathcal{Q}	
morning max el	12708 Jan 25 16:51	27° \mathcal{A} 41'33	45°42'23	asc. node	12710 Jul 11 20:17	23° \mathcal{Q} 03'58	
	12708 Jan 28 01:41	0° \mathcal{Z}			12710 Jul 17 10:20	0° \mathcal{M}	
	12708 Feb 25 11:02	0° \approx			12710 Aug 10 17:36	0° \mathcal{A}	
	12708 Mar 22 15:38	0° \mathcal{H}			12710 Sep 04 09:25	0° \mathbb{M}	
	12708 Apr 16 21:00	0° \mathcal{Y}			12710 Sep 29 16:52	0° \mathcal{A}	
	12708 May 11 13:15	0° \mathcal{B}			12710 Oct 26 07:37	0° \mathcal{Z}	
desc. node	12708 May 16 07:14	5° \mathcal{B} 49'51		desc. node	12710 Oct 31 17:48	5° \mathcal{Z} 48'49	
	12708 Jun 04 20:55	0° Π		evening max el	12710 Nov 16 03:30	21° \mathcal{Z} 28'52	45°59'07
	12708 Jun 28 23:00	0° \mathcal{E}			12710 Nov 25 06:56	0° \approx	
	12708 Jul 22 22:13	0° \mathcal{Q}		greatest brilliancy	12710 Dec 25 09:27	20° \approx 03'58	-4.7m
morning set	12708 Jul 27 00:56	5° \mathcal{Q} 09'12		retrograde	12711 Jan 04 04:47	21° \approx 49'15	
	12708 Aug 15 20:53	0° \mathcal{M}		evening set	12711 Jan 20 22:44	16° \approx 29'53	
				inferior conj	12711 Jan 25 15:28	13° \approx 37'09	-6°03'01
superior conj	12708 Sep 04 13:24	24° \mathcal{M} 37'57	-0°03'20	minimum elong	12711 Jan 26 01:40	13° \approx 21'08	6°00'02
minimum elong	12708 Sep 04 14:16	24° \mathcal{M} 40'38	0°03'29	min. Earth dist.	12711 Jan 26 03:20	13° \approx 18'30	0.28751 AU
behind sun begin	12708 Sep 03 13:59	23° \mathcal{M} 24'43		morning rise	12711 Jan 31 04:18	10° \approx 14'43	
behind sun end	12708 Sep 05 14:33	25° \mathcal{M} 56'32		direct	12711 Feb 16 00:06	5° \approx 22'56	
asc. node	12708 Sep 05 21:57	26° \mathcal{M} 19'39		asc. node	12711 Feb 21 20:05	6° \approx 01'39	
max. Earth dist.	12708 Sep 06 20:03	27° \mathcal{M} 28'42	1.71825 AU	greatest brilliancy	12711 Feb 26 22:35	7° \approx 33'41	-4.8m
	12708 Sep 08 20:29	0° \mathcal{A}			12711 Mar 30 14:20	0° \mathcal{H}	
	12708 Oct 02 21:49	0° \mathbb{M}		morning max el	12711 Apr 06 11:40	6° \mathcal{H} 36'15	46°08'15
evening rise	12708 Oct 13 01:29	12° \mathbb{M} 37'36			12711 Apr 28 18:41	0° \mathcal{Y}	
	12708 Oct 27 01:45	0° \mathcal{A}			12711 May 25 02:28	0° \mathcal{B}	
	12708 Nov 20 09:48	0° \mathcal{Z}		desc. node	12711 Jun 13 19:59	23° \mathcal{B} 25'54	
	12708 Dec 14 23:59	0° \approx			12711 Jun 19 06:47	0° Π	
desc. node	12708 Dec 26 14:05	14° \approx 00'08			12711 Jul 13 21:00	0° \mathcal{E}	
	12709 Jan 08 22:09	0° \mathcal{H}			12711 Aug 07 04:01	0° \mathcal{Q}	
	12709 Feb 03 06:16	0° \mathcal{Y}			12711 Aug 31 08:02	0° \mathcal{M}	
	12709 Mar 01 04:49	0° \mathcal{B}			12711 Sep 24 11:20	0° \mathcal{A}	
	12709 Mar 28 08:52	0° Π		asc. node	12711 Oct 04 12:22	12° \mathcal{A} 28'45	






















































































































morning set	12711 Oct 08 20:23	17° Ω 51'53		inferior conj	12714 Apr 06 09:32	22° Υ 50'17	3°57'01
	12711 Oct 18 14:51	0° \mathbb{M}		minimum elong	12714 Apr 06 01:16	23° Υ 03'10	3°54'22
	12711 Nov 11 19:01	0° \mathcal{A}		min. Earth dist.	12714 Apr 06 10:54	22° Υ 48'10	0.27864 AU
				morning rise	12714 Apr 11 19:55	19° Υ 33'38	
superior conj	12711 Nov 15 17:14	4° \mathcal{A} 52'02	1°20'00	direct	12714 Apr 27 11:27	14° Υ 45'33	
minimum elong	12711 Nov 15 10:18	4° \mathcal{A} 30'33	1°20'41	greatest brilliancy	12714 May 07 18:36	16° Υ 45'15	-4.8m
max. Earth dist.	12711 Nov 17 14:10	7° \mathcal{A} 11'13	1.72778 AU		12714 May 29 00:36	0° \mathcal{B}	
	12711 Dec 06 00:34	0° \mathcal{B}		morning max el	12714 Jun 16 19:40	17° \mathcal{B} 18'33	46°50'29
evening rise	12711 Dec 22 16:10	20° \mathcal{B} 32'43			12714 Jun 29 00:32	0° \mathbb{I}	
	12711 Dec 30 08:33	0° \approx		desc. node	12714 Jul 11 07:17	13° \mathbb{I} 29'47	
	12712 Jan 23 19:39	0° \mathcal{H}			12714 Jul 25 18:17	0° \mathcal{E}	
desc. node	12712 Jan 24 02:53	0° \mathcal{H} 22'07			12714 Aug 20 03:56	0° Ω	
	12712 Feb 17 09:48	0° Υ			12714 Sep 14 00:17	0° \mathbb{M}	
	12712 Mar 13 02:47	0° \mathcal{B}			12714 Oct 08 14:49	0° Ω	
	12712 Apr 06 23:41	0° \mathbb{I}		asc. node	12714 Nov 01 02:26	28° Ω 46'40	
	12712 May 02 05:03	0° \mathcal{E}			12714 Nov 02 02:19	0° \mathbb{M}	
asc. node	12712 May 15 22:51	16° \mathcal{E} 00'16			12714 Nov 26 11:39	0° \mathcal{A}	
	12712 May 28 06:17	0° Ω		morning set	12714 Dec 17 19:13	26° \mathcal{A} 17'01	
evening max el	12712 Jun 22 19:32	27° Ω 20'07	46°47'48		12714 Dec 20 19:31	0° \mathcal{B}	
	12712 Jun 25 11:55	0° \mathbb{M}			12715 Jan 14 02:53	0° \approx	
greatest brilliancy	12712 Aug 01 17:50	27° \mathbb{M} 54'31	-4.9m				
retrograde	12712 Aug 12 04:00	29° \mathbb{M} 57'16		superior conj	12715 Jan 23 13:00	11° \approx 37'22	1°01'14
evening set	12712 Aug 26 20:26	25° \mathbb{M} 43'03		minimum elong	12715 Jan 23 22:50	12° \approx 07'43	1°01'40
inferior conj	12712 Sep 01 23:58	22° \mathbb{M} 07'10	0°47'15	max. Earth dist.	12715 Jan 23 21:00	12° \approx 02'05	1.73165 AU
minimum elong	12712 Sep 02 01:48	22° \mathbb{M} 04'22	0°46'26		12715 Feb 07 10:33	0° \mathcal{H}	
min. Earth dist.	12712 Sep 01 18:49	22° \mathbb{M} 15'02	0.27116 AU	desc. node	12715 Feb 20 16:40	16° \mathcal{H} 20'32	
desc. node	12712 Sep 05 00:54	20° \mathbb{M} 17'05		evening rise	12715 Mar 02 09:09	28° \mathcal{H} 17'17	
morning rise	12712 Sep 08 07:28	18° \mathbb{M} 26'18			12715 Mar 03 18:28	0° Υ	
direct	12712 Sep 22 17:46	14° \mathbb{M} 21'28			12715 Mar 28 01:59	0° \mathcal{B}	
greatest brilliancy	12712 Oct 02 14:54	16° \mathbb{M} 09'09	-4.8m		12715 Apr 21 08:51	0° \mathbb{I}	
	12712 Oct 25 05:56	0° Ω			12715 May 15 16:13	0° \mathcal{E}	
morning max el	12712 Nov 11 03:21	15° Ω 08'48	46°06'32		12715 Jun 09 02:57	0° Ω	
	12712 Nov 25 19:48	0° \mathbb{M}		asc. node	12715 Jun 13 09:51	5° Ω 13'36	
	12712 Dec 23 05:19	0° \mathcal{A}			12715 Jul 03 21:51	0° \mathbb{M}	
asc. node	12712 Dec 27 01:42	4° \mathcal{A} 22'36			12715 Jul 29 09:19	0° Ω	
	12713 Jan 18 03:56	0° \mathcal{B}			12715 Aug 25 09:49	0° \mathbb{M}	
	12713 Feb 12 08:35	0° \approx		evening max el	12715 Sep 03 18:07	9° \mathbb{M} 36'35	46°30'56
	12713 Mar 09 02:43	0° \mathcal{H}			12715 Sep 26 16:56	0° \mathcal{A}	
	12713 Apr 02 14:04	0° Υ		desc. node	12715 Oct 03 10:16	4° \mathcal{A} 36'38	
desc. node	12713 Apr 17 19:28	18° Υ 47'57		greatest brilliancy	12715 Oct 12 19:41	9° \mathcal{A} 22'49	-4.8m
	12713 Apr 26 20:16	0° \mathcal{B}		retrograde	12715 Oct 23 18:15	11° \mathcal{A} 34'07	
morning set	12713 May 10 09:17	16° \mathcal{B} 50'40		evening set	12715 Nov 10 01:08	5° \mathcal{A} 51'31	
	12713 May 20 22:15	0° \mathbb{I}		min. Earth dist.	12715 Nov 13 09:12	3° \mathcal{A} 48'56	0.28540 AU
	12713 Jun 13 21:11	0° \mathcal{E}		inferior conj	12715 Nov 14 03:03	3° \mathcal{A} 21'04	-8°09'06
max. Earth dist.	12713 Jun 18 02:38	5° \mathcal{E} 18'17	1.71452 AU	minimum elong	12715 Nov 13 19:32	3° \mathcal{A} 32'48	8°07'25
				morning rise	12715 Nov 17 14:13	1° \mathcal{A} 13'23	
superior conj	12713 Jun 19 11:42	7° \mathcal{E} 02'05	-1°26'08		12715 Nov 19 16:59	30° \mathbb{M}	
minimum elong	12713 Jun 19 15:51	7° \mathcal{E} 15'06	1°27'03	direct	12715 Dec 05 09:44	25° \mathbb{M} 17'42	
	12713 Jul 07 18:46	0° Ω		greatest brilliancy	12715 Dec 15 01:19	26° \mathbb{M} 59'42	-4.7m
evening rise	12713 Jul 29 19:38	27° Ω 38'21			12715 Dec 21 23:09	0° \mathcal{A}	
	12713 Jul 31 16:53	0° \mathbb{M}		morning max el	12716 Jan 23 06:55	25° \mathcal{A} 26'24	45°42'21
asc. node	12713 Aug 08 09:40	9° \mathbb{M} 37'59		asc. node	12716 Jan 24 12:19	26° \mathcal{A} 37'43	
	12713 Aug 24 17:10	0° Ω			12716 Jan 27 22:24	0° \mathcal{B}	
	12713 Sep 17 21:07	0° \mathbb{M}			12716 Feb 25 01:58	0° \approx	
	12713 Oct 12 06:59	0° \mathcal{A}			12716 Mar 22 04:28	0° \mathcal{H}	
	12713 Nov 06 02:28	0° \mathcal{B}			12716 Apr 16 08:51	0° Υ	
desc. node	12713 Nov 28 04:20	26° \mathcal{B} 04'27			12716 May 11 00:34	0° \mathcal{B}	
	12713 Dec 01 13:29	0° \approx		desc. node	12716 May 15 09:10	5° \mathcal{B} 21'10	
	12713 Dec 28 02:32	0° \mathcal{H}			12716 Jun 04 07:56	0° \mathbb{I}	
	12714 Jan 25 22:27	0° Υ			12716 Jun 28 09:51	0° \mathcal{E}	
evening max el	12714 Jan 26 07:41	0° Υ 22'17	45°56'15		12716 Jul 22 08:58	0° Ω	
greatest brilliancy	12714 Mar 06 10:16	28° Υ 59'22	-4.8m	morning set	12716 Jul 24 13:10	2° Ω 43'33	
	12714 Mar 09 19:35	0° \mathcal{B}			12716 Aug 15 07:34	0° \mathbb{M}	
retrograde	12714 Mar 16 10:30	0° \mathcal{B} 49'44					
asc. node	12714 Mar 21 05:34	0° \mathcal{B} 21'51		superior conj	12716 Sep 02 02:26	22° \mathbb{M} 15'29	-0°07'04
	12714 Mar 22 19:59	30° \mathcal{B} 29'56		minimum elong	12716 Sep 02 04:14	22° \mathbb{M} 21'06	0°07'12
evening set	12714 Mar 31 06:25	26° \mathcal{B} 29'56		behind sun begin	12716 Sep 01 05:48	21° \mathbb{M} 10'59	

behind sun end	12716 Sep 03 02:39	23° \cap 31'11		direct	12719 Feb 13 15:48	3° \approx 11'06	
max. Earth dist.	12716 Sep 04 08:42	25° \cap 05'05	1.71790 AU	asc. node	12719 Feb 20 22:12	4° \approx 10'38	
asc. node	12716 Sep 04 23:52	25° \cap 52'29		greatest brilliancy	12719 Feb 24 14:45	5° \approx 22'20	-4.8m
	12716 Sep 08 07:06	0° $\underline{\cap}$			12719 Mar 30 14:43	0° \cap	
	12716 Oct 02 08:24	0° \cap		morning max el	12719 Apr 04 03:25	4° \cap 22'57	46°06'53
evening rise	12716 Oct 10 16:40	10° \cap 22'39			12719 Apr 28 10:56	0° \cap	
	12716 Oct 26 12:23	0° \cap			12719 May 24 16:07	0° \cap	
	12716 Nov 19 20:39	0° \cap		desc. node	12719 Jun 12 21:49	22° \cap 53'20	
	12716 Dec 14 11:11	0° \approx			12719 Jun 18 19:12	0° \cap	
desc. node	12716 Dec 25 15:55	13° \approx 31'20			12719 Jul 13 08:46	0° \cap	
	12717 Jan 08 09:56	0° \cap			12719 Aug 06 15:21	0° \cap	
	12717 Feb 02 19:01	0° \cap			12719 Aug 30 19:05	0° \cap	
	12717 Feb 28 19:23	0° \cap			12719 Sep 23 22:11	0° $\underline{\cap}$	
	12717 Mar 28 03:35	0° \cap		asc. node	12719 Oct 03 14:16	12° $\underline{\cap}$ 01'06	
evening max el	12717 Apr 08 08:06	11° \cap 25'29	46°24'24	morning set	12719 Oct 06 11:08	15° $\underline{\cap}$ 35'04	
asc. node	12717 Apr 17 14:57	20° \cap 16'57			12719 Oct 18 01:34	0° \cap	
	12717 Apr 29 00:52	0° \cap			12719 Nov 11 05:41	0° \cap	
greatest brilliancy	12717 May 18 17:28	11° \cap 36'02	-4.9m				
retrograde	12717 May 28 04:48	13° \cap 17'19		superior conj	12719 Nov 13 09:36	2° \cap 40'57	1°18'41
evening set	12717 Jun 15 09:59	7° \cap 00'49		minimum elong	12719 Nov 13 02:05	2° \cap 17'41	1°19'19
inferior conj	12717 Jun 17 21:50	5° \cap 28'58	9°08'16	max. Earth dist.	12719 Nov 15 06:23	4° \cap 59'46	1.72753 AU
minimum elong	12717 Jun 18 00:54	5° \cap 24'13	9°07'11		12719 Dec 05 11:14	0° \cap	
min. Earth dist.	12717 Jun 18 07:04	5° \cap 14'41	0.27330 AU	evening rise	12719 Dec 20 08:36	18° \cap 22'34	
morning rise	12717 Jun 20 15:46	3° \cap 47'42			12719 Dec 29 19:18	0° \approx	
	12717 Jun 27 18:46	30° \cap		desc. node	12720 Jan 23 04:45	29° \approx 54'22	
direct	12717 Jul 08 16:48	27° \cap 35'00			12720 Jan 23 06:36	0° \cap	
greatest brilliancy	12717 Jul 18 16:21	29° \cap 27'15	-4.9m		12720 Feb 16 21:06	0° \cap	
	12717 Jul 20 02:40	0° \cap			12720 Mar 12 14:37	0° \cap	
desc. node	12717 Aug 07 17:26	11° \cap 38'23			12720 Apr 06 12:20	0° \cap	
	12717 Aug 27 21:08	0° \cap			12720 May 01 19:02	0° \cap	
morning max el	12717 Aug 28 01:59	0° \cap 12'08	46°50'32	asc. node	12720 May 15 00:45	15° \cap 22'20	
	12717 Sep 24 23:25	0° \cap			12720 May 27 22:54	0° \cap	
	12717 Oct 21 04:16	0° $\underline{\cap}$		evening max el	12720 Jun 20 09:50	24° \cap 59'11	46°47'53
	12717 Nov 15 14:36	0° \cap			12720 Jun 25 12:09	0° \cap	
asc. node	12717 Nov 28 15:35	15° \cap 36'04		greatest brilliancy	12720 Jul 30 07:52	25° \cap 32'01	-4.9m
	12717 Dec 10 14:27	0° \cap		retrograde	12720 Aug 09 18:17	27° \cap 34'43	
	12718 Jan 04 07:16	0° \cap		evening set	12720 Aug 24 11:11	23° \cap 18'46	
	12718 Jan 28 19:24	0° \approx		inferior conj	12720 Aug 30 13:13	19° \cap 44'55	1°11'02
	12718 Feb 22 04:33	0° \cap		minimum elong	12720 Aug 30 15:58	19° \cap 40'43	1°09'52
morning set	12718 Feb 24 14:56	3° \cap 00'01		min. Earth dist.	12720 Aug 30 08:51	19° \cap 51'34	0.27092 AU
	12718 Mar 18 11:25	0° \cap		desc. node	12720 Sep 04 02:56	17° \cap 01'47	
desc. node	12718 Mar 20 07:03	2° \cap 15'04		morning rise	12720 Sep 05 21:06	16° \cap 03'58	
max. Earth dist.	12718 Apr 01 02:44	16° \cap 54'06	1.72482 AU	direct	12720 Sep 20 07:18	11° \cap 59'24	
				greatest brilliancy	12720 Sep 30 04:01	13° \cap 47'21	-4.8m
superior conj	12718 Apr 04 02:31	20° \cap 36'48	-0°34'58		12720 Oct 25 15:12	0° $\underline{\cap}$	
minimum elong	12718 Apr 03 18:38	20° \cap 12'20	0°34'50	morning max el	12720 Nov 08 18:24	12° $\underline{\cap}$ 53'16	46°07'54
	12718 Apr 11 15:54	0° \cap			12720 Nov 25 14:05	0° \cap	
	12718 May 05 17:58	0° \cap			12720 Dec 22 19:43	0° \cap	
evening rise	12718 May 13 04:12	9° \cap 16'09		asc. node	12720 Dec 26 03:36	3° \cap 47'48	
	12718 May 29 18:23	0° \cap			12721 Jan 17 16:38	0° \cap	
	12718 Jun 22 18:52	0° \cap			12721 Feb 11 20:23	0° \approx	
asc. node	12718 Jul 10 22:08	22° \cap 34'54			12721 Mar 08 14:02	0° \cap	
	12718 Jul 16 21:37	0° \cap			12721 Apr 02 01:08	0° \cap	
	12718 Aug 10 05:19	0° $\underline{\cap}$		desc. node	12721 Apr 16 21:15	18° \cap 19'24	
	12718 Sep 03 21:51	0° \cap			12721 Apr 26 07:14	0° \cap	
	12718 Sep 29 06:38	0° \cap		morning set	12721 May 07 21:13	14° \cap 24'16	
	12718 Oct 26 00:26	0° \cap			12721 May 20 09:11	0° \cap	
desc. node	12718 Oct 30 19:49	5° \cap 07'13			12721 Jun 13 08:06	0° \cap	
evening max el	12718 Nov 13 17:36	19° \cap 13'26	45°59'57	max. Earth dist.	12721 Jun 15 12:01	2° \cap 42'53	1.71465 AU
	12718 Nov 25 10:28	0° \approx					
greatest brilliancy	12718 Dec 23 00:18	17° \approx 52'12	-4.7m	superior conj	12721 Jun 16 23:23	4° \cap 33'48	-1°26'44
retrograde	12719 Jan 01 20:33	19° \approx 38'29		minimum elong	12721 Jun 17 02:30	4° \cap 43'35	1°27'40
evening set	12719 Jan 18 17:19	14° \approx 14'12			12721 Jul 07 05:40	0° \cap	
inferior conj	12719 Jan 23 07:18	11° \approx 25'41	-6°17'42	evening rise	12721 Jul 27 07:23	25° \cap 10'33	
minimum elong	12719 Jan 23 17:31	11° \approx 09'38	6°14'45		12721 Jul 31 03:50	0° \cap	
min. Earth dist.	12719 Jan 23 18:49	11° \approx 07'36	0.28780 AU	asc. node	12721 Aug 07 11:37	9° \cap 09'50	
morning rise	12719 Jan 28 17:28	8° \approx 07'18			12721 Aug 24 04:12	0° $\underline{\cap}$	

	12721 Sep 17 08:19	0°♌			12724 Apr 15 21:01	0°♍	
	12721 Oct 11 18:30	0°♊			12724 May 10 12:13	0°♋	
	12721 Nov 05 14:37	0°♎		desc. node	12724 May 14 11:00	4°♋51'13	
desc. node	12721 Nov 27 06:08	25°♎31'29			12724 Jun 03 19:16	0°♌	
	12721 Dec 01 02:51	0°♏			12724 Jun 27 21:00	0°♍	
	12721 Dec 27 18:26	0°♋			12724 Jul 21 20:01	0°♎	
evening max el	12722 Jan 23 23:24	28°♋09'45	45°55'40	morning set	12724 Jul 22 01:13	0°♎16'19	
	12722 Jan 25 21:31	0°♍			12724 Aug 14 18:33	0°♏	
greatest brilliancy	12722 Mar 04 00:44	26°♍42'31	-4.8m				
retrograde	12722 Mar 14 00:43	28°♍32'12		superior conj	12724 Aug 30 15:26	19°♏51'55	-0°10'48
asc. node	12722 Mar 20 07:35	27°♍44'26		minimum elong	12724 Aug 30 18:10	20°♏00'26	0°10'55
evening set	12722 Mar 28 19:41	24°♍14'28		behind sun begin	12724 Aug 29 23:36	19°♏02'25	
inferior conj	12722 Apr 04 00:09	20°♍32'34	3°36'31	behind sun end	12724 Aug 31 12:43	20°♏58'26	
minimum elong	12722 Apr 03 16:29	20°♍44'32	3°34'02	max. Earth dist.	12724 Sep 01 18:17	22°♏30'51	1.71757 AU
min. Earth dist.	12722 Apr 04 01:52	20°♍29'54	0.27886 AU	asc. node	12724 Sep 04 01:44	25°♏24'07	
morning rise	12722 Apr 09 13:03	17°♍12'03			12724 Sep 07 18:02	0°♐	
direct	12722 Apr 25 02:39	12°♍27'45			12724 Oct 01 19:18	0°♑	
greatest brilliancy	12722 May 05 09:50	14°♍27'15	-4.8m	evening rise	12724 Oct 08 07:53	8°♑06'51	
	12722 May 29 09:47	0°♋			12724 Oct 25 23:20	0°♊	
morning max el	12722 Jun 14 09:41	14°♋57'32	46°49'19		12724 Nov 19 07:44	0°♌	
	12722 Jun 28 19:03	0°♌			12724 Dec 13 22:37	0°♍	
desc. node	12722 Jul 10 09:17	12°♌49'08		desc. node	12724 Dec 24 17:54	13°♍02'18	
	12722 Jul 25 09:06	0°♍			12725 Jan 07 21:58	0°♋	
	12722 Aug 19 17:05	0°♎			12725 Feb 02 08:05	0°♍	
	12722 Sep 13 12:30	0°♏			12725 Feb 28 10:25	0°♋	
	12722 Oct 08 02:26	0°♐			12725 Mar 27 23:12	0°♌	
asc. node	12722 Oct 31 04:14	28°♐17'48		evening max el	12725 Apr 05 20:31	9°♌00'52	46°23'10
	12722 Nov 01 13:30	0°♑		asc. node	12725 Apr 16 16:52	19°♌17'06	
	12722 Nov 25 22:33	0°♊			12725 Apr 29 18:04	0°♍	
morning set	12722 Dec 15 12:23	24°♊08'43		greatest brilliancy	12725 May 16 06:37	9°♍12'03	-4.9m
	12722 Dec 20 06:15	0°♌		retrograde	12725 May 25 17:41	10°♍53'27	
	12723 Jan 13 13:35	0°♍		evening set	12725 Jun 12 23:39	4°♍35'41	
				inferior conj	12725 Jun 15 11:02	3°♍04'39	9°10'46
superior conj	12723 Jan 21 05:51	9°♍28'16	1°03'32	minimum elong	12725 Jun 15 13:09	3°♍01'23	9°09'44
minimum elong	12723 Jan 21 15:38	9°♍58'27	1°03'59	min. Earth dist.	12725 Jun 15 20:02	2°♍50'45	0.27355 AU
max. Earth dist.	12723 Jan 21 14:59	9°♍56'27	1.73169 AU	morning rise	12725 Jun 18 02:35	1°♍27'04	
	12723 Feb 06 21:19	0°♋			12725 Jun 20 13:47	30°♋♌	
desc. node	12723 Feb 19 18:37	15°♋53'13		direct	12725 Jul 06 05:36	25°♌09'55	
evening rise	12723 Feb 28 00:47	26°♋03'58		greatest brilliancy	12725 Jul 16 06:04	27°♌02'55	-4.9m
	12723 Mar 03 05:21	0°♍			12725 Jul 22 18:02	0°♍	
	12723 Mar 27 13:04	0°♋		desc. node	12725 Aug 06 19:30	10°♍27'59	
	12723 Apr 20 20:13	0°♌		morning max el	12725 Aug 25 15:36	27°♍48'35	46°51'32
	12723 May 15 03:59	0°♍			12725 Aug 27 19:45	0°♎	
	12723 Jun 08 15:21	0°♎			12725 Sep 24 15:42	0°♏	
asc. node	12723 Jun 12 11:45	4°♎41'19			12725 Oct 20 18:04	0°♐	
	12723 Jul 03 11:14	0°♏			12725 Nov 15 03:05	0°♑	
	12723 Jul 29 00:31	0°♐		asc. node	12725 Nov 27 17:26	15°♑05'27	
	12723 Aug 25 05:25	0°♑			12725 Dec 10 02:08	0°♊	
evening max el	12723 Sep 01 08:50	7°♑18'08	46°32'03		12726 Jan 03 18:28	0°♌	
	12723 Sep 27 11:45	0°♊			12726 Jan 28 06:19	0°♍	
desc. node	12723 Oct 02 12:16	3°♊13'41			12726 Feb 21 15:19	0°♋	
greatest brilliancy	12723 Oct 10 11:36	7°♊08'45	-4.8m	morning set	12726 Feb 22 07:14	0°♋49'04	
retrograde	12723 Oct 21 09:28	9°♊19'38			12726 Mar 17 22:09	0°♍	
evening set	12723 Nov 07 13:09	3°♊42'52		desc. node	12726 Mar 19 08:50	1°♍47'17	
min. Earth dist.	12723 Nov 11 00:06	1°♊36'02	0.28489 AU	max. Earth dist.	12726 Mar 29 21:16	14°♍49'15	1.72525 AU
inferior conj	12723 Nov 11 18:25	1°♊07'26	-8°00'55				
minimum elong	12723 Nov 11 10:20	1°♊20'03	7°59'06	superior conj	12726 Apr 01 16:43	18°♍18'30	-0°31'38
	12723 Nov 13 13:50	30°♋♌		minimum elong	12726 Apr 01 09:30	17°♍56'04	0°31'29
morning rise	12723 Nov 15 07:48	28°♌56'19			12726 Apr 11 02:42	0°♋	
direct	12723 Dec 03 00:31	23°♌05'01			12726 May 05 04:53	0°♌	
greatest brilliancy	12723 Dec 12 15:34	24°♌46'08	-4.8m	evening rise	12726 May 10 17:13	6°♌52'49	
	12723 Dec 23 11:56	0°♊			12726 May 29 05:27	0°♍	
morning max el	12724 Jan 20 20:26	23°♊09'16	45°42'18		12726 Jun 22 06:06	0°♎	
asc. node	12724 Jan 23 14:26	25°♊50'07		asc. node	12726 Jul 10 00:05	22°♎05'31	
	12724 Jan 27 18:40	0°♌			12726 Jul 16 09:08	0°♏	
	12724 Feb 24 17:00	0°♍			12726 Aug 09 17:15	0°♐	
	12724 Mar 21 17:34	0°♋			12726 Sep 03 10:32	0°♑	

	12726 Sep 28 20:44	0°♊		morning set	12729 May 05 09:39	12°♊00'22	
	12726 Oct 25 17:46	0°♋			12729 May 19 19:51	0°♋	
desc. node	12726 Oct 29 21:42	4°♋24'17			12729 Jun 12 18:45	0°♌	
evening max el	12726 Nov 11 08:45	17°♋00'11	46°00'55	max. Earth dist.	12729 Jun 12 20:38	0°♌05'54	1.71484 AU
	12726 Nov 25 16:00	0°♍					
greatest brilliancy	12726 Dec 20 14:57	15°♍40'18	-4.7m	superior conj	12729 Jun 14 11:24	2°♌07'32	-1°27'09
retrograde	12726 Dec 30 12:52	17°♍27'53		minimum elong	12729 Jun 14 13:29	2°♌14'01	1°28'06
evening set	12727 Jan 16 12:03	11°♍58'50			12729 Jul 06 16:22	0°♎	
inferior conj	12727 Jan 20 23:13	9°♍14'30	-6°31'44	evening rise	12729 Jul 24 19:01	22°♎42'53	
minimum elong	12727 Jan 21 09:26	8°♍58'29	6°28'51		12729 Jul 30 14:36	0°♏	
min. Earth dist.	12727 Jan 21 10:03	8°♍57'32	0.28804 AU	asc. node	12729 Aug 06 13:27	8°♏41'50	
morning rise	12727 Jan 26 06:38	6°♍00'25			12729 Aug 23 15:06	0°♐	
direct	12727 Feb 11 07:58	0°♍59'49			12729 Sep 16 19:25	0°♑	
asc. node	12727 Feb 20 00:08	2°♍23'56			12729 Oct 11 05:56	0°♒	
greatest brilliancy	12727 Feb 22 06:13	3°♍10'44	-4.8m		12729 Nov 05 02:41	0°♓	
	12727 Mar 30 13:49	0°♈		desc. node	12729 Nov 26 08:11	24°♓59'32	
morning max el	12727 Apr 01 19:52	2°♈11'50	46°05'27		12729 Nov 30 16:09	0°♈	
	12727 Apr 28 02:50	0°♉			12729 Dec 27 10:24	0°♈	
	12727 May 24 05:38	0°♊		evening max el	12730 Jan 21 14:26	25°♈56'11	45°55'10
desc. node	12727 Jun 11 23:46	22°♊21'07			12730 Jan 25 21:24	0°♉	
	12727 Jun 18 07:38	0°♋		greatest brilliancy	12730 Mar 01 15:53	24°♉27'20	-4.8m
	12727 Jul 12 20:35	0°♌		retrograde	12730 Mar 11 14:39	26°♉15'55	
	12727 Aug 06 02:47	0°♍		asc. node	12730 Mar 19 09:32	25°♉02'56	
	12727 Aug 30 06:12	0°♎		evening set	12730 Mar 26 09:14	21°♉59'52	
	12727 Sep 23 09:05	0°♏		inferior conj	12730 Apr 01 14:52	18°♉16'16	3°15'41
asc. node	12727 Oct 02 15:59	11°♏32'45		minimum elong	12730 Apr 01 07:51	18°♉27'15	3°13'25
morning set	12727 Oct 04 01:35	13°♏17'09		min. Earth dist.	12730 Apr 01 17:18	18°♉12'28	0.27903 AU
	12727 Oct 17 12:20	0°♐		morning rise	12730 Apr 07 06:08	14°♉52'00	
	12727 Nov 10 16:22	0°♑		direct	12730 Apr 22 17:20	10°♉11'16	
				greatest brilliancy	12730 May 03 01:36	12°♉11'12	-4.8m
superior conj	12727 Nov 11 01:41	0°♑28'55	1°17'14		12730 May 29 15:49	0°♊	
minimum elong	12727 Nov 10 17:39	0°♑04'02	1°17'50	morning max el	12730 Jun 11 23:02	12°♊36'11	46°48'15
max. Earth dist.	12727 Nov 13 00:12	2°♑53'08	1.72726 AU		12730 Jun 28 12:36	0°♋	
	12727 Dec 04 21:55	0°♌		desc. node	12730 Jul 09 11:19	12°♋10'24	
evening rise	12727 Dec 18 01:01	16°♌12'19			12730 Jul 24 23:17	0°♌	
	12727 Dec 29 06:02	0°♍			12730 Aug 19 05:47	0°♍	
desc. node	12728 Jan 22 06:42	29°♍26'59			12730 Sep 13 00:23	0°♎	
	12728 Jan 22 17:31	0°♈			12730 Oct 07 13:46	0°♏	
	12728 Feb 16 08:21	0°♉		asc. node	12730 Oct 30 06:09	27°♏49'58	
	12728 Mar 12 02:22	0°♊			12730 Nov 01 00:27	0°♐	
	12728 Apr 06 00:54	0°♋			12730 Nov 25 09:13	0°♑	
	12728 May 01 09:01	0°♌		morning set	12730 Dec 13 05:01	21°♑59'28	
asc. node	12728 May 14 02:41	14°♌44'28			12730 Dec 19 16:45	0°♓	
	12728 May 27 15:48	0°♍			12731 Jan 13 00:01	0°♈	
evening max el	12728 Jun 18 00:34	22°♍39'14	46°47'33				
	12728 Jun 25 13:43	0°♎		superior conj	12731 Jan 18 22:23	7°♎19'07	1°05'45
greatest brilliancy	12728 Jul 27 21:55	23°♎08'37	-4.9m	minimum elong	12731 Jan 19 08:04	7°♎48'56	1°06'15
retrograde	12728 Aug 07 08:08	25°♎10'35		max. Earth dist.	12731 Jan 19 07:55	7°♎48'30	1.73171 AU
evening set	12728 Aug 22 01:50	20°♎53'01			12731 Feb 06 07:47	0°♈	
inferior conj	12728 Aug 28 02:05	17°♎21'16	1°34'59	desc. node	12731 Feb 18 20:22	15°♈26'13	
minimum elong	12728 Aug 28 05:45	17°♎15'41	1°33'30	evening rise	12731 Feb 25 16:17	23°♈51'13	
min. Earth dist.	12728 Aug 27 22:34	17°♎26'37	0.27070 AU		12731 Mar 02 15:58	0°♉	
morning rise	12728 Sep 03 10:05	13°♎40'22			12731 Mar 26 23:51	0°♊	
desc. node	12728 Sep 03 04:52	13°♎47'17			12731 Apr 20 07:15	0°♋	
direct	12728 Sep 17 20:37	9°♎36'08			12731 May 14 15:23	0°♌	
greatest brilliancy	12728 Sep 27 16:32	11°♎23'47	-4.8m		12731 Jun 08 03:20	0°♍	
	12728 Oct 25 22:03	0°♏		asc. node	12731 Jun 11 13:48	4°♍10'46	
morning max el	12728 Nov 06 08:40	10°♏35'38	46°09'21		12731 Jul 03 00:13	0°♎	
	12728 Nov 25 07:54	0°♐			12731 Jul 28 15:24	0°♏	
	12728 Dec 22 09:52	0°♑			12731 Aug 25 01:06	0°♐	
asc. node	12728 Dec 25 05:39	3°♑13'52		evening max el	12731 Aug 29 22:43	4°♐58'42	46°32'54
	12729 Jan 17 05:07	0°♓			12731 Sep 28 12:57	0°♑	
	12729 Feb 11 08:00	0°♈		desc. node	12731 Oct 01 14:11	1°♑48'28	
	12729 Mar 08 01:09	0°♈		greatest brilliancy	12731 Oct 08 03:09	4°♑54'32	-4.8m
	12729 Apr 01 11:59	0°♉		retrograde	12731 Oct 19 00:22	7°♑05'22	
desc. node	12729 Apr 15 23:05	17°♉51'48		evening set	12731 Nov 05 00:43	1°♑34'20	
	12729 Apr 25 17:57	0°♊			12731 Nov 07 15:03	30°♒♌	

min. Earth dist.	12731 Nov 08 14:59	29° \mathbb{M} 22'49	0.28443 AU	superior conj	12734 Mar 30 06:38	16° Υ 00'14	-0°28'12
inferior conj	12731 Nov 09 09:31	28° \mathbb{M} 53'54	-7°51'45	minimum elong	12734 Mar 30 00:08	15° Υ 40'03	0°28'04
minimum elong	12731 Nov 09 00:54	29° \mathbb{M} 07'21	7°49'48		12734 Apr 10 13:12	0° \mathcal{B}	
morning rise	12731 Nov 13 01:21	26° \mathbb{M} 39'09			12734 May 04 15:30	0° \mathbb{I}	
direct	12731 Nov 30 14:38	20° \mathbb{M} 52'08		evening rise	12734 May 08 06:08	4° \mathbb{I} 30'11	
greatest brilliancy	12731 Dec 10 06:13	22° \mathbb{M} 33'13	-4.8m		12734 May 28 16:14	0° \mathcal{E}	
	12731 Dec 24 13:32	0° \mathcal{A}			12734 Jun 21 17:05	0° \mathcal{Q}	
morning max el	12732 Jan 18 10:04	20° \mathcal{A} 53'02	45°42'26	asc. node	12734 Jul 09 01:56	21° \mathcal{Q} 36'37	
asc. node	12732 Jan 22 16:22	25° \mathcal{A} 03'30			12734 Jul 15 20:21	0° \mathbb{P}	
	12732 Jan 27 14:00	0° \mathcal{B}			12734 Aug 09 04:53	0° \mathcal{E}	
	12732 Feb 24 07:30	0° \approx			12734 Sep 02 22:54	0° \mathbb{M}	
	12732 Mar 21 06:12	0° \mathcal{H}			12734 Sep 28 10:32	0° \mathcal{A}	
	12732 Apr 15 08:44	0° Υ			12734 Oct 25 11:00	0° \mathcal{B}	
	12732 May 09 23:25	0° \mathcal{B}		desc. node	12734 Oct 28 23:45	3° \mathcal{B} 42'31	
desc. node	12732 May 13 12:54	4° \mathcal{B} 22'42		evening max el	12734 Nov 09 00:41	14° \mathcal{B} 50'02	46°01'44
	12732 Jun 03 06:10	0° \mathbb{I}			12734 Nov 25 23:18	0° \approx	
	12732 Jun 27 07:43	0° \mathcal{E}		greatest brilliancy	12734 Dec 18 05:24	13° \approx 29'11	-4.7m
morning set	12732 Jul 19 13:36	27° \mathcal{E} 51'28		retrograde	12734 Dec 28 05:02	15° \approx 17'51	
	12732 Jul 21 06:36	0° \mathcal{Q}		evening set	12735 Jan 14 06:46	9° \approx 44'12	
	12732 Aug 14 05:03	0° \mathbb{P}		inferior conj	12735 Jan 18 15:06	7° \approx 03'53	-6°45'06
				minimum elong	12735 Jan 19 01:14	6° \approx 47'59	6°42'19
superior conj	12732 Aug 28 04:46	17° \mathbb{P} 30'50	-0°14'28	min. Earth dist.	12735 Jan 19 01:01	6° \approx 48'19	0.28831 AU
minimum elong	12732 Aug 28 08:23	17° \mathbb{P} 42'12	0°14'35	morning rise	12735 Jan 23 19:36	3° \approx 54'09	
behind sun begin	12732 Aug 27 21:29	17° \mathbb{P} 08'04			12735 Feb 01 09:19	30° \mathcal{R} \mathcal{B}	
behind sun end	12732 Aug 28 19:18	18° \mathbb{P} 16'19		direct	12735 Feb 09 00:34	28° \mathcal{B} 49'11	
max. Earth dist.	12732 Aug 30 03:46	19° \mathbb{P} 57'51	1.71728 AU		12735 Feb 16 22:39	0° \approx	
asc. node	12732 Sep 03 03:29	24° \mathbb{P} 57'00		asc. node	12735 Feb 19 02:05	0° \approx 41'26	
	12732 Sep 07 04:28	0° \mathcal{E}		greatest brilliancy	12735 Feb 19 21:14	0° \approx 59'01	-4.8m
	12732 Oct 01 05:45	0° \mathbb{M}			12735 Mar 30 11:50	0° \mathcal{H}	
evening rise	12732 Oct 05 23:15	5° \mathbb{M} 52'56		morning max el	12735 Mar 30 12:16	0° \mathcal{H} 01'03	46°03'57
	12732 Oct 25 09:52	0° \mathcal{A}			12735 Apr 27 18:20	0° Υ	
	12732 Nov 18 18:30	0° \mathcal{B}			12735 May 23 18:52	0° \mathcal{B}	
	12732 Dec 13 09:44	0° \approx		desc. node	12735 Jun 11 01:46	21° \mathcal{B} 49'46	
desc. node	12732 Dec 23 19:48	12° \approx 33'54			12735 Jun 17 19:48	0° \mathbb{I}	
	12733 Jan 07 09:43	0° \mathcal{H}			12735 Jul 12 08:10	0° \mathcal{E}	
	12733 Feb 01 20:55	0° Υ			12735 Aug 05 13:58	0° \mathcal{Q}	
	12733 Feb 28 01:19	0° \mathcal{B}			12735 Aug 29 17:07	0° \mathbb{P}	
	12733 Mar 27 19:04	0° \mathbb{I}			12735 Sep 22 19:47	0° \mathcal{E}	
evening max el	12733 Apr 03 09:38	6° \mathbb{I} 39'13	46°22'04	morning set	12735 Oct 01 16:18	11° \mathcal{E} 00'42	
asc. node	12733 Apr 15 18:53	18° \mathbb{I} 17'05		asc. node	12735 Oct 01 17:56	11° \mathcal{E} 05'45	
	12733 Apr 30 16:40	0° \mathcal{E}			12735 Oct 16 22:52	0° \mathbb{M}	
greatest brilliancy	12733 May 13 19:05	6° \mathcal{E} 48'26	-4.9m				
retrograde	12733 May 23 06:57	8° \mathcal{E} 30'39		superior conj	12735 Nov 08 18:04	28° \mathbb{M} 18'28	1°15'40
evening set	12733 Jun 10 12:41	2° \mathcal{E} 12'19		minimum elong	12735 Nov 08 09:35	27° \mathbb{M} 52'10	1°16'14
inferior conj	12733 Jun 13 00:10	0° \mathcal{E} 41'15	9°12'15		12735 Nov 10 02:48	0° \mathcal{A}	
minimum elong	12733 Jun 13 01:18	0° \mathcal{E} 39'30	9°11'17	max. Earth dist.	12735 Nov 10 19:49	0° \mathcal{A} 52'45	1.72695 AU
min. Earth dist.	12733 Jun 13 08:35	0° \mathcal{E} 28'15	0.27378 AU		12735 Dec 04 08:21	0° \mathcal{B}	
	12733 Jun 14 02:55	30° \mathcal{R} \mathbb{I}		evening rise	12735 Dec 15 17:43	14° \mathcal{B} 03'36	
morning rise	12733 Jun 15 13:52	29° \mathbb{I} 06'36			12735 Dec 28 16:35	0° \approx	
direct	12733 Jul 03 18:52	22° \mathbb{I} 45'52		desc. node	12736 Jan 21 08:30	28° \approx 59'34	
greatest brilliancy	12733 Jul 13 19:16	24° \mathbb{I} 39'12	-4.9m		12736 Jan 22 04:18	0° \mathcal{H}	
	12733 Jul 24 08:55	0° \mathcal{E}			12736 Feb 15 19:31	0° Υ	
desc. node	12733 Aug 05 21:21	9° \mathcal{E} 20'18			12736 Mar 11 14:08	0° \mathcal{B}	
morning max el	12733 Aug 23 06:10	25° \mathcal{E} 28'53	46°52'40		12736 Apr 05 13:32	0° \mathbb{I}	
	12733 Aug 27 16:56	0° \mathcal{Q}			12736 Apr 30 23:07	0° \mathcal{E}	
	12733 Sep 24 07:10	0° \mathbb{P}		asc. node	12736 May 13 04:44	14° \mathcal{E} 06'41	
	12733 Oct 20 07:13	0° \mathcal{E}			12736 May 27 09:00	0° \mathcal{Q}	
	12733 Nov 14 15:01	0° \mathbb{M}		evening max el	12736 Jun 15 15:02	20° \mathcal{Q} 18'43	46°47'14
asc. node	12733 Nov 26 19:25	14° \mathbb{M} 36'37			12736 Jun 25 16:41	0° \mathbb{P}	
	12733 Dec 09 13:23	0° \mathcal{A}		greatest brilliancy	12736 Jul 25 12:34	20° \mathbb{P} 46'13	-4.9m
	12734 Jan 03 05:19	0° \mathcal{B}		retrograde	12736 Aug 04 21:34	22° \mathbb{P} 46'31	
	12734 Jan 27 16:56	0° \approx		evening set	12736 Aug 19 16:43	18° \mathbb{P} 27'19	
morning set	12734 Feb 19 23:19	28° \approx 38'19		inferior conj	12736 Aug 25 14:59	14° \mathbb{P} 57'55	1°58'44
	12734 Feb 21 01:49	0° \mathcal{H}		minimum elong	12736 Aug 25 19:32	14° \mathbb{P} 50'58	1°56'56
	12734 Mar 17 08:37	0° Υ		min. Earth dist.	12736 Aug 25 12:38	15° \mathbb{P} 01'31	0.27047 AU
desc. node	12734 Mar 18 10:37	1° Υ 20'28		morning rise	12736 Aug 31 22:48	11° \mathbb{P} 17'06	
max. Earth dist.	12734 Mar 27 15:47	12° Υ 45'21	1.72562 AU	desc. node	12736 Sep 02 06:55	10° \mathbb{P} 36'08	

direct	12736 Sep 15 09:43	7°  13'08		12739 May 14 03:10	0° 		
greatest brilliancy	12736 Sep 25 05:26	9°  00'36	-4.8m	12739 Jun 07 15:47	0° 		
	12736 Oct 26 02:41	0° 		asc. node	12739 Jun 10 15:37	3°  38'09	
morning max el	12736 Nov 03 22:13	8°  16'19	46°10'57		12739 Jul 02 13:45	0° 	
	12736 Nov 25 01:11	0° 			12739 Jul 28 06:59	0° 	
	12736 Dec 21 23:43	0° 			12739 Aug 24 21:58	0° 	
asc. node	12736 Dec 24 07:32	2°  40'04		evening max el	12739 Aug 27 12:29	2°  37'42	46°34'02
	12737 Jan 16 17:25	0° 			12739 Sep 30 01:40	0° 	
	12737 Feb 10 19:29	0° 		desc. node	12739 Sep 30 16:16	0°  19'23	
	12737 Mar 07 12:14	0° 		greatest brilliancy	12739 Oct 05 18:14	2°  38'31	-4.8m
	12737 Mar 31 22:53	0° 		retrograde	12739 Oct 16 15:36	4°  50'07	
desc. node	12737 Apr 15 01:03	17°  04'20			12739 Nov 01 11:28	30° 	
	12737 Apr 25 04:46	0° 		evening set	12739 Nov 02 12:16	29° 	
morning set	12737 May 02 21:48	9°  35'13		min. Earth dist.	12739 Nov 06 05:44	27° 	0.28393 AU
	12737 May 19 06:38	0° 		inferior conj	12739 Nov 07 00:37	26° 	-7°41'57
max. Earth dist.	12737 Jun 10 01:54	27°  18'11	1.71502 AU	minimum elong	12739 Nov 06 15:31	26° 	7°39'50
				morning rise	12739 Nov 10 19:02	24° 	
superior conj	12737 Jun 11 23:10	29°  40'04	-1°27'23	direct	12739 Nov 28 04:38	18° 	
minimum elong	12737 Jun 12 00:10	29°  43'15	1°28'21	greatest brilliancy	12739 Dec 07 20:54	20° 	-4.8m
	12737 Jun 12 05:31	0° 			12739 Dec 25 08:43	0° 	
	12737 Jul 06 03:10	0° 		morning max el	12740 Jan 16 00:44	18°  38'24	45°42'44
evening rise	12737 Jul 22 06:19	20°  13'53		asc. node	12740 Jan 21 18:16	24°  16'39	
	12737 Jul 30 01:29	0° 			12740 Jan 27 09:07	0° 	
asc. node	12737 Aug 05 15:14	8°  13'21			12740 Feb 23 22:08	0° 	
	12737 Aug 23 02:06	0° 			12740 Mar 20 19:02	0° 	
	12737 Sep 16 06:37	0° 			12740 Apr 14 20:42	0° 	
	12737 Oct 10 17:29	0° 			12740 May 09 10:55	0° 	
	12737 Nov 04 14:52	0° 		desc. node	12740 May 12 14:48	3°  53'20	
desc. node	12737 Nov 25 10:08	24°  26'59			12740 Jun 02 17:25	0° 	
	12737 Nov 30 05:37	0° 			12740 Jun 26 18:50	0° 	
	12737 Dec 27 02:41	0° 		morning set	12740 Jul 17 01:36	25° 	23'57
evening max el	12738 Jan 19 04:37	23°  40'42	45°54'41		12740 Jul 20 17:39	0° 	
	12738 Jan 25 22:29	0° 			12740 Aug 13 16:02	0° 	
greatest brilliancy	12738 Feb 27 07:03	22°  12'15	-4.8m				
retrograde	12738 Mar 09 04:28	23°  09'57		superior conj	12740 Aug 25 17:29	15° 	-0°18'10
asc. node	12738 Mar 18 11:34	22°  16'22		minimum elong	12740 Aug 25 22:02	15° 	0°18'18
evening set	12738 Mar 23 23:03	19°  44'49		max. Earth dist.	12740 Aug 27 13:08	17° 	1.71700 AU
inferior conj	12738 Mar 30 05:43	16°  00'03	2°54'41	asc. node	12740 Sep 02 05:25	24° 	
minimum elong	12738 Mar 29 23:21	16°  09'59	2°52'37		12740 Sep 06 15:24	0° 	
min. Earth dist.	12738 Mar 30 09:04	15°  09'59	0.27930 AU		12740 Sep 30 16:40	0° 	
morning rise	12738 Apr 04 23:13	12°  32'16		evening rise	12740 Oct 03 14:11	3° 	
direct	12738 Apr 20 07:53	7°  54'26			12740 Oct 24 20:52	0° 	
greatest brilliancy	12738 Apr 30 18:14	9°  55'43	-4.8m		12740 Nov 18 05:42	0° 	
	12738 May 29 20:13	0° 			12740 Dec 12 21:19	0° 	
morning max el	12738 Jun 09 12:31	10°  14'15	46°47'05	desc. node	12740 Dec 22 21:38	12° 	03'59
	12738 Jun 28 06:07	0° 			12741 Jan 06 21:56	0° 	
desc. node	12738 Jul 08 13:10	11°  30'24			12741 Feb 01 10:15	0° 	
	12738 Jul 24 13:39	0° 			12741 Feb 27 16:48	0° 	
	12738 Aug 18 18:42	0° 			12741 Mar 27 15:55	0° 	
	12738 Sep 12 12:27	0° 		evening max el	12741 Mar 31 23:54	4° 	46°21'01
	12738 Oct 07 01:18	0° 		asc. node	12741 Apr 14 20:56	17° 	
asc. node	12738 Oct 29 08:03	27°  21'31			12741 May 02 00:32	0° 	
	12738 Oct 31 11:35	0° 		greatest brilliancy	12741 May 11 07:07	4° 	-4.9m
	12738 Nov 24 20:05	0° 		retrograde	12741 May 20 20:40	6° 	
morning set	12738 Dec 10 21:47	19°  49'57			12741 Jun 07 18:26	30° 	
	12738 Dec 19 03:27	0° 		evening set	12741 Jun 08 01:19	29° 	
	12739 Jan 12 10:40	0° 		inferior conj	12741 Jun 10 13:31	28° 	9°12'43
				minimum elong	12741 Jun 10 13:40	28° 	9°11'46
superior conj	12739 Jan 16 15:20	5°  10'33	1°07'50	min. Earth dist.	12741 Jun 10 20:57	28° 	0.27404 AU
minimum elong	12739 Jan 17 00:52	5°  39'56	1°08'23	morning rise	12741 Jun 13 01:58	26° 	
max. Earth dist.	12739 Jan 17 01:15	5° 41'07	1.73170 AU	direct	12741 Jul 01 08:57	20°	
	12739 Feb 05 18:28	0°		greatest brilliancy	12741 Jul 11 08:09	22°	-4.9m
desc. node	12739 Feb 17 22:14	14° 58'56			12741 Jul 25 12:32	0°	
evening rise	12739 Feb 23 08:17	21° 39'29		desc. node	12741 Aug 04 23:25	8°	
	12739 Mar 02 02:46	0°		morning max el	12741 Aug 20 21:23	23°	46°53'24
	12739 Mar 26 10:52	0°			12741 Aug 27 13:56	0°	
	12739 Apr 19 18:35	0°			12741 Sep 23 22:58	0°	

	12741 Oct 19 20:50	0°♄		asc. node	12744 May 12 06:37	13°♄27'28	
	12741 Nov 14 03:26	0°♍			12744 May 27 02:44	0°♌	
asc. node	12741 Nov 25 21:16	14°♍05'58		evening max el	12744 Jun 13 05:01	17°♌56'42	46°46'57
	12741 Dec 09 01:04	0°♊			12744 Jun 25 21:28	0°♎	
	12742 Jan 02 16:33	0°♋		greatest brilliancy	12744 Jul 23 03:51	18°♎24'48	-4.9m
	12742 Jan 27 03:55	0°♌		retrograde	12744 Aug 02 10:42	20°♎23'03	
morning set	12742 Feb 17 15:40	26°♌27'17		evening set	12744 Aug 17 08:01	16°♎01'56	
	12742 Feb 20 12:40	0°♈		inferior conj	12744 Aug 23 04:12	12°♎35'16	2°22'04
	12742 Mar 16 19:26	0°♉		minimum elong	12744 Aug 23 09:36	12°♎27'01	2°20'00
desc. node	12742 Mar 17 12:35	0°♉53'03		min. Earth dist.	12744 Aug 23 03:13	12°♎36'47	0.27028 AU
max. Earth dist.	12742 Mar 25 08:56	10°♉36'08	1.72594 AU	morning rise	12744 Aug 29 11:31	8°♎54'39	
				desc. node	12744 Sep 01 08:56	7°♎29'48	
superior conj	12742 Mar 27 21:01	13°♉42'20	-0°24'47	direct	12744 Sep 12 22:37	4°♎50'41	
minimum elong	12742 Mar 27 15:15	13°♉24'29	0°24'38	greatest brilliancy	12744 Sep 22 19:07	6°♎38'30	-4.8m
	12742 Apr 10 00:04	0°♏			12744 Oct 26 05:38	0°♎	
	12742 May 04 02:27	0°♐		morning max el	12744 Nov 01 11:11	5°♎55'05	46°12'19
evening rise	12742 May 05 19:35	2°♐08'16			12744 Nov 24 18:16	0°♍	
	12742 May 28 03:19	0°♑			12744 Dec 21 13:40	0°♊	
	12742 Jun 21 04:21	0°♌		asc. node	12744 Dec 23 09:25	2°♊05'51	
asc. node	12742 Jul 08 03:48	21°♌06'47			12745 Jan 16 05:53	0°♋	
	12742 Jul 15 07:56	0°♎			12745 Feb 10 07:10	0°♌	
	12742 Aug 08 16:58	0°♄			12745 Mar 06 23:29	0°♈	
	12742 Sep 02 11:49	0°♍			12745 Mar 31 09:53	0°♉	
	12742 Sep 28 01:01	0°♊		desc. node	12745 Apr 14 02:48	16°♉55'59	
	12742 Oct 25 05:16	0°♋			12745 Apr 24 15:40	0°♏	
desc. node	12742 Oct 28 01:45	2°♋58'21		morning set	12745 Apr 30 10:00	7°♏09'59	
evening max el	12742 Nov 06 16:57	12°♋39'01	46°02'38		12745 May 18 17:29	0°♐	
	12742 Nov 26 10:12	0°♌		max. Earth dist.	12745 Jun 07 06:45	24°♐28'56	1.71524 AU
greatest brilliancy	12742 Dec 15 20:20	11°♌17'16	-4.8m				
retrograde	12742 Dec 25 20:57	13°♌06'23		superior conj	12745 Jun 09 11:06	27°♐13'01	-1°27'29
evening set	12743 Jan 12 01:30	7°♌28'31		minimum elong	12745 Jun 09 11:03	27°♐12'53	1°28'26
inferior conj	12743 Jan 16 06:59	4°♌52'06	-6°57'56		12745 Jun 11 16:22	0°♑	
minimum elong	12743 Jan 16 16:57	4°♌36'26	6°55'16		12745 Jul 05 14:02	0°♌	
min. Earth dist.	12743 Jan 16 16:00	4°♌37'57	0.28850 AU	evening rise	12745 Jul 19 17:47	17°♌45'16	
morning rise	12743 Jan 21 08:22	1°♌46'48			12745 Jul 29 12:24	0°♎	
	12743 Jan 24 15:41	30°♎33		asc. node	12745 Aug 04 17:12	7°♎45'22	
direct	12743 Feb 06 17:08	26°♋37'39			12745 Aug 22 13:06	0°♄	
greatest brilliancy	12743 Feb 17 11:54	28°♋45'49	-4.8m		12745 Sep 15 17:49	0°♍	
asc. node	12743 Feb 18 04:12	29°♋01'37			12745 Oct 10 05:03	0°♊	
	12743 Feb 20 10:36	0°♌			12745 Nov 04 03:09	0°♋	
morning max el	12743 Mar 28 04:01	27°♌47'47	46°02'30	desc. node	12745 Nov 24 11:58	23°♋53'41	
	12743 Mar 30 09:23	0°♈			12745 Nov 29 19:18	0°♌	
	12743 Apr 27 09:54	0°♉			12745 Dec 26 19:27	0°♈	
	12743 May 23 08:17	0°♏		evening max el	12746 Jan 16 18:29	21°♈24'05	45°54'15
desc. node	12743 Jun 10 03:33	21°♏17'08			12746 Jan 26 01:14	0°♉	
	12743 Jun 17 08:11	0°♐		greatest brilliancy	12746 Feb 24 21:50	19°♉56'20	-4.8m
	12743 Jul 11 19:56	0°♑		retrograde	12746 Mar 06 18:31	21°♉43'51	
	12743 Aug 05 01:21	0°♌		asc. node	12746 Mar 17 13:35	19°♉24'41	
	12743 Aug 29 04:14	0°♎		evening set	12746 Mar 21 13:01	17°♉29'04	
	12743 Sep 22 06:44	0°♄		inferior conj	12746 Mar 27 20:29	13°♉43'33	2°33'25
morning set	12743 Sep 29 06:55	8°♄43'00		minimum elong	12746 Mar 27 14:51	13°♉52'22	2°31'34
asc. node	12743 Sep 30 19:48	10°♄37'39		min. Earth dist.	12746 Mar 28 00:42	13°♉36'58	0.27956 AU
	12743 Oct 16 09:43	0°♍		morning rise	12746 Apr 02 16:09	10°♉12'43	
				direct	12746 Apr 17 22:24	5°♉37'18	
superior conj	12743 Nov 06 10:07	26°♍05'56	1°14'00	greatest brilliancy	12746 Apr 28 10:55	7°♉40'26	-4.8m
minimum elong	12743 Nov 06 01:14	25°♍38'21	1°14'29		12746 May 29 22:51	0°♏	
max. Earth dist.	12743 Nov 08 13:57	28°♍46'41	1.72666 AU	morning max el	12746 Jun 07 02:34	7°♏53'57	46°45'58
	12743 Nov 09 13:36	0°♊			12746 Jun 27 23:11	0°♐	
	12743 Dec 03 19:08	0°♋		desc. node	12746 Jul 07 15:11	10°♐51'35	
evening rise	12743 Dec 13 10:01	11°♋52'31			12746 Jul 24 03:47	0°♑	
	12743 Dec 28 03:27	0°♌			12746 Aug 18 07:25	0°♌	
desc. node	12744 Jan 20 10:23	28°♌31'27			12746 Sep 12 00:22	0°♎	
	12744 Jan 21 15:23	0°♈			12746 Oct 06 12:39	0°♄	
	12744 Feb 15 07:00	0°♉		asc. node	12746 Oct 28 09:51	26°♄53'17	
	12744 Mar 11 02:10	0°♏			12746 Oct 30 22:33	0°♍	
	12744 Apr 05 02:28	0°♐			12746 Nov 24 06:46	0°♊	
	12744 Apr 30 13:35	0°♑		morning set	12746 Dec 08 14:39	17°♊41'02	

	12746 Dec 18 14:01	0°♁	evening set	12749 Jun 05 13:17	27°♁28'05	
	12747 Jan 11 21:13	0°♁	inferior conj	12749 Jun 08 02:41	25°♁53'57	9°12'17
			minimum elong	12749 Jun 08 01:53	25°♁55'12	9°11'19
superior conj	12747 Jan 14 08:15	3°♁02'08 1°09'50	min. Earth dist.	12749 Jun 08 09:07	25°♁44'01	0.27424 AU
minimum elong	12747 Jan 14 17:35	3°♁30'53 1°10'25	morning rise	12749 Jun 10 14:28	24°♁22'14	
max. Earth dist.	12747 Jan 14 19:29	3°♁36'46 1.73175 AU	direct	12749 Jun 28 23:00	17°♁57'59	
	12747 Feb 05 05:05	0°♁	greatest brilliancy	12749 Jul 08 20:39	19°♁49'46	-4.9m
desc. node	12747 Feb 17 00:11	14°♁32'08		12749 Jul 26 08:21	0°♁	
evening rise	12747 Feb 21 00:06	19°♁27'30	desc. node	12749 Aug 04 01:30	7°♁09'47	
	12747 Mar 01 13:31	0°♁	morning max el	12749 Aug 18 11:46	20°♁48'55	46°54'06
	12747 Mar 25 21:48	0°♁		12749 Aug 27 09:51	0°♁	
	12747 Apr 19 05:48	0°♁		12749 Sep 23 14:06	0°♁	
	12747 May 13 14:51	0°♁		12749 Oct 19 09:55	0°♁	
	12747 Jun 07 04:08	0°♁		12749 Nov 13 15:23	0°♁	
asc. node	12747 Jun 09 17:32	3°♁06'16	asc. node	12749 Nov 24 23:09	13°♁36'42	
	12747 Jul 02 03:12	0°♁		12749 Dec 08 12:20	0°♁	
	12747 Jul 27 22:36	0°♁		12750 Jan 02 03:24	0°♁	
	12747 Aug 24 19:19	0°♁		12750 Jan 26 14:30	0°♁	
evening max el	12747 Aug 25 03:01	0°♁19'18 46°35'13	morning set	12750 Feb 15 08:17	24°♁18'18	
desc. node	12747 Sep 29 18:16	28°♁47'52		12750 Feb 19 23:08	0°♁	
	12747 Oct 02 10:14	0°♁		12750 Mar 16 05:54	0°♁	
greatest brilliancy	12747 Oct 03 08:47	0°♁22'34 -4.8m	desc. node	12750 Mar 16 14:22	0°♁26'13	
retrograde	12747 Oct 14 07:18	2°♁35'39	max. Earth dist.	12750 Mar 23 00:52	8°♁24'22	1.72632 AU
	12747 Oct 25 16:31	30°♁				
evening set	12747 Oct 30 23:49	27°♁15'09	superior conj	12750 Mar 25 11:30	11°♁26'00	-0°21'20
min. Earth dist.	12747 Nov 03 20:13	24°♁55'29 0.28343 AU	minimum elong	12750 Mar 25 06:32	11°♁10'34	0°21'11
inferior conj	12747 Nov 04 15:42	24°♁25'15 -7°31'18		12750 Apr 09 10:36	0°♁	
minimum elong	12747 Nov 04 06:12	24°♁40'00 7°29'02	evening rise	12750 May 03 08:50	29°♁46'38	
morning rise	12747 Nov 08 12:51	22°♁03'08		12750 May 03 13:07	0°♁	
direct	12747 Nov 25 19:07	16°♁24'33		12750 May 27 14:08	0°♁	
greatest brilliancy	12747 Dec 05 11:11	18°♁06'06 -4.8m		12750 Jun 20 15:22	0°♁	
	12747 Dec 25 22:29	0°♁	asc. node	12750 Jul 07 05:45	20°♁38'04	
morning max el	12748 Jan 13 16:04	16°♁26'23 45°42'56		12750 Jul 14 19:15	0°♁	
asc. node	12748 Jan 20 20:23	23°♁31'56		12750 Aug 08 04:46	0°♁	
	12748 Jan 27 03:24	0°♁		12750 Sep 02 00:26	0°♁	
	12748 Feb 23 12:21	0°♁		12750 Sep 27 15:17	0°♁	
	12748 Mar 20 07:37	0°♁		12750 Oct 24 23:32	0°♁	
	12748 Apr 14 08:27	0°♁	desc. node	12750 Oct 27 03:39	2°♁14'34	
	12748 May 08 22:12	0°♁	evening max el	12750 Nov 04 08:36	10°♁27'30	46°03'28
desc. node	12748 May 11 16:40	3°♁24'26		12750 Nov 27 00:10	0°♁	
	12748 Jun 02 04:25	0°♁	greatest brilliancy	12750 Dec 13 11:55	9°♁07'19	-4.8m
	12748 Jun 26 05:40	0°♁	retrograde	12750 Dec 23 12:27	10°♁56'13	
morning set	12748 Jul 14 13:28	22°♁56'59	evening set	12751 Jan 09 20:18	5°♁14'18	
	12748 Jul 20 04:24	0°♁	inferior conj	12751 Jan 13 22:56	2°♁41'50	-7°10'11
	12748 Aug 13 02:42	0°♁	minimum elong	12751 Jan 14 08:41	2°♁26'29	7°07'37
			min. Earth dist.	12751 Jan 14 07:16	2°♁28'43	0.28866 AU
superior conj	12748 Aug 23 06:05	12°♁42'09 -0°21'52		12751 Jan 18 08:02	30°♁	
minimum elong	12748 Aug 23 11:31	12°♁59'09 0°21'58	morning rise	12751 Jan 18 21:04	29°♁40'57	
max. Earth dist.	12748 Aug 25 00:59	14°♁56'24 1.71675 AU	direct	12751 Feb 04 09:21	24°♁27'39	
asc. node	12748 Sep 01 07:16	24°♁01'26	greatest brilliancy	12751 Feb 15 02:48	26°♁34'16	-4.8m
	12748 Sep 06 02:02	0°♁	asc. node	12751 Feb 17 06:08	27°♁26'28	
	12748 Sep 30 03:17	0°♁		12751 Feb 22 08:18	0°♁	
evening rise	12748 Oct 01 05:09	1°♁20'27	morning max el	12751 Mar 25 18:45	25°♁33'19	46°01'05
	12748 Oct 24 07:34	0°♁		12751 Mar 30 05:39	0°♁	
	12748 Nov 17 16:35	0°♁		12751 Apr 27 00:49	0°♁	
	12748 Dec 12 08:33	0°♁		12751 May 22 21:15	0°♁	
desc. node	12748 Dec 21 23:39	11°♁35'37	desc. node	12751 Jun 09 05:34	20°♁46'16	
	12749 Jan 06 09:50	0°♁		12751 Jun 16 20:12	0°♁	
	12749 Jan 31 23:21	0°♁		12751 Jul 11 07:24	0°♁	
	12749 Feb 27 08:14	0°♁		12751 Aug 04 12:27	0°♁	
	12749 Mar 27 13:19	0°♁		12751 Aug 28 15:04	0°♁	
evening max el	12749 Mar 29 14:41	2°♁02'22 46°19'46		12751 Sep 21 17:23	0°♁	
asc. node	12749 Apr 13 22:50	16°♁11'20	morning set	12751 Sep 26 21:14	6°♁25'20	
	12749 May 03 23:42	0°♁	asc. node	12751 Sep 29 21:33	10°♁10'14	
greatest brilliancy	12749 May 08 19:09	2°♁00'10 -4.8m		12751 Oct 15 20:13	0°♁	
retrograde	12749 May 18 10:13	3°♁44'28				
	12749 Jun 01 02:09	30°♁	superior conj	12751 Nov 04 02:07	23°♁54'17	1°12'11

minimum elong	12751 Nov 03 16:51	23° \mathbb{M} 25'33	1°12'39			12754 May 29 23:44	0° \mathcal{B}	
max. Earth dist.	12751 Nov 06 07:13	26° \mathbb{M} 39'00	1.72632 AU	morning max el		12754 Jun 04 17:39	5° \mathcal{B} 37'12	46°44'53
	12751 Nov 09 00:01	0° \mathcal{A}				12754 Jun 27 15:38	0° \mathbb{I}	
	12751 Dec 03 05:34	0° \mathcal{B}		desc. node		12754 Jul 06 17:13	10° \mathbb{I} 13'57	
evening rise	12751 Dec 11 02:26	9° \mathcal{B} 42'49				12754 Jul 23 17:31	0° \mathcal{E}	
	12751 Dec 27 14:00	0° \approx				12754 Aug 17 19:54	0° \mathcal{Q}	
desc. node	12752 Jan 19 12:20	28° \approx 04'35				12754 Sep 11 12:07	0° \mathbb{M}	
	12752 Jan 21 02:10	0° \mathcal{H}				12754 Oct 05 23:55	0° \mathcal{A}	
	12752 Feb 14 18:08	0° \mathcal{Y}		asc. node		12754 Oct 27 11:46	26° \mathcal{A} 25'32	
	12752 Mar 10 13:53	0° \mathcal{B}				12754 Oct 30 09:27	0° \mathbb{M}	
	12752 Apr 04 15:05	0° \mathbb{I}				12754 Nov 23 17:26	0° \mathcal{A}	
	12752 Apr 30 03:52	0° \mathcal{E}		morning set		12754 Dec 06 07:14	15° \mathcal{A} 31'26	
asc. node	12752 May 11 08:36	12° \mathcal{E} 49'08				12754 Dec 18 00:31	0° \mathcal{B}	
	12752 May 26 20:36	0° \mathcal{Q}				12755 Jan 11 07:41	0° \approx	
evening max el	12752 Jun 10 17:47	15° \mathcal{Q} 32'09	46°46'23					
	12752 Jun 26 04:10	0° \mathbb{M}		superior conj		12755 Jan 12 01:01	0° \approx 53'30	1°11'44
greatest brilliancy	12752 Jul 20 19:04	16° \mathbb{M} 03'05	-4.9m	minimum elong		12755 Jan 12 10:04	1° \approx 21'25	1°12'20
retrograde	12752 Jul 30 23:14	17° \mathbb{M} 59'17		max. Earth dist.		12755 Jan 12 15:35	1° \approx 38'27	1.73175 AU
evening set	12752 Aug 14 23:12	13° \mathbb{M} 35'39				12755 Feb 04 15:37	0° \mathcal{H}	
inferior conj	12752 Aug 20 17:09	10° \mathbb{M} 12'14	2°45'27	desc. node		12755 Feb 16 01:56	14° \mathcal{H} 04'56	
minimum elong	12752 Aug 20 23:22	10° \mathbb{M} 02'44	2°43'06	evening rise		12755 Feb 18 16:00	17° \mathcal{H} 16'02	
min. Earth dist.	12752 Aug 20 17:48	10° \mathbb{M} 11'15	0.27014 AU			12755 Mar 01 00:10	0° \mathcal{Y}	
morning rise	12752 Aug 26 23:44	6° \mathbb{M} 32'12				12755 Mar 25 08:41	0° \mathcal{B}	
desc. node	12752 Aug 31 10:54	4° \mathbb{M} 27'18				12755 Apr 18 17:00	0° \mathbb{I}	
direct	12752 Sep 10 10:51	2° \mathbb{M} 27'32				12755 May 13 02:29	0° \mathcal{E}	
greatest brilliancy	12752 Sep 20 09:06	4° \mathbb{M} 16'32	-4.8m			12755 Jun 06 16:27	0° \mathcal{Q}	
	12752 Oct 26 06:55	0° \mathcal{A}		asc. node		12755 Jun 08 19:34	2° \mathcal{Q} 34'53	
morning max el	12752 Oct 29 23:53	3° \mathcal{A} 33'31	46°13'59			12755 Jul 01 16:39	0° \mathbb{M}	
	12752 Nov 24 10:43	0° \mathbb{M}				12755 Jul 27 14:21	0° \mathcal{A}	
	12752 Dec 21 03:09	0° \mathcal{A}		evening max el		12755 Aug 22 18:21	28° \mathcal{A} 03'01	46°36'10
asc. node	12752 Dec 22 11:30	1° \mathcal{A} 33'16				12755 Aug 24 17:26	0° \mathbb{M}	
	12753 Jan 15 17:58	0° \mathcal{B}		desc. node		12755 Sep 28 20:12	27° \mathbb{M} 12'44	
	12753 Feb 09 18:30	0° \approx		greatest brilliancy		12755 Sep 30 22:50	28° \mathbb{M} 05'40	-4.8m
	12753 Mar 06 10:24	0° \mathcal{H}				12755 Oct 07 19:06	0° \mathcal{A}	
	12753 Mar 30 20:36	0° \mathcal{Y}		retrograde		12755 Oct 11 23:09	0° \mathcal{A} 20'23	
desc. node	12753 Apr 13 04:41	16° \mathcal{Y} 28'54				12755 Oct 16 01:21	30° \mathcal{R} \mathbb{M}	
	12753 Apr 24 02:16	0° \mathcal{B}		evening set		12755 Oct 28 11:14	25° \mathbb{M} 05'07	
morning set	12753 Apr 27 22:40	4° \mathcal{B} 47'10		min. Earth dist.		12755 Nov 01 10:18	22° \mathbb{M} 41'48	0.28292 AU
	12753 May 18 04:01	0° \mathbb{I}		inferior conj		12755 Nov 02 06:35	22° \mathbb{M} 10'23	-7°19'44
max. Earth dist.	12753 Jun 04 14:43	21° \mathbb{I} 50'21	1.71552 AU	minimum elong		12755 Nov 01 20:45	22° \mathbb{M} 25'37	7°17'21
				morning rise		12755 Nov 06 06:38	19° \mathbb{M} 44'26	
superior conj	12753 Jun 06 23:18	24° \mathbb{I} 47'43	-1°27'23	direct		12755 Nov 23 10:00	14° \mathbb{M} 10'25	
minimum elong	12753 Jun 06 22:12	24° \mathbb{I} 44'14	1°28'20	greatest brilliancy		12755 Dec 03 00:54	15° \mathbb{M} 51'31	-4.8m
	12753 Jun 11 02:55	0° \mathcal{E}				12755 Dec 26 08:52	0° \mathcal{A}	
	12753 Jul 05 00:40	0° \mathcal{Q}		morning max el		12756 Jan 11 07:39	14° \mathcal{A} 14'40	45°43'12
evening rise	12753 Jul 17 05:17	15° \mathcal{Q} 17'23		asc. node		12756 Jan 19 22:17	22° \mathcal{A} 47'01	
	12753 Jul 28 23:08	0° \mathbb{M}				12756 Jan 26 21:21	0° \mathcal{B}	
asc. node	12753 Aug 03 19:01	7° \mathbb{M} 17'26				12756 Feb 23 02:27	0° \approx	
	12753 Aug 21 23:59	0° \mathcal{A}				12756 Mar 19 20:08	0° \mathcal{H}	
	12753 Sep 15 04:54	0° \mathbb{M}				12756 Apr 13 20:10	0° \mathcal{Y}	
	12753 Oct 09 16:31	0° \mathcal{A}				12756 May 08 09:29	0° \mathcal{B}	
	12753 Nov 03 15:21	0° \mathcal{B}		desc. node		12756 May 10 18:34	2° \mathcal{B} 55'37	
desc. node	12753 Nov 23 14:02	23° \mathcal{B} 21'26				12756 Jun 01 15:28	0° \mathbb{I}	
	12753 Nov 29 08:56	0° \approx				12756 Jun 25 16:35	0° \mathcal{E}	
	12753 Dec 26 12:18	0° \mathcal{H}		morning set		12756 Jul 12 01:38	20° \mathcal{E} 30'49	
evening max el	12754 Jan 14 08:41	19° \mathcal{H} 09'08	45°53'59			12756 Jul 19 15:11	0° \mathcal{Q}	
	12754 Jan 26 05:20	0° \mathcal{Y}				12756 Aug 12 13:24	0° \mathbb{M}	
greatest brilliancy	12754 Feb 22 12:13	17° \mathcal{Y} 40'59	-4.8m					
retrograde	12754 Mar 04 09:14	19° \mathcal{Y} 29'00		superior conj		12756 Aug 20 18:58	10° \mathbb{M} 18'41	-0°25'29
asc. node	12754 Mar 16 15:33	16° \mathcal{Y} 29'53		minimum elong		12756 Aug 21 01:14	10° \mathbb{M} 38'20	0°25'35
evening set	12754 Mar 19 03:19	15° \mathcal{Y} 14'07		max. Earth dist.		12756 Aug 22 15:19	12° \mathbb{M} 37'34	1.71647 AU
inferior conj	12754 Mar 25 11:22	11° \mathcal{Y} 28'02	2°11'52	asc. node		12756 Aug 31 09:01	23° \mathbb{M} 33'34	
minimum elong	12754 Mar 25 06:28	11° \mathcal{Y} 35'40	2°10'17			12756 Sep 05 12:41	0° \mathcal{A}	
min. Earth dist.	12754 Mar 25 16:07	11° \mathcal{Y} 20'36	0.27983 AU	evening rise		12756 Sep 28 20:18	29° \mathcal{A} 04'59	
morning rise	12754 Mar 31 09:05	7° \mathcal{Y} 54'36				12756 Sep 29 13:59	0° \mathbb{M}	
direct	12754 Apr 15 13:23	3° \mathcal{Y} 21'12				12756 Oct 23 18:23	0° \mathcal{A}	
greatest brilliancy	12754 Apr 26 03:18	5° \mathcal{Y} 25'53	-4.8m			12756 Nov 17 03:37	0° \mathcal{B}	

	12756 Dec 11 20:00	0°♊			12759 May 22 10:28	0°♎		
desc. node	12756 Dec 21 01:31	11°♊06'15		desc. node	12759 Jun 08 07:31	20°♎14'24		
	12757 Jan 05 21:58	0°♋			12759 Jun 16 08:28	0°♎		
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	12757 Feb 27 00:05	0°♍			12759 Aug 03 23:51	0°♐		
evening max el	12757 Mar 27 05:23	29°♍44'22	46°18'32		12759 Aug 28 02:15	0°♑		
	12757 Mar 27 11:44	0°♎			12759 Sep 21 04:23	0°♒		
asc. node	12757 Apr 13 00:53	15°♎06'06		morning set	12759 Sep 24 11:32	4°♒06'20		
greatest brilliancy	12757 May 06 07:47	29°♎36'53	-4.8m	asc. node	12759 Sep 28 23:29	9°♒42'13		
	12757 May 07 12:03	0°♏			12759 Oct 15 07:05	0°♓		
retrograde	12757 May 15 23:27	1°♏21'15						
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inferior conj	12757 Jun 05 16:02	23°♎30'30	9°10'46	max. Earth dist.	12759 Nov 03 22:31	24°♓24'08	1.72596 AU	
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morning rise	12757 Jun 08 03:43	21°♎58'43		evening rise	12759 Dec 08 19:01	7°♉32'38		
direct	12757 Jun 26 12:57	15°♎34'22			12759 Dec 27 00:53	0°♊		
greatest brilliancy	12757 Jul 06 09:34	17°♎25'08	-4.9m	desc. node	12760 Jan 18 14:08	27°♊36'08		
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desc. node	12757 Aug 03 03:20	6°♏06'27			12760 Feb 14 05:42	0°♌		
morning max el	12757 Aug 16 01:21	18°♏25'46	46°54'51		12760 Mar 10 02:03	0°♍		
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	12757 Sep 23 05:11	0°♑			12760 Apr 29 18:45	0°♏		
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asc. node	12757 Nov 24 01:07	13°♓07'12		evening max el	12760 Jun 08 05:44	13°♐04'31	46°45'56	
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	12758 Jan 01 14:28	0°♉		greatest brilliancy	12760 Jul 18 09:50	13°♑39'33	-4.9m	
	12758 Jan 26 01:21	0°♊		retrograde	12760 Jul 28 11:52	15°♑34'24		
morning set	12758 Feb 13 00:49	22°♊08'14		evening set	12760 Aug 12 14:26	11°♑07'31		
	12758 Feb 19 09:52	0°♋		inferior conj	12760 Aug 18 06:02	7°♑47'44	3°08'28	
desc. node	12758 Mar 15 16:12	29°♋58'41		minimum elong	12760 Aug 18 13:01	7°♑37'03	3°05'51	
	12758 Mar 15 16:37	0°♌		min. Earth dist.	12760 Aug 18 08:12	7°♑44'24	0.27006 AU	
max. Earth dist.	12758 Mar 20 15:39	6°♌08'19	1.72666 AU	morning rise	12760 Aug 24 11:40	4°♑08'49		
				desc. node	12760 Aug 30 12:56	1°♑28'16		
superior conj	12758 Mar 23 02:01	9°♌09'01	-0°17'51	direct	12760 Sep 07 23:02	0°♒02'37		
minimum elong	12758 Mar 22 21:50	8°♌56'04	0°17'42	greatest brilliancy	12760 Sep 17 23:06	1°♒53'13	-4.8m	
	12758 Apr 08 21:24	0°♍			12760 Oct 26 07:29	0°♒		
evening rise	12758 Apr 30 22:09	27°♍24'33		morning max el	12760 Oct 27 13:15	1°♒12'09	46°15'44	
	12758 May 03 00:02	0°♎			12760 Nov 24 03:19	0°♓		
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asc. node	12758 Jul 06 07:36	20°♐07'59			12761 Jan 15 06:20	0°♊		
	12758 Jul 14 06:53	0°♑			12761 Feb 09 06:09	0°♋		
	12758 Aug 07 16:54	0°♒			12761 Mar 05 21:41	0°♌		
	12758 Sep 01 13:26	0°♓			12761 Mar 30 07:41	0°♍		
	12758 Sep 27 05:59	0°♈		desc. node	12761 Apr 12 06:37	16°♌00'50		
	12758 Oct 24 18:35	0°♉			12761 Apr 23 13:16	0°♊		
desc. node	12758 Oct 26 05:44	1°♉29'55		morning set	12761 Apr 25 11:12	2°♉22'42		
evening max el	12758 Nov 01 23:18	8°♉12'51	46°04'18		12761 May 17 14:59	0°♎		
	12758 Nov 27 19:27	0°♊		max. Earth dist.	12761 Jun 02 00:33	19°♎16'22	1.71580 AU	
greatest brilliancy	12758 Dec 11 03:49	6°♊56'59	-4.8m					
retrograde	12758 Dec 21 03:40	8°♊45'35		superior conj	12761 Jun 04 11:12	22°♎20'11	-1°27'07	
evening set	12759 Jan 07 15:06	2°♊59'31		minimum elong	12761 Jun 04 09:03	22°♎13'25	1°28'03	
inferior conj	12759 Jan 11 15:00	0°♋31'04	-7°21'38		12761 Jun 10 13:54	0°♏		
minimum elong	12759 Jan 12 00:29	0°♋16'08	7°19'12		12761 Jul 04 11:41	0°♐		
min. Earth dist.	12759 Jan 11 22:55	0°♋18'36	0.28883 AU	evening rise	12761 Jul 14 16:33	12°♐47'43		
	12759 Jan 12 10:44	30°♋♎			12761 Jul 28 10:14	0°♑		
morning rise	12759 Jan 16 09:49	27°♎34'42		asc. node	12761 Aug 02 20:49	6°♑48'17		
direct	12759 Feb 02 01:17	22°♎16'55			12761 Aug 21 11:13	0°♒		
greatest brilliancy	12759 Feb 12 18:26	24°♎22'43	-4.8m		12761 Sep 14 16:23	0°♓		
asc. node	12759 Feb 16 08:05	25°♎53'45			12761 Oct 09 04:25	0°♈		
	12759 Feb 23 15:30	0°♏			12761 Nov 03 04:01	0°♉		
morning max el	12759 Mar 23 08:59	23°♏16'29	45°59'44	desc. node	12761 Nov 22 15:58	22°♉47'27		
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
































































































evening max el	12762 Jan 11 23:35	16° X 55'07	45°53'51	superior conj	12764 Aug 18 07:23	7° M 53'20	-0°29'06
	12762 Jan 26 11:53	0° Y		minimum elong	12764 Aug 18 14:28	8° M 15'31	0°29'13
greatest brilliancy	12762 Feb 20 02:10	15° Y 24'31	-4.8m	max. Earth dist.	12764 Aug 20 04:28	10° M 14'30	1.71620 AU
retrograde	12762 Mar 02 00:23	17° Y 13'16		asc. node	12764 Aug 30 10:59	23° M 05'51	
asc. node	12762 Mar 15 17:34	13° Y 30'15			12764 Sep 04 23:30	0° L	
evening set	12762 Mar 16 17:51	12° Y 58'10		evening rise	12764 Sep 26 10:52	26° L 47'15	
inferior conj	12762 Mar 23 02:13	9° Y 11'34	1°50'13		12764 Sep 29 00:49	0° M	
minimum elong	12762 Mar 22 22:05	9° Y 18'00	1°48'54		12764 Oct 23 05:18	0° X	
min. Earth dist.	12762 Mar 23 07:12	9° Y 03'48	0.28012 AU		12764 Nov 16 14:46	0° Z	
morning rise	12762 Mar 29 01:51	5° Y 35'48			12764 Dec 11 07:33	0° \approx	
direct	12762 Apr 13 04:49	1° Y 04'19		desc. node	12764 Dec 20 03:22	10° \approx 36'25	
greatest brilliancy	12762 Apr 23 19:06	3° Y 09'45	-4.8m		12765 Jan 05 10:14	0° X	
	12762 May 29 23:53	0° X			12765 Jan 31 02:18	0° Y	
morning max el	12762 Jun 02 09:21	3° X 20'58	46°43'34		12765 Feb 26 16:16	0° X	
	12762 Jun 27 08:13	0° II		evening max el	12765 Mar 24 19:22	27° X 24'46	46°17'22
desc. node	12762 Jul 05 19:03	9° II 34'50			12765 Mar 27 11:06	0° II	
	12762 Jul 23 07:33	0° L		asc. node	12765 Apr 12 02:56	13° II 59'26	
	12762 Aug 17 08:41	0° L		greatest brilliancy	12765 May 03 21:02	27° II 14'51	-4.8m
	12762 Sep 11 00:09	0° M		retrograde	12765 May 13 12:19	28° II 58'46	
	12762 Oct 05 11:26	0° L		evening set	12765 May 31 11:54	22° II 48'52	
asc. node	12762 Oct 26 13:39	25° L 56'52		inferior conj	12765 Jun 03 05:30	21° II 07'56	9°08'17
	12762 Oct 29 20:37	0° M		minimum elong	12765 Jun 03 02:47	21° II 12'10	9°07'15
	12762 Nov 23 04:21	0° X		min. Earth dist.	12765 Jun 03 10:38	21° II 00'00	0.27461 AU
morning set	12762 Dec 03 23:43	13° X 20'33		morning rise	12765 Jun 05 17:39	19° II 35'14	
	12762 Dec 17 11:19	0° Z		direct	12765 Jun 24 02:29	13° II 11'34	
				greatest brilliancy	12765 Jul 03 23:06	15° II 01'52	-4.9m
superior conj	12763 Jan 09 17:48	28° Z 43'57	1°13'31		12765 Jul 27 10:14	0° L	
minimum elong	12763 Jan 10 02:32	29° Z 10'54	1°14'11	desc. node	12765 Aug 02 05:26	5° Z 05'38	
max. Earth dist.	12763 Jan 10 12:06	29° Z 40'24	1.73170 AU	morning max el	12765 Aug 13 14:06	16° Z 00'42	46°55'22
	12763 Jan 10 18:27	0° \approx			12765 Aug 27 00:12	0° L	
	12763 Feb 04 02:24	0° X			12765 Sep 22 20:03	0° M	
desc. node	12763 Feb 15 03:48	13° X 37'20			12765 Oct 18 12:06	0° L	
evening rise	12763 Feb 16 07:57	15° X 03'59			12765 Nov 12 15:29	0° M	
	12763 Feb 28 11:04	0° Y		asc. node	12765 Nov 23 02:58	12° M 37'31	
	12763 Mar 24 19:48	0° X			12765 Dec 07 11:09	0° X	
	12763 Apr 18 04:27	0° II			12766 Jan 01 01:25	0° Z	
	12763 May 12 14:26	0° L			12766 Jan 25 12:04	0° \approx	
	12763 Jun 06 05:08	0° L		morning set	12766 Feb 10 17:09	19° \approx 57'52	
asc. node	12763 Jun 07 21:22	2° L 01'45			12766 Feb 18 20:29	0° X	
	12763 Jul 01 06:33	0° M		desc. node	12766 Mar 14 18:08	29° X 31'49	
	12763 Jul 27 06:43	0° L			12766 Mar 15 03:14	0° Y	
evening max el	12763 Aug 20 10:04	25° L 46'41	46°37'12	max. Earth dist.	12766 Mar 18 06:03	3° Y 51'28	1.72700 AU
	12763 Aug 24 16:56	0° M					
desc. node	12763 Sep 27 22:16	25° M 33'15		superior conj	12766 Mar 20 16:33	6° Y 52'32	-0°14'21
greatest brilliancy	12763 Sep 28 13:09	25° M 48'02	-4.8m	minimum elong	12766 Mar 20 13:11	6° Y 42'07	0°14'12
retrograde	12763 Oct 09 14:54	28° M 03'39		behind sun begin	12766 Mar 20 01:50	6° Y 06'59	
evening set	12763 Oct 25 22:35	22° M 53'54		behind sun end	12766 Mar 21 00:32	7° Y 17'16	
min. Earth dist.	12763 Oct 30 00:11	20° M 26'55	0.28238 AU		12766 Apr 08 08:04	0° X	
inferior conj	12763 Oct 30 21:18	19° M 54'14	-7°07'30	evening rise	12766 Apr 28 11:40	25° X 03'41	
minimum elong	12763 Oct 30 11:10	20° M 09'54	7°04'59		12766 May 02 10:48	0° II	
morning rise	12763 Nov 04 00:13	17° M 24'19			12766 May 26 12:06	0° L	
direct	12763 Nov 21 00:54	11° M 55'17			12766 Jun 19 13:46	0° L	
greatest brilliancy	12763 Nov 30 13:59	13° M 35'13	-4.8m	asc. node	12766 Jul 05 09:28	19° L 38'48	
	12763 Dec 26 16:44	0° X			12766 Jul 13 18:18	0° M	
morning max el	12764 Jan 08 22:45	12° X 01'09	45°43'28		12766 Aug 07 04:52	0° L	
asc. node	12764 Jan 19 00:14	22° X 02'18			12766 Sep 01 02:19	0° M	
	12764 Jan 26 15:04	0° Z			12766 Sep 26 20:41	0° X	
	12764 Feb 22 16:35	0° \approx			12766 Oct 24 14:03	0° Z	
	12764 Mar 19 08:42	0° X		desc. node	12766 Oct 25 07:42	0° Z 44'42	
	12764 Apr 13 07:56	0° Y		evening max el	12766 Oct 30 13:14	5° Z 56'33	46°05'14
	12764 May 07 20:49	0° X			12766 Nov 28 21:43	0° \approx	
desc. node	12764 May 09 20:27	2° X 26'37		greatest brilliancy	12766 Dec 08 19:31	4° \approx 46'33	-4.8m
	12764 Jun 01 02:35	0° II		retrograde	12766 Dec 18 18:56	6° \approx 35'17	
	12764 Jun 25 03:34	0° L		evening set	12767 Jan 05 09:41	0° \approx 44'56	
morning set	12764 Jul 09 13:34	18° L 03'35			12767 Jan 06 15:17	30° R 3	
	12764 Jul 19 02:06	0° L		inferior conj	12767 Jan 09 06:58	28° Z 20'31	-7°32'25
	12764 Aug 12 00:16	0° M		minimum elong	12767 Jan 09 16:06	28° Z 06'08	7°30'08

min. Earth dist.	12767 Jan 09 14:28	28° Z 08'42	0.28900 AU		12769 Jul 03 22:18	0° Ω	
morning rise	12767 Jan 13 22:26	25° Z 28'58		evening rise	12769 Jul 12 03:54	10° Ω 19'33	
direct	12767 Jan 30 16:44	20° Z 06'20			12769 Jul 27 20:55	0° M	
greatest brilliancy	12767 Feb 10 10:17	22° Z 11'58	-4.8m	asc. node	12769 Aug 01 22:47	6° M 20'57	
asc. node	12767 Feb 15 10:12	24° Z 24'51			12769 Aug 20 22:00	0° Ω	
	12767 Feb 24 13:36	0° \approx			12769 Sep 14 03:21	0° M	
morning max el	12767 Mar 20 23:24	21° \approx 00'46	45°58'27		12769 Oct 08 15:48	0° Z	
	12767 Mar 29 20:53	0° X			12769 Nov 02 16:12	0° Z	
	12767 Apr 26 06:33	0° Y		desc. node	12769 Nov 21 17:49	22° Z 14'38	
	12767 May 21 23:18	0° Z			12769 Nov 28 12:52	0° \approx	
desc. node	12767 Jun 07 09:18	19° Z 43'03			12769 Dec 25 23:27	0° X	
	12767 Jun 15 20:23	0° II		evening max el	12770 Jan 09 15:30	14° X 44'59	45°53'37
	12767 Jul 10 06:30	0° Z			12770 Jan 26 20:20	0° Y	
	12767 Aug 03 10:51	0° Ω		greatest brilliancy	12770 Feb 17 16:21	13° Y 09'45	-4.8m
	12767 Aug 27 13:01	0° M		retrograde	12770 Feb 27 15:33	14° Y 58'49	
	12767 Sep 20 15:00	0° Ω		evening set	12770 Mar 14 08:44	10° Y 43'36	
morning set	12767 Sep 22 01:54	1° Ω 48'42		asc. node	12770 Mar 14 19:35	10° Y 28'44	
asc. node	12767 Sep 28 01:19	9° Ω 15'07		inferior conj	12770 Mar 20 17:08	6° Y 56'34	1°28'30
	12767 Oct 14 17:35	0° M		minimum elong	12770 Mar 20 13:48	7° Y 01'46	1°27'27
				min. Earth dist.	12770 Mar 20 22:16	6° Y 48'34	0.28040 AU
superior conj	12767 Oct 30 10:11	19° M 30'03	1°08'14	morning rise	12770 Mar 26 18:31	3° Y 18'34	
minimum elong	12767 Oct 30 00:22	18° M 59'37	1°08'35		12770 Apr 03 06:21	30° R X	
max. Earth dist.	12767 Nov 01 12:08	22° M 05'07	1.72566 AU	direct	12770 Apr 10 20:37	28° X 49'06	
	12767 Nov 07 21:14	0° Z			12770 Apr 18 17:18	0° Y	
	12767 Dec 02 02:47	0° Z		greatest brilliancy	12770 Apr 21 10:27	0° Y 54'29	-4.8m
evening rise	12767 Dec 06 11:25	5° Z 22'52			12770 May 29 22:27	0° Z	
	12767 Dec 26 11:28	0° \approx		morning max el	12770 May 31 00:56	1° Z 05'52	46°42'07
desc. node	12768 Jan 17 16:01	27° \approx 08'54			12770 Jun 27 00:02	0° II	
	12768 Jan 20 00:09	0° X		desc. node	12770 Jul 04 21:05	8° II 57'59	
	12768 Feb 13 16:57	0° Y			12770 Jul 22 21:01	0° Z	
	12768 Mar 09 13:57	0° Z			12770 Aug 16 20:59	0° Ω	
	12768 Apr 03 17:08	0° II			12770 Sep 10 11:44	0° M	
	12768 Apr 29 09:29	0° Z			12770 Oct 04 22:30	0° Ω	
asc. node	12768 May 09 12:31	11° Z 29'49		asc. node	12770 Oct 25 15:26	25° Ω 29'20	
	12768 May 26 10:17	0° Ω			12770 Oct 29 07:18	0° M	
evening max el	12768 Jun 05 18:22	10° Ω 39'54	46°45'37		12770 Nov 22 14:48	0° Z	
	12768 Jun 27 02:38	0° M		morning set	12770 Dec 01 16:34	11° Z 12'19	
greatest brilliancy	12768 Jul 16 00:10	11° M 17'10	-4.9m		12770 Dec 16 21:39	0° Z	
retrograde	12768 Jul 26 01:15	13° M 11'30					
evening set	12768 Aug 10 05:56	8° M 40'59		superior conj	12771 Jan 07 10:52	26° Z 36'39	1°15'11
inferior conj	12768 Aug 15 19:01	5° M 24'59	3°31'01	minimum elong	12771 Jan 07 19:14	27° Z 02'28	1°15'53
minimum elong	12768 Aug 16 02:43	5° M 13'13	3°28'12	max. Earth dist.	12771 Jan 08 09:03	27° Z 45'06	1.73167 AU
min. Earth dist.	12768 Aug 15 22:20	5° M 19'56	0.26998 AU		12771 Jan 10 04:46	0° \approx	
morning rise	12768 Aug 21 23:33	1° M 47'50			12771 Feb 03 12:48	0° X	
	12768 Aug 25 16:53	30° R Ω		evening rise	12771 Feb 13 23:57	12° X 53'17	
desc. node	12768 Aug 29 14:56	28° Ω 36'51		desc. node	12771 Feb 14 05:44	13° X 11'05	
direct	12768 Sep 05 11:37	27° Ω 39'36			12771 Feb 27 21:38	0° Y	
greatest brilliancy	12768 Sep 15 12:40	29° Ω 31'22	-4.8m		12771 Mar 24 06:36	0° Z	
	12768 Sep 16 19:17	0° M			12771 Apr 17 15:36	0° II	
morning max el	12768 Oct 25 03:39	28° M 54'57	46°17'22		12771 May 12 02:05	0° Z	
	12768 Oct 26 06:14	0° Ω			12771 Jun 05 17:32	0° Ω	
	12768 Nov 23 19:02	0° M		asc. node	12771 Jun 06 23:20	1° Ω 30'01	
	12768 Dec 20 06:03	0° Z			12771 Jun 30 20:14	0° M	
asc. node	12768 Dec 20 15:15	0° Z 26'38			12771 Jul 26 23:03	0° Ω	
	12769 Jan 14 18:14	0° Z		evening max el	12771 Aug 18 01:53	23° Ω 31'25	46°38'08
	12769 Feb 08 17:22	0° \approx			12771 Aug 24 17:07	0° M	
	12769 Mar 05 08:32	0° X		greatest brilliancy	12771 Sep 26 04:23	23° M 32'30	-4.8m
	12769 Mar 29 18:21	0° Y		desc. node	12771 Sep 27 00:15	23° M 51'10	
desc. node	12769 Apr 11 08:22	15° Y 33'26		retrograde	12771 Oct 07 06:25	25° M 47'57	
morning set	12769 Apr 22 23:46	29° Y 59'49		evening set	12771 Oct 23 10:10	20° M 43'55	
	12769 Apr 22 23:50	0° Z		min. Earth dist.	12771 Oct 27 14:32	18° M 12'51	0.28177 AU
	12769 May 17 01:32	0° II		inferior conj	12771 Oct 28 12:05	17° M 39'28	-6°54'37
max. Earth dist.	12769 May 30 12:19	16° II 49'45	1.71608 AU	minimum elong	12771 Oct 28 01:46	17° M 55'27	6°51'59
				morning rise	12771 Nov 01 17:54	15° M 05'22	
superior conj	12769 Jun 01 23:05	19° II 53'50	-1°26'41	direct	12771 Nov 18 15:45	9° M 41'41	
minimum elong	12769 Jun 01 19:54	19° II 43'54	1°27'36	greatest brilliancy	12771 Nov 28 03:12	11° M 20'18	-4.8m
	12769 Jun 10 00:28	0° Z			12771 Dec 26 21:39	0° Z	

morning max el	12772 Jan 06 12:59	9° ♁ 46'54	45°43'48		12774 Jul 13 05:53	0° ♁	
asc. node	12772 Jan 18 02:19	21° ♁ 19'59			12774 Aug 06 17:00	0° ♁	
	12772 Jan 26 07:54	0° ♁			12774 Aug 31 15:25	0° ♁	
	12772 Feb 22 06:09	0° ♁			12774 Sep 26 11:44	0° ♁	
	12772 Mar 18 20:53	0° ♁		desc. node	12774 Oct 24 09:36	29° ♁ 58'17	
	12772 Apr 12 19:25	0° ♁			12774 Oct 24 10:17	0° ♁	
	12772 May 07 07:56	0° ♁		evening max el	12774 Oct 28 03:08	3° ♁ 39'48	46°06'15
desc. node	12772 May 08 22:17	1° ♁ 58'08			12774 Nov 30 11:37	0° ♁	
	12772 May 31 13:28	0° ♁		greatest brilliancy	12774 Dec 06 10:53	2° ♁ 35'26	-4.8m
	12772 Jun 24 14:20	0° ♁		retrograde	12774 Dec 16 10:43	4° ♁ 24'57	
morning set	12772 Jul 07 01:20	15° ♁ 36'30			12774 Dec 31 13:48	30° ♁	
	12772 Jul 18 12:47	0° ♁		evening set	12775 Jan 03 04:16	28° ♁ 30'10	
	12772 Aug 11 10:53	0° ♁		inferior conj	12775 Jan 06 22:58	26° ♁ 09'50	-7°42'37
				minimum elong	12775 Jan 07 07:43	25° ♁ 56'04	7°40'27
superior conj	12772 Aug 15 19:45	5° ♁ 28'26	-0°32'40	min. Earth dist.	12775 Jan 07 05:56	25° ♁ 58'53	0.28912 AU
minimum elong	12772 Aug 16 03:35	5° ♁ 53'01	0°32'48	morning rise	12775 Jan 11 11:05	23° ♁ 23'20	
max. Earth dist.	12772 Aug 17 15:46	7° ♁ 46'18	1.71594 AU	direct	12775 Jan 28 08:08	17° ♁ 55'32	
asc. node	12772 Aug 29 12:47	22° ♁ 38'14		greatest brilliancy	12775 Feb 08 02:08	20° ♁ 01'16	-4.8m
	12772 Sep 04 10:07	0° ♁		asc. node	12775 Feb 14 12:06	22° ♁ 58'38	
evening rise	12772 Sep 24 01:21	24° ♁ 29'44			12775 Feb 25 05:52	0° ♁	
	12772 Sep 28 11:28	0° ♁		morning max el	12775 Mar 18 14:43	18° ♁ 47'17	45°57'21
	12772 Oct 22 16:03	0° ♁			12775 Mar 29 15:33	0° ♁	
	12772 Nov 16 01:42	0° ♁			12775 Apr 25 21:04	0° ♁	
	12772 Dec 10 18:52	0° ♁			12775 May 21 12:10	0° ♁	
desc. node	12772 Dec 19 05:22	10° ♁ 07'51		desc. node	12775 Jun 06 11:19	19° ♁ 12'02	
	12773 Jan 04 22:18	0° ♁			12775 Jun 15 08:26	0° ♁	
	12773 Jan 30 15:44	0° ♁			12775 Jul 09 18:04	0° ♁	
	12773 Feb 26 08:31	0° ♁			12775 Aug 02 22:08	0° ♁	
evening max el	12773 Mar 22 08:32	25° ♁ 03'35	46°16'00		12775 Aug 27 00:05	0° ♁	
	12773 Mar 27 11:27	0° ♁		morning set	12775 Sep 19 15:50	29° ♁ 28'42	
asc. node	12773 Apr 11 04:49	12° ♁ 50'46			12775 Sep 20 01:53	0° ♁	
greatest brilliancy	12773 May 01 10:38	24° ♁ 53'07	-4.8m	asc. node	12775 Sep 27 03:05	8° ♁ 46'52	
retrograde	12773 May 11 00:54	26° ♁ 36'23			12775 Oct 14 04:21	0° ♁	
evening set	12773 May 28 22:26	20° ♁ 30'49					
inferior conj	12773 May 31 18:58	18° ♁ 45'25	9°04'47	superior conj	12775 Oct 28 01:48	17° ♁ 16'16	1°06'04
minimum elong	12773 May 31 15:18	18° ♁ 51'07	9°03'40	minimum elong	12775 Oct 27 15:47	16° ♁ 45'10	1°06'22
min. Earth dist.	12773 May 31 23:56	18° ♁ 37'42	0.27481 AU	max. Earth dist.	12775 Oct 30 02:30	19° ♁ 47'27	1.72536 AU
morning rise	12773 Jun 03 08:08	17° ♁ 11'01			12775 Nov 07 07:56	0° ♁	
direct	12773 Jun 21 15:32	10° ♁ 48'30			12775 Dec 01 13:31	0° ♁	
greatest brilliancy	12773 Jul 01 13:17	12° ♁ 39'17	-4.9m	evening rise	12775 Dec 04 03:48	3° ♁ 12'11	
	12773 Jul 27 18:16	0° ♁			12775 Dec 25 22:20	0° ♁	
desc. node	12773 Aug 01 07:27	4° ♁ 06'10		desc. node	12776 Jan 16 17:58	26° ♁ 40'58	
morning max el	12773 Aug 11 02:36	13° ♁ 34'55	46°55'59		12776 Jan 19 11:17	0° ♁	
	12773 Aug 26 18:32	0° ♁			12776 Feb 13 04:29	0° ♁	
	12773 Sep 22 10:40	0° ♁			12776 Mar 09 02:05	0° ♁	
	12773 Oct 18 01:00	0° ♁			12776 Apr 03 06:19	0° ♁	
	12773 Nov 12 03:23	0° ♁			12776 Apr 29 00:37	0° ♁	
asc. node	12773 Nov 22 04:51	12° ♁ 08'10		asc. node	12776 May 08 14:31	10° ♁ 49'38	
	12773 Dec 06 22:26	0° ♁			12776 May 26 06:01	0° ♁	
	12773 Dec 31 12:18	0° ♁		evening max el	12776 Jun 03 07:51	8° ♁ 16'44	46°45'03
	12774 Jan 24 22:42	0° ♁			12776 Jun 27 20:12	0° ♁	
morning set	12774 Feb 08 09:59	17° ♁ 49'14		greatest brilliancy	12776 Jul 13 13:49	8° ♁ 52'36	-4.9m
	12774 Feb 18 07:01	0° ♁		retrograde	12776 Jul 23 14:52	10° ♁ 46'46	
desc. node	12774 Mar 13 19:53	29° ♁ 04'38		evening set	12776 Aug 07 21:27	6° ♁ 12'22	
	12774 Mar 14 13:47	0° ♁		inferior conj	12776 Aug 13 07:48	3° ♁ 00'14	3°53'25
max. Earth dist.	12774 Mar 15 23:20	1° ♁ 43'46	1.72738 AU	minimum elong	12776 Aug 13 16:11	2° ♁ 47'26	3°50'24
				min. Earth dist.	12776 Aug 13 11:58	2° ♁ 53'52	0.26996 AU
superior conj	12774 Mar 18 07:33	4° ♁ 37'42	-0°10'52		12776 Aug 18 09:32	30° ♁	
minimum elong	12774 Mar 18 05:00	4° ♁ 29'49	0°10'43	morning rise	12776 Aug 19 10:59	29° ♁ 25'14	
behind sun begin	12774 Mar 17 10:51	3° ♁ 33'41		desc. node	12776 Aug 28 16:53	25° ♁ 49'08	
behind sun end	12774 Mar 18 23:08	5° ♁ 25'59		direct	12776 Sep 03 00:35	25° ♁ 14'34	
	12774 Apr 07 18:43	0° ♁		greatest brilliancy	12776 Sep 13 01:37	27° ♁ 06'54	-4.8m
evening rise	12774 Apr 26 01:30	22° ♁ 43'53			12776 Sep 19 12:32	0° ♁	
	12774 May 01 21:35	0° ♁		morning max el	12776 Oct 22 18:34	26° ♁ 37'28	46°18'59
	12774 May 25 23:04	0° ♁			12776 Oct 26 04:39	0° ♁	
	12774 Jun 19 00:59	0° ♁			12776 Nov 23 10:59	0° ♁	
asc. node	12774 Jul 04 11:26	19° ♁ 09'23		asc. node	12776 Dec 19 17:18	29° ♁ 53'34	

	12776 Dec 19 19:31	0°♊			12779 Jul 26 15:58	0°♊		
	12777 Jan 14 06:28	0°♋		evening max el	12779 Aug 15 16:57	21°♊13'19	46°38'53	
	12777 Feb 08 04:56	0°♌			12779 Aug 24 18:57	0°♌		
	12777 Mar 04 19:44	0°♍		greatest brilliancy	12779 Sep 23 20:00	21°♌16'10	-4.8m	
	12777 Mar 29 05:20	0°♎		desc. node	12779 Sep 26 02:12	22°♌04'02		
desc. node	12777 Apr 10 10:15	15°♏05'29		retrograde	12779 Oct 04 21:16	23°♌30'50		
morning set	12777 Apr 20 12:56	27°♏37'51		evening set	12779 Oct 20 21:46	18°♌32'25		
	12777 Apr 22 10:43	0°♐		min. Earth dist.	12779 Oct 25 05:19	15°♌56'44	0.28123 AU	
	12777 May 16 12:23	0°♑		inferior conj	12779 Oct 26 02:50	15°♌23'20	-6°40'50	
max. Earth dist.	12777 May 28 00:51	14°♒24'38	1.71636 AU	minimum elong	12779 Oct 25 16:24	15°♌39'32	6°38'06	
				morning rise	12779 Oct 30 11:34	12°♌44'52		
superior conj	12777 May 30 11:24	17°♒28'01	-1°26'06	direct	12779 Nov 16 06:11	7°♌26'31		
minimum elong	12777 May 30 07:15	17°♒15'00	1°26'58	greatest brilliancy	12779 Nov 25 17:07	9°♌04'24	-4.8m	
	12777 Jun 09 11:20	0°♓			12779 Dec 27 01:25	0°♊		
	12777 Jul 03 09:15	0°♋		morning max el	12780 Jan 04 02:32	7°♊29'17	45°44'09	
evening rise	12777 Jul 09 15:27	7°♋50'56		asc. node	12780 Jan 17 04:12	20°♊36'12		
	12777 Jul 27 07:59	0°♌			12780 Jan 26 00:57	0°♋		
asc. node	12777 Aug 01 00:36	5°♌51'58			12780 Feb 21 20:05	0°♌		
	12777 Aug 20 09:14	0°♍			12780 Mar 18 09:26	0°♍		
	12777 Sep 13 14:50	0°♎			12780 Apr 12 07:14	0°♎		
	12777 Oct 08 03:45	0°♏			12780 May 06 19:22	0°♐		
	12777 Nov 02 05:01	0°♑		desc. node	12780 May 08 00:13	1°♐28'54		
desc. node	12777 Nov 20 19:53	21°♑40'43			12780 May 31 00:42	0°♒		
	12777 Nov 28 03:23	0°♒			12780 Jun 24 01:25	0°♓		
	12777 Dec 25 18:00	0°♋		morning set	12780 Jul 04 13:13	13°♓08'49		
evening max el	12778 Jan 07 07:32	12°♋33'34	45°53'25		12780 Jul 17 23:44	0°♋		
	12778 Jan 27 08:42	0°♌			12780 Aug 10 21:45	0°♌		
greatest brilliancy	12778 Feb 15 07:01	10°♌54'12	-4.8m					
retrograde	12778 Feb 25 06:18	12°♌42'49		superior conj	12780 Aug 13 08:27	3°♌03'52	-0°36'10	
evening set	12778 Mar 11 23:48	8°♌27'31		minimum elong	12780 Aug 13 17:00	3°♌30'38	0°36'16	
asc. node	12778 Mar 13 21:32	7°♌22'55		max. Earth dist.	12780 Aug 15 01:24	5°♌12'09	1.71565 AU	
inferior conj	12778 Mar 18 08:01	4°♌40'15	1°06'36	asc. node	12780 Aug 28 14:34	22°♌09'55		
minimum elong	12778 Mar 18 05:30	4°♌44'11	1°05'50		12780 Sep 03 20:57	0°♍		
min. Earth dist.	12778 Mar 18 13:31	4°♌31'41	0.28064 AU	evening rise	12780 Sep 21 16:04	22°♍12'16		
morning rise	12778 Mar 24 10:54	1°♌00'01			12780 Sep 27 22:20	0°♎		
	12778 Mar 26 08:28	30°♌			12780 Oct 22 03:03	0°♏		
direct	12778 Apr 08 12:16	26°♌32'42			12780 Nov 15 12:57	0°♐		
greatest brilliancy	12778 Apr 19 01:41	28°♌37'43	-4.8m		12780 Dec 10 06:35	0°♑		
	12778 Apr 22 07:20	0°♒		desc. node	12780 Dec 18 07:15	9°♑37'44		
morning max el	12778 May 28 15:51	28°♒48'08	46°40'50		12781 Jan 04 10:49	0°♋		
	12778 May 29 20:32	0°♓			12781 Jan 30 05:43	0°♌		
	12778 Jun 26 15:56	0°♑			12781 Feb 26 01:31	0°♐		
desc. node	12778 Jul 03 23:05	8°♑20'26		evening max el	12781 Mar 19 21:17	22°♐40'31	46°14'50	
	12778 Jul 22 10:41	0°♒			12781 Mar 27 13:32	0°♒		
	12778 Aug 16 09:32	0°♋		asc. node	12781 Apr 10 06:53	11°♒39'38		
	12778 Sep 09 23:38	0°♌		greatest brilliancy	12781 Apr 28 23:57	22°♒30'16	-4.8m	
	12778 Oct 04 09:58	0°♍		retrograde	12781 May 08 13:44	24°♒13'33		
asc. node	12778 Oct 24 17:22	25°♍00'48		evening set	12781 May 26 08:34	18°♒12'32		
	12778 Oct 28 18:27	0°♎		inferior conj	12781 May 29 08:27	16°♒22'14	9°00'19	
	12778 Nov 22 01:45	0°♏		minimum elong	12781 May 29 03:53	16°♒29'19	8°59'06	
morning set	12778 Nov 29 08:58	9°♏01'09		min. Earth dist.	12781 May 29 13:16	16°♒14'45	0.27501 AU	
	12778 Dec 16 08:28	0°♐		morning rise	12781 May 31 23:08	14°♒45'30		
				direct	12781 Jun 19 04:32	8°♒24'36		
superior conj	12779 Jan 05 03:37	24°♓26'58	1°16'45	greatest brilliancy	12781 Jun 29 03:41	10°♒16'23	-4.9m	
minimum elong	12779 Jan 05 11:33	24°♓51'26	1°17'29		12781 Jul 28 00:15	0°♓		
max. Earth dist.	12779 Jan 06 04:31	25°♓43'48	1.73159 AU	desc. node	12781 Jul 31 09:20	3°♓07'09		
	12779 Jan 09 15:33	0°♔		morning max el	12781 Aug 08 15:58	11°♓10'44	46°56'43	
	12779 Feb 02 23:39	0°♍			12781 Aug 26 12:35	0°♋		
evening rise	12779 Feb 11 15:43	10°♍40'29			12781 Sep 22 01:14	0°♌		
desc. node	12779 Feb 13 07:29	12°♍42'51			12781 Oct 17 13:54	0°♍		
	12779 Feb 27 08:38	0°♎			12781 Nov 11 15:20	0°♎		
	12779 Mar 23 17:51	0°♐		asc. node	12781 Nov 21 06:50	11°♎38'52		
	12779 Apr 17 03:12	0°♑			12781 Dec 06 09:49	0°♏		
	12779 May 11 14:09	0°♒			12781 Dec 30 23:19	0°♐		
	12779 Jun 05 06:20	0°♋			12782 Jan 24 09:32	0°♑		
asc. node	12779 Jun 06 01:21	0°♋57'22		morning set	12782 Feb 06 02:39	15°♑39'22		
	12779 Jun 30 10:21	0°♌			12782 Feb 17 17:47	0°♋		

desc. node	12782 Mar 12 21:45	28° H 37'04		evening set	12784 Aug 05 13:09	3° H 43'59	
max. Earth dist.	12782 Mar 13 17:36	29° H 38'27	1.72773 AU	inferior conj	12784 Aug 10 20:33	0° H 35'43	4°15'23
	12782 Mar 14 00:34	0° Y		minimum elong	12784 Aug 11 05:34	0° H 21'59	4°12'12
				min. Earth dist.	12784 Aug 11 01:22	0° H 28'22	0.26993 AU
superior conj	12782 Mar 15 22:15	2° Y 21'21	-0°07'20		12784 Aug 11 20:00	30° R 0	
minimum elong	12782 Mar 15 20:33	2° Y 16'03	0°07'12	morning rise	12784 Aug 16 22:05	27° O 03'07	
behind sun begin	12782 Mar 14 22:49	1° Y 08'51		desc. node	12784 Aug 27 18:58	23° O 07'33	
behind sun end	12782 Mar 16 18:16	3° Y 23'16		direct	12784 Aug 31 13:54	22° O 50'02	
	12782 Apr 07 05:34	0° B		greatest brilliancy	12784 Sep 10 14:07	24° O 42'12	-4.8m
evening rise	12782 Apr 23 15:11	20° B 23'12			12784 Sep 21 04:46	0° H	
	12782 May 01 08:32	0° H		morning max el	12784 Oct 20 09:23	24° H 20'15	46°20'37
	12782 May 25 10:11	0° B			12784 Oct 26 01:58	0° B	
	12782 Jun 18 12:21	0° O			12784 Nov 23 02:24	0° M	
asc. node	12782 Jul 03 13:16	18° O 39'10		asc. node	12784 Dec 18 19:06	29° M 20'46	
	12782 Jul 12 17:38	0° H			12784 Dec 19 08:35	0° A	
	12782 Aug 06 05:18	0° B			12785 Jan 13 18:21	0° B	
	12782 Aug 31 04:40	0° M			12785 Feb 07 16:11	0° \approx	
	12782 Sep 26 02:59	0° A			12785 Mar 04 06:39	0° H	
desc. node	12782 Oct 23 11:44	29° A 11'54			12785 Mar 28 16:05	0° Y	
	12782 Oct 24 07:09	0° B		desc. node	12785 Apr 09 12:11	14° Y 38'18	
evening max el	12782 Oct 25 17:51	1° B 25'15	46°07'23	morning set	12785 Apr 18 02:02	25° Y 16'20	
	12782 Dec 02 23:36	0° \approx			12785 Apr 21 21:24	0° B	
greatest brilliancy	12782 Dec 04 01:27	0° \approx 23'48	-4.8m		12785 May 15 23:04	0° H	
retrograde	12782 Dec 14 02:56	2° \approx 14'55		max. Earth dist.	12785 May 25 09:50	11° H 49'03	1.71665 AU
	12782 Dec 24 18:06	30° R 3					
evening set	12782 Dec 31 22:46	26° B 15'42		superior conj	12785 May 27 23:26	15° H 01'50	-1°25'20
inferior conj	12783 Jan 04 15:01	23° B 59'15	-7°51'59	minimum elong	12785 May 27 18:19	14° H 45'50	1°26'11
minimum elong	12783 Jan 04 23:20	23° B 46'11	7°49'57		12785 Jun 08 22:03	0° B	
min. Earth dist.	12783 Jan 04 21:04	23° B 49'44	0.28929 AU		12785 Jul 02 20:02	0° O	
morning rise	12783 Jan 08 23:50	21° B 17'53		evening rise	12785 Jul 07 02:32	5° O 21'24	
direct	12783 Jan 26 00:03	15° B 44'50			12785 Jul 26 18:50	0° H	
greatest brilliancy	12783 Feb 05 17:44	17° B 50'26	-4.8m	asc. node	12785 Jul 31 02:24	5° H 23'37	
asc. node	12783 Feb 13 14:06	21° B 35'22			12785 Aug 19 20:14	0° B	
	12783 Feb 25 18:01	0° \approx			12785 Sep 13 02:06	0° M	
morning max el	12783 Mar 16 07:00	16° \approx 36'03	45°56'07		12785 Oct 07 15:29	0° A	
	12783 Mar 29 09:52	0° H			12785 Nov 01 17:36	0° B	
	12783 Apr 25 11:32	0° Y		desc. node	12785 Nov 19 21:49	21° B 07'12	
	12783 May 21 01:02	0° B			12785 Nov 27 17:41	0° \approx	
desc. node	12783 Jun 05 13:16	18° B 40'49			12785 Dec 25 12:34	0° H	
	12783 Jun 14 20:27	0° H		evening max el	12786 Jan 04 23:14	10° H 22'44	45°53'18
	12783 Jul 09 05:36	0° B			12786 Jan 28 00:19	0° Y	
	12783 Aug 02 09:21	0° O		greatest brilliancy	12786 Feb 12 22:20	8° Y 41'20	-4.8m
	12783 Aug 26 11:05	0° H		retrograde	12786 Feb 22 20:48	10° Y 29'00	
morning set	12783 Sep 17 05:50	27° H 09'01		evening set	12786 Mar 09 15:19	6° Y 13'22	
	12783 Sep 19 12:43	0° B		asc. node	12786 Mar 12 23:35	4° Y 17'13	
asc. node	12783 Sep 26 05:02	8° B 19'19		inferior conj	12786 Mar 15 23:13	2° Y 26'15	0°44'49
	12783 Oct 13 15:02	0° M		minimum elong	12786 Mar 15 21:31	2° Y 28'55	0°44'21
				min. Earth dist.	12786 Mar 16 05:18	2° Y 16'44	0.28092 AU
superior conj	12783 Oct 25 17:33	15° M 03'03	1°03'47		12786 Mar 19 22:15	30° R 4	
minimum elong	12783 Oct 25 07:24	14° M 31'31	1°04'04	morning rise	12786 Mar 22 03:22	28° H 43'50	
max. Earth dist.	12783 Oct 27 18:38	17° M 35'33	1.72501 AU	direct	12786 Apr 06 03:52	24° H 18'30	
	12783 Nov 06 18:32	0° A		greatest brilliancy	12786 Apr 16 17:40	26° H 23'31	-4.8m
	12783 Dec 01 00:07	0° B			12786 Apr 24 05:47	0° Y	
evening rise	12783 Dec 01 20:30	1° B 02'55		morning max el	12786 May 26 06:01	26° Y 29'26	46°39'14
	12783 Dec 25 09:04	0° \approx			12786 May 29 17:25	0° B	
desc. node	12784 Jan 15 19:47	26° \approx 13'04			12786 Jun 26 07:21	0° H	
	12784 Jan 18 22:17	0° H		desc. node	12786 Jul 03 00:55	7° H 43'24	
	12784 Feb 12 15:56	0° Y			12786 Jul 22 00:01	0° B	
	12784 Mar 08 14:14	0° B			12786 Aug 15 21:48	0° O	
	12784 Apr 02 19:34	0° H			12786 Sep 09 11:13	0° H	
	12784 Apr 28 15:57	0° B			12786 Oct 03 21:04	0° B	
asc. node	12784 May 07 16:33	10° B 09'12		asc. node	12786 Oct 23 19:14	24° B 33'07	
	12784 May 26 02:21	0° O			12786 Oct 28 05:14	0° M	
evening max el	12784 May 31 22:11	5° O 55'55	46°44'34		12786 Nov 21 12:19	0° A	
	12784 Jun 28 19:49	0° H		morning set	12786 Nov 27 01:24	6° A 51'09	
greatest brilliancy	12784 Jul 11 03:22	6° H 28'21	-4.9m		12786 Dec 15 18:56	0° B	
retrograde	12784 Jul 21 04:29	8° H 22'09					

superior conj	12787 Jan 02 20:42	22°  19'30	1°18'12	greatest brilliancy	12789 Jun 26 17:58	7°  55'35	-4.9m
minimum elong	12787 Jan 03 04:09	22°  42'29	1°18'58		12789 Jul 28 03:38	0° 	
max. Earth dist.	12787 Jan 03 22:16	23°  38'21	1.73146 AU	desc. node	12789 Jul 30 11:25	2°  11'25	
	12787 Jan 09 01:58	0° 		morning max el	12789 Aug 06 06:22	8°  50'35	46°57'06
	12787 Feb 02 10:06	0° 			12789 Aug 26 05:50	0° 	
evening rise	12787 Feb 09 07:53	8°  30'12			12789 Sep 21 15:21	0° 	
desc. node	12787 Feb 12 09:23	12°  16'24			12789 Oct 17 02:30	0° 	
	12787 Feb 26 19:12	0° 			12789 Nov 11 03:02	0° 	
	12787 Mar 23 04:40	0° 		asc. node	12789 Nov 20 08:38	11°  09'46	
	12787 Apr 16 14:24	0° 			12789 Dec 05 20:55	0° 	
	12787 May 11 01:53	0° 			12789 Dec 30 10:02	0° 	
	12787 Jun 04 18:53	0° 			12790 Jan 23 20:02	0° 	
asc. node	12787 Jun 05 03:10	0°  02'54		morning set	12790 Feb 03 19:18	13°  30'31	
	12787 Jun 30 00:21	0° 			12790 Feb 17 04:13	0° 	
	12787 Jul 26 09:02	0° 		max. Earth dist.	12790 Mar 11 12:54	27°  11'22	1.72804 AU
evening max el	12787 Aug 13 07:03	18°  53'16	46°39'40	desc. node	12790 Mar 11 23:40	28°  10'40	
	12787 Aug 24 22:04	0° 			12790 Mar 13 11:01	0° 	
greatest brilliancy	12787 Sep 21 11:47	19°  00'18	-4.8m				
desc. node	12787 Sep 25 04:17	20° 		superior conj	12790 Mar 13 13:07	0°  06'28	-0°03'49
retrograde	12787 Oct 02 11:46	21° 		minimum elong	12790 Mar 13 12:14	0°  03'45	0°03'41
evening set	12787 Oct 18 09:16	16° 		behind sun begin	12790 Mar 12 12:44	28°  11'04	
min. Earth dist.	12787 Oct 22 20:17	13° 	0.28065 AU	behind sun end	12790 Mar 14 11:44	1° 	
inferior conj	12787 Oct 23 17:27	13° 	-6°26'21		12790 Apr 06 16:05	0° 	
minimum elong	12787 Oct 23 06:56	13° 	6°23'32	evening rise	12790 Apr 21 05:15	18°  04'47	
morning rise	12787 Oct 28 05:05	10° 			12790 Apr 30 19:09	0° 	
direct	12787 Nov 13 19:52	5° 			12790 May 24 20:58	0° 	
greatest brilliancy	12787 Nov 23 07:29	6° 	-4.8m		12790 Jun 17 23:23	0° 	
	12787 Dec 27 03:07	0° 		asc. node	12790 Jul 02 15:10	18°  10'16	
morning max el	12788 Jan 01 15:50	5° 	45°44'44		12790 Jul 12 05:02	0° 	
asc. node	12788 Jan 16 06:10	19° 			12790 Aug 05 17:20	0° 	
	12788 Jan 25 17:12	0° 			12790 Aug 30 17:46	0° 	
	12788 Feb 21 09:24	0° 			12790 Sep 25 18:17	0° 	
	12788 Mar 17 21:26	0° 		desc. node	12790 Oct 22 13:39	28°  12'29	
	12788 Apr 11 18:33	0° 		evening max el	12790 Oct 23 09:27	29°  13'05	46°08'26
	12788 May 06 06:19	0° 			12790 Oct 24 04:42	0° 	
desc. node	12788 May 07 02:05	1°  00'54		greatest brilliancy	12790 Dec 01 15:38	28°  11'43	-4.8m
	12788 May 30 11:28	0° 			12790 Dec 09 19:47	0° 	
	12788 Jun 23 12:05	0° 		retrograde	12790 Dec 11 19:15	0° 	
morning set	12788 Jul 02 00:56	10° 			12790 Dec 13 18:13	30° 	
	12788 Jul 17 10:21	0° 		evening set	12790 Dec 29 17:01	24° 	
	12788 Aug 10 08:20	0° 		inferior conj	12791 Jan 02 06:52	21° 	-8°00'42
				minimum elong	12791 Jan 02 14:42	21° 	7°58'49
superior conj	12788 Aug 10 20:45	0° 	-0°39'36	min. Earth dist.	12791 Jan 02 11:41	21° 	0.28938 AU
minimum elong	12788 Aug 11 05:56	1° 	0°39'44	morning rise	12791 Jan 06 12:23	19° 	
max. Earth dist.	12788 Aug 12 08:09	2° 	1.71544 AU	direct	12791 Jan 23 16:17	13° 	
asc. node	12788 Aug 27 16:31	21° 		greatest brilliancy	12791 Feb 03 08:27	15° 	-4.7m
	12788 Sep 03 07:32	0° 		asc. node	12791 Feb 12 16:11	20° 	
evening rise	12788 Sep 19 06:13	19° 			12791 Feb 26 02:42	0° 	
	12788 Sep 27 08:57	0° 		morning max el	12791 Mar 13 23:29	14° 	45°54'57
	12788 Oct 21 13:46	0°			12791 Mar 29 03:29	0° 	
	12788 Nov 14 23:53	0°			12791 Apr 25 01:33	0°	
	12788 Dec 09 17:58	0°			12791 May 20 13:32	0°	
desc. node	12788 Dec 17 09:06	9°		desc. node	12791 Jun 04 15:02	18°	
	12789 Jan 03 23:02	0°			12791 Jun 14 08:09	0°	
	12789 Jan 29 19:25	0°			12791 Jul 08 16:50	0°	
	12789 Feb 25 18:21	0°			12791 Aug 01 20:17	0°	
evening max el	12789 Mar 17 10:36	20°	46°13'53		12791 Aug 25 21:50	0°	
	12789 Mar 27 16:26	0°		morning set	12791 Sep 14 20:04	24°	
asc. node	12789 Apr 09 08:55	10°			12791 Sep 18 23:19	0°	
greatest brilliancy	12789 Apr 26 12:48	20°	-4.8m	asc. node	12791 Sep 25 06:51	7°	
retrograde	12789 May 06 03:16	21°			12791 Oct 13 01:33	0°	
evening set	12789 May 23 18:34	15°					
inferior conj	12789 May 26 22:11	14°	8°54'46	superior conj	12791 Oct 23 09:08	12°	1°01'25
minimum elong	12789 May 26 16:46	14°	8°53'28	minimum elong	12791 Oct 22 22:56	12°	1°01'38
min. Earth dist.	12789 May 27 02:28	13°	0.27523 AU	max. Earth dist.	12791 Oct 25 12:13	15°	1.72474 AU
morning rise	12789 May 29 14:53	12°			12791 Nov 06 05:01	0°	
direct	12789 Jun 16 18:14	6°		evening rise	12791 Nov 29 12:53	28°	

	12791 Nov 30 10:40	0°☾	morning max el	12794 May 23 19:25	24°☿08'11	46°37'46
	12791 Dec 24 19:46	0°☾		12794 May 29 13:51	0°☿	
desc. node	12792 Jan 14 21:40	25°☾45'35		12794 Jun 25 22:42	0°☿	
	12792 Jan 18 09:15	0°☿	desc. node	12794 Jul 02 02:59	7°☿06'52	
	12792 Feb 12 03:20	0°☿		12794 Jul 21 13:25	0°☿	
	12792 Mar 08 02:20	0°☿		12794 Aug 15 10:10	0°☿	
	12792 Apr 02 08:51	0°☿		12794 Sep 08 22:56	0°☿	
	12792 Apr 28 07:25	0°☿		12794 Oct 03 08:20	0°☿	
asc. node	12792 May 06 18:25	9°☿28'12	asc. node	12794 Oct 22 21:03	24°☿04'43	
	12792 May 25 23:15	0°☿		12794 Oct 27 16:11	0°☿	
evening max el	12792 May 29 12:57	3°☿36'34 46°44'00		12794 Nov 20 23:04	0°☿	
	12792 Jun 30 04:25	0°☿	morning set	12794 Nov 24 17:54	4°☿40'44	
greatest brilliancy	12792 Jul 08 17:21	4°☿05'21 -4.9m		12794 Dec 15 05:35	0°☿	
retrograde	12792 Jul 18 17:55	5°☿58'10				
evening set	12792 Aug 03 05:08	1°☿16'24	superior conj	12794 Dec 31 13:49	20°☿11'25 1°19'31	
	12792 Aug 05 10:04	30°☿0	minimum elong	12794 Dec 31 20:46	20°☿32'51 1°20'20	
inferior conj	12792 Aug 08 09:26	28°☿12'03 4°36'41	max. Earth dist.	12795 Jan 01 15:08	21°☿29'33 1.73140 AU	
minimum elong	12792 Aug 08 19:00	27°☿57'27 4°33'23		12795 Jan 08 12:36	0°☿	
min. Earth dist.	12792 Aug 08 14:55	28°☿03'40 0.26990 AU		12795 Feb 01 20:49	0°☿	
morning rise	12792 Aug 14 09:01	24°☿41'57	evening rise	12795 Feb 06 23:53	6°☿18'36	
desc. node	12792 Aug 26 20:57	20°☿32'43	desc. node	12795 Feb 11 11:18	11°☿49'01	
direct	12792 Aug 29 03:20	20°☿26'29		12795 Feb 26 06:07	0°☿	
greatest brilliancy	12792 Sep 08 02:38	22°☿18'06 -4.8m		12795 Mar 22 15:52	0°☿	
	12792 Sep 22 08:25	0°☿		12795 Apr 16 01:57	0°☿	
morning max el	12792 Oct 17 23:22	22°☿01'17 46°22'05		12795 May 10 13:59	0°☿	
	12792 Oct 25 22:22	0°☿	asc. node	12795 Jun 04 05:07	29°☿51'52	
	12792 Nov 22 17:32	0°☿		12795 Jun 04 07:50	0°☿	
asc. node	12792 Dec 17 21:04	28°☿48'29		12795 Jun 29 14:49	0°☿	
	12792 Dec 18 21:35	0°☿		12795 Jul 26 02:49	0°☿	
	12793 Jan 13 06:16	0°☿	evening max el	12795 Aug 10 20:35	16°☿30'48 46°40'28	
	12793 Feb 07 03:31	0°☿		12795 Aug 25 03:26	0°☿	
	12793 Mar 03 17:38	0°☿	greatest brilliancy	12795 Sep 19 03:13	16°☿42'49 -4.8m	
	12793 Mar 28 02:53	0°☿	desc. node	12795 Sep 24 06:15	18°☿17'09	
desc. node	12793 Apr 08 13:56	14°☿10'24	retrograde	12795 Sep 30 02:18	18°☿56'28	
morning set	12793 Apr 15 15:02	22°☿54'32	evening set	12795 Oct 15 20:49	14°☿08'03	
	12793 Apr 21 08:06	0°☿	min. Earth dist.	12795 Oct 20 11:14	11°☿23'14 0.28007 AU	
	12793 May 15 09:46	0°☿	inferior conj	12795 Oct 21 08:01	10°☿51'02 -6°11'10	
max. Earth dist.	12793 May 22 16:56	9°☿07'32 1.71696 AU	minimum elong	12795 Oct 20 21:29	11°☿07'22 6°08'15	
			morning rise	12795 Oct 25 22:35	8°☿04'05	
superior conj	12793 May 25 11:33	12°☿35'56 -1°24'24	direct	12795 Nov 11 09:18	2°☿55'36	
minimum elong	12793 May 25 05:33	12°☿17'09 1°25'13	greatest brilliancy	12795 Nov 20 22:09	4°☿34'19 -4.8m	
	12793 Jun 08 08:49	0°☿		12795 Dec 27 03:49	0°☿	
	12793 Jul 02 06:52	0°☿	morning max el	12795 Dec 30 05:30	2°☿55'01 45°45'25	
evening rise	12793 Jul 04 13:43	2°☿52'00	asc. node	12796 Jan 15 08:15	19°☿12'41	
	12793 Jul 26 05:45	0°☿		12796 Jan 25 09:27	0°☿	
asc. node	12793 Jul 30 04:22	4°☿55'35		12796 Feb 20 22:57	0°☿	
	12793 Aug 19 07:16	0°☿		12796 Mar 17 09:46	0°☿	
	12793 Sep 12 13:24	0°☿		12796 Apr 11 06:17	0°☿	
	12793 Oct 07 03:17	0°☿		12796 May 05 17:43	0°☿	
	12793 Nov 01 06:19	0°☿	desc. node	12796 May 06 03:56	0°☿31'32	
desc. node	12793 Nov 18 23:41	20°☿32'59		12796 May 29 22:39	0°☿	
	12793 Nov 27 08:17	0°☿		12796 Jun 22 23:08	0°☿	
	12793 Dec 25 07:54	0°☿	morning set	12796 Jun 29 12:24	8°☿12'38	
evening max el	12794 Jan 02 14:01	8°☿08'56 45°53'00		12796 Jul 16 21:18	0°☿	
	12794 Jan 28 22:07	0°☿				
greatest brilliancy	12794 Feb 10 13:54	6°☿27'36 -4.8m	superior conj	12796 Aug 08 08:54	28°☿12'18 -0°42'59	
retrograde	12794 Feb 20 10:51	8°☿14'08	minimum elong	12796 Aug 08 18:42	28°☿43'02 0°43'09	
evening set	12794 Mar 07 06:51	3°☿57'42	max. Earth dist.	12796 Aug 09 15:59	29°☿49'44 1.71525 AU	
asc. node	12794 Mar 12 01:34	1°☿08'35		12796 Aug 09 19:16	0°☿	
inferior conj	12794 Mar 13 14:17	0°☿11'13 0°22'59	asc. node	12796 Aug 26 18:18	21°☿14'15	
minimum elong	12794 Mar 13 13:25	0°☿12'36 0°22'48		12796 Sep 02 18:29	0°☿	
	12794 Mar 13 21:27	30°☿	evening rise	12796 Sep 16 20:23	17°☿34'17	
min. Earth dist.	12794 Mar 13 21:15	0°☿00'18 0.28120 AU		12796 Sep 26 19:57	0°☿	
morning rise	12794 Mar 19 19:32	26°☿26'52		12796 Oct 21 00:52	0°☿	
direct	12794 Apr 03 18:51	22°☿03'08		12796 Nov 14 11:13	0°☿	
greatest brilliancy	12794 Apr 14 10:05	24°☿08'55 -4.8m		12796 Dec 09 05:46	0°☿	
	12794 Apr 25 13:27	0°☿	desc. node	12796 Dec 16 11:07	8°☿38'46	

	12797 Jan 03 11:42	0° H			12799 Aug 01 07:39	0° Ω		
	12797 Jan 29 09:41	0° Y			12799 Aug 25 08:59	0° M		
	12797 Feb 25 12:05	0° B		morning set	12799 Sep 12 09:55	22° M 30'03		
evening max el	12797 Mar 15 00:33	18° B 00'57	46°12'44		12799 Sep 18 10:17	0° Ω		
	12797 Mar 27 21:55	0° Π		asc. node	12799 Sep 24 08:38	7° Ω 23'33		
asc. node	12797 Apr 08 10:48	9° Π 12'19			12799 Oct 12 12:23	0° M		
greatest brilliancy	12797 Apr 24 00:52	17° Π 44'59	-4.8m					
retrograde	12797 May 03 16:57	19° Π 30'32		superior conj	12799 Oct 21 00:26	10° M 34'26	0°58'55	
evening set	12797 May 21 04:00	13° Π 39'28		minimum elong	12799 Oct 20 14:14	10° M 02'44	0°59'05	
inferior conj	12797 May 24 11:37	11° Π 37'54	8°48'18	max. Earth dist.	12799 Oct 23 06:52	13° M 23'38	1.72439 AU	
minimum elong	12797 May 24 05:23	11° Π 47'33	8°46'51		12799 Nov 05 15:48	0° A		
min. Earth dist.	12797 May 24 15:06	11° Π 32'31	0.27544 AU	evening rise	12799 Nov 27 05:13	26° A 41'32		
morning rise	12797 May 27 06:41	9° Π 54'50			12799 Nov 29 21:30	0° B		
direct	12797 Jun 14 08:15	3° Π 39'06			12799 Dec 24 06:46	0° \approx		
greatest brilliancy	12797 Jun 24 07:31	5° Π 31'49	-4.9m	desc. node	12800 Jan 13 23:35	25° \approx 17'17		
	12797 Jul 28 06:10	0° C			12800 Jan 17 20:32	0° H		
desc. node	12797 Jul 29 13:25	1° C 14'59			12800 Feb 11 15:03	0° Y		
morning max el	12797 Aug 03 21:07	6° C 29'46	46°57'32		12800 Mar 07 14:45	0° B		
	12797 Aug 25 23:13	0° Ω			12800 Apr 01 22:27	0° Π		
	12797 Sep 21 05:44	0° M			12800 Apr 27 23:23	0° C		
	12797 Oct 16 15:25	0° Ω		asc. node	12800 May 05 20:28	8° C 46'34		
	12797 Nov 10 15:04	0° M			12800 May 25 21:15	0° Ω		
asc. node	12797 Nov 19 10:33	10° M 39'51		evening max el	12800 May 27 02:42	1° Ω 13'51	46°43'07	
	12797 Dec 05 08:23	0° A			12800 Jul 02 06:25	0° M		
	12797 Dec 29 21:08	0° B		greatest brilliancy	12800 Jul 06 07:35	1° M 41'18	-4.9m	
	12798 Jan 23 06:56	0° \approx		retrograde	12800 Jul 16 06:35	3° M 32'27		
morning set	12798 Feb 01 12:15	11° \approx 21'27			12800 Jul 29 14:25	30° K Ω		
	12798 Feb 16 15:03	0° H		evening set	12800 Jul 31 21:02	28° Ω 46'58		
max. Earth dist.	12798 Mar 09 08:51	25° H 37'06	1.72834 AU	inferior conj	12800 Aug 05 22:08	25° Ω 46'46	4°57'39	
				minimum elong	12800 Aug 06 08:09	25° Ω 31'26	4°54'16	
superior conj	12798 Mar 11 04:11	27° H 51'07	-0°00'17	min. Earth dist.	12800 Aug 06 04:35	25° Ω 36'54	0.26991 AU	
minimum elong	12798 Mar 11 04:08	27° H 50'56	0°00'08	morning rise	12800 Aug 11 19:24	22° Ω 19'21		
behind sun begin	12798 Mar 10 04:25	26° H 37'38		desc. node	12800 Aug 25 22:53	18° Ω 01'49		
behind sun end	12798 Mar 12 03:50	29° H 04'15		direct	12800 Aug 26 16:08	18° Ω 01'11		
desc. node	12798 Mar 11 01:27	27° H 42'39		greatest brilliancy	12800 Sep 05 15:34	19° Ω 52'42	-4.9m	
	12798 Mar 12 21:51	0° Y			12800 Sep 23 05:19	0° M		
	12798 Apr 06 03:00	0° B		morning max el	12800 Oct 15 12:14	19° M 38'12	46°23'42	
evening rise	12798 Apr 18 19:20	15° B 45'08			12800 Oct 25 18:31	0° Ω		
	12798 Apr 30 06:14	0° Π			12800 Nov 22 08:42	0° M		
	12798 May 24 08:15	0° C		asc. node	12800 Dec 16 23:05	28° M 15'59		
	12798 Jun 17 10:56	0° Ω			12800 Dec 18 10:40	0° A		
asc. node	12798 Jul 01 17:07	17° Ω 39'58			12801 Jan 12 18:16	0° B		
	12798 Jul 11 16:59	0° M			12801 Feb 06 14:55	0° \approx		
	12798 Aug 05 05:53	0° Ω			12801 Mar 03 04:43	0° H		
	12798 Aug 30 07:24	0° M			12801 Mar 27 13:46	0° Y		
	12798 Sep 25 10:15	0° A		desc. node	12801 Apr 07 15:48	13° Y 42'34		
evening max el	12798 Oct 21 01:30	27° A 00'49	46°09'32	morning set	12801 Apr 13 04:26	20° Y 33'37		
desc. node	12798 Oct 21 15:35	27° A 35'11			12801 Apr 20 18:55	0° B		
	12798 Oct 24 03:36	0° B			12801 May 14 20:34	0° Π		
greatest brilliancy	12798 Nov 29 06:06	25° B 59'02	-4.8m	max. Earth dist.	12801 May 20 00:16	6° Π 26'38	1.71729 AU	
retrograde	12798 Dec 09 11:32	27° B 53'06						
evening set	12798 Dec 27 11:13	21° B 46'14		superior conj	12801 May 23 00:07	10° Π 11'19	-1°23'20	
inferior conj	12798 Dec 30 22:46	19° B 36'46	-8°08'49	minimum elong	12801 May 22 17:16	9° Π 49'56	1°24'06	
minimum elong	12798 Dec 31 06:04	19° B 25'19	8°07'04		12801 Jun 07 19:39	0° C		
min. Earth dist.	12798 Dec 31 02:11	19° B 31'23	0.28943 AU		12801 Jul 01 17:45	0° Ω		
morning rise	12799 Jan 04 00:56	17° B 05'37		evening rise	12801 Jul 02 01:09	0° Ω 23'10		
direct	12799 Jan 21 08:48	11° B 22'57			12801 Jul 25 16:45	0° M		
greatest brilliancy	12799 Jan 31 22:44	13° B 25'56	-4.7m	asc. node	12801 Jul 29 06:10	4° M 26'46		
asc. node	12799 Feb 11 18:05	18° B 56'30			12801 Aug 18 18:27	0° Ω		
	12799 Feb 26 09:18	0° \approx			12801 Sep 12 00:53	0° M		
morning max el	12799 Mar 11 15:30	12° \approx 14'05	45°53'48		12801 Oct 06 15:16	0° A		
	12799 Mar 28 21:02	0° H			12801 Oct 31 19:14	0° B		
	12799 Apr 24 15:45	0° Y		desc. node	12801 Nov 18 01:45	19° B 58'56		
	12799 May 20 02:18	0° B			12801 Nov 26 23:08	0° \approx		
desc. node	12799 Jun 03 17:04	17° B 38'46			12801 Dec 25 03:52	0° H		
	12799 Jun 13 20:11	0° Π		evening max el	12801 Dec 31 03:54	5° H 53'01	45°52'57	
	12799 Jul 08 04:27	0° C			12802 Jan 30 04:09	0° Y		




































































































































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retrograde	12802 Feb 18 01:09	6° Υ 00'05			12804 Jul 16 07:57	0° Ω	
evening set	12802 Mar 04 22:39	1° Υ 42'12					
	12802 Mar 07 21:44	30° \mathfrak{R}		superior conj	12804 Aug 05 21:15	25° Ω 47'22	-0°46'16
inferior conj	12802 Mar 11 05:30	27° \mathfrak{X} 56'47	0°01'14	minimum elong	12804 Aug 06 07:35	26° Ω 19'46	0°46'26
minimum elong	12802 Mar 11 05:27	27° \mathfrak{X} 56'52	0°01'20	max. Earth dist.	12804 Aug 07 02:00	27° Ω 17'28	1.71505 AU
transit middle	12802 Mar 11 05:27	27° \mathfrak{X} 56'52	0°01'20		12804 Aug 09 05:51	0° \mathfrak{M}	
transit begin	12802 Mar 11 01:25	28° \mathfrak{X} 03'11		asc. node	12804 Aug 25 20:07	20° \mathfrak{M} 46'51	
transit end	12802 Mar 11 09:29	27° \mathfrak{X} 50'33			12804 Sep 02 05:03	0° \mathfrak{L}	
asc. node	12802 Mar 11 03:32	27° \mathfrak{X} 59'51		evening rise	12804 Sep 14 10:48	15° \mathfrak{L} 16'44	
min. Earth dist.	12802 Mar 11 13:24	27° \mathfrak{X} 44'24	0.28151 AU		12804 Sep 26 06:33	0° \mathfrak{M}	
morning rise	12802 Mar 17 11:42	24° \mathfrak{X} 10'52			12804 Oct 20 11:35	0° \mathfrak{X}	
direct	12802 Apr 01 09:43	19° \mathfrak{X} 48'06			12804 Nov 13 22:13	0° \mathfrak{Z}	
greatest brilliancy	12802 Apr 12 03:01	21° \mathfrak{X} 55'22	-4.8m		12804 Dec 08 17:16	0° \approx	
	12802 Apr 26 11:59	0° Υ		desc. node	12804 Dec 15 12:58	8° \approx 09'27	
morning max el	12802 May 21 09:22	21° Υ 48'38	46°36'29		12805 Jan 03 00:05	0° \mathfrak{X}	
	12802 May 29 09:32	0° \mathfrak{B}			12805 Jan 28 23:44	0° Υ	
	12802 Jun 25 13:44	0° \mathfrak{I}			12805 Feb 25 05:48	0° \mathfrak{B}	
desc. node	12802 Jul 01 04:54	6° \mathfrak{I} 30'33		evening max el	12805 Mar 12 15:22	15° \mathfrak{B} 44'48	46°11'42
	12802 Jul 21 02:34	0° \mathfrak{C}			12805 Mar 28 05:00	0° \mathfrak{I}	
	12802 Aug 14 22:20	0° Ω		asc. node	12805 Apr 07 12:53	7° \mathfrak{I} 55'50	
	12802 Sep 08 10:30	0° \mathfrak{M}		greatest brilliancy	12805 Apr 21 12:55	15° \mathfrak{I} 22'37	-4.8m
	12802 Oct 02 19:30	0° \mathfrak{L}		retrograde	12805 May 01 06:55	17° \mathfrak{I} 09'25	
asc. node	12802 Oct 21 22:57	23° \mathfrak{L} 36'50		evening set	12805 May 18 13:29	11° \mathfrak{I} 23'56	
	12802 Oct 27 03:04	0° \mathfrak{M}		inferior conj	12805 May 22 01:11	9° \mathfrak{I} 16'08	8°40'58
	12802 Nov 20 09:46	0° \mathfrak{X}		minimum elong	12805 May 21 18:12	9° \mathfrak{I} 26'56	8°39'23
morning set	12802 Nov 22 10:05	2° \mathfrak{X} 29'25		min. Earth dist.	12805 May 22 03:39	9° \mathfrak{I} 12'19	0.27564 AU
	12802 Dec 14 16:09	0° \mathfrak{Z}		morning rise	12805 May 24 22:52	7° \mathfrak{I} 29'09	
				direct	12805 Jun 11 22:39	1° \mathfrak{I} 17'07	
superior conj	12802 Dec 29 06:45	18° \mathfrak{Z} 03'03	1°20'44	greatest brilliancy	12805 Jun 21 20:41	3° \mathfrak{I} 09'07	-4.9m
minimum elong	12802 Dec 29 13:09	18° \mathfrak{Z} 22'48	1°21'34		12805 Jul 28 06:48	0° \mathfrak{C}	
max. Earth dist.	12802 Dec 30 07:59	19° \mathfrak{Z} 20'55	1.73130 AU	desc. node	12805 Jul 28 15:17	0° \mathfrak{C} 20'41	
	12803 Jan 07 23:08	0° \approx		morning max el	12805 Aug 01 12:04	4° \mathfrak{C} 10'48	46°57'51
	12803 Feb 01 07:25	0° \mathfrak{X}			12805 Aug 25 15:48	0° Ω	
evening rise	12803 Feb 04 15:54	4° \mathfrak{X} 07'35			12805 Sep 20 19:31	0° \mathfrak{M}	
desc. node	12803 Feb 10 13:02	11° \mathfrak{X} 21'33			12805 Oct 16 03:46	0° \mathfrak{L}	
	12803 Feb 25 16:53	0° Υ			12805 Nov 10 02:34	0° \mathfrak{M}	
	12803 Mar 22 02:55	0° \mathfrak{B}		asc. node	12805 Nov 18 12:30	10° \mathfrak{M} 11'33	
	12803 Apr 15 13:24	0° \mathfrak{I}			12805 Dec 04 19:20	0° \mathfrak{X}	
	12803 May 10 01:57	0° \mathfrak{C}			12805 Dec 29 07:46	0° \mathfrak{Z}	
asc. node	12803 Jun 03 07:08	29° \mathfrak{C} 19'29			12806 Jan 22 17:24	0° \approx	
	12803 Jun 03 20:38	0° Ω		morning set	12806 Jan 30 05:16	9° \approx 13'50	
	12803 Jun 29 05:11	0° \mathfrak{M}			12806 Feb 16 01:27	0° \mathfrak{X}	
	12803 Jul 25 20:40	0° \mathfrak{L}		max. Earth dist.	12806 Mar 07 03:09	23° \mathfrak{X} 33'07	1.72861 AU
evening max el	12803 Aug 08 10:19	14° \mathfrak{L} 09'54	46°41'16				
	12803 Aug 25 10:32	0° \mathfrak{M}		superior conj	12806 Mar 08 19:15	25° \mathfrak{X} 37'03	0°03'16
greatest brilliancy	12803 Sep 16 18:00	14° \mathfrak{M} 25'28	-4.8m	minimum elong	12806 Mar 08 20:03	25° \mathfrak{X} 39'31	0°03'24
desc. node	12803 Sep 23 08:12	16° \mathfrak{M} 17'23		behind sun begin	12806 Mar 07 20:34	24° \mathfrak{X} 26'57	
retrograde	12803 Sep 27 17:13	16° \mathfrak{M} 39'51		behind sun end	12806 Mar 09 19:31	26° \mathfrak{X} 52'05	
evening set	12803 Oct 13 08:32	11° \mathfrak{M} 55'33		desc. node	12806 Mar 10 03:18	27° \mathfrak{X} 16'09	
min. Earth dist.	12803 Oct 18 01:57	9° \mathfrak{M} 06'55	0.27955 AU		12806 Mar 12 08:17	0° Υ	
inferior conj	12803 Oct 18 22:35	8° \mathfrak{M} 35'04	-5°55'14		12806 Apr 05 13:30	0° \mathfrak{B}	
minimum elong	12803 Oct 18 12:07	8° \mathfrak{M} 51'14	5°52'17	evening rise	12806 Apr 16 09:24	13° \mathfrak{B} 26'51	
morning rise	12803 Oct 23 16:09	5° \mathfrak{M} 44'09			12806 Apr 29 16:52	0° \mathfrak{I}	
direct	12803 Nov 08 23:04	0° \mathfrak{M} 40'05			12806 May 23 19:05	0° \mathfrak{C}	
greatest brilliancy	12803 Nov 18 12:44	2° \mathfrak{M} 19'37	-4.8m		12806 Jun 16 22:05	0° Ω	
	12803 Dec 27 03:05	0° \mathfrak{X}		asc. node	12806 Jun 30 18:56	17° Ω 10'31	
morning max el	12803 Dec 27 20:12	0° \mathfrak{X} 41'01	45°46'07		12806 Jul 11 04:33	0° \mathfrak{M}	
asc. node	12804 Jan 14 10:06	18° \mathfrak{X} 31'27			12806 Aug 04 18:04	0° \mathfrak{L}	
	12804 Jan 25 01:09	0° \mathfrak{Z}			12806 Aug 29 20:43	0° \mathfrak{M}	
	12804 Feb 20 12:06	0° \approx			12806 Sep 25 02:00	0° \mathfrak{X}	
	12804 Mar 16 21:44	0° \mathfrak{X}		evening max el	12806 Oct 18 17:29	24° \mathfrak{X} 49'44	46°10'38
	12804 Apr 10 17:38	0° Υ		desc. node	12806 Oct 20 17:41	26° \mathfrak{X} 46'58	
desc. node	12804 May 05 05:50	0° \mathfrak{B} 03'19			12806 Oct 24 02:53	0° \mathfrak{Z}	
	12804 May 05 04:45	0° \mathfrak{B}		greatest brilliancy	12806 Nov 26 21:09	23° \mathfrak{Z} 48'43	-4.8m
	12804 May 29 09:30	0° \mathfrak{I}		retrograde	12806 Dec 07 03:32	25° \mathfrak{Z} 43'18	
	12804 Jun 22 09:51	0° \mathfrak{C}		evening set	12806 Dec 25 05:23	19° \mathfrak{Z} 33'18	

inferior conj	12806 Dec 28 14:46	17° Z 26'53	-8°16'13	minimum elong	12809 May 20 04:51	7° II 22'49	1°22'48
minimum elong	12806 Dec 28 21:29	17° Z 16'19	8°14'34		12809 Jun 07 06:19	0° G	
min. Earth dist.	12806 Dec 28 16:56	17° Z 23'29	0.28946 AU	evening rise	12809 Jun 29 12:16	27° G 53'57	
morning rise	12807 Jan 01 13:40	15° Z 00'30			12809 Jul 01 04:29	0° Ω	
direct	12807 Jan 19 01:17	9° Z 13'34			12809 Jul 25 03:34	0° np	
greatest brilliancy	12807 Jan 29 13:03	11° Z 14'33	-4.7m	asc. node	12809 Jul 28 07:59	3° np 58'35	
asc. node	12807 Feb 10 20:05	17° Z 41'41			12809 Aug 18 05:27	0° L	
	12807 Feb 26 13:13	0° \approx			12809 Sep 11 12:12	0° M	
morning max el	12807 Mar 09 06:44	10° \approx 01'27	45°52'35		12809 Oct 06 03:08	0° X	
	12807 Mar 28 13:46	0° H			12809 Oct 31 08:06	0° Z	
	12807 Apr 24 05:25	0° Y		desc. node	12809 Nov 17 03:40	19° Z 24'32	
	12807 May 19 14:37	0° B			12809 Nov 26 14:04	0° \approx	
desc. node	12807 Jun 02 18:58	17° B 08'33			12809 Dec 25 00:18	0° H	
	12807 Jun 13 07:46	0° II		evening max el	12809 Dec 28 17:45	3° H 37'36	45°53'02
	12807 Jul 07 15:38	0° G			12810 Jan 31 23:41	0° Y	
	12807 Jul 31 18:34	0° Ω		greatest brilliancy	12810 Feb 05 20:32	2° Y 01'01	-4.8m
	12807 Aug 24 19:43	0° np		retrograde	12810 Feb 15 15:58	3° Y 47'00	
morning set	12807 Sep 09 23:39	20° np 10'07			12810 Mar 01 13:55	30° R H	
	12807 Sep 17 20:53	0° L		evening set	12810 Mar 02 14:40	29° H 27'09	
asc. node	12807 Sep 23 10:34	6° L 56'37		inferior conj	12810 Mar 08 20:44	25° H 43'05	-0°20'30
	12807 Oct 11 22:52	0° M		minimum elong	12810 Mar 08 21:31	25° H 41'53	0°20'05
				min. Earth dist.	12810 Mar 09 05:21	25° H 29'36	0.28184 AU
superior conj	12807 Oct 18 15:43	8° M 20'13	0°56'19	asc. node	12810 Mar 10 05:35	24° H 51'46	
minimum elong	12807 Oct 18 05:36	7° M 48'45	0°56'27	morning rise	12810 Mar 15 03:47	21° H 56'07	
max. Earth dist.	12807 Oct 20 23:50	11° M 14'39	1.72401 AU	direct	12810 Mar 30 00:48	17° H 33'46	
	12807 Nov 05 02:13	0° X		greatest brilliancy	12810 Apr 09 19:50	19° H 42'36	-4.8m
evening rise	12807 Nov 24 21:37	24° X 31'37			12810 Apr 27 04:19	0° Y	
	12807 Nov 29 07:57	0° Z		morning max el	12810 May 19 00:08	19° Y 31'32	46°35'00
	12807 Dec 23 17:22	0° \approx			12810 May 29 04:33	0° B	
desc. node	12808 Jan 13 01:25	24° \approx 49'56			12810 Jun 25 04:32	0° II	
	12808 Jan 17 07:25	0° H		desc. node	12810 Jun 30 06:47	5° II 54'22	
	12808 Feb 11 02:25	0° Y			12810 Jul 20 15:38	0° G	
	12808 Mar 07 02:53	0° B			12810 Aug 14 10:28	0° Ω	
	12808 Apr 01 11:53	0° II			12810 Sep 07 22:01	0° np	
	12808 Apr 27 15:18	0° G			12810 Oct 02 06:37	0° L	
asc. node	12808 May 04 22:27	8° G 05'11		asc. node	12810 Oct 21 00:49	23° L 08'58	
evening max el	12808 May 24 15:31	28° G 49'40	46°42'22		12810 Oct 26 13:54	0° M	
	12808 May 25 19:48	0° Ω			12810 Nov 19 20:25	0° X	
greatest brilliancy	12808 Jul 03 22:18	29° Ω 18'57	-4.9m	morning set	12810 Nov 20 02:05	0° X 17'33	
	12808 Jul 06 01:31	0° np			12810 Dec 14 02:41	0° Z	
retrograde	12808 Jul 13 18:55	1° np 08'09					
	12808 Jul 21 06:34	30° R Ω		superior conj	12810 Dec 26 23:41	15° Z 54'35	1°21'50
evening set	12808 Jul 29 13:07	26° Ω 18'34		minimum elong	12810 Dec 27 05:29	16° Z 12'30	1°22'42
inferior conj	12808 Aug 03 10:58	23° Ω 22'54	5°17'59	max. Earth dist.	12810 Dec 28 01:34	17° Z 14'33	1.73121 AU
minimum elong	12808 Aug 03 21:23	23° Ω 06'56	5°14'32		12811 Jan 07 09:40	0° \approx	
min. Earth dist.	12808 Aug 03 18:33	23° Ω 11'16	0.26995 AU		12811 Jan 31 18:01	0° H	
morning rise	12808 Aug 09 05:40	19° Ω 58'27		evening rise	12811 Feb 02 08:05	1° H 57'02	
direct	12808 Aug 24 04:33	15° Ω 37'01		desc. node	12811 Feb 09 14:57	10° H 54'42	
desc. node	12808 Aug 25 00:58	15° Ω 37'53			12811 Feb 25 03:40	0° Y	
greatest brilliancy	12808 Sep 03 05:03	17° Ω 29'05	-4.9m		12811 Mar 21 13:58	0° B	
	12808 Sep 23 20:21	0° np			12811 Apr 15 00:50	0° II	
morning max el	12808 Oct 13 00:42	17° np 14'54	46°25'18		12811 May 09 13:58	0° G	
	12808 Oct 25 13:40	0° L		asc. node	12811 Jun 02 08:57	28° G 46'08	
	12808 Nov 21 23:21	0° M			12811 Jun 03 09:36	0° Ω	
asc. node	12808 Dec 16 00:53	27° M 43'51			12811 Jun 28 19:52	0° np	
	12808 Dec 17 23:21	0° X			12811 Jul 25 15:13	0° L	
	12809 Jan 12 05:56	0° Z		evening max el	12811 Aug 06 00:44	11° L 50'05	46°42'07
	12809 Feb 06 02:01	0° \approx			12811 Aug 25 20:46	0° M	
	12809 Mar 02 15:29	0° H		greatest brilliancy	12811 Sep 14 08:18	12° M 06'29	-4.8m
	12809 Mar 27 00:24	0° Y		desc. node	12811 Sep 22 10:18	14° M 11'44	
desc. node	12809 Apr 06 17:45	13° Y 15'43		retrograde	12811 Sep 25 08:29	14° M 21'54	
morning set	12809 Apr 10 17:53	18° Y 13'35		evening set	12811 Oct 10 20:10	9° M 41'30	
	12809 Apr 20 05:30	0° B		min. Earth dist.	12811 Oct 15 16:09	6° M 49'35	0.27900 AU
	12809 May 14 07:11	0° II		inferior conj	12811 Oct 16 12:53	6° M 17'39	-5°38'29
max. Earth dist.	12809 May 17 09:03	3° II 50'51	1.71767 AU	minimum elong	12811 Oct 16 02:33	6° M 33'34	5°35'30
				morning rise	12811 Oct 21 09:27	3° M 22'58	
superior conj	12809 May 20 12:29	7° II 46'42	-1°22'05		12811 Oct 28 13:16	30° R L	

direct	12811 Nov 06 13:02	28° Ω 23'17			12814 Apr 05 00:23	0° \mathcal{B}	
	12811 Nov 15 22:45	0° \mathcal{M}		evening rise	12814 Apr 13 23:32	11° \mathcal{B} 07'41	
greatest brilliancy	12811 Nov 16 02:28	0° \mathcal{M} 03'04	-4.8m		12814 Apr 29 03:52	0° \mathcal{I}	
morning max el	12811 Dec 25 11:20	28° \mathcal{M} 27'37	45°46'48		12814 May 23 06:16	0° \mathcal{E}	
	12811 Dec 27 01:34	0° \mathcal{A}			12814 Jun 16 09:31	0° \mathcal{Q}	
asc. node	12812 Jan 13 12:07	17° \mathcal{A} 50'40		asc. node	12814 Jun 29 20:52	16° \mathcal{Q} 40'33	
	12812 Jan 24 16:46	0° \mathcal{Z}			12814 Jul 10 16:24	0° \mathcal{M}	
	12812 Feb 20 01:18	0° \approx			12814 Aug 04 06:36	0° \mathcal{A}	
	12812 Mar 16 09:48	0° \mathcal{H}			12814 Aug 29 10:29	0° \mathcal{M}	
	12812 Apr 10 05:07	0° \mathcal{Y}			12814 Sep 24 18:27	0° \mathcal{A}	
desc. node	12812 May 04 07:42	29° \mathcal{Y} 34'43		evening max el	12814 Oct 16 08:46	22° \mathcal{A} 35'22	46°11'33
	12812 May 04 15:54	0° \mathcal{B}		desc. node	12814 Oct 19 19:37	25° \mathcal{A} 55'58	
	12812 May 28 20:28	0° \mathcal{I}			12814 Oct 24 03:58	0° \mathcal{Z}	
	12812 Jun 21 20:43	0° \mathcal{E}		greatest brilliancy	12814 Nov 24 12:49	21° \mathcal{Z} 37'18	-4.8m
morning set	12812 Jun 24 11:45	3° \mathcal{E} 17'24		retrograde	12814 Dec 04 19:02	23° \mathcal{Z} 31'43	
	12812 Jul 15 18:46	0° \mathcal{Q}		evening set	12814 Dec 22 23:14	17° \mathcal{Z} 19'06	
				inferior conj	12814 Dec 26 06:42	15° \mathcal{Z} 15'25	-8°22'47
superior conj	12812 Aug 03 09:18	23° \mathcal{Q} 20'40	-0°49'30	minimum elong	12814 Dec 26 12:47	15° \mathcal{Z} 05'50	8°21'17
minimum elong	12812 Aug 03 20:04	23° \mathcal{Q} 54'27	0°49'42	min. Earth dist.	12814 Dec 26 07:54	15° \mathcal{Z} 13'31	0.28945 AU
max. Earth dist.	12812 Aug 04 13:12	24° \mathcal{Q} 48'11	1.71491 AU	morning rise	12814 Dec 30 02:24	12° \mathcal{Z} 53'36	
	12812 Aug 08 16:40	0° \mathcal{M}		direct	12815 Jan 16 17:11	7° \mathcal{Z} 02'35	
asc. node	12812 Aug 24 22:04	20° \mathcal{M} 19'07		greatest brilliancy	12815 Jan 27 03:36	9° \mathcal{Z} 01'52	-4.7m
	12812 Sep 01 15:53	0° \mathcal{A}		asc. node	12815 Feb 09 22:10	16° \mathcal{Z} 27'47	
evening rise	12812 Sep 12 00:40	12° \mathcal{A} 56'35			12815 Feb 26 16:03	0° \approx	
	12812 Sep 25 17:25	0° \mathcal{M}		morning max el	12815 Mar 06 21:03	7° \approx 45'15	45°51'28
	12812 Oct 19 22:35	0° \mathcal{A}			12815 Mar 28 06:37	0° \mathcal{H}	
	12812 Nov 13 09:29	0° \mathcal{Z}			12815 Apr 23 19:22	0° \mathcal{Y}	
	12812 Dec 08 05:05	0° \approx			12815 May 19 03:14	0° \mathcal{B}	
desc. node	12812 Dec 14 14:51	7° \approx 39'16		desc. node	12815 Jun 01 20:46	16° \mathcal{B} 36'53	
	12813 Jan 02 12:51	0° \mathcal{H}			12815 Jun 12 19:42	0° \mathcal{I}	
	12813 Jan 28 14:17	0° \mathcal{Y}			12815 Jul 07 03:08	0° \mathcal{E}	
	12813 Feb 25 00:17	0° \mathcal{B}			12815 Jul 31 05:48	0° \mathcal{Q}	
evening max el	12813 Mar 10 06:38	13° \mathcal{B} 29'01	46°10'41		12815 Aug 24 06:44	0° \mathcal{M}	
	12813 Mar 28 15:09	0° \mathcal{I}		morning set	12815 Sep 07 13:41	17° \mathcal{M} 50'11	
asc. node	12813 Apr 06 14:54	6° \mathcal{I} 36'08			12815 Sep 17 07:45	0° \mathcal{A}	
greatest brilliancy	12813 Apr 19 01:37	13° \mathcal{I} 00'42	-4.8m	asc. node	12815 Sep 22 12:22	6° \mathcal{A} 28'26	
retrograde	12813 Apr 28 20:50	14° \mathcal{I} 47'55			12815 Oct 11 09:39	0° \mathcal{M}	
evening set	12813 May 15 23:04	9° \mathcal{I} 08'38					
inferior conj	12813 May 19 14:54	6° \mathcal{I} 54'22	8°32'46	superior conj	12815 Oct 16 07:11	6° \mathcal{M} 05'35	0°53'38
minimum elong	12813 May 19 07:15	7° \mathcal{I} 06'15	8°31'02	minimum elong	12815 Oct 15 21:13	5° \mathcal{M} 34'34	0°53'44
min. Earth dist.	12813 May 19 16:32	6° \mathcal{I} 51'50	0.27577 AU	max. Earth dist.	12815 Oct 18 15:13	8° \mathcal{M} 59'46	1.72367 AU
morning rise	12813 May 22 15:24	5° \mathcal{I} 02'59			12815 Nov 04 13:00	0° \mathcal{A}	
	12813 Jun 02 07:18	30° \mathcal{R} \mathcal{B}		evening rise	12815 Nov 22 14:01	22° \mathcal{A} 20'33	
direct	12813 Jun 09 13:04	28° \mathcal{B} 55'20			12815 Nov 28 18:48	0° \mathcal{Z}	
	12813 Jun 17 00:08	0° \mathcal{I}			12815 Dec 23 04:23	0° \approx	
greatest brilliancy	12813 Jun 19 09:54	0° \mathcal{I} 46'17	-4.9m	desc. node	12816 Jan 12 03:21	24° \approx 21'39	
desc. node	12813 Jul 27 17:25	29° \mathcal{I} 27'37			12816 Jan 16 18:44	0° \mathcal{H}	
	12813 Jul 28 06:29	0° \mathcal{E}			12816 Feb 10 14:13	0° \mathcal{Y}	
morning max el	12813 Jul 30 02:15	1° \mathcal{E} 49'23	46°57'54		12816 Mar 06 15:29	0° \mathcal{B}	
	12813 Aug 25 08:20	0° \mathcal{Q}			12816 Apr 01 01:52	0° \mathcal{I}	
	12813 Sep 20 09:30	0° \mathcal{M}			12816 Apr 27 07:57	0° \mathcal{E}	
	12813 Oct 15 16:26	0° \mathcal{A}		asc. node	12816 May 04 00:20	7° \mathcal{E} 21'44	
	12813 Nov 09 14:25	0° \mathcal{M}		evening max el	12816 May 22 03:41	26° \mathcal{E} 22'46	46°41'37
asc. node	12813 Nov 17 14:19	9° \mathcal{M} 41'43			12816 May 25 19:51	0° \mathcal{Q}	
	12813 Dec 04 06:38	0° \mathcal{A}		greatest brilliancy	12816 Jul 01 13:06	26° \mathcal{Q} 55'38	-4.9m
	12813 Dec 28 18:44	0° \mathcal{Z}		retrograde	12816 Jul 11 07:26	28° \mathcal{Q} 43'16	
	12814 Jan 22 04:12	0° \approx		evening set	12816 Jul 27 05:22	23° \mathcal{Q} 49'06	
morning set	12814 Jan 27 22:06	7° \approx 04'39		inferior conj	12816 Jul 31 23:53	20° \mathcal{Q} 58'19	5°37'35
	12814 Feb 15 12:13	0° \mathcal{H}		minimum elong	12816 Aug 01 10:38	20° \mathcal{Q} 41'51	5°34'06
max. Earth dist.	12814 Mar 04 19:40	21° \mathcal{H} 22'32	1.72887 AU	min. Earth dist.	12816 Aug 01 08:40	20° \mathcal{Q} 44'51	0.26998 AU
				morning rise	12816 Aug 06 15:50	17° \mathcal{Q} 37'24	
superior conj	12814 Mar 06 10:21	23° \mathcal{H} 22'05	0°06'46	direct	12816 Aug 21 16:45	13° \mathcal{Q} 11'58	
minimum elong	12814 Mar 06 11:58	23° \mathcal{H} 27'04	0°06'53	desc. node	12816 Aug 24 02:57	13° \mathcal{Q} 18'53	
behind sun begin	12814 Mar 05 14:13	22° \mathcal{H} 19'52		greatest brilliancy	12816 Aug 31 18:45	15° \mathcal{Q} 05'07	-4.9m
behind sun end	12814 Mar 07 09:43	24° \mathcal{H} 34'17			12816 Sep 24 07:49	0° \mathcal{M}	
desc. node	12814 Mar 09 05:13	26° \mathcal{H} 48'42		morning max el	12816 Oct 10 13:46	14° \mathcal{M} 52'19	46°27'01
	12814 Mar 11 19:05	0° \mathcal{Y}			12816 Oct 25 08:32	0° \mathcal{A}	

	12816 Nov 21 14:04	0°♌			12819 Jun 02 22:50	0°♏		
asc. node	12816 Dec 15 02:51	27°♌11'29			12819 Jun 28 10:54	0°♐		
	12816 Dec 17 12:16	0°♑			12819 Jul 25 10:27	0°♑		
	12817 Jan 11 17:54	0°♒	evening max el		12819 Aug 03 16:03	9°♑32'03	46°42'51	
	12817 Feb 05 13:26	0°♓			12819 Aug 26 10:48	0°♌		
	12817 Mar 02 02:35	0°♈	greatest brilliancy		12819 Sep 11 22:40	9°♌47'03	-4.8m	
	12817 Mar 26 11:20	0°♉	desc. node		12819 Sep 21 12:15	12°♌00'29		
desc. node	12817 Apr 05 19:29	12°♉47'17	retrograde		12819 Sep 22 23:57	12°♌03'08		
morning set	12817 Apr 08 07:20	15°♉52'41	evening set		12819 Oct 08 07:57	7°♌26'44		
	12817 Apr 19 16:24	0°♊	min. Earth dist.		12819 Oct 13 06:13	4°♌31'40	0.27841 AU	
	12817 May 13 18:06	0°♋	inferior conj		12819 Oct 14 03:05	3°♌59'34	-5°21'07	
max. Earth dist.	12817 May 14 20:57	1°♋23'53	1.71806 AU	minimum elong	12819 Oct 13 16:58	4°♌15'08	5°18'07	
				morning rise	12819 Oct 19 02:36	1°♌01'09		
superior conj	12817 May 18 00:48	5°♋20'58	-1°20'41		12819 Oct 20 23:41	30°♌01'09		
minimum elong	12817 May 17 16:26	4°♋54'48	1°21'22	direct	12819 Nov 04 03:16	26°♌06'05		
	12817 Jun 06 17:17	0°♌		greatest brilliancy	12819 Nov 13 15:35	27°♌45'24	-4.8m	
evening rise	12817 Jun 26 23:30	25°♌24'08			12819 Nov 19 02:38	0°♌		
	12817 Jun 30 15:32	0°♍	morning max el		12819 Dec 23 02:29	26°♌14'14	45°47'39	
	12817 Jul 24 14:43	0°♎			12819 Dec 26 23:08	0°♎		
asc. node	12817 Jul 27 09:58	3°♎29'53	asc. node		12820 Jan 12 14:08	17°♎10'27		
	12817 Aug 17 16:46	0°♏			12820 Jan 24 08:05	0°♏		
	12817 Sep 10 23:49	0°♐			12820 Feb 19 14:22	0°♐		
	12817 Oct 05 15:16	0°♑			12820 Mar 15 21:49	0°♑		
	12817 Oct 30 21:15	0°♒			12820 Apr 09 16:37	0°♑		
desc. node	12817 Nov 16 05:34	18°♒49'19	desc. node		12820 May 03 09:34	29°♑05'52		
	12817 Nov 26 05:24	0°♓			12820 May 04 03:06	0°♒		
	12817 Dec 24 21:46	0°♈			12820 May 28 07:29	0°♓		
evening max el	12817 Dec 26 08:27	1°♈23'42	45°53'03		12820 Jun 21 07:37	0°♓		
greatest brilliancy	12818 Feb 03 11:10	29°♈46'39	-4.8m	morning set	12820 Jun 21 23:15	0°♓48'57		
	12818 Feb 04 03:06	0°♉			12820 Jul 15 05:37	0°♏		
retrograde	12818 Feb 13 07:20	1°♉33'13						
	12818 Feb 22 02:28	30°♉01'12		superior conj	12820 Jul 31 21:09	20°♏53'21	-0°52'38	
evening set	12818 Feb 28 06:54	27°♉11'12		minimum elong	12820 Aug 01 08:18	21°♏28'18	0°52'52	
inferior conj	12818 Mar 06 12:01	23°♉28'33	-0°42'07	max. Earth dist.	12820 Aug 02 01:15	22°♏21'26	1.71475 AU	
minimum elong	12818 Mar 06 13:36	23°♉26'05	0°41'24		12820 Aug 08 03:30	0°♐		
min. Earth dist.	12818 Mar 06 21:03	23°♉14'26	0.28219 AU	asc. node	12820 Aug 23 23:50	19°♐50'47		
asc. node	12818 Mar 09 07:33	21°♉43'48			12820 Sep 01 02:43	0°♑		
morning rise	12818 Mar 12 19:44	19°♉40'58		evening rise	12820 Sep 09 14:26	10°♑35'56		
direct	12818 Mar 27 16:20	15°♉18'44			12820 Sep 25 04:19	0°♌		
greatest brilliancy	12818 Apr 07 12:14	17°♉28'40	-4.8m		12820 Oct 19 09:36	0°♍		
	12818 Apr 27 16:49	0°♊			12820 Nov 12 20:47	0°♒		
morning max el	12818 May 16 15:53	17°♊16'20	46°33'30		12820 Dec 07 16:53	0°♓		
	12818 May 28 23:20	0°♋		desc. node	12820 Dec 13 16:53	7°♓09'43		
	12818 Jun 24 19:23	0°♌			12821 Jan 02 01:35	0°♈		
desc. node	12818 Jun 29 08:51	5°♌18'19			12821 Jan 28 04:49	0°♉		
	12818 Jul 20 04:49	0°♍			12821 Feb 24 19:05	0°♊		
	12818 Aug 13 22:44	0°♎		evening max el	12821 Mar 07 21:30	11°♊12'43	46°09'29	
	12818 Sep 07 09:43	0°♏			12821 Mar 29 04:37	0°♋		
	12818 Oct 01 17:55	0°♐		asc. node	12821 Apr 05 16:47	5°♋13'48		
asc. node	12818 Oct 20 02:37	22°♐40'21		greatest brilliancy	12821 Apr 16 14:55	10°♋39'45	-4.8m	
	12818 Oct 26 00:54	0°♑		retrograde	12821 Apr 26 10:07	12°♋26'37		
morning set	12818 Nov 17 18:27	28°♑06'23		evening set	12821 May 13 08:33	6°♋53'51		
	12818 Nov 19 07:11	0°♒		inferior conj	12821 May 17 04:41	4°♋32'58	8°23'34	
	12818 Dec 13 13:21	0°♓		minimum elong	12821 May 16 20:23	4°♋45'52	8°21'41	
				min. Earth dist.	12821 May 17 05:55	4°♋31'03	0.27595 AU	
superior conj	12818 Dec 24 16:55	13°♓46'42	1°22'47	morning rise	12821 May 20 08:11	2°♋36'48		
minimum elong	12818 Dec 24 22:06	14°♓02'44	1°23'42		12821 May 25 00:41	30°♋01'09		
max. Earth dist.	12818 Dec 25 21:49	15°♓15'57	1.73112 AU	direct	12821 Jun 07 03:12	26°♋33'47		
	12819 Jan 06 20:19	0°♔		greatest brilliancy	12821 Jun 16 23:55	28°♋24'17	-4.9m	
evening rise	12819 Jan 31 00:30	29°♔46'49			12821 Jun 20 19:56	0°♌		
	12819 Jan 31 04:47	0°♕		desc. node	12821 Jul 26 19:22	28°♌35'06		
desc. node	12819 Feb 08 16:53	10°♕27'23		morning max el	12821 Jul 27 15:30	29°♌25'37	46°57'57	
	12819 Feb 24 14:38	0°♖			12821 Jul 28 05:09	0°♍		
	12819 Mar 21 01:13	0°♗			12821 Aug 25 00:31	0°♎		
	12819 Apr 14 12:29	0°♘			12821 Sep 19 23:14	0°♏		
	12819 May 09 02:12	0°♙			12821 Oct 15 04:53	0°♑		
asc. node	12819 Jun 01 10:57	28°♙12'43			12821 Nov 09 02:04	0°♒		

asc. node	12821 Nov 16 16:14	9°♍12'38			12824 May 25 20:30	0°♋	
	12821 Dec 03 17:47	0°♊		greatest brilliancy	12824 Jun 29 03:09	24°♋32'29	-4.9m
	12821 Dec 28 05:33	0°♊		retrograde	12824 Jul 08 20:10	26°♋19'23	
	12822 Jan 21 14:50	0°♊		evening set	12824 Jul 24 21:32	21°♋20'02	
morning set	12822 Jan 25 15:14	4°♊56'57		inferior conj	12824 Jul 29 12:42	18°♋34'17	5°56'30
	12822 Feb 14 22:46	0°♋		minimum elong	12824 Jul 29 23:40	18°♋17'29	5°53'03
max. Earth dist.	12822 Mar 02 12:16	19°♋13'04	1.72912 AU	min. Earth dist.	12824 Jul 29 22:26	18°♋19'22	0.27013 AU
				morning rise	12824 Aug 04 01:41	15°♋17'27	
superior conj	12822 Mar 04 01:56	21°♋09'24	0°10'12	direct	12824 Aug 19 05:06	10°♋47'13	
minimum elong	12822 Mar 04 04:20	21°♋16'49	0°10'19	desc. node	12824 Aug 23 04:54	11°♋05'49	
behind sun begin	12822 Mar 03 09:56	20°♋19'59		greatest brilliancy	12824 Aug 29 08:22	12°♋41'35	-4.9m
behind sun end	12822 Mar 04 22:43	22°♋13'39			12824 Sep 24 16:04	0°♎	
desc. node	12822 Mar 08 06:58	26°♋21'34		morning max el	12824 Oct 08 03:47	12°♎32'27	46°28'40
	12822 Mar 11 05:38	0°♎			12824 Oct 25 02:42	0°♎	
	12822 Apr 04 11:01	0°♏			12824 Nov 21 04:23	0°♎	
evening rise	12822 Apr 11 14:02	8°♏50'31		asc. node	12824 Dec 14 04:52	26°♎40'10	
	12822 Apr 28 14:39	0°♐			12824 Dec 17 00:48	0°♊	
	12822 May 22 17:18	0°♑			12825 Jan 11 05:30	0°♊	
	12822 Jun 15 20:53	0°♋			12825 Feb 05 00:29	0°♊	
asc. node	12822 Jun 28 22:48	16°♋10'54			12825 Mar 01 13:20	0°♋	
	12822 Jul 10 04:11	0°♎			12825 Mar 25 21:56	0°♎	
	12822 Aug 03 19:05	0°♎		desc. node	12825 Apr 04 21:22	12°♎20'25	
	12822 Aug 29 00:15	0°♎		morning set	12825 Apr 05 21:06	13°♎33'55	
	12822 Sep 24 11:04	0°♊			12825 Apr 19 02:55	0°♏	
evening max el	12822 Oct 13 23:01	20°♊18'50	46°12'34	max. Earth dist.	12825 May 12 11:06	29°♏05'19	1.71840 AU
desc. node	12822 Oct 18 21:34	25°♊04'31			12825 May 13 04:37	0°♐	
	12822 Oct 24 06:13	0°♊					
greatest brilliancy	12822 Nov 22 04:40	19°♊26'27	-4.8m	superior conj	12825 May 15 13:27	2°♐57'39	-1°19'09
retrograde	12822 Dec 02 10:17	21°♊20'44		minimum elong	12825 May 15 04:27	2°♐29'29	1°19'47
evening set	12822 Dec 20 16:50	15°♊05'40			12825 Jun 06 03:49	0°♑	
inferior conj	12822 Dec 23 22:34	13°♊04'35	-8°28'43	evening rise	12825 Jun 24 11:10	22°♑57'09	
minimum elong	12822 Dec 24 03:58	12°♊56'06	8°27'20		12825 Jun 30 02:08	0°♋	
min. Earth dist.	12822 Dec 23 23:07	13°♊03'44	0.28940 AU		12825 Jul 24 01:28	0°♎	
morning rise	12822 Dec 27 15:10	10°♊47'16		asc. node	12825 Jul 26 11:45	3°♎01'53	
direct	12823 Jan 14 08:31	4°♊52'03			12825 Aug 17 03:44	0°♎	
greatest brilliancy	12823 Jan 24 18:39	6°♊50'29	-4.7m		12825 Sep 10 11:08	0°♎	
asc. node	12823 Feb 09 00:03	15°♊16'23			12825 Oct 05 03:10	0°♊	
	12823 Feb 26 17:02	0°♊			12825 Oct 30 10:14	0°♊	
morning max el	12823 Mar 04 11:12	5°♊29'35	45°50'39	desc. node	12825 Nov 15 07:38	18°♊15'04	
	12823 Mar 27 22:44	0°♋			12825 Nov 25 20:43	0°♊	
	12823 Apr 23 08:45	0°♎		evening max el	12825 Dec 23 23:51	29°♊12'21	45°53'14
	12823 May 18 15:25	0°♏			12825 Dec 24 19:46	0°♋	
desc. node	12823 May 31 22:48	16°♏07'08		greatest brilliancy	12826 Feb 01 01:29	27°♋32'50	-4.8m
	12823 Jun 12 07:15	0°♐		retrograde	12826 Feb 10 22:44	29°♋19'57	
	12823 Jul 06 14:20	0°♑		evening set	12826 Feb 25 23:14	24°♋55'49	
	12823 Jul 30 16:46	0°♋		inferior conj	12826 Mar 04 03:08	21°♋14'38	-1°03'39
	12823 Aug 23 17:32	0°♎		minimum elong	12826 Mar 04 05:32	21°♋10'54	1°02'40
morning set	12823 Sep 05 03:11	15°♎29'07		min. Earth dist.	12826 Mar 04 12:22	21°♋00'13	0.28251 AU
	12823 Sep 16 18:23	0°♎		asc. node	12826 Mar 08 09:33	18°♋37'38	
asc. node	12823 Sep 21 14:10	6°♎00'56		morning rise	12826 Mar 10 11:22	17°♋26'37	
	12823 Oct 10 20:11	0°♎		direct	12826 Mar 25 08:09	13°♋04'27	
				greatest brilliancy	12826 Apr 05 03:57	15°♋14'43	-4.8m
superior conj	12823 Oct 13 22:11	3°♎50'11	0°50'50		12826 Apr 28 01:38	0°♎	
minimum elong	12823 Oct 13 12:24	3°♎19'48	0°50'53	morning max el	12826 May 14 08:05	15°♎03'27	46°32'06
max. Earth dist.	12823 Oct 16 04:20	6°♎38'35	1.72332 AU		12826 May 28 17:12	0°♏	
	12823 Nov 03 23:31	0°♊			12826 Jun 24 09:35	0°♐	
evening rise	12823 Nov 20 06:09	20°♊09'28		desc. node	12826 Jun 28 10:45	4°♐43'22	
	12823 Nov 28 05:23	0°♊			12826 Jul 19 17:26	0°♑	
	12823 Dec 22 15:07	0°♊			12826 Aug 13 10:29	0°♋	
desc. node	12824 Jan 11 05:14	23°♊54'04			12826 Sep 06 20:57	0°♎	
	12824 Jan 16 05:46	0°♋			12826 Oct 01 04:48	0°♎	
	12824 Feb 10 01:44	0°♎		asc. node	12826 Oct 19 04:33	22°♎13'13	
	12824 Mar 06 03:47	0°♏			12826 Oct 25 11:34	0°♎	
	12824 Mar 31 15:32	0°♐		morning set	12826 Nov 15 10:27	25°♎54'57	
	12824 Apr 27 00:25	0°♑			12826 Nov 18 17:41	0°♊	
asc. node	12824 May 03 02:24	6°♑39'39			12826 Dec 12 23:44	0°♊	
evening max el	12824 May 19 15:45	23°♑57'10	46°40'49				

superior conj	12826 Dec 22 09:41	11°  38'06	1°23'39	morning rise	12829 May 18 01:01	0°  10'41	
minimum elong	12826 Dec 22 14:13	11°  52'07	1°24'34		12829 May 18 08:09	30°  8	
max. Earth dist.	12826 Dec 23 18:16	13°  18'47	1.73099 AU	direct	12829 Jun 04 16:44	24°  8'12'12	
	12827 Jan 06 06:42	0° 		greatest brilliancy	12829 Jun 14 14:30	26°  8'03'06	-4.9m
evening rise	12827 Jan 28 16:26	27°  35'59			12829 Jun 22 21:19	0° 	
	12827 Jan 30 15:16	0° 		morning max el	12829 Jul 25 04:16	27°  10'04'5	46°58'05
desc. node	12827 Feb 07 18:35	10°  00'16		desc. node	12829 Jul 25 21:16	27°  14'3'7	
	12827 Feb 24 01:20	0° 			12829 Jul 28 02:50	0° 	
	12827 Mar 20 12:12	0° 			12829 Aug 24 16:19	0° 	
	12827 Apr 13 23:53	0° 			12829 Sep 19 12:43	0° 	
	12827 May 08 14:13	0° 			12829 Oct 14 17:07	0° 	
asc. node	12827 May 31 12:56	27°  40'05			12829 Nov 08 13:32	0° 	
	12827 Jun 02 11:49	0° 		asc. node	12829 Nov 15 18:10	8°  14'44'09	
	12827 Jun 28 01:44	0° 			12829 Dec 03 04:46	0° 	
	12827 Jul 25 05:43	0° 			12829 Dec 27 16:16	0° 	
evening max el	12827 Aug 01 07:48	7°  16'28	46°43'34		12830 Jan 21 01:25	0° 	
	12827 Aug 27 04:47	0° 		morning set	12830 Jan 23 08:14	2°  48'52	
greatest brilliancy	12827 Sep 09 13:24	7°  12'29'30	-4.8m		12830 Feb 14 09:20	0° 	
retrograde	12827 Sep 20 15:10	9°  14'5'29		max. Earth dist.	12830 Feb 28 04:15	17°  10'1'32	1.72941 AU
desc. node	12827 Sep 20 14:13	9°  14'5'29					
evening set	12827 Oct 05 20:03	5°  13'0'4		superior conj	12830 Mar 01 17:17	18°  10'55'56	0°13'38
min. Earth dist.	12827 Oct 10 20:31	2°  14'4'6	0.27786 AU	minimum elong	12830 Mar 01 20:28	19°  10'5'44	0°13'46
inferior conj	12827 Oct 11 17:21	1°  14'2'43	-5°03'12	behind sun begin	12830 Mar 01 08:15	18°  10'28'02	
minimum elong	12827 Oct 11 07:32	1°  14'5'7'50	5°00'13	behind sun end	12830 Mar 02 08:40	19°  10'43'27	
	12827 Oct 14 12:50	30°  16'2'1		desc. node	12830 Mar 07 08:51	25°  10'54'41	
morning rise	12827 Oct 16 19:43	28°  16'40'27			12830 Mar 10 16:14	0° 	
direct	12827 Nov 01 17:44	23°  16'50'10			12830 Apr 03 21:43	0° 	
greatest brilliancy	12827 Nov 11 04:45	25°  16'28'37	-4.8m	evening rise	12830 Apr 09 04:16	6°  16'32'25	
	12827 Nov 20 22:20	0° 			12830 Apr 28 01:31	0° 	
morning max el	12827 Dec 20 17:09	24°  16'00'21	45°48'16		12830 May 22 04:24	0° 	
	12827 Dec 26 19:40	0° 			12830 Jun 15 08:18	0° 	
asc. node	12828 Jan 11 16:00	16°  16'30'46		asc. node	12830 Jun 28 00:37	15°  16'40'38	
	12828 Jan 23 22:59	0° 			12830 Jul 09 16:04	0° 	
	12828 Feb 19 03:10	0° 			12830 Aug 03 07:40	0° 	
	12828 Mar 15 09:37	0° 			12830 Aug 28 14:10	0° 	
	12828 Apr 09 03:52	0° 			12830 Sep 24 04:00	0° 	
desc. node	12828 May 02 11:28	28°  16'37'53		evening max el	12830 Oct 11 13:03	18°  16'10'1'52	46°13'48
	12828 May 03 14:03	0° 		desc. node	12830 Oct 17 23:40	24°  16'12'40	
	12828 May 27 18:16	0° 			12830 Oct 24 09:58	0° 	
morning set	12828 Jun 19 10:44	28°  16'21'07		greatest brilliancy	12830 Nov 19 20:08	17°  16'15'37	-4.8m
	12828 Jun 20 18:18	0° 		retrograde	12830 Nov 30 01:53	19°  16'10'38	
	12828 Jul 14 16:15	0° 		evening set	12830 Dec 18 10:18	12°  16'15'3'11	
				inferior conj	12830 Dec 21 14:39	10°  16'15'4'24	-8°33'51
superior conj	12828 Jul 29 09:15	18°  16'27'29	-0°55'39	minimum elong	12830 Dec 21 19:20	10°  16'15'47'02	8°32'33
minimum elong	12828 Jul 29 20:40	19°  16'03'19	0°55'55	min. Earth dist.	12830 Dec 21 14:27	10°  16'15'54'42	0.28938 AU
max. Earth dist.	12828 Jul 30 11:57	19°  16'05'1'15	1.71453 AU	morning rise	12830 Dec 25 04:24	8°  16'15'41'22	
	12828 Aug 07 14:05	0° 		direct	12831 Jan 11 23:52	2°  16'15'41'58	
asc. node	12828 Aug 23 01:39	19°  16'03'23'29		greatest brilliancy	12831 Jan 22 10:14	4°  16'15'40'09	-4.7m
	12828 Aug 31 13:17	0° 		asc. node	12831 Feb 08 02:05	14°  16'15'10'7'18	
evening rise	12828 Sep 07 04:20	8°  16'16'36			12831 Feb 26 16:51	0° 	
	12828 Sep 24 14:55	0° 		morning max el	12831 Mar 02 02:03	3°  16'15'15'23	45°49'40
	12828 Oct 18 20:21	0° 			12831 Mar 27 14:46	0° 	
	12828 Nov 12 07:51	0° 			12831 Apr 22 22:16	0° 	
	12828 Dec 07 04:33	0° 			12831 May 18 03:46	0° 	
desc. node	12828 Dec 12 18:43	6°  16'39'54		desc. node	12831 May 31 00:41	15°  16'15'18'36'17	
	12829 Jan 01 14:18	0° 			12831 Jun 11 18:59	0° 	
	12829 Jan 27 19:30	0° 			12831 Jul 06 01:42	0° 	
	12829 Feb 24 14:24	0° 			12831 Jul 30 03:54	0° 	
evening max el	12829 Mar 05 11:28	8°  16'18'54'20	46°08'21		12831 Aug 23 04:29	0° 	
	12829 Mar 29 22:43	0° 		morning set	12831 Sep 02 16:36	13°  16'15'10'7'13	
asc. node	12829 Apr 04 18:53	3°  16'19'14'58			12831 Sep 16 05:12	0° 	
greatest brilliancy	12829 Apr 14 04:35	8°  16'19'14'58	-4.8m	asc. node	12831 Sep 20 16:06	5°  16'15'10'33'17	
retrograde	12829 Apr 23 22:56	10°  16'19'05'30			12831 Oct 10 06:54	0° 	
evening set	12829 May 10 17:57	4°  16'19'39'08					
inferior conj	12829 May 14 18:25	2°  16'19'11'46	8°13'37	superior conj	12831 Oct 11 13:14	1°  16'19'34'24	0°47'57
minimum elong	12829 May 14 09:32	2°  16'19'25'36	8°11'33	minimum elong	12831 Oct 11 03:44	1°  16'19'04'47	0°47'58
min. Earth dist.	12829 May 14 19:36	2°  16'19'09'56	0.27611 AU	max. Earth dist.	12831 Oct 13 16:35	4°  16'19'14'06	1.72295 AU

	12831 Nov 03 10:12	0°♊			12834 Jun 24 00:07	0°♊		
evening rise	12831 Nov 17 22:35	17°♊58'51		desc. node	12834 Jun 27 12:36	4°♊07'02		
	12831 Nov 27 16:07	0°♊			12834 Jul 19 06:29	0°♊		
	12831 Dec 22 02:00	0°♊			12834 Aug 12 22:44	0°♊		
desc. node	12832 Jan 10 07:03	23°♊25'49			12834 Sep 06 08:40	0°♊		
	12832 Jan 15 16:58	0°♊			12834 Sep 30 16:09	0°♊		
	12832 Feb 09 13:29	0°♊		asc. node	12834 Oct 18 06:23	21°♊44'32		
	12832 Mar 05 16:27	0°♊			12834 Oct 24 22:38	0°♊		
	12832 Mar 31 05:42	0°♊		morning set	12834 Nov 13 02:21	23°♊41'59		
	12832 Apr 26 17:40	0°♊			12834 Nov 18 04:33	0°♊		
asc. node	12832 May 02 04:22	5°♊55'28			12834 Dec 12 10:31	0°♊		
evening max el	12832 May 17 04:45	21°♊32'45 46°40'03						
	12832 May 25 23:06	0°♊		superior conj	12834 Dec 20 02:36	9°♊28'46 1°24'23		
greatest brilliancy	12832 Jun 26 16:31	22°♊07'19 -4.9m		minimum elong	12834 Dec 20 06:26	9°♊40'38 1°25'19		
retrograde	12832 Jul 06 09:19	23°♊54'07		max. Earth dist.	12834 Dec 21 14:22	11°♊19'16 1.73082 AU		
evening set	12832 Jul 22 13:42	18°♊04'23			12835 Jan 05 17:29	0°♊		
inferior conj	12832 Jul 27 01:23	16°♊08'46 6°14'51		evening rise	12835 Jan 26 08:39	25°♊24'49		
minimum elong	12832 Jul 27 12:32	15°♊51'44 6°11'26			12835 Jan 30 02:08	0°♊		
min. Earth dist.	12832 Jul 27 11:42	15°♊53'00 0.27026 AU		desc. node	12835 Feb 06 20:32	9°♊32'45		
morning rise	12832 Aug 01 11:13	12°♊56'32			12835 Feb 23 12:22	0°♊		
direct	12832 Aug 16 17:55	8°♊21'07			12835 Mar 19 23:32	0°♊		
desc. node	12832 Aug 22 06:58	8°♊56'50			12835 Apr 13 11:38	0°♊		
greatest brilliancy	12832 Aug 26 21:19	10°♊16'10 -4.9m			12835 May 08 02:38	0°♊		
	12832 Sep 24 22:20	0°♊		asc. node	12835 May 30 14:44	27°♊05'28		
morning max el	12832 Oct 05 18:32	10°♊13'30 46°30'19			12835 Jun 02 01:20	0°♊		
	12832 Oct 24 20:44	0°♊			12835 Jun 27 17:19	0°♊		
	12832 Nov 20 18:49	0°♊			12835 Jul 25 02:19	0°♊		
asc. node	12832 Dec 13 06:38	26°♊07'28		evening max el	12835 Jul 29 23:05	4°♊57'44 46°44'04		
	12832 Dec 16 13:33	0°♊			12835 Aug 28 06:43	0°♊		
	12833 Jan 10 17:18	0°♊		greatest brilliancy	12835 Sep 07 04:44	5°♊10'19 -4.8m		
	12833 Feb 04 11:46	0°♊		retrograde	12835 Sep 18 05:41	7°♊25'13		
	12833 Mar 01 00:19	0°♊		desc. node	12835 Sep 19 16:16	7°♊22'44		
	12833 Mar 25 08:48	0°♊		evening set	12835 Oct 03 08:07	2°♊56'50		
morning set	12833 Apr 03 11:07	11°♊15'03			12835 Oct 08 07:47	30°♊		
desc. node	12833 Apr 03 23:17	11°♊52'41		min. Earth dist.	12835 Oct 08 11:04	29°♊54'56 0.27726 AU		
	12833 Apr 18 13:47	0°♊		inferior conj	12835 Oct 09 07:24	29°♊23'37 -4°44'31		
max. Earth dist.	12833 May 10 00:22	26°♊42'43 1.71880 AU		minimum elong	12835 Oct 08 21:57	29°♊38'11 4°41'37		
	12833 May 12 15:32	0°♊		morning rise	12835 Oct 14 12:30	26°♊17'26		
				direct	12835 Oct 30 07:40	21°♊32'05		
superior conj	12833 May 13 01:56	0°♊32'31 -1°17'28		greatest brilliancy	12835 Nov 08 18:12	23°♊10'03 -4.8m		
minimum elong	12833 May 12 16:21	0°♊02'35 1°18'02			12835 Nov 22 05:05	0°♊		
	12833 Jun 05 14:48	0°♊		morning max el	12835 Dec 18 06:42	21°♊42'23 45°49'04		
evening rise	12833 Jun 21 22:27	20°♊27'28			12835 Dec 26 15:59	0°♊		
	12833 Jun 29 13:11	0°♊		asc. node	12836 Jan 10 18:01	15°♊50'46		
	12833 Jul 23 12:39	0°♊			12836 Jan 23 14:04	0°♊		
asc. node	12833 Jul 25 13:36	2°♊32'43			12836 Feb 18 16:13	0°♊		
	12833 Aug 16 15:08	0°♊			12836 Mar 14 21:40	0°♊		
	12833 Sep 09 22:52	0°♊			12836 Apr 08 15:23	0°♊		
	12833 Oct 04 15:30	0°♊		desc. node	12836 May 01 13:17	28°♊08'54		
	12833 Oct 29 23:42	0°♊			12836 May 03 01:16	0°♊		
desc. node	12833 Nov 14 09:30	17°♊38'52			12836 May 27 05:19	0°♊		
	12833 Nov 25 12:39	0°♊		morning set	12836 Jun 16 22:25	25°♊53'05		
evening max el	12833 Dec 21 16:09	27°♊02'20 45°53'30			12836 Jun 20 05:16	0°♊		
	12833 Dec 24 19:04	0°♊			12836 Jul 14 03:12	0°♊		
greatest brilliancy	12834 Jan 29 16:13	25°♊19'25 -4.8m						
retrograde	12834 Feb 08 14:11	27°♊06'41		superior conj	12836 Jul 26 21:16	16°♊00'19 -0°58'35		
evening set	12834 Feb 23 16:03	22°♊40'33		minimum elong	12836 Jul 27 08:52	16°♊36'41 0°58'53		
inferior conj	12834 Mar 01 18:34	19°♊00'52 -1°24'53		max. Earth dist.	12836 Jul 27 19:50	17°♊11'04 1.71441 AU		
minimum elong	12834 Mar 01 21:44	18°♊55'54 1°23'37			12836 Aug 07 01:03	0°♊		
min. Earth dist.	12834 Mar 02 03:51	18°♊46'21 0.28283 AU		asc. node	12836 Aug 22 03:37	18°♊55'19		
asc. node	12834 Mar 07 11:34	15°♊34'01			12836 Aug 31 00:17	0°♊		
morning rise	12834 Mar 08 03:04	15°♊12'32		evening rise	12836 Sep 04 17:44	5°♊54'15		
direct	12834 Mar 23 00:31	10°♊50'32			12836 Sep 24 01:57	0°♊		
greatest brilliancy	12834 Apr 02 19:30	13°♊00'23 -4.8m			12836 Oct 18 07:32	0°♊		
	12834 Apr 28 08:12	0°♊			12836 Nov 11 19:21	0°♊		
morning max el	12834 May 11 23:48	12°♊48'33 46°30'21			12836 Dec 06 16:38	0°♊		
	12834 May 28 11:04	0°♊		desc. node	12836 Dec 11 20:36	6°♊09'08		

	12837 Jan 01 03:26	0° H			12839 Jul 29 14:55	0° Q		
	12837 Jan 27 10:41	0° Y			12839 Aug 22 15:18	0° M		
	12837 Feb 24 10:36	0° B		morning set	12839 Aug 31 06:18	10° M 46'28		
evening max el	12837 Mar 03 00:55	6° B 34'11	46°07'22		12839 Sep 15 15:53	0° A		
	12837 Mar 30 23:30	0° II		asc. node	12839 Sep 19 17:53	5° A 05'35		
asc. node	12837 Apr 03 20:53	2° II 20'50						
greatest brilliancy	12837 Apr 11 18:29	5° II 59'00	-4.8m	superior conj	12839 Oct 09 04:17	29° A 18'44	0°44'58	
retrograde	12837 Apr 21 12:09	7° II 45'04		minimum elong	12839 Oct 08 19:05	28° A 50'08	0°44'58	
evening set	12837 May 08 03:39	2° II 24'42			12839 Oct 09 17:32	0° M		
inferior conj	12837 May 12 08:27	29° B 51'09	8°02'48	max. Earth dist.	12839 Oct 11 06:57	1° M 56'26	1.72266 AU	
minimum elong	12837 May 11 23:04	0° II 05'46	8°00'34		12839 Nov 02 20:50	0° A		
	12837 May 12 02:46	30° R B		evening rise	12839 Nov 15 14:56	15° A 48'04		
min. Earth dist.	12837 May 12 09:41	29° B 49'12	0.27627 AU		12839 Nov 27 02:49	0° B		
morning rise	12837 May 15 18:20	27° B 45'03			12839 Dec 21 12:53	0° \approx		
direct	12837 Jun 02 06:19	21° B 51'04		desc. node	12840 Jan 09 09:00	22° \approx 57'55		
greatest brilliancy	12837 Jun 12 05:45	23° B 43'04	-4.9m		12840 Jan 15 04:10	0° H		
	12837 Jun 24 06:06	0° II			12840 Feb 09 01:14	0° Y		
morning max el	12837 Jul 22 17:18	24° II 36'19	46°58'03		12840 Mar 05 05:06	0° B		
desc. node	12837 Jul 24 23:21	26° II 53'20			12840 Mar 30 19:55	0° II		
	12837 Jul 27 23:51	0° B			12840 Apr 26 11:07	0° B		
	12837 Aug 24 08:03	0° Q		asc. node	12840 May 01 06:16	5° B 10'56		
	12837 Sep 19 02:21	0° M		evening max el	12840 May 14 18:41	19° B 11'24	46°39'17	
	12837 Oct 14 05:36	0° A			12840 May 26 03:05	0° Q		
	12837 Nov 08 01:17	0° M		greatest brilliancy	12840 Jun 24 05:31	19° Q 42'40	-4.9m	
asc. node	12837 Nov 14 19:58	8° M 14'23		retrograde	12840 Jul 03 22:48	21° Q 29'42		
	12837 Dec 02 16:01	0° A		evening set	12840 Jul 20 06:05	16° Q 19'39		
	12837 Dec 27 03:12	0° B		inferior conj	12840 Jul 24 14:09	13° Q 44'07	6°32'27	
	12838 Jan 20 12:12	0° \approx		minimum elong	12840 Jul 25 01:24	13° Q 26'57	6°29'05	
morning set	12838 Jan 21 01:07	0° \approx 39'48		min. Earth dist.	12840 Jul 25 00:40	13° Q 28'03	0.27038 AU	
	12838 Feb 13 20:03	0° H		morning rise	12840 Jul 29 20:37	10° Q 36'47		
max. Earth dist.	12838 Feb 25 22:02	14° H 55'09	1.72967 AU	direct	12840 Aug 14 07:17	5° Q 56'13		
				desc. node	12840 Aug 21 08:57	6° Q 53'57		
superior conj	12838 Feb 27 08:45	16° H 42'22	0°17'03	greatest brilliancy	12840 Aug 24 09:42	7° Q 51'03	-4.9m	
minimum elong	12838 Feb 27 12:41	16° H 54'29	0°17'10		12840 Sep 25 02:12	0° M		
desc. node	12838 Mar 06 10:44	25° H 27'21		morning max el	12840 Oct 03 09:26	7° M 55'56	46°31'53	
	12838 Mar 10 02:58	0° Y			12840 Oct 24 14:00	0° A		
	12838 Apr 03 08:33	0° B			12840 Nov 20 08:46	0° M		
evening rise	12838 Apr 06 18:53	4° B 15'12		asc. node	12840 Dec 12 08:38	25° M 36'21		
	12838 Apr 27 12:30	0° II			12840 Dec 16 01:58	0° A		
	12838 May 21 15:35	0° B			12841 Jan 10 04:52	0° B		
	12838 Jun 14 19:47	0° Q			12841 Feb 03 22:50	0° \approx		
asc. node	12838 Jun 27 02:34	15° Q 10'38			12841 Feb 28 11:08	0° H		
	12838 Jul 09 03:59	0° M			12841 Mar 24 19:28	0° Y		
	12838 Aug 02 20:21	0° A		morning set	12841 Apr 01 01:07	8° Y 56'52		
	12838 Aug 28 04:19	0° M		desc. node	12841 Apr 03 01:02	11° Y 25'10		
	12838 Sep 23 21:28	0° A			12841 Apr 18 00:25	0° B		
evening max el	12838 Oct 09 03:17	15° A 44'48	46°14'52	max. Earth dist.	12841 May 07 12:25	24° B 17'21	1.71916 AU	
desc. node	12838 Oct 17 01:34	23° A 18'33						
	12838 Oct 24 16:04	0° B		superior conj	12841 May 10 14:25	28° B 08'22	-1°15'38	
greatest brilliancy	12838 Nov 17 10:52	15° B 02'47	-4.8m	minimum elong	12841 May 10 04:21	27° B 36'54	1°16'09	
retrograde	12838 Nov 27 17:47	16° B 59'17			12841 May 12 02:10	0° II		
evening set	12838 Dec 16 03:15	10° B 39'44			12841 Jun 05 01:30	0° B		
inferior conj	12838 Dec 19 06:30	8° B 42'53	-8°38'10	evening rise	12841 Jun 19 09:48	17° B 58'57		
minimum elong	12838 Dec 19 10:27	8° B 36'40	8°36'58		12841 Jun 28 23:58	0° Q		
min. Earth dist.	12838 Dec 19 05:21	8° B 44'40	0.28933 AU		12841 Jul 22 23:34	0° M		
morning rise	12838 Dec 22 17:40	6° B 33'57		asc. node	12841 Jul 24 15:33	2° M 04'44		
direct	12839 Jan 09 15:06	0° B 30'35			12841 Aug 16 02:15	0° A		
greatest brilliancy	12839 Jan 20 01:30	2° B 28'42	-4.7m		12841 Sep 09 10:18	0° M		
asc. node	12839 Feb 07 04:08	12° B 59'32			12841 Oct 04 03:31	0° A		
	12839 Feb 26 15:45	0° \approx			12841 Oct 29 12:53	0° B		
morning max el	12839 Feb 27 17:33	1° \approx 02'36	45°48'52	desc. node	12841 Nov 13 11:27	17° B 03'40		
	12839 Mar 27 06:31	0° H			12841 Nov 25 04:29	0° \approx		
	12839 Apr 22 11:38	0° Y		evening max el	12841 Dec 19 08:06	24° \approx 52'17	45°53'30	
	12839 May 17 16:00	0° B			12841 Dec 24 19:09	0° H		
desc. node	12839 May 30 02:29	15° B 05'29		greatest brilliancy	12842 Jan 27 07:21	23° H 06'53	-4.8m	
	12839 Jun 11 06:37	0° II		retrograde	12842 Feb 06 05:04	24° H 53'35		
	12839 Jul 05 12:59	0° B		evening set	12842 Feb 21 08:53	20° H 25'26		

inferior conj	12842 Feb 27 09:51	16° H 47'27	-1°46'06	max. Earth dist.	12844 Jul 25 01:48	14° Ω 26'02	1.71427 AU
minimum elong	12842 Feb 27 13:47	16° H 41'17	1°44'34		12844 Aug 06 11:38	0° M	
min. Earth dist.	12842 Feb 27 19:26	16° H 32'26	0.28314 AU	asc. node	12844 Aug 21 05:21	18° M 27'40	
morning rise	12842 Mar 05 18:21	12° H 58'51			12844 Aug 30 10:53	0° Ω	
asc. node	12842 Mar 06 13:33	12° H 33'05		evening rise	12844 Sep 02 07:00	3° Ω 32'42	
direct	12842 Mar 20 16:32	8° H 37'03			12844 Sep 23 12:38	0° M	
greatest brilliancy	12842 Mar 31 11:04	10° H 46'23	-4.8m		12844 Oct 17 18:23	0° H	
	12842 Apr 28 12:27	0° Y			12844 Nov 11 06:31	0° Z	
morning max el	12842 May 09 14:28	10° Y 31'48	46°28'44		12844 Dec 06 04:23	0° \approx	
	12842 May 28 04:12	0° B		desc. node	12844 Dec 10 22:39	5° \approx 39'51	
	12842 Jun 23 14:07	0° II			12844 Dec 31 16:15	0° H	
desc. node	12842 Jun 26 14:43	3° II 32'48			12845 Jan 27 01:38	0° Y	
	12842 Jul 18 19:04	0° G			12845 Feb 24 07:02	0° B	
	12842 Aug 12 10:31	0° Ω		evening max el	12845 Feb 28 14:01	4° B 14'26	46°06'17
	12842 Sep 05 19:58	0° M			12845 Apr 01 09:53	0° II	
	12842 Sep 30 03:05	0° Ω		asc. node	12845 Apr 02 22:47	0° II 50'05	
asc. node	12842 Oct 17 08:11	21° Ω 16'57		greatest brilliancy	12845 Apr 09 07:37	3° II 38'29	-4.8m
	12842 Oct 24 09:17	0° M		retrograde	12845 Apr 19 01:27	5° II 25'06	
morning set	12842 Nov 10 18:27	21° M 30'48		evening set	12845 May 05 13:06	0° II 10'19	
	12842 Nov 17 15:01	0° H			12845 May 05 20:12	30° R B	
	12842 Dec 11 20:53	0° Z		inferior conj	12845 May 09 22:16	27° B 30'40	7°50'56
				minimum elong	12845 May 09 12:26	27° B 45'57	7°48'34
superior conj	12842 Dec 17 19:45	7° Z 21'28	1°24'58	min. Earth dist.	12845 May 09 23:25	27° B 28'52	0.27648 AU
minimum elong	12842 Dec 17 22:52	7° Z 31'07	1°25'56	morning rise	12845 May 13 11:34	25° B 19'33	
max. Earth dist.	12842 Dec 19 09:49	9° Z 19'04	1.73065 AU	direct	12845 May 30 19:57	19° B 29'53	
	12843 Jan 05 03:52	0° \approx		greatest brilliancy	12845 Jun 09 20:49	21° B 23'11	-4.9m
evening rise	12843 Jan 24 00:57	23° \approx 15'03			12845 Jun 25 05:26	0° II	
	12843 Jan 29 12:39	0° H		morning max el	12845 Jul 20 07:02	22° II 14'09	46°58'07
desc. node	12843 Feb 05 22:26	9° H 06'09		desc. node	12845 Jul 24 01:19	26° II 04'02	
	12843 Feb 22 23:07	0° Y			12845 Jul 27 19:59	0° G	
	12843 Mar 19 10:35	0° B			12845 Aug 23 23:18	0° Ω	
	12843 Apr 12 23:07	0° II			12845 Sep 18 15:33	0° M	
	12843 May 07 14:46	0° G			12845 Oct 13 17:39	0° Ω	
asc. node	12843 May 29 16:46	26° G 32'26			12845 Nov 07 12:38	0° M	
	12843 Jun 01 14:36	0° Ω		asc. node	12845 Nov 13 21:54	7° M 46'06	
	12843 Jun 27 08:43	0° M			12845 Dec 02 02:55	0° H	
	12843 Jul 24 23:07	0° Ω			12845 Dec 26 13:50	0° Z	
evening max el	12843 Jul 27 13:24	2° Ω 37'42	46°44'33	morning set	12846 Jan 18 18:14	28° Z 32'19	
	12843 Aug 29 18:28	0° M			12846 Jan 19 22:41	0° \approx	
greatest brilliancy	12843 Sep 04 20:28	2° M 52'44	-4.8m		12846 Feb 13 06:28	0° H	
retrograde	12843 Sep 15 19:44	5° M 06'12		max. Earth dist.	12846 Feb 23 18:00	12° H 56'25	1.72991 AU
desc. node	12843 Sep 18 18:15	4° M 55'48					
evening set	12843 Sep 30 20:21	0° M 41'26		superior conj	12846 Feb 25 00:29	14° H 30'31	0°20'24
	12843 Oct 02 01:54	30° R Ω		minimum elong	12846 Feb 25 05:07	14° H 44'51	0°20'32
min. Earth dist.	12843 Oct 06 02:00	27° Ω 35'49	0.27669 AU	desc. node	12846 Mar 05 12:30	25° H 00'34	
inferior conj	12843 Oct 06 21:28	27° Ω 05'48	-4°25'14		12846 Mar 09 13:25	0° Y	
minimum elong	12843 Oct 06 12:27	27° Ω 19'43	4°22'25		12846 Apr 02 19:06	0° B	
morning rise	12843 Oct 12 05:13	23° Ω 55'45		evening rise	12846 Apr 04 09:44	1° B 59'41	
direct	12843 Oct 27 21:07	19° Ω 15'04			12846 Apr 26 23:15	0° II	
greatest brilliancy	12843 Nov 06 08:19	20° Ω 53'15	-4.8m		12846 May 21 02:36	0° G	
	12843 Nov 23 02:36	0° M			12846 Jun 14 07:08	0° Ω	
morning max el	12843 Dec 15 19:38	19° M 24'01	45°50'02	asc. node	12846 Jun 26 04:30	14° Ω 40'56	
	12843 Dec 26 11:09	0° H			12846 Jul 08 15:49	0° M	
asc. node	12844 Jan 09 20:02	15° H 12'34			12846 Aug 02 08:59	0° Ω	
	12844 Jan 23 04:28	0° Z			12846 Aug 27 18:27	0° M	
	12844 Feb 18 04:44	0° \approx			12846 Sep 23 15:08	0° H	
	12844 Mar 14 09:18	0° H		evening max el	12846 Oct 06 18:12	13° H 29'59	46°16'08
	12844 Apr 08 02:33	0° Y		desc. node	12846 Oct 16 03:34	22° H 24'15	
desc. node	12844 Apr 30 15:11	27° Y 41'01			12846 Oct 25 00:15	0° Z	
	12844 May 02 12:10	0° B		greatest brilliancy	12846 Nov 15 01:03	12° Z 50'06	-4.8m
	12844 May 26 16:04	0° II		retrograde	12846 Nov 25 10:04	14° Z 48'36	
morning set	12844 Jun 14 09:44	23° II 24'49		evening set	12846 Dec 13 19:54	8° Z 27'19	
	12844 Jun 19 15:56	0° G		inferior conj	12846 Dec 16 22:19	6° Z 31'55	-8°41'43
	12844 Jul 13 13:48	0° Ω		minimum elong	12846 Dec 17 01:30	6° Z 26'54	8°40'37
				min. Earth dist.	12846 Dec 16 19:50	6° Z 35'48	0.28925 AU
superior conj	12844 Jul 24 09:07	13° Ω 33'42	-1°01'24	morning rise	12846 Dec 20 07:10	4° Z 26'47	
minimum elong	12844 Jul 24 20:48	14° Ω 10'22	1°01'45		12846 Dec 29 03:57	30° R H	

direct	12847 Jan 07 06:55	28°♊19'50		asc. node	12849 Jul 23 17:20	1°♎35'59	
	12847 Jan 16 20:12	0°♊			12849 Aug 15 13:30	0°♊	
greatest brilliancy	12847 Jan 17 16:14	0°♊17'24	-4.7m		12849 Sep 08 21:57	0°♎	
asc. node	12847 Feb 06 06:02	11°♊53'56			12849 Oct 03 15:49	0°♊	
morning max el	12847 Feb 25 09:42	28°♊52'11	45°48'09		12849 Oct 29 02:27	0°♊	
	12847 Feb 26 13:26	0°♊		desc. node	12849 Nov 12 13:31	16°♊27'51	
	12847 Mar 26 21:47	0°♊			12849 Nov 24 20:52	0°♊	
	12847 Apr 22 00:40	0°♊		evening max el	12849 Dec 16 23:14	22°♊39'38	45°53'42
	12847 May 17 04:01	0°♊			12849 Dec 24 20:44	0°♊	
desc. node	12847 May 29 04:31	14°♊36'01		greatest brilliancy	12850 Jan 24 23:09	20°♊54'59	-4.8m
	12847 Jun 10 18:06	0°♊		retrograde	12850 Feb 03 19:44	22°♊40'38	
	12847 Jul 05 00:09	0°♊		evening set	12850 Feb 19 02:01	18°♊10'12	
	12847 Jul 29 01:52	0°♊		inferior conj	12850 Feb 25 01:20	14°♊34'15	-2°06'52
	12847 Aug 22 02:05	0°♊		minimum elong	12850 Feb 25 06:00	14°♊26'55	2°05'06
morning set	12847 Aug 28 19:34	8°♊24'21		min. Earth dist.	12850 Feb 25 11:27	14°♊18'23	0.28345 AU
	12847 Sep 15 02:33	0°♊		morning rise	12850 Mar 03 09:37	10°♊45'30	
asc. node	12847 Sep 18 19:42	4°♊38'04		asc. node	12850 Mar 05 15:32	9°♊35'39	
				direct	12850 Mar 18 08:11	6°♊23'37	
superior conj	12847 Oct 06 18:51	27°♊01'40	0°41'53	greatest brilliancy	12850 Mar 29 03:12	8°♊32'53	-4.8m
minimum elong	12847 Oct 06 10:04	26°♊34'18	0°41'51		12850 Apr 28 15:09	0°♊	
max. Earth dist.	12847 Oct 08 22:47	29°♊43'23	1.72231 AU	morning max el	12850 May 07 04:30	8°♊13'01	46°27'10
	12847 Oct 09 04:07	0°♎			12850 May 27 21:08	0°♊	
	12847 Nov 02 07:24	0°♊			12850 Jun 23 04:07	0°♊	
evening rise	12847 Nov 13 07:07	13°♊36'57		desc. node	12850 Jun 25 16:34	2°♊57'39	
	12847 Nov 26 13:27	0°♊			12850 Jul 18 07:42	0°♊	
	12847 Dec 20 23:42	0°♊			12850 Aug 11 22:25	0°♊	
desc. node	12848 Jan 08 10:53	22°♊30'02			12850 Sep 05 07:24	0°♊	
	12848 Jan 14 15:20	0°♊			12850 Sep 29 14:12	0°♊	
	12848 Feb 08 12:59	0°♊		asc. node	12850 Oct 16 10:07	20°♊49'06	
	12848 Mar 04 17:44	0°♊			12850 Oct 23 20:11	0°♎	
	12848 Mar 30 10:10	0°♊		morning set	12850 Nov 08 10:18	19°♎18'00	
	12848 Apr 26 04:50	0°♊			12850 Nov 17 01:45	0°♊	
asc. node	12848 Apr 30 08:21	4°♊26'41			12850 Dec 11 07:32	0°♊	
evening max el	12848 May 12 09:01	16°♊51'23	46°38'21				
	12848 May 26 08:51	0°♊		superior conj	12850 Dec 15 12:43	5°♊12'41	1°25'27
greatest brilliancy	12848 Jun 21 18:29	17°♊18'19	-4.9m	minimum elong	12850 Dec 15 15:07	5°♊20'07	1°26'25
retrograde	12848 Jul 01 12:06	19°♊05'09		max. Earth dist.	12850 Dec 17 02:37	7°♊09'46	1.73046 AU
evening set	12848 Jul 17 22:32	13°♊50'00			12851 Jan 04 14:32	0°♊	
inferior conj	12848 Jul 22 02:56	11°♊19'23	6°49'11	evening rise	12851 Jan 21 17:04	21°♊03'57	
minimum elong	12848 Jul 22 14:09	11°♊02'14	6°45'56		12851 Jan 28 23:26	0°♊	
min. Earth dist.	12848 Jul 22 13:30	11°♊03'13	0.27054 AU	desc. node	12851 Feb 05 00:10	8°♊38'15	
morning rise	12848 Jul 27 05:46	8°♊17'05			12851 Feb 22 10:06	0°♊	
direct	12848 Aug 11 20:54	3°♊31'19			12851 Mar 18 21:53	0°♊	
desc. node	12848 Aug 20 10:55	4°♊55'40			12851 Apr 12 10:54	0°♊	
greatest brilliancy	12848 Aug 21 21:59	5°♊25'23	-4.9m		12851 May 07 03:16	0°♊	
	12848 Sep 25 04:38	0°♊		asc. node	12851 May 28 18:43	25°♊58'08	
morning max el	12848 Sep 30 23:44	5°♊36'12	46°33'20		12851 Jun 01 04:15	0°♊	
	12848 Oct 24 07:05	0°♊			12851 Jun 27 00:37	0°♊	
	12848 Nov 19 22:44	0°♎			12851 Jul 24 20:56	0°♊	
asc. node	12848 Dec 11 10:38	25°♎05'02		evening max el	12851 Jul 25 02:48	0°♊14'44	46°45'04
	12848 Dec 15 14:23	0°♊			12851 Sep 01 02:21	0°♎	
	12849 Jan 09 16:27	0°♊		greatest brilliancy	12851 Sep 02 12:09	0°♎34'30	-4.8m
	12849 Feb 03 09:56	0°♊		retrograde	12851 Sep 13 09:45	2°♎46'54	
	12849 Feb 27 21:58	0°♊		desc. node	12851 Sep 17 20:13	2°♎23'06	
	12849 Mar 24 06:12	0°♊			12851 Sep 25 05:18	30°♎	
morning set	12849 Mar 29 15:26	6°♊39'34		evening set	12851 Sep 28 08:51	28°♊25'02	
desc. node	12849 Apr 02 02:56	10°♊57'57		min. Earth dist.	12851 Oct 03 17:08	25°♊16'01	0.27617 AU
	12849 Apr 17 11:07	0°♊		inferior conj	12851 Oct 04 11:38	24°♊47'32	-4°05'35
max. Earth dist.	12849 May 04 22:49	21°♊46'42	1.71950 AU	minimum elong	12851 Oct 04 03:05	25°♊00'42	4°02'51
				morning rise	12851 Oct 09 21:55	21°♊33'50	
superior conj	12849 May 08 03:23	25°♊45'35	-1°13'40	direct	12851 Oct 25 10:17	16°♊57'18	
minimum elong	12849 May 07 16:55	25°♊12'55	1°14'08	greatest brilliancy	12851 Nov 03 22:59	18°♊36'22	-4.8m
	12849 May 11 12:52	0°♊			12851 Nov 23 18:54	0°♎	
	12849 Jun 04 12:14	0°♊		morning max el	12851 Dec 13 08:53	17°♎05'22	45°50'59
evening rise	12849 Jun 16 21:31	15°♊31'25			12851 Dec 26 06:10	0°♊	
	12849 Jun 28 10:48	0°♊		asc. node	12852 Jan 08 21:52	14°♊33'10	
	12849 Jul 22 10:34	0°♊			12852 Jan 22 19:05	0°♊	

	12852 Feb 17 17:34	0°♊			12854 Sep 23 09:39	0°♊	
	12852 Mar 13 21:14	0°♋		evening max el	12854 Oct 04 10:02	11°♊16'25	46°17'26
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desc. node	12852 Apr 29 17:05	27°♌12'23			12854 Oct 25 11:56	0°♋	
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morning set	12852 Jun 11 21:03	20°♍55'33		evening set	12854 Dec 11 12:15	6°♋14'40	
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minimum elong	12852 Jul 22 08:47	11°♏43'08	1°04'29		12854 Dec 21 22:26	30°♋♊	
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asc. node	12852 Aug 20 07:13	17°♎59'23			12855 Jan 19 19:29	0°♋	
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evening rise	12852 Aug 30 20:26	1°♌10'44		morning max el	12855 Feb 23 01:51	26°♋41'04	45°47'17
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evening max el	12853 Feb 26 03:56	1°♌55'48	46°05'26		12855 Aug 21 13:07	0°♎	
asc. node	12853 Apr 02 00:53	29°♌15'34		morning set	12855 Aug 26 08:48	6°♎01'25	
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greatest brilliancy	12853 Apr 06 20:25	1°♍17'01	-4.8m	asc. node	12855 Sep 17 21:38	4°♌10'03	
retrograde	12853 Apr 16 15:30	3°♍04'49					
	12853 Apr 29 00:57	30°♋♌		superior conj	12855 Oct 04 09:21	24°♌43'30	0°38'44
evening set	12853 May 02 22:52	27°♋55'16		minimum elong	12855 Oct 04 01:02	24°♌17'34	0°38'39
inferior conj	12853 May 07 12:15	25°♋09'40	7°38'26	max. Earth dist.	12855 Oct 06 15:16	27°♌31'24	1.72197 AU
minimum elong	12853 May 07 02:02	25°♋25'31	7°35'54		12855 Oct 08 14:59	0°♍	
min. Earth dist.	12853 May 07 12:56	25°♋08'35	0.27667 AU		12855 Nov 01 18:15	0°♊	
morning rise	12853 May 11 05:02	22°♋53'35		evening rise	12855 Nov 10 23:18	11°♊24'57	
direct	12853 May 28 10:11	17°♋08'21			12855 Nov 26 00:21	0°♋	
greatest brilliancy	12853 Jun 07 11:26	19°♋02'21	-4.9m		12855 Dec 20 10:46	0°♊	
	12853 Jun 25 22:59	0°♍		desc. node	12856 Jan 07 12:44	22°♊01'18	
morning max el	12853 Jul 17 21:53	19°♍54'03	46°57'59		12856 Jan 14 02:45	0°♋	
desc. node	12853 Jul 23 03:14	25°♍14'35			12856 Feb 08 00:59	0°♌	
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asc. node	12853 Nov 12 23:50	7°♍16'54			12856 May 26 17:29	0°♏	
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morning set	12854 Jan 16 11:25	26°♋24'03		evening set	12856 Jul 15 14:59	11°♏19'32	
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max. Earth dist.	12854 Feb 21 14:24	10°♋57'50	1.73014 AU	min. Earth dist.	12856 Jul 20 02:26	8°♏37'25	0.27069 AU
				morning rise	12856 Jul 24 14:36	5°♏56'45	
superior conj	12854 Feb 22 16:09	12°♋17'19	0°23'44	direct	12856 Aug 09 10:02	1°♏05'45	
minimum elong	12854 Feb 22 21:28	12°♋33'46	0°23'52	greatest brilliancy	12856 Aug 19 10:23	2°♏59'01	-4.9m
desc. node	12854 Mar 04 14:25	24°♋33'06		desc. node	12856 Aug 19 12:59	3°♏01'23	
	12854 Mar 09 00:14	0°♌			12856 Sep 25 05:55	0°♎	
evening rise	12854 Apr 02 00:27	29°♌42'42		morning max el	12856 Sep 28 12:57	3°♎13'05	46°34'43
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	12854 Jun 13 18:49	0°♏			12856 Dec 15 02:55	0°♊	
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


































































































































morning set	12857 Mar 27 05:50	4°♄22'10		evening set	12859 Sep 25 21:11	26°♁07'20	
desc. node	12857 Apr 01 04:50	10°♄30'23		min. Earth dist.	12859 Oct 01 07:56	22°♁55'23	0.27566 AU
	12857 Apr 16 21:55	0°♄		inferior conj	12859 Oct 02 01:28	22°♁28'26	-3°45'08
max. Earth dist.	12857 May 02 08:18	19°♄12'54	1.71992 AU	minimum elong	12859 Oct 01 17:28	22°♁40'43	3°42'33
				morning rise	12859 Oct 07 14:17	19°♁11'25	
superior conj	12857 May 05 16:13	23°♄22'05	-1°11'35	direct	12859 Oct 22 23:05	14°♁38'35	
minimum elong	12857 May 05 05:26	22°♄48'28	1°11'59	greatest brilliancy	12859 Nov 01 13:21	16°♁18'54	-4.8m
	12857 May 10 23:42	0°♄			12859 Nov 24 06:58	0°♄	
	12857 Jun 03 23:08	0°♄		morning max el	12859 Dec 10 22:37	14°♄48'13	45°52'04
evening rise	12857 Jun 14 08:52	13°♄02'15			12859 Dec 26 00:29	0°♄	
	12857 Jun 27 21:48	0°♄		asc. node	12860 Jan 07 23:56	13°♄55'21	
	12857 Jul 21 21:43	0°♄			12860 Jan 22 09:19	0°♄	
asc. node	12857 Jul 22 19:12	1°♄06'59			12860 Feb 17 06:06	0°♄	
	12857 Aug 15 00:53	0°♄			12860 Mar 13 08:54	0°♄	
	12857 Sep 08 09:42	0°♄			12860 Apr 07 01:10	0°♄	
	12857 Oct 03 04:15	0°♄		desc. node	12860 Apr 28 18:53	26°♄44'16	
	12857 Oct 28 16:13	0°♄			12860 May 01 10:14	0°♄	
desc. node	12857 Nov 11 15:23	15°♄50'56			12860 May 25 13:49	0°♄	
	12857 Nov 24 13:39	0°♄		morning set	12860 Jun 09 08:38	18°♄28'08	
evening max el	12857 Dec 14 13:34	20°♄24'49	45°53'57		12860 Jun 18 13:33	0°♄	
	12857 Dec 24 23:54	0°♄			12860 Jul 12 11:23	0°♄	
greatest brilliancy	12858 Jan 22 15:09	18°♄43'12	-4.8m				
retrograde	12858 Feb 01 10:17	20°♄27'55		superior conj	12860 Jul 19 09:01	8°♄39'53	-1°06'39
evening set	12858 Feb 16 19:14	15°♄54'44		minimum elong	12860 Jul 19 20:40	9°♄16'25	1°07'05
inferior conj	12858 Feb 22 16:50	12°♄21'18	-2°27'24	max. Earth dist.	12860 Jul 19 15:05	8°♄58'55	1.71414 AU
minimum elong	12858 Feb 22 22:11	12°♄12'52	2°25'25		12860 Aug 05 09:12	0°♄	
min. Earth dist.	12858 Feb 23 03:39	12°♄04'18	0.28375 AU	asc. node	12860 Aug 19 09:09	17°♄32'07	
morning rise	12858 Mar 01 00:42	8°♄32'44		evening rise	12860 Aug 28 09:37	28°♄48'41	
asc. node	12858 Mar 04 17:35	6°♄42'03			12860 Aug 29 08:27	0°♄	
direct	12858 Mar 15 23:23	4°♄10'18			12860 Sep 22 10:21	0°♄	
greatest brilliancy	12858 Mar 26 19:43	6°♄20'11	-4.8m		12860 Oct 16 16:27	0°♄	
	12858 Apr 28 16:20	0°♄			12860 Nov 10 05:19	0°♄	
morning max el	12858 May 04 18:14	5°♄53'41	46°25'35		12860 Dec 05 04:28	0°♄	
	12858 May 27 13:42	0°♄		desc. node	12860 Dec 09 02:23	4°♄38'36	
	12858 Jun 22 17:58	0°♄			12860 Dec 30 18:41	0°♄	
desc. node	12858 Jun 24 18:27	2°♄22'47			12861 Jan 26 08:49	0°♄	
	12858 Jul 17 20:18	0°♄		evening max el	12861 Feb 23 18:46	29°♄40'26	46°04'37
	12858 Aug 11 10:19	0°♄			12861 Feb 24 02:50	0°♄	
	12858 Sep 04 18:50	0°♄		asc. node	12861 Apr 01 02:52	27°♄38'24	
	12858 Sep 29 01:17	0°♄		greatest brilliancy	12861 Apr 04 09:06	28°♄56'29	-4.8m
asc. node	12858 Oct 15 11:56	20°♄21'05			12861 Apr 07 23:22	0°♄	
	12858 Oct 23 07:00	0°♄		retrograde	12861 Apr 14 05:56	0°♄45'25	
morning set	12858 Nov 06 01:50	17°♄04'20			12861 Apr 20 07:53	30°♄	
	12858 Nov 16 12:24	0°♄		evening set	12861 Apr 30 08:48	25°♄41'11	
	12858 Dec 10 18:07	0°♄		inferior conj	12861 May 05 02:11	22°♄49'43	7°25'11
				minimum elong	12861 May 04 15:42	23°♄05'59	7°22'30
superior conj	12858 Dec 13 05:34	3°♄03'44	1°25'49	min. Earth dist.	12861 May 05 02:18	22°♄49'33	0.27682 AU
minimum elong	12858 Dec 13 07:13	3°♄08'51	1°26'47	morning rise	12861 May 08 22:29	20°♄28'36	
max. Earth dist.	12858 Dec 14 17:56	4°♄56'06	1.73028 AU	direct	12861 May 26 00:46	14°♄48'11	
	12859 Jan 04 01:09	0°♄		greatest brilliancy	12861 Jun 05 01:24	16°♄42'05	-4.9m
evening rise	12859 Jan 19 09:13	18°♄53'10			12861 Jun 26 11:27	0°♄	
	12859 Jan 28 10:10	0°♄		morning max el	12861 Jul 15 13:01	17°♄36'13	46°57'48
desc. node	12859 Feb 04 02:07	8°♄11'12		desc. node	12861 Jul 22 05:19	24°♄27'49	
	12859 Feb 21 21:01	0°♄			12861 Jul 27 10:35	0°♄	
	12859 Mar 18 09:05	0°♄			12861 Aug 23 05:21	0°♄	
	12859 Apr 11 22:33	0°♄			12861 Sep 17 17:53	0°♄	
	12859 May 06 15:39	0°♄			12861 Oct 12 17:54	0°♄	
asc. node	12859 May 27 20:34	25°♄23'47			12861 Nov 06 11:33	0°♄	
	12859 May 31 17:53	0°♄		asc. node	12861 Nov 12 01:37	6°♄48'21	
	12859 Jun 26 16:42	0°♄			12861 Dec 01 00:59	0°♄	
evening max el	12859 Jul 22 15:46	27°♄50'44	46°45'28		12861 Dec 25 11:23	0°♄	
	12859 Jul 24 19:38	0°♄		morning set	12862 Jan 14 04:24	24°♄16'18	
greatest brilliancy	12859 Aug 31 03:17	28°♄14'57	-4.9m		12862 Jan 18 19:56	0°♄	
	12859 Sep 06 04:45	0°♄			12862 Feb 12 03:38	0°♄	
retrograde	12859 Sep 10 23:48	0°♄26'55		max. Earth dist.	12862 Feb 19 10:45	9°♄00'17	1.73035 AU
	12859 Sep 15 16:45	30°♄					
desc. node	12859 Sep 16 22:18	29°♄44'03		superior conj	12862 Feb 20 07:40	10°♄04'54	0°27'02

minimum elong	12862 Feb 20 13:39	10° H 23'21	0°27'10	direct	12864 Aug 06 22:36	28° G 41'09	
desc. node	12862 Mar 03 16:15	24° H 06'30			12864 Aug 15 06:14	0° Ω	
	12862 Mar 08 10:42	0° Y		greatest brilliancy	12864 Aug 16 23:18	0° Ω 34'16	-4.9m
evening rise	12862 Mar 30 15:07	27° Y 26'39		desc. node	12864 Aug 18 14:56	1° Ω 12'31	
	12862 Apr 01 16:38	0° B			12864 Sep 25 05:28	0° M	
	12862 Apr 25 21:08	0° II		morning max el	12864 Sep 26 01:34	0° M 49'34	46°36'21
	12862 May 20 00:57	0° G			12864 Oct 23 16:07	0° Ω	
	12862 Jun 13 06:08	0° Ω			12864 Nov 19 02:06	0° M	
asc. node	12862 Jun 24 08:17	13° Ω 40'23		asc. node	12864 Dec 09 14:25	24° M 02'35	
	12862 Jul 07 15:50	0° M			12864 Dec 14 14:56	0° X	
	12862 Aug 01 10:44	0° Ω			12865 Jan 08 15:24	0° Z	
	12862 Aug 26 23:30	0° M			12865 Feb 02 07:59	0° \approx	
	12862 Sep 23 04:07	0° X			12865 Feb 26 19:32	0° H	
evening max el	12862 Oct 02 02:11	9° X 04'47	46°18'29		12865 Mar 23 03:34	0° Y	
desc. node	12862 Oct 14 07:32	20° X 31'24		morning set	12865 Mar 24 20:14	2° Y 05'43	
	12862 Oct 26 03:01	0° Z		desc. node	12865 Mar 31 06:34	10° Y 03'15	
greatest brilliancy	12862 Nov 10 05:51	8° Z 24'35	-4.8m		12865 Apr 16 08:26	0° B	
retrograde	12862 Nov 20 18:49	10° Z 25'55		max. Earth dist.	12865 Apr 29 19:13	16° B 44'34	1.72035 AU
evening set	12862 Dec 09 04:15	4° Z 03'29					
inferior conj	12862 Dec 12 05:53	2° Z 09'08	-8°46'43	superior conj	12865 May 03 05:03	20° B 59'37	-1°09'22
minimum elong	12862 Dec 12 07:30	2° Z 06'35	8°45'42	minimum elong	12865 May 02 18:01	20° B 25'14	1°09'42
min. Earth dist.	12862 Dec 12 00:11	2° Z 18'02	0.28896 AU		12865 May 10 10:15	0° II	
morning rise	12862 Dec 15 10:52	0° Z 10'03			12865 Jun 03 09:46	0° G	
	12862 Dec 15 17:33	30° R X		evening rise	12865 Jun 11 20:20	10° G 34'18	
direct	12863 Jan 02 15:17	23° X 58'23			12865 Jun 27 08:34	0° Ω	
greatest brilliancy	12863 Jan 12 19:50	25° X 52'19	-4.7m		12865 Jul 21 08:39	0° M	
	12863 Jan 21 13:08	0° Z		asc. node	12865 Jul 21 21:08	0° M 38'55	
asc. node	12863 Feb 04 10:06	9° Z 47'53			12865 Aug 14 12:03	0° Ω	
morning max el	12863 Feb 20 17:20	24° Z 29'25	45°46'25		12865 Sep 07 21:14	0° M	
	12863 Feb 26 06:40	0° \approx			12865 Oct 02 16:26	0° X	
	12863 Mar 26 03:54	0° H			12865 Oct 28 05:45	0° Z	
	12863 Apr 21 02:44	0° Y		desc. node	12865 Nov 10 17:21	15° Z 15'06	
	12863 May 16 04:09	0° B			12865 Nov 24 06:23	0° \approx	
desc. node	12863 May 27 08:11	13° B 35'19		evening max el	12865 Dec 12 03:32	18° \approx 10'14	45°54'12
	12863 Jun 09 17:10	0° II			12865 Dec 25 04:23	0° H	
	12863 Jul 03 22:32	0° G		greatest brilliancy	12866 Jan 20 06:52	16° H 32'10	-4.7m
	12863 Jul 27 23:48	0° Ω		retrograde	12866 Jan 30 01:11	18° H 16'36	
	12863 Aug 20 23:40	0° M		evening set	12866 Feb 14 12:42	13° H 40'04	
morning set	12863 Aug 23 22:24	3° M 41'02		inferior conj	12866 Feb 20 08:29	10° H 09'25	-2°47'38
	12863 Sep 13 23:56	0° Ω		minimum elong	12866 Feb 20 14:30	9° H 59'57	2°45'26
asc. node	12863 Sep 16 23:24	3° Ω 43'02		min. Earth dist.	12866 Feb 20 19:58	9° H 51'24	0.28412 AU
				morning rise	12866 Feb 26 15:48	6° H 21'29	
superior conj	12863 Oct 02 00:09	22° Ω 27'41	0°35'31	asc. node	12866 Mar 03 19:32	3° H 54'01	
minimum elong	12863 Oct 01 16:21	22° Ω 03'23	0°35'26	direct	12866 Mar 13 14:40	1° H 57'49	
max. Earth dist.	12863 Oct 04 08:42	25° Ω 23'52	1.72162 AU	greatest brilliancy	12866 Mar 24 12:42	4° H 08'55	-4.8m
	12863 Oct 08 01:22	0° M			12866 Apr 28 16:05	0° Y	
	12863 Nov 01 04:38	0° X		morning max el	12866 May 02 08:57	3° Y 37'19	46°24'02
evening rise	12863 Nov 08 15:39	9° X 14'44			12866 May 27 05:47	0° B	
	12863 Nov 25 10:49	0° Z			12866 Jun 22 07:32	0° II	
	12863 Dec 19 21:26	0° \approx		desc. node	12866 Jun 23 20:32	1° II 49'10	
desc. node	12864 Jan 06 14:39	21° \approx 33'57			12866 Jul 17 08:41	0° G	
	12864 Jan 13 13:48	0° H			12866 Aug 10 22:02	0° Ω	
	12864 Feb 07 12:40	0° Y			12866 Sep 04 06:07	0° M	
	12864 Mar 03 19:26	0° B			12866 Sep 28 12:16	0° Ω	
	12864 Mar 29 15:25	0° II		asc. node	12866 Oct 14 13:45	19° Ω 53'20	
	12864 Apr 25 17:57	0° G			12866 Oct 22 17:42	0° M	
asc. node	12864 Apr 28 12:12	2° G 54'28		morning set	12866 Nov 03 17:34	14° M 51'33	
evening max el	12864 May 07 12:20	12° G 07'02	46°36'15		12866 Nov 15 22:55	0° X	
	12864 May 27 04:39	0° Ω			12866 Dec 10 04:34	0° Z	
greatest brilliancy	12864 Jun 16 22:08	12° Ω 30'46	-4.9m				
retrograde	12864 Jun 26 13:21	14° Ω 15'00		superior conj	12866 Dec 10 22:44	0° Z 56'12	1°26'02
evening set	12864 Jul 13 07:29	8° Ω 50'05		minimum elong	12866 Dec 10 23:38	0° Z 58'57	1°27'00
inferior conj	12864 Jul 17 04:29	6° Ω 29'36	7°20'28	max. Earth dist.	12866 Dec 12 10:48	2° Z 47'40	1.73009 AU
minimum elong	12864 Jul 17 15:23	6° Ω 12'51	7°17'28		12867 Jan 03 11:37	0° \approx	
min. Earth dist.	12864 Jul 17 15:45	6° Ω 12'17	0.27082 AU	evening rise	12867 Jan 17 01:46	16° \approx 44'09	
morning rise	12864 Jul 21 23:15	3° Ω 37'50			12867 Jan 27 20:46	0° H	
	12864 Jul 29 21:21	30° R G		desc. node	12867 Feb 03 03:59	7° H 44'14	

	12867 Feb 21 07:51	0° Υ			12869 Nov 05 23:07	0° \mathbb{L}		
	12867 Mar 17 20:16	0° \mathcal{B}		asc. node	12869 Nov 11 03:34	6° \mathbb{L} 19'19		
	12867 Apr 11 10:15	0° \mathbb{I}			12869 Nov 30 12:10	0° \mathcal{A}		
	12867 May 06 04:08	0° \mathcal{C}			12869 Dec 24 22:17	0° \mathcal{Z}		
asc. node	12867 May 26 22:35	24° \mathcal{C} 49'41		morning set	12870 Jan 11 21:36	22° \mathcal{Z} 08'12		
	12867 May 31 07:41	0° Ω			12870 Jan 18 06:42	0° \approx		
	12867 Jun 26 09:07	0° \mathbb{P}			12870 Feb 11 14:20	0° \mathcal{H}		
evening max el	12867 Jul 20 05:22	25° \mathbb{P} 28'19	46°45'56					
	12867 Jul 24 19:24	0° $\underline{\mathcal{A}}$		superior conj	12870 Feb 17 23:41	7° \mathcal{H} 53'04	0°30'16	
greatest brilliancy	12867 Aug 28 17:52	25° $\underline{\mathcal{A}}$ 54'24	-4.9m	minimum elong	12870 Feb 18 06:15	8° \mathcal{H} 13'21	0°30'24	
retrograde	12867 Sep 08 14:16	28° $\underline{\mathcal{A}}$ 06'35		max. Earth dist.	12870 Feb 17 06:10	6° \mathcal{H} 59'02	1.73048 AU	
desc. node	12867 Sep 16 00:13	26° $\underline{\mathcal{A}}$ 59'24		desc. node	12870 Mar 02 18:01	23° \mathcal{H} 38'48		
evening set	12867 Sep 23 09:41	23° $\underline{\mathcal{A}}$ 48'50			12870 Mar 07 21:26	0° Υ		
min. Earth dist.	12867 Sep 28 22:25	20° $\underline{\mathcal{A}}$ 34'28	0.27516 AU	evening rise	12870 Mar 28 06:14	25° Υ 11'14		
inferior conj	12867 Sep 29 15:12	20° $\underline{\mathcal{A}}$ 08'44	-3°24'06		12870 Apr 01 03:30	0° \mathcal{B}		
minimum elong	12867 Sep 29 07:49	20° $\underline{\mathcal{A}}$ 20'03	3°21'41		12870 Apr 25 08:12	0° \mathbb{I}		
morning rise	12867 Oct 05 06:29	16° $\underline{\mathcal{A}}$ 48'47			12870 May 19 12:17	0° \mathcal{C}		
direct	12867 Oct 20 12:14	12° $\underline{\mathcal{A}}$ 19'14			12870 Jun 12 17:51	0° Ω		
greatest brilliancy	12867 Oct 30 03:16	14° $\underline{\mathcal{A}}$ 00'31	-4.8m	asc. node	12870 Jun 23 10:11	13° Ω 09'26		
	12867 Nov 24 15:57	0° \mathbb{L}			12870 Jul 07 04:08	0° \mathbb{P}		
morning max el	12867 Dec 08 13:24	12° \mathbb{L} 33'26	45°53'22		12870 Jul 31 24:00	0° $\underline{\mathcal{A}}$		
	12867 Dec 25 18:22	0° \mathcal{A}			12870 Aug 26 14:35	0° \mathbb{L}		
asc. node	12868 Jan 07 01:54	13° \mathcal{A} 17'41			12870 Sep 22 23:44	0° \mathcal{A}		
	12868 Jan 21 23:23	0° \mathcal{Z}		evening max el	12870 Sep 29 17:49	6° \mathcal{A} 50'11	46°19'37	
	12868 Feb 16 18:33	0° \approx		desc. node	12870 Oct 13 09:32	19° \mathcal{A} 32'14		
	12868 Mar 12 20:32	0° \mathcal{H}			12870 Oct 27 00:27	0° \mathcal{Z}		
	12868 Apr 06 12:23	0° Υ		greatest brilliancy	12870 Nov 07 21:05	6° \mathcal{Z} 11'33	-4.8m	
desc. node	12868 Apr 27 20:46	26° Υ 16'03		retrograde	12870 Nov 18 10:30	8° \mathcal{Z} 13'02		
	12868 Apr 30 21:14	0° \mathcal{B}		evening set	12870 Dec 06 19:48	1° \mathcal{Z} 51'17		
	12868 May 25 00:43	0° \mathbb{I}		inferior conj	12870 Dec 09 21:32	29° \mathcal{A} 56'35	-8°48'03	
morning set	12868 Jun 06 20:03	15° \mathbb{I} 59'39		minimum elong	12870 Dec 09 22:21	29° \mathcal{A} 55'18	8°47'04	
	12868 Jun 18 00:25	0° \mathcal{C}		min. Earth dist.	12870 Dec 09 14:41	0° \mathcal{Z} 07'21	0.28875 AU	
	12868 Jul 11 22:13	0° Ω			12870 Dec 09 19:22	30° \mathcal{R} \mathcal{A}		
				morning rise	12870 Dec 13 01:02	27° \mathcal{A} 59'37		
superior conj	12868 Jul 16 20:38	6° Ω 11'44	-1°09'06	direct	12870 Dec 31 07:03	21° \mathcal{A} 46'34		
minimum elong	12868 Jul 17 08:06	6° Ω 47'42	1°09'35	greatest brilliancy	12871 Jan 10 09:38	23° \mathcal{A} 38'32	-4.7m	
max. Earth dist.	12868 Jul 17 01:16	6° Ω 26'16	1.71410 AU		12871 Jan 22 18:29	0° \mathcal{Z}		
	12868 Aug 04 20:01	0° \mathbb{P}		asc. node	12871 Feb 03 12:00	8° \mathcal{Z} 46'06		
asc. node	12868 Aug 18 10:53	17° \mathbb{P} 03'34		morning max el	12871 Feb 18 08:00	22° \mathcal{Z} 14'28	45°45'48	
evening rise	12868 Aug 25 22:32	26° \mathbb{P} 25'14			12871 Feb 26 02:33	0° \approx		
	12868 Aug 28 19:19	0° $\underline{\mathcal{A}}$			12871 Mar 25 18:51	0° \mathcal{H}		
	12868 Sep 21 21:19	0° \mathbb{L}			12871 Apr 20 15:47	0° Υ		
	12868 Oct 16 03:38	0° \mathcal{A}			12871 May 15 16:17	0° \mathcal{B}		
	12868 Nov 09 16:51	0° \mathcal{Z}		desc. node	12871 May 26 10:13	13° \mathcal{B} 05'19		
	12868 Dec 04 16:39	0° \approx			12871 Jun 09 04:49	0° \mathbb{I}		
desc. node	12868 Dec 08 04:23	4° \approx 08'05			12871 Jul 03 09:54	0° \mathcal{C}		
	12868 Dec 30 08:04	0° \mathcal{H}			12871 Jul 27 10:58	0° Ω		
	12869 Jan 26 00:46	0° Υ			12871 Aug 20 10:44	0° \mathbb{P}		
evening max el	12869 Feb 21 10:22	27° Υ 26'46	46°03'44	morning set	12871 Aug 21 11:30	1° \mathbb{P} 17'26		
	12869 Feb 24 02:04	0° \mathcal{B}			12871 Sep 13 10:54	0° $\underline{\mathcal{A}}$		
asc. node	12869 Mar 31 04:46	25° \mathcal{B} 57'12		asc. node	12871 Sep 16 01:15	3° $\underline{\mathcal{A}}$ 14'37		
greatest brilliancy	12869 Apr 01 21:54	26° \mathcal{B} 36'00	-4.8m					
retrograde	12869 Apr 11 20:10	28° \mathcal{B} 25'35		superior conj	12871 Sep 29 14:21	20° $\underline{\mathcal{A}}$ 08'21	0°32'12	
evening set	12869 Apr 27 18:59	23° \mathcal{B} 26'43		minimum elong	12871 Sep 29 07:08	19° $\underline{\mathcal{A}}$ 45'55	0°32'06	
inferior conj	12869 May 02 16:13	20° \mathcal{B} 29'23	7°11'05	max. Earth dist.	12871 Oct 01 23:23	23° $\underline{\mathcal{A}}$ 06'05	1.72125 AU	
minimum elong	12869 May 02 05:33	20° \mathcal{B} 45'59	7°08'18		12871 Oct 07 12:17	0° \mathbb{L}		
min. Earth dist.	12869 May 02 15:48	20° \mathcal{B} 30'04	0.27700 AU		12871 Oct 31 15:31	0° \mathcal{A}		
morning rise	12869 May 06 16:01	18° \mathcal{B} 03'03		evening rise	12871 Nov 06 07:27	7° \mathcal{A} 01'14		
direct	12869 May 23 15:39	12° \mathcal{B} 27'41			12871 Nov 24 21:47	0° \mathcal{Z}		
greatest brilliancy	12869 Jun 02 15:25	14° \mathcal{B} 21'00	-4.9m		12871 Dec 19 08:38	0° \approx		
	12869 Jun 26 21:07	0° \mathbb{I}		desc. node	12872 Jan 05 16:32	21° \approx 04'51		
morning max el	12869 Jul 13 03:54	15° \mathbb{I} 16'38	46°57'22		12872 Jan 13 01:24	0° \mathcal{H}		
desc. node	12869 Jul 21 07:14	23° \mathbb{I} 40'13			12872 Feb 07 00:53	0° Υ		
	12869 Jul 27 05:18	0° \mathcal{C}			12872 Mar 03 08:40	0° \mathcal{B}		
	12869 Aug 22 20:16	0° Ω			12872 Mar 29 06:31	0° \mathbb{I}		
	12869 Sep 17 07:04	0° \mathbb{P}			12872 Apr 25 13:26	0° \mathcal{C}		
	12869 Oct 12 06:06	0° $\underline{\mathcal{A}}$		asc. node	12872 Apr 27 14:19	2° \mathcal{C} 07'31		

evening max el	12872 May 05 00:44	9°☾41'28	46°35'14		12874 Oct 22 04:36	0°♊	
	12872 May 27 20:02	0°♊		morning set	12874 Nov 01 09:06	12°♊37'24	
greatest brilliancy	12872 Jun 14 12:25	10°♊07'25	-4.9m		12874 Nov 15 09:41	0°♊	
retrograde	12872 Jun 24 01:38	11°♊50'14					
evening set	12872 Jul 11 00:03	6°♊20'06		superior conj	12874 Dec 08 15:31	28°♊46'32	1°26'07
inferior conj	12872 Jul 14 17:28	4°♊04'53	7°34'37	minimum elong	12874 Dec 08 15:39	28°♊46'56	1°27'06
minimum elong	12872 Jul 15 04:06	3°♊48'32	7°31'47		12874 Dec 09 15:17	0°♊	
min. Earth dist.	12872 Jul 15 05:24	3°♊46'31	0.27103 AU	max. Earth dist.	12874 Dec 10 04:20	0°♊40'23	1.72993 AU
morning rise	12872 Jul 19 08:02	1°♊18'44			12875 Jan 02 22:22	0°♊	
	12872 Jul 21 17:42	30°☾		evening rise	12875 Jan 14 17:56	14°♊33'05	
direct	12872 Aug 04 11:07	26°☾15'44			12875 Jan 27 07:38	0°♊	
greatest brilliancy	12872 Aug 14 13:00	28°☾09'32	-4.9m	desc. node	12875 Feb 02 05:44	7°♊16'06	
desc. node	12872 Aug 17 16:55	29°☾27'03			12875 Feb 20 18:56	0°♊	
	12872 Aug 18 20:57	0°♊			12875 Mar 17 07:43	0°♊	
morning max el	12872 Sep 23 14:25	28°♊24'57	46°37'46		12875 Apr 10 22:12	0°♊	
	12872 Sep 25 04:35	0°♊			12875 May 05 16:54	0°☾	
	12872 Oct 23 08:31	0°♊		asc. node	12875 May 26 00:32	24°☾14'44	
	12872 Nov 18 15:55	0°♊			12875 May 30 21:47	0°♊	
asc. node	12872 Dec 08 16:22	23°♊30'50			12875 Jun 26 01:55	0°♊	
	12872 Dec 14 03:25	0°♊		evening max el	12875 Jul 17 20:07	23°♊08'53	46°46'32
	12873 Jan 08 03:06	0°♊			12875 Jul 24 20:18	0°♊	
	12873 Feb 01 19:15	0°♊		greatest brilliancy	12875 Aug 26 08:13	23°♊34'06	-4.9m
	12873 Feb 26 06:35	0°♊		retrograde	12875 Sep 06 05:19	25°♊46'45	
morning set	12873 Mar 22 10:43	29°♊48'17		desc. node	12875 Sep 15 02:14	24°♊10'20	
	12873 Mar 22 14:31	0°♊		evening set	12875 Sep 20 22:37	21°♊30'39	
desc. node	12873 Mar 30 08:28	9°♊35'20		min. Earth dist.	12875 Sep 26 12:45	18°♊14'28	0.27469 AU
	12873 Apr 15 19:21	0°♊		inferior conj	12875 Sep 27 05:06	17°♊49'27	-3°02'50
max. Earth dist.	12873 Apr 27 08:11	14°♊21'25	1.72074 AU	minimum elong	12875 Sep 26 22:22	17°♊59'45	3°00'36
				morning rise	12875 Oct 02 22:43	14°♊26'49	
superior conj	12873 Apr 30 18:11	18°♊36'56	-1°07'01	direct	12875 Oct 18 02:02	10°♊00'30	
minimum elong	12873 Apr 30 06:59	18°♊02'01	1°07'19	greatest brilliancy	12875 Oct 27 16:49	11°♊42'03	-4.8m
	12873 May 09 21:10	0°♊			12875 Nov 24 22:21	0°♊	
	12873 Jun 02 20:43	0°☾		morning max el	12875 Dec 06 04:48	10°♊20'09	45°54'20
evening rise	12873 Jun 09 08:18	8°☾07'07			12875 Dec 25 11:55	0°♊	
	12873 Jun 26 19:37	0°♊		asc. node	12876 Jan 06 03:45	12°♊39'45	
asc. node	12873 Jul 20 22:56	0°♊09'31			12876 Jan 21 13:26	0°♊	
	12873 Jul 20 19:52	0°♊			12876 Feb 16 07:04	0°♊	
	12873 Aug 13 23:32	0°♊			12876 Mar 12 08:16	0°♊	
	12873 Sep 07 09:08	0°♊			12876 Apr 05 23:40	0°♊	
	12873 Oct 02 05:07	0°♊		desc. node	12876 Apr 26 22:41	25°♊47'45	
	12873 Oct 27 19:55	0°♊			12876 Apr 30 08:16	0°♊	
desc. node	12873 Nov 09 19:25	14°♊37'47			12876 May 24 11:38	0°♊	
	12873 Nov 24 00:04	0°♊		morning set	12876 Jun 04 07:25	13°♊31'05	
evening max el	12873 Dec 09 17:38	15°♊54'33	45°54'38		12876 Jun 17 11:17	0°☾	
	12873 Dec 25 11:46	0°♊			12876 Jul 11 09:03	0°♊	
greatest brilliancy	12874 Jan 17 21:52	14°♊18'48	-4.7m				
retrograde	12874 Jan 27 16:25	16°♊03'40		superior conj	12876 Jul 14 08:20	3°♊43'47	-1°11'25
evening set	12874 Feb 12 06:06	11°♊23'27		minimum elong	12876 Jul 14 19:32	4°♊18'56	1°11'58
inferior conj	12874 Feb 17 23:55	7°♊55'47	-3°07'35	max. Earth dist.	12876 Jul 14 12:17	3°♊56'10	1.71402 AU
minimum elong	12874 Feb 18 06:35	7°♊45'20	3°05'12		12876 Aug 04 06:49	0°♊	
min. Earth dist.	12874 Feb 18 11:50	7°♊37'08	0.28448 AU	asc. node	12876 Aug 17 12:46	16°♊35'40	
morning rise	12874 Feb 24 06:33	4°♊08'59		evening rise	12876 Aug 23 11:35	24°♊02'16	
asc. node	12874 Mar 02 21:32	1°♊08'42			12876 Aug 28 06:06	0°♊	
	12874 Mar 07 13:45	30°☾			12876 Sep 21 08:11	0°♊	
direct	12874 Mar 11 06:02	29°☾43'36			12876 Oct 15 14:42	0°♊	
	12874 Mar 15 00:08	0°♊			12876 Nov 09 04:18	0°♊	
greatest brilliancy	12874 Mar 22 05:17	1°♊55'54	-4.8m		12876 Dec 04 04:48	0°♊	
	12874 Apr 28 15:13	0°♊		desc. node	12876 Dec 07 06:14	3°♊37'13	
morning max el	12874 Apr 30 00:34	1°♊22'13	46°22'35		12876 Dec 29 21:33	0°♊	
	12874 May 26 21:55	0°♊			12877 Jan 25 17:03	0°♊	
	12874 Jun 21 21:14	0°♊		evening max el	12877 Feb 19 01:55	25°♊12'52	46°02'46
desc. node	12874 Jun 22 22:22	1°♊14'19			12877 Feb 24 02:30	0°♊	
	12874 Jul 16 21:12	0°☾		asc. node	12877 Mar 30 06:53	24°♊12'15	
	12874 Aug 10 09:53	0°♊		greatest brilliancy	12877 Mar 30 11:17	24°♊16'09	-4.8m
	12874 Sep 03 17:32	0°♊		retrograde	12877 Apr 09 09:54	26°♊05'36	
	12874 Sep 27 23:22	0°♊		evening set	12877 Apr 25 05:18	21°♊12'13	
asc. node	12874 Oct 13 15:40	19°♊25'21		inferior conj	12877 Apr 30 06:14	18°♊09'16	6°56'19

minimum elong	12877 Apr 29 19:26	18°♄26'06	6°53'25		12879 Oct 06 22:49	0°♄	
min. Earth dist.	12877 Apr 30 05:35	18°♄10'17	0.27715 AU		12879 Oct 31 02:03	0°♄	
morning rise	12877 May 04 09:27	15°♄37'37		evening rise	12879 Nov 03 23:27	4°♄49'28	
direct	12877 May 21 06:16	10°♄07'30			12879 Nov 24 08:22	0°♄	
greatest brilliancy	12877 May 31 05:43	12°♄00'24	-4.9m		12879 Dec 18 19:25	0°♄	
	12877 Jun 27 04:00	0°♄		desc. node	12880 Jan 04 18:24	20°♄37'07	
morning max el	12877 Jul 10 17:52	12°♄55'06	46°56'55		12880 Jan 12 12:34	0°♄	
desc. node	12877 Jul 20 09:12	22°♄53'51			12880 Feb 06 12:42	0°♄	
	12877 Jul 26 23:22	0°♄			12880 Mar 02 21:35	0°♄	
	12877 Aug 22 10:49	0°♄			12880 Mar 28 21:29	0°♄	
	12877 Sep 16 19:57	0°♄			12880 Apr 25 09:14	0°♄	
	12877 Oct 11 18:01	0°♄		asc. node	12880 Apr 26 16:14	1°♄20'02	
	12877 Nov 05 10:25	0°♄		evening max el	12880 May 02 12:52	7°♄16'02	46°34'07
asc. node	12877 Nov 10 05:28	5°♄50'59			12880 May 28 16:28	0°♄	
	12877 Nov 29 23:03	0°♄		greatest brilliancy	12880 Jun 12 02:13	7°♄43'52	-4.9m
	12877 Dec 24 08:56	0°♄		retrograde	12880 Jun 21 14:00	9°♄25'59	
morning set	12878 Jan 09 14:55	20°♄01'12		evening set	12880 Jul 08 16:25	3°♄50'18	
	12878 Jan 17 17:13	0°♄		inferior conj	12880 Jul 12 06:18	1°♄40'27	7°47'55
	12878 Feb 11 00:51	0°♄		minimum elong	12880 Jul 12 16:33	1°♄24'41	7°45'16
max. Earth dist.	12878 Feb 14 23:24	4°♄51'38	1.73067 AU	min. Earth dist.	12880 Jul 12 18:46	1°♄21'17	0.27124 AU
					12880 Jul 15 00:08	30°♄	
superior conj	12878 Feb 15 15:43	5°♄41'58	0°33'25	morning rise	12880 Jul 16 16:33	29°♄00'28	
minimum elong	12878 Feb 15 22:50	6°♄03'56	0°33'35	direct	12880 Aug 01 23:28	23°♄50'33	
desc. node	12878 Mar 01 19:58	23°♄12'09		greatest brilliancy	12880 Aug 12 02:34	25°♄45'24	-4.9m
	12878 Mar 07 08:02	0°♄		desc. node	12880 Aug 16 18:59	27°♄46'25	
evening rise	12878 Mar 25 21:06	22°♄55'36			12880 Aug 20 20:50	0°♄	
	12878 Mar 31 14:14	0°♄		morning max el	12880 Sep 21 03:50	26°♄02'47	46°39'18
	12878 Apr 24 19:07	0°♄			12880 Sep 25 02:21	0°♄	
	12878 May 18 23:27	0°♄			12880 Oct 23 00:11	0°♄	
	12878 Jun 12 05:23	0°♄			12880 Nov 18 05:09	0°♄	
asc. node	12878 Jun 22 12:01	12°♄38'55		asc. node	12880 Dec 07 18:08	22°♄59'59	
	12878 Jul 06 16:15	0°♄			12880 Dec 13 15:22	0°♄	
	12878 Jul 31 13:06	0°♄			12881 Jan 07 14:19	0°♄	
	12878 Aug 26 05:34	0°♄			12881 Feb 01 06:02	0°♄	
	12878 Sep 22 19:33	0°♄			12881 Feb 25 17:09	0°♄	
evening max el	12878 Sep 27 08:55	4°♄35'08	46°20'48	morning set	12881 Mar 20 01:43	27°♄33'52	
desc. node	12878 Oct 12 11:39	18°♄33'08			12881 Mar 22 01:00	0°♄	
	12878 Oct 28 05:05	0°♄		desc. node	12881 Mar 29 10:22	9°♄08'47	
greatest brilliancy	12878 Nov 05 12:53	4°♄00'32	-4.8m		12881 Apr 15 05:50	0°♄	
retrograde	12878 Nov 16 01:57	6°♄02'00		max. Earth dist.	12881 Apr 24 23:37	12°♄07'14	1.72121 AU
	12878 Dec 03 23:03	30°♄					
evening set	12878 Dec 04 11:10	29°♄41'37		superior conj	12881 Apr 28 07:24	16°♄15'44	-1°04'34
min. Earth dist.	12878 Dec 07 05:40	27°♄58'14	0.28851 AU	minimum elong	12881 Apr 27 20:07	15°♄40'37	1°04'49
inferior conj	12878 Dec 07 13:27	27°♄46'00	-8°48'36		12881 May 09 07:42	0°♄	
minimum elong	12878 Dec 07 13:25	27°♄46'03	8°47'38		12881 Jun 02 07:21	0°♄	
morning rise	12878 Dec 10 15:48	25°♄50'37		evening rise	12881 Jun 06 20:07	5°♄40'27	
direct	12878 Dec 28 22:34	19°♄36'41			12881 Jun 26 06:24	0°♄	
greatest brilliancy	12879 Jan 08 00:08	21°♄27'16	-4.7m	asc. node	12881 Jul 20 00:49	29°♄41'15	
	12879 Jan 23 14:48	0°♄			12881 Jul 20 06:50	0°♄	
asc. node	12879 Feb 02 14:03	7°♄47'35			12881 Aug 13 10:43	0°♄	
morning max el	12879 Feb 15 22:09	19°♄59'31	45°45'05		12881 Sep 06 20:45	0°♄	
	12879 Feb 25 21:22	0°♄			12881 Oct 01 17:30	0°♄	
	12879 Mar 25 09:15	0°♄			12881 Oct 27 09:52	0°♄	
	12879 Apr 20 04:29	0°♄		desc. node	12881 Nov 08 21:16	14°♄00'48	
	12879 May 15 04:08	0°♄			12881 Nov 23 17:42	0°♄	
desc. node	12879 May 25 12:03	12°♄35'29		evening max el	12881 Dec 07 08:52	13°♄42'59	45°55'11
	12879 Jun 08 16:11	0°♄			12881 Dec 25 21:06	0°♄	
	12879 Jul 02 20:57	0°♄		greatest brilliancy	12882 Jan 15 12:34	12°♄07'04	-4.7m
	12879 Jul 26 21:48	0°♄		retrograde	12882 Jan 25 08:18	13°♄52'52	
morning set	12879 Aug 19 00:26	28°♄54'19		evening set	12882 Feb 09 23:53	9°♄08'57	
	12879 Aug 19 21:26	0°♄		inferior conj	12882 Feb 15 15:35	5°♄44'16	-3°27'03
	12879 Sep 12 21:30	0°♄		minimum elong	12882 Feb 15 22:51	5°♄32'55	3°24'30
asc. node	12879 Sep 15 03:09	2°♄47'29		min. Earth dist.	12882 Feb 16 03:31	5°♄25'38	0.28481 AU
				morning rise	12882 Feb 21 21:22	1°♄59'00	
superior conj	12879 Sep 27 04:34	17°♄50'14	0°28'50		12882 Feb 25 20:55	30°♄	
minimum elong	12879 Sep 26 22:01	17°♄29'47	0°28'42	asc. node	12882 Mar 01 23:34	28°♄30'41	
max. Earth dist.	12879 Sep 29 11:54	20°♄42'40	1.72087 AU	direct	12882 Mar 08 22:08	27°♄31'44	

greatest brilliancy	12882 Mar 19 21:27	29°  44'33	-4.8m			12884 Nov 08 15:44	0° 		
	12882 Mar 20 13:10	0° 				12884 Dec 03 16:56	0° 		
morning max el	12882 Apr 27 16:50	29°  10'33	46°20'59	desc. node		12884 Dec 06 08:10	3°  06'43		
	12882 Apr 28 12:45	0° 				12884 Dec 29 11:04	0° 		
	12882 May 26 13:17	0° 				12885 Jan 25 09:30	0° 		
	12882 Jun 21 10:27	0° 		evening max el		12885 Feb 16 16:48	22°  57'50	46°01'55	
desc. node	12882 Jun 22 00:17	0°  41'01				12885 Feb 24 04:01	0° 		
	12882 Jul 16 09:23	0° 		greatest brilliancy		12885 Mar 28 01:31	21°  58'09	-4.8m	
	12882 Aug 09 21:28	0° 		asc. node		12885 Mar 29 08:51	22°  24'03		
	12882 Sep 03 04:43	0° 		retrograde		12885 Apr 06 23:25	23°  46'56		
	12882 Sep 27 10:13	0° 		evening set		12885 Apr 22 16:05	18°  58'43		
asc. node	12882 Oct 12 17:29	18°  57'53		inferior conj		12885 Apr 27 20:31	15°  50'34	6°41'02	
	12882 Oct 21 15:12	0° 		minimum elong		12885 Apr 27 09:39	16°  07'31	6°38'02	
morning set	12882 Oct 30 00:28	10°  12'34		min. Earth dist.		12885 Apr 27 20:00	15°  51'22	0.27726 AU	
	12882 Nov 14 20:08	0° 		morning rise		12885 May 02 03:05	13°  13'41		
				direct		12885 May 18 20:40	7°  48'40		
superior conj	12882 Dec 06 08:16	26°  37'41	1°26'05	greatest brilliancy		12885 May 28 20:49	9°  41'47	-4.9m	
minimum elong	12882 Dec 06 07:39	26°  35'43	1°27'03			12885 Jun 27 08:24	0° 		
max. Earth dist.	12882 Dec 07 23:43	28°  39'42	1.72974 AU	morning max el		12885 Jul 08 06:54	10°  11'59	46°56'26	
	12882 Dec 09 01:41	0° 		desc. node		12885 Jul 19 11:16	22°  10'16		
	12883 Jan 02 08:49	0° 				12885 Jul 26 16:46	0° 		
evening rise	12883 Jan 12 10:19	12°  23'36				12885 Aug 22 01:00	0° 		
	12883 Jan 26 18:11	0° 				12885 Sep 16 08:40	0° 		
desc. node	12883 Feb 01 07:43	6°  49'37				12885 Oct 11 05:53	0° 		
	12883 Feb 20 05:42	0° 				12885 Nov 04 21:45	0° 		
	12883 Mar 16 18:48	0° 		asc. node		12885 Nov 09 07:16	5°  12'20'09		
	12883 Apr 10 09:49	0° 				12885 Nov 29 10:01	0° 		
	12883 May 05 05:21	0° 				12885 Dec 23 19:38	0° 		
asc. node	12883 May 25 02:23	23°  54'02'21		morning set		12886 Jan 07 07:53	17°  52'51		
	12883 May 30 11:41	0° 				12886 Jan 17 03:47	0° 		
	12883 Jun 25 18:49	0° 				12886 Feb 10 11:24	0° 		
evening max el	12883 Jul 15 11:27	20°  15'13	46°46'44	max. Earth dist.		12886 Feb 12 15:44	2°  41'27	1.73083 AU	
	12883 Jul 24 22:29	0° 							
greatest brilliancy	12883 Aug 23 22:33	21°  13'20	-4.9m	superior conj		12886 Feb 13 07:38	3°  40'28	0°36'32	
retrograde	12883 Sep 03 19:57	23°  25'46		minimum elong		12886 Feb 13 15:16	3°  54'02	0°36'43	
desc. node	12883 Sep 14 04:18	21°  15'06		desc. node		12886 Feb 28 21:47	22°  45'01		
evening set	12883 Sep 18 11:28	19°  11'26				12886 Mar 06 18:39	0° 		
min. Earth dist.	12883 Sep 24 02:51	15°  53'22	0.27421 AU	evening rise		12886 Mar 23 12:02	20°  40'10		
inferior conj	12883 Sep 24 18:37	15°  29'15	-2°40'54			12886 Mar 31 01:00	0° 		
minimum elong	12883 Sep 24 12:37	15°  38'26	2°38'54			12886 Apr 24 06:04	0° 		
morning rise	12883 Sep 30 14:27	12°  03'56				12886 May 18 10:39	0° 		
direct	12883 Oct 15 15:49	7°  41'00				12886 Jun 11 16:57	0° 		
greatest brilliancy	12883 Oct 25 05:48	9°  22'21	-4.8m	asc. node		12886 Jun 21 13:59	12°  08'47		
	12883 Nov 25 02:38	0° 				12886 Jul 06 04:25	0° 		
morning max el	12883 Dec 03 19:26	8°  10'51'4	45°55'28			12886 Jul 31 02:17	0° 		
	12883 Dec 25 04:53	0° 				12886 Aug 25 20:47	0° 		
asc. node	12884 Jan 05 05:50	12°  27'03'23				12886 Sep 22 16:10	0° 		
	12884 Jan 21 03:07	0° 		evening max el		12886 Sep 24 22:58	2°  16'58	46°21'43	
	12884 Feb 15 19:17	0° 		desc. node		12886 Oct 11 13:30	17°  31'26		
	12884 Mar 11 19:43	0° 				12886 Oct 29 23:49	0° 		
	12884 Apr 05 10:41	0° 		greatest brilliancy		12886 Nov 03 04:22	1°  47'53	-4.8m	
desc. node	12884 Apr 26 00:29	25°  49'19'56		retrograde		12886 Nov 13 17:06	3°  49'38		
	12884 Apr 29 19:03	0° 				12886 Nov 27 17:16	30°  43'27		
	12884 May 23 22:18	0° 		evening set		12886 Dec 02 01:50	27°  30'58		
morning set	12884 Jun 01 19:16	11°  04'56		inferior conj		12886 Dec 05 05:06	25°  33'59	-8°48'20	
	12884 Jun 16 21:54	0° 		minimum elong		12886 Dec 05 04:14	25°  35'21	8°47'22	
	12884 Jul 10 19:39	0° 		min. Earth dist.		12886 Dec 04 20:39	25°  47'15	0.28829 AU	
				morning rise		12886 Dec 08 06:43	23°  39'40		
superior conj	12884 Jul 11 20:17	1°  17'18	-1°13'35	direct		12886 Dec 26 13:27	17°  25'05		
minimum elong	12884 Jul 12 07:07	1°  51'18	1°14'11	greatest brilliancy		12887 Jan 05 15:07	19°  15'14	-4.7m	
max. Earth dist.	12884 Jul 11 22:42	1°  24'53	1.71402 AU			12887 Jan 24 06:20	0° 		
	12884 Aug 03 17:27	0° 		asc. node		12887 Feb 01 16:04	6°  34'25		
asc. node	12884 Aug 16 14:41	16°  10'08'17		morning max el		12887 Feb 13 12:11	17°  43'21	45°44'36	
evening rise	12884 Aug 21 00:23	21°  10'38'50				12887 Feb 25 15:58	0° 		
	12884 Aug 27 16:48	0° 				12887 Mar 24 23:41	0° 		
	12884 Sep 20 19:01	0° 				12887 Apr 19 17:15	0° 		
	12884 Oct 15 01:45	0° 				12887 May 14 16:05	0° 		

desc. node	12887 May 24 13:54	12°♄05'21		evening max el	12889 Dec 05 00:37	11°♋31'43	45°55'37
	12887 Jun 08 03:38	0°♈			12889 Dec 26 10:27	0°♈	
	12887 Jul 02 08:06	0°♄		greatest brilliancy	12890 Jan 13 02:56	9°♈53'45	-4.7m
	12887 Jul 26 08:46	0°♈		retrograde	12890 Jan 23 00:01	11°♈40'19	
morning set	12887 Aug 16 13:39	26°♈31'39		evening set	12890 Feb 07 17:40	6°♈52'48	
	12887 Aug 19 08:15	0°♈		inferior conj	12890 Feb 13 07:07	3°♈31'02	-3°46'20
	12887 Sep 12 08:14	0°♈		minimum elong	12890 Feb 13 14:55	3°♈18'49	3°43'38
asc. node	12887 Sep 14 04:55	2°♈19'31		min. Earth dist.	12890 Feb 13 18:47	3°♈12'46	0.28517 AU
				morning rise	12890 Feb 19 11:50	29°♋47'28	
superior conj	12887 Sep 24 19:04	15°♈32'31	0°25'26		12890 Feb 19 02:50	30°♋	
minimum elong	12887 Sep 24 13:11	15°♈14'10	0°25'18	asc. node	12890 Mar 01 01:32	25°♋55'49	
max. Earth dist.	12887 Sep 27 00:14	18°♈18'14	1.72054 AU	direct	12890 Mar 06 14:33	25°♋18'17	
	12887 Oct 06 09:30	0°♈		greatest brilliancy	12890 Mar 17 13:02	27°♋30'48	-4.8m
	12887 Oct 30 12:44	0°♈			12890 Mar 22 23:06	0°♈	
evening rise	12887 Nov 01 15:38	2°♈37'44		morning max el	12890 Apr 25 09:00	26°♈57'09	46°19'20
	12887 Nov 23 19:11	0°♈			12890 Apr 28 10:07	0°♈	
	12887 Dec 18 06:30	0°♈			12890 May 26 04:56	0°♈	
desc. node	12888 Jan 03 20:21	20°♈08'38			12890 Jun 20 23:58	0°♈	
	12888 Jan 12 00:04	0°♈		desc. node	12890 Jun 21 02:21	0°♈07'03	
	12888 Feb 06 00:54	0°♈			12890 Jul 15 21:53	0°♈	
	12888 Mar 02 10:55	0°♈			12890 Aug 09 09:22	0°♈	
	12888 Mar 28 12:58	0°♈			12890 Sep 02 16:12	0°♈	
	12888 Apr 25 05:59	0°♈			12890 Sep 26 21:24	0°♈	
asc. node	12888 Apr 25 18:10	0°♈31'06		asc. node	12890 Oct 11 19:18	18°♈29'15	
evening max el	12888 Apr 30 01:22	4°♈50'57	46°33'10		12890 Oct 21 02:10	0°♈	
	12888 May 29 20:58	0°♈		morning set	12890 Oct 27 15:57	8°♈08'58	
greatest brilliancy	12888 Jun 09 15:21	5°♈19'04	-4.9m		12890 Nov 14 06:57	0°♈	
retrograde	12888 Jun 19 02:59	7°♈01'20					
evening set	12888 Jul 06 08:48	1°♈19'52		superior conj	12890 Dec 04 01:10	24°♈28'09	1°25'56
	12888 Jul 08 14:00	30°♈		minimum elong	12890 Dec 03 23:46	24°♈23'48	1°26'53
inferior conj	12888 Jul 09 19:10	29°♈15'19	8°00'24	max. Earth dist.	12890 Dec 05 20:21	26°♈41'45	1.72950 AU
minimum elong	12888 Jul 10 04:59	29°♈00'15	7°57'55		12890 Dec 08 12:26	0°♈	
min. Earth dist.	12888 Jul 10 07:46	28°♈55'58	0.27146 AU		12891 Jan 01 19:36	0°♈	
morning rise	12888 Jul 14 01:03	26°♈41'49		evening rise	12891 Jan 10 02:47	10°♈13'18	
direct	12888 Jul 30 12:18	21°♈24'39			12891 Jan 26 05:07	0°♈	
greatest brilliancy	12888 Aug 09 15:43	23°♈20'12	-4.9m	desc. node	12891 Jan 31 09:34	6°♈21'38	
desc. node	12888 Aug 15 20:57	26°♈08'47			12891 Feb 19 16:53	0°♈	
	12888 Aug 22 05:23	0°♈			12891 Mar 16 06:23	0°♈	
morning max el	12888 Sep 18 18:12	23°♈42'17	46°40'53		12891 Apr 09 21:59	0°♈	
	12888 Sep 24 23:33	0°♈			12891 May 04 18:23	0°♈	
	12888 Oct 22 15:49	0°♈		asc. node	12891 May 24 04:26	23°♈04'53	
	12888 Nov 17 18:31	0°♈			12891 May 30 02:13	0°♈	
asc. node	12888 Dec 06 20:11	22°♈29'13			12891 Jun 25 12:32	0°♈	
	12888 Dec 13 03:33	0°♈		evening max el	12891 Jul 13 02:33	18°♈31'44	46°46'59
	12889 Jan 07 01:51	0°♈			12891 Jul 25 02:47	0°♈	
	12889 Jan 31 17:12	0°♈		greatest brilliancy	12891 Aug 21 13:18	18°♈51'57	-4.9m
	12889 Feb 25 04:07	0°♈		retrograde	12891 Sep 01 10:05	21°♈03'22	
morning set	12889 Mar 17 16:31	25°♈17'41		desc. node	12891 Sep 13 06:13	18°♈14'00	
	12889 Mar 21 11:52	0°♈		evening set	12891 Sep 16 00:32	16°♈50'45	
desc. node	12889 Mar 28 12:07	8°♈40'33		min. Earth dist.	12891 Sep 21 17:08	13°♈30'41	0.27373 AU
	12889 Apr 14 16:41	0°♈		inferior conj	12891 Sep 22 08:05	13°♈07'47	-2°18'31
max. Earth dist.	12889 Apr 22 15:30	9°♈53'26	1.72160 AU	minimum elong	12891 Sep 22 02:52	13°♈15'47	2°16'47
				morning rise	12891 Sep 28 05:56	9°♈39'47	
superior conj	12889 Apr 25 20:20	13°♈52'38	-1°01'59	direct	12891 Oct 13 05:32	5°♈20'19	
minimum elong	12889 Apr 25 09:04	13°♈17'33	1°02'11	greatest brilliancy	12891 Oct 22 18:56	7°♈01'21	-4.8m
	12889 May 08 18:35	0°♈			12891 Nov 25 05:40	0°♈	
	12889 Jun 01 18:20	0°♈		morning max el	12891 Dec 01 09:11	5°♈47'03	45°56'40
evening rise	12889 Jun 04 07:55	3°♈12'43			12891 Dec 24 21:53	0°♈	
	12889 Jun 25 17:31	0°♈		asc. node	12892 Jan 04 07:45	11°♈25'56	
asc. node	12889 Jul 19 02:45	29°♈12'04			12892 Jan 20 16:59	0°♈	
	12889 Jul 19 18:08	0°♈			12892 Feb 15 07:44	0°♈	
	12889 Aug 12 22:17	0°♈			12892 Mar 11 07:26	0°♈	
	12889 Sep 06 08:45	0°♈			12892 Apr 04 22:02	0°♈	
	12889 Oct 01 06:17	0°♈		desc. node	12892 Apr 25 02:23	24°♈51'10	
	12889 Oct 27 00:16	0°♈			12892 Apr 29 06:13	0°♈	
desc. node	12889 Nov 07 23:16	13°♈22'59			12892 May 23 09:23	0°♈	
	12889 Nov 23 12:09	0°♈		morning set	12892 May 30 06:38	8°♈35'55	

	12892 Jun 16 08:55	0°☿		minimum elong	12894 Dec 02 19:04	23°♊24'26	8°46'16
				min. Earth dist.	12894 Dec 02 11:27	23°♊36'23	0.28804 AU
superior conj	12892 Jul 09 07:50	28°☿48'28 -1°15'37		morning rise	12894 Dec 05 22:05	21°♊28'05	
minimum elong	12892 Jul 09 18:11	29°☿20'57 1°16'15		direct	12894 Dec 24 04:17	15°♊13'15	
max. Earth dist.	12892 Jul 09 05:28	28°☿41'02 1.71398 AU		greatest brilliancy	12895 Jan 03 06:14	17°♊03'25	-4.7m
	12892 Jul 10 06:38	0°♌			12895 Jan 24 17:52	0°♊	
	12892 Aug 03 04:25	0°♍		asc. node	12895 Jan 31 17:58	5°♊52'20	
asc. node	12892 Aug 15 16:25	15°♍39'16		morning max el	12895 Feb 11 02:56	15°♊29'03	45°44'14
evening rise	12892 Aug 18 12:48	19°♍13'08			12895 Feb 25 10:05	0°♋	
	12892 Aug 27 03:50	0°♎			12895 Mar 24 13:55	0°♋	
	12892 Sep 20 06:09	0°♏			12895 Apr 19 05:54	0°♌	
	12892 Oct 14 13:07	0°♐			12895 May 14 03:55	0°♌	
	12892 Nov 08 03:30	0°♑		desc. node	12895 May 23 15:54	11°♌35'56	
	12892 Dec 03 05:26	0°♒			12895 Jun 07 15:01	0°♍	
desc. node	12892 Dec 05 10:10	2°♒35'31			12895 Jul 01 19:14	0°♎	
	12892 Dec 29 00:59	0°♋			12895 Jul 25 19:45	0°♏	
	12893 Jan 25 02:34	0°♌		morning set	12895 Aug 14 02:27	24°♏07'28	
evening max el	12893 Feb 14 06:38	20°♌39'39 46°01'01			12895 Aug 18 19:07	0°♐	
	12893 Feb 24 07:22	0°♍			12895 Sep 11 19:00	0°♑	
greatest brilliancy	12893 Mar 25 15:43	19°♍39'17 -4.8m		asc. node	12895 Sep 13 06:47	1°♍51'44	
asc. node	12893 Mar 28 10:46	20°♍30'37					
retrograde	12893 Apr 04 12:41	21°♍27'30		superior conj	12895 Sep 22 09:01	13°♍12'52	0°21'55
evening set	12893 Apr 20 02:53	16°♍43'51		minimum elong	12895 Sep 22 03:52	12°♍56'48	0°21'48
inferior conj	12893 Apr 25 10:44	13°♍30'56 6°24'56		max. Earth dist.	12895 Sep 24 11:37	15°♍50'43	1.72019 AU
minimum elong	12893 Apr 24 23:54	13°♍47'52 6°21'52			12895 Oct 05 20:12	0°♎	
min. Earth dist.	12893 Apr 25 10:37	13°♍31'07 0.27745 AU			12895 Oct 29 23:25	0°♏	
morning rise	12893 Apr 29 20:41	10°♍48'52		evening rise	12895 Oct 30 07:28	0°♐24'57	
direct	12893 May 16 10:37	5°♍28'35			12895 Nov 23 05:58	0°♑	
greatest brilliancy	12893 May 26 12:29	7°♍22'43 -4.9m			12895 Dec 17 17:30	0°♒	
	12893 Jun 27 11:37	0°♓		desc. node	12896 Jan 02 22:11	19°♒40'08	
morning max el	12893 Jul 05 19:43	8°♓06'57 46°55'55			12896 Jan 11 11:31	0°♋	
desc. node	12893 Jul 18 13:10	21°♓23'33			12896 Feb 05 13:02	0°♌	
	12893 Jul 26 10:14	0°♈			12896 Mar 02 00:13	0°♍	
	12893 Aug 21 15:25	0°♉			12896 Mar 28 04:30	0°♎	
	12893 Sep 15 21:35	0°♊		asc. node	12896 Apr 24 20:16	29°♎42'30	
	12893 Oct 10 17:56	0°♋			12896 Apr 25 03:12	0°♏	
	12893 Nov 04 09:14	0°♌		evening max el	12896 Apr 27 14:49	2°♏29'10	46°32'14
asc. node	12893 Nov 08 09:13	4°♌53'18			12896 May 31 13:25	0°♐	
	12893 Nov 28 21:07	0°♍		greatest brilliancy	12896 Jun 07 03:50	2°♐54'37	-4.9m
	12893 Dec 23 06:30	0°♎		retrograde	12896 Jun 16 16:23	4°♐37'36	
morning set	12894 Jan 05 00:56	15°♑44'16			12896 Jul 02 00:39	30°♑☿	
	12894 Jan 16 14:31	0°♒		evening set	12896 Jul 04 01:07	28°♑50'29	
	12894 Feb 09 22:06	0°♋		inferior conj	12896 Jul 07 08:06	26°♑50'59	8°11'50
				minimum elong	12896 Jul 07 17:25	26°♑36'41	8°09'31
superior conj	12894 Feb 10 23:51	1°♋19'28 0°39'35		min. Earth dist.	12896 Jul 07 20:22	26°♑32'10	0.27172 AU
minimum elong	12894 Feb 11 07:58	1°♋44'28 0°39'46		morning rise	12896 Jul 11 09:36	24°♑24'00	
max. Earth dist.	12894 Feb 10 08:52	0°♋33'14 1.73097 AU		direct	12896 Jul 28 01:49	18°♑59'45	
desc. node	12894 Feb 27 23:33	22°♋17'21		greatest brilliancy	12896 Aug 07 04:19	20°♑55'07	-4.9m
	12894 Mar 06 05:24	0°♌		desc. node	12896 Aug 14 22:54	24°♑35'24	
evening rise	12894 Mar 21 03:18	18°♌25'32			12896 Aug 23 04:28	0°♍	
	12894 Mar 30 11:53	0°♎		morning max el	12896 Sep 16 09:06	21°♍23'28	46°42'12
	12894 Apr 23 17:09	0°♏			12896 Sep 24 19:54	0°♐	
	12894 May 17 22:02	0°♑			12896 Oct 22 07:07	0°♑	
	12894 Jun 11 04:46	0°♒			12896 Nov 17 07:39	0°♓	
asc. node	12894 Jun 20 15:54	11°♒37'45		asc. node	12896 Dec 05 22:06	21°♓58'37	
	12894 Jul 05 16:53	0°♋			12896 Dec 12 15:30	0°♌	
	12894 Jul 30 15:49	0°♍			12897 Jan 06 13:07	0°♎	
	12894 Aug 25 12:28	0°♏			12897 Jan 31 04:05	0°♐	
evening max el	12894 Sep 22 12:42	29°♏57'30 46°22'59			12897 Feb 24 14:48	0°♋	
	12894 Sep 22 13:43	0°♍		morning set	12897 Mar 15 07:34	23°♋03'12	
desc. node	12894 Oct 10 15:32	16°♍28'11			12897 Mar 20 22:28	0°♌	
greatest brilliancy	12894 Oct 31 19:21	29°♍34'22 -4.8m		desc. node	12897 Mar 27 14:01	8°♌13'37	
	12894 Nov 02 00:25	0°♎			12897 Apr 14 03:15	0°♍	
retrograde	12894 Nov 11 08:39	1°♎37'16		max. Earth dist.	12897 Apr 20 06:25	7°♎37'31	1.72197 AU
	12894 Nov 20 08:56	30°♎♊					
evening set	12894 Nov 29 16:09	25°♍20'35		superior conj	12897 Apr 23 09:36	11°♎31'28	-0°59'18
inferior conj	12894 Dec 02 20:46	23°♍21'47 -8°47'16		minimum elong	12897 Apr 22 22:25	10°♎56'41	0°59'28

	12897 May 08 05:11	0°♂			12899 Nov 25 06:33	0°♂	
	12897 Jun 01 05:01	0°♂		morning max el	12899 Nov 28 22:11	3°♂28'25	45°57'49
evening rise	12897 Jun 01 20:05	0°♂47'10			12899 Dec 24 14:01	0°♂	
	12897 Jun 25 04:19	0°♂		asc. node	12900 Jan 03 09:37	10°♂50'01	
asc. node	12897 Jul 18 04:31	28°♂43'29			12900 Jan 20 06:17	0°♂	
	12897 Jul 19 05:06	0°♂			12900 Feb 14 19:42	0°♂	
	12897 Aug 12 09:32	0°♂			12900 Mar 11 18:42	0°♂	
	12897 Sep 05 20:28	0°♂			12900 Apr 05 08:55	0°♂	
	12897 Sep 30 18:53	0°♂		desc. node	12900 Apr 25 04:15	24°♂23'50	
	12897 Oct 26 14:36	0°♂			12900 Apr 29 16:54	0°♂	
desc. node	12897 Nov 07 01:18	12°♂45'37			12900 May 23 19:59	0°♂	
	12897 Nov 23 06:48	0°♂		morning set	12900 May 28 18:03	6°♂08'37	
evening max el	12897 Dec 02 16:41	9°♂22'00	45°56'09		12900 Jun 16 19:30	0°♂	
	12897 Dec 27 03:49	0°♂					
greatest brilliancy	12898 Jan 10 17:59	7°♂42'28	-4.7m	superior conj	12900 Jul 07 19:36	26°♂21'35	-1°17'30
retrograde	12898 Jan 20 15:38	9°♂29'02		minimum elong	12900 Jul 08 05:23	26°♂52'19	1°18'11
evening set	12898 Feb 05 11:44	4°♂38'08		max. Earth dist.	12900 Jul 07 09:23	25°♂49'31	1.71399 AU
inferior conj	12898 Feb 10 22:46	1°♂19'19	-4°05'07		12900 Jul 10 17:12	0°♂	
minimum elong	12898 Feb 11 07:05	1°♂06'18	4°02'17		12900 Aug 03 14:59	0°♂	
min. Earth dist.	12898 Feb 11 10:11	1°♂01'26	0.28548 AU	asc. node	12900 Aug 15 18:18	15°♂12'02	
	12898 Feb 13 01:38	30°♂		evening rise	12900 Aug 17 01:15	16°♂48'51	
morning rise	12898 Feb 17 02:11	27°♂37'32			12900 Aug 27 14:26	0°♂	
asc. node	12898 Feb 28 03:31	23°♂27'28			12900 Sep 20 16:52	0°♂	
direct	12898 Mar 04 07:03	23°♂06'36			12900 Oct 15 00:01	0°♂	
greatest brilliancy	12898 Mar 15 04:20	25°♂18'09	-4.8m		12900 Nov 08 14:48	0°♂	
	12898 Mar 24 11:03	0°♂			12900 Dec 03 17:32	0°♂	
morning max el	12898 Apr 23 00:30	24°♂43'29	46°17'38	desc. node	12900 Dec 05 12:00	2°♂05'01	
	12898 Apr 28 06:14	0°♂			12900 Dec 29 14:37	0°♂	
	12898 May 25 19:54	0°♂			12901 Jan 25 19:34	0°♂	
desc. node	12898 Jun 20 04:08	29°♂33'42		evening max el	12901 Feb 12 20:07	18°♂21'52	46°00'14
	12898 Jun 20 12:59	0°♂			12901 Feb 25 12:00	0°♂	
	12898 Jul 15 09:53	0°♂		greatest brilliancy	12901 Mar 24 05:53	17°♂21'43	-4.8m
	12898 Aug 08 20:47	0°♂		asc. node	12901 Mar 28 12:53	18°♂34'14	
	12898 Sep 02 03:13	0°♂		retrograde	12901 Apr 03 02:22	19°♂09'52	
	12898 Sep 26 08:08	0°♂		evening set	12901 Apr 18 13:59	14°♂30'08	
asc. node	12898 Oct 10 21:13	18°♂02'16		inferior conj	12901 Apr 24 01:05	11°♂12'56	6°08'10
	12898 Oct 20 12:42	0°♂		minimum elong	12901 Apr 23 14:20	11°♂29'44	6°05'04
morning set	12898 Oct 25 07:25	5°♂55'38		min. Earth dist.	12901 Apr 24 01:19	11°♂12'35	0.27765 AU
	12898 Nov 13 17:23	0°♂		morning rise	12901 Apr 28 14:22	8°♂25'58	
				direct	12901 May 15 00:31	3°♂10'00	
superior conj	12898 Dec 01 17:57	22°♂19'26	1°25'38	greatest brilliancy	12901 May 25 04:22	5°♂05'36	-4.9m
minimum elong	12898 Dec 01 15:47	22°♂12'43	1°26'35		12901 Jun 28 12:46	0°♂	
max. Earth dist.	12898 Dec 03 15:28	24°♂40'17	1.72927 AU	morning max el	12901 Jul 04 09:14	5°♂45'07	46°55'19
	12898 Dec 07 22:50	0°♂		desc. node	12901 Jul 18 15:08	20°♂39'58	
	12899 Jan 01 06:01	0°♂			12901 Jul 27 02:52	0°♂	
evening rise	12899 Jan 07 19:01	8°♂03'27			12901 Aug 22 05:16	0°♂	
	12899 Jan 25 15:39	0°♂			12901 Sep 16 10:04	0°♂	
desc. node	12899 Jan 30 11:18	5°♂54'33			12901 Oct 11 05:36	0°♂	
	12899 Feb 19 03:39	0°♂			12901 Nov 04 20:20	0°♂	
	12899 Mar 15 17:33	0°♂		asc. node	12901 Nov 08 11:05	4°♂25'17	
	12899 Apr 09 09:45	0°♂			12901 Nov 29 07:49	0°♂	
	12899 May 04 07:03	0°♂			12901 Dec 23 16:58	0°♂	
asc. node	12899 May 23 06:21	22°♂30'09		morning set	12902 Jan 03 18:07	13°♂37'07	
	12899 May 29 16:27	0°♂			12902 Jan 17 00:53	0°♂	
	12899 Jun 25 06:09	0°♂		max. Earth dist.	12902 Feb 09 03:36	28°♂30'54	1.73115 AU
evening max el	12899 Jul 10 17:00	16°♂11'58	46°47'11				
	12899 Jul 25 08:20	0°♂		superior conj	12902 Feb 09 16:08	29°♂09'35	0°42'33
greatest brilliancy	12899 Aug 19 04:50	16°♂33'12	-4.9m	minimum elong	12902 Feb 10 00:39	29°♂35'51	0°42'46
retrograde	12899 Aug 29 23:58	18°♂42'55			12902 Feb 10 08:29	0°♂	
desc. node	12899 Sep 12 08:14	15°♂10'37		desc. node	12902 Feb 28 01:29	21°♂51'04	
evening set	12899 Sep 13 13:59	14°♂31'47			12902 Mar 06 15:53	0°♂	
inferior conj	12899 Sep 19 21:44	10°♂48'26	-1°56'00	evening rise	12902 Mar 19 18:35	16°♂11'51	
minimum elong	12899 Sep 19 17:19	10°♂55'12	1°54'32		12902 Mar 30 22:30	0°♂	
min. Earth dist.	12899 Sep 19 07:55	11°♂09'39	0.27325 AU		12902 Apr 24 03:59	0°♂	
morning rise	12899 Sep 25 21:22	7°♂17'49			12902 May 18 09:09	0°♂	
direct	12899 Oct 10 18:54	3°♂01'41			12902 Jun 11 16:18	0°♂	
greatest brilliancy	12899 Oct 20 08:40	4°♂42'47	-4.8m	asc. node	12902 Jun 20 17:44	11°♂07'19	

	12902 Jul 06 05:06	0°♍			12905 Jan 31 15:03	0°♍		
	12902 Jul 31 05:12	0°♌			12905 Feb 25 01:34	0°♋		
	12902 Aug 26 04:08	0°♍		morning set	12905 Mar 13 22:57	20°♋49'33		
evening max el	12902 Sep 21 03:09	27°♍40'25	46°24'14		12905 Mar 21 09:09	0°♍		
	12902 Sep 23 11:51	0°♌		desc. node	12905 Mar 27 15:53	7°♍46'21		
desc. node	12902 Oct 10 17:37	15°♌24'01			12905 Apr 14 13:56	0°♌		
greatest brilliancy	12902 Oct 30 09:49	27°♌20'47	-4.8m	max. Earth dist.	12905 Apr 18 20:17	5°♌18'04	1.72238 AU	
retrograde	12902 Nov 10 00:42	29°♌25'30						
evening set	12902 Nov 28 06:00	23°♌11'16		superior conj	12905 Apr 21 23:03	9°♌10'36	-0°56'32	
min. Earth dist.	12902 Dec 01 01:50	21°♌26'32	0.28775 AU	minimum elong	12905 Apr 21 12:04	8°♌36'26	0°56'39	
inferior conj	12902 Dec 01 12:21	21°♌10'06	-8°45'20		12905 May 08 15:57	0°♌		
minimum elong	12902 Dec 01 09:50	21°♌14'02	8°44'19	evening rise	12905 May 31 08:10	28°♌20'43		
morning rise	12902 Dec 04 13:47	19°♌16'31			12905 Jun 01 15:54	0°♌		
direct	12902 Dec 22 19:22	13°♌01'59			12905 Jun 25 15:21	0°♌		
greatest brilliancy	12903 Jan 01 20:44	14°♌51'49	-4.7m	asc. node	12905 Jul 18 06:26	28°♌14'33		
	12903 Jan 26 01:55	0°♌			12905 Jul 19 16:19	0°♌		
asc. node	12903 Jan 31 20:01	4°♌57'36			12905 Aug 12 21:02	0°♌		
morning max el	12903 Feb 09 18:26	13°♌17'26	45°43'52		12905 Sep 06 08:28	0°♌		
	12903 Feb 26 03:29	0°♌			12905 Oct 01 07:48	0°♌		
	12903 Mar 25 03:49	0°♌			12905 Oct 27 05:22	0°♌		
	12903 Apr 19 18:20	0°♌		desc. node	12905 Nov 07 03:10	12°♌06'40		
	12903 May 14 15:37	0°♌			12905 Nov 24 02:20	0°♌		
desc. node	12903 May 23 17:42	11°♌06'13		evening max el	12905 Dec 01 08:21	7°♌10'22	45°56'37	
	12903 Jun 08 02:17	0°♌			12905 Dec 29 04:05	0°♌		
	12903 Jul 02 06:14	0°♌		greatest brilliancy	12906 Jan 09 09:40	5°♌31'02	-4.7m	
	12903 Jul 26 06:34	0°♌		retrograde	12906 Jan 19 06:49	7°♌16'54		
morning set	12903 Aug 12 15:08	21°♌43'19		evening set	12906 Feb 04 05:52	2°♌22'37		
	12903 Aug 19 05:51	0°♌			12906 Feb 08 04:35	30°♌		
	12903 Sep 12 05:39	0°♌		inferior conj	12906 Feb 09 14:25	29°♌06'58	-4°23'27	
asc. node	12903 Sep 13 08:40	1°♌24'21		minimum elong	12906 Feb 09 23:10	28°♌53'14	4°20'33	
				min. Earth dist.	12906 Feb 10 01:50	28°♌49'03	0.28575 AU	
superior conj	12903 Sep 20 22:45	10°♌52'48	0°18'22	morning rise	12906 Feb 15 16:15	25°♌27'02		
minimum elong	12903 Sep 20 18:23	10°♌39'10	0°18'14	asc. node	12906 Feb 28 05:34	21°♌03'15		
max. Earth dist.	12903 Sep 23 00:38	13°♌28'28	1.71990 AU	direct	12906 Mar 02 23:05	20°♌54'18		
	12903 Oct 06 06:48	0°♌		greatest brilliancy	12906 Mar 13 19:42	23°♌04'51	-4.8m	
evening rise	12903 Oct 28 23:15	28°♌12'09			12906 Mar 26 12:38	0°♌		
	12903 Oct 30 10:03	0°♌		morning max el	12906 Apr 21 15:03	22°♌26'46	46°16'02	
	12903 Nov 23 16:42	0°♌			12906 Apr 29 01:57	0°♌		
	12903 Dec 18 04:29	0°♌			12906 May 26 10:54	0°♌		
desc. node	12904 Jan 03 00:04	19°♌11'56		desc. node	12906 Jun 20 06:06	29°♌00'09		
	12904 Jan 11 22:55	0°♌			12906 Jun 21 02:10	0°♌		
	12904 Feb 06 01:09	0°♌			12906 Jul 15 22:11	0°♌		
	12904 Mar 02 13:35	0°♌			12906 Aug 09 08:32	0°♌		
	12904 Mar 28 20:18	0°♌			12906 Sep 02 14:35	0°♌		
asc. node	12904 Apr 24 22:10	28°♌52'10			12906 Sep 26 19:13	0°♌		
evening max el	12904 Apr 26 05:06	0°♌09'13	46°31'07	asc. node	12906 Oct 10 23:02	17°♌33'53		
	12904 Apr 26 01:23	0°♌			12906 Oct 20 23:34	0°♌		
	12904 Jun 04 07:51	0°♌		morning set	12906 Oct 23 22:33	3°♌40'04		
greatest brilliancy	12904 Jun 05 16:11	0°♌29'34	-4.9m		12906 Nov 14 04:08	0°♌		
retrograde	12904 Jun 15 05:46	2°♌13'01						
	12904 Jun 25 15:54	30°♌		superior conj	12906 Nov 30 10:33	20°♌09'08	1°25'12	
evening set	12904 Jul 02 17:17	26°♌20'43		minimum elong	12906 Nov 30 07:39	20°♌00'07	1°26'09	
inferior conj	12904 Jul 05 20:54	24°♌25'57	8°22'21	max. Earth dist.	12906 Dec 02 09:00	22°♌32'52	1.72902 AU	
minimum elong	12904 Jul 06 05:39	24°♌12'32	8°20'14		12906 Dec 08 09:33	0°♌		
min. Earth dist.	12904 Jul 06 08:35	24°♌08'02	0.27194 AU		12907 Jan 01 16:47	0°♌		
morning rise	12904 Jul 09 17:58	22°♌05'30		evening rise	12907 Jan 06 11:13	5°♌52'16		
direct	12904 Jul 26 15:26	16°♌34'31			12907 Jan 26 02:34	0°♌		
greatest brilliancy	12904 Aug 05 16:17	18°♌28'49	-4.9m	desc. node	12907 Jan 30 13:18	5°♌27'02		
desc. node	12904 Aug 15 00:59	23°♌05'08			12907 Feb 19 14:50	0°♌		
	12904 Aug 24 21:40	0°♌			12907 Mar 16 05:07	0°♌		
morning max el	12904 Sep 14 23:36	19°♌03'27	46°43'26		12907 Apr 09 21:53	0°♌		
	12904 Sep 25 15:39	0°♌			12907 May 04 20:06	0°♌		
	12904 Oct 22 22:14	0°♌		asc. node	12907 May 23 08:14	21°♌54'11		
	12904 Nov 17 20:44	0°♌			12907 May 30 07:10	0°♌		
asc. node	12904 Dec 05 23:53	21°♌27'28			12907 Jun 26 00:37	0°♌		
	12904 Dec 13 03:29	0°♌		evening max el	12907 Jul 09 06:20	13°♌48'04	46°47'10	
	12905 Jan 07 00:28	0°♌			12907 Jul 26 16:56	0°♌		

greatest brilliancy	12907 Aug 17 20:31	14°♄12'36	-4.9m	max. Earth dist.	12910 Feb 07 00:06	26°♊32'50	1.73129 AU
retrograde	12907 Aug 28 13:19	16°♄20'20			12910 Feb 09 19:16	0°♋	
evening set	12907 Sep 12 03:24	12°♄10'07		desc. node	12910 Feb 27 03:19	21°♋23'15	
desc. node	12907 Sep 12 10:17	12°♄00'50			12910 Mar 06 02:45	0°♌	
inferior conj	12907 Sep 18 11:12	8°♄26'56	-1°33'04	evening rise	12910 Mar 17 09:50	13°♌56'58	
minimum elong	12907 Sep 18 07:38	8°♄32'25	1°31'53		12910 Mar 30 09:32	0°♍	
min. Earth dist.	12907 Sep 17 22:51	8°♄45'54	0.27283 AU		12910 Apr 23 15:13	0°♎	
morning rise	12907 Sep 24 12:27	4°♄53'52			12910 May 17 20:40	0°♏	
direct	12907 Oct 09 07:32	0°♄40'36			12910 Jun 11 04:15	0°♐	
greatest brilliancy	12907 Oct 18 22:50	2°♄22'34	-4.8m	asc. node	12910 Jun 19 19:43	10°♐36'18	
	12907 Nov 26 06:52	0°♍			12910 Jul 05 17:42	0°♑	
morning max el	12907 Nov 27 10:48	1°♍07'06	45°59'07		12910 Jul 30 18:56	0°♒	
	12907 Dec 25 06:22	0°♓			12910 Aug 25 20:17	0°♓	
asc. node	12908 Jan 03 11:42	10°♓13'37		evening max el	12910 Sep 18 18:30	25°♓24'59	46°25'24
	12908 Jan 20 19:54	0°♑			12910 Sep 23 11:12	0°♓	
	12908 Feb 15 08:02	0°♒		desc. node	12910 Oct 09 19:29	14°♓16'58	
	12908 Mar 11 06:22	0°♋		greatest brilliancy	12910 Oct 27 23:59	25°♓06'06	-4.8m
	12908 Apr 04 20:12	0°♌		retrograde	12910 Nov 07 17:07	27°♓12'46	
desc. node	12908 Apr 24 06:03	23°♌54'59		evening set	12910 Nov 25 19:34	21°♓01'30	
	12908 Apr 29 04:00	0°♍		min. Earth dist.	12910 Nov 28 16:02	19°♓16'01	0.28747 AU
	12908 May 23 06:58	0°♎		inferior conj	12910 Nov 29 03:58	18°♓57'23	-8°42'40
morning set	12908 May 26 05:50	3°♎41'12		minimum elong	12910 Nov 29 00:39	19°♓02'34	8°41'34
	12908 Jun 16 06:24	0°♏		morning rise	12910 Dec 02 05:53	17°♓03'20	
max. Earth dist.	12908 Jul 04 14:52	23°♏01'54	1.71405 AU	direct	12910 Dec 20 10:59	10°♓49'50	
				greatest brilliancy	12910 Dec 30 10:47	12°♓38'43	-4.7m
superior conj	12908 Jul 05 07:38	23°♏54'31	-1°19'12		12911 Jan 26 08:04	0°♑	
minimum elong	12908 Jul 05 16:49	24°♏23'21	1°19'57	asc. node	12911 Jan 30 22:01	4°♑02'51	
	12908 Jul 10 04:05	0°♐		morning max el	12911 Feb 07 10:31	11°♑06'18	45°43'28
	12908 Aug 03 01:55	0°♑			12911 Feb 25 20:53	0°♒	
evening rise	12908 Aug 14 13:44	14°♑23'25			12911 Mar 24 17:54	0°♋	
asc. node	12908 Aug 14 20:14	14°♑43'43			12911 Apr 19 07:00	0°♌	
	12908 Aug 27 01:28	0°♒			12911 May 14 03:32	0°♍	
	12908 Sep 20 04:01	0°♓		desc. node	12911 May 22 19:36	10°♍35'59	
	12908 Oct 14 11:25	0°♓			12911 Jun 07 13:47	0°♎	
	12908 Nov 08 02:39	0°♑			12911 Jul 01 17:28	0°♏	
	12908 Dec 03 06:13	0°♒			12911 Jul 25 17:38	0°♐	
desc. node	12908 Dec 04 13:57	1°♒33'18		morning set	12911 Aug 10 04:07	19°♐19'24	
	12908 Dec 29 04:55	0°♋			12911 Aug 18 16:46	0°♑	
	12909 Jan 25 13:33	0°♌			12911 Sep 11 16:28	0°♒	
evening max el	12909 Feb 10 09:52	16°♌03'28	45°59'32	asc. node	12911 Sep 12 10:26	0°♓	56'07
	12909 Feb 25 19:31	0°♍					
greatest brilliancy	12909 Mar 21 19:34	15°♍02'08	-4.8m	superior conj	12911 Sep 18 12:47	8°♍33'05	0°14'48
asc. node	12909 Mar 27 14:50	16°♍31'32		minimum elong	12911 Sep 18 09:13	8°♍21'59	0°14'40
retrograde	12909 Mar 31 16:26	16°♍50'51		behind sun begin	12911 Sep 17 22:52	7°♍49'40	
evening set	12909 Apr 16 01:12	12°♍14'32		behind sun end	12911 Sep 18 19:34	8°♍54'17	
inferior conj	12909 Apr 21 15:21	8°♍53'24	5°50'50	max. Earth dist.	12911 Sep 20 16:25	11°♍14'16	1.71956 AU
minimum elong	12909 Apr 21 04:44	9°♍09'56	5°47'42		12911 Oct 05 17:33	0°♎	
min. Earth dist.	12909 Apr 21 15:47	8°♍52'42	0.27783 AU	evening rise	12911 Oct 26 15:23	25°♎59'56	
morning rise	12909 Apr 26 07:57	6°♍01'48			12911 Oct 29 20:49	0°♓	
direct	12909 May 12 14:43	0°♍49'52			12911 Nov 23 03:36	0°♑	
greatest brilliancy	12909 May 22 19:53	2°♍46'50	-4.9m		12911 Dec 17 15:40	0°♒	
	12909 Jun 28 13:08	0°♎		desc. node	12912 Jan 02 02:02	18°♒43'21	
morning max el	12909 Jul 01 23:46	3°♎24'51	46°54'54		12912 Jan 11 10:33	0°♋	
desc. node	12909 Jul 17 17:12	19°♎56'11			12912 Feb 05 13:33	0°♌	
	12909 Jul 26 19:32	0°♏			12912 Mar 02 03:16	0°♍	
	12909 Aug 21 19:17	0°♐			12912 Mar 28 12:35	0°♎	
	12909 Sep 15 22:48	0°♑		evening max el	12912 Apr 23 19:30	27°♎49'07	46°29'57
	12909 Oct 10 17:34	0°♒		asc. node	12912 Apr 24 00:07	28°♎00'34	
	12909 Nov 04 07:49	0°♓			12912 Apr 26 00:44	0°♏	
asc. node	12909 Nov 07 12:54	3°♓55'53		greatest brilliancy	12912 Jun 03 05:03	28°♏04'53	-4.9m
	12909 Nov 28 18:57	0°♓		retrograde	12912 Jun 12 18:56	29°♏47'59	
	12909 Dec 23 03:51	0°♑		evening set	12912 Jun 30 09:24	23°♏51'04	
morning set	12910 Jan 01 11:06	11°♑28'02		inferior conj	12912 Jul 03 09:49	22°♑00'46	8°32'00
	12910 Jan 16 11:40	0°♒		minimum elong	12912 Jul 03 17:53	21°♑48'21	8°30'04
				min. Earth dist.	12912 Jul 03 21:04	21°♑43'27	0.27215 AU
superior conj	12910 Feb 07 08:15	26°♒57'58	0°45'28	morning rise	12912 Jul 07 02:20	19°♑46'39	
minimum elong	12910 Feb 07 17:08	27°♒25'23	0°45'43	direct	12912 Jul 24 04:56	14°♑09'08	

greatest brilliancy	12912 Aug 03 04:32	16°☾02'18	-4.9m	desc. node	12915 Jan 29 15:08	4°☿59'50	
desc. node	12912 Aug 14 02:56	21°☾37'24			12915 Feb 19 01:48	0°♊	
	12912 Aug 25 10:42	0°♊			12915 Mar 15 16:31	0°♋	
morning max el	12912 Sep 12 13:29	16°♊41'30	46°44'47		12915 Apr 09 09:54	0°♌	
	12912 Sep 25 10:55	0°♍			12915 May 04 09:06	0°☾	
	12912 Oct 22 13:09	0°♎		asc. node	12915 May 22 10:17	21°☾18'51	
	12912 Nov 17 09:42	0°♏			12915 May 29 21:56	0°♐	
asc. node	12912 Dec 05 01:56	20°♏57'15			12915 Jun 25 19:22	0°♑	
	12912 Dec 12 15:24	0°♒		evening max el	12915 Jul 06 19:01	11°♑23'07	46°47'15
	12913 Jan 06 11:47	0°♓			12915 Jul 27 04:16	0°♎	
	12913 Jan 31 02:03	0°♈		greatest brilliancy	12915 Aug 15 11:54	11°♎52'02	-4.9m
	12913 Feb 24 12:24	0°♉		retrograde	12915 Aug 26 02:39	13°♎58'25	
morning set	12913 Mar 11 14:22	18°♉35'47		evening set	12915 Sep 09 16:56	9°♎48'20	
	12913 Mar 20 19:53	0°♊		desc. node	12915 Sep 11 12:14	8°♎48'21	
desc. node	12913 Mar 26 17:40	7°♊18'36		min. Earth dist.	12915 Sep 15 13:47	6°♎22'28	0.27245 AU
	12913 Apr 14 00:40	0°♋		inferior conj	12915 Sep 16 00:36	6°♎05'52	-1°09'47
max. Earth dist.	12913 Apr 16 08:22	2°♋53'05	1.72278 AU	minimum elong	12915 Sep 15 21:54	6°♎10'00	1°08'55
				morning rise	12915 Sep 22 03:21	2°♎30'42	
superior conj	12913 Apr 19 12:31	6°♋49'46	-0°53'41		12915 Sep 27 15:52	30°♋♑	
minimum elong	12913 Apr 19 01:47	6°♋16'25	0°53'45	direct	12915 Oct 06 19:54	28°♑19'37	
	12913 May 08 02:44	0°♌			12915 Oct 16 09:36	0°♎	
evening rise	12913 May 28 20:14	25°♌54'14		greatest brilliancy	12915 Oct 16 13:12	0°♎03'03	-4.8m
	12913 Jun 01 02:48	0°☾		morning max el	12915 Nov 25 00:17	28°♎48'29	46°00'38
	12913 Jun 25 02:24	0°♏			12915 Nov 26 05:48	0°♏	
asc. node	12913 Jul 17 08:22	27°♏45'35			12915 Dec 24 22:06	0°♒	
	12913 Jul 19 03:34	0°♑		asc. node	12916 Jan 02 13:36	9°♒37'52	
	12913 Aug 12 08:36	0°♎			12916 Jan 20 09:03	0°♓	
	12913 Sep 05 20:32	0°♏			12916 Feb 14 19:57	0°♈	
	12913 Sep 30 20:46	0°♒			12916 Mar 10 17:38	0°♉	
	12913 Oct 26 20:13	0°♓			12916 Apr 04 07:09	0°♊	
desc. node	12913 Nov 06 05:12	11°♓28'13		desc. node	12916 Apr 23 07:58	23°♊27'27	
	12913 Nov 23 22:14	0°♈			12916 Apr 28 14:47	0°♋	
evening max el	12913 Nov 28 23:14	4°♈57'20	45°57'06		12916 May 22 17:41	0°♌	
	12913 Dec 30 13:38	0°♉		morning set	12916 May 23 17:25	1°♌14'03	
greatest brilliancy	12914 Jan 07 01:46	3°♉20'51	-4.7m		12916 Jun 15 17:05	0°☾	
retrograde	12914 Jan 16 21:48	5°♉05'52		max. Earth dist.	12916 Jul 01 22:04	20°☾20'22	1.71414 AU
evening set	12914 Feb 02 00:13	0°♉07'55					
	12914 Feb 02 05:44	30°♋♈		superior conj	12916 Jul 02 19:17	21°☾26'56	-1°20'47
inferior conj	12914 Feb 07 06:18	26°♈55'42	-4°41'16	minimum elong	12916 Jul 03 03:46	21°☾53'35	1°21'34
minimum elong	12914 Feb 07 15:25	26°♈41'22	4°38'17		12916 Jul 09 14:45	0°♏	
min. Earth dist.	12914 Feb 07 17:57	26°♈37'23	0.28607 AU		12916 Aug 02 12:37	0°♑	
morning rise	12914 Feb 13 06:22	23°♈17'48		evening rise	12916 Aug 12 01:51	11°♑57'40	
asc. node	12914 Feb 27 07:31	18°♈44'51		asc. node	12916 Aug 13 21:57	14°♑15'35	
direct	12914 Feb 28 14:51	18°♈42'49			12916 Aug 26 12:13	0°♎	
greatest brilliancy	12914 Mar 11 11:51	20°♈53'03	-4.8m		12916 Sep 19 14:55	0°♏	
	12914 Mar 27 07:07	0°♉			12916 Oct 13 22:33	0°♒	
morning max el	12914 Apr 19 05:22	20°♉09'39	46°14'25		12916 Nov 07 14:14	0°♓	
	12914 Apr 28 21:03	0°♊			12916 Dec 02 18:38	0°♈	
	12914 May 26 01:39	0°♋		desc. node	12916 Dec 03 15:58	1°♈02'37	
desc. node	12914 Jun 19 08:09	28°♋27'19			12916 Dec 28 18:59	0°♉	
	12914 Jun 20 15:11	0°♌			12917 Jan 25 07:26	0°♊	
	12914 Jul 15 10:18	0°☾		evening max el	12917 Feb 08 00:43	13°♊49'27	45°59'01
	12914 Aug 08 20:07	0°♏			12917 Feb 26 04:56	0°♋	
	12914 Sep 02 01:47	0°♑		greatest brilliancy	12917 Mar 19 08:51	12°♋44'11	-4.8m
	12914 Sep 26 06:09	0°♎		asc. node	12917 Mar 26 16:47	14°♋26'02	
asc. node	12914 Oct 10 00:51	17°♎05'56		retrograde	12917 Mar 29 07:07	14°♋34'00	
	12914 Oct 20 10:19	0°♏		evening set	12917 Apr 13 12:54	10°♋00'47	
morning set	12914 Oct 21 13:42	1°♏25'00		inferior conj	12917 Apr 19 05:48	6°♋35'51	5°33'02
	12914 Nov 13 14:44	0°♒		minimum elong	12917 Apr 18 19:26	6°♋52'00	5°29'54
				min. Earth dist.	12917 Apr 19 06:08	6°♋35'21	0.27804 AU
superior conj	12914 Nov 28 03:26	18°♒00'15	1°24'40	morning rise	12917 Apr 24 01:40	3°♋39'49	
minimum elong	12914 Nov 27 23:47	17°♒48'57	1°25'34		12917 May 01 19:01	30°♋♑	
max. Earth dist.	12914 Nov 30 01:10	20°♒21'49	1.72872 AU	direct	12917 May 10 05:42	28°♑31'54	
	12914 Dec 07 20:04	0°♓			12917 May 19 00:46	0°♋	
	12915 Jan 01 03:20	0°♈		greatest brilliancy	12917 May 20 11:08	0°♋29'33	-4.9m
evening rise	12915 Jan 04 03:47	3°♈43'03			12917 Jun 28 11:58	0°♌	
	12915 Jan 25 13:15	0°♉		morning max el	12917 Jun 29 15:21	1°♌08'27	46°54'05

desc. node	12917 Jul 16 19:06	19° Π 13'26			12920 Feb 05 01:44	0° Υ	
	12917 Jul 26 11:35	0° Θ			12920 Mar 01 16:48	0° \mathcal{B}	
	12917 Aug 21 08:54	0° Ω			12920 Mar 28 04:48	0° Π	
	12917 Sep 15 11:11	0° \P	evening max el		12920 Apr 21 09:29	25° Π 29'12	46°28'55
	12917 Oct 10 05:12	0° $\underline{\Omega}$	asc. node		12920 Apr 23 02:15	27° Π 09'37	
	12917 Nov 03 18:55	0° \mathcal{M}			12920 Apr 26 00:39	0° Θ	
asc. node	12917 Nov 06 14:51	3° \mathcal{M} 28'01	greatest brilliancy		12920 May 31 18:33	25° Θ 42'39	-4.9m
	12917 Nov 28 05:42	0° \mathcal{A}	retrograde		12920 Jun 10 07:40	27° Θ 24'53	
	12917 Dec 22 14:24	0° \mathcal{Z}	evening set		12920 Jun 28 01:30	21° Θ 23'47	
morning set	12917 Dec 30 04:06	9° \mathcal{Z} 20'05	inferior conj		12920 Jun 30 22:58	19° Θ 37'40	8°40'37
	12918 Jan 15 22:06	0° \approx	minimum elong		12920 Jul 01 06:18	19° Θ 26'20	8°38'50
			min. Earth dist.		12920 Jul 01 10:00	19° Θ 20'38	0.27236 AU
superior conj	12918 Feb 05 00:33	24° \approx 48'03	morning rise		12920 Jul 04 11:04	17° Θ 29'42	
minimum elong	12918 Feb 05 09:46	25° \approx 16'26	direct		12920 Jul 21 18:14	11° Θ 45'44	
max. Earth dist.	12918 Feb 04 21:18	24° \approx 38'00	greatest brilliancy		12920 Jul 31 17:30	13° Θ 38'15	-4.9m
	12918 Feb 09 05:41	0° \mathcal{H}	desc. node		12920 Aug 13 04:55	20° Θ 14'03	
desc. node	12918 Feb 26 05:06	20° \mathcal{H} 56'33			12920 Aug 25 19:48	0° Ω	
	12918 Mar 05 13:14	0° Υ	morning max el		12920 Sep 10 02:32	14° Ω 18'18	46°45'48
evening rise	12918 Mar 15 01:22	11° Υ 44'15			12920 Sep 25 05:19	0° \P	
	12918 Mar 29 20:08	0° \mathcal{B}			12920 Oct 22 03:40	0° $\underline{\Omega}$	
	12918 Apr 23 02:01	0° Π			12920 Nov 16 22:26	0° \mathcal{M}	
	12918 May 17 07:48	0° Θ	asc. node		12920 Dec 04 03:49	20° \mathcal{M} 27'00	
	12918 Jun 10 15:52	0° Ω			12920 Dec 12 03:08	0° \mathcal{A}	
asc. node	12918 Jun 18 21:37	10° Ω 05'57			12921 Jan 05 22:56	0° \mathcal{Z}	
	12918 Jul 05 06:04	0° \P			12921 Jan 30 12:51	0° \approx	
	12918 Jul 30 08:34	0° $\underline{\Omega}$			12921 Feb 23 23:00	0° \mathcal{H}	
	12918 Aug 25 12:31	0° \mathcal{M}	morning set		12921 Mar 09 05:36	16° \mathcal{H} 22'03	
evening max el	12918 Sep 16 10:29	23° \mathcal{M} 11'32			12921 Mar 20 06:25	0° Υ	
	12918 Sep 23 11:28	0° \mathcal{A}	desc. node		12921 Mar 25 19:33	6° Υ 51'49	
desc. node	12918 Oct 08 21:33	13° \mathcal{A} 08'49			12921 Apr 13 11:13	0° \mathcal{B}	
greatest brilliancy	12918 Oct 25 14:10	22° \mathcal{A} 51'39	max. Earth dist.		12921 Apr 13 20:01	0° \mathcal{B} 27'21	1.72317 AU
retrograde	12918 Nov 05 09:16	24° \mathcal{A} 59'44					
evening set	12918 Nov 23 08:35	18° \mathcal{A} 52'12	superior conj		12921 Apr 17 02:01	4° \mathcal{B} 29'44	-0°50'43
min. Earth dist.	12918 Nov 26 05:54	17° \mathcal{A} 05'28	minimum elong		12921 Apr 16 15:37	3° \mathcal{B} 57'22	0°50'45
inferior conj	12918 Nov 26 19:16	16° \mathcal{A} 44'35			12921 May 07 13:20	0° Π	
minimum elong	12918 Nov 26 15:11	16° \mathcal{A} 50'58	evening rise		12921 May 26 08:32	23° Π 29'16	
morning rise	12918 Nov 29 21:59	14° \mathcal{A} 49'29			12921 May 31 13:29	0° Θ	
direct	12918 Dec 18 02:34	8° \mathcal{A} 37'51			12921 Jun 24 13:12	0° Ω	
greatest brilliancy	12918 Dec 28 00:02	10° \mathcal{A} 25'03	asc. node		12921 Jul 16 10:08	27° Ω 17'02	
	12919 Jan 26 11:52	0° \mathcal{Z}			12921 Jul 18 14:33	0° \P	
asc. node	12919 Jan 29 23:56	3° \mathcal{Z} 09'48			12921 Aug 11 19:54	0° $\underline{\Omega}$	
morning max el	12919 Feb 05 02:11	8° \mathcal{Z} 55'05			12921 Sep 05 08:24	0° \mathcal{M}	
	12919 Feb 25 13:34	0° \approx			12921 Sep 30 09:39	0° \mathcal{A}	
	12919 Mar 24 07:27	0° \mathcal{H}			12921 Oct 26 11:10	0° \mathcal{Z}	
	12919 Apr 18 19:10	0° Υ	desc. node		12921 Nov 05 07:13	10° \mathcal{Z} 49'24	
	12919 May 13 14:59	0° \mathcal{B}			12921 Nov 23 18:49	0° \approx	
desc. node	12919 May 21 21:35	10° \mathcal{B} 07'26	evening max el		12921 Nov 26 13:19	2° \approx 42'14	45°57'37
	12919 Jun 07 00:50	0° Π			12922 Jan 01 17:04	0° \mathcal{H}	
	12919 Jul 01 04:17	0° Θ	greatest brilliancy		12922 Jan 04 17:38	1° \mathcal{H} 10'04	-4.7m
	12919 Jul 25 04:20	0° Ω	retrograde		12922 Jan 14 12:34	2° \mathcal{H} 54'37	
morning set	12919 Aug 07 16:52	16° Ω 55'47			12922 Jan 26 16:58	30° \mathcal{R} \approx	
	12919 Aug 18 03:24	0° \P	evening set		12922 Jan 30 18:27	27° \approx 52'31	
	12919 Sep 11 03:01	0° $\underline{\Omega}$	inferior conj		12922 Feb 04 22:00	24° \approx 44'08	-4°58'42
asc. node	12919 Sep 11 12:19	0° $\underline{\Omega}$ 29'02	minimum elong		12922 Feb 05 07:27	24° \approx 29'16	4°55'40
			min. Earth dist.		12922 Feb 05 10:03	24° \approx 25'11	0.28638 AU
superior conj	12919 Sep 16 02:17	6° $\underline{\Omega}$ 12'29	morning rise		12922 Feb 10 20:08	21° \approx 08'38	
minimum elong	12919 Sep 15 23:35	6° $\underline{\Omega}$ 04'02	direct		12922 Feb 26 06:11	16° \approx 30'51	
behind sun begin	12919 Sep 15 05:25	5° $\underline{\Omega}$ 07'19	asc. node		12922 Feb 26 09:31	16° \approx 30'53	
behind sun end	12919 Sep 16 17:45	7° $\underline{\Omega}$ 00'46	greatest brilliancy		12922 Mar 09 04:17	18° \approx 41'36	-4.8m
max. Earth dist.	12919 Sep 18 07:32	8° $\underline{\Omega}$ 58'42			12922 Mar 27 20:48	0° \mathcal{H}	
	12919 Oct 05 04:04	0° \mathcal{M}	morning max el		12922 Apr 16 19:41	17° \mathcal{H} 52'43	46°12'55
evening rise	12919 Oct 24 06:54	23° \mathcal{M} 46'29			12922 Apr 28 15:32	0° Υ	
	12919 Oct 29 07:21	0° \mathcal{A}			12922 May 25 16:08	0° \mathcal{B}	
	12919 Nov 22 14:16	0° \mathcal{Z}	desc. node		12922 Jun 18 09:55	27° \mathcal{B} 54'06	
	12919 Dec 17 02:37	0° \approx			12922 Jun 20 04:00	0° Π	
desc. node	12920 Jan 01 03:52	18° \approx 15'07			12922 Jul 14 22:14	0° Θ	
	12920 Jan 10 21:58	0° \mathcal{H}			12922 Aug 08 07:30	0° Ω	

	12922 Sep 01 12:48	0°♍		greatest brilliancy	12925 Mar 16 22:01	10°♌24'58	-4.8m
	12922 Sep 25 16:54	0°♊		asc. node	12925 Mar 25 18:53	12°♌14'02	
asc. node	12922 Oct 09 02:46	16°♊38'48		retrograde	12925 Mar 26 21:42	12°♌15'31	
morning set	12922 Oct 19 04:55	29°♊10'21		evening set	12925 Apr 11 00:42	7°♌45'31	
	12922 Oct 19 20:55	0°♌		inferior conj	12925 Apr 16 20:06	4°♌16'51	5°14'31
	12922 Nov 13 01:15	0°♌		minimum elong	12925 Apr 16 10:02	4°♌32'31	5°11'26
				min. Earth dist.	12925 Apr 16 20:15	4°♌16'37	0.27824 AU
superior conj	12922 Nov 25 20:11	15°♌51'01	1°23'59	morning rise	12925 Apr 21 19:08	1°♌16'22	
minimum elong	12922 Nov 25 15:48	15°♌37'28	1°24'52		12925 Apr 24 02:48	30°♌	
max. Earth dist.	12922 Nov 27 16:04	18°♌06'52	1.72851 AU	direct	12925 May 07 20:49	26°♌12'43	
	12922 Dec 07 06:35	0°♌		greatest brilliancy	12925 May 18 01:49	28°♌10'22	-4.9m
	12922 Dec 31 13:53	0°♌			12925 May 22 08:04	0°♌	
evening rise	12923 Jan 01 20:05	1°♌32'57		morning max el	12925 Jun 27 06:39	28°♌50'32	46°53'13
	12923 Jan 24 23:59	0°♌			12925 Jun 28 10:14	0°♌	
desc. node	12923 Jan 28 16:55	4°♌32'19		desc. node	12925 Jul 15 21:05	18°♌30'32	
	12923 Feb 18 12:49	0°♌			12925 Jul 26 03:39	0°♌	
	12923 Mar 15 03:59	0°♌			12925 Aug 20 22:41	0°♌	
	12923 Apr 08 22:01	0°♌			12925 Sep 14 23:46	0°♌	
	12923 May 03 22:14	0°♌			12925 Oct 09 17:02	0°♌	
asc. node	12923 May 21 12:11	20°♌42'42			12925 Nov 03 06:14	0°♌	
	12923 May 29 12:55	0°♌		asc. node	12925 Nov 05 16:43	2°♌59'11	
	12923 Jun 25 14:42	0°♌			12925 Nov 27 16:39	0°♌	
evening max el	12923 Jul 04 08:07	8°♌59'18	46°47'30		12925 Dec 22 01:08	0°♌	
	12923 Jul 27 19:25	0°♌		morning set	12925 Dec 27 21:24	7°♌12'26	
greatest brilliancy	12923 Aug 13 02:51	9°♌31'15	-4.9m		12926 Jan 15 08:45	0°♌	
retrograde	12923 Aug 23 16:32	11°♌37'05					
evening set	12923 Sep 07 06:46	7°♌26'35		superior conj	12926 Feb 02 17:03	22°♌37'54	0°51'03
desc. node	12923 Sep 10 14:16	5°♌33'56		minimum elong	12926 Feb 03 02:29	23°♌07'00	0°51'20
min. Earth dist.	12923 Sep 13 04:32	3°♌59'46	0.27209 AU	max. Earth dist.	12926 Feb 02 18:09	22°♌41'17	1.73147 AU
inferior conj	12923 Sep 13 14:05	3°♌45'09	-0°46'23		12926 Feb 08 16:23	0°♌	
minimum elong	12923 Sep 13 12:17	3°♌47'55	0°45'51	desc. node	12926 Feb 25 07:03	20°♌29'23	
morning rise	12923 Sep 19 18:11	0°♌08'25			12926 Mar 05 00:03	0°♌	
	12923 Sep 20 00:31	30°♌		evening rise	12926 Mar 12 16:47	9°♌30'07	
direct	12923 Oct 04 08:37	25°♌58'58			12926 Mar 29 07:06	0°♌	
greatest brilliancy	12923 Oct 14 03:21	27°♌43'49	-4.8m		12926 Apr 22 13:14	0°♌	
	12923 Oct 19 13:10	0°♌			12926 May 16 19:21	0°♌	
morning max el	12923 Nov 22 14:42	26°♌32'18	46°02'00		12926 Jun 10 03:55	0°♌	
	12923 Nov 26 03:41	0°♌		asc. node	12926 Jun 17 23:27	9°♌34'09	
	12923 Dec 24 13:36	0°♌			12926 Jul 04 18:52	0°♌	
asc. node	12924 Jan 01 15:29	9°♌02'09			12926 Jul 29 22:41	0°♌	
	12924 Jan 19 22:12	0°♌			12926 Aug 25 05:27	0°♌	
	12924 Feb 14 07:59	0°♌		evening max el	12926 Sep 14 02:41	20°♌57'28	46°27'45
	12924 Mar 10 05:03	0°♌			12926 Sep 23 13:26	0°♌	
	12924 Apr 03 18:15	0°♌		desc. node	12926 Oct 07 23:36	11°♌57'46	
desc. node	12924 Apr 22 09:51	22°♌59'23		greatest brilliancy	12926 Oct 23 05:08	20°♌37'20	-4.8m
	12924 Apr 28 01:43	0°♌		retrograde	12926 Nov 03 01:13	22°♌45'58	
morning set	12924 May 21 04:51	28°♌46'05		evening set	12926 Nov 20 21:30	16°♌42'57	
	12924 May 22 04:32	0°♌		inferior conj	12926 Nov 24 10:44	14°♌31'23	-8°34'59
	12924 Jun 15 03:54	0°♌		minimum elong	12926 Nov 24 05:54	14°♌38'56	8°33'44
max. Earth dist.	12924 Jun 29 07:22	17°♌44'51	1.71424 AU	min. Earth dist.	12926 Nov 23 20:07	14°♌54'11	0.28670 AU
				morning rise	12926 Nov 27 14:30	12°♌34'38	
superior conj	12924 Jun 30 06:48	18°♌58'27	-1°22'12	direct	12926 Dec 15 18:10	6°♌25'39	
minimum elong	12924 Jun 30 14:31	19°♌22'39	1°23'01	greatest brilliancy	12926 Dec 25 13:21	8°♌10'54	-4.7m
	12924 Jul 09 01:35	0°♌			12927 Jan 26 14:16	0°♌	
	12924 Aug 01 23:28	0°♌		asc. node	12927 Jan 29 01:59	2°♌17'28	
evening rise	12924 Aug 09 13:59	9°♌31'30		morning max el	12927 Feb 02 17:08	6°♌41'29	45°42'50
asc. node	12924 Aug 12 23:52	13°♌47'38			12927 Feb 25 06:11	0°♌	
	12924 Aug 25 23:08	0°♌			12927 Mar 23 21:13	0°♌	
	12924 Sep 19 01:56	0°♌			12927 Apr 18 07:41	0°♌	
	12924 Oct 13 09:47	0°♌			12927 May 13 02:51	0°♌	
	12924 Nov 07 01:57	0°♌		desc. node	12927 May 20 23:22	9°♌36'56	
	12924 Dec 02 07:16	0°♌			12927 Jun 06 12:19	0°♌	
desc. node	12924 Dec 02 17:47	0°♌30'50			12927 Jun 30 15:34	0°♌	
	12924 Dec 28 09:26	0°♌			12927 Jul 24 15:27	0°♌	
	12925 Jan 25 02:09	0°♌		morning set	12927 Aug 05 05:22	14°♌30'06	
evening max el	12925 Feb 05 16:19	11°♌36'24	45°58'19		12927 Aug 17 14:24	0°♌	
	12925 Feb 26 18:23	0°♌		asc. node	12927 Sep 10 14:11	0°♌00'45	

	12927 Sep 10 13:57	0°♄		minimum elong	12930 Feb 02 23:38	22°♊17'08	5°12'28
				min. Earth dist.	12930 Feb 03 02:06	22°♊13'15	0.28666 AU
superior conj	12927 Sep 13 15:42	3°♄50'22 0°07'29		morning rise	12930 Feb 08 09:58	18°♊59'53	
minimum elong	12927 Sep 13 13:53	3°♄44'41 0°07'22		direct	12930 Feb 23 21:43	14°♊18'46	
behind sun begin	12927 Sep 12 15:45	2°♄35'31		asc. node	12930 Feb 25 11:34	14°♊21'41	
behind sun end	12927 Sep 14 12:02	4°♄53'52		greatest brilliancy	12930 Mar 06 20:56	16°♊30'23	-4.8m
max. Earth dist.	12927 Sep 15 22:05	6°♄40'11 1.71890 AU			12930 Mar 28 07:02	0°♋	
	12927 Oct 04 14:57	0°♌		morning max el	12930 Apr 14 10:54	15°♋37'47	46°11'30
evening rise	12927 Oct 21 22:28	21°♌31'53			12930 Apr 28 09:41	0°♌	
	12927 Oct 28 18:17	0°♍			12930 May 25 06:36	0°♍	
	12927 Nov 22 01:20	0°♎		desc. node	12930 Jun 17 11:53	27°♎20'59	
	12927 Dec 16 13:54	0°♏			12930 Jun 19 16:57	0°♏	
desc. node	12927 Dec 31 05:45	17°♏46'02			12930 Jul 14 10:24	0°♐	
	12928 Jan 10 09:43	0°♋			12930 Aug 07 19:10	0°♑	
	12928 Feb 04 14:16	0°♌			12930 Sep 01 00:09	0°♒	
	12928 Mar 01 06:48	0°♍			12930 Sep 25 04:00	0°♓	
	12928 Mar 27 21:47	0°♎		asc. node	12930 Oct 08 04:33	16°♓10'15	
evening max el	12928 Apr 18 22:27	23°♎05'19 46°27'31		morning set	12930 Oct 16 19:40	26°♓53'13	
asc. node	12928 Apr 22 04:06	26°♎15'27			12930 Oct 19 07:49	0°♌	
	12928 Apr 26 02:30	0°♏			12930 Nov 12 12:02	0°♍	
greatest brilliancy	12928 May 29 08:11	23°♏18'30 -4.9m					
retrograde	12928 Jun 07 19:47	24°♏59'40		superior conj	12930 Nov 23 12:37	13°♌40'02	1°23'10
evening set	12928 Jun 25 17:08	18°♏54'40		minimum elong	12930 Nov 23 07:32	13°♌24'19	1°24'02
inferior conj	12928 Jun 28 11:57	17°♏12'26 8°48'08		max. Earth dist.	12930 Nov 25 08:03	15°♌54'35	1.72825 AU
minimum elong	12928 Jun 28 18:30	17°♏02'19 8°46'32			12930 Dec 06 17:18	0°♎	
min. Earth dist.	12928 Jun 28 23:06	16°♏55'13 0.27260 AU		evening rise	12930 Dec 30 12:26	29°♎22'22	
morning rise	12928 Jul 01 19:49	15°♏10'30			12930 Dec 31 00:40	0°♏	
direct	12928 Jul 19 06:56	9°♏19'57			12931 Jan 24 10:55	0°♋	
greatest brilliancy	12928 Jul 29 06:58	11°♏12'44 -4.9m		desc. node	12931 Jan 27 18:53	4°♋04'47	
desc. node	12928 Aug 12 06:59	18°♏51'40			12931 Feb 18 00:02	0°♌	
	12928 Aug 26 03:06	0°♑			12931 Mar 14 15:36	0°♍	
morning max el	12928 Sep 07 15:00	11°♑51'57 46°47'02			12931 Apr 08 10:15	0°♎	
	12928 Sep 24 23:46	0°♒			12931 May 03 11:31	0°♏	
	12928 Oct 21 18:25	0°♓		asc. node	12931 May 20 14:06	20°♏06'10	
	12928 Nov 16 11:27	0°♌			12931 May 29 04:12	0°♑	
asc. node	12928 Dec 03 05:37	19°♌55'35			12931 Jun 25 10:46	0°♒	
	12928 Dec 11 15:11	0°♍		evening max el	12931 Jul 01 21:52	6°♒36'44	46°47'24
	12929 Jan 05 10:23	0°♎			12931 Jul 28 16:23	0°♓	
	12929 Jan 29 23:57	0°♏		greatest brilliancy	12931 Aug 10 16:56	7°♓08'09	-4.9m
	12929 Feb 23 09:54	0°♋		retrograde	12931 Aug 21 06:30	9°♓13'58	
morning set	12929 Mar 06 21:22	14°♋09'09		evening set	12931 Sep 04 20:31	5°♓02'45	
	12929 Mar 19 17:14	0°♌		desc. node	12931 Sep 09 16:17	2°♓15'39	
desc. node	12929 Mar 24 21:25	6°♌24'07		inferior conj	12931 Sep 11 03:13	1°♓22'28	-0°22'38
max. Earth dist.	12929 Apr 11 10:42	28°♌10'15 1.72362 AU		minimum elong	12931 Sep 11 02:20	1°♓23'49	0°22'25
	12929 Apr 12 22:02	0°♍		min. Earth dist.	12931 Sep 10 18:44	1°♓35'24	0.27178 AU
					12931 Sep 13 09:36	30°♒♐	
superior conj	12929 Apr 14 15:56	2°♌10'09 -0°47'42		morning rise	12931 Sep 17 08:32	27°♒44'34	
minimum elong	12929 Apr 14 05:55	1°♌39'01 0°47'43		direct	12931 Oct 01 21:38	23°♒36'24	
	12929 May 07 00:16	0°♎		greatest brilliancy	12931 Oct 11 16:54	25°♒22'16	-4.8m
evening rise	12929 May 23 21:04	21°♎03'58			12931 Oct 21 10:21	0°♓	
	12929 May 31 00:33	0°♏		morning max el	12931 Nov 20 05:31	24°♓16'15	46°03'29
	12929 Jun 24 00:25	0°♑			12931 Nov 26 01:05	0°♌	
asc. node	12929 Jul 15 12:04	26°♑47'30			12931 Dec 24 05:02	0°♍	
	12929 Jul 18 02:00	0°♒		asc. node	12931 Dec 31 17:33	8°♌26'48	
	12929 Aug 11 07:41	0°♓			12932 Jan 19 11:20	0°♎	
	12929 Sep 04 20:45	0°♌			12932 Feb 13 19:59	0°♏	
	12929 Sep 29 23:02	0°♍			12932 Mar 09 16:28	0°♋	
	12929 Oct 26 02:43	0°♎			12932 Apr 03 05:20	0°♌	
desc. node	12929 Nov 04 09:04	10°♎08'44		desc. node	12932 Apr 21 11:37	22°♌31'02	
	12929 Nov 23 16:31	0°♏			12932 Apr 27 12:37	0°♍	
evening max el	12929 Nov 24 03:20	0°♏26'12 45°58'20		morning set	12932 May 18 16:57	26°♌20'30	
greatest brilliancy	12930 Jan 02 09:09	28°♏58'30 -4.7m			12932 May 21 15:19	0°♎	
	12930 Jan 05 23:01	0°♋			12932 Jun 14 14:38	0°♏	
retrograde	12930 Jan 12 03:58	0°♋43'27		max. Earth dist.	12932 Jun 26 19:04	15°♏17'12	1.71434 AU
	12930 Jan 18 04:55	30°♒♊					
evening set	12930 Jan 28 12:56	25°♒36'49		superior conj	12932 Jun 27 18:50	16°♏31'47	-1°23'25
inferior conj	12930 Feb 02 13:54	22°♒32'26 -5°15'32		minimum elong	12932 Jun 28 01:43	16°♏53'24	1°24'18

	12932 Jul 08 12:19	0°♎			12935 Jan 26 15:03	0°♊		
	12932 Aug 01 10:16	0°♍		asc. node	12935 Jan 28 03:57	1°♊26'29		
evening rise	12932 Aug 07 02:18	7°♍05'59		morning max el	12935 Jan 31 07:08	4°♊26'06	45°42'34	
asc. node	12932 Aug 12 01:46	13°♍19'43			12935 Feb 24 22:15	0°♋		
	12932 Aug 25 10:02	0°♌			12935 Mar 23 10:34	0°♋		
	12932 Sep 18 12:59	0°♍			12935 Apr 17 19:47	0°♌		
	12932 Oct 12 21:06	0°♎			12935 May 12 14:18	0°♍		
	12932 Nov 06 13:46	0°♏		desc. node	12935 May 20 01:16	9°♍07'57		
desc. node	12932 Dec 01 19:45	29°♏59'14			12935 Jun 05 23:25	0°♎		
	12932 Dec 01 20:01	0°♐			12935 Jun 30 02:26	0°♏		
	12932 Dec 28 00:03	0°♑			12935 Jul 24 02:11	0°♏		
	12933 Jan 24 21:19	0°♒		morning set	12935 Aug 02 18:02	12°♏06'07		
evening max el	12933 Feb 03 08:11	9°♒24'18	45°57'44		12935 Aug 17 01:00	0°♑		
	12933 Feb 27 12:09	0°♓		asc. node	12935 Sep 09 15:57	29°♑33'26		
greatest brilliancy	12933 Mar 14 11:48	8°♓07'15	-4.8m		12935 Sep 10 00:27	0°♒		
retrograde	12933 Mar 24 12:07	9°♓57'49						
asc. node	12933 Mar 24 20:49	9°♓57'40		superior conj	12935 Sep 11 05:24	1°♒30'28	0°03'50	
evening set	12933 Apr 08 12:55	5°♓31'04		minimum elong	12935 Sep 11 04:29	1°♒27'34	0°03'42	
inferior conj	12933 Apr 14 10:33	1°♓58'54	4°55'37	behind sun begin	12935 Sep 10 04:20	0°♒12'10		
minimum elong	12933 Apr 14 00:51	2°♓14'00	4°52'37	behind sun end	12935 Sep 12 04:37	2°♒42'58		
min. Earth dist.	12933 Apr 14 10:41	1°♓58'42	0.27839 AU	max. Earth dist.	12935 Sep 13 11:24	4°♒19'06	1.71853 AU	
	12933 Apr 17 15:42	30°♒♑			12935 Oct 04 01:25	0°♓		
morning rise	12933 Apr 19 12:36	28°♑54'00		evening rise	12935 Oct 19 14:11	19°♓19'05		
direct	12933 May 05 12:06	23°♑54'44			12935 Oct 28 04:47	0°♎		
greatest brilliancy	12933 May 15 16:37	25°♑52'05	-4.8m		12935 Nov 21 11:59	0°♏		
	12933 May 24 04:58	0°♒			12935 Dec 16 00:52	0°♐		
morning max el	12933 Jun 24 21:14	26°♒31'39	46°52'23	desc. node	12935 Dec 30 07:43	17°♐18'05		
	12933 Jun 28 07:21	0°♑			12936 Jan 09 21:10	0°♑		
desc. node	12933 Jul 14 23:06	17°♑49'03			12936 Feb 04 02:35	0°♒		
	12933 Jul 25 19:10	0°♏			12936 Feb 29 20:37	0°♓		
	12933 Aug 20 12:03	0°♏			12936 Mar 27 14:45	0°♑		
	12933 Sep 14 12:02	0°♑		evening max el	12936 Apr 16 10:32	20°♑40'33	46°26'21	
	12933 Oct 09 04:37	0°♒		asc. node	12936 Apr 21 06:06	25°♑21'40		
	12933 Nov 02 17:22	0°♓			12936 Apr 26 05:20	0°♏		
asc. node	12933 Nov 04 18:30	2°♓30'38		greatest brilliancy	12936 May 26 21:42	20°♏55'35	-4.9m	
	12933 Nov 27 03:28	0°♎		retrograde	12936 Jun 05 08:08	22°♏36'15		
	12933 Dec 21 11:45	0°♏		evening set	12936 Jun 23 08:29	16°♏27'28		
morning set	12933 Dec 25 14:19	5°♏03'56		inferior conj	12936 Jun 26 01:00	14°♏48'45	8°54'40	
	12934 Jan 14 19:17	0°♐		minimum elong	12936 Jun 26 06:42	14°♏39'57	8°53'14	
				min. Earth dist.	12936 Jun 26 12:12	14°♏31'26	0.27285 AU	
superior conj	12934 Jan 31 09:20	20°♐27'42	0°53'44	morning rise	12936 Jun 29 04:50	12°♏52'44		
minimum elong	12934 Jan 31 18:57	20°♐57'21	0°54'03	direct	12936 Jul 16 19:32	6°♏55'30		
max. Earth dist.	12934 Jan 31 13:05	20°♐39'17	1.73151 AU	greatest brilliancy	12936 Jul 26 20:45	8°♏49'08	-4.9m	
	12934 Feb 08 02:54	0°♑		desc. node	12936 Aug 11 08:56	17°♏33'05		
desc. node	12934 Feb 24 08:49	20°♑02'20			12936 Aug 26 07:38	0°♏		
	12934 Mar 04 10:38	0°♒		morning max el	12936 Sep 05 03:59	9°♏28'09	46°48'21	
evening rise	12934 Mar 10 08:06	7°♒16'23			12936 Sep 24 17:14	0°♑		
	12934 Mar 28 17:51	0°♓			12936 Oct 21 08:28	0°♒		
	12934 Apr 22 00:13	0°♑			12936 Nov 15 23:52	0°♓		
	12934 May 16 06:40	0°♏		asc. node	12936 Dec 02 07:39	19°♓26'27		
	12934 Jun 09 15:42	0°♏			12936 Dec 11 02:41	0°♎		
asc. node	12934 Jun 17 01:27	9°♏03'43			12937 Jan 04 21:22	0°♏		
	12934 Jul 04 07:23	0°♑			12937 Jan 29 10:37	0°♐		
	12934 Jul 29 12:32	0°♒			12937 Feb 22 20:25	0°♑		
	12934 Aug 24 22:15	0°♓		morning set	12937 Mar 04 12:57	11°♑56'41		
evening max el	12934 Sep 11 18:01	18°♓42'16	46°28'41		12937 Mar 19 03:42	0°♒		
	12934 Sep 23 16:25	0°♎		desc. node	12937 Mar 23 23:11	5°♒57'11		
desc. node	12934 Oct 07 01:27	10°♎45'17		max. Earth dist.	12937 Apr 09 02:44	25°♒58'25	1.72404 AU	
greatest brilliancy	12934 Oct 20 20:30	18°♎24'11	-4.8m					
retrograde	12934 Oct 31 16:30	20°♎32'45		superior conj	12937 Apr 12 05:34	29°♒50'48	-0°44'35	
evening set	12934 Nov 18 10:05	14°♎34'47		minimum elong	12937 Apr 11 20:00	29°♒21'05	0°44'34	
min. Earth dist.	12934 Nov 21 10:42	12°♎42'57	0.28631 AU		12937 Apr 12 08:32	0°♓		
inferior conj	12934 Nov 22 02:08	12°♎18'50	-8°29'55		12937 May 06 10:50	0°♑		
minimum elong	12934 Nov 21 20:33	12°♎27'33	8°28'33	evening rise	12937 May 21 09:30	18°♑39'43		
morning rise	12934 Nov 25 07:15	10°♎19'54			12937 May 30 11:13	0°♏		
direct	12934 Dec 13 09:26	4°♎13'58			12937 Jun 23 11:14	0°♏		
greatest brilliancy	12934 Dec 23 03:21	5°♎57'52	-4.7m	asc. node	12937 Jul 14 13:58	26°♏19'08		

	12937 Jul 17 13:03	0°♍			12939 Dec 23 19:58	0°♊		
	12937 Aug 10 19:06	0°♌		asc. node	12939 Dec 30 19:26	7°♊51'53		
	12937 Sep 04 08:45	0°♍			12940 Jan 19 00:07	0°♊		
	12937 Sep 29 12:04	0°♊			12940 Feb 13 07:42	0°♋		
	12937 Oct 25 18:00	0°♋			12940 Mar 09 03:38	0°♌		
desc. node	12937 Nov 03 11:08	9°♋29'34			12940 Apr 02 16:14	0°♍		
evening max el	12937 Nov 21 17:45	28°♋12'33	45°59'06	desc. node	12940 Apr 20 13:34	22°♍03'44		
	12937 Nov 23 14:29	0°♎			12940 Apr 26 23:23	0°♎		
greatest brilliancy	12937 Dec 30 23:52	26°♎47'23	-4.7m	morning set	12940 May 16 04:50	23°♎54'29		
retrograde	12938 Jan 09 19:49	28°♎33'26			12940 May 21 02:02	0°♏		
evening set	12938 Jan 26 07:23	23°♎22'04			12940 Jun 14 01:20	0°♐		
inferior conj	12938 Jan 31 05:42	20°♎21'39	-5°31'48	max. Earth dist.	12940 Jun 24 04:01	12°♐41'04	1.71444 AU	
minimum elong	12938 Jan 31 15:40	20°♎06'02	5°28'45					
min. Earth dist.	12938 Jan 31 17:41	20°♎02'52	0.28700 AU	superior conj	12940 Jun 25 06:26	14°♐03'58	-1°24'31	
morning rise	12938 Feb 05 23:37	16°♎52'27		minimum elong	12940 Jun 25 12:26	14°♐22'46	1°25'25	
direct	12938 Feb 21 13:37	12°♎07'33			12940 Jul 07 23:01	0°♑		
asc. node	12938 Feb 24 13:30	12°♎18'02			12940 Jul 31 21:00	0°♒		
greatest brilliancy	12938 Mar 04 13:12	14°♎19'44	-4.8m	evening rise	12940 Aug 04 14:05	4°♒38'59		
	12938 Mar 28 14:07	0°♓		asc. node	12940 Aug 11 03:29	12°♒51'32		
morning max el	12938 Apr 12 02:58	13°♓25'48	46°10'00		12940 Aug 24 20:50	0°♓		
	12938 Apr 28 03:10	0°♈			12940 Sep 17 23:55	0°♌		
	12938 May 24 20:40	0°♈			12940 Oct 12 08:20	0°♊		
desc. node	12938 Jun 16 13:55	26°♈49'07			12940 Nov 06 01:32	0°♋		
	12938 Jun 19 05:31	0°♏		desc. node	12940 Nov 30 21:45	29°♋27'49		
	12938 Jul 13 22:10	0°♐			12940 Dec 01 08:46	0°♌		
	12938 Aug 07 06:27	0°♑			12940 Dec 27 14:46	0°♍		
	12938 Aug 31 11:06	0°♒			12941 Jan 24 16:55	0°♎		
asc. node	12938 Sep 24 14:44	0°♓		evening max el	12941 Jan 31 23:36	7°♎11'33	45°57'08	
morning set	12938 Oct 07 06:23	15°♓42'58			12941 Feb 28 12:01	0°♈		
	12938 Oct 14 10:27	24°♓37'16		greatest brilliancy	12941 Mar 12 02:09	5°♈50'48	-4.8m	
	12938 Oct 18 18:23	0°♌		retrograde	12941 Mar 22 02:07	7°♈40'45		
	12938 Nov 11 22:28	0°♊		asc. node	12941 Mar 23 22:47	7°♈36'37		
				evening set	12941 Apr 06 01:28	3°♈16'59		
superior conj	12938 Nov 21 05:08	11°♊30'17	1°22'14		12941 Apr 11 13:21	30°♒♈		
minimum elong	12938 Nov 20 23:24	11°♊12'30	1°23'03	inferior conj	12941 Apr 12 01:06	29°♎41'39	4°36'25	
max. Earth dist.	12938 Nov 23 01:40	13°♊48'14	1.72799 AU	minimum elong	12941 Apr 11 15:50	29°♎56'07	4°33'28	
	12938 Dec 06 03:41	0°♋		min. Earth dist.	12941 Apr 12 01:30	29°♎41'02	0.27858 AU	
evening rise	12938 Dec 28 05:00	27°♋13'30		morning rise	12941 Apr 17 06:01	26°♎32'20		
	12938 Dec 30 11:06	0°♌		direct	12941 May 03 03:08	21°♎37'22		
	12939 Jan 23 21:32	0°♍		greatest brilliancy	12941 May 13 07:52	23°♎34'37	-4.8m	
desc. node	12939 Jan 26 20:43	3°♍37'49			12941 May 25 11:17	0°♎		
	12939 Feb 17 10:58	0°♎		morning max el	12941 Jun 22 10:53	24°♎10'13	46°51'19	
	12939 Mar 14 03:01	0°♏			12941 Jun 28 03:51	0°♏		
	12939 Apr 07 22:22	0°♏		desc. node	12941 Jul 14 01:00	17°♏07'24		
	12939 May 03 00:44	0°♐			12941 Jul 25 10:35	0°♐		
asc. node	12939 May 19 16:08	19°♐30'08			12941 Aug 20 01:28	0°♑		
	12939 May 28 19:31	0°♑			12941 Sep 14 00:22	0°♒		
	12939 Jun 25 07:17	0°♒			12941 Oct 08 16:15	0°♓		
evening max el	12939 Jun 29 12:24	4°♒16'52	46°47'30		12941 Nov 02 04:30	0°♌		
	12939 Jul 29 20:41	0°♓		asc. node	12941 Nov 03 20:30	2°♌02'39		
greatest brilliancy	12939 Aug 08 06:51	4°♓45'50	-4.9m		12941 Nov 26 14:17	0°♊		
retrograde	12939 Aug 18 20:43	6°♓51'36			12941 Dec 20 22:23	0°♋		
evening set	12939 Sep 02 10:35	2°♓39'38		morning set	12941 Dec 23 07:15	2°♋55'24		
	12939 Sep 07 01:14	30°♒♓			12942 Jan 14 05:51	0°♌		
inferior conj	12939 Sep 08 16:22	29°♒00'31	0°01'12					
minimum elong	12939 Sep 08 16:24	29°♒00'27	0°01'05	superior conj	12942 Jan 29 01:55	18°♌18'17	0°56'19	
transit middle	12939 Sep 08 16:24	29°♒00'27	0°01'05	minimum elong	12942 Jan 29 11:40	18°♌48'21	0°56'40	
transit begin	12939 Sep 08 12:20	29°♒06'39		max. Earth dist.	12942 Jan 29 06:16	18°♌31'40	1.73154 AU	
transit end	12939 Sep 08 20:28	28°♒54'15			12942 Feb 07 13:29	0°♍		
min. Earth dist.	12939 Sep 08 08:39	29°♒12'16	0.27147 AU	desc. node	12942 Feb 23 10:38	19°♍35'13		
desc. node	12939 Sep 08 18:13	28°♒57'41			12942 Mar 03 21:18	0°♎		
morning rise	12939 Sep 14 22:42	25°♒21'41		evening rise	12942 Mar 07 23:43	5°♎03'30		
direct	12939 Sep 29 11:07	21°♒14'47			12942 Mar 28 04:40	0°♈		
greatest brilliancy	12939 Oct 09 05:53	23°♒00'50	-4.8m		12942 Apr 21 11:17	0°♏		
	12939 Oct 22 16:39	0°♓			12942 May 15 18:06	0°♐		
morning max el	12939 Nov 17 20:25	22°♓01'07	46°04'53		12942 Jun 09 03:40	0°♑		
	12939 Nov 25 21:25	0°♌		asc. node	12942 Jun 16 03:21	8°♑32'21		

	12942 Jul 03 20:11	0°♍			12945 Jan 28 21:38	0°♎	
	12942 Jul 29 02:48	0°♊			12945 Feb 22 07:15	0°♋	
	12942 Aug 24 15:44	0°♌		morning set	12945 Mar 02 04:44	9°♋43'54	
evening max el	12942 Sep 09 08:25	16°♌23'45	46°29'47		12945 Mar 18 14:30	0°♌	
	12942 Sep 23 21:36	0°♍		desc. node	12945 Mar 23 01:06	5°♌29'42	
desc. node	12942 Oct 06 03:33	9°♍30'14		max. Earth dist.	12945 Apr 06 20:32	23°♌51'02	1.72444 AU
greatest brilliancy	12942 Oct 18 12:11	16°♍10'28	-4.8m				
retrograde	12942 Oct 29 07:33	18°♍18'54		superior conj	12945 Apr 09 19:25	27°♌31'04	-0°41'25
evening set	12942 Nov 15 22:27	12°♍26'06		minimum elong	12945 Apr 09 10:21	27°♌02'55	0°41'22
min. Earth dist.	12942 Nov 19 01:31	10°♍30'41	0.28588 AU		12945 Apr 11 19:22	0°♎	
inferior conj	12942 Nov 19 17:32	10°♍05'40	-8°24'09		12945 May 05 21:44	0°♏	
minimum elong	12942 Nov 19 11:15	10°♍15'29	8°22'40	evening rise	12945 May 18 22:21	16°♏15'42	
morning rise	12942 Nov 23 00:15	8°♍04'15			12945 May 29 22:13	0°♐	
direct	12942 Dec 11 00:12	2°♍01'34			12945 Jun 22 22:23	0°♑	
greatest brilliancy	12942 Dec 20 17:49	3°♍44'48	-4.7m	asc. node	12945 Jul 13 15:46	25°♑49'29	
	12943 Jan 26 14:49	0°♎			12945 Jul 17 00:25	0°♍	
asc. node	12943 Jan 27 05:54	0°♎35'55			12945 Aug 10 06:51	0°♊	
morning max el	12943 Jan 28 20:43	2°♎09'08	45°42'27		12945 Sep 03 21:08	0°♌	
	12943 Feb 24 14:12	0°♎			12945 Sep 29 01:36	0°♍	
	12943 Mar 22 23:58	0°♋			12945 Oct 25 10:01	0°♎	
	12943 Apr 17 08:00	0°♌		desc. node	12945 Nov 02 13:08	8°♎48'24	
	12943 May 12 01:53	0°♍		evening max el	12945 Nov 19 09:10	26°♎00'01	45°59'53
desc. node	12943 May 19 03:15	8°♍38'51			12945 Nov 23 14:01	0°♎	
	12943 Jun 05 10:39	0°♏		greatest brilliancy	12945 Dec 28 14:24	24°♎34'54	-4.7m
	12943 Jun 29 13:30	0°♐		retrograde	12946 Jan 07 12:00	26°♎22'06	
	12943 Jul 23 13:08	0°♑		evening set	12946 Jan 24 01:57	21°♎06'09	
morning set	12943 Jul 31 06:32	9°♑40'43		inferior conj	12946 Jan 28 21:32	18°♎09'40	-5°47'38
	12943 Aug 16 11:52	0°♍		minimum elong	12946 Jan 29 07:39	17°♎53'48	5°44'35
				min. Earth dist.	12946 Jan 29 08:54	17°♎51'51	0.28729 AU
superior conj	12943 Sep 08 18:44	29°♍08'23	0°00'05	morning rise	12946 Feb 03 13:07	14°♎44'05	
minimum elong	12943 Sep 08 18:44	29°♍08'22	0°00'02	direct	12946 Feb 19 06:00	9°♎55'26	
behind sun begin	12943 Sep 07 20:14	27°♍58'05		asc. node	12946 Feb 23 15:31	10°♎17'53	
behind sun end	12943 Sep 09 17:13	0°♊18'39		greatest brilliancy	12946 Mar 02 04:47	12°♎07'20	-4.8m
asc. node	12943 Sep 08 17:52	29°♍05'41			12946 Mar 28 19:27	0°♋	
	12943 Sep 09 11:15	0°♊		morning max el	12946 Apr 09 19:20	11°♋13'45	46°08'28
max. Earth dist.	12943 Sep 10 21:12	1°♊46'03	1.71821 AU		12946 Apr 27 20:36	0°♌	
	12943 Oct 03 12:12	0°♌			12946 May 24 10:54	0°♍	
evening rise	12943 Oct 17 05:29	17°♌03'58		desc. node	12946 Jun 15 15:42	26°♍15'37	
	12943 Oct 27 15:38	0°♍			12946 Jun 18 18:21	0°♏	
	12943 Nov 20 22:58	0°♎			12946 Jul 13 10:13	0°♐	
	12943 Dec 15 12:08	0°♎			12946 Aug 06 18:01	0°♑	
desc. node	12943 Dec 29 09:32	16°♎48'49			12946 Aug 30 22:21	0°♍	
	12944 Jan 09 08:57	0°♋			12946 Sep 24 01:45	0°♊	
	12944 Feb 03 15:16	0°♌		asc. node	12946 Oct 06 08:18	15°♊15'02	
	12944 Feb 29 10:53	0°♍		morning set	12946 Oct 12 01:31	22°♊21'11	
	12944 Mar 27 08:23	0°♏			12946 Oct 18 05:15	0°♌	
evening max el	12944 Apr 13 23:04	18°♏16'24	46°25'20		12946 Nov 11 09:14	0°♍	
asc. node	12944 Apr 20 08:13	24°♏26'26					
	12944 Apr 26 10:10	0°♐		superior conj	12946 Nov 18 21:42	9°♍19'30	1°21'10
greatest brilliancy	12944 May 24 10:49	18°♐32'11	-4.9m	minimum elong	12946 Nov 18 15:19	8°♍59'43	1°21'57
retrograde	12944 Jun 02 21:13	20°♐13'11		max. Earth dist.	12946 Nov 20 20:30	11°♍44'30	1.72775 AU
evening set	12944 Jun 20 23:40	14°♐00'52			12946 Dec 05 14:26	0°♎	
inferior conj	12944 Jun 23 14:17	12°♐25'08	9°00'10	evening rise	12946 Dec 25 21:30	25°♎03'09	
minimum elong	12944 Jun 23 19:07	12°♐17'41	8°58'51		12946 Dec 29 21:56	0°♎	
min. Earth dist.	12944 Jun 24 01:13	12°♐08'17	0.27311 AU		12947 Jan 23 08:33	0°♋	
morning rise	12944 Jun 26 14:29	10°♐34'43		desc. node	12947 Jan 25 22:31	3°♋09'36	
direct	12944 Jul 14 08:37	4°♐31'07			12947 Feb 16 22:17	0°♌	
greatest brilliancy	12944 Jul 24 10:22	6°♐25'21	-4.9m		12947 Mar 13 14:47	0°♍	
desc. node	12944 Aug 10 10:55	16°♐16'38			12947 Apr 07 10:51	0°♏	
	12944 Aug 26 10:41	0°♑			12947 May 02 14:24	0°♐	
morning max el	12944 Sep 02 17:58	7°♑06'06	46°49'26	asc. node	12947 May 18 18:02	18°♐52'24	
	12944 Sep 24 10:39	0°♍			12947 May 28 11:27	0°♑	
	12944 Oct 20 22:47	0°♊			12947 Jun 25 04:56	0°♍	
	12944 Nov 15 12:39	0°♌		evening max el	12947 Jun 27 03:24	1°♍57'10	46°47'26
asc. node	12944 Dec 01 09:31	18°♌55'37			12947 Jul 31 14:17	0°♊	
	12944 Dec 10 14:35	0°♍		greatest brilliancy	12947 Aug 05 21:21	2°♊23'27	-4.9m
	12945 Jan 04 08:42	0°♎		retrograde	12947 Aug 16 10:51	4°♊28'19	

evening set	12947 Aug 31 00:58	0° Ω 15'46		superior conj	12950 Jan 26 18:43	16° \approx 09'13	0°58'48
	12947 Aug 31 12:35	30° \mathbb{R} \mathbb{M}		minimum elong	12950 Jan 27 04:32	16° \approx 39'30	0°59'11
inferior conj	12947 Sep 06 05:35	26° \mathbb{M} 37'55	0°25'06	max. Earth dist.	12950 Jan 26 23:14	16° \approx 23'10	1.73161 AU
minimum elong	12947 Sep 06 06:33	26° \mathbb{M} 36'26	0°24'37		12950 Feb 07 00:10	0° \mathbb{H}	
min. Earth dist.	12947 Sep 05 22:45	26° \mathbb{M} 48'20	0.27115 AU	desc. node	12950 Feb 22 12:36	19° \mathbb{H} 08'10	
desc. node	12947 Sep 07 20:17	25° \mathbb{M} 39'07			12950 Mar 03 08:05	0° \mathbb{Y}	
morning rise	12947 Sep 12 12:41	22° \mathbb{M} 58'14		evening rise	12950 Mar 05 15:22	2° \mathbb{Y} 50'25	
direct	12947 Sep 27 00:46	18° \mathbb{M} 52'45			12950 Mar 27 15:38	0° \mathbb{B}	
greatest brilliancy	12947 Oct 06 18:44	20° \mathbb{M} 38'30	-4.8m		12950 Apr 20 22:30	0° \mathbb{I}	
	12947 Oct 23 14:50	0° Ω			12950 May 15 05:41	0° \mathbb{G}	
morning max el	12947 Nov 15 10:33	19° Ω 43'22	46°06'14		12950 Jun 08 15:46	0° Ω	
	12947 Nov 25 17:20	0° \mathbb{L}		asc. node	12950 Jun 15 05:12	8° Ω 00'33	
	12947 Dec 23 10:58	0° \mathbb{A}			12950 Jul 03 09:08	0° \mathbb{M}	
asc. node	12947 Dec 29 21:20	7° \mathbb{A} 16'28			12950 Jul 28 17:17	0° Ω	
	12948 Jan 18 13:07	0° \mathbb{B}			12950 Aug 24 09:44	0° \mathbb{L}	
	12948 Feb 12 19:43	0° \approx		evening max el	12950 Sep 06 22:05	14° \mathbb{L} 02'57	46°30'48
	12948 Mar 08 15:07	0° \mathbb{H}			12950 Sep 24 05:12	0° \mathbb{A}	
	12948 Apr 02 03:24	0° \mathbb{Y}		desc. node	12950 Oct 05 05:35	8° \mathbb{A} 12'20	
desc. node	12948 Apr 19 15:26	21° \mathbb{Y} 35'23		greatest brilliancy	12950 Oct 16 03:36	13° \mathbb{A} 55'44	-4.8m
	12948 Apr 26 10:23	0° \mathbb{B}		retrograde	12950 Oct 26 22:42	16° \mathbb{A} 04'31	
morning set	12948 May 13 16:43	21° \mathbb{B} 27'54		evening set	12950 Nov 13 10:26	10° \mathbb{A} 16'58	
	12948 May 20 12:57	0° \mathbb{I}		min. Earth dist.	12950 Nov 16 16:19	8° \mathbb{A} 17'37	0.28543 AU
	12948 Jun 13 12:15	0° \mathbb{G}		inferior conj	12950 Nov 17 08:46	7° \mathbb{A} 51'55	-8°17'24
max. Earth dist.	12948 Jun 21 10:52	9° \mathbb{G} 57'42	1.71457 AU	minimum elong	12950 Nov 17 01:50	8° \mathbb{A} 02'45	8°15'48
				morning rise	12950 Nov 20 17:25	5° \mathbb{A} 47'41	
superior conj	12948 Jun 22 18:08	11° \mathbb{G} 35'47	-1°25'26		12950 Dec 05 11:09	30° \mathbb{R} \mathbb{L}	
minimum elong	12948 Jun 22 23:10	11° \mathbb{G} 51'33	1°26'22	direct	12950 Dec 08 14:25	29° \mathbb{L} 48'27	
	12948 Jul 07 09:58	0° Ω			12950 Dec 11 18:53	0° \mathbb{A}	
	12948 Jul 31 08:00	0° \mathbb{M}		greatest brilliancy	12950 Dec 18 08:27	1° \mathbb{A} 31'38	-4.8m
evening rise	12948 Aug 02 01:49	2° \mathbb{M} 10'58		asc. node	12951 Jan 26 07:56	29° \mathbb{A} 46'31	
asc. node	12948 Aug 10 05:26	12° \mathbb{M} 23'08		morning max el	12951 Jan 26 10:37	29° \mathbb{A} 52'59	45°42'33
	12948 Aug 24 07:54	0° Ω			12951 Jan 26 13:31	0° \mathbb{B}	
	12948 Sep 17 11:07	0° \mathbb{L}			12951 Feb 24 05:51	0° \approx	
	12948 Oct 11 19:48	0° \mathbb{A}			12951 Mar 22 13:14	0° \mathbb{H}	
	12948 Nov 05 13:32	0° \mathbb{B}			12951 Apr 16 20:10	0° \mathbb{Y}	
desc. node	12948 Nov 29 23:36	28° \mathbb{B} 55'17			12951 May 11 13:28	0° \mathbb{B}	
	12948 Nov 30 21:48	0° \approx		desc. node	12951 May 18 05:02	8° \mathbb{B} 09'04	
	12948 Dec 27 05:55	0° \mathbb{H}			12951 Jun 04 21:55	0° \mathbb{I}	
	12949 Jan 24 13:28	0° \mathbb{Y}			12951 Jun 29 00:33	0° \mathbb{G}	
evening max el	12949 Jan 29 14:16	4° \mathbb{Y} 56'14	45°56'26		12951 Jul 23 00:02	0° Ω	
	12949 Mar 01 22:06	0° \mathbb{B}		morning set	12951 Jul 28 18:44	7° Ω 14'32	
greatest brilliancy	12949 Mar 09 17:11	3° \mathbb{B} 34'21	-4.8m		12951 Aug 15 22:40	0° \mathbb{M}	
retrograde	12949 Mar 19 15:55	5° \mathbb{B} 23'16					
asc. node	12949 Mar 23 00:54	5° \mathbb{B} 09'39		superior conj	12951 Sep 06 07:52	26° \mathbb{M} 45'55	-0°03'40
evening set	12949 Apr 03 14:16	1° \mathbb{B} 02'01		minimum elong	12951 Sep 06 08:49	26° \mathbb{M} 48'51	0°03'46
	12949 Apr 05 09:55	30° \mathbb{R} \mathbb{Y}		behind sun begin	12951 Sep 05 08:35	25° \mathbb{M} 33'08	
inferior conj	12949 Apr 09 15:45	27° \mathbb{Y} 24'06	4°16'41	behind sun end	12951 Sep 07 09:02	28° \mathbb{M} 04'34	
minimum elong	12949 Apr 09 06:59	27° \mathbb{Y} 37'49	4°13'52	asc. node	12951 Sep 07 19:43	28° \mathbb{M} 37'55	
min. Earth dist.	12949 Apr 09 16:50	27° \mathbb{Y} 22'25	0.27877 AU	max. Earth dist.	12951 Sep 08 06:51	29° \mathbb{M} 12'44	1.71792 AU
morning rise	12949 Apr 14 23:25	24° \mathbb{Y} 10'30			12951 Sep 08 21:59	0° Ω	
direct	12949 Apr 30 17:38	19° \mathbb{Y} 19'34			12951 Oct 02 22:56	0° \mathbb{L}	
greatest brilliancy	12949 May 10 23:47	21° \mathbb{Y} 17'30	-4.8m	evening rise	12951 Oct 14 20:48	14° \mathbb{L} 49'06	
	12949 May 26 09:23	0° \mathbb{B}			12951 Oct 27 02:25	0° \mathbb{A}	
morning max el	12949 Jun 19 23:54	21° \mathbb{B} 46'47	46°50'17		12951 Nov 20 09:54	0° \mathbb{B}	
	12949 Jun 27 23:49	0° \mathbb{I}			12951 Dec 14 23:20	0° \approx	
desc. node	12949 Jul 13 03:00	16° \mathbb{I} 26'09		desc. node	12951 Dec 28 11:28	16° \approx 20'06	
	12949 Jul 25 01:54	0° \mathbb{G}			12952 Jan 08 20:40	0° \mathbb{H}	
	12949 Aug 19 14:53	0° Ω			12952 Feb 03 03:52	0° \mathbb{Y}	
	12949 Sep 13 12:45	0° \mathbb{M}			12952 Feb 29 01:10	0° \mathbb{B}	
	12949 Oct 08 03:58	0° Ω			12952 Mar 27 02:19	0° \mathbb{I}	
	12949 Nov 01 15:45	0° \mathbb{L}		evening max el	12952 Apr 11 12:16	15° \mathbb{I} 54'21	46°24'10
asc. node	12949 Nov 02 22:18	1° \mathbb{L} 33'44		asc. node	12952 Apr 19 10:04	23° \mathbb{I} 29'34	
	12949 Nov 26 01:13	0° \mathbb{A}			12952 Apr 26 17:07	0° \mathbb{G}	
	12949 Dec 20 09:07	0° \mathbb{B}		greatest brilliancy	12952 May 21 23:09	16° \mathbb{G} 07'41	-4.9m
morning set	12949 Dec 21 00:22	0° \mathbb{B} 47'01		retrograde	12952 May 31 10:35	17° \mathbb{G} 49'35	
	12950 Jan 13 16:31	0° \approx		evening set	12952 Jun 18 14:13	11° \mathbb{G} 34'16	
				inferior conj	12952 Jun 21 03:20	10° \mathbb{G} 00'52	9°04'38

minimum elong	12952 Jun 21 07:17	9°☿54'48	9°03'26		12954 Dec 29 08:27	0°♊	
min. Earth dist.	12952 Jun 21 13:39	9°☿44'59	0.27338 AU		12955 Jan 22 19:15	0°♋	
morning rise	12952 Jun 24 00:16	8°☿15'29		desc. node	12955 Jan 25 00:30	2°♌42'49	
direct	12952 Jul 11 21:58	2°☿06'13			12955 Feb 16 09:18	0°♍	
greatest brilliancy	12952 Jul 21 23:15	4°☿00'29	-4.9m		12955 Mar 13 02:15	0°♎	
desc. node	12952 Aug 09 12:59	15°☿02'34			12955 Apr 06 23:00	0°♏	
	12952 Aug 26 12:12	0°♐			12955 May 02 03:45	0°☿	
morning max el	12952 Aug 31 08:38	4°♑46'01	46°50'31	asc. node	12955 May 17 19:59	18°☿15'53	
	12952 Sep 24 03:34	0°♒			12955 May 28 03:10	0°♑	
	12952 Oct 20 12:45	0°♓		evening max el	12955 Jun 24 17:47	29°♑37'06	46°47'07
	12952 Nov 15 01:08	0°♐			12955 Jun 25 02:57	0°♒	
asc. node	12952 Nov 30 11:20	18°♐25'22			12955 Aug 03 09:53	0°♓	
	12952 Dec 10 02:13	0°♑		greatest brilliancy	12955 Aug 03 12:14	0°♓02'13	-4.9m
	12953 Jan 03 19:49	0°♒		retrograde	12955 Aug 14 00:16	2°♓05'18	
	12953 Jan 28 08:25	0°♊			12955 Aug 24 03:52	30°♒♑	
	12953 Feb 21 17:52	0°♋		evening set	12955 Aug 28 15:25	27°♒52'00	
morning set	12953 Feb 27 20:48	7°♌32'48		inferior conj	12955 Sep 03 18:38	24°♒15'43	0°49'06
	12953 Mar 18 01:03	0°♍		minimum elong	12955 Sep 03 20:33	24°♒12'48	0°48'17
desc. node	12953 Mar 22 02:57	5°♍02'48		min. Earth dist.	12955 Sep 03 13:02	24°♒24'17	0.27088 AU
max. Earth dist.	12953 Apr 04 14:56	21°♍46'24	1.72482 AU	desc. node	12955 Sep 06 22:17	22°♒21'39	
				morning rise	12955 Sep 10 02:13	20°♒35'12	
superior conj	12953 Apr 07 09:26	25°♍12'44	-0°38'10	direct	12955 Sep 24 13:53	16°♒31'00	
minimum elong	12953 Apr 07 00:56	24°♍46'21	0°38'07	greatest brilliancy	12955 Oct 04 07:55	18°♒16'40	-4.8m
	12953 Apr 11 05:57	0°♎			12955 Oct 24 07:01	0°♓	
	12953 May 05 08:24	0°♏		morning max el	12955 Nov 12 23:43	17°♓23'45	46°07'39
evening rise	12953 May 16 11:14	13°♏52'38			12955 Nov 25 12:22	0°♐	
	12953 May 29 09:00	0°☿			12955 Dec 23 01:26	0°♑	
	12953 Jun 22 09:21	0°♑		asc. node	12955 Dec 28 23:25	6°♑42'48	
asc. node	12953 Jul 12 17:43	25°♑20'44			12956 Jan 18 01:41	0°♒	
	12953 Jul 16 11:39	0°♒			12956 Feb 12 07:19	0°♊	
	12953 Aug 09 18:28	0°♓			12956 Mar 08 02:12	0°♋	
	12953 Sep 03 09:22	0°♐			12956 Apr 01 14:13	0°♌	
	12953 Sep 28 15:00	0°♑		desc. node	12956 Apr 18 17:12	21°♍07'50	
	12953 Oct 25 02:01	0°♒			12956 Apr 25 21:02	0°♎	
desc. node	12953 Nov 01 15:00	8°♒07'11		morning set	12956 May 11 04:48	19°♎03'06	
evening max el	12953 Nov 17 01:07	23°♒49'24	46°00'40		12956 May 19 23:31	0°♏	
	12953 Nov 23 14:22	0°♊			12956 Jun 12 22:46	0°☿	
greatest brilliancy	12953 Dec 26 05:04	22°♊23'15	-4.7m	max. Earth dist.	12956 Jun 18 16:41	7°☿12'25	1.71470 AU
retrograde	12954 Jan 05 03:59	24°♊11'10					
evening set	12954 Jan 21 20:32	18°♊50'51		superior conj	12956 Jun 20 06:12	9°☿10'05	-1°26'10
inferior conj	12954 Jan 26 13:15	15°♊58'14	-6°03'01	minimum elong	12956 Jun 20 10:14	9°☿22'44	1°27'08
minimum elong	12954 Jan 26 23:29	15°♊42'11	5°59'59		12956 Jul 06 20:31	0°♑	
min. Earth dist.	12954 Jan 26 23:53	15°♊41'34	0.28753 AU	evening rise	12956 Jul 30 13:43	29°♑44'44	
morning rise	12954 Feb 01 02:18	12°♊36'25			12956 Jul 30 18:36	0°♒	
direct	12954 Feb 16 22:27	7°♊44'07		asc. node	12956 Aug 09 07:19	11°♒55'49	
asc. node	12954 Feb 22 17:33	8°♊22'48			12956 Aug 23 18:35	0°♓	
greatest brilliancy	12954 Feb 27 19:35	9°♊54'48	-4.8m		12956 Sep 16 21:58	0°♐	
	12954 Mar 28 22:30	0°♋			12956 Oct 11 06:58	0°♑	
morning max el	12954 Apr 07 11:22	9°♌02'02	46°07'02		12956 Nov 05 01:16	0°♒	
	12954 Apr 27 13:17	0°♍		desc. node	12956 Nov 29 01:34	28°♒23'52	
	12954 May 24 00:37	0°♎			12956 Nov 30 10:37	0°♊	
desc. node	12954 Jun 14 17:42	25°♎44'05			12956 Dec 26 20:56	0°♋	
	12954 Jun 18 06:44	0°♏			12957 Jan 24 10:20	0°♌	
	12954 Jul 12 21:54	0°☿		evening max el	12957 Jan 27 04:08	2°♍40'04	45°55'54
	12954 Aug 06 05:17	0°♑			12957 Mar 04 00:56	0°♎	
	12954 Aug 30 09:19	0°♒		greatest brilliancy	12957 Mar 07 08:08	1°♎18'47	-4.8m
	12954 Sep 23 12:30	0°♓		retrograde	12957 Mar 17 05:40	3°♎06'59	
asc. node	12954 Oct 05 10:06	14°♓47'34		asc. node	12957 Mar 22 02:49	2°♎38'22	
morning set	12954 Oct 09 16:10	20°♓04'38			12957 Mar 29 18:49	30°♒♍	
	12954 Oct 17 15:49	0°♐		evening set	12957 Apr 01 03:13	28°♍47'32	
	12954 Nov 10 19:41	0°♑		inferior conj	12957 Apr 07 06:23	25°♍07'34	3°56'31
				minimum elong	12957 Apr 06 22:09	25°♍20'27	3°53'51
superior conj	12954 Nov 16 13:53	7°♑08'31	1°19'58	min. Earth dist.	12957 Apr 07 08:18	25°♍04'35	0.27897 AU
minimum elong	12954 Nov 16 06:54	6°♑46'52	1°20'43	morning rise	12957 Apr 12 16:42	21°♍49'57	
max. Earth dist.	12954 Nov 18 15:43	9°♑42'58	1.72747 AU	direct	12957 Apr 28 07:50	17°♍02'27	
	12954 Dec 05 00:51	0°♒		greatest brilliancy	12957 May 08 16:11	19°♍01'53	-4.8m
evening rise	12954 Dec 23 13:46	22°♒53'06			12957 May 27 01:16	0°♎	

morning max el	12957 Jun 17 13:21	19° ♁ 25'26	46°49'28		12959 Nov 19 20:38	0° ♁	
	12957 Jun 27 18:49	0° ♁			12959 Dec 14 10:24	0° ♁	
desc. node	12957 Jul 12 05:01	15° ♁ 46'32		desc. node	12959 Dec 27 13:24	15° ♁ 51'45	
	12957 Jul 24 16:36	0° ♁			12960 Jan 08 08:18	0° ♁	
	12957 Aug 19 03:47	0° ♁			12960 Feb 02 16:29	0° ♁	
	12957 Sep 13 00:40	0° ♁			12960 Feb 28 15:34	0° ♁	
	12957 Oct 07 15:16	0° ♁			12960 Mar 26 20:39	0° ♁	
	12957 Nov 01 02:38	0° ♁		evening max el	12960 Apr 09 02:28	13° ♁ 35'05	46°23'03
asc. node	12957 Nov 02 00:08	1° ♁ 06'01		asc. node	12960 Apr 18 12:05	22° ♁ 32'01	
	12957 Nov 25 11:49	0° ♁			12960 Apr 27 02:37	0° ♁	
morning set	12957 Dec 18 17:13	28° ♁ 38'38		greatest brilliancy	12960 May 19 11:11	13° ♁ 43'17	-4.9m
	12957 Dec 19 19:35	0° ♁		retrograde	12960 May 29 00:09	15° ♁ 26'08	
	12958 Jan 13 02:54	0° ♁		evening set	12960 Jun 16 04:18	9° ♁ 08'42	
				inferior conj	12960 Jun 18 16:25	7° ♁ 36'45	9°08'04
superior conj	12958 Jan 24 11:17	14° ♁ 00'20	1°01'11	minimum elong	12960 Jun 18 19:25	7° ♁ 32'08	9°06'57
minimum elong	12958 Jan 24 21:07	14° ♁ 30'39	1°01'37	min. Earth dist.	12960 Jun 19 01:50	7° ♁ 22'15	0.27364 AU
max. Earth dist.	12958 Jan 24 16:46	14° ♁ 17'16	1.73167 AU	morning rise	12960 Jun 21 10:30	5° ♁ 55'42	
	12958 Feb 06 10:34	0° ♁			12960 Jul 05 15:26	30° ♁	
desc. node	12958 Feb 21 14:21	18° ♁ 41'20		direct	12960 Jul 09 11:50	29° ♁ 41'39	
	12958 Mar 02 18:35	0° ♁			12960 Jul 13 09:58	0° ♁	
evening rise	12958 Mar 03 06:55	0° ♁ 38'01		greatest brilliancy	12960 Jul 19 11:43	1° ♁ 35'11	-4.9m
	12958 Mar 27 02:19	0° ♁		desc. node	12960 Aug 08 14:55	13° ♁ 50'29	
	12958 Apr 20 09:29	0° ♁			12960 Aug 26 12:29	0° ♁	
	12958 May 14 17:03	0° ♁		morning max el	12960 Aug 28 23:38	2° ♁ 26'45	46°51'34
	12958 Jun 08 03:40	0° ♁			12960 Sep 23 20:10	0° ♁	
asc. node	12958 Jun 14 07:12	7° ♁ 29'50			12960 Oct 20 02:33	0° ♁	
	12958 Jul 02 21:52	0° ♁			12960 Nov 14 13:31	0° ♁	
	12958 Jul 28 07:36	0° ♁		asc. node	12960 Nov 29 13:23	17° ♁ 56'03	
	12958 Aug 24 03:44	0° ♁			12960 Dec 09 13:46	0° ♁	
evening max el	12958 Sep 04 12:00	11° ♁ 44'02	46°31'56		12961 Jan 03 06:52	0° ♁	
	12958 Sep 24 14:56	0° ♁			12961 Jan 27 19:11	0° ♁	
desc. node	12958 Oct 04 07:27	6° ♁ 53'00			12961 Feb 21 04:31	0° ♁	
greatest brilliancy	12958 Oct 13 18:28	11° ♁ 41'31	-4.8m	morning set	12961 Feb 25 12:59	5° ♁ 21'56	
retrograde	12958 Oct 24 14:17	13° ♁ 51'29			12961 Mar 17 11:41	0° ♁	
evening set	12958 Nov 10 22:21	8° ♁ 09'02		desc. node	12961 Mar 21 04:44	4° ♁ 35'25	
min. Earth dist.	12958 Nov 14 06:59	6° ♁ 05'56	0.28502 AU	max. Earth dist.	12961 Apr 02 07:10	19° ♁ 34'50	1.72519 AU
inferior conj	12958 Nov 15 00:06	5° ♁ 39'16	-8°09'52				
minimum elong	12958 Nov 14 16:32	5° ♁ 51'04	8°08'08	superior conj	12961 Apr 04 23:27	22° ♁ 54'11	-0°34'52
morning rise	12958 Nov 18 10:54	3° ♁ 32'02		minimum elong	12961 Apr 04 15:35	22° ♁ 29'48	0°34'48
	12958 Nov 25 04:41	30° ♁			12961 Apr 10 16:38	0° ♁	
direct	12958 Dec 06 04:52	27° ♁ 36'15			12961 May 04 19:10	0° ♁	
greatest brilliancy	12958 Dec 15 23:12	29° ♁ 19'35	-4.8m	evening rise	12961 May 14 00:04	11° ♁ 29'05	
	12958 Dec 17 19:25	0° ♁			12961 May 28 19:54	0° ♁	
morning max el	12959 Jan 24 01:35	27° ♁ 40'07	45°42'34		12961 Jun 21 20:26	0° ♁	
asc. node	12959 Jan 25 09:54	28° ♁ 58'30		asc. node	12961 Jul 11 19:36	24° ♁ 51'24	
	12959 Jan 26 11:02	0° ♁			12961 Jul 15 23:02	0° ♁	
	12959 Feb 23 21:02	0° ♁			12961 Aug 09 06:16	0° ♁	
	12959 Mar 22 02:11	0° ♁			12961 Sep 02 21:49	0° ♁	
	12959 Apr 16 08:04	0° ♁			12961 Sep 28 04:40	0° ♁	
	12959 May 11 00:49	0° ♁			12961 Oct 24 18:25	0° ♁	
desc. node	12959 May 17 06:57	7° ♁ 40'22		desc. node	12961 Oct 31 17:05	7° ♁ 25'48	
	12959 Jun 04 08:59	0° ♁		evening max el	12961 Nov 14 17:13	21° ♁ 39'00	46°01'33
	12959 Jun 28 11:26	0° ♁			12961 Nov 23 16:02	0° ♁	
	12959 Jul 22 10:48	0° ♁		greatest brilliancy	12961 Dec 23 20:25	20° ♁ 12'48	-4.8m
morning set	12959 Jul 26 06:59	4° ♁ 48'50		retrograde	12962 Jan 02 19:52	22° ♁ 00'44	
	12959 Aug 15 09:18	0° ♁		evening set	12962 Jan 19 15:23	16° ♁ 36'18	
				inferior conj	12962 Jan 24 05:15	13° ♁ 47'29	-6°17'36
superior conj	12959 Sep 03 21:08	24° ♁ 24'14	-0°07'22	minimum elong	12962 Jan 24 15:31	13° ♁ 31'22	6°14'39
minimum elong	12959 Sep 03 23:01	24° ♁ 30'06	0°07'29	min. Earth dist.	12962 Jan 24 15:14	13° ♁ 31'49	0.28777 AU
behind sun begin	12959 Sep 03 00:45	23° ♁ 20'28		morning rise	12962 Jan 29 15:34	10° ♁ 29'22	
behind sun end	12959 Sep 04 21:16	25° ♁ 39'43		direct	12962 Feb 14 15:02	5° ♁ 33'33	
max. Earth dist.	12959 Sep 05 17:50	26° ♁ 44'00	1.71760 AU	asc. node	12962 Feb 21 19:29	6° ♁ 32'14	
asc. node	12959 Sep 06 21:28	28° ♁ 10'20		greatest brilliancy	12962 Feb 25 10:33	7° ♁ 42'36	-4.8m
	12959 Sep 08 08:33	0° ♁			12962 Mar 29 00:12	0° ♁	
	12959 Oct 02 09:29	0° ♁		morning max el	12962 Apr 05 02:56	6° ♁ 48'36	46°05'24
evening rise	12959 Oct 12 12:23	12° ♁ 35'39			12962 Apr 27 05:53	0° ♁	
	12959 Oct 26 13:01	0° ♁			12962 May 23 14:28	0° ♁	

desc. node	12962 Jun 13 19:41	25°♄11'49	evening max el	12965 Jan 24 18:03	0°♑23'09	45°55'36
	12962 Jun 17 19:20	0°♈	greatest brilliancy	12965 Mar 04 22:42	29°♑02'19	-4.8m
	12962 Jul 12 09:48	0°♄		12965 Mar 08 03:48	0°♄	
	12962 Aug 05 16:45	0°♌	retrograde	12965 Mar 14 19:56	0°♄50'39	
	12962 Aug 29 20:31	0°♍	asc. node	12965 Mar 21 04:47	0°♄01'42	
	12962 Sep 22 23:30	0°♊		12965 Mar 21 07:25	30°♑♑	
asc. node	12962 Oct 04 11:56	14°♊19'21	evening set	12965 Mar 29 16:33	26°♑32'20	
morning set	12962 Oct 07 06:44	17°♊46'57	inferior conj	12965 Apr 04 21:13	22°♑50'44	3°36'12
	12962 Oct 17 02:40	0°♌	minimum elong	12965 Apr 04 13:33	23°♑02'42	3°33'41
	12962 Nov 10 06:25	0°♋	min. Earth dist.	12965 Apr 04 23:44	22°♑46'48	0.27921 AU
			morning rise	12965 Apr 10 10:05	19°♑29'33	
superior conj	12962 Nov 14 06:10	4°♋56'56 1°18'39	direct	12965 Apr 25 22:24	14°♑44'59	
minimum elong	12962 Nov 13 22:39	4°♋33'35 1°19'21	greatest brilliancy	12965 May 06 08:39	16°♑46'04	-4.8m
max. Earth dist.	12962 Nov 16 09:40	7°♋36'34 1.72712 AU		12965 May 27 13:25	0°♄	
	12962 Dec 04 11:33	0°♄	morning max el	12965 Jun 15 03:50	17°♄05'43	46°48'21
evening rise	12962 Dec 21 06:14	20°♄42'50		12965 Jun 27 13:44	0°♈	
	12962 Dec 28 19:12	0°♊	desc. node	12965 Jul 11 06:53	15°♈05'39	
	12963 Jan 22 06:12	0°♋		12965 Jul 24 07:37	0°♄	
desc. node	12963 Jan 24 02:17	2°♋14'48		12965 Aug 18 17:07	0°♌	
	12963 Feb 15 20:34	0°♑		12965 Sep 12 13:04	0°♍	
	12963 Mar 12 14:02	0°♄		12965 Oct 07 03:02	0°♊	
	12963 Apr 06 11:34	0°♈		12965 Oct 31 13:58	0°♌	
	12963 May 01 17:38	0°♄	asc. node	12965 Nov 01 02:06	0°♌37'16	
asc. node	12963 May 16 22:00	17°♄38'00		12965 Nov 24 22:52	0°♋	
	12963 May 27 19:39	0°♌	morning set	12965 Dec 16 09:47	26°♋28'00	
evening max el	12963 Jun 22 07:16	27°♌13'21 46°46'47		12965 Dec 19 06:28	0°♄	
	12963 Jun 25 02:28	0°♍		12966 Jan 12 13:43	0°♊	
greatest brilliancy	12963 Aug 01 03:33	27°♍39'59 -4.9m				
retrograde	12963 Aug 11 13:11	29°♍40'51	superior conj	12966 Jan 22 03:50	11°♊49'59 1°03'30	
evening set	12963 Aug 26 05:57	25°♍26'22	minimum elong	12966 Jan 22 13:38	12°♊20'15 1°03'59	
inferior conj	12963 Sep 01 07:39	21°♍52'09 1°13'00	max. Earth dist.	12966 Jan 22 11:37	12°♊13'59 1.73169 AU	
minimum elong	12963 Sep 01 10:28	21°♍47'50 1°11'51		12966 Feb 05 21:23	0°♋	
min. Earth dist.	12963 Sep 01 03:35	21°♍58'22 0.27064 AU	desc. node	12966 Feb 20 16:10	18°♋13'28	
desc. node	12963 Sep 06 00:13	19°♍04'32	evening rise	12966 Feb 28 22:41	28°♋25'08	
morning rise	12963 Sep 07 15:26	18°♍10'55		12966 Mar 02 05:29	0°♑	
direct	12963 Sep 22 02:19	14°♍07'37		12966 Mar 26 13:23	0°♄	
greatest brilliancy	12963 Oct 01 21:35	15°♍53'52 -4.8m		12966 Apr 19 20:48	0°♈	
	12963 Oct 24 19:39	0°♊		12966 May 14 04:45	0°♄	
morning max el	12963 Nov 10 12:27	15°♊01'37 46°09'12		12966 Jun 07 15:57	0°♌	
	12963 Nov 25 07:18	0°♌	asc. node	12966 Jun 13 09:05	6°♌57'34	
	12963 Dec 22 16:07	0°♋		12966 Jul 02 11:05	0°♍	
asc. node	12963 Dec 28 01:15	6°♋07'32		12966 Jul 27 22:35	0°♊	
	12964 Jan 17 14:31	0°♄		12966 Aug 23 22:52	0°♌	
	12964 Feb 11 19:12	0°♊	evening max el	12966 Sep 02 02:47	9°♌25'34 46°33'01	
	12964 Mar 07 13:34	0°♋		12966 Sep 25 05:13	0°♋	
	12964 Apr 01 01:19	0°♑	desc. node	12966 Oct 03 09:33	5°♋29'30	
desc. node	12964 Apr 17 19:08	20°♑39'49	greatest brilliancy	12966 Oct 11 08:37	9°♋24'16 -4.8m	
	12964 Apr 25 08:00	0°♄	retrograde	12966 Oct 22 06:02	11°♋35'58	
morning set	12964 May 08 16:58	16°♄37'23	evening set	12966 Nov 08 09:52	5°♋58'41	
	12964 May 19 10:27	0°♈	min. Earth dist.	12966 Nov 11 21:05	3°♋52'07 0.28457 AU	
	12964 Jun 12 09:43	0°♄	inferior conj	12966 Nov 12 15:07	3°♋24'06 -8°01'32	
max. Earth dist.	12964 Jun 15 21:39	4°♄23'07 1.71492 AU	minimum elong	12966 Nov 12 06:57	3°♋36'47 7°59'39	
			morning rise	12966 Nov 16 04:17	1°♋13'40	
superior conj	12964 Jun 17 18:06	6°♄42'29 -1°26'45		12966 Nov 18 07:21	30°♑♌	
minimum elong	12964 Jun 17 21:08	6°♄51'59 1°27'44	direct	12966 Dec 03 19:28	25°♌21'41	
	12964 Jul 06 07:31	0°♌	greatest brilliancy	12966 Dec 13 13:07	27°♌04'47 -4.8m	
evening rise	12964 Jul 28 01:11	27°♌15'42		12966 Dec 20 07:20	0°♋	
	12964 Jul 30 05:39	0°♍	morning max el	12967 Jan 21 17:07	25°♋27'23 45°42'41	
asc. node	12964 Aug 08 09:02	11°♍26'35	asc. node	12967 Jan 24 11:51	28°♋09'57	
	12964 Aug 23 05:43	0°♊		12967 Jan 26 08:18	0°♄	
	12964 Sep 16 09:17	0°♌		12967 Feb 23 12:25	0°♊	
	12964 Oct 10 18:38	0°♋		12967 Mar 21 15:24	0°♋	
	12964 Nov 04 13:33	0°♄		12967 Apr 15 20:14	0°♑	
desc. node	12964 Nov 28 03:33	27°♄50'55		12967 May 10 12:25	0°♄	
	12964 Nov 30 00:01	0°♊	desc. node	12967 May 16 08:53	7°♄11'00	
	12964 Dec 26 12:39	0°♋		12967 Jun 03 20:16	0°♈	
	12965 Jan 24 08:28	0°♑		12967 Jun 27 22:32	0°♄	

	12967 Jul 21 21:46	0°♎	greatest brilliancy	12969 Dec 21 12:08	18°♏01'59	-4.8m
morning set	12967 Jul 23 19:24	2°♎22'57	retrograde	12969 Dec 31 11:01	19°♏49'23	
	12967 Aug 14 20:13	0°♏	evening set	12970 Jan 17 10:04	14°♏20'54	
			inferior conj	12970 Jan 21 21:05	11°♏36'04	-6°31'43
superior conj	12967 Sep 01 10:07	22°♏00'38 -0°11'06	minimum elong	12970 Jan 22 07:18	11°♏19'59	6°28'50
minimum elong	12967 Sep 01 12:56	22°♏09'25 0°11'12	min. Earth dist.	12970 Jan 22 06:44	11°♏20'53	0.28799 AU
behind sun begin	12967 Aug 31 18:44	21°♏12'30	morning rise	12970 Jan 27 04:28	8°♏21'46	
behind sun end	12967 Sep 02 07:07	23°♏06'19	direct	12970 Feb 12 07:00	3°♏22'14	
max. Earth dist.	12967 Sep 03 06:24	24°♏19'07 1.71736 AU	asc. node	12970 Feb 20 21:31	4°♏45'07	
asc. node	12967 Sep 05 23:23	27°♏42'20	greatest brilliancy	12970 Feb 23 01:48	5°♏30'09	-4.8m
	12967 Sep 07 19:26	0°♐		12970 Mar 29 00:39	0°♐	
	12967 Oct 01 20:22	0°♐	morning max el	12970 Apr 02 17:22	4°♐32'20	46°03'53
evening rise	12967 Oct 10 03:29	10°♐19'33		12970 Apr 26 22:08	0°♐	
	12967 Oct 25 23:58	0°♐		12970 May 23 04:06	0°♐	
	12967 Nov 19 07:45	0°♐	desc. node	12970 Jun 12 21:27	24°♐39'22	
	12967 Dec 13 21:50	0°♐		12970 Jun 17 07:44	0°♐	
desc. node	12967 Dec 26 15:14	15°♐21'58		12970 Jul 11 21:31	0°♐	
	12968 Jan 07 20:19	0°♐		12970 Aug 05 04:03	0°♐	
	12968 Feb 02 05:32	0°♐		12970 Aug 29 07:30	0°♐	
	12968 Feb 28 06:28	0°♐		12970 Sep 22 10:16	0°♐	
	12968 Mar 26 15:45	0°♐	asc. node	12970 Oct 03 13:50	13°♐52'10	
evening max el	12968 Apr 06 17:28	11°♐17'17 46°22'01	morning set	12970 Oct 04 21:35	15°♐30'51	
asc. node	12968 Apr 17 14:11	21°♐32'54		12970 Oct 16 13:15	0°♐	
	12968 Apr 27 15:39	0°♐		12970 Nov 09 16:56	0°♐	
greatest brilliancy	12968 May 16 23:36	11°♐19'28 -4.9m				
retrograde	12968 May 26 13:44	13°♐02'50	superior conj	12970 Nov 11 22:35	2°♐46'24	1°17'13
evening set	12968 Jun 13 18:08	6°♐44'26	minimum elong	12970 Nov 11 14:33	2°♐21'28	1°17'52
inferior conj	12968 Jun 16 05:42	5°♐13'07 9°10'36	max. Earth dist.	12970 Nov 14 02:21	5°♐26'55	1.72684 AU
minimum elong	12968 Jun 16 07:45	5°♐09'58 9°09'33		12970 Dec 03 22:04	0°♐	
min. Earth dist.	12968 Jun 16 14:09	5°♐00'04 0.27384 AU	evening rise	12970 Dec 18 22:37	18°♐32'46	
morning rise	12968 Jun 18 21:21	3°♐35'37		12970 Dec 28 05:50	0°♐	
	12968 Jun 25 13:01	30°♐♐		12971 Jan 21 17:03	0°♐	
direct	12968 Jul 07 01:54	27°♐17'54	desc. node	12971 Jan 23 04:08	1°♐47'13	
greatest brilliancy	12968 Jul 17 00:09	29°♐10'10 -4.9m		12971 Feb 15 07:45	0°♐	
	12968 Jul 19 02:52	0°♐		12971 Mar 12 01:42	0°♐	
desc. node	12968 Aug 07 16:54	12°♐40'48		12971 Apr 06 00:03	0°♐	
	12968 Aug 26 11:39	0°♐		12971 May 01 07:29	0°♐	
morning max el	12968 Aug 26 14:00	0°♐05'54 46°52'19	asc. node	12971 May 15 23:53	17°♐00'01	
	12968 Sep 23 12:31	0°♐		12971 May 27 12:13	0°♐	
	12968 Oct 19 16:22	0°♐	evening max el	12971 Jun 19 20:00	24°♐48'26	46°46'31
	12968 Nov 14 02:02	0°♐		12971 Jun 25 02:49	0°♐	
asc. node	12968 Nov 28 15:13	17°♐25'33	greatest brilliancy	12971 Jul 29 19:03	25°♐18'54	-4.9m
	12968 Dec 09 01:29	0°♐	retrograde	12971 Aug 09 02:05	27°♐17'47	
	12969 Jan 02 18:04	0°♐	evening set	12971 Aug 23 20:44	23°♐01'33	
	12969 Jan 27 06:06	0°♐	inferior conj	12971 Aug 29 20:47	19°♐29'58	1°36'47
	12969 Feb 20 15:17	0°♐	minimum elong	12971 Aug 30 00:31	19°♐24'16	1°35'19
morning set	12969 Feb 23 04:57	3°♐10'03	min. Earth dist.	12971 Aug 29 18:27	19°♐33'33	0.27039 AU
	12969 Mar 16 22:26	0°♐	morning rise	12971 Sep 05 04:33	15°♐48'26	
desc. node	12969 Mar 20 06:38	4°♐08'04	desc. node	12971 Sep 05 02:18	15°♐51'25	
max. Earth dist.	12969 Mar 30 21:26	17°♐16'58 1.72555 AU	direct	12971 Sep 19 14:34	11°♐45'24	
			greatest brilliancy	12971 Sep 29 11:45	13°♐33'02	-4.8m
superior conj	12969 Apr 02 13:26	20°♐35'21 -0°31'32		12971 Oct 25 04:23	0°♐	
minimum elong	12969 Apr 02 06:15	20°♐13'04 0°31'26	morning max el	12971 Nov 08 01:25	12°♐41'18	46°10'49
	12969 Apr 10 03:25	0°♐		12971 Nov 25 01:14	0°♐	
	12969 May 04 06:01	0°♐		12971 Dec 22 06:11	0°♐	
evening rise	12969 May 11 13:00	9°♐05'40	asc. node	12971 Dec 27 03:11	5°♐33'58	
	12969 May 28 06:50	0°♐		12972 Jan 17 02:55	0°♐	
	12969 Jun 21 07:32	0°♐		12972 Feb 11 06:46	0°♐	
asc. node	12969 Jul 10 21:24	24°♐21'57		12972 Mar 07 00:41	0°♐	
	12969 Jul 15 10:22	0°♐		12972 Mar 31 12:10	0°♐	
	12969 Aug 08 18:00	0°♐	desc. node	12972 Apr 16 20:59	20°♐12'24	
	12969 Sep 02 10:14	0°♐		12972 Apr 24 18:42	0°♐	
	12969 Sep 27 18:24	0°♐	morning set	12972 May 06 04:59	14°♐12'08	
	12969 Oct 24 11:11	0°♐		12972 May 18 21:05	0°♐	
desc. node	12969 Oct 30 19:03	6°♐43'29		12972 Jun 11 20:22	0°♐	
evening max el	12969 Nov 12 08:41	19°♐26'33 46°02'11	max. Earth dist.	12972 Jun 13 05:05	1°♐42'36	1.71515 AU
	12969 Nov 23 19:25	0°♐				

superior conj	12972 Jun 15 05:52	4°☿15'31	-1°27'09	greatest brilliancy	12974 Dec 11 02:33	24°♄50'57	-4.8m
minimum elong	12972 Jun 15 07:51	4°☿21'45	1°28'08		12974 Dec 21 20:08	0°♂	
	12972 Jul 05 18:11	0°♂		morning max el	12975 Jan 19 08:54	23°♂16'54	45°42'51
evening rise	12972 Jul 25 12:40	24°♂47'47		asc. node	12975 Jan 23 13:53	27°♂24'06	
	12972 Jul 29 16:23	0°♍			12975 Jan 26 04:10	0°♂	
asc. node	12972 Aug 07 11:00	10°♍59'03			12975 Feb 23 03:01	0°♁	
	12972 Aug 22 16:31	0°♊			12975 Mar 21 04:02	0°♈	
	12972 Sep 15 20:14	0°♋			12975 Apr 15 07:57	0°♍	
	12972 Oct 10 05:53	0°♌			12975 May 09 23:40	0°♉	
	12972 Nov 04 01:24	0°♍		desc. node	12975 May 15 10:40	6°♉42'11	
desc. node	12972 Nov 27 05:25	27°♍18'58			12975 Jun 03 07:15	0°♊	
	12972 Nov 29 13:01	0°♁			12975 Jun 27 09:21	0°☿	
	12972 Dec 26 04:08	0°♈		morning set	12975 Jul 21 07:30	29°☿57'02	
evening max el	12973 Jan 22 08:31	28°♈08'46	45°55'08		12975 Jul 21 08:27	0°♂	
	12973 Jan 24 07:03	0°♍			12975 Aug 14 06:48	0°♍	
greatest brilliancy	12973 Mar 02 12:40	26°♍45'56	-4.8m				
retrograde	12973 Mar 12 10:35	28°♍34'57		superior conj	12975 Aug 29 22:50	19°♍37'11	-0°14'50
asc. node	12973 Mar 20 06:54	27°♍20'20		minimum elong	12975 Aug 30 02:34	19°♍48'51	0°14'55
evening set	12973 Mar 27 06:00	24°♍17'28		behind sun begin	12975 Aug 29 16:45	19°♍18'10	
inferior conj	12973 Apr 02 11:53	20°♍34'23	3°15'22	behind sun end	12975 Aug 30 12:22	20°♍19'32	
minimum elong	12973 Apr 02 04:52	20°♍45'19	3°13'02	max. Earth dist.	12975 Aug 31 20:59	22°♍01'32	1.71708 AU
min. Earth dist.	12973 Apr 02 14:50	20°♍29'47	0.27947 AU	asc. node	12975 Sep 05 01:13	27°♍15'03	
morning rise	12973 Apr 08 03:16	17°♍09'57			12975 Sep 07 05:59	0°♊	
direct	12973 Apr 23 13:22	12°♍28'04			12975 Oct 01 06:56	0°♋	
greatest brilliancy	12973 May 04 00:44	14°♍30'34	-4.8m	evening rise	12975 Oct 07 18:32	8°♋04'17	
	12973 May 27 22:02	0°♉			12975 Oct 25 10:35	0°♌	
morning max el	12973 Jun 12 19:01	14°♉48'54	46°47'16		12975 Nov 18 18:31	0°♍	
	12973 Jun 27 07:49	0°♊			12975 Dec 13 08:55	0°♁	
desc. node	12973 Jul 10 08:56	14°♊26'47		desc. node	12975 Dec 25 17:10	14°♁53'41	
	12973 Jul 23 22:03	0°☿			12976 Jan 07 07:59	0°♈	
	12973 Aug 18 05:57	0°♂			12976 Feb 01 18:13	0°♍	
	12973 Sep 12 00:59	0°♍			12976 Feb 27 21:06	0°♉	
	12973 Oct 06 14:21	0°♊			12976 Mar 26 10:58	0°♊	
asc. node	12973 Oct 31 03:54	0°♋09'23		evening max el	12976 Apr 04 07:56	8°♊59'13	46°20'39
	12973 Oct 31 00:51	0°♋		asc. node	12976 Apr 16 16:02	20°♊32'45	
	12973 Nov 24 09:27	0°♌			12976 Apr 28 08:41	0°☿	
morning set	12973 Dec 14 02:48	24°♌20'11		greatest brilliancy	12976 May 14 12:22	8°☿56'40	-4.8m
	12973 Dec 18 16:52	0°♍		retrograde	12976 May 24 02:39	10°☿39'48	
	12974 Jan 12 00:03	0°♁		evening set	12976 Jun 11 07:18	4°☿21'32	
				inferior conj	12976 Jun 13 18:55	2°☿49'54	9°12'06
superior conj	12974 Jan 19 20:45	9°♁42'13	1°05'42	minimum elong	12976 Jun 13 20:00	2°☿48'14	9°11'05
minimum elong	12974 Jan 20 06:28	10°♁12'12	1°06'12	min. Earth dist.	12976 Jun 14 02:44	2°☿37'48	0.27407 AU
max. Earth dist.	12974 Jan 20 08:47	10°♁19'21	1.73173 AU	morning rise	12976 Jun 16 08:41	1°☿15'00	
	12974 Feb 05 07:45	0°♈			12976 Jun 18 11:26	30°♈11	
desc. node	12974 Feb 19 18:08	17°♈47'18		direct	12976 Jul 04 15:36	24°♈54'26	
evening rise	12974 Feb 26 14:39	26°♈14'10		greatest brilliancy	12976 Jul 14 13:07	26°♈45'50	-4.9m
	12974 Mar 01 15:59	0°♍			12976 Jul 21 13:32	0°☿	
	12974 Mar 26 00:06	0°♉		desc. node	12976 Aug 06 18:59	11°☿33'29	
	12974 Apr 19 07:50	0°♊		morning max el	12976 Aug 24 03:20	27°☿42'40	46°53'07
	12974 May 13 16:10	0°☿			12976 Aug 26 09:45	0°♂	
	12974 Jun 07 03:57	0°♂			12976 Sep 23 04:24	0°♍	
asc. node	12974 Jun 12 10:57	6°♂26'15			12976 Oct 19 05:50	0°♊	
	12974 Jul 02 00:03	0°♍			12976 Nov 13 14:12	0°♋	
	12974 Jul 27 13:22	0°♊		asc. node	12976 Nov 27 17:04	16°♋56'01	
	12974 Aug 23 18:04	0°♋			12976 Dec 08 12:53	0°♌	
evening max el	12974 Aug 30 18:28	7°♋10'35	46°34'08		12977 Jan 02 05:00	0°♍	
	12974 Sep 25 23:34	0°♌			12977 Jan 26 16:44	0°♁	
desc. node	12974 Oct 02 11:34	4°♌04'31			12977 Feb 20 01:47	0°♈	
greatest brilliancy	12974 Oct 08 22:50	7°♌08'31	-4.8m	morning set	12977 Feb 20 21:27	1°♈00'35	
retrograde	12974 Oct 19 22:08	9°♌21'46			12977 Mar 16 08:54	0°♍	
evening set	12974 Nov 05 21:28	3°♌49'55		desc. node	12977 Mar 19 08:28	3°♍41'23	
min. Earth dist.	12974 Nov 09 11:07	1°♌39'55	0.28406 AU	max. Earth dist.	12977 Mar 28 11:43	15°♍00'08	1.72591 AU
inferior conj	12974 Nov 10 06:11	1°♌10'21	-7°52'25				
minimum elong	12974 Nov 09 21:31	1°♌23'47	7°50'24	superior conj	12977 Mar 31 04:01	18°♍19'21	-0°28'10
	12974 Nov 12 03:45	30°♋11		minimum elong	12977 Mar 30 21:32	17°♍59'15	0°28'04
morning rise	12974 Nov 13 21:52	28°♋56'29			12977 Apr 09 13:55	0°♉	
direct	12974 Dec 01 10:32	23°♋08'48			12977 May 03 16:37	0°♊	

evening rise	12977 May 09 02:20	6° Π 44'20		asc. node	12979 Dec 26 05:15	5° \times 00'18	
	12977 May 27 17:36	0° Θ			12980 Jan 16 15:28	0° Σ	
	12977 Jun 20 18:31	0° Ω			12980 Feb 10 18:27	0° \approx	
asc. node	12977 Jul 09 23:22	23° Ω 53'10			12980 Mar 06 11:54	0° \mathcal{H}	
	12977 Jul 14 21:40	0° \mathcal{M}			12980 Mar 30 23:07	0° \mathcal{Y}	
	12977 Aug 08 05:44	0° $\underline{\Omega}$		desc. node	12980 Apr 15 22:46	19° \mathcal{Y} 44'15	
	12977 Sep 01 22:41	0° \mathcal{M}			12980 Apr 24 05:32	0° \mathcal{B}	
	12977 Sep 27 08:13	0° \times		morning set	12980 May 03 17:27	11° \mathcal{B} 47'56	
	12977 Oct 24 04:11	0° Σ			12980 May 18 07:51	0° Π	
desc. node	12977 Oct 29 20:57	6° Σ 00'48		max. Earth dist.	12980 Jun 10 15:49	29° Π 12'02	1.71537 AU
evening max el	12977 Nov 09 23:10	17° Σ 12'02	46°03'00		12980 Jun 11 07:07	0° Θ	
	12977 Nov 24 00:27	0° \approx					
greatest brilliancy	12977 Dec 19 04:08	15° \approx 52'02	-4.8m	superior conj	12980 Jun 12 18:03	1° Θ 49'31	-1°27'23
retrograde	12977 Dec 29 02:05	17° \approx 39'04		minimum elong	12980 Jun 12 18:59	1° Θ 52'26	1°28'23
evening set	12978 Jan 15 04:53	12° \approx 06'14			12980 Jul 05 04:58	0° Ω	
inferior conj	12978 Jan 19 13:04	9° \approx 25'35	-6°45'16	evening rise	12980 Jul 23 00:33	22° Ω 20'46	
minimum elong	12978 Jan 19 23:12	9° \approx 09'38	6°42'28		12980 Jul 29 03:13	0° \mathcal{M}	
min. Earth dist.	12978 Jan 19 22:34	9° \approx 10'37	0.28818 AU	asc. node	12980 Aug 06 12:52	10° \mathcal{M} 30'50	
morning rise	12978 Jan 24 17:24	6° \approx 15'21			12980 Aug 22 03:29	0° $\underline{\Omega}$	
direct	12978 Feb 09 22:41	1° \approx 11'43			12980 Sep 15 07:26	0° \mathcal{M}	
asc. node	12978 Feb 19 23:33	3° \approx 02'40			12980 Oct 09 17:28	0° \times	
greatest brilliancy	12978 Feb 20 17:41	3° \approx 19'14	-4.8m		12980 Nov 03 13:38	0° Σ	
	12978 Mar 28 23:43	0° \mathcal{H}		desc. node	12980 Nov 26 07:24	26° Σ 46'13	
morning max el	12978 Mar 31 07:40	2° \mathcal{H} 16'22	46°02'37		12980 Nov 29 02:29	0° \approx	
	12978 Apr 26 13:54	0° \mathcal{Y}			12980 Dec 25 20:14	0° \mathcal{H}	
	12978 May 22 17:26	0° \mathcal{B}		evening max el	12981 Jan 19 23:47	25° \mathcal{H} 55'40	45°54'54
desc. node	12978 Jun 11 23:28	24° \mathcal{B} 08'14			12981 Jan 24 07:03	0° \mathcal{Y}	
	12978 Jun 16 19:57	0° Π		greatest brilliancy	12981 Feb 28 02:23	24° \mathcal{Y} 28'57	-4.8m
	12978 Jul 11 09:07	0° Θ		retrograde	12981 Mar 10 01:37	26° \mathcal{Y} 18'47	
	12978 Aug 04 15:18	0° Ω		asc. node	12981 Mar 19 08:48	24° \mathcal{Y} 33'54	
	12978 Aug 28 18:32	0° \mathcal{M}		evening set	12981 Mar 24 19:50	22° \mathcal{Y} 02'04	
	12978 Sep 21 21:06	0° $\underline{\Omega}$		inferior conj	12981 Mar 31 02:38	18° \mathcal{Y} 17'32	2°54'16
morning set	12978 Oct 02 11:55	13° $\underline{\Omega}$ 12'45		minimum elong	12981 Mar 30 20:17	18° \mathcal{Y} 27'25	2°52'10
asc. node	12978 Oct 02 15:37	13° $\underline{\Omega}$ 24'16		min. Earth dist.	12981 Mar 31 05:41	18° \mathcal{Y} 12'47	0.27971 AU
	12978 Oct 15 23:55	0° \mathcal{M}		morning rise	12981 Apr 05 20:23	14° \mathcal{Y} 50'07	
	12978 Nov 09 03:30	0° \times		direct	12981 Apr 21 04:51	10° \mathcal{Y} 10'54	
				greatest brilliancy	12981 May 01 16:17	12° \mathcal{Y} 13'59	-4.8m
superior conj	12978 Nov 09 14:39	0° \times 34'37	1°15'38		12981 May 28 04:27	0° \mathcal{B}	
minimum elong	12978 Nov 09 06:08	0° \times 08'12	1°16'15	morning max el	12981 Jun 10 10:45	12° \mathcal{B} 32'58	46°46'11
max. Earth dist.	12978 Nov 11 17:12	3° \times 11'22	1.72651 AU		12981 Jun 27 01:40	0° Π	
	12978 Dec 03 08:38	0° Σ		desc. node	12981 Jul 09 10:54	13° Π 47'35	
evening rise	12978 Dec 16 14:57	16° Σ 22'29			12981 Jul 23 12:31	0° Θ	
	12978 Dec 27 16:30	0° \approx			12981 Aug 17 18:52	0° Ω	
	12979 Jan 21 03:55	0° \mathcal{H}			12981 Sep 11 13:01	0° \mathcal{M}	
desc. node	12979 Jan 22 06:06	1° \mathcal{H} 19'59			12981 Oct 06 01:50	0° $\underline{\Omega}$	
	12979 Feb 14 18:57	0° \mathcal{Y}		asc. node	12981 Oct 30 05:45	29° $\underline{\Omega}$ 40'47	
	12979 Mar 11 13:25	0° \mathcal{B}			12981 Oct 30 11:59	0° \mathcal{M}	
	12979 Apr 05 12:33	0° Π			12981 Nov 23 20:23	0° \times	
	12979 Apr 30 21:24	0° Θ		morning set	12981 Dec 11 19:31	22° \times 10'16	
asc. node	12979 May 15 01:53	16° Θ 22'17			12981 Dec 18 03:39	0° Σ	
	12979 May 27 05:03	0° Ω			12982 Jan 11 10:46	0° \approx	
evening max el	12979 Jun 17 08:25	22° Ω 22'58	46°46'07				
	12979 Jun 25 04:24	0° \mathcal{M}		superior conj	12982 Jan 17 13:20	7° \approx 32'14	1°07'49
greatest brilliancy	12979 Jul 27 09:48	22° \mathcal{M} 56'36	-4.9m	minimum elong	12982 Jan 17 22:53	8° \approx 01'42	1°08'22
retrograde	12979 Aug 06 15:00	24° \mathcal{M} 54'26		max. Earth dist.	12982 Jan 18 05:31	8° \approx 22'10	1.73171 AU
evening set	12979 Aug 21 11:37	20° \mathcal{M} 35'39			12982 Feb 04 18:29	0° \mathcal{H}	
inferior conj	12979 Aug 27 09:50	17° \mathcal{M} 06'59	2°00'31	desc. node	12982 Feb 18 19:53	17° \mathcal{H} 19'25	
minimum elong	12979 Aug 27 14:27	16° \mathcal{M} 59'56	1°58'43	evening rise	12982 Feb 24 06:19	24° \mathcal{H} 01'10	
min. Earth dist.	12979 Aug 27 09:04	17° \mathcal{M} 08'11	0.27027 AU		12982 Mar 01 02:50	0° \mathcal{Y}	
morning rise	12979 Sep 02 17:26	13° \mathcal{M} 25'40			12982 Mar 25 11:10	0° \mathcal{B}	
desc. node	12979 Sep 04 04:17	12° \mathcal{M} 41'05			12982 Apr 18 19:12	0° Π	
direct	12979 Sep 17 03:00	9° \mathcal{M} 22'02			12982 May 13 03:57	0° Θ	
greatest brilliancy	12979 Sep 27 02:00	11° \mathcal{M} 11'21	-4.8m		12982 Jun 06 16:19	0° Ω	
	12979 Oct 25 11:02	0° $\underline{\Omega}$		asc. node	12982 Jun 11 12:58	5° Ω 54'16	
morning max el	12979 Nov 05 15:14	10° $\underline{\Omega}$ 22'01	46°12'27		12982 Jul 01 13:24	0° \mathcal{M}	
	12979 Nov 24 19:04	0° \mathcal{M}			12982 Jul 27 04:39	0° $\underline{\Omega}$	
	12979 Dec 21 20:22	0° \times			12982 Aug 23 14:09	0° \mathcal{M}	

evening max el	12982 Aug 28 10:27	4° \mathbb{M} 55'35	46°35'08	morning set	12985 Feb 18 13:45	28° \approx 49'26	
	12982 Sep 27 01:13	0° \mathbb{X}			12985 Feb 19 12:39	0° \mathbb{H}	
desc. node	12982 Oct 01 13:27	2° \mathbb{X} 35'35			12985 Mar 15 19:46	0° \mathbb{Y}	
greatest brilliancy	12982 Oct 06 13:16	4° \mathbb{X} 52'09	-4.8m	desc. node	12985 Mar 18 10:17	3° \mathbb{Y} 13'23	
retrograde	12982 Oct 17 13:57	7° \mathbb{X} 06'16		max. Earth dist.	12985 Mar 26 02:03	12° \mathbb{Y} 42'12	1.72630 AU
evening set	12982 Nov 03 08:59	1° \mathbb{X} 40'10					
	12982 Nov 06 03:28	30° \mathbb{R} \mathbb{M}		superior conj	12985 Mar 28 18:21	16° \mathbb{Y} 01'22	-0°24'44
min. Earth dist.	12982 Nov 07 01:11	29° \mathbb{M} 26'25	0.28357 AU	minimum elong	12985 Mar 28 12:37	15° \mathbb{Y} 43'35	0°24'38
inferior conj	12982 Nov 07 21:11	28° \mathbb{M} 55'24	-7°42'27		12985 Apr 09 00:49	0° \mathbb{B}	
minimum elong	12982 Nov 07 12:04	29° \mathbb{M} 09'32	7°40'18		12985 May 03 03:35	0° \mathbb{I}	
morning rise	12982 Nov 11 15:31	26° \mathbb{M} 37'45		evening rise	12985 May 06 15:25	4° \mathbb{I} 21'10	
direct	12982 Nov 29 01:49	20° \mathbb{M} .54'48			12985 May 27 04:42	0° \mathbb{G}	
greatest brilliancy	12982 Dec 08 15:51	22° \mathbb{M} .35'34	-4.8m		12985 Jun 20 05:50	0° \mathbb{Q}	
	12982 Dec 22 22:37	0° \mathbb{X}		asc. node	12985 Jul 09 01:14	23° \mathbb{Q} 23'09	
morning max el	12983 Jan 16 23:57	21° \mathbb{X} 03'16	45°42'55		12985 Jul 14 09:17	0° \mathbb{P}	
asc. node	12983 Jan 22 15:50	26° \mathbb{X} 37'19			12985 Aug 07 17:49	0° \mathbb{L}	
	12983 Jan 25 23:59	0° \mathbb{Z}			12985 Sep 01 11:31	0° \mathbb{M}	
	12983 Feb 22 17:55	0° \approx			12985 Sep 26 22:29	0° \mathbb{X}	
	12983 Mar 20 17:02	0° \mathbb{H}			12985 Oct 23 21:52	0° \mathbb{Z}	
	12983 Apr 14 20:02	0° \mathbb{Y}		desc. node	12985 Oct 28 23:03	5° \mathbb{Z} 17'18	
	12983 May 09 11:16	0° \mathbb{B}		evening max el	12985 Nov 07 12:57	14° \mathbb{Z} 54'59	46°03'55
desc. node	12983 May 14 12:38	6° \mathbb{B} 12'51			12985 Nov 24 08:02	0° \approx	
	12983 Jun 02 18:34	0° \mathbb{I}		greatest brilliancy	12985 Dec 16 19:46	13° \approx 41'04	-4.8m
	12983 Jun 26 20:29	0° \mathbb{G}		retrograde	12985 Dec 26 17:27	15° \approx 28'24	
morning set	12983 Jul 18 19:36	27° \mathbb{G} 30'02		evening set	12986 Jan 12 23:38	9° \approx 50'57	
	12983 Jul 20 19:28	0° \mathbb{Q}		inferior conj	12986 Jan 17 05:04	7° \approx 14'33	-6°57'59
	12983 Aug 13 17:44	0° \mathbb{P}		minimum elong	12986 Jan 17 15:03	6° \approx 58'51	6°55'18
				min. Earth dist.	12986 Jan 17 14:21	6° \approx 59'58	0.28840 AU
superior conj	12983 Aug 27 11:42	17° \mathbb{P} 13'09	-0°18'31	morning rise	12986 Jan 22 06:19	4° \approx 08'45	
minimum elong	12983 Aug 27 16:20	17° \mathbb{P} 27'38	0°18'36		12986 Jan 31 13:17	30° \mathbb{R} \mathbb{Z}	
max. Earth dist.	12983 Aug 29 11:04	19° \mathbb{P} 41'21	1.71676 AU	direct	12986 Feb 07 14:13	29° \mathbb{Z} 00'29	
asc. node	12983 Sep 04 03:00	26° \mathbb{P} 46'34			12986 Feb 14 21:00	0° \approx	
	12983 Sep 06 16:52	0° \mathbb{L}		greatest brilliancy	12986 Feb 18 09:56	1° \approx 08'14	-4.8m
	12983 Sep 30 17:48	0° \mathbb{M}		asc. node	12986 Feb 19 01:28	1° \approx 23'13	
evening rise	12983 Oct 05 09:43	5° \mathbb{M} 48'24			12986 Mar 28 22:11	0° \mathbb{H}	
	12983 Oct 24 21:30	0° \mathbb{X}		morning max el	12986 Mar 28 22:24	0° \mathbb{H} 00'32	46°01'14
	12983 Nov 18 05:37	0° \mathbb{Z}			12986 Apr 26 05:46	0° \mathbb{Y}	
	12983 Dec 12 20:24	0° \approx			12986 May 22 07:01	0° \mathbb{B}	
desc. node	12983 Dec 24 19:07	14° \approx 24'12		desc. node	12986 Jun 11 01:27	23° \mathbb{B} 36'04	
	12984 Jan 06 20:08	0° \mathbb{H}			12986 Jun 16 08:25	0° \mathbb{I}	
	12984 Feb 01 07:29	0° \mathbb{Y}			12986 Jul 10 20:58	0° \mathbb{G}	
	12984 Feb 27 12:27	0° \mathbb{B}			12986 Aug 04 02:46	0° \mathbb{Q}	
	12984 Mar 26 07:20	0° \mathbb{I}			12986 Aug 28 05:44	0° \mathbb{P}	
evening max el	12984 Apr 01 21:27	6° \mathbb{I} 37'33	46°19'27		12986 Sep 21 08:05	0° \mathbb{L}	
asc. node	12984 Apr 15 18:05	19° \mathbb{I} 30'19		morning set	12986 Sep 30 02:09	10° \mathbb{L} 53'42	
	12984 Apr 29 08:32	0° \mathbb{G}		asc. node	12986 Oct 01 17:29	12° \mathbb{L} 56'05	
greatest brilliancy	12984 May 12 01:43	6° \mathbb{G} 33'31	-4.8m		12986 Oct 15 10:46	0° \mathbb{M}	
retrograde	12984 May 21 15:12	8° \mathbb{G} 16'01					
evening set	12984 Jun 08 19:57	1° \mathbb{G} 58'50		superior conj	12986 Nov 07 06:45	28° \mathbb{M} .22'16	1°13'57
inferior conj	12984 Jun 11 08:16	0° \mathbb{G} 26'00	9°12'32	minimum elong	12986 Nov 06 21:49	27° \mathbb{M} .54'33	1°14'31
minimum elong	12984 Jun 11 08:21	0° \mathbb{G} 25'51	9°11'33		12986 Nov 08 14:15	0° \mathbb{X}	
min. Earth dist.	12984 Jun 11 15:43	0° \mathbb{G} 14'26	0.27428 AU	max. Earth dist.	12986 Nov 09 07:17	0° \mathbb{X} 52'52	1.72619 AU
	12984 Jun 12 01:02	30° \mathbb{R} \mathbb{I}			12986 Dec 02 19:22	0° \mathbb{Z}	
morning rise	12984 Jun 13 20:44	28° \mathbb{I} 52'49		evening rise	12986 Dec 14 07:27	14° \mathbb{Z} 12'15	
direct	12984 Jul 02 04:54	22° \mathbb{I} 30'09			12986 Dec 27 03:19	0° \approx	
greatest brilliancy	12984 Jul 12 02:43	24° \mathbb{I} 21'24	-4.9m		12987 Jan 20 14:56	0° \mathbb{H}	
	12984 Jul 23 03:32	0° \mathbb{G}		desc. node	12987 Jan 21 07:54	0° \mathbb{H} 51'47	
desc. node	12984 Aug 05 20:56	10° \mathbb{G} 26'49			12987 Feb 14 06:19	0° \mathbb{Y}	
morning max el	12984 Aug 21 15:54	25° \mathbb{G} 16'21	46°53'54		12987 Mar 11 01:20	0° \mathbb{B}	
	12984 Aug 26 07:23	0° \mathbb{Q}			12987 Apr 05 01:22	0° \mathbb{I}	
	12984 Sep 22 20:23	0° \mathbb{P}			12987 Apr 30 11:45	0° \mathbb{G}	
	12984 Oct 18 19:30	0° \mathbb{L}		asc. node	12987 May 14 03:53	15° \mathbb{G} 43'25	
	12984 Nov 13 02:37	0° \mathbb{M}			12987 May 26 22:33	0° \mathbb{Q}	
asc. node	12984 Nov 26 19:06	16° \mathbb{M} .26'15		evening max el	12987 Jun 14 21:16	19° \mathbb{Q} 57'51	46°45'51
	12984 Dec 08 00:32	0° \mathbb{X}			12987 Jun 25 07:52	0° \mathbb{P}	
	12985 Jan 01 16:11	0° \mathbb{Z}		greatest brilliancy	12987 Jul 24 23:53	20° \mathbb{P} 32'40	-4.9m
	12985 Jan 26 03:41	0° \approx		retrograde	12987 Aug 04 04:25	22° \mathbb{P} 30'11	

evening set	12987 Aug 19 02:32	18° \cap 08'28			12990 Feb 04 05:00	0° H	
inferior conj	12987 Aug 24 22:43	14° \cap 42'55	2°24'03	desc. node	12990 Feb 17 21:43	16° H 52'27	
minimum elong	12987 Aug 25 04:11	14° \cap 34'34	2°21'58	evening rise	12990 Feb 21 22:12	21° H 49'34	
min. Earth dist.	12987 Aug 24 23:06	14° \cap 42'20	0.27014 AU		12990 Feb 28 13:28	0° Y	
morning rise	12987 Aug 31 05:56	11° \cap 02'26			12990 Mar 24 22:00	0° B	
desc. node	12987 Sep 03 06:15	9° \cap 33'52			12990 Apr 18 06:18	0° II	
direct	12987 Sep 14 15:37	6° \cap 57'44			12990 May 12 15:28	0° E	
greatest brilliancy	12987 Sep 24 15:29	8° \cap 48'17	-4.8m		12990 Jun 06 04:29	0° Ω	
	12987 Oct 25 15:43	0° $\underline{\text{L}}$		asc. node	12990 Jun 10 14:50	5° Ω 22'36	
morning max el	12987 Nov 03 05:46	8° $\underline{\text{L}}$ 04'14	46°14'05		12990 Jul 01 02:40	0° \cap	
	12987 Nov 24 12:31	0° L			12990 Jul 26 20:00	0° $\underline{\text{L}}$	
	12987 Dec 21 10:26	0° X			12990 Aug 23 10:50	0° L	
asc. node	12987 Dec 25 07:04	4° X 26'03		evening max el	12990 Aug 26 02:07	2° L 39'46	46°36'00
	12988 Jan 16 03:57	0° Z			12990 Sep 28 13:38	0° X	
	12988 Feb 10 06:07	0° \approx		desc. node	12990 Sep 30 15:35	1° X 03'55	
	12988 Mar 05 23:06	0° H		greatest brilliancy	12990 Oct 04 04:24	2° X 36'31	-4.8m
	12988 Mar 30 10:04	0° Y		retrograde	12990 Oct 15 05:14	4° X 50'30	
desc. node	12988 Apr 15 00:43	19° Y 16'39			12990 Oct 30 23:52	30° R L	
	12988 Apr 23 16:21	0° B		evening set	12990 Oct 31 20:23	29° L 30'31	
morning set	12988 May 01 05:55	9° B 23'47		min. Earth dist.	12990 Nov 04 15:26	27° L 12'33	0.28301 AU
	12988 May 17 18:40	0° II		inferior conj	12990 Nov 05 12:02	26° L 40'34	-7°31'48
max. Earth dist.	12988 Jun 08 02:42	26° II 41'41	1.71563 AU	minimum elong	12990 Nov 05 02:30	26° L 55'21	7°29'29
				morning rise	12990 Nov 09 09:03	24° L 18'56	
superior conj	12988 Jun 10 05:51	29° II 22'00	-1°27'27	direct	12990 Nov 26 16:42	18° L 41'06	
minimum elong	12988 Jun 10 05:43	29° II 21'36	1°28'27	greatest brilliancy	12990 Dec 06 05:10	20° L 20'32	-4.8m
	12988 Jun 10 17:58	0° E			12990 Dec 23 17:35	0° X	
	12988 Jul 04 15:51	0° Ω		morning max el	12991 Jan 14 13:54	18° X 47'50	45°43'06
evening rise	12988 Jul 20 11:51	19° Ω 51'36		asc. node	12991 Jan 21 17:48	25° X 52'18	
	12988 Jul 28 14:08	0° \cap			12991 Jan 25 18:48	0° Z	
asc. node	12988 Aug 05 14:36	10° \cap 01'59			12991 Feb 22 08:15	0° \approx	
	12988 Aug 21 14:30	0° $\underline{\text{L}}$			12991 Mar 20 05:35	0° H	
	12988 Sep 14 18:39	0° L			12991 Apr 14 07:42	0° Y	
	12988 Oct 09 05:03	0° X			12991 May 08 22:27	0° B	
	12988 Nov 03 01:52	0° Z		desc. node	12991 May 13 14:31	5° B 44'29	
desc. node	12988 Nov 25 09:22	26° Z 13'26			12991 Jun 02 05:28	0° II	
	12988 Nov 28 15:59	0° \approx			12991 Jun 26 07:12	0° E	
	12988 Dec 25 12:31	0° H		morning set	12991 Jul 16 07:51	25° E 04'42	
evening max el	12989 Jan 17 15:46	23° H 44'45	45°54'42		12991 Jul 20 06:05	0° Ω	
	12989 Jan 24 08:04	0° Y			12991 Aug 13 04:19	0° \cap	
greatest brilliancy	12989 Feb 25 16:30	22° Y 13'19	-4.8m				
retrograde	12989 Mar 07 16:42	24° Y 03'24		superior conj	12991 Aug 25 00:31	14° \cap 49'55	-0°22'11
asc. node	12989 Mar 18 10:49	21° Y 43'41		minimum elong	12991 Aug 25 06:01	15° \cap 07'07	0°22'17
evening set	12989 Mar 22 10:03	19° Y 47'34		max. Earth dist.	12991 Aug 26 22:34	17° \cap 14'04	1.71650 AU
inferior conj	12989 Mar 28 17:30	16° Y 01'42	2°33'04	asc. node	12991 Sep 03 04:55	26° \cap 19'30	
minimum elong	12989 Mar 28 11:52	16° Y 10'29	2°31'11		12991 Sep 06 03:26	0° $\underline{\text{L}}$	
min. Earth dist.	12989 Mar 28 20:35	15° Y 56'54	0.27994 AU		12991 Sep 30 04:23	0° L	
morning rise	12989 Apr 03 13:25	12° Y 31'21		evening rise	12991 Oct 03 00:30	3° L 32'03	
direct	12989 Apr 18 20:36	7° Y 54'59			12991 Oct 24 08:08	0° X	
greatest brilliancy	12989 Apr 29 07:26	9° Y 57'47	-4.8m		12991 Nov 17 16:26	0° Z	
	12989 May 28 08:34	0° B			12991 Dec 12 07:33	0° \approx	
morning max el	12989 Jun 08 02:03	10° B 16'33	46°44'46	desc. node	12991 Dec 23 20:56	13° \approx 55'21	
	12989 Jun 26 19:00	0° II			12992 Jan 06 07:56	0° H	
desc. node	12989 Jul 08 12:48	13° II 08'46			12992 Jan 31 20:25	0° Y	
	12989 Jul 23 02:45	0° E			12992 Feb 27 03:35	0° B	
	12989 Aug 17 07:40	0° Ω			12992 Mar 26 03:51	0° II	
	12989 Sep 11 00:59	0° \cap		evening max el	12992 Mar 30 10:23	4° II 15'52	46°18'17
	12989 Oct 05 13:13	0° $\underline{\text{L}}$		asc. node	12992 Apr 14 20:10	18° II 27'54	
asc. node	12989 Oct 29 07:43	29° $\underline{\text{L}}$ 12'59			12992 Apr 30 16:39	0° E	
	12989 Oct 29 22:59	0° L		greatest brilliancy	12992 May 09 15:24	4° E 12'27	-4.8m
	12989 Nov 23 07:06	0° X		retrograde	12992 May 19 03:57	5° E 54'30	
morning set	12989 Dec 09 12:11	20° X 00'55			12992 Jun 05 18:18	30° R II	
	12989 Dec 17 14:13	0° Z		evening set	12992 Jun 06 08:07	29° II 39'12	
	12990 Jan 10 21:15	0° \approx		inferior conj	12992 Jun 08 21:48	28° II 04'18	9°11'55
				minimum elong	12992 Jun 08 20:54	28° II 05'42	9°10'56
superior conj	12990 Jan 15 06:06	5° \approx 23'28	1°09'49	min. Earth dist.	12992 Jun 09 05:01	27° II 53'06	0.27449 AU
minimum elong	12990 Jan 15 15:27	5° \approx 52'17	1°10'25	morning rise	12992 Jun 11 09:38	26° II 31'59	
max. Earth dist.	12990 Jan 16 01:37	6° \approx 23'40	1.73167 AU	direct	12992 Jun 29 17:59	20° II 07'53	

greatest brilliancy	12992 Jul 09 16:50	21°II59'37	-4.9m	desc. node	12995 Jan 20 09:45	0°K24'41	
	12992 Jul 24 05:14	0°☾			12995 Jan 20 01:39	0°K	
desc. node	12992 Aug 04 22:54	9°☾23'41			12995 Feb 13 17:23	0°Y	
morning max el	12992 Aug 19 04:34	22°☾51'54	46°54'37		12995 Mar 10 12:58	0°B	
	12992 Aug 26 03:39	0°Ω			12995 Apr 04 13:55	0°II	
	12992 Sep 22 11:36	0°P			12995 Apr 30 01:54	0°☾	
	12992 Oct 18 08:38	0°♄		asc. node	12995 May 13 05:46	15°☾04'49	
	12992 Nov 12 14:36	0°♌			12995 May 26 16:06	0°Ω	
asc. node	12992 Nov 25 20:53	15°♌56'49		evening max el	12995 Jun 12 11:04	17°Ω36'13	46°45'30
	12992 Dec 07 11:48	0°♊			12995 Jun 25 12:43	0°P	
	12993 Jan 01 03:00	0°♈		greatest brilliancy	12995 Jul 22 13:41	18°P09'24	-4.9m
	12993 Jan 25 14:14	0°≈		retrograde	12995 Aug 01 18:15	20°P06'44	
morning set	12993 Feb 16 06:03	26°≈39'31		evening set	12995 Aug 16 17:41	15°P42'03	
	12993 Feb 18 23:05	0°K		inferior conj	12995 Aug 22 11:34	12°P19'37	2°47'22
	12993 Mar 15 06:10	0°Y		minimum elong	12995 Aug 22 17:51	12°P10'02	2°45'01
desc. node	12993 Mar 17 12:09	2°Y46'58		min. Earth dist.	12995 Aug 22 12:49	12°P17'42	0.27001 AU
max. Earth dist.	12993 Mar 23 19:03	10°Y33'57	1.72669 AU	morning rise	12995 Aug 28 18:12	8°P40'20	
				desc. node	12995 Sep 02 08:19	6°P32'07	
superior conj	12993 Mar 26 08:46	13°Y45'05	-0°21'17	direct	12995 Sep 12 04:45	4°P34'24	
minimum elong	12993 Mar 26 03:48	13°Y29'41	0°21'11	greatest brilliancy	12995 Sep 22 04:19	6°P25'20	-4.8m
	12993 Apr 08 11:16	0°B			12995 Oct 25 18:13	0°♄	
	12993 May 02 14:09	0°II		morning max el	12995 Oct 31 20:36	5°♄48'12	46°15'45
evening rise	12993 May 04 04:50	2°II00'28			12995 Nov 24 05:13	0°♌	
	12993 May 26 15:25	0°☾			12995 Dec 21 00:01	0°♊	
	12993 Jun 19 16:44	0°Ω		asc. node	12995 Dec 24 09:01	3°♊53'15	
asc. node	12993 Jul 08 03:03	22°Ω54'22			12996 Jan 15 16:07	0°♈	
	12993 Jul 13 20:28	0°P			12996 Feb 09 17:31	0°≈	
	12993 Aug 07 05:25	0°♄			12996 Mar 05 10:04	0°K	
	12993 Aug 31 23:54	0°♌			12996 Mar 29 20:48	0°Y	
	12993 Sep 26 12:25	0°♊		desc. node	12996 Apr 14 02:33	18°Y49'18	
	12993 Oct 23 15:31	0°♈			12996 Apr 23 02:59	0°B	
desc. node	12993 Oct 28 00:58	4°♈33'56		morning set	12996 Apr 28 18:32	7°B00'50	
evening max el	12993 Nov 05 03:02	12°♈39'48	46°04'48		12996 May 17 05:16	0°II	
	12993 Nov 24 17:55	0°≈		max. Earth dist.	12996 Jun 05 13:48	24°II12'49	1.71589 AU
greatest brilliancy	12993 Dec 14 10:52	11°≈30'25	-4.8m				
retrograde	12993 Dec 24 09:17	13°≈18'43		superior conj	12996 Jun 07 17:45	26°II55'36	-1°27'21
evening set	12994 Jan 10 18:19	7°≈36'31		minimum elong	12996 Jun 07 16:35	26°II51'55	1°28'20
inferior conj	12994 Jan 14 21:02	5°≈04'24	-7°10'06		12996 Jun 10 04:35	0°☾	
minimum elong	12994 Jan 15 06:48	4°≈49'03	7°07'33		12996 Jul 04 02:32	0°Ω	
min. Earth dist.	12994 Jan 15 05:49	4°≈50'36	0.28860 AU	evening rise	12996 Jul 17 23:14	17°Ω23'18	
morning rise	12994 Jan 19 19:09	2°≈03'23			12996 Jul 28 00:54	0°P	
	12994 Jan 23 15:00	30°R♄		asc. node	12996 Aug 04 16:34	9°P34'20	
direct	12994 Feb 05 05:50	26°♄50'09			12996 Aug 21 01:23	0°♄	
greatest brilliancy	12994 Feb 16 01:58	28°♄58'14	-4.8m		12996 Sep 14 05:45	0°♌	
asc. node	12994 Feb 18 03:30	29°♄48'26			12996 Oct 08 16:31	0°♊	
	12994 Feb 18 14:00	0°≈			12996 Nov 02 14:00	0°♈	
morning max el	12994 Mar 26 13:53	27°≈47'55	45°59'58	desc. node	12996 Nov 24 11:14	25°♈40'43	
	12994 Mar 28 19:16	0°K			12996 Nov 28 05:26	0°≈	
	12994 Apr 25 20:54	0°Y			12996 Dec 25 04:58	0°K	
	12994 May 21 20:01	0°B		evening max el	12997 Jan 15 07:40	21°K33'57	45°54'20
desc. node	12994 Jun 10 03:11	23°B04'40			12997 Jan 24 10:22	0°Y	
	12994 Jun 15 20:23	0°II		greatest brilliancy	12997 Feb 23 07:14	19°Y58'32	-4.8m
	12994 Jul 10 08:23	0°☾		retrograde	12997 Mar 05 07:18	21°Y47'58	
	12994 Aug 03 13:49	0°Ω		asc. node	12997 Mar 17 12:53	18°Y48'56	
	12994 Aug 27 16:30	0°P		evening set	12997 Mar 20 00:28	17°Y32'56	
	12994 Sep 20 18:39	0°♄		inferior conj	12997 Mar 26 08:23	13°Y46'01	2°11'40
morning set	12994 Sep 27 16:40	8°♄36'45		minimum elong	12997 Mar 26 03:30	13°Y53'39	2°10'01
asc. node	12994 Sep 30 19:22	12°♄29'14		min. Earth dist.	12997 Mar 26 11:50	13°Y40'38	0.28017 AU
	12994 Oct 14 21:10	0°♌		morning rise	12997 Apr 01 06:16	10°Y12'41	
				direct	12997 Apr 16 12:10	5°Y39'15	
superior conj	12994 Nov 04 22:55	26°♌11'20	1°12'09	greatest brilliancy	12997 Apr 26 22:48	7°Y41'45	-4.8m
minimum elong	12994 Nov 04 13:37	25°♌42'28	1°12'39		12997 May 28 11:02	0°B	
max. Earth dist.	12994 Nov 06 22:51	28°♌40'06	1.72592 AU	morning max el	12997 Jun 05 16:27	7°B57'55	46°43'23
	12994 Nov 08 00:36	0°♊			12997 Jun 26 11:56	0°II	
	12994 Dec 02 05:46	0°♈		desc. node	12997 Jul 07 14:49	12°II30'48	
evening rise	12994 Dec 12 00:01	12°♈03'14			12997 Jul 22 16:46	0°☾	
	12994 Dec 26 13:49	0°≈			12997 Aug 16 20:20	0°Ω	

	12997 Sep 10 12:51	0°♎		evening max el	13000 Mar 28 22:51	1°♊52'11	46°17'05
	12997 Oct 05 00:36	0°♏		asc. node	13000 Apr 14 22:00	17°♊22'06	
asc. node	12997 Oct 28 09:29	28°♏44'29			13000 May 03 17:57	0°♏	
	12997 Oct 29 10:00	0°♎		greatest brilliancy	13000 May 08 04:27	1°♏49'15	-4.8m
	12997 Nov 22 17:51	0°♏		retrograde	13000 May 17 16:49	3°♏31'30	
morning set	12997 Dec 07 04:56	17°♏51'37			13000 May 31 00:22	30°♏♊	
	12997 Dec 17 00:48	0°♏		evening set	13000 Jun 04 19:32	27°♊18'33	
	12998 Jan 10 07:46	0°♏		inferior conj	13000 Jun 07 11:10	25°♊40'47	9°10'20
				minimum elong	13000 Jun 07 09:18	25°♊43'42	9°09'18
superior conj	12998 Jan 12 23:03	3°♏15'13	1°11'43	min. Earth dist.	13000 Jun 07 18:05	25°♊30'04	0.27475 AU
minimum elong	12998 Jan 13 08:07	3°♏43'11	1°12'21	morning rise	13000 Jun 09 23:00	24°♊08'31	
max. Earth dist.	12998 Jan 13 20:45	4°♏22'11	1.73160 AU	direct	13000 Jun 28 06:55	17°♊43'35	
	12998 Feb 03 15:34	0°♏		greatest brilliancy	13000 Jul 08 06:56	19°♊36'10	-4.9m
desc. node	12998 Feb 16 23:40	16°♏25'39			13000 Jul 26 00:56	0°♏	
evening rise	12998 Feb 19 14:07	19°♏37'54		desc. node	13000 Aug 05 00:58	8°♏20'42	
	12998 Feb 28 00:11	0°♏		morning max el	13000 Aug 17 18:05	20°♏27'55	46°55'24
	12998 Mar 24 08:57	0°♏			13000 Aug 26 23:53	0°♏	
	12998 Apr 17 17:35	0°♊			13000 Sep 23 03:05	0°♎	
	12998 May 12 03:10	0°♏			13000 Oct 18 22:04	0°♏	
	12998 Jun 05 16:51	0°♏			13000 Nov 13 02:55	0°♎	
asc. node	12998 Jun 09 16:43	4°♏50'22		asc. node	13000 Nov 25 22:47	15°♎26'35	
	12998 Jun 30 16:10	0°♎			13000 Dec 07 23:26	0°♏	
	12998 Jul 26 11:44	0°♏			13001 Jan 01 14:12	0°♏	
	12998 Aug 23 08:26	0°♎			13001 Jan 26 01:12	0°♏	
evening max el	12998 Aug 23 16:41	0°♎20'42	46°36'48	morning set	13001 Feb 14 22:32	24°♏28'56	
desc. node	12998 Sep 29 17:32	29°♎28'02			13001 Feb 19 09:56	0°♏	
	12998 Sep 30 23:19	0°♏			13001 Mar 15 16:59	0°♏	
greatest brilliancy	12998 Oct 01 20:03	0°♏20'40	-4.8m	desc. node	13001 Mar 17 13:59	2°♏19'10	
retrograde	12998 Oct 12 20:00	2°♏33'56		max. Earth dist.	13001 Mar 22 14:04	8°♏30'43	1.72702 AU
	12998 Oct 24 04:00	30°♎♎					
evening set	12998 Oct 29 07:44	27°♎19'58		superior conj	13001 Mar 24 23:26	11°♏28'20	-0°17'49
min. Earth dist.	12998 Nov 02 06:04	24°♎57'11	0.28245 AU	minimum elong	13001 Mar 24 19:15	11°♏15'23	0°17'42
inferior conj	12998 Nov 03 02:48	24°♎24'58	-7°20'20		13001 Apr 08 22:07	0°♏	
minimum elong	12998 Nov 02 16:57	24°♎40'17	7°17'53	evening rise	13001 May 02 18:33	29°♏39'38	
morning rise	12998 Nov 07 02:35	21°♎59'09			13001 May 03 01:06	0°♊	
direct	12998 Nov 24 06:59	16°♎26'28			13001 May 27 02:32	0°♏	
greatest brilliancy	12998 Dec 03 19:02	18°♎05'11	-4.8m		13001 Jun 20 04:06	0°♏	
	12998 Dec 24 07:57	0°♏		asc. node	13001 Jul 08 05:01	22°♏24'34	
morning max el	12999 Jan 12 03:10	16°♏30'00	45°43'29		13001 Jul 14 08:10	0°♎	
asc. node	12999 Jan 20 19:50	25°♏07'32			13001 Aug 07 17:36	0°♏	
	12999 Jan 25 13:20	0°♏			13001 Sep 01 12:54	0°♎	
	12999 Feb 21 22:36	0°♏			13001 Sep 27 03:03	0°♏	
	12999 Mar 19 18:15	0°♏			13001 Oct 24 10:13	0°♏	
	12999 Apr 13 19:33	0°♏		desc. node	13001 Oct 28 02:53	3°♏48'24	
	12999 May 08 09:53	0°♏		evening max el	13001 Nov 03 17:46	10°♏24'44	46°05'50
desc. node	12999 May 12 16:19	5°♏14'59			13001 Nov 26 08:12	0°♏	
	12999 Jun 01 16:39	0°♊		greatest brilliancy	13001 Dec 13 01:19	9°♏17'31	-4.8m
	12999 Jun 25 18:14	0°♏		retrograde	13001 Dec 23 01:27	11°♏07'18	
morning set	12999 Jul 13 19:41	22°♏37'04		evening set	13002 Jan 09 12:53	5°♏20'17	
	12999 Jul 19 17:01	0°♏		inferior conj	13002 Jan 13 12:52	2°♏52'23	-7°21'45
	12999 Aug 12 15:11	0°♎		minimum elong	13002 Jan 13 22:22	2°♏37'28	7°19'17
				min. Earth dist.	13002 Jan 13 20:48	2°♏39'56	0.28879 AU
superior conj	12999 Aug 22 13:02	12°♎24'59	-0°25'50	morning rise	13002 Jan 18 07:45	29°♏56'22	
minimum elong	12999 Aug 22 19:23	12°♎44'50	0°25'55		13002 Jan 18 05:16	30°♏♏	
max. Earth dist.	12999 Aug 24 07:47	14°♎38'46	1.71622 AU	direct	13002 Feb 03 21:44	24°♏38'01	
asc. node	12999 Sep 02 06:44	25°♎51'17		greatest brilliancy	13002 Feb 14 17:19	26°♏45'51	-4.8m
	12999 Sep 05 14:17	0°♏		asc. node	13002 Feb 18 05:33	28°♏15'18	
	12999 Sep 29 15:14	0°♎			13002 Feb 21 14:55	0°♏	
evening rise	12999 Sep 30 15:04	1°♎14'13		morning max el	13002 Mar 25 06:13	25°♏36'07	45°58'50
	12999 Oct 23 19:05	0°♏			13002 Mar 29 16:10	0°♏	
	12999 Nov 17 03:35	0°♏			13002 Apr 26 12:16	0°♏	
	12999 Dec 11 19:06	0°♏			13002 May 22 09:19	0°♏	
desc. node	12999 Dec 22 22:53	13°♏25'52		desc. node	13002 Jun 10 05:15	22°♏33'05	
	13000 Jan 05 20:08	0°♏			13002 Jun 16 08:42	0°♊	
	13000 Jan 31 09:48	0°♏			13002 Jul 10 20:09	0°♏	
	13000 Feb 26 19:16	0°♏			13002 Aug 04 01:16	0°♏	
	13000 Mar 27 01:31	0°♊			13002 Aug 28 03:44	0°♎	

	13002 Sep 21 05:42	0°♄		inferior conj	13005 Mar 24 23:17	11°♑29'52	1°50'02
morning set	13002 Sep 26 06:47	6°♄17'00		minimum elong	13005 Mar 24 19:11	11°♑36'18	1°48'40
asc. node	13002 Sep 30 21:09	12°♄00'35		min. Earth dist.	13005 Mar 25 03:28	11°♑23'20	0.28042 AU
	13002 Oct 15 08:05	0°♍		morning rise	13005 Mar 30 22:56	7°♑53'38	
				direct	13005 Apr 15 03:15	3°♑22'52	
superior conj	13002 Nov 03 14:36	23°♍57'21	1°10'12	greatest brilliancy	13005 Apr 25 14:43	5°♑25'38	-4.8m
minimum elong	13002 Nov 03 04:59	23°♍27'27	1°10'39		13005 May 29 12:22	0°♒	
max. Earth dist.	13002 Nov 05 15:41	26°♍29'46	1.72562 AU	morning max el	13005 Jun 04 06:12	5°♒36'58	46°42'06
	13002 Nov 08 11:26	0°♓			13005 Jun 27 04:45	0°♒	
	13002 Dec 02 16:36	0°♓		desc. node	13005 Jul 07 16:46	11°♒52'27	
evening rise	13002 Dec 10 16:18	9°♓51'58			13005 Jul 23 06:49	0°♓	
	13002 Dec 27 00:47	0°♓			13005 Aug 17 09:01	0°♒	
desc. node	13003 Jan 20 11:42	29°♓56'31			13005 Sep 11 00:45	0°♑	
	13003 Jan 20 12:51	0°♑			13005 Oct 05 11:59	0°♄	
	13003 Feb 14 04:57	0°♑		asc. node	13005 Oct 28 11:21	28°♄16'08	
	13003 Mar 11 01:07	0°♒			13005 Oct 29 21:03	0°♍	
	13003 Apr 05 03:00	0°♒			13005 Nov 23 04:41	0°♓	
	13003 Apr 30 16:38	0°♓		morning set	13005 Dec 05 21:35	15°♓41'42	
asc. node	13003 May 13 07:47	14°♓25'16			13005 Dec 17 11:28	0°♓	
	13003 May 27 10:25	0°♒			13006 Jan 10 18:24	0°♓	
evening max el	13003 Jun 11 01:36	15°♒15'35	46°45'05				
	13003 Jun 26 20:08	0°♑		superior conj	13006 Jan 11 15:57	1°♓06'28	1°13'30
greatest brilliancy	13003 Jul 21 03:25	15°♑45'20	-4.9m	minimum elong	13006 Jan 12 00:41	1°♓33'25	1°14'10
retrograde	13003 Jul 31 08:00	17°♑42'09		max. Earth dist.	13006 Jan 12 13:54	2°♓14'11	1.73155 AU
evening set	13003 Aug 15 09:03	13°♑14'32			13006 Feb 04 02:15	0°♑	
inferior conj	13003 Aug 21 00:26	9°♑55'13	3°10'27	desc. node	13006 Feb 17 01:25	15°♑57'57	
minimum elong	13003 Aug 21 07:30	9°♑44'27	3°07'50	evening rise	13006 Feb 18 05:54	17°♑25'39	
min. Earth dist.	13003 Aug 21 02:25	9°♑52'11	0.26993 AU		13006 Feb 28 11:00	0°♑	
morning rise	13003 Aug 27 06:11	6°♑17'17			13006 Mar 24 20:00	0°♒	
desc. node	13003 Sep 02 10:17	3°♑34'27			13006 Apr 18 04:57	0°♒	
direct	13003 Sep 10 18:13	2°♑10'07			13006 May 12 14:59	0°♓	
greatest brilliancy	13003 Sep 20 16:54	4°♑00'44	-4.8m		13006 Jun 06 05:21	0°♒	
	13003 Oct 26 19:51	0°♄		asc. node	13006 Jun 09 18:44	4°♒18'14	
morning max el	13003 Oct 30 11:12	3°♄30'06	46°17'14		13006 Jul 01 05:50	0°♑	
	13003 Nov 24 22:06	0°♍			13006 Jul 27 03:42	0°♄	
	13003 Dec 21 13:55	0°♓		evening max el	13006 Aug 22 06:42	28°♄00'31	46°37'46
asc. node	13003 Dec 24 11:04	3°♓19'42			13006 Aug 24 06:44	0°♍	
	13004 Jan 16 04:36	0°♓		desc. node	13006 Sep 29 19:27	27°♍49'25	
	13004 Feb 10 05:14	0°♓		greatest brilliancy	13006 Sep 30 11:55	28°♍05'45	-4.8m
	13004 Mar 05 21:22	0°♑			13006 Oct 07 10:58	0°♓	
	13004 Mar 30 07:52	0°♑		retrograde	13006 Oct 11 10:53	0°♓18'34	
desc. node	13004 Apr 14 04:18	18°♑20'41			13006 Oct 15 09:10	30°♑♍	
	13004 Apr 23 13:57	0°♒		evening set	13006 Oct 27 19:22	25°♍10'13	
morning set	13004 Apr 27 07:15	4°♒37'12		min. Earth dist.	13006 Oct 31 21:11	22°♍42'37	0.28190 AU
	13004 May 17 16:11	0°♒		inferior conj	13006 Nov 01 17:50	22°♍10'31	-7°08'07
max. Earth dist.	13004 Jun 03 22:41	21°♒36'08	1.71608 AU	minimum elong	13006 Nov 01 07:43	22°♍26'16	7°05'33
				morning rise	13006 Nov 05 20:27	19°♍40'30	
superior conj	13004 Jun 06 05:57	24°♒29'14	-1°27'05	direct	13006 Nov 22 21:01	14°♍12'46	
minimum elong	13004 Jun 06 03:44	24°♒22'17	1°28'02	greatest brilliancy	13006 Dec 02 09:43	15°♍51'31	-4.8m
	13004 Jun 10 15:30	0°♓			13006 Dec 25 18:20	0°♓	
	13004 Jul 04 13:27	0°♒		morning max el	13007 Jan 10 16:47	14°♓13'19	45°43'50
evening rise	13004 Jul 16 10:51	14°♒54'57		asc. node	13007 Jan 20 21:46	24°♓23'29	
	13004 Jul 28 11:52	0°♑			13007 Jan 26 07:16	0°♓	
asc. node	13004 Aug 04 18:24	9°♑05'41			13007 Feb 22 12:43	0°♓	
	13004 Aug 21 12:30	0°♄			13007 Mar 20 06:47	0°♑	
	13004 Sep 14 17:05	0°♍			13007 Apr 14 07:18	0°♑	
	13004 Oct 09 04:16	0°♓			13007 May 08 21:12	0°♒	
	13004 Nov 03 02:28	0°♓		desc. node	13007 May 12 18:17	4°♒46'22	
desc. node	13004 Nov 24 13:14	25°♓07'17			13007 Jun 02 03:42	0°♒	
	13004 Nov 28 19:20	0°♓			13007 Jun 26 05:08	0°♓	
	13004 Dec 25 22:05	0°♑		morning set	13007 Jul 12 07:26	20°♓09'25	
evening max el	13005 Jan 13 22:55	19°♑20'44	45°54'01		13007 Jul 20 03:50	0°♒	
	13005 Jan 25 14:45	0°♑			13007 Aug 13 01:57	0°♑	
greatest brilliancy	13005 Feb 21 22:29	17°♑43'37	-4.8m				
retrograde	13005 Mar 03 21:26	19°♑31'56		superior conj	13007 Aug 21 01:40	10°♑00'39	-0°29'26
asc. node	13005 Mar 17 14:47	15°♑49'37		minimum elong	13007 Aug 21 08:49	10°♑23'02	0°29'31
evening set	13005 Mar 18 15:06	15°♑17'24		max. Earth dist.	13007 Aug 22 14:53	11°♑57'10	1.71595 AU

asc. node	13007 Sep 02 08:31	25° \cap 23'21		morning rise	13010 Jan 15 20:30	27° Z 51'22	
	13007 Sep 06 00:59	0° L		direct	13010 Feb 01 14:14	22° Z 28'12	
evening rise	13007 Sep 29 05:52	28° L 57'36		greatest brilliancy	13010 Feb 12 08:07	24° Z 34'51	-4.8m
	13007 Sep 30 01:55	0° \cap		asc. node	13010 Feb 17 07:27	26° Z 47'02	
	13007 Oct 24 05:49	0° Z			13010 Feb 22 22:14	0° \approx	
	13007 Nov 17 14:31	0° Z		morning max el	13010 Mar 22 22:48	23° \approx 26'32	45°57'28
	13007 Dec 12 06:26	0° \approx			13010 Mar 29 11:49	0° H	
desc. node	13007 Dec 23 00:51	12° \approx 57'03			13010 Apr 26 03:00	0° Y	
	13008 Jan 06 08:11	0° H			13010 May 21 22:11	0° B	
	13008 Jan 31 23:06	0° Y		desc. node	13010 Jun 09 07:10	22° B 02'08	
	13008 Feb 27 11:01	0° B			13010 Jun 15 20:39	0° \cap	
evening max el	13008 Mar 26 12:11	29° B 31'24	46°16'01		13010 Jul 10 07:35	0° G	
	13008 Mar 26 23:51	0° \cap			13010 Aug 03 12:21	0° Ω	
asc. node	13008 Apr 14 00:05	16° \cap 15'38			13010 Aug 27 14:34	0° \cap	
greatest brilliancy	13008 May 05 17:03	29° \cap 26'26	-4.8m		13010 Sep 20 16:20	0° L	
	13008 May 07 11:21	0° G		morning set	13010 Sep 23 20:49	3° L 58'07	
retrograde	13008 May 15 06:16	1° G 09'37		asc. node	13010 Sep 29 23:01	11° L 33'21	
	13008 May 22 19:05	30° R \cap			13010 Oct 14 18:36	0° \cap	
evening set	13008 Jun 02 06:28	24° \cap 59'39					
inferior conj	13008 Jun 05 00:39	23° \cap 18'14	9°07'39	superior conj	13010 Nov 01 06:16	21° \cap 44'19	1°08'08
minimum elong	13008 Jun 04 21:50	23° \cap 22'35	9°06'34	minimum elong	13010 Oct 31 20:23	21° \cap 13'39	1°08'33
min. Earth dist.	13008 Jun 05 06:58	23° \cap 08'27	0.27500 AU	max. Earth dist.	13010 Nov 03 09:28	24° \cap 23'23	1.72530 AU
morning rise	13008 Jun 07 13:07	21° \cap 45'06			13010 Nov 07 21:54	0° Z	
direct	13008 Jun 25 20:30	15° \cap 20'18			13010 Dec 02 03:04	0° Z	
greatest brilliancy	13008 Jul 05 20:45	17° \cap 13'26	-4.9m	evening rise	13010 Dec 08 08:46	7° Z 42'19	
	13008 Jul 26 15:13	0° G			13010 Dec 26 11:20	0° \approx	
desc. node	13008 Aug 04 02:54	7° G 19'46		desc. node	13011 Jan 19 13:30	29° \approx 29'16	
morning max el	13008 Aug 15 08:42	18° G 07'35	46°56'02		13011 Jan 19 23:35	0° H	
	13008 Aug 26 19:12	0° Ω			13011 Feb 13 16:04	0° Y	
	13008 Sep 22 18:05	0° \cap			13011 Mar 10 12:51	0° B	
	13008 Oct 18 11:07	0° L			13011 Apr 04 15:45	0° \cap	
	13008 Nov 12 14:51	0° \cap			13011 Apr 30 07:09	0° G	
asc. node	13008 Nov 25 00:47	14° \cap 57'44		asc. node	13011 May 12 09:47	13° G 46'12	
	13008 Dec 07 10:40	0° Z			13011 May 27 04:52	0° Ω	
	13009 Jan 01 01:01	0° Z		evening max el	13011 Jun 08 16:11	12° Ω 55'50	46°44'29
	13009 Jan 25 11:48	0° \approx			13011 Jun 27 05:55	0° \cap	
morning set	13009 Feb 12 15:20	22° \approx 20'21		greatest brilliancy	13011 Jul 18 17:41	13° \cap 22'32	-4.9m
	13009 Feb 18 20:27	0° H		retrograde	13011 Jul 28 21:17	15° \cap 17'55	
	13009 Mar 15 03:30	0° Y		evening set	13011 Aug 13 00:32	10° \cap 47'29	
desc. node	13009 Mar 16 15:48	1° Y 52'16		inferior conj	13011 Aug 18 13:13	7° \cap 31'28	3°33'12
max. Earth dist.	13009 Mar 20 09:26	6° Y 29'32	1.72738 AU	minimum elong	13011 Aug 18 21:01	7° \cap 19'34	3°30'21
				min. Earth dist.	13011 Aug 18 16:09	7° \cap 26'59	0.26985 AU
superior conj	13009 Mar 22 14:09	9° Y 12'41	-0°14'20	morning rise	13011 Aug 24 17:45	3° \cap 54'57	
minimum elong	13009 Mar 22 10:47	9° Y 02'15	0°14'13	desc. node	13011 Sep 01 12:16	0° \cap 42'33	
behind sun begin	13009 Mar 21 23:30	8° Y 27'21			13011 Sep 04 23:19	30° R Ω	
behind sun end	13009 Mar 22 22:03	9° Y 37'09		direct	13011 Sep 08 07:21	29° Ω 46'33	
	13009 Apr 08 08:41	0° B			13011 Sep 11 16:34	0° \cap	
evening rise	13009 Apr 30 08:14	27° B 19'35		greatest brilliancy	13011 Sep 18 05:34	1° \cap 36'48	-4.8m
	13009 May 02 11:46	0° \cap			13011 Oct 26 19:48	0° L	
	13009 May 26 13:22	0° G		morning max el	13011 Oct 28 00:51	1° L 10'36	46°18'43
	13009 Jun 19 15:11	0° Ω			13011 Nov 24 14:15	0° \cap	
asc. node	13009 Jul 07 06:53	21° Ω 55'22			13011 Dec 21 03:19	0° Z	
	13009 Jul 13 19:34	0° \cap		asc. node	13011 Dec 23 12:52	2° Z 46'40	
	13009 Aug 07 05:30	0° L			13012 Jan 15 16:38	0° Z	
	13009 Sep 01 01:41	0° \cap			13012 Feb 09 16:31	0° \approx	
	13009 Sep 26 17:32	0° Z			13012 Mar 05 08:12	0° H	
	13009 Oct 24 04:59	0° Z			13012 Mar 29 18:29	0° Y	
desc. node	13009 Oct 27 05:00	3° Z 03'50		desc. node	13012 Apr 13 06:17	17° Y 54'04	
evening max el	13009 Nov 01 09:39	8° Z 13'40	46°06'59		13012 Apr 23 00:30	0° B	
	13009 Nov 27 02:29	0° \approx		morning set	13012 Apr 24 20:16	2° B 15'54	
greatest brilliancy	13009 Dec 10 15:49	7° \approx 06'30	-4.8m		13012 May 17 02:44	0° \cap	
retrograde	13009 Dec 20 17:56	8° \approx 57'43		max. Earth dist.	13012 Jun 01 05:09	18° \cap 53'04	1.71639 AU
evening set	13010 Jan 07 07:38	3° \approx 06'16					
inferior conj	13010 Jan 11 04:53	0° \approx 42'22	-7°32'34	superior conj	13012 Jun 03 18:10	22° \cap 04'04	-1°26'38
minimum elong	13010 Jan 11 14:05	0° \approx 27'57	7°30'14	minimum elong	13012 Jun 03 14:56	21° \cap 53'56	1°27'35
min. Earth dist.	13010 Jan 11 11:40	0° \approx 31'44	0.28892 AU		13012 Jun 10 02:05	0° G	
	13010 Jan 12 07:57	30° R Z			13012 Jul 04 00:05	0° Ω	

evening rise	13012 Jul 13 22:01	12°Ω25'59			13015 Feb 22 02:37	0°≈	
	13012 Jul 27 22:35	0°♐			13015 Mar 19 19:11	0°♐	
asc. node	13012 Aug 03 20:10	8°♐37'35			13015 Apr 13 18:55	0°♐	
	13012 Aug 20 23:22	0°♐			13015 May 08 08:22	0°♐	
	13012 Sep 14 04:12	0°♐		desc. node	13015 May 11 20:10	4°♐17'54	
	13012 Oct 08 15:46	0°♐			13015 Jun 01 14:36	0°♐	
	13012 Nov 02 14:44	0°♐			13015 Jun 25 15:53	0°♐	
desc. node	13012 Nov 23 15:12	24°♐34'22		morning set	13015 Jul 09 19:28	17°♐43'09	
	13012 Nov 28 09:04	0°≈			13015 Jul 19 14:30	0°♐	
	13012 Dec 25 15:14	0°♐			13015 Aug 12 12:35	0°♐	
evening max el	13013 Jan 11 13:32	17°♐06'58 45°53'51					
	13013 Jan 25 20:35	0°♐		superior conj	13015 Aug 18 14:17	7°♐36'32 -0°32'58	
greatest brilliancy	13013 Feb 19 14:08	15°♐30'41 -4.8m		minimum elong	13015 Aug 18 22:12	8°♐01'20 0°33'04	
retrograde	13013 Mar 01 11:37	17°♐17'59		max. Earth dist.	13015 Aug 19 23:54	9°♐21'50 1.71577 AU	
evening set	13013 Mar 16 06:06	13°♐03'21		asc. node	13015 Sep 01 10:27	24°♐56'09	
asc. node	13013 Mar 16 16:50	12°♐48'41			13015 Sep 05 11:38	0°♐	
inferior conj	13013 Mar 22 14:26	9°♐15'48 1°28'26		evening rise	13015 Sep 26 20:26	26°♐40'15	
minimum elong	13013 Mar 22 11:07	9°♐21'00 1°27'21			13015 Sep 29 12:36	0°♐	
min. Earth dist.	13013 Mar 22 19:32	9°♐07'48 0.28064 AU			13015 Oct 23 16:36	0°♐	
morning rise	13013 Mar 28 15:41	5°♐36'57			13015 Nov 17 01:31	0°♐	
direct	13013 Apr 12 18:05	1°♐08'25			13015 Dec 11 17:51	0°≈	
greatest brilliancy	13013 Apr 23 07:17	3°♐12'10 -4.8m		desc. node	13015 Dec 22 02:39	12°≈27'31	
	13013 May 29 11:54	0°♐			13016 Jan 05 20:21	0°♐	
morning max el	13013 Jun 01 19:45	3°♐16'55 46°40'42			13016 Jan 31 12:34	0°♐	
	13013 Jun 26 20:50	0°♐			13016 Feb 27 03:07	0°♐	
desc. node	13013 Jul 06 18:41	11°♐15'19		evening max el	13016 Mar 24 02:31	27°♐13'10 46°15'02	
	13013 Jul 22 20:24	0°♐			13016 Mar 26 23:12	0°♐	
	13013 Aug 16 21:24	0°♐		asc. node	13016 Apr 13 02:09	15°♐07'10	
	13013 Sep 10 12:26	0°♐		greatest brilliancy	13016 May 03 05:14	27°♐03'23 -4.8m	
	13013 Oct 04 23:11	0°♐		retrograde	13016 May 12 20:09	28°♐47'54	
asc. node	13013 Oct 27 13:19	27°♐48'41		evening set	13016 May 30 17:03	22°♐41'41	
	13013 Oct 29 07:54	0°♐		inferior conj	13016 Jun 02 14:09	20°♐55'53 9°04'02	
	13013 Nov 22 15:17	0°♐		minimum elong	13016 Jun 02 10:26	21°♐01'39 9°02'53	
morning set	13013 Dec 03 13:54	13°♐31'18		min. Earth dist.	13016 Jun 02 19:31	20°♐47'36 0.27519 AU	
	13013 Dec 16 21:56	0°♐		morning rise	13016 Jun 05 03:45	19°♐21'10	
				direct	13016 Jun 23 10:38	12°♐57'36	
superior conj	13014 Jan 09 08:46	28°♐58'05 1°15'11		greatest brilliancy	13016 Jul 03 09:55	14°♐50'27 -4.9m	
minimum elong	13014 Jan 09 17:08	29°♐23'53 1°15'54			13016 Jul 27 01:40	0°♐	
	13014 Jan 10 04:50	0°≈		desc. node	13016 Aug 03 04:54	6°♐20'44	
max. Earth dist.	13014 Jan 10 06:19	0°≈04'34 1.73149 AU		morning max el	13016 Aug 12 23:48	15°♐48'55 46°56'35	
	13014 Feb 03 12:44	0°♐			13016 Aug 26 13:53	0°♐	
evening rise	13014 Feb 15 21:49	15°♐14'26			13016 Sep 22 08:50	0°♐	
desc. node	13014 Feb 16 03:17	15°♐31'15			13016 Oct 18 00:06	0°♐	
	13014 Feb 27 21:38	0°♐			13016 Nov 12 02:49	0°♐	
	13014 Mar 24 06:50	0°♐		asc. node	13016 Nov 24 02:35	14°♐27'54	
	13014 Apr 17 16:03	0°♐			13016 Dec 06 22:02	0°♐	
	13014 May 12 02:33	0°♐			13016 Dec 31 12:00	0°♐	
	13014 Jun 05 17:39	0°♐			13017 Jan 24 22:34	0°≈	
asc. node	13014 Jun 08 20:36	3°♐46'23		morning set	13017 Feb 10 07:51	20°≈10'29	
	13014 Jun 30 19:24	0°♐			13017 Feb 18 07:07	0°♐	
	13014 Jul 26 19:48	0°♐			13017 Mar 14 14:09	0°♐	
evening max el	13014 Aug 19 20:20	25°♐39'20 46°38'32		desc. node	13017 Mar 15 17:42	1°♐25'10	
	13014 Aug 24 06:01	0°♐		max. Earth dist.	13017 Mar 18 04:08	4°♐25'53 1.72769 AU	
greatest brilliancy	13014 Sep 28 03:03	25°♐49'00 -4.8m					
desc. node	13014 Sep 28 21:36	26°♐06'25		superior conj	13017 Mar 20 04:40	6°♐56'02 -0°10'48	
retrograde	13014 Oct 09 01:36	28°♐02'05		minimum elong	13017 Mar 20 02:07	6°♐48'10 0°10'42	
evening set	13014 Oct 25 06:33	22°♐58'57		behind sun begin	13017 Mar 19 07:59	5°♐52'01	
min. Earth dist.	13014 Oct 29 11:54	20°♐26'43 0.28137 AU		behind sun end	13017 Mar 20 20:16	7°♐44'19	
inferior conj	13014 Oct 30 08:28	19°♐54'49 -6°54'59			13017 Apr 07 19:24	0°♐	
minimum elong	13014 Oct 29 22:06	20°♐10'54 6°52'17		evening rise	13017 Apr 27 21:52	24°♐58'56	
morning rise	13014 Nov 03 14:01	17°♐20'39			13017 May 01 22:37	0°♐	
direct	13014 Nov 20 10:31	11°♐57'35			13017 May 26 00:23	0°♐	
greatest brilliancy	13014 Nov 30 00:14	13°♐36'56 -4.8m			13017 Jun 19 02:24	0°♐	
	13014 Dec 26 01:59	0°♐		asc. node	13017 Jul 06 08:42	21°♐25'41	
morning max el	13015 Jan 08 06:49	11°♐57'37 45°44'21			13017 Jul 13 07:05	0°♐	
asc. node	13015 Jan 19 23:45	23°♐40'13			13017 Aug 06 17:32	0°♐	
	13015 Jan 26 00:45	0°♐			13017 Aug 31 14:36	0°♐	

	13017 Sep 26 08:19	0°♊			13020 Mar 04 19:26	0°♋		
	13017 Oct 24 00:32	0°♌			13020 Mar 29 05:31	0°♍		
desc. node	13017 Oct 26 06:56	2°♌17'30		desc. node	13020 Apr 12 08:06	17°♍25'41		
evening max el	13017 Oct 30 01:55	6°♌02'49	46°07'50	morning set	13020 Apr 22 09:04	29°♍52'35		
	13017 Nov 28 04:15	0°♎			13020 Apr 22 11:27	0°♎		
greatest brilliancy	13017 Dec 08 06:28	4°♎54'29	-4.8m		13020 May 16 13:40	0°♏		
retrograde	13017 Dec 18 09:57	6°♎46'30		max. Earth dist.	13020 May 29 11:37	16°♏08'53	1.71671 AU	
evening set	13018 Jan 05 02:07	0°♏51'01						
	13018 Jan 06 11:37	30°♏♌		superior conj	13020 Jun 01 06:12	19°♏37'17	-1°26'01	
inferior conj	13018 Jan 08 20:43	28°♌30'53	-7°42'45	minimum elong	13020 Jun 01 02:00	19°♏24'07	1°26'57	
minimum elong	13018 Jan 09 05:32	28°♌17'03	7°40'34		13020 Jun 09 13:02	0°♐		
min. Earth dist.	13018 Jan 09 02:21	28°♌22'02	0.28905 AU		13020 Jul 03 11:05	0°♑		
morning rise	13018 Jan 13 08:58	25°♌44'50		evening rise	13020 Jul 11 09:07	9°♑55'39		
direct	13018 Jan 30 06:45	20°♌17'01			13020 Jul 27 09:42	0°♒		
greatest brilliancy	13018 Feb 09 22:29	22°♌21'56	-4.8m	asc. node	13020 Aug 02 22:08	8°♒08'56		
asc. node	13018 Feb 16 09:31	25°♌20'33			13020 Aug 20 10:37	0°♓		
	13018 Feb 23 21:16	0°♓			13020 Sep 13 15:41	0°♓		
morning max el	13018 Mar 20 14:36	21°♓14'00	45°56'09		13020 Oct 08 03:39	0°♊		
	13018 Mar 29 07:15	0°♋			13020 Nov 02 03:21	0°♌		
	13018 Apr 25 17:50	0°♍		desc. node	13020 Nov 22 17:05	24°♌00'14		
	13018 May 21 11:13	0°♎			13020 Nov 27 23:14	0°♎		
desc. node	13018 Jun 08 08:58	21°♎30'11			13020 Dec 25 09:06	0°♋		
	13018 Jun 15 08:47	0°♏		evening max el	13021 Jan 09 03:25	14°♋50'42	45°53'36	
	13018 Jul 09 19:13	0°♐			13021 Jan 26 05:22	0°♍		
	13018 Aug 02 23:39	0°♑		greatest brilliancy	13021 Feb 17 05:21	13°♍16'02	-4.8m	
	13018 Aug 27 01:36	0°♒		retrograde	13021 Feb 27 01:49	15°♍02'57		
	13018 Sep 20 03:10	0°♓		evening set	13021 Mar 13 21:12	10°♍47'31		
morning set	13018 Sep 21 11:13	1°♓39'48		asc. node	13021 Mar 15 18:53	9°♍43'13		
asc. node	13018 Sep 29 00:54	11°♓05'37		inferior conj	13021 Mar 20 05:32	7°♍00'19	1°06'42	
	13018 Oct 14 05:19	0°♔		minimum elong	13021 Mar 20 03:01	7°♍04'16	1°05'54	
				min. Earth dist.	13021 Mar 20 11:34	6°♍50'52	0.28096 AU	
superior conj	13018 Oct 29 22:11	19°♔31'31	1°05'59	morning rise	13021 Mar 26 08:17	3°♍19'14		
minimum elong	13018 Oct 29 12:08	19°♔00'19	1°06'21		13021 Apr 02 22:01	30°♎♋		
max. Earth dist.	13018 Nov 01 04:20	22°♔19'46	1.72498 AU	direct	13021 Apr 10 08:55	28°♋52'16		
	13018 Nov 07 08:34	0°♊			13021 Apr 18 02:20	0°♍		
	13018 Dec 01 13:47	0°♌		greatest brilliancy	13021 Apr 21 00:19	0°♍57'48	-4.8m	
evening rise	13018 Dec 06 01:19	5°♌32'09			13021 May 29 11:00	0°♎		
	13018 Dec 25 22:10	0°♎		morning max el	13021 May 30 09:49	0°♎56'41	46°39'23	
desc. node	13019 Jan 18 15:24	29°♎01'13			13021 Jun 26 13:07	0°♏		
	13019 Jan 19 10:41	0°♋		desc. node	13021 Jul 05 20:42	10°♏37'28		
	13019 Feb 13 03:35	0°♍			13021 Jul 22 10:16	0°♐		
	13019 Mar 10 01:02	0°♎			13021 Aug 16 10:05	0°♑		
	13019 Apr 04 04:57	0°♏			13021 Sep 10 00:25	0°♒		
	13019 Apr 29 22:14	0°♐			13021 Oct 04 10:43	0°♓		
asc. node	13019 May 11 11:40	13°♐05'18		asc. node	13021 Oct 26 15:03	27°♓19'32		
	13019 May 27 00:14	0°♑			13021 Oct 28 19:05	0°♔		
evening max el	13019 Jun 06 05:56	10°♑32'55	46°43'51		13021 Nov 22 02:12	0°♊		
	13019 Jun 27 19:41	0°♒		morning set	13021 Dec 01 06:27	11°♊20'36		
greatest brilliancy	13019 Jul 16 08:30	10°♒59'19	-4.9m		13021 Dec 16 08:41	0°♌		
retrograde	13019 Jul 26 10:01	12°♒52'39						
evening set	13019 Aug 10 16:10	8°♒19'12		superior conj	13022 Jan 07 01:56	26°♒49'56	1°16'43	
inferior conj	13019 Aug 16 02:03	5°♒06'52	3°55'30	minimum elong	13022 Jan 07 09:54	27°♒14'30	1°17'29	
minimum elong	13019 Aug 16 10:30	4°♒53'57	3°52'29	max. Earth dist.	13022 Jan 08 00:25	27°♒59'20	1.73142 AU	
min. Earth dist.	13019 Aug 16 06:15	5°♒00'27	0.26976 AU		13022 Jan 09 15:32	0°♓		
morning rise	13019 Aug 22 05:01	1°♒31'56			13022 Feb 02 23:30	0°♋		
	13019 Aug 25 07:53	30°♒♑		evening rise	13022 Feb 13 14:05	13°♋03'32		
desc. node	13019 Aug 31 14:22	27°♑55'06		desc. node	13022 Feb 15 05:13	15°♋03'54		
direct	13019 Sep 05 20:01	27°♑21'59			13022 Feb 27 08:34	0°♍		
greatest brilliancy	13019 Sep 15 18:48	29°♑12'27	-4.8m		13022 Mar 23 18:01	0°♎		
	13019 Sep 17 20:04	0°♒			13022 Apr 17 03:35	0°♏		
morning max el	13019 Oct 25 13:39	28°♒48'02	46°20'24		13022 May 11 14:35	0°♐		
	13019 Oct 26 18:59	0°♓			13022 Jun 05 06:27	0°♑		
	13019 Nov 24 06:22	0°♔		asc. node	13022 Jun 07 22:30	3°♑13'10		
	13019 Dec 20 16:50	0°♊			13022 Jun 30 09:32	0°♒		
asc. node	13019 Dec 22 14:51	2°♊13'34			13022 Jul 26 12:37	0°♓		
	13020 Jan 15 04:54	0°♌		evening max el	13022 Aug 17 10:18	23°♓18'00	46°39'26	
	13020 Feb 09 04:06	0°♎			13022 Aug 24 06:52	0°♔		

greatest brilliancy	13022 Sep 25 17:35	23° \mathbb{M} 30'28	-4.8m	superior conj	13025 Mar 17 19:44	4° Υ 41'10	-0°07'19
desc. node	13022 Sep 27 23:31	24° \mathbb{M} 18'14		minimum elong	13025 Mar 17 18:01	4° Υ 35'52	0°07'12
retrograde	13022 Oct 06 16:43	25° \mathbb{M} 44'35		behind sun begin	13025 Mar 16 20:21	3° Υ 28'48	
evening set	13022 Oct 22 17:49	20° \mathbb{M} 46'16		behind sun end	13025 Mar 18 15:42	5° Υ 42'57	
min. Earth dist.	13022 Oct 27 02:20	18° \mathbb{M} 09'57	0.28082 AU		13025 Apr 07 06:06	0° \mathcal{B}	
inferior conj	13022 Oct 27 23:02	17° \mathbb{M} 37'57	-6°41'10	evening rise	13025 Apr 25 11:58	22° \mathcal{B} 39'55	
minimum elong	13022 Oct 27 12:31	17° \mathbb{M} 54'13	6°38'21		13025 May 01 09:26	0° \mathbb{I}	
morning rise	13022 Nov 01 07:36	14° \mathbb{M} 59'46			13025 May 25 11:24	0° \mathcal{E}	
direct	13022 Nov 18 00:21	9° \mathbb{M} 41'14			13025 Jun 18 13:41	0° \mathcal{O}	
greatest brilliancy	13022 Nov 27 14:28	11° \mathbb{M} 21'08	-4.8m	asc. node	13025 Jul 05 10:41	20° \mathcal{O} 56'12	
	13022 Dec 26 07:39	0° \mathcal{A}			13025 Jul 12 18:44	0° \mathbb{M}	
morning max el	13023 Jan 05 21:47	9° \mathcal{A} 43'30	45°45'04		13025 Aug 06 05:43	0° \mathcal{A}	
asc. node	13023 Jan 19 01:45	22° \mathcal{A} 56'54			13025 Aug 31 03:46	0° \mathbb{M}	
	13023 Jan 25 18:03	0° \mathcal{B}			13025 Sep 25 23:25	0° \mathcal{A}	
	13023 Feb 21 16:34	0° \approx			13025 Oct 23 20:47	0° \mathcal{B}	
	13023 Mar 19 07:41	0° \mathcal{H}		desc. node	13025 Oct 25 08:51	1° \mathcal{B} 30'10	
	13023 Apr 13 06:42	0° Υ		evening max el	13025 Oct 27 17:40	3° \mathcal{B} 50'21	46°08'50
	13023 May 07 19:47	0° \mathcal{B}			13025 Nov 29 16:58	0° \approx	
desc. node	13023 May 10 21:57	3° \mathcal{B} 48'20		greatest brilliancy	13025 Dec 05 21:45	2° \approx 43'17	-4.8m
	13023 Jun 01 01:48	0° \mathbb{I}		retrograde	13025 Dec 16 01:39	4° \approx 35'26	
	13023 Jun 25 02:57	0° \mathcal{E}			13025 Dec 31 11:06	30° \mathcal{R} \mathcal{B}	
morning set	13023 Jul 07 07:07	15° \mathcal{E} 14'36		evening set	13026 Jan 02 20:39	28° \mathcal{B} 36'14	
	13023 Jul 19 01:30	0° \mathcal{O}		inferior conj	13026 Jan 06 12:38	26° \mathcal{B} 19'47	-7°52'23
	13023 Aug 11 23:32	0° \mathbb{M}		minimum elong	13026 Jan 06 20:59	26° \mathcal{B} 06'38	7°50'20
				min. Earth dist.	13026 Jan 06 17:17	26° \mathcal{B} 12'28	0.28911 AU
superior conj	13023 Aug 16 02:27	5° \mathbb{M} 10'02	-0°36'29	morning rise	13026 Jan 10 21:23	23° \mathcal{B} 38'39	
minimum elong	13023 Aug 16 11:05	5° \mathbb{M} 37'06	0°36'36	direct	13026 Jan 27 23:00	18° \mathcal{B} 06'21	
max. Earth dist.	13023 Aug 17 10:52	6° \mathbb{M} 51'37	1.71557 AU	greatest brilliancy	13026 Feb 07 13:00	20° \mathcal{B} 09'28	-4.8m
asc. node	13023 Aug 31 12:15	24° \mathbb{M} 27'40		asc. node	13026 Feb 15 11:31	23° \mathcal{B} 57'03	
	13023 Sep 04 22:32	0° \mathcal{A}			13026 Feb 24 14:00	0° \approx	
evening rise	13023 Sep 24 10:46	24° \mathcal{A} 21'27		morning max el	13026 Mar 18 05:38	19° \approx 00'03	45°55'01
	13023 Sep 28 23:31	0° \mathbb{M}			13026 Mar 29 01:57	0° \mathcal{H}	
	13023 Oct 23 03:37	0° \mathcal{A}			13026 Apr 25 08:16	0° Υ	
	13023 Nov 16 12:46	0° \mathcal{B}			13026 May 20 23:57	0° \mathcal{B}	
	13023 Dec 11 05:31	0° \approx		desc. node	13026 Jun 07 10:59	20° \mathcal{B} 59'37	
desc. node	13023 Dec 21 04:37	11° \approx 57'52			13026 Jun 14 20:40	0° \mathbb{I}	
	13024 Jan 05 08:43	0° \mathcal{H}			13026 Jul 09 06:38	0° \mathcal{E}	
	13024 Jan 31 02:15	0° Υ			13026 Aug 02 10:47	0° \mathcal{O}	
	13024 Feb 26 19:33	0° \mathcal{B}			13026 Aug 26 12:32	0° \mathbb{M}	
evening max el	13024 Mar 21 17:27	24° \mathcal{B} 56'22	46°13'55	morning set	13026 Sep 19 01:09	29° \mathbb{M} 20'08	
	13024 Mar 26 23:44	0° \mathbb{I}			13026 Sep 19 13:57	0° \mathcal{A}	
asc. node	13024 Apr 12 03:59	13° \mathbb{I} 56'03		asc. node	13026 Sep 28 02:40	10° \mathcal{A} 37'41	
greatest brilliancy	13024 Apr 30 17:15	24° \mathbb{I} 40'07	-4.8m		13026 Oct 13 15:59	0° \mathbb{M}	
retrograde	13024 May 10 10:00	26° \mathbb{I} 25'44					
evening set	13024 May 28 03:15	20° \mathbb{I} 24'06		superior conj	13026 Oct 27 13:35	17° \mathbb{M} 17'15	1°03'42
inferior conj	13024 May 31 03:41	18° \mathbb{I} 33'07	8°59'28	minimum elong	13026 Oct 27 03:25	16° \mathbb{M} 45'39	1°04'00
minimum elong	13024 May 30 23:05	18° \mathbb{I} 40'15	8°58'13	max. Earth dist.	13026 Oct 29 20:56	20° \mathbb{M} 09'15	1.72462 AU
min. Earth dist.	13024 May 31 07:59	18° \mathbb{I} 26'28	0.27543 AU		13026 Nov 06 19:10	0° \mathcal{A}	
morning rise	13024 Jun 02 18:53	16° \mathbb{I} 55'58			13026 Dec 01 00:23	0° \mathcal{B}	
direct	13024 Jun 21 01:05	10° \mathbb{I} 34'36		evening rise	13026 Dec 03 17:26	3° \mathcal{B} 20'56	
greatest brilliancy	13024 Jun 30 23:00	12° \mathbb{I} 26'34	-4.9m		13026 Dec 25 08:53	0° \approx	
	13024 Jul 27 09:41	0° \mathcal{E}		desc. node	13027 Jan 17 17:19	28° \approx 33'46	
desc. node	13024 Aug 02 06:56	5° \mathcal{E} 22'11			13027 Jan 18 21:38	0° \mathcal{H}	
morning max el	13024 Aug 10 14:35	13° \mathcal{E} 28'35	46°56'55		13027 Feb 12 14:57	0° Υ	
	13024 Aug 26 08:25	0° \mathcal{O}			13027 Mar 09 13:02	0° \mathcal{B}	
	13024 Sep 21 23:39	0° \mathbb{M}			13027 Apr 03 18:00	0° \mathbb{I}	
	13024 Oct 17 13:10	0° \mathcal{A}			13027 Apr 29 13:12	0° \mathcal{E}	
	13024 Nov 11 14:53	0° \mathbb{M}		asc. node	13027 May 10 13:42	12° \mathcal{E} 25'26	
asc. node	13024 Nov 23 04:28	13° \mathbb{M} 58'06			13027 May 26 19:45	0° \mathcal{O}	
	13024 Dec 06 09:27	0° \mathcal{A}		evening max el	13027 Jun 03 18:40	8° \mathcal{O} 08'39	46°43'10
	13024 Dec 30 23:03	0° \mathcal{B}			13027 Jun 28 13:22	0° \mathbb{M}	
	13025 Jan 24 09:23	0° \approx		greatest brilliancy	13027 Jul 13 23:23	8° \mathbb{M} 37'26	-4.9m
morning set	13025 Feb 08 00:44	18° \approx 01'39		retrograde	13027 Jul 23 22:24	10° \mathbb{M} 28'52	
	13025 Feb 17 17:48	0° \mathcal{H}		evening set	13027 Aug 08 07:58	5° \mathbb{M} 51'51	
	13025 Mar 14 00:48	0° Υ		inferior conj	13027 Aug 13 14:59	2° \mathbb{M} 43'33	4°17'16
desc. node	13025 Mar 14 19:30	0° Υ 57'48		minimum elong	13027 Aug 14 00:02	2° \mathbb{M} 29'42	4°14'06
max. Earth dist.	13025 Mar 15 21:45	2° Υ 18'57	1.72795 AU	min. Earth dist.	13027 Aug 13 20:34	2° \mathbb{M} 35'00	0.26978 AU

	13027 Aug 18 04:26	30° κ Ω			13030 Feb 02 09:56	0° H		
morning rise	13027 Aug 19 16:10	29° Ω 10'33		evening rise	13030 Feb 11 05:58	10° H 52'31		
desc. node	13027 Aug 30 16:17	25° Ω 14'34		desc. node	13030 Feb 14 06:57	14° H 36'59		
direct	13027 Sep 03 08:26	24° Ω 58'20			13030 Feb 26 19:09	0° Υ		
greatest brilliancy	13027 Sep 13 08:41	26° Ω 49'44 -4.8m			13030 Mar 23 04:50	0° B		
	13027 Sep 20 08:00	0° M			13030 Apr 16 14:45	0° Π		
morning max el	13027 Oct 23 02:23	26° M 25'36 46°21'57			13030 May 11 02:15	0° G		
	13027 Oct 26 17:01	0° A			13030 Jun 04 18:55	0° Ω		
	13027 Nov 23 22:03	0° M		asc. node	13030 Jun 07 00:30	2° Ω 41'23		
	13027 Dec 20 06:04	0° A			13030 Jun 29 23:20	0° M		
asc. node	13027 Dec 21 16:52	1° A 41'14			13030 Jul 26 05:14	0° A		
	13028 Jan 14 16:52	0° B		evening max el	13030 Aug 15 01:17	21° A 00'52 46°40'25		
	13028 Feb 08 15:22	0° \approx			13030 Aug 24 08:20	0° M		
	13028 Mar 04 06:18	0° H		greatest brilliancy	13030 Sep 23 07:43	21° M 13'18 -4.8m		
	13028 Mar 28 16:13	0° Υ		desc. node	13030 Sep 27 01:27	22° M 27'46		
desc. node	13028 Apr 11 09:51	16° Υ 58'13		retrograde	13030 Oct 04 08:19	23° M 28'50		
morning set	13028 Apr 19 22:05	27° Υ 31'06		evening set	13030 Oct 20 05:20	18° M 35'08		
	13028 Apr 21 22:03	0° B		min. Earth dist.	13030 Oct 24 16:31	15° M 55'18 0.28028 AU		
	13028 May 16 00:15	0° Π		inferior conj	13030 Oct 25 13:40	15° M 22'42 -6°26'36		
max. Earth dist.	13028 May 26 20:19	13° Π 32'53 1.71701 AU		minimum elong	13030 Oct 25 03:05	15° M 39'02 6°23'42		
				morning rise	13030 Oct 30 01:16	12° M 40'35		
superior conj	13028 May 29 18:39	17° Π 12'59 -1°25'16		direct	13030 Nov 15 14:51	7° M 26'40		
minimum elong	13028 May 29 13:31	16° Π 56'53 1°26'09		greatest brilliancy	13030 Nov 25 04:13	9° M 06'29 -4.8m		
	13028 Jun 08 23:36	0° G			13030 Dec 26 10:47	0° A		
	13028 Jul 02 21:41	0° Ω		morning max el	13031 Jan 03 13:13	7° A 31'53 45°45'31		
evening rise	13028 Jul 08 20:42	7° Ω 28'17		asc. node	13031 Jan 18 03:42	22° A 15'08		
	13028 Jul 26 20:22	0° M			13031 Jan 25 10:35	0° B		
asc. node	13028 Aug 01 23:57	7° M 41'12			13031 Feb 21 06:03	0° \approx		
	13028 Aug 19 21:28	0° A			13031 Mar 18 19:49	0° H		
	13028 Sep 13 02:47	0° M			13031 Apr 12 18:08	0° Υ		
	13028 Oct 07 15:12	0° A			13031 May 07 06:48	0° B		
	13028 Nov 01 15:45	0° B		desc. node	13031 May 09 23:56	3° B 20'35		
desc. node	13028 Nov 21 19:05	23° B 26'58			13031 May 31 12:36	0° Π		
	13028 Nov 27 13:17	0° \approx			13031 Jun 24 13:38	0° G		
	13028 Dec 25 03:09	0° H		morning set	13031 Jul 04 18:45	12° G 47'21		
evening max el	13029 Jan 06 17:28	12° H 35'40 45°53'35			13031 Jul 18 12:07	0° Ω		
	13029 Jan 26 16:50	0° Υ			13031 Aug 11 10:06	0° M		
greatest brilliancy	13029 Feb 14 20:03	11° Υ 01'54 -4.8m						
retrograde	13029 Feb 24 16:35	12° Υ 49'11		superior conj	13031 Aug 13 14:40	2° M 44'47 -0°39'57		
evening set	13029 Mar 11 12:30	8° Υ 32'32		minimum elong	13031 Aug 13 23:58	3° M 13'55 0°40'04		
asc. node	13029 Mar 14 20:46	6° Υ 36'51		max. Earth dist.	13031 Aug 14 23:01	4° M 26'09 1.71535 AU		
inferior conj	13029 Mar 17 20:36	4° Υ 45'53 0°44'55		asc. node	13031 Aug 30 14:02	24° M 00'20		
minimum elong	13029 Mar 17 18:54	4° Υ 48'33 0°44'23			13031 Sep 04 09:04	0° A		
min. Earth dist.	13029 Mar 18 03:15	4° Υ 35'29 0.28125 AU		evening rise	13031 Sep 22 01:12	22° A 04'02		
morning rise	13029 Mar 24 00:44	1° Υ 03'07			13031 Sep 28 10:02	0° M		
	13029 Mar 26 00:35	30° κ H			13031 Oct 22 14:14	0° A		
direct	13029 Apr 07 23:58	26° H 37'15			13031 Nov 15 23:37	0° B		
greatest brilliancy	13029 Apr 18 16:59	28° H 44'24 -4.8m			13031 Dec 10 16:49	0° \approx		
	13029 Apr 21 16:50	0° Υ		desc. node	13031 Dec 20 06:33	11° \approx 29'04		
morning max el	13029 May 28 00:51	28° Υ 40'21 46°38'05			13032 Jan 04 20:50	0° H		
	13029 May 29 08:40	0° B			13032 Jan 30 15:48	0° Υ		
	13029 Jun 26 04:38	0° Π			13032 Feb 26 12:06	0° B		
desc. node	13029 Jul 04 22:38	10° Π 01'00		evening max el	13032 Mar 19 08:26	22° B 40'18 46°12'47		
	13029 Jul 21 23:32	0° G			13032 Mar 27 01:21	0° Π		
	13029 Aug 15 22:12	0° Ω		asc. node	13032 Apr 11 06:05	12° Π 43'51		
	13029 Sep 09 11:52	0° M		greatest brilliancy	13032 Apr 28 05:50	22° Π 18'11 -4.8m		
	13029 Oct 03 21:44	0° A		retrograde	13032 May 07 23:28	24° Π 04'04		
asc. node	13029 Oct 25 16:56	26° A 52'16		evening set	13032 May 25 13:10	18° Π 07'49		
	13029 Oct 28 05:47	0° M		inferior conj	13032 May 28 17:12	16° Π 11'11 8°54'01		
	13029 Nov 21 12:42	0° A		minimum elong	13032 May 28 11:46	16° Π 19'37 8°52'38		
morning set	13029 Nov 28 22:46	9° A 10'17		min. Earth dist.	13032 May 28 20:38	16° Π 05'51 0.27561 AU		
	13029 Dec 15 19:05	0° B		morning rise	13032 May 31 10:19	14° Π 30'56		
				direct	13032 Jun 18 15:17	8° Π 12'35		
superior conj	13030 Jan 04 18:44	24° B 41'36 1°18'11		greatest brilliancy	13032 Jun 28 12:06	10° Π 03'32 -4.9m		
minimum elong	13030 Jan 05 02:14	25° B 04'44 1°18'58			13032 Jul 27 15:00	0° G		
max. Earth dist.	13030 Jan 05 18:54	25° B 56'11 1.73137 AU		desc. node	13032 Aug 01 08:53	4° G 25'37		
	13030 Jan 09 01:54	0° \approx		morning max el	13032 Aug 08 04:19	11° G 06'27 46°57'10		

	13032 Aug 26 02:09	0°♈				13035 Feb 12 02:22	0°♈		
	13032 Sep 21 13:58	0°♍				13035 Mar 09 01:10	0°♉		
	13032 Oct 17 01:51	0°♊				13035 Apr 03 07:16	0°♊		
	13032 Nov 11 02:35	0°♋				13035 Apr 29 04:35	0°♋		
asc. node	13032 Nov 22 06:28	13°♌29'36			asc. node	13035 May 09 15:41	11°♌44'13		
	13032 Dec 05 20:33	0°♌				13035 May 26 16:12	0°♌		
	13032 Dec 30 09:47	0°♍			evening max el	13035 Jun 01 06:37	5°♌41'32	46°42'26	
	13033 Jan 23 19:56	0°♎				13035 Jun 29 14:09	0°♍		
morning set	13033 Feb 05 17:36	15°♎53'29			greatest brilliancy	13035 Jul 11 14:01	6°♍13'59	-4.9m	
	13033 Feb 17 04:17	0°♎			retrograde	13035 Jul 21 10:51	8°♍04'00		
	13033 Mar 13 11:18	0°♏			evening set	13035 Aug 05 23:43	3°♍22'49		
max. Earth dist.	13033 Mar 13 13:17	0°♏06'10	1.72828 AU		inferior conj	13035 Aug 11 03:46	0°♍18'58	4°38'42	
desc. node	13033 Mar 13 21:19	0°♏30'59			minimum elong	13035 Aug 11 13:21	0°♍04'17	4°35'23	
					min. Earth dist.	13035 Aug 11 10:43	0°♍08'19	0.26979 AU	
superior conj	13033 Mar 15 10:40	2°♏26'27	-0°03'48			13035 Aug 11 16:10	30°♎00		
minimum elong	13033 Mar 15 09:49	2°♏23'46	0°03'42		morning rise	13035 Aug 17 02:56	26°♎48'30		
behind sun begin	13033 Mar 14 10:22	1°♏11'18			desc. node	13035 Aug 29 18:17	22°♎38'31		
behind sun end	13033 Mar 16 09:15	3°♏36'16			direct	13035 Aug 31 20:32	22°♎33'16		
	13033 Apr 06 16:41	0°♏			greatest brilliancy	13035 Sep 10 22:30	24°♎26'04	-4.9m	
evening rise	13033 Apr 23 01:45	20°♏20'18				13035 Sep 21 22:34	0°♎		
	13033 Apr 30 20:09	0°♐			morning max el	13035 Oct 20 15:29	24°♎03'30	46°23'38	
	13033 May 24 22:18	0°♑				13035 Oct 26 14:23	0°♏		
	13033 Jun 18 00:49	0°♑				13035 Nov 23 13:37	0°♌		
asc. node	13033 Jul 04 12:31	20°♑26'43				13035 Dec 19 19:19	0°♌		
	13033 Jul 12 06:13	0°♑			asc. node	13035 Dec 20 18:40	1°♌08'06		
	13033 Aug 05 17:48	0°♒				13036 Jan 14 04:56	0°♑		
	13033 Aug 30 16:52	0°♒				13036 Feb 08 02:46	0°♒		
	13033 Sep 25 14:35	0°♑				13036 Mar 03 17:20	0°♑		
	13033 Oct 23 17:33	0°♑				13036 Mar 28 03:04	0°♏		
desc. node	13033 Oct 24 10:58	0°♑43'02			desc. node	13036 Apr 10 11:50	16°♏30'54		
evening max el	13033 Oct 25 08:36	1°♑36'12	46°09'52		morning set	13036 Apr 17 11:25	25°♏10'06		
	13033 Dec 02 02:05	0°♒				13036 Apr 21 08:51	0°♑		
greatest brilliancy	13033 Dec 03 13:34	0°♒33'13	-4.8m			13036 May 15 11:03	0°♐		
retrograde	13033 Dec 13 17:00	2°♒25'09			max. Earth dist.	13036 May 24 07:51	11°♐05'00	1.71740 AU	
	13033 Dec 24 18:33	30°♒00							
evening set	13033 Dec 31 15:05	26°♒22'26			superior conj	13036 May 27 07:01	14°♐47'38	-1°24'19	
inferior conj	13034 Jan 04 04:37	24°♒09'32	-8°01'14		minimum elong	13036 May 27 00:58	14°♐28'41	1°25'11	
minimum elong	13034 Jan 04 12:30	23°♒57'09	7°59'18			13036 Jun 08 10:27	0°♑		
min. Earth dist.	13034 Jan 04 08:32	24°♒03'23	0.28916 AU			13036 Jul 02 08:36	0°♑		
morning rise	13034 Jan 08 09:56	21°♒33'15			evening rise	13036 Jul 06 07:59	4°♑58'55		
direct	13034 Jan 25 14:52	15°♒56'25				13036 Jul 26 07:24	0°♑		
greatest brilliancy	13034 Feb 05 03:59	17°♒58'14	-4.7m		asc. node	13036 Aug 01 01:44	7°♑12'15		
asc. node	13034 Feb 14 13:27	22°♒36'38				13036 Aug 19 08:39	0°♒		
	13034 Feb 25 02:08	0°♒				13036 Sep 12 14:14	0°♌		
morning max el	13034 Mar 15 19:47	16°♒44'12	45°53'46			13036 Oct 07 03:06	0°♑		
	13034 Mar 28 20:03	0°♑				13036 Nov 01 04:30	0°♑		
	13034 Apr 24 22:32	0°♏			desc. node	13036 Nov 20 21:02	22°♑52'31		
	13034 May 20 12:39	0°♑				13036 Nov 27 03:48	0°♒		
desc. node	13034 Jun 06 12:53	20°♑28'39				13036 Dec 24 21:58	0°♑		
	13034 Jun 14 08:36	0°♐			evening max el	13037 Jan 04 08:23	10°♑22'12	45°53'40	
	13034 Jul 08 18:05	0°♑				13037 Jan 27 08:38	0°♏		
	13034 Aug 01 21:55	0°♑			greatest brilliancy	13037 Feb 12 10:31	8°♏47'13	-4.8m	
	13034 Aug 25 23:26	0°♑			retrograde	13037 Feb 22 08:03	10°♏35'09		
morning set	13034 Sep 16 14:56	27°♑00'01			evening set	13037 Mar 09 04:09	6°♏17'10		
	13034 Sep 19 00:41	0°♒			asc. node	13037 Mar 13 22:51	3°♏28'37		
asc. node	13034 Sep 27 04:33	10°♒10'13			inferior conj	13037 Mar 15 11:47	2°♏31'09	0°23'05	
	13034 Oct 13 02:38	0°♌			minimum elong	13037 Mar 15 10:54	2°♏32'32	0°22'52	
					min. Earth dist.	13037 Mar 15 18:45	2°♏20'17	0.28154 AU	
superior conj	13034 Oct 25 05:01	15°♌03'05	1°01'18			13037 Mar 19 14:14	30°♑00		
minimum elong	13034 Oct 24 18:47	14°♌31'18	1°01'34		morning rise	13037 Mar 21 17:09	28°♑47'01		
max. Earth dist.	13034 Oct 27 11:36	17°♌52'45	1.72426 AU		direct	13037 Apr 05 15:34	24°♑22'06		
	13034 Nov 06 05:46	0°♑			greatest brilliancy	13037 Apr 16 09:05	26°♑30'07	-4.8m	
	13034 Nov 30 11:00	0°♑				13037 Apr 23 16:23	0°♏		
evening rise	13034 Dec 01 09:43	1°♑10'10			morning max el	13037 May 25 16:38	26°♏25'19	46°36'38	
	13034 Dec 24 19:36	0°♒				13037 May 29 05:47	0°♑		
desc. node	13035 Jan 16 19:06	28°♒05'49				13037 Jun 25 20:14	0°♐		
	13035 Jan 18 08:37	0°♑			desc. node	13037 Jul 04 00:32	9°♐23'47		

	13037 Jul 21 13:04	0°☿			13040 Mar 27 04:56	0°♊	
	13037 Aug 15 10:43	0°♋		asc. node	13040 Apr 10 08:07	11°♊28'21	
	13037 Sep 08 23:45	0°♌		greatest brilliancy	13040 Apr 25 19:16	19°♊56'30	-4.8m
	13037 Oct 03 09:10	0°♍		retrograde	13040 May 05 12:39	21°♊41'58	
asc. node	13037 Oct 24 18:53	26°♌23'55		evening set	13040 May 22 23:03	15°♊51'41	
	13037 Oct 27 16:53	0°♎		inferior conj	13040 May 26 06:56	13°♊49'01	8°47'34
	13037 Nov 20 23:34	0°♏		minimum elong	13040 May 26 00:42	13°♊58'43	8°46'05
morning set	13037 Nov 26 14:57	6°♏58'30		min. Earth dist.	13040 May 26 09:55	13°♊44'23	0.27576 AU
	13037 Dec 15 05:49	0°♐		morning rise	13040 May 29 02:19	12°♊05'07	
				direct	13040 Jun 16 05:09	5°♊50'17	
superior conj	13038 Jan 02 11:35	22°♐32'18	1°19'32	greatest brilliancy	13040 Jun 26 01:55	7°♊40'45	-4.9m
minimum elong	13038 Jan 02 18:33	22°♐53'51	1°20'21		13040 Jul 27 18:45	0°♋	
max. Earth dist.	13038 Jan 03 15:11	23°♐57'32	1.73129 AU	desc. node	13040 Jul 31 10:52	3°♋29'37	
	13038 Jan 08 12:37	0°♌		morning max el	13040 Aug 05 17:17	8°♋41'40	46°57'30
	13038 Feb 01 20:44	0°♍			13040 Aug 25 19:43	0°♋	
evening rise	13038 Feb 08 22:04	8°♍41'04			13040 Sep 21 04:23	0°♌	
desc. node	13038 Feb 13 08:50	14°♍09'26			13040 Oct 16 14:44	0°♍	
	13038 Feb 26 06:06	0°♎			13040 Nov 10 14:35	0°♎	
	13038 Mar 22 16:00	0°♏		asc. node	13040 Nov 21 08:14	12°♎59'23	
	13038 Apr 16 02:15	0°♊			13040 Dec 05 08:00	0°♏	
	13038 May 10 14:17	0°♋			13040 Dec 29 20:53	0°♐	
	13038 Jun 04 07:47	0°♌			13041 Jan 23 06:49	0°♌	
asc. node	13038 Jun 06 02:22	2°♌08'03		morning set	13041 Feb 03 10:27	13°♌44'11	
	13038 Jun 29 13:41	0°♍			13041 Feb 16 15:03	0°♍	
	13038 Jul 25 22:42	0°♎		max. Earth dist.	13041 Mar 11 05:09	27°♍53'32	1.72857 AU
evening max el	13038 Aug 12 16:54	18°♎43'43	46°41'08	desc. node	13041 Mar 12 23:14	0°♎03'35	
	13038 Aug 24 12:02	0°♏			13041 Mar 12 22:05	0°♎	
greatest brilliancy	13038 Sep 20 22:01	18°♏54'12	-4.8m				
desc. node	13038 Sep 26 03:35	20°♏30'51		superior conj	13041 Mar 13 01:48	0°♎11'32	-0°00'16
retrograde	13038 Oct 01 23:51	21°♏10'29		minimum elong	13041 Mar 13 01:44	0°♎11'21	0°00'10
evening set	13038 Oct 17 16:47	16°♏21'37		behind sun begin	13041 Mar 12 02:00	28°♏57'59	
min. Earth dist.	13038 Oct 22 06:28	13°♏38'16	0.27970 AU	behind sun end	13041 Mar 14 01:28	1°♎24'43	
inferior conj	13038 Oct 23 04:02	13°♏05'01	-6°11'11		13041 Apr 06 03:32	0°♏	
minimum elong	13038 Oct 22 17:28	13°♏21'20	6°08'14	evening rise	13041 Apr 20 15:49	18°♏00'48	
morning rise	13038 Oct 27 18:42	10°♏18'54			13041 Apr 30 07:09	0°♊	
direct	13038 Nov 13 05:23	5°♏09'59			13041 May 24 09:30	0°♋	
greatest brilliancy	13038 Nov 22 17:17	6°♏48'59	-4.8m		13041 Jun 17 12:15	0°♌	
	13038 Dec 26 13:01	0°♏		asc. node	13041 Jul 03 14:23	19°♌56'26	
morning max el	13039 Jan 01 04:13	5°♏17'53	45°46'05		13041 Jul 11 18:00	0°♍	
asc. node	13039 Jan 17 05:40	21°♏32'44			13041 Aug 05 06:09	0°♎	
	13039 Jan 25 03:15	0°♐			13041 Aug 30 06:16	0°♏	
	13039 Feb 20 19:47	0°♌			13041 Sep 25 06:10	0°♏	
	13039 Mar 18 08:15	0°♍		evening max el	13041 Oct 22 22:44	29°♏19'20	46°10'45
	13039 Apr 12 05:53	0°♎		desc. node	13041 Oct 23 12:52	29°♏53'54	
	13039 May 06 18:10	0°♏			13041 Oct 23 15:22	0°♐	
desc. node	13039 May 09 01:45	2°♏51'15		greatest brilliancy	13041 Dec 01 05:24	28°♐22'12	-4.8m
	13039 May 30 23:44	0°♊			13041 Dec 07 19:57	0°♌	
	13039 Jun 24 00:38	0°♋		retrograde	13041 Dec 11 08:20	0°♌14'10	
morning set	13039 Jul 02 06:48	10°♋20'22			13041 Dec 14 19:23	30°♌30'30	
	13039 Jul 17 23:03	0°♌		evening set	13041 Dec 29 09:22	24°♐07'57	
	13039 Aug 10 21:00	0°♍		inferior conj	13042 Jan 01 20:39	21°♐58'32	-8°09'16
				minimum elong	13042 Jan 02 03:59	21°♐47'00	8°07'29
superior conj	13039 Aug 11 03:04	0°♍18'59	-0°43'18	min. Earth dist.	13042 Jan 02 00:01	21°♐53'14	0.28921 AU
minimum elong	13039 Aug 11 12:56	0°♍49'54	0°43'26	morning rise	13042 Jan 05 22:36	19°♐27'08	
max. Earth dist.	13039 Aug 12 11:59	2°♍02'11	1.71517 AU	direct	13042 Jan 23 06:23	13°♐45'34	
asc. node	13039 Aug 29 15:59	23°♍32'21		greatest brilliancy	13042 Feb 02 19:33	15°♐46'53	-4.7m
	13039 Sep 03 19:58	0°♎		asc. node	13042 Feb 13 15:30	21°♐18'04	
evening rise	13039 Sep 19 15:28	19°♎44'46			13042 Feb 25 11:25	0°♌	
	13039 Sep 27 21:00	0°♏		morning max el	13042 Mar 13 10:04	14°♌27'54	45°52'44
	13039 Oct 22 01:19	0°♏			13042 Mar 28 13:58	0°♍	
	13039 Nov 15 10:57	0°♐			13042 Apr 24 12:50	0°♎	
	13039 Dec 10 04:37	0°♌			13042 May 20 01:27	0°♏	
desc. node	13039 Dec 19 08:22	10°♌58'34		desc. node	13042 Jun 05 14:42	19°♏57'02	
	13040 Jan 04 09:25	0°♍			13042 Jun 13 20:37	0°♊	
	13040 Jan 30 05:53	0°♎			13042 Jul 08 05:39	0°♋	
	13040 Feb 26 05:23	0°♏			13042 Aug 01 09:10	0°♌	
evening max el	13040 Mar 16 22:54	20°♏21'58	46°11'37		13042 Aug 25 10:27	0°♍	

morning set	13042 Sep 14 04:56	24° \mathbb{M} 40'02		evening set	13045 Mar 06 19:59	4° Υ 02'00	
	13042 Sep 18 11:33	0° $\underline{\mathbf{a}}$		inferior conj	13045 Mar 13 02:55	0° Υ 16'40	0°01'17
asc. node	13042 Sep 26 06:25	9° $\underline{\mathbf{a}}$ 42'24		minimum elong	13045 Mar 13 02:51	0° Υ 16'45	0°01'22
	13042 Oct 12 13:22	0° \mathbb{M}		transit middle	13045 Mar 13 02:51	0° Υ 16'45	0°01'22
				transit begin	13045 Mar 12 22:49	0° Υ 23'03	
superior conj	13042 Oct 22 20:41	12° \mathbb{M} 49'24	0°58'49	transit end	13045 Mar 13 06:54	0° Υ 10'26	
minimum elong	13042 Oct 22 10:28	12° \mathbb{M} 17'38	0°59'03	asc. node	13045 Mar 13 00:52	0° Υ 19'51	
max. Earth dist.	13042 Oct 25 01:20	15° \mathbb{M} 33'02	1.72392 AU	min. Earth dist.	13045 Mar 13 10:01	0° Υ 05'33	0.28185 AU
	13042 Nov 05 16:27	0° \mathcal{A}			13045 Mar 13 13:35	30° \mathcal{A}	
evening rise	13042 Nov 29 02:17	28° \mathcal{A} 59'59		morning rise	13045 Mar 19 09:20	26° \mathcal{H} 31'19	
	13042 Nov 29 21:43	0° \mathcal{Z}		direct	13045 Apr 03 07:31	22° \mathcal{H} 07'20	
	13042 Dec 24 06:28	0° \approx		greatest brilliancy	13045 Apr 14 00:42	24° \mathcal{H} 15'28	-4.8m
desc. node	13043 Jan 15 21:03	27° \approx 37'52			13045 Apr 25 00:01	0° Υ	
	13043 Jan 17 19:45	0° \mathcal{H}		morning max el	13045 May 23 08:31	24° Υ 10'58	46°35'08
	13043 Feb 11 13:58	0° Υ			13045 May 29 02:05	0° \mathcal{B}	
	13043 Mar 08 13:27	0° \mathcal{B}			13045 Jun 25 11:27	0° \mathbb{I}	
	13043 Apr 02 20:43	0° \mathbb{I}		desc. node	13045 Jul 03 02:35	8° \mathbb{I} 47'45	
	13043 Apr 28 20:14	0° \mathcal{G}			13045 Jul 21 02:18	0° \mathcal{G}	
asc. node	13043 May 08 17:34	11° \mathcal{G} 02'09			13045 Aug 14 22:56	0° \mathcal{Q}	
	13043 May 26 13:24	0° \mathcal{Q}			13045 Sep 08 11:22	0° \mathbb{M}	
evening max el	13043 May 29 18:51	3° \mathcal{Q} 15'17	46°41'44		13045 Oct 02 20:22	0° $\underline{\mathbf{a}}$	
	13043 Jul 01 00:57	0° \mathbb{M}		asc. node	13045 Oct 23 20:37	25° $\underline{\mathbf{a}}$ 55'37	
greatest brilliancy	13043 Jul 09 04:07	3° \mathbb{M} 49'54	-4.9m		13045 Oct 27 03:46	0° \mathbb{M}	
retrograde	13043 Jul 18 23:49	5° \mathbb{M} 39'16			13045 Nov 20 10:13	0° \mathcal{A}	
evening set	13043 Aug 03 15:37	0° \mathbb{M} 53'25		morning set	13045 Nov 24 07:13	4° \mathcal{A} 47'31	
	13043 Aug 05 04:58	30° \mathcal{R} \mathcal{Q}			13045 Dec 14 16:20	0° \mathcal{Z}	
inferior conj	13043 Aug 08 16:33	27° \mathcal{Q} 54'11	4°59'29				
minimum elong	13043 Aug 09 02:37	27° \mathcal{Q} 38'49	4°56'06	superior conj	13045 Dec 31 04:35	20° \mathcal{Z} 24'13	1°20'44
min. Earth dist.	13043 Aug 09 00:35	27° \mathcal{Q} 41'55	0.26985 AU	minimum elong	13045 Dec 31 11:01	20° \mathcal{Z} 44'04	1°21'36
morning rise	13043 Aug 14 13:31	24° \mathcal{Q} 26'52		max. Earth dist.	13046 Jan 01 12:02	22° \mathcal{Z} 01'20	1.73115 AU
desc. node	13043 Aug 28 20:23	20° \mathcal{Q} 08'15			13046 Jan 07 23:06	0° \approx	
direct	13043 Aug 29 08:58	20° \mathcal{Q} 07'55			13046 Feb 01 07:17	0° \mathcal{H}	
greatest brilliancy	13043 Sep 08 12:00	22° \mathcal{Q} 01'57	-4.9m	evening rise	13046 Feb 06 14:18	6° \mathcal{H} 30'47	
	13043 Sep 23 01:41	0° \mathbb{M}		desc. node	13046 Feb 12 10:46	13° \mathcal{H} 42'48	
morning max el	13043 Oct 18 05:38	21° \mathbb{M} 43'52	46°25'27		13046 Feb 25 16:48	0° Υ	
	13043 Oct 26 11:00	0° $\underline{\mathbf{a}}$			13046 Mar 22 02:58	0° \mathcal{B}	
	13043 Nov 23 04:53	0° \mathbb{M}			13046 Apr 15 13:36	0° \mathbb{I}	
	13043 Dec 19 08:23	0° \mathcal{A}			13046 May 10 02:10	0° \mathcal{G}	
asc. node	13043 Dec 19 20:39	0° \mathcal{A} 35'49			13046 Jun 03 20:33	0° \mathcal{Q}	
	13044 Jan 13 16:53	0° \mathcal{Z}		asc. node	13046 Jun 05 04:17	1° \mathcal{Q} 35'18	
	13044 Feb 07 14:06	0° \approx			13046 Jun 29 03:57	0° \mathbb{M}	
	13044 Mar 03 04:21	0° \mathcal{H}			13046 Jul 25 16:16	0° $\underline{\mathbf{a}}$	
	13044 Mar 27 13:55	0° Υ		evening max el	13046 Aug 10 08:25	16° $\underline{\mathbf{a}}$ 26'57	46°41'50
desc. node	13044 Apr 09 13:39	16° Υ 03'08			13046 Aug 24 17:16	0° \mathbb{M}	
morning set	13044 Apr 15 00:49	22° Υ 49'24		greatest brilliancy	13046 Sep 18 12:52	16° \mathbb{M} 36'21	-4.8m
	13044 Apr 20 19:38	0° \mathcal{B}		desc. node	13046 Sep 25 05:31	18° \mathbb{M} 29'50	
	13044 May 14 21:48	0° \mathbb{I}		retrograde	13046 Sep 29 14:59	18° \mathbb{M} 52'21	
max. Earth dist.	13044 May 21 21:38	8° \mathbb{I} 44'21	1.71774 AU	evening set	13046 Oct 15 04:19	14° \mathbb{M} 08'26	
				min. Earth dist.	13046 Oct 19 20:38	11° \mathbb{M} 21'12	0.27912 AU
superior conj	13044 May 24 19:18	12° \mathbb{I} 22'12	-1°23'13	inferior conj	13046 Oct 20 18:18	10° \mathbb{M} 47'47	-5°55'07
minimum elong	13044 May 24 12:24	12° \mathbb{I} 00'37	1°24'03	minimum elong	13046 Oct 20 07:48	11° \mathbb{M} 03'59	5°52'06
	13044 Jun 07 21:13	0° \mathcal{G}		morning rise	13046 Oct 25 11:56	7° \mathbb{M} 57'30	
	13044 Jul 01 19:27	0° \mathcal{Q}		direct	13046 Nov 10 19:47	2° \mathbb{M} 53'46	
evening rise	13044 Jul 03 19:16	2° \mathcal{Q} 29'52		greatest brilliancy	13046 Nov 20 06:20	4° \mathbb{M} 31'48	-4.8m
	13044 Jul 25 18:23	0° \mathbb{M}			13046 Dec 26 13:34	0° \mathcal{A}	
asc. node	13044 Jul 31 03:43	6° \mathbb{M} 44'04		morning max el	13046 Dec 29 18:27	3° \mathcal{A} 02'40	45°46'46
	13044 Aug 18 19:48	0° $\underline{\mathbf{a}}$		asc. node	13047 Jan 16 07:41	20° \mathcal{A} 51'48	
	13044 Sep 12 01:38	0° \mathbb{M}			13047 Jan 24 19:17	0° \mathcal{Z}	
	13044 Oct 06 14:58	0° \mathcal{A}			13047 Feb 20 09:04	0° \approx	
	13044 Oct 31 17:13	0° \mathcal{Z}			13047 Mar 17 20:17	0° \mathcal{H}	
desc. node	13044 Nov 19 22:57	22° \mathcal{Z} 18'09			13047 Apr 11 17:16	0° Υ	
	13044 Nov 26 18:21	0° \approx			13047 May 06 05:12	0° \mathcal{B}	
	13044 Dec 24 17:09	0° \mathcal{H}		desc. node	13047 May 08 03:35	2° \mathcal{B} 22'57	
evening max el	13045 Jan 02 00:02	8° \mathcal{H} 11'08	45°53'42		13047 May 30 10:34	0° \mathbb{I}	
	13045 Jan 28 05:43	0° Υ			13047 Jun 23 11:23	0° \mathcal{G}	
greatest brilliancy	13045 Feb 10 00:49	6° Υ 32'53	-4.8m	morning set	13047 Jun 29 18:23	7° \mathcal{G} 52'43	
retrograde	13045 Feb 19 23:27	8° Υ 21'17			13047 Jul 17 09:45	0° \mathcal{Q}	

superior conj	13047 Aug 08 15:03	27°Ω52'46	-0°46'36	morning rise	13050 Jan 03 11:10	17°Σ21'32	
minimum elong	13047 Aug 09 01:26	28°Ω25'18	0°46'46	direct	13050 Jan 20 21:33	11°Σ34'58	
max. Earth dist.	13047 Aug 09 22:23	29°Ω30'57	1.71496 AU	greatest brilliancy	13050 Jan 31 11:05	13°Σ36'13	-4.7m
	13047 Aug 10 07:39	0°Π		asc. node	13050 Feb 12 17:31	20°Σ02'29	
asc. node	13047 Aug 28 17:46	23°Π04'45			13050 Feb 25 17:45	0°≈	
	13047 Sep 03 06:35	0°Ω		morning max el	13050 Mar 11 01:07	12°≈14'24	45°51'50
evening rise	13047 Sep 17 05:19	17°Ω25'07			13050 Mar 28 07:08	0°✕	
	13047 Sep 27 07:38	0°Π			13050 Apr 24 02:38	0°Υ	
	13047 Oct 21 12:06	0°✕			13050 May 19 13:48	0°Σ	
	13047 Nov 14 22:00	0°Σ		desc. node	13050 Jun 04 16:44	19°Σ27'21	
	13047 Dec 09 16:07	0°≈			13050 Jun 13 08:14	0°Π	
desc. node	13047 Dec 18 10:22	10°≈29'27			13050 Jul 07 16:50	0°☾	
	13048 Jan 03 21:44	0°✕			13050 Jul 31 20:04	0°Ω	
	13048 Jan 29 19:44	0°Υ			13050 Aug 24 21:11	0°Π	
	13048 Feb 25 22:36	0°Σ		morning set	13050 Sep 11 18:34	22°Π19'42	
evening max el	13048 Mar 14 12:26	18°Σ02'40	46°10'29		13050 Sep 17 22:09	0°Ω	
	13048 Mar 27 09:47	0°Π		asc. node	13050 Sep 25 08:11	9°Ω15'00	
asc. node	13048 Apr 09 09:59	10°Π11'31			13050 Oct 11 23:53	0°Π	
greatest brilliancy	13048 Apr 23 08:58	17°Π36'23	-4.8m				
retrograde	13048 May 03 01:31	19°Π21'17		superior conj	13050 Oct 20 11:51	10°Π34'43	0°56'13
evening set	13048 May 20 08:42	13°Π37'03		minimum elong	13050 Oct 20 01:42	10°Π03'09	0°56'23
inferior conj	13048 May 23 20:42	11°Π28'11	8°40'12	max. Earth dist.	13050 Oct 22 14:04	13°Π10'55	1.72359 AU
minimum elong	13048 May 23 13:42	11°Π39'05	8°38'34		13050 Nov 05 02:55	0°✕	
min. Earth dist.	13048 May 23 23:32	11°Π23'47	0.27595 AU	evening rise	13050 Nov 26 18:28	26°✕49'20	
morning rise	13048 May 26 18:38	9°Π40'13			13050 Nov 29 08:12	0°Σ	
direct	13048 Jun 13 18:36	3°Π28'58			13050 Dec 23 17:05	0°≈	
greatest brilliancy	13048 Jun 23 16:31	5°Π19'54	-4.9m	desc. node	13051 Jan 14 22:57	27°≈10'32	
	13048 Jul 27 20:36	0°☾			13051 Jan 17 06:40	0°✕	
desc. node	13048 Jul 30 12:56	2°☾35'45			13051 Feb 11 01:22	0°Υ	
morning max el	13048 Aug 03 06:00	6°☾16'52	46°57'42		13051 Mar 08 01:35	0°Σ	
	13048 Aug 25 12:40	0°Ω			13051 Apr 02 10:03	0°Π	
	13048 Sep 20 18:22	0°Π			13051 Apr 28 11:51	0°☾	
	13048 Oct 16 03:13	0°Ω		asc. node	13051 May 07 19:38	10°☾20'58	
	13048 Nov 10 02:12	0°Π			13051 May 26 11:01	0°Ω	
asc. node	13048 Nov 20 10:10	12°Π30'49		evening max el	13051 May 27 08:09	0°Ω52'52	46°41'12
	13048 Dec 04 19:04	0°✕			13051 Jul 03 04:47	0°Π	
	13048 Dec 29 07:37	0°Σ		greatest brilliancy	13051 Jul 06 17:36	1°Π26'33	-4.9m
	13049 Jan 22 17:21	0°≈		retrograde	13051 Jul 16 13:21	3°Π15'56	
morning set	13049 Feb 01 03:14	11°≈35'43			13051 Jul 29 07:42	30°RΩ	
	13049 Feb 16 01:30	0°✕		evening set	13051 Aug 01 07:42	28°Ω25'13	
max. Earth dist.	13049 Mar 08 21:45	25°✕44'18	1.72884 AU	inferior conj	13051 Aug 06 05:25	25°Ω30'36	5°19'37
				minimum elong	13051 Aug 06 15:53	25°Ω14'38	5°16'10
superior conj	13049 Mar 10 17:03	27°✕58'05	0°03'16	min. Earth dist.	13051 Aug 06 14:04	25°Ω17'25	0.26995 AU
minimum elong	13049 Mar 10 17:49	28°✕00'29	0°03'22	morning rise	13051 Aug 11 23:59	22°Ω06'50	
behind sun begin	13049 Mar 09 18:22	26°✕48'00		direct	13051 Aug 26 22:02	17°Ω43'52	
behind sun end	13049 Mar 11 17:16	29°✕12'57		desc. node	13051 Aug 27 22:17	17°Ω45'06	
desc. node	13049 Mar 12 01:01	29°✕36'54		greatest brilliancy	13051 Sep 06 00:58	19°Ω38'21	-4.9m
	13049 Mar 12 08:30	0°Υ			13051 Sep 23 21:04	0°Π	
	13049 Apr 05 14:02	0°Σ		morning max el	13051 Oct 15 20:43	19°Π27'11	46°26'59
evening rise	13049 Apr 18 06:08	15°Σ43'26			13051 Oct 26 06:42	0°Ω	
	13049 Apr 29 17:47	0°Π			13051 Nov 22 19:47	0°Π	
	13049 May 23 20:19	0°☾		asc. node	13051 Dec 18 22:39	0°✕04'07	
	13049 Jun 16 23:21	0°Ω			13051 Dec 18 21:14	0°✕	
asc. node	13049 Jul 02 16:22	19°Ω27'28			13052 Jan 13 04:39	0°Σ	
	13049 Jul 11 05:30	0°Π			13052 Feb 07 01:16	0°≈	
	13049 Aug 04 18:18	0°Ω			13052 Mar 02 15:11	0°✕	
	13049 Aug 29 19:32	0°Π			13052 Mar 27 00:36	0°Υ	
	13049 Sep 24 21:46	0°✕		desc. node	13052 Apr 08 15:25	15°Υ35'42	
evening max el	13049 Oct 20 12:26	27°✕02'04	46°11'53	morning set	13052 Apr 12 14:15	20°Υ29'22	
desc. node	13049 Oct 22 14:50	29°✕04'48			13052 Apr 20 06:15	0°Σ	
	13049 Oct 23 13:47	0°Σ			13052 May 14 08:24	0°Π	
greatest brilliancy	13049 Nov 28 20:38	26°Σ11'03	-4.8m	max. Earth dist.	13052 May 19 10:07	6°Π20'06	1.71805 AU
retrograde	13049 Dec 08 23:54	28°Σ03'48					
evening set	13049 Dec 27 03:18	21°Σ54'02		superior conj	13052 May 22 07:39	9°Π57'27	-1°21'59
inferior conj	13049 Dec 30 12:31	19°Σ47'55	-8°16'39	minimum elong	13052 May 21 23:59	9°Π33'28	1°22'45
minimum elong	13049 Dec 30 19:14	19°Σ37'22	8°15'00		13052 Jun 07 07:51	0°☾	
min. Earth dist.	13049 Dec 30 15:11	19°Σ43'44	0.28925 AU	evening rise	13052 Jul 01 06:45	0°Ω01'57	

	13052 Jul 01 06:08	0°♈		asc. node	13055 Jan 15 09:35	20°♊10'52	
	13052 Jul 25 05:10	0°♍			13055 Jan 24 11:08	0°♈	
asc. node	13052 Jul 30 05:31	6°♍15'56			13055 Feb 19 22:24	0°♈	
	13052 Aug 18 06:45	0°♊			13055 Mar 17 08:27	0°♋	
	13052 Sep 11 12:52	0°♌			13055 Apr 11 04:48	0°♎	
	13052 Oct 06 02:42	0°♊			13055 May 05 16:23	0°♉	
	13052 Oct 31 05:56	0°♈		desc. node	13055 May 07 05:34	1°♉54'35	
desc. node	13052 Nov 19 00:57	21°♈44'01			13055 May 29 21:35	0°♊	
	13052 Nov 26 09:01	0°♈			13055 Jun 22 22:19	0°♋	
	13052 Dec 24 12:53	0°♋		morning set	13055 Jun 27 05:49	5°♋24'04	
evening max el	13052 Dec 30 16:16	6°♋01'32	45°53'46		13055 Jul 16 20:38	0°♈	
	13053 Jan 29 10:48	0°♎					
greatest brilliancy	13053 Feb 07 15:35	4°♎19'26	-4.8m	superior conj	13055 Aug 06 03:06	25°♈26'00	-0°49'49
retrograde	13053 Feb 17 14:35	6°♎07'37		minimum elong	13055 Aug 06 13:54	25°♈59'54	0°50'01
evening set	13053 Mar 04 12:06	1°♎47'08		max. Earth dist.	13055 Aug 07 05:36	26°♈49'07	1.71477 AU
	13053 Mar 07 14:09	30°♋			13055 Aug 09 18:30	0°♍	
inferior conj	13053 Mar 10 18:07	28°♋02'34	-0°20'22	asc. node	13055 Aug 27 19:34	22°♍36'28	
minimum elong	13053 Mar 10 18:53	28°♋01'22	0°20'00		13055 Sep 02 17:25	0°♊	
min. Earth dist.	13053 Mar 11 01:25	27°♋51'09	0.28214 AU	evening rise	13055 Sep 14 19:10	15°♊04'43	
asc. node	13053 Mar 12 02:46	27°♋11'37			13055 Sep 26 18:30	0°♌	
morning rise	13053 Mar 17 01:20	24°♋16'03			13055 Oct 20 23:05	0°♊	
direct	13053 Mar 31 23:34	19°♋53'08			13055 Nov 14 09:14	0°♈	
greatest brilliancy	13053 Apr 11 16:05	22°♋00'46	-4.8m		13055 Dec 09 03:49	0°♈	
	13053 Apr 25 22:32	0°♎		desc. node	13055 Dec 17 12:17	9°♈59'30	
morning max el	13053 May 20 23:55	21°♎55'36	46°33'32		13056 Jan 03 10:19	0°♋	
	13053 May 28 21:41	0°♉			13056 Jan 29 10:00	0°♎	
	13053 Jun 25 02:25	0°♊			13056 Feb 25 16:35	0°♉	
desc. node	13053 Jul 02 04:29	8°♊11'40		evening max el	13056 Mar 12 01:38	15°♉41'46	46°09'23
	13053 Jul 20 15:24	0°♋			13056 Mar 27 17:18	0°♊	
	13053 Aug 14 11:03	0°♈		asc. node	13056 Apr 08 12:05	8°♊51'40	
	13053 Sep 07 22:53	0°♍		greatest brilliancy	13056 Apr 20 22:34	15°♊15'12	-4.8m
	13053 Oct 02 07:27	0°♊		retrograde	13056 Apr 30 14:34	17°♊00'03	
asc. node	13053 Oct 22 22:32	25°♊28'06		evening set	13056 May 17 18:15	11°♊21'41	
	13053 Oct 26 14:33	0°♌		inferior conj	13056 May 21 10:32	9°♊06'37	8°31'56
	13053 Nov 19 20:49	0°♊		minimum elong	13056 May 21 02:49	9°♊18'37	8°30'07
morning set	13053 Nov 21 23:36	2°♊37'02		min. Earth dist.	13056 May 21 13:16	9°♊02'21	0.27616 AU
	13053 Dec 14 02:51	0°♈		morning rise	13056 May 24 11:17	7°♊14'20	
				direct	13056 Jun 11 07:58	1°♊06'43	
superior conj	13053 Dec 28 21:37	18°♈16'06	1°21'50	greatest brilliancy	13056 Jun 21 07:27	2°♊58'44	-4.9m
minimum elong	13053 Dec 29 03:27	18°♈34'07	1°22'43		13056 Jul 27 21:29	0°♋	
max. Earth dist.	13053 Dec 30 07:45	20°♈01'32	1.73103 AU	desc. node	13056 Jul 29 14:51	1°♋41'44	
	13054 Jan 07 09:38	0°♈		morning max el	13056 Jul 31 19:13	3°♋52'26	46°57'51
	13054 Jan 31 17:54	0°♋			13056 Aug 25 05:35	0°♈	
evening rise	13054 Feb 04 06:20	4°♋19'47			13056 Sep 20 08:32	0°♍	
desc. node	13054 Feb 11 12:29	13°♋15'19			13056 Oct 15 15:58	0°♊	
	13054 Feb 25 03:34	0°♎			13056 Nov 09 14:06	0°♌	
	13054 Mar 21 14:00	0°♉		asc. node	13056 Nov 19 12:08	12°♌01'25	
	13054 Apr 15 01:02	0°♊			13056 Dec 04 06:25	0°♊	
	13054 May 09 14:13	0°♋			13056 Dec 28 18:37	0°♈	
	13054 Jun 03 09:30	0°♈			13057 Jan 22 04:09	0°♈	
asc. node	13054 Jun 04 06:16	1°♈02'16		morning set	13057 Jan 29 20:19	9°♈27'17	
	13054 Jun 28 18:31	0°♍			13057 Feb 15 12:13	0°♋	
	13054 Jul 25 10:21	0°♊		max. Earth dist.	13057 Mar 06 16:24	23°♋40'23	1.72917 AU
evening max el	13054 Aug 07 23:37	14°♊09'04	46°42'32				
	13054 Aug 25 00:46	0°♌		superior conj	13057 Mar 08 08:26	25°♋44'04	0°06'43
greatest brilliancy	13054 Sep 16 04:28	14°♌19'24	-4.8m	minimum elong	13057 Mar 08 10:02	25°♋49'00	0°06'50
desc. node	13054 Sep 24 07:28	16°♌24'22		behind sun begin	13057 Mar 07 12:15	24°♋41'43	
retrograde	13054 Sep 27 05:42	16°♌34'24		behind sun end	13057 Mar 09 07:48	26°♋56'17	
evening set	13054 Oct 12 16:11	11°♌55'18		desc. node	13057 Mar 11 02:52	29°♋09'20	
min. Earth dist.	13054 Oct 17 11:22	9°♌03'58	0.27852 AU		13057 Mar 11 19:16	0°♎	
inferior conj	13054 Oct 18 08:43	8°♌30'59	-5°38'33		13057 Apr 05 00:55	0°♉	
minimum elong	13054 Oct 17 22:23	8°♌46'57	5°35'30	evening rise	13057 Apr 15 20:30	13°♉25'06	
morning rise	13054 Oct 23 05:14	5°♌36'28			13057 Apr 29 04:49	0°♊	
direct	13054 Nov 08 09:57	0°♌38'00			13057 May 23 07:32	0°♋	
greatest brilliancy	13054 Nov 17 19:59	2°♌15'23	-4.8m		13057 Jun 16 10:51	0°♈	
	13054 Dec 26 12:58	0°♊		asc. node	13057 Jul 01 18:11	18°♈56'44	
morning max el	13054 Dec 27 07:57	0°♊45'33	45°47'23		13057 Jul 10 17:25	0°♍	

	13057 Aug 04 06:55	0°♌			13060 Mar 02 02:19	0°♏		
	13057 Aug 29 09:21	0°♍			13060 Mar 26 11:33	0°♐		
	13057 Sep 24 14:04	0°♑		desc. node	13060 Apr 07 17:23	15°♐08'09		
evening max el	13057 Oct 18 02:59	24°♑45'40	46°13'06	morning set	13060 Apr 10 04:12	18°♐10'15		
desc. node	13057 Oct 21 16:55	28°♑13'55			13060 Apr 19 17:07	0°♑		
	13057 Oct 23 13:42	0°♒			13060 May 13 19:16	0°♒		
greatest brilliancy	13057 Nov 26 11:25	23°♒58'28	-4.8m	max. Earth dist.	13060 May 16 21:31	3°♒51'49	1.71842 AU	
retrograde	13057 Dec 06 16:04	25°♒52'45						
evening set	13057 Dec 24 21:10	19°♒39'36		superior conj	13060 May 19 20:18	7°♒32'57	-1°20'35	
inferior conj	13057 Dec 28 04:29	17°♒36'37	-8°23'19	minimum elong	13060 May 19 11:55	7°♒06'47	1°21'18	
minimum elong	13057 Dec 28 10:34	17°♒27'03	8°21'47		13060 Jun 06 18:46	0°♓		
min. Earth dist.	13057 Dec 28 06:10	17°♒33'58	0.28924 AU	evening rise	13060 Jun 28 18:10	27°♓32'45		
morning rise	13057 Dec 31 23:59	15°♒15'12			13060 Jun 30 17:10	0°♈		
direct	13058 Jan 18 13:04	9°♒23'45			13060 Jul 24 16:20	0°♉		
greatest brilliancy	13058 Jan 29 02:20	11°♒24'48	-4.7m	asc. node	13060 Jul 29 07:19	5°♉46'38		
asc. node	13058 Feb 11 19:25	18°♒48'24			13060 Aug 17 18:06	0°♊		
	13058 Feb 25 22:17	0°♋			13060 Sep 11 00:30	0°♋		
morning max el	13058 Mar 08 17:01	10°♋02'23	45°50'54		13060 Oct 05 14:51	0°♌		
	13058 Mar 28 00:15	0°♍			13060 Oct 30 19:05	0°♎		
	13058 Apr 23 16:40	0°♐		desc. node	13060 Nov 18 02:52	21°♎08'26		
	13058 May 19 02:31	0°♑			13060 Nov 26 00:15	0°♏		
desc. node	13058 Jun 03 18:36	18°♑55'54			13060 Dec 24 09:41	0°♏		
	13058 Jun 12 20:15	0°♒		evening max el	13060 Dec 28 08:09	3°♏50'05	45°53'51	
	13058 Jul 07 04:26	0°♓			13061 Jan 31 05:57	0°♐		
	13058 Jul 31 07:23	0°♈		greatest brilliancy	13061 Feb 05 07:03	2°♐06'08	-4.8m	
	13058 Aug 24 08:18	0°♉		retrograde	13061 Feb 15 05:22	3°♐53'25		
morning set	13058 Sep 09 08:04	19°♉57'36			13061 Mar 01 07:24	30°♑♏		
	13058 Sep 17 09:09	0°♊		evening set	13061 Mar 02 04:27	29°♑31'42		
asc. node	13058 Sep 24 10:05	8°♊46'48		inferior conj	13061 Mar 08 09:24	25°♑48'14	-0°42'00	
	13058 Oct 11 10:47	0°♋		minimum elong	13061 Mar 08 10:59	25°♑45'46	0°41'20	
				min. Earth dist.	13061 Mar 08 17:11	25°♑36'02	0.28238 AU	
superior conj	13058 Oct 18 02:51	8°♋18'12	0°53'29	asc. node	13061 Mar 11 04:51	24°♑03'27		
minimum elong	13058 Oct 17 16:49	7°♋47'00	0°53'37	morning rise	13061 Mar 14 17:11	22°♑00'37		
max. Earth dist.	13058 Oct 20 04:28	10°♋52'34	1.72328 AU	direct	13061 Mar 29 15:19	17°♑38'46		
	13058 Nov 04 13:47	0°♌		greatest brilliancy	13061 Apr 09 07:47	19°♑46'06	-4.8m	
evening rise	13058 Nov 24 10:44	24°♌37'37			13061 Apr 26 15:15	0°♐		
	13058 Nov 28 19:06	0°♑		morning max el	13061 May 18 14:19	19°♐37'30	46°31'57	
	13058 Dec 23 04:06	0°♒			13061 May 28 16:48	0°♑		
desc. node	13059 Jan 14 00:44	26°♒41'42			13061 Jun 24 17:17	0°♒		
	13059 Jan 16 17:58	0°♓		desc. node	13061 Jul 01 06:23	7°♒35'34		
	13059 Feb 10 13:07	0°♐			13061 Jul 20 04:34	0°♓		
	13059 Mar 07 14:05	0°♑			13061 Aug 13 23:19	0°♈		
	13059 Apr 01 23:50	0°♒			13061 Sep 07 10:36	0°♉		
	13059 Apr 28 04:10	0°♓			13061 Oct 01 18:47	0°♊		
asc. node	13059 May 06 21:35	9°♓37'41		asc. node	13061 Oct 22 00:27	24°♊59'52		
evening max el	13059 May 24 22:18	28°♓31'11	46°40'21		13061 Oct 26 01:35	0°♋		
	13059 May 26 10:08	0°♈			13061 Nov 19 07:38	0°♌		
greatest brilliancy	13059 Jul 04 06:44	29°♈00'52	-4.9m	morning set	13061 Nov 19 15:28	0°♌24'16		
	13059 Jul 07 13:03	0°♉			13061 Dec 13 13:33	0°♍		
retrograde	13059 Jul 14 02:44	0°♉50'05						
	13059 Jul 20 11:43	30°♊♈		superior conj	13061 Dec 26 14:21	16°♊06'33	1°22'49	
evening set	13059 Jul 29 23:44	25°♊54'39		minimum elong	13061 Dec 26 19:33	16°♊22'36	1°23'44	
inferior conj	13059 Aug 03 18:02	23°♊04'39	5°39'20	max. Earth dist.	13061 Dec 28 01:57	17°♊56'29	1.73087 AU	
minimum elong	13059 Aug 04 04:50	22°♊48'12	5°35'51		13062 Jan 06 20:20	0°♋		
min. Earth dist.	13059 Aug 04 03:06	22°♊50'49	0.27005 AU		13062 Jan 31 04:41	0°♌		
morning rise	13059 Aug 09 09:54	19°♊44'45		evening rise	13062 Feb 01 22:14	2°♌07'48		
direct	13059 Aug 24 11:18	15°♊17'42		desc. node	13062 Feb 10 14:23	12°♌47'49		
desc. node	13059 Aug 27 00:17	15°♊25'24			13062 Feb 24 14:31	0°♐		
greatest brilliancy	13059 Sep 03 13:17	17°♊11'57	-4.9m		13062 Mar 21 01:10	0°♑		
	13059 Sep 24 12:16	0°♉			13062 Apr 14 12:34	0°♒		
morning max el	13059 Oct 13 11:26	17°♉08'11	46°28'31		13062 May 09 02:19	0°♓		
	13059 Oct 26 02:20	0°♊			13062 Jun 02 22:31	0°♈		
	13059 Nov 22 10:54	0°♋		asc. node	13062 Jun 03 08:09	0°♉28'47		
asc. node	13059 Dec 18 00:27	29°♋30'56			13062 Jun 28 09:14	0°♊		
	13059 Dec 18 10:21	0°♌			13062 Jul 25 04:57	0°♋		
	13060 Jan 12 16:42	0°♍		evening max el	13062 Aug 05 13:43	11°♋48'03	46°42'56	
	13060 Feb 06 12:43	0°♎			13062 Aug 25 11:19	0°♌		

greatest brilliancy	13062 Sep 13 20:07	12° \mathbb{M} 01'22	-4.8m		13065 Feb 14 22:43	0° \mathbb{H}	
desc. node	13062 Sep 23 09:35	14° \mathbb{M} 12'44		max. Earth dist.	13065 Mar 04 12:12	21° \mathbb{H} 40'49	1.72944 AU
retrograde	13062 Sep 24 19:47	14° \mathbb{M} 15'08					
evening set	13062 Oct 10 03:53	9° \mathbb{M} 40'28		superior conj	13065 Mar 05 23:31	23° \mathbb{H} 29'55	0°10'13
min. Earth dist.	13062 Oct 15 02:16	6° \mathbb{M} 44'45	0.27796 AU	minimum elong	13065 Mar 06 01:55	23° \mathbb{H} 37'19	0°10'18
inferior conj	13062 Oct 15 22:53	6° \mathbb{M} 12'54	-5°21'01	behind sun begin	13065 Mar 05 07:30	22° \mathbb{H} 40'24	
minimum elong	13062 Oct 15 12:46	6° \mathbb{M} 28'30	5°17'58	behind sun end	13065 Mar 06 20:20	24° \mathbb{H} 34'14	
morning rise	13062 Oct 20 22:16	3° \mathbb{M} 14'09		desc. node	13065 Mar 10 04:44	28° \mathbb{H} 42'37	
	13062 Oct 27 19:22	30° \mathbb{R} \mathbb{A}			13065 Mar 11 05:47	0° \mathbb{Y}	
direct	13062 Nov 05 23:17	28° \mathbb{A} 20'42			13065 Apr 04 11:32	0° \mathbb{B}	
greatest brilliancy	13062 Nov 15 10:11	29° \mathbb{A} 58'20	-4.8m	evening rise	13065 Apr 13 10:47	11° \mathbb{B} 07'25	
	13062 Nov 15 12:11	0° \mathbb{M}			13065 Apr 28 15:35	0° \mathbb{I}	
morning max el	13062 Dec 24 20:55	28° \mathbb{M} 26'27	45°48'11		13065 May 22 18:30	0° \mathbb{G}	
	13062 Dec 26 11:35	0° \mathbb{A}			13065 Jun 15 22:03	0° \mathbb{Q}	
asc. node	13063 Jan 14 11:36	19° \mathbb{A} 30'24		asc. node	13065 Jun 30 20:04	18° \mathbb{Q} 27'12	
	13063 Jan 24 02:49	0° \mathbb{B}			13065 Jul 10 05:02	0° \mathbb{M}	
	13063 Feb 19 11:40	0° \approx			13065 Aug 03 19:10	0° \mathbb{A}	
	13063 Mar 16 20:33	0° \mathbb{H}			13065 Aug 28 22:47	0° \mathbb{M}	
	13063 Apr 10 16:17	0° \mathbb{Y}			13065 Sep 24 06:06	0° \mathbb{A}	
	13063 May 05 03:30	0° \mathbb{B}		evening max el	13065 Oct 15 18:20	22° \mathbb{A} 32'43	46°14'12
desc. node	13063 May 06 07:21	1° \mathbb{B} 25'50		desc. node	13065 Oct 20 18:49	27° \mathbb{A} 23'06	
	13063 May 29 08:30	0° \mathbb{I}			13065 Oct 23 14:12	0° \mathbb{B}	
	13063 Jun 22 09:07	0° \mathbb{G}		greatest brilliancy	13065 Nov 24 01:29	21° \mathbb{B} 46'13	-4.8m
morning set	13063 Jun 24 17:38	2° \mathbb{G} 56'59		retrograde	13065 Dec 04 08:23	23° \mathbb{B} 42'29	
	13063 Jul 16 07:21	0° \mathbb{Q}		evening set	13065 Dec 22 14:42	17° \mathbb{B} 26'19	
				inferior conj	13065 Dec 25 20:21	15° \mathbb{B} 25'59	-8°29'08
superior conj	13063 Aug 03 15:29	23° \mathbb{Q} 00'55	-0°52'55	minimum elong	13065 Dec 26 01:47	15° \mathbb{B} 17'28	8°27'43
minimum elong	13063 Aug 04 02:39	23° \mathbb{Q} 35'54	0°53'08	min. Earth dist.	13065 Dec 25 20:42	15° \mathbb{B} 25'26	0.28927 AU
max. Earth dist.	13063 Aug 04 12:50	24° \mathbb{Q} 07'51	1.71463 AU	morning rise	13065 Dec 29 12:54	13° \mathbb{B} 09'16	
	13063 Aug 09 05:10	0° \mathbb{M}		direct	13066 Jan 16 05:08	7° \mathbb{B} 13'20	
asc. node	13063 Aug 26 21:31	22° \mathbb{M} 09'06		greatest brilliancy	13066 Jan 26 17:04	9° \mathbb{B} 13'37	-4.7m
	13063 Sep 02 04:06	0° \mathbb{A}		asc. node	13066 Feb 10 21:30	17° \mathbb{B} 37'34	
evening rise	13063 Sep 12 09:05	12° \mathbb{A} 44'56			13066 Feb 26 00:46	0° \approx	
	13063 Sep 26 05:16	0° \mathbb{M}		morning max el	13066 Mar 06 09:25	7° \approx 52'31	45°49'55
	13063 Oct 20 10:00	0° \mathbb{A}			13066 Mar 27 16:42	0° \mathbb{H}	
	13063 Nov 13 20:26	0° \mathbb{B}			13066 Apr 23 06:14	0° \mathbb{Y}	
	13063 Dec 08 15:31	0° \approx			13066 May 18 14:47	0° \mathbb{B}	
desc. node	13063 Dec 16 14:05	9° \approx 29'17		desc. node	13066 Jun 02 20:25	18° \mathbb{B} 25'36	
	13064 Jan 02 22:56	0° \mathbb{H}			13066 Jun 12 07:50	0° \mathbb{I}	
	13064 Jan 29 00:22	0° \mathbb{Y}			13066 Jul 06 15:36	0° \mathbb{G}	
	13064 Feb 25 10:55	0° \mathbb{B}			13066 Jul 30 18:17	0° \mathbb{Q}	
evening max el	13064 Mar 09 14:53	13° \mathbb{B} 21'29	46°08'25		13066 Aug 23 19:00	0° \mathbb{M}	
	13064 Mar 28 03:25	0° \mathbb{I}		morning set	13066 Sep 06 21:51	17° \mathbb{M} 37'45	
asc. node	13064 Apr 07 14:06	7° \mathbb{I} 29'28			13066 Sep 16 19:41	0° \mathbb{A}	
greatest brilliancy	13064 Apr 18 11:35	12° \mathbb{I} 53'51	-4.8m	asc. node	13066 Sep 23 11:55	8° \mathbb{A} 19'50	
retrograde	13064 Apr 28 04:03	14° \mathbb{I} 39'28			13066 Oct 10 21:12	0° \mathbb{M}	
evening set	13064 May 15 03:40	9° \mathbb{I} 06'46					
inferior conj	13064 May 19 00:18	6° \mathbb{I} 45'31	8°22'43	superior conj	13066 Oct 15 18:05	6° \mathbb{M} 03'53	0°50'42
minimum elong	13064 May 18 15:57	6° \mathbb{I} 58'29	8°20'46	minimum elong	13066 Oct 15 08:16	5° \mathbb{M} 33'19	0°50'48
min. Earth dist.	13064 May 19 02:44	6° \mathbb{I} 41'43	0.27633 AU	max. Earth dist.	13066 Oct 17 21:46	8° \mathbb{M} 44'44	1.72294 AU
morning rise	13064 May 22 04:07	4° \mathbb{I} 48'44			13066 Nov 04 00:08	0° \mathbb{A}	
	13064 Jun 01 02:35	30° \mathbb{R} \mathbb{B}		evening rise	13066 Nov 22 03:17	22° \mathbb{A} 28'18	
direct	13064 Jun 08 21:34	28° \mathbb{B} 44'59			13066 Nov 28 05:30	0° \mathbb{B}	
	13064 Jun 16 23:54	0° \mathbb{I}			13066 Dec 22 14:42	0° \approx	
greatest brilliancy	13064 Jun 18 22:05	0° \mathbb{I} 38'04	-4.9m	desc. node	13067 Jan 13 02:40	26° \approx 14'32	
	13064 Jul 27 20:48	0° \mathbb{G}			13067 Jan 16 04:53	0° \mathbb{H}	
desc. node	13064 Jul 28 16:50	0° \mathbb{G} 49'58			13067 Feb 10 00:32	0° \mathbb{Y}	
morning max el	13064 Jul 29 09:23	1° \mathbb{G} 31'29	46°58'10		13067 Mar 07 02:18	0° \mathbb{B}	
	13064 Aug 24 21:47	0° \mathbb{Q}			13067 Apr 01 13:23	0° \mathbb{I}	
	13064 Sep 19 22:09	0° \mathbb{M}			13067 Apr 27 20:24	0° \mathbb{G}	
	13064 Oct 15 04:18	0° \mathbb{A}		asc. node	13067 May 05 23:29	8° \mathbb{G} 54'51	
	13064 Nov 09 01:40	0° \mathbb{M}		evening max el	13067 May 22 12:43	26° \mathbb{G} 11'18	46°39'30
asc. node	13064 Nov 18 13:53	11° \mathbb{M} 32'21			13067 May 26 09:50	0° \mathbb{Q}	
	13064 Dec 03 17:30	0° \mathbb{A}		greatest brilliancy	13067 Jul 01 20:05	26° \mathbb{Q} 36'48	-4.9m
	13064 Dec 28 05:23	0° \mathbb{B}		retrograde	13067 Jul 11 15:50	28° \mathbb{Q} 25'20	
	13065 Jan 21 14:43	0° \approx		evening set	13067 Jul 27 15:54	23° \mathbb{Q} 25'18	
morning set	13065 Jan 27 13:06	7° \approx 18'35		inferior conj	13067 Aug 01 06:40	20° \mathbb{Q} 39'58	5°58'25

minimum elong	13067 Aug 01 17:42	20°Ω23'07	5°54'57			13070 Jan 06 06:43	0°≈	
min. Earth dist.	13067 Aug 01 16:09	20°Ω25'28	0.27013 AU	evening rise		13070 Jan 30 14:36	29°≈58'24	
morning rise	13067 Aug 06 19:30	17°Ω24'04				13070 Jan 30 15:08	0°✕	
direct	13067 Aug 22 00:38	12°Ω52'57		desc. node		13070 Feb 09 16:18	12°✕21'23	
desc. node	13067 Aug 26 02:23	13°Ω12'33				13070 Feb 24 01:08	0°Υ	
greatest brilliancy	13067 Sep 01 01:33	14°Ω46'34	-4.9m			13070 Mar 20 12:06	0°⋈	
	13067 Sep 24 23:02	0°♊				13070 Apr 13 23:57	0°♊	
morning max el	13067 Oct 11 01:27	14°♊48'42	46°30'11			13070 May 08 14:20	0°♋	
	13067 Oct 25 20:50	0°♌		asc. node		13070 Jun 02 10:04	29°♋55'37	
	13067 Nov 22 01:13	0°♍				13070 Jun 02 11:32	0°♌	
asc. node	13067 Dec 17 02:26	29°♍00'05				13070 Jun 28 00:03	0°♍	
	13067 Dec 17 22:49	0°♎				13070 Jul 24 23:56	0°♌	
	13068 Jan 12 04:12	0°♏		evening max el		13070 Aug 03 03:01	9°♌25'21	46°43'31
	13068 Feb 05 23:41	0°≈				13070 Aug 26 01:16	0°♍	
	13068 Mar 01 13:01	0°✕		greatest brilliancy		13070 Sep 11 11:36	9°♍43'29	-4.8m
	13068 Mar 25 22:08	0°Υ		retrograde		13070 Sep 22 09:53	11°♍56'33	
desc. node	13068 Apr 06 19:10	14°Υ41'02		desc. node		13070 Sep 22 11:29	11°♍56'32	
morning set	13068 Apr 07 17:59	15°Υ51'40		evening set		13070 Oct 07 15:44	7°♍25'36	
	13068 Apr 19 03:39	0°⋈		min. Earth dist.		13070 Oct 12 17:16	4°♍25'53	0.27740 AU
	13068 May 13 05:48	0°♊		inferior conj		13070 Oct 13 13:04	3°♍55'20	-5°02'56
max. Earth dist.	13068 May 14 06:10	1°♊16'05	1.71877 AU	minimum elong		13070 Oct 13 03:14	4°♍10'30	4°59'55
				morning rise		13070 Oct 18 15:15	0°♍52'36	
superior conj	13068 May 17 08:45	5°♊08'58	-1°19'02			13070 Oct 20 05:58	30°♍♌	
minimum elong	13068 May 16 23:44	4°♊40'49	1°19'42	direct		13070 Nov 03 12:23	26°♌03'38	
	13068 Jun 06 05:20	0°♋		greatest brilliancy		13070 Nov 13 00:51	27°♌42'16	-4.8m
evening rise	13068 Jun 26 05:22	25°♋03'59				13070 Nov 18 14:32	0°♍	
	13068 Jun 30 03:50	0°♌		morning max el		13070 Dec 22 10:23	26°♍09'06	45°49'13
	13068 Jul 24 03:08	0°♍				13070 Dec 26 09:03	0°♎	
asc. node	13068 Jul 28 09:17	5°♍18'58		asc. node		13071 Jan 13 13:35	18°♎50'59	
	13068 Aug 17 05:04	0°♏				13071 Jan 23 18:02	0°♏	
	13068 Sep 10 11:46	0°♐				13071 Feb 19 00:35	0°≈	
	13068 Oct 05 02:38	0°♑				13071 Mar 16 08:22	0°✕	
	13068 Oct 30 07:52	0°♒				13071 Apr 10 03:33	0°Υ	
desc. node	13068 Nov 17 04:48	20°♒34'05				13071 May 04 14:29	0°⋈	
	13068 Nov 25 15:11	0°≈		desc. node		13071 May 05 09:12	0°⋈57'42	
	13068 Dec 24 06:34	0°✕				13071 May 28 19:21	0°♊	
evening max el	13068 Dec 25 23:11	1°✕38'11	45°53'54			13071 Jun 21 19:54	0°♋	
greatest brilliancy	13069 Feb 02 22:50	29°✕54'52	-4.8m	morning set		13071 Jun 22 05:04	0°♋28'39	
	13069 Feb 03 04:52	0°Υ				13071 Jul 15 18:06	0°♌	
retrograde	13069 Feb 12 19:49	1°Υ41'07						
	13069 Feb 22 00:51	30°♌♋		superior conj		13071 Aug 01 03:22	20°♌34'00	-0°55'56
evening set	13069 Feb 27 21:04	27°♋17'38		minimum elong		13071 Aug 01 14:48	21°♌09'51	0°56'12
inferior conj	13069 Mar 06 00:51	23°♋35'40	-1°03'24	max. Earth dist.		13071 Aug 01 19:09	21°♌23'32	1.71451 AU
minimum elong	13069 Mar 06 03:14	23°♋31'56	1°02'27			13071 Aug 08 15:53	0°♍	
min. Earth dist.	13069 Mar 06 09:22	23°♋22'18	0.28271 AU	asc. node		13071 Aug 25 23:17	21°♍41'07	
asc. node	13069 Mar 10 06:51	20°♋58'40				13071 Sep 01 14:49	0°♌	
morning rise	13069 Mar 12 09:00	19°♋47'05		evening rise		13071 Sep 09 22:33	10°♌23'43	
direct	13069 Mar 27 06:51	15°♋25'52				13071 Sep 25 16:03	0°♍	
greatest brilliancy	13069 Apr 07 00:18	17°♋33'35	-4.8m			13071 Oct 19 20:56	0°♎	
	13069 Apr 27 03:14	0°Υ				13071 Nov 13 07:38	0°♏	
morning max el	13069 May 16 04:09	17°Υ18'39	46°30'20			13071 Dec 08 03:14	0°≈	
	13069 May 28 11:10	0°⋈		desc. node		13071 Dec 15 16:06	8°≈59'37	
	13069 Jun 24 07:44	0°♊				13072 Jan 02 11:35	0°✕	
desc. node	13069 Jun 30 08:25	7°♊00'43				13072 Jan 28 14:50	0°Υ	
	13069 Jul 19 17:23	0°♋				13072 Feb 25 05:36	0°⋈	
	13069 Aug 13 11:16	0°♌		evening max el		13072 Mar 07 05:00	11°♋03'59	46°07'33
	13069 Sep 06 22:00	0°♍				13072 Mar 28 16:45	0°♊	
	13069 Oct 01 05:47	0°♏		asc. node		13072 Apr 06 15:58	6°♊04'56	
asc. node	13069 Oct 21 02:10	24°♏31'57		greatest brilliancy		13072 Apr 16 00:04	10°♊32'43	-4.8m
	13069 Oct 25 12:18	0°♐		retrograde		13072 Apr 25 18:07	12°♊19'45	
morning set	13069 Nov 17 07:31	28°♐12'50		evening set		13072 May 12 13:14	6°♊52'34	
	13069 Nov 18 18:09	0°♑		inferior conj		13072 May 16 14:14	4°♊24'59	8°12'35
	13069 Dec 12 23:58	0°♒		minimum elong		13072 May 16 05:19	4°♊38'49	8°10'29
				min. Earth dist.		13072 May 16 15:59	4°♊22'16	0.27656 AU
superior conj	13069 Dec 24 07:32	13°♒59'21	1°23'39	morning rise		13072 May 19 21:18	2°♊23'32	
minimum elong	13069 Dec 24 12:04	14°♒13'22	1°24'36			13072 May 24 03:28	30°♌♋	
max. Earth dist.	13069 Dec 25 18:58	15°♒48'48	1.73068 AU	direct		13072 Jun 06 12:01	26°♌23'55	

greatest brilliancy	13072 Jun 16 12:25	28°♄17'25	-4.9m			13074 Dec 22 01:41	0°♁	
	13072 Jun 20 13:57	0°♂		desc. node		13075 Jan 12 04:35	25°♁46'06	
morning max el	13072 Jul 27 00:26	29°♂12'22	46°58'07			13075 Jan 15 16:11	0°♄	
desc. node	13072 Jul 27 18:53	29°♂58'53				13075 Feb 09 12:22	0°♃	
	13072 Jul 27 19:19	0°♄				13075 Mar 06 14:56	0°♄	
	13072 Aug 24 13:57	0°♂				13075 Apr 01 03:24	0°♂	
	13072 Sep 19 11:54	0°♄				13075 Apr 27 13:13	0°♄	
	13072 Oct 14 16:47	0°♂		asc. node		13075 May 05 01:34	8°♄11'15	
	13072 Nov 08 13:22	0°♂		evening max el		13075 May 20 02:48	23°♄50'01	46°38'41
asc. node	13072 Nov 17 15:51	11°♂03'29				13075 May 26 10:57	0°♂	
	13072 Dec 03 04:42	0°♄		greatest brilliancy		13075 Jun 29 10:07	24°♂13'36	-4.9m
	13072 Dec 27 16:15	0°♄		retrograde		13075 Jul 09 04:47	26°♂00'52	
	13073 Jan 21 01:24	0°♁		evening set		13075 Jul 25 08:27	20°♂56'20	
morning set	13073 Jan 25 06:09	5°♁10'20		inferior conj		13075 Jul 29 19:40	18°♂15'41	6°16'29
	13073 Feb 14 09:20	0°♄		minimum elong		13075 Jul 30 06:50	17°♂58'35	6°13'05
max. Earth dist.	13073 Mar 02 08:29	19°♄42'22	1.72965 AU	min. Earth dist.		13075 Jul 30 05:39	18°♂00'24	0.27024 AU
				morning rise		13075 Aug 04 05:13	15°♂03'53	
superior conj	13073 Mar 03 15:05	21°♄16'52	0°13'38	direct		13075 Aug 19 13:53	10°♂28'32	
minimum elong	13073 Mar 03 18:15	21°♄26'40	0°13'43	desc. node		13075 Aug 25 04:17	11°♂05'03	
behind sun begin	13073 Mar 03 05:56	20°♄48'36		greatest brilliancy		13075 Aug 29 14:28	12°♂21'39	-4.9m
behind sun end	13073 Mar 04 06:34	22°♄04'43				13075 Sep 25 07:12	0°♄	
desc. node	13073 Mar 09 06:32	28°♄15'19		morning max el		13075 Oct 08 14:41	12°♄26'10	46°31'31
	13073 Mar 10 16:25	0°♃				13075 Oct 25 15:16	0°♂	
	13073 Apr 03 22:15	0°♄				13075 Nov 21 15:52	0°♂	
evening rise	13073 Apr 11 01:36	8°♄51'12		asc. node		13075 Dec 16 04:25	28°♂27'50	
	13073 Apr 28 02:26	0°♂				13075 Dec 17 11:43	0°♄	
	13073 May 22 05:34	0°♄				13076 Jan 11 16:08	0°♄	
	13073 Jun 15 09:27	0°♂				13076 Feb 05 11:06	0°♁	
asc. node	13073 Jun 29 22:02	17°♂57'17				13076 Mar 01 00:07	0°♄	
	13073 Jul 09 16:54	0°♄				13076 Mar 25 09:05	0°♃	
	13073 Aug 03 07:47	0°♂		morning set		13076 Apr 05 07:52	13°♃32'18	
	13073 Aug 28 12:43	0°♂		desc. node		13076 Apr 05 20:58	14°♃12'50	
	13073 Sep 23 22:54	0°♄				13076 Apr 18 14:32	0°♄	
evening max el	13073 Oct 13 10:16	20°♄19'51	46°15'24	max. Earth dist.		13076 May 11 14:23	28°♄37'57	1.71914 AU
desc. node	13073 Oct 19 20:48	26°♄30'19				13076 May 12 16:41	0°♂	
	13073 Oct 23 16:35	0°♄						
greatest brilliancy	13073 Nov 21 15:42	19°♄33'02	-4.8m	superior conj		13076 May 14 21:31	2°♂44'53	-1°17'21
retrograde	13073 Dec 02 00:43	21°♄30'51		minimum elong		13076 May 14 11:57	2°♂15'01	1°17'58
evening set	13073 Dec 20 07:59	15°♄12'16				13076 Jun 05 16:17	0°♄	
inferior conj	13073 Dec 23 12:07	13°♄14'10	-8°34'19	evening rise		13076 Jun 23 16:54	22°♄35'16	
minimum elong	13073 Dec 23 16:52	13°♄06'45	8°33'00			13076 Jun 29 14:50	0°♂	
min. Earth dist.	13073 Dec 23 10:56	13°♄16'02	0.28920 AU			13076 Jul 23 14:15	0°♄	
morning rise	13073 Dec 27 01:49	11°♄01'53		asc. node		13076 Jul 27 11:04	4°♄49'47	
direct	13074 Jan 13 21:26	5°♄02'00				13076 Aug 16 16:22	0°♂	
greatest brilliancy	13074 Jan 24 07:05	7°♄00'40	-4.7m			13076 Sep 09 23:24	0°♂	
asc. node	13074 Feb 09 23:29	16°♄27'46				13076 Oct 04 14:53	0°♄	
	13074 Feb 26 02:08	0°♁				13076 Oct 29 21:14	0°♄	
morning max el	13074 Mar 04 01:35	5°♁41'23	45°49'02	desc. node		13076 Nov 16 06:49	19°♄58'17	
	13074 Mar 27 09:07	0°♄				13076 Nov 25 06:55	0°♁	
	13074 Apr 22 19:54	0°♃		evening max el		13076 Dec 23 13:18	29°♁22'21	45°54'00
	13074 May 18 03:13	0°♄				13076 Dec 24 05:00	0°♄	
desc. node	13074 Jun 01 22:27	17°♄55'27		greatest brilliancy		13077 Jan 31 14:36	27°♄41'49	-4.8m
	13074 Jun 11 19:35	0°♂		retrograde		13077 Feb 10 10:14	29°♄27'18	
	13074 Jul 06 02:58	0°♄		evening set		13077 Feb 25 13:43	25°♄01'34	
	13074 Jul 30 05:25	0°♂		inferior conj		13077 Mar 03 16:13	21°♄21'33	-1°24'37
	13074 Aug 23 05:59	0°♄		minimum elong		13077 Mar 03 19:22	21°♄16'35	1°23'24
morning set	13074 Sep 04 11:25	15°♄16'10		min. Earth dist.		13077 Mar 04 01:33	21°♄06'53	0.28301 AU
	13074 Sep 16 06:35	0°♂		asc. node		13077 Mar 09 08:45	17°♄54'23	
asc. node	13074 Sep 22 13:43	7°♄51'32		morning rise		13077 Mar 10 00:33	17°♄32'23	
	13074 Oct 10 08:01	0°♂		direct		13077 Mar 24 21:53	13°♄11'17	
				greatest brilliancy		13077 Apr 04 17:04	15°♄20'05	-4.8m
superior conj	13074 Oct 13 08:50	3°♂46'42	0°47'47			13077 Apr 27 12:36	0°♃	
minimum elong	13074 Oct 12 23:18	3°♂17'01	0°47'50	morning max el		13077 May 13 18:00	14°♃58'45	46°28'49
max. Earth dist.	13074 Oct 15 14:56	6°♂35'07	1.72261 AU			13077 May 28 05:28	0°♄	
	13074 Nov 03 10:55	0°♄				13077 Jun 23 22:23	0°♂	
evening rise	13074 Nov 19 19:21	20°♄16'05		desc. node		13077 Jun 29 10:19	6°♂24'49	
	13074 Nov 27 16:19	0°♄				13077 Jul 19 06:27	0°♄	

	13077 Aug 12 23:29	0°♌	evening max el	13080 Mar 04 20:00	8°♌47'55	46°06'35
	13077 Sep 06 09:39	0°♍		13080 Mar 29 11:20	0°♌	
	13077 Sep 30 17:02	0°♎	asc. node	13080 Apr 05 18:06	4°♌36'49	
asc. node	13077 Oct 20 04:07	24°♎03'50	greatest brilliancy	13080 Apr 13 12:23	8°♌10'30	-4.8m
	13077 Oct 24 23:17	0°♏	retrograde	13080 Apr 23 08:20	9°♌58'46	
morning set	13077 Nov 14 23:31	26°♏00'16	evening set	13080 May 09 22:45	4°♌37'25	
	13077 Nov 18 04:58	0°♐	inferior conj	13080 May 14 04:02	2°♌03'26	8°01'41
	13077 Dec 12 10:44	0°♑	minimum elong	13080 May 13 18:37	2°♌18'03	7°59'24
			min. Earth dist.	13080 May 14 04:55	2°♌02'04	0.27673 AU
superior conj	13077 Dec 22 00:33	11°♑50'29	morning rise	13080 May 17 14:25	29°♌57'08	
minimum elong	13077 Dec 22 04:25	12°♑02'24		13080 May 17 12:30	30°♌	
max. Earth dist.	13077 Dec 23 10:48	13°♑36'16	direct	13080 Jun 04 02:36	24°♌02'13	
	13078 Jan 05 17:30	0°♒	greatest brilliancy	13080 Jun 14 02:01	25°♌55'15	-4.9m
evening rise	13078 Jan 28 06:43	27°♒46'56		13080 Jun 22 13:59	0°♌	
	13078 Jan 30 01:59	0°♓	morning max el	13080 Jul 24 15:21	26°♌52'47	46°57'58
desc. node	13078 Feb 08 18:03	11°♓53'08	desc. node	13080 Jul 26 20:49	29°♌08'12	
	13078 Feb 23 12:10	0°♔		13080 Jul 27 17:04	0°♍	
	13078 Mar 19 23:26	0°♕		13080 Aug 24 05:53	0°♌	
	13078 Apr 13 11:43	0°♌		13080 Sep 19 01:34	0°♍	
	13078 May 08 02:44	0°♍		13080 Oct 14 05:14	0°♎	
asc. node	13078 Jun 01 12:04	29°♍21'34		13080 Nov 08 01:05	0°♏	
	13078 Jun 02 00:58	0°♌	asc. node	13080 Nov 16 17:46	10°♏34'23	
	13078 Jun 27 15:22	0°♍		13080 Dec 02 15:54	0°♐	
	13078 Jul 24 19:48	0°♎		13080 Dec 27 03:07	0°♑	
evening max el	13078 Jul 31 16:28	7°♎02'17		13081 Jan 20 12:05	0°♒	
	13078 Aug 26 20:27	0°♏	morning set	13081 Jan 22 23:23	3°♒02'40	
greatest brilliancy	13078 Sep 09 02:35	7°♏24'15		13081 Feb 13 19:58	0°♓	
retrograde	13078 Sep 20 00:22	9°♏37'30	max. Earth dist.	13081 Feb 28 04:14	17°♓42'11	1.72989 AU
desc. node	13078 Sep 21 13:30	9°♏34'37				
evening set	13078 Oct 05 03:48	5°♏09'40	superior conj	13081 Mar 01 06:40	19°♓03'48	0°17'01
min. Earth dist.	13078 Oct 10 08:01	2°♏06'41	minimum elong	13081 Mar 01 10:35	19°♓15'53	0°17'08
inferior conj	13078 Oct 11 03:15	1°♏37'05	desc. node	13081 Mar 08 08:24	27°♓48'02	
minimum elong	13078 Oct 10 17:46	1°♏51'41		13081 Mar 10 03:07	0°♔	
	13078 Oct 13 18:52	30°♓		13081 Apr 03 09:04	0°♕	
morning rise	13078 Oct 16 08:15	28°♓30'43	evening rise	13081 Apr 08 16:10	6°♓33'54	
direct	13078 Nov 01 01:40	23°♓45'48		13081 Apr 27 13:24	0°♌	
greatest brilliancy	13078 Nov 10 15:18	25°♓25'30		13081 May 21 16:44	0°♍	
	13078 Nov 20 10:34	0°♏		13081 Jun 14 20:55	0°♌	
morning max el	13078 Dec 20 00:37	23°♏52'58	asc. node	13081 Jun 28 23:51	17°♌26'46	
	13078 Dec 26 06:00	0°♐		13081 Jul 09 04:50	0°♍	
asc. node	13079 Jan 12 15:30	18°♐11'06		13081 Aug 02 20:28	0°♎	
	13079 Jan 23 09:18	0°♑		13081 Aug 28 02:46	0°♏	
	13079 Feb 18 13:44	0°♒		13081 Sep 23 15:59	0°♐	
	13079 Mar 15 20:30	0°♓	evening max el	13081 Oct 11 02:20	18°♐07'19	46°16'31
	13079 Apr 09 15:06	0°♔	desc. node	13081 Oct 18 22:54	25°♐36'56	
desc. node	13079 May 04 11:11	0°♕29'10		13081 Oct 23 20:32	0°♑	
	13079 May 04 01:44	0°♕	greatest brilliancy	13081 Nov 19 06:34	17°♑20'47	-4.8m
	13079 May 28 06:26	0°♌	retrograde	13081 Nov 29 16:49	19°♑19'19	
morning set	13079 Jun 19 16:24	27°♌59'29	evening set	13081 Dec 18 01:01	12°♑59'08	
	13079 Jun 21 06:53	0°♍	inferior conj	13081 Dec 21 03:55	11°♑02'45	-8°38'48
	13079 Jul 15 05:01	0°♌	minimum elong	13081 Dec 21 07:55	10°♑56'29	8°37'34
			min. Earth dist.	13081 Dec 21 01:18	11°♑06'52	0.28908 AU
superior conj	13079 Jul 29 15:10	18°♌06'12	morning rise	13081 Dec 24 14:55	8°♑54'29	
minimum elong	13079 Jul 30 02:48	18°♌42'43	direct	13082 Jan 11 13:40	2°♑51'19	
max. Earth dist.	13079 Jul 30 03:40	18°♌45'24	greatest brilliancy	13082 Jan 21 20:52	4°♑47'52	-4.7m
	13079 Aug 08 02:47	0°♍	asc. node	13082 Feb 09 01:24	15°♑20'19	
asc. node	13079 Aug 25 01:06	21°♍12'35		13082 Feb 26 02:03	0°♒	
	13079 Sep 01 01:44	0°♎	morning max el	13082 Mar 01 16:45	3°♒28'19	45°48'07
evening rise	13079 Sep 07 12:03	8°♎02'00		13082 Mar 27 01:05	0°♓	
	13079 Sep 25 03:01	0°♏		13082 Apr 22 09:21	0°♔	
	13079 Oct 19 08:01	0°♐		13082 May 17 15:31	0°♕	
	13079 Nov 12 19:00	0°♑	desc. node	13082 Jun 01 00:18	17°♕24'50	
	13079 Dec 07 15:08	0°♒		13082 Jun 11 07:16	0°♌	
desc. node	13079 Dec 14 18:02	8°♒29'16		13082 Jul 05 14:16	0°♍	
	13080 Jan 02 00:30	0°♓		13082 Jul 29 16:28	0°♌	
	13080 Jan 28 05:43	0°♔		13082 Aug 22 16:52	0°♍	
	13080 Feb 25 01:10	0°♕	morning set	13082 Sep 02 00:46	12°♍54'22	

	13082 Sep 15 17:18	0°♄	morning rise	13085 Mar 07 16:06	15°♁19'52	
asc. node	13082 Sep 21 15:36	7°♄24'04	asc. node	13085 Mar 08 10:52	14°♁54'31	
	13082 Oct 09 18:40	0°♍	direct	13085 Mar 22 13:03	10°♁58'17	
			greatest brilliancy	13085 Apr 02 09:58	13°♁08'31	-4.8m
superior conj	13082 Oct 10 23:31	1°♍29'51 0°44'47		13085 Apr 27 18:42	0°♁	
minimum elong	13082 Oct 10 14:19	1°♍01'14 0°44'48	morning max el	13085 May 11 08:43	12°♁42'35	46°27'23
max. Earth dist.	13082 Oct 13 07:43	4°♍24'51 1.72226 AU		13085 May 27 22:47	0°♁	
	13082 Nov 02 21:32	0°♁		13085 Jun 23 12:23	0°♂	
evening rise	13082 Nov 17 11:28	18°♁04'29	desc. node	13085 Jun 28 12:14	5°♂50'27	
	13082 Nov 27 02:59	0°♂		13085 Jul 18 19:02	0°♂	
	13082 Dec 21 12:30	0°♁		13085 Aug 12 11:18	0°♂	
desc. node	13083 Jan 11 06:23	25°♁17'58		13085 Sep 05 20:58	0°♁	
	13083 Jan 15 03:19	0°♁		13085 Sep 30 03:59	0°♄	
	13083 Feb 08 23:59	0°♁	asc. node	13085 Oct 19 06:00	23°♄36'28	
	13083 Mar 06 03:23	0°♁		13085 Oct 24 09:57	0°♍	
	13083 Mar 31 17:20	0°♂	morning set	13085 Nov 12 15:11	23°♍47'37	
	13083 Apr 27 06:14	0°♂		13085 Nov 17 15:27	0°♁	
asc. node	13083 May 04 03:31	7°♂27'07		13085 Dec 11 21:07	0°♂	
evening max el	13083 May 17 15:39	21°♂25'51 46°37'35				
	13083 May 26 13:26	0°♂	superior conj	13085 Dec 19 17:26	9°♂42'17 1°25'00	
greatest brilliancy	13083 Jun 27 00:26	21°♂50'17 -4.9m	minimum elong	13085 Dec 19 20:34	9°♂52'00 1°25'58	
retrograde	13083 Jul 06 17:00	23°♂35'46	max. Earth dist.	13085 Dec 21 03:54	11°♂28'47 1.73040 AU	
evening set	13083 Jul 23 00:46	18°♂26'32		13086 Jan 05 03:52	0°♁	
inferior conj	13083 Jul 27 08:24	15°♂50'54 6°34'03	evening rise	13086 Jan 25 22:55	25°♁37'05	
minimum elong	13083 Jul 27 19:36	15°♂33'42 6°30'43		13086 Jan 29 12:27	0°♁	
min. Earth dist.	13083 Jul 27 19:12	15°♂34'18 0.27037 AU	desc. node	13086 Feb 07 19:57	11°♁26'38	
morning rise	13083 Aug 01 14:23	12°♂43'33		13086 Feb 22 22:49	0°♁	
direct	13083 Aug 17 02:18	8°♂03'24		13086 Mar 19 10:23	0°♁	
desc. node	13083 Aug 24 06:19	9°♂02'17		13086 Apr 12 23:05	0°♂	
greatest brilliancy	13083 Aug 27 03:40	9°♂56'48 -4.9m		13086 May 07 14:44	0°♂	
	13083 Sep 25 12:55	0°♁	asc. node	13086 May 31 13:56	28°♂48'27	
morning max el	13083 Oct 06 03:00	10°♁01'34 46°33'05		13086 Jun 01 14:00	0°♂	
	13083 Oct 25 09:00	0°♄		13086 Jun 27 06:25	0°♁	
	13083 Nov 21 06:01	0°♍		13086 Jul 24 15:50	0°♄	
asc. node	13083 Dec 15 06:12	27°♍56'09	evening max el	13086 Jul 29 06:27	4°♄41'44 46°44'37	
	13083 Dec 17 00:12	0°♁		13086 Aug 27 22:09	0°♍	
	13084 Jan 11 03:43	0°♂	greatest brilliancy	13086 Sep 06 16:54	5°♍04'40 -4.8m	
	13084 Feb 04 22:09	0°♁	retrograde	13086 Sep 17 15:08	7°♍18'33	
	13084 Feb 29 10:53	0°♁	desc. node	13086 Sep 20 15:35	7°♍07'25	
	13084 Mar 24 19:41	0°♁	evening set	13086 Oct 02 15:49	2°♍53'29	
morning set	13084 Apr 02 22:07	11°♁15'08		13086 Oct 07 14:14	30°♁	
desc. node	13084 Apr 04 22:55	13°♁46'12	min. Earth dist.	13086 Oct 07 22:20	29°♄47'36 0.27636 AU	
	13084 Apr 18 01:04	0°♁	inferior conj	13086 Oct 08 17:10	29°♄18'42 -4°24'51	
max. Earth dist.	13084 May 09 01:35	26°♁10'11 1.71957 AU	minimum elong	13086 Oct 08 08:07	29°♄32'36 4°21'57	
			morning rise	13086 Oct 14 00:57	26°♄08'58	
superior conj	13084 May 12 10:27	0°♂22'28 -1°15'32	direct	13086 Oct 29 15:10	21°♄27'54	
minimum elong	13084 May 12 00:24	29°♁51'07 1°16'05	greatest brilliancy	13086 Nov 08 05:06	23°♄08'15 -4.8m	
	13084 May 12 03:15	0°♂		13086 Nov 21 16:22	0°♍	
	13084 Jun 05 02:55	0°♂	morning max el	13086 Dec 17 15:31	21°♍39'12 45°51'11	
evening rise	13084 Jun 21 04:23	20°♂07'16		13086 Dec 26 01:56	0°♁	
	13084 Jun 29 01:36	0°♂	asc. node	13087 Jan 11 17:30	17°♁32'49	
	13084 Jul 23 01:09	0°♁		13087 Jan 22 23:59	0°♂	
asc. node	13084 Jul 26 12:54	4°♁21'24		13087 Feb 18 02:22	0°♁	
	13084 Aug 16 03:28	0°♄		13087 Mar 15 08:08	0°♁	
	13084 Sep 09 10:49	0°♍		13087 Apr 09 02:14	0°♁	
	13084 Oct 04 02:53	0°♁	desc. node	13087 May 03 12:56	0°♁01'07	
	13084 Oct 29 10:22	0°♂		13087 May 03 12:34	0°♁	
desc. node	13084 Nov 15 08:45	19°♂23'01		13087 May 27 17:07	0°♂	
	13084 Nov 24 22:30	0°♁	morning set	13087 Jun 17 04:10	25°♂33'00	
evening max el	13084 Dec 21 03:05	27°♁07'01 45°54'16		13087 Jun 20 17:28	0°♂	
	13084 Dec 24 03:53	0°♁		13087 Jul 14 15:32	0°♂	
greatest brilliancy	13085 Jan 29 06:08	25°♁29'58 -4.8m				
retrograde	13085 Feb 08 01:12	27°♁15'21	superior conj	13087 Jul 27 03:18	15°♂40'42 -1°01'39	
evening set	13085 Feb 23 06:37	22°♁46'50	minimum elong	13087 Jul 27 15:03	16°♂17'32 1°01'59	
inferior conj	13085 Mar 01 07:42	19°♁09'05 -1°45'39	max. Earth dist.	13087 Jul 27 15:16	16°♂18'13 1.71435 AU	
minimum elong	13085 Mar 01 11:37	19°♁02'57 1°44'10		13087 Aug 07 13:17	0°♁	
min. Earth dist.	13085 Mar 01 17:44	18°♁53'21 0.28332 AU	asc. node	13087 Aug 24 03:02	20°♁45'43	

	13087 Aug 31 12:16	0°♄		morning max el	13090 Feb 27 07:14	1°♁13'43	45°47'16
evening rise	13087 Sep 05 01:43	5°♄41'55			13090 Mar 26 16:42	0°♁	
	13087 Sep 24 13:39	0°♄			13090 Apr 21 22:35	0°♁	
	13087 Oct 18 18:49	0°♁			13090 May 17 03:38	0°♁	
	13087 Nov 12 06:06	0°♁		desc. node	13090 May 31 02:09	16°♁54'44	
	13087 Dec 07 02:47	0°♁			13090 Jun 10 18:47	0°♁	
desc. node	13087 Dec 13 19:50	7°♁59'21			13090 Jul 05 01:26	0°♁	
	13088 Jan 01 13:12	0°♁			13090 Jul 29 03:25	0°♁	
	13088 Jan 27 20:27	0°♁			13090 Aug 22 03:40	0°♁	
	13088 Feb 24 20:55	0°♁		morning set	13090 Aug 30 14:13	10°♁32'55	
evening max el	13088 Mar 02 11:26	6°♁34'09	46°05'41		13090 Sep 15 03:59	0°♁	
	13088 Mar 30 11:47	0°♁		asc. node	13090 Sep 20 17:26	6°♁56'31	
asc. node	13088 Apr 04 20:04	3°♁06'42					
greatest brilliancy	13088 Apr 11 01:17	5°♁50'29	-4.8m	superior conj	13090 Oct 08 14:23	29°♁13'45	0°41'43
retrograde	13088 Apr 20 22:30	7°♁39'12		minimum elong	13090 Oct 08 05:36	28°♁46'24	0°41'43
evening set	13088 May 07 08:34	2°♁23'51			13090 Oct 09 05:13	0°♁	
	13088 May 11 07:22	30°♁		max. Earth dist.	13090 Oct 10 22:48	2°♁09'27	1.72187 AU
inferior conj	13088 May 11 17:59	29°♁43'29	7°50'01		13090 Nov 02 08:04	0°♁	
minimum elong	13088 May 11 08:10	29°♁58'45	7°47'36	evening rise	13090 Nov 15 03:45	15°♁53'37	
min. Earth dist.	13088 May 11 18:12	29°♁43'09	0.27688 AU		13090 Nov 26 13:35	0°♁	
morning rise	13088 May 15 07:43	27°♁32'03			13090 Dec 20 23:19	0°♁	
direct	13088 Jun 01 17:18	21°♁42'12		desc. node	13091 Jan 10 08:20	24°♁50'14	
greatest brilliancy	13088 Jun 11 15:42	23°♁34'24	-4.9m		13091 Jan 14 14:28	0°♁	
	13088 Jun 23 21:28	0°♁			13091 Feb 08 11:41	0°♁	
morning max el	13088 Jul 22 05:55	24°♁33'27	46°57'51		13091 Mar 05 15:58	0°♁	
desc. node	13088 Jul 25 22:48	28°♁19'38			13091 Mar 31 07:29	0°♁	
	13088 Jul 27 13:37	0°♁			13091 Apr 26 23:40	0°♁	
	13088 Aug 23 21:10	0°♁		asc. node	13091 May 03 05:25	6°♁42'11	
	13088 Sep 18 14:45	0°♁		evening max el	13091 May 15 03:41	18°♁59'38	46°36'37
	13088 Oct 13 17:18	0°♁			13091 May 26 17:36	0°♁	
	13088 Nov 07 12:27	0°♁		greatest brilliancy	13091 Jun 24 14:45	19°♁26'52	-4.9m
asc. node	13088 Nov 15 19:32	10°♁05'41		retrograde	13091 Jul 04 05:10	21°♁10'54	
	13088 Dec 02 02:50	0°♁		evening set	13091 Jul 20 17:09	15°♁56'26	
	13088 Dec 26 13:45	0°♁		inferior conj	13091 Jul 24 21:11	13°♁26'03	6°50'48
	13089 Jan 19 22:34	0°♁		minimum elong	13091 Jul 25 08:22	13°♁08'53	6°47'33
morning set	13089 Jan 20 16:28	0°♁55'08		min. Earth dist.	13091 Jul 25 08:54	13°♁08'03	0.27055 AU
	13089 Feb 13 06:24	0°♁		morning rise	13091 Jul 29 23:27	10°♁23'36	
max. Earth dist.	13089 Feb 25 22:29	15°♁38'10	1.73007 AU	direct	13091 Aug 14 14:31	5°♁37'50	
				desc. node	13091 Aug 23 08:24	7°♁04'13	
superior conj	13089 Feb 26 22:11	16°♁51'20	0°20'24	greatest brilliancy	13091 Aug 24 17:17	7°♁32'09	-4.9m
minimum elong	13089 Feb 27 02:49	17°♁05'37	0°20'30		13091 Sep 25 16:51	0°♁	
desc. node	13089 Mar 07 10:15	27°♁21'29		morning max el	13091 Oct 03 15:52	7°♁37'50	46°34'47
	13089 Mar 09 13:34	0°♁			13091 Oct 25 02:28	0°♁	
	13089 Apr 02 19:37	0°♁			13091 Nov 20 20:08	0°♁	
evening rise	13089 Apr 06 06:44	4°♁17'27		asc. node	13091 Dec 14 08:13	27°♁24'55	
	13089 Apr 27 00:08	0°♁			13091 Dec 16 12:42	0°♁	
	13089 May 21 03:42	0°♁			13092 Jan 10 15:21	0°♁	
	13089 Jun 14 08:13	0°♁			13092 Feb 04 09:19	0°♁	
asc. node	13089 Jun 28 01:44	16°♁57'01			13092 Feb 28 21:48	0°♁	
	13089 Jul 08 16:36	0°♁			13092 Mar 24 06:29	0°♁	
	13089 Aug 02 09:00	0°♁		morning set	13092 Mar 31 12:17	8°♁57'07	
	13089 Aug 27 16:41	0°♁		desc. node	13092 Apr 04 00:41	13°♁18'16	
	13089 Sep 23 09:08	0°♁			13092 Apr 17 11:50	0°♁	
evening max el	13089 Oct 08 17:45	15°♁53'48	46°17'30	max. Earth dist.	13092 May 06 14:40	23°♁47'42	1.71998 AU
desc. node	13089 Oct 18 00:46	24°♁42'40					
	13089 Oct 24 02:04	0°♁		superior conj	13092 May 09 23:13	27°♁58'55	-1°13'33
greatest brilliancy	13089 Nov 16 22:00	15°♁09'42	-4.8m	minimum elong	13092 May 09 12:44	27°♁26'14	1°14'03
retrograde	13089 Nov 27 08:25	17°♁08'17			13092 May 11 14:01	0°♁	
evening set	13089 Dec 15 17:50	10°♁47'03			13092 Jun 04 13:46	0°♁	
inferior conj	13089 Dec 18 19:46	8°♁51'56	-8°42'30	evening rise	13092 Jun 18 15:52	17°♁38'50	
minimum elong	13089 Dec 18 23:01	8°♁46'51	8°41'21		13092 Jun 28 12:33	0°♁	
min. Earth dist.	13089 Dec 18 16:02	8°♁57'48	0.28897 AU		13092 Jul 22 12:14	0°♁	
morning rise	13089 Dec 22 04:19	6°♁47'12		asc. node	13092 Jul 25 14:52	3°♁52'47	
direct	13090 Jan 09 05:34	0°♁41'08			13092 Aug 15 14:47	0°♁	
greatest brilliancy	13090 Jan 19 11:06	2°♁35'50	-4.7m		13092 Sep 08 22:30	0°♁	
asc. node	13090 Feb 08 03:29	14°♁15'13			13092 Oct 03 15:12	0°♁	
	13090 Feb 26 00:49	0°♁			13092 Oct 28 23:52	0°♁	

desc. node	13092 Nov 14 10:40	18° Z 46'47			13095 May 27 04:14	0° II	
	13092 Nov 24 14:36	0° \approx		morning set	13095 Jun 14 15:40	23° II 04'16	
evening max el	13092 Dec 18 17:29	24° \approx 52'36	45°54'38		13095 Jun 20 04:31	0° G	
	13092 Dec 24 04:08	0° H			13095 Jul 14 02:32	0° Ω	
greatest brilliancy	13093 Jan 26 20:58	23° H 16'47	-4.8m				
retrograde	13093 Feb 05 16:38	25° H 02'45		superior conj	13095 Jul 24 14:59	13° Ω 12'10	-1°04'21
evening set	13093 Feb 20 23:39	20° H 31'08		minimum elong	13095 Jul 25 02:42	13° Ω 48'57	1°04'44
inferior conj	13093 Feb 26 23:10	16° H 55'44	-2°06'30	max. Earth dist.	13095 Jul 25 02:04	13° Ω 46'55	1.71426 AU
minimum elong	13093 Feb 27 03:49	16° H 48'26	2°04'45		13095 Aug 07 00:16	0° M	
min. Earth dist.	13093 Feb 27 09:35	16° H 39'26	0.28368 AU	asc. node	13095 Aug 23 04:48	20° M 16'47	
morning rise	13093 Mar 05 07:29	13° H 06'53			13095 Aug 30 23:17	0° $\underline{\text{A}}$	
asc. node	13093 Mar 07 12:50	11° H 57'24		evening rise	13095 Sep 02 14:48	3° $\underline{\text{A}}$ 18'28	
direct	13093 Mar 20 04:39	8° H 44'22			13095 Sep 24 00:44	0° M	
greatest brilliancy	13093 Mar 31 02:32	10° H 55'43	-4.8m		13095 Oct 18 06:03	0° J	
	13093 Apr 27 23:16	0° Y			13095 Nov 11 17:40	0° Z	
morning max el	13093 May 09 00:30	10° Y 27'58	46°25'50		13095 Dec 06 14:58	0° \approx	
	13093 May 27 16:11	0° B		desc. node	13095 Dec 12 21:51	7° \approx 28'33	
	13093 Jun 23 02:40	0° II			13096 Jan 01 02:28	0° H	
desc. node	13093 Jun 27 14:15	5° II 15'28			13096 Jan 27 11:54	0° Y	
	13093 Jul 18 07:55	0° G			13096 Feb 24 17:51	0° B	
	13093 Aug 11 23:24	0° Ω		evening max el	13096 Feb 29 02:37	4° B 18'35	46°04'48
	13093 Sep 05 08:34	0° M			13096 Mar 31 23:07	0° II	
	13093 Sep 29 15:14	0° $\underline{\text{A}}$		asc. node	13096 Apr 03 21:57	1° II 32'07	
asc. node	13093 Oct 18 07:44	23° $\underline{\text{A}}$ 07'34		greatest brilliancy	13096 Apr 08 14:45	3° II 30'08	-4.8m
	13093 Oct 23 20:58	0° M		retrograde	13096 Apr 18 12:07	5° II 18'36	
morning set	13093 Nov 10 06:46	21° M 33'31		evening set	13096 May 04 18:31	0° II 09'22	
	13093 Nov 17 02:18	0° J			13096 May 05 00:57	30° K B	
	13093 Dec 11 07:53	0° Z		inferior conj	13096 May 09 08:01	27° B 22'46	7°37'31
				minimum elong	13096 May 08 21:51	27° B 38'36	7°34'58
superior conj	13093 Dec 17 10:17	7° Z 32'48	1°25'28	min. Earth dist.	13096 May 09 07:55	27° B 22'55	0.27703 AU
minimum elong	13093 Dec 17 12:41	7° Z 40'15	1°26'28	morning rise	13096 May 13 01:06	25° B 06'01	
max. Earth dist.	13093 Dec 18 22:15	9° Z 24'00	1.73022 AU	direct	13096 May 30 07:46	19° B 21'23	
	13094 Jan 04 14:37	0° \approx		greatest brilliancy	13096 Jun 09 05:56	21° B 13'06	-4.9m
evening rise	13094 Jan 23 15:14	23° \approx 26'24			13096 Jun 24 20:39	0° II	
	13094 Jan 28 23:16	0° H		morning max el	13096 Jul 19 19:31	22° II 10'16	46°57'28
desc. node	13094 Feb 06 21:51	10° H 58'57		desc. node	13096 Jul 25 00:49	27° II 30'37	
	13094 Feb 22 09:51	0° Y			13096 Jul 27 10:00	0° G	
	13094 Mar 18 21:44	0° B			13096 Aug 23 12:45	0° Ω	
	13094 Apr 12 10:55	0° II			13096 Sep 18 04:20	0° M	
	13094 May 07 03:16	0° G			13096 Oct 13 05:48	0° $\underline{\text{A}}$	
asc. node	13094 May 30 15:53	28° G 13'53			13096 Nov 07 00:14	0° M	
	13094 Jun 01 03:39	0° Ω		asc. node	13096 Nov 14 21:31	9° M 36'23	
	13094 Jun 26 22:14	0° M			13096 Dec 01 14:08	0° J	
	13094 Jul 24 13:09	0° $\underline{\text{A}}$			13096 Dec 26 00:46	0° Z	
evening max el	13094 Jul 26 21:14	2° $\underline{\text{A}}$ 21'50	46°45'12	morning set	13097 Jan 18 09:24	28° Z 45'59	
	13094 Aug 29 11:50	0° M			13097 Jan 19 09:25	0° \approx	
greatest brilliancy	13094 Sep 04 07:01	2° M 43'23	-4.9m		13097 Feb 12 17:13	0° H	
retrograde	13094 Sep 15 06:08	4° M 57'45		max. Earth dist.	13097 Feb 23 14:52	13° H 27'14	1.73024 AU
desc. node	13094 Sep 19 17:28	4° M 33'11					
evening set	13094 Sep 30 03:57	0° M 35'23		superior conj	13097 Feb 24 13:51	14° H 38'11	0°23'44
	13094 Oct 01 05:27	30° K $\underline{\text{A}}$		minimum elong	13097 Feb 24 19:10	14° H 54'34	0°23'50
min. Earth dist.	13094 Oct 05 12:20	27° $\underline{\text{A}}$ 26'59	0.27583 AU	desc. node	13097 Mar 06 12:02	26° H 53'28	
inferior conj	13094 Oct 06 06:55	26° $\underline{\text{A}}$ 58'30	-4°04'47		13097 Mar 09 00:25	0° Y	
minimum elong	13094 Oct 05 22:22	27° $\underline{\text{A}}$ 11'37	4°02'01		13097 Apr 02 06:33	0° B	
morning rise	13094 Oct 11 17:24	23° $\underline{\text{A}}$ 45'30		evening rise	13097 Apr 03 21:30	2° B 00'35	
direct	13094 Oct 27 04:58	19° $\underline{\text{A}}$ 08'20			13097 Apr 26 11:12	0° II	
greatest brilliancy	13094 Nov 05 18:14	20° $\underline{\text{A}}$ 48'38	-4.8m		13097 May 20 14:59	0° G	
	13094 Nov 22 14:38	0° M			13097 Jun 13 19:50	0° Ω	
morning max el	13094 Dec 15 06:34	19° M 24'29	45°52'12	asc. node	13097 Jun 27 03:44	16° Ω 26'35	
	13094 Dec 25 21:44	0° J			13097 Jul 08 04:45	0° M	
asc. node	13095 Jan 10 19:29	16° J 53'34			13097 Aug 01 21:59	0° $\underline{\text{A}}$	
	13095 Jan 22 14:55	0° Z			13097 Aug 27 07:12	0° M	
	13095 Feb 17 15:21	0° \approx			13097 Sep 23 03:10	0° J	
	13095 Mar 14 20:08	0° H		evening max el	13097 Oct 06 08:16	13° J 36'31	46°18'35
	13095 Apr 08 13:43	0° Y		desc. node	13097 Oct 17 02:47	23° J 46'13	
desc. node	13095 May 02 14:48	29° Y 32'09			13097 Oct 24 10:39	0° Z	
	13095 May 02 23:49	0° B		greatest brilliancy	13097 Nov 14 13:46	12° Z 57'27	-4.8m

retrograde	13097 Nov 24 23:40	14° $\overline{3}$ 55'55		superior conj	13100 May 08 11:59	25° $\overline{8}$ 35'28	-1°11'27
evening set	13097 Dec 13 10:09	8° $\overline{3}$ 34'11		minimum elong	13100 May 08 01:10	25° $\overline{8}$ 01'46	1°11'54
inferior conj	13097 Dec 16 11:32	6° $\overline{3}$ 39'53	-8°45'22		13100 May 12 00:46	0° $\overline{\Pi}$	
minimum elong	13097 Dec 16 13:59	6° $\overline{3}$ 36'02	8°44'17		13100 Jun 05 00:34	0° $\overline{\Theta}$	
min. Earth dist.	13097 Dec 16 07:00	6° $\overline{3}$ 47'02	0.28881 AU	evening rise	13100 Jun 17 03:33	15° $\overline{\Theta}$ 11'11	
morning rise	13097 Dec 19 17:55	4° $\overline{3}$ 38'16			13100 Jun 28 23:25	0° $\overline{\Omega}$	
	13097 Dec 29 03:26	30° \overline{R} 7			13100 Jul 22 23:13	0° $\overline{\eta}$	
direct	13098 Jan 06 20:49	28° $\overline{7}$ 29'34		asc. node	13100 Jul 25 16:38	3° $\overline{\eta}$ 24'02	
	13098 Jan 15 22:24	0° $\overline{3}$			13100 Aug 16 01:57	0° $\overline{\underline{u}}$	
greatest brilliancy	13098 Jan 17 01:45	0° $\overline{3}$ 23'08	-4.7m		13100 Sep 09 10:01	0° $\overline{\mathbb{M}}$	
asc. node	13098 Feb 07 05:27	13° $\overline{3}$ 10'35			13100 Oct 04 03:23	0° $\overline{7}$	
morning max el	13098 Feb 24 21:17	28° $\overline{3}$ 57'04	45°46'32		13100 Oct 29 13:18	0° $\overline{3}$	
	13098 Feb 25 23:02	0° \approx		desc. node	13100 Nov 14 12:41	18° $\overline{3}$ 10'57	
	13098 Mar 26 08:23	0° \overline{H}			13100 Nov 25 06:50	0° \approx	
	13098 Apr 21 11:59	0° \overline{Y}		evening max el	13100 Dec 17 08:58	22° \approx 41'17	45°55'00
	13098 May 16 15:56	0° $\overline{8}$			13100 Dec 25 05:28	0° \overline{H}	
desc. node	13098 May 30 04:09	16° $\overline{8}$ 24'29		greatest brilliancy	13101 Jan 25 11:33	21° \overline{H} 03'56	-4.8m
	13098 Jun 10 06:28	0° $\overline{\Pi}$		retrograde	13101 Feb 04 08:23	22° \overline{H} 50'38	
	13098 Jul 04 12:45	0° $\overline{\Theta}$		evening set	13101 Feb 19 16:54	18° \overline{H} 15'59	
	13098 Jul 28 14:31	0° $\overline{\Omega}$		inferior conj	13101 Feb 25 14:39	14° \overline{H} 42'55	-2°27'00
	13098 Aug 21 14:38	0° $\overline{\eta}$		minimum elong	13101 Feb 25 20:01	14° \overline{H} 34'32	2°25'02
morning set	13098 Aug 28 03:36	8° $\overline{\eta}$ 10'38		min. Earth dist.	13101 Feb 26 01:08	14° \overline{H} 26'33	0.28403 AU
	13098 Sep 14 14:50	0° $\overline{\underline{u}}$		morning rise	13101 Mar 03 22:43	10° \overline{H} 54'46	
asc. node	13098 Sep 19 19:14	6° $\overline{\underline{u}}$ 28'18		asc. node	13101 Mar 07 14:44	9° \overline{H} 04'51	
				direct	13101 Mar 18 20:40	6° \overline{H} 31'15	
superior conj	13098 Oct 06 04:59	26° $\overline{\underline{u}}$ 56'11	0°38'33	greatest brilliancy	13101 Mar 29 18:30	8° \overline{H} 42'56	-4.8m
minimum elong	13098 Oct 05 20:41	26° $\overline{\underline{u}}$ 30'19	0°38'32		13101 Apr 29 01:50	0° \overline{Y}	
max. Earth dist.	13098 Oct 08 11:00	29° $\overline{\underline{u}}$ 44'26	1.72153 AU	morning max el	13101 May 07 16:51	8° \overline{Y} 15'36	46°24'10
	13098 Oct 08 16:00	0° $\overline{\mathbb{M}}$			13101 May 28 08:59	0° $\overline{8}$	
	13098 Nov 01 18:49	0° $\overline{7}$			13101 Jun 23 16:35	0° $\overline{\Pi}$	
evening rise	13098 Nov 12 19:43	13° $\overline{7}$ 41'03		desc. node	13101 Jun 27 16:07	4° $\overline{\Pi}$ 40'53	
	13098 Nov 26 00:25	0° $\overline{3}$			13101 Jul 18 20:29	0° $\overline{\Theta}$	
	13098 Dec 20 10:20	0° \approx			13101 Aug 12 11:12	0° $\overline{\Omega}$	
desc. node	13099 Jan 09 10:12	24° \approx 21'43			13101 Sep 05 19:51	0° $\overline{\eta}$	
	13099 Jan 14 01:50	0° \overline{H}			13101 Sep 30 02:09	0° $\overline{\underline{u}}$	
	13099 Feb 07 23:37	0° \overline{Y}		asc. node	13101 Oct 18 09:40	22° $\overline{\underline{u}}$ 40'22	
	13099 Mar 05 04:49	0° $\overline{8}$			13101 Oct 24 07:37	0° $\overline{\mathbb{M}}$	
	13099 Mar 30 21:58	0° $\overline{\Pi}$		morning set	13101 Nov 08 22:41	19° $\overline{\mathbb{M}}$ 21'30	
	13099 Apr 26 17:40	0° $\overline{\Theta}$			13101 Nov 17 12:49	0° $\overline{7}$	
asc. node	13099 May 02 07:30	5° $\overline{\Theta}$ 56'42			13101 Dec 11 18:18	0° $\overline{3}$	
evening max el	13099 May 12 15:51	16° $\overline{\Theta}$ 33'38	46°35'47				
	13099 May 26 23:51	0° $\overline{\Omega}$		superior conj	13101 Dec 16 03:19	5° $\overline{3}$ 24'47	1°25'49
greatest brilliancy	13099 Jun 22 04:43	17° $\overline{\Omega}$ 03'20	-4.9m	minimum elong	13101 Dec 16 04:59	5° $\overline{3}$ 29'57	1°26'50
retrograde	13099 Jul 01 17:55	18° $\overline{\Omega}$ 46'45		max. Earth dist.	13101 Dec 17 18:25	7° $\overline{3}$ 25'43	1.73007 AU
evening set	13099 Jul 18 09:39	13° $\overline{\Omega}$ 26'43			13102 Jan 05 01:03	0° \approx	
inferior conj	13099 Jul 22 10:07	11° $\overline{\Omega}$ 01'42	7°06'32				
minimum elong	13099 Jul 22 21:11	10° $\overline{\Omega}$ 44'43	7°03'26				
min. Earth dist.	13099 Jul 22 22:30	10° $\overline{\Omega}$ 42'43	0.27072 AU				
morning rise	13099 Jul 27 08:34	8° $\overline{\Omega}$ 04'39					
direct	13099 Aug 12 02:57	3° $\overline{\Omega}$ 12'45					
desc. node	13099 Aug 22 10:15	5° $\overline{\Omega}$ 11'13					
greatest brilliancy	13099 Aug 22 06:50	5° $\overline{\Omega}$ 08'05	-4.9m				
	13099 Sep 25 19:02	0° $\overline{\eta}$					
morning max el	13099 Oct 01 05:47	5° $\overline{\eta}$ 16'50	46°36'18				
	13099 Oct 24 19:29	0° $\overline{\underline{u}}$					
	13099 Nov 20 10:06	0° $\overline{\mathbb{M}}$					
asc. node	13099 Dec 13 10:09	26° $\overline{\mathbb{M}}$ 53'28					
	13099 Dec 16 01:11	0° $\overline{7}$					
	13100 Jan 10 03:00	0° $\overline{3}$					
	13100 Feb 03 20:29	0° \approx					
	13100 Feb 28 08:41	0° \overline{H}					
	13100 Mar 24 17:14	0° \overline{Y}					
morning set	13100 Mar 30 02:31	6° \overline{Y} 39'28					
desc. node	13100 Apr 04 02:29	12° \overline{Y} 50'36					
	13100 Apr 17 22:33	0° $\overline{8}$					
max. Earth dist.	13100 May 05 05:04	21° $\overline{8}$ 29'25	1.72039 AU				