

































































































































superior conj	3600 Apr 24 13:59	5°♄23'17	-0°57'20			3601 Mar 28 23:07	0°♄	
minimum elong	3600 Apr 24 17:01	5°♄38'43	0°56'46	max. Earth dist.		3601 Apr 01 08:45	6°♄07'48	1.37213 AU
asc. node	3600 Apr 30 09:12	17°♄20'52						
evening rise	3600 May 02 09:32	21°♄30'24		superior conj		3601 Apr 07 23:30	18°♄38'48	-1°24'55
	3600 May 06 15:08	0°♄		minimum elong		3601 Apr 08 03:48	18°♄59'47	1°24'18
evening max el	3600 May 20 17:58	21°♄21'24	20°26'14			3601 Apr 13 16:54	0°♄	
retrograde	3600 May 31 17:03	26°♄42'15		evening rise		3601 Apr 16 11:41	5°♄34'36	
evening set	3600 Jun 02 17:15	26°♄32'13		asc. node		3601 Apr 17 06:14	7°♄06'59	
desc. node	3600 Jun 06 15:44	25°♄20'25				3601 Apr 30 16:03	0°♄	
inferior conj	3600 Jun 11 21:45	22°♄34'18	-1°32'49	evening max el		3601 May 03 09:26	3°♄00'57	19°21'32
minimum elong	3600 Jun 11 17:23	22°♄40'40	1°31'13	retrograde		3601 May 12 15:14	7°♄30'21	
min. Earth dist.	3600 Jun 13 06:29	21°♄46'41	0.55007 AU	evening set		3601 May 14 15:31	7°♄18'32	
morning rise	3600 Jun 20 16:30	18°♄22'57		inferior conj		3601 May 23 03:41	3°♄11'11	0°24'06
direct	3600 Jun 24 12:18	17°♄51'23		minimum elong		3601 May 23 04:41	3°♄09'31	0°23'43
morning max el	3600 Jul 07 22:28	24°♄22'10	23°28'12	desc. node		3601 May 24 12:46	2°♄16'43	
	3600 Jul 13 02:09	0°♄		min. Earth dist.		3601 May 25 21:02	1°♄24'28	0.56027 AU
asc. node	3600 Jul 27 08:25	23°♄11'29				3601 May 28 05:31	30°♄	
	3600 Jul 30 16:44	0°♄		morning rise		3601 May 31 14:55	28°♄26'27	
morning set	3600 Jul 31 12:23	1°♄43'01		direct		3601 Jun 05 09:02	27°♄34'47	
						3601 Jun 13 09:26	0°♄	
superior conj	3600 Aug 07 13:05	16°♄49'19	1°33'54	morning max el		3601 Jun 19 12:30	4°♄45'48	25°09'30
minimum elong	3600 Aug 07 11:08	16°♄38'51	1°33'43			3601 Jul 07 14:06	0°♄	
max. Earth dist.	3600 Aug 10 00:02	22°♄03'53	1.33498 AU	asc. node		3601 Jul 14 05:28	12°♄53'58	
	3600 Aug 13 19:48	0°♄		morning set		3601 Jul 16 00:06	16°♄36'51	
evening rise	3600 Aug 15 02:39	2°♄35'21				3601 Jul 22 04:16	0°♄	
	3600 Aug 30 12:04	0°♄						
desc. node	3600 Sep 02 15:03	4°♄45'19		superior conj		3601 Jul 22 22:57	1°♄42'16	1°20'18
evening max el	3600 Sep 18 03:57	23°♄58'16	27°21'51	minimum elong		3601 Jul 22 20:37	1°♄29'30	1°19'58
	3600 Sep 26 10:40	0°♄		max. Earth dist.		3601 Jul 24 05:51	4°♄30'54	1.32616 AU
retrograde	3600 Oct 01 16:38	1°♄16'35		evening rise		3601 Jul 30 02:18	16°♄57'04	
	3600 Oct 06 14:08	30°♄				3601 Aug 05 18:13	0°♄	
evening set	3600 Oct 08 18:20	28°♄35'47		desc. node		3601 Aug 20 12:04	23°♄52'15	
min. Earth dist.	3600 Oct 12 12:08	25°♄10'53	0.64296 AU			3601 Aug 25 05:22	0°♄	
inferior conj	3600 Oct 14 21:39	22°♄38'30	-2°43'55	evening max el		3601 Aug 31 13:16	6°♄52'02	27°23'10
minimum elong	3600 Oct 15 02:12	22°♄26'27	2°42'16	retrograde		3601 Sep 14 08:01	14°♄07'42	
morning rise	3600 Oct 21 11:16	17°♄13'41		evening set		3601 Sep 21 12:37	11°♄38'41	
asc. node	3600 Oct 23 07:37	16°♄43'08		min. Earth dist.		3601 Sep 25 03:12	8°♄42'48	0.62540 AU
direct	3600 Oct 24 00:29	16°♄40'36		inferior conj		3601 Sep 28 00:18	5°♄59'11	-3°42'12
morning max el	3600 Oct 30 12:42	20°♄06'28	17°55'34	minimum elong		3601 Sep 28 06:00	5°♄45'38	3°40'31
	3600 Nov 06 22:55	0°♄		morning rise		3601 Oct 05 01:00	0°♄52'26	
morning set	3600 Nov 16 15:36	16°♄08'23		direct		3601 Oct 07 10:31	0°♄26'31	
	3600 Nov 24 21:45	0°♄		asc. node		3601 Oct 10 04:40	1°♄01'48	
				morning max el		3601 Oct 14 04:51	3°♄53'53	17°51'01
superior conj	3600 Nov 29 19:51	8°♄02'31	-0°01'36	morning set		3601 Oct 30 06:03	28°♄53'17	
minimum elong	3600 Nov 29 19:41	8°♄01'47	0°01'34			3601 Oct 30 21:02	0°♄	
behind sun begin	3600 Nov 29 09:32	7°♄20'43						
behind sun end	3600 Nov 30 05:50	8°♄42'47		superior conj		3601 Nov 10 12:44	18°♄35'18	0°40'32
desc. node	3600 Nov 29 14:18	7°♄40'03		minimum elong		3601 Nov 10 16:19	18°♄50'26	0°40'02
max. Earth dist.	3600 Dec 04 20:59	16°♄07'06	1.44654 AU	desc. node		3601 Nov 16 11:21	28°♄27'27	
	3600 Dec 13 18:02	0°♄				3601 Nov 17 10:07	0°♄	
evening rise	3600 Dec 15 22:49	3°♄23'30		max. Earth dist.		3601 Nov 17 12:19	0°♄08'56	1.43428 AU
	3601 Jan 02 17:00	0°♄		evening rise		3601 Nov 25 09:07	12°♄37'13	
evening max el	3601 Jan 12 03:52	11°♄59'59	20°16'20			3601 Dec 06 20:37	0°♄	
asc. node	3601 Jan 19 06:54	16°♄33'55		evening max el		3601 Dec 26 02:03	25°♄32'58	21°25'42
retrograde	3601 Jan 20 00:36	16°♄36'54				3601 Dec 31 18:27	0°♄	
evening set	3601 Jan 23 19:41	15°♄13'16		retrograde		3602 Jan 03 22:13	0°♄47'55	
inferior conj	3601 Jan 29 05:08	9°♄07'53	2°52'43	asc. node		3602 Jan 06 03:56	0°♄20'35	
minimum elong	3601 Jan 29 02:40	9°♄16'14	2°52'07			3602 Jan 06 21:00	30°♄	
min. Earth dist.	3601 Jan 29 23:21	8°♄06'08	0.67264 AU	evening set		3602 Jan 08 03:21	29°♄09'01	
morning rise	3601 Feb 03 09:26	2°♄54'02		inferior conj		3602 Jan 13 11:41	22°♄53'28	2°17'00
direct	3601 Feb 09 03:09	0°♄20'26		minimum elong		3602 Jan 13 09:15	23°♄01'55	2°16'13
morning max el	3601 Feb 20 16:01	7°♄14'12	24°44'43	min. Earth dist.		3602 Jan 13 17:37	22°♄32'59	0.67809 AU
desc. node	3601 Feb 25 13:33	12°♄40'25		morning rise		3602 Jan 18 14:57	16°♄41'02	
	3601 Mar 10 10:04	0°♄		direct		3602 Jan 23 18:01	14°♄27'27	
morning set	3601 Mar 28 17:33	29°♄35'23		morning max el		3602 Feb 03 00:56	20°♄34'21	23°16'02

	3602 Feb 11 02:16	0°♊		desc. node	3603 Jan 30 07:36	21°♊24'32	
desc. node	3602 Feb 12 10:34	1°♊45'40			3603 Feb 05 05:39	0°♊	
	3602 Mar 03 15:47	0°♋		morning set	3603 Feb 18 00:07	19°♊40'16	
morning set	3602 Mar 09 23:16	10°♋19'20		max. Earth dist.	3603 Feb 24 02:29	29°♊37'21	1.41504 AU
max. Earth dist.	3602 Mar 14 03:31	17°♋27'26	1.39370 AU		3603 Feb 24 07:56	0°♋	
	3602 Mar 21 03:33	0°♌					
superior conj	3602 Mar 21 18:46	1°♌10'20	-1°48'23	superior conj	3603 Mar 03 18:48	12°♋45'18	-2°03'50
minimum elong	3602 Mar 21 23:20	1°♌31'32	1°47'58	minimum elong	3603 Mar 03 21:33	12°♋57'22	2°03'43
evening rise	3602 Mar 31 05:35	19°♌10'14			3603 Mar 13 07:48	0°♌	
asc. node	3602 Apr 04 03:16	26°♌36'32		evening rise	3603 Mar 14 11:37	2°♌08'19	
	3602 Apr 05 23:27	0°♍		asc. node	3603 Mar 22 00:19	15°♌43'13	
evening max el	3602 Apr 16 11:07	15°♍18'59	18°36'54	evening max el	3603 Mar 30 19:39	28°♌06'35	18°12'23
retrograde	3602 Apr 24 07:12	19°♍09'44			3603 Apr 02 02:09	0°♍	
evening set	3602 Apr 26 13:31	18°♍51'37		retrograde	3603 Apr 06 17:58	1°♍35'39	
inferior conj	3602 May 04 05:46	14°♍25'47	1°57'09	evening set	3603 Apr 09 06:45	1°♍08'28	
minimum elong	3602 May 04 09:22	14°♍18'53	1°56'05		3603 Apr 11 14:33	30°♎♌	
min. Earth dist.	3602 May 07 14:48	11°♍51'51	0.57776 AU	inferior conj	3603 Apr 16 05:06	26°♌21'40	2°57'43
desc. node	3602 May 11 09:48	9°♍27'26		minimum elong	3603 Apr 16 08:23	26°♌14'18	2°57'03
morning rise	3602 May 12 02:03	9°♍07'15		min. Earth dist.	3603 Apr 19 14:02	23°♌22'08	0.59895 AU
direct	3602 May 17 20:00	7°♍44'20		morning rise	3603 Apr 23 07:37	20°♌37'29	
morning max el	3602 Jun 01 04:53	15°♍20'34	26°35'16	desc. node	3603 Apr 28 06:49	18°♌45'41	
	3602 Jun 13 00:55	0°♎		direct	3603 Apr 29 19:26	18°♌39'12	
	3602 Jun 29 18:17	0°♏		morning max el	3603 May 14 03:23	26°♌29'56	27°31'46
morning set	3602 Jun 30 10:35	1°♏25'31			3603 May 17 10:34	0°♏	
asc. node	3602 Jul 01 02:33	2°♏49'54			3603 Jun 06 13:00	0°♎	
				morning set	3603 Jun 14 18:08	16°♎03'50	
superior conj	3602 Jul 07 10:34	16°♏38'02	1°02'16	asc. node	3603 Jun 17 23:37	22°♎54'27	
minimum elong	3602 Jul 07 08:20	16°♏25'42	1°01'51	max. Earth dist.	3603 Jun 21 04:22	29°♎52'51	1.32071 AU
max. Earth dist.	3602 Jul 07 16:30	17°♏10'42	1.32144 AU		3603 Jun 21 05:40	0°♏	
	3602 Jul 13 14:04	0°♐		superior conj	3603 Jun 21 22:11	1°♏30'53	0°40'25
evening rise	3602 Jul 14 08:12	1°♐35'41		minimum elong	3603 Jun 21 20:30	1°♏21'36	0°40'05
	3602 Jul 29 17:58	0°♑		evening rise	3603 Jun 28 18:01	16°♏23'47	
desc. node	3602 Aug 07 09:06	12°♑07'45			3603 Jul 05 11:55	0°♐	
evening max el	3602 Aug 13 17:31	19°♑05'31	26°51'21	desc. node	3603 Jul 25 06:07	29°♐10'52	
retrograde	3602 Aug 27 15:38	26°♑16'51			3603 Jul 26 01:42	0°♑	
evening set	3602 Sep 03 13:51	24°♑12'26		evening max el	3603 Jul 26 14:30	0°♑30'56	25°47'30
min. Earth dist.	3602 Sep 07 07:40	21°♑34'22	0.60545 AU	retrograde	3603 Aug 09 13:55	7°♑38'26	
inferior conj	3602 Sep 10 12:55	18°♑53'54	-4°32'01	evening set	3603 Aug 15 17:15	6°♑09'05	
minimum elong	3602 Sep 10 18:21	18°♑42'33	4°30'57	min. Earth dist.	3603 Aug 20 02:40	3°♑32'00	0.58482 AU
morning rise	3602 Sep 18 00:46	14°♑08'20		inferior conj	3603 Aug 23 07:58	1°♑12'50	-5°03'41
direct	3602 Sep 20 09:42	13°♑46'35		minimum elong	3603 Aug 23 10:34	1°♑08'07	5°03'30
asc. node	3602 Sep 27 01:44	16°♑46'36			3603 Aug 25 00:59	30°♒♐	
morning max el	3602 Sep 27 17:43	17°♑23'45	18°05'29	morning rise	3603 Aug 31 06:06	26°♒50'29	
	3602 Oct 06 17:05	0°♓		direct	3603 Sep 02 17:34	26°♒30'44	
morning set	3602 Oct 13 12:52	12°♓24'49			3603 Sep 10 12:12	0°♑	
				morning max el	3603 Sep 11 00:04	0°♑27'24	18°40'22
superior conj	3602 Oct 23 07:39	0°♓24'02	1°11'59	asc. node	3603 Sep 13 22:48	3°♑43'10	
minimum elong	3602 Oct 23 11:49	0°♓42'37	1°11'29	morning set	3603 Sep 27 07:10	26°♑29'28	
	3602 Oct 23 02:16	0°♓			3603 Sep 29 02:24	0°♓	
max. Earth dist.	3602 Oct 30 23:06	13°♓37'45	1.41692 AU				
desc. node	3602 Nov 03 08:22	19°♓13'57		superior conj	3603 Oct 05 23:55	13°♓15'55	1°32'11
evening rise	3602 Nov 05 08:46	22°♓30'01		minimum elong	3603 Oct 06 02:54	13°♓29'55	1°31'57
	3602 Nov 10 02:40	0°♔		max. Earth dist.	3603 Oct 13 05:18	26°♓24'48	1.39660 AU
	3602 Nov 30 23:38	0°♕			3603 Oct 15 06:48	0°♓	
evening max el	3602 Dec 08 19:16	9°♕07'51	22°43'10	evening rise	3603 Oct 17 06:45	3°♓24'22	
retrograde	3602 Dec 18 17:40	15°♕01'42		desc. node	3603 Oct 21 05:25	9°♓56'22	
evening set	3602 Dec 23 10:40	13°♕06'32			3603 Nov 03 08:04	0°♔	
asc. node	3602 Dec 24 00:59	12°♕35'02		evening max el	3603 Nov 21 09:00	22°♔46'02	24°03'01
inferior conj	3602 Dec 28 19:28	6°♕44'17	1°33'52	retrograde	3603 Dec 02 09:50	29°♔15'09	
minimum elong	3602 Dec 28 17:31	6°♕51'03	1°33'08	evening set	3603 Dec 07 16:03	27°♔03'39	
min. Earth dist.	3602 Dec 28 14:05	7°♕02'54	0.67978 AU	asc. node	3603 Dec 10 22:01	23°♔33'15	
morning rise	3603 Jan 03 00:14	0°♕35'03		min. Earth dist.	3603 Dec 12 10:28	21°♔33'18	0.67793 AU
	3603 Jan 03 18:46	30°♒♔		inferior conj	3603 Dec 13 02:40	20°♔38'33	0°44'33
direct	3603 Jan 07 12:35	28°♔44'20		minimum elong	3603 Dec 13 01:37	20°♔42'04	0°44'07
	3603 Jan 11 14:41	0°♕		morning rise	3603 Dec 18 11:13	14°♔34'25	
morning max el	3603 Jan 16 13:37	4°♕01'53	21°49'21	direct	3603 Dec 22 09:47	13°♔06'17	

morning max el	3603 Dec 30 09:20	17°  40'58	20°31'39	asc. node	3604 Nov 26 19:03	3°  56'04	
	3604 Jan 09 06:49	0° 			3604 Nov 30 04:47	30° 	
desc. node	3604 Jan 17 04:38	11°  27'55		morning rise	3604 Dec 01 21:53	28°  36'36	
morning set	3604 Jan 28 01:09	27°  58'29		direct	3604 Dec 05 08:18	27°  28'36	
	3604 Jan 29 08:25	0° 			3604 Dec 10 21:29	0° 	
max. Earth dist.	3604 Feb 06 08:57	12°  42'47	1.43326 AU	morning max el	3604 Dec 12 12:58	1°  31'02	19°27'19
				greatest brilliancy	3604 Dec 25 18:59	19°  11'33	-0.7m
superior conj	3604 Feb 12 18:39	23°  12'37	-2°06'07		3605 Jan 01 21:20	0° 	
minimum elong	3604 Feb 12 16:40	23°  04'21	2°06'03	desc. node	3605 Jan 03 01:41	1°  349'06	
	3604 Feb 16 19:22	0° 		morning set	3605 Jan 05 23:10	6°  317'25	
evening rise	3604 Feb 25 01:39	14°  20'02		max. Earth dist.	3605 Jan 18 22:04	26°  31'33	1.44606 AU
	3604 Mar 05 03:24	0° 			3605 Jan 21 02:38	0° 	
asc. node	3604 Mar 07 21:21	4°  19'26					
evening max el	3604 Mar 13 07:41	11°  14'36	18°07'28	superior conj	3605 Jan 22 16:46	2°  32'05	-1°50'16
retrograde	3604 Mar 19 19:38	14°  37'28		minimum elong	3605 Jan 22 09:05	2°  01'22	1°49'43
evening set	3604 Mar 22 14:12	13°  59'45		evening rise	3605 Feb 05 19:23	25°  37'37	
inferior conj	3604 Mar 28 22:32	8°  52'38	3°29'12		3605 Feb 08 10:05	0° 	
minimum elong	3604 Mar 29 00:10	8°  48'25	3°29'02	asc. node	3605 Feb 22 18:22	22°  15'56	
min. Earth dist.	3604 Mar 31 21:21	5°  52'14	0.62051 AU	evening max el	3605 Feb 24 20:16	24°  35'43	18°21'27
morning rise	3604 Apr 04 08:39	2°  52'35		retrograde	3605 Mar 03 07:29	28°  05'39	
direct	3604 Apr 11 05:16	0° 		evening set	3605 Mar 06 07:46	27°  16'21	
desc. node	3604 Apr 14 03:50	0°  48'58		inferior conj	3605 Mar 12 05:55	21°  50'29	3°38'06
morning max el	3604 Apr 25 08:08	8°  21'59	27°51'30	minimum elong	3605 Mar 12 05:48	21°  50'49	3°38'05
	3604 May 11 22:54	0° 		min. Earth dist.	3605 Mar 14 14:09	19°  10'08	0.63999 AU
morning set	3604 May 28 20:42	0°  24'37		morning rise	3605 Mar 18 03:02	15°  42'03	
	3604 May 28 15:51	0° 		direct	3605 Mar 24 23:34	12°  55'07	
max. Earth dist.	3604 Jun 03 13:18	12°  22'54	1.32407 AU	desc. node	3605 Apr 01 00:51	15°  19'01	
asc. node	3604 Jun 03 20:39	13°  02'34		morning max el	3605 Apr 07 16:51	20°  51'41	27°34'15
					3605 Apr 15 14:33	0° 	
superior conj	3604 Jun 05 07:59	16°  14'27	0°15'26		3605 May 05 00:50	0° 	
minimum elong	3604 Jun 05 07:16	16°  10'33	0°15'17	morning set	3605 May 12 15:48	14°  20'18	
behind sun begin	3604 Jun 05 05:50	16°  02'45		max. Earth dist.	3605 May 17 15:19	24°  28'26	1.33175 AU
behind sun end	3604 Jun 05 08:42	16°  18'21			3605 May 20 06:06	0° 	
	3604 Jun 11 15:48	0° 					
evening rise	3604 Jun 12 05:38	1°  13'45		superior conj	3605 May 20 14:11	0°  43'09	-0°11'59
	3604 Jun 27 23:46	0° 		minimum elong	3605 May 20 14:47	0°  46'21	0°11'50
evening max el	3604 Jul 07 04:49	11°  13'03	24°19'51	behind sun begin	3605 May 20 11:09	0°  26'55	
desc. node	3604 Jul 11 03:09	14°  03'20		behind sun end	3605 May 20 18:26	1°  05'49	
retrograde	3604 Jul 21 01:10	18°  01'27		asc. node	3605 May 21 17:41	3°  10'21	
evening set	3604 Jul 25 20:33	17°  02'52		evening rise	3605 May 27 17:14	15°  59'38	
min. Earth dist.	3604 Jul 31 15:37	14°  02'13	0.56622 AU		3605 Jun 03 17:03	0° 	
inferior conj	3604 Aug 03 06:50	12°  04'45	-5°03'03	evening max el	3605 Jun 18 18:29	21°  37'57	22°43'01
minimum elong	3604 Aug 03 03:53	12°  05'15	5°02'50	desc. node	3605 Jun 28 00:08	27°  36'25	
morning rise	3604 Aug 11 13:50	8°  04'51		retrograde	3605 Jul 02 00:02	28°  13'01	
direct	3604 Aug 14 06:11	8°  02'6'04		evening set	3605 Jul 05 07:06	27°  49'12	
morning max el	3604 Aug 23 20:46	12°  05'42	19°36'45	min. Earth dist.	3605 Jul 13 02:38	24°  23'02	0.55313 AU
asc. node	3604 Aug 30 19:51	21°  03'53		inferior conj	3605 Jul 14 10:59	23°  36'43	-4°15'42
	3604 Sep 04 18:19	0° 		minimum elong	3605 Jul 14 03:07	23°  48'00	4°13'58
morning set	3604 Sep 10 09:16	10°  05'56		morning rise	3605 Jul 23 01:20	19°  45'36	
				direct	3605 Jul 26 00:38	19°  25'10	
superior conj	3604 Sep 18 07:56	26°  05'41	1°42'27	morning max el	3605 Aug 06 05:50	24°  37'50	20°54'16
minimum elong	3604 Sep 18 09:12	27°  00'21	1°42'25		3605 Aug 11 01:22	0° 	
	3604 Sep 19 21:52	0° 		asc. node	3605 Aug 17 16:53	10°  01'23	
max. Earth dist.	3604 Sep 24 09:33	8°  32'08	1.37587 AU	morning set	3605 Aug 25 16:32	25°  03'7'40	
evening rise	3604 Sep 28 03:43	15°  21'59			3605 Aug 27 19:06	0° 	
	3604 Oct 06 19:02	0° 					
desc. node	3604 Oct 07 02:28	0°  29'53		superior conj	3605 Sep 02 03:11	11°  05'34	1°44'23
	3604 Oct 27 23:33	0° 		minimum elong	3605 Sep 02 02:51	11°  03'53	1°44'23
evening max el	3604 Nov 02 21:14	6°  26'59	25°18'43	max. Earth dist.	3605 Sep 06 17:51	20°  07'22'36	1.35716 AU
retrograde	3604 Nov 14 21:45	13°  23'14		evening rise	3605 Sep 10 20:17	28°  07'14'50	
evening set	3604 Nov 20 17:50	10°  25'7'00			3605 Sep 11 18:54	0° 	
min. Earth dist.	3604 Nov 25 04:29	6°  20'01	0.67257 AU	desc. node	3605 Sep 23 23:29	20°  49'24	
inferior conj	3604 Nov 26 07:29	4°  33'26	-0°09'55		3605 Sep 30 01:35	0° 	
minimum elong	3604 Nov 26 07:44	4°  32'40	0°09'50	evening max el	3605 Oct 16 09:35	20°  07'49	26°22'50
transit middle	3604 Nov 26 07:44	4°  32'40	0°09'50	retrograde	3605 Oct 29 04:40	27°  01'19'50	
transit begin	3604 Nov 26 05:31	4°  39'51		evening set	3605 Nov 04 14:08	24°  01'42'40	
transit end	3604 Nov 26 09:57	4°  25'29		min. Earth dist.	3605 Nov 08 17:44	20°  01'22'11	0.66376 AU

inferior conj	3605 Nov 10 08:01	18°♍25'33	-1°08'20	retrograde	3606 Oct 12 05:50	10°♍58'15	
minimum elong	3605 Nov 10 09:52	18°♍19'55	1°07'34	evening set	3606 Oct 19 02:44	8°♍16'30	
asc. node	3605 Nov 13 16:04	14°♍39'43		min. Earth dist.	3606 Oct 22 23:54	4°♍31'44	0.65150 AU
morning rise	3605 Nov 16 06:10	12°♍38'31		inferior conj	3606 Oct 25 02:10	2°♍10'48	-2°08'59
direct	3605 Nov 19 06:32	11°♍47'02		minimum elong	3606 Oct 25 05:46	2°♍00'42	2°07'34
morning max el	3605 Nov 25 23:20	15°♍27'56	18°38'30		3606 Oct 27 02:16	30°♍♂	
	3605 Dec 06 18:08	0°♍♂		morning rise	3606 Oct 31 09:44	26°♂36'41	
morning set	3605 Dec 16 17:47	15°♍♂43'03		asc. node	3606 Oct 31 13:07	26°♂32'46	
desc. node	3605 Dec 20 22:43	22°♍♂22'30		direct	3606 Nov 03 02:22	25°♂57'51	
	3605 Dec 25 18:48	0°♂		morning max el	3606 Nov 09 14:12	29°♂26'39	18°06'19
					3606 Nov 10 03:09	0°♍	
superior conj	3606 Jan 01 21:03	11°♂08'20	-1°15'29	morning set	3606 Nov 27 17:58	26°♍37'49	
minimum elong	3606 Jan 01 12:20	10°♂34'10	1°14'30		3606 Nov 29 19:00	0°♍♂	
max. Earth dist.	3606 Jan 01 15:41	10°♂47'16	1.45206 AU	desc. node	3606 Dec 07 19:46	13°♍♂04'22	
	3606 Jan 13 20:07	0°♍♍					
evening rise	3606 Jan 17 13:51	5°♍♍57'22		superior conj	3606 Dec 12 02:37	19°♍♂55'05	-0°29'00
greatest brilliancy	3606 Jan 25 18:10	19°♍♍00'50	-0.8m	minimum elong	3606 Dec 11 22:59	19°♍♂40'37	0°28'29
	3606 Feb 01 22:17	0°♍♂		max. Earth dist.	3606 Dec 15 11:09	25°♍♂13'20	1.45067 AU
evening max el	3606 Feb 08 06:54	8°♍♂03'39	18°53'25		3606 Dec 18 12:11	0°♂	
asc. node	3606 Feb 09 15:23	9°♍♂20'29		evening rise	3606 Dec 28 11:04	15°♂328'58	
retrograde	3606 Feb 15 01:33	11°♍♂51'58			3607 Jan 06 21:17	0°♍♍	
evening set	3606 Feb 18 08:11	10°♍♂50'08		greatest brilliancy	3607 Jan 10 14:13	5°♍♍36'19	-0.7m
inferior conj	3606 Feb 23 23:25	5°♍♂07'12	3°30'06	evening max el	3607 Jan 22 13:35	21°♍♍34'57	19°41'51
minimum elong	3606 Feb 23 21:57	5°♍♂11'45	3°29'57	asc. node	3607 Jan 27 12:23	25°♍♍19'29	
min. Earth dist.	3606 Feb 25 16:04	3°♍♂00'48	0.65596 AU	retrograde	3607 Jan 29 22:50	25°♍♍51'30	
	3606 Feb 28 07:51	30°♍♍♍		evening set	3607 Feb 02 13:01	24°♍♍36'00	
morning rise	3606 Mar 01 11:19	28°♍♍54'56		inferior conj	3607 Feb 07 23:57	18°♍♍38'05	3°09'21
direct	3606 Mar 08 00:51	26°♍♍03'58		minimum elong	3607 Feb 07 21:41	18°♍♍45'32	3°08'54
	3606 Mar 16 22:33	0°♍♂		min. Earth dist.	3607 Feb 09 01:53	17°♍♍12'22	0.66781 AU
desc. node	3606 Mar 18 21:53	1°♍♂40'30		morning rise	3607 Feb 13 06:09	12°♍♍24'30	
morning max el	3606 Mar 21 02:40	3°♍♂46'53	26°45'14	direct	3607 Feb 19 07:55	9°♍♍42'00	
	3606 Apr 09 23:51	0°♍♂♂		morning max el	3607 Mar 03 11:49	16°♍♍56'56	25°32'57
morning set	3606 Apr 26 00:10	27°♍♂♂40'04		desc. node	3607 Mar 05 18:56	19°♍♍22'56	
	3606 Apr 27 05:21	0°♂			3607 Mar 14 08:50	0°♍♂	
max. Earth dist.	3606 Apr 30 06:49	6°♂00'54	1.34404 AU		3607 Apr 02 22:42	0°♍♂♂	
				morning set	3607 Apr 08 17:25	10°♍♂11'38	
superior conj	3606 May 04 14:35	14°♂49'46	-0°40'43	max. Earth dist.	3607 Apr 12 11:03	17°♍♂07'40	1.36086 AU
minimum elong	3606 May 04 16:44	15°♂00'52	0°40'17				
asc. node	3606 May 08 14:42	23°♂13'09		superior conj	3607 Apr 18 06:32	28°♍♂26'58	-1°09'19
	3606 May 11 20:13	0°♂♂		minimum elong	3607 Apr 18 10:11	28°♍♂45'10	1°08'43
evening rise	3606 May 12 02:52	0°♂♂34'37			3607 Apr 19 01:07	0°♂	
	3606 May 29 11:16	0°♂♂		asc. node	3607 Apr 25 11:43	13°♂06'58	
evening max el	3606 May 31 15:23	2°♂♂17'59	21°11'53	evening rise	3607 Apr 26 08:29	14°♂52'38	
retrograde	3606 Jun 12 13:24	8°♂♂08'29			3607 May 04 05:22	0°♂♂	
evening set	3606 Jun 14 19:46	7°♂♂56'36		evening max el	3607 May 13 23:58	13°♂♂34'10	19°56'10
desc. node	3606 Jun 14 21:07	7°♂♂56'00		retrograde	3607 May 24 04:44	18°♂♂31'46	
inferior conj	3606 Jun 24 04:48	3°♂♂58'15	-2°40'37	evening set	3607 May 26 03:56	18°♂♂21'31	
minimum elong	3606 Jun 23 21:35	4°♂♂08'23	2°38'13	desc. node	3607 Jun 01 18:09	15°♂♂44'18	
min. Earth dist.	3606 Jun 24 14:01	3°♂♂45'18	0.54846 AU	inferior conj	3607 Jun 04 02:26	14°♂♂21'03	-0°41'35
morning rise	3606 Jul 02 23:43	29°♂♂59'59		minimum elong	3607 Jun 04 00:31	14°♂♂23'58	0°40'52
	3606 Jul 02 23:40	30°♍♂♂		min. Earth dist.	3607 Jun 06 02:52	13°♂♂07'43	0.55343 AU
direct	3606 Jul 06 10:20	29°♂♂34'21		morning rise	3607 Jun 12 19:10	9°♂♂56'55	
	3606 Jul 09 19:06	0°♂♂		direct	3607 Jun 17 00:02	9°♂♂18'13	
morning max el	3606 Jul 19 03:47	5°♂♂37'28	22°29'10	morning max el	3607 Jun 30 18:51	16°♂♂07'03	24°12'14
asc. node	3606 Aug 04 13:56	29°♂♂19'52			3607 Jul 11 21:39	0°♂♂	
	3606 Aug 04 22:20	0°♂♂		asc. node	3607 Jul 22 10:59	18°♂♂52'18	
morning set	3606 Aug 10 02:55	10°♂♂28'41		morning set	3607 Jul 25 14:38	25°♂♂23'23	
					3607 Jul 27 18:25	0°♂♂	
superior conj	3606 Aug 17 06:09	25°♂♂39'54	1°39'25				
minimum elong	3606 Aug 17 04:40	25°♂♂31'58	1°39'19	superior conj	3607 Aug 01 14:09	10°♂♂28'16	1°28'43
	3606 Aug 19 07:33	0°♂♂♂		minimum elong	3607 Aug 01 11:59	10°♂♂16'30	1°28'28
max. Earth dist.	3606 Aug 20 10:50	2°♂♂21'44	1.34193 AU	max. Earth dist.	3607 Aug 03 12:45	14°♂♂39'45	1.33074 AU
evening rise	3606 Aug 25 03:59	11°♂♂51'20		evening rise	3607 Aug 08 22:48	25°♂♂59'31	
	3606 Sep 04 02:54	0°♂♂			3607 Aug 10 22:57	0°♂♂♂	
desc. node	3606 Sep 10 20:29	10°♂♂48'31		desc. node	3607 Aug 28 17:30	0°♂♂17'59	
	3606 Sep 25 08:28	0°♂♂♂			3607 Aug 28 12:31	0°♂♂	
evening max el	3606 Sep 28 22:11	3°♂♂40'46	27°07'43	evening max el	3607 Sep 11 09:23	16°♂♂52'38	27°26'23

retrograde	3607 Sep 25 00:44	24°♄09'22		retrograde	3608 Sep 06 12:50	6°♄44'13	
evening set	3607 Oct 02 04:42	21°♄32'14		evening set	3608 Sep 13 16:18	4°♄23'45	
min. Earth dist.	3607 Oct 05 20:44	18°♄20'42	0.63584 AU	min. Earth dist.	3608 Sep 17 07:03	1°♄37'33	0.61718 AU
inferior conj	3607 Oct 08 11:20	15°♄42'23	-3°09'16		3608 Sep 19 02:54	30°♄	
minimum elong	3607 Oct 08 16:28	15°♄29'20	3°07'31	inferior conj	3608 Sep 20 08:25	28°♄53'05	-4°04'50
morning rise	3607 Oct 15 05:34	10°♄24'45		minimum elong	3608 Sep 20 14:15	28°♄39'57	4°03'20
direct	3607 Oct 17 17:00	9°♄54'57		morning rise	3608 Sep 27 13:57	23°♄55'18	
asc. node	3607 Oct 18 10:11	9°♄57'29		direct	3608 Sep 29 22:54	23°♄31'27	
morning max el	3607 Oct 24 06:45	13°♄20'12	17°51'27	asc. node	3608 Oct 04 07:15	24°♄54'33	
	3607 Nov 04 17:56	0°♄		morning max el	3608 Oct 06 21:57	27°♄01'33	17°54'49
morning set	3607 Nov 09 20:16	8°♄47'58			3608 Oct 09 13:03	0°♄	
				morning set	3608 Oct 22 18:18	21°♄54'17	
					3608 Oct 27 05:30	0°♄	
superior conj	3607 Nov 22 04:05	29°♄42'24	0°17'25				
minimum elong	3607 Nov 22 05:56	29°♄49'57	0°17'09				
	3607 Nov 22 08:22	0°♄		superior conj	3608 Nov 02 08:26	10°♄48'44	0°55'16
desc. node	3607 Nov 24 16:47	3°♄50'30		minimum elong	3608 Nov 02 12:35	11°♄06'39	0°54'44
max. Earth dist.	3607 Nov 28 05:11	9°♄30'23	1.44207 AU	max. Earth dist.	3608 Nov 09 18:44	23°♄19'45	1.42738 AU
evening rise	3607 Dec 07 20:46	24°♄37'37		desc. node	3608 Nov 10 13:49	24°♄37'50	
	3607 Dec 11 08:58	0°♄			3608 Nov 13 21:37	0°♄	
	3608 Jan 01 04:40	0°♄		evening rise	3608 Nov 16 10:58	4°♄03'05	
evening max el	3608 Jan 05 14:57	5°♄06'59	20°44'32		3608 Dec 03 18:43	0°♄	
retrograde	3608 Jan 13 20:57	9°♄59'24		evening max el	3608 Dec 18 10:43	18°♄39'42	21°57'58
asc. node	3608 Jan 14 09:26	9°♄57'55		retrograde	3608 Dec 27 17:56	24°♄11'53	
evening set	3608 Jan 17 20:11	8°♄29'11		asc. node	3608 Dec 31 06:30	23°♄04'58	
inferior conj	3608 Jan 23 04:56	2°♄18'58	2°38'33	evening set	3609 Jan 01 03:55	22°♄25'59	
minimum elong	3608 Jan 23 02:25	2°♄27'35	2°37'51	inferior conj	3609 Jan 06 12:14	16°♄06'52	1°59'33
min. Earth dist.	3608 Jan 23 17:41	1°♄35'17	0.67544 AU	minimum elong	3609 Jan 06 09:57	16°♄14'48	1°58'45
	3608 Jan 24 21:56	30°♄		min. Earth dist.	3609 Jan 06 13:11	16°♄03'35	0.67918 AU
morning rise	3608 Jan 28 08:29	26°♄05'44		morning rise	3609 Jan 11 15:50	9°♄55'31	
direct	3608 Feb 02 20:01	23°♄40'21		direct	3609 Jan 16 12:26	7°♄51'46	
	3608 Feb 13 14:34	0°♄		morning max el	3609 Jan 26 06:37	13°♄37'53	22°38'30
morning max el	3608 Feb 13 20:24	0°♄14'37	24°07'25	desc. node	3609 Feb 06 13:01	27°♄23'38	
desc. node	3608 Feb 20 15:59	8°♄02'52			3609 Feb 08 10:17	0°♄	
	3608 Mar 07 06:23	0°♄			3609 Feb 28 05:00	0°♄	
morning set	3608 Mar 20 13:59	21°♄40'00		morning set	3609 Mar 01 07:43	1°♄49'11	
max. Earth dist.	3608 Mar 24 07:43	28°♄14'50	1.38117 AU	max. Earth dist.	3609 Mar 06 03:28	9°♄53'17	1.40289 AU
	3608 Mar 25 07:05	0°♄					
				superior conj	3609 Mar 13 22:18	23°♄34'33	-1°56'12
superior conj	3608 Mar 31 10:36	11°♄25'50	-1°35'33	minimum elong	3609 Mar 14 02:26	23°♄53'16	1°55'55
minimum elong	3608 Mar 31 15:12	11°♄47'48	1°35'00		3609 Mar 17 10:19	0°♄	
evening rise	3608 Apr 09 07:35	28°♄46'46		evening rise	3609 Mar 23 20:57	12°♄07'47	
	3608 Apr 09 22:30	0°♄		asc. node	3609 Mar 29 05:49	22°♄08'16	
asc. node	3608 Apr 11 08:46	2°♄47'22			3609 Apr 02 20:26	0°♄	
evening max el	3608 Apr 25 20:08	25°♄31'28	18°59'59	evening max el	3609 Apr 09 01:08	8°♄03'20	18°24'03
retrograde	3608 May 04 10:22	29°♄42'56		retrograde	3609 Apr 16 10:44	11°♄43'10	
evening set	3608 May 06 12:52	29°♄28'52		evening set	3609 Apr 18 19:41	11°♄21'37	
inferior conj	3608 May 14 16:32	25°♄13'52	1°07'22	inferior conj	3609 Apr 26 03:56	6°♄47'05	2°26'44
minimum elong	3608 May 14 19:04	25°♄09'25	1°06'30	minimum elong	3609 Apr 26 07:40	6°♄39'25	2°25'45
min. Earth dist.	3608 May 17 18:30	23°♄05'13	0.56701 AU	min. Earth dist.	3609 Apr 29 14:34	3°♄59'01	0.58646 AU
desc. node	3608 May 18 15:10	22°♄31'15		morning rise	3609 May 03 16:40	1°♄15'59	
morning rise	3608 May 22 22:06	20°♄14'07		desc. node	3609 May 05 12:13	0°♄26'36	
direct	3608 May 28 02:22	19°♄10'37			3609 May 06 21:48	30°♄	
morning max el	3608 Jun 11 09:31	26°♄33'38	25°48'52	direct	3609 May 09 19:04	29°♄37'56	
	3608 Jun 14 16:24	0°♄			3609 May 12 17:32	0°♄	
	3608 Jul 04 00:53	0°♄		morning max el	3609 May 24 04:31	7°♄22'18	27°03'26
asc. node	3608 Jul 08 08:03	8°♄41'53			3609 Jun 10 04:03	0°♄	
morning set	3608 Jul 09 02:05	10°♄16'45		morning set	3609 Jun 23 11:34	25°♄02'07	
				asc. node	3609 Jun 25 05:06	28°♄42'13	
					3609 Jun 25 19:36	0°♄	
superior conj	3608 Jul 16 01:02	25°♄23'57	1°13'09				
minimum elong	3608 Jul 15 22:42	25°♄11'03	1°12'47				
max. Earth dist.	3608 Jul 16 21:15	27°♄14'55	1.32367 AU	superior conj	3609 Jun 30 12:53	10°♄19'33	0°53'26
	3608 Jul 18 03:27	0°♄		minimum elong	3609 Jun 30 10:50	10°♄08'13	0°53'02
evening rise	3608 Jul 23 01:28	10°♄30'02		max. Earth dist.	3609 Jun 30 08:45	9°♄56'47	1.32063 AU
	3608 Aug 02 05:13	0°♄		evening rise	3609 Jul 07 09:17	25°♄13'34	
desc. node	3608 Aug 14 14:31	19°♄05'34			3609 Jul 09 16:23	0°♄	
evening max el	3608 Aug 23 16:44	29°♄30'20	27°13'37		3609 Jul 27 01:40	0°♄	
	3608 Aug 24 05:26	0°♄		desc. node	3609 Aug 01 11:32	6°♄53'25	

evening max el	3609 Aug 05 17:48	11° \mathbb{M} 22'57	26°27'40	retrograde	3610 Aug 01 11:04	29° \mathcal{Q} 33'41	
retrograde	3609 Aug 19 17:04	18° \mathbb{M} 33'37		evening set	3610 Aug 07 01:50	28° \mathcal{Q} 21'10	
evening set	3609 Aug 26 08:49	16° \mathbb{M} 42'58		min. Earth dist.	3610 Aug 11 23:28	25° \mathcal{Q} 38'18	0.57647 AU
min. Earth dist.	3609 Aug 30 07:14	14° \mathbb{M} 07'33	0.59662 AU	inferior conj	3610 Aug 15 00:33	23° \mathcal{Q} 34'10	-5°08'21
inferior conj	3609 Sep 02 13:56	11° \mathbb{M} 33'30	-4°48'25	minimum elong	3610 Aug 15 01:02	23° \mathcal{Q} 33'21	5°08'21
minimum elong	3609 Sep 02 18:32	11° \mathbb{M} 24'25	4°47'45	morning rise	3610 Aug 23 02:37	19° \mathcal{Q} 21'01	
morning rise	3609 Sep 10 06:22	6° \mathbb{M} 58'00		direct	3610 Aug 25 15:47	19° \mathcal{Q} 01'42	
direct	3609 Sep 12 15:52	6° \mathbb{M} 37'29		morning max el	3610 Sep 03 11:03	23° \mathcal{Q} 10'49	19°01'37
morning max el	3609 Sep 20 08:30	10° \mathbb{M} 21'46	18°17'44	asc. node	3610 Sep 08 01:21	28° \mathcal{Q} 33'46	
asc. node	3609 Sep 21 04:19	11° \mathbb{M} 11'46			3610 Sep 09 01:30	0° \mathbb{M}	
	3609 Oct 03 06:13	0° \mathcal{Q}		morning set	3610 Sep 20 04:28	19° \mathbb{M} 55'57	
morning set	3609 Oct 06 06:29	5° \mathcal{Q} 41'01			3610 Sep 25 06:39	0° \mathcal{Q}	
superior conj	3609 Oct 15 13:07	23° \mathcal{Q} 06'18	1°21'51	superior conj	3610 Sep 28 12:40	6° \mathcal{Q} 19'20	1°37'40
minimum elong	3609 Oct 15 16:55	23° \mathcal{Q} 23'37	1°21'28	minimum elong	3610 Sep 28 14:56	6° \mathcal{Q} 30'12	1°37'31
	3609 Oct 19 09:14	0° \mathbb{M}		max. Earth dist.	3610 Oct 05 07:24	18° \mathcal{Q} 56'37	1.38770 AU
max. Earth dist.	3609 Oct 23 02:44	6° \mathbb{M} 28'43	1.40844 AU	evening rise	3610 Oct 09 03:34	25° \mathcal{Q} 42'38	
evening rise	3609 Oct 27 19:31	14° \mathbb{M} 20'30			3610 Oct 11 16:00	0° \mathbb{M}	
desc. node	3609 Oct 28 10:51	15° \mathbb{M} 23'07		desc. node	3610 Oct 15 07:51	6° \mathbb{M} 02'16	
	3609 Nov 06 18:11	0° \mathcal{X}			3610 Oct 31 09:36	0° \mathcal{X}	
	3609 Nov 28 22:37	0° \mathcal{Z}		evening max el	3610 Nov 13 15:04	15° \mathcal{X} 55'28	24°36'18
evening max el	3609 Dec 01 02:05	2° \mathcal{Z} 15'31	23°17'18	retrograde	3610 Nov 25 02:34	22° \mathcal{X} 37'05	
retrograde	3609 Dec 11 12:13	8° \mathcal{Z} 25'51		evening set	3610 Nov 30 14:34	20° \mathcal{X} 19'20	
evening set	3609 Dec 16 10:35	6° \mathcal{Z} 23'49		min. Earth dist.	3610 Dec 05 05:41	15° \mathcal{X} 03'17	0.67605 AU
asc. node	3609 Dec 18 03:32	4° \mathcal{Z} 43'46		asc. node	3610 Dec 05 00:34	15° \mathcal{X} 20'12	
inferior conj	3609 Dec 21 19:58	29° \mathcal{X} 59'41	1°13'40	inferior conj	3610 Dec 06 02:20	13° \mathcal{X} 54'28	0°22'00
minimum elong	3609 Dec 21 18:21	0° \mathcal{Z} 05'14	1°13'02	minimum elong	3610 Dec 06 01:48	13° \mathcal{X} 56'16	0°21'46
min. Earth dist.	3609 Dec 21 10:00	0° \mathcal{Z} 33'57	0.67932 AU	morning rise	3610 Dec 11 13:07	7° \mathcal{X} 52'55	
	3609 Dec 21 19:53	30° \mathcal{R} \mathcal{X}		direct	3610 Dec 15 06:22	6° \mathcal{X} 33'32	
morning rise	3609 Dec 27 02:03	23° \mathcal{X} 52'07		morning max el	3610 Dec 22 20:53	10° \mathcal{X} 53'04	20°02'26
direct	3609 Dec 31 08:19	22° \mathcal{X} 11'10			3611 Jan 06 08:02	0° \mathcal{Z}	
morning max el	3610 Jan 08 21:58	27° \mathcal{X} 09'56	21°14'52	desc. node	3611 Jan 11 07:05	7° \mathcal{Z} 25'31	
	3610 Jan 11 12:49	0° \mathcal{Z}		morning set	3611 Jan 18 17:13	18° \mathcal{Z} 46'19	
desc. node	3610 Jan 24 10:03	17° \mathcal{Z} 14'02			3611 Jan 25 21:59	0° \approx	
	3610 Feb 01 23:57	0° \approx		max. Earth dist.	3611 Jan 29 14:17	5° \approx 50'18	1.43948 AU
morning set	3610 Feb 08 20:53	10° \approx 38'26					
max. Earth dist.	3610 Feb 16 04:50	22° \approx 24'58	1.42323 AU	superior conj	3611 Feb 04 01:14	14° \approx 39'04	-2°01'49
	3610 Feb 20 18:18	0° \mathcal{H}		minimum elong	3611 Feb 03 20:39	14° \approx 20'23	2°01'37
superior conj	3610 Feb 23 12:35	4° \mathcal{H} 41'58	-2°06'45		3611 Feb 13 06:02	0° \mathcal{H}	
minimum elong	3610 Feb 23 13:41	4° \mathcal{H} 46'38	2°06'43	evening rise	3611 Feb 17 02:28	6° \mathcal{H} 35'38	
evening rise	3610 Mar 06 20:43	24° \mathcal{H} 47'09		asc. node	3611 Mar 02 23:52	29° \mathcal{H} 23'29	
	3610 Mar 09 18:00	0° \mathcal{Y}			3611 Mar 03 10:30	0° \mathcal{Y}	
asc. node	3610 Mar 16 02:51	11° \mathcal{Y} 03'13		evening max el	3611 Mar 07 00:14	4° \mathcal{Y} 15'22	18°11'14
evening max el	3610 Mar 23 11:36	21° \mathcal{Y} 01'08	18°08'00	retrograde	3611 Mar 13 10:35	7° \mathcal{Y} 39'21	
retrograde	3610 Mar 30 04:13	24° \mathcal{Y} 25'35		evening set	3611 Mar 16 07:42	6° \mathcal{Y} 56'39	
evening set	3610 Apr 01 19:31	23° \mathcal{Y} 54'07		inferior conj	3611 Mar 22 11:14	1° \mathcal{Y} 41'24	3°35'19
inferior conj	3610 Apr 08 11:27	18° \mathcal{Y} 58'53	3°14'13	minimum elong	3611 Mar 22 12:07	1° \mathcal{Y} 39'03	3°35'17
minimum elong	3610 Apr 08 14:06	18° \mathcal{Y} 52'32	3°13'46		3611 Mar 24 00:44	30° \mathcal{R} \mathcal{H}	
min. Earth dist.	3610 Apr 11 17:08	15° \mathcal{Y} 55'47	0.60825 AU	min. Earth dist.	3611 Mar 25 04:09	28° \mathcal{H} 47'32	0.62918 AU
morning rise	3610 Apr 15 06:40	13° \mathcal{Y} 06'55		morning rise	3611 Mar 28 15:25	25° \mathcal{H} 37'23	
direct	3610 Apr 21 23:34	10° \mathcal{Y} 54'13		direct	3611 Apr 04 13:08	22° \mathcal{H} 59'20	
desc. node	3610 Apr 22 09:14	10° \mathcal{Y} 54'41		desc. node	3611 Apr 09 06:15	24° \mathcal{H} 03'42	
morning max el	3610 May 06 05:40	18° \mathcal{Y} 49'17	27°44'39		3611 Apr 17 12:47	0° \mathcal{Y}	
	3610 May 15 16:02	0° \mathcal{B}		morning max el	3611 Apr 18 12:10	0° \mathcal{Y} 57'09	27°48'29
	3610 Jun 02 22:12	0° \mathbb{I}		morning set	3611 May 09 19:11	0° \mathcal{B}	
morning set	3610 Jun 07 17:14	9° \mathbb{I} 33'45			3611 May 22 16:58	23° \mathcal{B} 44'43	
asc. node	3610 Jun 12 02:08	18° \mathbb{I} 48'45		max. Earth dist.	3611 May 25 18:09	0° \mathbb{I}	
max. Earth dist.	3610 Jun 13 19:40	22° \mathbb{I} 34'27	1.32165 AU	asc. node	3611 May 28 02:08	4° \mathbb{I} 55'32	1.32681 AU
					3611 May 29 23:10	8° \mathbb{I} 57'16	
superior conj	3610 Jun 14 23:57	25° \mathbb{I} 09'21	0°30'11	superior conj	3611 May 30 08:29	9° \mathbb{I} 47'32	0°04'05
minimum elong	3610 Jun 14 22:38	25° \mathbb{I} 02'06	0°29'54	minimum elong	3611 May 30 08:17	9° \mathbb{I} 46'29	0°04'03
	3610 Jun 17 04:52	0° \mathcal{E}		behind sun begin	3611 May 30 03:12	9° \mathbb{I} 18'59	
evening rise	3610 Jun 21 20:06	10° \mathcal{E} 03'16		behind sun end	3611 May 30 13:22	10° \mathbb{I} 14'01	
	3610 Jul 02 01:14	0° \mathcal{Q}		evening rise	3611 Jun 06 07:57	24° \mathbb{I} 52'36	
evening max el	3610 Jul 18 11:42	22° \mathcal{Q} 28'41	25°12'20		3611 Jun 08 18:45	0° \mathcal{E}	
desc. node	3610 Jul 19 08:32	23° \mathcal{Q} 17'15			3611 Jun 27 04:25	0° \mathcal{Q}	

evening max el	3611 Jun 30 01:03	3°Ω00'50	23°38'53	desc. node	3612 Jun 22 02:32	19°Ω42'21	
desc. node	3611 Jul 06 05:32	7°Ω45'26		retrograde	3612 Jun 23 10:38	19°Ω46'29	
retrograde	3611 Jul 13 16:37	9°Ω51'31		evening set	3612 Jun 26 05:19	19°Ω29'16	
evening set	3611 Jul 17 20:22	9°Ω13'37		min. Earth dist.	3612 Jul 04 21:45	15°Ω46'00	0.54998 AU
min. Earth dist.	3611 Jul 24 11:07	6°Ω07'16	0.55984 AU	inferior conj	3612 Jul 05 13:20	15°Ω24'08	-3°40'22
inferior conj	3611 Jul 26 15:03	4°Ω49'28	-4°49'16	minimum elong	3612 Jul 05 04:55	15°Ω35'57	3°38'04
minimum elong	3611 Jul 26 09:36	4°Ω57'41	4°48'31	morning rise	3612 Jul 14 06:13	11°Ω32'56	
morning rise	3611 Aug 04 01:20	0°Ω53'59		direct	3612 Jul 17 09:39	11°Ω11'02	
direct	3611 Aug 06 20:36	0°Ω34'21		morning max el	3612 Jul 29 06:57	16°Ω44'15	21°32'56
morning max el	3611 Aug 17 02:51	5°Ω20'02	20°07'11		3612 Aug 08 13:28	0°Ω	
asc. node	3611 Aug 25 22:23	16°Ω46'31		asc. node	3612 Aug 11 19:26	5°Ω37'19	
	3611 Sep 02 03:20	0°♊		morning set	3612 Aug 18 17:58	19°Ω17'17	
morning set	3611 Sep 04 09:07	4°♊30'38			3612 Aug 23 20:14	0°♊	
superior conj	3611 Sep 12 02:00	20°♊13'38	1°44'12	superior conj	3612 Aug 26 00:57	4°♊36'16	1°43'04
minimum elong	3611 Sep 12 02:32	20°♊16'23	1°44'11	minimum elong	3612 Aug 26 00:04	4°♊31'42	1°43'01
	3611 Sep 17 01:25	0°♊		max. Earth dist.	3612 Aug 30 01:04	12°♊48'57	1.35023 AU
max. Earth dist.	3611 Sep 17 13:14	0°♊56'25	1.36764 AU	evening rise	3612 Sep 03 09:02	21°♊18'32	
evening rise	3611 Sep 21 09:29	8°♊05'47			3612 Sep 08 01:48	0°♊	
desc. node	3611 Oct 02 04:53	26°♊30'57		desc. node	3612 Sep 18 01:55	16°♊42'47	
	3611 Oct 04 10:05	0°♊			3612 Sep 27 06:32	0°♊	
evening max el	3611 Oct 27 03:26	29°♊37'53	25°47'49	evening max el	3612 Oct 08 15:51	13°♊16'02	26°44'30
	3611 Oct 27 12:36	0°♊		retrograde	3612 Oct 21 16:43	20°♊31'22	
retrograde	3611 Nov 08 12:13	6°♊41'17		evening set	3612 Oct 28 07:35	17°♊51'00	
evening set	3611 Nov 14 14:15	4°♊09'51		min. Earth dist.	3612 Nov 01 08:16	13°♊46'06	0.65905 AU
	3611 Nov 18 11:54	30°♊		inferior conj	3612 Nov 03 03:41	11°♊38'15	-1°33'55
min. Earth dist.	3611 Nov 18 21:53	29°♊28'58	0.66934 AU	minimum elong	3612 Nov 03 06:16	11°♊30'37	1°32'51
inferior conj	3611 Nov 20 05:35	27°♊48'45	-0°34'19	asc. node	3612 Nov 07 18:37	6°♊53'33	
minimum elong	3611 Nov 20 06:29	27°♊45'54	0°33'56	morning rise	3612 Nov 09 05:42	5°♊56'38	
asc. node	3611 Nov 21 21:34	25°♊45'05		direct	3612 Nov 12 02:28	5°♊11'03	
morning rise	3611 Nov 25 23:04	21°♊55'46		morning max el	3612 Nov 18 16:18	8°♊45'26	18°22'45
direct	3611 Nov 29 05:03	20°♊55'07			3612 Dec 03 12:48	0°♊	
morning max el	3611 Dec 06 03:36	24°♊46'38	19°04'33	morning set	3612 Dec 08 04:52	7°♊31'29	
	3611 Dec 10 14:22	0°♊		desc. node	3612 Dec 15 01:12	18°♊30'03	
morning set	3611 Dec 28 21:47	27°♊27'45			3612 Dec 22 07:36	0°♊	
desc. node	3611 Dec 29 04:08	27°♊52'29					
	3611 Dec 30 12:51	0°♊		superior conj	3612 Dec 23 16:05	2°♊07'37	-0°56'29
max. Earth dist.	3612 Jan 12 06:10	19°♊54'22	1.44958 AU	minimum elong	3612 Dec 23 09:03	1°♊40'00	0°55'35
				max. Earth dist.	3612 Dec 25 01:07	4°♊17'18	1.45238 AU
superior conj	3612 Jan 14 13:55	23°♊34'17	-1°37'35	evening rise	3613 Jan 08 19:17	27°♊25'49	
minimum elong	3612 Jan 14 04:55	22°♊58'42	1°36'45		3613 Jan 10 10:30	0°♊	
	3612 Jan 18 15:06	0°♊		greatest brilliancy	3613 Jan 19 07:15	13°♊52'25	-0.8m
evening rise	3612 Jan 29 10:25	17°♊28'09			3613 Jan 30 19:44	0°♊	
	3612 Feb 06 02:13	0°♊		evening max el	3613 Jan 31 21:18	1°♊08'39	19°12'05
asc. node	3612 Feb 17 20:52	16°♊59'01		asc. node	3613 Feb 03 17:53	3°♊37'32	
evening max el	3612 Feb 18 12:13	17°♊39'16	18°32'56	retrograde	3613 Feb 07 21:28	5°♊08'20	
retrograde	3612 Feb 25 01:34	21°♊15'42		evening set	3613 Feb 11 07:05	4°♊00'51	
evening set	3612 Feb 28 04:30	20°♊21'02			3613 Feb 15 09:33	30°♊	
inferior conj	3612 Mar 04 23:18	14°♊47'22	3°36'28	inferior conj	3613 Feb 16 20:10	28°♊11'01	3°22'41
minimum elong	3612 Mar 04 22:34	14°♊49'35	3°36'27	minimum elong	3613 Feb 16 18:19	28°♊17'00	3°22'25
min. Earth dist.	3612 Mar 07 00:45	12°♊20'34	0.64725 AU	min. Earth dist.	3613 Feb 18 06:21	26°♊21'29	0.66145 AU
morning rise	3612 Mar 10 16:04	8°♊36'58		morning rise	3613 Feb 22 05:13	21°♊57'42	
direct	3612 Mar 17 10:15	5°♊46'59		direct	3613 Feb 28 14:00	19°♊09'11	
desc. node	3612 Mar 26 03:17	9°♊24'51		desc. node	3613 Mar 13 00:20	26°♊24'16	
morning max el	3612 Mar 30 21:43	13°♊38'49	27°16'59	morning max el	3613 Mar 13 07:40	26°♊42'38	26°16'52
	3612 Apr 13 02:52	0°♊			3613 Mar 16 09:15	0°♊	
	3612 May 01 10:04	0°♊			3613 Apr 06 17:30	0°♊	
morning set	3612 May 05 07:56	7°♊26'00		morning set	3613 Apr 18 10:31	20°♊27'12	
max. Earth dist.	3612 May 10 00:16	16°♊48'13	1.33639 AU	max. Earth dist.	3613 Apr 22 11:05	28°♊08'45	1.35061 AU
					3613 Apr 23 09:44	0°♊	
superior conj	3612 May 13 12:28	24°♊07'12	-0°24'04				
minimum elong	3612 May 13 13:43	24°♊13'44	0°23'48	superior conj	3613 Apr 27 09:39	8°♊02'04	-0°52'59
asc. node	3612 May 15 20:11	29°♊03'07		minimum elong	3613 Apr 27 12:27	8°♊16'25	0°52'27
	3612 May 16 06:51	0°♊		asc. node	3613 May 02 17:14	19°♊02'34	
evening rise	3612 May 20 18:57	9°♊34'33		evening rise	3613 May 05 03:11	24°♊03'06	
	3612 May 31 11:46	0°♊			3613 May 08 01:28	0°♊	
evening max el	3612 Jun 10 16:48	13°♊27'52	22°02'52	evening max el	3613 May 23 18:18	24°♊21'11	20°37'30

retrograde	3613 Jun 03 23:40	29° Π 49'56		asc. node	3614 Apr 19 14:16	8° \mathcal{B} 50'47	
evening set	3613 Jun 06 00:49	29° Π 39'43			3614 May 01 10:20	0° Π	
desc. node	3613 Jun 08 23:32	28° Π 52'07		evening max el	3614 May 06 08:04	5° Π 54'45	19°29'51
inferior conj	3613 Jun 15 06:57	25° Π 42'14	-1°51'02	retrograde	3614 May 15 19:35	10° Π 30'55	
minimum elong	3613 Jun 15 01:44	25° Π 49'44	1°49'09	evening set	3614 May 17 19:21	10° Π 19'38	
min. Earth dist.	3613 Jun 16 09:50	25° Π 03'34	0.54932 AU	inferior conj	3614 May 26 10:23	6° Π 14'30	0°07'28
morning rise	3613 Jun 24 01:58	21° Π 34'43		minimum elong	3614 May 26 10:42	6° Π 13'59	0°07'21
direct	3613 Jun 27 19:06	21° Π 05'00		transit middle	3614 May 26 10:42	6° Π 13'59	0°07'21
morning max el	3613 Jul 11 01:29	27° Π 29'07	23°12'48	transit begin	3614 May 26 07:15	6° Π 19'32	
	3613 Jul 13 13:03	0° \mathcal{E}		transit end	3614 May 26 14:10	6° Π 08'26	
asc. node	3613 Jul 29 16:30	24° \mathcal{E} 56'39		desc. node	3614 May 26 20:34	5° Π 58'07	
	3613 Aug 01 04:59	0° Ω		min. Earth dist.	3614 May 28 23:58	4° Π 36'05	0.55826 AU
morning set	3613 Aug 03 05:08	4° Ω 10'21		morning rise	3614 Jun 03 23:17	1° Π 35'15	
				direct	3614 Jun 08 13:58	0° Π 47'13	
superior conj	3613 Aug 10 06:23	19° Ω 17'39	1°35'32	morning max el	3614 Jun 22 15:31	7° Π 53'01	24°55'06
minimum elong	3613 Aug 10 04:33	19° Ω 07'47	1°35'22		3614 Jul 08 21:34	0° \mathcal{E}	
max. Earth dist.	3613 Aug 12 21:45	24° Ω 54'17	1.33664 AU	asc. node	3614 Jul 16 13:34	14° \mathcal{E} 36'36	
	3613 Aug 15 08:35	0° \mathcal{M}		morning set	3614 Jul 18 16:56	19° \mathcal{E} 04'30	
evening rise	3613 Aug 17 21:55	5° \mathcal{M} 09'36			3614 Jul 23 18:13	0° Ω	
	3613 Aug 31 18:02	0° \mathcal{E}					
desc. node	3613 Sep 04 22:54	6° \mathcal{E} 30'21		superior conj	3614 Jul 25 15:52	4° Ω 09'40	1°22'40
evening max el	3613 Sep 21 03:53	26° \mathcal{E} 40'48	27°19'05	minimum elong	3614 Jul 25 13:34	3° Ω 57'05	1°22'22
	3613 Sep 25 00:48	0° \mathcal{M}		max. Earth dist.	3614 Jul 27 02:39	7° Ω 19'01	1.32718 AU
retrograde	3613 Oct 04 15:33	3° \mathcal{M} 59'19		evening rise	3614 Aug 01 20:26	19° Ω 28'16	
evening set	3613 Oct 11 16:06	1° \mathcal{M} 17'57			3614 Aug 07 04:36	0° \mathcal{M}	
	3613 Oct 13 05:13	30° \mathcal{R} \mathcal{E}		desc. node	3614 Aug 22 19:54	25° \mathcal{M} 43'40	
min. Earth dist.	3613 Oct 15 10:43	27° \mathcal{E} 47'57	0.64526 AU		3614 Aug 26 00:06	0° \mathcal{E}	
inferior conj	3613 Oct 17 18:21	25° \mathcal{E} 18'13	-2°34'49	evening max el	3614 Sep 03 13:54	9° \mathcal{E} 40'24	27°25'08
minimum elong	3613 Oct 17 22:40	25° \mathcal{E} 06'36	2°33'13	retrograde	3614 Sep 17 07:55	16° \mathcal{E} 56'17	
morning rise	3613 Oct 24 06:23	19° \mathcal{E} 50'52		evening set	3614 Sep 24 12:35	14° \mathcal{E} 24'55	
asc. node	3613 Oct 25 15:41	19° \mathcal{E} 23'53		min. Earth dist.	3614 Sep 28 03:26	11° \mathcal{E} 25'11	0.62817 AU
direct	3613 Oct 26 20:21	19° \mathcal{E} 16'28		inferior conj	3614 Sep 30 22:52	8° \mathcal{E} 42'35	-3°33'45
morning max el	3613 Nov 02 08:19	22° \mathcal{E} 42'57	17°57'46	minimum elong	3614 Oct 01 04:28	8° \mathcal{E} 29'03	3°32'03
	3613 Nov 08 01:52	0° \mathcal{M}		morning rise	3614 Oct 07 21:53	3° \mathcal{E} 32'47	
morning set	3613 Nov 19 16:51	19° \mathcal{M} 00'05		direct	3614 Oct 10 07:48	3° \mathcal{E} 05'57	
	3613 Nov 26 06:42	0° \mathcal{X}		asc. node	3614 Oct 12 12:47	3° \mathcal{E} 29'01	
desc. node	3613 Dec 01 22:13	9° \mathcal{X} 13'54		morning max el	3614 Oct 17 00:42	6° \mathcal{E} 32'35	17°50'30
					3614 Nov 01 06:29	0° \mathcal{M}	
superior conj	3613 Dec 03 04:29	11° \mathcal{X} 15'49	-0°08'39	morning set	3614 Nov 02 04:27	1° \mathcal{M} 37'10	
minimum elong	3613 Dec 03 03:26	11° \mathcal{X} 11'38	0°08'31				
behind sun begin	3613 Dec 02 18:33	10° \mathcal{X} 35'51		superior conj	3614 Nov 13 17:20	21° \mathcal{M} 36'57	0°34'46
behind sun end	3613 Dec 03 12:20	11° \mathcal{X} 47'23		minimum elong	3614 Nov 13 20:34	21° \mathcal{M} 50'30	0°34'19
max. Earth dist.	3613 Dec 07 19:48	18° \mathcal{X} 39'33	1.44781 AU	desc. node	3614 Nov 18 19:15	0° \mathcal{X} 01'07	
	3613 Dec 15 01:38	0° \mathcal{Z}			3614 Nov 18 18:58	0° \mathcal{X}	
evening rise	3613 Dec 19 09:49	6° \mathcal{Z} 42'37		max. Earth dist.	3614 Nov 20 12:00	2° \mathcal{X} 46'20	1.43651 AU
greatest brilliancy	3614 Jan 02 22:14	28° \mathcal{Z} 41'35	-0.6m	evening rise	3614 Nov 28 19:30	15° \mathcal{X} 54'11	
	3614 Jan 03 19:39	0° \approx			3614 Dec 08 02:14	0° \mathcal{Z}	
evening max el	3614 Jan 15 01:46	14° \approx 39'57	20°07'00	evening max el	3614 Dec 29 00:51	28° \mathcal{Z} 12'53	21°14'44
asc. node	3614 Jan 21 14:56	19° \approx 03'44			3614 Dec 30 21:45	0° \approx	
retrograde	3614 Jan 22 19:24	19° \approx 11'25		retrograde	3615 Jan 06 17:09	3° \approx 21'40	
evening set	3614 Jan 26 13:08	17° \approx 50'00		asc. node	3615 Jan 08 12:00	3° \approx 04'14	
inferior conj	3614 Jan 31 22:54	11° \approx 46'32	2°57'24	evening set	3615 Jan 10 20:45	1° \approx 45'02	
minimum elong	3614 Jan 31 20:29	11° \approx 54'43	2°56'49		3615 Jan 12 17:09	30° \mathcal{R} \mathcal{Z}	
min. Earth dist.	3614 Feb 01 19:07	10° \approx 38'28	0.67152 AU	inferior conj	3615 Jan 16 05:09	25° \mathcal{Z} 30'52	2°22'56
morning rise	3614 Feb 06 03:36	5° \approx 32'41		minimum elong	3615 Jan 16 02:40	25° \mathcal{Z} 39'25	2°22'10
direct	3614 Feb 11 23:29	2° \approx 56'25		min. Earth dist.	3615 Jan 16 12:48	25° \mathcal{Z} 04'24	0.67757 AU
morning max el	3614 Feb 23 16:24	9° \approx 56'12	24°57'30	morning rise	3615 Jan 21 08:24	19° \mathcal{Z} 18'14	
desc. node	3614 Feb 27 21:24	14° \approx 33'20		direct	3615 Jan 26 13:42	17° \mathcal{Z} 01'26	
	3614 Mar 11 13:55	0° \mathcal{H}		morning max el	3615 Feb 06 01:04	23° \mathcal{Z} 15'16	23°29'17
	3614 Mar 30 08:57	0° \mathcal{Y}			3615 Feb 11 23:45	0° \approx	
morning set	3614 Mar 31 19:42	2° \mathcal{Y} 33'35		desc. node	3615 Feb 14 18:27	3° \approx 32'15	
max. Earth dist.	3614 Apr 04 10:52	9° \mathcal{Y} 09'03	1.36913 AU		3615 Mar 04 23:15	0° \mathcal{H}	
				morning set	3615 Mar 13 05:24	13° \mathcal{H} 29'07	
superior conj	3614 Apr 10 20:58	21° \mathcal{Y} 23'34	-1°20'56	max. Earth dist.	3615 Mar 17 05:53	20° \mathcal{H} 24'18	1.39047 AU
minimum elong	3614 Apr 11 01:08	21° \mathcal{Y} 43'57	1°20'18		3615 Mar 22 14:18	0° \mathcal{Y}	
	3614 Apr 15 04:49	0° \mathcal{B}					
evening rise	3614 Apr 19 06:20	8° \mathcal{B} 11'02		superior conj	3615 Mar 24 18:39	4° \mathcal{Y} 02'25	-1°45'16

minimum elong	3615 Mar 24 23:18	4°♂24'06	1°44'47	asc. node	3616 Mar 23 08:20	17°♂33'56	
evening rise	3615 Apr 03 01:40	21°♂51'30			3616 Mar 31 20:09	0°♂	
asc. node	3615 Apr 06 11:18	28°♂23'12		evening max el	3616 Apr 01 16:10	0°♂51'29	18°14'47
	3615 Apr 07 07:54	0°♂		retrograde	3616 Apr 08 17:04	4°♂22'59	
evening max el	3615 Apr 19 08:27	18°♂07'35	18°42'13	evening set	3616 Apr 11 04:51	3°♂57'20	
retrograde	3615 Apr 27 08:46	22°♂03'07			3616 Apr 17 08:13	30°♂♂	
evening set	3615 Apr 29 14:08	21°♂46'05		inferior conj	3616 Apr 18 05:38	29°♂13'35	2°50'33
inferior conj	3615 May 07 09:17	17°♂23'06	1°45'08	minimum elong	3616 Apr 18 09:06	29°♂06'00	2°49'46
minimum elong	3615 May 07 12:43	17°♂16'40	1°44'04	min. Earth dist.	3616 Apr 21 15:18	26°♂16'18	0.59564 AU
min. Earth dist.	3615 May 10 17:01	14°♂55'09	0.57484 AU	morning rise	3616 Apr 25 10:46	23°♂32'25	
desc. node	3615 May 13 17:37	12°♂58'15		desc. node	3616 Apr 29 14:39	21°♂53'11	
morning rise	3615 May 15 08:06	12°♂09'18		direct	3616 May 01 20:22	21°♂39'24	
direct	3615 May 20 22:43	10°♂51'40		morning max el	3616 May 16 04:56	29°♂28'42	27°25'37
morning max el	3615 Jun 04 07:17	18°♂24'34	26°24'10		3616 May 16 17:30	0°♂	
	3615 Jun 14 00:03	0°♂			3616 Jun 06 21:32	0°♂	
	3615 Jul 01 06:41	0°♂		morning set	3616 Jun 16 11:48	18°♂34'51	
morning set	3615 Jul 03 03:42	3°♂54'24		asc. node	3616 Jun 19 07:37	24°♂34'20	
asc. node	3615 Jul 03 10:36	4°♂30'48			3616 Jun 21 19:33	0°♂	
				max. Earth dist.	3616 Jun 23 00:51	2°♂41'01	1.32057 AU
superior conj	3615 Jul 10 03:20	19°♂05'21	1°05'15				
minimum elong	3615 Jul 10 01:03	18°♂52'47	1°04'52	superior conj	3616 Jun 23 15:02	3°♂59'05	0°43'58
max. Earth dist.	3615 Jul 10 12:55	19°♂58'12	1.32187 AU	minimum elong	3616 Jun 23 13:14	3°♂49'11	0°43'36
	3615 Jul 15 03:21	0°♂		evening rise	3616 Jun 30 10:54	18°♂52'00	
evening rise	3615 Jul 17 01:34	4°♂04'55			3616 Jul 05 22:04	0°♂	
	3615 Jul 30 22:31	0°♂			3616 Jul 25 07:22	0°♂	
desc. node	3615 Aug 09 16:56	14°♂08'05		desc. node	3616 Jul 26 13:56	1°♂23'34	
evening max el	3615 Aug 16 19:07	22°♂00'33	26°58'15	evening max el	3616 Jul 28 17:02	3°♂32'18	25°58'43
retrograde	3615 Aug 30 16:38	29°♂12'15		retrograde	3616 Aug 11 16:24	10°♂40'45	
evening set	3615 Sep 06 16:39	27°♂03'19		evening set	3616 Aug 17 23:31	9°♂05'34	
min. Earth dist.	3615 Sep 10 09:21	24°♂23'42	0.60853 AU	min. Earth dist.	3616 Aug 22 05:27	6°♂29'35	0.58786 AU
inferior conj	3615 Sep 13 13:48	21°♂41'43	-4°25'22	inferior conj	3616 Aug 25 11:34	4°♂05'54	-5°00'39
minimum elong	3615 Sep 13 19:25	21°♂29'45	4°24'12	minimum elong	3616 Aug 25 14:48	3°♂59'55	5°00'21
morning rise	3615 Sep 21 00:01	16°♂52'52			3616 Sep 01 07:20	30°♂♂	
direct	3615 Sep 23 08:55	16°♂30'36		morning rise	3616 Sep 02 08:18	29°♂40'16	
asc. node	3615 Sep 29 09:50	19°♂01'38		direct	3616 Sep 04 19:11	29°♂20'23	
morning max el	3615 Sep 30 14:16	20°♂05'35	18°02'05		3616 Sep 08 03:49	0°♂	
	3615 Oct 07 22:56	0°♂		morning max el	3616 Sep 12 21:45	3°♂13'19	18°33'50
morning set	3615 Oct 16 09:11	15°♂02'49		asc. node	3616 Sep 15 06:52	5°♂47'52	
	3615 Oct 24 12:50	0°♂		morning set	3616 Sep 29 01:57	29°♂02'30	
					3616 Sep 29 13:50	0°♂	
superior conj	3615 Oct 26 08:38	3°♂15'12	1°07'55				
minimum elong	3615 Oct 26 12:52	3°♂33'55	1°07'25	superior conj	3616 Oct 07 22:02	15°♂58'15	1°29'47
max. Earth dist.	3615 Nov 02 23:48	16°♂21'56	1.41978 AU	minimum elong	3616 Oct 08 01:15	16°♂13'14	1°29'31
desc. node	3615 Nov 05 16:15	20°♂47'51		max. Earth dist.	3616 Oct 15 06:16	29°♂13'49	1.39971 AU
evening rise	3615 Nov 08 16:24	25°♂39'14			3616 Oct 15 16:53	0°♂	
	3615 Nov 11 10:18	0°♂		evening rise	3616 Oct 19 10:45	6°♂23'08	
	3615 Dec 01 23:11	0°♂		desc. node	3616 Oct 22 13:16	11°♂30'41	
evening max el	3615 Dec 11 18:41	11°♂47'11	22°31'15		3616 Nov 03 12:51	0°♂	
retrograde	3615 Dec 21 13:02	17°♂35'20		evening max el	3616 Nov 23 08:40	25°♂24'07	23°51'12
evening set	3615 Dec 26 04:13	15°♂42'29			3616 Nov 28 21:37	0°♂	
asc. node	3615 Dec 26 09:03	15°♂32'16		retrograde	3616 Dec 04 05:47	1°♂48'49	
inferior conj	3615 Dec 31 12:50	9°♂20'54	1°40'52		3616 Dec 08 23:57	30°♂♂	
minimum elong	3615 Dec 31 10:47	9°♂28'01	1°40'06	evening set	3616 Dec 09 09:57	29°♂39'39	
min. Earth dist.	3615 Dec 31 09:03	9°♂34'02	0.67979 AU	asc. node	3616 Dec 12 06:05	26°♂39'41	
morning rise	3616 Jan 05 17:15	3°♂11'10		min. Earth dist.	3616 Dec 14 05:35	24°♂04'14	0.67840 AU
direct	3616 Jan 10 07:43	1°♂17'06		inferior conj	3616 Dec 14 20:12	23°♂14'34	0°52'23
morning max el	3616 Jan 19 13:03	6°♂41'43	22°01'48	minimum elong	3616 Dec 14 18:59	23°♂18'40	0°51'54
desc. node	3616 Feb 01 15:30	23°♂06'36		morning rise	3616 Dec 20 04:03	17°♂09'30	
	3616 Feb 06 10:42	0°♂		direct	3616 Dec 24 04:31	15°♂38'12	
morning set	3616 Feb 21 10:37	23°♂02'21		morning max el	3617 Jan 01 07:35	20°♂18'52	20°42'26
	3616 Feb 25 16:54	0°♂			3617 Jan 09 07:55	0°♂	
max. Earth dist.	3616 Feb 27 04:04	2°♂26'28	1.41197 AU	desc. node	3617 Jan 18 12:31	13°♂06'36	
					3617 Jan 29 15:54	0°♂	
superior conj	3616 Mar 05 21:53	15°♂46'32	-2°02'13	morning set	3617 Jan 30 14:14	1°♂26'45	
minimum elong	3616 Mar 06 01:05	16°♂00'45	2°02'04	max. Earth dist.	3617 Feb 08 09:07	15°♂22'55	1.43080 AU
	3616 Mar 13 17:56	0°♂					
evening rise	3616 Mar 16 09:44	4°♂56'02		superior conj	3617 Feb 15 01:32	26°♂24'01	-2°06'50

minimum elong	3617 Feb 15 00:26	26° \approx 19'23	2°06'50	superior conj	3618 Jan 26 03:21	5° \approx 53'03	-1°53'58
	3617 Feb 17 04:41	0° H		minimum elong	3618 Jan 25 20:22	5° \approx 25'01	1°53'30
evening rise	3617 Feb 27 02:25	17° H 14'56		evening rise	3618 Feb 08 23:24	28° \approx 40'43	
	3617 Mar 06 09:05	0° Y			3618 Feb 09 18:13	0° H	
asc. node	3617 Mar 10 05:21	6° Y 15'11		asc. node	3618 Feb 25 02:23	24° H 18'20	
evening max el	3617 Mar 16 03:50	13° Y 56'40	18°07'00	evening max el	3618 Feb 27 16:33	27° H 16'12	18°18'13
retrograde	3617 Mar 22 16:45	17° Y 19'38			3618 Mar 03 06:02	0° Y	
evening set	3617 Mar 25 10:26	16° Y 43'38		retrograde	3618 Mar 06 03:15	0° Y 44'07	
inferior conj	3617 Mar 31 20:36	11° Y 39'36	3°25'59	evening set	3618 Mar 09 02:42	29° H 56'35	
minimum elong	3617 Mar 31 22:32	11° Y 34'46	3°25'46		3618 Mar 09 00:03	30° R H	
min. Earth dist.	3617 Apr 03 21:24	8° Y 37'40	0.61734 AU	inferior conj	3618 Mar 15 02:09	24° H 33'31	3°37'52
morning rise	3617 Apr 07 08:58	5° Y 41'16		minimum elong	3618 Mar 15 02:17	24° H 33'09	3°37'53
direct	3617 Apr 14 04:52	3° Y 16'23		min. Earth dist.	3618 Mar 17 12:44	21° H 49'03	0.63732 AU
desc. node	3617 Apr 16 11:41	3° Y 31'27		morning rise	3618 Mar 21 01:00	18° H 26'04	
morning max el	3617 Apr 28 08:50	11° Y 14'14	27°50'57	direct	3618 Mar 27 22:08	15° H 40'51	
	3617 May 13 02:20	0° B		desc. node	3618 Apr 03 08:44	17° H 41'07	
	3617 May 30 03:56	0° II		morning max el	3618 Apr 10 17:01	23° H 38'12	27°38'56
morning set	3617 May 31 15:13	2° II 58'31			3618 Apr 16 09:41	0° Y	
asc. node	3617 Jun 06 04:38	14° II 41'56			3618 May 06 09:55	0° B	
max. Earth dist.	3617 Jun 06 10:23	15° II 13'04	1.32329 AU	morning set	3618 May 15 11:36	16° B 57'58	
				max. Earth dist.	3618 May 20 13:32	27° B 21'53	1.33031 AU
					3618 May 21 19:28	0° II	
superior conj	3617 Jun 08 01:12	18° II 44'14	0°19'25				
minimum elong	3617 Jun 08 00:19	18° II 39'22	0°19'13				
	3617 Jun 13 05:01	0° B		superior conj	3618 May 23 08:04	3° II 15'12	-0°07'41
evening rise	3617 Jun 14 22:20	3° B 41'45		minimum elong	3618 May 23 08:27	3° II 17'15	0°07'37
	3617 Jun 29 00:26	0° Q		behind sun begin	3618 May 23 03:43	2° II 51'55	
evening max el	3617 Jul 10 08:02	14° Q 19'26	24°33'51	behind sun end	3618 May 23 13:10	3° II 42'36	
desc. node	3617 Jul 13 10:56	17° Q 02'01		asc. node	3618 May 24 01:40	4° II 49'40	
retrograde	3617 Jul 24 05:36	21° Q 20'54		evening rise	3618 May 30 10:02	18° II 28'13	
evening set	3617 Jul 29 06:14	20° Q 24'07			3618 Jun 05 02:16	0° B	
min. Earth dist.	3617 Aug 03 19:08	17° Q 32'55	0.56873 AU	evening max el	3618 Jun 21 21:25	24° B 45'01	22°57'26
inferior conj	3617 Aug 06 13:27	15° Q 46'31	-5°05'56		3618 Jun 29 03:58	0° Q	
minimum elong	3617 Aug 06 11:25	15° Q 49'47	5°05'50	desc. node	3618 Jun 30 07:57	0° Q 29'17	
morning rise	3617 Aug 14 19:14	11° Q 42'17		retrograde	3618 Jul 05 06:11	1° Q 24'41	
direct	3617 Aug 17 10:38	11° Q 23'08		evening set	3618 Jul 08 18:16	0° Q 57'49	
morning max el	3617 Aug 26 20:03	15° Q 46'13	19°26'58		3618 Jul 11 14:34	30° R B	
asc. node	3617 Sep 02 03:53	23° Q 32'29		min. Earth dist.	3618 Jul 16 06:19	27° B 37'09	0.55460 AU
	3617 Sep 06 02:20	0° M		inferior conj	3618 Jul 17 20:06	26° B 42'32	-4°26'11
morning set	3617 Sep 13 03:02	13° M 25'59		minimum elong	3618 Jul 17 12:42	26° B 53'16	4°24'43
				morning rise	3618 Jul 26 09:25	22° B 50'41	
superior conj	3617 Sep 21 03:59	29° M 30'09	1°41'29	direct	3618 Jul 29 07:35	22° B 30'30	
minimum elong	3617 Sep 21 05:30	29° M 37'35	1°41'24	morning max el	3618 Aug 09 06:51	27° B 36'06	20°41'26
	3617 Sep 21 10:05	0° L			3618 Aug 11 15:08	0° Q	
max. Earth dist.	3617 Sep 27 10:14	11° L 24'51	1.37887 AU	asc. node	3618 Aug 20 00:54	12° Q 02'20	
evening rise	3617 Oct 01 04:27	18° L 11'35		morning set	3618 Aug 28 09:41	28° Q 05'43	
	3617 Oct 08 03:18	0° M			3618 Aug 29 07:51	0° M	
desc. node	3617 Oct 09 10:17	2° M 05'37					
	3617 Oct 28 19:52	0° J		superior conj	3618 Sep 04 21:47	13° M 37'08	1°44'34
evening max el	3617 Nov 05 21:01	9° J 04'50	25°08'04	minimum elong	3618 Sep 04 21:41	13° M 36'35	1°44'34
retrograde	3617 Nov 17 18:26	15° J 57'53		max. Earth dist.	3618 Sep 09 17:44	23° M 16'47	1.35977 AU
evening set	3617 Nov 23 12:22	13° J 33'48			3618 Sep 13 06:09	0° L	
min. Earth dist.	3617 Nov 28 00:08	8° J 32'31	0.67354 AU	evening rise	3618 Sep 13 18:23	0° L 56'58	
inferior conj	3617 Nov 29 01:29	7° J 09'41	-0°01'23	desc. node	3618 Sep 26 07:17	22° L 27'29	
minimum elong	3617 Nov 29 01:31	7° J 09'35	0°01'22		3618 Oct 01 05:47	0° M	
transit middle	3617 Nov 29 01:31	7° J 09'35	0°01'22	evening max el	3618 Oct 19 09:25	22° M 46'17	26°14'22
transit begin	3617 Nov 28 22:45	7° J 18'38		retrograde	3618 Nov 01 02:03	29° M 56'21	
transit end	3617 Nov 29 04:17	7° J 00'32		evening set	3618 Nov 07 09:37	27° M 20'38	
asc. node	3617 Nov 29 03:06	7° J 04'22		min. Earth dist.	3618 Nov 11 14:17	22° M 54'44	0.66529 AU
morning rise	3617 Dec 04 14:52	1° J 11'27		inferior conj	3618 Nov 13 02:48	21° M 02'21	-0°59'19
direct	3617 Dec 08 02:59	0° J 00'37		minimum elong	3618 Nov 13 04:23	20° M 57'26	0°58'37
morning max el	3617 Dec 15 10:02	4° J 07'18	19°35'57	asc. node	3618 Nov 16 00:09	17° M 41'10	
greatest brilliancy	3617 Dec 28 13:18	21° J 31'51	-0.7m	morning rise	3618 Nov 18 23:40	15° M 13'34	
	3618 Jan 03 03:53	0° B		direct	3618 Nov 22 01:26	14° M 19'47	
desc. node	3618 Jan 05 09:33	3° B 25'22		morning max el	3618 Nov 28 19:29	18° M 03'08	18°44'45
morning set	3618 Jan 09 11:00	9° B 40'30			3618 Dec 07 22:29	0° J	
max. Earth dist.	3618 Jan 21 21:14	29° B 05'44	1.44456 AU	morning set	3618 Dec 20 01:34	18° J 53'29	
	3618 Jan 22 10:55	0° \approx		desc. node	3618 Dec 23 06:35	23° J 57'00	

	3618 Dec 27 02:53	0°♄		morning set	3619 Nov 30 21:21	29°♄35'00	
max. Earth dist.	3619 Jan 04 14:31	13°♄18'59 1.45168 AU			3619 Dec 01 03:27	0°♄	
				desc. node	3619 Dec 10 03:38	14°♄37'33	
superior conj	3619 Jan 05 09:16	14°♄32'36 -1°21'47					
minimum elong	3619 Jan 05 00:14	13°♄57'09 1°20'47		superior conj	3619 Dec 15 13:12	23°♄13'24 -0°36'16	
	3619 Jan 15 04:07	0°♄		minimum elong	3619 Dec 15 08:37	22°♄55'14 0°35'39	
evening rise	3619 Jan 20 21:22	9°♄08'42		max. Earth dist.	3619 Dec 18 10:06	27°♄45'02 1.45138 AU	
greatest brilliancy	3619 Jan 27 23:42	20°♄33'13 -0.9m			3619 Dec 19 20:28	0°♄	
	3619 Feb 03 00:27	0°♄		evening rise	3619 Dec 31 21:20	18°♄46'01	
evening max el	3619 Feb 11 03:39	10°♄43'23 18°47'33			3620 Jan 08 03:21	0°♄	
asc. node	3619 Feb 11 23:26	11°♄31'32		greatest brilliancy	3620 Jan 13 09:14	8°♄00'49 -0.7m	
retrograde	3619 Feb 17 20:37	14°♄28'07		evening max el	3620 Jan 25 11:01	24°♄13'59 19°33'39	
evening set	3619 Feb 21 02:18	13°♄28'06		asc. node	3620 Jan 29 20:29	27°♄41'15	
inferior conj	3619 Feb 26 18:22	7°♄47'32 3°32'10		retrograde	3620 Feb 01 17:39	28°♄25'53	
minimum elong	3619 Feb 26 17:05	7°♄51'30 3°32'04		evening set	3620 Feb 05 06:39	27°♄12'24	
min. Earth dist.	3619 Feb 28 13:17	5°♄35'38 0.65388 AU		inferior conj	3620 Feb 10 18:03	21°♄16'25 3°13'11	
morning rise	3619 Mar 04 07:27	1°♄35'44		minimum elong	3620 Feb 10 15:53	21°♄23'32 3°12'47	
	3619 Mar 06 12:05	30°♄		min. Earth dist.	3620 Feb 11 22:03	19°♄44'34 0.66630 AU	
direct	3619 Mar 10 22:23	28°♄44'38		morning rise	3620 Feb 16 00:53	15°♄02'54	
	3619 Mar 15 18:18	0°♄		direct	3620 Feb 22 04:32	12°♄18'39	
desc. node	3619 Mar 21 05:46	3°♄47'47		morning max el	3620 Mar 05 12:12	19°♄38'39 25°44'51	
morning max el	3619 Mar 24 02:47	6°♄29'59 26°54'14		desc. node	3620 Mar 07 02:50	21°♄19'35	
	3619 Apr 11 05:05	0°♄			3620 Mar 14 08:27	0°♄	
morning set	3619 Apr 28 21:50	0°♄23'39			3620 Apr 03 07:35	0°♄	
	3619 Apr 28 16:53	0°♄		morning set	3620 Apr 10 17:42	13°♄03'22	
max. Earth dist.	3619 May 03 06:50	8°♄59'31 1.34190 AU		max. Earth dist.	3620 Apr 14 12:55	20°♄10'01 1.35808 AU	
					3620 Apr 19 13:29	0°♄	
superior conj	3619 May 07 09:31	17°♄25'35 -0°36'19					
minimum elong	3619 May 07 11:25	17°♄35'30 0°35'56		superior conj	3620 Apr 20 02:58	1°♄07'37 -1°05'05	
asc. node	3619 May 10 22:43	24°♄53'32		minimum elong	3620 Apr 20 06:24	1°♄24'54 1°04'29	
	3619 May 13 08:46	0°♄		asc. node	3620 Apr 26 19:47	14°♄49'02	
evening rise	3619 May 14 20:09	3°♄05'24		evening rise	3620 Apr 28 02:34	17°♄26'31	
	3619 May 30 01:03	0°♄			3620 May 04 12:33	0°♄	
evening max el	3619 Jun 03 16:53	5°♄21'14 21°24'42		evening max el	3620 May 15 23:35	16°♄30'55 20°06'15	
retrograde	3619 Jun 15 20:21	11°♄19'19		retrograde	3620 May 26 10:43	21°♄36'40	
desc. node	3619 Jun 17 04:58	11°♄15'02		evening set	3620 May 28 10:02	21°♄26'36	
evening set	3619 Jun 18 05:24	11°♄06'23		desc. node	3620 Jun 03 02:00	19°♄22'29	
inferior conj	3619 Jun 27 14:42	7°♄06'53 -2°57'25		inferior conj	3620 Jun 06 10:50	17°♄27'15 -0°59'45	
minimum elong	3619 Jun 27 06:59	7°♄17'41 2°54'57		minimum elong	3620 Jun 06 08:02	17°♄31'25 0°58'42	
min. Earth dist.	3619 Jun 27 17:28	7°♄03'02 0.54853 AU		min. Earth dist.	3620 Jun 08 05:59	16°♄22'55 0.55205 AU	
morning rise	3619 Jul 06 09:16	3°♄11'10		morning rise	3620 Jun 15 04:27	13°♄07'57	
direct	3619 Jul 09 17:54	2°♄46'41		direct	3620 Jun 19 06:01	12°♄32'02	
morning max el	3619 Jul 22 06:17	8°♄41'55 22°14'13		morning max el	3620 Jul 02 22:07	19°♄14'40 23°56'58	
	3619 Aug 06 07:43	0°♄			3620 Jul 11 21:53	0°♄	
asc. node	3619 Aug 06 21:58	1°♄06'40		asc. node	3620 Jul 23 19:02	20°♄35'45	
morning set	3619 Aug 12 19:47	12°♄56'12		morning set	3620 Jul 27 07:27	27°♄50'43	
					3620 Jul 28 07:48	0°♄	
superior conj	3619 Aug 19 23:52	28°♄08'59 1°40'34					
minimum elong	3619 Aug 19 22:31	28°♄01'52 1°40'29		superior conj	3620 Aug 03 07:18	12°♄55'48 1°30'40	
	3619 Aug 20 20:57	0°♄		minimum elong	3620 Aug 03 05:12	12°♄44'27 1°30'27	
max. Earth dist.	3619 Aug 23 09:32	5°♄14'41 1.34397 AU		max. Earth dist.	3620 Aug 05 10:13	17°♄29'33 1.33213 AU	
evening rise	3619 Aug 28 00:10	14°♄27'59		evening rise	3620 Aug 10 17:34	28°♄31'57	
	3619 Sep 05 11:38	0°♄			3620 Aug 11 11:08	0°♄	
desc. node	3619 Sep 13 04:18	12°♄30'17			3620 Aug 28 15:29	0°♄	
	3619 Sep 26 00:15	0°♄		desc. node	3620 Aug 30 01:19	2°♄04'52	
evening max el	3619 Oct 01 22:06	6°♄21'11 27°02'26		evening max el	3620 Sep 13 09:33	19°♄36'36 27°25'23	
retrograde	3619 Oct 15 04:02	13°♄37'59		retrograde	3620 Sep 26 23:56	26°♄53'51	
evening set	3619 Oct 21 23:32	10°♄56'22		evening set	3620 Oct 04 03:19	24°♄15'07	
min. Earth dist.	3619 Oct 25 21:36	7°♄06'27 0.65362 AU		min. Earth dist.	3620 Oct 07 19:54	20°♄59'06 0.63843 AU	
inferior conj	3619 Oct 27 22:04	4°♄48'47 -1°59'44		inferior conj	3620 Oct 10 08:45	18°♄22'38 -3°00'17	
minimum elong	3619 Oct 28 01:24	4°♄39'17 1°58'24		minimum elong	3620 Oct 10 13:42	18°♄09'53 2°58'35	
	3619 Nov 01 20:24	30°♄		morning rise	3620 Oct 17 01:23	13°♄02'28	
asc. node	3619 Nov 02 21:12	29°♄21'31		direct	3620 Oct 19 13:23	12°♄31'35	
morning rise	3619 Nov 03 04:09	29°♄12'36		asc. node	3620 Oct 19 18:15	12°♄31'48	
direct	3619 Nov 05 21:49	28°♄32'04		morning max el	3620 Oct 26 02:26	15°♄56'46 17°52'30	
	3619 Nov 10 00:32	0°♄			3620 Nov 05 01:15	0°♄	
morning max el	3619 Nov 12 09:53	2°♄01'53 18°10'00		morning set	3620 Nov 11 20:09	11°♄34'56	

	3620 Nov 22 17:38	0°♊		direct	3621 Oct 02 20:46	26°♏11'27	
				asc. node	3621 Oct 06 15:19	27°♏15'16	
superior conj	3620 Nov 24 11:00	2°♊49'48 0°10'49		morning max el	3621 Oct 09 18:02	29°♏40'27	17°53'05
minimum elong	3620 Nov 24 12:11	2°♊54'39 0°10'39			3621 Oct 10 01:50	0°♎	
behind sun begin	3620 Nov 24 04:42	2°♊24'02		morning set	3621 Oct 25 15:39	24°♎34'01	
behind sun end	3620 Nov 24 19:40	3°♊25'13			3621 Oct 28 15:57	0°♎	
desc. node	3620 Nov 26 00:39	5°♊23'10					
max. Earth dist.	3620 Nov 30 04:26	12°♊04'08 1.44376 AU		superior conj	3621 Nov 05 11:21	13°♎44'32	0°50'14
evening rise	3620 Dec 10 07:47	27°♊55'30		minimum elong	3621 Nov 05 15:21	14°♎01'42	0°49'42
	3620 Dec 11 16:13	0°♋		desc. node	3621 Nov 12 21:39	26°♎10'26	
	3621 Jan 01 02:30	0°♋		max. Earth dist.	3621 Nov 12 18:30	25°♎57'37	1.42987 AU
evening max el	3621 Jan 07 13:09	7°♋45'43 20°34'26			3621 Nov 15 06:20	0°♊	
retrograde	3621 Jan 15 15:50	12°♋32'44		evening rise	3621 Nov 19 20:16	7°♊15'52	
asc. node	3621 Jan 15 17:31	12°♋32'42			3621 Dec 04 22:52	0°♋	
evening set	3621 Jan 19 13:36	11°♋04'48		evening max el	3621 Dec 21 09:41	21°♋18'08	21°46'34
inferior conj	3621 Jan 24 22:32	4°♋56'09 2°43'49		retrograde	3621 Dec 30 13:03	26°♋44'27	
minimum elong	3621 Jan 24 20:01	5°♋04'43 2°43'08		asc. node	3622 Jan 02 14:34	25°♋53'38	
min. Earth dist.	3621 Jan 25 13:08	4°♋06'14 0.67452 AU		evening set	3622 Jan 03 21:18	25°♋01'03	
	3621 Jan 28 19:20	30°♌♋		inferior conj	3622 Jan 09 05:35	18°♋43'04	2°05'57
morning rise	3621 Jan 30 02:16	28°♋42'39		minimum elong	3622 Jan 09 03:14	18°♋51'14	2°05'09
direct	3621 Feb 04 15:57	26°♋14'20		min. Earth dist.	3622 Jan 09 08:16	18°♋33'47	0.67886 AU
	3621 Feb 12 16:49	0°♌		morning rise	3622 Jan 14 09:00	12°♋31'15	
morning max el	3621 Feb 15 20:52	2°♌55'46 24°20'37		direct	3622 Jan 19 07:51	10°♋23'59	
desc. node	3621 Feb 21 23:53	9°♌52'04		morning max el	3622 Jan 29 06:30	16°♋17'33	22°51'32
	3621 Mar 08 12:22	0°♍		desc. node	3622 Feb 08 20:54	29°♋07'18	
morning set	3621 Mar 23 17:46	24°♍42'21			3622 Feb 09 12:26	0°♌	
	3621 Mar 26 17:38	0°♎			3622 Mar 01 13:27	0°♍	
max. Earth dist.	3621 Mar 27 10:13	1°♎14'36 1.37798 AU		morning set	3622 Mar 04 15:43	5°♍03'34	
				max. Earth dist.	3622 Mar 09 05:17	12°♍45'01	1.39968 AU
superior conj	3621 Apr 03 09:03	14°♎12'42 -1°31'52					
minimum elong	3621 Apr 03 13:34	14°♎34'28 1°31'16		superior conj	3622 Mar 16 23:25	26°♍29'17	-1°53'38
	3621 Apr 11 09:45	0°♏		minimum elong	3622 Mar 17 03:46	26°♍49'07	1°53'17
evening rise	3621 Apr 12 02:50	1°♏24'36			3622 Mar 18 21:14	0°♎	
asc. node	3621 Apr 13 16:50	4°♏31'47		evening rise	3622 Mar 26 17:47	14°♎50'34	
evening max el	3621 Apr 28 18:09	28°♏22'07 19°07'02		asc. node	3622 Mar 31 13:52	23°♎55'47	
	3621 Apr 30 15:02	0°♐			3622 Apr 04 00:25	0°♏	
retrograde	3621 May 07 13:42	2°♐39'37		evening max el	3622 Apr 11 22:03	10°♏49'19	18°28'09
evening set	3621 May 09 15:16	2°♐26'28		retrograde	3622 Apr 19 11:05	14°♏32'37	
	3621 May 15 05:35	30°♑♐		evening set	3622 Apr 21 19:06	14°♏12'20	
inferior conj	3621 May 17 21:57	28°♏14'14 0°52'31		inferior conj	3622 Apr 29 06:07	9°♏40'57	2°16'49
minimum elong	3621 May 18 00:01	28°♏10'42 0°51'47		minimum elong	3622 Apr 29 09:51	9°♏33'27	2°15'47
desc. node	3621 May 20 23:02	26°♏10'00		min. Earth dist.	3622 May 02 16:32	6°♏57'17	0.58336 AU
min. Earth dist.	3621 May 20 21:15	26°♏12'56 0.56453 AU		morning rise	3622 May 06 21:30	4°♏14'01	
morning rise	3621 May 26 05:37	23°♏19'36		desc. node	3622 May 07 20:05	3°♏47'25	
direct	3621 May 31 06:19	22°♏20'27		direct	3622 May 12 21:06	2°♏41'14	
morning max el	3621 Jun 14 12:29	29°♏39'39 25°35'32		morning max el	3622 May 27 06:29	10°♏23'05	26°54'13
	3621 Jun 14 20:53	0°♐			3622 Jun 11 08:45	0°♐	
	3621 Jul 05 11:14	0°♑		morning set	3622 Jun 26 04:51	27°♐30'42	
asc. node	3621 Jul 10 16:06	10°♑22'44			3622 Jun 27 09:04	0°♑	
morning set	3621 Jul 11 19:01	12°♑44'04		asc. node	3622 Jun 27 13:07	0°♑21'36	
superior conj	3621 Jul 18 17:52	27°♑50'24 1°15'48		superior conj	3622 Jul 03 05:39	12°♑46'16	0°56'40
minimum elong	3621 Jul 18 15:31	27°♑37'30 1°15'27		minimum elong	3622 Jul 03 03:31	12°♑34'31	0°56'17
max. Earth dist.	3621 Jul 19 17:45	0°♒01'18 1.32443 AU		max. Earth dist.	3622 Jul 03 04:58	12°♑42'32	1.32081 AU
	3621 Jul 19 17:31	0°♒		evening rise	3622 Jul 10 02:23	27°♑41'13	
evening rise	3621 Jul 25 19:13	12°♒59'10			3622 Jul 11 04:55	0°♒	
	3621 Aug 03 14:01	0°♓			3622 Jul 28 01:17	0°♓	
desc. node	3621 Aug 16 22:20	20°♓59'30		desc. node	3622 Aug 03 19:20	8°♓57'50	
	3621 Aug 24 09:42	0°♔		evening max el	3622 Aug 08 19:49	14°♓20'06	26°36'40
evening max el	3621 Aug 26 17:33	2°♔19'43 27°17'40		retrograde	3622 Aug 22 18:49	21°♓31'05	
retrograde	3621 Sep 09 13:17	9°♔34'29		evening set	3622 Aug 29 13:03	19°♓35'28	
evening set	3621 Sep 16 17:21	7°♔10'41		min. Earth dist.	3622 Sep 02 09:34	16°♓59'27	0.59968 AU
min. Earth dist.	3621 Sep 20 07:51	4°♔21'24 0.62008 AU		inferior conj	3622 Sep 05 15:56	14°♓22'46	-4°43'07
inferior conj	3621 Sep 23 07:51	1°♔36'49 -3°57'01		minimum elong	3622 Sep 05 20:54	14°♓12'46	4°42'18
minimum elong	3621 Sep 23 13:40	1°♔23'27 3°55'27		morning rise	3622 Sep 13 06:47	9°♓43'41	
	3621 Sep 25 03:09	30°♕♓		direct	3622 Sep 15 15:58	9°♓22'48	
morning rise	3621 Sep 30 11:43	26°♕35'56		morning max el	3622 Sep 23 05:28	13°♓04'32	18°13'01

asc. node	3622 Sep 23 12:21	13° \cap 21'25		morning max el	3623 Sep 06 09:21	25° Ω 58'36	18°53'43
	3622 Oct 04 15:40	0° $\underline{\Omega}$			3623 Sep 09 22:57	0° \cap	
morning set	3622 Oct 09 02:04	8° $\underline{\Omega}$ 16'06		asc. node	3623 Sep 10 09:22	0° \cap 34'25	
				morning set	3623 Sep 22 22:49	22° \cap 27'31	
superior conj	3622 Oct 18 12:46	25° $\underline{\Omega}$ 52'44	1°18'32		3623 Sep 26 18:46	0° $\underline{\Omega}$	
minimum elong	3622 Oct 18 16:43	26° $\underline{\Omega}$ 10'37	1°18'06				
	3622 Oct 20 19:53	0° \cap		superior conj	3623 Oct 01 09:51	8° $\underline{\Omega}$ 58'28	1°35'54
max. Earth dist.	3622 Oct 26 03:29	9° \cap 14'02	1.41147 AU	minimum elong	3623 Oct 01 12:22	9° $\underline{\Omega}$ 10'30	1°35'43
desc. node	3622 Oct 30 18:39	16° \cap 56'25		max. Earth dist.	3623 Oct 08 08:38	21° $\underline{\Omega}$ 48'33	1.39083 AU
evening rise	3622 Oct 31 01:39	17° \cap 24'57		evening rise	3623 Oct 12 06:11	28° $\underline{\Omega}$ 37'20	
	3622 Nov 08 01:04	0° \cap			3623 Oct 13 01:34	0° \cap	
	3622 Nov 29 15:05	0° $\overline{\Omega}$		desc. node	3623 Oct 17 15:40	7° \cap 36'45	
evening max el	3622 Dec 04 01:42	4° $\overline{\Omega}$ 53'56	23°05'18		3623 Nov 01 12:11	0° \cap	
retrograde	3622 Dec 14 07:45	10° $\overline{\Omega}$ 58'30		evening max el	3623 Nov 16 14:56	18° \cap 33'26	24°24'44
evening set	3622 Dec 19 04:11	8° $\overline{\Omega}$ 58'57		retrograde	3623 Nov 27 22:42	25° \cap 10'41	
asc. node	3622 Dec 20 11:35	7° $\overline{\Omega}$ 44'53		evening set	3623 Dec 03 08:42	22° \cap 55'05	
min. Earth dist.	3622 Dec 24 05:00	3° $\overline{\Omega}$ 04'12	0.67960 AU	asc. node	3623 Dec 07 08:36	18° \cap 28'10	
inferior conj	3622 Dec 24 13:21	2° $\overline{\Omega}$ 35'24	1°21'02	min. Earth dist.	3623 Dec 08 00:58	17° \cap 34'02	0.67682 AU
minimum elong	3622 Dec 24 11:37	2° $\overline{\Omega}$ 41'25	1°20'21	inferior conj	3623 Dec 08 20:03	16° \cap 30'07	0°30'10
	3622 Dec 26 11:32	30° \cap 27'10		minimum elong	3623 Dec 08 19:19	16° \cap 32'34	0°29'52
morning rise	3622 Dec 29 18:56	26° \cap 27'10		morning rise	3623 Dec 14 06:00	10° \cap 27'39	
direct	3623 Jan 03 03:20	24° \cap 42'44		direct	3623 Dec 18 01:07	9° \cap 05'12	
morning max el	3623 Jan 11 20:48	29° \cap 47'51	21°26'38	morning max el	3623 Dec 25 18:35	13° \cap 29'39	20°12'21
	3623 Jan 12 01:36	0° $\overline{\Omega}$			3624 Jan 07 12:28	0° $\overline{\Omega}$	
desc. node	3623 Jan 26 17:55	18° $\overline{\Omega}$ 53'46		desc. node	3624 Jan 13 14:57	9° $\overline{\Omega}$ 02'37	
	3623 Feb 03 06:32	0° \approx		morning set	3624 Jan 22 06:15	22° $\overline{\Omega}$ 13'09	
morning set	3623 Feb 12 08:43	14° \approx 02'51			3624 Jan 27 06:08	0° \approx	
max. Earth dist.	3623 Feb 19 05:37	25° \approx 08'27	1.42047 AU	max. Earth dist.	3624 Feb 01 14:12	8° \approx 27'46	1.43745 AU
	3623 Feb 22 03:44	0° \cap					
superior conj	3623 Feb 26 17:09	7° \cap 46'14	-2°06'01	superior conj	3624 Feb 07 09:46	17° \approx 54'10	-2°03'45
minimum elong	3623 Feb 26 18:53	7° \cap 53'46	2°05'59	minimum elong	3624 Feb 07 06:07	17° \approx 39'09	2°03'38
evening rise	3623 Mar 09 19:46	27° \cap 36'12			3624 Feb 14 15:13	0° \cap	
	3623 Mar 11 03:21	0° \cap		evening rise	3624 Feb 20 04:32	9° \cap 33'14	
asc. node	3623 Mar 18 10:52	12° \cap 54'48			3624 Mar 03 09:42	0° \cap	
evening max el	3623 Mar 26 07:53	23° \cap 43'32	18°09'11	asc. node	3624 Mar 04 07:53	1° \cap 21'06	
retrograde	3623 Apr 02 02:13	27° \cap 09'11		evening max el	3624 Mar 08 20:22	6° \cap 55'52	18°09'31
evening set	3623 Apr 04 16:41	26° \cap 39'13		retrograde	3624 Mar 15 07:04	10° \cap 19'12	
inferior conj	3623 Apr 11 10:47	21° \cap 46'56	3°08'50	evening set	3624 Mar 18 03:18	9° \cap 38'14	
minimum elong	3623 Apr 11 13:41	21° \cap 40'10	3°08'19	inferior conj	3624 Mar 24 08:25	4° \cap 25'43	3°33'31
min. Earth dist.	3623 Apr 14 17:47	18° \cap 44'36	0.60500 AU	minimum elong	3624 Mar 24 09:34	4° \cap 22'41	3°33'27
morning rise	3623 Apr 18 08:31	15° \cap 57'34		min. Earth dist.	3624 Mar 27 03:27	1° \cap 29'14	0.62618 AU
direct	3623 Apr 24 23:54	13° \cap 49'46			3624 Mar 28 16:14	30° \cap 27'10	
desc. node	3623 Apr 24 17:07	13° \cap 50'00		morning rise	3624 Mar 30 14:37	28° \cap 22'59	
morning max el	3623 May 09 06:37	21° \cap 43'23	27°40'57	direct	3624 Apr 06 12:06	25° \cap 48'04	
	3623 May 16 12:16	0° $\overline{\Omega}$		desc. node	3624 Apr 10 14:09	26° \cap 36'24	
	3623 Jun 04 08:50	0° \cap			3624 Apr 16 07:30	0° \cap	
morning set	3623 Jun 10 11:11	12° \cap 04'40		morning max el	3624 Apr 20 12:34	3° \cap 45'58	27°50'22
asc. node	3623 Jun 14 10:08	20° \cap 27'26			3624 May 10 01:42	0° $\overline{\Omega}$	
max. Earth dist.	3623 Jun 16 16:17	25° \cap 22'05	1.32123 AU	morning set	3624 May 24 11:58	26° $\overline{\Omega}$ 19'26	
					3624 May 26 07:07	0° \cap	
superior conj	3623 Jun 17 16:55	27° \cap 37'14	0°33'56	max. Earth dist.	3624 May 29 23:47	7° \cap 47'04	1.32576 AU
minimum elong	3623 Jun 17 15:27	27° \cap 29'13	0°33'37	asc. node	3624 May 31 07:11	10° \cap 36'01	
	3623 Jun 18 18:52	0° $\overline{\Omega}$					
evening rise	3623 Jun 24 12:52	12° $\overline{\Omega}$ 30'31		superior conj	3624 Jun 01 01:56	12° \cap 17'36	0°08'13
	3623 Jul 03 08:56	0° Ω		minimum elong	3624 Jun 01 01:33	12° \cap 15'28	0°08'07
evening max el	3623 Jul 21 14:47	25° Ω 32'39	25°25'07	behind sun begin	3624 May 31 21:02	11° \cap 51'01	
desc. node	3623 Jul 21 16:22	25° Ω 36'24		behind sun end	3624 Jun 01 06:03	12° \cap 39'56	
	3623 Jul 27 06:12	0° \cap		evening rise	3624 Jun 08 00:41	27° \cap 20'28	
retrograde	3623 Aug 04 14:14	2° \cap 38'26			3624 Jun 09 06:57	0° $\overline{\Omega}$	
evening set	3623 Aug 10 09:42	1° \cap 20'04			3624 Jun 26 17:37	0° Ω	
	3623 Aug 12 23:45	30° \cap 27'10		evening max el	3624 Jul 02 04:19	6° Ω 07'44	23°53'20
min. Earth dist.	3623 Aug 15 02:42	28° Ω 39'34	0.57934 AU	desc. node	3624 Jul 07 13:23	10° Ω 24'25	
inferior conj	3623 Aug 18 05:31	26° Ω 29'54	-5°07'32	retrograde	3624 Jul 15 21:43	13° Ω 01'47	
minimum elong	3623 Aug 18 06:49	26° Ω 27'40	5°07'30	evening set	3624 Jul 20 07:06	12° Ω 19'17	
morning rise	3623 Aug 26 06:14	22° Ω 13'31		min. Earth dist.	3624 Jul 26 14:38	9° Ω 17'21	0.56198 AU
direct	3623 Aug 28 18:47	21° Ω 54'03		inferior conj	3624 Jul 28 22:54	7° Ω 51'42	-4°55'16
				minimum elong	3624 Jul 28 18:18	7° Ω 58'45	4°54'45

morning rise	3624 Aug 06 08:05	3°♎54'25		morning rise	3625 Jul 17 15:04	14°♊40'23	
direct	3624 Aug 09 02:20	3°♎34'56		direct	3625 Jul 20 16:55	14°♊19'07	
morning max el	3624 Aug 19 02:54	8°♎14'10	19°56'04	morning max el	3625 Aug 01 08:45	19°♊45'04	21°19'06
asc. node	3624 Aug 27 06:25	18°♎40'10			3625 Aug 09 16:24	0°♎	
	3624 Sep 02 14:18	0°♎		asc. node	3625 Aug 14 03:29	7°♎25'46	
morning set	3624 Sep 06 02:37	6°♎59'27		morning set	3625 Aug 21 10:59	21°♎44'32	
					3625 Aug 25 09:37	0°♎	
superior conj	3624 Sep 13 21:24	22°♎47'15	1°43'44	superior conj	3625 Aug 28 19:09	7°♎06'22	1°43'39
minimum elong	3624 Sep 13 22:12	22°♎51'14	1°43'43	minimum elong	3625 Aug 28 18:28	7°♎02'47	1°43'38
	3624 Sep 17 13:32	0°♎		max. Earth dist.	3625 Sep 02 00:21	15°♎41'49	1.35256 AU
max. Earth dist.	3624 Sep 19 13:49	3°♎50'24	1.37050 AU	evening rise	3625 Sep 06 06:14	23°♎57'34	
evening rise	3624 Sep 23 09:02	10°♎51'27			3625 Sep 09 12:22	0°♎	
desc. node	3624 Oct 03 12:41	28°♎06'59		desc. node	3625 Sep 20 09:43	18°♎21'49	
	3624 Oct 04 17:10	0°♎			3625 Sep 28 07:32	0°♎	
	3624 Oct 26 22:19	0°♎		evening max el	3625 Oct 11 15:35	15°♎54'29	26°37'22
evening max el	3624 Oct 29 03:12	2°♎15'08	25°37'54	retrograde	3625 Oct 24 14:36	23°♎09'05	
retrograde	3624 Nov 10 09:10	9°♎16'13		evening set	3625 Oct 31 03:38	20°♎29'37	
evening set	3624 Nov 16 09:09	6°♎46'28		min. Earth dist.	3625 Nov 04 05:17	16°♎19'20	0.66076 AU
min. Earth dist.	3624 Nov 20 17:48	2°♎00'22	0.67054 AU	inferior conj	3625 Nov 05 22:55	14°♎15'12	-1°24'45
inferior conj	3624 Nov 21 23:53	0°♎24'26	-0°25'32	minimum elong	3625 Nov 06 01:15	14°♎08'16	1°23'47
minimum elong	3624 Nov 22 00:32	0°♎22'19	0°25'15	asc. node	3625 Nov 10 02:42	9°♎49'44	
	3624 Nov 22 07:33	30°♎		morning rise	3625 Nov 11 23:34	8°♎31'40	
asc. node	3624 Nov 23 05:39	28°♎50'45		direct	3625 Nov 14 21:30	7°♎44'09	
morning rise	3624 Nov 27 16:15	24°♎30'08		morning max el	3625 Nov 21 12:17	11°♎20'41	18°27'54
direct	3624 Nov 30 23:45	23°♎27'00			3625 Dec 04 19:40	0°♎	
morning max el	3624 Dec 08 00:17	27°♎22'02	19°12'12	morning set	3625 Dec 11 10:43	10°♎35'52	
	3624 Dec 10 09:41	0°♎		desc. node	3625 Dec 17 09:00	20°♎03'37	
greatest brilliancy	3624 Dec 22 11:07	17°♎03'17	-0.7m		3625 Dec 23 15:53	0°♎	
desc. node	3624 Dec 30 11:59	29°♎27'29		superior conj	3625 Dec 27 04:02	5°♎30'35	-1°03'26
	3624 Dec 30 20:21	0°♎		minimum elong	3625 Dec 26 20:17	5°♎00'12	1°02'30
morning set	3624 Dec 31 08:05	0°♎45'34		max. Earth dist.	3625 Dec 27 23:46	6°♎48'01	1.45241 AU
max. Earth dist.	3625 Jan 14 05:19	22°♎27'28	1.44848 AU		3626 Jan 11 18:01	0°♎	
				evening rise	3626 Jan 12 04:10	0°♎40'05	
superior conj	3625 Jan 17 01:34	26°♎57'14	-1°42'30	greatest brilliancy	3626 Jan 21 22:05	16°♎01'54	-0.8m
minimum elong	3625 Jan 16 16:53	26°♎22'50	1°41'46		3626 Jan 31 11:52	0°♎	
	3625 Jan 18 23:33	0°♎		evening max el	3626 Feb 03 18:19	3°♎48'03	19°05'13
evening rise	3625 Jan 31 15:59	20°♎34'46		asc. node	3626 Feb 06 02:00	5°♎52'51	
	3625 Feb 06 08:58	0°♎		retrograde	3626 Feb 10 16:27	7°♎43'39	
asc. node	3625 Feb 19 04:56	19°♎04'29		evening set	3626 Feb 14 00:59	6°♎38'12	
evening max el	3625 Feb 20 08:37	20°♎18'54	18°28'31	inferior conj	3626 Feb 19 14:46	0°♎50'45	3°25'34
retrograde	3625 Feb 26 21:04	23°♎52'54		minimum elong	3626 Feb 19 13:02	0°♎56'15	3°25'19
evening set	3625 Mar 01 23:03	23°♎00'08			3626 Feb 20 06:42	30°♎	
inferior conj	3625 Mar 07 18:58	17°♎29'06	3°37'21	min. Earth dist.	3626 Feb 21 03:12	28°♎55'09	0.65963 AU
minimum elong	3625 Mar 07 18:26	17°♎30'40	3°37'20	morning rise	3626 Feb 25 00:44	24°♎37'41	
min. Earth dist.	3625 Mar 09 22:46	14°♎57'18	0.64478 AU	direct	3626 Mar 03 11:15	21°♎47'59	
morning rise	3625 Mar 13 13:10	11°♎19'13		desc. node	3626 Mar 15 08:15	28°♎26'45	
direct	3625 Mar 20 08:15	8°♎30'05		morning max el	3626 Mar 16 07:57	29°♎25'16	26°27'10
desc. node	3625 Mar 28 11:12	11°♎40'07			3626 Mar 16 21:33	0°♎	
morning max el	3625 Apr 02 21:58	16°♎23'57	27°23'40		3626 Apr 08 00:40	0°♎	
	3625 Apr 14 03:55	0°♎		morning set	3626 Apr 21 09:10	23°♎13'47	
	3625 May 02 20:26	0°♎			3626 Apr 24 21:49	0°♎	
morning set	3625 May 08 04:28	10°♎05'47		max. Earth dist.	3626 Apr 25 11:44	1°♎08'17	1.34823 AU
max. Earth dist.	3625 May 12 23:21	19°♎44'16	1.33466 AU	superior conj	3626 Apr 30 05:07	10°♎39'21	-0°48'37
				minimum elong	3626 Apr 30 07:41	10°♎52'34	0°48'07
superior conj	3625 May 16 06:45	26°♎40'16	-0°19'43	asc. node	3626 May 05 01:17	20°♎43'16	
minimum elong	3625 May 16 07:45	26°♎45'36	0°19'30	evening rise	3626 May 07 20:44	26°♎34'28	
	3625 May 17 20:16	0°♎			3626 May 09 12:47	0°♎	
asc. node	3625 May 18 04:13	0°♎42'31		evening max el	3626 May 26 18:56	27°♎21'03	20°49'09
evening rise	3625 May 23 11:56	12°♎03'39			3626 May 29 22:11	0°♎	
	3625 Jun 01 16:53	0°♎		retrograde	3626 Jun 07 06:21	2°♎57'30	
evening max el	3625 Jun 13 19:07	16°♎32'54	22°16'43	evening set	3626 Jun 09 08:52	2°♎46'55	
desc. node	3625 Jun 24 10:25	22°♎45'44		desc. node	3626 Jun 11 07:28	2°♎19'33	
retrograde	3625 Jun 26 17:27	22°♎57'53			3626 Jun 16 14:02	30°♎	
evening set	3625 Jun 29 16:09	22°♎38'40		inferior conj	3626 Jun 18 16:20	28°♎49'32	-2°09'00
min. Earth dist.	3625 Jul 08 01:19	19°♎01'40	0.55088 AU				
inferior conj	3625 Jul 08 23:00	18°♎31'05	-3°53'58				
minimum elong	3625 Jul 08 14:38	18°♎42'54	3°51'49				

minimum elong	3626 Jun 18 10:21	28° Π 58'04	2°06'54	evening set	3627 May 20 23:46	13° Π 21'37	
min. Earth dist.	3626 Jun 19 13:14	28° Π 19'46	0.54880 AU	desc. node	3627 May 29 04:28	9° Π 38'54	
morning rise	3626 Jun 27 11:27	24° Π 45'33		inferior conj	3627 May 29 17:33	9° Π 18'25	-0°09'38
direct	3626 Jul 01 02:09	24° Π 17'25		minimum elong	3627 May 29 17:07	9° Π 19'05	0°09'29
	3626 Jul 13 13:14	0° \mathfrak{D}		transit middle	3627 May 29 17:07	9° Π 19'05	0°09'29
morning max el	3626 Jul 14 04:21	0° \mathfrak{D} 34'33	22°57'29	transit begin	3627 May 29 13:57	9° Π 24'03	
asc. node	3626 Aug 01 00:32	26° \mathfrak{D} 41'12		transit end	3627 May 29 20:17	9° Π 14'07	
	3626 Aug 02 16:48	0° Ω		min. Earth dist.	3627 Jun 01 02:54	7° Π 48'36	0.55639 AU
morning set	3626 Aug 05 21:55	6° Ω 36'53		morning rise	3627 Jun 07 07:57	4° Π 44'37	
				direct	3627 Jun 11 19:12	4° Π 00'03	
superior conj	3626 Aug 12 23:47	21° Ω 45'24	1°37'01	morning max el	3627 Jun 25 18:35	11° Π 00'10	24°40'21
minimum elong	3626 Aug 12 22:03	21° Ω 36'11	1°36'54		3627 Jul 10 03:34	0° \mathfrak{D}	
max. Earth dist.	3626 Aug 15 19:39	27° Ω 44'23	1.33837 AU	asc. node	3627 Jul 18 21:34	16° \mathfrak{D} 18'52	
	3626 Aug 16 21:43	0° \mathfrak{M}		morning set	3627 Jul 21 09:43	21° \mathfrak{D} 31'41	
evening rise	3626 Aug 20 17:23	7° \mathfrak{M} 43'48			3627 Jul 25 08:07	0° Ω	
	3626 Sep 02 01:04	0° \mathfrak{L}					
desc. node	3626 Sep 07 06:45	8° \mathfrak{L} 13'51		superior conj	3627 Jul 28 08:48	6° Ω 36'40	1°24'56
evening max el	3626 Sep 24 03:51	29° \mathfrak{L} 22'28	27°15'44	minimum elong	3627 Jul 28 06:32	6° Ω 24'19	1°24'39
	3626 Sep 24 19:52	0° \mathfrak{M}		max. Earth dist.	3627 Jul 29 23:37	10° Ω 07'27	1.32834 AU
retrograde	3626 Oct 07 14:19	6° \mathfrak{M} 40'54		evening rise	3627 Aug 04 14:41	21° Ω 59'26	
evening set	3626 Oct 14 13:39	3° \mathfrak{M} 59'16			3627 Aug 08 15:36	0° \mathfrak{M}	
min. Earth dist.	3626 Oct 18 09:07	0° \mathfrak{M} 24'07	0.64750 AU	desc. node	3627 Aug 25 03:46	27° \mathfrak{M} 33'33	
	3626 Oct 18 18:06	30° \mathfrak{R} \mathfrak{L}			3627 Aug 26 22:00	0° \mathfrak{L}	
inferior conj	3626 Oct 20 14:53	27° \mathfrak{L} 57'16	-2°25'37	evening max el	3627 Sep 06 14:25	12° \mathfrak{L} 27'10	27°26'15
minimum elong	3626 Oct 20 18:57	27° \mathfrak{L} 46'09	2°24'05	retrograde	3627 Sep 20 07:32	19° \mathfrak{L} 43'11	
morning rise	3626 Oct 27 01:20	22° \mathfrak{L} 27'28		evening set	3627 Sep 27 12:06	17° \mathfrak{L} 09'37	
asc. node	3626 Oct 27 23:46	22° \mathfrak{L} 06'31		min. Earth dist.	3627 Oct 01 03:19	14° \mathfrak{L} 05'53	0.63093 AU
direct	3626 Oct 29 16:09	21° \mathfrak{L} 51'36		inferior conj	3627 Oct 03 21:04	11° \mathfrak{L} 24'37	-3°25'09
morning max el	3626 Nov 05 03:57	25° \mathfrak{L} 18'48	18°00'20	minimum elong	3627 Oct 04 02:32	11° \mathfrak{L} 11'12	3°23'26
	3626 Nov 09 01:56	0° \mathfrak{M}		morning rise	3627 Oct 10 18:24	6° \mathfrak{L} 11'54	
morning set	3626 Nov 22 18:40	21° \mathfrak{M} 52'56		direct	3627 Oct 13 04:47	5° \mathfrak{L} 44'05	
	3626 Nov 27 15:40	0° \mathfrak{X}		asc. node	3627 Oct 14 20:47	5° \mathfrak{L} 57'27	
desc. node	3626 Dec 04 06:01	10° \mathfrak{X} 46'42		morning max el	3627 Oct 19 20:26	9° \mathfrak{L} 10'04	17°50'25
					3627 Nov 02 15:37	0° \mathfrak{M}	
superior conj	3626 Dec 06 13:40	14° \mathfrak{X} 30'15	-0°15'50	morning set	3627 Nov 05 03:10	4° \mathfrak{M} 21'19	
minimum elong	3626 Dec 06 11:44	14° \mathfrak{X} 22'30	0°15'33				
behind sun begin	3626 Dec 06 08:47	14° \mathfrak{X} 10'44		superior conj	3627 Nov 16 22:29	24° \mathfrak{M} 39'31	0°28'46
behind sun end	3626 Dec 06 14:40	14° \mathfrak{X} 34'15		minimum elong	3627 Nov 17 01:17	24° \mathfrak{M} 51'13	0°28'23
max. Earth dist.	3626 Dec 10 18:38	21° \mathfrak{X} 11'24	1.44897 AU		3627 Nov 20 04:05	0° \mathfrak{X}	
	3626 Dec 16 09:31	0° \mathfrak{Z}		desc. node	3627 Nov 21 03:03	1° \mathfrak{X} 33'46	
evening rise	3626 Dec 22 20:44	10° \mathfrak{Z} 01'10		max. Earth dist.	3627 Nov 23 11:39	5° \mathfrak{X} 22'43	1.43863 AU
	3627 Jan 04 23:40	0° \mathfrak{A}		evening rise	3627 Dec 02 06:06	19° \mathfrak{X} 11'05	
greatest brilliancy	3627 Jan 06 00:42	1° \mathfrak{A} 32'48	-0.6m		3627 Dec 09 08:26	0° \mathfrak{Z}	
evening max el	3627 Jan 17 23:35	17° \mathfrak{A} 19'23	19°57'57		3627 Dec 31 03:38	0° \mathfrak{A}	
asc. node	3627 Jan 23 23:04	21° \mathfrak{A} 31'00		evening max el	3627 Dec 31 23:27	0° \mathfrak{A} 52'01	21°03'58
retrograde	3627 Jan 25 14:10	21° \mathfrak{A} 45'26		retrograde	3628 Jan 09 12:01	5° \mathfrak{A} 54'52	
evening set	3627 Jan 29 06:38	20° \mathfrak{A} 26'08		asc. node	3628 Jan 10 20:05	5° \mathfrak{A} 45'05	
inferior conj	3627 Feb 03 16:46	14° \mathfrak{A} 24'38	3°01'50	evening set	3628 Jan 13 14:05	4° \mathfrak{A} 20'27	
minimum elong	3627 Feb 03 14:23	14° \mathfrak{A} 32'35	3°01'18		3628 Jan 17 13:32	30° \mathfrak{R} \mathfrak{Z}	
min. Earth dist.	3627 Feb 04 14:58	13° \mathfrak{A} 10'18	0.67033 AU	inferior conj	3628 Jan 18 22:34	28° \mathfrak{Z} 07'38	2°28'38
morning rise	3627 Feb 08 21:55	8° \mathfrak{A} 10'51		minimum elong	3628 Jan 18 20:04	28° \mathfrak{Z} 16'14	2°27'54
direct	3627 Feb 14 19:56	5° \mathfrak{A} 32'10		min. Earth dist.	3628 Jan 19 07:59	27° \mathfrak{Z} 35'13	0.67695 AU
morning max el	3627 Feb 26 16:44	12° \mathfrak{A} 37'30	25°10'04	morning rise	3628 Jan 24 01:53	21° \mathfrak{Z} 54'49	
desc. node	3627 Mar 02 05:15	16° \mathfrak{A} 26'36		direct	3628 Jan 29 09:23	19° \mathfrak{Z} 34'56	
	3627 Mar 12 16:58	0° \mathfrak{H}		morning max el	3628 Feb 09 01:16	25° \mathfrak{Z} 55'51	23°42'35
	3627 Mar 31 18:40	0° \mathfrak{Y}			3628 Feb 12 18:40	0° \mathfrak{A}	
morning set	3627 Apr 03 21:19	5° \mathfrak{Y} 29'33		desc. node	3628 Feb 17 02:16	5° \mathfrak{A} 18'51	
max. Earth dist.	3627 Apr 07 12:56	12° \mathfrak{Y} 10'16	1.36616 AU		3628 Mar 05 06:24	0° \mathfrak{H}	
				morning set	3628 Mar 15 10:53	16° \mathfrak{H} 36'37	
superior conj	3627 Apr 13 18:09	24° \mathfrak{Y} 06'54	-1°16'52	max. Earth dist.	3628 Mar 19 08:23	23° \mathfrak{H} 22'07	1.38720 AU
minimum elong	3627 Apr 13 22:09	24° \mathfrak{Y} 26'36	1°16'13		3628 Mar 23 01:03	0° \mathfrak{Y}	
	3627 Apr 16 16:58	0° \mathfrak{B}					
asc. node	3627 Apr 21 22:21	10° \mathfrak{B} 34'00		superior conj	3628 Mar 26 18:08	6° \mathfrak{Y} 52'54	-1°41'57
evening rise	3627 Apr 22 00:48	10° \mathfrak{B} 46'23		minimum elong	3628 Mar 26 22:47	7° \mathfrak{Y} 14'52	1°41'26
	3627 May 02 10:18	0° Π		evening rise	3628 Apr 04 21:29	24° \mathfrak{Y} 31'45	
evening max el	3627 May 09 06:58	8° Π 49'06	19°38'39	asc. node	3628 Apr 07 19:23	0° \mathfrak{B} 09'27	
retrograde	3627 May 19 00:20	13° Π 32'27			3628 Apr 07 17:24	0° \mathfrak{B}	

evening max el	3628 Apr 21 05:55	20° ♄ 56'35	18°48'00	evening max el	3629 Apr 04 12:43	3° ♄ 36'26	18°17'37
retrograde	3628 Apr 29 10:49	24° ♄ 57'21		retrograde	3629 Apr 11 16:29	7° ♄ 10'38	
evening set	3628 May 01 15:11	24° ♄ 41'25		evening set	3629 Apr 14 03:15	6° ♄ 46'30	
inferior conj	3628 May 09 13:17	20° ♄ 21'14	1°32'20	inferior conj	3629 Apr 21 06:34	2° ♄ 05'55	2°42'37
minimum elong	3628 May 09 16:27	20° ♄ 15'24	1°31'18	minimum elong	3629 Apr 21 10:09	1° ♄ 58'13	2°41'47
min. Earth dist.	3628 May 12 19:17	17° ♄ 59'44	0.57198 AU		3629 Apr 23 17:15	30° ♄	
desc. node	3628 May 15 01:29	16° ♄ 31'31		min. Earth dist.	3629 Apr 24 16:47	29° ♄ 11'21	0.59239 AU
morning rise	3628 May 17 14:33	15° ♄ 12'16		morning rise	3629 Apr 28 14:21	26° ♄ 27'59	
direct	3628 May 23 01:38	13° ♄ 59'49		desc. node	3629 May 01 22:30	25° ♄ 04'03	
morning max el	3628 Jun 06 09:50	21° ♄ 29'19	26°12'25	direct	3629 May 04 21:31	24° ♄ 40'13	
	3628 Jun 13 20:07	0° ♄			3629 May 16 13:46	0° ♄	
	3628 Jul 01 18:36	0° ♄		morning max el	3629 May 19 06:35	2° ♄ 28'01	27°18'37
morning set	3628 Jul 04 20:44	6° ♄ 22'50			3629 Jun 08 05:15	0° ♄	
asc. node	3628 Jul 04 18:36	6° ♄ 11'34		morning set	3629 Jun 19 05:19	21° ♄ 05'06	
				asc. node	3629 Jun 21 15:39	26° ♄ 14'13	
					3629 Jun 23 09:22	0° ♄	
superior conj	3628 Jul 11 20:03	21° ♄ 32'18	1°08'11	superior conj	3629 Jun 26 07:49	6° ♄ 26'42	0°47'26
minimum elong	3628 Jul 11 17:44	21° ♄ 19'33	1°07'47	minimum elong	3629 Jun 26 05:55	6° ♄ 16'14	0°47'03
max. Earth dist.	3628 Jul 12 09:22	22° ♄ 45'33	1.32242 AU	max. Earth dist.	3629 Jun 25 21:12	5° ♄ 28'12	1.32050 AU
	3628 Jul 15 16:54	0° ♄		evening rise	3629 Jul 03 03:48	21° ♄ 19'47	
evening rise	3628 Jul 18 18:59	6° ♄ 33'59			3629 Jul 07 09:02	0° ♄	
	3628 Jul 31 04:28	0° ♄			3629 Jul 25 20:34	0° ♄	
desc. node	3628 Aug 11 00:48	16° ♄ 06'35		desc. node	3629 Jul 28 21:48	3° ♄ 34'01	
evening max el	3628 Aug 18 20:23	24° ♄ 53'30	27°04'18	evening max el	3629 Jul 31 19:20	6° ♄ 32'14	26°09'24
	3628 Aug 25 13:12	0° ♄		retrograde	3629 Aug 14 18:44	13° ♄ 41'38	
retrograde	3628 Sep 01 17:19	2° ♄ 05'47		evening set	3629 Aug 21 05:11	12° ♄ 00'48	
evening set	3628 Sep 08 18:51	29° ♄ 52'32		min. Earth dist.	3629 Aug 25 08:04	9° ♄ 25'27	0.59089 AU
	3628 Sep 08 13:57	30° ♄		inferior conj	3629 Aug 28 14:41	6° ♄ 57'41	-4°56'56
min. Earth dist.	3628 Sep 12 10:40	27° ♄ 10'59	0.61160 AU	minimum elong	3629 Aug 28 18:29	6° ♄ 50'31	4°56'31
inferior conj	3628 Sep 15 14:10	24° ♄ 27'50	-4°18'24	morning rise	3629 Sep 05 09:58	2° ♄ 28'42	
minimum elong	3628 Sep 15 19:55	24° ♄ 15'21	4°17'06	direct	3629 Sep 07 20:18	2° ♄ 08'39	
morning rise	3628 Sep 22 22:47	19° ♄ 35'49		morning max el	3629 Sep 15 19:13	5° ♄ 58'18	18°27'48
direct	3628 Sep 25 07:40	19° ♄ 13'01		asc. node	3629 Sep 17 14:50	7° ♄ 53'34	
asc. node	3628 Sep 30 17:48	21° ♄ 17'27			3629 Oct 01 00:53	0° ♄	
morning max el	3628 Oct 02 10:35	22° ♄ 46'00	17°59'09	morning set	3629 Oct 01 20:52	1° ♄ 35'51	
	3628 Oct 08 02:35	0° ♄					
morning set	3628 Oct 18 05:39	17° ♄ 40'36		superior conj	3629 Oct 10 20:28	18° ♄ 41'28	1°27'11
	3628 Oct 24 23:27	0° ♄		minimum elong	3629 Oct 10 23:54	18° ♄ 57'22	1°26'50
superior conj	3628 Oct 28 10:01	6° ♄ 06'59	1°03'39		3629 Oct 17 03:07	0° ♄	
minimum elong	3628 Oct 28 14:16	6° ♄ 25'36	1°03'06	max. Earth dist.	3629 Oct 18 07:02	2° ♄ 01'26	1.40275 AU
max. Earth dist.	3628 Nov 05 00:09	19° ♄ 03'47	1.42252 AU	evening rise	3629 Oct 22 15:14	9° ♄ 23'14	
desc. node	3628 Nov 07 00:05	22° ♄ 20'59		desc. node	3629 Oct 24 21:06	13° ♄ 04'51	
evening rise	3628 Nov 11 00:24	28° ♄ 48'50			3629 Nov 04 18:16	0° ♄	
	3628 Nov 11 18:22	0° ♄		evening max el	3629 Nov 26 08:18	28° ♄ 02'29	23°39'23
	3628 Dec 02 00:24	0° ♄			3629 Nov 28 10:08	0° ♄	
evening max el	3628 Dec 13 17:54	14° ♄ 25'58	22°19'30	retrograde	3629 Dec 07 01:40	4° ♄ 22'31	
retrograde	3628 Dec 23 08:18	20° ♄ 08'35		evening set	3629 Dec 12 03:46	2° ♄ 15'49	
evening set	3628 Dec 27 21:40	18° ♄ 18'06			3629 Dec 14 09:12	30° ♄	
asc. node	3628 Dec 27 17:04	18° ♄ 27'19		asc. node	3629 Dec 14 14:05	29° ♄ 45'34	
inferior conj	3629 Jan 02 06:09	11° ♄ 57'16	1°47'40	min. Earth dist.	3629 Dec 17 00:40	26° ♄ 35'19	0.67878 AU
minimum elong	3629 Jan 02 04:01	12° ♄ 04'43	1°46'54	inferior conj	3629 Dec 17 13:41	25° ♄ 50'54	1°00'08
min. Earth dist.	3629 Jan 02 03:59	12° ♄ 04'48	0.67966 AU	minimum elong	3629 Dec 17 12:19	25° ♄ 55'33	0°59'35
morning rise	3629 Jan 07 10:14	5° ♄ 47'00		morning rise	3629 Dec 22 20:52	19° ♄ 44'54	
direct	3629 Jan 12 02:50	3° ♄ 49'35		direct	3629 Dec 26 23:19	18° ♄ 10'18	
morning max el	3629 Jan 21 12:36	9° ♄ 21'35	22°14'30	morning max el	3630 Jan 04 06:01	22° ♄ 57'13	20°53'32
desc. node	3629 Feb 02 23:18	24° ♄ 48'50			3630 Jan 10 06:57	0° ♄	
	3629 Feb 06 15:07	0° ♄		desc. node	3630 Jan 20 20:20	14° ♄ 45'39	
morning set	3629 Feb 23 20:30	26° ♄ 22'40			3630 Jan 30 23:05	0° ♄	
	3629 Feb 26 01:43	0° ♄		morning set	3630 Feb 03 03:09	4° ♄ 55'00	
max. Earth dist.	3629 Mar 01 05:43	5° ♄ 16'20	1.40885 AU	max. Earth dist.	3630 Feb 11 09:26	18° ♄ 04'19	1.42826 AU
superior conj	3629 Mar 09 00:24	18° ♄ 45'58	-2°00'19	superior conj	3630 Feb 18 07:51	29° ♄ 34'10	-2°07'10
minimum elong	3629 Mar 09 04:00	19° ♄ 02'02	2°00'08	minimum elong	3630 Feb 18 07:35	29° ♄ 33'01	2°07'10
	3629 Mar 15 04:21	0° ♄			3630 Feb 18 13:57	0° ♄	
evening rise	3629 Mar 19 07:29	7° ♄ 42'27		evening rise	3630 Mar 02 02:45	20° ♄ 08'48	
asc. node	3629 Mar 25 16:24	19° ♄ 24'06			3630 Mar 07 16:03	0° ♄	
	3629 Apr 01 09:48	0° ♄					

asc. node	3630 Mar 12 13:26	8°♈10'31		evening rise	3631 Feb 12 02:55	1°♋42'50	
evening max el	3630 Mar 19 00:02	16°♈39'16	18°06'57	asc. node	3631 Feb 27 10:28	26°♋20'05	
retrograde	3630 Mar 25 14:04	20°♈02'29		evening max el	3631 Mar 02 12:49	29°♋57'19	18°15'22
evening set	3630 Mar 28 06:54	19°♈28'07			3631 Mar 02 13:54	0°♈	
inferior conj	3630 Apr 03 19:01	14°♈27'13	3°22'13	retrograde	3631 Mar 08 23:12	3°♈23'29	
minimum elong	3630 Apr 03 21:13	14°♈21'49	3°21'56	evening set	3631 Mar 11 21:49	2°♈37'40	
min. Earth dist.	3630 Apr 06 21:42	11°♈24'18	0.61419 AU		3631 Mar 15 08:56	30°♋	
morning rise	3630 Apr 10 09:44	8°♈30'52		inferior conj	3631 Mar 17 22:39	27°♋17'21	3°37'18
direct	3630 Apr 17 04:44	6°♈09'59		minimum elong	3631 Mar 17 23:02	27°♋16'16	3°37'17
desc. node	3630 Apr 18 19:32	6°♈17'30		min. Earth dist.	3631 Mar 20 11:31	24°♋29'13	0.63458 AU
morning max el	3630 May 01 09:36	14°♈07'16	27°49'31	morning rise	3631 Mar 23 23:17	21°♋11'02	
	3630 May 14 04:15	0°♋		direct	3631 Mar 30 20:52	18°♋27'58	
	3630 May 31 15:40	0°♊		desc. node	3631 Apr 05 16:35	20°♋06'20	
morning set	3630 Jun 03 09:36	5°♊31'50		morning max el	3631 Apr 13 17:13	26°♋25'39	27°42'56
asc. node	3630 Jun 08 12:42	16°♊21'46			3631 Apr 17 01:11	0°♈	
max. Earth dist.	3630 Jun 09 07:16	18°♊02'22	1.32260 AU		3631 May 07 18:18	0°♋	
				morning set	3631 May 18 07:14	19°♋35'29	
superior conj	3630 Jun 10 18:22	21°♊13'47	0°23'19		3631 May 23 08:42	0°♊	
minimum elong	3630 Jun 10 17:18	21°♊08'01	0°23'06	max. Earth dist.	3631 May 23 11:36	0°♊15'20	1.32898 AU
	3630 Jun 14 18:29	0°♋					
evening rise	3630 Jun 17 15:04	6°♋09'45		superior conj	3631 May 26 01:53	5°♊47'31	-0°03'28
	3630 Jun 30 03:35	0°♊		minimum elong	3631 May 26 02:03	5°♊48'25	0°03'25
evening max el	3630 Jul 13 11:20	17°♊25'56	24°47'42	behind sun begin	3631 May 25 20:51	5°♊20'28	
desc. node	3630 Jul 15 18:49	19°♊29'40		behind sun end	3631 May 26 07:15	6°♊16'23	
retrograde	3630 Jul 27 09:49	24°♊29'01		asc. node	3631 May 26 09:46	6°♊29'58	
evening set	3630 Aug 01 15:33	23°♊26'51		evening rise	3631 Jun 02 02:53	20°♊57'25	
min. Earth dist.	3630 Aug 06 22:42	20°♊38'52	0.57132 AU		3631 Jun 06 12:26	0°♋	
inferior conj	3630 Aug 09 19:43	18°♊45'55	-5°07'47	evening max el	3631 Jun 25 00:35	27°♋53'14	23°11'57
minimum elong	3630 Aug 09 18:37	18°♊47'44	5°07'45		3631 Jun 27 09:25	0°♊	
morning rise	3630 Aug 18 00:13	14°♊38'40		desc. node	3631 Jul 02 15:51	3°♊19'24	
direct	3630 Aug 20 14:44	14°♊19'32		retrograde	3631 Jul 08 12:03	4°♊37'04	
morning max el	3630 Aug 29 19:07	18°♊37'35	19°17'39	evening set	3631 Jul 12 05:30	4°♊06'43	
asc. node	3630 Sep 04 11:54	25°♊30'50		min. Earth dist.	3631 Jul 19 10:02	0°♊51'22	0.55626 AU
	3630 Sep 07 08:29	0°♎			3631 Jul 20 21:12	30°♋	
morning set	3630 Sep 15 20:58	15°♎56'54		inferior conj	3631 Jul 21 05:01	29°♋48'32	-4°35'35
	3630 Sep 22 22:15	0°♏		minimum elong	3631 Jul 20 22:12	29°♋58'32	4°34'23
				morning rise	3631 Jul 29 17:17	25°♋55'41	
superior conj	3630 Sep 24 00:20	2°♏07'30	1°40'17	direct	3631 Aug 01 14:25	25°♋35'43	
minimum elong	3630 Sep 24 02:07	2°♏16'11	1°40'11		3631 Aug 11 16:28	0°♊	
max. Earth dist.	3630 Sep 30 11:07	14°♏18'14	1.38192 AU	morning max el	3631 Aug 12 07:40	0°♊34'15	20°29'03
evening rise	3630 Oct 04 05:41	21°♏03'11		asc. node	3631 Aug 22 08:58	13°♊54'56	
	3630 Oct 09 11:51	0°♎			3631 Aug 30 20:08	0°♎	
desc. node	3630 Oct 11 18:08	3°♎41'39		morning set	3631 Aug 31 03:00	0°♎35'04	
	3630 Oct 29 18:19	0°♏					
evening max el	3630 Nov 08 20:53	11°♏43'21	24°57'08	superior conj	3631 Sep 07 16:40	16°♎10'14	1°44'34
retrograde	3630 Nov 20 15:00	18°♏32'44		minimum elong	3631 Sep 07 16:47	16°♎10'50	1°44'34
evening set	3630 Nov 26 06:48	16°♏10'52		max. Earth dist.	3631 Sep 12 17:58	26°♎12'26	1.36246 AU
min. Earth dist.	3630 Nov 30 19:44	11°♏04'18	0.67449 AU		3631 Sep 14 17:34	0°♏	
asc. node	3630 Dec 01 11:07	10°♏13'44		evening rise	3631 Sep 16 16:55	3°♏41'04	
inferior conj	3630 Dec 01 19:25	9°♏46'20	0°07'07	desc. node	3631 Sep 28 15:10	24°♏06'02	
minimum elong	3630 Dec 01 19:14	9°♏46'56	0°07'02		3631 Oct 02 10:45	0°♎	
transit middle	3630 Dec 01 19:14	9°♏46'56	0°07'02	evening max el	3631 Oct 22 09:20	25°♎25'25	26°05'26
transit begin	3630 Dec 01 16:45	9°♏55'08			3631 Oct 27 22:02	0°♏	
transit end	3630 Dec 01 21:44	9°♏38'43		retrograde	3631 Nov 03 23:19	2°♏33'12	
morning rise	3630 Dec 07 07:51	3°♏46'49		evening set	3631 Nov 10 04:57	29°♎58'58	
direct	3630 Dec 10 21:43	2°♏33'01			3631 Nov 10 04:28	30°♎	
morning max el	3630 Dec 18 07:15	6°♏44'04	19°44'54	min. Earth dist.	3631 Nov 14 10:41	25°♎27'47	0.66679 AU
greatest brilliancy	3630 Dec 31 12:34	24°♏10'47	-0.7m	inferior conj	3631 Nov 15 21:29	23°♎39'37	-0°50'16
	3631 Jan 04 09:51	0°♏		minimum elong	3631 Nov 15 22:49	23°♎35'27	0°49'42
desc. node	3631 Jan 07 17:23	5°♏02'08		asc. node	3631 Nov 18 08:10	20°♎45'00	
morning set	3631 Jan 12 23:15	13°♏05'18		morning rise	3631 Nov 21 17:07	17°♎49'16	
	3631 Jan 23 19:04	0°♏		direct	3631 Nov 24 20:20	16°♎53'06	
max. Earth dist.	3631 Jan 24 20:33	1°♏41'05	1.44295 AU	morning max el	3631 Dec 01 15:46	20°♎39'01	18°51'19
					3631 Dec 09 01:13	0°♏	
superior conj	3631 Jan 29 13:27	9°♏13'10	-1°57'11	morning set	3631 Dec 23 10:01	22°♏06'29	
minimum elong	3631 Jan 29 07:16	8°♏48'13	1°56'50	desc. node	3631 Dec 25 14:25	25°♏32'07	
	3631 Feb 11 02:39	0°♋			3631 Dec 28 10:43	0°♏	

max. Earth dist.	3632 Jan 07 13:27	15° ♁ 51'39	1.45110 AU		3632 Dec 20 04:37	0° ♁	
				max. Earth dist.	3632 Dec 20 09:00	0° ♁ 17'14	1.45187 AU
superior conj	3632 Jan 08 21:26	17° ♁ 57'21	-1°27'44	evening rise	3633 Jan 03 07:16	22° ♁ 03'04	
minimum elong	3632 Jan 08 12:15	17° ♁ 21'13	1°26'48		3633 Jan 08 09:43	0° ♁	
	3632 Jan 16 12:08	0° ♁		greatest brilliancy	3633 Jan 15 03:07	10° ♁ 22'10	-0.7m
evening rise	3632 Jan 24 04:24	12° ♁ 19'29		evening max el	3633 Jan 27 08:18	26° ♁ 53'48	19°25'50
	3632 Feb 04 04:16	0° ♁		asc. node	3633 Jan 31 04:32	0° ♁ 01'56	
evening max el	3632 Feb 14 00:20	13° ♁ 23'55	18°42'05		3633 Jan 31 03:11	0° ♁	
asc. node	3632 Feb 14 07:29	13° ♁ 41'50		retrograde	3633 Feb 03 12:31	1° ♁ 01'17	
retrograde	3632 Feb 20 15:49	17° ♁ 05'27			3633 Feb 06 18:09	30° ♁	
evening set	3632 Feb 23 20:34	16° ♁ 07'15		evening set	3633 Feb 07 00:19	29° ♁ 49'53	
inferior conj	3632 Feb 29 13:31	10° ♁ 29'05	3°33'59	inferior conj	3633 Feb 12 12:14	23° ♁ 55'56	3°16'47
minimum elong	3632 Feb 29 12:25	10° ♁ 32'26	3°33'53	minimum elong	3633 Feb 12 10:11	24° ♁ 02'40	3°16'26
min. Earth dist.	3632 Mar 02 10:42	8° ♁ 11'50	0.65164 AU	min. Earth dist.	3633 Feb 13 18:21	22° ♁ 17'54	0.66466 AU
morning rise	3632 Mar 06 03:49	4° ♁ 17'46		morning rise	3633 Feb 17 19:47	17° ♁ 42'26	
direct	3632 Mar 12 20:00	1° ♁ 26'50		direct	3633 Feb 24 01:16	14° ♁ 56'35	
desc. node	3632 Mar 22 13:38	5° ♁ 57'54		morning max el	3633 Mar 08 12:36	22° ♁ 21'37	25°56'28
morning max el	3632 Mar 26 02:58	9° ♁ 14'32	27°02'47	desc. node	3633 Mar 09 10:39	23° ♁ 18'24	
	3632 Apr 11 09:08	0° ♁			3633 Mar 15 05:46	0° ♁	
	3632 Apr 29 03:59	0° ♁			3633 Apr 04 15:49	0° ♁	
morning set	3632 Apr 30 19:15	3° ♁ 07'22		morning set	3633 Apr 13 17:33	15° ♁ 54'42	
max. Earth dist.	3632 May 05 06:48	11° ♁ 59'14	1.33990 AU	max. Earth dist.	3633 Apr 17 14:33	23° ♁ 13'07	1.35539 AU
					3633 Apr 21 01:37	0° ♁	
superior conj	3632 May 09 04:20	20° ♁ 01'49	-0°31'55	superior conj	3633 Apr 22 23:06	3° ♁ 48'16	-1°00'47
minimum elong	3632 May 09 06:00	20° ♁ 10'31	0°31'34	minimum elong	3633 Apr 23 02:19	4° ♁ 04'33	1°00'12
asc. node	3632 May 12 06:49	26° ♁ 34'55		asc. node	3633 Apr 29 03:51	16° ♁ 31'47	
	3632 May 13 21:29	0° ♁		evening rise	3633 Apr 30 20:29	20° ♁ 00'42	
evening rise	3632 May 16 13:24	5° ♁ 36'56			3633 May 05 21:02	0° ♁	
	3632 May 29 21:10	0° ♁		evening max el	3633 May 18 23:26	19° ♁ 29'19	20°16'45
evening max el	3632 Jun 05 18:38	8° ♁ 25'50	21°37'43	retrograde	3633 May 29 17:00	24° ♁ 43'11	
retrograde	3632 Jun 18 03:19	14° ♁ 31'21		evening set	3633 May 31 16:39	24° ♁ 33'12	
desc. node	3632 Jun 18 12:52	14° ♁ 30'59		desc. node	3633 Jun 05 09:54	22° ♁ 59'18	
evening set	3632 Jun 20 15:26	14° ♁ 17'09		inferior conj	3633 Jun 09 19:33	20° ♁ 34'42	-1°18'00
inferior conj	3632 Jun 30 00:38	10° ♁ 16'00	-3°13'31	minimum elong	3633 Jun 09 15:53	20° ♁ 40'06	1°16'39
minimum elong	3632 Jun 29 16:32	10° ♁ 27'20	3°11'03	min. Earth dist.	3633 Jun 11 09:10	19° ♁ 39'23	0.55092 AU
min. Earth dist.	3632 Jun 29 20:53	10° ♁ 21'14	0.54886 AU	morning rise	3633 Jun 18 13:50	16° ♁ 19'51	
morning rise	3632 Jul 08 18:43	6° ♁ 22'24		direct	3633 Jun 22 12:16	15° ♁ 46'21	
direct	3632 Jul 12 01:28	5° ♁ 58'55		morning max el	3633 Jul 06 01:19	22° ♁ 22'39	23°41'32
morning max el	3632 Jul 24 08:40	11° ♁ 46'17	21°59'30		3633 Jul 12 18:22	0° ♁	
	3632 Aug 06 15:42	0° ♁		asc. node	3633 Jul 26 03:06	22° ♁ 20'15	
asc. node	3632 Aug 08 06:03	2° ♁ 54'42			3633 Jul 29 20:45	0° ♁	
morning set	3632 Aug 14 12:42	15° ♁ 24'19		morning set	3633 Jul 30 00:13	0° ♁ 18'16	
	3632 Aug 21 10:18	0° ♁					
superior conj	3632 Aug 21 17:42	0° ♁ 38'55	1°41'34	superior conj	3633 Aug 06 00:28	15° ♁ 23'49	1°32'31
minimum elong	3632 Aug 21 16:31	0° ♁ 32'40	1°41'31	minimum elong	3633 Aug 05 22:27	15° ♁ 12'57	1°32'19
max. Earth dist.	3632 Aug 25 08:25	8° ♁ 08'22	1.34610 AU	max. Earth dist.	3633 Aug 08 07:41	20° ♁ 19'32	1.33361 AU
evening rise	3632 Aug 29 20:36	17° ♁ 05'44		evening rise	3633 Aug 12 23:31	0° ♁	
	3632 Sep 05 20:49	0° ♁			3633 Aug 13 12:28	1° ♁ 05'08	
desc. node	3632 Sep 14 12:10	14° ♁ 12'05			3633 Aug 29 19:40	0° ♁	
	3632 Sep 25 19:24	0° ♁		desc. node	3633 Sep 01 09:12	3° ♁ 51'37	
evening max el	3632 Oct 03 21:56	9° ♁ 01'28	26°56'39	evening max el	3633 Sep 16 09:33	22° ♁ 20'12	27°23'48
retrograde	3632 Oct 17 02:07	16° ♁ 17'43		retrograde	3633 Sep 29 23:03	29° ♁ 38'09	
evening set	3632 Oct 23 20:06	13° ♁ 36'21		evening set	3633 Oct 07 01:37	26° ♁ 58'11	
min. Earth dist.	3632 Oct 27 19:05	9° ♁ 41'16	0.65562 AU	min. Earth dist.	3633 Oct 10 18:49	23° ♁ 37'29	0.64088 AU
inferior conj	3632 Oct 29 17:47	7° ♁ 26'55	-1°50'30	inferior conj	3633 Oct 13 05:54	21° ♁ 03'05	-2°51'18
minimum elong	3632 Oct 29 20:51	7° ♁ 18'04	1°49'15	minimum elong	3633 Oct 13 10:38	20° ♁ 50'41	2°49'36
asc. node	3632 Nov 04 05:14	2° ♁ 12'56		morning rise	3633 Oct 19 20:55	15° ♁ 40'26	
morning rise	3632 Nov 04 22:25	1° ♁ 48'48		direct	3633 Oct 22 09:32	15° ♁ 08'26	
direct	3632 Nov 07 17:08	1° ♁ 06'33		asc. node	3633 Oct 22 02:17	15° ♁ 08'54	
morning max el	3632 Nov 14 05:37	4° ♁ 37'40	18°14'04	morning max el	3633 Oct 28 22:04	18° ♁ 33'51	17°53'58
	3632 Dec 01 11:26	0° ♁			3633 Nov 06 07:10	0° ♁	
morning set	3632 Dec 03 01:19	2° ♁ 34'28		morning set	3633 Nov 14 20:28	14° ♁ 23'58	
desc. node	3632 Dec 11 11:26	16° ♁ 11'20			3633 Nov 24 02:39	0° ♁	
superior conj	3632 Dec 18 00:10	26° ♁ 33'37	-0°43'33	superior conj	3633 Nov 27 18:29	5° ♁ 59'51	0°04'02
minimum elong	3632 Dec 17 18:40	26° ♁ 11'53	0°42'48	minimum elong	3633 Nov 27 18:56	6° ♁ 01'42	0°03'58

behind sun begin	3633 Nov 27 09:09	5° ♁ 21'55		morning set	3634 Oct 28 13:20	27° ♁ 15'39	
behind sun end	3633 Nov 28 04:43	6° ♁ 41'24			3634 Oct 30 02:00	0° ♁	
desc. node	3633 Nov 28 08:27	6° ♁ 56'31					
max. Earth dist.	3633 Dec 03 03:28	14° ♁ 37'43	1.44531 AU	superior conj	3634 Nov 08 14:51	16° ♁ 42'53	0°44'56
	3633 Dec 12 23:31	0° ♁		minimum elong	3634 Nov 08 18:39	16° ♁ 59'00	0°44'25
evening rise	3633 Dec 13 18:50	1° ♁ 14'23		desc. node	3634 Nov 15 05:29	27° ♁ 43'51	
	3634 Jan 02 02:31	0° ♁		max. Earth dist.	3634 Nov 15 18:12	28° ♁ 35'38	1.43230 AU
evening max el	3634 Jan 10 11:12	10° ♁ 25'05	20°24'35		3634 Nov 16 15:01	0° ♁	
retrograde	3634 Jan 18 10:39	15° ♁ 06'42		evening rise	3634 Nov 23 06:01	10° ♁ 30'49	
asc. node	3634 Jan 18 01:33	15° ♁ 05'55			3634 Dec 06 03:33	0° ♁	
evening set	3634 Jan 22 06:58	13° ♁ 41'05		evening max el	3634 Dec 24 08:36	23° ♁ 57'30	21°35'15
inferior conj	3634 Jan 27 16:08	7° ♁ 34'08	2°48'49	retrograde	3635 Jan 02 08:05	29° ♁ 17'41	
minimum elong	3634 Jan 27 13:39	7° ♁ 42'35	2°48'11	asc. node	3635 Jan 04 22:34	28° ♁ 40'49	
min. Earth dist.	3634 Jan 28 08:41	6° ♁ 37'51	0.67355 AU	evening set	3635 Jan 06 14:38	27° ♁ 36'44	
morning rise	3634 Feb 01 20:09	1° ♁ 20'23		inferior conj	3635 Jan 11 22:56	21° ♁ 20'01	2°12'08
	3634 Feb 03 14:12	30° ♁		minimum elong	3635 Jan 11 20:32	21° ♁ 28'21	2°11'22
direct	3634 Feb 07 11:59	28° ♁ 49'10		min. Earth dist.	3635 Jan 12 03:21	21° ♁ 04'42	0.67851 AU
	3634 Feb 11 19:05	0° ♁		morning rise	3635 Jan 17 02:14	15° ♁ 07'48	
morning max el	3634 Feb 18 21:15	5° ♁ 37'25	24°33'38	direct	3635 Jan 22 03:21	12° ♁ 57'05	
desc. node	3634 Feb 24 07:39	11° ♁ 42'36		morning max el	3635 Feb 01 06:26	18° ♁ 57'52	23°04'36
	3634 Mar 09 17:31	0° ♁			3635 Feb 10 13:01	0° ♁	
morning set	3634 Mar 26 20:52	27° ♁ 43'19		desc. node	3635 Feb 11 04:41	0° ♁ 52'01	
	3634 Mar 28 03:49	0° ♁			3635 Mar 02 21:29	0° ♁	
max. Earth dist.	3634 Mar 30 12:28	4° ♁ 14'49	1.37481 AU	morning set	3635 Mar 07 23:00	8° ♁ 16'22	
				max. Earth dist.	3635 Mar 12 07:10	15° ♁ 38'18	1.39645 AU
superior conj	3634 Apr 06 07:02	16° ♁ 58'52	-1°28'03				
minimum elong	3634 Apr 06 11:27	17° ♁ 20'16	1°27'27	superior conj	3635 Mar 20 00:02	29° ♁ 23'08	-1°50'50
	3634 Apr 12 21:14	0° ♁		minimum elong	3635 Mar 20 04:32	29° ♁ 43'50	1°50'27
evening rise	3634 Apr 14 21:46	4° ♁ 02'01			3635 Mar 20 08:02	0° ♁	
asc. node	3634 Apr 16 00:52	6° ♁ 16'20		evening rise	3635 Mar 29 14:17	17° ♁ 32'49	
	3634 Apr 30 11:36	0° ♁		asc. node	3635 Apr 02 21:54	25° ♁ 43'16	
evening max el	3634 May 01 16:19	1° ♁ 14'12	19°14'37		3635 Apr 05 06:31	0° ♁	
retrograde	3634 May 10 17:21	5° ♁ 38'00		evening max el	3635 Apr 14 19:04	13° ♁ 36'30	18°32'44
evening set	3634 May 12 18:08	5° ♁ 25'37		retrograde	3635 Apr 22 11:47	17° ♁ 23'41	
inferior conj	3634 May 21 03:48	1° ♁ 16'04	0°37'00	evening set	3635 Apr 24 18:53	17° ♁ 04'35	
minimum elong	3634 May 21 05:19	1° ♁ 13'32	0°36'27	inferior conj	3635 May 02 08:42	12° ♁ 36'17	2°06'08
desc. node	3634 May 23 06:54	29° ♁ 50'32		minimum elong	3635 May 02 12:23	12° ♁ 29'04	2°05'05
	3634 May 23 01:11	30° ♁		min. Earth dist.	3635 May 05 18:32	9° ♁ 57'38	0.58025 AU
min. Earth dist.	3634 May 24 00:05	29° ♁ 22'28	0.56219 AU	morning rise	3635 May 10 02:44	7° ♁ 13'48	
morning rise	3634 May 29 13:26	26° ♁ 26'42		desc. node	3635 May 10 03:53	7° ♁ 12'24	
direct	3634 Jun 03 10:35	25° ♁ 31'38		direct	3635 May 15 23:23	5° ♁ 46'21	
	3634 Jun 14 10:41	0° ♁		morning max el	3635 May 30 08:33	13° ♁ 25'23	26°44'23
morning max el	3634 Jun 17 15:26	2° ♁ 46'36	25°21'44		3635 Jun 12 11:31	0° ♁	
	3634 Jul 06 20:31	0° ♁		morning set	3635 Jun 28 22:04	29° ♁ 59'59	
asc. node	3634 Jul 13 00:07	12° ♁ 04'38			3635 Jun 28 22:04	0° ♁	
morning set	3634 Jul 14 11:51	15° ♁ 11'48		asc. node	3635 Jun 29 21:10	2° ♁ 02'12	
superior conj	3634 Jul 21 10:40	0° ♁ 17'34	1°18'22	superior conj	3635 Jul 05 22:24	15° ♁ 13'52	0°59'51
minimum elong	3634 Jul 21 08:20	0° ♁ 04'44	1°18'01	minimum elong	3635 Jul 05 20:12	15° ♁ 01'46	0°59'27
	3634 Jul 21 07:28	0° ♁		max. Earth dist.	3635 Jul 06 01:16	15° ♁ 29'44	1.32109 AU
max. Earth dist.	3634 Jul 22 14:16	2° ♁ 48'30	1.32530 AU	evening rise	3635 Jul 12 19:35	0° ♁ 10'08	
evening rise	3634 Jul 28 13:03	15° ♁ 29'24			3635 Jul 12 17:39	0° ♁	
	3634 Aug 04 23:25	0° ♁			3635 Jul 29 03:01	0° ♁	
desc. node	3634 Aug 19 06:14	22° ♁ 53'13		desc. node	3635 Aug 06 03:14	11° ♁ 01'30	
	3634 Aug 24 21:11	0° ♁		evening max el	3635 Aug 11 21:41	17° ♁ 17'02	26°44'53
evening max el	3634 Aug 29 18:16	5° ♁ 09'06	27°20'58	retrograde	3635 Aug 25 20:13	24° ♁ 28'07	
retrograde	3634 Sep 12 13:34	12° ♁ 24'28		evening set	3635 Sep 01 16:43	22° ♁ 27'40	
evening set	3634 Sep 19 17:58	9° ♁ 57'45		min. Earth dist.	3635 Sep 05 11:42	19° ♁ 50'39	0.60281 AU
min. Earth dist.	3634 Sep 23 08:26	7° ♁ 05'03	0.62293 AU	inferior conj	3635 Sep 08 17:30	17° ♁ 11'49	-4°37'13
inferior conj	3634 Sep 26 06:55	4° ♁ 20'49	-3°48'59	minimum elong	3635 Sep 08 22:45	17° ♁ 01'01	4°36'17
minimum elong	3634 Sep 26 12:42	4° ♁ 07'18	3°47'21	morning rise	3635 Sep 16 06:46	12° ♁ 29'09	
	3634 Oct 01 18:46	30° ♁		direct	3635 Sep 18 15:45	12° ♁ 07'51	
morning rise	3634 Oct 03 09:06	29° ♁ 16'46		asc. node	3635 Sep 25 20:21	15° ♁ 33'02	
direct	3634 Oct 05 18:21	28° ♁ 51'34		morning max el	3635 Sep 26 02:14	15° ♁ 47'05	18°08'44
asc. node	3634 Oct 08 23:19	29° ♁ 38'35			3635 Oct 05 23:58	0° ♁	
	3634 Oct 09 15:17	0° ♁		morning set	3635 Oct 11 21:53	10° ♁ 52'18	
morning max el	3634 Oct 12 14:00	2° ♁ 19'41	17°51'47				

superior conj	3635 Oct 21 12:51	28° <u>♄</u> 40'50	1°14'58		3636 Sep 27 06:39	0° <u>♄</u>	
minimum elong	3635 Oct 21 16:56	28° <u>♄</u> 59'10	1°14'30				
	3635 Oct 22 06:31	0° <u>♄</u>		superior conj	3636 Oct 03 07:21	11° <u>♄</u> 38'47	1°33'54
max. Earth dist.	3635 Oct 29 04:10	11° <u>♄</u> 58'53	1.41448 AU	minimum elong	3636 Oct 03 10:08	11° <u>♄</u> 51'56	1°33'41
desc. node	3635 Nov 02 02:33	18° <u>♄</u> 30'18		max. Earth dist.	3636 Oct 10 09:49	24° <u>♄</u> 39'36	1.39397 AU
evening rise	3635 Nov 03 08:19	20° <u>♄</u> 31'12			3636 Oct 13 11:23	0° <u>♄</u>	
	3635 Nov 09 08:16	0° <u>♄</u>		evening rise	3636 Oct 14 09:17	1° <u>♄</u> 33'26	
	3635 Nov 30 11:00	0° <u>♄</u>		desc. node	3636 Oct 18 23:35	9° <u>♄</u> 11'32	
evening max el	3635 Dec 07 01:15	7° <u>♄</u> 32'49	22°53'19		3636 Nov 01 15:42	0° <u>♄</u>	
retrograde	3635 Dec 17 03:11	13° <u>♄</u> 31'34		evening max el	3636 Nov 18 14:46	21° <u>♄</u> 11'34	24°13'07
evening set	3635 Dec 21 21:45	11° <u>♄</u> 34'23		retrograde	3636 Nov 29 18:49	27° <u>♄</u> 44'30	
asc. node	3635 Dec 22 19:35	10° <u>♄</u> 44'47		evening set	3636 Dec 05 02:47	25° <u>♄</u> 31'06	
inferior conj	3635 Dec 27 06:44	5° <u>♄</u> 11'31	1°28'15	asc. node	3636 Dec 08 16:37	21° <u>♄</u> 36'03	
minimum elong	3635 Dec 27 04:52	5° <u>♄</u> 17'57	1°27'32	min. Earth dist.	3636 Dec 09 20:12	20° <u>♄</u> 05'05	0.67745 AU
min. Earth dist.	3635 Dec 26 23:58	5° <u>♄</u> 34'51	0.67979 AU	inferior conj	3636 Dec 10 13:44	19° <u>♄</u> 06'02	0°38'16
	3635 Dec 31 10:41	30° <u>♄</u> ♂		minimum elong	3636 Dec 10 12:49	19° <u>♄</u> 09'05	0°37'52
morning rise	3636 Jan 01 11:51	29° <u>♄</u> 02'43		morning rise	3636 Dec 15 22:54	13° <u>♄</u> 02'42	
direct	3636 Jan 05 22:23	27° <u>♄</u> 14'52		direct	3636 Dec 19 19:52	11° <u>♄</u> 37'12	
	3636 Jan 12 03:20	0° <u>♄</u>		morning max el	3636 Dec 27 16:31	16° <u>♄</u> 06'58	20°22'36
morning max el	3636 Jan 14 19:50	2° <u>♄</u> 26'30	21°38'41		3637 Jan 07 15:50	0° <u>♄</u>	
desc. node	3636 Jan 29 01:44	20° <u>♄</u> 34'18		desc. node	3637 Jan 14 22:48	10° <u>♄</u> 34'02	
	3636 Feb 04 12:33	0° <u>♄</u>		morning set	3637 Jan 24 19:27	25° <u>♄</u> 41'13	
morning set	3636 Feb 15 20:09	17° <u>♄</u> 26'48			3637 Jan 27 13:59	0° <u>♄</u>	
max. Earth dist.	3636 Feb 22 06:43	27° <u>♄</u> 54'10	1.41759 AU	max. Earth dist.	3637 Feb 03 14:22	11° <u>♄</u> 07'03	1.43526 AU
	3636 Feb 23 12:58	0° <u>♄</u>					
superior conj	3636 Feb 29 21:12	10° <u>♄</u> 49'40	-2°04'59	superior conj	3637 Feb 09 17:48	21° <u>♄</u> 08'26	-2°05'15
minimum elong	3636 Feb 29 23:32	10° <u>♄</u> 59'49	2°04'54	minimum elong	3637 Feb 09 15:05	20° <u>♄</u> 57'10	2°05'11
evening rise	3636 Mar 11 18:29	0° <u>♄</u> 24'58			3637 Feb 15 00:27	0° <u>♄</u>	
	3636 Mar 11 13:03	0° <u>♄</u>		evening rise	3637 Feb 22 06:12	12° <u>♄</u> 30'22	
asc. node	3636 Mar 19 18:55	14° <u>♄</u> 46'18			3637 Mar 04 12:12	0° <u>♄</u>	
evening max el	3636 Mar 28 04:15	26° <u>♄</u> 26'59	18°10'46	asc. node	3637 Mar 06 15:57	3° <u>♄</u> 18'16	
retrograde	3636 Apr 04 00:36	29° <u>♄</u> 54'18		evening max el	3637 Mar 11 16:33	9° <u>♄</u> 37'08	18°08'12
evening set	3636 Apr 06 14:10	29° <u>♄</u> 25'51		retrograde	3637 Mar 18 03:49	13° <u>♄</u> 00'06	
inferior conj	3636 Apr 13 10:31	24° <u>♄</u> 36'30	3°02'52	evening set	3637 Mar 20 23:09	12° <u>♄</u> 20'53	
minimum elong	3636 Apr 13 13:38	24° <u>♄</u> 29'22	3°02'16	inferior conj	3637 Mar 27 05:58	7° <u>♄</u> 11'13	3°31'14
min. Earth dist.	3636 Apr 16 18:38	21° <u>♄</u> 35'28	0.60169 AU	minimum elong	3637 Mar 27 07:23	7° <u>♄</u> 07'31	3°31'07
morning rise	3636 Apr 20 10:49	18° <u>♄</u> 49'53		min. Earth dist.	3637 Mar 30 03:04	4° <u>♄</u> 12'25	0.62315 AU
desc. node	3636 Apr 26 00:56	16° <u>♄</u> 49'51		morning rise	3637 Apr 02 14:15	1° <u>♄</u> 09'49	
direct	3636 Apr 27 00:23	16° <u>♄</u> 47'10			3637 Apr 04 09:53	30° <u>♄</u> ♂	
morning max el	3636 May 11 07:45	24° <u>♄</u> 39'15	27°36'28	direct	3637 Apr 09 11:18	28° <u>♄</u> 38'14	
	3636 May 16 04:49	0° <u>♄</u>		desc. node	3637 Apr 12 21:58	29° <u>♄</u> 12'33	
	3636 Jun 04 18:42	0° <u>♄</u>			3637 Apr 14 20:58	0° <u>♄</u>	
morning set	3636 Jun 12 05:03	14° <u>♄</u> 36'00		morning max el	3637 Apr 23 13:08	6° <u>♄</u> 36'13	27°51'21
asc. node	3636 Jun 15 18:12	22° <u>♄</u> 07'08			3637 May 11 07:14	0° <u>♄</u>	
max. Earth dist.	3636 Jun 18 12:53	28° <u>♄</u> 10'27	1.32089 AU	morning set	3637 May 27 06:49	28° <u>♄</u> 53'43	
					3637 May 27 19:50	0° <u>♄</u>	
superior conj	3636 Jun 19 09:50	0° <u>♄</u> 05'36	0°37'36	max. Earth dist.	3637 Jun 01 21:14	10° <u>♄</u> 37'56	1.32480 AU
minimum elong	3636 Jun 19 08:15	29° <u>♄</u> 56'51	0°37'16	asc. node	3637 Jun 02 15:16	12° <u>♄</u> 15'14	
	3636 Jun 19 08:49	0° <u>♄</u>					
evening rise	3636 Jun 26 05:41	14° <u>♄</u> 58'32		superior conj	3637 Jun 03 19:19	14° <u>♄</u> 47'18	0°12'15
	3636 Jul 03 17:37	0° <u>♄</u>		minimum elong	3637 Jun 03 18:44	14° <u>♄</u> 44'10	0°12'08
desc. node	3636 Jul 23 00:16	27° <u>♄</u> 53'43		behind sun begin	3637 Jun 03 15:22	14° <u>♄</u> 25'51	
evening max el	3636 Jul 23 17:43	28° <u>♄</u> 36'13	25°37'25	behind sun end	3637 Jun 03 22:06	15° <u>♄</u> 02'29	
	3636 Jul 25 06:29	0° <u>♄</u>		evening rise	3637 Jun 10 17:25	29° <u>♄</u> 48'10	
retrograde	3636 Aug 06 17:08	5° <u>♄</u> 42'50			3637 Jun 10 19:39	0° <u>♄</u>	
evening set	3636 Aug 12 17:02	4° <u>♄</u> 18'31			3637 Jun 27 12:31	0° <u>♄</u>	
min. Earth dist.	3636 Aug 17 05:47	1° <u>♄</u> 40'02	0.58231 AU	evening max el	3637 Jul 05 07:35	9° <u>♄</u> 14'21	24°07'41
	3636 Aug 19 14:33	30° <u>♄</u> ♂		desc. node	3637 Jul 09 21:15	12° <u>♄</u> 59'58	
inferior conj	3636 Aug 20 10:03	29° <u>♄</u> 25'06	-5°05'49	retrograde	3637 Jul 19 02:41	16° <u>♄</u> 11'26	
minimum elong	3636 Aug 20 12:06	29° <u>♄</u> 21'28	5°05'44	evening set	3637 Jul 23 17:32	15° <u>♄</u> 24'06	
morning rise	3636 Aug 28 09:25	25° <u>♄</u> 05'29		min. Earth dist.	3637 Jul 29 18:08	12° <u>♄</u> 26'15	0.56421 AU
direct	3636 Aug 30 21:23	24° <u>♄</u> 45'52		inferior conj	3637 Aug 01 06:20	10° <u>♄</u> 53'00	-5°00'11
morning max el	3636 Sep 08 07:28	28° <u>♄</u> 46'01	18°46'16	minimum elong	3637 Aug 01 02:38	10° <u>♄</u> 58'47	4°59'50
	3636 Sep 09 12:39	0° <u>♄</u>		morning rise	3637 Aug 09 14:22	6° <u>♄</u> 53'37	
asc. node	3636 Sep 11 17:25	2° <u>♄</u> 36'44		direct	3637 Aug 12 07:35	6° <u>♄</u> 34'17	
morning set	3636 Sep 24 17:20	24° <u>♄</u> 59'48		morning max el	3637 Aug 22 02:43	11° <u>♄</u> 07'31	19°45'29
				asc. node	3637 Aug 29 14:29	20° <u>♄</u> 35'03	

	3637 Sep 04 00:22	0°♍		morning max el	3638 Aug 04 10:17	22°♊45'04	21°05'39
morning set	3637 Sep 08 20:14	9°♍28'47			3638 Aug 10 15:48	0°♊	
				asc. node	3638 Aug 16 11:33	9°♊15'18	
superior conj	3637 Sep 16 17:03	25°♍21'54	1°43'04	morning set	3638 Aug 24 04:04	24°♊12'16	
minimum elong	3637 Sep 16 18:06	25°♍27'06	1°43'03		3638 Aug 26 22:48	0°♍	
	3637 Sep 19 01:42	0°♊					
max. Earth dist.	3637 Sep 22 14:31	6°♊44'24	1.37337 AU	superior conj	3638 Aug 31 13:30	9°♍37'13	1°44'07
evening rise	3637 Sep 26 09:00	13°♊38'36		minimum elong	3638 Aug 31 13:01	9°♍34'42	1°44'06
desc. node	3637 Oct 05 20:37	29°♊43'28		max. Earth dist.	3638 Sep 04 23:50	18°♍35'23	1.35496 AU
	3637 Oct 06 00:44	0°♌		evening rise	3638 Sep 09 03:46	26°♍37'59	
	3637 Oct 27 13:22	0°♌			3638 Sep 10 23:12	0°♊	
evening max el	3637 Nov 01 03:00	4°♌52'44	25°27'43	desc. node	3638 Sep 22 17:36	20°♊01'01	
retrograde	3637 Nov 13 06:05	11°♌51'22			3638 Sep 29 09:53	0°♌	
evening set	3637 Nov 19 03:59	9°♌23'26		evening max el	3638 Oct 14 15:21	18°♌33'11	26°29'44
min. Earth dist.	3637 Nov 23 13:41	4°♌32'04	0.67167 AU	retrograde	3638 Oct 27 12:21	25°♌46'37	
inferior conj	3637 Nov 24 18:07	3°♌00'31	-0°16'48	evening set	3638 Nov 02 23:29	23°♌08'20	
minimum elong	3637 Nov 24 18:33	2°♌59'08	0°16'37	min. Earth dist.	3638 Nov 07 02:10	18°♌52'31	0.66243 AU
asc. node	3637 Nov 25 13:42	1°♌57'57		inferior conj	3638 Nov 08 18:00	16°♌52'20	-1°15'36
	3637 Nov 27 04:42	30°♌		minimum elong	3638 Nov 08 20:04	16°♌46'07	1°14'43
morning rise	3637 Nov 30 09:25	27°♌04'52		asc. node	3638 Nov 12 10:44	12°♌48'15	
direct	3637 Dec 03 18:27	25°♌59'10		morning rise	3638 Nov 14 17:18	11°♌06'53	
	3637 Dec 10 21:55	0°♌		direct	3638 Nov 17 16:30	10°♌17'17	
morning max el	3637 Dec 10 21:09	29°♌58'04	19°20'10	morning max el	3638 Nov 24 08:18	13°♌56'04	18°33'24
greatest brilliancy	3637 Dec 24 08:22	18°♌03'14	-0.7m		3638 Dec 06 01:44	0°♌	
	3638 Jan 01 03:33	0°♊		morning set	3638 Dec 14 17:13	13°♌42'19	
desc. node	3638 Jan 01 19:50	1°♊02'59		desc. node	3638 Dec 19 16:53	21°♌37'39	
morning set	3638 Jan 03 18:58	4°♊05'26			3638 Dec 25 00:08	0°♊	
max. Earth dist.	3638 Jan 17 04:29	25°♊01'00	1.44725 AU				
	3638 Jan 20 07:56	0°♊		superior conj	3638 Dec 30 16:09	8°♊54'08	-1°10'12
				minimum elong	3638 Dec 30 07:49	8°♊21'26	1°09'13
superior conj	3638 Jan 20 12:54	0°♊19'47	-1°46'59	max. Earth dist.	3638 Dec 30 22:21	9°♊18'28	1.45233 AU
minimum elong	3638 Jan 20 04:42	29°♊47'10	1°46'21		3639 Jan 13 01:49	0°♊	
evening rise	3638 Feb 03 21:04	23°♊40'23		evening rise	3639 Jan 15 12:35	3°♊53'09	
	3638 Feb 07 16:21	0°♌		greatest brilliancy	3639 Jan 24 11:14	18°♊04'41	-0.8m
asc. node	3638 Feb 21 13:00	21°♌08'54			3639 Feb 01 09:23	0°♌	
evening max el	3638 Feb 23 05:01	22°♌58'57	18°24'30	evening max el	3639 Feb 06 15:13	6°♌27'18	18°58'41
retrograde	3638 Mar 01 16:43	26°♌30'38		asc. node	3639 Feb 08 10:01	8°♌06'14	
evening set	3638 Mar 04 17:46	25°♌39'46		retrograde	3639 Feb 13 11:25	10°♌18'54	
inferior conj	3638 Mar 10 14:51	20°♌11'30	3°37'49	evening set	3639 Feb 16 18:55	9°♌15'24	
minimum elong	3638 Mar 10 14:33	20°♌12'22	3°37'48	inferior conj	3639 Feb 22 09:26	3°♌30'23	3°28'07
min. Earth dist.	3638 Mar 12 21:02	17°♌34'56	0.64227 AU	minimum elong	3639 Feb 22 07:51	3°♌35'21	3°27'56
morning rise	3638 Mar 16 10:35	14°♌02'15		min. Earth dist.	3639 Feb 24 00:09	1°♌28'51	0.65773 AU
direct	3638 Mar 23 06:30	11°♌14'11			3639 Feb 25 05:40	30°♌	
desc. node	3638 Mar 30 19:00	13°♌57'36		morning rise	3639 Feb 27 20:26	27°♊17'41	
morning max el	3638 Apr 05 22:14	19°♌09'44	27°29'37	direct	3639 Mar 06 08:36	24°♊27'09	
	3638 Apr 15 03:08	0°♍			3639 Mar 17 02:47	0°♌	
	3638 May 04 06:22	0°♊		desc. node	3639 Mar 17 16:03	0°♌30'25	
morning set	3638 May 11 00:45	12°♊44'46		morning max el	3639 Mar 19 08:07	2°♌07'39	26°37'02
max. Earth dist.	3638 May 15 22:05	22°♊38'58	1.33305 AU		3639 Apr 09 07:13	0°♍	
				morning set	3639 Apr 24 07:28	25°♍59'13	
superior conj	3638 May 19 00:54	29°♊12'54	-0°15'24		3639 Apr 26 09:43	0°♊	
minimum elong	3638 May 19 01:41	29°♊17'02	0°15'13	max. Earth dist.	3639 Apr 28 12:08	4°♊07'19	1.34592 AU
behind sun begin	3638 May 19 00:02	29°♊08'17					
behind sun end	3638 May 19 03:19	29°♊25'48		superior conj	3639 May 03 00:24	13°♊16'04	-0°44'14
	3638 May 19 09:44	0°♌		minimum elong	3639 May 03 02:44	13°♊28'08	0°43'47
asc. node	3638 May 20 12:19	2°♌22'07		asc. node	3639 May 07 09:21	22°♊23'55	
evening rise	3638 May 26 04:53	14°♌32'26		evening rise	3639 May 10 14:10	29°♊05'32	
	3638 Jun 02 23:55	0°♊			3639 May 11 00:41	0°♌	
evening max el	3638 Jun 16 21:40	19°♊38'36	22°30'48		3639 May 29 10:56	0°♊	
desc. node	3638 Jun 26 18:15	25°♊45'07		evening max el	3639 May 29 19:53	0°♊22'08	21°01'13
retrograde	3638 Jun 30 00:07	26°♊09'20		retrograde	3639 Jun 10 13:05	6°♊06'13	
evening set	3638 Jul 03 03:09	25°♊47'48		evening set	3639 Jun 12 17:29	5°♊55'02	
min. Earth dist.	3638 Jul 11 05:00	22°♊16'47	0.55194 AU	desc. node	3639 Jun 13 15:16	5°♊44'06	
inferior conj	3638 Jul 12 08:31	21°♊37'42	-4°06'32	inferior conj	3639 Jun 22 01:57	1°♊57'23	-2°26'40
minimum elong	3638 Jul 12 00:21	21°♊49'19	4°04'36	minimum elong	3639 Jun 21 19:15	2°♊06'51	2°24'23
morning rise	3638 Jul 20 23:39	17°♊46'59		min. Earth dist.	3639 Jun 22 16:39	1°♊36'37	0.54848 AU
direct	3638 Jul 24 00:02	17°♊26'13			3639 Jun 25 15:39	30°♌	

morning rise	3639 Jun 30 20:59	27° Π 56'39		min. Earth dist.	3640 Jun 03 05:51	11° Π 02'05	0.55473 AU
direct	3639 Jul 04 09:27	27° Π 29'55		morning rise	3640 Jun 09 16:54	7° Π 54'34	
	3639 Jul 12 13:23	0° \mathfrak{S}		direct	3640 Jun 14 00:45	7° Π 13'14	
morning max el	3639 Jul 17 07:05	3° \mathfrak{S} 39'40	22°42'16	morning max el	3640 Jun 27 21:44	14° Π 07'17	24°25'18
asc. node	3639 Aug 03 08:36	28° \mathfrak{S} 26'46			3640 Jul 10 07:50	0° \mathfrak{S}	
	3639 Aug 04 03:50	0° Ω		asc. node	3640 Jul 20 05:38	18° \mathfrak{S} 01'30	
morning set	3639 Aug 08 14:42	9° Ω 03'42		morning set	3640 Jul 23 02:28	23° \mathfrak{S} 58'21	
					3640 Jul 25 21:57	0° Ω	
superior conj	3639 Aug 15 17:16	24° Ω 13'35	1°38'25	superior conj	3640 Jul 30 01:45	9° Ω 03'11	1°27'05
minimum elong	3639 Aug 15 15:40	24° Ω 05'04	1°38'18	minimum elong	3640 Jul 29 23:32	8° Ω 51'08	1°26'49
	3639 Aug 18 10:59	0° \mathfrak{M}		max. Earth dist.	3640 Jul 31 20:44	12° Ω 55'51	1.32960 AU
max. Earth dist.	3639 Aug 18 17:49	0° \mathfrak{M} 35'32	1.34021 AU	evening rise	3640 Aug 06 09:04	24° Ω 30'25	
evening rise	3639 Aug 23 13:05	10° \mathfrak{M} 18'50			3640 Aug 09 03:11	0° \mathfrak{M}	
	3639 Sep 03 08:48	0° \mathfrak{L}		desc. node	3640 Aug 26 11:37	29° \mathfrak{M} 21'45	
desc. node	3639 Sep 09 14:36	9° \mathfrak{L} 56'51			3640 Aug 26 22:22	0° \mathfrak{L}	
	3639 Sep 25 02:14	0° \mathfrak{M}		evening max el	3640 Sep 08 14:45	15° \mathfrak{L} 12'15	27°26'37
evening max el	3639 Sep 27 03:49	2° \mathfrak{M} 03'50	27°11'41	retrograde	3640 Sep 22 06:54	22° \mathfrak{L} 28'31	
retrograde	3639 Oct 10 12:51	9° \mathfrak{M} 21'47		evening set	3640 Sep 29 11:13	19° \mathfrak{L} 52'57	
evening set	3639 Oct 17 10:53	6° \mathfrak{M} 40'04		min. Earth dist.	3640 Oct 03 02:53	16° \mathfrak{L} 45'04	0.63361 AU
min. Earth dist.	3639 Oct 21 07:16	2° \mathfrak{M} 59'45	0.64970 AU	inferior conj	3640 Oct 05 18:56	14° \mathfrak{L} 05'21	-3°16'27
inferior conj	3639 Oct 23 11:09	0° \mathfrak{M} 35'59	-2°16'25	minimum elong	3640 Oct 06 00:14	13° \mathfrak{L} 52'05	3°14'42
minimum elong	3639 Oct 23 14:57	0° \mathfrak{M} 25'24	2°14'55	morning rise	3640 Oct 12 14:36	8° \mathfrak{L} 49'54	
	3639 Oct 24 00:10	30° \mathfrak{R} \mathfrak{L}		direct	3640 Oct 15 01:31	8° \mathfrak{L} 21'03	
morning rise	3639 Oct 29 20:02	25° \mathfrak{L} 03'46		asc. node	3640 Oct 16 04:49	8° \mathfrak{L} 27'22	
asc. node	3639 Oct 30 07:47	24° \mathfrak{L} 51'21		morning max el	3640 Oct 21 16:03	11° \mathfrak{L} 46'31	17°50'46
direct	3639 Nov 01 11:48	24° \mathfrak{L} 26'21			3640 Nov 03 00:17	0° \mathfrak{M}	
morning max el	3639 Nov 07 23:33	27° \mathfrak{L} 54'20	18°03'20	morning set	3640 Nov 07 02:13	7° \mathfrak{M} 05'56	
	3639 Nov 09 21:10	0° \mathfrak{M}					
morning set	3639 Nov 25 21:01	24° \mathfrak{M} 47'21		superior conj	3640 Nov 19 04:11	27° \mathfrak{M} 43'19	0°22'34
	3639 Nov 29 00:29	0° \mathfrak{X}		minimum elong	3640 Nov 19 06:29	27° \mathfrak{M} 52'50	0°22'14
desc. node	3639 Dec 06 13:54	12° \mathfrak{X} 19'52			3640 Nov 20 13:20	0° \mathfrak{X}	
				desc. node	3640 Nov 22 10:55	3° \mathfrak{X} 06'18	
superior conj	3639 Dec 09 23:24	17° \mathfrak{X} 46'11	-0°23'05	max. Earth dist.	3640 Nov 25 11:11	7° \mathfrak{X} 57'56	1.44055 AU
minimum elong	3639 Dec 09 20:31	17° \mathfrak{X} 34'45	0°22'41	evening rise	3640 Dec 04 16:51	22° \mathfrak{X} 28'05	
max. Earth dist.	3639 Dec 13 17:32	23° \mathfrak{X} 43'14	1.44999 AU		3640 Dec 09 15:07	0° \mathfrak{Z}	
	3639 Dec 17 17:35	0° \mathfrak{Z}			3640 Dec 30 18:34	0° \mathfrak{X}	
evening rise	3639 Dec 26 07:29	13° \mathfrak{Z} 19'18		evening max el	3641 Jan 02 21:53	3° \mathfrak{X} 30'49	20°53'26
	3640 Jan 06 04:37	0° \mathfrak{X}		retrograde	3641 Jan 11 06:52	8° \mathfrak{X} 28'00	
greatest brilliancy	3640 Jan 08 23:02	4° \mathfrak{X} 09'03	-0.7m	asc. node	3641 Jan 12 04:03	8° \mathfrak{X} 23'43	
evening max el	3640 Jan 20 21:15	19° \mathfrak{X} 58'36	19°49'11	evening set	3641 Jan 15 07:26	6° \mathfrak{X} 55'47	
asc. node	3640 Jan 26 07:02	23° \mathfrak{X} 56'02		inferior conj	3641 Jan 20 16:02	0° \mathfrak{X} 44'20	2°34'14
retrograde	3640 Jan 28 08:53	24° \mathfrak{X} 19'24		minimum elong	3641 Jan 20 13:31	0° \mathfrak{X} 52'57	2°33'30
evening set	3640 Feb 01 00:08	23° \mathfrak{X} 02'09		min. Earth dist.	3641 Jan 21 03:13	0° \mathfrak{X} 05'55	0.67619 AU
inferior conj	3640 Feb 06 10:40	17° \mathfrak{X} 02'36	3°06'04		3641 Jan 21 04:56	30° \mathfrak{R} \mathfrak{Z}	
minimum elong	3640 Feb 06 08:21	17° \mathfrak{X} 10'17	3°05'35	morning rise	3641 Jan 25 19:27	24° \mathfrak{Z} 31'20	
min. Earth dist.	3640 Feb 07 10:53	15° \mathfrak{X} 42'05	0.66902 AU	direct	3641 Jan 31 05:08	22° \mathfrak{Z} 08'26	
morning rise	3640 Feb 11 16:21	10° \mathfrak{X} 48'55		morning max el	3641 Feb 11 01:35	28° \mathfrak{Z} 36'32	23°55'56
direct	3640 Feb 17 16:25	8° \mathfrak{X} 08'06			3641 Feb 12 09:39	0° \mathfrak{X}	
morning max el	3640 Feb 29 17:05	15° \mathfrak{X} 18'45	25°22'30	desc. node	3641 Feb 18 10:07	7° \mathfrak{X} 06'09	
desc. node	3640 Mar 03 13:05	18° \mathfrak{X} 20'46			3641 Mar 06 13:11	0° \mathfrak{X}	
	3640 Mar 12 18:55	0° \mathfrak{X}		morning set	3641 Mar 18 15:45	19° \mathfrak{X} 42'06	
	3640 Apr 01 04:06	0° \mathfrak{Y}		max. Earth dist.	3641 Mar 22 10:59	26° \mathfrak{X} 20'51	1.38396 AU
morning set	3640 Apr 05 22:26	8° \mathfrak{Y} 23'54			3641 Mar 24 11:47	0° \mathfrak{Y}	
max. Earth dist.	3640 Apr 09 15:00	15° \mathfrak{Y} 12'12	1.36326 AU				
				superior conj	3641 Mar 29 17:12	9° \mathfrak{Y} 41'48	-1°38'29
superior conj	3640 Apr 15 15:03	26° \mathfrak{Y} 49'15	-1°12'42	minimum elong	3641 Mar 29 21:51	10° \mathfrak{Y} 03'51	1°37'56
minimum elong	3640 Apr 15 18:51	27° \mathfrak{Y} 08'10	1°12'05	evening rise	3641 Apr 07 17:05	27° \mathfrak{Y} 10'54	
	3640 Apr 17 05:13	0° \mathfrak{X}			3641 Apr 09 03:43	0° \mathfrak{X}	
asc. node	3640 Apr 23 06:22	12° \mathfrak{X} 16'32		asc. node	3641 Apr 10 03:23	1° \mathfrak{X} 54'30	
evening rise	3640 Apr 23 19:07	13° \mathfrak{X} 21'08		evening max el	3641 Apr 24 03:33	23° \mathfrak{X} 45'47	18°54'15
	3640 May 02 13:51	0° Π		retrograde	3641 May 02 13:23	27° \mathfrak{X} 52'13	
evening max el	3640 May 11 06:07	11° Π 44'12	19°47'53	evening set	3641 May 04 16:42	27° \mathfrak{X} 37'20	
retrograde	3640 May 21 05:33	16° Π 35'07		inferior conj	3641 May 12 17:48	23° \mathfrak{X} 19'55	1°18'45
evening set	3640 May 23 04:47	16° Π 24'39		minimum elong	3641 May 12 20:39	23° \mathfrak{X} 14'48	1°17'48
desc. node	3640 May 30 12:17	13° Π 19'08		min. Earth dist.	3641 May 15 21:45	21° \mathfrak{X} 05'14	0.56927 AU
inferior conj	3640 Jun 01 01:11	12° Π 23'01	-0°27'14	desc. node	3641 May 17 09:18	20° \mathfrak{X} 06'56	
minimum elong	3640 May 31 23:57	12° Π 24'56	0°26'46				

morning rise	3641 May 20 21:25	18°♄15'53		morning rise	3642 May 01 18:22	29°♄23'54	
direct	3641 May 26 04:51	17°♄08'21		desc. node	3642 May 04 06:20	28°♄18'03	
morning max el	3641 Jun 09 12:34	24°♄34'20	25°59'59	direct	3642 May 07 23:01	27°♄41'22	
	3641 Jun 14 12:13	0°♄			3642 May 15 11:21	0°♄	
	3641 Jul 03 06:04	0°♄		morning max el	3642 May 22 08:24	5°♄27'29	27°10'48
asc. node	3641 Jul 07 02:40	7°♄52'11			3642 Jun 09 12:08	0°♄	
morning set	3641 Jul 07 13:42	8°♄50'21		morning set	3642 Jun 21 22:48	23°♄34'19	
				asc. node	3642 Jun 23 23:43	27°♄53'31	
superior conj	3641 Jul 14 12:48	23°♄58'29	1°10'59		3642 Jun 24 23:12	0°♄	
minimum elong	3641 Jul 14 10:28	23°♄45'38	1°10'37	max. Earth dist.	3642 Jun 28 17:31	8°♄14'21	1.32052 AU
max. Earth dist.	3641 Jul 15 05:48	25°♄31'56	1.32307 AU				
	3641 Jul 17 06:49	0°♄		superior conj	3642 Jun 29 00:38	8°♄53'35	0°50'49
evening rise	3641 Jul 21 12:30	9°♄02'25		minimum elong	3642 Jun 28 22:38	8°♄42'37	0°50'26
	3641 Aug 01 11:47	0°♄		evening rise	3642 Jul 05 20:48	23°♄47'03	
desc. node	3641 Aug 13 08:38	18°♄02'44			3642 Jul 08 20:48	0°♄	
evening max el	3641 Aug 21 21:28	27°♄44'28	27°09'38		3642 Jul 26 14:54	0°♄	
	3641 Aug 24 11:01	0°♄		desc. node	3642 Jul 31 05:39	5°♄41'44	
retrograde	3641 Sep 04 17:56	4°♄57'36		evening max el	3642 Aug 03 21:34	9°♄30'43	26°19'30
evening set	3641 Sep 11 20:38	2°♄40'21		retrograde	3642 Aug 17 20:57	16°♄40'52	
	3641 Sep 15 10:06	30°♄		evening set	3642 Aug 24 10:23	14°♄54'38	
min. Earth dist.	3641 Sep 15 11:47	29°♄56'28	0.61459 AU	min. Earth dist.	3642 Aug 28 10:40	12°♄19'28	0.59394 AU
inferior conj	3641 Sep 18 14:12	27°♄12'28	-4°11'06	inferior conj	3642 Aug 31 17:27	9°♄48'07	-4°52'36
minimum elong	3641 Sep 18 20:01	26°♄59'35	4°09'42	minimum elong	3642 Aug 31 21:43	9°♄39'51	4°52'03
morning rise	3641 Sep 25 21:10	22°♄17'22		morning rise	3642 Sep 08 11:14	5°♄15'40	
direct	3641 Sep 28 06:03	21°♄54'02		direct	3642 Sep 10 21:03	4°♄55'24	
asc. node	3641 Oct 03 01:52	23°♄34'38		morning max el	3642 Sep 18 16:32	8°♄42'08	18°22'13
morning max el	3641 Oct 05 06:49	25°♄25'23	17°56'40	asc. node	3642 Sep 19 22:56	10°♄00'28	
	3641 Oct 09 02:57	0°♄			3642 Oct 02 11:37	0°♄	
morning set	3641 Oct 21 02:24	20°♄18'34		morning set	3642 Oct 04 16:02	4°♄09'18	
	3641 Oct 26 10:09	0°♄					
superior conj	3641 Oct 31 11:57	8°♄59'49	0°59'05	superior conj	3642 Oct 13 19:21	21°♄25'19	1°24'17
minimum elong	3641 Oct 31 16:09	9°♄18'07	0°58'32	minimum elong	3642 Oct 13 22:59	21°♄42'02	1°23'56
max. Earth dist.	3641 Nov 08 00:20	21°♄43'59	1.42515 AU		3642 Oct 18 13:41	0°♄	
desc. node	3641 Nov 09 07:58	23°♄53'45		max. Earth dist.	3642 Oct 21 07:48	4°♄47'38	1.40581 AU
	3641 Nov 13 02:49	0°♄		evening rise	3642 Oct 25 20:19	12°♄24'25	
evening rise	3641 Nov 14 08:54	1°♄59'18		desc. node	3642 Oct 27 04:59	14°♄38'21	
	3641 Dec 03 02:59	0°♄			3642 Nov 06 00:30	0°♄	
evening max el	3641 Dec 16 17:04	17°♄04'23	22°07'50		3642 Nov 28 16:04	0°♄	
retrograde	3641 Dec 26 03:34	22°♄41'26		evening max el	3642 Nov 29 07:58	0°♄40'25	23°27'30
asc. node	3641 Dec 30 01:05	21°♄20'07		retrograde	3642 Dec 09 21:29	6°♄55'24	
evening set	3641 Dec 30 15:07	20°♄53'24		evening set	3642 Dec 14 21:33	4°♄51'12	
inferior conj	3642 Jan 04 23:29	14°♄33'25	1°54'23	asc. node	3642 Dec 16 22:09	2°♄49'29	
minimum elong	3642 Jan 04 21:16	14°♄41'08	1°53'35		3642 Dec 19 03:48	30°♄	
min. Earth dist.	3642 Jan 04 22:59	14°♄35'12	0.67945 AU	inferior conj	3642 Dec 20 07:10	28°♄26'37	1°07'45
morning rise	3642 Jan 10 03:17	8°♄22'32		minimum elong	3642 Dec 20 05:40	28°♄31'48	1°07'09
direct	3642 Jan 14 22:02	6°♄21'44		min. Earth dist.	3642 Dec 19 19:47	29°♄05'39	0.67912 AU
morning max el	3642 Jan 24 12:19	12°♄01'16	22°27'21	morning rise	3642 Dec 25 13:43	22°♄19'45	
desc. node	3642 Feb 05 07:10	26°♄31'19		direct	3642 Dec 29 18:14	20°♄41'43	
	3642 Feb 07 18:55	0°♄		morning max el	3643 Jan 07 04:37	25°♄35'00	21°04'52
morning set	3642 Feb 27 05:46	29°♄40'47			3643 Jan 11 03:29	0°♄	
	3642 Feb 27 10:29	0°♄		desc. node	3643 Jan 23 04:13	16°♄24'39	
max. Earth dist.	3642 Mar 04 07:28	8°♄06'42	1.40569 AU		3643 Feb 01 06:13	0°♄	
				morning set	3643 Feb 06 15:50	8°♄21'51	
superior conj	3642 Mar 12 02:26	21°♄43'23	-1°58'11	max. Earth dist.	3643 Feb 14 09:51	20°♄45'41	1.42562 AU
minimum elong	3642 Mar 12 06:22	22°♄01'03	1°57'55		3643 Feb 19 23:25	0°♄	
	3642 Mar 16 15:05	0°♄		superior conj	3643 Feb 21 13:37	2°♄42'00	-2°07'07
evening rise	3642 Mar 22 04:56	10°♄27'15		minimum elong	3643 Feb 21 14:07	2°♄44'09	2°07'06
asc. node	3642 Mar 28 00:25	21°♄12'38		evening rise	3643 Mar 05 02:40	23°♄00'39	
	3642 Apr 02 07:30	0°♄			3643 Mar 09 00:14	0°♄	
evening max el	3642 Apr 07 09:24	6°♄21'14	18°20'52	asc. node	3643 Mar 14 21:27	10°♄03'54	
retrograde	3642 Apr 14 16:13	9°♄58'22		evening max el	3643 Mar 21 20:18	19°♄21'29	18°07'20
evening set	3642 Apr 17 01:59	9°♄35'40		retrograde	3643 Mar 28 11:37	22°♄45'12	
inferior conj	3642 Apr 24 07:56	4°♄58'20	2°34'03	evening set	3643 Mar 31 03:37	22°♄12'26	
minimum elong	3642 Apr 24 11:37	4°♄50'36	2°33'07	inferior conj	3643 Apr 06 17:46	17°♄14'37	3°17'56
min. Earth dist.	3642 Apr 27 18:30	2°♄06'59	0.58919 AU	minimum elong	3643 Apr 06 20:13	17°♄08'40	3°17'34
	3642 Apr 30 17:36	30°♄		min. Earth dist.	3643 Apr 09 22:09	14°♄11'19	0.61099 AU

morning rise	3643 Apr 13 10:53	11° Υ 20'31			3644 Mar 19 19:43	30° \Re \mathfrak{H}	
direct	3643 Apr 20 04:51	9° Υ 03'55		min. Earth dist.	3644 Mar 22 10:27	27° \mathfrak{H} 09'33	0.63170 AU
desc. node	3643 Apr 21 03:23	9° Υ 06'26		morning rise	3644 Mar 25 21:54	23° \mathfrak{H} 55'50	
morning max el	3643 May 04 10:27	17° Υ 00'16	27°47'20	direct	3644 Apr 01 19:38	21° \mathfrak{H} 15'20	
	3643 May 15 04:30	0° \mathfrak{B}		desc. node	3644 Apr 07 00:25	22° \mathfrak{H} 33'48	
	3643 Jun 02 03:07	0° Π		morning max el	3644 Apr 15 17:26	29° \mathfrak{H} 13'07	27°46'18
morning set	3643 Jun 06 03:53	8° Π 04'11			3644 Apr 16 11:51	0° Υ	
asc. node	3643 Jun 10 20:46	18° Π 00'51			3644 May 08 02:06	0° \mathfrak{B}	
max. Earth dist.	3643 Jun 12 04:04	20° Π 50'47	1.32200 AU	morning set	3644 May 20 02:39	22° \mathfrak{B} 11'50	
					3644 May 23 21:54	0° Π	
superior conj	3643 Jun 13 11:30	23° Π 42'39	0°27'11	max. Earth dist.	3644 May 25 09:35	3° Π 08'14	1.32775 AU
minimum elong	3643 Jun 13 10:18	23° Π 36'02	0°26'56				
	3643 Jun 16 08:17	0° \mathfrak{G}		superior conj	3644 May 27 19:35	8° Π 18'52	0°00'47
evening rise	3643 Jun 20 07:52	8° \mathfrak{G} 37'21		minimum elong	3644 May 27 19:32	8° Π 18'39	0°00'46
	3643 Jul 01 08:53	0° Ω		behind sun begin	3644 May 27 14:17	7° Π 50'19	
evening max el	3643 Jul 16 14:37	20° Ω 31'25	25°01'12	behind sun end	3644 May 28 00:48	8° Π 47'02	
desc. node	3643 Jul 18 02:40	21° Ω 53'51		asc. node	3644 May 27 17:48	8° Π 09'13	
retrograde	3643 Jul 30 13:41	27° Ω 35'40		evening rise	3644 Jun 03 19:42	23° Π 26'00	
evening set	3643 Aug 05 00:25	26° Ω 27'56			3644 Jun 06 23:31	0° \mathfrak{G}	
min. Earth dist.	3643 Aug 10 02:15	23° Ω 42'52	0.57406 AU		3644 Jun 26 03:27	0° Ω	
inferior conj	3643 Aug 13 01:35	21° Ω 43'45	-5°08'39	evening max el	3644 Jun 27 03:50	1° Ω 00'56	23°26'29
minimum elong	3643 Aug 13 01:22	21° Ω 44'06	5°08'38	desc. node	3644 Jul 03 23:41	6° Ω 05'15	
morning rise	3643 Aug 21 04:48	17° Ω 33'21		retrograde	3644 Jul 10 17:38	7° Ω 48'35	
direct	3643 Aug 23 18:31	17° Ω 14'09		evening set	3644 Jul 14 16:38	7° Ω 14'19	
morning max el	3643 Sep 01 17:57	21° Ω 27'18	19°08'45	min. Earth dist.	3644 Jul 21 13:40	4° Ω 04'00	0.55813 AU
asc. node	3643 Sep 06 20:00	27° Ω 29'50		inferior conj	3644 Jul 23 13:37	2° Ω 53'02	-4°43'45
	3643 Sep 08 12:22	0° \mathfrak{M}		minimum elong	3644 Jul 23 07:30	3° Ω 02'06	4°42'48
morning set	3643 Sep 18 15:03	18° \mathfrak{M} 27'27			3644 Jul 28 23:17	30° \Re \mathfrak{G}	
	3643 Sep 24 10:35	0° \mathfrak{L}		morning rise	3644 Aug 01 00:49	28° \mathfrak{G} 58'55	
				direct	3644 Aug 03 20:58	28° \mathfrak{G} 39'07	
superior conj	3643 Sep 26 20:57	4° \mathfrak{L} 44'43	1°38'53		3644 Aug 09 09:53	0° Ω	
minimum elong	3643 Sep 26 23:00	4° \mathfrak{L} 54'37	1°38'45	morning max el	3644 Aug 14 08:14	3° Ω 30'39	20°17'02
max. Earth dist.	3643 Oct 03 12:05	17° \mathfrak{L} 10'12	1.38506 AU	asc. node	3644 Aug 23 17:03	15° Ω 47'39	
evening rise	3643 Oct 07 07:23	23° \mathfrak{L} 55'07			3644 Aug 31 08:05	0° \mathfrak{M}	
	3643 Oct 10 21:00	0° \mathfrak{M}		morning set	3644 Sep 01 20:21	3° \mathfrak{M} 03'46	
desc. node	3643 Oct 14 02:01	5° \mathfrak{M} 16'34					
	3643 Oct 30 18:52	0° \mathfrak{X}		superior conj	3644 Sep 09 11:41	18° \mathfrak{M} 42'56	1°44'25
evening max el	3643 Nov 11 20:46	14° \mathfrak{X} 20'48	24°45'59	minimum elong	3644 Sep 09 12:03	18° \mathfrak{M} 44'44	1°44'24
retrograde	3643 Nov 23 11:22	21° \mathfrak{X} 06'07		max. Earth dist.	3644 Sep 14 18:22	29° \mathfrak{M} 07'16	1.36526 AU
evening set	3643 Nov 29 01:07	18° \mathfrak{X} 46'29			3644 Sep 15 05:23	0° \mathfrak{L}	
min. Earth dist.	3643 Dec 03 15:14	13° \mathfrak{X} 34'46	0.67538 AU	evening rise	3644 Sep 18 15:47	6° \mathfrak{L} 25'05	
asc. node	3643 Dec 03 19:12	13° \mathfrak{X} 21'41		desc. node	3644 Sep 29 23:01	25° \mathfrak{L} 43'18	
inferior conj	3643 Dec 04 13:17	12° \mathfrak{X} 21'44	0°15'27		3644 Oct 02 16:44	0° \mathfrak{M}	
minimum elong	3643 Dec 04 12:54	12° \mathfrak{X} 22'59	0°15'17	evening max el	3644 Oct 24 09:11	28° \mathfrak{M} 03'14	25°56'07
transit middle	3643 Dec 04 12:54	12° \mathfrak{X} 22'59	0°15'17		3644 Oct 26 11:50	0° \mathfrak{X}	
transit begin	3643 Dec 04 11:59	12° \mathfrak{X} 26'02		retrograde	3644 Nov 05 20:25	5° \mathfrak{X} 08'39	
transit end	3643 Dec 04 13:49	12° \mathfrak{X} 19'57		evening set	3644 Nov 12 00:07	2° \mathfrak{X} 35'55	
morning rise	3643 Dec 10 00:47	6° \mathfrak{X} 21'03			3644 Nov 14 14:34	30° \Re \mathfrak{M}	
direct	3643 Dec 13 16:28	5° \mathfrak{X} 04'16		min. Earth dist.	3644 Nov 16 06:52	27° \mathfrak{M} 59'31	0.66820 AU
morning max el	3643 Dec 21 04:35	9° \mathfrak{X} 19'43	19°54'08	inferior conj	3644 Nov 17 16:00	26° \mathfrak{M} 15'36	-0°41'23
	3644 Jan 05 15:31	0° \mathfrak{B}		minimum elong	3644 Nov 17 17:05	26° \mathfrak{M} 12'10	0°40'54
desc. node	3644 Jan 10 01:15	6° \mathfrak{B} 38'24		asc. node	3644 Nov 19 16:15	23° \mathfrak{M} 48'51	
morning set	3644 Jan 16 11:46	16° \mathfrak{B} 30'01		morning rise	3644 Nov 23 10:28	20° \mathfrak{M} 23'49	
	3644 Jan 25 03:24	0° \approx		direct	3644 Nov 26 15:09	19° \mathfrak{M} 25'15	
max. Earth dist.	3644 Jan 27 20:01	4° \approx 16'12	1.44115 AU	morning max el	3644 Dec 03 12:09	23° \mathfrak{M} 14'02	18°58'15
					3644 Dec 09 02:10	0° \mathfrak{X}	
superior conj	3644 Feb 01 23:00	12° \approx 30'48	-1°59'57	morning set	3644 Dec 25 19:04	25° \mathfrak{X} 20'24	
minimum elong	3644 Feb 01 17:40	12° \approx 09'12	1°59'41	desc. node	3644 Dec 26 22:18	27° \mathfrak{X} 06'52	
	3644 Feb 12 11:31	0° \mathfrak{H}			3644 Dec 28 18:34	0° \mathfrak{B}	
evening rise	3644 Feb 15 05:53	4° \mathfrak{H} 42'39		max. Earth dist.	3645 Jan 09 12:32	18° \mathfrak{B} 24'14	1.45032 AU
asc. node	3644 Feb 29 18:29	28° \mathfrak{H} 19'47					
	3644 Mar 02 01:12	0° Υ		superior conj	3645 Jan 11 09:23	21° \mathfrak{B} 20'48	-1°33'21
evening max el	3644 Mar 04 09:03	2° Υ 37'52	18°12'58	minimum elong	3645 Jan 11 00:13	20° \mathfrak{B} 44'41	1°32'27
retrograde	3644 Mar 10 19:19	6° Υ 02'41			3645 Jan 16 20:25	0° \approx	
evening set	3644 Mar 13 17:08	5° Υ 18'32		evening rise	3645 Jan 26 10:52	15° \approx 28'12	
inferior conj	3644 Mar 19 19:22	0° Υ 00'57	3°36'17		3645 Feb 04 09:33	0° \mathfrak{H}	
minimum elong	3644 Mar 19 20:02	29° \mathfrak{H} 59'10	3°36'16	asc. node	3645 Feb 15 15:31	15° \mathfrak{H} 49'47	

evening max el	3645 Feb 15 20:53	16° H 03'34	18°36'59	retrograde	3646 Feb 06 07:24	3° H 36'05	
retrograde	3645 Feb 22 11:06	19° H 42'12		evening set	3646 Feb 09 18:01	2° H 26'47	
evening set	3645 Feb 25 14:53	18° H 45'53			3646 Feb 12 11:23	30° R \approx	
inferior conj	3645 Mar 03 08:48	13° H 10'06	3°35'25	inferior conj	3646 Feb 15 06:32	26° \approx 35'00	3°20'06
minimum elong	3645 Mar 03 07:53	13° H 12'50	3°35'22	minimum elong	3646 Feb 15 04:34	26° \approx 41'20	3°19'48
min. Earth dist.	3645 Mar 05 08:15	10° H 47'38	0.64931 AU	min. Earth dist.	3646 Feb 16 14:48	24° \approx 50'46	0.66297 AU
morning rise	3645 Mar 09 00:23	6° H 59'15		morning rise	3646 Feb 20 14:51	20° \approx 21'33	
direct	3645 Mar 15 17:41	4° H 08'46		direct	3646 Feb 26 22:07	17° \approx 34'12	
desc. node	3645 Mar 24 21:27	8° H 09'14		morning max el	3646 Mar 11 12:57	25° \approx 04'00	26°07'36
morning max el	3645 Mar 29 03:08	11° H 58'45	27°10'42	desc. node	3646 Mar 11 18:29	25° \approx 18'03	
	3645 Apr 12 12:18	0° Y			3646 Mar 16 00:39	0° H	
	3645 Apr 30 14:52	0° B			3646 Apr 05 23:45	0° Y	
morning set	3645 May 03 16:17	5° B 49'02		morning set	3646 Apr 16 16:54	18° Y 43'50	
max. Earth dist.	3645 May 08 06:25	14° B 57'16	1.33800 AU	max. Earth dist.	3646 Apr 20 15:46	26° Y 14'23	1.35278 AU
					3646 Apr 22 13:49	0° B	
superior conj	3645 May 11 22:53	22° B 36'17	-0°27'31				
minimum elong	3645 May 12 00:18	22° B 43'47	0°27'14	superior conj	3646 Apr 25 18:56	6° B 27'09	-0°56'28
asc. node	3645 May 14 14:49	28° B 14'55		minimum elong	3646 Apr 25 21:56	6° B 42'23	0°55'55
	3645 May 15 10:34	0° II		asc. node	3646 May 01 11:51	18° B 13'13	
evening rise	3645 May 19 06:31	8° II 07'04		evening rise	3646 May 03 14:13	22° B 33'22	
	3645 May 30 21:44	0° E			3646 May 07 06:51	0° II	
evening max el	3645 Jun 08 20:32	11° E 30'02	21°51'04	evening max el	3646 May 21 23:30	22° II 27'52	20°27'42
desc. node	3645 Jun 20 20:40	17° E 41'58		retrograde	3646 Jun 01 23:29	27° II 49'50	
retrograde	3645 Jun 21 10:15	17° E 42'42		evening set	3646 Jun 03 23:45	27° II 39'48	
evening set	3645 Jun 24 01:44	17° E 27'00		desc. node	3646 Jun 07 17:40	26° II 32'58	
inferior conj	3645 Jul 03 10:27	13° E 23'48	-3°28'45	inferior conj	3646 Jun 13 04:31	23° II 41'58	-1°36'20
minimum elong	3645 Jul 03 02:06	13° E 35'28	3°26'21	minimum elong	3646 Jun 12 23:59	23° II 48'33	1°34'40
min. Earth dist.	3645 Jul 03 00:16	13° E 38'02	0.54939 AU	min. Earth dist.	3646 Jun 14 12:27	22° II 55'35	0.54996 AU
morning rise	3645 Jul 12 03:55	9° E 31'44		morning rise	3646 Jun 21 23:14	19° II 31'12	
direct	3645 Jul 15 08:53	9° E 09'07		direct	3646 Jun 25 18:43	18° II 59'50	
morning max el	3645 Jul 27 10:48	14° E 48'47	21°45'07	morning max el	3646 Jul 09 04:24	25° II 29'42	23°26'09
	3645 Aug 07 22:14	0° O			3646 Jul 13 09:51	0° E	
asc. node	3645 Aug 10 14:05	4° O 42'22		asc. node	3646 Jul 28 11:07	24° E 04'41	
morning set	3645 Aug 17 05:37	17° O 51'40			3646 Jul 31 09:18	0° O	
	3645 Aug 22 23:45	0° P		morning set	3646 Aug 01 16:57	2° O 45'30	
superior conj	3645 Aug 24 11:37	3° P 08'26	1°42'27	superior conj	3646 Aug 08 17:42	17° O 51'53	1°34'14
minimum elong	3645 Aug 24 10:36	3° P 03'06	1°42'24	minimum elong	3646 Aug 08 15:47	17° O 41'33	1°34'04
max. Earth dist.	3645 Aug 28 07:25	11° P 01'24	1.34827 AU	max. Earth dist.	3646 Aug 11 05:16	23° O 09'32	1.33515 AU
evening rise	3645 Sep 01 17:15	19° P 43'26			3646 Aug 14 12:12	0° P	
	3645 Sep 07 06:39	0° A		evening rise	3646 Aug 16 07:33	3° P 38'46	
desc. node	3645 Sep 16 20:01	15° A 52'43			3646 Aug 31 01:02	0° A	
	3645 Sep 26 17:18	0° M		desc. node	3646 Sep 03 17:01	5° A 37'09	
evening max el	3645 Oct 06 21:40	11° M 40'37	26°50'21	evening max el	3646 Sep 19 09:31	25° A 03'12	27°21'34
retrograde	3645 Oct 20 00:05	18° M 56'27			3646 Sep 25 15:45	0° M	
evening set	3645 Oct 26 16:27	16° M 15'32		retrograde	3646 Oct 02 22:07	2° M 21'40	
min. Earth dist.	3645 Oct 30 16:20	12° M 15'14	0.65751 AU	evening set	3646 Oct 09 23:38	29° A 40'49	
inferior conj	3645 Nov 01 13:16	10° M 04'17	-1°41'18		3646 Oct 09 13:13	30° R A	
minimum elong	3645 Nov 01 16:05	9° M 56'06	1°40'08	min. Earth dist.	3646 Oct 13 17:33	26° A 15'13	0.64325 AU
asc. node	3645 Nov 06 13:17	5° M 05'46		inferior conj	3646 Oct 16 02:49	23° A 43'10	-2°42'10
morning rise	3645 Nov 07 16:30	4° M 24'18		minimum elong	3646 Oct 16 07:19	23° A 31'10	2°40'32
direct	3645 Nov 10 12:18	3° M 40'18		morning rise	3646 Oct 22 16:13	18° A 18'00	
morning max el	3645 Nov 17 01:25	7° M 13'01	18°18'33	asc. node	3646 Oct 24 10:19	17° A 48'03	
	3645 Dec 02 19:09	0° X		direct	3646 Oct 25 05:31	17° A 44'45	
morning set	3645 Dec 06 05:54	5° X 35'19		morning max el	3646 Oct 31 17:42	21° A 10'41	17°55'51
desc. node	3645 Dec 13 19:19	17° X 45'10			3646 Nov 07 11:26	0° M	
				morning set	3646 Nov 17 21:20	17° M 14'28	
superior conj	3645 Dec 21 11:32	29° X 54'41	-0°50'44		3646 Nov 25 11:41	0° X	
minimum elong	3645 Dec 21 05:10	29° X 29'36	0°49'54	desc. node	3646 Nov 30 16:20	8° X 30'00	
	3645 Dec 21 12:53	0° Z					
max. Earth dist.	3645 Dec 23 07:46	2° Z 48'28	1.45222 AU	superior conj	3646 Dec 01 02:40	9° X 11'45	-0°02'59
evening rise	3646 Jan 06 16:50	25° Z 18'53		minimum elong	3646 Dec 01 02:19	9° X 10'18	0°02'56
	3646 Jan 09 16:39	0° \approx		behind sun begin	3646 Nov 30 16:14	8° X 29'33	
greatest brilliancy	3646 Jan 17 19:55	12° \approx 39'06	-0.8m	behind sun end	3646 Dec 01 12:23	9° X 51'00	
evening max el	3646 Jan 30 05:24	29° \approx 32'50	19°18'17	max. Earth dist.	3646 Dec 06 02:23	17° X 10'26	1.44676 AU
	3646 Jan 30 16:14	0° H			3646 Dec 14 07:05	0° Z	
asc. node	3646 Feb 02 12:33	2° H 20'04		evening rise	3646 Dec 17 05:56	4° Z 33'21	

greatest brilliancy	3646 Dec 31 15:24	26° Z 18'33	-0.6m		3647 Dec 07 08:52	0° Z	
	3647 Jan 03 04:25	0° \approx		evening max el	3647 Dec 27 07:28	26° Z 37'12	21°24'07
evening max el	3647 Jan 13 09:09	13° \approx 04'15	20°14'58		3647 Dec 31 04:37	0° \approx	
asc. node	3647 Jan 20 09:35	17° \approx 36'36		retrograde	3648 Jan 05 03:04	1° \approx 51'12	
retrograde	3647 Jan 21 05:26	17° \approx 40'21		asc. node	3648 Jan 07 06:37	1° \approx 26'03	
evening set	3647 Jan 25 00:21	16° \approx 17'00		evening set	3648 Jan 09 08:00	0° \approx 12'37	
inferior conj	3647 Jan 30 09:49	10° \approx 11'55	2°53'39		3648 Jan 09 14:12	30° R Z	
minimum elong	3647 Jan 30 07:22	10° \approx 20'13	2°53'03	inferior conj	3648 Jan 14 16:21	23° Z 57'14	2°18'14
min. Earth dist.	3647 Jan 31 04:20	9° \approx 09'13	0.67253 AU	minimum elong	3648 Jan 14 13:54	24° Z 05'43	2°17'27
morning rise	3647 Feb 04 14:10	3° \approx 58'02		min. Earth dist.	3648 Jan 14 22:31	23° Z 35'55	0.67808 AU
direct	3647 Feb 10 08:11	1° \approx 24'02		morning rise	3648 Jan 19 19:36	17° Z 44'47	
morning max el	3647 Feb 21 21:38	8° \approx 18'40	24°46'29	direct	3648 Jan 24 23:00	15° Z 30'43	
desc. node	3647 Feb 26 15:33	13° \approx 34'06		morning max el	3648 Feb 04 06:31	21° Z 38'34	23°17'49
	3647 Mar 10 22:04	0° H			3648 Feb 11 11:51	0° \approx	
morning set	3647 Mar 29 23:25	0° Y 42'09		desc. node	3648 Feb 13 12:37	2° \approx 38'04	
	3647 Mar 29 13:53	0° Y			3648 Mar 03 05:11	0° H	
max. Earth dist.	3647 Apr 02 14:35	7° Y 14'49	1.37170 AU	morning set	3648 Mar 10 05:43	11° H 27'44	
				max. Earth dist.	3648 Mar 14 09:21	18° H 33'42	1.39321 AU
superior conj	3647 Apr 09 04:43	19° Y 43'42	-1°24'10		3648 Mar 20 18:48	0° Y	
minimum elong	3647 Apr 09 09:00	20° Y 04'36	1°23'32				
	3647 Apr 14 09:04	0° B		superior conj	3648 Mar 22 00:19	2° Y 16'16	-1°47'51
evening rise	3647 Apr 17 16:30	6° B 38'20		minimum elong	3648 Mar 22 04:55	2° Y 37'37	1°47'24
asc. node	3647 Apr 18 08:52	7° B 59'57		evening rise	3648 Mar 31 10:36	20° Y 14'44	
	3647 May 01 00:41	0° II		asc. node	3648 Apr 04 05:55	27° Y 30'14	
evening max el	3647 May 04 14:46	4° II 07'01	19°22'41		3648 Apr 05 14:13	0° B	
retrograde	3647 May 13 21:23	8° II 37'25		evening max el	3648 Apr 16 16:19	16° B 24'41	18°37'42
evening set	3647 May 15 21:32	8° II 25'41		retrograde	3648 Apr 24 13:01	20° B 16'12	
inferior conj	3647 May 24 10:09	4° II 18'40	0°20'50	evening set	3648 Apr 26 19:10	19° B 58'16	
minimum elong	3647 May 24 11:02	4° II 17'14	0°20'31	inferior conj	3648 May 04 11:51	15° B 32'52	1°54'45
desc. node	3647 May 25 14:42	3° II 31'48		minimum elong	3648 May 04 15:25	15° B 26'03	1°53'39
min. Earth dist.	3647 May 27 02:59	2° II 33'08	0.55996 AU	min. Earth dist.	3648 May 07 20:41	12° B 59'50	0.57726 AU
	3647 May 31 19:35	30° R B		desc. node	3648 May 11 11:45	10° B 40'59	
morning rise	3647 Jun 01 21:35	29° B 34'45		morning rise	3648 May 12 08:29	10° B 15'04	
direct	3647 Jun 06 15:15	28° B 43'34		direct	3648 May 18 01:58	8° B 52'57	
	3647 Jun 12 09:57	0° II		morning max el	3648 Jun 01 10:48	16° B 28'45	26°33'48
morning max el	3647 Jun 20 18:27	5° II 53'51	25°07'34		3648 Jun 12 12:11	0° II	
	3647 Jul 08 04:42	0° E			3648 Jun 29 10:43	0° E	
asc. node	3647 Jul 15 08:08	13° E 46'51		morning set	3648 Jun 30 15:14	2° E 29'01	
morning set	3647 Jul 17 04:41	17° E 39'38		asc. node	3648 Jul 01 05:12	3° E 42'51	
	3647 Jul 22 21:24	0° Ω					
superior conj	3647 Jul 24 03:32	2° Ω 45'00	1°20'48	superior conj	3648 Jul 07 15:09	17° E 41'17	1°02'55
minimum elong	3647 Jul 24 01:12	2° Ω 32'17	1°20'30	minimum elong	3648 Jul 07 12:54	17° E 28'54	1°02'31
max. Earth dist.	3647 Jul 25 10:58	5° Ω 36'34	1.32626 AU	max. Earth dist.	3648 Jul 07 21:38	18° E 17'02	1.32148 AU
evening rise	3647 Jul 31 07:02	18° Ω 00'19			3648 Jul 13 06:46	0° Ω	
	3647 Aug 06 09:27	0° H		evening rise	3648 Jul 14 12:52	2° Ω 39'11	
desc. node	3647 Aug 21 14:02	24° H 45'31			3648 Jul 29 06:38	0° H	
	3647 Aug 25 13:35	0° A		desc. node	3648 Aug 07 11:03	13° H 02'58	
evening max el	3647 Sep 01 18:59	7° A 58'03	27°23'32	evening max el	3648 Aug 13 23:24	20° H 12'45	26°52'22
retrograde	3647 Sep 15 13:39	15° A 13'44		retrograde	3648 Aug 27 21:22	27° H 24'00	
evening set	3647 Sep 22 18:14	12° A 44'25		evening set	3648 Sep 03 19:54	25° H 18'54	
min. Earth dist.	3647 Sep 26 08:52	9° A 47'58	0.62578 AU	min. Earth dist.	3648 Sep 07 13:34	22° H 40'35	0.60594 AU
inferior conj	3647 Sep 29 05:44	7° A 04'31	-3°40'39	inferior conj	3648 Sep 10 18:41	19° H 59'57	-4°30'56
minimum elong	3647 Sep 29 11:25	6° A 50'57	3°38'59	minimum elong	3648 Sep 11 00:10	19° H 48'27	4°29'51
morning rise	3647 Oct 06 06:13	1° A 57'19		morning rise	3648 Sep 18 06:20	15° H 13'52	
direct	3647 Oct 08 15:45	1° A 31'17		direct	3648 Sep 20 15:14	14° H 52'04	
asc. node	3647 Oct 11 07:22	2° A 04'01		asc. node	3648 Sep 27 04:26	17° H 46'21	
morning max el	3647 Oct 15 09:54	4° A 58'36	17°50'55	morning max el	3648 Sep 27 22:51	18° H 28'54	18°04'55
morning set	3647 Oct 31 11:25	29° A 58'29			3648 Oct 06 06:56	0° A	
	3647 Oct 31 11:45	0° M		morning set	3648 Oct 13 17:55	13° A 29'07	
					3648 Oct 22 17:11	0° M	
superior conj	3647 Nov 11 18:59	19° M 43'02	0°39'22	superior conj	3648 Oct 23 13:22	1° M 30'10	1°11'08
minimum elong	3647 Nov 11 22:29	19° M 57'50	0°38'53	minimum elong	3648 Oct 23 17:32	1° M 48'46	1°10'39
desc. node	3647 Nov 17 13:23	29° M 17'26		max. Earth dist.	3648 Oct 31 04:46	14° M 42'52	1.41738 AU
	3647 Nov 17 23:50	0° J		desc. node	3648 Nov 03 10:24	20° M 03'55	
max. Earth dist.	3647 Nov 18 17:55	1° J 13'19	1.43465 AU	evening rise	3648 Nov 05 15:26	23° M 38'41	
evening rise	3647 Nov 26 16:10	13° J 46'57			3648 Nov 09 15:47	0° J	

	3648 Nov 30 09:23	0°♄			3649 Oct 14 21:19	0°♍		
evening max el	3648 Dec 09 00:46	10°♄12'06	22°41'27	evening rise	3649 Oct 17 12:51	4°♍31'18		
retrograde	3648 Dec 18 22:35	16°♄05'09		desc. node	3649 Oct 21 07:24	10°♍46'10		
evening set	3648 Dec 23 15:21	14°♄10'17			3649 Nov 02 19:55	0°♎		
asc. node	3648 Dec 24 03:41	13°♄43'22		evening max el	3649 Nov 21 14:31	23°♎50'09	24°01'22	
inferior conj	3648 Dec 29 00:07	7°♄48'08	1°35'21		3649 Nov 30 11:42	0°♏		
minimum elong	3648 Dec 28 22:09	7°♄54'57	1°34'36	retrograde	3649 Dec 02 14:51	0°♏18'44		
min. Earth dist.	3648 Dec 28 18:57	8°♄06'00	0.67983 AU		3649 Dec 04 15:31	30°♎♊		
morning rise	3649 Jan 03 04:49	1°♄38'50		evening set	3649 Dec 07 20:46	28°♎07'34		
	3649 Jan 06 04:31	30°♎♊		asc. node	3649 Dec 11 00:43	24°♎43'29		
direct	3649 Jan 07 17:29	29°♎47'37		min. Earth dist.	3649 Dec 12 15:21	22°♎36'32	0.67800 AU	
	3649 Jan 09 07:49	0°♏		inferior conj	3649 Dec 13 07:20	21°♎42'25	0°46'11	
morning max el	3649 Jan 16 19:06	5°♏06'04	21°51'01	minimum elong	3649 Dec 13 06:15	21°♎46'04	0°45'45	
desc. node	3649 Jan 30 09:40	22°♏16'11		morning rise	3649 Dec 18 15:46	15°♎38'12		
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	3649 Feb 23 21:59	0°♑			3650 Jan 08 17:48	0°♏		
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superior conj	3649 Mar 04 00:48	13°♑52'27	-2°03'35		3650 Jan 28 21:31	0°♐		
minimum elong	3649 Mar 04 03:39	14°♑04'58	2°03'29	max. Earth dist.	3650 Feb 06 14:37	13°♐47'26	1.43293 AU	
	3649 Mar 12 22:59	0°♑						
evening rise	3649 Mar 14 16:57	3°♑13'40		superior conj	3650 Feb 13 01:14	24°♐21'36	-2°06'19	
asc. node	3649 Mar 22 02:58	16°♑37'37		minimum elong	3650 Feb 12 23:25	24°♐14'01	2°06'18	
evening max el	3649 Mar 31 00:43	29°♑11'25	18°12'42		3650 Feb 16 09:38	0°♑		
	3649 Mar 31 21:44	0°♒		evening rise	3650 Feb 25 07:24	15°♑26'45		
retrograde	3649 Apr 06 23:23	2°♒40'51			3650 Mar 05 16:49	0°♑		
evening set	3649 Apr 09 12:00	2°♒13'55		asc. node	3650 Mar 09 00:01	5°♑15'02		
	3649 Apr 13 09:58	30°♎♊		evening max el	3650 Mar 14 12:42	12°♑19'06	18°07'18	
inferior conj	3649 Apr 16 10:42	27°♑27'32	2°56'13	retrograde	3650 Mar 21 00:46	15°♑41'55		
minimum elong	3649 Apr 16 14:00	27°♑20'07	2°55'31	evening set	3650 Mar 23 19:12	15°♑04'27		
min. Earth dist.	3649 Apr 19 19:45	24°♑28'17	0.59844 AU	inferior conj	3650 Mar 30 03:47	9°♑57'46	3°28'25	
morning rise	3649 Apr 23 13:36	21°♑43'45		minimum elong	3650 Mar 30 05:29	9°♑53'26	3°28'15	
desc. node	3649 Apr 28 08:49	19°♑54'05		min. Earth dist.	3650 Apr 02 02:54	6°♑57'03	0.62008 AU	
direct	3649 Apr 30 01:05	19°♑46'16		morning rise	3650 Apr 05 14:14	3°♑57'51		
morning max el	3649 May 14 09:08	27°♑36'50	27°31'02	direct	3650 Apr 12 10:43	1°♑29'49		
	3649 May 16 16:15	0°♒		desc. node	3650 Apr 15 05:52	1°♑52'26		
	3649 Jun 06 03:48	0°♓		morning max el	3650 Apr 26 13:48	9°♑27'51	27°51'29	
morning set	3649 Jun 14 22:50	17°♓07'08			3650 May 12 11:31	0°♒		
asc. node	3649 Jun 18 02:15	23°♓46'48			3650 May 29 08:09	0°♓		
	3649 Jun 20 22:47	0°♑		morning set	3650 May 30 01:30	1°♓27'57		
max. Earth dist.	3649 Jun 21 09:27	0°♑58'37	1.32067 AU	asc. node	3650 Jun 04 23:17	13°♓54'33		
				max. Earth dist.	3650 Jun 04 18:27	13°♓28'24	1.32393 AU	
superior conj	3649 Jun 22 02:45	2°♑33'47	0°41'11					
minimum elong	3649 Jun 22 01:02	2°♑24'22	0°40'50	superior conj	3650 Jun 06 12:36	17°♓17'13	0°16'17	
evening rise	3649 Jun 28 22:34	17°♑26'37		minimum elong	3650 Jun 06 11:51	17°♓13'07	0°16'06	
	3649 Jul 05 03:17	0°♑			3650 Jun 12 08:41	0°♑		
desc. node	3649 Jul 25 08:03	0°♑08'13		evening rise	3650 Jun 13 10:09	2°♑16'10		
	3649 Jul 25 04:53	0°♑			3650 Jun 28 11:15	0°♑		
evening max el	3649 Jul 26 20:27	1°♑38'34	25°49'07	evening max el	3650 Jul 08 10:50	12°♑21'06	24°21'52	
retrograde	3649 Aug 09 19:50	8°♑46'07		desc. node	3650 Jul 12 05:05	15°♑32'37		
evening set	3649 Aug 15 23:47	7°♑15'53		retrograde	3650 Jul 22 07:23	19°♑20'47		
min. Earth dist.	3649 Aug 20 08:39	4°♑39'00	0.58528 AU	evening set	3650 Jul 27 03:34	18°♑28'25		
inferior conj	3649 Aug 23 14:04	2°♑19'11	-5°03'25	min. Earth dist.	3650 Aug 01 21:40	15°♑34'20	0.56655 AU	
minimum elong	3649 Aug 23 16:48	2°♑14'13	5°03'12	inferior conj	3650 Aug 04 13:20	13°♑53'53	-5°03'57	
	3649 Aug 26 23:24	30°♎♊		minimum elong	3650 Aug 04 10:33	13°♑58'18	5°03'46	
morning rise	3649 Aug 31 12:02	27°♑56'22		morning rise	3650 Aug 12 20:10	9°♑52'02		
direct	3649 Sep 02 23:24	27°♑36'37		direct	3650 Aug 15 12:22	9°♑32'51		
	3649 Sep 09 09:41	0°♑		morning max el	3650 Aug 25 02:15	14°♑00'31	19°35'21	
morning max el	3649 Sep 11 05:20	1°♑32'45	18°39'22	asc. node	3650 Aug 31 22:32	22°♑31'27		
asc. node	3649 Sep 14 01:29	4°♑40'34			3650 Sep 05 09:09	0°♑		
morning set	3649 Sep 27 11:58	27°♑32'47		morning set	3650 Sep 11 13:56	11°♑59'01		
	3649 Sep 28 18:14	0°♒						
superior conj	3649 Oct 06 05:11	14°♒20'31	1°31'41	superior conj	3650 Sep 19 12:54	27°♑57'53	1°42'14	
minimum elong	3649 Oct 06 08:12	14°♒34'42	1°31'26	minimum elong	3650 Sep 19 14:13	28°♑04'20	1°42'11	
max. Earth dist.	3649 Oct 13 10:58	27°♒30'21	1.39706 AU		3650 Sep 20 13:48	0°♒		
				max. Earth dist.	3650 Sep 25 15:14	9°♒38'30	1.37629 AU	



































































































































evening rise	3650 Sep 29 09:21	16° Ω 27'40			3651 Aug 28 11:37	0° Π	
	3650 Oct 07 08:38	0° Π					
desc. node	3650 Oct 08 04:23	1° Π 19'47		superior conj	3651 Sep 03 08:00	12° Π 09'11	1°44'25
	3650 Oct 28 07:49	0° \mathcal{A}		minimum elong	3651 Sep 03 07:43	12° Π 07'45	1°44'24
evening max el	3650 Nov 04 02:44	7° \mathcal{A} 30'56	25°17'14	max. Earth dist.	3651 Sep 07 23:30	21° Π 29'49	1.35752 AU
retrograde	3650 Nov 16 02:51	14° \mathcal{A} 26'47		evening rise	3651 Sep 12 01:36	29° Π 20'02	
evening set	3650 Nov 21 22:37	12° \mathcal{A} 00'52			3651 Sep 12 10:11	0° Ω	
min. Earth dist.	3650 Nov 26 09:25	7° \mathcal{A} 04'09	0.67273 AU	desc. node	3651 Sep 25 01:24	21° Ω 40'01	
inferior conj	3650 Nov 27 12:12	5° \mathcal{A} 37'13	-0°08'12		3651 Sep 30 13:19	0° Π	
minimum elong	3650 Nov 27 12:24	5° \mathcal{A} 36'32	0°08'05	evening max el	3651 Oct 17 15:09	21° Π 12'13	26°21'35
transit middle	3650 Nov 27 12:24	5° \mathcal{A} 36'32	0°08'05	retrograde	3651 Oct 30 09:53	28° Π 23'55	
transit begin	3650 Nov 27 10:00	5° \mathcal{A} 44'23		evening set	3651 Nov 05 19:04	25° Π 47'01	
transit end	3650 Nov 27 14:49	5° \mathcal{A} 28'42		min. Earth dist.	3651 Nov 09 22:50	21° Π 25'45	0.66405 AU
asc. node	3650 Nov 27 21:46	5° \mathcal{A} 06'14		inferior conj	3651 Nov 11 12:53	19° Π 29'40	-1°06'30
	3650 Dec 02 15:11	30° $\mathcal{R}\Pi$		minimum elong	3651 Nov 11 14:41	19° Π 24'10	1°05'44
morning rise	3650 Dec 03 02:27	29° Π 40'08		asc. node	3651 Nov 14 18:47	15° Π 48'46	
direct	3650 Dec 06 13:07	28° Π 31'44		morning rise	3651 Nov 17 10:52	13° Π 42'22	
	3650 Dec 10 16:54	0° \mathcal{A}		direct	3651 Nov 20 11:25	12° Π 50'33	
morning max el	3650 Dec 13 18:05	2° \mathcal{A} 34'42	19°28'27	morning max el	3651 Nov 27 04:21	16° Π 31'40	18°39'15
greatest brilliancy	3650 Dec 26 23:29	20° \mathcal{A} 12'01	-0.7m		3651 Dec 07 06:41	0° \mathcal{A}	
	3651 Jan 02 10:15	0° \mathcal{B}		morning set	3651 Dec 18 00:20	16° \mathcal{A} 51'05	
desc. node	3651 Jan 04 03:41	2° \mathcal{B} 39'17		desc. node	3651 Dec 22 00:41	23° \mathcal{A} 12'12	
morning set	3651 Jan 07 06:19	7° \mathcal{B} 27'21			3651 Dec 26 08:10	0° \mathcal{B}	
max. Earth dist.	3651 Jan 20 03:29	27° \mathcal{B} 34'44	1.44589 AU				
	3651 Jan 21 16:08	0° \approx		superior conj	3652 Jan 03 04:15	12° \mathcal{B} 18'18	-1°16'42
				minimum elong	3652 Jan 02 19:28	11° \mathcal{B} 43'50	1°15'42
superior conj	3651 Jan 23 23:47	3° \approx 41'45	-1°51'03	max. Earth dist.	3652 Jan 02 20:58	11° \mathcal{B} 49'41	1.45208 AU
minimum elong	3651 Jan 23 16:12	3° \approx 11'28	1°50'30		3652 Jan 14 09:36	0° \approx	
evening rise	3651 Feb 07 01:30	26° \approx 44'50		evening rise	3652 Jan 18 20:24	7° \approx 05'25	
	3651 Feb 09 00:06	0° \mathcal{H}		greatest brilliancy	3652 Jan 26 21:42	19° \approx 57'28	-0.8m
asc. node	3651 Feb 23 21:03	23° \mathcal{H} 12'39			3652 Feb 02 09:58	0° \mathcal{H}	
evening max el	3651 Feb 26 01:18	25° \mathcal{H} 39'34	18°20'57	evening max el	3652 Feb 09 11:59	9° \mathcal{H} 07'16	18°52'35
retrograde	3651 Mar 04 12:24	29° \mathcal{H} 09'08		asc. node	3652 Feb 10 18:04	10° \mathcal{H} 18'51	
evening set	3651 Mar 07 12:34	28° \mathcal{H} 20'05		retrograde	3652 Feb 16 06:22	12° \mathcal{H} 55'02	
inferior conj	3651 Mar 13 10:54	22° \mathcal{H} 54'37	3°37'55	evening set	3652 Feb 19 12:54	11° \mathcal{H} 53'25	
minimum elong	3651 Mar 13 10:50	22° \mathcal{H} 54'47	3°37'55	inferior conj	3652 Feb 25 04:14	6° \mathcal{H} 10'50	3°30'26
min. Earth dist.	3651 Mar 15 19:28	20° \mathcal{H} 13'36	0.63964 AU	minimum elong	3652 Feb 25 02:48	6° \mathcal{H} 15'15	3°30'17
morning rise	3651 Mar 19 08:16	16° \mathcal{H} 46'14		min. Earth dist.	3652 Feb 26 21:13	4° \mathcal{H} 03'35	0.65569 AU
direct	3651 Mar 26 04:54	13° \mathcal{H} 59'33		morning rise	3652 Mar 01 16:18	29° \approx 58'35	
desc. node	3651 Apr 02 02:53	16° \mathcal{H} 18'07			3652 Mar 01 15:40	30° $\mathcal{R}\approx$	
morning max el	3651 Apr 08 22:25	21° \mathcal{H} 56'20	27°34'58	direct	3652 Mar 08 06:01	27° \approx 07'36	
	3651 Apr 15 23:51	0° Υ			3652 Mar 15 17:49	0° \mathcal{H}	
	3651 May 05 15:38	0° \mathcal{B}		desc. node	3652 Mar 18 23:55	2° \mathcal{H} 36'39	
morning set	3651 May 13 20:47	15° \mathcal{B} 23'55		morning max el	3652 Mar 21 08:12	4° \mathcal{H} 50'54	26°46'32
max. Earth dist.	3651 May 18 20:34	25° \mathcal{B} 33'55	1.33149 AU		3652 Apr 09 12:46	0° Υ	
	3651 May 20 23:00	0° Π		morning set	3652 Apr 26 05:24	28° Υ 44'25	
					3652 Apr 26 21:12	0° \mathcal{B}	
superior conj	3651 May 21 18:54	1° Π 46'04	-0°11'05	max. Earth dist.	3652 Apr 30 12:22	7° \mathcal{B} 07'14	1.34370 AU
minimum elong	3651 May 21 19:28	1° Π 49'03	0°10'58				
behind sun begin	3651 May 21 15:31	1° Π 28'00		superior conj	3652 May 04 19:28	15° \mathcal{B} 53'09	-0°39'50
behind sun end	3651 May 21 23:24	2° Π 10'06		minimum elong	3652 May 04 21:33	16° \mathcal{B} 04'01	0°39'25
asc. node	3651 May 22 20:19	4° Π 02'12		asc. node	3652 May 08 17:21	24° \mathcal{B} 05'10	
evening rise	3651 May 28 21:46	17° Π 01'59			3652 May 11 12:51	0° Π	
	3651 Jun 04 08:14	0° \mathcal{E}		evening rise	3652 May 12 07:30	1° Π 37'17	
evening max el	3651 Jun 20 00:28	22° \mathcal{E} 46'09	22°45'08		3652 May 28 18:09	0° \mathcal{E}	
desc. node	3651 Jun 29 02:06	28° \mathcal{E} 41'52		evening max el	3652 May 31 21:09	3° \mathcal{E} 25'22	21°13'43
retrograde	3651 Jul 03 06:32	29° \mathcal{E} 22'00		retrograde	3652 Jun 12 19:57	9° \mathcal{E} 17'02	
evening set	3651 Jul 06 14:20	28° \mathcal{E} 57'45		desc. node	3652 Jun 14 23:08	9° \mathcal{E} 06'30	
min. Earth dist.	3651 Jul 14 08:45	25° \mathcal{E} 32'28	0.55326 AU	evening set	3652 Jun 15 02:42	9° \mathcal{E} 05'00	
inferior conj	3651 Jul 15 17:53	24° \mathcal{E} 44'58	-4°17'59	inferior conj	3652 Jun 24 11:47	5° \mathcal{E} 06'33	-2°43'58
minimum elong	3651 Jul 15 10:05	24° \mathcal{E} 56'11	4°16'18	minimum elong	3652 Jun 24 04:27	5° \mathcal{E} 16'50	2°41'32
morning rise	3651 Jul 24 08:02	20° \mathcal{E} 53'49		min. Earth dist.	3652 Jun 24 20:04	4° \mathcal{E} 54'55	0.54842 AU
direct	3651 Jul 27 07:12	20° \mathcal{E} 33'25		morning rise	3652 Jul 03 06:34	1° \mathcal{E} 08'43	
morning max el	3651 Aug 07 11:35	25° \mathcal{E} 45'09	20°52'27	direct	3652 Jul 06 17:00	0° \mathcal{E} 43'13	
	3651 Aug 11 09:49	0° Ω		morning max el	3652 Jul 19 09:43	6° \mathcal{E} 45'13	22°27'06
asc. node	3651 Aug 18 19:33	11° Ω 06'11		asc. node	3652 Aug 04 16:35	0° Ω 13'23	
morning set	3651 Aug 26 21:10	26° Ω 40'53			3652 Aug 04 13:46	0° Ω	

morning set	3652 Aug 10 07:31	11°♎31'26		morning set	3653 Jul 25 19:14	26°♊25'44	
					3653 Jul 27 11:27	0°♎	
superior conj	3652 Aug 17 10:51	26°♎42'47	1°39'39	superior conj	3653 Aug 01 18:47	11°♎30'34	1°29'07
minimum elong	3652 Aug 17 09:24	26°♎35'03	1°39'34	minimum elong	3653 Aug 01 16:38	11°♎18'54	1°28'53
	3652 Aug 19 00:16	0°♎		max. Earth dist.	3653 Aug 03 18:00	15°♎45'16	1.33092 AU
max. Earth dist.	3652 Aug 20 16:17	3°♎28'16	1.34220 AU	evening rise	3653 Aug 09 03:39	27°♎02'31	
evening rise	3652 Aug 25 09:03	12°♎55'20			3653 Aug 10 15:05	0°♎	
	3652 Sep 03 17:05	0°♎			3653 Aug 28 00:20	0°♎	
desc. node	3652 Sep 10 22:26	11°♎39'34		desc. node	3653 Aug 28 19:28	1°♎09'43	
	3652 Sep 24 15:01	0°♎		evening max el	3653 Sep 11 15:00	17°♎57'14	27°26'17
evening max el	3652 Sep 29 03:46	4°♎45'08	27°06'57	retrograde	3653 Sep 25 06:12	25°♎14'01	
retrograde	3652 Oct 12 11:10	12°♎02'27		evening set	3653 Oct 02 10:05	22°♎36'41	
evening set	3652 Oct 19 07:51	9°♎20'45		min. Earth dist.	3653 Oct 06 02:13	19°♎24'30	0.63620 AU
min. Earth dist.	3652 Oct 23 05:10	5°♎35'15	0.65185 AU	inferior conj	3653 Oct 08 16:34	16°♎46'26	-3°07'33
inferior conj	3652 Oct 25 07:12	3°♎14'44	-2°07'08	minimum elong	3653 Oct 08 21:41	16°♎33'26	3°05'50
minimum elong	3652 Oct 25 10:45	3°♎04'46	2°05'44	morning rise	3653 Oct 15 10:36	11°♎28'27	
	3652 Oct 28 09:09	30°♎		direct	3653 Oct 17 22:06	10°♎58'32	
morning rise	3652 Oct 31 14:33	27°♎40'20		asc. node	3653 Oct 18 12:51	11°♎00'25	
asc. node	3652 Oct 31 15:48	27°♎38'51		morning max el	3653 Oct 24 11:44	14°♎23'44	17°51'33
direct	3652 Nov 03 07:19	27°♎01'16			3653 Nov 04 08:04	0°♎	
	3652 Nov 09 06:43	0°♎		morning set	3653 Nov 10 01:46	9°♎52'41	
morning max el	3652 Nov 09 19:10	0°♎30'09	18°06'44		3653 Nov 21 22:27	0°♎	
morning set	3652 Nov 27 23:55	27°♎43'54					
	3652 Nov 29 08:57	0°♎		superior conj	3653 Nov 22 10:36	0°♎50'02	0°16'07
desc. node	3652 Dec 07 21:44	13°♎53'36		minimum elong	3653 Nov 22 12:19	0°♎57'05	0°15'53
				behind sun begin	3653 Nov 22 10:38	0°♎50'09	
superior conj	3652 Dec 12 09:36	21°♎04'08	-0°30'22	behind sun end	3653 Nov 22 14:00	1°♎04'00	
minimum elong	3652 Dec 12 05:47	20°♎48'58	0°29'51	desc. node	3653 Nov 24 18:46	4°♎39'32	
max. Earth dist.	3652 Dec 15 16:31	26°♎15'54	1.45082 AU	max. Earth dist.	3653 Nov 28 10:38	10°♎33'21	1.44234 AU
	3652 Dec 18 01:36	0°♎		evening rise	3653 Dec 08 03:51	25°♎46'38	
evening rise	3652 Dec 28 18:00	16°♎37'44			3653 Dec 10 21:58	0°♎	
	3653 Jan 06 10:06	0°♎			3653 Dec 31 14:07	0°♎	
greatest brilliancy	3653 Jan 10 19:10	6°♎38'15	-0.7m	evening max el	3654 Jan 05 20:14	6°♎10'23	20°43'04
evening max el	3653 Jan 22 18:46	22°♎38'30	19°40'42	retrograde	3654 Jan 14 01:46	11°♎02'03	
asc. node	3653 Jan 27 15:06	26°♎20'03		asc. node	3654 Jan 14 12:08	11°♎01'01	
retrograde	3653 Jan 30 03:38	26°♎54'21		evening set	3654 Jan 18 00:49	9°♎32'06	
evening set	3653 Feb 02 17:41	25°♎39'06		inferior conj	3654 Jan 23 09:35	3°♎22'06	2°39'37
inferior conj	3653 Feb 08 04:39	19°♎41'28	3°10'06	minimum elong	3654 Jan 23 07:04	3°♎30'42	2°38'55
minimum elong	3653 Feb 08 02:25	19°♎48'51	3°09'39	min. Earth dist.	3654 Jan 23 22:35	2°♎37'32	0.67537 AU
min. Earth dist.	3653 Feb 09 06:53	18°♎14'51	0.66761 AU		3654 Jan 25 22:14	30°♎	
morning rise	3653 Feb 13 10:56	13°♎27'53		morning rise	3654 Jan 28 13:09	27°♎08'49	
direct	3653 Feb 19 12:58	10°♎45'09		direct	3654 Feb 03 00:59	24°♎43'00	
morning max el	3653 Mar 03 17:25	18°♎00'53	25°34'39		3654 Feb 12 17:54	0°♎	
desc. node	3653 Mar 05 20:57	20°♎16'59		morning max el	3654 Feb 14 02:00	1°♎18'15	24°09'12
	3653 Mar 13 19:19	0°♎		desc. node	3654 Feb 20 18:00	8°♎55'11	
	3653 Apr 02 13:03	0°♎			3654 Mar 07 19:18	0°♎	
morning set	3653 Apr 08 23:02	11°♎17'12		morning set	3654 Mar 21 20:01	22°♎46'22	
max. Earth dist.	3653 Apr 12 16:54	18°♎14'46	1.36046 AU	max. Earth dist.	3654 Mar 25 13:33	29°♎20'44	1.38075 AU
					3654 Mar 25 22:18	0°♎	
superior conj	3653 Apr 18 11:38	29°♎31'04	-1°08'30	superior conj	3654 Apr 01 15:55	12°♎30'01	-1°34'54
minimum elong	3653 Apr 18 15:14	29°♎49'07	1°07'53	minimum elong	3654 Apr 01 20:30	12°♎51'59	1°34'19
	3653 Apr 18 17:25	0°♎		evening rise	3654 Apr 10 12:28	29°♎49'45	
asc. node	3653 Apr 25 14:24	13°♎59'26			3654 Apr 10 14:33	0°♎	
evening rise	3653 Apr 26 13:15	15°♎55'49			3654 Apr 12 11:27	3°♎39'50	
	3653 May 03 19:45	0°♎		asc. node	3654 Apr 27 01:21	26°♎36'03	19°00'55
evening max el	3653 May 14 05:28	14°♎40'32	19°57'34	evening max el	3654 May 01 21:14	0°♎	
retrograde	3653 May 24 11:09	19°♎39'19		retrograde	3654 May 05 16:20	0°♎48'24	
evening set	3653 May 26 10:20	19°♎29'06		evening set	3654 May 07 18:40	0°♎34'29	
desc. node	3653 Jun 01 20:09	16°♎58'31			3654 May 09 15:49	30°♎	
inferior conj	3653 Jun 04 09:11	15°♎28'45	-0°45'07	inferior conj	3654 May 15 22:47	26°♎19'52	1°04'30
minimum elong	3653 Jun 04 07:06	15°♎31'55	0°44'20	minimum elong	3654 May 16 01:14	26°♎15'35	1°03'40
min. Earth dist.	3653 Jun 06 08:50	14°♎16'46	0.55322 AU	min. Earth dist.	3654 May 19 00:23	24°♎12'13	0.56665 AU
morning rise	3653 Jun 13 01:59	11°♎05'22		desc. node	3654 May 19 17:12	23°♎44'34	
direct	3653 Jun 17 06:28	10°♎27'02		morning rise	3654 May 24 04:36	21°♎20'49	
morning max el	3653 Jul 01 00:53	17°♎14'53	24°10'09	direct	3654 May 29 08:24	20°♎17'55	
	3653 Jul 11 09:43	0°♎					
asc. node	3653 Jul 22 13:39	19°♎44'50					

morning max el	3654 Jun 12 15:26	27°♄40'24	25°47'09	morning max el	3655 May 25 10:18	8°♄28'09	27°02'18
	3654 Jun 14 22:07	0°♄			3655 Jun 10 17:38	0°♄	
	3654 Jul 04 16:45	0°♄		morning set	3655 Jun 24 16:11	26°♄03'55	
asc. node	3654 Jul 09 10:43	9°♄33'32		asc. node	3655 Jun 26 07:45	29°♄33'29	
morning set	3654 Jul 10 06:41	11°♄18'33			3655 Jun 26 12:42	0°♄	
superior conj	3654 Jul 17 05:37	26°♄25'37	1°13'43	superior conj	3655 Jul 01 17:25	11°♄21'05	0°54'08
minimum elong	3654 Jul 17 03:16	26°♄12'42	1°13'21	minimum elong	3655 Jul 01 15:21	11°♄09'40	0°53'44
max. Earth dist.	3654 Jul 18 02:19	28°♄19'14	1.32371 AU	max. Earth dist.	3655 Jul 01 13:46	11°♄00'56	1.32058 AU
	3654 Jul 18 20:43	0°♄		evening rise	3655 Jul 08 13:51	26°♄15'11	
evening rise	3654 Jul 24 06:09	11°♄32'01			3655 Jul 10 08:57	0°♄	
	3654 Aug 02 19:53	0°♄			3655 Jul 27 12:34	0°♄	
desc. node	3654 Aug 15 16:29	19°♄58'34		desc. node	3655 Aug 02 13:30	7°♄48'28	
	3654 Aug 24 07:37	0°♄		evening max el	3655 Aug 06 23:43	12°♄29'21	26°29'06
evening max el	3654 Aug 24 22:28	0°♄35'42	27°14'21	retrograde	3655 Aug 20 22:57	19°♄40'03	
retrograde	3654 Sep 07 18:34	7°♄49'46		evening set	3655 Aug 27 15:07	17°♄48'37	
evening set	3654 Sep 14 22:06	5°♄28'48		min. Earth dist.	3655 Aug 31 13:12	15°♄13'11	0.59702 AU
min. Earth dist.	3654 Sep 18 12:47	2°♄42'13	0.61753 AU	inferior conj	3655 Sep 03 19:51	12°♄38'45	-4°47'42
inferior conj	3654 Sep 21 13:58	29°♄57'43	-4°03'30	minimum elong	3655 Sep 04 00:33	12°♄29'29	4°47'00
minimum elong	3654 Sep 21 19:50	29°♄44'31	4°01'59	morning rise	3655 Sep 11 12:06	8°♄02'44	
	3654 Sep 21 12:58	30°♄		direct	3655 Sep 13 21:30	7°♄42'11	
morning rise	3654 Sep 28 19:18	24°♄59'30		morning max el	3655 Sep 21 13:42	11°♄26'09	18°17'02
direct	3654 Oct 01 04:13	24°♄35'36		asc. node	3655 Sep 22 06:59	12°♄09'31	
asc. node	3654 Oct 05 09:55	25°♄54'47			3655 Oct 03 21:31	0°♄	
morning max el	3654 Oct 08 03:02	28°♄05'37	17°54'34	morning set	3655 Oct 07 11:26	6°♄44'10	
	3654 Oct 09 21:15	0°♄					
morning set	3654 Oct 23 23:32	22°♄58'26		superior conj	3655 Oct 16 18:39	24°♄11'04	1°21'10
	3654 Oct 27 20:34	0°♄		minimum elong	3655 Oct 16 22:28	24°♄28'29	1°20'46
					3655 Oct 20 00:13	0°♄	
superior conj	3654 Nov 03 14:28	11°♄55'13	0°54'15	max. Earth dist.	3655 Oct 24 08:30	7°♄33'38	1.40889 AU
minimum elong	3654 Nov 03 18:34	12°♄12'59	0°53'42	evening rise	3655 Oct 29 01:59	15°♄27'52	
max. Earth dist.	3654 Nov 11 00:23	24°♄23'58	1.42774 AU	desc. node	3655 Oct 29 12:48	16°♄12'03	
desc. node	3654 Nov 11 15:47	25°♄26'59			3655 Nov 07 07:05	0°♄	
	3654 Nov 14 11:17	0°♄			3655 Nov 29 05:27	0°♄	
evening rise	3654 Nov 17 17:55	5°♄12'00		evening max el	3655 Dec 02 07:37	3°♄19'01	23°15'33
	3654 Dec 04 06:25	0°♄		retrograde	3655 Dec 12 17:10	9°♄28'32	
evening max el	3654 Dec 19 16:10	19°♄43'29	21°56'15	evening set	3655 Dec 17 15:15	7°♄26'51	
retrograde	3654 Dec 28 22:49	25°♄14'48		asc. node	3655 Dec 19 06:13	5°♄52'19	
asc. node	3655 Jan 01 09:11	24°♄11'19		min. Earth dist.	3655 Dec 22 14:52	1°♄36'17	0.67942 AU
evening set	3655 Jan 02 08:34	23°♄29'15		inferior conj	3655 Dec 23 00:37	1°♄02'46	1°15'13
inferior conj	3655 Jan 07 16:53	17°♄10'15	2°00'53	minimum elong	3655 Dec 22 22:59	1°♄08'25	1°14'34
minimum elong	3655 Jan 07 14:35	17°♄18'14	2°00'06		3655 Dec 23 18:57	30°♄	
min. Earth dist.	3655 Jan 07 18:03	17°♄06'09	0.67922 AU	morning rise	3655 Dec 28 06:37	24°♄55'06	
morning rise	3655 Jan 12 20:27	10°♄58'50		direct	3656 Jan 01 13:12	23°♄13'37	
direct	3655 Jan 17 17:23	8°♄54'32		morning max el	3656 Jan 10 03:21	28°♄13'14	21°16'26
morning max el	3655 Jan 27 12:11	14°♄41'38	22°40'14		3656 Jan 11 19:48	0°♄	
desc. node	3655 Feb 07 15:03	28°♄14'59		desc. node	3656 Jan 25 12:04	18°♄04'24	
	3655 Feb 08 21:37	0°♄			3656 Feb 02 12:55	0°♄	
	3655 Feb 28 18:56	0°♄		morning set	3656 Feb 10 04:08	11°♄48'09	
morning set	3655 Mar 02 14:23	2°♄57'21		max. Earth dist.	3656 Feb 17 10:26	23°♄28'35	1.42288 AU
max. Earth dist.	3655 Mar 07 09:13	10°♄58'04	1.40251 AU		3656 Feb 21 08:43	0°♄	
superior conj	3655 Mar 15 03:59	24°♄39'46	-1°55'46	superior conj	3656 Feb 24 18:48	5°♄48'43	-2°06'40
minimum elong	3655 Mar 15 08:10	24°♄58'45	1°55'28	minimum elong	3656 Feb 24 20:01	5°♄53'58	2°06'40
	3655 Mar 18 01:51	0°♄		evening rise	3656 Mar 07 02:10	25°♄51'48	
evening rise	3655 Mar 25 02:03	13°♄11'22			3656 Mar 09 09:02	0°♄	
asc. node	3655 Mar 30 08:29	23°♄01'12		asc. node	3656 Mar 16 05:31	11°♄57'05	
	3655 Apr 03 09:30	0°♄		evening max el	3656 Mar 23 16:36	22°♄04'37	18°08'07
evening max el	3655 Apr 10 06:12	9°♄07'04	18°24'34	retrograde	3656 Mar 30 09:26	25°♄29'11	
retrograde	3655 Apr 17 16:15	12°♄47'21		evening set	3656 Apr 02 00:36	24°♄57'57	
evening set	3655 Apr 20 01:03	12°♄26'00		inferior conj	3656 Apr 08 16:50	20°♄03'07	3°13'01
inferior conj	3655 Apr 27 09:43	7°♄51'55	2°24'44	minimum elong	3656 Apr 08 19:33	19°♄56'42	3°12'34
minimum elong	3655 Apr 27 13:27	7°♄44'17	2°23'44	min. Earth dist.	3656 Apr 11 22:44	17°♄00'05	0.60777 AU
min. Earth dist.	3655 Apr 30 20:21	5°♄04'24	0.58601 AU	morning rise	3656 Apr 15 12:26	14°♄11'30	
morning rise	3655 May 04 22:49	2°♄21'22		direct	3656 Apr 22 05:07	11°♄59'31	
desc. node	3655 May 06 14:14	1°♄36'12		desc. node	3656 Apr 22 11:16	11°♄59'42	
direct	3655 May 11 00:50	0°♄44'04		morning max el	3656 May 06 11:19	19°♄54'27	27°44'16

	3656 May 15 02:17	0°♄			3657 Apr 16 14:29	0°♅	
	3656 Jun 02 13:58	0°♅	morning max el		3657 Apr 18 17:45	2°♅01'40	27°48'48
morning set	3656 Jun 07 21:58	10°♅36'03			3657 May 09 09:05	0°♄	
asc. node	3656 Jun 12 04:47	19°♅40'04	morning set		3657 May 22 21:49	24°♄47'12	
max. Earth dist.	3656 Jun 14 00:44	23°♅39'03	1.32154 AU		3657 May 25 10:57	0°♅	
				max. Earth dist.	3657 May 28 07:21	6°♅00'21	1.32667 AU
superior conj	3656 Jun 15 04:32	26°♅11'18	0°31'00	asc. node	3657 May 30 01:48	9°♅48'16	
minimum elong	3656 Jun 15 03:11	26°♅03'52	0°30'42				
	3656 Jun 16 22:09	0°♄		superior conj	3657 May 30 13:07	10°♅49'25	0°04'58
evening rise	3656 Jun 22 00:37	11°♄05'02		minimum elong	3657 May 30 12:53	10°♅48'07	0°04'54
	3656 Jul 01 15:42	0°♄		behind sun begin	3657 May 30 07:53	10°♅21'03	
evening max el	3656 Jul 18 17:46	23°♄36'06	25°14'15	behind sun end	3657 May 30 17:53	11°♅15'13	
desc. node	3656 Jul 19 10:31	24°♄15'20		evening rise	3657 Jun 06 12:28	25°♅54'04	
	3656 Jul 28 12:13	0°♄			3657 Jun 08 11:21	0°♄	
retrograde	3656 Aug 01 17:07	0°♄41'09			3657 Jun 26 11:26	0°♄	
	3656 Aug 05 22:01	30°♄♄		evening max el	3657 Jun 30 07:02	4°♄07'44	23°40'52
evening set	3656 Aug 07 08:40	29°♄27'44		desc. node	3657 Jul 06 07:32	8°♄46'49	
min. Earth dist.	3656 Aug 12 05:34	26°♄45'17	0.57689 AU	retrograde	3657 Jul 13 22:51	10°♄58'52	
inferior conj	3656 Aug 15 06:54	24°♄40'21	-5°08'32	evening set	3657 Jul 18 03:27	10°♄20'17	
minimum elong	3656 Aug 15 07:32	24°♄39'15	5°08'31	min. Earth dist.	3657 Jul 24 17:08	7°♄14'36	0.56014 AU
morning rise	3656 Aug 23 08:47	20°♄26'43		inferior conj	3657 Jul 26 21:41	5°♄55'43	-4°50'41
direct	3656 Aug 25 21:52	20°♄07'23		minimum elong	3657 Jul 26 16:22	6°♄03'44	4°49'59
morning max el	3656 Sep 03 16:26	24°♄15'50	19°00'25	morning rise	3657 Aug 04 07:48	2°♄00'01	
asc. node	3656 Sep 08 04:01	29°♄29'37		direct	3657 Aug 07 02:57	1°♄40'24	
	3656 Sep 08 12:44	0°♄		morning max el	3657 Aug 17 08:25	6°♄25'12	20°05'37
morning set	3656 Sep 20 09:15	20°♄58'26		asc. node	3657 Aug 26 01:02	17°♄40'27	
	3656 Sep 24 22:49	0°♄			3657 Sep 01 19:29	0°♄	
				morning set	3657 Sep 04 13:46	5°♄32'19	
superior conj	3656 Sep 28 17:50	7°♄22'48	1°37'17				
minimum elong	3656 Sep 28 20:08	7°♄33'53	1°37'08	superior conj	3657 Sep 12 06:53	21°♄15'55	1°44'05
max. Earth dist.	3656 Oct 05 13:09	20°♄01'55	1.38818 AU	minimum elong	3657 Sep 12 07:29	21°♄18'55	1°44'04
evening rise	3656 Oct 09 09:31	26°♄48'20			3657 Sep 16 17:25	0°♄	
	3656 Oct 11 06:25	0°♄		max. Earth dist.	3657 Sep 17 18:53	2°♄01'43	1.36802 AU
desc. node	3656 Oct 15 09:48	6°♄51'06		evening rise	3657 Sep 21 14:58	9°♄09'48	
	3656 Oct 30 20:46	0°♄		desc. node	3657 Oct 02 06:49	27°♄19'53	
evening max el	3656 Nov 13 20:38	16°♄58'38	24°34'40		3657 Oct 03 23:23	0°♄	
retrograde	3656 Nov 25 07:36	23°♄39'39			3657 Oct 26 16:27	0°♄	
evening set	3656 Nov 30 19:20	21°♄22'12		evening max el	3657 Oct 27 08:58	0°♄40'50	25°46'30
asc. node	3656 Dec 05 03:15	16°♄29'43		retrograde	3657 Nov 08 17:23	7°♄43'59	
min. Earth dist.	3656 Dec 05 10:36	16°♄05'28	0.67618 AU	evening set	3657 Nov 14 19:07	5°♄12'48	
inferior conj	3656 Dec 06 07:03	14°♄57'17	0°23'41	min. Earth dist.	3657 Nov 19 02:53	0°♄31'13	0.66949 AU
minimum elong	3656 Dec 06 06:28	14°♄59'13	0°23'27		3657 Nov 19 12:48	30°♄♄	
morning rise	3656 Dec 11 17:41	8°♄55'38		inferior conj	3657 Nov 20 10:23	28°♄51'32	-0°32'31
direct	3656 Dec 15 11:12	7°♄35'47		minimum elong	3657 Nov 20 11:14	28°♄48'50	0°32'08
morning max el	3656 Dec 23 02:06	11°♄55'55	20°03'46	asc. node	3657 Nov 22 00:17	26°♄53'58	
	3657 Jan 05 20:25	0°♄		morning rise	3657 Nov 26 03:42	22°♄58'24	
desc. node	3657 Jan 11 09:04	8°♄15'06		direct	3657 Nov 29 09:54	21°♄57'24	
morning set	3657 Jan 19 00:37	19°♄56'19		morning max el	3657 Dec 06 08:42	25°♄49'22	19°05'36
	3657 Jan 25 11:34	0°♄			3657 Dec 10 00:05	0°♄	
max. Earth dist.	3657 Jan 29 19:49	6°♄53'16	1.43920 AU	morning set	3657 Dec 29 04:48	28°♄36'29	
				desc. node	3657 Dec 29 06:05	28°♄41'28	
superior conj	3657 Feb 04 08:02	15°♄47'29	-2°02'16		3657 Dec 30 02:14	0°♄	
minimum elong	3657 Feb 04 03:37	15°♄29'27	2°02'05	max. Earth dist.	3658 Jan 12 11:41	20°♄57'07	1.44941 AU
	3657 Feb 12 20:31	0°♄					
evening rise	3657 Feb 17 08:23	7°♄41'40		superior conj	3658 Jan 14 21:10	24°♄43'55	-1°38'35
	3657 Mar 02 21:13	0°♅		minimum elong	3658 Jan 14 12:12	24°♄08'28	1°37'46
asc. node	3657 Mar 03 02:33	0°♅18'44			3658 Jan 18 04:49	0°♄	
evening max el	3657 Mar 07 05:15	5°♅18'47	18°10'55	evening rise	3658 Jan 29 16:49	18°♄35'35	
retrograde	3657 Mar 13 15:37	8°♅42'37			3658 Feb 05 15:51	0°♄	
evening set	3657 Mar 16 12:36	8°♅00'09		asc. node	3658 Feb 17 23:35	17°♄56'07	
inferior conj	3657 Mar 22 16:21	2°♅45'17	3°34'51	evening max el	3658 Feb 18 17:19	18°♄42'51	18°32'16
minimum elong	3657 Mar 22 17:17	2°♅42'48	3°34'47	retrograde	3658 Feb 25 06:31	22°♄18'53	
	3657 Mar 25 06:06	30°♄♄		evening set	3658 Feb 28 09:19	21°♄24'28	
min. Earth dist.	3657 Mar 25 09:35	29°♄51'00	0.62877 AU	inferior conj	3658 Mar 06 04:16	15°♄51'11	3°36'34
morning rise	3657 Mar 28 20:50	26°♄41'23		minimum elong	3658 Mar 06 03:34	15°♄53'16	3°36'31
direct	3657 Apr 04 18:29	24°♄03'50		min. Earth dist.	3658 Mar 08 06:03	13°♄23'38	0.64691 AU
desc. node	3657 Apr 09 08:18	25°♄04'31		morning rise	3658 Mar 11 21:14	9°♄40'47	

direct	3658 Mar 18 15:32	6° H 50'58		direct	3659 Mar 01 19:09	20° \approx 11'56	
desc. node	3658 Mar 27 05:19	10° H 22'26		desc. node	3659 Mar 14 02:20	27° \approx 18'43	
morning max el	3658 Apr 01 03:20	14° H 43'09	27°17'56	morning max el	3659 Mar 14 13:16	27° \approx 46'02	26°18'19
	3658 Apr 13 14:19	0° Y			3659 Mar 16 16:05	0° H	
	3658 May 02 01:30	0° B			3659 Apr 07 07:19	0° Y	
morning set	3658 May 06 13:01	8° B 29'16		morning set	3659 Apr 19 15:54	21° Y 31'21	
max. Earth dist.	3658 May 11 05:42	17° B 53'44	1.33618 AU	max. Earth dist.	3659 Apr 23 16:43	29° Y 14'35	1.35024 AU
					3659 Apr 24 01:59	0° B	
superior conj	3658 May 14 17:15	25° B 09'34	-0°23'10	superior conj	3659 Apr 28 14:35	9° B 04'59	-0°52'07
minimum elong	3658 May 14 18:26	25° B 15'51	0°22'55	minimum elong	3659 Apr 28 17:21	9° B 19'07	0°51'35
asc. node	3658 May 16 22:51	29° B 54'20		asc. node	3659 May 03 19:55	19° B 54'13	
	3658 May 16 23:55	0° II		evening rise	3659 May 06 07:51	25° B 05'11	
evening rise	3658 May 21 23:32	10° II 36'16			3659 May 08 17:42	0° II	
	3658 Jun 01 01:26	0° E		evening max el	3659 May 24 23:57	25° II 27'23	20°39'09
evening max el	3658 Jun 11 22:37	14° E 34'17	22°04'41		3659 May 31 12:55	0° E	
desc. node	3658 Jun 23 04:34	20° E 48'25		retrograde	3659 Jun 05 06:12	0° E 57'19	
retrograde	3658 Jun 24 17:06	20° E 53'47		evening set	3659 Jun 07 07:30	0° E 47'04	
evening set	3658 Jun 27 12:20	20° E 36'18		desc. node	3659 Jun 10 01:35	0° E 03'41	
min. Earth dist.	3658 Jul 06 03:45	16° E 53'53	0.55011 AU		3659 Jun 10 05:41	30° R II	
inferior conj	3658 Jul 06 20:11	16° E 30'50	-3°43'08	inferior conj	3659 Jun 16 13:51	26° II 49'38	-1°54'34
minimum elong	3658 Jul 06 11:45	16° E 42'40	3°40'50	minimum elong	3659 Jun 16 08:29	26° II 57'21	1°52'38
morning rise	3658 Jul 15 12:54	12° E 39'43		min. Earth dist.	3659 Jun 17 15:53	26° II 12'16	0.54921 AU
direct	3658 Jul 18 16:09	12° E 17'53		morning rise	3659 Jun 25 08:49	22° II 42'42	
morning max el	3658 Jul 30 12:43	17° E 50'04	21°31'02	direct	3659 Jun 29 01:39	22° II 13'10	
	3658 Aug 09 02:46	0° O		morning max el	3659 Jul 12 07:28	28° II 36'19	23°10'40
asc. node	3658 Aug 12 22:04	6° O 30'02			3659 Jul 13 17:36	0° E	
morning set	3658 Aug 19 22:33	20° O 18'39		asc. node	3659 Jul 30 19:08	25° E 49'02	
	3658 Aug 24 13:12	0° M			3659 Aug 01 21:27	0° O	
superior conj	3658 Aug 27 05:40	5° M 37'58	1°43'09	morning set	3659 Aug 04 09:43	5° O 12'14	
minimum elong	3658 Aug 27 04:49	5° M 33'36	1°43'08	superior conj	3659 Aug 11 11:03	20° O 19'40	1°35'51
max. Earth dist.	3658 Aug 31 06:31	13° M 53'56	1.35052 AU	minimum elong	3659 Aug 11 09:14	20° O 09'56	1°35'42
evening rise	3658 Sep 04 14:10	22° M 21'31		max. Earth dist.	3659 Aug 14 03:03	25° O 59'33	1.33686 AU
	3658 Sep 08 17:01	0° L			3659 Aug 16 01:14	0° M	
desc. node	3658 Sep 19 03:52	17° L 32'21		evening rise	3659 Aug 19 02:52	6° M 12'34	
	3658 Sep 27 17:16	0° M			3659 Sep 01 07:36	0° L	
evening max el	3658 Oct 09 21:21	14° M 19'07	26°43'35	desc. node	3659 Sep 06 00:55	7° L 21'18	
retrograde	3658 Oct 22 22:00	21° M 34'28		evening max el	3659 Sep 22 09:30	27° L 44'52	27°18'38
evening set	3658 Oct 29 12:36	18° M 54'15			3659 Sep 24 22:04	0° M	
min. Earth dist.	3658 Nov 02 13:25	14° M 48'38	0.65928 AU	retrograde	3659 Oct 05 21:01	5° M 03'23	
inferior conj	3658 Nov 04 08:37	12° M 41'13	-1°32'05	evening set	3659 Oct 12 21:21	2° M 22'02	
minimum elong	3658 Nov 04 11:09	12° M 33'43	1°31'02		3659 Oct 15 13:17	30° R L	
asc. node	3658 Nov 08 21:19	8° M 00'23		min. Earth dist.	3659 Oct 16 16:06	28° L 51'17	0.64559 AU
morning rise	3658 Nov 10 10:26	6° M 59'21		inferior conj	3659 Oct 18 23:29	26° L 21'57	-2°33'01
direct	3658 Nov 13 07:22	6° M 13'31		minimum elong	3659 Oct 19 03:45	26° L 10'25	2°31'25
morning max el	3658 Nov 19 21:18	9° M 48'09	18°23'25	morning rise	3659 Oct 25 11:18	20° L 54'14	
	3658 Dec 04 02:27	0° X		asc. node	3659 Oct 26 18:20	20° L 28'22	
morning set	3658 Dec 09 11:11	8° X 37'54		direct	3659 Oct 28 01:22	20° L 19'38	
desc. node	3658 Dec 16 03:06	19° X 18'28		morning max el	3659 Nov 03 13:18	23° L 46'13	17°58'05
	3658 Dec 22 21:14	0° Z			3659 Nov 08 13:34	0° M	
superior conj	3658 Dec 24 23:16	3° Z 16'40	-0°57'49	morning set	3659 Nov 20 22:39	20° M 05'24	
minimum elong	3658 Dec 24 16:05	2° Z 48'29	0°56'54		3659 Nov 26 20:53	0° X	
max. Earth dist.	3658 Dec 26 06:27	5° Z 19'03	1.45241 AU	desc. node	3659 Dec 03 00:10	10° X 02'31	
evening rise	3659 Jan 10 02:02	28° Z 33'33		superior conj	3659 Dec 04 11:21	12° X 24'11	-0°10'03
	3659 Jan 11 00:01	0° \approx		minimum elong	3659 Dec 04 10:08	12° X 19'21	0°09'52
greatest brilliancy	3659 Jan 20 11:40	14° \approx 51'47	-0.8m	behind sun begin	3659 Dec 04 01:50	11° X 45'56	
	3659 Jan 31 03:07	0° H		behind sun end	3659 Dec 04 18:27	12° X 52'43	
evening max el	3659 Feb 02 02:27	2° H 11'35	19°11'07	max. Earth dist.	3659 Dec 09 01:12	19° X 41'51	1.44804 AU
asc. node	3659 Feb 04 20:38	4° H 36'09			3659 Dec 15 15:01	0° Z	
retrograde	3659 Feb 09 02:19	6° H 10'41		evening rise	3659 Dec 20 16:55	7° Z 51'22	
evening set	3659 Feb 12 11:49	5° H 03'27		greatest brilliancy	3660 Jan 04 04:25	29° Z 47'23	-0.6m
	3659 Feb 17 10:32	30° R \approx			3660 Jan 04 07:51	0° \approx	
inferior conj	3659 Feb 18 00:58	29° \approx 13'59	3°23'12	evening max el	3660 Jan 16 07:02	15° \approx 43'01	20°05'41
minimum elong	3659 Feb 17 23:08	29° \approx 19'51	3°22'56	asc. node	3660 Jan 22 17:39	20° \approx 04'48	
min. Earth dist.	3659 Feb 19 11:29	27° \approx 23'31	0.66121 AU	retrograde	3660 Jan 24 00:13	20° \approx 13'38	
morning rise	3659 Feb 23 10:09	23° \approx 00'39					

evening set	3660 Jan 27 17:48	18°  52'30		asc. node	3661 Jan 08 14:40	4°  08'18	
inferior conj	3660 Feb 02 03:36	12°  49'19	2°58'15	evening set	3661 Jan 11 01:22	2°  47'40	
minimum elong	3660 Feb 02 01:11	12°  57'26	2°57'42		3661 Jan 13 19:26	30°  R 	
min. Earth dist.	3660 Feb 03 00:06	11°  40'18	0.67140 AU	inferior conj	3661 Jan 16 09:46	26°  33'42	2°24'06
morning rise	3660 Feb 07 08:21	6°  35'26		minimum elong	3661 Jan 16 07:17	26°  34'16	2°23'20
direct	3660 Feb 13 04:33	3°  58'48		min. Earth dist.	3661 Jan 16 17:40	26°  30'24	0.67751 AU
morning max el	3660 Feb 24 22:00	10°  59'25	24°59'14	morning rise	3661 Jan 21 13:01	20°  32'03	
desc. node	3660 Feb 28 23:23	15°  25'56		direct	3661 Jan 26 18:39	18°  30'47	
	3660 Mar 11 01:53	0°  X		morning max el	3661 Feb 06 06:39	24°  31'38	23°31'09
	3660 Mar 29 23:50	0°  Y			3661 Feb 11 08:39	0°  ~	
morning set	3660 Apr 01 01:30	3°  Y39'03		desc. node	3661 Feb 14 20:26	4°  ~23'46	
max. Earth dist.	3660 Apr 04 16:41	10°  Y15'00	1.36866 AU		3661 Mar 04 12:42	0°  X	
				morning set	3661 Mar 13 11:47	14°  X36'30	
superior conj	3660 Apr 11 02:10	22°  Y27'21	-1°20'09	max. Earth dist.	3661 Mar 17 11:46	21°  X29'58	1.38999 AU
minimum elong	3660 Apr 11 06:18	22°  Y47'38	1°19'31		3661 Mar 22 05:41	0°  Y	
	3660 Apr 14 21:13	0°  8		superior conj	3661 Mar 25 00:11	5°  Y07'24	-1°44'40
evening rise	3660 Apr 19 11:08	9°  813'44		minimum elong	3661 Mar 25 04:50	5°  Y29'12	1°44'11
asc. node	3660 Apr 19 16:59	9°  843'03		evening rise	3661 Apr 03 06:40	22°  Y55'07	
	3660 Apr 30 21:42	0°  II		asc. node	3661 Apr 06 14:01	29°  Y16'16	
evening max el	3660 May 06 13:29	7°  II00'19	19°31'08		3661 Apr 06 23:17	0°  8	
retrograde	3660 May 16 01:51	11°  II37'36		evening max el	3661 Apr 19 13:39	19°  812'22	18°43'01
evening set	3660 May 18 01:31	11°  II26'25		retrograde	3661 Apr 27 14:38	23°  808'41	
inferior conj	3660 May 26 16:59	7°  II21'36	0°04'08	evening set	3661 Apr 29 19:48	22°  851'51	
minimum elong	3660 May 26 17:09	7°  II21'19	0°04'03	inferior conj	3661 May 07 15:23	18°  829'15	1°42'33
transit middle	3660 May 26 17:09	7°  II21'19	0°04'03	minimum elong	3661 May 07 18:46	18°  822'56	1°41'30
transit begin	3660 May 26 13:23	7°  II27'21		min. Earth dist.	3661 May 10 22:52	16°  802'15	0.57438 AU
transit end	3660 May 26 20:56	7°  II15'16		desc. node	3661 May 13 19:38	14°  811'08	
desc. node	3660 May 26 22:37	7°  II12'34		morning rise	3661 May 15 14:33	13°  816'11	
min. Earth dist.	3660 May 29 05:56	5°  II44'29	0.55793 AU	direct	3661 May 21 04:40	11°  859'19	
morning rise	3660 Jun 04 06:04	2°  II43'13		morning max el	3661 Jun 04 13:11	19°  831'43	26°22'37
direct	3660 Jun 08 20:17	1°  II55'40			3661 Jun 13 10:33	0°  II	
morning max el	3660 Jun 22 21:32	9°  II00'39	24°53'03		3661 Jun 30 23:08	0°  ~	
	3660 Jul 08 11:45	0°  ~		morning set	3661 Jul 03 08:20	4°  ~56'42	
asc. node	3660 Jul 16 16:12	15°  ~28'41		asc. node	3661 Jul 03 13:17	5°  ~22'50	
morning set	3660 Jul 18 21:31	20°  ~06'37					
	3660 Jul 23 11:27	0°  Omega		superior conj	3661 Jul 10 07:53	20°  ~07'25	1°05'54
superior conj	3660 Jul 25 20:27	5°  Omega11'42	1°23'10	minimum elong	3661 Jul 10 05:36	19°  ~54'48	1°05'30
minimum elong	3660 Jul 25 18:10	4°  Omega59'10	1°22'51	max. Earth dist.	3661 Jul 10 18:01	21°  ~03'14	1.32193 AU
max. Earth dist.	3660 Jul 27 07:51	8°  Omega24'18	1.32736 AU		3661 Jul 14 20:21	0°  Omega	
evening rise	3660 Aug 02 01:12	20°  Omega30'53		evening rise	3661 Jul 17 06:12	5°  Omega07'13	
	3660 Aug 06 20:15	0°  ~			3661 Jul 30 12:01	0°  ~	
desc. node	3660 Aug 22 21:56	26°  ~35'53		desc. node	3661 Aug 09 18:56	15°  ~02'03	
	3660 Aug 25 09:55	0°  ~		evening max el	3661 Aug 17 00:53	23°  ~06'10	26°59'08
evening max el	3660 Sep 03 19:34	10°  ~44'59	27°25'15		3661 Aug 28 06:47	0°  ~	
retrograde	3660 Sep 17 13:25	18°  ~00'47		retrograde	3661 Aug 30 22:17	0°  ~17'51	
evening set	3660 Sep 24 18:04	15°  ~29'07			3661 Sep 02 12:39	30°  ~R 	
min. Earth dist.	3660 Sep 28 09:01	12°  ~28'45	0.62861 AU	evening set	3661 Sep 06 22:33	28°  ~08'17	
inferior conj	3660 Oct 01 04:11	9°  ~46'25	-3°32'11	min. Earth dist.	3661 Sep 10 15:07	25°  ~08'24	0.60900 AU
minimum elong	3660 Oct 01 09:46	9°  ~32'53	3°30'29	inferior conj	3661 Sep 13 19:26	22°  ~46'16	-4°24'15
morning rise	3660 Oct 08 02:59	4°  ~36'10		minimum elong	3661 Sep 14 01:06	22°  ~34'10	4°23'02
direct	3660 Oct 10 12:56	4°  ~09'13		morning rise	3661 Sep 21 05:28	17°  ~56'57	
asc. node	3660 Oct 12 15:23	4°  ~30'10		direct	3661 Sep 23 14:20	17°  ~34'38	
morning max el	3660 Oct 17 05:40	7°  ~35'44	17°50'25	asc. node	3661 Sep 29 12:27	20°  ~00'21	
	3660 Oct 31 21:21	0°  ~		morning max el	3661 Sep 30 19:18	21°  ~09'18	18°01'34
morning set	3660 Nov 02 09:46	2°  ~40'57			3661 Oct 07 12:12	0°  ~	
				morning set	3661 Oct 16 14:10	16°  ~05'49	
superior conj	3660 Nov 13 23:35	22°  ~43'22	0°33'36		3661 Oct 24 03:59	0°  ~	
minimum elong	3660 Nov 14 02:43	22°  ~56'33	0°33'09	superior conj	3661 Oct 26 14:19	4°  ~20'08	1°07'05
	3660 Nov 18 09:03	0°  ~X		minimum elong	3661 Oct 26 18:32	4°  ~38'48	1°06'33
desc. node	3660 Nov 18 21:14	0°  ~X49'42		max. Earth dist.	3661 Nov 03 05:19	17°  ~25'26	1.42019 AU
max. Earth dist.	3660 Nov 20 17:29	3°  ~X49'03	1.43684 AU	desc. node	3661 Nov 05 18:14	21°  ~36'36	
evening rise	3660 Nov 29 02:30	17°  ~X02'34		evening rise	3661 Nov 08 23:00	26°  ~46'37	
	3660 Dec 07 14:56	0°  ~Z			3661 Nov 10 23:48	0°  ~X	
evening max el	3660 Dec 29 06:12	29°  ~Z16'04	21°13'13		3661 Dec 01 09:52	0°  ~Z	
	3660 Dec 29 23:50	0°  ~		evening max el	3661 Dec 12 00:06	12°  ~Z50'24	22°29'37
retrograde	3661 Jan 06 21:58	4°  ~24'02					

retrograde	3661 Dec 21 17:54	18° ♄ 37'50		retrograde	3662 Dec 05 10:46	2° ♄ 51'58	
evening set	3661 Dec 26 08:50	16° ♄ 45'18		evening set	3662 Dec 10 14:39	0° ♄ 43'10	
asc. node	3661 Dec 26 11:42	16° ♄ 39'20			3662 Dec 11 09:36	30° ♄	
inferior conj	3661 Dec 31 17:26	10° ♄ 23'48	1°42'16	asc. node	3662 Dec 13 08:43	27° ♄ 49'31	
minimum elong	3661 Dec 31 15:22	10° ♄ 31'00	1°41'31	min. Earth dist.	3662 Dec 15 10:27	25° ♄ 07'03	0.67852 AU
min. Earth dist.	3661 Dec 31 13:52	10° ♄ 36'12	0.67979 AU	inferior conj	3662 Dec 16 00:51	24° ♄ 18'04	0°54'01
morning rise	3662 Jan 05 21:47	4° ♄ 14'02		minimum elong	3662 Dec 15 23:37	24° ♄ 22'16	0°53'31
direct	3662 Jan 10 12:34	2° ♄ 19'29		morning rise	3662 Dec 21 08:35	18° ♄ 12'52	
morning max el	3662 Jan 19 18:30	7° ♄ 45'06	22°03'33	direct	3662 Dec 25 09:22	16° ♄ 41'05	
desc. node	3662 Feb 01 17:27	23° ♄ 57'18		morning max el	3663 Jan 02 12:55	21° ♄ 22'35	20°43'54
	3662 Feb 05 22:54	0° ♄			3663 Jan 09 18:20	0° ♄	
morning set	3662 Feb 21 17:34	24° ♄ 11'32		desc. node	3663 Jan 19 14:28	13° ♄ 56'56	
	3662 Feb 25 07:02	0° ♄			3663 Jan 30 05:02	0° ♄	
max. Earth dist.	3662 Feb 27 09:51	3° ♄ 31'19	1.41156 AU	morning set	3663 Jan 31 21:36	2° ♄ 37'17	
				max. Earth dist.	3663 Feb 09 14:42	16° ♄ 26'52	1.43050 AU
superior conj	3662 Mar 07 03:47	16° ♄ 52'39	-2°01'56				
minimum elong	3662 Mar 07 07:05	17° ♄ 07'15	2°01'46	superior conj	3663 Feb 16 07:58	27° ♄ 31'54	-2°06'59
	3662 Mar 14 09:21	0° ♄		minimum elong	3663 Feb 16 07:01	27° ♄ 27'55	2°06'58
evening rise	3662 Mar 17 15:00	6° ♄ 00'24			3663 Feb 17 19:04	0° ♄	
asc. node	3662 Mar 24 11:02	18° ♄ 27'39		evening rise	3663 Feb 28 08:02	18° ♄ 20'37	
	3662 Apr 01 02:37	0° ♄			3663 Mar 06 23:11	0° ♄	
evening max el	3662 Apr 02 21:12	1° ♄ 55'19	18°15'06	asc. node	3663 Mar 11 08:03	7° ♄ 10'06	
retrograde	3662 Apr 09 22:29	5° ♄ 27'11		evening max el	3663 Mar 17 08:50	15° ♄ 00'26	18°06'56
evening set	3662 Apr 12 10:06	5° ♄ 01'46		retrograde	3663 Mar 23 21:52	18° ♄ 23'22	
inferior conj	3662 Apr 19 11:15	0° ♄ 18'27	2°48'52	evening set	3663 Mar 26 15:26	17° ♄ 47'36	
minimum elong	3662 Apr 19 14:44	0° ♄ 10'50	2°48'06	inferior conj	3663 Apr 02 01:52	12° ♄ 44'01	3°25'07
	3662 Apr 19 19:40	30° ♄		minimum elong	3663 Apr 02 03:51	12° ♄ 39'04	3°24'53
min. Earth dist.	3662 Apr 22 21:01	27° ♄ 21'28	0.59518 AU	min. Earth dist.	3663 Apr 05 02:57	9° ♄ 41'52	0.61692 AU
morning rise	3662 Apr 26 16:46	24° ♄ 37'39		morning rise	3663 Apr 08 14:35	6° ♄ 45'52	
desc. node	3662 Apr 30 16:39	23° ♄ 01'06		direct	3663 Apr 15 10:21	4° ♄ 21'34	
direct	3662 May 03 01:59	22° ♄ 45'24		desc. node	3663 Apr 17 13:40	4° ♄ 34'46	
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morning max el	3662 May 17 10:40	0° ♄ 34'33	27°24'47		3663 May 13 14:34	0° ♄	
	3662 Jun 07 12:14	0° ♄			3663 May 30 20:11	0° ♄	
morning set	3662 Jun 17 16:28	19° ♄ 37'04		morning set	3663 Jun 01 20:00	4° ♄ 01'11	
asc. node	3662 Jun 20 10:19	25° ♄ 26'06		asc. node	3663 Jun 07 07:21	15° ♄ 33'48	
	3662 Jun 22 12:48	0° ♄		max. Earth dist.	3663 Jun 07 15:27	16° ♄ 17'43	1.32313 AU
max. Earth dist.	3662 Jun 24 05:54	3° ♄ 45'31	1.32049 AU				
superior conj	3662 Jun 24 19:35	5° ♄ 00'55	0°44'42	superior conj	3663 Jun 09 05:49	19° ♄ 46'27	0°20'14
minimum elong	3662 Jun 24 17:46	4° ♄ 50'53	0°44'21	minimum elong	3663 Jun 09 04:53	19° ♄ 41'24	0°20'02
evening rise	3662 Jul 01 15:26	19° ♄ 53'49			3663 Jun 13 22:06	0° ♄	
	3662 Jul 06 13:56	0° ♄		evening rise	3663 Jun 16 02:52	4° ♄ 43'40	
	3662 Jul 25 13:57	0° ♄			3663 Jun 29 13:02	0° ♄	
desc. node	3662 Jul 27 15:56	2° ♄ 20'04		evening max el	3663 Jul 11 14:06	15° ♄ 27'22	24°35'56
evening max el	3662 Jul 29 22:59	4° ♄ 39'16	26°00'23	desc. node	3663 Jul 14 12:57	18° ♄ 02'05	
retrograde	3662 Aug 12 22:23	11° ♄ 47'54		retrograde	3663 Jul 25 11:50	22° ♄ 29'10	
evening set	3662 Aug 19 06:01	10° ♄ 11'49		evening set	3663 Jul 30 13:16	21° ♄ 31'33	
min. Earth dist.	3662 Aug 23 11:26	7° ♄ 36'04	0.58825 AU	min. Earth dist.	3663 Aug 05 01:15	18° ♄ 40'55	0.56903 AU
inferior conj	3662 Aug 26 17:39	5° ♄ 11'46	-5°00'15	inferior conj	3663 Aug 07 19:58	16° ♄ 53'35	-5°06'39
minimum elong	3662 Aug 26 21:00	5° ♄ 05'33	4°59'56	minimum elong	3663 Aug 07 18:07	16° ♄ 56'35	5°06'34
morning rise	3662 Sep 03 14:12	0° ♄ 45'41		morning rise	3663 Aug 16 01:34	12° ♄ 48'59	
direct	3662 Sep 06 00:57	0° ♄ 25'48		direct	3663 Aug 18 16:49	12° ♄ 29'51	
morning max el	3662 Sep 14 03:01	4° ♄ 18'19	18°32'56	morning max el	3663 Aug 28 01:33	16° ♄ 52'17	19°25'39
asc. node	3662 Sep 16 09:30	6° ♄ 45'05		asc. node	3663 Sep 03 06:33	24° ♄ 28'26	
morning set	3662 Sep 30 06:47	0° ♄ 05'43			3663 Sep 06 16:33	0° ♄	
	3662 Sep 30 05:36	0° ♄		morning set	3663 Sep 14 07:47	14° ♄ 29'12	
superior conj	3662 Oct 09 03:21	17° ♄ 02'49	1°29'14	superior conj	3663 Sep 22 09:03	0° ♄ 34'12	1°41'11
minimum elong	3662 Oct 09 06:37	17° ♄ 18'00	1°28'57	minimum elong	3663 Sep 22 10:37	0° ♄ 41'54	1°41'08
	3662 Oct 16 07:34	0° ♄			3663 Sep 22 02:04	0° ♄	
max. Earth dist.	3662 Oct 16 12:01	0° ♄ 19'26	1.40015 AU	max. Earth dist.	3663 Sep 28 16:01	12° ♄ 31'35	1.37931 AU
evening rise	3662 Oct 20 16:57	7° ♄ 30'09		evening rise	3663 Oct 02 10:13	19° ♄ 17'44	
desc. node	3662 Oct 23 15:14	12° ♄ 20'09			3663 Oct 08 17:06	0° ♄	
	3662 Nov 04 01:03	0° ♄		desc. node	3663 Oct 10 12:16	2° ♄ 55'39	
evening max el	3662 Nov 24 14:11	26° ♄ 27'54	23°49'29		3663 Oct 29 05:07	0° ♄	
	3662 Nov 28 14:13	0° ♄		evening max el	3663 Nov 07 02:33	10° ♄ 08'45	25°06'27
				retrograde	3663 Nov 18 23:31	17° ♄ 01'17	

evening set	3663 Nov 24 17:09	14° ♊ 37'33		max. Earth dist.	3664 Sep 09 23:26	24° ♎ 23'55	1.36016 AU
min. Earth dist.	3663 Nov 29 05:05	9° ♊ 35'30	0.67375 AU		3664 Sep 12 21:38	0° ♎	
inferior conj	3663 Nov 30 06:13	8° ♊ 13'18	0°00'24	evening rise	3664 Sep 13 23:48	2° ♎ 02'19	
minimum elong	3663 Nov 30 06:12	8° ♊ 13'20	0°00'23	desc. node	3664 Sep 26 09:18	23° ♎ 18'11	
transit middle	3663 Nov 30 06:12	8° ♊ 13'20	0°00'23		3664 Sep 30 17:58	0° ♎	
transit begin	3663 Nov 30 03:25	8° ♊ 22'25		evening max el	3664 Oct 19 15:01	23° ♎ 50'38	26°13'04
transit end	3663 Nov 30 08:58	8° ♊ 04'16			3664 Oct 27 23:56	0° ♊	
asc. node	3663 Nov 30 05:45	8° ♊ 14'49		retrograde	3664 Nov 01 07:17	1° ♊ 00'18	
morning rise	3663 Dec 05 19:28	2° ♊ 14'53			3664 Nov 05 06:29	30° ♎	
direct	3663 Dec 09 07:49	1° ♊ 03'37		evening set	3664 Nov 07 14:32	28° ♎ 24'51	
morning max el	3663 Dec 16 15:10	5° ♊ 10'48	19°37'04	min. Earth dist.	3664 Nov 11 19:22	23° ♎ 58'13	0.66556 AU
greatest brilliancy	3663 Dec 29 18:30	22° ♊ 34'43	-0.7m	inferior conj	3664 Nov 13 07:39	22° ♎ 06'21	-0°57'26
	3664 Jan 03 16:41	0° ♊		minimum elong	3664 Nov 13 09:12	22° ♎ 01'36	0°56'47
desc. node	3664 Jan 06 11:30	4° ♊ 15'12		asc. node	3664 Nov 16 02:48	18° ♎ 50'40	
morning set	3664 Jan 10 18:10	10° ♊ 50'15		morning rise	3664 Nov 19 04:21	16° ♎ 17'21	
max. Earth dist.	3664 Jan 23 02:33	0° ♊ 08'20	1.44438 AU	direct	3664 Nov 22 06:19	15° ♎ 23'14	
	3664 Jan 23 00:27	0° ♊		morning max el	3664 Nov 29 00:32	19° ♎ 06'51	18°45'34
					3664 Dec 07 10:33	0° ♊	
superior conj	3664 Jan 27 10:16	7° ♊ 02'13	-1°54'38	morning set	3664 Dec 20 08:14	20° ♊ 01'54	
minimum elong	3664 Jan 27 03:25	6° ♊ 34'41	1°54'12	desc. node	3664 Dec 23 08:33	24° ♊ 46'43	
evening rise	3664 Feb 10 05:25	29° ♊ 47'27			3664 Dec 26 16:14	0° ♊	
	3664 Feb 10 08:24	0° ♋		max. Earth dist.	3665 Jan 04 19:52	14° ♊ 21'44	1.45164 AU
asc. node	3664 Feb 26 05:04	25° ♋ 14'42					
evening max el	3664 Feb 28 21:34	28° ♋ 20'01	18°17'48	superior conj	3665 Jan 05 16:29	15° ♊ 42'42	-1°22'56
	3664 Mar 01 18:44	0° ♋		minimum elong	3665 Jan 05 07:24	15° ♊ 07'02	1°21'57
retrograde	3664 Mar 06 08:13	1° ♋ 47'40			3665 Jan 14 17:37	0° ♋	
evening set	3664 Mar 09 07:32	1° ♋ 00'23		evening rise	3665 Jan 21 03:52	10° ♋ 16'48	
	3664 Mar 10 20:59	30° ♋		greatest brilliancy	3665 Jan 28 02:00	21° ♋ 25'02	-0.9m
inferior conj	3664 Mar 15 07:10	25° ♋ 37'43	3°37'41		3665 Feb 02 12:50	0° ♋	
minimum elong	3664 Mar 15 07:21	25° ♋ 37'12	3°37'40	evening max el	3665 Feb 11 08:44	11° ♋ 47'19	18°46'46
min. Earth dist.	3664 Mar 17 18:06	22° ♋ 52'40	0.63692 AU	asc. node	3665 Feb 12 02:05	12° ♋ 29'48	
morning rise	3664 Mar 21 06:16	19° ♋ 30'24		retrograde	3665 Feb 18 01:28	15° ♋ 31'33	
direct	3664 Mar 28 03:27	16° ♋ 45'30		evening set	3665 Feb 21 07:03	14° ♋ 31'46	
desc. node	3664 Apr 03 10:42	18° ♋ 40'46		inferior conj	3665 Feb 26 23:13	8° ♋ 51'34	3°32'28
morning max el	3664 Apr 10 22:34	24° ♋ 43'01	27°39'37	minimum elong	3665 Feb 26 21:58	8° ♋ 55'24	3°32'21
	3664 Apr 15 17:44	0° ♋		min. Earth dist.	3665 Feb 28 18:27	6° ♋ 38'51	0.65357 AU
	3664 May 06 00:25	0° ♌		morning rise	3665 Mar 04 12:28	2° ♋ 39'48	
morning set	3664 May 15 16:35	18° ♌ 01'51			3665 Mar 09 09:40	30° ♋	
max. Earth dist.	3664 May 20 18:51	28° ♌ 27'55	1.33008 AU	direct	3665 Mar 11 03:34	29° ♋ 48'45	
	3664 May 21 12:18	0° ♌			3665 Mar 12 22:55	0° ♋	
				desc. node	3665 Mar 21 07:45	4° ♋ 44'35	
superior conj	3664 May 23 12:48	4° ♌ 18'27	-0°06'49	morning max el	3665 Mar 24 08:21	7° ♋ 34'32	26°55'29
minimum elong	3664 May 23 13:08	4° ♌ 20'15	0°06'44		3665 Apr 10 17:32	0° ♋	
behind sun begin	3664 May 23 08:16	3° ♌ 54'08			3665 Apr 28 08:32	0° ♌	
behind sun end	3664 May 23 18:01	4° ♌ 46'23		morning set	3665 Apr 29 03:02	1° ♌ 28'15	
asc. node	3664 May 24 04:23	5° ♌ 42'05		max. Earth dist.	3665 May 03 12:25	10° ♌ 06'27	1.34162 AU
evening rise	3664 May 30 14:37	19° ♌ 30'59					
	3664 Jun 04 17:52	0° ♍		superior conj	3665 May 07 14:22	18° ♌ 29'14	-0°35'25
evening max el	3664 Jun 22 03:29	25° ♍ 53'35	22°59'32	minimum elong	3665 May 07 16:13	18° ♌ 38'55	0°35'03
	3664 Jun 27 07:10	0° ♍		asc. node	3665 May 11 01:25	25° ♌ 46'05	
desc. node	3664 Jun 30 09:58	1° ♍ 34'16			3665 May 13 01:27	0° ♌	
retrograde	3664 Jul 05 12:39	2° ♍ 33'53		evening rise	3665 May 15 00:46	4° ♌ 08'21	
evening set	3664 Jul 09 01:32	2° ♍ 06'30			3665 May 29 10:43	0° ♍	
	3664 Jul 14 07:18	30° ♍		evening max el	3665 Jun 03 22:40	6° ♍ 28'45	21°26'28
min. Earth dist.	3664 Jul 16 12:27	28° ♍ 46'40	0.55481 AU	retrograde	3665 Jun 16 02:52	12° ♍ 27'54	
inferior conj	3664 Jul 18 03:00	27° ♍ 50'52	-4°28'19	desc. node	3665 Jun 17 07:00	12° ♍ 24'43	
minimum elong	3664 Jul 17 19:41	28° ♍ 01'30	4°26'53	evening set	3665 Jun 18 12:20	12° ♍ 14'48	
morning rise	3664 Jul 26 16:08	23° ♍ 58'55		inferior conj	3665 Jun 27 21:39	8° ♍ 15'03	-3°00'35
direct	3664 Jul 29 14:12	23° ♍ 38'45		minimum elong	3665 Jun 27 13:50	8° ♍ 25'58	2°58'07
morning max el	3664 Aug 09 12:36	28° ♍ 43'23	20°39'41	min. Earth dist.	3665 Jun 27 23:28	8° ♍ 12'30	0.54859 AU
	3664 Aug 10 19:51	0° ♍		morning rise	3665 Jul 06 16:05	4° ♍ 19'41	
asc. node	3664 Aug 20 03:37	12° ♍ 57'23		direct	3665 Jul 10 00:32	3° ♍ 55'18	
morning set	3664 Aug 28 14:23	29° ♍ 08'59		morning max el	3665 Jul 22 12:11	9° ♍ 49'22	22°12'12
	3664 Aug 29 00:18	0° ♎			3665 Aug 05 22:41	0° ♍	
				asc. node	3665 Aug 07 00:40	2° ♍ 00'26	
superior conj	3664 Sep 05 02:41	14° ♎ 40'52	1°44'32	morning set	3665 Aug 13 00:23	13° ♍ 58'46	
minimum elong	3664 Sep 05 02:37	14° ♎ 40'34	1°44'33				

































































































































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minimum elong	3665 Aug 20 03:15	29°♎04'49	1°40'42	minimum elong	3666 Aug 04 09:48	13°♎46'57	1°30'50
	3665 Aug 20 13:44	0°♎		max. Earth dist.	3666 Aug 06 15:23	18°♎34'59	1.33230 AU
max. Earth dist.	3665 Aug 23 14:57	6°♎20'51	1.34424 AU	evening rise	3666 Aug 11 22:23	29°♎35'04	
evening rise	3665 Aug 28 05:14	15°♎31'52			3666 Aug 12 03:21	0°♎	
	3665 Sep 05 02:04	0°♎			3666 Aug 29 03:45	0°♎	
desc. node	3665 Sep 13 06:21	13°♎21'33		desc. node	3666 Aug 31 03:22	2°♎57'08	
	3665 Sep 25 08:16	0°♎		evening max el	3666 Sep 14 15:08	20°♎41'32	27°25'17
evening max el	3665 Oct 02 03:40	7°♎25'40	27°01'43	retrograde	3666 Sep 28 05:26	27°♎58'58	
retrograde	3665 Oct 15 09:23	14°♎42'28		evening set	3666 Oct 05 08:41	25°♎20'05	
evening set	3665 Oct 22 04:39	12°♎00'55		min. Earth dist.	3666 Oct 09 01:20	22°♎03'27	0.63873 AU
min. Earth dist.	3665 Oct 26 02:52	8°♎10'18	0.65387 AU	inferior conj	3666 Oct 11 13:58	19°♎27'13	-2°58'38
inferior conj	3665 Oct 28 03:05	5°♎53'04	-1°57'54	minimum elong	3666 Oct 11 18:53	19°♎14'31	2°56'54
minimum elong	3665 Oct 28 06:22	5°♎43'42	1°56'35	morning rise	3666 Oct 18 06:22	14°♎06'45	
asc. node	3665 Nov 02 23:51	0°♎28'31		direct	3666 Oct 20 18:27	13°♎35'44	
morning rise	3665 Nov 03 08:58	0°♎16'37		asc. node	3666 Oct 20 20:55	13°♎35'47	
	3665 Nov 04 00:14	30°♎		morning max el	3666 Oct 27 07:24	17°♎00'57	17°52'42
direct	3665 Nov 06 02:46	29°♎35'52			3666 Nov 05 14:48	0°♎	
	3665 Nov 08 05:44	0°♎		morning set	3666 Nov 13 01:44	12°♎40'40	
morning max el	3665 Nov 12 14:52	3°♎05'50	18°10'33		3666 Nov 23 07:32	0°♎	
	3665 Nov 30 17:11	0°♎					
morning set	3665 Dec 01 03:27	0°♎42'08		superior conj	3666 Nov 25 17:37	3°♎58'36	0°09'29
desc. node	3665 Dec 10 05:36	15°♎27'22		minimum elong	3666 Nov 25 18:40	4°♎02'52	0°09'20
				behind sun begin	3666 Nov 25 10:32	3°♎29'36	
superior conj	3665 Dec 15 20:20	24°♎23'33	-0°37'41	behind sun end	3666 Nov 26 02:48	4°♎36'04	
minimum elong	3665 Dec 15 15:34	24°♎04'42	0°37'02	desc. node	3666 Nov 27 02:38	6°♎12'57	
max. Earth dist.	3665 Dec 18 15:34	28°♎48'34	1.45147 AU	max. Earth dist.	3666 Dec 01 09:56	13°♎07'58	1.44400 AU
	3665 Dec 19 09:45	0°♎		evening rise	3666 Dec 11 14:55	29°♎05'29	
evening rise	3666 Jan 01 04:19	19°♎55'40			3666 Dec 12 05:07	0°♎	
	3666 Jan 07 16:11	0°♎			3667 Jan 01 12:47	0°♎	
greatest brilliancy	3666 Jan 13 13:57	9°♎02'37	-0.7m	evening max el	3667 Jan 08 18:27	8°♎49'56	20°32'57
evening max el	3666 Jan 25 16:12	25°♎18'18	19°32'30	retrograde	3667 Jan 16 20:39	13°♎36'08	
asc. node	3666 Jan 29 23:08	28°♎42'05		asc. node	3667 Jan 16 20:11	13°♎36'08	
retrograde	3666 Feb 01 22:29	29°♎29'31		evening set	3667 Jan 20 18:13	12°♎08'30	
evening set	3666 Feb 05 11:20	28°♎16'18		inferior conj	3667 Jan 26 03:10	6°♎00'05	2°44'47
inferior conj	3666 Feb 10 22:47	22°♎20'36	3°13'51	minimum elong	3667 Jan 26 00:41	6°♎08'37	2°44'08
minimum elong	3666 Feb 10 20:38	22°♎27'38	3°13'28	min. Earth dist.	3667 Jan 26 18:04	5°♎09'14	0.67446 AU
min. Earth dist.	3666 Feb 12 03:05	20°♎47'51	0.66612 AU	morning rise	3667 Jan 31 06:57	29°♎46'29	
morning rise	3666 Feb 16 05:44	16°♎07'03			3667 Jan 31 01:06	30°♎	
direct	3666 Feb 22 09:38	13°♎22'35		direct	3667 Feb 05 20:56	27°♎17'46	
morning max el	3666 Mar 06 17:49	20°♎43'18	25°46'27		3667 Feb 12 13:30	0°♎	
desc. node	3666 Mar 08 04:47	22°♎14'22		morning max el	3667 Feb 17 02:28	4°♎00'06	24°22'20
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	3666 Apr 03 21:39	0°♎			3667 Mar 09 00:51	0°♎	
morning set	3666 Apr 11 23:13	14°♎08'59		morning set	3667 Mar 24 23:43	25°♎49'05	
max. Earth dist.	3666 Apr 15 18:40	21°♎17'14	1.35773 AU		3667 Mar 27 08:36	0°♎	
	3666 Apr 20 05:40	0°♎		max. Earth dist.	3667 Mar 28 15:59	2°♎20'58	1.37755 AU
superior conj	3666 Apr 21 07:58	2°♎11'47	-1°04'14	superior conj	3667 Apr 04 14:17	15°♎17'22	-1°31'10
minimum elong	3666 Apr 21 11:22	2°♎28'53	1°03'39	minimum elong	3667 Apr 04 18:47	15°♎39'06	1°30'34
asc. node	3666 Apr 27 22:27	15°♎41'51			3667 Apr 12 01:47	0°♎	
evening rise	3666 Apr 29 07:16	18°♎29'47		evening rise	3667 Apr 13 07:39	2°♎28'05	
	3666 May 05 03:29	0°♎		asc. node	3667 Apr 14 19:30	5°♎24'51	
evening max el	3666 May 17 05:03	17°♎37'24	20°07'40	evening max el	3667 Apr 29 23:22	29°♎27'35	19°08'05
retrograde	3666 May 27 17:07	22°♎44'21			3667 Apr 30 13:08	0°♎	
evening set	3666 May 29 16:26	22°♎34'19		retrograde	3667 May 08 19:43	3°♎46'03	
desc. node	3666 Jun 04 04:01	20°♎36'13		evening set	3667 May 10 21:07	3°♎33'02	
inferior conj	3666 Jun 07 17:34	18°♎35'04	-1°03'14		3667 May 18 05:20	30°♎	
minimum elong	3666 Jun 07 14:36	18°♎39'28	1°02'08	inferior conj	3667 May 19 04:15	29°♎21'14	0°49'29
min. Earth dist.	3666 Jun 09 11:56	17°♎32'01	0.55189 AU	minimum elong	3667 May 19 06:13	29°♎17'53	0°48'49
morning rise	3666 Jun 16 11:13	14°♎16'25		min. Earth dist.	3667 May 22 03:09	27°♎21'00	0.56414 AU
direct	3666 Jun 20 12:23	13°♎40'49		desc. node	3667 May 22 01:01	27°♎24'31	
morning max el	3666 Jul 04 04:04	20°♎22'30	23°54'52	morning rise	3667 May 27 12:09	24°♎27'23	
	3666 Jul 12 08:40	0°♎		direct	3667 Jun 01 12:23	23°♎28'49	
asc. node	3666 Jul 24 21:43	21°♎28'53			3667 Jun 14 22:06	0°♎	
morning set	3666 Jul 28 12:00	28°♎53'06		morning max el	3667 Jun 15 18:24	0°♎47'32	25°33'45
	3666 Jul 29 00:38	0°♎			3667 Jul 06 02:30	0°♎	

asc. node	3667 Jul 11 18:46	11°☿15'43			3668 Jun 27 01:50	0°☿	
morning set	3667 Jul 12 23:35	13°☿46'57		asc. node	3668 Jun 27 15:48	1°☿14'16	
superior conj	3667 Jul 19 22:25	28°☿53'11	1°16'22	superior conj	3668 Jul 03 10:11	13°☿49'01	0°57'22
minimum elong	3667 Jul 19 20:04	28°☿40'18	1°16'00	minimum elong	3668 Jul 03 08:02	13°☿37'12	0°56'58
	3667 Jul 20 10:36	0°♊		max. Earth dist.	3668 Jul 03 10:00	13°☿48'03	1.32080 AU
max. Earth dist.	3667 Jul 20 22:51	1°♊07'04	1.32450 AU	evening rise	3668 Jul 10 06:58	28°☿44'06	
evening rise	3667 Jul 26 23:53	14°♊02'21			3668 Jul 10 21:25	0°♊	
	3667 Aug 04 04:47	0°♋			3668 Jul 27 12:51	0°♋	
desc. node	3667 Aug 18 00:22	21°♋53'32		desc. node	3668 Aug 03 21:22	9°♋53'39	
	3667 Aug 24 14:47	0°♌		evening max el	3668 Aug 09 01:39	15°♋27'08	26°37'54
evening max el	3667 Aug 27 23:16	3°♌25'59	27°18'14	retrograde	3668 Aug 23 00:34	22°♋38'04	
retrograde	3667 Sep 10 18:58	10°♌40'49		evening set	3668 Aug 29 19:11	20°♋41'43	
evening set	3667 Sep 17 23:04	8°♌16'35		min. Earth dist.	3668 Sep 02 15:28	18°♋05'34	0.60015 AU
min. Earth dist.	3667 Sep 21 13:34	5°♌26'49	0.62048 AU	inferior conj	3668 Sep 05 21:44	15°♋28'35	-4°42'12
inferior conj	3667 Sep 24 13:20	2°♌42'17	-3°55'36	minimum elong	3668 Sep 06 02:47	15°♋18'25	4°41'22
minimum elong	3667 Sep 24 19:11	2°♌28'52	3°54'01	morning rise	3668 Sep 13 12:25	10°♋48'58	
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morning rise	3667 Oct 01 17:00	27°♋40'55		morning max el	3668 Sep 23 10:36	14°♋09'25	18°12'20
direct	3667 Oct 04 02:01	27°♋16'22		asc. node	3668 Sep 23 15:00	14°♋20'10	
asc. node	3667 Oct 07 17:58	28°♋16'44			3668 Oct 04 06:27	0°♌	
	3667 Oct 10 03:38	0°♌		morning set	3668 Oct 09 07:00	9°♌19'46	
morning max el	3667 Oct 10 23:05	0°♌45'16	17°52'51	superior conj	3668 Oct 18 18:17	26°♌58'00	1°17'48
morning set	3667 Oct 26 20:53	25°♌38'56		minimum elong	3668 Oct 18 22:16	27°♌15'58	1°17'22
	3667 Oct 29 06:49	0°♍			3668 Oct 20 10:48	0°♍	
superior conj	3667 Nov 06 17:26	14°♍51'52	0°49'10	max. Earth dist.	3668 Oct 26 09:04	10°♍18'42	1.41192 AU
minimum elong	3667 Nov 06 21:23	15°♍08'49	0°48'38	desc. node	3668 Oct 30 20:41	17°♍46'14	
desc. node	3667 Nov 13 23:40	27°♍00'26		evening rise	3668 Oct 31 08:06	18°♍32'45	
max. Earth dist.	3667 Nov 14 00:05	27°♍02'09	1.43026 AU		3668 Nov 07 14:00	0°♎	
	3667 Nov 15 19:55	0°♎			3668 Nov 28 23:17	0°♎	
evening rise	3667 Nov 21 03:15	8°♎25'31		evening max el	3668 Dec 04 07:12	5°♎58'01	23°03'40
	3667 Dec 05 10:41	0°♏		retrograde	3668 Dec 14 12:41	12°♎01'49	
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retrograde	3667 Dec 31 17:56	27°♎47'57		asc. node	3668 Dec 20 14:13	8°♎53'51	
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inferior conj	3668 Jan 10 10:13	19°♎47'03	2°07'14	min. Earth dist.	3668 Dec 24 09:52	4°♎07'12	0.67962 AU
minimum elong	3668 Jan 10 07:51	19°♎55'15	2°06'26		3668 Dec 27 12:40	30°♎♎	
min. Earth dist.	3668 Jan 10 13:08	19°♎36'56	0.67888 AU	morning rise	3668 Dec 29 23:29	27°♎30'51	
morning rise	3668 Jan 15 13:36	13°♎35'10		direct	3669 Jan 03 08:12	25°♎45'55	
direct	3668 Jan 20 12:48	11°♎27'22			3669 Jan 11 04:54	0°♏	
morning max el	3668 Jan 30 12:03	17°♎21'56	22°53'18	morning max el	3669 Jan 12 02:13	0°♏51'55	21°28'19
desc. node	3668 Feb 09 22:51	29°♏59'19		desc. node	3669 Jan 26 19:53	19°♏44'59	
	3668 Feb 09 23:03	0°♐			3669 Feb 02 19:06	0°♐	
	3668 Mar 01 03:03	0°♑		morning set	3669 Feb 12 15:59	15°♐13'46	
morning set	3668 Mar 04 22:19	6°♑12'24		max. Earth dist.	3669 Feb 19 11:22	26°♐13'44	1.42005 AU
max. Earth dist.	3668 Mar 09 11:02	13°♑50'44	1.39925 AU		3669 Feb 21 17:50	0°♒	
superior conj	3668 Mar 17 05:04	27°♒35'21	-1°53'09	superior conj	3669 Feb 26 23:21	8°♒54'12	-2°05'54
minimum elong	3668 Mar 17 09:27	27°♒55'24	1°52'48	minimum elong	3669 Feb 27 01:13	9°♒02'17	2°05'51
	3668 Mar 18 12:33	0°♓		evening rise	3669 Mar 10 01:14	28°♒42'09	
evening rise	3668 Mar 26 22:52	15°♓55'03			3669 Mar 10 18:18	0°♓	
asc. node	3668 Mar 31 16:31	24°♓49'33		asc. node	3669 Mar 18 13:33	13°♓49'47	
	3668 Apr 03 14:13	0°♈		evening max el	3669 Mar 26 12:57	24°♓48'30	18°09'20
evening max el	3668 Apr 12 03:08	11°♈54'14	18°28'44	retrograde	3669 Apr 02 07:32	28°♓14'21	
retrograde	3668 Apr 19 16:40	15°♈38'04		evening set	3669 Apr 04 21:52	27°♓44'37	
evening set	3668 Apr 22 00:31	15°♈17'59		inferior conj	3669 Apr 11 16:17	22°♓52'44	3°07'32
inferior conj	3668 Apr 29 11:56	10°♈47'03	2°14'40	minimum elong	3669 Apr 11 19:13	22°♓45'54	3°07'00
minimum elong	3668 Apr 29 15:40	10°♈39'36	2°13'38	min. Earth dist.	3669 Apr 14 23:28	19°♓50'33	0.60452 AU
min. Earth dist.	3668 May 02 22:18	8°♈04'03	0.58288 AU	morning rise	3669 Apr 18 14:24	17°♓03'44	
morning rise	3668 May 07 03:43	5°♈20'45		desc. node	3669 Apr 24 19:03	14°♓57'13	
desc. node	3668 May 07 22:02	4°♈58'58		direct	3669 Apr 25 05:31	14°♓56'40	
direct	3668 May 13 02:54	3°♈48'43		morning max el	3669 May 09 12:20	22°♓50'01	27°40'23
morning max el	3668 May 27 12:16	11°♈30'15	26°53'00		3669 May 15 20:59	0°♉	
	3668 Jun 10 21:25	0°♉			3669 Jun 04 00:09	0°♉	
morning set	3668 Jun 26 09:28	28°♉33'42		morning set	3669 Jun 10 15:55	13°♉07'53	

asc. node	3669 Jun 14 12:50	21° Π 19'56		morning set	3670 May 25 16:49	27° \mathcal{B} 22'38	
max. Earth dist.	3669 Jun 16 21:22	26° Π 27'37	1.32118 AU		3670 May 26 23:41	0° Π	
superior conj	3669 Jun 17 21:30	28° Π 40'03	0°34'42	max. Earth dist.	3670 May 31 04:58	8° Π 52'27	1.32562 AU
minimum elong	3669 Jun 17 20:00	28° Π 31'51	0°34'24	asc. node	3670 Jun 01 09:53	11° Π 28'06	
	3669 Jun 18 12:02	0° \mathcal{C}		superior conj	3670 Jun 02 06:35	13° Π 20'11	0°09'03
evening rise	3669 Jun 24 17:24	13° \mathcal{C} 33'11		minimum elong	3670 Jun 02 06:09	13° Π 17'51	0°08'58
	3669 Jul 02 23:43	0° Ω		behind sun begin	3670 Jun 02 01:50	12° Π 54'23	
desc. node	3669 Jul 21 18:22	26° Ω 34'36		behind sun end	3670 Jun 02 10:29	13° Π 41'21	
evening max el	3669 Jul 21 20:47	26° Ω 40'25	25°26'53	evening rise	3670 Jun 09 05:14	28° Π 22'42	
	3669 Jul 25 19:41	0° \mathcal{M}			3670 Jun 09 23:37	0° \mathcal{C}	
retrograde	3669 Aug 04 20:13	3° \mathcal{M} 46'13			3670 Jun 27 02:45	0° Ω	
evening set	3669 Aug 10 16:22	2° \mathcal{M} 26'57		evening max el	3670 Jul 03 10:21	7° Ω 15'33	23°55'21
	3669 Aug 15 00:46	30° \mathcal{R} Ω		desc. node	3670 Jul 08 15:22	11° Ω 25'58	
min. Earth dist.	3669 Aug 15 08:42	29° Ω 46'48	0.57977 AU	retrograde	3670 Jul 17 03:59	14° Ω 10'01	
inferior conj	3669 Aug 18 11:44	27° Ω 36'25	-5°07'31	evening set	3670 Jul 21 14:12	13° Ω 26'48	
minimum elong	3669 Aug 18 13:11	27° Ω 33'53	5°07'28	min. Earth dist.	3670 Jul 27 20:41	10° Ω 25'30	0.56226 AU
morning rise	3669 Aug 26 12:17	23° Ω 19'33		inferior conj	3670 Jul 30 05:30	8° Ω 58'49	-4°56'33
direct	3669 Aug 29 00:44	23° Ω 00'05		minimum elong	3670 Jul 30 01:03	9° Ω 05'39	4°56'04
morning max el	3669 Sep 06 14:40	27° Ω 04'01	18°52'36	morning rise	3670 Aug 07 14:30	5° Ω 01'17	
	3669 Sep 09 07:29	0° \mathcal{M}		direct	3670 Aug 10 08:37	4° Ω 41'50	
asc. node	3669 Sep 10 12:03	1° \mathcal{M} 31'13		morning max el	3670 Aug 20 08:28	9° Ω 20'16	19°54'37
morning set	3669 Sep 23 03:35	23° \mathcal{M} 30'37		asc. node	3670 Aug 28 09:06	19° Ω 35'28	
	3669 Sep 26 10:45	0° $\underline{\Omega}$			3670 Sep 03 05:55	0° \mathcal{M}	
superior conj	3669 Oct 01 15:01	10° $\underline{\Omega}$ 02'35	1°35'28	morning set	3670 Sep 07 07:19	8° \mathcal{M} 02'25	
minimum elong	3669 Oct 01 17:35	10° $\underline{\Omega}$ 14'50	1°35'17	superior conj	3670 Sep 15 02:22	23° \mathcal{M} 50'55	1°43'35
max. Earth dist.	3669 Oct 08 14:21	22° $\underline{\Omega}$ 54'18	1.39130 AU	minimum elong	3670 Sep 15 03:12	23° \mathcal{M} 55'09	1°43'33
evening rise	3669 Oct 12 12:08	29° $\underline{\Omega}$ 43'40			3670 Sep 18 05:23	0° $\underline{\Omega}$	
	3669 Oct 12 15:58	0° \mathcal{M}		max. Earth dist.	3670 Sep 20 19:34	4° $\underline{\Omega}$ 57'13	1.37087 AU
desc. node	3669 Oct 17 17:42	8° \mathcal{M} 26'38		evening rise	3670 Sep 24 14:37	11° $\underline{\Omega}$ 56'59	
	3669 Oct 31 23:33	0° \mathcal{X}		desc. node	3670 Oct 04 14:44	28° $\underline{\Omega}$ 57'28	
evening max el	3669 Nov 16 20:28	19° \mathcal{X} 37'15	24°23'10		3670 Oct 05 06:25	0° \mathcal{M}	
retrograde	3669 Nov 28 03:43	26° \mathcal{X} 13'55			3670 Oct 27 04:12	0° \mathcal{X}	
evening set	3669 Dec 03 13:26	23° \mathcal{X} 58'37		evening max el	3670 Oct 30 08:45	3° \mathcal{X} 19'17	25°36'27
asc. node	3669 Dec 07 11:16	19° \mathcal{X} 38'20		retrograde	3670 Nov 11 14:20	10° \mathcal{X} 20'06	
min. Earth dist.	3669 Dec 08 05:51	18° \mathcal{X} 36'56	0.67691 AU	evening set	3670 Nov 17 14:01	7° \mathcal{X} 50'37	
inferior conj	3669 Dec 09 00:44	17° \mathcal{X} 33'37	0°31'52	min. Earth dist.	3670 Nov 21 22:49	3° \mathcal{X} 03'47	0.67074 AU
minimum elong	3669 Dec 08 23:59	17° \mathcal{X} 36'11	0°31'32	inferior conj	3670 Nov 23 04:41	1° \mathcal{X} 28'24	-0°23'42
morning rise	3669 Dec 14 10:34	11° \mathcal{X} 31'04		minimum elong	3670 Nov 23 05:17	1° \mathcal{X} 26'26	0°23'26
direct	3669 Dec 18 05:57	10° \mathcal{X} 08'10		asc. node	3670 Nov 24 08:18	0° \mathcal{X} 01'12	
morning max el	3669 Dec 25 23:50	14° \mathcal{X} 33'18	20°13'44		3670 Nov 24 08:41	30° \mathcal{R} \mathcal{M}	
	3670 Jan 07 00:18	0° \mathcal{Z}		morning rise	3670 Nov 28 20:54	25° \mathcal{M} 33'55	
desc. node	3670 Jan 13 16:55	9° \mathcal{Z} 52'59		direct	3670 Dec 02 04:37	24° \mathcal{M} 30'25	
morning set	3670 Jan 22 13:39	23° \mathcal{Z} 24'01		morning max el	3670 Dec 09 05:25	28° \mathcal{M} 25'55	19°13'15
	3670 Jan 26 19:26	0° \approx			3670 Dec 10 16:47	0° \mathcal{X}	
max. Earth dist.	3670 Feb 01 19:50	9° \approx 32'00	1.43714 AU	greatest brilliancy	3670 Dec 23 04:20	17° \mathcal{X} 20'37	-0.7m
					3670 Dec 31 09:28	0° \mathcal{Z}	
superior conj	3670 Feb 07 16:28	19° \approx 03'09	-2°04'08	desc. node	3670 Dec 31 13:59	0° \mathcal{Z} 17'34	
minimum elong	3670 Feb 07 12:59	18° \approx 48'48	2°04'00	morning set	3671 Jan 01 15:09	1° \mathcal{Z} 55'13	
	3670 Feb 14 05:31	0° \mathcal{H}		max. Earth dist.	3671 Jan 15 10:45	23° \mathcal{Z} 30'34	1.44836 AU
evening rise	3670 Feb 20 10:22	10° \mathcal{H} 39'57		superior conj	3671 Jan 18 08:43	28° \mathcal{Z} 07'14	-1°43'24
	3670 Mar 03 21:44	0° \mathcal{Y}		minimum elong	3671 Jan 18 00:06	27° \mathcal{Z} 33'05	1°42'41
asc. node	3670 Mar 05 10:35	2° \mathcal{Y} 17'01			3671 Jan 19 13:06	0° \approx	
evening max el	3670 Mar 10 01:25	8° \mathcal{Y} 00'16	18°09'18	evening rise	3671 Feb 01 22:17	21° \approx 42'23	
retrograde	3670 Mar 16 12:10	11° \mathcal{Y} 23'30			3671 Feb 06 22:44	0° \mathcal{H}	
evening set	3670 Mar 19 08:17	10° \mathcal{Y} 42'46		asc. node	3671 Feb 20 07:37	20° \mathcal{H} 01'34	
inferior conj	3670 Mar 25 13:38	5° \mathcal{Y} 30'39	3°32'56	evening max el	3671 Feb 21 13:42	21° \mathcal{H} 22'48	18°27'56
minimum elong	3670 Mar 25 14:50	5° \mathcal{Y} 27'28	3°32'51	retrograde	3671 Feb 28 02:02	24° \mathcal{H} 56'26	
min. Earth dist.	3670 Mar 28 08:57	2° \mathcal{Y} 33'48	0.62577 AU	evening set	3671 Mar 03 03:53	24° \mathcal{H} 03'56	
	3670 Mar 31 03:42	30° \mathcal{R} \mathcal{H}		inferior conj	3671 Mar 08 23:56	18° \mathcal{H} 33'17	3°37'19
morning rise	3670 Mar 31 20:08	29° \mathcal{H} 28'01		minimum elong	3671 Mar 08 23:27	18° \mathcal{H} 34'42	3°37'18
direct	3670 Apr 07 17:32	26° \mathcal{H} 53'37		min. Earth dist.	3671 Mar 11 04:06	16° \mathcal{H} 00'44	0.64444 AU
desc. node	3670 Apr 11 16:05	27° \mathcal{H} 38'36		morning rise	3671 Mar 14 18:22	12° \mathcal{H} 23'25	
	3670 Apr 16 01:30	0° \mathcal{Y}		direct	3671 Mar 21 13:33	9° \mathcal{H} 34'26	
morning max el	3670 Apr 21 18:13	4° \mathcal{Y} 51'33	27°50'32	desc. node	3671 Mar 29 13:08	12° \mathcal{H} 38'18	
	3670 May 10 15:04	0° \mathcal{B}					

morning max el	3671 Apr 04 03:34	17° X 28'38	27°24'33		3672 Mar 16 01:51	0° X	
	3671 Apr 14 14:37	0° Y		morning max el	3672 Mar 16 13:32	0° X 29'12	26°28'38
	3671 May 03 11:34	0° B			3672 Apr 07 14:05	0° Y	
morning set	3671 May 09 09:32	11° B 09'38		morning set	3672 Apr 21 14:33	24° Y 18'38	
max. Earth dist.	3671 May 14 04:45	20° B 50'11	1.33440 AU		3672 Apr 24 13:50	0° B	
				max. Earth dist.	3672 Apr 25 17:23	2° B 14'58	1.34783 AU
superior conj	3671 May 17 11:32	27° B 43'18	-0°18'49				
minimum elong	3671 May 17 12:29	27° B 48'23	0°18'37	superior conj	3672 Apr 30 10:04	11° B 43'03	-0°47'43
	3671 May 18 13:13	0° II		minimum elong	3672 Apr 30 12:36	11° B 56'03	0°47'15
asc. node	3671 May 19 06:56	1° II 34'36		asc. node	3672 May 05 03:58	21° B 35'32	
evening rise	3671 May 24 16:32	13° II 06'06		evening rise	3672 May 08 01:24	27° B 37'21	
	3671 Jun 02 07:09	0° B			3672 May 09 05:07	0° II	
evening max el	3671 Jun 15 01:02	17° B 40'38	22°18'42	evening max el	3672 May 27 00:41	28° II 28'29	20°50'55
desc. node	3671 Jun 25 12:23	23° B 52'16			3672 May 28 17:05	0° B	
retrograde	3671 Jun 27 23:59	24° B 06'31		retrograde	3672 Jun 07 12:58	4° B 06'08	
evening set	3671 Jun 30 23:19	23° B 46'57		evening set	3672 Jun 09 15:44	3° B 55'28	
min. Earth dist.	3671 Jul 09 07:26	20° B 10'51	0.55100 AU	desc. node	3672 Jun 11 09:24	3° B 31'44	
inferior conj	3671 Jul 10 05:56	19° B 39'03	-3°56'35	inferior conj	3672 Jun 18 23:22	29° II 58'05	-2°12'33
minimum elong	3671 Jul 09 21:35	19° B 50'52	3°54'29	minimum elong	3672 Jun 18 17:14	0° B 06'50	2°10'24
morning rise	3671 Jul 18 21:48	15° B 48'24			3672 Jun 18 22:02	30° R II	
direct	3671 Jul 21 23:30	15° B 27'11		min. Earth dist.	3672 Jun 19 19:19	29° II 29'43	0.54871 AU
morning max el	3671 Aug 02 14:33	20° B 52'08	21°17'13	morning rise	3672 Jun 27 18:24	25° II 54'40	
	3671 Aug 10 04:12	0° Q		direct	3672 Jul 01 08:51	25° II 26'42	
asc. node	3671 Aug 15 06:10	8° Q 19'56			3672 Jul 12 11:08	0° B	
morning set	3671 Aug 22 15:37	22° Q 47'11		morning max el	3672 Jul 14 10:23	1° B 42'44	22°55'17
	3671 Aug 26 02:22	0° P		asc. node	3672 Aug 01 03:14	27° B 34'48	
					3672 Aug 02 08:51	0° Q	
superior conj	3671 Aug 29 23:56	8° P 09'23	1°43'45	morning set	3672 Aug 06 02:31	7° Q 39'31	
minimum elong	3671 Aug 29 23:17	8° P 06'03	1°43'43				
max. Earth dist.	3671 Sep 03 05:53	16° P 48'12	1.35288 AU	superior conj	3672 Aug 13 04:28	22° Q 48'09	1°37'19
evening rise	3671 Sep 07 11:28	25° P 02'00		minimum elong	3672 Aug 13 02:46	22° Q 39'05	1°37'11
	3671 Sep 10 03:32	0° Q		max. Earth dist.	3672 Aug 16 01:02	28° Q 50'37	1.33865 AU
desc. node	3671 Sep 21 11:45	19° Q 12'37			3672 Aug 16 14:21	0° P	
	3671 Sep 28 18:36	0° M		evening rise	3672 Aug 20 22:23	8° P 47'31	
evening max el	3671 Oct 12 21:08	16° M 58'34	26°36'16		3672 Sep 01 14:50	0° Q	
retrograde	3671 Oct 25 19:53	24° M 13'02		desc. node	3672 Sep 07 08:45	9° Q 05'06	
evening set	3671 Nov 01 08:37	21° M 33'47			3672 Sep 23 22:20	0° M	
min. Earth dist.	3671 Nov 05 10:25	17° M 22'42	0.66103 AU	evening max el	3672 Sep 24 09:27	0° M 26'45	27°15'07
inferior conj	3671 Nov 07 03:49	15° M 19'04	-1°22'54	retrograde	3672 Oct 07 19:42	7° M 45'02	
minimum elong	3671 Nov 07 06:06	15° M 12'16	1°21'56	evening set	3672 Oct 14 18:49	5° M 03'25	
asc. node	3671 Nov 11 05:21	10° M 57'59		min. Earth dist.	3672 Oct 18 14:27	1° M 27'29	0.64785 AU
morning rise	3671 Nov 13 04:16	9° M 35'15			3672 Oct 19 22:34	30° R Q	
direct	3671 Nov 16 02:24	8° M 47'27		inferior conj	3672 Oct 20 19:57	29° Q 01'04	-2°23'50
morning max el	3671 Nov 22 17:17	12° M 24'15	18°28'36	minimum elong	3672 Oct 20 23:58	28° Q 50'03	2°22'18
	3671 Dec 05 08:53	0° X		morning rise	3672 Oct 27 06:10	23° Q 30'54	
morning set	3671 Dec 12 17:08	11° X 43'20		asc. node	3672 Oct 28 02:25	23° Q 11'32	
desc. node	3671 Dec 18 11:03	20° X 53'16		direct	3672 Oct 29 21:06	22° Q 54'51	
	3671 Dec 24 05:21	0° Z		morning max el	3672 Nov 05 08:53	26° Q 22'06	18°00'41
					3672 Nov 08 11:55	0° M	
superior conj	3671 Dec 28 11:17	6° Z 40'28	-1°04'45	morning set	3672 Nov 23 00:29	22° M 58'30	
minimum elong	3671 Dec 28 03:25	6° Z 09'36	1°03'47		3672 Nov 27 05:45	0° X	
max. Earth dist.	3671 Dec 29 05:04	7° Z 50'15	1.45246 AU	desc. node	3672 Dec 04 08:03	11° X 36'01	
	3672 Jan 12 07:28	0° Z					
evening rise	3672 Jan 13 10:53	1° Z 48'18		superior conj	3672 Dec 06 20:33	15° X 38'55	-0°17'13
greatest brilliancy	3672 Jan 23 02:17	17° Z 01'04	-0.8m	minimum elong	3672 Dec 06 18:27	15° X 30'28	0°16'55
	3672 Jan 31 21:32	0° X		max. Earth dist.	3672 Dec 11 00:01	22° X 13'50	1.44916 AU
evening max el	3672 Feb 04 23:26	4° X 51'30	19°04'17		3672 Dec 15 22:53	0° Z	
asc. node	3672 Feb 07 04:38	6° X 51'27		evening rise	3672 Dec 23 03:46	11° Z 10'02	
retrograde	3672 Feb 11 21:16	8° X 46'28			3673 Jan 04 12:06	0° Z	
evening set	3672 Feb 15 05:41	7° X 41'16		greatest brilliancy	3673 Jan 06 06:09	2° Z 36'20	-0.6m
inferior conj	3672 Feb 20 19:33	1° X 54'12	3°26'00	evening max el	3673 Jan 18 04:48	18° Z 22'46	19°56'41
minimum elong	3672 Feb 20 17:51	1° X 59'35	3°25'47	asc. node	3673 Jan 24 01:39	22° Z 31'57	
	3672 Feb 22 07:35	30° R Z		retrograde	3673 Jan 25 18:57	22° Z 48'02	
min. Earth dist.	3672 Feb 22 08:20	29° Z 57'39	0.65936 AU	evening set	3673 Jan 29 11:15	21° Z 28'59	
morning rise	3672 Feb 26 05:40	25° Z 41'09		inferior conj	3673 Feb 03 21:26	15° Z 27'46	3°02'40
direct	3672 Mar 03 16:24	22° Z 51'20		minimum elong	3673 Feb 03 19:04	15° Z 35'39	3°02'09
desc. node	3672 Mar 15 10:13	29° Z 21'59		min. Earth dist.	3673 Feb 04 19:55	14° Z 12'32	0.67018 AU

morning rise	3673 Feb 09 02:39	9° \approx 13'59		minimum elong	3674 Jan 19 00:42	29° \approx 19'22	2°29'03
direct	3673 Feb 15 00:59	6° \approx 34'59		min. Earth dist.	3674 Jan 19 12:51	28° \approx 37'30	0.67687 AU
morning max el	3673 Feb 26 22:20	13° \approx 41'06	25°11'49	morning rise	3674 Jan 24 06:30	22° \approx 57'55	
desc. node	3673 Mar 02 07:15	17° \approx 19'54		direct	3674 Jan 29 14:20	20° \approx 37'35	
	3673 Mar 12 04:24	0° \approx		morning max el	3674 Feb 09 06:51	26° \approx 59'29	23°44'27
	3673 Mar 31 09:20	0° \approx			3674 Feb 12 02:06	0° \approx	
morning set	3673 Apr 04 03:01	6° \approx 35'04		desc. node	3674 Feb 17 04:17	6° \approx 10'52	
max. Earth dist.	3673 Apr 07 18:44	13° \approx 16'39	1.36574 AU		3674 Mar 05 19:37	0° \approx	
				morning set	3674 Mar 16 17:08	17° \approx 43'43	
superior conj	3673 Apr 13 23:17	25° \approx 10'47	-1°16'03	max. Earth dist.	3674 Mar 20 14:19	24° \approx 28'13	1.38678 AU
minimum elong	3673 Apr 14 03:15	25° \approx 30'22	1°15'26		3674 Mar 23 16:22	0° \approx	
	3673 Apr 16 09:20	0° \approx					
evening rise	3673 Apr 22 05:34	11° \approx 49'13		superior conj	3674 Mar 27 23:33	7° \approx 57'34	-1°41'19
asc. node	3673 Apr 22 00:59	11° \approx 26'03		minimum elong	3674 Mar 28 04:14	8° \approx 19'36	1°40'48
	3673 May 01 23:11	0° \approx		evening rise	3674 Apr 06 02:26	25° \approx 35'04	
evening max el	3673 May 09 12:23	9° \approx 54'47	19°39'56		3674 Apr 08 09:06	0° \approx	
retrograde	3673 May 19 06:38	14° \approx 39'15		asc. node	3674 Apr 08 22:00	1° \approx 01'48	
evening set	3673 May 21 05:59	14° \approx 28'30		evening max el	3674 Apr 22 11:05	22° \approx 00'58	18°48'48
desc. node	3673 May 29 06:26	10° \approx 53'11		retrograde	3674 Apr 30 16:41	26° \approx 02'33	
inferior conj	3673 May 30 00:10	10° \approx 25'31	-0°13'04	evening set	3674 May 02 20:51	25° \approx 46'47	
minimum elong	3673 May 29 23:35	10° \approx 26'26	0°12'51	inferior conj	3674 May 10 19:24	21° \approx 26'57	1°29'40
transit middle	3673 May 29 23:35	10° \approx 26'26	0°12'51	minimum elong	3674 May 10 22:31	21° \approx 21'16	1°28'39
transit begin	3673 May 29 21:15	10° \approx 30'06		min. Earth dist.	3674 May 14 01:08	19° \approx 06'23	0.57160 AU
transit end	3673 May 30 01:55	10° \approx 22'46		desc. node	3674 May 16 03:27	17° \approx 44'14	
min. Earth dist.	3673 Jun 01 08:51	8° \approx 57'01	0.55613 AU	morning rise	3674 May 18 20:59	16° \approx 18'41	
morning rise	3673 Jun 07 14:44	5° \approx 52'34		direct	3674 May 24 07:34	15° \approx 06'55	
direct	3673 Jun 12 01:32	5° \approx 08'26		morning max el	3674 Jun 07 15:43	22° \approx 35'54	26°10'47
morning max el	3673 Jun 26 00:34	12° \approx 07'37	24°38'17		3674 Jun 14 05:27	0° \approx	
	3673 Jul 09 17:08	0° \approx			3674 Jul 02 10:55	0° \approx	
asc. node	3673 Jul 19 00:16	17° \approx 11'17		asc. node	3674 Jul 05 21:17	7° \approx 03'13	
morning set	3673 Jul 21 14:17	22° \approx 33'34		morning set	3674 Jul 06 01:20	7° \approx 24'29	
	3673 Jul 25 01:19	0° \approx					
superior conj	3673 Jul 28 13:22	7° \approx 38'27	1°25'23	superior conj	3674 Jul 13 00:36	22° \approx 33'44	1°08'46
minimum elong	3673 Jul 28 11:06	7° \approx 26'10	1°25'07	minimum elong	3674 Jul 12 22:17	22° \approx 20'58	1°08'24
max. Earth dist.	3673 Jul 30 04:47	11° \approx 12'22	1.32850 AU	max. Earth dist.	3674 Jul 13 14:25	23° \approx 49'47	1.32246 AU
evening rise	3673 Aug 04 19:27	23° \approx 01'49			3674 Jul 16 10:07	0° \approx	
	3673 Aug 08 07:29	0° \approx		evening rise	3674 Jul 19 23:36	7° \approx 35'41	
desc. node	3673 Aug 25 05:45	28° \approx 25'19			3674 Jul 31 18:33	0° \approx	
	3673 Aug 26 08:47	0° \approx		desc. node	3674 Aug 12 02:45	16° \approx 59'43	
evening max el	3673 Sep 06 20:03	13° \approx 31'34	27°26'21	evening max el	3674 Aug 20 02:09	25° \approx 58'43	27°05'10
retrograde	3673 Sep 20 13:01	20° \approx 47'34			3674 Aug 25 00:37	0° \approx	
evening set	3673 Sep 27 17:33	18° \approx 13'45		retrograde	3674 Sep 02 23:00	3° \approx 11'06	
min. Earth dist.	3673 Oct 01 08:51	15° \approx 09'24	0.63131 AU	evening set	3674 Sep 10 00:44	0° \approx 57'15	
inferior conj	3673 Oct 04 02:21	12° \approx 28'22	-3°23'34		3674 Sep 11 10:53	30° \approx 8'17	
minimum elong	3673 Oct 04 07:48	12° \approx 14'57	3°21'50	min. Earth dist.	3674 Sep 13 16:25	28° \approx 15'25	0.61200 AU
morning rise	3673 Oct 10 23:28	7° \approx 15'16		inferior conj	3674 Sep 16 19:47	25° \approx 32'08	-4°17'11
direct	3673 Oct 13 09:55	6° \approx 47'19		minimum elong	3674 Sep 17 01:34	25° \approx 19'33	4°15'52
asc. node	3673 Oct 14 23:29	6° \approx 59'08		morning rise	3674 Sep 24 04:12	20° \approx 39'41	
morning max el	3673 Oct 20 01:22	10° \approx 13'12	17°50'24	direct	3674 Sep 26 13:02	20° \approx 16'51	
	3673 Nov 02 06:16	0° \approx		asc. node	3674 Oct 01 20:31	22° \approx 16'38	
morning set	3673 Nov 05 08:31	5° \approx 25'19		morning max el	3674 Oct 03 15:39	23° \approx 49'36	17°58'45
					3674 Oct 08 14:41	0° \approx	
superior conj	3673 Nov 17 04:47	25° \approx 46'16	0°27'34	morning set	3674 Oct 19 10:43	18° \approx 43'45	
minimum elong	3673 Nov 17 07:29	25° \approx 57'32	0°27'11		3674 Oct 25 14:39	0° \approx	
	3673 Nov 19 18:09	0° \approx		superior conj	3674 Oct 29 15:49	7° \approx 12'13	1°02'42
desc. node	3673 Nov 21 05:04	2° \approx 22'42		minimum elong	3674 Oct 29 20:03	7° \approx 30'45	1°02'11
max. Earth dist.	3673 Nov 23 17:06	6° \approx 25'30	1.43890 AU	max. Earth dist.	3674 Nov 06 05:47	20° \approx 07'33	1.42292 AU
evening rise	3673 Dec 02 13:07	20° \approx 19'42		desc. node	3674 Nov 08 02:04	23° \approx 09'42	
	3673 Dec 08 21:14	0° \approx		evening rise	3674 Nov 12 07:07	29° \approx 56'30	
	3673 Dec 30 09:59	0° \approx			3674 Nov 12 08:00	0° \approx	
evening max el	3674 Jan 01 04:47	1° \approx 55'28	21°02'27		3674 Dec 02 11:38	0° \approx	
retrograde	3674 Jan 09 16:50	6° \approx 57'31		evening max el	3674 Dec 14 23:20	15° \approx 29'03	22°17'49
asc. node	3674 Jan 10 22:42	6° \approx 49'02		retrograde	3674 Dec 24 13:11	21° \approx 31'05	
evening set	3674 Jan 13 18:42	5° \approx 23'22		asc. node	3674 Dec 28 19:45	19° \approx 33'44	
	3674 Jan 18 12:51	30° \approx 8'23		evening set	3674 Dec 29 02:18	19° \approx 20'43	
inferior conj	3674 Jan 19 03:11	29° \approx 10'45	2°29'48	inferior conj	3675 Jan 03 10:46	12° \approx 59'58	1°49'04



































































































































minimum elong	3675 Jan 03 08:36	13°  07'28	1°48'17	min. Earth dist.	3675 Dec 18 05:33	27°  37'15	0.67891 AU
min. Earth dist.	3675 Jan 03 08:49	13°  06'45	0.67969 AU	inferior conj	3675 Dec 18 18:21	26°  53'33	1°01'43
morning rise	3675 Jan 08 14:47	6°  49'37		minimum elong	3675 Dec 18 16:57	26°  58'19	1°01'09
direct	3675 Jan 13 07:42	4°  51'43		morning rise	3675 Dec 24 01:26	20°  47'25	
morning max el	3675 Jan 22 18:05	10°  24'44	22°16'12	direct	3675 Dec 28 04:10	19°  12'19	
desc. node	3675 Feb 04 01:18	25°  39'28		morning max el	3676 Jan 05 11:21	24°  00'02	20°54'59
	3675 Feb 07 03:09	0°  ≈			3676 Jan 10 16:41	0°  ≈	
morning set	3675 Feb 25 03:20	27°  ≈31'05		desc. node	3676 Jan 21 22:21	15°  ≈35'27	
	3675 Feb 26 15:51	0°  ✕			3676 Jan 31 12:21	0°  ≈	
max. Earth dist.	3675 Mar 02 11:28	6°  ✕20'45	1.40844 AU	morning set	3676 Feb 04 10:26	6°  ≈04'20	
				max. Earth dist.	3676 Feb 12 14:54	19°  ≈06'58	1.42791 AU
superior conj	3675 Mar 10 06:13	19°  ✕51'23	-2°00'00		3676 Feb 19 04:31	0°  ✕	
minimum elong	3675 Mar 10 09:53	20°  ✕07'49	1°59'46				
	3675 Mar 15 19:53	0°  ∩		superior conj	3676 Feb 19 14:10	0°  ✕40'48	-2°07'14
evening rise	3675 Mar 20 12:41	8°  ∩46'12		minimum elong	3676 Feb 19 14:03	0°  ✕40'17	2°07'14
asc. node	3675 Mar 26 19:02	20°  ∩16'58		evening rise	3676 Mar 02 08:17	21°  ✕13'21	
	3675 Apr 01 20:06	0°  8			3676 Mar 07 06:44	0°  ∩	
evening max el	3675 Apr 05 17:45	4°  839'57	18°18'01	asc. node	3676 Mar 12 16:04	9°  ∩04'20	
retrograde	3675 Apr 12 21:56	8°  814'32		evening max el	3676 Mar 19 05:02	17°  ∩42'24	18°07'00
evening set	3675 Apr 15 08:31	7°  850'37		retrograde	3676 Mar 25 19:14	21°  ∩05'40	
inferior conj	3675 Apr 22 12:13	3°  810'31	2°40'53	evening set	3676 Mar 28 11:56	20°  ∩31'33	
minimum elong	3675 Apr 22 15:50	3°  802'48	2°40'01	inferior conj	3676 Apr 04 00:20	15°  ∩31'06	3°21'16
min. Earth dist.	3675 Apr 25 22:31	0°  816'20	0.59191 AU	minimum elong	3676 Apr 04 02:35	15°  ∩25'34	3°20'58
	3675 Apr 26 06:41	30°  8∩		min. Earth dist.	3676 Apr 07 03:16	12°  ∩28'03	0.61371 AU
morning rise	3675 Apr 29 20:23	27°  ∩33'01		morning rise	3676 Apr 10 15:23	9°  ∩35'01	
desc. node	3675 May 03 00:28	26°  ∩12'21		direct	3676 Apr 17 10:14	7°  ∩14'44	
direct	3675 May 06 03:12	25°  ∩46'00		desc. node	3676 Apr 18 21:31	7°  ∩20'57	
	3675 May 16 10:51	0°  8		morning max el	3676 May 01 15:13	15°  ∩11'59	27°49'21
morning max el	3675 May 20 12:21	3°  833'42	27°17'42		3676 May 13 15:57	0°  8	
	3675 Jun 08 19:38	0°  II			3676 May 31 07:49	0°  II	
morning set	3675 Jun 20 10:01	22°  II07'06		morning set	3676 Jun 03 14:23	6°  II34'08	
asc. node	3675 Jun 22 18:19	27°  II05'32		asc. node	3676 Jun 08 15:21	17°  II12'50	
	3675 Jun 24 02:38	0°  ☾		max. Earth dist.	3676 Jun 09 12:23	19°  II06'51	1.32246 AU
max. Earth dist.	3675 Jun 27 02:16	6°  ☾32'31	1.32043 AU				
				superior conj	3676 Jun 10 22:59	22°  II15'39	0°24'09
superior conj	3675 Jun 27 12:24	7°  ☾28'24	0°48'09	minimum elong	3676 Jun 10 21:54	22°  II09'42	0°23'55
minimum elong	3675 Jun 27 10:29	7°  ☾17'49	0°47'47		3676 Jun 14 11:45	0°  ☾	
evening rise	3675 Jul 04 08:23	22°  ☾21'29		evening rise	3676 Jun 17 19:37	7°  ☾11'22	
	3675 Jul 08 01:15	0°  Ω			3676 Jun 29 17:08	0°  Ω	
	3675 Jul 26 05:17	0°  ♊		evening max el	3676 Jul 13 17:24	18°  Ω33'13	24°49'40
desc. node	3675 Jul 29 23:46	4°  ♊29'44		desc. node	3676 Jul 15 20:48	20°  Ω28'28	
evening max el	3675 Aug 02 01:18	7°  ♊38'55	26°10'58	retrograde	3676 Jul 27 15:58	25°  Ω36'27	
retrograde	3675 Aug 16 00:42	14°  ♊48'27		evening set	3676 Aug 01 22:30	24°  Ω33'27	
evening set	3675 Aug 22 11:38	13°  ♊06'47		min. Earth dist.	3676 Aug 07 04:49	21°  Ω45'56	0.57170 AU
min. Earth dist.	3675 Aug 26 14:06	10°  ♊31'32	0.59130 AU	inferior conj	3676 Aug 10 02:10	19°  Ω52'07	-5°08'18
inferior conj	3675 Aug 29 20:44	8°  ♊03'15	-4°56'24	minimum elong	3676 Aug 10 01:14	19°  Ω53'39	5°08'16
minimum elong	3675 Aug 30 00:38	7°  ♊55'51	4°55'57	morning rise	3676 Aug 18 06:30	15°  Ω44'25	
morning rise	3675 Sep 06 15:51	3°  ♊33'47		direct	3676 Aug 20 20:53	15°  Ω25'17	
direct	3675 Sep 09 02:03	3°  ♊13'43		morning max el	3676 Aug 30 00:35	19°  Ω42'42	19°16'22
morning max el	3675 Sep 17 00:30	7°  ♊03'00	18°26'58	asc. node	3676 Sep 04 14:36	26°  Ω26'15	
asc. node	3675 Sep 18 17:34	8°  ♊50'59			3676 Sep 06 22:02	0°  ♊	
	3675 Oct 01 16:37	0°  ♊		morning set	3676 Sep 16 01:44	16°  ♊59'12	
morning set	3675 Oct 03 01:47	2°  ♊38'53			3676 Sep 22 14:29	0°  ♊	
				superior conj	3676 Sep 24 05:26	3°  ♊10'38	1°39'58
superior conj	3675 Oct 12 01:55	19°  ♊45'56	1°26'33	minimum elong	3676 Sep 24 07:16	3°  ♊19'34	1°39'52
minimum elong	3675 Oct 12 05:23	20°  ♊01'59	1°26'13	max. Earth dist.	3676 Sep 30 16:51	15°  ♊23'28	1.38239 AU
	3675 Oct 17 18:02	0°  ♊		evening rise	3676 Oct 04 11:31	22°  ♊08'26	
max. Earth dist.	3675 Oct 19 12:48	3°  ♊06'25	1.40324 AU		3676 Oct 09 02:05	0°  ♊	
evening rise	3675 Oct 23 21:35	10°  ♊30'08		desc. node	3676 Oct 11 20:09	4°  ♊30'41	
desc. node	3675 Oct 25 23:06	13°  ♊53'49			3676 Oct 29 04:38	0°  ♊	
	3675 Nov 05 06:55	0°  ♊		evening max el	3676 Nov 09 02:27	12°  ♊46'18	24°55'34
evening max el	3675 Nov 27 13:48	29°  ♊05'31	23°37'38	retrograde	3676 Nov 20 20:05	19°  ♊35'06	
	3675 Nov 28 12:10	0°  ♊		evening set	3676 Nov 26 11:35	17°  ♊13'36	
retrograde	3675 Dec 08 06:38	5°  ♊24'50		min. Earth dist.	3676 Dec 01 00:41	12°  ♊06'19	0.67465 AU
evening set	3675 Dec 13 08:27	3°  ♊18'29		asc. node	3676 Dec 01 13:50	11°  ♊23'05	
asc. node	3675 Dec 15 16:47	0°  ♊54'09		inferior conj	3676 Dec 02 00:09	10°  ♊48'59	0°08'50
	3675 Dec 16 10:28	30°  ♊8♊					


























































































































































































































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transit middle	3676 Dec 01 23:56	10°♊49'42	0°08'45	evening max el		3677 Oct 22 14:54	26°♍28'34	26°04'09
transit begin	3676 Dec 01 21:37	10°♊57'23				3677 Oct 26 16:06	0°♊	
transit end	3676 Dec 02 02:16	10°♊42'02		retrograde		3677 Nov 04 04:30	3°♊36'01	
morning rise	3676 Dec 07 12:27	4°♊49'19		evening set		3677 Nov 10 09:51	1°♊02'02	
direct	3676 Dec 11 02:35	3°♊35'05				3677 Nov 11 13:08	30°♋♍	
morning max el	3676 Dec 18 12:26	7°♊46'39	19°46'06	min. Earth dist.		3677 Nov 14 15:44	26°♍30'08	0.66700 AU
greatest brilliancy	3676 Dec 31 18:36	25°♊15'44	-0.7m	inferior conj		3677 Nov 16 02:19	24°♍42'32	-0°48'28
	3677 Jan 03 22:42	0°♊		minimum elong		3677 Nov 16 03:36	24°♍38'30	0°47'54
desc. node	3677 Jan 07 19:25	5°♊51'28		asc. node		3677 Nov 18 10:53	21°♍53'34	
morning set	3677 Jan 13 06:30	14°♊14'30		morning rise		3677 Nov 21 21:47	18°♍51'59	
	3677 Jan 23 08:46	0°♋		direct		3677 Nov 25 01:12	17°♍55'29	
max. Earth dist.	3677 Jan 25 01:58	2°♋43'17	1.44270 AU	morning max el		3677 Dec 01 20:50	21°♍41'44	18°52'14
						3677 Dec 08 12:51	0°♊	
superior conj	3677 Jan 29 20:19	10°♋21'27	-1°57'47	morning set		3677 Dec 23 16:48	23°♊14'22	
minimum elong	3677 Jan 29 14:17	9°♋57'03	1°57'27	desc. node		3677 Dec 25 16:27	26°♊21'16	
	3677 Feb 10 17:05	0°♋				3677 Dec 28 00:14	0°♊	
evening rise	3677 Feb 12 08:53	2°♋48'42		max. Earth dist.		3678 Jan 07 18:55	16°♊53'58	1.45103 AU
asc. node	3677 Feb 27 13:07	27°♋15'29						
	3677 Mar 01 18:58	0°♌		superior conj		3678 Jan 09 04:39	19°♊06'38	-1°28'51
evening max el	3677 Mar 02 17:52	1°♌00'35	18°15'02	minimum elong		3678 Jan 08 19:27	18°♊30'26	1°27'54
retrograde	3677 Mar 09 04:12	4°♌26'30				3678 Jan 16 01:52	0°♋	
evening set	3677 Mar 12 02:43	3°♌40'55		evening rise		3678 Jan 24 10:52	13°♋26'40	
	3677 Mar 16 15:09	30°♋♌				3678 Feb 03 17:25	0°♋	
inferior conj	3677 Mar 18 03:43	28°♋21'01	3°36'57	evening max el		3678 Feb 14 05:24	14°♋26'50	18°41'18
minimum elong	3677 Mar 18 04:10	28°♋19'47	3°36'57	asc. node		3678 Feb 14 10:10	14°♋38'50	
min. Earth dist.	3677 Mar 20 16:55	25°♋32'21	0.63414 AU	retrograde		3678 Feb 20 20:40	18°♋07'53	
morning rise	3677 Mar 24 04:39	22°♋14'49		evening set		3678 Feb 24 01:18	17°♋09'56	
direct	3677 Mar 31 02:13	19°♋32'09		inferior conj		3678 Mar 01 18:22	11°♋32'04	3°34'08
desc. node	3677 Apr 05 18:34	21°♋05'55		minimum elong		3678 Mar 01 17:18	11°♋35'18	3°34'04
morning max el	3677 Apr 13 22:47	27°♋29'56	27°43'31	min. Earth dist.		3678 Mar 03 15:52	9°♋14'03	0.65136 AU
	3677 Apr 16 07:48	0°♌		morning rise		3678 Mar 07 08:52	5°♋20'47	
	3677 May 07 08:42	0°♌		direct		3678 Mar 14 01:12	2°♋29'56	
morning set	3677 May 18 12:10	20°♌38'26		desc. node		3678 Mar 23 15:37	6°♋54'01	
	3677 May 23 01:36	0°♍		morning max el		3678 Mar 27 08:30	10°♋17'57	27°03'53
max. Earth dist.	3677 May 23 16:55	1°♍20'42	1.32879 AU			3678 Apr 11 21:30	0°♌	
						3678 Apr 29 19:43	0°♌	
superior conj	3677 May 26 06:35	6°♍19'49	-0°02'34	morning set		3678 May 02 00:21	4°♌10'21	
minimum elong	3677 May 26 06:42	6°♍50'29	0°02'32	max. Earth dist.		3678 May 06 12:12	13°♌04'19	1.33962 AU
behind sun begin	3677 May 26 01:28	6°♍22'18						
behind sun end	3677 May 26 11:57	7°♍18'43		superior conj		3678 May 10 09:06	21°♌03'54	-0°31'02
asc. node	3677 May 26 12:24	7°♍21'10		minimum elong		3678 May 10 10:43	21°♌12'22	0°30'42
evening rise	3677 Jun 02 07:27	21°♍59'16		asc. node		3678 May 13 09:27	27°♌25'56	
	3677 Jun 06 04:33	0°♎				3678 May 14 14:29	0°♍	
evening max el	3677 Jun 25 06:37	29°♎00'41	23°14'00	evening rise		3678 May 17 17:57	6°♍38'23	
	3677 Jun 26 08:00	0°♎				3678 May 30 08:58	0°♎	
desc. node	3677 Jul 02 17:48	4°♎22'26		evening max el		3678 Jun 07 00:24	9°♎32'09	21°39'35
retrograde	3677 Jul 08 18:25	5°♎45'01		retrograde		3678 Jun 19 09:49	15°♎38'45	
evening set	3677 Jul 12 12:42	5°♎14'04		desc. node		3678 Jun 19 14:48	15°♎38'39	
min. Earth dist.	3677 Jul 19 16:07	1°♎59'27	0.55654 AU	evening set		3678 Jun 21 22:23	15°♎24'21	
inferior conj	3677 Jul 21 11:49	0°♎55'29	-4°37'24	inferior conj		3678 Jul 01 07:32	11°♎22'56	-3°16'34
minimum elong	3677 Jul 21 05:07	1°♎05'20	4°36'15	minimum elong		3678 Jun 30 23:21	11°♎34'21	3°14'05
	3677 Jul 23 02:04	30°♎♎		min. Earth dist.		3678 Jul 01 02:52	11°♎29'27	0.54889 AU
morning rise	3677 Jul 29 23:54	27°♎02'27		morning rise		3678 Jul 10 01:27	7°♎29'38	
direct	3677 Aug 01 20:57	26°♎42'29		direct		3678 Jul 13 08:00	7°♎06'15	
	3677 Aug 10 13:57	0°♏		morning max el		3678 Jul 25 14:29	12°♎52'32	21°57'34
morning max el	3677 Aug 12 13:20	1°♏40'00	20°27'20			3678 Aug 07 06:15	0°♏	
asc. node	3677 Aug 22 11:39	14°♏48'52		asc. node		3678 Aug 09 08:42	3°♏47'35	
	3677 Aug 30 12:38	0°♐		morning set		3678 Aug 15 17:17	16°♏26'03	
morning set	3677 Aug 31 07:39	1°♐36'56				3678 Aug 22 03:14	0°♐	
superior conj	3677 Sep 07 21:31	17°♐12'35	1°44'32	superior conj		3678 Aug 22 22:23	1°♐40'53	1°41'45
minimum elong	3677 Sep 07 21:42	17°♐13'27	1°44'31	minimum elong		3678 Aug 22 21:14	1°♐34'50	1°41'42
max. Earth dist.	3677 Sep 12 23:37	27°♐18'04	1.36286 AU	max. Earth dist.		3678 Aug 26 13:51	9°♐13'52	1.34635 AU
	3677 Sep 14 09:25	0°♑		evening rise		3678 Aug 31 01:41	18°♐08'56	
evening rise	3677 Sep 16 22:20	4°♑45'05				3678 Sep 06 11:39	0°♑	
desc. node	3677 Sep 28 17:10	24°♑55'29		desc. node		3678 Sep 15 14:09	15°♑02'23	

	3678 Sep 26 04:44	0°♄		desc. node	3679 Sep 02 11:08	4°♄42'53	
evening max el	3678 Oct 05 03:30	10°♄05'13	26°55'49	evening max el	3679 Sep 17 15:08	23°♄24'33	27°23'33
retrograde	3678 Oct 18 07:28	17°♄21'31			3679 Sep 27 07:20	0°♄	
evening set	3678 Oct 25 01:11	14°♄40'16		retrograde	3679 Oct 01 04:32	0°♄42'36	
min. Earth dist.	3678 Oct 29 00:17	10°♄44'28	0.65587 AU		3679 Oct 04 21:03	30°♄	
inferior conj	3678 Oct 30 22:46	8°♄30'32	-1°48'38	evening set	3679 Oct 08 06:55	28°♄02'31	
minimum elong	3678 Oct 31 01:47	8°♄21'49	1°47'25	min. Earth dist.	3679 Oct 12 00:14	24°♄41'07	0.64122 AU
asc. node	3678 Nov 05 07:55	3°♄19'42		inferior conj	3679 Oct 14 11:04	22°♄07'02	-2°49'32
morning rise	3678 Nov 06 03:12	2°♄52'11		minimum elong	3679 Oct 14 15:46	21°♄54'42	2°47'51
direct	3678 Nov 08 22:04	2°♄09'42		morning rise	3679 Oct 21 01:52	16°♄44'00	
morning max el	3678 Nov 15 10:37	5°♄41'00	18°14'42	asc. node	3679 Oct 23 04:57	16°♄12'40	
	3678 Dec 02 01:14	0°♄		direct	3679 Oct 23 14:33	16°♄11'51	
morning set	3678 Dec 04 07:32	3°♄41'16		morning max el	3679 Oct 30 03:02	19°♄37'21	17°54'11
desc. node	3678 Dec 12 13:29	17°♄00'45			3679 Nov 06 20:18	0°♄	
				morning set	3679 Nov 16 02:07	15°♄29'05	
superior conj	3678 Dec 19 07:25	27°♄43'24	-0°44'56		3679 Nov 24 16:46	0°♄	
minimum elong	3678 Dec 19 01:44	27°♄21'00	0°44'11				
	3678 Dec 20 18:07	0°♄		superior conj	3679 Nov 29 01:13	7°♄08'07	0°02'41
max. Earth dist.	3678 Dec 21 14:28	1°♄19'57	1.45198 AU	minimum elong	3679 Nov 29 01:30	7°♄09'19	0°02'38
evening rise	3679 Jan 04 14:15	23°♄11'58		behind sun begin	3679 Nov 28 15:33	6°♄28'51	
	3679 Jan 08 22:56	0°♄		behind sun end	3679 Nov 29 11:28	7°♄49'42	
greatest brilliancy	3679 Jan 16 07:43	11°♄22'37	-0.7m	desc. node	3679 Nov 29 10:29	7°♄45'45	
evening max el	3679 Jan 28 13:28	27°♄57'03	19°24'38	max. Earth dist.	3679 Dec 04 08:54	15°♄40'27	1.44556 AU
	3679 Jan 30 19:26	0°♄			3679 Dec 13 12:43	0°♄	
asc. node	3679 Feb 01 07:11	1°♄01'22		evening rise	3679 Dec 15 01:58	2°♄23'31	
retrograde	3679 Feb 04 17:20	2°♄03'51			3680 Jan 02 13:46	0°♄	
evening set	3679 Feb 08 04:59	0°♄52'43		evening max el	3680 Jan 11 16:29	11°♄28'34	20°23'10
	3679 Feb 09 08:02	30°♄		asc. node	3680 Jan 19 04:13	16°♄08'10	
inferior conj	3679 Feb 13 16:59	24°♄59'04	3°17'24	retrograde	3680 Jan 19 15:29	16°♄09'23	
minimum elong	3679 Feb 13 14:56	25°♄05'43	3°17'03	evening set	3680 Jan 23 11:36	14°♄44'03	
min. Earth dist.	3679 Feb 14 23:24	23°♄20'05	0.66450 AU	inferior conj	3680 Jan 28 20:48	8°♄37'23	2°49'49
morning rise	3679 Feb 19 00:38	18°♄45'31		minimum elong	3680 Jan 28 18:20	8°♄45'48	2°49'10
direct	3679 Feb 25 06:22	15°♄59'27		min. Earth dist.	3680 Jan 29 13:38	7°♄40'10	0.67344 AU
morning max el	3679 Mar 09 18:12	23°♄25'08	25°57'57	morning rise	3680 Feb 03 00:51	2°♄23'36	
desc. node	3679 Mar 10 12:40	24°♄12'33			3680 Feb 07 08:40	30°♄	
	3679 Mar 15 14:48	0°♄		direct	3680 Feb 08 17:01	29°♄51'58	
	3679 Apr 05 05:58	0°♄			3680 Feb 10 02:26	0°♄	
morning set	3679 Apr 14 22:59	16°♄58'53		morning max el	3680 Feb 20 02:54	6°♄41'12	24°35'26
max. Earth dist.	3679 Apr 18 20:12	24°♄18'45	1.35502 AU	desc. node	3680 Feb 25 09:43	12°♄35'32	
	3679 Apr 21 17:59	0°♄			3680 Mar 09 05:55	0°♄	
				morning set	3680 Mar 27 02:50	28°♄49'37	
superior conj	3679 Apr 24 04:03	4°♄51'04	-0°59'57		3680 Mar 27 18:48	0°♄	
minimum elong	3679 Apr 24 07:14	5°♄07'10	0°59'22	max. Earth dist.	3680 Mar 30 18:18	5°♄21'01	1.37437 AU
asc. node	3679 Apr 30 06:29	17°♄23'12					
evening rise	3679 May 02 01:08	21°♄02'37		superior conj	3680 Apr 06 12:18	18°♄03'11	-1°27'20
	3679 May 06 12:42	0°♄		minimum elong	3680 Apr 06 16:42	18°♄24'31	1°26'42
evening max el	3679 May 20 04:55	20°♄34'50	20°18'16		3680 Apr 12 13:29	0°♄	
retrograde	3679 May 30 23:26	25°♄49'59		evening rise	3680 Apr 15 02:37	5°♄05'09	
evening set	3679 Jun 01 23:06	25°♄40'01		asc. node	3680 Apr 16 03:30	7°♄08'39	
desc. node	3679 Jun 06 11:50	24°♄11'39			3680 Apr 29 18:00	0°♄	
inferior conj	3679 Jun 11 02:18	21°♄41'40	-1°21'34	evening max el	3680 May 01 21:38	2°♄19'34	19°15'44
minimum elong	3679 Jun 10 22:28	21°♄47'18	1°20'08	retrograde	3680 May 10 23:29	6°♄44'20	
min. Earth dist.	3679 Jun 12 15:08	20°♄47'37	0.55071 AU	evening set	3680 May 13 00:06	6°♄32'06	
morning rise	3679 Jun 19 20:35	17°♄27'28		inferior conj	3680 May 21 10:14	2°♄22'57	0°33'50
direct	3679 Jun 23 18:37	16°♄54'16		minimum elong	3680 May 21 11:38	2°♄20'37	0°33'20
morning max el	3679 Jul 07 07:15	23°♄29'44	23°39'30	desc. node	3680 May 23 08:52	1°♄05'04	
	3679 Jul 13 03:40	0°♄		min. Earth dist.	3680 May 24 06:02	0°♄30'30	0.56182 AU
asc. node	3679 Jul 27 05:44	23°♄12'43			3680 May 25 01:19	30°♄	
	3679 Jul 30 13:30	0°♄		morning rise	3680 May 29 20:05	27°♄34'25	
morning set	3679 Jul 31 04:45	1°♄20'12		direct	3680 Jun 03 16:48	26°♄39'54	
					3680 Jun 13 03:27	0°♄	
superior conj	3679 Aug 07 05:03	16°♄25'48	1°32'52	morning max el	3680 Jun 17 21:25	3°♄54'15	25°19'50
minimum elong	3679 Aug 07 03:04	16°♄15'04	1°32'41		3680 Jul 06 11:29	0°♄	
max. Earth dist.	3679 Aug 09 12:55	21°♄24'52	1.33377 AU	asc. node	3680 Jul 13 02:47	12°♄57'02	
	3679 Aug 13 15:57	0°♄		morning set	3680 Jul 14 16:26	16°♄14'14	
evening rise	3679 Aug 14 17:18	2°♄07'55			3680 Jul 21 00:40	0°♄	
	3679 Aug 30 08:32	0°♄					

superior conj	3680 Jul 21 15:14	1°♎19'52	1°18'53	superior conj	3681 Jul 06 02:57	16°♊15'50	1°00'30
minimum elong	3680 Jul 21 12:54	1°♎07'03	1°18'33	minimum elong	3681 Jul 06 00:45	16°♊03'41	1°00'06
max. Earth dist.	3680 Jul 22 19:24	3°♎53'54	1.32540 AU	max. Earth dist.	3681 Jul 06 06:18	16°♊34'19	1.32113 AU
evening rise	3680 Jul 28 17:45	16°♎32'09			3681 Jul 12 10:29	0°♎	
	3680 Aug 04 14:36	0°♎		evening rise	3681 Jul 13 00:11	1°♎12'15	
desc. node	3680 Aug 19 08:08	23°♎45'56			3681 Jul 28 15:34	0°♎	
	3680 Aug 24 04:38	0°♎		desc. node	3681 Aug 06 05:11	11°♎55'51	
evening max el	3680 Aug 29 23:58	6°♎14'28	27°21'23	evening max el	3681 Aug 12 03:31	18°♎23'08	26°46'01
retrograde	3680 Sep 12 19:10	13°♎29'50		retrograde	3681 Aug 26 01:59	25°♎34'11	
evening set	3680 Sep 19 23:36	11°♎02'45		evening set	3681 Sep 01 22:47	23°♎33'04	
min. Earth dist.	3680 Sep 23 14:07	8°♎09'29	0.62337 AU	min. Earth dist.	3681 Sep 05 17:33	20°♎55'55	0.60324 AU
inferior conj	3680 Sep 26 12:21	5°♎25'22	-3°47'29	inferior conj	3681 Sep 08 23:15	18°♎16'51	-4°36'17
minimum elong	3680 Sep 26 18:08	5°♎11'49	3°45'50	minimum elong	3681 Sep 09 04:34	18°♎05'54	4°35'18
morning rise	3680 Oct 03 14:20	0°♎20'51		morning rise	3681 Sep 16 12:19	13°♎33'42	
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direct	3680 Oct 05 23:35	29°♎55'33		asc. node	3681 Sep 25 23:03	16°♎31'38	
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asc. node	3680 Oct 09 02:00	0°♎39'38			3681 Oct 05 14:23	0°♎	
morning max el	3680 Oct 12 19:00	3°♎23'32	17°51'34	morning set	3681 Oct 12 02:51	11°♎55'40	
morning set	3680 Oct 28 18:33	28°♎19'37					
	3680 Oct 29 16:58	0°♎		superior conj	3681 Oct 21 18:26	29°♎45'54	1°14'11
				minimum elong	3681 Oct 21 22:32	0°♎04'17	1°13'43
superior conj	3680 Nov 08 20:56	17°♎49'16	0°43'50		3681 Oct 21 21:35	0°♎	
minimum elong	3680 Nov 09 00:40	18°♎05'08	0°43'20	max. Earth dist.	3681 Oct 29 09:48	13°♎03'21	1.41489 AU
desc. node	3680 Nov 15 07:28	28°♎32'53		desc. node	3681 Nov 02 04:29	19°♎19'23	
max. Earth dist.	3680 Nov 15 23:38	29°♎38'44	1.43267 AU	evening rise	3681 Nov 03 14:50	21°♎38'51	
	3680 Nov 16 04:53	0°♎			3681 Nov 08 21:25	0°♎	
evening rise	3680 Nov 23 12:56	11°♎39'23			3681 Nov 29 20:22	0°♎	
	3680 Dec 05 15:51	0°♎		evening max el	3681 Dec 07 06:46	8°♎36'43	22°51'41
evening max el	3680 Dec 24 13:59	25°♎01'08	21°33'42	retrograde	3681 Dec 17 08:07	14°♎34'43	
	3680 Dec 31 11:57	0°♎		evening set	3681 Dec 22 02:27	12°♎37'51	
retrograde	3681 Jan 02 12:57	0°♎20'30		asc. node	3681 Dec 22 22:18	11°♎53'04	
	3681 Jan 04 11:45	30°♎		inferior conj	3681 Dec 27 11:23	6°♎15'04	1°29'44
asc. node	3681 Jan 05 01:16	29°♎46'09		minimum elong	3681 Dec 27 09:29	6°♎21'35	1°29'01
evening set	3681 Jan 06 19:17	28°♎39'51		min. Earth dist.	3681 Dec 27 04:50	6°♎37'40	0.67980 AU
inferior conj	3681 Jan 12 03:35	22°♎23'21	2°13'26	morning rise	3682 Jan 01 16:25	0°♎06'14	
minimum elong	3681 Jan 12 01:10	22°♎31'42	2°12'38		3682 Jan 01 19:30	30°♎	
min. Earth dist.	3681 Jan 12 08:14	22°♎07'11	0.67846 AU	direct	3682 Jan 06 03:16	28°♎17'53	
morning rise	3681 Jan 17 06:52	16°♎11'07			3682 Jan 10 21:57	0°♎	
direct	3681 Jan 22 08:18	13°♎59'54		morning max el	3682 Jan 15 01:17	3°♎30'28	21°40'24
morning max el	3681 Feb 01 12:00	20°♎01'41	23°06'28	desc. node	3682 Jan 29 03:46	21°♎25'35	
	3681 Feb 09 23:11	0°♎			3682 Feb 04 00:59	0°♎	
desc. node	3681 Feb 11 06:44	1°♎44'01		morning set	3682 Feb 16 03:21	18°♎37'20	
	3681 Mar 02 11:03	0°♎		max. Earth dist.	3682 Feb 22 12:35	28°♎59'47	1.41718 AU
morning set	3681 Mar 08 05:34	9°♎24'50			3682 Feb 23 03:05	0°♎	
max. Earth dist.	3681 Mar 12 13:03	16°♎44'20	1.39600 AU				
	3681 Mar 19 23:24	0°♎		superior conj	3682 Mar 02 03:20	11°♎57'11	-2°04'47
				minimum elong	3682 Mar 02 05:47	12°♎07'51	2°04'42
superior conj	3681 Mar 20 05:42	0°♎28'58	-1°50'19		3682 Mar 12 04:11	0°♎	
minimum elong	3681 Mar 20 10:13	0°♎49'52	1°49'54	evening rise	3682 Mar 12 23:55	1°♎30'36	
evening rise	3681 Mar 29 19:24	18°♎37'09		asc. node	3682 Mar 20 21:36	15°♎40'52	
asc. node	3681 Apr 03 00:33	26°♎36'32		evening max el	3682 Mar 29 09:21	27°♎31'45	18°10'58
	3681 Apr 04 21:05	0°♎			3682 Apr 01 14:39	0°♎	
evening max el	3681 Apr 15 00:15	14°♎41'26	18°33'21	retrograde	3682 Apr 05 06:00	0°♎59'21	
retrograde	3681 Apr 22 17:31	18°♎29'12		evening set	3682 Apr 07 19:25	0°♎31'07	
evening set	3681 Apr 25 00:26	18°♎10'18			3682 Apr 08 23:58	30°♎	
inferior conj	3681 May 02 14:41	13°♎42'23	2°03'51	inferior conj	3682 Apr 14 16:06	25°♎42'10	3°01'24
minimum elong	3681 May 02 18:21	13°♎35'14	2°02'47	minimum elong	3682 Apr 14 19:16	25°♎34'59	3°00'47
min. Earth dist.	3681 May 06 00:23	11°♎04'31	0.57985 AU	min. Earth dist.	3682 Apr 18 00:21	22°♎41'23	0.60126 AU
morning rise	3681 May 10 09:06	8°♎20'33		morning rise	3682 Apr 21 16:48	19°♎55'53	
desc. node	3681 May 10 05:55	8°♎24'27		desc. node	3682 Apr 27 02:58	17°♎57'32	
direct	3681 May 16 05:18	6°♎53'51		direct	3682 Apr 28 06:03	17°♎53'58	
morning max el	3681 May 30 14:24	14°♎32'21	26°42'57	morning max el	3682 May 12 13:32	25°♎45'47	27°35'43
	3681 Jun 11 23:37	0°♎			3682 May 16 12:02	0°♎	
	3681 Jun 28 14:50	0°♎			3682 Jun 05 09:50	0°♎	
morning set	3681 Jun 29 02:41	1°♎02'12		morning set	3682 Jun 13 09:47	15°♎38'41	
asc. node	3681 Jun 29 23:49	2°♎53'59		asc. node	3682 Jun 16 20:52	22°♎58'51	

max. Earth dist.	3682 Jun 19 17:59	29° Π 15'23	1.32087 AU		3683 May 28 12:13	0° Π	
	3682 Jun 20 02:06	0° \mathfrak{E}		max. Earth dist.	3683 Jun 03 02:26	11° Π 43'45	1.32462 AU
				asc. node	3683 Jun 03 17:55	13° Π 07'18	
superior conj	3682 Jun 20 14:26	1° \mathfrak{E} 07'53	0°38'22	superior conj	3683 Jun 04 23:59	15° Π 50'20	0°13'08
minimum elong	3682 Jun 20 12:49	0° \mathfrak{E} 58'59	0°38'02	minimum elong	3683 Jun 04 23:22	15° Π 47'00	0°12'59
evening rise	3682 Jun 27 10:16	16° \mathfrak{E} 00'44		behind sun begin	3683 Jun 04 20:22	15° Π 30'38	
	3682 Jul 04 08:56	0° Ω		behind sun end	3683 Jun 05 02:23	16° Π 03'22	
desc. node	3682 Jul 24 02:13	28° Ω 50'47		evening rise	3683 Jun 11 22:00	0° \mathfrak{E} 50'53	
evening max el	3682 Jul 24 23:42	29° Ω 43'18	25°39'04		3683 Jun 11 12:27	0° \mathfrak{E}	
	3682 Jul 25 06:46	0° \mathfrak{M}			3683 Jun 27 23:09	0° Ω	
retrograde	3682 Aug 07 23:04	6° \mathfrak{M} 49'59		evening max el	3683 Jul 06 13:41	10° Ω 22'53	24°09'46
evening set	3682 Aug 13 23:36	5° \mathfrak{M} 24'47		desc. node	3683 Jul 10 23:15	14° Ω 01'33	
min. Earth dist.	3682 Aug 18 11:46	2° \mathfrak{M} 46'34	0.58269 AU	retrograde	3683 Jul 20 08:59	17° Ω 20'23	
inferior conj	3682 Aug 21 16:11	0° \mathfrak{M} 31'01	-5°05'44	evening set	3683 Jul 25 00:41	16° Ω 32'17	
minimum elong	3682 Aug 21 18:22	0° \mathfrak{M} 27'08	5°05'36	min. Earth dist.	3683 Jul 31 00:16	13° Ω 35'02	0.56452 AU
	3682 Aug 22 09:39	30° \mathfrak{R} Ω		inferior conj	3683 Aug 02 12:59	12° Ω 00'46	-5°01'13
morning rise	3682 Aug 29 15:22	26° Ω 10'59		minimum elong	3683 Aug 02 09:27	12° Ω 06'17	5°00'55
direct	3682 Sep 01 03:13	25° Ω 51'21		morning rise	3683 Aug 10 20:50	8° Ω 01'03	
morning max el	3682 Sep 09 12:45	29° Ω 51'00	18°45'19	direct	3683 Aug 13 13:55	7° Ω 41'45	
	3682 Sep 09 16:30	0° \mathfrak{M}		morning max el	3683 Aug 23 08:18	12° Ω 14'12	19°44'00
asc. node	3682 Sep 12 20:06	3° \mathfrak{M} 33'30		asc. node	3683 Aug 30 17:08	21° Ω 30'48	
morning set	3682 Sep 25 22:09	26° \mathfrak{M} 02'58			3683 Sep 04 15:29	0° \mathfrak{M}	
	3682 Sep 27 22:37	0° \mathfrak{L}		morning set	3683 Sep 10 00:57	10° \mathfrak{M} 32'12	
superior conj	3682 Oct 04 12:36	12° \mathfrak{L} 43'09	1°33'26	superior conj	3683 Sep 17 22:03	26° \mathfrak{M} 26'03	1°42'53
minimum elong	3682 Oct 04 15:25	12° \mathfrak{L} 56'29	1°33'12	minimum elong	3683 Sep 17 23:10	26° \mathfrak{M} 31'32	1°42'50
max. Earth dist.	3682 Oct 11 15:38	25° \mathfrak{L} 45'42	1.39439 AU		3683 Sep 19 17:34	0° \mathfrak{L}	
	3682 Oct 14 01:54	0° \mathfrak{M}		max. Earth dist.	3683 Sep 23 20:15	7° \mathfrak{L} 51'20	1.37380 AU
evening rise	3682 Oct 15 15:21	2° \mathfrak{M} 40'08		evening rise	3683 Sep 27 14:40	14° \mathfrak{L} 44'41	
desc. node	3682 Oct 20 01:31	10° \mathfrak{M} 01'00		desc. node	3683 Oct 06 22:33	0° \mathfrak{M} 33'40	
	3682 Nov 02 03:24	0° \mathfrak{J}			3683 Oct 06 14:11	0° \mathfrak{M}	
evening max el	3682 Nov 19 20:17	22° \mathfrak{J} 15'27	24°11'26		3683 Oct 27 20:49	0° \mathfrak{J}	
retrograde	3682 Nov 30 23:49	28° \mathfrak{J} 47'48		evening max el	3683 Nov 02 08:32	5° \mathfrak{J} 56'58	25°26'10
evening set	3682 Dec 06 07:30	26° \mathfrak{J} 34'42		retrograde	3683 Nov 14 11:12	12° \mathfrak{J} 55'13	
asc. node	3682 Dec 09 19:21	22° \mathfrak{J} 45'58		evening set	3683 Nov 20 08:47	10° \mathfrak{J} 27'37	
min. Earth dist.	3682 Dec 11 01:04	21° \mathfrak{J} 08'01	0.67758 AU	min. Earth dist.	3683 Nov 24 18:38	5° \mathfrak{J} 35'29	0.67188 AU
inferior conj	3682 Dec 11 18:24	20° \mathfrak{J} 09'35	0°39'53	inferior conj	3683 Nov 25 22:52	4° \mathfrak{J} 04'31	-0°15'01
minimum elong	3682 Dec 11 17:27	20° \mathfrak{J} 12'46	0°39'31	minimum elong	3683 Nov 25 23:15	4° \mathfrak{J} 03'17	0°14'50
morning rise	3682 Dec 17 03:28	14° \mathfrak{J} 06'09		transit middle	3683 Nov 25 23:15	4° \mathfrak{J} 03'17	0°14'50
direct	3682 Dec 21 00:43	12° \mathfrak{J} 40'12		transit begin	3683 Nov 25 22:08	4° \mathfrak{J} 06'52	
morning max el	3682 Dec 28 21:48	17° \mathfrak{J} 10'41	20°24'00	transit end	3683 Nov 26 00:22	3° \mathfrak{J} 59'42	
	3683 Jan 08 03:16	0° \mathfrak{Z}		asc. node	3683 Nov 26 16:22	3° \mathfrak{J} 08'25	
desc. node	3683 Jan 16 00:48	11° \mathfrak{Z} 30'47			3683 Nov 29 09:04	30° \mathfrak{R} \mathfrak{M}	
morning set	3683 Jan 26 02:48	26° \mathfrak{Z} 51'46		morning rise	3683 Dec 01 14:01	28° \mathfrak{M} 08'40	
	3683 Jan 28 03:16	0° \approx		direct	3683 Dec 04 23:17	27° \mathfrak{M} 02'35	
max. Earth dist.	3683 Feb 04 19:54	12° \approx 10'42	1.43497 AU		3683 Dec 11 00:09	0° \mathfrak{J}	
superior conj	3683 Feb 11 00:21	22° \approx 16'43	-2°05'33	morning max el	3683 Dec 12 02:16	1° \mathfrak{J} 01'56	19°21'13
minimum elong	3683 Feb 10 21:48	22° \approx 06'06	2°05'28	greatest brilliancy	3683 Dec 25 12:34	19° \mathfrak{J} 02'39	-0.7m
	3683 Feb 15 14:48	0° \mathfrak{H}			3684 Jan 01 16:31	0° \mathfrak{Z}	
evening rise	3683 Feb 23 11:55	13° \mathfrak{H} 36'25		desc. node	3684 Jan 02 21:49	1° \mathfrak{Z} 53'09	
	3683 Mar 05 01:16	0° \mathfrak{Y}		morning set	3684 Jan 05 02:02	5° \mathfrak{Z} 15'11	
asc. node	3683 Mar 07 18:39	4° \mathfrak{Y} 13'45		max. Earth dist.	3684 Jan 18 09:47	26° \mathfrak{Z} 03'45	1.44712 AU
evening max el	3683 Mar 12 21:33	10° \mathfrak{Y} 41'10	18°08'05		3684 Jan 20 21:26	0° \approx	
retrograde	3683 Mar 19 08:57	14° \mathfrak{Y} 04'06		superior conj	3684 Jan 21 19:56	1° \approx 29'28	-1°47'49
evening set	3683 Mar 22 04:08	13° \mathfrak{Y} 25'09		minimum elong	3684 Jan 21 11:50	0° \approx 57'13	1°47'11
inferior conj	3683 Mar 28 11:11	8° \mathfrak{Y} 15'54	3°30'32	evening rise	3684 Feb 05 03:12	24° \approx 47'34	
minimum elong	3683 Mar 28 12:39	8° \mathfrak{Y} 12'04	3°30'25		3684 Feb 08 06:15	0° \mathfrak{H}	
min. Earth dist.	3683 Mar 31 08:35	5° \mathfrak{Y} 16'47	0.62269 AU	asc. node	3684 Feb 22 15:40	22° \mathfrak{H} 05'47	
morning rise	3683 Apr 03 19:47	2° \mathfrak{Y} 14'40		evening max el	3684 Feb 24 10:00	24° \mathfrak{H} 02'44	18°24'00
	3683 Apr 08 09:47	30° \mathfrak{R} \mathfrak{H}		retrograde	3684 Mar 01 21:37	27° \mathfrak{H} 34'06	
direct	3683 Apr 10 16:44	29° \mathfrak{H} 43'37		evening set	3684 Mar 04 22:33	26° \mathfrak{H} 43'28	
	3683 Apr 13 01:23	0° \mathfrak{Y}		inferior conj	3684 Mar 10 19:47	21° \mathfrak{H} 15'37	3°37'44
desc. node	3683 Apr 13 24:00	0° \mathfrak{Y} 15'13		minimum elong	3684 Mar 10 19:32	21° \mathfrak{H} 16'20	3°37'44
morning max el	3683 Apr 24 18:47	7° \mathfrak{Y} 41'46	27°51'31	min. Earth dist.	3684 Mar 13 02:21	18° \mathfrak{H} 38'18	0.64187 AU
	3683 May 11 20:10	0° \mathfrak{B}		morning rise	3684 Mar 16 15:46	15° \mathfrak{H} 06'26	
morning set	3683 May 28 11:41	29° \mathfrak{B} 57'18					

direct	3684 Mar 23 11:45	12°  18'35		3685 Feb 26 09:26	30° 
desc. node	3684 Mar 30 21:02	14°  56'27	morning rise	3685 Feb 28 01:21	28°  21'52
morning max el	3684 Apr 06 03:47	20°  14'28 27°30'29	direct	3685 Mar 06 13:45	25°  31'16
	3684 Apr 14 12:58	0° 		3685 Mar 16 02:36	0° 
	3684 May 03 21:12	0° 	desc. node	3685 Mar 17 18:03	1°  26'48
morning set	3684 May 11 05:47	13°  49'01	morning max el	3685 Mar 19 13:40	3°  12'16 26°38'26
max. Earth dist.	3684 May 16 03:28	23°  45'31 1.33275 AU		3685 Apr 08 20:10	0° 
			morning set	3685 Apr 24 12:44	27°  04'18
superior conj	3684 May 19 05:38	0°  16'23 -0°14'29		3685 Apr 26 01:29	0° 
minimum elong	3684 May 19 06:22	0°  20'17 0°14'20	max. Earth dist.	3685 Apr 28 17:42	5°  14'22 1.34558 AU
behind sun begin	3684 May 19 03:58	0°  07'29			
behind sun end	3684 May 19 08:46	0°  33'06	superior conj	3685 May 03 05:16	14°  20'06 -0°43'21
	3684 May 19 02:34	0° 	minimum elong	3685 May 03 07:33	14°  31'55 0°42'53
asc. node	3684 May 20 14:57	3°  14'25	asc. node	3685 May 07 11:59	23°  16'35
evening rise	3684 May 26 09:27	15°  35'23	evening rise	3685 May 10 18:47	0°  08'46
	3684 Jun 02 14:40	0° 		3685 May 10 17:05	0° 
evening max el	3684 Jun 17 03:40	20°  47'21 22°32'55		3685 May 28 14:46	0° 
desc. node	3684 Jun 26 20:16	26°  51'47	evening max el	3685 May 30 01:37	1°  29'59 21°03'00
retrograde	3684 Jun 30 06:41	27°  18'54	retrograde	3685 Jun 10 19:40	7°  15'13
evening set	3684 Jul 03 10:26	26°  56'58	evening set	3685 Jun 13 00:22	7°  03'55
min. Earth dist.	3684 Jul 11 11:08	23°  26'51 0.55213 AU	desc. node	3685 Jun 13 17:16	6°  55'42
inferior conj	3684 Jul 12 15:30	22°  46'30 -4°08'58	inferior conj	3685 Jun 22 08:56	3°  06'10 -2°30'09
minimum elong	3684 Jul 12 07:23	22°  58'04 4°07'05	minimum elong	3685 Jun 22 02:06	3°  15'49 2°27'48
morning rise	3684 Jul 21 06:27	18°  55'46	min. Earth dist.	3685 Jun 22 22:42	2°  46'45 0.54846 AU
direct	3684 Jul 24 06:43	18°  35'02		3685 Jun 28 10:21	30°  R 
morning max el	3684 Aug 04 16:07	23°  52'50 21°03'41	morning rise	3685 Jul 01 03:52	29°  10'56
	3684 Aug 10 01:40	0° 	direct	3685 Jul 04 16:07	28°  13'39'20
asc. node	3684 Aug 16 14:11	10°  09'54		3685 Jul 10 15:30	0° 
morning set	3684 Aug 24 08:40	25°  15'19	morning max el	3685 Jul 17 13:02	4°  47'55 22°40'06
	3684 Aug 26 15:24	0° 	asc. node	3685 Aug 03 11:13	29°  20'30
				3685 Aug 03 19:26	0° 
superior conj	3684 Aug 31 18:18	10°  40'39 1°44'09	morning set	3685 Aug 08 19:17	10°  06'38
minimum elong	3684 Aug 31 17:51	10°  38'22 1°44'09			
max. Earth dist.	3684 Sep 05 05:23	19°  42'06 1.35537 AU	superior conj	3685 Aug 15 21:56	25°  16'37 1°38'39
evening rise	3684 Sep 09 09:02	27°  42'51	minimum elong	3685 Aug 15 20:22	25°  08'17 1°38'33
	3684 Sep 10 14:27	0° 		3685 Aug 18 03:37	0° 
desc. node	3684 Sep 22 19:34	20°  45'13'39	max. Earth dist.	3685 Aug 18 23:12	1°  42'04 1.34051 AU
	3684 Sep 28 21:26	0° 	evening rise	3685 Aug 23 18:05	11°  22'57
evening max el	3684 Oct 14 20:54	19°  37'19 26°28'34		3685 Sep 02 22:47	0° 
retrograde	3684 Oct 27 17:35	26°  15'50'30	desc. node	3685 Sep 09 16:35	10°  48'15
evening set	3684 Nov 03 04:24	24°  12'27		3685 Sep 24 07:29	0° 
min. Earth dist.	3684 Nov 07 07:15	19°  15'55'52 0.66268 AU	evening max el	3685 Sep 27 09:23	3°  10'08'24 27°11'01
inferior conj	3684 Nov 08 22:51	17°  15'56'13 -1°13'44	retrograde	3685 Oct 10 18:11	10°  10'26'13
minimum elong	3684 Nov 09 00:52	17°  15'50'09 1°12'54	evening set	3685 Oct 17 16:01	7°  10'44'33
asc. node	3684 Nov 12 13:24	13°  15'56'50	min. Earth dist.	3685 Oct 21 12:33	4°  10'03'28 0.65002 AU
morning rise	3684 Nov 14 21:57	12°  15'10'30	inferior conj	3685 Oct 23 16:11	1°  10'40'09 -2°14'35
direct	3684 Nov 17 21:20	11°  15'20'37	minimum elong	3685 Oct 23 19:56	1°  10'29'41 2°13'07
morning max el	3684 Nov 24 13:17	14°  15'59'41 18°34'09		3685 Oct 25 04:57	30°  R 
	3684 Dec 05 14:32	0° 	morning rise	3685 Oct 30 00:51	26°  10'07'38
morning set	3684 Dec 14 23:41	14°  15'50'18	asc. node	3685 Oct 30 10:27	25°  10'57'16
desc. node	3684 Dec 19 18:51	22°  15'27'30	direct	3685 Nov 01 16:45	25°  10'30'00
	3684 Dec 24 13:28	0° 	morning max el	3685 Nov 08 04:28	28°  10'58'02 18°03'44
				3685 Nov 09 03:59	0° 
superior conj	3684 Dec 30 23:22	10°  10'04'28 -1°11'27	morning set	3685 Nov 26 02:53	25°  10'53'37
minimum elong	3684 Dec 30 14:56	9°  10'31'22 1°10'28		3685 Nov 28 14:23	0° 
max. Earth dist.	3684 Dec 31 03:41	10°  10'21'21 1.45231 AU	desc. node	3685 Dec 06 15:51	13°  10'29'27
	3685 Jan 12 15:10	0° 			
evening rise	3685 Jan 15 19:13	5°  10'01'48	superior conj	3685 Dec 10 06:19	18°  10'29'55'33 -0°24'29
greatest brilliancy	3685 Jan 24 15:11	19°  10'03'31 -0.8m	minimum elong	3685 Dec 10 03:16	18°  10'43'24 0°24'03
	3685 Jan 31 20:18	0° 	max. Earth dist.	3685 Dec 13 22:54	24°  10'29'46'16 1.45013 AU
evening max el	3685 Feb 06 20:18	7°  10'31'27 18°57'48		3685 Dec 17 06:50	0° 
asc. node	3685 Feb 08 12:42	9°  10'05'20	evening rise	3685 Dec 26 14:28	14°  10'28'45
retrograde	3685 Feb 13 16:13	11°  10'22'26		3686 Jan 05 17:09	0° 
evening set	3685 Feb 16 23:35	10°  10'19'11	greatest brilliancy	3686 Jan 09 04:19	5°  10'12'45 -0.7m
inferior conj	3685 Feb 22 14:13	4°  10'34'32 3°28'32	evening max el	3686 Jan 21 02:27	21°  10'22'43 19°47'56
minimum elong	3685 Feb 22 12:40	4°  10'39'23 3°28'21	asc. node	3686 Jan 26 09:44	24°  10'29'57'28
min. Earth dist.	3685 Feb 24 05:16	2°  10'32'07 0.65745 AU	retrograde	3686 Jan 28 13:40	25°  10'22'47

evening set	3686 Feb 01 04:46	24°  05'46		minimum elong	3687 Jan 21 18:11	1°  56'55	2°34'35
inferior conj	3686 Feb 06 15:20	18°  06'30	3°06'50	min. Earth dist.	3687 Jan 22 08:07	1°  09'01	0.67614 AU
minimum elong	3686 Feb 06 13:03	18°  14'07	3°06'22		3687 Jan 23 04:25	30°  R 	
min. Earth dist.	3686 Feb 07 15:50	16°  45'06	0.66887 AU	morning rise	3687 Jan 27 00:07	25°  35'14	
morning rise	3686 Feb 11 21:06	11°  52'48		direct	3687 Feb 01 10:07	23°  31'56	
direct	3686 Feb 17 21:27	9°  11'42		morning max el	3687 Feb 12 07:12	29°  341'00	23°57'43
morning max el	3686 Mar 01 22:38	16°  23'01	25°24'10		3687 Feb 12 14:40	0° 	
desc. node	3686 Mar 04 15:05	19°  15'03		desc. node	3687 Feb 19 12:07	7°  59'02	
	3686 Mar 13 05:38	0° 			3687 Mar 07 02:01	0° 	
	3686 Apr 01 18:28	0° 		morning set	3687 Mar 19 21:53	20°  H 	49'28
morning set	3686 Apr 07 04:01	9°  Y  29'35		max. Earth dist.	3687 Mar 23 16:52	27°  H 	27'32
max. Earth dist.	3686 Apr 10 20:44	16°  Y  18'59	1.36289 AU		3687 Mar 25 02:53	0° 	1.38354 AU
superior conj	3686 Apr 16 20:05	27°  Y  53'22	-1°11'54	superior conj	3687 Mar 30 22:34	10°  Y  46'54	-1°37'50
minimum elong	3686 Apr 16 23:52	28°  Y  12'09	1°11'16	minimum elong	3687 Mar 31 03:13	11°  Y  09'00	1°37'17
	3686 Apr 17 21:28	0° 		evening rise	3687 Apr 08 22:00	28°  Y 	14'43
asc. node	3686 Apr 24 09:02	13°  8  09'16			3687 Apr 09 19:31	0° 	
evening rise	3686 Apr 24 23:49	14°  8  24'14		asc. node	3687 Apr 11 06:04	2°  8  47'49	
	3686 May 03 03:41	0° 		evening max el	3687 Apr 25 08:44	24°  8  50'56	18°55'07
evening max el	3686 May 12 11:29	12°  II  50'09	19°49'11	retrograde	3687 May 03 19:16	28°  8  58'12	
retrograde	3686 May 22 11:48	17°  II  42'14		evening set	3687 May 05 22:25	28°  8  43'29	
evening set	3686 May 24 10:58	17°  II  31'49		inferior conj	3687 May 13 23:57	24°  8  26'27	1°16'00
desc. node	3686 May 31 14:17	14°  II  33'06		minimum elong	3687 May 14 02:44	24°  8  21'30	1°15'04
inferior conj	3686 Jun 02 07:45	13°  II  30'23	-0°30'38	min. Earth dist.	3687 May 17 03:36	22°  8  12'43	0.56886 AU
minimum elong	3686 Jun 02 06:21	13°  II  32'32	0°30'07	desc. node	3687 May 18 11:20	21°  8  20'34	
min. Earth dist.	3686 Jun 04 11:45	12°  II  10'41	0.55447 AU	morning rise	3687 May 22 03:51	19°  8  23'07	
morning rise	3686 Jun 10 23:34	9°  II  02'43		direct	3687 May 27 10:49	18°  8  16'13	
direct	3686 Jun 15 06:59	8°  II  21'48		morning max el	3687 Jun 10 18:27	25°  8  41'47	25°58'24
morning max el	3686 Jun 29 03:39	15°  II  15'01	24°23'21		3687 Jun 14 19:21	0° 	
	3686 Jul 10 20:26	0° 			3687 Jul 03 21:55	0° 	
asc. node	3686 Jul 21 08:17	18°  8  54'26		asc. node	3687 Jul 08 05:19	8°  8  44'42	
morning set	3686 Jul 24 07:03	25°  8  01'07		morning set	3687 Jul 08 18:19	9°  8  53'09	
	3686 Jul 26 14:55	0° 					
superior conj	3686 Jul 31 06:20	10°  8  05'55	1°27'31	superior conj	3687 Jul 15 17:22	25°  8  01'07	1°11'35
minimum elong	3686 Jul 31 04:08	9°  8  53'57	1°27'16	minimum elong	3687 Jul 15 15:01	24°  8  48'14	1°11'12
max. Earth dist.	3686 Aug 02 01:56	14°  8  01'47	1.32971 AU	max. Earth dist.	3687 Jul 16 10:54	26°  8  37'28	1.32306 AU
evening rise	3686 Aug 07 13:52	25°  8  33'49			3687 Jul 17 23:53	0° 	
	3686 Aug 09 19:05	0° 		evening rise	3687 Jul 22 17:09	10°  8  05'23	
	3686 Aug 27 09:34	0° 			3687 Aug 02 02:00	0° 	
desc. node	3686 Aug 27 13:35	0°  8  14'27		desc. node	3687 Aug 14 10:38	18°  8  17'57'03	
evening max el	3686 Sep 09 20:26	16°  8  17'57	27°26'41	evening max el	3687 Aug 23 03:15	28°  8  17'51'03	27°10'27
retrograde	3686 Sep 23 12:27	23°  8  34'18			3687 Aug 24 09:23	0° 	
evening set	3686 Sep 30 16:42	20°  8  58'29		retrograde	3687 Sep 05 23:39	6°  8  04'22	
min. Earth dist.	3686 Oct 04 08:25	17°  8  50'01	0.63397 AU	evening set	3687 Sep 13 02:31	3°  8  46'32	
inferior conj	3686 Oct 07 00:14	15°  8  10'30	-3°14'46	min. Earth dist.	3687 Sep 16 17:34	1°  8  02'19	0.61499 AU
minimum elong	3686 Oct 07 05:31	14°  8  57'17	3°13'02		3687 Sep 17 22:13	30°  R 	
morning rise	3686 Oct 13 19:42	9°  8  54'42		inferior conj	3687 Sep 19 19:49	28°  8  18'14	-4°09'49
direct	3686 Oct 16 06:41	9°  8  25'43		minimum elong	3687 Sep 20 01:40	28°  8  05'15	4°08'22
asc. node	3686 Oct 17 07:29	9°  8  30'57		morning rise	3687 Sep 27 02:36	23°  8  17'22'41	
morning max el	3686 Oct 22 21:04	12°  8  51'09	17°50'50	direct	3687 Sep 29 11:26	22°  8  17'59'19	
	3686 Nov 03 14:26	0° 		asc. node	3687 Oct 04 04:32	24°  8  17'35'31	
morning set	3686 Nov 08 07:43	8°  M  11'35		morning max el	3687 Oct 06 11:56	26°  8  17'30'28	17°56'19
					3687 Oct 09 12:44	0° 	
superior conj	3686 Nov 20 10:41	28°  M  51'49	0°21'18	morning set	3687 Oct 22 07:35	21°  8  17'23'17	
minimum elong	3686 Nov 20 12:52	29°  M  00'51	0°20'59		3687 Oct 27 01:06	0° 	
	3686 Nov 21 03:12	0° 		superior conj	3687 Nov 01 17:54	10°  8  17'06'42	0°58'06
desc. node	3686 Nov 23 12:53	3°  8  56'03		minimum elong	3687 Nov 01 22:04	10°  8  17'24'53	0°57'33
max. Earth dist.	3686 Nov 26 16:45	9°  8  02'09	1.44086 AU	max. Earth dist.	3687 Nov 09 05:59	22°  8  17'48'49	1.42558 AU
evening rise	3686 Dec 05 23:59	23°  8  38'09		desc. node	3687 Nov 10 09:55	24°  8  17'43'22	
	3686 Dec 10 03:48	0° 			3687 Nov 13 16:18	0° 	
	3686 Dec 31 02:52	0° 		evening rise	3687 Nov 15 15:45	3°  8  17'08'29	
evening max el	3687 Jan 04 03:14	4°  8  35'09	20°51'53		3687 Dec 03 14:21	0° 	
retrograde	3687 Jan 12 11:42	9°  8  31'30		evening max el	3687 Dec 17 22:30	18°  8  17'30'8'26	22°06'09
asc. node	3687 Jan 13 06:46	9°  8  28'02		retrograde	3687 Dec 27 08:29	23°  8  17'34'41	
evening set	3687 Jan 16 12:04	7°  8  59'34		asc. node	3687 Dec 31 03:48	22°  8  17'27'05	
inferior conj	3687 Jan 21 20:41	1°  8  48'18	2°35'18	evening set	3687 Dec 31 19:47	21°  8  17'56'59	

inferior conj	3688 Jan 06 04:09	15°♂37'06	1°55'42	inferior conj	3688 Dec 20 11:50	29°♂30'15	1°09'18
minimum elong	3688 Jan 06 01:54	15°♂44'53	1°54'55	minimum elong	3688 Dec 20 10:18	29°♂35'31	1°08'42
min. Earth dist.	3688 Jan 06 03:52	15°♂38'05	0.67949 AU	min. Earth dist.	3688 Dec 20 00:41	0°♂08'32	0.67922 AU
morning rise	3688 Jan 11 07:54	9°♂26'09			3688 Dec 20 03:10	30°♂♂	
direct	3688 Jan 16 02:57	7°♂24'50		morning rise	3688 Dec 25 18:18	23°♂23'15	
morning max el	3688 Jan 25 17:52	13°♂05'24	22°29'02	direct	3688 Dec 29 23:07	21°♂44'43	
desc. node	3688 Feb 06 09:09	27°♂22'54		morning max el	3689 Jan 07 09:59	26°♂38'47	21°06'23
	3688 Feb 08 06:22	0°♂			3689 Jan 10 11:31	0°♂	
	3688 Feb 28 00:17	0°♂		desc. node	3689 Jan 23 06:12	17°♂15'20	
morning set	3688 Feb 28 12:32	0°♂49'56			3689 Jan 31 19:08	0°♂	
max. Earth dist.	3688 Mar 04 13:11	9°♂11'58	1.40524 AU	morning set	3689 Feb 06 23:06	9°♂♂32'11	
				max. Earth dist.	3689 Feb 14 15:25	21°♂♂49'43	1.42526 AU
					3689 Feb 19 13:42	0°♂	
superior conj	3688 Mar 12 08:13	22°♂49'41	-1°57'46				
minimum elong	3688 Mar 12 12:12	23°♂07'39	1°57'31	superior conj	3689 Feb 21 19:53	3°♂49'34	-2°07'07
	3688 Mar 16 06:25	0°♂		minimum elong	3689 Feb 21 20:32	3°♂52'19	2°07'06
evening rise	3688 Mar 22 10:06	11°♂31'58		evening rise	3689 Mar 05 08:10	24°♂06'10	
asc. node	3688 Mar 28 03:07	22°♂06'47			3689 Mar 08 14:58	0°♂	
	3688 Apr 01 19:29	0°♂		asc. node	3689 Mar 15 00:10	10°♂58'48	
evening max el	3688 Apr 07 14:30	7°♂26'09	18°21'23	evening max el	3689 Mar 22 01:20	20°♂25'46	18°07'25
retrograde	3688 Apr 14 21:47	11°♂03'44		retrograde	3689 Mar 28 16:50	23°♂49'34	
evening set	3688 Apr 17 07:22	10°♂41'15		evening set	3689 Mar 31 08:43	23°♂17'01	
inferior conj	3688 Apr 24 13:42	6°♂04'23	2°32'06	inferior conj	3689 Apr 06 23:09	18°♂19'38	3°16'49
minimum elong	3688 Apr 24 17:24	5°♂56'40	2°31'11	minimum elong	3689 Apr 07 01:39	18°♂13'36	3°16'27
min. Earth dist.	3688 Apr 28 00:18	3°♂13'34	0.58869 AU	min. Earth dist.	3689 Apr 10 03:45	15°♂16'20	0.61052 AU
morning rise	3688 May 02 00:31	0°♂30'30		morning rise	3689 Apr 13 16:38	12°♂25'51	
	3688 May 03 00:57	30°♂♂		direct	3689 Apr 20 10:24	10°♂09'55	
desc. node	3688 May 04 08:22	29°♂28'28		desc. node	3689 Apr 21 05:24	10°♂11'43	
direct	3688 May 08 04:48	28°♂48'43		morning max el	3689 May 04 16:05	18°♂06'06	27°46'59
	3688 May 13 12:33	0°♂			3689 May 14 15:08	0°♂	
morning max el	3688 May 22 14:12	6°♂34'36	27°09'45		3689 Jun 01 18:53	0°♂	
	3688 Jun 09 01:46	0°♂		morning set	3689 Jun 06 08:36	9°♂♂06'57	
morning set	3688 Jun 22 03:28	24°♂37'26		asc. node	3689 Jun 10 23:25	18°♂♂52'43	
asc. node	3688 Jun 24 02:22	28°♂45'58		max. Earth dist.	3689 Jun 12 09:08	21°♂♂55'49	1.32193 AU
	3688 Jun 24 16:09	0°♂					
superior conj	3688 Jun 29 05:12	9°♂♂56'25	0°51'33	superior conj	3689 Jun 13 16:05	24°♂♂45'00	0°28'00
minimum elong	3688 Jun 29 03:12	9°♂♂45'20	0°51'09	minimum elong	3689 Jun 13 14:50	24°♂♂38'13	0°27'44
max. Earth dist.	3688 Jun 28 22:34	9°♂♂19'48	1.32048 AU		3689 Jun 16 01:28	0°♂	
evening rise	3688 Jul 06 01:24	24°♂♂49'53		evening rise	3689 Jun 20 12:22	9°♂♂39'28	
	3688 Jul 08 13:02	0°♂			3689 Jun 30 22:57	0°♂	
	3688 Jul 26 00:47	0°♂		evening max el	3689 Jul 16 20:37	21°♂♂38'49	25°03'02
desc. node	3688 Jul 31 07:39	6°♂♂38'09		desc. node	3689 Jul 18 04:40	22°♂♂52'31	
evening max el	3688 Aug 04 03:30	10°♂♂38'11	26°20'58	retrograde	3689 Jul 30 19:42	28°♂♂43'04	
retrograde	3688 Aug 18 02:51	17°♂♂48'23		evening set	3689 Aug 05 07:10	27°♂♂34'30	
evening set	3688 Aug 24 16:44	16°♂♂01'22		min. Earth dist.	3689 Aug 10 08:16	24°♂♂49'50	0.57444 AU
min. Earth dist.	3688 Aug 28 16:40	13°♂♂26'11	0.59438 AU	inferior conj	3689 Aug 13 07:52	22°♂♂49'57	-5°08'56
inferior conj	3688 Aug 31 23:25	10°♂♂54'24	-4°51'57	minimum elong	3689 Aug 13 07:49	22°♂♂50'02	5°08'57
minimum elong	3688 Sep 01 03:47	10°♂♂45'55	4°51'21	morning rise	3689 Aug 21 10:53	18°♂♂39'04	
morning rise	3688 Sep 08 17:01	6°♂♂21'25		direct	3689 Aug 24 00:31	18°♂♂19'51	
direct	3688 Sep 11 02:44	6°♂♂01'08		morning max el	3689 Sep 01 23:17	22°♂♂32'26	19°07'37
morning max el	3688 Sep 18 21:46	9°♂♂47'31	18°21'26	asc. node	3689 Sep 06 22:37	28°♂♂25'38	
asc. node	3688 Sep 20 01:35	10°♂♂58'48			3689 Sep 08 00:32	0°♂	
	3688 Oct 02 02:56	0°♂		morning set	3689 Sep 18 19:48	19°♂♂30'15	
morning set	3688 Oct 04 20:59	5°♂♂13'11			3689 Sep 24 02:40	0°♂	
superior conj	3688 Oct 14 00:50	22°♂♂30'42	1°23'38	superior conj	3689 Sep 27 02:03	5°♂♂48'30	1°38'32
minimum elong	3688 Oct 14 04:31	22°♂♂47'33	1°23'16	minimum elong	3689 Sep 27 04:09	5°♂♂58'38	1°38'24
	3688 Oct 18 04:29	0°♂		max. Earth dist.	3689 Oct 03 17:49	18°♂♂16'08	1.38547 AU
max. Earth dist.	3688 Oct 21 13:29	5°♂♂53'00	1.40629 AU	evening rise	3689 Oct 07 13:14	25°♂♂01'08	
evening rise	3688 Oct 26 02:44	13°♂♂32'17			3689 Oct 10 11:11	0°♂	
desc. node	3688 Oct 27 06:57	15°♂♂27'58		desc. node	3689 Oct 14 03:59	6°♂♂06'12	
	3688 Nov 05 13:08	0°♂			3689 Oct 30 05:30	0°♂	
	3688 Nov 27 21:21	0°♂		evening max el	3689 Nov 12 02:20	15°♂♂24'52	24°44'25
evening max el	3688 Nov 29 13:29	1°♂♂44'26	23°25'47	retrograde	3689 Nov 23 16:27	22°♂♂09'37	
retrograde	3688 Dec 10 02:28	7°♂♂58'37		evening set	3689 Nov 29 05:54	19°♂♂50'19	
evening set	3688 Dec 15 02:15	5°♂♂54'48		asc. node	3689 Dec 03 21:51	14°♂♂32'21	
asc. node	3688 Dec 17 00:50	3°♂♂58'51		min. Earth dist.	3689 Dec 03 20:10	14°♂♂37'56	0.67550 AU

inferior conj	3689 Dec 04 18:00	13° ♊ 25'30	0°17'12	retrograde	3690 Nov 07 01:33	6° ♊ 12'04	
minimum elong	3689 Dec 04 17:35	13° ♊ 26'55	0°17'01	evening set	3690 Nov 13 04:58	3° ♊ 39'34	
morning rise	3689 Dec 10 05:22	7° ♊ 24'43			3690 Nov 16 17:05	30° ♋	
direct	3689 Dec 13 21:19	6° ♊ 07'28		min. Earth dist.	3690 Nov 17 11:51	29° ♋ 02'29	0.66838 AU
morning max el	3689 Dec 21 09:49	10° ♊ 23'32	19°55'28	inferior conj	3690 Nov 18 20:46	27° ♋ 19'05	-0°39'32
	3690 Jan 05 03:51	0° ♋		minimum elong	3690 Nov 18 21:49	27° ♋ 15'48	0°39'05
desc. node	3690 Jan 10 03:13	7° ♋ 28'38		asc. node	3690 Nov 20 18:53	24° ♋ 58'21	
morning set	3690 Jan 16 19:11	17° ♋ 40'53		morning rise	3690 Nov 24 15:04	21° ♋ 27'08	
	3690 Jan 24 16:49	0° ♌		direct	3690 Nov 27 19:59	20° ♋ 28'14	
max. Earth dist.	3690 Jan 28 01:37	5° ♌ 20'09	1.44092 AU	morning max el	3690 Dec 04 17:13	24° ♋ 17'23	18°59'16
					3690 Dec 09 12:34	0° ♌	
superior conj	3690 Feb 02 05:53	13° ♌ 40'13	-2°00'29	morning set	3690 Dec 27 01:58	26° ♌ 29'20	
minimum elong	3690 Feb 02 00:43	13° ♌ 19'15	2°00'13	desc. node	3690 Dec 28 00:14	27° ♌ 56'19	
	3690 Feb 12 01:48	0° ♍			3690 Dec 29 07:53	0° ♍	
evening rise	3690 Feb 15 11:51	5° ♍ 49'32		max. Earth dist.	3691 Jan 10 18:00	19° ♍ 27'09	1.45025 AU
asc. node	3690 Mar 01 21:11	29° ♍ 15'49					
	3690 Mar 02 10:20	0° ♎		superior conj	3691 Jan 12 16:37	22° ♍ 30'43	-1°34'23
evening max el	3690 Mar 05 14:05	3° ♎ 41'50	18°12'35	minimum elong	3691 Jan 12 07:28	21° ♍ 54'39	1°33'31
retrograde	3690 Mar 12 00:19	7° ♎ 06'24			3691 Jan 17 10:02	0° ♏	
evening set	3690 Mar 14 22:01	6° ♎ 22'30		evening rise	3691 Jan 27 17:16	16° ♏ 35'48	
inferior conj	3690 Mar 21 00:28	1° ♎ 05'17	3°35'53		3691 Feb 04 22:57	0° ♍	
minimum elong	3690 Mar 21 01:11	1° ♎ 03'21	3°35'50	asc. node	3691 Feb 16 18:12	16° ♍ 46'56	
	3690 Mar 22 00:18	30° ♋		evening max el	3691 Feb 17 01:55	17° ♍ 06'52	18°36'14
min. Earth dist.	3690 Mar 23 15:52	28° ♍ 13'25	0.63133 AU	retrograde	3691 Feb 23 15:58	20° ♍ 45'04	
morning rise	3690 Mar 27 03:18	25° ♍ 00'15		evening set	3691 Feb 26 19:37	19° ♍ 48'59	
direct	3690 Apr 03 01:01	22° ♍ 20'13		inferior conj	3691 Mar 04 13:40	14° ♍ 13'33	3°35'34
desc. node	3690 Apr 08 02:26	23° ♍ 34'34		minimum elong	3691 Mar 04 12:48	14° ♍ 16'09	3°35'30
	3690 Apr 16 15:46	0° ♎		min. Earth dist.	3691 Mar 06 13:28	11° ♍ 50'18	0.64902 AU
morning max el	3690 Apr 16 23:01	0° ♎ 18'00	27°46'39	morning rise	3691 Mar 10 05:28	8° ♍ 02'41	
	3690 May 08 16:07	0° ♏		direct	3691 Mar 16 22:53	5° ♍ 12'19	
morning set	3690 May 21 07:30	23° ♏ 14'42		desc. node	3691 Mar 25 23:27	9° ♍ 06'10	
	3690 May 24 14:40	0° ♐		morning max el	3691 Mar 30 08:41	13° ♍ 02'38	27°11'44
max. Earth dist.	3690 May 26 14:46	4° ♐ 13'16	1.32759 AU		3691 Apr 13 00:07	0° ♎	
asc. node	3690 May 28 20:27	9° ♐ 00'47			3691 May 01 06:23	0° ♏	
				morning set	3691 May 04 21:22	6° ♏ 52'25	
superior conj	3690 May 29 00:13	9° ♐ 21'08	0°01'39	max. Earth dist.	3691 May 09 11:49	16° ♏ 02'43	1.33769 AU
minimum elong	3690 May 29 00:08	9° ♐ 20'42	0°01'38				
behind sun begin	3690 May 28 18:54	8° ♐ 52'26		superior conj	3691 May 13 03:38	23° ♏ 38'47	-0°26'39
behind sun end	3690 May 29 05:22	9° ♐ 48'59		minimum elong	3691 May 13 05:01	23° ♏ 46'02	0°26'21
evening rise	3690 Jun 05 00:13	24° ♐ 27'49		asc. node	3691 May 15 17:30	29° ♏ 06'34	
	3690 Jun 07 15:53	0° ♑			3691 May 16 03:33	0° ♐	
	3690 Jun 26 08:06	0° ♒		evening rise	3691 May 20 11:04	9° ♐ 08'57	
evening max el	3690 Jun 28 09:47	2° ♒ 08'12	23°28'29		3691 May 31 10:40	0° ♑	
desc. node	3690 Jul 05 01:41	7° ♒ 07'34		evening max el	3691 Jun 10 02:21	12° ♑ 37'07	21°53'02
retrograde	3690 Jul 11 23:51	8° ♒ 56'19		desc. node	3691 Jun 21 22:42	18° ♑ 49'37	
evening set	3690 Jul 15 23:43	8° ♒ 21'24		retrograde	3691 Jun 22 16:48	18° ♑ 50'56	
min. Earth dist.	3690 Jul 22 19:40	5° ♒ 11'45	0.55839 AU	evening set	3691 Jun 25 08:50	18° ♑ 34'59	
inferior conj	3690 Jul 24 20:15	3° ♒ 59'43	-4°45'21	inferior conj	3691 Jul 04 17:25	14° ♑ 31'30	-3°31'44
minimum elong	3690 Jul 24 14:16	4° ♒ 08'37	4°44'28	minimum elong	3691 Jul 04 09:01	14° ♑ 43'14	3°29'19
morning rise	3690 Aug 02 07:16	0° ♒ 05'24		min. Earth dist.	3691 Jul 04 06:18	14° ♑ 47'02	0.54943 AU
	3690 Aug 02 17:27	30° ♋		morning rise	3691 Jul 13 10:42	10° ♑ 39'41	
direct	3690 Aug 05 03:19	29° ♑ 45'36		direct	3691 Jul 16 15:28	10° ♑ 17'10	
	3690 Aug 07 11:46	0° ♒		morning max el	3691 Jul 28 16:39	15° ♑ 55'47	21°43'08
morning max el	3690 Aug 15 13:46	4° ♒ 36'11	20°15'28		3691 Aug 08 11:52	0° ♓	
asc. node	3690 Aug 24 19:40	16° ♓ 41'51		asc. node	3691 Aug 11 16:43	5° ♓ 35'53	
	3690 Sep 01 00:16	0° ♑		morning set	3691 Aug 18 10:12	18° ♓ 53'56	
morning set	3690 Sep 03 00:58	4° ♑ 05'53			3691 Aug 23 16:35	0° ♒	
superior conj	3690 Sep 10 16:31	19° ♑ 45'35	1°44'19	superior conj	3691 Aug 25 16:19	4° ♑ 10'57	1°42'35
minimum elong	3690 Sep 10 16:55	19° ♑ 47'37	1°44'20	minimum elong	3691 Aug 25 15:21	4° ♑ 05'50	1°42'33
	3690 Sep 15 21:14	0° ♒		max. Earth dist.	3691 Aug 29 12:53	12° ♑ 07'28	1.34857 AU
max. Earth dist.	3690 Sep 15 23:59	0° ♒ 13'11	1.36560 AU	evening rise	3691 Sep 02 22:22	20° ♑ 47'11	
evening rise	3690 Sep 19 21:10	7° ♒ 29'28			3691 Sep 07 21:36	0° ♒	
desc. node	3690 Oct 01 00:59	26° ♒ 33'06		desc. node	3691 Sep 17 22:01	16° ♒ 43'14	
	3690 Oct 03 05:42	0° ♓			3691 Sep 27 03:24	0° ♓	
evening max el	3690 Oct 25 14:42	29° ♓ 06'52	25°54'49	evening max el	3691 Oct 08 03:12	12° ♓ 44'26	26°49'24
	3690 Oct 26 13:03	0° ♊		retrograde	3691 Oct 21 05:23	20° ♓ 00'13	

evening set	3691 Oct 27 21:28	17° \mathbb{M} 19'24		retrograde	3692 Oct 03 03:31	3° \mathbb{M} 25'22	
min. Earth dist.	3691 Oct 31 21:29	13° \mathbb{M} 18'21	0.65778 AU	evening set	3692 Oct 10 04:52	0° \mathbb{M} 44'29	
inferior conj	3691 Nov 02 18:12	11° \mathbb{M} 07'50	-1°39'26		3692 Oct 11 03:00	30° \mathbb{R} $\underline{\mathbb{A}}$	
minimum elong	3691 Nov 02 20:58	10° \mathbb{M} 59'47	1°38'18	min. Earth dist.	3692 Oct 13 22:55	27° $\underline{\mathbb{A}}$ 18'06	0.64361 AU
asc. node	3691 Nov 07 15:55	6° \mathbb{M} 12'57		inferior conj	3692 Oct 16 07:55	24° $\underline{\mathbb{A}}$ 46'26	-2°40'26
morning rise	3691 Nov 08 21:13	5° \mathbb{M} 27'36		minimum elong	3692 Oct 16 12:23	24° $\underline{\mathbb{A}}$ 34'31	2°38'48
direct	3691 Nov 11 17:11	4° \mathbb{M} 43'21		morning rise	3692 Oct 22 21:07	19° $\underline{\mathbb{A}}$ 20'53	
morning max el	3691 Nov 18 06:24	8° \mathbb{M} 16'17	18°19'10	asc. node	3692 Oct 24 12:58	18° $\underline{\mathbb{A}}$ 51'39	
	3691 Dec 03 08:47	0° \mathbb{A}		direct	3692 Oct 25 10:30	18° $\underline{\mathbb{A}}$ 47'30	
morning set	3691 Dec 07 12:08	6° \mathbb{A} 42'07		morning max el	3692 Oct 31 22:37	22° $\underline{\mathbb{A}}$ 13'28	17°56'04
desc. node	3691 Dec 14 21:15	18° \mathbb{A} 34'13			3692 Nov 06 23:53	0° \mathbb{M}	
	3691 Dec 22 02:23	0° \mathbb{B}		morning set	3692 Nov 18 02:58	18° \mathbb{M} 19'01	
					3692 Nov 25 01:55	0° \mathbb{A}	
superior conj	3691 Dec 22 18:45	1° \mathbb{B} 04'21	-0°52'06	desc. node	3692 Nov 30 18:18	9° \mathbb{A} 18'34	
minimum elong	3691 Dec 22 12:12	0° \mathbb{B} 38'39	0°51'15				
max. Earth dist.	3691 Dec 24 13:09	3° \mathbb{B} 50'55	1.45228 AU	superior conj	3692 Dec 01 09:21	10° \mathbb{A} 19'22	-0°04'20
evening rise	3692 Jan 07 23:42	26° \mathbb{B} 27'27		minimum elong	3692 Dec 01 08:51	10° \mathbb{A} 17'20	0°04'15
	3692 Jan 10 05:57	0° \approx		behind sun begin	3692 Nov 30 22:54	9° \mathbb{A} 37'12	
greatest brilliancy	3692 Jan 19 00:27	13° \approx 39'27	-0.8m	behind sun end	3692 Dec 01 18:47	10° \mathbb{A} 57'25	
	3692 Jan 30 20:46	0° \mathbb{H}		max. Earth dist.	3692 Dec 06 07:41	18° \mathbb{A} 12'19	1.44693 AU
evening max el	3692 Jan 31 10:33	0° \mathbb{H} 36'15	19°17'14		3692 Dec 13 20:26	0° \mathbb{B}	
asc. node	3692 Feb 03 15:14	3° \mathbb{H} 19'20		evening rise	3692 Dec 17 12:57	5° \mathbb{B} 41'48	
retrograde	3692 Feb 07 12:14	4° \mathbb{H} 38'51		greatest brilliancy	3693 Jan 01 01:55	27° \mathbb{B} 40'18	-0.6m
evening set	3692 Feb 10 22:42	3° \mathbb{H} 29'49			3693 Jan 02 16:16	0° \approx	
	3692 Feb 14 14:08	30° \mathbb{R} \approx		evening max el	3693 Jan 13 14:25	14° \approx 07'36	20°13'41
inferior conj	3692 Feb 16 11:17	27° \approx 38'23	3°20'41	asc. node	3693 Jan 20 12:15	18° \approx 38'23	
minimum elong	3692 Feb 16 09:21	27° \approx 44'36	3°20'23	retrograde	3693 Jan 21 10:16	18° \approx 42'59	
min. Earth dist.	3692 Feb 17 19:53	25° \approx 53'12	0.66275 AU	evening set	3693 Jan 25 05:00	17° \approx 19'54	
morning rise	3692 Feb 21 19:44	21° \approx 24'53		inferior conj	3693 Jan 30 14:30	11° \approx 15'06	2°54'34
direct	3692 Feb 28 03:14	18° \approx 37'20		minimum elong	3693 Jan 30 12:03	11° \approx 23'22	2°53'59
desc. node	3692 Mar 11 20:28	26° \approx 12'38		min. Earth dist.	3693 Jan 31 09:18	10° \approx 11'30	0.67236 AU
morning max el	3692 Mar 11 18:34	26° \approx 07'49	26°09'07	morning rise	3693 Feb 04 18:53	5° \approx 01'14	
	3692 Mar 15 08:21	0° \mathbb{H}		direct	3693 Feb 10 13:14	2° \approx 26'48	
	3692 Apr 05 13:37	0° \mathbb{Y}		morning max el	3693 Feb 22 03:16	9° \approx 22'24	24°48'20
morning set	3692 Apr 16 22:20	19° \mathbb{Y} 48'23		desc. node	3693 Feb 26 17:30	14° \approx 26'53	
max. Earth dist.	3692 Apr 20 21:27	27° \mathbb{Y} 20'36	1.35241 AU		3693 Mar 10 10:08	0° \mathbb{H}	
	3692 Apr 22 06:02	0° \mathbb{B}			3693 Mar 29 04:44	0° \mathbb{Y}	
superior conj	3692 Apr 25 23:55	7° \mathbb{B} 30'25	-0°55'36	morning set	3693 Mar 30 05:21	1° \mathbb{Y} 48'27	
minimum elong	3692 Apr 26 02:52	7° \mathbb{B} 45'26	0°55'03	max. Earth dist.	3693 Apr 02 20:29	8° \mathbb{Y} 21'29	1.37128 AU
asc. node	3692 May 01 14:33	19° \mathbb{B} 05'10					
evening rise	3692 May 03 18:54	23° \mathbb{B} 35'46		superior conj	3693 Apr 09 09:59	20° \mathbb{Y} 48'06	-1°23'23
	3692 May 06 22:50	0° \mathbb{I}		minimum elong	3693 Apr 09 14:15	21° \mathbb{Y} 08'55	1°22'46
evening max el	3692 May 22 05:06	23° \mathbb{I} 34'09	20°29'18		3693 Apr 14 01:24	0° \mathbb{B}	
retrograde	3692 Jun 02 06:01	28° \mathbb{I} 57'20		evening rise	3693 Apr 17 21:23	7° \mathbb{B} 41'35	
evening set	3692 Jun 04 06:22	28° \mathbb{I} 47'18		asc. node	3693 Apr 18 11:36	8° \mathbb{B} 52'31	
desc. node	3692 Jun 07 19:43	27° \mathbb{I} 45'17			3693 Apr 30 10:40	0° \mathbb{I}	
inferior conj	3692 Jun 13 11:24	24° \mathbb{I} 49'33	-1°39'51	evening max el	3693 May 04 20:09	5° \mathbb{I} 12'29	19°23'47
minimum elong	3692 Jun 13 06:42	24° \mathbb{I} 56'22	1°38'09	retrograde	3693 May 14 03:34	9° \mathbb{I} 43'50	
min. Earth dist.	3692 Jun 14 18:28	24° \mathbb{I} 04'29	0.54981 AU	evening set	3693 May 16 03:36	9° \mathbb{I} 32'13	
morning rise	3692 Jun 22 06:06	20° \mathbb{I} 39'25		inferior conj	3693 May 24 16:40	5° \mathbb{I} 25'29	0°17'34
direct	3692 Jun 26 01:15	20° \mathbb{I} 08'17		minimum elong	3693 May 24 17:25	5° \mathbb{I} 24'16	0°17'18
morning max el	3692 Jul 09 10:24	26° \mathbb{I} 37'13	23°24'00	desc. node	3693 May 25 16:44	4° \mathbb{I} 46'07	
	3692 Jul 12 16:38	0° \mathbb{B}		min. Earth dist.	3693 May 27 08:58	3° \mathbb{I} 41'09	0.55969 AU
asc. node	3692 Jul 28 13:46	24° \mathbb{B} 57'18		morning rise	3693 Jun 02 04:18	0° \mathbb{I} 42'22	
	3692 Jul 31 01:52	0° \mathbb{Q}			3693 Jun 05 00:01	30° \mathbb{R} \mathbb{B}	
morning set	3692 Aug 01 21:31	3° \mathbb{Q} 47'28		direct	3693 Jun 06 21:32	29° \mathbb{B} 51'40	
					3693 Jun 08 19:00	0° \mathbb{I}	
superior conj	3692 Aug 08 22:20	18° \mathbb{Q} 53'54	1°34'35	morning max el	3693 Jun 21 00:26	7° \mathbb{I} 01'06	25°05'34
minimum elong	3692 Aug 08 20:26	18° \mathbb{Q} 43'42	1°34'24		3693 Jul 07 19:19	0° \mathbb{B}	
max. Earth dist.	3692 Aug 11 10:33	24° \mathbb{Q} 14'54	1.33539 AU	asc. node	3693 Jul 15 10:51	14° \mathbb{B} 38'49	
	3692 Aug 14 04:47	0° \mathbb{M}		morning set	3693 Jul 17 09:17	18° \mathbb{B} 41'23	
evening rise	3692 Aug 16 12:26	4° \mathbb{M} 41'37			3693 Jul 22 14:44	0° \mathbb{Q}	
	3692 Aug 30 14:24	0° $\underline{\mathbb{A}}$		superior conj	3693 Jul 24 08:08	3° \mathbb{Q} 46'40	1°21'19
desc. node	3692 Sep 03 19:03	6° $\underline{\mathbb{A}}$ 28'15		minimum elong	3693 Jul 24 05:49	3° \mathbb{Q} 33'59	1°21'00
evening max el	3692 Sep 19 15:04	26° $\underline{\mathbb{A}}$ 06'56	27°21'10	max. Earth dist.	3693 Jul 25 16:06	6° \mathbb{Q} 41'02	1.32641 AU
	3692 Sep 24 06:36	0° \mathbb{M}		evening rise	3693 Jul 31 11:47	19° \mathbb{Q} 02'28	

	3693 Aug 06 01:03	0°♎			3694 Jul 29 19:57	0°♎	
desc. node	3693 Aug 21 16:04	25°♎37'37		desc. node	3694 Aug 08 13:05	13°♎56'52	
	3693 Aug 24 22:47	0°♏		evening max el	3694 Aug 15 05:15	21°♎18'25	26°53'26
evening max el	3693 Sep 02 00:38	9°♏02'27	27°23'49	retrograde	3694 Aug 29 03:08	28°♎29'41	
retrograde	3693 Sep 15 19:12	16°♏18'06		evening set	3694 Sep 05 01:56	26°♎23'56	
evening set	3693 Sep 22 23:47	13°♏48'28		min. Earth dist.	3694 Sep 08 19:25	23°♎45'27	0.60633 AU
min. Earth dist.	3693 Sep 26 14:29	10°♏51'28	0.62618 AU	inferior conj	3694 Sep 12 00:25	21°♎04'38	-4°29'52
inferior conj	3693 Sep 29 11:06	8°♏08'10	-3°39'10	minimum elong	3694 Sep 12 05:58	20°♎53'00	4°28'45
minimum elong	3693 Sep 29 16:47	7°♏54'35	3°37'28	morning rise	3694 Sep 19 11:52	16°♎18'05	
morning rise	3693 Oct 06 11:22	3°♏00'31		direct	3694 Sep 21 20:43	15°♎56'15	
direct	3693 Oct 08 20:57	2°♏34'23		asc. node	3694 Sep 28 07:05	18°♎44'52	
asc. node	3693 Oct 11 10:02	3°♏04'39		morning max el	3694 Sep 29 03:59	19°♎32'50	18°04'26
morning max el	3693 Oct 15 14:52	6°♏01'35	17°50'46		3694 Oct 06 20:45	0°♏	
	3693 Oct 31 02:46	0°♎		morning set	3694 Oct 14 22:58	14°♏32'27	
morning set	3693 Oct 31 16:40	1°♎01'52			3694 Oct 23 08:22	0°♎	
superior conj	3693 Nov 12 01:06	20°♎48'51	0°38'15	superior conj	3694 Oct 24 19:05	2°♎35'22	1°10'18
minimum elong	3693 Nov 12 04:32	21°♎03'21	0°37'46	minimum elong	3694 Oct 24 23:16	2°♎53'58	1°09'48
desc. node	3693 Nov 17 15:20	0°♏05'45		max. Earth dist.	3694 Nov 01 10:33	15°♎47'25	1.41780 AU
	3693 Nov 17 13:56	0°♏		desc. node	3694 Nov 04 12:23	20°♎52'46	
max. Earth dist.	3693 Nov 18 23:20	2°♏15'42	1.43497 AU	evening rise	3694 Nov 06 22:06	24°♎46'26	
evening rise	3693 Nov 26 23:05	14°♏54'50			3694 Nov 10 05:12	0°♏	
	3693 Dec 06 21:31	0°♏			3694 Nov 30 19:42	0°♏	
evening max el	3693 Dec 27 12:50	27°♏40'14	21°22'37	evening max el	3694 Dec 10 06:14	11°♏15'22	22°39'43
	3693 Dec 30 00:58	0°♏		retrograde	3694 Dec 20 03:29	17°♏07'35	
retrograde	3694 Jan 05 07:54	2°♏53'24		evening set	3694 Dec 24 19:59	15°♏13'01	
asc. node	3694 Jan 07 09:18	2°♏30'18		asc. node	3694 Dec 25 06:19	14°♏50'42	
evening set	3694 Jan 09 12:38	1°♏15'05		inferior conj	3694 Dec 30 04:45	8°♏50'55	1°36'48
	3694 Jan 10 21:36	30°♏		minimum elong	3694 Dec 30 02:45	8°♏57'49	1°36'03
inferior conj	3694 Jan 14 20:59	24°♏59'56	2°19'24	min. Earth dist.	3694 Dec 29 23:48	9°♏08'04	0.67990 AU
minimum elong	3694 Jan 14 18:31	25°♏08'25	2°18'39	morning rise	3695 Jan 04 09:23	2°♏41'34	
min. Earth dist.	3694 Jan 15 03:23	24°♏37'46	0.67800 AU	direct	3695 Jan 08 22:22	0°♏49'51	
morning rise	3694 Jan 20 00:13	18°♏47'27		morning max el	3695 Jan 18 00:34	6°♏09'14	21°52'41
direct	3694 Jan 25 03:56	16°♏32'54		desc. node	3695 Jan 31 11:35	23°♏06'21	
morning max el	3694 Feb 04 12:04	22°♏41'44	23°19'41		3695 Feb 05 06:23	0°♏	
	3694 Feb 10 21:24	0°♏		morning set	3695 Feb 19 14:10	21°♏59'16	
desc. node	3694 Feb 13 14:32	3°♏29'10			3695 Feb 24 12:15	0°♏	
	3694 Mar 03 18:45	0°♏		max. Earth dist.	3695 Feb 25 13:57	1°♏46'42	1.41421 AU
morning set	3694 Mar 11 12:09	12°♏35'11					
max. Earth dist.	3694 Mar 15 15:17	19°♏39'24	1.39277 AU	superior conj	3695 Mar 05 06:45	14°♏58'16	-2°03'22
	3694 Mar 21 10:14	0°♏		minimum elong	3695 Mar 05 09:41	15°♏11'14	2°03'14
					3695 Mar 13 14:25	0°♏	
superior conj	3694 Mar 23 05:52	3°♏21'12	-1°47'17	evening rise	3695 Mar 15 22:13	4°♏17'43	
minimum elong	3694 Mar 23 10:30	3°♏42'42	1°46'50	asc. node	3695 Mar 23 05:39	17°♏31'01	
evening rise	3694 Apr 01 15:39	21°♏18'13			3695 Mar 31 23:43	0°♏	
asc. node	3694 Apr 05 08:38	28°♏23'05		evening max el	3695 Apr 01 05:45	0°♏15'00	18°13'03
	3694 Apr 06 05:25	0°♏		retrograde	3695 Apr 08 04:48	3°♏44'47	
evening max el	3694 Apr 17 21:29	17°♏28'58	18°38'24	evening set	3695 Apr 10 17:15	3°♏18'04	
retrograde	3694 Apr 25 18:46	21°♏21'09			3695 Apr 15 23:45	30°♏	
evening set	3694 Apr 28 00:45	21°♏03'23		inferior conj	3695 Apr 17 16:17	28°♏32'07	2°54'40
inferior conj	3694 May 05 17:52	16°♏38'22	1°52'16	minimum elong	3695 Apr 17 19:38	28°♏24'40	2°53'58
minimum elong	3694 May 05 21:24	16°♏31'38	1°51'12	min. Earth dist.	3695 Apr 21 01:26	25°♏33'11	0.59794 AU
min. Earth dist.	3694 May 09 02:31	14°♏06'10	0.57686 AU	morning rise	3695 Apr 24 19:34	22°♏48'44	
desc. node	3694 May 12 13:45	11°♏52'50		desc. node	3695 Apr 29 10:47	21°♏01'19	
morning rise	3694 May 13 14:52	11°♏21'12		direct	3695 May 01 06:43	20°♏52'01	
direct	3694 May 19 07:53	9°♏59'50		morning max el	3695 May 15 14:53	28°♏42'26	27°30'17
morning max el	3694 Jun 02 16:41	17°♏35'07	26°32'20		3695 May 16 21:26	0°♏	
	3694 Jun 12 23:34	0°♏			3695 Jun 06 18:44	0°♏	
	3694 Jun 30 03:26	0°♏		morning set	3695 Jun 16 03:31	18°♏09'12	
morning set	3694 Jul 01 19:52	3°♏30'41		asc. node	3695 Jun 19 04:57	24°♏38'16	
asc. node	3694 Jul 02 07:55	4°♏34'22			3695 Jun 21 16:07	0°♏	
				max. Earth dist.	3695 Jun 22 14:32	2°♏03'04	1.32060 AU
superior conj	3694 Jul 08 19:44	18°♏42'43	1°03'34	superior conj	3695 Jun 23 07:19	3°♏35'30	0°41'57
minimum elong	3694 Jul 08 17:28	18°♏30'17	1°03'10	minimum elong	3695 Jun 23 05:35	3°♏25'56	0°41'36
max. Earth dist.	3694 Jul 09 02:42	19°♏21'11	1.32151 AU	evening rise	3695 Jun 30 03:07	18°♏28'17	
	3694 Jul 13 23:51	0°♏			3695 Jul 05 19:03	0°♏	
evening rise	3694 Jul 15 17:30	3°♏40'51					

	3695 Jul 25 09:49	0°♍	evening rise	3696 Jun 13 14:41	3°♊18'14	
desc. node	3695 Jul 26 10:06	1°♍04'47		3696 Jun 27 23:15	0°♊	
evening max el	3695 Jul 28 02:26	2°♍45'20 25°50'49	evening max el	3696 Jul 08 16:56	13°♊29'04 24°23'58	
retrograde	3695 Aug 11 01:48	9°♍53'02	desc. node	3696 Jul 12 07:05	16°♊33'01	
evening set	3695 Aug 17 06:22	8°♍21'54	retrograde	3696 Jul 22 13:40	20°♊29'03	
min. Earth dist.	3695 Aug 21 14:41	5°♍45'13 0.58569 AU	evening set	3696 Jul 27 10:42	19°♊35'51	
inferior conj	3695 Aug 24 20:13	3°♍24'47 -5°03'05	min. Earth dist.	3696 Aug 02 03:48	16°♊42'20 0.56693 AU	
minimum elong	3695 Aug 24 23:04	3°♍19'34 5°02'52	inferior conj	3696 Aug 04 19:57	15°♊00'50 -5°04'48	
	3695 Aug 30 04:23	30°♋♊	minimum elong	3696 Aug 04 17:20	15°♊04'59 5°04'38	
morning rise	3695 Sep 01 18:01	29°♊01'30	morning rise	3696 Aug 13 02:36	10°♊58'35	
direct	3695 Sep 04 05:16	28°♊41'45	direct	3696 Aug 15 18:40	10°♊39'24	
	3695 Sep 08 23:16	0°♍	morning max el	3696 Aug 25 07:48	15°♊06'19 19°33'52	
morning max el	3695 Sep 12 10:38	2°♍37'24 18°38'24	asc. node	3696 Sep 01 01:12	23°♊26'40	
asc. node	3695 Sep 15 04:08	5°♍37'06		3696 Sep 04 23:55	0°♍	
morning set	3695 Sep 28 16:49	28°♍35'30	morning set	3696 Sep 11 18:39	13°♍01'25	
	3695 Sep 29 10:13	0°♊				
superior conj	3695 Oct 07 10:30	15°♊24'30 1°31'10	superior conj	3696 Sep 19 17:56	29°♍01'05 1°41'59	
minimum elong	3695 Oct 07 13:34	15°♊38'53 1°30'54	minimum elong	3696 Sep 19 19:18	29°♍07'47 1°41'57	
max. Earth dist.	3695 Oct 14 16:45	28°♊35'30 1.39753 AU	max. Earth dist.	3696 Sep 20 05:56	0°♊	
	3695 Oct 15 12:06	0°♌	evening rise	3696 Sep 25 20:56	10°♊44'06 1.37678 AU	
evening rise	3695 Oct 18 19:02	5°♌37'41		3696 Sep 29 15:05	17°♊32'51	
desc. node	3695 Oct 22 09:25	11°♌35'14	desc. node	3696 Oct 06 22:33	0°♌	
	3695 Nov 03 08:09	0°♊		3696 Oct 08 06:25	2°♌09'11	
evening max el	3695 Nov 22 20:01	24°♊53'10 23°59'38	evening max el	3696 Oct 27 16:49	0°♊	
	3695 Nov 29 05:46	0°♊	retrograde	3696 Nov 04 08:17	8°♊34'00 25°15'40	
retrograde	3695 Dec 03 19:50	1°♊21'08	retrograde	3696 Nov 16 07:58	15°♊29'23	
	3695 Dec 07 23:18	30°♋♊	evening set	3696 Nov 22 03:25	13°♊03'48	
evening set	3695 Dec 09 01:28	29°♊10'18	min. Earth dist.	3696 Nov 26 14:22	8°♊06'21 0.67292 AU	
asc. node	3695 Dec 12 03:20	25°♊52'43	inferior conj	3696 Nov 27 16:56	6°♊40'00 -0°06'23	
inferior conj	3695 Dec 14 11:59	22°♊45'08 0°47'51	minimum elong	3696 Nov 27 17:06	6°♊39'29 0°06'19	
minimum elong	3695 Dec 14 10:52	22°♊48'54 0°47'23	transit middle	3696 Nov 27 17:06	6°♊39'29 0°06'19	
min. Earth dist.	3695 Dec 13 20:13	23°♊38'34 0.67814 AU	transit begin	3696 Nov 27 14:32	6°♊47'49	
morning rise	3695 Dec 19 20:19	16°♊40'46	transit end	3696 Nov 27 19:39	6°♊31'09	
direct	3695 Dec 23 19:27	15°♊11'43	asc. node	3696 Nov 28 00:22	6°♊15'51	
morning max el	3695 Dec 31 19:56	19°♊47'57 20°34'33	morning rise	3696 Dec 03 07:02	0°♊42'46	
	3696 Jan 09 04:54	0°♊		3696 Dec 04 14:48	30°♋♌	
desc. node	3696 Jan 18 08:39	13°♊08'34	direct	3696 Dec 06 17:56	29°♌33'56	
	3696 Jan 29 10:55	0°♌		3696 Dec 08 22:52	0°♊	
morning set	3696 Jan 29 15:58	0°♌19'32	morning max el	3696 Dec 13 23:13	3°♊37'27 19°29'35	
max. Earth dist.	3696 Feb 07 20:03	14°♌49'57 1.43261 AU	greatest brilliancy	3696 Dec 27 03:52	21°♊11'05 -0.7m	
				3697 Jan 01 23:21	0°♊	
superior conj	3696 Feb 14 07:41	25°♌28'43 -2°06'32	desc. node	3697 Jan 04 05:40	3°♊28'34	
minimum elong	3696 Feb 14 06:02	25°♌21'49 2°06'30	morning set	3697 Jan 07 13:29	8°♊36'28	
	3696 Feb 17 00:11	0°♋	max. Earth dist.	3697 Jan 20 08:52	28°♊36'55 1.44570 AU	
evening rise	3696 Feb 26 13:01	16°♋31'41		3697 Jan 21 05:50	0°♌	
	3696 Mar 05 06:44	0°♍	superior conj	3697 Jan 24 06:48	4°♌50'38 -1°51'46	
asc. node	3696 Mar 09 02:39	6°♍09'21	minimum elong	3697 Jan 23 23:20	4°♌20'46 1°51'16	
evening max el	3696 Mar 14 17:41	13°♍22'17 18°07'16	evening rise	3697 Feb 07 07:37	27°♌51'15	
retrograde	3696 Mar 21 05:53	16°♍45'08		3697 Feb 08 14:20	0°♋	
evening set	3696 Mar 24 00:10	16°♍07'55	asc. node	3697 Feb 23 23:40	24°♋08'26	
inferior conj	3696 Mar 30 09:00	11°♍01'42 3°27'41	evening max el	3697 Feb 26 06:18	26°♋42'43 18°20'28	
minimum elong	3696 Mar 30 10:45	10°♍57'14 3°27'29		3697 Mar 03 05:40	0°♍	
min. Earth dist.	3696 Apr 02 08:27	8°♍00'41 0.61957 AU	retrograde	3697 Mar 04 17:19	0°♍11'56	
morning rise	3696 Apr 05 19:48	5°♍02'00		3697 Mar 06 04:48	30°♋♋	
direct	3696 Apr 12 16:08	2°♍34'31	evening set	3697 Mar 07 17:22	29°♋23'08	
desc. node	3696 Apr 15 07:48	2°♍54'52	inferior conj	3697 Mar 13 15:52	23°♋58'05 3°37'47	
morning max el	3696 Apr 26 19:25	10°♍32'41 27°51'35	minimum elong	3697 Mar 13 15:51	23°♋58'07 3°37'46	
	3696 May 12 00:06	0°♌	min. Earth dist.	3697 Mar 16 00:48	21°♋16'25 0.63925 AU	
	3696 May 29 00:29	0°♌	morning rise	3697 Mar 19 13:30	17°♋49'48	
morning set	3696 May 30 06:19	2°♌30'50	direct	3697 Mar 26 10:11	15°♋03'22	
max. Earth dist.	3696 Jun 04 23:38	14°♌33'41 1.32375 AU	desc. node	3697 Apr 02 04:50	17°♋16'38	
asc. node	3696 Jun 05 01:58	14°♌46'18	morning max el	3697 Apr 09 03:58	23°♋00'23 27°35'42	
				3697 Apr 15 08:54	0°♍	
superior conj	3696 Jun 06 17:14	18°♌19'34 0°17'07		3697 May 05 06:26	0°♌	
minimum elong	3696 Jun 06 16:27	18°♌15'15 0°16'58	morning set	3697 May 14 01:45	16°♌26'55	
	3696 Jun 12 01:42	0°♊	max. Earth dist.	3697 May 19 01:51	26°♌39'06 1.33126 AU	

	3697 May 20 15:59	0°♊		morning max el	3698 Mar 22 13:46	5°♎54'49	26°47'47
					3698 Apr 10 01:39	0°♍	
superior conj	3697 May 21 23:36	2°♊48'21	-0°10'12	morning set	3698 Apr 27 10:37	29°♍48'12	
minimum elong	3697 May 22 00:07	2°♊51'05	0°10'05		3698 Apr 27 13:05	0°♎	
behind sun begin	3697 May 21 19:55	2°♊28'39		max. Earth dist.	3698 May 01 17:52	8°♎12'55	1.34342 AU
behind sun end	3697 May 22 04:19	3°♊13'32					
asc. node	3697 May 22 22:59	4°♊53'41		superior conj	3698 May 06 00:19	16°♎55'53	-0°38'56
evening rise	3697 May 29 02:17	18°♊03'42		minimum elong	3698 May 06 02:21	17°♎06'32	0°38'32
	3697 Jun 03 23:44	0°♏		asc. node	3698 May 09 20:02	24°♎56'46	
evening max el	3697 Jun 20 06:26	23°♏53'28	22°47'10		3698 May 12 05:38	0°♊	
desc. node	3697 Jun 29 04:05	29°♏46'13		evening rise	3698 May 13 12:06	2°♊39'14	
	3697 Jun 29 22:08	0°♎			3698 May 29 02:30	0°♏	
retrograde	3697 Jul 03 12:58	0°♎29'58		evening max el	3698 Jun 02 02:52	4°♏31'46	21°15'27
evening set	3697 Jul 06 21:31	0°♎05'15		retrograde	3698 Jun 14 02:25	10°♏24'32	
	3697 Jul 07 05:51	30°♎♏		evening set	3698 Jun 16 09:33	10°♏12'22	
min. Earth dist.	3697 Jul 14 14:49	26°♏40'48	0.55347 AU	desc. node	3698 Jun 16 01:06	10°♏15'46	
inferior conj	3697 Jul 16 00:44	25°♏52'07	-4°20'14	inferior conj	3698 Jun 25 18:40	6°♏13'47	-2°47'12
minimum elong	3697 Jul 15 17:00	26°♏03'15	4°18'35	minimum elong	3698 Jun 25 11:14	6°♏24'12	2°44'47
morning rise	3697 Jul 24 14:42	22°♏00'53		min. Earth dist.	3698 Jun 26 02:04	6°♏03'24	0.54840 AU
direct	3697 Jul 27 13:44	21°♏40'29		morning rise	3698 Jul 04 13:21	2°♏16'23	
morning max el	3697 Aug 07 17:18	26°♏51'13	20°50'39	direct	3698 Jul 07 23:33	1°♏51'00	
	3697 Aug 10 17:27	0°♎		morning max el	3698 Jul 20 15:35	7°♏51'53	22°25'05
asc. node	3697 Aug 18 22:15	12°♎00'02			3698 Aug 05 05:10	0°♎	
morning set	3697 Aug 27 01:47	27°♎42'45		asc. node	3698 Aug 05 19:17	1°♎06'31	
	3697 Aug 28 04:20	0°♎♏		morning set	3698 Aug 11 12:06	12°♎33'18	
superior conj	3697 Sep 03 12:48	13°♎11'29	1°44'25	superior conj	3698 Aug 18 15:31	27°♎44'49	1°39'53
minimum elong	3697 Sep 03 12:34	13°♎10'17	1°44'25	minimum elong	3698 Aug 18 14:05	27°♎37'15	1°39'48
max. Earth dist.	3697 Sep 08 05:04	22°♎35'25	1.35789 AU		3698 Aug 19 17:08	0°♎♏	
evening rise	3697 Sep 12 06:55	0°♏23'54		max. Earth dist.	3698 Aug 21 21:40	4°♎33'46	1.34244 AU
	3697 Sep 12 01:48	0°♏		evening rise	3698 Aug 26 14:03	13°♎58'28	
desc. node	3697 Sep 25 03:26	22°♏29'49			3698 Sep 04 07:30	0°♏	
	3697 Sep 30 01:33	0°♎♏		desc. node	3698 Sep 12 00:27	12°♏30'17	
evening max el	3697 Oct 17 20:42	22°♎15'31	26°20'26		3698 Sep 24 22:23	0°♎♏	
retrograde	3697 Oct 30 15:07	29°♎27'00		evening max el	3698 Sep 30 09:21	5°♎49'05	27°06'17
evening set	3697 Nov 06 00:01	26°♎50'21		retrograde	3698 Oct 13 16:32	13°♎06'20	
min. Earth dist.	3697 Nov 10 03:56	22°♎28'19	0.66426 AU	evening set	3698 Oct 20 13:00	10°♎24'42	
inferior conj	3697 Nov 11 17:45	20°♎32'48	-1°04'39	min. Earth dist.	3698 Oct 24 10:26	6°♎38'31	0.65214 AU
minimum elong	3697 Nov 11 19:30	20°♎27'27	1°03'54	inferior conj	3698 Oct 26 12:14	4°♎18'24	-2°05'21
asc. node	3697 Nov 14 21:26	16°♎57'04		minimum elong	3698 Oct 26 15:44	4°♎08'32	2°03'57
morning rise	3697 Nov 17 15:32	14°♎45'17			3698 Oct 30 19:33	30°♎♏	
direct	3697 Nov 20 16:17	13°♎53'09		morning rise	3698 Nov 01 19:24	28°♏43'42	
morning max el	3697 Nov 27 09:22	17°♎34'34	18°40'06	asc. node	3698 Nov 01 18:30	28°♏44'47	
	3697 Dec 06 19:17	0°♏♏		direct	3698 Nov 04 12:18	28°♏04'26	
morning set	3697 Dec 18 06:58	17°♏58'52			3698 Nov 09 06:15	0°♎♏	
desc. node	3697 Dec 22 02:41	24°♏01'25		morning max el	3698 Nov 11 00:09	1°♎33'24	18°07'12
	3697 Dec 25 21:42	0°♏		morning set	3698 Nov 29 05:55	28°♎49'54	
superior conj	3698 Jan 03 11:34	13°♏28'11	-1°17'55		3698 Nov 29 22:56	0°♏♏	
minimum elong	3698 Jan 03 02:42	12°♏53'25	1°16'56	desc. node	3698 Dec 08 23:43	14°♏42'36	
max. Earth dist.	3698 Jan 03 02:23	12°♏52'09	1.45204 AU	superior conj	3698 Dec 13 16:38	22°♏13'07	-0°31'47
	3698 Jan 13 23:11	0°♏♏		minimum elong	3698 Dec 13 12:38	21°♏57'16	0°31'13
evening rise	3698 Jan 19 03:04	8°♏13'30		max. Earth dist.	3698 Dec 16 21:57	27°♏18'29	1.45097 AU
greatest brilliancy	3698 Jan 27 01:09	20°♏53'31	-0.9m		3698 Dec 18 15:04	0°♏	
	3698 Feb 01 22:02	0°♎♏		evening rise	3698 Dec 30 00:59	17°♏46'25	
evening max el	3698 Feb 09 17:07	10°♎10'49	18°51'41		3699 Jan 06 23:03	0°♏♏	
asc. node	3698 Feb 10 20:43	11°♎16'52		greatest brilliancy	3699 Jan 12 00:08	7°♏40'02	-0.7m
retrograde	3698 Feb 16 11:14	13°♎58'01		evening max el	3699 Jan 23 23:59	23°♏41'50	19°39'30
evening set	3698 Feb 19 17:38	12°♎56'38		asc. node	3699 Jan 28 17:46	27°♏20'15	
inferior conj	3698 Feb 25 09:04	7°♎14'23	3°30'45	retrograde	3699 Jan 31 08:27	27°♏56'59	
minimum elong	3698 Feb 25 07:41	7°♎18'41	3°30'37	evening set	3699 Feb 03 22:21	26°♏41'59	
min. Earth dist.	3698 Feb 27 02:22	5°♎06'19	0.65544 AU	inferior conj	3699 Feb 09 09:23	20°♏44'38	3°10'46
morning rise	3698 Mar 02 21:19	1°♎02'10		minimum elong	3699 Feb 09 07:10	20°♏51'55	3°10'21
	3698 Mar 04 04:46	30°♎♏		min. Earth dist.	3699 Feb 10 11:54	19°♏17'07	0.66745 AU
direct	3698 Mar 09 11:13	28°♏11'11		morning rise	3699 Feb 14 15:45	14°♏31'01	
	3698 Mar 15 07:29	0°♎♏		direct	3699 Feb 20 18:02	11°♏48'02	
desc. node	3698 Mar 20 01:53	3°♎32'32		morning max el	3699 Mar 04 23:01	19°♏04'30	25°36'15

desc. node	3699 Mar 06 22:54	21° \approx 10'36		3700 Feb 12 19:22	0° \approx	
	3699 Mar 14 05:40	0° H	morning max el	3700 Feb 15 07:38	2° \approx 21'59	24°10'57
	3699 Apr 03 03:26	0° Y	desc. node	3700 Feb 21 19:57	9° \approx 47'25	
morning set	3699 Apr 10 04:37	12° Y 22'08		3700 Mar 08 08:06	0° H	
max. Earth dist.	3699 Apr 13 22:40	19° Y 21'03	1.36006 AU	morning set	3700 Mar 23 02:06	23° H 53'03
	3699 Apr 19 09:46	0° B			3700 Mar 26 13:25	0° Y
				max. Earth dist.	3700 Mar 26 19:23	0° Y 26'48 1.38029 AU
superior conj	3699 Apr 19 16:41	0° B 34'34	-1°07'40			
minimum elong	3699 Apr 19 20:15	0° B 52'27	1°07'04	superior conj	3700 Apr 02 21:15	13° Y 34'37 -1°34'12
asc. node	3699 Apr 26 17:05	14° B 51'30		minimum elong	3700 Apr 03 01:51	13° Y 56'35 1°33'37
evening rise	3699 Apr 27 17:59	16° B 58'22			3700 Apr 11 06:35	0° B
	3699 May 04 10:29	0° II		evening rise	3700 Apr 11 17:23	0° B 53'12
evening max el	3699 May 15 10:56	15° II 46'17	19°58'58	asc. node	3700 Apr 13 14:08	4° B 32'36
retrograde	3699 May 25 17:32	20° II 46'21		evening max el	3700 Apr 28 06:37	27° B 41'18 19°01'55
evening set	3699 May 27 16:41	20° II 36'11			3700 May 01 02:27	0° II
desc. node	3699 Jun 02 22:07	18° II 12'08		retrograde	3700 May 06 22:23	1° II 54'33
inferior conj	3699 Jun 05 15:53	16° II 36'01	-0°48'38	evening set	3700 May 09 00:30	1° II 40'49
minimum elong	3699 Jun 05 13:38	16° II 39'26	0°47'47		3700 May 13 05:36	30° R B
min. Earth dist.	3699 Jun 07 14:47	15° II 25'19	0.55296 AU	inferior conj	3700 May 17 05:04	27° B 26'36 1°01'33
morning rise	3699 Jun 14 08:45	12° II 13'25		minimum elong	3700 May 17 07:25	27° B 22'30 1°00'44
direct	3699 Jun 18 12:48	11° II 35'26		min. Earth dist.	3700 May 20 06:17	25° B 20'01 0.56624 AU
morning max el	3699 Jul 02 06:52	18° II 22'30	24°08'09	desc. node	3700 May 20 19:09	24° B 58'49
	3699 Jul 11 21:23	0° B		morning rise	3700 May 25 11:09	22° B 28'20
asc. node	3699 Jul 23 16:21	20° B 37'44		direct	3700 May 30 14:28	21° B 26'01
morning set	3699 Jul 26 23:50	27° B 28'14		morning max el	3700 Jun 13 21:22	28° B 48'00 25°45'23
	3699 Jul 28 04:23	0° Q			3700 Jun 15 02:22	0° II
					3700 Jul 05 08:19	0° B
superior conj	3699 Aug 02 23:24	12° Q 33'02	1°29'33	asc. node	3700 Jul 10 13:23	10° B 26'01
minimum elong	3699 Aug 02 21:16	12° Q 21'27	1°29'18	morning set	3700 Jul 11 11:17	12° B 21'04
max. Earth dist.	3699 Aug 04 23:17	16° Q 51'10	1.33105 AU			
evening rise	3699 Aug 10 08:30	28° Q 05'43		superior conj	3700 Jul 18 10:10	27° B 27'59 1°14'18
	3699 Aug 11 07:14	0° P		minimum elong	3700 Jul 18 07:49	27° B 15'05 1°13'56
	3699 Aug 28 12:17	0° A		max. Earth dist.	3700 Jul 19 07:24	29° B 24'30 1.32379 AU
desc. node	3699 Aug 29 21:29	2° A 02'01			3700 Jul 19 13:53	0° Q
evening max el	3699 Sep 12 20:39	19° A 02'22	27°26'12	evening rise	3700 Jul 25 10:49	12° Q 34'44
retrograde	3699 Sep 26 11:43	26° A 19'13			3700 Aug 03 10:34	0° P
evening set	3699 Oct 03 15:31	23° A 41'40		desc. node	3700 Aug 16 18:30	20° P 52'11
min. Earth dist.	3699 Oct 07 07:44	20° A 28'51	0.63659 AU		3700 Aug 24 11:06	0° A
inferior conj	3699 Oct 09 21:51	17° A 51'02	-3°05'52	evening max el	3700 Aug 26 04:09	1° A 41'18 27°14'56
minimum elong	3699 Oct 10 02:56	17° A 38'04	3°04'08	retrograde	3700 Sep 09 00:11	8° A 55'29
morning rise	3699 Oct 16 15:40	12° A 32'41		evening set	3700 Sep 16 03:50	6° A 34'03
direct	3699 Oct 19 03:13	12° A 02'38		min. Earth dist.	3700 Sep 19 18:29	3° A 47'00 0.61796 AU
asc. node	3699 Oct 19 15:33	12° A 03'57		inferior conj	3700 Sep 22 19:28	1° A 02'30 -4°02'06
morning max el	3699 Oct 25 16:44	15° A 27'47	17°51'38	minimum elong	3700 Sep 23 01:20	0° A 49'15 4°00'36
	3699 Nov 04 22:00	0° M			3700 Sep 23 23:28	30° R P
morning set	3699 Nov 11 07:19	10° M 57'48		morning rise	3700 Sep 30 00:35	26° P 03'51
	3699 Nov 22 12:30	0° X		direct	3700 Oct 02 09:29	25° P 39'53
				asc. node	3700 Oct 06 12:35	26° P 55'15
superior conj	3699 Nov 23 17:10	1° X 58'02	0°14'50	morning max el	3700 Oct 09 08:03	29° P 09'45 17°54'17
minimum elong	3699 Nov 23 18:45	2° X 04'32	0°14'36		3700 Oct 10 03:35	0° A
behind sun begin	3699 Nov 23 14:34	1° X 47'24		morning set	3700 Oct 25 04:41	24° A 02'26
behind sun end	3699 Nov 23 22:55	2° X 21'39			3700 Oct 28 11:37	0° M
desc. node	3699 Nov 25 20:47	5° X 28'51				
max. Earth dist.	3699 Nov 29 16:09	11° X 36'37	1.44266 AU	superior conj	3700 Nov 04 20:25	13° M 01'31 0°53'14
evening rise	3699 Dec 09 10:58	26° X 55'52		minimum elong	3700 Nov 05 00:30	13° M 19'06 0°52'41
	3699 Dec 11 10:58	0° B		max. Earth dist.	3700 Nov 12 05:52	25° M 27'31 1.42813 AU
	3700 Jan 01 00:02	0° \approx		desc. node	3700 Nov 12 17:50	26° M 16'29
evening max el	3700 Jan 07 01:33	7° \approx 13'52	20°41'36		3700 Nov 15 00:59	0° X
retrograde	3700 Jan 15 06:37	12° \approx 04'44		evening rise	3700 Nov 19 00:46	6° X 20'35
asc. node	3700 Jan 15 14:49	12° \approx 04'05			3700 Dec 04 18:13	0° B
evening set	3700 Jan 19 05:28	10° \approx 35'05		evening max el	3700 Dec 20 21:33	20° B 47'10 21°54'39
inferior conj	3700 Jan 24 14:14	4° \approx 25'17	2°40'38	retrograde	3700 Dec 30 03:41	26° B 17'41
minimum elong	3700 Jan 24 11:44	4° \approx 33'52	2°39'57	asc. node	3701 Jan 02 11:49	25° B 17'33
min. Earth dist.	3700 Jan 25 03:31	3° \approx 39'50	0.67530 AU	evening set	3701 Jan 03 13:12	24° B 32'28
	3700 Jan 27 23:55	30° R B		inferior conj	3701 Jan 08 21:30	18° B 13'38 2°02'13
morning rise	3700 Jan 29 17:50	28° B 11'56		minimum elong	3701 Jan 08 19:11	18° B 21'39 2°01'25
direct	3700 Feb 04 05:58	25° B 45'42		min. Earth dist.	3701 Jan 08 22:56	18° B 08'41 0.67920 AU

morning rise	3701 Jan 14 01:02	12°30'08"		direct	3702 Jan 02 18:04	24°16'38"	
direct	3701 Jan 18 22:18	9°35'20"		morning max el	3702 Jan 11 08:44	29°17'05"	21°18'03"
morning max el	3701 Jan 28 17:43	15°34'28"	22°42'01"		3702 Jan 12 01:27	0°30'	
desc. node	3701 Feb 08 17:01	29°30'28"		desc. node	3702 Jan 26 14:03	18°35'22"	
	3701 Feb 09 08:42	0°00'			3702 Feb 03 01:39	0°00'	
	3701 Mar 01 08:40	0°00'		morning set	3702 Feb 11 11:20	12°05'28"	
morning set	3701 Mar 03 21:05	4°06'15"		max. Earth dist.	3702 Feb 18 16:06	24°03'12"	1.42254 AU
max. Earth dist.	3701 Mar 08 15:00	12°03'34"	1.40204 AU		3702 Feb 21 22:55	0°00'	
superior conj	3701 Mar 16 09:43	25°04'54"	-1°55'20"	superior conj	3702 Feb 26 00:57	6°05'04"	-2°06'37"
minimum elong	3701 Mar 16 13:57	26°05'08"	1°55'01"	minimum elong	3702 Feb 26 02:18	7°01'52"	2°06'35"
	3701 Mar 18 17:12	0°00'		evening rise	3702 Mar 09 07:35	26°05'05"	
evening rise	3701 Mar 26 07:12	14°01'56"			3702 Mar 10 23:58	0°00'	
asc. node	3701 Mar 31 11:09	23°05'47"		asc. node	3702 Mar 18 08:10	12°05'13"	
	3701 Apr 03 22:46	0°00'		evening max el	3702 Mar 25 21:37	23°08'45"	18°08'15"
evening max el	3701 Apr 11 11:19	10°01'20"	18°25'08"	retrograde	3702 Apr 01 14:40	26°03'27"	
retrograde	3701 Apr 18 21:52	13°05'20"		evening set	3702 Apr 04 05:42	26°02'26"	
evening set	3701 Apr 21 06:30	13°03'14"		inferior conj	3702 Apr 10 22:15	21°08'01"	3°11'50"
inferior conj	3701 Apr 28 15:34	8°05'03"	2°22'40"	minimum elong	3702 Apr 11 01:00	21°01'30"	3°11'22"
minimum elong	3701 Apr 28 19:17	8°05'27"	2°21'40"	min. Earth dist.	3702 Apr 14 04:20	18°05'03"	0.60733 AU
min. Earth dist.	3701 May 02 02:10	6°01'10"	0.58554 AU	morning rise	3702 Apr 17 18:13	15°01'43"	
morning rise	3701 May 06 05:03	3°02'06"		direct	3702 Apr 24 10:41	13°05'27"	
desc. node	3701 May 07 16:10	2°04'27"		desc. node	3702 Apr 24 13:12	13°05'29"	
direct	3701 May 12 06:39	1°05'13"		morning max el	3702 May 08 16:58	21°00'12"	27°43'49"
morning max el	3701 May 26 16:06	9°03'18"	27°01'03"		3702 May 16 11:57	0°00'	
	3701 Jun 11 06:45	0°00'			3702 Jun 04 05:31	0°00'	
morning set	3701 Jun 25 20:49	27°06'37"		morning set	3702 Jun 10 02:40	11°03'45"	
asc. node	3701 Jun 27 10:26	0°02'50"		asc. node	3702 Jun 14 07:28	20°03'20"	
	3701 Jun 27 05:36	0°00'		max. Earth dist.	3702 Jun 16 05:47	24°03'57"	1.32144 AU
superior conj	3701 Jul 02 21:58	12°02'31"	0°54'49"	superior conj	3702 Jun 17 09:05	27°03'38"	0°31'46"
minimum elong	3701 Jul 02 19:53	12°01'20"	0°54'26"	minimum elong	3702 Jun 17 07:42	27°06'02"	0°31'29"
max. Earth dist.	3701 Jul 02 18:48	12°06'00"	1.32060 AU		3702 Jun 18 15:22	0°00'	
evening rise	3701 Jul 09 18:26	27°01'41"		evening rise	3702 Jun 24 05:08	12°07'13"	
	3701 Jul 11 01:27	0°00'			3702 Jul 03 06:16	0°00'	
	3701 Jul 27 23:42	0°00'		evening max el	3702 Jul 20 23:47	24°04'53"	25°16'10"
desc. node	3701 Aug 03 15:30	8°04'37"		desc. node	3702 Jul 21 12:28	25°01'34"	
evening max el	3701 Aug 08 05:34	13°03'58"	26°30'23"		3702 Jul 28 01:46	0°00'	
retrograde	3701 Aug 22 04:45	20°04'37"		retrograde	3702 Aug 03 23:08	1°04'49"	
evening set	3701 Aug 28 21:16	18°05'28"		evening set	3702 Aug 09 15:25	0°00'34"	
min. Earth dist.	3701 Sep 01 19:06	16°01'55"	0.59745 AU		3702 Aug 10 21:21	30°00'00"	
inferior conj	3701 Sep 05 01:40	13°04'41"	-4°46'53"	min. Earth dist.	3702 Aug 14 11:36	27°05'24"	0.57725 AU
minimum elong	3701 Sep 05 06:27	13°03'43"	4°46'10"	inferior conj	3702 Aug 17 13:10	25°04'01"	-5°08'42"
morning rise	3701 Sep 12 17:43	9°00'38"		minimum elong	3702 Aug 17 13:58	25°04'53"	5°08'41"
direct	3701 Sep 15 03:03	8°04'47"		morning rise	3702 Aug 25 14:53	21°03'25"	
morning max el	3701 Sep 22 18:50	12°03'04"	18°16'21"	direct	3702 Aug 28 03:51	21°01'35"	
asc. node	3701 Sep 23 09:38	13°00'41"		morning max el	3702 Sep 05 21:46	25°02'12"	18°59'19"
	3701 Oct 04 12:35	0°00'			3702 Sep 09 22:54	0°00'	
morning set	3701 Oct 08 16:20	7°04'35"		asc. node	3702 Sep 10 06:41	0°00'26"	
				morning set	3702 Sep 22 14:01	22°00'15"	
superior conj	3701 Oct 18 00:07	25°01'04"	1°20'28"		3702 Sep 26 14:46	0°00'	
minimum elong	3701 Oct 18 03:58	25°03'35"	1°20'04"	superior conj	3702 Sep 30 22:59	8°02'19"	1°36'53"
	3701 Oct 20 15:08	0°00'		minimum elong	3702 Oct 01 01:20	8°03'38"	1°36'44"
max. Earth dist.	3701 Oct 25 14:08	8°03'31"	1.40931 AU	max. Earth dist.	3702 Oct 07 18:57	21°08'38"	1.38860 AU
evening rise	3701 Oct 30 08:22	16°03'56"		evening rise	3702 Oct 11 15:28	27°05'12"	
desc. node	3701 Oct 30 14:50	17°01'50"			3702 Oct 12 20:38	0°00'	
	3701 Nov 07 19:55	0°00'		desc. node	3702 Oct 17 11:50	7°04'13"	
	3701 Nov 29 12:46	0°00'			3702 Nov 01 07:43	0°00'	
evening max el	3701 Dec 03 13:06	4°02'30"	23°13'53"	evening max el	3702 Nov 16 02:11	18°03'10"	24°33'01"
retrograde	3701 Dec 13 22:06	10°03'14"		retrograde	3702 Nov 27 12:38	24°04'37"	
evening set	3701 Dec 18 19:54	8°03'02"		evening set	3702 Dec 03 00:04	22°02'26"	
asc. node	3701 Dec 20 08:51	7°01'24"		asc. node	3702 Dec 07 05:52	17°04'05"	
inferior conj	3701 Dec 24 05:15	2°06'22"	1°16'47"	min. Earth dist.	3702 Dec 07 15:30	17°09'04"	0.67632 AU
minimum elong	3701 Dec 24 03:34	2°01'28"	1°16'07"	inferior conj	3702 Dec 08 11:44	16°01'33"	0°25'27"
min. Earth dist.	3701 Dec 23 19:42	2°03'12"	0.67948 AU	minimum elong	3702 Dec 08 11:07	16°03'36"	0°25'11"
	3701 Dec 25 18:35	30°00'00"		morning rise	3702 Dec 13 22:15	9°05'45"	
morning rise	3701 Dec 29 11:09	25°05'39"					

direct	3702 Dec 17 16:03	8°♊39'28			3703 Nov 22 13:47	30°♏♏	
morning max el	3702 Dec 25 07:20	13°♊00'12	20°05'07	asc. node	3703 Nov 24 02:56	28°♏04'18	
	3703 Jan 07 08:21	0°♊		morning rise	3703 Nov 28 08:19	24°♏02'20	
desc. node	3703 Jan 13 11:05	9°♊06'03		direct	3703 Dec 01 14:44	23°♏00'58	
morning set	3703 Jan 21 08:02	21°♊07'31		morning max el	3703 Dec 08 13:47	26°♏53'22	19°06'36
	3703 Jan 27 00:50	0°♊			3703 Dec 11 08:38	0°♊	
max. Earth dist.	3703 Feb 01 01:22	7°♊57'23	1.43899 AU	morning set	3703 Dec 31 11:46	29°♊46'13	
				desc. node	3703 Dec 31 08:08	29°♊32'03	
superior conj	3703 Feb 06 14:47	16°♊56'48	-2°02'41		3703 Dec 31 15:19	0°♊	
minimum elong	3703 Feb 06 10:32	16°♊39'26	2°02'32	max. Earth dist.	3704 Jan 14 17:06	22°♊00'30	1.44928 AU
	3703 Feb 14 10:44	0°♊					
evening rise	3703 Feb 19 14:14	8°♊48'29		superior conj	3704 Jan 17 04:22	25°♊54'25	-1°39'33
	3703 Mar 04 08:25	0°♊		minimum elong	3704 Jan 16 19:27	25°♊19'07	1°38'45
asc. node	3703 Mar 05 05:10	1°♊14'31			3704 Jan 19 18:16	0°♊	
evening max el	3703 Mar 09 10:15	6°♊22'50	18°10'37	evening rise	3704 Jan 31 23:11	19°♊43'48	
retrograde	3703 Mar 15 20:38	9°♊46'31			3704 Feb 07 05:19	0°♊	
evening set	3703 Mar 18 17:29	9°♊04'18		asc. node	3704 Feb 20 02:12	18°♊53'45	
inferior conj	3703 Mar 24 21:28	3°♊49'48	3°34'20	evening max el	3704 Feb 20 22:22	19°♊47'10	18°31'36
minimum elong	3703 Mar 24 22:27	3°♊47'10	3°34'16	retrograde	3704 Feb 27 11:25	23°♊22'48	
min. Earth dist.	3703 Mar 27 15:00	0°♊55'04	0.62838 AU	evening set	3704 Mar 01 14:06	22°♊28'39	
	3703 Mar 28 12:57	30°♊		inferior conj	3704 Mar 07 09:10	16°♊55'45	3°36'36
morning rise	3703 Mar 31 02:15	27°♊46'00		minimum elong	3704 Mar 07 08:31	16°♊57'42	3°36'35
direct	3703 Apr 06 23:52	25°♊08'54		min. Earth dist.	3704 Mar 09 11:19	14°♊27'24	0.64656 AU
desc. node	3703 Apr 11 10:14	26°♊05'56		morning rise	3704 Mar 13 02:22	10°♊45'22	
	3703 Apr 17 13:52	0°♊		direct	3704 Mar 19 20:46	7°♊55'41	
morning max el	3703 Apr 20 23:20	3°♊06'46	27°49'06	desc. node	3704 Mar 28 07:18	11°♊20'50	
	3703 May 10 22:41	0°♊		morning max el	3704 Apr 02 08:56	15°♊48'16	27°18'57
morning set	3703 May 25 02:40	25°♊50'30			3704 Apr 14 01:17	0°♊	
	3703 May 27 03:33	0°♊			3704 May 02 16:36	0°♊	
max. Earth dist.	3703 May 30 12:32	7°♊05'49	1.32647 AU	morning set	3704 May 07 18:08	9°♊33'53	
asc. node	3703 Jun 01 04:29	10°♊40'25		max. Earth dist.	3704 May 12 11:10	19°♊00'35	1.33590 AU
superior conj	3703 Jun 01 17:45	11°♊52'09	0°05'49	superior conj	3704 May 15 22:03	26°♊13'19	-0°22'15
minimum elong	3703 Jun 01 17:29	11°♊50'38	0°05'45	minimum elong	3704 May 15 23:12	26°♊19'22	0°22'01
behind sun begin	3703 Jun 01 12:34	11°♊24'06			3704 May 17 16:44	0°♊	
behind sun end	3703 Jun 01 22:23	12°♊17'12		asc. node	3704 May 18 01:32	0°♊46'55	
evening rise	3703 Jun 08 16:59	26°♊56'29		evening rise	3704 May 23 04:08	11°♊39'25	
	3703 Jun 10 03:50	0°♊			3704 Jun 01 15:04	0°♊	
	3703 Jun 27 19:01	0°♊		evening max el	3704 Jun 13 04:33	15°♊42'46	22°06'41
evening max el	3703 Jul 02 13:05	5°♊16'08	23°43'01	desc. node	3704 Jun 24 06:30	21°♊56'26	
desc. node	3703 Jul 08 09:29	9°♊49'28		retrograde	3704 Jun 25 23:44	22°♊03'16	
retrograde	3703 Jul 16 05:11	12°♊07'51		evening set	3704 Jun 28 19:32	21°♊45'30	
evening set	3703 Jul 20 10:40	11°♊28'35		min. Earth dist.	3704 Jul 07 09:52	18°♊04'04	0.55021 AU
min. Earth dist.	3703 Jul 26 23:13	8°♊23'38	0.56040 AU	inferior conj	3704 Jul 08 03:12	17°♊39'43	-3°45'55
inferior conj	3703 Jul 29 04:24	7°♊03'36	-4°52'10	minimum elong	3704 Jul 07 18:45	17°♊51'34	3°43'40
minimum elong	3703 Jul 28 23:14	7°♊11'25	4°51'30	morning rise	3704 Jul 16 19:45	13°♊48'45	
morning rise	3703 Aug 06 14:21	3°♊07'43		direct	3704 Jul 19 22:49	13°♊26'58	
direct	3703 Aug 09 09:23	2°♊48'07		morning max el	3704 Jul 31 18:37	18°♊58'08	21°29'03
morning max el	3703 Aug 19 14:02	7°♊32'02	20°04'02		3704 Aug 09 15:11	0°♊	
asc. node	3703 Aug 28 03:44	18°♊36'07		asc. node	3704 Aug 14 00:48	7°♊24'56	
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morning set	3703 Sep 06 18:26	6°♊35'38			3704 Aug 25 05:53	0°♊	
superior conj	3703 Sep 14 11:48	22°♊19'49	1°43'58	superior conj	3704 Aug 28 10:27	6°♊41'35	1°43'16
minimum elong	3703 Sep 14 12:27	22°♊23'04	1°43'57	minimum elong	3704 Aug 28 09:39	6°♊37'27	1°43'14
	3703 Sep 18 09:11	0°♊		max. Earth dist.	3704 Sep 01 12:04	15°♊01'04	1.35087 AU
max. Earth dist.	3703 Sep 20 00:36	3°♊08'50	1.36843 AU	evening rise	3704 Sep 05 19:23	23°♊26'26	
evening rise	3703 Sep 23 20:29	10°♊15'29			3704 Sep 09 07:59	0°♊	
desc. node	3703 Oct 04 08:51	28°♊10'36		desc. node	3704 Sep 20 05:51	18°♊23'26	
	3703 Oct 05 12:26	0°♊			3704 Sep 28 03:53	0°♊	
	3703 Oct 27 20:54	0°♊		evening max el	3704 Oct 11 02:54	15°♊23'34	26°42'32
evening max el	3703 Oct 29 14:31	1°♊45'11	25°45'03	retrograde	3704 Oct 24 03:17	22°♊38'47	
retrograde	3703 Nov 10 22:32	8°♊48'00		evening set	3704 Oct 30 17:37	19°♊58'44	
evening set	3703 Nov 16 23:58	6°♊17'05		min. Earth dist.	3704 Nov 03 18:35	15°♊52'18	0.65957 AU
min. Earth dist.	3703 Nov 21 07:52	1°♊34'47	0.66970 AU	inferior conj	3704 Nov 05 13:32	13°♊45'24	-1°30'16
inferior conj	3703 Nov 22 15:09	29°♊55'37	-0°30'42	minimum elong	3704 Nov 05 16:01	13°♊38'02	1°29'13
minimum elong	3703 Nov 22 15:57	29°♊53'04	0°30'20	asc. node	3704 Nov 10 00:00	9°♊08'29	

morning rise	3704 Nov 11 15:10	8°♍03'15		min. Earth dist.	3705 Oct 17 21:28	29°♊55'19	0.64589 AU
direct	3704 Nov 14 12:14	7°♍17'09		inferior conj	3705 Oct 20 04:36	27°♊26'20	-2°31'16
morning max el	3704 Nov 21 02:18	10°♍52'02	18°24'03	minimum elong	3705 Oct 20 08:49	27°♊14'54	2°29'40
	3704 Dec 04 15:44	0°♊		morning rise	3705 Oct 26 16:12	21°♊58'17	
morning set	3704 Dec 10 17:29	9°♊45'30		asc. node	3705 Oct 27 21:04	21°♊33'35	
desc. node	3704 Dec 17 05:09	20°♊08'38		direct	3705 Oct 29 06:22	21°♊23'31	
	3704 Dec 23 10:34	0°♊		morning max el	3705 Nov 04 18:16	24°♊50'10	17°58'23
					3705 Nov 09 00:29	0°♍	
superior conj	3704 Dec 26 06:29	4°♊27'02	-0°59'09	morning set	3705 Nov 22 04:25	21°♍11'27	
minimum elong	3704 Dec 25 23:10	3°♊58'19	0°58'13		3705 Nov 27 10:50	0°♊	
max. Earth dist.	3704 Dec 27 11:46	6°♊21'58	1.45242 AU	desc. node	3705 Dec 04 02:11	10°♊52'21	
evening rise	3705 Jan 11 08:50	29°♊42'42					
	3705 Jan 11 13:13	0°♋		superior conj	3705 Dec 05 18:10	13°♊33'21	-0°11'25
greatest brilliancy	3705 Jan 21 16:13	15°♋53'03	-0.8m	minimum elong	3705 Dec 05 16:47	13°♊27'49	0°11'14
	3705 Jan 31 11:11	0°♋		behind sun begin	3705 Dec 05 09:13	12°♊57'25	
evening max el	3705 Feb 03 07:36	3°♋16'01	19°10'09	behind sun end	3705 Dec 06 00:21	13°♊58'11	
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minimum elong	3705 Feb 19 03:57	0°♋24'12	3°23'27	greatest brilliancy	3706 Jan 05 10:51	0°♋55'22	-0.6m
	3705 Feb 19 11:30	30°♋		evening max el	3706 Jan 17 12:18	16°♋47'27	20°04'25
min. Earth dist.	3705 Feb 20 16:36	28°♋27'04	0.66094 AU	asc. node	3706 Jan 23 20:19	21°♋07'11	
morning rise	3705 Feb 24 15:04	24°♋05'07		retrograde	3706 Jan 25 05:03	21°♋17'18	
direct	3705 Mar 03 00:19	21°♋16'14		evening set	3706 Jan 28 22:27	19°♋56'25	
desc. node	3705 Mar 15 04:21	28°♋14'47		inferior conj	3706 Feb 03 08:18	13°♋53'33	2°59'08
morning max el	3705 Mar 15 18:53	28°♋50'59	26°19'50	minimum elong	3706 Feb 03 05:54	14°♋01'37	2°58'35
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	3705 Apr 07 20:41	0°♌		morning rise	3706 Feb 08 13:06	7°♋39'40	
morning set	3705 Apr 20 21:18	22°♌36'54		direct	3706 Feb 14 09:36	5°♋02'40	
	3705 Apr 24 17:55	0°♌		morning max el	3706 Feb 26 03:37	12°♋04'06	25°01'01
max. Earth dist.	3705 Apr 24 22:24	0°♌21'56	1.34992 AU	desc. node	3706 Mar 02 01:23	16°♋20'05	
					3706 Mar 12 13:17	0°♋	
superior conj	3705 Apr 29 19:33	10°♌09'15	-0°51'13		3706 Mar 31 14:21	0°♌	
minimum elong	3705 Apr 29 22:16	10°♌23'10	0°50'43	morning set	3706 Apr 03 07:18	4°♌45'49	
asc. node	3705 May 04 22:34	20°♌46'48		max. Earth dist.	3706 Apr 06 22:34	11°♌22'36	1.36826 AU
evening rise	3705 May 07 12:32	26°♌08'33					
	3705 May 09 09:47	0°♍		superior conj	3706 Apr 13 07:20	23°♌32'20	-1°19'22
evening max el	3705 May 26 05:34	26°♍34'32	20°40'43	minimum elong	3706 Apr 13 11:27	23°♌52'31	1°18'44
	3705 May 30 13:23	0°♍			3706 Apr 16 13:23	0°♌	
retrograde	3705 Jun 06 12:41	2°♍05'33		evening rise	3706 Apr 21 15:56	10°♌17'34	
evening set	3705 Jun 08 14:09	1°♍55'15		asc. node	3706 Apr 21 19:36	10°♌35'57	
desc. node	3705 Jun 11 03:33	1°♍15'58			3706 May 02 09:30	0°♍	
	3705 Jun 14 03:11	30°♍		evening max el	3706 May 08 18:52	8°♍06'35	19°32'18
inferior conj	3705 Jun 17 20:43	27°♍57'50	-1°58'03	retrograde	3706 May 18 08:01	12°♍44'52	
minimum elong	3705 Jun 17 15:12	28°♍05'45	1°56'05	evening set	3706 May 20 07:38	12°♍33'45	
min. Earth dist.	3705 Jun 18 21:54	27°♍21'42	0.54916 AU	inferior conj	3706 May 28 23:31	8°♍29'10	0°00'47
morning rise	3705 Jun 26 15:38	23°♍51'25		minimum elong	3706 May 28 23:33	8°♍29'07	0°00'46
direct	3705 Jun 30 08:12	23°♍22'03		transit middle	3706 May 28 23:33	8°♍29'07	0°00'46
morning max el	3705 Jul 13 13:25	29°♍44'10	23°08'33	transit begin	3706 May 28 19:39	8°♍35'20	
	3705 Jul 13 20:08	0°♍		transit end	3706 May 29 03:27	8°♍22'53	
asc. node	3705 Jul 31 21:51	26°♍42'34		desc. node	3706 May 29 00:34	8°♍27'29	
	3705 Aug 02 13:40	0°♎		min. Earth dist.	3706 May 31 11:52	6°♍53'17	0.55769 AU
morning set	3705 Aug 05 14:18	6°♎14'48		morning rise	3706 Jun 06 12:46	3°♍51'34	
				direct	3706 Jun 11 02:35	3°♍04'28	
superior conj	3705 Aug 12 15:41	21°♎22'19	1°36'09	morning max el	3706 Jun 25 03:29	10°♍08'32	24°51'02
minimum elong	3705 Aug 12 13:54	21°♎12'45	1°36'00		3706 Jul 10 01:35	0°♍	
max. Earth dist.	3705 Aug 15 08:19	27°♎05'18	1.33708 AU	asc. node	3706 Jul 18 18:52	16°♍21'24	
	3705 Aug 16 17:48	0°♎		morning set	3706 Jul 21 02:04	21°♍08'59	
evening rise	3705 Aug 20 07:47	7°♎16'07			3706 Jul 25 04:35	0°♎	
	3705 Sep 01 21:08	0°♎					
desc. node	3705 Sep 07 02:52	8°♎12'49		superior conj	3706 Jul 28 01:01	6°♎14'00	1°23'38
evening max el	3705 Sep 23 15:04	28°♎49'35	27°18'14	minimum elong	3706 Jul 27 22:44	6°♎01'32	1°23'20
	3705 Sep 24 21:35	0°♎		max. Earth dist.	3706 Jul 29 12:57	9°♎29'30	1.32749 AU
retrograde	3705 Oct 07 02:26	6°♎08'07		evening rise	3706 Aug 04 05:57	21°♎33'46	
evening set	3705 Oct 14 02:36	3°♎26'47			3706 Aug 08 11:54	0°♎	
	3705 Oct 17 19:41	30°♎		desc. node	3706 Aug 24 23:54	27°♎28'27	

















































































































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evening max el	3706 Sep 06 01:15	11°♄50'23	27°25'31		3707 Aug 27 07:35	0°♄	
retrograde	3706 Sep 19 18:59	19°♄06'12		retrograde	3707 Sep 02 03:58	1°♄24'30	
evening set	3706 Sep 26 23:36	16°♄34'15			3707 Sep 07 19:21	30°♎	
min. Earth dist.	3706 Sep 30 14:36	13°♄33'21	0.62895 AU	evening set	3707 Sep 09 04:30	29°♎14'17	
inferior conj	3706 Oct 03 09:32	10°♄51'12	-3°30'37	min. Earth dist.	3707 Sep 12 20:57	26°♎34'06	0.60944 AU
minimum elong	3706 Oct 03 15:06	10°♄37'40	3°28'54	inferior conj	3707 Sep 16 01:06	23°♎51'51	-4°23'03
morning rise	3706 Oct 10 08:07	5°♄40'32		minimum elong	3707 Sep 16 06:48	23°♎39'38	4°21'49
direct	3706 Oct 12 18:06	5°♄13'29		morning rise	3707 Sep 23 10:57	19°♎02'03	
asc. node	3706 Oct 14 18:07	5°♄32'31		direct	3707 Sep 25 19:46	18°♎39'41	
morning max el	3706 Oct 19 10:39	8°♄39'56	17°50'24	asc. node	3707 Oct 01 15:08	21°♎00'14	
	3706 Nov 02 11:56	0°♎		morning max el	3707 Oct 03 00:24	22°♎14'04	18°01'08
morning set	3706 Nov 04 15:08	3°♎45'56			3707 Oct 09 00:50	0°♄	
				morning set	3707 Oct 18 19:15	17°♄10'02	
superior conj	3706 Nov 16 05:51	23°♎50'57	0°32'24		3707 Oct 25 19:01	0°♎	
minimum elong	3706 Nov 16 08:55	24°♎03'46	0°31'59				
	3706 Nov 19 22:54	0°♄		superior conj	3707 Oct 28 20:07	5°♎26'21	1°06'10
desc. node	3706 Nov 20 23:12	1°♄39'19		minimum elong	3707 Oct 29 00:20	5°♎44'59	1°05'39
max. Earth dist.	3706 Nov 22 23:03	4°♄53'13	1.43717 AU	max. Earth dist.	3707 Nov 05 11:00	18°♎30'19	1.42064 AU
evening rise	3706 Dec 01 09:33	18°♄12'04		desc. node	3707 Nov 07 20:14	22°♎26'16	
	3706 Dec 09 03:27	0°♄		evening rise	3707 Nov 11 05:45	27°♎55'19	
	3706 Dec 31 03:46	0°♄			3707 Nov 12 13:10	0°♄	
evening max el	3706 Dec 31 11:33	0°♄20'05	21°11'39		3707 Dec 02 20:34	0°♄	
retrograde	3707 Jan 09 02:47	5°♄27'09		evening max el	3707 Dec 14 05:32	13°♄54'15	22°27'52
asc. node	3707 Jan 10 17:21	5°♄13'02		retrograde	3707 Dec 23 22:47	19°♄40'52	
evening set	3707 Jan 13 05:59	3°♄51'04		evening set	3707 Dec 28 13:28	17°♄48'39	
	3707 Jan 16 20:11	30°♎		asc. node	3707 Dec 28 14:22	17°♄46'46	
inferior conj	3707 Jan 18 14:23	27°♄37'16	2°25'16	inferior conj	3708 Jan 02 22:03	11°♄27'13	1°43'42
minimum elong	3707 Jan 18 11:54	27°♄45'50	2°24'30	minimum elong	3708 Jan 02 19:58	11°♄34'29	1°42'55
min. Earth dist.	3707 Jan 18 22:32	27°♄09'09	0.67749 AU	min. Earth dist.	3708 Jan 02 18:42	11°♄38'51	0.67986 AU
morning rise	3707 Jan 23 17:39	21°♄24'36		morning rise	3708 Jan 08 02:20	5°♄17'21	
direct	3707 Jan 28 23:36	19°♄06'52		direct	3708 Jan 12 17:26	3°♄22'19	
morning max el	3707 Feb 08 12:12	25°♄22'41	23°32'56	morning max el	3708 Jan 21 23:58	8°♄48'52	22°05'13
	3707 Feb 12 16:51	0°♄		desc. node	3708 Feb 03 19:28	24°♄48'34	
desc. node	3707 Feb 16 22:26	5°♄16'04			3708 Feb 07 10:57	0°♄	
	3707 Mar 06 01:53	0°♄		morning set	3708 Feb 24 00:28	25°♄20'42	
morning set	3707 Mar 15 18:03	15°♄44'12			3708 Feb 26 21:04	0°♄	
max. Earth dist.	3707 Mar 19 17:35	22°♄36'10	1.38953 AU	max. Earth dist.	3708 Feb 29 15:30	4°♄35'49	1.41114 AU
	3707 Mar 23 20:53	0°♄					
superior conj	3707 Mar 27 05:37	6°♄12'45	-1°44'05	superior conj	3708 Mar 08 09:38	17°♄58'49	-2°01'38
minimum elong	3707 Mar 27 10:17	6°♄34'38	1°43'35	minimum elong	3708 Mar 08 13:01	18°♄13'50	2°01'28
evening rise	3707 Apr 05 11:37	23°♄59'06			3708 Mar 15 00:41	0°♄	
asc. node	3707 Apr 08 16:38	0°♄09'29		evening rise	3708 Mar 18 20:12	7°♄04'53	
	3707 Apr 08 14:38	0°♄		asc. node	3708 Mar 25 13:39	19°♄21'21	
evening max el	3707 Apr 21 18:49	20°♄17'40	18°43'52		3708 Apr 01 10:44	0°♄	
retrograde	3707 Apr 29 20:28	24°♄14'47		evening max el	3708 Apr 04 02:13	2°♄59'35	18°15'31
evening set	3707 May 02 01:27	23°♄58'08		retrograde	3708 Apr 11 03:56	6°♄31'53	
inferior conj	3707 May 09 21:29	19°♄35'56	1°40'00	evening set	3708 Apr 13 15:21	6°♄06'42	
minimum elong	3707 May 10 00:48	19°♄29'44	1°38'57	inferior conj	3708 Apr 20 16:52	1°♄23'51	2°47'15
min. Earth dist.	3707 May 13 04:42	17°♄09'53	0.57392 AU	minimum elong	3708 Apr 20 20:22	1°♄16'13	2°46'27
desc. node	3707 May 15 21:35	15°♄24'38			3708 Apr 22 07:10	30°♎	
morning rise	3707 May 17 20:58	14°♄23'36		min. Earth dist.	3708 Apr 24 02:44	28°♄27'13	0.59464 AU
direct	3707 May 23 10:35	13°♄07'28		morning rise	3708 Apr 27 22:45	25°♄43'32	
morning max el	3707 Jun 06 19:04	20°♄39'25	26°21'05	desc. node	3708 May 01 18:38	24°♄09'46	
	3707 Jun 14 20:25	0°♄		direct	3708 May 04 07:37	23°♄52'03	
	3707 Jul 02 15:21	0°♄			3708 May 16 21:20	0°♄	
morning set	3707 Jul 05 12:56	5°♄59'39		morning max el	3708 May 18 16:24	1°♄41'07	27°23'58
asc. node	3707 Jul 05 15:54	6°♄15'18			3708 Jun 08 02:36	0°♄	
				morning set	3708 Jun 18 21:08	20°♄40'04	
superior conj	3707 Jul 12 12:27	21°♄10'09	1°06'31	asc. node	3708 Jun 21 12:55	26°♄18'06	
minimum elong	3707 Jul 12 10:09	20°♄57'30	1°06'08		3708 Jun 23 05:54	0°♄	
max. Earth dist.	3707 Jul 12 23:07	22°♄08'58	1.32198 AU	max. Earth dist.	3708 Jun 25 10:58	4°♄51'02	1.32043 AU
	3707 Jul 16 13:18	0°♄					
evening rise	3707 Jul 19 10:51	6°♄10'14		superior conj	3708 Jun 26 00:08	6°♄03'33	0°45'28
	3707 Aug 01 01:32	0°♄		minimum elong	3708 Jun 25 22:17	5°♄53'24	0°45'05
desc. node	3707 Aug 11 20:54	15°♄56'36		evening rise	3708 Jul 02 19:59	20°♄56'25	
					3708 Jul 07 05:48	0°♄	

	3708 Jul 25 21:15	0°♎		evening max el	3709 Jul 12 20:10	16°♌35'17	24°37'57
desc. node	3708 Jul 28 17:54	3°♎16'45		desc. node	3709 Jul 15 14:54	19°♌01'51	
evening max el	3708 Jul 31 04:54	5°♎46'33	26°01'56	retrograde	3709 Jul 26 18:01	23°♌37'14	
retrograde	3708 Aug 14 04:16	12°♎55'13		evening set	3709 Jul 31 20:15	22°♌38'47	
evening set	3708 Aug 20 12:27	11°♎18'16		min. Earth dist.	3709 Aug 06 07:21	19°♌48'39	0.56943 AU
min. Earth dist.	3708 Aug 24 17:23	8°♎42'36	0.58873 AU	inferior conj	3709 Aug 09 02:27	18°♌00'23	-5°07'18
inferior conj	3708 Aug 27 23:40	6°♎17'43	-4°59'47	minimum elong	3709 Aug 09 00:46	18°♌03'07	5°07'14
minimum elong	3708 Aug 28 03:09	6°♎11'15	4°59'26	morning rise	3709 Aug 17 07:53	13°♌55'18	
morning rise	3708 Sep 04 20:04	1°♎51'07		direct	3709 Aug 19 22:59	13°♌36'11	
direct	3708 Sep 07 06:43	1°♎31'13		morning max el	3709 Aug 29 07:01	17°♌57'54	19°24'15
morning max el	3708 Sep 15 08:16	5°♎23'17	18°32'00	asc. node	3709 Sep 04 09:13	25°♌24'01	
asc. node	3708 Sep 17 12:10	7°♎42'26			3709 Sep 07 06:32	0°♎	
	3708 Sep 30 21:22	0°♏		morning set	3709 Sep 15 12:28	15°♎31'40	
morning set	3708 Oct 01 11:37	1°♏08'42			3709 Sep 22 18:12	0°♏	
superior conj	3708 Oct 10 08:41	18°♏07'09	1°28'41	superior conj	3709 Sep 23 14:04	1°♏37'30	1°40'56
minimum elong	3708 Oct 10 11:59	18°♏22'29	1°28'22	minimum elong	3709 Sep 23 15:41	1°♏45'27	1°40'51
	3708 Oct 16 22:22	0°♍		max. Earth dist.	3709 Sep 29 21:41	13°♏37'10	1.37978 AU
max. Earth dist.	3708 Oct 17 17:38	1°♍24'10	1.40063 AU	evening rise	3709 Oct 03 15:56	20°♏23'04	
evening rise	3708 Oct 21 23:09	8°♍36'49			3709 Oct 09 07:08	0°♍	
desc. node	3708 Oct 24 17:14	13°♍09'29		desc. node	3709 Oct 11 14:14	3°♍44'59	
	3708 Nov 04 13:27	0°♐			3709 Oct 29 14:53	0°♐	
evening max el	3708 Nov 25 19:40	27°♐31'21	23°47'51	evening max el	3709 Nov 08 08:05	11°♐12'04	25°04'58
	3708 Nov 28 11:57	0°♑		retrograde	3709 Nov 20 04:37	18°♐04'09	
retrograde	3708 Dec 06 15:46	3°♑54'50		evening set	3709 Nov 25 21:56	15°♐40'44	
evening set	3708 Dec 11 19:20	1°♑46'23		min. Earth dist.	3709 Nov 30 10:02	10°♐37'57	0.67389 AU
	3708 Dec 13 14:28	30°♐♐		inferior conj	3709 Dec 01 10:56	9°♐16'24	0°02'08
asc. node	3708 Dec 14 11:24	28°♐58'50		minimum elong	3709 Dec 01 10:53	9°♐16'34	0°02'07
min. Earth dist.	3708 Dec 16 15:19	26°♐09'34	0.67858 AU	transit middle	3709 Dec 01 10:53	9°♐16'34	0°02'07
inferior conj	3708 Dec 17 05:30	25°♐21'15	0°55'38	transit begin	3709 Dec 01 08:08	9°♐25'35	
minimum elong	3708 Dec 17 04:14	25°♐25'35	0°55'07	transit end	3709 Dec 01 13:38	9°♐07'34	
morning rise	3708 Dec 22 13:08	19°♐15'58		asc. node	3709 Dec 01 08:28	9°♐24'31	
direct	3708 Dec 26 14:11	17°♐43'41		morning rise	3709 Dec 07 00:02	3°♐17'48	
morning max el	3709 Jan 03 18:14	22°♐26'03	20°45'26	direct	3709 Dec 10 12:39	2°♐06'07	
	3709 Jan 10 04:29	0°♑		morning max el	3709 Dec 17 20:20	6°♐13'52	19°38'16
desc. node	3709 Jan 20 16:31	14°♑47'30		greatest brilliancy	3709 Dec 30 23:29	23°♐36'20	-0.7m
	3709 Jan 30 18:10	0°♒			3710 Jan 04 05:32	0°♑	
morning set	3709 Feb 02 05:00	3°♒47'55		desc. node	3710 Jan 07 13:31	5°♑04'59	
max. Earth dist.	3709 Feb 10 20:18	17°♒30'46	1.43013 AU	morning set	3710 Jan 12 01:25	11°♑59'57	
					3710 Jan 23 14:02	0°♒	
superior conj	3709 Feb 17 14:25	28°♒39'55	-2°07'07	max. Earth dist.	3710 Jan 24 08:02	1°♒11'17	1.44417 AU
minimum elong	3709 Feb 17 13:38	28°♒36'36	2°07'07				
	3709 Feb 18 09:25	0°♓		superior conj	3710 Jan 28 17:13	8°♒11'17	-1°55'19
evening rise	3709 Mar 01 13:41	19°♓26'26		minimum elong	3710 Jan 28 10:30	7°♒44'16	1°54'53
	3709 Mar 07 13:24	0°♑			3710 Feb 10 22:40	0°♓	
asc. node	3709 Mar 12 10:42	8°♑05'00		evening rise	3710 Feb 11 11:30	0°♓54'04	
evening max el	3709 Mar 18 13:51	16°♑04'32	18°06'54	asc. node	3710 Feb 27 07:46	26°♓10'44	
retrograde	3709 Mar 25 03:02	19°♑27'27		evening max el	3710 Mar 02 02:36	29°♓23'32	18°17'21
evening set	3709 Mar 27 20:27	18°♑51'56			3710 Mar 02 17:42	0°♑	
inferior conj	3709 Apr 03 07:10	13°♑48'49	3°24'13	retrograde	3710 Mar 08 13:11	2°♑50'51	
minimum elong	3709 Apr 03 09:12	13°♑43'45	3°23'59	evening set	3710 Mar 11 12:24	2°♑03'47	
min. Earth dist.	3709 Apr 06 08:33	10°♑46'27	0.61644 AU		3710 Mar 14 08:08	30°♐♐	
morning rise	3709 Apr 09 20:14	7°♑50'54		inferior conj	3710 Mar 17 12:12	26°♐41'31	3°37'22
direct	3709 Apr 16 15:51	5°♑27'12		minimum elong	3710 Mar 17 12:27	26°♐40'50	3°37'23
desc. node	3709 Apr 18 15:40	5°♑38'40		min. Earth dist.	3710 Mar 19 23:28	23°♐55'53	0.63657 AU
morning max el	3709 Apr 30 20:08	13°♑25'04	27°50'45	morning rise	3710 Mar 23 11:35	20°♐34'16	
	3709 May 14 02:27	0°♒		direct	3710 Mar 30 08:49	17°♐49'42	
	3709 May 31 12:17	0°♓		desc. node	3710 Apr 05 12:43	19°♐40'04	
morning set	3709 Jun 03 00:48	5°♓04'18		morning max el	3710 Apr 13 04:08	25°♐47'14	27°40'10
asc. node	3709 Jun 08 09:58	16°♓25'33			3710 Apr 17 01:26	0°♑	
max. Earth dist.	3709 Jun 08 20:36	17°♓23'06	1.32300 AU		3710 May 07 15:00	0°♒	
				morning set	3710 May 17 21:31	19°♒04'37	
superior conj	3709 Jun 10 10:26	20°♓49'02	0°21'05	max. Earth dist.	3710 May 23 00:03	29°♒32'36	1.32987 AU
minimum elong	3709 Jun 10 09:28	20°♓43'48	0°20'52		3710 May 23 05:15	0°♓	
	3709 Jun 14 15:10	0°♑					
evening rise	3709 Jun 17 07:23	5°♑45'57		superior conj	3710 May 25 17:29	5°♓20'35	-0°05'55
	3709 Jun 30 01:56	0°♌		minimum elong	3710 May 25 17:47	5°♓22'09	0°05'52

behind sun begin	3710 May 25 12:48	4° Π 55'24		max. Earth dist.	3711 May 05 17:54	11° \mathcal{B} 11'54	1.34132 AU
behind sun end	3710 May 25 22:46	5° Π 48'56					
asc. node	3710 May 26 07:02	6° Π 33'20		superior conj	3711 May 09 19:13	19° \mathcal{B} 31'47	-0°34'32
evening rise	3710 Jun 01 19:09	20° Π 32'36		minimum elong	3711 May 09 21:01	19° \mathcal{B} 41'13	0°34'10
	3710 Jun 06 09:47	0° \mathcal{E}		asc. node	3711 May 13 04:05	26° \mathcal{B} 37'26	
evening max el	3710 Jun 24 09:28	27° \mathcal{E} 00'58	23°01'37		3711 May 14 18:23	0° Π	
	3710 Jun 27 21:18	0° Ω		evening rise	3711 May 17 05:23	5° Π 10'12	
desc. node	3710 Jul 02 11:55	2° Ω 37'57			3711 May 30 21:27	0° \mathcal{E}	
retrograde	3710 Jul 07 19:02	3° Ω 41'56		evening max el	3711 Jun 06 04:27	7° \mathcal{E} 35'21	21°28'18
evening set	3710 Jul 11 08:44	3° Ω 14'03		retrograde	3711 Jun 18 09:24	13° \mathcal{E} 35'39	
	3710 Jul 18 15:05	30° \mathcal{R} \mathcal{E}		desc. node	3711 Jun 19 08:58	13° \mathcal{E} 33'25	
min. Earth dist.	3710 Jul 18 18:33	29° \mathcal{E} 55'02	0.55499 AU	evening set	3711 Jun 20 19:18	13° \mathcal{E} 22'23	
inferior conj	3710 Jul 20 09:49	28° \mathcal{E} 58'07	-4°30'20	inferior conj	3711 Jun 30 04:35	9° \mathcal{E} 22'27	-3°03'48
minimum elong	3710 Jul 20 02:36	29° \mathcal{E} 08'37	4°28'57	minimum elong	3711 Jun 29 20:40	9° \mathcal{E} 33'30	3°01'19
morning rise	3710 Jul 28 22:45	25° \mathcal{E} 06'05		min. Earth dist.	3711 Jun 30 05:28	9° \mathcal{E} 21'12	0.54856 AU
direct	3710 Jul 31 20:43	24° \mathcal{E} 45'56		morning rise	3711 Jul 08 22:52	5° \mathcal{E} 27'31	
	3710 Aug 11 22:44	0° Ω		direct	3711 Jul 12 07:07	5° \mathcal{E} 03'14	
morning max el	3710 Aug 11 18:18	29° \mathcal{E} 49'37	20°37'59	morning max el	3711 Jul 24 18:04	10° \mathcal{E} 56'16	22°10'14
asc. node	3710 Aug 22 06:16	13° Ω 51'37			3711 Aug 07 13:31	0° Ω	
morning set	3710 Aug 30 19:02	0° \mathcal{M} 11'27		asc. node	3711 Aug 09 03:19	2° Ω 53'35	
	3710 Aug 30 16:48	0° \mathcal{M}		morning set	3711 Aug 15 05:00	15° Ω 01'03	
superior conj	3710 Sep 07 07:32	15° \mathcal{M} 43'47	1°44'32	superior conj	3711 Aug 22 09:17	0° \mathcal{M} 14'12	1°40'58
minimum elong	3710 Sep 07 07:31	15° \mathcal{M} 43'44	1°44'31	minimum elong	3711 Aug 22 08:00	0° \mathcal{M} 07'28	1°40'54
max. Earth dist.	3710 Sep 12 05:06	25° \mathcal{M} 30'22	1.36051 AU		3711 Aug 22 06:36	0° \mathcal{M}	
	3710 Sep 14 13:17	0° \mathcal{A}		max. Earth dist.	3711 Aug 25 20:27	7° \mathcal{M} 27'05	1.34449 AU
evening rise	3710 Sep 16 05:11	3° \mathcal{A} 06'54		evening rise	3711 Aug 30 10:19	16° \mathcal{M} 35'31	
desc. node	3710 Sep 28 11:15	24° \mathcal{A} 08'08			3711 Sep 06 16:42	0° \mathcal{A}	
	3710 Oct 02 06:27	0° \mathcal{M}		desc. node	3711 Sep 15 08:17	14° \mathcal{A} 12'02	
evening max el	3710 Oct 21 20:36	24° \mathcal{M} 54'31	26°11'48		3711 Sep 26 16:56	0° \mathcal{M}	
	3710 Oct 28 04:58	0° \mathcal{A}		evening max el	3711 Oct 04 09:15	8° \mathcal{M} 29'39	27°00'52
retrograde	3710 Nov 03 12:30	2° \mathcal{A} 03'51		retrograde	3711 Oct 17 14:42	15° \mathcal{M} 46'20	
	3710 Nov 09 03:39	30° \mathcal{R} \mathcal{M}		evening set	3711 Oct 24 09:44	13° \mathcal{M} 04'51	
evening set	3710 Nov 09 19:28	29° \mathcal{M} 28'39		min. Earth dist.	3711 Oct 28 08:06	9° \mathcal{M} 13'29	0.65421 AU
min. Earth dist.	3710 Nov 14 00:27	25° \mathcal{M} 01'16	0.66580 AU	inferior conj	3711 Oct 30 08:06	6° \mathcal{M} 56'40	-1°56'02
inferior conj	3710 Nov 15 12:31	23° \mathcal{M} 09'57	-0°55'35	minimum elong	3711 Oct 30 11:20	6° \mathcal{M} 47'26	1°54'44
minimum elong	3710 Nov 15 14:01	23° \mathcal{M} 05'20	0°54'57	asc. node	3711 Nov 05 02:32	1° \mathcal{M} 34'52	
asc. node	3710 Nov 18 05:30	19° \mathcal{M} 59'41		morning rise	3711 Nov 05 13:46	1° \mathcal{M} 19'57	
morning rise	3710 Nov 21 09:03	17° \mathcal{M} 20'44		direct	3711 Nov 08 07:43	0° \mathcal{M} 38'58	
direct	3710 Nov 24 11:14	16° \mathcal{M} 26'16		morning max el	3711 Nov 14 19:51	4° \mathcal{M} 09'02	18°11'02
morning max el	3710 Dec 01 05:35	20° \mathcal{M} 10'07	18°46'24		3711 Dec 02 07:07	0° \mathcal{A}	
	3710 Dec 08 22:30	0° \mathcal{A}		morning set	3711 Dec 03 09:31	1° \mathcal{A} 48'07	
morning set	3710 Dec 22 14:57	21° \mathcal{A} 10'01		desc. node	3711 Dec 12 07:36	16° \mathcal{A} 16'15	
desc. node	3710 Dec 25 10:34	25° \mathcal{A} 36'09					
	3710 Dec 28 05:42	0° \mathcal{B}		superior conj	3711 Dec 18 03:24	25° \mathcal{A} 32'24	-0°39'04
max. Earth dist.	3711 Jan 07 01:17	15° \mathcal{B} 24'11	1.45162 AU	minimum elong	3711 Dec 17 22:28	25° \mathcal{A} 12'53	0°38'24
					3711 Dec 20 23:19	0° \mathcal{B}	
superior conj	3711 Jan 07 23:45	16° \mathcal{B} 52'27	-1°24'05	max. Earth dist.	3711 Dec 20 20:57	29° \mathcal{A} 50'39	1.45161 AU
minimum elong	3711 Jan 07 14:38	16° \mathcal{B} 16'38	1°23'07	evening rise	3712 Jan 03 11:13	21° \mathcal{B} 03'52	
	3711 Jan 16 07:15	0° \approx			3712 Jan 09 05:22	0° \approx	
evening rise	3711 Jan 23 10:26	11° \approx 24'30		greatest brilliancy	3712 Jan 15 18:41	10° \approx 03'15	-0.7m
greatest brilliancy	3711 Jan 30 03:32	22° \approx 13'07	-0.9m	evening max el	3712 Jan 27 21:22	26° \approx 21'16	19°31'23
	3711 Feb 04 01:36	0° \mathcal{H}		asc. node	3712 Feb 01 01:50	29° \approx 41'37	
evening max el	3711 Feb 13 13:51	12° \mathcal{H} 50'36	18°45'57		3712 Feb 01 17:15	0° \mathcal{H}	
asc. node	3711 Feb 14 04:49	13° \mathcal{H} 27'25		retrograde	3712 Feb 04 03:18	0° \mathcal{H} 31'49	
retrograde	3711 Feb 20 06:20	16° \mathcal{H} 34'18			3712 Feb 06 11:19	30° \mathcal{R} \approx	
evening set	3711 Feb 23 11:48	15° \mathcal{H} 34'45		evening set	3712 Feb 07 16:00	29° \approx 18'52	
inferior conj	3711 Mar 01 04:04	9° \mathcal{H} 54'52	3°32'42	inferior conj	3712 Feb 13 03:30	23° \approx 23'28	3°14'32
minimum elong	3711 Mar 01 02:52	9° \mathcal{H} 58'34	3°32'35	minimum elong	3712 Feb 13 01:23	23° \approx 30'24	3°14'09
min. Earth dist.	3711 Mar 02 23:39	7° \mathcal{H} 41'21	0.65330 AU	min. Earth dist.	3712 Feb 14 08:06	21° \approx 49'47	0.66590 AU
morning rise	3711 Mar 06 17:31	3° \mathcal{H} 43'07		morning rise	3712 Feb 18 10:33	17° \approx 09'53	
direct	3711 Mar 13 08:46	0° \mathcal{H} 52'06		direct	3712 Feb 24 14:43	14° \approx 25'12	
desc. node	3711 Mar 23 09:46	5° \mathcal{H} 40'42		morning max el	3712 Mar 07 23:26	21° \approx 46'45	25°48'06
morning max el	3711 Mar 26 13:55	8° \mathcal{H} 38'11	26°56'39	desc. node	3712 Mar 09 06:49	23° \approx 08'14	
	3711 Apr 12 06:06	0° \mathcal{Y}			3712 Mar 15 03:42	0° \mathcal{H}	
	3711 Apr 30 00:20	0° \mathcal{B}			3712 Apr 04 11:53	0° \mathcal{Y}	
morning set	3711 May 01 08:13	2° \mathcal{B} 31'44		morning set	3712 Apr 13 04:47	15° \mathcal{Y} 13'51	

max. Earth dist.	3712 Apr 17 00:28	22°♄23'39	1.35731 AU	morning set	3713 Mar 26 05:41	26°♄55'03	
	3712 Apr 20 22:00	0°♄			3713 Mar 27 23:42	0°♄	
				max. Earth dist.	3713 Mar 29 21:50	3°♄26'46	1.37710 AU
superior conj	3712 Apr 22 13:01	3°♄15'15	-1°03'24	superior conj	3713 Apr 05 19:32	16°♄21'16	-1°30'27
minimum elong	3712 Apr 22 16:23	3°♄32'10	1°02'48	minimum elong	3713 Apr 06 00:03	16°♄42'59	1°29'51
asc. node	3712 Apr 29 01:08	16°♄33'42			3713 Apr 12 18:02	0°♄	
evening rise	3712 Apr 30 12:00	19°♄32'20		evening rise	3713 Apr 14 12:30	3°♄30'50	
	3712 May 05 18:49	0°♄		asc. node	3713 Apr 15 22:09	6°♄16'54	
evening max el	3712 May 18 10:36	18°♄43'27	20°09'09		3713 Apr 30 15:43	0°♄	
retrograde	3712 May 28 23:37	23°♄51'39		evening max el	3713 May 01 04:39	0°♄32'20	19°09'08
evening set	3712 May 30 22:55	23°♄41'39		retrograde	3713 May 10 01:47	4°♄51'44	
desc. node	3712 Jun 05 06:00	21°♄49'37		evening set	3713 May 12 03:02	4°♄38'51	
inferior conj	3712 Jun 09 00:23	19°♄42'31	-1°06'51	inferior conj	3713 May 20 10:37	0°♄27'25	0°46'28
minimum elong	3712 Jun 08 21:15	19°♄47'11	1°05'40	minimum elong	3713 May 20 12:28	0°♄24'16	0°45'48
min. Earth dist.	3712 Jun 10 17:56	18°♄40'49	0.55169 AU		3713 May 21 02:41	30°♄	
morning rise	3712 Jun 17 18:04	15°♄24'36		desc. node	3713 May 23 03:02	28°♄38'14	
direct	3712 Jun 21 18:50	14°♄49'18		min. Earth dist.	3713 May 23 09:04	28°♄28'18	0.56380 AU
morning max el	3712 Jul 05 10:05	21°♄30'04	23°52'45	morning rise	3713 May 28 18:46	25°♄34'20	
	3712 Jul 12 19:01	0°♄		direct	3713 Jun 02 18:31	24°♄36'19	
asc. node	3712 Jul 26 00:22	22°♄21'18			3713 Jun 14 21:35	0°♄	
morning set	3712 Jul 29 16:36	29°♄55'15		morning max el	3713 Jun 17 00:20	1°♄54'22	25°31'51
	3712 Jul 29 17:30	0°♄			3713 Jul 06 17:54	0°♄	
superior conj	3712 Aug 05 16:31	15°♄00'18	1°31'26	asc. node	3713 Jul 12 21:24	12°♄07'06	
minimum elong	3712 Aug 05 14:27	14°♄49'11	1°31'14	morning set	3713 Jul 14 04:09	14°♄48'22	
max. Earth dist.	3712 Aug 07 20:40	19°♄40'25	1.33248 AU				
	3712 Aug 12 19:44	0°♄		superior conj	3713 Jul 21 02:57	29°♄54'29	1°16'53
evening rise	3712 Aug 13 03:15	0°♄37'55		minimum elong	3713 Jul 21 00:36	29°♄41'36	1°16'33
	3712 Aug 29 16:22	0°♄			3713 Jul 21 03:58	0°♄	
desc. node	3712 Sep 01 05:17	3°♄48'19		max. Earth dist.	3713 Jul 22 03:53	2°♄11'04	1.32460 AU
evening max el	3712 Sep 15 20:43	21°♄45'44	27°25'03	evening rise	3713 Jul 28 04:34	15°♄04'02	
retrograde	3712 Sep 29 10:53	29°♄03'16			3713 Aug 04 20:00	0°♄	
evening set	3712 Oct 06 14:00	26°♄24'15		desc. node	3713 Aug 19 02:18	22°♄45'41	
min. Earth dist.	3712 Oct 10 06:46	23°♄06'54	0.63910 AU		3713 Aug 24 21:21	0°♄	
inferior conj	3712 Oct 12 19:09	20°♄30'58	-2°56'52	evening max el	3713 Aug 29 04:57	4°♄30'34	27°18'46
minimum elong	3712 Oct 13 00:02	20°♄18'19	2°55'10	retrograde	3713 Sep 12 00:36	11°♄45'29	
morning rise	3712 Oct 19 11:21	15°♄10'07		evening set	3713 Sep 19 04:44	9°♄20'52	
direct	3712 Oct 21 23:29	14°♄38'59		min. Earth dist.	3713 Sep 22 19:13	6°♄30'37	0.62085 AU
asc. node	3712 Oct 21 23:35	14°♄38'59		inferior conj	3713 Sep 25 18:47	3°♄46'10	-3°54'12
morning max el	3712 Oct 28 12:22	18°♄04'11	17°52'50	minimum elong	3713 Sep 26 00:37	3°♄32'41	3°52'36
	3712 Nov 06 04:24	0°♄			3713 Sep 30 09:28	30°♄	
morning set	3712 Nov 14 07:17	13°♄45'10		morning rise	3713 Oct 02 22:13	28°♄44'21	
	3712 Nov 23 21:45	0°♄		direct	3713 Oct 05 07:14	28°♄19'44	
superior conj	3712 Nov 27 00:13	5°♄06'05	0°08'10	asc. node	3713 Oct 08 20:37	29°♄16'47	
minimum elong	3712 Nov 27 01:07	5°♄09'46	0°08'03		3713 Oct 10 00:38	0°♄	
behind sun begin	3712 Nov 26 16:27	4°♄34'22		morning max el	3713 Oct 12 04:05	1°♄48'35	17°52'40
behind sun end	3712 Nov 27 09:47	5°♄45'06		morning set	3713 Oct 28 02:05	26°♄42'30	
desc. node	3712 Nov 28 04:36	7°♄01'34			3713 Oct 29 21:56	0°♄	
max. Earth dist.	3712 Dec 02 15:18	14°♄10'08	1.44427 AU	superior conj	3713 Nov 07 23:29	15°♄57'53	0°48'06
evening rise	3712 Dec 12 21:59	0°♄13'59		minimum elong	3713 Nov 08 03:23	16°♄14'37	0°47'35
	3712 Dec 12 18:21	0°♄		max. Earth dist.	3713 Nov 15 05:37	28°♄05'24	1.43060 AU
	3713 Jan 01 23:43	0°♄		desc. node	3713 Nov 15 01:36	27°♄49'02	
evening max el	3713 Jan 09 23:41	9°♄52'48	20°31'33		3713 Nov 16 09:50	0°♄	
asc. node	3713 Jan 17 22:51	14°♄38'11		evening rise	3713 Nov 22 10:10	9°♄33'53	
retrograde	3713 Jan 18 01:27	14°♄38'15			3713 Dec 05 22:53	0°♄	
evening set	3713 Jan 21 22:50	13°♄10'55		evening max el	3713 Dec 23 20:31	23°♄25'54	21°43'16
inferior conj	3713 Jan 27 07:49	7°♄02'44	2°45'49	retrograde	3714 Jan 01 22:47	28°♄50'27	
minimum elong	3713 Jan 27 05:19	7°♄11'15	2°45'09	asc. node	3714 Jan 04 19:52	28°♄05'33	
min. Earth dist.	3713 Jan 27 22:59	6°♄10'58	0.67435 AU	evening set	3714 Jan 06 06:33	27°♄07'43	
morning rise	3713 Feb 01 11:37	0°♄49'06		inferior conj	3714 Jan 11 14:50	20°♄50'04	2°08'31
	3713 Feb 02 11:28	30°♄		minimum elong	3714 Jan 11 12:28	20°♄58'17	2°07'44
direct	3713 Feb 07 01:54	28°♄19'56		min. Earth dist.	3714 Jan 11 17:59	20°♄39'06	0.67887 AU
	3713 Feb 12 05:22	0°♄		morning rise	3714 Jan 16 18:12	14°♄38'08	
morning max el	3713 Feb 18 08:03	5°♄03'17	24°24'09	direct	3714 Jan 21 17:44	12°♄29'48	
desc. node	3713 Feb 24 03:51	11°♄37'17		morning max el	3714 Jan 31 17:36	18°♄25'21	22°55'05
	3713 Mar 09 13:31	0°♄			3714 Feb 10 09:44	0°♄	

desc. node	3714 Feb 11 00:52	0° \approx 50'37			3715 Feb 04 07:52	0° \approx	
	3714 Mar 02 16:49	0° H		morning set	3715 Feb 14 23:08	16° \approx 23'02	
morning set	3714 Mar 07 04:53	7° H 20'11		max. Earth dist.	3715 Feb 21 17:00	27° \approx 17'25	1.41971 AU
max. Earth dist.	3714 Mar 11 16:51	14° H 55'47	1.39884 AU		3715 Feb 23 08:12	0° H	
superior conj	3714 Mar 19 10:41	28° H 40'21	-1°52'39	superior conj	3715 Mar 01 05:26	10° H 00'25	-2°05'46
minimum elong	3714 Mar 19 15:07	29° H 00'37	1°52'18	minimum elong	3715 Mar 01 07:26	10° H 09'01	2°05'43
	3714 Mar 20 04:03	0° Y		evening rise	3715 Mar 12 06:36	29° H 46'22	
evening rise	3714 Mar 29 03:56	16° Y 58'28			3715 Mar 12 09:35	0° Y	
asc. node	3714 Apr 02 19:10	25° Y 42'11		asc. node	3715 Mar 20 16:13	14° Y 43'14	
	3714 Apr 05 04:33	0° B		evening max el	3715 Mar 28 17:57	25° Y 51'43	18°09'31
evening max el	3714 Apr 14 08:15	12° B 58'08	18°29'20	retrograde	3715 Apr 04 12:48	29° Y 17'47	
retrograde	3714 Apr 21 22:17	16° B 42'29		evening set	3715 Apr 07 02:59	28° Y 48'16	
evening set	3714 Apr 24 05:58	16° B 22'35		inferior conj	3715 Apr 13 21:43	23° Y 56'47	3°06'12
inferior conj	3714 May 01 17:49	11° B 52'05	2°12'29	minimum elong	3715 Apr 14 00:42	23° Y 49'53	3°05'40
minimum elong	3714 May 01 21:32	11° B 44'41	2°11'27	min. Earth dist.	3715 Apr 17 05:04	20° Y 54'45	0.60404 AU
min. Earth dist.	3714 May 05 04:06	9° B 09'47	0.58245 AU	morning rise	3715 Apr 20 20:13	18° Y 08'08	
morning rise	3714 May 09 09:58	6° B 26'23		desc. node	3715 Apr 26 21:06	16° Y 02'47	
desc. node	3714 May 10 00:04	6° B 09'28		direct	3715 Apr 27 11:04	16° Y 01'50	
direct	3714 May 15 08:46	4° B 55'06		morning max el	3715 May 11 17:59	23° Y 55'02	27°39'54
morning max el	3714 May 29 18:04	12° B 36'13	26°51'41		3715 May 17 05:37	0° B	
	3714 Jun 12 10:11	0° II			3715 Jun 05 15:36	0° II	
morning set	3714 Jun 28 14:04	29° II 35'09		morning set	3715 Jun 12 20:38	14° II 10'00	
	3714 Jun 28 18:48	0° D		asc. node	3715 Jun 16 15:29	22° II 11'04	
asc. node	3714 Jun 29 18:26	2° D 05'17		max. Earth dist.	3715 Jun 19 02:27	27° II 32'04	1.32105 AU
superior conj	3714 Jul 05 14:43	14° D 50'14	0°58'02	superior conj	3715 Jun 20 02:05	29° II 41'49	0°35'30
minimum elong	3714 Jul 05 12:34	14° D 38'21	0°57'38	minimum elong	3715 Jun 20 00:34	29° II 33'29	0°35'11
max. Earth dist.	3714 Jul 05 15:01	14° D 51'54	1.32081 AU		3715 Jun 20 05:23	0° D	
evening rise	3714 Jul 12 11:32	29° D 45'27		evening rise	3715 Jun 26 21:57	14° D 34'53	
	3714 Jul 12 14:18	0° Q			3715 Jul 04 14:52	0° Q	
	3714 Jul 29 01:09	0° np		desc. node	3715 Jul 23 20:21	27° Q 32'05	
desc. node	3714 Aug 05 23:20	10° np 47'44		evening max el	3715 Jul 24 02:50	27° Q 47'41	25°28'45
evening max el	3714 Aug 11 07:31	16° np 32'46	26°39'09		3715 Jul 26 14:41	0° np	
retrograde	3714 Aug 25 06:21	23° np 43'40		retrograde	3715 Aug 07 02:15	4° np 53'36	
evening set	3714 Sep 01 01:19	21° np 46'36		evening set	3715 Aug 12 23:08	3° np 33'26	
min. Earth dist.	3714 Sep 04 21:23	19° np 10'20	0.60054 AU	min. Earth dist.	3715 Aug 17 14:47	0° np 53'39	0.58017 AU
inferior conj	3714 Sep 08 03:32	16° np 33'07	-4°41'22		3715 Aug 18 22:01	30° RQ	
minimum elong	3714 Sep 08 08:39	16° np 22'47	4°40'29	inferior conj	3715 Aug 20 18:02	28° Q 42'31	-5°07'31
morning rise	3714 Sep 15 18:00	11° np 52'59		minimum elong	3715 Aug 20 19:37	28° Q 39'43	5°07'27
direct	3714 Sep 18 03:04	11° np 32'03		morning rise	3715 Aug 28 18:24	24° Q 25'12	
morning max el	3714 Sep 25 15:43	15° np 13'08	18°11'44	direct	3715 Aug 31 06:46	24° Q 05'43	
asc. node	3714 Sep 25 17:39	15° np 17'50		morning max el	3715 Sep 08 20:03	28° Q 09'03	18°51'31
	3714 Oct 05 21:17	0° L			3715 Sep 10 14:43	0° np	
morning set	3714 Oct 11 11:58	10° L 22'38		asc. node	3715 Sep 12 14:43	2° np 27'28	
				morning set	3715 Sep 25 08:25	24° np 33'27	
superior conj	3714 Oct 20 23:51	28° L 02'35	1°17'04		3715 Sep 28 02:51	0° L	
minimum elong	3714 Oct 21 03:51	28° L 20'38	1°16'37				
	3714 Oct 22 01:57	0° M		superior conj	3715 Oct 03 20:15	11° L 06'29	1°35'02
max. Earth dist.	3714 Oct 28 14:48	11° M 23'11	1.41234 AU	minimum elong	3715 Oct 03 22:53	11° L 18'57	1°34'50
desc. node	3714 Nov 01 22:37	18° M 34'50		max. Earth dist.	3715 Oct 10 20:10	23° L 59'57	1.39177 AU
evening rise	3714 Nov 02 14:37	19° M 40'01			3715 Oct 14 06:33	0° M	
	3714 Nov 09 03:12	0° J		evening rise	3715 Oct 14 18:12	0° M 49'53	
	3714 Nov 30 08:11	0° Z		desc. node	3715 Oct 19 19:39	9° M 15'35	
evening max el	3714 Dec 06 12:42	7° Z 01'21	23°01'55		3715 Nov 02 11:13	0° J	
retrograde	3714 Dec 16 17:36	13° Z 04'21		evening max el	3715 Nov 19 02:02	20° J 40'39	24°21'27
evening set	3714 Dec 21 13:31	11° Z 05'27		retrograde	3715 Nov 30 08:46	27° J 16'43	
asc. node	3714 Dec 22 16:55	10° Z 01'47		evening set	3715 Dec 05 18:11	25° J 01'44	
inferior conj	3714 Dec 26 22:38	4° Z 42'05	1°24'03	asc. node	3715 Dec 09 13:58	20° J 48'00	
minimum elong	3714 Dec 26 20:50	4° Z 48'17	1°23'22	min. Earth dist.	3715 Dec 10 10:45	19° J 39'21	0.67706 AU
min. Earth dist.	3714 Dec 26 14:43	5° Z 09'24	0.67971 AU	inferior conj	3715 Dec 11 05:26	18° J 36'40	0°33'32
	3714 Dec 30 15:28	30° RZ		minimum elong	3715 Dec 11 04:38	18° J 39'22	0°33'13
morning rise	3715 Jan 01 04:02	28° J 33'43		morning rise	3715 Dec 16 15:09	12° J 34'01	
direct	3715 Jan 05 13:05	26° J 48'16		direct	3715 Dec 20 10:48	11° J 10'40	
	3715 Jan 12 06:11	0° Z		morning max el	3715 Dec 28 05:06	15° J 36'28	20°15'06
morning max el	3715 Jan 14 07:37	1° Z 55'07	21°29'56		3716 Jan 08 12:11	0° Z	
desc. node	3715 Jan 28 21:53	20° Z 35'18		desc. node	3716 Jan 15 18:54	10° Z 42'46	

morning set	3716 Jan 24 21:04	24°  34'12		morning max el	3716 Dec 10 10:32	29°  28'50	19°14'18
	3716 Jan 28 08:54	0° 			3716 Dec 10 22:43	0° 	
max. Earth dist.	3716 Feb 04 01:23	10°  35'07	1.43687 AU	greatest brilliancy	3716 Dec 24 05:48	18°  08'49	-0.7m
					3716 Dec 31 22:42	0° 	
superior conj	3716 Feb 09 23:10	20°  11'16	-2°04'29	desc. node	3717 Jan 01 15:56	1°  06'47	
minimum elong	3716 Feb 09 19:50	19°  57'36	2°04'22	morning set	3717 Jan 02 22:12	3°  04'13	
	3716 Feb 15 20:00	0° 		max. Earth dist.	3717 Jan 16 16:11	24°  33'13	1.44817 AU
evening rise	3716 Feb 22 16:11	11°  45'43					
	3716 Mar 04 10:25	0° 		superior conj	3717 Jan 19 15:52	29°  16'47	-1°44'19
asc. node	3716 Mar 06 13:16	3°  03'35	18°09'04	minimum elong	3717 Jan 19 07:20	28°  42'55	1°43'36
evening max el	3716 Mar 11 06:25	9°  03'35	18°09'04		3717 Jan 20 02:45	0° 	
retrograde	3716 Mar 17 17:14	12°  06'43		evening rise	3717 Feb 03 04:34	22°  49'42	
evening set	3716 Mar 20 13:12	11°  06'15			3717 Feb 07 12:36	0° 	
inferior conj	3716 Mar 26 18:47	6°  34'32	3°32'20	asc. node	3717 Feb 21 10:19	20°  48'36	
minimum elong	3716 Mar 26 20:03	6°  31'13	3°32'14	evening max el	3717 Feb 22 18:46	22°  46'37	18°27'21
min. Earth dist.	3716 Mar 29 14:26	3°  37'16	0.62533 AU	retrograde	3717 Mar 01 06:59	25°  45'53	
morning rise	3716 Apr 02 01:36	0°  32'02		evening set	3717 Mar 04 08:43	25°  47'38	
	3716 Apr 02 19:47	30°  48'48		inferior conj	3717 Mar 10 04:54	19°  43'25	3°37'18
direct	3716 Apr 08 22:55	27°  48'09		minimum elong	3717 Mar 10 04:29	19°  43'41	3°37'18
desc. node	3716 Apr 12 18:08	28°  40'03		min. Earth dist.	3717 Mar 12 09:25	17°  40'08	0.64406 AU
	3716 Apr 15 14:19	0° 		morning rise	3717 Mar 15 23:34	13°  47'36	
morning max el	3716 Apr 22 23:50	5°  56'12	27°50'46	direct	3717 Mar 22 18:51	10°  48'48	
	3716 May 11 04:26	0° 		desc. node	3717 Mar 30 15:09	13°  46'42	
morning set	3716 May 26 21:41	28°  25'21		morning max el	3717 Apr 05 09:12	18°  43'22	27°25'27
	3716 May 27 16:17	0° 			3717 Apr 15 01:02	0° 	
max. Earth dist.	3716 Jun 01 10:11	9°  57'32	1.32544 AU		3717 May 04 02:37	0° 	
asc. node	3716 Jun 02 12:32	12°  19'21		morning set	3717 May 10 14:35	12°  13'22	
				max. Earth dist.	3717 May 15 10:09	21°  45'10	1.33419 AU
superior conj	3716 Jun 03 11:14	14°  22'19	0°09'56				
minimum elong	3716 Jun 03 10:46	14°  19'47	0°09'49	superior conj	3717 May 18 16:18	28°  46'11	-0°17'55
behind sun begin	3716 Jun 03 06:39	13°  57'25		minimum elong	3717 May 18 17:12	28°  51'02	0°17'43
behind sun end	3716 Jun 03 14:53	14°  42'09			3717 May 19 06:10	0° 	
evening rise	3716 Jun 10 09:46	29°  24'30		asc. node	3717 May 20 09:36	2°  26'21	
	3716 Jun 10 16:27	0° 		evening rise	3717 May 25 21:07	14°  28'22	
	3716 Jun 27 12:40	0° 			3717 Jun 02 21:44	0° 	
evening max el	3716 Jul 04 16:25	8°  23'11	23°57'27	evening max el	3717 Jun 16 06:57	18°  48'01	22°20'39
desc. node	3716 Jul 09 17:24	12°  27'16		desc. node	3717 Jun 26 14:25	24°  58'15	
retrograde	3716 Jul 18 10:19	15°  18'07		retrograde	3717 Jun 29 06:29	25°  54'42	
evening set	3716 Jul 22 21:22	14°  34'10		evening set	3717 Jul 02 06:27	24°  54'48	
min. Earth dist.	3716 Jul 29 02:46	11°  33'31	0.56257 AU	min. Earth dist.	3717 Jul 10 13:31	21°  19'32	0.55117 AU
inferior conj	3716 Jul 31 12:11	10°  05'43	-4°57'44	inferior conj	3717 Jul 11 12:50	20°  46'34	-3°59'09
minimum elong	3716 Jul 31 07:54	10°  12'19	4°57'18	minimum elong	3717 Jul 11 04:31	20°  58'21	3°57'05
morning rise	3716 Aug 08 21:01	6°  07'55		morning rise	3717 Jul 20 04:32	16°  55'54	
direct	3716 Aug 11 14:59	5°  48'29		direct	3717 Jul 23 06:04	16°  53'44	
morning max el	3716 Aug 21 14:04	10°  26'04	19°53'04	morning max el	3717 Aug 03 20:21	21°  58'40	21°15'19
asc. node	3716 Aug 29 11:46	20°  30'07			3717 Aug 10 15:32	0° 	
	3716 Sep 03 21:31	0° 		asc. node	3717 Aug 16 08:48	9°  13'25	
morning set	3716 Sep 08 12:00	9°  04'40		morning set	3717 Aug 23 20:13	23°  49'14	
					3717 Aug 26 19:11	0° 	
superior conj	3716 Sep 16 07:19	24°  05'49	1°43'24				
minimum elong	3716 Sep 16 08:13	24°  08'18	1°43'23	superior conj	3717 Aug 31 04:42	9°  11'47	1°43'48
	3716 Sep 18 21:28	0° 		minimum elong	3717 Aug 31 04:06	9°  08'40	1°43'48
max. Earth dist.	3716 Sep 22 01:16	6°  02'57	1.37131 AU	max. Earth dist.	3717 Sep 04 11:22	17°  05'51	1.35322 AU
evening rise	3716 Sep 25 20:11	13°  01'39		evening rise	3717 Sep 08 16:41	26°  05'47	
desc. node	3716 Oct 05 16:41	29°  04'40			3717 Sep 10 18:54	0° 	
	3716 Oct 05 20:01	0° 		desc. node	3717 Sep 22 13:44	20°  02'34	
	3716 Oct 27 11:10	0° 			3717 Sep 29 06:04	0° 	
evening max el	3716 Oct 31 14:18	4°  22'25	25°35'02	evening max el	3717 Oct 14 02:39	18°  02'01	26°35'14
retrograde	3716 Nov 12 19:29	11°  22'55		retrograde	3717 Oct 27 01:09	25°  16'23	
evening set	3716 Nov 18 18:52	8° 53'43		evening set	3717 Nov 02 13:36	22° 37'20	
min. Earth dist.	3716 Nov 23 03:49	4° 06'10	0.67091 AU	min. Earth dist.	3717 Nov 06 15:34	18° 25'29	0.66127 AU
inferior conj	3716 Nov 24 09:28	2° 31'20	-0°21'55	inferior conj	3717 Nov 08 08:44	16° 22'20	-1°21'02
minimum elong	3716 Nov 24 10:02	2° 29'31	0°21'40	minimum elong	3717 Nov 08 10:57	16° 15'41	1°20'07
asc. node	3716 Nov 25 11:00	1° 41'02		asc. node	3717 Nov 12 08:02	12° 05'38	
	3716 Nov 26 10:18	30° 48'48		morning rise	3717 Nov 14 08:59	10° 08'17	
morning rise	3716 Nov 30 01:31	26° 36'41		direct	3717 Nov 17 07:16	9° 45'13	
direct	3716 Dec 03 09:27	25° 32'50		morning max el	3717 Nov 23 22:17	13° 27'15	18°29'18

	3717 Dec 05 22:05	0°♊		morning rise	3718 Oct 29 11:03	24°♎34'52	
morning set	3717 Dec 13 23:31	12°♊50'23		asc. node	3718 Oct 30 05:03	24°♎17'13	
desc. node	3717 Dec 19 12:58	21°♊42'11		direct	3718 Nov 01 02:06	23°♎58'36	
	3717 Dec 24 18:52	0°♋		morning max el	3718 Nov 07 13:52	27°♎25'58	18°01'06
					3718 Nov 09 20:48	0°♌	
superior conj	3717 Dec 29 18:29	7°♋50'01	-1°06'02	morning set	3718 Nov 25 06:23	24°♌04'50	
minimum elong	3717 Dec 29 10:29	7°♋18'42	1°05'04		3718 Nov 28 19:44	0°♊	
max. Earth dist.	3717 Dec 30 10:22	8°♋52'22	1.45245 AU	desc. node	3718 Dec 06 10:01	12°♊25'22	
	3718 Jan 12 20:57	0°♌					
evening rise	3718 Jan 14 17:34	2°♌56'25		superior conj	3718 Dec 09 03:32	16°♊48'20	-0°18'38
greatest brilliancy	3718 Jan 24 06:36	18°♌00'37	-0.8m	minimum elong	3718 Dec 09 01:14	16°♊39'11	0°18'18
	3718 Feb 01 07:50	0°♍		max. Earth dist.	3718 Dec 13 05:28	23°♊17'02	1.44936 AU
evening max el	3718 Feb 06 04:33	5°♍55'02	19°03'21		3718 Dec 17 12:10	0°♋	
asc. node	3718 Feb 08 07:22	7°♍50'17		evening rise	3718 Dec 25 10:52	12°♋19'33	
retrograde	3718 Feb 13 02:06	9°♍49'25			3719 Jan 06 00:33	0°♌	
evening set	3718 Feb 16 10:23	8°♍44'28		greatest brilliancy	3719 Jan 08 11:32	3°♌39'59	-0.6m
inferior conj	3718 Feb 22 00:20	2°♍57'46	3°26'26	evening max el	3719 Jan 20 10:02	19°♌26'33	19°55'22
minimum elong	3718 Feb 21 22:40	3°♍03'02	3°26'13	asc. node	3719 Jan 26 04:21	23°♌33'14	
min. Earth dist.	3718 Feb 23 13:27	1°♍00'19	0.65912 AU	retrograde	3719 Jan 27 23:44	23°♌50'58	
	3718 Feb 24 09:06	30°♎		evening set	3719 Jan 31 15:54	22°♌32'11	
morning rise	3718 Feb 27 10:36	26°♎44'44		inferior conj	3719 Feb 06 02:07	16°♌31'15	3°03'28
direct	3718 Mar 05 21:33	23°♎54'48		minimum elong	3719 Feb 05 23:46	16°♌39'04	3°02'57
	3718 Mar 17 04:48	0°♏		min. Earth dist.	3719 Feb 07 00:54	15°♌15'05	0.67006 AU
desc. node	3718 Mar 17 12:10	0°♏17'23		morning rise	3719 Feb 11 07:25	10°♌17'26	
morning max el	3718 Mar 18 19:05	1°♏33'09	26°30'00	direct	3719 Feb 17 06:02	7°♌38'08	
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morning set	3718 Apr 23 19:50	25°♐22'58		desc. node	3719 Mar 04 09:13	18°♌13'25	
	3718 Apr 26 05:49	0°♑			3719 Mar 13 15:33	0°♏	
max. Earth dist.	3718 Apr 27 22:57	3°♑21'08	1.34752 AU		3719 Apr 01 23:52	0°♐	
				morning set	3719 Apr 06 08:42	7°♐40'42	
superior conj	3718 May 02 14:57	12°♑46'15	-0°46'52	max. Earth dist.	3719 Apr 10 00:30	14°♐23'10	1.36532 AU
minimum elong	3718 May 02 17:26	12°♑59'01	0°46'22				
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evening rise	3718 May 10 06:01	28°♑39'43		minimum elong	3719 Apr 16 08:19	26°♐34'17	1°14'38
	3718 May 10 21:34	0°♒			3719 Apr 18 01:37	0°♑	
evening max el	3718 May 29 06:18	29°♒34'58	20°52'34	evening rise	3719 Apr 24 10:18	12°♑52'12	
	3718 May 29 16:46	0°♓		asc. node	3719 Apr 24 03:40	12°♑18'44	
retrograde	3718 Jun 09 19:25	5°♓13'44			3719 May 03 12:27	0°♒	
evening set	3718 Jun 11 22:26	5°♓03'00		evening max el	3719 May 11 17:47	11°♒00'43	19°41'15
desc. node	3718 Jun 13 11:24	4°♓42'32		retrograde	3719 May 21 12:54	15°♒46'21	
inferior conj	3718 Jun 21 06:13	1°♓05'37	-2°16'00	evening set	3719 May 23 12:10	15°♒35'39	
minimum elong	3718 Jun 20 23:56	1°♓14'33	2°13'48	desc. node	3719 May 31 08:26	12°♒07'35	
min. Earth dist.	3718 Jun 22 01:19	0°♓38'29	0.54866 AU	inferior conj	3719 Jun 01 06:46	11°♒32'55	-0°16'28
	3718 Jun 23 04:42	30°♓♒		minimum elong	3719 Jun 01 06:01	11°♒34'05	0°16'12
morning rise	3718 Jun 30 01:10	27°♒02'42		min. Earth dist.	3719 Jun 03 14:45	10°♒05'44	0.55584 AU
direct	3718 Jul 03 15:23	26°♒34'52		morning rise	3719 Jun 09 21:27	7°♒00'50	
	3718 Jul 13 05:24	0°♓		direct	3719 Jun 14 07:50	6°♒17'07	
morning max el	3718 Jul 16 16:16	2°♓49'53	22°53'14	morning max el	3719 Jun 28 06:31	13°♒15'27	24°36'16
asc. node	3718 Aug 03 05:51	28°♓27'36			3719 Jul 11 06:14	0°♓	
	3718 Aug 04 00:49	0°♑		asc. node	3719 Jul 21 02:53	18°♓03'58	
morning set	3718 Aug 08 07:04	8°♑41'41		morning set	3719 Jul 23 18:50	23°♓36'09	
					3719 Jul 26 18:22	0°♑	
superior conj	3718 Aug 15 09:06	23°♑50'28	1°37'36	superior conj	3719 Jul 30 17:56	8°♑40'58	1°25'51
minimum elong	3718 Aug 15 07:26	23°♑41'34	1°37'29	minimum elong	3719 Jul 30 15:41	8°♑28'45	1°25'34
	3718 Aug 18 07:04	0°♒		max. Earth dist.	3719 Aug 01 09:58	12°♑18'13	1.32864 AU
max. Earth dist.	3718 Aug 18 06:20	29°♑56'13	1.33886 AU	evening rise	3719 Aug 07 00:13	24°♑05'00	
evening rise	3718 Aug 23 03:20	9°♒50'52			3719 Aug 09 23:19	0°♒	
	3718 Sep 03 04:45	0°♓		desc. node	3719 Aug 27 07:45	29°♒17'59	
desc. node	3718 Sep 09 10:44	9°♓56'21			3719 Aug 27 19:38	0°♓	
	3718 Sep 25 02:02	0°♌		evening max el	3719 Sep 09 01:41	14°♓36'54	27°26'27
evening max el	3718 Sep 26 15:03	1°♌31'21	27°14'37	retrograde	3719 Sep 22 18:31	21°♓52'55	
retrograde	3718 Oct 10 01:08	8°♌49'36		evening set	3719 Sep 29 23:00	19°♓18'50	
evening set	3718 Oct 17 00:01	6°♌08'03		min. Earth dist.	3719 Oct 03 14:24	16°♓13'53	0.63170 AU
min. Earth dist.	3718 Oct 20 19:47	2°♌31'23	0.64814 AU	inferior conj	3719 Oct 06 07:39	13°♓33'05	-3°21'56
inferior conj	3718 Oct 23 01:02	0°♌05'22	-2°22'00	minimum elong	3719 Oct 06 13:04	13°♓19'41	3°20'12
minimum elong	3718 Oct 23 05:00	29°♓54'27	2°20'29	morning rise	3719 Oct 13 04:33	8°♓19'34	
	3718 Oct 23 02:59	30°♓♑					

direct	3719 Oct 15 15:03	7°♌51'30		morning rise	3720 Sep 25 09:37	21°♏44'37	
asc. node	3719 Oct 17 02:04	8°♌01'49		direct	3720 Sep 27 18:25	21°♏21'44	
morning max el	3719 Oct 22 06:20	11°♌17'18	17°50'26	asc. node	3720 Oct 02 23:08	23°♏16'43	
	3719 Nov 03 20:40	0°♍		morning max el	3720 Oct 04 20:42	24°♏54'14	17°58'18
morning set	3719 Nov 07 13:56	6°♍30'22			3720 Oct 09 01:52	0°♏	
				morning set	3720 Oct 20 15:47	19°♏47'47	
superior conj	3719 Nov 19 11:10	26°♍54'04	0°26'21		3720 Oct 26 05:41	0°♍	
minimum elong	3719 Nov 19 13:47	27°♍04'54	0°25'58				
	3719 Nov 21 08:07	0°♎		superior conj	3720 Oct 30 21:37	8°♍18'20	1°01'48
desc. node	3719 Nov 23 07:02	3°♎12'07		minimum elong	3720 Oct 31 01:50	8°♍36'48	1°01'15
max. Earth dist.	3719 Nov 25 22:38	7°♎29'12	1.43923 AU	max. Earth dist.	3720 Nov 07 11:19	21°♍11'43	1.42334 AU
evening rise	3719 Dec 04 20:12	21°♎29'13		desc. node	3720 Nov 09 04:03	23°♍59'13	
	3719 Dec 10 09:57	0°♏			3720 Nov 12 21:30	0°♎	
	3719 Dec 31 17:12	0°♐		evening rise	3720 Nov 13 13:51	1°♎05'02	
evening max el	3720 Jan 03 10:07	2°♐59'21	21°00'55		3720 Dec 02 22:46	0°♏	
retrograde	3720 Jan 11 21:39	8°♐00'35		evening max el	3720 Dec 16 04:46	16°♏33'02	22°16'11
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morning rise	3720 Jan 26 11:09	24°♑01'25		morning rise	3721 Jan 09 19:22	7°♑53'13	
direct	3720 Jan 31 19:17	21°♑40'38		direct	3721 Jan 14 12:35	5°♑54'49	
morning max el	3720 Feb 11 12:27	28°♑03'32	23°46'17	morning max el	3721 Jan 23 23:36	11°♑28'53	22°17'59
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desc. node	3720 Feb 19 06:16	7°♒03'14			3721 Feb 07 14:48	0°♒	
	3720 Mar 06 08:39	0°♓		morning set	3721 Feb 26 10:13	28°♒40'46	
morning set	3720 Mar 17 23:23	18°♓51'18			3721 Feb 27 05:41	0°♓	
max. Earth dist.	3720 Mar 21 20:10	25°♓34'31	1.38630 AU	max. Earth dist.	3721 Mar 03 17:17	7°♓26'27	1.40800 AU
	3720 Mar 24 07:31	0°♑					
superior conj	3720 Mar 29 04:59	9°♑02'51	-1°40'41	superior conj	3721 Mar 11 12:04	20°♓58'04	-1°59'37
minimum elong	3720 Mar 29 09:40	9°♑24'57	1°40'10	minimum elong	3721 Mar 11 15:49	21°♓14'50	1°59'25
evening rise	3720 Apr 07 07:23	26°♑39'04			3721 Mar 16 11:11	0°♑	
	3720 Apr 09 00:44	0°♒		evening rise	3721 Mar 21 17:55	9°♑51'13	
asc. node	3720 Apr 10 00:42	1°♒55'18		asc. node	3721 Mar 27 21:44	21°♑11'13	
evening max el	3720 Apr 23 16:18	23°♒06'29	18°49'43		3721 Apr 02 06:59	0°♒	
retrograde	3720 May 01 22:38	27°♒08'59		evening max el	3721 Apr 06 22:51	5°♒44'46	18°18'26
evening set	3720 May 04 02:36	26°♒53'25		retrograde	3721 Apr 14 03:27	9°♒19'47	
inferior conj	3720 May 12 01:36	22°♒34'00	1°26'56	evening set	3721 Apr 16 13:52	8°♒56'06	
minimum elong	3720 May 12 04:39	22°♒28'27	1°25'56	inferior conj	3721 Apr 23 17:57	4°♒16'27	2°39'03
min. Earth dist.	3720 May 15 07:02	20°♒14'26	0.57113 AU	minimum elong	3721 Apr 23 21:34	4°♒08'44	2°38'11
desc. node	3720 May 17 05:27	18°♒58'26		min. Earth dist.	3721 Apr 27 04:18	1°♒22'42	0.59144 AU
morning rise	3720 May 20 03:30	17°♒26'29			3721 Apr 28 23:49	30°♑	
direct	3720 May 25 13:32	16°♒15'27		morning rise	3721 May 01 02:29	28°♑39'25	
morning max el	3720 Jun 08 21:39	23°♒43'59	26°09'09	desc. node	3721 May 04 02:30	27°♑22'09	
	3720 Jun 14 13:43	0°♓		direct	3721 May 07 08:56	26°♑53'10	
	3720 Jul 03 02:51	0°♔			3721 May 16 03:19	0°♒	
asc. node	3720 Jul 06 23:57	7°♔56'05		morning max el	3721 May 21 18:09	4°♒40'40	27°16'41
morning set	3720 Jul 07 05:56	8°♔27'37			3721 Jun 09 09:34	0°♓	
				morning set	3721 Jun 21 14:40	23°♓09'58	
superior conj	3720 Jul 14 05:09	23°♔36'39	1°09'23	asc. node	3721 Jun 23 21:01	27°♓57'56	
minimum elong	3720 Jul 14 02:50	23°♔23'51	1°09'00		3721 Jun 24 19:40	0°♔	
max. Earth dist.	3720 Jul 14 19:32	24°♔55'46	1.32252 AU	superior conj	3721 Jun 28 16:57	8°♔30'55	0°48'53
	3720 Jul 17 03:06	0°♕		minimum elong	3721 Jun 28 15:01	8°♔20'14	0°48'30
evening rise	3720 Jul 21 04:16	8°♕38'53		max. Earth dist.	3721 Jun 28 07:18	7°♔37'44	1.32040 AU
	3720 Aug 01 08:31	0°♏		evening rise	3721 Jul 05 12:56	23°♔23'59	
desc. node	3720 Aug 13 04:45	17°♏54'11			3721 Jul 08 17:24	0°♕	
evening max el	3720 Aug 21 07:54	27°♏05'08	27°05'56		3721 Jul 26 14:24	0°♏	
	3720 Aug 24 17:27	0°♐		desc. node	3721 Jul 31 01:47	5°♏26'11	
retrograde	3720 Sep 04 04:40	4°♐17'34		evening max el	3721 Aug 03 07:12	8°♏46'04	26°12'28
evening set	3720 Sep 11 06:36	2°♐03'07		retrograde	3721 Aug 17 06:37	15°♏55'40	
	3720 Sep 14 03:08	30°♑		evening set	3721 Aug 23 18:00	14°♏13'10	
min. Earth dist.	3720 Sep 14 22:11	29°♑20'56	0.61248 AU	min. Earth dist.	3721 Aug 27 20:03	11°♏38'00	0.59173 AU
inferior conj	3720 Sep 18 01:24	26°♑37'32	-4°15'57	inferior conj	3721 Aug 31 02:43	9°♏09'14	-4°55'50
minimum elong	3720 Sep 18 07:12	26°♑24'51	4°14'35	minimum elong	3721 Aug 31 06:43	9°♏01'36	4°55'22




























































































































morning rise	3721 Sep 07 21:38	4° \mathbb{M} 39'15		direct	3722 Aug 23 02:58	16° Ω 31'44	
direct	3721 Sep 10 07:43	4° \mathbb{M} 19'12		morning max el	3722 Sep 01 06:00	20° Ω 48'32	19°15'07
morning max el	3721 Sep 18 05:42	8° \mathbb{M} 08'07	18°26'08	asc. node	3722 Sep 06 17:17	27° Ω 22'35	
asc. node	3721 Sep 19 20:13	9° \mathbb{M} 48'52			3722 Sep 08 10:52	0° \mathbb{M}	
	3721 Oct 02 08:06	0° $\underline{\Omega}$		morning set	3722 Sep 18 06:28	18° \mathbb{M} 02'28	
morning set	3721 Oct 04 06:39	3° $\underline{\Omega}$ 42'23			3722 Sep 24 06:29	0° $\underline{\Omega}$	
superior conj	3721 Oct 13 07:17	20° $\underline{\Omega}$ 50'54	1°25'56	superior conj	3722 Sep 26 10:30	4° $\underline{\Omega}$ 14'47	1°39'38
minimum elong	3721 Oct 13 10:48	21° $\underline{\Omega}$ 07'06	1°25'36	minimum elong	3722 Sep 26 12:23	4° $\underline{\Omega}$ 23'58	1°39'33
	3721 Oct 18 08:48	0° \mathbb{M}		max. Earth dist.	3722 Oct 02 22:35	16° $\underline{\Omega}$ 30'01	1.38282 AU
max. Earth dist.	3721 Oct 20 18:29	4° \mathbb{M} 11'51	1.40368 AU	evening rise	3722 Oct 06 17:19	23° $\underline{\Omega}$ 14'46	
evening rise	3721 Oct 25 03:50	11° \mathbb{M} 37'35			3722 Oct 10 16:05	0° \mathbb{M}	
desc. node	3721 Oct 27 01:05	14° \mathbb{M} 43'34		desc. node	3722 Oct 13 22:06	5° \mathbb{M} 20'46	
	3721 Nov 05 19:23	0° \mathbb{M}			3722 Oct 30 14:49	0° \mathbb{M}	
	3721 Nov 28 15:25	0° \mathbb{M}		evening max el	3722 Nov 11 07:58	13° \mathbb{M} 50'29	24°53'59
evening max el	3721 Nov 28 19:20	0° \mathbb{M} 09'48	23°35'59	retrograde	3722 Nov 23 01:08	20° \mathbb{M} 38'45	
retrograde	3721 Dec 09 11:39	6° \mathbb{M} 28'29		evening set	3722 Nov 28 16:21	18° \mathbb{M} 17'35	
evening set	3721 Dec 14 13:10	4° \mathbb{M} 22'30		min. Earth dist.	3722 Dec 03 05:37	13° \mathbb{M} 09'35	0.67482 AU
asc. node	3721 Dec 16 19:26	2° \mathbb{M} 04'14		asc. node	3722 Dec 03 16:29	12° \mathbb{M} 33'47	
	3721 Dec 18 10:54	30° \mathbb{M} 47		inferior conj	3722 Dec 04 04:52	11° \mathbb{M} 52'53	0°10'35
inferior conj	3721 Dec 19 23:01	27° \mathbb{M} 57'36	1°03'19	minimum elong	3722 Dec 04 04:36	11° \mathbb{M} 53'46	0°10'28
minimum elong	3721 Dec 19 21:35	28° \mathbb{M} 02'28	1°02'45	transit middle	3722 Dec 04 04:36	11° \mathbb{M} 53'46	0°10'28
min. Earth dist.	3721 Dec 19 10:27	28° \mathbb{M} 40'35	0.67896 AU	transit begin	3722 Dec 04 02:30	12° \mathbb{M} 00'43	
morning rise	3721 Dec 25 05:59	21° \mathbb{M} 51'21		transit end	3722 Dec 04 06:43	11° \mathbb{M} 46'48	
direct	3721 Dec 29 09:02	20° \mathbb{M} 15'44		morning rise	3722 Dec 09 17:01	5° \mathbb{M} 53'04	
morning max el	3722 Jan 06 16:44	25° \mathbb{M} 04'21	20°56'34	direct	3722 Dec 13 07:25	4° \mathbb{M} 38'25	
	3722 Jan 11 01:30	0° \mathbb{M}		morning max el	3722 Dec 20 17:35	8° \mathbb{M} 50'29	19°47'18
desc. node	3722 Jan 23 00:19	16° \mathbb{M} 26'33		greatest brilliancy	3723 Jan 03 01:07	26° \mathbb{M} 23'44	-0.7m
	3722 Feb 01 01:12	0° \mathbb{M}			3723 Jan 05 11:09	0° \mathbb{M}	
morning set	3722 Feb 05 17:51	7° \mathbb{M} 15'46		desc. node	3723 Jan 09 21:20	6° \mathbb{M} 41'41	
max. Earth dist.	3722 Feb 13 20:36	20° \mathbb{M} 11'59	1.42757 AU	morning set	3723 Jan 15 13:46	15° \mathbb{M} 24'54	
	3722 Feb 19 18:41	0° \mathbb{M}			3723 Jan 24 22:10	0° \mathbb{M}	
				max. Earth dist.	3723 Jan 27 07:23	3° \mathbb{M} 46'37	1.44250 AU
superior conj	3722 Feb 20 20:35	1° \mathbb{M} 49'25	-2°07'18	superior conj	3723 Feb 01 03:10	11° \mathbb{M} 30'47	-1°58'22
minimum elong	3722 Feb 20 20:37	1° \mathbb{M} 49'32	2°07'18	minimum elong	3723 Jan 31 21:17	11° \mathbb{M} 06'59	1°58'02
evening rise	3722 Mar 04 13:54	22° \mathbb{M} 19'47			3723 Feb 12 07:16	0° \mathbb{M}	
	3722 Mar 08 21:11	0° \mathbb{M}		evening rise	3723 Feb 14 14:51	3° \mathbb{M} 55'36	
asc. node	3722 Mar 14 18:47	9° \mathbb{M} 59'45		asc. node	3723 Mar 01 15:49	28° \mathbb{M} 11'53	
evening max el	3722 Mar 21 10:06	18° \mathbb{M} 47'05	18°06'58		3723 Mar 03 01:52	0° \mathbb{M}	
retrograde	3722 Mar 28 00:26	22° \mathbb{M} 10'20		evening max el	3723 Mar 04 22:52	2° \mathbb{M} 04'39	18°14'40
evening set	3722 Mar 30 17:01	21° \mathbb{M} 36'27		retrograde	3723 Mar 11 09:10	5° \mathbb{M} 30'21	
inferior conj	3722 Apr 06 05:41	16° \mathbb{M} 36'25	3°20'15	evening set	3723 Mar 14 07:35	4° \mathbb{M} 44'59	
minimum elong	3722 Apr 06 07:59	16° \mathbb{M} 30'47	3°19'56		3723 Mar 19 20:12	30° \mathbb{M} 47	
min. Earth dist.	3722 Apr 09 08:53	13° \mathbb{M} 33'17	0.61330 AU	inferior conj	3723 Mar 20 08:46	29° \mathbb{M} 25'28	3°36'39
morning rise	3722 Apr 12 21:07	10° \mathbb{M} 40'34		minimum elong	3723 Mar 20 09:16	29° \mathbb{M} 24'05	3°36'37
direct	3722 Apr 19 15:49	8° \mathbb{M} 20'55		min. Earth dist.	3723 Mar 22 22:18	26° \mathbb{M} 36'16	0.63375 AU
desc. node	3722 Apr 20 23:32	8° \mathbb{M} 25'57		morning rise	3723 Mar 26 09:58	23° \mathbb{M} 19'23	
morning max el	3722 May 03 20:54	16° \mathbb{M} 18'02	27°49'04	direct	3723 Apr 02 07:32	20° \mathbb{M} 37'06	
	3722 May 15 03:04	0° \mathbb{M}		desc. node	3723 Apr 07 20:33	22° \mathbb{M} 06'25	
	3722 Jun 01 23:42	0° \mathbb{M}		morning max el	3723 Apr 16 04:20	28° \mathbb{M} 34'57	27°44'03
morning set	3722 Jun 05 19:09	7° \mathbb{M} 37'12			3723 Apr 17 13:18	0° \mathbb{M}	
asc. node	3722 Jun 10 18:04	18° \mathbb{M} 05'07			3723 May 08 22:47	0° \mathbb{M}	
max. Earth dist.	3722 Jun 11 17:27	20° \mathbb{M} 11'52	1.32236 AU	morning set	3723 May 20 17:06	21° \mathbb{M} 42'13	
					3723 May 24 18:19	0° \mathbb{M}	
superior conj	3722 Jun 13 03:36	23° \mathbb{M} 18'17	0°24'58	max. Earth dist.	3723 May 25 22:10	2° \mathbb{M} 26'35	1.32856 AU
minimum elong	3722 Jun 13 02:29	23° \mathbb{M} 12'09	0°24'44				
	3722 Jun 16 04:53	0° \mathbb{M}		superior conj	3723 May 28 11:17	7° \mathbb{M} 52'58	-0°01'41
evening rise	3722 Jun 20 00:09	8° \mathbb{M} 13'43		minimum elong	3723 May 28 11:22	7° \mathbb{M} 53'26	0°01'40
	3722 Jul 01 06:46	0° Ω		behind sun begin	3723 May 28 06:06	7° \mathbb{M} 25'05	
evening max el	3722 Jul 15 23:25	19° Ω 41'05	24°51'36	behind sun end	3723 May 28 16:38	8° \mathbb{M} 21'48	
desc. node	3722 Jul 17 22:49	21° Ω 27'56		asc. node	3723 May 28 15:08	8° \mathbb{M} 13'44	
retrograde	3722 Jul 29 22:04	26° Ω 44'29		evening rise	3723 Jun 04 12:00	23° \mathbb{M} 01'59	
evening set	3722 Aug 04 05:22	25° Ω 40'39			3723 Jun 07 20:36	0° \mathbb{M}	
min. Earth dist.	3722 Aug 09 10:54	22° Ω 53'37	0.57204 AU		3723 Jun 27 08:51	0° Ω	
inferior conj	3722 Aug 12 08:32	20° Ω 58'59	-5°08'46	evening max el	3723 Jun 27 12:40	0° Ω 09'17	23°16'07
minimum elong	3722 Aug 12 07:46	21° Ω 00'15	5°08'45	desc. node	3723 Jul 04 19:50	5° Ω 26'37	
morning rise	3722 Aug 20 12:42	16° Ω 50'53					

retrograde	3723 Jul 11 00:49	6°Ω54'13		retrograde	3724 Jun 20 16:24	16°Ω47'54	
evening set	3723 Jul 14 19:57	6°Ω22'42		desc. node	3724 Jun 20 16:51	16°Ω47'54	
min. Earth dist.	3723 Jul 21 22:13	3°Ω08'53	0.55675 AU	evening set	3724 Jun 23 05:28	16°Ω33'16	
inferior conj	3723 Jul 23 18:38	2°Ω03'45	-4°39'16	inferior conj	3724 Jul 02 14:31	12°Ω31'33	-3°19'37
minimum elong	3723 Jul 23 12:03	2°Ω13'27	4°38'09	minimum elong	3724 Jul 02 06:16	12°Ω43'04	3°17'09
	3723 Jul 27 11:18	30°κΩ		min. Earth dist.	3724 Jul 02 08:54	12°Ω39'24	0.54896 AU
morning rise	3723 Aug 01 06:32	28°Ω10'37		morning rise	3724 Jul 11 08:17	8°Ω38'32	
direct	3723 Aug 04 03:29	27°Ω50'39		direct	3724 Jul 14 14:39	8°Ω15'14	
	3723 Aug 11 04:33	0°Ω		morning max el	3724 Jul 26 20:22	14°Ω00'22	21°55'31
morning max el	3723 Aug 14 19:02	2°Ω47'15	20°25'39		3724 Aug 07 20:14	0°Ω	
asc. node	3723 Aug 24 14:19	15°Ω44'17		asc. node	3724 Aug 10 11:22	4°Ω41'43	
	3723 Sep 01 04:46	0°η		morning set	3724 Aug 16 21:53	17°Ω28'59	
morning set	3723 Sep 02 12:19	2°η40'26			3724 Aug 22 19:58	0°η	
superior conj	3723 Sep 10 02:24	18°η16'34	1°44'27	superior conj	3724 Aug 24 03:06	2°η44'01	1°41'55
minimum elong	3723 Sep 10 02:38	18°η17'41	1°44'28	minimum elong	3724 Aug 24 01:59	2°η38'10	1°41'51
max. Earth dist.	3723 Sep 15 05:20	28°η25'35	1.36325 AU	max. Earth dist.	3724 Aug 27 19:19	10°η20'31	1.34666 AU
	3723 Sep 16 01:00	0°♁		evening rise	3724 Sep 01 06:47	19°η13'15	
evening rise	3723 Sep 19 03:47	5°♁50'45			3724 Sep 07 02:22	0°♁	
desc. node	3723 Sep 30 19:09	25°♁46'20		desc. node	3724 Sep 16 16:11	15°♁53'41	
	3723 Oct 03 12:09	0°♌			3724 Sep 26 14:13	0°♌	
evening max el	3723 Oct 24 20:28	27°♌33'05	26°02'46	evening max el	3724 Oct 06 09:01	11°♌09'31	26°54'56
	3723 Oct 27 13:20	0°♌		retrograde	3724 Oct 19 12:44	18°♌25'46	
retrograde	3723 Nov 06 09:40	4°♌40'09		evening set	3724 Oct 26 06:13	15°♌44'37	
evening set	3723 Nov 12 14:44	2°♌06'25		min. Earth dist.	3724 Oct 30 05:28	11°♌48'04	0.65616 AU
	3723 Nov 14 18:50	30°κ♌		inferior conj	3724 Nov 01 03:42	9°♌34'35	-1°46'48
min. Earth dist.	3723 Nov 16 20:45	27°♌33'47	0.66727 AU	minimum elong	3724 Nov 01 06:40	9°♌26'00	1°45'36
inferior conj	3723 Nov 18 07:07	25°♌46'42	-0°46'36	asc. node	3724 Nov 06 10:32	4°♌27'01	
minimum elong	3723 Nov 18 08:22	25°♌42'50	0°46'04	morning rise	3724 Nov 07 07:56	3°♌55'59	
asc. node	3723 Nov 20 13:31	23°♌03'35		direct	3724 Nov 10 02:57	3°♌13'17	
morning rise	3723 Nov 24 02:26	19°♌55'58		morning max el	3724 Nov 16 15:34	6°♌44'44	18°15'15
direct	3723 Nov 27 06:04	18°♌59'07			3724 Dec 02 14:51	0°♌	
morning max el	3723 Dec 04 01:52	22°♌45'40	18°53'06	morning set	3724 Dec 05 13:39	4°♌48'13	
	3723 Dec 09 23:46	0°♌		desc. node	3724 Dec 13 15:25	17°♌50'22	
morning set	3723 Dec 25 23:32	24°♌23'12		superior conj	3724 Dec 20 14:31	28°♌53'15	-0°46'19
desc. node	3723 Dec 27 18:22	27°♌11'07		minimum elong	3724 Dec 20 08:40	28°♌30'13	0°45'32
	3723 Dec 29 13:28	0°♌			3724 Dec 21 07:28	0°♌	
max. Earth dist.	3724 Jan 10 00:16	17°♌56'58	1.45098 AU	max. Earth dist.	3724 Dec 22 19:47	2°♌22'47	1.45205 AU
superior conj	3724 Jan 11 11:48	20°♌16'42	-1°29'55	evening rise	3725 Jan 05 21:05	24°♌20'59	
minimum elong	3724 Jan 11 02:36	19°♌40'27	1°29'00		3725 Jan 09 11:59	0°♌	
	3724 Jan 17 15:20	0°♌		greatest brilliancy	3725 Jan 17 12:19	12°♌23'52	-0.7m
evening rise	3724 Jan 26 17:15	14°♌34'37		evening max el	3725 Jan 29 18:35	29°♌01'01	19°23'34
	3724 Feb 05 06:25	0°♌			3725 Jan 30 18:43	0°♌	
evening max el	3724 Feb 16 10:27	15°♌30'47	18°40'36	asc. node	3725 Feb 02 09:50	2°♌01'30	
asc. node	3724 Feb 16 12:49	15°♌36'48		retrograde	3725 Feb 05 22:09	3°♌07'13	
retrograde	3724 Feb 23 01:31	19°♌11'22		evening set	3725 Feb 09 09:38	1°♌56'21	
evening set	3724 Feb 26 06:02	18°♌13'39			3725 Feb 11 15:09	30°κ♌	
inferior conj	3724 Mar 02 23:13	12°♌36'09	3°34'21	inferior conj	3725 Feb 14 21:41	26°♌03'01	3°17'59
minimum elong	3724 Mar 02 22:12	12°♌39'14	3°34'16	minimum elong	3725 Feb 14 19:40	26°♌09'34	3°17'40
min. Earth dist.	3724 Mar 04 21:03	10°♌17'20	0.65102 AU	min. Earth dist.	3725 Feb 16 04:26	24°♌23'07	0.66427 AU
morning rise	3724 Mar 08 13:54	6°♌24'52		morning rise	3725 Feb 20 05:28	19°♌49'27	
direct	3724 Mar 15 06:22	3°♌34'07		direct	3725 Feb 26 11:26	17°♌03'10	
desc. node	3724 Mar 24 17:34	7°♌51'18		morning max el	3725 Mar 10 23:47	24°♌29'37	25°59'33
morning max el	3724 Mar 28 14:04	11°♌22'35	27°05'04	desc. node	3725 Mar 11 14:35	25°♌07'29	
	3724 Apr 12 09:21	0°♌			3725 Mar 15 23:03	0°♌	
	3724 Apr 30 11:07	0°♌			3725 Apr 05 19:43	0°♌	
morning set	3724 May 03 05:29	5°♌14'56		morning set	3725 Apr 16 04:26	18°♌04'26	
max. Earth dist.	3724 May 07 17:43	14°♌11'13	1.33931 AU	max. Earth dist.	3725 Apr 20 01:55	25°♌26'03	1.35464 AU
					3725 Apr 22 10:02	0°♌	
superior conj	3724 May 11 13:54	22°♌07'36	-0°30'08	superior conj	3725 Apr 25 09:01	5°♌55'15	-0°59'05
minimum elong	3724 May 11 15:28	22°♌15'50	0°29'48	minimum elong	3725 Apr 25 12:10	6°♌11'09	0°58'31
asc. node	3724 May 14 12:08	28°♌18'34		asc. node	3725 May 01 09:10	18°♌16'05	
	3724 May 15 07:14	0°♌		evening rise	3725 May 03 05:49	22°♌05'57	
evening rise	3724 May 18 22:33	7°♌41'26			3725 May 07 04:16	0°♌	
	3724 May 30 20:55	0°♌		evening max el	3725 May 21 10:28	21°♌41'47	20°19'48
evening max el	3724 Jun 08 06:14	10°♌40'12	21°41'30				

retrograde	3725 Jun 01 05:54	26°♊58'08			3726 May 01 02:00	0°♊	
evening set	3725 Jun 03 05:39	26°♊48'10		evening max el	3726 May 04 02:54	3°♊24'51	19°16'49
desc. node	3725 Jun 07 13:50	25°♊25'10		retrograde	3726 May 13 05:31	7°♊50'35	
inferior conj	3725 Jun 12 09:08	22°♊49'53	-1°25'06	evening set	3726 May 15 06:01	7°♊38'27	
minimum elong	3725 Jun 12 05:08	22°♊55'46	1°23'38	inferior conj	3726 May 23 16:36	3°♊29'41	0°30'41
min. Earth dist.	3725 Jun 13 21:08	21°♊57'08	0.55059 AU	minimum elong	3726 May 23 17:52	3°♊27'34	0°30'14
morning rise	3725 Jun 21 03:24	18°♊36'17		desc. node	3726 May 25 10:50	2°♊19'19	
direct	3725 Jun 25 01:06	18°♊03'20		min. Earth dist.	3726 May 26 11:55	1°♊38'22	0.56148 AU
morning max el	3725 Jul 08 13:14	24°♊37'48	23°37'20		3726 May 29 06:00	30°♋	
	3725 Jul 13 11:55	0°♋		morning rise	3726 Jun 01 02:40	28°♋41'57	
asc. node	3725 Jul 28 08:24	24°♋05'54		direct	3726 Jun 05 22:56	27°♋47'57	
	3725 Jul 31 06:05	0°♌			3726 Jun 13 13:53	0°♊	
morning set	3725 Aug 01 09:19	2°♌22'41		morning max el	3726 Jun 20 03:19	5°♊01'40	25°18'00
					3726 Jul 08 02:16	0°♋	
superior conj	3725 Aug 08 09:40	17°♌28'21	1°33'15	asc. node	3726 Jul 15 05:28	13°♋49'38	
minimum elong	3725 Aug 08 07:42	17°♌17'43	1°33'03	morning set	3726 Jul 16 21:01	17°♋16'36	
max. Earth dist.	3725 Aug 10 18:08	22°♌30'24	1.33399 AU		3726 Jul 22 17:52	0°♌	
	3725 Aug 14 08:22	0°♍					
evening rise	3725 Aug 15 22:10	3°♍11'13		superior conj	3726 Jul 23 19:48	2°♌22'10	1°19'25
	3725 Aug 30 21:30	0°♎		minimum elong	3726 Jul 23 17:28	2°♌09'23	1°19'05
desc. node	3725 Sep 03 13:12	5°♎34'52		max. Earth dist.	3726 Jul 25 00:30	4°♌59'05	1.32548 AU
evening max el	3725 Sep 18 20:42	24°♎29'07	27°23'17	evening rise	3726 Jul 30 22:28	17°♌34'56	
	3725 Sep 26 03:04	0°♏			3726 Aug 06 05:53	0°♍	
retrograde	3725 Oct 02 09:59	1°♏47'15		desc. node	3726 Aug 21 10:11	24°♍39'14	
	3725 Oct 08 05:24	30°♋♎			3726 Aug 25 12:38	0°♎	
evening set	3725 Oct 09 12:12	29°♎07'05		evening max el	3726 Sep 01 05:41	7°♎20'13	27°21'52
min. Earth dist.	3725 Oct 13 05:37	25°♎44'59	0.64153 AU	retrograde	3726 Sep 15 00:49	14°♎35'39	
inferior conj	3725 Oct 15 16:12	23°♎11'12	-2°47'50	evening set	3726 Sep 22 05:16	12°♎08'11	
minimum elong	3725 Oct 15 20:52	22°♎58'57	2°46'09	min. Earth dist.	3726 Sep 25 19:49	9°♎14'23	0.62373 AU
morning rise	3725 Oct 22 06:47	17°♎47'51		inferior conj	3726 Sep 28 17:49	6°♎30'24	-3°46'01
asc. node	3725 Oct 24 07:35	17°♎16'49		minimum elong	3726 Sep 28 23:35	6°♎16'49	3°44'21
direct	3725 Oct 24 19:33	17°♎15'33		morning rise	3726 Oct 05 19:34	1°♎25'25	
morning max el	3725 Oct 31 07:58	20°♎41'07	17°54'25	direct	3726 Oct 08 04:49	1°♎00'02	
	3725 Nov 07 09:04	0°♏		asc. node	3726 Oct 11 04:39	1°♎41'13	
morning set	3725 Nov 17 07:45	16°♏34'36		morning max el	3726 Oct 15 00:02	4°♎27'57	17°51'27
	3725 Nov 25 06:48	0°♐		morning set	3726 Oct 30 23:53	29°♎24'32	
					3726 Oct 31 07:48	0°♏	
superior conj	3725 Nov 30 07:53	8°♐16'42	0°01'20	superior conj	3726 Nov 11 03:09	18°♏56'44	0°42'43
minimum elong	3725 Nov 30 08:02	8°♐17'19	0°01'18	minimum elong	3726 Nov 11 06:49	19°♏12'19	0°42'12
behind sun begin	3725 Nov 29 21:59	7°♐36'30		desc. node	3726 Nov 17 09:30	29°♏22'44	
behind sun end	3725 Nov 30 18:06	8°♐58'04			3726 Nov 17 18:39	0°♐	
desc. node	3725 Nov 30 12:28	8°♐35'16		max. Earth dist.	3726 Nov 18 05:16	0°♐43'12	1.43302 AU
max. Earth dist.	3725 Dec 05 14:18	16°♐43'38	1.44576 AU	evening rise	3726 Nov 25 20:01	12°♐49'06	
	3725 Dec 14 01:48	0°♑			3726 Dec 07 04:03	0°♑	
evening rise	3725 Dec 16 09:03	3°♑33'04		evening max el	3726 Dec 26 19:25	26°♑05'26	21°32'02
	3726 Jan 03 01:05	0°♒			3726 Dec 31 11:34	0°♒	
evening max el	3726 Jan 12 21:44	12°♒32'29	20°21'46	retrograde	3727 Jan 04 17:48	1°♒23'52	
asc. node	3726 Jan 20 06:51	17°♒10'46		asc. node	3727 Jan 07 03:53	0°♒52'01	
retrograde	3726 Jan 20 20:16	17°♒12'29		evening set	3727 Jan 08 23:55	29°♑43'32	
evening set	3726 Jan 24 16:12	15°♒47'27			3727 Jan 08 15:17	30°♋♑	
inferior conj	3726 Jan 30 01:26	9°♒41'03	2°50'43	inferior conj	3727 Jan 14 08:13	23°♑27'12	2°14'40
minimum elong	3726 Jan 29 22:58	9°♒49'26	2°50'07	minimum elong	3727 Jan 14 05:48	23°♑35'35	2°13'53
min. Earth dist.	3726 Jan 30 18:33	8°♒42'54	0.67335 AU	min. Earth dist.	3727 Jan 14 13:08	23°♑10'11	0.67848 AU
morning rise	3726 Feb 04 05:32	3°♒27'13		morning rise	3727 Jan 19 11:29	17°♑14'56	
direct	3726 Feb 09 22:00	0°♒55'10		direct	3727 Jan 24 13:17	15°♑03'11	
morning max el	3726 Feb 21 08:28	7°♒45'17	24°37'10	morning max el	3727 Feb 03 17:35	21°♑05'54	23°08'14
desc. node	3726 Feb 26 11:38	13°♒28'31			3727 Feb 11 08:59	0°♒	
	3726 Mar 10 18:03	0°♓		desc. node	3727 Feb 13 08:41	2°♒35'57	
morning set	3726 Mar 29 08:41	29°♓55'52			3727 Mar 04 00:32	0°♓	
	3726 Mar 29 09:37	0°♔		morning set	3727 Mar 10 12:03	10°♓32'55	
max. Earth dist.	3726 Apr 02 00:04	6°♔27'20	1.37397 AU	max. Earth dist.	3727 Mar 14 18:51	17°♓49'56	1.39560 AU
					3727 Mar 21 14:44	0°♔	
superior conj	3726 Apr 08 17:29	19°♔07'28	-1°26'35	superior conj	3727 Mar 22 11:16	1°♔34'24	-1°49'47
minimum elong	3726 Apr 08 21:52	19°♔28'45	1°25'58	minimum elong	3727 Mar 22 15:50	1°♔55'27	1°49'22
	3726 Apr 14 05:41	0°♕		evening rise	3727 Apr 01 00:26	19°♔41'00	
evening rise	3726 Apr 17 07:24	6°♕08'16					
asc. node	3726 Apr 18 06:11	8°♕01'26					

asc. node	3727 Apr 05 03:13	27° Υ 29'43		asc. node	3728 Mar 22 00:16	16° Υ 34'59	
	3727 Apr 06 11:53	0° B		evening max el	3728 Mar 30 14:24	28° Υ 36'05	18°11'13
evening max el	3727 Apr 17 05:21	15° B 45'55	18°34'00		3728 Apr 01 04:38	0° B	
retrograde	3727 Apr 24 23:10	19° B 34'16		retrograde	3728 Apr 06 11:22	2° B 03'59	
evening set	3727 Apr 27 05:55	19° B 15'33		evening set	3728 Apr 09 00:38	1° B 35'59	
inferior conj	3727 May 04 20:35	14° B 48'02	2°01'32		3728 Apr 12 00:14	30° $\text{R}\Upsilon$	
minimum elong	3727 May 05 00:13	14° B 40'58	2°00'28	inferior conj	3728 Apr 15 21:39	26° Υ 47'28	2°59'58
min. Earth dist.	3727 May 08 06:10	12° B 10'56	0.57940 AU	minimum elong	3728 Apr 16 00:51	26° Υ 40'13	2°59'20
desc. node	3727 May 12 07:52	9° B 36'09		min. Earth dist.	3728 Apr 19 06:04	23° Υ 46'53	0.60076 AU
morning rise	3727 May 12 15:22	9° B 26'53		morning rise	3728 Apr 22 22:44	21° Υ 01'33	
direct	3727 May 18 11:08	8° B 00'56		desc. node	3728 Apr 28 04:54	19° Υ 05'00	
morning max el	3727 Jun 01 20:12	15° B 39'00	26°41'38	direct	3728 Apr 29 11:39	19° Υ 00'25	
	3727 Jun 13 11:23	0° II		morning max el	3728 May 13 19:16	26° Υ 52'04	27°35'04
	3727 Jun 30 07:28	0° E			3728 May 16 18:32	0° B	
morning set	3727 Jul 01 07:18	2° E 04'37			3728 Jun 06 00:49	0° II	
asc. node	3727 Jul 02 02:31	3° E 46'14		morning set	3728 Jun 14 14:30	16° II 41'32	
				asc. node	3728 Jun 17 23:34	23° II 51'00	
superior conj	3727 Jul 08 07:30	17° E 18'03	1°01'10		3728 Jun 20 19:19	0° E	
minimum elong	3727 Jul 08 05:17	17° E 05'49	1°00'46	max. Earth dist.	3728 Jun 20 23:05	0° E 20'40	1.32079 AU
max. Earth dist.	3727 Jul 08 11:21	17° E 39'20	1.32111 AU				
	3727 Jul 14 03:19	0° Ω		superior conj	3728 Jun 21 19:02	2° E 10'19	0°39'08
evening rise	3727 Jul 15 04:46	2° Ω 14'40		minimum elong	3728 Jun 21 17:23	2° E 01'16	0°38'48
	3727 Jul 30 04:18	0° M		evening rise	3728 Jun 28 14:49	17° E 03'06	
desc. node	3727 Aug 08 07:13	12° M 50'54			3728 Jul 05 00:22	0° Ω	
evening max el	3727 Aug 14 09:23	19° M 29'49	26°47'13	desc. node	3728 Jul 25 04:13	29° Ω 48'13	
retrograde	3727 Aug 28 07:46	26° M 40'51			3728 Jul 25 08:54	0° M	
evening set	3727 Sep 04 04:54	24° M 39'03		evening max el	3728 Jul 26 05:43	0° M 50'52	25°40'49
min. Earth dist.	3727 Sep 07 23:28	22° M 01'44	0.60367 AU	retrograde	3728 Aug 09 05:05	7° M 57'36	
inferior conj	3727 Sep 11 05:04	19° M 22'25	-4°35'16	evening set	3728 Aug 15 06:16	6° M 31'28	
minimum elong	3727 Sep 11 10:27	19° M 11'18	4°34'16	min. Earth dist.	3728 Aug 19 17:47	3° M 53'34	0.58314 AU
morning rise	3727 Sep 18 17:56	14° M 38'45		inferior conj	3728 Aug 22 22:23	1° M 37'18	-5°05'31
direct	3727 Sep 21 02:50	14° M 17'21		minimum elong	3728 Aug 23 00:43	1° M 33'08	5°05'22
asc. node	3727 Sep 28 01:44	17° M 30'36			3728 Aug 25 06:32	30° $\text{R}\Omega$	
morning max el	3727 Sep 28 12:30	17° M 55'58	18°07'34	morning rise	3728 Aug 30 21:25	27° Ω 16'46	
	3727 Oct 07 04:30	0° L		direct	3728 Sep 02 09:09	26° Ω 57'09	
morning set	3727 Oct 14 07:52	12° L 59'23			3728 Sep 09 16:53	0° M	
	3727 Oct 23 12:39	0° M		morning max el	3728 Sep 10 18:05	0° M 56'12	18°44'15
				asc. node	3728 Sep 13 22:48	4° M 30'24	
superior conj	3727 Oct 24 00:05	0° M 51'21	1°13'23	morning set	3728 Sep 27 02:57	27° M 05'55	
minimum elong	3727 Oct 24 04:12	1° M 09'46	1°12'55		3728 Sep 28 14:36	0° L	
max. Earth dist.	3727 Oct 31 15:29	14° M 08'05	1.41534 AU				
desc. node	3727 Nov 04 06:32	20° M 08'55		superior conj	3728 Oct 05 17:51	13° L 47'14	1°32'56
evening rise	3727 Nov 05 21:25	22° M 46'50		minimum elong	3728 Oct 05 20:43	14° L 00'47	1°32'43
	3727 Nov 10 10:39	0° J		max. Earth dist.	3728 Oct 12 21:23	26° L 51'06	1.39488 AU
	3727 Dec 01 06:05	0° B			3728 Oct 14 16:35	0° M	
evening max el	3727 Dec 09 12:16	9° B 40'34	22°49'59	evening rise	3728 Oct 16 21:26	3° M 46'29	
retrograde	3727 Dec 19 13:03	15° B 37'45		desc. node	3728 Oct 21 03:33	10° M 50'25	
evening set	3727 Dec 24 07:08	13° B 41'12			3728 Nov 02 15:23	0° J	
asc. node	3727 Dec 25 00:57	13° B 01'22		evening max el	3728 Nov 21 01:49	23° J 18'51	24°09'48
inferior conj	3727 Dec 29 16:02	7° B 18'30	1°31'15	retrograde	3728 Dec 02 04:50	29° J 50'36	
minimum elong	3727 Dec 29 14:08	7° B 25'06	1°30'31	evening set	3728 Dec 07 12:14	27° J 37'48	
min. Earth dist.	3727 Dec 29 09:43	7° B 40'22	0.67984 AU	asc. node	3728 Dec 10 22:00	23° J 55'37	
morning rise	3728 Jan 03 21:00	1° B 09'37		min. Earth dist.	3728 Dec 12 05:57	22° J 10'25	0.67768 AU
	3728 Jan 05 15:16	30° RJ		inferior conj	3728 Dec 12 23:05	21° J 12'38	0°41'35
direct	3728 Jan 08 08:10	29° J 20'45		minimum elong	3728 Dec 12 22:07	21° J 15'56	0°41'10
	3728 Jan 11 05:21	0° B		morning rise	3728 Dec 18 08:02	15° J 09'06	
morning max el	3728 Jan 17 06:45	4° B 34'14	21°42'05	direct	3728 Dec 22 05:33	13° J 42'41	
desc. node	3728 Jan 31 05:45	22° B 16'30		morning max el	3728 Dec 30 03:06	18° J 13'56	20°25'25
	3728 Feb 05 13:24	0° \approx			3729 Jan 08 14:38	0° B	
morning set	3728 Feb 18 10:31	19° \approx 47'24		desc. node	3729 Jan 17 02:46	12° B 20'47	
	3728 Feb 24 17:13	0° H		morning set	3729 Jan 27 10:14	28° B 02'16	
max. Earth dist.	3728 Feb 24 18:20	0° H 04'38	1.41676 AU		3729 Jan 28 16:34	0° \approx	
				max. Earth dist.	3729 Feb 06 01:31	13° \approx 14'29	1.43461 AU
superior conj	3728 Mar 03 09:26	13° H 04'13	-2°04'35				
minimum elong	3728 Mar 03 11:59	13° H 15'22	2°04'30	superior conj	3729 Feb 12 06:59	23° \approx 25'05	-2°05'49
	3728 Mar 12 19:24	0° Υ		minimum elong	3729 Feb 12 04:36	23° \approx 15'09	2°05'46
evening rise	3728 Mar 14 05:18	2° Υ 35'44			3729 Feb 16 05:12	0° H	

evening rise	3729 Feb 24 17:42	14° H 42'35		max. Earth dist.	3730 Jan 19 15:12	27° Z 06'21	1.44692 AU
	3729 Mar 05 14:39	0° Y			3730 Jan 21 11:04	0° \approx	
asc. node	3729 Mar 08 21:18	5° Y 08'54					
evening max el	3729 Mar 14 02:36	11° Y 45'10	18°07'55	superior conj	3730 Jan 23 03:03	2° \approx 38'57	-1°48'38
retrograde	3729 Mar 20 14:04	15° Y 08'03		minimum elong	3730 Jan 22 19:02	2° \approx 07'04	1°48'02
evening set	3729 Mar 23 09:08	14° Y 29'21		evening rise	3730 Feb 06 09:25	25° \approx 54'39	
inferior conj	3729 Mar 29 16:25	9° Y 20'33	3°29'51		3730 Feb 08 20:19	0° H	
minimum elong	3729 Mar 29 17:57	9° Y 16'34	3°29'42	asc. node	3730 Feb 23 18:19	23° H 02'13	
min. Earth dist.	3729 Apr 01 14:06	6° Y 21'07	0.62225 AU	evening max el	3730 Feb 25 15:04	25° H 06'23	18°23'28
morning rise	3729 Apr 05 01:21	3° Y 19'27		retrograde	3730 Mar 04 02:35	28° H 37'25	
direct	3729 Apr 11 22:11	0° Y 48'57		evening set	3730 Mar 07 03:24	27° H 47'02	
desc. node	3729 Apr 15 01:56	1° Y 17'49		inferior conj	3730 Mar 13 00:47	22° H 19'35	3°37'37
morning max el	3729 Apr 26 00:26	8° Y 47'09	27°51'33	minimum elong	3730 Mar 13 00:35	22° H 20'10	3°37'37
	3729 May 12 08:59	0° B		min. Earth dist.	3730 Mar 15 07:42	19° H 41'36	0.64151 AU
	3729 May 29 04:38	0° II		morning rise	3730 Mar 18 21:01	16° H 10'29	
morning set	3729 May 29 16:30	1° II 00'01		direct	3730 Mar 25 17:05	13° H 22'49	
max. Earth dist.	3729 Jun 04 07:35	12° II 48'41	1.32452 AU	desc. node	3730 Apr 01 22:59	15° H 54'58	
asc. node	3729 Jun 04 20:36	13° II 58'52		morning max el	3730 Apr 08 09:22	21° H 18'55	27°31'15
					3730 Apr 15 22:34	0° Y	
superior conj	3729 Jun 06 04:36	16° II 52'30	0°13'58		3730 May 05 12:06	0° B	
minimum elong	3729 Jun 06 03:57	16° II 48'56	0°13'50	morning set	3730 May 13 10:47	14° B 52'16	
behind sun begin	3729 Jun 06 01:23	16° II 34'57		max. Earth dist.	3730 May 18 08:47	24° B 50'53	1.33255 AU
behind sun end	3729 Jun 06 06:31	17° II 02'55			3730 May 20 19:33	0° II	
	3729 Jun 12 05:26	0° D					
evening rise	3729 Jun 13 02:31	1° D 52'39		superior conj	3730 May 21 10:22	1° II 18'50	-0°13'36
	3729 Jun 28 10:34	0° Q		minimum elong	3730 May 21 11:03	1° II 22'29	0°13'27
evening max el	3729 Jul 07 19:40	11° Q 29'59	24°11'43	behind sun begin	3730 May 21 08:07	1° II 06'50	
desc. node	3729 Jul 12 01:13	15° Q 01'40		behind sun end	3730 May 21 14:00	1° II 38'10	
retrograde	3729 Jul 21 15:10	18° Q 27'48		asc. node	3730 May 22 17:37	4° II 05'53	
evening set	3729 Jul 26 07:40	17° Q 38'57		evening rise	3730 May 28 14:00	16° II 37'13	
min. Earth dist.	3729 Aug 01 06:19	14° Q 42'15	0.56486 AU		3730 Jun 04 05:54	0° D	
inferior conj	3729 Aug 03 19:29	13° Q 07'01	-5°02'15	evening max el	3730 Jun 19 09:34	21° D 54'20	22°34'51
minimum elong	3729 Aug 03 16:06	13° Q 12'18	5°01'57	desc. node	3730 Jun 28 22:13	27° D 56'28	
morning rise	3729 Aug 12 03:10	9° Q 06'58		retrograde	3730 Jul 02 13:05	28° D 26'34	
direct	3729 Aug 14 20:06	8° Q 47'41		evening set	3730 Jul 05 17:32	28° D 04'14	
morning max el	3729 Aug 24 13:47	13° Q 19'24	19°42'35	min. Earth dist.	3730 Jul 13 17:11	24° D 34'56	0.55232 AU
asc. node	3729 Aug 31 19:50	22° Q 25'39		inferior conj	3730 Jul 14 22:19	23° D 53'26	-4°11'20
	3729 Sep 05 06:38	0° M		minimum elong	3730 Jul 14 14:15	24° D 04'57	4°09'29
morning set	3729 Sep 11 05:38	11° M 34'19		morning rise	3730 Jul 23 13:05	20° D 02'39	
				direct	3730 Jul 26 13:15	19° D 41'55	
superior conj	3729 Sep 19 03:01	27° M 28'57	1°42'41	morning max el	3730 Aug 06 21:49	24° D 58'46	21°01'53
minimum elong	3729 Sep 19 04:10	27° M 34'40	1°42'38		3730 Aug 11 11:06	0° Q	
	3729 Sep 20 09:42	0° L		asc. node	3730 Aug 18 16:51	11° Q 03'29	
max. Earth dist.	3729 Sep 25 01:56	8° L 56'56	1.37420 AU	morning set	3730 Aug 26 13:15	26° Q 17'02	
evening rise	3729 Sep 28 20:16	15° L 49'29			3730 Aug 28 08:11	0° M	
	3729 Oct 07 03:58	0° M					
desc. node	3729 Oct 08 00:34	1° M 23'09		superior conj	3730 Sep 02 23:03	11° M 42'47	1°44'12
	3729 Oct 28 05:05	0° J		minimum elong	3730 Sep 02 22:39	11° M 40'44	1°44'11
evening max el	3729 Nov 03 14:03	7° J 00'14	25°24'44	max. Earth dist.	3730 Sep 07 10:51	20° M 47'26	1.35569 AU
retrograde	3729 Nov 15 16:20	13° J 58'12		evening rise	3730 Sep 11 14:16	28° M 46'30	
evening set	3729 Nov 21 13:37	11° J 30'54			3730 Sep 12 05:59	0° L	
min. Earth dist.	3729 Nov 25 23:37	6° J 38'02	0.67202 AU	desc. node	3730 Sep 24 21:34	21° L 41'30	
inferior conj	3729 Nov 27 03:37	5° J 07'39	-0°13'13		3730 Sep 30 09:24	0° M	
minimum elong	3729 Nov 27 03:58	5° J 06'34	0°13'04	evening max el	3730 Oct 17 02:25	20° M 40'42	26°27'27
transit middle	3729 Nov 27 03:58	5° J 06'34	0°13'04	retrograde	3730 Oct 29 22:50	27° M 53'41	
transit begin	3729 Nov 27 02:19	5° J 11'53		evening set	3730 Nov 05 09:20	25° M 15'54	
transit end	3729 Nov 27 05:37	5° J 01'14		min. Earth dist.	3730 Nov 09 12:21	20° M 58'33	0.66291 AU
asc. node	3729 Nov 27 19:02	4° J 18'09		inferior conj	3730 Nov 11 03:43	18° M 59'25	-1°11'55
	3729 Dec 01 16:46	30° K M		minimum elong	3730 Nov 11 05:40	18° M 53'29	1°11'04
morning rise	3729 Dec 02 18:37	29° M 11'36		asc. node	3730 Nov 14 16:03	15° M 04'49	
direct	3729 Dec 06 04:07	28° M 05'09		morning rise	3730 Nov 17 02:38	13° M 13'28	
	3729 Dec 10 22:40	0° J		direct	3730 Nov 20 02:12	12° M 23'15	
morning max el	3729 Dec 13 07:24	2° J 05'01	19°22'22	morning max el	3730 Nov 26 18:17	16° M 02'36	18°34'56
greatest brilliancy	3729 Dec 26 16:38	20° J 00'47	-0.7m		3730 Dec 07 03:26	0° J	
	3730 Jan 02 05:38	0° Z		morning set	3730 Dec 17 06:13	15° J 57'34	
desc. node	3730 Jan 03 23:49	2° Z 42'39		desc. node	3730 Dec 21 20:51	23° J 16'30	
morning set	3730 Jan 06 09:12	6° Z 24'36			3730 Dec 26 03:03	0° Z	

superior conj	3731 Jan 02 06:36	11°  13'50	-1°12'43	morning set	3731 Nov 28 08:49	26°  59'14	
minimum elong	3731 Jan 01 22:05	10°  40'23	1°11'43		3731 Nov 30 04:29	0°  1	
max. Earth dist.	3731 Jan 02 09:01	11°  23'16	1.45233 AU	desc. node	3731 Dec 08 17:53	13°  58'23	
	3731 Jan 14 04:47	0°  1					
evening rise	3731 Jan 18 01:49	6°  09'18		superior conj	3731 Dec 12 13:19	20°  04'11	-0°25'53
greatest brilliancy	3731 Jan 26 18:59	20°  00'33	-0.8m	minimum elong	3731 Dec 12 10:05	19°  51'20	0°25'26
	3731 Feb 02 07:56	0°  1		max. Earth dist.	3731 Dec 16 04:19	25°  48'31	1.45031 AU
evening max el	3731 Feb 09 01:24	8°  34'23	18°56'55		3731 Dec 18 20:21	0°  1	
asc. node	3731 Feb 10 15:20	10°  03'03		evening rise	3731 Dec 28 21:29	15°  37'15	
retrograde	3731 Feb 15 21:02	12°  12'45			3732 Jan 07 06:02	0°  1	
evening set	3731 Feb 19 04:18	11°  12'44		greatest brilliancy	3732 Jan 11 09:14	6°  13'58	-0.7m
inferior conj	3731 Feb 24 19:01	5°  37'27	3°28'53	evening max el	3732 Jan 23 07:38	22°  05'39	19°46'43
minimum elong	3731 Feb 24 17:30	5°  42'11	3°28'43	asc. node	3732 Jan 28 12:22	25°  05'31	
min. Earth dist.	3731 Feb 26 10:24	3°  34'09	0.65718 AU	retrograde	3732 Jan 30 18:27	26°  04'58	
	3731 Mar 01 15:03	30°  0		evening set	3732 Feb 03 09:24	25°  08'11	
morning rise	3731 Mar 02 06:19	29°  02'48		inferior conj	3732 Feb 08 20:02	19°  09'10	3°07'35
direct	3731 Mar 08 18:55	26°  03'49		minimum elong	3732 Feb 08 17:45	19°  16'43	3°07'08
	3731 Mar 17 00:17	0°  1		min. Earth dist.	3732 Feb 09 20:49	17°  46'53	0.66871 AU
desc. node	3731 Mar 19 20:01	2°  12'52		morning rise	3732 Feb 14 01:53	12°  55'29	
morning max el	3731 Mar 21 19:14	4°  15'38	26°39'48	direct	3732 Feb 20 02:30	10°  14'05	
	3731 Apr 10 09:18	0°  1		morning max el	3732 Mar 03 04:14	17°  26'09	25°25'52
morning set	3731 Apr 26 18:01	28°  08'14		desc. node	3732 Mar 05 17:04	20°  08'06	
	3731 Apr 27 17:27	0°  1			3732 Mar 13 16:29	0°  1	
max. Earth dist.	3731 Apr 30 23:17	6°  20'16	1.34520 AU		3732 Mar 02 09:01	0°  1	
				morning set	3732 Apr 08 09:40	10°  09'48	
superior conj	3731 May 05 10:09	15°  23'00	-0°42'27	max. Earth dist.	3732 Apr 12 02:30	17°  09'48	1.36245 AU
minimum elong	3731 May 05 12:24	15°  34'36	0°42'01				
asc. node	3731 May 09 14:39	24°  08'10		superior conj	3732 Apr 18 01:11	28°  09'46	-1°11'05
	3731 May 12 09:46	0°  1		minimum elong	3732 Apr 18 04:55	29°  09'15'23	1°10'28
evening rise	3731 May 12 23:24	1°  10'53			3732 Apr 18 13:52	0°  1	
	3731 May 29 20:47	0°  1		asc. node	3732 Apr 25 11:41	14°  01'00	
evening max el	3731 Jun 01 07:23	2°  36'54	21°04'50	evening rise	3732 Apr 26 04:34	15°  08'26'40	
retrograde	3731 Jun 13 02:15	8°  23'19			3732 May 03 18:01	0°  1	
evening set	3731 Jun 15 07:18	8°  11'55		evening max el	3732 May 13 16:58	13°  11'55'56	19°50'37
desc. node	3731 Jun 15 19:13	8°  06'19		retrograde	3732 May 23 18:14	18°  11'49'16	
inferior conj	3731 Jun 24 15:57	4°  14'05	-2°33'33	evening set	3732 May 25 17:21	18°  11'38'54	
minimum elong	3731 Jun 24 08:59	4°  23'54	2°31'12	desc. node	3732 Jun 01 16:15	15°  11'47'13	
min. Earth dist.	3731 Jun 25 04:45	3°  25'03	0.54840 AU	inferior conj	3732 Jun 03 14:30	14°  11'37'40	-0°34'11
morning rise	3731 Jul 03 10:47	0°  1		minimum elong	3732 Jun 03 12:56	14°  11'40'04	0°33'35
	3731 Jul 04 14:20	30°  0		min. Earth dist.	3732 Jun 05 17:44	13°  11'19'21	0.55419 AU
direct	3731 Jul 06 22:48	29°  02'47'54		morning rise	3732 Jun 12 06:25	10°  11'10'51	
	3731 Jul 09 06:26	0°  1		direct	3732 Jun 16 13:23	9°  11'30'19	
morning max el	3731 Jul 19 19:00	5°  25'55'21	22°37'57	morning max el	3732 Jun 30 09:40	16°  11'22'37	24°21'14
	3731 Aug 05 11:02	0°  1			3732 Jul 11 08:48	0°  1	
asc. node	3731 Aug 05 13:54	0°  13'39		asc. node	3732 Jul 22 10:57	19°  08'46'51	
morning set	3731 Aug 10 23:51	11°  08'47		morning set	3732 Jul 25 11:38	26°  03'09	
					3732 Jul 27 08:00	0°  1	
superior conj	3731 Aug 18 02:36	26°  08'18'55	1°38'55				
minimum elong	3731 Aug 18 01:04	26°  08'10'45	1°38'49	superior conj	3732 Aug 01 10:56	11°  07'51	1°27'57
	3731 Aug 19 20:26	0°  1		minimum elong	3732 Aug 01 08:45	10°  08'55'59	1°27'42
max. Earth dist.	3731 Aug 21 04:37	2°  08'48'01	1.34079 AU	max. Earth dist.	3732 Aug 03 07:11	15°  08'07'07	1.32991 AU
evening rise	3731 Aug 25 23:06	12°  08'26'20		evening rise	3732 Aug 08 18:41	26°  08'36'26	
	3731 Sep 04 13:03	0°  1			3732 Aug 10 11:16	0°  1	
desc. node	3731 Sep 11 18:35	11°  03'39'01			3732 Aug 27 21:23	0°  1	
	3731 Sep 25 13:49	0°  1		desc. node	3732 Aug 28 15:36	1°  06'02	
evening max el	3731 Sep 29 14:59	4°  12'20	27°10'19	evening max el	3732 Sep 11 02:02	17°  02'22'03	27°26'35
retrograde	3731 Oct 12 23:32	11°  11'30'00		retrograde	3732 Sep 24 17:55	24°  02'38'24	
evening set	3731 Oct 19 21:09	8°  11'48'23		evening set	3732 Oct 01 22:06	22°  02'02'22	
min. Earth dist.	3731 Oct 23 17:51	5°  11'06'32	0.65037 AU	min. Earth dist.	3732 Oct 05 13:55	18°  02'53'15	0.63439 AU
inferior conj	3731 Oct 25 21:13	2°  11'43'41	-2°12'46	inferior conj	3732 Oct 08 05:29	16°  02'13'58	-3°13'06
minimum elong	3731 Oct 26 00:56	2°  11'33'19	2°11'18	minimum elong	3732 Oct 08 10:44	16°  02'00'47	3°11'22
	3731 Oct 28 10:53	30°  0		morning rise	3732 Oct 15 00:44	10°  02'57'49	
morning rise	3731 Nov 01 05:41	27°  02'10'50		direct	3732 Oct 17 11:47	10°  02'28'42	
asc. node	3731 Nov 01 13:05	27°  02'02'39		asc. node	3732 Oct 18 10:09	10°  02'32'58	
direct	3731 Nov 03 21:42	26° 02'32'59		morning max el	3732 Oct 24 02:01	13° 02'54'02	17°50'51
	3731 Nov 10 08:59	0° 1			3732 Nov 04 04:48	0° 1	
morning max el	3731 Nov 10 09:26	0° 1	18°04'09	morning set	3732 Nov 09 13:09	9° 02'15'27	

superior conj	3732 Nov 21 17:05	29° \mathbb{M} 58'33	0°20'03			3733 Oct 09 21:47	0° $\underline{\mathbb{A}}$	
minimum elong	3732 Nov 21 19:10	0° \mathbb{A} 07'06	0°19'45	morning set		3733 Oct 23 12:41	22° $\underline{\mathbb{A}}$ 26'19	
	3732 Nov 21 17:26	0° \mathbb{A}				3733 Oct 27 16:21	0° \mathbb{M}	
desc. node	3732 Nov 24 14:55	4° \mathbb{A} 44'46						
max. Earth dist.	3732 Nov 27 22:09	10° \mathbb{A} 04'21	1.44113 AU	superior conj		3733 Nov 02 23:45	11° \mathbb{M} 11'56	0°57'07
evening rise	3732 Dec 07 07:02	24° \mathbb{A} 46'29		minimum elong		3733 Nov 03 03:54	11° \mathbb{M} 29'59	0°56'35
	3732 Dec 10 16:54	0° \mathbb{B}		max. Earth dist.		3733 Nov 10 11:31	23° \mathbb{M} 51'55	1.42597 AU
	3732 Dec 31 12:09	0° \approx		desc. node		3733 Nov 11 11:56	25° \mathbb{M} 32'04	
evening max el	3733 Jan 05 08:33	5° \approx 38'12	20°50'26			3733 Nov 14 06:08	0° \mathbb{A}	
retrograde	3733 Jan 13 16:32	10° \approx 33'48		evening rise		3733 Nov 16 22:31	4° \mathbb{A} 16'05	
asc. node	3733 Jan 14 09:24	10° \approx 31'05				3733 Dec 04 02:08	0° \mathbb{B}	
evening set	3733 Jan 17 16:42	9° \approx 02'10		evening max el		3733 Dec 19 03:54	19° \mathbb{B} 11'25	22°04'32
inferior conj	3733 Jan 23 01:19	2° \approx 51'07	2°36'24	retrograde		3733 Dec 28 13:22	24° \mathbb{B} 46'54	
minimum elong	3733 Jan 22 22:49	2° \approx 59'43	2°35'41	asc. node		3734 Jan 01 06:28	23° \mathbb{B} 32'57	
min. Earth dist.	3733 Jan 23 13:01	2° \approx 10'57	0.67604 AU	evening set		3734 Jan 02 00:24	22° \mathbb{B} 59'32	
	3733 Jan 25 04:07	30° \mathbb{R} \mathbb{B}		inferior conj		3734 Jan 07 08:46	16° \mathbb{B} 39'46	1°57'04
morning rise	3733 Jan 28 04:46	26° \mathbb{B} 38'00		minimum elong		3734 Jan 07 06:30	16° \mathbb{B} 47'37	1°56'16
direct	3733 Feb 02 15:04	24° \mathbb{B} 14'16		min. Earth dist.		3734 Jan 07 08:42	16° \mathbb{B} 39'58	0.67948 AU
	3733 Feb 12 18:53	0° \approx		morning rise		3734 Jan 12 12:28	10° \mathbb{B} 28'46	
morning max el	3733 Feb 13 12:49	0° \approx 44'23	23°59'36	direct		3734 Jan 17 07:51	8° \mathbb{B} 26'55	
desc. node	3733 Feb 20 14:07	8° \approx 50'57		morning max el		3734 Jan 26 23:23	14° \mathbb{B} 08'35	22°30'48
	3733 Mar 07 15:02	0° \mathbb{H}		desc. node		3734 Feb 07 11:09	28° \mathbb{B} 13'44	
morning set	3733 Mar 21 04:05	21° \mathbb{H} 56'14				3734 Feb 08 17:54	0° \approx	
max. Earth dist.	3733 Mar 24 22:49	28° \mathbb{H} 33'35	1.38308 AU			3734 Feb 28 14:15	0° \mathbb{H}	
	3733 Mar 25 18:08	0° \mathbb{Y}		morning set		3734 Mar 01 19:18	1° \mathbb{H} 58'11	
				max. Earth dist.		3734 Mar 06 19:00	10° \mathbb{H} 16'43	1.40483 AU
superior conj	3733 Apr 01 03:59	11° \mathbb{Y} 51'25	-1°37'10					
minimum elong	3733 Apr 01 08:38	12° \mathbb{Y} 13'31	1°36'36	superior conj		3734 Mar 14 13:58	23° \mathbb{H} 55'00	-1°57'23
evening rise	3733 Apr 10 02:57	29° \mathbb{Y} 17'58		minimum elong		3734 Mar 14 18:01	24° \mathbb{H} 13'16	1°57'06
	3733 Apr 10 11:32	0° \mathbb{B}				3734 Mar 17 21:57	0° \mathbb{Y}	
asc. node	3733 Apr 12 08:44	3° \mathbb{B} 40'09		evening rise		3734 Mar 24 15:17	12° \mathbb{Y} 35'39	
evening max el	3733 Apr 26 13:59	25° \mathbb{B} 55'39	18°56'02	asc. node		3734 Mar 30 05:46	22° \mathbb{Y} 59'34	
	3733 May 03 23:39	0° \mathbb{I}				3734 Apr 03 08:19	0° \mathbb{B}	
retrograde	3733 May 05 01:16	0° \mathbb{I} 03'50		evening max el		3734 Apr 09 19:34	8° \mathbb{B} 29'45	18°21'50
	3733 May 06 03:12	30° \mathbb{R} \mathbb{B}		retrograde		3734 Apr 17 03:16	12° \mathbb{B} 07'45	
evening set	3733 May 07 04:13	29° \mathbb{B} 49'16		evening set		3734 Apr 19 12:42	11° \mathbb{B} 45'29	
inferior conj	3733 May 15 06:13	25° \mathbb{B} 32'38	1°13'08	inferior conj		3734 Apr 26 19:26	7° \mathbb{B} 09'04	2°30'12
minimum elong	3733 May 15 08:55	25° \mathbb{B} 27'51	1°12'13	minimum elong		3734 Apr 26 23:08	7° \mathbb{B} 01'22	2°29'15
min. Earth dist.	3733 May 18 09:32	23° \mathbb{B} 19'54	0.56846 AU	min. Earth dist.		3734 Apr 30 06:03	4° \mathbb{B} 18'44	0.58824 AU
desc. node	3733 May 19 13:17	22° \mathbb{B} 34'11		morning rise		3734 May 04 06:38	1° \mathbb{B} 35'41	
morning rise	3733 May 23 10:25	20° \mathbb{B} 30'01		desc. node		3734 May 06 10:19	0° \mathbb{B} 37'38	
direct	3733 May 28 16:51	19° \mathbb{B} 23'47				3734 May 09 00:25	30° \mathbb{R} \mathbb{Y}	
morning max el	3733 Jun 12 00:26	26° \mathbb{B} 48'52	25°56'40	direct		3734 May 10 10:33	29° \mathbb{Y} 54'37	
	3733 Jun 15 01:49	0° \mathbb{I}				3734 May 11 21:00	0° \mathbb{B}	
	3733 Jul 04 13:49	0° \mathbb{B}		morning max el		3734 May 24 19:59	7° \mathbb{B} 40'19	27°08'43
asc. node	3733 Jul 09 08:01	9° \mathbb{B} 36'34				3734 Jun 10 15:30	0° \mathbb{I}	
morning set	3733 Jul 09 22:57	10° \mathbb{B} 55'06		morning set		3734 Jun 24 08:08	25° \mathbb{I} 39'17	
				asc. node		3734 Jun 26 05:04	29° \mathbb{I} 37'20	
						3734 Jun 26 09:18	0° \mathbb{B}	
superior conj	3733 Jul 16 21:57	26° \mathbb{B} 02'51	1°12'10					
minimum elong	3733 Jul 16 19:36	25° \mathbb{B} 49'58	1°11'48	superior conj		3734 Jul 01 09:47	10° \mathbb{B} 57'59	0°52'14
max. Earth dist.	3733 Jul 17 16:01	27° \mathbb{B} 42'08	1.32313 AU	minimum elong		3734 Jul 01 07:45	10° \mathbb{B} 46'49	0°51'51
	3733 Jul 18 17:10	0° \mathbb{Q}		max. Earth dist.		3734 Jul 01 03:36	10° \mathbb{B} 23'51	1.32040 AU
evening rise	3733 Jul 23 21:50	11° \mathbb{Q} 07'25		evening rise		3734 Jul 08 05:58	25° \mathbb{B} 51'29	
	3733 Aug 02 16:38	0° \mathbb{P}				3734 Jul 10 05:36	0° \mathbb{Q}	
desc. node	3733 Aug 15 12:36	19° \mathbb{P} 49'58				3734 Jul 27 11:26	0° \mathbb{P}	
	3733 Aug 24 10:38	0° $\underline{\mathbb{A}}$		desc. node		3734 Aug 02 09:37	7° \mathbb{P} 33'23	
evening max el	3733 Aug 24 08:59	29° \mathbb{P} 56'06	27°11'08	evening max el		3734 Aug 06 09:26	11° \mathbb{P} 44'42	26°22'29
retrograde	3733 Sep 07 05:19	7° $\underline{\mathbb{A}}$ 09'28		retrograde		3734 Aug 20 08:47	18° \mathbb{P} 55'03	
evening set	3733 Sep 14 08:19	4° $\underline{\mathbb{A}}$ 51'06		evening set		3734 Aug 26 23:06	17° \mathbb{P} 07'14	
min. Earth dist.	3733 Sep 17 23:18	2° $\underline{\mathbb{A}}$ 06'30	0.61543 AU	min. Earth dist.		3734 Aug 30 22:40	14° \mathbb{P} 32'05	0.59476 AU
	3733 Sep 20 08:33	30° \mathbb{R} \mathbb{P}		inferior conj		3734 Sep 03 05:24	11° \mathbb{P} 59'52	-4°51'15
inferior conj	3733 Sep 21 01:22	29° \mathbb{P} 22'21	-4°08'29	minimum elong		3734 Sep 03 09:52	11° \mathbb{P} 51'11	4°50'38
minimum elong	3733 Sep 21 07:15	29° \mathbb{P} 09'18	4°07'02			3734 Sep 10 22:48	7° \mathbb{P} 26'25	
morning rise	3733 Sep 28 07:57	24° \mathbb{P} 26'21		morning rise		3734 Sep 13 08:25	7° \mathbb{P} 06'07	
direct	3733 Sep 30 16:45	24° \mathbb{P} 02'56		direct		3734 Sep 21 03:01	10° \mathbb{P} 52'10	18°20'40
asc. node	3733 Oct 05 07:14	25° \mathbb{P} 35'00		morning max el		3734 Sep 22 04:17	11° \mathbb{P} 56'40	
morning max el	3733 Oct 07 16:58	27° \mathbb{P} 33'53	17°55'57	asc. node				

	3734 Oct 03 18:17	0°♄		morning set	3735 Sep 21 00:35	20°♄33'14	
morning set	3734 Oct 07 01:55	6°♄16'26			3735 Sep 25 18:48	0°♄	
superior conj	3734 Oct 16 06:19	23°♄35'28	1°22'58	superior conj	3735 Sep 29 07:12	6°♄52'25	1°38'10
minimum elong	3734 Oct 16 10:01	23°♄52'27	1°22'35	minimum elong	3735 Sep 29 09:22	7°♄02'48	1°38'02
	3734 Oct 19 19:28	0°♄		max. Earth dist.	3735 Oct 05 23:39	19°♄22'20	1.38594 AU
max. Earth dist.	3734 Oct 23 19:14	6°♄58'06	1.40675 AU	evening rise	3735 Oct 09 19:10	26°♄07'17	
evening rise	3734 Oct 28 09:08	14°♄39'37			3735 Oct 12 01:30	0°♄	
desc. node	3734 Oct 29 08:58	16°♄17'15		desc. node	3735 Oct 16 05:58	6°♄55'46	
	3734 Nov 07 01:59	0°♄			3735 Oct 31 16:26	0°♄	
	3734 Nov 29 03:44	0°♄		evening max el	3735 Nov 14 07:53	16°♄28'23	24°42'45
evening max el	3734 Dec 01 19:00	2°♄47'54	23°24'01	retrograde	3735 Nov 25 21:29	23°♄12'28	
retrograde	3734 Dec 12 07:25	9°♄01'19		evening set	3735 Dec 01 10:38	20°♄53'30	
evening set	3734 Dec 17 06:55	6°♄57'51		min. Earth dist.	3735 Dec 06 01:04	15°♄40'25	0.67570 AU
asc. node	3734 Dec 19 03:30	5°♄07'36		asc. node	3735 Dec 06 00:31	15°♄42'13	
min. Earth dist.	3734 Dec 22 05:33	1°♄10'53	0.67934 AU	inferior conj	3735 Dec 06 22:42	14°♄28'37	0°18'56
inferior conj	3734 Dec 22 16:29	0°♄33'19	1°10'53	minimum elong	3735 Dec 06 22:14	14°♄30'10	0°18'44
minimum elong	3734 Dec 22 14:55	0°♄38'42	1°10'16	morning rise	3735 Dec 12 09:56	8°♄27'42	
	3734 Dec 23 02:13	30°♄		direct	3735 Dec 16 02:10	7°♄10'00	
morning rise	3734 Dec 27 22:52	24°♄26'14		morning max el	3735 Dec 23 15:00	11°♄26'36	19°56'41
direct	3735 Jan 01 03:59	22°♄47'11			3736 Jan 06 16:16	0°♄	
morning max el	3735 Jan 09 15:21	27°♄42'02	21°07'53	desc. node	3736 Jan 12 05:14	8°♄18'30	
	3735 Jan 11 18:56	0°♄		morning set	3736 Jan 19 02:27	18°♄50'32	
desc. node	3735 Jan 25 08:12	18°♄05'38			3736 Jan 26 06:21	0°♄	
	3735 Feb 02 08:07	0°♄		max. Earth dist.	3736 Jan 30 07:02	6°♄22'49	1.44068 AU
morning set	3735 Feb 09 06:19	10°♄41'49					
max. Earth dist.	3735 Feb 16 20:57	22°♄53'02	1.42493 AU	superior conj	3736 Feb 04 12:37	14°♄48'30	-2°00'58
	3735 Feb 21 04:05	0°♄		minimum elong	3736 Feb 04 07:37	14°♄28'08	2°00'44
					3736 Feb 13 16:11	0°♄	
superior conj	3735 Feb 24 02:06	4°♄56'20	-2°07'06	evening rise	3736 Feb 17 17:43	6°♄55'27	
minimum elong	3735 Feb 24 02:53	4°♄59'41	2°07'05	asc. node	3736 Mar 02 23:48	0°♄11'07	
evening rise	3735 Mar 07 13:38	25°♄10'51			3736 Mar 02 20:35	0°♄	
	3735 Mar 10 05:55	0°♄		evening max el	3736 Mar 06 19:05	4°♄45'18	18°12'19
asc. node	3735 Mar 17 02:48	11°♄52'37		retrograde	3736 Mar 13 05:18	8°♄09'42	
evening max el	3735 Mar 24 06:20	21°♄29'07	18°07'30	evening set	3736 Mar 16 02:54	7°♄26'02	
retrograde	3735 Mar 30 22:02	24°♄53'01		inferior conj	3736 Mar 22 05:33	2°♄09'14	3°35'26
evening set	3735 Apr 02 13:46	24°♄20'42		minimum elong	3736 Mar 22 06:19	2°♄07'09	3°35'24
inferior conj	3735 Apr 09 04:30	19°♄23'43	3°15'43		3736 Mar 24 05:00	30°♄	
minimum elong	3735 Apr 09 07:03	19°♄17'34	3°15'20	min. Earth dist.	3736 Mar 24 21:16	29°♄16'53	0.63088 AU
min. Earth dist.	3735 Apr 12 09:20	16°♄20'23	0.61007 AU	morning rise	3736 Mar 28 08:39	26°♄04'20	
morning rise	3735 Apr 15 22:21	13°♄30'14		direct	3736 Apr 04 06:19	23°♄24'46	
direct	3735 Apr 22 15:55	11°♄14'58		desc. node	3736 Apr 09 04:23	24°♄35'06	
desc. node	3735 Apr 23 07:21	11°♄16'09			3736 Apr 16 18:24	0°♄	
morning max el	3735 May 06 21:41	19°♄10'58	27°46'39	morning max el	3736 Apr 18 04:35	1°♄22'42	27°47'07
	3735 May 16 01:39	0°♄			3736 May 09 05:58	0°♄	
	3735 Jun 03 10:43	0°♄		morning set	3736 May 22 12:23	24°♄17'57	
morning set	3735 Jun 08 13:20	10°♄09'10			3736 May 25 07:22	0°♄	
asc. node	3735 Jun 13 02:05	19°♄44'01		max. Earth dist.	3736 May 27 20:02	5°♄18'57	1.32740 AU
max. Earth dist.	3735 Jun 14 14:12	23°♄00'09	1.32179 AU	asc. node	3736 May 29 23:06	9°♄52'33	
superior conj	3735 Jun 15 20:40	25°♄46'51	0°28'48	superior conj	3736 May 30 04:53	10°♄23'49	0°02'33
minimum elong	3735 Jun 15 19:24	25°♄39'53	0°28'32	minimum elong	3736 May 30 04:46	10°♄23'08	0°02'31
	3735 Jun 17 18:47	0°♄		behind sun begin	3736 May 29 23:34	9°♄55'03	
evening rise	3735 Jun 22 16:54	10°♄41'09		behind sun end	3736 May 30 09:58	10°♄51'15	
	3735 Jul 02 13:20	0°♄		evening rise	3736 Jun 06 04:45	25°♄30'07	
evening max el	3735 Jul 19 02:41	22°♄46'24	25°05'03		3736 Jun 08 08:18	0°♄	
desc. node	3735 Jul 20 06:38	23°♄50'57			3736 Jun 26 13:56	0°♄	
retrograde	3735 Aug 02 01:51	29°♄50'48		evening max el	3736 Jun 29 15:52	3°♄16'20	23°30'35
evening set	3735 Aug 07 14:04	28°♄41'22		desc. node	3736 Jul 06 03:37	8°♄10'23	
min. Earth dist.	3735 Aug 12 14:21	25°♄57'11	0.57479 AU	retrograde	3736 Jul 13 06:12	10°♄04'57	
inferior conj	3735 Aug 15 14:15	23°♄56'29	-5°09'16	evening set	3736 Jul 17 06:57	9°♄29'22	
minimum elong	3735 Aug 15 14:22	23°♄56'17	5°09'16	min. Earth dist.	3736 Jul 24 01:45	6°♄20'27	0.55867 AU
morning rise	3735 Aug 23 17:06	19°♄45'09		inferior conj	3736 Jul 26 03:01	5°♄07'15	-4°46'58
direct	3735 Aug 26 06:38	19°♄25'56		minimum elong	3736 Jul 25 21:10	5°♄15'59	4°46'07
morning max el	3735 Sep 04 04:43	23°♄37'56	19°06'24	morning rise	3736 Aug 03 13:51	1°♄12'44	
asc. node	3735 Sep 09 01:19	29°♄21'50		direct	3736 Aug 06 09:48	0°♄52'57	
	3735 Sep 09 12:03	0°♄		morning max el	3736 Aug 16 19:25	5°♄42'35	20°13'50

asc. node	3736 Aug 25 22:21	17°♎36'45		asc. node	3737 Aug 12 19:24	6°♎29'24	
	3736 Sep 01 16:19	0°♎		morning set	3737 Aug 19 14:47	19°♎56'03	
morning set	3736 Sep 04 05:39	5°♎08'39			3737 Aug 24 09:27	0°♎	
superior conj	3736 Sep 11 21:26	20°♎48'54	1°44'14	superior conj	3737 Aug 26 21:03	5°♎13'22	1°42'43
minimum elong	3736 Sep 11 21:54	20°♎51'12	1°44'13	minimum elong	3737 Aug 26 20:06	5°♎08'28	1°42'41
	3736 Sep 16 13:06	0°♎		max. Earth dist.	3737 Aug 30 18:18	13°♎13'07	1.34885 AU
max. Earth dist.	3736 Sep 17 05:43	1°♎19'48	1.36601 AU	evening rise	3737 Sep 04 03:30	21°♎50'52	
evening rise	3736 Sep 21 02:41	8°♎34'32			3737 Sep 08 12:39	0°♎	
desc. node	3736 Oct 02 02:58	27°♎23'05		desc. node	3737 Sep 18 23:58	17°♎33'38	
	3736 Oct 03 18:46	0°♎			3737 Sep 27 13:48	0°♎	
	3736 Oct 26 15:54	0°♎		evening max el	3737 Oct 09 08:44	13°♎48'25	26°48'32
evening max el	3736 Oct 26 20:15	0°♎10'38	25°53'25	retrograde	3737 Oct 22 10:42	21°♎04'16	
retrograde	3736 Nov 08 06:42	7°♎15'29		evening set	3737 Oct 29 02:31	18°♎23'37	
evening set	3736 Nov 14 09:49	4°♎43'14		min. Earth dist.	3737 Nov 02 02:40	14°♎21'50	0.65799 AU
min. Earth dist.	3736 Nov 18 16:53	0°♎05'25	0.66860 AU	inferior conj	3737 Nov 03 23:09	12°♎11'45	-1°37'35
	3736 Nov 18 18:37	30°♎		minimum elong	3737 Nov 04 01:51	12°♎03'50	1°36'28
inferior conj	3736 Nov 20 01:34	28°♎22'35	-0°37'43	asc. node	3737 Nov 08 18:37	7°♎20'30	
minimum elong	3736 Nov 20 02:34	28°♎19'27	0°37'17	morning rise	3737 Nov 10 01:58	6°♎31'17	
asc. node	3736 Nov 21 21:34	26°♎07'51		direct	3737 Nov 12 22:05	5°♎46'48	
morning rise	3736 Nov 25 19:42	22°♎30'27		morning max el	3737 Nov 19 11:24	9°♎19'59	18°19'52
direct	3736 Nov 29 00:50	21°♎31'11			3737 Dec 03 22:16	0°♎	
morning max el	3736 Dec 05 22:17	25°♎20'42	19°00'13	morning set	3737 Dec 08 18:28	7°♎49'42	
	3736 Dec 09 22:26	0°♎		desc. node	3737 Dec 15 23:18	19°♎24'09	
morning set	3736 Dec 28 08:51	27°♎38'04			3737 Dec 22 15:46	0°♎	
desc. node	3736 Dec 29 02:16	28°♎46'07					
	3736 Dec 29 21:11	0°♎		superior conj	3737 Dec 24 02:02	2°♎14'49	-0°53'28
max. Earth dist.	3737 Jan 11 23:24	20°♎29'49	1.45015 AU	minimum elong	3737 Dec 23 19:20	1°♎48'30	0°52'37
				max. Earth dist.	3737 Dec 25 18:35	4°♎54'04	1.45232 AU
superior conj	3737 Jan 13 23:48	23°♎40'27	-1°35'25	evening rise	3738 Jan 09 06:37	27°♎36'46	
minimum elong	3737 Jan 13 14:40	23°♎04'27	1°34'33		3738 Jan 10 19:09	0°♎	
	3737 Jan 17 23:38	0°♎		greatest brilliancy	3738 Jan 20 04:57	14°♎40'14	-0.8m
evening rise	3737 Jan 28 23:39	17°♎43'19			3738 Jan 31 03:01	0°♎	
	3737 Feb 05 12:24	0°♎		evening max el	3738 Feb 01 15:43	1°♎40'16	19°16'08
asc. node	3737 Feb 17 20:50	17°♎44'07		asc. node	3738 Feb 04 17:52	4°♎19'04	
evening max el	3737 Feb 18 06:57	18°♎10'23	18°35'33	retrograde	3738 Feb 08 17:03	5°♎42'13	
retrograde	3737 Feb 24 20:51	21°♎48'12		evening set	3738 Feb 12 03:23	4°♎33'27	
evening set	3737 Feb 28 00:22	20°♎52'23			3738 Feb 16 15:43	30°♎	
inferior conj	3737 Mar 05 18:32	15°♎17'18	3°35'39	inferior conj	3738 Feb 17 16:03	28°♎42'21	3°21'14
minimum elong	3737 Mar 05 17:43	15°♎19'45	3°35'37	minimum elong	3738 Feb 17 14:09	28°♎48'28	3°20'56
min. Earth dist.	3737 Mar 07 18:41	12°♎53'16	0.64869 AU	min. Earth dist.	3738 Feb 19 00:59	26°♎56'13	0.66256 AU
morning rise	3737 Mar 11 10:33	9°♎06'27		morning rise	3738 Feb 23 00:38	22°♎28'49	
direct	3737 Mar 18 04:05	6°♎16'12		direct	3738 Mar 01 08:22	19°♎41'05	
desc. node	3737 Mar 27 01:27	10°♎03'34		desc. node	3738 Mar 13 22:30	27°♎07'58	
morning max el	3737 Mar 31 14:14	14°♎06'55	27°12'46	morning max el	3738 Mar 14 00:10	27°♎12'10	26°10'34
	3737 Apr 13 11:36	0°♎			3738 Mar 16 15:14	0°♎	
	3737 May 01 21:43	0°♎			3738 Apr 07 03:16	0°♎	
morning set	3737 May 06 02:26	7°♎56'08		morning set	3738 Apr 19 03:43	20°♎53'09	
max. Earth dist.	3737 May 10 17:15	17°♎08'44	1.33745 AU	max. Earth dist.	3738 Apr 23 03:06	28°♎27'05	1.35208 AU
					3738 Apr 23 22:08	0°♎	
superior conj	3737 May 14 08:23	24°♎41'36	-0°25'44	superior conj	3738 Apr 28 04:50	8°♎33'52	-0°54'44
minimum elong	3737 May 14 09:43	24°♎48'37	0°25'28	minimum elong	3738 Apr 28 07:45	8°♎48'41	0°54'12
asc. node	3737 May 16 20:07	29°♎58'12		asc. node	3738 May 03 17:10	19°♎57'07	
	3737 May 16 20:27	0°♎		evening rise	3738 May 05 23:32	24°♎38'19	
evening rise	3737 May 21 15:37	10°♎11'11			3738 May 08 14:52	0°♎	
	3737 May 31 23:57	0°♎		evening max el	3738 May 24 10:38	24°♎40'28	20°30'51
evening max el	3737 Jun 11 08:09	13°♎44'11	21°54'54		3738 Jun 03 03:34	0°♎	
desc. node	3737 Jun 23 00:38	19°♎56'55		retrograde	3738 Jun 04 12:27	0°♎04'48	
retrograde	3737 Jun 23 23:16	19°♎58'59			3738 Jun 05 21:50	30°♎	
evening set	3737 Jun 26 15:51	19°♎42'46		evening set	3738 Jun 06 12:55	29°♎54'45	
min. Earth dist.	3737 Jul 05 12:19	15°♎55'44	0.54955 AU	desc. node	3738 Jun 09 21:41	28°♎57'26	
inferior conj	3737 Jul 06 00:17	15°♎38'58	-3°34'34	inferior conj	3738 Jun 15 18:12	25°♎57'05	-1°43'24
minimum elong	3737 Jul 05 15:52	15°♎50'46	3°32'11	minimum elong	3738 Jun 15 13:20	26°♎04'08	1°41'37
morning rise	3737 Jul 14 17:25	11°♎47'19		min. Earth dist.	3738 Jun 17 00:27	25°♎13'18	0.54970 AU
direct	3737 Jul 17 22:00	11°♎24'53		morning rise	3738 Jun 24 12:52	21°♎47'33	
morning max el	3737 Jul 29 22:27	17°♎02'25	21°41'13	direct	3738 Jun 28 07:44	21°♎16'37	
	3737 Aug 09 01:12	0°♎					

morning max el	3738 Jul 11 16:20	27° Π 44'37	23°21'54	transit begin	3739 May 26 21:55	6° Π 34'51	
	3738 Jul 13 22:09	0° \mathfrak{G}		transit end	3739 May 27 01:36	6° Π 28'52	
asc. node	3738 Jul 30 16:26	25° \mathfrak{G} 50'14		desc. node	3739 May 27 18:43	6° Π 00'57	
	3738 Aug 01 18:17	0° Ω		min. Earth dist.	3739 May 29 14:54	4° Π 49'45	0.55934 AU
morning set	3738 Aug 04 02:04	4° Ω 49'35		morning rise	3739 Jun 04 10:59	1° Π 50'38	
				direct	3739 Jun 09 03:46	1° Π 00'25	
superior conj	3738 Aug 11 02:55	19° Ω 56'07	1°34'54	morning max el	3739 Jun 23 06:24	8° Π 09'09	25°03'39
minimum elong	3738 Aug 11 01:03	19° Ω 46'04	1°34'45		3739 Jul 09 09:28	0° \mathfrak{G}	
max. Earth dist.	3738 Aug 13 15:46	25° Ω 20'17	1.33558 AU	asc. node	3739 Jul 17 13:29	15° \mathfrak{G} 31'42	
	3738 Aug 15 21:21	0° \mathfrak{M}		morning set	3739 Jul 19 13:52	19° \mathfrak{G} 44'16	
evening rise	3738 Aug 18 17:18	5° \mathfrak{M} 44'42			3739 Jul 24 07:49	0° Ω	
	3738 Sep 01 03:47	0° \mathfrak{L}					
desc. node	3738 Sep 05 20:59	7° \mathfrak{L} 19'36		superior conj	3739 Jul 26 12:42	4° Ω 49'28	1°21'48
evening max el	3738 Sep 21 20:40	27° \mathfrak{L} 11'34	27°20'52	minimum elong	3739 Jul 26 10:23	4° Ω 36'50	1°21'30
	3738 Sep 25 01:44	0° \mathfrak{M}		max. Earth dist.	3739 Jul 27 21:15	7° Ω 47'01	1.32652 AU
retrograde	3738 Oct 05 09:00	4° \mathfrak{M} 30'06		evening rise	3739 Aug 02 16:32	20° Ω 05'50	
evening set	3738 Oct 12 10:09	1° \mathfrak{M} 49'11			3739 Aug 07 16:30	0° \mathfrak{M}	
	3738 Oct 14 13:03	30° \mathfrak{R} \mathfrak{L}		desc. node	3739 Aug 23 18:01	26° \mathfrak{M} 30'41	
min. Earth dist.	3738 Oct 16 04:19	28° \mathfrak{L} 22'05	0.64389 AU		3739 Aug 26 08:01	0° \mathfrak{L}	
inferior conj	3738 Oct 18 13:04	25° \mathfrak{L} 50'46	-2°38'40	evening max el	3739 Sep 04 06:20	10° \mathfrak{L} 08'21	27°24'07
minimum elong	3738 Oct 18 17:29	25° \mathfrak{L} 38'56	2°37'03	retrograde	3739 Sep 18 00:46	17° \mathfrak{L} 23'59	
morning rise	3738 Oct 25 02:02	20° \mathfrak{L} 24'53		evening set	3739 Sep 25 05:23	14° \mathfrak{L} 54'03	
asc. node	3738 Oct 26 15:41	19° \mathfrak{L} 56'25		min. Earth dist.	3739 Sep 28 20:08	11° \mathfrak{L} 56'27	0.62660 AU
direct	3738 Oct 27 15:30	19° \mathfrak{L} 51'19		inferior conj	3739 Oct 01 16:30	9° \mathfrak{L} 13'19	-3°37'36
morning max el	3738 Nov 03 03:36	23° \mathfrak{L} 17'25	17°56'23	minimum elong	3739 Oct 01 22:11	8° \mathfrak{L} 59'44	3°35'54
	3738 Nov 08 11:39	0° \mathfrak{M}		morning rise	3739 Oct 08 16:34	4° \mathfrak{L} 05'13	
morning set	3738 Nov 20 08:43	19° \mathfrak{M} 25'02		direct	3739 Oct 11 02:10	3° \mathfrak{L} 38'59	
	3738 Nov 26 15:56	0° \mathfrak{X}		asc. node	3739 Oct 13 12:44	4° \mathfrak{L} 06'53	
desc. node	3738 Dec 02 20:18	10° \mathfrak{X} 08'18		morning max el	3739 Oct 17 19:53	7° \mathfrak{L} 06'03	17°50'38
					3739 Nov 01 17:27	0° \mathfrak{M}	
superior conj	3738 Dec 03 16:11	11° \mathfrak{X} 28'35	-0°05'43	morning set	3739 Nov 02 21:59	2° \mathfrak{M} 06'46	
minimum elong	3738 Dec 03 15:30	11° \mathfrak{X} 25'51	0°05'37				
behind sun begin	3738 Dec 03 05:48	10° \mathfrak{X} 46'42		superior conj	3739 Nov 14 07:19	21° \mathfrak{M} 56'18	0°37'05
behind sun end	3738 Dec 04 01:12	12° \mathfrak{X} 04'56		minimum elong	3739 Nov 14 10:41	22° \mathfrak{M} 10'28	0°36'38
max. Earth dist.	3738 Dec 08 13:10	19° \mathfrak{X} 15'50	1.44714 AU		3739 Nov 19 03:46	0° \mathfrak{X}	
	3738 Dec 15 09:34	0° \mathfrak{Z}		desc. node	3739 Nov 19 17:20	0° \mathfrak{X} 55'26	
evening rise	3738 Dec 19 20:06	6° \mathfrak{Z} 51'39		max. Earth dist.	3739 Nov 21 04:50	3° \mathfrak{X} 19'36	1.43533 AU
greatest brilliancy	3739 Jan 03 09:55	28° \mathfrak{Z} 53'45	-0.6m	evening rise	3739 Nov 29 06:06	16° \mathfrak{X} 04'23	
	3739 Jan 04 04:02	0° \mathfrak{A}			3739 Dec 08 09:55	0° \mathfrak{Z}	
evening max el	3739 Jan 15 19:42	15° \mathfrak{A} 11'48	20°12'18	evening max el	3739 Dec 29 18:14	28° \mathfrak{Z} 44'31	21°21'03
asc. node	3739 Jan 22 14:57	19° \mathfrak{A} 40'48			3739 Dec 31 01:10	0° \mathfrak{A}	
retrograde	3739 Jan 23 15:07	19° \mathfrak{A} 46'20		retrograde	3740 Jan 07 12:45	3° \mathfrak{A} 56'48	
evening set	3739 Jan 27 09:40	18° \mathfrak{A} 23'33		asc. node	3740 Jan 09 12:00	3° \mathfrak{A} 35'40	
inferior conj	3739 Feb 01 19:12	12° \mathfrak{A} 19'00	2°55'29	evening set	3740 Jan 11 17:18	2° \mathfrak{A} 18'46	
minimum elong	3739 Feb 01 16:46	12° \mathfrak{A} 27'14	2°54'54		3740 Jan 14 01:26	30° \mathfrak{R} \mathfrak{Z}	
min. Earth dist.	3739 Feb 02 14:17	11° \mathfrak{A} 14'29	0.67227 AU	inferior conj	3740 Jan 17 01:37	26° \mathfrak{Z} 03'49	2°20'38
morning rise	3739 Feb 06 23:38	6° \mathfrak{A} 05'07		minimum elong	3740 Jan 16 23:10	26° \mathfrak{Z} 12'19	2°19'51
direct	3739 Feb 12 18:18	3° \mathfrak{A} 30'17		min. Earth dist.	3740 Jan 17 08:17	25° \mathfrak{Z} 40'48	0.67797 AU
morning max el	3739 Feb 24 08:54	10° \mathfrak{A} 26'44	24°50'04	morning rise	3740 Jan 22 04:51	19° \mathfrak{Z} 51'19	
desc. node	3739 Feb 28 19:33	15° \mathfrak{A} 20'36		direct	3740 Jan 27 08:53	17° \mathfrak{Z} 36'17	
	3739 Mar 11 21:54	0° \mathfrak{H}		morning max el	3740 Feb 06 17:38	23° \mathfrak{Z} 46'04	23°21'31
	3739 Mar 30 19:25	0° \mathfrak{Y}			3740 Feb 12 06:14	0° \mathfrak{A}	
morning set	3739 Apr 01 11:11	2° \mathfrak{Y} 54'48		desc. node	3740 Feb 15 16:35	4° \mathfrak{A} 21'46	
max. Earth dist.	3739 Apr 05 02:16	9° \mathfrak{Y} 28'01	1.37086 AU		3740 Mar 04 07:59	0° \mathfrak{H}	
				morning set	3740 Mar 12 18:36	13° \mathfrak{H} 43'38	
superior conj	3739 Apr 11 15:11	21° \mathfrak{Y} 52'37	-1°22'38	max. Earth dist.	3740 Mar 16 21:08	20° \mathfrak{H} 45'46	1.39231 AU
minimum elong	3739 Apr 11 19:25	22° \mathfrak{Y} 13'21	1°22'00		3740 Mar 22 01:25	0° \mathfrak{Y}	
	3739 Apr 15 17:36	0° \mathfrak{B}					
evening rise	3739 Apr 20 02:11	8° \mathfrak{B} 44'57		superior conj	3740 Mar 24 11:26	4° \mathfrak{Y} 27'09	-1°46'43
asc. node	3739 Apr 20 14:14	9° \mathfrak{B} 45'08		minimum elong	3740 Mar 24 16:05	4° \mathfrak{Y} 48'47	1°46'15
	3739 May 01 21:25	0° Π		evening rise	3740 Apr 02 20:41	22° \mathfrak{Y} 22'42	
evening max el	3739 May 07 01:29	6° Π 18'21	19°24'58	asc. node	3740 Apr 06 11:17	29° \mathfrak{Y} 16'37	
retrograde	3739 May 16 09:44	10° Π 50'45			3740 Apr 06 20:32	0° \mathfrak{B}	
evening set	3739 May 18 09:39	10° Π 39'14		evening max el	3740 Apr 19 02:39	18° \mathfrak{B} 34'19	18°39'06
inferior conj	3739 May 26 23:09	6° Π 32'51	0°14'19	retrograde	3740 Apr 27 00:31	22° \mathfrak{B} 27'12	
minimum elong	3739 May 26 23:45	6° Π 31'52	0°14'05	evening set	3740 Apr 29 06:19	22° \mathfrak{B} 09'37	
transit middle	3739 May 26 23:45	6° Π 31'52	0°14'05	inferior conj	3740 May 06 23:52	17° \mathfrak{B} 44'59	1°49'51

minimum elong	3740 May 07 03:22	17°♄38'21	1°48'46	min. Earth dist.	3741 Apr 22 07:10	26°♄39'51	0.59746 AU
min. Earth dist.	3740 May 10 08:21	15°♄13'39	0.57642 AU	morning rise	3741 Apr 26 01:36	23°♄55'27	
desc. node	3740 May 13 15:46	13°♄05'54		desc. node	3741 Apr 30 12:47	22°♄10'27	
morning rise	3740 May 14 21:13	12°♄28'32		direct	3741 May 02 12:24	21°♄59'32	
direct	3740 May 20 13:45	11°♄07'55		morning max el	3741 May 16 20:40	29°♄49'46	27°29'27
morning max el	3740 Jun 03 22:31	18°♄42'42	26°30'52		3741 May 17 00:49	0°♄	
	3740 Jun 13 10:10	0°♄			3741 Jun 07 09:14	0°♄	
	3740 Jun 30 19:46	0°♄		morning set	3741 Jun 17 08:13	19°♄12'30	
morning set	3740 Jul 03 00:28	4°♄33'37		asc. node	3741 Jun 20 07:34	25°♄30'33	
asc. node	3740 Jul 03 10:32	5°♄26'45			3741 Jun 22 09:12	0°♄	
superior conj	3740 Jul 10 00:16	19°♄45'25	1°04'12	superior conj	3741 Jun 24 11:53	4°♄38'22	0°42'43
minimum elong	3740 Jul 09 22:00	19°♄32'56	1°03'48	minimum elong	3741 Jun 24 10:08	4°♄28'41	0°42'21
max. Earth dist.	3740 Jul 10 07:46	20°♄26'46	1.32154 AU	max. Earth dist.	3741 Jun 23 19:36	3°♄08'42	1.32058 AU
	3740 Jul 14 16:43	0°♄		evening rise	3741 Jul 01 07:41	19°♄31'05	
evening rise	3740 Jul 16 22:06	4°♄43'46			3741 Jul 06 10:43	0°♄	
	3740 Jul 30 09:10	0°♄			3741 Jul 25 15:33	0°♄	
desc. node	3740 Aug 09 15:02	14°♄51'35		desc. node	3741 Jul 27 12:03	2°♄01'52	
evening max el	3740 Aug 16 11:02	22°♄24'58	26°54'24	evening max el	3741 Jul 29 08:21	3°♄52'46	25°52'23
retrograde	3740 Aug 30 08:49	29°♄36'12		retrograde	3741 Aug 12 07:40	11°♄00'30	
evening set	3740 Sep 06 07:53	27°♄29'47		evening set	3741 Aug 18 12:49	9°♄28'29	
min. Earth dist.	3740 Sep 10 01:13	24°♄51'05	0.60680 AU	min. Earth dist.	3741 Aug 22 20:37	6°♄52'00	0.58612 AU
inferior conj	3740 Sep 13 06:05	22°♄10'05	-4°28'47	inferior conj	3741 Aug 26 02:15	4°♄30'59	-5°02'47
minimum elong	3740 Sep 13 11:41	21°♄58'19	4°27'38	minimum elong	3741 Aug 26 05:14	4°♄25'30	5°02'32
morning rise	3740 Sep 20 17:21	17°♄23'03		morning rise	3741 Sep 02 23:53	0°♄07'14	
direct	3740 Sep 23 02:10	17°♄01'10			3741 Sep 03 12:08	30°♄	
asc. node	3740 Sep 29 09:46	19°♄44'19		direct	3741 Sep 05 11:01	29°♄47'29	
morning max el	3740 Sep 30 09:03	20°♄37'26	18°03'53		3741 Sep 07 08:53	0°♄	
	3740 Oct 07 10:02	0°♄		morning max el	3741 Sep 13 15:52	3°♄42'38	18°37'28
morning set	3740 Oct 16 03:57	15°♄36'13		asc. node	3741 Sep 16 06:47	6°♄34'30	
	3740 Oct 23 23:24	0°♄		morning set	3741 Sep 29 21:37	29°♄38'52	
					3741 Sep 30 01:58	0°♄	
superior conj	3740 Oct 26 00:43	3°♄40'57	1°09'28	superior conj	3741 Oct 08 15:45	16°♄29'08	1°30'39
minimum elong	3740 Oct 26 04:54	3°♄59'32	1°08'58	minimum elong	3741 Oct 08 18:51	16°♄43'42	1°30'22
max. Earth dist.	3740 Nov 02 16:07	16°♄51'53	1.41823 AU	max. Earth dist.	3741 Oct 15 22:26	29°♄41'11	1.39798 AU
desc. node	3740 Nov 05 14:21	21°♄42'13			3741 Oct 16 02:44	0°♄	
evening rise	3740 Nov 08 04:40	25°♄54'28		evening rise	3741 Oct 20 01:07	6°♄44'38	
	3740 Nov 10 18:29	0°♄		desc. node	3741 Oct 23 11:21	12°♄24'54	
	3740 Dec 01 06:01	0°♄			3741 Nov 03 20:13	0°♄	
evening max el	3740 Dec 11 11:41	12°♄19'26	22°38'06	evening max el	3741 Nov 24 01:29	25°♄57'06	23°58'00
retrograde	3740 Dec 21 08:24	18°♄10'55			3741 Nov 28 18:29	0°♄	
evening set	3740 Dec 26 00:39	16°♄16'39		retrograde	3741 Dec 05 00:48	2°♄24'31	
asc. node	3740 Dec 26 09:02	15°♄58'42		evening set	3741 Dec 10 06:09	0°♄14'01	
inferior conj	3740 Dec 31 09:22	9°♄54'38	1°38'14		3741 Dec 10 12:35	30°♄	
minimum elong	3740 Dec 31 07:21	10°♄01'37	1°37'29	asc. node	3741 Dec 13 06:02	27°♄02'33	
min. Earth dist.	3740 Dec 31 04:38	10°♄11'03	0.67988 AU	min. Earth dist.	3741 Dec 15 01:04	24°♄41'35	0.67823 AU
morning rise	3741 Jan 05 13:57	3°♄45'16		inferior conj	3741 Dec 15 16:38	23°♄48'48	0°49'27
direct	3741 Jan 10 03:14	1°♄53'02		minimum elong	3741 Dec 15 15:29	23°♄52'41	0°48'59
morning max el	3741 Jan 19 06:02	7°♄13'28	21°54'28	morning rise	3741 Dec 21 00:51	17°♄44'20	
desc. node	3741 Feb 01 13:36	23°♄58'02		direct	3741 Dec 25 00:15	16°♄14'49	
	3741 Feb 05 18:25	0°♄		morning max el	3742 Jan 02 01:14	20°♄51'52	20°36'01
morning set	3741 Feb 20 21:17	23°♄09'58			3742 Jan 09 15:25	0°♄	
	3741 Feb 25 02:09	0°♄		desc. node	3742 Jan 19 10:36	13°♄59'17	
max. Earth dist.	3741 Feb 26 19:49	2°♄52'48	1.41375 AU		3742 Jan 29 23:58	0°♄	
superior conj	3741 Mar 06 12:47	16°♄05'59	-2°03'06	morning set	3742 Jan 30 23:19	1°♄30'27	
minimum elong	3741 Mar 06 15:50	16°♄19'24	2°02'58	max. Earth dist.	3742 Feb 09 01:36	15°♄54'10	1.43227 AU
	3741 Mar 14 05:32	0°♄					
evening rise	3741 Mar 17 03:35	5°♄23'38		superior conj	3742 Feb 15 14:09	26°♄37'10	-2°06'44
asc. node	3741 Mar 24 08:20	18°♄25'54		minimum elong	3742 Feb 15 12:39	26°♄30'55	2°06'42
	3741 Apr 01 04:24	0°♄			3742 Feb 17 14:25	0°♄	
evening max el	3741 Apr 02 10:51	1°♄20'21	18°13'21	evening rise	3742 Feb 27 18:40	17°♄37'59	
retrograde	3741 Apr 09 10:14	4°♄50'28			3742 Mar 06 20:33	0°♄	
evening set	3741 Apr 11 22:31	4°♄24'00		asc. node	3742 Mar 11 05:21	7°♄05'02	
inferior conj	3741 Apr 18 21:56	29°♄38'28	2°53'03	evening max el	3742 Mar 16 22:42	14°♄26'45	18°07'13
minimum elong	3741 Apr 19 01:18	29°♄30'59	2°52'20	retrograde	3742 Mar 23 11:02	17°♄49'36	
	3741 Apr 18 12:11	30°♄		evening set	3742 Mar 26 05:11	17°♄12'38	

inferior conj	3742 Apr 01 14:17	12°♄06'51	3°26'49	retrograde	3743 Mar 06 22:15	1°♄15'40	
minimum elong	3742 Apr 01 16:05	12°♄02'15	3°26'39	evening set	3743 Mar 09 22:12	0°♄27'05	
min. Earth dist.	3742 Apr 04 14:00	9°♄05'36	0.61912 AU		3743 Mar 10 16:26	30°♄	
morning rise	3742 Apr 08 01:24	6°♄07'20		inferior conj	3743 Mar 15 20:52	25°♄02'27	3°37'34
direct	3742 Apr 14 21:37	3°♄40'24		minimum elong	3743 Mar 15 20:54	25°♄02'20	3°37'35
desc. node	3742 Apr 17 09:48	3°♄58'37		min. Earth dist.	3743 Mar 18 06:09	22°♄20'07	0.63887 AU
morning max el	3742 Apr 29 01:03	11°♄38'37	27°51'33	morning rise	3743 Mar 21 18:45	18°♄54'15	
	3742 May 13 12:16	0°♄		direct	3743 Mar 28 15:30	16°♄08'06	
	3742 May 30 16:36	0°♄		desc. node	3743 Apr 04 06:51	18°♄16'10	
morning set	3742 Jun 01 11:07	3°♄34'16		morning max el	3743 Apr 11 09:31	24°♄05'17	27°36'24
max. Earth dist.	3742 Jun 07 04:45	15°♄39'13	1.32361 AU		3743 Apr 16 17:13	0°♄	
asc. node	3742 Jun 07 04:36	15°♄38'26			3743 May 06 20:56	0°♄	
				morning set	3743 May 16 06:44	17°♄30'55	
superior conj	3742 Jun 08 21:51	19°♄22'29	0°17'58	max. Earth dist.	3743 May 21 07:09	27°♄45'15	1.33100 AU
minimum elong	3742 Jun 08 21:02	19°♄17'58	0°17'47		3743 May 22 08:46	0°♄	
	3742 Jun 13 18:40	0°♄					
evening rise	3742 Jun 15 19:13	4°♄20'49		superior conj	3743 May 24 04:20	3°♄51'42	-0°09'18
	3742 Jun 29 11:31	0°♄		minimum elong	3743 May 24 04:47	3°♄54'11	0°09'12
evening max el	3742 Jul 10 22:58	14°♄37'21	24°26'00	behind sun begin	3743 May 24 00:22	3°♄30'33	
desc. node	3742 Jul 14 09:03	17°♄33'42		behind sun end	3743 May 24 09:13	4°♄17'50	
retrograde	3742 Jul 24 19:52	21°♄37'39		asc. node	3743 May 25 01:39	5°♄45'58	
evening set	3742 Jul 29 17:43	20°♄43'41		evening rise	3743 May 31 06:51	19°♄06'31	
min. Earth dist.	3742 Aug 04 09:54	17°♄50'41	0.56725 AU		3743 Jun 05 15:12	0°♄	
inferior conj	3742 Aug 07 02:27	16°♄08'15	-5°05'37	evening max el	3743 Jun 22 12:29	25°♄02'13	22°49'19
minimum elong	3742 Aug 07 00:01	16°♄12'08	5°05'28		3743 Jun 29 05:16	0°♄	
morning rise	3742 Aug 15 08:56	12°♄05'38		desc. node	3743 Jul 01 06:05	0°♄51'51	
direct	3742 Aug 18 00:52	11°♄46'27		retrograde	3743 Jul 05 19:30	1°♄39'25	
morning max el	3742 Aug 27 13:18	16°♄12'42	19°32'30	evening set	3743 Jul 09 04:49	1°♄14'15	
asc. node	3742 Sep 03 03:49	24°♄22'38			3743 Jul 12 17:35	30°♄	
	3742 Sep 06 14:11	0°♄		min. Earth dist.	3743 Jul 16 20:57	27°♄50'40	0.55365 AU
morning set	3742 Sep 13 23:21	14°♄04'52		inferior conj	3743 Jul 18 07:41	27°♄00'45	-4°22'26
				minimum elong	3743 Jul 18 00:01	27°♄11'48	4°20'51
superior conj	3742 Sep 21 22:57	0°♄05'22	1°41'46	morning rise	3743 Jul 26 21:27	23°♄09'26	
minimum elong	3742 Sep 22 00:22	0°♄12'21	1°41'41	direct	3743 Jul 29 20:22	22°♄49'03	
	3742 Sep 21 21:52	0°♄		morning max el	3743 Aug 09 23:04	27°♄58'48	20°48'48
max. Earth dist.	3742 Sep 28 02:39	11°♄51'00	1.37719 AU		3743 Aug 11 23:11	0°♄	
evening rise	3742 Oct 01 20:47	18°♄39'12		asc. node	3743 Aug 21 00:52	12°♄54'54	
	3742 Oct 08 12:14	0°♄		morning set	3743 Aug 29 06:26	28°♄46'03	
desc. node	3742 Oct 10 08:22	2°♄59'34			3743 Aug 29 20:46	0°♄	
	3742 Oct 29 01:42	0°♄					
evening max el	3742 Nov 06 13:49	9°♄38'30	25°14'07	superior conj	3743 Sep 05 17:38	14°♄15'13	1°44'25
retrograde	3742 Nov 18 13:05	16°♄33'27		minimum elong	3743 Sep 05 17:27	14°♄14'16	1°44'26
evening set	3742 Nov 24 08:12	14°♄08'13		max. Earth dist.	3743 Sep 10 10:43	23°♄42'40	1.35828 AU
min. Earth dist.	3742 Nov 28 19:19	9°♄10'02	0.67311 AU		3743 Sep 13 17:14	0°♄	
inferior conj	3742 Nov 29 21:40	7°♄44'17	-0°04'36	evening rise	3743 Sep 14 12:16	1°♄29'13	
minimum elong	3742 Nov 29 21:47	7°♄43'54	0°04'33	desc. node	3743 Sep 27 05:24	23°♄20'33	
transit middle	3742 Nov 29 21:47	7°♄43'54	0°04'33		3743 Oct 01 13:38	0°♄	
transit begin	3742 Nov 29 19:07	7°♄52'36		evening max el	3743 Oct 20 02:16	23°♄19'59	26°19'10
transit end	3742 Nov 30 00:27	7°♄35'13			3743 Oct 29 18:49	0°♄	
asc. node	3742 Nov 30 03:02	7°♄26'49		retrograde	3743 Nov 01 20:20	0°♄31'07	
morning rise	3742 Dec 05 11:37	1°♄46'51			3743 Nov 04 17:38	30°♄	
direct	3742 Dec 08 22:47	0°♄37'37		evening set	3743 Nov 08 04:56	27°♄54'43	
morning max el	3742 Dec 16 04:22	4°♄41'37	19°30'42	min. Earth dist.	3743 Nov 12 09:01	23°♄31'54	0.66453 AU
greatest brilliancy	3742 Dec 29 08:47	22°♄13'27	-0.7m	inferior conj	3743 Nov 13 22:36	21°♄36'56	-1°02'47
	3743 Jan 03 12:04	0°♄		minimum elong	3743 Nov 14 00:17	21°♄31'44	1°02'04
desc. node	3743 Jan 06 07:39	4°♄19'01		asc. node	3743 Nov 17 00:05	18°♄06'24	
morning set	3743 Jan 09 20:40	9°♄46'46		morning rise	3743 Nov 19 20:12	15°♄49'10	
max. Earth dist.	3743 Jan 22 14:13	29°♄40'08	1.44555 AU	direct	3743 Nov 22 21:09	14°♄56'43	
	3743 Jan 22 19:14	0°♄		morning max el	3743 Nov 29 14:23	18°♄38'24	18°40'54
					3743 Dec 08 07:27	0°♄	
superior conj	3743 Jan 26 13:47	6°♄00'26	-1°52'31	morning set	3743 Dec 20 13:35	19°♄07'20	
minimum elong	3743 Jan 26 06:26	5°♄31'02	1°52'00	desc. node	3743 Dec 24 04:42	24°♄51'26	
evening rise	3743 Feb 09 13:41	28°♄58'29			3743 Dec 27 11:01	0°♄	
	3743 Feb 10 04:22	0°♄					
asc. node	3743 Feb 26 02:22	25°♄05'15		superior conj	3744 Jan 05 18:49	14°♄38'35	-1°19'07
evening max el	3743 Feb 28 11:19	27°♄46'45	18°20'01	minimum elong	3744 Jan 05 09:54	14°♄03'33	1°18'08
	3743 Mar 03 03:13	0°♄		max. Earth dist.	3744 Jan 05 07:45	13°♄55'07	1.45203 AU

	3744 Jan 15 12:37	0°♊		minimum elong	3744 Dec 14 19:29	23°♊06'02	0°32'35
evening rise	3744 Jan 21 09:39	9°♊21'57		max. Earth dist.	3744 Dec 18 03:19	28°♊21'15	1.45108 AU
greatest brilliancy	3744 Jan 29 04:27	21°♊49'32	-0.9m		3744 Dec 19 04:26	0°♊	
	3744 Feb 03 10:12	0°♋		evening rise	3744 Dec 31 07:57	18°♊55'37	
evening max el	3744 Feb 11 22:12	11°♋14'49	18°50'51		3745 Jan 07 11:54	0°♋	
asc. node	3744 Feb 12 23:23	12°♋15'24		greatest brilliancy	3745 Jan 13 05:08	8°♋42'30	-0.7m
retrograde	3744 Feb 18 16:04	15°♋01'26		evening max el	3745 Jan 25 05:10	24°♋45'45	19°38'19
evening set	3744 Feb 21 22:21	14°♋00'17		asc. node	3745 Jan 29 20:27	28°♋21'00	
inferior conj	3744 Feb 27 13:52	8°♋18'24	3°31'05	retrograde	3745 Feb 01 13:15	29°♋00'14	
minimum elong	3744 Feb 27 12:32	8°♋22'34	3°30'57	evening set	3745 Feb 05 03:01	27°♋45'28	
min. Earth dist.	3744 Feb 29 07:31	6°♋09'29	0.65514 AU	inferior conj	3745 Feb 10 14:04	21°♋48'24	3°11'31
morning rise	3744 Mar 04 02:18	2°♋06'13		minimum elong	3745 Feb 10 11:53	21°♋55'37	3°11'05
	3744 Mar 07 06:21	30°♌		min. Earth dist.	3745 Feb 11 16:54	20°♌19'59	0.66726 AU
direct	3744 Mar 10 16:24	29°♌15'13		morning rise	3745 Feb 15 20:33	15°♌34'46	
	3744 Mar 14 08:14	0°♌		direct	3745 Feb 21 23:05	12°♌51'33	
desc. node	3744 Mar 21 03:55	4°♌29'13		morning max el	3745 Mar 06 04:37	20°♌08'44	25°37'56
morning max el	3744 Mar 23 19:21	6°♌59'20	26°49'07	desc. node	3745 Mar 08 00:57	22°♌05'09	
	3744 Apr 10 14:10	0°♍			3745 Mar 14 15:32	0°♌	
	3744 Apr 28 04:43	0°♎			3745 Apr 03 17:34	0°♍	
morning set	3744 Apr 28 15:53	0°♎53'07		morning set	3745 Apr 11 10:12	13°♍27'43	
max. Earth dist.	3744 May 02 23:27	9°♎19'52	1.34306 AU	max. Earth dist.	3745 Apr 15 04:29	20°♍28'07	1.35968 AU
					3745 Apr 20 01:59	0°♎	
superior conj	3744 May 07 05:12	17°♎59'52	-0°38'03	superior conj	3745 Apr 20 21:44	1°♎38'37	-1°06'51
minimum elong	3744 May 07 07:12	18°♎10'16	0°37'38	minimum elong	3745 Apr 21 01:16	1°♎56'21	1°06'14
asc. node	3744 May 10 22:42	25°♎49'24		asc. node	3745 Apr 27 19:45	15°♎44'00	
	3744 May 12 22:15	0°♏		evening rise	3745 Apr 28 22:42	18°♎01'28	
evening rise	3744 May 14 16:44	3°♏42'29			3745 May 05 01:21	0°♏	
	3744 May 29 11:28	0°♐		evening max el	3745 May 16 16:23	16°♏52'28	20°00'21
evening max el	3744 Jun 03 08:42	5°♐39'57	21°17'20	retrograde	3745 May 26 23:55	21°♏53'46	
retrograde	3744 Jun 15 09:05	11°♐33'55		evening set	3745 May 28 23:02	21°♏43'38	
desc. node	3744 Jun 17 03:06	11°♐26'47		desc. node	3745 Jun 04 00:09	19°♏25'55	
evening set	3744 Jun 17 16:35	11°♐21'35		inferior conj	3745 Jun 06 22:36	17°♏43'38	-0°52'07
inferior conj	3744 Jun 27 01:44	7°♐22'50	-2°50'37	minimum elong	3745 Jun 06 20:11	17°♏47'17	0°51'13
minimum elong	3744 Jun 26 18:12	7°♐33'24	2°48'09	min. Earth dist.	3745 Jun 08 20:45	16°♏34'12	0.55276 AU
min. Earth dist.	3744 Jun 27 08:09	7°♐13'50	0.54839 AU	morning rise	3745 Jun 15 15:32	13°♏21'44	
morning rise	3744 Jul 05 20:18	3°♐25'53		direct	3745 Jun 19 19:10	12°♏44'07	
direct	3744 Jul 09 06:17	3°♐00'38		morning max el	3745 Jul 03 12:52	19°♏30'16	24°06'04
morning max el	3744 Jul 21 21:34	9°♐00'18	22°22'57		3745 Jul 12 08:33	0°♐	
	3744 Aug 05 20:07	0°♑		asc. node	3745 Jul 24 19:01	21°♐30'31	
asc. node	3744 Aug 06 21:57	2°♑00'33		morning set	3745 Jul 28 04:25	28°♐30'38	
morning set	3744 Aug 12 16:43	13°♑36'30			3745 Jul 28 21:16	0°♑	
				superior conj	3745 Aug 04 04:01	13°♑35'23	1°29'56
superior conj	3744 Aug 19 20:15	28°♑48'07	1°40'05	minimum elong	3745 Aug 04 01:53	13°♑23'55	1°29'43
minimum elong	3744 Aug 19 18:51	28°♑40'44	1°40'01	max. Earth dist.	3745 Aug 06 04:29	17°♑56'40	1.33121 AU
	3744 Aug 20 09:51	0°♒		evening rise	3745 Aug 11 13:19	29°♑08'44	
max. Earth dist.	3744 Aug 23 03:09	5°♒40'43	1.34276 AU		3745 Aug 11 23:29	0°♒	
evening rise	3744 Aug 27 19:08	15°♒02'54			3745 Aug 29 00:29	0°♒	
	3744 Sep 04 21:52	0°♓		desc. node	3745 Aug 30 23:26	2°♓53'52	
desc. node	3744 Sep 13 02:24	13°♓21'29		evening max el	3745 Sep 14 02:17	20°♓07'14	27°26'08
	3744 Sep 25 06:06	0°♔		retrograde	3745 Sep 27 17:14	27°♓24'12	
evening max el	3744 Oct 01 14:56	6°♔53'37	27°05'29	evening set	3745 Oct 04 20:55	24°♓46'26	
retrograde	3744 Oct 14 21:51	14°♔10'43		min. Earth dist.	3745 Oct 08 13:13	21°♓33'01	0.63694 AU
evening set	3744 Oct 21 18:06	11°♔29'09		inferior conj	3745 Oct 11 03:06	18°♓55'25	-3°04'11
min. Earth dist.	3744 Oct 25 15:42	7°♔42'11	0.65247 AU	minimum elong	3745 Oct 11 08:09	18°♓42'30	3°02'27
inferior conj	3744 Oct 27 17:15	5°♔22'31	-2°03'28	morning rise	3745 Oct 17 20:42	13°♓36'43	
minimum elong	3744 Oct 27 20:42	5°♔12'46	2°02'07	direct	3745 Oct 20 08:18	13°♓06'32	
asc. node	3744 Nov 02 21:10	29°♓51'17		asc. node	3745 Oct 20 18:13	13°♓07'24	
	3744 Nov 02 14:31	30°♓		morning max el	3745 Oct 26 21:43	16°♓31'41	17°51'45
morning rise	3744 Nov 03 00:12	29°♓47'32			3745 Nov 05 11:46	0°♔	
direct	3744 Nov 05 17:15	29°♓08'01		morning set	3745 Nov 12 12:49	12°♔02'55	
	3744 Nov 08 20:41	0°♕			3745 Nov 23 02:32	0°♔	
morning max el	3744 Nov 12 05:06	2°♕37'03	18°07'39	superior conj	3745 Nov 24 23:41	3°♔06'07	0°13'31
morning set	3744 Nov 30 11:54	29°♕56'20		minimum elong	3745 Nov 25 01:09	3°♔12'05	0°13'20
	3744 Nov 30 12:48	0°♖		behind sun begin	3745 Nov 24 19:36	2°♔49'19	
desc. node	3744 Dec 10 01:42	15°♖32'08					
superior conj	3744 Dec 14 23:39	23°♖22'36	-0°33'10				

behind sun end	3745 Nov 25 06:42	3°♊34'50			3746 Oct 29 02:40	0°♍	
desc. node	3745 Nov 26 22:43	6°♊18'04					
max. Earth dist.	3745 Nov 30 21:38	12°♊40'03	1.44290 AU	superior conj	3746 Nov 06 02:24	14°♍07'54	0°52'12
evening rise	3745 Dec 10 18:04	28°♊05'20		minimum elong	3746 Nov 06 06:27	14°♍25'18	0°51'40
	3745 Dec 11 23:55	0°♊		max. Earth dist.	3746 Nov 13 11:26	26°♍31'29	1.42852 AU
	3746 Jan 01 10:10	0°♊		desc. node	3746 Nov 13 19:44	27°♍05'24	
evening max el	3746 Jan 08 06:51	8°♊17'52	20°40'08		3746 Nov 15 14:44	0°♊	
retrograde	3746 Jan 16 11:26	13°♊07'56		evening rise	3746 Nov 20 07:38	7°♊29'15	
asc. node	3746 Jan 16 17:30	13°♊07'35			3746 Dec 05 06:09	0°♊	
evening set	3746 Jan 20 10:06	11°♊38'35		evening max el	3746 Dec 22 02:57	21°♊50'40	21°52'59
inferior conj	3746 Jan 25 18:53	5°♊29'00	2°41'41	retrograde	3746 Dec 31 08:32	27°♊20'21	
minimum elong	3746 Jan 25 16:23	5°♊37'34	2°41'00	asc. node	3747 Jan 03 14:31	26°♊23'23	
min. Earth dist.	3746 Jan 26 08:25	4°♊42'40	0.67521 AU	evening set	3747 Jan 04 17:49	25°♊35'28	
	3746 Jan 30 04:01	30°♋♊		inferior conj	3747 Jan 10 02:07	19°♊16'46	2°03'29
morning rise	3746 Jan 30 22:30	29°♊15'36		minimum elong	3747 Jan 09 23:48	19°♊24'50	2°02'42
direct	3746 Feb 05 10:57	26°♊48'56		min. Earth dist.	3747 Jan 10 03:47	19°♊10'59	0.67923 AU
	3746 Feb 12 17:56	0°♊		morning rise	3747 Jan 15 05:37	13°♊05'11	
morning max el	3746 Feb 16 13:15	3°♊26'14	24°12'46	direct	3747 Jan 20 03:12	10°♊59'51	
desc. node	3746 Feb 22 21:58	10°♊40'22		morning max el	3747 Jan 29 23:13	16°♊48'59	22°43'44
	3746 Mar 08 20:41	0°♋		desc. node	3747 Feb 09 18:58	29°♊57'40	
morning set	3746 Mar 24 08:09	25°♋00'00			3747 Feb 09 19:39	0°♊	
	3746 Mar 27 04:24	0°♋			3747 Mar 01 22:25	0°♋	
max. Earth dist.	3746 Mar 28 01:18	1°♋33'28	1.37989 AU	morning set	3747 Mar 05 03:41	5°♋14'21	
				max. Earth dist.	3747 Mar 09 20:41	13°♋08'13	1.40161 AU
superior conj	3746 Apr 04 02:34	14°♋39'21	-1°33'30				
minimum elong	3746 Apr 04 07:09	15°♋01'19	1°32'55	superior conj	3747 Mar 17 15:22	26°♋51'14	-1°54'53
	3746 Apr 11 22:38	0°♋		minimum elong	3747 Mar 17 19:39	27°♋10'44	1°54'34
evening rise	3746 Apr 12 22:15	1°♋56'40			3747 Mar 19 08:38	0°♋	
asc. node	3746 Apr 14 16:47	5°♋25'24		evening rise	3747 Mar 27 12:17	15°♋19'43	
evening max el	3746 Apr 29 11:50	28°♋46'17	19°02'50	asc. node	3747 Apr 01 13:49	24°♋48'11	
	3746 Apr 30 20:38	0°♌			3747 Apr 04 12:32	0°♋	
retrograde	3746 May 08 04:20	3°♌00'23		evening max el	3747 Apr 12 16:23	11°♋16'12	18°25'42
evening set	3746 May 10 06:17	2°♌46'47		retrograde	3747 Apr 20 03:25	14°♋57'31	
	3746 May 16 07:39	30°♋♌		evening set	3747 Apr 22 11:53	14°♋36'34	
inferior conj	3746 May 18 11:19	28°♋32'57	0°58'39	inferior conj	3747 Apr 29 21:21	10°♋03'23	2°20'35
minimum elong	3746 May 18 13:34	28°♋29'02	0°57'51	minimum elong	3747 Apr 30 01:04	9°♋55'49	2°19'35
min. Earth dist.	3746 May 21 12:10	26°♋27'24	0.56590 AU	min. Earth dist.	3747 May 03 07:56	7°♋17'07	0.58506 AU
desc. node	3746 May 21 21:11	26°♋12'31		morning rise	3747 May 07 11:12	4°♋34'02	
morning rise	3746 May 26 17:40	23°♋35'25		desc. node	3747 May 08 18:11	3°♋57'49	
direct	3746 May 31 20:32	22°♋33'40		direct	3747 May 13 12:25	2°♋58'14	
morning max el	3746 Jun 15 03:18	29°♋55'08	25°43'38	morning max el	3747 May 27 21:52	10°♋41'39	26°59'55
	3746 Jun 15 05:19	0°♌			3747 Jun 11 19:44	0°♌	
	3746 Jul 05 23:49	0°♌		morning set	3747 Jun 27 01:28	28°♌09'00	
asc. node	3746 Jul 11 16:02	11°♌17'59			3747 Jun 27 22:30	0°♌	
morning set	3746 Jul 12 15:52	13°♌23'08		asc. node	3747 Jun 28 13:04	1°♌17'33	
superior conj	3746 Jul 19 14:43	28°♌29'54	1°14'51	superior conj	3747 Jul 04 02:32	13°♌25'41	0°55'32
minimum elong	3746 Jul 19 12:22	28°♌17'00	1°14'29	minimum elong	3747 Jul 04 00:26	13°♌14'05	0°55'08
	3746 Jul 20 07:08	0°♍		max. Earth dist.	3747 Jul 03 23:50	13°♌10'45	1.32056 AU
max. Earth dist.	3746 Jul 20 12:28	0°♍29'12	1.32383 AU	evening rise	3747 Jul 10 23:01	28°♌19'56	
evening rise	3746 Jul 26 15:29	13°♍03'70			3747 Jul 11 18:05	0°♍	
	3746 Aug 04 01:28	0°♍			3747 Jul 28 11:13	0°♍	
desc. node	3746 Aug 17 20:28	21°♍45'23		desc. node	3747 Aug 04 17:29	9°♍39'25	
	3746 Aug 24 15:51	0°♎		evening max el	3747 Aug 09 11:28	14°♍42'50	26°31'45
evening max el	3746 Aug 27 09:53	2°♎46'52	27°15'38	retrograde	3747 Aug 23 10:37	21°♍53'30	
retrograde	3746 Sep 10 05:52	10°♎01'13		evening set	3747 Aug 30 03:32	20°♍00'37	
evening set	3746 Sep 17 09:36	7°♎39'19		min. Earth dist.	3747 Sep 03 01:04	17°♍25'01	0.59788 AU
min. Earth dist.	3746 Sep 21 00:13	4°♎51'51	0.61833 AU	inferior conj	3747 Sep 06 07:35	14°♍49'55	-4°46'06
inferior conj	3746 Sep 24 01:00	2°♎07'21	-4°00'46	minimum elong	3747 Sep 06 12:26	14°♍40'16	4°45'20
minimum elong	3746 Sep 24 06:53	1°♎54'00	3°59'13	morning rise	3747 Sep 13 23:26	10°♍12'50	
	3746 Sep 26 11:30	30°♎♍		direct	3747 Sep 16 08:41	9°♍52'14	
morning rise	3746 Oct 01 05:55	27°♎08'15		morning max el	3747 Sep 24 00:02	13°♍35'35	18°15'39
direct	3746 Oct 03 14:47	26°♎44'14		asc. node	3747 Sep 24 12:16	14°♍05'58	
asc. node	3746 Oct 07 15:15	27°♎55'52			3747 Oct 05 03:32	0°♎	
	3746 Oct 10 07:20	0°♎		morning set	3747 Oct 09 21:19	8°♎51'12	
morning max el	3746 Oct 10 13:07	0°♎13'57	17°54'00				
morning set	3746 Oct 26 09:52	25°♎06'31		superior conj	3747 Oct 19 05:41	26°♎21'16	1°19'46

minimum elong	3747 Oct 19 09:33	26° Ω 38'52	1°19'20	superior conj	3748 Oct 01 04:09	9° Ω 30'50	1°36'29
	3747 Oct 21 06:10	0° \mathbb{M}		minimum elong	3748 Oct 01 06:34	9° Ω 42'23	1°36'19
max. Earth dist.	3747 Oct 26 19:51	9° \mathbb{M} 43'30	1.40980 AU	max. Earth dist.	3748 Oct 08 00:43	22° Ω 14'02	1.38906 AU
evening rise	3747 Oct 31 14:53	17° \mathbb{M} 43'11		evening rise	3748 Oct 11 21:25	29° Ω 00'58	
desc. node	3747 Oct 31 16:46	17° \mathbb{M} 50'53			3748 Oct 12 11:11	0° \mathbb{M}	
	3747 Nov 08 08:56	0° \mathbb{Z}		desc. node	3748 Oct 17 13:48	8° \mathbb{M} 30'33	
	3747 Nov 29 20:52	0° \mathbb{Z}			3748 Oct 31 19:12	0° \mathbb{Z}	
evening max el	3747 Dec 04 18:37	5° \mathbb{Z} 26'29	23°12'07	evening max el	3748 Nov 16 07:44	19° \mathbb{Z} 06'26	24°31'24
retrograde	3747 Dec 15 03:01	11° \mathbb{Z} 34'20		retrograde	3748 Nov 27 17:40	25° \mathbb{Z} 46'17	
evening set	3747 Dec 20 00:34	9° \mathbb{Z} 33'21		evening set	3748 Dec 03 04:49	23° \mathbb{Z} 29'28	
asc. node	3747 Dec 21 11:32	8° \mathbb{Z} 09'43		asc. node	3748 Dec 07 08:32	18° \mathbb{Z} 50'33	
inferior conj	3747 Dec 25 09:53	3° \mathbb{Z} 09'23	1°18'16	min. Earth dist.	3748 Dec 07 20:24	18° \mathbb{Z} 11'23	0.67645 AU
minimum elong	3747 Dec 25 08:11	3° \mathbb{Z} 15'13	1°17'37	inferior conj	3748 Dec 08 16:26	17° \mathbb{Z} 04'28	0°27'09
min. Earth dist.	3747 Dec 25 00:34	3° \mathbb{Z} 41'28	0.67960 AU	minimum elong	3748 Dec 08 15:47	17° \mathbb{Z} 06'40	0°26'52
	3747 Dec 27 18:55	30° \mathbb{R} \mathbb{Z}		morning rise	3748 Dec 14 02:49	11° \mathbb{Z} 02'36	
morning rise	3747 Dec 30 15:43	27° \mathbb{Z} 01'34		direct	3748 Dec 17 20:54	9° \mathbb{Z} 41'51	
direct	3748 Jan 03 22:57	25° \mathbb{Z} 19'02		morning max el	3748 Dec 25 12:35	14° \mathbb{Z} 03'14	20°06'29
	3748 Jan 12 05:56	0° \mathbb{Z}			3749 Jan 06 20:30	0° \mathbb{Z}	
morning max el	3748 Jan 12 14:06	0° \mathbb{Z} 20'15	21°19'35	desc. node	3749 Jan 13 13:02	9° \mathbb{Z} 55'34	
desc. node	3748 Jan 27 16:00	19° \mathbb{Z} 45'30		morning set	3749 Jan 21 15:26	22° \mathbb{Z} 17'35	
	3748 Feb 03 14:30	0° \approx			3749 Jan 26 14:21	0° \approx	
morning set	3748 Feb 12 18:30	14° \approx 07'53		max. Earth dist.	3749 Feb 01 06:57	9° \approx 00'33	1.43870 AU
max. Earth dist.	3748 Feb 19 21:40	25° \approx 36'40	1.42216 AU				
	3748 Feb 22 13:15	0° \mathbb{H}		superior conj	3749 Feb 06 21:32	18° \approx 05'06	-2°03'07
				minimum elong	3749 Feb 06 17:27	17° \approx 48'24	2°02'57
superior conj	3748 Feb 27 07:05	8° \mathbb{H} 02'35	-2°06'32		3749 Feb 14 01:11	0° \mathbb{H}	
minimum elong	3748 Feb 27 08:34	8° \mathbb{H} 08'57	2°06'30	evening rise	3749 Feb 19 20:06	9° \mathbb{H} 54'25	
evening rise	3748 Mar 09 12:59	28° \mathbb{H} 01'37			3749 Mar 03 20:22	0° \mathbb{Y}	
	3748 Mar 10 15:05	0° \mathbb{Y}		asc. node	3749 Mar 05 07:53	2° \mathbb{Y} 09'48	
asc. node	3748 Mar 18 10:51	13° \mathbb{Y} 45'32		evening max el	3749 Mar 09 15:16	7° \mathbb{Y} 26'18	18°10'22
evening max el	3748 Mar 26 02:37	24° \mathbb{Y} 12'22	18°08'25	retrograde	3749 Mar 16 01:42	10° \mathbb{Y} 49'51	
retrograde	3748 Apr 01 19:54	27° \mathbb{Y} 37'15		evening set	3749 Mar 18 22:25	10° \mathbb{Y} 07'54	
evening set	3748 Apr 04 10:48	27° \mathbb{Y} 06'26		inferior conj	3749 Mar 25 02:37	4° \mathbb{Y} 53'46	3°33'49
inferior conj	3748 Apr 11 03:39	22° \mathbb{Y} 12'28	3°10'36	minimum elong	3749 Mar 25 03:39	4° \mathbb{Y} 51'00	3°33'45
minimum elong	3748 Apr 11 06:27	22° \mathbb{Y} 05'52	3°10'08	min. Earth dist.	3749 Mar 27 20:28	1° \mathbb{Y} 58'39	0.62794 AU
min. Earth dist.	3748 Apr 14 09:56	19° \mathbb{Y} 09'35	0.60682 AU		3749 Mar 29 21:45	30° \mathbb{R} \mathbb{H}	
morning rise	3748 Apr 17 24:00	16° \mathbb{Y} 21'30		morning rise	3749 Mar 31 07:43	28° \mathbb{H} 50'06	
direct	3748 Apr 24 16:12	14° \mathbb{Y} 10'59		direct	3749 Apr 07 05:15	26° \mathbb{H} 13'31	
desc. node	3748 Apr 24 15:13	14° \mathbb{Y} 10'59		desc. node	3749 Apr 11 12:14	27° \mathbb{H} 07'00	
morning max el	3748 May 08 22:36	22° \mathbb{Y} 05'34	27°43'24		3749 Apr 16 10:43	0° \mathbb{Y}	
	3748 May 15 21:17	0° \mathbb{B}		morning max el	3749 Apr 21 04:57	4° \mathbb{Y} 11'27	27°49'24
	3748 Jun 03 21:02	0° \mathbb{I}			3749 May 10 12:15	0° \mathbb{B}	
morning set	3748 Jun 10 07:22	12° \mathbb{I} 41'10		morning set	3749 May 25 07:31	26° \mathbb{B} 53'11	
asc. node	3748 Jun 14 10:05	21° \mathbb{I} 23'31			3749 May 26 20:12	0° \mathbb{I}	
max. Earth dist.	3748 Jun 16 10:52	25° \mathbb{I} 48'47	1.32136 AU	max. Earth dist.	3749 May 30 17:45	8° \mathbb{I} 10'51	1.32631 AU
				asc. node	3749 Jun 01 07:09	11° \mathbb{I} 31'46	
superior conj	3748 Jun 17 13:40	28° \mathbb{I} 15'39	0°32'35				
minimum elong	3748 Jun 17 12:15	28° \mathbb{I} 07'54	0°32'17	superior conj	3749 Jun 01 22:24	12° \mathbb{I} 54'13	0°06'41
	3748 Jun 18 08:39	0° \mathbb{E}		minimum elong	3749 Jun 01 22:05	12° \mathbb{I} 52'30	0°06'37
evening rise	3748 Jun 24 09:39	13° \mathbb{E} 09'06		behind sun begin	3749 Jun 01 17:18	12° \mathbb{I} 26'36	
	3748 Jul 02 21:08	0° \mathbb{Q}		behind sun end	3749 Jun 02 02:52	13° \mathbb{I} 18'25	
evening max el	3748 Jul 21 05:48	25° \mathbb{Q} 51'04	25°17'58	evening rise	3749 Jun 08 21:30	27° \mathbb{I} 58'10	
desc. node	3748 Jul 21 14:30	26° \mathbb{Q} 11'39			3749 Jun 09 20:34	0° \mathbb{E}	
	3748 Jul 26 09:34	0° \mathbb{P}			3749 Jun 27 03:48	0° \mathbb{Q}	
retrograde	3748 Aug 04 05:07	2° \mathbb{P} 56'12		evening max el	3749 Jul 02 19:06	6° \mathbb{Q} 23'22	23°45'03
evening set	3748 Aug 09 22:08	1° \mathbb{P} 41'00		desc. node	3749 Jul 08 11:31	10° \mathbb{Q} 50'55	
	3748 Aug 13 03:26	30° \mathbb{R} \mathbb{Q}		retrograde	3749 Jul 16 11:25	13° \mathbb{Q} 15'30	
min. Earth dist.	3748 Aug 14 17:38	28° \mathbb{Q} 59'18	0.57767 AU	evening set	3749 Jul 20 17:47	12° \mathbb{Q} 35'30	
inferior conj	3748 Aug 17 19:26	26° \mathbb{Q} 52'54	-5°08'46	min. Earth dist.	3749 Jul 27 05:16	9° \mathbb{Q} 31'11	0.56071 AU
minimum elong	3748 Aug 17 20:23	26° \mathbb{Q} 51'16	5°08'45	inferior conj	3749 Jul 29 11:03	8° \mathbb{Q} 10'04	-4°53'31
morning rise	3748 Aug 25 20:58	22° \mathbb{Q} 38'20		minimum elong	3749 Jul 29 06:02	8° \mathbb{Q} 17'40	4°52'54
direct	3748 Aug 28 09:50	22° \mathbb{Q} 18'59		morning rise	3749 Aug 06 20:49	4° \mathbb{Q} 13'55	
morning max el	3748 Sep 06 03:07	26° \mathbb{Q} 26'15	18°58'12	direct	3749 Aug 09 15:44	3° \mathbb{Q} 54'19	
	3748 Sep 09 08:17	0° \mathbb{P}		morning max el	3749 Aug 19 19:36	8° \mathbb{Q} 37'19	20°02'28
asc. node	3748 Sep 10 09:18	1° \mathbb{P} 22'05		asc. node	3749 Aug 28 06:21	19° \mathbb{Q} 30'08	
morning set	3748 Sep 22 18:48	23° \mathbb{P} 04'24			3749 Sep 03 03:05	0° \mathbb{P}	
	3748 Sep 26 06:57	0° \mathbb{Q}		morning set	3749 Sep 06 23:04	7° \mathbb{P} 37'26	

superior conj	3749 Sep 14 16:42	23° \mathbb{M} 22'15	1°43'50	superior conj	3750 Aug 29 15:11	7° \mathbb{M} 43'45	1°43'22
minimum elong	3749 Sep 14 17:24	23° \mathbb{M} 25'46	1°43'49	minimum elong	3750 Aug 29 14:26	7° \mathbb{M} 39'50	1°43'21
	3749 Sep 18 01:16	0° \mathbb{L}		max. Earth dist.	3750 Sep 02 17:34	16° \mathbb{M} 06'42	1.35115 AU
max. Earth dist.	3749 Sep 20 06:14	4° \mathbb{L} 14'12	1.36882 AU	evening rise	3750 Sep 07 00:34	24° \mathbb{M} 29'57	
evening rise	3749 Sep 24 01:59	11° \mathbb{L} 19'43			3750 Sep 09 23:18	0° \mathbb{L}	
desc. node	3749 Oct 04 10:50	28° \mathbb{L} 59'53		desc. node	3750 Sep 21 07:52	19° \mathbb{L} 13'35	
	3749 Oct 05 01:56	0° \mathbb{M}			3750 Sep 28 15:01	0° \mathbb{M}	
	3749 Oct 27 02:45	0° \mathbb{J}		evening max el	3750 Oct 12 08:29	16° \mathbb{M} 27'13	26°41'33
evening max el	3749 Oct 29 20:03	2° \mathbb{J} 48'17	25°43'42	retrograde	3750 Oct 25 08:38	23° \mathbb{M} 42'24	
retrograde	3749 Nov 11 03:42	9° \mathbb{J} 50'54		evening set	3750 Oct 31 22:39	21° \mathbb{M} 02'31	
evening set	3749 Nov 17 04:49	7° \mathbb{J} 20'15		min. Earth dist.	3750 Nov 04 23:46	16° \mathbb{M} 55'20	0.65981 AU
min. Earth dist.	3749 Nov 21 12:52	2° \mathbb{J} 37'15	0.66986 AU	inferior conj	3750 Nov 06 18:29	14° \mathbb{M} 48'53	-1°28'21
inferior conj	3749 Nov 22 19:57	0° \mathbb{J} 58'36	-0°28'51	minimum elong	3750 Nov 06 20:55	14° \mathbb{M} 41'40	1°27'21
minimum elong	3749 Nov 22 20:42	0° \mathbb{J} 56'13	0°28'32	asc. node	3750 Nov 11 02:38	10° \mathbb{M} 16'11	
	3749 Nov 23 14:32	30° \mathbb{R} \mathbb{M}		morning rise	3750 Nov 12 19:54	9° \mathbb{M} 06'29	
asc. node	3749 Nov 24 05:35	29° \mathbb{M} 13'36		direct	3750 Nov 15 17:09	8° \mathbb{M} 20'07	
morning rise	3749 Nov 28 12:56	25° \mathbb{M} 05'10		morning max el	3750 Nov 22 07:20	11° \mathbb{M} 55'17	18°24'46
direct	3749 Dec 01 19:34	24° \mathbb{M} 03'28			3750 Dec 05 05:08	0° \mathbb{J}	
morning max el	3749 Dec 08 18:53	27° \mathbb{M} 56'17	19°07'40	morning set	3750 Dec 11 23:55	10° \mathbb{J} 52'44	
	3749 Dec 10 16:35	0° \mathbb{J}		desc. node	3750 Dec 18 07:08	20° \mathbb{J} 57'40	
desc. node	3749 Dec 31 10:04	0° \mathbb{Z} 21'04			3750 Dec 24 00:07	0° \mathbb{Z}	
	3749 Dec 31 04:39	0° \mathbb{Z}		superior conj	3750 Dec 27 13:49	5° \mathbb{Z} 36'58	-1°00'29
morning set	3749 Dec 31 18:47	0° \mathbb{Z} 55'00		minimum elong	3750 Dec 27 06:22	5° \mathbb{Z} 07'43	0°59'34
max. Earth dist.	3750 Jan 14 22:34	23° \mathbb{Z} 03'01	1.44917 AU	max. Earth dist.	3750 Dec 28 17:13	7° \mathbb{Z} 24'31	1.45248 AU
					3751 Jan 12 02:42	0° \mathbb{Z}	
superior conj	3750 Jan 17 11:34	27° \mathbb{Z} 03'49	-1°40'30	evening rise	3751 Jan 12 15:43	0° \mathbb{Z} 51'13	
minimum elong	3750 Jan 17 02:42	26° \mathbb{Z} 28'43	1°39'44	greatest brilliancy	3751 Jan 22 20:36	16° \mathbb{Z} 52'35	-0.8m
	3750 Jan 19 08:00	0° \mathbb{Z}			3751 Jan 31 20:32	0° \mathbb{H}	
evening rise	3750 Feb 01 05:32	20° \mathbb{Z} 50'50		evening max el	3751 Feb 04 12:46	4° \mathbb{H} 19'15	19°09'04
	3750 Feb 06 19:10	0° \mathbb{H}		asc. node	3751 Feb 07 01:57	6° \mathbb{H} 34'38	
asc. node	3750 Feb 20 04:55	19° \mathbb{H} 50'17		retrograde	3751 Feb 11 12:01	8° \mathbb{H} 17'03	
evening max el	3750 Feb 21 03:25	20° \mathbb{H} 50'08	18°30'55	evening set	3751 Feb 14 21:13	7° \mathbb{H} 10'22	
retrograde	3750 Feb 27 16:19	24° \mathbb{H} 25'23		inferior conj	3751 Feb 20 10:32	1° \mathbb{H} 21'36	3°24'11
evening set	3750 Mar 02 18:52	23° \mathbb{H} 31'28		minimum elong	3751 Feb 20 08:46	1° \mathbb{H} 27'15	3°23'56
inferior conj	3750 Mar 08 14:06	17° \mathbb{H} 58'57	3°36'38		3751 Feb 21 12:02	30° \mathbb{R} \mathbb{Z}	
minimum elong	3750 Mar 08 13:30	18° \mathbb{H} 00'44	3°36'37	min. Earth dist.	3751 Feb 21 21:43	29° \mathbb{Z} 29'18	0.66076 AU
min. Earth dist.	3750 Mar 10 16:36	15° \mathbb{H} 29'49	0.64627 AU	morning rise	3751 Feb 25 20:00	25° \mathbb{Z} 08'15	
morning rise	3750 Mar 14 07:31	11° \mathbb{H} 48'33		direct	3751 Mar 04 05:30	22° \mathbb{Z} 19'12	
direct	3750 Mar 21 02:01	8° \mathbb{H} 59'00		desc. node	3751 Mar 16 06:19	29° \mathbb{Z} 09'25	
desc. node	3750 Mar 29 09:17	12° \mathbb{H} 17'53		morning max el	3751 Mar 17 00:29	29° \mathbb{Z} 54'29	26°21'12
morning max el	3750 Apr 03 14:31	16° \mathbb{H} 51'53	27°19'50		3751 Mar 17 02:40	0° \mathbb{H}	
	3750 Apr 14 12:24	0° \mathbb{Y}			3751 Apr 08 10:19	0° \mathbb{Y}	
	3750 May 03 07:57	0° \mathbb{B}		morning set	3751 Apr 22 02:39	23° \mathbb{Y} 40'42	
morning set	3750 May 08 23:09	10° \mathbb{B} 36'35			3751 Apr 25 10:06	0° \mathbb{B}	
max. Earth dist.	3750 May 13 16:31	20° \mathbb{B} 05'23	1.33563 AU	max. Earth dist.	3751 Apr 26 03:58	1° \mathbb{B} 27'12	1.34957 AU
				superior conj	3751 May 01 00:29	11° \mathbb{B} 11'50	-0°50'22
superior conj	3750 May 17 02:47	27° \mathbb{B} 15'10	-0°21'23	minimum elong	3751 May 01 03:09	11° \mathbb{B} 25'32	0°49'51
minimum elong	3750 May 17 03:53	27° \mathbb{B} 20'59	0°21'08	asc. node	3751 May 06 01:17	21° \mathbb{B} 38'19	
	3750 May 18 09:50	0° \mathbb{I}		evening rise	3751 May 08 17:10	27° \mathbb{B} 10'17	
asc. node	3750 May 19 04:13	1° \mathbb{I} 38'06			3751 May 10 02:15	0° \mathbb{I}	
evening rise	3750 May 24 08:40	12° \mathbb{I} 40'41		evening max el	3751 May 27 11:11	27° \mathbb{I} 40'23	20°42'21
	3750 Jun 02 05:22	0° \mathbb{O}			3751 May 30 03:58	0° \mathbb{O}	
evening max el	3750 Jun 14 10:24	16° \mathbb{O} 49'21	22°08'41	retrograde	3751 Jun 07 19:12	3° \mathbb{O} 12'35	
desc. node	3750 Jun 25 08:32	23° \mathbb{O} 02'29		evening set	3751 Jun 09 20:49	3° \mathbb{O} 02'16	
retrograde	3750 Jun 27 06:15	23° \mathbb{O} 10'53		desc. node	3751 Jun 12 05:34	2° \mathbb{O} 26'55	
evening set	3750 Jun 30 02:39	22° \mathbb{O} 52'49			3751 Jun 17 12:42	30° \mathbb{R} \mathbb{I}	
min. Earth dist.	3750 Jul 08 15:54	19° \mathbb{O} 12'20	0.55029 AU	inferior conj	3751 Jun 19 03:35	29° \mathbb{I} 04'55	-2°01'32
inferior conj	3750 Jul 09 10:06	18° \mathbb{O} 46'44	-3°48'42	minimum elong	3751 Jun 18 21:54	29° \mathbb{I} 13'03	1°59'31
minimum elong	3750 Jul 09 01:40	18° \mathbb{O} 58'37	3°46'27	min. Earth dist.	3751 Jun 20 03:54	28° \mathbb{I} 30'05	0.54902 AU
morning rise	3750 Jul 18 02:28	14° \mathbb{O} 55'55		morning rise	3751 Jun 27 22:25	24° \mathbb{I} 59'07	
direct	3750 Jul 21 05:22	14° \mathbb{O} 34'12		direct	3751 Jul 01 14:43	24° \mathbb{I} 29'56	
morning max el	3750 Aug 02 00:25	20° \mathbb{O} 04'24	21°27'10		3751 Jul 13 20:47	0° \mathbb{O}	
	3750 Aug 10 03:29	0° \mathbb{O}		morning max el	3751 Jul 14 19:22	0° \mathbb{O} 51'06	23°06'30
asc. node	3750 Aug 15 03:26	8° \mathbb{O} 18'02		asc. node	3751 Aug 02 00:30	27° \mathbb{O} 35'06	
morning set	3750 Aug 22 07:47	22° \mathbb{O} 23'47			3751 Aug 03 05:53	0° \mathbb{O}	
	3750 Aug 25 22:47	0° \mathbb{M}					

morning set	3751 Aug 06 18:52	7°♎16'39		morning rise	3752 Jun 06 19:31	4°♊59'19	
				direct	3752 Jun 11 08:52	4°♊12'41	
superior conj	3751 Aug 13 20:19	22°♎24'16	1°36'27	morning max el	3752 Jun 25 09:27	11°♊15'52	24°49'01
minimum elong	3751 Aug 13 18:33	22°♎14'50	1°36'19		3752 Jul 09 15:19	0°♊	
max. Earth dist.	3751 Aug 16 13:39	28°♎10'47	1.33729 AU	asc. node	3752 Jul 18 21:34	17°♊13'40	
	3751 Aug 17 10:33	0°♎		morning set	3752 Jul 21 06:39	22°♊10'56	
evening rise	3751 Aug 21 12:42	8°♎19'01			3752 Jul 24 21:48	0°♎	
	3751 Sep 02 10:59	0°♎					
desc. node	3751 Sep 08 04:53	9°♎03'46		superior conj	3752 Jul 28 05:36	7°♎15'52	1°24'07
	3751 Sep 24 23:23	0°♎		minimum elong	3752 Jul 28 03:19	7°♎03'27	1°23'49
evening max el	3751 Sep 24 20:38	29°♎53'29	27°17'45	max. Earth dist.	3752 Jul 29 18:07	10°♎34'29	1.32763 AU
retrograde	3751 Oct 08 07:50	7°♎11'59		evening rise	3752 Aug 04 10:41	22°♎36'11	
evening set	3751 Oct 15 07:48	4°♎30'39			3752 Aug 08 03:46	0°♎	
min. Earth dist.	3751 Oct 19 02:50	0°♎58'24	0.64624 AU	desc. node	3752 Aug 25 01:53	28°♎20'29	
	3751 Oct 20 00:36	30°♎			3752 Aug 26 06:30	0°♎	
inferior conj	3751 Oct 21 09:42	28°♎29'49	-2°29'28	evening max el	3752 Sep 06 06:53	12°♎54'59	27°25'41
minimum elong	3751 Oct 21 13:52	28°♎18'28	2°27'53	retrograde	3752 Sep 20 00:29	20°♎10'44	
morning rise	3751 Oct 27 21:05	23°♎01'25		evening set	3752 Sep 27 05:05	17°♎38'30	
asc. node	3751 Oct 28 23:41	22°♎38'01		min. Earth dist.	3752 Sep 30 20:09	14°♎37'01	0.62937 AU
direct	3751 Oct 30 11:21	22°♎26'27		inferior conj	3752 Oct 03 14:51	11°♎55'02	-3°29'04
morning max el	3751 Nov 05 23:12	25°♎53'09	17°58'41	minimum elong	3752 Oct 03 20:25	11°♎41'31	3°27'19
	3751 Nov 09 10:58	0°♎		morning rise	3752 Oct 10 13:14	6°♎43'57	
morning set	3751 Nov 23 10:11	22°♎16'32		direct	3752 Oct 12 23:15	6°♎16'46	
	3751 Nov 28 01:03	0°♎		asc. node	3752 Oct 14 20:44	6°♎33'53	
desc. node	3751 Dec 05 04:09	11°♎41'00		morning max el	3752 Oct 19 15:36	9°♎43'06	17°50'18
					3752 Nov 02 02:41	0°♎	
superior conj	3751 Dec 07 01:01	14°♎41'34	-0°12'49	morning set	3752 Nov 04 20:26	4°♎49'39	
minimum elong	3751 Dec 06 23:28	14°♎35'22	0°12'35				
behind sun begin	3751 Dec 06 16:50	14°♎08'47		superior conj	3752 Nov 16 12:04	24°♎57'14	0°31'14
behind sun end	3751 Dec 07 06:05	15°♎01'55		minimum elong	3752 Nov 16 15:02	25°♎09'40	0°30'49
max. Earth dist.	3751 Dec 11 11:54	21°♎47'00	1.44839 AU		3752 Nov 19 13:03	0°♎	
	3751 Dec 16 17:35	0°♎		desc. node	3752 Nov 21 01:09	2°♎27'48	
evening rise	3751 Dec 23 07:02	10°♎09'44		max. Earth dist.	3752 Nov 23 04:28	5°♎55'39	1.43749 AU
	3752 Jan 05 08:14	0°♎		evening rise	3752 Dec 01 16:30	19°♎20'14	
greatest brilliancy	3752 Jan 06 17:02	2°♎01'19	-0.6m		3752 Dec 08 16:17	0°♎	
evening max el	3752 Jan 18 17:33	17°♎50'45	20°03'07		3752 Dec 30 09:34	0°♎	
asc. node	3752 Jan 24 22:58	22°♎08'20		evening max el	3752 Dec 31 16:53	1°♎23'15	21°10'11
retrograde	3752 Jan 26 09:52	22°♎19'50		retrograde	3753 Jan 09 07:36	6°♎29'31	
evening set	3752 Jan 30 03:07	20°♎59'13		asc. node	3753 Jan 10 19:59	6°♎16'57	
inferior conj	3752 Feb 04 12:59	14°♎56'39	2°59'59	evening set	3753 Jan 13 10:37	4°♎53'43	
minimum elong	3752 Feb 04 10:36	15°♎04'39	2°59'27		3753 Jan 17 19:42	30°♎	
min. Earth dist.	3752 Feb 05 10:04	13°♎45'47	0.67109 AU	inferior conj	3753 Jan 18 19:01	28°♎40'07	2°26'24
morning rise	3752 Feb 09 17:51	8°♎42'46		minimum elong	3753 Jan 18 16:32	28°♎48'42	2°25'40
direct	3752 Feb 15 14:40	6°♎05'25		min. Earth dist.	3753 Jan 19 03:24	28°♎11'10	0.67738 AU
morning max el	3752 Feb 27 09:14	13°♎07'41	25°02'49	morning rise	3753 Jan 23 22:16	22°♎27'26	
desc. node	3752 Mar 02 03:22	17°♎13'04		direct	3753 Jan 29 04:31	20°♎09'16	
	3752 Mar 12 00:50	0°♎		morning max el	3753 Feb 08 17:47	26°♎26'08	23°34'50
	3752 Mar 31 05:03	0°♎			3753 Feb 12 00:41	0°♎	
morning set	3752 Apr 03 13:07	5°♎51'36		desc. node	3753 Feb 17 00:22	6°♎07'40	
max. Earth dist.	3752 Apr 07 04:25	12°♎28'57	1.36784 AU		3753 Mar 05 15:08	0°♎	
				morning set	3753 Mar 16 00:25	16°♎51'44	
superior conj	3752 Apr 13 12:33	24°♎36'23	-1°18'34	max. Earth dist.	3753 Mar 19 23:36	23°♎42'37	1.38907 AU
minimum elong	3752 Apr 13 16:38	24°♎56'27	1°17'56		3753 Mar 23 12:09	0°♎	
	3752 Apr 16 05:45	0°♎					
evening rise	3752 Apr 21 20:46	11°♎20'29		superior conj	3753 Mar 27 11:08	7°♎17'51	-1°43'27
asc. node	3752 Apr 21 22:19	11°♎28'17		minimum elong	3753 Mar 27 15:49	7°♎39'50	1°42'57
	3752 May 01 22:08	0°♎		evening rise	3753 Apr 05 16:38	25°♎02'50	
evening max el	3752 May 09 00:15	9°♎12'02	19°33'30		3753 Apr 08 06:14	0°♎	
retrograde	3752 May 18 14:16	13°♎51'24		asc. node	3753 Apr 08 19:20	1°♎02'24	
evening set	3752 May 20 13:46	13°♎40'22		evening max el	3753 Apr 22 00:01	21°♎22'22	18°44'37
inferior conj	3752 May 29 06:05	9°♎36'04	-0°02'35	retrograde	3753 Apr 30 02:18	25°♎20'15	
minimum elong	3752 May 29 05:58	9°♎36'15	0°02'33	evening set	3753 May 02 07:07	25°♎03'46	
transit middle	3752 May 29 05:58	9°♎36'15	0°02'33	inferior conj	3753 May 10 03:36	20°♎41'56	1°37'22
transit begin	3752 May 29 02:07	9°♎42'23		minimum elong	3753 May 10 06:52	20°♎35'52	1°36'19
transit end	3752 May 29 09:50	9°♎30'06		min. Earth dist.	3753 May 13 10:33	18°♎16'49	0.57355 AU
desc. node	3752 May 29 02:34	9°♎41'39		desc. node	3753 May 15 23:35	16°♎37'27	
min. Earth dist.	3752 May 31 17:51	8°♎01'26	0.55741 AU	morning rise	3753 May 18 03:26	15°♎30'15	

direct	3753 May 23 16:33	14°♄14'52		desc. node	3754 May 02 20:36	25°♅18'35	
morning max el	3753 Jun 07 00:58	21°♄46'15	26°19'26	direct	3754 May 05 13:21	24°♅58'37	
	3753 Jun 14 06:05	0°♄			3754 May 16 20:10	0°♄	
	3753 Jul 02 07:41	0°♄		morning max el	3754 May 19 22:12	2°♄47'27	27°22'59
morning set	3753 Jul 05 17:31	7°♄01'18			3754 Jun 08 16:57	0°♄	
asc. node	3753 Jul 05 18:36	7°♄06'58		morning set	3754 Jun 20 01:48	21°♄42'12	
				asc. node	3754 Jun 22 15:37	27°♄09'46	
superior conj	3753 Jul 12 16:59	22°♄11'32	1°07'08		3754 Jun 23 23:07	0°♄	
minimum elong	3753 Jul 12 14:41	21°♄58'51	1°06'45	max. Earth dist.	3754 Jun 26 16:00	5°♄55'23	1.32043 AU
max. Earth dist.	3753 Jul 13 04:09	23°♄13'05	1.32204 AU				
	3753 Jul 16 06:30	0°♄		superior conj	3754 Jun 27 04:42	7°♄05'21	0°46'12
evening rise	3753 Jul 19 15:27	7°♄11'53		minimum elong	3754 Jun 27 02:50	6°♄55'05	0°45'50
	3753 Jul 31 15:33	0°♄		evening rise	3754 Jul 04 00:34	21°♄58'10	
desc. node	3753 Aug 11 22:54	16°♄50'00			3754 Jul 07 21:59	0°♄	
evening max el	3753 Aug 19 12:27	25°♄18'01	27°00'58		3754 Jul 26 05:36	0°♄	
	3753 Aug 25 12:35	0°♄		desc. node	3754 Jul 29 19:55	4°♄12'40	
retrograde	3753 Sep 02 09:38	2°♄29'48		evening max el	3754 Aug 01 10:48	6°♄52'54	26°03'27
evening set	3753 Sep 09 10:23	0°♄18'59		retrograde	3754 Aug 15 10:10	14°♄01'41	
	3753 Sep 09 22:30	30°♄		evening set	3754 Aug 21 18:51	12°♄23'55	
min. Earth dist.	3753 Sep 13 02:42	27°♄38'33	0.60983 AU	min. Earth dist.	3754 Aug 25 23:21	9°♄48'21	0.58912 AU
inferior conj	3753 Sep 16 06:43	24°♄56'11	-4°21'56	inferior conj	3754 Aug 29 05:40	7°♄22'58	-4°59'19
minimum elong	3753 Sep 16 12:28	24°♄43'51	4°20'40	minimum elong	3754 Aug 29 09:16	7°♄16'16	4°58'58
morning rise	3753 Sep 23 16:21	20°♄05'57		morning rise	3754 Sep 06 01:53	2°♄55'55	
direct	3753 Sep 26 01:08	19°♄43'33		direct	3754 Sep 08 12:25	2°♄36'01	
asc. node	3753 Oct 01 17:46	21°♄59'04		morning max el	3754 Sep 16 13:29	6°♄27'42	18°31'11
morning max el	3753 Oct 03 05:27	23°♄17'42	18°00'43	asc. node	3754 Sep 18 14:49	8°♄39'21	
	3753 Oct 08 13:12	0°♄			3754 Oct 01 13:08	0°♄	
morning set	3753 Oct 19 00:17	18°♄13'17		morning set	3754 Oct 02 16:29	2°♄11'36	
	3753 Oct 25 10:13	0°♄					
superior conj	3753 Oct 29 01:51	6°♄31'37	1°05'17	superior conj	3754 Oct 11 14:02	19°♄11'27	1°28'06
minimum elong	3753 Oct 29 06:04	6°♄50'12	1°04'46	minimum elong	3754 Oct 11 17:22	19°♄26'57	1°27'48
max. Earth dist.	3753 Nov 05 16:40	19°♄34'28	1.42101 AU		3754 Oct 17 13:14	0°♄	
desc. node	3753 Nov 07 22:11	23°♄15'05		max. Earth dist.	3754 Oct 18 23:21	2°♄29'14	1.40105 AU
evening rise	3753 Nov 11 12:25	29°♄03'06		evening rise	3754 Oct 23 05:22	9°♄43'35	
	3753 Nov 12 02:44	0°♄		desc. node	3754 Oct 25 19:14	13°♄58'43	
	3753 Dec 02 07:35	0°♄			3754 Nov 05 01:57	0°♄	
evening max el	3753 Dec 14 10:59	14°♄57'46	22°26'13	evening max el	3754 Nov 27 01:09	28°♄34'48	23°46'08
retrograde	3753 Dec 24 03:41	20°♄43'38			3754 Nov 28 12:41	0°♄	
evening set	3753 Dec 28 18:07	18°♄51'43		retrograde	3754 Dec 07 20:44	4°♄57'39	
asc. node	3753 Dec 28 17:00	18°♄53'59		evening set	3754 Dec 13 00:01	2°♄49'33	
inferior conj	3754 Jan 03 02:41	12°♄30'23	1°45'06	asc. node	3754 Dec 15 14:02	0°♄08'14	
minimum elong	3754 Jan 03 00:34	12°♄37'42	1°44'20		3754 Dec 15 16:44	30°♄	
min. Earth dist.	3754 Jan 02 23:32	12°♄41'15	0.67986 AU	inferior conj	3754 Dec 18 10:09	26°♄24'25	0°57'16
morning rise	3754 Jan 08 06:54	6°♄20'27		minimum elong	3754 Dec 18 08:50	26°♄28'51	0°56'43
direct	3754 Jan 12 22:18	4°♄24'54		min. Earth dist.	3754 Dec 17 20:10	27°♄12'02	0.67869 AU
morning max el	3754 Jan 22 05:28	9°♄52'31	22°06'59	morning rise	3754 Dec 23 17:40	20°♄18'59	
desc. node	3754 Feb 03 21:24	25°♄39'21		direct	3754 Dec 27 19:01	18°♄46'13	
	3754 Feb 06 22:55	0°♄		morning max el	3755 Jan 04 23:33	23°♄29'21	20°46'53
morning set	3754 Feb 24 07:26	26°♄30'07			3755 Jan 10 14:18	0°♄	
	3754 Feb 26 11:03	0°♄		desc. node	3755 Jan 21 18:27	15°♄37'29	
max. Earth dist.	3754 Mar 01 21:19	5°♄41'02	1.41071 AU		3755 Jan 31 07:20	0°♄	
				morning set	3755 Feb 03 12:18	4°♄57'53	
superior conj	3754 Mar 09 15:33	19°♄05'12	-2°01'19	max. Earth dist.	3755 Feb 12 01:46	18°♄33'50	1.42980 AU
minimum elong	3754 Mar 09 19:01	19°♄20'35	2°01'08				
	3754 Mar 15 16:02	0°♄		superior conj	3755 Feb 18 20:47	29°♄47'11	-2°07'14
evening rise	3754 Mar 20 01:29	8°♄09'33		minimum elong	3755 Feb 18 20:09	29°♄44'32	2°07'14
asc. node	3754 Mar 26 16:20	20°♄15'09			3755 Feb 18 23:49	0°♄	
	3754 Apr 01 20:14	0°♄		evening rise	3755 Mar 02 19:14	20°♄31'34	
evening max el	3754 Apr 05 07:18	4°♄03'55	18°15'55		3755 Mar 08 03:50	0°♄	
retrograde	3754 Apr 12 09:26	7°♄36'35		asc. node	3755 Mar 13 13:21	8°♄59'32	
evening set	3754 Apr 14 20:41	7°♄11'39		evening max el	3755 Mar 19 18:51	17°♄08'09	18°06'56
inferior conj	3754 Apr 21 22:34	2°♄29'14	2°45'30	retrograde	3755 Mar 26 08:11	20°♄31'08	
minimum elong	3754 Apr 22 02:05	2°♄21'35	2°44'42	evening set	3755 Mar 29 01:29	19°♄55'52	
	3754 Apr 24 19:30	30°♄		inferior conj	3755 Apr 04 12:28	14°♄53'13	3°23'21
min. Earth dist.	3754 Apr 25 08:29	29°♄33'02	0.59420 AU	minimum elong	3755 Apr 04 14:32	14°♄48'01	3°23'05
morning rise	3754 Apr 29 04:51	26°♄49'20		min. Earth dist.	3755 Apr 07 14:08	11°♄50'38	0.61594 AU
				morning rise	3755 Apr 11 01:52	8°♄55'33	

direct	3755 Apr 17 21:19	6° Υ 32'28		minimum elong	3756 Mar 17 17:31	27° Υ 44'43	3°37'08
desc. node	3755 Apr 19 17:38	6° Υ 42'18		min. Earth dist.	3756 Mar 20 04:50	24° Υ 59'19	0.63614 AU
morning max el	3755 May 02 01:46	14° Υ 30'24	27°50'41	morning rise	3756 Mar 23 16:52	21° Υ 38'25	
	3755 May 14 14:08	0° Σ		direct	3756 Mar 30 14:09	18° Υ 54'11	
	3755 Jun 01 04:18	0° Π		desc. node	3756 Apr 05 14:41	20° Υ 39'45	
morning set	3755 Jun 04 05:37	6° Π 07'27		morning max el	3756 Apr 13 09:42	26° Υ 51'56	27°40'52
asc. node	3755 Jun 09 12:41	17° Π 17'37			3756 Apr 16 08:19	0° Υ	
max. Earth dist.	3755 Jun 10 01:47	18° Π 28'34	1.32284 AU		3756 May 07 05:17	0° Σ	
				morning set	3756 May 18 02:29	20° Σ 08'25	
superior conj	3755 Jun 11 15:04	21° Π 51'44	0°21'55		3756 May 22 22:01	0° Π	
minimum elong	3755 Jun 11 14:05	21° Π 46'17	0°21'42	max. Earth dist.	3756 May 23 05:22	0° Π 38'41	1.32962 AU
	3755 Jun 15 08:17	0° Σ					
evening rise	3755 Jun 18 11:57	6° Σ 48'23		superior conj	3756 May 25 22:12	6° Π 23'42	-0°05'02
	3755 Jun 30 15:08	0° Ω		minimum elong	3756 May 25 22:27	6° Π 25'03	0°04'59
evening max el	3755 Jul 14 02:17	17° Ω 43'34	24°39'59	behind sun begin	3756 May 25 17:22	5° Π 57'45	
desc. node	3755 Jul 16 16:56	20° Ω 01'56		behind sun end	3756 May 26 03:33	6° Π 52'23	
retrograde	3755 Jul 28 00:16	24° Ω 45'42		asc. node	3756 May 26 09:43	7° Π 25'35	
evening set	3755 Aug 02 03:18	23° Ω 46'26		evening rise	3756 Jun 01 23:42	21° Π 35'14	
min. Earth dist.	3755 Aug 07 13:30	20° Ω 56'49	0.56981 AU		3756 Jun 06 01:40	0° Σ	
inferior conj	3755 Aug 10 08:59	19° Ω 07'36	-5°07'55	evening max el	3756 Jun 24 15:32	28° Σ 09'32	23°03'45
minimum elong	3755 Aug 10 07:29	19° Ω 10'03	5°07'52		3756 Jun 26 16:28	0° Ω	
morning rise	3755 Aug 18 14:14	15° Ω 02'05		desc. node	3756 Jul 02 13:58	3° Ω 42'36	
direct	3755 Aug 21 05:13	14° Ω 42'57		retrograde	3756 Jul 08 01:30	4° Ω 51'05	
morning max el	3755 Aug 30 12:32	19° Ω 04'00	19°22'52	evening set	3756 Jul 11 16:02	4° Ω 22'39	
asc. node	3755 Sep 05 11:54	26° Ω 20'00		min. Earth dist.	3756 Jul 19 00:41	1° Ω 04'28	0.55525 AU
	3755 Sep 07 20:05	0° Π		inferior conj	3756 Jul 20 16:44	0° Ω 06'20	-4°32'21
morning set	3755 Sep 16 17:14	16° Π 34'43		minimum elong	3756 Jul 20 09:36	0° Ω 16'43	4°31'01
	3755 Sep 23 10:18	0° Ω			3756 Jul 20 21:05	30° Σ	
				morning rise	3756 Jul 29 05:29	26° Σ 14'10	
superior conj	3755 Sep 24 19:09	2° Ω 41'24	1°40'37	direct	3756 Aug 01 03:20	25° Σ 54'01	
minimum elong	3755 Sep 24 20:50	2° Ω 49'36	1°40'33		3756 Aug 10 22:24	0° Ω	
max. Earth dist.	3755 Oct 01 03:26	14° Ω 43'23	1.38025 AU	morning max el	3756 Aug 12 00:02	0° Ω 56'39	20°36'08
evening rise	3755 Oct 04 21:45	21° Ω 29'04		asc. node	3756 Aug 22 08:58	14° Ω 46'27	
	3755 Oct 09 21:11	0° Π			3756 Aug 30 09:10	0° Π	
desc. node	3755 Oct 12 16:16	4° Π 34'52		morning set	3756 Aug 30 23:40	1° Π 14'10	
	3755 Oct 30 00:50	0° Σ					
evening max el	3755 Nov 09 13:39	12° Σ 15'49	25°03'21	superior conj	3756 Sep 07 12:22	16° Π 46'55	1°44'29
retrograde	3755 Nov 21 09:43	19° Σ 07'20		minimum elong	3756 Sep 07 12:25	16° Π 47'07	1°44'29
evening set	3755 Nov 27 02:42	16° Σ 44'17		max. Earth dist.	3756 Sep 12 10:43	26° Π 36'48	1.36095 AU
min. Earth dist.	3755 Dec 01 14:59	11° Σ 40'46	0.67407 AU		3756 Sep 14 04:58	0° Ω	
asc. node	3755 Dec 02 11:05	10° Σ 34'52		evening rise	3756 Sep 16 10:34	4° Ω 11'38	
inferior conj	3755 Dec 02 15:40	10° Σ 19'50	0°03'55	desc. node	3756 Sep 28 13:18	24° Ω 58'29	
minimum elong	3755 Dec 02 15:34	10° Σ 20'10	0°03'52		3756 Oct 01 19:03	0° Π	
transit middle	3755 Dec 02 15:34	10° Σ 20'10	0°03'52	evening max el	3756 Oct 22 02:09	25° Π 58'14	26°10'32
transit begin	3755 Dec 02 12:52	10° Σ 29'00			3756 Oct 26 19:57	0° Σ	
transit end	3755 Dec 02 18:15	10° Σ 11'20		retrograde	3756 Nov 03 17:41	3° Σ 07'16	
morning rise	3755 Dec 08 04:37	4° Σ 21'05		evening set	3756 Nov 10 00:22	0° Σ 32'19	
direct	3755 Dec 11 17:30	3° Σ 08'57			3756 Nov 10 15:10	30° Σ	
morning max el	3755 Dec 19 01:29	7° Σ 17'15	19°39'27	min. Earth dist.	3756 Nov 14 05:31	26° Π 04'12	0.66603 AU
greatest brilliancy	3756 Jan 01 04:48	24° Σ 39'27	-0.7m	inferior conj	3756 Nov 15 17:21	24° Π 13'26	-0°53'45
	3756 Jan 04 18:16	0° Σ		minimum elong	3756 Nov 15 18:48	24° Π 08'58	0°53'08
desc. node	3756 Jan 08 15:30	5° Σ 54'49		asc. node	3756 Nov 18 08:09	21° Π 08'44	
morning set	3756 Jan 13 08:40	13° Σ 09'50		morning rise	3756 Nov 21 13:42	18° Π 24'01	
	3756 Jan 24 03:34	0° \approx		direct	3756 Nov 24 16:05	17° Π 29'14	
max. Earth dist.	3756 Jan 25 13:27	2° \approx 14'06	1.44397 AU	morning max el	3756 Dec 01 10:36	21° Π 13'23	18°47'16
					3756 Dec 08 10:08	0° Σ	
superior conj	3756 Jan 30 00:10	9° \approx 20'25	-1°55'57	morning set	3756 Dec 22 21:38	22° Σ 18'23	
minimum elong	3756 Jan 29 17:35	8° \approx 53'57	1°55'33	desc. node	3756 Dec 25 12:32	26° Σ 25'49	
	3756 Feb 11 12:54	0° Υ			3756 Dec 27 19:03	0° Σ	
evening rise	3756 Feb 12 17:31	2° Υ 00'42		max. Earth dist.	3757 Jan 07 06:39	16° Σ 26'59	1.45153 AU
asc. node	3756 Feb 28 10:24	27° Υ 06'44					
	3756 Mar 01 21:03	0° Υ		superior conj	3757 Jan 08 06:59	18° Σ 02'35	-1°25'14
evening max el	3756 Mar 02 07:37	0° Υ 27'12	18°16'58	minimum elong	3757 Jan 07 21:50	17° Σ 26'36	1°24'16
retrograde	3756 Mar 08 18:07	3° Υ 54'13			3757 Jan 15 20:44	0° \approx	
evening set	3756 Mar 11 17:14	3° Υ 07'24		evening rise	3757 Jan 23 16:58	12° \approx 32'45	
	3756 Mar 15 15:25	30° Σ		greatest brilliancy	3757 Jan 29 14:31	22° \approx 03'24	-0.9m
inferior conj	3756 Mar 17 17:13	27° Υ 45'32	3°37'09		3757 Feb 03 14:21	0° Υ	

evening max el	3757 Feb 13 18:56	13° H 54'40	18°45'09	asc. node	3758 Feb 01 04:29	0° H 41'56	
asc. node	3757 Feb 14 07:27	14° H 25'37		retrograde	3758 Feb 04 08:06	1° H 35'02	
retrograde	3757 Feb 20 11:11	17° H 37'53		evening set	3758 Feb 07 20:39	0° H 22'21	
evening set	3757 Feb 23 16:32	16° H 38'33			3758 Feb 08 08:50	30° R \approx	
inferior conj	3757 Mar 01 08:55	10° H 59'01	3°32'56	inferior conj	3758 Feb 13 08:12	24° \approx 27'14	3°15'08
minimum elong	3757 Mar 01 07:45	11° H 02'36	3°32'50	minimum elong	3758 Feb 13 06:07	24° \approx 34'05	3°14'47
min. Earth dist.	3757 Mar 03 04:49	8° H 44'42	0.65299 AU	min. Earth dist.	3758 Feb 14 13:07	22° \approx 52'39	0.66571 AU
morning rise	3757 Mar 06 22:32	4° H 47'18		morning rise	3758 Feb 18 15:21	18° \approx 13'37	
direct	3757 Mar 13 13:57	1° H 56'20		direct	3758 Feb 24 19:45	15° \approx 28'42	
desc. node	3757 Mar 23 11:42	6° H 37'39		morning max el	3758 Mar 09 05:00	22° \approx 50'59	25°49'41
morning max el	3757 Mar 26 19:28	9° H 42'47	26°57'54	desc. node	3758 Mar 10 08:44	24° \approx 02'45	
	3757 Apr 11 18:14	0° Y			3758 Mar 15 12:40	0° H	
	3757 Apr 29 15:50	0° B			3758 Apr 05 01:49	0° Y	
morning set	3757 May 01 13:24	3° B 36'17		morning set	3758 Apr 14 10:15	16° Y 19'02	
max. Earth dist.	3757 May 05 23:26	12° B 18'39	1.34102 AU	max. Earth dist.	3758 Apr 18 06:10	23° Y 30'23	1.35694 AU
					3758 Apr 21 14:09	0° B	
superior conj	3757 May 10 00:03	20° B 35'21	-0°33'38				
minimum elong	3757 May 10 01:48	20° B 44'33	0°33'16	superior conj	3758 Apr 23 18:00	4° B 19'02	-1°02'33
asc. node	3757 May 13 06:45	27° B 29'51		minimum elong	3758 Apr 23 21:19	4° B 35'47	1°01'58
	3757 May 14 11:07	0° II		asc. node	3758 Apr 30 03:48	17° B 26'13	
evening rise	3757 May 17 09:58	6° II 13'04		evening rise	3758 May 01 16:40	20° B 35'14	
	3757 May 30 08:33	0° E			3758 May 06 10:12	0° II	
evening max el	3757 Jun 06 10:14	8° E 42'58	21°30'09	evening max el	3758 May 19 16:03	19° II 49'41	20°10'36
retrograde	3757 Jun 18 15:56	14° E 44'24		retrograde	3758 May 30 06:00	24° II 59'07	
desc. node	3757 Jun 19 10:58	14° E 42'56		evening set	3758 Jun 01 05:18	24° II 49'09	
evening set	3757 Jun 21 02:18	14° E 30'56		desc. node	3758 Jun 06 07:56	23° II 02'59	
inferior conj	3757 Jun 30 11:33	10° E 30'47	-3°06'57	inferior conj	3758 Jun 10 07:04	20° II 50'11	-1°10'21
minimum elong	3757 Jun 30 03:33	10° E 41'57	3°04'28	minimum elong	3758 Jun 10 03:46	20° II 55'05	1°09'07
min. Earth dist.	3757 Jun 30 11:30	10° E 30'51	0.54860 AU	min. Earth dist.	3758 Jun 11 23:51	19° II 49'44	0.55147 AU
morning rise	3757 Jul 09 05:42	6° E 36'12		morning rise	3758 Jun 19 00:46	16° II 32'57	
direct	3757 Jul 12 13:45	6° E 12'02		direct	3758 Jun 23 01:10	15° II 57'58	
morning max el	3757 Jul 24 23:57	12° E 03'54	22°08'10	morning max el	3758 Jul 06 16:02	22° II 37'56	23°50'46
	3757 Aug 07 03:59	0° O			3758 Jul 13 04:34	0° E	
asc. node	3757 Aug 09 06:01	3° O 47'32		asc. node	3758 Jul 27 03:03	23° E 14'41	
morning set	3757 Aug 15 09:35	16° O 03'40			3758 Jul 30 10:08	0° O	
	3757 Aug 21 23:23	0° P		morning set	3758 Jul 30 21:10	0° O 58'06	
superior conj	3757 Aug 22 13:58	1° P 16'59	1°41'10	superior conj	3758 Aug 06 21:07	16° O 03'12	1°31'50
minimum elong	3757 Aug 22 12:44	1° P 10'27	1°41'05	minimum elong	3758 Aug 06 19:05	15° O 52'11	1°31'37
max. Earth dist.	3757 Aug 26 01:52	8° P 33'20	1.34480 AU	max. Earth dist.	3758 Aug 09 01:55	20° O 46'40	1.33262 AU
evening rise	3757 Aug 30 15:23	17° P 39'26			3758 Aug 13 12:01	0° P	
	3757 Sep 06 07:21	0° A		evening rise	3758 Aug 14 08:06	1° P 41'36	
desc. node	3757 Sep 15 10:19	15° A 03'12			3758 Aug 30 04:56	0° A	
	3757 Sep 26 01:55	0° M		desc. node	3758 Sep 02 07:19	4° A 40'57	
evening max el	3757 Oct 04 14:48	9° M 33'50	27°00'04	evening max el	3758 Sep 17 02:20	22° A 51'12	27°24'53
retrograde	3757 Oct 17 20:01	16° M 50'27			3758 Sep 28 22:21	0° M	
evening set	3757 Oct 24 14:49	14° M 09'03		retrograde	3758 Sep 30 16:23	0° M 08'53	
min. Earth dist.	3757 Oct 28 13:18	10° M 16'58	0.65450 AU		3758 Oct 02 09:27	30° R A	
inferior conj	3757 Oct 30 13:04	8° M 00'34	-1°54'14	evening set	3758 Oct 07 19:22	27° A 29'43	
minimum elong	3757 Oct 30 16:16	7° M 51'27	1°52'56	min. Earth dist.	3758 Oct 11 12:14	24° A 11'42	0.63946 AU
asc. node	3757 Nov 05 05:13	2° M 41'38		inferior conj	3758 Oct 14 00:22	21° A 36'02	-2°55'09
morning rise	3757 Nov 05 18:33	2° M 23'36		minimum elong	3758 Oct 14 05:13	21° A 23'27	2°53'26
direct	3757 Nov 08 12:39	1° M 42'24		morning rise	3758 Oct 20 16:22	16° A 14'49	
morning max el	3757 Nov 15 00:49	5° M 12'35	18°11'32	direct	3758 Oct 23 04:33	15° A 43'33	
	3757 Dec 01 20:53	0° X		asc. node	3758 Oct 23 02:14	15° A 43'36	
morning set	3757 Dec 03 15:33	2° X 54'41		morning max el	3758 Oct 29 17:22	19° A 08'47	17°53'00
desc. node	3757 Dec 12 09:34	17° X 05'48			3758 Nov 06 17:29	0° M	
				morning set	3758 Nov 15 12:54	14° M 51'07	
superior conj	3757 Dec 18 10:27	26° X 41'57	-0°40'27		3758 Nov 24 11:41	0° X	
minimum elong	3757 Dec 18 05:20	26° X 21'46	0°39'45				
	3757 Dec 20 12:42	0° Z		superior conj	3758 Nov 28 06:52	6° X 15'04	0°06'50
max. Earth dist.	3757 Dec 21 02:19	0° Z 53'34	1.45170 AU	minimum elong	3758 Nov 28 07:38	6° X 18'10	0°06'43
evening rise	3758 Jan 03 18:07	22° Z 12'55		behind sun begin	3758 Nov 27 22:32	5° X 41'00	
	3758 Jan 08 18:22	0° \approx		behind sun end	3758 Nov 28 16:44	6° X 55'15	
greatest brilliancy	3758 Jan 15 23:36	11° \approx 05'28	-0.7m	desc. node	3758 Nov 29 06:36	7° X 51'34	
evening max el	3758 Jan 28 02:32	27° \approx 25'08	19°30'14	max. Earth dist.	3758 Dec 03 20:46	15° X 13'56	1.44456 AU
	3758 Jan 31 01:29	0° H			3758 Dec 13 07:19	0° Z	

evening rise	3758 Dec 14 05:07	1°♄23'58		desc. node	3759 Nov 16 03:39	28°♄39'05	
	3759 Jan 02 10:35	0°♄		max. Earth dist.	3759 Nov 16 11:07	29°♄09'33	1.43101 AU
evening max el	3759 Jan 11 04:58	10°♄56'55	20°30'06		3759 Nov 16 23:31	0°♄	
retrograde	3759 Jan 19 06:16	15°♄41'34		evening rise	3759 Nov 23 17:07	10°♄43'21	
asc. node	3759 Jan 19 01:29	15°♄41'20			3759 Dec 06 10:56	0°♄	
evening set	3759 Jan 23 03:27	14°♄14'31		evening max el	3759 Dec 25 01:55	24°♄30'03	21°41'39
inferior conj	3759 Jan 28 12:28	8°♄06'35	2°46'46	retrograde	3760 Jan 03 03:38	29°♄53'43	
minimum elong	3759 Jan 28 09:59	8°♄15'03	2°46'07	asc. node	3760 Jan 05 22:30	29°♄11'39	
min. Earth dist.	3759 Jan 29 03:54	7°♄13'53	0.67429 AU	evening set	3760 Jan 07 11:11	28°♄11'19	
morning rise	3759 Feb 02 16:19	1°♄52'53		inferior conj	3760 Jan 12 19:28	21°♄53'50	2°09'48
	3759 Feb 05 11:05	30°♄		minimum elong	3760 Jan 12 17:05	22°♄02'06	2°09'01
direct	3759 Feb 08 06:54	29°♄23'17		min. Earth dist.	3760 Jan 12 22:53	21°♄42'01	0.67887 AU
	3759 Feb 11 07:34	0°♄		morning rise	3760 Jan 17 22:49	15°♄41'51	
morning max el	3759 Feb 19 13:39	6°♄07'37	24°25'53	direct	3760 Jan 22 22:40	13°♄33'02	
desc. node	3759 Feb 25 05:47	12°♄30'20		morning max el	3760 Feb 01 23:09	19°♄29'33	22°56'51
	3759 Mar 10 01:47	0°♄			3760 Feb 10 19:56	0°♄	
morning set	3759 Mar 27 11:38	28°♄01'52		desc. node	3760 Feb 12 02:50	1°♄42'39	
	3759 Mar 28 14:31	0°♄			3760 Mar 02 06:17	0°♄	
max. Earth dist.	3759 Mar 31 03:36	4°♄33'12	1.37666 AU	morning set	3760 Mar 07 11:27	8°♄29'00	
				max. Earth dist.	3760 Mar 11 22:36	16°♄01'39	1.39837 AU
superior conj	3759 Apr 07 00:47	17°♄26'04	-1°29'44	superior conj	3760 Mar 19 16:20	29°♄46'32	-1°52'10
minimum elong	3759 Apr 07 05:17	17°♄47'44	1°29'08	minimum elong	3760 Mar 19 20:48	0°♄07'01	1°51'47
	3759 Apr 13 10:07	0°♄			3760 Mar 19 19:16	0°♄	
evening rise	3759 Apr 15 17:20	4°♄34'28		evening rise	3760 Mar 29 09:01	18°♄03'09	
asc. node	3759 Apr 17 00:49	7°♄09'59		asc. node	3760 Apr 02 21:50	26°♄36'08	
	3759 Apr 30 20:40	0°♄			3760 Apr 04 18:50	0°♄	
evening max el	3759 May 02 09:54	1°♄37'58	19°10'11	evening max el	3760 Apr 14 13:23	14°♄03'36	18°30'01
retrograde	3759 May 11 07:49	5°♄58'17		retrograde	3760 Apr 22 03:57	17°♄48'33	
evening set	3759 May 13 08:53	5°♄45'32		evening set	3760 Apr 24 11:29	17°♄28'51	
inferior conj	3759 May 21 16:55	1°♄34'29	0°43'22	inferior conj	3760 May 01 23:45	12°♄58'47	2°10'15
minimum elong	3759 May 21 18:40	1°♄31'32	0°42'46	minimum elong	3760 May 02 03:27	12°♄51'27	2°09'12
desc. node	3759 May 24 04:57	29°♄52'55		min. Earth dist.	3760 May 05 09:57	10°♄17'14	0.58196 AU
	3759 May 24 00:41	30°♄		morning rise	3760 May 09 16:16	7°♄33'45	
min. Earth dist.	3759 May 24 14:58	29°♄36'27	0.56342 AU	desc. node	3760 May 10 01:59	7°♄22'00	
morning rise	3759 May 30 01:18	26°♄42'12		direct	3760 May 15 14:38	6°♄03'15	
direct	3759 Jun 04 00:36	25°♄44'42		morning max el	3760 May 29 23:55	13°♄43'58	26°50'22
	3759 Jun 14 17:34	0°♄			3760 Jun 11 22:13	0°♄	
morning max el	3759 Jun 18 06:14	3°♄02'13	25°30'05		3760 Jun 28 11:23	0°♄	
	3759 Jul 07 08:50	0°♄		morning set	3760 Jun 28 18:43	0°♄38'28	
asc. node	3759 Jul 14 00:04	13°♄00'08		asc. node	3760 Jun 29 21:07	2°♄58'15	
morning set	3759 Jul 15 08:44	15°♄51'21					
	3759 Jul 21 21:03	0°♄		superior conj	3760 Jul 05 19:17	15°♄53'19	0°58'42
superior conj	3759 Jul 22 07:31	0°♄57'22	1°17'27	minimum elong	3760 Jul 05 17:06	15°♄41'20	0°58'19
minimum elong	3759 Jul 22 05:10	0°♄44'31	1°17'06	max. Earth dist.	3760 Jul 05 20:05	15°♄57'47	1.32082 AU
max. Earth dist.	3759 Jul 23 08:59	3°♄16'51	1.32465 AU		3760 Jul 12 06:56	0°♄	
evening rise	3759 Jul 29 09:15	16°♄07'21		evening rise	3760 Jul 12 16:09	0°♄48'40	
	3759 Aug 05 10:59	0°♄			3760 Jul 28 13:17	0°♄	
desc. node	3759 Aug 20 04:19	23°♄39'40		desc. node	3760 Aug 06 01:19	11°♄43'28	
	3759 Aug 25 04:06	0°♄		evening max el	3760 Aug 11 13:24	17°♄40'08	26°40'22
evening max el	3759 Aug 30 10:39	5°♄36'53	27°19'18	retrograde	3760 Aug 25 12:09	24°♄50'56	
retrograde	3759 Sep 13 06:15	12°♄51'54		evening set	3760 Sep 01 07:28	22°♄53'10	
evening set	3759 Sep 20 10:26	10°♄26'53		min. Earth dist.	3760 Sep 05 03:17	20°♄16'46	0.60100 AU
min. Earth dist.	3759 Sep 24 00:55	7°♄36'08	0.62126 AU	inferior conj	3760 Sep 08 09:21	17°♄39'16	-4°40'24
inferior conj	3759 Sep 27 00:15	4°♄51'44	-3°52'43	minimum elong	3760 Sep 08 14:32	17°♄28'46	4°39'31
minimum elong	3759 Sep 27 06:06	4°♄38'13	3°51'07	morning rise	3760 Sep 15 23:38	12°♄58'35	
	3759 Oct 03 16:09	30°♄		direct	3760 Sep 18 08:37	12°♄37'36	
morning rise	3759 Oct 04 03:29	29°♄49'27		asc. node	3760 Sep 25 20:19	16°♄17'03	
direct	3759 Oct 06 12:31	29°♄24'46		morning max el	3760 Sep 25 20:52	16°♄18'23	18°11'06
	3759 Oct 09 07:29	0°♄			3760 Oct 05 11:38	0°♄	
asc. node	3759 Oct 09 23:16	0°♄18'31		morning set	3760 Oct 11 16:57	11°♄26'50	
morning max el	3759 Oct 13 09:07	2°♄53'29	17°52'26				
morning set	3759 Oct 29 07:20	27°♄47'27		superior conj	3760 Oct 21 05:27	29°♄08'28	1°16'18
	3759 Oct 30 12:47	0°♄		minimum elong	3760 Oct 21 09:28	29°♄26'34	1°15'51
					3760 Oct 21 16:53	0°♄	
superior conj	3759 Nov 09 05:34	17°♄05'12	0°47'02	max. Earth dist.	3760 Oct 28 20:29	12°♄28'36	1.41280 AU
minimum elong	3759 Nov 09 09:26	17°♄21'41	0°46'30	desc. node	3760 Nov 02 00:40	19°♄25'01	

evening rise	3760 Nov 02 21:09	20° \mathbb{M} 48'27		minimum elong	3761 Oct 04 04:08	12° \mathbb{Q} 23'46	1°34'23
	3760 Nov 08 16:11	0° \mathbb{A}		max. Earth dist.	3761 Oct 11 01:57	25° \mathbb{Q} 06'20	1.39217 AU
	3760 Nov 29 17:10	0° \mathbb{B}			3761 Oct 13 21:00	0° \mathbb{M}	
evening max el	3760 Dec 06 18:12	8° \mathbb{B} 05'43	23°00'13	evening rise	3761 Oct 15 00:14	1° \mathbb{M} 56'52	
retrograde	3760 Dec 16 22:32	14° \mathbb{B} 07'53		desc. node	3761 Oct 19 21:41	10° \mathbb{M} 05'55	
evening set	3760 Dec 21 18:12	12° \mathbb{B} 09'18			3761 Nov 01 22:44	0° \mathbb{A}	
asc. node	3760 Dec 22 19:33	11° \mathbb{B} 10'49		evening max el	3761 Nov 19 07:36	21° \mathbb{A} 45'13	24°19'49
inferior conj	3760 Dec 27 03:17	5° \mathbb{B} 46'00	1°25'36	retrograde	3761 Nov 30 13:48	28° \mathbb{A} 20'45	
minimum elong	3760 Dec 27 01:28	5° \mathbb{B} 52'17	1°24'53	evening set	3761 Dec 05 22:56	26° \mathbb{A} 06'05	
min. Earth dist.	3760 Dec 26 19:34	6° \mathbb{B} 12'36	0.67978 AU	asc. node	3761 Dec 09 16:36	21° \mathbb{A} 59'07	
	3760 Dec 31 22:06	30° \mathbb{R} \mathbb{A}		min. Earth dist.	3761 Dec 10 15:39	20° \mathbb{A} 43'02	0.67716 AU
morning rise	3761 Jan 01 08:37	29° \mathbb{A} 37'35		inferior conj	3761 Dec 11 10:08	19° \mathbb{A} 40'59	0°35'17
direct	3761 Jan 05 17:59	27° \mathbb{A} 51'37		minimum elong	3761 Dec 11 09:18	19° \mathbb{A} 43'48	0°34'55
	3761 Jan 11 03:13	0° \mathbb{B}		morning rise	3761 Dec 16 19:43	13° \mathbb{A} 38'13	
morning max el	3761 Jan 14 13:04	2° \mathbb{B} 59'20	21°31'34	direct	3761 Dec 20 15:40	12° \mathbb{A} 14'25	
desc. node	3761 Jan 28 23:53	21° \mathbb{B} 26'43		morning max el	3761 Dec 28 10:24	16° \mathbb{A} 40'55	20°16'33
	3761 Feb 03 20:17	0° \approx			3762 Jan 07 23:35	0° \mathbb{B}	
morning set	3761 Feb 15 06:18	17° \approx 33'33		desc. node	3762 Jan 15 20:57	11° \mathbb{B} 33'57	
max. Earth dist.	3761 Feb 21 22:45	28° \approx 22'41	1.41932 AU	morning set	3762 Jan 25 04:35	25° \mathbb{B} 45'50	
	3761 Feb 22 22:15	0° \mathbb{H}			3762 Jan 27 22:02	0° \approx	
				max. Earth dist.	3762 Feb 04 07:01	11° \approx 39'45	1.43661 AU
superior conj	3761 Mar 01 11:33	11° \mathbb{H} 07'56	-2°05'37				
minimum elong	3761 Mar 01 13:39	11° \mathbb{H} 17'04	2°05'34	superior conj	3762 Feb 10 05:53	21° \approx 20'42	-2°04'48
evening rise	3761 Mar 12 12:00	0° \mathbb{Y} 51'58		minimum elong	3762 Feb 10 02:45	21° \approx 07'44	2°04'43
	3761 Mar 12 00:37	0° \mathbb{Y}			3762 Feb 15 10:12	0° \mathbb{H}	
asc. node	3761 Mar 20 18:52	15° \mathbb{Y} 37'52		evening rise	3762 Feb 22 22:02	12° \mathbb{H} 52'45	
evening max el	3761 Mar 28 23:00	26° \mathbb{Y} 56'28	18°09'43		3762 Mar 04 23:11	0° \mathbb{Y}	
	3761 Apr 02 12:28	0° \mathbb{B}		asc. node	3762 Mar 07 15:54	4° \mathbb{Y} 07'42	
retrograde	3761 Apr 04 18:08	0° \mathbb{B} 22'45		evening max el	3762 Mar 12 11:27	10° \mathbb{Y} 07'57	18°08'48
evening set	3761 Apr 07 08:10	29° \mathbb{Y} 53'28		retrograde	3762 Mar 18 22:20	13° \mathbb{Y} 30'59	
	3761 Apr 07 00:42	30° \mathbb{R} \mathbb{Y}		evening set	3762 Mar 21 18:10	12° \mathbb{Y} 50'47	
inferior conj	3761 Apr 14 03:14	25° \mathbb{Y} 02'24	3°04'53	inferior conj	3762 Mar 27 23:59	7° \mathbb{Y} 39'27	3°31'42
minimum elong	3761 Apr 14 06:15	24° \mathbb{Y} 55'25	3°04'18	minimum elong	3762 Mar 28 01:17	7° \mathbb{Y} 36'00	3°31'36
min. Earth dist.	3761 Apr 17 10:44	22° \mathbb{Y} 00'33	0.60358 AU	min. Earth dist.	3762 Mar 30 19:56	4° \mathbb{Y} 41'48	0.62494 AU
morning rise	3761 Apr 21 02:07	19° \mathbb{Y} 14'05		morning rise	3762 Apr 03 07:08	1° \mathbb{Y} 37'03	
desc. node	3761 Apr 26 23:02	17° \mathbb{Y} 10'05			3762 Apr 05 23:47	30° \mathbb{R} \mathbb{H}	
direct	3761 Apr 27 16:41	17° \mathbb{Y} 08'34		direct	3762 Apr 10 04:20	29° \mathbb{H} 03'40	
morning max el	3761 May 11 23:42	25° \mathbb{Y} 01'33	27°39'17	desc. node	3762 Apr 13 20:06	29° \mathbb{H} 42'29	
	3761 May 16 13:14	0° \mathbb{B}			3762 Apr 14 14:45	0° \mathbb{Y}	
	3761 Jun 05 06:41	0° \mathbb{II}		morning max el	3762 Apr 24 05:27	7° \mathbb{Y} 01'44	27°50'54
morning set	3761 Jun 13 01:19	15° \mathbb{II} 12'59			3762 May 11 17:27	0° \mathbb{B}	
asc. node	3761 Jun 16 18:10	23° \mathbb{II} 03'25		morning set	3762 May 28 02:30	29° \mathbb{B} 28'36	
max. Earth dist.	3761 Jun 19 07:30	28° \mathbb{II} 37'21	1.32101 AU		3762 May 28 08:42	0° \mathbb{II}	
	3761 Jun 19 22:34	0° \mathbb{E}		max. Earth dist.	3762 Jun 02 15:21	11° \mathbb{II} 02'54	1.32528 AU
				asc. node	3762 Jun 03 15:13	13° \mathbb{II} 11'25	
superior conj	3761 Jun 20 06:39	0° \mathbb{E} 44'25	0°36'16				
minimum elong	3761 Jun 20 05:06	0° \mathbb{E} 35'55	0°35'57	superior conj	3762 Jun 04 15:52	15° \mathbb{II} 24'59	0°10'46
evening rise	3761 Jun 27 02:29	15° \mathbb{E} 37'21		minimum elong	3762 Jun 04 15:21	15° \mathbb{II} 22'13	0°10'39
	3761 Jul 04 06:01	0° \mathbb{Q}		behind sun begin	3762 Jun 04 11:28	15° \mathbb{II} 01'08	
desc. node	3761 Jul 23 22:19	28° \mathbb{Q} 29'55		behind sun end	3762 Jun 04 19:15	15° \mathbb{II} 43'19	
evening max el	3761 Jul 24 08:49	28° \mathbb{Q} 55'18	25°30'30		3762 Jun 11 09:15	0° \mathbb{E}	
	3761 Jul 25 12:54	0° \mathbb{M}		evening rise	3762 Jun 11 14:17	0° \mathbb{E} 26'48	
retrograde	3761 Aug 07 08:11	6° \mathbb{M} 01'16			3762 Jun 27 23:02	0° \mathbb{Q}	
evening set	3761 Aug 13 05:46	4° \mathbb{M} 40'11		evening max el	3762 Jul 05 22:25	9° \mathbb{Q} 31'07	23°59'29
min. Earth dist.	3761 Aug 17 20:48	2° \mathbb{M} 00'43	0.58056 AU	desc. node	3762 Jul 10 19:20	13° \mathbb{Q} 28'40	
	3761 Aug 20 17:55	30° \mathbb{R} \mathbb{Q}		retrograde	3762 Jul 19 16:33	16° \mathbb{Q} 26'30	
inferior conj	3761 Aug 21 00:12	29° \mathbb{Q} 48'55	-5°07'29	evening set	3762 Jul 24 04:27	15° \mathbb{Q} 41'49	
minimum elong	3761 Aug 21 01:57	29° \mathbb{Q} 45'51	5°07'24	min. Earth dist.	3762 Jul 30 08:48	12° \mathbb{Q} 41'48	0.56285 AU
morning rise	3761 Aug 29 00:24	25° \mathbb{Q} 31'09		inferior conj	3762 Aug 01 18:46	11° \mathbb{Q} 12'56	-4°58'58
direct	3761 Aug 31 12:40	25° \mathbb{Q} 11'39		minimum elong	3762 Aug 01 14:38	11° \mathbb{Q} 19'19	4°58'32
morning max el	3761 Sep 09 01:20	29° \mathbb{Q} 14'26	18°50'30	morning rise	3762 Aug 10 03:26	7° \mathbb{Q} 14'53	
	3761 Sep 09 19:47	0° \mathbb{M}		direct	3762 Aug 12 21:16	6° \mathbb{Q} 55'27	
asc. node	3761 Sep 12 17:24	3° \mathbb{M} 24'28		morning max el	3762 Aug 22 19:36	11° \mathbb{Q} 32'15	19°51'36
morning set	3761 Sep 25 13:12	25° \mathbb{M} 36'53		asc. node	3762 Aug 30 14:28	21° \mathbb{Q} 25'39	
	3761 Sep 27 18:47	0° \mathbb{E}			3762 Sep 04 12:47	0° \mathbb{M}	
				morning set	3762 Sep 09 16:40	10° \mathbb{M} 07'37	
superior conj	3761 Oct 04 01:28	12° \mathbb{Q} 11'05	1°34'35				

































































































































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minimum elong	3762 Sep 17 13:11	26° \mathbb{M} 02'13	1°43'13	minimum elong	3763 Sep 01 08:54	10° \mathbb{M} 12'18	1°43'52
	3762 Sep 19 13:23	0° \mathbb{L}		max. Earth dist.	3763 Sep 05 16:56	19° \mathbb{M} 00'48	1.35357 AU
max. Earth dist.	3762 Sep 23 06:56	7° \mathbb{L} 09'32	1.37168 AU	evening rise	3763 Sep 09 21:55	27° \mathbb{M} 10'35	
evening rise	3762 Sep 27 01:44	14° \mathbb{L} 07'09			3763 Sep 11 10:08	0° \mathbb{L}	
	3762 Oct 06 09:28	0° \mathbb{M}		desc. node	3763 Sep 23 15:42	20° \mathbb{L} 53'21	
desc. node	3762 Oct 06 18:41	0° \mathbb{M} 37'03			3763 Sep 29 17:29	0° \mathbb{M}	
	3762 Oct 27 18:20	0° \mathbb{J}		evening max el	3763 Oct 15 08:11	19° \mathbb{M} 06'16	26°34'07
evening max el	3762 Nov 01 19:50	5° \mathbb{J} 26'40	25°33'36	retrograde	3763 Oct 28 06:24	26° \mathbb{M} 20'26	
retrograde	3762 Nov 14 00:38	12° \mathbb{J} 26'53		evening set	3763 Nov 03 18:34	23° \mathbb{M} 41'36	
evening set	3762 Nov 19 23:42	9° \mathbb{J} 57'58		min. Earth dist.	3763 Nov 07 20:41	19° \mathbb{M} 28'56	0.66154 AU
min. Earth dist.	3762 Nov 24 08:46	5° \mathbb{J} 09'42	0.67108 AU	inferior conj	3763 Nov 09 13:36	17° \mathbb{M} 26'20	-1°19'13
inferior conj	3762 Nov 25 14:13	3° \mathbb{J} 35'24	-0°20'07	minimum elong	3763 Nov 09 15:47	17° \mathbb{M} 19'49	1°18'17
minimum elong	3762 Nov 25 14:44	3° \mathbb{J} 33'44	0°19'52	asc. node	3763 Nov 13 10:43	13° \mathbb{M} 14'01	
asc. node	3762 Nov 26 13:40	2° \mathbb{J} 21'00		morning rise	3763 Nov 15 13:40	11° \mathbb{M} 41'59	
	3762 Nov 28 13:49	30° \mathbb{R} \mathbb{M}		direct	3763 Nov 18 12:07	10° \mathbb{M} 53'37	
morning rise	3762 Dec 01 06:07	27° \mathbb{M} 40'35		morning max el	3763 Nov 25 03:16	14° \mathbb{M} 30'55	18°30'00
direct	3762 Dec 04 14:16	26° \mathbb{M} 36'21			3763 Dec 06 11:01	0° \mathbb{J}	
	3762 Dec 11 02:10	0° \mathbb{J}		morning set	3763 Dec 15 05:56	13° \mathbb{J} 58'06	
morning max el	3762 Dec 11 15:39	0° \mathbb{J} 32'50	19°15'24	desc. node	3763 Dec 20 14:58	22° \mathbb{J} 32'03	
greatest brilliancy	3762 Dec 25 08:29	19° \mathbb{J} 02'36	-0.7m		3763 Dec 25 08:15	0° \mathbb{Z}	
	3763 Jan 01 11:41	0° \mathbb{Z}		superior conj	3763 Dec 31 01:42	9° \mathbb{Z} 00'14	-1°07'20
desc. node	3763 Jan 02 17:58	1° \mathbb{Z} 57'16		minimum elong	3763 Dec 30 17:37	8° \mathbb{Z} 28'28	1°06'21
morning set	3763 Jan 04 05:18	4° \mathbb{Z} 14'18		max. Earth dist.	3763 Dec 31 15:41	9° \mathbb{Z} 55'01	1.45246 AU
max. Earth dist.	3763 Jan 17 21:38	25° \mathbb{Z} 36'39	1.44804 AU		3764 Jan 13 10:18	0° \mathbb{Z}	
				evening rise	3764 Jan 16 00:16	4° \mathbb{Z} 05'05	
superior conj	3763 Jan 20 23:02	0° \mathbb{Z} 27'07	-1°45'11	greatest brilliancy	3764 Jan 25 10:47	19° \mathbb{Z} 00'09	-0.8m
minimum elong	3763 Jan 20 14:34	29° \mathbb{Z} 53'32	1°44'30		3764 Feb 01 18:31	0° \mathbb{H}	
	3763 Jan 20 16:12	0° \mathbb{Z}		evening max el	3764 Feb 07 09:40	6° \mathbb{H} 59'01	19°02'25
evening rise	3763 Feb 04 10:51	23° \mathbb{Z} 57'34		asc. node	3764 Feb 09 09:58	8° \mathbb{H} 49'16	
	3763 Feb 08 02:23	0° \mathbb{H}		retrograde	3764 Feb 14 06:56	10° \mathbb{H} 52'48	
asc. node	3763 Feb 22 12:56	21° \mathbb{H} 55'38		evening set	3764 Feb 17 15:05	9° \mathbb{H} 48'06	
evening max el	3763 Feb 23 23:48	23° \mathbb{H} 30'37	18°26'43	inferior conj	3764 Feb 23 05:07	4° \mathbb{H} 01'45	3°26'51
retrograde	3763 Mar 02 11:53	27° \mathbb{H} 03'30		minimum elong	3764 Feb 23 03:29	4° \mathbb{H} 06'54	3°26'39
evening set	3763 Mar 05 13:29	26° \mathbb{H} 11'31		min. Earth dist.	3764 Feb 24 18:34	2° \mathbb{H} 03'25	0.65885 AU
inferior conj	3763 Mar 11 09:51	20° \mathbb{H} 41'42	3°37'15		3764 Feb 26 11:51	30° \mathbb{R} \mathbb{Z}	
minimum elong	3763 Mar 11 09:28	20° \mathbb{H} 42'49	3°37'15	morning rise	3764 Feb 28 15:32	27° \mathbb{Z} 48'44	
min. Earth dist.	3763 Mar 13 14:44	18° \mathbb{H} 07'39	0.64373 AU	direct	3764 Mar 06 02:43	24° \mathbb{Z} 58'41	
morning rise	3763 Mar 17 04:45	14° \mathbb{H} 31'54			3764 Mar 16 05:53	0° \mathbb{H}	
direct	3763 Mar 24 00:08	11° \mathbb{H} 43'17		desc. node	3764 Mar 17 14:10	1° \mathbb{H} 13'20	
desc. node	3763 Mar 31 17:09	14° \mathbb{H} 35'17		morning max el	3764 Mar 19 00:40	2° \mathbb{H} 37'34	26°31'26
morning max el	3763 Apr 06 14:47	19° \mathbb{H} 38'11	27°26'19		3764 Apr 08 16:27	0° \mathbb{Y}	
	3763 Apr 15 11:04	0° \mathbb{Y}		morning set	3764 Apr 24 01:10	26° \mathbb{Y} 27'55	
	3763 May 04 17:31	0° \mathbb{B}			3764 Apr 25 21:39	0° \mathbb{B}	
morning set	3763 May 11 19:39	13° \mathbb{B} 17'24		max. Earth dist.	3764 Apr 28 04:34	4° \mathbb{B} 27'54	1.34718 AU
max. Earth dist.	3763 May 16 15:31	23° \mathbb{B} 02'14	1.33390 AU				
				superior conj	3764 May 02 19:52	13° \mathbb{B} 50'03	-0°45'57
superior conj	3763 May 19 21:03	29° \mathbb{B} 49'24	-0°17'00	minimum elong	3764 May 02 22:18	14° \mathbb{B} 02'36	0°45'29
minimum elong	3763 May 19 21:55	29° \mathbb{B} 54'00	0°16'50	asc. node	3764 May 07 09:16	23° \mathbb{B} 19'44	
	3763 May 19 23:03	0° \mathbb{I}		evening rise	3764 May 10 10:40	29° \mathbb{B} 42'41	
asc. node	3763 May 21 12:15	3° \mathbb{I} 18'27			3764 May 10 14:01	0° \mathbb{I}	
evening rise	3763 May 27 01:41	15° \mathbb{I} 10'58			3764 May 28 19:11	0° \mathbb{G}	
	3763 Jun 03 12:26	0° \mathbb{G}		evening max el	3764 May 29 12:00	0° \mathbb{G} 42'13	20°54'15
evening max el	3763 Jun 17 12:54	19° \mathbb{G} 56'15	22°22'43	retrograde	3764 Jun 10 01:57	6° \mathbb{G} 22'07	
desc. node	3763 Jun 27 16:21	26° \mathbb{G} 04'56		evening set	3764 Jun 12 05:13	6° \mathbb{G} 11'17	
retrograde	3763 Jun 30 13:05	26° \mathbb{G} 23'51		desc. node	3764 Jun 13 13:23	5° \mathbb{G} 54'01	
evening set	3763 Jul 03 13:41	26° \mathbb{G} 03'37		inferior conj	3764 Jun 21 13:10	2° \mathbb{G} 13'53	-2°19'26
min. Earth dist.	3763 Jul 11 19:37	22° \mathbb{G} 29'19	0.55128 AU	minimum elong	3764 Jun 21 06:44	2° \mathbb{G} 23'00	2°17'13
inferior conj	3763 Jul 12 19:49	21° \mathbb{G} 55'04	-4°01'44	min. Earth dist.	3764 Jun 22 07:22	1° \mathbb{G} 48'03	0.54862 AU
minimum elong	3763 Jul 12 11:30	22° \mathbb{G} 06'51	3°59'42		3764 Jun 25 15:25	30° \mathbb{R} \mathbb{I}	
morning rise	3763 Jul 21 11:19	18° \mathbb{G} 04'29		morning rise	3764 Jun 30 08:02	28° \mathbb{I} 11'28	
direct	3763 Jul 24 12:41	17° \mathbb{G} 43'22		direct	3764 Jul 03 22:00	27° \mathbb{I} 43'49	
morning max el	3763 Aug 05 02:11	23° \mathbb{G} 06'19	21°13'23		3764 Jul 11 16:56	0° \mathbb{G}	
	3763 Aug 11 01:54	0° \mathbb{Q}		morning max el	3764 Jul 16 22:14	3° \mathbb{G} 57'42	22°51'04
asc. node	3763 Aug 17 11:30	10° \mathbb{Q} 08'11		asc. node	3764 Aug 03 08:32	29° \mathbb{G} 21'02	
morning set	3763 Aug 25 00:50	24° \mathbb{Q} 52'17			3764 Aug 03 16:35	0° \mathbb{Q}	
	3763 Aug 27 11:49	0° \mathbb{M}					

morning set	3764 Aug 08 11:38	9°Ω44'07		morning set	3765 Jul 23 23:25	24°Ω38'16	
					3765 Jul 26 11:29	0°Ω	
superior conj	3764 Aug 15 13:45	24°Ω53'00	1°37'52	superior conj	3765 Jul 30 22:31	9°Ω43'00	1°26'18
minimum elong	3764 Aug 15 12:06	24°Ω44'16	1°37'45	minimum elong	3765 Jul 30 20:17	9°Ω30'52	1°26'02
	3764 Aug 17 23:47	0°Π		max. Earth dist.	3765 Aug 01 15:09	13°Ω23'19	1.32883 AU
max. Earth dist.	3764 Aug 18 11:40	1°Π02'07	1.33914 AU	evening rise	3765 Aug 07 05:00	25°Ω07'40	
evening rise	3764 Aug 23 08:17	10°Π54'24			3765 Aug 09 15:22	0°Π	
	3764 Sep 02 18:48	0°Ω		desc. node	3765 Aug 27 09:43	0°Ω09'50	
desc. node	3764 Sep 09 12:43	10°Ω47'26			3765 Aug 27 06:58	0°Ω	
	3764 Sep 24 06:56	0°Π		evening max el	3765 Sep 09 07:20	15°Ω41'33	27°26'31
evening max el	3764 Sep 26 20:36	2°Π35'30	27°14'02	retrograde	3765 Sep 23 00:00	22°Ω57'32	
retrograde	3764 Oct 10 06:28	9°Π53'38		evening set	3765 Sep 30 04:27	20°Ω23'12	
evening set	3764 Oct 17 05:10	7°Π12'07		min. Earth dist.	3765 Oct 03 19:55	17°Ω17'39	0.63207 AU
min. Earth dist.	3764 Oct 21 01:05	3°Π34'42	0.64848 AU	inferior conj	3765 Oct 06 12:55	14°Ω37'05	-3°20'18
inferior conj	3764 Oct 23 06:04	1°Π09'06	-2°20'13	minimum elong	3765 Oct 06 18:19	14°Ω23'43	3°18'34
minimum elong	3764 Oct 23 10:00	0°Π58'18	2°18'42	morning rise	3765 Oct 13 09:37	9°Ω23'12	
	3764 Oct 24 07:28	30°RΩ		direct	3765 Oct 15 20:09	8°Ω55'00	
morning rise	3764 Oct 29 15:53	25°Ω38'16		asc. node	3765 Oct 17 04:47	9°Ω03'58	
asc. node	3764 Oct 30 07:45	25°Ω22'21		morning max el	3765 Oct 22 11:18	12°Ω20'44	17°50'27
direct	3764 Nov 01 07:03	25°Ω01'48			3765 Nov 03 11:07	0°Π	
morning max el	3764 Nov 07 18:47	28°Ω29'12	18°01'26	morning set	3765 Nov 07 19:20	7°Π34'43	
	3764 Nov 09 04:31	0°Π					
morning set	3764 Nov 25 12:10	25°Π10'22		superior conj	3765 Nov 19 17:31	28°Π01'08	0°25'07
	3764 Nov 28 09:47	0°♂		minimum elong	3765 Nov 19 20:01	28°Π11'32	0°24'45
desc. node	3764 Dec 06 12:00	13°♂14'37			3765 Nov 20 22:13	0°♂	
				desc. node	3765 Nov 23 09:02	4°♂01'07	
superior conj	3764 Dec 09 10:22	17°♂56'57	-0°20'00	max. Earth dist.	3765 Nov 26 04:08	8°♂32'24	1.43952 AU
minimum elong	3764 Dec 09 07:54	17°♂47'06	0°19'40	evening rise	3765 Dec 05 03:14	22°♂37'59	
max. Earth dist.	3764 Dec 13 10:45	24°♂19'21	1.44949 AU		3765 Dec 09 22:49	0°♂	
	3764 Dec 17 01:31	0°♂			3765 Dec 31 01:23	0°≈	
evening rise	3764 Dec 25 17:50	13°♂28'26		evening max el	3766 Jan 03 15:26	4°≈02'44	20°59'26
	3765 Jan 05 13:05	0°≈		retrograde	3766 Jan 12 02:27	9°≈03'09	
greatest brilliancy	3765 Jan 08 17:13	4°≈44'48	-0.6m	asc. node	3766 Jan 13 04:02	8°≈56'56	
evening max el	3765 Jan 20 15:15	20°≈30'26	19°54'11	evening set	3766 Jan 16 03:57	7°≈29'33	
asc. node	3765 Jan 26 07:00	24°≈34'37		inferior conj	3766 Jan 21 12:26	1°≈17'18	2°32'02
retrograde	3765 Jan 28 04:32	24°≈54'07		minimum elong	3766 Jan 21 09:57	1°≈25'54	2°31'18
evening set	3765 Jan 31 20:33	23°≈35'34		min. Earth dist.	3766 Jan 21 22:35	0°≈42'21	0.67674 AU
inferior conj	3765 Feb 06 06:48	17°≈34'56	3°04'17		3766 Jan 22 10:57	30°R♂	
minimum elong	3765 Feb 06 04:28	17°≈42'42	3°03'47	morning rise	3766 Jan 26 15:47	25°♂04'24	
min. Earth dist.	3765 Feb 07 05:53	16°≈17'52	0.66984 AU	direct	3766 Feb 01 00:14	22°♂43'11	
morning rise	3765 Feb 11 12:10	11°≈21'09		morning max el	3766 Feb 11 18:02	29°♂07'07	23°48'07
direct	3765 Feb 17 11:04	8°≈41'31			3766 Feb 12 14:34	0°≈	
morning max el	3765 Mar 01 09:31	15°≈49'11	25°15'19	desc. node	3766 Feb 19 08:14	7°≈55'11	
desc. node	3765 Mar 04 11:11	19°≈07'19			3766 Mar 06 21:41	0°♂	
	3765 Mar 13 02:25	0°♂		morning set	3766 Mar 19 05:34	19°♂58'16	
	3765 Apr 01 14:14	0°♀		max. Earth dist.	3766 Mar 23 02:03	26°♂40'36	1.38585 AU
morning set	3765 Apr 06 14:26	8°♀46'59			3766 Mar 24 22:42	0°♀	
max. Earth dist.	3765 Apr 10 06:26	15°♀30'44	1.36492 AU				
				superior conj	3766 Mar 30 10:23	10°♀07'32	-1°40'04
superior conj	3765 Apr 16 09:32	27°♀19'28	-1°14'27	minimum elong	3766 Mar 30 15:04	10°♀29'41	1°39'31
minimum elong	3765 Apr 16 13:26	27°♀38'47	1°13'49	evening rise	3766 Apr 08 12:18	27°♀42'27	
	3765 Apr 17 17:49	0°♂			3766 Apr 09 16:33	0°♂	
asc. node	3765 Apr 24 06:17	13°♂11'17		asc. node	3766 Apr 11 03:20	2°♂47'56	
evening rise	3765 Apr 24 15:06	13°♂55'45		evening max el	3766 Apr 24 21:30	24°♂11'16	18°50'36
	3765 May 03 02:04	0°Π		retrograde	3766 May 03 04:32	28°♂14'36	
evening max el	3765 May 11 23:13	12°Π06'59	19°42'30	evening set	3766 May 05 08:19	27°♂59'12	
retrograde	3765 May 21 19:11	16°Π53'42		inferior conj	3766 May 13 07:46	23°♂40'10	1°24'12
evening set	3765 May 23 18:25	16°Π43'04		minimum elong	3766 May 13 10:44	23°♂34'45	1°23'13
desc. node	3765 May 31 10:23	13°Π22'16		min. Earth dist.	3766 May 16 12:53	21°♂21'36	0.57072 AU
inferior conj	3765 Jun 01 13:25	12°Π40'31	-0°19'57	desc. node	3766 May 18 07:24	20°♂11'47	
minimum elong	3765 Jun 01 12:31	12°Π41'55	0°19'36	morning rise	3766 May 21 09:58	18°♂33'22	
min. Earth dist.	3765 Jun 03 20:43	11°Π14'38	0.55563 AU	direct	3766 May 26 19:31	17°♂23'01	
morning rise	3765 Jun 10 04:15	8°Π09'12		morning max el	3766 Jun 10 03:34	24°♂51'04	26°07'31
direct	3765 Jun 14 14:13	7°Π25'55			3766 Jun 14 21:35	0°Π	
morning max el	3765 Jun 28 12:31	14°Π23'15	24°34'09		3766 Jul 03 18:52	0°♂	
	3765 Jul 10 19:07	0°♂		morning set	3766 Jul 08 10:33	9°♂29'50	
asc. node	3765 Jul 21 05:33	18°♂56'25					

asc. node	3766 Jul 08 02:37	8°♄47'58		morning set	3767 Jun 22 19:21	24°♄12'22	
				asc. node	3767 Jun 24 23:39	28°♄49'29	
superior conj	3766 Jul 15 09:44	24°♄38'39	1°09'59		3767 Jun 25 12:46	0°♄	
minimum elong	3766 Jul 15 07:24	24°♄25'51	1°09'37				
max. Earth dist.	3766 Jul 16 00:38	26°♄00'37	1.32257 AU	superior conj	3767 Jun 29 21:31	9°♄33'00	0°49'37
	3766 Jul 17 20:19	0°♄		minimum elong	3767 Jun 29 19:34	9°♄22'12	0°49'14
evening rise	3766 Jul 22 08:56	9°♄41'12		max. Earth dist.	3767 Jun 29 12:23	8°♄42'36	1.32033 AU
	3766 Aug 01 22:51	0°♄		evening rise	3767 Jul 06 17:31	24°♄26'05	
desc. node	3766 Aug 14 06:43	18°♄47'44			3767 Jul 09 09:45	0°♄	
evening max el	3766 Aug 22 13:41	28°♄10'56	27°06'46		3767 Jul 27 00:10	0°♄	
	3766 Aug 24 14:28	0°♄		desc. node	3767 Aug 01 03:45	6°♄22'02	
retrograde	3766 Sep 05 10:23	5°♄23'30		evening max el	3767 Aug 04 13:10	9°♄53'00	26°14'00
evening set	3766 Sep 12 12:30	3°♄08'29		retrograde	3767 Aug 18 12:34	17°♄02'40	
min. Earth dist.	3766 Sep 16 04:00	0°♄25'58	0.61287 AU	evening set	3767 Aug 25 00:26	15°♄19'21	
	3766 Sep 16 16:15	30°♄		min. Earth dist.	3767 Aug 29 02:04	12°♄44'14	0.59218 AU
inferior conj	3766 Sep 19 07:02	27°♄42'29	-4°14'40	inferior conj	3767 Sep 01 08:45	10°♄14'56	-4°55'14
minimum elong	3766 Sep 19 12:52	27°♄29'42	4°13'18	minimum elong	3767 Sep 01 12:52	10°♄07'05	4°54'43
morning rise	3766 Sep 26 15:02	22°♄49'08		morning rise	3767 Sep 09 03:30	5°♄44'26	
direct	3766 Sep 28 23:49	22°♄26'12		direct	3767 Sep 11 13:29	5°♄24'23	
asc. node	3766 Oct 04 01:50	24°♄16'35		morning max el	3767 Sep 19 10:59	9°♄12'54	18°25'16
morning max el	3766 Oct 06 01:49	25°♄58'30	17°57'58	asc. node	3767 Sep 20 22:54	10°♄46'25	
	3766 Oct 09 12:20	0°♄			3767 Oct 02 23:39	0°♄	
morning set	3766 Oct 21 20:57	20°♄51'48		morning set	3767 Oct 05 11:33	4°♄45'24	
	3766 Oct 26 20:50	0°♄					
superior conj	3766 Nov 01 03:33	9°♄24'32	1°00'50	superior conj	3767 Oct 14 12:44	21°♄55'21	1°25'19
minimum elong	3766 Nov 01 07:45	9°♄42'54	1°00'18	minimum elong	3767 Oct 14 16:16	22°♄11'42	1°24'58
max. Earth dist.	3766 Nov 08 17:01	22°♄16'09	1.42375 AU		3767 Oct 18 23:48	0°♄	
desc. node	3766 Nov 10 06:04	24°♄48'30		max. Earth dist.	3767 Oct 22 00:11	5°♄16'34	1.40417 AU
	3766 Nov 13 11:08	0°♄		evening rise	3767 Oct 26 10:11	12°♄44'30	
evening rise	3766 Nov 14 20:43	2°♄13'40		desc. node	3767 Oct 28 03:06	15°♄32'38	
	3766 Dec 03 10:11	0°♄			3767 Nov 06 08:12	0°♄	
evening max el	3766 Dec 17 10:13	17°♄36'35	22°14'26	evening max el	3767 Nov 28 20:26	0°♄	
retrograde	3766 Dec 26 22:58	23°♄16'51			3767 Nov 30 00:51	1°♄13'02	23°34'15
evening set	3766 Dec 31 11:35	21°♄27'21		retrograde	3767 Dec 10 16:38	7°♄30'59	
asc. node	3766 Dec 31 01:04	21°♄47'50		evening set	3767 Dec 15 17:52	5°♄25'22	
inferior conj	3767 Jan 05 20:02	15°♄06'47	1°51'51	asc. node	3767 Dec 17 22:07	3°♄13'01	
minimum elong	3767 Jan 05 17:50	15°♄14'24	1°51'03		3767 Dec 20 10:16	30°♄	
min. Earth dist.	3767 Jan 05 18:32	15°♄11'59	0.67974 AU	min. Earth dist.	3767 Dec 20 15:19	29°♄42'45	0.67907 AU
morning rise	3767 Jan 10 23:57	8°♄56'15		inferior conj	3767 Dec 21 03:41	29°♄00'28	1°04'55
direct	3767 Jan 15 17:29	6°♄57'21		minimum elong	3767 Dec 21 02:13	29°♄05'27	1°04'20
morning max el	3767 Jan 25 05:07	12°♄32'23	22°19'40	morning rise	3767 Dec 26 10:33	22°♄54'08	
desc. node	3767 Feb 06 05:19	27°♄22'00		direct	3767 Dec 30 13:55	21°♄18'00	
	3767 Feb 08 02:32	0°♄		morning max el	3768 Jan 07 22:05	26°♄07'26	20°58'04
morning set	3767 Feb 27 17:01	29°♄49'13			3768 Jan 11 10:06	0°♄	
	3767 Feb 27 19:41	0°♄		desc. node	3768 Jan 24 02:22	17°♄16'47	
max. Earth dist.	3767 Mar 04 22:57	8°♄30'39	1.40758 AU		3768 Feb 01 14:19	0°♄	
				morning set	3768 Feb 07 01:10	8°♄25'35	
superior conj	3767 Mar 12 17:51	22°♄03'31	-1°59'16	max. Earth dist.	3768 Feb 15 02:09	21°♄15'11	1.42721 AU
minimum elong	3767 Mar 12 21:40	22°♄20'38	1°59'03		3768 Feb 20 09:06	0°♄	
	3767 Mar 17 02:39	0°♄		superior conj	3768 Feb 22 02:55	2°♄56'28	-2°07'20
evening rise	3767 Mar 22 23:05	10°♄55'01		minimum elong	3768 Feb 22 03:06	2°♄57'13	2°07'21
asc. node	3767 Mar 29 00:22	22°♄04'16		evening rise	3768 Mar 04 19:27	23°♄24'42	
	3767 Apr 02 18:51	0°♄			3768 Mar 08 11:58	0°♄	
evening max el	3767 Apr 08 03:54	6°♄48'34	18°18'56	asc. node	3768 Mar 14 21:25	10°♄53'48	
retrograde	3767 Apr 15 08:57	10°♄24'03		evening max el	3768 Mar 21 15:06	19°♄50'36	18°07'02
evening set	3767 Apr 17 19:11	10°♄00'35		retrograde	3768 Mar 28 05:37	23°♄13'55	
inferior conj	3767 Apr 24 23:39	5°♄21'24	2°37'15	evening set	3768 Mar 30 22:04	22°♄40'16	
minimum elong	3767 Apr 25 03:17	5°♄13'41	2°36'22	inferior conj	3768 Apr 06 11:02	17°♄40'42	3°19'14
min. Earth dist.	3767 Apr 28 10:04	2°♄28'04	0.59092 AU	minimum elong	3768 Apr 06 13:22	17°♄34'58	3°18'54
	3767 May 01 21:59	30°♄		min. Earth dist.	3768 Apr 09 14:29	14°♄37'27	0.61279 AU
morning rise	3767 May 02 08:34	29°♄44'53		morning rise	3768 Apr 13 02:48	11°♄45'09	
desc. node	3767 May 05 04:28	28°♄31'07		direct	3768 Apr 19 21:21	9°♄26'09	
direct	3767 May 08 14:38	27°♄59'22		desc. node	3768 Apr 21 01:31	9°♄30'07	
	3767 May 15 13:53	0°♄		morning max el	3768 May 04 02:33	17°♄23'15	27°48'54
morning max el	3767 May 22 23:55	5°♄46'44	27°15'45		3768 May 14 14:04	0°♄	
	3767 Jun 09 23:30	0°♄			3768 Jun 01 15:35	0°♄	

morning set	3768 Jun 05 23:56	8° Π 39'56		morning max el	3769 Apr 16 09:53	29° X 39'04	27°44'32
asc. node	3768 Jun 10 20:42	18° Π 56'35			3769 Apr 16 18:10	0° Υ	
max. Earth dist.	3768 Jun 11 22:35	21° Π 16'58	1.32222 AU		3769 May 08 12:58	0° B	
				morning set	3769 May 20 21:59	22° B 44'40	
superior conj	3768 Jun 13 08:12	24° Π 20'34	0°25'48		3769 May 24 11:10	0° Π	
minimum elong	3768 Jun 13 07:03	24° Π 14'15	0°25'33	max. Earth dist.	3769 May 26 03:22	3° Π 31'10	1.32839 AU
	3768 Jun 15 22:06	0° D					
evening rise	3768 Jun 20 04:41	9° D 15'46		superior conj	3769 May 28 15:56	8° Π 54'50	-0°00'48
	3768 Jun 30 20:44	0° Ω		minimum elong	3769 May 28 15:58	8° Π 55'02	0°00'48
evening max el	3768 Jul 16 05:32	20° Ω 48'59	24°53'38	behind sun begin	3769 May 28 10:42	8° Π 26'37	
desc. node	3768 Jul 18 00:45	22° Ω 26'54		behind sun end	3769 May 28 21:15	9° Π 23'28	
retrograde	3768 Jul 30 04:15	27° Ω 52'26		asc. node	3769 May 28 17:44	9° Π 04'32	
evening set	3768 Aug 04 12:21	26° Ω 47'44		evening rise	3769 Jun 04 16:30	24° Π 03'20	
min. Earth dist.	3768 Aug 09 17:02	24° Ω 01'10	0.57246 AU		3769 Jun 07 13:00	0° D	
inferior conj	3768 Aug 12 15:01	22° Ω 05'38	-5°09'13		3769 Jun 26 12:24	0° Ω	
minimum elong	3768 Aug 12 14:25	22° Ω 06'38	5°09'12	evening max el	3769 Jun 27 18:38	1° Ω 16'14	23°18'09
morning rise	3768 Aug 20 19:00	17° Ω 57'01		desc. node	3769 Jul 04 21:45	6° Ω 28'57	
direct	3768 Aug 23 09:09	17° Ω 37'53		retrograde	3769 Jul 11 07:05	8° Ω 01'43	
morning max el	3768 Sep 01 11:27	21° Ω 53'58	19°13'46	evening set	3769 Jul 15 03:05	7° Ω 29'36	
asc. node	3768 Sep 06 19:57	28° Ω 18'18		min. Earth dist.	3769 Jul 22 04:15	4° Ω 16'33	0.55699 AU
	3768 Sep 07 23:23	0° P		inferior conj	3769 Jul 24 01:21	3° Ω 10'18	-4°41'01
morning set	3768 Sep 18 11:12	19° P 04'55		minimum elong	3769 Jul 23 18:53	3° Ω 19'51	4°39'57
	3768 Sep 23 22:42	0° D			3769 Jul 30 05:11	30° R D	
				morning rise	3769 Aug 01 13:04	29° D 17'02	
superior conj	3768 Sep 26 15:36	5° D 18'08	1°39'19	direct	3769 Aug 04 09:55	28° D 57'05	
minimum elong	3768 Sep 26 17:32	5° D 27'33	1°39'12		3769 Aug 09 08:02	0° Ω	
max. Earth dist.	3768 Oct 03 04:19	17° D 35'31	1.38332 AU	morning max el	3769 Aug 15 00:38	3° Ω 52'44	20°24'00
evening rise	3768 Oct 06 23:10	24° D 20'15		asc. node	3769 Aug 24 16:59	16° Ω 38'13	
	3768 Oct 10 06:26	0° M			3769 Aug 31 21:05	0° P	
desc. node	3768 Oct 14 00:05	6° M 09'50		morning set	3769 Sep 02 16:57	3° P 42'17	
	3768 Oct 30 01:35	0° X					
evening max el	3768 Nov 11 13:32	14° X 53'35	24°52'23	superior conj	3769 Sep 10 07:15	19° P 18'54	1°44'24
retrograde	3768 Nov 23 06:12	21° X 41'16		minimum elong	3769 Sep 10 07:31	19° P 20'16	1°44'24
evening set	3768 Nov 28 21:07	19° X 20'26		max. Earth dist.	3769 Sep 15 10:58	29° P 31'15	1.36362 AU
min. Earth dist.	3768 Dec 03 10:33	14° X 11'43	0.67498 AU		3769 Sep 15 16:57	0° D	
asc. node	3768 Dec 03 19:11	13° X 43'18		evening rise	3769 Sep 19 09:10	6° D 54'47	
inferior conj	3768 Dec 04 09:35	12° X 55'40	0°12'19	desc. node	3769 Sep 30 21:05	26° D 35'36	
minimum elong	3768 Dec 04 09:17	12° X 56'41	0°12'12		3769 Oct 03 01:13	0° M	
transit middle	3768 Dec 04 09:17	12° X 56'41	0°12'12	evening max el	3769 Oct 25 02:01	28° M 36'21	26°01'29
transit begin	3768 Dec 04 07:28	13° X 02'42			3769 Oct 26 13:45	0° X	
transit end	3768 Dec 04 11:06	12° X 50'40		retrograde	3769 Nov 06 14:51	5° X 43'08	
morning rise	3768 Dec 09 21:35	6° X 55'42		evening set	3769 Nov 12 19:37	3° X 09'38	
direct	3768 Dec 13 12:15	5° X 40'36			3769 Nov 15 22:01	30° R M	
morning max el	3768 Dec 20 22:46	9° X 53'14	19°48'32	min. Earth dist.	3769 Nov 17 01:47	28° M 36'18	0.66747 AU
greatest brilliancy	3769 Jan 03 07:31	27° X 30'13	-0.6m	inferior conj	3769 Nov 18 11:56	26° M 49'45	-0°44'47
	3769 Jan 04 23:49	0° Z		minimum elong	3769 Nov 18 13:08	26° M 46'02	0°44'15
desc. node	3769 Jan 09 23:23	7° Z 31'20		asc. node	3769 Nov 20 16:13	24° M 12'22	
morning set	3769 Jan 15 21:05	16° Z 34'33		morning rise	3769 Nov 24 07:04	20° M 58'50	
	3769 Jan 24 11:47	0° \approx		direct	3769 Nov 27 10:55	20° M 01'39	
max. Earth dist.	3769 Jan 27 12:53	4° \approx 49'19	1.44226 AU	morning max el	3769 Dec 04 06:55	23° M 48'32	18°54'02
					3769 Dec 09 10:35	0° X	
superior conj	3769 Feb 01 10:05	12° \approx 39'26	-1°58'56	morning set	3769 Dec 26 06:22	25° X 31'28	
minimum elong	3769 Feb 01 04:20	12° \approx 16'12	1°58'38	desc. node	3769 Dec 27 20:23	28° X 00'25	
	3769 Feb 11 21:40	0° X			3769 Dec 29 02:55	0° Z	
evening rise	3769 Feb 14 20:51	5° X 01'49		max. Earth dist.	3770 Jan 10 05:44	18° Z 59'28	1.45090 AU
asc. node	3769 Mar 01 18:28	29° X 07'14					
	3769 Mar 02 10:33	0° Υ		superior conj	3770 Jan 11 19:04	21° Z 26'19	-1°31'01
evening max el	3769 Mar 05 03:54	3° Υ 07'55	18°14'15	minimum elong	3770 Jan 11 09:51	20° Z 50'03	1°30'05
retrograde	3769 Mar 11 14:08	6° Υ 33'20			3770 Jan 17 05:00	0° \approx	
evening set	3769 Mar 14 12:26	5° Υ 48'12		evening rise	3770 Jan 26 23:46	15° \approx 42'09	
inferior conj	3769 Mar 20 13:49	0° Υ 29'04	3°36'16		3770 Feb 04 19:46	0° X	
minimum elong	3769 Mar 20 14:22	0° Υ 27'32	3°36'15	evening max el	3770 Feb 16 15:32	16° X 34'00	18°39'48
	3769 Mar 21 00:19	30° R X		asc. node	3770 Feb 16 15:30	16° X 33'55	
min. Earth dist.	3769 Mar 23 03:40	27° X 39'22	0.63337 AU	retrograde	3770 Feb 23 06:24	20° X 14'08	
morning rise	3769 Mar 26 15:18	24° X 23'06		evening set	3770 Feb 26 10:46	19° X 16'39	
direct	3769 Apr 02 12:53	21° X 41'13		inferior conj	3770 Mar 04 04:05	13° X 39'30	3°34'30
desc. node	3769 Apr 07 22:34	23° X 06'13		minimum elong	3770 Mar 04 03:06	13° X 42'27	3°34'26



































































































































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morning rise	3770 Mar 09 18:58	7° H 28'12		morning rise	3771 Feb 21 10:19	20° \approx 52'18	
direct	3770 Mar 16 11:34	4° H 37'33		direct	3771 Feb 27 16:32	18° \approx 05'49	
desc. node	3770 Mar 25 19:36	8° H 47'57		morning max el	3771 Mar 12 05:24	25° \approx 33'04	26°01'06
morning max el	3770 Mar 29 19:37	12° H 26'20	27°06'07	desc. node	3771 Mar 12 16:37	26° \approx 01'41	
	3770 Apr 12 21:19	0° Y			3771 Mar 16 07:10	0° H	
	3770 May 01 02:42	0° B			3771 Apr 06 09:40	0° Y	
morning set	3770 May 04 10:36	6° B 18'02		morning set	3771 Apr 17 09:53	19° Y 08'52	
max. Earth dist.	3770 May 08 23:10	15° B 16'27	1.33906 AU	max. Earth dist.	3771 Apr 21 07:37	26° Y 32'03	1.35425 AU
					3771 Apr 23 02:17	0° B	
superior conj	3770 May 12 18:41	23° B 09'45	-0°29'14	superior conj	3771 Apr 26 14:01	6° B 58'22	-0°58'14
minimum elong	3770 May 12 20:12	23° B 17'44	0°28'55	minimum elong	3771 Apr 26 17:06	7° B 14'04	0°57'39
asc. node	3770 May 15 14:45	29° B 09'31		asc. node	3771 May 02 11:48	19° B 07'36	
	3770 May 16 00:16	0° II		evening rise	3771 May 04 10:30	23° B 08'12	
evening rise	3770 May 20 03:06	8° II 42'56			3771 May 07 20:12	0° II	
	3770 May 31 09:45	0° E		evening max el	3771 May 22 16:01	22° II 47'49	20°21'22
evening max el	3770 Jun 09 11:59	11° E 46'22	21°43'19	retrograde	3771 Jun 02 12:26	28° II 05'24	
retrograde	3770 Jun 21 22:52	17° E 55'08		evening set	3771 Jun 04 12:12	27° II 55'27	
desc. node	3770 Jun 21 18:47	17° E 55'04		desc. node	3771 Jun 08 15:49	26° II 37'44	
evening set	3770 Jun 24 12:24	17° E 40'18		inferior conj	3771 Jun 13 15:58	23° II 57'17	-1°28'42
inferior conj	3770 Jul 03 21:21	13° E 38'19	-3°22'37	minimum elong	3771 Jun 13 11:48	24° II 03'24	1°27'10
minimum elong	3770 Jul 03 13:04	13° E 49'55	3°20'09	min. Earth dist.	3771 Jun 15 03:08	23° II 05'50	0.55040 AU
min. Earth dist.	3770 Jul 03 14:51	13° E 47'25	0.54899 AU	morning rise	3771 Jun 22 10:14	19° II 44'20	
morning rise	3770 Jul 12 14:59	9° E 45'36		direct	3771 Jun 26 07:33	19° II 11'40	
direct	3770 Jul 15 21:09	9° E 22'23		morning max el	3771 Jul 09 19:14	25° II 45'14	23°35'15
morning max el	3770 Jul 28 02:10	15° E 06'30	21°53'38		3771 Jul 13 19:28	0° E	
	3770 Aug 08 10:12	0° O		asc. node	3771 Jul 29 11:02	24° E 58'24	
asc. node	3770 Aug 11 14:00	5° O 34'35			3771 Jul 31 22:40	0° O	
morning set	3770 Aug 18 02:27	18° O 30'40		morning set	3771 Aug 02 13:54	3° O 24'50	
	3770 Aug 23 12:55	0° P					
superior conj	3770 Aug 25 07:47	3° P 45'57	1°42'04	superior conj	3771 Aug 09 14:18	18° O 30'34	1°33'35
minimum elong	3770 Aug 25 06:43	3° P 40'18	1°42'02	minimum elong	3771 Aug 09 12:21	18° O 20'04	1°33'25
max. Earth dist.	3770 Aug 29 00:46	11° P 26'03	1.34691 AU	max. Earth dist.	3771 Aug 11 23:25	23° O 35'58	1.33417 AU
evening rise	3770 Sep 02 11:51	20° P 16'24			3771 Aug 15 00:56	0° P	
	3770 Sep 07 17:23	0° A		evening rise	3771 Aug 17 03:04	4° P 14'16	
desc. node	3770 Sep 17 18:05	16° A 43'36			3771 Aug 31 10:43	0° A	
	3770 Sep 27 00:17	0° M		desc. node	3771 Sep 04 15:07	6° A 26'02	
evening max el	3770 Oct 07 14:33	12° M 13'05	26°54'05	evening max el	3771 Sep 20 02:17	25° A 33'29	27°22'58
retrograde	3770 Oct 20 18:02	19° M 29'19			3771 Sep 25 13:34	0° M	
evening set	3770 Oct 27 11:16	16° M 48'15		retrograde	3771 Oct 03 15:27	2° M 51'43	
min. Earth dist.	3770 Oct 31 10:39	12° M 50'59	0.65643 AU	evening set	3771 Oct 10 17:30	0° M 11'28	
inferior conj	3770 Nov 02 08:40	10° M 37'55	-1°44'57		3771 Oct 10 23:30	30° R A	
minimum elong	3770 Nov 02 11:35	10° M 29'27	1°43'46	min. Earth dist.	3771 Oct 14 11:02	26° A 48'38	0.64190 AU
asc. node	3770 Nov 07 13:14	5° M 33'36		inferior conj	3771 Oct 16 21:22	24° A 15'10	-2°46'02
morning rise	3770 Nov 08 12:42	4° M 59'04		minimum elong	3771 Oct 17 02:00	24° A 02'59	2°44'22
direct	3770 Nov 11 07:51	4° M 16'07		morning rise	3771 Oct 23 11:45	18° A 51'27	
morning max el	3770 Nov 17 20:34	7° M 47'45	18°15'50	asc. node	3771 Oct 25 10:16	18° A 20'49	
	3770 Dec 03 04:38	0° X		direct	3771 Oct 26 00:35	18° A 19'00	
morning set	3770 Dec 06 19:50	5° X 54'29		morning max el	3771 Nov 01 12:56	21° A 44'35	17°54'37
desc. node	3770 Dec 14 17:23	18° X 39'09			3771 Nov 07 21:38	0° M	
				morning set	3771 Nov 18 13:24	17° M 39'36	
superior conj	3770 Dec 21 21:39	0° Z 02'19	-0°47'41		3771 Nov 25 21:00	0° X	
minimum elong	3770 Dec 21 15:38	29° X 38'38	0°46'53	superior conj	3771 Dec 01 14:37	9° X 24'47	-0°00'04
	3770 Dec 21 21:04	0° Z		minimum elong	3771 Dec 01 14:36	9° X 24'42	0°00'03
max. Earth dist.	3770 Dec 24 01:11	3° Z 24'56	1.45215 AU	behind sun begin	3771 Dec 01 04:56	8° X 45'32	
evening rise	3771 Jan 07 03:56	25° Z 29'06		behind sun end	3771 Dec 02 00:15	10° X 03'49	
	3771 Jan 10 01:20	0° \approx		desc. node	3771 Dec 01 14:25	9° X 24'01	
greatest brilliancy	3771 Jan 18 16:52	13° \approx 23'51	-0.7m	max. Earth dist.	3771 Dec 06 19:39	17° X 45'52	1.44603 AU
	3771 Jan 30 22:11	0° H			3771 Dec 14 15:06	0° Z	
evening max el	3771 Jan 30 23:43	0° H 03'58	19°22'30	evening rise	3771 Dec 17 16:08	4° Z 41'48	
asc. node	3771 Feb 03 12:31	3° H 00'34			3772 Jan 03 12:48	0° \approx	
retrograde	3771 Feb 07 02:58	4° H 09'31		evening max el	3772 Jan 14 02:59	13° \approx 35'33	20°20'25
evening set	3771 Feb 10 14:19	2° H 58'56		asc. node	3772 Jan 21 09:33	18° \approx 12'28	
	3771 Feb 13 18:36	30° R \approx		retrograde	3772 Jan 22 01:05	18° \approx 14'45	
inferior conj	3771 Feb 16 02:26	27° \approx 05'55	3°18'36	evening set	3772 Jan 25 20:51	16° \approx 50'00	
minimum elong	3771 Feb 16 00:27	27° \approx 12'22	3°18'16				

inferior conj	3772 Jan 31 06:07	10°  43'52	2°51'41		3773 Jan 10 01:49	30° 	
minimum elong	3772 Jan 31 03:39	10°  52'13	2°51'04	inferior conj	3773 Jan 14 12:51	24°  30'19	2°15'54
min. Earth dist.	3772 Jan 31 23:31	9°  44'46	0.67325 AU	minimum elong	3773 Jan 14 10:25	24°  38'43	2°15'08
morning rise	3772 Feb 05 10:15	4°  30'00		min. Earth dist.	3773 Jan 14 18:00	24°  12'28	0.67843 AU
direct	3772 Feb 11 03:02	1°  57'32		morning rise	3773 Jan 19 16:06	18°  18'01	
morning max el	3772 Feb 22 14:04	8°  48'33	24°38'55	direct	3773 Jan 24 18:14	16°  05'46	
desc. node	3772 Feb 27 13:40	14°  21'04		morning max el	3773 Feb 03 23:09	22°  09'30	23°10'05
	3772 Mar 10 06:16	0°  ✕			3773 Feb 10 18:37	0°  ≈	
	3772 Mar 29 00:31	0°  Y		desc. node	3773 Feb 13 10:42	3°  ≈27'36	
morning set	3772 Mar 29 14:35	1°  Y01'43			3773 Mar 03 14:02	0°  ✕	
max. Earth dist.	3772 Apr 02 05:53	7°  Y33'15	1.37351 AU	morning set	3773 Mar 10 18:34	11°  ✕40'56	
				max. Earth dist.	3773 Mar 15 00:44	18°  ✕55'45	1.39515 AU
					3773 Mar 21 06:04	0°  Y	
superior conj	3772 Apr 08 22:43	20°  Y11'28	-1°25'51				
minimum elong	3772 Apr 09 03:05	20°  Y32'42	1°25'13	superior conj	3773 Mar 22 16:52	2°  Y39'50	-1°49'14
	3772 Apr 13 21:59	0°  8		minimum elong	3773 Mar 22 21:28	3°  Y01'04	1°48'49
evening rise	3772 Apr 17 12:14	7°  811'09		evening rise	3773 Apr 01 05:30	20°  Y44'57	
asc. node	3772 Apr 18 08:51	8°  853'36		asc. node	3773 Apr 05 05:55	28°  Y22'52	
	3772 Apr 30 11:22	0°  II			3773 Apr 06 02:54	0°  8	
evening max el	3772 May 04 08:15	4°  II30'09	19°17'58	evening max el	3773 Apr 17 10:32	16°  850'40	18°34'41
retrograde	3772 May 13 11:40	8°  II56'55		retrograde	3773 Apr 25 04:55	20°  839'40	
evening set	3772 May 15 12:03	8°  II44'53		evening set	3773 Apr 27 11:29	20°  821'08	
inferior conj	3772 May 23 23:04	4°  II36'28	0°27'31	inferior conj	3773 May 05 02:36	15°  854'01	1°59'11
minimum elong	3772 May 24 00:13	4°  II34'34	0°27'05	minimum elong	3773 May 05 06:12	15°  847'02	1°58'06
desc. node	3772 May 25 12:52	3°  II33'40		min. Earth dist.	3773 May 08 12:01	13°  817'46	0.57896 AU
min. Earth dist.	3772 May 26 17:54	2°  II46'20	0.56115 AU	desc. node	3773 May 12 09:54	10°  848'17	
	3772 May 31 22:18	30°  R8		morning rise	3773 May 12 21:44	10°  833'33	
morning rise	3772 Jun 01 09:21	29°  849'34		direct	3773 May 18 17:04	9°  808'22	
direct	3772 Jun 06 05:09	28°  856'05		morning max el	3773 Jun 02 02:04	16°  845'57	26°40'11
	3772 Jun 11 11:34	0°  II			3773 Jun 12 22:50	0°  II	
morning max el	3772 Jun 20 09:18	6°  II09'05	25°16'01		3773 Jun 30 00:06	0°  ☾	
	3772 Jul 07 16:56	0°  ☾		morning set	3773 Jul 01 11:56	3°  ☾06'46	
asc. node	3772 Jul 15 08:05	14°  ☾41'26		asc. node	3773 Jul 02 05:09	4°  ☾37'52	
morning set	3772 Jul 17 01:35	18°  ☾18'32					
	3772 Jul 22 11:09	0°  Ω		superior conj	3773 Jul 08 12:03	18°  ☾19'57	1°01'49
superior conj	3772 Jul 24 00:22	3°  Ω24'01	1°19'56	minimum elong	3773 Jul 08 09:50	18°  ☾07'41	1°01'25
minimum elong	3772 Jul 23 22:02	3°  Ω11'16	1°19'36	max. Earth dist.	3773 Jul 08 16:25	18°  ☾44'02	1.32116 AU
max. Earth dist.	3772 Jul 25 05:37	6°  Ω03'51	1.32561 AU		3773 Jul 13 20:18	0°  Ω	
evening rise	3772 Jul 31 03:11	18°  Ω37'16		evening rise	3773 Jul 15 09:24	3°  Ω16'46	
	3772 Aug 05 21:24	0°  ൬			3773 Jul 29 17:25	0°  ൬	
desc. node	3772 Aug 21 12:09	25°  ൬31'31		desc. node	3773 Aug 08 09:11	13°  ൬45'02	
	3772 Aug 24 21:27	0°  ♌		evening max el	3773 Aug 14 15:13	20°  ൬35'39	26°48'16
evening max el	3772 Sep 01 11:22	8°  ♌25'01	27°22'13	retrograde	3773 Aug 28 13:28	27°  ൬46'38	
retrograde	3772 Sep 15 06:24	15°  ♌40'26		evening set	3773 Sep 04 10:55	25°  ൬44'08	
evening set	3772 Sep 22 10:52	13°  ♌12'39		min. Earth dist.	3773 Sep 08 05:18	23°  ൬06'38	0.60410 AU
min. Earth dist.	3772 Sep 26 01:27	10°  ♌18'17	0.62413 AU	inferior conj	3773 Sep 11 10:46	20°  ൬27'09	-4°34'17
inferior conj	3772 Sep 28 23:12	7°  ♌34'27	-3°44'30	minimum elong	3773 Sep 11 16:13	20°  ൬15'53	4°33'14
minimum elong	3772 Sep 29 04:59	7°  ♌20'51	3°42'50	morning rise	3773 Sep 18 23:27	15°  ൬42'59	
morning rise	3772 Oct 06 00:44	2°  ♌29'00		direct	3773 Sep 21 08:18	15°  ൬21'33	
direct	3772 Oct 08 10:00	2°  ♌03'32		asc. node	3773 Sep 28 04:22	18°  ൬28'55	
asc. node	3772 Oct 11 07:18	2°  ♌41'58		morning max el	3773 Sep 28 17:35	18°  ൬59'51	18°07'02
morning max el	3772 Oct 15 05:01	5°  ♌31'22	17°51'18		3773 Oct 06 18:26	0°  ♌	
	3772 Oct 30 22:48	0°  ♌		morning set	3773 Oct 14 12:51	14°  ♌02'35	
morning set	3772 Oct 31 05:08	0°  ♌28'22			3773 Oct 23 03:49	0°  ♌	
superior conj	3772 Nov 11 09:16	20°  ♌03'05	0°41'36	superior conj	3773 Oct 24 05:42	1°  ♌56'22	1°12'36
minimum elong	3772 Nov 11 12:53	20°  ♌18'23	0°41'06	minimum elong	3773 Oct 24 09:49	2°  ♌14'48	1°12'07
desc. node	3772 Nov 17 11:28	0°  ♌11'28		max. Earth dist.	3773 Oct 31 21:09	15°  ♌12'30	1.41574 AU
	3772 Nov 17 08:39	0°  ♌		desc. node	3773 Nov 04 08:28	20°  ♌57'52	
max. Earth dist.	3772 Nov 18 10:46	1°  ♌46'19	1.43336 AU	evening rise	3773 Nov 06 03:59	23°  ♌54'28	
evening rise	3772 Nov 26 02:58	13°  ♌57'37			3773 Nov 09 23:59	0°  ♌	
	3772 Dec 06 16:33	0°  ♌			3773 Nov 30 16:06	0°  ♌	
evening max el	3772 Dec 27 00:49	27°  ♌08'56	21°30'29	evening max el	3773 Dec 09 17:44	10°  ♌44'14	22°48'18
	3772 Dec 30 04:30	0°  ≈		retrograde	3773 Dec 19 17:57	16°  ♌40'40	
retrograde	3773 Jan 04 22:40	2°  ≈26'28		evening set	3773 Dec 24 11:47	14°  ♌44'24	
asc. node	3773 Jan 07 06:35	1°  ≈56'56		asc. node	3773 Dec 25 03:38	14°  ♌09'15	
evening set	3773 Jan 09 04:33	0°  ≈46'27		inferior conj	3773 Dec 29 20:40	8°  ♌21'48	1°32'42

minimum elong	3773 Dec 29 18:43	8° Z 28'29	1°31'58	evening set	3774 Dec 08 16:57	28° Z 41'37	
min. Earth dist.	3773 Dec 29 14:33	8° Z 42'56	0.67989 AU	asc. node	3774 Dec 12 00:39	25° Z 05'55	
morning rise	3774 Jan 04 01:33	2° Z 12'52		min. Earth dist.	3774 Dec 13 10:49	23° Z 13'33	0.67780 AU
direct	3774 Jan 08 13:02	0° Z 23'30		inferior conj	3774 Dec 14 03:45	22° Z 16'23	0°43'14
morning max el	3774 Jan 17 12:12	5° Z 37'53	21°43'47	minimum elong	3774 Dec 14 02:45	22° Z 19'49	0°42'49
desc. node	3774 Jan 31 07:44	23° Z 07'23		morning rise	3774 Dec 19 12:35	16° Z 12'45	
	3774 Feb 05 01:46	0° \approx		direct	3774 Dec 23 10:23	14° Z 45'53	
morning set	3774 Feb 18 17:35	20° \approx 57'01		morning max el	3774 Dec 31 08:23	19° Z 17'52	20°26'51
	3774 Feb 24 07:21	0° X			3775 Jan 09 01:36	0° Z	
max. Earth dist.	3774 Feb 25 00:04	1° X 09'16	1.41640 AU	desc. node	3775 Jan 18 04:45	13° Z 11'21	
				morning set	3775 Jan 28 17:39	29° Z 13'09	
superior conj	3774 Mar 04 15:26	14° X 10'44	-2°04'22		3775 Jan 29 05:44	0° \approx	
minimum elong	3774 Mar 04 18:05	14° X 22'21	2°04'17	max. Earth dist.	3775 Feb 07 07:05	14° \approx 18'23	1.43434 AU
	3774 Mar 13 10:40	0° Y					
evening rise	3774 Mar 15 10:37	3° Y 40'20		superior conj	3775 Feb 13 13:34	24° \approx 33'32	-2°06'05
asc. node	3774 Mar 23 02:57	17° Y 28'50		minimum elong	3775 Feb 13 11:20	24° \approx 24'17	2°06'01
evening max el	3774 Mar 31 19:25	29° Y 39'51	18°11'27		3775 Feb 16 19:30	0° X	
	3774 Apr 01 03:49	0° Z		evening rise	3775 Feb 25 23:25	15° X 48'42	
retrograde	3774 Apr 07 16:42	3° Z 08'01			3775 Mar 06 04:14	0° Y	
evening set	3774 Apr 10 05:48	2° Z 40'16		asc. node	3775 Mar 09 23:58	6° Y 04'08	
	3774 Apr 14 15:56	30° R Y		evening max el	3775 Mar 15 07:34	12° Y 48'58	18°07'45
inferior conj	3774 Apr 17 03:10	27° Y 52'08	2°58'29	retrograde	3775 Mar 21 19:08	16° Y 11'47	
minimum elong	3774 Apr 17 06:23	27° Y 44'50	2°57'51	evening set	3775 Mar 24 14:04	15° Y 33'20	
min. Earth dist.	3774 Apr 20 11:43	24° Y 51'47	0.60030 AU	inferior conj	3775 Mar 30 21:36	10° Y 24'57	3°29'07
morning rise	3774 Apr 24 04:37	22° Y 06'35		minimum elong	3775 Mar 30 23:11	10° Y 20'50	3°28'58
desc. node	3774 Apr 29 06:56	20° Y 11'55		min. Earth dist.	3775 Apr 02 19:37	7° Y 25'09	0.62182 AU
direct	3774 Apr 30 17:14	20° Y 06'12		morning rise	3775 Apr 06 06:52	4° Y 23'58	
morning max el	3774 May 15 00:58	27° Y 57'42	27°34'25	direct	3775 Apr 13 03:35	1° Y 54'01	
	3774 May 17 00:20	0° Z		desc. node	3775 Apr 16 03:58	2° Y 20'23	
	3774 Jun 06 15:45	0° II		morning max el	3775 Apr 27 06:03	9° Y 52'18	27°51'39
morning set	3774 Jun 15 19:11	17° II 43'55			3775 May 12 21:37	0° Z	
asc. node	3774 Jun 19 02:13	24° II 42'34			3775 May 29 20:56	0° II	
	3774 Jun 21 12:35	0° Z		morning set	3775 May 30 21:18	2° II 03'03	
max. Earth dist.	3774 Jun 22 04:08	1° Z 25'21	1.32069 AU	max. Earth dist.	3775 Jun 05 12:44	13° II 53'55	1.32432 AU
				asc. node	3775 Jun 05 23:15	14° II 50'39	
superior conj	3774 Jun 22 23:35	3° Z 12'20	0°39'55				
minimum elong	3774 Jun 22 21:55	3° Z 03'09	0°39'34	superior conj	3775 Jun 07 09:13	17° II 54'59	0°14'49
evening rise	3774 Jun 29 19:21	18° Z 05'03		minimum elong	3775 Jun 07 08:32	17° II 51'13	0°14'40
	3774 Jul 05 15:59	0° Z		behind sun begin	3775 Jun 07 06:31	17° II 40'17	
	3774 Jul 25 12:42	0° Z		behind sun end	3775 Jun 07 10:32	18° II 02'10	
desc. node	3774 Jul 26 06:12	0° Z 45'24			3775 Jun 12 22:22	0° Z	
evening max el	3774 Jul 27 11:43	1° Z 58'11	25°42'36	evening rise	3775 Jun 14 07:01	2° Z 54'51	
retrograde	3774 Aug 10 11:04	9° Z 05'07			3775 Jun 28 22:13	0° Z	
evening set	3774 Aug 16 12:54	7° Z 38'05		evening max el	3775 Jul 09 01:45	12° Z 38'19	24°13'52
min. Earth dist.	3774 Aug 20 23:48	5° Z 00'29	0.58352 AU	desc. node	3775 Jul 13 03:13	16° Z 02'51	
inferior conj	3774 Aug 24 04:34	2° Z 43'31	-5°05'20	retrograde	3775 Jul 22 21:30	19° Z 36'34	
minimum elong	3774 Aug 24 07:02	2° Z 39'06	5°05'10	evening set	3775 Jul 27 14:49	18° Z 46'56	
	3774 Aug 28 07:29	30° R Z		min. Earth dist.	3775 Aug 02 12:25	15° Z 50'53	0.56516 AU
morning rise	3774 Sep 01 03:25	28° Z 22'35		inferior conj	3775 Aug 05 02:07	14° Z 14'35	-5°03'13
direct	3774 Sep 03 15:03	28° Z 02'57		minimum elong	3775 Aug 04 22:55	14° Z 19'37	5°02'58
	3774 Sep 09 11:32	0° Z		morning rise	3775 Aug 13 09:38	10° Z 14'12	
morning max el	3774 Sep 11 23:24	2° Z 01'30	18°43'15	direct	3775 Aug 16 02:24	9° Z 54'57	
asc. node	3774 Sep 15 01:25	5° Z 27'20		morning max el	3775 Aug 25 19:21	14° Z 25'55	19°41'06
morning set	3774 Sep 28 07:46	28° Z 09'14		asc. node	3775 Sep 01 22:28	23° Z 21'19	
	3774 Sep 29 06:28	0° Z			3775 Sep 05 21:21	0° Z	
superior conj	3774 Oct 06 23:07	14° Z 51'46	1°32'27	morning set	3775 Sep 12 10:19	12° Z 37'27	
minimum elong	3774 Oct 07 02:02	15° Z 05'31	1°32'12				
max. Earth dist.	3774 Oct 14 03:09	27° Z 57'08	1.39532 AU	superior conj	3775 Sep 20 08:00	28° Z 32'50	1°42'28
	3774 Oct 15 07:12	0° Z		minimum elong	3775 Sep 20 09:12	28° Z 38'49	1°42'25
evening rise	3774 Oct 18 03:32	4° Z 53'25			3775 Sep 21 01:41	0° Z	
desc. node	3774 Oct 22 05:29	11° Z 40'00		max. Earth dist.	3775 Sep 26 07:40	10° Z 03'40	1.37465 AU
	3774 Nov 03 03:19	0° Z		evening rise	3775 Sep 30 01:54	16° Z 55'17	
evening max el	3774 Nov 22 07:21	24° Z 22'55	24°08'05		3775 Oct 07 17:39	0° Z	
	3774 Nov 29 16:37	0° Z		desc. node	3775 Oct 09 02:31	2° Z 13'07	
retrograde	3774 Dec 03 09:51	0° Z 54'05			3775 Oct 28 13:35	0° Z	
	3774 Dec 06 19:57	30° R Z		evening max el	3775 Nov 04 19:34	8° Z 04'07	25°23'13
				retrograde	3775 Nov 16 21:27	15° Z 01'42	

evening set	3775 Nov 22 18:24	12°♊34'42			3776 Sep 11 21:24	0°♎	
min. Earth dist.	3775 Nov 27 04:34	7°♊41'05	0.67222 AU	desc. node	3776 Sep 24 23:32	22°♎32'06	
inferior conj	3775 Nov 28 08:22	6°♊11'18	-0°11'25		3776 Sep 29 21:18	0°♎	
minimum elong	3775 Nov 28 08:39	6°♊10'22	0°11'18	evening max el	3776 Oct 17 07:58	21°♎44'52	26°26'16
transit middle	3775 Nov 28 08:39	6°♊10'22	0°11'18	retrograde	3776 Oct 30 04:03	28°♎57'36	
transit begin	3775 Nov 28 06:39	6°♊16'50		evening set	3776 Nov 05 14:17	26°♎20'04	
transit end	3775 Nov 28 10:39	6°♊03'54		min. Earth dist.	3776 Nov 09 17:27	22°♎01'55	0.66317 AU
asc. node	3775 Nov 28 21:41	5°♊28'25		inferior conj	3776 Nov 11 08:35	20°♎03'19	-1°10'02
morning rise	3775 Dec 03 23:11	0°♊15'04		minimum elong	3776 Nov 11 10:29	19°♎57'32	1°09'14
	3775 Dec 04 08:58	30°♎		asc. node	3776 Nov 14 18:43	16°♎13'36	
direct	3775 Dec 07 08:55	29°♎08'13		morning rise	3776 Nov 17 07:18	14°♎17'07	
	3775 Dec 10 12:14	0°♊		direct	3776 Nov 20 07:04	13°♎26'36	
morning max el	3775 Dec 14 12:30	3°♊08'38	19°23'27	morning max el	3776 Nov 26 23:17	17°♎06'11	18°35'40
greatest brilliancy	3775 Dec 27 20:29	20°♊58'49	-0.7m		3776 Dec 06 15:58	0°♊	
	3776 Jan 02 18:33	0°♊		morning set	3776 Dec 17 12:42	17°♊05'32	
desc. node	3776 Jan 05 01:46	3°♊32'40		desc. node	3776 Dec 21 22:47	24°♊06'10	
morning set	3776 Jan 07 16:19	7°♊34'27			3776 Dec 25 16:24	0°♊	
max. Earth dist.	3776 Jan 20 20:34	28°♊09'26	1.44673 AU				
	3776 Jan 22 00:31	0°♊		superior conj	3777 Jan 02 13:49	12°♊24'03	-1°13'56
superior conj	3776 Jan 24 10:06	3°♊48'54	-1°49'26	minimum elong	3777 Jan 02 05:12	11°♊50'15	1°12'57
minimum elong	3776 Jan 24 02:12	3°♊17'24	1°48'51	max. Earth dist.	3777 Jan 02 14:17	12°♊25'51	1.45229 AU
evening rise	3776 Feb 07 15:36	27°♊02'14			3777 Jan 13 18:09	0°♊	
	3776 Feb 09 10:14	0°♊		evening rise	3777 Jan 18 08:27	7°♊17'54	
asc. node	3776 Feb 24 21:00	23°♊59'23		greatest brilliancy	3777 Jan 26 22:59	20°♊59'35	-0.8m
evening max el	3776 Feb 26 20:06	26°♊10'39	18°22'57		3777 Feb 01 19:35	0°♊	
retrograde	3776 Mar 04 07:31	29°♊41'20		evening max el	3777 Feb 09 06:31	9°♊38'41	18°56'04
evening set	3776 Mar 07 08:12	28°♊51'13		asc. node	3777 Feb 10 18:01	11°♊02'10	
inferior conj	3776 Mar 13 05:45	23°♊24'12	3°37'31	retrograde	3777 Feb 16 01:52	13°♊28'30	
minimum elong	3776 Mar 13 05:36	23°♊24'37	3°37'31	evening set	3777 Feb 19 09:01	12°♊25'43	
min. Earth dist.	3776 Mar 15 13:01	20°♊45'31	0.64112 AU	inferior conj	3777 Feb 24 23:49	6°♊41'49	3°29'16
morning rise	3776 Mar 19 02:14	17°♊15'10		minimum elong	3777 Feb 24 22:21	6°♊46'25	3°29'06
direct	3776 Mar 25 22:23	14°♊27'44		min. Earth dist.	3777 Feb 26 15:33	4°♊37'39	0.65688 AU
desc. node	3776 Apr 02 00:58	16°♊54'24		morning rise	3777 Mar 02 11:17	0°♊29'12	
morning max el	3776 Apr 08 14:57	22°♊24'08	27°32'05		3777 Mar 03 01:08	30°♎	
	3776 Apr 15 07:32	0°♊		direct	3777 Mar 09 00:05	27°♊38'30	
	3776 May 05 02:41	0°♊			3777 Mar 15 16:56	0°♊	
morning set	3776 May 13 15:48	15°♊56'33		desc. node	3777 Mar 19 22:00	3°♊18'31	
max. Earth dist.	3776 May 18 14:08	25°♊57'17	1.33231 AU	morning max el	3777 Mar 22 00:47	5°♊20'25	26°41'10
	3776 May 20 12:19	0°♊			3777 Apr 09 21:57	0°♊	
superior conj	3776 May 21 15:07	2°♊22'22	-0°12'42	morning set	3777 Apr 26 23:16	29°♊13'17	
minimum elong	3776 May 21 15:45	2°♊25'46	0°12'33		3777 Apr 27 09:05	0°♊	
behind sun begin	3776 May 21 12:23	2°♊07'50		max. Earth dist.	3777 May 01 04:53	7°♊27'28	1.34492 AU
behind sun end	3776 May 21 19:07	2°♊43'44		superior conj	3777 May 05 15:02	16°♊26'58	-0°41'34
asc. node	3776 May 22 20:17	4°♊58'20		minimum elong	3777 May 05 17:13	16°♊38'20	0°41'07
evening rise	3776 May 28 18:34	17°♊40'10		asc. node	3777 May 09 17:19	25°♊00'50	
	3776 Jun 03 21:05	0°♊			3777 May 12 02:18	0°♊	
evening max el	3776 Jun 19 15:34	23°♊02'51	22°36'54	evening rise	3777 May 13 04:01	2°♊14'03	
desc. node	3776 Jun 29 00:13	29°♊02'31			3777 May 29 04:01	0°♊	
retrograde	3776 Jul 02 19:35	29°♊35'49		evening max el	3777 Jun 01 13:04	3°♊44'15	21°06'30
evening set	3776 Jul 06 00:47	29°♊13'04		retrograde	3777 Jun 13 08:42	9°♊31'43	
min. Earth dist.	3776 Jul 13 23:20	25°♊44'37	0.55251 AU	evening set	3777 Jun 15 14:05	9°♊20'10	
inferior conj	3776 Jul 15 05:15	25°♊01'55	-4°13'44	desc. node	3777 Jun 15 21:14	9°♊16'56	
minimum elong	3776 Jul 14 21:14	25°♊13'23	4°11'55	inferior conj	3777 Jun 24 22:50	5°♊22'14	-2°36'55
morning rise	3776 Jul 23 19:50	21°♊11'06		minimum elong	3777 Jun 24 15:45	5°♊32'13	2°34'31
direct	3776 Jul 26 19:51	20°♊50'24		min. Earth dist.	3777 Jun 25 10:45	5°♊05'28	0.54842 AU
morning max el	3776 Aug 07 03:36	26°♊06'14	21°00'00	morning rise	3777 Jul 03 17:34	1°♊22'56	
	3776 Aug 10 19:06	0°♊		direct	3777 Jul 07 05:24	0°♊56'36	
asc. node	3776 Aug 18 19:30	11°♊58'06		morning max el	3777 Jul 20 00:54	7°♊02'56	22°35'54
morning set	3776 Aug 26 17:54	27°♊20'07			3777 Aug 05 02:23	0°♊	
	3776 Aug 28 00:44	0°♊		asc. node	3777 Aug 05 16:33	1°♊07'07	
superior conj	3776 Sep 03 03:52	12°♊46'16	1°44'13	morning set	3777 Aug 11 04:27	12°♊11'24	
minimum elong	3776 Sep 03 03:31	12°♊44'27	1°44'13	superior conj	3777 Aug 18 07:16	27°♊21'42	1°39'09
max. Earth dist.	3776 Sep 07 16:26	21°♊54'15	1.35607 AU	minimum elong	3777 Aug 18 05:46	27°♊13'42	1°39'04
evening rise	3776 Sep 11 19:35	29°♊51'29			3777 Aug 19 13:11	0°♊	
				max. Earth dist.	3777 Aug 21 09:58	3°♊54'03	1.34103 AU


























































































































evening rise	3777 Aug 26 04:06	13° \cap 30'11		evening rise	3778 Aug 09 23:29	27° Ω 39'47	
	3777 Sep 04 03:18	0° $\underline{\Omega}$			3778 Aug 11 03:20	0° \cap	
desc. node	3777 Sep 11 20:33	12° $\underline{\Omega}$ 30'23			3778 Aug 28 09:09	0° $\underline{\Omega}$	
	3777 Sep 24 20:34	0° \cap		desc. node	3778 Aug 29 17:36	1° $\underline{\Omega}$ 58'38	
evening max el	3777 Sep 29 20:35	5° \cap 17'12	27°09'44	evening max el	3778 Sep 12 07:41	18° $\underline{\Omega}$ 27'32	27°26'37
retrograde	3777 Oct 13 04:55	12° \cap 34'50		retrograde	3778 Sep 25 23:25	25° $\underline{\Omega}$ 43'59	
evening set	3777 Oct 20 02:19	9° \cap 53'16		evening set	3778 Oct 03 03:32	23° $\underline{\Omega}$ 07'44	
min. Earth dist.	3777 Oct 23 23:09	6° \cap 10'43	0.65064 AU	min. Earth dist.	3778 Oct 06 19:26	19° $\underline{\Omega}$ 58'01	0.63472 AU
inferior conj	3777 Oct 26 02:16	3° \cap 48'17	-2°10'55	inferior conj	3778 Oct 09 10:46	17° $\underline{\Omega}$ 18'59	-3°11'27
minimum elong	3777 Oct 26 05:56	3° \cap 38'02	2°09'29	minimum elong	3778 Oct 09 15:59	17° $\underline{\Omega}$ 05'50	3°09'42
	3777 Oct 29 19:59	30° \cap $\underline{\Omega}$		morning rise	3778 Oct 16 05:48	12° $\underline{\Omega}$ 02'28	
morning rise	3777 Nov 01 10:32	28° $\underline{\Omega}$ 15'08		direct	3778 Oct 18 16:54	11° $\underline{\Omega}$ 33'14	
asc. node	3777 Nov 01 15:45	28° $\underline{\Omega}$ 09'15		asc. node	3778 Oct 19 12:49	11° $\underline{\Omega}$ 36'37	
direct	3777 Nov 04 02:41	27° $\underline{\Omega}$ 37'04		morning max el	3778 Oct 25 07:01	14° $\underline{\Omega}$ 58'32	17°50'58
	3777 Nov 09 10:15	0° \cap			3778 Nov 04 18:43	0° \cap	
morning max el	3777 Nov 10 14:25	1° \cap 05'18	18°04'38	morning set	3778 Nov 10 18:40	10° \cap 21'10	
morning set	3777 Nov 28 14:49	28° \cap 06'13			3778 Nov 22 07:22	0° \times	
	3777 Nov 29 18:18	0° \times					
desc. node	3777 Dec 08 19:49	14° \times 48'11		superior conj	3778 Nov 22 23:36	1° \times 07'10	0°18'46
				minimum elong	3778 Nov 23 01:33	1° \times 15'13	0°18'29
superior conj	3777 Dec 12 20:21	21° \times 14'14	-0°27'18	desc. node	3778 Nov 25 16:52	5° \times 34'29	
minimum elong	3777 Dec 12 16:57	21° \times 00'41	0°26'49	max. Earth dist.	3778 Nov 29 03:43	11° \times 08'39	1.44143 AU
max. Earth dist.	3777 Dec 16 09:48	26° \times 52'16	1.45045 AU	evening rise	3778 Dec 08 14:11	25° \times 56'34	
	3777 Dec 18 09:35	0° Z			3778 Dec 11 05:40	0° Z	
evening rise	3777 Dec 29 04:32	16° Z 47'11			3778 Dec 31 21:33	0° \approx	
	3778 Jan 06 18:38	0° \approx		evening max el	3779 Jan 06 13:52	6° \approx 42'28	20°48'54
greatest brilliancy	3778 Jan 11 14:17	7° \approx 17'04	-0.7m	retrograde	3779 Jan 14 21:22	11° \approx 37'15	
evening max el	3778 Jan 23 12:52	23° \approx 10'08	19°45'28	asc. node	3779 Jan 15 12:05	11° \approx 35'11	
asc. node	3778 Jan 28 15:03	26° \approx 59'04		evening set	3779 Jan 18 21:20	10° \approx 05'53	
retrograde	3778 Jan 30 23:17	27° \approx 28'41		inferior conj	3779 Jan 24 05:59	3° \approx 55'01	2°37'27
evening set	3778 Feb 03 14:05	26° \approx 12'09		minimum elong	3779 Jan 24 03:28	4° \approx 03'37	2°36'45
inferior conj	3778 Feb 09 00:44	20° \approx 13'26	3°08'21	min. Earth dist.	3779 Jan 24 17:56	3° \approx 13'59	0.67600 AU
minimum elong	3778 Feb 08 22:30	20° \approx 20'54	3°07'54		3779 Jan 27 05:16	30° \cap Z	
min. Earth dist.	3778 Feb 10 01:50	18° \approx 50'14	0.66854 AU	morning rise	3779 Jan 29 09:26	27° Z 41'51	
morning rise	3778 Feb 14 06:41	13° \approx 59'43		direct	3779 Feb 03 20:03	25° Z 17'41	
direct	3778 Feb 20 07:35	11° \approx 18'05			3779 Feb 12 21:04	0° \approx	
morning max el	3778 Mar 04 09:51	18° \approx 30'54	25°27'33	morning max el	3779 Feb 14 18:26	1° \approx 48'47	24°01'22
desc. node	3778 Mar 06 19:03	21° \approx 02'42		desc. node	3779 Feb 21 16:06	9° \approx 43'48	
	3778 Mar 14 02:39	0° X			3779 Mar 08 03:41	0° X	
	3778 Apr 02 23:09	0° Y		morning set	3779 Mar 22 10:12	23° X 03'39	
morning set	3778 Apr 09 15:18	11° Y 40'38		max. Earth dist.	3779 Mar 26 04:36	29° X 40'02	1.38261 AU
max. Earth dist.	3778 Apr 13 08:20	18° Y 32'27	1.36206 AU		3779 Mar 26 09:05	0° Y	
superior conj	3778 Apr 19 06:16	0° Z 01'23	-1°10'15	superior conj	3779 Apr 02 09:20	12° Y 56'37	-1°36'30
minimum elong	3778 Apr 19 09:58	0° Z 19'52	1°09'38	minimum elong	3779 Apr 02 13:59	13° Y 18'46	1°35'56
	3778 Apr 19 05:59	0° Z		evening rise	3779 Apr 11 07:50	0° Z 21'59	
asc. node	3778 Apr 26 14:21	14° Z 54'06			3779 Apr 11 03:22	0° Z	
evening rise	3778 Apr 27 09:18	16° Z 30'17		asc. node	3779 Apr 13 11:25	4° Z 33'41	
	3778 May 04 08:24	0° II		evening max el	3779 Apr 27 19:12	27° Z 01'27	18°57'02
evening max el	3778 May 14 22:25	15° II 02'31	19°51'57		3779 May 01 18:21	0° II	
retrograde	3778 May 25 00:34	19° II 57'01		retrograde	3779 May 06 07:17	1° II 10'35	
evening set	3778 May 26 23:39	19° II 46'43		evening set	3779 May 08 10:02	0° II 56'12	
desc. node	3778 Jun 02 18:17	17° II 01'45			3779 May 11 02:38	30° \cap Z	
inferior conj	3778 Jun 04 21:10	15° II 45'37	-0°37'38	inferior conj	3779 May 16 12:29	26° Z 40'00	1°10'16
minimum elong	3778 Jun 04 19:27	15° II 48'16	0°37'00	minimum elong	3779 May 16 15:05	26° Z 35'22	1°09'23
min. Earth dist.	3778 Jun 06 23:40	14° II 28'37	0.55397 AU	min. Earth dist.	3779 May 19 15:27	24° Z 28'19	0.56800 AU
morning rise	3778 Jun 13 13:11	11° II 19'34		desc. node	3779 May 20 15:18	23° Z 48'56	
direct	3778 Jun 17 19:44	10° II 39'25		morning rise	3779 May 24 16:57	21° Z 38'10	
morning max el	3778 Jul 01 15:39	17° II 30'46	24°19'10	direct	3779 May 29 22:52	20° Z 32'36	
	3778 Jul 11 20:35	0° O		morning max el	3779 Jun 13 06:23	27° Z 57'14	25°54'58
asc. node	3778 Jul 23 13:36	20° O 39'54			3779 Jun 15 06:44	0° II	
morning set	3778 Jul 26 16:11	27° O 05'52			3779 Jul 05 05:16	0° O	
	3778 Jul 28 00:53	0° Ω		asc. node	3779 Jul 10 10:40	10° O 29'39	
				morning set	3779 Jul 11 03:33	11° O 58'29	
superior conj	3778 Aug 02 15:31	12° Ω 10'31	1°28'23	superior conj	3779 Jul 18 02:31	27° O 06'04	1°12'46
minimum elong	3778 Aug 02 13:21	11° Ω 58'44	1°28'08	minimum elong	3779 Jul 18 00:10	26° O 53'11	1°12'23
max. Earth dist.	3778 Aug 04 12:22	16° Ω 12'59	1.33006 AU				

max. Earth dist.	3779 Jul 18 21:08	28°  48'23	1.32319 AU	max. Earth dist.	3780 Jul 01 08:39	11°  29'35	1.32039 AU
	3779 Jul 19 10:12	0° 		evening rise	3780 Jul 08 10:31	26°  54'26	
evening rise	3779 Jul 25 02:31	12°  10'58			3780 Jul 09 21:59	0° 	
	3779 Aug 03 07:06	0° 			3780 Jul 26 22:12	0° 	
desc. node	3779 Aug 16 14:37	20°  44'32		desc. node	3780 Aug 02 11:38	8°  29'44	
	3779 Aug 24 12:54	0° 		evening max el	3780 Aug 06 15:18	12°  52'00	26°23'51
evening max el	3779 Aug 25 14:44	1°  02'48	27°11'49	retrograde	3780 Aug 20 14:37	20°  02'17	
retrograde	3779 Sep 08 11:02	8°  16'16		evening set	3780 Aug 27 05:21	18°  13'42	
evening set	3779 Sep 15 14:08	5°  57'20		min. Earth dist.	3780 Aug 31 04:37	15°  38'29	0.59524 AU
min. Earth dist.	3779 Sep 19 05:04	3°  12'20	0.61588 AU	inferior conj	3780 Sep 03 11:18	13°  05'53	-4°50'31
inferior conj	3779 Sep 22 06:58	0°  28'07	-4°07'09	minimum elong	3780 Sep 03 15:51	12°  57'00	4°49'52
minimum elong	3779 Sep 22 12:51	0°  14'59	4°05'40	morning rise	3780 Sep 11 04:31	8°  31'52	
	3779 Sep 22 19:36	30°  R 		direct	3780 Sep 13 14:02	8°  11'34	
morning rise	3779 Sep 29 13:20	25°  13'39		morning max el	3780 Sep 21 08:10	11°  57'14	18°19'52
direct	3779 Oct 01 22:07	25°  10'8		asc. node	3780 Sep 22 06:54	12°  54'54	
asc. node	3779 Oct 06 09:52	26°  13'01			3780 Oct 03 09:24	0° 	
morning max el	3779 Oct 08 22:03	28°  38'56	17°55'36	morning set	3780 Oct 07 06:47	7°  19'56	
	3779 Oct 10 04:47	0° 					
morning set	3779 Oct 24 17:50	23°  31'01		superior conj	3780 Oct 16 11:44	24°  40'30	1°22'18
	3779 Oct 28 07:18	0° 		minimum elong	3780 Oct 16 15:28	24°  57'35	1°21'55
					3780 Oct 19 10:23	0° 	
superior conj	3779 Nov 04 05:42	12°  18'52	0°56'08	max. Earth dist.	3780 Oct 24 00:50	8°  10'03	1.40722 AU
minimum elong	3779 Nov 04 09:50	12°  36'46	0°55'35	evening rise	3780 Oct 28 15:28	15°  14'08	
max. Earth dist.	3779 Nov 11 17:04	24°  15'27	1.42639 AU	desc. node	3780 Oct 29 10:55	17°  10'52	
desc. node	3779 Nov 12 13:54	26°  12'50			3780 Nov 06 14:47	0° 	
	3779 Nov 14 19:41	0° 			3780 Nov 28 10:40	0° 	
evening rise	3779 Nov 18 05:24	5°  25'23		evening max el	3780 Dec 02 00:29	3°  51'56	23°22'23
	3779 Dec 04 13:43	0° 		retrograde	3780 Dec 12 12:22	10°  04'39	
evening max el	3779 Dec 20 09:20	20°  15'42	22°02'51	evening set	3780 Dec 17 11:35	8°  01'31	
retrograde	3779 Dec 29 18:15	25°  50'21		asc. node	3780 Dec 19 06:09	6°  16'58	
asc. node	3780 Jan 02 09:08	24°  34'01		inferior conj	3780 Dec 22 21:07	1°  37'04	1°12'26
evening set	3780 Jan 03 05:03	24°  03'19		minimum elong	3780 Dec 22 19:32	1°  42'32	1°11'48
inferior conj	3780 Jan 08 13:23	17°  34'41	1°58'23	min. Earth dist.	3780 Dec 22 10:24	2°  13'53	0.67938 AU
minimum elong	3780 Jan 08 11:07	17°  51'34	1°57'36		3780 Dec 24 01:41	30°  R 	
min. Earth dist.	3780 Jan 08 13:34	17°  43'03	0.67951 AU	morning rise	3780 Dec 28 03:24	25°  29'53	
morning rise	3780 Jan 13 17:03	11°  32'35		direct	3781 Jan 01 08:50	23°  25'18	
direct	3780 Jan 18 12:45	9°  30'13		morning max el	3781 Jan 09 20:43	28°  46'04	21°09'31
morning max el	3780 Jan 28 04:54	15°  12'53	22°32'32		3781 Jan 11 01:07	0° 	
desc. node	3780 Feb 08 13:08	29°  05'33		desc. node	3781 Jan 25 10:09	18°  56'39	
	3780 Feb 09 04:58	0° 			3781 Feb 01 20:49	0° 	
	3780 Feb 29 03:54	0° 		morning set	3781 Feb 09 13:40	11°  52'56	
morning set	3780 Mar 02 02:03	3°  07'30		max. Earth dist.	3781 Feb 17 02:38	23°  58'01	1.42454 AU
max. Earth dist.	3780 Mar 07 00:44	11°  22'14	1.40439 AU		3781 Feb 20 18:11	0° 	
superior conj	3780 Mar 14 19:44	25°  01'25	-1°56'57	superior conj	3781 Feb 24 08:25	6°  04'34	-2°07'05
minimum elong	3780 Mar 14 23:50	25°  19'59	1°56'41	minimum elong	3781 Feb 24 09:21	6°  08'31	2°07'04
	3780 Mar 17 13:13	0° 		evening rise	3781 Mar 07 19:11	26°  16'58	
evening rise	3780 Mar 24 20:26	13°  09'40'27			3781 Mar 09 20:41	0° 	
asc. node	3780 Mar 30 08:27	23°  09'53'42		asc. node	3781 Mar 17 05:29	12°  09'47'49	
	3780 Apr 02 21:17	0° 		evening max el	3781 Mar 24 11:22	22°  09'33'51	18°07'33
evening max el	3780 Apr 10 00:39	9°  34'44	18°22'21	retrograde	3781 Mar 31 03:15	25°  09'57'49	
retrograde	3780 Apr 17 08:48	13°  13'12		evening set	3781 Apr 02 18:52	25°  09'25'43	
evening set	3780 Apr 19 18:04	12°  15'09		inferior conj	3781 Apr 09 09:53	20°  09'29'10	3°14'35
inferior conj	3780 Apr 27 01:12	8°  15'14	2°28'14	minimum elong	3781 Apr 09 12:29	20°  09'22'55	3°14'10
minimum elong	3780 Apr 27 04:54	8°  07'34	2°27'16	min. Earth dist.	3781 Apr 12 14:57	17°  09'25'51	0.60962 AU
min. Earth dist.	3780 Apr 30 11:50	5°  25'25	0.58773 AU	morning rise	3781 Apr 16 04:07	14°  09'35'59	
morning rise	3780 May 04 12:46	2°  42'25		direct	3781 Apr 22 21:30	12°  09'21'24	
desc. node	3780 May 06 12:20	1°  48'25		desc. node	3781 Apr 23 09:21	12°  09'22'06	
direct	3780 May 10 16:18	1°  40'27		morning max el	3781 May 07 03:21	20°  09'17'13	27°46'17
morning max el	3780 May 25 01:46	8°  47'36	27°07'37		3781 May 15 11:27	0° 	
	3780 Jun 10 04:39	0° 			3781 Jun 03 02:14	0° 	
morning set	3780 Jun 24 12:47	26°  12'42'30		morning set	3781 Jun 08 18:04	11°  12'20	
asc. node	3780 Jun 26 07:43	0° 		asc. node	3781 Jun 13 04:45	20°  12'36'18	
	3780 Jun 26 02:07	0° 		max. Earth dist.	3781 Jun 14 19:15	24°  12'05'26	1.32170 AU
superior conj	3780 Jul 01 14:19	12°  00'54	0°52'58	superior conj	3781 Jun 16 01:15	26°  12'49'35	0°29'37
minimum elong	3780 Jul 01 12:17	11°  05'49'38	0°52'34	minimum elong	3781 Jun 15 23:57	26°  12'42'27	0°29'20

	3781 Jun 17 11:56	0°☿		minimum elong	3782 May 31 09:22	11°♊25'26	0°03'22
evening rise	3781 Jun 22 21:25	11°☿43'39		behind sun begin	3782 May 31 04:13	10°♊57'37	
	3781 Jul 02 03:46	0°♊		behind sun end	3782 May 31 14:31	11°♊53'17	
evening max el	3781 Jul 19 08:41	23°♊54'15	25°06'55	asc. node	3782 May 31 01:48	10°♊44'32	
desc. node	3781 Jul 20 08:38	24°♊49'52		evening rise	3782 Jun 07 09:16	26°♊32'14	
	3781 Jul 28 06:58	0°♋			3782 Jun 09 00:48	0°☿	
retrograde	3781 Aug 02 07:51	0°♋58'42			3782 Jun 26 20:56	0°♊	
	3781 Aug 07 09:06	30°♋♊		evening max el	3782 Jun 30 21:53	4°♊24'19	23°32'42
evening set	3781 Aug 07 20:50	29°♊48'24		desc. node	3782 Jul 07 05:38	9°♊13'09	
min. Earth dist.	3781 Aug 12 20:24	27°♊04'37	0.57519 AU	retrograde	3782 Jul 14 12:33	11°♊13'31	
inferior conj	3781 Aug 15 20:33	25°♊03'08	-5°09'29	evening set	3782 Jul 18 14:08	10°♊37'18	
minimum elong	3781 Aug 15 20:50	25°♊02'40	5°09'30	min. Earth dist.	3782 Jul 25 07:48	7°♊29'08	0.55889 AU
morning rise	3781 Aug 23 23:14	20°♊51'21		inferior conj	3782 Jul 27 09:44	6°♊14'49	-4°48'34
direct	3781 Aug 26 12:39	20°♊32'07		minimum elong	3782 Jul 27 04:02	6°♊23'21	4°47'45
morning max el	3781 Sep 04 10:04	24°♊43'28	19°05'12	morning rise	3782 Aug 04 20:24	2°♊20'10	
	3781 Sep 08 22:42	0°♋		direct	3782 Aug 07 16:13	2°♊00'23	
asc. node	3781 Sep 09 03:57	0°♋18'09		morning max el	3782 Aug 18 01:03	6°♊49'09	20°12'15
morning set	3781 Sep 21 05:18	21°♋36'14		asc. node	3782 Aug 27 00:59	18°♊31'49	
	3781 Sep 25 10:51	0°♌			3782 Sep 02 08:09	0°♋	
				morning set	3782 Sep 05 10:19	6°♋11'46	
superior conj	3781 Sep 29 12:17	7°♌56'20	1°37'48				
minimum elong	3781 Sep 29 14:29	8°♌06'58	1°37'40	superior conj	3782 Sep 13 02:20	21°♋52'35	1°44'08
max. Earth dist.	3781 Oct 06 05:19	20°♌28'15	1.38639 AU	minimum elong	3782 Sep 13 02:51	21°♋55'09	1°44'07
evening rise	3781 Oct 10 00:59	27°♌13'24			3782 Sep 17 04:54	0°♌	
	3781 Oct 11 15:48	0°♍		max. Earth dist.	3782 Sep 18 11:27	2°♌26'58	1.36639 AU
desc. node	3781 Oct 16 07:56	7°♍45'33		evening rise	3782 Sep 22 08:10	9°♌40'00	
	3781 Oct 31 03:26	0°♎		desc. node	3782 Oct 03 04:58	28°♌13'37	
evening max el	3781 Nov 14 13:24	17°♎32'15	24°41'11		3782 Oct 04 07:50	0°♍	
retrograde	3781 Nov 26 02:29	24°♎15'46			3782 Oct 26 19:50	0°♎	
evening set	3781 Dec 01 15:22	21°♎57'08		evening max el	3782 Oct 28 01:49	1°♎14'55	25°52'00
min. Earth dist.	3781 Dec 06 05:57	16°♎43'22	0.67582 AU	retrograde	3782 Nov 09 11:52	8°♎19'26	
asc. node	3781 Dec 06 03:10	16°♎52'33		evening set	3782 Nov 15 14:42	5°♎47'25	
inferior conj	3781 Dec 07 03:23	15°♎32'11	0°20'39	min. Earth dist.	3782 Nov 19 21:53	1°♎08'53	0.66884 AU
minimum elong	3781 Dec 07 02:52	15°♎33'52	0°20'26		3782 Nov 20 19:48	30°♎♍	
morning rise	3781 Dec 12 14:29	9°♎31'09		inferior conj	3782 Nov 21 06:23	29°♎26'33	-0°35'50
direct	3781 Dec 16 06:59	8°♎13'01		minimum elong	3782 Nov 21 07:20	29°♎23'35	0°35'27
morning max el	3781 Dec 23 20:11	12°♎30'10	19°58'00	asc. node	3782 Nov 23 00:11	27°♎18'04	
	3782 Jan 06 04:25	0°♏		morning rise	3782 Nov 27 00:21	23°♎34'15	
desc. node	3782 Jan 12 07:09	9°♏08'33		direct	3782 Nov 30 05:41	22°♎34'38	
morning set	3782 Jan 19 09:47	20°♏01'02		morning max el	3782 Dec 07 03:22	26°♎24'31	19°01'10
	3782 Jan 25 19:42	0°♐			3782 Dec 10 07:28	0°♎	
max. Earth dist.	3782 Jan 30 12:33	7°♐26'26	1.44044 AU	morning set	3782 Dec 29 15:43	28°♎47'08	
				desc. node	3782 Dec 30 04:12	29°♎35'49	
superior conj	3782 Feb 04 19:24	15°♐57'32	-2°01'27		3782 Dec 30 10:23	0°♏	
minimum elong	3782 Feb 04 14:33	15°♐37'49	2°01'14	max. Earth dist.	3783 Jan 13 04:50	21°♏32'50	1.45009 AU
	3782 Feb 13 06:25	0°♑					
evening rise	3782 Feb 17 23:36	8°♑02'05		superior conj	3783 Jan 15 06:58	24°♏50'21	-1°36'25
	3782 Mar 03 07:27	0°♒		minimum elong	3783 Jan 14 21:51	24°♏14'26	1°35'34
asc. node	3782 Mar 04 02:30	1°♒07'07			3783 Jan 18 13:10	0°♐	
evening max el	3782 Mar 08 00:05	5°♒49'13	18°11'59	evening rise	3783 Jan 30 06:00	18°♐50'58	
retrograde	3782 Mar 14 10:18	9°♒13'27			3783 Feb 06 01:55	0°♑	
evening set	3782 Mar 17 07:47	8°♒30'00		asc. node	3783 Feb 18 23:31	18°♑41'28	
inferior conj	3782 Mar 23 10:38	3°♒13'34	3°35'00	evening max el	3783 Feb 19 12:00	19°♑14'02	18°34'52
minimum elong	3782 Mar 23 11:27	3°♒11'20	3°34'57	retrograde	3783 Feb 26 01:44	22°♑51'24	
min. Earth dist.	3782 Mar 26 02:40	0°♒20'46	0.63050 AU	evening set	3783 Mar 01 05:08	21°♑55'50	
	3782 Mar 26 10:42	30°♒♑		inferior conj	3783 Mar 06 23:26	16°♑21'07	3°35'45
morning rise	3782 Mar 29 14:03	27°♑08'46		minimum elong	3783 Mar 06 22:40	16°♑23'25	3°35'43
direct	3782 Apr 05 11:40	24°♑29'38		min. Earth dist.	3783 Mar 08 23:55	13°♑56'18	0.64837 AU
desc. node	3782 Apr 10 06:21	25°♑36'04		morning rise	3783 Mar 12 15:39	10°♑10'15	
	3782 Apr 16 19:13	0°♒		direct	3783 Mar 19 09:19	7°♑20'08	
morning max el	3782 Apr 19 10:09	2°♒27'34	27°47'29	desc. node	3783 Mar 28 03:23	11°♑00'55	
	3782 May 09 19:40	0°♓		morning max el	3783 Apr 01 19:49	15°♑11'14	27°13'47
morning set	3782 May 23 17:16	25°♓21'04			3783 Apr 13 22:52	0°♒	
	3782 May 26 00:00	0°♊			3783 May 02 12:59	0°♓	
max. Earth dist.	3782 May 29 01:13	6°♊24'11	1.32721 AU	morning set	3783 May 07 07:32	8°♓59'56	
				max. Earth dist.	3783 May 11 22:41	18°♓14'39	1.33716 AU
superior conj	3782 May 31 09:32	11°♊26'19	0°03'24				

superior conj	3783 May 15 13:11	25°♄44'33	-0°24'51	superior conj	3784 Apr 28 09:49	9°♄37'35	-0°53'52
minimum elong	3783 May 15 14:28	25°♄51'19	0°24'35	minimum elong	3784 Apr 28 12:41	9°♄52'12	0°53'19
asc. node	3783 May 17 22:50	0°♂50'16		asc. node	3784 May 03 19:53	20°♄49'34	
	3783 May 17 13:23	0°♂		evening rise	3784 May 06 04:14	25°♄41'13	
evening rise	3783 May 22 20:12	11°♂13'31			3784 May 08 07:01	0°♂	
	3783 Jun 01 13:34	0°♄		evening max el	3784 May 24 16:17	25°♂47'19	20°32'28
evening max el	3783 Jun 12 14:02	14°♄51'45	21°56'52		3784 May 30 12:14	0°♄	
desc. node	3783 Jun 24 02:39	21°♄04'37		retrograde	3784 Jun 04 19:00	1°♄12'51	
retrograde	3783 Jun 25 05:52	21°♄07'36		evening set	3784 Jun 06 19:36	1°♄02'47	
evening set	3783 Jun 27 22:58	20°♄51'08		desc. node	3784 Jun 09 23:40	0°♄10'04	
inferior conj	3783 Jul 07 07:15	16°♄47'03	-3°37'28		3784 Jun 10 09:54	30°♂♂	
minimum elong	3783 Jul 06 22:48	16°♄58'53	3°35'07	inferior conj	3784 Jun 16 01:07	27°♂05'10	-1°46'57
min. Earth dist.	3783 Jul 06 18:23	17°♄05'05	0.54960 AU	minimum elong	3784 Jun 15 20:06	27°♂12'26	1°45'08
morning rise	3783 Jul 16 00:12	12°♄55'35		min. Earth dist.	3784 Jun 17 06:31	26°♂22'40	0.54958 AU
direct	3783 Jul 19 04:35	12°♄33'14		morning rise	3784 Jun 24 19:44	22°♂56'11	
morning max el	3783 Jul 31 04:18	18°♄09'45	21°39'17	direct	3784 Jun 28 14:18	22°♂25'29	
	3783 Aug 09 14:01	0°♂		morning max el	3784 Jul 11 22:21	28°♂52'28	23°19'45
asc. node	3783 Aug 13 22:03	7°♂23'19			3784 Jul 13 02:07	0°♄	
morning set	3783 Aug 20 19:24	20°♂58'49		asc. node	3784 Jul 30 19:08	26°♄43'20	
	3783 Aug 25 02:14	0°♂			3784 Aug 01 10:36	0°♂	
				morning set	3784 Aug 04 06:40	5°♂51'56	
superior conj	3783 Aug 28 01:48	6°♂16'26	1°42'51	superior conj	3784 Aug 11 07:35	20°♂58'34	1°35'14
minimum elong	3783 Aug 28 00:54	6°♂11'44	1°42'49	minimum elong	3784 Aug 11 05:44	20°♂48'39	1°35'04
max. Earth dist.	3783 Aug 31 23:51	14°♂19'49	1.34916 AU	max. Earth dist.	3784 Aug 13 21:04	26°♂25'52	1.33582 AU
evening rise	3783 Sep 05 08:40	22°♂55'13			3784 Aug 15 14:00	0°♂	
	3783 Sep 09 03:43	0°♂		evening rise	3784 Aug 18 22:15	6°♂48'00	
desc. node	3783 Sep 20 02:01	18°♂24'37			3784 Aug 31 17:23	0°♂	
	3783 Sep 28 00:24	0°♂		desc. node	3784 Sep 05 23:01	8°♂11'01	
evening max el	3783 Oct 10 14:17	14°♂52'32	26°47'31	evening max el	3784 Sep 22 02:15	28°♂15'50	27°20'27
retrograde	3783 Oct 23 16:00	22°♂08'19			3784 Sep 24 00:12	0°♂	
evening set	3783 Oct 30 07:33	19°♂27'48		retrograde	3784 Oct 05 14:26	5°♂34'20	
min. Earth dist.	3783 Nov 03 07:50	15°♂25'14	0.65830 AU	evening set	3784 Oct 12 15:23	2°♂53'24	
inferior conj	3783 Nov 05 04:06	13°♂15'37	-1°35'42		3784 Oct 15 20:19	30°♂♂	
minimum elong	3783 Nov 05 06:45	13°♂07'51	1°34'37	min. Earth dist.	3784 Oct 16 09:42	29°♂25'34	0.64423 AU
asc. node	3783 Nov 09 21:14	8°♂28'12		inferior conj	3784 Oct 18 18:11	26°♂54'36	-2°36'55
morning rise	3783 Nov 11 06:43	7°♂34'53		minimum elong	3784 Oct 18 22:34	26°♂42'51	2°35'17
direct	3783 Nov 14 02:58	6°♂50'09		morning rise	3784 Oct 25 06:57	21°♂28'21	
morning max el	3783 Nov 20 16:24	10°♂23'32	18°20'28	asc. node	3784 Oct 26 18:18	21°♂00'47	
	3783 Dec 04 11:46	0°♂		direct	3784 Oct 27 20:30	20°♂54'36	
morning set	3783 Dec 10 00:44	8°♂56'38		morning max el	3784 Nov 03 08:33	24°♂20'46	17°56'39
desc. node	3783 Dec 17 01:16	20°♂13'27			3784 Nov 07 23:02	0°♂	
	3783 Dec 23 05:15	0°♂		morning set	3784 Nov 20 14:26	20°♂30'17	
					3784 Nov 26 06:06	0°♂	
superior conj	3783 Dec 25 09:13	3°♂24'29	-0°54'49	desc. node	3784 Dec 02 22:18	10°♂57'22	
minimum elong	3783 Dec 25 02:22	2°♂57'35	0°53'57	superior conj	3784 Dec 03 22:57	12°♂36'54	-0°07'05
max. Earth dist.	3783 Dec 26 23:53	5°♂56'18	1.45240 AU	minimum elong	3784 Dec 03 22:07	12°♂33'32	0°06'57
evening rise	3784 Jan 10 13:25	28°♂45'13		behind sun begin	3784 Dec 03 12:45	11°♂55'46	
	3784 Jan 11 08:28	0°♂		behind sun end	3784 Dec 04 07:29	13°♂11'16	
greatest brilliancy	3784 Jan 21 09:26	15°♂40'29	-0.8m	max. Earth dist.	3784 Dec 08 18:31	20°♂18'13	1.44734 AU
	3784 Jan 31 10:48	0°♂			3784 Dec 14 22:53	0°♂	
evening max el	3784 Feb 02 20:50	2°♂43'43	19°15'08	evening rise	3784 Dec 20 03:10	8°♂00'35	
asc. node	3784 Feb 05 20:32	5°♂18'14		greatest brilliancy	3785 Jan 03 17:23	0°♂04'37	-0.6m
retrograde	3784 Feb 09 21:53	6°♂45'05			3785 Jan 03 16:08	0°♂	
evening set	3784 Feb 13 08:04	5°♂36'35		evening max el	3785 Jan 16 00:57	16°♂15'12	20°10'58
inferior conj	3784 Feb 18 20:48	29°♂45'49	3°21'45	asc. node	3785 Jan 22 17:34	20°♂42'20	
minimum elong	3784 Feb 18 18:56	29°♂51'50	3°21'29	retrograde	3785 Jan 23 19:54	20°♂48'54	
	3784 Feb 18 16:24	30°♂		evening set	3785 Jan 27 14:17	19°♂26'24	
min. Earth dist.	3784 Feb 20 06:05	27°♂58'44	0.66231 AU	inferior conj	3785 Feb 01 23:51	13°♂22'10	2°56'21
morning rise	3784 Feb 24 05:30	23°♂32'16		minimum elong	3785 Feb 01 21:26	13°♂30'20	2°55'48
direct	3784 Mar 01 13:29	20°♂44'20		min. Earth dist.	3785 Feb 02 19:14	12°♂16'42	0.67213 AU
morning max el	3784 Mar 14 05:46	28°♂16'07	26°12'07	morning rise	3785 Feb 07 04:21	7°♂08'14	
desc. node	3784 Mar 14 00:27	28°♂02'45		direct	3785 Feb 12 23:20	4°♂33'03	
	3784 Mar 15 21:31	0°♂		morning max el	3785 Feb 24 14:29	11°♂30'19	24°51'50
morning set	3784 Apr 06 16:51	0°♂		desc. node	3785 Feb 28 21:29	16°♂13'25	
	3784 Apr 19 09:09	21°♂58'09			3785 Mar 11 09:40	0°♂	
max. Earth dist.	3784 Apr 23 08:48	29°♂33'47	1.35169 AU				
	3784 Apr 23 14:11	0°♂					

	3785 Mar 30 10:10	0°♿			3786 Feb 11 14:48	0°♿	
morning set	3785 Apr 01 16:59	4°♿00'31		desc. node	3786 Feb 15 18:32	5°♿13'30	
max. Earth dist.	3785 Apr 05 08:06	10°♿34'16	1.37045 AU		3786 Mar 04 21:19	0°♿	
				morning set	3786 Mar 14 00:58	14°♿51'05	
superior conj	3785 Apr 11 20:21	22°♿56'32	-1°21'51	max. Earth dist.	3786 Mar 18 03:00	21°♿51'26	1.39192 AU
minimum elong	3785 Apr 12 00:34	23°♿17'10	1°21'14		3786 Mar 22 16:44	0°♿	
	3785 Apr 15 09:56	0°♿					
evening rise	3785 Apr 20 06:58	9°♿47'42		superior conj	3786 Mar 25 16:56	5°♿32'02	-1°46'07
asc. node	3785 Apr 20 16:55	10°♿37'24		minimum elong	3786 Mar 25 21:37	5°♿53'46	1°45'39
	3785 May 01 09:06	0°♿		evening rise	3786 Apr 04 01:40	23°♿26'04	
evening max el	3785 May 07 06:49	7°♿23'32	19°26'07		3786 Apr 07 11:59	0°♿	
retrograde	3785 May 16 15:52	11°♿56'55		asc. node	3786 Apr 07 13:55	0°♿09'11	
evening set	3785 May 18 15:42	11°♿45'28		evening max el	3786 Apr 20 07:46	19°♿38'27	18°39'48
inferior conj	3785 May 27 05:38	7°♿39'24	0°11'02	retrograde	3786 Apr 28 06:15	23°♿32'01	
minimum elong	3785 May 27 06:06	7°♿38'38	0°10'52	evening set	3786 Apr 30 11:52	23°♿14'37	
transit middle	3785 May 27 06:06	7°♿38'38	0°10'52	inferior conj	3786 May 08 05:52	18°♿50'20	1°47'22
transit begin	3785 May 27 03:15	7°♿43'15		minimum elong	3786 May 08 09:19	18°♿43'49	1°46'18
transit end	3785 May 27 08:57	7°♿34'01		min. Earth dist.	3786 May 11 14:08	16°♿19'52	0.57601 AU
desc. node	3785 May 27 20:42	7°♿14'54		desc. node	3786 May 14 17:43	14°♿17'46	
min. Earth dist.	3785 May 29 20:49	5°♿57'30	0.55906 AU	morning rise	3786 May 16 03:34	13°♿34'34	
morning rise	3785 Jun 04 17:39	2°♿57'58		direct	3786 May 21 19:38	12°♿14'40	
direct	3785 Jun 09 10:01	2°♿08'14		morning max el	3786 Jun 05 04:20	19°♿48'55	26°29'23
morning max el	3785 Jun 23 12:20	9°♿16'09	25°01'40		3786 Jun 13 20:43	0°♿	
	3785 Jul 08 23:39	0°♿			3786 Jul 01 12:15	0°♿	
asc. node	3785 Jul 17 16:12	16°♿23'47		morning set	3786 Jul 04 05:03	5°♿35'09	
morning set	3785 Jul 19 18:25	20°♿45'51		asc. node	3786 Jul 04 13:13	6°♿18'20	
	3785 Jul 24 01:07	0°♿					
				superior conj	3786 Jul 11 04:47	20°♿46'44	1°04'50
superior conj	3785 Jul 26 17:15	5°♿50'58	1°22'18	minimum elong	3786 Jul 11 02:31	20°♿34'13	1°04'26
minimum elong	3785 Jul 26 14:57	5°♿38'23	1°22'00	max. Earth dist.	3786 Jul 11 12:47	21°♿30'50	1.32156 AU
max. Earth dist.	3785 Jul 28 02:21	8°♿51'27	1.32663 AU		3786 Jul 15 09:52	0°♿	
evening rise	3785 Aug 02 21:14	21°♿07'52		evening rise	3786 Jul 18 02:41	5°♿45'19	
	3785 Aug 07 08:17	0°♿			3786 Jul 30 22:54	0°♿	
desc. node	3785 Aug 23 20:02	27°♿22'49		desc. node	3786 Aug 10 17:03	15°♿45'19	
	3785 Aug 25 18:04	0°♿		evening max el	3786 Aug 17 16:50	23°♿30'28	26°55'28
evening max el	3785 Sep 04 12:01	11°♿13'02	27°24'29		3786 Aug 27 12:27	0°♿	
retrograde	3785 Sep 18 06:21	18°♿28'42		retrograde	3786 Aug 31 14:31	0°♿41'46	
evening set	3785 Sep 25 10:57	15°♿58'27			3786 Sep 04 14:07	30°♿	
min. Earth dist.	3785 Sep 29 01:46	13°♿00'19	0.62694 AU	evening set	3786 Sep 07 13:52	28°♿34'42	
inferior conj	3785 Oct 01 21:53	10°♿17'22	-3°36'06	min. Earth dist.	3786 Sep 11 07:02	25°♿55'48	0.60719 AU
minimum elong	3785 Oct 02 03:33	10°♿03'46	3°34'22	inferior conj	3786 Sep 14 11:47	23°♿14'36	-4°27'41
morning rise	3785 Oct 08 21:43	5°♿08'51		minimum elong	3786 Sep 14 17:26	23°♿02'42	4°26'31
direct	3785 Oct 11 07:20	4°♿42'31		morning rise	3786 Sep 21 22:51	18°♿27'08	
asc. node	3785 Oct 13 15:23	5°♿08'07		direct	3786 Sep 24 07:38	18°♿05'11	
morning max el	3785 Oct 18 00:51	8°♿09'30	17°50'35	asc. node	3786 Sep 30 12:26	20°♿42'56	
	3785 Nov 01 08:15	0°♿		morning max el	3786 Oct 01 14:08	21°♿41'11	18°03'24
morning set	3785 Nov 03 03:19	3°♿11'00			3786 Oct 07 23:08	0°♿	
				morning set	3786 Oct 17 08:58	16°♿39'22	
					3786 Oct 24 14:38	0°♿	
superior conj	3785 Nov 14 13:34	23°♿03'12	0°35'56				
minimum elong	3785 Nov 14 16:50	23°♿17'02	0°35'28				
	3785 Nov 18 17:47	0°♿		superior conj	3786 Oct 27 06:24	4°♿46'00	1°08'37
desc. node	3785 Nov 19 19:20	1°♿44'32		minimum elong	3786 Oct 27 10:36	5°♿04'35	1°08'07
max. Earth dist.	3785 Nov 21 10:25	4°♿23'16	1.43563 AU	max. Earth dist.	3786 Nov 03 21:48	17°♿56'04	1.41863 AU
evening rise	3785 Nov 29 13:10	17°♿13'27		desc. node	3786 Nov 06 16:20	22°♿31'07	
	3785 Dec 07 22:31	0°♿		evening rise	3786 Nov 09 11:18	27°♿02'06	
evening max el	3785 Dec 29 23:38	29°♿48'19	21°19'26		3786 Nov 11 08:01	0°♿	
	3785 Dec 30 04:14	0°♿			3786 Dec 01 16:46	0°♿	
retrograde	3786 Jan 07 17:35	4°♿59'43		evening max el	3786 Dec 12 17:09	13°♿22'46	22°36'23
asc. node	3786 Jan 09 14:36	4°♿40'32		retrograde	3786 Dec 22 13:17	19°♿13'28	
evening set	3786 Jan 11 21:55	3°♿21'58		evening set	3786 Dec 27 05:17	17°♿19'31	
	3786 Jan 15 02:48	30°♿		asc. node	3786 Dec 27 11:38	17°♿06'01	
inferior conj	3786 Jan 17 06:15	27°♿07'12	2°21'50	inferior conj	3787 Jan 01 13:59	10°♿57'34	1°39'41
minimum elong	3786 Jan 17 03:48	27°♿15'43	2°21'04	minimum elong	3787 Jan 01 11:57	11°♿04'37	1°38'56
min. Earth dist.	3786 Jan 17 13:09	26°♿43'22	0.67795 AU	min. Earth dist.	3787 Jan 01 09:28	11°♿13'14	0.67994 AU
morning rise	3786 Jan 22 09:29	20°♿54'41		morning rise	3787 Jan 06 18:30	4°♿48'07	
direct	3786 Jan 27 13:51	18°♿39'09		direct	3787 Jan 11 08:06	2°♿55'25	
morning max el	3786 Feb 06 23:14	24°♿49'53	23°23'20	morning max el	3787 Jan 20 11:29	8°♿16'46	21°56'09

desc. node	3787 Feb 02 15:33	24°  48'32		morning max el	3788 Jan 03 06:32	21°  54'49	20°37'28
	3787 Feb 06 06:38	0° 			3788 Jan 10 01:56	0° 	
morning set	3787 Feb 22 04:17	24°  19'01		desc. node	3788 Jan 20 12:35	14°  49'02	
	3787 Feb 25 16:16	0° 			3788 Jan 30 13:15	0° 	
max. Earth dist.	3787 Feb 28 01:32	3°  57'05	1.41335 AU	morning set	3788 Feb 01 06:43	2°  40'32	
				max. Earth dist.	3788 Feb 10 07:10	16°  57'24	1.43192 AU
superior conj	3787 Mar 07 18:43	17°  11'57	-2°02'50	superior conj	3788 Feb 16 20:40	27°  44'48	-2°06'55
minimum elong	3787 Mar 07 21:52	17°  25'47	2°02'41	minimum elong	3788 Feb 16 19:20	27°  39'14	2°06'54
	3787 Mar 14 20:56	0° 			3788 Feb 18 04:52	0° 	
evening rise	3787 Mar 18 08:52	6°  27'48		evening rise	3788 Feb 29 00:21	18°  43'26	
asc. node	3787 Mar 25 10:57	19°  19'06			3788 Mar 06 10:45	0° 	
	3787 Apr 01 11:51	0° 		asc. node	3788 Mar 11 07:59	7°  59'29	
evening max el	3787 Apr 03 15:51	2°  23'53	18°13'39	evening max el	3788 Mar 17 03:43	15°  30'20	18°07'08
retrograde	3787 Apr 10 15:37	5°  54'22		retrograde	3788 Mar 23 16:10	18°  53'10	
evening set	3787 Apr 13 03:44	5°  28'08		evening set	3788 Mar 26 10:11	18°  16'27	
inferior conj	3787 Apr 20 03:29	0°  43'03	2°51'30	inferior conj	3788 Apr 01 19:32	13°  11'09	3°26'02
minimum elong	3787 Apr 20 06:53	0°  35'31	2°50'45	minimum elong	3788 Apr 01 21:24	13°  06'26	3°25'49
	3787 Apr 20 22:51	30°  4'00		min. Earth dist.	3788 Apr 04 19:33	10°  09'39	0.61864 AU
min. Earth dist.	3787 Apr 23 12:52	27°  04'41	0.59697 AU	morning rise	3788 Apr 08 07:00	7°  11'50	
morning rise	3787 Apr 27 07:32	25°  00'26		direct	3788 Apr 15 03:06	4°  45'29	
desc. node	3787 May 01 14:44	23°  17'54		desc. node	3788 Apr 17 11:46	5°  01'38	
direct	3787 May 03 17:59	23°  05'17		morning max el	3788 Apr 29 06:42	12°  43'46	27°51'31
	3787 May 17 03:21	0° 			3788 May 13 00:24	0° 	
morning max el	3787 May 18 02:24	0°  55'23	27°28'42		3788 May 30 08:48	0° 	
	3787 Jun 07 23:52	0° 		morning set	3788 Jun 01 15:55	4°  36'53	
morning set	3787 Jun 18 12:53	20°  14'39		asc. node	3788 Jun 07 07:16	16°  29'48	
asc. node	3787 Jun 21 10:15	26°  22'06		max. Earth dist.	3788 Jun 07 09:54	16°  44'03	1.32349 AU
	3787 Jun 23 02:28	0° 					
max. Earth dist.	3787 Jun 25 00:41	4°  13'18	1.32049 AU	superior conj	3788 Jun 09 02:29	20°  24'35	0°18'49
				minimum elong	3788 Jun 09 01:37	20°  19'51	0°18'38
superior conj	3787 Jun 25 16:27	5°  40'09	0°43'28		3788 Jun 13 11:49	0° 	
minimum elong	3787 Jun 25 14:40	5°  30'20	0°43'06	evening rise	3788 Jun 15 23:45	5°  22'34	
evening rise	3787 Jul 02 12:13	20°  23'51			3788 Jun 29 00:22	0° 	
	3787 Jul 07 02:42	0° 		evening max el	3788 Jul 11 05:00	15°  44'36	24°27'58
	3787 Jul 25 22:29	0° 		desc. node	3788 Jul 14 11:03	18°  33'15	
desc. node	3787 Jul 28 14:02	2°  58'20		retrograde	3788 Jul 25 02:02	22°  45'07	
evening max el	3787 Jul 30 14:20	4°  59'43	25°54'05	evening set	3788 Jul 30 00:42	21°  50'20	
retrograde	3787 Aug 13 13:40	12°  07'35		min. Earth dist.	3788 Aug 04 15:59	18°  57'50	0.56763 AU
evening set	3787 Aug 19 19:23	10°  34'38		inferior conj	3788 Aug 07 08:57	17°  14'29	-5°06'23
min. Earth dist.	3787 Aug 24 02:38	7°  58'22	0.58655 AU	minimum elong	3788 Aug 07 06:41	17°  18'07	5°06'16
inferior conj	3787 Aug 27 08:23	5°  36'42	-5°02'24	morning rise	3788 Aug 15 15:16	13°  11'27	
minimum elong	3787 Aug 27 11:30	5°  30'59	5°02'08	direct	3788 Aug 18 07:03	12°  52'17	
morning rise	3787 Sep 04 05:51	1°  12'28		morning max el	3788 Aug 27 18:47	17°  17'49	19°31'07
direct	3787 Sep 06 16:51	0° 		asc. node	3788 Sep 03 06:30	25°  17'37	
morning max el	3787 Sep 14 21:10	4°  47'23	18°36'30		3788 Sep 06 04:29	0° 	
asc. node	3787 Sep 17 09:28	7°  31'22		morning set	3788 Sep 14 04:04	15°  06'54	
	3787 Sep 30 17:52	0° 			3788 Sep 21 14:08	0° 	
morning set	3787 Oct 01 02:27	0° 					
				superior conj	3788 Sep 22 03:58	1°  08'11	1°41'30
superior conj	3787 Oct 09 21:04	17°  33'08	1°30'05	minimum elong	3788 Sep 22 05:26	1°  15'24	1°41'26
minimum elong	3787 Oct 10 00:13	17°  47'53	1°29'49	max. Earth dist.	3788 Sep 28 08:19	12°  56'08	1.37764 AU
	3787 Oct 16 17:38	0° 		evening rise	3788 Oct 02 02:29	19°  43'59	
max. Earth dist.	3787 Oct 17 04:11	0°  46'10	1.39846 AU		3788 Oct 08 02:23	0° 	
evening rise	3787 Oct 21 07:18	7°  50'58		desc. node	3788 Oct 10 10:24	3°  48'40	
desc. node	3787 Oct 24 13:21	13°  13'53			3788 Oct 28 11:26	0° 	
	3787 Nov 04 08:41	0° 		evening max el	3788 Nov 06 19:20	10°  41'22	25°12'39
evening max el	3787 Nov 25 07:00	27°  00'09	23°56'18	retrograde	3788 Nov 18 18:11	17°  35'55	
	3787 Nov 28 14:29	0° 		evening set	3788 Nov 24 13:00	15°  11'01	
retrograde	3787 Dec 06 05:48	3°  26'57		min. Earth dist.	3788 Nov 29 00:17	10°  12'04	0.67324 AU
evening set	3787 Dec 11 10:51	1°  31'64		inferior conj	3788 Nov 30 02:25	8°  46'57	-0°02'50
	3787 Dec 12 19:05	30°  4'00		minimum elong	3788 Nov 30 02:29	8°  46'44	0°02'48
asc. node	3787 Dec 14 08:41	28°  11'41		transit middle	3788 Nov 30 02:29	8°  46'44	0°02'48
min. Earth dist.	3787 Dec 16 05:56	25°  43'38	0.67833 AU	transit begin	3788 Nov 29 23:45	8°  55'40	
inferior conj	3787 Dec 16 21:17	24° 51'31	0°51'06	transit end	3788 Nov 30 05:13	8° 37'48	
minimum elong	3787 Dec 16 20:06	24° 55'32	0°50'37	asc. node	3788 Nov 30 05:43	8° 36'12	
morning rise	3787 Dec 22 05:23	18° 46'56		morning rise	3788 Dec 05 16:13	2° 49'21	
direct	3787 Dec 26 05:05	17° 16'56					

direct	3788 Dec 09 03:36	1° ♁ 39'43		evening set	3789 Nov 08 09:52	28° ♁ 57'55	
morning max el	3788 Dec 16 09:30	5° ♁ 44'16	19°31'53	min. Earth dist.	3789 Nov 12 14:06	24° ♁ 34'23	0.66474 AU
greatest brilliancy	3788 Dec 29 13:26	23° ♁ 13'27	-0.7m	inferior conj	3789 Nov 14 03:27	22° ♁ 39'56	-1°00'57
	3789 Jan 03 01:05	0° ♁		minimum elong	3789 Nov 14 05:06	22° ♁ 34'53	1°00'15
desc. node	3789 Jan 06 09:37	5° ♁ 08'13		asc. node	3789 Nov 17 02:46	19° ♁ 14'38	
morning set	3789 Jan 10 03:54	10° ♁ 56'05		morning rise	3789 Nov 20 00:53	16° ♁ 51'57	
	3789 Jan 22 08:53	0° ♁		direct	3789 Nov 23 02:02	15° ♁ 59'10	
max. Earth dist.	3789 Jan 22 19:37	0° ♁ 42'28	1.44530 AU	morning max el	3789 Nov 29 19:25	19° ♁ 41'08	18°41'45
					3789 Dec 07 19:42	0° ♁	
superior conj	3789 Jan 26 20:49	7° ♁ 09'29	-1°53'14	morning set	3789 Dec 20 20:13	20° ♁ 14'48	
minimum elong	3789 Jan 26 13:36	6° ♁ 40'34	1°52'45	desc. node	3789 Dec 24 06:40	25° ♁ 40'21	
evening rise	3789 Feb 09 19:50	0° ♁ 05'11			3789 Dec 27 00:35	0° ♁	
	3789 Feb 09 18:36	0° ♁		max. Earth dist.	3790 Jan 05 13:08	14° ♁ 57'13	1.45199 AU
asc. node	3789 Feb 26 05:01	26° ♁ 01'23					
evening max el	3789 Feb 28 16:24	28° ♁ 50'27	18°19'35	superior conj	3790 Jan 06 02:03	15° ♁ 47'53	-1°20'19
	3789 Mar 01 22:20	0° ♁		minimum elong	3790 Jan 05 17:03	15° ♁ 12'37	1°19'19
retrograde	3789 Mar 07 03:15	2° ♁ 19'05			3790 Jan 15 02:16	0° ♁	
evening set	3789 Mar 10 03:05	1° ♁ 30'44		evening rise	3790 Jan 21 16:12	10° ♁ 29'21	
	3789 Mar 12 07:04	30° ♁		greatest brilliancy	3790 Jan 29 07:44	22° ♁ 44'30	-0.9m
inferior conj	3789 Mar 16 01:55	26° ♁ 06'32	3°37'22		3790 Feb 02 22:51	0° ♁	
minimum elong	3789 Mar 16 02:00	26° ♁ 06'15	3°37'22	evening max el	3790 Feb 12 03:18	12° ♁ 17'57	18°50'02
min. Earth dist.	3789 Mar 18 11:33	23° ♁ 23'35	0.63847 AU	asc. node	3790 Feb 13 02:04	13° ♁ 12'59	
morning rise	3789 Mar 22 00:04	19° ♁ 58'27		retrograde	3790 Feb 18 20:55	16° ♁ 04'01	
direct	3789 Mar 28 20:52	17° ♁ 12'35		evening set	3790 Feb 22 03:05	15° ♁ 03'06	
desc. node	3789 Apr 04 08:47	19° ♁ 15'23		inferior conj	3790 Feb 27 18:43	9° ♁ 21'33	3°31'20
morning max el	3789 Apr 11 15:07	25° ♁ 09'54	27°37'06	minimum elong	3790 Feb 27 17:25	9° ♁ 25'35	3°31'13
	3789 Apr 16 01:09	0° ♁		min. Earth dist.	3790 Mar 01 12:42	7° ♁ 11'49	0.65485 AU
	3789 May 06 11:28	0° ♁		morning rise	3790 Mar 05 07:19	3° ♁ 09'23	
morning set	3789 May 16 11:43	18° ♁ 34'15		direct	3790 Mar 11 21:35	0° ♁ 18'25	
max. Earth dist.	3789 May 21 12:30	28° ♁ 50'51	1.33082 AU	desc. node	3790 Mar 22 05:50	5° ♁ 24'50	
	3789 May 22 01:40	0° ♁		morning max el	3790 Mar 25 00:55	8° ♁ 02'56	26°50'22
					3790 Apr 11 02:47	0° ♁	
superior conj	3789 May 24 09:03	4° ♁ 54'16	-0°08'24		3790 Apr 28 20:28	0° ♁	
minimum elong	3789 May 24 09:29	4° ♁ 56'31	0°08'19	morning set	3790 Apr 29 21:05	1° ♁ 56'50	
behind sun begin	3789 May 24 04:52	4° ♁ 31'51		max. Earth dist.	3790 May 04 04:59	10° ♁ 25'42	1.34274 AU
behind sun end	3789 May 24 14:05	5° ♁ 21'13					
asc. node	3789 May 25 04:18	6° ♁ 37'29		superior conj	3790 May 08 10:03	19° ♁ 02'37	-0°37'09
evening rise	3789 May 31 11:25	20° ♁ 08'33		minimum elong	3790 May 08 12:00	19° ♁ 12'47	0°36'45
	3789 Jun 05 07:02	0° ♁		asc. node	3790 May 12 01:22	26° ♁ 41'00	
evening max el	3789 Jun 22 18:27	26° ♁ 09'30	22°51'17		3790 May 13 15:05	0° ♁	
	3789 Jun 27 12:15	0° ♁		evening rise	3790 May 15 21:20	4° ♁ 44'30	
desc. node	3789 Jul 01 08:04	1° ♁ 55'49			3790 May 29 21:39	0° ♁	
retrograde	3789 Jul 06 01:52	2° ♁ 47'14		evening max el	3790 Jun 04 14:28	6° ♁ 46'48	21°19'10
evening set	3789 Jul 09 11:58	2° ♁ 21'36		retrograde	3790 Jun 16 15:39	12° ♁ 41'54	
	3789 Jul 15 06:54	30° ♁		desc. node	3790 Jun 18 05:03	12° ♁ 36'15	
min. Earth dist.	3789 Jul 17 03:02	28° ♁ 58'46	0.55391 AU	evening set	3790 Jun 18 23:33	12° ♁ 29'25	
inferior conj	3789 Jul 18 14:30	28° ♁ 07'43	-4°24'34	inferior conj	3790 Jun 28 08:43	8° ♁ 30'30	-2°53'52
minimum elong	3789 Jul 18 06:55	28° ♁ 18'41	4°23'01	minimum elong	3790 Jun 28 01:04	8° ♁ 41'12	2°51'24
morning rise	3789 Jul 27 04:05	24° ♁ 16'18		min. Earth dist.	3790 Jun 28 14:10	8° ♁ 22'51	0.54839 AU
direct	3789 Jul 30 02:57	23° ♁ 55'54		morning rise	3790 Jul 07 03:09	4° ♁ 34'00	
morning max el	3789 Aug 10 04:47	29° ♁ 04'39	20°47'00	direct	3790 Jul 10 12:55	4° ♁ 08'51	
	3789 Aug 11 03:42	0° ♁		morning max el	3790 Jul 23 03:28	10° ♁ 07'24	22°20'53
asc. node	3789 Aug 21 03:33	13° ♁ 48'35			3790 Aug 06 11:03	0° ♁	
morning set	3789 Aug 29 11:02	29° ♁ 47'43		asc. node	3790 Aug 08 00:37	2° ♁ 53'44	
	3789 Aug 29 13:25	0° ♁		morning set	3790 Aug 13 21:18	14° ♁ 38'39	
superior conj	3789 Sep 05 22:26	15° ♁ 17'19	1°44'26	superior conj	3790 Aug 21 00:56	29° ♁ 50'26	1°40'20
minimum elong	3789 Sep 05 22:18	15° ♁ 16'37	1°44'25	minimum elong	3790 Aug 20 23:34	29° ♁ 43'15	1°40'14
max. Earth dist.	3789 Sep 10 16:14	24° ♁ 47'54	1.35865 AU		3790 Aug 21 02:44	0° ♁	
	3789 Sep 13 09:02	0° ♁		max. Earth dist.	3790 Aug 24 08:36	6° ♁ 46'42	1.34303 AU
evening rise	3789 Sep 14 17:35	2° ♁ 32'54		evening rise	3790 Aug 29 00:12	16° ♁ 06'23	
desc. node	3789 Sep 27 07:26	24° ♁ 10'13			3790 Sep 05 12:30	0° ♁	
	3789 Oct 01 02:14	0° ♁		desc. node	3790 Sep 14 04:27	14° ♁ 12'21	
evening max el	3789 Oct 20 07:50	24° ♁ 23'11	26°18'01		3790 Sep 25 14:32	0° ♁	
	3789 Oct 27 14:14	0° ♁		evening max el	3790 Oct 02 20:32	7° ♁ 57'43	27°04'44
retrograde	3789 Nov 02 01:34	1° ♁ 34'03		retrograde	3790 Oct 16 03:12	15° ♁ 14'45	
	3789 Nov 07 00:22	30° ♁		evening set	3790 Oct 22 23:14	12° ♁ 33'15	

min. Earth dist.	3790 Oct 26 20:59	8° \mathbb{M} 45'33	0.65278 AU	min. Earth dist.	3791 Oct 09 18:39	22° \mathbb{Q} 36'46	0.63735 AU
inferior conj	3790 Oct 28 22:16	6° \mathbb{M} 26'20	-2°01'38	inferior conj	3791 Oct 12 08:18	19° \mathbb{Q} 59'26	-3°02'27
minimum elong	3790 Oct 29 01:41	6° \mathbb{M} 16'42	2°00'16	minimum elong	3791 Oct 12 13:19	19° \mathbb{Q} 46'34	3°00'43
asc. node	3790 Nov 03 23:48	0° \mathbb{M} 57'36		morning rise	3791 Oct 19 01:42	14° \mathbb{Q} 40'23	
morning rise	3790 Nov 04 05:02	0° \mathbb{M} 51'04		direct	3791 Oct 21 13:22	14° \mathbb{Q} 10'04	
direct	3790 Nov 06 22:12	0° \mathbb{M} 11'20		asc. node	3791 Oct 21 20:52	14° \mathbb{Q} 10'33	
morning max el	3790 Nov 13 10:05	3° \mathbb{M} 40'28	18°08'10	morning max el	3791 Oct 28 02:40	17° \mathbb{Q} 35'11	17°51'50
	3790 Dec 01 02:44	0° \mathbb{X}			3791 Nov 06 01:26	0° \mathbb{M}	
morning set	3790 Dec 01 17:59	1° \mathbb{X} 02'42		morning set	3791 Nov 13 18:20	13° \mathbb{M} 07'34	
desc. node	3790 Dec 11 03:45	16° \mathbb{X} 21'29			3791 Nov 23 16:43	0° \mathbb{X}	
superior conj	3790 Dec 16 06:47	24° \mathbb{X} 31'58	-0°34'35	superior conj	3791 Nov 26 06:14	4° \mathbb{X} 13'45	0°12'15
minimum elong	3790 Dec 16 02:25	24° \mathbb{X} 14'43	0°33'59	minimum elong	3791 Nov 26 07:33	4° \mathbb{X} 19'10	0°12'02
max. Earth dist.	3790 Dec 19 08:48	29° \mathbb{X} 24'02	1.45124 AU	behind sun begin	3791 Nov 26 00:59	3° \mathbb{X} 52'13	
	3790 Dec 19 17:56	0° \mathbb{Z}		behind sun end	3791 Nov 26 14:07	4° \mathbb{X} 46'05	
evening rise	3791 Jan 01 14:59	20° \mathbb{Z} 04'33		desc. node	3791 Nov 28 00:46	7° \mathbb{X} 07'21	
	3791 Jan 08 00:57	0° \mathbb{Z}		max. Earth dist.	3791 Dec 02 03:00	13° \mathbb{X} 42'35	1.44318 AU
greatest brilliancy	3791 Jan 14 09:54	9° \mathbb{Z} 43'27	-0.7m	evening rise	3791 Dec 12 01:09	29° \mathbb{X} 14'14	
evening max el	3791 Jan 26 10:22	25° \mathbb{Z} 49'00	19°37'05		3791 Dec 12 13:03	0° \mathbb{Z}	
asc. node	3791 Jan 30 23:05	29° \mathbb{Z} 20'55			3792 Jan 01 20:48	0° \mathbb{Z}	
	3791 Feb 02 01:17	0° \mathbb{X}		evening max el	3792 Jan 09 12:08	9° \mathbb{Z} 21'14	20°38'41
retrograde	3791 Feb 02 18:04	0° \mathbb{X} 02'45		retrograde	3792 Jan 17 16:15	14° \mathbb{Z} 10'32	
	3791 Feb 03 10:41	30° \mathbb{R}		asc. node	3792 Jan 17 20:06	14° \mathbb{Z} 10'23	
evening set	3791 Feb 06 07:40	28° \mathbb{Z} 48'15		evening set	3792 Jan 21 14:43	12° \mathbb{Z} 41'29	
inferior conj	3791 Feb 11 18:47	22° \mathbb{Z} 51'26	3°12'10	inferior conj	3792 Jan 26 23:31	6° \mathbb{Z} 32'09	2°42'44
minimum elong	3791 Feb 11 16:37	22° \mathbb{Z} 58'34	3°11'46	minimum elong	3792 Jan 26 21:02	6° \mathbb{Z} 40'41	2°42'03
min. Earth dist.	3791 Feb 12 21:55	21° \mathbb{Z} 22'06	0.66710 AU	min. Earth dist.	3792 Jan 27 13:20	5° \mathbb{Z} 44'52	0.67510 AU
morning rise	3791 Feb 17 01:21	16° \mathbb{Z} 37'46		morning rise	3792 Feb 01 03:10	0° \mathbb{Z} 18'40	
direct	3791 Feb 23 04:10	13° \mathbb{Z} 54'17			3792 Feb 01 11:43	30° \mathbb{R} \mathbb{Z}	
morning max el	3791 Mar 07 10:13	21° \mathbb{Z} 12'13	25°39'33	direct	3792 Feb 06 15:55	27° \mathbb{Z} 51'35	
desc. node	3791 Mar 09 02:54	22° \mathbb{Z} 58'43			3792 Feb 12 12:35	0° \mathbb{Z}	
	3791 Mar 15 01:20	0° \mathbb{X}		morning max el	3792 Feb 17 18:52	4° \mathbb{Z} 29'55	24°14'38
	3791 Apr 04 07:48	0° \mathbb{Y}		desc. node	3792 Feb 23 23:58	11° \mathbb{Z} 32'50	
morning set	3791 Apr 12 15:45	14° \mathbb{Y} 32'32			3792 Mar 08 09:15	0° \mathbb{X}	
max. Earth dist.	3791 Apr 16 10:12	21° \mathbb{Y} 34'08	1.35925 AU	morning set	3792 Mar 24 14:15	26° \mathbb{X} 06'50	
	3791 Apr 20 18:17	0° \mathbb{Z}			3792 Mar 26 19:24	0° \mathbb{Y}	
superior conj	3791 Apr 22 02:46	2° \mathbb{Z} 42'01	-1°06'00	max. Earth dist.	3792 Mar 28 07:10	2° \mathbb{Y} 39'46	1.37940 AU
minimum elong	3791 Apr 22 06:16	2° \mathbb{Z} 59'34	1°05'24	superior conj	3792 Apr 04 07:54	15° \mathbb{Y} 44'03	-1°32'48
asc. node	3791 Apr 28 22:24	16° \mathbb{Z} 35'55		minimum elong	3792 Apr 04 12:29	16° \mathbb{Y} 06'00	1°32'13
evening rise	3791 Apr 30 03:24	19° \mathbb{Z} 03'57			3792 Apr 11 14:44	0° \mathbb{Z}	
	3791 May 05 16:33	0° \mathbb{I}		evening rise	3792 Apr 13 03:09	3° \mathbb{Z} 00'09	
evening max el	3791 May 17 21:53	17° \mathbb{I} 58'27	20°01'50	asc. node	3792 Apr 14 19:26	6° \mathbb{Z} 18'03	
retrograde	3791 May 28 06:22	23° \mathbb{I} 01'03		evening max el	3792 Apr 29 17:06	29° \mathbb{Z} 51'42	19°03'52
evening set	3791 May 30 05:28	22° \mathbb{I} 50'58			3792 Apr 29 20:32	0° \mathbb{I}	
desc. node	3791 Jun 05 02:05	20° \mathbb{I} 39'44		retrograde	3792 May 08 10:24	4° \mathbb{I} 06'47	
inferior conj	3791 Jun 08 05:22	18° \mathbb{I} 51'09	-0°55'43	evening set	3792 May 10 12:10	3° \mathbb{I} 53'21	
minimum elong	3791 Jun 08 02:46	18° \mathbb{I} 55'03	0°54'44		3792 May 18 06:01	30° \mathbb{R} \mathbb{Z}	
min. Earth dist.	3791 Jun 10 02:44	17° \mathbb{I} 43'04	0.55250 AU	inferior conj	3792 May 18 17:40	29° \mathbb{Z} 39'57	0°55'36
morning rise	3791 Jun 16 22:20	14° \mathbb{I} 30'03		minimum elong	3792 May 18 19:49	29° \mathbb{Z} 36'13	0°54'51
direct	3791 Jun 21 01:31	13° \mathbb{I} 52'49		desc. node	3792 May 21 23:06	27° \mathbb{Z} 27'15	
morning max el	3791 Jul 04 18:51	20° \mathbb{I} 38'05	24°03'59	min. Earth dist.	3792 May 21 18:07	27° \mathbb{Z} 35'29	0.56547 AU
	3791 Jul 12 19:11	0° \mathbb{Z}		morning rise	3792 May 27 00:17	24° \mathbb{Z} 43'13	
asc. node	3791 Jul 25 21:40	22° \mathbb{Z} 23'23		direct	3792 Jun 01 02:38	23° \mathbb{Z} 42'06	
morning set	3791 Jul 29 08:59	29° \mathbb{Z} 33'04			3792 Jun 14 06:10	0° \mathbb{I}	
	3791 Jul 29 14:05	0° \mathbb{Q}		morning max el	3792 Jun 15 09:17	1° \mathbb{I} 03'05	25°41'49
superior conj	3791 Aug 05 08:36	14° \mathbb{Q} 37'48	1°30'21		3792 Jul 05 15:03	0° \mathbb{Z}	
minimum elong	3791 Aug 05 06:30	14° \mathbb{Q} 26'25	1°30'08	asc. node	3792 Jul 11 18:43	12° \mathbb{Z} 10'41	
max. Earth dist.	3791 Aug 07 09:45	19° \mathbb{Q} 02'31	1.33139 AU	morning set	3792 Jul 12 20:28	14° \mathbb{Z} 25'51	
evening rise	3791 Aug 12 18:09	0° \mathbb{M} 11'53		superior conj	3792 Jul 19 19:17	29° \mathbb{Z} 32'26	1°15'24
	3791 Aug 12 15:48	0° \mathbb{M}		minimum elong	3792 Jul 19 16:56	29° \mathbb{Z} 19'33	1°15'04
	3791 Aug 29 12:57	0° \mathbb{Z}			3792 Jul 20 00:18	0° \mathbb{Q}	
desc. node	3791 Sep 01 01:26	3° \mathbb{Z} 45'48		max. Earth dist.	3792 Jul 20 17:36	1° \mathbb{Q} 34'50	1.32392 AU
evening max el	3791 Sep 15 07:52	21° \mathbb{Z} 11'48	27°25'56	evening rise	3792 Jul 26 20:10	14° \mathbb{Q} 39'55	
retrograde	3791 Sep 28 22:41	28° \mathbb{Z} 28'49			3792 Aug 03 16:24	0° \mathbb{M}	
evening set	3791 Oct 06 02:16	25° \mathbb{Z} 50'53		desc. node	3792 Aug 17 22:25	22° \mathbb{M} 38'44	

	3792 Aug 23 21:31	0°♎		evening max el	3793 Aug 09 17:20	15°♎49'29	26°33'07
evening max el	3792 Aug 27 15:35	3°♎52'34	27°16'10	retrograde	3793 Aug 23 16:26	23°♎00'12	
retrograde	3792 Sep 10 11:31	11°♎06'56		evening set	3793 Aug 30 09:45	21°♎06'36	
evening set	3792 Sep 17 15:19	8°♎44'33		min. Earth dist.	3793 Sep 03 07:00	18°♎30'56	0.59829 AU
min. Earth dist.	3792 Sep 21 05:55	5°♎56'36	0.61880 AU	inferior conj	3793 Sep 06 13:26	15°♎55'31	-4°45'16
inferior conj	3792 Sep 24 06:30	3°♎12'06	-3°59'20	minimum elong	3793 Sep 06 18:23	15°♎45'40	4°44'29
minimum elong	3792 Sep 24 12:23	2°♎58'43	3°57'46	morning rise	3793 Sep 14 05:06	11°♎17'56	
	3792 Sep 28 02:39	30°♎		direct	3793 Sep 16 14:16	10°♎57'19	
morning rise	3792 Oct 01 11:12	28°♎12'31		morning max el	3793 Sep 24 05:11	14°♎40'20	18°14'57
direct	3792 Oct 03 20:03	27°♎48'27		asc. node	3793 Sep 24 14:58	15°♎04'30	
asc. node	3792 Oct 07 17:55	28°♎56'28			3793 Oct 04 18:17	0°♎	
	3792 Oct 09 06:59	0°♎		morning set	3793 Oct 10 02:15	9°♎54'48	
morning max el	3792 Oct 10 18:08	1°♎18'01	17°53'40				
morning set	3792 Oct 26 14:59	26°♎10'16		superior conj	3793 Oct 19 11:11	27°♎26'28	1°19'02
	3792 Oct 28 17:44	0°♎		minimum elong	3793 Oct 19 15:05	27°♎44'10	1°18'37
					3793 Oct 20 21:10	0°♎	
superior conj	3792 Nov 06 08:20	15°♎13'57	0°51'10	max. Earth dist.	3793 Oct 27 01:31	10°♎48'36	1.41025 AU
minimum elong	3792 Nov 06 12:20	15°♎31'10	0°50'38	evening rise	3793 Oct 31 21:19	18°♎51'01	
max. Earth dist.	3792 Nov 13 16:53	27°♎34'46	1.42892 AU	desc. node	3793 Oct 31 18:46	18°♎40'34	
desc. node	3792 Nov 13 21:46	27°♎54'43			3793 Nov 07 21:55	0°♎	
	3792 Nov 15 04:33	0°♎			3793 Nov 29 05:15	0°♎	
evening rise	3792 Nov 20 14:27	8°♎37'34		evening max el	3793 Dec 05 00:06	6°♎30'34	23°10'24
	3792 Dec 04 18:12	0°♎		retrograde	3793 Dec 15 07:57	12°♎37'37	
evening max el	3792 Dec 22 08:20	22°♎54'11	21°51'24	evening set	3793 Dec 20 05:14	10°♎37'00	
retrograde	3792 Dec 31 13:24	28°♎23'04		asc. node	3793 Dec 21 14:10	9°♎18'45	
asc. node	3793 Jan 03 17:08	27°♎29'17		min. Earth dist.	3793 Dec 25 05:25	4°♎44'26	0.67967 AU
evening set	3793 Jan 04 22:26	26°♎38'30		inferior conj	3793 Dec 25 14:31	4°♎13'06	1°19'50
inferior conj	3793 Jan 10 06:43	20°♎19'58	2°04'50	minimum elong	3793 Dec 25 12:48	4°♎19'02	1°19'10
minimum elong	3793 Jan 10 04:23	20°♎28'05	2°04'01		3793 Dec 28 21:02	30°♎	
min. Earth dist.	3793 Jan 10 08:37	20°♎13'21	0.67920 AU	morning rise	3793 Dec 30 20:16	28°♎05'12	
morning rise	3793 Jan 15 10:11	14°♎08'21		direct	3794 Jan 04 03:49	26°♎22'10	
direct	3793 Jan 20 08:06	12°♎02'29			3794 Jan 11 08:07	0°♎	
morning max el	3793 Jan 30 04:45	17°♎52'42	22°45'34	morning max el	3794 Jan 12 19:29	1°♎24'12	21°21'12
	3793 Feb 09 06:21	0°♎		desc. node	3794 Jan 27 18:01	20°♎36'44	
desc. node	3793 Feb 09 20:59	0°♎49'20			3794 Feb 03 03:04	0°♎	
	3793 Mar 01 12:03	0°♎		morning set	3794 Feb 13 01:43	15°♎18'22	
morning set	3793 Mar 05 10:21	6°♎23'03		max. Earth dist.	3794 Feb 20 03:21	26°♎41'24	1.42180 AU
max. Earth dist.	3793 Mar 10 02:30	14°♎13'51	1.40117 AU		3794 Feb 22 03:22	0°♎	
superior conj	3793 Mar 17 21:04	27°♎57'07	-1°54'26	superior conj	3794 Feb 27 13:16	9°♎10'07	-2°06'26
minimum elong	3793 Mar 18 01:24	28°♎16'52	1°54'05	minimum elong	3794 Feb 27 14:53	9°♎17'02	2°06'24
	3793 Mar 18 23:57	0°♎		evening rise	3794 Mar 10 18:26	29°♎07'06	
evening rise	3793 Mar 27 17:25	16°♎24'01			3794 Mar 11 06:05	0°♎	
asc. node	3793 Apr 01 16:27	25°♎41'29		asc. node	3794 Mar 19 13:28	14°♎39'55	
	3793 Apr 04 02:32	0°♎		evening max el	3794 Mar 27 07:39	25°♎16'42	18°08'32
evening max el	3793 Apr 12 21:30	12°♎20'47	18°26'15	retrograde	3794 Apr 03 01:10	28°♎41'43	
retrograde	3793 Apr 20 09:00	16°♎02'35		evening set	3794 Apr 05 15:56	28°♎11'08	
evening set	3793 Apr 22 17:18	15°♎41'50		inferior conj	3794 Apr 12 09:06	23°♎17'32	3°09'21
inferior conj	3793 Apr 30 03:11	11°♎09'06	2°18'31	minimum elong	3794 Apr 12 11:56	23°♎10'51	3°08'51
minimum elong	3793 Apr 30 06:54	11°♎01'34	2°17'29	min. Earth dist.	3794 Apr 15 15:34	20°♎14'45	0.60638 AU
min. Earth dist.	3793 May 03 13:44	8°♎23'28	0.58462 AU	morning rise	3794 Apr 19 05:49	17°♎26'53	
morning rise	3793 May 07 17:25	5°♎40'19		direct	3794 Apr 25 21:47	15°♎17'05	
desc. node	3793 May 08 20:08	5°♎08'47		desc. node	3794 Apr 25 17:11	15°♎17'11	
direct	3793 May 13 18:15	4°♎05'16		morning max el	3794 May 10 04:15	23°♎11'24	27°42'54
morning max el	3793 May 28 03:40	11°♎48'20	26°58'41		3794 May 16 06:01	0°♎	
	3793 Jun 11 08:28	0°♎			3794 Jun 04 12:23	0°♎	
morning set	3793 Jun 27 06:05	29°♎11'21		morning set	3794 Jun 11 12:06	13°♎43'51	
	3793 Jun 27 15:20	0°♎		asc. node	3794 Jun 15 12:46	22°♎15'23	
asc. node	3793 Jun 28 15:45	2°♎09'34		max. Earth dist.	3794 Jun 17 15:55	26°♎53'36	1.32126 AU
superior conj	3793 Jul 04 07:04	14°♎27'46	0°56'12	superior conj	3794 Jun 18 18:15	29°♎17'59	0°33'22
minimum elong	3793 Jul 04 04:57	14°♎16'05	0°55'49	minimum elong	3794 Jun 18 16:49	29°♎10'03	0°33'04
max. Earth dist.	3793 Jul 04 04:50	14°♎15'24	1.32055 AU		3794 Jun 19 01:54	0°♎	
evening rise	3793 Jul 11 03:35	29°♎22'06		evening rise	3794 Jun 25 14:12	14°♎11'17	
	3793 Jul 11 10:47	0°♎			3794 Jul 03 12:07	0°♎	
	3793 Jul 27 23:06	0°♎		evening max el	3794 Jul 22 11:50	26°♎58'49	25°19'51
desc. node	3793 Aug 04 19:25	10°♎34'34		desc. node	3794 Jul 22 16:26	27°♎09'45	

	3794 Jul 26 00:43	0°♎			3795 Jun 10 13:13	0°♏	
retrograde	3794 Aug 05 11:11	4°♎04'05			3795 Jun 27 12:59	0°♏	
evening set	3794 Aug 11 04:54	2°♎48'00		evening max el	3795 Jul 04 01:13	7°♏32'10	23°47'11
min. Earth dist.	3794 Aug 15 23:40	0°♎06'44	0.57802 AU	desc. node	3795 Jul 09 13:28	11°♏53'32	
	3794 Aug 16 03:43	30°♎♏		retrograde	3795 Jul 17 17:48	14°♏24'48	
inferior conj	3794 Aug 19 01:42	27°♏59'35	-5°08'54	evening set	3795 Jul 22 01:02	13°♏44'06	
minimum elong	3794 Aug 19 02:49	27°♏57'40	5°08'52	min. Earth dist.	3795 Jul 28 11:23	10°♏40'28	0.56098 AU
morning rise	3794 Aug 27 03:04	23°♏44'35		inferior conj	3795 Jul 30 17:48	9°♏18'14	-4°54'54
direct	3794 Aug 29 15:49	23°♏25'13		minimum elong	3795 Jul 30 12:56	9°♏25'38	4°54'19
morning max el	3794 Sep 07 08:29	27°♏31'57	18°57'06	morning rise	3795 Aug 08 03:23	5°♏21'52	
	3794 Sep 09 16:07	0°♎		direct	3795 Aug 10 22:09	5°♏02'17	
asc. node	3794 Sep 11 12:01	2°♎19'04		morning max el	3795 Aug 21 01:15	9°♏44'25	20°00'55
morning set	3794 Sep 23 23:36	24°♎07'58		asc. node	3795 Aug 29 09:04	20°♏26'03	
	3794 Sep 26 22:56	0°♏			3795 Sep 03 18:32	0°♎	
				morning set	3795 Sep 08 03:48	8°♎41'07	
superior conj	3794 Oct 02 09:21	10°♏35'26	1°36'04				
minimum elong	3794 Oct 02 11:49	10°♏47'13	1°35'54	superior conj	3795 Sep 15 21:41	24°♎26'33	1°43'41
max. Earth dist.	3794 Oct 09 06:34	23°♏20'48	1.38951 AU	minimum elong	3795 Sep 15 22:27	24°♎30'20	1°43'40
evening rise	3794 Oct 13 03:25	0°♎07'53			3795 Sep 18 17:07	0°♏	
	3794 Oct 13 01:35	0°♎		max. Earth dist.	3795 Sep 21 12:02	5°♏21'47	1.36924 AU
desc. node	3794 Oct 18 15:47	9°♎20'35		evening rise	3795 Sep 25 07:35	12°♏25'51	
	3794 Nov 01 06:33	0°♎		desc. node	3795 Oct 05 12:48	29°♏50'26	
evening max el	3794 Nov 17 13:18	20°♎10'40	24°29'41		3795 Oct 05 15:12	0°♎	
retrograde	3794 Nov 28 22:41	26°♎49'51			3795 Oct 27 08:54	0°♎	
evening set	3794 Dec 04 09:33	24°♎33'22		evening max el	3795 Oct 31 01:37	3°♎52'44	25°42'12
asc. node	3794 Dec 08 11:13	20°♎01'02		retrograde	3795 Nov 12 08:51	10°♎55'00	
min. Earth dist.	3794 Dec 09 01:17	19°♎14'36	0.67663 AU	evening set	3795 Nov 18 09:40	8°♎24'38	
inferior conj	3794 Dec 09 21:08	18°♎08'18	0°28'51	min. Earth dist.	3795 Nov 22 17:53	3°♎40'52	0.67011 AU
minimum elong	3794 Dec 09 20:26	18°♎10'37	0°28'34	inferior conj	3795 Nov 24 00:44	2°♎02'48	-0°27'03
morning rise	3794 Dec 15 07:24	12°♎06'19		minimum elong	3795 Nov 24 01:27	2°♎00'33	0°26'44
direct	3794 Dec 19 01:45	10°♎45'07		asc. node	3795 Nov 25 08:17	0°♎24'03	
morning max el	3794 Dec 26 17:49	15°♎07'06	20°07'46		3795 Nov 25 16:14	30°♎♎	
	3795 Jan 07 08:17	0°♏		morning rise	3795 Nov 29 17:34	26°♎09'10	
desc. node	3795 Jan 14 15:03	10°♏46'10		direct	3795 Dec 03 00:25	25°♎07'06	
morning set	3795 Jan 22 22:46	23°♏28'05		morning max el	3795 Dec 09 24:00	29°♎00'20	19°08'38
	3795 Jan 27 03:38	0°♏			3795 Dec 10 22:52	0°♎	
max. Earth dist.	3795 Feb 02 12:26	10°♏04'06	1.43846 AU		3795 Dec 31 17:43	0°♏	
				desc. node	3796 Jan 01 12:06	1°♏11'26	
superior conj	3795 Feb 08 04:12	19°♏13'47	-2°03'30	morning set	3796 Jan 02 01:45	2°♏04'32	
minimum elong	3795 Feb 08 00:17	18°♏57'44	2°03'22	max. Earth dist.	3796 Jan 16 03:55	24°♏06'02	1.44907 AU
	3795 Feb 14 15:27	0°♎					
evening rise	3795 Feb 21 01:54	11°♎00'46		superior conj	3796 Jan 18 18:41	28°♏13'53	-1°41'27
	3795 Mar 04 08:37	0°♎		minimum elong	3796 Jan 18 09:52	27°♏38'59	1°40'40
asc. node	3795 Mar 06 10:30	3°♎05'22			3796 Jan 19 21:28	0°♏	
evening max el	3795 Mar 10 20:16	8°♎30'18	18°10'08	evening rise	3796 Feb 02 11:48	21°♏58'33	
retrograde	3795 Mar 17 06:44	11°♎53'45			3796 Feb 07 08:49	0°♎	
evening set	3795 Mar 20 03:21	11°♎12'02		asc. node	3796 Feb 21 07:33	20°♎47'34	
inferior conj	3795 Mar 26 07:45	5°♎58'19	3°33'15	evening max el	3796 Feb 22 08:27	21°♎54'06	18°30'19
minimum elong	3795 Mar 26 08:50	5°♎55'25	3°33'12	retrograde	3796 Feb 28 21:13	25°♎28'59	
min. Earth dist.	3795 Mar 29 01:54	3°♎02'46	0.62749 AU	evening set	3796 Mar 02 23:39	24°♎35'20	
	3795 Apr 01 10:23	30°♎♎		inferior conj	3796 Mar 08 19:00	19°♎03'12	3°36'39
morning rise	3795 Apr 01 13:08	29°♎54'47		minimum elong	3796 Mar 08 18:27	19°♎04'51	3°36'38
direct	3795 Apr 08 10:36	27°♎18'42		min. Earth dist.	3796 Mar 10 21:52	16°♎33'18	0.64590 AU
desc. node	3795 Apr 12 14:14	28°♎08'47		morning rise	3796 Mar 14 12:39	12°♎52'51	
	3795 Apr 16 03:02	0°♎		direct	3796 Mar 21 07:15	10°♎03'27	
morning max el	3795 Apr 22 10:33	5°♎16'48	27°49'45	desc. node	3796 Mar 29 11:17	13°♎16'17	
	3795 May 11 01:29	0°♏		morning max el	3796 Apr 03 20:05	17°♎56'45	27°20'50
morning set	3795 May 26 12:25	27°♏56'55			3796 Apr 13 22:51	0°♎	
	3795 May 27 12:39	0°♏			3796 May 02 22:52	0°♏	
max. Earth dist.	3795 May 31 23:00	9°♏16'53	1.32611 AU	morning set	3796 May 09 04:13	11°♏41'01	
asc. node	3795 Jun 02 09:49	12°♏23'57		max. Earth dist.	3796 May 13 21:56	21°♏12'05	1.33535 AU
superior conj	3795 Jun 03 03:05	13°♏57'25	0°07'34	superior conj	3796 May 17 07:33	28°♏18'45	-0°20'28
minimum elong	3795 Jun 03 02:44	13°♏55'27	0°07'28	minimum elong	3796 May 17 08:36	28°♏24'18	0°20'15
behind sun begin	3795 Jun 02 22:05	13°♏30'19			3796 May 18 02:38	0°♏	
behind sun end	3795 Jun 03 07:22	14°♏20'36		asc. node	3796 May 19 06:50	2°♏30'20	
evening rise	3795 Jun 10 02:04	29°♏01'00		evening rise	3796 May 24 13:14	13°♏43'41	

	3796 Jun 01 19:37	0°☿			3797 May 09 18:30	0°♊	
evening max el	3796 Jun 14 16:19	17°☿57'38	22°10'41	evening max el	3797 May 27 16:48	28°♊47'42	20°44'00
desc. node	3796 Jun 25 10:30	24°☿09'56			3797 May 29 00:12	0°☿	
retrograde	3796 Jun 27 12:47	24°☿20'05		retrograde	3797 Jun 08 01:41	4°☿21'01	
evening set	3796 Jun 30 09:50	24°☿01'42		evening set	3797 Jun 10 03:30	4°☿10'38	
min. Earth dist.	3796 Jul 08 22:00	20°☿22'07	0.55043 AU	desc. node	3797 Jun 12 07:31	3°☿39'07	
inferior conj	3796 Jul 09 17:04	19°☿55'17	-3°51'21	inferior conj	3797 Jun 19 10:28	0°☿13'18	-2°05'03
minimum elong	3796 Jul 09 08:38	20°☿07'10	3°49'10	minimum elong	3797 Jun 19 04:38	0°☿21'38	2°02'59
morning rise	3796 Jul 18 09:16	16°☿04'31			3797 Jun 19 19:45	30°♋♊	
direct	3796 Jul 21 12:00	15°☿42'52		min. Earth dist.	3797 Jun 20 09:55	29°♊39'46	0.54896 AU
morning max el	3796 Aug 02 06:16	21°☿12'01	21°25'12	morning rise	3797 Jun 28 05:15	26°♊08'01	
	3796 Aug 09 14:56	0°♎		direct	3797 Jul 01 21:19	25°♊39'00	
asc. node	3796 Aug 15 06:07	9°♎12'27			3797 Jul 12 17:56	0°☿	
morning set	3796 Aug 22 12:24	23°♎26'42		morning max el	3797 Jul 15 01:18	1°☿59'07	23°04'20
	3796 Aug 25 15:29	0°♏		asc. node	3797 Aug 02 03:09	28°☿28'32	
					3797 Aug 02 21:49	0°♎	
superior conj	3796 Aug 29 19:57	8°♏47'00	1°43'28	morning set	3797 Aug 06 23:24	8°♎19'12	
minimum elong	3796 Aug 29 19:14	8°♏43'19	1°43'27				
max. Earth dist.	3796 Sep 02 23:02	17°♏13'08	1.35148 AU	superior conj	3797 Aug 14 00:55	23°♎26'57	1°36'45
evening rise	3796 Sep 07 05:46	25°♏34'32		minimum elong	3797 Aug 13 23:11	23°♎17'40	1°36'37
	3796 Sep 09 14:29	0°♐		max. Earth dist.	3797 Aug 16 18:54	29°♎16'40	1.33753 AU
desc. node	3796 Sep 21 09:50	20°♐04'26			3797 Aug 17 03:11	0°♏	
	3796 Sep 28 02:08	0°♑		evening rise	3797 Aug 21 17:37	9°♏22'39	
evening max el	3796 Oct 12 14:01	17°♑31'36	26°40'33		3797 Sep 02 00:47	0°♐	
retrograde	3796 Oct 25 13:56	24°♑46'44		desc. node	3797 Sep 08 06:51	9°♐55'17	
evening set	3796 Nov 01 03:40	22°♑07'03			3797 Sep 24 02:19	0°♑	
min. Earth dist.	3796 Nov 05 04:55	17°♑59'06	0.66004 AU	evening max el	3797 Sep 25 02:13	0°♑58'15	27°17'20
inferior conj	3796 Nov 06 23:23	15°♑53'08	-1°26'31	retrograde	3797 Oct 08 13:15	8°♑16'44	
minimum elong	3796 Nov 07 01:46	15°♑46'03	1°25'31	evening set	3797 Oct 15 13:01	5°♑35'25	
asc. node	3796 Nov 11 05:20	11°♑24'32		min. Earth dist.	3797 Oct 19 08:11	2°♑02'25	0.64652 AU
morning rise	3796 Nov 13 00:37	10°♑10'29			3797 Oct 21 05:20	30°♋♐	
direct	3796 Nov 15 22:01	9°♑23'51		inferior conj	3797 Oct 21 14:46	29°♐34'15	-2°27'40
morning max el	3796 Nov 22 12:19	12°♑59'17	18°25'28	minimum elong	3797 Oct 21 18:55	29°♐23'00	2°26'06
	3796 Dec 04 18:13	0°♑		morning rise	3797 Oct 28 01:56	24°♐05'30	
morning set	3796 Dec 12 06:17	12°♑00'42		asc. node	3797 Oct 29 02:23	23°♐43'27	
desc. node	3796 Dec 18 09:08	21°♑47'50		direct	3797 Oct 30 16:19	23°♐30'21	
	3796 Dec 23 13:25	0°♒		morning max el	3797 Nov 06 04:09	26°♐57'10	17°59'03
					3797 Nov 08 20:15	0°♑	
superior conj	3796 Dec 27 21:03	6°♒47'37	-1°01'49	morning set	3797 Nov 23 15:59	23°♑22'54	
minimum elong	3796 Dec 27 13:28	6°♒17'51	1°00'53		3797 Nov 27 14:59	0°♑	
max. Earth dist.	3796 Dec 28 22:33	8°♒27'40	1.45250 AU	desc. node	3797 Dec 05 06:08	12°♑30'58	
	3797 Jan 11 15:55	0°♓					
evening rise	3797 Jan 12 22:29	2°♓00'28		superior conj	3797 Dec 07 07:53	15°♑51'08	-0°14'12
greatest brilliancy	3797 Jan 23 00:56	17°♓53'08	-0.8m	minimum elong	3797 Dec 07 06:10	15°♑44'14	0°13'58
	3797 Jan 31 06:13	0°♈		behind sun begin	3797 Dec 07 00:50	15°♑22'49	
evening max el	3797 Feb 04 17:53	5°♈23'36	19°08'04	behind sun end	3797 Dec 07 11:30	16°♑05'37	
asc. node	3797 Feb 07 04:36	7°♈34'19		max. Earth dist.	3797 Dec 11 17:21	22°♑50'41	1.44856 AU
retrograde	3797 Feb 11 16:49	9°♈20'46			3797 Dec 16 06:44	0°♒	
evening set	3797 Feb 15 01:54	8°♈14'20		evening rise	3797 Dec 23 14:08	11°♒19'44	
inferior conj	3797 Feb 20 15:18	2°♈25'57	3°24'39		3798 Jan 04 20:24	0°♓	
minimum elong	3797 Feb 20 13:34	2°♈31'29	3°24'25	greatest brilliancy	3798 Jan 06 22:53	3°♓07'16	-0.6m
min. Earth dist.	3797 Feb 22 02:50	0°♈32'42	0.66052 AU	evening max el	3798 Jan 18 22:47	18°♓55'07	20°01'46
	3797 Feb 22 13:18	30°♋♓		asc. node	3798 Jan 25 01:39	23°♓10'27	
morning rise	3797 Feb 26 00:54	26°♓12'35		retrograde	3798 Jan 26 14:38	23°♓23'21	
direct	3797 Mar 04 10:38	23°♓23'25		evening set	3798 Jan 30 07:44	22°♓03'00	
desc. node	3797 Mar 16 08:19	0°♈05'29		inferior conj	3798 Feb 04 17:38	16°♓00'42	3°00'50
	3797 Mar 16 06:03	0°♈		minimum elong	3798 Feb 04 15:16	16°♓08'39	3°00'18
morning max el	3797 Mar 17 06:03	0°♈59'15	26°22'39	min. Earth dist.	3798 Feb 05 15:00	14°♓48'57	0.67099 AU
	3797 Apr 07 23:27	0°♉		morning rise	3798 Feb 09 22:35	9°♓46'49	
morning set	3797 Apr 22 07:58	24°♉45'58		direct	3798 Feb 15 19:42	7°♓09'07	
	3797 Apr 25 01:54	0°♊		morning max el	3798 Feb 27 14:48	14°♓12'07	25°04'30
max. Earth dist.	3797 Apr 26 09:35	2°♊34'23	1.34924 AU	desc. node	3798 Mar 03 05:21	18°♓07'09	
					3798 Mar 12 11:55	0°♈	
superior conj	3797 May 01 05:22	12°♊15'54	-0°49'29		3798 Mar 31 19:29	0°♉	
minimum elong	3797 May 01 08:00	12°♊29'22	0°48'59	morning set	3798 Apr 04 18:48	6°♉57'36	
asc. node	3797 May 06 03:53	22°♊30'48		max. Earth dist.	3798 Apr 08 10:07	13°♉35'28	1.36747 AU
evening rise	3797 May 08 21:48	28°♊13'28					

superior conj	3798 Apr 14 17:38	25° Υ 40'41	-1°17'47	max. Earth dist.	3799 Mar 21 05:27	24° H 49'07	1.38866 AU
minimum elong	3798 Apr 14 21:42	26° Υ 00'39	1°17'09		3799 Mar 24 03:13	0° Υ	
	3798 Apr 16 21:55	0° B					
evening rise	3798 Apr 23 01:29	12° B 23'41		superior conj	3799 Mar 28 16:35	8° Υ 23'24	-1°42'51
asc. node	3798 Apr 23 00:55	12° B 20'53		minimum elong	3799 Mar 28 21:17	8° Υ 45'28	1°42'20
	3798 May 02 11:06	0° II		evening rise	3799 Apr 06 21:35	26° Υ 06'58	
evening max el	3798 May 10 05:34	10° II 17'53	19°34'43		3799 Apr 08 21:46	0° B	
retrograde	3798 May 19 20:26	14° II 58'19		asc. node	3799 Apr 09 21:57	1° B 55'41	
evening set	3798 May 21 19:50	14° II 47'22		evening max el	3799 Apr 23 05:08	22° B 27'28	18°45'22
desc. node	3798 May 30 04:31	10° II 56'04		retrograde	3799 May 01 08:05	26° B 26'08	
inferior conj	3798 May 30 12:34	10° II 43'21	-0°05'55	evening set	3799 May 03 12:42	26° B 09'50	
minimum elong	3798 May 30 12:18	10° II 43'46	0°05'49	inferior conj	3799 May 11 09:38	21° B 48'23	1°34'48
transit middle	3798 May 30 12:18	10° II 43'46	0°05'49	minimum elong	3799 May 11 12:51	21° B 42'27	1°33'46
transit begin	3798 May 30 08:39	10° II 49'32		min. Earth dist.	3799 May 14 16:22	19° B 24'09	0.57311 AU
transit end	3798 May 30 15:57	10° II 37'59		desc. node	3799 May 17 01:34	17° B 50'42	
min. Earth dist.	3798 Jun 01 23:43	9° II 09'57	0.55711 AU	morning rise	3799 May 19 09:47	16° B 37'25	
morning rise	3798 Jun 08 02:09	6° II 07'28		direct	3799 May 24 22:24	15° B 22'45	
direct	3798 Jun 12 15:04	5° II 21'16		morning max el	3799 Jun 08 06:49	22° B 53'41	26°17'56
morning max el	3798 Jun 26 15:21	12° II 23'41	24°47'05		3799 Jun 14 14:55	0° II	
	3798 Jul 10 04:32	0° B			3799 Jul 02 23:42	0° B	
asc. node	3798 Jul 20 00:11	18° B 06'34		morning set	3799 Jul 06 22:07	8° B 04'12	
morning set	3798 Jul 22 11:12	23° B 13'44		asc. node	3799 Jul 06 21:12	7° B 59'25	
	3798 Jul 25 14:49	0° Ω					
				superior conj	3799 Jul 13 21:30	23° B 14'13	1°07'45
superior conj	3798 Jul 29 10:09	8° Ω 18'36	1°24'34	minimum elong	3799 Jul 13 19:12	23° B 01'31	1°07'22
minimum elong	3798 Jul 29 07:53	8° Ω 06'15	1°24'18	max. Earth dist.	3799 Jul 14 09:13	24° B 18'45	1.32205 AU
max. Earth dist.	3798 Jul 30 23:16	11° Ω 40'25	1.32773 AU		3799 Jul 16 23:30	0° Ω	
evening rise	3798 Aug 05 15:25	23° Ω 39'33		evening rise	3799 Jul 20 20:04	8° Ω 14'51	
	3798 Aug 08 19:31	0° H			3799 Aug 01 05:26	0° H	
desc. node	3798 Aug 26 03:50	29° H 13'27		desc. node	3799 Aug 13 00:51	17° H 44'34	
	3798 Aug 26 17:05	0° Ω		evening max el	3799 Aug 20 18:13	26° H 24'42	27°01'53
evening max el	3798 Sep 07 12:34	14° Ω 00'54	27°25'55		3799 Aug 25 01:46	0° Ω	
retrograde	3798 Sep 21 06:02	21° Ω 16'41		retrograde	3799 Sep 03 15:20	3° Ω 36'33	
evening set	3798 Sep 28 10:37	18° Ω 44'10		evening set	3799 Sep 10 16:18	1° Ω 25'04	
min. Earth dist.	3798 Oct 02 01:45	15° Ω 42'06	0.62974 AU		3799 Sep 12 18:09	30° R H	
inferior conj	3798 Oct 04 20:13	13° Ω 00'19	-3°27'25	min. Earth dist.	3799 Sep 14 08:29	28° H 44'24	0.61028 AU
minimum elong	3798 Oct 05 01:45	12° Ω 46'48	3°25'42	inferior conj	3799 Sep 17 12:22	26° H 01'51	-4°20'43
morning rise	3798 Oct 11 18:22	7° Ω 48'49		minimum elong	3799 Sep 17 18:09	25° H 49'24	4°19'25
direct	3798 Oct 14 04:27	7° Ω 21'31		morning rise	3799 Sep 24 21:49	21° H 11'09	
asc. node	3798 Oct 15 23:25	7° Ω 36'50		direct	3799 Sep 27 06:34	20° H 48'42	
morning max el	3798 Oct 20 20:36	10° Ω 47'45	17°50'17	asc. node	3799 Oct 02 20:27	22° H 59'13	
	3798 Nov 02 17:03	0° M		morning max el	3799 Oct 04 10:33	24° H 22'35	18°00'15
morning set	3798 Nov 06 01:50	5° M 55'09			3799 Oct 09 00:41	0° Ω	
				morning set	3799 Oct 20 05:21	19° Ω 17'28	
					3799 Oct 26 01:16	0° M	
superior conj	3798 Nov 17 18:26	26° M 05'29	0°30'01				
minimum elong	3798 Nov 17 21:18	26° M 17'31	0°29'37	superior conj	3799 Oct 30 07:37	7° M 37'45	1°04'23
	3798 Nov 20 02:54	0° X		minimum elong	3799 Oct 30 11:49	7° M 56'17	1°03'52
desc. node	3798 Nov 22 03:09	3° X 17'50		max. Earth dist.	3799 Nov 06 22:16	20° M 39'03	1.42144 AU
max. Earth dist.	3798 Nov 24 10:01	7° X 00'05	1.43781 AU	desc. node	3799 Nov 09 00:10	24° M 04'41	
evening rise	3798 Dec 02 23:37	20° X 30'25		evening rise	3799 Nov 12 19:07	0° X 11'37	
	3798 Dec 09 04:49	0° B			3799 Nov 12 16:12	0° X	
	3798 Dec 30 16:03	0° \approx			3799 Dec 02 18:35	0° B	
evening max el	3799 Jan 01 22:16	2° \approx 27'50	21°08'34				
retrograde	3799 Jan 10 12:26	7° \approx 33'13		evening max el	3799 Dec 15 16:26	16° B 01'52	22°24'35
asc. node	3799 Jan 11 22:40	7° \approx 22'06		retrograde	3799 Dec 25 08:36	21° B 46'59	
evening set	3799 Jan 14 15:15	5° \approx 57'42		evening set	3799 Dec 29 22:47	19° B 55'23	
inferior conj	3799 Jan 19 23:39	29° B 44'18	2°27'35	asc. node	3799 Dec 29 19:42	20° B 01'38	
minimum elong	3799 Jan 19 21:10	29° B 52'52	2°26'49	inferior conj	3800 Jan 04 07:19	13° B 34'07	1°46'31
	3799 Jan 19 19:05	30° R B		minimum elong	3800 Jan 04 05:11	13° B 41'31	1°45'45
min. Earth dist.	3799 Jan 20 08:17	29° B 14'28	0.67736 AU	min. Earth dist.	3800 Jan 04 04:24	13° B 44'16	0.67985 AU
morning rise	3799 Jan 25 02:54	23° B 31'34		morning rise	3800 Jan 09 11:29	7° B 24'10	
direct	3799 Jan 30 09:29	21° B 12'55		direct	3800 Jan 14 03:12	5° B 28'06	
morning max el	3799 Feb 09 23:22	27° B 30'43	23°36'38	morning max el	3800 Jan 23 10:59	10° B 56'48	22°08'46
	3799 Feb 12 07:29	0° \approx		desc. node	3800 Feb 04 23:26	26° B 31'07	
desc. node	3799 Feb 18 02:24	7° \approx 00'34			3800 Feb 07 10:36	0° \approx	
	3799 Mar 06 04:04	0° H		morning set	3800 Feb 25 14:26	27° \approx 40'21	
morning set	3799 Mar 17 06:42	17° H 59'43			3800 Feb 27 00:50	0° H	

max. Earth dist.	3800 Mar 03 03:10	6° H 47'00	1.41024 AU	morning set	3801 Feb 04 19:42	6° \approx 08'48	
				max. Earth dist.	3801 Feb 13 07:22	19° \approx 38'07	1.42942 AU
superior conj	3800 Mar 10 21:29	20° H 12'24	-2°00'59		3801 Feb 19 14:02	0° H	
minimum elong	3800 Mar 11 01:02	20° H 28'12	2°00'49				
	3800 Mar 16 07:14	0° Y		superior conj	3801 Feb 20 03:13	0° H 55'30	-2°07'20
evening rise	3800 Mar 21 06:46	9° Y 15'03		minimum elong	3801 Feb 20 02:45	0° H 53'29	2°07'20
asc. node	3800 Mar 27 19:00	21° Y 09'37		evening rise	3801 Mar 04 00:53	21° H 37'47	
	3800 Apr 02 06:33	0° B			3801 Mar 08 18:13	0° Y	
evening max el	3800 Apr 06 12:24	5° B 09'06	18°16'18	asc. node	3801 Mar 14 16:03	9° Y 54'56	
retrograde	3800 Apr 13 14:55	8° B 42'10		evening max el	3801 Mar 20 23:55	18° Y 12'46	18°06'56
evening set	3800 Apr 16 02:00	8° B 17'28		retrograde	3801 Mar 27 13:24	21° Y 35'47	
inferior conj	3800 Apr 23 04:16	3° B 35'31	2°43'45	evening set	3801 Mar 30 06:34	21° Y 00'45	
minimum elong	3800 Apr 23 07:49	3° B 27'51	2°42'55	inferior conj	3801 Apr 05 17:50	15° Y 58'32	3°22'21
min. Earth dist.	3800 Apr 26 14:16	0° B 39'42	0.59370 AU	minimum elong	3801 Apr 05 19:57	15° Y 53'14	3°22'06
	3800 Apr 27 10:10	30° R Y		min. Earth dist.	3801 Apr 08 19:45	12° Y 55'51	0.61550 AU
morning rise	3800 Apr 30 10:57	27° Y 56'03		morning rise	3801 Apr 12 07:35	10° Y 01'07	
desc. node	3800 May 03 22:36	26° Y 28'25		direct	3801 Apr 19 02:53	7° Y 38'37	
direct	3800 May 06 19:05	26° Y 06'07		desc. node	3801 Apr 20 19:39	7° Y 46'58	
	3800 May 16 15:31	0° B		morning max el	3801 May 03 07:26	15° Y 36'27	27°50'27
morning max el	3800 May 21 04:02	3° B 54'47	27°22'02		3801 May 15 01:25	0° B	
	3800 Jun 09 06:54	0° II			3801 Jun 01 20:12	0° II	
morning set	3800 Jun 21 06:29	22° II 45'27		morning set	3801 Jun 05 10:23	7° II 10'28	
asc. node	3800 Jun 23 18:15	28° II 02'05		asc. node	3801 Jun 10 15:19	18° II 09'25	
	3800 Jun 24 16:07	0° E		max. Earth dist.	3801 Jun 11 06:52	19° II 33'40	1.32277 AU
superior conj	3800 Jun 28 09:17	8° E 08'13	0°46'57	superior conj	3801 Jun 12 19:41	22° II 54'16	0°22'45
minimum elong	3800 Jun 28 07:24	7° E 57'50	0°46'34	minimum elong	3801 Jun 12 18:39	22° II 48'38	0°22'31
max. Earth dist.	3800 Jun 27 21:05	7° E 01'01	1.32040 AU		3801 Jun 16 01:26	0° E	
evening rise	3800 Jul 05 05:08	23° E 01'00		evening rise	3801 Jun 19 16:29	7° E 50'37	
	3800 Jul 08 14:03	0° O			3801 Jul 01 04:42	0° O	
	3800 Jul 26 14:16	0° P		evening max el	3801 Jul 15 08:18	18° O 51'06	24°41'53
desc. node	3800 Jul 30 21:52	5° P 09'21		desc. node	3801 Jul 17 18:53	21° O 01'14	
evening max el	3800 Aug 02 16:44	8° P 00'23	26°04'59	retrograde	3801 Jul 29 06:22	25° O 53'22	
retrograde	3800 Aug 16 16:05	15° P 09'14		evening set	3801 Aug 03 10:11	24° O 53'19	
evening set	3800 Aug 23 01:17	13° P 30'37		min. Earth dist.	3801 Aug 08 19:34	22° O 04'08	0.57017 AU
min. Earth dist.	3800 Aug 27 05:21	10° P 55'08	0.58957 AU	inferior conj	3801 Aug 11 15:23	20° O 14'05	-5°08'30
inferior conj	3800 Aug 30 11:42	8° P 29'13	-4°58'51	minimum elong	3801 Aug 11 14:02	20° O 16'17	5°08'27
minimum elong	3800 Aug 30 15:25	8° P 22'17	4°58'26	morning rise	3801 Aug 19 20:27	16° O 08'09	
morning rise	3800 Sep 07 07:45	4° P 01'40		direct	3801 Aug 22 11:19	15° O 49'01	
direct	3800 Sep 09 18:10	3° P 41'47		morning max el	3801 Aug 31 17:58	20° O 09'28	19°21'36
morning max el	3800 Sep 17 18:44	7° P 33'01	18°30'17	asc. node	3801 Sep 06 14:32	27° O 15'38	
asc. node	3800 Sep 19 17:29	9° P 37'11			3801 Sep 08 09:16	0° P	
	3800 Oct 02 04:42	0° A		morning set	3801 Sep 17 21:57	17° P 37'31	
morning set	3800 Oct 03 21:20	3° A 15'03			3801 Sep 24 02:26	0° A	
superior conj	3800 Oct 12 19:23	20° A 16'16	1°27'31	superior conj	3801 Sep 26 00:12	3° A 45'06	1°40'21
minimum elong	3800 Oct 12 22:46	20° A 31'56	1°27'12	minimum elong	3801 Sep 26 01:56	3° A 53'33	1°40'15
	3800 Oct 18 04:04	0° M		max. Earth dist.	3801 Oct 02 09:08	15° A 49'22	1.38066 AU
max. Earth dist.	3800 Oct 20 05:02	3° M 34'35	1.40153 AU	evening rise	3801 Oct 06 03:31	22° A 34'55	
evening rise	3800 Oct 24 11:35	10° M 50'46			3801 Oct 10 11:17	0° M	
desc. node	3800 Oct 26 21:11	14° M 48'13		desc. node	3801 Oct 13 18:13	5° M 24'33	
	3800 Nov 05 14:27	0° J			3801 Oct 30 10:58	0° J	
evening max el	3800 Nov 28 06:40	29° J 38'38	23°44'29	evening max el	3801 Nov 10 19:13	13° J 19'51	25°01'49
	3800 Nov 28 15:18	0° Z		retrograde	3801 Nov 22 14:49	20° J 10'52	
retrograde	3800 Dec 09 01:44	6° Z 00'52		evening set	3801 Nov 28 07:30	17° J 48'10	
evening set	3800 Dec 14 04:44	3° Z 53'06		min. Earth dist.	3801 Dec 02 19:56	12° J 43'56	0.67422 AU
asc. node	3800 Dec 16 16:45	1° Z 17'47		inferior conj	3801 Dec 03 20:24	11° J 23'37	0°05'40
	3800 Dec 17 17:35	30° R J		minimum elong	3801 Dec 03 20:16	11° J 24'06	0°05'37
min. Earth dist.	3800 Dec 19 01:04	28° J 14'52	0.67876 AU	transit middle	3801 Dec 03 20:16	11° J 24'06	0°05'37
inferior conj	3800 Dec 19 14:49	27° J 27'57	0°58'51	transit begin	3801 Dec 03 17:40	11° J 32'38	
minimum elong	3800 Dec 19 13:29	27° J 32'30	0°58'19	transit end	3801 Dec 03 22:51	11° J 15'34	
morning rise	3800 Dec 24 22:14	21° J 22'24		asc. node	3801 Dec 03 13:46	11° J 45'25	
direct	3800 Dec 28 23:52	19° J 49'09		morning rise	3801 Dec 09 09:13	5° J 24'42	
morning max el	3801 Jan 06 04:54	24° J 33'08	20°48'24	direct	3801 Dec 12 22:21	4° J 12'08	
	3801 Jan 10 23:33	0° Z		morning max el	3801 Dec 20 06:40	8° J 20'57	19°40'41
desc. node	3801 Jan 22 20:27	16° Z 28'14		greatest brilliancy	3802 Jan 02 10:18	25° J 43'28	-0.7m
	3801 Jan 31 20:18	0° \approx			3802 Jan 05 06:52	0° Z	

desc. node	3802 Jan 09 17:30	6°♄45'01		asc. node	3802 Nov 20 10:49	22°♍17'54	
morning set	3802 Jan 14 15:58	14°♄20'12		morning rise	3802 Nov 23 18:20	19°♍27'25	
	3802 Jan 24 17:01	0°♄		direct	3802 Nov 26 20:55	18°♍32'17	
max. Earth dist.	3802 Jan 26 18:55	3°♄17'25	1.44377 AU	morning max el	3802 Dec 03 15:38	22°♍16'45	18°48'10
					3802 Dec 09 21:26	0°♄	
superior conj	3802 Jan 31 07:08	10°♄29'56	-1°56'36	morning set	3802 Dec 25 04:23	23°♄26'46	
minimum elong	3802 Jan 31 00:41	10°♄04'00	1°56'12	desc. node	3802 Dec 27 14:31	27°♄15'19	
	3802 Feb 12 03:05	0°♄			3802 Dec 29 08:27	0°♄	
evening rise	3802 Feb 13 23:35	3°♄07'41		max. Earth dist.	3803 Jan 09 12:04	17°♄29'39	1.45150 AU
asc. node	3802 Mar 01 13:06	28°♄03'04					
	3802 Mar 03 03:01	0°♄		superior conj	3803 Jan 10 14:14	19°♄12'26	-1°26'22
evening max el	3802 Mar 04 12:40	1°♄31'10	18°16'32	minimum elong	3803 Jan 10 05:03	18°♄36'20	1°25'24
retrograde	3802 Mar 10 23:06	4°♄57'53			3803 Jan 17 10:19	0°♄	
evening set	3802 Mar 13 22:07	4°♄11'17		evening rise	3803 Jan 25 23:27	13°♄40'27	
	3802 Mar 18 20:50	30°♄			3803 Feb 05 03:23	0°♄	
inferior conj	3802 Mar 19 22:17	28°♄49'49	3°36'50	evening max el	3803 Feb 15 24:00	14°♄58'01	18°44'22
minimum elong	3802 Mar 19 22:38	28°♄48'51	3°36'50	asc. node	3803 Feb 16 10:07	15°♄23'10	
min. Earth dist.	3802 Mar 22 10:14	26°♄03'01	0.63576 AU	retrograde	3803 Feb 22 16:02	18°♄40'43	
morning rise	3802 Mar 25 22:12	22°♄42'48		evening set	3803 Feb 25 21:15	17°♄41'38	
direct	3802 Apr 01 19:30	19°♄58'55		inferior conj	3803 Mar 03 13:44	12°♄02'26	3°33'11
desc. node	3802 Apr 07 16:42	21°♄39'45		minimum elong	3803 Mar 03 12:37	12°♄05'52	3°33'05
morning max el	3802 Apr 15 15:17	27°♄56'43	27°41'26	min. Earth dist.	3803 Mar 05 09:59	9°♄47'17	0.65268 AU
	3802 Apr 17 14:27	0°♄		morning rise	3803 Mar 09 03:33	5°♄50'44	
	3802 May 08 19:30	0°♄		direct	3803 Mar 15 19:08	2°♄59'49	
morning set	3802 May 20 07:26	21°♄11'46		desc. node	3803 Mar 25 13:45	7°♄34'12	
	3802 May 24 14:47	0°♄		morning max el	3803 Mar 29 01:03	10°♄46'43	26°59'09
max. Earth dist.	3802 May 25 10:38	1°♄44'14	1.32942 AU		3803 Apr 13 06:22	0°♄	
					3803 May 01 07:22	0°♄	
superior conj	3802 May 28 02:55	7°♄26'26	-0°04'09	morning set	3803 May 03 18:36	4°♄40'24	
minimum elong	3802 May 28 03:07	7°♄27'31	0°04'06	max. Earth dist.	3803 May 08 04:57	13°♄24'50	1.34067 AU
behind sun begin	3802 May 27 21:57	6°♄59'47					
behind sun end	3802 May 28 08:17	7°♄55'16		superior conj	3803 May 12 04:53	21°♄38'33	-0°32'44
asc. node	3802 May 28 12:22	8°♄17'15		minimum elong	3803 May 12 06:36	21°♄47'30	0°32'23
evening rise	3802 Jun 04 04:15	22°♄37'25		asc. node	3803 May 15 09:24	28°♄21'43	
	3802 Jun 07 17:47	0°♄			3803 May 16 03:58	0°♄	
evening max el	3802 Jun 26 21:32	29°♄17'18	23°05'47	evening rise	3803 May 19 14:34	7°♄15'35	
	3802 Jun 27 15:36	0°♄			3803 May 31 20:19	0°♄	
desc. node	3802 Jul 04 15:55	4°♄46'17		evening max el	3803 Jun 08 16:05	9°♄50'40	21°32'06
retrograde	3802 Jul 10 07:51	5°♄59'22		retrograde	3803 Jun 20 22:35	15°♄53'17	
evening set	3802 Jul 13 23:13	5°♄30'24		desc. node	3803 Jun 21 12:57	15°♄52'27	
min. Earth dist.	3802 Jul 21 06:44	2°♄12'59	0.55548 AU	evening set	3803 Jun 23 09:24	15°♄39'37	
inferior conj	3802 Jul 22 23:31	1°♄13'42	-4°34'16	inferior conj	3803 Jul 02 18:36	11°♄39'15	-3°10'12
minimum elong	3802 Jul 22 16:29	1°♄23'57	4°32'59	minimum elong	3803 Jul 02 10:32	11°♄50'31	3°07'42
	3802 Jul 25 03:05	30°♄		min. Earth dist.	3803 Jul 02 17:35	11°♄40'41	0.54861 AU
morning rise	3802 Jul 31 12:05	27°♄21'24		morning rise	3803 Jul 11 12:37	7°♄45'02	
direct	3802 Aug 03 09:50	27°♄01'16		direct	3803 Jul 14 20:27	7°♄20'59	
	3802 Aug 11 17:59	0°♄		morning max el	3803 Jul 27 05:54	13°♄11'40	22°06'03
morning max el	3802 Aug 14 05:42	2°♄02'55	20°34'25		3803 Aug 08 18:10	0°♄	
asc. node	3802 Aug 24 11:35	15°♄40'42		asc. node	3803 Aug 11 08:38	4°♄41'09	
	3802 Sep 01 01:31	0°♄		morning set	3803 Aug 17 14:10	17°♄06'19	
morning set	3802 Sep 02 04:17	2°♄16'36			3803 Aug 23 16:13	0°♄	
superior conj	3802 Sep 09 17:12	17°♄49'49	1°44'27	superior conj	3803 Aug 24 18:40	2°♄19'48	1°41'20
minimum elong	3802 Sep 09 17:17	17°♄50'16	1°44'27	minimum elong	3803 Aug 24 17:28	2°♄13'28	1°41'17
max. Earth dist.	3802 Sep 14 16:21	27°♄43'10	1.36131 AU	max. Earth dist.	3803 Aug 28 07:22	9°♄39'53	1.34512 AU
	3802 Sep 15 20:45	0°♄		evening rise	3803 Sep 01 20:29	18°♄43'26	
evening rise	3802 Sep 18 15:56	5°♄16'12			3803 Sep 07 22:09	0°♄	
desc. node	3802 Sep 30 15:13	25°♄48'22		desc. node	3803 Sep 17 12:14	15°♄53'44	
	3802 Oct 03 07:48	0°♄			3803 Sep 27 11:21	0°♄	
evening max el	3802 Oct 24 07:42	27°♄02'05	26°09'16	evening max el	3803 Oct 06 20:20	10°♄37'46	26°59'09
	3802 Oct 27 15:49	0°♄		retrograde	3803 Oct 20 01:18	17°♄54'16	
retrograde	3802 Nov 05 22:51	4°♄10'48		evening set	3803 Oct 26 19:52	15°♄12'57	
evening set	3802 Nov 12 05:15	1°♄36'06		min. Earth dist.	3803 Oct 30 18:30	11°♄20'07	0.65483 AU
	3802 Nov 13 22:09	30°♄		inferior conj	3803 Nov 01 18:02	9°♄04'08	-1°52'21
min. Earth dist.	3802 Nov 16 10:33	27°♄07'15	0.66626 AU	minimum elong	3803 Nov 01 21:10	8°♄55'09	1°51'05
inferior conj	3802 Nov 17 22:10	25°♄17'02	-0°51'54	asc. node	3803 Nov 07 07:51	3°♄48'10	
minimum elong	3802 Nov 17 23:33	25°♄12'44	0°51'18	morning rise	3803 Nov 07 23:19	3°♄26'55	

direct	3803 Nov 10 17:33	2° \mathbb{M} 45'29		morning rise	3804 Oct 21 21:19	17° \mathbb{L} 17'56	
morning max el	3803 Nov 17 05:45	6° \mathbb{M} 15'47	18°12'03	direct	3804 Oct 24 09:33	16° \mathbb{L} 46'31	
	3803 Dec 03 10:42	0° \mathbb{X}		asc. node	3804 Oct 24 04:53	16° \mathbb{L} 46'43	
morning set	3803 Dec 05 21:37	4° \mathbb{X} 00'53		morning max el	3804 Oct 30 22:17	20° \mathbb{L} 11'46	17°53'08
desc. node	3803 Dec 14 11:31	17° \mathbb{X} 54'48			3804 Nov 07 06:37	0° \mathbb{M}	
				morning set	3804 Nov 16 18:25	15° \mathbb{M} 55'28	
					3804 Nov 25 01:56	0° \mathbb{X}	
superior conj	3803 Dec 20 17:32	27° \mathbb{X} 51'07	-0°41'50				
minimum elong	3803 Dec 20 12:15	27° \mathbb{X} 30'15	0°41'07				
	3803 Dec 22 02:13	0° \mathbb{Z}		superior conj	3804 Nov 29 13:26	7° \mathbb{X} 22'29	0°05'30
max. Earth dist.	3803 Dec 23 07:39	1° \mathbb{Z} 55'43	1.45181 AU	minimum elong	3804 Nov 29 14:03	7° \mathbb{X} 24'59	0°05'26
evening rise	3804 Jan 06 01:01	23° \mathbb{Z} 21'25		behind sun begin	3804 Nov 29 04:36	6° \mathbb{X} 46'28	
	3804 Jan 10 07:33	0° \mathbb{A}		behind sun end	3804 Nov 29 23:30	8° \mathbb{X} 03'24	
greatest brilliancy	3804 Jan 18 04:18	12° \mathbb{A} 06'18	-0.7m	desc. node	3804 Nov 30 08:32	8° \mathbb{X} 40'03	
evening max el	3804 Jan 30 07:40	28° \mathbb{A} 28'19	19°29'06	max. Earth dist.	3804 Dec 05 02:07	16° \mathbb{X} 16'06	1.44478 AU
	3804 Jan 31 22:22	0° \mathbb{H}			3804 Dec 13 20:35	0° \mathbb{Z}	
asc. node	3804 Feb 03 07:08	1° \mathbb{H} 41'31		evening rise	3804 Dec 15 12:09	2° \mathbb{Z} 32'28	
retrograde	3804 Feb 06 12:53	2° \mathbb{H} 37'34			3805 Jan 02 21:55	0° \mathbb{A}	
evening set	3804 Feb 10 01:17	1° \mathbb{H} 25'08		evening max el	3805 Jan 12 10:14	12° \mathbb{A} 00'10	20°28'43
	3804 Feb 11 18:02	30° \mathbb{R} \mathbb{A}		retrograde	3805 Jan 20 11:05	16° \mathbb{A} 44'03	
inferior conj	3804 Feb 15 12:54	25° \mathbb{A} 30'19	3°15'49	asc. node	3805 Jan 20 04:10	16° \mathbb{A} 43'35	
minimum elong	3804 Feb 15 10:50	25° \mathbb{A} 37'05	3°15'27	evening set	3805 Jan 24 08:04	15° \mathbb{A} 17'19	
min. Earth dist.	3804 Feb 16 18:08	23° \mathbb{A} 54'47	0.66551 AU	inferior conj	3805 Jan 29 17:06	9° \mathbb{A} 09'37	2°47'46
morning rise	3804 Feb 20 20:09	19° \mathbb{A} 16'39		minimum elong	3805 Jan 29 14:37	9° \mathbb{A} 18'04	2°47'07
direct	3804 Feb 27 00:48	16° \mathbb{A} 31'31		min. Earth dist.	3805 Jan 30 08:49	8° \mathbb{A} 16'01	0.67415 AU
morning max el	3804 Mar 10 10:35	23° \mathbb{A} 54'33	25°51'18	morning rise	3805 Feb 03 20:58	2° \mathbb{A} 55'54	
desc. node	3804 Mar 11 10:46	24° \mathbb{A} 56'57		direct	3805 Feb 09 11:53	0° \mathbb{A} 25'52	
	3804 Mar 15 21:28	0° \mathbb{H}		morning max el	3805 Feb 20 19:16	7° \mathbb{A} 11'14	24°27'44
	3804 Apr 05 15:48	0° \mathbb{Y}		desc. node	3805 Feb 26 07:46	13° \mathbb{A} 22'56	
morning set	3804 Apr 15 15:45	17° \mathbb{Y} 23'52			3805 Mar 10 14:06	0° \mathbb{H}	
max. Earth dist.	3804 Apr 19 11:55	24° \mathbb{Y} 36'48	1.35653 AU	morning set	3805 Mar 28 17:37	29° \mathbb{H} 08'13	
	3804 Apr 22 06:22	0° \mathbb{B}			3805 Mar 29 05:26	0° \mathbb{Y}	
				max. Earth dist.	3805 Apr 01 09:30	5° \mathbb{Y} 39'35	1.37623 AU
superior conj	3804 Apr 24 23:00	5° \mathbb{B} 22'27	-1°01'42				
minimum elong	3804 Apr 25 02:17	5° \mathbb{B} 39'01	1°01'07	superior conj	3805 Apr 08 06:04	18° \mathbb{Y} 30'22	-1°29'00
asc. node	3804 May 01 06:26	18° \mathbb{B} 18'04		minimum elong	3805 Apr 08 10:33	18° \mathbb{Y} 51'59	1°28'23
evening rise	3804 May 02 21:21	21° \mathbb{B} 37'46			3805 Apr 14 02:21	0° \mathbb{B}	
	3804 May 07 01:50	0° \mathbb{I}		evening rise	3805 Apr 16 22:12	5° \mathbb{B} 37'33	
evening max el	3804 May 20 21:34	20° \mathbb{I} 55'50	20°12'08	asc. node	3805 Apr 18 03:28	8° \mathbb{B} 02'18	
retrograde	3804 May 31 12:29	26° \mathbb{I} 06'34			3805 May 01 03:50	0° \mathbb{I}	
evening set	3804 Jun 02 11:49	25° \mathbb{I} 56'37		evening max el	3805 May 03 15:11	2° \mathbb{I} 42'59	19°11'13
desc. node	3804 Jun 07 09:59	24° \mathbb{I} 16'12		retrograde	3805 May 12 13:52	7° \mathbb{I} 04'12	
inferior conj	3804 Jun 11 13:54	21° \mathbb{I} 57'47	-1°13'55	evening set	3805 May 14 14:48	6° \mathbb{I} 51'36	
minimum elong	3804 Jun 11 10:26	22° \mathbb{I} 02'55	1°12'38	inferior conj	3805 May 22 23:18	2° \mathbb{I} 40'55	0°40'19
min. Earth dist.	3804 Jun 13 05:52	20° \mathbb{I} 58'40	0.55127 AU	minimum elong	3805 May 23 00:56	2° \mathbb{I} 38'10	0°39'43
morning rise	3804 Jun 20 07:37	17° \mathbb{I} 41'14		desc. node	3805 May 25 07:00	1° \mathbb{I} 06'51	
direct	3804 Jun 24 07:37	17° \mathbb{I} 06'34		min. Earth dist.	3805 May 25 20:54	0° \mathbb{I} 44'00	0.56309 AU
morning max el	3804 Jul 07 22:03	23° \mathbb{I} 45'37	23°48'36		3805 May 27 00:40	30° \mathbb{R} \mathbb{B}	
	3804 Jul 13 13:34	0° \mathbb{C}		morning rise	3805 May 31 07:56	27° \mathbb{B} 49'24	
asc. node	3804 Jul 28 05:40	24° \mathbb{C} 07'06		direct	3805 Jun 05 06:47	26° \mathbb{B} 52'26	
	3804 Jul 31 02:50	0° \mathbb{Q}			3805 Jun 14 09:39	0° \mathbb{I}	
morning set	3804 Aug 01 01:44	2° \mathbb{Q} 00'07		morning max el	3805 Jun 19 12:12	4° \mathbb{I} 09'18	25°28'12
					3805 Jul 07 23:50	0° \mathbb{C}	
superior conj	3804 Aug 08 01:43	17° \mathbb{Q} 05'13	1°32'12	asc. node	3805 Jul 15 02:43	13° \mathbb{C} 51'45	
minimum elong	3804 Aug 07 23:42	16° \mathbb{Q} 54'19	1°32'00	morning set	3805 Jul 16 13:19	16° \mathbb{C} 53'07	
max. Earth dist.	3804 Aug 10 07:09	21° \mathbb{Q} 51'56	1.33283 AU		3805 Jul 22 14:24	0° \mathbb{Q}	
	3804 Aug 14 04:32	0° \mathbb{P}					
evening rise	3804 Aug 15 12:56	2° \mathbb{P} 44'20		superior conj	3805 Jul 23 12:05	1° \mathbb{Q} 59'01	1°17'59
	3804 Aug 30 17:58	0° \mathbb{L}		minimum elong	3805 Jul 23 09:44	1° \mathbb{Q} 46'11	1°17'38
desc. node	3804 Sep 03 09:16	5° \mathbb{L} 32'05		max. Earth dist.	3805 Jul 24 14:04	4° \mathbb{Q} 21'19	1.32475 AU
evening max el	3804 Sep 18 07:54	23° \mathbb{L} 55'11	27°24'38	evening rise	3805 Jul 30 13:57	17° \mathbb{Q} 09'25	
	3804 Sep 26 18:11	0° \mathbb{M}			3805 Aug 06 02:25	0° \mathbb{P}	
retrograde	3804 Oct 01 21:50	1° \mathbb{M} 12'54		desc. node	3805 Aug 21 06:18	24° \mathbb{P} 32'03	
	3804 Oct 06 17:43	30° \mathbb{R} \mathbb{L}			3805 Aug 25 12:03	0° \mathbb{L}	
evening set	3804 Oct 09 00:40	28° \mathbb{L} 33'35		evening max el	3805 Aug 31 16:20	6° \mathbb{L} 41'39	27°19'48
min. Earth dist.	3804 Oct 12 17:38	25° \mathbb{L} 14'53	0.63983 AU	retrograde	3805 Sep 14 11:51	13° \mathbb{L} 56'44	
inferior conj	3804 Oct 15 05:32	22° \mathbb{L} 39'29	-2°53'24	evening set	3805 Sep 21 16:06	11° \mathbb{L} 31'19	
minimum elong	3804 Oct 15 10:21	22° \mathbb{L} 26'59	2°51'42	min. Earth dist.	3805 Sep 25 06:36	8° \mathbb{L} 40'03	0.62165 AU

inferior conj	3805 Sep 28 05:43	5°♄55'43	-3°51'18	minimum elong	3806 Sep 10 20:28	18°♊33'50	4°38'33
minimum elong	3805 Sep 28 11:34	5°♄42'10	3°49'40	morning rise	3806 Sep 18 05:17	14°♊03'19	
morning rise	3805 Oct 05 08:44	0°♄53'00		direct	3806 Sep 20 14:14	13°♊42'18	
direct	3805 Oct 07 17:45	0°♄28'14		asc. node	3806 Sep 27 22:58	17°♊15'23	
asc. node	3805 Oct 11 01:56	1°♄18'51		morning max el	3806 Sep 28 02:04	17°♊22'48	18°10'30
morning max el	3805 Oct 14 14:08	3°♄56'50	17°52'13		3806 Oct 07 01:58	0°♄	
morning set	3805 Oct 30 12:32	28°♄50'55		morning set	3806 Oct 13 21:59	12°♄30'19	
	3805 Oct 31 03:54	0°♄					
superior conj	3805 Nov 10 11:36	18°♄11'03	0°45'57	superior conj	3806 Oct 23 11:06	0°♄13'38	1°15'32
minimum elong	3805 Nov 10 15:25	18°♄27'18	0°45'26	minimum elong	3806 Oct 23 15:08	0°♄31'48	1°15'04
desc. node	3805 Nov 17 05:33	29°♄27'26			3806 Oct 23 08:05	0°♄	
max. Earth dist.	3805 Nov 17 16:37	0°♄12'32	1.43137 AU	max. Earth dist.	3806 Oct 31 02:16	13°♄33'26	1.41326 AU
	3805 Nov 17 13:32	0°♄		desc. node	3806 Nov 04 02:36	20°♄13'50	
evening rise	3805 Nov 25 00:01	11°♄51'26		evening rise	3806 Nov 05 03:46	21°♄56'12	
	3805 Dec 06 23:21	0°♄			3806 Nov 10 05:29	0°♄	
evening max el	3805 Dec 26 07:17	25°♄33'06	21°40'03	evening max el	3806 Dec 01 02:49	0°♄	
	3805 Dec 31 21:38	0°♄		retrograde	3806 Dec 08 23:44	9°♄09'06	22°58'26
retrograde	3806 Jan 04 08:28	0°♄55'55		evening set	3806 Dec 19 03:27	15°♄10'22	
asc. node	3806 Jan 07 01:12	0°♄16'29		asc. node	3806 Dec 23 22:52	13°♄12'07	
	3806 Jan 07 13:18	30°♄		inferior conj	3806 Dec 24 22:14	12°♄18'37	
evening set	3806 Jan 08 15:48	29°♄13'49		minimum elong	3806 Dec 29 07:56	6°♄48'52	1°27'04
inferior conj	3806 Jan 14 00:05	22°♄56'33	2°11'01	minimum elong	3806 Dec 29 06:05	6°♄55'14	1°26'22
minimum elong	3806 Jan 13 21:41	23°♄04'49	2°10'15	min. Earth dist.	3806 Dec 29 00:26	7°♄14'44	0.67989 AU
min. Earth dist.	3806 Jan 14 03:44	22°♄43'52	0.67886 AU	morning rise	3807 Jan 03 13:12	0°♄40'23	
morning rise	3806 Jan 19 03:24	16°♄44'30			3807 Jan 04 11:19	30°♄	
direct	3806 Jan 24 03:35	14°♄35'09		direct	3807 Jan 07 22:52	28°♄53'54	
morning max el	3806 Feb 03 04:40	20°♄32'39	22°58'38	morning max el	3807 Jan 11 17:27	0°♄	
	3806 Feb 11 06:10	0°♄		desc. node	3807 Jan 16 18:29	4°♄02'25	21°33'09
desc. node	3806 Feb 13 04:47	2°♄33'37			3807 Jan 31 01:50	22°♄16'46	
	3806 Mar 03 19:57	0°♄			3807 Feb 05 08:56	0°♄	
morning set	3806 Mar 09 17:58	9°♄36'28		morning set	3807 Feb 17 13:23	18°♄42'33	
max. Earth dist.	3806 Mar 14 04:21	17°♄06'19	1.39795 AU	max. Earth dist.	3807 Feb 24 04:24	29°♄26'20	1.41896 AU
	3806 Mar 21 10:43	0°♄			3807 Feb 24 12:33	0°♄	
superior conj	3806 Mar 21 21:55	0°♄51'20	-1°51'40	superior conj	3807 Mar 03 17:36	12°♄13'58	-2°05'28
minimum elong	3806 Mar 22 02:26	1°♄12'01	1°51'17	minimum elong	3807 Mar 03 19:49	12°♄23'36	2°05'24
evening rise	3806 Mar 31 14:04	19°♄06'25			3807 Mar 13 15:57	0°♄	
asc. node	3806 Apr 05 00:31	27°♄28'48		evening rise	3807 Mar 14 17:21	1°♄56'04	
	3806 Apr 06 09:40	0°♄		asc. node	3807 Mar 22 21:34	16°♄31'24	
evening max el	3806 Apr 16 18:29	15°♄07'22	18°30'37	evening max el	3807 Mar 31 04:01	27°♄59'46	18°09'57
retrograde	3806 Apr 24 09:34	18°♄52'52			3807 Apr 02 14:36	0°♄	
evening set	3806 Apr 26 16:56	18°♄33'21		retrograde	3807 Apr 06 23:26	1°♄26'18	
inferior conj	3806 May 04 05:37	14°♄03'41	2°08'01	evening set	3807 Apr 09 13:20	0°♄57'14	
minimum elong	3806 May 04 09:17	13°♄56'25	2°06'59		3807 Apr 11 12:01	30°♄	
min. Earth dist.	3806 May 07 15:44	11°♄22'50	0.58152 AU	inferior conj	3807 Apr 16 08:42	26°♄06'35	3°03'29
morning rise	3806 May 11 22:29	8°♄39'18		minimum elong	3807 Apr 16 11:46	25°♄59'32	3°02'55
desc. node	3806 May 12 04:01	8°♄32'33		min. Earth dist.	3807 Apr 19 16:22	23°♄04'54	0.60308 AU
direct	3806 May 17 20:26	7°♄09'31		morning rise	3807 Apr 23 07:58	20°♄18'37	
morning max el	3806 Jun 01 05:42	14°♄49'49	26°49'08	desc. node	3807 Apr 29 01:03	18°♄16'04	
	3806 Jun 13 10:23	0°♄		direct	3807 Apr 29 22:13	18°♄13'52	
	3806 Jun 30 04:12	0°♄		morning max el	3807 May 14 05:23	26°♄06'43	27°38'46
morning set	3806 Jun 30 23:22	1°♄40'15			3807 May 17 20:34	0°♄	
asc. node	3806 Jul 01 23:47	3°♄49'27			3807 Jun 06 21:53	0°♄	
superior conj	3806 Jul 07 23:51	16°♄54'54	0°59'24	morning set	3807 Jun 15 06:02	16°♄15'07	
minimum elong	3806 Jul 07 21:40	16°♄42'52	0°58'59	asc. node	3807 Jun 18 20:49	23°♄54'36	
max. Earth dist.	3806 Jul 08 01:08	17°♄01'58	1.32079 AU	max. Earth dist.	3807 Jun 21 12:36	29°♄41'53	1.32090 AU
	3806 Jul 13 23:54	0°♄			3807 Jun 21 15:54	0°♄	
evening rise	3806 Jul 14 20:46	1°♄50'25		superior conj	3807 Jun 22 11:14	1°♄46'10	0°37'04
	3806 Jul 30 02:03	0°♄		minimum elong	3807 Jun 22 09:39	1°♄37'31	0°36'44
desc. node	3806 Aug 08 03:19	12°♄38'02		evening rise	3807 Jun 29 07:02	16°♄39'02	
evening max el	3806 Aug 13 19:19	18°♄46'25	26°41'39		3807 Jul 05 21:31	0°♄	
retrograde	3806 Aug 27 18:01	25°♄57'15		desc. node	3807 Jul 26 00:22	29°♄27'15	
evening set	3806 Sep 03 13:39	23°♄58'47		evening max el	3807 Jul 26 14:53	0°♄02'30	25°32'21
min. Earth dist.	3806 Sep 07 09:14	21°♄22'18	0.60139 AU		3807 Jul 26 13:50	0°♄	
inferior conj	3806 Sep 10 15:13	18°♄44'31	-4°39'29	retrograde	3807 Aug 09 14:13	7°♄08'34	
				evening set	3807 Aug 15 12:29	5°♄46'34	

































































































































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inferior conj	3807 Aug 23 06:28	0° \mathbb{M} 54'55	-5°07'22	min. Earth dist.	3808 Jul 31 14:55	13° Ω 49'39	0.56320 AU
minimum elong	3807 Aug 23 08:21	0° \mathbb{M} 51'35	5°07'17	inferior conj	3808 Aug 03 01:25	12° Ω 19'45	-5°00'05
	3807 Aug 24 14:01	30° \mathbb{R} Ω		minimum elong	3808 Aug 02 21:27	12° Ω 25'53	4°59'42
morning rise	3807 Aug 31 06:30	26° Ω 36'42		morning rise	3808 Aug 11 09:54	8° Ω 21'22	
direct	3807 Sep 02 18:38	26° Ω 17'12		direct	3808 Aug 14 03:37	8° Ω 01'57	
	3807 Sep 10 22:22	0° \mathbb{M}		morning max el	3808 Aug 24 01:10	12° Ω 37'55	19°50'04
morning max el	3807 Sep 11 06:42	0° \mathbb{M} 19'24	18°49'27	asc. node	3808 Aug 31 17:05	22° Ω 20'14	
asc. node	3807 Sep 14 20:02	4° \mathbb{M} 20'41			3808 Sep 05 04:01	0° \mathbb{M}	
morning set	3807 Sep 27 18:02	26° \mathbb{M} 39'42		morning set	3808 Sep 10 21:21	11° \mathbb{M} 09'52	
	3807 Sep 29 10:52	0° Ω					
superior conj	3807 Oct 06 06:44	13° Ω 15'01	1°34'07	superior conj	3808 Sep 18 17:12	27° \mathbb{M} 00'25	1°43'03
minimum elong	3807 Oct 06 09:27	13° Ω 27'55	1°33'54	minimum elong	3808 Sep 18 18:13	27° \mathbb{M} 05'26	1°43'02
max. Earth dist.	3807 Oct 13 07:48	26° Ω 12'02	1.39266 AU		3808 Sep 20 05:32	0° Ω	
	3807 Oct 15 11:45	0° \mathbb{M}		max. Earth dist.	3808 Sep 24 12:37	8° Ω 15'13	1.37211 AU
evening rise	3807 Oct 17 06:19	3° \mathbb{M} 03'05		evening rise	3808 Sep 28 07:21	15° Ω 11'59	
desc. node	3807 Oct 21 23:39	10° \mathbb{M} 54'53			3808 Oct 06 23:16	0° \mathbb{M}	
	3807 Nov 03 10:43	0° \mathbb{M}		desc. node	3808 Oct 07 20:41	1° \mathbb{M} 26'24	
evening max el	3807 Nov 21 13:08	22° \mathbb{M} 48'25	24°18'07		3808 Oct 28 02:24	0° \mathbb{M}	
retrograde	3807 Dec 02 18:50	29° \mathbb{M} 23'20		evening max el	3808 Nov 03 01:22	6° \mathbb{M} 29'52	25°32'09
evening set	3807 Dec 08 03:40	27° \mathbb{M} 08'59		retrograde	3808 Nov 15 05:47	13° \mathbb{M} 29'47	
asc. node	3807 Dec 11 19:16	23° \mathbb{M} 08'36		evening set	3808 Nov 21 04:32	11° \mathbb{M} 01'10	
min. Earth dist.	3807 Dec 12 20:33	21° \mathbb{M} 45'14	0.67731 AU	min. Earth dist.	3808 Nov 25 13:45	6° \mathbb{M} 12'10	0.67125 AU
inferior conj	3807 Dec 13 14:50	20° \mathbb{M} 43'49	0°36'57	inferior conj	3808 Nov 26 18:59	4° \mathbb{M} 38'25	-0°18'16
minimum elong	3807 Dec 13 13:57	20° \mathbb{M} 46'46	0°36'35	minimum elong	3808 Nov 26 19:27	4° \mathbb{M} 36'54	0°18'05
morning rise	3807 Dec 19 00:18	14° \mathbb{M} 40'57		asc. node	3808 Nov 27 16:18	3° \mathbb{M} 30'37	
direct	3807 Dec 22 20:30	13° \mathbb{M} 16'42			3808 Nov 30 19:44	30° \mathbb{R} \mathbb{M}	
morning max el	3807 Dec 30 15:40	17° \mathbb{M} 43'52	20°17'53	morning rise	3808 Dec 02 10:43	28° \mathbb{M} 43'26	
	3808 Jan 09 11:11	0° \mathbb{M}		direct	3808 Dec 05 19:06	27° \mathbb{M} 38'50	
desc. node	3808 Jan 17 22:53	12° \mathbb{M} 23'24			3808 Dec 11 02:48	0° \mathbb{M}	
morning set	3808 Jan 27 11:56	26° \mathbb{M} 55'37		morning max el	3808 Dec 12 20:45	1° \mathbb{M} 35'47	19°16'28
	3808 Jan 29 11:28	0° \approx		greatest brilliancy	3808 Dec 26 11:30	19° \mathbb{M} 56'39	-0.7m
max. Earth dist.	3808 Feb 06 12:32	12° \approx 42'35	1.43631 AU		3809 Jan 02 00:53	0° \mathbb{M}	
superior conj	3808 Feb 12 12:30	22° \approx 28'24	-2°05'08	desc. node	3809 Jan 03 19:55	2° \mathbb{M} 46'30	
minimum elong	3808 Feb 12 09:31	22° \approx 16'06	2°05'03	morning set	3809 Jan 05 12:23	5° \mathbb{M} 23'19	
	3808 Feb 17 00:40	0° \mathbb{M}		max. Earth dist.	3809 Jan 19 03:01	26° \mathbb{M} 38'59	1.44788 AU
evening rise	3808 Feb 25 03:47	13° \mathbb{M} 58'11			3809 Jan 21 05:52	0° \approx	
	3808 Mar 05 12:31	0° \mathbb{Y}		superior conj	3809 Jan 22 06:09	1° \approx 36'25	-1°46'03
asc. node	3808 Mar 08 18:36	5° \mathbb{Y} 02'34		minimum elong	3809 Jan 21 21:47	1° \approx 03'10	1°45'23
evening max el	3808 Mar 13 16:27	11° \mathbb{Y} 11'15	18°08'39	evening rise	3809 Feb 05 17:06	25° \approx 04'28	
retrograde	3808 Mar 20 03:25	14° \mathbb{Y} 34'14			3809 Feb 08 16:25	0° \mathbb{M}	
evening set	3808 Mar 22 23:06	13° \mathbb{Y} 54'18		asc. node	3809 Feb 23 15:37	22° \mathbb{M} 51'59	
inferior conj	3808 Mar 29 05:09	8° \mathbb{Y} 43'23	3°31'04	evening max el	3809 Feb 25 04:49	24° \mathbb{M} 33'47	18°26'07
minimum elong	3808 Mar 29 06:31	8° \mathbb{Y} 39'48	3°30'57	retrograde	3809 Mar 03 16:46	28° \mathbb{M} 06'17	
min. Earth dist.	3808 Apr 01 01:25	5° \mathbb{Y} 45'23	0.62446 AU	evening set	3809 Mar 06 18:15	27° \mathbb{M} 14'34	
morning rise	3808 Apr 04 12:37	2° \mathbb{Y} 41'09		inferior conj	3809 Mar 12 14:46	21° \mathbb{M} 45'10	3°37'12
direct	3808 Apr 11 09:44	0° \mathbb{Y} 08'18		minimum elong	3809 Mar 12 14:26	21° \mathbb{M} 46'08	3°37'11
desc. node	3808 Apr 14 22:05	0° \mathbb{Y} 44'11		min. Earth dist.	3809 Mar 14 20:01	19° \mathbb{M} 10'21	0.64340 AU
morning max el	3808 Apr 25 11:04	8° \mathbb{Y} 06'31	27°51'08	morning rise	3809 Mar 18 09:54	15° \mathbb{M} 35'23	
	3808 May 12 06:26	0° \mathbb{M}		direct	3809 Mar 25 05:22	12° \mathbb{M} 46'58	
morning set	3808 May 29 07:20	0° \mathbb{M} 31'24		desc. node	3809 Apr 01 19:07	15° \mathbb{M} 33'10	
	3808 May 29 01:08	0° \mathbb{M}		morning max el	3809 Apr 07 20:19	20° \mathbb{M} 42'07	27°27'08
max. Earth dist.	3808 Jun 03 20:33	12° \mathbb{M} 08'06	1.32512 AU		3809 Apr 15 20:59	0° \mathbb{Y}	
asc. node	3808 Jun 04 17:53	14° \mathbb{M} 02'58		morning set	3809 May 05 08:28	0° \mathbb{M}	
superior conj	3808 Jun 05 20:30	16° \mathbb{M} 27'13	0°11'38	max. Earth dist.	3809 May 13 00:37	14° \mathbb{M} 20'19	
minimum elong	3808 Jun 05 19:57	16° \mathbb{M} 24'14	0°11'31		3809 May 17 20:49	24° \mathbb{M} 07'20	1.33368 AU
behind sun begin	3808 Jun 05 16:21	16° \mathbb{M} 04'39			3809 May 20 16:02	0° \mathbb{M}	
behind sun end	3808 Jun 05 23:34	16° \mathbb{M} 43'50		superior conj	3809 May 21 01:44	0° \mathbb{M} 51'31	-0°16'08
	3808 Jun 12 02:11	0° \mathbb{M}		minimum elong	3809 May 21 02:33	0° \mathbb{M} 55'52	0°15'57
evening rise	3808 Jun 12 18:49	1° \mathbb{M} 28'43		behind sun begin	3809 May 21 02:20	0° \mathbb{M} 54'40	
	3808 Jun 28 10:04	0° Ω		behind sun end	3809 May 21 02:47	0° \mathbb{M} 57'05	
evening max el	3808 Jul 07 04:29	10° Ω 38'45	24°01'34	asc. node	3809 May 22 14:55	4° \mathbb{M} 09'51	
desc. node	3808 Jul 11 21:21	14° Ω 29'39		evening rise	3809 May 28 06:11	16° \mathbb{M} 12'29	
retrograde	3808 Jul 20 22:50	17° Ω 34'32			3809 Jun 04 03:33	0° \mathbb{M}	
				evening max el	3809 Jun 18 18:45	21° \mathbb{M} 03'04	22°24'41

desc. node	3809 Jun 28 18:21	27°☿10'02		evening max el	3810 May 31 17:37	1°☿48'23	20°55'56
retrograde	3809 Jul 01 19:32	27°☿31'28		retrograde	3810 Jun 12 08:24	7°☿29'23	
evening set	3809 Jul 04 20:47	27°☿10'54		evening set	3810 Jun 14 11:55	7°☿18'30	
min. Earth dist.	3809 Jul 13 01:38	23°☿37'27	0.55143 AU	desc. node	3810 Jun 15 15:22	7°☿04'13	
inferior conj	3809 Jul 14 02:39	23°☿02'01	-4°04'16	inferior conj	3810 Jun 23 20:00	3°☿21'04	-2°22'50
minimum elong	3809 Jul 13 18:22	23°☿13'46	4°02'15	minimum elong	3810 Jun 23 13:26	3°☿30'22	2°20'34
morning rise	3809 Jul 22 17:58	19°☿11'27		min. Earth dist.	3810 Jun 24 13:20	2°☿56'31	0.54854 AU
direct	3809 Jul 25 19:12	18°☿50'22			3810 Jun 30 11:21	30°☿II	
morning max el	3809 Aug 06 07:55	24°☿12'22	21°11'32	morning rise	3810 Jul 02 14:47	29°II19'12	
	3809 Aug 11 11:51	0°♊		direct	3810 Jul 06 04:31	28°II51'41	
asc. node	3809 Aug 18 14:08	11°♊01'30			3810 Jul 11 16:40	0°☿	
morning set	3809 Aug 26 05:24	25°♊54'02		morning max el	3810 Jul 19 04:05	5°☿04'32	22°49'01
	3809 Aug 28 04:37	0°♊		asc. node	3810 Aug 05 11:10	0°♊13'53	
					3810 Aug 05 08:17	0°♊	
superior conj	3809 Sep 02 14:12	11°♊17'22	1°43'56	morning set	3810 Aug 10 16:10	10°♊46'01	
minimum elong	3809 Sep 02 13:41	11°♊14'42	1°43'56				
max. Earth dist.	3809 Sep 06 22:24	20°♊06'14	1.35388 AU	superior conj	3810 Aug 17 18:21	25°♊55'01	1°38'08
evening rise	3809 Sep 11 03:07	28°♊14'13		minimum elong	3810 Aug 17 16:44	25°♊46'27	1°38'01
	3809 Sep 12 01:40	0°♊			3810 Aug 19 16:36	0°♊	
desc. node	3809 Sep 24 17:41	21°♊43'19		max. Earth dist.	3810 Aug 20 16:58	2°♊07'38	1.33935 AU
	3809 Sep 30 05:20	0°♊		evening rise	3810 Aug 25 13:13	11°♊57'28	
evening max el	3809 Oct 16 13:45	20°♊09'58	26°33'06		3810 Sep 04 09:01	0°♊	
retrograde	3809 Oct 29 11:42	27°♊24'03		desc. node	3810 Sep 11 14:41	11°♊38'22	
evening set	3809 Nov 04 23:33	24°♊45'26			3810 Sep 25 12:44	0°♊	
min. Earth dist.	3809 Nov 09 01:49	20°♊32'01	0.66174 AU	evening max el	3810 Sep 29 02:09	3°♊39'40	27°13'31
inferior conj	3809 Nov 10 18:30	18°♊29'55	-1°17'19	retrograde	3810 Oct 12 11:50	10°♊57'47	
minimum elong	3809 Nov 10 20:37	18°♊23'33	1°16'26	evening set	3810 Oct 19 10:21	8°♊16'19	
asc. node	3809 Nov 14 13:19	14°♊22'19		min. Earth dist.	3810 Oct 23 06:25	4°♊38'10	0.64877 AU
morning rise	3809 Nov 16 18:21	12°♊45'19		inferior conj	3810 Oct 25 11:08	2°♊13'00	-2°18'24
direct	3809 Nov 19 17:00	11°♊56'39		minimum elong	3810 Oct 25 15:01	2°♊02'17	2°16'54
morning max el	3809 Nov 26 08:17	15°♊34'17	18°30'49		3810 Oct 27 13:01	30°☿♊	
	3809 Dec 06 23:56	0°☿		morning rise	3810 Oct 31 20:43	26°♊41'49	
morning set	3809 Dec 16 12:29	15°☿06'01		asc. node	3810 Nov 01 10:22	26°♊27'49	
desc. node	3809 Dec 21 16:57	23°☿21'26		direct	3810 Nov 03 12:01	26°♊05'09	
	3809 Dec 25 21:43	0°☿		morning max el	3810 Nov 09 23:44	29°♊32'38	18°01'51
					3810 Nov 10 10:25	0°♊	
superior conj	3810 Jan 01 09:05	10°☿10'40	-1°08'38	morning set	3810 Nov 27 18:04	26°♊16'23	
minimum elong	3810 Jan 01 00:52	9°☿38'27	1°07'39		3810 Nov 29 23:50	0°☿	
max. Earth dist.	3810 Jan 01 21:08	10°☿57'57	1.45247 AU	desc. node	3810 Dec 08 13:57	14°☿03'44	
	3810 Jan 13 23:45	0°☿					
evening rise	3810 Jan 17 07:05	5°☿13'52		superior conj	3810 Dec 11 17:20	19°☿06'05	-0°21'26
greatest brilliancy	3810 Jan 26 14:51	19°☿58'52	-0.8m	minimum elong	3810 Dec 11 14:41	18°☿55'32	0°21'02
	3810 Feb 02 05:44	0°☿		max. Earth dist.	3810 Dec 15 16:11	25°☿22'13	1.44966 AU
evening max el	3810 Feb 08 14:48	8°☿02'43	19°01'24		3810 Dec 18 14:53	0°☿	
asc. node	3810 Feb 10 12:38	9°☿47'54		evening rise	3810 Dec 28 00:54	14°☿37'44	
retrograde	3810 Feb 15 11:46	11°☿55'48			3811 Jan 07 01:42	0°☿	
evening set	3810 Feb 18 19:46	10°☿51'22		greatest brilliancy	3811 Jan 10 22:36	5°☿48'21	-0.6m
inferior conj	3810 Feb 24 09:54	5°☿05'23	3°27'16	evening max el	3811 Jan 22 20:30	21°☿34'13	19°52'54
minimum elong	3810 Feb 24 08:18	5°☿10'24	3°27'04	asc. node	3811 Jan 28 09:40	25°☿35'45	
min. Earth dist.	3810 Feb 25 23:41	3°☿06'09	0.65865 AU	retrograde	3811 Jan 30 09:21	25°☿57'08	
	3810 Feb 28 16:17	30°☿☿		evening set	3811 Feb 03 01:13	24°☿38'49	
morning rise	3810 Mar 01 20:29	28°☿52'21		inferior conj	3811 Feb 08 11:30	18°☿38'30	3°05'04
direct	3810 Mar 08 07:55	26°☿02'12		minimum elong	3811 Feb 08 09:12	18°☿46'11	3°04'35
	3810 Mar 17 04:52	0°☿		min. Earth dist.	3811 Feb 09 10:53	17°☿20'31	0.66970 AU
desc. node	3810 Mar 19 16:09	2°☿08'50		morning rise	3811 Feb 13 16:57	12°☿24'41	
morning max el	3810 Mar 21 06:14	3°☿41'31	26°32'45	direct	3811 Feb 19 16:08	9°☿44'46	
	3810 Apr 10 05:34	0°☿		morning max el	3811 Mar 03 15:07	16°☿53'09	25°17'02
morning set	3810 Apr 26 06:25	27°☿31'50		desc. node	3811 Mar 06 13:10	20°☿01'00	
	3810 Apr 27 13:34	0°☿			3811 Mar 14 13:09	0°☿	
max. Earth dist.	3810 Apr 30 10:04	5°☿33'29	1.34688 AU		3811 Apr 03 04:38	0°☿	
				morning set	3811 Apr 08 20:09	9°☿52'42	
superior conj	3810 May 05 00:43	14°☿52'50	-0°45'05	max. Earth dist.	3811 Apr 12 12:13	16°☿37'17	1.36451 AU
minimum elong	3810 May 05 03:07	15°☿05'09	0°44'37				
asc. node	3810 May 09 11:56	24°☿11'28		superior conj	3811 Apr 18 14:40	28°☿23'34	-1°13'37
	3810 May 12 06:39	0°II		minimum elong	3811 Apr 18 18:32	28°☿42'45	1°13'00
evening rise	3810 May 12 15:15	0°II44'36			3811 Apr 19 10:05	0°☿	
	3810 May 30 00:08	0°☿		asc. node	3811 Apr 26 08:59	14°☿03'47	





































































































































evening rise	3811 Apr 26 19:52	14°♄58'47		asc. node	3812 Apr 12 06:02	3°♄41'20	
	3811 May 04 16:07	0°♄		evening max el	3812 Apr 26 02:45	25°♄16'49	18°51'27
evening max el	3811 May 14 04:38	13°♄12'53	19°43'48	retrograde	3812 May 04 10:29	29°♄21'00	
retrograde	3811 May 24 01:30	18°♄00'48		evening set	3812 May 06 14:05	29°♄05'46	
evening set	3811 May 26 00:39	17°♄50'14		inferior conj	3812 May 14 13:59	24°♄47'07	1°21'25
desc. node	3811 Jun 02 12:24	14°♄36'33		minimum elong	3812 May 14 16:53	24°♄41'52	1°20'27
inferior conj	3811 Jun 03 20:03	13°♄47'55	-0°23'22	min. Earth dist.	3812 May 17 18:47	22°♄29'34	0.57032 AU
minimum elong	3811 Jun 03 18:59	13°♄49'34	0°22'59	desc. node	3812 May 19 09:26	21°♄25'55	
min. Earth dist.	3811 Jun 06 02:41	12°♄23'19	0.55534 AU	morning rise	3812 May 22 16:30	19°♄41'02	
morning rise	3811 Jun 12 11:00	9°♄17'27		direct	3812 May 28 01:33	18°♄31'22	
direct	3811 Jun 16 20:30	8°♄34'37		morning max el	3812 Jun 11 09:32	25°♄58'54	26°05'48
morning max el	3811 Jun 30 18:30	15°♄31'06	24°32'08		3812 Jun 15 04:28	0°♄	
	3811 Jul 12 07:35	0°♄			3812 Jul 04 10:39	0°♄	
asc. node	3811 Jul 23 08:14	19°♄49'18		asc. node	3812 Jul 09 05:17	9°♄40'23	
morning set	3811 Jul 26 03:59	25°♄40'52		morning set	3812 Jul 09 15:09	10°♄32'25	
	3811 Jul 28 04:28	0°♄					
superior conj	3811 Aug 02 03:06	10°♄45'32	1°26'45	superior conj	3812 Jul 16 14:17	25°♄41'00	1°10'36
minimum elong	3811 Aug 02 00:53	10°♄33'28	1°26'29	minimum elong	3812 Jul 16 11:58	25°♄28'10	1°10'12
max. Earth dist.	3811 Aug 03 20:22	14°♄29'12	1.32896 AU	max. Earth dist.	3812 Jul 17 05:43	27°♄05'52	1.32265 AU
evening rise	3811 Aug 09 09:47	26°♄10'51			3812 Jul 18 13:28	0°♄	
	3811 Aug 11 07:23	0°♄		evening rise	3812 Jul 23 13:35	10°♄43'50	
	3811 Aug 28 18:25	0°♄			3812 Aug 02 13:17	0°♄	
desc. node	3811 Aug 29 11:43	1°♄02'21		desc. node	3812 Aug 15 08:45	19°♄41'40	
evening max el	3811 Sep 11 12:59	16°♄46'49	27°26'33	evening max el	3812 Aug 23 19:25	29°♄16'42	27°07'31
retrograde	3811 Sep 25 05:31	24°♄02'48			3812 Aug 24 14:06	0°♄	
evening set	3811 Oct 02 09:55	21°♄28'12		retrograde	3812 Sep 06 16:02	6°♄29'21	
min. Earth dist.	3811 Oct 06 01:27	18°♄22'03	0.63249 AU	evening set	3812 Sep 13 18:18	4°♄13'46	
inferior conj	3811 Oct 08 18:14	15°♄41'41	-3°18'41	min. Earth dist.	3812 Sep 17 09:44	1°♄30'55	0.61330 AU
minimum elong	3811 Oct 08 23:37	15°♄28'20	3°16'55		3812 Sep 19 03:43	30°♄	
morning rise	3811 Oct 15 14:43	10°♄27'24		inferior conj	3812 Sep 20 12:36	28°♄47'21	-4°13'25
direct	3811 Oct 18 01:19	9°♄59'05		minimum elong	3812 Sep 20 18:28	28°♄34'29	4°12'01
asc. node	3811 Oct 19 07:25	10°♄06'44		morning rise	3812 Sep 27 20:25	23°♄53'34	
morning max el	3811 Oct 24 16:17	13°♄24'43	17°50'25	direct	3812 Sep 30 05:08	23°♄30'36	
	3811 Nov 05 01:22	0°♄		asc. node	3812 Oct 05 04:28	25°♄16'28	
morning set	3811 Nov 10 00:44	8°♄39'26		morning max el	3812 Oct 07 06:51	27°♄02'42	17°57'35
					3812 Oct 09 21:44	0°♄	
superior conj	3811 Nov 21 23:53	29°♄08'36	0°23'52	morning set	3812 Oct 23 02:01	21°♄55'35	
minimum elong	3811 Nov 22 02:17	29°♄18'33	0°23'32		3812 Oct 27 11:57	0°♄	
	3811 Nov 22 12:17	0°♄		superior conj	3812 Nov 02 09:21	10°♄30'26	0°59'54
desc. node	3811 Nov 25 10:59	4°♄50'14		minimum elong	3812 Nov 02 13:32	10°♄48'42	0°59'21
max. Earth dist.	3811 Nov 28 09:36	9°♄35'38	1.43984 AU	max. Earth dist.	3812 Nov 09 22:34	23°♄20'11	1.42414 AU
evening rise	3811 Dec 07 10:16	23°♄47'07		desc. node	3812 Nov 11 08:02	25°♄37'46	
	3811 Dec 11 11:41	0°♄			3812 Nov 14 00:46	0°♄	
	3812 Jan 01 10:06	0°♄		evening rise	3812 Nov 16 03:26	3°♄21'57	
evening max el	3812 Jan 05 20:47	5°♄06'36	20°57'58		3812 Dec 03 21:39	0°♄	
retrograde	3812 Jan 14 07:19	10°♄06'13		evening max el	3812 Dec 18 15:38	18°♄40'27	22°12'50
asc. node	3812 Jan 15 06:42	10°♄01'01		retrograde	3812 Dec 28 03:53	24°♄20'01	
evening set	3812 Jan 18 08:36	8°♄32'54		asc. node	3813 Jan 01 03:44	22°♄54'57	
inferior conj	3812 Jan 23 17:06	2°♄20'50	2°33'07	evening set	3813 Jan 01 16:15	22°♄30'50	
minimum elong	3812 Jan 23 14:36	2°♄29'26	2°32'25	inferior conj	3813 Jan 07 00:40	16°♄10'24	1°53'12
min. Earth dist.	3812 Jan 24 03:30	1°♄45'02	0.67665 AU	minimum elong	3813 Jan 06 22:27	16°♄18'04	1°52'25
	3812 Jan 25 10:33	30°♄		min. Earth dist.	3813 Jan 06 23:24	16°♄14'48	0.67971 AU
morning rise	3812 Jan 28 20:27	26°♄07'55		morning rise	3813 Jan 12 04:32	9°♄59'48	
direct	3812 Feb 03 05:12	23°♄46'16		direct	3813 Jan 16 22:23	8°♄00'23	
	3812 Feb 13 19:10	0°♄		morning max el	3813 Jan 26 10:40	13°♄36'33	22°21'29
morning max el	3812 Feb 13 23:40	0°♄11'16	23°49'59	desc. node	3813 Feb 07 07:14	28°♄13'27	
desc. node	3812 Feb 21 10:12	8°♄47'34			3813 Feb 08 13:53	0°♄	
	3812 Mar 07 10:31	0°♄			3813 Feb 28 09:22	0°♄	
morning set	3812 Mar 20 11:51	21°♄06'05		morning set	3813 Feb 28 23:57	0°♄59'11	
max. Earth dist.	3812 Mar 24 08:03	27°♄47'37	1.38538 AU	max. Earth dist.	3813 Mar 06 04:49	9°♄36'43	1.40711 AU
	3812 Mar 25 13:45	0°♄					
superior conj	3812 Mar 31 15:51	11°♄13'04	-1°39'23	superior conj	3813 Mar 13 23:44	23°♄10'32	-1°58'54
minimum elong	3812 Mar 31 20:33	11°♄35'16	1°38'51	minimum elong	3813 Mar 14 03:38	23°♄27'59	1°58'39
evening rise	3812 Apr 09 17:19	28°♄46'42			3813 Mar 17 17:52	0°♄	
	3812 Apr 10 08:20	0°♄		evening rise	3813 Mar 24 04:21	12°♄00'24	
				asc. node	3813 Mar 30 03:05	22°♄58'45	

	3813 Apr 03 07:01	0°♄			3814 Mar 10 02:38	0°♃	
evening max el	3813 Apr 09 09:02	7°♄53'53	18°19'23	asc. node	3814 Mar 17 00:05	11°♃48'48	
retrograde	3813 Apr 16 14:32	11°♄29'47		evening max el	3814 Mar 23 20:07	20°♃54'53	18°07'06
evening set	3813 Apr 19 00:35	11°♄06'34		retrograde	3814 Mar 30 10:48	24°♃18'17	
inferior conj	3813 Apr 26 05:27	6°♄27'50	2°35'20	evening set	3814 Apr 02 03:07	23°♃44'51	
minimum elong	3813 Apr 26 09:05	6°♄20'07	2°34'26	inferior conj	3814 Apr 08 16:22	18°♃45'44	3°18'12
min. Earth dist.	3813 Apr 29 15:54	3°♄35'01	0.59046 AU	minimum elong	3814 Apr 08 18:46	18°♃39'53	3°17'51
morning rise	3813 May 03 14:45	0°♄51'48		min. Earth dist.	3814 Apr 11 20:05	15°♃42'24	0.61232 AU
	3813 May 05 10:16	30°♃♂		morning rise	3814 Apr 15 08:31	12°♃50'29	
desc. node	3813 May 06 06:27	29°♃41'46		direct	3814 Apr 22 02:51	10°♃32'08	
direct	3813 May 09 20:27	29°♃07'03		desc. node	3814 Apr 23 03:28	10°♃35'09	
	3813 May 14 09:47	0°♄		morning max el	3814 May 06 08:11	18°♃29'09	27°48'40
morning max el	3813 May 24 05:45	6°♄54'07	27°14'38		3814 May 16 00:31	0°♄	
	3813 Jun 10 13:02	0°♄			3814 Jun 03 07:14	0°♄	
morning set	3813 Jun 24 00:01	25°♄15'18		morning set	3814 Jun 08 04:42	9°♄43'17	
asc. node	3813 Jun 26 02:20	29°♄41'53		asc. node	3814 Jun 12 23:24	19°♄49'03	
	3813 Jun 26 05:43	0°♄		max. Earth dist.	3814 Jun 14 03:41	22°♄22'31	1.32208 AU
max. Earth dist.	3813 Jun 30 17:25	9°♄47'43	1.32035 AU				
				superior conj	3814 Jun 15 12:49	25°♄23'29	0°26'37
superior conj	3813 Jul 01 02:06	10°♄35'37	0°50'21	minimum elong	3814 Jun 15 11:38	25°♄16'59	0°26'22
minimum elong	3813 Jul 01 00:08	10°♄24'43	0°49'57		3814 Jun 17 15:13	0°♄	
evening rise	3813 Jul 07 22:06	25°♄28'39		evening rise	3814 Jun 22 09:13	10°♄18'26	
	3813 Jul 10 02:07	0°♄			3814 Jul 02 10:48	0°♄	
	3813 Jul 27 10:23	0°♄		evening max el	3814 Jul 18 11:37	21°♄57'26	24°55'38
desc. node	3813 Aug 02 05:47	7°♄18'09		desc. node	3814 Jul 20 02:46	23°♄26'38	
evening max el	3813 Aug 05 19:02	10°♄59'46	26°15'23	retrograde	3814 Aug 01 10:24	29°♄01'00	
retrograde	3813 Aug 19 18:24	18°♄09'29		evening set	3814 Aug 06 19:16	27°♄55'26	
evening set	3813 Aug 26 06:43	16°♄25'23		min. Earth dist.	3814 Aug 11 23:08	25°♄09'21	0.57283 AU
min. Earth dist.	3813 Aug 30 08:00	13°♄50'15	0.59260 AU	inferior conj	3814 Aug 14 21:26	23°♄12'59	-5°09'36
inferior conj	3813 Sep 02 14:39	11°♄20'33	-4°54'35	minimum elong	3814 Aug 14 21:01	23°♄13'41	5°09'36
minimum elong	3813 Sep 02 18:52	11°♄12'29	4°54'04	morning rise	3814 Aug 23 01:15	19°♄03'54	
morning rise	3813 Sep 10 09:13	6°♄49'34		direct	3814 Aug 25 15:16	18°♄44'45	
direct	3813 Sep 12 19:06	6°♄29'30		morning max el	3814 Sep 03 16:53	23°♄00'14	19°12'30
morning max el	3813 Sep 20 16:09	10°♄17'41	18°24'30	asc. node	3814 Sep 08 22:35	29°♄14'54	
asc. node	3813 Sep 22 01:32	11°♄44'10			3814 Sep 09 11:01	0°♄	
	3813 Oct 03 15:00	0°♄		morning set	3814 Sep 20 15:57	20°♄08'30	
morning set	3813 Oct 06 16:25	5°♄48'47			3814 Sep 25 14:42	0°♄	
				superior conj	3814 Sep 28 20:42	6°♄22'38	1°38'59
superior conj	3813 Oct 15 18:07	23°♄00'12	1°24'41	minimum elong	3814 Sep 28 22:41	6°♄32'19	1°38'52
minimum elong	3813 Oct 15 21:41	23°♄16'42	1°24'20	max. Earth dist.	3814 Oct 05 10:06	18°♄42'25	1.38377 AU
	3813 Oct 19 14:42	0°♄		evening rise	3814 Oct 09 05:01	25°♄26'59	
max. Earth dist.	3813 Oct 23 05:49	6°♄21'43	1.40459 AU		3814 Oct 11 20:34	0°♄	
evening rise	3813 Oct 27 16:27	13°♄51'52		desc. node	3814 Oct 16 02:06	7°♄00'20	
desc. node	3813 Oct 29 05:04	16°♄22'20			3814 Oct 31 12:09	0°♄	
	3813 Nov 06 20:53	0°♄		evening max el	3814 Nov 13 19:05	15°♄58'04	24°50'45
	3813 Nov 29 02:07	0°♄		retrograde	3814 Nov 25 11:15	22°♄45'09	
evening max el	3813 Dec 01 06:20	2°♄17'02	23°32'34	evening set	3814 Dec 01 01:51	20°♄24'39	
retrograde	3813 Dec 11 21:35	8°♄34'18		min. Earth dist.	3814 Dec 05 15:27	15°♄15'14	0.67516 AU
evening set	3813 Dec 16 22:31	6°♄29'02		asc. node	3814 Dec 05 21:46	14°♄54'26	
asc. node	3813 Dec 19 00:45	4°♄22'36		inferior conj	3814 Dec 06 14:17	13°♄59'49	0°14'06
inferior conj	3813 Dec 22 08:18	0°♄04'10	1°06'30	minimum elong	3814 Dec 06 13:56	14°♄00'59	0°13'56
minimum elong	3813 Dec 22 06:49	0°♄09'15	1°05'54	transit middle	3814 Dec 06 13:56	14°♄00'59	0°13'56
min. Earth dist.	3813 Dec 21 20:10	0°♄45'44	0.67915 AU	transit begin	3814 Dec 06 12:31	14°♄05'38	
	3813 Dec 22 09:31	30°♃♂		transit end	3814 Dec 06 15:20	13°♄56'19	
morning rise	3813 Dec 27 15:05	23°♄57'43		morning rise	3814 Dec 12 02:09	7°♄59'43	
direct	3813 Dec 31 18:45	22°♄21'05		direct	3814 Dec 15 17:05	6°♄44'09	
morning max el	3814 Jan 09 03:25	27°♄11'19	20°59'36	morning max el	3814 Dec 23 03:56	10°♄57'20	19°49'47
	3814 Jan 11 17:43	0°♄			3815 Jan 06 12:03	0°♄	
desc. node	3814 Jan 25 04:16	18°♄07'23		desc. node	3815 Jan 12 01:19	8°♄21'48	
	3814 Feb 02 03:09	0°♄		morning set	3815 Jan 18 04:22	17°♄45'14	
morning set	3814 Feb 08 08:27	9°♄36'08			3815 Jan 26 01:05	0°♄	
max. Earth dist.	3814 Feb 16 07:41	22°♄19'16	1.42687 AU	max. Earth dist.	3815 Jan 29 18:20	5°♄52'58	1.44208 AU
	3814 Feb 20 23:16	0°♄					
				superior conj	3815 Feb 03 16:54	13°♄48'50	-1°59'29
superior conj	3814 Feb 23 09:12	4°♄04'12	-2°07'23	minimum elong	3815 Feb 03 11:19	13°♄26'13	1°59'12
minimum elong	3814 Feb 23 09:31	4°♄05'35	2°07'22		3815 Feb 13 11:48	0°♄	
evening rise	3814 Mar 07 00:57	24°♄30'19					

evening rise	3815 Feb 17 02:46	6° K 08'41		superior conj	3816 Jan 14 02:16	22° Z 36'45	-1°32'04
asc. node	3815 Mar 03 21:06	0° Y 03'23		minimum elong	3816 Jan 13 17:03	22° Z 00'27	1°31'10
	3815 Mar 03 20:05	0° Y			3816 Jan 18 18:25	0° \approx	
evening max el	3815 Mar 07 08:52	4° Y 11'57	18°13'54	evening rise	3816 Jan 29 06:11	16° \approx 50'30	
retrograde	3815 Mar 13 19:05	7° Y 37'07			3816 Feb 06 08:57	0° K	
evening set	3815 Mar 16 17:16	6° Y 52'13		asc. node	3816 Feb 18 18:06	17° K 31'57	
inferior conj	3815 Mar 22 18:51	1° Y 33'28	3°35'55	evening max el	3816 Feb 18 20:34	17° K 38'14	18°39'03
minimum elong	3815 Mar 22 19:27	1° Y 31'48	3°35'53	retrograde	3816 Feb 25 11:15	21° K 17'57	
	3815 Mar 24 04:40	30° K K		evening set	3816 Feb 28 15:30	20° K 20'43	
min. Earth dist.	3815 Mar 25 09:02	28° K 43'15	0.63296 AU	inferior conj	3816 Mar 05 08:55	14° K 43'55	3°34'40
morning rise	3815 Mar 28 20:37	25° K 27'36		minimum elong	3816 Mar 05 08:00	14° K 46'44	3°34'36
direct	3815 Apr 04 18:12	22° K 46'09		min. Earth dist.	3816 Mar 07 07:27	12° K 23'29	0.65041 AU
desc. node	3815 Apr 10 00:30	24° K 06'51		morning rise	3816 Mar 11 00:00	8° K 32'38	
	3815 Apr 17 21:30	0° Y		direct	3816 Mar 17 16:44	5° K 42'04	
morning max el	3815 Apr 18 15:26	0° Y 44'08	27°45'04	desc. node	3816 Mar 26 21:31	9° K 45'39	
	3815 May 10 02:45	0° B		morning max el	3816 Mar 31 01:10	13° K 31'15	27°07'17
morning set	3815 May 23 02:53	23° B 48'31			3816 Apr 13 08:42	0° Y	
	3815 May 26 03:44	0° II			3816 May 01 17:52	0° B	
max. Earth dist.	3815 May 28 08:36	4° II 37'16	1.32814 AU	morning set	3816 May 05 15:44	7° B 22'50	
				max. Earth dist.	3816 May 10 04:40	16° B 23'32	1.33876 AU
superior conj	3815 May 30 20:36	9° II 58'05	0°00'05				
minimum elong	3815 May 30 20:36	9° II 58'04	0°00'05	superior conj	3816 May 13 23:29	24° B 13'38	-0°28'20
behind sun begin	3815 May 30 15:23	9° II 29'59		minimum elong	3816 May 14 00:58	24° B 21'23	0°28'02
behind sun end	3815 May 31 01:49	10° II 26'11		asc. node	3816 May 16 17:26	0° II 02'22	
asc. node	3815 May 30 20:25	9° II 57'05			3816 May 16 17:00	0° II	
evening rise	3815 Jun 06 21:01	25° II 06'12		evening rise	3816 May 21 07:42	9° II 46'12	
	3815 Jun 09 05:14	0° E			3816 May 31 22:34	0° E	
	3815 Jun 27 16:56	0° O		evening max el	3816 Jun 10 17:50	12° E 54'44	21°45'15
evening max el	3815 Jun 30 00:43	2° O 25'15	23°20'21	desc. node	3816 Jun 22 20:46	19° E 04'19	
desc. node	3815 Jul 06 23:46	7° O 33'12		retrograde	3816 Jun 23 05:27	19° E 04'37	
retrograde	3815 Jul 13 13:30	9° O 11'20		evening set	3816 Jun 25 19:31	18° E 49'33	
evening set	3815 Jul 17 10:23	8° O 38'35		inferior conj	3816 Jul 05 04:22	14° E 47'18	-3°25'39
min. Earth dist.	3815 Jul 24 10:22	5° O 26'21	0.55724 AU	minimum elong	3816 Jul 04 20:02	14° E 58'58	3°23'12
inferior conj	3815 Jul 26 08:13	4° O 18'54	-4°42'49	min. Earth dist.	3816 Jul 04 20:55	14° E 57'43	0.54906 AU
minimum elong	3815 Jul 26 01:52	4° O 28'16	4°41'47	morning rise	3816 Jul 13 21:51	10° E 54'51	
morning rise	3815 Aug 03 19:45	0° O 25'28		direct	3816 Jul 17 03:49	10° E 31'44	
direct	3815 Aug 06 16:28	0° O 05'32		morning max el	3816 Jul 29 08:05	16° E 14'43	21°51'34
morning max el	3815 Aug 17 06:20	5° O 00'09	20°22'15		3816 Aug 08 23:27	0° O	
asc. node	3815 Aug 26 19:38	17° O 33'45		asc. node	3816 Aug 12 16:42	6° O 29'10	
	3815 Sep 02 13:01	0° P		morning set	3816 Aug 19 07:03	19° O 33'53	
morning set	3815 Sep 04 21:35	4° P 45'42			3816 Aug 24 05:39	0° P	
superior conj	3815 Sep 12 12:07	20° P 22'48	1°44'19	superior conj	3816 Aug 26 12:31	4° P 49'23	1°42'13
minimum elong	3815 Sep 12 12:26	20° P 24'25	1°44'19	minimum elong	3816 Aug 26 11:29	4° P 43'57	1°42'11
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max. Earth dist.	3815 Sep 17 16:40	0° A 38'34	1.36405 AU	evening rise	3816 Sep 03 16:59	21° P 21'02	
evening rise	3815 Sep 21 14:37	8° A 00'23			3816 Sep 08 08:16	0° A	
desc. node	3815 Oct 02 23:07	27° A 26'32		desc. node	3816 Sep 18 20:07	17° A 35'01	
	3815 Oct 04 14:05	0° M			3816 Sep 27 10:23	0° M	
evening max el	3815 Oct 27 07:32	29° M 40'36	26°00'06	evening max el	3816 Oct 08 20:05	13° M 17'31	26°53'08
	3815 Oct 27 15:36	0° X		retrograde	3816 Oct 21 23:19	20° M 33'37	
retrograde	3815 Nov 08 19:58	6° X 47'03		evening set	3816 Oct 28 16:18	17° M 52'39	
evening set	3815 Nov 15 00:28	4° X 13'48		min. Earth dist.	3816 Nov 01 15:49	13° M 54'38	0.65673 AU
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min. Earth dist.	3815 Nov 19 06:48	29° M 39'43	0.66771 AU	minimum elong	3816 Nov 03 16:28	11° M 33'40	1°41'56
inferior conj	3815 Nov 20 16:43	27° M 53'43	-0°42'55	asc. node	3816 Nov 08 15:52	6° M 41'07	
minimum elong	3815 Nov 20 17:52	27° M 50'09	0°42'26	morning rise	3816 Nov 09 17:27	6° M 02'53	
asc. node	3815 Nov 22 18:49	25° M 22'20		direct	3816 Nov 12 12:45	5° M 19'43	
morning rise	3815 Nov 26 11:41	22° M 02'38		morning max el	3816 Nov 19 01:31	8° M 51'31	18°16'24
direct	3815 Nov 29 15:44	21° M 05'06			3816 Dec 03 18:10	0° X	
morning max el	3815 Dec 06 11:56	24° M 52'18	18°54'57	morning set	3816 Dec 08 01:57	7° X 01'30	
	3815 Dec 10 20:35	0° X		desc. node	3816 Dec 15 19:23	19° X 29'04	
morning set	3815 Dec 28 13:09	26° X 40'34			3816 Dec 22 10:25	0° Z	
desc. node	3815 Dec 29 22:22	28° X 50'36					
	3815 Dec 30 16:05	0° Z		superior conj	3816 Dec 23 04:45	1° Z 12'14	-0°49'03
max. Earth dist.	3816 Jan 12 11:06	20° Z 02'39	1.45080 AU	minimum elong	3816 Dec 22 22:35	0° Z 47'57	0°48'14
				max. Earth dist.	3816 Dec 25 06:30	4° Z 27'49	1.45220 AU

































































































































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	3817 Jan 10 14:25	0° 		behind sun end	3817 Dec 03 07:17	11°  14'06	
greatest brilliancy	3817 Jan 19 21:39	14°  25'51	-0.7m	desc. node	3817 Dec 02 16:25	10°  13'56	
	3817 Jan 31 03:28	0° 		max. Earth dist.	3817 Dec 08 01:05	18°  49'28	1.44625 AU
evening max el	3817 Feb 01 04:52	1°  08'07	19°21'26		3817 Dec 15 04:10	0° 	
asc. node	3817 Feb 04 15:09	4°  00'41		evening rise	3817 Dec 18 23:15	5°  51'46	
retrograde	3817 Feb 08 07:47	5°  13'04			3818 Jan 04 00:23	0° 	
evening set	3817 Feb 11 18:58	4°  02'44		evening max el	3818 Jan 15 08:16	14°  39'56	20°19'02
	3817 Feb 15 20:39	30° 		asc. node	3818 Jan 22 12:11	19°  15'22	
inferior conj	3817 Feb 17 07:09	28°  10'03	3°19'09	retrograde	3818 Jan 23 05:55	19°  18'21	
minimum elong	3817 Feb 17 05:12	28°  16'24	3°18'51	evening set	3818 Jan 27 01:30	17°  53'54	
min. Earth dist.	3817 Feb 18 14:32	26°  28'18	0.66383 AU	inferior conj	3818 Feb 01 10:47	11°  48'01	2°52'36
morning rise	3817 Feb 22 15:09	21°  56'24		minimum elong	3818 Feb 01 08:21	11°  56'19	2°52'00
direct	3817 Feb 28 21:36	19°  09'43		min. Earth dist.	3818 Feb 02 04:29	10°  48'00	0.67314 AU
morning max el	3817 Mar 13 10:59	26°  37'41	26°02'39	morning rise	3818 Feb 06 14:59	5°  34'07	
desc. node	3817 Mar 13 18:34	26°  56'57		direct	3818 Feb 12 08:04	3°  01'14	
	3817 Mar 16 14:17	0° 		morning max el	3818 Feb 23 19:42	9°  53'10	24°40'41
	3817 Apr 06 23:13	0° 		desc. node	3818 Feb 28 15:37	15°  14'41	
morning set	3817 Apr 18 15:19	20°  14'16			3818 Mar 11 18:01	0° 	
max. Earth dist.	3817 Apr 22 13:19	27°  39'10	1.35391 AU		3818 Mar 30 15:08	0° 	
	3817 Apr 23 18:16	0° 		morning set	3818 Mar 31 20:28	2°  08'31	
				max. Earth dist.	3818 Apr 04 11:42	8°  40'08	1.37311 AU
superior conj	3817 Apr 27 18:58	8°  02'24	-0°57'21	superior conj	3818 Apr 11 03:57	21°  16'20	-1°25'05
minimum elong	3817 Apr 27 22:01	8°  17'54	0°56'48	minimum elong	3818 Apr 11 08:18	21°  37'28	1°24'28
asc. node	3817 May 03 14:28	20°  00'16			3818 Apr 15 14:07	0° 	
evening rise	3817 May 05 15:09	24°  11'19		evening rise	3818 Apr 19 17:04	8°  14'50	
	3817 May 08 12:04	0° 		asc. node	3818 Apr 20 11:30	9°  46'34	
evening max el	3817 May 23 21:32	23°  54'25	20°22'50		3818 May 01 21:34	0° 	
retrograde	3817 Jun 03 18:51	29°  13'09		evening max el	3818 May 06 13:32	5°  35'54	19°19'02
evening set	3817 Jun 05 18:41	29°  03'13		retrograde	3818 May 15 17:45	10°  03'35	
desc. node	3817 Jun 09 17:47	27°  50'36		evening set	3818 May 17 18:00	9°  51'39	
inferior conj	3817 Jun 14 22:43	25°  05'08	-1°32'11	inferior conj	3818 May 26 05:28	5°  43'34	0°24'18
minimum elong	3817 Jun 14 18:23	25°  11'29	1°30'36	minimum elong	3818 May 26 06:29	5°  41'53	0°23'56
min. Earth dist.	3817 Jun 16 09:06	24°  14'57	0.55027 AU	desc. node	3818 May 27 14:49	4°  48'19	
morning rise	3817 Jun 23 16:59	20°  52'49		min. Earth dist.	3818 May 28 23:48	3°  54'34	0.56084 AU
direct	3817 Jun 27 13:59	20°  20'22		morning rise	3818 Jun 03 15:57	0°  57'27	
morning max el	3817 Jul 11 01:11	26°  53'04	23°33'12	direct	3818 Jun 08 11:19	0°  04'27	
	3817 Jul 14 01:47	0° 		morning max el	3818 Jun 22 15:12	7°  16'43	25°14'09
asc. node	3817 Jul 30 13:45	25°  51'52			3818 Jul 09 07:16	0° 	
	3817 Aug 01 15:03	0° 		asc. node	3818 Jul 17 10:47	15°  54'16	
morning set	3817 Aug 03 18:29	4°  02'31		morning set	3818 Jul 19 06:10	19°  52'10'5	
					3818 Jul 24 04:18	0° 	
superior conj	3817 Aug 10 18:55	19°  03'18	1°33'57	superior conj	3818 Jul 26 04:56	4°  02'31	1°20'26
minimum elong	3817 Aug 10 17:00	19°  02'57	1°33'46	minimum elong	3818 Jul 26 02:37	4°  01'34'8	1°20'07
max. Earth dist.	3817 Aug 13 04:40	24°  01'41'52	1.33434 AU	max. Earth dist.	3818 Jul 27 10:42	7°  09'08	1.32569 AU
	3817 Aug 15 17:26	0° 		evening rise	3818 Aug 02 07:54	19°  04'15	
evening rise	3817 Aug 18 07:56	5°  17'50			3818 Aug 07 12:53	0° 	
	3817 Aug 31 23:57	0° 		desc. node	3818 Aug 23 14:10	26°  07'24'51	
desc. node	3817 Sep 05 17:08	7°  18'10			3818 Aug 26 06:28	0° 	
evening max el	3817 Sep 21 07:53	26°  08'35	27°22'43	evening max el	3818 Sep 03 17:04	9°  30'57	27°22'41
	3817 Sep 25 06:10	0° 		retrograde	3818 Sep 17 12:02	16°  04'26	
retrograde	3817 Oct 04 20:56	3°  56'56		evening set	3818 Sep 24 16:31	14°  01'18'19	
evening set	3817 Oct 11 22:49	1°  16'37		min. Earth dist.	3818 Sep 28 07:07	11°  03'27	0.62450 AU
	3817 Oct 13 11:57	30° 		inferior conj	3818 Oct 01 04:39	8°  39'43	-3°43'00
min. Earth dist.	3817 Oct 15 16:28	27°  05'30'5	0.64220 AU	minimum elong	3818 Oct 01 10:25	8°  26'05	3°41'19
inferior conj	3817 Oct 18 02:33	25°  01'55	-2°44'18	morning rise	3818 Oct 08 05:59	3°  33'50	
minimum elong	3817 Oct 18 07:08	25°  07'48	2°42'38	direct	3818 Oct 10 15:16	3°  08'16	
morning rise	3817 Oct 24 16:43	19°  05'51		asc. node	3818 Oct 13 10:00	3°  04'40'1	
asc. node	3817 Oct 26 12:57	19°  02'54'4		morning max el	3818 Oct 17 10:04	6°  36'00	17°51'09
direct	3817 Oct 27 05:37	19°  02'31'5			3818 Nov 01 13:33	0° 	
morning max el	3817 Nov 02 17:56	22°  04'48'54	17°54'52	morning set	3818 Nov 02 10:27	1°  33'20	
	3817 Nov 08 09:34	0° 					
morning set	3817 Nov 19 19:05	18°  45'40		superior conj	3818 Nov 13 15:27	21°  10'29	0°40'28
	3817 Nov 26 10:59	0° 		minimum elong	3818 Nov 13 19:00	21°  25'30	0°39'58
superior conj	3817 Dec 02 21:20	10°  33'52	-0°01'26		3818 Nov 18 22:29	0° 	
minimum elong	3817 Dec 02 21:11	10°  33'14	0°01'24				

desc. node	3818 Nov 19 13:28	1°♊01'16		desc. node	3819 Nov 06 10:30	21°♍47'40	
max. Earth dist.	3818 Nov 20 16:19	2°♊50'31	1.43374 AU	evening rise	3819 Nov 08 10:38	25°♍02'57	
evening rise	3818 Nov 28 09:59	15°♊07'07			3819 Nov 11 13:16	0°♊	
	3818 Dec 08 04:54	0°♊			3819 Dec 02 02:18	0°♊	
evening max el	3818 Dec 29 06:13	28°♊12'59	21°28'52	evening max el	3819 Dec 11 23:14	11°♊48'11	22°46'33
	3818 Dec 31 03:02	0°♊		retrograde	3819 Dec 21 22:51	17°♊43'44	
retrograde	3819 Jan 07 03:30	3°♊29'35		evening set	3819 Dec 26 16:26	15°♊47'47	
asc. node	3819 Jan 09 09:14	3°♊02'19		asc. node	3819 Dec 27 06:17	15°♊17'20	
evening set	3819 Jan 11 09:11	1°♊49'52		inferior conj	3820 Jan 01 01:17	9°♊25'14	1°34'10
	3819 Jan 13 07:00	30°♋♊		minimum elong	3819 Dec 31 23:20	9°♊32'00	1°33'26
inferior conj	3819 Jan 16 17:29	25°♊33'54	2°17'07	min. Earth dist.	3819 Dec 31 19:23	9°♊45'39	0.67997 AU
minimum elong	3819 Jan 16 15:03	25°♊42'20	2°16'20	morning rise	3820 Jan 06 06:07	3°♊16'14	
min. Earth dist.	3819 Jan 16 22:53	25°♊15'12	0.67844 AU	direct	3820 Jan 10 17:55	1°♊26'22	
morning rise	3819 Jan 21 20:44	19°♊21'34		morning max el	3820 Jan 19 17:38	6°♊41'39	21°45'25
direct	3819 Jan 26 23:11	17°♊08'50		desc. node	3820 Feb 02 09:43	23°♊58'22	
morning max el	3819 Feb 06 04:42	23°♊13'27	23°11'50		3820 Feb 06 14:01	0°♊	
	3819 Feb 12 03:45	0°♊		morning set	3820 Feb 21 00:38	22°♊06'41	
desc. node	3819 Feb 15 12:40	4°♊19'33			3820 Feb 25 21:23	0°♋	
	3819 Mar 05 03:20	0°♋		max. Earth dist.	3820 Feb 27 05:45	2°♋13'54	1.41598 AU
morning set	3819 Mar 13 01:00	12°♋49'00		superior conj	3820 Mar 05 21:26	15°♋17'26	-2°04'10
max. Earth dist.	3819 Mar 17 06:31	20°♋01'29	1.39469 AU	minimum elong	3820 Mar 06 00:11	15°♋29'31	2°04'03
	3819 Mar 22 21:15	0°♌			3820 Mar 14 01:53	0°♌	
superior conj	3819 Mar 24 22:25	3°♌45'24	-1°48'42	evening rise	3820 Mar 16 15:56	4°♌45'14	
minimum elong	3819 Mar 25 03:02	4°♌06'47	1°48'16	asc. node	3820 Mar 24 05:34	18°♌22'50	
evening rise	3819 Apr 03 10:31	21°♌49'04			3820 Apr 01 07:11	0°♌	
asc. node	3819 Apr 07 08:33	29°♌16'15		evening max el	3820 Apr 02 00:27	0°♌44'13	18°11'45
	3819 Apr 07 17:57	0°♌		retrograde	3820 Apr 08 22:05	4°♌12'43	
evening max el	3819 Apr 19 15:40	17°♌55'45	18°35'25	evening set	3820 Apr 11 11:01	3°♌45'12	
retrograde	3819 Apr 27 10:37	21°♌45'26			3820 Apr 17 04:31	30°♌♌	
evening set	3819 Apr 29 17:02	21°♌27'05		inferior conj	3820 Apr 18 08:43	28°♌57'29	2°57'02
inferior conj	3819 May 07 08:34	17°♌00'23	1°56'48	minimum elong	3820 Apr 18 11:58	28°♌50'09	2°56'21
minimum elong	3819 May 07 12:08	16°♌53'29	1°55'44	min. Earth dist.	3820 Apr 21 17:22	25°♌57'25	0.59978 AU
min. Earth dist.	3819 May 10 17:50	14°♌24'57	0.57848 AU	morning rise	3820 Apr 25 10:32	23°♌12'20	
desc. node	3819 May 14 11:50	12°♌00'58		desc. node	3820 Apr 30 08:52	21°♌19'44	
morning rise	3819 May 15 04:03	11°♌40'36		direct	3820 May 01 22:50	21°♌12'44	
direct	3819 May 20 22:56	10°♌16'11		morning max el	3820 May 16 06:40	29°♌04'06	27°33'45
morning max el	3819 Jun 04 07:54	17°♌53'20	26°38'49		3820 May 17 04:51	0°♌	
	3819 Jun 14 09:45	0°♍			3820 Jun 07 06:24	0°♍	
	3819 Jul 01 16:29	0°♍		morning set	3820 Jun 16 23:51	18°♍46'44	
morning set	3819 Jul 03 16:33	4°♍09'43		asc. node	3820 Jun 20 04:51	25°♍34'35	
asc. node	3819 Jul 04 07:50	5°♍30'30			3820 Jun 22 05:44	0°♍	
				max. Earth dist.	3820 Jun 23 09:12	2°♍30'38	1.32064 AU
superior conj	3819 Jul 10 16:37	19°♍22'41	1°02'28	superior conj	3820 Jun 24 04:08	4°♍14'46	0°40'40
minimum elong	3819 Jul 10 14:22	19°♍10'20	1°02'05	minimum elong	3820 Jun 24 02:26	4°♍05'26	0°40'20
max. Earth dist.	3819 Jul 10 21:30	19°♍49'40	1.32117 AU	evening rise	3820 Jun 30 23:53	19°♍07'24	
	3819 Jul 15 13:11	0°♎			3820 Jul 06 07:40	0°♎	
evening rise	3819 Jul 17 14:01	4°♎19'43			3820 Jul 25 17:48	0°♎	
	3819 Jul 31 06:32	0°♎		desc. node	3820 Jul 27 08:10	1°♎42'27	
desc. node	3819 Aug 10 11:10	14°♎40'08		evening max el	3820 Jul 28 17:38	3°♎05'20	25°44'14
evening max el	3819 Aug 16 21:05	21°♎42'41	26°49'23	retrograde	3820 Aug 11 16:56	10°♎12'18	
retrograde	3819 Aug 30 19:14	28°♎53'37		evening set	3820 Aug 17 19:25	8°♎44'22	
evening set	3819 Sep 06 16:59	26°♎50'25		min. Earth dist.	3820 Aug 22 05:46	6°♎06'58	0.58397 AU
min. Earth dist.	3819 Sep 10 11:11	24°♎12'44	0.60455 AU	inferior conj	3820 Aug 25 10:39	3°♎49'23	-5°05'04
inferior conj	3819 Sep 13 16:33	21°♎33'02	-4°33'12	minimum elong	3820 Aug 25 13:15	3°♎44'42	5°04'53
minimum elong	3819 Sep 13 22:03	21°♎21'37	4°32'08		3820 Aug 31 18:52	30°♎♎	
morning rise	3819 Sep 21 05:01	16°♎48'22		morning rise	3820 Sep 02 09:20	29°♎27'58	
direct	3819 Sep 23 13:50	16°♎26'53		direct	3820 Sep 04 20:52	29°♎08'20	
asc. node	3819 Sep 30 07:03	19°♎28'25			3820 Sep 08 18:22	0°♎	
morning max el	3819 Sep 30 22:43	20°♎04'52	18°06'28	morning max el	3820 Sep 13 04:38	3°♎06'21	18°42'16
	3819 Oct 08 07:52	0°♏		asc. node	3820 Sep 16 04:05	6°♎24'09	
morning set	3819 Oct 16 17:53	15°♏06'45		morning set	3820 Sep 29 12:33	29°♎12'08	
	3819 Oct 24 18:53	0°♐			3820 Sep 29 22:23	0°♏	
superior conj	3819 Oct 26 11:24	3°♐02'19	1°11'46	superior conj	3820 Oct 08 04:21	15°♏55'55	1°31'57
minimum elong	3819 Oct 26 15:31	3°♐20'46	1°11'17	minimum elong	3820 Oct 08 07:19	16°♏09'52	1°31'42
max. Earth dist.	3819 Nov 03 02:53	16°♐17'45	1.41621 AU				

max. Earth dist.	3820 Oct 15 08:51	29°  02'25	1.39577 AU	minimum elong	3821 Sep 21 14:11	29°  41'59	1°42'12
	3820 Oct 15 21:58	0° 			3821 Sep 21 17:50	0° 	
evening rise	3820 Oct 19 09:36	5°  59'55		max. Earth dist.	3821 Sep 27 13:16	11°  09'05	1.37505 AU
desc. node	3820 Oct 23 07:31	12°  29'36		evening rise	3821 Oct 01 07:29	18°  00'08	
	3820 Nov 03 15:28	0° 			3821 Oct 08 07:35	0° 	
evening max el	3820 Nov 23 12:51	25°  26'35	24°06'26	desc. node	3821 Oct 10 04:30	3°  02'42	
	3820 Nov 29 00:02	0° 			3821 Oct 28 22:37	0° 	
retrograde	3820 Dec 04 14:51	1°  57'14		evening max el	3821 Nov 06 01:05	9°  07'34	25°21'47
evening set	3820 Dec 09 21:39	29°  45'06		retrograde	3821 Nov 18 02:34	16°  04'49	
	3820 Dec 09 14:26	30°  R 		evening set	3821 Nov 23 23:12	13°  03'08	
asc. node	3820 Dec 13 03:18	26°  15'53		min. Earth dist.	3821 Nov 28 09:30	8°  43'49	0.67235 AU
min. Earth dist.	3820 Dec 14 15:41	24°  16'21	0.67788 AU	inferior conj	3821 Nov 29 13:05	7°  14'36	-0°09'39
inferior conj	3820 Dec 15 08:25	23°  19'50	0°44'55	minimum elong	3821 Nov 29 13:20	7°  13'49	0°09'32
minimum elong	3820 Dec 15 07:22	23°  23'23	0°44'29	transit middle	3821 Nov 29 13:20	7°  13'49	0°09'32
morning rise	3820 Dec 20 17:07	17°  16'05		transit begin	3821 Nov 29 11:05	7°  21'07	
direct	3820 Dec 24 15:12	15°  48'46		transit end	3821 Nov 29 15:35	7°  06'31	
morning max el	3821 Jan 01 13:41	20°  21'32	20°28'20	asc. node	3821 Nov 30 00:20	6°  03'19	
	3821 Jan 09 12:24	0° 		morning rise	3821 Dec 05 03:45	1°  18'13	
desc. node	3821 Jan 19 06:45	14°  01'49		direct	3821 Dec 08 13:44	0°  10'57	
	3821 Jan 29 18:54	0° 		morning max el	3821 Dec 15 17:37	4°  11'55	19°24'37
morning set	3821 Jan 30 01:07	0° 		greatest brilliancy	3821 Dec 29 00:36	21°  57'28	-0.7m
max. Earth dist.	3821 Feb 08 12:40	15° 	1.43402 AU		3822 Jan 03 07:32	0° 	
				desc. node	3822 Jan 06 03:46	4°  22'28	
superior conj	3821 Feb 14 20:09	25° 	-2°06'19	morning set	3822 Jan 08 23:30	8°  24'08	
minimum elong	3821 Feb 14 18:06	25° 	2°06'17	max. Earth dist.	3822 Jan 22 02:02	29°  12'24	1.44657 AU
	3821 Feb 17 09:47	0° 			3822 Jan 22 14:05	0° 	
evening rise	3821 Feb 27 05:10	16°  15'53					
	3821 Mar 06 18:01	0° 		superior conj	3822 Jan 25 17:11	4°  58'26	-1°50'13
asc. node	3821 Mar 11 02:36	6°  05'12		minimum elong	3822 Jan 25 09:24	4°  27'20	1°49'39
evening max el	3821 Mar 16 12:34	13°  52'55	18°07'36	evening rise	3822 Feb 08 21:47	28°  09'15	
retrograde	3821 Mar 23 00:15	17°  15'42			3822 Feb 10 00:20	0° 	
evening set	3821 Mar 25 19:02	16°  03'31		asc. node	3822 Feb 25 23:37	24°  15'33	
inferior conj	3821 Apr 01 02:49	11°  29'34	3°28'22	evening max el	3822 Feb 28 01:08	27°  14'03	18°22'24
minimum elong	3821 Apr 01 04:27	11°  25'20	3°28'13		3822 Mar 03 15:21	0° 	
min. Earth dist.	3821 Apr 04 01:08	8°  29'27	0.62138 AU	retrograde	3822 Mar 06 12:25	0° 	
morning rise	3821 Apr 07 12:25	5°  28'45			3822 Mar 09 08:48	30°  R 	
direct	3821 Apr 14 09:02	2°  59'19		evening set	3822 Mar 09 13:00	29°  15'27	
desc. node	3821 Apr 17 05:54	3°  23'14		inferior conj	3822 Mar 15 10:43	24°  12'51	3°37'21
morning max el	3821 Apr 28 11:40	10°  05'38	27°51'41	minimum elong	3822 Mar 15 10:37	24°  12'07	3°37'21
	3821 May 13 10:01	0° 		min. Earth dist.	3822 Mar 17 18:21	21°  18'28	0.64079 AU
	3821 May 30 13:09	0° 		morning rise	3822 Mar 21 07:27	18°  18'51	
morning set	3821 Jun 01 02:05	3°  05'55		direct	3822 Mar 28 03:42	15°  18'40	
max. Earth dist.	3821 Jun 06 17:52	14°  25'02	1.32419 AU	desc. node	3822 Apr 04 02:56	17°  18'50	
asc. node	3821 Jun 07 01:53	15°  24'18		morning max el	3822 Apr 10 20:31	23°  18'14	27°32'48
					3822 Apr 16 16:23	0° 	
superior conj	3821 Jun 08 13:49	18°  25'16	0°15'40		3822 May 06 17:25	0° 	
minimum elong	3821 Jun 08 13:05	18° 	0°15'30	morning set	3822 May 15 20:46	16°  18'32	
behind sun begin	3821 Jun 08 11:56	18° 		max. Earth dist.	3822 May 20 19:23	27°  18'13	1.33205 AU
behind sun end	3821 Jun 08 14:14	18° 			3822 May 22 05:16	0° 	
	3821 Jun 13 15:24	0° 					
evening rise	3821 Jun 15 11:31	3°  05'46		superior conj	3822 May 23 19:49	3°  18'36	-0°11'48
	3821 Jun 29 10:25	0° 		minimum elong	3822 May 23 20:24	3° 	0°11'41
evening max el	3821 Jul 10 07:44	13°  04'43	24°15'52	behind sun begin	3822 May 23 16:42	3° 	
desc. node	3821 Jul 14 05:10	17°  03'01		behind sun end	3822 May 24 00:07	3° 	
retrograde	3821 Jul 24 03:39	20°  04'16		asc. node	3822 May 24 22:55	5°  19'40	
evening set	3821 Jul 28 21:49	19°  03'52		evening rise	3822 May 30 23:05	18°  19'50	
min. Earth dist.	3821 Aug 03 18:26	16°  05'20	0.56551 AU		3822 Jun 05 12:40	0° 	
inferior conj	3821 Aug 06 08:37	15° 	-5°04'10	evening max el	3822 Jun 21 21:31	24°  10'20	22°39'01
minimum elong	3821 Aug 06 05:34	15° 	5°03'56		3822 Jun 30 16:58	0° 	
morning rise	3821 Aug 14 15:57	11°  02'01		desc. node	3822 Jul 01 02:10	0° 	
direct	3821 Aug 17 08:36	11° 		retrograde	3822 Jul 05 02:06	0° 	
morning max el	3821 Aug 27 00:49	15° 	19°39'40	evening set	3822 Jul 08 08:00	0° 	
asc. node	3821 Sep 03 01:07	24° 			3822 Jul 09 14:30	30°  R 	
	3821 Sep 06 11:59	0° 		min. Earth dist.	3822 Jul 16 05:24	26°  03'23	0.55264 AU
morning set	3821 Sep 13 14:57	13° 		inferior conj	3822 Jul 17 12:09	26° 	-4°16'04
				minimum elong	3822 Jul 17 04:11	26°  02'53	4°14'18
superior conj	3821 Sep 21 12:55	29° 	1°42'15	morning rise	3822 Jul 26 02:32	22° 	

direct	3822 Jul 29 02:24	21°☿57'58		minimum elong	3823 Jun 26 22:36	6°☿40'04	2°37'52
morning max el	3822 Aug 09 09:22	27°☿12'50	20°58'10	min. Earth dist.	3823 Jun 27 16:48	6°☿14'28	0.54836 AU
	3822 Aug 12 02:06	0°♊		morning rise	3823 Jul 06 00:25	2°☿31'08	
asc. node	3822 Aug 20 22:10	12°♊52'16		direct	3823 Jul 09 12:01	2°☿04'56	
morning set	3822 Aug 28 22:30	28°♊22'29		morning max el	3823 Jul 22 06:50	8°☿10'09	22°33'49
	3822 Aug 29 17:21	0°♋			3823 Aug 06 17:38	0°♊	
				asc. node	3823 Aug 07 19:13	2°♊00'19	
superior conj	3822 Sep 05 08:39	13°♋49'02	1°44'16	morning set	3823 Aug 13 09:02	13°♊13'37	
minimum elong	3822 Sep 05 08:21	13°♋47'28	1°44'15				
max. Earth dist.	3822 Sep 09 22:02	23°♋00'38	1.35642 AU	superior conj	3823 Aug 20 11:57	28°♊24'01	1°39'24
	3822 Sep 13 12:59	0°♌		minimum elong	3823 Aug 20 10:29	28°♊16'12	1°39'18
evening rise	3822 Sep 14 00:51	0°♌55'48			3823 Aug 21 06:04	0°♋	
desc. node	3822 Sep 27 01:31	23°♌22'20		max. Earth dist.	3823 Aug 23 15:23	5°♋00'02	1.34129 AU
	3822 Oct 01 09:31	0°♍		evening rise	3823 Aug 28 09:08	14°♋33'36	
evening max el	3822 Oct 19 13:31	22°♍48'42	26°25'07		3823 Sep 05 17:49	0°♌	
	3822 Oct 31 19:11	0°♎		desc. node	3823 Sep 13 22:33	13°♌21'04	
retrograde	3822 Nov 01 09:18	0°♎01'12			3823 Sep 26 04:14	0°♍	
	3822 Nov 01 23:15	30°♎		evening max el	3823 Oct 02 02:09	6°♍21'02	27°09'00
evening set	3822 Nov 07 19:14	27°♎23'54		retrograde	3823 Oct 15 10:15	13°♍38'30	
min. Earth dist.	3822 Nov 11 22:34	23°♎04'58	0.66342 AU	evening set	3823 Oct 22 07:27	10°♍57'00	
inferior conj	3822 Nov 13 13:27	21°♎06'56	-1°08'12	min. Earth dist.	3823 Oct 26 04:26	7°♎13'41	0.65099 AU
minimum elong	3822 Nov 13 15:19	21°♎01'17	1°07'24	inferior conj	3823 Oct 28 07:18	4°♎51'39	-2°09'06
asc. node	3822 Nov 16 21:23	17°♎22'09		minimum elong	3823 Oct 28 10:55	4°♎41'32	2°07'40
morning rise	3822 Nov 19 11:59	15°♎20'27			3823 Nov 02 10:02	30°♎	
direct	3822 Nov 22 11:57	14°♎29'37		morning rise	3823 Nov 03 15:21	29°♎18'12	
morning max el	3822 Nov 29 04:18	18°♎09'28	18°36'28	asc. node	3823 Nov 03 18:26	29°♎14'40	
	3822 Dec 08 04:26	0°♏		direct	3823 Nov 06 07:38	28°♎39'55	
morning set	3822 Dec 19 19:17	18°♏13'21			3823 Nov 10 06:00	0°♏	
desc. node	3822 Dec 24 00:48	24°♏55'41		morning max el	3823 Nov 12 19:21	2°♏08'11	18°05'02
	3822 Dec 27 05:54	0°♐		morning set	3823 Nov 30 20:43	29°♏11'39	
					3823 Dec 01 08:25	0°♑	
superior conj	3823 Jan 04 21:07	13°♐34'04	-1°15'12	desc. node	3823 Dec 10 21:51	15°♑37'08	
minimum elong	3823 Jan 04 12:25	12°♐59'56	1°14'11				
max. Earth dist.	3823 Jan 04 19:40	13°♐28'20	1.45230 AU	superior conj	3823 Dec 15 03:19	22°♑22'43	-0°28'40
	3823 Jan 15 07:41	0°♒		minimum elong	3823 Dec 14 23:43	22°♑08'27	0°28'11
evening rise	3823 Jan 20 15:08	8°♒26'05		max. Earth dist.	3823 Dec 18 15:08	27°♑54'11	1.45058 AU
greatest brilliancy	3823 Jan 29 02:43	21°♒56'43	-0.8m		3823 Dec 19 23:08	0°♓	
	3823 Feb 03 07:43	0°♋		evening rise	3823 Dec 31 11:30	17°♓55'35	
evening max el	3823 Feb 11 11:38	10°♋42'09	18°55'09		3824 Jan 08 07:36	0°♌	
asc. node	3823 Feb 12 20:40	12°♋00'15		greatest brilliancy	3824 Jan 13 19:33	8°♌19'46	-0.7m
retrograde	3823 Feb 18 06:43	14°♋31'22		evening max el	3824 Jan 25 18:06	24°♌13'28	19°44'18
evening set	3823 Feb 21 13:44	13°♋28'49		asc. node	3824 Jan 30 17:42	27°♌59'25	
inferior conj	3823 Feb 27 04:38	7°♋45'15	3°29'35	retrograde	3824 Feb 02 04:06	28°♌31'19	
minimum elong	3823 Feb 27 03:13	7°♋49'44	3°29'26	evening set	3824 Feb 05 18:45	27°♌15'03	
min. Earth dist.	3823 Feb 28 20:42	5°♋40'15	0.65664 AU	inferior conj	3824 Feb 11 05:27	21°♌16'37	3°09'06
morning rise	3823 Mar 04 16:17	1°♋32'39		minimum elong	3824 Feb 11 03:14	21°♌24'01	3°08'39
	3823 Mar 06 18:17	30°♌		min. Earth dist.	3824 Feb 12 06:51	19°♌52'31	0.66832 AU
direct	3823 Mar 11 05:18	28°♌41'55		morning rise	3824 Feb 16 11:29	15°♌02'54	
	3823 Mar 16 02:21	0°♍		direct	3824 Feb 22 12:38	12°♌21'00	
desc. node	3823 Mar 21 23:59	4°♍14'12		morning max el	3824 Mar 05 15:29	19°♌34'39	25°29'19
morning max el	3823 Mar 24 06:21	6°♍24'12	26°42'28	desc. node	3824 Mar 07 21:03	21°♌56'25	
	3823 Apr 11 10:46	0°♎			3824 Mar 14 12:50	0°♋	
morning set	3823 Apr 29 04:32	0°♏17'12			3824 Apr 03 13:25	0°♌	
	3823 Apr 29 00:55	0°♐		morning set	3824 Apr 10 21:00	12°♌46'17	
max. Earth dist.	3823 May 03 10:24	8°♐33'07	1.34459 AU	max. Earth dist.	3824 Apr 14 14:16	19°♌39'34	1.36165 AU
					3824 Apr 19 22:15	0°♑	
superior conj	3823 May 07 19:55	17°♑29'52	-0°40'39				
minimum elong	3823 May 07 22:04	17°♑41'00	0°40'14	superior conj	3824 Apr 20 11:25	1°♑05'29	-1°09'25
asc. node	3823 May 11 19:58	25°♑52'19		minimum elong	3824 Apr 20 15:05	1°♑23'48	1°08'47
	3823 May 13 19:06	0°♒		asc. node	3824 Apr 27 17:01	15°♑46'14	
evening rise	3823 May 15 08:39	3°♒16'10		evening rise	3824 Apr 28 14:06	17°♑33'22	
	3823 May 30 12:42	0°♓			3824 May 04 23:13	0°♒	
evening max el	3823 Jun 03 18:49	4°♓50'57	21°08'17	evening max el	3824 May 16 03:55	16°♒08'34	19°53'17
retrograde	3823 Jun 15 15:15	10°♓39'36		retrograde	3824 May 26 06:58	21°♒04'17	
evening set	3823 Jun 17 20:59	10°♓27'56		evening set	3824 May 28 06:01	20°♒54'01	
desc. node	3823 Jun 17 23:12	10°♓26'58		desc. node	3824 Jun 03 20:13	18°♒15'56	
inferior conj	3823 Jun 27 05:48	6°♓29'56	-2°40'16	inferior conj	3824 Jun 06 03:55	16°♒53'06	-0°41'13

minimum elong	3824 Jun 06 02:01	16° Π 56'00	0°40'30	minimum elong	3825 May 17 21:17	27° \mathcal{B} 41'44	1°06'30
min. Earth dist.	3824 Jun 08 05:40	15° Π 37'24	0.55376 AU	min. Earth dist.	3825 May 20 21:21	25° \mathcal{B} 35'34	0.56765 AU
morning rise	3824 Jun 14 20:02	12° Π 27'48		desc. node	3825 May 21 17:15	25° \mathcal{B} 02'39	
direct	3824 Jun 19 02:10	11° Π 48'03		morning rise	3825 May 25 23:31	22° \mathcal{B} 45'06	
morning max el	3824 Jul 02 21:41	18° Π 38'27	24°17'03	direct	3825 May 31 04:58	21° \mathcal{B} 40'08	
	3824 Jul 12 08:08	0° \mathcal{E}		morning max el	3825 Jun 14 12:20	29° \mathcal{B} 04'12	25°53'10
asc. node	3824 Jul 24 16:17	21° \mathcal{E} 32'20			3825 Jun 15 10:56	0° Π	
morning set	3824 Jul 27 20:48	28° \mathcal{E} 07'57			3825 Jul 05 20:56	0° \mathcal{E}	
	3824 Jul 28 17:53	0° \mathcal{O}		asc. node	3825 Jul 11 13:20	11° \mathcal{E} 21'14	
				morning set	3825 Jul 12 08:08	13° \mathcal{E} 00'08	
superior conj	3824 Aug 03 20:09	13° \mathcal{O} 12'30	1°28'48	superior conj	3825 Jul 19 07:04	28° \mathcal{E} 07'31	1°13'19
minimum elong	3824 Aug 03 17:59	13° \mathcal{O} 00'49	1°28'34	minimum elong	3825 Jul 19 04:43	27° \mathcal{E} 54'38	1°12'58
max. Earth dist.	3824 Aug 05 17:37	17° \mathcal{O} 18'13	1.33024 AU	max. Earth dist.	3825 Jul 20 02:11	29° \mathcal{E} 52'33	1.32327 AU
evening rise	3824 Aug 11 04:19	28° \mathcal{O} 42'27			3825 Jul 20 03:33	0° \mathcal{O}	
	3824 Aug 11 19:41	0° \mathcal{N}		evening rise	3825 Jul 26 07:10	13° \mathcal{O} 12'44	
	3824 Aug 28 21:25	0° \mathcal{A}			3825 Aug 03 22:04	0° \mathcal{N}	
desc. node	3824 Aug 30 19:33	2° \mathcal{A} 50'02		desc. node	3825 Aug 17 16:33	21° \mathcal{N} 37'07	
evening max el	3824 Sep 13 13:18	19° \mathcal{A} 31'49	27°26'32		3825 Aug 24 17:12	0° \mathcal{A}	
retrograde	3824 Sep 27 04:53	26° \mathcal{A} 48'17		evening max el	3825 Aug 26 20:27	2° \mathcal{A} 07'45	27°12'32
evening set	3824 Oct 04 08:56	24° \mathcal{A} 11'48		retrograde	3825 Sep 09 16:42	9° \mathcal{A} 21'23	
min. Earth dist.	3824 Oct 08 00:55	21° \mathcal{A} 01'27	0.63511 AU	evening set	3825 Sep 16 19:55	7° \mathcal{A} 01'58	
inferior conj	3824 Oct 10 16:01	18° \mathcal{A} 22'39	-3°09'45	min. Earth dist.	3825 Sep 20 10:47	4° \mathcal{A} 16'33	0.61625 AU
minimum elong	3824 Oct 10 21:12	18° \mathcal{A} 09'32	3°08'01	inferior conj	3825 Sep 23 12:30	1° \mathcal{A} 32'19	-4°05'48
morning rise	3824 Oct 17 10:51	13° \mathcal{A} 05'46		minimum elong	3825 Sep 23 18:24	1° \mathcal{A} 19'07	4°04'18
direct	3824 Oct 19 21:59	12° \mathcal{A} 36'24			3825 Sep 25 06:47	30° \mathcal{R} \mathcal{N}	
asc. node	3824 Oct 20 15:30	12° \mathcal{A} 39'02		morning rise	3825 Sep 30 18:39	26° \mathcal{N} 35'26	
morning max el	3824 Oct 26 11:58	16° \mathcal{A} 01'38	17°51'01	direct	3825 Oct 03 03:24	26° \mathcal{N} 11'55	
	3824 Nov 05 08:47	0° \mathcal{M}		asc. node	3825 Oct 07 12:33	27° \mathcal{N} 35'48	
morning set	3824 Nov 12 00:06	11° \mathcal{M} 25'14		morning max el	3825 Oct 10 03:05	29° \mathcal{N} 42'34	17°55'19
	3824 Nov 22 21:38	0° \mathcal{X}			3825 Oct 10 10:05	0° \mathcal{A}	
superior conj	3824 Nov 24 06:02	2° \mathcal{X} 14'02	0°17'30	morning set	3825 Oct 25 22:59	24° \mathcal{A} 34'35	
minimum elong	3824 Nov 24 07:52	2° \mathcal{X} 21'35	0°17'14		3825 Oct 28 22:30	0° \mathcal{M}	
desc. node	3824 Nov 26 18:53	6° \mathcal{X} 23'11		superior conj	3825 Nov 05 11:38	13° \mathcal{M} 24'44	0°55'07
max. Earth dist.	3824 Nov 30 09:09	12° \mathcal{X} 11'01	1.44171 AU	minimum elong	3825 Nov 05 15:44	13° \mathcal{M} 42'30	0°54'35
evening rise	3824 Dec 09 21:11	27° \mathcal{X} 04'50		max. Earth dist.	3825 Nov 12 22:39	26° \mathcal{M} 00'07	1.42675 AU
	3824 Dec 11 18:49	0° \mathcal{Z}		desc. node	3825 Nov 13 15:54	27° \mathcal{M} 10'46	
	3825 Jan 01 07:43	0° \mathcal{A}			3825 Nov 15 09:32	0° \mathcal{X}	
evening max el	3825 Jan 07 19:10	7° \mathcal{A} 45'28	20°47'29	evening rise	3825 Nov 19 12:15	6° \mathcal{X} 33'40	
retrograde	3825 Jan 16 02:11	12° \mathcal{A} 39'30			3825 Dec 05 01:38	0° \mathcal{Z}	
asc. node	3825 Jan 16 14:45	12° \mathcal{A} 38'00		evening max el	3825 Dec 21 14:44	21° \mathcal{Z} 19'02	22°01'10
evening set	3825 Jan 20 01:58	11° \mathcal{A} 08'26		retrograde	3825 Dec 30 23:06	26° \mathcal{Z} 52'53	
inferior conj	3825 Jan 25 10:36	4° \mathcal{A} 57'46	2°38'32	asc. node	3826 Jan 03 11:46	25° \mathcal{Z} 46'03	
minimum elong	3825 Jan 25 08:06	5° \mathcal{A} 06'21	2°37'50	evening set	3826 Jan 04 09:40	25° \mathcal{Z} 06'10	
min. Earth dist.	3825 Jan 25 22:49	4° \mathcal{A} 15'51	0.67588 AU	inferior conj	3826 Jan 09 18:00	18° \mathcal{Z} 46'40	1°59'45
morning rise	3825 Jan 29 07:47	30° \mathcal{R} \mathcal{Z}		minimum elong	3826 Jan 09 15:43	18° \mathcal{Z} 54'36	1°58'57
direct	3825 Jan 30 14:05	28° \mathcal{Z} 44'34		min. Earth dist.	3826 Jan 09 18:26	18° \mathcal{Z} 45'12	0.67952 AU
	3825 Feb 05 00:59	26° \mathcal{Z} 19'58		morning rise	3826 Jan 14 21:38	12° \mathcal{Z} 35'28	
	3825 Feb 12 21:29	0° \mathcal{A}		direct	3826 Jan 19 17:39	10° \mathcal{Z} 32'35	
morning max el	3825 Feb 16 00:02	2° \mathcal{A} 52'11	24°03'15	morning max el	3826 Jan 29 10:26	16° \mathcal{Z} 16'16	22°34'18
desc. node	3825 Feb 22 18:05	10° \mathcal{A} 35'48		desc. node	3826 Feb 09 15:08	29° \mathcal{Z} 56'38	
	3825 Mar 08 16:28	0° \mathcal{X}			3826 Feb 09 16:07	0° \mathcal{A}	
morning set	3825 Mar 23 16:21	24° \mathcal{X} 10'22			3826 Mar 01 17:44	0° \mathcal{X}	
	3825 Mar 27 00:10	0° \mathcal{Y}		morning set	3826 Mar 04 08:45	4° \mathcal{X} 15'43	
max. Earth dist.	3825 Mar 27 10:33	0° \mathcal{Y} 46'19	1.38215 AU	max. Earth dist.	3826 Mar 09 06:27	12° \mathcal{X} 26'47	1.40396 AU
superior conj	3825 Apr 03 14:42	14° \mathcal{Y} 01'07	-1°35'49	superior conj	3826 Mar 17 01:26	26° \mathcal{X} 06'43	-1°56'33
minimum elong	3825 Apr 03 19:21	14° \mathcal{Y} 23'16	1°35'14	minimum elong	3826 Mar 17 05:36	26° \mathcal{X} 25'34	1°56'15
	3825 Apr 11 19:26	0° \mathcal{B}			3826 Mar 19 04:39	0° \mathcal{Y}	
evening rise	3825 Apr 12 12:46	1° \mathcal{B} 25'14		evening rise	3826 Mar 27 01:33	14° \mathcal{Y} 44'07	
asc. node	3825 Apr 14 14:03	5° \mathcal{B} 26'01		asc. node	3826 Apr 01 11:04	24° \mathcal{Y} 46'30	
evening max el	3825 Apr 29 00:27	28° \mathcal{B} 06'15	18°57'58		3826 Apr 04 10:54	0° \mathcal{B}	
	3825 May 01 06:00	0° Π		evening max el	3826 Apr 12 05:43	10° \mathcal{B} 38'38	18°22'53
retrograde	3825 May 07 13:17	2° Π 16'15		retrograde	3826 Apr 19 14:21	14° \mathcal{B} 17'36	
evening set	3825 May 09 15:50	2° Π 02'02		evening set	3826 Apr 21 23:26	13° \mathcal{B} 55'45	
	3825 May 14 10:07	30° \mathcal{R} \mathcal{B}		inferior conj	3826 Apr 29 06:59	9° \mathcal{B} 20'17	2°26'15
inferior conj	3825 May 17 18:45	27° \mathcal{B} 46'11	1°07'21				

minimum elong	3826 Apr 29 10:41	9°  12'38	2°25'17	min. Earth dist.	3827 Apr 14 20:32	18°  30'02	0.60910 AU
min. Earth dist.	3826 May 02 17:38	6°  31'02	0.58727 AU	morning rise	3827 Apr 18 09:50	15°  40'30	
morning rise	3826 May 06 18:56	3°  48'01		direct	3827 Apr 25 03:01	13°  26'39	
desc. node	3826 May 08 14:17	2°  58'16		desc. node	3827 Apr 25 11:20	13°  26'59	
direct	3826 May 12 22:04	2°  08'29		morning max el	3827 May 09 08:59	21°  22'24	27°46'00
morning max el	3826 May 27 07:33	9°  53'40	27°06'28		3827 May 16 21:06	0° 	
	3826 Jun 11 17:53	0° 			3827 Jun 04 17:46	0° 	
morning set	3826 Jun 26 17:24	27°  44'24		morning set	3827 Jun 10 22:49	12°  44'59	
	3826 Jun 27 19:06	0° 		asc. node	3827 Jun 15 07:22	21°  42'45	
asc. node	3826 Jun 28 10:21	1°  21'15		max. Earth dist.	3827 Jun 17 00:22	25°  41'31	1.32156 AU
superior conj	3826 Jul 03 18:52	13°  02'32	0°53'39	superior conj	3827 Jun 18 05:51	27°  41'53	0°30'26
minimum elong	3826 Jul 03 16:48	12°  05'10	0°53'16	minimum elong	3827 Jun 18 04:31	27°  44'34	0°30'09
max. Earth dist.	3826 Jul 03 13:40	12°  03'51	1.32036 AU		3827 Jun 19 05:11	0° 	
evening rise	3826 Jul 10 15:05	27°  05'08		evening rise	3827 Jun 25 01:57	12°  05'46	
	3826 Jul 11 14:41	0° 			3827 Jul 03 18:29	0° 	
	3826 Jul 28 09:40	0° 		evening max el	3827 Jul 21 14:48	25°  02'13	25°08'54
desc. node	3826 Aug 04 13:34	9°  24'38		desc. node	3827 Jul 22 10:34	25°  04'20	
evening max el	3826 Aug 08 21:13	13°  58'19	26°25'16		3827 Jul 28 03:11	0° 	
retrograde	3826 Aug 22 20:30	21°  08'37		retrograde	3827 Aug 04 13:58	2°  06'44	
evening set	3826 Aug 29 11:38	19°  19'17		evening set	3827 Aug 10 03:44	0° 	
min. Earth dist.	3826 Sep 02 10:34	16°  44'03	0.59566 AU		3827 Aug 12 02:30	30° 	
inferior conj	3826 Sep 05 17:13	14°  11'03	-4°49'48	min. Earth dist.	3827 Aug 15 02:32	28°  12'10	0.57562 AU
minimum elong	3826 Sep 05 21:52	14°  01'57	4°49'07	inferior conj	3827 Aug 18 02:58	26°  09'52	-5°09'44
morning rise	3826 Sep 13 10:15	9°  36'30		minimum elong	3827 Aug 18 03:24	26°  09'07	5°09'43
direct	3826 Sep 15 19:40	9°  16'11		morning rise	3827 Aug 26 05:29	21°  05'35	
morning max el	3826 Sep 23 13:22	13°  01'32	18°19'08	direct	3827 Aug 28 18:47	21°  03'21	
asc. node	3826 Sep 24 09:35	13°  02'35		morning max el	3827 Sep 06 15:30	25°  04'00	19°03'56
	3826 Oct 05 00:32	0° 			3827 Sep 10 08:30	0° 	
morning set	3826 Oct 09 11:42	8°  22'54		asc. node	3827 Sep 11 06:38	1°  14'26	
				morning set	3827 Sep 23 10:04	22°  39'06	
superior conj	3826 Oct 18 17:13	25°  45'02	1°21'37		3827 Sep 27 03:00	0° 	
minimum elong	3826 Oct 18 20:59	26°  02'14	1°21'14	superior conj	3827 Oct 01 17:27	9°  00'10	1°37'25
	3826 Oct 21 01:30	0° 		minimum elong	3827 Oct 01 19:42	9°  11'01	1°37'16
max. Earth dist.	3826 Oct 26 06:33	9°  07'44	1.40767 AU	max. Earth dist.	3827 Oct 08 11:08	21°  03'40	1.38690 AU
evening rise	3826 Oct 30 21:52	16°  54'15		evening rise	3827 Oct 12 06:57	28°  19'29	
desc. node	3826 Oct 31 12:54	17°  55'49			3827 Oct 13 06:19	0° 	
	3826 Nov 08 03:51	0° 		desc. node	3827 Oct 18 09:54	8°  34'44	
	3826 Nov 29 18:30	0° 			3827 Nov 01 14:48	0° 	
evening max el	3826 Dec 04 05:59	4°  55'15	23°20'37	evening max el	3827 Nov 16 18:57	18°  35'35	24°39'30
retrograde	3826 Dec 14 17:18	11°  07'08		retrograde	3827 Nov 28 07:31	25°  18'27	
evening set	3826 Dec 19 16:14	9°  04'22		evening set	3827 Dec 03 20:06	23°  00'08	
asc. node	3826 Dec 21 08:48	7°  25'22		asc. node	3827 Dec 08 05:51	18°  02'11	
min. Earth dist.	3826 Dec 24 15:14	3°  16'02	0.67949 AU	min. Earth dist.	3827 Dec 08 10:51	17°  04'54	0.67600 AU
inferior conj	3826 Dec 25 01:45	2°  39'57	1°14'00	inferior conj	3827 Dec 09 08:04	16°  03'50	0°22'21
minimum elong	3826 Dec 25 00:07	2°  45'31	1°13'21	minimum elong	3827 Dec 09 07:31	16°  03'58	0°22'08
	3826 Dec 27 01:33	30° 		morning rise	3827 Dec 14 19:02	10°  03'59	
morning rise	3826 Dec 30 07:56	26°  03'24		direct	3827 Dec 18 11:49	9°  15'24	
direct	3827 Jan 03 13:41	24°  03'52		morning max el	3827 Dec 26 01:22	13°  03'38	19°59'17
morning max el	3827 Jan 12 02:04	29°  04'07	21°11'03		3828 Jan 07 16:39	0° 	
	3827 Jan 12 06:23	0° 		desc. node	3828 Jan 14 09:11	9°  58'26	
desc. node	3827 Jan 27 12:10	19°  46'57		morning set	3828 Jan 21 17:08	21°  10'55	
	3827 Feb 03 09:44	0° 			3828 Jan 27 09:13	0° 	
morning set	3827 Feb 11 20:53	13°  02'24		max. Earth dist.	3828 Feb 01 18:01	8°  29'11	1.44018 AU
max. Earth dist.	3827 Feb 19 08:11	25°  01'15	1.42419 AU				
	3827 Feb 22 08:31	0° 		superior conj	3828 Feb 07 02:11	17°  05'55	-2°01'55
superior conj	3827 Feb 26 14:36	7°  11'08	-2°07'02	minimum elong	3828 Feb 06 21:30	16°  04'50	2°01'43
minimum elong	3827 Feb 26 15:40	7°  15'41	2°07'02		3828 Feb 14 20:48	0° 	
evening rise	3827 Mar 10 00:36	27°  01'27		evening rise	3828 Feb 20 05:30	9°  08'04	
	3827 Mar 11 11:45	0° 			3828 Mar 03 19:05	0° 	
asc. node	3827 Mar 19 08:05	13°  04'12		asc. node	3828 Mar 05 05:07	2°  02'14	
evening max el	3827 Mar 26 16:21	23°  03'15	18°07'41	evening max el	3828 Mar 09 05:05	6°  52'34	18°11'41
retrograde	3827 Apr 02 08:27	27°  01'19		retrograde	3828 Mar 15 15:18	10°  01'63	
evening set	3827 Apr 04 23:55	26°  04'29		evening set	3828 Mar 18 12:39	9°  03'26	
inferior conj	3827 Apr 11 15:15	21°  03'32	3°13'27	inferior conj	3828 Mar 24 15:42	4°  17'22	3°34'31
minimum elong	3827 Apr 11 17:53	21°  02'01	3°13'01	minimum elong	3828 Mar 24 16:35	4°  15'00	3°34'29

min. Earth dist.	3828 Mar 27 08:03	1° Υ 24'07	0.63006 AU	evening set	3829 Mar 02 09:55	22° H 59'23	
	3828 Mar 28 17:44	30° K		inferior conj	3829 Mar 08 04:21	17° H 25'02	3°35'50
morning rise	3828 Mar 30 19:25	28° H 12'42		minimum elong	3829 Mar 08 03:37	17° H 27'12	3°35'47
direct	3828 Apr 06 17:00	25° H 34'02		min. Earth dist.	3829 Mar 10 05:11	14° H 59'26	0.64804 AU
desc. node	3828 Apr 11 08:23	26° H 36'45		morning rise	3829 Mar 13 20:47	11° H 14'10	
	3828 Apr 16 17:58	0° Υ		direct	3829 Mar 20 14:33	8° H 24'11	
morning max el	3828 Apr 20 15:42	3° Υ 32'03	27°47'56	desc. node	3829 Mar 29 05:25	11° H 58'38	
	3828 May 10 09:16	0° B		morning max el	3829 Apr 03 01:25	16° H 15'40	27°14'49
morning set	3828 May 24 22:08	26° B 24'03			3829 Apr 14 09:54	0° Υ	
	3828 May 26 16:37	0° Π			3829 May 03 04:10	0° B	
max. Earth dist.	3828 May 30 06:28	7° Π 29'30	1.32701 AU	morning set	3829 May 08 12:37	10° B 03'39	
asc. node	3828 Jun 01 04:23	11° Π 35'47		max. Earth dist.	3829 May 13 04:08	19° B 20'39	1.33691 AU
superior conj	3828 Jun 01 14:12	12° Π 28'44	0°04'18	superior conj	3829 May 16 17:58	26° B 47'21	-0°23'56
minimum elong	3828 Jun 01 13:59	12° Π 27'35	0°04'14	minimum elong	3829 May 16 19:12	26° B 53'53	0°23'42
behind sun begin	3828 Jun 01 08:54	12° Π 00'08			3829 May 18 06:20	0° Π	
behind sun end	3828 Jun 01 19:04	12° Π 55'05		asc. node	3829 May 19 01:27	1° Π 41'44	
evening rise	3828 Jun 08 13:47	27° Π 34'13		evening rise	3829 May 24 00:46	12° Π 15'41	
	3828 Jun 09 17:27	0° G			3829 Jun 02 03:34	0° G	
	3828 Jun 27 05:00	0° Ω		evening max el	3829 Jun 13 19:52	15° G 58'52	21°58'46
evening max el	3828 Jul 02 03:55	5° Ω 32'05	23°34'47	desc. node	3829 Jun 25 04:38	22° G 11'39	
desc. node	3828 Jul 08 07:36	10° Ω 15'25		retrograde	3829 Jun 26 12:23	22° G 15'42	
retrograde	3828 Jul 15 18:51	12° Ω 21'48		evening set	3829 Jun 29 06:03	21° G 58'59	
evening set	3828 Jul 19 21:20	11° Ω 44'54		min. Earth dist.	3829 Jul 08 00:24	18° G 13'52	0.54969 AU
min. Earth dist.	3828 Jul 26 13:53	8° Ω 37'27	0.55919 AU	inferior conj	3829 Jul 08 14:10	17° G 54'35	-3°40'17
inferior conj	3828 Jul 28 16:28	7° Ω 21'59	-4°50'04	minimum elong	3829 Jul 08 05:41	18° G 06'27	3°37'57
minimum elong	3828 Jul 28 10:54	7° Ω 30'20	4°49'18	morning rise	3829 Jul 17 06:57	14° G 03'18	
morning rise	3828 Aug 06 02:58	3° Ω 27'08		direct	3829 Jul 20 11:10	13° G 41'01	
direct	3828 Aug 08 22:40	3° Ω 07'23		morning max el	3829 Aug 01 10:08	19° G 16'31	21°37'20
morning max el	3828 Aug 19 06:41	7° Ω 55'12	20°10'36		3829 Aug 10 02:30	0° Ω	
asc. node	3828 Aug 28 03:40	19° Ω 26'25		asc. node	3829 Aug 15 00:42	8° Ω 16'48	
	3828 Sep 03 00:01	0° P		morning set	3829 Aug 21 23:59	22° Ω 00'57	
morning set	3828 Sep 06 14:58	7° P 14'05			3829 Aug 25 19:06	0° P	
superior conj	3828 Sep 14 07:14	22° P 55'26	1°44'01	superior conj	3829 Aug 29 06:32	7° P 18'52	1°42'58
minimum elong	3828 Sep 14 07:48	22° P 58'16	1°44'00	minimum elong	3829 Aug 29 05:40	7° P 14'24	1°42'56
	3828 Sep 17 20:57	0° A		max. Earth dist.	3829 Sep 02 05:20	15° P 25'40	1.34946 AU
max. Earth dist.	3828 Sep 19 17:07	3° A 32'52	1.36681 AU	evening rise	3829 Sep 06 13:49	23° P 58'56	
evening rise	3828 Sep 23 13:39	10° A 44'34			3829 Sep 09 18:58	0° A	
desc. node	3828 Oct 04 06:55	29° A 03'02		desc. node	3829 Sep 21 03:56	19° A 14'46	
	3828 Oct 04 21:14	0° M			3829 Sep 28 11:21	0° M	
	3828 Oct 27 01:09	0° J		evening max el	3829 Oct 11 19:49	15° M 56'19	26°46'36
evening max el	3828 Oct 29 07:22	2° J 18'15	25°50'38	retrograde	3829 Oct 24 21:18	23° M 12'05	
retrograde	3828 Nov 10 17:02	9° J 22'29		evening set	3829 Oct 31 12:35	20° M 31'43	
evening set	3828 Nov 16 19:34	6° J 50'44		min. Earth dist.	3829 Nov 04 13:01	16° M 28'25	0.65855 AU
min. Earth dist.	3828 Nov 21 02:54	2° J 11'30	0.66903 AU	inferior conj	3829 Nov 06 09:03	14° M 19'15	-1°33'52
inferior conj	3828 Nov 22 11:11	0° J 29'41	-0°34'03	minimum elong	3829 Nov 06 11:39	14° M 11'37	1°32'47
minimum elong	3828 Nov 22 12:05	0° J 26'51	0°33'39	asc. node	3829 Nov 10 23:58	9° M 35'35	
	3828 Nov 22 20:37	30° K M		morning rise	3829 Nov 12 11:29	8° M 38'15	
asc. node	3828 Nov 24 02:54	28° M 27'11		direct	3829 Nov 15 07:52	7° M 53'17	
morning rise	3828 Nov 28 04:59	24° M 37'15		morning max el	3829 Nov 21 21:24	11° M 26'54	18°21'06
direct	3828 Dec 01 10:32	23° M 37'17			3829 Dec 05 01:13	0° J	
morning max el	3828 Dec 08 08:27	27° M 27'33	19°02'09	morning set	3829 Dec 11 06:59	10° J 03'31	
	3828 Dec 10 15:53	0° J		desc. node	3829 Dec 18 03:13	21° J 02'40	
morning set	3828 Dec 30 22:39	29° J 55'52			3829 Dec 23 18:45	0° Z	
	3828 Dec 30 23:42	0° Z					
desc. node	3828 Dec 31 06:12	0° Z 25'21		superior conj	3829 Dec 26 16:23	4° Z 34'05	-0°56'10
max. Earth dist.	3829 Jan 14 10:16	22° Z 35'32	1.44994 AU	minimum elong	3829 Dec 26 09:24	4° Z 06'38	0°55'16
				max. Earth dist.	3829 Dec 28 05:16	6° Z 58'52	1.45246 AU
superior conj	3829 Jan 16 14:10	26° Z 00'06	-1°37'26	evening rise	3830 Jan 11 20:13	29° Z 53'41	
minimum elong	3829 Jan 16 05:06	25° Z 24'18	1°36'35		3830 Jan 11 21:49	0° \approx	
	3829 Jan 19 02:47	0° \approx		greatest brilliancy	3830 Jan 22 13:57	16° \approx 40'51	-0.8m
evening rise	3829 Jan 31 12:25	19° \approx 58'35			3830 Jan 31 19:35	0° H	
	3829 Feb 06 15:32	0° H		evening max el	3830 Feb 04 01:59	3° H 47'11	19°14'05
asc. node	3829 Feb 20 02:11	19° H 38'41		asc. node	3830 Feb 06 23:15	6° H 17'26	
evening max el	3829 Feb 20 17:05	20° H 17'43	18°34'10	retrograde	3830 Feb 11 02:43	7° H 47'55	
retrograde	3829 Feb 27 06:39	23° H 54'42		evening set	3830 Feb 14 12:46	6° H 39'41	

inferior conj	3830 Feb 20 01:34	0° H 49'16	3°22'16		3831 Jan 05 04:15	0° \approx	
minimum elong	3830 Feb 19 23:44	0° H 55'10	3°22'00	greatest brilliancy	3831 Jan 06 00:17	1° \approx 13'46	-0.6m
	3830 Feb 20 16:51	30° \approx		evening max el	3831 Jan 18 06:12	17° \approx 18'57	20°09'36
min. Earth dist.	3830 Feb 21 11:10	29° \approx 01'17	0.66211 AU	asc. node	3831 Jan 24 20:17	21° \approx 44'11	
morning rise	3830 Feb 25 10:24	24° \approx 35'42		retrograde	3831 Jan 26 00:42	21° \approx 51'49	
direct	3830 Mar 03 18:37	21° \approx 47'35		evening set	3831 Jan 29 18:55	20° \approx 29'36	
desc. node	3830 Mar 16 02:27	28° \approx 57'44		inferior conj	3831 Feb 04 04:31	14° \approx 25'38	2°57'14
morning max el	3830 Mar 16 11:21	29° \approx 20'01	26°13'32	minimum elong	3831 Feb 04 02:07	14° \approx 33'45	2°56'40
	3830 Mar 17 02:58	0° H		min. Earth dist.	3831 Feb 05 00:12	13° \approx 19'14	0.67206 AU
	3830 Apr 08 06:22	0° Y		morning rise	3831 Feb 09 09:06	8° \approx 11'41	
morning set	3830 Apr 21 14:30	23° Y 02'36		direct	3831 Feb 15 04:22	5° \approx 36'07	
	3830 Apr 25 06:13	0° B		morning max el	3831 Feb 26 20:04	12° \approx 34'10	24°53'31
max. Earth dist.	3830 Apr 25 14:22	0° B 39'43	1.35134 AU	desc. node	3831 Mar 02 23:30	17° \approx 06'46	
					3831 Mar 12 21:11	0° H	
superior conj	3830 Apr 30 14:45	10° B 40'47	-0°53'00		3831 Apr 01 00:45	0° Y	
minimum elong	3830 Apr 30 17:34	10° B 55'11	0°52'28	morning set	3831 Apr 03 22:46	5° Y 06'27	
asc. node	3830 May 05 22:31	21° B 41'21		max. Earth dist.	3831 Apr 07 13:50	11° Y 40'27	1.37002 AU
evening rise	3830 May 08 08:52	26° B 43'34					
	3830 May 09 23:17	0° II		superior conj	3831 Apr 14 01:31	24° Y 00'44	-1°21'06
evening max el	3830 May 26 21:51	26° II 53'38	20°34'04	minimum elong	3831 Apr 14 05:43	24° Y 21'16	1°20'27
	3830 May 30 17:46	0° B			3831 Apr 17 02:10	0° B	
retrograde	3830 Jun 07 01:29	2° B 20'22		evening rise	3831 Apr 22 11:45	10° B 50'47	
evening set	3830 Jun 09 02:12	2° B 10'16		asc. node	3831 Apr 22 19:34	11° B 29'56	
desc. node	3830 Jun 12 01:39	1° B 21'56			3831 May 02 21:17	0° II	
	3830 Jun 15 02:40	30° B II		evening max el	3831 May 09 12:08	8° II 29'11	19°27'19
inferior conj	3830 Jun 18 07:56	28° II 12'45	-1°50'29	retrograde	3831 May 18 22:01	13° II 03'38	
minimum elong	3830 Jun 18 02:45	28° II 20'14	1°48'36	evening set	3831 May 20 21:44	12° II 52'17	
min. Earth dist.	3830 Jun 19 12:31	27° II 31'30	0.54943 AU	inferior conj	3831 May 29 12:05	8° II 46'32	0°07'46
morning rise	3830 Jun 27 02:30	24° II 04'22		minimum elong	3831 May 29 12:25	8° II 46'00	0°07'38
direct	3830 Jun 30 20:45	23° II 33'52		transit middle	3831 May 29 12:25	8° II 46'00	0°07'38
morning max el	3830 Jul 14 04:17	29° II 59'57	23°17'43	transit begin	3831 May 29 09:01	8° II 51'30	
	3830 Jul 14 04:18	0° B		transit end	3831 May 29 15:50	8° II 40'28	
asc. node	3830 Aug 01 21:45	27° B 36'15		desc. node	3831 May 29 22:41	8° II 29'23	
	3830 Aug 03 02:46	0° Q		min. Earth dist.	3831 Jun 01 02:43	7° II 05'50	0.55873 AU
morning set	3830 Aug 06 11:15	6° Q 54'29		morning rise	3831 Jun 07 00:17	4° II 05'57	
				direct	3831 Jun 11 16:12	3° II 16'42	
superior conj	3830 Aug 13 12:13	22° Q 01'14	1°35'33	morning max el	3831 Jun 25 18:15	10° II 23'52	24°59'46
minimum elong	3830 Aug 13 10:24	21° Q 51'27	1°35'24		3831 Jul 10 13:21	0° B	
max. Earth dist.	3830 Aug 16 02:22	27° Q 31'54	1.33599 AU	asc. node	3831 Jul 19 18:47	17° B 16'15	
	3830 Aug 17 06:38	0° H		morning set	3831 Jul 21 22:59	21° B 48'28	
evening rise	3830 Aug 21 03:10	7° H 51'37			3831 Jul 25 18:12	0° Q	
	3830 Sep 02 07:01	0° Q					
desc. node	3830 Sep 08 00:58	9° Q 02'38		superior conj	3831 Jul 28 21:48	6° Q 53'32	1°22'48
evening max el	3830 Sep 24 07:51	29° Q 20'50	27°20'04	minimum elong	3831 Jul 28 19:31	6° Q 41'00	1°22'30
	3830 Sep 25 00:36	0° H		max. Earth dist.	3831 Jul 30 07:30	9° Q 57'07	1.32674 AU
retrograde	3830 Oct 07 19:55	6° H 39'25		evening rise	3831 Aug 05 01:58	22° Q 11'00	
evening set	3830 Oct 14 20:40	3° H 58'28			3831 Aug 08 23:58	0° H	
min. Earth dist.	3830 Oct 18 15:06	0° H 29'53	0.64457 AU	desc. node	3831 Aug 25 21:59	28° H 15'42	
	3830 Oct 19 02:27	30° B Q			3831 Aug 27 04:11	0° Q	
inferior conj	3830 Oct 20 23:20	27° Q 59'16	-2°35'04	evening max el	3831 Sep 06 17:41	12° Q 18'41	27°24'45
minimum elong	3830 Oct 21 03:41	27° Q 47'37	2°33'28	retrograde	3831 Sep 20 11:53	19° Q 34'18	
morning rise	3830 Oct 27 11:53	22° Q 32'40		evening set	3831 Sep 27 16:29	17° Q 03'45	
asc. node	3830 Oct 28 20:59	22° Q 06'06		min. Earth dist.	3831 Oct 01 07:21	14° Q 05'02	0.62735 AU
direct	3830 Oct 30 01:33	21° Q 58'45		inferior conj	3831 Oct 04 03:13	11° Q 22'17	-3°34'29
morning max el	3830 Nov 05 13:33	25° Q 24'58	17°56'56	minimum elong	3831 Oct 04 08:53	11° Q 08'40	3°32'46
	3830 Nov 09 09:36	0° H		morning rise	3831 Oct 11 02:51	6° Q 13'17	
morning set	3830 Nov 22 20:12	21° H 36'22		direct	3831 Oct 13 12:30	5° Q 46'51	
	3830 Nov 27 20:09	0° H		asc. node	3831 Oct 15 18:00	6° Q 10'14	
desc. node	3830 Dec 05 00:16	11° H 46'52		morning max el	3831 Oct 20 05:50	9° Q 13'44	17°50'30
					3831 Nov 02 22:52	0° H	
superior conj	3830 Dec 06 05:49	13° H 46'04	-0°08'28	morning set	3831 Nov 05 08:38	4° H 15'48	
minimum elong	3830 Dec 06 04:48	13° H 42'01	0°08'19				
behind sun begin	3830 Dec 05 19:53	13° H 06'03		superior conj	3831 Nov 16 19:48	24° H 10'35	0°34'45
behind sun end	3830 Dec 06 13:44	14° H 17'55		minimum elong	3831 Nov 16 23:00	24° H 24'03	0°34'18
max. Earth dist.	3830 Dec 10 23:55	21° H 21'18	1.44761 AU		3831 Nov 20 07:44	0° H	
	3830 Dec 16 12:07	0° B		desc. node	3831 Nov 21 21:18	2° H 34'00	
evening rise	3830 Dec 22 10:18	9° B 10'13		max. Earth dist.	3831 Nov 23 15:56	5° H 27'02	1.43599 AU

evening rise	3831 Dec 01 20:11	18° X 22'47		desc. node	3832 Nov 07 18:17	23° M 20'42	
	3831 Dec 09 11:05	0° Z		evening rise	3832 Nov 10 17:56	28° M 10'32	
	3831 Dec 31 09:01	0° \approx			3832 Nov 11 21:24	0° X	
evening max el	3832 Jan 01 04:59	0° \approx 52'15	21°17'52		3832 Dec 02 03:27	0° Z	
retrograde	3832 Jan 09 22:24	6° \approx 02'46		evening max el	3832 Dec 13 22:35	14° Z 26'57	22°34'42
asc. node	3832 Jan 11 17:17	5° \approx 45'22		retrograde	3832 Dec 23 18:10	20° Z 16'55	
evening set	3832 Jan 14 02:32	4° \approx 25'19		evening set	3832 Dec 28 09:55	18° Z 23'16	
	3832 Jan 18 02:53	30° R Z		asc. node	3832 Dec 28 14:18	18° Z 14'03	
inferior conj	3832 Jan 19 10:52	28° Z 10'44	2°23'01	inferior conj	3833 Jan 02 18:36	12° Z 01'24	1°41'07
minimum elong	3832 Jan 19 08:24	28° Z 19'15	2°22'15	minimum elong	3833 Jan 02 16:33	12° Z 08'32	1°40'22
min. Earth dist.	3832 Jan 19 18:00	27° Z 46'04	0.67791 AU	min. Earth dist.	3833 Jan 02 14:17	12° Z 16'20	0.67995 AU
morning rise	3832 Jan 24 14:05	21° Z 58'12		morning rise	3833 Jan 07 23:03	5° Z 51'54	
direct	3832 Jan 29 18:48	19° Z 42'13		direct	3833 Jan 12 12:57	3° Z 58'42	
morning max el	3832 Feb 09 04:48	25° Z 53'57	23°25'10	morning max el	3833 Jan 21 16:57	9° Z 21'03	21°57'54
	3832 Feb 12 22:45	0° \approx		desc. node	3833 Feb 03 17:33	25° Z 40'11	
desc. node	3832 Feb 17 20:32	6° \approx 05'48			3833 Feb 06 18:29	0° \approx	
	3832 Mar 05 10:26	0° X		morning set	3833 Feb 23 11:17	25° \approx 29'05	
morning set	3832 Mar 15 07:21	15° X 59'09			3833 Feb 26 06:06	0° X	
max. Earth dist.	3832 Mar 19 08:52	22° X 57'48	1.39145 AU	max. Earth dist.	3833 Mar 01 07:18	5° X 02'40	1.41296 AU
	3832 Mar 23 07:50	0° Y					
superior conj	3832 Mar 26 22:27	6° Y 37'41	-1°45'32	superior conj	3833 Mar 09 00:39	18° X 18'56	-2°02'33
minimum elong	3832 Mar 27 03:08	6° Y 59'33	1°45'04	minimum elong	3833 Mar 09 03:53	18° X 33'11	2°02'24
evening rise	3832 Apr 05 06:40	24° Y 30'20			3833 Mar 15 12:06	0° Y	
	3832 Apr 08 03:20	0° Z		evening rise	3833 Mar 19 14:08	7° Y 33'00	
asc. node	3832 Apr 08 16:36	1° Z 02'47		asc. node	3833 Mar 26 13:37	20° Y 13'30	
evening max el	3832 Apr 21 12:56	20° Z 43'50	18°40'34		3833 Apr 01 20:32	0° Z	
retrograde	3832 Apr 29 12:03	24° Z 38'09		evening max el	3833 Apr 04 20:53	3° Z 28'29	18°13'57
evening set	3832 May 01 17:30	24° Z 20'57		retrograde	3833 Apr 11 21:02	6° Z 59'19	
inferior conj	3832 May 09 11:55	19° Z 57'05	1°44'50	evening set	3833 Apr 14 08:58	6° Z 33'20	
minimum elong	3832 May 09 15:19	19° Z 50'40	1°43'47	inferior conj	3833 Apr 21 09:05	1° Z 48'40	2°49'50
min. Earth dist.	3832 May 12 19:58	17° Z 27'32	0.57556 AU	minimum elong	3833 Apr 21 12:31	1° Z 41'06	2°49'06
desc. node	3832 May 15 19:42	15° Z 31'11			3833 Apr 23 10:11	30° R Y	
morning rise	3832 May 17 09:58	14° Z 42'01		min. Earth dist.	3833 Apr 24 18:34	28° Y 50'38	0.59653 AU
direct	3832 May 23 01:34	13° Z 22'54		morning rise	3833 Apr 28 13:31	26° Y 06'27	
morning max el	3832 Jun 06 10:13	20° Z 56'40	26°27'51	desc. node	3833 May 02 16:45	24° Y 26'31	
	3832 Jun 14 06:25	0° II		direct	3833 May 04 23:38	24° Y 12'03	
	3832 Jul 02 04:24	0° Z			3833 May 17 03:40	0° Z	
morning set	3832 Jul 05 09:38	6° Z 38'03		morning max el	3833 May 19 08:08	2° Z 01'58	27°27'49
asc. node	3832 Jul 05 15:50	7° Z 10'46			3833 Jun 08 14:09	0° II	
				morning set	3833 Jun 19 17:32	21° II 17'20	
superior conj	3832 Jul 12 09:19	21° Z 49'22	1°05'28	asc. node	3833 Jun 22 12:53	27° II 14'08	
minimum elong	3832 Jul 12 07:02	21° Z 36'48	1°05'04		3833 Jun 23 19:33	0° Z	
max. Earth dist.	3832 Jul 12 17:51	22° Z 36'25	1.32162 AU	max. Earth dist.	3833 Jun 26 05:40	5° Z 18'13	1.32044 AU
	3832 Jul 16 02:50	0° Z					
evening rise	3832 Jul 19 07:17	6° Z 48'12		superior conj	3833 Jun 26 20:58	6° Z 42'28	0°44'12
	3832 Jul 31 12:33	0° Z		minimum elong	3833 Jun 26 19:10	6° Z 32'31	0°43'50
desc. node	3832 Aug 11 18:59	16° Z 39'49		evening rise	3833 Jul 03 16:44	21° Z 35'06	
evening max el	3832 Aug 18 22:36	24° Z 36'54	26°56'26		3833 Jul 07 18:41	0° Z	
	3832 Aug 26 04:12	0° Z			3833 Jul 26 06:06	0° Z	
retrograde	3832 Sep 01 20:10	1° Z 48'12		desc. node	3833 Jul 29 16:00	3° Z 55'06	
	3832 Sep 08 06:13	30° R Z		evening max el	3833 Jul 31 20:14	6° Z 06'53	25°55'43
evening set	3832 Sep 08 19:47	29° Z 40'29		retrograde	3833 Aug 14 19:34	13° Z 14'54	
min. Earth dist.	3832 Sep 12 12:49	27° Z 01'19	0.60763 AU	evening set	3833 Aug 21 01:50	11° Z 41'06	
inferior conj	3832 Sep 15 17:26	24° Z 19'59	-4°26'34	min. Earth dist.	3833 Aug 25 08:34	9° Z 05'01	0.58694 AU
minimum elong	3832 Sep 15 23:07	24° Z 07'57	4°25'22	inferior conj	3833 Aug 28 14:24	6° Z 42'45	-5°02'04
morning rise	3832 Sep 23 04:18	19° Z 32'02		minimum elong	3833 Aug 28 17:39	6° Z 36'47	5°01'46
direct	3832 Sep 25 13:02	19° Z 10'02		morning rise	3833 Sep 05 11:42	2° Z 18'05	
asc. node	3832 Oct 01 15:02	21° Z 42'23		direct	3833 Sep 07 22:36	1° Z 58'20	
morning max el	3832 Oct 02 19:11	22° Z 45'44	18°02'55	morning max el	3833 Sep 16 02:24	5° Z 52'35	18°35'37
	3832 Oct 08 11:31	0° Z		asc. node	3833 Sep 18 12:05	8° Z 28'46	
morning set	3832 Oct 18 13:58	17° Z 43'20			3833 Oct 01 09:31	0° Z	
	3832 Oct 25 05:42	0° M		morning set	3833 Oct 02 07:16	1° Z 45'07	
superior conj	3832 Oct 28 12:06	5° M 51'54	1°07'46	superior conj	3833 Oct 11 02:21	18° Z 38'01	1°29'33
minimum elong	3832 Oct 28 16:17	6° M 10'28	1°07'15	minimum elong	3833 Oct 11 05:33	18° Z 52'57	1°29'16
max. Earth dist.	3832 Nov 05 03:24	19° M 00'51	1.41904 AU		3833 Oct 17 08:21	0° M	
				max. Earth dist.	3833 Oct 18 09:52	1° M 52'05	1.39886 AU

evening rise	3833 Oct 22 13:26	8° \mathbb{M} 58'19			3834 Oct 09 16:17	0° \mathbb{M}	
desc. node	3833 Oct 25 15:18	14° \mathbb{M} 03'48		desc. node	3834 Oct 12 12:19	4° \mathbb{M} 38'49	
	3833 Nov 04 20:54	0° \mathbb{X}			3834 Oct 29 21:02	0° \mathbb{X}	
evening max el	3833 Nov 26 12:32	28° \mathbb{X} 04'44	23°54'38	evening max el	3834 Nov 09 00:53	11° \mathbb{X} 45'44	25°11'08
	3833 Nov 28 13:26	0° \mathbb{Z}		retrograde	3834 Nov 20 23:17	18° \mathbb{X} 39'52	
retrograde	3833 Dec 07 10:49	4° \mathbb{Z} 30'57		evening set	3834 Nov 26 17:47	16° \mathbb{X} 15'17	
evening set	3833 Dec 12 15:34	2° \mathbb{Z} 21'08		min. Earth dist.	3834 Dec 01 05:14	11° \mathbb{X} 15'36	0.67341 AU
	3833 Dec 14 22:50	30° \mathbb{R} \mathbb{X}		inferior conj	3834 Dec 02 07:09	9° \mathbb{X} 51'06	-0°01'03
asc. node	3833 Dec 15 11:20	29° \mathbb{X} 22'22		minimum elong	3834 Dec 02 07:10	9° \mathbb{X} 51'01	0°01'02
min. Earth dist.	3833 Dec 17 10:48	26° \mathbb{X} 47'18	0.67841 AU	transit middle	3834 Dec 02 07:10	9° \mathbb{X} 51'01	0°01'02
inferior conj	3833 Dec 18 01:57	25° \mathbb{X} 55'51	0°52'44	transit begin	3834 Dec 02 04:24	10° \mathbb{X} 00'05	
minimum elong	3833 Dec 18 00:44	25° \mathbb{X} 59'58	0°52'15	transit end	3834 Dec 02 09:57	9° \mathbb{X} 41'58	
morning rise	3833 Dec 23 09:56	19° \mathbb{X} 51'09		asc. node	3834 Dec 02 08:23	9° \mathbb{X} 47'04	
direct	3833 Dec 27 09:55	18° \mathbb{X} 20'40		morning rise	3834 Dec 07 20:47	3° \mathbb{X} 53'18	
morning max el	3834 Jan 04 11:52	22° \mathbb{X} 59'21	20°38'59	direct	3834 Dec 11 08:26	2° \mathbb{X} 43'14	
	3834 Jan 10 11:38	0° \mathbb{Z}		morning max el	3834 Dec 18 14:39	6° \mathbb{X} 48'21	19°33'04
desc. node	3834 Jan 21 14:34	15° \mathbb{Z} 40'20		greatest brilliancy	3834 Dec 31 18:07	24° \mathbb{X} 15'00	-0.7m
	3834 Jan 31 02:08	0° \approx			3835 Jan 04 13:42	0° \mathbb{Z}	
morning set	3834 Feb 02 14:10	3° \approx 52'08		desc. node	3835 Jan 08 11:36	5° \mathbb{Z} 58'44	
max. Earth dist.	3834 Feb 11 12:49	18° \approx 02'15	1.43163 AU	morning set	3835 Jan 12 11:08	12° \mathbb{Z} 06'44	
					3835 Jan 23 22:13	0° \approx	
superior conj	3834 Feb 18 03:11	28° \approx 53'43	-2°07'04	max. Earth dist.	3835 Jan 25 01:03	1° \approx 46'07	1.44511 AU
minimum elong	3834 Feb 18 02:01	28° \approx 48'49	2°07'04				
	3834 Feb 18 18:59	0° \mathbb{H}		superior conj	3835 Jan 29 03:51	8° \approx 19'42	-1°53'57
evening rise	3834 Mar 02 06:02	19° \mathbb{H} 50'02		minimum elong	3835 Jan 28 20:45	7° \approx 51'17	1°53'29
	3834 Mar 08 00:51	0° \mathbb{Y}			3835 Feb 11 08:35	0° \mathbb{H}	
asc. node	3834 Mar 13 10:39	8° \mathbb{Y} 55'04		evening rise	3835 Feb 12 01:57	1° \mathbb{H} 12'54	
evening max el	3834 Mar 19 08:43	16° \mathbb{Y} 34'47	18°07'01	asc. node	3835 Feb 28 07:42	26° \mathbb{H} 58'28	
retrograde	3834 Mar 25 21:17	19° \mathbb{Y} 57'32			3835 Mar 02 23:27	0° \mathbb{Y}	
evening set	3834 Mar 28 15:10	19° \mathbb{Y} 21'05		evening max el	3835 Mar 02 21:26	29° \mathbb{H} 54'58	18°19'06
inferior conj	3834 Apr 04 00:48	14° \mathbb{Y} 16'13	3°25'09	retrograde	3835 Mar 09 08:12	3° \mathbb{Y} 23'16	
minimum elong	3834 Apr 04 02:43	14° \mathbb{Y} 11'22	3°24'56	evening set	3835 Mar 12 07:55	2° \mathbb{Y} 35'10	
min. Earth dist.	3834 Apr 07 01:06	11° \mathbb{Y} 14'27	0.61825 AU		3835 Mar 15 16:07	30° \mathbb{R} \mathbb{H}	
morning rise	3834 Apr 10 12:37	8° \mathbb{Y} 17'03		inferior conj	3835 Mar 18 06:55	27° \mathbb{H} 11'22	3°37'10
direct	3834 Apr 17 08:35	5° \mathbb{Y} 51'17		minimum elong	3835 Mar 18 07:04	27° \mathbb{H} 10'56	3°37'09
desc. node	3834 Apr 19 13:47	6° \mathbb{Y} 05'31		min. Earth dist.	3835 Mar 20 16:55	24° \mathbb{H} 27'48	0.63808 AU
morning max el	3834 May 01 12:21	13° \mathbb{Y} 49'32	27°51'24	morning rise	3835 Mar 24 05:21	21° \mathbb{H} 03'23	
	3834 May 14 12:08	0° \mathbb{B}		direct	3835 Mar 31 02:13	18° \mathbb{H} 17'49	
	3834 Jun 01 00:48	0° \mathbb{II}		desc. node	3835 Apr 06 10:50	20° \mathbb{H} 15'38	
morning set	3834 Jun 03 20:42	5° \mathbb{II} 40'00		morning max el	3835 Apr 13 20:42	26° \mathbb{H} 15'18	27°37'48
asc. node	3834 Jun 09 09:56	17° \mathbb{II} 21'52			3835 Apr 17 08:13	0° \mathbb{Y}	
max. Earth dist.	3834 Jun 09 14:59	17° \mathbb{II} 49'13	1.32335 AU		3835 May 08 01:41	0° \mathbb{B}	
				morning set	3835 May 18 16:43	19° \mathbb{B} 38'35	
superior conj	3834 Jun 11 07:05	21° \mathbb{II} 27'12	0°19'39	max. Earth dist.	3835 May 23 17:48	29° \mathbb{B} 57'12	1.33059 AU
minimum elong	3834 Jun 11 06:11	21° \mathbb{II} 22'17	0°19'27		3835 May 23 18:20	0° \mathbb{II}	
	3834 Jun 15 04:53	0° \mathbb{E}					
evening rise	3834 Jun 18 04:15	6° \mathbb{E} 24'53		superior conj	3835 May 26 13:49	5° \mathbb{II} 57'57	-0°07'30
	3834 Jun 30 13:22	0° \mathbb{Q}		minimum elong	3835 May 26 14:11	5° \mathbb{II} 59'56	0°07'25
evening max el	3834 Jul 13 11:03	16° \mathbb{Q} 52'45	24°30'01	behind sun begin	3835 May 26 09:25	5° \mathbb{II} 34'23	
desc. node	3834 Jul 16 13:02	19° \mathbb{Q} 33'36		behind sun end	3835 May 26 18:58	6° \mathbb{II} 25'31	
retrograde	3834 Jul 27 08:16	23° \mathbb{Q} 53'33		asc. node	3835 May 27 06:59	7° \mathbb{II} 30'02	
evening set	3834 Aug 01 07:43	22° \mathbb{Q} 58'00		evening rise	3835 Jun 02 16:00	21° \mathbb{II} 11'40	
min. Earth dist.	3834 Aug 06 22:04	20° \mathbb{Q} 06'04	0.56793 AU		3835 Jun 06 22:47	0° \mathbb{E}	
inferior conj	3834 Aug 09 15:27	18° \mathbb{Q} 21'45	-5°07'08	evening max el	3835 Jun 25 00:30	27° \mathbb{E} 18'22	22°53'22
minimum elong	3834 Aug 09 13:21	18° \mathbb{Q} 25'07	5°07'02		3835 Jun 28 03:05	0° \mathbb{Q}	
morning rise	3834 Aug 17 21:35	14° \mathbb{Q} 18'20		desc. node	3835 Jul 03 10:04	3° \mathbb{Q} 01'15	
direct	3834 Aug 20 13:13	13° \mathbb{Q} 59'12		retrograde	3835 Jul 08 08:21	3° \mathbb{Q} 56'46	
morning max el	3834 Aug 30 00:16	18° \mathbb{Q} 24'05	19°29'45	evening set	3835 Jul 11 19:15	3° \mathbb{Q} 30'39	
asc. node	3834 Sep 05 09:09	26° \mathbb{Q} 13'41		min. Earth dist.	3835 Jul 19 09:12	0° \mathbb{Q} 08'40	0.55411 AU
	3834 Sep 07 18:07	0° \mathbb{P}			3835 Jul 19 15:15	30° \mathbb{R} \mathbb{E}	
morning set	3834 Sep 16 08:46	16° \mathbb{P} 10'11		inferior conj	3835 Jul 20 21:26	29° \mathbb{E} 16'27	-4°26'43
	3834 Sep 23 06:09	0° \mathbb{L}		minimum elong	3835 Jul 20 13:55	29° \mathbb{E} 27'18	4°25'13
				morning rise	3835 Jul 29 10:50	25° \mathbb{E} 24'57	
superior conj	3834 Sep 24 08:58	2° \mathbb{L} 12'18	1°41'14	direct	3835 Aug 01 09:33	25° \mathbb{E} 04'35	
minimum elong	3834 Sep 24 10:30	2° \mathbb{L} 19'47	1°41'10		3835 Aug 12 05:11	0° \mathbb{Q}	
max. Earth dist.	3834 Sep 30 14:02	14° \mathbb{L} 02'55	1.37806 AU	morning max el	3835 Aug 12 10:33	0° \mathbb{Q} 12'20	20°45'11
evening rise	3834 Oct 04 08:10	20° \mathbb{L} 50'09		asc. node	3835 Aug 23 06:13	14° \mathbb{Q} 43'49	

	3835 Aug 31 05:43	0°♎		asc. node	3836 Aug 09 03:16	3°♏47'30	
morning set	3835 Aug 31 15:42	0°♎51'13		morning set	3836 Aug 15 01:53	15°♏41'22	
					3836 Aug 21 19:33	0°♎	
superior conj	3835 Sep 08 03:17	16°♎21'13	1°44'24	superior conj	3836 Aug 22 05:37	0°♎53'18	1°40'31
minimum elong	3835 Sep 08 03:12	16°♎20'46	1°44'25	minimum elong	3836 Aug 22 04:17	0°♎46'18	1°40'27
max. Earth dist.	3835 Sep 12 21:54	25°♎55'16	1.35904 AU	max. Earth dist.	3836 Aug 25 13:59	7°♎52'57	1.34332 AU
	3835 Sep 15 00:35	0°♏		evening rise	3836 Aug 30 05:14	17°♎10'21	
evening rise	3835 Sep 16 22:57	3°♏38'23			3836 Sep 06 03:07	0°♏	
desc. node	3835 Sep 29 09:21	25°♏00'54		desc. node	3836 Sep 15 06:24	15°♏03'27	
	3835 Oct 02 14:36	0°♌			3836 Sep 25 23:15	0°♌	
evening max el	3835 Oct 22 13:23	25°♌27'39	26°16'44	evening max el	3836 Oct 04 02:05	9°♌02'08	27°04'00
	3835 Oct 28 01:01	0°♌		retrograde	3836 Oct 17 08:31	16°♌19'05	
retrograde	3835 Nov 04 06:45	2°♌38'10		evening set	3836 Oct 24 04:19	13°♌37'39	
evening set	3835 Nov 10 14:46	0°♌02'17		min. Earth dist.	3836 Oct 28 02:12	9°♌49'14	0.65307 AU
	3835 Nov 10 15:52	30°♌		inferior conj	3836 Oct 30 03:16	7°♌30'26	-1°59'47
min. Earth dist.	3835 Nov 14 19:11	25°♌37'58	0.66500 AU	minimum elong	3836 Oct 30 06:37	7°♌20'56	1°58'27
inferior conj	3835 Nov 16 08:18	23°♌44'04	-0°59'05	morning rise	3836 Nov 05 09:49	1°♌54'54	
minimum elong	3835 Nov 16 09:54	23°♌39'11	0°58'25	asc. node	3836 Nov 05 02:28	2°♌04'17	
asc. node	3835 Nov 19 05:26	20°♌24'05		direct	3836 Nov 08 03:08	1°♌14'57	
morning rise	3835 Nov 22 05:32	17°♌55'51		morning max el	3836 Nov 14 15:02	4°♌44'12	18°08'39
direct	3835 Nov 25 06:54	17°♌02'44			3836 Dec 01 16:30	0°♌	
morning max el	3835 Dec 02 00:26	20°♌44'57	18°42'33	morning set	3836 Dec 02 23:57	2°♌09'18	
	3835 Dec 09 07:22	0°♌		desc. node	3836 Dec 12 05:39	17°♌10'55	
morning set	3835 Dec 23 02:49	21°♌23'19					
desc. node	3835 Dec 26 08:37	26°♌30'13		superior conj	3836 Dec 17 13:47	25°♌41'34	-0°35'58
	3835 Dec 28 13:53	0°♏		minimum elong	3836 Dec 17 09:15	25°♌23'37	0°35'21
superior conj	3836 Jan 08 09:16	16°♏58'17	-1°21'29		3836 Dec 20 07:16	0°♏	
minimum elong	3836 Jan 08 00:13	16°♏22'48	1°20'30	max. Earth dist.	3836 Dec 20 14:10	0°♏27'07	1.45133 AU
max. Earth dist.	3836 Jan 07 18:26	16°♏00'07	1.45193 AU	evening rise	3837 Jan 02 21:53	21°♏13'48	
	3836 Jan 16 15:38	0°♏			3837 Jan 08 13:48	0°♏	
evening rise	3836 Jan 23 22:45	11°♏37'55		greatest brilliancy	3837 Jan 15 14:49	10°♏45'57	-0.7m
greatest brilliancy	3836 Jan 31 11:03	23°♏40'51	-0.9m	evening max el	3837 Jan 27 15:32	26°♏53'15	19°35'59
	3836 Feb 04 11:21	0°♏			3837 Jan 31 09:46	0°♏	
evening max el	3836 Feb 14 08:24	13°♏22'21	18°49'14	asc. node	3837 Feb 01 01:46	0°♏21'52	
asc. node	3836 Feb 15 04:44	14°♏11'49		retrograde	3837 Feb 03 22:53	1°♏06'21	
retrograde	3836 Feb 21 01:46	17°♏07'55			3837 Feb 07 07:39	30°♏	
evening set	3836 Feb 24 07:50	16°♏07'13		evening set	3837 Feb 07 12:20	29°♏52'06	
inferior conj	3836 Feb 29 23:33	10°♏26'03	3°31'39	inferior conj	3837 Feb 12 23:29	23°♏55'35	3°12'52
minimum elong	3836 Feb 29 22:17	10°♏29'57	3°31'32	minimum elong	3837 Feb 12 21:21	24°♏02'37	3°12'29
min. Earth dist.	3836 Mar 02 17:52	8°♏15'28	0.65452 AU	min. Earth dist.	3837 Feb 14 02:55	22°♏25'20	0.66687 AU
morning rise	3836 Mar 06 12:19	4°♏13'55		morning rise	3837 Feb 18 06:09	17°♏41'53	
direct	3836 Mar 13 02:46	1°♏22'58		direct	3837 Feb 24 09:13	14°♏58'11	
desc. node	3836 Mar 23 07:51	6°♏22'07		morning max el	3837 Mar 08 15:50	22°♏16'57	25°41'16
morning max el	3836 Mar 26 06:29	9°♏07'53	26°51'42	desc. node	3837 Mar 10 04:52	23°♏53'35	
	3836 Apr 11 14:52	0°♏			3837 Mar 15 10:24	0°♏	
	3836 Apr 29 11:53	0°♏			3837 Apr 04 21:38	0°♏	
morning set	3836 May 01 02:20	3°♏02'01		morning set	3837 Apr 13 21:20	15°♏38'42	
max. Earth dist.	3836 May 05 10:36	11°♏33'12	1.34244 AU	max. Earth dist.	3837 Apr 17 16:03	22°♏42'03	1.35886 AU
					3837 Apr 21 10:18	0°♏	
superior conj	3836 May 09 14:55	20°♏06'47	-0°36'14	superior conj	3837 Apr 23 07:49	3°♏46'41	-1°05'09
minimum elong	3836 May 09 16:49	20°♏16'43	0°35'51	minimum elong	3837 Apr 23 11:17	4°♏04'04	1°04'33
asc. node	3836 May 13 04:01	27°♏33'43		asc. node	3837 Apr 30 01:04	17°♏28'58	
	3836 May 14 07:44	0°♏		evening rise	3837 May 01 08:07	20°♏07'40	
evening rise	3836 May 17 01:58	5°♏47'55			3837 May 06 07:43	0°♏	
	3836 May 30 08:16	0°♏		evening max el	3837 May 19 03:22	19°♏05'22	20°03'15
evening max el	3836 Jun 05 20:15	7°♏54'41	21°20'56	retrograde	3837 May 29 12:48	24°♏09'09	
retrograde	3836 Jun 17 22:10	13°♏50'51		evening set	3837 May 31 11:53	23°♏59'07	
desc. node	3836 Jun 19 07:07	13°♏46'29		desc. node	3837 Jun 06 04:07	21°♏54'02	
evening set	3836 Jun 20 06:29	13°♏38'13		inferior conj	3837 Jun 09 12:08	19°♏59'23	-0°59'14
inferior conj	3836 Jun 29 15:41	9°♏39'05	-2°57'07	minimum elong	3837 Jun 09 09:22	20°♏03'32	0°58'13
minimum elong	3836 Jun 29 07:56	9°♏49'55	2°54'38	min. Earth dist.	3837 Jun 11 08:41	18°♏52'38	0.55234 AU
min. Earth dist.	3836 Jun 29 20:12	9°♏32'45	0.54844 AU	morning rise	3837 Jun 18 05:10	15°♏38'57	
morning rise	3836 Jul 08 10:00	5°♏42'57		direct	3837 Jun 22 07:58	15°♏02'03	
direct	3836 Jul 11 19:36	5°♏17'56		morning max el	3837 Jul 06 00:51	21°♏46'18	24°01'48
morning max el	3836 Jul 24 09:24	11°♏15'17	22°18'46		3837 Jul 13 05:08	0°♏	
	3836 Aug 07 01:37	0°♏					




































































































































asc. node	3837 Jul 27 00:17	23°☿16'16	direct	3838 Jun 03 08:40	24°♄50'22	
	3837 Jul 30 06:47	0°♄		3838 Jun 15 04:40	0°♄	
morning set	3837 Jul 30 13:32	0°♄35'33	morning max el	3838 Jun 17 15:11	2°♄10'50	25°40'02
				3838 Jul 07 06:06	0°♄	
superior conj	3837 Aug 06 13:11	15°♄40'15	1°30'45	asc. node	3838 Jul 13 21:20	13°♄03'13
minimum elong	3837 Aug 06 11:06	15°♄28'59	1°30'31	morning set	3838 Jul 15 01:02	15°♄28'35
max. Earth dist.	3837 Aug 08 14:56	20°♄08'03	1.33160 AU			
	3837 Aug 13 08:09	0°♄		superior conj	3838 Jul 21 23:50	0°♄35'04
evening rise	3837 Aug 13 22:58	1°♄15'02		minimum elong	3838 Jul 21 21:29	0°♄22'12
	3837 Aug 30 01:34	0°♄			3838 Jul 21 17:27	0°♄
desc. node	3837 Sep 02 03:26	4°♄37'48		max. Earth dist.	3838 Jul 22 22:41	2°♄40'22
evening max el	3837 Sep 16 13:26	22°♄16'31	27°25'48	evening rise	3838 Jul 29 00:51	15°♄42'56
retrograde	3837 Sep 30 04:08	29°♄33'41			3838 Aug 05 07:26	0°♄
evening set	3837 Oct 07 07:37	26°♄55'35		desc. node	3838 Aug 20 00:26	23°♄32'31
min. Earth dist.	3837 Oct 11 00:05	23°♄40'49	0.63767 AU		3838 Aug 25 03:58	0°♄
inferior conj	3837 Oct 13 13:29	21°♄03'45	-3°00'46	evening max el	3838 Aug 29 21:18	4°♄58'37
minimum elong	3837 Oct 13 18:29	20°♄50'56	2°59'02	retrograde	3838 Sep 12 17:12	12°♄13'03
morning rise	3837 Oct 20 06:41	15°♄44'22		evening set	3838 Sep 19 21:03	9°♄50'13
direct	3837 Oct 22 18:24	15°♄13'56		min. Earth dist.	3838 Sep 23 11:38	7°♄01'48
asc. node	3837 Oct 22 23:30	15°♄14'10		inferior conj	3838 Sep 26 12:00	4°♄17'20
morning max el	3837 Oct 29 07:37	18°♄39'03	17°52'00	minimum elong	3838 Sep 26 17:54	4°♄03'53
	3837 Nov 06 14:47	0°♄			3838 Oct 02 01:26	30°♄
morning set	3837 Nov 14 23:51	14°♄12'50		morning rise	3838 Oct 03 16:30	29°♄17'16
	3837 Nov 24 06:46	0°♄		direct	3838 Oct 06 01:20	28°♄53'08
				asc. node	3838 Oct 09 20:32	29°♄57'30
superior conj	3837 Nov 27 12:46	5°♄22'01	0°10'55		3838 Oct 09 22:17	0°♄
minimum elong	3837 Nov 27 13:58	5°♄26'53	0°10'46	morning max el	3838 Oct 12 23:11	2°♄22'35
behind sun begin	3837 Nov 27 06:35	4°♄56'40		morning set	3838 Oct 28 20:12	27°♄14'50
behind sun end	3837 Nov 27 21:20	5°♄57'03			3838 Oct 30 08:43	0°♄
desc. node	3837 Nov 29 02:41	7°♄56'37				
max. Earth dist.	3837 Dec 03 08:28	14°♄46'04	1.44343 AU	superior conj	3838 Nov 08 14:23	16°♄20'54
evening rise	3837 Dec 13 08:13	0°♄23'44		minimum elong	3838 Nov 08 18:21	16°♄37'55
	3837 Dec 13 02:03	0°♄		desc. node	3838 Nov 15 23:43	28°♄44'10
	3838 Jan 02 07:32	0°♄		max. Earth dist.	3838 Nov 15 22:27	28°♄39'00
evening max el	3838 Jan 10 17:23	10°♄25'02	20°37'13		3838 Nov 16 18:19	0°♄
retrograde	3838 Jan 18 21:02	15°♄13'33		evening rise	3838 Nov 22 21:25	9°♄46'50
asc. node	3838 Jan 18 22:47	15°♄13'31			3838 Dec 06 06:15	0°♄
evening set	3838 Jan 22 19:19	13°♄44'47		evening max el	3838 Dec 24 13:44	23°♄58'08
inferior conj	3838 Jan 28 04:08	7°♄35'39	2°43'42	retrograde	3839 Jan 02 18:15	29°♄26'05
minimum elong	3838 Jan 28 01:39	7°♄44'10	2°43'03	asc. node	3839 Jan 05 19:47	28°♄35'23
min. Earth dist.	3838 Jan 28 18:13	6°♄47'28	0.67503 AU	evening set	3839 Jan 07 03:02	27°♄41'52
morning rise	3838 Feb 02 07:48	1°♄22'07		inferior conj	3839 Jan 12 11:19	21°♄23'29
	3838 Feb 04 03:25	30°♄		minimum elong	3839 Jan 12 08:59	21°♄31'38
direct	3838 Feb 07 20:51	28°♄54'35		min. Earth dist.	3839 Jan 12 13:29	21°♄16'01
	3838 Feb 11 22:50	0°♄		morning rise	3839 Jan 17 14:45	15°♄11'47
morning max el	3838 Feb 19 00:26	5°♄33'55	24°16'24	direct	3839 Jan 22 13:01	13°♄05'24
desc. node	3838 Feb 25 01:53	12°♄25'30		morning max el	3839 Feb 01 10:16	18°♄56'34
	3838 Mar 09 21:37	0°♄			3839 Feb 10 16:48	0°♄
morning set	3838 Mar 26 20:13	27°♄13'31		desc. node	3839 Feb 11 22:56	1°♄40'49
	3838 Mar 28 10:14	0°♄			3839 Mar 03 01:38	0°♄
max. Earth dist.	3838 Mar 30 12:55	3°♄45'51	1.37894 AU	morning set	3839 Mar 07 16:57	7°♄31'21
				max. Earth dist.	3839 Mar 12 08:11	15°♄18'46
superior conj	3838 Apr 06 13:09	16°♄48'37	-1°32'06			
minimum elong	3838 Apr 06 17:43	17°♄10'33	1°31'30	superior conj	3839 Mar 20 02:42	29°♄02'38
	3838 Apr 13 06:47	0°♄		minimum elong	3839 Mar 20 07:05	29°♄22'36
evening rise	3838 Apr 15 07:58	4°♄03'33			3839 Mar 20 15:16	0°♄
asc. node	3838 Apr 16 22:06	7°♄11'06		evening rise	3839 Mar 29 22:28	17°♄27'55
	3838 Apr 30 23:58	0°♄		asc. node	3839 Apr 03 19:07	26°♄34'54
evening max el	3838 May 01 22:19	0°♄57'05	19°04'56		3839 Apr 05 16:49	0°♄
retrograde	3838 May 10 16:25	5°♄13'08		evening max el	3839 Apr 15 02:34	13°♄25'11
evening set	3838 May 12 18:01	4°♄59'51		retrograde	3839 Apr 22 14:34	17°♄07'31
inferior conj	3838 May 20 23:57	0°♄46'52	0°52'36	evening set	3839 Apr 24 22:42	16°♄46'58
minimum elong	3838 May 21 02:00	0°♄43'19	0°51'53	inferior conj	3839 May 02 08:59	12°♄14'42
	3838 May 22 03:02	30°♄		minimum elong	3839 May 02 12:41	12°♄07'13
min. Earth dist.	3838 May 24 00:01	28°♄43'28	0.56506 AU	min. Earth dist.	3839 May 05 19:30	9°♄29'41
desc. node	3838 May 24 01:06	28°♄41'41		morning rise	3839 May 09 23:35	6°♄46'33
morning rise	3838 May 29 06:49	25°♄50'54		desc. node	3839 May 10 22:08	6°♄19'41

direct	3839 May 16 00:01	5°♄12'15		morning max el	3840 May 11 09:57	24°♄17'20	27°42'28
morning max el	3839 May 30 09:27	12°♄55'04	26°57'34		3840 May 16 14:11	0°♄	
	3839 Jun 12 20:51	0°♄			3840 Jun 05 03:36	0°♄	
morning set	3839 Jun 29 10:43	0°♄14'08		morning set	3840 Jun 12 16:50	14°♄46'44	
	3839 Jun 29 08:01	0°♄		asc. node	3840 Jun 16 15:27	23°♄07'23	
asc. node	3839 Jun 30 18:23	3°♄01'46		max. Earth dist.	3840 Jun 18 21:02	27°♄58'50	1.32116 AU
superior conj	3839 Jul 06 11:37	15°♄30'18	0°56'55	superior conj	3840 Jun 19 22:51	0°♄20'27	0°34'10
minimum elong	3839 Jul 06 09:29	15°♄18'33	0°56'30	minimum elong	3840 Jun 19 21:22	0°♄12'22	0°33'51
max. Earth dist.	3839 Jul 06 09:54	15°♄20'50	1.32051 AU		3840 Jun 19 19:07	0°♄	
evening rise	3839 Jul 13 08:09	0°♄24'46		evening rise	3840 Jun 26 18:44	15°♄13'36	
	3839 Jul 13 03:28	0°♄			3840 Jul 04 03:15	0°♄	
	3839 Jul 29 11:11	0°♄		evening max el	3840 Jul 23 17:53	28°♄06'32	25°21'43
desc. node	3839 Aug 06 21:27	11°♄30'17		desc. node	3840 Jul 23 18:28	28°♄07'55	
evening max el	3839 Aug 11 23:14	16°♄56'35	26°34'26		3840 Jul 25 20:34	0°♄	
retrograde	3839 Aug 25 22:16	24°♄07'13		retrograde	3840 Aug 06 17:12	5°♄11'50	
evening set	3839 Sep 01 15:58	22°♄12'51		evening set	3840 Aug 12 11:40	3°♄54'51	
min. Earth dist.	3839 Sep 05 12:57	19°♄37'05	0.59877 AU	min. Earth dist.	3840 Aug 17 05:45	1°♄13'57	0.57846 AU
inferior conj	3839 Sep 08 19:19	17°♄01'20	-4°44'23		3840 Aug 19 01:01	30°♄	
minimum elong	3839 Sep 09 00:20	16°♄51'18	4°43'34	inferior conj	3840 Aug 20 08:01	29°♄06'01	-5°08'54
morning rise	3839 Sep 16 10:48	12°♄23'10		minimum elong	3840 Aug 20 09:17	29°♄03'50	5°08'52
direct	3839 Sep 18 19:54	12°♄02'31		morning rise	3840 Aug 28 09:13	24°♄50'33	
morning max el	3839 Sep 26 10:22	15°♄45'10	18°14'13	direct	3840 Aug 30 21:53	24°♄31'10	
asc. node	3839 Sep 26 17:35	16°♄02'54		morning max el	3840 Sep 08 13:51	28°♄37'14	18°55'56
	3839 Oct 06 08:53	0°♄			3840 Sep 09 22:25	0°♄	
morning set	3839 Oct 12 07:11	10°♄58'14		asc. node	3840 Sep 12 14:39	3°♄15'23	
				morning set	3840 Sep 25 04:22	25°♄10'45	
superior conj	3839 Oct 21 16:43	28°♄31'30	1°18'19		3840 Sep 27 15:02	0°♄	
minimum elong	3839 Oct 21 20:38	28°♄49'16	1°17'53				
	3839 Oct 22 12:17	0°♄		superior conj	3840 Oct 03 14:31	11°♄39'13	1°35'38
max. Earth dist.	3839 Oct 29 07:10	11°♄53'13	1.41074 AU	minimum elong	3840 Oct 03 17:02	11°♄51'13	1°35'28
desc. node	3839 Nov 02 20:45	19°♄29'49		max. Earth dist.	3840 Oct 10 12:18	24°♄26'17	1.39000 AU
evening rise	3839 Nov 03 03:47	19°♄58'32			3840 Oct 13 16:13	0°♄	
	3839 Nov 09 11:05	0°♄		evening rise	3840 Oct 14 09:23	1°♄13'53	
	3839 Nov 30 14:14	0°♄		desc. node	3840 Oct 19 17:47	10°♄09'53	
evening max el	3839 Dec 07 05:36	7°♄34'07	23°08'43		3840 Nov 01 18:17	0°♄	
retrograde	3839 Dec 17 12:53	13°♄40'24		evening max el	3840 Nov 18 18:50	21°♄14'00	24°28'04
evening set	3839 Dec 22 09:54	11°♄40'06		retrograde	3840 Nov 30 03:43	27°♄52'36	
asc. node	3839 Dec 23 16:49	10°♄27'11		evening set	3840 Dec 05 14:18	25°♄36'24	
inferior conj	3839 Dec 27 19:10	5°♄16'17	1°21'21	asc. node	3840 Dec 09 13:53	21°♄10'47	
minimum elong	3839 Dec 27 17:25	5°♄22'19	1°20'40	min. Earth dist.	3840 Dec 10 06:11	20°♄16'58	0.67676 AU
min. Earth dist.	3839 Dec 27 10:17	5°♄46'52	0.67973 AU	inferior conj	3840 Dec 11 01:50	19°♄11'17	0°30'33
	3840 Jan 01 01:38	30°♄		minimum elong	3840 Dec 11 01:06	19°♄13'45	0°30'15
morning rise	3840 Jan 02 00:49	29°♄08'20		morning rise	3840 Dec 16 11:58	13°♄09'13	
direct	3840 Jan 06 08:41	27°♄24'46		direct	3840 Dec 20 06:36	11°♄47'35	
	3840 Jan 12 07:27	0°♄		morning max el	3840 Dec 27 23:03	16°♄10'11	20°09'06
morning max el	3840 Jan 15 00:53	2°♄27'41	21°22'50		3841 Jan 07 20:07	0°♄	
desc. node	3840 Jan 29 19:58	21°♄27'17		desc. node	3841 Jan 15 17:00	11°♄35'51	
	3840 Feb 04 15:42	0°♄		morning set	3841 Jan 24 06:08	24°♄38'14	
morning set	3840 Feb 15 08:58	16°♄28'30			3841 Jan 27 17:02	0°♄	
max. Earth dist.	3840 Feb 22 09:01	27°♄45'44	1.42141 AU	max. Earth dist.	3841 Feb 03 18:01	11°♄07'29	1.43818 AU
	3840 Feb 23 17:32	0°♄					
superior conj	3840 Feb 29 19:28	10°♄17'19	-2°06'20	superior conj	3841 Feb 09 10:55	20°♄22'11	-2°03'54
minimum elong	3840 Feb 29 21:12	10°♄24'47	2°06'18	minimum elong	3841 Feb 09 07:11	20°♄06'48	2°03'46
evening rise	3840 Mar 11 23:53	0°♄12'17			3841 Feb 15 05:49	0°♄	
	3840 Mar 11 21:10	0°♄		evening rise	3841 Feb 22 07:46	12°♄06'53	
asc. node	3840 Mar 20 16:10	15°♄34'18			3841 Mar 04 21:23	0°♄	
evening max el	3840 Mar 28 12:42	26°♄20'52	18°08'42	asc. node	3841 Mar 07 13:13	4°♄00'40	
retrograde	3840 Apr 04 06:27	29°♄46'04		evening max el	3841 Mar 12 01:18	9°♄33'52	18°09'51
evening set	3840 Apr 06 21:05	29°♄15'43		retrograde	3841 Mar 18 11:48	12°♄57'12	
inferior conj	3840 Apr 13 14:33	24°♄22'32	3°08'04	evening set	3841 Mar 21 08:16	12°♄15'44	
minimum elong	3840 Apr 13 17:26	24°♄15'46	3°07'34	inferior conj	3841 Mar 27 12:54	7°♄02'24	3°32'42
min. Earth dist.	3840 Apr 16 21:13	21°♄19'51	0.60588 AU	minimum elong	3841 Mar 27 14:03	6°♄59'20	3°32'37
morning rise	3840 Apr 20 11:39	18°♄32'14		min. Earth dist.	3841 Mar 30 07:22	4°♄06'26	0.62710 AU
desc. node	3840 Apr 26 19:10	16°♄23'31		morning rise	3841 Apr 02 18:36	0°♄58'57	
direct	3840 Apr 27 03:22	16°♄23'11			3841 Apr 04 05:28	30°♄	
				direct	3841 Apr 09 15:59	28°♄23'21	

desc. node	3841 Apr 13 16:12	29° Υ 10'07		morning rise	3842 Mar 16 17:48	13° Υ 56'23	
	3841 Apr 15 12:33	0° Υ		direct	3842 Mar 23 12:31	11° Υ 07'09	
morning max el	3841 Apr 23 16:09	6° Υ 21'28	27°49'59	desc. node	3842 Mar 31 13:14	14° Υ 13'49	
	3841 May 11 14:45	0° Υ		morning max el	3842 Apr 06 01:40	19° Υ 00'47	27°21'42
morning set	3841 May 27 17:15	28° Υ 59'24			3842 Apr 15 09:18	0° Υ	
	3841 May 28 05:13	0° Π			3842 May 04 13:58	0° Υ	
max. Earth dist.	3841 Jun 02 04:10	10° Π 21'32	1.32595 AU	morning set	3842 May 11 09:16	12° Υ 44'02	
asc. node	3841 Jun 03 12:30	13° Π 15'21		max. Earth dist.	3842 May 16 03:17	22° Υ 17'04	1.33511 AU
superior conj	3841 Jun 04 07:43	14° Π 59'17	0°08'24	superior conj	3842 May 19 12:18	29° Υ 20'55	-0°19'35
minimum elong	3841 Jun 04 07:19	14° Π 57'06	0°08'19	minimum elong	3842 May 19 13:18	29° Υ 26'14	0°19'22
behind sun begin	3841 Jun 04 02:50	14° Π 32'50			3842 May 19 19:40	0° Π	
behind sun end	3841 Jun 04 11:48	15° Π 21'23		asc. node	3842 May 21 09:33	3° Π 21'44	
evening rise	3841 Jun 11 06:35	0° Θ 02'30		evening rise	3842 May 26 17:48	14° Π 45'14	
	3841 Jun 11 06:06	0° Θ			3842 Jun 03 10:26	0° Θ	
	3841 Jun 27 23:11	0° Ω		evening max el	3842 Jun 16 22:09	19° Θ 04'19	22°12'37
evening max el	3841 Jul 05 07:13	8° Ω 39'21	23°49'14	desc. node	3842 Jun 27 12:30	25° Θ 15'37	
desc. node	3841 Jul 10 15:29	12° Ω 54'42		retrograde	3842 Jun 29 19:17	25° Θ 27'41	
retrograde	3841 Jul 19 00:05	15° Ω 32'29		evening set	3842 Jul 02 16:54	25° Θ 09'00	
evening set	3841 Jul 23 08:08	14° Ω 51'05		min. Earth dist.	3842 Jul 11 04:02	21° Θ 30'18	0.55051 AU
min. Earth dist.	3841 Jul 29 17:25	11° Ω 48'07	0.56124 AU	inferior conj	3842 Jul 11 23:55	21° Θ 02'17	-3°54'03
inferior conj	3841 Aug 01 00:25	10° Ω 24'49	-4°56'14	minimum elong	3842 Jul 11 15:29	21° Θ 14'11	3°51'52
minimum elong	3841 Jul 31 19:43	10° Ω 31'59	4°55'41	morning rise	3842 Jul 20 15:55	17° Θ 11'37	
morning rise	3841 Aug 09 09:50	6° Ω 28'13		direct	3842 Jul 23 18:29	16° Θ 50'02	
direct	3841 Aug 12 04:28	6° Ω 08'40		morning max el	3842 Aug 04 12:02	22° Θ 18'14	21°23'23
morning max el	3841 Aug 22 06:49	10° Ω 50'00	19°59'26		3842 Aug 11 02:03	0° Ω	
asc. node	3841 Aug 30 11:43	21° Ω 20'35		asc. node	3842 Aug 17 08:46	10° Ω 05'51	
	3841 Sep 04 10:02	0° \P		morning set	3842 Aug 24 16:59	24° Ω 28'43	
morning set	3841 Sep 09 08:29	9° \P 43'27			3842 Aug 27 08:19	0° \P	
superior conj	3841 Sep 17 02:37	25° \P 29'33	1°43'32	superior conj	3842 Sep 01 00:41	9° \P 49'22	1°43'33
minimum elong	3841 Sep 17 03:25	25° \P 33'36	1°43'31	minimum elong	3842 Sep 01 00:01	9° \P 45'55	1°43'32
	3841 Sep 19 09:13	0° Ξ		max. Earth dist.	3842 Sep 05 04:33	18° \P 19'02	1.35176 AU
max. Earth dist.	3841 Sep 22 17:46	6° Ξ 27'59	1.36961 AU	evening rise	3842 Sep 09 10:56	26° \P 38'17	
evening rise	3841 Sep 26 13:07	13° Ξ 30'39			3842 Sep 11 05:55	0° Ξ	
	3841 Oct 06 04:48	0° \P		desc. node	3842 Sep 23 11:49	20° Ξ 54'37	
desc. node	3841 Oct 06 14:48	0° \P 40'10			3842 Sep 29 13:41	0° \P	
	3841 Oct 27 16:01	0° \P		evening max el	3842 Oct 14 19:32	18° \P 35'13	26°39'31
evening max el	3841 Nov 01 07:10	4° \P 56'21	25°40'47	retrograde	3842 Oct 27 19:12	25° \P 50'17	
retrograde	3841 Nov 13 14:02	11° \P 58'20		evening set	3842 Nov 03 08:39	23° \P 10'47	
evening set	3841 Nov 19 14:32	9° \P 28'13		min. Earth dist.	3842 Nov 07 10:03	19° \P 02'04	0.66031 AU
min. Earth dist.	3841 Nov 23 22:53	4° \P 43'45	0.67030 AU	inferior conj	3842 Nov 09 04:18	16° \P 56'34	-1°24'38
inferior conj	3841 Nov 25 05:33	3° \P 06'11	-0°25'11	minimum elong	3842 Nov 09 06:38	16° \P 49'38	1°23'39
minimum elong	3841 Nov 25 06:12	3° \P 04'06	0°24'55	asc. node	3842 Nov 13 07:57	12° \P 32'18	
asc. node	3841 Nov 26 10:55	1° \P 33'58		morning rise	3842 Nov 15 05:20	11° \P 13'38	
	3841 Nov 27 18:54	30° \P		direct	3842 Nov 18 02:54	10° \P 26'44	
morning rise	3841 Nov 30 22:12	27° \P 12'23		morning max el	3842 Nov 24 17:19	14° \P 02'23	18°26'08
direct	3841 Dec 04 05:17	26° \P 09'58			3842 Dec 06 07:26	0° \P	
morning max el	3841 Dec 11 05:07	0° \P 03'39	19°09'41	morning set	3842 Dec 14 12:38	13° \P 07'35	
	3841 Dec 11 03:39	0° \P		desc. node	3842 Dec 20 11:05	22° \P 36'41	
	3842 Jan 01 06:57	0° Ξ			3842 Dec 25 03:01	0° Ξ	
desc. node	3842 Jan 02 14:03	2° Ξ 00'48		superior conj	3842 Dec 30 04:16	7° Ξ 56'58	-1°03'08
morning set	3842 Jan 03 08:47	3° Ξ 13'36		minimum elong	3842 Dec 29 20:33	7° Ξ 26'43	1°02'11
max. Earth dist.	3842 Jan 17 09:24	25° Ξ 08'48	1.44896 AU	max. Earth dist.	3842 Dec 31 03:50	9° Ξ 29'26	1.45256 AU
superior conj	3842 Jan 20 01:53	29° Ξ 23'30	-1°42'22		3843 Jan 13 05:26	0° \approx	
minimum elong	3842 Jan 19 17:07	28° Ξ 48'49	1°41'37	evening rise	3843 Jan 15 05:13	3° \approx 08'18	
	3842 Jan 20 11:06	0° \approx		greatest brilliancy	3843 Jan 25 05:10	18° \approx 51'55	-0.8m
evening rise	3842 Feb 03 18:09	23° \approx 05'50			3843 Feb 01 16:53	0° Υ	
	3842 Feb 07 22:43	0° Υ		evening max el	3843 Feb 06 22:59	6° Υ 26'31	19°07'07
asc. node	3842 Feb 22 10:14	21° Υ 44'12		asc. node	3843 Feb 09 07:15	8° Υ 32'31	
evening max el	3842 Feb 23 13:31	22° Υ 57'25	18°29'39	retrograde	3843 Feb 13 21:38	10° Υ 23'05	
retrograde	3842 Mar 02 02:08	26° Υ 31'52		evening set	3843 Feb 17 06:34	9° Υ 16'54	
evening set	3842 Mar 05 04:26	25° Υ 38'30		inferior conj	3843 Feb 22 20:04	3° Υ 28'52	3°25'06
inferior conj	3842 Mar 10 23:56	20° Υ 06'46	3°36'39	minimum elong	3843 Feb 22 18:22	3° Υ 34'18	3°24'53
minimum elong	3842 Mar 10 23:26	20° Υ 08'15	3°36'38	min. Earth dist.	3843 Feb 24 07:56	1° Υ 34'42	0.66028 AU
min. Earth dist.	3842 Mar 13 03:08	17° Υ 36'06	0.64560 AU		3843 Feb 25 14:56	30° \P	

morning rise	3843 Feb 28 05:48	27° \approx 15'31	retrograde	3844 Jan 28 19:24	24° \approx 25'32	
direct	3843 Mar 06 15:46	24° \approx 26'12	evening set	3844 Feb 01 12:20	23° \approx 05'26	
	3843 Mar 17 08:33	0° \mathbb{X}	inferior conj	3844 Feb 06 22:17	17° \approx 03'26	3°01'38
desc. node	3843 Mar 18 10:16	1° \mathbb{X} 00'08	minimum elong	3844 Feb 06 19:56	17° \approx 11'19	3°01'08
morning max el	3843 Mar 19 11:37	2° \mathbb{X} 02'37	min. Earth dist.	3844 Feb 07 19:57	15° \approx 50'45	0.67084 AU
	3843 Apr 09 12:48	0° \mathbb{Y}	morning rise	3844 Feb 12 03:19	10° \approx 49'32	
morning set	3843 Apr 24 13:19	25° \mathbb{Y} 50'08	direct	3844 Feb 18 00:43	8° \approx 11'30	
	3843 Apr 26 17:54	0° \mathbb{Z}	morning max el	3844 Feb 29 20:23	15° \approx 15'17	25°06'14
max. Earth dist.	3843 Apr 28 15:12	3° \mathbb{Z} 40'16	desc. node	3844 Mar 04 07:18	18° \approx 59'52	
		1.34886 AU		3844 Mar 12 23:10	0° \mathbb{X}	
superior conj	3843 May 03 10:18	13° \mathbb{Z} 18'53		3844 Apr 01 10:04	0° \mathbb{Y}	
minimum elong	3843 May 03 12:53	13° \mathbb{Z} 32'09	morning set	3844 Apr 06 00:31	8° \mathbb{Y} 02'51	
asc. node	3843 May 08 06:34	23° \mathbb{Z} 22'34	max. Earth dist.	3844 Apr 09 15:56	14° \mathbb{Y} 41'38	1.36704 AU
evening rise	3843 May 11 02:26	29° \mathbb{Z} 15'38				
	3843 May 11 11:02	0° \mathbb{I}	superior conj	3844 Apr 15 22:46	26° \mathbb{Y} 44'18	-1°16'59
evening max el	3843 May 29 22:28	29° \mathbb{I} 54'10	minimum elong	3844 Apr 16 02:48	27° \mathbb{Y} 04'09	1°16'21
	3843 May 30 00:52	0° \mathbb{E}		3844 Apr 17 14:16	0° \mathbb{Z}	
retrograde	3843 Jun 10 08:12	5° \mathbb{E} 28'40	evening rise	3844 Apr 24 06:14	13° \mathbb{Z} 26'14	
evening set	3843 Jun 12 10:15	5° \mathbb{E} 18'14	asc. node	3844 Apr 24 03:35	13° \mathbb{Z} 12'53	
desc. node	3843 Jun 14 09:30	4° \mathbb{E} 50'24		3844 May 03 00:41	0° \mathbb{I}	
inferior conj	3843 Jun 21 17:24	1° \mathbb{E} 20'56	evening max el	3844 May 11 10:58	11° \mathbb{I} 23'17	19°36'00
minimum elong	3843 Jun 21 11:25	1° \mathbb{E} 29'29	retrograde	3844 May 21 02:42	16° \mathbb{I} 04'49	
min. Earth dist.	3843 Jun 22 15:58	0° \mathbb{E} 48'42	evening set	3844 May 23 02:02	15° \mathbb{I} 53'57	
	3843 Jun 24 02:41	30° \mathbb{R} \mathbb{I}	desc. node	3844 May 31 06:31	12° \mathbb{I} 10'05	
morning rise	3843 Jun 30 12:06	27° \mathbb{I} 16'13	inferior conj	3844 May 31 19:10	11° \mathbb{I} 50'10	-0°09'19
direct	3843 Jul 04 03:54	26° \mathbb{I} 47'23	minimum elong	3844 May 31 18:45	11° \mathbb{I} 50'49	0°09'10
	3843 Jul 13 11:06	0° \mathbb{E}	transit middle	3844 May 31 18:45	11° \mathbb{I} 50'49	0°09'10
morning max el	3843 Jul 17 07:16	3° \mathbb{E} 06'28	transit begin	3844 May 31 15:32	11° \mathbb{I} 55'53	
asc. node	3843 Aug 04 05:49	29° \mathbb{E} 21'25	transit end	3844 May 31 21:58	11° \mathbb{I} 45'44	
	3843 Aug 04 13:44	0° \mathbb{O}	min. Earth dist.	3844 Jun 03 05:38	10° \mathbb{I} 18'05	0.55684 AU
morning set	3843 Aug 09 03:59	9° \mathbb{O} 21'16	morning rise	3844 Jun 09 08:54	7° \mathbb{I} 15'07	
			direct	3844 Jun 13 21:24	6° \mathbb{I} 29'23	
superior conj	3843 Aug 16 05:34	24° \mathbb{O} 29'07	morning max el	3844 Jun 27 21:20	13° \mathbb{I} 30'53	24°45'00
minimum elong	3843 Aug 16 03:52	24° \mathbb{O} 20'00		3844 Jul 10 17:43	0° \mathbb{E}	
	3843 Aug 18 19:59	0° \mathbb{P}	asc. node	3844 Jul 21 02:51	18° \mathbb{E} 58'34	
max. Earth dist.	3843 Aug 19 00:13	0° \mathbb{P} 22'13	morning set	3844 Jul 23 15:45	24° \mathbb{E} 15'17	
evening rise	3843 Aug 23 22:34	10° \mathbb{P} 25'48		3844 Jul 26 08:02	0° \mathbb{O}	
	3843 Sep 03 14:53	0° \mathbb{A}	superior conj	3844 Jul 30 14:41	9° \mathbb{O} 20'03	1°25'03
desc. node	3843 Sep 10 08:50	10° \mathbb{A} 46'14	minimum elong	3844 Jul 30 12:26	9° \mathbb{O} 07'46	1°24'45
	3843 Sep 25 06:44	0° \mathbb{M}	max. Earth dist.	3844 Aug 01 04:24	12° \mathbb{O} 45'00	1.32791 AU
evening max el	3843 Sep 27 07:48	2° \mathbb{M} 02'19	evening rise	3844 Aug 06 20:10	24° \mathbb{O} 41'36	
retrograde	3843 Oct 10 18:39	9° \mathbb{M} 20'43		3844 Aug 09 11:38	0° \mathbb{P}	
evening set	3843 Oct 17 18:12	6° \mathbb{M} 39'25	desc. node	3844 Aug 27 05:51	0° \mathbb{A} 05'08	
min. Earth dist.	3843 Oct 21 13:30	3° \mathbb{M} 05'41		3844 Aug 27 04:25	0° \mathbb{A}	
inferior conj	3843 Oct 23 19:51	0° \mathbb{M} 37'54	evening max el	3844 Sep 08 18:11	15° \mathbb{A} 05'04	27°26'04
minimum elong	3843 Oct 23 23:56	0° \mathbb{M} 26'45	retrograde	3844 Sep 22 11:31	22° \mathbb{A} 20'51	
	3843 Oct 24 09:49	30° \mathbb{R} \mathbb{A}	evening set	3844 Sep 29 16:04	19° \mathbb{A} 48'05	
morning rise	3843 Oct 30 06:48	25° \mathbb{A} 08'47	min. Earth dist.	3844 Oct 03 07:17	16° \mathbb{A} 45'24	0.63011 AU
asc. node	3843 Oct 31 04:59	24° \mathbb{A} 48'14	inferior conj	3844 Oct 06 01:29	14° \mathbb{A} 03'52	-3°25'52
direct	3843 Nov 01 21:17	24° \mathbb{A} 33'26	minimum elong	3844 Oct 06 07:01	13° \mathbb{A} 50'22	3°24'07
morning max el	3843 Nov 08 09:05	28° \mathbb{A} 00'18	morning rise	3844 Oct 12 23:25	8° \mathbb{A} 51'58	
	3843 Nov 10 04:41	0° \mathbb{M}	direct	3844 Oct 15 09:33	8° \mathbb{A} 24'33	
morning set	3843 Nov 25 21:46	24° \mathbb{M} 28'11	asc. node	3844 Oct 17 02:02	8° \mathbb{A} 38'11	
	3843 Nov 29 05:10	0° \mathbb{X}	morning max el	3844 Oct 22 01:32	11° \mathbb{A} 50'42	17°50'17
desc. node	3843 Dec 07 08:06	13° \mathbb{X} 19'40		3844 Nov 03 07:40	0° \mathbb{M}	
			morning set	3844 Nov 07 07:11	6° \mathbb{M} 59'04	
superior conj	3843 Dec 09 14:45	16° \mathbb{X} 59'28				
minimum elong	3843 Dec 09 12:51	16° \mathbb{X} 51'52	superior conj	3844 Nov 19 00:43	27° \mathbb{M} 12'08	0°28'49
behind sun begin	3843 Dec 09 09:28	16° \mathbb{X} 38'17	minimum elong	3844 Nov 19 03:30	27° \mathbb{M} 23'46	0°28'25
behind sun end	3843 Dec 09 16:14	17° \mathbb{X} 05'26		3844 Nov 20 17:06	0° \mathbb{X}	
max. Earth dist.	3843 Dec 13 22:42	23° \mathbb{X} 52'49	desc. node	3844 Nov 23 05:08	4° \mathbb{X} 06'30	
	3843 Dec 17 20:12	0° \mathbb{Z}	max. Earth dist.	3844 Nov 25 15:32	8° \mathbb{X} 03'00	1.43809 AU
evening rise	3843 Dec 25 21:09	12° \mathbb{Z} 28'18	evening rise	3844 Dec 04 06:39	21° \mathbb{X} 39'02	
	3844 Jan 06 09:01	0° \mathbb{A}		3844 Dec 09 17:42	0° \mathbb{Z}	
greatest brilliancy	3844 Jan 09 04:29	4° \mathbb{A} 11'00		3844 Dec 30 23:50	0° \mathbb{A}	
evening max el	3844 Jan 21 04:00	19° \mathbb{A} 58'08	evening max el	3845 Jan 03 03:37	3° \mathbb{A} 31'13	21°07'02
asc. node	3844 Jan 27 04:15	24° \mathbb{A} 11'05				

retrograde	3845 Jan 11 17:15	8° \approx 35'47	evening max el	3845 Dec 16 21:53	17° \approx 05'13	22°22'54
asc. node	3845 Jan 13 01:16	8° \approx 26'03	retrograde	3845 Dec 26 13:29	22° \approx 49'35	
evening set	3845 Jan 15 19:52	7° \approx 00'32	asc. node	3845 Dec 30 22:20	21° \approx 08'32	
inferior conj	3845 Jan 21 04:16	0° \approx 47'19 2°28'43	evening set	3845 Dec 31 03:25	20° \approx 58'19	
minimum elong	3845 Jan 21 01:47	0° \approx 55'53 2°27'59	inferior conj	3846 Jan 05 11:56	14° \approx 37'09	1°47'55
min. Earth dist.	3845 Jan 21 13:09	0° \approx 16'40 0.67729 AU	minimum elong	3846 Jan 05 09:47	14° \approx 44'35	1°47'09
	3845 Jan 21 17:59	30° \approx 3	min. Earth dist.	3846 Jan 05 09:14	14° \approx 46'31	0.67987 AU
morning rise	3845 Jan 26 07:31	24° \approx 34'34	morning rise	3846 Jan 10 16:03	8° \approx 27'05	
direct	3845 Jan 31 14:26	22° \approx 31'528	direct	3846 Jan 15 08:04	6° \approx 30'33	
morning max el	3845 Feb 11 04:58	28° \approx 34'16 23°38'31	morning max el	3846 Jan 24 16:29	12° \approx 00'15	22°10'30
	3845 Feb 12 13:52	0° \approx	desc. node	3846 Feb 06 01:22	27° \approx 21'47	
desc. node	3845 Feb 19 04:20	7° \approx 52'14		3846 Feb 07 22:24	0° \approx	
	3845 Mar 06 17:10	0° \approx	morning set	3846 Feb 26 21:20	28° \approx 49'11	
morning set	3845 Mar 18 13:00	19° \approx 06'52		3846 Feb 27 14:49	0° \approx	
max. Earth dist.	3845 Mar 22 11:21	25° \approx 55'03 1.38823 AU	max. Earth dist.	3846 Mar 04 08:57	7° \approx 51'36	1.40985 AU
	3845 Mar 24 18:25	0° \approx				
superior conj	3845 Mar 29 22:02	9° \approx 28'07 -1°42'12	superior conj	3846 Mar 12 03:21	21° \approx 18'09	-2°00'40
minimum elong	3845 Mar 30 02:45	9° \approx 50'16 1°41'42	minimum elong	3846 Mar 12 06:59	21° \approx 34'18	2°00'28
evening rise	3845 Apr 08 02:34	27° \approx 10'19		3846 Mar 16 22:40	0° \approx	
	3845 Apr 09 13:34	0° \approx	evening rise	3846 Mar 22 12:00	10° \approx 19'02	
asc. node	3845 Apr 11 00:37	2° \approx 48'14	asc. node	3846 Mar 28 21:39	22° \approx 02'44	
evening max el	3845 Apr 24 10:19	23° \approx 31'56 18°46'11		3846 Apr 02 18:05	0° \approx	
retrograde	3845 May 02 13:57	27° \approx 31'23	evening max el	3846 Apr 07 17:25	6° \approx 12'37	18°16'39
evening set	3845 May 04 18:23	27° \approx 15'16	retrograde	3846 Apr 14 20:21	9° \approx 46'04	
inferior conj	3845 May 12 15:45	22° \approx 54'11 1°32'07	evening set	3846 Apr 17 07:15	9° \approx 21'37	
minimum elong	3845 May 12 18:54	22° \approx 48'22 1°31'06	inferior conj	3846 Apr 24 09:54	4° \approx 40'06	2°42'01
min. Earth dist.	3845 May 15 22:13	20° \approx 30'55 0.57272 AU	minimum elong	3846 Apr 24 13:27	4° \approx 32'25	2°41'11
desc. node	3845 May 18 03:32	19° \approx 03'30	min. Earth dist.	3846 Apr 27 20:00	1° \approx 44'37	0.59324 AU
morning rise	3845 May 20 16:14	17° \approx 43'54		3846 Apr 30 03:25	30° \approx 19	
direct	3845 May 26 04:21	16° \approx 29'57	morning rise	3846 May 01 16:57	29° \approx 01'04	
morning max el	3845 Jun 09 12:42	24° \approx 00'20 26°16'18	desc. node	3846 May 05 00:33	27° \approx 36'37	
	3845 Jun 14 23:25	0° \approx	direct	3846 May 08 00:44	27° \approx 11'53	
	3845 Jul 03 15:50	0° \approx		3846 May 16 07:14	0° \approx	
asc. node	3845 Jul 07 23:54	8° \approx 51'03	morning max el	3846 May 22 09:47	5° \approx 00'26	27°21'10
morning set	3845 Jul 08 02:42	9° \approx 05'49		3846 Jun 09 21:00	0° \approx	
			morning set	3846 Jun 22 11:10	23° \approx 14'30	
superior conj	3845 Jul 15 02:03	24° \approx 15'36 1°08'22	asc. node	3846 Jun 24 20:58	28° \approx 15'39	
minimum elong	3845 Jul 14 23:44	24° \approx 02'52 1°07'59		3846 Jun 25 09:17	0° \approx	
max. Earth dist.	3845 Jul 15 14:16	25° \approx 22'55 1.32212 AU	max. Earth dist.	3846 Jun 29 02:08	8° \approx 05'23	1.32031 AU
	3845 Jul 17 16:47	0° \approx				
evening rise	3845 Jul 22 00:41	9° \approx 16'29	superior conj	3846 Jun 29 13:51	9° \approx 09'57	0°47'40
	3845 Aug 01 19:50	0° \approx	minimum elong	3846 Jun 29 11:56	8° \approx 59'26	0°47'18
desc. node	3845 Aug 14 02:52	18° \approx 37'47	evening rise	3846 Jul 06 09:41	24° \approx 02'42	
evening max el	3845 Aug 21 23:58	27° \approx 29'42 27°02'44		3846 Jul 09 06:26	0° \approx	
	3845 Aug 24 20:56	0° \approx	desc. node	3846 Jul 26 23:46	0° \approx	
retrograde	3845 Sep 04 21:00	4° \approx 41'38	evening max el	3846 Jul 31 23:53	6° \approx 05'23	
evening set	3845 Sep 11 22:10	2° \approx 29'34	retrograde	3846 Aug 03 22:42	9° \approx 07'11	26°06'37
	3845 Sep 15 08:41	30° \approx 8	evening set	3846 Aug 17 22:04	16° \approx 16'11	
min. Earth dist.	3845 Sep 15 14:14	29° \approx 48'36 0.61068 AU	min. Earth dist.	3846 Aug 24 07:46	14° \approx 36'42	
inferior conj	3845 Sep 18 17:58	27° \approx 05'55 -4°19'31	inferior conj	3846 Aug 28 11:21	12° \approx 01'22	0.58997 AU
minimum elong	3845 Sep 18 23:47	26° \approx 53'23 4°18'12	minimum elong	3846 Aug 31 17:47	9° \approx 34'54	-4°58'18
morning rise	3845 Sep 26 03:13	22° \approx 14'49	morning rise	3846 Aug 31 21:36	9° \approx 27'44	4°57'53
direct	3845 Sep 28 11:56	21° \approx 52'19	direct	3846 Sep 08 13:38	5° \approx 06'52	
asc. node	3845 Oct 03 23:06	23° \approx 58'00	morning max el	3846 Sep 10 23:56	4° \approx 46'59	
morning max el	3845 Oct 05 15:35	25° \approx 25'58 17°59'51	asc. node	3846 Sep 19 00:01	8° \approx 37'50	18°29'24
	3845 Oct 09 11:46	0° \approx		3846 Sep 20 20:10	10° \approx 34'32	
morning set	3845 Oct 21 10:24	20° \approx 20'30	morning set	3846 Oct 02 20:18	0° \approx	
	3845 Oct 26 16:33	0° \approx		3846 Oct 05 02:13	4° \approx 18'05	
superior conj	3845 Oct 31 13:23	8° \approx 42'53 1°03'29	superior conj	3846 Oct 14 00:47	21° \approx 20'44	1°26'54
minimum elong	3845 Oct 31 17:35	9° \approx 01'21 1°02'57	minimum elong	3846 Oct 14 04:11	21° \approx 36'33	1°26'35
max. Earth dist.	3845 Nov 08 03:53	21° \approx 42'46 1.42181 AU		3846 Oct 18 19:03	0° \approx	
desc. node	3845 Nov 10 02:10	24° \approx 53'29	max. Earth dist.	3846 Oct 21 10:47	4° \approx 39'47	1.40199 AU
	3845 Nov 13 05:56	0° \approx	evening rise	3846 Oct 25 17:52	11° \approx 57'40	
evening rise	3845 Nov 14 01:49	1° \approx 19'17	desc. node	3846 Oct 27 23:12	15° \approx 37'32	
	3845 Dec 03 05:58	0° \approx		3846 Nov 06 03:10	0° \approx	
				3846 Nov 28 19:34	0° \approx	

evening max el	3846 Nov 29 12:11	0°  42'08	23°42'46	retrograde	3847 Nov 23 19:54	21°  13'41	
retrograde	3846 Dec 10 06:44	7°  03'42		evening set	3847 Nov 29 12:16	18°  51'19	
evening set	3846 Dec 15 09:26	4°  56'18		min. Earth dist.	3847 Dec 04 00:52	13°  46'21	0.67439 AU
asc. node	3846 Dec 17 19:23	2°  27'09		asc. node	3847 Dec 04 16:26	12°  55'19	
	3846 Dec 19 17:21	30°  R 		inferior conj	3847 Dec 05 01:07	12°  26'42	0°07'26
min. Earth dist.	3846 Dec 20 05:56	29°  17'21	0.67886 AU	minimum elong	3847 Dec 05 00:56	12°  27'18	0°07'21
inferior conj	3846 Dec 20 19:29	28°  31'08	1°00'29	transit middle	3847 Dec 05 00:56	12°  27'18	0°07'21
minimum elong	3846 Dec 20 18:07	28°  35'49	0°59'55	transit begin	3847 Dec 04 22:28	12°  35'25	
morning rise	3846 Dec 26 02:48	22°  25'28		transit end	3847 Dec 05 03:24	12°  19'12	
direct	3846 Dec 30 04:43	20°  51'43		morning rise	3847 Dec 10 13:47	6°  27'37	
morning max el	3847 Jan 07 10:15	25°  36'33	20°49'54	direct	3847 Dec 14 03:11	5°  14'38	
	3847 Jan 11 08:23	0°  3		morning max el	3847 Dec 21 11:49	9°  23'58	19°41'52
desc. node	3847 Jan 23 22:25	17°  318'24		greatest brilliancy	3848 Jan 03 15:23	26°  45'33	-0.7m
	3847 Feb 01 09:21	0°  ≈			3848 Jan 05 19:30	0°  3	
morning set	3847 Feb 06 03:04	7°  ≈19'06		desc. node	3848 Jan 10 19:28	7°  334'42	
max. Earth dist.	3847 Feb 14 12:56	20°  ≈41'43	1.42909 AU	morning set	3848 Jan 15 23:13	15°  329'58	
	3847 Feb 20 04:22	0°  X			3848 Jan 25 06:30	0°  ≈	
				max. Earth dist.	3848 Jan 28 00:18	4°  ≈20'06	1.44351 AU
superior conj	3847 Feb 21 09:38	2°  X03'05	-2°07'26	superior conj	3848 Feb 01 14:03	11°  ≈39'03	-1°57'13
minimum elong	3847 Feb 21 09:19	2°  X01'44	2°07'26	minimum elong	3848 Feb 01 07:45	11°  ≈13'40	1°56'51
evening rise	3847 Mar 05 06:29	22°  X43'10			3848 Feb 12 17:18	0°  X	
	3847 Mar 09 08:51	0°  Y		evening rise	3848 Feb 15 05:36	4°  X14'26	
asc. node	3847 Mar 15 18:42	10°  Y49'19		asc. node	3848 Mar 01 15:43	28°  X59'14	
evening max el	3847 Mar 22 04:55	19°  Y16'25	18°06'54		3848 Mar 02 10:44	0°  Y	
retrograde	3847 Mar 28 18:33	22°  Y39'25		evening max el	3848 Mar 04 17:43	2°  Y35'12	18°16'11
evening set	3847 Mar 31 11:35	22°  Y04'38		retrograde	3848 Mar 11 04:06	6°  Y01'41	
inferior conj	3847 Apr 06 23:07	17°  Y02'53	3°21'26	evening set	3848 Mar 14 02:59	5°  Y15'18	
minimum elong	3847 Apr 07 01:18	16°  Y57'27	3°21'08	inferior conj	3848 Mar 20 03:20	29°  X54'16	3°36'32
min. Earth dist.	3847 Apr 10 01:19	14°  Y00'01	0.61504 AU	minimum elong	3848 Mar 20 03:44	29°  X53'08	3°36'31
morning rise	3847 Apr 13 13:14	11°  Y05'42			3848 Mar 20 01:16	30°  R 	
direct	3847 Apr 20 08:24	8°  Y43'48		min. Earth dist.	3848 Mar 22 15:37	27°  X06'55	0.63533 AU
desc. node	3847 Apr 21 21:36	8°  Y50'45		morning rise	3848 Mar 26 03:32	23°  X47'23	
morning max el	3847 May 04 13:04	16°  Y41'37	27°50'20	direct	3848 Apr 02 00:51	21°  X03'53	
	3847 May 15 12:36	0°  8		desc. node	3848 Apr 07 18:37	22°  X39'59	
	3847 Jun 02 12:07	0°  II		morning max el	3848 Apr 15 20:51	29°  X01'45	27°42'03
morning set	3847 Jun 06 15:10	8°  II13'09			3848 Apr 16 19:36	0°  Y	
asc. node	3847 Jun 11 17:59	19°  II01'03			3848 May 08 09:30	0°  8	
max. Earth dist.	3847 Jun 12 11:58	20°  II38'27	1.32262 AU	morning set	3848 May 20 12:22	22°  815'29	
					3848 May 24 07:28	0°  II	
superior conj	3847 Jun 14 00:18	23°  II56'29	0°23'35	max. Earth dist.	3848 May 25 15:57	2°  II50'19	1.32924 AU
minimum elong	3847 Jun 13 23:14	23°  II50'40	0°23'21				
	3847 Jun 16 18:39	0°  ☿		superior conj	3848 May 28 07:37	8°  II29'28	-0°03'15
evening rise	3847 Jun 20 21:01	8°  ☿52'33		minimum elong	3848 May 28 07:46	8°  II30'19	0°03'13
	3847 Jul 01 18:32	0°  Ω		behind sun begin	3848 May 28 02:33	8°  II02'16	
evening max el	3847 Jul 16 14:22	19°  Ω58'54	24°43'55	behind sun end	3848 May 28 13:00	8°  II58'24	
desc. node	3847 Jul 18 20:54	22°  Ω00'40		asc. node	3848 May 28 15:02	9°  II09'20	
retrograde	3847 Jul 30 12:34	27°  Ω01'22		evening rise	3848 Jun 04 08:49	23°  II39'59	
evening set	3847 Aug 04 17:11	26°  Ω00'29			3848 Jun 07 09:57	0°  ☿	
min. Earth dist.	3847 Aug 10 01:42	23°  Ω11'50	0.57053 AU		3848 Jun 26 17:15	0°  Ω	
inferior conj	3847 Aug 12 21:52	21°  Ω20'54	-5°09'03	evening max el	3848 Jun 27 03:34	0°  Ω25'21	23°07'49
minimum elong	3847 Aug 12 20:43	21°  Ω22'48	5°09'01	desc. node	3848 Jul 04 17:53	5°  Ω50'06	
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direct	3847 Aug 23 17:30	16°  Ω55'24		evening set	3848 Jul 14 06:25	6°  Ω38'25	
morning max el	3847 Sep 01 23:27	21°  Ω15'10	19°20'15	min. Earth dist.	3848 Jul 21 12:50	3°  Ω21'45	0.55576 AU
asc. node	3847 Sep 07 17:14	28°  Ω11'31		inferior conj	3848 Jul 23 06:19	2°  Ω21'19	-4°36'11
	3847 Sep 08 22:00	0°  ♍		minimum elong	3848 Jul 22 23:24	2°  Ω31'26	4°34'56
morning set	3847 Sep 19 02:41	18°  ♍40'15			3848 Jul 27 13:55	30°  R 	
	3847 Sep 24 18:37	0°  ♌		morning rise	3848 Jul 31 18:43	28°  ☿28'53	
superior conj	3847 Sep 27 05:16	4°  ♌48'38	1°40'02	direct	3848 Aug 03 16:24	28°  ☿08'43	
minimum elong	3847 Sep 27 07:03	4°  ♌57'20	1°39'56		3848 Aug 10 06:18	0°  Ω	
max. Earth dist.	3847 Oct 03 14:51	16°  ♌55'14	1.38114 AU	morning max el	3848 Aug 14 11:22	3°  Ω09'22	20°32'40
evening rise	3847 Oct 07 09:18	23°  ♌40'32		asc. node	3848 Aug 24 14:16	16°  Ω35'16	
	3847 Oct 11 01:34	0°  ♍			3848 Aug 31 17:47	0°  ♍	
desc. node	3847 Oct 14 20:14	6°  ♍14'11		morning set	3848 Sep 02 08:55	3°  ♍19'02	
	3847 Oct 30 21:30	0°  ♌					
evening max el	3847 Nov 12 00:44	14°  ♌23'11	25°00'15	superior conj	3848 Sep 09 22:02	18°  ♍52'44	1°44'25




























































































































minimum elong	3848 Sep 09 22:10	18° \mathbb{M} 53'25	1°44'24	minimum elong	3849 Aug 24 22:11	3° \mathbb{M} 16'09	1°41'28
max. Earth dist.	3848 Sep 14 21:58	28° \mathbb{M} 49'18	1.36171 AU	max. Earth dist.	3849 Aug 28 12:46	10° \mathbb{M} 45'50	1.34539 AU
	3848 Sep 15 12:36	0° \mathbb{L}		evening rise	3849 Sep 02 01:32	19° \mathbb{M} 47'08	
evening rise	3848 Sep 18 21:19	6° \mathbb{L} 20'45			3849 Sep 07 13:03	0° \mathbb{L}	
desc. node	3848 Sep 30 17:16	26° \mathbb{L} 38'34		desc. node	3849 Sep 17 14:15	16° \mathbb{L} 44'44	
	3848 Oct 02 20:42	0° \mathbb{M}			3849 Sep 26 21:05	0° \mathbb{M}	
evening max el	3848 Oct 24 13:15	28° \mathbb{M} 05'41	26°07'59	evening max el	3849 Oct 07 01:53	11° \mathbb{M} 42'02	26°58'23
	3848 Oct 26 14:54	0° \mathbb{J}		retrograde	3849 Oct 20 06:37	18° \mathbb{M} 58'34	
retrograde	3848 Nov 06 04:01	5° \mathbb{J} 14'04		evening set	3849 Oct 27 00:56	16° \mathbb{M} 17'21	
evening set	3848 Nov 12 10:08	2° \mathbb{J} 39'36		min. Earth dist.	3849 Oct 30 23:42	12° \mathbb{M} 23'48	0.65508 AU
	3848 Nov 15 02:24	30° \mathbb{R} \mathbb{M}		inferior conj	3849 Nov 01 23:00	10° \mathbb{M} 08'16	-1°50'31
min. Earth dist.	3848 Nov 16 15:35	28° \mathbb{M} 10'02	0.66649 AU	minimum elong	3849 Nov 02 02:05	9° \mathbb{M} 59'24	1°49'15
inferior conj	3848 Nov 18 02:59	26° \mathbb{M} 20'21	-0°50'04	asc. node	3849 Nov 07 10:29	4° \mathbb{M} 55'22	
minimum elong	3848 Nov 18 04:19	26° \mathbb{M} 16'12	0°49'29	morning rise	3849 Nov 08 04:05	4° \mathbb{M} 30'48	
asc. node	3848 Nov 20 13:28	23° \mathbb{M} 26'52		direct	3849 Nov 10 22:27	3° \mathbb{M} 49'08	
morning rise	3848 Nov 23 22:58	20° \mathbb{M} 30'32		morning max el	3849 Nov 17 10:44	7° \mathbb{M} 19'37	18°12'40
direct	3848 Nov 27 01:46	19° \mathbb{M} 35'04			3849 Dec 03 00:22	0° \mathbb{J}	
morning max el	3848 Dec 03 20:39	23° \mathbb{M} 19'50	18°49'02	morning set	3849 Dec 06 03:47	5° \mathbb{J} 08'07	
	3848 Dec 09 08:24	0° \mathbb{J}		desc. node	3849 Dec 14 13:33	18° \mathbb{J} 44'45	
morning set	3848 Dec 25 11:03	24° \mathbb{J} 34'50					
desc. node	3848 Dec 27 16:30	28° \mathbb{J} 04'50		superior conj	3849 Dec 21 00:43	29° \mathbb{J} 01'19	-0°43'14
	3848 Dec 28 21:50	0° \mathbb{Z}		minimum elong	3849 Dec 20 19:15	28° \mathbb{J} 39'48	0°42'30
max. Earth dist.	3849 Jan 09 17:26	18° \mathbb{Z} 32'12	1.45142 AU		3849 Dec 21 15:36	0° \mathbb{Z}	
				max. Earth dist.	3849 Dec 23 13:06	2° \mathbb{Z} 59'03	1.45191 AU
superior conj	3849 Jan 10 21:24	20° \mathbb{Z} 22'04	-1°27'29	evening rise	3850 Jan 06 07:59	24° \mathbb{Z} 30'53	
minimum elong	3849 Jan 10 12:11	19° \mathbb{Z} 45'51	1°26'31		3850 Jan 09 20:34	0° \mathbb{X}	
	3849 Jan 16 23:51	0° \mathbb{X}		greatest brilliancy	3850 Jan 18 08:55	13° \mathbb{X} 07'30	-0.7m
evening rise	3849 Jan 26 05:54	14° \mathbb{X} 48'10		evening max el	3850 Jan 30 12:49	29° \mathbb{X} 32'16	19°27'56
	3849 Feb 04 16:29	0° \mathbb{H}			3850 Jan 30 23:51	0° \mathbb{H}	
evening max el	3849 Feb 16 05:03	16° \mathbb{H} 01'42	18°43'36	asc. node	3850 Feb 03 09:45	2° \mathbb{H} 41'41	
asc. node	3849 Feb 16 12:45	16° \mathbb{H} 20'55		retrograde	3850 Feb 06 17:42	3° \mathbb{H} 40'52	
retrograde	3849 Feb 22 20:52	19° \mathbb{H} 43'56		evening set	3850 Feb 10 05:56	2° \mathbb{H} 28'42	
evening set	3849 Feb 26 01:58	18° \mathbb{H} 45'05			3850 Feb 12 23:02	30° \mathbb{R} \mathbb{X}	
inferior conj	3849 Mar 03 18:34	13° \mathbb{H} 06'15	3°33'21	inferior conj	3850 Feb 15 17:37	26° \mathbb{X} 34'10	3°16'25
minimum elong	3849 Mar 03 17:30	13° \mathbb{H} 09'33	3°33'17	minimum elong	3850 Feb 15 15:35	26° \mathbb{X} 40'51	3°16'04
min. Earth dist.	3849 Mar 05 15:09	10° \mathbb{H} 50'18	0.65236 AU	min. Earth dist.	3850 Feb 16 23:10	24° \mathbb{X} 57'43	0.66533 AU
morning rise	3849 Mar 09 08:34	6° \mathbb{H} 54'33		morning rise	3850 Feb 21 00:59	20° \mathbb{X} 20'29	
direct	3849 Mar 16 00:17	4° \mathbb{H} 03'44		direct	3850 Feb 27 05:53	17° \mathbb{X} 35'07	
desc. node	3849 Mar 25 15:39	8° \mathbb{H} 30'59		morning max el	3850 Mar 11 16:12	24° \mathbb{X} 58'53	25°52'53
morning max el	3849 Mar 29 06:35	11° \mathbb{H} 51'02	27°00'20	desc. node	3850 Mar 12 12:43	25° \mathbb{X} 51'40	
	3849 Apr 12 18:11	0° \mathbb{Y}			3850 Mar 16 05:34	0° \mathbb{H}	
	3849 Apr 30 22:45	0° \mathbb{B}			3850 Apr 06 05:33	0° \mathbb{Y}	
morning set	3849 May 03 23:43	5° \mathbb{B} 44'31		morning set	3850 Apr 16 21:13	18° \mathbb{Y} 29'09	
max. Earth dist.	3849 May 08 10:26	14° \mathbb{B} 31'17	1.34040 AU	max. Earth dist.	3850 Apr 20 17:36	25° \mathbb{Y} 43'33	1.35614 AU
					3850 Apr 22 22:25	0° \mathbb{B}	
superior conj	3849 May 12 09:40	22° \mathbb{B} 41'44	-0°31'50				
minimum elong	3849 May 12 11:20	22° \mathbb{B} 50'27	0°31'29	superior conj	3850 Apr 26 03:58	6° \mathbb{B} 26'19	-1°00'51
asc. node	3849 May 15 12:03	29° \mathbb{B} 13'48		minimum elong	3850 Apr 26 07:13	6° \mathbb{B} 42'41	1°00'16
	3849 May 15 20:46	0° \mathbb{I}		asc. node	3850 May 02 09:04	19° \mathbb{B} 10'30	
evening rise	3849 May 19 19:08	8° \mathbb{I} 18'05		evening rise	3850 May 04 02:00	22° \mathbb{B} 40'44	
	3849 May 31 08:37	0° \mathbb{E}			3850 May 07 17:31	0° \mathbb{I}	
evening max el	3849 Jun 08 21:49	10° \mathbb{E} 57'49	21°33'54	evening max el	3850 May 22 03:04	22° \mathbb{I} 02'22	20°13'39
retrograde	3849 Jun 21 05:04	17° \mathbb{E} 01'29		retrograde	3850 Jun 01 18:55	27° \mathbb{I} 14'21	
desc. node	3849 Jun 21 14:52	17° \mathbb{E} 01'05		evening set	3850 Jun 03 18:17	27° \mathbb{I} 04'25	
evening set	3849 Jun 23 16:20	16° \mathbb{E} 47'37		desc. node	3850 Jun 08 11:53	25° \mathbb{I} 29'45	
inferior conj	3849 Jul 03 01:29	12° \mathbb{E} 46'59	-3°13'15	inferior conj	3850 Jun 12 20:40	23° \mathbb{I} 05'43	-1°17'30
minimum elong	3849 Jul 02 17:21	12° \mathbb{E} 58'21	3°10'46	minimum elong	3850 Jun 12 17:02	23° \mathbb{I} 11'06	1°16'08
min. Earth dist.	3849 Jul 02 23:32	12° \mathbb{E} 49'42	0.54867 AU	min. Earth dist.	3850 Jun 14 11:50	22° \mathbb{I} 07'54	0.55108 AU
morning rise	3849 Jul 11 19:22	8° \mathbb{E} 53'04		morning rise	3850 Jun 21 14:24	18° \mathbb{I} 49'51	
direct	3849 Jul 15 03:00	8° \mathbb{E} 29'06		direct	3850 Jun 25 14:00	18° \mathbb{I} 15'29	
morning max el	3849 Jul 27 11:43	14° \mathbb{E} 18'39	22°04'03	morning max el	3850 Jul 09 04:01	24° \mathbb{I} 53'38	23°46'29
	3849 Aug 08 08:08	0° \mathbb{O}			3850 Jul 13 21:33	0° \mathbb{E}	
asc. node	3849 Aug 11 11:18	5° \mathbb{O} 34'45		asc. node	3850 Jul 29 08:20	25° \mathbb{E} 00'27	
morning set	3849 Aug 17 18:44	18° \mathbb{O} 08'37			3850 Jul 31 19:20	0° \mathbb{O}	
	3849 Aug 23 09:04	0° \mathbb{M}		morning set	3850 Aug 02 06:16	3° \mathbb{O} 02'46	
superior conj	3849 Aug 24 23:21	3° \mathbb{M} 22'17	1°41'31	superior conj	3850 Aug 09 06:18	18° \mathbb{O} 07'54	1°32'35

minimum elong	3850 Aug 09 04:18	17°Ω57'07	1°32'23	morning set	3851 Jul 17 17:55	17°Ω56'24	
max. Earth dist.	3850 Aug 11 12:22	22°Ω57'51	1.33301 AU		3851 Jul 23 07:27	0°Ω	
	3850 Aug 14 20:58	0°Π					
evening rise	3850 Aug 16 17:46	3°Π47'47		superior conj	3851 Jul 24 16:39	3°Ω02'11	1°18'31
	3850 Aug 31 06:58	0°Ω		minimum elong	3851 Jul 24 14:19	2°Ω49'23	1°18'11
desc. node	3850 Sep 04 11:15	6°Ω24'12		max. Earth dist.	3851 Jul 25 19:14	5°Ω27'39	1.32484 AU
evening max el	3850 Sep 19 13:28	25°Ω00'10	27°24'24	evening rise	3851 Jul 31 18:40	18°Ω13'02	
	3850 Sep 25 22:15	0°Π			3851 Aug 06 17:38	0°Π	
retrograde	3850 Oct 03 03:18	2°Π18'00		desc. node	3851 Aug 22 08:15	25°Π25'46	
	3850 Oct 09 18:06	30°κΩ			3851 Aug 25 20:07	0°Ω	
evening set	3850 Oct 10 05:59	29°Ω38'34		evening max el	3851 Sep 01 22:03	7°Ω47'58	27°20'15
min. Earth dist.	3850 Oct 13 23:03	26°Ω19'11	0.64017 AU	retrograde	3851 Sep 15 17:29	15°Ω03'02	
inferior conj	3850 Oct 16 10:42	23°Ω44'04	-2°51'41	evening set	3851 Sep 22 21:46	12°Ω37'13	
minimum elong	3850 Oct 16 15:29	23°Ω31'37	2°49'58	min. Earth dist.	3851 Sep 26 12:19	9°Ω45'23	0.62211 AU
morning rise	3850 Oct 23 02:16	18°Ω22'10		inferior conj	3851 Sep 29 11:11	7°Ω01'09	-3°49'47
asc. node	3850 Oct 25 07:33	17°Ω51'03		minimum elong	3851 Sep 29 17:02	6°Ω47'34	3°48'08
direct	3850 Oct 25 14:35	17°Ω50'37		morning rise	3851 Oct 06 14:00	1°Ω57'56	
morning max el	3850 Nov 01 03:15	21°Ω15'54	17°53'21	direct	3851 Oct 08 23:00	1°Ω33'05	
	3850 Nov 07 19:11	0°Π		asc. node	3851 Oct 12 04:37	2°Ω20'38	
morning set	3850 Nov 18 00:03	17°Π01'10		morning max el	3851 Oct 15 19:09	5°Ω01'32	17°51'57
	3850 Nov 25 15:59	0°♂		morning set	3851 Oct 31 17:45	29°Ω55'34	
					3851 Oct 31 18:44	0°Π	
superior conj	3850 Nov 30 20:06	8°♂31'13	0°04'11	superior conj	3851 Nov 11 17:40	19°Π18'07	0°44'51
minimum elong	3850 Nov 30 20:35	8°♂33'08	0°04'06	minimum elong	3851 Nov 11 21:25	19°Π34'07	0°44'21
behind sun begin	3850 Nov 30 10:52	7°♂53'35		desc. node	3851 Nov 18 07:35	0°♂17'20	
behind sun end	3850 Dec 01 06:17	9°♂12'36			3851 Nov 18 03:21	0°♂	
desc. node	3850 Dec 01 10:34	9°♂30'00		max. Earth dist.	3851 Nov 18 22:05	1°♂16'27	1.43177 AU
max. Earth dist.	3850 Dec 06 07:32	17°♂19'28	1.44504 AU	evening rise	3851 Nov 26 06:57	13°♂00'40	
	3850 Dec 14 09:39	0°♂			3851 Dec 07 11:35	0°♂	
evening rise	3850 Dec 16 19:16	3°♂42'12		evening max el	3851 Dec 27 12:41	26°♂37'16	21°38'28
	3851 Jan 03 09:15	0°≈			3851 Dec 31 09:18	0°≈	
evening max el	3851 Jan 13 15:30	13°≈04'10	20°27'18	retrograde	3852 Jan 05 13:20	1°≈59'13	
asc. node	3851 Jan 21 06:47	17°≈46'27		asc. node	3852 Jan 08 03:51	1°≈22'25	
retrograde	3851 Jan 21 15:53	17°≈47'14		evening set	3852 Jan 09 20:26	0°≈17'26	
evening set	3851 Jan 25 12:42	16°≈20'48			3852 Jan 10 04:50	30°κ♂	
inferior conj	3851 Jan 30 21:45	10°≈13'23	2°48'44	inferior conj	3852 Jan 15 04:43	24°♂00'19	2°12'19
minimum elong	3851 Jan 30 19:17	10°≈21'47	2°48'06	minimum elong	3852 Jan 15 02:19	24°♂08'38	2°11'31
min. Earth dist.	3851 Jan 31 13:45	9°≈18'50	0.67406 AU	min. Earth dist.	3852 Jan 15 08:36	23°♂46'49	0.67884 AU
morning rise	3851 Feb 05 01:40	3°≈59'36		morning rise	3852 Jan 20 08:00	17°♂48'15	
direct	3851 Feb 10 16:53	1°≈29'09		direct	3852 Jan 25 08:31	15°♂38'23	
morning max el	3851 Feb 22 00:53	8°≈15'28	24°29'30	morning max el	3852 Feb 04 10:13	21°♂36'54	23°00'26
desc. node	3851 Feb 27 09:47	14°≈16'12			3852 Feb 11 15:47	0°≈	
	3851 Mar 11 02:08	0°♂		desc. node	3852 Feb 14 06:49	3°≈25'58	
morning set	3851 Mar 29 23:35	0°♀15'06			3852 Mar 03 09:16	0°♂	
	3851 Mar 29 20:08	0°♀		morning set	3852 Mar 10 00:33	10°♂45'21	
max. Earth dist.	3851 Apr 02 15:18	6°♀46'11	1.37576 AU	max. Earth dist.	3852 Mar 14 10:11	18°♂12'30	1.39749 AU
					3852 Mar 21 01:51	0°♀	
superior conj	3851 Apr 09 11:20	19°♀35'15	-1°28'16				
minimum elong	3851 Apr 09 15:48	19°♀56'49	1°27'39	superior conj	3852 Mar 22 03:35	1°♀57'36	-1°51'09
	3851 Apr 14 18:27	0°♂		minimum elong	3852 Mar 22 08:07	2°♀18'28	1°50'45
evening rise	3851 Apr 18 03:02	6°♂41'15		evening rise	3852 Mar 31 19:10	20°♀11'10	
asc. node	3851 Apr 19 06:06	8°♂55'15		asc. node	3852 Apr 05 03:09	28°♀22'30	
	3851 May 01 12:12	0°Π			3852 Apr 06 00:23	0°♂	
evening max el	3851 May 04 20:29	3°Π49'01	19°12'21	evening max el	3852 Apr 16 23:38	16°♂12'46	18°31'15
retrograde	3851 May 13 19:59	8°Π11'15		retrograde	3852 Apr 24 15:15	19°♂58'51	
evening set	3851 May 15 20:46	7°Π58'46		evening set	3852 Apr 26 22:27	19°♂39'32	
inferior conj	3851 May 24 05:44	3°Π48'32	0°37'08	inferior conj	3852 May 04 11:32	15°♂10'17	2°05'47
minimum elong	3851 May 24 07:14	3°Π46'00	0°36'36	minimum elong	3852 May 04 15:12	15°♂03'05	2°04'43
desc. node	3851 May 26 08:56	2°Π22'15		min. Earth dist.	3852 May 07 21:33	12°♂30'12	0.58106 AU
min. Earth dist.	3851 May 27 02:51	1°Π52'47	0.56268 AU	morning rise	3852 May 12 04:48	9°♂46'34	
	3851 May 30 07:09	30°κ♂		desc. node	3852 May 12 05:59	9°♂45'06	
morning rise	3851 Jun 01 14:35	28°♂57'53		direct	3852 May 18 02:19	8°♂17'34	
direct	3851 Jun 06 12:57	28°♂01'30		morning max el	3852 Jun 01 11:32	15°♂57'25	26°47'48
	3851 Jun 13 17:44	0°Π			3852 Jun 12 21:50	0°Π	
morning max el	3851 Jun 20 18:11	5°Π17'48	25°26'20		3852 Jun 29 20:39	0°♂	
	3851 Jul 08 14:20	0°♂		morning set	3852 Jul 01 03:59	2°♂43'21	
asc. node	3851 Jul 16 05:24	14°♂45'06					

asc. node	3852 Jul 02 02:26	4°♄42'07		morning set	3853 Jun 15 10:45	17°♊18'17	
				asc. node	3853 Jun 18 23:29	24°♊46'52	
superior conj	3852 Jul 08 04:24	17°♄57'46	1°00'03		3853 Jun 21 09:03	0°♄	
minimum elong	3852 Jul 08 02:13	17°♄45'39	0°59'40	max. Earth dist.	3853 Jun 21 17:41	0°♄47'18	1.32084 AU
max. Earth dist.	3852 Jul 08 06:11	18°♄07'36	1.32082 AU				
	3852 Jul 13 16:41	0°♊		superior conj	3853 Jun 22 15:48	2°♄48'55	0°37'50
evening rise	3852 Jul 15 01:21	2°♊53'25		minimum elong	3853 Jun 22 14:12	2°♄40'07	0°37'30
	3852 Jul 29 14:48	0°♎		evening rise	3853 Jun 29 11:35	17°♄41'40	
desc. node	3852 Aug 08 05:16	13°♎33'20			3853 Jul 05 12:58	0°♊	
evening max el	3852 Aug 14 01:09	19°♎53'23	26°42'48		3853 Jul 25 16:23	0°♎	
retrograde	3852 Aug 27 23:45	27°♎04'09		desc. node	3853 Jul 26 02:17	0°♎24'57	
evening set	3852 Sep 03 19:45	25°♎05'00		evening max el	3853 Jul 26 20:51	1°♎10'11	25°34'04
min. Earth dist.	3852 Sep 07 15:07	22°♎28'21	0.60186 AU	retrograde	3853 Aug 09 20:10	8°♎16'20	
inferior conj	3852 Sep 10 21:00	19°♎50'20	-4°38'30	evening set	3853 Aug 15 19:05	6°♎53'26	
minimum elong	3852 Sep 11 02:19	19°♎39'29	4°37'33	min. Earth dist.	3853 Aug 20 08:49	4°♎14'38	0.58136 AU
morning rise	3852 Sep 18 10:53	15°♎08'37		inferior conj	3853 Aug 23 12:37	2°♎01'25	-5°07'17
direct	3852 Sep 20 19:46	14°♎47'34		minimum elong	3853 Aug 23 14:39	1°♎57'49	5°07'10
asc. node	3852 Sep 28 01:40	18°♎14'34			3853 Aug 26 12:37	30°♎♊	
morning max el	3852 Sep 28 07:11	18°♎27'42	18°09'51	morning rise	3853 Aug 31 12:29	27°♊42'46	
	3852 Oct 06 15:52	0°♊		direct	3853 Sep 03 00:31	27°♊23'15	
morning set	3852 Oct 14 02:55	13°♊34'10			3853 Sep 09 20:28	0°♎	
	3852 Oct 22 23:07	0°♎		morning max el	3853 Sep 11 12:00	1°♎24'55	18°48'25
				asc. node	3853 Sep 14 22:43	5°♎17'55	
superior conj	3852 Oct 23 16:39	1°♎19'10	1°14'45	morning set	3853 Sep 27 22:49	27°♎43'09	
minimum elong	3852 Oct 23 20:42	1°♎37'22	1°14'18		3853 Sep 29 02:44	0°♊	
max. Earth dist.	3852 Oct 31 07:52	14°♎38'21	1.41371 AU				
desc. node	3852 Nov 04 04:37	21°♎03'42		superior conj	3853 Oct 06 11:55	14°♊19'35	1°33'39
evening rise	3852 Nov 05 10:15	23°♎04'17		minimum elong	3853 Oct 06 14:41	14°♊32'41	1°33'26
	3852 Nov 09 18:39	0°♎		max. Earth dist.	3853 Oct 13 13:32	27°♊18'16	1.39309 AU
	3852 Nov 30 12:29	0°♎			3853 Oct 15 02:19	0°♎	
evening max el	3852 Dec 09 05:12	10°♎13'21	22°56'47	evening rise	3853 Oct 17 12:18	4°♎09'56	
retrograde	3852 Dec 19 08:21	16°♎13'51		desc. node	3853 Oct 22 01:37	11°♎44'55	
evening set	3852 Dec 24 03:31	14°♎15'55			3853 Nov 02 22:31	0°♎	
asc. node	3852 Dec 25 00:54	13°♎27'23		evening max el	3853 Nov 21 18:38	23°♎52'34	24°16'27
min. Earth dist.	3852 Dec 29 05:17	8°♎17'54	0.67991 AU		3853 Nov 30 09:30	0°♎	
inferior conj	3852 Dec 29 12:34	7°♎52'46	1°28'34	retrograde	3853 Dec 02 23:49	0°♎26'54	
minimum elong	3852 Dec 29 10:42	7°♎59'13	1°27'51		3853 Dec 05 10:31	30°♎♎	
morning rise	3853 Jan 03 17:45	1°♎44'14		evening set	3853 Dec 08 08:22	28°♎12'51	
	3853 Jan 07 10:17	30°♎♎		asc. node	3853 Dec 11 21:56	24°♎18'51	
direct	3853 Jan 08 03:44	29°♎57'15		min. Earth dist.	3853 Dec 13 01:24	22°♎48'27	0.67744 AU
	3853 Jan 08 21:29	0°♎		inferior conj	3853 Dec 13 19:29	21°♎47'37	0°38'36
morning max el	3853 Jan 16 23:54	5°♎06'39	21°34'51	minimum elong	3853 Dec 13 18:34	21°♎50'42	0°38'14
desc. node	3853 Jan 31 03:51	23°♎08'26		morning rise	3853 Dec 19 04:50	15°♎44'40	
	3853 Feb 04 21:09	0°♎		direct	3853 Dec 23 01:19	14°♎19'58	
morning set	3853 Feb 17 20:36	19°♎53'27		morning max el	3853 Dec 30 20:55	18°♎47'50	20°19'15
	3853 Feb 24 02:27	0°♎			3854 Jan 08 22:16	0°♎	
max. Earth dist.	3853 Feb 24 10:11	0°♎31'56	1.41855 AU	desc. node	3854 Jan 18 00:53	13°♎14'09	
				morning set	3854 Jan 27 19:16	28°♎06'23	
superior conj	3853 Mar 03 23:45	13°♎21'53	-2°05'17		3854 Jan 29 00:35	0°♎	
minimum elong	3853 Mar 04 02:05	13°♎32'02	2°05'13	max. Earth dist.	3854 Feb 06 18:05	13°♎46'39	1.43603 AU
	3853 Mar 13 06:58	0°♎					
evening rise	3853 Mar 14 22:47	3°♎02'03		superior conj	3854 Feb 12 19:04	23°♎37'02	-2°05'26
asc. node	3853 Mar 23 00:12	17°♎26'09		minimum elong	3854 Feb 12 16:15	23°♎25'24	2°05'21
evening max el	3853 Mar 31 09:05	29°♎04'45	18°10'07		3854 Feb 16 14:51	0°♎	
	3853 Apr 01 09:11	0°♎		evening rise	3854 Feb 25 09:31	15°♎04'33	
retrograde	3853 Apr 07 04:46	2°♎31'32			3854 Mar 06 01:52	0°♎	
evening set	3853 Apr 09 18:31	2°♎02'42		asc. node	3854 Mar 09 21:14	5°♎58'06	
	3853 Apr 13 07:45	30°♎♎		evening max el	3854 Mar 14 21:26	12°♎15'22	18°08'29
inferior conj	3853 Apr 16 14:14	27°♎12'26	3°02'06	retrograde	3854 Mar 21 08:28	15°♎38'17	
minimum elong	3853 Apr 16 17:19	27°♎05'19	3°01'30	evening set	3854 Mar 24 04:02	14°♎58'35	
min. Earth dist.	3853 Apr 19 22:03	24°♎10'56	0.60264 AU	inferior conj	3854 Mar 30 10:19	9°♎48'06	3°30'23
morning rise	3853 Apr 23 13:52	21°♎24'48		minimum elong	3854 Mar 30 11:44	9°♎44'22	3°30'17
desc. node	3853 Apr 29 03:01	19°♎23'49		min. Earth dist.	3854 Apr 02 06:52	6°♎49'44	0.62403 AU
direct	3853 Apr 30 03:50	19°♎20'49		morning rise	3854 Apr 05 18:05	3°♎45'59	
morning max el	3853 May 14 11:05	27°♎13'24	27°38'08	direct	3854 Apr 12 15:07	1°♎13'39	
	3853 May 17 02:38	0°♎		desc. node	3854 Apr 16 00:03	1°♎46'43	
	3853 Jun 06 12:41	0°♊		morning max el	3854 Apr 26 16:41	9°♎12'00	27°51'19

	3854 May 12 19:03	0°♄		desc. node	3855 Apr 02 21:05	16°♄31'53	
	3854 May 29 17:22	0°♂		morning max el	3855 Apr 09 01:51	21°♄46'48	27°28'00
morning set	3854 May 30 12:10	1°♂34'53			3855 Apr 16 06:17	0°♄	
max. Earth dist.	3854 Jun 05 01:43	13°♂13'43	1.32492 AU		3855 May 05 23:07	0°♄	
asc. node	3854 Jun 05 20:31	14°♂55'04		morning set	3855 May 14 05:37	15°♄24'23	
				max. Earth dist.	3855 May 19 02:08	25°♄13'30	1.33339 AU
superior conj	3854 Jun 07 01:08	17°♂30'09	0°12'29		3855 May 21 08:49	0°♂	
minimum elong	3854 Jun 07 00:33	17°♂26'57	0°12'21				
behind sun begin	3854 Jun 06 21:15	17°♂09'05		superior conj	3855 May 22 06:28	1°♂54'49	-0°15'14
behind sun end	3854 Jun 07 03:50	17°♂44'50		minimum elong	3855 May 22 07:14	1°♂58'56	0°15'04
	3854 Jun 12 19:02	0°♄		behind sun begin	3855 May 22 05:25	1°♂49'18	
evening rise	3854 Jun 13 23:20	2°♄31'17		behind sun end	3855 May 22 09:03	2°♂08'34	
	3854 Jun 28 21:22	0°♂		asc. node	3855 May 23 17:32	5°♂01'59	
evening max el	3854 Jul 08 10:32	11°♂47'18	24°03'41	evening rise	3855 May 29 10:43	17°♂15'14	
desc. node	3854 Jul 12 23:17	15°♂31'20			3855 Jun 04 18:39	0°♄	
retrograde	3854 Jul 22 05:08	18°♂43'35		evening max el	3855 Jun 20 00:43	22°♄11'30	22°26'47
evening set	3854 Jul 26 18:44	17°♂57'23		desc. node	3855 Jun 29 20:19	28°♄16'34	
min. Earth dist.	3854 Aug 01 21:00	14°♂58'36	0.56346 AU	retrograde	3855 Jul 03 02:03	28°♄40'45	
inferior conj	3854 Aug 04 08:03	13°♂27'38	-5°01'14	evening set	3855 Jul 06 04:01	28°♄19'48	
minimum elong	3854 Aug 04 04:15	13°♂33'32	5°00'52	min. Earth dist.	3855 Jul 14 07:45	24°♄47'16	0.55157 AU
morning rise	3854 Aug 12 16:21	9°♂28'58		inferior conj	3855 Jul 15 09:36	24°♄10'36	-4°06'44
direct	3854 Aug 15 09:54	9°♂09'36		minimum elong	3855 Jul 15 01:21	24°♄22'19	4°04'47
morning max el	3854 Aug 25 06:44	13°♂44'48	19°48'36	morning rise	3855 Jul 24 00:44	20°♄20'03	
asc. node	3854 Sep 01 19:45	23°♂16'19		direct	3855 Jul 27 01:49	19°♄58'59	
	3854 Sep 05 18:45	0°♄		morning max el	3855 Aug 07 13:43	25°♄20'00	21°09'38
morning set	3854 Sep 12 02:02	12°♄13'31			3855 Aug 11 20:29	0°♂	
				asc. node	3855 Aug 19 16:46	11°♂56'11	
superior conj	3854 Sep 19 22:11	28°♄04'48	1°42'53	morning set	3855 Aug 27 10:01	26°♂57'11	
minimum elong	3854 Sep 19 23:14	28°♄10'04	1°42'50		3855 Aug 28 21:10	0°♄	
	3854 Sep 20 21:27	0°♄					
max. Earth dist.	3854 Sep 25 18:24	9°♄22'43	1.37252 AU	superior conj	3855 Sep 03 18:59	12°♄20'53	1°44'00
evening rise	3854 Sep 29 12:58	16°♄18'17		minimum elong	3855 Sep 03 18:31	12°♄18'28	1°43'59
	3854 Oct 07 12:49	0°♄		max. Earth dist.	3855 Sep 08 03:57	21°♄13'08	1.35424 AU
desc. node	3854 Oct 08 22:38	2°♄17'03		evening rise	3855 Sep 12 08:23	29°♄19'12	
	3854 Oct 28 10:28	0°♄			3855 Sep 12 17:03	0°♄	
evening max el	3854 Nov 04 06:53	7°♄34'21	25°30'36	desc. node	3855 Sep 25 19:39	22°♄34'11	
retrograde	3854 Nov 16 10:53	14°♄33'55			3855 Sep 30 17:08	0°♄	
evening set	3854 Nov 22 09:20	12°♄05'36		evening max el	3855 Oct 17 19:17	21°♄14'19	26°31'57
min. Earth dist.	3854 Nov 26 18:43	7°♄15'50	0.67149 AU	retrograde	3855 Oct 30 16:57	28°♄28'10	
inferior conj	3854 Nov 27 23:44	5°♄42'40	-0°16'29	evening set	3855 Nov 06 04:29	25°♄49'48	
minimum elong	3854 Nov 28 00:09	5°♄41'18	0°16'17	min. Earth dist.	3855 Nov 10 06:55	21°♄35'36	0.66201 AU
asc. node	3854 Nov 28 18:57	4°♄41'20		inferior conj	3855 Nov 11 23:22	19°♄34'01	-1°15'28
	3854 Dec 03 07:51	30°♄		minimum elong	3855 Nov 12 01:26	19°♄27'47	1°14'35
morning rise	3854 Dec 03 15:18	29°♄47'28		asc. node	3855 Nov 15 15:59	15°♄31'01	
direct	3854 Dec 06 23:55	28°♄42'30		morning rise	3855 Nov 17 23:02	13°♄49'09	
	3854 Dec 10 20:46	0°♄		direct	3855 Nov 20 21:51	13°♄00'11	
morning max el	3854 Dec 14 01:51	2°♄39'54	19°17'30	morning max el	3855 Nov 27 13:15	16°♄38'04	18°31'31
greatest brilliancy	3854 Dec 27 15:31	20°♄55'39	-0.7m		3855 Dec 07 12:33	0°♄	
	3855 Jan 02 13:47	0°♄		morning set	3855 Dec 17 18:54	16°♄13'55	
desc. node	3855 Jan 04 21:54	3°♄36'54		desc. node	3855 Dec 22 18:57	24°♄11'27	
morning set	3855 Jan 06 19:24	6°♄33'06			3855 Dec 26 11:05	0°♄	
max. Earth dist.	3855 Jan 20 08:20	27°♄41'57	1.44777 AU				
	3855 Jan 21 19:16	0°♄		superior conj	3856 Jan 02 16:17	11°♄20'54	-1°09'54
superior conj	3855 Jan 23 13:11	2°♄46'16	-1°46'54	minimum elong	3856 Jan 02 07:58	10°♄48'17	1°08'55
minimum elong	3855 Jan 23 04:54	2°♄13'20	1°46'14	max. Earth dist.	3856 Jan 03 02:24	12°♄00'35	1.45248 AU
evening rise	3855 Feb 06 23:15	26°♄11'52			3856 Jan 14 13:05	0°♄	
	3855 Feb 09 06:16	0°♄		evening rise	3856 Jan 18 13:43	6°♄22'25	
asc. node	3855 Feb 24 18:15	23°♄48'54		greatest brilliancy	3856 Jan 27 18:54	20°♄57'58	-0.8m
evening max el	3855 Feb 26 09:49	25°♄37'37	18°25'35		3856 Feb 02 17:11	0°♄	
retrograde	3855 Mar 04 21:40	29°♄09'47		evening max el	3856 Feb 09 19:53	9°♄06'39	19°00'30
evening set	3855 Mar 07 23:01	28°♄18'19		asc. node	3856 Feb 11 15:16	10°♄46'48	
inferior conj	3855 Mar 13 19:41	22°♄49'18	3°37'06	retrograde	3856 Feb 16 16:33	12°♄59'07	
minimum elong	3855 Mar 13 19:24	22°♄50'07	3°37'07	evening set	3856 Feb 20 00:26	11°♄54'56	
min. Earth dist.	3855 Mar 16 01:17	20°♄13'46	0.64303 AU	inferior conj	3856 Feb 25 14:39	6°♄09'19	3°27'39
morning rise	3855 Mar 19 15:04	16°♄39'35		minimum elong	3856 Feb 25 13:06	6°♄14'13	3°27'29
direct	3855 Mar 26 10:37	13°♄51'19		min. Earth dist.	3856 Feb 27 04:48	4°♄09'11	0.65837 AU
					3856 Mar 01 23:44	30°♄	

morning rise	3856 Mar 02 01:24	29° \approx 56'18		min. Earth dist.	3857 Feb 09 15:50	18° \approx 23'20	0.66956 AU
direct	3856 Mar 08 13:03	27° \approx 06'04		morning rise	3857 Feb 13 21:42	13° \approx 28'23	
	3856 Mar 16 00:17	0° \mathbb{H}		direct	3857 Feb 19 21:10	10° \approx 48'10	
desc. node	3856 Mar 19 18:08	3° \mathbb{H} 04'55		morning max el	3857 Mar 03 20:42	17° \approx 57'17	25°18'44
morning max el	3856 Mar 21 11:47	4° \mathbb{H} 45'54	26°34'10	desc. node	3857 Mar 06 15:11	20° \approx 55'04	
	3856 Apr 09 18:20	0° \mathbb{Y}			3857 Mar 13 23:36	0° \mathbb{H}	
morning set	3856 Apr 26 11:42	28° \mathbb{Y} 36'49			3857 Apr 02 18:54	0° \mathbb{Y}	
	3856 Apr 27 05:14	0° \mathbb{Z}		morning set	3857 Apr 09 01:46	10° \mathbb{Y} 58'15	
max. Earth dist.	3856 Apr 30 15:40	6° \mathbb{Z} 40'29	1.34653 AU	max. Earth dist.	3857 Apr 12 17:59	17° \mathbb{Y} 43'52	1.36414 AU
superior conj	3856 May 05 05:36	15° \mathbb{Z} 56'45	-0°44'11	superior conj	3857 Apr 18 19:44	29° \mathbb{Y} 27'31	-1°12'49
minimum elong	3856 May 05 07:57	16° \mathbb{Z} 08'50	0°43'44	minimum elong	3857 Apr 18 23:34	29° \mathbb{Y} 46'33	1°12'11
asc. node	3856 May 09 14:34	25° \mathbb{Z} 03'54			3857 Apr 19 02:17	0° \mathbb{Z}	
	3856 May 11 23:09	0° \mathbb{II}		asc. node	3857 Apr 26 11:36	14° \mathbb{Z} 56'03	
evening rise	3856 May 12 19:52	1° \mathbb{II} 47'43		evening rise	3857 Apr 27 00:34	16° \mathbb{Z} 01'41	
	3856 May 29 06:21	0° \mathbb{E}			3857 May 04 06:29	0° \mathbb{II}	
evening max el	3856 May 31 23:20	2° \mathbb{E} 56'02	20°57'42	evening max el	3857 May 14 10:00	14° \mathbb{II} 18'34	19°45'05
retrograde	3856 Jun 12 14:57	8° \mathbb{E} 38'10		retrograde	3857 May 24 07:45	19° \mathbb{II} 07'37	
evening set	3856 Jun 14 18:46	8° \mathbb{E} 27'10		evening set	3857 May 26 06:50	18° \mathbb{II} 57'07	
desc. node	3856 Jun 15 17:19	8° \mathbb{E} 15'50		desc. node	3857 Jun 02 14:21	15° \mathbb{II} 50'25	
inferior conj	3856 Jun 24 02:59	4° \mathbb{E} 29'40	-2°26'19	inferior conj	3857 Jun 04 02:37	14° \mathbb{II} 54'59	-0°26'48
minimum elong	3856 Jun 23 20:16	4° \mathbb{E} 39'09	2°24'00	minimum elong	3857 Jun 04 01:24	14° \mathbb{II} 56'52	0°26'21
min. Earth dist.	3856 Jun 24 19:22	4° \mathbb{E} 06'28	0.54851 AU	min. Earth dist.	3857 Jun 06 08:34	13° \mathbb{II} 31'39	0.55510 AU
morning rise	3856 Jul 02 21:40	0° \mathbb{E} 28'18		morning rise	3857 Jun 12 17:41	10° \mathbb{II} 25'19	
direct	3856 Jul 06 11:11	0° \mathbb{E} 00'55		direct	3857 Jun 17 02:46	9° \mathbb{II} 42'52	
morning max el	3856 Jul 19 10:03	6° \mathbb{E} 12'37	22°46'52	morning max el	3857 Jul 01 00:26	16° \mathbb{II} 38'28	24°30'09
	3856 Aug 04 23:40	0° \mathbb{O}			3857 Jul 11 19:46	0° \mathbb{E}	
asc. node	3856 Aug 05 13:50	1° \mathbb{O} 07'29		asc. node	3857 Jul 23 10:53	20° \mathbb{E} 41'52	
morning set	3856 Aug 10 20:45	11° \mathbb{O} 48'45		morning set	3857 Jul 26 08:33	26° \mathbb{E} 43'04	
					3857 Jul 27 21:29	0° \mathbb{O}	
superior conj	3856 Aug 17 23:01	26° \mathbb{O} 57'52	1°38'24	superior conj	3857 Aug 02 07:41	11° \mathbb{O} 47'40	1°27'10
minimum elong	3856 Aug 17 21:26	26° \mathbb{O} 49'28	1°38'17	minimum elong	3857 Aug 02 05:28	11° \mathbb{O} 35'41	1°26'56
	3856 Aug 19 09:21	0° \mathbb{P}		max. Earth dist.	3857 Aug 04 01:32	15° \mathbb{O} 34'28	1.32908 AU
max. Earth dist.	3856 Aug 20 22:20	3° \mathbb{P} 13'53	1.33963 AU	evening rise	3857 Aug 09 14:33	27° \mathbb{O} 13'38	
evening rise	3856 Aug 25 18:13	13° \mathbb{P} 01'21			3857 Aug 10 23:33	0° \mathbb{P}	
	3856 Sep 03 23:16	0° \mathbb{A}			3857 Aug 28 06:12	0° \mathbb{A}	
desc. node	3856 Sep 11 16:39	12° \mathbb{A} 29'37		desc. node	3857 Aug 29 13:39	1° \mathbb{A} 54'22	
	3856 Sep 24 19:13	0° \mathbb{M}		evening max el	3857 Sep 11 18:38	17° \mathbb{A} 51'54	27°26'42
evening max el	3856 Sep 29 07:45	4° \mathbb{M} 44'13	27°12'55	retrograde	3857 Sep 25 11:03	25° \mathbb{A} 08'00	
retrograde	3856 Oct 12 17:12	12° \mathbb{M} 02'13		evening set	3857 Oct 02 15:24	22° \mathbb{A} 33'09	
evening set	3856 Oct 19 15:30	9° \mathbb{M} 20'47		min. Earth dist.	3857 Oct 06 07:00	19° \mathbb{A} 26'26	0.63282 AU
min. Earth dist.	3856 Oct 23 11:43	5° \mathbb{M} 41'52	0.64909 AU	inferior conj	3857 Oct 08 23:33	16° \mathbb{A} 46'16	-3°17'01
inferior conj	3856 Oct 25 16:10	3° \mathbb{M} 17'08	-2°16'34	minimum elong	3857 Oct 09 04:54	16° \mathbb{A} 32'57	3°15'15
minimum elong	3856 Oct 25 20:00	3° \mathbb{M} 06'32	2°15'06	morning rise	3857 Oct 15 19:49	11° \mathbb{A} 31'38	
	3856 Oct 28 20:40	30° \mathbb{R} \mathbb{A}		direct	3857 Oct 18 06:27	11° \mathbb{A} 03'11	
morning rise	3856 Nov 01 01:33	27° \mathbb{A} 45'38		asc. node	3857 Oct 19 10:07	11° \mathbb{A} 09'39	
asc. node	3856 Nov 01 13:02	27° \mathbb{A} 33'34		morning max el	3857 Oct 24 21:16	14° \mathbb{A} 28'45	17°50'29
direct	3856 Nov 03 16:58	27° \mathbb{A} 08'45			3857 Nov 04 15:29	0° \mathbb{M}	
	3856 Nov 09 13:32	0° \mathbb{M}		morning set	3857 Nov 10 06:13	9° \mathbb{M} 44'39	
morning max el	3856 Nov 10 04:40	0° \mathbb{M} 36'19	18°02'15	superior conj	3857 Nov 22 06:21	0° \mathbb{X} 16'43	0°22'36
morning set	3856 Nov 27 23:56	27° \mathbb{M} 22'37		minimum elong	3857 Nov 22 08:38	0° \mathbb{X} 26'11	0°22'17
	3856 Nov 29 13:48	0° \mathbb{X}			3857 Nov 22 02:19	0° \mathbb{X}	
desc. node	3856 Dec 08 15:58	14° \mathbb{X} 53'28		desc. node	3857 Nov 25 12:59	5° \mathbb{X} 39'53	
superior conj	3856 Dec 12 00:17	20° \mathbb{X} 15'26	-0°22'49	max. Earth dist.	3857 Nov 28 15:11	10° \mathbb{X} 39'40	1.44011 AU
minimum elong	3856 Dec 11 21:28	20° \mathbb{X} 04'11	0°22'25	evening rise	3857 Dec 07 17:26	24° \mathbb{X} 57'00	
max. Earth dist.	3856 Dec 15 21:36	26° \mathbb{X} 25'22	1.44981 AU		3857 Dec 11 00:29	0° \mathbb{Z}	
	3856 Dec 18 04:12	0° \mathbb{Z}			3857 Dec 31 19:15	0° \approx	
evening rise	3856 Dec 28 07:57	15° \mathbb{Z} 47'13		evening max el	3858 Jan 06 02:09	6° \approx 10'50	20°56'22
	3857 Jan 06 14:19	0° \approx		retrograde	3858 Jan 14 12:09	11° \approx 09'38	
greatest brilliancy	3857 Jan 11 03:49	6° \approx 51'37	-0.7m	asc. node	3858 Jan 15 09:22	11° \approx 05'21	
evening max el	3857 Jan 23 01:42	22° \approx 38'11	19°51'37	evening set	3858 Jan 18 13:15	9° \approx 36'36	
asc. node	3857 Jan 28 12:18	26° \approx 37'01		inferior conj	3858 Jan 23 21:45	3° \approx 24'44	2°34'16
retrograde	3857 Jan 30 14:08	27° \approx 00'18		minimum elong	3858 Jan 23 19:16	3° \approx 33'19	2°33'32
evening set	3857 Feb 03 05:50	25° \approx 42'15		min. Earth dist.	3858 Jan 24 08:25	2° \approx 48'03	0.67661 AU
inferior conj	3857 Feb 08 16:10	19° \approx 42'11	3°05'51		3858 Jan 26 11:05	30° \mathbb{R} \mathbb{Z}	
minimum elong	3857 Feb 08 13:53	19° \approx 49'49	3°05'22				

morning rise	3858 Jan 29 01:06	27°  11'45		minimum elong	3859 Jan 08 03:05	17°  21'28	1°53'47
direct	3858 Feb 03 10:11	24°  49'39		min. Earth dist.	3859 Jan 08 04:16	17°  17'22	0.67973 AU
	3858 Feb 12 22:16	0° 		morning rise	3859 Jan 13 09:07	11°  03'05	
morning max el	3858 Feb 14 05:17	1°  15'36	23°51'47	direct	3859 Jan 18 03:17	9°  03'08	
desc. node	3858 Feb 21 12:14	9°  40'24		morning max el	3859 Jan 27 16:12	14°  40'23	22°23'14
	3858 Mar 07 23:16	0° 		desc. node	3859 Feb 08 09:16	29°  04'54	
morning set	3858 Mar 21 18:02	22°  13'20			3859 Feb 09 01:12	0° 	
max. Earth dist.	3858 Mar 25 13:56	28°  53'55	1.38499 AU		3859 Feb 28 23:08	0° 	
	3858 Mar 26 04:47	0° 		morning set	3859 Mar 02 06:47	2°  08'17	
				max. Earth dist.	3859 Mar 07 10:36	10°  41'53	1.40667 AU
superior conj	3858 Apr 01 21:14	12°  17'55	-1°38'44	superior conj	3859 Mar 15 05:33	24°  16'40	-1°58'30
minimum elong	3858 Apr 02 01:56	12°  40'10	1°38'11	minimum elong	3859 Mar 15 09:31	24°  13'47	1°58'15
evening rise	3858 Apr 10 22:14	29°  50'12			3859 Mar 18 09:12	0° 	
	3858 Apr 11 00:14	0° 		evening rise	3859 Mar 25 09:33	13°  04'52	
asc. node	3858 Apr 13 08:39	4°  33'58		asc. node	3859 Mar 31 05:42	23°  05'11	
evening max el	3858 Apr 27 07:54	26°  21'25	18°52'16		3859 Apr 03 19:52	0° 	
	3858 May 02 22:03	0° 		evening max el	3859 Apr 10 14:06	8°  58'15	18°19'50
retrograde	3858 May 05 16:20	0°  26'26		retrograde	3859 Apr 17 20:01	12°  34'34	
evening set	3858 May 07 19:44	0°  11'22		evening set	3859 Apr 20 05:55	12°  11'34	
	3858 May 08 12:50	30° 		inferior conj	3859 Apr 27 11:10	7°  33'20	2°33'28
inferior conj	3858 May 15 20:06	25°  53'06	1°18'42	minimum elong	3859 Apr 27 14:49	7°  25'37	2°32'32
minimum elong	3858 May 15 22:56	25°  48'00	1°17'45	min. Earth dist.	3859 Apr 30 21:40	4°  40'58	0.58998 AU
min. Earth dist.	3858 May 19 00:38	23°  36'28	0.56993 AU	morning rise	3859 May 04 20:52	1°  57'48	
desc. node	3858 May 20 11:25	22°  39'02		desc. node	3859 May 07 08:27	0°  51'32	
morning rise	3858 May 23 22:55	20°  47'42		direct	3859 May 11 02:12	0°  13'48	
direct	3858 May 29 07:28	19°  38'42		morning max el	3859 May 25 11:33	8°  00'41	27°13'36
morning max el	3858 Jun 12 15:24	27°  05'46	26°04'12		3859 Jun 11 02:28	0° 	
	3858 Jun 15 10:39	0° 		morning set	3859 Jun 25 04:40	26°  11'52	
	3858 Jul 05 02:24	0° 			3859 Jun 26 22:41	0° 	
asc. node	3858 Jul 10 07:56	10°  32'19		asc. node	3859 Jun 27 04:57	0° 	
morning set	3858 Jul 10 19:45	11°  34'32					
superior conj	3858 Jul 17 18:49	26°  42'55	1°11'11	superior conj	3859 Jul 02 06:40	11°  37'52	0°51'04
minimum elong	3858 Jul 17 16:29	26°  30'04	1°10'48	minimum elong	3859 Jul 02 04:40	11°  26'51	0°50'41
max. Earth dist.	3858 Jul 18 10:46	28°  10'39	1.32265 AU	max. Earth dist.	3859 Jul 01 22:28	10°  52'38	1.32031 AU
	3858 Jul 19 06:41	0° 		evening rise	3859 Jul 09 02:40	26°  30'54	
evening rise	3858 Jul 24 18:12	11°  46'03			3859 Jul 10 18:37	0° 	
	3858 Aug 03 03:54	0° 		desc. node	3859 Jul 27 21:04	0° 	
desc. node	3858 Aug 16 10:41	20°  35'12			3859 Aug 03 07:42	8°  13'56	
	3858 Aug 24 15:43	0° 		evening max el	3859 Aug 07 00:58	12°  06'47	26°16'54
evening max el	3858 Aug 25 01:11	0°  22'38	27°08'23	retrograde	3859 Aug 21 00:19	19°  16'34	
retrograde	3858 Sep 07 21:46	7°  35'27		evening set	3859 Aug 27 13:05	17°  31'39	
evening set	3858 Sep 15 00:12	5°  19'15		min. Earth dist.	3859 Aug 31 14:00	14°  36'33	0.59304 AU
min. Earth dist.	3858 Sep 18 15:30	2°  36'06	0.61370 AU	inferior conj	3859 Sep 03 20:39	12°  26'22	-4°53'58
inferior conj	3858 Sep 21 18:13	29°  52'25	-4°12'08	minimum elong	3859 Sep 04 00:58	12°  18'05	4°53'24
minimum elong	3858 Sep 22 00:07	29°  39'27	4°10'42	morning rise	3859 Sep 11 15:02	7°  34'47	
	3858 Sep 21 14:47	30° 		direct	3859 Sep 14 00:49	7°  34'47	
morning rise	3858 Sep 29 01:50	24°  58'11		morning max el	3859 Sep 21 21:23	11°  22'34	18°23'40
direct	3858 Oct 01 10:31	24°  35'10		asc. node	3859 Sep 23 04:12	12°  34'02	
asc. node	3858 Oct 06 07:11	26°  16'39			3859 Oct 04 06:18	0° 	
morning max el	3858 Oct 08 11:57	28°  07'04	17°57'12	morning set	3859 Oct 07 21:19	6°  51'58	
	3858 Oct 10 05:47	0° 					
morning set	3858 Oct 24 07:08	22°  59'31		superior conj	3859 Oct 16 23:33	24°  04'51	1°24'02
	3858 Oct 28 03:06	0° 		minimum elong	3859 Oct 17 03:09	24°  21'29	1°23'41
superior conj	3858 Nov 03 15:14	11°  36'30	0°58'55		3859 Oct 20 05:45	0° 	
minimum elong	3858 Nov 03 19:23	11°  54'39	0°58'24	max. Earth dist.	3859 Oct 24 11:30	7°  26'33	1.40508 AU
max. Earth dist.	3858 Nov 11 04:12	24°  24'29	1.42454 AU	evening rise	3859 Oct 28 22:47	14°  38'57	
desc. node	3858 Nov 12 10:00	26°  26'54		desc. node	3859 Oct 30 07:00	17°  11'17	
	3858 Nov 14 14:29	0° 			3859 Nov 07 09:49	0° 	
evening rise	3858 Nov 17 10:14	4°  30'25		evening max el	3859 Dec 02 11:50	3°  20'22	23°30'53
	3858 Dec 04 09:18	0° 		retrograde	3859 Dec 13 02:33	9°  36'53	
evening max el	3858 Dec 19 21:05	19°  34'41	22°11'09	evening set	3859 Dec 18 03:13	7°  31'58	
retrograde	3858 Dec 29 08:48	25°  22'57		asc. node	3859 Dec 20 03:28	5°  31'14	
asc. node	3859 Jan 02 06:26	24°  01'41		min. Earth dist.	3859 Dec 23 01:02	1°  47'57	0.67924 AU
evening set	3859 Jan 02 20:54	23° 34'06		inferior conj	3859 Dec 23 12:57	1° 07'08	1°08'03
inferior conj	3859 Jan 08 05:18	17° 13'44	1°54'34	minimum elong	3859 Dec 23 11:27	1° 12'19	1°07'27

	3859 Dec 24 08:40	30° RX		minimum elong	3860 Dec 06 18:35	15° X 04'02	0°15'39
morning rise	3859 Dec 28 19:38	25° X 00'33		transit middle	3860 Dec 06 18:35	15° X 04'02	0°15'39
direct	3860 Jan 01 23:36	23° X 23'24		transit begin	3860 Dec 06 17:52	15° X 06'25	
morning max el	3860 Jan 10 08:46	28° X 14'28	21°01'07	transit end	3860 Dec 06 19:18	15° X 01'40	
	3860 Jan 12 00:43	0° Z		morning rise	3860 Dec 12 06:42	9° X 02'31	
desc. node	3860 Jan 26 06:17	18° Z 57'42		direct	3860 Dec 15 21:55	7° X 46'30	
	3860 Feb 02 16:05	0° \approx		morning max el	3860 Dec 23 09:07	12° X 00'14	19°51'04
morning set	3860 Feb 09 15:45	10° \approx 46'14			3861 Jan 06 00:29	0° Z	
max. Earth dist.	3860 Feb 17 13:14	23° \approx 22'48	1.42648 AU	desc. node	3861 Jan 12 03:18	9° Z 11'23	
	3860 Feb 21 13:32	0° X		morning set	3861 Jan 18 11:43	18° Z 55'09	
					3861 Jan 25 14:36	0° \approx	
superior conj	3860 Feb 24 15:31	5° X 11'36	-2°07'24	max. Earth dist.	3861 Jan 29 23:50	6° \approx 55'53	1.44181 AU
minimum elong	3860 Feb 24 16:00	5° X 13'36	2°07'24				
evening rise	3860 Mar 07 06:30	25° X 35'40		superior conj	3861 Feb 03 23:46	14° \approx 57'34	-2°00'02
	3860 Mar 09 17:29	0° Y		minimum elong	3861 Feb 03 18:20	14° \approx 35'34	1°59'45
asc. node	3860 Mar 17 02:44	12° Y 43'16			3861 Feb 13 02:08	0° X	
evening max el	3860 Mar 24 01:08	21° Y 58'55	18°07'10	evening rise	3861 Feb 17 08:44	7° X 15'00	
retrograde	3860 Mar 30 16:01	25° Y 22'23			3861 Mar 03 06:40	0° Y	
evening set	3860 Apr 02 08:12	24° Y 49'12		asc. node	3861 Mar 03 23:46	0° Y 59'03	
inferior conj	3860 Apr 08 21:44	19° Y 50'30	3°17'06	evening max el	3861 Mar 07 13:55	5° Y 15'35	18°13'35
minimum elong	3860 Apr 09 00:11	19° Y 44'33	3°16'45	retrograde	3861 Mar 14 00:06	8° Y 40'34	
min. Earth dist.	3860 Apr 12 01:41	16° Y 47'09	0.61184 AU	evening set	3861 Mar 16 22:10	7° Y 55'53	
morning rise	3860 Apr 15 14:15	13° Y 55'34		inferior conj	3861 Mar 22 23:56	2° Y 37'33	3°35'29
direct	3860 Apr 22 08:24	11° Y 37'53		minimum elong	3861 Mar 23 00:36	2° Y 35'43	3°35'28
desc. node	3860 Apr 23 05:29	11° Y 40'06			3861 Mar 25 09:29	30° RX	
morning max el	3860 May 06 13:49	19° Y 34'43	27°48'21	min. Earth dist.	3861 Mar 25 14:26	29° X 46'50	0.63254 AU
	3860 May 15 10:43	0° Z		morning rise	3861 Mar 29 02:00	26° X 31'47	
	3860 Jun 02 22:53	0° II		direct	3861 Apr 04 23:33	23° X 50'47	
morning set	3860 Jun 08 09:25	10° II 45'50		desc. node	3861 Apr 10 02:30	25° X 07'19	
asc. node	3860 Jun 13 01:59	20° II 40'16			3861 Apr 16 23:33	0° Y	
max. Earth dist.	3860 Jun 14 08:46	23° II 27'18	1.32202 AU	morning max el	3861 Apr 18 21:01	1° Y 48'49	27°45'32
					3861 May 09 16:34	0° Z	
superior conj	3860 Jun 15 17:24	26° II 25'36	0°27'27	morning set	3861 May 23 07:46	24° Z 51'26	
minimum elong	3860 Jun 15 16:11	26° II 18'55	0°27'10		3861 May 25 20:26	0° II	
	3860 Jun 17 08:29	0° Z		max. Earth dist.	3861 May 28 13:52	5° II 42'34	1.32799 AU
evening rise	3860 Jun 22 13:45	11° Z 20'18		asc. node	3861 May 30 23:01	10° II 48'14	
	3860 Jul 02 01:18	0° O					
evening max el	3860 Jul 18 17:36	23° O 04'26	24°57'27	superior conj	3861 May 31 01:16	11° II 00'24	0°01'00
desc. node	3860 Jul 20 04:43	24° O 24'52		minimum elong	3861 May 31 01:13	11° II 00'07	0°00'58
	3860 Jul 30 19:53	0° P		behind sun begin	3861 May 30 19:57	10° II 31'44	
retrograde	3860 Aug 01 16:26	0° P 08'02		behind sun end	3861 May 31 06:29	11° II 28'31	
	3860 Aug 03 13:00	30° RO		evening rise	3861 Jun 07 01:33	26° II 08'00	
evening set	3860 Aug 07 02:02	29° O 01'39			3861 Jun 08 21:47	0° Z	
min. Earth dist.	3860 Aug 12 05:09	26° O 15'57	0.57323 AU		3861 Jun 26 23:22	0° O	
inferior conj	3860 Aug 15 03:44	24° O 18'48	-5°09'56	evening max el	3861 Jun 30 06:42	3° O 32'27	23°22'20
minimum elong	3860 Aug 15 03:29	24° O 19'14	5°09'56	desc. node	3861 Jul 07 01:44	8° O 35'27	
morning rise	3860 Aug 23 07:23	20° O 09'15		retrograde	3861 Jul 13 19:46	10° O 18'56	
direct	3860 Aug 25 21:18	19° O 50'05		evening set	3861 Jul 17 17:30	9° O 45'35	
morning max el	3860 Sep 03 22:15	24° O 04'58	19°11'18	min. Earth dist.	3861 Jul 24 16:23	6° O 34'01	0.55754 AU
	3860 Sep 08 22:19	0° P		inferior conj	3861 Jul 26 14:54	5° O 25'28	-4°44'26
asc. node	3860 Sep 09 01:13	0° P 10'14		minimum elong	3861 Jul 26 08:41	5° O 34'40	4°43'28
morning set	3860 Sep 20 20:40	21° P 10'42		morning rise	3861 Aug 04 02:15	1° O 31'50	
	3860 Sep 25 06:57	0° O		direct	3861 Aug 06 22:53	1° O 11'53	
				morning max el	3861 Aug 17 11:55	6° O 05'31	20°20'36
superior conj	3860 Sep 29 01:46	7° O 25'46	1°38'39	asc. node	3861 Aug 26 22:14	18° O 27'30	
minimum elong	3860 Sep 29 03:49	7° O 35'40	1°38'31		3861 Sep 02 05:09	0° P	
max. Earth dist.	3860 Oct 05 15:46	19° O 47'34	1.38420 AU	morning set	3861 Sep 05 02:11	5° P 47'23	
evening rise	3860 Oct 09 10:49	26° O 32'17					
	3860 Oct 11 11:03	0° M		superior conj	3861 Sep 12 16:56	21° P 24'59	1°44'14
desc. node	3860 Oct 16 04:01	7° M 49'13		minimum elong	3861 Sep 12 17:18	21° P 26'52	1°44'14
	3860 Oct 30 23:16	0° X			3861 Sep 17 00:44	0° O	
evening max el	3860 Nov 14 00:37	17° X 01'18	24°49'12	max. Earth dist.	3861 Sep 17 22:15	1° O 43'58	1.36442 AU
retrograde	3860 Nov 25 16:18	23° X 47'48		evening rise	3861 Sep 21 20:00	9° O 04'17	
evening set	3860 Dec 01 06:36	21° X 27'39		desc. node	3861 Oct 03 01:02	28° O 15'40	
min. Earth dist.	3860 Dec 05 20:22	16° X 17'33	0.67528 AU		3861 Oct 04 03:24	0° M	
asc. node	3860 Dec 06 00:28	16° X 04'01			3861 Oct 26 19:20	0° X	
inferior conj	3860 Dec 06 18:59	15° X 02'44	0°15'48	evening max el	3861 Oct 27 13:03	0° X 43'43	25°58'50

retrograde	3861 Nov 09 01:07	7°♄49'55		evening set	3862 Oct 29 21:21	18°♍56'24	
evening set	3861 Nov 15 05:19	5°♄16'55		min. Earth dist.	3862 Nov 02 21:00	14°♍57'37	0.65703 AU
min. Earth dist.	3861 Nov 19 11:47	0°♄42'09	0.66789 AU	inferior conj	3862 Nov 04 18:33	12°♍45'24	-1°41'14
	3861 Nov 20 01:19	30°♍		minimum elong	3862 Nov 04 21:22	12°♍37'13	1°40'05
inferior conj	3861 Nov 20 21:30	28°♍56'41	-0°41'07	asc. node	3862 Nov 09 18:31	7°♍48'02	
minimum elong	3861 Nov 20 22:36	28°♍53'16	0°40'38	morning rise	3862 Nov 10 22:11	7°♍06'03	
asc. node	3861 Nov 22 21:30	26°♍31'07		direct	3862 Nov 13 17:39	6°♍22'38	
morning rise	3861 Nov 26 16:17	23°♍05'25		morning max el	3862 Nov 20 06:30	9°♍54'37	18°17'00
direct	3861 Nov 29 20:34	22°♍07'33			3862 Dec 04 07:50	0°♄	
morning max el	3861 Dec 06 16:59	25°♍55'06	18°55'56	morning set	3862 Dec 09 08:11	8°♄08'01	
	3861 Dec 10 06:17	0°♄		desc. node	3862 Dec 16 21:21	20°♄17'56	
morning set	3861 Dec 28 20:00	27°♄48'46			3862 Dec 23 00:01	0°♄	
desc. node	3861 Dec 30 00:19	29°♄39'35					
	3861 Dec 30 05:32	0°♄		superior conj	3862 Dec 24 11:57	2°♄21'37	-0°50'25
max. Earth dist.	3862 Jan 12 16:33	21°♄05'03	1.45073 AU	minimum elong	3862 Dec 24 05:37	1°♄56'42	0°49'35
				max. Earth dist.	3862 Dec 26 11:53	5°♄29'57	1.45230 AU
superior conj	3862 Jan 14 09:28	23°♄46'02	-1°33'08	evening rise	3863 Jan 09 17:40	27°♄46'33	
minimum elong	3862 Jan 14 00:15	23°♄09'46	1°32'14		3863 Jan 11 03:48	0°♄	
	3862 Jan 18 08:06	0°♄		greatest brilliancy	3863 Jan 21 02:11	15°♄25'52	-0.7m
evening rise	3862 Jan 29 12:35	17°♄57'33			3863 Jan 31 10:45	0°♄	
	3862 Feb 05 22:32	0°♄		evening max el	3863 Feb 02 10:00	2°♄11'05	19°20'20
asc. node	3862 Feb 18 20:48	18°♄28'46		asc. node	3863 Feb 05 17:50	4°♄59'38	
evening max el	3862 Feb 19 01:36	18°♄41'07	18°38'20	retrograde	3863 Feb 09 12:35	6°♄15'22	
retrograde	3862 Feb 25 16:07	22°♄20'22		evening set	3863 Feb 12 23:39	5°♄05'19	
evening set	3862 Feb 28 20:14	21°♄23'24			3863 Feb 17 21:19	30°♄	
inferior conj	3862 Mar 06 13:47	15°♄46'55	3°34'48	inferior conj	3863 Feb 18 11:54	29°♄12'57	3°19'44
minimum elong	3862 Mar 06 12:54	15°♄49'35	3°34'45	minimum elong	3863 Feb 18 09:58	29°♄19'12	3°19'25
min. Earth dist.	3862 Mar 08 12:39	13°♄25'42	0.65010 AU	min. Earth dist.	3863 Feb 19 19:36	27°♄30'14	0.66364 AU
morning rise	3862 Mar 12 05:04	9°♄35'38		morning rise	3863 Feb 23 20:01	22°♄59'14	
direct	3862 Mar 18 21:56	6°♄45'10		direct	3863 Mar 02 02:42	20°♄12'21	
desc. node	3862 Mar 27 23:32	10°♄42'10		morning max el	3863 Mar 14 16:34	27°♄40'58	26°04'09
morning max el	3862 Apr 01 06:44	14°♄34'46	27°08'23	desc. node	3863 Mar 14 20:35	27°♄51'08	
	3862 Apr 13 20:17	0°♄			3863 Mar 16 21:13	0°♄	
	3862 May 02 09:16	0°♄			3863 Apr 07 13:01	0°♄	
morning set	3862 May 06 20:50	8°♄26'04		morning set	3863 Apr 19 20:45	21°♄18'27	
max. Earth dist.	3862 May 11 10:06	17°♄28'54	1.33843 AU	max. Earth dist.	3863 Apr 23 18:58	28°♄44'50	1.35351 AU
					3863 Apr 24 10:27	0°♄	
superior conj	3862 May 15 04:16	25°♄15'59	-0°27'26				
minimum elong	3862 May 15 05:41	25°♄23'29	0°27'08	superior conj	3863 Apr 28 23:56	9°♄05'16	-0°56'31
	3862 May 17 10:00	0°♄		minimum elong	3863 Apr 29 02:57	9°♄20'35	0°55'57
asc. node	3862 May 17 20:05	0°♄53'34		asc. node	3863 May 04 17:08	20°♄51'47	
evening rise	3862 May 22 12:15	10°♄47'55		evening rise	3863 May 06 19:50	25°♄13'21	
	3862 Jun 01 12:06	0°♄			3863 May 09 04:17	0°♄	
evening max el	3862 Jun 11 23:40	14°♄01'43	21°47'15	evening max el	3863 May 25 03:07	25°♄00'26	20°24'27
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inferior conj	3862 Jul 06 11:22	15°♄54'58	-3°28'41		3863 Jun 07 22:35	30°♄	
minimum elong	3862 Jul 06 02:59	16°♄06'42	3°26'14	desc. node	3863 Jun 10 19:48	29°♄02'56	
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morning rise	3862 Jul 15 04:41	12°♄02'45		minimum elong	3863 Jun 16 01:05	26°♄19'11	1°34'08
direct	3862 Jul 18 10:26	11°♄39'45		min. Earth dist.	3863 Jun 17 15:07	25°♄23'44	0.55007 AU
morning max el	3862 Jul 30 13:58	17°♄21'39	21°49'32	morning rise	3863 Jun 24 23:50	22°♄00'57	
	3862 Aug 09 12:36	0°♄		direct	3863 Jun 28 20:29	21°♄28'46	
asc. node	3862 Aug 13 19:18	7°♄22'19		morning max el	3863 Jul 12 07:12	28°♄00'35	23°31'04
morning set	3862 Aug 20 11:38	20°♄36'00			3863 Jul 14 07:01	0°♄	
	3862 Aug 24 22:33	0°♄		asc. node	3863 Jul 31 16:22	26°♄44'18	
					3863 Aug 02 07:28	0°♄	
superior conj	3862 Aug 27 17:14	5°♄51'46	1°42'22	morning set	3863 Aug 04 23:03	5°♄29'35	
minimum elong	3862 Aug 27 16:14	5°♄46'33	1°42'20				
max. Earth dist.	3862 Aug 31 11:44	13°♄38'57	1.34755 AU	superior conj	3863 Aug 11 23:33	20°♄35'25	1°34'17
evening rise	3862 Sep 04 22:07	22°♄24'41		minimum elong	3863 Aug 11 21:39	20°♄25'12	1°34'07
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desc. node	3862 Sep 19 22:04	18°♄25'10			3863 Aug 16 10:08	0°♄	
	3862 Sep 27 21:01	0°♄		evening rise	3863 Aug 19 12:50	6°♄20'47	
evening max el	3862 Oct 10 01:38	14°♄21'09	26°52'11		3863 Sep 01 13:34	0°♄	
retrograde	3862 Oct 23 04:37	21°♄37'14		desc. node	3863 Sep 06 19:06	8°♄09'10	
















































































































evening max el	3863 Sep 22 13:27	27° Ω 42'30	27°22'18	desc. node	3864 Aug 23 16:07	27° Π 17'03	
	3863 Sep 25 03:17	0° Π			3864 Aug 25 16:14	0° Ω	
retrograde	3863 Oct 06 02:22	5° Π 00'49		evening max el	3864 Sep 03 22:44	10° Ω 35'42	27°23'00
evening set	3863 Oct 13 04:04	2° Π 20'26		retrograde	3864 Sep 17 17:35	17° Ω 51'09	
	3863 Oct 15 20:25	30° \mathbb{R} Ω		evening set	3864 Sep 24 22:05	15° Ω 22'43	
min. Earth dist.	3863 Oct 16 21:51	28° Ω 56'08	0.64260 AU	min. Earth dist.	3864 Sep 28 12:45	12° Ω 27'16	0.62493 AU
inferior conj	3863 Oct 19 07:41	26° Ω 23'20	-2°42'30	inferior conj	3864 Oct 01 10:02	9° Ω 43'41	-3°41'28
minimum elong	3863 Oct 19 12:14	26° Ω 11'18	2°40'51	minimum elong	3864 Oct 01 15:48	9° Ω 30'02	3°39'46
morning rise	3863 Oct 25 21:38	20° Ω 58'53		morning rise	3864 Oct 08 11:09	4° Ω 37'21	
asc. node	3863 Oct 27 15:35	20° Ω 29'21		direct	3864 Oct 10 20:27	4° Ω 11'41	
direct	3863 Oct 28 10:37	20° Ω 26'07		asc. node	3864 Oct 13 12:38	4° Ω 44'50	
morning max el	3863 Nov 03 22:52	23° Ω 51'50	17°55'03	morning max el	3864 Oct 17 15:02	7° Ω 39'16	17°50'58
	3863 Nov 08 21:21	0° Π			3864 Nov 01 04:30	0° Π	
morning set	3863 Nov 21 00:42	19° Π 50'08		morning set	3864 Nov 02 15:40	2° Π 36'51	
	3863 Nov 27 01:18	0° \mathbb{X}					
desc. node	3863 Dec 03 18:23	11° \mathbb{X} 02'26		superior conj	3864 Nov 13 21:32	22° Π 16'27	0°39'21
				minimum elong	3864 Nov 14 01:01	22° Π 31'09	0°38'52
superior conj	3863 Dec 04 04:02	11° \mathbb{X} 41'29	-0°02'47		3864 Nov 18 12:37	0° \mathbb{X}	
minimum elong	3863 Dec 04 03:42	11° \mathbb{X} 40'09	0°02'44	desc. node	3864 Nov 19 15:24	1° \mathbb{X} 49'42	
behind sun begin	3863 Dec 03 17:39	10° \mathbb{X} 59'28		max. Earth dist.	3864 Nov 20 21:44	3° \mathbb{X} 53'05	1.43409 AU
behind sun end	3863 Dec 04 13:45	12° \mathbb{X} 20'46		evening rise	3864 Nov 28 16:52	16° \mathbb{X} 15'11	
max. Earth dist.	3863 Dec 09 06:24	19° \mathbb{X} 51'17	1.44647 AU		3864 Dec 07 17:35	0° \mathbb{Z}	
	3863 Dec 15 17:35	0° \mathbb{Z}		evening max el	3864 Dec 29 11:33	29° \mathbb{Z} 16'05	21°27'20
evening rise	3863 Dec 20 06:17	7° \mathbb{Z} 00'07			3864 Dec 30 05:12	0° \approx	
	3864 Jan 04 12:27	0° \approx		retrograde	3865 Jan 07 08:18	4° \approx 31'52	
evening max el	3864 Jan 16 13:31	15° \approx 42'58	20°17'42	asc. node	3865 Jan 09 11:54	4° \approx 06'43	
asc. node	3864 Jan 23 14:52	20° \approx 16'52		evening set	3865 Jan 11 13:48	2° \approx 52'26	
retrograde	3864 Jan 24 10:44	20° \approx 20'36			3865 Jan 14 08:59	30° \mathbb{R} \mathbb{Z}	
evening set	3864 Jan 28 06:07	18° \approx 56'26		inferior conj	3865 Jan 16 22:05	26° \mathbb{Z} 36'40	2°18'19
inferior conj	3864 Feb 02 15:26	12° \approx 50'51	2°53'32	minimum elong	3865 Jan 16 19:39	26° \mathbb{Z} 45'07	2°17'33
minimum elong	3864 Feb 02 13:00	12° \approx 59'07	2°52'56	min. Earth dist.	3865 Jan 17 03:44	26° \mathbb{Z} 17'08	0.67839 AU
min. Earth dist.	3864 Feb 03 09:25	11° \approx 49'55	0.67299 AU	morning rise	3865 Jan 22 01:19	20° \mathbb{Z} 24'19	
morning rise	3864 Feb 07 19:40	6° \approx 36'56		direct	3865 Jan 27 04:06	18° \mathbb{Z} 11'06	
direct	3864 Feb 13 13:05	4° \approx 03'38		morning max el	3865 Feb 06 10:14	24° \mathbb{Z} 16'42	23°13'40
morning max el	3864 Feb 25 01:18	10° \approx 56'33	24°42'31		3865 Feb 11 12:42	0° \approx	
desc. node	3864 Feb 29 17:38	16° \approx 07'21		desc. node	3865 Feb 15 14:39	5° \approx 10'59	
	3864 Mar 11 05:55	0° \mathbb{X}			3865 Mar 04 16:44	0° \mathbb{X}	
	3864 Mar 30 05:54	0° \mathbb{Y}		morning set	3865 Mar 13 07:26	13° \mathbb{X} 56'32	
morning set	3864 Apr 01 02:24	3° \mathbb{Y} 14'32		max. Earth dist.	3865 Mar 17 12:22	21° \mathbb{X} 06'59	1.39426 AU
max. Earth dist.	3864 Apr 04 17:33	9° \mathbb{Y} 46'16	1.37266 AU		3865 Mar 22 12:33	0° \mathbb{Y}	
superior conj	3864 Apr 11 09:12	22° \mathbb{Y} 20'27	-1°24'20	superior conj	3865 Mar 25 03:58	4° \mathbb{Y} 50'24	-1°48'08
minimum elong	3864 Apr 11 13:32	22° \mathbb{Y} 41'31	1°23'42	minimum elong	3865 Mar 25 08:37	5° \mathbb{Y} 11'56	1°47'42
	3864 Apr 15 06:26	0° \mathbb{Z}		evening rise	3865 Apr 03 15:33	22° \mathbb{Y} 52'34	
evening rise	3864 Apr 19 21:55	9° \mathbb{Z} 17'46		asc. node	3865 Apr 07 11:14	0° \mathbb{Z} 09'04	
asc. node	3864 Apr 20 14:12	10° \mathbb{Z} 38'51			3865 Apr 07 09:18	0° \mathbb{Z}	
	3864 May 01 08:50	0° Π		evening max el	3865 Apr 19 20:48	18° \mathbb{Z} 59'54	18°36'04
evening max el	3864 May 06 18:53	6° Π 41'11	19°20'10	retrograde	3865 Apr 27 16:18	22° \mathbb{Z} 50'13	
retrograde	3864 May 15 23:54	11° Π 09'50		evening set	3865 Apr 29 22:33	22° \mathbb{Z} 32'03	
evening set	3864 May 18 00:02	10° Π 58'01		inferior conj	3865 May 07 14:30	18° \mathbb{Z} 05'42	1°54'25
inferior conj	3864 May 26 11:56	6° Π 50'17	0°21'06	minimum elong	3865 May 07 18:03	17° \mathbb{Z} 58'53	1°53'21
minimum elong	3864 May 26 12:49	6° Π 48'49	0°20'46	min. Earth dist.	3865 May 10 23:38	15° \mathbb{Z} 31'04	0.57808 AU
desc. node	3864 May 27 16:50	6° Π 02'33		desc. node	3865 May 14 13:52	13° \mathbb{Z} 12'29	
min. Earth dist.	3864 May 29 05:45	5° Π 02'30	0.56050 AU	morning rise	3865 May 15 10:21	12° \mathbb{Z} 46'35	
morning rise	3864 Jun 03 22:38	2° Π 05'01		direct	3865 May 21 04:47	11° \mathbb{Z} 22'53	
direct	3864 Jun 08 17:34	1° Π 12'31		morning max el	3865 Jun 04 13:43	18° \mathbb{Z} 59'30	26°37'24
morning max el	3864 Jun 22 21:11	8° Π 24'04	25°12'13		3865 Jun 13 20:35	0° Π	
	3864 Jul 08 21:30	0° \mathbb{Z}			3865 Jul 01 09:00	0° \mathbb{Z}	
asc. node	3864 Jul 17 13:26	16° \mathbb{Z} 26'14		morning set	3865 Jul 03 21:09	5° \mathbb{Z} 11'24	
morning set	3864 Jul 19 10:46	20° \mathbb{Z} 23'07		asc. node	3865 Jul 04 10:29	6° \mathbb{Z} 21'52	
	3864 Jul 23 21:34	0° Ω					
				superior conj	3865 Jul 10 21:09	20° \mathbb{Z} 24'09	1°03'07
superior conj	3864 Jul 26 09:31	5° Ω 28'25	1°20'57	minimum elong	3865 Jul 10 18:54	20° \mathbb{Z} 11'45	1°02'43
minimum elong	3864 Jul 26 07:12	5° Ω 15'45	1°20'38	max. Earth dist.	3865 Jul 11 02:31	20° \mathbb{Z} 53'45	1.32117 AU
max. Earth dist.	3864 Jul 27 15:50	8° Ω 14'04	1.32581 AU		3865 Jul 15 06:19	0° Ω	
evening rise	3864 Aug 02 12:37	20° Ω 42'39		evening rise	3865 Jul 17 18:36	5° Ω 21'23	
	3864 Aug 07 04:37	0° Π			3865 Jul 30 20:08	0° Π	

desc. node	3865 Aug 10 13:08	15°♎34'09		desc. node	3866 Jul 28 10:10	2°♎39'12	
evening max el	3865 Aug 17 02:54	22°♎48'32	26°50'32	evening max el	3866 Jul 29 23:37	4°♎12'21	25°46'00
retrograde	3865 Aug 31 00:59	29°♎59'32		retrograde	3866 Aug 12 22:54	11°♎19'29	
evening set	3865 Sep 06 23:02	27°♎55'41		evening set	3866 Aug 19 01:59	9°♎50'39	
min. Earth dist.	3865 Sep 10 17:01	25°♎17'52	0.60494 AU	min. Earth dist.	3866 Aug 23 11:45	7°♎13'32	0.58433 AU
inferior conj	3865 Sep 13 22:17	22°♎37'56	-4°32'11	inferior conj	3866 Aug 26 16:47	4°♎55'18	-5°04'50
minimum elong	3865 Sep 14 03:50	22°♎26'23	4°31'05	minimum elong	3866 Aug 26 19:31	4°♎50'22	5°04'38
morning rise	3865 Sep 21 10:33	17°♎52'48		morning rise	3866 Sep 03 15:17	0°♎33'26	
direct	3865 Sep 23 19:18	17°♎31'17		direct	3866 Sep 06 02:41	0°♎13'49	
asc. node	3865 Sep 30 09:41	20°♎27'04		morning max el	3866 Sep 14 09:56	4°♎11'21	18°41'20
morning max el	3865 Oct 01 03:49	21°♎09'01	18°05'56	asc. node	3866 Sep 17 06:42	7°♎20'58	
	3865 Oct 07 21:06	0°♏		morning set	3866 Sep 30 17:23	0°♏15'19	
morning set	3865 Oct 16 22:53	16°♏10'11			3866 Sep 30 14:14	0°♏	
	3865 Oct 24 10:05	0°♎					
superior conj	3865 Oct 26 17:02	4°♎07'35	1°10'57	superior conj	3866 Oct 09 09:38	17°♏00'22	1°31'26
minimum elong	3865 Oct 26 21:10	4°♎26'02	1°10'27	minimum elong	3866 Oct 09 12:39	17°♏14'30	1°31'11
max. Earth dist.	3865 Nov 03 08:36	17°♎22'27	1.41663 AU	max. Earth dist.	3866 Oct 16 14:40	0°♎08'25	1.39622 AU
desc. node	3865 Nov 06 12:25	22°♎36'35			3866 Oct 16 12:45	0°♎	
evening rise	3865 Nov 08 17:13	26°♎10'46		evening rise	3866 Oct 20 15:44	7°♎06'44	
	3865 Nov 11 02:42	0°♏		desc. node	3866 Oct 24 09:27	13°♎18'54	
	3865 Dec 01 12:50	0°♏			3866 Nov 04 03:43	0°♏	
evening max el	3865 Dec 12 04:42	12°♏51'46	22°44'49	evening max el	3866 Nov 24 18:21	26°♏30'11	24°04'41
retrograde	3865 Dec 22 03:44	18°♏46'30			3866 Nov 28 17:14	0°♏	
evening set	3865 Dec 26 21:04	16°♏50'52		retrograde	3866 Dec 05 19:49	3°♏00'12	
asc. node	3865 Dec 27 08:55	16°♏25'00		evening set	3866 Dec 11 02:20	0°♏48'24	
inferior conj	3866 Jan 01 05:54	10°♏28'22	1°35'37		3866 Dec 11 23:25	30°♏♏	
minimum elong	3866 Jan 01 03:55	10°♏35'12	1°34'53	asc. node	3866 Dec 14 05:56	27°♏25'34	
min. Earth dist.	3866 Jan 01 00:12	10°♏48'04	0.68004 AU	min. Earth dist.	3866 Dec 15 20:33	25°♏18'56	0.67804 AU
morning rise	3866 Jan 06 10:40	4°♏19'19		inferior conj	3866 Dec 16 13:04	24°♏23'05	0°46'33
direct	3866 Jan 10 22:47	2°♏28'58		minimum elong	3866 Dec 16 11:59	24°♏26'45	0°46'07
morning max el	3866 Jan 19 23:04	7°♏45'08	21°47'03	morning rise	3866 Dec 21 21:39	18°♏19'12	
desc. node	3866 Feb 02 11:40	24°♏49'02		direct	3866 Dec 25 20:01	16°♏51'25	
	3866 Feb 06 02:14	0°♏		morning max el	3867 Jan 02 18:57	21°♏24'55	20°29'42
morning set	3866 Feb 21 07:38	23°♏15'56			3867 Jan 09 22:58	0°♏	
	3866 Feb 25 11:26	0°♏		desc. node	3867 Jan 20 08:41	14°♏51'49	
max. Earth dist.	3866 Feb 27 11:29	3°♏18'25	1.41561 AU		3867 Jan 30 08:06	0°♏	
				morning set	3867 Jan 31 08:25	1°♏34'06	
superior conj	3866 Mar 07 03:23	16°♏23'38	-2°03'55	max. Earth dist.	3867 Feb 09 18:07	16°♏25'22	1.43372 AU
minimum elong	3866 Mar 07 06:14	16°♏36'11	2°03'49				
	3866 Mar 14 17:11	0°♏		superior conj	3867 Feb 16 02:37	26°♏49'41	-2°06'33
evening rise	3866 Mar 17 21:13	5°♏49'36		minimum elong	3867 Feb 16 00:43	26°♏41'48	2°06'30
asc. node	3866 Mar 25 08:14	19°♏16'31			3867 Feb 18 00:07	0°♏	
	3866 Apr 01 13:29	0°♏		evening rise	3867 Feb 28 10:48	18°♏00'23	
evening max el	3866 Apr 03 05:27	1°♏47'53	18°12'01		3867 Mar 07 08:02	0°♏	
retrograde	3866 Apr 10 03:24	5°♏16'41		asc. node	3867 Mar 12 05:15	7°♏54'07	
evening set	3866 Apr 12 16:11	4°♏49'23		evening max el	3867 Mar 17 17:32	14°♏56'31	18°07'31
inferior conj	3866 Apr 19 14:14	0°♏02'05	2°55'29	retrograde	3867 Mar 24 05:20	18°♏19'17	
minimum elong	3866 Apr 19 17:31	29°♏54'42	2°54'49	evening set	3867 Mar 26 23:59	17°♏41'22	
	3866 Apr 19 15:09	30°♏♏		inferior conj	3867 Apr 02 08:01	12°♏33'52	3°27'37
min. Earth dist.	3866 Apr 22 23:00	27°♏02'15	0.59933 AU	minimum elong	3867 Apr 02 09:42	12°♏29'30	3°27'27
morning rise	3866 Apr 26 16:26	24°♏17'16		min. Earth dist.	3867 Apr 05 06:38	9°♏33'27	0.62089 AU
desc. node	3866 May 01 10:52	22°♏26'48		morning rise	3867 Apr 08 17:56	6°♏33'15	
direct	3866 May 03 04:24	22°♏18'27		direct	3867 Apr 15 14:26	4°♏04'22	
	3866 May 17 08:26	0°♏		desc. node	3867 Apr 18 07:54	4°♏25'59	
morning max el	3866 May 17 12:22	0°♏09'38	27°33'02	morning max el	3867 Apr 29 17:16	12°♏02'51	27°51'48
	3866 Jun 07 21:04	0°♏			3867 May 13 22:10	0°♏	
morning set	3866 Jun 18 04:31	19°♏48'47			3867 May 31 05:16	0°♏	
asc. node	3866 Jun 21 07:31	26°♏25'58		morning set	3867 Jun 02 06:54	4°♏09'06	
	3866 Jun 22 23:00	0°♏		max. Earth dist.	3867 Jun 07 23:02	16°♏04'29	1.32402 AU
max. Earth dist.	3866 Jun 24 14:14	3°♏34'57	1.32056 AU	asc. node	3867 Jun 08 04:32	16°♏34'16	
superior conj	3866 Jun 25 08:41	5°♏16'26	0°41'26	superior conj	3867 Jun 09 18:26	19°♏59'57	0°16'31
minimum elong	3866 Jun 25 06:57	5°♏06'59	0°41'05	minimum elong	3867 Jun 09 17:40	19°♏55'46	0°16'21
evening rise	3866 Jul 02 04:24	20°♏09'03			3867 Jun 14 08:25	0°♏	
	3866 Jul 06 23:36	0°♏		evening rise	3867 Jun 16 16:03	4°♏59'09	
	3866 Jul 26 00:06	0°♏			3867 Jun 29 22:53	0°♏	
				evening max el	3867 Jul 11 13:48	14°♏53'58	24°17'57

desc. node	3867 Jul 15 07:10	18°♊03'51		behind sun end	3868 May 24 05:04	4°♊51'54	
retrograde	3867 Jul 25 09:55	21°♊52'52		asc. node	3868 May 25 01:34	6°♊41'44	
evening set	3867 Jul 30 04:56	21°♊01'40		evening rise	3868 May 31 03:37	19°♊44'15	
min. Earth dist.	3867 Aug 05 00:34	18°♊06'42	0.56584 AU		3868 Jun 05 04:17	0°♊	
inferior conj	3867 Aug 07 15:12	16°♊28'23	-5°05'03	evening max el	3868 Jun 22 03:28	25°♊18'13	22°41'02
minimum elong	3867 Aug 07 12:20	16°♊32'55	5°04'52		3868 Jun 28 08:23	0°♊	
morning rise	3867 Aug 15 22:22	12°♊27'18		desc. node	3868 Jul 01 04:12	1°♊12'31	
direct	3867 Aug 18 14:53	12°♊08'03		retrograde	3868 Jul 05 08:32	1°♊52'37	
morning max el	3867 Aug 28 06:22	16°♊37'33	19°38'14	evening set	3868 Jul 08 15:10	1°♊29'03	
asc. node	3867 Sep 04 03:45	25°♊11'56			3868 Jul 12 18:16	30°♊	
	3867 Sep 07 02:12	0°♊		min. Earth dist.	3868 Jul 16 11:28	28°♊02'18	0.55286 AU
morning set	3867 Sep 14 19:41	14°♊42'43		inferior conj	3868 Jul 17 19:00	27°♊17'13	-4°18'21
	3867 Sep 22 09:56	0°♊		minimum elong	3868 Jul 17 11:06	27°♊28'33	4°16'37
				morning rise	3868 Jul 26 09:12	23°♊26'17	
superior conj	3867 Sep 22 17:57	0°♊39'39	1°42'00	direct	3868 Jul 29 08:59	23°♊05'37	
minimum elong	3867 Sep 22 19:16	0°♊46'09	1°41'58	morning max el	3868 Aug 09 15:05	28°♊19'30	20°56'20
max. Earth dist.	3867 Sep 28 18:59	12°♊15'32	1.37549 AU		3868 Aug 11 07:32	0°♊	
evening rise	3867 Oct 02 13:12	19°♊06'01		asc. node	3868 Aug 21 00:49	13°♊46'23	
	3867 Oct 08 21:31	0°♊		morning set	3868 Aug 29 03:06	29°♊24'52	
desc. node	3867 Oct 11 06:28	3°♊52'34			3868 Aug 29 09:55	0°♊	
	3867 Oct 29 07:53	0°♊					
evening max el	3867 Nov 07 06:37	10°♊11'27	25°20'13	superior conj	3868 Sep 05 13:26	14°♊51'50	1°44'16
retrograde	3867 Nov 19 07:41	17°♊08'17		minimum elong	3868 Sep 05 13:10	14°♊50'30	1°44'16
evening set	3867 Nov 25 04:00	14°♊41'57		max. Earth dist.	3868 Sep 10 03:33	24°♊06'36	1.35677 AU
min. Earth dist.	3867 Nov 29 14:28	9°♊46'52	0.67255 AU		3868 Sep 13 04:39	0°♊	
inferior conj	3867 Nov 30 17:50	8°♊18'14	-0°07'49	evening rise	3868 Sep 14 06:08	2°♊00'07	
minimum elong	3867 Nov 30 18:02	8°♊17'36	0°07'45	desc. node	3868 Sep 27 03:30	24°♊12'36	
transit middle	3867 Nov 30 18:02	8°♊17'36	0°07'45		3868 Sep 30 21:51	0°♊	
transit begin	3867 Nov 30 15:35	8°♊25'33		evening max el	3868 Oct 19 19:05	23°♊52'45	26°24'01
transit end	3867 Nov 30 20:29	8°♊09'40			3868 Oct 28 02:04	0°♊	
asc. node	3867 Dec 01 02:58	7°♊48'43		retrograde	3868 Nov 01 14:33	1°♊05'03	
morning rise	3867 Dec 06 08:20	2°♊21'40			3868 Nov 05 18:22	30°♊	
direct	3867 Dec 09 18:34	1°♊14'00		evening set	3868 Nov 08 00:11	28°♊28'00	
morning max el	3867 Dec 16 22:45	5°♊15'28	19°25'43	min. Earth dist.	3868 Nov 12 03:40	24°♊08'20	0.66361 AU
greatest brilliancy	3867 Dec 30 05:01	22°♊57'22	-0.7m	inferior conj	3868 Nov 13 18:20	22°♊10'49	-1°06'19
	3868 Jan 03 20:25	0°♊		minimum elong	3868 Nov 13 20:08	22°♊05'20	1°05'33
desc. node	3868 Jan 07 05:43	5°♊12'17		asc. node	3868 Nov 17 00:01	18°♊31'10	
morning set	3868 Jan 10 06:38	9°♊53'51		morning rise	3868 Nov 19 16:40	16°♊24'07	
	3868 Jan 23 03:34	0°♊		direct	3868 Nov 22 16:49	15°♊32'58	
max. Earth dist.	3868 Jan 23 07:23	0°♊15'04	1.44641 AU	morning max el	3868 Nov 29 09:19	19°♊13'09	18°37'19
					3868 Dec 07 16:35	0°♊	
superior conj	3868 Jan 27 00:13	6°♊07'57	-1°50'59	morning set	3868 Dec 20 01:54	19°♊21'53	
minimum elong	3868 Jan 26 16:32	5°♊37'18	1°50'26	desc. node	3868 Dec 24 02:45	25°♊45'27	
evening rise	3868 Feb 10 03:55	29°♊16'17			3868 Dec 26 19:14	0°♊	
	3868 Feb 10 14:23	0°♊					
asc. node	3868 Feb 27 02:17	25°♊52'05		superior conj	3869 Jan 05 04:27	14°♊44'48	-1°16'26
evening max el	3868 Feb 29 06:08	28°♊17'46	18°21'54	minimum elong	3869 Jan 04 19:40	14°♊10'20	1°15'26
	3868 Mar 02 04:13	0°♊		max. Earth dist.	3869 Jan 05 01:07	14°♊31'43	1.45225 AU
retrograde	3868 Mar 06 17:19	1°♊47'43			3869 Jan 14 21:03	0°♊	
evening set	3868 Mar 09 17:47	0°♊58'05		evening rise	3869 Jan 20 21:49	9°♊35'03	
	3868 Mar 11 05:04	30°♊		greatest brilliancy	3869 Jan 29 06:23	22°♊54'26	-0.8m
inferior conj	3868 Mar 15 15:40	25°♊31'54	3°37'14		3869 Feb 02 19:53	0°♊	
minimum elong	3868 Mar 15 15:38	25°♊32'02	3°37'13	evening max el	3869 Feb 11 16:45	11°♊46'28	18°54'14
min. Earth dist.	3868 Mar 17 23:40	22°♊51'50	0.64041 AU	asc. node	3869 Feb 12 23:20	12°♊59'09	
morning rise	3868 Mar 21 12:40	19°♊23'01		retrograde	3869 Feb 18 11:34	15°♊35'03	
direct	3868 Mar 28 08:58	16°♊36'04		evening set	3869 Feb 21 18:27	14°♊32'45	
desc. node	3868 Apr 04 04:56	18°♊51'57		inferior conj	3869 Feb 27 09:27	8°♊49'32	3°29'56
morning max el	3868 Apr 11 02:03	24°♊32'52	27°33'34	minimum elong	3869 Feb 27 08:04	8°♊53'53	3°29'47
	3868 Apr 16 00:33	0°♊		min. Earth dist.	3869 Mar 01 01:51	6°♊43'41	0.65639 AU
	3868 May 06 07:53	0°♊		morning rise	3869 Mar 04 21:16	2°♊36'58	
morning set	3868 May 16 01:44	18°♊03'14			3869 Mar 09 12:38	30°♊	
max. Earth dist.	3868 May 21 00:42	28°♊08'12	1.33183 AU	direct	3869 Mar 11 10:30	29°♊46'12	
	3868 May 21 22:02	0°♊			3869 Mar 13 10:10	0°♊	
				desc. node	3869 Mar 22 01:58	5°♊10'51	
superior conj	3868 May 24 00:30	4°♊27'35	-0°10'55	morning max el	3869 Mar 24 11:56	7°♊28'52	26°43'45
minimum elong	3868 May 24 01:03	4°♊30'30	0°10'48		3869 Apr 10 23:11	0°♊	
behind sun begin	3868 May 23 21:03	4°♊09'08			3869 Apr 28 16:29	0°♊	

morning set	3869 Apr 29 09:46	1°♄21'47		morning set	3870 Apr 12 02:35	13°♄51'56	
max. Earth dist.	3869 May 03 15:56	9°♄39'41	1.34431 AU	max. Earth dist.	3870 Apr 15 19:59	20°♄46'22	1.36128 AU
					3870 Apr 20 14:22	0°♄	
superior conj	3869 May 08 00:46	18°♄33'24	-0°39'46	superior conj	3870 Apr 21 16:27	2°♄09'36	-1°08'35
minimum elong	3869 May 08 02:52	18°♄44'18	0°39'21	minimum elong	3870 Apr 21 20:06	2°♄27'46	1°07'58
asc. node	3869 May 11 22:38	26°♄44'43		asc. node	3870 Apr 28 19:42	16°♄39'00	
	3869 May 13 11:45	0°♄		evening rise	3870 Apr 29 18:48	18°♄36'31	
evening rise	3869 May 15 13:15	4°♄18'54			3870 May 05 14:09	0°♄	
	3869 May 29 22:10	0°♄		evening max el	3870 May 17 09:19	17°♄14'43	19°54'38
evening max el	3869 Jun 04 00:31	5°♄58'08	21°10'01	retrograde	3870 May 27 13:17	22°♄11'40	
retrograde	3869 Jun 15 21:45	11°♄47'52		evening set	3870 May 29 12:17	22°♄01'28	
evening set	3869 Jun 18 03:49	11°♄36'04		desc. node	3870 Jun 04 22:14	19°♄29'54	
desc. node	3869 Jun 18 01:14	11°♄37'09		inferior conj	3870 Jun 07 10:33	18°♄00'45	-0°44'39
inferior conj	3869 Jun 27 12:42	7°♄37'56	-2°43'34	minimum elong	3870 Jun 07 08:29	18°♄03'54	0°43'54
minimum elong	3869 Jun 27 05:23	7°♄48'14	2°41'08	min. Earth dist.	3870 Jun 09 11:35	16°♄46'19	0.55350 AU
min. Earth dist.	3869 Jun 27 22:47	7°♄23'46	0.54837 AU	morning rise	3870 Jun 16 02:44	13°♄36'14	
morning rise	3869 Jul 06 07:13	3°♄39'35		direct	3870 Jun 20 08:26	12°♄56'53	
direct	3869 Jul 09 18:36	3°♄13'30		morning max el	3870 Jul 04 03:38	19°♄46'28	24°15'02
morning max el	3869 Jul 22 12:42	9°♄17'34	22°31'44		3870 Jul 12 18:59	0°♄	
	3869 Aug 06 08:35	0°♄		asc. node	3870 Jul 25 18:56	22°♄25'34	
asc. node	3869 Aug 07 21:52	2°♄53'46		morning set	3870 Jul 29 01:21	29°♄10'50	
morning set	3869 Aug 13 13:34	14°♄15'56			3870 Jul 29 10:38	0°♄	
superior conj	3869 Aug 20 16:34	29°♄26'28	1°39'38	superior conj	3870 Aug 05 00:43	14°♄15'22	1°29'14
minimum elong	3869 Aug 20 15:08	29°♄18'50	1°39'32	minimum elong	3870 Aug 04 22:35	14°♄03'46	1°28'59
	3869 Aug 20 22:54	0°♄		max. Earth dist.	3870 Aug 06 22:50	18°♄24'25	1.33037 AU
max. Earth dist.	3869 Aug 23 20:43	6°♄05'54	1.34156 AU	evening rise	3870 Aug 12 09:06	29°♄46'00	
evening rise	3869 Aug 28 14:06	15°♄37'08			3870 Aug 12 11:52	0°♄	
	3869 Sep 05 08:20	0°♄			3870 Aug 29 09:36	0°♄	
desc. node	3869 Sep 14 00:33	14°♄12'15		desc. node	3870 Aug 31 21:34	3°♄42'53	
	3869 Sep 25 12:17	0°♄		evening max el	3870 Sep 14 18:56	20°♄37'23	27°26'30
evening max el	3869 Oct 02 07:43	7°♄25'27	27°08'25	retrograde	3870 Sep 28 10:23	27°♄53'56	
retrograde	3869 Oct 15 15:36	14°♄42'55		evening set	3870 Oct 05 14:21	25°♄17'14	
evening set	3869 Oct 22 12:36	12°♄01'28		min. Earth dist.	3870 Oct 09 06:24	22°♄06'15	0.63550 AU
min. Earth dist.	3869 Oct 26 09:42	8°♄17'27	0.65125 AU	inferior conj	3870 Oct 11 21:16	19°♄27'40	-3°08'05
inferior conj	3869 Oct 28 12:20	5°♄55'51	-2°07'17	minimum elong	3870 Oct 12 02:27	19°♄14'36	3°06'19
minimum elong	3869 Oct 28 15:54	5°♄45'50	2°05'52	morning rise	3870 Oct 18 15:54	14°♄10'25	
morning rise	3869 Nov 03 20:11	0°♄22'07		direct	3870 Oct 21 03:06	13°♄40'56	
asc. node	3869 Nov 03 21:06	0°♄21'02		asc. node	3870 Oct 21 18:08	13°♄42'52	
	3869 Nov 04 18:41	30°♄		morning max el	3870 Oct 27 16:57	17°♄06'07	17°51'05
direct	3869 Nov 06 12:35	29°♄43'36			3870 Nov 05 22:23	0°♄	
	3869 Nov 08 06:42	0°♄		morning set	3870 Nov 13 05:35	12°♄30'46	
morning max el	3869 Nov 13 00:18	3°♄11'58	18°05'31		3870 Nov 23 11:37	0°♄	
	3869 Nov 30 22:15	0°♄		superior conj	3870 Nov 25 12:31	3°♄22'28	0°16'13
morning set	3869 Dec 01 02:41	0°♄18'21		minimum elong	3870 Nov 25 14:14	3°♄29'30	0°15'58
desc. node	3869 Dec 10 23:47	16°♄26'42		behind sun begin	3870 Nov 25 12:56	3°♄24'09	
superior conj	3869 Dec 15 10:20	23°♄32'33	-0°30'06	behind sun end	3870 Nov 25 15:32	3°♄34'52	
minimum elong	3869 Dec 15 06:34	23°♄17'35	0°29'33	desc. node	3870 Nov 27 20:50	7°♄12'55	
max. Earth dist.	3869 Dec 18 20:35	28°♄57'42	1.45070 AU	max. Earth dist.	3870 Dec 01 14:38	13°♄14'55	1.44199 AU
	3869 Dec 19 12:26	0°♄		evening rise	3870 Dec 11 04:18	28°♄14'45	
evening rise	3869 Dec 31 18:33	19°♄05'23			3870 Dec 12 07:41	0°♄	
	3870 Jan 07 20:20	0°♄			3871 Jan 01 17:52	0°♄	
greatest brilliancy	3870 Jan 14 00:39	9°♄22'56	-0.7m	evening max el	3871 Jan 09 00:29	8°♄49'49	20°45'59
evening max el	3870 Jan 25 23:19	25°♄17'46	19°43'03	retrograde	3871 Jan 17 07:02	13°♄43'03	
asc. node	3870 Jan 30 20:23	29°♄00'39		asc. node	3871 Jan 17 17:25	13°♄42'01	
retrograde	3870 Feb 02 08:54	29°♄34'53		evening set	3871 Jan 21 06:36	12°♄12'17	
evening set	3870 Feb 05 23:25	28°♄18'51		inferior conj	3871 Jan 26 15:15	6°♄01'49	2°39'33
inferior conj	3870 Feb 11 10:10	22°♄20'42	3°09'48	minimum elong	3871 Jan 26 12:45	6°♄10'23	2°38'53
minimum elong	3870 Feb 11 07:57	22°♄28'01	3°09'22	min. Earth dist.	3871 Jan 27 03:44	5°♄19'01	0.67580 AU
min. Earth dist.	3870 Feb 12 11:50	20°♄55'42	0.66819 AU	morning rise	3871 Jan 31 18:45	29°♄48'33	
morning rise	3870 Feb 16 16:17	16°♄06'57			3871 Jan 31 13:45	30°♄	
direct	3870 Feb 22 17:42	13°♄24'47		direct	3871 Feb 06 05:58	27°♄33'31	
morning max el	3870 Mar 06 21:04	20°♄39'07	25°30'57		3871 Feb 12 17:58	0°♄	
desc. node	3870 Mar 08 23:00	22°♄50'50		morning max el	3871 Feb 17 05:39	3°♄56'46	24°05'04
	3870 Mar 14 22:30	0°♄		desc. node	3871 Feb 23 20:01	11°♄28'48	
	3870 Apr 04 03:26	0°♄					

	3871 Mar 09 04:52	0° H				3872 Feb 10 02:46	0° \approx	
morning set	3871 Mar 24 22:29	25° H 18'02		desc. node		3872 Feb 10 17:03	0° \approx 48'28	
	3871 Mar 27 14:58	0° Y				3872 Mar 01 07:11	0° H	
max. Earth dist.	3871 Mar 28 16:26	1° Y 53'19	1.38170 AU	morning set		3872 Mar 04 15:33	5° H 25'32	
				max. Earth dist.		3872 Mar 09 12:15	13° H 32'58	1.40346 AU
superior conj	3871 Apr 04 20:04	15° Y 06'34	-1°35'07					
minimum elong	3871 Apr 05 00:43	15° Y 28'44	1°34'33	superior conj		3872 Mar 17 07:13	27° H 13'42	-1°56'06
	3871 Apr 12 11:20	0° B		minimum elong		3872 Mar 17 11:26	27° H 32'50	1°55'48
evening rise	3871 Apr 13 17:41	2° B 29'26				3872 Mar 18 19:46	0° Y	
asc. node	3871 Apr 15 16:44	6° B 19'33		evening rise		3872 Mar 27 06:44	15° Y 49'32	
evening max el	3871 Apr 30 05:40	29° B 11'57	18°58'52	asc. node		3872 Apr 01 13:45	25° Y 41'07	
	3871 May 01 02:25	0° II				3872 Apr 04 00:29	0° B	
retrograde	3871 May 08 19:14	3° II 22'49		evening max el		3872 Apr 12 10:51	11° B 44'21	18°23'27
evening set	3871 May 10 21:36	3° II 08'46		retrograde		3872 Apr 19 19:58	15° B 23'48	
	3871 May 17 10:19	30° R B		evening set		3872 Apr 22 04:53	15° B 02'10	
inferior conj	3871 May 19 00:58	28° B 53'21	1°04'28	inferior conj		3872 Apr 29 12:50	10° B 27'10	2°24'10
minimum elong	3871 May 19 03:24	28° B 49'04	1°03'37	minimum elong		3872 Apr 29 16:31	10° B 19'33	2°23'12
min. Earth dist.	3871 May 22 03:13	26° B 43'45	0.56725 AU	min. Earth dist.		3872 May 02 23:27	7° B 38'32	0.58679 AU
desc. node	3871 May 22 19:15	26° B 17'11		morning rise		3872 May 07 01:10	4° B 55'29	
morning rise	3871 May 27 06:00	23° B 53'00		desc. node		3872 May 08 16:15	4° B 10'10	
direct	3871 Jun 01 10:58	22° B 48'40		direct		3872 May 13 03:54	3° B 16'42	
	3871 Jun 15 13:07	0° II		morning max el		3872 May 27 13:22	11° B 01'32	27°05'15
morning max el	3871 Jun 15 18:15	0° II 12'17	25°51'27			3872 Jun 11 06:29	0° II	
	3871 Jul 06 12:08	0° B		morning set		3872 Jun 26 22:03	28° II 47'45	
asc. node	3871 Jul 12 15:58	12° B 14'09				3872 Jun 27 11:46	0° B	
morning set	3871 Jul 13 12:43	14° B 03'11		asc. node		3872 Jun 28 13:01	2° B 14'07	
superior conj	3871 Jul 20 11:36	29° B 10'24	1°13'55	superior conj		3872 Jul 03 23:25	14° B 05'35	0°54'22
minimum elong	3871 Jul 20 09:15	28° B 57'31	1°13'32	minimum elong		3872 Jul 03 21:20	13° B 54'08	0°53'58
	3871 Jul 20 20:38	0° Q		max. Earth dist.		3872 Jul 03 18:41	13° B 39'31	1.32039 AU
max. Earth dist.	3871 Jul 21 07:16	0° Q 58'24	1.32333 AU	evening rise		3872 Jul 10 19:40	28° B 59'12	
evening rise	3871 Jul 27 11:49	14° Q 15'57				3872 Jul 11 07:13	0° Q	
	3871 Aug 04 12:52	0° np				3872 Jul 27 21:11	0° np	
desc. node	3871 Aug 18 18:35	22° np 31'26		desc. node		3872 Aug 04 15:35	10° np 20'47	
	3871 Aug 24 22:05	0° B		evening max el		3872 Aug 09 03:04	15° np 05'28	26°26'34
evening max el	3871 Aug 28 02:08	3° B 14'00	27°13'11	retrograde		3872 Aug 23 02:18	22° np 15'44	
retrograde	3871 Sep 10 22:19	10° B 27'44		evening set		3872 Aug 29 17:49	20° np 25'40	
evening set	3871 Sep 18 01:39	8° B 07'49		min. Earth dist.		3872 Sep 02 16:28	17° np 50'21	0.59611 AU
min. Earth dist.	3871 Sep 21 16:29	5° B 21'58	0.61669 AU	inferior conj		3872 Sep 05 23:04	15° np 17'00	-4°48'59
inferior conj	3871 Sep 24 18:00	2° B 37'42	-4°04'27	minimum elong		3872 Sep 06 03:48	15° np 07'42	4°48'18
minimum elong	3871 Sep 24 23:55	2° B 24'26	4°02'55	morning rise		3872 Sep 13 15:55	10° np 41'55	
	3871 Sep 27 20:42	30° R np		direct		3872 Sep 16 01:16	10° np 21'35	
morning rise	3871 Oct 01 23:58	27° np 40'21		morning max el		3872 Sep 23 18:30	14° np 06'36	18°18'23
direct	3871 Oct 04 08:41	27° np 16'47		asc. node		3872 Sep 24 12:11	14° np 51'01	
asc. node	3871 Oct 08 15:09	28° np 36'40				3872 Oct 04 15:20	0° B	
	3871 Oct 10 11:42	0° B		morning set		3872 Oct 09 16:34	9° B 26'36	
morning max el	3871 Oct 11 08:06	0° B 47'14	17°54'58					
morning set	3871 Oct 27 04:05	25° B 38'52		superior conj		3872 Oct 18 22:39	26° B 50'14	1°20'56
	3871 Oct 29 13:30	0° M		minimum elong		3872 Oct 19 02:26	27° B 07'33	1°20'32
						3872 Oct 20 16:29	0° M	
superior conj	3871 Nov 06 17:31	14° M 31'14	0°54'08	max. Earth dist.		3872 Oct 26 12:08	10° M 12'45	1.40813 AU
minimum elong	3871 Nov 06 21:35	14° M 48'50	0°53'35	evening rise		3872 Oct 31 04:12	18° M 01'58	
max. Earth dist.	3871 Nov 14 04:06	27° M 04'04	1.42716 AU	desc. node		3872 Oct 31 14:53	18° M 45'41	
desc. node	3871 Nov 14 17:52	28° M 00'26				3872 Nov 07 16:46	0° X	
	3871 Nov 15 23:14	0° X				3872 Nov 29 02:34	0° B	
evening rise	3871 Nov 20 19:01	7° X 42'24		evening max el		3872 Dec 04 11:27	5° B 59'18	23°18'58
	3871 Dec 05 13:27	0° B		retrograde		3872 Dec 14 22:13	12° B 10'25	
evening max el	3871 Dec 22 20:07	22° B 23'04	21°59'35	evening set		3872 Dec 19 20:53	10° B 08'01	
retrograde	3872 Jan 01 03:58	27° B 56'10		asc. node		3872 Dec 21 11:25	8° B 34'37	
asc. node	3872 Jan 04 14:25	26° B 52'46		inferior conj		3872 Dec 25 06:22	3° B 43'38	1°15'32
evening set	3872 Jan 05 14:18	26° B 09'47		minimum elong		3872 Dec 25 04:43	3° B 49'19	1°14'53
inferior conj	3872 Jan 10 22:37	19° B 50'26	2°01'03	min. Earth dist.		3872 Dec 24 20:04	4° B 19'00	0.67955 AU
minimum elong	3872 Jan 10 20:19	19° B 58'24	2°00'16			3872 Dec 28 02:53	30° R X	
min. Earth dist.	3872 Jan 10 23:17	19° B 48'07	0.67948 AU	morning rise		3872 Dec 30 12:28	27° X 36'17	
morning rise	3872 Jan 16 02:12	13° B 39'11		direct		3873 Jan 03 18:31	25° X 55'40	
direct	3872 Jan 20 22:32	11° B 35'46				3873 Jan 11 09:35	0° B	
morning max el	3872 Jan 30 15:57	17° B 20'34	22°36'08	morning max el		3873 Jan 12 07:25	0° B 53'03	21°12'39

desc. node	3873 Jan 27 14:05	20°  37'51		desc. node	3874 Jan 14 11:09	10°  49'07	
	3873 Feb 02 22:18	0° 		morning set	3874 Jan 22 00:30	22°  21'59	
morning set	3873 Feb 12 04:06	14°  13'03			3874 Jan 26 22:25	0° 	
max. Earth dist.	3873 Feb 19 13:48	26°  05'58	1.42380 AU	max. Earth dist.	3874 Feb 01 23:35	9°  33'19	1.43997 AU
	3873 Feb 21 22:32	0° 					
superior conj	3873 Feb 26 20:48	8°  18'56	-2°07'00	superior conj	3874 Feb 07 08:57	18°  15'17	-2°02'22
minimum elong	3873 Feb 26 22:00	8°  24'03	2°06'58	minimum elong	3874 Feb 07 04:26	17°  56'52	2°02'11
evening rise	3873 Mar 10 06:03	28°  27'13			3874 Feb 14 10:57	0° 	
	3873 Mar 11 02:35	0° 		evening rise	3874 Feb 20 11:23	10°  14'57	
asc. node	3873 Mar 19 10:46	14°  36'35			3874 Mar 04 07:01	0° 	
evening max el	3873 Mar 26 21:23	24°  42'00	18°07'50	asc. node	3874 Mar 06 07:47	2°  58'15	
retrograde	3873 Apr 02 13:42	28°  06'13		evening max el	3874 Mar 10 10:05	7°  56'44	18°11'23
evening set	3873 Apr 05 05:03	27°  34'34		retrograde	3874 Mar 16 20:20	11°  20'38	
inferior conj	3873 Apr 11 20:41	22°  38'52	3°12'15	evening set	3874 Mar 19 17:33	10°  37'40	
minimum elong	3873 Apr 11 23:22	22°  32'27	3°11'49	inferior conj	3874 Mar 25 20:49	5°  21'59	3°34'03
min. Earth dist.	3873 Apr 15 02:10	19°  35'37	0.60863 AU	minimum elong	3874 Mar 25 21:45	5°  19'28	3°33'59
morning rise	3873 Apr 18 15:38	16°  46'21		min. Earth dist.	3874 Mar 28 13:29	2°  28'17	0.62965 AU
direct	3873 Apr 25 08:35	14°  33'12			3874 Mar 31 03:43	30°  17'25	
desc. node	3873 Apr 25 13:16	14°  33'19		morning rise	3874 Apr 01 00:49	29°  17'25	
morning max el	3873 May 09 14:39	22°  28'44	27°45'35	direct	3874 Apr 07 22:23	26°  39'13	
	3873 May 16 05:59	0° 		desc. node	3874 Apr 12 10:19	27°  38'10	
	3873 Jun 04 09:02	0° 			3874 Apr 16 13:09	0° 	
morning set	3873 Jun 11 03:32	13°  18'11		morning max el	3874 Apr 21 21:18	4°  37'18	27°48'18
asc. node	3873 Jun 15 10:04	22°  20'15			3874 May 10 22:35	0° 	
max. Earth dist.	3873 Jun 17 05:27	26°  15'59	1.32149 AU	morning set	3874 May 26 03:01	27°  27'35	
					3874 May 27 09:05	0° 	
superior conj	3873 Jun 18 10:25	28°  54'39	0°31'13	max. Earth dist.	3874 May 31 11:40	8°  35'14	1.32680 AU
minimum elong	3873 Jun 18 09:03	28°  47'10	0°30'57	asc. node	3874 Jun 02 07:06	12°  28'13	
	3873 Jun 18 22:19	0° 					
evening rise	3873 Jun 25 06:29	13°  48'23		superior conj	3874 Jun 02 18:51	13°  31'40	0°05'09
	3873 Jul 03 09:17	0° 		minimum elong	3874 Jun 02 18:36	13°  30'20	0°05'06
evening max el	3873 Jul 21 20:50	26°  10'14	25°10'46	behind sun begin	3874 Jun 02 13:37	13°  30'20	
desc. node	3873 Jul 22 12:34	26°  14'09		behind sun end	3874 Jun 02 23:36	13°  57'21	
	3873 Jul 26 13:00	0° 		evening rise	3874 Jun 09 18:20	28°  36'48	
retrograde	3873 Aug 04 20:00	3°  14'46			3874 Jun 10 10:03	0° 	
evening set	3873 Aug 10 10:30	2°  14'46			3874 Jun 27 13:43	0° 	
	3873 Aug 14 07:21	30°  14'46		evening max el	3874 Jul 03 09:59	6°  40'36	23°36'55
min. Earth dist.	3873 Aug 15 08:34	29°  19'44	0.57600 AU	desc. node	3874 Jul 09 09:35	11°  18'18	
inferior conj	3873 Aug 18 09:15	27°  16'41	-5°09'54	retrograde	3874 Jul 17 01:11	13°  18'18	
minimum elong	3873 Aug 18 09:51	27°  15'39	5°09'53	evening set	3874 Jul 21 04:33	12°  53'16	
morning rise	3873 Aug 26 11:35	23°  03'56		min. Earth dist.	3874 Jul 27 19:58	9°  46'32	0.55945 AU
direct	3873 Aug 29 00:47	22°  44'41		inferior conj	3874 Jul 29 23:13	8°  29'57	-4°51'37
morning max el	3873 Sep 06 20:50	26°  54'45	19°02'48	minimum elong	3874 Jul 29 17:48	8°  38'05	4°50'53
	3873 Sep 09 17:01	0° 		morning rise	3874 Aug 07 09:32	4°  34'53	
asc. node	3873 Sep 11 09:15	2°  11'04		direct	3874 Aug 10 05:06	4°  15'09	
morning set	3873 Sep 23 14:49	23°  42'33		morning max el	3874 Aug 20 12:18	9°  02'02	20°08'59
	3873 Sep 26 19:00	0° 		asc. node	3874 Aug 29 06:20	20°  21'54	
					3874 Sep 03 15:34	0° 	
superior conj	3873 Oct 01 22:34	10°  04'38	1°37'01	morning set	3874 Sep 07 19:38	8°  17'19	
minimum elong	3873 Oct 02 00:53	10°  15'44	1°36'53				
max. Earth dist.	3873 Oct 08 16:55	22°  40'49	1.38733 AU	superior conj	3874 Sep 15 12:09	23°  59'15	1°43'53
evening rise	3873 Oct 12 12:52	29°  26'15		minimum elong	3874 Sep 15 12:45	24°  02'20	1°43'53
	3873 Oct 12 20:41	0° 			3874 Sep 18 12:51	0° 	
desc. node	3873 Oct 18 11:55	9°  12'50'8		max. Earth dist.	3874 Sep 20 22:50	4°  40'01	1.36722 AU
	3873 Nov 01 02:01	0° 		evening rise	3874 Sep 24 19:10	11°  50'10	
evening max el	3873 Nov 17 00:30	19°  40'07	24°37'51	desc. node	3874 Oct 05 08:56	29°  53'42	
retrograde	3873 Nov 28 12:33	26°  22'24			3874 Oct 05 10:31	0° 	
evening set	3873 Dec 04 00:50	24°  04'24			3874 Oct 27 06:59	0° 	
asc. node	3873 Dec 08 08:27	19° 13'23		evening max el	3874 Oct 30 12:54	3° 22'28	25°49'12
min. Earth dist.	3873 Dec 08 15:45	18° 49'16	0.67615 AU	retrograde	3874 Nov 11 22:11	10° 26'23	
inferior conj	3873 Dec 09 12:46	17° 39'22	0°24'07	evening set	3874 Nov 18 00:24	7° 54'55	
minimum elong	3873 Dec 09 12:11	17° 41'19	0°23'51	min. Earth dist.	3874 Nov 22 07:53	3° 14'56	0.66926 AU
morning rise	3873 Dec 14 23:36	11° 38'06		inferior conj	3874 Nov 23 15:58	1° 33'39	-0°32'12
direct	3873 Dec 18 16:39	10° 19'03		minimum elong	3874 Nov 23 16:48	1° 30'59	0°31'50
morning max el	3873 Dec 26 06:36	14° 37'23	20°00'36		3874 Nov 24 22:02	30°	
	3874 Jan 07 04:26	0°		asc. node	3874 Nov 25 05:31	29°	
				morning rise	3874 Nov 29 09:35	25° 41'02	

direct	3874 Dec 02 15:22	24° \mathbb{M} 40'44			3875 Dec 05 14:30	0° \mathbb{X}	
morning max el	3874 Dec 09 13:31	28° \mathbb{M} 31'23	19°03'08	morning set	3875 Dec 12 13:13	11° \mathbb{X} 10'35	
	3874 Dec 10 22:53	0° \mathbb{X}		desc. node	3875 Dec 19 05:13	21° \mathbb{X} 52'18	
	3874 Dec 31 12:50	0° \mathbb{Z}			3875 Dec 24 08:12	0° \mathbb{Z}	
morning set	3875 Jan 01 05:34	1° \mathbb{Z} 05'14					
desc. node	3875 Jan 01 08:12	1° \mathbb{Z} 15'28		superior conj	3875 Dec 27 23:33	5° \mathbb{Z} 43'53	-0°57'30
max. Earth dist.	3875 Jan 15 15:39	23° \mathbb{Z} 38'32	1.44986 AU	minimum elong	3875 Dec 27 16:25	5° \mathbb{Z} 15'53	0°56'35
				max. Earth dist.	3875 Dec 29 10:33	8° \mathbb{Z} 01'18	1.45251 AU
superior conj	3875 Jan 17 21:22	27° \mathbb{Z} 10'18	-1°38'24		3876 Jan 12 11:07	0° \mathbb{X}	
minimum elong	3875 Jan 17 12:20	26° \mathbb{Z} 34'37	1°37'35	evening rise	3876 Jan 13 02:59	1° \mathbb{X} 02'17	
	3875 Jan 19 16:15	0° \mathbb{X}		greatest brilliancy	3876 Jan 23 18:30	17° \mathbb{X} 41'37	-0.8m
evening rise	3875 Feb 01 18:47	21° \mathbb{X} 06'29			3876 Feb 01 05:03	0° \mathbb{X}	
	3875 Feb 07 05:08	0° \mathbb{X}		evening max el	3876 Feb 05 07:06	4° \mathbb{X} 50'55	19°13'05
asc. node	3875 Feb 21 04:48	20° \mathbb{X} 36'00		asc. node	3876 Feb 08 01:51	7° \mathbb{X} 16'39	
evening max el	3875 Feb 21 22:07	21° \mathbb{X} 21'34	18°33'29	retrograde	3876 Feb 12 07:31	8° \mathbb{X} 51'01	
retrograde	3875 Feb 28 11:31	24° \mathbb{X} 58'09		evening set	3876 Feb 15 17:25	7° \mathbb{X} 43'03	
evening set	3875 Mar 03 14:40	24° \mathbb{X} 03'06		inferior conj	3876 Feb 21 06:18	1° \mathbb{X} 52'59	3°22'46
inferior conj	3875 Mar 09 09:14	18° \mathbb{X} 29'07	3°35'54	minimum elong	3876 Feb 21 04:30	1° \mathbb{X} 58'47	3°22'31
minimum elong	3875 Mar 09 08:33	18° \mathbb{X} 31'08	3°35'52	min. Earth dist.	3876 Feb 22 16:14	0° \mathbb{X} 04'04	0.66186 AU
min. Earth dist.	3875 Mar 11 10:26	16° \mathbb{X} 02'42	0.64770 AU		3876 Feb 22 17:31	30° \mathbb{R} \mathbb{X}	
morning rise	3875 Mar 15 01:52	12° \mathbb{X} 18'16		morning rise	3876 Feb 26 15:16	25° \mathbb{X} 39'24	
direct	3875 Mar 21 19:45	9° \mathbb{X} 28'23		direct	3876 Mar 03 23:44	22° \mathbb{X} 51'07	
desc. node	3875 Mar 30 07:23	12° \mathbb{X} 56'29		desc. node	3876 Mar 16 04:25	29° \mathbb{X} 53'00	
morning max el	3875 Apr 04 07:00	17° \mathbb{X} 20'18	27°15'53		3876 Mar 16 07:15	0° \mathbb{X}	
	3875 Apr 14 20:34	0° \mathbb{Y}		morning max el	3876 Mar 16 16:56	0° \mathbb{X} 24'14	26°15'04
	3875 May 03 19:10	0° \mathbb{Z}			3876 Apr 07 19:40	0° \mathbb{Y}	
morning set	3875 May 09 17:45	11° \mathbb{Z} 08'03		morning set	3876 Apr 21 19:54	24° \mathbb{Y} 07'36	
max. Earth dist.	3875 May 14 09:36	20° \mathbb{Z} 27'13	1.33658 AU		3876 Apr 24 22:06	0° \mathbb{Z}	
				max. Earth dist.	3876 Apr 25 20:02	1° \mathbb{Z} 46'29	1.35098 AU
superior conj	3875 May 17 22:46	27° \mathbb{Z} 50'52	-0°23'02				
minimum elong	3875 May 17 23:57	27° \mathbb{Z} 57'09	0°22'48	superior conj	3876 Apr 30 19:41	11° \mathbb{Z} 44'31	-0°52'06
	3875 May 18 23:10	0° \mathbb{II}		minimum elong	3876 Apr 30 22:28	11° \mathbb{Z} 58'43	0°51'36
asc. node	3875 May 20 04:09	2° \mathbb{II} 34'14		asc. node	3876 May 06 01:10	22° \mathbb{Z} 33'36	
evening rise	3875 May 25 05:22	13° \mathbb{II} 18'36		evening rise	3876 May 08 13:31	27° \mathbb{Z} 46'24	
	3875 Jun 02 17:41	0° \mathbb{III}			3876 May 09 15:34	0° \mathbb{II}	
evening max el	3875 Jun 15 01:47	17° \mathbb{III} 07'13	22°00'48	evening max el	3876 May 27 03:27	28° \mathbb{II} 00'26	20°35'41
desc. node	3875 Jun 26 06:37	23° \mathbb{III} 19'49			3876 May 29 09:51	0° \mathbb{III}	
retrograde	3875 Jun 27 19:02	23° \mathbb{III} 25'09		retrograde	3876 Jun 07 08:00	3° \mathbb{III} 28'18	
evening set	3875 Jun 30 13:16	23° \mathbb{III} 08'09		evening set	3876 Jun 09 08:50	3° \mathbb{III} 18'11	
inferior conj	3875 Jul 09 21:12	19° \mathbb{III} 03'28	-3°43'11	desc. node	3876 Jun 12 03:39	2° \mathbb{III} 34'08	
minimum elong	3875 Jul 09 12:43	19° \mathbb{III} 15'22	3°40'52		3876 Jun 17 11:23	30° \mathbb{R} \mathbb{II}	
min. Earth dist.	3875 Jul 09 06:31	19° \mathbb{III} 24'04	0.54976 AU	inferior conj	3876 Jun 18 14:48	29° \mathbb{II} 20'43	-1°53'58
morning rise	3875 Jul 18 13:50	15° \mathbb{III} 12'22		minimum elong	3876 Jun 18 09:28	29° \mathbb{II} 28'25	1°52'04
direct	3875 Jul 21 17:51	14° \mathbb{III} 50'09		min. Earth dist.	3876 Jun 19 18:31	28° \mathbb{II} 40'47	0.54933 AU
morning max el	3875 Aug 02 16:03	20° \mathbb{III} 24'36	21°35'19	morning rise	3876 Jun 27 09:20	25° \mathbb{II} 12'55	
	3875 Aug 10 14:13	0° \mathbb{IV}		direct	3876 Jul 01 03:19	24° \mathbb{II} 42'36	
asc. node	3875 Aug 16 03:25	9° \mathbb{IV} 11'29			3876 Jul 13 04:03	0° \mathbb{III}	
morning set	3875 Aug 23 04:37	23° \mathbb{IV} 04'10		morning max el	3876 Jul 14 10:15	1° \mathbb{III} 07'42	23°15'35
	3875 Aug 26 11:48	0° \mathbb{V}		asc. node	3876 Aug 02 00:27	28° \mathbb{III} 29'30	
					3876 Aug 02 18:50	0° \mathbb{IV}	
superior conj	3875 Aug 30 11:18	8° \mathbb{V} 22'21	1°43'04	morning set	3876 Aug 06 15:48	7° \mathbb{IV} 56'48	
minimum elong	3875 Aug 30 10:29	8° \mathbb{V} 18'06	1°43'03				
max. Earth dist.	3875 Sep 03 10:52	16° \mathbb{V} 32'41	1.34980 AU	superior conj	3876 Aug 13 16:51	23° \mathbb{IV} 03'36	1°35'52
evening rise	3875 Sep 07 19:01	25° \mathbb{V} 03'41		minimum elong	3876 Aug 13 15:03	22° \mathbb{IV} 53'58	1°35'43
	3875 Sep 10 10:09	0° \mathbb{VI}		max. Earth dist.	3876 Aug 16 07:38	28° \mathbb{IV} 37'31	1.33621 AU
desc. node	3875 Sep 22 05:57	20° \mathbb{VI} 05'50			3876 Aug 16 23:21	0° \mathbb{V}	
	3875 Sep 28 22:23	0° \mathbb{VII}		evening rise	3876 Aug 21 08:04	8° \mathbb{V} 54'52	
evening max el	3875 Oct 13 01:21	17° \mathbb{VII} 00'36	26°45'32		3876 Sep 01 20:52	0° \mathbb{VI}	
retrograde	3875 Oct 26 02:35	24° \mathbb{VII} 16'12		desc. node	3876 Sep 08 02:58	9° \mathbb{VI} 54'02	
evening set	3875 Nov 01 17:35	21° \mathbb{VII} 35'59			3876 Sep 24 02:58	0° \mathbb{VII}	
min. Earth dist.	3875 Nov 05 18:10	17° \mathbb{VII} 31'53	0.65886 AU	evening max el	3876 Sep 24 13:25	0° \mathbb{VII} 25'08	27°19'41
inferior conj	3875 Nov 07 13:58	15° \mathbb{VII} 23'11	-1°32'01	retrograde	3876 Oct 08 01:19	7° \mathbb{VII} 43'43	
minimum elong	3875 Nov 07 16:31	15° \mathbb{VII} 15'41	1°30'56	evening set	3876 Oct 15 01:54	5° \mathbb{VII} 02'45	
asc. node	3875 Nov 12 02:35	10° \mathbb{VII} 43'28		min. Earth dist.	3876 Oct 18 20:28	1° \mathbb{VIII} 33'25	0.64489 AU
morning rise	3875 Nov 13 16:12	9° \mathbb{VIII} 41'54			3876 Oct 20 07:26	30° \mathbb{R} \mathbb{V}	
direct	3875 Nov 16 12:45	8° \mathbb{VIII} 56'40		inferior conj	3876 Oct 21 04:26	29° \mathbb{V} 03'11	-2°33'20
morning max el	3875 Nov 23 02:22	12° \mathbb{VIII} 30'30	18°21'41	minimum elong	3876 Oct 21 08:45	28° \mathbb{V} 51'37	2°31'42

morning rise	3876 Oct 27 16:46	23°♄36'13		evening set	3877 Sep 27 22:01	18°♄08'22	
asc. node	3876 Oct 28 23:39	23°♄10'44		min. Earth dist.	3877 Oct 01 12:55	15°♄09'07	0.62770 AU
direct	3876 Oct 30 06:31	23°♄02'08		inferior conj	3877 Oct 04 08:35	12°♄26'31	-3°32'57
morning max el	3876 Nov 05 18:28	26°♄28'24	17°57'12	minimum elong	3877 Oct 04 14:13	12°♄12'55	3°31'13
	3876 Nov 08 19:30	0°♄		morning rise	3877 Oct 11 07:59	7°♄17'07	
morning set	3876 Nov 23 01:53	22°♄41'42		direct	3877 Oct 13 17:40	6°♄50'33	
	3876 Nov 27 10:16	0°♄		asc. node	3877 Oct 15 20:41	7°♄11'53	
desc. node	3876 Dec 05 02:14	12°♄36'06		morning max el	3877 Oct 20 10:48	10°♄17'21	17°50'25
					3877 Nov 02 13:32	0°♄	
superior conj	3876 Dec 06 12:33	14°♄54'31	-0°09'50	morning set	3877 Nov 05 13:57	5°♄20'03	
minimum elong	3876 Dec 06 11:23	14°♄49'48	0°09'40				
behind sun begin	3876 Dec 06 03:01	14°♄16'06		superior conj	3877 Nov 17 02:00	25°♄17'24	0°33'35
behind sun end	3876 Dec 06 19:45	15°♄23'26		minimum elong	3877 Nov 17 05:07	25°♄30'30	0°33'09
max. Earth dist.	3876 Dec 11 05:15	22°♄23'54	1.44779 AU		3877 Nov 19 21:49	0°♄	
	3876 Dec 16 01:24	0°♄		desc. node	3877 Nov 21 23:16	3°♄23'01	
evening rise	3876 Dec 22 17:19	10°♄19'17		max. Earth dist.	3877 Nov 23 21:27	6°♄30'26	1.43632 AU
	3877 Jan 04 16:28	0°♄		evening rise	3877 Dec 02 03:10	19°♄31'35	
greatest brilliancy	3877 Jan 06 07:12	2°♄22'58	-0.6m		3877 Dec 08 23:48	0°♄	
evening max el	3877 Jan 18 11:26	18°♄22'43	20°08'18		3877 Dec 30 15:18	0°♄	
asc. node	3877 Jan 24 22:53	22°♄45'58		evening max el	3878 Jan 01 10:19	1°♄55'40	21°16'18
retrograde	3877 Jan 26 05:29	22°♄54'49		retrograde	3878 Jan 10 03:11	7°♄05'17	
evening set	3877 Jan 29 23:32	21°♄32'51		asc. node	3878 Jan 11 19:55	6°♄49'35	
inferior conj	3877 Feb 04 09:10	15°♄29'11	2°58'05	evening set	3878 Jan 14 07:07	5°♄28'06	
minimum elong	3877 Feb 04 06:47	15°♄37'15	2°57'33		3878 Jan 19 02:02	30°♄	
min. Earth dist.	3877 Feb 05 05:08	14°♄21'52	0.67191 AU	inferior conj	3878 Jan 19 15:28	29°♄13'42	2°24'09
morning rise	3877 Feb 09 13:48	9°♄15'14		minimum elong	3878 Jan 19 13:00	29°♄22'14	2°23'24
direct	3877 Feb 15 09:23	6°♄39'17		min. Earth dist.	3878 Jan 19 22:51	28°♄48'12	0.67790 AU
morning max el	3877 Feb 27 01:38	13°♄38'11	24°55'18	morning rise	3878 Jan 24 18:41	23°♄01'07	
desc. node	3877 Mar 03 01:26	18°♄00'07		direct	3878 Jan 29 23:42	20°♄44'41	
	3877 Mar 12 08:28	0°♄		morning max el	3878 Feb 09 10:19	26°♄57'19	23°26'55
	3877 Mar 31 15:15	0°♄			3878 Feb 12 06:17	0°♄	
morning set	3877 Apr 04 04:33	6°♄12'35		desc. node	3878 Feb 17 22:27	6°♄57'18	
max. Earth dist.	3877 Apr 07 19:39	12°♄47'07	1.36963 AU		3878 Mar 05 23:38	0°♄	
				morning set	3878 Mar 16 13:37	17°♄06'08	
superior conj	3877 Apr 14 06:41	25°♄05'03	-1°20'17	max. Earth dist.	3878 Mar 20 14:40	24°♄03'10	1.39103 AU
minimum elong	3877 Apr 14 10:51	25°♄25'30	1°19'40		3878 Mar 23 23:03	0°♄	
	3877 Apr 16 18:22	0°♄		superior conj	3878 Mar 28 03:53	7°♄42'16	-1°44'57
evening rise	3877 Apr 22 16:32	11°♄53'58		minimum elong	3878 Mar 28 08:35	8°♄04'14	1°44'28
asc. node	3877 Apr 22 22:12	12°♄22'19		evening rise	3878 Apr 06 11:36	25°♄33'32	
	3877 May 02 10:04	0°♄			3878 Apr 08 18:58	0°♄	
evening max el	3877 May 09 17:28	9°♄34'42	19°28'27	asc. node	3878 Apr 09 19:13	1°♄55'18	
retrograde	3877 May 19 04:09	14°♄10'07		evening max el	3878 Apr 22 18:03	21°♄48'02	18°41'20
evening set	3877 May 21 03:47	13°♄58'51		retrograde	3878 Apr 30 17:47	25°♄43'07	
inferior conj	3877 May 29 18:34	9°♄53'21	0°04'28	evening set	3878 May 02 23:03	25°♄26'04	
minimum elong	3877 May 29 18:45	9°♄53'02	0°04'24	inferior conj	3878 May 10 17:54	21°♄02'35	1°42'19
transit middle	3877 May 29 18:45	9°♄53'02	0°04'24	minimum elong	3878 May 10 21:15	20°♄56'17	1°41'16
transit begin	3877 May 29 15:01	9°♄59'03		min. Earth dist.	3878 May 14 01:44	18°♄33'54	0.57512 AU
transit end	3877 May 29 22:30	9°♄47'00		desc. node	3878 May 16 21:38	16°♄43'22	
desc. node	3877 May 30 00:39	9°♄43'32		morning rise	3878 May 18 16:16	15°♄48'13	
min. Earth dist.	3877 Jun 01 08:38	8°♄13'52	0.55847 AU	direct	3878 May 24 07:23	14°♄29'50	
morning rise	3877 Jun 07 06:56	5°♄13'35		morning max el	3878 Jun 07 16:02	22°♄03'10	26°26'25
direct	3877 Jun 11 22:26	4°♄24'46			3878 Jun 14 15:55	0°♄	
morning max el	3877 Jun 26 00:10	11°♄31'03	24°57'47		3878 Jul 02 20:37	0°♄	
	3877 Jul 10 02:56	0°♄		morning set	3878 Jul 06 14:14	7°♄40'05	
asc. node	3877 Jul 19 21:28	18°♄08'31		asc. node	3878 Jul 06 18:30	8°♄02'35	
morning set	3877 Jul 22 03:32	22°♄50'20					
	3877 Jul 25 11:24	0°♄		superior conj	3878 Jul 13 13:51	22°♄51'12	1°06'06
superior conj	3877 Jul 29 02:21	7°♄55'20	1°23'17	minimum elong	3878 Jul 13 11:34	22°♄38'36	1°05'42
minimum elong	3877 Jul 29 00:04	7°♄42'51	1°22'58	max. Earth dist.	3878 Jul 13 22:54	23°♄41'08	1.32162 AU
max. Earth dist.	3877 Jul 30 12:35	11°♄01'48	1.32686 AU		3878 Jul 16 20:00	0°♄	
evening rise	3877 Aug 05 06:41	23°♄13'21		evening rise	3878 Jul 20 11:54	7°♄50'19	
	3877 Aug 08 15:54	0°♄			3878 Aug 01 02:33	0°♄	
desc. node	3877 Aug 25 23:59	29°♄07'59		desc. node	3878 Aug 12 20:59	17°♄33'56	
	3877 Aug 26 14:53	0°♄		evening max el	3878 Aug 20 04:26	25°♄43'02	26°57'27
evening max el	3877 Sep 06 23:20	13°♄23'34	27°25'03		3878 Aug 25 12:41	0°♄	
retrograde	3877 Sep 20 17:27	20°♄39'13		retrograde	3878 Sep 03 01:54	2°♄54'23	

evening set	3878 Sep 10 01:47	0° Ω 46'00		retrograde	3879 Aug 16 01:29	14° Π 21'44	
	3878 Sep 11 06:27	30° \mathbb{R} Π		evening set	3879 Aug 22 08:19	12° Π 47'03	
min. Earth dist.	3878 Sep 13 18:39	28° Π 06'37	0.60804 AU	min. Earth dist.	3879 Aug 26 14:34	10° Π 11'06	0.58737 AU
inferior conj	3878 Sep 16 23:08	25° Π 25'07	-4°25'23	inferior conj	3879 Aug 29 20:28	7° Π 48'16	-5°01'37
minimum elong	3878 Sep 17 04:51	25° Π 12'58	4°24'11	minimum elong	3879 Aug 29 23:50	7° Π 42'03	5°01'18
morning rise	3878 Sep 24 09:48	20° Π 36'42		morning rise	3879 Sep 06 17:35	3° Π 23'06	
direct	3878 Sep 26 18:30	20° Π 14'40		direct	3879 Sep 09 04:22	3° Π 03'22	
asc. node	3878 Oct 02 17:43	22° Π 41'42		morning max el	3879 Sep 17 07:40	6° Π 57'09	18°34'43
morning max el	3878 Oct 04 00:18	23° Π 50'05	18°02'28	asc. node	3879 Sep 19 14:46	9° Π 25'38	
	3878 Oct 08 23:28	0° Ω			3879 Oct 02 01:19	0° Ω	
morning set	3878 Oct 19 19:04	18° Ω 47'09		morning set	3879 Oct 03 12:07	2° Ω 47'49	
	3878 Oct 25 20:55	0° \mathbb{L}					
superior conj	3878 Oct 29 17:53	6° \mathbb{L} 57'40	1°06'52	superior conj	3879 Oct 12 07:42	19° Ω 42'05	1°28'59
minimum elong	3878 Oct 29 22:04	7° \mathbb{L} 16'11	1°06'22	minimum elong	3879 Oct 12 10:56	19° Ω 57'11	1°28'42
max. Earth dist.	3878 Nov 06 09:09	20° \mathbb{L} 05'35	1.41949 AU		3879 Oct 17 23:22	0° \mathbb{L}	
desc. node	3878 Nov 08 20:19	24° \mathbb{L} 09'57		max. Earth dist.	3879 Oct 19 15:34	2° \mathbb{L} 56'50	1.39933 AU
evening rise	3878 Nov 12 00:40	29° \mathbb{L} 18'46		evening rise	3879 Oct 23 19:38	10° \mathbb{L} 04'44	
	3878 Nov 12 11:00	0° \mathbb{X}		desc. node	3879 Oct 26 17:21	14° \mathbb{L} 52'57	
	3878 Dec 02 14:31	0° \mathbb{Z}			3879 Nov 05 09:34	0° \mathbb{X}	
evening max el	3878 Dec 15 04:03	15° \mathbb{Z} 30'21	22°32'57	evening max el	3879 Nov 27 18:02	29° \mathbb{X} 07'52	23°52'57
retrograde	3878 Dec 24 23:03	21° \mathbb{Z} 19'27			3879 Nov 28 15:26	0° \mathbb{Z}	
evening set	3878 Dec 29 14:33	19° \mathbb{Z} 26'08		retrograde	3879 Dec 08 15:49	5° \mathbb{Z} 33'30	
asc. node	3878 Dec 29 16:56	19° \mathbb{Z} 21'10		evening set	3879 Dec 13 20:16	3° \mathbb{Z} 24'02	
inferior conj	3879 Jan 03 23:13	13° \mathbb{Z} 04'19	1°42'33	asc. node	3879 Dec 16 13:58	0° \mathbb{Z} 31'35	
minimum elong	3879 Jan 03 21:08	13° \mathbb{Z} 11'30	1°41'47		3879 Dec 17 00:07	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3879 Jan 03 19:07	13° \mathbb{Z} 18'30	0.68003 AU	min. Earth dist.	3879 Dec 18 15:41	27° \mathbb{X} 49'30	0.67850 AU
morning rise	3879 Jan 09 03:36	6° \mathbb{Z} 54'44		inferior conj	3879 Dec 19 06:37	26° \mathbb{X} 58'43	0°54'24
direct	3879 Jan 13 17:50	5° \mathbb{Z} 01'02		minimum elong	3879 Dec 19 05:22	27° \mathbb{X} 02'58	0°53'53
morning max el	3879 Jan 22 22:25	10° \mathbb{Z} 24'19	21°59'32	morning rise	3879 Dec 24 14:30	20° \mathbb{X} 53'54	
desc. node	3879 Feb 04 19:30	26° \mathbb{Z} 30'40		direct	3879 Dec 28 14:45	19° \mathbb{X} 22'57	
	3879 Feb 07 06:31	0° \approx		morning max el	3880 Jan 05 17:11	24° \mathbb{X} 02'26	20°40'28
morning set	3879 Feb 24 18:11	26° \approx 37'44			3880 Jan 10 21:22	0° \mathbb{Z}	
	3879 Feb 26 20:09	0° \mathbb{X}		desc. node	3880 Jan 22 16:35	16° \mathbb{Z} 30'15	
max. Earth dist.	3879 Mar 02 12:59	6° \mathbb{X} 06'42	1.41255 AU		3880 Jan 31 15:20	0° \approx	
superior conj	3879 Mar 10 06:31	19° \mathbb{X} 24'34	-2°02'17	morning set	3880 Feb 03 21:33	5° \approx 02'12	
minimum elong	3879 Mar 10 09:50	19° \mathbb{X} 39'14	2°02'06	max. Earth dist.	3880 Feb 12 18:20	19° \approx 05'21	1.43128 AU
	3879 Mar 16 03:30	0° \mathbb{Y}					
evening rise	3879 Mar 20 19:21	8° \mathbb{Y} 36'55		superior conj	3880 Feb 19 09:39	0° \mathbb{X} 01'11	-2°07'14
asc. node	3879 Mar 27 16:15	21° \mathbb{Y} 06'37		minimum elong	3880 Feb 19 08:38	29° \approx 56'59	2°07'13
	3879 Apr 02 06:41	0° \mathbb{B}			3880 Feb 19 09:22	0° \mathbb{X}	
evening max el	3879 Apr 06 01:54	4° \mathbb{B} 32'03	18°14'20	evening rise	3880 Mar 02 11:41	20° \mathbb{X} 55'19	
retrograde	3879 Apr 13 02:26	8° \mathbb{B} 03'16			3880 Mar 07 15:19	0° \mathbb{Y}	
evening set	3879 Apr 15 14:11	7° \mathbb{B} 37'32		asc. node	3880 Mar 13 13:17	9° \mathbb{Y} 49'25	
inferior conj	3879 Apr 22 14:40	2° \mathbb{B} 53'18	2°48'14	evening max el	3880 Mar 19 13:44	17° \mathbb{Y} 38'17	18°06'58
minimum elong	3879 Apr 22 18:07	2° \mathbb{B} 45'43	2°47'28	retrograde	3880 Mar 26 02:26	21° \mathbb{Y} 01'05	
	3879 Apr 25 22:08	30° \mathbb{R} \mathbb{Y}		evening set	3880 Mar 28 20:11	20° \mathbb{Y} 24'52	
min. Earth dist.	3879 Apr 26 00:14	29° \mathbb{Y} 55'36	0.59601 AU	inferior conj	3880 Apr 04 06:05	15° \mathbb{Y} 20'27	3°24'18
morning rise	3879 Apr 29 19:29	27° \mathbb{Y} 11'31		minimum elong	3880 Apr 04 08:03	15° \mathbb{Y} 15'29	3°24'04
desc. node	3879 May 03 18:40	25° \mathbb{Y} 34'20		min. Earth dist.	3880 Apr 07 06:41	12° \mathbb{Y} 18'28	0.61777 AU
direct	3879 May 06 05:15	25° \mathbb{Y} 17'53		morning rise	3880 Apr 10 18:14	9° \mathbb{Y} 21'32	
	3879 May 17 01:59	0° \mathbb{B}		direct	3880 Apr 17 14:04	6° \mathbb{Y} 56'20	
morning max el	3879 May 20 13:50	3° \mathbb{B} 07'42	27°27'03	desc. node	3880 Apr 19 15:43	7° \mathbb{Y} 08'45	
	3879 Jun 09 04:25	0° \mathbb{I}		morning max el	3880 May 01 17:59	14° \mathbb{Y} 54'37	27°51'20
morning set	3879 Jun 20 22:11	22° \mathbb{I} 19'34			3880 May 13 23:46	0° \mathbb{B}	
asc. node	3879 Jun 23 15:32	28° \mathbb{I} 05'39		morning set	3880 May 31 16:49	0° \mathbb{I}	
	3879 Jun 24 12:43	0° \mathbb{E}		asc. node	3880 Jun 04 01:28	6° \mathbb{I} 42'35	
max. Earth dist.	3879 Jun 27 10:44	6° \mathbb{E} 22'52	1.32038 AU	max. Earth dist.	3880 Jun 09 12:35	18° \mathbb{I} 13'19	
					3880 Jun 09 20:08	18° \mathbb{I} 54'08	1.32323 AU
superior conj	3879 Jun 28 01:31	7° \mathbb{E} 44'20	0°44'57	superior conj	3880 Jun 11 11:41	22° \mathbb{I} 29'15	0°20'29
minimum elong	3879 Jun 27 23:42	7° \mathbb{E} 34'16	0°44'35	minimum elong	3880 Jun 11 10:45	22° \mathbb{I} 24'08	0°20'17
evening rise	3879 Jul 04 21:16	22° \mathbb{E} 36'56			3880 Jun 14 22:05	0° \mathbb{E}	
	3879 Jul 08 10:53	0° \mathbb{O}		evening rise	3880 Jun 18 08:46	7° \mathbb{E} 26'38	
	3879 Jul 26 14:36	0° \mathbb{P}			3880 Jun 30 02:51	0° \mathbb{O}	
desc. node	3879 Jul 30 17:59	4° \mathbb{P} 51'20		evening max el	3880 Jul 13 17:05	18° \mathbb{O} 00'03	24°32'00
evening max el	3879 Aug 02 02:10	7° \mathbb{P} 13'36	25°57'19	desc. node	3880 Jul 16 14:59	20° \mathbb{O} 32'54	
				retrograde	3880 Jul 27 14:26	25° \mathbb{O} 01'01	

evening set	3880 Aug 01 14:41	24°♎04'39		evening rise	3881 Jun 02 20:30	22°♐12'50	
min. Earth dist.	3880 Aug 07 04:09	21°♎13'13	0.56833 AU		3881 Jun 06 14:59	0°♊	
inferior conj	3880 Aug 09 21:55	19°♎27'57	-5°07'51	evening max el	3881 Jun 25 06:26	28°♊25'12	22°55'26
minimum elong	3880 Aug 09 20:00	19°♎31'04	5°07'45		3881 Jun 26 23:57	0°♋	
morning rise	3880 Aug 18 03:54	15°♎24'06		desc. node	3881 Jul 03 11:59	4°♎04'30	
direct	3880 Aug 20 19:24	15°♎04'57		retrograde	3881 Jul 08 14:43	5°♎04'14	
morning max el	3880 Aug 30 05:44	19°♎29'08	19°28'21	evening set	3881 Jul 12 02:24	4°♎37'38	
asc. node	3880 Sep 05 11:49	27°♎08'41		min. Earth dist.	3881 Jul 19 15:14	1°♎16'28	0.55430 AU
	3880 Sep 07 07:41	0°♏		inferior conj	3881 Jul 21 04:12	0°♎23'07	-4°28'48
morning set	3880 Sep 16 13:26	17°♏12'07		minimum elong	3881 Jul 20 20:47	0°♎33'51	4°27'20
	3880 Sep 22 22:27	0°♐			3881 Jul 21 20:14	30°♏♊	
				morning rise	3881 Jul 29 17:25	26°♊31'32	
superior conj	3880 Sep 24 13:58	3°♐15'03	1°40'59	direct	3881 Aug 01 16:01	26°♊11'10	
minimum elong	3880 Sep 24 15:33	3°♐22'47	1°40'54		3881 Aug 11 04:12	0°♋	
max. Earth dist.	3880 Sep 30 19:41	15°♐07'56	1.37850 AU	morning max el	3881 Aug 12 16:12	1°♋17'57	20°43'26
evening rise	3880 Oct 04 13:52	21°♐54'56		asc. node	3881 Aug 23 08:53	15°♋37'35	
	3880 Oct 09 06:36	0°♌			3881 Aug 30 22:14	0°♏	
desc. node	3880 Oct 12 14:22	5°♌28'02		morning set	3881 Aug 31 20:18	1°♏52'56	
	3880 Oct 29 07:19	0°♍					
evening max el	3880 Nov 09 06:26	12°♍48'46	25°09'39	superior conj	3881 Sep 08 08:04	17°♏23'23	1°44'24
retrograde	3880 Nov 21 04:25	19°♍42'27		minimum elong	3881 Sep 08 08:02	17°♏23'10	1°44'24
evening set	3880 Nov 26 22:35	17°♍18'13		max. Earth dist.	3881 Sep 13 03:28	27°♏00'53	1.35939 AU
min. Earth dist.	3880 Dec 01 10:11	12°♍17'49	0.67354 AU		3881 Sep 14 16:30	0°♐	
inferior conj	3880 Dec 02 11:53	10°♍53'56	0°00'43	evening rise	3881 Sep 17 04:15	4°♐42'10	
minimum elong	3880 Dec 02 11:52	10°♍53'59	0°00'43	desc. node	3881 Sep 29 11:22	25°♐50'36	
transit middle	3880 Dec 02 11:52	10°♍53'59	0°00'43		3881 Oct 02 03:27	0°♑	
transit begin	3880 Dec 02 09:05	11°♍03'04		evening max el	3881 Oct 22 18:57	26°♑31'04	26°15'34
transit end	3880 Dec 02 14:38	10°♍44'56			3881 Oct 26 19:02	0°♒	
asc. node	3880 Dec 02 11:02	10°♍56'41		retrograde	3881 Nov 04 11:58	3°♒41'23	
morning rise	3880 Dec 08 01:22	4°♒55'59		evening set	3881 Nov 10 19:42	1°♒05'44	
direct	3880 Dec 11 13:16	3°♒45'29			3881 Nov 12 00:42	30°♒♌	
morning max el	3880 Dec 18 19:48	7°♒51'09	19°34'16	min. Earth dist.	3881 Nov 15 00:16	26°♌40'41	0.66520 AU
greatest brilliancy	3880 Dec 31 22:42	25°♒14'53	-0.7m	inferior conj	3881 Nov 16 13:09	24°♌47'21	-0°57'15
	3881 Jan 04 02:34	0°♉		minimum elong	3881 Nov 16 14:41	24°♌42'36	0°56'34
desc. node	3881 Jan 08 13:37	6°♉48'15		asc. node	3881 Nov 19 08:06	21°♌32'46	
morning set	3881 Jan 12 18:23	13°♉16'09		morning rise	3881 Nov 22 10:12	18°♌58'55	
	3881 Jan 23 11:50	0°♊		direct	3881 Nov 25 11:45	18°♌05'28	
max. Earth dist.	3881 Jan 25 06:32	2°♊48'46	1.44491 AU	morning max el	3881 Dec 02 05:27	21°♌47'59	18°43'27
					3881 Dec 08 18:59	0°♋	
superior conj	3881 Jan 29 10:52	9°♊28'38	-1°54'38	morning set	3881 Dec 23 09:33	22°♋31'29	
minimum elong	3881 Jan 29 03:54	9°♊00'42	1°54'12	desc. node	3881 Dec 26 10:40	27°♋19'46	
	3881 Feb 10 22:52	0°♌			3881 Dec 28 03:22	0°♍	
evening rise	3881 Feb 12 08:04	2°♌19'20		max. Earth dist.	3882 Jan 07 23:55	17°♍02'48	1.45189 AU
asc. node	3881 Feb 28 10:20	27°♌54'03					
	3881 Mar 02 04:30	0°♎		superior conj	3882 Jan 08 16:37	18°♍08'22	-1°22'41
evening max el	3881 Mar 03 02:28	0°♎58'07	18°18'37	minimum elong	3882 Jan 08 07:31	17°♍32'40	1°21'41
retrograde	3881 Mar 09 13:08	4°♎26'02			3882 Jan 16 05:13	0°♏	
evening set	3881 Mar 12 12:44	3°♎38'11		evening rise	3882 Jan 24 05:24	12°♏46'02	
	3881 Mar 16 21:46	30°♏♌		greatest brilliancy	3882 Jan 31 13:56	24°♏34'30	-0.9m
inferior conj	3881 Mar 18 11:55	28°♌14'46	3°36'53		3882 Feb 04 00:17	0°♌	
minimum elong	3881 Mar 18 12:07	28°♌14'12	3°36'54	evening max el	3882 Feb 14 13:31	14°♌25'45	18°48'20
min. Earth dist.	3881 Mar 20 22:15	25°♌30'36	0.63774 AU	asc. node	3882 Feb 15 07:22	15°♌09'25	
morning rise	3881 Mar 24 10:37	22°♌06'52		retrograde	3882 Feb 21 06:37	18°♌10'45	
direct	3881 Mar 31 07:33	19°♌21'36		evening set	3882 Feb 24 12:33	17°♌10'17	
desc. node	3881 Apr 06 12:46	21°♌14'23		inferior conj	3882 Mar 02 04:23	11°♌29'26	3°31'53
morning max el	3881 Apr 14 02:14	27°♌19'10	27°38'24	minimum elong	3882 Mar 02 03:10	11°♌33'12	3°31'47
	3881 Apr 16 15:05	0°♎		min. Earth dist.	3882 Mar 03 23:02	9°♌18'03	0.65428 AU
	3881 May 07 16:07	0°♏		morning rise	3882 Mar 07 17:21	5°♌17'18	
morning set	3881 May 18 21:38	20°♏40'59		direct	3882 Mar 14 07:58	2°♌26'23	
	3881 May 23 11:15	0°♐		desc. node	3882 Mar 24 09:50	7°♌18'09	
max. Earth dist.	3881 May 23 23:01	1°♐01'38	1.33038 AU	morning max el	3882 Mar 27 12:02	10°♌11'35	26°52'54
					3882 Apr 12 03:10	0°♎	
superior conj	3881 May 26 18:28	6°♐59'39	-0°06'37		3882 Apr 30 03:32	0°♏	
minimum elong	3881 May 26 18:48	7°♐01'25	0°06'33	morning set	3882 May 02 07:30	4°♏05'26	
behind sun begin	3881 May 26 13:53	6°♐35'07		max. Earth dist.	3882 May 06 16:03	12°♏38'28	1.34216 AU
behind sun end	3881 May 26 23:42	7°♐27'44					
asc. node	3881 May 27 09:38	8°♐21'03		superior conj	3882 May 10 19:44	21°♏09'12	-0°35'20

minimum elong	3882 May 10 21:36	21°♄18'53	0°34'58	superior conj	3883 Apr 24 12:53	4°♄50'22	-1°04'17
asc. node	3882 May 14 06:40	28°♄24'54		minimum elong	3883 Apr 24 16:18	5°♄07'35	1°03'42
	3882 May 15 00:40	0°♄		asc. node	3883 May 01 03:41	18°♄20'49	
evening rise	3882 May 18 06:33	6°♄49'35		evening rise	3883 May 02 12:51	21°♄10'24	
	3882 May 30 19:56	0°♄			3883 May 06 23:16	0°♄	
evening max el	3882 Jun 07 01:57	9°♄00'55	21°22'43	evening max el	3883 May 20 08:52	20°♄11'24	20°04'41
retrograde	3882 Jun 19 04:39	14°♄58'15		retrograde	3883 May 30 19:14	25°♄16'26	
desc. node	3882 Jun 20 09:01	14°♄55'00		evening set	3883 Jun 01 18:18	25°♄06'25	
evening set	3882 Jun 21 13:22	14°♄45'26		desc. node	3883 Jun 07 06:02	23°♄07'36	
inferior conj	3882 Jun 30 22:33	10°♄46'10	-3°00'18	inferior conj	3883 Jun 10 18:54	21°♄06'52	-1°02'51
minimum elong	3882 Jun 30 14:43	10°♄57'08	2°57'49	minimum elong	3883 Jun 10 15:57	21°♄11'16	1°01'45
min. Earth dist.	3882 Jul 01 02:11	10°♄41'06	0.54842 AU	min. Earth dist.	3883 Jun 12 14:40	20°♄01'26	0.55212 AU
morning rise	3882 Jul 09 16:45	6°♄50'28		morning rise	3883 Jun 19 11:59	16°♄47'10	
direct	3882 Jul 13 02:07	6°♄25'34		direct	3883 Jun 23 14:22	16°♄10'36	
morning max el	3882 Jul 25 15:14	12°♄21'51	22°16'47	morning max el	3883 Jul 07 06:52	22°♄54'00	23°59'42
	3882 Aug 07 16:06	0°♄			3883 Jul 13 14:36	0°♄	
asc. node	3882 Aug 10 05:56	4°♄40'35		asc. node	3883 Jul 28 02:57	24°♄08'59	
morning set	3882 Aug 16 06:27	16°♄43'15			3883 Jul 30 23:30	0°♄	
	3882 Aug 22 12:29	0°♄		morning set	3883 Jul 31 18:06	1°♄37'46	
superior conj	3882 Aug 23 10:16	1°♄55'20	1°40'44	superior conj	3883 Aug 07 17:47	16°♄42'26	1°31'08
minimum elong	3882 Aug 23 08:58	1°♄48'32	1°40'39	minimum elong	3883 Aug 07 15:43	16°♄31'17	1°30'55
max. Earth dist.	3882 Aug 26 19:24	8°♄58'41	1.34357 AU	max. Earth dist.	3883 Aug 09 20:11	21°♄13'37	1.33177 AU
evening rise	3882 Aug 31 10:14	18°♄13'31			3883 Aug 14 00:38	0°♄	
	3882 Sep 06 17:59	0°♄		evening rise	3883 Aug 15 03:47	2°♄17'56	
desc. node	3882 Sep 16 08:21	15°♄53'50			3883 Aug 30 14:28	0°♄	
	3882 Sep 26 08:37	0°♄		desc. node	3883 Sep 03 05:21	5°♄29'15	
evening max el	3882 Oct 05 07:37	10°♄05'49	27°03'13	evening max el	3883 Sep 17 19:01	23°♄20'55	27°25'37
retrograde	3882 Oct 18 13:49	17°♄22'42			3883 Sep 27 16:50	0°♄	
evening set	3882 Oct 25 09:24	14°♄41'20		retrograde	3883 Oct 01 09:34	0°♄38'09	
min. Earth dist.	3882 Oct 29 07:24	10°♄52'11	0.65338 AU		3883 Oct 04 22:17	30°♄	
inferior conj	3882 Oct 31 08:15	8°♄33'47	-1°57'58	evening set	3883 Oct 08 12:56	27°♄59'52	
minimum elong	3882 Oct 31 11:33	8°♄24'25	1°56'38	min. Earth dist.	3883 Oct 12 05:31	24°♄44'26	0.63807 AU
asc. node	3882 Nov 06 05:08	3°♄10'16		inferior conj	3883 Oct 14 18:41	22°♄07'37	-2°59'02
morning rise	3882 Nov 06 14:36	2°♄58'00		minimum elong	3883 Oct 14 23:38	21°♄54'52	2°57'18
direct	3882 Nov 09 08:03	2°♄17'49		morning rise	3883 Oct 21 11:40	16°♄47'52	
morning max el	3882 Nov 15 19:58	5°♄47'10	18°09'08	direct	3883 Oct 23 23:26	16°♄17'19	
	3882 Dec 02 06:28	0°♄		asc. node	3883 Oct 24 02:10	16°♄17'23	
morning set	3882 Dec 04 05:58	3°♄15'09		morning max el	3883 Oct 30 12:33	19°♄42'23	17°52'05
desc. node	3882 Dec 13 07:40	17°♄59'58			3883 Nov 07 04:02	0°♄	
superior conj	3882 Dec 18 20:50	26°♄50'26	-0°37'21	morning set	3883 Nov 16 05:20	15°♄17'14	
minimum elong	3882 Dec 18 16:07	26°♄31'48	0°36'43		3883 Nov 24 21:01	0°♄	
	3882 Dec 20 20:51	0°♄		superior conj	3883 Nov 28 19:16	6°♄29'20	0°09'38
max. Earth dist.	3882 Dec 21 19:32	1°♄29'14	1.45145 AU	minimum elong	3883 Nov 28 20:19	6°♄33'38	0°09'29
evening rise	3883 Jan 04 04:49	22°♄22'15		behind sun begin	3883 Nov 28 12:17	6°♄00'46	
	3883 Jan 09 02:57	0°♄		behind sun end	3883 Nov 29 04:21	7°♄06'27	
greatest brilliancy	3883 Jan 16 19:46	11°♄47'34	-0.7m	desc. node	3883 Nov 30 04:40	8°♄45'30	
evening max el	3883 Jan 28 20:43	27°♄56'30	19°34'50	max. Earth dist.	3883 Dec 04 13:48	15°♄48'18	1.44371 AU
	3883 Jan 31 02:42	0°♄			3883 Dec 13 15:17	0°♄	
asc. node	3883 Feb 02 04:24	1°♄21'39		evening rise	3883 Dec 14 15:13	1°♄32'10	
retrograde	3883 Feb 05 03:42	2°♄08'56			3884 Jan 02 18:43	0°♄	
evening set	3883 Feb 08 16:59	0°♄54'57		evening max el	3884 Jan 11 22:38	11°♄28'08	20°35'52
	3883 Feb 09 20:34	30°♄		retrograde	3884 Jan 20 01:51	16°♄15'56	
inferior conj	3883 Feb 14 04:12	24°♄58'43	3°13'33	asc. node	3884 Jan 20 01:25	16°♄15'56	
minimum elong	3883 Feb 14 02:05	25°♄05'41	3°13'10	evening set	3884 Jan 23 23:56	14°♄47'28	
min. Earth dist.	3883 Feb 15 07:57	23°♄27'33	0.66665 AU	inferior conj	3884 Jan 29 08:46	8°♄38'35	2°44'44
morning rise	3883 Feb 19 10:58	18°♄45'00		minimum elong	3884 Jan 29 06:17	8°♄47'04	2°44'05
direct	3883 Feb 25 14:17	16°♄01'04		min. Earth dist.	3884 Jan 29 23:07	7°♄49'29	0.67489 AU
morning max el	3883 Mar 09 21:27	23°♄20'39	25°42'58	morning rise	3884 Feb 03 12:27	2°♄25'01	
desc. node	3883 Mar 11 06:52	24°♄47'37			3884 Feb 08 06:16	30°♄	
	3883 Mar 15 19:24	0°♄		direct	3884 Feb 09 01:49	29°♄57'03	
	3883 Apr 05 11:38	0°♄			3884 Feb 09 21:46	0°♄	
morning set	3883 Apr 15 02:55	16°♄43'51		morning max el	3884 Feb 20 06:02	6°♄37'29	24°18'16
max. Earth dist.	3883 Apr 18 21:52	23°♄48'45	1.35845 AU	desc. node	3884 Feb 26 03:54	13°♄18'01	
	3883 Apr 22 02:30	0°♄			3884 Mar 09 09:58	0°♄	
				morning set	3884 Mar 27 02:17	28°♄20'19	

	3884 Mar 28 01:05	0°♿				3885 Feb 10 03:02	0°♿	
max. Earth dist.	3884 Mar 30 18:50	4°♿52'29	1.37846 AU	desc. node		3885 Feb 12 00:56	2°♿32'26	
						3885 Mar 02 15:09	0°♿	
superior conj	3884 Apr 06 18:29	17°♿53'20	-1°31'23	morning set		3885 Mar 07 23:36	8°♿39'57	
minimum elong	3884 Apr 06 23:02	18°♿15'15	1°30'47	max. Earth dist.		3885 Mar 12 14:00	16°♿24'20	1.40028 AU
	3884 Apr 12 22:54	0°♿						
evening rise	3884 Apr 15 12:52	5°♿07'06		superior conj		3885 Mar 20 08:23	0°♿08'29	-1°53'29
asc. node	3884 Apr 17 00:42	8°♿03'34		minimum elong		3885 Mar 20 12:48	0°♿28'41	1°53'07
	3884 Apr 30 05:53	0°♿				3885 Mar 20 06:31	0°♿	
evening max el	3884 May 02 03:37	2°♿02'35	19°05'58	evening rise		3885 Mar 30 03:35	18°♿32'13	
retrograde	3884 May 10 22:31	6°♿19'33		asc. node		3885 Apr 03 21:45	27°♿28'09	
evening set	3884 May 12 23:56	6°♿06'24				3885 Apr 05 07:19	0°♿	
inferior conj	3884 May 21 06:20	1°♿53'47	0°49'33	evening max el		3885 Apr 15 07:43	14°♿30'02	18°27'28
minimum elong	3884 May 21 08:17	1°♿50'26	0°48'51	retrograde		3885 Apr 22 20:13	18°♿12'54	
min. Earth dist.	3884 May 24 05:58	29°♿51'32	0.56472 AU	evening set		3885 Apr 25 04:11	17°♿52'33	
desc. node	3884 May 24 03:04	29°♿56'19		inferior conj		3885 May 02 14:54	13°♿20'42	2°14'14
	3884 May 24 00:51	30°♿		minimum elong		3885 May 02 18:35	13°♿13'16	2°13'11
morning rise	3884 May 29 13:28	26°♿58'37		min. Earth dist.		3885 May 06 01:21	10°♿36'24	0.58366 AU
direct	3884 Jun 03 14:51	25°♿58'39		morning rise		3885 May 10 05:53	7°♿53'11	
	3884 Jun 14 00:03	0°♿		desc. node		3885 May 11 00:06	7°♿31'16	
morning max el	3884 Jun 17 21:10	3°♿18'27	25°38'07	direct		3885 May 16 05:53	6°♿19'39	
	3884 Jul 06 21:06	0°♿		morning max el		3885 May 30 15:17	14°♿02'01	26°56'14
asc. node	3884 Jul 13 23:59	13°♿55'11				3885 Jun 12 08:59	0°♿	
morning set	3884 Jul 15 05:36	16°♿30'36				3885 Jun 29 00:44	0°♿	
	3884 Jul 21 10:44	0°♿		morning set		3885 Jun 29 15:21	1°♿16'28	
				asc. node		3885 Jun 30 21:02	3°♿53'33	
superior conj	3884 Jul 22 04:23	1°♿36'56	1°16'31					
minimum elong	3884 Jul 22 02:02	1°♿24'04	1°16'10	superior conj		3885 Jul 06 16:11	16°♿32'23	0°57'35
max. Earth dist.	3884 Jul 23 03:44	3°♿44'57	1.32412 AU	minimum elong		3885 Jul 06 14:02	16°♿20'33	0°57'12
evening rise	3884 Jul 29 05:31	16°♿45'09		max. Earth dist.		3885 Jul 06 14:56	16°♿25'33	1.32055 AU
	3884 Aug 04 22:47	0°♿				3885 Jul 12 20:21	0°♿	
desc. node	3884 Aug 20 02:22	24°♿25'05		evening rise		3885 Jul 13 12:46	1°♿26'57	
	3884 Aug 24 11:28	0°♿				3885 Jul 28 23:45	0°♿	
evening max el	3884 Aug 30 02:58	6°♿03'31	27°17'17	desc. node		3885 Aug 06 23:23	12°♿24'55	
retrograde	3884 Sep 12 22:48	13°♿18'03		evening max el		3885 Aug 12 05:06	18°♿02'48	26°35'39
evening set	3884 Sep 20 02:43	10°♿54'50		retrograde		3885 Aug 26 04:03	25°♿13'20	
min. Earth dist.	3884 Sep 23 17:18	8°♿05'55	0.61960 AU	evening set		3885 Sep 01 22:05	23°♿18'16	
inferior conj	3884 Sep 26 17:27	5°♿21'30	-3°56'29	min. Earth dist.		3885 Sep 05 18:51	20°♿42'23	0.59919 AU
minimum elong	3884 Sep 26 23:21	5°♿08'01	3°54'54	inferior conj		3885 Sep 09 01:07	18°♿06'22	-4°43'31
morning rise	3884 Oct 03 21:44	0°♿21'01		minimum elong		3885 Sep 09 06:13	17°♿56'10	4°42'40
	3884 Oct 05 10:06	30°♿		morning rise		3885 Sep 16 16:24	13°♿27'41	
direct	3884 Oct 06 06:33	29°♿56'48		direct		3885 Sep 19 01:25	13°♿07'00	
	3884 Oct 07 02:52	0°♿		morning max el		3885 Sep 26 15:29	16°♿49'22	18°13'35
asc. node	3884 Oct 09 23:12	0°♿57'49		asc. node		3885 Sep 26 20:16	17°♿01'02	
morning max el	3884 Oct 13 04:10	3°♿26'10	17°53'11			3885 Oct 05 23:20	0°♿	
morning set	3884 Oct 29 01:22	28°♿18'31		morning set		3885 Oct 12 12:07	12°♿01'26	
	3884 Oct 29 23:49	0°♿						
superior conj	3884 Nov 08 20:22	17°♿26'56	0°49'04	superior conj		3885 Oct 21 22:14	29°♿36'22	1°17'34
minimum elong	3884 Nov 09 00:17	17°♿43'45	0°48'33	minimum elong		3885 Oct 22 02:10	29°♿54'13	1°17'09
max. Earth dist.	3884 Nov 16 03:55	29°♿42'16	1.42967 AU			3885 Oct 22 03:27	0°♿	
desc. node	3884 Nov 16 01:42	29°♿33'11		max. Earth dist.		3885 Oct 29 12:51	12°♿57'59	1.41116 AU
	3884 Nov 16 08:16	0°♿		desc. node		3885 Nov 02 22:43	20°♿19'01	
evening rise	3884 Nov 23 04:16	10°♿55'11		evening rise		3885 Nov 03 10:14	21°♿06'02	
	3884 Dec 05 18:29	0°♿				3885 Nov 09 00:18	0°♿	
evening max el	3884 Dec 24 19:07	25°♿01'39	21°48'06	evening max el		3885 Nov 29 23:32	0°♿	
	3884 Dec 31 12:16	0°♿		retrograde		3885 Dec 07 11:05	8°♿37'51	23°07'00
retrograde	3885 Jan 02 23:05	0°♿28'47				3885 Dec 17 17:47	14°♿43'18	
	3885 Jan 05 06:45	30°♿		evening set		3885 Dec 22 14:33	12°♿43'20	
asc. node	3885 Jan 05 22:27	29°♿41'03		asc. node		3885 Dec 23 19:30	11°♿35'34	
evening set	3885 Jan 07 07:39	28°♿44'54		inferior conj		3885 Dec 27 23:47	6°♿19'36	1°22'52
inferior conj	3885 Jan 12 15:56	22°♿26'42	2°07'24	minimum elong		3885 Dec 27 22:00	6°♿25'43	1°22'11
minimum elong	3885 Jan 12 13:35	22°♿34'52	2°06'36	min. Earth dist.		3885 Dec 27 15:06	6°♿49'28	0.67982 AU
min. Earth dist.	3885 Jan 12 18:20	22°♿18'22	0.67920 AU	morning rise		3886 Jan 02 05:21	0°♿11'34	
morning rise	3885 Jan 17 19:20	16°♿14'57				3886 Jan 02 11:15	30°♿	
direct	3885 Jan 22 17:55	14°♿08'02		direct		3886 Jan 06 13:32	28°♿27'29	
morning max el	3885 Feb 01 15:47	20°♿00'14	22°49'07	morning max el		3886 Jan 11 01:24	0°♿	
						3886 Jan 15 06:16	3°♿31'15	21°24'26

desc. node	3886 Jan 29 21:59	22°♄18'07		morning max el	3886 Dec 29 04:17	17°♄13'53	20°10'26
	3886 Feb 04 04:15	0°♄			3887 Jan 08 07:37	0°♄	
morning set	3886 Feb 15 16:06	17°♄38'15		desc. node	3887 Jan 16 19:01	12°♄26'23	
max. Earth dist.	3886 Feb 22 14:39	28°♄49'51	1.42106 AU	morning set	3887 Jan 25 13:30	25°♄48'47	
	3886 Feb 23 07:40	0°♄			3887 Jan 28 06:17	0°♄	
				max. Earth dist.	3887 Feb 04 23:31	12°♄10'58	1.43793 AU
superior conj	3886 Mar 02 01:34	11°♄24'04	-2°06'13	superior conj	3887 Feb 10 17:35	21°♄30'46	-2°04'16
minimum elong	3886 Mar 02 03:25	11°♄32'05	2°06'10	minimum elong	3887 Feb 10 14:00	21°♄16'03	2°04'09
	3886 Mar 12 12:18	0°♄			3887 Feb 15 20:04	0°♄	
evening rise	3886 Mar 13 05:15	1°♄17'03		evening rise	3887 Feb 23 13:33	13°♄13'06	
asc. node	3886 Mar 21 18:47	16°♄28'13			3887 Mar 05 10:23	0°♄	
evening max el	3886 Mar 29 17:42	27°♄24'42	18°08'53	asc. node	3887 Mar 08 15:50	4°♄55'59	
	3886 Apr 02 04:30	0°♄		evening max el	3887 Mar 13 06:16	10°♄37'34	18°09'37
retrograde	3886 Apr 05 11:42	0°♄50'05		retrograde	3887 Mar 19 16:49	14°♄00'49	
evening set	3886 Apr 08 02:12	0°♄19'58		evening set	3887 Mar 22 13:09	13°♄19'36	
	3886 Apr 08 20:48	30°♄		inferior conj	3887 Mar 28 18:00	8°♄06'39	3°32'07
inferior conj	3886 Apr 14 19:59	25°♄27'12	3°06'47	minimum elong	3887 Mar 28 19:12	8°♄03'27	3°32'02
minimum elong	3886 Apr 14 22:54	25°♄20'23	3°06'16	min. Earth dist.	3887 Mar 31 12:47	5°♄10'16	0.62665 AU
min. Earth dist.	3886 Apr 18 02:49	22°♄24'38	0.60538 AU	morning rise	3887 Apr 04 00:01	2°♄03'20	
morning rise	3886 Apr 21 17:27	19°♄37'16			3887 Apr 07 17:50	30°♄	
desc. node	3886 Apr 27 21:09	17°♄29'39		direct	3887 Apr 10 21:19	29°♄28'13	
direct	3886 Apr 28 08:54	17°♄28'59			3887 Apr 14 04:13	0°♄	
morning max el	3886 May 12 15:37	25°♄23'03	27°42'03	desc. node	3887 Apr 14 18:13	0°♄11'51	
	3886 May 16 21:47	0°♄		morning max el	3887 Apr 24 21:43	7°♄26'28	27°50'19
	3886 Jun 05 18:41	0°♄			3887 May 12 03:42	0°♄	
morning set	3886 Jun 13 21:35	15°♄49'41		morning set	3887 May 28 22:06	0°♄02'53	
asc. node	3886 Jun 17 18:05	23°♄59'14			3887 May 28 21:32	0°♄	
max. Earth dist.	3886 Jun 20 02:09	29°♄04'11	1.32103 AU	max. Earth dist.	3887 Jun 03 09:23	11°♄27'21	1.32573 AU
	3886 Jun 20 12:19	0°♄		asc. node	3887 Jun 04 15:07	14°♄07'14	
superior conj	3886 Jun 21 03:27	1°♄23'02	0°34'58	superior conj	3887 Jun 05 12:22	16°♄02'11	0°09'17
minimum elong	3886 Jun 21 01:57	1°♄14'48	0°34'39	minimum elong	3887 Jun 05 11:55	15°♄59'48	0°09'10
evening rise	3886 Jun 27 23:18	16°♄16'05		behind sun begin	3887 Jun 05 07:38	15°♄36'32	
	3886 Jul 04 18:31	0°♄		behind sun end	3887 Jun 05 16:13	16°♄23'04	
desc. node	3886 Jul 24 20:24	29°♄06'09			3887 Jun 11 22:53	0°♄	
evening max el	3886 Jul 24 23:58	29°♄14'42	25°23'38	evening rise	3887 Jun 12 11:06	1°♄05'05	
	3886 Jul 25 19:24	0°♄			3887 Jun 28 09:38	0°♄	
retrograde	3886 Aug 07 23:15	6°♄20'06		evening max el	3887 Jul 06 13:18	9°♄48'01	23°51'24
evening set	3886 Aug 13 18:28	5°♄02'11		desc. node	3887 Jul 11 17:27	13°♄57'01	
min. Earth dist.	3886 Aug 18 11:51	2°♄21'41	0.57886 AU	retrograde	3887 Jul 20 06:26	16°♄41'41	
inferior conj	3886 Aug 21 14:20	0°♄13'00	-5°08'57	evening set	3887 Jul 24 15:23	15°♄59'33	
minimum elong	3886 Aug 21 15:46	0°♄10'31	5°08'53	min. Earth dist.	3887 Jul 30 23:32	12°♄57'18	0.56154 AU
	3886 Aug 21 21:49	30°♄		inferior conj	3887 Aug 02 07:10	11°♄32'50	-4°57'31
morning rise	3886 Aug 29 15:22	25°♄57'03		minimum elong	3887 Aug 02 02:37	11°♄39'47	4°57'01
direct	3886 Sep 01 03:55	25°♄37'40		morning rise	3887 Aug 10 16:25	7°♄36'01	
morning max el	3886 Sep 09 19:14	29°♄43'06	18°54'47	direct	3887 Aug 13 10:54	7°♄16'28	
	3886 Sep 10 02:16	0°♄		morning max el	3887 Aug 23 12:27	11°♄56'55	19°57'48
asc. node	3886 Sep 13 17:20	4°♄12'25		asc. node	3887 Aug 31 14:23	22°♄16'14	
morning set	3886 Sep 26 09:10	26°♄14'15			3887 Sep 05 01:10	0°♄	
	3886 Sep 28 07:00	0°♄		morning set	3887 Sep 10 13:09	10°♄46'38	
superior conj	3886 Oct 04 19:44	12°♄43'46	1°35'13	superior conj	3887 Sep 18 07:33	26°♄33'20	1°43'23
minimum elong	3886 Oct 04 22:18	12°♄55'59	1°35'01	minimum elong	3887 Sep 18 08:24	26°♄37'38	1°43'21
max. Earth dist.	3886 Oct 11 18:08	25°♄32'45	1.39049 AU		3887 Sep 20 01:13	0°♄	
	3886 Oct 14 06:48	0°♄		max. Earth dist.	3887 Sep 23 23:28	7°♄34'43	1.37007 AU
evening rise	3886 Oct 15 15:24	2°♄20'44		evening rise	3887 Sep 27 18:40	14°♄36'12	
desc. node	3886 Oct 20 19:45	10°♄59'40			3887 Oct 06 18:23	0°♄	
	3886 Nov 02 05:59	0°♄		desc. node	3887 Oct 07 16:46	1°♄30'15	
evening max el	3886 Nov 20 00:22	22°♄17'58	24°26'21		3887 Oct 27 23:35	0°♄	
retrograde	3886 Dec 01 08:43	28°♄55'58		evening max el	3887 Nov 02 12:41	6°♄00'11	25°39'19
evening set	3886 Dec 06 19:00	26°♄40'05		retrograde	3887 Nov 14 19:09	13°♄01'49	
asc. node	3886 Dec 10 16:33	22°♄21'01		evening set	3887 Nov 20 19:21	10°♄31'59	
min. Earth dist.	3886 Dec 11 11:04	21°♄19'58	0.67692 AU	min. Earth dist.	3887 Nov 25 03:51	5°♄46'46	0.67051 AU
inferior conj	3886 Dec 12 06:30	20°♄14'55	0°32'14	inferior conj	3887 Nov 26 10:18	4°♄09'45	-0°23'24
minimum elong	3886 Dec 12 05:44	20°♄17'30	0°31'55	minimum elong	3887 Nov 26 10:54	4°♄07'49	0°23'08
morning rise	3886 Dec 17 16:31	14°♄12'44		asc. node	3887 Nov 27 13:36	2°♄43'47	
direct	3886 Dec 21 11:25	12°♄50'39					

	3887 Nov 29 23:44	30° κ \mathbb{M}		direct	3888 Nov 18 07:45	11° \mathbb{M} 30'09	
morning rise	3887 Dec 02 02:48	28° \mathbb{M} 15'48		morning max el	3888 Nov 24 22:17	15° \mathbb{M} 06'03	18°26'47
direct	3887 Dec 05 10:05	27° \mathbb{M} 13'01			3888 Dec 05 20:21	0° \mathbb{M}	
	3887 Dec 11 05:39	0° \mathbb{M}		morning set	3888 Dec 14 18:57	14° \mathbb{M} 15'03	
morning max el	3887 Dec 12 10:11	1° \mathbb{M} 07'08	19°10'40	desc. node	3888 Dec 20 13:03	23° \mathbb{M} 26'31	
	3888 Jan 01 20:00	0° \mathbb{M}			3888 Dec 24 16:23	0° \mathbb{M}	
desc. node	3888 Jan 03 16:03	2° \mathbb{M} 50'53					
morning set	3888 Jan 04 15:44	4° \mathbb{M} 22'52		superior conj	3888 Dec 30 11:26	9° \mathbb{M} 07'01	-1°04'25
max. Earth dist.	3888 Jan 18 14:45	26° \mathbb{M} 11'42	1.44879 AU	minimum elong	3888 Dec 30 03:36	8° \mathbb{M} 36'17	1°03'28
				max. Earth dist.	3888 Dec 31 09:08	10° \mathbb{M} 32'08	1.45258 AU
superior conj	3888 Jan 21 08:59	0° \mathbb{M} 33'23	-1°43'17		3889 Jan 12 18:44	0° \mathbb{M}	
minimum elong	3888 Jan 21 00:17	29° \mathbb{M} 58'57	1°42'33	evening rise	3889 Jan 15 11:54	4° \mathbb{M} 17'00	
	3888 Jan 21 00:33	0° \mathbb{M}		greatest brilliancy	3889 Jan 25 09:32	19° \mathbb{M} 52'18	-0.8m
evening rise	3888 Feb 05 00:25	24° \mathbb{M} 13'30			3889 Feb 01 03:41	0° \mathbb{M}	
	3888 Feb 08 12:27	0° \mathbb{M}		evening max el	3889 Feb 07 04:04	7° \mathbb{M} 30'30	19°06'09
asc. node	3888 Feb 23 12:53	22° \mathbb{M} 41'31		asc. node	3889 Feb 09 09:55	9° \mathbb{M} 31'49	
evening max el	3888 Feb 24 18:32	24° \mathbb{M} 01'29	18°29'02	retrograde	3889 Feb 14 02:26	11° \mathbb{M} 26'28	
retrograde	3888 Mar 02 07:01	27° \mathbb{M} 35'35		evening set	3889 Feb 17 11:14	10° \mathbb{M} 20'33	
evening set	3888 Mar 05 09:11	26° \mathbb{M} 42'28		inferior conj	3889 Feb 23 00:48	4° \mathbb{M} 32'52	3°25'32
inferior conj	3888 Mar 11 04:50	21° \mathbb{M} 11'08	3°36'38	minimum elong	3889 Feb 22 23:08	4° \mathbb{M} 38'10	3°25'19
minimum elong	3888 Mar 11 04:23	21° \mathbb{M} 12'29	3°36'37	min. Earth dist.	3889 Feb 24 13:00	2° \mathbb{M} 37'49	0.66005 AU
min. Earth dist.	3888 Mar 13 08:24	18° \mathbb{M} 39'41	0.64523 AU		3889 Feb 26 18:17	30° \mathbb{M}	
morning rise	3888 Mar 16 22:55	15° \mathbb{M} 00'47		morning rise	3889 Feb 28 10:41	28° \mathbb{M} 19'31	
direct	3888 Mar 23 17:44	12° \mathbb{M} 11'43		direct	3889 Mar 06 20:53	25° \mathbb{M} 30'03	
desc. node	3888 Mar 31 15:14	15° \mathbb{M} 12'29			3889 Mar 16 08:37	0° \mathbb{M}	
morning max el	3888 Apr 06 07:14	20° \mathbb{M} 05'44	27°22'40	desc. node	3889 Mar 18 12:16	1° \mathbb{M} 56'04	
	3888 Apr 14 19:06	0° \mathbb{M}		morning max el	3889 Mar 19 17:09	3° \mathbb{M} 07'02	26°25'29
	3888 May 04 04:42	0° \mathbb{M}			3889 Apr 09 01:44	0° \mathbb{M}	
morning set	3888 May 11 14:18	13° \mathbb{M} 48'21		morning set	3889 Apr 24 18:35	26° \mathbb{M} 54'54	
max. Earth dist.	3888 May 16 08:41	23° \mathbb{M} 23'39	1.33484 AU		3889 Apr 26 09:37	0° \mathbb{M}	
				max. Earth dist.	3889 Apr 28 20:43	4° \mathbb{M} 46'41	1.34855 AU
superior conj	3888 May 19 17:02	0° \mathbb{M} 24'25	-0°18'40				
minimum elong	3888 May 19 18:00	0° \mathbb{M} 29'29	0°18'29	superior conj	3889 May 03 15:10	14° \mathbb{M} 22'29	-0°47'44
	3888 May 19 12:26	0° \mathbb{M}		minimum elong	3889 May 03 17:42	14° \mathbb{M} 35'32	0°47'14
asc. node	3888 May 21 12:09	4° \mathbb{M} 13'56		asc. node	3889 May 08 09:11	24° \mathbb{M} 14'48	
evening rise	3888 May 26 22:21	15° \mathbb{M} 48'06		evening rise	3889 May 11 07:02	0° \mathbb{M} 18'24	
	3888 Jun 03 01:12	0° \mathbb{M}			3889 May 11 03:29	0° \mathbb{M}	
evening max el	3888 Jun 17 04:04	20° \mathbb{M} 12'35	22°14'37		3889 May 29 04:04	0° \mathbb{M}	
desc. node	3888 Jun 27 14:27	26° \mathbb{M} 22'41		evening max el	3889 May 30 04:02	1° \mathbb{M} 00'56	20°47'19
retrograde	3888 Jun 30 01:50	26° \mathbb{M} 36'51		retrograde	3889 Jun 10 14:37	6° \mathbb{M} 36'33	
evening set	3888 Jul 03 00:04	26° \mathbb{M} 17'51		evening set	3889 Jun 12 16:52	6° \mathbb{M} 26'03	
min. Earth dist.	3888 Jul 11 10:06	22° \mathbb{M} 40'05	0.55064 AU	desc. node	3889 Jun 14 11:27	6° \mathbb{M} 01'41	
inferior conj	3888 Jul 12 06:52	22° \mathbb{M} 10'49	-3°56'40	inferior conj	3889 Jun 22 00:11	2° \mathbb{M} 28'47	-2°12'00
minimum elong	3888 Jul 11 22:26	22° \mathbb{M} 22'42	3°54'32	minimum elong	3889 Jun 21 18:03	2° \mathbb{M} 37'31	2°09'50
morning rise	3888 Jul 20 22:42	18° \mathbb{M} 20'13		min. Earth dist.	3889 Jun 22 21:55	1° \mathbb{M} 57'46	0.54877 AU
direct	3888 Jul 24 01:05	17° \mathbb{M} 58'40			3889 Jun 26 13:52	30° \mathbb{M}	
morning max el	3888 Aug 04 17:51	23° \mathbb{M} 25'52	21°21'25	morning rise	3889 Jun 30 18:49	28° \mathbb{M} 24'35	
	3888 Aug 10 12:08	0° \mathbb{M}		direct	3889 Jul 04 10:21	27° \mathbb{M} 55'55	
asc. node	3888 Aug 17 11:24	11° \mathbb{M} 00'16			3889 Jul 11 21:00	0° \mathbb{M}	
morning set	3888 Aug 24 21:35	25° \mathbb{M} 31'40		morning max el	3889 Jul 17 13:08	4° \mathbb{M} 14'01	23°00'12
	3888 Aug 27 00:57	0° \mathbb{M}		asc. node	3889 Aug 04 08:26	0° \mathbb{M} 14'47	
					3889 Aug 04 05:22	0° \mathbb{M}	
superior conj	3888 Sep 01 05:27	10° \mathbb{M} 52'41	1°43'38	morning set	3889 Aug 09 08:33	10° \mathbb{M} 24'01	
minimum elong	3888 Sep 01 04:49	10° \mathbb{M} 49'27	1°43'37				
max. Earth dist.	3888 Sep 05 10:04	19° \mathbb{M} 25'43	1.35212 AU	superior conj	3889 Aug 16 10:12	25° \mathbb{M} 32'00	1°37'19
evening rise	3888 Sep 09 16:09	27° \mathbb{M} 42'57		minimum elong	3889 Aug 16 08:31	25° \mathbb{M} 23'03	1°37'12
	3888 Sep 10 21:16	0° \mathbb{M}			3889 Aug 18 12:41	0° \mathbb{M}	
desc. node	3888 Sep 23 13:46	21° \mathbb{M} 45'18		max. Earth dist.	3889 Aug 19 05:31	1° \mathbb{M} 28'24	1.33796 AU
	3888 Sep 29 01:15	0° \mathbb{M}		evening rise	3889 Aug 24 03:30	11° \mathbb{M} 29'43	
evening max el	3888 Oct 15 01:03	19° \mathbb{M} 39'25	26°38'28		3889 Sep 03 04:53	0° \mathbb{M}	
retrograde	3888 Oct 28 00:27	26° \mathbb{M} 54'20		desc. node	3889 Sep 10 10:46	11° \mathbb{M} 37'55	
evening set	3888 Nov 03 13:37	24° \mathbb{M} 15'01			3889 Sep 24 11:44	0° \mathbb{M}	
min. Earth dist.	3888 Nov 07 15:11	20° \mathbb{M} 05'31	0.66058 AU	evening max el	3889 Sep 27 13:23	3° \mathbb{M} 07'30	27°16'21
inferior conj	3888 Nov 09 09:11	18° \mathbb{M} 00'31	-1°22'47	retrograde	3889 Oct 11 00:05	10° \mathbb{M} 25'55	
minimum elong	3888 Nov 09 11:28	17° \mathbb{M} 53'44	1°21'49	evening set	3889 Oct 17 23:25	7° \mathbb{M} 44'40	
asc. node	3888 Nov 13 10:38	13° \mathbb{M} 40'29		min. Earth dist.	3889 Oct 21 18:52	4° \mathbb{M} 10'12	0.64716 AU
morning rise	3888 Nov 15 10:02	12° \mathbb{M} 17'19		inferior conj	3889 Oct 24 00:57	1° \mathbb{M} 42'48	-2°24'01

minimum elong	3889 Oct 24 05:00	1°♄31'45	2°22'29	evening set	3890 Sep 30 21:35	20°♄53'49	
	3889 Oct 25 15:28	30°♄		min. Earth dist.	3890 Oct 04 12:51	17°♄50'36	0.63048 AU
morning rise	3889 Oct 30 11:41	26°♄13'21		inferior conj	3890 Oct 07 06:50	15°♄09'15	-3°24'12
asc. node	3889 Oct 31 07:39	25°♄54'23		minimum elong	3890 Oct 07 12:20	14°♄55'46	3°22'27
direct	3889 Nov 02 02:18	25°♄37'48		morning rise	3890 Oct 14 04:33	9°♄56'57	
morning max el	3889 Nov 08 14:03	29°♄04'44	17°59'45	direct	3890 Oct 16 14:43	9°♄29'25	
	3889 Nov 09 11:09	0°♄		asc. node	3890 Oct 18 04:41	9°♄41'26	
morning set	3889 Nov 26 03:38	25°♄34'56		morning max el	3890 Oct 23 06:32	12°♄55'29	17°50'17
	3889 Nov 28 19:04	0°♄			3890 Nov 03 21:51	0°♄	
desc. node	3889 Dec 07 10:05	14°♄09'42		morning set	3890 Nov 08 12:37	8°♄04'39	
superior conj	3889 Dec 09 21:40	18°♄09'18	-0°17'00	superior conj	3890 Nov 20 07:06	28°♄20'25	0°27'34
minimum elong	3889 Dec 09 19:36	18°♄01'00	0°16'42	minimum elong	3890 Nov 20 09:47	28°♄31'37	0°27'12
max. Earth dist.	3889 Dec 14 04:08	24°♄56'28	1.44898 AU		3890 Nov 21 07:02	0°♄	
	3889 Dec 17 09:22	0°♄		desc. node	3890 Nov 24 07:06	4°♄56'21	
evening rise	3889 Dec 26 04:15	13°♄38'22		max. Earth dist.	3890 Nov 26 21:07	9°♄07'28	1.43845 AU
	3890 Jan 05 21:22	0°♄		evening rise	3890 Dec 05 13:45	22°♄49'01	
greatest brilliancy	3890 Jan 09 10:07	5°♄16'11	-0.6m		3890 Dec 10 06:21	0°♄	
evening max el	3890 Jan 21 09:14	21°♄02'28	19°59'09		3890 Dec 31 08:02	0°♄	
asc. node	3890 Jan 27 06:56	25°♄13'01		evening max el	3891 Jan 04 08:58	4°♄35'29	21°05'29
retrograde	3890 Jan 29 00:11	25°♄29'01		retrograde	3891 Jan 12 22:05	9°♄39'10	
evening set	3890 Feb 01 16:58	24°♄09'11		asc. node	3891 Jan 14 03:58	9°♄30'42	
inferior conj	3890 Feb 07 02:58	18°♄07'28	3°02'28	evening set	3891 Jan 17 00:29	8°♄04'12	
minimum elong	3890 Feb 07 00:38	18°♄15'17	3°01'57	inferior conj	3891 Jan 22 08:54	1°♄51'09	2°29'51
min. Earth dist.	3890 Feb 08 00:55	16°♄53'52	0.67074 AU	minimum elong	3891 Jan 22 06:25	1°♄59'43	2°29'07
morning rise	3890 Feb 12 08:03	11°♄53'33		min. Earth dist.	3891 Jan 22 18:02	1°♄19'40	0.67727 AU
direct	3890 Feb 18 05:46	9°♄15'12			3891 Jan 23 17:23	30°♄	
morning max el	3890 Mar 02 01:57	16°♄19'40	25°07'54	morning rise	3891 Jan 27 12:10	25°♄38'23	
desc. node	3890 Mar 05 09:18	19°♄54'03		direct	3891 Feb 01 19:24	23°♄18'51	
	3890 Mar 13 09:51	0°♄		morning max el	3891 Feb 12 10:33	29°♄38'37	23°40'17
	3890 Apr 02 00:19	0°♄			3891 Feb 12 18:58	0°♄	
morning set	3890 Apr 07 06:12	9°♄08'55		desc. node	3891 Feb 20 06:21	8°♄44'58	
max. Earth dist.	3890 Apr 10 21:41	15°♄48'28	1.36665 AU		3891 Mar 07 05:58	0°♄	
superior conj	3890 Apr 17 03:52	27°♄48'42	-1°16'12	morning set	3891 Mar 19 19:14	20°♄14'40	
minimum elong	3890 Apr 17 07:52	28°♄08'26	1°15'33	max. Earth dist.	3891 Mar 23 17:12	27°♄01'33	1.38776 AU
	3890 Apr 18 06:23	0°♄			3891 Mar 25 09:23	0°♄	
evening rise	3890 Apr 25 10:58	14°♄29'33		superior conj	3891 Mar 31 03:28	10°♄33'38	-1°41'35
asc. node	3890 Apr 25 06:13	14°♄05'38		minimum elong	3891 Mar 31 08:11	10°♄55'51	1°41'04
	3890 May 03 14:27	0°♄		evening rise	3891 Apr 09 07:30	28°♄14'32	
evening max el	3890 May 12 16:18	12°♄29'14	19°37'13		3891 Apr 10 05:13	0°♄	
retrograde	3890 May 22 08:51	17°♄11'52		asc. node	3891 Apr 12 03:16	3°♄41'47	
evening set	3890 May 24 08:07	17°♄01'04		evening max el	3891 Apr 25 15:31	24°♄37'33	18°47'03
desc. node	3890 Jun 01 08:29	13°♄24'27		retrograde	3891 May 03 19:50	28°♄37'51	
inferior conj	3890 Jun 02 01:39	12°♄57'31	-0°12'40	evening set	3891 May 06 00:04	28°♄21'55	
minimum elong	3890 Jun 02 01:05	12°♄58'25	0°12'27	inferior conj	3891 May 13 21:54	24°♄01'14	1°29'28
transit middle	3890 Jun 02 01:05	12°♄58'25	0°12'27	minimum elong	3891 May 14 00:59	23°♄55'33	1°28'27
transit begin	3890 Jun 01 22:38	13°♄02'17		min. Earth dist.	3891 May 17 04:03	21°♄38'57	0.57226 AU
transit end	3890 Jun 02 03:33	12°♄54'32		desc. node	3891 May 19 05:32	20°♄17'36	
min. Earth dist.	3890 Jun 04 11:31	11°♄26'40	0.55656 AU	morning rise	3891 May 21 22:41	18°♄51'42	
morning rise	3890 Jun 10 15:32	8°♄23'17		direct	3891 May 27 10:19	17°♄38'27	
direct	3890 Jun 15 03:37	7°♄37'58		morning max el	3891 Jun 10 18:37	25°♄08'24	26°14'43
morning max el	3890 Jun 29 03:13	14°♄38'39	24°43'05		3891 Jun 15 06:45	0°♄	
	3890 Jul 11 06:20	0°♄			3891 Jul 04 07:32	0°♄	
asc. node	3890 Jul 22 05:27	19°♄51'25		morning set	3891 Jul 09 07:18	10°♄09'03	
morning set	3890 Jul 24 20:18	25°♄18'04		asc. node	3891 Jul 09 02:31	9°♄43'49	
	3890 Jul 27 00:58	0°♄		superior conj	3891 Jul 16 06:36	25°♄18'36	1°08'59
superior conj	3890 Jul 31 19:15	10°♄22'47	1°25'30	minimum elong	3891 Jul 16 04:17	25°♄05'51	1°08'36
minimum elong	3890 Jul 31 17:00	10°♄10'34	1°25'14	max. Earth dist.	3891 Jul 16 19:22	26°♄28'56	1.32216 AU
max. Earth dist.	3890 Aug 02 09:33	13°♄50'55	1.32799 AU		3891 Jul 18 09:48	0°♄	
evening rise	3890 Aug 08 00:54	25°♄45'00		evening rise	3891 Jul 23 05:20	10°♄19'47	
	3890 Aug 10 03:33	0°♄			3891 Aug 02 10:02	0°♄	
	3890 Aug 27 15:35	0°♄		desc. node	3891 Aug 15 04:49	19°♄32'22	
desc. node	3890 Aug 28 07:47	0°♄58'03		evening max el	3891 Aug 23 05:45	28°♄36'31	27°03'37
evening max el	3890 Sep 09 23:52	16°♄11'03	27°26'17		3891 Aug 24 18:33	0°♄	
retrograde	3890 Sep 23 17:04	23°♄26'53		retrograde	3891 Sep 06 02:41	5°♄48'32	

evening set	3891 Sep 13 04:05	3°♄35'51		retrograde	3892 Aug 18 03:56	17°♊23'16	
min. Earth dist.	3891 Sep 16 20:02	0°♄54'34	0.61112 AU	evening set	3892 Aug 24 14:06	15°♊42'58	
	3891 Sep 17 21:50	30°♊11'46		min. Earth dist.	3892 Aug 28 17:17	13°♊07'42	0.59040 AU
inferior conj	3891 Sep 19 23:37	28°♊11'46	-4°18'18	inferior conj	3892 Aug 31 23:43	10°♊40'44	-4°57'48
minimum elong	3891 Sep 20 05:28	27°♊59'07	4°16'56	minimum elong	3892 Sep 01 03:39	10°♊33'20	4°57'20
morning rise	3891 Sep 27 08:40	23°♊20'12		morning rise	3892 Sep 08 19:25	6°♊12'12	
direct	3891 Sep 29 17:21	22°♊57'39		direct	3892 Sep 11 05:36	5°♊52'18	
asc. node	3891 Oct 05 01:44	24°♊58'27		morning max el	3892 Sep 19 05:12	9°♊42'47	18°28'35
morning max el	3891 Oct 06 20:40	26°♊31'03	17°59'26	asc. node	3892 Sep 20 22:48	11°♊32'12	
	3891 Oct 09 21:28	0°♄			3892 Oct 02 11:42	0°♄	
morning set	3891 Oct 22 15:29	21°♄25'05		morning set	3892 Oct 05 07:03	5°♄21'30	
	3891 Oct 27 07:35	0°♌					
superior conj	3891 Nov 01 19:12	9°♌49'33	1°02'33	superior conj	3892 Oct 14 06:07	22°♄25'35	1°26'19
minimum elong	3891 Nov 01 23:24	10°♌07'56	1°02'02	minimum elong	3892 Oct 14 09:34	22°♄41'34	1°25'59
max. Earth dist.	3891 Nov 09 09:31	22°♌47'46	1.42224 AU		3892 Oct 18 09:57	0°♌	
desc. node	3891 Nov 11 04:07	25°♌43'16		max. Earth dist.	3892 Oct 21 16:26	5°♌45'09	1.40240 AU
	3891 Nov 13 19:27	0°♊		evening rise	3892 Oct 26 00:05	13°♌05'02	
evening rise	3891 Nov 15 08:35	2°♊28'23		desc. node	3892 Oct 28 01:08	16°♌27'10	
	3891 Dec 03 17:13	0°♊			3892 Nov 05 15:48	0°♊	
evening max el	3891 Dec 18 03:19	18°♊09'31	22°21'11	evening max el	3892 Nov 28 00:40	0°♊	
retrograde	3891 Dec 27 18:23	23°♊53'08		retrograde	3892 Nov 29 17:42	1°♊46'30	23°41'06
evening set	3892 Jan 01 08:04	22°♊02'10		evening set	3892 Dec 10 11:44	8°♊07'26	
asc. node	3892 Jan 01 01:01	22°♊16'12		asc. node	3892 Dec 15 14:08	6°♊00'24	
inferior conj	3892 Jan 06 16:34	15°♊41'05	1°49'18	min. Earth dist.	3892 Dec 17 22:03	3°♊37'17	
minimum elong	3892 Jan 06 14:25	15°♊48'35	1°48'32		3892 Dec 20 10:48	0°♊20'46	0.67892 AU
min. Earth dist.	3892 Jan 06 14:06	15°♊49'40	0.67990 AU	inferior conj	3892 Dec 20 16:54	30°♊♊	
morning rise	3892 Jan 11 20:38	9°♊30'57		minimum elong	3892 Dec 21 00:08	29°♊35'16	1°02'04
direct	3892 Jan 16 12:58	7°♊33'54		morning elong	3892 Dec 20 22:44	29°♊40'02	1°01'31
morning max el	3892 Jan 25 22:00	13°♊04'36	22°12'13	morning rise	3892 Dec 26 07:20	23°♊29'29	
desc. node	3892 Feb 07 03:23	28°♊13'36		direct	3892 Dec 30 09:35	21°♊55'13	
	3892 Feb 08 09:49	0°♊		morning max el	3893 Jan 07 15:36	26°♊40'54	20°51'29
morning set	3892 Feb 28 04:14	29°♊58'55			3893 Jan 10 16:16	0°♊	
	3892 Feb 28 04:30	0°♊		desc. node	3893 Jan 24 00:25	18°♊09'38	
max. Earth dist.	3892 Mar 04 14:40	8°♊57'02	1.40942 AU		3893 Jan 31 22:07	0°♊	
superior conj	3892 Mar 12 09:12	22°♊24'54	-2°00'19	morning set	3893 Feb 06 10:31	8°♊30'35	
minimum elong	3892 Mar 12 12:55	22°♊41'25	2°00'07	max. Earth dist.	3893 Feb 14 18:37	21°♊46'36	1.42876 AU
	3892 Mar 16 13:51	0°♊			3893 Feb 19 18:26	0°♊	
evening rise	3892 Mar 22 17:14	11°♊24'07		superior conj	3893 Feb 21 16:05	3°♊11'45	-2°07'30
asc. node	3892 Mar 29 00:19	22°♊57'00		minimum elong	3893 Feb 21 15:55	3°♊11'03	2°07'30
	3892 Apr 02 05:58	0°♊		evening rise	3893 Mar 05 12:07	23°♊49'34	
evening max el	3892 Apr 07 22:29	7°♊17'29	18°17'04		3893 Mar 08 23:23	0°♊	
retrograde	3892 Apr 15 01:50	10°♊51'21		asc. node	3893 Mar 15 21:22	11°♊44'38	
evening set	3892 Apr 17 12:33	10°♊27'08		evening max el	3893 Mar 22 09:56	20°♊20'55	18°06'50
inferior conj	3892 Apr 24 15:35	5°♊46'05	2°40'14	retrograde	3893 Mar 28 23:42	23°♊43'53	
minimum elong	3892 Apr 24 19:09	5°♊38'23	2°39'23	evening set	3893 Mar 31 16:36	23°♊09'21	
min. Earth dist.	3892 Apr 28 01:45	2°♊51'00	0.59276 AU	inferior conj	3893 Apr 07 04:26	18°♊08'01	3°20'25
morning rise	3892 May 01 23:01	0°♊07'31		minimum elong	3893 Apr 07 06:40	18°♊02'29	3°20'07
	3892 May 02 04:25	30°♊♊		min. Earth dist.	3893 Apr 10 06:54	15°♊05'01	0.61463 AU
desc. node	3892 May 05 02:35	28°♊46'20		morning rise	3893 Apr 13 18:55	12°♊11'04	
direct	3892 May 08 06:26	28°♊19'04		direct	3893 Apr 20 13:56	9°♊49'47	
	3892 May 14 14:27	0°♊		desc. node	3893 Apr 21 23:38	9°♊55'30	
morning max el	3892 May 22 15:32	6°♊07'24	27°20'11	morning max el	3893 May 04 18:43	17°♊47'29	27°50'05
	3892 Jun 09 10:36	0°♊			3893 May 14 23:17	0°♊	
morning set	3892 Jun 22 15:48	24°♊50'25		morning set	3893 Jun 02 03:50	0°♊	
asc. node	3892 Jun 24 23:34	29°♊45'49		asc. node	3893 Jun 06 19:54	9°♊16'04	
	3892 Jun 25 02:13	0°♊		max. Earth dist.	3893 Jun 11 20:37	19°♊52'56	
superior conj	3892 Jun 29 18:22	10°♊12'31	0°48'25		3893 Jun 12 17:01	21°♊43'26	1.32252 AU
minimum elong	3892 Jun 29 16:27	10°♊01'53	0°48'01	superior conj	3893 Jun 14 04:52	24°♊58'56	0°24'24
max. Earth dist.	3892 Jun 29 07:09	9°♊10'39	1.32029 AU	minimum elong	3893 Jun 14 03:46	24°♊52'55	0°24'09
evening rise	3892 Jul 06 14:13	25°♊05'14			3893 Jun 16 11:49	0°♊	
	3892 Jul 08 22:44	0°♊		evening rise	3893 Jun 21 01:30	9°♊54'41	
	3892 Jul 26 09:38	0°♊			3893 Jul 01 08:35	0°♊	
desc. node	3892 Aug 01 01:51	7°♊01'42		evening max el	3893 Jul 16 20:22	21°♊06'31	24°45'52
evening max el	3892 Aug 04 04:34	10°♊14'13	26°08'06	desc. node	3893 Jul 18 22:53	22°♊59'56	
				retrograde	3893 Jul 30 18:38	28°♊09'06	

evening set	3893 Aug 05 00:01	27°♎07'23		evening rise	3894 Jun 05 13:19	24°♐42'10	
min. Earth dist.	3893 Aug 10 07:43	24°♎19'12	0.57089 AU		3894 Jun 08 02:15	0°♊	
inferior conj	3893 Aug 13 04:13	22°♎27'25	-5°09'33		3894 Jun 26 20:52	0°♎	
minimum elong	3893 Aug 13 03:14	22°♎29'04	5°09'32	evening max el	3894 Jun 28 09:33	1°♎33'24	23°09'56
morning rise	3893 Aug 21 08:58	18°♎20'35		desc. node	3894 Jul 05 19:54	6°♎53'54	
direct	3893 Aug 23 23:33	18°♎01'28		retrograde	3894 Jul 11 20:34	8°♎16'37	
morning max el	3893 Sep 02 04:49	22°♎20'36	19°18'58	evening set	3894 Jul 15 13:38	7°♎46'32	
asc. node	3893 Sep 07 19:51	29°♎07'17		min. Earth dist.	3894 Jul 22 18:54	4°♎30'43	0.55595 AU
	3893 Sep 08 10:07	0°♎		inferior conj	3894 Jul 24 13:07	3°♎29'08	-4°38'03
morning set	3893 Sep 19 07:21	19°♎42'57		minimum elong	3894 Jul 24 06:19	3°♎39'06	4°36'53
	3893 Sep 24 10:45	0°♎			3894 Jul 31 15:26	30°♎♊	
				morning rise	3894 Aug 02 01:20	29°♎36'36	
superior conj	3893 Sep 27 10:16	5°♎52'13	1°39'44	direct	3894 Aug 04 22:54	29°♎16'27	
minimum elong	3893 Sep 27 12:06	6°♎01'09	1°39'38		3894 Aug 09 01:56	0°♎	
max. Earth dist.	3893 Oct 03 20:31	18°♎01'12	1.38154 AU	morning max el	3894 Aug 15 17:02	4°♎16'09	20°30'57
evening rise	3893 Oct 07 15:00	24°♎46'14		asc. node	3894 Aug 25 16:53	17°♎30'02	
	3893 Oct 10 15:48	0°♎			3894 Sep 01 09:51	0°♎	
desc. node	3893 Oct 14 22:08	7°♎03'48		morning set	3894 Sep 03 13:32	4°♎21'58	
	3893 Oct 30 08:05	0°♎					
evening max el	3893 Nov 12 06:15	15°♎27'10	24°58'45	superior conj	3894 Sep 11 02:51	19°♎56'06	1°44'21
retrograde	3893 Nov 24 00:57	22°♎17'12		minimum elong	3894 Sep 11 03:02	19°♎57'03	1°44'21
evening set	3893 Nov 29 17:01	19°♎55'10		max. Earth dist.	3894 Sep 16 03:37	29°♎56'12	1.36209 AU
min. Earth dist.	3893 Dec 04 05:47	14°♎49'30	0.67451 AU		3894 Sep 16 04:24	0°♎	
asc. node	3893 Dec 04 19:05	14°♎05'48		evening rise	3894 Sep 20 02:41	7°♎25'47	
inferior conj	3893 Dec 05 05:49	13°♎30'28	0°09'10	desc. node	3894 Oct 01 19:10	27°♎28'48	
minimum elong	3893 Dec 05 05:35	13°♎31'13	0°09'05		3894 Oct 03 09:36	0°♎	
transit middle	3893 Dec 05 05:35	13°♎31'13	0°09'05	evening max el	3894 Oct 25 18:46	29°♎09'46	26°06'40
transit begin	3893 Dec 05 03:18	13°♎38'46			3894 Oct 26 15:56	0°♎	
transit end	3893 Dec 05 07:53	13°♎23'41		retrograde	3894 Nov 07 09:10	6°♎17'49	
morning rise	3893 Dec 10 18:19	7°♎31'14		evening set	3894 Nov 13 15:00	3°♎43'36	
direct	3893 Dec 14 07:59	6°♎17'48			3894 Nov 17 05:11	30°♎♎	
morning max el	3893 Dec 21 16:58	10°♎27'43	19°43'08	min. Earth dist.	3894 Nov 17 20:36	29°♎13'17	0.66673 AU
greatest brilliancy	3894 Jan 03 20:44	27°♎49'15	-0.7m	inferior conj	3894 Nov 19 07:47	27°♎24'08	-0°48'13
	3894 Jan 05 07:53	0°♎		minimum elong	3894 Nov 19 09:04	27°♎20'08	0°47'40
desc. node	3894 Jan 10 21:24	8°♎24'58		asc. node	3894 Nov 21 16:06	24°♎36'22	
morning set	3894 Jan 16 06:31	16°♎40'36		morning rise	3894 Nov 25 03:35	21°♎34'08	
	3894 Jan 24 19:50	0°♎		direct	3894 Nov 28 06:36	20°♎38'19	
max. Earth dist.	3894 Jan 28 05:47	5°♎23'47	1.44332 AU	morning max el	3894 Dec 05 01:39	24°♎23'21	18°49'55
					3894 Dec 09 18:47	0°♎	
superior conj	3894 Feb 01 20:59	12°♎48'44	-1°57'50	morning set	3894 Dec 26 17:46	25°♎43'26	
minimum elong	3894 Feb 01 14:50	12°♎23'56	1°57'28	desc. node	3894 Dec 28 18:25	28°♎54'25	
	3894 Feb 12 07:25	0°♎			3894 Dec 29 11:08	0°♎	
evening rise	3894 Feb 15 11:37	5°♎21'34		max. Earth dist.	3895 Jan 10 22:48	19°♎35'02	1.45135 AU
asc. node	3894 Mar 02 18:24	29°♎55'34					
	3894 Mar 02 19:45	0°♎		superior conj	3895 Jan 12 04:37	21°♎32'09	-1°28'35
evening max el	3894 Mar 05 22:43	3°♎39'09	18°15'44	minimum elong	3895 Jan 11 19:23	20°♎55'51	1°27'38
retrograde	3894 Mar 12 09:02	7°♎05'19			3895 Jan 17 13:19	0°♎	
evening set	3894 Mar 15 07:49	6°♎19'11		evening rise	3895 Jan 27 12:23	15°♎56'13	
inferior conj	3894 Mar 21 08:21	0°♎58'31	3°36'12		3895 Feb 05 05:38	0°♎	
minimum elong	3894 Mar 21 08:48	0°♎57'14	3°36'11	evening max el	3895 Feb 17 10:07	17°♎05'32	18°42'50
	3894 Mar 22 05:17	30°♎♎		asc. node	3895 Feb 17 15:25	17°♎18'51	
min. Earth dist.	3894 Mar 23 20:58	28°♎10'38	0.63498 AU	retrograde	3895 Feb 24 01:43	20°♎47'18	
morning rise	3894 Mar 27 08:51	24°♎51'43		evening set	3895 Feb 27 06:42	19°♎48'40	
direct	3894 Apr 03 06:11	22°♎08'36		inferior conj	3895 Mar 04 23:25	14°♎10'12	3°33'35
desc. node	3894 Apr 08 20:39	23°♎40'14		minimum elong	3895 Mar 04 22:23	14°♎13'21	3°33'30
	3894 Apr 16 23:47	0°♎		min. Earth dist.	3895 Mar 06 20:20	11°♎53'26	0.65205 AU
morning max el	3894 Apr 17 02:23	0°♎06'31	27°42'35	morning rise	3895 Mar 10 13:36	7°♎58'30	
	3894 May 08 23:26	0°♎		direct	3895 Mar 17 05:28	5°♎07'45	
morning set	3894 May 21 17:17	23°♎18'47		desc. node	3895 Mar 26 17:39	9°♎28'06	
	3894 May 25 00:08	0°♎		morning max el	3895 Mar 30 12:08	12°♎55'25	27°01'31
max. Earth dist.	3894 May 26 21:09	3°♎55'35	1.32902 AU		3895 Apr 13 05:49	0°♎	
					3895 May 01 14:04	0°♎	
superior conj	3894 May 29 12:17	9°♎32'09	-0°02'22	morning set	3895 May 05 04:53	6°♎48'42	
minimum elong	3894 May 29 12:24	9°♎32'46	0°02'21	max. Earth dist.	3895 May 09 15:58	15°♎37'44	1.34011 AU
behind sun begin	3894 May 29 07:08	9°♎04'29					
behind sun end	3894 May 29 17:40	10°♎01'05		superior conj	3895 May 13 14:29	23°♎44'59	-0°30'56
asc. node	3894 May 29 17:42	10°♎01'18		minimum elong	3895 May 13 16:06	23°♎53'27	0°30'36

asc. node	3895 May 16 14:42	0° Π 05'48		minimum elong	3896 Apr 26 12:12	7° \mathcal{B} 46'35	0°59'24
	3895 May 16 13:36	0° Π		asc. node	3896 May 02 11:45	20° \mathcal{B} 03'02	
evening rise	3895 May 20 23:44	9° Π 20'39		evening rise	3896 May 04 06:44	23° \mathcal{B} 43'55	
	3895 May 31 21:23	0° \mathcal{E}			3896 May 07 09:21	0° Π	
evening max el	3895 Jun 10 03:37	12° \mathcal{E} 05'11	21°35'45	evening max el	3896 May 22 08:38	23° Π 09'03	20°15'08
retrograde	3895 Jun 22 11:36	18° \mathcal{E} 09'58		retrograde	3896 Jun 02 01:26	28° Π 22'12	
desc. node	3895 Jun 22 16:55	18° \mathcal{E} 09'51		evening set	3896 Jun 04 00:49	28° Π 12'18	
evening set	3895 Jun 24 23:21	17° \mathcal{E} 55'54		desc. node	3896 Jun 08 13:55	26° Π 43'09	
inferior conj	3895 Jul 04 08:26	13° \mathcal{E} 55'00	-3°16'22	inferior conj	3896 Jun 13 03:31	24° Π 13'40	-1°21'04
minimum elong	3895 Jul 04 00:14	14° \mathcal{E} 06'29	3°13'52	minimum elong	3896 Jun 12 23:42	24° Π 19'17	1°19'40
min. Earth dist.	3895 Jul 04 05:33	13° \mathcal{E} 59'03	0.54871 AU	min. Earth dist.	3896 Jun 14 17:50	23° Π 17'10	0.55096 AU
morning rise	3895 Jul 13 02:11	10° \mathcal{E} 01'26		morning rise	3896 Jun 21 21:16	19° Π 58'25	
direct	3895 Jul 16 09:37	9° \mathcal{E} 37'34		direct	3896 Jun 25 20:30	19° Π 24'18	
morning max el	3895 Jul 28 17:36	15° \mathcal{E} 26'01	22°02'01	morning max el	3896 Jul 09 10:02	26° Π 01'27	23°44'18
	3895 Aug 08 21:45	0° Ω			3896 Jul 13 04:45	0° \mathcal{E}	
asc. node	3895 Aug 12 13:54	6° Ω 28'10		asc. node	3896 Jul 29 10:58	25° \mathcal{E} 52'57	
morning set	3895 Aug 18 23:18	19° Ω 11'01			3896 Jul 31 11:52	0° Ω	
	3895 Aug 24 01:56	0° \mathcal{M}		morning set	3896 Aug 02 10:50	4° Ω 04'51	
superior conj	3895 Aug 26 04:02	4° \mathcal{M} 24'54	1°41'41	superior conj	3896 Aug 09 10:55	19° Ω 10'00	1°32'56
minimum elong	3895 Aug 26 02:54	4° \mathcal{M} 18'58	1°41'38	minimum elong	3896 Aug 09 08:57	18° Ω 59'20	1°32'45
max. Earth dist.	3895 Aug 29 18:13	11° \mathcal{M} 52'01	1.34569 AU	max. Earth dist.	3896 Aug 11 17:35	24° Ω 03'00	1.33325 AU
evening rise	3895 Sep 03 06:36	20° \mathcal{M} 50'54			3896 Aug 14 13:37	0° \mathcal{M}	
	3895 Sep 08 04:03	0° \mathcal{A}		evening rise	3896 Aug 16 22:39	4° \mathcal{M} 50'38	
desc. node	3895 Sep 18 16:13	17° \mathcal{A} 35'22			3896 Aug 30 20:22	0° \mathcal{A}	
	3895 Sep 27 07:13	0° \mathcal{M}		desc. node	3896 Sep 04 13:15	7° \mathcal{A} 15'27	
evening max el	3895 Oct 08 07:23	12° \mathcal{M} 45'49	26°57'30	evening max el	3896 Sep 19 19:01	26° \mathcal{A} 04'08	27°24'07
retrograde	3895 Oct 21 11:52	20° \mathcal{M} 02'14			3896 Sep 24 12:26	0° \mathcal{M}	
evening set	3895 Oct 28 05:58	17° \mathcal{M} 21'05		retrograde	3896 Oct 03 08:43	3° \mathcal{M} 22'03	
min. Earth dist.	3895 Nov 01 04:52	13° \mathcal{M} 26'47	0.65539 AU	evening set	3896 Oct 10 11:15	0° \mathcal{M} 42'31	
inferior conj	3895 Nov 03 03:56	11° \mathcal{M} 11'41	-1°48'39		3896 Oct 11 08:50	30° \mathcal{R} \mathcal{A}	
minimum elong	3895 Nov 03 06:58	11° \mathcal{M} 02'57	1°47'25	min. Earth dist.	3896 Oct 14 04:26	27° \mathcal{A} 22'25	0.64050 AU
asc. node	3895 Nov 08 13:07	6° \mathcal{M} 01'55		inferior conj	3896 Oct 16 15:50	24° \mathcal{A} 47'37	-2°49'56
morning rise	3895 Nov 09 08:49	5° \mathcal{M} 33'57		minimum elong	3896 Oct 16 20:35	24° \mathcal{A} 35'14	2°48'15
direct	3895 Nov 12 03:20	4° \mathcal{M} 52'03		morning rise	3896 Oct 23 07:12	19° \mathcal{A} 25'22	
morning max el	3895 Nov 18 15:39	8° \mathcal{M} 22'40	18°13'11	asc. node	3896 Oct 25 10:10	18° \mathcal{A} 54'28	
	3895 Dec 03 14:07	0° \mathcal{X}		direct	3896 Oct 25 19:35	18° \mathcal{A} 53'41	
morning set	3895 Dec 07 09:50	6° \mathcal{X} 14'11		morning max el	3896 Nov 01 08:11	22° \mathcal{A} 19'00	17°53'33
desc. node	3895 Dec 15 15:28	19° \mathcal{X} 33'39			3896 Nov 07 07:38	0° \mathcal{M}	
superior conj	3895 Dec 22 07:44	0° \mathcal{Z} 10'17	-0°44'36	morning set	3896 Nov 18 05:37	18° \mathcal{M} 05'49	
minimum elong	3895 Dec 22 02:06	29° \mathcal{X} 48'06	0°43'51		3896 Nov 25 06:15	0° \mathcal{X}	
	3895 Dec 22 05:07	0° \mathcal{Z}		superior conj	3896 Dec 01 02:44	9° \mathcal{X} 38'57	0°02'50
max. Earth dist.	3895 Dec 24 18:24	4° \mathcal{Z} 01'11	1.45197 AU	minimum elong	3896 Dec 01 03:02	9° \mathcal{X} 40'13	0°02'48
evening rise	3896 Jan 07 14:47	25° \mathcal{Z} 39'11		behind sun begin	3896 Nov 30 17:09	8° \mathcal{X} 59'58	
	3896 Jan 10 09:46	0° \approx		behind sun end	3896 Dec 01 12:56	10° \mathcal{X} 20'23	
greatest brilliancy	3896 Jan 19 13:42	14° \approx 08'53	-0.7m	desc. node	3896 Dec 01 12:30	10° \mathcal{X} 18'40	
	3896 Jan 31 04:21	0° \mathcal{H}		max. Earth dist.	3896 Dec 06 12:52	18° \mathcal{X} 21'43	1.44525 AU
evening max el	3896 Jan 31 17:57	0° \mathcal{H} 35'47	19°26'54		3896 Dec 13 22:57	0° \mathcal{Z}	
asc. node	3896 Feb 04 12:26	3° \mathcal{H} 41'29		evening rise	3896 Dec 17 02:18	4° \mathcal{Z} 50'51	
retrograde	3896 Feb 07 22:31	4° \mathcal{H} 43'46			3897 Jan 02 20:57	0° \approx	
evening set	3896 Feb 11 10:36	3° \mathcal{H} 31'52		evening max el	3897 Jan 13 20:44	14° \approx 07'23	20°25'56
	3896 Feb 15 01:29	30° \mathcal{R} \approx		asc. node	3897 Jan 21 09:28	18° \approx 48'30	
inferior conj	3896 Feb 16 22:20	27° \approx 37'40	3°17'03	retrograde	3897 Jan 21 20:41	18° \approx 49'42	
minimum elong	3896 Feb 16 20:19	27° \approx 44'15	3°16'43	evening set	3897 Jan 25 17:18	17° \approx 23'33	
min. Earth dist.	3896 Feb 18 04:11	26° \approx 00'17	0.66506 AU	inferior conj	3897 Jan 31 02:23	11° \approx 16'23	2°49'40
morning rise	3896 Feb 22 05:48	21° \approx 23'57		minimum elong	3897 Jan 30 23:55	11° \approx 24'46	2°49'04
direct	3896 Feb 28 10:56	18° \approx 38'22		min. Earth dist.	3897 Jan 31 18:40	10° \approx 20'54	0.67393 AU
morning max el	3896 Mar 11 21:48	26° \approx 02'59	25°54'34	morning rise	3897 Feb 05 06:20	5° \approx 02'34	
desc. node	3896 Mar 12 14:40	26° \approx 46'15		direct	3897 Feb 10 21:52	2° \approx 31'41	
	3896 Mar 15 13:12	0° \mathcal{H}		morning max el	3897 Feb 22 06:27	9° \approx 18'58	24°31'19
	3896 Apr 05 19:13	0° \mathcal{Y}		desc. node	3897 Feb 27 11:43	15° \approx 08'40	
morning set	3896 Apr 17 02:45	19° \mathcal{Y} 34'37			3897 Mar 10 14:12	0° \mathcal{H}	
max. Earth dist.	3896 Apr 20 23:24	26° \mathcal{Y} 50'51	1.35575 AU		3897 Mar 29 10:54	0° \mathcal{Y}	
	3896 Apr 22 14:26	0° \mathcal{B}		morning set	3897 Mar 30 05:30	1° \mathcal{Y} 21'15	
superior conj	3896 Apr 26 09:00	7° \mathcal{B} 30'24	-0°59'59	max. Earth dist.	3897 Apr 02 21:07	7° \mathcal{Y} 52'19	1.37532 AU

superior conj	3897 Apr 09 16:34	20° Υ 39'23	-1°27'32		3898 Mar 21 17:11	0° Υ	
minimum elong	3897 Apr 09 21:01	21° Υ 00'55	1°26'55				
	3897 Apr 14 10:41	0° B		superior conj	3898 Mar 23 09:08	3° Υ 02'25	-1°50'37
evening rise	3897 Apr 18 07:51	7° B 44'14		minimum elong	3898 Mar 23 13:43	3° Υ 23'28	1°50'14
asc. node	3897 Apr 19 08:47	9° B 47'46		evening rise	3898 Apr 02 00:11	21° Υ 14'24	
	3897 Apr 30 22:01	0° Π		asc. node	3898 Apr 06 05:49	29° Υ 15'14	
evening max el	3897 May 05 01:46	4° Π 54'06	19°13'26		3898 Apr 06 15:31	0° B	
retrograde	3897 May 14 02:04	9° Π 17'18		evening max el	3898 Apr 18 04:44	17° B 16'42	18°31'54
evening set	3897 May 16 02:43	9° Π 04'56		retrograde	3898 Apr 25 20:53	21° B 03'22	
inferior conj	3897 May 24 12:07	4° Π 55'03	0°34'00	evening set	3898 Apr 28 03:54	20° B 44'14	
minimum elong	3897 May 24 13:30	4° Π 52'43	0°33'30	inferior conj	3898 May 05 17:26	16° B 15'24	2°03'29
desc. node	3897 May 26 10:56	3° Π 36'20		minimum elong	3898 May 05 21:03	16° B 08'17	2°02'26
min. Earth dist.	3897 May 27 08:47	3° Π 00'26	0.56235 AU	min. Earth dist.	3898 May 09 03:20	13° B 36'04	0.58059 AU
morning rise	3897 Jun 01 21:12	0° Π 05'11		morning rise	3898 May 13 11:02	10° B 52'21	
	3897 Jun 02 02:54	30° R B		desc. node	3898 May 13 07:59	10° B 56'09	
direct	3897 Jun 06 19:06	29° B 09'20		direct	3898 May 19 08:09	9° B 24'06	
	3897 Jun 11 11:16	0° Π		morning max el	3898 Jun 02 17:19	17° B 03'34	26°46'31
morning max el	3897 Jun 21 00:08	6° Π 24'57	25°24'26		3898 Jun 13 09:16	0° Π	
	3897 Jul 08 04:56	0° B			3898 Jun 30 13:15	0° B	
asc. node	3897 Jul 16 08:03	15° B 36'58		morning set	3898 Jul 02 08:36	3° B 45'16	
morning set	3897 Jul 17 22:29	18° B 58'14		asc. node	3898 Jul 03 05:06	5° B 33'43	
	3897 Jul 23 00:46	0° Ω					
				superior conj	3898 Jul 09 08:56	18° B 59'27	1°00'44
superior conj	3897 Jul 24 21:13	4° Ω 03'56	1°19'03	minimum elong	3898 Jul 09 06:44	18° B 47'17	1°00'20
minimum elong	3897 Jul 24 18:53	3° Ω 51'09	1°18'43	max. Earth dist.	3898 Jul 09 11:14	19° B 12'08	1.32080 AU
max. Earth dist.	3897 Jul 26 00:18	6° Ω 32'10	1.32495 AU		3898 Jul 14 09:43	0° Ω	
evening rise	3897 Jul 31 23:22	19° Ω 15'13		evening rise	3898 Jul 16 05:56	3° Ω 55'18	
	3897 Aug 06 09:16	0° Π			3898 Jul 30 04:02	0° Π	
desc. node	3897 Aug 22 10:16	26° Π 18'18		desc. node	3898 Aug 09 07:17	14° Π 27'52	
	3897 Aug 25 05:09	0° B		evening max el	3898 Aug 15 07:02	20° Π 59'37	26°44'02
evening max el	3897 Sep 02 03:46	8° B 52'57	27°20'43	retrograde	3898 Aug 29 05:33	28° Π 10'22	
retrograde	3897 Sep 15 23:08	16° B 08'04		evening set	3898 Sep 05 01:53	26° Π 10'29	
evening set	3897 Sep 23 03:26	13° B 41'53		min. Earth dist.	3898 Sep 08 21:02	23° Π 33'42	0.60230 AU
min. Earth dist.	3897 Sep 26 17:59	10° B 49'33	0.62248 AU	inferior conj	3898 Sep 12 02:49	20° Π 55'25	-4°37'32
inferior conj	3897 Sep 29 16:38	8° B 05'25	-3°48'20	minimum elong	3898 Sep 12 08:12	20° Π 44'25	4°36'32
minimum elong	3897 Sep 29 22:29	7° B 51'48	3°46'40	morning rise	3898 Sep 19 16:31	16° Π 13'12	
morning rise	3897 Oct 06 19:13	3° B 01'45		direct	3898 Sep 22 01:20	15° Π 52'06	
direct	3897 Oct 09 04:14	2° B 36'49		asc. node	3898 Sep 29 04:18	19° Π 12'53	
asc. node	3897 Oct 12 07:14	3° B 21'21		morning max el	3898 Sep 29 12:19	19° Π 31'53	18°09'12
morning max el	3897 Oct 16 00:10	6° B 05'12	17°51'48		3898 Oct 07 05:41	0° B	
	3897 Oct 31 09:44	0° Π		morning set	3898 Oct 15 07:54	14° B 37'17	
morning set	3897 Oct 31 23:01	0° Π 59'36			3898 Oct 23 14:24	0° Π	
superior conj	3897 Nov 11 23:48	20° Π 24'38	0°43'46	superior conj	3898 Oct 24 22:15	2° Π 23'59	1°13'58
minimum elong	3897 Nov 12 03:29	20° Π 40'22	0°43'14	minimum elong	3898 Oct 25 02:19	2° Π 42'13	1°13'30
	3897 Nov 17 17:22	0° B		max. Earth dist.	3898 Nov 01 13:34	15° Π 42'43	1.41417 AU
desc. node	3897 Nov 18 09:33	1° B 06'14		desc. node	3898 Nov 05 06:34	21° Π 52'26	
max. Earth dist.	3897 Nov 19 03:40	2° B 20'05	1.43211 AU	evening rise	3898 Nov 06 16:48	24° Π 11'39	
evening rise	3897 Nov 26 13:56	14° B 09'28			3898 Nov 10 08:08	0° B	
	3897 Dec 07 00:04	0° B			3898 Nov 30 22:45	0° B	
evening max el	3897 Dec 27 18:06	27° B 40'49	21°36'48	evening max el	3898 Dec 10 10:41	11° B 16'30	22°55'03
	3897 Dec 30 05:51	0° \approx		retrograde	3898 Dec 20 13:15	17° B 16'11	
retrograde	3898 Jan 05 18:10	3° \approx 01'49		evening set	3898 Dec 25 08:10	15° B 18'33	
asc. node	3898 Jan 08 06:29	2° \approx 27'34		asc. node	3898 Dec 26 03:32	14° B 34'55	
evening set	3898 Jan 10 01:03	1° \approx 20'21		inferior conj	3898 Dec 30 17:11	8° B 55'28	1°30'02
	3898 Jan 11 11:46	30° R B		minimum elong	3898 Dec 30 15:17	9° B 02'00	1°29'19
inferior conj	3898 Jan 15 09:20	25° B 03'24	2°13'32	min. Earth dist.	3898 Dec 30 10:07	9° B 19'52	0.67999 AU
minimum elong	3898 Jan 15 06:55	25° B 11'45	2°12'46	morning rise	3899 Jan 04 22:17	2° B 46'53	
min. Earth dist.	3898 Jan 15 13:28	24° B 49'04	0.67885 AU	direct	3899 Jan 09 08:35	0° B 59'23	
morning rise	3898 Jan 20 12:36	18° B 51'17		morning max el	3899 Jan 18 05:18	6° B 09'41	21°36'29
direct	3898 Jan 25 13:28	16° B 40'54		desc. node	3899 Feb 01 05:48	23° B 58'38	
morning max el	3898 Feb 04 15:45	22° B 40'20	23°02'13		3899 Feb 05 09:37	0° \approx	
	3898 Feb 11 01:19	0° \approx		morning set	3899 Feb 19 03:41	21° \approx 02'37	
desc. node	3898 Feb 14 08:46	4° \approx 17'13			3899 Feb 24 16:37	0° B	
	3898 Mar 03 22:46	0° B		max. Earth dist.	3899 Feb 25 15:49	1° B 35'41	1.41815 AU
morning set	3898 Mar 11 07:02	11° B 52'51					
max. Earth dist.	3898 Mar 15 15:57	19° B 17'22	1.39708 AU	superior conj	3899 Mar 05 05:48	14° B 28'04	-2°05'06

minimum elong	3899 Mar 05 08:14	14° K 38'43	2°05'02	max. Earth dist.	3900 Feb 07 23:35	14° \approx 49'29	1.43571 AU
	3899 Mar 13 22:16	0° Y					
evening rise	3899 Mar 16 04:07	4° Y 06'20		superior conj	3900 Feb 14 01:40	24° \approx 44'45	-2°05'44
asc. node	3899 Mar 24 02:51	18° Y 19'41		minimum elong	3900 Feb 13 23:01	24° \approx 33'49	2°05'40
	3899 Apr 01 10:44	0° B			3900 Feb 17 05:16	0° K	
evening max el	3899 Apr 01 14:05	0° B 08'17	18°10'22	evening rise	3900 Feb 26 15:16	16° K 10'03	
retrograde	3899 Apr 08 10:05	3° B 35'20			3900 Mar 06 15:39	0° Y	
evening set	3899 Apr 10 23:40	3° B 06'45		asc. node	3900 Mar 10 23:53	6° Y 52'45	
	3899 Apr 15 21:09	30° K Y		evening max el	3900 Mar 16 02:25	13° Y 18'37	18°08'17
inferior conj	3899 Apr 17 19:42	28° Y 16'54	3°00'42	retrograde	3900 Mar 22 13:31	16° Y 41'29	
minimum elong	3899 Apr 17 22:50	28° Y 09'43	3°00'05	evening set	3900 Mar 25 08:57	16° Y 02'02	
min. Earth dist.	3899 Apr 21 03:41	25° Y 15'35	0.60211 AU	inferior conj	3900 Mar 31 15:28	10° Y 51'58	3°29'45
morning rise	3899 Apr 24 19:43	22° Y 29'39		minimum elong	3900 Mar 31 16:57	10° Y 48'07	3°29'36
desc. node	3899 Apr 30 05:00	20° Y 30'21		min. Earth dist.	3900 Apr 03 12:20	7° Y 53'14	0.62358 AU
direct	3899 May 01 09:23	20° Y 26'25		morning rise	3900 Apr 06 23:33	4° Y 49'59	
morning max el	3899 May 15 16:46	28° Y 18'54	27°37'36	direct	3900 Apr 13 20:29	2° Y 18'10	
	3899 May 17 08:11	0° B		desc. node	3900 Apr 17 02:02	2° Y 48'33	
	3899 Jun 07 03:31	0° II		morning max el	3900 Apr 27 22:16	10° Y 16'37	27°51'29
morning set	3899 Jun 16 15:28	18° II 20'45			3900 May 13 07:41	0° B	
asc. node	3899 Jun 20 02:08	25° II 38'31			3900 May 30 09:41	0° II	
	3899 Jun 22 02:17	0° B		morning set	3900 May 31 16:58	2° II 37'19	
max. Earth dist.	3899 Jun 22 22:46	1° B 52'16	1.32073 AU	max. Earth dist.	3900 Jun 06 06:52	14° II 18'27	1.32478 AU
				asc. node	3900 Jun 06 23:10	15° II 46'17	
superior conj	3899 Jun 23 20:23	3° B 51'00	0°38'37				
minimum elong	3899 Jun 23 18:45	3° B 42'04	0°38'17	superior conj	3900 Jun 08 05:44	18° II 31'59	0°13'20
evening rise	3899 Jun 30 16:07	18° B 43'41		minimum elong	3900 Jun 08 05:06	18° II 28'34	0°13'12
	3899 Jul 06 04:40	0° B		behind sun begin	3900 Jun 08 02:12	18° II 12'45	
	3899 Jul 25 20:37	0° B		behind sun end	3900 Jun 08 08:01	18° II 44'25	
desc. node	3899 Jul 27 04:17	1° B 22'18			3900 Jun 13 12:07	0° B	
evening max el	3899 Jul 28 02:52	2° B 17'36	25°35'53	evening rise	3900 Jun 15 03:49	3° B 32'47	
retrograde	3899 Aug 11 02:10	9° B 23'51			3900 Jun 29 09:25	0° B	
evening set	3899 Aug 17 01:47	8° B 00'02		evening max el	3900 Jul 09 16:31	12° B 54'22	24°05'42
min. Earth dist.	3899 Aug 21 14:52	5° B 21'33	0.58181 AU	desc. node	3900 Jul 14 01:18	16° B 31'37	
inferior conj	3899 Aug 24 18:52	3° B 07'34	-5°07'06	retrograde	3900 Jul 23 11:21	19° B 51'00	
minimum elong	3899 Aug 24 21:03	3° B 03'42	5°06'59	evening set	3900 Jul 28 01:46	19° B 04'04	
	3899 Aug 29 17:03	30° K B		min. Earth dist.	3900 Aug 03 03:02	16° B 05'52	0.56379 AU
morning rise	3899 Sep 01 18:34	28° B 48'27		inferior conj	3900 Aug 05 14:35	14° B 33'53	-5°02'17
direct	3899 Sep 04 06:30	28° B 28'56		minimum elong	3900 Aug 05 10:57	14° B 39'32	5°01'58
	3899 Sep 09 11:27	0° B		morning rise	3900 Aug 13 22:44	10° B 34'54	
morning max el	3899 Sep 12 17:20	2° B 30'00	18°47'18	direct	3900 Aug 16 16:08	10° B 15'33	
asc. node	3899 Sep 16 01:21	6° B 14'25		morning max el	3900 Aug 26 12:15	14° B 49'59	19°47'08
morning set	3899 Sep 29 03:36	28° B 45'51		asc. node	3900 Sep 02 22:23	24° B 10'48	
	3899 Sep 29 18:46	0° B			3900 Sep 06 09:35	0° B	
				morning set	3900 Sep 13 06:41	13° B 15'26	
superior conj	3899 Oct 07 17:09	15° B 23'24	1°33'10				
minimum elong	3899 Oct 07 19:57	15° B 36'42	1°32'57	superior conj	3900 Sep 21 03:06	29° B 07'27	1°42'40
max. Earth dist.	3899 Oct 14 19:17	28° B 23'28	1.39361 AU	minimum elong	3900 Sep 21 04:13	29° B 12'59	1°42'38
	3899 Oct 15 17:11	0° B			3900 Sep 21 13:43	0° B	
evening rise	3899 Oct 18 18:22	5° B 16'01		max. Earth dist.	3900 Sep 27 00:03	10° B 28'07	1.37294 AU
desc. node	3899 Oct 23 03:35	12° B 33'48		evening rise	3900 Sep 30 18:32	17° B 22'48	
	3899 Nov 03 10:47	0° B			3900 Oct 08 02:50	0° B	
evening max el	3899 Nov 23 00:09	24° B 55'32	24°14'45	desc. node	3900 Oct 10 00:36	3° B 06'10	
	3899 Nov 29 07:48	0° B			3900 Oct 28 19:27	0° B	
retrograde	3899 Dec 04 04:48	1° B 29'14		evening max el	3900 Nov 05 12:23	8° B 37'21	25°29'11
	3899 Dec 08 14:03	30° K B		retrograde	3900 Nov 17 16:01	15° B 36'37	
evening set	3899 Dec 09 13:04	29° B 15'30		evening set	3900 Nov 23 14:08	13° B 08'35	
asc. node	3899 Dec 13 00:34	25° B 28'04		min. Earth dist.	3900 Nov 27 23:40	8° B 18'06	0.67165 AU
min. Earth dist.	3899 Dec 14 06:16	23° B 50'24	0.67758 AU	inferior conj	3900 Nov 29 04:29	6° B 45'30	-0°14'40
inferior conj	3899 Dec 15 00:09	22° B 50'13	0°40'16	minimum elong	3900 Nov 29 04:51	6° B 44'17	0°14'30
minimum elong	3899 Dec 14 23:12	22° B 53'25	0°39'53	transit middle	3900 Nov 29 04:51	6° B 44'17	0°14'30
morning rise	3899 Dec 20 09:22	16° B 47'09		transit begin	3900 Nov 29 03:37	6° B 48'16	
direct	3899 Dec 24 06:08	15° B 22'01		transit end	3900 Nov 29 06:06	6° B 40'18	
morning max el	3900 Jan 01 02:09	19° B 50'34	20°20'37	asc. node	3900 Nov 29 21:36	5° B 50'47	
	3900 Jan 09 09:27	0° B		morning rise	3900 Dec 04 19:54	0° B 50'08	
desc. node	3900 Jan 19 02:49	14° B 03'38			3900 Dec 06 13:35	30° K B	
morning set	3900 Jan 29 02:38	29° B 16'11		direct	3900 Dec 08 04:44	29° B 44'47	
	3900 Jan 29 13:57	0° \approx			3900 Dec 09 20:51	0° B	

morning max el	3900 Dec 15 06:58	3° Z 42'43	19°18'36	morning rise	3901 Nov 19 03:43	14° M 52'07	
greatest brilliancy	3900 Dec 28 19:06	21° Z 51'48	-0.7m	direct	3901 Nov 22 02:43	14° M 02'52	
	3901 Jan 03 02:55	0° Z		morning max el	3901 Nov 28 18:15	17° M 40'59	18°32'16
desc. node	3901 Jan 05 23:50	4° Z 25'59			3901 Dec 08 01:15	0° Z	
morning set	3901 Jan 08 02:29	7° Z 42'05		morning set	3901 Dec 19 01:22	17° Z 21'03	
max. Earth dist.	3901 Jan 21 13:45	28° Z 44'23	1.44759 AU	desc. node	3901 Dec 23 20:52	25° Z 00'12	
	3901 Jan 22 08:54	0° \approx			3901 Dec 27 00:40	0° Z	
superior conj	3901 Jan 24 20:17	3° \approx 55'30	-1°47'44	superior conj	3902 Jan 03 23:30	12° Z 30'16	-1°11'10
minimum elong	3901 Jan 24 12:06	3° \approx 22'55	1°47'06	minimum elong	3902 Jan 03 15:05	11° Z 57'15	1°10'10
evening rise	3901 Feb 08 05:30	27° \approx 18'45		max. Earth dist.	3902 Jan 04 07:43	13° Z 02'31	1.45251 AU
	3901 Feb 09 20:21	0° H			3902 Jan 15 02:39	0° \approx	
asc. node	3901 Feb 25 20:54	24° H 45'11		evening rise	3902 Jan 19 20:22	7° \approx 30'06	
evening max el	3901 Feb 27 14:51	26° H 40'57	18°25'01	greatest brilliancy	3902 Jan 28 22:50	21° \approx 55'41	-0.8m
	3901 Mar 04 13:56	0° Y			3902 Feb 03 05:13	0° H	
retrograde	3901 Mar 06 02:35	0° Y 12'45		evening max el	3902 Feb 11 00:59	10° H 09'39	18°59'35
	3901 Mar 07 14:59	30° R H		asc. node	3902 Feb 12 17:56	11° H 44'44	
evening set	3901 Mar 09 03:49	29° H 21'32		retrograde	3902 Feb 17 21:22	14° H 01'31	
inferior conj	3901 Mar 15 00:38	23° H 52'57	3°37'02	evening set	3902 Feb 21 05:08	12° H 57'34	
minimum elong	3901 Mar 15 00:24	23° H 53'37	3°37'01	inferior conj	3902 Feb 26 19:27	7° H 12'18	3°28'01
min. Earth dist.	3901 Mar 17 06:35	21° H 16'42	0.64268 AU	minimum elong	3902 Feb 26 17:56	7° H 17'05	3°27'51
morning rise	3901 Mar 20 20:15	17° H 43'16		min. Earth dist.	3902 Feb 28 09:55	5° H 11'18	0.65814 AU
direct	3901 Mar 27 15:54	14° H 55'12		morning rise	3902 Mar 04 06:21	0° H 59'19	
desc. node	3901 Apr 03 23:03	17° H 30'05			3902 Mar 05 11:54	30° R \approx	
morning max el	3901 Apr 10 07:25	22° H 50'56	27°28'48	direct	3902 Mar 10 18:12	28° \approx 09'00	
	3901 Apr 16 15:23	0° Y			3902 Mar 16 14:46	0° H	
	3901 May 06 13:52	0° B		desc. node	3902 Mar 21 20:04	3° H 59'58	
morning set	3901 May 15 10:36	16° B 27'22		morning max el	3902 Mar 23 17:19	5° H 49'16	26°35'29
max. Earth dist.	3901 May 20 07:26	26° B 18'28	1.33318 AU		3902 Apr 11 07:14	0° Y	
	3901 May 22 01:46	0° II		morning set	3902 Apr 28 16:57	29° Y 40'35	
superior conj	3901 May 23 11:10	2° II 56'59	-0°14'21		3902 Apr 28 21:03	0° B	
minimum elong	3901 May 23 11:54	3° II 00'51	0°14'11	max. Earth dist.	3902 May 02 21:11	7° B 46'02	1.34618 AU
behind sun begin	3901 May 23 09:23	2° II 47'29		superior conj	3902 May 07 10:28	16° B 59'27	-0°43'19
behind sun end	3901 May 23 14:25	3° II 14'14		minimum elong	3902 May 07 12:46	17° B 11'19	0°42'51
asc. node	3901 May 24 20:12	5° II 53'17		asc. node	3902 May 11 17:15	25° B 55'32	
evening rise	3901 May 30 15:15	18° II 16'47			3902 May 13 15:54	0° II	
	3901 Jun 05 10:12	0° B		evening rise	3902 May 15 00:28	2° II 49'38	
evening max el	3901 Jun 21 06:35	23° B 18'15	22°28'44		3902 May 30 14:18	0° B	
desc. node	3901 Jun 30 22:19	29° B 21'15		evening max el	3902 Jun 03 05:01	4° B 02'27	20°59'26
retrograde	3901 Jul 04 08:28	29° B 48'15		retrograde	3902 Jun 14 21:26	9° B 45'45	
evening set	3901 Jul 07 11:05	29° B 26'56		evening set	3902 Jun 17 01:34	9° B 34'39	
min. Earth dist.	3901 Jul 15 13:47	25° B 55'12	0.55172 AU	desc. node	3902 Jun 17 19:19	9° B 26'01	
inferior conj	3901 Jul 16 16:24	25° B 17'25	-4°09'11	inferior conj	3902 Jun 26 09:53	5° B 37'08	-2°29'42
minimum elong	3901 Jul 16 08:11	25° B 29'05	4°07'15	minimum elong	3902 Jun 26 03:03	5° B 46'47	2°27'22
morning rise	3901 Jul 25 07:21	21° B 26'50		min. Earth dist.	3902 Jun 27 01:22	5° B 15'13	0.54842 AU
direct	3901 Jul 28 08:17	21° B 05'49		morning rise	3902 Jul 05 04:28	1° B 36'17	
morning max el	3901 Aug 08 19:25	26° B 25'52	21°07'50	direct	3902 Jul 08 17:46	1° B 09'03	
	3901 Aug 12 04:29	0° Q		morning max el	3902 Jul 21 15:58	7° B 19'43	22°44'50
asc. node	3901 Aug 20 19:25	12° Q 49'32			3902 Aug 06 15:01	0° Q	
morning set	3901 Aug 28 14:35	27° Q 58'53		asc. node	3902 Aug 07 16:28	2° Q 00'28	
	3901 Aug 29 13:55	0° M		morning set	3902 Aug 13 01:20	12° Q 50'55	
superior conj	3901 Sep 04 23:43	13° M 22'58	1°44'02	superior conj	3902 Aug 20 03:40	28° Q 00'12	1°38'40
minimum elong	3901 Sep 04 23:18	13° M 20'48	1°44'02	minimum elong	3902 Aug 20 02:07	27° Q 51'58	1°38'33
max. Earth dist.	3901 Sep 09 09:26	22° M 18'33	1.35455 AU		3902 Aug 21 02:14	0° M	
	3901 Sep 13 08:45	0° B		max. Earth dist.	3902 Aug 23 03:43	4° M 19'46	1.33985 AU
evening rise	3901 Sep 13 13:35	0° B 22'46		evening rise	3902 Aug 27 23:12	14° M 04'46	
desc. node	3901 Sep 26 21:38	23° B 24'00			3902 Sep 05 13:43	0° B	
	3901 Oct 01 05:24	0° M		desc. node	3902 Sep 13 18:41	13° B 20'45	
evening max el	3901 Oct 19 00:47	22° M 17'40	26°30'53		3902 Sep 26 02:27	0° M	
retrograde	3901 Oct 31 22:11	29° M 31'24		evening max el	3902 Oct 01 13:21	5° M 48'35	27°12'18
evening set	3901 Nov 07 09:26	26° M 53'17		retrograde	3902 Oct 14 22:35	13° M 06'29	
min. Earth dist.	3901 Nov 11 12:01	22° M 38'18	0.66224 AU	evening set	3902 Oct 21 20:40	10° M 25'06	
inferior conj	3901 Nov 13 04:14	20° M 37'13	-1°13'36	min. Earth dist.	3902 Oct 25 17:02	6° M 45'27	0.64942 AU
minimum elong	3901 Nov 13 06:15	20° M 31'09	1°12'45	inferior conj	3902 Oct 27 21:14	4° M 21'08	-2°14'44
asc. node	3901 Nov 16 18:38	16° M 39'00		minimum elong	3902 Oct 28 01:02	4° M 10'38	2°13'15

	3902 Nov 01 08:14	30° \mathbb{R} \mathbb{A}		morning rise	3903 Oct 18 00:51	12° \mathbb{A} 35'18	
morning rise	3902 Nov 03 06:24	28° \mathbb{A} 49'17		direct	3903 Oct 20 11:33	12° \mathbb{A} 06'44	
asc. node	3902 Nov 03 15:39	28° \mathbb{A} 39'21		asc. node	3903 Oct 21 12:43	12° \mathbb{A} 12'06	
direct	3902 Nov 05 21:57	28° \mathbb{A} 12'11		morning max el	3903 Oct 27 02:13	15° \mathbb{A} 32'13	17°50'32
	3902 Nov 10 12:14	0° \mathbb{M}			3903 Nov 06 05:34	0° \mathbb{M}	
morning max el	3902 Nov 12 09:38	1° \mathbb{M} 39'50	18°02'39	morning set	3903 Nov 12 11:38	10° \mathbb{M} 49'09	
morning set	3902 Nov 30 05:51	28° \mathbb{M} 28'33			3903 Nov 23 16:30	0° \mathbb{X}	
	3902 Dec 01 03:52	0° \mathbb{X}					
desc. node	3902 Dec 10 17:56	15° \mathbb{X} 42'28		superior conj	3903 Nov 24 12:45	1° \mathbb{X} 24'02	0°21'22
				minimum elong	3903 Nov 24 14:55	1° \mathbb{X} 33'02	0°21'03
superior conj	3902 Dec 14 07:15	21° \mathbb{X} 24'23	-0°24'14	desc. node	3903 Nov 27 15:00	6° \mathbb{X} 29'00	
minimum elong	3902 Dec 14 04:15	21° \mathbb{X} 12'25	0°23'48	max. Earth dist.	3903 Nov 30 20:39	11° \mathbb{X} 42'43	1.44041 AU
max. Earth dist.	3902 Dec 18 03:02	27° \mathbb{X} 28'00	1.45002 AU	evening rise	3903 Dec 10 00:30	26° \mathbb{X} 05'57	
	3902 Dec 19 17:41	0° \mathbb{Z}			3903 Dec 12 13:29	0° \mathbb{Z}	
evening rise	3902 Dec 30 14:59	16° \mathbb{Z} 56'06			3904 Jan 02 05:01	0° \mathbb{A}	
	3903 Jan 08 03:10	0° \mathbb{A}		evening max el	3904 Jan 08 07:27	7° \mathbb{A} 14'21	20°54'53
greatest brilliancy	3903 Jan 13 08:53	7° \mathbb{A} 53'42	-0.7m	retrograde	3904 Jan 16 16:58	12° \mathbb{A} 12'22	
evening max el	3903 Jan 25 06:55	23° \mathbb{A} 41'25	19°50'22	asc. node	3904 Jan 17 11:59	12° \mathbb{A} 08'56	
asc. node	3903 Jan 30 14:58	27° \mathbb{A} 37'27		evening set	3904 Jan 20 17:52	10° \mathbb{A} 39'37	
retrograde	3903 Feb 01 18:55	28° \mathbb{A} 02'45		inferior conj	3904 Jan 26 02:23	4° \mathbb{A} 27'57	2°35'20
evening set	3903 Feb 05 10:29	26° \mathbb{A} 44'57		minimum elong	3904 Jan 25 23:53	4° \mathbb{A} 36'32	2°34'37
inferior conj	3903 Feb 10 20:51	20° \mathbb{A} 45'09	3°06'35	min. Earth dist.	3904 Jan 26 13:18	3° \mathbb{A} 50'24	0.67652 AU
minimum elong	3903 Feb 10 18:35	20° \mathbb{A} 52'42	3°06'08		3904 Jan 29 12:48	30° \mathbb{R} \mathbb{Z}	
min. Earth dist.	3903 Feb 11 20:49	19° \mathbb{A} 25'24	0.66943 AU	morning rise	3904 Jan 31 05:45	28° \mathbb{Z} 14'56	
morning rise	3903 Feb 16 02:29	14° \mathbb{A} 31'19		direct	3904 Feb 05 15:07	25° \mathbb{Z} 52'24	
direct	3903 Feb 22 02:13	11° \mathbb{A} 50'50			3904 Feb 13 23:40	0° \mathbb{A}	
morning max el	3903 Mar 06 02:18	19° \mathbb{A} 00'42	25°20'22	morning max el	3904 Feb 16 10:53	2° \mathbb{A} 19'25	23°53'39
desc. node	3903 Mar 08 17:07	21° \mathbb{A} 48'13		desc. node	3904 Feb 23 14:10	10° \mathbb{A} 32'30	
	3903 Mar 15 10:00	0° \mathbb{H}			3904 Mar 08 11:59	0° \mathbb{H}	
	3903 Apr 04 09:13	0° \mathbb{Y}		morning set	3904 Mar 23 00:15	23° \mathbb{H} 20'35	
morning set	3903 Apr 11 07:25	12° \mathbb{Y} 03'20			3904 Mar 26 19:46	0° \mathbb{Y}	
max. Earth dist.	3903 Apr 14 23:45	18° \mathbb{Y} 50'00	1.36371 AU	max. Earth dist.	3904 Mar 26 19:49	0° \mathbb{Y} 00'14	1.38452 AU
	3903 Apr 20 18:33	0° \mathbb{B}					
superior conj	3903 Apr 21 00:49	0° \mathbb{B} 31'07	-1°12'00	superior conj	3904 Apr 03 02:39	13° \mathbb{Y} 22'54	-1°38'04
minimum elong	3903 Apr 21 04:38	0° \mathbb{B} 50'01	1°11'23	minimum elong	3904 Apr 03 07:21	13° \mathbb{Y} 45'10	1°37'31
asc. node	3903 Apr 28 14:18	15° \mathbb{B} 48'15		evening rise	3904 Apr 11 16:10	0° \mathbb{B}	
evening rise	3903 Apr 29 05:19	17° \mathbb{B} 04'19		asc. node	3904 Apr 12 03:11	0° \mathbb{B} 53'56	
	3903 May 05 21:11	0° \mathbb{I}		evening max el	3904 Apr 14 11:21	5° \mathbb{B} 27'01	
evening max el	3903 May 16 15:26	15° \mathbb{I} 24'19	19°46'26		3904 Apr 28 13:07	27° \mathbb{B} 26'35	18°53'10
retrograde	3903 May 26 14:05	20° \mathbb{I} 14'34		retrograde	3904 May 01 18:45	0° \mathbb{I}	
evening set	3903 May 28 13:07	20° \mathbb{I} 04'07		evening set	3904 May 06 22:19	1° \mathbb{I} 32'30	
desc. node	3903 Jun 04 16:21	17° \mathbb{I} 04'27			3904 May 09 01:30	1° \mathbb{I} 17'37	
inferior conj	3903 Jun 06 09:16	16° \mathbb{I} 02'12	-0°30'16	inferior conj	3904 May 12 10:19	30° \mathbb{R} \mathbb{B}	
minimum elong	3903 Jun 06 07:53	16° \mathbb{I} 04'20	0°29'45	minimum elong	3904 May 17 02:19	26° \mathbb{B} 59'44	1°15'50
min. Earth dist.	3903 Jun 08 14:30	14° \mathbb{I} 40'12	0.55482 AU	min. Earth dist.	3904 May 17 05:04	26° \mathbb{B} 54'48	1°14'55
morning rise	3903 Jun 15 00:27	11° \mathbb{I} 33'22		desc. node	3904 May 20 06:31	24° \mathbb{B} 44'08	0.56952 AU
direct	3903 Jun 19 09:06	10° \mathbb{I} 51'21		morning rise	3904 May 21 13:21	21° \mathbb{B} 53'06	
morning max el	3903 Jul 03 06:24	17° \mathbb{I} 46'03	24°28'06	direct	3904 May 25 05:26	23° \mathbb{B} 55'06	
	3903 Jul 13 07:32	0° \mathbb{E}		morning max el	3904 May 30 13:28	20° \mathbb{B} 46'45	
asc. node	3903 Jul 25 13:32	21° \mathbb{E} 34'23			3904 Jun 13 21:20	28° \mathbb{B} 13'20	26°02'28
morning set	3903 Jul 28 13:07	27° \mathbb{E} 45'16			3904 Jun 15 15:35	0° \mathbb{I}	
	3903 Jul 29 14:27	0° \mathbb{Q}		asc. node	3904 Jul 05 17:57	0° \mathbb{E}	
				morning set	3904 Jul 11 10:37	11° \mathbb{E} 24'44	
superior conj	3903 Aug 04 12:15	12° \mathbb{Q} 49'47	1°27'38		3904 Jul 12 00:20	12° \mathbb{E} 36'54	
minimum elong	3903 Aug 04 10:04	12° \mathbb{Q} 37'53	1°27'22	superior conj	3904 Jul 18 23:22	27° \mathbb{E} 45'04	1°11'46
max. Earth dist.	3903 Aug 06 06:44	16° \mathbb{Q} 39'56	1.32925 AU	minimum elong	3904 Jul 18 21:02	27° \mathbb{E} 32'13	1°11'24
evening rise	3903 Aug 11 19:20	28° \mathbb{Q} 16'26		max. Earth dist.	3904 Jul 19 15:50	29° \mathbb{E} 15'40	1.32274 AU
	3903 Aug 12 15:49	0° \mathbb{N}			3904 Jul 19 23:54	0° \mathbb{Q}	
	3903 Aug 29 18:18	0° \mathbb{A}		evening rise	3904 Jul 25 22:51	12° \mathbb{Q} 48'29	
desc. node	3903 Aug 31 15:42	2° \mathbb{A} 46'32			3904 Aug 03 18:41	0° \mathbb{N}	
evening max el	3903 Sep 14 00:15	18° \mathbb{A} 56'33	27°26'42	desc. node	3904 Aug 17 12:42	21° \mathbb{N} 28'46	
retrograde	3903 Sep 27 16:31	26° \mathbb{A} 12'40			3904 Aug 24 19:01	0° \mathbb{A}	
evening set	3903 Oct 04 20:48	23° \mathbb{A} 37'35		evening max el	3904 Aug 26 06:52	1° \mathbb{A} 28'04	27°09'06
min. Earth dist.	3903 Oct 08 12:29	20° \mathbb{A} 30'14	0.63321 AU	retrograde	3904 Sep 09 03:23	8° \mathbb{A} 40'58	
inferior conj	3903 Oct 11 04:48	17° \mathbb{A} 50'19	-3°15'22	evening set	3904 Sep 16 05:57	6° \mathbb{A} 24'13	
minimum elong	3903 Oct 11 10:07	17° \mathbb{A} 37'02	3°13'36	min. Earth dist.	3904 Sep 19 21:11	3° \mathbb{A} 40'41	0.61412 AU

inferior conj	3904 Sep 22 23:44	0° Ω 56'56	-4°10'50	minimum elong	3905 Sep 05 07:00	13° Υ 23'36	4°52'42
minimum elong	3904 Sep 23 05:39	0° Ω 43'53	4°09'23	morning rise	3905 Sep 12 20:47	9° Υ 00'05	
	3904 Sep 24 01:51	30° Υ		direct	3905 Sep 15 06:26	8° Υ 40'01	
morning rise	3904 Sep 30 07:09	26° Υ 02'15		morning max el	3905 Sep 23 02:34	12° Υ 27'28	18°22'53
direct	3904 Oct 02 15:49	25° Υ 39'11		asc. node	3905 Sep 24 06:51	13° Υ 40'02	
asc. node	3904 Oct 07 09:48	27° Υ 16'22			3905 Oct 04 21:23	0° Ω	
morning max el	3904 Oct 09 16:57	29° Υ 10'54	17°56'50	morning set	3905 Oct 09 02:10	7° Ω 55'25	
	3904 Oct 10 12:06	0° Ω					
morning set	3904 Oct 25 12:12	24° Ω 03'03		superior conj	3905 Oct 18 04:56	25° Ω 09'50	1°23'23
	3904 Oct 28 18:16	0° Υ		minimum elong	3905 Oct 18 08:35	25° Ω 26'35	1°23'02
					3905 Oct 20 20:44	0° Υ	
superior conj	3904 Nov 04 21:02	12° Υ 42'15	0°57'59	max. Earth dist.	3905 Oct 25 17:11	8° Υ 31'58	1.40550 AU
minimum elong	3904 Nov 05 01:11	13° Υ 00'17	0°57'26	evening rise	3905 Oct 30 05:05	16° Υ 06'30	
max. Earth dist.	3904 Nov 12 09:42	25° Υ 28'10	1.42490 AU	desc. node	3905 Oct 31 09:01	18° Υ 01'12	
desc. node	3904 Nov 13 12:00	27° Υ 16'15			3905 Nov 07 22:38	0° Υ	
	3904 Nov 15 04:16	0° Υ			3905 Nov 29 16:05	0° Ω	
evening rise	3904 Nov 18 16:57	5° Υ 38'36		evening max el	3905 Dec 03 17:20	4° Ω 24'36	23°29'11
	3904 Dec 04 21:02	0° Ω		retrograde	3905 Dec 14 07:30	10° Ω 40'26	
evening max el	3904 Dec 21 02:28	20° Ω 47'54	22°09'31	evening set	3905 Dec 19 07:53	8° Ω 35'52	
retrograde	3904 Dec 30 13:39	26° Ω 25'56		asc. node	3905 Dec 21 06:03	6° Ω 41'04	
asc. node	3905 Jan 03 09:01	25° Ω 08'31		min. Earth dist.	3905 Dec 24 05:53	2° Ω 51'10	0.67932 AU
evening set	3905 Jan 04 01:31	24° Ω 37'25		inferior conj	3905 Dec 24 17:35	2° Ω 11'04	1°09'40
inferior conj	3905 Jan 09 09:54	18° Ω 17'12	1°55'56	minimum elong	3905 Dec 24 16:03	2° Ω 16'21	1°09'02
minimum elong	3905 Jan 09 07:39	18° Ω 24'58	1°55'09		3905 Dec 26 08:32	30° Υ	
min. Earth dist.	3905 Jan 09 09:05	18° Ω 20'01	0.67971 AU	morning rise	3905 Dec 30 00:10	26° Υ 04'23	
morning rise	3905 Jan 14 13:40	12° Ω 06'27		direct	3906 Jan 03 04:26	24° Υ 26'42	
direct	3905 Jan 19 08:09	10° Ω 06'00		morning max el	3906 Jan 11 14:07	29° Υ 18'39	21°02'42
morning max el	3905 Jan 28 21:41	15° Ω 44'18	22°25'01		3906 Jan 12 06:15	0° Ω	
desc. node	3905 Feb 09 11:12	29° Ω 56'14		desc. node	3906 Jan 27 08:14	19° Ω 48'46	
	3905 Feb 09 12:18	0° \approx			3906 Feb 03 04:45	0° \approx	
	3905 Mar 01 12:48	0° Υ		morning set	3906 Feb 10 23:05	11° \approx 57'12	
morning set	3905 Mar 03 13:35	3° Υ 17'24		max. Earth dist.	3906 Feb 18 18:52	24° \approx 27'29	1.42615 AU
max. Earth dist.	3905 Mar 08 16:23	11° Υ 47'18	1.40627 AU		3906 Feb 22 03:36	0° Υ	
superior conj	3905 Mar 16 11:20	25° Υ 22'47	-1°58'07	superior conj	3906 Feb 25 21:50	6° Υ 19'39	-2°07'24
minimum elong	3905 Mar 16 15:21	25° Υ 40'52	1°57'51	minimum elong	3906 Feb 25 22:27	6° Υ 22'16	2°07'24
	3905 Mar 19 00:28	0° Υ		evening rise	3906 Mar 09 12:01	26° Υ 41'30	
evening rise	3905 Mar 26 14:43	14° Υ 09'17			3906 Mar 11 08:15	0° Υ	
asc. node	3905 Apr 01 08:21	24° Υ 45'47		asc. node	3906 Mar 19 05:21	13° Υ 38'00	
	3905 Apr 04 09:08	0° Υ		evening max el	3906 Mar 26 06:08	23° Υ 03'09	18°07'10
evening max el	3905 Apr 11 19:08	10° Υ 02'28	18°20'15	retrograde	3906 Apr 01 21:10	26° Υ 26'39	
retrograde	3905 Apr 19 01:29	13° Υ 39'11		evening set	3906 Apr 04 13:14	25° Υ 53'42	
evening set	3905 Apr 21 11:12	13° Υ 16'24		inferior conj	3906 Apr 11 03:04	20° Υ 55'25	3°16'03
inferior conj	3905 Apr 28 16:52	8° Υ 38'37	2°31'33	minimum elong	3906 Apr 11 05:33	20° Υ 49'22	3°15'39
minimum elong	3905 Apr 28 20:31	8° Υ 30'56	2°30'38	min. Earth dist.	3906 Apr 14 07:15	17° Υ 52'01	0.61142 AU
min. Earth dist.	3905 May 02 03:24	5° Υ 46'43	0.58955 AU	morning rise	3906 Apr 17 19:56	15° Υ 00'45	
morning rise	3905 May 06 02:56	3° Υ 03'35		direct	3906 Apr 24 13:56	12° Υ 43'43	
desc. node	3905 May 08 10:23	2° Υ 01'13		desc. node	3906 Apr 25 07:24	12° Υ 45'14	
direct	3905 May 12 07:55	1° Υ 20'19		morning max el	3906 May 08 19:26	20° Υ 40'23	27°48'02
morning max el	3905 May 26 17:18	9° Υ 06'59	27°12'33		3906 May 16 20:29	0° Υ	
	3905 Jun 11 15:43	0° Υ			3906 Jun 04 14:23	0° Υ	
morning set	3905 Jun 26 09:18	27° Υ 20'08		morning set	3906 Jun 10 14:09	11° Υ 48'38	
	3905 Jun 27 15:36	0° Ω		asc. node	3906 Jun 15 04:40	21° Υ 32'24	
asc. node	3905 Jun 28 07:40	1° Ω 25'42		max. Earth dist.	3906 Jun 16 13:47	24° Υ 32'07	1.32190 AU
superior conj	3905 Jul 03 11:11	12° Ω 39'50	0°51'46	superior conj	3906 Jun 17 21:58	27° Υ 28'01	0°28'14
minimum elong	3905 Jul 03 09:10	12° Ω 28'44	0°51'23	minimum elong	3906 Jun 17 20:43	27° Υ 21'09	0°27'59
max. Earth dist.	3905 Jul 03 03:27	11° Ω 57'12	1.32025 AU		3906 Jun 19 01:40	0° Ω	
evening rise	3905 Jul 10 07:11	27° Ω 32'54		evening rise	3906 Jun 24 18:15	12° Ω 22'30	
	3905 Jul 11 11:12	0° Ω			3906 Jul 03 15:52	0° Ω	
	3905 Jul 28 08:10	0° Υ		evening max el	3906 Jul 20 23:39	24° Ω 12'30	24°59'28
desc. node	3905 Aug 04 09:41	9° Υ 09'45		desc. node	3906 Jul 22 06:42	25° Ω 24'00	
evening max el	3905 Aug 08 06:51	13° Υ 13'36	26°18'25		3906 Jul 29 04:20	0° Υ	
retrograde	3905 Aug 22 06:12	20° Υ 23'29		retrograde	3906 Aug 03 12:32	1° Υ 16'16	
evening set	3905 Aug 28 19:24	18° Υ 37'47		evening set	3906 Aug 09 08:55	0° Υ 09'02	
min. Earth dist.	3905 Sep 01 19:57	16° Υ 02'43	0.59343 AU		3906 Aug 09 17:40	30° Υ	
inferior conj	3905 Sep 05 02:35	13° Υ 32'06	-4°53'17	min. Earth dist.	3906 Aug 14 11:15	27° Ω 23'50	0.57358 AU

inferior conj	3906 Aug 17 10:08	25° Ω 25'52	-5°10'18	evening set	3907 Jul 20 00:44	10° Ω 54'19	
minimum elong	3906 Aug 17 10:02	25° Ω 26'01	5°10'18	min. Earth dist.	3907 Jul 26 22:29	7° Ω 43'30	0.55781 AU
morning rise	3906 Aug 25 13:36	21° Ω 15'53		inferior conj	3907 Jul 28 21:41	6° Ω 33'47	-4°46'08
direct	3906 Aug 28 03:23	20° Ω 56'44		minimum elong	3907 Jul 28 15:36	6° Ω 42'49	4°45'12
morning max el	3906 Sep 06 03:40	25° Ω 10'58	19°10'03	morning rise	3907 Aug 06 08:53	2° Ω 40'00	
	3906 Sep 10 08:28	0° \mathbb{M}		direct	3907 Aug 09 05:24	2° Ω 20'03	
asc. node	3906 Sep 11 03:54	1° \mathbb{M} 06'56		morning max el	3907 Aug 19 17:35	7° Ω 12'45	20°18'55
morning set	3906 Sep 23 01:24	22° \mathbb{M} 14'06		asc. node	3907 Aug 29 00:57	19° Ω 23'08	
	3906 Sep 26 23:00	0° $\underline{\Omega}$			3907 Sep 03 20:53	0° \mathbb{M}	
				morning set	3907 Sep 07 06:52	6° \mathbb{M} 50'50	
superior conj	3906 Oct 01 06:51	8° $\underline{\Omega}$ 30'04	1°38'17	superior conj	3907 Sep 14 21:51	22° \mathbb{M} 28'58	1°44'09
minimum elong	3906 Oct 01 08:57	8° $\underline{\Omega}$ 40'12	1°38'09	minimum elong	3907 Sep 14 22:16	22° \mathbb{M} 31'06	1°44'08
max. Earth dist.	3906 Oct 07 21:32	20° $\underline{\Omega}$ 54'12	1.38467 AU		3907 Sep 18 16:35	0° $\underline{\Omega}$	
evening rise	3906 Oct 11 16:40	27° $\underline{\Omega}$ 38'47		max. Earth dist.	3907 Sep 20 03:58	2° $\underline{\Omega}$ 51'15	1.36484 AU
	3906 Oct 13 01:23	0° \mathbb{M}		evening rise	3907 Sep 24 01:29	10° $\underline{\Omega}$ 09'57	
desc. node	3906 Oct 18 06:02	8° \mathbb{M} 39'28		desc. node	3907 Oct 05 03:03	29° $\underline{\Omega}$ 06'26	
	3906 Nov 01 10:18	0° \mathbb{M}			3907 Oct 05 16:32	0° \mathbb{M}	
evening max el	3906 Nov 16 06:08	18° \mathbb{M} 05'23	24°47'34		3907 Oct 27 23:46	0° \mathbb{M}	
retrograde	3906 Nov 27 21:19	24° \mathbb{M} 51'17		evening max el	3907 Oct 29 18:36	1° \mathbb{M} 48'02	25°57'25
evening set	3906 Dec 03 11:20	22° \mathbb{M} 31'28		retrograde	3907 Nov 11 06:16	8° \mathbb{M} 53'51	
min. Earth dist.	3906 Dec 08 01:16	17° \mathbb{M} 20'39	0.67546 AU	evening set	3907 Nov 17 10:10	6° \mathbb{M} 21'05	
asc. node	3906 Dec 08 03:05	17° \mathbb{M} 14'38		min. Earth dist.	3907 Nov 21 16:48	1° \mathbb{M} 45'35	0.66814 AU
inferior conj	3906 Dec 08 23:40	16° \mathbb{M} 06'30	0°17'33	inferior conj	3907 Nov 23 02:18	0° \mathbb{M} 00'39	-0°39'16
minimum elong	3906 Dec 08 23:14	16° \mathbb{M} 07'56	0°17'22	minimum elong	3907 Nov 23 03:20	29° \mathbb{M} 57'23	0°38'49
morning rise	3906 Dec 14 11:15	10° \mathbb{M} 06'08			3907 Nov 23 02:30	30° \mathbb{M}	
direct	3906 Dec 18 02:44	8° \mathbb{M} 49'41		asc. node	3907 Nov 25 00:08	27° \mathbb{M} 41'08	
morning max el	3906 Dec 25 14:16	13° \mathbb{M} 03'57	19°52'19	morning rise	3907 Nov 28 20:55	24° \mathbb{M} 09'12	
	3907 Jan 07 12:34	0° \mathbb{M}		direct	3907 Dec 02 01:25	23° \mathbb{M} 10'59	
desc. node	3907 Jan 14 05:16	10° \mathbb{M} 01'52		morning max el	3907 Dec 08 22:02	26° \mathbb{M} 58'52	18°56'51
morning set	3907 Jan 20 19:00	20° \mathbb{M} 05'44			3907 Dec 11 14:54	0° \mathbb{M}	
	3907 Jan 27 03:52	0° \approx		morning set	3907 Dec 31 02:47	28° \mathbb{M} 57'43	
max. Earth dist.	3907 Feb 01 05:15	7° \approx 59'22	1.44155 AU		3907 Dec 31 18:42	0° \mathbb{M}	
superior conj	3907 Feb 06 06:35	16° \approx 07'00	-2°00'32	desc. node	3908 Jan 01 02:18	0° \mathbb{M} 29'44	
minimum elong	3907 Feb 06 01:19	15° \approx 45'37	2°00'18	max. Earth dist.	3908 Jan 14 21:54	22° \mathbb{M} 08'03	1.45062 AU
	3907 Feb 14 16:14	0° \mathbb{M}		superior conj	3908 Jan 16 16:37	24° \mathbb{M} 56'09	-1°34'10
evening rise	3907 Feb 19 14:39	8° \mathbb{M} 22'03		minimum elong	3908 Jan 16 07:25	24° \mathbb{M} 19'54	1°33'17
	3907 Mar 04 17:41	0° \mathbb{Y}			3908 Jan 19 21:31	0° \approx	
asc. node	3907 Mar 06 02:22	1° \mathbb{Y} 55'18		evening rise	3908 Jan 31 18:58	19° \approx 05'37	
evening max el	3907 Mar 09 18:55	6° \mathbb{Y} 20'02	18°13'16		3908 Feb 07 11:53	0° \mathbb{M}	
retrograde	3907 Mar 16 05:05	9° \mathbb{Y} 44'50		asc. node	3908 Feb 20 23:24	19° \mathbb{M} 26'41	
evening set	3907 Mar 19 03:03	9° \mathbb{Y} 00'23		evening max el	3908 Feb 21 06:40	19° \mathbb{M} 45'25	18°37'41
inferior conj	3907 Mar 25 05:01	3° \mathbb{Y} 42'26	3°35'06	retrograde	3908 Feb 27 21:00	23° \mathbb{M} 24'16	
minimum elong	3907 Mar 25 05:44	3° \mathbb{Y} 40'28	3°35'04	evening set	3908 Mar 02 01:00	22° \mathbb{M} 27'33	
min. Earth dist.	3907 Mar 27 19:50	0° \mathbb{Y} 51'15	0.63210 AU	inferior conj	3908 Mar 07 18:40	16° \mathbb{M} 51'27	3°34'55
	3907 Mar 28 15:43	30° \mathbb{M}		minimum elong	3908 Mar 07 17:49	16° \mathbb{M} 53'59	3°34'53
morning rise	3907 Mar 31 07:22	27° \mathbb{M} 36'49		min. Earth dist.	3908 Mar 09 17:52	14° \mathbb{M} 29'26	0.64972 AU
direct	3907 Apr 07 04:53	24° \mathbb{M} 56'15		morning rise	3908 Mar 13 10:09	10° \mathbb{M} 40'11	
desc. node	3907 Apr 12 04:26	26° \mathbb{M} 08'40		direct	3908 Mar 20 03:08	7° \mathbb{M} 49'50	
	3907 Apr 17 23:17	0° \mathbb{Y}		desc. node	3908 Mar 29 01:29	11° \mathbb{M} 40'12	
morning max el	3907 Apr 21 02:35	2° \mathbb{Y} 54'21	27°46'02	morning max el	3908 Apr 02 12:19	15° \mathbb{M} 39'55	27°09'33
	3907 May 11 05:59	0° \mathbb{M}			3908 Apr 14 07:10	0° \mathbb{Y}	
morning set	3907 May 25 12:41	25° \mathbb{M} 55'33			3908 May 03 00:15	0° \mathbb{M}	
	3907 May 27 12:52	0° \mathbb{M}		morning set	3908 May 08 01:58	9° \mathbb{M} 30'57	
max. Earth dist.	3907 May 30 19:09	6° \mathbb{M} 49'02	1.32780 AU	max. Earth dist.	3908 May 12 15:38	18° \mathbb{M} 36'15	1.33817 AU
superior conj	3907 Jun 02 05:58	12° \mathbb{M} 03'53	0°01'53	superior conj	3908 May 16 09:04	26° \mathbb{M} 19'56	-0°26'31
minimum elong	3907 Jun 02 05:52	12° \mathbb{M} 03'23	0°01'51	minimum elong	3908 May 16 10:27	26° \mathbb{M} 27'11	0°26'14
behind sun begin	3907 Jun 02 00:38	11° \mathbb{M} 35'08			3908 May 18 02:43	0° \mathbb{M}	
behind sun end	3907 Jun 02 11:07	12° \mathbb{M} 31'41		asc. node	3908 May 18 22:43	1° \mathbb{M} 46'13	
asc. node	3907 Jun 02 01:41	11° \mathbb{M} 40'51		evening rise	3908 May 23 16:51	11° \mathbb{M} 51'13	
evening rise	3907 Jun 09 06:07	27° \mathbb{M} 11'06			3908 Jun 02 01:41	0° \mathbb{M}	
	3907 Jun 10 14:12	0° \mathbb{M}		evening max el	3908 Jun 13 05:30	15° \mathbb{M} 09'49	21°49'06
	3907 Jun 28 06:26	0° Ω		desc. node	3908 Jun 25 00:43	21° \mathbb{M} 20'33	
evening max el	3907 Jul 02 12:46	4° Ω 41'16	23°24'25	retrograde	3908 Jun 25 18:35	21° \mathbb{M} 21'50	
desc. node	3907 Jul 09 03:42	9° Ω 39'10		evening set	3908 Jun 28 09:42	21° \mathbb{M} 06'17	
retrograde	3907 Jul 16 02:08	11° Ω 28'18					

inferior conj	3908 Jul 07 18:18	17°☿03'26	-3°31'34	desc. node	3909 Jun 11 21:45	0°☿16'13	
minimum elong	3908 Jul 07 09:52	17°☿15'14	3°29'10		3909 Jun 12 13:01	30°☿11	
min. Earth dist.	3908 Jul 07 09:00	17°☿16'27	0.54922 AU	inferior conj	3909 Jun 17 12:27	27°☿21'03	-1°39'20
morning rise	3908 Jul 16 11:28	13°☿11'25		minimum elong	3909 Jun 17 07:46	27°☿27'51	1°37'38
direct	3908 Jul 19 17:03	12°☿48'29		min. Earth dist.	3909 Jun 18 21:08	26°☿33'28	0.54996 AU
morning max el	3908 Jul 31 19:49	18°☿29'15	21°47'32	morning rise	3909 Jun 26 06:39	23°☿09'58	
	3908 Aug 10 01:09	0°☿		direct	3909 Jun 30 02:59	22°☿38'01	
asc. node	3908 Aug 14 22:00	8°☿16'34		morning max el	3909 Jul 13 13:10	29°☿08'49	23°28'53
morning set	3908 Aug 21 16:13	21°☿38'47			3909 Jul 14 10:22	0°☿	
	3908 Aug 25 15:20	0°☿		asc. node	3909 Aug 01 19:02	27°☿37'52	
					3909 Aug 02 23:36	0°☿	
superior conj	3908 Aug 28 21:57	6°☿54'47	1°42'31	morning set	3909 Aug 06 03:35	6°☿32'15	
minimum elong	3908 Aug 28 21:00	6°☿49'47	1°42'28				
max. Earth dist.	3908 Sep 01 17:10	14°☿45'12	1.34786 AU	superior conj	3909 Aug 13 04:09	21°☿38'10	1°34'37
evening rise	3908 Sep 06 03:14	23°☿28'55		minimum elong	3909 Aug 13 02:16	21°☿28'04	1°34'27
	3908 Sep 09 14:35	0°☿		max. Earth dist.	3909 Aug 15 15:10	26°☿53'14	1.33479 AU
desc. node	3908 Sep 21 00:05	19°☿16'17			3909 Aug 17 02:43	0°☿	
	3908 Sep 28 07:42	0°☿		evening rise	3909 Aug 20 17:42	7°☿24'21	
evening max el	3908 Oct 11 07:09	15°☿25'32	26°51'19		3909 Sep 02 03:08	0°☿	
retrograde	3908 Oct 24 09:55	22°☿41'40		desc. node	3909 Sep 07 21:06	9°☿01'06	
evening set	3908 Oct 31 02:23	20°☿00'58		evening max el	3909 Sep 23 19:01	28°☿47'25	27°22'00
min. Earth dist.	3908 Nov 04 02:10	16°☿01'27	0.65726 AU		3909 Sep 25 02:34	0°☿	
inferior conj	3908 Nov 05 23:29	13°☿49'41	-1°39'24	retrograde	3909 Oct 07 07:50	6°☿05'49	
minimum elong	3908 Nov 06 02:16	13°☿41'38	1°38'15	evening set	3909 Oct 14 09:20	3°☿25'23	
asc. node	3908 Nov 10 21:12	8°☿55'53		min. Earth dist.	3909 Oct 18 03:14	0°☿00'24	0.64290 AU
morning rise	3908 Nov 12 02:56	8°☿10'05			3909 Oct 18 03:24	30°☿15	
direct	3908 Nov 14 22:32	7°☿26'27		inferior conj	3909 Oct 20 12:49	27°☿27'55	-2°40'46
morning max el	3908 Nov 21 11:29	10°☿58'39	18°17'38	minimum elong	3909 Oct 20 17:19	27°☿15'58	2°39'06
	3908 Dec 04 21:12	0°☿		morning rise	3909 Oct 27 02:33	22°☿03'07	
morning set	3908 Dec 10 14:24	9°☿15'36		asc. node	3909 Oct 28 18:16	21°☿34'16	
desc. node	3908 Dec 17 23:22	21°☿08'06		direct	3909 Oct 29 15:37	21°☿30'12	
	3908 Dec 23 13:20	0°☿		morning max el	3909 Nov 05 03:49	24°☿56'00	17°55'19
					3909 Nov 09 08:13	0°☿	
superior conj	3908 Dec 25 19:08	3°☿32'04	-0°51'47	morning set	3909 Nov 22 06:23	20°☿56'12	
minimum elong	3908 Dec 25 12:39	3°☿06'33	0°50'56		3909 Nov 27 15:19	0°☿	
max. Earth dist.	3908 Dec 27 17:15	6°☿33'16	1.45234 AU	desc. node	3909 Dec 04 20:24	11°☿52'28	
evening rise	3909 Jan 11 00:31	28°☿56'01					
	3909 Jan 11 16:53	0°☿		superior conj	3909 Dec 05 10:46	12°☿50'37	-0°04'09
greatest brilliancy	3909 Jan 22 06:45	16°☿27'17	-0.7m	minimum elong	3909 Dec 05 10:17	12°☿48'41	0°04'05
	3909 Jan 31 18:44	0°☿		behind sun begin	3909 Dec 05 00:23	12°☿08'36	
evening max el	3909 Feb 03 15:09	3°☿15'27	19°19'16	behind sun end	3909 Dec 05 20:12	13°☿28'43	
asc. node	3909 Feb 06 20:27	5°☿59'46		max. Earth dist.	3909 Dec 10 11:50	20°☿54'55	1.44669 AU
retrograde	3909 Feb 10 17:25	7°☿19'07			3909 Dec 16 06:41	0°☿	
evening set	3909 Feb 14 04:19	6°☿09'20		evening rise	3909 Dec 21 13:23	8°☿31'05	
inferior conj	3909 Feb 19 16:38	0°☿17'18	3°20'16		3910 Jan 05 00:18	0°☿	
minimum elong	3909 Feb 19 14:44	0°☿23'27	3°19'59	evening max el	3910 Jan 17 18:46	16°☿47'12	20°16'17
	3909 Feb 19 21:58	30°☿		asc. node	3910 Jan 24 17:31	21°☿19'22	
min. Earth dist.	3909 Feb 21 00:41	28°☿33'39	0.66341 AU	retrograde	3910 Jan 25 15:31	21°☿23'57	
morning rise	3909 Feb 25 00:53	24°☿03'34		evening set	3910 Jan 29 10:44	20°☿00'05	
direct	3909 Mar 03 07:49	21°☿16'28		inferior conj	3910 Feb 03 20:05	13°☿54'46	2°54'25
desc. node	3909 Mar 15 22:32	28°☿46'43		minimum elong	3910 Feb 03 17:40	14°☿02'59	2°53'50
morning max el	3909 Mar 15 22:11	28°☿45'48	26°05'43	min. Earth dist.	3910 Feb 04 14:21	12°☿52'53	0.67292 AU
	3909 Mar 17 02:49	0°☿		morning rise	3910 Feb 09 00:22	7°☿40'48	
	3909 Apr 08 02:18	0°☿		direct	3910 Feb 14 18:06	5°☿07'06	
morning set	3909 Apr 21 02:11	22°☿24'09		morning max el	3910 Feb 26 06:52	12°☿00'50	24°44'13
max. Earth dist.	3909 Apr 25 00:40	29°☿52'16	1.35314 AU	desc. node	3910 Mar 02 19:35	17°☿00'53	
	3909 Apr 25 02:15	0°☿			3910 Mar 12 17:24	0°☿	
					3910 Mar 31 20:23	0°☿	
superior conj	3909 Apr 30 04:54	10°☿09'37	-0°55'37	morning set	3910 Apr 03 08:12	4°☿20'56	
minimum elong	3909 Apr 30 07:52	10°☿24'43	0°55'05	max. Earth dist.	3910 Apr 06 23:16	10°☿52'41	1.37222 AU
asc. node	3909 May 05 19:46	21°☿44'34					
evening rise	3909 May 08 00:29	26°☿16'48		superior conj	3910 Apr 13 14:22	23°☿25'00	-1°23'35
	3909 May 09 20:17	0°☿		minimum elong	3910 Apr 13 18:40	23°☿45'59	1°22'57
evening max el	3909 May 26 08:40	26°☿07'39	20°26'02		3910 Apr 16 22:33	0°☿	
	3909 May 31 12:53	0°☿		evening rise	3910 Apr 22 02:40	10°☿21'10	
retrograde	3909 Jun 06 07:51	1°☿28'52		asc. node	3910 Apr 22 16:49	11°☿31'40	
evening set	3909 Jun 08 07:52	1°☿18'54			3910 May 02 20:33	0°☿	

evening max el	3910 May 09 00:11	7° Π 47'08	19°21'21	retrograde	3911 Apr 29 21:59	23° \mathcal{B} 55'55	
retrograde	3910 May 18 06:01	12° Π 16'49		evening set	3911 May 02 04:03	23° \mathcal{B} 37'56	
evening set	3910 May 20 06:01	12° Π 05'07		inferior conj	3911 May 09 20:26	19° \mathcal{B} 12'00	1°52'02
inferior conj	3910 May 28 18:22	7° Π 57'46	0°17'50	minimum elong	3911 May 09 23:56	19° \mathcal{B} 05'17	1°50'58
minimum elong	3910 May 28 19:07	7° Π 56'31	0°17'34	min. Earth dist.	3911 May 13 05:24	16° \mathcal{B} 38'11	0.57760 AU
desc. node	3910 May 29 18:45	7° Π 17'36		desc. node	3911 May 16 15:47	14° \mathcal{B} 25'13	
min. Earth dist.	3910 May 31 11:39	6° Π 11'10	0.56013 AU	morning rise	3911 May 17 16:37	13° \mathcal{B} 53'35	
morning rise	3910 Jun 06 05:15	3° Π 13'22		direct	3911 May 23 10:36	12° \mathcal{B} 30'39	
direct	3910 Jun 10 23:44	2° Π 21'23		morning max el	3911 Jun 06 19:30	20° \mathcal{B} 06'51	26°36'04
morning max el	3910 Jun 25 03:07	9° Π 32'17	25°10'20		3911 Jun 15 06:37	0° Π	
	3910 Jul 10 11:14	0° \mathcal{B}			3911 Jul 03 01:09	0° \mathcal{B}	
asc. node	3910 Jul 19 16:05	17° \mathcal{B} 19'28		morning set	3911 Jul 06 01:45	6° \mathcal{B} 14'27	
morning set	3910 Jul 21 15:19	21° \mathcal{B} 26'14		asc. node	3911 Jul 06 13:06	7° \mathcal{B} 14'28	
	3910 Jul 25 14:35	0° Ω					
superior conj	3910 Jul 28 14:04	6° Ω 31'27	1°21'27	superior conj	3911 Jul 13 01:40	21° \mathcal{B} 26'57	1°03'46
minimum elong	3910 Jul 28 11:45	6° Ω 18'50	1°21'09	minimum elong	3911 Jul 12 23:24	21° \mathcal{B} 14'30	1°03'22
max. Earth dist.	3910 Jul 29 20:59	9° Ω 20'20	1.32591 AU	max. Earth dist.	3911 Jul 13 07:34	21° \mathcal{B} 59'30	1.32117 AU
evening rise	3910 Aug 04 17:20	21° Ω 46'14			3911 Jul 16 23:14	0° Ω	
	3910 Aug 08 20:11	0° \mathcal{M}		evening rise	3911 Jul 19 23:11	6° Ω 24'24	
desc. node	3910 Aug 25 18:06	28° \mathcal{M} 10'35		desc. node	3911 Aug 01 09:38	0° \mathcal{M}	
	3910 Aug 27 02:02	0° \mathcal{A}		evening max el	3911 Aug 12 15:06	16° \mathcal{M} 29'10	
evening max el	3910 Sep 06 04:26	11° \mathcal{A} 41'56	27°23'22		3911 Aug 19 08:42	23° \mathcal{M} 55'22	26°51'35
retrograde	3910 Sep 19 23:10	18° \mathcal{A} 57'21		retrograde	3911 Aug 28 02:04	0° \mathcal{A}	
evening set	3910 Sep 27 03:42	16° \mathcal{A} 28'34			3911 Sep 02 06:40	1° \mathcal{A} 06'20	
min. Earth dist.	3910 Sep 30 18:25	13° \mathcal{A} 32'32	0.62536 AU	evening set	3911 Sep 07 07:37	30° \mathcal{R} \mathcal{M}	
inferior conj	3910 Oct 03 15:27	10° \mathcal{A} 49'06	-3°39'54	min. Earth dist.	3911 Sep 09 05:01	29° \mathcal{M} 01'48	
minimum elong	3910 Oct 03 21:12	10° \mathcal{A} 35'27	3°38'12	inferior conj	3911 Sep 12 22:50	26° \mathcal{M} 23'46	0.60541 AU
morning rise	3910 Oct 10 16:21	5° \mathcal{A} 42'16		minimum elong	3911 Sep 16 03:59	23° \mathcal{M} 43'37	-4°31'03
direct	3910 Oct 13 01:40	5° \mathcal{A} 16'31		morning rise	3911 Sep 16 09:35	23° \mathcal{M} 31'55	4°29'56
asc. node	3910 Oct 15 15:18	5° \mathcal{A} 47'10		direct	3911 Sep 23 16:05	18° \mathcal{M} 57'59	
morning max el	3910 Oct 19 20:02	8° \mathcal{A} 43'58	17°50'48	asc. node	3911 Sep 26 00:48	18° \mathcal{M} 36'24	
	3910 Nov 02 19:07	0° \mathcal{M}		morning max el	3911 Oct 02 12:20	21° \mathcal{M} 26'33	
morning set	3910 Nov 04 20:57	3° \mathcal{M} 41'52		morning set	3911 Oct 03 08:54	22° \mathcal{M} 13'47	18°05'21
					3911 Oct 09 09:43	0° \mathcal{A}	
superior conj	3910 Nov 16 03:43	23° \mathcal{M} 23'59	0°38'12	morning set	3911 Oct 19 03:50	17° \mathcal{A} 13'59	
minimum elong	3910 Nov 16 07:07	23° \mathcal{M} 38'22	0°37'44		3911 Oct 26 01:12	0° \mathcal{M}	
	3910 Nov 20 02:31	0° \mathcal{X}		superior conj	3911 Oct 28 22:39	5° \mathcal{M} 13'09	1°10'06
desc. node	3910 Nov 21 17:26	2° \mathcal{X} 39'42		minimum elong	3911 Oct 29 02:48	5° \mathcal{M} 31'37	1°09'37
max. Earth dist.	3910 Nov 23 03:15	4° \mathcal{X} 57'16	1.43448 AU	max. Earth dist.	3911 Nov 05 14:10	18° \mathcal{M} 26'57	1.41709 AU
evening rise	3910 Nov 30 23:53	17° \mathcal{X} 24'48		desc. node	3911 Nov 08 14:26	23° \mathcal{M} 26'17	
	3910 Dec 09 06:02	0° \mathcal{B}		evening rise	3911 Nov 10 23:46	27° \mathcal{M} 18'48	
	3910 Dec 31 09:04	0° \approx			3911 Nov 12 16:07	0° \mathcal{X}	
evening max el	3910 Dec 31 16:56	0° \approx 20'16	21°25'42		3911 Dec 02 23:27	0° \mathcal{B}	
retrograde	3911 Jan 09 13:07	5° \approx 35'08		evening max el	3911 Dec 14 10:08	13° \mathcal{B} 55'38	22°43'10
asc. node	3911 Jan 11 14:33	5° \approx 12'04		retrograde	3911 Dec 24 08:36	19° \mathcal{B} 49'36	
evening set	3911 Jan 13 18:24	3° \approx 55'59		evening set	3911 Dec 29 01:42	17° \mathcal{B} 54'16	
	3911 Jan 17 09:37	30° \mathcal{R} \mathcal{B}		asc. node	3911 Dec 29 11:34	17° \mathcal{B} 32'56	
inferior conj	3911 Jan 19 02:41	27° \mathcal{B} 40'25	2°19'31	inferior conj	3912 Jan 03 10:30	11° \mathcal{B} 31'52	1°37'05
minimum elong	3911 Jan 19 00:15	27° \mathcal{B} 48'52	2°18'45	minimum elong	3912 Jan 03 08:30	11° \mathcal{B} 38'47	1°36'20
min. Earth dist.	3911 Jan 19 08:34	27° \mathcal{B} 20'03	0.67839 AU	min. Earth dist.	3912 Jan 03 05:01	11° \mathcal{B} 50'49	0.68005 AU
morning rise	3911 Jan 24 05:54	21° \mathcal{B} 28'02		morning rise	3912 Jan 08 15:12	5° \mathcal{B} 22'46	
direct	3911 Jan 29 09:01	19° \mathcal{B} 14'19		direct	3912 Jan 13 03:37	3° \mathcal{B} 31'55	
morning max el	3911 Feb 08 15:45	25° \mathcal{B} 20'52	23°15'27	morning max el	3912 Jan 22 04:29	8° \mathcal{B} 49'04	21°48'47
	3911 Feb 12 20:53	0° \approx		desc. node	3912 Feb 04 13:40	25° \mathcal{B} 40'28	
desc. node	3911 Feb 17 16:38	6° \approx 03'18			3912 Feb 07 14:12	0° \approx	
	3911 Mar 06 05:51	0° \mathcal{H}		morning set	3912 Feb 23 14:43	24° \approx 26'13	
morning set	3911 Mar 15 13:50	15° \mathcal{H} 04'40			3912 Feb 27 01:17	0° \mathcal{H}	
max. Earth dist.	3911 Mar 19 18:07	22° \mathcal{H} 12'47	1.39382 AU	max. Earth dist.	3912 Feb 29 17:15	4° \mathcal{H} 23'49	1.41517 AU
	3911 Mar 24 03:38	0° \mathcal{Y}					
superior conj	3911 Mar 27 09:29	5° \mathcal{Y} 56'01	-1°47'35	superior conj	3912 Mar 08 09:24	17° \mathcal{H} 30'55	-2°03'41
minimum elong	3911 Mar 27 14:10	6° \mathcal{Y} 17'41	1°47'08	minimum elong	3912 Mar 08 12:22	17° \mathcal{H} 43'55	2°03'34
evening rise	3911 Apr 05 20:32	23° \mathcal{Y} 56'42			3912 Mar 15 08:18	0° \mathcal{Y}	
	3911 Apr 09 00:35	0° \mathcal{B}		evening rise	3912 Mar 19 02:33	6° \mathcal{Y} 55'04	
asc. node	3911 Apr 09 13:50	1° \mathcal{B} 02'21		asc. node	3912 Mar 26 10:52	20° \mathcal{Y} 10'52	
evening max el	3911 Apr 22 01:54	20° \mathcal{B} 04'55	18°36'46		3912 Apr 01 21:18	0° \mathcal{B}	
				evening max el	3912 Apr 04 10:29	2° \mathcal{B} 52'38	18°12'17

retrograde	3912 Apr 11 08:47	6°♄21'47		evening max el	3913 Mar 18 22:32	16°♄00'25	18°07'24
evening set	3912 Apr 13 21:24	5°♄54'44		retrograde	3913 Mar 25 10:26	19°♄23'09	
inferior conj	3912 Apr 20 19:47	1°♄07'51	2°53'58	evening set	3913 Mar 28 04:57	18°♄45'28	
minimum elong	3912 Apr 20 23:06	1°♄00'25	2°53'15	inferior conj	3913 Apr 03 13:14	13°♄38'24	3°26'49
	3912 Apr 22 01:55	30°♄		minimum elong	3913 Apr 03 14:59	13°♄33'55	3°26'38
min. Earth dist.	3912 Apr 24 04:42	28°♄08'17	0.59884 AU	min. Earth dist.	3913 Apr 06 12:08	10°♄37'43	0.62048 AU
morning rise	3912 Apr 27 22:23	25°♄23'25		morning rise	3913 Apr 09 23:30	7°♄37'56	
desc. node	3912 May 02 12:49	23°♄35'15		direct	3913 Apr 16 19:53	5°♄09'36	
direct	3912 May 04 10:01	23°♄25'22		desc. node	3913 Apr 19 09:51	5°♄28'59	
	3912 May 17 10:03	0°♄		morning max el	3913 Apr 30 22:53	13°♄08'07	27°51'46
morning max el	3912 May 18 18:05	1°♄16'22	27°32'17		3913 May 14 10:08	0°♄	
	3912 Jun 08 11:23	0°♄			3913 May 31 21:21	0°♄	
morning set	3912 Jun 19 09:12	20°♄51'50		morning set	3913 Jun 03 11:40	5°♄11'49	
asc. node	3912 Jun 22 10:08	27°♄18'09		max. Earth dist.	3913 Jun 09 04:06	17°♄09'13	1.32387 AU
	3912 Jun 23 16:03	0°♄		asc. node	3913 Jun 09 07:11	17°♄25'50	
max. Earth dist.	3912 Jun 25 19:18	4°♄40'23	1.32050 AU				
				superior conj	3913 Jun 10 23:02	21°♄02'07	0°17'21
superior conj	3912 Jun 26 13:13	6°♄19'04	0°42'11	minimum elong	3913 Jun 10 22:14	20°♄57'45	0°17'11
minimum elong	3912 Jun 26 11:29	6°♄09'28	0°41'50		3913 Jun 15 01:32	0°♄	
evening rise	3912 Jul 03 08:56	21°♄11'36		evening rise	3913 Jun 17 20:33	6°♄00'59	
	3912 Jul 07 15:30	0°♄			3913 Jun 30 11:48	0°♄	
	3912 Jul 26 07:08	0°♄		evening max el	3913 Jul 12 19:49	16°♄01'34	24°20'00
desc. node	3912 Jul 29 12:06	3°♄36'16		desc. node	3913 Jul 16 09:06	19°♄03'55	
evening max el	3912 Jul 31 05:33	5°♄19'46	25°47'39	retrograde	3913 Jul 26 16:07	23°♄00'50	
retrograde	3912 Aug 14 04:49	12°♄26'58		evening set	3913 Jul 31 11:56	22°♄08'52	
evening set	3912 Aug 20 08:30	10°♄57'14		min. Earth dist.	3913 Aug 06 06:38	19°♄14'27	0.56613 AU
min. Earth dist.	3912 Aug 24 17:42	8°♄20'21	0.58476 AU	inferior conj	3913 Aug 08 21:42	17°♄35'12	-5°05'58
inferior conj	3912 Aug 27 22:52	6°♄01'28	-5°04'31	minimum elong	3913 Aug 08 19:00	17°♄39'29	5°05'47
minimum elong	3912 Aug 28 01:44	5°♄56'16	5°04'18	morning rise	3913 Aug 17 04:41	13°♄33'46	
morning rise	3912 Sep 04 21:12	1°♄39'07		direct	3913 Aug 19 21:02	13°♄14'33	
direct	3912 Sep 07 08:30	1°♄19'30		morning max el	3913 Aug 29 11:51	17°♄43'23	19°36'53
morning max el	3912 Sep 15 15:11	5°♄16'31	18°40'21	asc. node	3913 Sep 05 06:25	26°♄07'31	
asc. node	3912 Sep 18 09:22	8°♄18'12			3913 Sep 07 16:08	0°♄	
	3912 Oct 01 06:00	0°♄		morning set	3913 Sep 16 00:22	15°♄45'38	
morning set	3912 Oct 01 22:09	1°♄18'24			3913 Sep 23 02:04	0°♄	
				superior conj	3913 Sep 23 22:57	1°♄43'22	1°41'47
superior conj	3912 Oct 10 14:52	18°♄04'40	1°30'55	minimum elong	3913 Sep 24 00:19	1°♄50'08	1°41'43
minimum elong	3912 Oct 10 17:55	18°♄18'59	1°30'39	max. Earth dist.	3913 Sep 30 00:43	13°♄22'03	1.37589 AU
	3912 Oct 17 03:35	0°♄		evening rise	3913 Oct 03 18:52	20°♄11'46	
max. Earth dist.	3912 Oct 17 20:21	1°♄13'51	1.39668 AU		3913 Oct 09 11:30	0°♄	
evening rise	3912 Oct 21 21:47	8°♄13'18		desc. node	3913 Oct 12 08:27	4°♄42'38	
desc. node	3912 Oct 25 11:26	14°♄08'32			3913 Oct 29 17:25	0°♄	
	3912 Nov 04 16:03	0°♄		evening max el	3913 Nov 08 12:09	11°♄15'27	25°18'43
evening max el	3912 Nov 25 23:49	27°♄33'47	24°03'04	retrograde	3913 Nov 20 12:48	18°♄11'55	
	3912 Nov 28 15:04	0°♄		evening set	3913 Nov 26 08:48	15°♄45'54	
retrograde	3912 Dec 07 00:48	4°♄03'14		min. Earth dist.	3913 Nov 30 19:26	10°♄50'03	0.67273 AU
evening set	3912 Dec 12 07:01	1°♄51'44		inferior conj	3913 Dec 01 22:35	9°♄22'02	-0°06'02
	3912 Dec 14 04:07	30°♄		minimum elong	3913 Dec 01 22:44	9°♄21'33	0°05'58
asc. node	3912 Dec 15 08:36	28°♄35'11		transit middle	3913 Dec 01 22:44	9°♄21'33	0°05'58
min. Earth dist.	3912 Dec 17 01:23	26°♄21'36	0.67813 AU	transit begin	3913 Dec 01 20:08	9°♄29'58	
inferior conj	3912 Dec 17 17:43	25°♄26'22	0°48'11	transit end	3913 Dec 02 01:19	9°♄13'09	
minimum elong	3912 Dec 17 16:35	25°♄30'10	0°47'44	asc. node	3913 Dec 02 05:38	8°♄59'12	
morning rise	3912 Dec 23 02:11	19°♄22'23		morning rise	3913 Dec 07 12:56	3°♄25'15	
direct	3912 Dec 27 00:49	17°♄54'09		direct	3913 Dec 10 23:24	2°♄17'11	
morning max el	3913 Jan 04 00:13	22°♄28'25	20°31'07	morning max el	3913 Dec 18 03:53	6°♄19'09	19°26'50
	3913 Jan 10 09:09	0°♄		greatest brilliancy	3913 Dec 31 09:41	23°♄58'22	-0.7m
desc. node	3913 Jan 21 10:41	15°♄42'18			3914 Jan 04 09:14	0°♄	
	3913 Jan 30 21:11	0°♄		desc. node	3914 Jan 08 07:45	6°♄02'27	
morning set	3913 Feb 01 15:45	2°♄44'33		morning set	3914 Jan 11 13:47	11°♄03'40	
max. Earth dist.	3913 Feb 10 23:41	17°♄29'14	1.43341 AU		3914 Jan 23 17:02	0°♄	
				max. Earth dist.	3914 Jan 24 12:45	1°♄17'55	1.44626 AU
superior conj	3913 Feb 17 09:06	27°♄57'47	-2°06'45				
minimum elong	3913 Feb 17 07:22	27°♄50'35	2°06'43	superior conj	3914 Jan 28 07:14	7°♄17'27	-1°51'45
	3913 Feb 18 14:21	0°♄		minimum elong	3914 Jan 27 23:40	6°♄47'14	1°51'13
evening rise	3913 Mar 01 16:28	19°♄06'19		evening rise	3914 Feb 11 10:03	0°♄23'17	
	3913 Mar 07 22:08	0°♄			3914 Feb 11 04:28	0°♄	
asc. node	3913 Mar 13 07:54	8°♄49'10					

asc. node	3914 Feb 28 04:56	26° H 48'24		superior conj	3915 Jan 07 11:41	15° Z 54'33	-1°17'39
evening max el	3914 Mar 02 11:10	29° H 21'22	18°21'24	minimum elong	3915 Jan 07 02:50	15° Z 19'49	1°16'39
	3914 Mar 03 03:08	0° Y		max. Earth dist.	3915 Jan 07 06:27	15° Z 33'59	1.45227 AU
retrograde	3914 Mar 08 22:15	2° Y 50'59			3915 Jan 16 10:34	0° \approx	
evening set	3914 Mar 11 22:36	2° Y 01'35		evening rise	3915 Jan 23 04:24	10° \approx 42'53	
	3914 Mar 14 15:49	30° R H		greatest brilliancy	3915 Jan 31 09:59	23° \approx 51'04	-0.8m
inferior conj	3914 Mar 17 20:40	26° H 35'47	3°37'00		3915 Feb 04 08:28	0° H	
minimum elong	3914 Mar 17 20:40	26° H 35'46	3°37'01	evening max el	3915 Feb 13 21:50	12° H 49'47	18°53'23
min. Earth dist.	3914 Mar 20 05:00	23° H 55'04	0.64007 AU	asc. node	3915 Feb 15 01:58	13° H 57'01	
morning rise	3914 Mar 23 17:55	20° H 26'58		retrograde	3915 Feb 20 16:22	16° H 37'47	
direct	3914 Mar 30 14:17	17° H 40'16		evening set	3915 Feb 23 23:09	15° H 35'43	
desc. node	3914 Apr 06 06:55	19° H 50'52		inferior conj	3915 Mar 01 14:15	9° H 52'52	3°30'14
morning max el	3914 Apr 13 07:36	25° H 37'13	27°34'16	minimum elong	3915 Mar 01 12:54	9° H 57'05	3°30'06
	3914 Apr 17 08:17	0° Y		min. Earth dist.	3915 Mar 03 06:59	7° H 46'09	0.65610 AU
	3914 May 07 22:19	0° B		morning rise	3915 Mar 07 02:14	3° H 40'18	
morning set	3914 May 18 06:42	19° B 06'31		direct	3915 Mar 13 15:39	0° H 49'32	
max. Earth dist.	3914 May 23 05:59	29° B 13'27	1.33159 AU	desc. node	3915 Mar 24 03:59	6° H 06'45	
	3914 May 23 14:52	0° II		morning max el	3915 Mar 26 17:29	8° H 32'39	26°45'05
					3915 Apr 12 11:38	0° Y	
superior conj	3914 May 26 05:14	5° II 30'09	-0°10'01		3915 Apr 30 08:06	0° B	
minimum elong	3914 May 26 05:44	5° II 32'50	0°09'55	morning set	3915 May 01 15:01	2° B 26'02	
behind sun begin	3914 May 26 01:28	5° II 10'07		max. Earth dist.	3915 May 05 21:31	10° B 45'59	1.34396 AU
behind sun end	3914 May 26 09:59	5° II 55'34					
asc. node	3914 May 27 04:14	7° II 33'17		superior conj	3915 May 10 05:39	19° B 36'40	-0°38'52
evening rise	3914 Jun 02 08:10	20° II 46'16		minimum elong	3915 May 10 07:42	19° B 47'19	0°38'27
	3914 Jun 06 20:10	0° E		asc. node	3915 May 14 01:17	27° B 36'31	
evening max el	3914 Jun 24 09:26	26° E 25'50	22°43'05		3915 May 15 04:31	0° II	
	3914 Jun 28 17:26	0° Ω		evening rise	3915 May 17 17:53	5° II 21'24	
desc. node	3914 Jul 03 06:07	2° Ω 17'12			3915 May 31 08:31	0° E	
retrograde	3914 Jul 07 14:58	3° Ω 00'58		evening max el	3915 Jun 06 06:17	7° E 05'23	21°11'50
evening set	3914 Jul 10 22:21	2° Ω 36'58		retrograde	3915 Jun 18 04:20	12° E 56'16	
	3914 Jul 17 06:27	30° R E		evening set	3915 Jun 20 10:46	12° E 44'21	
min. Earth dist.	3914 Jul 18 17:34	29° E 11'03	0.55300 AU	desc. node	3915 Jun 20 03:09	12° E 47'24	
inferior conj	3914 Jul 20 01:52	28° E 24'50	-4°20'35	inferior conj	3915 Jun 29 19:42	8° E 46'03	-2°46'57
minimum elong	3914 Jul 19 18:01	28° E 36'05	4°18'55	minimum elong	3915 Jun 29 12:16	8° E 56'30	2°44'29
morning rise	3914 Jul 28 15:52	24° E 33'52		min. Earth dist.	3915 Jun 30 04:49	8° E 33'16	0.54834 AU
direct	3914 Jul 31 15:32	24° E 13'13		morning rise	3915 Jul 08 14:06	4° E 48'11	
morning max el	3914 Aug 11 20:49	29° E 26'10	20°54'33	direct	3915 Jul 12 01:17	4° E 22'13	
	3914 Aug 12 11:03	0° Ω		morning max el	3915 Jul 24 18:39	10° E 25'08	22°29'37
asc. node	3914 Aug 23 03:28	14° Ω 40'42			3915 Aug 07 23:21	0° Ω	
morning set	3914 Aug 31 07:44	0° P 27'30		asc. node	3915 Aug 10 00:33	3° Ω 47'11	
	3914 Aug 31 02:24	0° P		morning set	3915 Aug 15 18:10	15° Ω 18'20	
superior conj	3914 Sep 07 18:15	15° P 54'54	1°44'17	superior conj	3915 Aug 22 21:15	0° P 28'59	1°39'51
minimum elong	3914 Sep 07 18:02	15° P 53'49	1°44'17	minimum elong	3915 Aug 22 19:51	0° P 21'32	1°39'46
max. Earth dist.	3914 Sep 12 09:09	25° P 13'10	1.35711 AU		3915 Aug 22 15:48	0° P	
	3914 Sep 14 20:21	0° A		max. Earth dist.	3915 Aug 26 02:09	7° P 12'04	1.34184 AU
evening rise	3914 Sep 16 11:27	3° A 04'46		evening rise	3915 Aug 30 19:08	16° P 40'46	
desc. node	3914 Sep 29 05:28	25° A 02'53			3915 Sep 06 23:02	0° A	
	3914 Oct 02 10:20	0° M		desc. node	3915 Sep 16 02:28	15° A 02'51	
evening max el	3914 Oct 22 00:39	24° M 56'47	26°22'48		3915 Sep 26 20:55	0° M	
	3914 Oct 28 07:44	0° X		evening max el	3915 Oct 04 13:17	8° M 29'30	27°07'41
retrograde	3914 Nov 03 19:47	2° X 08'46		retrograde	3915 Oct 17 20:55	15° M 46'50	
	3914 Nov 09 14:58	30° R M		evening set	3915 Oct 24 17:42	13° M 05'26	
evening set	3914 Nov 10 05:07	29° M 31'58		min. Earth dist.	3915 Oct 28 14:58	9° M 20'40	0.65157 AU
min. Earth dist.	3914 Nov 14 08:46	25° M 11'32	0.66388 AU	inferior conj	3915 Oct 30 17:20	6° M 59'30	-2°05'26
inferior conj	3914 Nov 15 23:11	23° M 14'33	-1°04'28	minimum elong	3915 Oct 30 20:51	6° M 49'37	2°04'02
minimum elong	3914 Nov 16 00:56	23° M 09'13	1°03'42	asc. node	3915 Nov 05 23:45	1° M 26'56	
asc. node	3914 Nov 19 02:41	19° M 39'59		morning rise	3915 Nov 06 00:58	1° M 25'28	
morning rise	3914 Nov 21 21:20	17° M 27'36		direct	3915 Nov 08 17:31	0° M 46'44	
direct	3914 Nov 24 21:42	16° M 36'06		morning max el	3915 Nov 15 05:14	4° M 15'11	18°05'58
morning max el	3914 Dec 01 14:20	20° M 16'32	18°38'06		3915 Dec 02 12:14	0° X	
	3914 Dec 09 04:35	0° X		morning set	3915 Dec 03 08:38	1° X 24'16	
morning set	3914 Dec 22 08:28	20° X 29'42		desc. node	3915 Dec 13 01:48	17° X 15'54	
desc. node	3914 Dec 26 04:47	26° X 35'02					
	3914 Dec 28 08:43	0° Z		superior conj	3915 Dec 17 17:21	24° X 41'29	-0°31'29
				minimum elong	3915 Dec 17 13:24	24° X 25'49	0°30'56

max. Earth dist.	3915 Dec 21 01:58	0° Z 00'06	1.45085 AU	behind sun begin	3916 Nov 26 16:35	4° X 19'55	
	3915 Dec 21 01:57	0° Z		behind sun end	3916 Nov 27 00:35	4° X 52'51	
evening rise	3916 Jan 03 01:31	20° Z 14'04		desc. node	3916 Nov 28 22:48	8° X 01'47	
	3916 Jan 09 09:21	0° \approx		max. Earth dist.	3916 Dec 02 20:05	14° X 17'44	1.44222 AU
greatest brilliancy	3916 Jan 16 05:32	10° \approx 24'23	-0.7m	evening rise	3916 Dec 12 11:22	29° X 23'42	
evening max el	3916 Jan 28 04:28	26° \approx 21'00	19°41'51		3916 Dec 12 20:49	0° Z	
asc. node	3916 Feb 01 23:00	0° X 00'45			3917 Jan 02 04:32	0° \approx	
	3916 Feb 01 22:21	0° X		evening max el	3917 Jan 10 05:47	9° \approx 53'22	20°44'30
retrograde	3916 Feb 04 13:41	0° X 37'25		retrograde	3917 Jan 18 11:50	14° \approx 45'48	
	3916 Feb 07 02:26	30° R \approx		asc. node	3917 Jan 18 20:03	14° \approx 45'10	
evening set	3916 Feb 08 04:02	29° \approx 21'37		evening set	3917 Jan 22 11:13	13° \approx 15'20	
inferior conj	3916 Feb 13 14:50	23° \approx 23'44	3°10'32	inferior conj	3917 Jan 27 19:52	7° \approx 05'05	2°40'39
minimum elong	3916 Feb 13 12:39	23° \approx 30'58	3°10'07	minimum elong	3917 Jan 27 17:23	7° \approx 13'38	2°39'57
min. Earth dist.	3916 Feb 14 16:48	21° \approx 57'50	0.66800 AU	min. Earth dist.	3917 Jan 28 08:37	6° \approx 21'23	0.67570 AU
morning rise	3916 Feb 18 21:02	17° \approx 09'59		morning rise	3917 Feb 01 23:23	0° \approx 51'45	
direct	3916 Feb 24 22:44	14° \approx 27'33			3917 Feb 03 00:51	30° R Z	
morning max el	3916 Mar 08 02:39	21° \approx 42'39	25°32'39	direct	3917 Feb 07 10:54	28° Z 26'17	
desc. node	3916 Mar 10 01:02	23° \approx 44'40			3917 Feb 12 09:02	0° \approx	
	3916 Mar 15 08:05	0° X		morning max el	3917 Feb 18 11:15	5° \approx 00'33	24°06'54
	3916 Apr 04 17:33	0° Y		desc. node	3917 Feb 24 22:03	12° \approx 21'21	
morning set	3916 Apr 13 08:09	14° Y 56'57			3917 Mar 09 17:22	0° X	
max. Earth dist.	3916 Apr 17 01:46	21° Y 52'46	1.36088 AU	morning set	3917 Mar 26 04:34	26° X 24'39	
	3916 Apr 21 06:35	0° X			3917 Mar 28 05:55	0° Y	
				max. Earth dist.	3917 Mar 29 22:20	2° Y 59'30	1.38129 AU
superior conj	3916 Apr 22 21:30	3° X 13'06	-1°07'45				
minimum elong	3916 Apr 23 01:06	3° X 31'06	1°07'08	superior conj	3917 Apr 06 01:23	16° Y 10'54	-1°34'26
asc. node	3916 Apr 29 22:18	17° X 30'44		minimum elong	3917 Apr 06 06:01	16° Y 33'03	1°33'50
evening rise	3916 Apr 30 23:30	19° X 39'02			3917 Apr 13 03:28	0° X	
	3916 May 06 05:26	0° II		evening rise	3917 Apr 14 22:33	3° X 32'28	
evening max el	3916 May 18 14:45	18° II 20'24	19°56'02	asc. node	3917 Apr 16 19:19	7° X 11'38	
retrograde	3916 May 28 19:40	23° II 18'34			3917 May 01 04:12	0° II	
evening set	3916 May 30 18:37	23° II 08'24		evening max el	3917 May 01 10:51	0° II 16'25	18°59'47
desc. node	3916 Jun 06 00:12	20° II 43'24		retrograde	3917 May 10 01:09	4° II 28'10	
inferior conj	3916 Jun 08 17:15	19° II 07'51	-0°48'12	evening set	3917 May 12 03:21	4° II 14'16	
minimum elong	3916 Jun 08 15:01	19° II 11'14	0°47'21	inferior conj	3917 May 20 07:11	29° X 59'13	1°01'35
min. Earth dist.	3916 Jun 10 17:31	17° II 54'44	0.55330 AU	minimum elong	3917 May 20 09:32	29° X 55'07	1°00'45
morning rise	3916 Jun 17 09:31	14° II 44'05			3917 May 20 06:45	30° R X	
direct	3916 Jun 21 14:47	14° II 05'07		min. Earth dist.	3917 May 23 09:05	27° X 50'37	0.56689 AU
morning max el	3916 Jul 05 09:36	20° II 53'43	24°12'55	desc. node	3917 May 23 21:14	27° X 30'29	
	3916 Jul 13 05:35	0° X		morning rise	3917 May 28 12:30	24° X 59'35	
asc. node	3916 Jul 26 21:35	23° X 17'45		direct	3917 Jun 02 16:59	23° X 55'51	
morning set	3916 Jul 30 05:53	0° X 12'29			3917 Jun 15 13:59	0° II	
	3916 Jul 30 03:31	0° X		morning max el	3917 Jun 17 00:09	1° II 18'56	25°49'40
					3917 Jul 07 03:29	0° X	
superior conj	3916 Aug 06 05:16	15° X 16'57	1°29'37	asc. node	3917 Jul 13 18:36	13° X 05'34	
minimum elong	3916 Aug 06 03:09	15° X 05'27	1°29'24	morning set	3917 Jul 14 17:16	15° X 04'39	
max. Earth dist.	3916 Aug 08 03:59	19° X 29'07	1.33056 AU				
	3916 Aug 13 04:22	0° X		superior conj	3917 Jul 21 16:07	0° X 11'42	1°14'27
evening rise	3916 Aug 13 13:52	0° X 48'14		minimum elong	3917 Jul 21 13:46	29° X 58'49	1°14'06
	3916 Aug 29 22:20	0° X			3917 Jul 21 13:59	0° X	
desc. node	3916 Sep 01 23:29	4° X 33'56		max. Earth dist.	3917 Jul 22 12:17	2° X 02'30	1.32340 AU
evening max el	3916 Sep 16 00:30	21° X 41'23	27°26'28	evening rise	3917 Jul 28 16:26	15° X 17'35	
retrograde	3916 Sep 29 15:51	28° X 58'05			3917 Aug 05 04:06	0° X	
evening set	3916 Oct 06 19:43	26° X 21'10		desc. node	3917 Aug 19 20:30	23° X 23'50	
min. Earth dist.	3916 Oct 10 11:51	23° X 09'34	0.63583 AU		3917 Aug 25 04:28	0° X	
inferior conj	3916 Oct 13 02:29	20° X 31'13	-3°06'23	evening max el	3917 Aug 29 07:49	4° X 18'48	27°13'52
minimum elong	3916 Oct 13 07:37	20° X 18'12	3°04'38	retrograde	3917 Sep 12 03:59	11° X 32'39	
morning rise	3916 Oct 19 20:53	15° X 13'39		evening set	3917 Sep 19 07:24	9° X 12'14	
direct	3916 Oct 22 08:08	14° X 44'02		min. Earth dist.	3917 Sep 22 22:11	6° X 25'59	0.61708 AU
asc. node	3916 Oct 22 20:48	14° X 45'25		inferior conj	3917 Sep 25 23:30	3° X 41'42	-4°03'06
morning max el	3916 Oct 28 21:53	18° X 09'12	17°51'12	minimum elong	3917 Sep 26 05:26	3° X 28'21	4°01'33
	3916 Nov 06 12:02	0° X			3917 Sep 30 14:36	30° R X	
morning set	3916 Nov 14 11:03	13° X 35'09		morning rise	3917 Oct 03 05:16	28° X 43'54	
	3916 Nov 24 01:51	0° X		direct	3917 Oct 05 13:56	28° X 20'16	
				asc. node	3917 Oct 09 17:51	29° X 36'26	
superior conj	3916 Nov 26 19:00	4° X 29'53	0°14'55		3917 Oct 10 08:21	0° X	
minimum elong	3916 Nov 26 20:35	4° X 36'24	0°14'42	morning max el	3917 Oct 12 13:07	1° X 50'37	17°54'40

morning set	3917 Oct 28 09:12	26° Ω 42'07		superior conj	3918 Oct 21 04:09	27° Ω 54'53	1°20'14
	3917 Oct 30 04:44	0° \mathbb{M}		minimum elong	3918 Oct 21 07:58	28° Ω 12'17	1°19'49
					3918 Oct 22 07:42	0° \mathbb{M}	
superior conj	3917 Nov 07 23:25	15° \mathbb{M} 36'47	0°53'07	max. Earth dist.	3918 Oct 28 17:49	11° \mathbb{M} 17'19	1.40861 AU
minimum elong	3917 Nov 08 03:27	15° \mathbb{M} 54'13	0°52'35	evening rise	3918 Nov 02 10:38	19° \mathbb{M} 09'07	
max. Earth dist.	3917 Nov 15 09:39	28° \mathbb{M} 07'27	1.42752 AU	desc. node	3918 Nov 02 16:49	19° \mathbb{M} 34'25	
desc. node	3917 Nov 15 19:48	28° \mathbb{M} 48'58			3918 Nov 09 06:00	0° \mathbb{X}	
	3917 Nov 16 13:12	0° \mathbb{X}			3918 Nov 30 11:25	0° \mathbb{Z}	
evening rise	3917 Nov 22 01:49	8° \mathbb{X} 50'21		evening max el	3918 Dec 06 16:57	7° \mathbb{Z} 02'28	23°17'14
	3917 Dec 06 01:37	0° \mathbb{Z}		retrograde	3918 Dec 17 03:08	13° \mathbb{Z} 12'47	
evening max el	3917 Dec 24 01:31	23° \mathbb{Z} 26'17	21°57'56	evening set	3918 Dec 22 01:33	11° \mathbb{Z} 10'43	
retrograde	3918 Jan 02 08:50	28° \mathbb{Z} 58'34		asc. node	3918 Dec 23 14:07	9° \mathbb{Z} 42'40	
asc. node	3918 Jan 05 17:06	27° \mathbb{Z} 58'27		inferior conj	3918 Dec 27 11:00	4° \mathbb{Z} 46'25	1°17'03
evening set	3918 Jan 06 18:54	27° \mathbb{Z} 12'32		minimum elong	3918 Dec 27 09:19	4° \mathbb{Z} 52'11	1°16'24
inferior conj	3918 Jan 12 03:13	20° \mathbb{Z} 53'19	2°02'22	min. Earth dist.	3918 Dec 27 00:56	5° \mathbb{Z} 21'01	0.67964 AU
minimum elong	3918 Jan 12 00:54	21° \mathbb{Z} 01'20	2°01'35		3918 Dec 31 05:59	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3918 Jan 12 04:07	20° \mathbb{Z} 50'12	0.67949 AU	morning rise	3919 Jan 01 17:01	28° \mathbb{X} 38'58	
morning rise	3918 Jan 17 06:45	14° \mathbb{Z} 42'00		direct	3919 Jan 05 23:23	26° \mathbb{X} 57'50	
direct	3918 Jan 22 03:25	12° \mathbb{Z} 38'02			3919 Jan 12 10:42	0° \mathbb{Z}	
morning max el	3918 Jan 31 21:27	18° \mathbb{Z} 23'53	22°37'54	morning max el	3919 Jan 14 12:47	1° \mathbb{Z} 56'01	21°14'13
	3918 Feb 10 13:30	0° \approx		desc. node	3919 Jan 29 16:05	21° \mathbb{Z} 28'03	
desc. node	3918 Feb 11 19:03	1° \approx 39'36			3919 Feb 04 11:05	0° \approx	
	3918 Mar 02 20:53	0° \mathbb{H}		morning set	3919 Feb 14 11:21	15° \approx 22'39	
morning set	3918 Mar 06 22:13	6° \mathbb{H} 33'39		max. Earth dist.	3919 Feb 21 19:23	27° \approx 09'24	1.42342 AU
max. Earth dist.	3918 Mar 11 17:59	14° \mathbb{H} 37'36	1.40305 AU		3919 Feb 23 12:47	0° \mathbb{H}	
superior conj	3918 Mar 19 12:55	28° \mathbb{H} 18'57	-1°55'40	superior conj	3919 Mar 01 03:01	9° \mathbb{H} 25'42	-2°06'55
minimum elong	3918 Mar 19 17:11	28° \mathbb{H} 38'20	1°55'21	minimum elong	3919 Mar 01 04:21	9° \mathbb{H} 31'24	2°06'54
	3918 Mar 20 11:09	0° \mathbb{Y}		evening rise	3919 Mar 12 11:30	29° \mathbb{H} 31'57	
evening rise	3918 Mar 29 11:51	16° \mathbb{Y} 53'08			3919 Mar 12 17:43	0° \mathbb{Y}	
asc. node	3918 Apr 03 16:22	26° \mathbb{Y} 33'47		asc. node	3919 Mar 21 13:24	15° \mathbb{Y} 30'25	
	3918 Apr 05 14:44	0° \mathbb{B}		evening max el	3919 Mar 29 02:24	25° \mathbb{Y} 45'37	18°07'58
evening max el	3918 Apr 14 15:53	12° \mathbb{B} 48'04	18°23'57	retrograde	3919 Apr 04 18:56	29° \mathbb{Y} 09'59	
retrograde	3918 Apr 22 01:28	16° \mathbb{B} 27'57		evening set	3919 Apr 07 10:09	28° \mathbb{Y} 38'34	
evening set	3918 Apr 24 10:12	16° \mathbb{B} 06'33		inferior conj	3919 Apr 14 02:04	23° \mathbb{Y} 43'17	3°11'02
inferior conj	3918 May 01 18:34	11° \mathbb{B} 32'00	2°22'10	minimum elong	3919 Apr 14 04:48	23° \mathbb{Y} 36'47	3°10'35
minimum elong	3918 May 01 22:15	11° \mathbb{B} 24'24	2°21'11	min. Earth dist.	3919 Apr 17 07:47	20° \mathbb{Y} 40'05	0.60814 AU
min. Earth dist.	3918 May 05 05:12	8° \mathbb{B} 43'55	0.58633 AU	morning rise	3919 Apr 20 21:24	17° \mathbb{Y} 51'06	
morning rise	3918 May 09 07:17	6° \mathbb{B} 00'53		direct	3919 Apr 27 14:07	15° \mathbb{Y} 38'41	
desc. node	3918 May 10 18:15	5° \mathbb{B} 19'56		desc. node	3919 Apr 27 15:17	15° \mathbb{Y} 38'41	
direct	3918 May 15 09:39	4° \mathbb{B} 22'49		morning max el	3919 May 11 20:17	23° \mathbb{Y} 34'01	27°45'12
morning max el	3918 May 29 19:08	12° \mathbb{B} 07'24	27°04'10		3919 May 17 14:40	0° \mathbb{B}	
	3918 Jun 12 19:14	0° \mathbb{I}			3919 Jun 06 00:23	0° \mathbb{I}	
morning set	3918 Jun 29 02:41	29° \mathbb{I} 49'41		morning set	3919 Jun 13 08:16	14° \mathbb{I} 20'36	
	3918 Jun 29 04:39	0° \mathbb{E}		asc. node	3919 Jun 17 12:39	23° \mathbb{I} 11'20	
asc. node	3918 Jun 30 15:37	3° \mathbb{E} 05'17		max. Earth dist.	3919 Jun 19 10:33	27° \mathbb{I} 20'43	1.32139 AU
superior conj	3918 Jul 06 03:58	15° \mathbb{E} 07'17	0°55'04	superior conj	3919 Jun 20 15:01	29° \mathbb{I} 56'40	0°32'03
minimum elong	3918 Jul 06 01:52	14° \mathbb{E} 55'44	0°54'40	minimum elong	3919 Jun 20 13:37	29° \mathbb{I} 49'01	0°31'44
max. Earth dist.	3918 Jul 05 23:42	14° \mathbb{E} 43'48	1.32034 AU		3919 Jun 20 15:37	0° \mathbb{E}	
evening rise	3918 Jul 13 00:14	0° Ω 00'58		evening rise	3919 Jun 27 11:01	14° \mathbb{E} 50'13	
	3918 Jul 13 00:03	0° Ω			3919 Jul 05 00:28	0° Ω	
	3918 Jul 29 09:18	0° \mathbb{P}		evening max el	3919 Jul 24 02:52	27° Ω 17'26	25°12'37
desc. node	3918 Aug 06 17:31	11° \mathbb{P} 15'46		desc. node	3919 Jul 24 14:33	27° Ω 45'00	
evening max el	3918 Aug 11 08:58	16° \mathbb{P} 11'58	26°28'00		3919 Jul 27 05:56	0° \mathbb{P}	
retrograde	3918 Aug 25 08:10	23° \mathbb{P} 22'17		retrograde	3919 Aug 07 02:02	4° \mathbb{P} 22'01	
evening set	3918 Sep 01 00:07	21° \mathbb{P} 31'28		evening set	3919 Aug 12 17:16	3° \mathbb{P} 09'04	
min. Earth dist.	3918 Sep 04 22:27	18° \mathbb{P} 56'07	0.59653 AU	min. Earth dist.	3919 Aug 17 14:37	0° \mathbb{P} 26'32	0.57641 AU
inferior conj	3918 Sep 08 04:59	16° \mathbb{P} 22'23	-4°48'13		3919 Aug 18 06:35	30° \mathbb{R} Ω	
minimum elong	3918 Sep 08 09:49	16° \mathbb{P} 12'53	4°47'29	inferior conj	3919 Aug 20 15:33	28° Ω 22'41	-5°10'02
morning rise	3918 Sep 15 21:39	11° \mathbb{P} 46'47		minimum elong	3919 Aug 20 16:19	28° Ω 21'23	5°10'01
direct	3918 Sep 18 06:55	11° \mathbb{P} 26'26		morning rise	3919 Aug 28 17:44	24° Ω 09'29	
morning max el	3918 Sep 25 23:43	15° \mathbb{P} 11'05	18°17'38	direct	3919 Aug 31 06:50	23° Ω 50'13	
asc. node	3918 Sep 26 14:52	15° \mathbb{P} 48'57		morning max el	3919 Sep 09 02:13	27° Ω 59'41	19°01'37
	3918 Oct 06 06:08	0° \mathbb{A}			3919 Sep 11 00:24	0° \mathbb{P}	
morning set	3918 Oct 11 21:31	10° \mathbb{A} 29'42		asc. node	3919 Sep 13 11:54	3° \mathbb{P} 06'51	
				morning set	3919 Sep 25 19:36	24° \mathbb{P} 45'00	

































































































































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			morning set		3920 Sep 09 00:16	9°♏19'20	
superior conj	3919 Oct 04 03:44	11°♎08'03	1°36'38				
minimum elong	3919 Oct 04 06:05	11°♎19'22	1°36'28	superior conj	3920 Sep 16 17:02	25°♏01'52	1°43'46
max. Earth dist.	3919 Oct 10 22:40	23°♎46'07	1.38781 AU	minimum elong	3920 Sep 16 17:42	25°♏05'12	1°43'45
	3919 Oct 14 11:25	0°♏			3920 Sep 19 05:02	0°♎	
evening rise	3919 Oct 14 18:47	0°♏31'50		max. Earth dist.	3920 Sep 22 04:29	5°♎45'40	1.36763 AU
desc. node	3919 Oct 20 13:52	10°♏13'58		evening rise	3920 Sep 26 00:39	12°♎54'31	
	3919 Nov 02 13:46	0°♏		desc. node	3920 Oct 06 10:54	0°♏42'58	
evening max el	3919 Nov 19 06:02	20°♏43'09	24°36'15		3920 Oct 06 00:11	0°♏	
retrograde	3919 Nov 30 17:35	27°♏24'49			3920 Oct 27 13:54	0°♏	
evening set	3919 Dec 06 05:35	25°♏07'07		evening max el	3920 Oct 31 18:25	4°♏25'37	25°47'51
asc. node	3919 Dec 10 11:09	20°♏22'39		retrograde	3920 Nov 13 03:19	11°♏29'17	
min. Earth dist.	3919 Dec 10 20:39	19°♏51'19	0.67629 AU	evening set	3920 Nov 19 05:15	8°♏58'04	
inferior conj	3919 Dec 11 17:28	18°♏42'01	0°25'48	min. Earth dist.	3920 Nov 23 12:53	4°♏17'23	0.66945 AU
minimum elong	3919 Dec 11 16:50	18°♏44'06	0°25'32	inferior conj	3920 Nov 24 20:45	2°♏36'38	-0°30'23
morning rise	3919 Dec 17 04:11	12°♏40'40		minimum elong	3920 Nov 24 21:33	2°♏34'07	0°30'02
direct	3919 Dec 20 21:30	11°♏21'10		asc. node	3920 Nov 26 08:12	0°♏46'36	
morning max el	3919 Dec 28 11:48	15°♏40'06	20°01'54		3920 Nov 27 00:02	30°♏	
	3920 Jan 08 16:28	0°♏		morning rise	3920 Nov 30 14:12	26°♏43'51	
desc. node	3920 Jan 16 13:07	11°♏38'35		direct	3920 Dec 03 20:12	25°♏43'13	
morning set	3920 Jan 24 07:51	23°♏31'41		morning max el	3920 Dec 10 18:35	29°♏34'16	19°04'08
	3920 Jan 28 11:54	0°♏			3920 Dec 11 04:41	0°♏	
max. Earth dist.	3920 Feb 04 05:05	10°♏36'09	1.43967 AU		3921 Jan 01 02:09	0°♏	
				desc. node	3921 Jan 02 10:09	2°♏04'38	
superior conj	3920 Feb 09 15:42	19°♏23'29	-2°02'49	morning set	3921 Jan 02 12:29	2°♏13'42	
minimum elong	3920 Feb 09 11:21	19°♏05'43	2°02'38	max. Earth dist.	3921 Jan 16 21:04	24°♏40'55	1.44974 AU
	3920 Feb 16 01:19	0°♏					
evening rise	3920 Feb 22 17:15	11°♏20'53		superior conj	3921 Jan 19 04:30	28°♏19'33	-1°39'23
	3920 Mar 04 19:33	0°♏		minimum elong	3921 Jan 18 19:31	27°♏44'02	1°38'34
asc. node	3920 Mar 07 10:28	3°♏53'36			3921 Jan 20 05:54	0°♏	
evening max el	3920 Mar 11 15:07	9°♏00'23	18°11'09	evening rise	3921 Feb 03 01:06	22°♏13'30	
retrograde	3920 Mar 18 01:23	12°♏24'10			3921 Feb 07 18:57	0°♏	
evening set	3920 Mar 20 22:30	11°♏41'27		asc. node	3921 Feb 22 07:31	21°♏32'44	
inferior conj	3920 Mar 27 01:58	6°♏26'11	3°33'31	evening max el	3921 Feb 23 03:09	22°♏24'40	18°32'49
minimum elong	3920 Mar 27 02:57	6°♏23'31	3°33'28	retrograde	3921 Mar 01 16:25	26°♏00'52	
min. Earth dist.	3920 Mar 29 18:56	3°♏32'03	0.62918 AU	evening set	3921 Mar 04 19:25	25°♏06'04	
morning rise	3920 Apr 02 06:16	0°♏21'44		inferior conj	3921 Mar 10 14:07	19°♏32'28	3°35'56
	3920 Apr 02 18:04	30°♏		minimum elong	3921 Mar 10 13:29	19°♏34'20	3°35'54
direct	3920 Apr 09 03:45	27°♏44'03		min. Earth dist.	3921 Mar 12 15:39	17°♏05'17	0.64737 AU
desc. node	3920 Apr 13 12:19	28°♏39'25		morning rise	3921 Mar 16 06:58	13°♏21'38	
	3920 Apr 16 03:30	0°♏		direct	3921 Mar 23 00:58	10°♏31'53	
morning max el	3920 Apr 23 02:55	5°♏42'15	27°48'42	desc. node	3921 Mar 31 09:22	13°♏53'47	
	3920 May 11 11:50	0°♏		morning max el	3921 Apr 05 12:33	18°♏24'11	27°16'52
morning set	3920 May 27 07:54	28°♏30'43			3921 Apr 15 07:10	0°♏	
	3920 May 28 01:34	0°♏			3921 May 04 10:14	0°♏	
max. Earth dist.	3920 Jun 01 16:57	9°♏40'53	1.32665 AU	morning set	3921 May 10 22:47	12°♏11'17	
asc. node	3920 Jun 03 09:43	13°♏19'36		max. Earth dist.	3921 May 15 14:58	21°♏32'36	1.33631 AU
superior conj	3920 Jun 03 23:31	14°♏34'11	0°06'03	superior conj	3921 May 19 03:30	28°♏53'15	-0°22'09
minimum elong	3920 Jun 03 23:14	14°♏32'37	0°05'58	minimum elong	3921 May 19 04:38	28°♏59'17	0°21'54
behind sun begin	3920 Jun 03 18:21	14°♏06'12			3921 May 19 16:07	0°♏	
behind sun end	3920 Jun 04 04:07	14°♏59'04		asc. node	3921 May 21 06:47	3°♏25'36	
evening rise	3920 Jun 10 22:52	29°♏38'55		evening rise	3921 May 26 09:54	14°♏20'23	
	3920 Jun 11 02:51	0°♏			3921 Jun 03 08:18	0°♏	
	3920 Jun 27 23:24	0°♏		evening max el	3921 Jun 16 07:37	18°♏14'13	22°02'47
evening max el	3920 Jul 04 16:02	7°♏48'15	23°38'57	desc. node	3921 Jun 27 08:34	24°♏26'25	
desc. node	3920 Jul 10 11:34	12°♏20'09		retrograde	3921 Jun 29 01:32	24°♏33'10	
retrograde	3920 Jul 18 07:29	14°♏38'54		evening set	3921 Jul 01 20:22	24°♏15'53	
evening set	3920 Jul 22 11:43	14°♏00'36		min. Earth dist.	3921 Jul 10 12:33	20°♏32'44	0.54985 AU
min. Earth dist.	3920 Jul 29 02:02	10°♏54'31	0.55978 AU	inferior conj	3921 Jul 11 04:07	20°♏10'54	-3°45'59
inferior conj	3920 Jul 31 05:55	9°♏36'50	-4°52'59	minimum elong	3921 Jul 10 19:37	20°♏22'50	3°43'41
minimum elong	3920 Jul 31 00:38	9°♏44'46	4°52'19	morning rise	3921 Jul 19 20:34	16°♏19'56	
morning rise	3920 Aug 08 16:04	5°♏41'30		direct	3921 Jul 23 00:24	15°♏57'48	
direct	3920 Aug 11 11:30	5°♏21'46		morning max el	3921 Aug 03 21:51	21°♏31'15	21°33'23
morning max el	3920 Aug 21 17:54	10°♏07'41	20°07'22		3921 Aug 11 01:37	0°♏	
asc. node	3920 Aug 30 08:57	21°♏16'06		asc. node	3921 Aug 17 06:00	10°♏04'47	

morning set	3921 Aug 24 09:11	24°06'15		morning max el	3922 Jul 16 16:11	2°05'11	23°13'30
	3921 Aug 27 04:38	0°00		asc. node	3922 Aug 04 03:03	29°02'22	
					3922 Aug 04 10:44	0°00	
superior conj	3921 Aug 31 16:01	9°00'24.46	1°43'10	morning set	3922 Aug 08 20:21	8°00'59.08	
minimum elong	3921 Aug 31 15:14	9°00'20.45	1°43'10				
max. Earth dist.	3921 Sep 04 16:19	17°00'38.28	1.35010 AU	superior conj	3922 Aug 15 21:27	24°00'06.03	1°36'10
evening rise	3921 Sep 09 00:09	26°00'07.26		minimum elong	3922 Aug 15 19:41	23°00'56.34	1°36'02
	3921 Sep 11 01:34	0°00		max. Earth dist.	3922 Aug 18 12:56	29°00'43.28	1.33642 AU
desc. node	3921 Sep 23 07:54	20°00'56.02			3922 Aug 18 16:04	0°00	
	3921 Sep 29 09:49	0°00		evening rise	3922 Aug 23 12:57	9°00'58.15	
evening max el	3921 Oct 14 06:54	18°00'04.26	26°44'34		3922 Sep 03 10:50	0°00	
retrograde	3921 Oct 27 07:54	25°00'20.02		desc. node	3922 Sep 10 04:54	10°00'45.16	
evening set	3921 Nov 02 22:36	22°00'39.59			3922 Sep 25 06:36	0°00	
min. Earth dist.	3921 Nov 06 23:19	18°00'35.08	0.65910 AU	evening max el	3922 Sep 26 18:58	1°00'29.38	27°19'14
inferior conj	3921 Nov 08 18:53	16°00'26.53	-1°30'06	retrograde	3922 Oct 10 06:44	8°00'48.11	
minimum elong	3921 Nov 08 21:23	16°00'19.32	1°29'05	evening set	3922 Oct 17 07:06	6°00'07.12	
asc. node	3921 Nov 13 05:14	11°00'51.13		min. Earth dist.	3922 Oct 21 01:49	2°00'37.06	0.64525 AU
morning rise	3921 Nov 14 20:55	10°00'45.22		inferior conj	3922 Oct 23 09:32	0°00'07.15	-2°31'29
direct	3921 Nov 17 17:38	9°00'59.52		minimum elong	3922 Oct 23 13:47	29°00'55.47	2°29'53
morning max el	3921 Nov 24 07:22	13°00'33.57	18°22'23		3922 Oct 23 12:13	30°00'00	
	3921 Dec 06 03:44	0°00		morning rise	3922 Oct 29 21:39	24°00'39.54	
morning set	3921 Dec 13 19:35	12°00'17.58		asc. node	3922 Oct 31 02:16	24°00'15.37	
desc. node	3921 Dec 20 07:12	22°00'41.42		direct	3922 Nov 01 11:29	24°00'05.38	
	3921 Dec 24 21:42	0°00		morning max el	3922 Nov 07 23:24	27°00'31.59	17°57'29
					3922 Nov 10 04:22	0°00	
superior conj	3921 Dec 29 06:50	6°00'54.00	-0°58'50	morning set	3922 Nov 25 07:37	23°00'47.13	
minimum elong	3921 Dec 28 23:33	6°00'52.26	0°57'56		3922 Nov 29 00:25	0°00	
max. Earth dist.	3921 Dec 30 15:57	9°00'03.59	1.45257 AU	desc. node	3922 Dec 07 04:12	13°00'25.15	
	3922 Jan 13 00:29	0°00					
evening rise	3922 Jan 14 09:51	2°00'11.04		superior conj	3922 Dec 08 19:21	16°00'20.08	-0°11'13
greatest brilliancy	3922 Jan 24 22:54	18°00'41.33	-0.8m	minimum elong	3922 Dec 08 18:01	15°00'27.44	0°11'01
	3922 Feb 01 15:15	0°00		behind sun begin	3922 Dec 08 10:21	15°00'26.56	
evening max el	3922 Feb 06 12:13	5°00'54.20	19°11'59	behind sun end	3922 Dec 09 01:40	16°00'28.30	
asc. node	3922 Feb 09 04:32	8°00'15.35		max. Earth dist.	3922 Dec 13 10:36	23°00'26.30	1.44801 AU
retrograde	3922 Feb 13 12:19	9°00'53.44			3922 Dec 17 14:45	0°00	
evening set	3922 Feb 16 22:05	8°00'46.03		evening rise	3922 Dec 25 00:22	11°00'28.22	
inferior conj	3922 Feb 22 11:02	2°00'56.20	3°23'16		3923 Jan 06 04:51	0°00	
minimum elong	3922 Feb 22 09:16	3°00'02.01	3°23'00	greatest brilliancy	3923 Jan 08 13:36	3°00'30.05	-0.6m
min. Earth dist.	3922 Feb 23 21:19	1°00'06.26	0.66168 AU	evening max el	3923 Jan 20 16:39	19°00'26.17	20°06'58
	3922 Feb 24 18:39	30°00'00		asc. node	3923 Jan 27 01:33	23°00'47.27	
morning rise	3922 Feb 27 20:09	26°00'42.42		retrograde	3923 Jan 28 10:16	23°00'57.33	
direct	3922 Mar 06 04:50	23°00'54.14		evening set	3923 Feb 01 04:09	22°00'35.52	
	3922 Mar 17 10:26	0°00		inferior conj	3923 Feb 06 13:49	16°00'32.29	2°58'58
desc. node	3922 Mar 18 06:25	0°00'47.56		minimum elong	3923 Feb 06 11:27	16°00'40.30	2°58'25
morning max el	3922 Mar 18 22:29	1°00'27.55	26°16'28	min. Earth dist.	3923 Feb 07 10:04	15°00'24.15	0.67178 AU
	3922 Apr 09 08:59	0°00		morning rise	3923 Feb 11 18:31	10°00'18.32	
morning set	3922 Apr 24 01:14	25°00'11.49		direct	3923 Feb 17 14:24	7°00'42.13	
	3922 Apr 26 14:03	0°00		morning max el	3923 Mar 01 07:13	14°00'41.58	24°57'04
max. Earth dist.	3922 Apr 28 01:36	2°00'52.13	1.35061 AU	desc. node	3923 Mar 05 03:27	18°00'53.32	
					3923 Mar 13 19:39	0°00	
superior conj	3922 May 03 00:35	12°00'47.30	-0°51'16		3923 Apr 02 05:42	0°00	
minimum elong	3922 May 03 03:19	13°00'01.29	0°50'44	morning set	3923 Apr 06 10:21	7°00'18.36	
asc. node	3922 May 08 03:49	23°00'25.21		max. Earth dist.	3923 Apr 10 01:25	13°00'53.29	1.36919 AU
evening rise	3922 May 10 18:07	28°00'48.31					
	3922 May 11 08:02	0°00		superior conj	3923 Apr 16 11:51	26°00'09.20	-1°19'31
evening max el	3922 May 29 09:01	29°00'06.41	20°37'19	minimum elong	3923 Apr 16 16:00	26°00'29.40	1°18'53
	3922 May 30 07:48	0°00			3923 Apr 18 10:35	0°00	
retrograde	3922 Jun 09 14:28	4°00'35.46		evening rise	3923 Apr 24 21:18	12°00'57.07	
evening set	3922 Jun 11 15:27	4°00'25.37		asc. node	3923 Apr 25 00:51	13°00'14.53	
desc. node	3922 Jun 14 05:36	3°00'45.43			3923 May 03 23:16	0°00	
inferior conj	3922 Jun 20 21:38	0°00'28.16	-1°57'32	evening max el	3923 May 11 22:50	10°00'40.34	19°29'41
minimum elong	3922 Jun 20 16:08	0°00'36.11	1°55'33	retrograde	3923 May 21 10:22	15°00'17.05	
	3922 Jun 21 17:16	30°00'00		evening set	3923 May 23 09:53	15°00'05.55	
min. Earth dist.	3922 Jun 22 00:30	29°00'49.37	0.54917 AU	inferior conj	3923 Jun 01 01:05	11°00'00.44	0°01'08
morning rise	3922 Jun 29 16:06	26°00'21.06		minimum elong	3923 Jun 01 01:08	11°00'00.39	0°01'06
direct	3922 Jul 03 09:48	25°00'50.59		transit middle	3923 Jun 01 01:08	11°00'00.39	0°01'06
	3922 Jul 14 00:41	0°00		transit begin	3923 May 31 21:15	11°00'06.53	






























































































































transit end	3923 Jun 01 05:02	10°II54'25		min. Earth dist.	3924 May 15 07:34	19°841'13	0.57472 AU
desc. node	3923 Jun 01 02:38	10°II58'15		desc. node	3924 May 17 23:40	17°856'28	
min. Earth dist.	3923 Jun 03 14:34	9°II22'31	0.55813 AU	morning rise	3924 May 19 22:40	16°855'19	
morning rise	3923 Jun 09 13:39	6°II21'52		direct	3924 May 25 13:17	15°837'40	
direct	3923 Jun 14 04:41	5°II33'32		morning max el	3924 Jun 08 21:54	23°810'29	26°24'51
morning max el	3923 Jun 28 06:08	12°II39'03	24°55'49		3924 Jun 15 00:38	0°II	
	3923 Jul 11 16:03	0°☾			3924 Jul 03 12:37	0°☾	
asc. node	3923 Jul 22 00:06	19°☾01'17		morning set	3924 Jul 07 18:50	8°☾42'32	
morning set	3923 Jul 24 08:06	23°☾53'05		asc. node	3924 Jul 07 21:08	8°☾54'41	
	3923 Jul 27 04:26	0°♌					
superior conj	3923 Jul 31 06:55	8°♌57'58	1°23'45	superior conj	3924 Jul 14 18:23	23°☾53'24	1°06'43
minimum elong	3923 Jul 31 04:38	8°♌45'33	1°23'28	minimum elong	3924 Jul 14 16:05	23°☾40'45	1°06'19
max. Earth dist.	3923 Aug 01 17:45	12°♌07'44	1.32699 AU	max. Earth dist.	3924 Jul 15 03:57	24°☾46'07	1.32166 AU
evening rise	3923 Aug 07 11:25	24°♌16'35		evening rise	3924 Jul 17 13:07	0°♌	
	3923 Aug 10 07:46	0°♍			3924 Jul 21 16:30	8°♌52'45	
desc. node	3923 Aug 28 01:55	0°♌00'38		desc. node	3924 Aug 01 16:41	0°♍	
	3923 Aug 28 01:44	0°♌		evening max el	3924 Aug 13 22:57	18°♍28'05	
evening max el	3923 Sep 09 05:00	14°♌29'04	27°25'15		3924 Aug 21 10:11	26°♍49'08	26°58'25
retrograde	3923 Sep 22 22:57	21°♌44'40			3924 Aug 25 04:20	0°♌	
evening set	3923 Sep 30 03:32	19°♌13'32		retrograde	3924 Sep 04 07:35	4°♌00'34	
min. Earth dist.	3923 Oct 03 18:31	16°♌13'41	0.62815 AU	evening set	3924 Sep 11 07:42	1°♌51'33	
inferior conj	3923 Oct 06 13:55	13°♌31'15	-3°31'21		3924 Sep 14 00:12	30°♍	
minimum elong	3923 Oct 06 19:33	13°♌17'39	3°29'35	min. Earth dist.	3924 Sep 15 00:24	29°♍11'57	0.60846 AU
morning rise	3923 Oct 13 13:07	8°♌21'24		inferior conj	3924 Sep 18 04:46	26°♍30'16	-4°24'16
direct	3923 Oct 15 22:51	7°♌54'44		minimum elong	3924 Sep 18 10:33	26°♍18'00	4°23'00
asc. node	3923 Oct 17 23:18	8°♌14'02		morning rise	3924 Sep 25 15:14	21°♍41'25	
morning max el	3923 Oct 22 15:46	11°♌21'22	17°50'17	direct	3924 Sep 27 23:54	21°♍19'20	
	3923 Nov 04 04:03	0°♎		asc. node	3924 Oct 03 20:20	23°♍41'12	
morning set	3923 Nov 07 19:13	6°♎24'30		morning max el	3924 Oct 05 05:21	24°♍54'31	18°02'00
					3924 Oct 09 10:40	0°♌	
superior conj	3923 Nov 19 08:12	26°♎24'24	0°32'24	morning set	3924 Oct 21 00:04	19°♌51'00	
minimum elong	3923 Nov 19 11:14	26°♎37'08	0°31'59		3924 Oct 26 12:03	0°♎	
	3923 Nov 21 11:53	0°♏		superior conj	3924 Oct 30 23:35	8°♎03'29	1°06'00
desc. node	3923 Nov 24 01:11	4°♏12'07		minimum elong	3924 Oct 31 03:46	8°♎21'58	1°05'29
max. Earth dist.	3923 Nov 26 02:51	7°♏33'37	1.43668 AU	max. Earth dist.	3924 Nov 07 14:47	21°♎10'17	1.41989 AU
evening rise	3923 Dec 04 10:08	20°♏40'30		desc. node	3924 Nov 09 22:13	24°♎59'15	
	3923 Dec 10 12:32	0°♐		evening rise	3924 Nov 13 07:18	0°♏27'05	
	3923 Dec 31 22:29	0°♑			3924 Nov 13 00:31	0°♏	
evening max el	3924 Jan 03 15:39	2°♑59'21	21°14'47		3924 Dec 03 01:35	0°♐	
retrograde	3924 Jan 12 07:59	8°♑08'09		evening max el	3924 Dec 16 09:29	16°♐34'27	22°31'17
asc. node	3924 Jan 13 22:34	7°♑54'03		retrograde	3924 Dec 26 03:57	22°♐22'49	
evening set	3924 Jan 16 11:44	6°♑31'14		evening set	3924 Dec 30 19:12	20°♐29'48	
inferior conj	3924 Jan 21 20:04	0°♑17'03	2°25'19	asc. node	3924 Dec 30 19:36	20°♐28'58	
minimum elong	3924 Jan 21 17:36	0°♑25'35	2°24'35	inferior conj	3925 Jan 05 03:50	14°♐08'03	1°43'56
min. Earth dist.	3924 Jan 22 03:42	29°♐50'42	0.67783 AU	minimum elong	3925 Jan 05 01:44	14°♐15'18	1°43'11
	3924 Jan 22 01:00	30°♐♐		min. Earth dist.	3925 Jan 04 23:57	14°♐21'31	0.68004 AU
morning rise	3924 Jan 26 23:17	24°♐04'27		morning rise	3925 Jan 10 08:10	7°♐58'26	
direct	3924 Feb 01 04:37	21°♐47'33		direct	3925 Jan 14 22:42	6°♐04'14	
morning max el	3924 Feb 11 15:52	28°♐01'11	23°28'47	morning max el	3925 Jan 24 03:54	11°♐28'32	22°01'16
	3924 Feb 13 12:56	0°♑		desc. node	3925 Feb 05 21:28	27°♐22'12	
desc. node	3924 Feb 20 00:27	7°♑49'34			3925 Feb 07 18:10	0°♑	
	3924 Mar 06 12:36	0°♒		morning set	3925 Feb 26 01:10	27°♑47'46	
morning set	3924 Mar 17 19:58	18°♒14'04			3925 Feb 27 09:53	0°♒	
max. Earth dist.	3924 Mar 21 20:33	25°♒09'36	1.39057 AU	max. Earth dist.	3925 Mar 03 18:49	7°♒12'30	1.41214 AU
	3924 Mar 24 14:05	0°♓					
superior conj	3924 Mar 29 09:23	8°♓47'47	-1°44'20	superior conj	3925 Mar 11 12:27	20°♒31'34	-2°01'57
minimum elong	3924 Mar 29 14:06	9°♓09'52	1°43'51	minimum elong	3925 Mar 11 15:52	20°♒46'38	2°01'48
evening rise	3924 Apr 07 16:36	26°♓37'40			3925 Mar 16 18:40	0°♓	
	3924 Apr 09 10:32	0°♈		evening rise	3925 Mar 22 00:39	9°♓42'10	
asc. node	3924 Apr 10 21:53	2°♈48'38		asc. node	3925 Mar 28 18:56	22°♓00'59	
evening max el	3924 Apr 23 23:13	22°♈53'09	18°42'04		3925 Apr 02 17:29	0°♈	
retrograde	3924 May 01 23:35	26°♈48'59		evening max el	3925 Apr 07 06:57	5°♈36'46	18°14'39
evening set	3924 May 04 04:40	26°♈32'07		retrograde	3925 Apr 14 07:52	9°♈08'19	
inferior conj	3924 May 11 23:58	22°♈09'00	1°39'47	evening set	3925 Apr 16 19:27	8°♈42'49	
minimum elong	3924 May 12 03:16	22°♈02'49	1°38'44	inferior conj	3925 Apr 23 20:18	3°♈59'00	2°46'31
				minimum elong	3925 Apr 23 23:46	3°♈51'23	2°45'45

min. Earth dist.	3925 Apr 27 05:57	1°♄01'39	0.59558 AU	minimum elong	3926 Apr 06 13:21	16°♄20'08	3°23'10
	3925 Apr 28 12:55	30°♄♄		min. Earth dist.	3926 Apr 09 12:13	13°♄23'01	0.61731 AU
morning rise	3925 May 01 01:29	28°♄17'36		morning rise	3926 Apr 12 23:50	10°♄26'31	
desc. node	3925 May 04 20:42	26°♄43'15		direct	3926 Apr 19 19:31	8°♄01'53	
direct	3925 May 07 10:55	26°♄24'43		desc. node	3926 Apr 21 17:44	8°♄12'39	
	3925 May 16 20:34	0°♄		morning max el	3926 May 03 23:35	16°♄00'13	27°51'18
morning max el	3925 May 21 19:36	4°♄14'19	27°26'09		3926 May 15 10:57	0°♄	
	3925 Jun 09 18:23	0°♄			3926 Jun 02 08:37	0°♄	
morning set	3925 Jun 22 02:51	23°♄22'13		morning set	3926 Jun 06 06:16	7°♄45'57	
asc. node	3925 Jun 24 18:11	28°♄57'36		asc. node	3926 Jun 11 15:15	19°♄05'33	
	3925 Jun 25 05:46	0°♄		max. Earth dist.	3926 Jun 12 01:14	19°♄59'34	1.32306 AU
max. Earth dist.	3925 Jun 28 15:45	7°♄27'42	1.32034 AU				
				superior conj	3926 Jun 13 16:18	23°♄32'10	0°21'19
superior conj	3925 Jun 29 06:05	8°♄46'38	0°45'42	minimum elong	3926 Jun 13 15:20	23°♄26'51	0°21'06
minimum elong	3925 Jun 29 04:14	8°♄36'26	0°45'19		3926 Jun 16 15:10	0°♄	
evening rise	3925 Jul 06 01:49	23°♄39'10		evening rise	3926 Jun 20 13:18	8°♄29'14	
	3925 Jul 09 03:07	0°♄			3926 Jul 01 16:24	0°♄	
	3925 Jul 26 23:38	0°♄		evening max el	3926 Jul 15 23:09	19°♄08'32	24°34'04
desc. node	3925 Jul 31 19:59	5°♄47'54		desc. node	3926 Jul 18 17:01	21°♄33'23	
evening max el	3925 Aug 03 08:04	8°♄20'39	25°58'55	retrograde	3926 Jul 29 20:40	26°♄09'47	
retrograde	3925 Aug 17 07:23	15°♄28'55		evening set	3926 Aug 03 21:43	25°♄12'38	
evening set	3925 Aug 23 14:44	13°♄53'24		min. Earth dist.	3926 Aug 09 10:16	22°♄21'43	0.56864 AU
min. Earth dist.	3925 Aug 27 20:31	11°♄17'36	0.58775 AU	inferior conj	3926 Aug 12 04:26	20°♄35'33	-5°08'30
inferior conj	3925 Aug 31 02:29	8°♄54'14	-5°01'13	minimum elong	3926 Aug 12 02:41	20°♄38'22	5°08'26
minimum elong	3925 Aug 31 05:58	8°♄47'47	5°00'52	morning rise	3926 Aug 20 10:14	16°♄31'18	
morning rise	3925 Sep 07 23:26	4°♄28'37		direct	3926 Aug 23 01:36	16°♄12'10	
direct	3925 Sep 10 10:05	4°♄08'53		morning max el	3926 Sep 01 11:14	20°♄35'43	19°27'01
morning max el	3925 Sep 18 12:53	8°♄02'16	18°33'52	asc. node	3926 Sep 07 14:27	28°♄05'00	
asc. node	3925 Sep 20 17:23	10°♄23'07			3926 Sep 08 20:26	0°♄	
	3925 Oct 02 16:52	0°♄		morning set	3926 Sep 18 18:11	18°♄15'49	
morning set	3925 Oct 04 16:58	3°♄51'21			3926 Sep 24 14:30	0°♄	
superior conj	3925 Oct 13 13:01	20°♄46'59	1°28'26	superior conj	3926 Sep 26 19:02	4°♄19'36	1°40'41
minimum elong	3925 Oct 13 16:17	21°♄02'15	1°28'07	minimum elong	3926 Sep 26 20:40	4°♄27'35	1°40'37
	3925 Oct 18 14:14	0°♄		max. Earth dist.	3926 Oct 03 01:26	16°♄15'00	1.37893 AU
max. Earth dist.	3925 Oct 20 21:19	4°♄02'48	1.39975 AU	evening rise	3926 Oct 06 19:38	23°♄01'35	
evening rise	3925 Oct 25 01:49	11°♄12'03			3926 Oct 10 20:38	0°♄	
desc. node	3925 Oct 27 19:16	15°♄42'36		desc. node	3926 Oct 14 16:19	6°♄18'24	
	3925 Nov 05 22:03	0°♄			3926 Oct 30 17:24	0°♄	
	3925 Nov 28 18:44	0°♄		evening max el	3926 Nov 11 11:58	13°♄53'17	25°08'02
evening max el	3925 Nov 28 23:31	0°♄11'58	23°51'15	retrograde	3926 Nov 23 09:30	20°♄46'27	
retrograde	3925 Dec 09 20:47	6°♄37'00		evening set	3926 Nov 29 03:21	18°♄22'34	
evening set	3925 Dec 15 00:57	4°♄27'52		min. Earth dist.	3926 Dec 03 15:07	13°♄21'25	0.67375 AU
asc. node	3925 Dec 17 16:38	1°♄41'32		inferior conj	3926 Dec 04 16:36	11°♄58'09	0°02'31
	3925 Dec 19 00:28	30°♄♄		minimum elong	3926 Dec 04 16:32	11°♄58'22	0°02'29
inferior conj	3925 Dec 20 11:16	28°♄02'32	0°55'59	transit middle	3926 Dec 04 16:32	11°♄58'22	0°02'29
minimum elong	3925 Dec 20 09:59	28°♄06'53	0°55'29	transit begin	3926 Dec 04 13:48	11°♄07'20	
min. Earth dist.	3925 Dec 19 20:32	28°♄52'38	0.67862 AU	transit end	3926 Dec 04 19:17	11°♄49'23	
morning rise	3925 Dec 25 19:02	21°♄57'34		asc. node	3926 Dec 04 13:40	12°♄07'45	
direct	3925 Dec 29 19:35	20°♄26'09		morning rise	3926 Dec 10 05:56	6°♄00'01	
morning max el	3926 Jan 06 22:29	25°♄06'25	20°41'54	direct	3926 Dec 13 18:06	4°♄49'05	
	3926 Jan 11 06:19	0°♄		morning max el	3926 Dec 21 00:56	8°♄55'14	19°35'24
desc. node	3926 Jan 23 18:30	17°♄20'52		greatest brilliancy	3927 Jan 03 03:53	26°♄18'10	-0.7m
	3926 Feb 01 04:14	0°♄			3927 Jan 05 15:03	0°♄	
morning set	3926 Feb 05 04:51	6°♄12'49		desc. node	3927 Jan 10 15:32	7°♄38'32	
max. Earth dist.	3926 Feb 13 23:49	20°♄09'09	1.43098 AU	morning set	3927 Jan 15 01:34	14°♄26'31	
	3926 Feb 19 23:31	0°♄			3927 Jan 25 01:09	0°♄	
				max. Earth dist.	3927 Jan 27 11:53	3°♄51'58	1.44475 AU
superior conj	3926 Feb 20 16:02	1°♄09'10	-2°07'22				
minimum elong	3926 Feb 20 15:11	1°♄05'36	2°07'21	superior conj	3927 Jan 31 17:47	10°♄38'18	-1°55'19
evening rise	3926 Mar 04 17:16	22°♄01'08		minimum elong	3927 Jan 31 10:57	10°♄10'54	1°54'52
	3926 Mar 09 05:44	0°♄			3927 Feb 12 12:54	0°♄	
asc. node	3926 Mar 15 15:58	10°♄44'39		evening rise	3927 Feb 14 14:05	3°♄26'28	
evening max el	3926 Mar 21 18:42	18°♄42'21	18°06'57	asc. node	3927 Mar 02 13:00	28°♄50'39	
retrograde	3926 Mar 28 07:33	22°♄05'09			3927 Mar 03 11:18	0°♄	
evening set	3926 Mar 31 01:10	21°♄29'11		evening max el	3927 Mar 05 07:27	2°♄02'07	18°18'11
inferior conj	3926 Apr 06 11:19	16°♄25'13	3°23'24	retrograde	3927 Mar 11 18:02	5°♄29'44	

evening set	3927 Mar 14 17:32	4°♄42'06		evening rise	3928 Jan 26 11:55	13°♊54'37	
	3927 Mar 20 02:18	30°♈		greatest brilliancy	3928 Feb 02 16:36	25°♊28'18	-0.9m
inferior conj	3927 Mar 20 16:54	29°♈19'07	3°36'40		3928 Feb 05 13:05	0°♈	
minimum elong	3927 Mar 20 17:09	29°♈18'23	3°36'39	evening max el	3928 Feb 16 18:34	15°♈30'00	18°47'31
min. Earth dist.	3927 Mar 23 03:35	26°♈34'19	0.63735 AU	asc. node	3928 Feb 17 10:01	16°♈07'59	
morning rise	3927 Mar 26 15:52	23°♈11'18		retrograde	3928 Feb 23 11:25	19°♈14'28	
direct	3927 Apr 02 12:50	20°♈26'22		evening set	3928 Feb 26 17:14	18°♈14'14	
desc. node	3927 Apr 08 14:45	22°♈14'21		inferior conj	3928 Mar 03 09:10	12°♈33'44	3°32'09
morning max el	3927 Apr 16 07:46	28°♈24'05	27°39'04	minimum elong	3928 Mar 03 07:59	12°♈37'22	3°32'03
	3927 Apr 17 20:46	0°♄		min. Earth dist.	3928 Mar 05 04:09	10°♈21'32	0.65398 AU
	3927 May 09 06:06	0°♂		morning rise	3928 Mar 08 22:19	6°♈21'38	
morning set	3927 May 21 02:33	21°♂44'56		direct	3928 Mar 15 13:07	3°♈30'45	
	3927 May 25 03:50	0°♂		desc. node	3928 Mar 25 11:46	8°♈15'17	
max. Earth dist.	3927 May 26 04:17	2°♂07'52	1.33014 AU	morning max el	3928 Mar 28 17:34	11°♈16'21	26°54'09
					3928 Apr 12 14:56	0°♄	
superior conj	3927 May 28 23:09	8°♂02'57	-0°05'45		3928 Apr 30 18:48	0°♂	
minimum elong	3927 May 28 23:26	8°♂04'29	0°05'41	morning set	3928 May 03 12:39	5°♂10'10	
behind sun begin	3927 May 28 18:24	7°♂37'33		max. Earth dist.	3928 May 07 21:33	13°♂45'24	1.34186 AU
behind sun end	3927 May 29 04:27	8°♂31'26					
asc. node	3927 May 29 12:17	9°♂13'28		superior conj	3928 May 12 00:32	22°♂12'59	-0°34'27
evening rise	3927 Jun 05 01:01	23°♂15'38		minimum elong	3928 May 12 02:21	22°♂22'25	0°34'04
	3927 Jun 08 07:01	0°♄		asc. node	3928 May 15 09:19	29°♂17'39	
evening max el	3927 Jun 27 12:27	29°♄33'48	22°57'31		3928 May 15 17:20	0°♂	
	3927 Jun 27 23:25	0°♂		evening rise	3928 May 19 11:07	7°♂52'39	
desc. node	3927 Jul 05 14:03	5°♂09'25			3928 May 31 07:46	0°♄	
retrograde	3927 Jul 10 21:08	6°♂13'26		evening max el	3928 Jun 08 07:42	10°♄08'44	21°24'33
evening set	3927 Jul 14 09:38	5°♂46'19		retrograde	3928 Jun 20 11:09	16°♄07'10	
min. Earth dist.	3927 Jul 21 21:18	2°♂25'58	0.55453 AU	desc. node	3928 Jun 21 11:02	16°♄04'51	
inferior conj	3927 Jul 23 11:03	1°♂31'25	-4°30'51	evening set	3928 Jun 22 20:19	15°♄54'11	
minimum elong	3927 Jul 23 03:44	1°♂42'03	4°29'26	inferior conj	3928 Jul 02 05:30	11°♄54'41	-3°03'32
	3927 Jul 26 04:02	30°♈♄		minimum elong	3928 Jul 01 21:34	12°♄05'46	3°01'01
morning rise	3927 Aug 01 00:06	27°♄39'44		min. Earth dist.	3928 Jul 02 08:10	11°♄50'56	0.54846 AU
direct	3927 Aug 03 22:36	27°♄19'22		morning rise	3928 Jul 10 23:34	7°♄59'20	
	3927 Aug 11 21:34	0°♂		direct	3928 Jul 14 08:43	7°♄34'32	
morning max el	3927 Aug 14 21:54	2°♂25'09	20°41'38	morning max el	3928 Jul 26 21:06	13°♄29'36	22°14'41
asc. node	3927 Aug 25 11:30	16°♂32'26			3928 Aug 08 06:06	0°♂	
	3927 Sep 01 14:26	0°♄		asc. node	3928 Aug 11 08:33	5°♂34'25	
morning set	3927 Sep 03 00:54	2°♄55'56		morning set	3928 Aug 17 10:59	17°♂45'54	
					3928 Aug 23 05:18	0°♄	
superior conj	3927 Sep 10 12:52	18°♄26'48	1°44'22	superior conj	3928 Aug 24 14:54	2°♄58'08	1°40'55
minimum elong	3927 Sep 10 12:53	18°♄26'51	1°44'22	minimum elong	3928 Aug 24 13:39	2°♄51'31	1°40'51
max. Earth dist.	3927 Sep 15 09:04	28°♄07'40	1.35978 AU	max. Earth dist.	3928 Aug 28 00:45	10°♄04'54	1.34387 AU
	3927 Sep 16 08:14	0°♂		evening rise	3928 Sep 01 15:15	19°♄17'27	
evening rise	3927 Sep 19 09:34	5°♂47'12			3928 Sep 07 08:48	0°♂	
desc. node	3927 Oct 01 13:21	26°♂41'16		desc. node	3928 Sep 17 10:22	16°♂45'04	
	3927 Oct 03 16:10	0°♂			3928 Sep 26 18:08	0°♂	
evening max el	3927 Oct 25 00:28	27°♂35'20	26°14'20	evening max el	3928 Oct 06 13:08	11°♂10'07	27°02'29
	3927 Oct 27 16:26	0°♄		retrograde	3928 Oct 19 19:06	18°♂26'57	
retrograde	3927 Nov 06 17:08	4°♄45'20		evening set	3928 Oct 26 14:27	15°♂45'40	
evening set	3927 Nov 13 00:35	2°♄09'56		min. Earth dist.	3928 Oct 30 12:36	11°♂55'47	0.65365 AU
	3927 Nov 15 06:24	30°♈♂		inferior conj	3928 Nov 01 13:12	9°♂37'50	-1°56'07
min. Earth dist.	3927 Nov 17 05:18	27°♂44'09	0.66543 AU	minimum elong	3928 Nov 01 16:27	9°♂28'34	1°54'49
inferior conj	3927 Nov 18 17:57	25°♂51'22	-0°55'22	asc. node	3928 Nov 07 07:45	4°♂17'06	
minimum elong	3927 Nov 18 19:27	25°♂46'46	0°54'44	morning rise	3928 Nov 07 19:20	4°♂01'47	
asc. node	3927 Nov 21 10:42	22°♂42'19		direct	3928 Nov 10 12:56	3°♂21'22	
morning rise	3927 Nov 24 14:49	20°♂02'43		morning max el	3928 Nov 17 00:53	6°♂50'51	18°09'40
direct	3927 Nov 27 16:35	19°♂08'56			3928 Dec 02 20:09	0°♄	
morning max el	3927 Dec 04 10:27	22°♂51'45	18°44'17	morning set	3928 Dec 05 11:59	4°♄22'01	
	3927 Dec 10 05:58	0°♄		desc. node	3928 Dec 14 09:36	18°♄49'42	
morning set	3927 Dec 25 16:11	23°♄40'11					
desc. node	3927 Dec 28 12:35	28°♄09'42		superior conj	3928 Dec 20 03:53	28°♄00'25	-0°38'45
	3927 Dec 29 16:36	0°♂		minimum elong	3928 Dec 19 23:00	27°♄41'06	0°38'05
max. Earth dist.	3928 Jan 10 05:17	18°♂06'05	1.45184 AU		3928 Dec 21 10:10	0°♂	
superior conj	3928 Jan 10 23:50	19°♂18'52	-1°23'50	max. Earth dist.	3928 Dec 23 00:55	2°♂32'35	1.45152 AU
minimum elong	3928 Jan 10 14:41	18°♂42'58	1°22'52	evening rise	3929 Jan 05 11:46	23°♂31'53	
	3928 Jan 17 18:33	0°♊			3929 Jan 09 15:51	0°♊	

greatest brilliancy	3929 Jan 18 00:40	12°  50'11	-0.7m	desc. node	3929 Dec 01 06:38	9°  35'20	
evening max el	3929 Jan 30 01:52	29°  00'46	19°33'38	max. Earth dist.	3929 Dec 05 19:17	16°  52'15	1.44395 AU
	3929 Jan 31 02:04	0°  ✕			3929 Dec 14 04:16	0°  ✕	
asc. node	3929 Feb 03 07:02	2°  ✕22'27		evening rise	3929 Dec 15 22:21	2°  ✕42'17	
retrograde	3929 Feb 06 08:29	3°  ✕12'32			3930 Jan 03 05:47	0°  ✕	
evening set	3929 Feb 09 21:37	1°  ✕58'48		evening max el	3930 Jan 13 03:57	12°  ✕32'37	20°34'23
	3929 Feb 12 03:16	30°  ✕		retrograde	3930 Jan 21 06:41	17°  ✕19'36	
inferior conj	3929 Feb 15 08:53	26°  ✕02'52	3°14'12	asc. node	3930 Jan 21 04:04	17°  ✕19'32	
minimum elong	3929 Feb 15 06:47	26°  ✕09'45	3°13'50	evening set	3930 Jan 25 04:34	15°  ✕51'26	
min. Earth dist.	3929 Feb 16 12:56	24°  ✕30'47	0.66648 AU	inferior conj	3930 Jan 30 13:25	9°  ✕42'47	2°45'43
morning rise	3929 Feb 20 15:44	19°  ✕49'07		minimum elong	3930 Jan 30 10:57	9°  ✕51'15	2°45'05
direct	3929 Feb 26 19:18	17°  ✕04'56		min. Earth dist.	3930 Jan 31 04:03	8°  ✕52'47	0.67481 AU
morning max el	3929 Mar 11 03:01	24°  ✕25'13	25°44'33	morning rise	3930 Feb 04 17:08	3°  ✕29'09	
desc. node	3929 Mar 12 08:48	25°  ✕42'28		direct	3930 Feb 10 06:49	1°  ✕00'45	
	3929 Mar 16 03:39	0°  ✕✕		morning max el	3930 Feb 21 11:40	7°  ✕42'11	24°20'03
	3929 Apr 06 01:19	0°  ✕Y		desc. node	3930 Feb 27 05:50	14°  ✕11'20	
morning set	3929 Apr 16 08:23	17°  ✕Y49'19			3930 Mar 10 21:59	0°  ✕✕	
max. Earth dist.	3929 Apr 20 03:33	24°  ✕Y55'40	1.35811 AU	morning set	3930 Mar 29 08:17	29°  ✕✕27'28	
	3929 Apr 22 18:29	0°  ✕B			3930 Mar 29 15:45	0°  ✕Y	
				max. Earth dist.	3930 Apr 02 00:41	5°  ✕Y59'20	1.37806 AU
superior conj	3929 Apr 25 17:51	5°  ✕B54'20	-1°03'27				
minimum elong	3929 Apr 25 21:14	6°  ✕B11'22	1°02'52	superior conj	3930 Apr 08 23:46	18°  ✕Y58'21	-1°30'39
asc. node	3929 May 02 06:21	19°  ✕B13'35		minimum elong	3930 Apr 09 04:19	19°  ✕Y20'14	1°30'03
evening rise	3929 May 03 17:30	22°  ✕B13'26			3930 Apr 14 14:57	0°  ✕B	
	3929 May 07 14:50	0°  ✕II		evening rise	3930 Apr 17 17:43	6°  ✕B10'51	
evening max el	3929 May 21 14:16	21°  ✕II17'32	20°06'04	asc. node	3930 Apr 19 03:23	8°  ✕B56'45	
retrograde	3929 Jun 01 01:33	26°  ✕II23'47			3930 May 01 13:30	0°  ✕II	
evening set	3929 Jun 03 00:37	26°  ✕II13'48		evening max el	3930 May 04 08:50	3°  ✕II07'58	19°06'55
desc. node	3929 Jun 08 08:01	24°  ✕II20'53		retrograde	3930 May 13 04:28	7°  ✕II25'47	
inferior conj	3929 Jun 12 01:32	22°  ✕II14'24	-1°06'18	evening set	3930 May 15 05:44	7°  ✕II12'47	
minimum elong	3929 Jun 11 22:26	22°  ✕II19'03	1°05'09	inferior conj	3930 May 23 12:35	3°  ✕II00'34	0°46'32
min. Earth dist.	3929 Jun 13 20:34	21°  ✕II10'13	0.55192 AU	minimum elong	3930 May 23 14:26	2°  ✕II57'25	0°45'53
morning rise	3929 Jun 20 18:39	17°  ✕II55'24		desc. node	3930 May 26 05:03	1°  ✕II10'34	
direct	3929 Jun 24 20:39	17°  ✕II19'10		min. Earth dist.	3930 May 26 11:50	0°  ✕II59'22	0.56436 AU
morning max el	3929 Jul 08 12:47	24°  ✕II01'44	23°57'41		3930 May 28 01:21	30°  ✕R✕	
	3929 Jul 13 23:14	0°  ✕☾		morning rise	3930 May 31 19:58	28°  ✕B06'09	
asc. node	3929 Jul 29 05:36	25°  ✕☾02'07		direct	3930 Jun 05 20:55	27°  ✕B06'44	
	3929 Jul 31 16:02	0°  ✕Ω			3930 Jun 14 14:40	0°  ✕II	
morning set	3929 Aug 01 22:38	2°  ✕Ω40'21		morning max el	3930 Jun 20 03:04	4°  ✕II26'00	25°36'21
					3930 Jul 08 11:49	0°  ✕☾	
superior conj	3929 Aug 08 22:21	17°  ✕Ω45'02	1°31'31	asc. node	3930 Jul 16 02:38	14°  ✕☾47'52	
minimum elong	3929 Aug 08 20:18	17°  ✕Ω33'59	1°31'18	morning set	3930 Jul 17 10:10	17°  ✕☾33'14	
max. Earth dist.	3929 Aug 11 01:22	22°  ✕Ω19'24	1.33191 AU		3930 Jul 23 03:53	0°  ✕Ω	
	3929 Aug 14 17:05	0°  ✕൬					
evening rise	3929 Aug 16 08:35	3°  ✕൬21'16		superior conj	3930 Jul 24 08:55	2°  ✕Ω39'26	1°17'04
	3929 Aug 31 03:23	0°  ✕B		minimum elong	3930 Jul 24 06:34	2°  ✕Ω26'35	1°16'43
desc. node	3929 Sep 04 07:22	6°  ✕B21'38		max. Earth dist.	3930 Jul 25 08:48	4°  ✕Ω50'20	1.32416 AU
evening max el	3929 Sep 19 00:36	24°  ✕B26'07	27°25'31	evening rise	3930 Jul 31 10:10	17°  ✕Ω48'03	
	3929 Sep 26 09:58	0°  ✕൬			3930 Aug 06 14:04	0°  ✕൬	
retrograde	3929 Oct 02 15:03	1°  ✕൬43'29		desc. node	3930 Aug 22 04:23	25°  ✕൬18'51	
	3929 Oct 08 09:32	30°  ✕R✕B			3930 Aug 25 19:17	0°  ✕B	
evening set	3929 Oct 09 18:18	29°  ✕B05'01		evening max el	3930 Sep 01 08:39	7°  ✕B09'34	27°17'54
min. Earth dist.	3929 Oct 13 10:57	25°  ✕B48'57	0.63839 AU	retrograde	3930 Sep 15 04:26	14°  ✕B24'14	
inferior conj	3929 Oct 15 23:53	23°  ✕B12'23	-2°57'20	evening set	3930 Sep 22 08:26	12°  ✕B00'34	
minimum elong	3929 Oct 16 04:48	22°  ✕B59'41	2°55'35	min. Earth dist.	3930 Sep 25 23:01	9°  ✕B11'10	0.62000 AU
morning rise	3929 Oct 22 16:39	17°  ✕B52'17		inferior conj	3930 Sep 28 22:57	6°  ✕B26'47	-3°55'05
direct	3929 Oct 25 04:29	17°  ✕B21'35		minimum elong	3930 Sep 29 04:51	6°  ✕B13'14	3°53'27
asc. node	3929 Oct 25 04:47	17°  ✕B21'35		morning rise	3930 Oct 06 03:02	1°  ✕B25'50	
morning max el	3929 Oct 31 17:31	20°  ✕B46'42	17°52'16	direct	3930 Oct 08 11:50	1°  ✕B01'34	
	3929 Nov 07 16:45	0°  ✕൬		asc. node	3930 Oct 12 01:51	1°  ✕B59'09	
morning set	3929 Nov 17 10:54	16°  ✕൬23'01		morning max el	3930 Oct 15 09:12	4°  ✕B30'46	17°52'55
	3929 Nov 25 11:02	0°  ✕✕		morning set	3930 Oct 31 06:34	29°  ✕B23'01	
					3930 Oct 31 14:45	0°  ✕൬	
superior conj	3929 Nov 30 01:53	7°  ✕✕38'12	0°08'18				
minimum elong	3929 Nov 30 02:48	7°  ✕✕41'55	0°08'10	superior conj	3930 Nov 11 02:22	18°  ✕൬33'44	0°48'01
behind sun begin	3929 Nov 29 18:13	7°  ✕✕06'51		minimum elong	3930 Nov 11 06:15	18°  ✕൬50'19	0°47'29
behind sun end	3929 Nov 30 11:22	8°  ✕✕16'56			3930 Nov 17 22:07	0°  ✕✕	

desc. node	3930 Nov 18 03:40	0° X 22'43		desc. node	3931 Nov 05 00:43	21° M 08'34	
max. Earth dist.	3930 Nov 18 09:25	0° X 46'12	1.43007 AU	evening rise	3931 Nov 05 16:43	22° M 13'53	
evening rise	3930 Nov 25 11:08	12° X 04'08			3931 Nov 10 13:31	0° X	
	3930 Dec 07 06:41	0° Z			3931 Dec 01 09:09	0° Z	
evening max el	3930 Dec 27 00:31	26° Z 05'38	21°46'32	evening max el	3931 Dec 09 16:35	9° Z 41'40	23°05'19
	3930 Dec 31 15:39	0° \approx		retrograde	3931 Dec 19 22:42	15° Z 46'16	
retrograde	3931 Jan 05 03:58	1° \approx 31'57		evening set	3931 Dec 24 19:13	13° Z 46'37	
asc. node	3931 Jan 08 01:06	0° \approx 47'08		asc. node	3931 Dec 25 22:08	12° Z 44'04	
	3931 Jan 09 06:22	30° R Z		inferior conj	3931 Dec 30 04:25	7° Z 22'56	1°24'22
evening set	3931 Jan 09 12:18	29° Z 48'23		minimum elong	3931 Dec 30 02:37	7° Z 29'08	1°23'40
inferior conj	3931 Jan 14 20:35	23° Z 30'21	2°08'40	min. Earth dist.	3931 Dec 29 19:58	7° Z 52'05	0.67988 AU
minimum elong	3931 Jan 14 18:13	23° Z 38'34	2°07'53	morning rise	3932 Jan 04 09:55	1° Z 14'50	
min. Earth dist.	3931 Jan 14 23:13	23° Z 21'10	0.67917 AU		3932 Jan 06 10:07	30° R X	
morning rise	3931 Jan 19 23:56	17° Z 18'33		direct	3932 Jan 08 18:25	29° X 30'15	
direct	3931 Jan 24 22:51	15° Z 11'06			3932 Jan 11 05:51	0° Z	
morning max el	3931 Feb 03 21:20	21° Z 04'22	22°50'56	morning max el	3932 Jan 17 11:40	4° Z 34'50	21°26'03
	3931 Feb 11 12:51	0° \approx		desc. node	3932 Jan 31 23:55	23° Z 08'49	
desc. node	3931 Feb 14 02:53	3° \approx 24'17			3932 Feb 05 16:40	0° \approx	
	3931 Mar 04 04:30	0° X		morning set	3932 Feb 17 23:18	18° \approx 48'27	
morning set	3931 Mar 10 06:16	9° X 49'03			3932 Feb 24 21:40	0° X	
max. Earth dist.	3931 Mar 14 19:47	17° X 30'15	1.39980 AU	max. Earth dist.	3932 Feb 24 20:20	29° \approx 54'30	1.42063 AU
	3931 Mar 21 21:38	0° Y					
				superior conj	3932 Mar 03 07:43	12° X 31'26	-2°06'06
superior conj	3931 Mar 22 14:05	1° Y 14'53	-1°52'58	minimum elong	3932 Mar 03 09:41	12° X 39'59	2°06'02
minimum elong	3931 Mar 22 18:33	1° Y 35'19	1°52'37		3932 Mar 13 03:22	0° Y	
evening rise	3931 Apr 01 08:43	19° Y 37'04		evening rise	3932 Mar 14 10:41	2° Y 22'29	
asc. node	3931 Apr 06 00:26	28° Y 22'11		asc. node	3932 Mar 22 21:28	17° Y 22'51	
	3931 Apr 06 21:54	0° Z		evening max el	3932 Mar 30 22:46	28° Y 29'21	18°09'06
evening max el	3931 Apr 17 12:51	15° Z 35'26	18°28'05		3932 Apr 01 16:28	0° Z	
retrograde	3931 Apr 25 01:53	19° Z 18'52		retrograde	3932 Apr 06 17:02	1° Z 54'58	
evening set	3931 Apr 27 09:41	18° Z 58'43		evening set	3932 Apr 09 07:23	1° Z 25'05	
inferior conj	3931 May 04 20:48	14° Z 27'18	2°11'59		3932 Apr 11 22:29	30° R Y	
minimum elong	3931 May 05 00:29	14° Z 19'55	2°10'58	inferior conj	3932 Apr 16 01:29	26° Y 32'44	3°05'28
min. Earth dist.	3931 May 08 07:11	11° Z 43'43	0.58319 AU	minimum elong	3932 Apr 16 04:27	26° Y 25'50	3°04'55
morning rise	3931 May 12 12:10	9° Z 00'27		min. Earth dist.	3932 Apr 19 08:29	23° Y 30'20	0.60489 AU
desc. node	3931 May 13 02:05	8° Z 43'34		morning rise	3932 Apr 22 23:20	20° Y 43'08	
direct	3931 May 18 11:46	7° Z 27'40		desc. node	3932 Apr 28 23:07	18° Y 36'48	
morning max el	3931 Jun 01 21:07	15° Z 09'35	26°54'56	direct	3932 Apr 29 14:30	18° Y 35'38	
	3931 Jun 13 20:39	0° II		morning max el	3932 May 13 21:19	26° Y 29'28	27°41'29
	3931 Jun 30 17:14	0° Z			3932 May 17 04:29	0° Z	
morning set	3931 Jul 01 20:00	2° Z 19'34			3932 Jun 06 09:35	0° II	
asc. node	3931 Jul 02 23:42	4° Z 46'11		morning set	3932 Jun 15 02:17	16° II 52'35	
				asc. node	3932 Jun 18 20:45	24° II 51'18	
superior conj	3931 Jul 08 20:45	17° Z 35'14	0°58'17		3932 Jun 21 05:30	0° Z	
minimum elong	3931 Jul 08 18:35	17° Z 23'19	0°57'53	max. Earth dist.	3932 Jun 21 07:14	0° Z 09'30	1.32101 AU
max. Earth dist.	3931 Jul 08 20:00	17° Z 31'07	1.32057 AU				
	3931 Jul 14 13:08	0° Z		superior conj	3932 Jun 22 08:01	2° Z 25'30	0°35'45
evening rise	3931 Jul 15 17:22	2° Z 29'55		minimum elong	3932 Jun 22 06:29	2° Z 17'06	0°35'26
	3931 Jul 30 12:24	0° Z		evening rise	3932 Jun 29 03:50	17° Z 18'25	
desc. node	3931 Aug 09 01:24	13° Z 20'33			3932 Jul 05 09:59	0° Z	
evening max el	3931 Aug 14 11:00	19° Z 09'54	26°36'53	desc. node	3932 Jul 25 22:25	0° Z 03'47	
retrograde	3931 Aug 28 09:52	26° Z 20'22			3932 Jul 25 20:52	0° Z	
evening set	3931 Sep 04 04:16	24° Z 24'36		evening max el	3932 Jul 26 05:56	0° Z 21'54	25°25'19
min. Earth dist.	3931 Sep 08 00:46	21° Z 48'36	0.59965 AU	retrograde	3932 Aug 09 05:11	7° Z 27'16	
inferior conj	3931 Sep 11 06:58	19° Z 12'16	-4°42'36	evening set	3932 Aug 15 01:05	6° Z 08'28	
minimum elong	3931 Sep 11 12:08	19° Z 01'53	4°41'43	min. Earth dist.	3932 Aug 19 17:49	3° Z 28'15	0.57929 AU
morning rise	3931 Sep 18 22:04	14° Z 33'02		inferior conj	3932 Aug 22 20:30	1° Z 18'54	-5°08'53
direct	3931 Sep 21 07:01	14° Z 12'19		minimum elong	3932 Aug 22 22:05	1° Z 16'09	5°08'50
asc. node	3931 Sep 28 22:54	17° Z 59'49			3932 Aug 24 18:50	30° R Z	
morning max el	3931 Sep 28 20:39	17° Z 54'22	18°12'54	morning rise	3932 Aug 30 21:22	27° Z 02'29	
	3931 Oct 07 13:25	0° Z		direct	3932 Sep 02 09:49	26° Z 43'06	
morning set	3931 Oct 14 17:04	13° Z 05'12			3932 Sep 10 03:13	0° Z	
	3931 Oct 23 18:35	0° M		morning max el	3932 Sep 11 00:31	0° Z 47'56	18°53'43
				asc. node	3932 Sep 14 19:57	5° Z 08'38	
superior conj	3931 Oct 24 03:47	0° M 41'43	1°16'49	morning set	3932 Sep 27 13:55	27° Z 16'58	
minimum elong	3931 Oct 24 07:45	0° M 59'38	1°16'23		3932 Sep 28 23:03	0° Z	
max. Earth dist.	3931 Oct 31 18:30	14° M 02'54	1.41163 AU				

superior conj	3932 Oct 06 00:53	13°  47'35	1°34'46	minimum elong	3933 Sep 19 13:20	27°  40'46	1°43'11
minimum elong	3932 Oct 06 03:30	14°  00'01	1°34'35		3933 Sep 20 17:22	0° 	
max. Earth dist.	3932 Oct 12 23:51	26°  38'21	1.39091 AU	max. Earth dist.	3933 Sep 25 05:04	8°  40'27	1.37046 AU
	3932 Oct 14 21:32	0° 		evening rise	3933 Sep 29 00:10	15°  40'54	
evening rise	3932 Oct 16 21:21	3°   26'50			3933 Oct 07 08:11	0° 	
desc. node	3932 Oct 21 21:45	11°  14'49'13		desc. node	3933 Oct 08 18:45	2°  19'56	
	3932 Nov 02 17:54	0° 			3933 Oct 28 07:46	0° 	
evening max el	3932 Nov 21 05:53	23°  1'21'42	24°24'45	evening max el	3933 Nov 03 18:10	7°  1'03'32	25°37'54
retrograde	3932 Dec 02 13:44	29°  1'59'09		retrograde	3933 Nov 16 00:15	14°  1'04'55	
evening set	3932 Dec 07 23:44	27°  1'43'34		evening set	3933 Nov 22 00:09	11°  1'35'22	
asc. node	3932 Dec 11 19:10	23°  1'31'14		min. Earth dist.	3933 Nov 26 08:47	6°  1'49'26	0.67068 AU
min. Earth dist.	3932 Dec 12 15:56	22°  1'22'47	0.67702 AU	inferior conj	3933 Nov 27 15:01	5°  1'12'58	-0°21'35
inferior conj	3932 Dec 13 11:11	21°  1'18'22	0°33'57	minimum elong	3933 Nov 27 15:35	5°  1'11'11	0°21'21
minimum elong	3932 Dec 13 10:22	21°  1'21'05	0°33'37	asc. node	3933 Nov 28 16:12	3°  1'53'27	
morning rise	3932 Dec 18 21:04	15°  1'16'04			3933 Dec 02 08:29	30°  1'18'18	
direct	3932 Dec 22 16:14	13°  1'53'32		morning rise	3933 Dec 03 07:22	29°  1'18'50	
morning max el	3932 Dec 30 09:32	18°  1'17'27	20°11'51	direct	3933 Dec 06 14:52	28°  1'15'42	
	3933 Jan 08 18:58	0° 			3933 Dec 11 03:18	0° 	
desc. node	3933 Jan 17 20:58	13°  1'36'31		morning max el	3933 Dec 13 15:15	2°  1'10'17	19°11'44
morning set	3933 Jan 26 20:56	26°  1'39'30		greatest brilliancy	3933 Dec 27 14:43	21°  1'07'41	-0.7m
	3933 Jan 28 19:31	0° 			3934 Jan 02 09:09	0° 	
max. Earth dist.	3933 Feb 06 05:06	13°  1'14'46	1.43764 AU	desc. node	3934 Jan 04 17:59	3°  1'36'40'19	
				morning set	3934 Jan 05 22:44	5°  1'33'15'56	
superior conj	3933 Feb 12 00:18	22°  1'39'29	-2°04'38	max. Earth dist.	3934 Jan 19 20:07	27°  1'34'11	1.44868 AU
minimum elong	3933 Feb 11 20:53	22°  1'25'28	2°04'31		3934 Jan 21 14:07	0° 	
	3933 Feb 16 10:19	0° 					
evening rise	3933 Feb 24 19:23	14°  1'19'28		superior conj	3934 Jan 22 16:05	1°  1'42'49	-1°44'10
	3933 Mar 05 23:39	0° 		minimum elong	3934 Jan 22 07:28	1°  1'08'39	1°43'28
asc. node	3933 Mar 09 18:29	5°  1'09'51'23		evening rise	3934 Feb 06 06:40	25°  1'02'31	
evening max el	3933 Mar 14 11:16	11°  1'09'41'29	18°09'23		3934 Feb 09 02:24	0° 	
retrograde	3933 Mar 20 21:53	15°  1'04'37		asc. node	3934 Feb 24 15:30	23°  1'03'37'51	
evening set	3933 Mar 23 18:06	14°  1'09'23'39		evening max el	3934 Feb 25 23:31	25°  1'04'35	18°28'25
inferior conj	3933 Mar 29 23:09	9°  1'11'06	3°31'32	retrograde	3934 Mar 04 11:53	28°  1'03'38'19	
minimum elong	3933 Mar 30 00:25	9°  1'07'46	3°31'26	evening set	3934 Mar 07 13:56	27°  1'04'45'27	
min. Earth dist.	3933 Apr 01 18:15	6°  1'14'20	0.62621 AU	inferior conj	3934 Mar 13 09:44	22°  1'04'30	3°36'37
morning rise	3933 Apr 05 05:29	3°  1'07'54		minimum elong	3934 Mar 13 09:19	22°  1'05'43	3°36'36
direct	3933 Apr 12 02:43	0°  1'09'33'18		min. Earth dist.	3934 Mar 15 13:40	19°  1'04'42'17	0.64489 AU
desc. node	3933 Apr 15 20:09	1°  1'13'46		morning rise	3934 Mar 19 04:03	16°  1'04'04'11	
morning max el	3933 Apr 26 03:20	8°  1'09'31'38	27°50'34	direct	3934 Mar 25 22:57	13°  1'03'15'15	
	3933 May 12 16:30	0° 		desc. node	3934 Apr 02 17:10	16°  1'03'10'05	
	3933 May 29 13:51	0° 		morning max el	3934 Apr 08 12:46	21°  1'03'09'37	27°23'37
morning set	3933 May 30 02:56	1°  1'05'05'54			3934 Apr 16 04:52	0° 	
max. Earth dist.	3933 Jun 04 14:34	12°  1'02'32'39	1.32557 AU		3934 May 05 19:33	0° 	
asc. node	3933 Jun 05 17:47	14°  1'02'59'04		morning set	3934 May 13 19:21	14°  1'03'51'44	
				max. Earth dist.	3934 May 18 14:02	24°  1'03'29'07	1.33453 AU
superior conj	3933 Jun 06 16:59	17°  1'02'04'37	0°10'08		3934 May 21 05:21	0° 	
minimum elong	3933 Jun 06 16:30	17°  1'02'02'00	0°10'02				
behind sun begin	3933 Jun 06 12:26	16°  1'02'39'54		superior conj	3934 May 21 21:46	1°  1'02'26'58	-0°17'47
behind sun end	3933 Jun 06 20:35	17°  1'02'24'06		minimum elong	3934 May 21 22:41	1°  1'02'31'47	0°17'35
	3933 Jun 12 15:48	0° 		asc. node	3934 May 23 14:49	5°  1'02'05'37	
evening rise	3933 Jun 13 15:37	2°  1'02'07'07		evening rise	3934 May 29 02:53	16°  1'02'11'50'04	
	3933 Jun 28 20:50	0° 			3934 Jun 04 16:20	0° 	
evening max el	3933 Jul 07 19:17	10°  1'02'55'34	23°53'26	evening max el	3934 Jun 19 09:59	21°  1'02'20'14	22°16'44
desc. node	3933 Jul 12 19:25	14°  1'02'58'12		desc. node	3934 Jun 29 16:25	27°  1'02'29'03	
retrograde	3933 Jul 21 12:38	17°  1'02'49'39		retrograde	3934 Jul 02 08:26	27°  1'02'45'29	
evening set	3933 Jul 25 22:28	17°  1'02'06'46		evening set	3934 Jul 05 07:18	27°  1'02'26'10	
min. Earth dist.	3933 Aug 01 05:34	14°  1'02'05'08	0.56186 AU	min. Earth dist.	3934 Jul 13 16:11	23°  1'02'49'24	0.55073 AU
inferior conj	3933 Aug 03 13:45	12°  1'02'39'37	-4°58'46	inferior conj	3934 Jul 14 13:51	23°  1'02'18'50	-3°59'21
minimum elong	3933 Aug 03 09:22	12°  1'02'46'20	4°58'17	minimum elong	3934 Jul 14 05:26	23°  1'02'30'43	3°57'15
morning rise	3933 Aug 11 22:50	8°  1'02'42'30		morning rise	3934 Jul 23 05:30	19°  1'02'28'20	
direct	3933 Aug 14 17:11	8°  1'02'22'59		direct	3934 Jul 26 07:43	19°  1'02'06'51	
morning max el	3933 Aug 24 17:58	13°  1'02'02'34	19°56'16	morning max el	3934 Aug 06 23:42	24°  1'02'33'04	21°19'27
asc. node	3933 Sep 01 17:01	23°  1'02'10'59			3934 Aug 11 21:31	0° 	
	3933 Sep 05 16:15	0° 		asc. node	3934 Aug 19 14:03	11°  1'02'54'22	
morning set	3933 Sep 11 17:46	11° 1'02'48'50		morning set	3934 Aug 27 02:10	26° 1'02'34'09	
					3934 Aug 28 17:39	0°	
superior conj	3933 Sep 19 12:25	27° 1'02'36'13	1°43'12				

superior conj	3934 Sep 03 10:11	11° \mathbb{M} 55'31	1°43'42	morning set	3935 Aug 11 13:07	11° Ω 26'08	
minimum elong	3934 Sep 03 09:37	11° \mathbb{M} 52'31	1°43'41				
max. Earth dist.	3934 Sep 07 15:36	20° \mathbb{M} 32'07	1.35248 AU	superior conj	3935 Aug 18 14:50	26° Ω 34'13	1°37'37
evening rise	3934 Sep 11 21:21	28° \mathbb{M} 47'11		minimum elong	3935 Aug 18 13:11	26° Ω 25'25	1°37'29
	3934 Sep 12 12:47	0° $\underline{\mathbb{L}}$			3935 Aug 20 05:33	0° \mathbb{M}	
desc. node	3934 Sep 25 15:46	22° $\underline{\mathbb{L}}$ 35'42		max. Earth dist.	3935 Aug 21 10:52	2° \mathbb{M} 34'09	1.33823 AU
	3934 Sep 30 13:09	0° \mathbb{M}		evening rise	3935 Aug 26 08:27	12° \mathbb{M} 32'54	
evening max el	3934 Oct 17 06:35	20° \mathbb{M} 43'06	26°37'20		3935 Sep 04 19:15	0° $\underline{\mathbb{L}}$	
retrograde	3934 Oct 30 05:42	27° \mathbb{M} 57'48		desc. node	3935 Sep 12 12:47	12° $\underline{\mathbb{L}}$ 28'50	
evening set	3934 Nov 05 18:34	25° \mathbb{M} 18'42			3935 Sep 25 18:04	0° \mathbb{M}	
min. Earth dist.	3934 Nov 09 20:17	21° \mathbb{M} 08'24	0.66088 AU	evening max el	3935 Sep 29 18:55	4° \mathbb{M} 11'15	27°15'45
inferior conj	3934 Nov 11 14:03	19° \mathbb{M} 03'54	-1°20'55	retrograde	3935 Oct 13 05:25	11° \mathbb{M} 29'33	
minimum elong	3934 Nov 11 16:17	18° \mathbb{M} 57'15	1°19'59	evening set	3935 Oct 20 04:35	8° \mathbb{M} 48'20	
asc. node	3934 Nov 15 13:14	14° \mathbb{M} 48'19		min. Earth dist.	3935 Oct 24 00:11	5° \mathbb{M} 13'04	0.64753 AU
morning rise	3934 Nov 17 14:42	13° \mathbb{M} 20'25		inferior conj	3935 Oct 26 06:00	2° \mathbb{M} 46'06	-2°22'14
direct	3934 Nov 20 12:36	12° \mathbb{M} 32'57		minimum elong	3935 Oct 26 10:00	2° \mathbb{M} 35'09	2°20'41
morning max el	3934 Nov 27 03:15	16° \mathbb{M} 09'06	18°27'27		3935 Oct 28 21:56	30° \mathbb{R} $\underline{\mathbb{L}}$	
	3934 Dec 07 09:18	0° \mathbb{X}		morning rise	3935 Nov 01 16:31	27° $\underline{\mathbb{L}}$ 16'18	
morning set	3934 Dec 17 01:17	15° \mathbb{X} 21'56		asc. node	3935 Nov 02 10:17	26° $\underline{\mathbb{L}}$ 59'02	
desc. node	3934 Dec 22 15:01	24° \mathbb{X} 15'32		direct	3935 Nov 04 07:15	26° $\underline{\mathbb{L}}$ 40'34	
	3934 Dec 26 05:57	0° \mathbb{Z}			3935 Nov 10 15:56	0° \mathbb{M}	
				morning max el	3935 Nov 10 18:58	0° \mathbb{M} 07'31	18°00'02
superior conj	3935 Jan 01 18:37	10° \mathbb{Z} 16'24	-1°05'44	morning set	3935 Nov 28 09:22	26° \mathbb{M} 39'47	
minimum elong	3935 Jan 01 10:39	9° \mathbb{Z} 45'11	1°04'45		3935 Nov 30 09:18	0° \mathbb{X}	
max. Earth dist.	3935 Jan 02 14:24	11° \mathbb{Z} 34'01	1.45262 AU	desc. node	3935 Dec 09 12:04	14° \mathbb{X} 58'22	
	3935 Jan 14 08:14	0° \approx					
evening rise	3935 Jan 17 18:35	5° \approx 24'52		superior conj	3935 Dec 12 04:28	19° \mathbb{X} 17'12	-0°18'23
greatest brilliancy	3935 Jan 27 13:44	20° \approx 51'12	-0.8m	minimum elong	3935 Dec 12 02:13	19° \mathbb{X} 08'13	0°18'03
	3935 Feb 02 15:09	0° \mathbb{X}		max. Earth dist.	3935 Dec 16 09:24	25° \mathbb{X} 58'10	1.44916 AU
evening max el	3935 Feb 09 09:09	8° \mathbb{X} 33'34	19°05'12		3935 Dec 18 22:54	0° \mathbb{Z}	
asc. node	3935 Feb 11 12:31	10° \mathbb{X} 29'59		evening rise	3935 Dec 28 11:13	14° \mathbb{Z} 46'37	
retrograde	3935 Feb 16 07:13	12° \mathbb{X} 28'53			3936 Jan 07 10:08	0° \approx	
evening set	3935 Feb 19 15:53	11° \mathbb{X} 23'13		greatest brilliancy	3936 Jan 11 15:53	6° \approx 20'34	-0.6m
inferior conj	3935 Feb 25 05:32	5° \mathbb{X} 35'53	3°25'57	evening max el	3936 Jan 23 14:26	22° \approx 05'31	19°57'56
minimum elong	3935 Feb 25 03:54	5° \mathbb{X} 41'04	3°25'45	asc. node	3936 Jan 29 09:33	26° \approx 13'38	
min. Earth dist.	3935 Feb 26 18:04	3° \mathbb{X} 39'56	0.65980 AU	retrograde	3936 Jan 31 04:58	26° \approx 31'21	
	3935 Mar 01 23:30	30° \mathbb{R} \approx		evening set	3936 Feb 03 21:36	25° \approx 11'45	
morning rise	3935 Mar 02 15:34	29° \approx 22'32		inferior conj	3936 Feb 09 07:37	19° \approx 10'20	3°03'15
direct	3935 Mar 09 02:01	26° \approx 32'56		minimum elong	3936 Feb 09 05:18	19° \approx 18'06	3°02'46
	3935 Mar 17 06:29	0° \mathbb{X}		min. Earth dist.	3936 Feb 10 05:52	17° \approx 55'50	0.67056 AU
desc. node	3935 Mar 20 14:12	2° \mathbb{X} 50'56		morning rise	3936 Feb 14 12:47	12° \approx 56'26	
morning max el	3935 Mar 21 22:41	4° \mathbb{X} 10'28	26°26'55	direct	3936 Feb 20 10:46	10° \approx 17'45	
	3935 Apr 10 14:49	0° \mathbb{Y}		morning max el	3936 Mar 03 07:31	17° \approx 23'03	25°09'42
morning set	3935 Apr 26 23:54	27° \mathbb{Y} 59'00		desc. node	3936 Mar 06 11:14	20° \approx 47'03	
	3935 Apr 28 01:29	0° \mathbb{Z}			3936 Mar 13 20:36	0° \mathbb{X}	
max. Earth dist.	3935 May 01 02:17	5° \mathbb{Z} 52'27	1.34817 AU		3936 Apr 02 14:42	0° \mathbb{Y}	
				morning set	3936 Apr 08 11:57	10° \mathbb{Y} 14'27	
superior conj	3935 May 05 20:04	15° \mathbb{Z} 25'28	-0°46'50	max. Earth dist.	3936 Apr 12 03:32	16° \mathbb{Y} 54'54	1.36623 AU
minimum elong	3935 May 05 22:33	15° \mathbb{Z} 38'17	0°46'22				
asc. node	3935 May 10 11:50	25° \mathbb{Z} 06'27		superior conj	3936 Apr 18 09:01	28° \mathbb{Y} 52'36	-1°15'22
	3935 May 12 20:07	0° \mathbb{I}		minimum elong	3936 Apr 18 12:59	29° \mathbb{Y} 12'12	1°14'45
evening rise	3935 May 13 11:39	1° \mathbb{I} 20'32			3936 Apr 18 22:39	0° \mathbb{Z}	
	3935 May 30 09:28	0° \mathbb{E}		asc. node	3936 Apr 26 08:53	14° \mathbb{Z} 57'43	
evening max el	3935 Jun 01 09:43	2° \mathbb{E} 07'34	20°49'04	evening rise	3936 Apr 26 15:45	15° \mathbb{Z} 32'22	
retrograde	3935 Jun 12 21:11	7° \mathbb{E} 44'23			3936 May 04 04:43	0° \mathbb{I}	
evening set	3935 Jun 14 23:39	7° \mathbb{E} 33'49		evening max el	3936 May 13 21:42	13° \mathbb{I} 34'46	19°38'28
desc. node	3935 Jun 16 13:27	7° \mathbb{E} 12'50		retrograde	3936 May 23 15:07	18° \mathbb{I} 18'31	
inferior conj	3935 Jun 24 07:07	3° \mathbb{E} 36'33	-2°15'28	evening set	3936 May 25 14:19	18° \mathbb{I} 07'46	
minimum elong	3935 Jun 24 00:51	3° \mathbb{E} 45'29	2°13'17	desc. node	3936 Jun 02 10:27	14° \mathbb{I} 38'29	
min. Earth dist.	3935 Jun 25 03:57	3° \mathbb{E} 06'54	0.54866 AU	inferior conj	3936 Jun 03 08:15	14° \mathbb{I} 04'26	-0°16'06
	3935 Jul 01 13:54	30° \mathbb{R} \mathbb{I}		minimum elong	3936 Jun 03 07:32	14° \mathbb{I} 05'34	0°15'50
morning rise	3935 Jul 03 01:41	29° \mathbb{I} 32'57		transit middle	3936 Jun 03 07:32	14° \mathbb{I} 05'34	0°15'50
direct	3935 Jul 06 16:57	29° \mathbb{I} 04'26		transit begin	3936 Jun 03 07:00	14° \mathbb{I} 06'25	
	3935 Jul 11 16:16	0° \mathbb{E}		transit end	3936 Jun 03 08:05	14° \mathbb{I} 04'43	
morning max el	3935 Jul 19 19:06	5° \mathbb{E} 21'30	22°58'03	min. Earth dist.	3936 Jun 05 17:28	12° \mathbb{I} 34'51	0.55630 AU
	3935 Aug 05 20:58	0° Ω		morning rise	3936 Jun 11 22:16	9° \mathbb{I} 31'01	
asc. node	3935 Aug 06 11:06	1° Ω 07'48		direct	3936 Jun 16 09:55	8° \mathbb{I} 46'08	

morning max el	3936 Jun 30 09:12	15° Π 45'54	24°41'04		3937 Jun 15 13:51	0° Π	
	3936 Jul 11 18:50	0° \mathfrak{G}			3937 Jul 04 23:28	0° \mathfrak{G}	
asc. node	3936 Jul 23 08:09	20° \mathfrak{G} 43'38		morning set	3937 Jul 10 11:55	11° \mathfrak{G} 10'40	
morning set	3936 Jul 26 00:53	26° \mathfrak{G} 19'55		asc. node	3937 Jul 10 05:13	10° \mathfrak{G} 35'24	
	3936 Jul 27 18:06	0° Ω					
superior conj	3936 Aug 01 23:50	11° Ω 24'34	1°25'58	superior conj	3937 Jul 17 11:09	26° \mathfrak{G} 20'00	1°09'34
minimum elong	3936 Aug 01 21:37	11° Ω 12'25	1°25'41	minimum elong	3937 Jul 17 08:50	26° \mathfrak{G} 07'14	1°09'12
max. Earth dist.	3936 Aug 03 14:44	14° Ω 55'48	1.32815 AU	max. Earth dist.	3937 Jul 18 00:26	27° \mathfrak{G} 33'09	1.32216 AU
evening rise	3936 Aug 09 05:41	26° Ω 47'22			3937 Jul 19 03:09	0° Ω	
	3936 Aug 10 19:50	0° \mathfrak{N}		evening rise	3937 Jul 24 09:58	11° Ω 21'30	
	3936 Aug 28 03:26	0° \mathfrak{L}			3937 Aug 03 00:44	0° \mathfrak{N}	
desc. node	3936 Aug 29 09:48	1° \mathfrak{L} 49'50		desc. node	3937 Aug 16 06:49	20° \mathfrak{N} 25'43	
evening max el	3936 Sep 11 05:30	17° \mathfrak{L} 15'26	27°26'23	evening max el	3937 Aug 24 11:32	29° \mathfrak{N} 42'04	27°04'33
retrograde	3936 Sep 24 22:34	24° \mathfrak{L} 31'15			3937 Aug 24 19:11	0° \mathfrak{L}	
evening set	3936 Oct 02 03:03	21° \mathfrak{L} 57'55		retrograde	3937 Sep 07 08:25	6° \mathfrak{L} 54'15	
min. Earth dist.	3936 Oct 05 18:23	18° \mathfrak{L} 54'07	0.63087 AU	evening set	3937 Sep 14 10:00	4° \mathfrak{L} 40'57	
inferior conj	3936 Oct 08 12:08	16° \mathfrak{L} 12'58	-3°22'35	min. Earth dist.	3937 Sep 18 01:49	1° \mathfrak{L} 59'25	0.61149 AU
minimum elong	3936 Oct 08 17:36	15° \mathfrak{L} 59'30	3°20'50		3937 Sep 20 09:20	30° \mathfrak{R} \mathfrak{N}	
morning rise	3936 Oct 15 09:38	11° \mathfrak{L} 00'15		inferior conj	3937 Sep 21 05:16	29° \mathfrak{N} 16'28	-4°17'02
direct	3936 Oct 17 19:51	10° \mathfrak{L} 32'36		minimum elong	3937 Sep 21 11:09	29° \mathfrak{N} 03'44	4°15'40
asc. node	3936 Oct 19 07:21	10° \mathfrak{L} 43'08		morning rise	3937 Sep 28 14:06	24° \mathfrak{N} 24'29	
morning max el	3936 Oct 24 11:30	13° \mathfrak{L} 58'34	17°50'15	direct	3937 Sep 30 22:44	24° \mathfrak{N} 01'54	
	3936 Nov 04 12:17	0° \mathfrak{M}		asc. node	3937 Oct 06 04:25	25° \mathfrak{N} 57'58	
morning set	3936 Nov 09 17:58	9° \mathfrak{M} 08'29		morning max el	3937 Oct 08 01:46	27° \mathfrak{N} 35'05	17°59'04
					3937 Oct 10 06:19	0° \mathfrak{L}	
superior conj	3936 Nov 21 13:23	29° \mathfrak{M} 26'54	0°26'22	morning set	3937 Oct 23 20:37	22° \mathfrak{L} 28'46	
minimum elong	3936 Nov 21 15:58	29° \mathfrak{M} 37'41	0°26'00		3937 Oct 27 22:51	0° \mathfrak{M}	
	3936 Nov 21 21:20	0° \mathfrak{X}		superior conj	3937 Nov 03 01:04	10° \mathfrak{M} 55'20	1°01'37
desc. node	3936 Nov 25 09:06	5° \mathfrak{X} 45'01		minimum elong	3937 Nov 03 05:14	11° \mathfrak{M} 13'39	1°01'05
max. Earth dist.	3936 Nov 28 02:35	10° \mathfrak{X} 10'05	1.43876 AU	max. Earth dist.	3937 Nov 10 15:14	23° \mathfrak{M} 52'10	1.42265 AU
evening rise	3936 Dec 06 20:44	23° \mathfrak{X} 57'17		desc. node	3937 Nov 12 06:09	26° \mathfrak{M} 32'26	
	3936 Dec 10 19:24	0° \mathfrak{Z}			3937 Nov 14 09:14	0° \mathfrak{X}	
	3936 Dec 31 17:13	0° \approx		evening rise	3937 Nov 16 15:23	3° \mathfrak{X} 36'38	
evening max el	3937 Jan 05 14:17	5° \approx 38'26	21°03'58		3937 Dec 04 04:51	0° \mathfrak{Z}	
retrograde	3937 Jan 14 02:52	10° \approx 41'18		evening max el	3937 Dec 19 08:45	19° \mathfrak{Z} 12'51	22°19'27
asc. node	3937 Jan 15 06:36	10° \approx 34'01		retrograde	3937 Dec 28 23:16	24° \mathfrak{Z} 55'39	
evening set	3937 Jan 18 05:05	9° \approx 06'37		asc. node	3938 Jan 02 03:38	23° \mathfrak{Z} 22'52	
inferior conj	3937 Jan 23 13:31	2° \approx 53'45	2°30'57	evening set	3938 Jan 02 12:42	23° \mathfrak{Z} 05'01	
minimum elong	3937 Jan 23 11:01	3° \approx 02'19	2°30'13	inferior conj	3938 Jan 07 21:11	16° \mathfrak{Z} 44'01	1°50'43
min. Earth dist.	3937 Jan 23 22:53	2° \approx 21'25	0.67721 AU	minimum elong	3938 Jan 07 19:01	16° \mathfrak{Z} 51'35	1°49'55
	3937 Jan 25 16:59	30° \mathfrak{R} \mathfrak{Z}		min. Earth dist.	3938 Jan 07 18:56	16° \mathfrak{Z} 51'50	0.67997 AU
morning rise	3937 Jan 28 16:47	26° \mathfrak{Z} 40'56		morning rise	3938 Jan 13 01:12	10° \mathfrak{Z} 33'47	
direct	3937 Feb 03 00:19	24° \mathfrak{Z} 20'59		direct	3938 Jan 17 17:51	8° \mathfrak{Z} 36'14	
	3937 Feb 12 23:15	0° \approx		morning max el	3938 Jan 27 03:30	14° \mathfrak{Z} 07'56	22°13'53
morning max el	3937 Feb 13 16:07	0° \approx 41'45	23°42'06	desc. node	3938 Feb 08 05:21	29° \mathfrak{Z} 04'15	
desc. node	3937 Feb 21 08:17	9° \approx 36'24			3938 Feb 08 21:23	0° \approx	
	3937 Mar 07 18:57	0° \mathfrak{H}			3938 Feb 28 18:24	0° \mathfrak{H}	
morning set	3937 Mar 21 01:27	21° \mathfrak{H} 21'14		morning set	3938 Mar 01 11:02	1° \mathfrak{H} 07'15	
max. Earth dist.	3937 Mar 24 23:05	28° \mathfrak{H} 07'10	1.38734 AU	max. Earth dist.	3938 Mar 06 20:22	10° \mathfrak{H} 01'11	1.40903 AU
	3937 Mar 26 00:32	0° \mathfrak{Y}					
superior conj	3937 Apr 01 08:52	11° \mathfrak{Y} 37'52	-1°40'57	superior conj	3938 Mar 14 15:00	23° \mathfrak{H} 30'13	-1°59'58
minimum elong	3937 Apr 01 13:36	12° \mathfrak{Y} 00'09	1°40'25	minimum elong	3938 Mar 14 18:46	23° \mathfrak{H} 47'05	1°59'45
evening rise	3937 Apr 10 12:26	29° \mathfrak{Y} 17'26			3938 Mar 18 05:16	0° \mathfrak{Y}	
	3937 Apr 10 21:11	0° \mathfrak{B}		evening rise	3938 Mar 24 22:24	12° \mathfrak{Y} 27'47	
asc. node	3937 Apr 13 05:55	4° \mathfrak{B} 34'00		asc. node	3938 Mar 31 02:57	23° \mathfrak{Y} 49'51	
evening max el	3937 Apr 26 20:40	25° \mathfrak{B} 41'34	18°47'51		3938 Apr 03 18:43	0° \mathfrak{B}	
retrograde	3937 May 05 01:39	29° \mathfrak{B} 42'40		evening max el	3938 Apr 10 03:30	8° \mathfrak{B} 20'56	18°17'29
evening set	3937 May 07 05:42	29° \mathfrak{B} 26'54		retrograde	3938 Apr 17 07:16	11° \mathfrak{B} 55'12	
inferior conj	3937 May 15 03:58	25° \mathfrak{B} 06'35	1°26'47	evening set	3938 Apr 19 17:49	11° \mathfrak{B} 31'13	
minimum elong	3937 May 15 07:00	25° \mathfrak{B} 01'03	1°25'48	inferior conj	3938 Apr 26 21:13	6° \mathfrak{B} 50'37	2°38'27
min. Earth dist.	3937 May 18 09:52	22° \mathfrak{B} 45'13	0.57186 AU	minimum elong	3938 Apr 27 00:49	6° \mathfrak{B} 42'55	2°37'35
desc. node	3937 May 20 07:28	21° \mathfrak{B} 30'00		min. Earth dist.	3938 Apr 30 07:28	3° \mathfrak{B} 55'57	0.59228 AU
morning rise	3937 May 23 05:04	19° \mathfrak{B} 57'43		morning rise	3938 May 04 05:02	1° \mathfrak{B} 12'30	
direct	3937 May 28 16:13	18° \mathfrak{B} 45'10			3938 May 06 21:53	30° \mathfrak{R} \mathfrak{Y}	
morning max el	3937 Jun 12 00:29	26° \mathfrak{B} 14'40	26°13'11	desc. node	3938 May 07 04:30	29° \mathfrak{Y} 54'47	
				direct	3938 May 10 12:06	29° \mathfrak{Y} 24'48	

	3938 May 14 04:34	0°♄		morning max el	3939 May 07 00:19	18°♄52'32	27°49'56
morning max el	3938 May 24 21:16	7°♄12'59	27°19'16		3939 May 16 09:48	0°♄	
	3938 Jun 11 00:19	0°♄			3939 Jun 03 19:31	0°♄	
morning set	3938 Jun 24 20:27	25°♄52'17		morning set	3939 Jun 09 00:39	10°♄18'43	
	3938 Jun 26 19:18	0°♄		asc. node	3939 Jun 13 23:16	20°♄44'33	
asc. node	3938 Jun 27 02:15	0°♄37'13		max. Earth dist.	3939 Jun 14 22:08	22°♄48'25	1.32238 AU
superior conj	3938 Jul 01 22:55	11°♄14'04	0°49'07	superior conj	3939 Jun 16 09:27	26°♄01'08	0°25'13
minimum elong	3938 Jul 01 20:58	11°♄03'20	0°48'45	minimum elong	3939 Jun 16 08:19	25°♄54'56	0°24'59
max. Earth dist.	3938 Jul 01 12:09	10°♄14'46	1.32022 AU		3939 Jun 18 05:02	0°♄	
evening rise	3938 Jul 08 18:46	26°♄06'47		evening rise	3939 Jun 23 06:01	10°♄56'39	
	3938 Jul 10 15:19	0°♄			3939 Jul 02 22:54	0°♄	
	3938 Jul 27 20:11	0°♄		evening max el	3939 Jul 19 02:26	22°♄14'16	24°47'53
desc. node	3938 Aug 03 03:49	7°♄57'23		desc. node	3939 Jul 21 00:48	23°♄58'56	
evening max el	3938 Aug 06 10:30	11°♄20'49	26°09'43	retrograde	3939 Aug 02 00:48	29°♄16'57	
retrograde	3938 Aug 20 09:53	18°♄30'03		evening set	3939 Aug 07 06:58	28°♄14'23	
evening set	3938 Aug 26 20:33	16°♄48'56		min. Earth dist.	3939 Aug 12 13:49	25°♄26'41	0.57128 AU
min. Earth dist.	3938 Aug 30 23:17	14°♄13'44	0.59078 AU	inferior conj	3939 Aug 15 10:40	23°♄34'01	-5°10'04
inferior conj	3938 Sep 03 05:45	11°♄46'15	-4°57'13	minimum elong	3939 Aug 15 09:51	23°♄35'22	5°10'02
minimum elong	3938 Sep 03 09:47	11°♄38'37	4°56'44	morning rise	3939 Aug 23 15:14	19°♄26'41	
morning rise	3938 Sep 11 01:15	7°♄17'14		direct	3939 Aug 26 05:42	19°♄07'35	
direct	3938 Sep 13 11:19	6°♄57'21		morning max el	3939 Sep 04 10:16	23°♄26'03	19°17'39
morning max el	3938 Sep 21 10:27	10°♄47'28	18°27'45	asc. node	3939 Sep 09 22:31	0°♄03'03	
asc. node	3938 Sep 23 01:28	12°♄29'36			3939 Sep 09 21:40	0°♄	
	3938 Oct 04 03:07	0°♄		morning set	3939 Sep 21 12:04	20°♄45'32	
morning set	3938 Oct 07 11:56	6°♄24'34			3939 Sep 26 02:59	0°♄	
superior conj	3938 Oct 16 11:32	23°♄30'06	1°25'41	superior conj	3939 Sep 29 15:20	6°♄55'43	1°39'24
minimum elong	3938 Oct 16 15:01	23°♄46'14	1°25'21	minimum elong	3939 Sep 29 17:14	7°♄04'54	1°39'18
	3938 Oct 20 01:03	0°♄		max. Earth dist.	3939 Oct 06 02:15	19°♄06'59	1.38201 AU
max. Earth dist.	3938 Oct 23 22:10	6°♄50'13	1.40287 AU	evening rise	3939 Oct 09 20:49	25°♄51'54	
evening rise	3938 Oct 28 06:24	14°♄12'01			3939 Oct 12 06:15	0°♄	
desc. node	3938 Oct 30 03:10	17°♄16'29		desc. node	3939 Oct 17 00:10	7°♄53'20	
	3938 Nov 07 04:42	0°♄			3939 Oct 31 19:03	0°♄	
	3938 Nov 29 07:03	0°♄		evening max el	3939 Nov 14 11:48	16°♄30'39	24°57'09
evening max el	3938 Dec 01 23:12	2°♄49'48	23°39'21	retrograde	3939 Nov 26 06:01	23°♄20'05	
retrograde	3938 Dec 12 16:42	9°♄10'01		evening set	3939 Dec 01 21:47	20°♄58'24	
evening set	3938 Dec 17 18:48	7°♄03'20		min. Earth dist.	3939 Dec 06 10:42	15°♄52'01	0.67468 AU
asc. node	3938 Dec 20 00:40	4°♄46'18		asc. node	3939 Dec 06 21:43	15°♄15'50	
min. Earth dist.	3938 Dec 22 15:40	1°♄23'00	0.67905 AU	inferior conj	3939 Dec 07 10:31	14°♄33'37	0°10'57
inferior conj	3938 Dec 23 04:47	0°♄38'11	1°03'42	minimum elong	3939 Dec 07 10:15	14°♄34'31	0°10'50
minimum elong	3938 Dec 23 03:21	0°♄43'05	1°03'07	transit middle	3939 Dec 07 10:15	14°♄34'31	0°10'50
	3938 Dec 23 15:59	30°♄		transit begin	3939 Dec 07 08:11	14°♄41'18	
morning rise	3938 Dec 28 11:53	24°♄32'17		transit end	3939 Dec 07 12:18	14°♄27'45	
direct	3939 Jan 01 14:25	22°♄57'31		morning rise	3939 Dec 12 22:53	8°♄34'15	
morning max el	3939 Jan 09 20:55	27°♄44'00	20°52'56	direct	3939 Dec 16 12:49	7°♄20'21	
	3939 Jan 11 23:45	0°♄		morning max el	3939 Dec 23 22:07	11°♄30'49	19°44'21
desc. node	3939 Jan 26 02:24	18°♄59'42		greatest brilliancy	3940 Jan 06 02:18	28°♄53'02	-0.7m
	3939 Feb 02 11:08	0°♄			3940 Jan 06 20:21	0°♄	
morning set	3939 Feb 08 17:47	9°♄40'16		desc. node	3940 Jan 12 23:26	9°♄14'51	
max. Earth dist.	3939 Feb 17 00:04	22°♄49'30	1.42843 AU	morning set	3940 Jan 18 13:48	17°♄50'26	
	3939 Feb 21 08:44	0°♄			3940 Jan 26 09:19	0°♄	
				max. Earth dist.	3940 Jan 30 11:15	6°♄26'36	1.44310 AU
superior conj	3939 Feb 23 22:24	4°♄18'43	-2°07'34	superior conj	3940 Feb 04 03:54	13°♄57'37	-1°58'24
minimum elong	3939 Feb 23 22:23	4°♄18'39	2°07'34	minimum elong	3940 Feb 03 21:54	13°♄33'24	1°58'05
evening rise	3939 Mar 07 17:38	24°♄54'24			3940 Feb 13 21:41	0°♄	
	3939 Mar 10 14:12	0°♄		evening rise	3940 Feb 17 17:37	6°♄27'59	
asc. node	3939 Mar 17 23:58	12°♄38'36			3940 Mar 03 05:53	0°♄	
evening max el	3939 Mar 24 14:54	21°♄24'18	18°06'52	asc. node	3940 Mar 03 20:59	0°♄51'01	
retrograde	3939 Mar 31 04:50	24°♄47'21		evening max el	3940 Mar 07 03:42	4°♄42'33	18°15'19
evening set	3939 Apr 02 21:36	24°♄13'02		retrograde	3940 Mar 13 13:58	8°♄08'27	
inferior conj	3939 Apr 09 09:43	19°♄12'10	3°19'27	evening set	3940 Mar 16 12:37	7°♄22'33	
minimum elong	3939 Apr 09 12:00	19°♄06'32	3°19'08	inferior conj	3940 Mar 22 13:21	2°♄02'17	3°35'51
min. Earth dist.	3939 Apr 12 12:28	16°♄09'02	0.61413 AU	minimum elong	3940 Mar 22 13:52	2°♄00'51	3°35'50
morning rise	3939 Apr 16 00:33	13°♄15'32			3940 Mar 24 09:18	30°♄	
direct	3939 Apr 22 19:23	10°♄54'53		min. Earth dist.	3940 Mar 25 02:18	29°♄13'52	0.63459 AU
desc. node	3939 Apr 24 01:32	10°♄59'26					

morning rise	3940 Mar 28 14:08	25° H 55'35		minimum elong	3941 Mar 06 03:17	15° H 17'12	3°33'40
direct	3940 Apr 04 11:30	23° H 12'52		min. Earth dist.	3941 Mar 08 01:31	12° H 56'38	0.65178 AU
desc. node	3940 Apr 09 22:35	24° H 40'04		morning rise	3941 Mar 11 18:40	9° H 02'30	
	3940 Apr 17 02:50	0° Y		direct	3941 Mar 18 10:40	6° H 11'49	
morning max el	3940 Apr 18 07:55	1° Y 10'52	27°43'06	desc. node	3941 Mar 27 19:38	10° H 25'14	
	3940 May 09 13:18	0° B		morning max el	3941 Mar 31 17:42	13° H 59'47	27°02'37
morning set	3940 May 22 22:08	24° B 21'36			3941 Apr 13 17:17	0° Y	
	3940 May 25 16:47	0° II			3941 May 02 05:21	0° B	
max. Earth dist.	3940 May 28 02:21	5° II 00'40	1.32885 AU	morning set	3941 May 06 09:59	7° B 52'27	
				max. Earth dist.	3941 May 10 21:24	16° B 43'36	1.33986 AU
superior conj	3940 May 30 16:54	10° II 34'21	-0°01'29	superior conj	3941 May 14 19:15	24° B 47'44	-0°30'01
minimum elong	3940 May 30 16:59	10° II 34'44	0°01'29	minimum elong	3941 May 14 20:50	24° B 55'58	0°29'43
behind sun begin	3940 May 30 11:42	10° II 06'20			3941 May 17 06:29	0° II	
behind sun end	3940 May 30 22:16	11° II 03'11		asc. node	3941 May 17 17:18	0° II 57'20	
asc. node	3940 May 30 20:17	10° II 52'32		evening rise	3941 May 22 04:17	10° II 22'44	
evening rise	3940 Jun 06 17:48	25° II 43'53			3941 Jun 01 10:39	0° B	
	3940 Jun 08 18:43	0° B		evening max el	3941 Jun 11 09:20	13° B 11'51	21°37'34
	3940 Jun 27 02:18	0° Q		retrograde	3941 Jun 23 18:04	19° B 17'44	
evening max el	3940 Jun 29 15:30	2° Q 40'41	23°11'57	desc. node	3941 Jun 23 18:50	19° B 17'44	
desc. node	3940 Jul 06 21:48	7° Q 56'40		evening set	3941 Jun 26 06:16	19° B 03'29	
retrograde	3940 Jul 13 02:51	9° Q 24'25		inferior conj	3941 Jul 05 15:18	15° B 02'21	-3°19'22
evening set	3940 Jul 16 20:45	8° Q 53'46		minimum elong	3941 Jul 05 07:02	15° B 13'55	3°16'53
min. Earth dist.	3940 Jul 24 00:55	5° Q 38'41	0.55621 AU	min. Earth dist.	3941 Jul 05 11:31	15° B 07'38	0.54876 AU
inferior conj	3940 Jul 25 19:50	4° Q 35'58	-4°39'53	morning rise	3941 Jul 14 08:54	11° B 09'05	
minimum elong	3940 Jul 25 13:08	4° Q 45'48	4°38'44	direct	3941 Jul 17 16:08	10° B 45'20	
morning rise	3940 Aug 03 07:52	0° Q 43'17		morning max el	3941 Jul 29 23:25	16° B 32'42	22°00'02
direct	3940 Aug 06 05:20	0° Q 23'10			3941 Aug 09 11:05	0° Q	
morning max el	3940 Aug 16 22:38	5° Q 21'51	20°29'15	asc. node	3941 Aug 13 16:35	7° Q 21'39	
asc. node	3940 Aug 26 19:33	18° Q 24'16		morning set	3941 Aug 20 03:50	20° Q 13'00	
	3940 Sep 02 01:59	0° P			3941 Aug 24 18:51	0° P	
morning set	3940 Sep 04 18:07	5° P 23'54					
superior conj	3940 Sep 12 07:39	20° P 58'30	1°44'18	superior conj	3941 Aug 27 08:41	5° P 27'04	1°41'51
minimum elong	3940 Sep 12 07:53	20° P 59'42	1°44'17	minimum elong	3941 Aug 27 07:35	5° P 21'21	1°41'48
	3940 Sep 16 20:26	0° B		max. Earth dist.	3941 Aug 30 23:35	12° P 57'38	1.34595 AU
max. Earth dist.	3940 Sep 17 09:11	1° B 01'50	1.36245 AU	evening rise	3941 Sep 04 11:37	21° P 54'15	
evening rise	3940 Sep 21 08:01	8° B 29'52			3941 Sep 08 19:11	0° B	
desc. node	3940 Oct 02 21:09	28° B 18'32		desc. node	3941 Sep 19 18:10	18° B 25'50	
	3940 Oct 03 22:50	0° M			3941 Sep 27 17:40	0° M	
	3940 Oct 26 18:50	0° J		evening max el	3941 Oct 09 12:55	13° M 49'42	26°56'43
evening max el	3940 Oct 27 00:18	0° J 13'19	26°05'28	retrograde	3941 Oct 22 17:11	21° M 06'09	
retrograde	3940 Nov 08 14:20	7° J 21'09		evening set	3941 Oct 29 11:01	18° M 25'05	
evening set	3940 Nov 14 19:53	4° J 47'11		min. Earth dist.	3941 Nov 02 10:02	14° M 30'05	0.65563 AU
min. Earth dist.	3940 Nov 19 01:38	0° J 16'10	0.66689 AU	inferior conj	3941 Nov 04 08:53	12° M 15'23	-1°46'51
	3940 Nov 19 06:53	30° R M		minimum elong	3941 Nov 04 11:52	12° M 06'47	1°45'37
inferior conj	3940 Nov 20 12:35	28° M 27'34	-0°46'24	asc. node	3941 Nov 09 15:49	7° M 08'47	
minimum elong	3940 Nov 20 13:49	28° M 23'43	0°45'51	morning rise	3941 Nov 10 13:34	6° M 37'25	
asc. node	3940 Nov 22 18:46	25° M 45'32		direct	3941 Nov 13 08:14	5° M 55'17	
morning rise	3940 Nov 26 08:13	22° M 37'23		morning max el	3941 Nov 19 20:37	9° M 26'06	18°13'46
direct	3940 Nov 29 11:26	21° M 41'13			3941 Dec 04 03:45	0° J	
morning max el	3940 Dec 06 06:41	25° M 26'38	18°50'54	morning set	3941 Dec 08 15:58	7° J 20'58	
	3940 Dec 10 04:41	0° J		desc. node	3941 Dec 16 17:28	20° J 23'12	
morning set	3940 Dec 28 00:37	26° J 52'20			3941 Dec 22 18:35	0° B	
desc. node	3940 Dec 29 20:27	29° J 44'19					
	3940 Dec 30 00:27	0° B		superior conj	3941 Dec 23 14:52	1° B 20'04	-0°45'59
max. Earth dist.	3941 Jan 12 04:18	20° B 38'15	1.45126 AU	minimum elong	3941 Dec 23 09:05	0° B 57'15	0°45'13
				max. Earth dist.	3941 Dec 25 23:50	5° B 04'11	1.45204 AU
superior conj	3941 Jan 13 11:57	22° B 42'38	-1°29'43	evening rise	3942 Jan 08 21:43	26° B 48'16	
minimum elong	3941 Jan 13 02:42	22° B 06'15	1°28'46		3942 Jan 10 22:55	0° A	
	3941 Jan 18 02:48	0° A		greatest brilliancy	3942 Jan 20 18:27	15° A 10'27	-0.7m
evening rise	3941 Jan 28 18:57	17° A 04'37			3942 Jan 31 10:36	0° H	
	3941 Feb 05 18:55	0° H		evening max el	3942 Feb 01 23:08	1° H 39'40	19°25'47
evening max el	3941 Feb 18 15:12	18° H 09'26	18°42'00	asc. node	3942 Feb 05 15:05	4° H 41'27	
asc. node	3941 Feb 18 18:01	18° H 16'33		retrograde	3942 Feb 09 03:21	5° H 46'59	
retrograde	3941 Feb 25 06:35	21° H 50'42		evening set	3942 Feb 12 15:17	4° H 35'22	
evening set	3941 Feb 28 11:26	20° H 52'20			3942 Feb 17 02:45	30° R A	
inferior conj	3941 Mar 06 04:16	15° H 14'11	3°33'44	inferior conj	3942 Feb 18 03:05	28° A 41'28	3°17'38

minimum elong	3942 Feb 18 01:05	28° \approx 47'57	3°17'19	evening set	3943 Jan 27 21:58	18° \approx 26'54	
min. Earth dist.	3942 Feb 19 09:15	27° \approx 03'09	0.66486 AU	inferior conj	3943 Feb 02 07:03	12° \approx 20'00	2°50'38
morning rise	3942 Feb 23 10:39	22° \approx 27'41		minimum elong	3943 Feb 02 04:36	12° \approx 28'20	2°50'01
direct	3942 Mar 01 16:02	19° \approx 41'54		min. Earth dist.	3943 Feb 02 23:38	11° \approx 23'35	0.67381 AU
morning max el	3942 Mar 14 03:25	27° \approx 07'16	25°56'07	morning rise	3943 Feb 07 11:02	6° \approx 06'09	
desc. node	3942 Mar 14 16:40	27° \approx 41'08		direct	3943 Feb 13 02:52	3° \approx 34'50	
	3942 Mar 16 20:12	0° H		morning max el	3943 Feb 24 12:04	10° \approx 23'07	24°33'08
	3942 Apr 07 08:49	0° Y		desc. node	3943 Mar 01 13:43	16° \approx 01'57	
morning set	3942 Apr 19 08:13	20° Y 39'45			3943 Mar 12 01:58	0° H	
max. Earth dist.	3942 Apr 23 05:07	27° Y 57'32	1.35539 AU		3943 Mar 31 01:28	0° Y	
	3942 Apr 24 06:26	0° B		morning set	3943 Apr 01 11:29	2° Y 28'12	
				max. Earth dist.	3943 Apr 05 02:57	8° Y 59'06	1.37485 AU
superior conj	3942 Apr 28 13:59	8° B 34'08	-0°59'07	superior conj	3943 Apr 11 21:51	21° Y 44'24	-1°26'47
minimum elong	3942 Apr 28 17:09	8° B 50'07	0°58'33	minimum elong	3943 Apr 12 02:17	22° Y 05'52	1°26'09
asc. node	3942 May 04 14:22	20° B 55'04			3943 Apr 16 02:47	0° B	
evening rise	3942 May 06 11:25	24° B 46'44		evening rise	3943 Apr 20 12:43	8° B 48'05	
	3942 May 09 01:20	0° II		asc. node	3943 Apr 21 11:25	10° B 40'39	
evening max el	3942 May 24 14:08	24° II 15'24	20°16'37		3943 May 02 08:33	0° II	
retrograde	3942 Jun 04 07:53	29° II 29'47		evening max el	3943 May 07 07:05	6° II 00'10	19°14'32
evening set	3942 Jun 06 07:17	29° II 19'53		retrograde	3943 May 16 08:11	10° II 24'19	
desc. node	3942 Jun 10 15:52	27° II 56'11		evening set	3943 May 18 08:41	10° II 12'04	
inferior conj	3942 Jun 15 10:17	25° II 21'25	-1°24'38	inferior conj	3943 May 26 18:33	6° II 02'34	0°30'49
minimum elong	3942 Jun 15 06:18	25° II 27'16	1°23'09	minimum elong	3943 May 26 19:49	6° II 00'26	0°30'22
min. Earth dist.	3942 Jun 16 23:49	24° II 26'12	0.55077 AU	desc. node	3943 May 28 12:54	4° II 51'32	
morning rise	3942 Jun 24 04:03	21° II 06'51		min. Earth dist.	3943 May 29 14:44	4° II 09'07	0.56201 AU
direct	3942 Jun 28 02:55	20° II 33'02		morning rise	3943 Jun 04 03:51	1° II 13'31	
morning max el	3942 Jul 11 16:01	27° II 09'20	23°42'13	direct	3943 Jun 09 01:18	0° II 18'11	
	3942 Jul 14 10:45	0° B		morning max el	3943 Jun 23 06:05	7° II 33'07	25°22'30
asc. node	3942 Jul 31 13:38	26° B 46'08			3943 Jul 09 19:05	0° B	
	3942 Aug 02 04:12	0° O		asc. node	3943 Jul 18 10:40	16° B 29'37	
morning set	3942 Aug 04 15:24	5° O 07'30		morning set	3943 Jul 20 03:04	20° B 00'59	
					3943 Jul 24 17:53	0° O	
superior conj	3942 Aug 11 15:32	20° O 12'41	1°33'18	superior conj	3943 Jul 27 01:46	5° O 06'34	1°19'34
minimum elong	3942 Aug 11 13:34	20° O 02'09	1°33'06	minimum elong	3943 Jul 26 23:27	4° O 53'50	1°19'14
max. Earth dist.	3942 Aug 13 22:51	25° O 09'06	1.33342 AU	max. Earth dist.	3943 Jul 28 05:24	7° O 37'41	1.32508 AU
	3942 Aug 16 06:11	0° M		evening rise	3943 Aug 03 04:04	20° O 18'19	
evening rise	3942 Aug 19 03:30	5° M 54'08			3943 Aug 08 00:49	0° M	
	3942 Sep 01 09:44	0° A		desc. node	3943 Aug 24 12:13	27° M 11'24	
desc. node	3942 Sep 06 15:12	8° A 07'22			3943 Aug 26 14:27	0° A	
evening max el	3942 Sep 22 00:36	27° A 09'05	27°23'51	evening max el	3943 Sep 04 09:24	9° A 58'29	27°21'06
	3942 Sep 25 07:06	0° M		retrograde	3943 Sep 18 04:42	17° A 13'35	
retrograde	3942 Oct 05 14:11	4° M 27'06		evening set	3943 Sep 25 09:01	14° A 47'06	
evening set	3942 Oct 12 16:34	1° M 47'27		min. Earth dist.	3943 Sep 28 23:37	11° A 54'12	0.62291 AU
	3942 Oct 14 19:36	30° R A		inferior conj	3943 Oct 01 22:01	9° A 10'11	-3°46'48
min. Earth dist.	3942 Oct 16 09:52	28° A 26'38	0.64088 AU	minimum elong	3943 Oct 02 03:52	8° A 56'32	3°45'08
inferior conj	3942 Oct 18 21:01	25° A 52'08	-2°48'10	morning rise	3943 Oct 09 00:24	4° A 06'03	
minimum elong	3942 Oct 19 01:43	25° A 39'49	2°46'28	direct	3943 Oct 11 09:26	3° A 41'03	
morning rise	3942 Oct 25 12:10	20° A 29'30		asc. node	3943 Oct 14 09:54	4° A 22'43	
asc. node	3942 Oct 27 12:51	19° A 58'54		morning max el	3943 Oct 18 05:09	7° A 09'18	17°51'36
direct	3942 Oct 28 00:37	19° A 57'41			3943 Nov 02 00:35	0° M	
morning max el	3942 Nov 03 13:08	23° A 23'01	17°53'42	morning set	3943 Nov 03 04:13	2° M 03'54	
	3942 Nov 08 19:25	0° M					
morning set	3942 Nov 20 11:13	19° M 11'11		superior conj	3943 Nov 14 05:51	21° M 31'19	0°42'39
	3942 Nov 26 20:23	0° X		minimum elong	3943 Nov 14 09:29	21° M 46'47	0°42'09
superior conj	3942 Dec 03 09:21	10° X 47'15	0°01'30		3943 Nov 19 07:20	0° X	
minimum elong	3942 Dec 03 09:31	10° X 47'58	0°01'28	desc. node	3943 Nov 20 11:33	1° X 55'47	
behind sun begin	3942 Dec 02 23:32	10° X 07'20		max. Earth dist.	3943 Nov 21 09:04	3° X 23'30	1.43248 AU
behind sun end	3942 Dec 03 19:31	11° X 28'32		evening rise	3943 Nov 28 20:49	15° X 18'17	
desc. node	3942 Dec 03 14:31	11° X 08'16			3943 Dec 08 12:29	0° B	
max. Earth dist.	3942 Dec 08 18:13	19° X 24'36	1.44551 AU	evening max el	3943 Dec 29 23:27	28° B 44'43	21°35'16
	3942 Dec 15 12:08	0° B			3943 Dec 31 06:18	0° \approx	
evening rise	3942 Dec 19 09:21	6° B 00'06		retrograde	3944 Jan 07 23:00	4° \approx 04'52	
	3943 Jan 04 08:40	0° \approx		asc. node	3944 Jan 10 09:09	3° \approx 33'02	
evening max el	3943 Jan 16 02:01	15° \approx 11'13	20°24'35	evening set	3944 Jan 12 05:40	2° \approx 23'43	
asc. node	3943 Jan 23 12:08	19° \approx 51'05			3944 Jan 14 15:07	30° R B	
retrograde	3943 Jan 24 01:31	19° \approx 52'46					

inferior conj	3944 Jan 17 13:56	26° S 06'59	2°14'48	min. Earth dist.	3944 Dec 31 14:54	10° S 22'46	0.68004 AU
minimum elong	3944 Jan 17 11:31	26° S 15'21	2°14'01	morning rise	3945 Jan 06 02:48	3° S 50'26	
min. Earth dist.	3944 Jan 17 18:19	25° S 51'46	0.67879 AU	direct	3945 Jan 10 13:25	2° S 02'26	
morning rise	3944 Jan 22 17:11	19° S 54'50		morning max el	3945 Jan 19 10:41	7° S 13'38	21°38'09
direct	3944 Jan 27 18:23	17° S 43'57		desc. node	3945 Feb 02 07:48	24° S 50'01	
morning max el	3944 Feb 06 21:17	23° S 44'25	23°04'05		3945 Feb 05 21:44	0° \approx	
	3944 Feb 12 10:13	0° \approx		morning set	3945 Feb 20 10:45	22° \approx 12'40	
desc. node	3944 Feb 16 10:46	5° \approx 09'27			3945 Feb 25 06:30	0° X	
	3944 Mar 04 11:56	0° X		max. Earth dist.	3945 Feb 26 21:31	2° X 40'42	1.41776 AU
morning set	3944 Mar 12 13:37	13° X 01'52					
max. Earth dist.	3944 Mar 16 21:49	20° X 23'53	1.39657 AU	superior conj	3945 Mar 06 11:47	15° X 35'07	-2°04'55
	3944 Mar 22 08:13	0° Y		minimum elong	3945 Mar 06 14:20	15° X 46'15	2°04'50
					3945 Mar 14 13:21	0° Y	
superior conj	3944 Mar 24 14:47	4° Y 08'52	-1°50'06	evening rise	3945 Mar 17 09:25	5° Y 11'29	
minimum elong	3944 Mar 24 19:24	4° Y 30'05	1°49'40	asc. node	3945 Mar 25 05:29	19° Y 14'03	
evening rise	3944 Apr 03 05:17	22° Y 19'20			3945 Apr 01 15:24	0° Z	
asc. node	3944 Apr 07 08:28	0° Z 09'10		evening max el	3945 Apr 02 19:05	1° Z 12'43	18°10'37
	3944 Apr 07 06:30	0° Z		retrograde	3945 Apr 09 15:24	4° Z 40'03	
evening max el	3944 Apr 19 09:54	18° Z 22'27	18°32'36	evening set	3945 Apr 12 04:49	4° Z 11'42	
retrograde	3944 Apr 27 02:37	22° Z 09'47			3945 Apr 18 08:30	30° R Y	
evening set	3944 Apr 29 09:29	21° Z 50'50		inferior conj	3945 Apr 19 01:11	29° Y 22'15	2°59'16
inferior conj	3944 May 06 23:25	17° Z 22'25	2°01'09	minimum elong	3945 Apr 19 04:21	29° Y 15'02	2°58'38
minimum elong	3944 May 07 03:01	17° Z 15'22	2°00'05	min. Earth dist.	3945 Apr 22 09:18	26° Y 21'09	0.60162 AU
min. Earth dist.	3944 May 10 09:11	14° Z 43'54	0.58014 AU	morning rise	3945 Apr 26 01:34	23° Y 35'22	
desc. node	3944 May 14 09:55	12° Z 09'23		desc. node	3945 May 01 06:57	21° Y 37'54	
morning rise	3944 May 14 17:24	12° Z 00'02		direct	3945 May 02 14:57	21° Y 32'54	
direct	3944 May 20 14:04	10° Z 32'35		morning max el	3945 May 16 22:27	29° Y 25'15	27°37'01
morning max el	3944 Jun 03 23:11	18° Z 11'31	26°45'04		3945 May 17 12:20	0° Z	
	3944 Jun 13 19:56	0° II			3945 Jun 07 18:03	0° II	
	3944 Jul 01 05:32	0° S		morning set	3945 Jun 17 20:08	19° II 23'49	
morning set	3944 Jul 03 13:13	4° S 48'22		asc. node	3945 Jun 21 04:46	26° II 30'44	
asc. node	3944 Jul 04 07:44	6° S 26'15			3945 Jun 22 19:22	0° S	
				max. Earth dist.	3945 Jun 24 03:49	2° S 57'41	1.32063 AU
superior conj	3944 Jul 10 13:29	20° S 02'16	1°01'23				
minimum elong	3944 Jul 10 11:16	19° S 50'02	1°00'59	superior conj	3945 Jun 25 00:55	4° S 53'42	0°39'23
max. Earth dist.	3944 Jul 10 16:18	20° S 17'46	1.32087 AU	minimum elong	3945 Jun 24 23:16	4° S 44'36	0°39'03
	3944 Jul 15 02:37	0° Q		evening rise	3945 Jul 01 20:37	19° S 46'17	
evening rise	3944 Jul 17 10:33	4° Q 58'17			3945 Jul 06 20:22	0° Q	
	3944 Jul 30 17:18	0° P			3945 Jul 26 01:52	0° P	
desc. node	3944 Aug 10 09:13	15° P 22'43		desc. node	3945 Jul 28 06:12	2° P 20'00	
evening max el	3944 Aug 16 12:50	22° P 06'11	26°45'05	evening max el	3945 Jul 29 08:51	3° P 25'33	25°37'41
retrograde	3944 Aug 30 11:13	29° P 16'48		retrograde	3945 Aug 12 08:07	10° P 31'55	
evening set	3944 Sep 06 07:52	27° P 16'15		evening set	3945 Aug 18 08:25	9° P 07'10	
min. Earth dist.	3944 Sep 10 02:51	24° P 39'17	0.60276 AU	min. Earth dist.	3945 Aug 22 20:52	6° P 29'00	0.58221 AU
inferior conj	3944 Sep 13 08:31	22° P 00'48	-4°36'30	inferior conj	3945 Aug 26 01:02	4° P 14'20	-5°06'58
minimum elong	3944 Sep 13 13:58	21° P 49'38	4°35'29	minimum elong	3945 Aug 26 03:22	4° P 10'12	5°06'48
morning rise	3944 Sep 20 22:01	17° P 18'03			3945 Sep 02 16:50	30° R Q	
direct	3944 Sep 23 06:47	16° P 56'55		morning rise	3945 Sep 03 00:34	29° Q 54'46	
asc. node	3944 Sep 30 06:56	20° P 11'48		direct	3945 Sep 05 12:23	29° Q 35'15	
morning max el	3944 Sep 30 17:23	20° P 36'24	18°08'37		3945 Sep 08 05:48	0° P	
	3944 Oct 07 18:58	0° Q		morning max el	3945 Sep 13 22:37	3° P 35'45	18°46'15
morning set	3944 Oct 16 12:49	15° Q 40'54		asc. node	3945 Sep 17 03:59	7° P 11'51	
	3944 Oct 24 05:32	0° M		morning set	3945 Sep 30 08:22	29° P 49'32	
					3945 Sep 30 10:31	0° Q	
superior conj	3944 Oct 26 03:48	3° M 29'21	1°13'11				
minimum elong	3944 Oct 26 07:52	3° M 47'37	1°12'43	superior conj	3945 Oct 08 22:21	16° Q 28'16	1°32'41
max. Earth dist.	3944 Nov 02 19:11	16° M 47'34	1.41459 AU	minimum elong	3945 Oct 09 01:13	16° Q 41'47	1°32'27
desc. node	3944 Nov 06 08:33	22° M 42'07		max. Earth dist.	3945 Oct 16 01:02	29° Q 29'55	1.39406 AU
evening rise	3944 Nov 07 23:16	25° M 19'34			3945 Oct 16 07:51	0° M	
	3944 Nov 10 21:26	0° X		evening rise	3945 Oct 20 00:24	6° M 23'15	
	3944 Dec 01 08:58	0° Z		desc. node	3945 Oct 24 05:33	13° M 24'00	
evening max el	3944 Dec 11 16:07	12° Z 20'31	22°53'22		3945 Nov 03 22:47	0° X	
retrograde	3944 Dec 21 18:07	18° Z 19'24		evening max el	3945 Nov 24 05:38	25° X 59'55	24°13'03
evening set	3944 Dec 26 12:46	16° Z 22'04			3945 Nov 28 21:04	0° Z	
asc. node	3944 Dec 27 06:11	15° Z 43'10		retrograde	3945 Dec 05 09:47	2° Z 33'04	
inferior conj	3944 Dec 31 21:46	9° Z 59'04	1°31'31	evening set	3945 Dec 10 17:45	0° Z 19'40	
minimum elong	3944 Dec 31 19:51	10° Z 05'41	1°30'47		3945 Dec 11 02:42	30° R X	

asc. node	3945 Dec 14 03:12	26° ♊ 38'42		min. Earth dist.	3946 Nov 29 04:37	9° ♊ 21'31	0.67187 AU
min. Earth dist.	3945 Dec 15 11:06	24° ♊ 53'52	0.67771 AU	inferior conj	3946 Nov 30 09:12	7° ♊ 49'30	-0°12'53
inferior conj	3945 Dec 16 04:47	23° ♊ 54'19	0°41'57	minimum elong	3946 Nov 30 09:32	7° ♊ 48'26	0°12'44
minimum elong	3945 Dec 16 03:48	23° ♊ 57'39	0°41'32	transit middle	3946 Nov 30 09:32	7° ♊ 48'26	0°12'44
morning rise	3945 Dec 21 13:53	17° ♊ 51'09		transit begin	3946 Nov 30 07:49	7° ♊ 54'00	
direct	3945 Dec 25 10:55	16° ♊ 25'34		transit end	3946 Nov 30 11:15	7° ♊ 42'53	
morning max el	3946 Jan 02 07:24	20° ♊ 54'50	20°22'01	asc. node	3946 Dec 01 00:15	7° ♊ 01'17	
	3946 Jan 09 19:56	0° ♊		morning rise	3946 Dec 06 00:28	1° ♊ 53'57	
desc. node	3946 Jan 20 04:50	14° ♋ 54'46		direct	3946 Dec 09 09:32	0° ♊ 48'12	
morning set	3946 Jan 30 10:00	0° ♋ 27'18		morning max el	3946 Dec 16 12:03	4° ♊ 46'38	19°19'38
	3946 Jan 30 02:56	0° ♋		greatest brilliancy	3946 Dec 29 22:50	22° ♊ 49'39	-0.7m
max. Earth dist.	3946 Feb 09 05:05	15° ♋ 53'35	1.43546 AU		3947 Jan 03 15:44	0° ♋	
				desc. node	3947 Jan 07 01:51	5° ♋ 16'31	
superior conj	3946 Feb 15 08:13	25° ♋ 53'32	-2°06'00	morning set	3947 Jan 09 09:32	8° ♋ 51'58	
minimum elong	3946 Feb 15 05:44	25° ♋ 43'17	2°05'57		3947 Jan 22 22:15	0° ♋	
	3946 Feb 17 19:23	0° ♋		max. Earth dist.	3947 Jan 22 19:06	29° ♋ 47'34	1.44744 AU
evening rise	3946 Feb 27 20:58	17° ♋ 16'31					
	3946 Mar 07 05:22	0° ♌		superior conj	3947 Jan 26 03:20	5° ♋ 05'33	-1°48'33
asc. node	3946 Mar 12 02:30	7° ♌ 48'15		minimum elong	3947 Jan 25 19:14	4° ♋ 33'19	1°47'56
evening max el	3946 Mar 17 07:22	14° ♌ 22'43	18°08'06	evening rise	3947 Feb 09 11:40	28° ♋ 26'25	
retrograde	3946 Mar 23 18:34	17° ♌ 45'32			3947 Feb 10 10:12	0° ♋	
evening set	3946 Mar 26 13:51	17° ♌ 06'21		asc. node	3947 Feb 26 23:31	25° ♋ 42'18	
inferior conj	3946 Apr 01 20:37	11° ♌ 56'41	3°29'01	evening max el	3947 Feb 28 19:51	27° ♋ 45'09	18°24'28
minimum elong	3946 Apr 01 22:09	11° ♌ 52'42	3°28'53		3947 Mar 03 12:13	0° ♌	
min. Earth dist.	3946 Apr 04 17:48	8° ♌ 57'34	0.62314 AU	retrograde	3947 Mar 07 07:28	1° ♌ 16'34	
morning rise	3946 Apr 08 05:02	5° ♌ 54'50		evening set	3947 Mar 10 08:35	0° ♌ 25'36	
direct	3946 Apr 15 01:51	3° ♌ 23'31			3947 Mar 11 01:25	30° ♌	
desc. node	3946 Apr 18 04:00	3° ♌ 51'20		inferior conj	3947 Mar 16 05:33	24° ♌ 57'27	3°36'55
morning max el	3946 Apr 29 03:51	11° ♌ 22'04	27°51'39	minimum elong	3947 Mar 16 05:23	24° ♌ 57'58	3°36'55
	3946 May 13 19:52	0° ♍		min. Earth dist.	3947 Mar 18 11:53	22° ♌ 20'28	0.64231 AU
	3946 May 31 01:44	0° ♍		morning rise	3947 Mar 22 01:25	18° ♌ 47'49	
morning set	3946 Jun 01 21:47	3° ♍ 40'51		direct	3947 Mar 28 21:09	15° ♌ 59'58	
max. Earth dist.	3946 Jun 07 12:00	15° ♍ 24'10	1.32456 AU	desc. node	3947 Apr 05 01:03	18° ♌ 29'24	
asc. node	3946 Jun 08 01:47	16° ♍ 38'28		morning max el	3947 Apr 11 12:58	23° ♌ 56'02	27°29'40
					3947 Apr 16 23:42	0° ♍	
superior conj	3946 Jun 09 10:21	19° ♍ 34'58	0°14'12		3947 May 07 04:14	0° ♍	
minimum elong	3946 Jun 09 09:41	19° ♍ 31'21	0°14'02	morning set	3947 May 16 15:38	17° ♍ 31'48	
behind sun begin	3946 Jun 09 07:14	19° ♍ 18'02		max. Earth dist.	3947 May 21 12:47	27° ♍ 25'03	1.33290 AU
behind sun end	3946 Jun 09 12:08	19° ♍ 44'41			3947 May 22 18:26	0° ♍	
	3946 Jun 14 05:03	0° ♎					
evening rise	3946 Jun 16 08:19	4° ♎ 35'28		superior conj	3947 May 24 15:55	4° ♍ 00'41	-0°13'26
	3946 Jun 29 21:32	0° ♎		minimum elong	3947 May 24 16:36	4° ♍ 04'18	0°13'18
evening max el	3946 Jul 10 22:35	14° ♎ 03'13	24°07'53	behind sun begin	3947 May 24 13:34	3° ♍ 48'11	
desc. node	3946 Jul 15 03:14	17° ♎ 33'19		behind sun end	3947 May 24 19:38	4° ♍ 20'27	
retrograde	3946 Jul 24 17:41	21° ♎ 00'20		asc. node	3947 May 25 22:49	6° ♍ 45'44	
evening set	3946 Jul 29 08:57	20° ♎ 12'38		evening rise	3947 May 31 19:49	19° ♍ 19'54	
min. Earth dist.	3946 Aug 04 09:08	17° ♎ 15'06	0.56407 AU		3947 Jun 06 01:37	0° ♎	
inferior conj	3946 Aug 06 21:15	15° ♎ 42'00	-5°03'21	evening max el	3947 Jun 22 12:35	24° ♎ 27'08	22°30'50
minimum elong	3946 Aug 06 17:46	15° ♎ 47'24	5°03'03		3947 Jun 30 14:46	0° ♎	
morning rise	3946 Aug 15 05:13	11° ♎ 42'44		desc. node	3947 Jul 02 00:15	0° ♎ 27'49	
direct	3946 Aug 17 22:28	11° ♎ 23'23		retrograde	3947 Jul 05 15:02	0° ♎ 57'56	
morning max el	3946 Aug 27 17:49	15° ♎ 57'04	19°45'37	evening set	3947 Jul 08 18:22	0° ♎ 36'14	
asc. node	3946 Sep 04 01:02	25° ♎ 07'02			3947 Jul 10 19:54	30° ♎	
	3946 Sep 06 23:48	0° ♏		min. Earth dist.	3947 Jul 16 19:55	27° ♎ 05'25	0.55187 AU
morning set	3946 Sep 14 11:22	14° ♏ 19'04		inferior conj	3947 Jul 17 23:23	26° ♎ 26'24	-4°11'38
				minimum elong	3947 Jul 17 15:13	26° ♎ 38'01	4°09'45
superior conj	3946 Sep 22 08:04	0° ♏ 11'49	1°42'28	morning rise	3947 Jul 26 14:08	22° ♎ 35'48	
minimum elong	3946 Sep 22 09:14	0° ♏ 17'36	1°42'25	direct	3947 Jul 29 14:55	22° ♎ 14'49	
	3946 Sep 22 05:42	0° ♏		morning max el	3947 Aug 10 01:15	27° ♎ 33'52	21°05'55
max. Earth dist.	3946 Sep 28 05:46	11° ♏ 35'21	1.37339 AU		3947 Aug 12 10:35	0° ♏	
evening rise	3946 Oct 02 00:09	18° ♏ 29'03		asc. node	3947 Aug 21 22:05	13° ♏ 44'38	
	3946 Oct 08 16:35	0° ♐		morning set	3947 Aug 29 19:14	29° ♏ 02'23	
desc. node	3946 Oct 11 02:33	3° ♐ 56'38			3947 Aug 30 06:21	0° ♐	
	3946 Oct 29 04:22	0° ♐					
evening max el	3946 Nov 06 17:54	9° ♐ 41'38	25°27'38	superior conj	3947 Sep 06 04:32	14° ♏ 26'51	1°44'04
retrograde	3946 Nov 18 21:07	16° ♐ 40'29		minimum elong	3947 Sep 06 04:10	14° ♏ 24'55	1°44'04
evening set	3946 Nov 24 18:55	14° ♐ 12'46		max. Earth dist.	3947 Sep 10 15:03	23° ♏ 25'56	1.35494 AU

	3947 Sep 14 00:15	0°♄		minimum elong	3948 Aug 20 06:49	28°♄54'58	1°38'48
evening rise	3947 Sep 14 18:53	1°♄28'07			3948 Aug 20 19:03	0°♄	
desc. node	3947 Sep 27 23:34	24°♄14'49		max. Earth dist.	3948 Aug 23 09:03	5°♄25'55	1.34009 AU
	3947 Oct 01 17:30	0°♄		evening rise	3948 Aug 28 04:11	15°♄08'39	
evening max el	3947 Oct 20 06:20	23°♄22'10	26°29'42		3948 Sep 05 04:10	0°♄	
	3947 Oct 29 19:52	0°♄		desc. node	3948 Sep 13 20:36	14°♄11'58	
retrograde	3947 Nov 02 03:25	0°♄35'37			3948 Sep 25 10:07	0°♄	
	3947 Nov 05 06:13	30°♄		evening max el	3948 Oct 01 18:56	6°♄53'23	27°11'45
evening set	3947 Nov 08 14:23	27°♄57'43		retrograde	3948 Oct 15 03:58	14°♄11'14	
min. Earth dist.	3947 Nov 12 17:08	23°♄41'56	0.66253 AU	evening set	3948 Oct 22 01:51	11°♄29'54	
inferior conj	3947 Nov 14 09:07	21°♄41'24	-1°11'45	min. Earth dist.	3948 Oct 25 22:20	7°♄49'32	0.64971 AU
minimum elong	3947 Nov 14 11:04	21°♄35'28	1°10'54	inferior conj	3948 Oct 28 02:18	5°♄25'37	-2°12'53
asc. node	3947 Nov 17 21:19	17°♄47'54		minimum elong	3948 Oct 28 06:03	5°♄15'14	2°11'26
morning rise	3947 Nov 20 08:24	15°♄56'01		morning rise	3948 Nov 03 11:16	29°♄53'28	
direct	3947 Nov 23 07:35	15°♄06'27			3948 Nov 03 05:51	30°♄	
morning max el	3947 Nov 29 23:14	18°♄44'49	18°32'58	asc. node	3948 Nov 03 18:22	29°♄45'41	
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morning set	3947 Dec 20 07:48	18°♄28'58			3948 Nov 09 00:25	0°♄	
desc. node	3947 Dec 24 22:52	25°♄50'14		morning max el	3948 Nov 12 14:36	2°♄43'51	18°03'04
	3947 Dec 27 14:01	0°♄		morning set	3948 Nov 30 11:46	29°♄35'09	
					3948 Nov 30 17:45	0°♄	
superior conj	3948 Jan 05 06:41	13°♄40'29	-1°12'24	desc. node	3948 Dec 10 19:53	16°♄32'13	
minimum elong	3948 Jan 04 22:10	13°♄07'06	1°11'25				
max. Earth dist.	3948 Jan 05 13:00	14°♄05'12	1.45251 AU	superior conj	3948 Dec 14 14:13	22°♄34'03	-0°25'38
	3948 Jan 15 15:59	0°♄		minimum elong	3948 Dec 14 11:02	22°♄21'23	0°25'11
evening rise	3948 Jan 21 03:00	8°♄38'42		max. Earth dist.	3948 Dec 18 08:27	28°♄31'23	1.45016 AU
greatest brilliancy	3948 Jan 30 02:56	22°♄55'03	-0.8m		3948 Dec 19 06:58	0°♄	
	3948 Feb 03 17:12	0°♄		evening rise	3948 Dec 30 22:01	18°♄05'48	
evening max el	3948 Feb 12 06:04	11°♄13'47	18°58'41		3949 Jan 07 15:50	0°♄	
asc. node	3948 Feb 13 20:35	12°♄43'43		greatest brilliancy	3949 Jan 13 14:10	8°♄57'28	-0.7m
retrograde	3948 Feb 19 02:11	15°♄05'05		evening max el	3949 Jan 25 12:08	24°♄45'43	19°49'07
evening set	3948 Feb 22 09:49	14°♄01'22		asc. node	3949 Jan 30 17:38	28°♄38'55	
inferior conj	3948 Feb 28 00:13	8°♄16'28	3°28'24	retrograde	3949 Feb 01 23:43	29°♄06'17	
minimum elong	3948 Feb 27 22:44	8°♄21'07	3°28'14	evening set	3949 Feb 05 15:08	27°♄48'44	
min. Earth dist.	3948 Feb 29 15:01	6°♄14'37	0.65786 AU	inferior conj	3949 Feb 11 01:33	21°♄49'13	3°07'22
morning rise	3948 Mar 04 11:16	2°♄03'31		minimum elong	3949 Feb 10 23:18	21°♄56'42	3°06'54
	3948 Mar 07 12:21	30°♄		min. Earth dist.	3949 Feb 12 01:48	20°♄28'34	0.66927 AU
direct	3948 Mar 10 23:21	29°♄13'08		morning rise	3949 Feb 16 07:15	15°♄35'22	
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morning set	3948 Apr 28 22:13	0°♄45'34			3949 Apr 03 23:13	0°♄	
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max. Earth dist.	3948 May 03 02:45	8°♄52'54	1.34588 AU	max. Earth dist.	3949 Apr 15 05:34	19°♄57'19	1.36335 AU
					3949 Apr 20 10:37	0°♄	
superior conj	3948 May 07 15:21	18°♄03'21	-0°42'24				
minimum elong	3948 May 07 17:36	18°♄14'59	0°41'58	superior conj	3949 Apr 21 05:54	1°♄35'30	-1°11'11
asc. node	3948 May 11 19:51	26°♄47'51		minimum elong	3949 Apr 21 09:40	1°♄54'14	1°10'33
	3948 May 13 08:29	0°♄		asc. node	3949 Apr 28 16:54	16°♄40'47	
evening rise	3948 May 15 05:06	3°♄52'43		evening rise	3949 Apr 29 10:03	18°♄07'38	
	3948 May 29 23:04	0°♄			3949 May 05 12:00	0°♄	
evening max el	3948 Jun 03 10:42	5°♄09'46	21°01'07	evening max el	3949 May 16 20:49	16°♄30'21	19°47'41
retrograde	3948 Jun 15 03:54	10°♄54'10		retrograde	3949 May 26 20:20	21°♄21'44	
evening set	3948 Jun 17 08:21	10°♄42'57		evening set	3949 May 28 19:19	21°♄11'21	
desc. node	3948 Jun 17 21:18	10°♄36'51		desc. node	3949 Jun 04 18:21	18°♄18'27	
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minimum elong	3948 Jun 26 09:48	6°♄55'10	2°30'43	minimum elong	3949 Jun 06 14:19	17°♄11'59	0°33'07
min. Earth dist.	3948 Jun 27 07:23	6°♄24'42	0.54840 AU	min. Earth dist.	3949 Jun 08 20:24	15°♄48'50	0.55460 AU
morning rise	3948 Jul 05 11:16	2°♄44'58		morning rise	3949 Jun 15 07:08	12°♄41'31	
direct	3948 Jul 09 00:20	2°♄17'52		direct	3949 Jun 19 15:23	11°♄59'53	
morning max el	3948 Jul 21 21:52	8°♄27'26	22°42'46	morning max el	3949 Jul 03 12:20	18°♄53'41	24°26'05
	3948 Aug 06 06:02	0°♄			3949 Jul 12 18:49	0°♄	
asc. node	3948 Aug 07 19:08	2°♄54'03		asc. node	3949 Jul 25 16:10	22°♄26'59	
morning set	3948 Aug 13 05:55	13°♄53'38		morning set	3949 Jul 28 17:40	28°♄47'37	
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superior conj	3948 Aug 20 08:20	29°♄03'02	1°38'54				

































































































































superior conj	3949 Aug 04 16:49	13° Ω 52'04	1°28'02	superior conj	3950 Jul 20 03:54	28° Θ 47'32	1°12'21
minimum elong	3949 Aug 04 14:38	13° Ω 40'16	1°27'48	minimum elong	3950 Jul 20 01:34	28° Θ 34'41	1°11'59
max. Earth dist.	3949 Aug 06 11:53	17° Ω 45'20	1.32937 AU		3950 Jul 20 17:04	0° Ω	
evening rise	3949 Aug 12 00:06	29° Ω 19'23		max. Earth dist.	3950 Jul 20 20:54	0° Ω 21'04	1.32277 AU
	3949 Aug 12 08:06	0° Π		evening rise	3950 Jul 27 03:29	13° Ω 51'17	
	3949 Aug 29 06:31	0° Ω			3950 Aug 04 09:30	0° Π	
desc. node	3949 Aug 31 17:38	3° Ω 38'42		desc. node	3950 Aug 18 14:39	22° Π 22'40	
evening max el	3949 Sep 14 05:53	20° Ω 01'48	27°26'48		3950 Aug 24 23:19	0° Ω	
retrograde	3949 Sep 27 22:02	27° Ω 18'02		evening max el	3950 Aug 27 12:37	2° Ω 34'18	27°09'53
evening set	3949 Oct 05 02:16	24° Ω 42'42		retrograde	3950 Sep 10 09:04	9° Ω 47'22	
min. Earth dist.	3949 Oct 08 18:00	21° Ω 34'46	0.63354 AU	evening set	3950 Sep 17 11:47	7° Ω 30'04	
inferior conj	3949 Oct 11 10:05	18° Ω 55'04	-3°13'41	min. Earth dist.	3950 Sep 21 02:57	4° Ω 46'09	0.61453 AU
minimum elong	3949 Oct 11 15:23	18° Ω 41'49	3°11'55	inferior conj	3950 Sep 24 05:19	2° Ω 02'19	-4°09'30
morning rise	3949 Oct 18 05:55	13° Ω 39'41		minimum elong	3950 Sep 24 11:15	1° Ω 49'12	4°08'02
direct	3949 Oct 20 16:40	13° Ω 11'00			3950 Sep 26 14:50	30° Π	
asc. node	3949 Oct 21 15:25	13° Ω 15'24		morning rise	3950 Oct 01 12:31	27° Π 07'12	
morning max el	3949 Oct 27 07:12	16° Ω 36'26	17°50'36	direct	3950 Oct 03 21:09	26° Π 44'05	
	3949 Nov 05 19:21	0° Π		asc. node	3950 Oct 08 12:25	28° Π 16'58	
morning set	3949 Nov 12 17:05	11° Π 54'24			3950 Oct 10 15:31	0° Ω	
	3949 Nov 23 06:35	0° Σ		morning max el	3950 Oct 10 22:01	0° Ω 15'37	17°56'30
				morning set	3950 Oct 26 17:21	25° Ω 07'29	
superior conj	3949 Nov 24 19:11	2° Σ 32'06	0°20'05		3950 Oct 29 09:21	0° Π	
minimum elong	3949 Nov 24 21:14	2° Σ 40'37	0°19'48	superior conj	3950 Nov 06 02:58	13° Π 48'54	0°56'59
desc. node	3949 Nov 27 16:55	7° Σ 18'23		minimum elong	3950 Nov 06 07:05	14° Π 06'48	0°56'27
max. Earth dist.	3949 Dec 01 02:13	12° Σ 46'46	1.44071 AU	max. Earth dist.	3950 Nov 13 15:18	26° Π 32'39	1.42533 AU
evening rise	3949 Dec 10 07:34	27° Σ 15'33		desc. node	3950 Nov 14 13:56	28° Π 05'37	
	3949 Dec 12 02:23	0° Σ			3950 Nov 15 18:00	0° Σ	
	3950 Jan 01 15:02	0° \approx		evening rise	3950 Nov 19 23:49	6° Σ 47'36	
evening max el	3950 Jan 08 12:46	8° \approx 18'14	20°53'21		3950 Dec 05 08:49	0° Σ	
retrograde	3950 Jan 16 21:46	13° \approx 15'24		evening max el	3950 Dec 22 07:53	21° Σ 51'42	22°07'48
asc. node	3950 Jan 17 14:41	13° \approx 12'41		retrograde	3950 Dec 31 18:30	27° Σ 28'54	
evening set	3950 Jan 20 22:28	11° \approx 42'56		asc. node	3951 Jan 04 11:42	26° Σ 15'04	
inferior conj	3950 Jan 26 07:00	5° \approx 31'25	2°36'24	evening set	3951 Jan 05 06:08	25° Σ 40'42	
minimum elong	3950 Jan 26 04:30	5° \approx 39'59	2°35'41	inferior conj	3951 Jan 10 14:30	19° Σ 20'36	1°57'15
min. Earth dist.	3950 Jan 26 18:10	4° \approx 53'02	0.67649 AU	minimum elong	3951 Jan 10 12:15	19° Σ 28'25	1°56'29
	3950 Jan 30 16:55	30° Π		min. Earth dist.	3951 Jan 10 13:56	19° Σ 22'34	0.67976 AU
morning rise	3950 Jan 31 10:23	29° Σ 18'21		morning rise	3951 Jan 15 18:14	13° Σ 09'44	
direct	3950 Feb 05 20:04	26° Σ 55'23		direct	3951 Jan 20 13:01	11° Σ 08'46	
	3950 Feb 12 22:13	0° \approx		morning max el	3951 Jan 30 03:11	16° Σ 48'02	22°26'43
morning max el	3950 Feb 16 16:28	3° \approx 23'23	23°55'23		3951 Feb 09 23:15	0° \approx	
desc. node	3950 Feb 23 16:10	11° \approx 25'02		desc. node	3951 Feb 10 13:11	0° \approx 47'36	
	3950 Mar 09 00:33	0° Σ			3951 Mar 02 02:27	0° Σ	
morning set	3950 Mar 24 06:20	24° Σ 27'29		morning set	3951 Mar 04 20:18	4° Σ 26'02	
	3950 Mar 27 10:40	0° Υ		max. Earth dist.	3951 Mar 09 22:01	12° Σ 51'50	1.40583 AU
max. Earth dist.	3950 Mar 28 01:36	1° Υ 06'13	1.38408 AU	superior conj	3951 Mar 17 17:03	26° Σ 28'30	-1°57'42
superior conj	3950 Apr 04 07:58	14° Υ 27'35	-1°37'25	minimum elong	3951 Mar 17 21:08	26° Σ 46'54	1°57'26
minimum elong	3950 Apr 04 12:40	14° Υ 49'54	1°36'51		3951 Mar 19 15:44	0° Υ	
	3950 Apr 12 08:06	0° Σ		evening rise	3951 Mar 27 19:51	15° Υ 13'23	
evening rise	3950 Apr 13 08:02	1° Σ 57'24		asc. node	3951 Apr 02 11:00	25° Υ 39'15	
asc. node	3950 Apr 15 13:58	6° Σ 19'52			3951 Apr 04 22:46	0° Σ	
evening max el	3950 Apr 29 18:17	28° Σ 31'37	18°54'06	evening max el	3951 Apr 13 00:10	11° Σ 06'43	18°20'45
	3950 May 01 10:26	0° Π		retrograde	3951 Apr 20 06:58	14° Σ 43'54	
retrograde	3950 May 08 04:13	2° Π 38'24		evening set	3951 Apr 22 16:31	14° Σ 21'21	
evening set	3950 May 10 07:12	2° Π 23'42		inferior conj	3951 Apr 29 22:34	9° Σ 44'02	2°29'38
	3950 May 15 13:52	30° Π		minimum elong	3951 Apr 30 02:13	9° Σ 36'22	2°28'42
inferior conj	3950 May 18 08:28	28° Σ 06'14	1°13'04	min. Earth dist.	3951 May 03 09:09	6° Σ 52'38	0.58904 AU
minimum elong	3950 May 18 11:09	28° Σ 01'27	1°12'09	morning rise	3951 May 07 09:00	4° Σ 09'33	
min. Earth dist.	3950 May 21 12:21	25° Σ 51'38	0.56909 AU	desc. node	3951 May 09 12:23	3° Σ 11'08	
desc. node	3950 May 22 15:21	25° Σ 06'51		direct	3951 May 13 13:36	2° Σ 27'02	
morning rise	3950 May 26 11:52	23° Σ 02'20		morning max el	3951 May 27 23:02	10° Σ 13'29	27°11'31
direct	3950 May 31 19:26	21° Σ 54'38			3951 Jun 12 04:40	0° Π	
morning max el	3950 Jun 15 03:12	29° Σ 20'46	26°00'50	morning set	3951 Jun 27 13:54	28° Π 22'42	
	3950 Jun 15 19:11	0° Π			3951 Jun 28 08:24	0° Θ	
	3950 Jun 06 09:18	0° Θ		asc. node	3951 Jun 29 10:14	2° Θ 17'25	
asc. node	3950 Jul 12 13:12	12° Θ 16'56					
morning set	3950 Jul 13 04:54	13° Θ 39'33					

superior conj	3951 Jul 04 15:42	13° \mathfrak{G} 42'06	0°52'30	superior conj	3952 Jun 18 02:31	28° \mathbb{I} 30'10	0°29'04
minimum elong	3951 Jul 04 13:40	13° \mathfrak{G} 30'54	0°52'05	minimum elong	3952 Jun 18 01:14	28° \mathbb{I} 23'08	0°28'47
max. Earth dist.	3951 Jul 04 08:28	13° \mathfrak{G} 02'13	1.32023 AU		3952 Jun 18 18:54	0° \mathfrak{G}	
evening rise	3951 Jul 11 11:43	28° \mathfrak{G} 35'11		evening rise	3952 Jun 24 22:44	13° \mathfrak{G} 24'25	
	3951 Jul 12 03:49	0° Ω			3952 Jul 03 06:43	0° Ω	
	3951 Jul 28 19:38	0° \mathfrak{M}		evening max el	3952 Jul 21 05:39	25° Ω 19'50	25°01'22
desc. node	3951 Aug 05 11:39	10° \mathfrak{M} 05'25		desc. node	3952 Jul 22 08:40	26° Ω 22'21	
evening max el	3951 Aug 09 12:42	14° \mathfrak{M} 20'18	26°19'49		3952 Jul 27 05:46	0° \mathfrak{M}	
retrograde	3951 Aug 23 12:02	21° \mathfrak{M} 30'08		retrograde	3952 Aug 04 04:32	2° \mathfrak{M} 23'36	
evening set	3951 Aug 30 01:39	19° \mathfrak{M} 43'40		evening set	3952 Aug 09 15:42	1° \mathfrak{M} 15'29	
min. Earth dist.	3951 Sep 03 01:51	17° \mathfrak{M} 08'34	0.59388 AU		3952 Aug 12 06:14	30° \mathfrak{R} Ω	
inferior conj	3951 Sep 06 08:28	14° \mathfrak{M} 37'32	-4°52'36	min. Earth dist.	3952 Aug 14 17:17	28° Ω 30'42	0.57399 AU
minimum elong	3951 Sep 06 12:59	14° \mathfrak{M} 28'50	4°51'59	inferior conj	3952 Aug 17 16:26	26° Ω 31'56	-5°10'33
morning rise	3951 Sep 14 02:29	10° \mathfrak{M} 04'58		minimum elong	3952 Aug 17 16:30	26° Ω 31'49	5°10'34
direct	3951 Sep 16 12:03	9° \mathfrak{M} 44'53		morning rise	3952 Aug 25 19:44	22° Ω 21'28	
morning max el	3951 Sep 24 07:44	13° \mathfrak{M} 32'00	18°22'06	direct	3952 Aug 28 09:25	22° Ω 02'18	
asc. node	3951 Sep 25 09:27	14° \mathfrak{M} 37'38		morning max el	3952 Sep 06 09:00	26° Ω 15'52	19°08'48
	3951 Oct 05 12:25	0° \mathfrak{L}			3952 Sep 09 17:52	0° \mathfrak{M}	
morning set	3951 Oct 10 07:02	8° \mathfrak{L} 58'28		asc. node	3952 Sep 11 06:29	2° \mathfrak{M} 02'27	
				morning set	3952 Sep 23 06:05	23° \mathfrak{M} 16'20	
superior conj	3951 Oct 19 10:21	26° \mathfrak{L} 14'23	1°22'45		3952 Sep 26 15:14	0° \mathfrak{L}	
minimum elong	3951 Oct 19 14:01	26° \mathfrak{L} 31'15	1°22'21				
	3951 Oct 21 11:53	0° \mathfrak{M}		superior conj	3952 Oct 01 11:53	9° \mathfrak{L} 33'12	1°37'56
max. Earth dist.	3951 Oct 26 22:47	9° \mathfrak{M} 36'32	1.40595 AU	minimum elong	3952 Oct 01 14:02	9° \mathfrak{L} 43'35	1°37'47
evening rise	3951 Oct 31 11:24	17° \mathfrak{M} 13'33		max. Earth dist.	3952 Oct 08 03:12	21° \mathfrak{L} 59'25	1.38511 AU
desc. node	3951 Nov 01 10:57	18° \mathfrak{M} 50'17		evening rise	3952 Oct 11 22:27	28° \mathfrak{L} 44'07	
	3951 Nov 08 11:42	0° \mathfrak{X}			3952 Oct 12 15:59	0° \mathfrak{M}	
	3951 Nov 30 00:02	0° \mathfrak{Z}		desc. node	3952 Oct 18 07:58	9° \mathfrak{M} 28'30	
evening max el	3951 Dec 04 22:49	5° \mathfrak{Z} 28'12	23°27'30		3952 Oct 31 21:45	0° \mathfrak{X}	
retrograde	3951 Dec 15 12:27	11° \mathfrak{Z} 43'17		evening max el	3952 Nov 16 11:39	19° \mathfrak{X} 08'44	24°46'02
evening set	3951 Dec 20 12:32	9° \mathfrak{Z} 39'06		retrograde	3952 Nov 28 02:21	25° \mathfrak{X} 54'07	
asc. node	3951 Dec 22 08:43	7° \mathfrak{Z} 49'58		evening set	3952 Dec 03 16:05	23° \mathfrak{X} 34'37	
inferior conj	3951 Dec 25 22:13	3° \mathfrak{Z} 14'20	1°11'13	asc. node	3952 Dec 08 05:45	18° \mathfrak{X} 24'29	
minimum elong	3951 Dec 25 20:39	3° \mathfrak{Z} 19'43	1°10'36	min. Earth dist.	3952 Dec 08 06:10	18° \mathfrak{X} 23'08	0.67556 AU
min. Earth dist.	3951 Dec 25 10:44	3° \mathfrak{Z} 53'42	0.67937 AU	inferior conj	3952 Dec 09 04:21	17° \mathfrak{X} 09'37	0°19'16
	3951 Dec 28 09:10	30° \mathfrak{R} \mathfrak{X}		minimum elong	3952 Dec 09 03:53	17° \mathfrak{X} 11'11	0°19'05
morning rise	3951 Dec 31 04:42	27° \mathfrak{X} 07'34		morning rise	3952 Dec 14 15:48	11° \mathfrak{X} 09'07	
direct	3952 Jan 04 09:17	25° \mathfrak{X} 29'21		direct	3952 Dec 18 07:33	9° \mathfrak{X} 52'13	
	3952 Jan 12 10:31	0° \mathfrak{Z}		morning max el	3952 Dec 25 19:27	14° \mathfrak{X} 07'06	19°53'39
morning max el	3952 Jan 12 19:28	0° \mathfrak{Z} 22'09	21°04'18		3953 Jan 07 00:42	0° \mathfrak{Z}	
desc. node	3952 Jan 28 10:13	20° \mathfrak{Z} 39'20		desc. node	3953 Jan 14 07:13	10° \mathfrak{Z} 51'38	
	3952 Feb 03 17:30	0° \approx		morning set	3953 Jan 21 02:23	21° \mathfrak{Z} 15'59	
morning set	3952 Feb 12 06:25	13° \approx 07'39			3953 Jan 26 17:17	0° \approx	
max. Earth dist.	3952 Feb 20 00:30	25° \approx 31'36	1.42578 AU	max. Earth dist.	3953 Feb 01 10:48	9° \approx 02'44	1.44132 AU
	3952 Feb 22 17:44	0° \mathfrak{H}					
superior conj	3952 Feb 27 04:08	7° \mathfrak{H} 27'13	-2°07'23	superior conj	3953 Feb 06 13:27	17° \approx 15'53	-2°01'04
minimum elong	3952 Feb 27 04:54	7° \mathfrak{H} 30'27	2°07'23	minimum elong	3953 Feb 06 08:20	16° \approx 55'08	2°00'49
evening rise	3952 Mar 09 17:32	27° \mathfrak{H} 46'55			3953 Feb 14 06:30	0° \mathfrak{H}	
	3952 Mar 10 23:09	0° \mathfrak{Y}		evening rise	3953 Feb 19 20:37	9° \mathfrak{H} 28'28	
asc. node	3952 Mar 19 08:02	14° \mathfrak{Y} 32'33			3953 Mar 04 05:31	0° \mathfrak{Y}	
evening max el	3952 Mar 26 11:09	24° \mathfrak{Y} 07'10	18°07'14	asc. node	3953 Mar 06 05:04	2° \mathfrak{Y} 50'53	
retrograde	3952 Apr 02 02:21	27° \mathfrak{Y} 30'43		evening max el	3953 Mar 09 23:56	7° \mathfrak{Y} 23'29	18°12'53
evening set	3952 Apr 04 18:17	26° \mathfrak{Y} 57'59		retrograde	3953 Mar 16 10:04	10° \mathfrak{Y} 48'04	
inferior conj	3952 Apr 11 08:25	22° \mathfrak{Y} 00'09	3°14'54	evening set	3953 Mar 19 07:55	10° \mathfrak{Y} 03'51	
minimum elong	3952 Apr 11 10:57	21° \mathfrak{Y} 54'00	3°14'31	inferior conj	3953 Mar 25 10:05	4° \mathfrak{Y} 46'15	3°34'38
min. Earth dist.	3952 Apr 14 12:51	18° \mathfrak{Y} 56'43	0.61095 AU	minimum elong	3953 Mar 25 10:51	4° \mathfrak{Y} 44'07	3°34'36
morning rise	3952 Apr 18 01:40	16° \mathfrak{Y} 05'47		min. Earth dist.	3953 Mar 28 01:13	1° \mathfrak{Y} 54'36	0.63174 AU
direct	3952 Apr 24 19:29	13° \mathfrak{Y} 49'26			3953 Mar 29 23:26	30° \mathfrak{R} \mathfrak{H}	
desc. node	3952 Apr 25 09:25	13° \mathfrak{Y} 50'24		morning rise	3953 Mar 31 12:45	28° \mathfrak{H} 40'43	
morning max el	3952 May 09 01:05	21° \mathfrak{Y} 45'57	27°47'43	direct	3953 Apr 07 10:15	26° \mathfrak{H} 00'35	
	3952 May 16 05:53	0° \mathfrak{B}		desc. node	3953 Apr 12 06:27	27° \mathfrak{H} 09'04	
	3952 Jun 04 05:48	0° \mathbb{I}			3953 Apr 16 21:00	0° \mathfrak{Y}	
morning set	3952 Jun 10 18:51	12° \mathbb{I} 51'15		morning max el	3953 Apr 21 08:08	3° \mathfrak{Y} 58'38	27°46'25
asc. node	3952 Jun 15 07:17	22° \mathbb{I} 23'55			3953 May 10 19:34	0° \mathfrak{B}	
max. Earth dist.	3952 Jun 16 18:51	25° \mathbb{I} 37'01	1.32181 AU	morning set	3953 May 25 17:32	26° \mathfrak{B} 57'59	
					3953 May 27 05:30	0° \mathbb{I}	
				max. Earth dist.	3953 May 31 00:18	7° \mathbb{I} 53'30	1.32761 AU

superior conj	3953 Jun 02 10:35	13° Π 05'41	0°02'45	superior conj	3954 May 17 13:52	27° C 22'21	-0°25'38
minimum elong	3953 Jun 02 10:27	13° Π 04'59	0°02'43	minimum elong	3954 May 17 15:12	27° C 29'22	0°25'21
behind sun begin	3953 Jun 02 05:15	12° Π 36'55			3954 May 18 19:43	0° Π	
behind sun end	3953 Jun 02 15:40	13° Π 33'05		asc. node	3954 May 20 01:24	2° Π 37'34	
asc. node	3953 Jun 02 04:20	12° Π 31'59		evening rise	3954 May 24 21:26	12° Π 53'00	
evening rise	3953 Jun 09 10:36	28° Π 12'30			3954 Jun 02 15:55	0° C	
	3953 Jun 10 06:58	0° C		evening max el	3954 Jun 14 11:19	16° C 16'33	21°51'00
	3953 Jun 27 14:55	0° Ω		desc. node	3954 Jun 26 02:44	22° C 27'37	
evening max el	3953 Jul 02 18:45	5° Ω 48'29	23°26'31	retrograde	3954 Jun 27 01:07	22° C 29'38	
desc. node	3953 Jul 09 05:41	10° Ω 41'17		evening set	3954 Jun 29 16:45	22° C 13'51	
retrograde	3953 Jul 16 08:26	12° Ω 36'07		min. Earth dist.	3954 Jul 08 15:01	18° C 25'01	0.54925 AU
evening set	3953 Jul 20 07:55	12° Ω 01'30		inferior conj	3954 Jul 09 01:13	18° C 10'45	-3°34'32
min. Earth dist.	3953 Jul 27 04:32	8° Ω 51'27	0.55802 AU	minimum elong	3954 Jul 08 16:45	18° C 22'36	3°32'07
inferior conj	3953 Jul 29 04:24	7° Ω 40'37	-4°47'45	morning rise	3954 Jul 17 18:13	14° C 18'59	
minimum elong	3953 Jul 28 22:27	7° Ω 49'28	4°46'53	direct	3954 Jul 20 23:36	13° C 56'08	
morning rise	3953 Aug 06 15:25	3° Ω 46'42		morning max el	3954 Aug 02 01:39	19° C 35'56	21°45'37
direct	3953 Aug 09 11:49	3° Ω 26'47			3954 Aug 10 13:27	0° Ω	
morning max el	3953 Aug 19 23:12	8° Ω 18'33	20°17'18	asc. node	3954 Aug 16 00:37	9° Ω 09'45	
asc. node	3953 Aug 29 03:33	20° Ω 17'21		morning set	3954 Aug 22 20:49	22° Ω 40'55	
	3953 Sep 03 12:41	0° Π			3954 Aug 26 08:13	0° Π	
morning set	3953 Sep 07 11:29	7° Π 53'05					
				superior conj	3954 Aug 30 02:40	7° Π 57'11	1°42'38
superior conj	3953 Sep 15 02:42	23° Π 31'45	1°44'03	minimum elong	3954 Aug 30 01:46	7° Π 52'24	1°42'36
minimum elong	3953 Sep 15 03:10	23° Π 34'08	1°44'03	max. Earth dist.	3954 Sep 02 22:41	15° Π 51'19	1.34814 AU
	3953 Sep 18 08:40	0° Ω		evening rise	3954 Sep 07 08:22	24° Π 32'35	
max. Earth dist.	3953 Sep 20 09:39	3° Ω 57'27	1.36521 AU		3954 Sep 10 05:56	0° Ω	
evening rise	3953 Sep 24 06:54	11° Ω 14'28		desc. node	3954 Sep 22 02:02	20° Ω 06'31	
desc. node	3953 Oct 05 05:00	29° Ω 56'05			3954 Sep 28 18:50	0° Π	
	3953 Oct 05 05:59	0° Π		evening max el	3954 Oct 12 12:40	16° Π 29'08	26°50'21
	3953 Oct 27 05:26	0° C		retrograde	3954 Oct 25 15:12	23° Π 45'12	
evening max el	3953 Oct 30 00:10	2° C 51'39	25°56'05	evening set	3954 Nov 01 07:24	21° Π 04'36	
retrograde	3953 Nov 11 11:27	9° C 57'11		min. Earth dist.	3954 Nov 05 07:20	17° Π 04'20	0.65757 AU
evening set	3953 Nov 17 15:03	7° C 24'40		inferior conj	3954 Nov 07 04:26	14° Π 53'00	-1°37'30
min. Earth dist.	3953 Nov 21 21:49	2° C 48'28	0.66835 AU	minimum elong	3954 Nov 07 07:08	14° Π 45'05	1°36'23
inferior conj	3953 Nov 23 07:07	1° C 04'02	-0°37'25	asc. node	3954 Nov 11 23:49	10° Π 02'54	
minimum elong	3953 Nov 23 08:06	1° C 00'55	0°36'59	morning rise	3954 Nov 13 07:41	9° Π 13'08	
	3953 Nov 24 03:40	30° R Π		direct	3954 Nov 16 03:25	8° Π 29'14	
asc. node	3953 Nov 25 02:47	28° Π 50'37		morning max el	3954 Nov 22 16:27	12° Π 01'38	18°18'12
morning rise	3953 Nov 29 01:33	25° Π 12'26			3954 Dec 05 10:45	0° C	
direct	3953 Dec 02 06:16	24° Π 13'52		morning set	3954 Dec 11 20:35	10° C 21'49	
morning max el	3953 Dec 09 03:06	28° Π 02'07	18°57'49	desc. node	3954 Dec 19 01:18	21° C 56'49	
	3953 Dec 10 22:42	0° C			3954 Dec 24 02:57	0° C	
morning set	3953 Dec 31 09:41	0° C 06'31					
	3953 Dec 31 08:01	0° C		superior conj	3954 Dec 27 02:16	4° C 41'06	-0°53'08
desc. node	3954 Jan 01 04:16	1° C 19'07		minimum elong	3954 Dec 26 19:38	4° C 14'59	0°52'17
max. Earth dist.	3954 Jan 15 03:23	23° C 10'52	1.45054 AU	max. Earth dist.	3954 Dec 28 22:33	7° C 35'03	1.45241 AU
				evening rise	3955 Jan 12 07:20	0° \approx 04'02	
superior conj	3954 Jan 16 23:53	26° C 06'04	-1°35'12		3955 Jan 12 06:18	0° \approx	
minimum elong	3954 Jan 16 14:42	25° C 29'53	1°34'20	greatest brilliancy	3955 Jan 23 11:23	17° \approx 27'41	-0.8m
	3954 Jan 19 11:06	0° \approx			3955 Feb 01 03:59	0° H	
evening rise	3954 Feb 01 01:26	20° \approx 13'21		evening max el	3955 Feb 04 20:17	4° H 18'36	19°18'16
	3954 Feb 07 01:31	0° H		asc. node	3955 Feb 07 23:08	6° H 58'44	
asc. node	3954 Feb 21 02:07	20° H 23'53		retrograde	3955 Feb 11 22:15	8° H 21'40	
evening max el	3954 Feb 21 11:45	20° H 48'52	18°36'55	evening set	3955 Feb 15 09:00	7° H 12'09	
retrograde	3954 Feb 28 01:54	24° H 27'17		inferior conj	3955 Feb 20 21:23	1° H 20'28	3°20'51
evening set	3954 Mar 03 05:46	23° H 30'48		minimum elong	3955 Feb 20 19:31	1° H 26'31	3°20'33
inferior conj	3954 Mar 08 23:34	17° H 55'03	3°35'02		3955 Feb 21 22:15	30° R \approx	
minimum elong	3954 Mar 08 22:46	17° H 57'26	3°34'59	min. Earth dist.	3955 Feb 22 05:45	29° \approx 35'53	0.66315 AU
min. Earth dist.	3954 Mar 10 23:07	15° H 32'14	0.64944 AU	morning rise	3955 Feb 26 05:45	25° \approx 06'44	
morning rise	3954 Mar 14 15:15	11° H 43'46		direct	3955 Mar 04 12:55	22° \approx 19'26	
direct	3954 Mar 21 08:22	8° H 53'32		morning max el	3955 Mar 17 03:48	29° \approx 49'34	26°07'19
desc. node	3954 Mar 30 03:29	12° H 37'19		desc. node	3955 Mar 17 00:32	29° \approx 41'20	
morning max el	3954 Apr 03 17:55	16° H 43'56	27°10'34		3955 Mar 17 07:55	0° H	
	3954 Apr 14 18:11	0° Y			3955 Apr 08 15:46	0° Y	
	3954 May 03 15:27	0° C		morning set	3955 Apr 22 07:40	23° Y 29'04	
morning set	3954 May 09 07:05	10° C 34'16			3955 Apr 25 18:14	0° C	
max. Earth dist.	3954 May 13 21:04	19° C 41'40	1.33790 AU	max. Earth dist.	3955 Apr 26 06:24	0° C 58'52	1.35275 AU

superior conj	3955 May 01 09:55	11°♄13'12	-0°54'45			3956 Mar 31 10:59	0°♄	
minimum elong	3955 May 01 12:50	11°♄28'06	0°54'12	morning set		3956 Apr 03 14:03	5°♄26'51	
asc. node	3955 May 06 22:27	22°♄36'36		max. Earth dist.		3956 Apr 07 05:07	11°♄59'01	1.37177 AU
evening rise	3955 May 09 05:12	27°♄19'31						
	3955 May 10 12:36	0°♄		superior conj		3956 Apr 13 19:34	24°♄29'04	-1°22'48
evening max el	3955 May 27 14:18	27°♄14'11	20°27'36	minimum elong		3956 Apr 13 23:51	24°♄49'58	1°22'10
	3955 May 30 22:05	0°♄				3956 Apr 16 14:47	0°♄	
retrograde	3955 Jun 07 14:25	2°♄36'35		evening rise		3956 Apr 22 07:29	11°♄24'06	
evening set	3955 Jun 09 14:30	2°♄26'37		asc. node		3956 Apr 22 19:28	12°♄23'57	
desc. node	3955 Jun 12 23:45	1°♄28'41				3956 May 02 09:05	0°♄	
	3955 Jun 16 02:46	30°♄♄		evening max el		3956 May 09 05:31	8°♄52'30	19°22'31
inferior conj	3955 Jun 18 19:21	28°♄28'49	-1°42'56	retrograde		3956 May 18 12:10	13°♄23'12	
minimum elong	3955 Jun 18 14:30	28°♄35'52	1°41'10	evening set		3956 May 20 12:05	13°♄11'35	
min. Earth dist.	3955 Jun 20 03:11	27°♄42'34	0.54984 AU	inferior conj		3956 May 29 00:52	9°♄04'32	0°14'35
morning rise	3955 Jun 27 13:32	24°♄18'21		minimum elong		3956 May 29 01:29	9°♄03'31	0°14'20
direct	3955 Jul 01 09:31	23°♄46'37		transit middle		3956 May 29 01:29	9°♄03'31	0°14'20
	3955 Jul 14 12:06	0°♄		transit begin		3956 May 28 23:46	9°♄06'20	
morning max el	3955 Jul 14 19:10	0°♄16'26	23°26'43	transit end		3956 May 29 03:12	9°♄00'43	
asc. node	3955 Aug 02 21:41	28°♄30'25		desc. node		3956 May 29 20:47	8°♄31'52	
	3955 Aug 03 15:47	0°♄		min. Earth dist.		3956 May 31 17:36	7°♄19'11	0.55985 AU
morning set	3955 Aug 07 08:10	7°♄34'19		morning rise		3956 Jun 06 11:58	4°♄20'58	
				direct		3956 Jun 11 06:00	3°♄29'29	
superior conj	3955 Aug 14 08:47	22°♄40'17	1°34'56	morning max el		3956 Jun 25 09:05	10°♄39'32	25°08'17
minimum elong	3955 Aug 14 06:56	22°♄30'19	1°34'47			3956 Jul 10 01:01	0°♄	
max. Earth dist.	3955 Aug 16 20:26	27°♄58'33	1.33501 AU	asc. node		3956 Jul 19 18:43	18°♄11'12	
	3955 Aug 17 19:31	0°♄		morning set		3956 Jul 21 19:52	22°♄27'48	
evening rise	3955 Aug 21 22:36	8°♄27'18				3956 Jul 25 07:51	0°♄	
	3955 Sep 02 17:03	0°♄						
desc. node	3955 Sep 08 23:03	9°♄52'03		superior conj		3956 Jul 28 18:36	7°♄32'55	1°21'57
evening max el	3955 Sep 25 00:34	29°♄51'22	27°21'37	minimum elong		3956 Jul 28 16:18	7°♄20'20	1°21'38
	3955 Sep 25 04:13	0°♄		max. Earth dist.		3956 Jul 30 02:04	10°♄24'39	1.32606 AU
retrograde	3955 Oct 08 13:15	7°♄09'47		evening rise		3956 Aug 04 22:02	22°♄48'11	
evening set	3955 Oct 15 14:34	4°♄29'20				3956 Aug 08 12:11	0°♄	
min. Earth dist.	3955 Oct 19 08:36	1°♄03'35	0.64325 AU	desc. node		3956 Aug 25 20:04	29°♄02'27	
	3955 Oct 20 08:47	30°♄♄				3956 Aug 26 12:41	0°♄	
inferior conj	3955 Oct 21 17:55	28°♄31'27	-2°38'58	evening max el		3956 Sep 06 10:05	12°♄46'23	27°23'42
minimum elong	3955 Oct 21 22:23	28°♄19'35	2°37'19	retrograde		3956 Sep 20 04:43	20°♄01'47	
morning rise	3955 Oct 28 07:27	23°♄06'17		evening set		3956 Sep 27 09:14	17°♄32'42	
asc. node	3955 Oct 29 20:52	22°♄38'15		min. Earth dist.		3956 Sep 30 24:00	14°♄36'07	0.62572 AU
direct	3955 Oct 30 20:36	22°♄33'13		inferior conj		3956 Oct 03 20:48	11°♄52'51	-3°38'24
morning max el	3955 Nov 06 08:45	25°♄59'02	17°55'33	minimum elong		3956 Oct 04 02:33	11°♄39'11	3°36'40
	3955 Nov 09 18:40	0°♄		morning rise		3956 Oct 10 21:28	6°♄45'35	
morning set	3955 Nov 23 12:02	22°♄00'54		direct		3956 Oct 13 06:49	6°♄19'45	
	3955 Nov 28 05:37	0°♄		asc. node		3956 Oct 15 17:54	6°♄48'00	
desc. node	3955 Dec 05 22:19	12°♄40'57		morning max el		3956 Oct 20 00:59	9°♄47'07	17°50'43
						3956 Nov 02 09:56	0°♄	
superior conj	3955 Dec 06 17:28	13°♄58'24	-0°05'31	morning set		3956 Nov 05 02:13	4°♄45'40	
minimum elong	3955 Dec 06 16:49	13°♄55'47	0°05'25					
behind sun begin	3955 Dec 06 07:08	13°♄16'36		superior conj		3956 Nov 16 09:52	24°♄30'24	0°37'03
behind sun end	3955 Dec 07 02:30	14°♄34'53		minimum elong		3956 Nov 16 13:12	24°♄44'27	0°36'35
max. Earth dist.	3955 Dec 11 17:06	21°♄56'42	1.44692 AU			3956 Nov 19 16:41	0°♄	
	3955 Dec 16 20:08	0°♄		desc. node		3956 Nov 21 19:20	3°♄28'17	
evening rise	3955 Dec 22 20:24	9°♄18'27		max. Earth dist.		3956 Nov 23 08:47	6°♄00'31	1.43479 AU
	3956 Jan 05 12:37	0°♄		evening rise		3956 Dec 01 06:52	18°♄33'24	
greatest brilliancy	3956 Jan 06 07:34	1°♄09'44	-0.6m			3956 Dec 08 18:45	0°♄	
evening max el	3956 Jan 18 23:59	17°♄50'09	20°14'59			3956 Dec 30 14:42	0°♄	
asc. node	3956 Jan 25 20:09	22°♄20'38		evening max el		3956 Dec 31 22:17	1°♄23'43	21°24'07
retrograde	3956 Jan 26 20:17	22°♄26'08		retrograde		3957 Jan 09 17:55	6°♄37'41	
evening set	3956 Jan 30 15:20	21°♄02'32		asc. node		3957 Jan 11 17:10	6°♄16'37	
inferior conj	3956 Feb 05 00:43	14°♄57'32	2°55'19	evening set		3957 Jan 13 23:00	4°♄58'50	
minimum elong	3956 Feb 04 22:18	15°♄05'41	2°54'45			3957 Jan 18 09:02	30°♄♄	
min. Earth dist.	3956 Feb 05 19:16	13°♄54'41	0.67277 AU	inferior conj		3957 Jan 19 07:17	28°♄43'27	2°20'43
morning rise	3956 Feb 10 05:03	8°♄43'33		minimum elong		3957 Jan 19 04:50	28°♄51'55	2°19'57
direct	3956 Feb 15 23:05	6°♄09'27		min. Earth dist.		3957 Jan 19 13:25	28°♄22'15	0.67836 AU
morning max el	3956 Feb 27 12:26	13°♄04'06	24°46'03	morning rise		3957 Jan 24 10:30	22°♄31'02	
desc. node	3956 Mar 02 21:33	17°♄53'30		direct		3957 Jan 29 13:56	20°♄16'51	
	3956 Mar 12 04:58	0°♄		morning max el		3957 Feb 08 21:18	26°♄24'22	23°17'17

	3957 Feb 12 04:44	0°♊		desc. node	3958 Feb 04 15:36	26°♊30'54	
desc. node	3957 Feb 17 18:34	6°♊54'48			3958 Feb 07 02:16	0°♊	
	3957 Mar 05 19:03	0°♋		morning set	3958 Feb 23 21:41	25°♊35'10	
morning set	3957 Mar 15 20:13	16°♋12'05			3958 Feb 26 15:17	0°♋	
max. Earth dist.	3957 Mar 19 23:58	23°♋18'21	1.39340 AU	max. Earth dist.	3958 Mar 01 22:54	5°♋27'51	1.41479 AU
	3957 Mar 23 18:49	0°♌					
				superior conj	3958 Mar 09 15:20	18°♋36'49	-2°03'26
superior conj	3957 Mar 27 14:59	7°♌00'54	-1°47'00	minimum elong	3958 Mar 09 18:23	18°♋50'15	2°03'18
minimum elong	3957 Mar 27 19:41	7°♌22'42	1°46'33		3958 Mar 15 23:38	0°♌	
evening rise	3957 Apr 06 01:31	25°♌00'06		evening rise	3958 Mar 20 07:49	7°♌59'09	
	3957 Apr 08 16:07	0°♍		asc. node	3958 Mar 27 13:31	21°♌04'15	
asc. node	3957 Apr 09 16:29	1°♍55'04			3958 Apr 02 06:52	0°♍	
evening max el	3957 Apr 22 07:01	21°♍09'11	18°37'29	evening max el	3958 Apr 05 15:28	3°♍56'05	18°12'35
retrograde	3957 Apr 30 03:42	25°♍00'52		retrograde	3958 Apr 12 14:08	7°♍25'35	
evening set	3957 May 02 09:36	24°♍43'04		evening set	3958 Apr 15 02:34	6°♍58'47	
inferior conj	3957 May 10 02:25	20°♍17'31	1°49'34	inferior conj	3958 Apr 22 01:18	2°♍12'20	2°52'24
minimum elong	3957 May 10 05:53	20°♍10'54	1°48'30	minimum elong	3958 Apr 22 04:39	2°♍04'51	2°51'41
min. Earth dist.	3957 May 13 11:11	17°♍44'35	0.57718 AU		3958 Apr 24 12:31	30°♌♌	
desc. node	3957 May 16 17:47	15°♍37'10		min. Earth dist.	3958 Apr 25 10:21	29°♌13'00	0.59834 AU
morning rise	3957 May 17 22:58	14°♍59'47		morning rise	3958 Apr 29 04:16	26°♌28'19	
direct	3957 May 23 16:29	13°♍37'37		desc. node	3958 May 03 14:48	24°♌42'30	
morning max el	3957 Jun 07 01:20	21°♍13'19	26°34'35	direct	3958 May 05 15:34	24°♌31'00	
	3957 Jun 14 16:29	0°♎			3958 May 17 10:10	0°♎	
	3957 Jul 02 17:26	0°♏		morning max el	3958 May 19 23:47	2°♎21'56	27°31'38
morning set	3957 Jul 06 06:19	7°♏16'09			3958 Jun 09 01:43	0°♎	
asc. node	3957 Jul 06 15:45	8°♏05'58		morning set	3958 Jun 20 13:53	21°♎54'15	
				asc. node	3958 Jun 23 12:48	28°♎09'48	
superior conj	3957 Jul 13 06:11	22°♏28'25	1°04'24		3958 Jun 24 09:12	0°♏	
minimum elong	3957 Jul 13 03:55	22°♏15'55	1°04'00	max. Earth dist.	3958 Jun 27 00:22	5°♏45'12	1.32040 AU
max. Earth dist.	3957 Jul 13 12:36	23°♏03'48	1.32122 AU				
	3957 Jul 16 16:26	0°♐		superior conj	3958 Jun 27 17:47	7°♏21'08	0°42'57
evening rise	3957 Jul 20 03:46	7°♐26'06		minimum elong	3958 Jun 27 16:01	7°♏11'24	0°42'36
	3957 Jul 31 23:40	0°♑		evening rise	3958 Jul 04 13:28	22°♏13'38	
desc. node	3957 Aug 12 17:05	17°♑22'55			3958 Jul 08 07:38	0°♐	
evening max el	3957 Aug 19 14:29	25°♑00'55	26°52'38		3958 Jul 26 15:03	0°♑	
	3957 Aug 26 02:38	0°♒		desc. node	3958 Jul 30 14:06	4°♑33'11	
retrograde	3957 Sep 02 12:21	2°♒11'53		evening max el	3958 Aug 01 11:32	6°♑27'06	25°49'24
evening set	3957 Sep 09 11:00	0°♒06'42		retrograde	3958 Aug 15 10:49	13°♑34'28	
	3957 Sep 09 15:30	30°♒♑		evening set	3958 Aug 21 15:06	12°♑03'49	
min. Earth dist.	3957 Sep 13 04:39	27°♑28'27	0.60583 AU	min. Earth dist.	3958 Aug 25 23:44	9°♑27'11	0.58519 AU
inferior conj	3957 Sep 16 09:40	24°♑48'07	-4°30'01	inferior conj	3958 Aug 29 05:02	7°♑07'38	-5°04'11
minimum elong	3957 Sep 16 15:20	24°♑36'17	4°28'51	minimum elong	3958 Aug 29 08:02	7°♑02'10	5°03'56
morning rise	3957 Sep 23 21:34	20°♑02'01		morning rise	3958 Sep 06 03:13	2°♑44'49	
direct	3957 Sep 26 06:15	19°♑40'24		direct	3958 Sep 08 14:23	2°♑25'12	
asc. node	3957 Oct 02 14:57	22°♑24'58		morning max el	3958 Sep 16 20:30	6°♑21'43	18°39'21
morning max el	3957 Oct 03 13:58	23°♑17'28	18°04'50	asc. node	3958 Sep 19 12:01	9°♑15'15	
	3957 Oct 08 22:04	0°♓			3958 Oct 01 21:47	0°♓	
morning set	3957 Oct 19 08:49	18°♓17'01		morning set	3958 Oct 03 03:00	2°♓21'31	
	3957 Oct 25 16:32	0°♔					
				superior conj	3958 Oct 11 20:10	19°♓09'02	1°30'22
superior conj	3957 Oct 29 04:18	6°♔18'03	1°09'17	minimum elong	3958 Oct 11 23:16	19°♓23'32	1°30'07
minimum elong	3957 Oct 29 08:26	6°♔36'31	1°08'47		3958 Oct 17 18:33	0°♔	
max. Earth dist.	3957 Nov 05 19:50	19°♔31'07	1.41749 AU	max. Earth dist.	3958 Oct 19 02:06	2°♔19'17	1.39717 AU
desc. node	3957 Nov 08 16:21	24°♔14'54		evening rise	3958 Oct 23 03:57	9°♔20'00	
evening rise	3957 Nov 11 06:21	28°♔26'17		desc. node	3958 Oct 26 13:23	14°♔57'40	
	3957 Nov 12 05:46	0°♕			3958 Nov 05 04:35	0°♕	
	3957 Dec 02 10:27	0°♖		evening max el	3958 Nov 27 05:20	28°♕37'10	24°01'20
evening max el	3957 Dec 14 15:34	14°♖58'54	22°41'26		3958 Nov 28 15:55	0°♖	
retrograde	3957 Dec 24 13:28	20°♖52'06		retrograde	3958 Dec 08 05:47	5°♖05'59	
evening set	3957 Dec 29 06:18	18°♖57'04		evening set	3958 Dec 13 11:43	2°♖54'50	
asc. node	3957 Dec 29 14:11	18°♖40'10		asc. node	3958 Dec 16 11:14	29°♕44'39	
inferior conj	3958 Jan 03 15:05	12°♖34'45	1°38'30		3958 Dec 16 06:16	30°♕♕	
minimum elong	3958 Jan 03 13:04	12°♖41'44	1°37'45	inferior conj	3958 Dec 18 22:22	26°♕29'24	0°49'50
min. Earth dist.	3958 Jan 03 09:49	12°♖52'58	0.68011 AU	minimum elong	3958 Dec 18 21:12	26°♕33'19	0°49'21
morning rise	3958 Jan 08 19:43	6°♗25'35		min. Earth dist.	3958 Dec 18 06:14	27°♕23'59	0.67826 AU
direct	3958 Jan 13 08:27	4°♗34'14		morning rise	3958 Dec 24 06:43	20°♕25'19	
morning max el	3958 Jan 22 09:54	9°♗52'18	21°50'27	direct	3958 Dec 28 05:38	18°♕56'37	

morning max el	3959 Jan 05 05:29	23°  31'38	20°32'32	direct	3959 Dec 12 04:13	3°  19'40	
	3959 Jan 10 19:04	0° 		morning max el	3959 Dec 19 09:00	7°  22'10	19°27'56
desc. node	3959 Jan 22 12:37	16°  32'11		greatest brilliancy	3960 Jan 01 14:02	24°  57'40	-0.7m
	3959 Jan 31 10:20	0° 			3960 Jan 04 22:05	0° 	
morning set	3959 Feb 02 23:07	3°  54'44		desc. node	3960 Jan 09 09:40	6°  51'51	
max. Earth dist.	3959 Feb 12 05:12	18°  32'29	1.43309 AU	morning set	3960 Jan 12 20:55	12°  13'01	
					3960 Jan 24 06:32	0° 	
superior conj	3959 Feb 18 15:37	29°  05'33	-2°06'58	max. Earth dist.	3960 Jan 25 18:08	2°  20'31	1.44604 AU
minimum elong	3959 Feb 18 14:03	28°  59'02	2°06'55				
	3959 Feb 19 04:39	0° 		superior conj	3960 Jan 29 14:15	8°  26'43	-1°52'29
evening rise	3959 Mar 02 22:09	20°  11'51		minimum elong	3960 Jan 29 06:48	7°  56'57	1°51'58
	3959 Mar 08 12:27	0° 			3960 Feb 11 18:34	0° 	
asc. node	3959 Mar 14 10:33	9°  43'53		evening rise	3960 Feb 12 16:10	1°  30'13	
evening max el	3959 Mar 20 03:31	17°  03'56	18°07'17	asc. node	3960 Feb 29 07:36	27°  44'54	
retrograde	3959 Mar 26 15:31	20°  26'38			3960 Mar 02 06:25	0° 	
evening set	3959 Mar 29 09:54	19°  49'13		evening max el	3960 Mar 02 16:12	0°  25'11	18°20'56
inferior conj	3959 Apr 04 18:26	14°  42'36	3°26'03	retrograde	3960 Mar 09 03:12	3°  54'28	
minimum elong	3959 Apr 04 20:14	14°  37'59	3°25'50	evening set	3960 Mar 12 03:26	3°  05'20	
min. Earth dist.	3959 Apr 07 17:39	11°  41'36	0.62001 AU		3960 Mar 15 22:44	30°  11'31	
morning rise	3959 Apr 11 05:01	8°  42'18		inferior conj	3960 Mar 18 01:39	27°  39'57	3°36'51
direct	3959 Apr 18 01:17	6°  14'31		minimum elong	3960 Mar 18 01:42	27°  39'47	3°36'50
desc. node	3959 Apr 20 11:51	6°  31'50		min. Earth dist.	3960 Mar 20 10:20	24°  58'36	0.63967 AU
morning max el	3959 May 02 04:30	14°  13'09	27°51'51	morning rise	3960 Mar 23 23:09	21°  31'14	
	3959 May 14 21:53	0° 		direct	3960 Mar 30 19:36	18°  44'47	
	3959 Jun 01 13:20	0° 		desc. node	3960 Apr 06 08:52	20°  45'11	
morning set	3959 Jun 04 16:29	6°  14'43		morning max el	3960 Apr 13 13:09	26°  41'57	27°35'01
asc. node	3959 Jun 10 09:50	18°  17'30			3960 Apr 16 15:16	0° 	
max. Earth dist.	3959 Jun 10 09:16	18°  14'25	1.32371 AU		3960 May 07 12:34	0° 	
				morning set	3960 May 18 11:40	20°  10'08	
superior conj	3959 Jun 12 03:39	22°  11'04'30	0°18'12		3960 May 23 07:36	0° 	
minimum elong	3959 Jun 12 02:48	21°  59'55	0°18'01	max. Earth dist.	3960 May 23 11:16	0°  19'11	1.33138 AU
	3959 Jun 15 18:40	0° 					
evening rise	3959 Jun 19 01:03	7°  03'02		superior conj	3960 May 26 09:56	6°  13'01	-0°09'08
	3959 Jul 01 01:01	0° 		minimum elong	3960 May 26 10:24	6°  35'29	0°09'02
evening max el	3959 Jul 14 01:52	17°  09'26	24°22'03	behind sun begin	3960 May 26 05:55	6°  11'35	
desc. node	3959 Jul 17 11:08	20°  04'15		behind sun end	3960 May 26 14:52	6°  15'23	
retrograde	3959 Jul 27 22:23	24°  08'59		asc. node	3960 May 27 06:54	8°  25'16	
evening set	3959 Aug 01 19:00	23°  01'14		evening rise	3960 Jun 02 12:42	21°  14'8'35	
min. Earth dist.	3959 Aug 07 12:43	20°  02'24	0.56649 AU		3960 Jun 06 12:07	0° 	
inferior conj	3959 Aug 10 04:15	18°  04'29	-5°06'45	evening max el	3960 Jun 24 15:23	27°  33'36	22°45'06
minimum elong	3959 Aug 10 01:44	18°  04'09	5°06'37		3960 Jun 27 10:06	0° 	
morning rise	3959 Aug 18 11:05	14°  04'19		desc. node	3960 Jul 03 08:09	3°  02'15'54	
direct	3959 Aug 21 03:17	14°  02'10'7		retrograde	3960 Jul 07 21:22	4°  09'22	
morning max el	3959 Aug 30 17:23	18°  04'9'14	19°35'25	evening set	3960 Jul 11 05:31	3°  04'45'54	
asc. node	3959 Sep 06 09:04	27°  02'51		min. Earth dist.	3960 Jul 18 23:39	0°  19'49	0.55322 AU
	3959 Sep 08 05:45	0° 			3960 Jul 19 13:31	30°  11'31	
morning set	3959 Sep 17 05:04	16°  04'48'10		inferior conj	3960 Jul 20 08:42	29°  32'27	-4°22'49
	3959 Sep 23 18:18	0° 		minimum elong	3960 Jul 20 00:56	29°  33'36	4°21'10
				morning rise	3960 Jul 28 22:32	25°  41'24	
superior conj	3959 Sep 25 03:57	2°  04'46'40	1°41'31	direct	3960 Jul 31 22:04	25°  40'46	
minimum elong	3959 Sep 25 05:22	2°  05'34'1	1°41'28		3960 Aug 11 12:02	0° 	
max. Earth dist.	3959 Oct 01 06:24	14°  02'7'49	1.37635 AU	morning max el	3960 Aug 12 02:32	0°  32'43	20°52'44
evening rise	3959 Oct 05 00:32	21°  01'16'59		asc. node	3960 Aug 23 06:07	15°  03'45'51	
	3959 Oct 10 01:42	0° 			3960 Aug 30 18:51	0° 	
desc. node	3959 Oct 13 10:27	5°  16'32'07		morning set	3960 Aug 31 12:20	1°  09'29'49	
	3959 Oct 30 03:27	0° 					
evening max el	3959 Nov 09 17:40	12°  07'18'44	25°17'14	superior conj	3960 Sep 07 23:02	16°  09'57'38	1°44'17
retrograde	3959 Nov 21 17:55	19°  07'14'47		minimum elong	3960 Sep 07 22:52	16°  09'56'47	1°44'17
evening set	3959 Nov 27 13:36	16°  07'49'05		max. Earth dist.	3960 Sep 12 14:41	26°  09'19'08	1.35749 AU
min. Earth dist.	3959 Dec 02 00:23	11°  07'52'30	0.67290 AU		3960 Sep 14 12:10	0° 	
inferior conj	3959 Dec 03 03:19	10°  07'25'06	-0°04'15	evening rise	3960 Sep 16 16:44	4°  09'03	
minimum elong	3959 Dec 03 03:25	10°  07'24'45	0°04'12	desc. node	3960 Sep 29 07:29	25°  09'53'08	
transit middle	3959 Dec 03 03:25	10°  07'24'45	0°04'12		3960 Oct 01 23:01	0° 	
transit begin	3959 Dec 03 00:44	10°  07'33'30		evening max el	3960 Oct 22 06:10	26°  09'00'28	26°21'39
transit end	3959 Dec 03 06:07	10°  07'16'01			3960 Oct 26 22:56	0° 	
asc. node	3959 Dec 03 08:17	10°  07'09'00		retrograde	3960 Nov 04 01:00	3°  07'12'13	
morning rise	3959 Dec 08 17:31	4°  07'28'08		evening set	3960 Nov 10 10:03	0° 	

	3960 Nov 11 02:25	30° \mathbb{R} \mathbb{M}		min. Earth dist.	3961 Oct 28 20:13	10° \mathbb{M} 24'46	0.65188 AU
min. Earth dist.	3960 Nov 14 13:51	26° \mathbb{M} 14'30	0.66411 AU	inferior conj	3961 Oct 30 22:22	8° \mathbb{M} 04'01	-2°03'34
inferior conj	3960 Nov 16 04:02	24° \mathbb{M} 18'02	-1°02'36	minimum elong	3961 Oct 31 01:50	7° \mathbb{M} 54'15	2°02'11
minimum elong	3960 Nov 16 05:44	24° \mathbb{M} 12'51	1°01'52	morning rise	3961 Nov 06 05:47	2° \mathbb{M} 29'42	
asc. node	3960 Nov 19 05:20	20° \mathbb{M} 48'42		asc. node	3961 Nov 06 02:21	2° \mathbb{M} 33'54	
morning rise	3960 Nov 22 02:00	18° \mathbb{M} 30'52		direct	3961 Nov 08 22:29	1° \mathbb{M} 50'44	
direct	3960 Nov 25 02:33	17° \mathbb{M} 39'04		morning max el	3961 Nov 15 10:13	5° \mathbb{M} 19'18	18°06'27
morning max el	3960 Dec 01 19:19	21° \mathbb{M} 19'44	18°38'53		3961 Dec 02 02:01	0° \mathbb{M}	
	3960 Dec 08 16:18	0° \mathbb{M}		morning set	3961 Dec 03 14:39	2° \mathbb{M} 31'11	
morning set	3960 Dec 22 15:00	21° \mathbb{M} 37'27		desc. node	3961 Dec 13 03:46	18° \mathbb{M} 05'40	
desc. node	3960 Dec 26 06:42	27° \mathbb{M} 24'20					
	3960 Dec 27 22:09	0° \mathbb{M}		superior conj	3961 Dec 18 00:25	25° \mathbb{M} 51'25	-0°32'54
				minimum elong	3961 Dec 17 20:17	25° \mathbb{M} 35'03	0°32'19
superior conj	3961 Jan 07 18:52	17° \mathbb{M} 04'19	-1°18'50		3961 Dec 20 15:18	0° \mathbb{M}	
minimum elong	3961 Jan 07 09:57	16° \mathbb{M} 29'18	1°17'51	max. Earth dist.	3961 Dec 21 07:27	1° \mathbb{M} 03'36	1.45102 AU
max. Earth dist.	3961 Jan 07 11:47	16° \mathbb{M} 36'30	1.45224 AU	evening rise	3962 Jan 03 08:32	21° \mathbb{M} 23'39	
	3961 Jan 16 00:02	0° \mathbb{M}			3962 Jan 08 22:13	0° \mathbb{M}	
evening rise	3961 Jan 23 10:58	11° \mathbb{M} 50'54		greatest brilliancy	3962 Jan 16 10:22	11° \mathbb{M} 26'21	-0.7m
greatest brilliancy	3961 Jan 31 13:41	24° \mathbb{M} 48'20	-0.8m	evening max el	3962 Jan 28 09:39	27° \mathbb{M} 24'54	19°40'36
	3961 Feb 03 21:09	0° \mathbb{M}			3962 Jan 31 08:15	0° \mathbb{M}	
evening max el	3961 Feb 14 02:55	13° \mathbb{M} 53'26	18°52'31	asc. node	3962 Feb 02 01:39	1° \mathbb{M} 01'24	
asc. node	3961 Feb 15 04:38	14° \mathbb{M} 55'15		retrograde	3962 Feb 04 18:28	1° \mathbb{M} 40'34	
retrograde	3961 Feb 20 21:11	17° \mathbb{M} 40'53		evening set	3962 Feb 08 08:40	0° \mathbb{M} 25'02	
evening set	3961 Feb 24 03:51	16° \mathbb{M} 39'02			3962 Feb 08 21:59	30° \mathbb{R} \mathbb{M}	
inferior conj	3961 Mar 01 19:03	10° \mathbb{M} 56'31	3°30'31	inferior conj	3962 Feb 13 19:31	24° \mathbb{M} 27'24	3°11'11
minimum elong	3961 Mar 01 17:44	11° \mathbb{M} 00'37	3°30'24	minimum elong	3962 Feb 13 17:21	24° \mathbb{M} 34'33	3°10'47
min. Earth dist.	3961 Mar 03 12:07	8° \mathbb{M} 48'59	0.65584 AU	min. Earth dist.	3962 Feb 14 21:47	23° \mathbb{M} 00'36	0.66786 AU
morning rise	3961 Mar 07 07:12	4° \mathbb{M} 43'59		morning rise	3962 Feb 19 01:49	18° \mathbb{M} 13'36	
direct	3961 Mar 13 20:47	1° \mathbb{M} 53'13		direct	3962 Feb 25 03:47	15° \mathbb{M} 30'56	
desc. node	3961 Mar 24 05:53	7° \mathbb{M} 02'51		morning max el	3962 Mar 09 08:14	22° \mathbb{M} 46'46	25°34'14
morning max el	3961 Mar 26 22:59	9° \mathbb{M} 36'41	26°46'21	desc. node	3962 Mar 11 02:56	24° \mathbb{M} 38'46	
	3961 Apr 11 23:49	0° \mathbb{M}			3962 Mar 15 17:09	0° \mathbb{M}	
	3961 Apr 29 23:35	0° \mathbb{M}			3962 Apr 05 07:26	0° \mathbb{M}	
morning set	3961 May 01 20:11	3° \mathbb{M} 30'08		morning set	3962 Apr 14 13:41	16° \mathbb{M} 02'16	
max. Earth dist.	3961 May 06 03:00	11° \mathbb{M} 52'05	1.34366 AU	max. Earth dist.	3962 Apr 18 07:28	22° \mathbb{M} 59'20	1.36048 AU
					3962 Apr 21 22:39	0° \mathbb{M}	
superior conj	3961 May 10 10:27	20° \mathbb{M} 39'46	-0°37'59	superior conj	3962 Apr 24 02:30	4° \mathbb{M} 16'59	-1°06'55
minimum elong	3961 May 10 12:28	20° \mathbb{M} 50'11	0°37'34	minimum elong	3962 Apr 24 06:04	4° \mathbb{M} 34'49	1°06'19
asc. node	3961 May 14 03:57	28° \mathbb{M} 28'40		asc. node	3962 May 01 00:58	18° \mathbb{M} 23'21	
	3961 May 14 21:17	0° \mathbb{M}		evening rise	3962 May 02 04:11	20° \mathbb{M} 41'58	
evening rise	3961 May 17 22:26	6° \mathbb{M} 23'45			3962 May 06 20:47	0° \mathbb{M}	
	3961 May 30 19:36	0° \mathbb{M}		evening max el	3962 May 19 20:10	19° \mathbb{M} 26'31	19°57'25
evening max el	3961 Jun 06 11:57	8° \mathbb{M} 12'13	21°13'35	retrograde	3962 May 30 01:59	24° \mathbb{M} 25'54	
retrograde	3961 Jun 18 10:46	14° \mathbb{M} 04'14		evening set	3962 Jun 01 00:54	24° \mathbb{M} 15'47	
desc. node	3961 Jun 20 05:08	13° \mathbb{M} 56'58		desc. node	3962 Jun 07 02:09	21° \mathbb{M} 57'12	
evening set	3961 Jun 20 17:34	13° \mathbb{M} 52'10		inferior conj	3962 Jun 09 23:53	20° \mathbb{M} 15'24	-0°51'40
inferior conj	3961 Jun 30 02:33	9° \mathbb{M} 53'46	-2°50'12	minimum elong	3962 Jun 09 21:29	20° \mathbb{M} 19'02	0°50'47
minimum elong	3961 Jun 29 19:00	10° \mathbb{M} 04'22	2°47'44	min. Earth dist.	3962 Jun 11 23:24	19° \mathbb{M} 03'35	0.55304 AU
min. Earth dist.	3961 Jun 30 10:46	9° \mathbb{M} 42'14	0.54831 AU	morning rise	3962 Jun 18 16:12	15° \mathbb{M} 52'24	
morning rise	3961 Jul 08 20:50	5° \mathbb{M} 56'21		direct	3962 Jun 22 21:04	15° \mathbb{M} 13'47	
direct	3961 Jul 12 07:49	5° \mathbb{M} 30'31		morning max el	3962 Jul 06 15:31	22° \mathbb{M} 01'33	24°10'55
morning max el	3961 Jul 25 00:29	11° \mathbb{M} 32'22	22°27'38		3962 Jul 13 15:21	0° \mathbb{M}	
	3961 Aug 07 13:49	0° \mathbb{M}		asc. node	3962 Jul 28 00:13	24° \mathbb{M} 10'54	
asc. node	3961 Aug 10 03:10	4° \mathbb{M} 40'39			3962 Jul 30 20:08	0° \mathbb{M}	
morning set	3961 Aug 15 22:44	16° \mathbb{M} 20'53		morning set	3962 Jul 31 10:25	1° \mathbb{M} 15'13	
	3961 Aug 22 08:38	0° \mathbb{M}					
superior conj	3961 Aug 23 01:55	1° \mathbb{M} 31'44	1°40'05	superior conj	3962 Aug 07 09:50	16° \mathbb{M} 19'38	1°30'02
minimum elong	3961 Aug 23 00:32	1° \mathbb{M} 24'28	1°40'00	minimum elong	3962 Aug 07 07:43	16° \mathbb{M} 08'14	1°29'48
max. Earth dist.	3961 Aug 26 07:33	8° \mathbb{M} 18'23	1.34206 AU	max. Earth dist.	3962 Aug 09 09:11	20° \mathbb{M} 35'10	1.33069 AU
evening rise	3961 Aug 31 00:08	17° \mathbb{M} 44'39			3962 Aug 13 20:43	0° \mathbb{M}	
	3961 Sep 06 13:44	0° \mathbb{M}		evening rise	3962 Aug 14 18:39	1° \mathbb{M} 51'40	
desc. node	3961 Sep 16 04:30	15° \mathbb{M} 54'23			3962 Aug 30 10:58	0° \mathbb{M}	
	3961 Sep 26 05:48	0° \mathbb{M}		desc. node	3962 Sep 03 01:30	5° \mathbb{M} 26'36	
evening max el	3961 Oct 04 18:52	9° \mathbb{M} 34'18	27°07'00	evening max el	3962 Sep 17 06:04	22° \mathbb{M} 46'42	27°26'24
retrograde	3961 Oct 18 02:17	16° \mathbb{M} 51'35			3962 Sep 29 18:42	0° \mathbb{M}	
evening set	3961 Oct 24 22:50	14° \mathbb{M} 10'15		retrograde	3962 Sep 30 21:18	0° \mathbb{M} 03'32	

































































































































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min. Earth dist.	3962 Oct 11 17:17	24° $\text{U}14'11$	0.63620 AU		3963 Aug 25 11:08	0° U	
inferior conj	3962 Oct 14 07:41	21° $\text{U}36'04$	-3°04'41	evening max el	3963 Aug 30 13:31	5° $\text{U}25'03$	27°14'29
minimum elong	3962 Oct 14 12:48	21° $\text{U}23'06$	3°02'55	retrograde	3963 Sep 13 09:37	12° $\text{U}38'58$	
morning rise	3962 Oct 21 01:53	16° $\text{U}18'09$		evening set	3963 Sep 20 13:07	10° $\text{U}18'05$	
direct	3962 Oct 23 13:12	15° $\text{U}48'25$		min. Earth dist.	3963 Sep 24 03:52	7° $\text{U}31'22$	0.61751 AU
asc. node	3962 Oct 23 23:23	15° $\text{U}49'18$		inferior conj	3963 Sep 27 05:00	4° $\text{U}47'04$	-4°01'42
morning max el	3962 Oct 30 02:50	19° $\text{U}13'32$	17°51'19	minimum elong	3963 Sep 27 10:56	4° $\text{U}33'40$	4°00'08
	3962 Nov 07 01:13	0° M			3963 Oct 03 22:10	30° RU	
morning set	3962 Nov 15 16:33	14° $\text{M}40'41$		morning rise	3963 Oct 04 10:33	29° $\text{R}48'48$	
	3962 Nov 24 15:55	0° X		direct	3963 Oct 06 19:12	29° $\text{R}25'07$	
					3963 Oct 09 14:41	0° U	
superior conj	3962 Nov 28 01:31	5° $\text{X}38'20$	0°13'38	asc. node	3963 Oct 10 20:27	0° $\text{U}37'30$	
minimum elong	3962 Nov 28 02:58	5° $\text{X}44'18$	0°13'25	morning max el	3963 Oct 13 18:08	2° $\text{U}55'19$	17°54'22
behind sun begin	3962 Nov 27 21:32	5° $\text{X}21'59$		morning set	3963 Oct 29 14:20	27° $\text{U}46'38$	
behind sun end	3962 Nov 28 08:24	6° $\text{X}06'36$			3963 Oct 30 19:41	0° M	
desc. node	3962 Nov 30 00:47	8° $\text{X}51'37$					
max. Earth dist.	3962 Dec 04 01:31	15° $\text{X}21'20$	1.44253 AU	superior conj	3963 Nov 09 05:21	16° $\text{M}43'37$	0°52'06
	3962 Dec 13 09:47	0° Z		minimum elong	3963 Nov 09 09:21	17° $\text{M}00'53$	0°51'34
evening rise	3962 Dec 13 18:28	0° $\text{Z}33'26$		max. Earth dist.	3963 Nov 16 15:09	29° $\text{M}11'41$	1.42791 AU
	3963 Jan 02 15:18	0° \approx		desc. node	3963 Nov 16 21:48	29° $\text{M}38'56$	
evening max el	3963 Jan 11 11:03	10° $\approx 57'21$	20°43'01		3963 Nov 17 02:57	0° X	
retrograde	3963 Jan 19 16:38	15° $\approx 49'01$		evening rise	3963 Nov 23 08:39	9° $\text{X}59'32$	
asc. node	3963 Jan 19 22:39	15° $\approx 48'41$			3963 Dec 06 13:34	0° Z	
evening set	3963 Jan 23 15:49	14° $\approx 18'50$		evening max el	3963 Dec 25 06:55	24° $\text{Z}30'37$	21°56'19
inferior conj	3963 Jan 29 00:29	8° $\approx 08'50$	2°41'39		3964 Jan 02 22:14	0° \approx	
minimum elong	3963 Jan 28 22:00	8° $\approx 17'20$	2°40'59	retrograde	3964 Jan 03 13:42	0° $\approx 02'04$	
min. Earth dist.	3963 Jan 29 13:30	7° $\approx 24'12$	0.67563 AU		3964 Jan 04 04:55	30° RZ	
morning rise	3963 Feb 03 04:02	1° $\approx 55'26$		asc. node	3964 Jan 06 19:41	29° $\text{Z}05'17$	
	3963 Feb 06 02:29	30° RZ		evening set	3964 Jan 07 23:32	28° $\text{Z}16'22$	
direct	3963 Feb 08 15:52	29° $\text{Z}29'32$		inferior conj	3964 Jan 13 07:49	21° $\text{Z}57'18$	2°03'42
	3963 Feb 11 09:13	0° \approx		minimum elong	3964 Jan 13 05:30	22° $\text{Z}05'22$	2°02'54
morning max el	3963 Feb 19 16:51	6° $\approx 04'51$	24°08'43	min. Earth dist.	3964 Jan 13 08:58	21° $\text{Z}53'21$	0.67947 AU
desc. node	3963 Feb 25 23:59	13° $\approx 14'12$		morning rise	3964 Jan 18 11:19	15° $\text{Z}45'55$	
	3963 Mar 10 05:36	0° X		direct	3964 Jan 23 08:19	13° $\text{Z}41'27$	
morning set	3963 Mar 27 10:38	27° $\text{X}32'00$		morning max el	3964 Feb 02 02:59	19° $\text{Z}28'20$	22°39'41
	3963 Mar 28 20:37	0° Y			3964 Feb 10 23:40	0° \approx	
max. Earth dist.	3963 Mar 31 04:08	4° $\text{Y}06'06$	1.38081 AU	desc. node	3964 Feb 12 21:01	2° $\approx 31'41$	
					3964 Mar 02 10:14	0° X	
superior conj	3963 Apr 07 06:42	17° $\text{Y}16'06$	-1°33'43	morning set	3964 Mar 07 04:56	7° $\text{X}43'04$	
minimum elong	3963 Apr 07 11:20	17° $\text{Y}38'15$	1°33'08	max. Earth dist.	3964 Mar 11 23:47	15° $\text{X}43'44$	1.40262 AU
	3963 Apr 13 19:24	0° X					
evening rise	3963 Apr 16 03:25	4° $\text{X}36'28$		superior conj	3964 Mar 19 18:38	29° $\text{X}25'30$	-1°55'12
asc. node	3963 Apr 17 21:59	8° $\text{X}05'04$		minimum elong	3964 Mar 19 22:57	29° $\text{X}45'09$	1°54'53
	3963 May 01 08:31	0° II			3964 Mar 20 02:14	0° Y	
evening max el	3963 May 02 16:05	1° $\text{II}22'19$	19°00'48	evening rise	3964 Mar 29 16:59	17° $\text{Y}58'04$	
retrograde	3963 May 11 07:11	5° $\text{II}35'01$		asc. node	3964 Apr 03 19:01	27° $\text{Y}27'51$	
evening set	3963 May 13 09:11	5° $\text{II}21'17$			3964 Apr 05 04:57	0° X	
inferior conj	3963 May 21 13:29	1° $\text{II}06'40$	0°58'34	evening max el	3964 Apr 14 20:59	13° $\text{X}53'14$	18°24'28
minimum elong	3963 May 21 15:44	1° $\text{II}02'45$	0°57'48	retrograde	3964 Apr 22 07:01	17° $\text{X}33'36$	
	3963 May 23 03:31	30° RX		evening set	3964 Apr 24 15:36	17° $\text{X}12'23$	
min. Earth dist.	3963 May 24 15:00	28° $\text{X}59'09$	0.56647 AU	inferior conj	3964 May 02 00:23	12° $\text{X}38'18$	2°20'05
desc. node	3963 May 24 23:09	28° $\text{X}45'37$		minimum elong	3964 May 02 04:04	12° $\text{X}30'44$	2°19'05
morning rise	3963 May 29 19:04	26° $\text{X}07'50$		min. Earth dist.	3964 May 05 10:59	9° $\text{X}50'49$	0.58588 AU
direct	3963 Jun 03 23:01	25° $\text{X}04'43$		morning rise	3964 May 09 13:29	7° $\text{X}07'45$	
	3963 Jun 15 11:38	0° II		desc. node	3964 May 10 20:12	6° $\text{X}31'25$	
morning max el	3963 Jun 18 06:05	2° $\text{II}27'17$	25°47'53	direct	3964 May 15 15:28	5° $\text{X}30'27$	
	3963 Jul 07 18:20	0° U		morning max el	3964 May 30 00:55	13° $\text{X}14'40$	27°02'56
asc. node	3963 Jul 14 21:16	13° $\text{U}58'48$			3964 Jun 12 07:24	0° II	
morning set	3963 Jul 15 21:50	16° $\text{U}07'48$			3964 Jun 28 21:15	0° U	
	3963 Jul 22 07:04	0° O		morning set	3964 Jun 29 07:17	0° $\text{U}52'31$	
				asc. node	3964 Jun 30 18:19	3° $\text{U}57'56$	
superior conj	3963 Jul 22 20:39	1° $\text{O}14'41$	1°15'02				
minimum elong	3963 Jul 22 18:18	1° $\text{O}01'49$	1°14'40	superior conj	3964 Jul 06 08:29	16° $\text{U}09'49$	0°55'45
max. Earth dist.	3963 Jul 23 17:22	3° $\text{O}08'25$	1.32348 AU	minimum elong	3964 Jul 06 06:22	15° $\text{U}58'12$	0°55'22
evening rise	3963 Jul 29 21:05	16° $\text{O}20'54$		max. Earth dist.	3964 Jul 06 04:42	15° $\text{U}49'00$	1.32035 AU

	3964 Jul 12 16:47	0°♎		superior conj	3965 Jun 20 19:35	0°♊59'19	0°32'49
evening rise	3964 Jul 13 04:47	1°♎03'34		minimum elong	3965 Jun 20 18:10	0°♊51'30	0°32'31
	3964 Jul 28 21:32	0°♎		evening rise	3965 Jun 27 15:32	15°♊52'41	
desc. node	3964 Aug 06 19:30	12°♎11'28			3965 Jul 04 15:38	0°♎	
evening max el	3964 Aug 11 14:49	17°♎18'54	26°29'20	evening max el	3965 Jul 24 08:52	28°♎25'19	25°14'29
retrograde	3964 Aug 25 13:58	24°♎29'11		desc. node	3965 Jul 24 16:32	28°♎43'28	
evening set	3964 Sep 01 06:17	22°♎37'37			3965 Jul 26 02:38	0°♎	
min. Earth dist.	3964 Sep 05 04:21	20°♎02'12	0.59695 AU	retrograde	3965 Aug 07 08:02	5°♎29'59	
inferior conj	3964 Sep 08 10:49	17°♎28'09	-4°47'24	evening set	3965 Aug 13 00:01	4°♎16'10	
minimum elong	3964 Sep 08 15:44	17°♎18'28	4°46'39	min. Earth dist.	3965 Aug 17 20:38	1°♎34'02	0.57678 AU
morning rise	3964 Sep 16 03:18	12°♎52'01			3965 Aug 20 04:03	30°♎	
direct	3964 Sep 18 12:28	12°♎31'38		inferior conj	3965 Aug 20 21:49	29°♎29'26	-5°10'10
morning max el	3964 Sep 26 04:50	16°♎15'59	18°16'57	minimum elong	3965 Aug 20 22:45	29°♎27'51	5°10'09
asc. node	3964 Sep 26 17:31	16°♎47'30		morning rise	3965 Aug 28 23:50	25°♎15'48	
	3964 Oct 05 20:33	0°♎		direct	3965 Aug 31 12:50	24°♎56'31	
morning set	3964 Oct 12 02:23	11°♎33'25		morning max el	3965 Sep 09 07:33	29°♎05'23	19°00'29
					3965 Sep 10 05:34	0°♎	
superior conj	3964 Oct 21 09:36	29°♎00'13	1°19'31	asc. node	3965 Sep 13 14:35	4°♎03'47	
minimum elong	3964 Oct 21 13:26	29°♎17'43	1°19'07	morning set	3965 Sep 26 00:20	25°♎48'24	
	3964 Oct 21 22:45	0°♎			3965 Sep 28 03:12	0°♎	
max. Earth dist.	3964 Oct 28 23:28	12°♎22'42	1.40902 AU				
evening rise	3964 Nov 02 17:00	20°♎17'04		superior conj	3965 Oct 04 08:51	12°♎12'26	1°36'13
desc. node	3964 Nov 02 18:49	20°♎24'30		minimum elong	3965 Oct 04 11:15	12°♎23'58	1°36'04
	3964 Nov 08 19:01	0°♎		max. Earth dist.	3965 Oct 11 04:24	24°♎52'34	1.38824 AU
	3964 Nov 29 20:14	0°♎			3965 Oct 14 01:56	0°♎	
evening max el	3964 Dec 06 22:27	8°♎07'07	23°15'34	evening rise	3965 Oct 15 00:40	1°♎38'28	
retrograde	3964 Dec 17 08:06	14°♎16'43		desc. node	3965 Oct 20 15:51	11°♎04'12	
evening set	3964 Dec 22 06:14	12°♎14'59			3965 Nov 02 01:19	0°♎	
asc. node	3964 Dec 23 16:44	10°♎52'31		evening max el	3965 Nov 19 11:34	21°♎47'29	24°34'38
min. Earth dist.	3964 Dec 27 05:48	6°♎24'38	0.67968 AU	retrograde	3965 Nov 30 22:35	28°♎28'35	
inferior conj	3964 Dec 27 15:38	5°♎50'46	1°18'38	evening set	3965 Dec 06 10:19	26°♎11'13	
minimum elong	3964 Dec 27 13:56	5°♎56'37	1°17'58	asc. node	3965 Dec 10 13:47	21°♎33'27	
morning rise	3965 Jan 01 21:33	29°♎43'15		min. Earth dist.	3965 Dec 11 01:32	20°♎54'44	0.67642 AU
	3965 Jan 01 13:29	30°♎		inferior conj	3965 Dec 11 22:08	19°♎46'03	0°27'31
direct	3965 Jan 06 04:15	28°♎01'34		minimum elong	3965 Dec 11 21:28	19°♎48'17	0°27'14
	3965 Jan 11 06:57	0°♎		morning rise	3965 Dec 17 08:43	13°♎44'35	
morning max el	3965 Jan 14 18:11	3°♎00'40	21°15'53	direct	3965 Dec 21 02:19	12°♎24'39	
desc. node	3965 Jan 29 18:03	22°♎19'43		morning max el	3965 Dec 28 17:00	16°♎44'11	20°03'14
	3965 Feb 03 23:24	0°♎			3966 Jan 08 03:58	0°♎	
morning set	3965 Feb 14 18:41	16°♎34'10		desc. node	3966 Jan 16 15:05	12°♎29'22	
max. Earth dist.	3965 Feb 22 01:08	28°♎15'02	1.42307 AU	morning set	3966 Jan 24 15:14	24°♎42'51	
	3965 Feb 23 02:39	0°♎			3966 Jan 28 01:01	0°♎	
				max. Earth dist.	3966 Feb 04 10:37	11°♎40'18	1.43941 AU
superior conj	3965 Mar 01 09:18	10°♎34'11	-2°06'51				
minimum elong	3965 Mar 01 10:46	10°♎40'29	2°06'49	superior conj	3966 Feb 09 22:28	20°♎32'59	-2°03'14
	3965 Mar 12 08:34	0°♎		minimum elong	3966 Feb 09 18:17	20°♎15'53	2°03'04
evening rise	3965 Mar 12 17:02	0°♎38'19			3966 Feb 15 15:23	0°♎	
asc. node	3965 Mar 21 16:03	16°♎25'28		evening rise	3966 Feb 22 23:08	12°♎28'00	
evening max el	3965 Mar 29 07:27	26°♎50'32	18°08'01		3966 Mar 05 08:11	0°♎	
	3965 Apr 03 05:10	0°♎		asc. node	3966 Mar 08 13:05	4°♎49'42	
retrograde	3965 Apr 05 00:11	0°♎14'59		evening max el	3966 Mar 12 20:08	10°♎04'52	18°10'51
	3965 Apr 06 19:40	30°♎		retrograde	3966 Mar 19 06:25	13°♎28'32	
evening set	3965 Apr 07 15:16	29°♎43'48		evening set	3966 Mar 22 03:24	12°♎46'03	
inferior conj	3965 Apr 14 07:30	24°♎48'54	3°09'50	inferior conj	3966 Mar 28 07:05	7°♎31'10	3°33'01
minimum elong	3965 Apr 14 10:17	24°♎42'19	3°09'20	minimum elong	3966 Mar 28 08:07	7°♎28'22	3°32'56
min. Earth dist.	3965 Apr 17 13:24	21°♎45'47	0.60773 AU	min. Earth dist.	3966 Mar 31 00:23	4°♎36'36	0.62876 AU
morning rise	3965 Apr 21 03:13	18°♎57'01		morning rise	3966 Apr 03 11:41	1°♎26'51	
direct	3965 Apr 27 19:43	16°♎45'18			3966 Apr 05 18:02	30°♎	
desc. node	3965 Apr 27 17:14	16°♎45'20		direct	3966 Apr 10 09:06	28°♎49'38	
morning max el	3965 May 12 01:57	24°♎40'23	27°44'43	desc. node	3966 Apr 14 14:16	29°♎41'30	
	3965 May 16 22:29	0°♎			3966 Apr 15 07:42	0°♎	
	3965 Jun 05 15:26	0°♎		morning max el	3966 Apr 24 08:31	6°♎47'55	27°49'03
morning set	3965 Jun 13 12:59	15°♎23'39			3966 May 12 00:44	0°♎	
asc. node	3965 Jun 17 15:21	24°♎03'45		morning set	3966 May 28 12:48	29°♎34'39	
max. Earth dist.	3965 Jun 19 15:35	28°♎25'50	1.32132 AU		3966 May 28 17:50	0°♎	
	3965 Jun 20 08:47	0°♎		max. Earth dist.	3966 Jun 02 22:12	10°♎47'03	1.32646 AU
				asc. node	3966 Jun 04 12:24	14°♎12'05	

superior conj	3966 Jun 05 04:12	15° Π 37'31	0°06'55	superior conj	3967 May 20 08:16	29° 8 57'05	-0°21'14
minimum elong	3966 Jun 05 03:52	15° Π 35'42	0°06'50	minimum elong	3967 May 20 09:22	0° Π 02'52	0°21'00
behind sun begin	3966 Jun 04 23:07	15° Π 09'58			3967 May 20 08:50	0° Π	
behind sun end	3966 Jun 05 08:38	16° Π 01'28		asc. node	3967 May 22 09:25	4° Π 18'07	
	3966 Jun 11 19:33	0° 6		evening rise	3967 May 27 14:29	15° Π 23'36	
evening rise	3966 Jun 12 03:26	0° 6 41'51			3967 Jun 03 22:53	0° 6	
	3966 Jun 28 09:26	0° Ω		evening max el	3967 Jun 17 13:31	19° 6 22'38	22°04'44
evening max el	3966 Jul 05 22:06	8° Ω 57'00	23°41'03	desc. node	3967 Jun 28 10:34	25° 6 34'10	
desc. node	3966 Jul 11 13:33	13° Ω 22'58		retrograde	3967 Jun 30 08:07	25° 6 42'31	
retrograde	3966 Jul 19 13:50	15° Ω 48'10		evening set	3967 Jul 03 03:32	25° 6 24'56	
evening set	3966 Jul 23 18:56	15° Ω 09'12		inferior conj	3967 Jul 12 11:05	21° 6 19'36	-3°48'42
min. Earth dist.	3966 Jul 30 08:07	12° Ω 03'51	0.56004 AU	minimum elong	3967 Jul 12 02:35	21° 6 31'34	3°46'27
inferior conj	3966 Aug 01 12:39	10° Ω 45'01	-4°54'27	min. Earth dist.	3967 Jul 11 18:38	21° 6 42'43	0.54999 AU
minimum elong	3966 Aug 01 07:31	10° Ω 52'45	4°53'48	morning rise	3967 Jul 21 03:22	17° 6 28'43	
morning rise	3966 Aug 09 22:38	6° Ω 49'31		direct	3967 Jul 24 07:01	17° 6 06'40	
direct	3966 Aug 12 17:56	6° Ω 29'49		morning max el	3967 Aug 05 03:42	22° 6 39'01	21°31'22
morning max el	3966 Aug 22 23:32	11° Ω 14'52	20°05'47		3967 Aug 11 12:08	0° Ω	
asc. node	3966 Aug 31 11:38	22° Ω 12'01		asc. node	3967 Aug 18 08:40	10° Ω 59'12	
	3966 Sep 04 22:21	0° 7		morning set	3967 Aug 25 13:46	25° Ω 09'07	
morning set	3966 Sep 10 04:57	10° 7 22'56			3967 Aug 27 21:19	0° 7	
superior conj	3966 Sep 17 21:58	26° 7 06'03	1°43'38	superior conj	3967 Sep 01 20:45	10° 7 27'57	1°43'17
minimum elong	3966 Sep 17 22:41	26° 7 09'38	1°43'36	minimum elong	3967 Sep 01 20:01	10° 7 24'09	1°43'15
	3966 Sep 19 20:58	0° 8		max. Earth dist.	3967 Sep 05 21:47	18° 7 44'56	1.35045 AU
max. Earth dist.	3966 Sep 23 10:14	6° 8 53'10	1.36804 AU	evening rise	3967 Sep 10 05:19	27° 7 11'54	
evening rise	3966 Sep 27 06:10	14° 8 00'27			3967 Sep 11 16:56	0° 8	
	3966 Oct 06 13:37	0° 9		desc. node	3967 Sep 24 09:55	21° 8 47'02	
desc. node	3966 Oct 07 12:53	1° 9 33'45			3967 Sep 29 21:19	0° 9	
	3966 Oct 27 21:01	0° 9		evening max el	3967 Oct 15 12:23	19° 9 08'30	26°43'33
evening max el	3966 Nov 01 23:57	5° 9 29'59	25°46'23	retrograde	3967 Oct 28 13:08	26° 9 24'02	
retrograde	3966 Nov 14 08:27	12° 9 33'17		evening set	3967 Nov 04 03:34	23° 9 44'11	
evening set	3966 Nov 20 10:05	10° 9 02'18		min. Earth dist.	3967 Nov 08 04:26	19° 9 38'33	0.65937 AU
min. Earth dist.	3966 Nov 24 17:51	5° 9 20'53	0.66969 AU	inferior conj	3967 Nov 09 23:46	17° 9 30'47	-1°28'17
inferior conj	3966 Nov 26 01:31	3° 9 40'40	-0°28'34	minimum elong	3967 Nov 10 02:12	17° 9 23'33	1°27'15
minimum elong	3966 Nov 26 02:15	3° 9 38'18	0°28'14	asc. node	3967 Nov 14 07:51	12° 9 59'10	
asc. node	3966 Nov 27 10:50	1° 9 56'55		morning rise	3967 Nov 16 01:36	11° 9 48'59	
	3966 Nov 29 04:04	30° 9		direct	3967 Nov 18 22:28	11° 9 03'15	
morning rise	3966 Dec 01 18:49	27° 9 47'42		morning max el	3967 Nov 25 12:19	14° 9 37'33	18°23'01
direct	3966 Dec 05 01:01	26° 9 46'42			3967 Dec 06 16:46	0° 9	
	3966 Dec 11 07:53	0° 9		morning set	3967 Dec 15 01:49	13° 9 25'11	
morning max el	3966 Dec 11 23:39	0° 9 38'09	19°05'05	desc. node	3967 Dec 21 09:10	23° 9 31'28	
	3967 Jan 01 15:12	0° 9			3967 Dec 25 11:06	0° 9	
morning set	3967 Jan 03 19:22	3° 9 23'00		superior conj	3967 Dec 30 13:57	8° 9 03'53	-1°00'10
desc. node	3967 Jan 03 12:07	2° 9 54'48		minimum elong	3967 Dec 30 06:33	7° 9 34'48	0°59'14
max. Earth dist.	3967 Jan 18 02:24	25° 9 43'58	1.44961 AU	max. Earth dist.	3967 Dec 31 21:10	10° 9 06'23	1.45259 AU
superior conj	3967 Jan 20 11:36	29° 9 29'36	-1°40'20		3968 Jan 13 13:44	0° 9	
minimum elong	3967 Jan 20 02:39	28° 9 54'14	1°39'32	evening rise	3968 Jan 15 16:33	3° 9 19'42	
	3967 Jan 20 19:18	0° 9		greatest brilliancy	3968 Jan 26 03:20	19° 9 42'12	-0.8m
evening rise	3967 Feb 04 07:23	23° 9 21'21			3968 Feb 02 01:47	0° 9	
	3967 Feb 08 08:34	0° 9		evening max el	3968 Feb 07 17:18	6° 9 58'18	19°11'03
asc. node	3967 Feb 23 10:07	22° 9 30'14		asc. node	3968 Feb 10 07:08	9° 9 14'57	
evening max el	3967 Feb 24 08:10	23° 9 28'51	18°32'13	retrograde	3968 Feb 14 17:07	10° 9 57'08	
retrograde	3967 Mar 02 21:18	27° 9 04'41		evening set	3968 Feb 18 02:44	9° 9 49'42	
evening set	3967 Mar 06 00:11	26° 9 10'09		inferior conj	3968 Feb 23 15:46	4° 9 00'20	3°23'43
inferior conj	3967 Mar 11 19:01	20° 9 36'56	3°35'58	minimum elong	3968 Feb 23 14:02	4° 9 05'55	3°23'30
minimum elong	3967 Mar 11 18:26	20° 9 38'40	3°35'57	min. Earth dist.	3968 Feb 25 02:23	2° 9 09'31	0.66140 AU
min. Earth dist.	3967 Mar 13 20:54	18° 9 08'58	0.64698 AU		3968 Feb 26 21:05	30° 9	
morning rise	3967 Mar 17 12:05	14° 9 26'07		morning rise	3968 Feb 29 01:00	27° 9 46'44	
direct	3967 Mar 24 06:11	11° 9 36'31		direct	3968 Mar 06 09:56	24° 9 58'05	
desc. node	3967 Apr 01 11:18	14° 9 52'11			3968 Mar 16 11:37	0° 9	
morning max el	3967 Apr 06 18:08	19° 9 29'17	27°17'56	desc. node	3968 Mar 18 08:19	1° 9 43'33	
	3967 Apr 15 17:06	0° 9		morning max el	3968 Mar 19 04:03	2° 9 32'27	26°18'02
	3967 May 05 00:56	0° 8			3968 Apr 08 21:55	0° 9	
morning set	3967 May 12 03:53	13° 8 16'00		morning set	3968 Apr 24 06:36	26° 9 17'20	
max. Earth dist.	3967 May 16 20:25	22° 8 39'40	1.33603 AU		3968 Apr 26 05:42	0° 8	
				max. Earth dist.	3968 Apr 28 07:16	3° 8 59'41	1.35024 AU

superior conj	3968 May 03 05:30	13°♄51'46	-0°50'21			3969 Apr 01 20:03	0°♄	
minimum elong	3968 May 03 08:12	14°♄05'32	0°49'51	morning set		3969 Apr 06 16:04	8°♄24'22	
asc. node	3968 May 08 06:26	24°♄18'03		max. Earth dist.		3969 Apr 10 07:09	14°♄59'49	1.36877 AU
evening rise	3968 May 10 22:46	29°♄51'56						
	3968 May 11 00:20	0°♄		superior conj		3969 Apr 16 16:57	27°♄13'23	-1°18'44
	3968 May 29 08:53	0°♄		minimum elong		3969 Apr 16 21:04	27°♄33'37	1°18'06
evening max el	3968 May 29 14:40	0°♄14'14	20°39'00			3969 Apr 18 02:44	0°♄	
retrograde	3968 Jun 09 20:58	5°♄44'28		evening rise		3969 Apr 25 02:01	14°♄00'03	
evening set	3968 Jun 11 22:10	5°♄34'16		asc. node		3969 Apr 25 03:28	14°♄07'17	
desc. node	3968 Jun 14 07:33	4°♄58'24				3969 May 03 12:53	0°♄	
inferior conj	3968 Jun 21 04:34	1°♄36'55	-2°01'04	evening max el		3969 May 12 04:08	11°♄46'11	19°30'55
minimum elong	3968 Jun 20 22:55	1°♄45'03	1°59'03	retrograde		3969 May 21 16:31	16°♄23'47	
min. Earth dist.	3968 Jun 22 06:33	0°♄59'36	0.54911 AU	evening set		3969 May 23 15:57	16°♄12'42	
	3968 Jun 24 01:07	30°♄		inferior conj		3969 Jun 01 07:34	12°♄07'49	-0°02'14
morning rise	3968 Jun 29 22:59	27°♄30'17		minimum elong		3969 Jun 01 07:29	12°♄07'58	0°02'11
direct	3968 Jul 03 16:24	27°♄00'21		transit middle		3969 Jun 01 07:29	12°♄07'58	0°02'11
	3968 Jul 12 16:12	0°♄		transit begin		3969 Jun 01 03:37	12°♄14'09	
morning max el	3968 Jul 16 22:09	3°♄23'26	23°11'16	transit end		3969 Jun 01 11:20	12°♄01'47	
asc. node	3968 Aug 04 05:42	0°♄15'49		desc. node		3969 Jun 01 04:32	12°♄12'40	
	3968 Aug 04 02:27	0°♄		min. Earth dist.		3969 Jun 03 20:27	10°♄30'51	0.55781 AU
morning set	3968 Aug 09 00:53	10°♄01'39		morning rise		3969 Jun 09 20:17	7°♄29'49	
				direct		3969 Jun 14 10:55	6°♄41'57	
superior conj	3968 Aug 16 02:04	25°♄08'40	1°36'29	morning max el		3969 Jun 28 12:03	13°♄46'41	24°53'52
minimum elong	3968 Aug 16 00:19	24°♄59'21	1°36'20			3969 Jul 11 04:55	0°♄	
	3968 Aug 18 08:50	0°♄		asc. node		3969 Jul 22 02:45	19°♄54'02	
max. Earth dist.	3968 Aug 18 18:10	0°♄49'10	1.33670 AU	morning set		3969 Jul 24 12:39	24°♄55'34	
evening rise	3968 Aug 23 17:53	11°♄01'47				3969 Jul 26 21:28	0°♄	
	3968 Sep 03 00:56	0°♄						
desc. node	3968 Sep 10 06:55	11°♄36'45		superior conj		3969 Jul 31 11:28	10°♄00'23	1°24'14
	3968 Sep 24 11:22	0°♄		minimum elong		3969 Jul 31 09:12	9°♄48'02	1°23'57
evening max el	3968 Sep 27 00:32	2°♄34'00	27°18'45	max. Earth dist.		3969 Aug 01 22:55	13°♄13'22	1.32710 AU
retrograde	3968 Oct 10 12:07	9°♄52'28		evening rise		3969 Aug 07 16:09	25°♄19'37	
evening set	3968 Oct 17 12:17	7°♄11'31				3969 Aug 09 23:47	0°♄	
min. Earth dist.	3968 Oct 21 07:09	3°♄40'41	0.64557 AU			3969 Aug 27 12:55	0°♄	
inferior conj	3968 Oct 23 14:35	1°♄11'13	-2°29'43	desc. node		3969 Aug 28 03:54	0°♄53'20	
minimum elong	3968 Oct 23 18:48	0°♄59'50	2°28'07	evening max el		3969 Sep 09 10:41	15°♄34'36	27°25'30
	3968 Oct 24 17:18	30°♄		retrograde		3969 Sep 23 04:30	22°♄50'11	
morning rise	3968 Oct 30 02:29	25°♄43'31		evening set		3969 Sep 30 09:04	20°♄18'45	
asc. node	3968 Oct 31 04:54	25°♄20'30		min. Earth dist.		3969 Oct 04 00:08	17°♄18'19	0.62853 AU
direct	3968 Nov 01 16:26	25°♄09'04		inferior conj		3969 Oct 06 19:17	14°♄36'05	-3°29'43
morning max el	3968 Nov 08 04:19	28°♄35'30	17°57'48	minimum elong		3969 Oct 07 00:54	14°♄22'30	3°27'58
	3968 Nov 09 11:52	0°♄		morning rise		3969 Oct 13 18:16	9°♄25'48	
morning set	3968 Nov 25 13:21	24°♄52'55		direct		3969 Oct 16 04:02	8°♄59'01	
	3968 Nov 28 14:30	0°♄		asc. node		3969 Oct 18 01:58	9°♄16'24	
desc. node	3968 Dec 07 06:12	14°♄14'50		morning max el		3969 Oct 22 20:45	12°♄25'33	17°50'15
						3969 Nov 03 18:27	0°♄	
superior conj	3968 Dec 09 02:08	17°♄11'57	-0°12'35	morning set		3969 Nov 08 00:36	7°♄29'24	
minimum elong	3968 Dec 09 00:38	17°♄05'52	0°12'23					
behind sun begin	3968 Dec 08 17:53	16°♄38'44		superior conj		3969 Nov 19 14:31	27°♄31'59	0°31'13
behind sun end	3968 Dec 09 07:23	17°♄32'58		minimum elong		3969 Nov 19 17:27	27°♄44'20	0°30'47
max. Earth dist.	3968 Dec 13 15:59	24°♄29'28	1.44819 AU			3969 Nov 21 01:58	0°♄	
	3968 Dec 17 04:02	0°♄		desc. node		3969 Nov 24 03:14	5°♄01'48	
evening rise	3968 Dec 25 07:24	12°♄37'41		max. Earth dist.		3969 Nov 26 08:26	8°♄37'37	1.43702 AU
	3969 Jan 05 17:13	0°♄		evening rise		3969 Dec 04 17:13	21°♄50'03	
greatest brilliancy	3969 Jan 08 19:49	4°♄36'53	-0.6m			3969 Dec 10 01:16	0°♄	
evening max el	3969 Jan 20 21:52	20°♄30'03	20°05'38			3969 Dec 31 06:24	0°♄	
asc. node	3969 Jan 27 04:09	24°♄49'01		evening max el		3970 Jan 03 21:01	4°♄03'17	21°13'09
retrograde	3969 Jan 28 15:00	25°♄00'27		retrograde		3970 Jan 12 12:48	9°♄11'11	
evening set	3969 Feb 01 08:44	23°♄39'02		asc. node		3970 Jan 14 01:11	8°♄58'38	
inferior conj	3969 Feb 06 18:27	17°♄35'56	2°59'47	evening set		3970 Jan 16 16:20	7°♄34'33	
minimum elong	3969 Feb 06 16:05	17°♄43'54	2°59'16	inferior conj		3970 Jan 22 00:41	1°♄20'32	2°26'29
min. Earth dist.	3969 Feb 07 14:59	16°♄26'47	0.67166 AU	minimum elong		3970 Jan 21 22:13	1°♄29'04	2°25'44
morning rise	3969 Feb 11 23:12	11°♄21'57		min. Earth dist.		3970 Jan 22 08:33	0°♄53'20	0.67783 AU
direct	3969 Feb 17 19:24	8°♄45'17				3970 Jan 23 00:05	30°♄	
morning max el	3969 Mar 01 12:45	15°♄45'48	24°58'47	morning rise		3970 Jan 27 03:54	25°♄07'53	
desc. node	3969 Mar 05 05:22	19°♄46'52		direct		3970 Feb 01 09:34	22°♄50'31	
	3969 Mar 13 06:34	0°♄		morning max el		3970 Feb 11 21:26	29°♄05'05	23°30'34

	3970 Feb 12 18:44	0°♊		desc. node	3971 Feb 06 23:30	28°♊13'14	
desc. node	3970 Feb 20 02:26	8°♊41'41			3971 Feb 08 05:52	0°♊	
	3970 Mar 07 01:33	0°♋		morning set	3971 Feb 27 08:08	28°♊57'03	
morning set	3970 Mar 19 02:15	19°♋21'22			3971 Feb 27 23:44	0°♋	
max. Earth dist.	3970 Mar 23 02:20	26°♋15'08	1.39015 AU	max. Earth dist.	3971 Mar 05 00:33	8°♋17'11	1.41170 AU
	3970 Mar 25 05:10	0°♌					
superior conj	3970 Mar 30 14:49	9°♌52'38	-1°43'45	superior conj	3971 Mar 12 18:23	21°♋37'50	-2°01'39
minimum elong	3970 Mar 30 19:34	10°♌14'48	1°43'14	minimum elong	3971 Mar 12 21:52	21°♋53'19	2°01'29
evening rise	3970 Apr 08 21:33	27°♌41'05			3971 Mar 17 09:57	0°♌	
	3970 Apr 10 02:16	0°♍		evening rise	3971 Mar 23 05:55	10°♌46'43	
asc. node	3970 Apr 12 00:30	3°♍41'16		asc. node	3971 Mar 29 21:32	22°♌54'28	
evening max el	3970 Apr 25 04:19	23°♍57'37	18°42'51		3971 Apr 03 05:11	0°♍	
retrograde	3970 May 03 05:21	27°♍54'13		evening max el	3971 Apr 08 12:00	6°♍40'55	18°15'01
evening set	3970 May 05 10:14	27°♍37'33		retrograde	3971 Apr 15 13:18	10°♍12'52	
inferior conj	3970 May 13 05:58	23°♍14'49	1°37'14	evening set	3971 Apr 18 00:43	9°♍47'37	
minimum elong	3970 May 13 09:13	23°♍08'45	1°36'11	inferior conj	3971 Apr 25 01:56	5°♍04'16	2°44'52
min. Earth dist.	3970 May 16 13:22	20°♍47'55	0.57425 AU	minimum elong	3971 Apr 25 05:25	4°♍56'38	2°44'03
desc. node	3970 May 19 01:35	19°♍09'09		min. Earth dist.	3971 Apr 28 11:42	2°♍07'14	0.59506 AU
morning rise	3970 May 21 05:00	18°♍01'50			3971 May 01 07:43	30°♌♌	
direct	3970 May 26 19:08	16°♍44'54		morning rise	3971 May 02 07:30	29°♌23'17	
morning max el	3970 Jun 10 03:43	24°♍17'19	26°23'26	desc. node	3971 May 05 22:39	27°♌51'57	
	3970 Jun 15 08:49	0°♎		direct	3971 May 08 16:34	27°♌31'10	
	3970 Jul 04 04:32	0°♏			3971 May 16 10:15	0°♎	
morning set	3970 Jul 08 23:26	9°♏45'02		morning max el	3971 May 23 01:22	5°♎20'40	27°25'21
asc. node	3970 Jul 08 23:47	9°♏46'55			3971 Jun 10 08:13	0°♎	
				morning set	3971 Jun 23 07:33	24°♎24'58	
superior conj	3970 Jul 15 22:55	24°♏55'40	1°07'20	asc. node	3971 Jun 25 20:50	29°♎49'32	
minimum elong	3970 Jul 15 20:37	24°♏43'00	1°06'57		3971 Jun 25 22:47	0°♏	
max. Earth dist.	3970 Jul 16 09:01	25°♏51'24	1.32165 AU	superior conj	3971 Jun 30 10:39	9°♏48'59	0°46'26
	3970 Jul 18 06:16	0°♐		minimum elong	3971 Jun 30 08:47	9°♏38'40	0°46'04
evening rise	3970 Jul 22 21:07	9°♐55'18		max. Earth dist.	3971 Jun 29 20:51	8°♏32'55	1.32026 AU
	3970 Aug 02 06:56	0°♑		evening rise	3971 Jul 07 06:23	24°♏41'30	
desc. node	3970 Aug 15 00:54	19°♑22'22			3971 Jul 09 19:27	0°♐	
evening max el	3970 Aug 22 16:00	27°♑55'35	26°59'25		3971 Jul 27 09:12	0°♑	
	3970 Aug 25 00:12	0°♒		desc. node	3971 Aug 01 21:55	6°♑44'18	
retrograde	3970 Sep 05 13:19	5°♒07'06		evening max el	3971 Aug 04 14:03	9°♑27'59	26°00'33
evening set	3970 Sep 12 13:41	2°♒57'26		retrograde	3971 Aug 18 13:22	16°♑36'21	
min. Earth dist.	3970 Sep 16 06:14	0°♒17'36	0.60891 AU	evening set	3971 Aug 24 21:16	14°♑59'56	
	3970 Sep 16 14:48	30°♒♑		min. Earth dist.	3971 Aug 29 02:32	12°♑24'18	0.58820 AU
inferior conj	3970 Sep 19 10:29	27°♑35'42	-4°23'02	inferior conj	3971 Sep 01 08:35	10°♑00'19	-5°00'44
minimum elong	3970 Sep 19 16:18	27°♑23'19	4°21'45	minimum elong	3971 Sep 01 12:12	9°♑53'37	5°00'22
morning rise	3970 Sep 26 20:46	22°♑46'23		morning rise	3971 Sep 09 05:22	5°♑34'11	
direct	3970 Sep 29 05:23	22°♑24'15		direct	3971 Sep 11 15:54	5°♑14'28	
asc. node	3970 Oct 04 23:02	24°♑40'59		morning max el	3971 Sep 19 18:11	9°♑07'23	18°32'54
morning max el	3970 Oct 06 10:28	25°♑59'08	18°01'29	asc. node	3971 Sep 21 20:05	11°♑20'38	
	3970 Oct 09 21:01	0°♓			3971 Oct 03 08:25	0°♓	
morning set	3970 Oct 22 05:08	20°♓54'48		morning set	3971 Oct 05 21:48	4°♓54'24	
	3970 Oct 27 03:17	0°♔					
superior conj	3970 Nov 01 05:20	9°♔09'12	1°05'06	superior conj	3971 Oct 14 18:22	21°♓51'23	1°27'50
minimum elong	3970 Nov 01 09:31	9°♔27'38	1°04'35	minimum elong	3971 Oct 14 21:40	22°♓06'49	1°27'32
max. Earth dist.	3970 Nov 08 20:24	22°♔14'33	1.42035 AU		3971 Oct 19 05:17	0°♔	
desc. node	3970 Nov 11 00:15	25°♔48'35		max. Earth dist.	3971 Oct 22 03:03	5°♔07'57	1.40026 AU
	3970 Nov 13 14:13	0°♕		evening rise	3971 Oct 26 08:02	12°♔18'49	
evening rise	3970 Nov 14 13:59	1°♕35'12		desc. node	3971 Oct 28 21:16	16°♔31'51	
	3970 Dec 03 12:57	0°♖			3971 Nov 06 10:50	0°♕	
evening max el	3970 Dec 17 14:56	17°♖37'55	22°29'35		3971 Nov 28 23:40	0°♖	
retrograde	3970 Dec 27 08:50	23°♖25'30		evening max el	3971 Nov 30 05:01	1°♖15'15	23°49'33
evening set	3970 Dec 31 23:51	21°♖32'48		retrograde	3971 Dec 11 01:47	7°♖39'37	
asc. node	3970 Dec 31 22:15	21°♖36'05		evening set	3971 Dec 16 05:39	5°♖30'49	
inferior conj	3971 Jan 06 08:28	15°♖11'08	1°45'23	asc. node	3971 Dec 18 19:19	2°♖50'37	
minimum elong	3971 Jan 06 06:21	15°♖18'27	1°44'36		3971 Dec 20 23:54	30°♒♕	
min. Earth dist.	3971 Jan 06 04:48	15°♖23'49	0.68008 AU	min. Earth dist.	3971 Dec 21 01:25	29°♕54'52	0.67873 AU
morning rise	3971 Jan 11 12:44	9°♖01'26		inferior conj	3971 Dec 21 15:56	29°♕05'27	0°57'37
direct	3971 Jan 16 03:34	7°♖06'45		minimum elong	3971 Dec 21 14:37	29°♕09'56	0°57'05
morning max el	3971 Jan 25 09:23	12°♖32'03	22°02'58	morning rise	3971 Dec 26 23:35	23°♕00'23	
				direct	3971 Dec 31 00:25	21°♕28'27	

morning max el	3972 Jan 08 03:49	26°  09'33	20°43'21	direct	3972 Dec 13 22:57	5°  51'40	
	3972 Jan 11 14:56	0°  3		morning max el	3972 Dec 21 06:06	9°  58'21	19°36'36
desc. node	3972 Jan 24 20:32	18°  11'04		greatest brilliancy	3973 Jan 03 08:56	27°  20'04	-0.7m
	3972 Feb 01 17:18	0°  ≈			3973 Jan 05 03:43	0°  3	
morning set	3972 Feb 06 12:12	7°  ≈22'51		desc. node	3973 Jan 10 17:34	8°  328'19	
max. Earth dist.	3972 Feb 15 05:23	21°  ≈12'33	1.43063 AU	morning set	3973 Jan 15 08:50	15°  336'15	
	3972 Feb 20 13:48	0°  ✕			3973 Jan 24 14:40	0°  ≈	
				max. Earth dist.	3973 Jan 27 17:19	4°  ≈54'37	1.44456 AU
superior conj	3972 Feb 21 22:28	2°  ✕16'43	-2°07'29				
minimum elong	3972 Feb 21 21:47	2°  ✕13'49	2°07'29	superior conj	3973 Feb 01 00:46	11°  ≈47'23	-1°55'58
evening rise	3972 Mar 04 22:54	23°  ✕06'34		minimum elong	3973 Jan 31 18:05	11°  ≈20'30	1°55'33
	3972 Mar 08 20:22	0°  Y			3973 Feb 12 03:09	0°  ✕	
asc. node	3972 Mar 15 18:35	11°  Y39'01		evening rise	3973 Feb 14 20:10	4°  ✕33'03	
evening max el	3972 Mar 21 23:43	19°  Y45'59	18°06'53	asc. node	3973 Mar 02 15:37	29°  ✕46'19	
retrograde	3972 Mar 28 12:41	23°  Y08'45			3973 Mar 02 19:53	0°  Y	
evening set	3972 Mar 31 06:10	22°  Y33'03		evening max el	3973 Mar 05 12:29	3°  Y05'29	18°17'43
inferior conj	3972 Apr 06 16:36	17°  Y29'31	3°22'29	retrograde	3973 Mar 11 22:59	6°  Y32'47	
minimum elong	3972 Apr 06 18:40	17°  Y24'19	3°22'14	evening set	3973 Mar 14 22:22	5°  Y45'24	
min. Earth dist.	3972 Apr 09 17:45	14°  Y27'08	0.61687 AU	inferior conj	3973 Mar 20 21:55	0°  Y22'47	3°36'21
morning rise	3972 Apr 13 05:27	11°  Y31'02		minimum elong	3973 Mar 20 22:13	0°  Y21'55	3°36'21
direct	3972 Apr 20 01:00	9°  Y06'59			3973 Mar 21 05:59	30°  R✕	
desc. node	3972 Apr 21 19:42	9°  Y16'10		min. Earth dist.	3973 Mar 23 08:56	27°  ✕37'25	0.63700 AU
morning max el	3972 May 04 05:12	17°  Y05'15	27°51'10	morning rise	3973 Mar 26 21:09	24°  ✕15'05	
	3972 May 14 22:01	0°  8		direct	3973 Apr 02 18:10	21°  ✕30'28	
	3972 Jun 02 00:28	0°  II		desc. node	3973 Apr 08 16:44	23°  ✕13'41	
morning set	3972 Jun 06 11:01	8°  II48'16		morning max el	3973 Apr 16 13:17	29°  ✕28'12	27°39'39
asc. node	3972 Jun 11 17:52	19°  II56'42			3973 Apr 17 01:49	0°  Y	
max. Earth dist.	3972 Jun 12 06:18	21°  II03'55	1.32295 AU		3973 May 08 20:13	0°  8	
				morning set	3973 May 21 07:28	22°  847'34	
superior conj	3972 Jun 13 20:53	24°  II33'58	0°22'09		3973 May 24 20:37	0°  II	
minimum elong	3972 Jun 13 19:53	24°  II28'28	0°21'56	max. Earth dist.	3973 May 26 09:30	3°  II12'32	1.32996 AU
	3972 Jun 16 08:26	0°  ☿					
evening rise	3972 Jun 20 17:48	9°  ☿30'44		superior conj	3973 May 29 03:49	9°  II04'55	-0°04'51
	3972 Jul 01 06:28	0°  Ω		minimum elong	3973 May 29 04:03	9°  II06'12	0°04'49
evening max el	3972 Jul 16 05:09	20°  Ω15'34	24°36'03	behind sun begin	3973 May 28 22:56	8°  II38'46	
desc. node	3972 Jul 18 18:56	22°  Ω32'12		behind sun end	3973 May 29 09:10	9°  II33'39	
retrograde	3972 Jul 30 02:46	27°  Ω17'01		asc. node	3973 May 29 14:54	10°  II04'25	
evening set	3972 Aug 04 04:37	26°  Ω19'03		evening rise	3973 Jun 05 05:31	24°  II17'03	
min. Earth dist.	3972 Aug 09 16:19	23°  Ω28'38	0.56898 AU		3973 Jun 07 23:25	0°  ☿	
inferior conj	3972 Aug 12 10:50	21°  Ω41'36	-5°09'10		3973 Jun 27 02:00	0°  Ω	
minimum elong	3972 Aug 12 09:16	21°  Ω44'10	5°09'06	evening max el	3973 Jun 27 18:22	0°  Ω40'37	22°59'31
morning rise	3972 Aug 20 16:28	17°  Ω36'56		desc. node	3973 Jul 05 15:57	6°  Ω12'21	
direct	3972 Aug 23 07:42	17°  Ω17'48		retrograde	3973 Jul 11 03:26	7°  Ω20'49	
morning max el	3972 Sep 01 16:39	21°  Ω40'43	19°25'43	evening set	3973 Jul 14 16:43	6°  Ω53'13	
asc. node	3972 Sep 07 17:07	29°  Ω00'15		min. Earth dist.	3973 Jul 22 03:19	3°  Ω33'38	0.55472 AU
	3972 Sep 08 09:00	0°  ♍		inferior conj	3973 Jul 23 17:46	2°  Ω37'59	-4°32'49
morning set	3972 Sep 18 22:52	19°  ♍18'03		minimum elong	3973 Jul 23 10:32	2°  Ω48'29	4°31'27
	3972 Sep 24 06:47	0°  ♌			3973 Jul 28 16:32	30°  R☿	
				morning rise	3973 Aug 01 06:37	28°  ☿46'12	
superior conj	3972 Sep 27 00:03	5°  ♌22'42	1°40'24	direct	3973 Aug 04 05:03	28°  ☿25'50	
minimum elong	3972 Sep 27 01:44	5°  ♌30'56	1°40'19		3973 Aug 10 07:18	0°  Ω	
max. Earth dist.	3972 Oct 03 07:07	17°  ♌20'33	1.37935 AU	morning max el	3973 Aug 15 03:31	3°  Ω30'42	20°39'58
evening rise	3972 Oct 07 01:21	24°  ♌06'47		asc. node	3973 Aug 25 14:09	17°  Ω26'13	
	3972 Oct 10 11:02	0°  ♍			3973 Sep 01 06:45	0°  ♍	
desc. node	3972 Oct 14 18:17	7°  ♍07'40		morning set	3973 Sep 03 05:30	3°  ♍57'47	
	3972 Oct 30 04:03	0°  ♌					
evening max el	3972 Nov 11 17:30	14°  ♌56'41	25°06'31	superior conj	3973 Sep 10 17:39	19°  ♍29'07	1°44'21
retrograde	3972 Nov 23 14:35	21°  ♌49'23		minimum elong	3973 Sep 10 17:43	19°  ♍29'25	1°44'20
evening set	3972 Nov 29 08:08	19°  ♌25'51		max. Earth dist.	3973 Sep 15 14:38	29°  ♍13'23	1.36010 AU
min. Earth dist.	3972 Dec 03 20:04	14°  ♌23'58	0.67390 AU		3973 Sep 16 00:13	0°  ♌	
inferior conj	3972 Dec 04 21:20	13°  ♌01'19	0°04'16	evening rise	3973 Sep 19 14:53	6°  ♌51'09	
minimum elong	3972 Dec 04 21:13	13°  ♌01'41	0°04'14	desc. node	3973 Oct 01 15:16	27°  ♌30'49	
transit middle	3972 Dec 04 21:13	13°  ♌01'41	0°04'14		3973 Oct 03 05:14	0°  ♍	
transit begin	3972 Dec 04 18:33	13°  ♌10'27		evening max el	3973 Oct 25 06:00	28°  ♍38'49	26°13'07
transit end	3972 Dec 04 23:54	12°  ♌52'55			3973 Oct 26 16:44	0°  ♌	
asc. node	3972 Dec 04 16:20	13°  ♌17'41		retrograde	3973 Nov 06 22:19	5°  ♌48'32	
morning rise	3972 Dec 10 10:31	7°  ♌03'02		evening set	3973 Nov 13 05:28	3°  ♌13'23	

	3973 Nov 16 09:48	30° κ \mathbb{M}		min. Earth dist.	3974 Oct 31 17:48	12° \mathbb{M} 58'52	0.65396 AU
min. Earth dist.	3973 Nov 17 10:20	28° \mathbb{M} 46'54	0.66566 AU	inferior conj	3974 Nov 02 18:10	10° \mathbb{M} 41'20	-1°54'16
inferior conj	3973 Nov 18 22:46	26° \mathbb{M} 54'37	-0°53'33	minimum elong	3974 Nov 02 21:22	10° \mathbb{M} 32'12	1°52'58
minimum elong	3973 Nov 19 00:12	26° \mathbb{M} 50'11	0°52'55	asc. node	3974 Nov 08 10:24	5° \mathbb{M} 23'25	
asc. node	3973 Nov 21 13:22	23° \mathbb{M} 51'02		morning rise	3974 Nov 09 00:06	5° \mathbb{M} 05'01	
morning rise	3973 Nov 24 19:27	21° \mathbb{M} 05'46		direct	3974 Nov 11 17:50	4° \mathbb{M} 24'22	
direct	3973 Nov 27 21:26	20° \mathbb{M} 11'38		morning max el	3974 Nov 18 05:49	7° \mathbb{M} 53'58	18°10'11
morning max el	3973 Dec 04 15:28	23° \mathbb{M} 54'45	18°45'10		3974 Dec 03 10:00	0° \mathbb{M}	
	3973 Dec 09 16:48	0° \mathbb{M}		morning set	3974 Dec 06 18:02	5° \mathbb{M} 28'05	
morning set	3973 Dec 25 22:52	24° \mathbb{M} 48'03		desc. node	3974 Dec 15 11:35	19° \mathbb{M} 38'42	
desc. node	3973 Dec 28 14:34	28° \mathbb{M} 58'56					
	3973 Dec 29 06:06	0° \mathbb{M}		superior conj	3974 Dec 21 10:57	29° \mathbb{M} 09'25	-0°40'08
max. Earth dist.	3974 Jan 10 10:42	19° \mathbb{M} 08'24	1.45183 AU	minimum elong	3974 Dec 21 05:54	28° \mathbb{M} 49'25	0°39'28
					3974 Dec 21 23:46	0° \mathbb{M}	
superior conj	3974 Jan 11 07:03	20° \mathbb{M} 28'18	-1°24'59	max. Earth dist.	3974 Dec 24 06:18	3° \mathbb{M} 34'49	1.45166 AU
minimum elong	3974 Jan 10 21:52	19° \mathbb{M} 52'16	1°24'00	evening rise	3975 Jan 06 18:41	24° \mathbb{M} 40'15	
	3974 Jan 17 08:11	0° \mathbb{M}			3975 Jan 10 05:04	0° \mathbb{M}	
evening rise	3974 Jan 26 18:25	15° \mathbb{M} 01'59		greatest brilliancy	3975 Jan 19 05:15	13° \mathbb{M} 50'22	-0.7m
greatest brilliancy	3974 Feb 02 18:43	26° \mathbb{M} 18'37	-0.9m		3975 Jan 31 05:34	0° \mathbb{M}	
	3974 Feb 05 02:20	0° \mathbb{M}		evening max el	3975 Jan 31 07:00	0° \mathbb{M} 03'40	19°32'29
evening max el	3974 Feb 16 23:37	16° \mathbb{M} 32'54	18°46'41	asc. node	3975 Feb 04 09:40	3° \mathbb{M} 21'47	
asc. node	3974 Feb 17 12:39	17° \mathbb{M} 05'05		retrograde	3975 Feb 07 13:16	4° \mathbb{M} 14'46	
retrograde	3974 Feb 23 16:14	20° \mathbb{M} 16'49		evening set	3975 Feb 11 02:14	3° \mathbb{M} 01'18	
evening set	3974 Feb 26 21:56	19° \mathbb{M} 16'50			3975 Feb 14 06:17	30° \mathbb{M}	
inferior conj	3974 Mar 04 13:59	13° \mathbb{M} 36'40	3°32'21	inferior conj	3975 Feb 16 13:34	27° \mathbb{M} 05'39	3°14'51
minimum elong	3974 Mar 04 12:51	13° \mathbb{M} 40'10	3°32'16	minimum elong	3975 Feb 16 11:30	27° \mathbb{M} 12'25	3°14'29
min. Earth dist.	3974 Mar 06 09:18	11° \mathbb{M} 23'39	0.65371 AU	min. Earth dist.	3975 Feb 17 17:55	25° \mathbb{M} 32'38	0.66630 AU
morning rise	3974 Mar 10 03:19	7° \mathbb{M} 24'34		morning rise	3975 Feb 21 20:32	20° \mathbb{M} 51'51	
direct	3974 Mar 16 18:16	4° \mathbb{M} 33'45		direct	3975 Feb 28 00:21	18° \mathbb{M} 07'27	
desc. node	3974 Mar 26 13:46	9° \mathbb{M} 11'14		morning max el	3975 Mar 12 08:35	25° \mathbb{M} 28'28	25°46'09
morning max el	3974 Mar 29 23:06	12° \mathbb{M} 19'45	26°55'21	desc. node	3975 Mar 13 10:48	26° \mathbb{M} 36'17	
	3974 Apr 13 02:53	0° \mathbb{M}			3975 Mar 16 11:51	0° \mathbb{M}	
	3974 May 01 10:17	0° \mathbb{M}		morning set	3975 Apr 06 15:12	0° \mathbb{M}	
morning set	3974 May 04 17:49	6° \mathbb{M} 13'34		max. Earth dist.	3975 Apr 17 13:53	18° \mathbb{M} 53'48	
max. Earth dist.	3974 May 09 03:02	14° \mathbb{M} 50'54	1.34154 AU		3975 Apr 21 09:16	26° \mathbb{M} 01'36	1.35770 AU
					3975 Apr 23 10:38	0° \mathbb{M}	
superior conj	3974 May 13 05:20	23° \mathbb{M} 15'27	-0°33'33	superior conj	3975 Apr 26 22:50	6° \mathbb{M} 57'26	-1°02'36
minimum elong	3974 May 13 07:06	23° \mathbb{M} 24'40	0°33'11	minimum elong	3975 Apr 27 02:11	7° \mathbb{M} 14'17	1°02'01
asc. node	3974 May 16 11:56	0° \mathbb{M}		asc. node	3975 May 03 08:57	20° \mathbb{M} 05'02	
	3974 May 16 10:16	0° \mathbb{M}		evening rise	3975 May 04 22:11	23° \mathbb{M} 15'40	
evening rise	3974 May 20 15:41	8° \mathbb{M} 54'26			3975 May 08 06:43	0° \mathbb{M}	
	3974 May 31 20:26	0° \mathbb{M}		evening max el	3975 May 22 19:46	22° \mathbb{M} 23'20	20°07'34
evening max el	3974 Jun 09 13:28	11° \mathbb{M} 15'25	21°26'25	retrograde	3975 Jun 02 08:01	27° \mathbb{M} 30'52	
retrograde	3974 Jun 21 17:43	17° \mathbb{M} 15'00		evening set	3975 Jun 04 07:04	27° \mathbb{M} 20'55	
desc. node	3974 Jun 22 12:58	17° \mathbb{M} 13'31		desc. node	3975 Jun 09 10:00	25° \mathbb{M} 33'57	
evening set	3974 Jun 24 03:17	17° \mathbb{M} 01'51		inferior conj	3975 Jun 13 08:19	23° \mathbb{M} 21'40	-1°09'53
inferior conj	3974 Jul 03 12:26	13° \mathbb{M} 02'09	-3°06'43	minimum elong	3975 Jun 13 05:03	23° \mathbb{M} 26'33	1°08'40
minimum elong	3974 Jul 03 04:25	13° \mathbb{M} 13'21	3°04'12	min. Earth dist.	3975 Jun 15 02:33	22° \mathbb{M} 18'49	0.55172 AU
min. Earth dist.	3974 Jul 03 14:09	12° \mathbb{M} 59'45	0.54845 AU	morning rise	3975 Jun 22 01:28	19° \mathbb{M} 03'22	
morning rise	3974 Jul 12 06:22	9° \mathbb{M} 07'12		direct	3975 Jun 26 03:02	18° \mathbb{M} 27'28	
direct	3974 Jul 15 15:19	8° \mathbb{M} 42'32		morning max el	3975 Jul 09 18:46	25° \mathbb{M} 09'05	23°55'31
morning max el	3974 Jul 28 02:58	14° \mathbb{M} 36'29	22°12'39		3975 Jul 14 07:13	0° \mathbb{M}	
	3974 Aug 08 19:59	0° \mathbb{M}		asc. node	3975 Jul 30 08:13	25° \mathbb{M} 54'20	
asc. node	3974 Aug 12 11:11	6° \mathbb{M} 27'30			3975 Aug 01 08:39	0° \mathbb{M}	
morning set	3974 Aug 18 15:33	18° \mathbb{M} 47'57		morning set	3975 Aug 03 03:10	3° \mathbb{M} 42'06	
	3974 Aug 23 22:14	0° \mathbb{M}					
superior conj	3974 Aug 25 19:34	4° \mathbb{M} 00'20	1°41'06	superior conj	3975 Aug 10 02:55	18° \mathbb{M} 46'46	1°31'53
minimum elong	3974 Aug 25 18:21	3° \mathbb{M} 53'55	1°41'03	minimum elong	3975 Aug 10 00:54	18° \mathbb{M} 35'50	1°31'41
max. Earth dist.	3974 Aug 29 06:12	11° \mathbb{M} 10'51	1.34414 AU	max. Earth dist.	3975 Aug 12 06:33	23° \mathbb{M} 24'20	1.33213 AU
evening rise	3974 Sep 02 20:17	20° \mathbb{M} 20'51			3975 Aug 15 09:46	0° \mathbb{M}	
	3974 Sep 07 23:52	0° \mathbb{M}		evening rise	3975 Aug 17 13:24	4° \mathbb{M} 23'42	
desc. node	3974 Sep 18 12:17	17° \mathbb{M} 35'22			3975 Aug 31 16:46	0° \mathbb{M}	
	3974 Sep 27 04:10	0° \mathbb{M}		desc. node	3975 Sep 05 09:18	7° \mathbb{M} 12'35	
evening max el	3974 Oct 07 18:40	12° \mathbb{M} 13'55	27°01'40	evening max el	3975 Sep 20 06:09	25° \mathbb{M} 29'54	27°25'19
retrograde	3974 Oct 21 00:23	19° \mathbb{M} 30'42			3975 Sep 25 20:03	0° \mathbb{M}	
evening set	3974 Oct 27 19:31	16° \mathbb{M} 49'28		retrograde	3975 Oct 03 20:29	2° \mathbb{M} 47'22	

evening set	3975 Oct 10 23:35	0°♌08'46			3976 Aug 25 04:06	0°♏	
	3975 Oct 11 04:16	30°♏♏		evening max el	3976 Sep 01 14:19	8°♏14'15	27°18'24
min. Earth dist.	3975 Oct 14 16:21	26°♏52'01	0.63874 AU	retrograde	3976 Sep 15 10:02	15°♏28'56	
inferior conj	3975 Oct 17 05:01	24°♏15'43	-2°55'35	evening set	3976 Sep 22 14:04	13°♏04'52	
minimum elong	3975 Oct 17 09:55	24°♏03'05	2°53'52	min. Earth dist.	3976 Sep 26 04:40	10°♏14'57	0.62041 AU
morning rise	3975 Oct 23 21:35	18°♏55'17		inferior conj	3976 Sep 29 04:23	7°♏30'38	-3°53'38
direct	3975 Oct 26 09:28	18°♏24'27		minimum elong	3976 Sep 29 10:17	7°♏17'03	3°52'00
asc. node	3975 Oct 26 07:27	18°♏24'29		morning rise	3976 Oct 06 08:15	2°♏29'13	
morning max el	3975 Nov 01 22:26	21°♏49'35	17°52'26	direct	3976 Oct 08 17:02	2°♏04'53	
	3975 Nov 08 05:27	0°♌		asc. node	3976 Oct 12 04:31	2°♏59'18	
morning set	3975 Nov 18 16:26	17°♌27'23		morning max el	3976 Oct 15 14:11	5°♏33'59	17°52'41
	3975 Nov 26 01:22	0°♏		morning set	3976 Oct 31 11:43	0°♌26'19	
					3976 Oct 31 05:53	0°♌	
superior conj	3975 Dec 01 08:27	8°♏45'38	0°06'59	superior conj	3976 Nov 11 08:20	19°♌39'27	0°46'57
minimum elong	3975 Dec 01 09:13	8°♏48'48	0°06'52	minimum elong	3976 Nov 11 12:10	19°♌55'49	0°46'26
behind sun begin	3975 Dec 01 00:12	8°♏11'58			3976 Nov 17 12:13	0°♏	
behind sun end	3975 Dec 01 18:14	9°♏25'34		desc. node	3976 Nov 18 05:38	1°♏11'24	
desc. node	3975 Dec 02 08:37	10°♏24'05		max. Earth dist.	3976 Nov 18 14:53	1°♏49'13	1.43040 AU
max. Earth dist.	3975 Dec 07 00:39	17°♏54'30	1.44416 AU	evening rise	3976 Nov 25 17:59	13°♏12'12	
	3975 Dec 14 17:34	0°♏			3976 Dec 06 19:09	0°♏	
evening rise	3975 Dec 17 05:25	3°♏50'58		evening max el	3976 Dec 27 05:55	27°♏09'03	21°44'57
	3976 Jan 03 17:21	0°♏			3976 Dec 30 09:18	0°♏	
evening max el	3976 Jan 14 09:13	13°♏35'57	20°32'58	retrograde	3977 Jan 05 08:49	2°♏34'32	
retrograde	3976 Jan 22 11:29	18°♏22'10		asc. node	3977 Jan 08 03:46	1°♏52'28	
asc. node	3976 Jan 22 06:43	18°♏21'57		evening set	3977 Jan 09 16:55	0°♏51'17	
evening set	3976 Jan 26 09:11	16°♏54'18			3977 Jan 10 16:00	30°♏♏	
inferior conj	3976 Jan 31 18:03	10°♏45'55	2°46'44	inferior conj	3977 Jan 15 01:10	24°♏33'26	2°09'56
minimum elong	3976 Jan 31 15:35	10°♏54'21	2°46'06	minimum elong	3977 Jan 14 22:48	24°♏41'40	2°09'09
min. Earth dist.	3976 Feb 01 08:58	9°♏54'58	0.67468 AU	min. Earth dist.	3977 Jan 15 04:03	24°♏23'26	0.67914 AU
morning rise	3976 Feb 05 21:48	4°♏32'14		morning rise	3977 Jan 20 04:30	18°♏21'36	
direct	3976 Feb 11 11:47	2°♏03'24		direct	3977 Jan 25 03:46	16°♏13'37	
morning max el	3976 Feb 22 17:16	8°♏45'51	24°21'55	morning max el	3977 Feb 04 02:52	22°♏07'54	22°52'45
desc. node	3976 Feb 28 07:51	15°♏04'00			3977 Feb 10 22:32	0°♏	
	3976 Mar 10 10:05	0°♏		desc. node	3977 Feb 14 04:53	4°♏15'49	
	3976 Mar 29 06:30	0°♏			3977 Mar 03 17:57	0°♏	
morning set	3976 Mar 29 14:19	0°♏34'01		morning set	3977 Mar 10 12:51	10°♏57'11	
max. Earth dist.	3976 Apr 02 06:35	7°♏05'45	1.37763 AU	max. Earth dist.	3977 Mar 15 01:37	18°♏35'35	1.39939 AU
					3977 Mar 21 12:54	0°♏	
superior conj	3976 Apr 09 05:04	20°♏02'48	-1°29'56	superior conj	3977 Mar 22 19:44	2°♏20'14	-1°52'29
minimum elong	3976 Apr 09 09:37	20°♏24'38	1°29'19	minimum elong	3977 Mar 23 00:15	2°♏40'52	1°52'06
	3976 Apr 14 07:08	0°♏		evening rise	3977 Apr 01 13:48	20°♏40'48	
evening rise	3976 Apr 17 22:36	7°♏14'03		asc. node	3977 Apr 06 03:04	29°♏14'59	
asc. node	3976 Apr 19 06:01	9°♏49'01			3977 Apr 06 12:53	0°♏	
	3976 Apr 30 22:39	0°♏		evening max el	3977 Apr 17 17:56	16°♏39'26	18°28'38
evening max el	3976 May 04 14:06	4°♏13'04	19°07'56	retrograde	3977 Apr 25 07:27	20°♏23'21	
retrograde	3976 May 13 10:30	8°♏31'48		evening set	3977 Apr 27 15:05	20°♏03'24	
evening set	3976 May 15 11:37	8°♏18'56		inferior conj	3977 May 05 02:37	15°♏32'23	2°09'50
inferior conj	3976 May 23 18:57	4°♏07'07	0°43'28	minimum elong	3977 May 05 06:17	15°♏25'04	2°08'47
minimum elong	3976 May 23 20:41	4°♏04'10	0°42'50	min. Earth dist.	3977 May 08 12:57	12°♏49'29	0.58277 AU
desc. node	3976 May 26 07:02	2°♏24'47		morning rise	3977 May 12 18:22	10°♏06'09	
min. Earth dist.	3976 May 26 17:46	2°♏07'01	0.56403 AU	desc. node	3977 May 13 04:04	9°♏54'16	
	3976 May 30 08:25	30°♏♏		direct	3977 May 18 17:34	8°♏34'06	
morning rise	3976 Jun 01 02:35	29°♏13'29		morning max el	3977 Jun 02 02:54	16°♏15'38	26°53'42
direct	3976 Jun 06 03:04	28°♏14'38			3977 Jun 13 08:19	0°♏	
	3976 Jun 12 21:29	0°♏			3977 Jun 30 09:52	0°♏	
morning max el	3976 Jun 20 09:02	5°♏33'17	25°34'27	morning set	3977 Jul 02 00:37	3°♏21'28	
	3976 Jul 08 02:30	0°♏		asc. node	3977 Jul 03 02:21	5°♏37'35	
asc. node	3976 Jul 16 05:17	15°♏39'39					
morning set	3976 Jul 17 14:44	18°♏35'03		superior conj	3977 Jul 09 01:17	18°♏36'55	0°58'57
	3976 Jul 22 21:12	0°♏		minimum elong	3977 Jul 08 23:07	18°♏24'56	0°58'33
superior conj	3976 Jul 24 13:28	3°♏41'07	1°17'36	max. Earth dist.	3977 Jul 01 01:00	18°♏35'20	1.32054 AU
minimum elong	3976 Jul 24 11:08	3°♏28'18	1°17'16		3977 Jul 14 06:10	0°♏	
max. Earth dist.	3976 Jul 25 13:52	5°♏54'53	1.32428 AU	evening rise	3977 Jul 15 21:56	3°♏31'43	
evening rise	3976 Jul 31 14:51	18°♏50'08			3977 Jul 30 01:31	0°♏	
	3976 Aug 06 05:41	0°♏		desc. node	3977 Aug 09 03:20	14°♏15'07	
desc. node	3976 Aug 22 06:19	26°♏11'07					

evening max el	3977 Aug 14 16:52	20° \mathbb{M} 16'14	26°38'13	evening max el	3978 Jul 27 11:59	1° \mathbb{M} 29'33	25°27'11
retrograde	3977 Aug 28 15:41	27° \mathbb{M} 26'46		retrograde	3978 Aug 10 11:14	8° \mathbb{M} 35'04	
evening set	3977 Sep 04 10:26	25° \mathbb{M} 30'17		evening set	3978 Aug 16 07:49	7° \mathbb{M} 15'22	
min. Earth dist.	3977 Sep 08 06:42	22° \mathbb{M} 54'13	0.60005 AU	min. Earth dist.	3978 Aug 20 23:51	4° \mathbb{M} 35'34	0.57968 AU
inferior conj	3977 Sep 11 12:49	20° \mathbb{M} 17'36	-4°41'42	inferior conj	3978 Aug 24 02:47	2° \mathbb{M} 25'26	-5°08'51
minimum elong	3977 Sep 11 18:04	20° \mathbb{M} 07'02	4°40'47	minimum elong	3978 Aug 24 04:30	2° \mathbb{M} 22'25	5°08'47
morning rise	3977 Sep 19 03:43	15° \mathbb{M} 37'52			3978 Aug 27 19:46	30° \mathbb{R} 0	
direct	3977 Sep 21 12:37	15° \mathbb{M} 17'08		morning rise	3978 Sep 01 03:29	28° \mathbb{O} 08'36	
morning max el	3977 Sep 29 01:48	18° \mathbb{M} 58'50	18°12'14	direct	3978 Sep 03 15:49	27° \mathbb{O} 49'12	
asc. node	3977 Sep 29 01:34	18° \mathbb{M} 58'16			3978 Sep 09 22:47	0° \mathbb{M}	
	3977 Oct 07 03:19	0° \mathbb{O}		morning max el	3978 Sep 12 05:53	1° \mathbb{M} 53'29	18°52'36
morning set	3977 Oct 14 22:01	14° \mathbb{O} 08'35		asc. node	3978 Sep 15 22:36	6° \mathbb{M} 05'26	
	3977 Oct 23 09:49	0° \mathbb{M}		morning set	3978 Sep 28 18:43	28° \mathbb{M} 20'13	
					3978 Sep 29 15:01	0° \mathbb{O}	
superior conj	3977 Oct 24 09:20	1° \mathbb{M} 46'45	1°16'04	superior conj	3978 Oct 07 06:05	14° \mathbb{O} 51'53	1°34'19
minimum elong	3977 Oct 24 13:18	2° \mathbb{M} 04'43	1°15'37	minimum elong	3978 Oct 07 08:45	15° \mathbb{O} 04'33	1°34'06
max. Earth dist.	3977 Nov 01 00:12	15° \mathbb{M} 07'42	1.41208 AU	max. Earth dist.	3978 Oct 14 05:40	27° \mathbb{O} 44'32	1.39140 AU
desc. node	3977 Nov 05 02:39	21° \mathbb{M} 57'41			3978 Oct 15 12:18	0° \mathbb{M}	
evening rise	3977 Nov 05 23:12	23° \mathbb{M} 21'29		evening rise	3978 Oct 18 03:22	4° \mathbb{M} 33'23	
	3977 Nov 10 02:52	0° \mathbb{X}		desc. node	3978 Oct 22 23:40	12° \mathbb{M} 38'38	
	3977 Nov 30 19:05	0° \mathbb{O}			3978 Nov 03 05:56	0° \mathbb{X}	
evening max el	3977 Dec 09 22:05	10° \mathbb{O} 45'22	23°03'36	evening max el	3978 Nov 22 11:24	24° \mathbb{X} 25'18	24°23'03
retrograde	3977 Dec 20 03:37	16° \mathbb{O} 49'10			3978 Nov 29 17:44	0° \mathbb{O}	
evening set	3977 Dec 24 23:52	14° \mathbb{O} 49'51		retrograde	3978 Dec 03 18:43	1° \mathbb{O} 02'05	
asc. node	3977 Dec 26 00:49	13° \mathbb{O} 52'20			3978 Dec 07 11:26	30° \mathbb{R} 0	
inferior conj	3977 Dec 30 09:03	8° \mathbb{O} 26'14	1°25'52	evening set	3978 Dec 09 04:26	28° \mathbb{X} 46'49	
minimum elong	3977 Dec 30 07:13	8° \mathbb{O} 32'32	1°25'10	asc. node	3978 Dec 12 21:50	24° \mathbb{X} 40'57	
min. Earth dist.	3977 Dec 30 00:48	8° \mathbb{O} 54'38	0.67995 AU	min. Earth dist.	3978 Dec 13 20:48	22° \mathbb{X} 25'20	0.67718 AU
morning rise	3978 Jan 04 14:28	2° \mathbb{O} 18'05		inferior conj	3978 Dec 14 15:50	23° \mathbb{X} 21'32	0°35'37
direct	3978 Jan 08 23:16	0° \mathbb{O} 32'59		minimum elong	3978 Dec 14 14:59	22° \mathbb{X} 24'23	0°35'16
morning max el	3978 Jan 17 17:03	5° \mathbb{O} 38'24	21°27'41	morning rise	3978 Dec 20 01:36	16° \mathbb{X} 19'09	
desc. node	3978 Feb 01 01:55	23° \mathbb{O} 59'41		direct	3978 Dec 23 21:03	14° \mathbb{X} 56'10	
	3978 Feb 05 05:02	0° \mathbb{O}		morning max el	3978 Dec 31 14:45	19° \mathbb{X} 20'45	20°13'10
morning set	3978 Feb 18 06:29	19° \mathbb{O} 58'27			3979 Jan 09 06:09	0° \mathbb{O}	
	3978 Feb 24 11:42	0° \mathbb{X}		desc. node	3979 Jan 18 22:57	14° \mathbb{O} 06'41	
max. Earth dist.	3978 Feb 25 02:00	0° \mathbb{X} 58'53	1.42025 AU	morning set	3979 Jan 28 04:15	28° \mathbb{O} 09'43	
					3979 Jan 29 08:44	0° \mathbb{O}	
superior conj	3978 Mar 04 13:50	13° \mathbb{X} 38'27	-2°05'56	max. Earth dist.	3979 Feb 07 10:35	14° \mathbb{O} 18'05	1.43732 AU
minimum elong	3978 Mar 04 15:56	13° \mathbb{X} 47'32	2°05'53				
	3978 Mar 13 18:30	0° \mathbb{Y}		superior conj	3979 Feb 13 06:55	23° \mathbb{O} 47'52	-2°04'58
evening rise	3978 Mar 15 16:04	3° \mathbb{Y} 27'30		minimum elong	3979 Feb 13 03:40	23° \mathbb{O} 34'31	2°04'52
asc. node	3978 Mar 24 00:06	18° \mathbb{Y} 16'52			3979 Feb 17 00:32	0° \mathbb{X}	
evening max el	3978 Apr 01 03:46	29° \mathbb{Y} 33'20	18°09'16	evening rise	3979 Feb 26 01:09	15° \mathbb{X} 25'38	
	3978 Apr 01 14:58	0° \mathbb{O}			3979 Mar 06 13:05	0° \mathbb{Y}	
retrograde	3978 Apr 07 22:18	2° \mathbb{O} 59'10		asc. node	3979 Mar 10 21:08	6° \mathbb{Y} 46'54	
evening set	3978 Apr 10 12:30	2° \mathbb{O} 29'30		evening max el	3979 Mar 15 16:16	12° \mathbb{Y} 45'34	18°09'14
	3978 Apr 14 14:13	30° \mathbb{R} 0		retrograde	3979 Mar 22 02:57	16° \mathbb{Y} 08'40	
inferior conj	3978 Apr 17 06:56	27° \mathbb{Y} 37'33	3°04'06	evening set	3979 Mar 24 23:02	15° \mathbb{Y} 27'57	
minimum elong	3978 Apr 17 09:56	27° \mathbb{Y} 30'34	3°03'33	inferior conj	3979 Mar 31 04:19	10° \mathbb{Y} 15'51	3°30'53
min. Earth dist.	3978 Apr 20 14:07	24° \mathbb{Y} 35'17	0.60442 AU	minimum elong	3979 Mar 31 05:38	10° \mathbb{Y} 12'22	3°30'48
morning rise	3978 Apr 24 05:09	21° \mathbb{Y} 48'17		min. Earth dist.	3979 Apr 02 23:43	7° \mathbb{Y} 18'41	0.62572 AU
desc. node	3978 Apr 30 01:07	19° \mathbb{Y} 43'17		morning rise	3979 Apr 06 10:57	4° \mathbb{Y} 12'47	
direct	3978 Apr 30 20:03	19° \mathbb{Y} 41'31		direct	3979 Apr 13 08:05	1° \mathbb{Y} 38'43	
morning max el	3978 May 15 02:59	27° \mathbb{Y} 35'08	27°40'58	desc. node	3979 Apr 16 22:08	2° \mathbb{Y} 16'13	
	3978 May 17 10:34	0° \mathbb{O}		morning max el	3979 Apr 27 08:57	9° \mathbb{Y} 37'13	27°50'51
	3978 Jun 07 00:26	0° \mathbb{I}			3979 May 13 04:58	0° \mathbb{O}	
morning set	3978 Jun 16 06:59	17° \mathbb{I} 55'09			3979 May 30 05:59	0° \mathbb{I}	
asc. node	3978 Jun 19 23:22	25° \mathbb{I} 42'47		morning set	3979 May 31 07:47	2° \mathbb{I} 09'36	
	3978 Jun 21 22:43	0° \mathbb{O}		max. Earth dist.	3979 Jun 05 19:49	13° \mathbb{I} 38'50	1.32541 AU
max. Earth dist.	3978 Jun 22 12:18	1° \mathbb{O} 14'21	1.32091 AU	asc. node	3979 Jun 06 20:23	15° \mathbb{I} 51'04	
superior conj	3978 Jun 23 12:35	3° \mathbb{O} 27'41	0°36'33	superior conj	3979 Jun 07 21:38	18° \mathbb{I} 07'43	0°11'01
minimum elong	3978 Jun 23 11:02	3° \mathbb{O} 19'08	0°36'12	minimum elong	3979 Jun 07 21:07	18° \mathbb{I} 04'53	0°10'54
evening rise	3978 Jun 30 08:21	18° \mathbb{O} 20'30		behind sun begin	3979 Jun 07 17:17	17° \mathbb{I} 44'09	
	3978 Jul 06 01:36	0° \mathbb{O}		behind sun end	3979 Jun 08 00:56	18° \mathbb{I} 25'38	
	3978 Jul 25 24:00	0° \mathbb{M}			3979 Jun 13 08:41	0° \mathbb{O}	
desc. node	3978 Jul 27 00:23	1° \mathbb{M} 01'29					

evening rise	3979 Jun 14 20:09	3°♌09'53		evening rise	3980 May 29 07:24	17°♊52'45	
	3979 Jun 29 08:20	0°♏			3980 Jun 04 07:33	0°♌	
evening max el	3979 Jul 09 01:21	12°♏04'03	23°55'30	evening max el	3980 Jun 19 15:51	22°♌28'09	22°18'42
desc. node	3979 Jul 13 21:22	16°♏00'01		desc. node	3980 Jun 29 18:23	28°♌35'24	
retrograde	3979 Jul 22 18:57	18°♏58'31		retrograde	3980 Jul 02 14:52	28°♌54'13	
evening set	3979 Jul 27 05:37	18°♏14'53		evening set	3980 Jul 05 14:25	28°♌34'33	
min. Earth dist.	3979 Aug 02 11:40	15°♏13'52	0.56220 AU	min. Earth dist.	3980 Jul 13 22:15	24°♌58'37	0.55091 AU
inferior conj	3979 Aug 04 20:25	13°♏47'16	-4°59'55	inferior conj	3980 Jul 14 20:44	24°♌26'52	-4°01'55
minimum elong	3979 Aug 04 16:11	13°♏53'46	4°59'30	minimum elong	3980 Jul 14 12:20	24°♌38'44	3°59'50
morning rise	3979 Aug 13 05:20	9°♏49'51		morning rise	3980 Jul 23 12:11	20°♌36'22	
direct	3979 Aug 15 23:32	9°♏30'21		direct	3980 Jul 26 14:16	20°♌14'55	
morning max el	3979 Aug 25 23:33	14°♏09'04	19°54'42	morning max el	3980 Aug 07 05:27	25°♌40'07	21°17'32
asc. node	3979 Sep 02 19:37	24°♏06'18			3980 Aug 11 05:54	0°♏	
	3979 Sep 06 06:59	0°♐		asc. node	3980 Aug 19 16:39	12°♏48'21	
morning set	3979 Sep 12 22:26	12°♐51'49		morning set	3980 Aug 27 06:45	27°♏36'42	
					3980 Aug 28 10:17	0°♐	
superior conj	3979 Sep 20 17:22	28°♐39'54	1°43'02	superior conj	3980 Sep 03 14:56	12°♐58'26	1°43'46
minimum elong	3979 Sep 20 18:20	28°♐44'43	1°43'00	minimum elong	3980 Sep 03 14:23	12°♐55'40	1°43'46
	3979 Sep 21 09:29	0°♑			3980 Sep 07 21:02	21°♐38'08	1.35282 AU
max. Earth dist.	3979 Sep 26 10:46	9°♑47'01	1.37091 AU	max. Earth dist.	3980 Sep 12 02:33	29°♐51'31	
evening rise	3979 Sep 30 05:45	16°♑46'26		evening rise	3980 Sep 12 04:20	0°♑	
	3979 Oct 07 22:00	0°♒			3980 Sep 25 17:41	23°♑26'07	
desc. node	3979 Oct 09 20:41	3°♒09'49		desc. node	3980 Sep 30 01:08	0°♒	
	3979 Oct 28 16:17	0°♓		evening max el	3980 Oct 17 12:06	21°♒47'19	26°36'19
evening max el	3979 Nov 04 23:40	8°♓07'18	25°36'25	retrograde	3980 Oct 30 10:59	29°♒01'56	
retrograde	3979 Nov 17 05:22	15°♓08'22		retrograde	3980 Nov 05 23:33	26°♒23'04	
evening set	3979 Nov 23 04:57	12°♓39'06		evening set	3980 Nov 10 01:24	22°♒12'01	0.66109 AU
min. Earth dist.	3979 Nov 27 13:44	7°♓52'26	0.67089 AU	min. Earth dist.	3980 Nov 11 18:56	20°♒08'01	-1°19'02
inferior conj	3979 Nov 28 19:46	6°♓16'31	-0°19'47	inferior conj	3980 Nov 11 21:07	20°♒01'31	1°18'08
minimum elong	3979 Nov 28 20:17	6°♓14'53	0°19'33	minimum elong	3980 Nov 15 15:53	15°♒56'57	
asc. node	3979 Nov 29 18:51	5°♓03'25		asc. node	3980 Nov 17 19:23	14°♒24'18	
morning rise	3979 Dec 04 11:57	0°♓22'11		morning rise	3980 Nov 20 17:28	13°♒36'33	
	3979 Dec 05 03:21	30°♒♒		direct	3980 Nov 27 08:14	17°♒13'00	18°28'14
direct	3979 Dec 07 19:40	29°♒18'42		morning max el	3980 Dec 06 21:53	0°♓	
	3979 Dec 10 14:29	0°♓			3980 Dec 17 07:46	16°♓30'11	
morning max el	3979 Dec 14 20:19	3°♓13'44	19°12'45	morning set	3980 Dec 22 16:59	25°♓05'31	
greatest brilliancy	3979 Dec 28 17:11	22°♓00'12	-0.7m	desc. node	3980 Dec 25 19:18	0°♓	
	3980 Jan 02 22:11	0°♔					
desc. node	3980 Jan 05 19:58	4°♔30'12		superior conj	3981 Jan 02 01:55	11°♔27'12	-1°07'01
morning set	3980 Jan 07 05:42	6°♔41'08		minimum elong	3981 Jan 01 17:51	10°♔55'32	1°06'04
max. Earth dist.	3980 Jan 21 01:26	28°♔16'46	1.44852 AU	max. Earth dist.	3981 Jan 02 19:48	12°♔37'18	1.45264 AU
	3980 Jan 22 03:35	0°♕			3981 Jan 13 21:29	0°♕	
superior conj	3980 Jan 23 23:09	2°♕52'26	-1°45'04	evening rise	3981 Jan 18 01:22	6°♕34'06	
minimum elong	3980 Jan 23 14:37	2°♕18'33	1°44'21	greatest brilliancy	3981 Jan 27 17:55	21°♕50'59	-0.8m
evening rise	3980 Feb 07 12:52	26°♕27'51			3981 Feb 02 02:38	0°♖	
	3980 Feb 09 16:15	0°♗		evening max el	3981 Feb 09 14:17	9°♖37'47	19°04'11
asc. node	3980 Feb 25 18:09	24°♗34'53		asc. node	3981 Feb 11 15:11	11°♗29'17	
evening max el	3980 Feb 27 04:31	26°♗08'25	18°27'52	retrograde	3981 Feb 16 12:01	13°♗32'26	
retrograde	3980 Mar 04 16:46	29°♗41'48		evening set	3981 Feb 19 20:34	12°♗27'01	
evening set	3980 Mar 07 18:42	28°♗49'12		inferior conj	3981 Feb 25 10:18	6°♗40'04	3°26'24
inferior conj	3980 Mar 13 14:38	23°♗18'40	3°36'35	minimum elong	3981 Feb 25 08:43	6°♗45'08	3°26'11
minimum elong	3980 Mar 13 14:16	23°♗19'44	3°36'34	min. Earth dist.	3981 Feb 26 23:11	4°♗43'11	0.65958 AU
min. Earth dist.	3980 Mar 15 18:55	20°♗45'42	0.64450 AU	morning rise	3981 Mar 02 20:30	0°♗26'43	
morning rise	3980 Mar 19 09:10	17°♗08'24			3981 Mar 03 09:00	30°♗♒	
direct	3980 Mar 26 04:10	14°♗19'38		direct	3981 Mar 09 07:09	27°♗37'00	
desc. node	3980 Apr 02 19:10	17°♗08'46			3981 Mar 15 23:37	0°♗	
morning max el	3980 Apr 08 18:18	22°♗14'23	27°24'33	desc. node	3981 Mar 20 16:13	3°♗47'08	
	3980 Apr 15 13:57	0°♘		morning max el	3981 Mar 22 04:15	5°♗15'01	26°28'18
	3980 May 05 10:06	0°♙			3981 Apr 10 03:30	0°♘	
morning set	3980 May 14 00:21	15°♙55'51		morning set	3981 Apr 27 05:11	29°♙03'52	
max. Earth dist.	3980 May 18 19:23	25°♙35'29	1.33428 AU		3981 Apr 27 17:05	0°♙	
	3980 May 20 22:04	0°♚		max. Earth dist.	3981 May 01 07:50	6°♙59'07	1.34784 AU
superior conj	3980 May 22 02:29	2°♚30'14	-0°16'53	superior conj	3981 May 06 00:56	16°♙29'10	-0°45'57
minimum elong	3980 May 22 03:21	2°♚34'49	0°16'42	minimum elong	3981 May 06 03:23	16°♙41'46	0°45'29
asc. node	3980 May 23 17:25	5°♚57'40		asc. node	3981 May 10 14:28	25°♙58'49	

	3981 May 12 12:38	0°♂		asc. node	3982 Apr 27 11:32	15°♂50'34	
evening rise	3981 May 13 16:15	2°♂23'23		evening rise	3982 Apr 27 20:29	16°♂35'45	
	3981 May 29 16:14	0°♂			3982 May 04 19:06	0°♂	
evening max el	3981 Jun 01 15:21	3°♂14'43	20°50'45	evening max el	3982 May 15 03:05	14°♂41'07	19°39'47
retrograde	3981 Jun 13 03:39	8°♂52'39		retrograde	3982 May 24 21:25	19°♂26'03	
evening set	3981 Jun 15 06:22	8°♂42'01		evening set	3982 May 26 20:31	19°♂15'24	
desc. node	3981 Jun 16 15:25	8°♂24'13		desc. node	3982 Jun 03 12:28	15°♂53'19	
inferior conj	3981 Jun 24 14:00	4°♂44'45	-2°18'57	inferior conj	3982 Jun 04 14:51	15°♂12'20	-0°19'30
minimum elong	3981 Jun 24 07:35	4°♂53'52	2°16'43	minimum elong	3982 Jun 04 13:58	15°♂13'42	0°19'11
min. Earth dist.	3981 Jun 25 09:56	4°♂16'24	0.54859 AU	min. Earth dist.	3982 Jun 06 23:24	13°♂44'02	0.55597 AU
morning rise	3981 Jul 03 08:29	0°♂41'41		morning rise	3982 Jun 13 04:59	10°♂39'48	
direct	3981 Jul 06 23:32	0°♂13'20		direct	3982 Jun 17 16:11	9°♂55'22	
morning max el	3981 Jul 20 01:00	6°♂29'20	22°55'57	morning max el	3982 Jul 01 15:09	16°♂54'19	24°39'05
	3981 Aug 05 12:15	0°♂			3982 Jul 12 06:37	0°♂	
asc. node	3981 Aug 06 13:42	2°♂01'13		asc. node	3982 Jul 24 10:46	21°♂36'55	
morning set	3981 Aug 11 17:39	12°♂28'47		morning set	3982 Jul 27 05:28	27°♂23'13	
					3982 Jul 28 10:54	0°♂	
superior conj	3981 Aug 18 19:27	27°♂36'59	1°37'52	superior conj	3982 Aug 03 04:25	12°♂27'47	1°26'25
minimum elong	3981 Aug 18 17:49	27°♂28'21	1°37'46	minimum elong	3982 Aug 03 02:12	12°♂15'43	1°26'09
	3981 Aug 19 22:19	0°♂		max. Earth dist.	3982 Aug 04 19:57	16°♂02'25	1.32827 AU
max. Earth dist.	3981 Aug 21 16:10	3°♂40'22	1.33846 AU	evening rise	3982 Aug 10 10:27	27°♂51'15	
evening rise	3981 Aug 26 13:22	13°♂36'42			3982 Aug 11 11:52	0°♂	
	3981 Sep 04 09:33	0°♂			3982 Aug 28 15:07	0°♂	
desc. node	3981 Sep 12 14:43	13°♂20'15		desc. node	3982 Aug 30 11:45	2°♂42'55	
	3981 Sep 25 00:46	0°♂		evening max el	3982 Sep 12 11:10	18°♂21'31	27°26'29
evening max el	3981 Sep 30 00:30	5°♂16'08	27°15'15	retrograde	3982 Sep 26 04:06	25°♂37'20	
retrograde	3981 Oct 13 10:48	12°♂34'23		evening set	3982 Oct 03 08:33	23°♂03'44	
evening set	3981 Oct 20 09:46	9°♂53'11		min. Earth dist.	3982 Oct 06 23:57	19°♂59'19	0.63130 AU
min. Earth dist.	3981 Oct 24 05:30	6°♂17'12	0.64784 AU	inferior conj	3982 Oct 09 17:28	17°♂18'20	-3°20'55
inferior conj	3981 Oct 26 11:04	3°♂50'38	-2°20'23	minimum elong	3982 Oct 09 22:55	17°♂04'54	3°19'09
minimum elong	3981 Oct 26 15:01	3°♂39'48	2°18'52	morning rise	3982 Oct 16 14:46	12°♂05'14	
	3981 Oct 30 07:51	30°♂		direct	3982 Oct 19 01:02	11°♂37'27	
morning rise	3981 Nov 01 21:23	28°♂20'30		asc. node	3982 Oct 20 10:00	11°♂46'33	
asc. node	3981 Nov 02 12:57	28°♂05'00		morning max el	3982 Oct 25 16:29	15°♂03'17	17°50'12
direct	3981 Nov 04 12:13	27°♂44'33			3982 Nov 05 02:14	0°♂	
	3981 Nov 09 16:41	0°♂		morning set	3982 Nov 10 23:21	10°♂13'50	
morning max el	3981 Nov 10 23:55	1°♂11'36	18°00'25		3982 Nov 22 11:20	0°♂	
morning set	3981 Nov 28 15:13	27°♂46'17		superior conj	3982 Nov 22 19:44	0°♂34'58	0°25'08
	3981 Nov 29 23:15	0°♂		minimum elong	3982 Nov 22 22:13	0°♂45'18	0°24'47
desc. node	3981 Dec 09 14:00	15°♂48'03		desc. node	3982 Nov 26 11:02	6°♂34'40	
superior conj	3981 Dec 12 11:23	20°♂26'48	-0°19'47	max. Earth dist.	3982 Nov 29 08:04	11°♂14'02	1.43911 AU
minimum elong	3981 Dec 12 08:58	20°♂17'07	0°19'26	evening rise	3982 Dec 08 03:48	25°♂07'03	
max. Earth dist.	3981 Dec 16 14:51	27°♂01'45	1.44935 AU		3982 Dec 11 08:10	0°♂	
	3981 Dec 18 12:09	0°♂			3983 Jan 01 02:30	0°♂	
evening rise	3981 Dec 28 18:17	15°♂56'27		evening max el	3983 Jan 06 19:37	6°♂42'40	21°02'26
	3982 Jan 06 22:40	0°♂		retrograde	3983 Jan 15 07:42	11°♂44'43	
greatest brilliancy	3982 Jan 11 21:16	7°♂24'37	-0.6m	asc. node	3983 Jan 16 09:18	11°♂38'30	
evening max el	3982 Jan 23 19:39	23°♂09'44	19°56'37	evening set	3983 Jan 19 09:43	10°♂10'18	
asc. node	3982 Jan 29 12:14	27°♂15'18		inferior conj	3983 Jan 24 18:09	3°♂57'37	2°32'03
retrograde	3982 Jan 31 09:45	27°♂34'45		minimum elong	3983 Jan 24 15:39	4°♂06'11	2°31'20
evening set	3982 Feb 04 02:14	26°♂15'25		min. Earth dist.	3983 Jan 25 03:46	3°♂24'26	0.67716 AU
inferior conj	3982 Feb 09 12:17	20°♂14'15	3°04'03		3983 Jan 27 18:08	30°♂	
minimum elong	3982 Feb 09 10:00	20°♂21'57	3°03'34	morning rise	3983 Jan 29 21:25	27°♂44'46	
min. Earth dist.	3982 Feb 10 10:50	18°♂58'52	0.67045 AU	direct	3983 Feb 04 05:15	25°♂24'22	
morning rise	3982 Feb 14 17:32	14°♂00'20			3983 Feb 13 01:25	0°♂	
direct	3982 Feb 20 15:49	11°♂21'21		morning max el	3983 Feb 14 21:41	1°♂46'08	23°43'54
morning max el	3982 Mar 04 13:06	18°♂27'23	25°11'23	desc. node	3983 Feb 22 10:17	10°♂29'14	
desc. node	3982 Mar 07 13:15	21°♂41'13			3983 Mar 08 07:32	0°♂	
	3982 Mar 14 06:52	0°♂		morning set	3983 Mar 22 07:42	22°♂29'09	
	3982 Apr 03 04:50	0°♂		max. Earth dist.	3983 Mar 26 04:57	29°♂13'49	1.38688 AU
morning set	3982 Apr 09 17:38	11°♂20'29			3983 Mar 26 15:23	0°♂	
max. Earth dist.	3982 Apr 13 09:15	18°♂01'33	1.36581 AU	superior conj	3983 Apr 02 14:18	12°♂43'29	-1°40'18
superior conj	3982 Apr 19 14:07	29°♂57'02	-1°14'35	minimum elong	3983 Apr 02 19:03	13°♂05'50	1°39'46
minimum elong	3982 Apr 19 18:03	0°♂16'30	1°13'56	evening rise	3983 Apr 11 17:24	0°♂21'46	
	3982 Apr 19 14:43	0°♂					

	3983 Apr 11 12:56	0°♄			3984 Mar 17 20:21	0°♅	
asc. node	3983 Apr 14 08:35	5°♄27'36		evening rise	3984 Mar 25 03:39	13°♅33'14	
evening max el	3983 Apr 28 01:50	26°♄47'08	18°48'41	asc. node	3984 Mar 31 05:38	24°♅44'28	
	3983 May 02 14:10	0°♅			3984 Apr 03 07:33	0°♄	
retrograde	3983 May 06 07:31	0°♅49'06		evening max el	3984 Apr 10 08:35	9°♄26'09	18°17'53
evening set	3983 May 08 11:23	0°♅33'30		retrograde	3984 Apr 17 12:45	13°♄00'47	
	3983 May 10 05:01	30°♄♄		evening set	3984 Apr 19 23:08	12°♄37'02	
inferior conj	3983 May 16 10:05	26°♄13'36	1°24'06	inferior conj	3984 Apr 27 02:55	7°♄56'54	2°36'35
minimum elong	3983 May 16 13:03	26°♄08'12	1°23'06	minimum elong	3984 Apr 27 06:31	7°♄49'13	2°35'43
min. Earth dist.	3983 May 19 15:43	23°♄53'10	0.57142 AU	min. Earth dist.	3984 Apr 30 13:12	5°♄02'41	0.59182 AU
desc. node	3983 May 21 09:30	22°♄44'04		morning rise	3984 May 04 11:06	2°♄19'16	
morning rise	3983 May 24 11:30	21°♄05'27		desc. node	3984 May 07 06:31	1°♄05'06	
direct	3983 May 29 22:08	19°♄53'36		direct	3984 May 10 17:50	0°♄32'18	
morning max el	3983 Jun 13 06:22	27°♄22'39	26°11'35	morning max el	3984 May 25 03:03	8°♄20'17	27°18'15
	3983 Jun 15 19:25	0°♅			3984 Jun 10 13:29	0°♅	
	3983 Jul 05 14:55	0°♄		morning set	3984 Jun 25 01:05	26°♅55'24	
asc. node	3983 Jul 11 07:49	11°♄28'05			3984 Jun 26 12:05	0°♄	
morning set	3983 Jul 11 16:30	12°♄13'50		asc. node	3984 Jun 27 04:52	1°♄29'36	
				max. Earth dist.	3984 Jul 01 17:10	11°♄20'09	1.32020 AU
superior conj	3983 Jul 18 15:41	27°♄22'56	1°10'12	superior conj	3984 Jul 02 03:27	12°♄16'51	0°49'52
minimum elong	3983 Jul 18 13:22	27°♄10'08	1°09'48	minimum elong	3984 Jul 02 01:29	12°♄06'01	0°49'28
max. Earth dist.	3983 Jul 19 05:31	28°♄39'04	1.32220 AU	evening rise	3984 Jul 08 23:18	27°♄09'30	
	3983 Jul 19 20:14	0°♅			3984 Jul 10 07:46	0°♅	
evening rise	3983 Jul 25 14:35	12°♅24'42			3984 Jul 27 06:54	0°♄	
	3983 Aug 03 15:16	0°♄		desc. node	3984 Aug 03 05:49	8°♄53'52	
desc. node	3983 Aug 17 08:48	21°♄20'14		evening max el	3984 Aug 06 16:21	12°♄28'03	26°11'12
	3983 Aug 24 21:10	0°♄		retrograde	3984 Aug 20 15:43	19°♄37'20	
evening max el	3983 Aug 25 17:16	0°♄48'35	27°05'22	evening set	3984 Aug 27 02:51	17°♄55'25	
retrograde	3983 Sep 08 14:04	8°♄00'49		min. Earth dist.	3984 Aug 31 05:12	15°♄20'16	0.59120 AU
evening set	3983 Sep 15 15:51	5°♄46'55		inferior conj	3984 Sep 03 11:41	12°♄52'19	-4°56'37
min. Earth dist.	3983 Sep 19 07:33	3°♄05'04	0.61194 AU	minimum elong	3984 Sep 03 15:49	12°♄44'27	4°56'07
inferior conj	3983 Sep 22 10:51	0°♄22'00	-4°15'46	morning rise	3984 Sep 11 07:00	8°♄22'48	
minimum elong	3983 Sep 22 16:46	0°♄09'09	4°14'22	direct	3984 Sep 13 16:58	8°♄02'55	
	3983 Sep 22 20:59	30°♄♄		morning max el	3984 Sep 21 15:38	11°♄52'38	18°26'56
morning rise	3983 Sep 29 19:30	25°♄29'33		asc. node	3984 Sep 23 04:03	13°♄27'33	
direct	3983 Oct 02 04:05	25°♄06'55			3984 Oct 03 18:15	0°♄	
asc. node	3983 Oct 07 07:01	26°♄58'19		morning set	3984 Oct 07 16:46	7°♄28'08	
morning max el	3983 Oct 09 06:49	28°♄39'53	17°58'38				
	3983 Oct 10 13:18	0°♄		superior conj	3984 Oct 16 16:52	24°♄35'06	1°25'05
morning set	3983 Oct 25 01:39	23°♄32'57		minimum elong	3984 Oct 16 20:23	24°♄51'22	1°24'43
	3983 Oct 28 13:55	0°♄			3984 Oct 19 16:01	0°♄	
superior conj	3983 Nov 04 06:50	12°♄01'36	1°00'41	max. Earth dist.	3984 Oct 24 03:47	7°♄55'38	1.40331 AU
minimum elong	3983 Nov 04 10:59	12°♄19'49	1°00'09	evening rise	3984 Oct 28 12:36	15°♄19'27	
max. Earth dist.	3983 Nov 11 20:46	24°♄56'40	1.42307 AU	desc. node	3984 Oct 30 05:05	18°♄06'11	
desc. node	3983 Nov 13 08:04	27°♄21'58			3984 Nov 06 17:28	0°♄	
	3983 Nov 14 22:53	0°♄			3984 Nov 28 13:51	0°♄	
evening rise	3983 Nov 17 22:04	4°♄45'16		evening max el	3984 Dec 02 04:39	3°♄53'53	23°37'41
	3983 Dec 04 16:22	0°♄		retrograde	3984 Dec 12 21:38	10°♄13'27	
evening max el	3983 Dec 20 14:10	20°♄17'00	22°17'49	evening set	3984 Dec 17 23:27	8°♄07'07	
retrograde	3983 Dec 30 04:09	25°♄59'03		asc. node	3984 Dec 20 03:19	5°♄55'55	
asc. node	3984 Jan 03 06:18	24°♄30'13		inferior conj	3984 Dec 23 09:24	1°♄41'59	1°05'15
evening set	3984 Jan 03 17:20	24°♄08'45		minimum elong	3984 Dec 23 07:56	1°♄46'59	1°04'41
inferior conj	3984 Jan 09 01:48	17°♄47'51	1°52'03	min. Earth dist.	3984 Dec 22 20:30	2°♄26'04	0.67913 AU
minimum elong	3984 Jan 08 23:36	17°♄55'27	1°51'17		3984 Dec 24 15:35	30°♄♄	
min. Earth dist.	3984 Jan 08 23:46	17°♄54'52	0.67996 AU	morning rise	3984 Dec 28 16:24	25°♄35'58	
morning rise	3984 Jan 14 05:45	11°♄37'33		direct	3985 Jan 01 19:13	24°♄00'41	
direct	3984 Jan 18 22:43	9°♄39'29		morning max el	3985 Jan 10 02:14	28°♄47'59	20°54'27
morning max el	3984 Jan 28 09:00	15°♄12'17	22°15'39		3985 Jan 11 05:54	0°♄	
desc. node	3984 Feb 09 07:18	29°♄56'03		desc. node	3985 Jan 26 04:18	19°♄50'30	
	3984 Feb 09 08:27	0°♄			3985 Feb 01 23:50	0°♄	
	3984 Feb 29 07:54	0°♄		morning set	3985 Feb 09 01:03	10°♄50'57	
morning set	3984 Mar 01 17:57	2°♄17'19		max. Earth dist.	3985 Feb 17 05:35	23°♄53'43	1.42810 AU
max. Earth dist.	3984 Mar 07 02:11	11°♄07'15	1.40858 AU		3985 Feb 20 22:45	0°♄	
superior conj	3984 Mar 14 20:52	24°♄37'20	-1°59'36	superior conj	3985 Feb 24 04:41	5°♄26'38	-2°07'38
minimum elong	3984 Mar 15 00:43	24°♄54'34	1°59'22	minimum elong	3985 Feb 24 04:49	5°♄27'12	2°07'37

evening rise	3985 Mar 07 23:09	26° X 00'12		superior conj	3986 Feb 04 10:44	15° \approx 07'05	-1°58'59
	3985 Mar 10 04:53	0° Y		minimum elong	3986 Feb 04 04:53	14° \approx 43'28	1°58'40
asc. node	3985 Mar 18 02:39	13° Y 33'48			3986 Feb 13 11:45	0° X	
evening max el	3985 Mar 24 19:53	22° Y 28'34	18°06'53	evening rise	3986 Feb 17 23:33	7° X 34'53	
retrograde	3985 Mar 31 09:59	25° Y 51'38			3986 Mar 03 16:37	0° Y	
evening set	3985 Apr 03 02:37	25° Y 17'34		asc. node	3986 Mar 04 23:39	1° Y 47'18	
inferior conj	3985 Apr 09 15:00	20° Y 17'07	3°18'24	evening max el	3986 Mar 08 08:41	5° Y 46'31	18°14'56
minimum elong	3985 Apr 09 17:20	20° Y 11'22	3°18'05	retrograde	3986 Mar 14 18:53	9° Y 12'09	
min. Earth dist.	3985 Apr 12 18:01	17° Y 13'53	0.61370 AU	evening set	3986 Mar 17 17:27	8° Y 26'28	
morning rise	3985 Apr 16 06:12	14° Y 20'44		inferior conj	3986 Mar 23 18:22	3° Y 06'34	3°35'30
direct	3985 Apr 23 00:53	12° Y 00'42		minimum elong	3986 Mar 23 18:56	3° Y 05'00	3°35'28
desc. node	3985 Apr 24 03:32	12° Y 04'16		min. Earth dist.	3986 Mar 26 07:39	0° Y 17'37	0.63421 AU
morning max el	3985 May 07 05:54	19° Y 58'13	27°49'42		3986 Mar 26 14:18	30° R X	
	3985 May 15 19:45	0° X		morning rise	3986 Mar 29 19:26	26° X 59'59	
	3985 Jun 03 11:00	0° II		direct	3986 Apr 05 16:48	24° X 17'39	
morning set	3985 Jun 09 05:22	11° II 21'44		desc. node	3986 Apr 11 00:33	25° X 40'33	
asc. node	3985 Jun 14 01:55	21° II 36'40			3986 Apr 17 04:04	0° Y	
max. Earth dist.	3985 Jun 15 03:09	23° II 53'27	1.32225 AU	morning max el	3986 Apr 19 13:26	2° Y 15'42	27°43'38
					3986 May 10 02:54	0° X	
superior conj	3985 Jun 16 14:01	27° II 03'43	0°26'02	morning set	3986 May 24 03:01	25° X 25'06	
minimum elong	3985 Jun 16 12:51	26° II 57'21	0°25'47		3986 May 26 09:18	0° II	
	3985 Jun 17 22:11	0° X		max. Earth dist.	3986 May 29 07:34	6° II 06'21	1.32862 AU
evening rise	3985 Jun 23 10:30	11° X 58'59					
	3985 Jul 02 13:21	0° Ω		superior conj	3986 May 31 21:34	11° II 37'14	-0°00'37
evening max el	3985 Jul 19 08:27	23° Ω 22'23	24°49'53	minimum elong	3986 May 31 21:35	11° II 37'24	0°00'36
desc. node	3985 Jul 21 02:48	24° Ω 58'31		behind sun begin	3986 May 31 16:18	11° II 08'57	
	3985 Jul 29 23:40	0° II		behind sun end	3986 Jun 01 02:53	12° II 05'53	
retrograde	3985 Aug 02 06:55	0° II 25'16		asc. node	3986 May 31 22:57	11° II 44'43	
	3985 Aug 05 14:27	30° R Ω		evening rise	3986 Jun 07 22:19	26° II 46'21	
evening set	3985 Aug 07 13:52	29° Ω 21'54			3986 Jun 09 11:10	0° X	
min. Earth dist.	3985 Aug 12 19:53	26° Ω 34'40	0.57160 AU		3986 Jun 27 08:42	0° Ω	
inferior conj	3985 Aug 15 17:04	24° Ω 41'10	-5°10'29	evening max el	3986 Jun 30 21:33	3° Ω 49'07	23°14'06
minimum elong	3985 Aug 15 16:24	24° Ω 42'15	5°10'29	desc. node	3986 Jul 07 23:49	9° Ω 00'31	
morning rise	3985 Aug 23 21:26	20° Ω 33'26		retrograde	3986 Jul 14 09:14	10° Ω 33'26	
direct	3985 Aug 26 11:47	20° Ω 14'19		evening set	3986 Jul 18 03:59	10° Ω 02'11	
morning max el	3985 Sep 04 15:40	24° Ω 32'12	19°16'25	min. Earth dist.	3986 Jul 25 06:59	6° Ω 47'54	0.55643 AU
	3985 Sep 09 08:13	0° II		inferior conj	3986 Jul 27 02:38	5° Ω 44'01	-4°41'42
asc. node	3985 Sep 10 01:06	0° II 59'25		minimum elong	3986 Jul 26 20:04	5° Ω 53'41	4°40'36
morning set	3985 Sep 21 16:48	21° II 49'09		morning rise	3986 Aug 04 14:29	1° Ω 51'13	
	3985 Sep 25 19:02	0° Ω		direct	3986 Aug 07 11:49	1° Ω 31'05	
				morning max el	3986 Aug 18 04:18	6° Ω 28'49	20°27'34
superior conj	3985 Sep 29 20:24	8° Ω 00'14	1°39'05	asc. node	3986 Aug 27 22:09	19° Ω 19'14	
minimum elong	3985 Sep 29 22:21	8° Ω 09'40	1°38'58		3986 Sep 02 17:49	0° II	
max. Earth dist.	3985 Oct 06 08:01	20° Ω 13'59	1.38243 AU	morning set	3986 Sep 05 22:46	6° II 27'05	
evening rise	3985 Oct 10 02:38	26° Ω 58'38					
	3985 Oct 11 20:30	0° II		superior conj	3986 Sep 13 12:30	22° II 02'12	1°44'13
desc. node	3985 Oct 17 02:07	8° II 43'43		minimum elong	3986 Sep 13 12:48	22° II 03'39	1°44'14
	3985 Oct 31 05:53	0° X			3986 Sep 17 12:19	0° Ω	
evening max el	3985 Nov 14 17:21	17° X 35'15	24°55'32	max. Earth dist.	3986 Sep 18 14:53	2° Ω 09'08	1.36284 AU
retrograde	3985 Nov 26 11:04	24° X 24'06		evening rise	3986 Sep 22 13:26	9° Ω 35'16	
evening set	3985 Dec 02 02:31	22° X 02'45		desc. node	3986 Oct 03 23:08	29° Ω 09'11	
min. Earth dist.	3985 Dec 06 15:36	16° X 55'40	0.67487 AU		3986 Oct 04 11:56	0° II	
asc. node	3985 Dec 07 00:19	16° X 27'03			3986 Oct 26 22:42	0° X	
inferior conj	3985 Dec 07 15:13	15° X 37'52	0°12'43	evening max el	3986 Oct 28 05:51	1° X 17'41	26°04'06
minimum elong	3985 Dec 07 14:54	15° X 38'55	0°12'35	retrograde	3986 Nov 09 19:29	8° X 25'11	
transit middle	3985 Dec 07 14:54	15° X 38'55	0°12'35	evening set	3986 Nov 16 00:45	5° X 51'27	
transit begin	3985 Dec 07 13:09	15° X 44'40		min. Earth dist.	3986 Nov 20 06:39	1° X 19'41	0.66715 AU
transit end	3985 Dec 07 16:38	15° X 33'11			3986 Nov 21 08:17	30° R II	
morning rise	3985 Dec 13 03:26	9° X 38'21		inferior conj	3986 Nov 21 17:23	29° II 31'38	-0°44'30
direct	3985 Dec 16 17:39	8° X 24'00		minimum elong	3986 Nov 21 18:34	29° II 27'56	0°44'00
morning max el	3985 Dec 24 03:16	12° X 34'58	19°45'34	asc. node	3986 Nov 23 21:21	26° II 55'35	
	3986 Jan 06 08:28	0° X		morning rise	3986 Nov 27 12:50	23° II 41'15	
greatest brilliancy	3986 Jan 06 08:31	0° X 00'13	-0.7m	direct	3986 Nov 30 16:16	22° II 44'45	
desc. node	3986 Jan 13 01:21	10° X 05'16		morning max el	3986 Dec 07 11:43	26° II 30'28	18°51'49
morning set	3986 Jan 18 21:04	19° X 01'04			3986 Dec 10 13:42	0° X	
	3986 Jan 25 22:34	0° \approx		morning set	3986 Dec 29 07:23	28° X 01'17	
max. Earth dist.	3986 Jan 30 16:40	7° \approx 30'10	1.44293 AU	desc. node	3986 Dec 30 22:24	0° X 34'14	

	3986 Dec 30 13:40	0° Z		superior conj	3987 Dec 24 22:02	2° Z 30'00 -0°47'22	
max. Earth dist.	3987 Jan 13 09:41	21° Z 41'20 1.45121 AU		minimum elong	3987 Dec 24 16:04	2° Z 06'32 0°46'34	
				max. Earth dist.	3987 Dec 27 05:11	6° Z 06'57 1.45211 AU	
superior conj	3987 Jan 14 19:09	23° Z 52'54 -1°30'47		evening rise	3988 Jan 10 04:37	27° Z 57'26	
minimum elong	3987 Jan 14 09:54	23° Z 16'29 1°29'52			3988 Jan 11 12:03	0° \approx	
	3987 Jan 18 16:13	0° \approx		greatest brilliancy	3988 Jan 21 23:12	16° \approx 12'04 -0.7m	
evening rise	3987 Jan 30 01:24	18° \approx 12'46			3988 Jan 31 18:09	0° X	
	3987 Feb 06 08:14	0° X		evening max el	3988 Feb 03 04:17	2° X 43'33 19°24'39	
asc. node	3987 Feb 19 20:40	19° X 14'23		asc. node	3988 Feb 06 17:43	5° X 41'23	
evening max el	3987 Feb 19 20:14	19° X 13'19 18°41'15		retrograde	3988 Feb 10 08:09	6° X 50'14	
retrograde	3987 Feb 26 11:26	22° X 54'07		evening set	3988 Feb 13 19:56	5° X 38'53	
evening set	3987 Mar 01 16:09	21° X 56'00		inferior conj	3988 Feb 19 07:47	29° \approx 45'19 3°18'14	
inferior conj	3987 Mar 07 09:06	16° X 18'11 3°33'56		minimum elong	3988 Feb 19 05:50	29° \approx 51'42 3°17'55	
minimum elong	3987 Mar 07 08:09	16° X 21'04 3°33'51			3988 Feb 19 03:17	30° $\text{R}\approx$	
min. Earth dist.	3987 Mar 09 06:41	13° X 59'49 0.65145 AU		min. Earth dist.	3988 Feb 20 14:17	28° \approx 06'03 0.66465 AU	
morning rise	3987 Mar 12 23:41	10° X 06'30		morning rise	3988 Feb 24 15:29	23° \approx 31'29	
direct	3987 Mar 19 15:50	7° X 15'55		direct	3988 Mar 01 21:07	20° \approx 45'29	
desc. node	3987 Mar 28 21:36	11° X 22'33		morning max el	3988 Mar 14 09:01	28° \approx 11'33 25°57'42	
morning max el	3987 Apr 01 23:15	15° X 04'19 27°03'49		desc. node	3988 Mar 14 18:38	28° \approx 36'05	
	3987 Apr 14 04:26	0° Y			3988 Mar 16 02:26	0° X	
	3987 May 02 20:26	0° B			3988 Apr 06 22:16	0° Y	
morning set	3987 May 07 15:08	8° B 56'54		morning set	3988 Apr 19 13:41	21° Y 44'53	
max. Earth dist.	3987 May 12 02:54	17° B 50'17 1.33955 AU		max. Earth dist.	3988 Apr 23 10:51	29° Y 04'22 1.35503 AU	
					3988 Apr 23 22:22	0° B	
superior conj	3987 May 16 00:04	25° B 51'17 -0°29'08					
minimum elong	3987 May 16 01:35	25° B 59'16 0°28'48		superior conj	3988 Apr 28 18:58	9° B 37'50 -0°58'15	
	3987 May 17 23:16	0° II		minimum elong	3988 Apr 28 22:05	9° B 53'37 0°57'41	
asc. node	3987 May 18 20:00	1° II 49'52		asc. node	3988 May 04 17:02	21° B 47'26	
evening rise	3987 May 23 08:52	11° II 25'39		evening rise	3988 May 06 16:04	25° B 49'31	
	3987 Jun 02 00:07	0° E			3988 May 08 17:25	0° II	
evening max el	3987 Jun 12 15:11	14° E 19'51 21°39'30		evening max el	3988 May 24 19:38	25° II 21'36 20°18'06	
desc. node	3987 Jun 24 20:50	20° E 26'47			3988 May 31 20:44	0° E	
retrograde	3987 Jun 25 00:39	20° E 26'51		retrograde	3988 Jun 04 14:17	0° E 37'10	
evening set	3987 Jun 27 13:22	20° E 12'22		evening set	3988 Jun 06 13:45	0° E 27'17	
inferior conj	3987 Jul 06 22:19	16° E 10'58 -3°22'30			3988 Jun 08 11:47	30° RII	
minimum elong	3987 Jul 06 13:59	16° E 22'37 3°20'00		desc. node	3988 Jun 10 17:52	29° II 08'48	
min. Earth dist.	3987 Jul 06 17:35	16° E 17'35 0.54882 AU		inferior conj	3988 Jun 15 17:03	26° II 28'55 -1°28'08	
morning rise	3987 Jul 15 15:46	12° E 17'59		minimum elong	3988 Jun 15 12:54	26° II 35'01 1°26'37	
direct	3987 Jul 18 22:47	11° E 54'20		min. Earth dist.	3988 Jun 17 05:47	25° II 34'59 0.55063 AU	
morning max el	3987 Jul 31 05:19	17° E 40'32 21°57'58		morning rise	3988 Jun 24 10:49	22° II 14'59	
	3987 Aug 09 23:52	0° Ω		direct	3988 Jun 28 09:21	21° II 41'25	
asc. node	3987 Aug 14 19:14	8° Ω 15'39		morning max el	3988 Jul 11 21:59	28° II 16'49 23°40'07	
morning set	3987 Aug 21 08:26	21° Ω 15'50			3988 Jul 13 15:36	0° E	
	3987 Aug 25 11:39	0° P		asc. node	3988 Jul 31 16:18	27° E 38'57	
					3988 Aug 01 20:31	0° Ω	
superior conj	3987 Aug 28 13:24	6° P 30'06 1°42'00		morning set	3988 Aug 04 19:57	6° Ω 09'33	
minimum elong	3987 Aug 28 12:21	6° P 24'35 1°41'58					
max. Earth dist.	3987 Sep 01 05:03	14° P 04'08 1.34627 AU		superior conj	3988 Aug 11 20:07	21° Ω 14'46 1°33'38	
evening rise	3987 Sep 05 16:44	22° P 58'28		minimum elong	3988 Aug 11 18:11	21° Ω 04'22 1°33'27	
	3987 Sep 09 10:20	0° U		max. Earth dist.	3988 Aug 14 04:03	26° Ω 14'16 1.33360 AU	
desc. node	3987 Sep 20 20:09	19° U 16'46			3988 Aug 15 22:54	0° P	
	3987 Sep 28 04:17	0° M		evening rise	3988 Aug 19 08:20	6° P 56'58	
evening max el	3987 Oct 10 18:27	14° M 53'53 26°55'49			3988 Aug 31 23:24	0° U	
retrograde	3987 Oct 23 22:28	22° M 10'18		desc. node	3988 Sep 06 17:11	8° U 58'48	
evening set	3987 Oct 30 16:04	19° M 29'21		evening max el	3988 Sep 22 06:10	28° U 13'29 27°23'40	
min. Earth dist.	3987 Nov 03 15:13	15° M 33'35 0.65592 AU			3988 Sep 24 05:18	0° M	
inferior conj	3987 Nov 05 13:50	13° M 19'18 -1°44'58		retrograde	3988 Oct 05 19:40	5° M 31'37	
minimum elong	3987 Nov 05 16:46	13° M 10'50 1°43'46		evening set	3988 Oct 12 21:53	2° M 51'52	
asc. node	3987 Nov 10 18:25	8° M 16'06			3988 Oct 16 03:32	30° RU	
morning rise	3987 Nov 11 18:19	7° M 41'06		min. Earth dist.	3988 Oct 16 15:17	29° U 30'22 0.64118 AU	
direct	3987 Nov 14 13:07	6° M 58'44		inferior conj	3988 Oct 19 02:11	26° U 56'10 -2°46'27	
morning max el	3987 Nov 21 01:34	10° M 29'42 18°14'21		minimum elong	3988 Oct 19 06:51	26° U 43'56 2°44'44	
	3987 Dec 04 17:18	0° J		morning rise	3988 Oct 25 17:06	21° U 33'12	
morning set	3987 Dec 09 22:07	8° J 27'54		asc. node	3988 Oct 27 15:30	21° U 02'59	
desc. node	3987 Dec 17 19:25	21° J 12'44		direct	3988 Oct 28 05:37	21° U 01'13	
	3987 Dec 23 08:01	0° Z		morning max el	3988 Nov 03 18:06	24° U 26'39 17°53'56	
					3988 Nov 08 06:45	0° M	

morning set	3988 Nov 20 16:51	20° \mathbb{M} 16'35		morning set	3989 Nov 03 09:26	3° \mathbb{M} 07'52	
	3988 Nov 26 10:33	0° \mathbb{X}					
superior conj	3988 Dec 03 16:04	11° \mathbb{X} 55'55	0°00'07	superior conj	3989 Nov 14 11:55	22° \mathbb{M} 37'42	0°41'33
minimum elong	3988 Dec 03 16:04	11° \mathbb{X} 55'56	0°00'08	minimum elong	3989 Nov 14 15:29	22° \mathbb{M} 52'53	0°41'03
behind sun begin	3988 Dec 03 06:06	11° \mathbb{X} 15'27		desc. node	3989 Nov 18 21:25	0° \mathbb{X}	
behind sun end	3988 Dec 04 02:02	12° \mathbb{X} 36'22		max. Earth dist.	3989 Nov 20 13:28	2° \mathbb{X} 44'37	
desc. node	3988 Dec 03 16:27	11° \mathbb{X} 57'31		evening rise	3989 Nov 21 14:34	4° \mathbb{X} 26'53	1.43283 AU
max. Earth dist.	3988 Dec 08 23:41	20° \mathbb{X} 27'54	1.44570 AU		3989 Nov 29 03:44	16° \mathbb{X} 26'52	
	3988 Dec 15 01:20	0° \mathbb{Z}			3989 Dec 08 01:04	0° \mathbb{Z}	
evening rise	3988 Dec 19 16:29	7° \mathbb{Z} 09'45		evening max el	3989 Dec 30 04:50	29° \mathbb{Z} 48'15	21°33'41
	3989 Jan 03 20:29	0° \mathbb{A}			3989 Dec 30 09:28	0° \mathbb{A}	
evening max el	3989 Jan 16 07:19	16° \mathbb{A} 15'24	20°23'10	retrograde	3990 Jan 08 03:49	5° \mathbb{A} 07'33	
asc. node	3989 Jan 23 14:46	20° \mathbb{A} 53'49		asc. node	3990 Jan 10 11:48	4° \mathbb{A} 38'03	
retrograde	3989 Jan 24 06:21	20° \mathbb{A} 56'08		evening set	3990 Jan 12 10:17	3° \mathbb{A} 26'41	
evening set	3989 Jan 28 02:36	19° \mathbb{A} 30'34			3990 Jan 15 16:12	30° \mathbb{R} \mathbb{Z}	
inferior conj	3989 Feb 02 11:42	13° \mathbb{A} 23'56	2°51'34	inferior conj	3990 Jan 17 18:33	27° \mathbb{Z} 10'08	2°15'59
minimum elong	3989 Feb 02 09:16	13° \mathbb{A} 32'14	2°50'58	minimum elong	3990 Jan 17 16:08	27° \mathbb{Z} 18'31	2°15'14
min. Earth dist.	3989 Feb 03 04:34	12° \mathbb{A} 26'35	0.67370 AU	min. Earth dist.	3990 Jan 17 23:11	26° \mathbb{Z} 54'05	0.67878 AU
morning rise	3989 Feb 07 15:45	7° \mathbb{A} 10'02		morning rise	3990 Jan 22 21:46	20° \mathbb{Z} 57'57	
direct	3989 Feb 13 07:55	4° \mathbb{A} 38'17		direct	3990 Jan 27 23:17	18° \mathbb{Z} 46'34	
morning max el	3989 Feb 24 17:42	11° \mathbb{A} 27'31	24°34'56	morning max el	3990 Feb 07 02:49	24° \mathbb{Z} 48'00	23°05'53
desc. node	3989 Mar 01 15:40	16° \mathbb{A} 55'15			3990 Feb 11 18:52	0° \mathbb{A}	
	3989 Mar 11 13:34	0° \mathbb{H}		desc. node	3990 Feb 16 12:41	6° \mathbb{A} 00'53	
	3989 Mar 30 16:01	0° \mathbb{Y}			3990 Mar 05 01:12	0° \mathbb{H}	
morning set	3989 Apr 01 17:24	3° \mathbb{Y} 34'45		morning set	3990 Mar 13 20:06	14° \mathbb{H} 09'48	
max. Earth dist.	3989 Apr 05 08:48	10° \mathbb{Y} 05'44	1.37448 AU	max. Earth dist.	3990 Mar 18 03:36	21° \mathbb{H} 29'14	1.39613 AU
					3990 Mar 22 23:22	0° \mathbb{Y}	
superior conj	3989 Apr 12 03:05	22° \mathbb{Y} 48'54	-1°26'01	superior conj	3990 Mar 25 20:22	5° \mathbb{Y} 14'12	-1°49'32
minimum elong	3989 Apr 12 07:30	23° \mathbb{Y} 10'17	1°25'24	minimum elong	3990 Mar 26 01:01	5° \mathbb{Y} 35'36	1°49'07
	3989 Apr 15 18:57	0° \mathbb{B}		evening rise	3990 Apr 04 10:19	23° \mathbb{Y} 23'09	
evening rise	3989 Apr 20 17:33	9° \mathbb{B} 51'19			3990 Apr 07 21:48	0° \mathbb{B}	
asc. node	3989 Apr 21 14:04	11° \mathbb{B} 33'12		asc. node	3990 Apr 08 11:07	1° \mathbb{B} 02'11	
	3989 May 01 20:04	0° \mathbb{I}		evening max el	3990 Apr 20 15:01	19° \mathbb{B} 26'57	18°33'15
evening max el	3989 May 07 12:21	7° \mathbb{I} 05'14	19°15'32	retrograde	3990 Apr 28 08:16	23° \mathbb{B} 14'53	
retrograde	3989 May 16 14:12	11° \mathbb{I} 30'15		evening set	3990 Apr 30 14:57	22° \mathbb{B} 56'07	
evening set	3989 May 18 14:34	11° \mathbb{I} 18'08		inferior conj	3990 May 08 05:20	18° \mathbb{B} 28'06	1°58'48
inferior conj	3989 May 27 00:53	7° \mathbb{I} 08'57	0°27'42	minimum elong	3990 May 08 08:54	18° \mathbb{B} 21'08	1°57'44
minimum elong	3989 May 27 02:01	7° \mathbb{I} 07'02	0°27'17	min. Earth dist.	3990 May 11 14:58	15° \mathbb{B} 50'22	0.57969 AU
desc. node	3989 May 28 14:54	6° \mathbb{I} 05'21		desc. node	3990 May 15 11:54	13° \mathbb{B} 21'14	
min. Earth dist.	3989 May 29 20:36	5° \mathbb{I} 16'37	0.56172 AU	morning rise	3990 May 15 23:40	13° \mathbb{B} 06'24	
morning rise	3989 Jun 04 10:25	2° \mathbb{I} 20'41		direct	3990 May 21 19:53	11° \mathbb{B} 39'41	
direct	3989 Jun 09 07:27	1° \mathbb{I} 25'51		morning max el	3990 Jun 05 04:59	19° \mathbb{B} 18'09	26°43'43
morning max el	3989 Jun 23 11:59	8° \mathbb{I} 40'04	25°20'37		3990 Jun 14 06:29	0° \mathbb{I}	
	3989 Jul 09 09:14	0° \mathbb{D}			3990 Jul 01 21:53	0° \mathbb{D}	
asc. node	3989 Jul 18 13:20	17° \mathbb{D} 21'40		morning set	3990 Jul 04 17:49	5° \mathbb{D} 50'35	
morning set	3989 Jul 20 07:36	21° \mathbb{D} 02'45		asc. node	3990 Jul 05 10:22	7° \mathbb{D} 18'04	
	3989 Jul 24 11:08	0° \mathbb{Q}					
superior conj	3989 Jul 27 06:18	6° \mathbb{Q} 08'13	1°20'05	superior conj	3990 Jul 11 18:01	21° \mathbb{D} 04'17	1°02'03
minimum elong	3989 Jul 27 03:59	5° \mathbb{Q} 55'31	1°19'45	minimum elong	3990 Jul 11 15:48	20° \mathbb{D} 51'59	1°01'39
max. Earth dist.	3989 Jul 28 10:27	8° \mathbb{Q} 42'11	1.32516 AU	max. Earth dist.	3990 Jul 11 21:20	21° \mathbb{D} 22'32	1.32087 AU
evening rise	3989 Aug 03 08:44	21° \mathbb{Q} 20'26			3990 Jul 15 19:42	0° \mathbb{Q}	
	3989 Aug 07 16:38	0° \mathbb{P}		evening rise	3990 Jul 18 15:08	6° \mathbb{Q} 00'28	
desc. node	3989 Aug 24 14:13	28° \mathbb{P} 04'00			3990 Jul 31 06:55	0° \mathbb{P}	
	3989 Aug 26 00:21	0° \mathbb{U}		desc. node	3990 Aug 11 11:14	16° \mathbb{P} 17'22	
evening max el	3989 Sep 04 15:04	11° \mathbb{U} 03'33	27°21'37	evening max el	3990 Aug 17 18:41	23° \mathbb{P} 12'33	26°46'15
retrograde	3989 Sep 18 10:18	18° \mathbb{U} 18'45			3990 Aug 28 15:56	0° \mathbb{U}	
evening set	3989 Sep 25 14:39	15° \mathbb{U} 51'53		retrograde	3990 Aug 31 17:00	0° \mathbb{U} 23'10	
min. Earth dist.	3989 Sep 29 05:16	12° \mathbb{U} 58'30	0.62327 AU		3990 Sep 03 16:48	30° \mathbb{R} \mathbb{P}	
inferior conj	3989 Oct 02 03:27	10° \mathbb{U} 14'34	-3°45'21	evening set	3990 Sep 07 13:57	28° \mathbb{P} 21'55	
minimum elong	3989 Oct 02 09:18	10° \mathbb{U} 00'53	3°43'39	min. Earth dist.	3990 Sep 11 08:43	25° \mathbb{P} 44'48	0.60319 AU
morning rise	3989 Oct 09 05:37	5° \mathbb{U} 09'59		inferior conj	3990 Sep 14 14:18	23° \mathbb{P} 06'04	-4°35'28
direct	3989 Oct 11 14:39	4° \mathbb{U} 44'54		minimum elong	3990 Sep 14 19:48	22° \mathbb{P} 54'45	4°34'25
asc. node	3989 Oct 14 12:33	5° \mathbb{U} 23'47		morning rise	3990 Sep 22 03:36	18° \mathbb{P} 22'49	
morning max el	3989 Oct 18 10:08	8° \mathbb{U} 13'01	17°51'25	direct	3990 Sep 24 12:20	18° \mathbb{P} 01'38	
	3989 Nov 01 15:28	0° \mathbb{M}		asc. node	3990 Oct 01 09:34	21° \mathbb{P} 10'30	
				morning max el	3990 Oct 01 22:30	21° \mathbb{P} 40'48	18°08'02

	3990 Oct 08 07:58	0°♄			3991 Oct 01 02:31	0°♄	
morning set	3990 Oct 17 17:49	16°♄44'21		morning set	3991 Oct 01 13:09	0°♄51'50	
	3990 Oct 24 20:49	0°♄					
superior conj	3990 Oct 27 09:25	4°♄34'30	1°12'22	superior conj	3991 Oct 10 03:34	17°♄31'46	1°32'11
minimum elong	3990 Oct 27 13:30	4°♄52'48	1°11'54	minimum elong	3991 Oct 10 06:28	17°♄45'28	1°31'57
max. Earth dist.	3990 Nov 04 00:52	17°♄52'04	1.41507 AU	max. Earth dist.	3991 Oct 16 22:53	0°♄	
desc. node	3990 Nov 07 10:31	23°♄31'04		evening rise	3991 Oct 17 06:44	0°♄34'44	1.39451 AU
evening rise	3990 Nov 09 05:50	26°♄27'12		desc. node	3991 Oct 21 06:26	7°♄29'00	
	3990 Nov 11 10:59	0°♄			3991 Oct 25 07:33	14°♄12'55	
	3990 Dec 01 19:38	0°♄		evening max el	3991 Nov 04 11:16	0°♄	
evening max el	3990 Dec 12 21:35	13°♄23'48	22°51'39		3991 Nov 25 11:07	27°♄02'51	24°11'25
retrograde	3990 Dec 22 23:00	19°♄21'50		retrograde	3991 Nov 28 17:22	0°♄	
evening set	3990 Dec 27 17:25	17°♄24'49		evening set	3991 Dec 06 14:45	3°♄35'28	
asc. node	3990 Dec 28 08:49	16°♄50'40			3991 Dec 11 22:26	1°♄22'22	
inferior conj	3991 Jan 02 02:22	11°♄01'52	1°32'58	asc. node	3991 Dec 13 08:48	30°♄♂	
minimum elong	3991 Jan 02 00:26	11°♄08'34	1°32'14	min. Earth dist.	3991 Dec 15 05:49	27°♄47'55	
min. Earth dist.	3991 Jan 01 19:43	11°♄24'50	0.68010 AU	inferior conj	3991 Dec 16 15:57	25°♄55'53	0.67780 AU
morning rise	3991 Jan 07 07:20	4°♄53'11		minimum elong	3991 Dec 17 09:26	24°♄56'58	0°43'37
direct	3991 Jan 11 18:16	3°♄04'41		morning rise	3991 Dec 17 08:24	25°♄00'26	0°43'11
morning max el	3991 Jan 20 16:06	8°♄16'46	21°39'47	direct	3991 Dec 22 18:25	18°♄53'42	
desc. node	3991 Feb 03 09:42	25°♄40'15		morning max el	3991 Dec 26 15:43	17°♄27'39	
	3991 Feb 06 09:58	0°♄			3992 Jan 03 12:39	21°♄57'41	20°23'27
morning set	3991 Feb 21 17:50	23°♄22'05		desc. node	3992 Jan 10 06:33	0°♄	
	3991 Feb 25 20:31	0°♄			3992 Jan 21 06:45	15°♄44'16	
max. Earth dist.	3991 Feb 28 03:12	3°♄44'57	1.41733 AU	morning set	3992 Jan 30 16:12	0°♄	
				max. Earth dist.	3992 Jan 31 17:23	1°♄37'19	
superior conj	3991 Mar 07 17:49	16°♄41'35	-2°04'43		3992 Feb 10 10:37	16°♄56'39	1.43512 AU
minimum elong	3991 Mar 07 20:29	16°♄53'12	2°04'37	superior conj	3992 Feb 16 14:48	27°♄01'21	-2°06'16
	3991 Mar 15 04:35	0°♄		minimum elong	3992 Feb 16 12:29	26°♄51'47	2°06'13
evening rise	3991 Mar 18 14:45	6°♄16'08			3992 Feb 18 09:42	0°♄	
asc. node	3991 Mar 26 08:07	20°♄07'51		evening rise	3992 Feb 29 02:42	18°♄22'07	
	3991 Apr 01 22:32	0°♄			3992 Mar 06 19:27	0°♄	
evening max el	3991 Apr 04 00:07	2°♄16'46	18°10'54	asc. node	3992 Mar 12 05:09	8°♄43'04	
retrograde	3991 Apr 10 20:45	5°♄44'25		evening max el	3992 Mar 17 12:22	15°♄26'19	18°08'00
evening set	3991 Apr 13 10:01	5°♄16'18		retrograde	3992 Mar 23 23:41	18°♄49'06	
inferior conj	3991 Apr 20 06:43	0°♄27'18	2°57'48	evening set	3992 Mar 26 18:50	18°♄10'11	
minimum elong	3991 Apr 20 09:55	0°♄20'01	2°57'09	inferior conj	3992 Apr 02 01:50	13°♄00'58	3°28'19
	3991 Apr 20 18:40	30°♄♂		minimum elong	3992 Apr 02 03:25	12°♄56'51	3°28'10
min. Earth dist.	3991 Apr 23 14:58	27°♄26'26	0.60111 AU	min. Earth dist.	3992 Apr 04 23:19	10°♄01'33	0.62266 AU
morning rise	3991 Apr 27 07:29	24°♄40'47		morning rise	3992 Apr 08 10:34	6°♄59'18	
desc. node	3991 May 02 08:55	22°♄45'18		direct	3992 Apr 15 07:17	4°♄28'31	
direct	3991 May 03 20:31	22°♄39'07		desc. node	3992 Apr 18 05:56	4°♄53'47	
	3991 May 17 15:19	0°♄		morning max el	3992 Apr 29 09:29	12°♄27'12	27°51'47
morning max el	3991 May 18 04:09	0°♄31'18	27°36'21		3992 May 13 07:59	0°♄	
	3991 Jun 08 08:32	0°♄			3992 May 30 17:50	0°♄	
morning set	3991 Jun 19 00:49	20°♄26'19		morning set	3992 Jun 02 02:36	4°♄43'40	
asc. node	3991 Jun 22 07:23	27°♄22'17		max. Earth dist.	3992 Jun 07 17:11	16°♄29'21	1.32443 AU
	3991 Jun 23 12:32	0°♄		asc. node	3992 Jun 08 04:26	17°♄30'02	
max. Earth dist.	3991 Jun 25 08:54	4°♄02'40	1.32061 AU				
superior conj	3991 Jun 26 05:28	5°♄55'45	0°40'10	superior conj	3992 Jun 09 14:58	20°♄37'13	0°15'03
minimum elong	3991 Jun 26 03:48	5°♄46'31	0°39'49	minimum elong	3992 Jun 09 14:15	20°♄33'23	0°14'54
evening rise	3991 Jul 03 01:09	20°♄48'16		behind sun begin	3992 Jun 09 12:26	20°♄23'27	
	3991 Jul 07 12:21	0°♄		behind sun end	3992 Jun 09 16:05	20°♄43'18	
	3991 Jul 26 08:32	0°♄			3992 Jun 13 22:09	0°♄	
desc. node	3991 Jul 29 08:14	3°♄16'50		evening rise	3992 Jun 16 12:50	5°♄37'19	
evening max el	3991 Jul 30 14:47	4°♄32'17	25°39'19		3992 Jun 29 10:18	0°♄	
retrograde	3991 Aug 13 14:00	11°♄38'39		evening max el	3992 Jul 11 04:36	15°♄10'31	24°09'53
evening set	3991 Aug 19 14:56	10°♄12'59		desc. node	3992 Jul 15 05:14	18°♄33'32	
min. Earth dist.	3991 Aug 24 02:49	7°♄35'02	0.58266 AU	retrograde	3992 Jul 24 23:51	22°♄07'55	
inferior conj	3991 Aug 27 07:08	5°♄19'44	-5°06'41	evening set	3992 Jul 29 15:59	21°♄19'26	
minimum elong	3991 Aug 27 09:36	5°♄15'21	5°06'32	min. Earth dist.	3992 Aug 04 15:12	18°♄22'26	0.56445 AU
morning rise	3991 Sep 04 06:30	0°♄59'41		inferior conj	3992 Aug 07 03:47	16°♄48'20	-5°04'18
direct	3991 Sep 06 18:12	0°♄40'10		minimum elong	3992 Aug 07 00:29	16°♄53'29	5°04'02
morning max el	3991 Sep 15 03:53	4°♄40'06	18°45'15	morning rise	3992 Aug 15 11:35	12°♄48'41	
asc. node	3991 Sep 18 06:36	8°♄07'55		direct	3992 Aug 18 04:43	12°♄29'22	
				morning max el	3992 Aug 27 23:19	17°♄02'13	19°44'07


































































































































asc. node	3992 Sep 04 03:39	26°♎01'32			3993 Jul 13 18:39	30°♎☿	
	3992 Sep 06 14:04	0°♎		min. Earth dist.	3993 Jul 17 02:00	28°♎14'06	0.55201 AU
morning set	3992 Sep 14 15:59	15°♎20'49		inferior conj	3993 Jul 18 06:18	27°♎33'50	-4°14'04
	3992 Sep 21 22:02	0°♎		minimum elong	3993 Jul 17 22:11	27°♎45'25	4°12'13
				morning rise	3993 Jul 26 20:52	23°♎43'16	
superior conj	3992 Sep 22 12:59	1°♎14'17	1°42'15	direct	3993 Jul 29 21:31	23°♎22'18	
minimum elong	3992 Sep 22 14:12	1°♎20'19	1°42'12	morning max el	3993 Aug 10 07:01	28°♎40'24	21°04'02
max. Earth dist.	3992 Sep 28 11:20	12°♎40'13	1.37382 AU		3993 Aug 11 15:31	0°♎	
evening rise	3992 Oct 02 05:43	19°♎33'24		asc. node	3993 Aug 22 00:44	14°♎38'28	
	3992 Oct 08 06:49	0°♎		morning set	3993 Aug 29 23:49	0°♎04'30	
desc. node	3992 Oct 11 04:34	4°♎45'49			3993 Aug 29 22:57	0°♎	
	3992 Oct 28 14:04	0°♎					
evening max el	3992 Nov 06 23:23	10°♎44'30	25°26'13	superior conj	3993 Sep 06 09:19	15°♎29'24	1°44'06
retrograde	3992 Nov 19 02:13	17°♎43'04		minimum elong	3993 Sep 06 08:59	15°♎27'42	1°44'06
evening set	3992 Nov 24 23:43	15°♎15'40		max. Earth dist.	3993 Sep 10 20:36	24°♎31'59	1.35529 AU
min. Earth dist.	3992 Nov 29 09:33	10°♎23'42	0.67200 AU		3993 Sep 13 16:03	0°♎	
inferior conj	3992 Nov 30 13:56	8°♎52'15	-0°11'05	evening rise	3993 Sep 15 00:09	2°♎32'11	
minimum elong	3992 Nov 30 14:13	8°♎51'20	0°10'58	desc. node	3993 Sep 28 01:35	25°♎04'58	
transit middle	3992 Nov 30 14:13	8°♎51'20	0°10'58		3993 Oct 01 06:03	0°♎	
transit begin	3992 Nov 30 12:09	8°♎57'58		evening max el	3993 Oct 20 11:54	24°♎25'48	26°28'33
transit end	3992 Nov 30 16:16	8°♎44'42			3993 Oct 27 16:35	0°♎	
asc. node	3992 Dec 01 02:52	8°♎10'42		retrograde	3993 Nov 02 08:41	1°♎39'01	
morning rise	3992 Dec 06 05:01	2°♎56'31			3993 Nov 07 11:46	30°♎♎	
direct	3992 Dec 09 14:19	1°♎50'24		evening set	3993 Nov 08 19:21	29°♎01'21	
morning max el	3992 Dec 16 17:09	5°♎49'20	19°20'46	min. Earth dist.	3993 Nov 12 22:15	24°♎44'47	0.66279 AU
greatest brilliancy	3992 Dec 30 02:44	23°♎46'57	-0.7m	inferior conj	3993 Nov 14 13:59	22°♎44'47	-1°09'51
	3993 Jan 03 04:48	0°♎		minimum elong	3993 Nov 14 15:54	22°♎39'00	1°09'03
desc. node	3993 Jan 07 03:48	6°♎05'36		asc. node	3993 Nov 17 23:55	18°♎56'18	
morning set	3993 Jan 09 16:38	10°♎00'57		morning rise	3993 Nov 20 13:05	16°♎59'08	
	3993 Jan 22 11:52	0°♎		direct	3993 Nov 23 12:28	16°♎09'15	
max. Earth dist.	3993 Jan 23 00:30	0°♎49'50	1.44727 AU	morning max el	3993 Nov 30 04:15	19°♎47'54	18°33'44
					3993 Dec 08 01:45	0°♎	
superior conj	3993 Jan 26 10:24	6°♎14'32	-1°49'21	morning set	3993 Dec 20 14:20	19°♎36'28	
minimum elong	3993 Jan 26 02:24	5°♎42'41	1°48'45	desc. node	3993 Dec 25 00:52	26°♎39'24	
evening rise	3993 Feb 09 17:51	29°♎32'58			3993 Dec 27 03:35	0°♎	
	3993 Feb 10 00:21	0°♎					
asc. node	3993 Feb 27 02:11	26°♎38'14		superior conj	3994 Jan 05 13:59	14°♎50'14	-1°13'40
evening max el	3993 Mar 01 00:52	28°♎48'10	18°23'55	minimum elong	3994 Jan 05 05:22	14°♎16'29	1°12'40
	3993 Mar 02 07:45	0°♎		max. Earth dist.	3994 Jan 05 18:24	15°♎07'34	1.45253 AU
retrograde	3993 Mar 07 12:22	2°♎19'13			3994 Jan 15 05:32	0°♎	
evening set	3993 Mar 10 13:22	1°♎28'30		evening rise	3994 Jan 21 09:42	9°♎46'43	
	3993 Mar 12 15:04	30°♎♎		greatest brilliancy	3994 Jan 30 06:51	23°♎52'45	-0.8m
inferior conj	3993 Mar 16 10:31	26°♎00'45	3°36'47		3994 Feb 03 05:41	0°♎	
minimum elong	3993 Mar 16 10:23	26°♎01'07	3°36'47	evening max el	3994 Feb 12 11:11	12°♎16'58	18°57'44
min. Earth dist.	3993 Mar 18 17:11	23°♎23'03	0.64196 AU	asc. node	3994 Feb 13 23:13	13°♎41'36	
morning rise	3993 Mar 22 06:37	19°♎51'10		retrograde	3994 Feb 19 07:00	16°♎07'37	
direct	3993 Mar 29 02:26	17°♎03'32		evening set	3994 Feb 22 14:31	15°♎04'08	
desc. node	3993 Apr 05 02:58	19°♎27'23		inferior conj	3994 Feb 28 05:01	9°♎19'34	3°28'43
morning max el	3993 Apr 11 18:31	24°♎59'49	27°30'27	minimum elong	3994 Feb 28 03:34	9°♎24'06	3°28'34
	3993 Apr 16 07:56	0°♎		min. Earth dist.	3994 Mar 01 20:09	7°♎16'51	0.65763 AU
	3993 May 06 18:49	0°♎		morning rise	3994 Mar 05 16:14	3°♎06'37	
morning set	3993 May 16 20:37	18°♎34'43		direct	3994 Mar 12 04:32	0°♎16'11	
max. Earth dist.	3993 May 21 18:05	28°♎30'02	1.33263 AU	desc. node	3994 Mar 23 00:02	5°♎51'46	
	3993 May 22 11:19	0°♎		morning max el	3994 Mar 25 04:24	7°♎57'20	26°38'11
					3994 Apr 11 08:18	0°♎	
superior conj	3993 May 24 20:37	5°♎02'49	-0°12'33		3994 Apr 29 04:17	0°♎	
minimum elong	3993 May 24 21:15	5°♎06'12	0°12'24	morning set	3994 Apr 30 03:29	1°♎49'17	
behind sun begin	3993 May 24 17:49	4°♎47'53		max. Earth dist.	3994 May 04 08:15	9°♎58'16	1.34553 AU
behind sun end	3993 May 25 00:42	5°♎24'32					
asc. node	3993 May 26 01:30	7°♎37'09		superior conj	3994 May 08 20:14	19°♎06'01	-0°41'31
evening rise	3993 Jun 01 00:20	20°♎21'27		minimum elong	3994 May 08 22:26	19°♎17'25	0°41'05
	3993 Jun 05 17:28	0°♎		asc. node	3994 May 12 22:33	27°♎39'26	
evening max el	3993 Jun 22 18:31	25°♎34'27	22°32'56		3994 May 14 01:19	0°♎	
	3993 Jun 28 12:00	0°♎		evening rise	3994 May 16 09:42	4°♎54'35	
desc. node	3993 Jul 02 02:13	1°♎32'45			3994 May 30 09:03	0°♎	
retrograde	3993 Jul 05 21:34	2°♎06'05		evening max el	3994 Jun 04 16:24	6°♎16'18	21°02'54
evening set	3993 Jul 09 01:35	1°♎44'00		retrograde	3994 Jun 16 10:28	12°♎01'54	

evening set	3994 Jun 18 15:11	11°☿50'35		evening set	3995 May 30 01:37	22°♊18'36	
desc. node	3994 Jun 18 23:15	11°☿46'56		desc. node	3995 Jun 05 20:16	19°♊32'40	
inferior conj	3994 Jun 27 23:42	7°☿52'57	-2°36'28	inferior conj	3995 Jun 07 22:33	18°♊17'04	-0°37'14
minimum elong	3994 Jun 27 16:37	8°☿02'56	2°34'05	minimum elong	3995 Jun 07 20:50	18°♊19'41	0°36'35
min. Earth dist.	3994 Jun 28 13:24	7°☿33'38	0.54831 AU	min. Earth dist.	3995 Jun 10 02:22	16°♊57'37	0.55433 AU
morning rise	3994 Jul 06 18:06	3°☿53'07		morning rise	3995 Jun 16 13:56	13°♊49'47	
direct	3994 Jul 10 06:55	3°☿26'10		direct	3995 Jun 20 21:43	13°♊08'35	
morning max el	3994 Jul 23 03:47	9°☿34'40	22°40'41	morning max el	3995 Jul 04 18:21	20°♊01'31	24°24'01
	3994 Aug 06 20:57	0°♊			3995 Jul 13 05:37	0°☿	
asc. node	3994 Aug 08 21:48	3°♊47'16		asc. node	3995 Jul 26 18:51	23°☿19'50	
morning set	3994 Aug 14 10:29	14°♊55'53		morning set	3995 Jul 29 22:15	29°☿50'02	
	3994 Aug 21 11:58	0°♊			3995 Jul 30 00:08	0°♊	
superior conj	3994 Aug 21 12:59	0°♊05'24	1°39'09	superior conj	3995 Aug 05 21:24	14°♊54'24	1°28'28
minimum elong	3994 Aug 21 11:30	29°♊57'31	1°39'03	minimum elong	3995 Aug 05 19:15	14°♊42'41	1°28'14
max. Earth dist.	3994 Aug 24 14:28	6°♊32'03	1.34035 AU	max. Earth dist.	3995 Aug 07 17:07	18°♊51'00	1.32953 AU
evening rise	3994 Aug 29 09:10	16°♊12'06		evening rise	3995 Aug 13 04:54	0°♊22'22	
	3994 Sep 05 18:52	0°♊			3995 Aug 13 00:30	0°♊	
desc. node	3994 Sep 14 22:36	15°♊02'55			3995 Aug 29 19:01	0°♊	
	3994 Sep 25 18:32	0°♊		desc. node	3995 Sep 01 19:37	4°♊30'40	
evening max el	3994 Oct 03 00:30	7°♊57'22	27°11'03	evening max el	3995 Sep 15 11:30	21°♊06'31	27°26'45
retrograde	3994 Oct 16 09:18	15°♊15'05		retrograde	3995 Sep 29 03:30	28°♊22'46	
evening set	3994 Oct 23 06:59	12°♊33'48		evening set	3995 Oct 06 07:39	25°♊47'11	
min. Earth dist.	3994 Oct 27 03:37	8°♊52'40	0.65008 AU	min. Earth dist.	3995 Oct 09 23:29	22°♊38'39	0.63396 AU
inferior conj	3994 Oct 29 07:20	6°♊29'10	-2°11'03	inferior conj	3995 Oct 12 15:20	19°♊59'08	-3°12'00
minimum elong	3994 Oct 29 11:02	6°♊18'54	2°09'36	minimum elong	3995 Oct 12 20:36	19°♊45'55	3°10'14
morning rise	3994 Nov 04 16:05	0°♊56'42		morning rise	3995 Oct 19 10:57	14°♊43'23	
asc. node	3994 Nov 04 20:59	0°♊51'13		direct	3995 Oct 21 21:46	14°♊14'35	
direct	3994 Nov 07 07:54	0°♊19'10		asc. node	3995 Oct 22 18:02	14°♊18'05	
morning max el	3994 Nov 13 19:31	3°♊46'53	18°03'26	morning max el	3995 Oct 28 12:09	17°♊39'55	17°50'36
	3994 Dec 01 07:51	0°♊			3995 Nov 06 09:06	0°♊	
morning set	3994 Dec 01 17:37	0°♊40'33		morning set	3995 Nov 13 22:28	12°♊58'40	
desc. node	3994 Dec 11 21:54	17°♊21'09			3995 Nov 23 20:51	0°♊	
superior conj	3994 Dec 15 21:08	23°♊42'28	-0°27'01	superior conj	3995 Nov 26 01:33	3°♊39'09	0°18'51
minimum elong	3994 Dec 15 17:46	23°♊29'06	0°26'33	minimum elong	3995 Nov 26 03:29	3°♊47'10	0°18'34
max. Earth dist.	3994 Dec 19 13:45	29°♊33'17	1.45034 AU	desc. node	3995 Nov 28 18:55	8°♊07'23	
	3994 Dec 19 20:32	0°♊		max. Earth dist.	3995 Dec 02 07:37	13°♊49'21	1.44102 AU
evening rise	3995 Jan 01 04:59	19°♊14'13		evening rise	3995 Dec 11 14:34	28°♊24'05	
	3995 Jan 08 04:49	0°♊			3995 Dec 12 15:30	0°♊	
greatest brilliancy	3995 Jan 14 19:26	10°♊00'10	-0.7m		3996 Jan 02 01:35	0°♊	
evening max el	3995 Jan 26 17:19	25°♊48'51	19°47'54	evening max el	3996 Jan 09 18:02	9°♊21'25	20°51'54
asc. node	3995 Jan 31 20:15	29°♊39'08		retrograde	3996 Jan 18 02:34	14°♊17'49	
	3995 Feb 01 22:20	0°♊		asc. node	3996 Jan 18 17:16	14°♊15'46	
retrograde	3995 Feb 03 04:30	0°♊08'43		evening set	3996 Jan 22 03:04	12°♊45'38	
	3995 Feb 04 10:02	30°♊		inferior conj	3996 Jan 27 11:36	6°♊34'20	2°37'28
evening set	3995 Feb 06 19:46	28°♊51'24		minimum elong	3996 Jan 27 09:07	6°♊42'53	2°36'46
inferior conj	3995 Feb 12 06:13	22°♊52'11	3°08'05	min. Earth dist.	3996 Jan 27 23:01	5°♊55'03	0.67639 AU
minimum elong	3995 Feb 12 04:00	22°♊59'35	3°07'39	morning rise	3996 Feb 01 15:00	0°♊21'13	
min. Earth dist.	3995 Feb 13 06:46	21°♊30'37	0.66908 AU		3996 Feb 02 00:49	30°♊	
morning rise	3995 Feb 17 12:00	16°♊38'20		direct	3996 Feb 07 00:59	27°♊57'50	
direct	3995 Feb 23 12:17	13°♊57'17			3996 Feb 12 16:39	0°♊	
morning max el	3995 Mar 07 13:28	21°♊08'41	25°23'50	morning max el	3996 Feb 17 22:02	4°♊26'55	23°57'15
desc. node	3995 Mar 09 21:05	23°♊36'10		desc. node	3996 Feb 24 18:06	12°♊17'07	
	3995 Mar 15 05:34	0°♊			3996 Mar 08 13:06	0°♊	
	3995 Apr 04 13:20	0°♊		morning set	3996 Mar 24 12:29	25°♊34'26	
morning set	3995 Apr 12 18:44	14°♊14'46			3996 Mar 27 01:33	0°♊	
max. Earth dist.	3995 Apr 16 11:24	21°♊03'51	1.36291 AU	max. Earth dist.	3996 Mar 28 07:32	2°♊12'39	1.38362 AU
	3995 Apr 21 02:47	0°♊					
superior conj	3995 Apr 22 11:01	2°♊39'24	-1°10'20	superior conj	3996 Apr 04 13:20	15°♊32'18	-1°36'44
minimum elong	3995 Apr 22 14:46	2°♊58'00	1°09'43	minimum elong	3996 Apr 04 18:02	15°♊54'37	1°36'10
asc. node	3995 Apr 29 19:35	17°♊33'01			3996 Apr 12 00:07	0°♊	
evening rise	3995 Apr 30 14:48	19°♊10'32		evening rise	3996 Apr 13 12:57	3°♊00'50	
	3995 May 06 03:08	0°♊		asc. node	3996 Apr 15 16:35	7°♊12'28	
evening max el	3995 May 18 02:16	17°♊36'18	19°49'03	evening max el	3996 Apr 29 23:29	29°♊36'29	18°54'59
retrograde	3995 May 28 02:42	22°♊28'55		retrograde	3996 Apr 30 09:22	0°♊	
					3996 May 08 10:08	3°♊44'07	

evening set	3996 May 10 12:57	3° Π 29'34		retrograde	3997 Apr 20 12:28	15° \mathcal{B} 48'39	
	3996 May 17 11:41	30° \mathcal{R} \mathcal{B}		evening set	3997 Apr 22 21:51	15° \mathcal{B} 26'19	
inferior conj	3996 May 18 14:40	29° \mathcal{B} 12'29	1°10'12	inferior conj	3997 Apr 30 04:18	10° \mathcal{B} 49'26	2°27'41
minimum elong	3996 May 18 17:16	29° \mathcal{B} 07'52	1°09'19	minimum elong	3997 Apr 30 07:58	10° \mathcal{B} 41'47	2°26'44
min. Earth dist.	3996 May 21 18:12	26° \mathcal{B} 58'54	0.56872 AU	min. Earth dist.	3997 May 03 14:54	7° \mathcal{B} 58'34	0.58859 AU
desc. node	3996 May 22 17:17	26° \mathcal{B} 20'32		morning rise	3997 May 07 15:07	5° \mathcal{B} 15'28	
morning rise	3996 May 26 18:21	24° \mathcal{B} 09'18		desc. node	3997 May 09 14:19	4° \mathcal{B} 21'14	
direct	3996 Jun 01 01:26	23° \mathcal{B} 02'14		direct	3997 May 13 19:21	3° \mathcal{B} 33'41	
	3996 Jun 14 21:25	0° Π		morning max el	3997 May 28 04:47	11° \mathcal{B} 19'49	27°10'24
morning max el	3996 Jun 15 09:07	0° Π 27'51	25°59'06		3997 Jun 11 17:27	0° Π	
	3996 Jun 06 00:39	0° \mathcal{B}		morning set	3997 Jun 27 18:31	29° Π 24'52	
asc. node	3996 Jul 12 15:53	13° \mathcal{B} 08'58			3997 Jun 28 01:13	0° \mathcal{B}	
morning set	3996 Jul 13 09:28	14° \mathcal{B} 41'29		asc. node	3997 Jun 29 12:54	3° \mathcal{B} 09'14	
superior conj	3996 Jul 20 08:25	29° \mathcal{B} 49'16	1°12'55	superior conj	3997 Jul 04 20:13	14° \mathcal{B} 44'01	0°53'11
minimum elong	3996 Jul 20 06:05	29° \mathcal{B} 36'25	1°12'34	minimum elong	3997 Jul 04 18:10	14° \mathcal{B} 32'43	0°52'48
	3996 Jul 20 10:22	0° \mathcal{Q}		max. Earth dist.	3997 Jul 04 13:26	14° \mathcal{B} 06'33	1.32021 AU
max. Earth dist.	3996 Jul 21 01:56	1° \mathcal{Q} 25'35	1.32283 AU	evening rise	3997 Jul 11 16:16	29° \mathcal{B} 37'07	
evening rise	3996 Jul 27 08:06	14° \mathcal{Q} 53'20			3997 Jul 11 20:36	0° \mathcal{Q}	
	3996 Aug 04 00:38	0° \mathcal{M}			3997 Jul 28 07:31	0° \mathcal{M}	
desc. node	3996 Aug 18 16:37	23° \mathcal{M} 15'53		desc. node	3997 Aug 05 13:37	11° \mathcal{M} 00'51	
	3996 Aug 24 04:57	0° \mathcal{L}		evening max el	3997 Aug 09 18:35	15° \mathcal{M} 26'55	26°21'17
evening max el	3996 Aug 27 18:19	3° \mathcal{L} 39'42	27°10'39	retrograde	3997 Aug 23 17:54	22° \mathcal{M} 36'51	
retrograde	3996 Sep 10 14:44	10° \mathcal{L} 52'56		evening set	3997 Aug 30 07:57	20° \mathcal{M} 49'39	
evening set	3996 Sep 17 17:34	8° \mathcal{L} 35'07		min. Earth dist.	3997 Sep 03 07:48	18° \mathcal{M} 14'33	0.59426 AU
min. Earth dist.	3996 Sep 21 08:40	5° \mathcal{L} 50'51	0.61491 AU	inferior conj	3997 Sep 06 14:23	15° \mathcal{M} 43'07	-4°51'53
inferior conj	3996 Sep 24 10:51	3° \mathcal{L} 06'57	-4°08'10	minimum elong	3997 Sep 06 18:59	15° \mathcal{M} 34'12	4°51'14
minimum elong	3996 Sep 24 16:49	2° \mathcal{L} 53'45	4°06'41	morning rise	3997 Sep 14 08:12	11° \mathcal{M} 10'04	
	3996 Sep 28 06:38	30° \mathcal{R} \mathcal{M}		direct	3997 Sep 16 17:41	10° \mathcal{M} 49'57	
morning rise	3996 Oct 01 17:51	28° \mathcal{M} 11'24		morning max el	3997 Sep 24 12:54	14° \mathcal{M} 36'47	18°21'22
direct	3996 Oct 04 02:26	27° \mathcal{M} 48'15		asc. node	3997 Sep 25 12:07	15° \mathcal{M} 35'43	
asc. node	3996 Oct 08 15:04	29° \mathcal{M} 17'02			3997 Oct 05 03:14	0° \mathcal{L}	
	3996 Oct 09 14:59	0° \mathcal{L}		morning set	3997 Oct 10 11:56	10° \mathcal{L} 02'00	
morning max el	3996 Oct 11 03:02	1° \mathcal{L} 19'38	17°56'11	superior conj	3997 Oct 19 15:48	27° \mathcal{L} 19'27	1°22'03
morning set	3996 Oct 26 22:26	26° \mathcal{L} 11'17		minimum elong	3997 Oct 19 19:30	27° \mathcal{L} 36'27	1°21'41
	3996 Oct 29 00:31	0° \mathcal{M}			3997 Oct 21 02:59	0° \mathcal{M}	
superior conj	3996 Nov 06 08:50	14° \mathcal{M} 54'57	0°55'59	max. Earth dist.	3997 Oct 27 04:30	10° \mathcal{M} 41'53	1.40640 AU
minimum elong	3996 Nov 06 12:55	15° \mathcal{M} 12'43	0°55'27	evening rise	3997 Oct 31 17:46	18° \mathcal{M} 21'13	
max. Earth dist.	3996 Nov 13 20:52	27° \mathcal{M} 36'44	1.42571 AU	desc. node	3997 Nov 01 12:57	19° \mathcal{M} 39'58	
desc. node	3996 Nov 14 15:56	28° \mathcal{M} 54'59			3997 Nov 08 00:44	0° \mathcal{X}	
	3996 Nov 15 07:51	0° \mathcal{X}			3997 Nov 29 08:23	0° \mathcal{Z}	
evening rise	3996 Nov 20 06:36	7° \mathcal{X} 56'04		evening max el	3997 Dec 05 04:18	6° \mathcal{Z} 32'06	23°25'44
	3996 Dec 04 20:46	0° \mathcal{Z}		retrograde	3997 Dec 15 17:23	12° \mathcal{Z} 46'24	
evening max el	3996 Dec 22 13:16	22° \mathcal{Z} 55'24	22°06'08	evening set	3997 Dec 20 17:11	10° \mathcal{Z} 42'34	
retrograde	3996 Dec 31 23:22	28° \mathcal{Z} 31'49		asc. node	3997 Dec 22 11:19	8° \mathcal{Z} 59'09	
asc. node	3997 Jan 04 14:17	27° \mathcal{Z} 21'40		min. Earth dist.	3997 Dec 25 15:34	4° \mathcal{Z} 56'29	0.67950 AU
evening set	3997 Jan 05 10:44	26° \mathcal{Z} 43'58		inferior conj	3997 Dec 26 02:50	4° \mathcal{Z} 17'51	1°12'48
inferior conj	3997 Jan 10 19:06	20° \mathcal{Z} 23'58	1°58'37	minimum elong	3997 Dec 26 01:14	4° \mathcal{Z} 23'20	1°12'09
minimum elong	3997 Jan 10 16:50	20° \mathcal{Z} 31'51	1°57'50		3997 Dec 29 11:31	30° \mathcal{R} \mathcal{X}	
min. Earth dist.	3997 Jan 10 18:46	20° \mathcal{Z} 25'09	0.67978 AU	morning rise	3997 Dec 31 09:13	28° \mathcal{X} 10'58	
morning rise	3997 Jan 15 22:47	14° \mathcal{Z} 13'03		direct	3998 Jan 04 14:08	26° \mathcal{X} 32'14	
direct	3997 Jan 20 17:54	12° \mathcal{Z} 11'33			3998 Jan 11 12:35	0° \mathcal{Z}	
morning max el	3997 Jan 30 08:41	17° \mathcal{Z} 51'52	22°28'28	morning max el	3998 Jan 13 00:48	1° \mathcal{Z} 25'48	21°05'48
	3997 Feb 09 09:58	0° \approx		desc. node	3998 Jan 28 12:11	21° \mathcal{Z} 30'01	
desc. node	3997 Feb 10 15:08	1° \approx 39'00			3998 Feb 03 06:10	0° \approx	
	3997 Mar 01 16:00	0° \mathcal{H}		morning set	3998 Feb 12 13:37	14° \approx 17'40	
morning set	3997 Mar 05 03:02	5° \mathcal{H} 34'52		max. Earth dist.	3998 Feb 20 05:59	26° \approx 35'15	1.42545 AU
max. Earth dist.	3997 Mar 10 03:44	13° \mathcal{H} 56'58	1.40542 AU		3998 Feb 22 07:49	0° \mathcal{H}	
superior conj	3997 Mar 17 22:47	27° \mathcal{H} 34'24	-1°57'18	superior conj	3998 Feb 27 10:20	8° \mathcal{H} 34'23	-2°07'22
minimum elong	3997 Mar 18 02:56	27° \mathcal{H} 53'05	1°57'00	minimum elong	3998 Feb 27 11:14	8° \mathcal{H} 38'13	2°07'21
	3997 Mar 19 06:57	0° \mathcal{Y}		evening rise	3998 Mar 10 22:58	28° \mathcal{H} 51'59	
evening rise	3997 Mar 28 00:59	16° \mathcal{Y} 17'40			3998 Mar 11 14:05	0° \mathcal{Y}	
asc. node	3997 Apr 02 13:36	26° \mathcal{Y} 32'33		asc. node	3998 Mar 20 10:37	15° \mathcal{Y} 26'46	
	3997 Apr 04 12:42	0° \mathcal{B}		evening max el	3998 Mar 27 16:07	25° \mathcal{Y} 11'03	18°07'20
evening max el	3997 Apr 13 05:13	12° \mathcal{B} 11'02	18°21'15	retrograde	3998 Apr 03 07:32	28° \mathcal{Y} 34'43	

evening set	3998 Apr 05 23:20	28° Υ 02'13		evening set	3999 Mar 20 12:46	11° Υ 07'48	
inferior conj	3998 Apr 12 13:45	23° Υ 04'49	3°13'49	inferior conj	3999 Mar 26 15:08	5° Υ 50'36	3°34'12
minimum elong	3998 Apr 12 16:20	22° Υ 58'35	3°13'24	minimum elong	3999 Mar 26 15:58	5° Υ 48'20	3°34'10
min. Earth dist.	3998 Apr 15 18:25	20° Υ 01'21	0.61045 AU	min. Earth dist.	3999 Mar 29 06:36	2° Υ 58'28	0.63131 AU
morning rise	3998 Apr 19 07:22	17° Υ 10'46			3999 Apr 01 10:34	30° \Re \mathfrak{H}	
direct	3998 Apr 26 00:58	14° Υ 55'07		morning rise	3999 Apr 01 18:05	29° \mathfrak{H} 45'11	
desc. node	3998 Apr 26 11:20	14° Υ 55'39		direct	3999 Apr 08 15:34	27° \mathfrak{H} 05'30	
morning max el	3998 May 10 06:41	22° Υ 51'33	27°47'28	desc. node	3999 Apr 13 08:24	28° \mathfrak{H} 10'08	
	3998 May 16 14:44	0° \mathfrak{B}			3999 Apr 16 14:36	0° Υ	
	3998 Jun 04 21:03	0° Π		morning max el	3999 Apr 22 13:42	5° Υ 03'42	27°46'54
morning set	3998 Jun 11 23:36	13° Π 54'21			3999 May 11 08:46	0° \mathfrak{B}	
asc. node	3998 Jun 16 09:56	23° Π 16'01		morning set	3999 May 26 22:25	28° \mathfrak{B} 01'38	
max. Earth dist.	3998 Jun 17 23:58	26° Π 42'27	1.32167 AU		3999 May 27 21:52	0° Π	
				max. Earth dist.	3999 Jun 01 05:33	8° Π 59'32	1.32740 AU
superior conj	3998 Jun 19 07:07	29° Π 32'53	0°29'52	asc. node	3999 Jun 03 06:58	13° Π 24'07	
minimum elong	3998 Jun 19 05:48	29° Π 25'40	0°29'36				
	3998 Jun 19 12:04	0° \mathfrak{E}		superior conj	3999 Jun 03 15:14	14° Π 08'47	0°03'38
evening rise	3998 Jun 26 03:16	14° \mathfrak{E} 26'58		minimum elong	3999 Jun 03 15:04	14° Π 07'50	0°03'35
	3998 Jul 03 21:39	0° \mathcal{O}		behind sun begin	3999 Jun 03 09:55	13° Π 40'03	
evening max el	3998 Jul 22 11:44	26° \mathcal{O} 28'11	25°03'20	behind sun end	3999 Jun 03 20:13	14° Π 35'38	
desc. node	3998 Jul 23 10:38	27° \mathcal{O} 21'23		evening rise	3999 Jun 10 15:07	29° Π 15'10	
	3998 Jul 26 17:30	0° \mathfrak{M}			3999 Jun 10 23:35	0° \mathfrak{E}	
retrograde	3998 Aug 05 10:40	3° \mathfrak{M} 32'02			3999 Jun 27 23:52	0° \mathcal{O}	
evening set	3998 Aug 10 22:36	2° \mathfrak{M} 23'02		evening max el	3999 Jul 04 00:48	6° \mathcal{O} 57'00	23°28'38
	3998 Aug 15 10:04	30° \mathfrak{R} \mathcal{O}		desc. node	3999 Jul 10 07:39	11° \mathcal{O} 44'24	
min. Earth dist.	3998 Aug 15 23:23	29° \mathcal{O} 38'42	0.57437 AU	retrograde	3999 Jul 17 14:45	13° \mathcal{O} 45'07	
inferior conj	3998 Aug 18 22:50	27° \mathcal{O} 39'06	-5°10'51	evening set	3999 Jul 21 15:07	13° \mathcal{O} 09'50	
minimum elong	3998 Aug 18 23:05	27° \mathcal{O} 38'42	5°10'50	min. Earth dist.	3999 Jul 28 10:37	10° \mathcal{O} 00'31	0.55832 AU
morning rise	3998 Aug 27 01:57	23° \mathcal{O} 28'10		inferior conj	3999 Jul 30 11:10	8° \mathcal{O} 48'32	-4°49'21
direct	3998 Aug 29 15:31	23° \mathcal{O} 08'59		minimum elong	3999 Jul 30 05:21	8° \mathcal{O} 57'12	4°48'30
morning max el	3998 Sep 07 14:26	27° \mathcal{O} 21'56	19°07'35	morning rise	3999 Aug 07 22:01	4° \mathcal{O} 54'24	
	3998 Sep 10 01:44	0° \mathfrak{M}		direct	3999 Aug 10 18:17	4° \mathcal{O} 34'30	
asc. node	3998 Sep 12 09:10	2° \mathfrak{M} 59'15		morning max el	3999 Aug 21 04:50	9° \mathcal{O} 25'16	20°15'37
morning set	3998 Sep 24 10:52	24° \mathfrak{M} 19'54		asc. node	3999 Aug 30 06:14	21° \mathcal{O} 12'38	
	3998 Sep 27 07:18	0° \mathfrak{L}			3999 Sep 04 04:12	0° \mathfrak{M}	
				morning set	3999 Sep 08 16:08	8° \mathfrak{M} 55'59	
superior conj	3998 Oct 02 17:03	10° \mathfrak{L} 37'45	1°37'33				
minimum elong	3998 Oct 02 19:15	10° \mathfrak{L} 48'22	1°37'24	superior conj	3999 Sep 16 07:34	24° \mathfrak{M} 35'09	1°43'57
max. Earth dist.	3998 Oct 09 09:02	23° \mathfrak{L} 06'14	1.38558 AU	minimum elong	3999 Sep 16 08:05	24° \mathfrak{M} 37'48	1°43'56
evening rise	3998 Oct 13 04:24	29° \mathfrak{L} 50'55			3999 Sep 19 00:42	0° \mathfrak{L}	
	3998 Oct 13 06:29	0° \mathfrak{M}		max. Earth dist.	3999 Sep 21 15:17	5° \mathfrak{L} 03'58	1.36562 AU
desc. node	3998 Oct 19 09:59	10° \mathfrak{M} 18'42		evening rise	3999 Sep 25 12:21	12° \mathfrak{L} 19'35	
	3998 Nov 01 09:08	0° \mathfrak{X}			3999 Oct 05 19:25	0° \mathfrak{M}	
evening max el	3998 Nov 17 17:14	20° \mathfrak{X} 12'59	24°44'21	desc. node	3999 Oct 06 07:00	0° \mathfrak{M} 46'27	
retrograde	3998 Nov 29 07:23	26° \mathfrak{X} 57'44			3999 Oct 27 11:41	0° \mathfrak{X}	
evening set	3998 Dec 04 20:49	24° \mathfrak{X} 38'33		evening max el	3999 Oct 31 05:41	3° \mathfrak{X} 55'42	25°54'46
asc. node	3998 Dec 09 08:23	19° \mathfrak{X} 35'13		retrograde	3999 Nov 12 16:36	11° \mathfrak{X} 01'01	
min. Earth dist.	3998 Dec 09 11:04	19° \mathfrak{X} 26'22	0.67575 AU	evening set	3999 Nov 18 19:55	8° \mathfrak{X} 28'45	
inferior conj	3998 Dec 10 09:03	18° \mathfrak{X} 13'29	0°21'01	min. Earth dist.	3999 Nov 23 02:49	3° \mathfrak{X} 51'50	0.66853 AU
minimum elong	3998 Dec 10 08:32	18° \mathfrak{X} 15'12	0°20'48	inferior conj	3999 Nov 24 11:54	2° \mathfrak{X} 07'57	-0°35'36
morning rise	3998 Dec 15 20:21	12° \mathfrak{X} 12'52		minimum elong	3999 Nov 24 12:51	2° \mathfrak{X} 04'59	0°35'11
direct	3998 Dec 19 12:23	10° \mathfrak{X} 55'31		asc. node	3999 Nov 26 05:27	0° \mathfrak{X} 00'35	
morning max el	3998 Dec 27 00:39	15° \mathfrak{X} 10'57	19°54'54		3999 Nov 26 05:39	30° \mathfrak{R} \mathfrak{M}	
	3999 Jan 07 12:34	0° \mathfrak{Z}		morning rise	3999 Nov 30 06:10	26° \mathfrak{M} 16'11	
desc. node	3999 Jan 15 09:14	11° \mathfrak{Z} 42'09		direct	3999 Dec 03 11:06	25° \mathfrak{M} 17'17	
morning set	3999 Jan 22 09:42	22° \mathfrak{Z} 26'32		morning max el	3999 Dec 10 08:09	29° \mathfrak{M} 05'55	18°58'49
	3999 Jan 27 06:33	0° \approx			3999 Dec 11 04:57	0° \mathfrak{X}	
max. Earth dist.	3999 Feb 02 16:17	10° \approx 06'15	1.44110 AU		3999 Dec 31 21:08	0° \mathfrak{Z}	
				morning set	4000 Jan 01 16:35	1° \mathfrak{Z} 16'01	
superior conj	3999 Feb 07 20:15	18° \approx 25'00	-2°01'32	desc. node	4000 Jan 02 06:16	2° \mathfrak{Z} 09'28	
minimum elong	3999 Feb 07 15:18	18° \approx 04'53	2°01'19	max. Earth dist.	4000 Jan 16 08:49	24° \mathfrak{Z} 14'21	1.45041 AU
	3999 Feb 14 20:39	0° \mathfrak{H}					
evening rise	3999 Feb 21 02:31	10° \mathfrak{H} 35'06		superior conj	4000 Jan 18 07:08	27° \mathfrak{Z} 16'45	-1°36'15
	3999 Mar 04 17:39	0° Υ		minimum elong	4000 Jan 17 21:58	26° \mathfrak{Z} 40'38	1°35'23
asc. node	3999 Mar 07 07:40	3° Υ 46'34			4000 Jan 20 00:28	0° \approx	
evening max el	3999 Mar 11 04:55	8° Υ 27'23	18°12'33	evening rise	4000 Feb 02 07:53	21° \approx 21'53	
retrograde	3999 Mar 17 15:03	11° Υ 51'46			4000 Feb 07 14:58	0° \mathfrak{H}	

asc. node	4000 Feb 22 04:43	21° ✕ 21'45		asc. node	4001 Feb 08 01:47	7° ✕ 58'48	
evening max el	4000 Feb 22 16:48	21° ✕ 53'14	18°36'10	retrograde	4001 Feb 12 03:04	9° ✕ 25'23	
retrograde	4000 Feb 29 06:47	25° ✕ 31'14		evening set	4001 Feb 15 13:40	8° ✕ 16'09	
evening set	4000 Mar 03 10:31	24° ✕ 35'01		inferior conj	4001 Feb 21 02:07	2° ✕ 24'49	3°21'20
inferior conj	4000 Mar 09 04:26	18° ✕ 59'38	3°35'06	minimum elong	4001 Feb 21 00:17	2° ✕ 30'45	3°21'04
minimum elong	4000 Mar 09 03:41	19° ✕ 01'53	3°35'04	min. Earth dist.	4001 Feb 22 10:49	0° ✕ 39'18	0.66295 AU
min. Earth dist.	4000 Mar 11 04:20	16° ✕ 36'01	0.64911 AU		4001 Feb 22 23:14	30° ℞	
morning rise	4000 Mar 14 20:20	12° ✕ 48'22		morning rise	4001 Feb 26 10:36	26° ≈ 11'02	
direct	4000 Mar 21 13:34	9° ✕ 58'14		direct	4001 Mar 04 18:02	23° ≈ 23'33	
desc. node	4000 Mar 30 05:26	13° ✕ 35'32			4001 Mar 16 11:25	0° ✕	
morning max el	4000 Apr 03 23:29	17° ✕ 49'01	27°11'38	desc. node	4001 Mar 17 02:29	0° ✕ 37'01	
	4000 Apr 14 04:36	0° ℣		morning max el	4001 Mar 17 09:23	0° ✕ 54'20	26°08'47
	4000 May 03 06:18	0° ♄			4001 Apr 08 04:52	0° ℣	
morning set	4000 May 09 12:10	11° ♄ 38'46		morning set	4001 Apr 22 13:02	24° ℣ 34'16	
max. Earth dist.	4000 May 14 02:31	20° ♄ 48'25	1.33764 AU		4001 Apr 25 09:59	0° ♄	
				max. Earth dist.	4001 Apr 26 12:00	2° ♄ 05'37	1.35242 AU
superior conj	4000 May 17 18:37	28° ♄ 25'54	-0°24'43	superior conj	4001 May 01 14:49	12° ♄ 17'05	-0°53'52
minimum elong	4000 May 17 19:54	28° ♄ 32'40	0°24'27	minimum elong	4001 May 01 17:42	12° ♄ 31'46	0°53'20
	4000 May 18 12:27	0° ♅		asc. node	4001 May 07 01:03	23° ♄ 28'59	
asc. node	4000 May 20 04:01	3° ♅ 29'54		evening rise	4001 May 09 09:49	28° ♄ 22'28	
evening rise	4000 May 25 01:59	13° ♅ 55'54			4001 May 10 04:51	0° ♅	
	4000 Jun 02 06:09	0° ♆		evening max el	4001 May 27 19:48	28° ♅ 20'52	20°29'08
evening max el	4000 Jun 14 17:08	17° ♆ 24'26	21°52'55		4001 May 29 16:01	0° ♆	
desc. node	4000 Jun 26 04:40	23° ♆ 35'37		retrograde	4001 Jun 07 20:50	3° ♆ 44'25	
retrograde	4000 Jun 27 07:39	23° ♆ 38'34		evening set	4001 Jun 09 21:00	3° ♆ 34'27	
evening set	4000 Jun 29 23:49	23° ♆ 22'32		desc. node	4001 Jun 13 01:40	2° ♆ 41'06	
inferior conj	4000 Jul 09 08:10	19° ♆ 19'07	-3°37'23		4001 Jun 18 10:03	30° ♄ ♅	
minimum elong	4000 Jul 08 23:39	19° ♆ 31'01	3°35'00	inferior conj	4001 Jun 19 02:06	29° ♅ 36'47	-1°46'26
min. Earth dist.	4000 Jul 08 21:03	19° ♆ 34'40	0.54935 AU	minimum elong	4001 Jun 18 21:06	29° ♅ 44'02	1°44'37
morning rise	4000 Jul 18 01:00	15° ♆ 27'33		min. Earth dist.	4001 Jun 20 09:08	28° ♅ 51'46	0.54968 AU
direct	4000 Jul 21 06:12	15° ♆ 04'47		morning rise	4001 Jun 27 20:15	25° ♅ 26'56	
morning max el	4000 Aug 02 07:30	20° ♆ 43'30	21°43'35	direct	4001 Jul 01 15:57	24° ♅ 55'25	
	4000 Aug 10 00:59	0° ♁			4001 Jul 13 11:04	0° ♆	
asc. node	4000 Aug 16 03:17	10° ♁ 04'02		morning max el	4001 Jul 15 01:05	1° ♆ 24'22	23°24'41
morning set	4000 Aug 23 01:22	23° ♁ 43'35		asc. node	4001 Aug 03 00:19	29° ♆ 23'59	
	4000 Aug 26 00:58	0° ♁			4001 Aug 03 07:38	0° ♁	
superior conj	4000 Aug 30 07:21	9° ♁ 00'07	1°42'46	morning set	4001 Aug 07 12:42	8° ♁ 37'13	
minimum elong	4000 Aug 30 06:29	8° ♁ 55'33	1°42'43	superior conj	4001 Aug 14 13:22	23° ♁ 43'17	1°35'16
max. Earth dist.	4000 Sep 03 04:05	16° ♁ 57'32	1.34846 AU	minimum elong	4001 Aug 14 11:33	23° ♁ 33'29	1°35'07
evening rise	4000 Sep 07 13:27	25° ♁ 36'43		max. Earth dist.	4001 Aug 17 01:42	29° ♁ 04'55	1.33518 AU
	4000 Sep 09 21:14	0° ♂			4001 Aug 17 12:08	0° ♁	
desc. node	4000 Sep 22 04:01	20° ♂ 57'26		evening rise	4001 Aug 22 03:28	9° ♁ 31'13	
	4000 Sep 28 06:01	0° ♂			4001 Sep 02 06:48	0° ♂	
evening max el	4000 Oct 12 18:12	17° ♂ 33'24	26°49'28	desc. node	4001 Sep 09 01:01	10° ♂ 44'14	
retrograde	4000 Oct 25 20:30	24° ♂ 49'26			4001 Sep 24 06:50	0° ♂	
evening set	4000 Nov 01 12:26	22° ♂ 08'58		evening max el	4001 Sep 25 06:08	0° ♂ 56'43	27°21'18
min. Earth dist.	4000 Nov 05 12:29	18° ♂ 07'58	0.65781 AU	retrograde	4001 Oct 08 18:41	8° ♂ 15'14	
inferior conj	4000 Nov 07 09:21	15° ♂ 57'04	-1°35'41	evening set	4001 Oct 15 19:51	5° ♂ 34'43	
minimum elong	4000 Nov 07 12:01	15° ♂ 49'17	1°34'34	min. Earth dist.	4001 Oct 19 14:00	2° ♂ 08'14	0.64358 AU
asc. node	4000 Nov 12 02:31	11° ♂ 10'39		inferior conj	4001 Oct 21 23:04	29° ♂ 36'26	-2°37'10
morning rise	4000 Nov 13 12:24	10° ♂ 16'58		minimum elong	4001 Oct 22 03:29	29° ♂ 24'39	2°35'31
direct	4000 Nov 16 08:17	9° ♂ 32'49			4001 Oct 21 14:15	30° ♄ ♂	
morning max el	4000 Nov 22 21:25	13° ♂ 05'27	18°18'50	morning rise	4001 Oct 28 12:22	24° ♂ 10'54	
	4000 Dec 04 23:57	0° ♊		asc. node	4001 Oct 29 23:32	23° ♂ 43'45	
morning set	4000 Dec 12 02:49	11° ♊ 29'19		direct	4001 Oct 31 01:36	23° ♂ 37'40	
desc. node	4000 Dec 19 03:18	22° ♊ 46'55		morning max el	4001 Nov 06 13:42	27° ♂ 03'32	17°55'49
	4000 Dec 23 16:17	0° ♊			4001 Nov 09 03:47	0° ♂	
superior conj	4000 Dec 27 09:27	5° ♊ 51'32	-0°54'30	morning set	4001 Nov 23 17:44	23° ♂ 07'13	
minimum elong	4000 Dec 27 02:40	5° ♊ 24'50	0°53'37		4001 Nov 27 19:36	0° ♊	
max. Earth dist.	4000 Dec 29 03:57	8° ♊ 38'27	1.45244 AU	desc. node	4001 Dec 06 00:20	13° ♊ 31'09	
	4001 Jan 11 19:25	0° ♋		superior conj	4001 Dec 07 00:14	15° ♊ 07'48	-0°06'53
evening rise	4001 Jan 12 14:12	1° ♋ 13'32		minimum elong	4001 Dec 06 23:26	15° ♊ 04'32	0°06'46
greatest brilliancy	4001 Jan 23 16:04	18° ♋ 29'34	-0.8m	behind sun begin	4001 Dec 06 14:03	14° ♊ 26'42	
	4001 Jan 31 13:33	0° ♋		behind sun end	4001 Dec 07 08:48	15° ♊ 42'20	
evening max el	4001 Feb 05 01:26	5° ♋ 23'00	19°17'10				

max. Earth dist.	4001 Dec 11 22:30	23°  00'20	1.44714 AU		4002 Nov 20 06:38	0° 	
	4001 Dec 16 09:14	0° 		desc. node	4002 Nov 22 21:21	4°  18'17	
evening rise	4001 Dec 23 03:30	10°  28'34		max. Earth dist.	4002 Nov 24 14:14	7°  04'28	1.43516 AU
	4002 Jan 05 00:39	0° 		evening rise	4002 Dec 02 13:49	19°  42'54	
greatest brilliancy	4002 Jan 06 17:12	2°  29'30	-0.6m		4002 Dec 09 07:18	0° 	
evening max el	4002 Jan 19 05:15	18°  54'39	20°13'37		4002 Dec 30 21:11	0° 	
asc. node	4002 Jan 25 22:48	23°  23'17		evening max el	4003 Jan 02 03:39	2°  27'57	21°22'35
retrograde	4002 Jan 27 01:05	23°  29'49		retrograde	4003 Jan 10 22:43	7°  41'02	
evening set	4002 Jan 30 19:58	22°  06'30		asc. node	4003 Jan 12 19:48	7°  21'51	
inferior conj	4002 Feb 05 05:23	16°  01'45	2°56'13	evening set	4003 Jan 15 03:37	6°  02'28	
minimum elong	4002 Feb 05 02:59	16°  09'52	2°55'39	inferior conj	4003 Jan 20 11:54	29°  34'18	2°21'55
min. Earth dist.	4002 Feb 06 00:13	14°  57'59	0.67266 AU	minimum elong	4003 Jan 20 09:27	29°  55'46	2°21'09
morning rise	4002 Feb 10 09:46	9°  47'46			4003 Jan 20 08:13	30°  R 	
direct	4002 Feb 16 04:06	7°  13'16		min. Earth dist.	4003 Jan 20 18:16	29°  32'51'3	0.67831 AU
morning max el	4002 Feb 27 18:02	14°  08'46	24°47'48	morning rise	4003 Jan 25 15:06	23°  34'51	
desc. node	4002 Mar 03 23:31	18°  47'31		direct	4003 Jan 30 18:52	21°  32'01'1	
	4002 Mar 12 16:00	0° 		morning max el	4003 Feb 10 02:51	27°  32'42	23°19'08
	4002 Apr 01 01:16	0° 			4003 Feb 12 11:39	0° 	
morning set	4002 Apr 04 19:54	6°  Y33'44		desc. node	4003 Feb 18 20:34	7°  44'27	
max. Earth dist.	4002 Apr 08 10:53	13°  Y06'01	1.37135 AU		4003 Mar 06 07:55	0° 	
				morning set	4003 Mar 17 02:40	17°  X20'55	
superior conj	4002 Apr 15 00:46	25°  Y34'07	-1°22'01	max. Earth dist.	4003 Mar 21 05:51	24°  X25'13	1.39289 AU
minimum elong	4002 Apr 15 05:01	25°  Y54'55	1°21'23		4003 Mar 24 09:41	0°  Y	
	4002 Apr 17 06:49	0° 					
evening rise	4002 Apr 23 12:16	12°  82'58		superior conj	4003 Mar 28 20:33	8°  Y07'16	-1°46'26
asc. node	4002 Apr 23 22:05	13°  816'57		minimum elong	4003 Mar 29 01:16	8°  Y29'12	1°45'57
	4002 May 02 21:53	0° 		evening rise	4003 Apr 07 06:33	26°  Y05'02	
evening max el	4002 May 10 10:49	9°  II58'39	19°23'38		4003 Apr 09 07:28	0° 	
retrograde	4002 May 19 18:17	14°  II30'22		asc. node	4003 Apr 10 19:06	2°  849'00	
evening set	4002 May 21 18:04	14°  II18'51		evening max el	4003 Apr 23 12:12	22°  815'14	18°38'16
inferior conj	4002 May 30 07:17	10°  II12'07	0°11'18	retrograde	4003 May 01 09:31	26°  807'40	
minimum elong	4002 May 30 07:46	10°  II11'19	0°11'07	evening set	4003 May 03 15:14	25°  850'03	
transit middle	4002 May 30 07:46	10°  II11'19	0°11'07	inferior conj	4003 May 11 08:30	21°  824'55	1°47'04
transit begin	4002 May 30 04:59	10°  II15'52		minimum elong	4003 May 11 11:55	21°  818'25	1°46'00
transit end	4002 May 30 10:33	10°  II06'47		min. Earth dist.	4003 May 14 17:03	18°  852'54	0.57671 AU
desc. node	4002 May 30 22:41	9°  II46'56		desc. node	4003 May 17 19:43	16°  851'21	
min. Earth dist.	4002 Jun 01 23:30	8°  II27'56	0.55953 AU	morning rise	4003 May 19 05:23	16°  807'54	
morning rise	4002 Jun 07 18:34	5°  II29'23		direct	4003 May 24 22:25	14°  846'32	
direct	4002 Jun 12 12:10	4°  II38'23		morning max el	4003 Jun 08 07:14	22°  821'44	26°33'03
morning max el	4002 Jun 26 14:59	11°  II47'40	25°06'23		4003 Jun 15 01:19	0°  II	
	4002 Jul 10 14:13	0° 			4003 Jul 03 09:18	0° 	
asc. node	4002 Jul 20 21:20	19°  804'15		morning set	4003 Jul 07 10:56	8°  819'37	
morning set	4002 Jul 23 00:25	23°  830'50		asc. node	4003 Jul 07 18:22	8°  858'54	
	4002 Jul 26 00:49	0° 					
superior conj	4002 Jul 29 23:08	8°  835'53	1°22'26	superior conj	4003 Jul 14 10:43	23°  831'36	1°05'02
minimum elong	4002 Jul 29 20:51	8°  823'22	1°22'08	minimum elong	4003 Jul 14 08:27	23°  819'04	1°04'39
max. Earth dist.	4002 Jul 31 07:10	11°  830'38	1.32616 AU	max. Earth dist.	4003 Jul 14 17:41	24°  810'01	1.32128 AU
evening rise	4002 Aug 06 02:44	23°  851'43		evening rise	4003 Jul 21 08:23	8°  829'32	
	4002 Aug 09 03:57	0° 			4003 Aug 01 13:32	0° 	
desc. node	4002 Aug 26 22:01	29°  855'49		desc. node	4003 Aug 13 19:01	18°  817'51	
	4002 Aug 26 23:12	0° 		evening max el	4003 Aug 20 20:18	26°  807'56	26°53'36
evening max el	4002 Sep 07 15:44	13°  852'30	27°24'02		4003 Aug 25 13:41	0° 	
retrograde	4002 Sep 21 10:16	21°  807'55		retrograde	4003 Sep 03 18:02	3°  818'49	
evening set	4002 Sep 28 14:47	18°  838'31		evening set	4003 Sep 10 16:58	1°  812'57	
min. Earth dist.	4002 Oct 02 05:36	15°  841'24	0.62613 AU		4003 Sep 12 13:33	30°  R 	
inferior conj	4002 Oct 05 02:10	12°  858'16	-3°36'47	min. Earth dist.	4003 Sep 14 10:28	28°  834'29	0.60630 AU
minimum elong	4002 Oct 05 07:54	12°  844'35	3°35'03	inferior conj	4003 Sep 17 15:22	25°  853'59	-4°28'51
morning rise	4002 Oct 12 02:38	7°  850'33		minimum elong	4003 Sep 17 21:04	25°  842'01	4°27'40
direct	4002 Oct 14 12:00	7°  824'35		morning rise	4003 Sep 25 03:03	21°  807'23	
asc. node	4002 Oct 16 20:33	7°  850'32		direct	4003 Sep 27 11:42	20°  845'43	
morning max el	4002 Oct 21 05:57	10°  851'50	17°50'35	asc. node	4003 Oct 03 17:36	23°  817'48	
	4002 Nov 03 00:24	0° 		morning max el	4003 Oct 04 19:02	24°  822'29	18°04'18
morning set	4002 Nov 06 07:30	5°  850'46			4003 Oct 09 09:28	0° 	
				morning set	4003 Oct 20 13:49	19°  821'14	
superior conj	4002 Nov 17 16:03	25°  837'57	0°35'54		4003 Oct 26 07:38	0° 	
minimum elong	4002 Nov 17 19:18	25°  851'40	0°35'26				

superior conj	4003 Oct 30 09:58	7°♍24'10	1°08'25	minimum elong	4004 Oct 12 04:34	20°♊28'28	1°29'34
minimum elong	4003 Oct 30 14:07	7°♍42'36	1°07'55		4004 Oct 17 09:26	0°♍	
max. Earth dist.	4003 Nov 07 01:29	20°♍36'15	1.41794 AU	max. Earth dist.	4004 Oct 19 07:47	3°♍25'04	1.39760 AU
desc. node	4003 Nov 09 18:21	25°♍04'52		evening rise	4004 Oct 23 10:04	10°♍27'10	
evening rise	4003 Nov 12 12:57	29°♍34'52		desc. node	4004 Oct 26 15:22	15°♍47'35	
	4003 Nov 12 19:14	0°♊			4004 Nov 04 17:01	0°♊	
	4003 Dec 02 21:20	0°♊		evening max el	4004 Nov 27 10:50	29°♊41'30	23°59'40
evening max el	4003 Dec 15 21:00	16°♊03'07	22°39'46		4004 Nov 27 18:20	0°♊	
retrograde	4003 Dec 25 18:21	21°♊55'32		retrograde	4004 Dec 08 10:48	6°♊09'47	
evening set	4003 Dec 30 10:56	20°♊00'48		evening set	4004 Dec 13 16:25	3°♊58'58	
asc. node	4003 Dec 30 16:50	19°♊48'16		asc. node	4004 Dec 16 13:53	0°♊55'07	
inferior conj	4004 Jan 04 19:42	13°♊38'32	1°39'57		4004 Dec 17 07:15	30°♋♊	
minimum elong	4004 Jan 04 17:40	13°♊45'35	1°39'12	min. Earth dist.	4004 Dec 18 11:07	28°♊27'25	0.67834 AU
min. Earth dist.	4004 Jan 04 14:39	13°♊56'02	0.68014 AU	inferior conj	4004 Dec 19 03:01	27°♊33'31	0°51'29
morning rise	4004 Jan 10 00:16	7°♊29'19		minimum elong	4004 Dec 19 01:50	27°♊37'33	0°51'00
direct	4004 Jan 14 13:19	5°♊37'28		morning rise	4004 Dec 24 11:16	21°♊29'17	
morning max el	4004 Jan 23 15:22	10°♊56'31	21°52'10	direct	4004 Dec 28 10:28	20°♊00'07	
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	4004 Feb 07 13:58	0°♋			4005 Jan 10 04:13	0°♊	
morning set	4004 Feb 25 04:43	26°♋45'20		desc. node	4005 Jan 22 14:40	17°♊23'25	
	4004 Feb 27 05:00	0°♋			4005 Jan 30 23:12	0°♋	
max. Earth dist.	4004 Mar 02 04:40	6°♋33'23	1.41436 AU	morning set	4005 Feb 03 06:34	5°♋06'07	
				max. Earth dist.	4005 Feb 12 10:47	19°♋36'53	1.43279 AU
superior conj	4004 Mar 09 21:17	19°♋43'59	-2°03'10				
minimum elong	4004 Mar 10 00:26	19°♋57'52	2°03'02	superior conj	4005 Feb 18 22:09	0°♋14'20	-2°07'08
	4004 Mar 15 14:42	0°♌		minimum elong	4005 Feb 18 20:45	0°♋08'30	2°07'07
evening rise	4004 Mar 20 13:06	9°♌04'34			4005 Feb 18 18:43	0°♋	
asc. node	4004 Mar 27 16:08	21°♌58'40		evening rise	4005 Mar 03 03:51	21°♋18'21	
	4004 Apr 01 17:06	0°♌			4005 Mar 08 02:42	0°♌	
evening max el	4004 Apr 05 20:31	5°♌01'04	18°12'56	asc. node	4005 Mar 14 13:11	10°♌39'12	
retrograde	4004 Apr 12 19:34	8°♌30'55		evening max el	4005 Mar 20 08:31	18°♌08'15	18°07'10
evening set	4004 Apr 15 07:49	8°♌04'22		retrograde	4005 Mar 26 20:38	21°♌30'55	
inferior conj	4004 Apr 22 06:55	3°♌18'20	2°50'48	evening set	4005 Mar 29 14:53	20°♌53'45	
minimum elong	4004 Apr 22 10:17	3°♌10'50	2°50'04	inferior conj	4005 Apr 04 23:41	15°♌47'34	3°25'11
min. Earth dist.	4004 Apr 25 16:03	0°♌19'21	0.59785 AU	minimum elong	4005 Apr 05 01:32	15°♌42'49	3°24'59
	4004 Apr 26 01:22	30°♌♌		min. Earth dist.	4005 Apr 07 23:12	12°♌46'16	0.61958 AU
morning rise	4004 Apr 29 10:16	27°♌34'43		morning rise	4005 Apr 11 10:36	9°♌47'26	
desc. node	4004 May 03 16:46	25°♌51'29		direct	4005 Apr 18 06:45	7°♌20'11	
direct	4004 May 05 21:14	25°♌38'11		desc. node	4005 Apr 20 13:50	7°♌35'31	
	4004 May 16 07:05	0°♌		morning max el	4005 May 02 10:07	15°♌18'49	27°51'50
morning max el	4004 May 20 05:32	3°♌28'56	27°30'49		4005 May 14 09:14	0°♌	
	4004 Jun 08 15:39	0°♍			4005 Jun 01 05:10	0°♍	
morning set	4004 Jun 20 18:33	22°♍57'24		morning set	4005 Jun 04 21:17	7°♍17'58	
asc. node	4004 Jun 23 15:25	29°♍02'05		max. Earth dist.	4005 Jun 10 14:23	19°♍19'46	1.32355 AU
	4004 Jun 24 02:10	0°♍		asc. node	4005 Jun 10 12:28	19°♍09'27	
max. Earth dist.	4004 Jun 27 05:25	6°♍50'42	1.32037 AU				
superior conj	4004 Jun 27 22:20	8°♍23'52	0°43'42	superior conj	4005 Jun 12 08:16	23°♍07'12	0°19'03
minimum elong	4004 Jun 27 20:33	8°♍14'01	0°43'21	minimum elong	4005 Jun 12 07:23	23°♍02'26	0°18'51
evening rise	4004 Jul 04 18:00	23°♍16'18			4005 Jun 15 11:46	0°♍	
	4004 Jul 07 23:45	0°♎		evening rise	4005 Jun 19 05:34	8°♍05'25	
	4004 Jul 25 23:34	0°♎			4005 Jun 30 14:28	0°♎	
desc. node	4004 Jul 30 16:01	5°♎30'06		evening max el	4005 Jul 14 07:54	18°♎17'35	24°24'07
evening max el	4004 Aug 01 17:27	7°♎34'32	25°51'01	desc. node	4005 Jul 17 13:03	21°♎04'33	
retrograde	4004 Aug 15 16:42	14°♎42'00		retrograde	4005 Jul 28 04:36	25°♎17'25	
evening set	4004 Aug 21 21:36	13°♎10'29		evening set	4005 Aug 02 02:02	24°♎23'54	
min. Earth dist.	4004 Aug 26 05:42	10°♎34'00	0.58561 AU	min. Earth dist.	4005 Aug 07 18:48	21°♎30'38	0.56681 AU
inferior conj	4004 Aug 29 11:06	8°♎13'51	-5°03'51	inferior conj	4005 Aug 10 10:47	19°♎49'23	-5°07'35
minimum elong	4004 Aug 29 14:14	8°♎08'09	5°03'34	minimum elong	4005 Aug 10 08:26	19°♎53'08	5°07'27
morning rise	4004 Sep 06 09:06	3°♎50'35		morning rise	4005 Aug 18 17:26	15°♎47'11	
direct	4004 Sep 08 20:09	3°♎30'59		direct	4005 Aug 21 09:29	15°♎28'00	
morning max el	4004 Sep 17 01:44	7°♎27'00	18°38'24	morning max el	4005 Aug 30 22:52	19°♎55'26	19°34'01
asc. node	4004 Sep 19 14:39	10°♎12'45		asc. node	4005 Sep 06 11:44	27°♎58'50	
	4004 Oct 01 13:23	0°♏			4005 Sep 07 18:50	0°♎	
morning set	4004 Oct 03 07:48	3°♏24'56		morning set	4005 Sep 17 09:44	17°♎51'15	
					4005 Sep 23 10:26	0°♏	
superior conj	4004 Oct 12 01:26	20°♏13'47	1°29'51	superior conj	4005 Sep 25 08:56	3°♏50'33	1°41'16





































































































































minimum elong	4005 Sep 25 10:24	3° Ω 57'49	1°41'12			4006 Aug 11 09:02	0° Ω	
max. Earth dist.	4005 Oct 01 12:05	15° Ω 34'20	1.37678 AU	morning max el		4006 Aug 13 08:18	1° Ω 40'08	20°50'52
evening rise	4005 Oct 05 06:12	22° Ω 22'53		asc. node		4006 Aug 24 08:46	16° Ω 29'46	
	4005 Oct 09 15:50	0° \mathbb{M}				4006 Aug 31 11:06	0° \mathbb{M}	
desc. node	4005 Oct 13 12:22	6° \mathbb{M} 22'02		morning set		4006 Sep 01 16:58	2° \mathbb{M} 32'57	
	4005 Oct 29 13:31	0° \mathbb{J}						
evening max el	4005 Nov 09 23:12	13° \mathbb{J} 22'50	25°15'41	superior conj		4006 Sep 09 03:50	18° \mathbb{M} 01'08	1°44'17
retrograde	4005 Nov 21 23:01	20° \mathbb{J} 18'25		minimum elong		4006 Sep 09 03:43	18° \mathbb{M} 00'33	1°44'17
evening set	4005 Nov 27 18:22	17° \mathbb{J} 53'04		max. Earth dist.		4006 Sep 13 20:20	27° \mathbb{M} 26'18	1.35788 AU
min. Earth dist.	4005 Dec 02 05:19	12° \mathbb{J} 55'45	0.67309 AU			4006 Sep 15 03:55	0° Ω	
inferior conj	4005 Dec 03 08:02	11° \mathbb{J} 28'56	-0°02'30	evening rise		4006 Sep 17 22:03	5° Ω 14'08	
minimum elong	4005 Dec 03 08:06	11° \mathbb{J} 28'45	0°02'27	desc. node		4006 Sep 30 09:23	26° Ω 43'26	
transit middle	4005 Dec 03 08:06	11° \mathbb{J} 28'45	0°02'27			4006 Oct 02 11:43	0° \mathbb{M}	
transit begin	4005 Dec 03 05:21	11° \mathbb{J} 37'42		evening max el		4006 Oct 23 11:42	27° \mathbb{M} 04'34	26°20'23
transit end	4005 Dec 03 10:51	11° \mathbb{J} 19'48				4006 Oct 26 18:46	0° \mathbb{J}	
asc. node	4005 Dec 03 10:57	11° \mathbb{J} 19'27		retrograde		4006 Nov 05 06:10	4° \mathbb{J} 15'58	
morning rise	4005 Dec 08 22:05	5° \mathbb{J} 31'48		evening set		4006 Nov 11 14:56	1° \mathbb{J} 39'40	
direct	4005 Dec 12 09:02	4° \mathbb{J} 22'54				4006 Nov 13 09:33	30° \mathbb{R} \mathbb{M}	
morning max el	4005 Dec 19 14:07	8° \mathbb{J} 25'56	19°29'05	min. Earth dist.		4006 Nov 15 18:55	27° \mathbb{M} 17'42	0.66441 AU
greatest brilliancy	4006 Jan 01 18:31	25° \mathbb{J} 58'12	-0.7m	inferior conj		4006 Nov 17 08:52	25° \mathbb{M} 21'48	-1°00'45
	4006 Jan 04 10:43	0° \mathbb{Z}		minimum elong		4006 Nov 17 10:31	25° \mathbb{M} 16'46	1°00'02
desc. node	4006 Jan 09 11:40	7° \mathbb{Z} 42'11		asc. node		4006 Nov 20 08:00	21° \mathbb{M} 57'36	
morning set	4006 Jan 13 04:06	13° \mathbb{Z} 23'08		morning rise		4006 Nov 23 06:39	19° \mathbb{M} 34'22	
	4006 Jan 23 19:54	0° \approx		direct		4006 Nov 26 07:24	18° \mathbb{M} 42'15	
max. Earth dist.	4006 Jan 25 23:32	3° \approx 23'42	1.44589 AU	morning max el		4006 Dec 03 00:18	22° \mathbb{M} 23'08	18°39'38
						4006 Dec 09 03:38	0° \mathbb{J}	
superior conj	4006 Jan 29 21:16	9° \approx 36'29	-1°53'13	morning set		4006 Dec 23 21:31	22° \mathbb{J} 45'16	
minimum elong	4006 Jan 29 13:56	9° \approx 07'11	1°52'43	desc. node		4006 Dec 27 08:40	28° \mathbb{J} 13'54	
	4006 Feb 11 08:36	0° \mathbb{H}				4006 Dec 28 11:34	0° \mathbb{Z}	
evening rise	4006 Feb 12 22:17	2° \mathbb{H} 37'28		max. Earth dist.		4007 Jan 08 17:03	17° \mathbb{Z} 38'48	1.45223 AU
asc. node	4006 Mar 01 10:14	28° \mathbb{H} 41'20						
	4006 Mar 02 12:19	0° \mathbb{Y}		superior conj		4007 Jan 09 02:03	18° \mathbb{Z} 14'04	-1°20'02
evening max el	4006 Mar 03 21:12	1° \mathbb{Y} 29'02	18°20'25	minimum elong		4007 Jan 08 17:04	17° \mathbb{Z} 38'48	1°19'02
retrograde	4006 Mar 10 08:06	4° \mathbb{Y} 57'57				4007 Jan 16 13:30	0° \approx	
evening set	4006 Mar 13 08:13	4° \mathbb{Y} 09'03		evening rise		4007 Jan 24 17:30	12° \approx 58'50	
	4006 Mar 18 03:36	30° \mathbb{R} \mathbb{H}		greatest brilliancy		4007 Feb 01 17:10	25° \approx 44'47	-0.8m
inferior conj	4006 Mar 19 06:37	28° \mathbb{H} 44'05	3°36'37			4007 Feb 04 09:59	0° \mathbb{H}	
minimum elong	4006 Mar 19 06:43	28° \mathbb{H} 43'46	3°36'37	evening max el		4007 Feb 15 07:58	14° \mathbb{H} 56'58	18°51'41
min. Earth dist.	4006 Mar 21 15:39	26° \mathbb{H} 02'04	0.63930 AU	asc. node		4007 Feb 16 07:16	15° \mathbb{H} 53'16	
morning rise	4006 Mar 25 04:22	22° \mathbb{H} 35'26		retrograde		4007 Feb 22 01:59	18° \mathbb{H} 43'52	
direct	4006 Apr 01 00:54	19° \mathbb{H} 49'15		evening set		4007 Feb 25 08:32	17° \mathbb{H} 42'15	
desc. node	4006 Apr 07 10:53	21° \mathbb{H} 49'38		inferior conj		4007 Mar 02 23:49	12° \mathbb{H} 00'05	3°30'49
morning max el	4006 Apr 14 18:43	27° \mathbb{H} 46'37	27°35'45	minimum elong		4007 Mar 02 22:33	12° \mathbb{H} 04'02	3°30'42
	4006 Apr 16 21:33	0° \mathbb{Y}		min. Earth dist.		4007 Mar 04 17:13	9° \mathbb{H} 51'42	0.65554 AU
	4006 May 08 02:42	0° \mathbb{B}		morning rise		4007 Mar 08 12:09	5° \mathbb{H} 47'34	
morning set	4006 May 19 16:40	21° \mathbb{B} 13'55		direct		4007 Mar 15 01:55	2° \mathbb{H} 56'47	
	4006 May 24 00:16	0° \mathbb{H}		desc. node		4007 Mar 25 07:55	7° \mathbb{H} 59'15	
max. Earth dist.	4006 May 24 16:33	1° \mathbb{H} 24'59	1.33111 AU	morning max el		4007 Mar 28 04:30	10° \mathbb{H} 40'40	26°47'40
						4007 Apr 12 11:50	0° \mathbb{Y}	
superior conj	4006 May 27 14:40	7° \mathbb{H} 36'08	-0°08'13			4007 Apr 30 15:00	0° \mathbb{B}	
minimum elong	4006 May 27 15:04	7° \mathbb{H} 38'19	0°08'09	morning set		4007 May 03 01:24	4° \mathbb{B} 34'27	
behind sun begin	4006 May 27 10:25	7° \mathbb{H} 13'26		max. Earth dist.		4007 May 07 08:31	12° \mathbb{B} 58'25	1.34333 AU
behind sun end	4006 May 27 19:44	8° \mathbb{H} 03'14						
asc. node	4006 May 28 09:31	9° \mathbb{H} 17'08		superior conj		4007 May 11 15:18	21° \mathbb{B} 43'05	-0°37'04
evening rise	4006 Jun 03 17:15	22° \mathbb{H} 51'06		minimum elong		4007 May 11 17:15	21° \mathbb{B} 53'16	0°36'41
	4006 Jun 07 04:10	0° \mathbb{B}		asc. node		4007 May 15 06:32	29° \mathbb{B} 20'26	
evening max el	4006 Jun 25 21:24	28° \mathbb{B} 42'04	22°47'14			4007 May 15 14:03	0° \mathbb{H}	
	4006 Jun 27 07:07	0° Ω		evening rise		4007 May 19 03:02	7° \mathbb{H} 26'19	
desc. node	4006 Jul 04 10:05	4° Ω 27'03				4007 May 31 07:15	0° \mathbb{B}	
retrograde	4006 Jul 09 03:54	5° Ω 18'33		evening max el		4007 Jun 07 17:41	9° \mathbb{B} 19'27	21°15'23
evening set	4006 Jul 12 12:48	4° Ω 53'38		retrograde		4007 Jun 19 17:17	15° \mathbb{B} 12'37	
min. Earth dist.	4006 Jul 20 05:46	1° Ω 29'27	0.55338 AU	desc. node		4007 Jun 21 07:08	15° \mathbb{B} 06'49	
inferior conj	4006 Jul 21 15:38	0° Ω 40'52	-4°25'01	evening set		4007 Jun 22 00:29	15° \mathbb{B} 00'24	
minimum elong	4006 Jul 21 07:57	0° Ω 51'56	4°23'26	inferior conj		4007 Jul 01 09:30	11° \mathbb{B} 01'51	-2°53'29
	4006 Jul 22 20:16	30° \mathbb{R} \mathbb{B}		minimum elong		4007 Jul 01 01:51	11° \mathbb{B} 12'35	2°51'00
morning rise	4006 Jul 30 05:16	26° \mathbb{B} 49'47		min. Earth dist.		4007 Jul 01 16:47	10° \mathbb{B} 51'38	0.54830 AU
direct	4006 Aug 02 04:41	26° \mathbb{B} 29'11		morning rise		4007 Jul 10 03:41	7° \mathbb{B} 04'51	

direct	4007 Jul 13 14:26	6°☿39'10		direct	4008 Jun 23 03:26	16°♄22'13	
morning max el	4007 Jul 26 06:24	12°☿39'51	22°25'32	morning max el	4008 Jul 06 21:30	23°♄09'03	24°08'49
	4007 Aug 08 04:03	0°♄			4008 Jul 13 00:39	0°☿	
asc. node	4007 Aug 11 05:48	5°♄33'59		asc. node	4008 Jul 28 02:49	25°☿03'06	
morning set	4007 Aug 17 03:18	17°♄23'16			4008 Jul 30 12:51	0°♄	
	4007 Aug 23 01:33	0°♄		morning set	4008 Jul 31 14:58	2°♄17'11	
superior conj	4007 Aug 24 06:34	2°♄34'12	1°40'17	superior conj	4008 Aug 07 14:24	17°♄21'33	1°30'25
minimum elong	4007 Aug 24 05:14	2°♄27'08	1°40'12	minimum elong	4008 Aug 07 12:19	17°♄10'16	1°30'12
max. Earth dist.	4007 Aug 27 12:56	9°♄24'23	1.34235 AU	max. Earth dist.	4008 Aug 09 14:22	21°♄40'15	1.33087 AU
evening rise	4007 Sep 01 05:08	18°♄48'13			4008 Aug 13 13:19	0°♄	
	4007 Sep 07 04:37	0°♄		evening rise	4008 Aug 14 23:27	2°♄54'17	
desc. node	4007 Sep 17 06:25	16°♄44'57			4008 Aug 30 00:02	0°♄	
	4007 Sep 26 15:16	0°♄		desc. node	4008 Sep 03 03:26	6°♄17'58	
evening max el	4007 Oct 06 00:24	10°♄38'13	27°06'16	evening max el	4008 Sep 17 11:39	23°♄51'01	27°26'19
retrograde	4007 Oct 19 07:34	17°♄55'24			4008 Sep 26 02:43	0°♄	
evening set	4007 Oct 26 03:54	15°♄14'07		retrograde	4008 Oct 01 02:45	1°♄07'55	
min. Earth dist.	4007 Oct 30 01:26	11°♄27'55	0.65220 AU		4008 Oct 05 19:51	30°♄	
inferior conj	4007 Nov 01 03:20	9°♄07'34	-2°01'43	evening set	4008 Oct 08 06:26	28°♄30'37	
minimum elong	4007 Nov 01 06:46	8°♄57'55	2°00'21	min. Earth dist.	4008 Oct 11 22:44	25°♄17'45	0.63654 AU
morning rise	4007 Nov 07 10:34	3°♄32'59		inferior conj	4008 Oct 14 12:53	22°♄39'52	-3°02'57
asc. node	4007 Nov 07 05:01	3°♄39'53		minimum elong	4008 Oct 14 17:58	22°♄26'57	3°01'13
direct	4007 Nov 10 03:23	2°♄53'48		morning rise	4008 Oct 21 06:52	17°♄21'36	
morning max el	4007 Nov 16 15:07	6°♄22'25	18°06'52	direct	4008 Oct 23 18:14	16°♄51'44	
	4007 Dec 02 15:56	0°♄		asc. node	4008 Oct 24 02:03	16°♄52'16	
morning set	4007 Dec 04 20:34	3°♄37'00		morning max el	4008 Oct 30 07:46	20°♄16'50	17°51'26
desc. node	4007 Dec 14 05:42	18°♄54'41			4008 Nov 06 14:21	0°♄	
superior conj	4007 Dec 19 07:21	27°♄00'14	-0°34'17	morning set	4008 Nov 15 22:01	15°♄45'12	
minimum elong	4007 Dec 19 03:03	26°♄43'10	0°33'41		4008 Nov 24 06:12	0°♄	
	4007 Dec 21 04:48	0°♄		superior conj	4008 Nov 28 08:00	6°♄45'47	0°12'20
max. Earth dist.	4007 Dec 22 12:46	2°♄05'54	1.45113 AU	minimum elong	4008 Nov 28 09:19	6°♄51'13	0°12'09
evening rise	4008 Jan 04 15:25	22°♄32'15		behind sun begin	4008 Nov 28 02:52	6°♄24'42	
	4008 Jan 09 11:14	0°♄		behind sun end	4008 Nov 28 15:47	7°♄17'42	
greatest brilliancy	4008 Jan 17 15:25	12°♄28'42	-0.7m	desc. node	4008 Nov 30 02:43	9°♄40'22	
evening max el	4008 Jan 29 14:48	28°♄28'25	19°39'27	max. Earth dist.	4008 Dec 04 06:58	16°♄24'12	1.44279 AU
	4008 Jan 31 05:21	0°♄			4008 Dec 12 22:59	0°♄	
asc. node	4008 Feb 03 04:18	2°♄01'42		evening rise	4008 Dec 14 01:30	1°♄42'12	
retrograde	4008 Feb 05 23:14	2°♄43'24			4009 Jan 02 02:30	0°♄	
evening set	4008 Feb 09 13:17	1°♄28'08		evening max el	4009 Jan 11 16:18	12°♄00'31	20°41'33
	4008 Feb 11 06:39	30°♄		retrograde	4009 Jan 19 21:25	16°♄51'24	
inferior conj	4008 Feb 15 00:11	25°♄30'48	3°11'54	asc. node	4009 Jan 20 01:20	16°♄51'16	
minimum elong	4008 Feb 14 22:03	25°♄37'52	3°11'30	evening set	4009 Jan 23 20:24	15°♄21'31	
min. Earth dist.	4008 Feb 16 02:46	24°♄03'04	0.66764 AU	inferior conj	4009 Jan 29 05:06	9°♄11'42	2°42'40
morning rise	4008 Feb 20 06:35	19°♄16'58		minimum elong	4009 Jan 29 02:37	9°♄20'12	2°42'00
direct	4008 Feb 26 08:47	16°♄34'04		min. Earth dist.	4009 Jan 29 18:22	8°♄26'12	0.67556 AU
morning max el	4008 Mar 09 13:48	23°♄50'42	25°35'57	morning rise	4009 Feb 03 08:39	2°♄58'16	
desc. node	4008 Mar 11 04:55	25°♄33'01		direct	4009 Feb 08 20:48	0°♄31'56	
	4008 Mar 15 01:50	0°♄		morning max el	4009 Feb 19 22:25	7°♄08'15	24°10'29
	4008 Apr 04 21:15	0°♄		desc. node	4009 Feb 26 01:57	14°♄06'25	
morning set	4008 Apr 14 19:15	17°♄07'43			4009 Mar 09 17:56	0°♄	
max. Earth dist.	4008 Apr 18 13:18	24°♄06'28	1.36009 AU	morning set	4009 Mar 27 16:37	28°♄38'04	
	4008 Apr 21 14:41	0°♄			4009 Mar 28 11:28	0°♄	
superior conj	4008 Apr 24 07:32	5°♄20'55	-1°06'05	max. Earth dist.	4009 Mar 31 09:55	5°♄11'41	1.38039 AU
minimum elong	4008 Apr 24 11:04	5°♄38'35	1°05'28	superior conj	4009 Apr 07 11:57	18°♄20'02	-1°33'02
asc. node	4008 May 01 03:34	19°♄15'28		minimum elong	4009 Apr 07 16:35	18°♄42'10	1°32'26
evening rise	4008 May 02 08:53	21°♄44'57			4009 Apr 13 11:35	0°♄	
	4008 May 06 12:20	0°♄		evening rise	4009 Apr 16 08:15	5°♄39'13	
evening max el	4008 May 20 01:37	20°♄32'34	19°58'47	asc. node	4009 Apr 18 00:37	8°♄57'14	
retrograde	4008 May 30 08:20	25°♄33'07			4009 Apr 30 15:26	0°♄	
evening set	4008 Jun 01 07:15	25°♄23'03		evening max el	4009 May 02 21:16	2°♄26'45	19°01'46
desc. node	4008 Jun 07 04:08	23°♄10'45		retrograde	4009 May 11 13:08	6°♄40'20	
inferior conj	4008 Jun 10 06:35	21°♄22'47	-0°55'12	evening set	4009 May 13 14:56	6°♄26'45	
minimum elong	4008 Jun 10 04:01	21°♄26'40	0°54'15	inferior conj	4009 May 21 19:41	2°♄12'32	0°55'40
min. Earth dist.	4008 Jun 12 05:20	20°♄12'16	0.55286 AU	minimum elong	4009 May 21 21:50	2°♄08'47	0°54'54
morning rise	4008 Jun 18 22:58	17°♄00'29		min. Earth dist.	4009 May 24 20:51	0°♄06'02	0.56609 AU

desc. node	4009 May 25 01:08	29°♄58'54		min. Earth dist.	4010 May 06 16:46	10°♄56'21	0.58539 AU
	4009 May 25 00:28	30°♄		morning rise	4010 May 10 19:37	8°♄13'17	
morning rise	4009 May 30 01:31	27°♄14'27		desc. node	4010 May 11 22:12	7°♄41'33	
direct	4009 Jun 04 05:02	26°♄11'53		direct	4010 May 16 21:13	6°♄36'45	
	4009 Jun 14 06:38	0°♄		morning max el	4010 May 31 06:40	14°♄20'39	27°01'48
morning max el	4009 Jun 18 11:57	3°♄33'57	25°46'10		4010 Jun 12 19:34	0°♄	
	4009 Jul 07 09:18	0°♄			4010 Jun 29 13:56	0°♄	
asc. node	4009 Jul 14 23:52	14°♄50'18		morning set	4010 Jun 30 11:54	1°♄54'33	
morning set	4009 Jul 16 02:24	17°♄09'38		asc. node	4010 Jul 01 20:54	4°♄49'15	
	4009 Jul 22 00:23	0°♄					
				superior conj	4010 Jul 07 13:01	17°♄11'37	0°56'27
superior conj	4009 Jul 23 01:12	2°♄16'24	1°15'35	minimum elong	4010 Jul 07 10:53	16°♄59'54	0°56'03
minimum elong	4009 Jul 22 22:51	2°♄03'33	1°15'14	max. Earth dist.	4010 Jul 07 09:44	16°♄53'31	1.32031 AU
max. Earth dist.	4009 Jul 23 22:25	4°♄12'53	1.32352 AU		4010 Jul 13 09:43	0°♄	
evening rise	4009 Jul 30 01:45	17°♄22'59		evening rise	4010 Jul 14 09:20	2°♄05'28	
	4009 Aug 05 10:35	0°♄			4010 Jul 29 10:14	0°♄	
desc. node	4009 Aug 21 00:27	25°♄10'53		desc. node	4010 Aug 07 21:29	13°♄06'27	
	4009 Aug 24 18:50	0°♄		evening max el	4010 Aug 12 20:44	18°♄25'25	26°30'44
evening max el	4009 Aug 30 19:14	6°♄30'29	27°15'11	retrograde	4010 Aug 26 19:50	25°♄35'42	
retrograde	4009 Sep 13 15:18	13°♄44'36		evening set	4010 Sep 02 12:32	23°♄43'23	
evening set	4009 Sep 20 18:54	11°♄23'15		min. Earth dist.	4010 Sep 06 10:19	21°♄07'55	0.59738 AU
min. Earth dist.	4009 Sep 24 09:36	8°♄36'06	0.61787 AU	inferior conj	4010 Sep 09 16:44	18°♄33'30	-4°46'35
inferior conj	4009 Sep 27 10:32	5°♄51'47	-4°00'17	minimum elong	4010 Sep 09 21:43	18°♄23'37	4°45'47
minimum elong	4009 Sep 27 16:29	5°♄38'19	3°58'42	morning rise	4010 Sep 17 09:00	13°♄56'49	
morning rise	4009 Oct 04 15:52	0°♄53'05		direct	4010 Sep 19 18:05	13°♄36'25	
direct	4009 Oct 07 00:30	0°♄29'20		morning max el	4010 Sep 27 10:02	17°♄20'27	18°16'15
asc. node	4009 Oct 10 23:05	1°♄38'00		asc. node	4010 Sep 27 20:08	17°♄45'26	
morning max el	4009 Oct 13 23:11	3°♄59'25	17°54'08		4010 Oct 06 10:56	0°♄	
morning set	4009 Oct 29 19:33	28°♄50'48		morning set	4010 Oct 13 07:21	12°♄36'37	
	4009 Oct 30 10:48	0°♄					
				superior conj	4010 Oct 22 15:08	0°♄05'01	1°18'49
superior conj	4009 Nov 09 11:23	17°♄50'07	0°51'03	minimum elong	4010 Oct 22 19:00	0°♄22'36	1°18'23
minimum elong	4009 Nov 09 15:21	18°♄07'12	0°50'31		4010 Oct 22 14:02	0°♄	
desc. node	4009 Nov 16 23:45	0°♄27'56		max. Earth dist.	4010 Oct 30 05:11	13°♄27'26	1.40949 AU
	4009 Nov 16 16:56	0°♄		evening rise	4010 Nov 03 23:29	21°♄24'26	
max. Earth dist.	4009 Nov 16 20:45	0°♄15'38	1.42830 AU	desc. node	4010 Nov 03 20:47	21°♄13'23	
evening rise	4009 Nov 23 15:36	11°♄08'21			4010 Nov 09 08:22	0°♄	
	4009 Dec 06 01:50	0°♄			4010 Nov 30 05:48	0°♄	
evening max el	4009 Dec 25 12:20	25°♄34'05	21°54'36	evening max el	4010 Dec 08 03:59	9°♄10'32	23°13'50
	4009 Dec 31 00:21	0°♄		retrograde	4010 Dec 18 13:02	15°♄19'17	
retrograde	4010 Jan 03 18:33	1°♄04'38		evening set	4010 Dec 23 10:54	13°♄17'54	
asc. node	4010 Jan 06 22:21	0°♄10'58		asc. node	4010 Dec 24 19:24	12°♄00'48	
	4010 Jan 07 05:35	30°♄		inferior conj	4010 Dec 28 20:17	6°♄53'44	1°20'09
evening set	4010 Jan 08 04:09	29°♄19'16		minimum elong	4010 Dec 28 18:33	6°♄59'41	1°19'29
inferior conj	4010 Jan 13 12:26	23°♄00'22	2°04'59	min. Earth dist.	4010 Dec 28 10:39	7°♄26'53	0.67978 AU
minimum elong	4010 Jan 13 10:06	23°♄08'27	2°04'12	morning rise	4011 Jan 03 02:07	0°♄46'08	
min. Earth dist.	4010 Jan 13 13:49	22°♄55'32	0.67952 AU		4011 Jan 04 04:31	30°♄	
morning rise	4010 Jan 18 15:54	16°♄48'53		direct	4011 Jan 07 09:08	29°♄03'57	
direct	4010 Jan 23 13:15	14°♄43'53			4011 Jan 10 19:31	0°♄	
morning max el	4010 Feb 02 08:30	20°♄31'42	22°41'24	morning max el	4011 Jan 15 23:35	4°♄03'52	21°17'28
	4010 Feb 10 09:54	0°♄		desc. node	4011 Jan 30 20:03	23°♄10'01	
desc. node	4010 Feb 12 23:00	3°♄22'48			4011 Feb 04 12:02	0°♄	
	4010 Mar 02 23:49	0°♄		morning set	4011 Feb 16 01:55	17°♄43'51	
morning set	4010 Mar 08 11:32	8°♄50'52		max. Earth dist.	4011 Feb 23 06:46	29°♄18'47	1.42270 AU
max. Earth dist.	4010 Mar 13 05:27	16°♄48'00	1.40220 AU		4011 Feb 23 16:48	0°♄	
	4010 Mar 20 17:33	0°♄					
				superior conj	4011 Mar 02 15:29	11°♄40'57	-2°06'44
superior conj	4010 Mar 21 00:16	0°♄30'30	-1°54'45	minimum elong	4011 Mar 02 17:05	11°♄47'48	2°06'43
minimum elong	4010 Mar 21 04:39	0°♄50'24	1°54'25		4011 Mar 12 23:43	0°♄	
evening rise	4010 Mar 30 22:03	19°♄01'27		evening rise	4011 Mar 13 22:27	1°♄43'00	
asc. node	4010 Apr 04 21:39	28°♄20'36		asc. node	4011 Mar 22 18:42	17°♄19'21	
	4010 Apr 05 19:40	0°♄		evening max el	4011 Mar 30 12:28	27°♄54'11	18°08'10
evening max el	4010 Apr 16 02:02	14°♄56'59	18°25'03		4011 Apr 02 02:28	0°♄	
retrograde	4010 Apr 23 12:33	18°♄37'53		retrograde	4011 Apr 06 05:25	1°♄18'48	
evening set	4010 Apr 25 20:59	18°♄16'52		evening set	4011 Apr 08 20:22	0°♄47'51	
inferior conj	4010 May 03 06:09	13°♄43'13	2°18'00		4011 Apr 10 11:17	30°♄	
minimum elong	4010 May 03 09:50	13°♄35'43	2°17'00	inferior conj	4011 Apr 15 12:55	25°♄53'23	3°08'33

minimum elong	4011 Apr 15 15:44	25° Υ 46'43	3°08'04	minimum elong	4012 Mar 28 13:17	8° Υ 32'04	3°32'22
min. Earth dist.	4011 Apr 18 19:01	22° Υ 50'20	0.60723 AU	min. Earth dist.	4012 Mar 31 05:47	5° Υ 40'02	0.62837 AU
morning rise	4011 Apr 22 09:00	20° Υ 01'50		morning rise	4012 Apr 03 17:06	2° Υ 30'48	
desc. node	4011 Apr 28 19:14	17° Υ 51'04			4012 Apr 09 05:40	30° \Re \mathcal{H}	
direct	4011 Apr 29 01:17	17° Υ 50'53		direct	4012 Apr 10 14:27	29° \mathcal{H} 54'04	
morning max el	4011 May 13 07:38	25° Υ 45'50	27°44'19		4012 Apr 11 23:54	0° Υ	
	4011 May 17 05:57	0° \mathcal{B}		desc. node	4012 Apr 14 16:16	0° Υ 42'36	
	4011 Jun 06 06:30	0° Π		morning max el	4012 Apr 24 14:05	7° Υ 52'22	27°49'20
morning set	4011 Jun 14 17:42	16° Π 26'07			4012 May 11 13:44	0° \mathcal{B}	
asc. node	4011 Jun 18 17:58	24° Π 55'09			4012 May 28 10:15	0° Π	
max. Earth dist.	4011 Jun 20 20:41	29° Π 30'47	1.32122 AU	morning set	4012 May 28 17:37	0° Π 37'01	
	4011 Jun 21 02:01	0° \mathcal{E}		max. Earth dist.	4012 Jun 03 03:21	11° Π 51'38	1.32631 AU
				asc. node	4012 Jun 04 15:01	15° Π 03'08	
superior conj	4011 Jun 22 00:09	2° \mathcal{E} 01'23	0°33'38				
minimum elong	4011 Jun 21 22:42	1° \mathcal{E} 53'25	0°33'19	superior conj	4012 Jun 05 08:48	16° Π 39'14	0°07'46
evening rise	4011 Jun 28 20:03	16° \mathcal{E} 54'37		minimum elong	4012 Jun 05 08:26	16° Π 37'13	0°07'41
	4011 Jul 05 07:06	0° \mathcal{Q}		behind sun begin	4012 Jun 05 03:49	16° Π 12'16	
evening max el	4011 Jul 25 14:55	29° \mathcal{Q} 32'43	25°16'22	behind sun end	4012 Jun 05 13:03	17° Π 02'13	
desc. node	4011 Jul 25 18:29	29° \mathcal{Q} 41'14			4012 Jun 11 12:33	0° \mathcal{E}	
	4011 Jul 26 02:30	0° \mathcal{M}		evening rise	4012 Jun 12 07:54	1° \mathcal{E} 43'13	
retrograde	4011 Aug 08 14:03	6° \mathcal{M} 37'23			4012 Jun 27 20:27	0° \mathcal{Q}	
evening set	4011 Aug 14 06:47	5° \mathcal{M} 22'39		evening max el	4012 Jul 06 04:03	10° \mathcal{Q} 03'56	23°43'05
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inferior conj	4011 Aug 22 04:08	0° \mathcal{M} 35'32	-5°10'14	retrograde	4012 Jul 19 20:04	16° \mathcal{Q} 55'38	
minimum elong	4011 Aug 22 05:13	0° \mathcal{M} 33'40	5°10'12	evening set	4012 Jul 24 02:01	16° \mathcal{Q} 15'59	
	4011 Aug 23 00:57	30° \mathcal{R} \mathcal{Q}		min. Earth dist.	4012 Jul 30 14:08	13° \mathcal{Q} 11'17	0.56032 AU
morning rise	4011 Aug 30 05:58	26° \mathcal{Q} 21'24		inferior conj	4012 Aug 01 19:16	11° \mathcal{Q} 51'23	-4°55'48
direct	4011 Sep 01 18:52	26° \mathcal{Q} 02'06		minimum elong	4012 Aug 01 14:17	11° \mathcal{Q} 58'54	4°55'12
	4011 Sep 10 08:31	0° \mathcal{M}		morning rise	4012 Aug 10 05:05	7° \mathcal{Q} 55'40	
morning max el	4011 Sep 10 12:55	0° \mathcal{M} 10'18	18°59'18	direct	4012 Aug 13 00:15	7° \mathcal{Q} 35'59	
asc. node	4011 Sep 14 17:12	4° \mathcal{M} 59'38		morning max el	4012 Aug 23 05:05	12° \mathcal{Q} 20'11	20°04'13
morning set	4011 Sep 27 05:05	26° \mathcal{M} 50'49		asc. node	4012 Aug 31 14:15	23° \mathcal{Q} 06'10	
	4011 Sep 28 19:23	0° \mathcal{L}			4012 Sep 04 13:37	0° \mathcal{M}	
				morning set	4012 Sep 10 09:34	11° \mathcal{M} 24'48	
superior conj	4011 Oct 05 13:59	13° \mathcal{L} 15'51	1°35'49				
minimum elong	4011 Oct 05 16:27	13° \mathcal{L} 27'37	1°35'38	superior conj	4012 Sep 18 02:49	27° \mathcal{M} 08'31	1°43'29
max. Earth dist.	4011 Oct 12 10:08	25° \mathcal{L} 57'51	1.38871 AU	minimum elong	4012 Sep 18 03:35	27° \mathcal{M} 12'22	1°43'28
	4011 Oct 14 16:47	0° \mathcal{M}			4012 Sep 19 13:13	0° \mathcal{L}	
evening rise	4011 Oct 16 06:36	2° \mathcal{M} 44'09		max. Earth dist.	4012 Sep 23 15:51	7° \mathcal{L} 58'38	1.36842 AU
desc. node	4011 Oct 21 17:48	11° \mathcal{M} 53'05		evening rise	4012 Sep 27 11:37	15° \mathcal{L} 04'42	
	4011 Nov 02 13:20	0° \mathcal{J}			4012 Oct 06 03:29	0° \mathcal{M}	
evening max el	4011 Nov 20 17:06	22° \mathcal{J} 50'43	24°33'01	desc. node	4012 Oct 07 14:48	2° \mathcal{M} 22'54	
retrograde	4011 Dec 02 03:37	29° \mathcal{J} 31'16			4012 Oct 27 05:02	0° \mathcal{J}	
evening set	4011 Dec 07 15:03	27° \mathcal{J} 14'12		evening max el	4012 Nov 02 05:28	6° \mathcal{J} 33'18	25°45'03
asc. node	4011 Dec 11 16:27	22° \mathcal{J} 43'07		retrograde	4012 Nov 14 13:36	13° \mathcal{J} 36'23	
min. Earth dist.	4011 Dec 12 06:26	21° \mathcal{J} 57'02	0.67654 AU	evening set	4012 Nov 20 14:56	11° \mathcal{J} 05'40	
inferior conj	4011 Dec 13 02:50	20° \mathcal{J} 49'00	0°29'13	min. Earth dist.	4012 Nov 24 22:50	6° \mathcal{J} 23'33	0.66984 AU
minimum elong	4011 Dec 13 02:08	20° \mathcal{J} 51'21	0°28'55	inferior conj	4012 Nov 26 06:17	4° \mathcal{J} 43'51	-0°26'44
morning rise	4011 Dec 18 13:17	14° \mathcal{J} 47'25		minimum elong	4012 Nov 26 06:59	4° \mathcal{J} 41'38	0°26'25
direct	4011 Dec 22 07:08	13° \mathcal{J} 27'02		asc. node	4012 Nov 27 13:29	3° \mathcal{J} 06'26	
morning max el	4011 Dec 29 22:14	17° \mathcal{J} 47'12	20°04'36		4012 Nov 30 10:53	30° \mathcal{R} \mathcal{M}	
	4012 Jan 08 15:36	0° \mathcal{Z}		morning rise	4012 Dec 01 23:24	28° \mathcal{M} 50'44	
desc. node	4012 Jan 17 17:04	13° \mathcal{Z} 19'06		direct	4012 Dec 05 05:50	27° \mathcal{M} 49'23	
morning set	4012 Jan 25 22:39	25° \mathcal{Z} 53'04			4012 Dec 10 07:52	0° \mathcal{J}	
	4012 Jan 28 14:23	0° \approx		morning max el	4012 Dec 12 04:44	1° \mathcal{J} 41'18	19°06'10
max. Earth dist.	4012 Feb 05 16:11	12° \approx 43'33	1.43913 AU		4013 Jan 01 04:24	0° \mathcal{Z}	
				desc. node	4013 Jan 03 14:05	3° \mathcal{Z} 44'17	
superior conj	4012 Feb 11 05:15	21° \approx 41'30	-2°03'39	morning set	4013 Jan 04 02:24	4° \mathcal{Z} 32'16	
minimum elong	4012 Feb 11 01:14	21° \approx 25'05	2°03'30	max. Earth dist.	4013 Jan 18 07:55	26° \mathcal{Z} 47'01	1.44947 AU
	4012 Feb 16 05:42	0° \mathcal{H}			4013 Jan 20 08:50	0° \approx	
evening rise	4012 Feb 24 05:02	13° \mathcal{H} 34'09					
	4012 Mar 04 21:22	0° Υ		superior conj	4013 Jan 20 18:53	0° \approx 39'41	-1°41'18
asc. node	4012 Mar 08 15:45	5° Υ 44'50		minimum elong	4013 Jan 20 09:59	0° \approx 04'32	1°40'31
evening max el	4012 Mar 13 01:08	11° Υ 08'14	18°10'32	evening rise	4013 Feb 04 13:49	24° \approx 29'10	
retrograde	4012 Mar 19 11:26	14° Υ 31'46			4013 Feb 07 22:24	0° \mathcal{H}	
evening set	4012 Mar 22 08:17	13° Υ 49'32		asc. node	4013 Feb 23 12:47	23° \mathcal{H} 27'12	
inferior conj	4012 Mar 28 12:11	8° Υ 35'02	3°32'27	evening max el	4013 Feb 24 13:14	24° \mathcal{H} 32'30	18°31'30

































































































































retrograde	4013 Mar 03 02:12	28° K 07'53		evening set	4014 Feb 18 07:25	10° K 52'43	
evening set	4013 Mar 06 04:57	27° K 13'37		inferior conj	4014 Feb 23 20:32	5° K 03'43	3°24'13
inferior conj	4013 Mar 11 23:55	21° K 40'48	3°36'00	minimum elong	4014 Feb 23 18:49	5° K 09'11	3°23'59
minimum elong	4013 Mar 11 23:23	21° K 42'23	3°35'58	min. Earth dist.	4014 Feb 25 07:29	3° K 11'59	0.66115 AU
min. Earth dist.	4013 Mar 14 02:10	19° K 12'02	0.64668 AU		4014 Feb 28 01:05	30° R \approx	
morning rise	4013 Mar 17 17:13	15° K 29'57		morning rise	4014 Mar 01 05:54	28° \approx 50'07	
direct	4013 Mar 24 11:26	12° K 40'30		direct	4014 Mar 07 15:04	26° \approx 01'18	
desc. node	4013 Apr 01 13:18	15° K 50'04			4014 Mar 16 10:52	0° K	
morning max el	4013 Apr 06 23:43	20° K 33'34	27°18'50	desc. node	4014 Mar 19 10:19	2° K 38'43	
	4013 Apr 15 03:00	0° Y		morning max el	4014 Mar 20 09:38	3° K 36'19	26°19'32
	4013 May 04 15:48	0° B			4014 Apr 09 10:57	0° Y	
morning set	4013 May 12 08:55	14° B 19'11		morning set	4014 Apr 25 11:59	27° Y 21'59	
max. Earth dist.	4013 May 17 01:47	23° B 44'55	1.33580 AU		4014 Apr 26 21:29	0° B	
	4013 May 20 01:46	0° II		max. Earth dist.	4014 Apr 29 12:53	5° B 05'57	1.34987 AU
superior conj	4013 May 20 13:00	0° II 59'22	-0°20'20	superior conj	4014 May 04 10:27	14° B 55'12	-0°49'28
minimum elong	4013 May 20 14:03	1° II 04'55	0°20'07	minimum elong	4014 May 04 13:06	15° B 08'44	0°48'58
asc. node	4013 May 22 12:03	5° II 09'22		asc. node	4014 May 09 09:05	25° B 09'59	
evening rise	4013 May 27 19:01	16° II 25'14			4014 May 11 16:52	0° II	
	4013 Jun 03 14:01	0° B		evening rise	4014 May 12 03:25	0° II 54'29	
evening max el	4013 Jun 17 19:19	20° B 29'13	22°06'38		4014 May 29 12:53	0° B	
desc. node	4013 Jun 28 12:32	26° B 39'56		evening max el	4014 May 30 20:18	1° B 20'55	20°40'39
retrograde	4013 Jun 30 14:35	26° B 50'01		retrograde	4014 Jun 11 03:30	6° B 52'20	
evening set	4013 Jul 03 10:33	26° B 32'10		evening set	4014 Jun 13 04:52	6° B 42'05	
min. Earth dist.	4013 Jul 12 00:37	22° B 50'52	0.55008 AU	desc. node	4014 Jun 15 09:34	6° B 10'02	
inferior conj	4013 Jul 12 17:55	22° B 26'33	-3°51'26	inferior conj	4014 Jun 22 11:28	2° B 44'48	-2°04'36
minimum elong	4013 Jul 12 09:24	22° B 38'31	3°49'11	minimum elong	4014 Jun 22 05:39	2° B 53'08	2°02'32
morning rise	4013 Jul 21 10:02	18° B 35'49		min. Earth dist.	4014 Jun 23 12:35	2° B 08'46	0.54900 AU
direct	4013 Jul 24 13:30	18° B 13'49			4014 Jun 27 13:46	30° R II	
morning max el	4013 Aug 05 09:28	23° B 45'14	21°29'29	morning rise	4014 Jul 01 05:50	28° II 38'44	
	4013 Aug 10 22:14	0° Q		direct	4014 Jul 04 22:58	28° II 09'00	
asc. node	4013 Aug 18 11:16	11° Q 52'24			4014 Jul 12 00:05	0° B	
morning set	4013 Aug 25 18:19	26° Q 10'57		morning max el	4014 Jul 18 04:07	4° B 31'04	23°09'07
	4013 Aug 27 14:08	0° np			4014 Aug 04 18:04	0° Q	
superior conj	4013 Sep 02 01:26	11° np 30'07	1°43'22	asc. node	4014 Aug 05 08:18	1° Q 08'42	
minimum elong	4013 Sep 02 00:45	11° np 26'32	1°43'21	morning set	4014 Aug 10 05:27	11° Q 04'00	
max. Earth dist.	4013 Sep 06 03:14	19° np 50'38	1.35074 AU	superior conj	4014 Aug 17 06:41	26° Q 11'07	1°36'46
evening rise	4013 Sep 10 10:26	28° np 15'24		minimum elong	4014 Aug 17 04:58	26° Q 01'56	1°36'38
	4013 Sep 11 08:32	0° Q			4014 Aug 19 01:39	0° np	
desc. node	4013 Sep 24 11:49	22° Q 36'53		max. Earth dist.	4014 Aug 19 23:28	1° np 55'00	1.33693 AU
	4013 Sep 29 09:11	0° ml		evening rise	4014 Aug 24 22:48	12° np 05'12	
evening max el	4013 Oct 15 17:52	20° ml 12'02	26°42'35		4014 Sep 03 15:11	0° Q	
retrograde	4013 Oct 28 18:24	27° ml 27'30		desc. node	4014 Sep 11 08:51	12° Q 27'54	
evening set	4013 Nov 04 08:33	24° ml 47'48			4014 Sep 24 17:04	0° ml	
min. Earth dist.	4013 Nov 08 09:34	20° ml 41'25	0.65962 AU	evening max el	4014 Sep 28 06:05	3° ml 38'23	27°18'16
inferior conj	4013 Nov 10 04:39	18° ml 34'06	-1°26'24	retrograde	4014 Oct 11 17:31	10° ml 56'50	
minimum elong	4013 Nov 10 07:02	18° ml 27'02	1°25'24	evening set	4014 Oct 18 17:29	8° ml 15'55	
asc. node	4013 Nov 14 10:30	14° ml 06'39		min. Earth dist.	4014 Oct 22 12:29	4° ml 44'18	0.64593 AU
morning rise	4013 Nov 16 06:18	12° ml 52'03		inferior conj	4014 Oct 24 19:40	2° ml 15'13	-2°27'52
direct	4013 Nov 19 03:19	12° ml 06'02		minimum elong	4014 Oct 24 23:50	2° ml 03'56	2°26'18
morning max el	4013 Nov 25 17:16	15° ml 40'36	18°23'41		4014 Oct 26 23:29	30° R Q	
	4013 Dec 06 05:51	0° J		morning rise	4014 Oct 31 07:22	26° Q 47'10	
morning set	4013 Dec 15 08:08	14° J 32'00		asc. node	4014 Nov 01 07:31	26° Q 25'33	
desc. node	4013 Dec 21 11:05	24° J 20'19		direct	4014 Nov 02 21:25	26° Q 12'32	
	4013 Dec 25 00:40	0° Z		morning max el	4014 Nov 09 09:15	29° Q 38'58	17°58'04
superior conj	4013 Dec 30 21:08	9° Z 13'22	-1°01'29		4014 Nov 09 17:31	0° ml	
minimum elong	4013 Dec 30 13:36	8° Z 43'46	1°00'33	morning set	4014 Nov 26 19:04	25° ml 58'19	
max. Earth dist.	4014 Jan 01 02:29	11° Z 08'29	1.45263 AU	desc. node	4014 Nov 29 04:40	0° J	
	4014 Jan 13 03:10	0° \approx			4014 Dec 08 08:06	15° J 03'37	
evening rise	4014 Jan 15 23:18	4° \approx 27'53		superior conj	4014 Dec 10 08:56	18° J 20'20	-0°13'59
greatest brilliancy	4014 Jan 26 07:44	20° \approx 41'59	-0.8m	minimum elong	4014 Dec 10 07:15	18° J 13'35	0°13'44
	4014 Feb 01 12:56	0° K		behind sun begin	4014 Dec 10 01:42	17° J 51'17	
evening max el	4014 Feb 07 22:26	8° K 01'40	19°10'05	behind sun end	4014 Dec 10 12:48	18° J 35'53	
asc. node	4014 Feb 10 09:48	10° K 13'43		max. Earth dist.	4014 Dec 14 21:15	25° J 31'38	1.44842 AU
retrograde	4014 Feb 14 21:56	11° K 59'53			4014 Dec 17 17:28	0° Z	

evening rise	4014 Dec 26 14:24	13°  46'26		max. Earth dist.	4015 Nov 27 13:56	9°  40'57	1.43734 AU
	4015 Jan 06 05:49	0° 		evening rise	4015 Dec 06 00:13	22°  58'56	
greatest brilliancy	4015 Jan 10 01:54	5°  42'41	-0.6m		4015 Dec 10 14:07	0° 	
evening max el	4015 Jan 22 03:05	21°  33'23	20°04'23		4015 Dec 31 15:01	0° 	
asc. node	4015 Jan 28 06:49	25°  50'09		evening max el	4016 Jan 05 02:21	5°  06'58	21°11'38
retrograde	4015 Jan 29 19:47	26°  03'00		retrograde	4016 Jan 13 17:36	10°  14'01	
evening set	4015 Feb 02 13:22	24°  41'51		asc. node	4016 Jan 15 03:50	10°  02'56	
inferior conj	4015 Feb 07 23:06	18°  39'03	3°00'38	evening set	4016 Jan 17 20:57	8°  37'40	
minimum elong	4015 Feb 07 20:45	18°  46'57	3°00'07	inferior conj	4016 Jan 23 05:17	2°  23'50	2°27'37
min. Earth dist.	4015 Feb 08 19:56	17°  28'58	0.67150 AU	minimum elong	4016 Jan 23 02:49	2°  32'22	2°26'53
morning rise	4015 Feb 13 03:55	12°  25'04		min. Earth dist.	4016 Jan 23 13:24	1°  55'48	0.67775 AU
direct	4015 Feb 19 00:25	9°  48'03			4016 Jan 24 23:32	30°  R 	
morning max el	4015 Mar 02 18:20	16°  49'24	25°00'35	morning rise	4016 Jan 28 08:31	26°  S 	
desc. node	4015 Mar 06 07:20	20°  40'05		direct	4016 Feb 02 14:29	23°  S 	
	4015 Mar 13 17:22	0°  H			4016 Feb 12 23:26	0° 	
	4015 Apr 02 10:21	0°  Y		morning max el	4016 Feb 13 03:00	0°  08'58	23°32'27
morning set	4015 Apr 07 21:51	9°  Y30'28		desc. node	4016 Feb 21 04:23	9°  33'44	
max. Earth dist.	4015 Apr 11 13:01	16°  Y06'39	1.36830 AU		4016 Mar 06 14:22	0°  H	
				morning set	4016 Mar 19 08:36	20°  H29'15	
superior conj	4015 Apr 17 22:08	28°  Y17'48	-1°17'56	max. Earth dist.	4016 Mar 23 08:16	27°  H21'40	1.38968 AU
minimum elong	4015 Apr 18 02:13	28°  Y37'55	1°17'17		4016 Mar 24 20:07	0°  Y	
	4015 Apr 18 18:52	0°  B					
evening rise	4015 Apr 26 06:49	15°  B03'23		superior conj	4016 Mar 30 20:19	10°  Y58'09	-1°43'07
asc. node	4015 Apr 26 06:08	14°  B59'56		minimum elong	4016 Mar 31 01:05	11°  Y20'24	1°42'36
	4015 May 04 02:51	0°  II		evening rise	4016 Apr 09 02:33	28°  Y45'14	
evening max el	4015 May 13 09:33	12°  II52'22	19°32'12		4016 Apr 09 17:58	0°  B	
retrograde	4015 May 22 22:48	17°  II31'05		asc. node	4016 Apr 12 03:11	4°  B34'43	
evening set	4015 May 24 22:09	17°  II20'05		evening max el	4016 Apr 25 09:32	25°  B03'00	18°43'41
desc. node	4015 Jun 02 06:35	13°  II27'34		retrograde	4016 May 03 11:13	29°  B00'23	
inferior conj	4015 Jun 02 14:12	13°  II15'27	-0°05'36	evening set	4016 May 05 15:56	28°  B43'54	
minimum elong	4015 Jun 02 13:57	13°  II15'51	0°05'32	inferior conj	4016 May 13 12:07	24°  B21'33	1°34'34
transit middle	4015 Jun 02 13:57	13°  II15'51	0°05'32	minimum elong	4016 May 13 15:18	24°  B15'37	1°33'32
transit begin	4015 Jun 02 10:17	13°  II21'42		min. Earth dist.	4016 May 16 19:13	21°  B55'38	0.57382 AU
transit end	4015 Jun 02 17:37	13°  II10'00		desc. node	4016 May 19 03:36	20°  B22'52	
min. Earth dist.	4015 Jun 05 02:25	11°  II39'48	0.55753 AU	morning rise	4016 May 21 11:28	19°  B09'18	
morning rise	4015 Jun 11 03:04	8°  II38'18		direct	4016 May 27 01:08	17°  B53'06	
direct	4015 Jun 15 17:14	7°  II50'55		morning max el	4016 Jun 10 09:39	25°  B25'00	26°21'50
morning max el	4015 Jun 29 18:03	14°  II54'44	24°51'46		4016 Jun 14 16:06	0°  II	
	4015 Jul 11 17:28	0°  E			4016 Jul 03 20:18	0°  E	
asc. node	4015 Jul 23 05:21	20°  E46'22		morning set	4016 Jul 09 04:02	10°  E47'38	
morning set	4015 Jul 25 17:13	25°  E57'53		asc. node	4016 Jul 09 02:26	10°  E39'11	
	4015 Jul 27 14:30	0°  O					
				superior conj	4016 Jul 16 03:28	25°  E58'01	1°07'58
superior conj	4015 Aug 01 16:02	11°  O02'36	1°24'43	minimum elong	4016 Jul 16 01:10	25°  E45'19	1°07'34
minimum elong	4015 Aug 01 13:47	10°  O50'19	1°24'25	max. Earth dist.	4016 Jul 16 14:07	26°  E56'41	1.32173 AU
max. Earth dist.	4015 Aug 03 04:04	14°  O18'43	1.32729 AU		4016 Jul 17 23:27	0°  O	
evening rise	4015 Aug 08 20:54	26°  O22'25		evening rise	4016 Jul 23 01:45	10°  O57'54	
	4015 Aug 10 15:56	0°  P			4016 Aug 01 21:26	0°  P	
	4015 Aug 28 00:32	0°  E		desc. node	4016 Aug 15 02:55	20°  P16'24	
desc. node	4015 Aug 29 05:54	1°  E45'36		evening max el	4016 Aug 22 21:45	29°  P01'27	27°00'16
evening max el	4015 Sep 10 16:19	16°  E39'25	27°25'38		4016 Aug 23 23:14	0°  E	
retrograde	4015 Sep 24 10:00	23°  E54'57		retrograde	4016 Sep 05 18:57	6°  E12'58	
evening set	4015 Oct 01 14:32	21°  E23'14		evening set	4016 Sep 12 19:33	4°  E02'41	
min. Earth dist.	4015 Oct 05 05:40	18°  E22'12	0.62894 AU	min. Earth dist.	4016 Sep 16 12:00	1°  E22'33	0.60935 AU
inferior conj	4015 Oct 08 00:35	15°  E40'13	-3°28'07		4016 Sep 18 03:12	30°  R 	
minimum elong	4015 Oct 08 06:10	15°  E26'38	3°26'21	inferior conj	4016 Sep 19 16:06	28°  P40'32	-4°21'51
morning rise	4015 Oct 14 23:20	10°  E29'31		minimum elong	4016 Sep 19 21:56	28°  P28'02	4°20'32
direct	4015 Oct 17 09:09	10°  E02'37		morning rise	4016 Sep 27 02:11	23°  P50'46	
asc. node	4015 Oct 19 04:33	10°  E18'11		direct	4016 Sep 29 10:46	23°  P28'36	
morning max el	4015 Oct 24 01:42	13°  E29'04	17°50'12	asc. node	4016 Oct 05 01:37	25°  P40'15	
	4015 Nov 04 08:51	0°  M		morning max el	4016 Oct 06 15:30	27°  P03'12	18°01'02
morning set	4015 Nov 09 05:55	8°  M33'40			4016 Oct 09 06:24	0°  E	
				morning set	4016 Oct 22 10:08	21°  E58'19	
superior conj	4015 Nov 20 20:45	28°  M38'55	0°30'01		4016 Oct 26 18:31	0°  M	
minimum elong	4015 Nov 20 23:37	28°  M50'53	0°29'36				
	4015 Nov 21 16:09	0°  J		superior conj	4016 Nov 01 11:03	10°  M14'45	1°04'13
desc. node	4015 Nov 25 05:10	5°  J50'43		minimum elong	4016 Nov 01 15:13	10°  M33'08	1°03'41

max. Earth dist.	4016 Nov 09 02:00	23°♄18'47	1.42074 AU	max. Earth dist.	4017 Oct 22 08:46	6°♄13'54	1.40072 AU
desc. node	4016 Nov 11 02:12	26°♄37'46		evening rise	4017 Oct 26 14:16	13°♄26'24	
	4016 Nov 13 03:56	0°♄		desc. node	4017 Oct 28 23:13	17°♄21'43	
evening rise	4016 Nov 14 20:38	2°♄43'16			4017 Nov 05 23:30	0°♄	
	4016 Dec 03 00:22	0°♄			4017 Nov 28 05:16	0°♄	
evening max el	4016 Dec 17 20:21	18°♄41'41	22°27'53	evening max el	4017 Nov 30 10:31	2°♄19'26	23°47'48
retrograde	4016 Dec 27 13:42	24°♄28'33		retrograde	4017 Dec 11 06:45	8°♄43'08	
evening set	4017 Jan 01 04:28	22°♄36'10		evening set	4017 Dec 16 10:20	6°♄34'42	
asc. node	4017 Jan 01 00:53	22°♄43'26		asc. node	4017 Dec 18 21:55	4°♄00'42	
inferior conj	4017 Jan 06 13:03	16°♄14'36	1°46'45	inferior conj	4017 Dec 21 20:34	0°♄09'19	0°59'14
minimum elong	4017 Jan 06 10:55	16°♄21'58	1°46'00	minimum elong	4017 Dec 21 19:13	0°♄13'54	0°58'41
min. Earth dist.	4017 Jan 06 09:36	16°♄26'32	0.68011 AU	min. Earth dist.	4017 Dec 21 06:15	0°♄58'02	0.67885 AU
morning rise	4017 Jan 11 17:16	10°♄04'49			4017 Dec 21 23:18	30°♄	
direct	4017 Jan 16 08:24	8°♄09'39		morning rise	4017 Dec 27 04:07	24°♄04'07	
morning max el	4017 Jan 25 14:50	13°♄35'57	22°04'42	direct	4017 Dec 31 05:15	22°♄31'42	
desc. node	4017 Feb 07 01:25	29°♄04'21		morning max el	4018 Jan 08 09:07	27°♄13'36	20°44'49
	4017 Feb 07 17:20	0°♄			4018 Jan 10 22:32	0°♄	
morning set	4017 Feb 27 15:03	0°♄06'25		desc. node	4018 Jan 24 22:27	19°♄01'47	
	4017 Feb 27 13:27	0°♄			4018 Feb 01 06:06	0°♄	
max. Earth dist.	4017 Mar 05 06:15	9°♄22'06	1.41131 AU	morning set	4018 Feb 06 19:32	8°♄33'41	
				max. Earth dist.	4018 Feb 15 10:55	22°♄16'39	1.43033 AU
superior conj	4017 Mar 13 00:14	22°♄44'09	-2°01'20		4018 Feb 20 03:51	0°♄	
minimum elong	4017 Mar 13 03:48	23°♄00'00	2°01'09	superior conj	4018 Feb 22 04:52	3°♄24'51	-2°07'36
	4017 Mar 17 01:09	0°♄		minimum elong	4018 Feb 22 04:20	3°♄22'37	2°07'35
evening rise	4017 Mar 23 11:08	11°♄51'17		evening rise	4018 Mar 06 04:29	24°♄12'27	
asc. node	4017 Mar 30 00:13	23°♄48'23			4018 Mar 09 10:55	0°♄	
	4017 Apr 02 17:27	0°♄		asc. node	4018 Mar 16 21:15	12°♄34'05	
evening max el	4017 Apr 08 17:00	7°♄45'02	18°15'23	evening max el	4018 Mar 23 04:40	20°♄50'00	18°06'49
retrograde	4017 Apr 15 18:43	11°♄17'22		retrograde	4018 Mar 29 17:46	24°♄12'45	
evening set	4017 Apr 18 05:56	10°♄52'22		evening set	4018 Apr 01 11:08	23°♄37'17	
inferior conj	4017 Apr 25 07:32	6°♄09'27	2°43'08	inferior conj	4018 Apr 07 21:49	18°♄34'13	3°21'34
minimum elong	4017 Apr 25 11:02	6°♄01'48	2°42'19	minimum elong	4018 Apr 07 23:57	18°♄28'54	3°21'18
min. Earth dist.	4017 Apr 28 17:24	3°♄12'45	0.59457 AU	min. Earth dist.	4018 Apr 10 23:17	15°♄31'35	0.61642 AU
morning rise	4017 May 02 13:28	0°♄28'55		morning rise	4018 Apr 14 11:01	12°♄35'57	
	4017 May 03 10:57	30°♄		direct	4018 Apr 21 06:27	10°♄12'28	
desc. node	4017 May 06 00:37	29°♄00'39		desc. node	4018 Apr 22 21:39	10°♄20'13	
direct	4017 May 08 22:11	28°♄37'32		morning max el	4018 May 05 10:48	18°♄10'47	27°51'06
	4017 May 14 14:41	0°♄			4018 May 15 08:36	0°♄	
morning max el	4017 May 23 07:06	6°♄26'56	27°24'33		4018 Jun 02 16:04	0°♄	
	4017 Jun 09 21:50	0°♄		morning set	4018 Jun 07 15:47	9°♄51'32	
morning set	4017 Jun 23 12:14	25°♄27'47		asc. node	4018 Jun 12 20:32	20°♄48'59	
asc. node	4017 Jun 25 23:31	0°♄		max. Earth dist.	4018 Jun 13 11:23	22°♄09'20	1.32276 AU
	4017 Jun 25 15:43	0°♄					
max. Earth dist.	4017 Jun 30 01:53	9°♄38'03	1.32016 AU	superior conj	4018 Jun 15 01:28	25°♄36'47	0°22'59
superior conj	4017 Jun 30 15:12	10°♄51'28	0°47'11	minimum elong	4018 Jun 15 00:26	25°♄31'06	0°22'45
minimum elong	4017 Jun 30 13:19	10°♄41'02	0°46'48		4018 Jun 17 01:33	0°♄	
evening rise	4017 Jul 07 10:55	25°♄43'57		evening rise	4018 Jun 21 22:18	10°♄33'16	
	4017 Jul 09 11:50	0°♄			4018 Jul 01 20:31	0°♄	
	4017 Jul 26 19:12	0°♄		evening max el	4018 Jul 17 11:14	21°♄24'17	24°38'11
desc. node	4017 Aug 01 23:56	7°♄41'12		desc. node	4018 Jul 19 20:57	23°♄32'38	
evening max el	4017 Aug 04 20:00	10°♄35'37	26°02'14	retrograde	4018 Jul 31 09:01	28°♄25'59	
retrograde	4017 Aug 18 19:21	17°♄44'10		evening set	4018 Aug 05 11:41	27°♄27'11	
evening set	4017 Aug 25 03:46	16°♄06'54		min. Earth dist.	4018 Aug 10 22:27	24°♄37'21	0.56932 AU
min. Earth dist.	4017 Aug 29 08:32	13°♄31'26	0.58860 AU	inferior conj	4018 Aug 13 17:23	22°♄49'21	-5°09'45
inferior conj	4017 Sep 01 14:41	11°♄06'50	-5°00'14	minimum elong	4018 Aug 13 15:59	22°♄51'38	5°09'43
minimum elong	4017 Sep 01 18:24	10°♄59'53	4°59'50	morning rise	4018 Aug 21 22:50	18°♄44'16	
morning rise	4017 Sep 09 11:17	6°♄40'14		direct	4018 Aug 24 13:54	18°♄25'10	
direct	4017 Sep 11 21:41	6°♄20'31		morning max el	4018 Sep 02 22:09	22°♄47'23	19°24'19
morning max el	4017 Sep 19 23:27	10°♄13'01	18°31'59	asc. node	4018 Sep 08 19:45	29°♄56'45	
asc. node	4017 Sep 21 22:42	12°♄18'33			4018 Sep 08 20:38	0°♄	
	4017 Oct 02 23:45	0°♄		morning set	4018 Sep 20 03:35	20°♄21'38	
morning set	4017 Oct 06 02:39	5°♄58'10			4018 Sep 24 22:52	0°♄	
superior conj	4017 Oct 14 23:42	22°♄56'32	1°27'15	superior conj	4018 Sep 28 05:05	6°♄27'06	1°40'06
minimum elong	4017 Oct 15 03:03	23°♄12'07	1°26'56	minimum elong	4018 Sep 28 06:50	6°♄35'35	1°40'01
	4017 Oct 18 20:13	0°♄		max. Earth dist.	4018 Oct 04 12:53	18°♄27'34	1.37983 AU

evening rise	4018 Oct 08 07:07	25° Ω 13'16		asc. node	4019 Aug 26 16:47	18° Ω 21'27	
	4018 Oct 11 01:15	0° \mathbb{M}			4019 Sep 01 22:43	0° \mathbb{M}	
desc. node	4018 Oct 15 20:15	7° \mathbb{M} 57'59		morning set	4019 Sep 04 10:08	5° \mathbb{M} 01'08	
	4018 Oct 30 14:40	0° \mathbb{A}					
evening max el	4018 Nov 12 23:01	16° \mathbb{A} 00'49	25°04'55	superior conj	4019 Sep 11 22:29	20° \mathbb{M} 32'54	1°44'17
retrograde	4018 Nov 24 19:39	22° \mathbb{A} 52'58		minimum elong	4019 Sep 11 22:36	20° \mathbb{M} 33'27	1°44'18
evening set	4018 Nov 30 12:53	20° \mathbb{A} 29'46			4019 Sep 16 16:03	0° Ω	
min. Earth dist.	4018 Dec 05 00:59	15° \mathbb{A} 27'08	0.67410 AU	max. Earth dist.	4019 Sep 16 20:16	0° Ω 20'32	1.36051 AU
asc. node	4018 Dec 05 18:57	14° \mathbb{A} 28'23		evening rise	4019 Sep 20 20:15	7° Ω 56'34	
inferior conj	4018 Dec 06 02:02	14° \mathbb{A} 05'08	0°06'04	desc. node	4019 Oct 02 17:16	28° Ω 21'41	
minimum elong	4018 Dec 06 01:53	14° \mathbb{A} 05'38	0°05'59		4019 Oct 03 18:10	0° \mathbb{M}	
transit middle	4018 Dec 06 01:53	14° \mathbb{A} 05'38	0°05'59	evening max el	4019 Oct 26 11:33	29° \mathbb{M} 43'12	26°11'50
transit begin	4018 Dec 05 23:18	14° \mathbb{A} 14'05			4019 Oct 26 18:32	0° \mathbb{A}	
transit end	4018 Dec 06 04:27	13° \mathbb{A} 57'12		retrograde	4019 Nov 08 03:29	6° \mathbb{A} 52'34	
morning rise	4018 Dec 11 15:04	8° \mathbb{A} 06'40		evening set	4019 Nov 14 10:21	4° \mathbb{A} 17'41	
direct	4018 Dec 15 03:45	6° \mathbb{A} 54'53		min. Earth dist.	4019 Nov 18 15:22	29° \mathbb{M} 50'26	0.66591 AU
morning max el	4018 Dec 22 11:12	11° \mathbb{A} 02'04	19°37'44		4019 Nov 18 12:13	30° \mathbb{R} \mathbb{M}	
greatest brilliancy	4019 Jan 04 13:54	28° \mathbb{A} 22'26	-0.7m	inferior conj	4019 Nov 20 03:35	27° \mathbb{M} 58'41	-0°51'40
	4019 Jan 05 16:04	0° \mathbb{Z}		minimum elong	4019 Nov 20 04:58	27° \mathbb{M} 54'24	0°51'04
desc. node	4019 Jan 11 19:29	9° \mathbb{Z} 18'30		asc. node	4019 Nov 22 15:59	25° \mathbb{M} 00'48	
morning set	4019 Jan 16 16:00	16° \mathbb{Z} 46'26		morning rise	4019 Nov 26 00:05	22° \mathbb{M} 09'38	
	4019 Jan 25 03:57	0° \approx		direct	4019 Nov 29 02:17	21° \mathbb{M} 15'10	
max. Earth dist.	4019 Jan 28 22:40	5° \approx 57'50	1.44435 AU	morning max el	4019 Dec 05 20:27	24° \mathbb{M} 58'31	18°46'00
					4019 Dec 10 02:50	0° \mathbb{A}	
superior conj	4019 Feb 02 07:40	12° \approx 56'59	-1°56'36	morning set	4019 Dec 27 05:30	25° \mathbb{A} 56'40	
minimum elong	4019 Feb 02 01:07	12° \approx 30'40	1°56'13	desc. node	4019 Dec 29 16:30	29° \mathbb{A} 48'53	
	4019 Feb 12 17:09	0° \mathbb{H}			4019 Dec 29 19:20	0° \mathbb{Z}	
evening rise	4019 Feb 16 02:10	5° \mathbb{H} 40'16		max. Earth dist.	4020 Jan 11 16:01	20° \mathbb{Z} 11'23	1.45177 AU
	4019 Mar 03 05:15	0° \mathbb{Y}					
asc. node	4019 Mar 03 18:15	0° \mathbb{Y} 42'59		superior conj	4020 Jan 12 14:14	21° \mathbb{Z} 38'36	-1°26'06
evening max el	4019 Mar 06 17:28	4° \mathbb{Y} 09'47	18°17'18	minimum elong	4020 Jan 12 05:01	21° \mathbb{Z} 02'25	1°25'09
retrograde	4019 Mar 13 03:55	7° \mathbb{Y} 36'48			4020 Jan 17 21:31	0° \approx	
evening set	4019 Mar 16 03:11	6° \mathbb{Y} 49'39		evening rise	4020 Jan 28 00:55	16° \approx 10'24	
inferior conj	4019 Mar 22 02:53	1° \mathbb{Y} 27'26	3°36'05	greatest brilliancy	4020 Feb 03 20:56	27° \approx 10'31	-0.9m
minimum elong	4019 Mar 22 03:15	1° \mathbb{Y} 26'25	3°36'04		4020 Feb 05 15:22	0° \mathbb{H}	
	4019 Mar 23 09:54	30° \mathbb{R} \mathbb{H}		evening max el	4020 Feb 18 04:40	17° \mathbb{H} 37'08	18°45'54
min. Earth dist.	4019 Mar 24 14:15	28° \mathbb{H} 41'30	0.63659 AU	asc. node	4020 Feb 18 15:16	18° \mathbb{H} 03'28	
morning rise	4019 Mar 28 02:24	25° \mathbb{H} 19'51		retrograde	4020 Feb 24 21:03	21° \mathbb{H} 20'34	
direct	4019 Apr 03 23:27	22° \mathbb{H} 35'35		evening set	4020 Feb 28 02:38	20° \mathbb{H} 20'49	
desc. node	4019 Apr 09 18:40	24° \mathbb{H} 14'07		inferior conj	4020 Mar 04 18:47	14° \mathbb{H} 41'00	3°32'35
	4019 Apr 17 05:18	0° \mathbb{Y}		minimum elong	4020 Mar 04 17:41	14° \mathbb{H} 44'22	3°32'30
morning max el	4019 Apr 17 18:49	0° \mathbb{Y} 33'27	27°40'19	min. Earth dist.	4020 Mar 06 14:26	12° \mathbb{H} 27'10	0.65340 AU
	4019 May 09 09:54	0° \mathbb{Z}		morning rise	4020 Mar 10 08:18	8° \mathbb{H} 28'55	
morning set	4019 May 22 12:24	23° \mathbb{Z} 51'43		direct	4020 Mar 16 23:24	5° \mathbb{H} 38'09	
	4019 May 25 13:05	0° \mathbb{H}		desc. node	4020 Mar 26 15:41	10° \mathbb{H} 08'32	
max. Earth dist.	4019 May 27 14:46	4° \mathbb{H} 18'51	1.32974 AU	morning max el	4020 Mar 30 04:37	13° \mathbb{H} 24'33	26°56'34
					4020 Apr 12 14:15	0° \mathbb{Y}	
superior conj	4019 May 30 08:30	10° \mathbb{H} 08'25	-0°03'58		4020 May 01 01:24	0° \mathbb{Z}	
minimum elong	4019 May 30 08:41	10° \mathbb{H} 09'28	0°03'55	morning set	4020 May 04 22:57	7° \mathbb{Z} 18'11	
behind sun begin	4019 May 30 03:30	9° \mathbb{H} 41'37		max. Earth dist.	4020 May 09 08:32	15° \mathbb{Z} 57'49	1.34128 AU
behind sun end	4019 May 30 13:53	10° \mathbb{H} 37'21					
asc. node	4019 May 30 17:34	10° \mathbb{H} 57'08		superior conj	4020 May 13 10:08	24° \mathbb{Z} 19'06	-0°32'39
evening rise	4019 Jun 06 10:03	25° \mathbb{H} 20'04		minimum elong	4020 May 13 11:51	24° \mathbb{Z} 28'04	0°32'18
	4019 Jun 08 15:38	0° \mathbb{Z}			4020 May 16 02:58	0° \mathbb{H}	
	4019 Jun 27 05:47	0° Ω		asc. node	4020 May 16 14:35	1° \mathbb{H} 01'24	
evening max el	4019 Jun 29 00:23	1° Ω 49'26	23°01'37	evening rise	4020 May 20 20:14	9° \mathbb{H} 57'22	
desc. node	4019 Jul 06 17:56	7° Ω 17'09			4020 May 31 09:17	0° \mathbb{Z}	
retrograde	4019 Jul 12 09:49	8° Ω 30'15		evening max el	4020 Jun 09 19:10	12° \mathbb{Z} 22'49	21°28'10
evening set	4019 Jul 15 23:58	8° Ω 02'06		retrograde	4020 Jun 22 00:08	18° \mathbb{Z} 23'28	
min. Earth dist.	4019 Jul 23 09:25	4° Ω 43'20	0.55495 AU	desc. node	4020 Jun 22 14:57	18° \mathbb{Z} 22'35	
inferior conj	4019 Jul 25 00:38	3° Ω 46'31	-4°34'50	evening set	4020 Jun 24 10:09	18° \mathbb{Z} 10'08	
minimum elong	4019 Jul 24 17:30	3° Ω 56'54	4°33'30	inferior conj	4020 Jul 03 19:17	14° \mathbb{Z} 10'13	-3°09'49
	4019 Aug 02 04:20	30° \mathbb{R} \mathbb{Z}		minimum elong	4020 Jul 03 11:11	14° \mathbb{Z} 21'32	3°07'18
morning rise	4019 Aug 02 13:18	29° \mathbb{Z} 54'38		min. Earth dist.	4020 Jul 03 20:06	14° \mathbb{Z} 09'04	0.54849 AU
direct	4019 Aug 05 11:37	29° \mathbb{Z} 34'16		morning rise	4020 Jul 12 13:05	10° \mathbb{Z} 15'37	
	4019 Aug 08 16:23	0° Ω		direct	4020 Jul 15 21:51	9° \mathbb{Z} 51'03	
morning max el	4019 Aug 16 09:14	4° Ω 38'07	20°38'11	morning max el	4020 Jul 28 08:48	15° \mathbb{Z} 43'56	22°10'42

	4020 Aug 08 09:21	0°♎			4021 Jul 13 14:01	0°♏	
asc. node	4020 Aug 12 13:49	7°♎21'27		asc. node	4021 Jul 30 10:52	26°♏47'36	
morning set	4020 Aug 18 20:07	19°♎50'45			4021 Aug 01 00:59	0°♎	
	4020 Aug 23 15:03	0°♏		morning set	4021 Aug 03 07:42	4°♎44'44	
superior conj	4020 Aug 26 00:15	5°♏03'21	1°41'17	superior conj	4021 Aug 10 07:29	19°♎49'25	1°32'16
minimum elong	4020 Aug 25 23:04	4°♏57'08	1°41'14	minimum elong	4021 Aug 10 05:29	19°♎38'36	1°32'04
max. Earth dist.	4020 Aug 29 11:36	12°♏17'18	1.34438 AU	max. Earth dist.	4021 Aug 12 11:44	24°♎30'07	1.33227 AU
evening rise	4020 Sep 03 01:19	21°♏25'01			4021 Aug 15 02:18	0°♏	
	4020 Sep 07 14:51	0°♏		evening rise	4021 Aug 17 18:12	5°♏27'07	
desc. node	4020 Sep 18 14:17	18°♏26'53			4021 Aug 31 06:02	0°♏	
	4020 Sep 26 14:14	0°♏		desc. node	4021 Sep 05 11:19	8°♏05'02	
evening max el	4020 Oct 08 00:13	13°♏18'48	27°00'56	evening max el	4021 Sep 20 11:43	26°♏35'11	27°25'12
retrograde	4020 Oct 21 05:43	20°♏35'36			4021 Sep 24 12:03	0°♏	
evening set	4020 Oct 28 00:37	17°♏54'27		retrograde	4021 Oct 04 01:58	3°♏52'52	
min. Earth dist.	4020 Oct 31 23:02	14°♏03'08	0.65421 AU	evening set	4021 Oct 11 04:56	1°♏14'08	
inferior conj	4020 Nov 02 23:09	11°♏46'01	-1°52'24		4021 Oct 12 17:36	30°♏♏	
minimum elong	4020 Nov 03 02:19	11°♏37'01	1°51'07	min. Earth dist.	4021 Oct 14 21:47	27°♏56'43	0.63905 AU
asc. node	4020 Nov 08 13:01	6°♏31'09		inferior conj	4021 Oct 17 10:13	25°♏20'41	-2°53'52
morning rise	4020 Nov 09 04:53	6°♏09'27		minimum elong	4021 Oct 17 15:05	25°♏08'06	2°52'08
direct	4020 Nov 11 22:46	5°♏28'34		morning rise	4021 Oct 24 02:33	19°♏59'54	
morning max el	4020 Nov 18 10:49	8°♏58'20	18°10'46	asc. node	4021 Oct 26 10:05	19°♏29'07	
	4020 Dec 02 23:31	0°♏		direct	4021 Oct 26 14:31	19°♏28'57	
morning set	4020 Dec 07 00:10	6°♏35'40		morning max el	4021 Nov 02 03:25	22°♏54'07	17°52'38
desc. node	4020 Dec 15 13:33	20°♏28'51			4021 Nov 07 17:22	0°♏	
				morning set	4021 Nov 18 22:02	18°♏33'25	
superior conj	4020 Dec 21 18:06	0°♏20'00	-0°41'33		4021 Nov 25 15:25	0°♏	
minimum elong	4020 Dec 21 12:52	29°♏59'20	0°40'50				
	4020 Dec 21 13:03	0°♏		superior conj	4021 Dec 01 15:06	9°♏54'43	0°05'38
max. Earth dist.	4020 Dec 24 11:47	4°♏38'46	1.45176 AU	minimum elong	4021 Dec 01 15:43	9°♏57'15	0°05'33
evening rise	4021 Jan 07 01:40	25°♏50'14		behind sun begin	4021 Dec 01 06:21	9°♏19'00	
	4021 Jan 09 17:58	0°♏		behind sun end	4021 Dec 02 01:05	10°♏35'25	
greatest brilliancy	4021 Jan 19 09:57	14°♏52'22	-0.7m	desc. node	4021 Dec 02 10:35	11°♏14'03	
	4021 Jan 30 10:43	0°♏		max. Earth dist.	4021 Dec 07 06:07	18°♏58'24	1.44443 AU
evening max el	4021 Jan 31 12:10	1°♏08'12	19°31'18		4021 Dec 14 06:36	0°♏	
asc. node	4021 Feb 04 12:18	4°♏22'35		evening rise	4021 Dec 17 12:32	5°♏01'02	
retrograde	4021 Feb 07 18:04	5°♏18'35			4022 Jan 03 04:48	0°♏	
evening set	4021 Feb 11 06:54	4°♏05'24		evening max el	4022 Jan 14 14:30	14°♏40'12	20°31'31
	4021 Feb 15 08:09	30°♏♏		asc. node	4022 Jan 22 09:20	19°♏25'09	
inferior conj	4021 Feb 16 18:17	28°♏10'01	3°15'28	retrograde	4022 Jan 22 16:18	19°♏25'36	
minimum elong	4021 Feb 16 16:15	28°♏16'42	3°15'07	evening set	4022 Jan 26 13:48	17°♏58'02	
min. Earth dist.	4021 Feb 17 22:57	26°♏36'06	0.66612 AU	inferior conj	4022 Jan 31 22:42	11°♏49'53	2°47'41
morning rise	4021 Feb 22 01:22	21°♏56'10		minimum elong	4022 Jan 31 20:15	11°♏58'17	2°47'03
direct	4021 Feb 28 05:26	19°♏11'33		min. Earth dist.	4022 Feb 01 13:54	10°♏58'00	0.67462 AU
morning max el	4021 Mar 12 14:12	26°♏33'19	25°47'43	morning rise	4022 Feb 06 02:29	5°♏36'08	
desc. node	4021 Mar 13 12:44	27°♏31'25		direct	4022 Feb 11 16:47	3°♏06'51	
	4021 Mar 15 18:59	0°♏		morning max el	4022 Feb 22 22:52	9°♏50'15	24°23'40
	4021 Apr 06 04:40	0°♏		desc. node	4022 Feb 28 09:47	15°♏57'13	
morning set	4021 Apr 17 19:21	19°♏59'27			4022 Mar 10 21:52	0°♏	
max. Earth dist.	4021 Apr 21 14:59	27°♏08'49	1.35735 AU		4022 Mar 29 21:01	0°♏	
	4021 Apr 23 02:30	0°♏		morning set	4022 Mar 30 20:16	1°♏40'59	
				max. Earth dist.	4022 Apr 03 12:20	8°♏12'13	1.37717 AU
superior conj	4021 Apr 27 03:49	8°♏01'39	-1°01'45				
minimum elong	4021 Apr 27 07:08	8°♏18'18	1°01'10	superior conj	4022 Apr 10 10:19	21°♏07'43	-1°29'12
asc. node	4021 May 03 11:37	20°♏57'52		minimum elong	4022 Apr 10 14:50	21°♏29'31	1°28'35
evening rise	4021 May 05 02:51	24°♏18'56			4022 Apr 14 23:10	0°♏	
	4021 May 07 22:32	0°♏		evening rise	4022 Apr 19 03:25	8°♏17'49	
evening max el	4021 May 23 01:13	23°♏29'50	20°08'59	asc. node	4022 Apr 20 08:40	10°♏42'15	
retrograde	4021 Jun 02 14:23	28°♏38'31			4022 May 01 08:38	0°♏	
evening set	4021 Jun 04 13:26	28°♏28'37		evening max el	4022 May 05 19:22	5°♏18'59	19°09'02
desc. node	4021 Jun 09 11:58	26°♏47'20		retrograde	4022 May 14 16:34	9°♏38'42	
inferior conj	4021 Jun 13 15:00	24°♏29'28	-1°13'22	evening set	4022 May 16 17:31	9°♏25'58	
minimum elong	4021 Jun 13 11:33	24°♏34'35	1°12'06	inferior conj	4022 May 25 01:18	5°♏14'34	0°40'21
min. Earth dist.	4021 Jun 15 08:27	23°♏27'52	0.55155 AU	minimum elong	4022 May 25 02:55	5°♏11'49	0°39'46
morning rise	4021 Jun 22 08:11	20°♏11'49		desc. node	4022 May 27 08:59	3°♏39'54	
direct	4021 Jun 26 09:23	19°♏36'12		min. Earth dist.	4022 May 27 23:41	3°♏15'35	0.56363 AU
morning max el	4021 Jul 10 00:41	26°♏16'56	23°53'28	morning rise	4022 Jun 02 09:10	0°♏21'45	

	4022 Jun 03 10:31	30° 		desc. node	4023 May 14 06:01	11° 	06'32
direct	4022 Jun 07 09:10	29° 	23'28	direct	4023 May 19 23:24	9° 	41'57
	4022 Jun 11 08:01	0° 		morning max el	4023 Jun 03 08:42	17° 	23'05 26°52'24
morning max el	4022 Jun 21 14:57	6° 	41'32 25°32'37		4023 Jun 13 19:17	0° 	
	4022 Jul 08 16:42	0° 			4023 Jul 01 02:10	0° 	
asc. node	4022 Jul 17 07:56	16° 	32'48	morning set	4023 Jul 03 05:13	4° 	24'25
morning set	4022 Jul 18 19:18	19° 	38'09	asc. node	4023 Jul 04 04:59	6° 	30'11
	4022 Jul 23 14:16	0° 					
				superior conj	4023 Jul 10 05:48	19° 	39'36 0°59'37
superior conj	4022 Jul 25 18:01	4° 	44'06 1°18'09	minimum elong	4023 Jul 10 03:37	19° 	27'32 0°59'13
minimum elong	4022 Jul 25 15:41	4° 	31'19 1°17'48	max. Earth dist.	4023 Jul 10 06:02	19° 	24'54 1.32057 AU
max. Earth dist.	4022 Jul 26 18:58	7° 	00'50 1.32437 AU		4023 Jul 14 23:03	0° 	
evening rise	4022 Aug 01 19:32	19° 	53'33	evening rise	4023 Jul 17 02:30	4° 	34'31
	4022 Aug 06 21:08	0° 			4023 Jul 30 14:40	0° 	
desc. node	4022 Aug 23 08:20	27° 	05'03	desc. node	4023 Aug 10 05:21	15° 	10'25
	4022 Aug 25 12:57	0° 		evening max el	4023 Aug 15 22:40	21° 	22'56 26°39'22
evening max el	4022 Sep 02 20:02	9° 	20'35 27°18'55	retrograde	4023 Aug 29 21:23	28° 	33'20
retrograde	4022 Sep 16 15:42	16° 	35'17	evening set	4023 Sep 05 16:30	26° 	36'09
evening set	4022 Sep 23 19:46	14° 	10'49	min. Earth dist.	4023 Sep 09 12:34	23° 	59'54 0.60052 AU
min. Earth dist.	4022 Sep 27 10:22	11° 	20'24 0.62083 AU	inferior conj	4023 Sep 12 18:34	21° 	23'03 -4°40'43
inferior conj	4022 Sep 30 09:51	8° 	36'09 -3°52'10	minimum elong	4023 Sep 12 23:52	21° 	12'20 4°39'47
minimum elong	4022 Sep 30 15:46	8° 	22'31 3°50'30	morning rise	4023 Sep 20 09:17	16° 	42'47
morning rise	4022 Oct 07 13:30	3° 	34'15	direct	4023 Sep 22 18:07	16° 	22'01
direct	4022 Oct 09 22:17	3° 	09'50	asc. node	4023 Sep 30 04:11	19° 	56'54
asc. node	4022 Oct 13 07:08	4° 	01'00	morning max el	4023 Sep 30 06:53	20° 	03'22 18°11'35
morning max el	4022 Oct 16 19:12	6° 	38'49 17°52'28		4023 Oct 07 16:48	0° 	
	4022 Oct 31 20:41	0° 		morning set	4023 Oct 16 02:55	15° 	12'03
morning set	4022 Nov 01 16:56	1° 	31'15		4023 Oct 24 01:00	0° 	
superior conj	4022 Nov 12 14:25	20° 	46'47 0°45'52	superior conj	4023 Oct 25 14:50	2° 	51'54 1°15'19
minimum elong	4022 Nov 12 18:11	21° 	02'55 0°45'21	minimum elong	4023 Oct 25 18:49	3° 	09'56 1°14'52
	4022 Nov 18 02:05	0° 		max. Earth dist.	4023 Nov 02 05:47	16° 	12'26 1.41250 AU
desc. node	4022 Nov 19 07:38	2° 	01'22	desc. node	4023 Nov 06 04:39	22° 	47'25
max. Earth dist.	4022 Nov 19 20:25	2° 	53'36 1.43079 AU	evening rise	4023 Nov 07 05:37	24° 	29'12
evening rise	4022 Nov 27 00:56	14° 	21'48		4023 Nov 10 16:12	0° 	
	4022 Dec 07 07:24	0° 			4023 Dec 01 05:09	0° 	
evening max el	4022 Dec 28 11:20	28° 	13'27 21°43'18	evening max el	4023 Dec 11 03:33	11° 	49'30 23°01'57
	4022 Dec 30 07:55	0° 		retrograde	4023 Dec 21 08:31	17° 	52'33
retrograde	4023 Jan 06 13:40	3° 	38'00	evening set	4023 Dec 26 04:31	15° 	53'32
asc. node	4023 Jan 09 06:24	2° 	58'42	asc. node	4023 Dec 27 03:25	15° 	30'09
evening set	4023 Jan 10 21:33	1° 	55'05	min. Earth dist.	4023 Dec 31 05:38	9° 	57'42 0.67997 AU
	4023 Jan 12 20:54	30° 		inferior conj	4023 Dec 31 13:39	9° 	30'02 1°27'23
inferior conj	4023 Jan 16 05:48	25° 	37'23 2°11'12	minimum elong	4023 Dec 31 11:48	9° 	36'25 1°26'41
minimum elong	4023 Jan 16 03:25	25° 	45'40 2°10'25	morning rise	4024 Jan 05 18:59	3° 	21'50
min. Earth dist.	4023 Jan 16 08:56	25° 	26'33 0.67915 AU	direct	4024 Jan 10 04:07	1° 	36'12
morning rise	4023 Jan 21 09:06	19° 	25'30	morning max el	4024 Jan 18 22:28	6° 	42'34 21°29'24
direct	4023 Jan 26 08:42	17° 	31'700	desc. node	4024 Feb 02 03:52	24° 	30'58
morning max el	4023 Feb 05 08:25	23° 	12'16 22°54'32		4024 Feb 05 17:10	0° 	
	4023 Feb 11 07:37	0° 		morning set	4024 Feb 19 13:44	21° 	09'22
desc. node	4023 Feb 15 06:50	5° 	07'55		4024 Feb 25 01:31	0° 	
	4023 Mar 04 07:08	0° 		max. Earth dist.	4024 Feb 26 07:46	2° 	04'17 1.41985 AU
morning set	4023 Mar 11 19:27	12° 	06'04				
max. Earth dist.	4023 Mar 16 07:24	19° 	41'31 1.39894 AU	superior conj	4024 Mar 04 20:01	14° 	46'19 -2°05'47
	4023 Mar 22 03:55	0° 		minimum elong	4024 Mar 04 22:14	14° 	55'56 2°05'43
					4024 Mar 13 09:29	0° 	
superior conj	4023 Mar 24 01:23	3° 	26'26 -1°51'58	evening rise	4024 Mar 15 21:31	4° 	33'21
minimum elong	4023 Mar 24 05:56	3° 	47'17 1°51'35	asc. node	4024 Mar 24 02:45	19° 	11'32
evening rise	4023 Apr 02 18:53	21° 	45'25		4024 Mar 31 17:53	0° 	
asc. node	4023 Apr 07 05:43	0° 	08'48	evening max el	4024 Apr 01 08:48	0° 	38'03 18°09'24
	4023 Apr 07 03:48	0° 		retrograde	4024 Apr 08 03:36	4° 	04'05
evening max el	4023 Apr 18 23:03	17° 	44'39 18°29'15	evening set	4024 Apr 10 17:39	3° 	34'40
retrograde	4023 Apr 26 13:04	21° 	08'29'08		4024 Apr 16 02:29	30° 	
evening set	4023 Apr 28 20:32	21° 	09'22	inferior conj	4024 Apr 17 12:24	28° 	43'06 3°02'45
inferior conj	4023 May 06 08:30	16° 	38'49 2°07'35	minimum elong	4024 Apr 17 15:26	28° 	36'03 3°02'10
minimum elong	4023 May 06 12:08	16° 	31'34 2°06'32	min. Earth dist.	4024 Apr 20 19:44	25° 	41'00 0.60397 AU
min. Earth dist.	4023 May 09 18:44	13° 	56'37 0.58230 AU	morning rise	4024 Apr 24 11:00	22° 	54'11
morning rise	4023 May 14 00:36	11° 	13'13	desc. node	4024 Apr 30 03:02	20° 	50'40

direct	4024 May 01 01:38	20° Υ 48'09		morning rise	4025 Apr 06 16:25	5° Υ 17'28	
morning max el	4024 May 15 08:39	28° Υ 41'31	27°40'23	direct	4025 Apr 13 13:28	2° Υ 43'54	
	4024 May 16 15:28	0° \mathcal{B}		desc. node	4025 Apr 17 00:03	3° Υ 18'27	
	4024 Jun 06 15:03	0° Π		morning max el	4025 Apr 27 14:33	10° Υ 42'27	27°51'02
morning set	4024 Jun 16 11:40	18° Π 58'02			4025 May 12 17:21	0° \mathcal{B}	
asc. node	4024 Jun 20 02:01	26° Π 34'59			4025 May 29 22:08	0° Π	
	4024 Jun 21 15:49	0° \mathcal{E}		morning set	4025 May 31 12:37	3° Π 12'40	
max. Earth dist.	4024 Jun 22 17:20	2° \mathcal{E} 19'30	1.32085 AU	max. Earth dist.	4025 Jun 06 00:58	14° Π 44'02	1.32523 AU
				asc. node	4025 Jun 06 23:03	16° Π 42'56	
superior conj	4024 Jun 23 17:07	4° \mathcal{E} 30'09	0°37'18	superior conj	4025 Jun 08 02:15	19° Π 10'10	0°11'52
minimum elong	4024 Jun 23 15:32	4° \mathcal{E} 21'27	0°36'59	minimum elong	4025 Jun 08 01:41	19° Π 07'07	0°11'44
evening rise	4024 Jun 30 12:51	19° \mathcal{E} 22'49		behind sun begin	4025 Jun 07 22:09	18° Π 47'56	
	4024 Jul 05 17:18	0° \mathcal{Q}		behind sun end	4025 Jun 08 05:13	19° Π 26'19	
	4024 Jul 25 04:35	0° \mathcal{M}			4025 Jun 13 01:40	0° \mathcal{E}	
desc. node	4024 Jul 27 02:21	1° \mathcal{M} 59'04		evening rise	4025 Jun 15 00:39	4° \mathcal{E} 11'58	
evening max el	4024 Jul 27 17:54	2° \mathcal{M} 36'53	25°28'56		4025 Jun 28 20:23	0° \mathcal{Q}	
retrograde	4024 Aug 10 17:07	9° \mathcal{M} 42'27		evening max el	4025 Jul 09 07:23	13° \mathcal{Q} 12'00	23°57'37
evening set	4024 Aug 16 14:24	8° \mathcal{M} 21'51		desc. node	4025 Jul 13 23:20	17° \mathcal{Q} 01'20	
min. Earth dist.	4024 Aug 21 05:48	5° \mathcal{M} 42'21	0.58010 AU	retrograde	4025 Jul 23 01:15	20° \mathcal{Q} 06'58	
inferior conj	4024 Aug 24 08:55	3° \mathcal{M} 31'31	-5°08'45	evening set	4025 Jul 27 12:45	19° \mathcal{Q} 22'37	
minimum elong	4024 Aug 24 10:48	3° \mathcal{M} 28'13	5°08'40	min. Earth dist.	4025 Aug 02 17:42	16° \mathcal{Q} 22'16	0.56246 AU
	4024 Aug 30 05:02	30° \mathcal{R} \mathcal{Q}		inferior conj	4025 Aug 05 03:03	14° \mathcal{Q} 54'35	-5°01'08
morning rise	4024 Sep 01 09:28	29° \mathcal{Q} 14'13		minimum elong	4025 Aug 04 22:59	15° \mathcal{Q} 00'50	5°00'44
direct	4024 Sep 03 21:42	28° \mathcal{Q} 54'49		morning rise	4025 Aug 13 11:47	10° \mathcal{Q} 56'55	
	4024 Sep 08 08:24	0° \mathcal{M}		direct	4025 Aug 16 05:50	10° \mathcal{Q} 37'27	
morning max el	4024 Sep 12 11:08	2° \mathcal{M} 58'29	18°51'31	morning max el	4025 Aug 26 05:07	15° \mathcal{Q} 15'24	19°53'12
asc. node	4024 Sep 16 01:14	7° \mathcal{M} 02'03		asc. node	4025 Sep 02 22:17	25° \mathcal{Q} 01'45	
morning set	4024 Sep 28 23:24	29° \mathcal{M} 22'57			4025 Sep 05 21:28	0° \mathcal{M}	
	4024 Sep 29 06:58	0° \mathcal{L}		morning set	4025 Sep 13 03:05	13° \mathcal{M} 54'48	
superior conj	4024 Oct 07 11:12	15° \mathcal{L} 55'41	1°33'51	superior conj	4025 Sep 20 22:18	29° \mathcal{M} 43'34	1°42'51
minimum elong	4024 Oct 07 13:54	16° \mathcal{L} 08'33	1°33'39	minimum elong	4025 Sep 20 23:19	29° \mathcal{M} 48'38	1°42'49
max. Earth dist.	4024 Oct 14 11:17	28° \mathcal{L} 49'53	1.39183 AU		4025 Sep 21 01:36	0° \mathcal{L}	
	4024 Oct 15 03:07	0° \mathcal{M}		max. Earth dist.	4025 Sep 26 16:30	10° \mathcal{L} 53'50	1.37131 AU
evening rise	4024 Oct 18 09:15	5° \mathcal{M} 39'25		evening rise	4025 Sep 30 11:18	17° \mathcal{L} 51'56	
desc. node	4024 Oct 23 01:39	13° \mathcal{M} 28'17			4025 Oct 07 11:52	0° \mathcal{M}	
	4024 Nov 02 18:04	0° \mathcal{X}		desc. node	4025 Oct 09 22:41	4° \mathcal{M} 00'06	
evening max el	4024 Nov 22 16:52	25° \mathcal{X} 28'58	24°21'28		4025 Oct 28 01:09	0° \mathcal{X}	
	4024 Nov 28 02:30	0° \mathcal{Z}		evening max el	4025 Nov 05 05:10	9° \mathcal{X} 11'13	25°34'57
retrograde	4024 Dec 03 23:42	2° \mathcal{Z} 05'15		retrograde	4025 Nov 17 10:29	16° \mathcal{X} 11'57	
evening set	4024 Dec 09 09:07	29° \mathcal{X} 50'18		evening set	4025 Nov 23 09:46	13° \mathcal{X} 42'57	
	4024 Dec 09 04:29	30° \mathcal{R} \mathcal{X}		min. Earth dist.	4025 Nov 27 18:42	8° \mathcal{X} 55'32	0.67110 AU
asc. node	4024 Dec 13 00:27	25° \mathcal{X} 50'59		inferior conj	4025 Nov 29 00:30	7° \mathcal{X} 20'11	-0°17'58
min. Earth dist.	4024 Dec 14 01:38	24° \mathcal{X} 28'09	0.67727 AU	minimum elong	4025 Nov 29 00:58	7° \mathcal{X} 18'42	0°17'45
inferior conj	4024 Dec 14 20:28	23° \mathcal{X} 24'57	0°37'18	asc. node	4025 Nov 29 21:28	6° \mathcal{X} 13'39	
minimum elong	4024 Dec 14 19:35	23° \mathcal{X} 27'56	0°36'56	morning rise	4025 Dec 04 16:32	1° \mathcal{X} 25'39	
morning rise	4024 Dec 20 06:06	17° \mathcal{X} 22'30		direct	4025 Dec 08 00:29	0° \mathcal{X} 21'47	
direct	4024 Dec 24 01:50	15° \mathcal{X} 59'04		morning max el	4025 Dec 15 01:24	4° \mathcal{X} 17'18	19°13'47
morning max el	4024 Dec 31 19:57	20° \mathcal{X} 24'21	20°14'35	greatest brilliancy	4025 Dec 28 20:00	22° \mathcal{X} 54'06	-0.7m
	4025 Jan 08 16:59	0° \mathcal{Z}			4026 Jan 02 11:10	0° \mathcal{Z}	
desc. node	4025 Jan 19 00:52	14° \mathcal{Z} 57'01		desc. node	4026 Jan 05 21:55	5° \mathcal{Z} 20'02	
morning set	4025 Jan 28 11:39	29° \mathcal{Z} 20'37		morning set	4026 Jan 07 12:43	7° \mathcal{Z} 50'30	
	4025 Jan 28 21:50	0° \approx		max. Earth dist.	4026 Jan 21 06:48	29° \mathcal{Z} 19'37	1.44838 AU
max. Earth dist.	4025 Feb 07 16:09	15° \approx 22'07	1.43703 AU		4026 Jan 21 17:02	0° \approx	
superior conj	4025 Feb 13 13:35	24° \approx 56'43	-2°05'18	superior conj	4026 Jan 24 06:15	4° \approx 02'10	-1°45'56
minimum elong	4025 Feb 13 10:30	24° \approx 44'05	2°05'13	minimum elong	4026 Jan 23 21:47	3° \approx 28'35	1°45'15
	4025 Feb 16 14:40	0° \mathcal{H}		evening rise	4026 Feb 07 19:07	27° \approx 35'14	
evening rise	4025 Feb 26 06:57	16° \mathcal{H} 32'11			4026 Feb 09 06:08	0° \mathcal{H}	
	4025 Mar 06 02:43	0° Υ		asc. node	4026 Feb 25 20:46	25° \mathcal{H} 31'39	
asc. node	4025 Mar 10 23:45	7° Υ 42'22		evening max el	4026 Feb 27 09:33	27° \mathcal{H} 12'12	18°27'18
evening max el	4025 Mar 15 21:15	13° Υ 49'36	18°08'59		4026 Mar 03 00:12	0° Υ	
retrograde	4025 Mar 22 08:00	17° Υ 12'36		retrograde	4026 Mar 05 21:41	0° Υ 45'12	
evening set	4025 Mar 25 03:56	16° Υ 32'08		evening set	4026 Mar 08 23:29	29° \mathcal{H} 52'52	
inferior conj	4025 Mar 31 09:28	11° Υ 20'25	3°30'15		4026 Mar 08 18:13	30° \mathcal{R} \mathcal{H}	
minimum elong	4025 Mar 31 10:50	11° Υ 16'49	3°30'08	inferior conj	4026 Mar 14 19:34	24° \mathcal{H} 22'44	3°36'30
min. Earth dist.	4025 Apr 03 05:11	8° Υ 22'52	0.62531 AU				

minimum elong	4026 Mar 14 19:16	24° H 23'39	3°36'30	evening max el	4027 Feb 10 19:22	10° H 41'12	19°03'18
min. Earth dist.	4026 Mar 17 00:13	21° H 49'02	0.64414 AU	asc. node	4027 Feb 12 17:47	12° H 27'40	
morning rise	4026 Mar 20 14:21	18° H 12'30		retrograde	4027 Feb 17 16:50	14° H 35'17	
direct	4026 Mar 27 09:27	15° H 23'54		evening set	4027 Feb 21 01:15	13° H 30'07	
desc. node	4026 Apr 03 21:05	18° H 07'10		inferior conj	4027 Feb 26 15:04	7° H 43'32	3°26'47
morning max el	4026 Apr 09 23:53	23° H 18'59	27°25'27	minimum elong	4027 Feb 26 13:31	7° H 48'29	3°26'36
	4026 Apr 15 22:43	0° Y		min. Earth dist.	4027 Feb 28 04:18	5° H 45'44	0.65927 AU
	4026 May 06 00:38	0° B		morning rise	4027 Mar 04 01:24	1° H 30'13	
morning set	4026 May 15 05:24	16° B 59'39			4027 Mar 06 01:25	30° R \approx	
max. Earth dist.	4026 May 20 00:45	26° B 41'22	1.33401 AU	direct	4027 Mar 10 12:17	28° \approx 40'23	
	4026 May 21 14:51	0° II			4027 Mar 15 09:32	0° H	
				desc. node	4027 Mar 21 18:09	4° H 42'36	
superior conj	4026 May 23 07:15	3° II 33'14	-0°15'58	morning max el	4027 Mar 23 09:49	6° H 18'59	26°29'48
minimum elong	4026 May 23 08:03	3° II 37'34	0°15'48		4027 Apr 10 16:08	0° Y	
behind sun begin	4026 May 23 07:15	3° II 33'17		morning set	4027 Apr 28 10:33	0° B 08'51	
behind sun end	4026 May 23 08:52	3° II 41'51			4027 Apr 28 08:40	0° B	
asc. node	4026 May 24 20:05	6° II 49'34		max. Earth dist.	4027 May 02 13:30	8° B 06'05	1.34746 AU
evening rise	4026 May 30 11:58	18° II 55'08					
	4026 Jun 04 23:02	0° B		superior conj	4027 May 07 05:52	17° B 33'01	-0°45'02
evening max el	4026 Jun 20 21:48	23° B 36'02	22°20'44	minimum elong	4027 May 07 08:17	17° B 45'23	0°44'34
desc. node	4026 Jun 30 20:21	29° B 41'32		asc. node	4027 May 11 17:07	26° B 51'05	
	4026 Jul 02 18:12	0° Q			4027 May 13 05:14	0° II	
retrograde	4026 Jul 03 21:25	0° Q 02'57		evening rise	4027 May 14 20:55	3° II 26'24	
	4026 Jul 05 00:51	30° R B			4027 May 30 00:19	0° B	
evening set	4026 Jul 06 21:37	29° B 42'56		evening max el	4027 Jun 02 21:05	4° B 22'12	20°52'30
min. Earth dist.	4026 Jul 15 04:22	26° B 07'54	0.55103 AU	retrograde	4027 Jun 14 10:13	10° B 01'18	
inferior conj	4026 Jul 16 03:40	25° B 34'56	-4°04'27	evening set	4027 Jun 16 13:15	9° B 50'34	
minimum elong	4026 Jul 15 19:18	25° B 46'46	4°02'26	desc. node	4027 Jun 17 17:21	9° B 35'55	
morning rise	4026 Jul 24 18:57	21° B 44'27		inferior conj	4027 Jun 25 21:01	5° B 53'15	-2°22'27
direct	4026 Jul 27 20:51	21° B 23'04		minimum elong	4027 Jun 25 14:28	6° B 02'34	2°20'11
morning max el	4026 Aug 08 11:16	26° B 47'15	21°15'38	min. Earth dist.	4027 Jun 26 16:01	5° B 26'15	0.54855 AU
	4026 Aug 11 13:09	0° Q		morning rise	4027 Jul 04 15:26	1° B 50'42	
asc. node	4026 Aug 20 19:19	13° Q 42'32		direct	4027 Jul 08 06:14	1° B 22'30	
morning set	4026 Aug 28 11:21	28° Q 39'20		morning max el	4027 Jul 21 07:01	7° B 37'20	22°53'44
	4026 Aug 29 02:53	0° M			4027 Aug 06 03:25	0° Q	
				asc. node	4027 Aug 07 16:23	2° Q 54'36	
superior conj	4026 Sep 04 19:42	14° M 01'26	1°43'50	morning set	4027 Aug 12 22:14	13° Q 31'12	
minimum elong	4026 Sep 04 19:12	13° M 58'54	1°43'49				
max. Earth dist.	4026 Sep 09 02:35	22° M 44'37	1.35317 AU	superior conj	4027 Aug 20 00:07	28° Q 39'31	1°38'09
	4026 Sep 12 19:59	0° B		minimum elong	4027 Aug 19 22:32	28° Q 31'03	1°38'01
evening rise	4026 Sep 13 07:47	0° B 55'57			4027 Aug 20 15:14	0° M	
desc. node	4026 Sep 26 19:43	24° B 16'43		max. Earth dist.	4027 Aug 22 21:31	4° M 46'13	1.33876 AU
	4026 Sep 30 13:21	0° M		evening rise	4027 Aug 27 18:23	14° M 40'14	
evening max el	4026 Oct 18 17:37	22° M 51'07	26°35'10		4027 Sep 05 00:07	0° B	
	4026 Oct 30 09:21	0° A		desc. node	4027 Sep 13 16:43	14° B 11'13	
retrograde	4026 Oct 31 16:13	0° A 05'33			4027 Sep 25 08:22	0° M	
	4026 Nov 01 22:21	30° R M		evening max el	4027 Oct 01 06:05	6° M 20'13	27°14'38
evening set	4026 Nov 07 04:29	27° M 26'54		retrograde	4027 Oct 14 16:10	13° M 38'18	
min. Earth dist.	4026 Nov 11 06:31	23° M 15'02	0.66138 AU	evening set	4027 Oct 21 14:55	10° M 57'09	
inferior conj	4026 Nov 12 23:48	21° M 11'33	-1°17'10	min. Earth dist.	4027 Oct 25 10:48	7° M 20'24	0.64818 AU
minimum elong	4026 Nov 13 01:56	21° M 05'11	1°16'16	inferior conj	4027 Oct 27 16:07	4° M 54'16	-2°18'34
asc. node	4026 Nov 16 18:30	17° M 05'05		minimum elong	4027 Oct 27 20:01	4° M 43'32	2°17'03
morning rise	4026 Nov 19 00:04	15° M 27'33			4027 Nov 01 23:30	30° R B	
direct	4026 Nov 21 22:20	14° M 39'30		morning rise	4027 Nov 03 02:12	29° B 23'47	
morning max el	4026 Nov 28 13:12	18° M 16'10	18°28'54	asc. node	4027 Nov 03 15:35	29° B 10'09	
	4026 Dec 07 10:27	0° A		direct	4027 Nov 05 17:10	28° B 47'37	
morning set	4026 Dec 18 14:07	17° A 37'14			4027 Nov 09 11:09	0° M	
desc. node	4026 Dec 23 18:59	25° A 54'51		morning max el	4027 Nov 12 04:50	2° M 14'44	18°00'47
	4026 Dec 26 08:51	0° B		morning set	4027 Nov 29 21:02	28° M 51'46	
					4027 Nov 30 13:24	0° A	
superior conj	4027 Jan 03 09:05	12° B 36'38	-1°08'18	desc. node	4027 Dec 10 16:02	16° A 37'13	
minimum elong	4027 Jan 03 00:54	12° B 04'32	1°07'19				
max. Earth dist.	4027 Jan 04 01:00	13° B 39'02	1.45266 AU	superior conj	4027 Dec 13 18:16	21° A 35'21	-0°21'10
	4027 Jan 14 10:57	0° \approx		minimum elong	4027 Dec 13 15:40	21° A 24'58	0°20'48
evening rise	4027 Jan 19 08:01	7° \approx 42'00		max. Earth dist.	4027 Dec 17 20:13	28° A 04'04	1.44952 AU
greatest brilliancy	4027 Jan 28 22:08	22° \approx 50'11	-0.8m		4027 Dec 19 01:40	0° B	
	4027 Feb 02 14:37	0° H		evening rise	4027 Dec 30 01:18	17° B 05'10	

	4028 Jan 07 11:29	0°♊		evening max el	4029 Jan 07 00:57	7°♊46'14	21°00'51
greatest brilliancy	4028 Jan 13 02:41	8°♊28'02	-0.6m	retrograde	4029 Jan 15 12:30	12°♊47'27	
evening max el	4028 Jan 25 00:51	24°♊13'01	19°55'22	asc. node	4029 Jan 16 11:53	12°♊42'16	
asc. node	4028 Jan 30 14:49	28°♊15'55		evening set	4029 Jan 19 14:20	11°♊13'18	
retrograde	4028 Feb 01 14:31	28°♊37'14		inferior conj	4029 Jan 24 22:45	5°♊00'49	2°33'11
evening set	4028 Feb 05 06:51	27°♊18'09		minimum elong	4029 Jan 24 20:16	5°♊09'22	2°32'27
inferior conj	4028 Feb 10 16:57	21°♊17'17	3°04'50	min. Earth dist.	4029 Jan 25 08:38	4°♊26'46	0.67711 AU
minimum elong	4028 Feb 10 14:40	21°♊24'54	3°04'22		4029 Jan 28 20:54	30°♋♊	
min. Earth dist.	4028 Feb 11 15:46	20°♊00'59	0.67028 AU	morning rise	4029 Jan 30 02:03	28°♊47'54	
morning rise	4028 Feb 15 22:16	15°♊03'21		direct	4029 Feb 04 10:12	26°♊27'03	
direct	4028 Feb 21 20:50	12°♊24'04			4029 Feb 12 01:37	0°♋	
morning max el	4028 Mar 04 18:41	19°♋30'55	25°13'08	morning max el	4029 Feb 15 03:17	2°♋49'48	23°45'44
desc. node	4028 Mar 07 15:13	22°♋34'32		desc. node	4029 Feb 22 12:16	11°♋21'18	
	4028 Mar 13 17:05	0°♌			4029 Mar 07 20:15	0°♌	
	4028 Apr 02 19:02	0°♍		morning set	4029 Mar 22 13:53	23°♌35'58	
morning set	4028 Apr 09 23:19	12°♍25'56			4029 Mar 26 06:22	0°♍	
max. Earth dist.	4028 Apr 13 15:05	19°♍08'07	1.36539 AU	max. Earth dist.	4029 Mar 26 10:47	0°♍19'30	1.38646 AU
	4028 Apr 19 06:53	0°♎					
				superior conj	4029 Apr 02 19:41	13°♍47'55	-1°39'40
superior conj	4028 Apr 19 19:14	1°♎00'52	-1°13'45	minimum elong	4029 Apr 03 00:26	14°♍10'18	1°39'07
minimum elong	4028 Apr 19 23:08	1°♎20'11	1°13'08		4029 Apr 11 04:55	0°♎	
asc. node	4028 Apr 27 14:09	16°♎42'35		evening rise	4029 Apr 11 22:18	1°♎24'51	
evening rise	4028 Apr 28 01:13	17°♎38'30		asc. node	4029 Apr 14 11:11	6°♎19'46	
	4028 May 04 09:53	0°♏		evening max el	4029 Apr 28 06:59	27°♎51'25	18°49'31
evening max el	4028 May 15 08:30	15°♏46'46	19°41'05		4029 Apr 30 21:16	0°♏	
retrograde	4028 May 25 03:42	20°♏32'50		retrograde	4029 May 06 13:23	1°♏54'13	
evening set	4028 May 27 02:44	20°♏22'15		evening set	4029 May 08 17:02	1°♏38'49	
desc. node	4028 Jun 03 14:23	17°♏07'26			4029 May 12 15:59	30°♏♎	
inferior conj	4028 Jun 04 21:28	16°♏19'23	-0°22'59	inferior conj	4029 May 16 16:12	27°♏19'17	1°21'22
minimum elong	4028 Jun 04 20:26	16°♏21'01	0°22'35	minimum elong	4029 May 16 19:05	27°♏14'02	1°20'24
min. Earth dist.	4028 Jun 07 05:19	14°♏52'25	0.55572 AU	min. Earth dist.	4029 May 19 21:33	24°♏59'48	0.57101 AU
morning rise	4028 Jun 13 11:45	11°♏47'41		desc. node	4029 May 21 11:25	23°♏57'01	
direct	4028 Jun 17 22:31	11°♏03'41		morning rise	4029 May 24 17:55	22°♏11'52	
morning max el	4028 Jul 01 21:09	18°♏01'43	24°37'01	direct	4029 May 30 04:03	21°♏00'41	
	4028 Jul 11 18:18	0°♐		morning max el	4029 Jun 13 12:14	28°♏29'16	26°09'59
asc. node	4028 Jul 24 13:27	22°♐29'17			4029 Jun 15 00:21	0°♐	
morning set	4028 Jul 27 10:02	28°♐25'06			4029 Jun 05 06:30	0°♐	
	4028 Jul 28 03:53	0°♑		asc. node	4029 Jul 11 10:29	12°♐19'53	
				morning set	4029 Jul 11 21:04	13°♐15'39	
superior conj	4028 Aug 03 08:59	13°♑29'33	1°26'51	superior conj	4029 Jul 18 20:12	28°♐24'33	1°10'46
minimum elong	4028 Aug 03 06:47	13°♑17'34	1°26'36	minimum elong	4029 Jul 18 17:53	28°♐11'44	1°10'24
max. Earth dist.	4028 Aug 05 01:08	17°♑07'24	1.32843 AU	max. Earth dist.	4029 Jul 19 10:33	29°♐43'32	1.32223 AU
evening rise	4028 Aug 10 15:13	28°♑53'40			4029 Jul 19 13:33	0°♑	
	4028 Aug 11 04:17	0°♒		evening rise	4029 Jul 25 19:12	13°♑26'36	
desc. node	4028 Aug 28 03:25	3°♒34'34			4029 Aug 03 06:13	0°♒	
evening max el	4028 Sep 12 16:49	19°♒26'03	27°26'36	desc. node	4029 Aug 17 10:44	22°♒13'27	
retrograde	4028 Sep 26 09:36	26°♒41'55			4029 Aug 24 01:02	0°♒	
evening set	4028 Oct 03 14:01	24°♒08'03		evening max el	4029 Aug 25 23:01	1°♒54'07	27°06'15
min. Earth dist.	4028 Oct 07 05:30	21°♒03'02	0.63166 AU	retrograde	4029 Sep 08 19:47	9°♒06'32	
inferior conj	4028 Oct 09 22:46	18°♒22'18	-3°19'16	evening set	4029 Sep 15 21:44	6°♒52'01	
minimum elong	4028 Oct 10 04:12	18°♒08'53	3°17'29	min. Earth dist.	4029 Sep 19 13:19	4°♒09'53	0.61236 AU
morning rise	4028 Oct 16 19:50	13°♒08'49		inferior conj	4029 Sep 22 16:29	1°♒26'39	-4°14'28
direct	4028 Oct 19 06:09	12°♒40'55		minimum elong	4029 Sep 22 22:25	1°♒13'43	4°13'03
asc. node	4028 Oct 20 12:39	12°♒48'43			4029 Sep 24 09:07	30°♒♑	
morning max el	4028 Oct 25 21:26	16°♒06'39	17°50'13	morning rise	4029 Sep 30 00:55	26°♒33'46	
	4028 Nov 04 16:19	0°♓		direct	4029 Oct 02 09:28	26°♒11'06	
morning set	4028 Nov 11 04:45	11°♓18'14		asc. node	4029 Oct 07 09:43	27°♒58'00	
	4028 Nov 22 01:36	0°♔		morning max el	4029 Oct 09 11:53	29°♒43'49	17°58'12
					4029 Oct 09 18:24	0°♔	
superior conj	4028 Nov 23 02:06	1°♔42'11	0°23'54	morning set	4029 Oct 25 06:43	24°♔36'22	
minimum elong	4028 Nov 23 04:29	1°♔52'04	0°23'33		4029 Oct 28 05:12	0°♓	
desc. node	4028 Nov 26 13:03	7°♔23'48					
max. Earth dist.	4028 Nov 29 13:36	12°♔17'22	1.43939 AU	superior conj	4029 Nov 04 12:39	13°♓07'08	0°59'43
evening rise	4028 Dec 08 10:53	26°♔16'07		minimum elong	4029 Nov 04 16:47	13°♓25'15	0°59'12
	4028 Dec 10 21:11	0°♕		max. Earth dist.	4029 Nov 12 02:22	26°♓00'27	1.42348 AU
	4028 Dec 31 12:24	0°♖		desc. node	4029 Nov 13 10:03	28°♓10'52	

	4029 Nov 14 12:48	0°♊			4030 Nov 28 21:39	0°♊	
evening rise	4029 Nov 18 04:48	5°♊53'12		evening max el	4030 Dec 03 10:08	4°♊57'00	23°35'56
	4029 Dec 04 04:16	0°♊		retrograde	4030 Dec 14 02:34	11°♊15'49	
evening max el	4029 Dec 20 19:35	21°♊20'10	22°16'06	evening set	4030 Dec 19 04:07	9°♊09'50	
retrograde	4029 Dec 30 09:00	27°♊01'25		asc. node	4030 Dec 21 05:58	7°♊04'27	
asc. node	4030 Jan 03 08:56	25°♊36'30		min. Earth dist.	4030 Dec 24 01:21	3°♊28'04	0.67925 AU
evening set	4030 Jan 03 21:57	25°♊11'26		inferior conj	4030 Dec 24 14:01	2°♊44'43	1°06'50
inferior conj	4030 Jan 09 06:23	18°♊50'37	1°53'26	minimum elong	4030 Dec 24 12:32	2°♊49'49	1°06'15
minimum elong	4030 Jan 09 04:11	18°♊58'18	1°52'39		4030 Dec 26 15:36	30°♊♊	
min. Earth dist.	4030 Jan 09 04:35	18°♊56'51	0.68000 AU	morning rise	4030 Dec 29 20:55	26°♊38'34	
morning rise	4030 Jan 14 10:17	12°♊40'14		direct	4031 Jan 03 00:03	25°♊02'46	
direct	4030 Jan 19 03:34	10°♊41'41			4031 Jan 11 11:09	0°♊	
morning max el	4030 Jan 28 14:27	16°♊15'28	22°17'22	morning max el	4031 Jan 11 07:32	29°♊50'54	20°55'56
	4030 Feb 08 19:39	0°♊		desc. node	4031 Jan 27 06:19	20°♊40'35	
desc. node	4030 Feb 09 09:17	0°♊46'53			4031 Feb 02 12:46	0°♊	
	4030 Feb 28 21:40	0°♊		morning set	4031 Feb 10 08:20	12°♊00'38	
morning set	4030 Mar 03 00:45	3°♊25'47		max. Earth dist.	4031 Feb 18 11:06	24°♊56'49	1.42774 AU
max. Earth dist.	4030 Mar 08 07:52	12°♊11'30	1.40815 AU		4031 Feb 21 12:59	0°♊	
superior conj	4030 Mar 16 02:39	25°♊42'49	-1°59'14	superior conj	4031 Feb 25 11:00	6°♊33'39	-2°07'39
minimum elong	4030 Mar 16 06:34	26°♊00'23	1°58'59	minimum elong	4031 Feb 25 11:17	6°♊34'51	2°07'39
	4030 Mar 18 11:41	0°♊		evening rise	4031 Mar 09 04:40	27°♊05'07	
evening rise	4030 Mar 26 08:49	14°♊37'02			4031 Mar 10 19:48	0°♊	
asc. node	4030 Apr 01 08:13	25°♊37'16		asc. node	4031 Mar 19 05:14	14°♊27'41	
	4030 Apr 03 21:05	0°♊		evening max el	4031 Mar 26 00:52	23°♊32'02	18°06'55
evening max el	4030 Apr 11 13:35	10°♊29'49	18°18'20	retrograde	4031 Apr 01 15:07	26°♊55'09	
retrograde	4030 Apr 18 18:11	14°♊04'54		evening set	4031 Apr 04 07:38	26°♊21'19	
evening set	4030 Apr 21 04:23	13°♊41'22		inferior conj	4031 Apr 10 20:18	21°♊21'18	3°17'24
inferior conj	4030 Apr 28 08:34	9°♊01'44	2°34'47	minimum elong	4031 Apr 10 22:40	21°♊15'28	3°17'03
minimum elong	4030 Apr 28 12:10	8°♊54'02	2°33'53	min. Earth dist.	4031 Apr 13 23:33	18°♊17'59	0.61321 AU
min. Earth dist.	4030 May 01 18:56	6°♊07'53	0.59131 AU	morning rise	4031 Apr 17 11:50	15°♊25'13	
morning rise	4030 May 05 17:07	3°♊24'34		direct	4031 Apr 24 06:22	13°♊05'48	
desc. node	4030 May 08 08:27	2°♊14'06		desc. node	4031 Apr 25 05:29	13°♊08'30	
direct	4030 May 11 23:29	1°♊38'22		morning max el	4031 May 08 11:30	21°♊03'17	27°49'31
morning max el	4030 May 26 08:47	9°♊26'14	27°17'21		4031 May 16 05:31	0°♊	
	4030 Jun 11 02:41	0°♊			4031 Jun 04 02:30	0°♊	
morning set	4030 Jun 26 05:45	27°♊57'46		morning set	4031 Jun 10 10:06	12°♊24'12	
	4030 Jun 27 04:59	0°♊		asc. node	4031 Jun 15 04:30	22°♊27'51	
asc. node	4030 Jun 28 07:30	2°♊21'11		max. Earth dist.	4031 Jun 16 08:13	24°♊58'06	1.32213 AU
superior conj	4030 Jul 03 08:00	13°♊18'53	0°50'35	superior conj	4031 Jun 17 18:36	28°♊05'45	0°26'52
minimum elong	4030 Jul 03 06:01	13°♊07'56	0°50'12	minimum elong	4031 Jun 17 17:24	27°♊59'11	0°26'36
max. Earth dist.	4030 Jul 02 22:14	12°♊24'59	1.32012 AU		4031 Jun 18 15:26	0°♊	
evening rise	4030 Jul 10 03:51	28°♊11'34		evening rise	4031 Jun 24 15:00	13°♊00'45	
	4030 Jul 11 00:26	0°♊			4031 Jul 03 04:08	0°♊	
	4030 Jul 27 18:10	0°♊		evening max el	4031 Jul 20 14:28	24°♊29'44	24°51'50
desc. node	4030 Aug 04 07:44	9°♊49'38		desc. node	4031 Jul 22 04:44	25°♊57'02	
evening max el	4030 Aug 07 22:19	13°♊35'07	26°12'47		4031 Jul 28 04:16	0°♊	
retrograde	4030 Aug 21 21:41	20°♊44'29		retrograde	4031 Aug 03 12:59	1°♊32'42	
evening set	4030 Aug 28 09:17	19°♊01'43		evening set	4031 Aug 08 20:43	0°♊28'29	
min. Earth dist.	4030 Sep 01 11:13	16°♊26'39	0.59165 AU		4031 Aug 09 23:25	30°♊♊	
inferior conj	4030 Sep 04 17:43	13°♊58'10	-4°55'59	min. Earth dist.	4031 Aug 14 01:58	27°♊41'43	0.57199 AU
minimum elong	4030 Sep 04 21:58	13°♊50'05	4°55'27	inferior conj	4031 Aug 16 23:26	25°♊47'23	-5°10'54
morning rise	4030 Sep 12 12:52	9°♊28'07		minimum elong	4031 Aug 16 22:57	25°♊48'11	5°10'54
direct	4030 Sep 14 22:42	9°♊08'14		morning rise	4031 Aug 25 03:39	21°♊39'11	
morning max el	4030 Sep 22 20:53	12°♊57'34	18°26'03	direct	4031 Aug 27 17:53	21°♊20'04	
asc. node	4030 Sep 24 06:45	14°♊25'21		morning max el	4031 Sep 05 21:04	25°♊37'17	19°15'08
	4030 Oct 04 09:23	0°♊			4031 Sep 09 18:11	0°♊	
morning set	4030 Oct 08 21:38	8°♊31'13		asc. node	4031 Sep 11 03:46	1°♊55'02	
				morning set	4031 Sep 22 21:30	22°♊51'29	
					4031 Sep 26 11:19	0°♊	
superior conj	4030 Oct 17 22:17	25°♊39'38	1°24'25				
minimum elong	4030 Oct 18 01:50	25°♊56'02	1°24'05				
	4030 Oct 20 07:13	0°♊		superior conj	4031 Oct 01 01:28	9°♊03'27	1°38'45
max. Earth dist.	4030 Oct 25 09:30	9°♊00'33	1.40382 AU	minimum elong	4031 Oct 01 03:28	9°♊13'07	1°38'37
evening rise	4030 Oct 29 18:55	16°♊26'26		max. Earth dist.	4031 Oct 07 13:42	21°♊19'19	1.38290 AU
desc. node	4030 Oct 31 07:04	18°♊55'12		evening rise	4031 Oct 11 08:26	28°♊04'00	
	4030 Nov 07 06:35	0°♊			4031 Oct 12 11:09	0°♊	

desc. node	4031 Oct 18 04:05	9°♄32'49		superior conj	4032 Sep 13 17:20	23°♄04'44	1°44'10
	4031 Oct 31 17:18	0°♄		minimum elong	4032 Sep 13 17:40	23°♄06'27	1°44'09
evening max el	4031 Nov 15 22:52	18°♄38'24	24°53'58		4032 Sep 17 04:27	0°♄	
retrograde	4031 Nov 27 16:06	25°♄26'42		max. Earth dist.	4032 Sep 18 20:30	3°♄14'57	1.36321 AU
evening set	4031 Dec 03 07:16	23°♄05'42		evening rise	4032 Sep 22 18:49	10°♄39'29	
min. Earth dist.	4031 Dec 07 20:31	17°♄57'54	0.67502 AU	desc. node	4032 Oct 04 01:06	29°♄58'48	
asc. node	4031 Dec 08 03:00	17°♄36'38			4032 Oct 04 01:24	0°♄	
inferior conj	4031 Dec 08 19:55	16°♄40'45	0°14'27		4032 Oct 26 03:57	0°♄	
minimum elong	4031 Dec 08 19:34	16°♄41'56	0°14'18	evening max el	4032 Oct 28 11:24	2°♄21'09	26°02'50
transit middle	4031 Dec 08 19:34	16°♄41'56	0°14'18	retrograde	4032 Nov 10 00:40	9°♄28'22	
transit begin	4031 Dec 08 18:16	16°♄46'13		evening set	4032 Nov 16 05:38	6°♄54'52	
transit end	4031 Dec 08 20:51	16°♄37'39		min. Earth dist.	4032 Nov 20 11:40	2°♄22'26	0.66735 AU
morning rise	4031 Dec 14 08:00	10°♄41'05		inferior conj	4032 Nov 21 22:12	0°♄34'53	-0°42'41
direct	4031 Dec 17 22:29	9°♄26'19		minimum elong	4032 Nov 21 23:20	0°♄31'20	0°42'11
morning max el	4031 Dec 25 08:26	13°♄37'48	19°46'49		4032 Nov 22 09:25	30°♄	
	4032 Jan 06 20:47	0°♄		asc. node	4032 Nov 24 00:02	28°♄04'39	
greatest brilliancy	4032 Jan 07 14:41	1°♄05'58	-0.7m	morning rise	4032 Nov 27 17:28	24°♄44'20	
desc. node	4032 Jan 14 03:21	10°♄54'56		direct	4032 Nov 30 21:08	23°♄47'29	
morning set	4032 Jan 20 04:22	20°♄10'46		morning max el	4032 Dec 07 16:46	27°♄33'33	18°52'44
	4032 Jan 26 12:02	0°♄			4032 Dec 09 22:04	0°♄	
max. Earth dist.	4032 Jan 31 22:06	8°♄32'50	1.44268 AU	morning set	4032 Dec 29 14:10	29°♄09'32	
					4032 Dec 30 03:03	0°♄	
superior conj	4032 Feb 05 17:37	16°♄15'48	-1°59'33	desc. node	4032 Dec 31 00:23	1°♄23'36	
minimum elong	4032 Feb 05 11:55	15°♄52'46	1°59'15	max. Earth dist.	4033 Jan 13 15:08	22°♄43'58	1.45115 AU
	4032 Feb 14 02:00	0°♄					
evening rise	4032 Feb 19 05:32	8°♄41'12		superior conj	4033 Jan 15 02:21	25°♄02'25	-1°31'53
	4032 Mar 03 04:08	0°♄		minimum elong	4033 Jan 14 17:05	24°♄25'59	1°30'56
asc. node	4032 Mar 05 02:16	2°♄42'48			4033 Jan 18 05:48	0°♄	
evening max el	4032 Mar 08 13:42	6°♄50'05	18°14'34	evening rise	4033 Jan 30 07:50	19°♄20'10	
retrograde	4032 Mar 14 23:52	10°♄15'29			4033 Feb 05 21:47	0°♄	
evening set	4032 Mar 17 22:19	9°♄30'02		asc. node	4033 Feb 19 23:19	20°♄11'28	
inferior conj	4032 Mar 23 23:26	4°♄10'32	3°35'05	evening max el	4033 Feb 20 01:18	20°♄16'31	18°40'29
minimum elong	4032 Mar 24 00:03	4°♄08'49	3°35'05	retrograde	4033 Feb 26 16:17	23°♄56'51	
min. Earth dist.	4032 Mar 26 13:02	1°♄21'05	0.63379 AU	evening set	4033 Mar 01 20:53	22°♄58'58	
	4032 Mar 27 20:36	30°♄		inferior conj	4033 Mar 07 13:57	17°♄21'30	3°34'02
morning rise	4032 Mar 30 00:47	28°♄04'04		minimum elong	4033 Mar 07 13:03	17°♄24'14	3°33'59
direct	4032 Apr 05 22:08	25°♄22'09		min. Earth dist.	4033 Mar 09 11:53	15°♄02'20	0.65116 AU
desc. node	4032 Apr 11 02:31	26°♄40'49		morning rise	4033 Mar 13 04:44	11°♄09'48	
	4032 Apr 16 03:21	0°♄		direct	4033 Mar 19 21:02	8°♄19'19	
morning max el	4032 Apr 19 18:59	3°♄20'13	27°44'09	desc. node	4033 Mar 28 23:34	12°♄19'14	
	4032 May 09 16:28	0°♄		morning max el	4033 Apr 02 04:49	16°♄08'07	27°04'54
morning set	4032 May 24 07:55	26°♄28'04			4033 Apr 13 15:35	0°♄	
	4032 May 26 01:52	0°♄			4033 May 02 11:37	0°♄	
max. Earth dist.	4032 May 29 12:49	7°♄11'37	1.32845 AU	morning set	4033 May 07 20:14	10°♄00'17	
				max. Earth dist.	4033 May 12 08:20	18°♄55'48	1.33925 AU
superior conj	4032 Jun 01 02:14	12°♄39'35	0°00'18				
minimum elong	4032 Jun 01 02:13	12°♄39'29	0°00'17	superior conj	4033 May 16 04:50	26°♄53'47	-0°28'14
behind sun begin	4032 May 31 20:56	12°♄11'04		minimum elong	4033 May 16 06:18	27°♄01'31	0°27'56
behind sun end	4032 Jun 01 07:29	13°♄07'56			4033 May 17 16:11	0°♄	
asc. node	4032 Jun 01 01:33	12°♄35'54		asc. node	4033 May 18 22:36	2°♄41'10	
evening rise	4032 Jun 08 02:50	27°♄48'12		evening rise	4033 May 23 13:25	12°♄27'29	
	4032 Jun 09 03:50	0°♄			4033 Jun 01 14:07	0°♄	
	4032 Jun 26 16:28	0°♄		evening max el	4033 Jun 12 20:58	15°♄26'44	21°41'25
evening max el	4032 Jul 01 03:31	4°♄56'28	23°16'07	desc. node	4033 Jun 24 22:46	21°♄34'34	
desc. node	4032 Jul 08 01:46	10°♄03'05		retrograde	4033 Jun 25 07:13	21°♄34'51	
retrograde	4032 Jul 14 15:31	11°♄41'17		evening set	4033 Jun 27 20:24	21°♄20'10	
evening set	4032 Jul 18 11:07	11°♄09'27		inferior conj	4033 Jul 07 05:14	17°♄18'30	-3°25'30
min. Earth dist.	4032 Jul 25 13:01	7°♄55'54	0.55669 AU	minimum elong	4033 Jul 06 20:51	17°♄30'13	3°23'01
inferior conj	4032 Jul 27 09:22	6°♄50'54	-4°43'25	min. Earth dist.	4033 Jul 06 23:34	17°♄26'25	0.54883 AU
minimum elong	4032 Jul 27 02:54	7°♄00'24	4°42'22	morning rise	4033 Jul 15 22:31	13°♄25'49	
morning rise	4032 Aug 04 21:02	2°♄57'56		direct	4033 Jul 19 05:21	13°♄02'16	
direct	4032 Aug 07 18:17	2°♄37'49		morning max el	4033 Jul 31 11:09	18°♄47'27	21°56'01
morning max el	4032 Aug 18 09:55	7°♄34'36	20°25'54		4033 Aug 09 12:21	0°♄	
asc. node	4032 Aug 28 00:48	20°♄13'24		asc. node	4033 Aug 14 21:51	9°♄09'04	
	4032 Sep 02 09:43	0°♄		morning set	4033 Aug 21 13:01	22°♄18'13	
morning set	4032 Sep 06 03:22	7°♄29'08			4033 Aug 25 04:31	0°♄	

superior conj	4033 Aug 28 18:06	7° \mathbb{M} 32'45	1°42'10	morning set	4034 Aug 06 00:30	7° \mathbb{Q} 12'00	
minimum elong	4033 Aug 28 17:05	7° \mathbb{M} 27'26	1°42'07				
max. Earth dist.	4033 Sep 01 10:32	15° \mathbb{M} 10'28	1.34653 AU	superior conj	4034 Aug 13 00:42	22° \mathbb{Q} 17'16	1°33'59
evening rise	4033 Sep 05 21:50	24° \mathbb{M} 02'23		minimum elong	4034 Aug 12 22:48	22° \mathbb{Q} 07'00	1°33'49
	4033 Sep 09 01:37	0° \mathbb{L}		max. Earth dist.	4034 Aug 15 09:17	27° \mathbb{Q} 20'05	1.33379 AU
desc. node	4033 Sep 20 22:07	20° \mathbb{L} 07'31			4034 Aug 16 15:36	0° \mathbb{M}	
	4033 Sep 27 15:11	0° \mathbb{M}		evening rise	4034 Aug 20 13:11	8° \mathbb{M} 00'18	
evening max el	4033 Oct 11 00:00	15° \mathbb{M} 58'11	26°54'57		4034 Sep 01 13:07	0° \mathbb{L}	
retrograde	4033 Oct 24 03:48	23° \mathbb{M} 14'38		desc. node	4034 Sep 07 19:07	9° \mathbb{L} 50'24	
evening set	4033 Oct 30 21:08	20° \mathbb{M} 33'47		evening max el	4034 Sep 23 11:44	29° \mathbb{L} 18'10	27°23'21
min. Earth dist.	4033 Nov 03 20:26	16° \mathbb{M} 37'17	0.65621 AU		4034 Sep 24 05:40	0° \mathbb{M}	
inferior conj	4033 Nov 05 18:49	14° \mathbb{M} 23'26	-1°43'04	retrograde	4034 Oct 07 01:07	6° \mathbb{M} 36'22	
minimum elong	4033 Nov 05 21:42	14° \mathbb{M} 15'06	1°41'53	evening set	4034 Oct 14 03:09	3° \mathbb{M} 56'33	
asc. node	4033 Nov 10 21:05	9° \mathbb{M} 23'39		min. Earth dist.	4034 Oct 17 20:40	0° \mathbb{M} 34'19	0.64153 AU
morning rise	4033 Nov 11 23:05	8° \mathbb{M} 44'58			4034 Oct 18 09:58	30° \mathbb{R} \mathbb{L}	
direct	4033 Nov 14 18:02	8° \mathbb{M} 02'22		inferior conj	4034 Oct 20 07:19	28° \mathbb{L} 00'26	-2°44'37
morning max el	4033 Nov 21 06:34	11° \mathbb{M} 33'30	18°14'56	minimum elong	4034 Oct 20 11:56	27° \mathbb{L} 48'17	2°42'57
	4033 Dec 04 06:46	0° \mathbb{J}		morning rise	4034 Oct 26 22:01	22° \mathbb{L} 37'06	
morning set	4033 Dec 10 04:20	9° \mathbb{J} 35'00		asc. node	4034 Oct 28 18:08	22° \mathbb{L} 07'22	
desc. node	4033 Dec 17 21:26	22° \mathbb{J} 02'23		direct	4034 Oct 29 10:37	22° \mathbb{L} 04'58	
	4033 Dec 22 21:30	0° \mathbb{Z}		morning max el	4034 Nov 04 23:02	25° \mathbb{L} 30'27	17°54'09
					4034 Nov 08 17:23	0° \mathbb{M}	
superior conj	4033 Dec 25 05:14	3° \mathbb{Z} 39'59	-0°48'45	morning set	4034 Nov 21 22:29	21° \mathbb{M} 22'02	
minimum elong	4033 Dec 24 23:07	3° \mathbb{Z} 15'52	0°47'57		4034 Nov 27 00:44	0° \mathbb{J}	
max. Earth dist.	4033 Dec 27 10:36	7° \mathbb{Z} 09'49	1.45224 AU				
evening rise	4034 Jan 10 11:34	29° \mathbb{Z} 06'27		superior conj	4034 Dec 04 22:45	13° \mathbb{J} 04'25	-0°01'15
	4034 Jan 11 01:17	0° \mathbb{X}		minimum elong	4034 Dec 04 22:37	13° \mathbb{J} 03'52	0°01'14
greatest brilliancy	4034 Jan 22 03:43	17° \mathbb{X} 12'28	-0.7m	behind sun begin	4034 Dec 04 12:34	12° \mathbb{J} 23'04	
	4034 Jan 31 02:51	0° \mathbb{X}		behind sun end	4034 Dec 05 08:40	13° \mathbb{J} 44'36	
evening max el	4034 Feb 03 09:25	3° \mathbb{X} 46'59	19°23'30	desc. node	4034 Dec 04 18:26	12° \mathbb{J} 46'55	
asc. node	4034 Feb 06 20:22	6° \mathbb{X} 40'48		max. Earth dist.	4034 Dec 10 05:02	21° \mathbb{J} 30'46	1.44594 AU
retrograde	4034 Feb 10 12:58	7° \mathbb{X} 53'00			4034 Dec 15 14:35	0° \mathbb{Z}	
evening set	4034 Feb 14 00:35	6° \mathbb{X} 41'55		evening rise	4034 Dec 20 23:35	8° \mathbb{Z} 19'12	
inferior conj	4034 Feb 19 12:31	0° \mathbb{X} 48'39	3°18'48		4035 Jan 04 08:28	0° \mathbb{X}	
minimum elong	4034 Feb 19 10:35	0° \mathbb{X} 54'56	3°18'29	evening max el	4035 Jan 17 12:34	17° \mathbb{X} 19'11	20°21'46
	4034 Feb 20 03:26	30° \mathbb{R} \mathbb{X}		asc. node	4035 Jan 24 17:24	21° \mathbb{X} 56'06	
min. Earth dist.	4034 Feb 20 19:20	29° \mathbb{X} 08'26	0.66449 AU	retrograde	4035 Jan 25 11:08	21° \mathbb{X} 59'05	
morning rise	4034 Feb 24 20:20	24° \mathbb{X} 34'46		evening set	4035 Jan 29 07:12	20° \mathbb{X} 33'49	
direct	4034 Mar 03 02:12	21° \mathbb{X} 48'33		inferior conj	4035 Feb 03 16:21	14° \mathbb{X} 27'29	2°52'32
morning max el	4034 Mar 15 14:36	29° \mathbb{X} 15'18	25°59'11	minimum elong	4035 Feb 03 13:55	14° \mathbb{X} 35'44	2°51'55
desc. node	4034 Mar 15 20:38	29° \mathbb{X} 30'38		min. Earth dist.	4035 Feb 04 09:30	13° \mathbb{X} 29'11	0.67359 AU
	4034 Mar 16 08:01	0° \mathbb{X}		morning rise	4035 Feb 08 20:26	8° \mathbb{X} 13'33	
	4034 Apr 07 11:45	0° \mathbb{Y}		direct	4035 Feb 14 12:54	5° \mathbb{X} 41'24	
morning set	4034 Apr 20 19:06	22° \mathbb{Y} 49'29		morning max el	4035 Feb 25 23:18	12° \mathbb{X} 31'33	24°36'44
max. Earth dist.	4034 Apr 24 16:28	0° \mathbb{Y} 10'18	1.35464 AU	desc. node	4035 Mar 02 17:41	17° \mathbb{X} 48'36	
	4034 Apr 24 14:19	0° \mathbb{Y}			4035 Mar 12 01:02	0° \mathbb{X}	
					4035 Mar 31 06:29	0° \mathbb{Y}	
superior conj	4034 Apr 29 23:55	10° \mathbb{Y} 41'06	-0°57'24	morning set	4035 Apr 02 23:20	4° \mathbb{Y} 41'25	
minimum elong	4034 Apr 30 02:59	10° \mathbb{Y} 56'42	0°56'50	max. Earth dist.	4035 Apr 06 14:38	11° \mathbb{Y} 12'22	1.37403 AU
asc. node	4034 May 05 19:40	22° \mathbb{Y} 39'13					
evening rise	4034 May 07 20:43	26° \mathbb{Y} 51'56		superior conj	4035 Apr 13 08:20	23° \mathbb{Y} 53'38	-1°25'16
	4034 May 09 09:39	0° \mathbb{I}		minimum elong	4035 Apr 13 12:44	24° \mathbb{Y} 14'56	1°24'38
evening max el	4034 May 26 01:09	26° \mathbb{I} 27'50	20°19'40		4035 Apr 16 11:03	0° \mathbb{Y}	
	4034 May 30 15:04	0° \mathbb{E}		evening rise	4035 Apr 21 22:22	10° \mathbb{Y} 54'50	
retrograde	4034 Jun 05 20:46	1° \mathbb{E} 44'41		asc. node	4035 Apr 22 16:42	12° \mathbb{Y} 25'54	
evening set	4034 Jun 07 20:17	1° \mathbb{E} 34'48			4035 May 02 08:07	0° \mathbb{I}	
desc. node	4034 Jun 11 19:48	0° \mathbb{E} 21'31		evening max el	4035 May 08 17:39	8° \mathbb{I} 11'05	19°16'40
	4034 Jun 12 14:47	30° \mathbb{R} \mathbb{I}		retrograde	4035 May 17 20:19	12° \mathbb{I} 37'06	
inferior conj	4034 Jun 16 23:51	27° \mathbb{I} 36'36	-1°31'44	evening set	4035 May 19 20:33	12° \mathbb{I} 25'05	
minimum elong	4034 Jun 16 19:32	27° \mathbb{I} 42'55	1°30'08	inferior conj	4035 May 28 07:19	8° \mathbb{I} 16'19	0°24'28
min. Earth dist.	4034 Jun 18 11:47	26° \mathbb{I} 43'56	0.55042 AU	minimum elong	4035 May 28 08:20	8° \mathbb{I} 14'38	0°24'06
morning rise	4034 Jun 25 17:36	23° \mathbb{I} 23'18		desc. node	4035 May 29 16:50	7° \mathbb{I} 20'25	
direct	4034 Jun 29 15:44	22° \mathbb{I} 50'02		min. Earth dist.	4035 May 31 02:33	6° \mathbb{I} 25'11	0.56136 AU
morning max el	4034 Jul 13 03:56	29° \mathbb{I} 24'33	23°38'01	morning rise	4035 Jun 05 17:04	3° \mathbb{I} 28'55	
	4034 Jul 13 18:44	0° \mathbb{E}		direct	4035 Jun 10 13:39	2° \mathbb{I} 34'37	
asc. node	4034 Aug 01 18:55	28° \mathbb{E} 31'51		morning max el	4035 Jun 24 17:57	9° \mathbb{I} 48'10	25°18'41
	4034 Aug 02 12:39	0° \mathbb{Q}			4035 Jul 09 22:55	0° \mathbb{E}	

asc. node	4035 Jul 19 15:58	18°☾14'22		morning set	4036 Jul 04 22:23	6°☾52'55	
morning set	4035 Jul 21 12:09	22°☾05'26		asc. node	4036 Jul 05 13:00	8°☾10'06	
	4035 Jul 25 04:13	0°♌					
superior conj	4035 Jul 28 10:50	7°♌10'47	1°20'34	superior conj	4036 Jul 11 22:31	22°☾06'22	1°02'41
minimum elong	4035 Jul 28 08:31	6°♌58'07	1°20'16	minimum elong	4036 Jul 11 20:17	21°☾54'02	1°02'17
max. Earth dist.	4035 Jul 29 15:33	9°♌47'50	1.32528 AU	max. Earth dist.	4036 Jul 12 02:18	22°☾27'16	1.32088 AU
evening rise	4035 Aug 04 13:25	22°♌23'28		evening rise	4036 Jul 15 12:46	0°♌	
	4035 Aug 08 08:23	0°♍			4036 Jul 18 19:41	7°♌02'45	
desc. node	4035 Aug 25 16:07	28°♍56'48		desc. node	4036 Jul 30 20:41	0°♍	
	4035 Aug 26 10:30	0°♎		evening max el	4036 Aug 11 13:08	17°♍11'50	
evening max el	4035 Sep 05 20:44	12°♎09'07	27°22'00		4036 Aug 18 00:28	24°♍18'59	26°47'26
retrograde	4035 Sep 19 15:51	19°♎24'15		retrograde	4036 Aug 25 20:54	0°♎	
evening set	4035 Sep 26 20:14	16°♎57'02			4036 Aug 31 22:42	1°♎29'37	
min. Earth dist.	4035 Sep 30 10:54	14°♎03'04	0.62369 AU	evening set	4036 Sep 06 20:03	30°♎	
inferior conj	4035 Oct 03 08:50	11°♎19'17	-3°43'48	min. Earth dist.	4036 Sep 07 19:59	29°♎27'42	
minimum elong	4035 Oct 03 14:40	11°♎05'36	3°42'05	inferior conj	4036 Sep 11 14:32	26°♎50'27	0.60359 AU
morning rise	4035 Oct 10 10:47	6°♎14'14		minimum elong	4036 Sep 14 20:01	24°♎11'29	-4°34'28
direct	4035 Oct 12 19:49	5°♎49'03		morning rise	4036 Sep 15 01:35	24°♎00'01	4°33'23
asc. node	4035 Oct 15 15:11	6°♎25'16		direct	4036 Sep 22 09:08	19°♎27'46	
morning max el	4035 Oct 19 15:05	9°♎17'03	17°51'14	asc. node	4036 Sep 24 17:48	19°♎06'32	
	4035 Nov 02 06:12	0°♏		morning max el	4036 Oct 01 12:13	22°♎09'39	
morning set	4035 Nov 04 14:38	4°♏12'11			4036 Oct 02 03:34	22°♎45'24	18°07'28
				morning set	4036 Oct 07 20:21	0°♏	
superior conj	4035 Nov 15 17:59	23°♏44'31	0°40'26		4036 Oct 17 22:45	17°♏48'09	
minimum elong	4035 Nov 15 21:29	23°♏59'25	0°39'57		4036 Oct 24 11:59	0°♏	
	4035 Nov 19 11:27	0°♐		superior conj	4036 Oct 27 14:59	5°♏40'06	1°11'34
desc. node	4035 Nov 21 15:26	3°♐34'05		minimum elong	4036 Oct 27 19:05	5°♏58'24	1°11'05
max. Earth dist.	4035 Nov 22 20:02	5°♐30'34	1.43317 AU	max. Earth dist.	4036 Nov 04 06:29	18°♏57'06	1.41546 AU
evening rise	4035 Nov 30 10:39	17°♐35'54		desc. node	4036 Nov 07 12:26	24°♏20'40	
	4035 Dec 08 13:35	0°♑		evening rise	4036 Nov 09 12:20	27°♏35'24	
	4035 Dec 30 14:09	0°♒			4036 Nov 11 00:23	0°♑	
evening max el	4035 Dec 31 10:12	0°♒52'22	21°32'06		4036 Dec 01 06:12	0°♑	
retrograde	4036 Jan 09 08:38	6°♒10'49		evening max el	4036 Dec 13 03:03	14°♑28'15	22°49'59
asc. node	4036 Jan 11 14:26	5°♒43'34		retrograde	4036 Dec 23 03:53	20°♑25'32	
evening set	4036 Jan 13 14:53	4°♒30'15		evening set	4036 Dec 27 22:03	18°♑28'50	
	4036 Jan 17 16:12	30°♒		asc. node	4036 Dec 28 11:28	17°♑59'22	
inferior conj	4036 Jan 18 23:08	28°♑13'55	2°17'15	inferior conj	4037 Jan 02 06:59	12°♑05'58	1°34'27
minimum elong	4036 Jan 18 20:43	28°♑22'18	2°16'28	minimum elong	4037 Jan 02 05:01	12°♑12'45	1°33'43
min. Earth dist.	4036 Jan 19 04:01	27°♑57'01	0.67873 AU	min. Earth dist.	4037 Jan 02 00:33	12°♑28'12	0.68013 AU
morning rise	4036 Jan 24 02:21	22°♑01'42		morning rise	4037 Jan 07 11:52	5°♑57'14	
direct	4036 Jan 29 04:12	19°♑49'48		direct	4037 Jan 11 23:07	4°♑08'14	
morning max el	4036 Feb 08 08:21	25°♑52'16	23°07'44	morning max el	4037 Jan 20 21:31	9°♑21'15	21°41'31
	4036 Feb 12 02:46	0°♒		desc. node	4037 Feb 03 11:43	26°♑32'07	
desc. node	4036 Feb 17 14:42	6°♒53'22			4037 Feb 05 21:46	0°♒	
	4036 Mar 04 14:13	0°♓		morning set	4037 Feb 22 00:58	24°♒32'54	
morning set	4036 Mar 14 02:36	15°♓18'24			4037 Feb 25 10:13	0°♓	
max. Earth dist.	4036 Mar 18 09:28	22°♓35'37	1.39572 AU	max. Earth dist.	4037 Feb 28 09:00	4°♓50'47	1.41695 AU
	4036 Mar 22 14:21	0°♔					
superior conj	4036 Mar 26 01:57	6°♔20'10	-1°49'00	superior conj	4037 Mar 07 23:53	17°♓49'17	-2°04'29
minimum elong	4036 Mar 26 06:37	6°♔41'43	1°48'33	minimum elong	4037 Mar 08 02:40	18°♓01'23	2°04'23
evening rise	4036 Apr 04 15:21	24°♔27'33			4037 Mar 14 19:35	0°♔	
	4036 Apr 07 13:05	0°♕		evening rise	4037 Mar 18 20:07	7°♔21'54	
asc. node	4036 Apr 08 13:43	1°♕55'34		asc. node	4037 Mar 26 10:45	21°♔02'23	
evening max el	4036 Apr 20 20:07	20°♕31'52	18°33'51		4037 Apr 01 07:02	0°♕	
retrograde	4036 Apr 28 13:55	24°♕20'24		evening max el	4037 Apr 04 05:08	3°♕21'31	18°11'06
evening set	4036 Apr 30 20:26	24°♕01'49		retrograde	4037 Apr 11 02:04	6°♕49'27	
inferior conj	4036 May 08 11:14	19°♕34'11	1°56'28	evening set	4037 Apr 13 15:11	6°♕21'34	
minimum elong	4036 May 08 14:47	19°♕27'17	1°55'24	inferior conj	4037 Apr 20 12:14	1°♕32'57	2°56'17
min. Earth dist.	4036 May 11 20:44	16°♕57'14	0.57930 AU	minimum elong	4037 Apr 20 15:28	1°♕25'37	2°55'37
desc. node	4036 May 15 13:53	14°♕33'32			4037 Apr 22 05:01	30°♕	
morning rise	4036 May 16 05:57	14°♕13'08		min. Earth dist.	4037 Apr 23 20:37	28°♕32'18	0.60069 AU
direct	4036 May 22 01:45	12°♕47'10		morning rise	4037 Apr 27 13:23	25°♕46'46	
morning max el	4036 Jun 05 10:47	20°♕25'07	26°42'19	desc. node	4037 May 02 10:55	23°♕53'20	
	4036 Jun 13 16:29	0°♖		direct	4037 May 04 02:07	23°♕45'51	
	4036 Jul 01 14:04	0°☿			4037 May 16 16:27	0°♕	
				morning max el	4037 May 18 09:51	1°♕37'47	27°35'37

	4037 Jun 07 22:48	0°♂			4038 May 31 09:39	0°♂	
morning set	4037 Jun 19 05:29	21°♂29'06		morning set	4038 Jun 03 07:26	5°♂47'41	
asc. node	4037 Jun 22 10:01	28°♂14'12		max. Earth dist.	4038 Jun 08 22:23	17°♂35'37	1.32428 AU
	4037 Jun 23 05:36	0°♂		asc. node	4038 Jun 09 07:03	18°♂22'23	
max. Earth dist.	4037 Jun 25 13:55	5°♂07'39	1.32054 AU				
				superior conj	4038 Jun 10 19:37	21°♂40'40	0°15'56
superior conj	4037 Jun 26 10:01	6°♂58'09	0°40'56	minimum elong	4038 Jun 10 18:52	21°♂36'38	0°15'45
minimum elong	4037 Jun 26 08:19	6°♂48'47	0°40'34	behind sun begin	4038 Jun 10 18:09	21°♂32'41	
evening rise	4037 Jul 03 05:40	21°♂50'36		behind sun end	4038 Jun 10 19:36	21°♂40'36	
	4037 Jul 07 04:21	0°♂			4038 Jun 14 15:07	0°♂	
	4037 Jul 25 15:51	0°♂		evening rise	4038 Jun 17 17:24	6°♂40'27	
desc. node	4037 Jul 29 10:10	4°♂14'03			4038 Jun 29 23:08	0°♂	
evening max el	4037 Jul 30 20:45	5°♂39'51	25°41'04	evening max el	4038 Jul 12 10:41	16°♂19'22	24°11'56
retrograde	4037 Aug 13 19:58	12°♂46'23		desc. node	4038 Jul 16 07:12	19°♂34'59	
evening set	4037 Aug 19 21:31	11°♂19'51		retrograde	4038 Jul 26 06:09	23°♂17'07	
min. Earth dist.	4037 Aug 24 08:47	8°♂42'13	0.58303 AU	evening set	4038 Jul 30 23:06	22°♂27'52	
inferior conj	4037 Aug 27 13:16	6°♂26'14	-5°06'30	min. Earth dist.	4038 Aug 05 21:19	19°♂31'26	0.56478 AU
minimum elong	4037 Aug 27 15:52	6°♂21'35	5°06'19	inferior conj	4038 Aug 08 10:24	17°♂56'20	-5°05'14
morning rise	4037 Sep 04 12:28	2°♂05'46		minimum elong	4038 Aug 08 07:16	18°♂01'14	5°05'01
direct	4037 Sep 07 00:03	1°♂46'15		morning rise	4038 Aug 16 18:02	13°♂56'20	
morning max el	4037 Sep 15 09:10	5°♂45'42	18°44'17	direct	4038 Aug 19 11:00	13°♂37'02	
asc. node	4037 Sep 18 09:15	9°♂05'22		morning max el	4038 Aug 29 04:53	18°♂09'09	19°42'39
	4037 Sep 30 18:12	0°♂		asc. node	4038 Sep 05 06:17	26°♂57'42	
morning set	4037 Oct 01 17:57	1°♂55'30			4038 Sep 07 03:39	0°♂	
				morning set	4038 Sep 15 20:43	16°♂24'30	
superior conj	4037 Oct 10 08:48	18°♂36'38	1°31'42		4038 Sep 22 14:06	0°♂	
minimum elong	4037 Oct 10 11:45	18°♂50'32	1°31'26				
	4037 Oct 16 13:41	0°♂		superior conj	4038 Sep 23 18:00	2°♂18'44	1°42'01
max. Earth dist.	4037 Oct 17 12:31	1°♂41'13	1.39495 AU	minimum elong	4038 Sep 23 19:17	2°♂25'02	1°41'58
evening rise	4037 Oct 21 12:29	8°♂36'11		max. Earth dist.	4038 Sep 29 17:05	13°♂47'24	1.37426 AU
desc. node	4037 Oct 25 09:27	15°♂02'45		evening rise	4038 Oct 03 11:24	20°♂39'47	
	4037 Nov 03 23:32	0°♂			4038 Oct 08 20:47	0°♂	
evening max el	4037 Nov 25 16:37	28°♂07'09	24°09'44	desc. node	4038 Oct 12 06:29	5°♂36'08	
	4037 Nov 27 16:33	0°♂			4038 Oct 28 23:38	0°♂	
retrograde	4037 Dec 06 19:45	4°♂39'08		evening max el	4038 Nov 08 04:54	11°♂48'51	25°24'40
evening set	4037 Dec 12 03:08	2°♂26'22		retrograde	4038 Nov 20 07:19	18°♂47'00	
	4037 Dec 14 12:17	30°♂47'11		evening set	4038 Nov 26 04:30	16°♂19'55	
asc. node	4037 Dec 15 08:30	28°♂58'11		min. Earth dist.	4038 Nov 30 14:30	11°♂27'11	0.67222 AU
min. Earth dist.	4037 Dec 16 20:48	26°♂59'11	0.67793 AU	inferior conj	4038 Dec 01 18:40	9°♂56'19	-0°09'18
inferior conj	4037 Dec 17 14:05	26°♂00'54	0°45'14	minimum elong	4038 Dec 01 18:54	9°♂55'34	0°09'11
minimum elong	4037 Dec 17 13:01	26°♂04'29	0°44'49	transit middle	4038 Dec 01 18:54	9°♂55'34	0°09'11
morning rise	4037 Dec 22 22:57	19°♂57'31		transit begin	4038 Dec 01 16:36	10°♂03'00	
direct	4037 Dec 26 20:32	18°♂31'01		transit end	4038 Dec 01 21:12	9°♂48'08	
morning max el	4038 Jan 03 17:55	23°♂01'47	20°24'52	asc. node	4038 Dec 02 05:32	9°♂21'20	
	4038 Jan 09 16:25	0°♂		morning rise	4038 Dec 07 09:36	4°♂00'23	
desc. node	4038 Jan 21 08:44	16°♂35'11		direct	4038 Dec 10 19:08	2°♂53'53	
	4038 Jan 30 05:07	0°♂		morning max el	4038 Dec 17 22:15	6°♂53'17	19°21'50
morning set	4038 Feb 01 00:45	2°♂48'26		greatest brilliancy	4038 Dec 31 07:10	24°♂47'25	-0.7m
max. Earth dist.	4038 Feb 10 16:09	18°♂00'52	1.43480 AU		4039 Jan 03 17:32	0°♂	
				desc. node	4039 Jan 08 05:46	6°♂55'56	
superior conj	4038 Feb 16 21:21	28°♂10'14	-2°06'31	morning set	4039 Jan 10 23:42	11°♂10'50	
minimum elong	4038 Feb 16 19:13	28°♂01'21	2°06'28		4039 Jan 23 01:11	0°♂	
	4038 Feb 17 23:44	0°♂		max. Earth dist.	4039 Jan 24 05:46	1°♂52'42	1.44710 AU
evening rise	4038 Mar 01 08:25	19°♂28'48					
	4038 Mar 07 09:24	0°♂		superior conj	4039 Jan 27 17:24	7°♂24'24	-1°50'09
asc. node	4038 Mar 13 07:47	9°♂38'53		minimum elong	4039 Jan 27 09:30	6°♂52'57	1°49'33
evening max el	4038 Mar 18 17:22	16°♂30'58	18°07'53	evening rise	4039 Feb 10 23:58	0°♂40'26	
retrograde	4038 Mar 25 04:47	19°♂53'43			4039 Feb 10 14:14	0°♂	
evening set	4038 Mar 27 23:48	19°♂15'04		asc. node	4039 Feb 28 04:50	27°♂35'22	
inferior conj	4038 Apr 03 07:02	14°♂06'18	3°27'33	evening max el	4039 Mar 02 05:53	29°♂52'27	18°23'28
minimum elong	4038 Apr 03 08:41	14°♂02'03	3°27'24		4039 Mar 02 08:54	0°♂	
min. Earth dist.	4038 Apr 06 04:49	11°♂06'34	0.62219 AU	retrograde	4039 Mar 08 17:18	3°♂23'12	
morning rise	4038 Apr 09 16:06	8°♂04'47		evening set	4039 Mar 11 18:11	2°♂32'44	
direct	4038 Apr 16 12:43	5°♂34'34			4039 Mar 14 23:36	30°♂47'11	
desc. node	4038 Apr 19 07:57	5°♂57'28		inferior conj	4039 Mar 17 15:28	27°♂05'24	3°36'39
morning max el	4038 Apr 30 15:07	13°♂33'23	27°51'54	minimum elong	4039 Mar 17 15:23	27°♂05'38	3°36'39
	4038 May 13 19:35	0°♂		min. Earth dist.	4039 Mar 19 22:30	24°♂27'01	0.64154 AU

morning rise	4039 Mar 23 11:49	20° ✕ 55'56		retrograde	4040 Feb 20 11:48	17° ✕ 11'27	
direct	4039 Mar 30 07:42	18° ✕ 08'30		evening set	4040 Feb 23 19:12	16° ✕ 08'13	
desc. node	4039 Apr 06 05:00	20° ✕ 27'06		inferior conj	4040 Feb 29 09:47	10° ✕ 24'02	3°29'05
morning max el	4039 Apr 13 00:04	26° ✕ 05'07	27°31'20	minimum elong	4040 Feb 29 08:23	10° ✕ 28'26	3°28'56
	4039 Apr 16 15:04	0° Υ		min. Earth dist.	4040 Mar 02 01:16	8° ✕ 20'25	0.65734 AU
	4039 May 07 08:54	0° ♄		morning rise	4040 Mar 05 21:10	4° ✕ 11'06	
morning set	4039 May 18 01:38	19° ♄ 39'22		direct	4040 Mar 12 09:40	1° ✕ 20'37	
max. Earth dist.	4039 May 22 23:27	29° ♄ 37'02	1.33238 AU	desc. node	4040 Mar 23 02:02	6° ✕ 48'39	
	4039 May 23 03:52	0° ♁		morning max el	4040 Mar 25 09:57	9° ✕ 02'14	26°39'35
					4040 Apr 10 20:20	0° Υ	
superior conj	4039 May 26 01:21	6° ♁ 06'43	-0°11'38		4040 Apr 28 19:35	0° ♄	
minimum elong	4039 May 26 01:57	6° ♁ 09'51	0°11'31	morning set	4040 Apr 30 08:44	2° ♄ 54'37	
behind sun begin	4039 May 25 22:10	5° ♁ 49'42		max. Earth dist.	4040 May 04 13:51	11° ♄ 05'46	1.34520 AU
behind sun end	4039 May 26 05:44	6° ♁ 30'01					
asc. node	4039 May 27 04:06	8° ♁ 29'37		superior conj	4040 May 09 01:05	20° ♄ 10'16	-0°40'37
evening rise	4039 Jun 02 04:53	21° ♁ 24'47		minimum elong	4040 May 09 03:15	20° ♄ 21'26	0°40'11
	4039 Jun 06 09:11	0° ♄		asc. node	4040 May 13 01:09	28° ♄ 32'10	
evening max el	4039 Jun 24 00:30	26° ♄ 43'14	22°34'57		4040 May 13 17:52	0° ♁	
	4039 Jun 27 22:28	0° ♁		evening rise	4040 May 16 14:18	5° ♁ 58'02	
desc. node	4039 Jul 03 04:14	2° ♁ 38'55			4040 May 29 19:25	0° ♄	
retrograde	4039 Jul 07 04:01	3° ♁ 15'32		evening max el	4040 Jun 04 22:07	7° ♄ 24'18	21°04'41
evening set	4039 Jul 10 08:48	2° ♁ 53'02		retrograde	4040 Jun 16 17:00	13° ♄ 11'00	
	4039 Jul 17 06:22	30° ♄		evening set	4040 Jun 18 22:04	12° ♄ 59'34	
min. Earth dist.	4039 Jul 18 08:07	29° ♄ 23'58	0.55224 AU	desc. node	4040 Jun 19 01:15	12° ♄ 58'11	
inferior conj	4039 Jul 19 13:13	28° ♄ 42'31	-4°16'22	inferior conj	4040 Jun 28 06:40	9° ♄ 01'48	-2°39'53
minimum elong	4039 Jul 19 05:10	28° ♄ 54'01	4°14'35	minimum elong	4040 Jun 27 23:27	9° ♄ 11'58	2°37'27
morning rise	4039 Jul 28 03:37	24° ♄ 51'52		min. Earth dist.	4040 Jun 28 19:24	8° ♄ 43'51	0.54832 AU
direct	4039 Jul 31 04:10	24° ♄ 30'55		morning rise	4040 Jul 07 00:58	5° ♄ 02'27	
morning max el	4039 Aug 11 12:48	29° ♄ 47'58	21°02'06	direct	4040 Jul 10 13:35	4° ♄ 35'38	
	4039 Aug 11 17:57	0° ♁		morning max el	4040 Jul 23 09:43	10° ♄ 42'55	22°38'30
asc. node	4039 Aug 23 03:21	15° ♁ 33'05			4040 Aug 06 11:26	0° ♁	
	4039 Aug 30 15:20	0° ♄		asc. node	4040 Aug 09 00:23	4° ♁ 40'59	
morning set	4039 Aug 31 04:25	1° ♄ 07'28		morning set	4040 Aug 14 15:01	15° ♁ 58'42	
					4040 Aug 21 04:47	0° ♄	
superior conj	4039 Sep 07 14:05	16° ♄ 32'44	1°44'07	superior conj	4040 Aug 21 17:37	1° ♄ 08'20	1°39'22
minimum elong	4039 Sep 07 13:48	16° ♄ 31'16	1°44'07	minimum elong	4040 Aug 21 16:10	1° ♄ 00'37	1°39'17
max. Earth dist.	4039 Sep 12 02:05	25° ♄ 38'22	1.35568 AU	max. Earth dist.	4040 Aug 24 19:49	7° ♄ 38'27	1.34065 AU
	4039 Sep 14 07:46	0° ♄		evening rise	4040 Aug 29 14:09	17° ♄ 16'06	
evening rise	4039 Sep 16 05:25	3° ♄ 36'59			4040 Sep 05 09:31	0° ♄	
desc. node	4039 Sep 29 03:32	25° ♄ 55'32		desc. node	4040 Sep 15 00:33	15° ♄ 54'13	
	4039 Oct 01 18:33	0° ♁			4040 Sep 25 03:14	0° ♁	
evening max el	4039 Oct 21 17:26	25° ♁ 30'06	26°27'26	evening max el	4040 Oct 03 06:03	9° ♁ 01'59	27°10'25
	4039 Oct 27 03:50	0° ♄		retrograde	4040 Oct 16 14:37	16° ♁ 19'36	
retrograde	4039 Nov 03 13:55	2° ♄ 43'05		evening set	4040 Oct 23 12:06	13° ♁ 38'21	
evening set	4039 Nov 10 00:16	0° ♄ 05'41		min. Earth dist.	4040 Oct 27 08:53	9° ♁ 56'30	0.65037 AU
	4039 Nov 10 03:00	30° ♄		inferior conj	4040 Oct 29 12:21	7° ♁ 33'27	-2°09'12
min. Earth dist.	4039 Nov 14 03:20	25° ♁ 48'22	0.66301 AU	minimum elong	4040 Oct 29 15:59	7° ♁ 23'17	2°07'47
inferior conj	4039 Nov 15 18:50	23° ♁ 48'53	-1°07'59	morning rise	4040 Nov 04 20:53	2° ♁ 00'40	
minimum elong	4039 Nov 15 20:41	23° ♁ 43'16	1°07'12	asc. node	4040 Nov 04 23:38	1° ♁ 57'32	
asc. node	4039 Nov 19 02:35	20° ♁ 05'19		direct	4040 Nov 07 12:49	1° ♁ 22'56	
morning rise	4039 Nov 21 17:44	18° ♁ 03'01		morning max el	4040 Nov 14 00:26	4° ♁ 50'44	18°03'52
direct	4039 Nov 24 17:19	17° ♁ 12'49			4040 Nov 30 21:41	0° ♄	
morning max el	4039 Dec 01 09:14	20° ♁ 51'44	18°34'32	morning set	4040 Dec 01 23:31	1° ♄ 47'07	
	4039 Dec 08 13:29	0° ♄		desc. node	4040 Dec 11 23:49	18° ♄ 10'49	
morning set	4039 Dec 21 20:50	20° ♄ 44'51					
desc. node	4039 Dec 26 02:48	27° ♄ 29'24		superior conj	4040 Dec 16 04:05	24° ♄ 52'09	-0°28'25
	4039 Dec 27 16:53	0° ♄		minimum elong	4040 Dec 16 00:33	24° ♄ 38'04	0°27'55
superior conj	4040 Jan 06 21:13	16° ♄ 00'51	-1°14'54		4040 Dec 19 09:50	0° ♄	
minimum elong	4040 Jan 06 12:31	15° ♄ 26'46	1°13'54	max. Earth dist.	4040 Dec 19 19:11	0° ♄ 36'49	1.45047 AU
max. Earth dist.	4040 Jan 06 23:44	16° ♄ 10'45	1.45249 AU	evening rise	4041 Jan 01 11:59	20° ♄ 23'56	
	4040 Jan 15 18:47	0° ♄			4041 Jan 07 17:33	0° ♄	
evening rise	4040 Jan 22 16:20	10° ♄ 55'39		greatest brilliancy	4041 Jan 15 00:30	11° ♄ 03'16	-0.7m
greatest brilliancy	4040 Jan 31 10:47	24° ♄ 51'44	-0.8m	evening max el	4041 Jan 26 22:30	26° ♄ 53'01	19°46'38
	4040 Feb 03 18:01	0° ✕			4041 Jan 30 15:55	0° ✕	
evening max el	4040 Feb 13 16:17	13° ✕ 21'25	18°56'52	asc. node	4041 Jan 31 22:55	0° ✕ 40'21	
asc. node	4040 Feb 15 01:53	14° ✕ 40'46		retrograde	4041 Feb 03 09:15	1° ✕ 12'08	

	4041 Feb 06 21:32	30° \approx		inferior conj	4042 Jan 27 16:12	7° \approx 38'09	2°38'30
evening set	4041 Feb 07 00:22	29° \approx 55'04		minimum elong	4042 Jan 27 13:43	7° \approx 46'41	2°37'49
inferior conj	4041 Feb 12 10:52	23° \approx 56'06	3°08'49	min. Earth dist.	4042 Jan 28 03:54	6° \approx 57'59	0.67634 AU
minimum elong	4041 Feb 12 08:40	24° \approx 03'25	3°08'23	morning rise	4042 Feb 01 19:37	1° \approx 24'57	
min. Earth dist.	4041 Feb 13 11:42	22° \approx 33'39	0.66895 AU		4042 Feb 03 17:42	30° \approx	
morning rise	4041 Feb 17 16:44	17° \approx 42'13		direct	4042 Feb 07 05:55	29° \approx 01'09	
direct	4041 Feb 23 17:18	15° \approx 00'54			4042 Feb 11 01:44	0° \approx	
morning max el	4041 Mar 07 19:00	22° \approx 13'00	25°25'28	morning max el	4042 Feb 18 03:36	5° \approx 31'13	23°59'02
desc. node	4041 Mar 09 23:03	24° \approx 30'35		desc. node	4042 Feb 24 20:04	13° \approx 10'01	
	4041 Mar 14 14:44	0° \approx			4042 Mar 09 01:22	0° \approx	
	4041 Apr 04 03:10	0° \approx		morning set	4042 Mar 25 18:35	26° \approx 41'42	
morning set	4041 Apr 13 00:17	15° \approx 20'24			4042 Mar 27 16:17	0° \approx	
max. Earth dist.	4041 Apr 16 17:04	22° \approx 10'27	1.36252 AU	max. Earth dist.	4042 Mar 29 13:19	3° \approx 18'58	1.38318 AU
	4041 Apr 20 18:46	0° \approx					
				superior conj	4042 Apr 05 18:40	16° \approx 37'19	-1°36'03
superior conj	4041 Apr 22 16:02	3° \approx 43'30	-1°09'32	minimum elong	4042 Apr 05 23:22	16° \approx 59'40	1°35'29
minimum elong	4041 Apr 22 19:44	4° \approx 01'57	1°08'54		4042 Apr 12 16:03	0° \approx	
asc. node	4041 Apr 29 22:12	18° \approx 25'43		evening rise	4042 Apr 14 17:49	4° \approx 04'35	
evening rise	4041 Apr 30 19:28	20° \approx 13'39		asc. node	4042 Apr 16 19:14	8° \approx 05'38	
	4041 May 05 18:19	0° \approx			4042 Apr 30 12:08	0° \approx	
evening max el	4041 May 18 07:38	18° \approx 42'31	19°50'25	evening max el	4042 May 01 04:38	0° \approx 41'42	18°55'54
retrograde	4041 May 28 09:00	23° \approx 36'22		retrograde	4042 May 09 16:01	4° \approx 50'14	
evening set	4041 May 30 07:51	23° \approx 26'06		evening set	4042 May 11 18:38	4° \approx 35'52	
desc. node	4041 Jun 05 22:15	20° \approx 46'50		inferior conj	4042 May 19 20:49	0° \approx 19'12	1°07'23
inferior conj	4041 Jun 08 05:08	19° \approx 24'47	-0°40'41	minimum elong	4042 May 19 23:19	0° \approx 14'45	1°06'31
minimum elong	4041 Jun 08 03:16	19° \approx 27'39	0°39'59		4042 May 20 07:36	30° \approx	
min. Earth dist.	4041 Jun 10 08:15	18° \approx 06'37	0.55405 AU	min. Earth dist.	4042 May 23 00:03	28° \approx 06'34	0.56827 AU
morning rise	4041 Jun 16 20:36	14° \approx 58'19		desc. node	4042 May 23 19:17	27° \approx 34'33	
direct	4041 Jun 21 03:58	14° \approx 17'31		morning rise	4042 May 28 00:46	25° \approx 16'45	
morning max el	4041 Jul 05 00:16	21° \approx 09'38	24°22'02	direct	4042 Jun 02 07:21	24° \approx 10'20	
	4041 Jul 12 15:43	0° \approx			4042 Jun 14 21:20	0° \approx	
asc. node	4041 Jul 26 21:26	24° \approx 12'57		morning max el	4042 Jun 16 15:00	1° \approx 35'34	25°57'30
	4041 Jul 29 16:44	0° \approx			4042 Jul 06 15:37	0° \approx	
morning set	4041 Jul 30 02:48	0° \approx 53'03		asc. node	4042 Jul 13 18:28	14° \approx 01'35	
				morning set	4042 Jul 14 14:03	15° \approx 44'31	
superior conj	4041 Aug 06 01:58	15° \approx 57'22	1°28'53		4042 Jul 21 03:28	0° \approx	
minimum elong	4041 Aug 05 23:49	15° \approx 45'45	1°28'39	superior conj	4042 Jul 21 12:57	0° \approx 52'07	1°13'31
max. Earth dist.	4041 Aug 07 22:19	19° \approx 57'21	1.32966 AU	minimum elong	4042 Jul 21 10:36	0° \approx 39'15	1°13'08
	4041 Aug 12 16:48	0° \approx		max. Earth dist.	4042 Jul 22 07:01	2° \approx 31'28	1.32285 AU
evening rise	4041 Aug 13 09:40	1° \approx 26'02		evening rise	4042 Jul 28 12:44	15° \approx 56'30	
	4041 Aug 29 07:31	0° \approx			4042 Aug 04 15:38	0° \approx	
desc. node	4041 Sep 01 21:33	5° \approx 23'25		desc. node	4042 Aug 19 18:35	24° \approx 10'06	
evening max el	4041 Sep 15 17:07	22° \approx 12'14	27°26'45		4042 Aug 24 11:07	0° \approx	
retrograde	4041 Sep 29 09:00	29° \approx 28'34		evening max el	4042 Aug 29 00:02	4° \approx 46'12	27°11'23
evening set	4041 Oct 06 13:05	26° \approx 52'46		retrograde	4042 Sep 11 20:24	11° \approx 59'32	
min. Earth dist.	4041 Oct 10 04:58	23° \approx 43'36	0.63435 AU	evening set	4042 Sep 18 23:22	9° \approx 41'10	
inferior conj	4041 Oct 12 20:36	21° \approx 04'17	-3°10'16	min. Earth dist.	4042 Sep 22 14:24	6° \approx 56'31	0.61536 AU
minimum elong	4041 Oct 13 01:51	20° \approx 51'07	3°08'30	inferior conj	4042 Sep 25 16:25	4° \approx 12'32	-4°06'48
morning rise	4041 Oct 19 16:01	15° \approx 48'11		minimum elong	4042 Sep 25 22:23	3° \approx 59'15	4°05'17
direct	4041 Oct 22 02:53	15° \approx 19'14			4042 Oct 01 06:28	30° \approx	
asc. node	4041 Oct 22 20:39	15° \approx 21'56		morning rise	4042 Oct 02 23:13	29° \approx 16'30	
morning max el	4041 Oct 28 17:07	18° \approx 44'30	17°50'38	direct	4042 Oct 05 07:46	28° \approx 53'18	
	4041 Nov 05 22:24	0° \approx			4042 Oct 09 05:45	0° \approx	
morning set	4041 Nov 14 03:56	14° \approx 04'13		asc. node	4042 Oct 09 17:41	0° \approx 17'56	
	4041 Nov 23 10:54	0° \approx		morning max el	4042 Oct 12 08:06	2° \approx 24'29	17°55'48
superior conj	4041 Nov 26 08:01	4° \approx 47'34	0°17'33	morning set	4042 Oct 28 03:33	27° \approx 15'37	
minimum elong	4041 Nov 26 09:50	4° \approx 55'06	0°17'18		4042 Oct 29 15:33	0° \approx	
desc. node	4041 Nov 28 20:50	8° \approx 57'04		superior conj	4042 Nov 07 14:43	16° \approx 01'28	0°55'00
max. Earth dist.	4041 Dec 02 13:05	14° \approx 53'14	1.44134 AU	minimum elong	4042 Nov 07 18:47	16° \approx 19'05	0°54'27
evening rise	4041 Dec 11 21:40	29° \approx 34'01		max. Earth dist.	4042 Nov 15 02:24	28° \approx 40'55	1.42615 AU
	4041 Dec 12 04:25	0° \approx		desc. node	4042 Nov 15 17:51	29° \approx 44'23	
	4042 Jan 01 12:08	0° \approx			4042 Nov 15 21:40	0° \approx	
evening max el	4042 Jan 09 23:20	10° \approx 25'34	20°50'21	evening rise	4042 Nov 21 13:23	9° \approx 04'51	
retrograde	4042 Jan 18 07:22	15° \approx 21'09			4042 Dec 05 08:45	0° \approx	
asc. node	4042 Jan 18 19:56	15° \approx 19'39		evening max el	4042 Dec 23 18:40	23° \approx 59'16	22°04'29
evening set	4042 Jan 22 07:40	13° \approx 49'15					

retrograde	4043 Jan 02 04:14	29° ♁ 34'52		asc. node	4043 Dec 23 13:59	10° ♁ 08'06	
asc. node	4043 Jan 05 16:57	28° ♁ 28'11		inferior conj	4043 Dec 27 07:29	5° ♁ 21'14	1°14'20
evening set	4043 Jan 06 15:22	27° ♁ 47'21		minimum elong	4043 Dec 27 05:51	5° ♁ 26'50	1°13'41
inferior conj	4043 Jan 11 23:42	21° ♁ 27'30	1°59'56	min. Earth dist.	4043 Dec 26 20:26	5° ♁ 59'08	0.67958 AU
minimum elong	4043 Jan 11 21:25	21° ♁ 35'24	1°59'09		4043 Dec 31 16:45	30° ♁ ♁	
min. Earth dist.	4043 Jan 11 23:36	21° ♁ 27'50	0.67978 AU	morning rise	4044 Jan 01 13:46	29° ♁ 14'16	
morning rise	4043 Jan 17 03:21	15° ♁ 16'30		direct	4044 Jan 05 18:59	27° ♁ 35'02	
direct	4043 Jan 21 22:47	13° ♁ 14'28			4044 Jan 11 11:26	0° ♁	
morning max el	4043 Jan 31 14:12	18° ♁ 55'53	22°30'14	morning max el	4044 Jan 14 06:09	2° ♁ 29'24	21°07'21
	4043 Feb 09 20:24	0° ♁		desc. node	4044 Jan 29 14:08	22° ♁ 20'40	
desc. node	4043 Feb 11 17:06	2° ♁ 30'39			4044 Feb 03 18:45	0° ♁	
	4043 Mar 02 05:26	0° ♁		morning set	4044 Feb 13 20:52	15° ♁ 27'58	
morning set	4043 Mar 06 09:49	6° ♁ 44'10		max. Earth dist.	4044 Feb 21 11:35	27° ♁ 39'24	1.42509 AU
max. Earth dist.	4043 Mar 11 09:30	15° ♁ 02'32	1.40495 AU		4044 Feb 22 21:50	0° ♁	
superior conj	4043 Mar 19 04:33	28° ♁ 40'51	-1°56'52	superior conj	4044 Feb 28 16:35	9° ♁ 41'53	-2°07'20
minimum elong	4043 Mar 19 08:46	28° ♁ 59'50	1°56'35	minimum elong	4044 Feb 28 17:37	9° ♁ 46'18	2°07'19
	4043 Mar 19 22:04	0° ♁		evening rise	4044 Mar 11 04:28	29° ♁ 57'26	
evening rise	4043 Mar 29 06:09	17° ♁ 22'30			4044 Mar 11 05:02	0° ♁	
asc. node	4043 Apr 03 16:16	27° ♁ 26'38		asc. node	4044 Mar 20 13:19	16° ♁ 21'28	
	4043 Apr 05 02:48	0° ♁		evening max el	4044 Mar 27 21:09	26° ♁ 15'15	18°07'25
evening max el	4043 Apr 14 10:18	13° ♁ 16'02	18°21'45	retrograde	4044 Apr 03 12:45	29° ♁ 39'01	
retrograde	4043 Apr 21 18:00	16° ♁ 54'06		evening set	4044 Apr 06 04:25	29° ♁ 06'44	
evening set	4043 Apr 24 03:13	16° ♁ 31'59		inferior conj	4044 Apr 12 19:09	24° ♁ 09'43	3°12'37
inferior conj	4043 May 01 10:04	11° ♁ 55'35	2°25'40	minimum elong	4044 Apr 12 21:46	24° ♁ 03'24	3°12'12
minimum elong	4043 May 01 13:44	11° ♁ 47'57	2°24'42	min. Earth dist.	4044 Apr 16 00:01	21° ♁ 06'18	0.61001 AU
min. Earth dist.	4043 May 04 20:40	9° ♁ 05'15	0.58810 AU	morning rise	4044 Apr 19 13:07	18° ♁ 16'00	
morning rise	4043 May 08 21:16	6° ♁ 22'10		direct	4044 Apr 26 06:31	16° ♁ 01'01	
desc. node	4043 May 10 16:18	5° ♁ 32'11		desc. node	4044 Apr 26 13:21	16° ♁ 01'15	
direct	4043 May 15 01:08	4° ♁ 41'08		morning max el	4044 May 10 12:19	23° ♁ 57'12	27°47'04
morning max el	4043 May 29 10:35	12° ♁ 27'00	27°09'19		4044 May 15 23:06	0° ♁	
	4043 Jun 12 05:48	0° ♁			4044 Jun 04 12:15	0° ♁	
morning set	4043 Jun 28 23:10	0° ♁		morning set	4044 Jun 12 04:19	14° ♁ 56'52	
	4043 Jun 28 17:49	0° ♁		asc. node	4044 Jun 16 12:34	24° ♁ 07'39	
asc. node	4043 Jun 30 15:31	4° ♁ 01'33		max. Earth dist.	4044 Jun 18 05:00	27° ♁ 47'06	1.32159 AU
superior conj	4043 Jul 06 00:46	15° ♁ 46'45	0°53'54	superior conj	4044 Jun 19 11:41	0° ♁ 34'59	0°30'40
minimum elong	4043 Jul 05 22:42	15° ♁ 35'22	0°53'30	minimum elong	4044 Jun 19 10:20	0° ♁ 27'37	0°30'23
max. Earth dist.	4043 Jul 05 18:28	15° ♁ 12'00	1.32018 AU		4044 Jun 19 05:18	0° ♁	
evening rise	4043 Jul 12 20:50	0° ♁		evening rise	4044 Jun 26 07:46	15° ♁ 28'52	
	4043 Jul 12 13:18	0° ♁			4044 Jul 03 12:52	0° ♁	
	4043 Jul 28 19:33	0° ♁		evening max el	4044 Jul 22 17:45	27° ♁ 35'33	25°05'15
desc. node	4043 Aug 06 15:36	11° ♁ 56'53		desc. node	4044 Jul 23 12:37	28° ♁ 19'40	
evening max el	4043 Aug 11 00:28	16° ♁ 34'11	26°22'42		4044 Jul 25 11:34	0° ♁	
retrograde	4043 Aug 24 23:45	23° ♁ 44'07		retrograde	4044 Aug 05 16:43	4° ♁ 39'29	
evening set	4043 Aug 31 14:14	21° ♁ 56'08		evening set	4044 Aug 11 05:23	3° ♁ 29'40	
min. Earth dist.	4043 Sep 04 13:46	19° ♁ 21'00	0.59471 AU	min. Earth dist.	4044 Aug 16 05:24	0° ♁ 45'45	0.57472 AU
inferior conj	4043 Sep 07 20:19	16° ♁ 49'09	-4°51'08		4044 Aug 17 09:03	30° ♁ ♁	
minimum elong	4043 Sep 08 01:00	16° ♁ 40'02	4°50'27	inferior conj	4044 Aug 19 05:08	28° ♁ 45'22	-5°11'04
morning rise	4043 Sep 15 13:57	12° ♁ 15'34		minimum elong	4044 Aug 19 05:32	28° ♁ 44'42	5°11'04
direct	4043 Sep 17 23:19	11° ♁ 55'26		morning rise	4044 Aug 27 08:04	24° ♁ 34'00	
morning max el	4043 Sep 25 18:05	15° ♁ 41'53	18°20'35	direct	4044 Aug 29 21:33	24° ♁ 14'48	
asc. node	4043 Sep 26 14:43	16° ♁ 33'58		morning max el	4044 Sep 07 19:47	28° ♁ 27'12	19°06'27
	4043 Oct 05 17:49	0° ♁			4044 Sep 09 08:11	0° ♁	
morning set	4043 Oct 11 16:49	11° ♁ 05'32		asc. node	4044 Sep 12 11:46	3° ♁ 55'14	
				morning set	4044 Sep 24 15:37	25° ♁ 22'52	
superior conj	4043 Oct 20 21:14	28° ♁ 24'29	1°21'23		4044 Sep 26 23:25	0° ♁	
minimum elong	4043 Oct 21 00:57	28° ♁ 41'35	1°20'59	superior conj	4044 Oct 02 22:10	11° ♁ 41'42	1°37'10
	4043 Oct 21 18:08	0° ♁		minimum elong	4044 Oct 03 00:25	11° ♁ 52'34	1°37'01
max. Earth dist.	4043 Oct 28 10:07	11° ♁ 46'54	1.40688 AU	max. Earth dist.	4044 Oct 09 14:48	24° ♁ 12'25	1.38600 AU
evening rise	4043 Nov 02 00:06	19° ♁ 28'43			4044 Oct 12 21:08	0° ♁	
desc. node	4043 Nov 02 14:53	20° ♁ 29'20		evening rise	4044 Oct 13 10:16	0° ♁ 57'08	
	4043 Nov 08 13:51	0° ♁		desc. node	4044 Oct 19 11:55	11° ♁ 08'21	
	4043 Nov 29 17:12	0° ♁			4044 Oct 31 20:43	0° ♁	
evening max el	4043 Dec 06 09:47	7° ♁ 35'52	23°24'04	evening max el	4044 Nov 17 22:48	21° ♁ 17'05	24°42'44
retrograde	4043 Dec 16 22:19	13° ♁ 49'24		retrograde	4044 Nov 29 12:27	28° ♁ 01'14	
evening set	4043 Dec 21 21:51	11° ♁ 34'55					

































































































































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asc. node	4044 Dec 09 11:00	20° ♊ 45'55		retrograde	4045 Nov 12 21:45	12° ♊ 04'34	
min. Earth dist.	4044 Dec 09 15:59	20° ♊ 29'31	0.67590 AU	evening set	4045 Nov 19 00:46	9° ♊ 32'32	
inferior conj	4044 Dec 10 13:45	19° ♊ 17'15	0°22'46	min. Earth dist.	4045 Nov 23 07:49	4° ♊ 54'54	0.66875 AU
minimum elong	4044 Dec 10 13:12	19° ♊ 19'06	0°22'32	inferior conj	4045 Nov 24 16:41	3° ♊ 11'32	-0°33'43
morning rise	4044 Dec 16 00:56	13° ♊ 16'31		minimum elong	4045 Nov 24 17:35	3° ♊ 08'44	0°33'20
direct	4044 Dec 19 17:14	11° ♊ 58'42		asc. node	4045 Nov 26 08:03	1° ♊ 10'26	
morning max el	4044 Dec 27 05:52	16° ♊ 14'42	19°56'13		4045 Nov 27 08:48	30° ♊	
	4045 Jan 07 00:19	0° ♋		morning rise	4045 Nov 30 10:47	27° ♊ 19'36	
desc. node	4045 Jan 15 11:11	12° ♋ 32'18		direct	4045 Dec 03 15:56	26° ♊ 20'20	
morning set	4045 Jan 22 17:05	23° ♋ 37'10			4045 Dec 10 09:27	0° ♋	
	4045 Jan 26 19:49	0° ♌		morning max el	4045 Dec 10 13:13	0° ♋ 09'21	18°59'47
max. Earth dist.	4045 Feb 02 21:52	11° ♌ 09'57	1.44089 AU		4045 Dec 31 10:22	0° ♋	
				morning set	4046 Jan 01 23:29	2° ♋ 24'52	
superior conj	4045 Feb 08 03:05	19° ♌ 34'05	-2°02'01	desc. node	4046 Jan 02 08:12	2° ♋ 58'54	
minimum elong	4045 Feb 07 22:18	19° ♌ 14'38	2°01'48	max. Earth dist.	4046 Jan 16 14:13	25° ♋ 17'00	1.45035 AU
	4045 Feb 14 10:50	0° ♌					
evening rise	4045 Feb 21 08:27	11° ♌ 41'43		superior conj	4046 Jan 18 14:20	28° ♋ 26'28	-1°37'15
	4045 Mar 04 06:15	0° ♍		minimum elong	4046 Jan 18 05:12	27° ♋ 50'27	1°36'24
asc. node	4045 Mar 07 10:21	4° ♍ 42'14			4046 Jan 19 14:01	0° ♌	
evening max el	4045 Mar 11 09:56	9° ♍ 31'08	18°12'12	evening rise	4046 Feb 02 14:16	22° ♌ 29'17	
retrograde	4045 Mar 17 20:03	12° ♍ 55'18			4046 Feb 07 04:42	0° ♌	
evening set	4045 Mar 20 17:39	12° ♍ 11'35		asc. node	4046 Feb 22 07:22	22° ♌ 18'36	
inferior conj	4045 Mar 26 20:14	6° ♍ 54'44	3°33'43	evening max el	4046 Feb 22 21:49	22° ♌ 56'27	18°35'28
minimum elong	4045 Mar 26 21:07	6° ♍ 52'20	3°33'40	retrograde	4046 Mar 01 11:39	26° ♌ 34'01	
min. Earth dist.	4045 Mar 29 12:01	4° ♍ 02'08	0.63093 AU	evening set	4046 Mar 04 15:15	25° ♌ 38'04	
morning rise	4045 Apr 01 23:29	0° ♍ 49'24		inferior conj	4046 Mar 10 09:18	20° ♌ 03'02	3°35'12
	4045 Apr 03 03:23	30° ♍		minimum elong	4046 Mar 10 08:36	20° ♌ 05'08	3°35'10
direct	4045 Apr 08 20:55	28° ♍ 10'12		min. Earth dist.	4046 Mar 12 09:33	17° ♌ 38'37	0.64879 AU
desc. node	4045 Apr 13 10:23	29° ♍ 11'04		morning rise	4046 Mar 16 01:25	13° ♌ 51'46	
	4045 Apr 15 02:10	0° ♎		direct	4046 Mar 22 18:46	11° ♌ 01'45	
morning max el	4045 Apr 22 19:17	6° ♎ 08'25	27°47'16	desc. node	4046 Mar 31 07:25	14° ♌ 32'44	
	4045 May 10 21:58	0° ♏		morning max el	4046 Apr 05 05:03	18° ♌ 52'58	27°12'43
morning set	4045 May 27 03:17	29° ♏ 04'27			4046 Apr 14 15:02	0° ♎	
	4045 May 27 14:19	0° ♏			4046 May 03 21:15	0° ♏	
max. Earth dist.	4045 Jun 01 10:45	10° ♏ 04'32	1.32723 AU	morning set	4046 May 10 17:17	12° ♏ 42'24	
asc. node	4045 Jun 03 09:38	14° ♏ 15'39		max. Earth dist.	4046 May 15 07:57	21° ♏ 54'10	1.33732 AU
superior conj	4045 Jun 03 19:53	15° ♏ 10'59	0°04'29	superior conj	4046 May 18 23:24	29° ♏ 28'39	-0°23'49
minimum elong	4045 Jun 03 19:40	15° ♏ 09'48	0°04'27	minimum elong	4046 May 19 00:38	29° ♏ 35'10	0°23'33
behind sun begin	4045 Jun 03 14:36	14° ♏ 42'25			4046 May 19 05:21	0° ♏	
behind sun end	4045 Jun 04 00:45	15° ♏ 37'14		asc. node	4046 May 21 06:41	4° ♏ 21'37	
evening rise	4045 Jun 10 19:38	0° ♐ 16'57		evening rise	4046 May 26 06:33	14° ♏ 58'03	
	4045 Jun 10 16:26	0° ♐			4046 Jun 02 20:50	0° ♐	
	4045 Jun 27 09:49	0° ♑		evening max el	4046 Jun 15 23:00	18° ♐ 31'52	21°54'55
evening max el	4045 Jul 04 06:48	8° ♑ 04'26	23°30'41	desc. node	4046 Jun 27 06:40	24° ♐ 43'04	
desc. node	4045 Jul 10 09:39	12° ♑ 46'24		retrograde	4046 Jun 28 14:14	24° ♐ 47'05	
retrograde	4045 Jul 17 21:03	14° ♑ 53'03		evening set	4046 Jul 01 06:58	24° ♐ 30'48	
evening set	4045 Jul 21 22:15	14° ♑ 17'07		min. Earth dist.	4046 Jul 10 03:08	20° ♐ 43'57	0.54941 AU
min. Earth dist.	4045 Jul 28 16:38	11° ♑ 08'30	0.55855 AU	inferior conj	4046 Jul 10 15:09	20° ♐ 27'06	-3°40'20
inferior conj	4045 Jul 30 17:50	9° ♑ 55'26	-4°50'53	minimum elong	4046 Jul 10 06:37	20° ♐ 39'03	3°37'57
minimum elong	4045 Jul 30 12:10	10° ♑ 03'54	4°50'06	morning rise	4046 Jul 19 07:49	16° ♐ 35'44	
morning rise	4045 Aug 08 04:30	6° ♑ 01'07		direct	4046 Jul 22 12:49	16° ♐ 13'04	
direct	4045 Aug 11 00:39	5° ♑ 41'14		morning max el	4046 Aug 03 13:22	21° ♐ 50'43	21°41'34
morning max el	4045 Aug 21 10:25	10° ♑ 31'07	20°14'04		4046 Aug 10 12:04	0° ♑	
asc. node	4045 Aug 30 08:50	22° ♑ 07'03		asc. node	4046 Aug 17 05:54	10° ♑ 57'39	
	4045 Sep 03 19:39	0° ♒		morning set	4046 Aug 24 05:57	24° ♑ 45'57	
morning set	4045 Sep 08 20:46	9° ♒ 58'27			4046 Aug 26 17:46	0° ♒	
superior conj	4045 Sep 16 12:26	25° ♒ 38'12	1°43'49	superior conj	4046 Aug 31 12:04	10° ♒ 02'45	1°42'52
minimum elong	4045 Sep 16 13:01	25° ♒ 41'06	1°43'49	minimum elong	4046 Aug 31 11:14	9° ♒ 58'24	1°42'51
	4045 Sep 18 16:51	0° ♓		max. Earth dist.	4046 Sep 04 09:33	18° ♒ 03'41	1.34877 AU
max. Earth dist.	4045 Sep 21 21:00	6° ♓ 10'31	1.36597 AU	evening rise	4046 Sep 08 18:35	26° ♒ 40'38	
evening rise	4045 Sep 25 17:48	13° ♓ 24'25			4046 Sep 10 12:42	0° ♓	
	4045 Oct 05 09:02	0° ♑		desc. node	4046 Sep 23 05:58	21° ♓ 47'47	
desc. node	4045 Oct 06 08:57	1° ♑ 36'19			4046 Sep 28 17:33	0° ♑	
	4045 Oct 26 18:42	0° ♒		evening max el	4046 Oct 13 23:42	18° ♑ 37'10	26°48'29

retrograde	4046 Oct 27 01:47	25° \mathbb{M} 53'09		desc. node	4047 Sep 10 03:00	11° \mathbb{A} 35'00	
evening set	4046 Nov 02 17:26	23° \mathbb{M} 12'50			4047 Sep 24 11:19	0° \mathbb{M}	
min. Earth dist.	4046 Nov 06 17:38	19° \mathbb{M} 11'03	0.65809 AU	evening max el	4047 Sep 26 11:41	2° \mathbb{M} 00'23	27°20'56
inferior conj	4046 Nov 08 14:15	17° \mathbb{M} 00'36	-1°33'47	retrograde	4047 Oct 10 00:05	9° \mathbb{M} 18'53	
minimum elong	4046 Nov 08 16:52	16° \mathbb{M} 52'57	1°32'42	evening set	4047 Oct 17 01:03	6° \mathbb{M} 38'21	
asc. node	4046 Nov 13 05:06	12° \mathbb{M} 18'05		min. Earth dist.	4047 Oct 20 19:21	3° \mathbb{M} 11'06	0.64390 AU
morning rise	4046 Nov 14 17:06	11° \mathbb{M} 20'14		inferior conj	4047 Oct 23 04:08	0° \mathbb{M} 39'41	-2°35'24
direct	4046 Nov 17 13:09	10° \mathbb{M} 35'50		minimum elong	4047 Oct 23 08:31	0° \mathbb{M} 27'59	2°33'46
morning max el	4046 Nov 24 02:22	14° \mathbb{M} 08'40	18°19'27		4047 Oct 23 19:04	30° \mathbb{R} \mathbb{A}	
	4046 Dec 05 13:13	0° \mathbb{A}		morning rise	4047 Oct 29 17:13	25° \mathbb{A} 13'48	
morning set	4046 Dec 13 09:03	12° \mathbb{A} 36'05		asc. node	4047 Oct 31 02:08	24° \mathbb{A} 47'37	
desc. node	4046 Dec 20 05:13	23° \mathbb{A} 35'54		direct	4047 Nov 01 06:33	24° \mathbb{A} 40'23	
	4046 Dec 24 05:51	0° \mathbb{B}		morning max el	4047 Nov 07 18:36	28° \mathbb{A} 06'20	17°56'05
					4047 Nov 09 12:10	0° \mathbb{M}	
superior conj	4046 Dec 28 16:38	7° \mathbb{B} 01'06	-0°55'51	morning set	4047 Nov 24 23:22	24° \mathbb{M} 12'01	
minimum elong	4046 Dec 28 09:42	6° \mathbb{B} 33'49	0°54'57		4047 Nov 28 09:54	0° \mathbb{A}	
max. Earth dist.	4046 Dec 30 09:14	9° \mathbb{B} 40'32	1.45251 AU	desc. node	4047 Dec 07 02:14	14° \mathbb{A} 19'44	
	4047 Jan 12 08:47	0° \mathbb{A}					
evening rise	4047 Jan 13 21:01	2° \mathbb{A} 21'56		superior conj	4047 Dec 08 06:57	16° \mathbb{A} 15'49	-0°08'16
greatest brilliancy	4047 Jan 24 20:33	19° \mathbb{A} 29'41	-0.8m	minimum elong	4047 Dec 08 05:59	16° \mathbb{A} 11'53	0°08'06
	4047 Jan 31 24:00	0° \mathbb{H}		behind sun begin	4047 Dec 07 21:01	15° \mathbb{A} 35'44	
evening max el	4047 Feb 06 06:32	6° \mathbb{H} 26'11	19°16'07	behind sun end	4047 Dec 08 14:56	16° \mathbb{A} 47'59	
asc. node	4047 Feb 09 04:23	8° \mathbb{H} 57'37		max. Earth dist.	4047 Dec 13 03:50	24° \mathbb{A} 02'37	1.44731 AU
retrograde	4047 Feb 13 07:50	10° \mathbb{H} 27'57			4047 Dec 16 22:40	0° \mathbb{B}	
evening set	4047 Feb 16 18:18	9° \mathbb{H} 18'58		evening rise	4047 Dec 24 10:33	11° \mathbb{B} 37'22	
inferior conj	4047 Feb 22 06:50	3° \mathbb{H} 27'59	3°21'52		4048 Jan 05 13:03	0° \mathbb{A}	
minimum elong	4047 Feb 22 05:01	3° \mathbb{H} 33'49	3°21'36	greatest brilliancy	4048 Jan 08 01:39	3° \mathbb{A} 44'00	-0.6m
min. Earth dist.	4047 Feb 23 15:52	1° \mathbb{H} 41'30	0.66273 AU	evening max el	4048 Jan 20 10:30	19° \mathbb{A} 58'12	20°12'17
	4047 Feb 25 00:38	30° \mathbb{R} \mathbb{A}		asc. node	4048 Jan 27 01:25	24° \mathbb{A} 24'54	
morning rise	4047 Feb 27 15:27	27° \mathbb{A} 14'10		retrograde	4048 Jan 28 05:53	24° \mathbb{A} 32'33	
direct	4047 Mar 05 23:06	24° \mathbb{A} 26'29		evening set	4048 Feb 01 00:35	23° \mathbb{A} 09'31	
	4047 Mar 16 13:56	0° \mathbb{H}		inferior conj	4048 Feb 06 10:01	17° \mathbb{A} 05'04	2°57'05
desc. node	4047 Mar 18 04:27	1° \mathbb{H} 31'41		minimum elong	4048 Feb 06 07:38	17° \mathbb{A} 13'08	2°56'32
morning max el	4047 Mar 18 14:56	1° \mathbb{H} 57'56	26°10'19	min. Earth dist.	4048 Feb 07 05:09	16° \mathbb{A} 00'23	0.67251 AU
	4047 Apr 08 18:06	0° \mathbb{Y}		morning rise	4048 Feb 11 14:27	10° \mathbb{A} 51'04	
morning set	4047 Apr 23 18:25	25° \mathbb{Y} 38'45		direct	4048 Feb 17 09:07	8° \mathbb{A} 16'10	
	4047 Apr 26 01:51	0° \mathbb{B}		morning max el	4048 Feb 28 23:37	15° \mathbb{A} 12'34	24°49'38
max. Earth dist.	4047 Apr 27 17:40	3° \mathbb{B} 11'51	1.35204 AU	desc. node	4048 Mar 04 01:27	19° \mathbb{A} 40'32	
					4048 Mar 12 03:05	0° \mathbb{H}	
superior conj	4047 May 02 19:45	13° \mathbb{B} 20'16	-0°53'00		4048 Mar 31 15:40	0° \mathbb{Y}	
minimum elong	4047 May 02 22:35	13° \mathbb{B} 34'44	0°52'28	morning set	4048 Apr 05 01:44	7° \mathbb{Y} 39'45	
asc. node	4047 May 08 03:42	24° \mathbb{B} 20'47		max. Earth dist.	4048 Apr 08 16:45	14° \mathbb{Y} 12'33	1.37096 AU
evening rise	4047 May 10 14:27	29° \mathbb{B} 24'46					
	4047 May 10 21:18	0° \mathbb{I}		superior conj	4048 Apr 15 05:57	26° \mathbb{Y} 38'15	-1°21'13
evening max el	4047 May 29 01:22	29° \mathbb{I} 27'08	20°30'45	minimum elong	4048 Apr 15 10:11	26° \mathbb{Y} 58'57	1°20'36
	4047 May 29 15:11	0° \mathbb{B}			4048 Apr 16 23:01	0° \mathbb{B}	
retrograde	4047 Jun 09 03:19	4° \mathbb{B} 51'53		evening rise	4048 Apr 23 17:04	13° \mathbb{B} 30'54	
evening set	4047 Jun 11 03:38	4° \mathbb{B} 41'54		asc. node	4048 Apr 24 00:44	14° \mathbb{B} 09'12	
desc. node	4047 Jun 14 03:42	3° \mathbb{B} 52'58			4048 May 02 11:23	0° \mathbb{I}	
inferior conj	4047 Jun 20 08:58	0° \mathbb{B} 44'20	-1°49'58	evening max el	4048 May 10 16:08	11° \mathbb{I} 03'51	19°24'46
minimum elong	4047 Jun 20 03:48	0° \mathbb{B} 51'48	1°48'06	retrograde	4048 May 20 00:24	15° \mathbb{I} 36'31	
min. Earth dist.	4047 Jun 21 15:08	0° \mathbb{B} 00'38	0.54957 AU	evening set	4048 May 22 00:05	15° \mathbb{I} 25'06	
	4047 Jun 21 15:35	30° \mathbb{R} \mathbb{I}		inferior conj	4048 May 30 13:45	11° \mathbb{I} 18'39	0°08'02
morning rise	4047 Jun 29 03:05	26° \mathbb{I} 35'06		minimum elong	4048 May 30 14:05	11° \mathbb{I} 18'05	0°07'54
direct	4047 Jul 02 22:29	26° \mathbb{I} 03'48		transit middle	4048 May 30 14:05	11° \mathbb{I} 18'05	0°07'54
	4047 Jul 13 06:57	0° \mathbb{B}		transit begin	4048 May 30 10:43	11° \mathbb{I} 23'34	
morning max el	4047 Jul 16 07:04	2° \mathbb{B} 31'46	23°22'28	transit end	4048 May 30 17:28	11° \mathbb{I} 12'36	
	4047 Aug 03 23:34	0° \mathbb{Q}		desc. node	4048 May 31 00:42	11° \mathbb{I} 00'49	
asc. node	4047 Aug 04 02:57	0° \mathbb{Q} 16'30		min. Earth dist.	4048 Jun 02 05:24	9° \mathbb{I} 35'42	0.55926 AU
morning set	4047 Aug 08 17:14	9° \mathbb{Q} 38'56		morning rise	4048 Jun 08 01:14	6° \mathbb{I} 36'45	
				direct	4048 Jun 12 18:24	5° \mathbb{I} 46'13	
superior conj	4047 Aug 15 17:57	24° \mathbb{Q} 45'03	1°35'35	morning max el	4048 Jun 26 20:54	12° \mathbb{I} 54'39	25°04'23
minimum elong	4047 Aug 15 16:09	24° \mathbb{Q} 35'22	1°35'25		4048 Jul 10 03:27	0° \mathbb{B}	
	4047 Aug 18 05:02	0° \mathbb{P}		asc. node	4048 Jul 20 23:59	19° \mathbb{B} 56'06	
max. Earth dist.	4047 Aug 18 06:54	0° \mathbb{P} 09'53	1.33543 AU	morning set	4048 Jul 23 04:57	24° \mathbb{B} 32'23	
evening rise	4047 Aug 23 08:19	10° \mathbb{P} 33'49			4048 Jul 25 18:02	0° \mathbb{Q}	
	4047 Sep 02 21:03	0° \mathbb{A}					

superior conj	4048 Jul 30 03:40	9° Ω 37'20	1°22'56	minimum elong	4049 Jul 14 12:59	24° \mathfrak{D} 20'39	1°05'17
minimum elong	4048 Jul 30 01:23	9° Ω 24'52	1°22'37	max. Earth dist.	4049 Jul 14 22:44	25° \mathfrak{D} 14'23	1.32128 AU
max. Earth dist.	4048 Jul 31 12:15	12° Ω 35'03	1.32630 AU		4049 Jul 17 02:41	0° Ω	
evening rise	4048 Aug 06 07:26	24° Ω 53'42		evening rise	4049 Jul 21 13:00	9° Ω 31'23	
	4048 Aug 08 20:07	0° \mathfrak{N}			4049 Aug 01 03:54	0° \mathfrak{N}	
	4048 Aug 26 10:32	0° \mathfrak{A}		desc. node	4049 Aug 13 21:02	19° \mathfrak{N} 11'52	
desc. node	4048 Aug 27 00:01	0° \mathfrak{A} 47'43		evening max el	4049 Aug 21 02:08	27° \mathfrak{N} 13'54	26°54'41
evening max el	4048 Sep 07 21:22	14° \mathfrak{A} 56'52	27°24'20		4049 Aug 24 07:16	0° \mathfrak{A}	
retrograde	4048 Sep 21 15:47	22° \mathfrak{A} 12'16		retrograde	4049 Sep 03 23:48	4° \mathfrak{A} 24'52	
evening set	4048 Sep 28 20:18	19° \mathfrak{A} 42'35		evening set	4049 Sep 10 22:59	2° \mathfrak{A} 18'21	
min. Earth dist.	4048 Oct 02 11:11	16° \mathfrak{A} 44'53	0.62651 AU		4049 Sep 14 06:07	30° \mathfrak{R} \mathfrak{N}	
inferior conj	4048 Oct 05 07:31	14° \mathfrak{A} 01'55	-3°35'16	min. Earth dist.	4049 Sep 14 16:18	29° \mathfrak{N} 39'43	0.60670 AU
minimum elong	4048 Oct 05 13:14	13° \mathfrak{A} 48'15	3°33'30	inferior conj	4049 Sep 17 21:06	26° \mathfrak{N} 58'59	-4°27'42
morning rise	4048 Oct 12 07:45	8° \mathfrak{A} 53'47		minimum elong	4049 Sep 18 02:51	26° \mathfrak{N} 46'54	4°26'30
direct	4048 Oct 14 17:10	8° \mathfrak{A} 27'43		morning rise	4049 Sep 25 08:36	22° \mathfrak{N} 11'57	
asc. node	4048 Oct 16 23:11	8° \mathfrak{A} 51'27		direct	4049 Sep 27 17:11	21° \mathfrak{N} 50'14	
morning max el	4048 Oct 21 10:54	11° \mathfrak{A} 54'50	17°50'28	asc. node	4049 Oct 03 20:14	24° \mathfrak{N} 23'49	
	4048 Nov 02 15:06	0° \mathfrak{M}		morning max el	4049 Oct 05 00:10	25° \mathfrak{N} 26'44	18°03'48
morning set	4048 Nov 06 12:45	6° \mathfrak{M} 54'19			4049 Oct 08 20:22	0° \mathfrak{A}	
				morning set	4049 Oct 20 18:52	20° \mathfrak{A} 24'47	
superior conj	4048 Nov 17 22:11	26° \mathfrak{M} 44'03	0°34'45		4049 Oct 25 22:58	0° \mathfrak{M}	
minimum elong	4048 Nov 18 01:21	26° \mathfrak{M} 57'25	0°34'18				
	4048 Nov 19 20:56	0° \mathfrak{J}		superior conj	4049 Oct 30 15:41	8° \mathfrak{M} 29'34	1°07'33
desc. node	4048 Nov 22 23:15	5° \mathfrak{J} 06'39		minimum elong	4049 Oct 30 19:50	8° \mathfrak{M} 47'59	1°07'02
max. Earth dist.	4048 Nov 24 19:41	8° \mathfrak{J} 07'14	1.43547 AU	max. Earth dist.	4049 Nov 07 07:11	21° \mathfrak{M} 40'43	1.41838 AU
evening rise	4048 Dec 02 20:45	20° \mathfrak{J} 51'07		desc. node	4049 Nov 09 20:19	25° \mathfrak{M} 53'45	
	4048 Dec 08 20:11	0° \mathfrak{Z}			4049 Nov 12 08:59	0° \mathfrak{J}	
	4048 Dec 30 04:53	0° \mathfrak{A}		evening rise	4049 Nov 12 19:37	0° \mathfrak{J} 42'44	
evening max el	4049 Jan 02 09:00	3° \mathfrak{A} 31'14	21°21'02		4049 Dec 02 08:40	0° \mathfrak{Z}	
retrograde	4049 Jan 11 03:32	8° \mathfrak{A} 43'28		evening max el	4049 Dec 16 02:28	17° \mathfrak{Z} 06'28	22°38'02
asc. node	4049 Jan 12 22:27	8° \mathfrak{A} 26'05		retrograde	4049 Dec 25 23:15	22° \mathfrak{Z} 58'03	
evening set	4049 Jan 15 08:13	7° \mathfrak{A} 05'11		evening set	4049 Dec 30 15:35	21° \mathfrak{Z} 03'38	
inferior conj	4049 Jan 20 16:30	0° \mathfrak{A} 50'12	2°23'03	asc. node	4049 Dec 30 19:28	20° \mathfrak{Z} 55'27	
minimum elong	4049 Jan 20 14:02	0° \mathfrak{A} 58'42	2°22'19	inferior conj	4050 Jan 05 00:19	14° \mathfrak{Z} 41'26	1°41'22
min. Earth dist.	4049 Jan 20 23:07	0° \mathfrak{A} 27'18	0.67825 AU	minimum elong	4050 Jan 04 22:16	14° \mathfrak{Z} 48'32	1°40'37
	4049 Jan 21 07:01	30° \mathfrak{R} \mathfrak{Z}		min. Earth dist.	4050 Jan 04 19:29	14° \mathfrak{Z} 58'10	0.68020 AU
morning rise	4049 Jan 25 19:41	24° \mathfrak{Z} 37'44		morning rise	4050 Jan 10 04:50	8° \mathfrak{Z} 32'09	
direct	4049 Jan 30 23:46	22° \mathfrak{Z} 22'36		direct	4050 Jan 14 18:11	6° \mathfrak{Z} 39'48	
morning max el	4049 Feb 10 08:23	28° \mathfrak{Z} 32'05	23°20'59	morning max el	4050 Jan 23 20:50	11° \mathfrak{Z} 59'49	21°53'50
	4049 Feb 11 18:05	0° \mathfrak{A}		desc. node	4050 Feb 05 19:31	28° \mathfrak{Z} 12'57	
desc. node	4049 Feb 18 22:28	8° \mathfrak{A} 38'50			4050 Feb 07 01:49	0° \mathfrak{A}	
	4049 Mar 05 20:59	0° \mathfrak{H}		morning set	4050 Feb 25 11:43	27° \mathfrak{A} 54'30	
morning set	4049 Mar 17 09:03	18° \mathfrak{H} 28'17			4050 Feb 26 18:54	0° \mathfrak{H}	
max. Earth dist.	4049 Mar 21 11:42	25° \mathfrak{H} 30'44	1.39247 AU	max. Earth dist.	4050 Mar 03 10:25	7° \mathfrak{H} 37'52	1.41393 AU
	4049 Mar 24 00:47	0° \mathfrak{Y}					
superior conj	4049 Mar 29 02:04	9° \mathfrak{Y} 12'07	-1°45'49	superior conj	4050 Mar 11 03:14	20° \mathfrak{H} 50'09	-2°02'54
minimum elong	4049 Mar 29 06:48	9° \mathfrak{Y} 34'10	1°45'21	minimum elong	4050 Mar 11 06:29	21° \mathfrak{H} 04'27	2°02'44
evening rise	4049 Apr 07 11:32	27° \mathfrak{Y} 08'23			4050 Mar 16 05:59	0° \mathfrak{Y}	
	4049 Apr 08 23:11	0° \mathfrak{B}		evening rise	4050 Mar 21 18:23	10° \mathfrak{Y} 08'57	
asc. node	4049 Apr 10 21:46	3° \mathfrak{B} 41'39		asc. node	4050 Mar 28 18:48	22° \mathfrak{Y} 52'13	
evening max el	4049 Apr 23 17:19	23° \mathfrak{B} 19'21	18°38'57		4050 Apr 02 04:28	0° \mathfrak{B}	
retrograde	4049 May 01 15:13	27° \mathfrak{B} 12'29		evening max el	4050 Apr 07 01:33	6° \mathfrak{B} 04'59	18°13'16
evening set	4049 May 03 20:46	26° \mathfrak{B} 55'03		retrograde	4050 Apr 14 00:58	9° \mathfrak{B} 35'11	
inferior conj	4049 May 11 14:27	22° \mathfrak{B} 30'17	1°44'33	evening set	4050 Apr 16 13:03	9° \mathfrak{B} 08'52	
minimum elong	4049 May 11 17:49	22° \mathfrak{B} 23'53	1°43'30	inferior conj	4050 Apr 23 12:31	4° \mathfrak{B} 23'17	2°49'11
min. Earth dist.	4049 May 14 22:49	19° \mathfrak{B} 59'05	0.57629 AU	minimum elong	4050 Apr 23 15:54	4° \mathfrak{B} 15'45	2°48'26
desc. node	4049 May 17 21:42	18° \mathfrak{B} 03'17		min. Earth dist.	4050 Apr 26 21:46	1° \mathfrak{B} 24'35	0.59734 AU
morning rise	4049 May 19 11:41	17° \mathfrak{B} 13'56			4050 Apr 28 16:26	30° \mathfrak{R} \mathfrak{Y}	
direct	4049 May 25 04:15	15° \mathfrak{B} 53'17		morning rise	4050 Apr 30 16:14	28° \mathfrak{Y} 40'03	
morning max el	4049 Jun 08 13:03	23° \mathfrak{B} 28'01	26°31'38	desc. node	4050 May 04 18:44	26° \mathfrak{Y} 59'30	
	4049 Jun 14 10:08	0° \mathfrak{I}		direct	4050 May 07 02:51	26° \mathfrak{Y} 44'18	
	4049 Jul 03 01:23	0° \mathfrak{D}			4050 May 16 00:47	0° \mathfrak{B}	
morning set	4049 Jul 07 15:33	9° \mathfrak{D} 21'27		morning max el	4050 May 21 11:17	4° \mathfrak{B} 34'56	27°30'05
asc. node	4049 Jul 07 21:02	9° \mathfrak{D} 50'27			4050 Jun 09 05:38	0° \mathfrak{I}	
				morning set	4050 Jun 21 23:14	23° \mathfrak{I} 59'49	
superior conj	4049 Jul 14 15:16	24° \mathfrak{D} 33'13	1°05'41	asc. node	4050 Jun 24 18:05	29° \mathfrak{I} 53'42	
					4050 Jun 24 19:15	0° \mathfrak{D}	

max. Earth dist.	4050 Jun 28 10:30	7°♄55'34	1.32030 AU	superior conj	4051 Jun 13 12:53	24°♄09'53	0°19'53
				minimum elong	4051 Jun 13 11:58	24°♄04'54	0°19'42
superior conj	4050 Jun 29 02:54	9°♄25'55	0°44'28		4051 Jun 16 04:54	0°♄	
minimum elong	4050 Jun 29 01:05	9°♄15'55	0°44'06	evening rise	4051 Jun 20 10:06	9°♄07'46	
evening rise	4050 Jul 05 22:33	24°♄18'18			4051 Jul 01 04:14	0°♄	
	4050 Jul 08 16:07	0°♄		evening max el	4051 Jul 15 13:58	19°♄25'34	24°26'08
	4050 Jul 26 08:54	0°♄		desc. node	4051 Jul 18 15:03	22°♄04'38	
desc. node	4050 Jul 31 18:04	6°♄26'43		retrograde	4051 Jul 29 10:48	26°♄25'36	
evening max el	4050 Aug 02 23:26	8°♄41'35	25°52'41	evening set	4051 Aug 03 09:05	25°♄31'16	
retrograde	4050 Aug 16 22:41	15°♄49'10		min. Earth dist.	4051 Aug 09 00:56	22°♄38'29	0.56721 AU
evening set	4050 Aug 23 04:08	14°♄16'44		inferior conj	4051 Aug 11 17:19	20°♄56'17	-5°08'19
min. Earth dist.	4050 Aug 27 11:43	11°♄40'28	0.58604 AU	minimum elong	4051 Aug 11 15:09	20°♄59'46	5°08'12
inferior conj	4050 Aug 30 17:13	9°♄19'42	-5°03'25	morning rise	4051 Aug 19 23:49	16°♄53'39	
minimum elong	4050 Aug 30 20:29	9°♄13'45	5°03'08	direct	4051 Aug 22 15:44	16°♄34'28	
morning rise	4050 Sep 07 15:04	4°♄55'58		morning max el	4051 Sep 01 04:23	21°♄01'09	19°32'33
direct	4050 Sep 10 01:59	4°♄36'22		asc. node	4051 Sep 07 14:21	28°♄54'07	
morning max el	4050 Sep 18 07:02	8°♄31'54	18°37'27		4051 Sep 08 07:35	0°♄	
asc. node	4050 Sep 20 17:17	11°♄09'39		morning set	4051 Sep 18 14:25	18°♄53'40	
	4050 Oct 02 05:03	0°♄			4051 Sep 24 02:44	0°♄	
morning set	4050 Oct 04 12:39	4°♄27'52					
				superior conj	4051 Sep 26 13:56	4°♄53'48	1°41'00
superior conj	4050 Oct 13 06:46	21°♄18'02	1°29'17	minimum elong	4051 Sep 26 15:27	5°♄01'18	1°40'56
minimum elong	4050 Oct 13 09:56	21°♄32'53	1°29'00	max. Earth dist.	4051 Oct 02 17:43	16°♄39'49	1.37725 AU
	4050 Oct 18 00:32	0°♄		evening rise	4051 Oct 06 11:53	23°♄28'08	
max. Earth dist.	4050 Oct 20 13:33	4°♄30'21	1.39809 AU		4051 Oct 10 06:13	0°♄	
evening rise	4050 Oct 24 16:15	11°♄33'44		desc. node	4051 Oct 14 14:24	7°♄11'39	
desc. node	4050 Oct 27 17:22	16°♄36'47			4051 Oct 30 00:04	0°♄	
	4050 Nov 05 05:48	0°♄		evening max el	4051 Nov 11 04:43	14°♄26'10	25°14'10
	4050 Nov 27 22:41	0°♄		retrograde	4051 Nov 23 04:07	21°♄21'19	
evening max el	4050 Nov 28 16:20	0°♄44'40	23°57'57	evening set	4051 Nov 28 23:09	18°♄56'18	
retrograde	4050 Dec 09 15:47	7°♄12'21		min. Earth dist.	4051 Dec 03 10:16	13°♄58'16	0.67325 AU
evening set	4050 Dec 14 21:07	5°♄01'52		inferior conj	4051 Dec 04 12:45	12°♄32'04	-0°00'41
asc. node	4050 Dec 17 16:30	2°♄04'24		minimum elong	4051 Dec 04 12:46	12°♄32'00	0°00'41
	4050 Dec 19 06:58	30°♄		transit middle	4051 Dec 04 12:46	12°♄32'00	0°00'41
min. Earth dist.	4050 Dec 19 15:59	29°♄29'37	0.67847 AU	transit begin	4051 Dec 04 09:59	12°♄41'04	
inferior conj	4050 Dec 20 07:41	28°♄36'23	0°53'08	transit end	4051 Dec 04 15:33	12°♄22'58	
minimum elong	4050 Dec 20 06:27	28°♄40'32	0°52'37	asc. node	4051 Dec 04 13:33	12°♄29'29	
morning rise	4050 Dec 25 15:49	22°♄32'02		morning rise	4051 Dec 10 02:39	6°♄34'45	
direct	4050 Dec 29 15:17	21°♄02'23		direct	4051 Dec 13 13:51	5°♄25'27	
morning max el	4051 Jan 06 16:06	25°♄39'01	20°35'27	morning max el	4051 Dec 20 19:14	9°♄28'59	19°30'14
	4051 Jan 10 13:12	0°♄		greatest brilliancy	4052 Jan 02 23:01	26°♄58'03	-0.7m
desc. node	4051 Jan 23 16:35	18°♄13'08			4052 Jan 04 23:27	0°♄	
	4051 Jan 31 12:18	0°♄		desc. node	4052 Jan 10 13:38	8°♄31'45	
morning set	4051 Feb 04 13:54	6°♄16'05		morning set	4052 Jan 14 11:16	14°♄32'37	
max. Earth dist.	4051 Feb 13 16:15	20°♄39'52	1.43243 AU		4052 Jan 24 09:23	0°♄	
	4051 Feb 19 08:58	0°♄		max. Earth dist.	4052 Jan 27 04:54	4°♄26'13	1.44569 AU
superior conj	4051 Feb 20 04:37	1°♄21'54	-2°07'19	superior conj	4052 Jan 31 04:15	10°♄45'38	-1°53'55
minimum elong	4051 Feb 20 03:23	1°♄16'45	2°07'17	minimum elong	4052 Jan 30 21:03	10°♄16'49	1°53'27
evening rise	4051 Mar 04 09:29	22°♄23'47			4052 Feb 11 22:45	0°♄	
	4051 Mar 08 17:12	0°♄		evening rise	4052 Feb 14 04:23	3°♄44'10	
asc. node	4051 Mar 15 15:50	11°♄33'56		asc. node	4052 Mar 01 12:52	29°♄37'20	
evening max el	4051 Mar 21 13:31	19°♄12'03	18°07'09		4052 Mar 01 20:06	0°♄	
retrograde	4051 Mar 28 01:47	22°♄34'45		evening max el	4052 Mar 04 02:12	2°♄32'29	18°19'56
evening set	4051 Mar 30 19:53	21°♄57'50		retrograde	4052 Mar 10 13:00	6°♄01'04	
inferior conj	4051 Apr 06 04:57	16°♄52'07	3°24'22	evening set	4052 Mar 13 13:00	5°♄12'24	
minimum elong	4051 Apr 06 06:51	16°♄47'16	3°24'08	inferior conj	4052 Mar 19 11:34	29°♄47'52	3°36'24
min. Earth dist.	4051 Apr 09 04:45	13°♄50'35	0.61906 AU	minimum elong	4052 Mar 19 11:44	29°♄47'23	3°36'24
morning rise	4051 Apr 12 16:12	10°♄52'14			4052 Mar 19 07:18	30°♄	
direct	4051 Apr 19 12:13	8°♄25'33		min. Earth dist.	4052 Mar 21 20:58	27°♄05'11	0.63893 AU
desc. node	4051 Apr 21 15:45	8°♄38'59		morning rise	4052 Mar 25 09:36	23°♄39'18	
morning max el	4051 May 03 15:46	16°♄24'17	27°51'52	direct	4052 Apr 01 06:10	20°♄53'25	
	4051 May 14 20:21	0°♄		desc. node	4052 Apr 07 12:47	22°♄48'44	
	4051 Jun 01 20:55	0°♄		morning max el	4052 Apr 15 00:13	28°♄50'56	27°36'27
morning set	4051 Jun 06 02:05	8°♄21'10			4052 Apr 16 03:05	0°♄	
asc. node	4051 Jun 11 15:08	20°♄01'27			4052 May 07 16:45	0°♄	
max. Earth dist.	4051 Jun 11 19:33	20°♄25'20	1.32341 AU	morning set	4052 May 19 21:35	22°♄17'07	

	4052 May 23 16:56	0°♂		desc. node	4053 Mar 25 09:50	8°♂55'37	
max. Earth dist.	4052 May 24 21:49	2°♂30'23	1.33089 AU	morning max el	4053 Mar 28 10:02	11°♂44'51	26°48'54
					4053 Apr 11 23:42	0°♂	
superior conj	4052 May 27 19:19	8°♂38'36	-0°07'21		4053 Apr 30 06:21	0°♂	
minimum elong	4052 May 27 19:41	8°♂40'34	0°07'16	morning set	4053 May 03 06:34	5°♂38'23	
behind sun begin	4052 May 27 14:52	8°♂14'49		max. Earth dist.	4053 May 07 13:58	14°♂04'13	1.34304 AU
behind sun end	4052 May 28 00:30	9°♂06'20					
asc. node	4052 May 28 12:10	10°♂08'55		superior conj	4053 May 11 20:06	22°♂46'02	-0°36'11
evening rise	4052 Jun 03 21:44	23°♂53'02		minimum elong	4053 May 11 22:00	22°♂55'59	0°35'48
	4052 Jun 06 20:23	0°♂		asc. node	4053 May 15 09:11	0°♂12'21	
evening max el	4052 Jun 26 03:20	29°♂49'38	22°49'17		4053 May 15 06:51	0°♂	
	4052 Jun 26 07:38	0°♂		evening rise	4053 May 19 07:35	8°♂28'30	
desc. node	4052 Jul 04 12:02	5°♂31'12			4053 May 30 19:31	0°♂	
retrograde	4052 Jul 09 10:18	6°♂26'45		evening max el	4053 Jun 07 23:22	10°♂26'15	21°17'10
evening set	4052 Jul 12 19:58	6°♂01'23		retrograde	4053 Jun 19 23:46	16°♂20'34	
min. Earth dist.	4052 Jul 20 11:48	2°♂38'01	0.55358 AU	desc. node	4053 Jun 21 09:03	16°♂16'04	
inferior conj	4052 Jul 21 22:27	1°♂48'15	-4°27'12	evening set	4053 Jun 22 07:20	16°♂08'12	
minimum elong	4052 Jul 21 14:50	1°♂59'13	4°25'38	inferior conj	4053 Jul 01 16:22	12°♂09'31	-2°56'43
	4052 Jul 25 04:40	30°♂		minimum elong	4053 Jul 01 08:37	12°♂20'23	2°54'13
morning rise	4052 Jul 30 11:54	27°♂57'06		min. Earth dist.	4053 Jul 01 22:45	12°♂00'35	0.54827 AU
direct	4052 Aug 02 11:12	27°♂36'29		morning rise	4053 Jul 10 10:25	8°♂12'58	
	4052 Aug 10 00:52	0°♂		direct	4053 Jul 13 20:57	7°♂47'24	
morning max el	4052 Aug 13 13:59	2°♂46'29	20°49'04	morning max el	4053 Jul 26 12:14	13°♂46'59	22°23'31
asc. node	4052 Aug 24 11:24	17°♂23'56			4053 Aug 07 17:59	0°♂	
	4052 Aug 31 03:23	0°♂		asc. node	4053 Aug 11 08:27	6°♂27'36	
morning set	4052 Sep 01 21:32	3°♂35'09		morning set	4053 Aug 17 07:49	18°♂25'39	
					4053 Aug 22 18:25	0°♂	
superior conj	4052 Sep 09 08:36	19°♂03'49	1°44'16				
minimum elong	4052 Sep 09 08:32	19°♂03'27	1°44'16	superior conj	4053 Aug 24 11:11	3°♂36'43	1°40'29
max. Earth dist.	4052 Sep 14 01:53	28°♂32'20	1.35823 AU	minimum elong	4053 Aug 24 09:53	3°♂29'50	1°40'25
	4052 Sep 14 19:51	0°♂		max. Earth dist.	4053 Aug 27 18:18	10°♂30'35	1.34260 AU
evening rise	4052 Sep 18 03:20	6°♂18'24		evening rise	4053 Sep 01 10:07	19°♂51'53	
desc. node	4052 Sep 30 11:24	27°♂33'40			4053 Sep 06 19:34	0°♂	
	4052 Oct 02 00:41	0°♂		desc. node	4053 Sep 17 08:23	17°♂36'03	
evening max el	4052 Oct 23 17:15	28°♂08'28	26°19'13		4053 Sep 26 01:00	0°♂	
	4052 Oct 25 17:45	0°♂		evening max el	4053 Oct 06 05:55	11°♂42'31	27°05'33
retrograde	4052 Nov 05 11:23	5°♂19'38		retrograde	4053 Oct 19 12:52	18°♂59'40	
evening set	4052 Nov 11 19:51	2°♂43'35		evening set	4053 Oct 26 08:59	16°♂18'26	
	4052 Nov 14 14:05	30°♂		min. Earth dist.	4053 Oct 30 06:39	12°♂31'31	0.65251 AU
min. Earth dist.	4052 Nov 15 23:59	28°♂20'52	0.66461 AU	inferior conj	4053 Nov 01 08:19	10°♂11'35	-1°59'53
inferior conj	4052 Nov 17 13:42	26°♂25'32	-0°58'52	minimum elong	4053 Nov 01 11:42	10°♂02'03	1°58'31
minimum elong	4052 Nov 17 15:18	26°♂20'38	0°58'11	asc. node	4053 Nov 07 07:38	4°♂46'28	
asc. node	4052 Nov 20 10:35	23°♂06'48		morning rise	4053 Nov 07 15:20	4°♂36'43	
morning rise	4052 Nov 23 11:17	20°♂37'52		direct	4053 Nov 10 08:18	3°♂57'18	
direct	4052 Nov 26 12:15	19°♂45'25		morning max el	4053 Nov 16 20:03	7°♂26'01	18°07'21
morning max el	4052 Dec 03 05:19	23°♂26'38	18°40'31		4053 Dec 02 05:44	0°♂	
	4052 Dec 08 14:34	0°♂		morning set	4053 Dec 05 02:32	4°♂43'25	
morning set	4052 Dec 24 04:12	23°♂53'48		desc. node	4053 Dec 14 07:40	19°♂44'11	
desc. node	4052 Dec 27 10:40	29°♂03'42					
	4052 Dec 28 00:56	0°♂		superior conj	4053 Dec 19 14:22	28°♂09'39	-0°35'41
				minimum elong	4053 Dec 19 09:53	27°♂51'54	0°35'03
superior conj	4053 Jan 09 09:23	19°♂24'37	-1°21'14		4053 Dec 20 18:15	0°♂	
minimum elong	4053 Jan 09 00:20	18°♂49'06	1°20'14	max. Earth dist.	4053 Dec 22 18:08	3°♂08'42	1.45128 AU
max. Earth dist.	4053 Jan 08 22:32	18°♂42'04	1.45221 AU	evening rise	4054 Jan 04 22:22	23°♂41'20	
	4053 Jan 16 02:55	0°♂			4054 Jan 09 00:14	0°♂	
evening rise	4053 Jan 25 00:10	14°♂07'29		greatest brilliancy	4054 Jan 17 20:19	13°♂30'41	-0.7m
greatest brilliancy	4053 Feb 01 20:26	26°♂40'34	-0.9m	evening max el	4054 Jan 29 19:58	29°♂32'05	19°38'16
	4053 Feb 03 22:55	0°♂			4054 Jan 30 07:04	0°♂	
evening max el	4053 Feb 15 13:04	16°♂00'48	18°50'45	asc. node	4054 Feb 03 06:54	3°♂02'00	
asc. node	4053 Feb 16 09:52	16°♂51'22		retrograde	4054 Feb 06 04:02	3°♂46'25	
retrograde	4053 Feb 22 06:48	19°♂47'05		evening set	4054 Feb 09 17:55	2°♂31'23	
evening set	4053 Feb 25 13:13	18°♂45'44			4054 Feb 12 11:06	30°♂	
inferior conj	4053 Mar 03 04:37	13°♂03'53	3°31'04	inferior conj	4054 Feb 15 04:52	26°♂34'21	3°12'33
minimum elong	4053 Mar 03 03:23	13°♂07'43	3°30'57	minimum elong	4054 Feb 15 02:45	26°♂41'20	3°12'11
min. Earth dist.	4053 Mar 04 22:21	10°♂54'41	0.65531 AU	min. Earth dist.	4054 Feb 16 07:45	25°♂05'42	0.66747 AU
morning rise	4053 Mar 08 17:08	6°♂51'22		morning rise	4054 Feb 20 11:21	20°♂20'30	
direct	4053 Mar 15 07:05	4°♂00'37		direct	4054 Feb 26 13:49	17°♂37'21	

morning max el	4054 Mar 10 19:22	24°  54'45	25°37'36	morning rise	4055 Feb 04 13:19	4°  01'49	
desc. node	4054 Mar 12 06:52	26°  27'17		direct	4055 Feb 10 01:45	1°  35'03	
	4054 Mar 15 10:03	0°  ✠		morning max el	4055 Feb 21 04:01	8°  12'28	24°12'19
	4054 Apr 05 10:58	0°  ☿		desc. node	4055 Feb 27 03:54	14°  59'21	
morning set	4054 Apr 16 00:49	18°  ☿13'12			4055 Mar 10 05:56	0°  ✠	
max. Earth dist.	4054 Apr 19 19:02	25°  ☿13'12	1.35968 AU	morning set	4055 Mar 28 22:42	29°  ✠45'27	
	4054 Apr 22 06:40	0°  ♄			4055 Mar 29 02:03	0°  ☿	
				max. Earth dist.	4055 Apr 01 15:49	6°  ☿18'43	1.37992 AU
superior conj	4054 Apr 25 12:34	6°  ♄24'56	-1°05'13				
minimum elong	4054 Apr 25 16:04	6°  ♄42'25	1°04'37	superior conj	4055 Apr 08 17:18	19°  ☿25'19	-1°32'19
asc. node	4054 May 02 06:13	20°  ♄07'57		minimum elong	4055 Apr 08 21:55	19°  ☿47'26	1°31'43
evening rise	4054 May 03 13:35	22°  ♄48'01			4055 Apr 14 03:34	0°  ♄	
	4054 May 07 03:59	0°  ♄		evening rise	4055 Apr 17 13:09	6°  ♄43'18	
evening max el	4054 May 21 07:03	21°  ♄38'57	20°00'13	asc. node	4055 Apr 19 03:15	9°  ♄50'23	
retrograde	4054 May 31 14:45	26°  ♄40'49			4055 Apr 30 23:34	0°  ♄	
evening set	4054 Jun 02 13:37	26°  ♄30'47		evening max el	4055 May 04 02:32	3°  ♄32'39	19°02'46
desc. node	4054 Jun 08 06:04	24°  ♄24'50		retrograde	4055 May 12 19:09	7°  ♄47'07	
inferior conj	4054 Jun 11 13:18	22°  ♄30'44	-0°58'45	evening set	4055 May 14 20:48	7°  ♄33'42	
minimum elong	4054 Jun 11 10:34	22°  ♄34'52	0°57'44	inferior conj	4055 May 23 02:00	3°  ♄19'53	0°52'38
min. Earth dist.	4054 Jun 13 11:18	21°  ♄21'31	0.55260 AU	minimum elong	4055 May 23 04:03	3°  ♄16'20	0°51'55
morning rise	4054 Jun 20 05:44	18°  ♄09'12		min. Earth dist.	4055 May 26 02:45	1°  ♄14'29	0.56572 AU
direct	4054 Jun 24 09:46	17°  ♄31'18		desc. node	4055 May 26 03:06	1°  ♄13'54	
morning max el	4054 Jul 08 03:29	24°  ♄17'19	24°06'44		4055 May 28 01:57	30°  ♄	
	4054 Jul 13 08:58	0°  ♄		morning rise	4055 May 31 08:06	28°  ♄22'34	
asc. node	4054 Jul 29 05:29	25°  ♄56'35		direct	4055 Jun 05 11:09	27°  ♄20'36	
	4054 Jul 31 05:17	0°  ♄			4055 Jun 13 19:42	0°  ♄	
morning set	4054 Aug 01 19:32	3°  ♄20'08		morning max el	4055 Jun 19 17:55	4°  ♄42'07	25°44'20
					4055 Jul 07 23:52	0°  ♄	
superior conj	4054 Aug 08 18:59	18°  ♄24'29	1°30'50	asc. node	4055 Jul 16 02:31	15°  ♄43'08	
minimum elong	4054 Aug 08 16:55	18°  ♄13'18	1°30'36	morning set	4055 Jul 17 06:59	18°  ♄12'28	
max. Earth dist.	4054 Aug 10 19:36	22°  ♄46'35	1.33102 AU		4055 Jul 22 17:32	0°  ♄	
	4054 Aug 14 05:47	0°  ♄					
evening rise	4054 Aug 16 04:16	3°  ♄57'55		superior conj	4055 Jul 24 05:44	3°  ♄19'03	1°16'08
	4054 Aug 30 13:02	0°  ♄		minimum elong	4055 Jul 24 03:24	3°  ♄06'12	1°15'47
desc. node	4054 Sep 04 05:25	7°  ♄10'25		max. Earth dist.	4055 Jul 25 03:29	5°  ♄18'25	1.32362 AU
evening max el	4054 Sep 18 17:15	24°  ♄56'19	27°26'10	evening rise	4055 Jul 31 06:25	18°  ♄26'00	
	4054 Sep 25 05:13	0°  ♄			4055 Aug 06 01:58	0°  ♄	
retrograde	4054 Oct 02 08:13	2°  ♄13'17		desc. node	4055 Aug 22 02:27	26°  ♄04'31	
	4054 Oct 08 22:01	30°  ♄			4055 Aug 25 02:59	0°  ♄	
evening set	4054 Oct 09 11:47	29°  ♄35'47		evening max el	4055 Sep 01 00:54	7°  ♄36'17	27°15'46
min. Earth dist.	4054 Oct 13 04:10	26°  ♄22'16	0.63695 AU	retrograde	4055 Sep 14 20:55	14°  ♄50'29	
inferior conj	4054 Oct 15 18:07	23°  ♄44'36	-3°01'14	evening set	4055 Sep 22 00:35	12°  ♄28'42	
minimum elong	4054 Oct 15 23:09	23°  ♄31'44	2°59'29	min. Earth dist.	4055 Sep 25 15:18	9°  ♄41'04	0.61829 AU
morning rise	4054 Oct 22 11:52	18°  ♄25'57		inferior conj	4055 Sep 28 16:00	6°  ♄56'47	-3°58'51
direct	4054 Oct 24 23:18	17°  ♄55'58		minimum elong	4055 Sep 28 21:58	6°  ♄43'16	3°57'16
asc. node	4054 Oct 25 04:41	17°  ♄56'13		morning rise	4055 Oct 05 01:08	1°  ♄57'38	
morning max el	4054 Oct 31 12:43	21°  ♄21'02	17°51'29	direct	4055 Oct 08 05:45	1°  ♄33'50	
	4054 Nov 07 02:58	0°  ♄		asc. node	4055 Oct 12 01:44	2°  ♄38'57	
morning set	4054 Nov 17 03:29	16°  ♄50'23		morning max el	4055 Oct 15 04:11	5°  ♄03'46	17°53'50
	4054 Nov 24 20:21	0°  ♄		morning set	4055 Oct 31 00:41	29°  ♄55'01	
					4055 Oct 31 01:47	0°  ♄	
superior conj	4054 Nov 29 14:29	7°  ♄53'53	0°11'02				
minimum elong	4054 Nov 29 15:40	7°  ♄58'45	0°10'52	superior conj	4055 Nov 10 17:19	18°  ♄56'40	0°50'01
behind sun begin	4054 Nov 29 08:24	7°  ♄28'54		minimum elong	4055 Nov 10 21:14	19°  ♄13'32	0°49'29
behind sun end	4054 Nov 29 22:57	8°  ♄28'33			4055 Nov 17 06:50	0°  ♄	
desc. node	4054 Dec 01 04:42	10°  ♄29'57		max. Earth dist.	4055 Nov 18 02:13	1°  ♄19'32	1.42868 AU
max. Earth dist.	4054 Dec 05 12:21	17°  ♄27'22	1.44309 AU	desc. node	4055 Nov 18 01:45	1°  ♄17'39	
	4054 Dec 13 12:05	0°  ♄		evening rise	4055 Nov 24 22:24	12°  ♄17'11	
evening rise	4054 Dec 15 08:32	2°  ♄51'30			4055 Dec 06 14:01	0°  ♄	
	4055 Jan 02 13:44	0°  ♄		evening max el	4055 Dec 26 17:43	26°  ♄38'11	21°53'01
evening max el	4055 Jan 12 21:35	13°  ♄04'22	20°40'09		4055 Dec 30 13:22	0°  ♄	
retrograde	4055 Jan 21 02:14	17°  ♄54'29		retrograde	4056 Jan 04 23:24	2°  ♄07'57	
asc. node	4055 Jan 21 03:56	17°  ♄54'27		asc. node	4056 Jan 08 00:58	1°  ♄17'23	
evening set	4055 Jan 25 01:01	16°  ♄24'54		evening set	4056 Jan 09 08:46	0°  ♄22'54	
inferior conj	4055 Jan 30 09:44	10°  ♄15'19	2°43'40		4056 Jan 09 19:34	30°  ♄	
minimum elong	4055 Jan 30 07:15	10°  ♄23'47	2°43'01	inferior conj	4056 Jan 14 17:03	24°  ♄04'09	2°06'17
min. Earth dist.	4055 Jan 30 23:16	9°  ♄28'54	0.67545 AU	minimum elong	4056 Jan 14 14:42	24°  ♄12'17	2°05'30

min. Earth dist.	4056 Jan 14 18:40	23° ♁ 58'30	0.67949 AU	direct	4057 Jan 07 13:58	0° ♁ 07'12	
morning rise	4056 Jan 19 20:29	17° ♁ 52'38		morning max el	4057 Jan 16 04:55	5° ♁ 07'54	21°19'04
direct	4056 Jan 24 18:08	15° ♁ 47'05		desc. node	4057 Jan 30 22:00	24° ♁ 01'14	
morning max el	4056 Feb 03 14:01	21° ♁ 35'59	22°43'13		4057 Feb 04 00:18	0° ♁	
	4056 Feb 10 19:32	0° ♁		morning set	4057 Feb 16 09:04	18° ♁ 54'15	
desc. node	4056 Feb 14 00:57	4° ♁ 14'51			4057 Feb 23 06:40	0° ♁	
	4056 Mar 02 13:03	0° ♁		max. Earth dist.	4057 Feb 23 12:22	0° ♁ 23'26	1.42234 AU
morning set	4056 Mar 08 18:14	10° ♁ 00'14					
max. Earth dist.	4056 Mar 13 11:15	17° ♁ 54'07	1.40175 AU	superior conj	4057 Mar 02 21:37	12° ♁ 48'24	-2°06'39
	4056 Mar 20 08:33	0° ♁		minimum elong	4057 Mar 02 23:20	12° ♁ 55'48	2°06'36
					4057 Mar 12 14:40	0° ♁	
superior conj	4056 Mar 21 06:00	1° ♁ 37'06	-1°54'17	evening rise	4057 Mar 14 03:51	2° ♁ 48'25	
minimum elong	4056 Mar 21 10:25	1° ♁ 57'14	1°53'55	asc. node	4057 Mar 22 21:19	18° ♁ 13'55	
evening rise	4056 Mar 31 03:12	20° ♁ 06'28		evening max el	4057 Mar 30 17:27	28° ♁ 58'34	18°08'19
asc. node	4056 Apr 05 00:18	29° ♁ 14'35			4057 Mar 31 20:25	0° ♁	
	4056 Apr 05 10:17	0° ♁		retrograde	4057 Apr 06 10:39	2° ♁ 23'22	
evening max el	4056 Apr 16 07:10	16° ♁ 02'20	18°25'36	evening set	4057 Apr 09 01:27	1° ♁ 52'38	
retrograde	4056 Apr 23 18:10	19° ♁ 43'44			4057 Apr 12 06:51	30° ♁	
evening set	4056 Apr 26 02:25	19° ♁ 22'55		inferior conj	4057 Apr 15 18:19	26° ♁ 58'34	3°07'18
inferior conj	4056 May 03 12:00	14° ♁ 49'41	2°15'52	minimum elong	4057 Apr 15 21:10	26° ♁ 51'50	3°06'48
minimum elong	4056 May 03 15:41	14° ♁ 42'13	2°14'51	min. Earth dist.	4057 Apr 19 00:37	23° ♁ 55'37	0.60675 AU
min. Earth dist.	4056 May 06 22:34	12° ♁ 03'29	0.58496 AU	morning rise	4057 Apr 22 14:46	21° ♁ 07'22	
morning rise	4056 May 11 01:51	9° ♁ 20'22		desc. node	4057 Apr 28 21:10	18° ♁ 57'36	
desc. node	4056 May 12 00:08	8° ♁ 53'30		direct	4057 Apr 29 06:48	18° ♁ 57'09	
direct	4056 May 17 03:03	7° ♁ 44'33		morning max el	4057 May 13 13:16	26° ♁ 51'56	27°43'54
morning max el	4056 May 31 12:28	15° ♁ 28'01	27°00'32		4057 May 16 12:24	0° ♁	
	4056 Jun 12 07:08	0° ♁			4057 Jun 05 21:16	0° ♁	
	4056 Jun 29 06:24	0° ♁		morning set	4057 Jun 14 22:25	17° ♁ 29'23	
morning set	4056 Jun 30 16:32	2° ♁ 57'26		asc. node	4057 Jun 18 20:38	25° ♁ 47'33	
asc. node	4056 Jul 01 23:35	5° ♁ 41'44			4057 Jun 20 19:07	0° ♁	
				max. Earth dist.	4057 Jun 21 01:45	0° ♁ 36'20	1.32110 AU
superior conj	4056 Jul 07 17:34	18° ♁ 14'15	0°57'08				
minimum elong	4056 Jul 07 15:26	18° ♁ 02'27	0°56'44	superior conj	4057 Jun 22 04:44	3° ♁ 04'16	0°34'25
max. Earth dist.	4056 Jul 07 14:44	17° ♁ 58'38	1.32033 AU	minimum elong	4057 Jun 22 03:15	2° ♁ 56'07	0°34'07
	4056 Jul 13 02:35	0° ♁		evening rise	4057 Jun 29 00:35	17° ♁ 57'21	
evening rise	4056 Jul 14 13:55	3° ♁ 08'10			4057 Jul 04 22:32	0° ♁	
	4056 Jul 28 23:04	0° ♁			4057 Jul 25 04:06	0° ♁	
desc. node	4056 Aug 07 23:27	14° ♁ 01'55		desc. node	4057 Jul 25 20:27	0° ♁ 39'53	
evening max el	4056 Aug 13 02:34	19° ♁ 32'15	26°32'00	evening max el	4057 Jul 25 20:58	0° ♁ 41'07	25°18'17
retrograde	4056 Aug 27 01:37	26° ♁ 42'29		retrograde	4057 Aug 08 20:06	7° ♁ 45'54	
evening set	4056 Sep 02 18:41	24° ♁ 49'29		evening set	4057 Aug 14 13:34	6° ♁ 30'15	
min. Earth dist.	4056 Sep 06 16:12	22° ♁ 13'55	0.59779 AU	min. Earth dist.	4057 Aug 19 08:45	3° ♁ 48'55	0.57758 AU
inferior conj	4056 Sep 09 22:32	19° ♁ 39'12	-4°45'42	inferior conj	4057 Aug 22 10:26	1° ♁ 42'47	-5°10'18
minimum elong	4056 Sep 10 03:36	19° ♁ 29'09	4°44'53	minimum elong	4057 Aug 22 11:40	1° ♁ 40'38	5°10'16
morning rise	4056 Sep 17 14:37	15° ♁ 02'00			4057 Aug 25 00:18	30° ♁	
direct	4056 Sep 19 23:38	14° ♁ 41'35		morning rise	4057 Aug 30 12:06	27° ♁ 28'13	
morning max el	4056 Sep 27 15:09	18° ♁ 25'19	18°15'35	direct	4057 Sep 02 00:52	27° ♁ 08'55	
asc. node	4056 Sep 27 22:47	18° ♁ 44'06			4057 Sep 09 07:01	0° ♁	
	4056 Oct 06 00:51	0° ♁		morning max el	4057 Sep 10 18:17	1° ♁ 16'32	18°58'10
morning set	4056 Oct 13 12:15	13° ♁ 40'24		asc. node	4057 Sep 14 19:51	5° ♁ 57'00	
	4056 Oct 22 05:11	0° ♁		morning set	4057 Sep 27 09:52	27° ♁ 54'48	
					4057 Sep 28 11:14	0° ♁	
superior conj	4056 Oct 22 20:37	1° ♁ 10'23	1°18'04				
minimum elong	4056 Oct 23 00:30	1° ♁ 28'03	1°17'39	superior conj	4057 Oct 05 19:10	14° ♁ 20'54	1°35'23
max. Earth dist.	4056 Oct 30 10:50	14° ♁ 32'42	1.40991 AU	minimum elong	4057 Oct 05 21:40	14° ♁ 32'53	1°35'12
desc. node	4056 Nov 03 22:47	22° ♁ 03'22		max. Earth dist.	4057 Oct 12 15:59	27° ♁ 05'07	1.38916 AU
evening rise	4056 Nov 04 05:52	22° ♁ 32'22			4057 Oct 14 07:22	0° ♁	
	4056 Nov 08 21:33	0° ♁		evening rise	4057 Oct 16 12:35	3° ♁ 51'30	
	4056 Nov 29 15:21	0° ♁		desc. node	4057 Oct 21 19:48	12° ♁ 43'45	
evening max el	4056 Dec 08 09:26	10° ♁ 14'47	23°12'08		4057 Nov 02 01:03	0° ♁	
retrograde	4056 Dec 18 17:56	16° ♁ 22'43		evening max el	4057 Nov 20 22:38	23° ♁ 55'24	24°31'18
evening set	4056 Dec 23 15:32	14° ♁ 21'41			4057 Nov 29 08:05	0° ♁	
asc. node	4056 Dec 24 22:01	13° ♁ 09'52		retrograde	4057 Dec 02 08:37	0° ♁ 35'19	
min. Earth dist.	4056 Dec 28 15:28	8° ♁ 30'00	0.67985 AU		4057 Dec 05 04:23	30° ♁	
inferior conj	4056 Dec 29 00:53	7° ♁ 57'35	1°21'41	evening set	4057 Dec 07 19:46	28° ♁ 18'33	
minimum elong	4056 Dec 28 23:08	8° ♁ 03'37	1°21'00	asc. node	4057 Dec 11 19:03	23° ♁ 54'14	
morning rise	4057 Jan 03 06:38	1° ♁ 49'54		min. Earth dist.	4057 Dec 12 11:18	23° ♁ 00'42	0.67672 AU

inferior conj	4057 Dec 13 07:30	21°♊53'17	0°30'57	minimum elong	4058 Nov 27 11:40	5°♊45'54	0°24'37
minimum elong	4057 Dec 13 06:45	21°♊55'47	0°30'38	asc. node	4058 Nov 28 16:05	4°♊16'56	
morning rise	4057 Dec 18 17:49	15°♊51'36		morning rise	4058 Dec 03 03:59	29°♌54'41	
direct	4057 Dec 22 11:57	14°♊30'45			4058 Dec 03 00:39	30°♌	
morning max el	4057 Dec 30 03:26	18°♊51'32	20°05'55	direct	4058 Dec 06 10:37	28°♌52'58	
	4058 Jan 08 02:40	0°♋			4058 Dec 10 00:25	0°♊	
desc. node	4058 Jan 17 19:02	14°♋10'04		morning max el	4058 Dec 13 09:47	2°♊45'18	19°07'10
morning set	4058 Jan 26 05:59	27°♋04'06			4059 Jan 01 17:19	0°♋	
	4058 Jan 28 03:26	0°♌		desc. node	4059 Jan 04 16:05	4°♋34'52	
max. Earth dist.	4058 Feb 05 21:40	13°♌47'34	1.43891 AU	morning set	4059 Jan 05 09:21	5°♋42'02	
				max. Earth dist.	4059 Jan 19 13:14	27°♋50'16	1.44934 AU
superior conj	4058 Feb 11 11:55	22°♌50'37	-2°04'02		4059 Jan 20 22:09	0°♌	
minimum elong	4058 Feb 11 08:05	22°♌34'53	2°03'54				
	4058 Feb 15 19:44	0°♍		superior conj	4059 Jan 22 02:01	1°♌50'08	-1°42'14
evening rise	4058 Feb 24 10:49	14°♍40'50		minimum elong	4059 Jan 21 17:11	1°♌15'11	1°41'28
	4058 Mar 05 10:35	0°♎		evening rise	4059 Feb 05 20:06	25°♌37'19	
asc. node	4058 Mar 09 18:21	6°♎40'33			4059 Feb 08 12:02	0°♍	
evening max el	4058 Mar 14 06:05	12°♎12'21	18°10'17	asc. node	4059 Feb 24 15:22	24°♍24'41	
retrograde	4058 Mar 20 16:26	15°♎35'45		evening max el	4059 Feb 25 18:14	25°♍36'46	18°30'51
evening set	4058 Mar 23 13:08	14°♎53'46		retrograde	4059 Mar 04 07:03	29°♍11'47	
inferior conj	4058 Mar 29 17:16	9°♎39'38	3°31'53	evening set	4059 Mar 07 09:41	28°♍17'47	
minimum elong	4058 Mar 29 18:25	9°♎36'33	3°31'49	inferior conj	4059 Mar 13 04:47	22°♍45'21	3°35'58
min. Earth dist.	4058 Apr 01 11:11	6°♎44'13	0.62793 AU	minimum elong	4059 Mar 13 04:18	22°♍46'48	3°35'58
morning rise	4058 Apr 04 22:29	3°♎35'32		min. Earth dist.	4059 Mar 15 07:24	20°♍15'47	0.64632 AU
direct	4058 Apr 11 19:47	0°♎59'17		morning rise	4059 Mar 18 22:18	16°♍34'32	
desc. node	4058 Apr 15 18:12	1°♎44'32		direct	4059 Mar 25 16:37	13°♍45'13	
morning max el	4058 Apr 25 19:38	8°♎57'43	27°49'41	desc. node	4059 Apr 02 15:14	16°♍48'44	
	4058 May 12 02:17	0°♏		morning max el	4059 Apr 08 05:15	21°♍38'40	27°19'51
	4058 May 29 02:22	0°♐			4059 Apr 15 12:12	0°♎	
morning set	4058 May 29 22:27	1°♐40'45			4059 May 05 06:17	0°♏	
max. Earth dist.	4058 Jun 04 08:32	12°♐57'41	1.32609 AU	morning set	4059 May 13 13:58	15°♏23'49	
asc. node	4058 Jun 05 17:39	15°♐55'31		max. Earth dist.	4059 May 18 07:11	24°♏51'50	1.33551 AU
					4059 May 20 18:24	0°♐	
superior conj	4058 Jun 06 13:25	17°♐42'25	0°08'38				
minimum elong	4058 Jun 06 13:00	17°♐40'11	0°08'33	superior conj	4059 May 21 17:45	2°♐03'08	-0°19'26
behind sun begin	4058 Jun 06 08:34	17°♐16'08		minimum elong	4059 May 21 18:45	2°♐08'25	0°19'13
behind sun end	4058 Jun 06 17:27	18°♐04'15		asc. node	4059 May 23 14:40	6°♐01'58	
	4058 Jun 12 05:20	0°♑		evening rise	4059 May 28 23:33	17°♐28'23	
evening rise	4058 Jun 13 12:24	2°♑46'02			4059 Jun 04 05:01	0°♑	
	4058 Jun 28 07:34	0°♒		evening max el	4059 Jun 19 01:12	21°♑37'49	22°08'40
evening max el	4058 Jul 07 10:07	11°♒12'50	23°45'15	desc. node	4059 Jun 29 14:27	27°♑47'32	
desc. node	4058 Jul 12 17:27	15°♒26'40		retrograde	4059 Jul 01 21:08	27°♑59'35	
retrograde	4058 Jul 21 02:23	18°♒05'03		evening set	4059 Jul 04 17:44	27°♑41'25	
evening set	4058 Jul 25 09:14	17°♒24'41		min. Earth dist.	4059 Jul 13 06:42	24°♑01'05	0.55021 AU
min. Earth dist.	4058 Jul 31 20:14	14°♒20'42	0.56061 AU	inferior conj	4059 Jul 14 00:54	23°♑35'28	-3°54'08
inferior conj	4058 Aug 03 01:59	12°♒59'39	-4°57'10	minimum elong	4059 Jul 13 16:23	23°♑47'27	3°51'56
minimum elong	4058 Aug 02 21:10	13°♒06'57	4°56'36	morning rise	4059 Jul 22 16:50	19°♑44'50	
morning rise	4058 Aug 11 11:38	9°♒03'41		direct	4059 Jul 25 20:09	19°♑22'53	
direct	4058 Aug 14 06:39	8°♒44'02		morning max el	4059 Aug 06 15:18	24°♑53'15	21°27'28
morning max el	4058 Aug 24 10:41	13°♒27'19	20°02'35		4059 Aug 11 07:02	0°♒	
asc. node	4058 Sep 01 16:54	24°♒02'04		asc. node	4059 Aug 19 13:56	12°♒47'13	
	4058 Sep 05 04:21	0°♓		morning set	4059 Aug 26 22:54	27°♒14'04	
morning set	4058 Sep 11 14:12	12°♓28'15			4059 Aug 28 06:42	0°♓	
superior conj	4058 Sep 19 07:43	28°♓12'36	1°43'20	superior conj	4059 Sep 03 06:10	12°♓33'34	1°43'27
minimum elong	4058 Sep 19 08:32	28°♓16'42	1°43'18	minimum elong	4059 Sep 03 05:31	12°♓30'13	1°43'26
	4058 Sep 20 05:14	0°♔		max. Earth dist.	4059 Sep 07 08:43	20°♓57'23	1.35110 AU
max. Earth dist.	4058 Sep 24 21:32	9°♔05'49	1.36885 AU	evening rise	4059 Sep 11 15:37	29°♓20'10	
evening rise	4058 Sep 28 17:08	16°♔10'35			4059 Sep 12 00:00	0°♔	
	4058 Oct 06 17:09	0°♕		desc. node	4059 Sep 25 13:48	23°♔27'54	
desc. node	4058 Oct 08 16:49	3°♕13'42			4059 Sep 29 21:02	0°♕	
	4058 Oct 27 13:09	0°♖		evening max el	4059 Oct 16 23:23	21°♕16'24	26°41'33
evening max el	4058 Nov 03 10:58	7°♖37'36	25°43'35	retrograde	4059 Oct 29 23:40	28°♕31'44	
retrograde	4058 Nov 15 18:43	14°♖40'25		evening set	4059 Nov 05 13:31	25°♕52'13	
evening set	4058 Nov 21 19:44	12°♖09'58		min. Earth dist.	4059 Nov 09 14:41	21°♕45'03	0.65988 AU
min. Earth dist.	4058 Nov 26 03:47	7°♖27'06	0.67005 AU	inferior conj	4059 Nov 11 09:32	19°♕38'14	-1°24'34
inferior conj	4058 Nov 27 11:01	5°♖47'58	-0°24'54	minimum elong	4059 Nov 11 11:52	19°♕31'18	1°23'34

asc. node	4059 Nov 15 13:08	15° \mathbb{M} 14'59		min. Earth dist.	4060 Oct 22 17:51	5° \mathbb{M} 48'31	0.64622 AU
morning rise	4059 Nov 17 10:58	13° \mathbb{M} 55'55		inferior conj	4060 Oct 25 00:46	3° \mathbb{M} 19'49	-2°26'05
direct	4059 Nov 20 08:10	13° \mathbb{M} 09'37		minimum elong	4060 Oct 25 04:54	3° \mathbb{M} 08'38	2°24'30
morning max el	4059 Nov 26 22:14	16° \mathbb{M} 44'27	18°24'22		4060 Oct 28 08:07	30° \mathbb{R} $\underline{\mathfrak{A}}$	
	4059 Dec 06 18:32	0° \mathbb{Z}		morning rise	4060 Oct 31 12:15	27° $\underline{\mathfrak{A}}$ 51'26	
morning set	4059 Dec 16 14:26	15° \mathbb{Z} 39'47		asc. node	4060 Nov 01 10:12	27° $\underline{\mathfrak{A}}$ 31'16	
desc. node	4059 Dec 22 13:06	25° \mathbb{Z} 10'34		direct	4060 Nov 03 02:25	27° $\underline{\mathfrak{A}}$ 16'36	
	4059 Dec 25 14:00	0° \mathbb{Z}			4060 Nov 08 20:04	0° \mathbb{M}	
superior conj	4060 Jan 01 04:21	10° \mathbb{Z} 23'55	-1°02'49	morning max el	4060 Nov 09 14:12	0° \mathbb{M} 43'06	17°58'25
minimum elong	4059 Dec 31 20:41	9° \mathbb{Z} 53'48	1°01'51	morning set	4060 Nov 27 00:53	27° \mathbb{M} 04'44	
max. Earth dist.	4060 Jan 02 07:49	12° \mathbb{Z} 11'37	1.45264 AU		4060 Nov 28 18:40	0° \mathbb{Z}	
	4060 Jan 13 16:22	0° \mathbb{Z}		desc. node	4060 Dec 08 10:07	15° \mathbb{Z} 53'41	
evening rise	4060 Jan 17 06:05	5° \mathbb{Z} 37'11		superior conj	4060 Dec 10 15:48	19° \mathbb{Z} 29'56	-0°15'22
greatest brilliancy	4060 Jan 27 12:12	21° \mathbb{Z} 43'07	-0.8m	minimum elong	4060 Dec 10 13:57	19° \mathbb{Z} 22'28	0°15'06
	4060 Feb 02 00:09	0° \mathbb{H}		behind sun begin	4060 Dec 10 10:12	19° \mathbb{Z} 07'25	
evening max el	4060 Feb 09 03:33	9° \mathbb{H} 06'04	19°09'03	behind sun end	4060 Dec 10 17:42	19° \mathbb{Z} 37'31	
asc. node	4060 Feb 11 12:24	11° \mathbb{H} 13'19		max. Earth dist.	4060 Dec 15 02:41	26° \mathbb{Z} 35'12	1.44859 AU
retrograde	4060 Feb 16 02:44	13° \mathbb{H} 03'38			4060 Dec 17 06:41	0° \mathbb{Z}	
evening set	4060 Feb 19 12:04	11° \mathbb{H} 56'44		evening rise	4060 Dec 26 21:30	14° \mathbb{Z} 56'32	
inferior conj	4060 Feb 25 01:16	6° \mathbb{H} 08'07	3°24'39		4061 Jan 05 18:13	0° \mathbb{Z}	
minimum elong	4060 Feb 24 23:35	6° \mathbb{H} 13'27	3°24'26	greatest brilliancy	4061 Jan 10 08:03	6° \mathbb{Z} 49'49	-0.6m
min. Earth dist.	4060 Feb 26 12:33	4° \mathbb{H} 15'27	0.66091 AU	evening max el	4061 Jan 22 08:21	22° \mathbb{Z} 37'59	20°03'03
morning rise	4060 Mar 01 10:46	29° \mathbb{Z} 54'29		asc. node	4061 Jan 28 09:27	26° \mathbb{Z} 52'23	
	4060 Mar 01 08:19	30° \mathbb{R} \mathbb{Z}		retrograde	4061 Jan 30 00:36	27° \mathbb{Z} 06'48	
direct	4060 Mar 07 20:12	27° \mathbb{Z} 05'31		evening set	4061 Feb 02 18:01	25° \mathbb{Z} 45'53	
	4060 Mar 15 06:19	0° \mathbb{H}		inferior conj	4061 Feb 08 03:47	19° \mathbb{Z} 43'23	3°01'28
desc. node	4060 Mar 19 12:16	3° \mathbb{H} 34'50		minimum elong	4061 Feb 08 01:27	19° \mathbb{Z} 51'13	3°00'57
morning max el	4060 Mar 20 15:11	4° \mathbb{H} 41'06	26°20'59	min. Earth dist.	4061 Feb 09 00:55	18° \mathbb{Z} 32'23	0.67137 AU
	4060 Apr 08 23:37	0° \mathbb{Y}		morning rise	4061 Feb 13 08:40	13° \mathbb{Z} 29'23	
morning set	4060 Apr 25 17:18	28° \mathbb{Y} 27'07		direct	4061 Feb 19 05:28	10° \mathbb{Z} 52'01	
	4060 Apr 26 13:02	0° \mathbb{Z}		morning max el	4061 Mar 02 23:56	17° \mathbb{Z} 54'08	25°02'20
max. Earth dist.	4060 Apr 29 18:28	6° \mathbb{Z} 12'48	1.34956 AU	desc. node	4061 Mar 06 09:20	21° \mathbb{Z} 34'25	
superior conj	4060 May 04 15:20	15° \mathbb{Z} 59'05	-0°48'35		4061 Mar 13 03:39	0° \mathbb{H}	
minimum elong	4060 May 04 17:56	16° \mathbb{Z} 12'24	0°48'05		4061 Apr 02 00:26	0° \mathbb{Y}	
asc. node	4060 May 09 11:41	26° \mathbb{Z} 02'20		morning set	4061 Apr 08 03:37	10° \mathbb{Y} 36'58	
	4060 May 11 09:20	0° \mathbb{H}		max. Earth dist.	4061 Apr 11 18:49	17° \mathbb{Y} 13'48	1.36793 AU
evening rise	4060 May 12 08:01	1° \mathbb{H} 57'28		superior conj	4061 Apr 18 03:17	29° \mathbb{Y} 22'32	-1°17'07
	4060 May 28 18:39	0° \mathbb{Z}		minimum elong	4061 Apr 18 07:21	29° \mathbb{Y} 42'31	1°16'29
evening max el	4060 May 31 01:52	2° \mathbb{Z} 27'48	20°42'14		4061 Apr 18 10:54	0° \mathbb{Z}	
retrograde	4060 Jun 11 09:56	8° \mathbb{Z} 00'17		evening rise	4061 Apr 26 11:35	16° \mathbb{Z} 06'57	
evening set	4060 Jun 13 11:28	7° \mathbb{Z} 50'00		asc. node	4061 Apr 26 08:44	15° \mathbb{Z} 52'34	
desc. node	4060 Jun 15 11:28	7° \mathbb{Z} 21'38			4061 May 03 17:05	0° \mathbb{H}	
inferior conj	4060 Jun 22 18:16	3° \mathbb{Z} 52'44	-2°08'04	evening max el	4061 May 13 14:53	13° \mathbb{H} 58'18	19°33'21
minimum elong	4060 Jun 22 12:18	4° \mathbb{Z} 01'17	2°05'57	retrograde	4061 May 23 04:57	18° \mathbb{H} 38'03	
min. Earth dist.	4060 Jun 23 18:33	3° \mathbb{Z} 17'59	0.54892 AU	evening set	4061 May 25 04:13	18° \mathbb{H} 27'06	
	4060 Jun 30 18:38	30° \mathbb{R} \mathbb{H}		desc. node	4061 Jun 02 08:31	14° \mathbb{H} 42'00	
morning rise	4060 Jul 01 12:34	29° \mathbb{H} 47'15		inferior conj	4061 Jun 02 20:41	14° \mathbb{H} 22'43	-0°08'59
direct	4060 Jul 05 05:27	29° \mathbb{H} 17'40		minimum elong	4061 Jun 02 20:17	14° \mathbb{H} 23'21	0°08'50
	4060 Jul 09 13:41	0° \mathbb{Z}		transit middle	4061 Jun 02 20:17	14° \mathbb{H} 23'21	0°08'50
morning max el	4060 Jul 18 10:01	5° \mathbb{Z} 38'46	23°07'04	transit begin	4061 Jun 02 17:01	14° \mathbb{H} 28'32	
	4060 Aug 04 09:27	0° \mathbb{Z}		transit end	4061 Jun 02 23:32	14° \mathbb{H} 18'10	
asc. node	4060 Aug 05 10:59	2° \mathbb{Z} 02'16		min. Earth dist.	4061 Jun 05 08:19	12° \mathbb{H} 48'16	0.55727 AU
morning set	4060 Aug 10 10:00	12° \mathbb{Z} 06'38		morning rise	4061 Jun 11 09:43	9° \mathbb{H} 46'22	
superior conj	4060 Aug 17 11:18	27° \mathbb{Z} 13'51	1°37'03	direct	4061 Jun 15 23:28	8° \mathbb{H} 59'25	
minimum elong	4060 Aug 17 09:37	27° \mathbb{Z} 04'50	1°36'55	morning max el	4061 Jun 29 23:57	16° \mathbb{H} 02'21	24°49'49
	4060 Aug 18 18:27	0° \mathbb{H}			4061 Jul 11 05:39	0° \mathbb{Z}	
max. Earth dist.	4060 Aug 20 04:45	3° \mathbb{H} 01'04	1.33713 AU	asc. node	4061 Jul 23 08:01	21° \mathbb{Z} 39'09	
evening rise	4060 Aug 25 03:42	13° \mathbb{H} 08'54		morning set	4061 Jul 25 21:46	27° \mathbb{Z} 00'23	
	4060 Sep 03 05:28	0° \mathbb{Z}			4061 Jul 27 07:26	0° \mathbb{Z}	
desc. node	4060 Sep 11 10:48	13° $\underline{\mathfrak{A}}$ 19'29		superior conj	4061 Aug 01 20:35	12° \mathbb{Z} 05'02	1°25'10
	4060 Sep 23 23:23	0° \mathbb{M}		minimum elong	4061 Aug 01 18:21	11° \mathbb{Z} 52'48	1°24'53
evening max el	4060 Sep 28 11:39	4° \mathbb{M} 43'19	27°17'52	max. Earth dist.	4061 Aug 03 09:11	15° \mathbb{Z} 24'10	1.32738 AU
retrograde	4060 Oct 11 22:55	12° \mathbb{M} 01'47		evening rise	4061 Aug 09 01:38	27° \mathbb{Z} 25'26	
evening set	4060 Oct 18 22:43	9° \mathbb{M} 20'52			4061 Aug 10 08:05	0° \mathbb{H}	

	4061 Aug 27 12:14	0°♄	evening rise	4062 Jul 24 06:24	12°♄00'57	
desc. node	4061 Aug 29 07:50	2°♄38'14		4062 Aug 02 11:59	0°♄	
evening max el	4061 Sep 10 21:59	17°♄45'06 27°25'54	desc. node	4062 Aug 16 04:51	21°♄10'40	
retrograde	4061 Sep 24 15:34	25°♄00'41	evening max el	4062 Aug 24 03:34	0°♄08'03 27°01'10	
evening set	4061 Oct 01 20:05	22°♄28'42		4062 Aug 24 00:10	0°♄	
min. Earth dist.	4061 Oct 05 11:15	19°♄27'08 0.62930 AU	retrograde	4062 Sep 07 00:39	7°♄19'37	
inferior conj	4061 Oct 08 05:57	16°♄45'16 -3°26'28	evening set	4062 Sep 14 01:29	5°♄08'41	
minimum elong	4061 Oct 08 11:31	16°♄31'42 3°24'42	min. Earth dist.	4062 Sep 17 17:49	2°♄28'16 0.60979 AU	
morning rise	4061 Oct 15 04:29	11°♄34'10	inferior conj	4062 Sep 20 21:46	29°♄46'06 -4°20'35	
direct	4061 Oct 17 14:21	11°♄07'09	minimum elong	4062 Sep 21 03:39	29°♄33'29 4°19'15	
asc. node	4061 Oct 19 07:16	11°♄21'01		4062 Sep 20 15:19	30°♄	
morning max el	4061 Oct 24 06:42	14°♄33'29 17°50'09	morning rise	4062 Sep 28 07:39	24°♄55'51	
	4061 Nov 03 23:00	0°♄	direct	4062 Sep 30 16:11	24°♄33'39	
morning set	4061 Nov 09 11:17	9°♄38'44	asc. node	4062 Oct 06 04:18	26°♄40'21	
			morning max el	4062 Oct 07 20:36	28°♄07'58 18°00'35	
superior conj	4061 Nov 21 03:03	29°♄46'35 0°28'48		4062 Oct 09 14:15	0°♄	
minimum elong	4061 Nov 21 05:49	29°♄58'08 0°28'25	morning set	4062 Oct 23 15:12	23°♄02'28	
	4061 Nov 21 06:15	0°♄		4062 Oct 27 09:42	0°♄	
desc. node	4061 Nov 25 07:09	6°♄40'21	superior conj	4062 Nov 02 16:51	11°♄20'56 1°03'17	
max. Earth dist.	4061 Nov 27 19:28	10°♄44'55 1.43768 AU	minimum elong	4062 Nov 02 21:00	11°♄39'15 1°02'46	
evening rise	4061 Dec 06 07:15	24°♄08'24	max. Earth dist.	4062 Nov 10 07:40	24°♄23'34 1.42119 AU	
	4061 Dec 10 02:54	0°♄	desc. node	4062 Nov 12 04:11	27°♄27'16	
	4061 Dec 31 00:06	0°♄		4062 Nov 13 17:40	0°♄	
evening max el	4062 Jan 05 07:43	6°♄10'59 21°10'05	evening rise	4062 Nov 16 03:22	3°♄51'50	
retrograde	4062 Jan 13 22:26	11°♄17'09		4062 Dec 03 11:54	0°♄	
asc. node	4062 Jan 15 06:30	11°♄07'26	evening max el	4062 Dec 19 01:47	19°♄45'25 22°26'11	
evening set	4062 Jan 18 01:35	9°♄41'05	retrograde	4062 Dec 28 18:35	25°♄31'28	
inferior conj	4062 Jan 23 09:56	3°♄27'26 2°28'46	evening set	4063 Jan 02 09:06	23°♄39'23	
minimum elong	4062 Jan 23 07:27	3°♄35'58 2°28'01	asc. node	4063 Jan 02 03:33	23°♄50'32	
min. Earth dist.	4062 Jan 23 18:17	2°♄58'33 0.67771 AU	inferior conj	4063 Jan 07 17:40	17°♄17'53 1°48'10	
	4062 Jan 25 23:59	30°♄	minimum elong	4063 Jan 07 15:31	17°♄25'19 1°47'23	
morning rise	4062 Jan 28 13:09	27°♄14'45	min. Earth dist.	4063 Jan 07 14:27	17°♄29'03 0.68015 AU	
direct	4062 Feb 02 19:26	24°♄56'29	morning rise	4063 Jan 12 21:49	11°♄08'02	
	4062 Feb 12 02:36	0°♄	direct	4063 Jan 17 13:17	9°♄12'21	
morning max el	4062 Feb 13 08:35	1°♄13'06 23°34'16	morning max el	4063 Jan 26 20:19	14°♄39'40 22°06'23	
desc. node	4062 Feb 21 06:23	10°♄26'14	desc. node	4063 Feb 08 03:26	29°♄55'37	
	4062 Mar 07 03:03	0°♄		4063 Feb 08 04:41	0°♄	
morning set	4062 Mar 20 14:55	21°♄37'14	morning set	4063 Feb 28 03:08	0°♄	
max. Earth dist.	4062 Mar 24 14:09	28°♄28'15 1.38919 AU	max. Earth dist.	4063 Feb 28 21:57	1°♄15'45	
	4062 Mar 25 10:58	0°♄		4063 Mar 06 11:57	10°♄26'54 1.41085 AU	
superior conj	4062 Apr 01 01:48	12°♄03'45 -1°42'30	superior conj	4063 Mar 14 06:07	23°♄50'32 -2°01'00	
minimum elong	4062 Apr 01 06:34	12°♄26'05 1°41'58	minimum elong	4063 Mar 14 09:46	24°♄06'46 2°00'48	
evening rise	4062 Apr 10 07:31	29°♄49'29		4063 Mar 17 16:20	0°♄	
	4062 Apr 10 09:41	0°♄	evening rise	4063 Mar 24 16:22	12°♄56'01	
asc. node	4062 Apr 13 05:47	5°♄27'55	asc. node	4063 Mar 31 02:49	24°♄42'06	
evening max el	4062 Apr 26 14:43	26°♄08'29 18°44'31		4063 Apr 03 06:10	0°♄	
	4062 May 03 08:05	0°♄	evening max el	4063 Apr 09 22:04	8°♄49'39 18°15'49	
retrograde	4062 May 04 17:05	0°♄06'44	retrograde	4063 Apr 17 00:11	12°♄22'24	
	4062 May 06 02:37	30°♄	evening set	4063 Apr 19 11:14	11°♄57'38	
evening set	4062 May 06 21:36	29°♄50'25	inferior conj	4063 Apr 26 13:12	7°♄15'13 2°41'24	
inferior conj	4062 May 14 18:14	25°♄28'29 1°31'55	minimum elong	4063 Apr 26 16:43	7°♄07'33 2°40'34	
minimum elong	4062 May 14 21:22	25°♄22'40 1°30'54	min. Earth dist.	4063 Apr 29 23:08	4°♄18'55 0.59405 AU	
min. Earth dist.	4062 May 18 01:05	23°♄03'30 0.57336 AU	morning rise	4063 May 03 19:31	1°♄35'08	
desc. node	4062 May 20 05:33	21°♄36'53	desc. node	4063 May 07 02:36	0°♄10'08	
morning rise	4062 May 22 17:55	20°♄16'56		4063 May 07 18:50	30°♄	
direct	4062 May 28 07:04	19°♄01'29	direct	4063 May 10 03:53	29°♄44'31	
morning max el	4062 Jun 11 15:34	26°♄32'55 26°20'15		4063 May 12 13:58	0°♄	
	4062 Jun 14 22:27	0°♄	morning max el	4063 May 24 12:51	7°♄33'47 27°23'38	
	4062 Jul 04 11:51	0°♄		4063 Jun 10 11:11	0°♄	
morning set	4062 Jul 10 08:39	11°♄50'38	morning set	4063 Jun 24 16:52	26°♄30'38	
asc. node	4062 Jul 10 05:03	11°♄31'40		4063 Jun 26 08:35	0°♄	
			asc. node	4063 Jun 27 02:05	1°♄33'35	
superior conj	4062 Jul 17 08:01	27°♄00'46 1°08'34	superior conj	4063 Jul 01 19:44	11°♄53'56 0°47'55	
minimum elong	4062 Jul 17 05:43	26°♄48'02 1°08'12	minimum elong	4063 Jul 01 17:50	11°♄43'24 0°47'33	
max. Earth dist.	4062 Jul 17 19:13	28°♄02'28 1.32177 AU				
	4062 Jul 18 16:34	0°♄				

max. Earth dist.	4063 Jul 01 06:56	10° \mathfrak{D} 43'21	1.32015 AU		4064 Jun 16 18:44	0° \mathfrak{D}	
evening rise	4063 Jul 08 15:27	26° \mathfrak{D} 46'22		evening rise	4064 Jun 22 02:47	11° \mathfrak{D} 35'15	
	4063 Jul 10 04:20	0° \mathfrak{Q}			4064 Jul 01 10:57	0° \mathfrak{Q}	
	4063 Jul 27 05:47	0° \mathfrak{P}		evening max el	4064 Jul 17 17:14	22° \mathfrak{Q} 31'46	24°40'09
desc. node	4063 Aug 03 01:51	8° \mathfrak{P} 37'16		desc. node	4064 Jul 19 22:52	24° \mathfrak{Q} 31'41	
evening max el	4063 Aug 06 01:53	11° \mathfrak{P} 42'26	26°03'43	retrograde	4064 Jul 31 15:08	29° \mathfrak{Q} 33'35	
retrograde	4063 Aug 20 01:11	18° \mathfrak{P} 51'00		evening set	4064 Aug 05 18:34	28° \mathfrak{Q} 33'58	
evening set	4063 Aug 26 10:08	17° \mathfrak{P} 12'54		min. Earth dist.	4064 Aug 11 04:29	25° \mathfrak{Q} 44'36	0.56971 AU
min. Earth dist.	4063 Aug 30 14:28	14° \mathfrak{P} 37'28	0.58906 AU	inferior conj	4064 Aug 13 23:47	23° \mathfrak{Q} 55'43	-5°10'19
inferior conj	4063 Sep 02 20:39	12° \mathfrak{P} 12'21	-4°59'43	minimum elong	4064 Aug 13 22:33	23° \mathfrak{Q} 57'43	5°10'17
minimum elong	4063 Sep 03 00:29	12° \mathfrak{P} 05'11	4°59'17	morning rise	4064 Aug 22 05:04	19° \mathfrak{Q} 50'09	
morning rise	4063 Sep 10 17:05	7° \mathfrak{P} 45'15		direct	4064 Aug 24 20:01	19° \mathfrak{Q} 31'03	
direct	4063 Sep 13 03:23	7° \mathfrak{P} 25'32		morning max el	4064 Sep 03 03:33	23° \mathfrak{Q} 52'36	19°22'58
morning max el	4063 Sep 21 04:38	11° \mathfrak{P} 17'36	18°31'06		4064 Sep 08 07:51	0° \mathfrak{P}	
asc. node	4063 Sep 23 01:19	13° \mathfrak{P} 15'46		asc. node	4064 Sep 08 22:22	0° \mathfrak{P} 52'09	
	4063 Oct 03 15:06	0° \mathfrak{L}		morning set	4064 Sep 20 08:14	21° \mathfrak{P} 23'49	
morning set	4063 Oct 07 07:27	7° \mathfrak{L} 00'59			4064 Sep 24 15:09	0° \mathfrak{L}	
superior conj	4063 Oct 16 05:01	24° \mathfrak{L} 00'44	1°26'40	superior conj	4064 Sep 28 10:04	7° \mathfrak{L} 30'08	1°39'48
minimum elong	4063 Oct 16 08:24	24° \mathfrak{L} 16'29	1°26'20	minimum elong	4064 Sep 28 11:51	7° \mathfrak{L} 38'52	1°39'42
	4063 Oct 19 11:22	0° \mathfrak{M}		max. Earth dist.	4064 Oct 04 18:30	19° \mathfrak{L} 32'52	1.38027 AU
max. Earth dist.	4063 Oct 23 14:21	7° \mathfrak{M} 18'30	1.40117 AU	evening rise	4064 Oct 08 12:47	26° \mathfrak{L} 18'22	
evening rise	4063 Oct 27 20:26	14° \mathfrak{M} 33'01			4064 Oct 10 15:47	0° \mathfrak{M}	
desc. node	4063 Oct 30 01:11	18° \mathfrak{M} 10'54		desc. node	4064 Oct 15 22:10	8° \mathfrak{M} 47'06	
	4063 Nov 06 12:26	0° \mathfrak{N}			4064 Oct 30 01:45	0° \mathfrak{N}	
	4063 Nov 28 11:54	0° \mathfrak{Z}		evening max el	4064 Nov 13 04:31	17° \mathfrak{N} 04'07	25°03'25
evening max el	4063 Dec 01 15:59	3° \mathfrak{Z} 22'57	23°46'08	retrograde	4064 Nov 25 00:42	23° \mathfrak{N} 55'46	
retrograde	4063 Dec 12 11:43	9° \mathfrak{Z} 46'03		evening set	4064 Nov 30 17:37	21° \mathfrak{N} 32'54	
evening set	4063 Dec 17 15:00	7° \mathfrak{Z} 37'58		min. Earth dist.	4064 Dec 05 05:53	16° \mathfrak{N} 29'34	0.67424 AU
asc. node	4063 Dec 20 00:34	5° \mathfrak{Z} 09'59		asc. node	4064 Dec 05 21:36	15° \mathfrak{N} 38'04	
min. Earth dist.	4063 Dec 22 11:06	2° \mathfrak{Z} 00'36	0.67891 AU	inferior conj	4064 Dec 06 06:42	15° \mathfrak{N} 08'11	0°07'47
inferior conj	4063 Dec 23 01:11	1° \mathfrak{Z} 12'36	1°00'50	minimum elong	4064 Dec 06 06:30	15° \mathfrak{N} 08'50	0°07'43
minimum elong	4063 Dec 22 23:49	1° \mathfrak{Z} 17'17	1°00'17	transit middle	4064 Dec 06 06:30	15° \mathfrak{N} 08'50	0°07'43
	4063 Dec 23 22:38	30° \mathfrak{R} \mathfrak{N}		transit begin	4064 Dec 06 04:04	15° \mathfrak{N} 16'50	
morning rise	4063 Dec 28 08:38	25° \mathfrak{N} 07'16		transit end	4064 Dec 06 08:57	15° \mathfrak{N} 00'50	
direct	4064 Jan 01 10:03	23° \mathfrak{N} 34'21		morning rise	4064 Dec 11 19:35	9° \mathfrak{N} 09'34	
morning max el	4064 Jan 09 14:25	28° \mathfrak{N} 17'05	20°46'21	direct	4064 Dec 15 08:32	7° \mathfrak{N} 57'20	
	4064 Jan 11 05:25	0° \mathfrak{Z}		morning max el	4064 Dec 22 16:19	12° \mathfrak{N} 05'05	19°38'58
desc. node	4064 Jan 26 00:28	19° \mathfrak{Z} 52'21		greatest brilliancy	4065 Jan 04 18:57	29° \mathfrak{N} 24'24	-0.7m
	4064 Feb 01 18:59	0° \mathfrak{A}			4065 Jan 05 04:32	0° \mathfrak{Z}	
morning set	4064 Feb 08 02:56	9° \mathfrak{A} 44'17		desc. node	4065 Jan 11 21:27	10° \mathfrak{Z} 08'15	
max. Earth dist.	4064 Feb 16 16:27	23° \mathfrak{A} 20'22	1.42998 AU	morning set	4065 Jan 16 23:15	17° \mathfrak{Z} 56'10	
	4064 Feb 20 17:59	0° \mathfrak{H}			4065 Jan 24 17:24	0° \mathfrak{A}	
				max. Earth dist.	4065 Jan 29 04:09	7° \mathfrak{A} 00'46	1.44416 AU
superior conj	4064 Feb 23 11:18	4° \mathfrak{H} 32'46	-2°07'41	superior conj	4065 Feb 02 14:36	14° \mathfrak{A} 05'56	-1°57'14
minimum elong	4064 Feb 23 10:55	4° \mathfrak{H} 31'12	2°07'41	minimum elong	4065 Feb 02 08:11	13° \mathfrak{A} 40'10	1°56'51
evening rise	4064 Mar 06 10:06	25° \mathfrak{H} 18'10			4065 Feb 12 07:22	0° \mathfrak{H}	
	4064 Mar 09 01:36	0° \mathfrak{Y}		evening rise	4065 Feb 16 08:12	6° \mathfrak{H} 46'42	
asc. node	4064 Mar 16 23:51	13° \mathfrak{Y} 28'42			4065 Mar 02 15:47	0° \mathfrak{Y}	
evening max el	4064 Mar 23 09:40	21° \mathfrak{Y} 53'57	18°06'47	asc. node	4065 Mar 03 20:53	1° \mathfrak{Y} 38'34	
retrograde	4064 Mar 29 22:54	25° \mathfrak{Y} 16'43		evening max el	4065 Mar 06 22:27	5° \mathfrak{Y} 13'00	18°16'51
evening set	4064 Apr 01 16:08	24° \mathfrak{Y} 41'30		retrograde	4065 Mar 13 08:49	8° \mathfrak{Y} 39'41	
inferior conj	4064 Apr 08 03:06	19° \mathfrak{Y} 38'52	3°20'36	evening set	4065 Mar 16 07:59	7° \mathfrak{Y} 52'46	
minimum elong	4064 Apr 08 05:17	19° \mathfrak{Y} 33'26	3°20'19	inferior conj	4065 Mar 22 07:53	2° \mathfrak{Y} 30'56	3°35'44
min. Earth dist.	4064 Apr 11 04:51	16° \mathfrak{Y} 36'04	0.61595 AU	minimum elong	4065 Mar 22 08:18	2° \mathfrak{Y} 29'46	3°35'44
morning rise	4064 Apr 14 16:39	13° \mathfrak{Y} 40'52			4065 Mar 24 13:50	30° \mathfrak{R} \mathfrak{H}	
direct	4064 Apr 21 11:56	11° \mathfrak{Y} 17'59		min. Earth dist.	4065 Mar 24 19:34	29° \mathfrak{H} 44'25	0.63623 AU
desc. node	4064 Apr 22 23:38	11° \mathfrak{Y} 24'25		morning rise	4065 Mar 28 07:40	26° \mathfrak{H} 23'25	
morning max el	4064 May 05 16:25	19° \mathfrak{Y} 16'14	27°50'58	direct	4065 Apr 04 04:46	23° \mathfrak{H} 39'31	
	4064 May 14 18:53	0° \mathfrak{B}		desc. node	4065 Apr 09 20:40	25° \mathfrak{H} 13'30	
	4064 Jun 02 07:39	0° \mathfrak{I}			4065 Apr 16 07:55	0° \mathfrak{Y}	
morning set	4064 Jun 07 20:32	10° \mathfrak{I} 54'21		morning max el	4065 Apr 18 00:21	1° \mathfrak{Y} 37'28	27°40'54
asc. node	4064 Jun 12 23:07	21° \mathfrak{I} 40'27			4065 May 08 23:44	0° \mathfrak{B}	
max. Earth dist.	4064 Jun 13 16:29	23° \mathfrak{I} 14'23	1.32265 AU	morning set	4065 May 22 17:18	24° \mathfrak{B} 54'30	
superior conj	4064 Jun 15 06:03	26° \mathfrak{I} 39'05	0°23'49		4065 May 25 05:44	0° \mathfrak{I}	
minimum elong	4064 Jun 15 04:58	26° \mathfrak{I} 33'12	0°23'34	max. Earth dist.	4065 May 27 19:58	5° \mathfrak{I} 23'40	1.32949 AU

superior conj	4065 May 30 13:09	11° Π 10'35	-0°03'04	max. Earth dist.	4066 May 10 14:00	17° 8 03'16	1.34095 AU
minimum elong	4065 May 30 13:18	11° Π 11'23	0°03'03				
behind sun begin	4065 May 30 08:04	10° Π 43'14		superior conj	4066 May 14 14:56	25° 8 21'40	-0°31'45
behind sun end	4065 May 30 18:33	11° Π 39'34		minimum elong	4066 May 14 16:37	25° 8 30'23	0°31'25
asc. node	4065 May 30 20:11	11° Π 48'19			4066 May 16 19:54	0° Π	
evening rise	4065 Jun 06 14:32	26° Π 21'43		asc. node	4066 May 17 17:12	1° Π 52'37	
	4065 Jun 08 08:10	0° 6		evening rise	4066 May 22 00:49	10° Π 59'16	
	4065 Jun 26 11:30	0° 9			4066 May 31 22:45	0° 6	
evening max el	4065 Jun 29 06:24	2° 9 57'09	23°03'47	evening max el	4066 Jun 11 00:57	13° 6 29'43	21°30'04
desc. node	4065 Jul 06 19:52	8° 9 20'39		retrograde	4066 Jun 23 06:43	19° 6 31'35	
retrograde	4065 Jul 12 16:15	9° 9 38'38		desc. node	4066 Jun 23 16:55	19° 6 31'10	
evening set	4065 Jul 16 07:13	9° 9 09'56		evening set	4066 Jun 25 17:11	19° 6 18'04	
min. Earth dist.	4065 Jul 23 15:30	5° 9 52'03	0.55513 AU	inferior conj	4066 Jul 05 02:15	15° 6 17'57	-3°13'00
inferior conj	4065 Jul 25 07:28	4° 9 54'02	-4°36'47	minimum elong	4066 Jul 04 18:05	15° 6 29'22	3°10'29
minimum elong	4065 Jul 25 00:27	5° 9 04'16	4°35'31	min. Earth dist.	4066 Jul 05 02:08	15° 6 18'07	0.54847 AU
morning rise	4065 Aug 02 19:58	1° 9 02'04		morning rise	4066 Jul 13 19:55	11° 6 23'45	
direct	4065 Aug 05 18:08	0° 9 41'44		direct	4066 Jul 17 04:28	10° 6 59'18	
morning max el	4065 Aug 16 14:55	5° 9 44'36	20°36'25	morning max el	4066 Jul 29 14:42	16° 6 51'07	22°08'39
asc. node	4065 Aug 26 19:24	19° 9 15'51			4066 Aug 08 22:29	0° 9	
	4065 Sep 01 14:43	0° 9		asc. node	4066 Aug 13 16:27	8° 9 14'41	
morning set	4065 Sep 04 14:44	6° 9 03'39		morning set	4066 Aug 20 00:42	20° 9 53'04	
					4066 Aug 24 07:59	0° 9	
superior conj	4065 Sep 12 03:18	21° 9 35'53	1°44'15	superior conj	4066 Aug 27 04:56	6° 9 05'50	1°41'28
minimum elong	4065 Sep 12 03:28	21° 9 36'40	1°44'15	minimum elong	4066 Aug 27 03:48	5° 9 59'49	1°41'25
	4065 Sep 16 08:04	0° 9		max. Earth dist.	4066 Aug 30 17:05	13° 9 23'30	1.34468 AU
max. Earth dist.	4065 Sep 17 01:56	1° 9 27'13	1.36089 AU	evening rise	4066 Sep 04 06:24	22° 9 28'41	
evening rise	4065 Sep 21 01:37	9° 9 01'13			4066 Sep 08 06:05	0° 9	
desc. node	4065 Oct 02 19:11	29° 9 11'30		desc. node	4066 Sep 19 16:13	19° 9 17'12	
	4065 Oct 03 07:24	0° 9			4066 Sep 27 00:53	0° 9	
	4065 Oct 25 22:03	0° 9		evening max el	4066 Oct 09 05:46	14° 9 22'30	27°00'03
evening max el	4065 Oct 26 17:05	0° 9 46'55	26°10'30	retrograde	4066 Oct 22 11:01	21° 9 39'12	
retrograde	4065 Nov 08 08:38	7° 9 55'57		evening set	4066 Oct 29 05:40	18° 9 58'07	
evening set	4065 Nov 14 15:14	5° 9 21'17		min. Earth dist.	4066 Nov 02 04:13	15° 9 06'04	0.65456 AU
min. Earth dist.	4065 Nov 18 20:24	0° 9 53'17	0.66618 AU	inferior conj	4066 Nov 04 04:07	12° 9 49'20	-1°50'31
	4065 Nov 19 13:43	30° 9		minimum elong	4066 Nov 04 07:14	12° 9 40'28	1°49'15
inferior conj	4065 Nov 20 08:24	29° 9 02'05	-0°49'49	asc. node	4066 Nov 09 15:40	7° 9 37'30	
minimum elong	4065 Nov 20 09:44	28° 9 57'57	0°49'14	morning rise	4066 Nov 10 09:39	7° 9 12'31	
asc. node	4065 Nov 22 18:38	26° 9 09'48		direct	4066 Nov 13 03:41	6° 9 31'24	
morning rise	4065 Nov 26 04:43	23° 9 12'49		morning max el	4066 Nov 19 15:45	10° 9 01'16	18°11'14
direct	4065 Nov 29 07:07	22° 9 18'01			4066 Dec 03 13:19	0° 9	
morning max el	4065 Dec 06 01:28	26° 9 01'37	18°46'50	morning set	4066 Dec 08 06:11	7° 9 41'27	
	4065 Dec 09 12:27	0° 9		desc. node	4066 Dec 16 15:31	21° 9 17'39	
morning set	4065 Dec 27 12:11	27° 9 04'38			4066 Dec 22 02:42	0° 9	
	4065 Dec 29 08:46	0° 9		superior conj	4066 Dec 23 01:08	1° 9 28'41	-0°42'55
desc. node	4065 Dec 29 18:29	0° 9 38'11		minimum elong	4066 Dec 22 19:44	1° 9 07'22	0°42'12
max. Earth dist.	4066 Jan 11 21:22	21° 9 13'38	1.45174 AU	max. Earth dist.	4066 Dec 25 17:05	5° 9 40'33	1.45187 AU
superior conj	4066 Jan 12 21:26	22° 9 48'09	-1°27'15	evening rise	4067 Jan 08 08:32	26° 9 58'20	
minimum elong	4066 Jan 12 12:12	22° 9 11'51	1°26'16		4067 Jan 10 07:16	0° 9	
	4066 Jan 17 11:06	0° 9		greatest brilliancy	4067 Jan 20 14:49	15° 9 53'38	-0.7m
evening rise	4066 Jan 28 07:24	17° 9 17'55			4067 Jan 30 17:55	0° 9	
greatest brilliancy	4066 Feb 03 21:50	27° 9 56'07	-0.9m	evening max el	4067 Feb 01 17:19	2° 9 11'14	19°30'12
	4066 Feb 05 04:47	0° 9		asc. node	4067 Feb 05 14:57	5° 9 21'57	
evening max el	4066 Feb 18 09:44	18° 9 40'14	18°45'05	retrograde	4067 Feb 08 22:52	6° 9 20'59	
asc. node	4066 Feb 18 17:56	19° 9 00'42		evening set	4067 Feb 12 11:33	5° 9 08'03	
retrograde	4066 Feb 25 01:53	22° 9 23'10			4067 Feb 17 08:34	30° 9	
evening set	4066 Feb 28 07:21	21° 9 23'39		inferior conj	4067 Feb 17 22:59	29° 9 13'00	3°16'07
inferior conj	4066 Mar 05 23:36	15° 9 44'09	3°32'47	minimum elong	4067 Feb 17 20:58	29° 9 19'36	3°15'46
minimum elong	4066 Mar 05 22:33	15° 9 47'23	3°32'42	min. Earth dist.	4067 Feb 19 03:58	27° 9 38'07	0.66589 AU
min. Earth dist.	4066 Mar 07 19:35	13° 9 29'31	0.65312 AU	morning rise	4067 Feb 23 06:10	22° 9 59'06	
morning rise	4066 Mar 11 13:19	9° 9 32'04		direct	4067 Mar 01 10:29	20° 9 14'17	
direct	4066 Mar 18 04:34	6° 9 41'21		morning max el	4067 Mar 13 19:47	27° 9 36'52	25°49'24
desc. node	4066 Mar 27 17:42	11° 9 04'50		desc. node	4067 Mar 14 14:45	28° 9 25'35	
morning max el	4066 Mar 31 10:09	14° 9 28'05	26°57'45		4067 Mar 16 01:53	0° 9	
	4066 Apr 13 01:46	0° 9			4067 Apr 06 18:17	0° 9	
	4066 May 01 16:42	0° 8		morning set	4067 Apr 19 00:54	21° 9 04'26	
morning set	4066 May 06 04:06	8° 8 21'40					

max. Earth dist.	4067 Apr 22 20:47	28° Υ 15'29	1.35695 AU		4068 Mar 29 11:42	0° Υ	
	4067 Apr 23 18:31	0° \mathcal{B}		morning set	4068 Mar 31 02:13	2° Υ 46'57	
				max. Earth dist.	4068 Apr 03 18:09	9° Υ 18'04	1.37675 AU
superior conj	4067 Apr 28 08:52	9° \mathcal{B} 05'13	-1°00'53				
minimum elong	4067 Apr 28 12:08	9° \mathcal{B} 21'41	1°00'18	superior conj	4068 Apr 10 15:34	22° Υ 11'40	-1°28'28
asc. node	4067 May 04 14:16	21° \mathcal{B} 49'42		minimum elong	4068 Apr 10 20:04	22° Υ 33'24	1°27'50
evening rise	4067 May 06 07:34	25° \mathcal{B} 21'36			4068 Apr 14 15:23	0° \mathcal{B}	
	4067 May 08 14:38	0° Π		evening rise	4068 Apr 19 08:15	9° \mathcal{B} 20'34	
evening max el	4067 May 24 06:45	24° Π 35'56	20°10'27	asc. node	4068 Apr 20 11:18	11° \mathcal{B} 34'15	
retrograde	4067 Jun 03 20:51	29° Π 45'51			4068 Apr 30 19:50	0° Π	
evening set	4067 Jun 05 19:56	29° Π 35'58		evening max el	4068 May 06 00:36	6° Π 23'38	19°10'02
desc. node	4067 Jun 10 13:56	28° Π 00'26		retrograde	4068 May 14 22:35	10° Π 44'14	
inferior conj	4067 Jun 14 21:48	25° Π 36'57	-1°16'59	evening set	4068 May 16 23:23	10° Π 31'38	
minimum elong	4067 Jun 14 18:11	25° Π 42'19	1°15'38	inferior conj	4068 May 25 07:37	6° Π 20'34	0°37'17
min. Earth dist.	4067 Jun 16 14:27	24° Π 36'40	0.55137 AU	minimum elong	4068 May 25 09:07	6° Π 18'01	0°36'44
morning rise	4067 Jun 23 15:00	21° Π 20'00		desc. node	4068 May 27 10:59	4° Π 53'26	
direct	4067 Jun 27 15:51	20° Π 44'40		min. Earth dist.	4068 May 28 05:34	4° Π 22'41	0.56331 AU
morning max el	4067 Jul 11 06:42	27° Π 24'31	23°51'22	morning rise	4068 Jun 02 15:43	1° Π 28'32	
	4067 Jul 13 19:54	0° \mathcal{E}		direct	4068 Jun 07 15:18	0° Π 30'45	
asc. node	4067 Jul 31 13:30	27° \mathcal{E} 39'59		morning max el	4068 Jun 21 20:51	7° Π 48'10	25°30'47
	4067 Aug 01 17:24	0° Ω			4068 Jul 08 07:02	0° \mathcal{E}	
morning set	4067 Aug 04 12:18	5° Ω 46'49		asc. node	4068 Jul 17 10:34	17° \mathcal{E} 24'14	
				morning set	4068 Jul 18 23:52	20° \mathcal{E} 39'38	
					4068 Jul 23 07:36	0° Ω	
superior conj	4067 Aug 11 12:07	20° Ω 51'31	1°32'37				
minimum elong	4067 Aug 11 10:08	20° Ω 40'49	1°32'26				
max. Earth dist.	4067 Aug 13 17:00	25° Ω 35'30	1.33247 AU	superior conj	4068 Jul 25 22:33	5° Ω 45'29	1°18'39
	4067 Aug 15 19:05	0° \mathcal{M}		minimum elong	4068 Jul 25 20:13	5° Ω 32'43	1°18'20
evening rise	4067 Aug 18 23:04	6° \mathcal{M} 29'58		max. Earth dist.	4068 Jul 26 24:00	8° Ω 04'53	1.32443 AU
	4067 Aug 31 19:42	0° \mathcal{L}		evening rise	4068 Aug 02 00:12	20° Ω 55'21	
desc. node	4067 Sep 06 13:14	8° \mathcal{L} 56'07			4068 Aug 06 12:59	0° \mathcal{M}	
evening max el	4067 Sep 21 17:17	27° \mathcal{L} 39'21	27°24'58	desc. node	4068 Aug 23 10:16	27° \mathcal{M} 57'16	
	4067 Sep 24 08:47	0° \mathcal{M}			4068 Aug 24 22:42	0° \mathcal{L}	
retrograde	4067 Oct 05 07:25	4° \mathcal{M} 57'06		evening max el	4068 Sep 03 01:43	10° \mathcal{L} 25'29	27°19'31
evening set	4067 Oct 12 10:15	2° \mathcal{M} 18'13		retrograde	4068 Sep 16 21:20	17° \mathcal{L} 40'21	
	4067 Oct 15 02:50	30° \mathcal{R} \mathcal{L}		evening set	4068 Sep 24 01:27	15° \mathcal{L} 15'31	
min. Earth dist.	4067 Oct 16 03:13	29° \mathcal{L} 00'06	0.63942 AU	min. Earth dist.	4068 Sep 27 16:02	12° \mathcal{L} 24'37	0.62117 AU
inferior conj	4067 Oct 18 15:24	26° \mathcal{L} 24'21	-2°52'04	inferior conj	4068 Sep 30 15:18	9° \mathcal{L} 40'25	-3°50'41
minimum elong	4067 Oct 18 20:13	26° \mathcal{L} 11'52	2°50'22	minimum elong	4068 Sep 30 21:13	9° \mathcal{L} 26'46	3°49'01
morning rise	4067 Oct 25 07:31	21° \mathcal{L} 03'13		morning rise	4068 Oct 07 18:44	4° \mathcal{L} 38'06	
direct	4067 Oct 27 19:32	20° \mathcal{L} 32'08		direct	4068 Oct 10 03:31	4° \mathcal{L} 13'36	
asc. node	4067 Oct 27 12:44	20° \mathcal{L} 32'32		asc. node	4068 Oct 13 09:47	5° \mathcal{L} 01'41	
morning max el	4067 Nov 03 08:21	23° \mathcal{L} 57'18	17°52'46	morning max el	4068 Oct 17 00:13	7° \mathcal{L} 42'30	17°52'17
	4067 Nov 08 05:07	0° \mathcal{M}			4068 Oct 31 11:39	0° \mathcal{M}	
morning set	4067 Nov 20 03:35	19° \mathcal{M} 37'54		morning set	4068 Nov 01 22:10	2° \mathcal{M} 35'14	
	4067 Nov 26 05:46	0° \mathcal{X}					
superior conj	4067 Dec 02 21:40	11° \mathcal{X} 02'10	0°04'19	superior conj	4068 Nov 12 20:29	21° \mathcal{M} 53'13	0°44'46
minimum elong	4067 Dec 02 22:09	11° \mathcal{X} 04'09	0°04'15	minimum elong	4068 Nov 13 00:12	22° \mathcal{M} 09'05	0°44'16
behind sun begin	4067 Dec 02 12:31	10° \mathcal{X} 24'51			4068 Nov 17 16:12	0° \mathcal{X}	
behind sun end	4067 Dec 03 07:47	11° \mathcal{X} 43'22		desc. node	4068 Nov 19 09:34	2° \mathcal{X} 50'14	
desc. node	4067 Dec 03 12:32	12° \mathcal{X} 02'42		max. Earth dist.	4068 Nov 20 01:58	3° \mathcal{X} 57'12	1.43114 AU
max. Earth dist.	4067 Dec 08 11:28	20° \mathcal{X} 00'38	1.44468 AU	evening rise	4068 Nov 27 07:53	15° \mathcal{X} 30'32	
	4067 Dec 14 19:59	0° \mathcal{Z}			4068 Dec 06 19:57	0° \mathcal{Z}	
evening rise	4067 Dec 18 19:34	6° \mathcal{Z} 09'33		evening max el	4068 Dec 28 16:43	29° \mathcal{Z} 16'58	21°41'38
	4068 Jan 03 16:43	0° \approx			4068 Dec 29 10:01	0° \approx	
evening max el	4068 Jan 15 19:44	15° \approx 43'13	20°30'08	retrograde	4069 Jan 06 18:29	4° \approx 40'37	
retrograde	4068 Jan 23 21:05	20° \approx 27'52		asc. node	4069 Jan 09 09:02	4° \approx 03'55	
asc. node	4068 Jan 23 12:00	20° \approx 27'05		evening set	4069 Jan 11 02:09	2° \approx 58'01	
evening set	4068 Jan 27 18:25	19° \approx 00'35			4069 Jan 13 22:45	30° \mathcal{R} \mathcal{Z}	
inferior conj	4068 Feb 02 03:19	12° \approx 52'42	2°48'40	inferior conj	4069 Jan 16 10:24	26° \mathcal{Z} 40'31	2°12'27
minimum elong	4068 Feb 02 00:52	13° \approx 01'03	2°48'02	minimum elong	4069 Jan 16 08:01	26° \mathcal{Z} 48'49	2°11'41
min. Earth dist.	4068 Feb 02 18:48	11° \approx 59'53	0.67451 AU	min. Earth dist.	4069 Jan 16 13:47	26° \mathcal{Z} 28'48	0.67917 AU
morning rise	4068 Feb 07 07:09	6° \approx 38'54		morning rise	4069 Jan 21 13:41	20° \mathcal{Z} 28'34	
direct	4068 Feb 12 21:45	4° \approx 09'11		direct	4069 Jan 26 13:37	18° \mathcal{Z} 19'33	
morning max el	4068 Feb 24 04:27	10° \approx 53'36	24°25'28	morning max el	4069 Feb 05 13:56	24° \mathcal{Z} 15'44	22°56'17
					4069 Feb 10 16:33	0° \approx	
desc. node	4068 Feb 29 11:47	16° \approx 49'41		desc. node	4069 Feb 15 08:49	5° \approx 59'24	
	4068 Mar 10 09:45	0° \mathcal{H}			4069 Mar 03 20:28	0° \mathcal{H}	

morning set	4069 Mar 12 01:56	13° H 13'43		superior conj	4070 Mar 06 02:03	15° H 52'45	-2°05'36
max. Earth dist.	4069 Mar 16 13:08	20° H 46'24	1.39854 AU	minimum elong	4070 Mar 06 04:23	16° H 02'53	2°05'33
	4069 Mar 21 19:06	0° Y			4070 Mar 14 00:40	0° Y	
				evening rise	4070 Mar 17 02:50	5° Y 37'49	
superior conj	4069 Mar 24 06:57	4° Y 31'23	-1°51'27	asc. node	4070 Mar 25 05:21	20° Y 05'11	
minimum elong	4069 Mar 24 11:32	4° Y 52'25	1°51'03		4070 Mar 31 23:59	0° Z	
evening rise	4069 Apr 02 23:54	22° Y 48'47		evening max el	4070 Apr 02 13:46	1° Z 41'41	18°09'37
	4069 Apr 06 19:05	0° Z		retrograde	4070 Apr 09 08:51	5° Z 07'58	
asc. node	4069 Apr 07 08:20	1° Z 01'24		evening set	4070 Apr 11 22:45	4° Z 38'47	
evening max el	4069 Apr 19 04:06	18° Z 48'32	18°29'51	inferior conj	4070 Apr 18 17:50	29° Y 47'39	3°01'21
retrograde	4069 Apr 26 18:38	22° Z 33'35		minimum elong	4070 Apr 18 20:54	29° Y 40'33	3°00'46
evening set	4069 Apr 29 01:57	22° Z 14'01			4070 Apr 18 12:28	30° R Y	
inferior conj	4069 May 06 14:20	17° Z 43'51	2°05'22	min. Earth dist.	4070 Apr 22 01:20	26° Y 45'43	0.60346 AU
minimum elong	4069 May 06 17:57	17° Z 36'40	2°04'18	morning rise	4070 Apr 25 16:48	23° Y 59'06	
min. Earth dist.	4069 May 10 00:29	15° Z 02'22	0.58186 AU	desc. node	4070 May 01 05:02	21° Y 57'12	
morning rise	4069 May 14 06:48	12° Z 18'53		direct	4070 May 02 07:10	21° Y 53'51	
desc. node	4069 May 14 08:01	12° Z 17'23		morning max el	4070 May 16 14:18	29° Y 47'06	27°39'52
direct	4069 May 20 05:11	10° Z 48'22			4070 May 16 19:30	0° Z	
morning max el	4069 Jun 03 14:27	18° Z 29'02	26°51'06		4070 Jun 07 05:36	0° II	
	4069 Jun 13 06:14	0° II		morning set	4070 Jun 17 16:20	20° II 00'33	
	4069 Jun 30 18:38	0° S		asc. node	4070 Jun 21 04:37	27° II 26'29	
morning set	4069 Jul 03 09:47	5° S 26'03			4070 Jun 22 08:58	0° S	
asc. node	4069 Jul 04 07:35	7° S 21'22		max. Earth dist.	4070 Jun 23 22:24	3° S 24'30	1.32075 AU
superior conj	4069 Jul 10 10:18	20° S 41'00	1°00'17	superior conj	4070 Jun 24 21:40	5° S 32'18	0°38'06
minimum elong	4069 Jul 10 08:06	20° S 28'53	0°59'53	minimum elong	4070 Jun 24 20:03	5° S 23'27	0°37'45
max. Earth dist.	4069 Jul 10 11:01	20° S 44'57	1.32056 AU	evening rise	4070 Jul 01 17:22	20° S 24'54	
	4069 Jul 14 16:12	0° O			4070 Jul 06 09:12	0° O	
evening rise	4069 Jul 17 07:03	5° O 36'07			4070 Jul 25 10:22	0° P	
	4069 Jul 30 04:17	0° P		desc. node	4070 Jul 28 04:18	2° P 56'29	
desc. node	4069 Aug 10 07:17	16° P 04'41		evening max el	4070 Jul 28 23:55	3° P 44'23	25°30'46
evening max el	4069 Aug 16 04:32	22° P 29'02	26°40'40	retrograde	4070 Aug 11 23:05	10° P 50'01	
retrograde	4069 Aug 30 03:10	29° P 39'27		evening set	4070 Aug 17 21:05	9° P 28'29	
evening set	4069 Sep 05 22:37	27° P 41'34		min. Earth dist.	4070 Aug 22 11:50	6° P 49'19	0.58053 AU
min. Earth dist.	4069 Sep 09 18:26	25° P 05'14	0.60090 AU	inferior conj	4070 Aug 25 15:09	4° P 37'45	-5°08'39
inferior conj	4069 Sep 13 00:22	22° P 28'06	-4°39'48	minimum elong	4070 Aug 25 17:10	4° P 34'12	5°08'32
minimum elong	4069 Sep 13 05:44	22° P 17'12	4°38'49	morning rise	4070 Sep 02 15:31	0° P 19'59	
morning rise	4069 Sep 20 14:52	17° P 47'20		direct	4070 Sep 05 03:39	0° P 00'35	
direct	4069 Sep 22 23:38	17° P 26'31		morning max el	4070 Sep 13 16:27	4° P 03'39	18°50'26
asc. node	4069 Sep 30 06:49	20° P 55'13		asc. node	4070 Sep 17 03:51	7° P 58'35	
morning max el	4069 Sep 30 12:00	21° P 07'35	18°11'00		4070 Sep 29 22:54	0° A	
	4069 Oct 07 06:02	0° A		morning set	4070 Sep 30 04:11	0° A 25'55	
morning set	4069 Oct 16 07:53	16° A 15'26					
	4069 Oct 23 16:19	0° M					
				superior conj	4070 Oct 08 16:24	16° A 59'47	1°33'24
superior conj	4069 Oct 25 20:24	3° M 57'00	1°14'32	minimum elong	4070 Oct 08 19:09	17° A 12'51	1°33'11
minimum elong	4069 Oct 26 00:25	4° M 15'05	1°14'04	max. Earth dist.	4070 Oct 15 17:04	29° A 55'39	1.39231 AU
max. Earth dist.	4069 Nov 02 11:33	17° M 17'26	1.41294 AU		4070 Oct 15 18:03	0° M	
desc. node	4069 Nov 06 06:34	23° M 36'20		evening rise	4070 Oct 19 15:17	6° M 45'50	
evening rise	4069 Nov 07 12:09	25° M 36'57		desc. node	4070 Oct 24 03:35	14° M 17'27	
	4069 Nov 10 05:42	0° J			4070 Nov 03 06:22	0° J	
	4069 Nov 30 15:37	0° S		evening max el	4070 Nov 23 22:23	26° J 32'32	24°19'46
evening max el	4069 Dec 11 09:02	12° S 53'06	23°00'10		4070 Nov 27 20:08	0° S	
retrograde	4069 Dec 21 13:24	18° S 55'18		retrograde	4070 Dec 05 04:41	3° S 08'15	
evening set	4069 Dec 26 09:08	16° S 56'36		evening set	4070 Dec 10 13:49	0° S 53'36	
asc. node	4069 Dec 27 06:04	16° S 09'07			4070 Dec 11 13:01	30° R J	
inferior conj	4069 Dec 31 18:16	10° S 33'09	1°28'52	asc. node	4070 Dec 14 03:05	27° J 00'49	
minimum elong	4069 Dec 31 16:23	10° S 39'37	1°28'09	min. Earth dist.	4070 Dec 15 06:29	25° J 30'46	0.67741 AU
min. Earth dist.	4069 Dec 31 10:27	11° S 00'06	0.68007 AU	inferior conj	4070 Dec 16 01:07	24° J 28'13	0°38'57
morning rise	4070 Jan 05 23:31	4° S 24'53		minimum elong	4070 Dec 16 00:12	24° J 31'19	0°38'35
direct	4070 Jan 10 08:58	2° S 38'45		morning rise	4070 Dec 21 10:38	18° J 25'38	
morning max el	4070 Jan 19 03:51	7° S 45'58	21°31'00	direct	4070 Dec 25 06:38	17° J 01'45	
desc. node	4070 Feb 02 05:50	25° S 41'34		morning max el	4071 Jan 02 01:11	21° J 27'43	20°15'58
	4070 Feb 05 05:25	0° S			4071 Jan 09 03:38	0° S	
morning set	4070 Feb 19 20:49	22° S 18'48		desc. node	4071 Jan 20 02:51	15° S 47'08	
	4070 Feb 24 15:31	0° H			4071 Jan 29 11:00	0° S	
max. Earth dist.	4070 Feb 26 13:24	3° H 08'18	1.41949 AU	morning set	4071 Jan 29 19:02	0° S 31'02	
				max. Earth dist.	4071 Feb 08 21:39	16° S 25'24	1.43675 AU

superior conj	4071 Feb 14 20:13	26° \approx 05'03	-2°05'37	morning set	4072 Jan 08 19:50	9° \approx 00'18	
minimum elong	4071 Feb 14 17:19	25° \approx 53'05	2°05'32		4072 Jan 22 06:27	0° \approx	
	4071 Feb 17 04:52	0° \approx		max. Earth dist.	4072 Jan 22 12:16	0° \approx 22'58	1.44819 AU
evening rise	4071 Feb 27 12:43	17° \approx 38'11					
	4071 Mar 06 16:37	0° \approx		superior conj	4072 Jan 25 13:26	5° \approx 12'27	-1°46'48
asc. node	4071 Mar 12 02:23	8° \approx 37'26		minimum elong	4072 Jan 25 05:03	4° \approx 39'11	1°46'08
evening max el	4071 Mar 17 02:13	14° \approx 53'09	18°08'46	evening rise	4072 Feb 09 01:25	28° \approx 43'11	
retrograde	4071 Mar 23 13:02	18° \approx 16'06			4072 Feb 09 20:00	0° \approx	
evening set	4071 Mar 26 08:49	17° \approx 35'55		asc. node	4072 Feb 26 23:26	26° \approx 28'53	
inferior conj	4071 Apr 01 14:35	12° \approx 24'37	3°29'36	evening max el	4072 Feb 28 14:37	28° \approx 16'25	18°26'40
minimum elong	4071 Apr 01 16:00	12° \approx 20'52	3°29'28		4072 Mar 01 13:07	0° \approx	
min. Earth dist.	4071 Apr 04 10:37	9° \approx 26'40	0.62487 AU	retrograde	4072 Mar 06 02:36	1° \approx 49'01	
morning rise	4071 Apr 07 21:51	6° \approx 21'48		evening set	4072 Mar 09 04:16	0° \approx 56'56	
direct	4071 Apr 14 18:49	3° \approx 48'44			4072 Mar 10 14:05	30° \approx	
desc. node	4071 Apr 18 02:04	4° \approx 20'36		inferior conj	4072 Mar 15 00:31	25° \approx 27'15	3°36'26
morning max el	4071 Apr 28 20:07	11° \approx 47'24	27°51'15	minimum elong	4072 Mar 15 00:16	25° \approx 28'01	3°36'25
	4071 May 13 05:32	0° \approx		min. Earth dist.	4072 Mar 17 05:31	22° \approx 52'48	0.64380 AU
	4071 May 30 14:12	0° \approx		morning rise	4072 Mar 20 19:32	19° \approx 17'02	
morning set	4071 Jun 01 17:24	4° \approx 15'35		direct	4072 Mar 27 14:44	16° \approx 28'39	
max. Earth dist.	4071 Jun 07 06:07	15° \approx 49'17	1.32507 AU	desc. node	4072 Apr 03 23:06	19° \approx 06'13	
asc. node	4071 Jun 08 01:39	17° \approx 34'25		morning max el	4072 Apr 10 05:29	24° \approx 24'00	27°26'17
					4072 Apr 15 06:54	0° \approx	
superior conj	4071 Jun 09 06:50	20° \approx 12'29	0°12'44		4072 May 05 15:01	0° \approx	
minimum elong	4071 Jun 09 06:14	20° \approx 09'14	0°12'35	morning set	4072 May 15 10:24	18° \approx 03'30	
behind sun begin	4071 Jun 09 03:02	19° \approx 51'50		max. Earth dist.	4072 May 20 06:06	27° \approx 47'23	1.33381 AU
behind sun end	4071 Jun 09 09:26	20° \approx 26'38			4072 May 21 07:35	0° \approx	
	4071 Jun 13 18:43	0° \approx					
evening rise	4071 Jun 16 05:07	5° \approx 13'57		superior conj	4072 May 23 11:58	4° \approx 36'14	-0°15'04
	4071 Jun 29 08:52	0° \approx		minimum elong	4072 May 23 12:44	4° \approx 40'19	0°14'55
evening max el	4071 Jul 10 13:21	14° \approx 19'36	23°59'39	behind sun begin	4072 May 23 10:46	4° \approx 29'50	
desc. node	4071 Jul 15 01:19	18° \approx 02'13		behind sun end	4072 May 23 14:42	4° \approx 50'48	
retrograde	4071 Jul 24 07:27	21° \approx 14'57		asc. node	4072 May 24 22:42	7° \approx 41'26	
evening set	4071 Jul 28 19:49	20° \approx 29'53		evening rise	4072 May 30 16:30	19° \approx 57'29	
min. Earth dist.	4071 Aug 03 23:44	17° \approx 30'06	0.56280 AU		4072 Jun 04 14:41	0° \approx	
inferior conj	4071 Aug 06 09:37	16° \approx 01'22	-5°02'12	evening max el	4072 Jun 21 03:40	24° \approx 43'33	22°22'41
minimum elong	4071 Aug 06 05:43	16° \approx 07'23	5°01'51		4072 Jun 28 14:50	0° \approx	
morning rise	4071 Aug 14 18:12	12° \approx 03'24		desc. node	4072 Jun 30 22:21	0° \approx 47'09	
direct	4071 Aug 17 12:07	11° \approx 43'57		retrograde	4072 Jul 04 03:53	1° \approx 11'15	
morning max el	4071 Aug 27 10:38	16° \approx 21'05	19°51'41	evening set	4072 Jul 07 04:43	0° \approx 50'53	
asc. node	4071 Sep 04 00:53	25° \approx 56'31			4072 Jul 09 23:00	30° \approx	
	4071 Sep 06 11:47	0° \approx		min. Earth dist.	4072 Jul 15 10:24	27° \approx 16'43	0.55120 AU
morning set	4071 Sep 14 07:43	14° \approx 57'01		inferior conj	4072 Jul 16 10:32	26° \approx 42'34	-4°06'57
	4071 Sep 21 17:52	0° \approx		minimum elong	4072 Jul 16 02:12	26° \approx 54'23	4°04'57
				morning rise	4072 Jul 25 01:38	22° \approx 52'06	
superior conj	4071 Sep 22 03:11	0° \approx 46'28	1°42'39	direct	4072 Jul 28 03:23	22° \approx 30'45	
minimum elong	4071 Sep 22 04:16	0° \approx 51'48	1°42'37	morning max el	4072 Aug 08 17:00	27° \approx 53'58	21°13'44
max. Earth dist.	4071 Sep 27 22:04	11° \approx 59'18	1.37173 AU		4072 Aug 10 19:06	0° \approx	
evening rise	4071 Oct 01 16:49	18° \approx 56'39		asc. node	4072 Aug 20 21:56	14° \approx 36'23	
	4071 Oct 08 01:58	0° \approx		morning set	4072 Aug 28 15:54	29° \approx 41'33	
desc. node	4071 Oct 11 00:36	4° \approx 49'26			4072 Aug 28 19:28	0° \approx	
	4071 Oct 28 10:31	0° \approx					
evening max el	4071 Nov 06 10:41	10° \approx 14'41	25°33'35	superior conj	4072 Sep 05 00:25	15° \approx 04'01	1°43'52
retrograde	4071 Nov 18 15:37	17° \approx 15'10		minimum elong	4072 Sep 04 23:58	15° \approx 01'43	1°43'52
evening set	4071 Nov 24 14:35	14° \approx 46'28		max. Earth dist.	4072 Sep 09 08:02	23° \approx 50'31	1.35350 AU
min. Earth dist.	4071 Nov 28 23:39	9° \approx 58'20	0.67123 AU		4072 Sep 12 11:44	0° \approx	
inferior conj	4071 Nov 30 05:15	8° \approx 23'32	-0°16'10	evening rise	4072 Sep 13 12:57	1° \approx 59'57	
minimum elong	4071 Nov 30 05:40	8° \approx 22'12	0°15'59	desc. node	4072 Sep 26 21:38	25° \approx 06'50	
transit middle	4071 Nov 30 05:40	8° \approx 22'12	0°15'59		4072 Sep 30 01:46	0° \approx	
transit begin	4071 Nov 30 05:15	8° \approx 23'34		evening max el	4072 Oct 18 23:08	23° \approx 54'57	26°34'10
transit end	4071 Nov 30 06:06	8° \approx 20'50			4072 Oct 27 04:23	0° \approx	
asc. node	4071 Dec 01 00:08	7° \approx 23'28		retrograde	4072 Oct 31 21:28	1° \approx 09'16	
morning rise	4071 Dec 05 21:06	2° \approx 28'52			4072 Nov 05 05:28	30° \approx	
direct	4071 Dec 09 05:17	1° \approx 24'37		evening set	4072 Nov 07 09:27	28° \approx 30'50	
morning max el	4071 Dec 16 06:30	5° \approx 20'39	19°14'55	min. Earth dist.	4072 Nov 11 11:38	24° \approx 18'12	0.66159 AU
greatest brilliancy	4071 Dec 29 22:20	23° \approx 46'12	-0.7m	inferior conj	4072 Nov 13 04:41	22° \approx 15'13	-1°15'19
	4072 Jan 03 00:07	0° \approx		minimum elong	4072 Nov 13 06:45	22° \approx 09'01	1°14'26
desc. node	4072 Jan 06 23:52	6° \approx 09'50		asc. node	4072 Nov 16 21:11	18° \approx 13'21	

morning rise	4072 Nov 19 04:45	16° \mathbb{M} 30'58		morning rise	4073 Nov 03 07:04	0° \mathbb{M} 28'05	
direct	4072 Nov 22 03:11	15° \mathbb{M} 42'38		asc. node	4073 Nov 03 18:12	0° \mathbb{M} 16'29	
morning max el	4072 Nov 28 18:11	19° \mathbb{M} 19'35	18°29'38		4073 Nov 04 16:11	30° \mathbb{R} $\underline{\mathbb{A}}$	
	4072 Dec 06 22:44	0° \mathbb{A}		direct	4073 Nov 05 22:10	29° $\underline{\mathbb{A}}$ 51'43	
morning set	4072 Dec 18 20:33	18° \mathbb{A} 44'54			4073 Nov 07 04:13	0° \mathbb{M}	
desc. node	4072 Dec 23 20:53	26° \mathbb{A} 44'14		morning max el	4073 Nov 12 09:48	3° \mathbb{M} 18'51	18°01'09
	4072 Dec 25 22:16	0° \mathbb{B}		morning set	4073 Nov 30 02:54	29° \mathbb{M} 58'11	
					4073 Nov 30 03:20	0° \mathbb{A}	
superior conj	4073 Jan 03 16:19	13° \mathbb{B} 46'48	-1°09'35	desc. node	4073 Dec 10 17:57	17° \mathbb{A} 26'44	
minimum elong	4073 Jan 03 08:01	13° \mathbb{B} 14'17	1°08'36				
max. Earth dist.	4073 Jan 04 06:22	14° \mathbb{B} 41'57	1.45264 AU	superior conj	4073 Dec 14 01:11	22° \mathbb{A} 44'47	-0°22'34
	4073 Jan 14 00:18	0° \approx		minimum elong	4073 Dec 13 22:24	22° \mathbb{A} 33'42	0°22'10
evening rise	4073 Jan 19 14:44	8° \approx 50'45		max. Earth dist.	4073 Dec 18 01:35	29° \mathbb{A} 07'12	1.44972 AU
greatest brilliancy	4073 Jan 29 02:21	23° \approx 49'53	-0.8m		4073 Dec 18 14:59	0° \mathbb{B}	
	4073 Feb 02 02:42	0° \mathbb{H}		evening rise	4073 Dec 30 08:19	18° \mathbb{B} 14'43	
evening max el	4073 Feb 11 00:30	11° \mathbb{H} 45'19	19°02'22		4074 Jan 07 00:10	0° \approx	
asc. node	4073 Feb 12 20:30	13° \mathbb{H} 26'47		greatest brilliancy	4074 Jan 13 08:12	9° \approx 32'29	-0.6m
retrograde	4073 Feb 17 21:41	15° \mathbb{H} 38'46		evening max el	4074 Jan 25 06:05	25° \approx 17'06	19°54'06
evening set	4073 Feb 21 05:58	14° \mathbb{H} 33'51		asc. node	4074 Jan 30 17:31	29° \approx 17'20	
inferior conj	4073 Feb 26 19:52	8° \mathbb{H} 47'37	3°27'10	retrograde	4074 Feb 01 19:18	29° \approx 40'33	
minimum elong	4073 Feb 26 18:21	8° \mathbb{H} 52'27	3°27'00	evening set	4074 Feb 05 11:29	28° \approx 21'42	
min. Earth dist.	4073 Feb 28 09:25	6° \mathbb{H} 48'57	0.65904 AU	inferior conj	4074 Feb 10 21:38	22° \approx 21'07	3°05'36
morning rise	4073 Mar 04 06:22	2° \mathbb{H} 34'19		minimum elong	4074 Feb 10 19:22	22° \approx 28'41	3°05'08
	4073 Mar 08 17:15	30° \mathbb{R} \approx		min. Earth dist.	4074 Feb 11 20:45	21° \approx 03'54	0.67012 AU
direct	4073 Mar 10 17:28	29° \approx 44'24		morning rise	4074 Feb 16 03:01	16° \approx 07'10	
	4073 Mar 12 19:45	0° \mathbb{H}		direct	4074 Feb 22 01:52	13° \approx 27'36	
desc. node	4073 Mar 21 20:07	5° \mathbb{H} 38'44		morning max el	4074 Mar 06 00:16	20° \approx 35'13	25°14'52
morning max el	4073 Mar 23 15:22	7° \mathbb{H} 23'28	26°31'10	desc. node	4074 Mar 08 17:09	23° \approx 28'37	
	4073 Apr 10 04:33	0° \mathbb{Y}			4074 Mar 14 02:46	0° \mathbb{H}	
	4073 Apr 28 00:10	0° \mathbb{B}			4074 Apr 03 08:57	0° \mathbb{Y}	
morning set	4073 Apr 28 15:50	1° \mathbb{B} 13'36		morning set	4074 Apr 11 05:01	13° \mathbb{Y} 32'13	
max. Earth dist.	4073 May 02 19:02	9° \mathbb{B} 12'30	1.34715 AU	max. Earth dist.	4074 Apr 14 20:54	20° \mathbb{Y} 15'23	1.36495 AU
					4074 Apr 19 22:52	0° \mathbb{B}	
superior conj	4073 May 07 10:46	18° \mathbb{B} 36'38	-0°44'09				
minimum elong	4073 May 07 13:07	18° \mathbb{B} 48'46	0°43'41	superior conj	4074 Apr 21 00:21	2° \mathbb{B} 05'35	-1°12'56
asc. node	4073 May 11 19:47	27° \mathbb{B} 43'23		minimum elong	4074 Apr 21 04:14	2° \mathbb{B} 24'46	1°12'18
	4073 May 12 21:52	0° \mathbb{II}		asc. node	4074 Apr 28 16:50	17° \mathbb{B} 35'40	
evening rise	4073 May 15 01:32	4° \mathbb{II} 29'11		evening rise	4074 Apr 29 05:59	18° \mathbb{B} 42'11	
	4073 May 29 09:31	0° \mathbb{E}			4074 May 05 00:43	0° \mathbb{II}	
evening max el	4073 Jun 03 02:44	5° \mathbb{E} 29'12	20°54'10	evening max el	4074 May 16 13:54	16° \mathbb{II} 53'22	19°42'23
retrograde	4073 Jun 14 16:42	11° \mathbb{E} 09'26		retrograde	4074 May 26 09:59	21° \mathbb{II} 40'38	
evening set	4073 Jun 16 19:58	10° \mathbb{E} 58'37		evening set	4074 May 28 08:58	21° \mathbb{II} 30'06	
desc. node	4073 Jun 17 19:22	10° \mathbb{E} 46'49		desc. node	4074 Jun 04 16:24	18° \mathbb{II} 22'23	
inferior conj	4073 Jun 26 03:53	7° \mathbb{E} 01'19	-2°25'53	inferior conj	4074 Jun 06 04:06	17° \mathbb{II} 27'29	-0°26'26
minimum elong	4073 Jun 25 21:12	7° \mathbb{E} 10'48	2°23'34	minimum elong	4074 Jun 06 02:54	17° \mathbb{II} 29'21	0°25'59
min. Earth dist.	4073 Jun 26 22:02	6° \mathbb{E} 35'35	0.54848 AU	min. Earth dist.	4074 Jun 08 11:15	16° \mathbb{II} 01'49	0.55544 AU
morning rise	4073 Jul 04 22:13	2° \mathbb{E} 59'18		morning rise	4074 Jun 14 18:30	12° \mathbb{II} 56'37	
direct	4073 Jul 08 12:46	2° \mathbb{E} 31'15		direct	4074 Jun 19 04:50	12° \mathbb{II} 13'04	
morning max el	4073 Jul 21 12:55	8° \mathbb{E} 45'03	22°51'40	morning max el	4074 Jul 03 03:07	19° \mathbb{II} 10'13	24°34'57
	4073 Aug 05 18:19	0° \mathbb{Q}			4074 Jul 12 05:12	0° \mathbb{E}	
asc. node	4073 Aug 07 18:59	3° \mathbb{Q} 47'58		asc. node	4074 Jul 25 16:02	23° \mathbb{E} 22'20	
morning set	4073 Aug 13 02:48	14° \mathbb{Q} 33'58		morning set	4074 Jul 28 14:35	29° \mathbb{E} 28'08	
					4074 Jul 28 20:35	0° \mathbb{Q}	
superior conj	4073 Aug 20 04:45	29° \mathbb{Q} 42'25	1°38'24				
minimum elong	4073 Aug 20 03:12	29° \mathbb{Q} 34'07	1°38'17	superior conj	4074 Aug 04 13:33	14° \mathbb{Q} 32'31	1°27'18
	4073 Aug 20 08:03	0° \mathbb{P}		minimum elong	4074 Aug 04 11:22	14° \mathbb{Q} 20'37	1°27'02
max. Earth dist.	4073 Aug 23 02:52	5° \mathbb{P} 52'36	1.33897 AU	max. Earth dist.	4074 Aug 06 06:19	18° \mathbb{Q} 13'41	1.32859 AU
evening rise	4073 Aug 27 23:20	15° \mathbb{P} 44'12		evening rise	4074 Aug 11 19:59	29° \mathbb{Q} 57'17	
	4073 Sep 04 14:38	0° $\underline{\mathbb{A}}$			4074 Aug 11 20:31	0° \mathbb{P}	
desc. node	4073 Sep 13 18:41	15° $\underline{\mathbb{A}}$ 02'52			4074 Aug 28 15:39	0° $\underline{\mathbb{A}}$	
	4073 Sep 24 16:14	0° \mathbb{M}		desc. node	4074 Aug 31 15:43	4° $\underline{\mathbb{A}}$ 27'28	
evening max el	4073 Oct 01 11:40	7° \mathbb{M} 25'13	27°14'05	evening max el	4074 Sep 13 22:26	20° $\underline{\mathbb{A}}$ 31'36	27°26'37
retrograde	4073 Oct 14 21:33	14° \mathbb{M} 43'14		retrograde	4074 Sep 27 15:04	27° $\underline{\mathbb{A}}$ 47'27	
evening set	4073 Oct 21 20:06	12° \mathbb{M} 02'08		evening set	4074 Oct 04 19:26	25° $\underline{\mathbb{A}}$ 13'20	
min. Earth dist.	4073 Oct 25 16:08	8° \mathbb{M} 24'39	0.64851 AU	min. Earth dist.	4074 Oct 08 10:59	22° $\underline{\mathbb{A}}$ 07'42	0.63207 AU
inferior conj	4073 Oct 27 21:11	5° \mathbb{M} 58'54	-2°16'41	inferior conj	4074 Oct 11 04:01	19° $\underline{\mathbb{A}}$ 27'11	-3°17'35
minimum elong	4073 Oct 28 01:03	5° \mathbb{M} 48'17	2°15'12	minimum elong	4074 Oct 11 09:26	19° $\underline{\mathbb{A}}$ 13'48	3°15'48

morning rise	4074 Oct 18 00:53	14°♌13'19		inferior conj	4075 Sep 23 22:01	2°♌32'01	-4°13'10
direct	4074 Oct 20 11:15	13°♌45'18		minimum elong	4075 Sep 24 03:58	2°♌18'59	4°11'43
asc. node	4074 Oct 21 15:13	13°♌51'53			4075 Sep 26 23:41	30°♌	
morning max el	4074 Oct 27 02:23	17°♌10'57	17°50'14	morning rise	4075 Oct 01 06:16	27°♌38'40	
	4074 Nov 05 06:00	0°♌		direct	4075 Oct 03 14:47	27°♌15'57	
morning set	4074 Nov 12 10:08	12°♌23'21		asc. node	4075 Oct 08 12:16	28°♌58'19	
	4074 Nov 22 15:43	0°♌			4075 Oct 09 19:52	0°♌	
				morning max el	4075 Oct 10 16:53	0°♌48'27	17°57'48
superior conj	4074 Nov 24 08:27	2°♌50'03	0°22'39	morning set	4075 Oct 26 11:45	25°♌40'30	
minimum elong	4074 Nov 24 10:43	2°♌59'29	0°22'19		4075 Oct 28 20:17	0°♌	
desc. node	4074 Nov 27 15:00	8°♌13'22					
max. Earth dist.	4074 Nov 30 19:04	13°♌21'07	1.43972 AU	superior conj	4075 Nov 05 18:25	14°♌13'25	0°58'47
evening rise	4074 Dec 09 17:54	27°♌25'36		minimum elong	4075 Nov 05 22:32	14°♌31'25	0°58'15
	4074 Dec 11 10:03	0°♌		max. Earth dist.	4075 Nov 13 07:51	27°♌04'44	1.42388 AU
	4074 Dec 31 22:29	0°♌		desc. node	4075 Nov 14 12:00	29°♌00'34	
evening max el	4075 Jan 08 06:14	8°♌50'16	20°59'22		4075 Nov 15 02:32	0°♌	
retrograde	4075 Jan 16 17:18	13°♌50'41		evening rise	4075 Nov 19 11:30	7°♌01'53	
asc. node	4075 Jan 17 14:31	13°♌46'25			4075 Dec 04 15:59	0°♌	
evening set	4075 Jan 20 18:55	12°♌16'49		evening max el	4075 Dec 22 00:57	22°♌24'19	22°14'28
inferior conj	4075 Jan 26 03:21	6°♌04'31	2°34'15	retrograde	4075 Dec 31 13:51	28°♌04'49	
minimum elong	4075 Jan 26 00:52	6°♌13'03	2°33'33	asc. node	4076 Jan 04 11:31	26°♌43'46	
min. Earth dist.	4075 Jan 26 13:29	5°♌29'36	0.67702 AU	evening set	4076 Jan 05 02:32	26°♌15'10	
morning rise	4075 Jan 31 06:39	29°♌51'35		inferior conj	4076 Jan 10 10:57	19°♌54'29	1°54'47
	4075 Jan 31 02:56	30°♌		minimum elong	4076 Jan 10 08:44	20°♌02'12	1°54'00
direct	4075 Feb 05 15:07	27°♌30'17		min. Earth dist.	4076 Jan 10 09:24	19°♌59'54	0.67999 AU
	4075 Feb 11 22:00	0°♌		morning rise	4076 Jan 15 14:49	13°♌44'00	
morning max el	4075 Feb 16 08:52	3°♌54'09	23°47'37	direct	4076 Jan 20 08:24	11°♌44'56	
desc. node	4075 Feb 23 14:12	12°♌14'00		morning max el	4076 Jan 29 19:55	17°♌19'46	22°19'08
	4075 Mar 08 08:37	0°♌			4076 Feb 09 06:21	0°♌	
morning set	4075 Mar 23 20:09	24°♌44'08		desc. node	4076 Feb 10 11:13	1°♌38'40	
	4075 Mar 26 21:03	0°♌			4076 Feb 29 11:05	0°♌	
max. Earth dist.	4075 Mar 27 16:41	1°♌26'36	1.38595 AU	morning set	4076 Mar 03 07:33	4°♌35'27	
				max. Earth dist.	4076 Mar 08 13:34	13°♌17'05	1.40772 AU
superior conj	4075 Apr 04 01:07	14°♌53'48	-1°39'00				
minimum elong	4075 Apr 04 05:52	15°♌16'14	1°38'26	superior conj	4076 Mar 16 08:26	26°♌49'30	-1°58'50
	4075 Apr 11 20:40	0°♌		minimum elong	4076 Mar 16 12:25	27°♌07'23	1°58'36
evening rise	4075 Apr 13 03:15	2°♌29'27			4076 Mar 18 02:43	0°♌	
asc. node	4075 Apr 15 13:52	7°♌13'43		evening rise	4076 Mar 26 13:58	15°♌42'02	
evening max el	4075 Apr 29 12:12	28°♌57'35	18°50'27	asc. node	4076 Apr 01 10:52	26°♌31'36	
	4075 Apr 30 15:39	0°♌			4076 Apr 03 10:40	0°♌	
retrograde	4075 May 07 19:21	3°♌01'17		evening max el	4076 Apr 11 18:37	11°♌34'45	18°18'47
evening set	4075 May 09 22:48	2°♌46'04		retrograde	4076 Apr 18 23:40	15°♌10'16	
	4075 May 15 17:22	30°♌		evening set	4076 Apr 21 09:42	14°♌46'58	
inferior conj	4075 May 17 22:25	28°♌26'57	1°18'32	inferior conj	4076 Apr 28 14:15	10°♌07'46	2°32'53
minimum elong	4075 May 18 01:14	28°♌21'51	1°17'36	minimum elong	4076 Apr 28 17:52	10°♌00'05	2°31'59
min. Earth dist.	4075 May 21 03:27	26°♌08'31	0.57057 AU	min. Earth dist.	4076 May 02 00:41	7°♌14'24	0.59083 AU
desc. node	4075 May 22 13:24	25°♌12'05		morning rise	4076 May 05 23:12	4°♌31'07	
morning rise	4075 May 26 00:27	23°♌20'18		desc. node	4076 May 08 10:26	3°♌24'26	
direct	4075 May 31 10:04	22°♌09'49		direct	4076 May 12 05:11	2°♌45'39	
morning max el	4075 Jun 14 18:11	29°♌37'55	26°08'16	morning max el	4076 May 26 14:32	10°♌33'17	27°16'20
	4075 Jun 15 03:14	0°♌			4076 Jun 10 15:25	0°♌	
	4075 Jul 05 21:36	0°♌		morning set	4076 Jun 26 10:22	29°♌00'49	
asc. node	4075 Jul 12 13:06	13°♌12'56			4076 Jun 26 21:39	0°♌	
morning set	4075 Jul 13 01:39	14°♌19'02		asc. node	4076 Jun 28 10:09	3°♌13'48	
				max. Earth dist.	4076 Jul 03 03:13	13°♌30'21	1.32007 AU
superior conj	4075 Jul 20 00:44	29°♌27'40	1°11'23				
minimum elong	4075 Jul 19 22:25	29°♌14'51	1°11'00	superior conj	4076 Jul 03 12:31	14°♌21'36	0°51'18
	4075 Jul 20 06:37	0°♌		minimum elong	4076 Jul 03 10:31	14°♌10'34	0°50'55
max. Earth dist.	4075 Jul 20 15:38	0°♌49'42	1.32232 AU	evening rise	4076 Jul 10 08:22	29°♌14'17	
evening rise	4075 Jul 26 23:50	14°♌30'00			4076 Jul 10 17:01	0°♌	
	4075 Aug 03 21:03	0°♌			4076 Jul 27 05:38	0°♌	
desc. node	4075 Aug 18 12:43	23°♌07'52		desc. node	4076 Aug 04 09:43	10°♌46'08	
	4075 Aug 24 05:42	0°♌		evening max el	4076 Aug 08 04:12	14°♌42'36	26°14'18
evening max el	4075 Aug 27 04:43	3°♌00'28	27°06'57	retrograde	4076 Aug 22 03:34	21°♌52'02	
retrograde	4075 Sep 10 01:23	10°♌12'55		evening set	4076 Aug 28 15:37	20°♌08'29	
evening set	4075 Sep 17 03:31	7°♌57'51		min. Earth dist.	4076 Sep 01 17:09	17°♌33'28	0.59207 AU
min. Earth dist.	4075 Sep 20 19:02	5°♌15'19	0.61282 AU	inferior conj	4076 Sep 04 23:40	15°♌04'30	-4°55'20

minimum elong	4076 Sep 05 04:01	14° \cap 56'12	4°54'46	inferior conj	4077 Aug 17 05:52	26° Ω 54'53	-5°11'17
morning rise	4076 Sep 12 18:38	10° \cap 33'56		minimum elong	4077 Aug 17 05:33	26° Ω 55'24	5°11'17
direct	4076 Sep 15 04:21	10° \cap 14'03		morning rise	4077 Aug 25 09:54	22° Ω 46'14	
morning max el	4076 Sep 23 02:04	14° \cap 03'02	18°25'13	direct	4077 Aug 27 24:00	22° Ω 27'08	
asc. node	4076 Sep 24 09:20	15° \cap 23'41		morning max el	4077 Sep 06 02:30	26° Ω 43'43	19°13'51
	4076 Oct 04 00:10	0° Ω			4077 Sep 09 02:38	0° \cap	
morning set	4076 Oct 09 02:28	9° Ω 35'05		asc. node	4077 Sep 11 06:24	2° \cap 51'53	
				morning set	4077 Sep 23 02:14	23° \cap 55'12	
					4077 Sep 26 03:20	0° Ω	
superior conj	4076 Oct 18 03:38	26° Ω 44'59	1°23'47				
minimum elong	4076 Oct 18 07:14	27° Ω 01'31	1°23'26				
	4076 Oct 19 22:13	0° \cap		superior conj	4077 Oct 01 06:33	10° Ω 08'04	1°38'23
max. Earth dist.	4076 Oct 25 15:08	10° \cap 06'18	1.40427 AU	minimum elong	4077 Oct 01 08:35	10° Ω 17'59	1°38'16
evening rise	4076 Oct 30 01:11	17° \cap 34'19		max. Earth dist.	4077 Oct 07 19:29	22° Ω 26'28	1.38337 AU
desc. node	4076 Oct 31 09:00	19° \cap 45'17		evening rise	4077 Oct 11 14:15	29° Ω 10'49	
	4076 Nov 06 19:27	0° \nearrow			4077 Oct 12 01:34	0° \cap	
	4076 Nov 28 05:30	0° \searrow		desc. node	4077 Oct 18 06:02	10° \cap 23'09	
evening max el	4076 Dec 03 15:38	6° \searrow 01'35	23°34'14		4077 Oct 31 04:30	0° \nearrow	
retrograde	4076 Dec 14 07:32	12° \searrow 19'41		evening max el	4077 Nov 16 04:24	19° \nearrow 42'49	24°52'20
evening set	4076 Dec 19 08:46	10° \searrow 14'05		retrograde	4077 Nov 27 21:08	26° \nearrow 30'32	
asc. node	4076 Dec 21 08:33	8° \searrow 14'39		evening set	4077 Dec 03 12:00	24° \nearrow 09'51	
inferior conj	4076 Dec 24 18:39	3° \searrow 48'59	1°08'26	min. Earth dist.	4077 Dec 08 01:26	19° \nearrow 01'20	0.67521 AU
minimum elong	4076 Dec 24 17:07	3° \searrow 54'12	1°07'49	asc. node	4077 Dec 08 05:36	18° \nearrow 47'37	
min. Earth dist.	4076 Dec 24 06:11	4° \searrow 31'37	0.67934 AU	inferior conj	4077 Dec 09 00:36	17° \nearrow 44'50	0°16'12
	4076 Dec 27 17:25	30° \nearrow		minimum elong	4077 Dec 09 00:12	17° \nearrow 46'09	0°16'02
morning rise	4076 Dec 30 01:26	27° \nearrow 42'44		transit middle	4077 Dec 09 00:12	17° \nearrow 46'09	0°16'02
direct	4077 Jan 03 04:53	26° \nearrow 06'25		transit begin	4077 Dec 08 23:48	17° \nearrow 47'29	
	4077 Jan 10 13:58	0° \searrow		transit end	4077 Dec 09 00:36	17° \nearrow 44'50	
morning max el	4077 Jan 11 12:52	0° \searrow 55'23	20°57'29	morning rise	4077 Dec 14 12:33	11° \nearrow 45'01	
desc. node	4077 Jan 27 08:15	21° \searrow 31'55		direct	4077 Dec 18 03:17	10° \nearrow 29'47	
	4077 Feb 02 01:15	0° \approx		morning max el	4077 Dec 25 13:35	14° \nearrow 41'49	19°48'01
morning set	4077 Feb 10 15:39	13° \approx 11'57			4078 Jan 06 08:40	0° \searrow	
max. Earth dist.	4077 Feb 18 16:43	26° \approx 01'43	1.42742 AU	greatest brilliancy	4078 Jan 07 21:32	2° \searrow 15'24	-0.6m
	4077 Feb 21 02:51	0° \nearrow		desc. node	4078 Jan 14 05:16	11° \searrow 45'24	
				morning set	4078 Jan 20 11:37	21° \searrow 21'25	
superior conj	4077 Feb 25 17:20	7° \nearrow 42'05	-2°07'40		4078 Jan 26 01:13	0° \approx	
minimum elong	4077 Feb 25 17:45	7° \nearrow 43'55	2°07'40	max. Earth dist.	4078 Feb 01 03:32	9° \approx 36'25	1.44247 AU
evening rise	4077 Mar 09 10:13	28° \nearrow 11'19					
	4077 Mar 10 10:30	0° \cap		superior conj	4078 Feb 06 00:27	17° \approx 25'21	-2°00'05
asc. node	4077 Mar 19 07:53	15° \cap 22'55		minimum elong	4078 Feb 05 18:55	17° \approx 02'57	1°59'48
evening max el	4077 Mar 26 05:51	24° \cap 36'35	18°06'55		4078 Feb 13 16:01	0° \nearrow	
retrograde	4077 Apr 01 20:15	27° \cap 59'42		evening rise	4078 Feb 19 11:29	9° \nearrow 48'20	
evening set	4077 Apr 04 12:38	27° \cap 26'05			4078 Mar 03 15:54	0° \cap	
inferior conj	4077 Apr 11 01:36	22° \cap 26'30	3°16'20	asc. node	4078 Mar 06 04:55	3° \cap 39'11	
minimum elong	4077 Apr 11 04:02	22° \cap 20'34	3°15'57	evening max el	4078 Mar 09 18:42	7° \cap 54'22	18°14'12
min. Earth dist.	4077 Apr 14 05:07	19° \cap 23'05	0.61278 AU	retrograde	4078 Mar 16 04:50	11° \cap 19'33	
morning rise	4077 Apr 17 17:31	16° \cap 30'40		evening set	4078 Mar 19 03:10	10° \cap 34'20	
direct	4077 Apr 24 11:53	14° \cap 11'54		inferior conj	4078 Mar 25 04:27	5° \cap 15'12	3°34'44
desc. node	4077 Apr 25 07:27	14° \cap 13'49		minimum elong	4078 Mar 25 05:08	5° \cap 13'21	3°34'41
morning max el	4077 May 08 17:07	22° \cap 09'15	27°49'16	min. Earth dist.	4078 Mar 27 18:23	2° \cap 25'14	0.63338 AU
	4077 May 15 14:35	0° \searrow			4078 Mar 30 05:33	30° \nearrow	
	4077 Jun 03 17:44	0° \cap		morning rise	4078 Mar 31 06:05	29° \nearrow 08'51	
morning set	4077 Jun 10 14:50	13° \cap 27'27		direct	4078 Apr 07 03:26	26° \nearrow 27'21	
asc. node	4077 Jun 15 07:11	23° \cap 20'19		desc. node	4078 Apr 12 04:29	27° \nearrow 41'54	
max. Earth dist.	4077 Jun 16 13:17	26° \cap 03'29	1.32199 AU		4078 Apr 15 23:18	0° \cap	
				morning max el	4078 Apr 21 00:32	4° \cap 25'30	27°44'43
superior conj	4077 Jun 17 23:10	29° \cap 08'35	0°27'40		4078 May 10 05:40	0° \searrow	
minimum elong	4077 Jun 17 21:56	29° \cap 01'51	0°27'24	morning set	4078 May 25 12:51	27° \searrow 32'09	
	4077 Jun 18 08:33	0° \searrow			4078 May 26 18:11	0° \cap	
evening rise	4077 Jun 24 19:30	14° \searrow 03'21		max. Earth dist.	4078 May 30 18:04	8° \cap 17'51	1.32822 AU
	4077 Jul 02 18:56	0° Ω					
evening max el	4077 Jul 20 20:32	25° Ω 38'16	24°53'53	superior conj	4078 Jun 02 06:55	13° \cap 43'03	0°01'11
desc. node	4077 Jul 22 06:44	26° Ω 56'42		minimum elong	4078 Jun 02 06:52	13° \cap 42'44	0°01'10
	4077 Jul 26 08:27	0° \cap		behind sun begin	4078 Jun 02 01:35	13° \cap 14'20	
retrograde	4077 Aug 03 19:08	2° \cap 41'24		behind sun end	4078 Jun 02 12:08	14° \cap 11'10	
evening set	4077 Aug 09 03:39	1° \cap 36'19		asc. node	4078 Jun 02 04:14	13° \cap 28'32	
	4077 Aug 12 10:12	30° \nearrow		evening rise	4078 Jun 09 07:23	28° \cap 51'15	
min. Earth dist.	4077 Aug 14 08:03	28° Ω 50'04	0.57233 AU		4078 Jun 09 20:23	0° \searrow	

	4078 Jun 27 00:45	0°♎		evening max el	4079 Jun 14 02:47	16°♊34'36	21°43'17
evening max el	4078 Jul 02 09:36	6°♎05'29	23°18'16	desc. node	4079 Jun 26 00:48	22°♊43'05	
desc. node	4078 Jul 09 03:46	11°♎07'11		retrograde	4079 Jun 26 13:44	22°♊43'46	
retrograde	4078 Jul 15 21:55	12°♎50'55		evening set	4079 Jun 29 03:26	22°♊28'51	
evening set	4078 Jul 19 18:25	12°♎18'28		min. Earth dist.	4079 Jul 08 05:35	18°♊36'06	0.54891 AU
min. Earth dist.	4078 Jul 26 19:08	9°♎05'43	0.55691 AU	inferior conj	4079 Jul 08 12:10	18°♊26'54	-3°28'29
inferior conj	4078 Jul 28 16:12	7°♎59'33	-4°45'12	minimum elong	4079 Jul 08 03:44	18°♊38'42	3°26'01
minimum elong	4078 Jul 28 09:53	8°♎08'53	4°44'12	morning rise	4079 Jul 17 05:19	14°♊34'28	
morning rise	4078 Aug 06 03:43	4°♎06'28		direct	4079 Jul 20 11:57	14°♊11'00	
direct	4078 Aug 09 00:50	3°♎46'21		morning max el	4079 Aug 01 17:02	19°♊55'06	21°54'01
morning max el	4078 Aug 19 15:37	8°♎42'10	20°24'11		4079 Aug 10 00:13	0°♎	
asc. node	4078 Aug 29 03:28	21°♎09'06		asc. node	4079 Aug 16 00:31	10°♎03'08	
	4078 Sep 03 01:12	0°♏		morning set	4079 Aug 22 17:37	23°♎21'01	
morning set	4078 Sep 07 08:03	8°♏32'51			4079 Aug 25 21:18	0°♏	
superior conj	4078 Sep 14 22:14	24°♏08'55	1°44'03	superior conj	4079 Aug 29 22:48	8°♏35'45	1°42'18
minimum elong	4078 Sep 14 22:37	24°♏10'53	1°44'03	minimum elong	4079 Aug 29 21:50	8°♏30'39	1°42'15
	4078 Sep 17 20:23	0°♐		max. Earth dist.	4079 Sep 02 15:59	16°♏16'53	1.34682 AU
max. Earth dist.	4078 Sep 20 02:14	4°♐22'35	1.36363 AU	evening rise	4079 Sep 07 02:56	25°♏06'34	
evening rise	4078 Sep 24 00:17	11°♐45'22			4079 Sep 09 16:55	0°♐	
	4078 Oct 04 14:41	0°♑		desc. node	4079 Sep 22 00:07	20°♐58'35	
desc. node	4078 Oct 05 03:04	0°♑49'36			4079 Sep 28 02:16	0°♑	
	4078 Oct 26 09:40	0°♒		evening max el	4079 Oct 12 05:32	17°♑02'31	26°54'06
evening max el	4078 Oct 29 16:57	3°♒25'39	26°01'25	retrograde	4079 Oct 25 09:06	24°♑18'57	
retrograde	4078 Nov 11 05:49	10°♒32'29		evening set	4079 Nov 01 02:11	21°♑38'12	
evening set	4078 Nov 17 10:30	7°♒59'14		min. Earth dist.	4079 Nov 05 01:36	17°♑40'58	0.65647 AU
min. Earth dist.	4078 Nov 21 16:41	3°♒26'03	0.66763 AU	inferior conj	4079 Nov 06 23:46	15°♑27'32	-1°41'12
inferior conj	4078 Nov 23 03:00	1°♒39'01	-0°40'49	minimum elong	4079 Nov 07 02:35	15°♑19'20	1°40'02
minimum elong	4078 Nov 23 04:05	1°♒35'38	0°40'21	asc. node	4079 Nov 11 23:42	10°♑31'18	
	4078 Nov 24 11:15	30°♑♑		morning rise	4079 Nov 13 03:50	9°♑48'49	
asc. node	4078 Nov 25 02:40	29°♑♑14'49		direct	4079 Nov 15 22:55	9°♑05'59	
morning rise	4078 Nov 28 22:07	25°♑48'17		morning max el	4079 Nov 22 11:32	12°♑37'19	18°15'31
direct	4078 Dec 02 01:59	24°♑51'06			4079 Dec 04 20:06	0°♒	
morning max el	4078 Dec 08 21:48	28°♑37'26	18°53'36	morning set	4079 Dec 11 10:28	10°♒42'05	
	4078 Dec 10 04:58	0°♒		desc. node	4079 Dec 18 23:21	22°♒52'00	
morning set	4078 Dec 30 20:55	0°♓18'25			4079 Dec 23 10:54	0°♓	
	4078 Dec 30 16:13	0°♓		superior conj	4079 Dec 26 12:21	4°♓49'58	-0°50'08
desc. node	4079 Jan 01 02:18	2°♓13'33		minimum elong	4079 Dec 26 06:04	4°♓25'14	0°49'17
max. Earth dist.	4079 Jan 14 20:28	23°♓46'53	1.45108 AU	max. Earth dist.	4079 Dec 28 15:58	8°♓12'52	1.45230 AU
superior conj	4079 Jan 16 09:30	26°♓12'33	-1°32'55	evening rise	4080 Jan 11 18:24	0°♐15'36	
minimum elong	4079 Jan 16 00:15	25°♓36'07	1°32'01		4080 Jan 11 14:25	0°♐	
	4079 Jan 18 19:11	0°♐		greatest brilliancy	4080 Jan 23 08:21	18°♐13'55	-0.7m
evening rise	4079 Jan 31 14:14	20°♐28'16			4080 Jan 31 12:07	0°♑	
	4079 Feb 06 11:12	0°♑		evening max el	4080 Feb 04 14:33	4°♑51'04	19°22'26
asc. node	4079 Feb 21 01:57	21°♑09'20		asc. node	4080 Feb 07 22:59	7°♑40'47	
evening max el	4079 Feb 21 06:20	21°♑20'34	18°39'46	retrograde	4080 Feb 11 17:46	8°♑56'27	
retrograde	4079 Feb 27 21:08	25°♑00'29		evening set	4080 Feb 15 05:14	7°♑45'39	
evening set	4079 Mar 03 01:37	24°♑02'51		inferior conj	4080 Feb 20 17:14	1°♑52'42	3°19'20
inferior conj	4079 Mar 08 18:48	18°♑25'44	3°34'11	minimum elong	4080 Feb 20 15:20	1°♑58'53	3°19'03
minimum elong	4079 Mar 08 17:56	18°♑28'21	3°34'08	min. Earth dist.	4080 Feb 22 00:22	0°♑11'34	0.66426 AU
min. Earth dist.	4079 Mar 10 17:04	16°♑05'46	0.65082 AU		4080 Feb 22 03:59	30°♑♑	
morning rise	4079 Mar 14 09:46	12°♑14'04		morning rise	4080 Feb 26 01:10	25°♑38'48	
direct	4079 Mar 21 02:11	9°♑23'40		direct	4080 Mar 03 07:17	22°♑52'22	
desc. node	4079 Mar 30 01:31	13°♑16'58		desc. node	4080 Mar 15 22:33	0°♑25'52	
morning max el	4079 Apr 03 10:21	17°♑12'54	27°06'05		4080 Mar 15 12:15	0°♑	
	4079 Apr 14 02:10	0°♒		morning max el	4080 Mar 15 20:11	0°♑19'54	26°00'46
	4079 May 03 02:28	0°♒			4080 Apr 07 00:54	0°♒	
morning set	4079 May 09 01:22	11°♒04'54		morning set	4080 Apr 21 00:32	23°♒54'54	
max. Earth dist.	4079 May 13 13:51	20°♒02'48	1.33897 AU		4080 Apr 24 06:03	0°♒	
				max. Earth dist.	4080 Apr 24 22:10	1°♒17'29	1.35429 AU
superior conj	4079 May 17 09:38	27°♒57'28	-0°27'19	superior conj	4080 Apr 30 04:52	11°♒45'09	-0°56'31
minimum elong	4079 May 17 11:04	28°♒04'58	0°27'02	minimum elong	4080 Apr 30 07:54	12°♒00'32	0°55'58
	4079 May 18 08:55	0°♓		asc. node	4080 May 05 22:18	23°♒31'48	
asc. node	4079 May 20 01:16	3°♓33'40		evening rise	4080 May 08 01:23	27°♒55'04	
evening rise	4079 May 24 18:00	13°♓30'31			4080 May 09 01:50	0°♓	
	4079 Jun 02 04:13	0°♓					

evening max el	4080 May 26 06:40	27° Π 34'30	20°21'10		4081 Apr 16 03:11	0° \mathcal{B}	
	4080 May 29 03:06	0° \mathfrak{E}		evening rise	4081 Apr 22 03:07	11° \mathcal{B} 57'46	
retrograde	4080 Jun 06 03:11	2° \mathfrak{E} 52'28		asc. node	4081 Apr 22 19:20	13° \mathcal{B} 18'25	
evening set	4080 Jun 08 02:46	2° \mathfrak{E} 42'36			4081 May 01 20:49	0° Π	
desc. node	4080 Jun 11 21:48	1° \mathfrak{E} 34'16		evening max el	4081 May 08 22:53	9° Π 16'19	19°17'47
	4080 Jun 15 01:57	30° $\mathcal{R}\Pi$		retrograde	4081 May 18 02:21	13° Π 43'21	
inferior conj	4080 Jun 17 06:37	28° Π 44'27	-1°35'13	evening set	4081 May 20 02:28	13° Π 31'26	
minimum elong	4080 Jun 17 02:08	28° Π 51'00	1°33'35	inferior conj	4081 May 28 13:40	9° Π 23'01	0°21'16
min. Earth dist.	4080 Jun 18 17:44	27° Π 53'04	0.55031 AU	minimum elong	4081 May 28 14:33	9° Π 21'33	0°20'57
morning rise	4080 Jun 26 00:21	24° Π 31'45		desc. node	4081 May 29 18:47	8° Π 34'38	
direct	4080 Jun 29 22:11	23° Π 58'42		min. Earth dist.	4081 May 31 08:25	7° Π 33'02	0.56101 AU
	4080 Jul 12 19:52	0° \mathfrak{E}		morning rise	4081 Jun 05 23:37	4° Π 36'27	
morning max el	4080 Jul 13 09:52	0° \mathfrak{E} 32'14	23°35'54	direct	4081 Jun 10 19:45	3° Π 42'39	
asc. node	4080 Aug 01 21:33	29° \mathfrak{E} 24'48		morning max el	4081 Jun 24 23:49	10° Π 55'31	25°16'49
	4080 Aug 02 04:40	0° \mathcal{Q}			4081 Jul 09 12:26	0° \mathfrak{E}	
morning set	4080 Aug 06 05:01	8° \mathcal{Q} 14'15		asc. node	4081 Jul 19 18:35	19° \mathfrak{E} 06'48	
				morning set	4081 Jul 21 16:42	23° \mathfrak{E} 07'45	
superior conj	4080 Aug 13 05:17	23° \mathcal{Q} 19'35	1°34'20		4081 Jul 24 21:19	0° \mathcal{Q}	
minimum elong	4080 Aug 13 03:24	23° \mathcal{Q} 09'27	1°34'09	superior conj	4081 Jul 28 15:21	8° \mathcal{Q} 13'03	1°21'06
max. Earth dist.	4080 Aug 15 14:28	28° \mathcal{Q} 25'26	1.33398 AU	minimum elong	4081 Jul 28 13:03	8° \mathcal{Q} 00'25	1°20'47
	4080 Aug 16 08:22	0° \mathfrak{P}		max. Earth dist.	4081 Jul 29 20:37	10° \mathcal{Q} 53'02	1.32536 AU
evening rise	4080 Aug 20 18:01	9° \mathfrak{P} 03'26		evening rise	4081 Aug 04 18:06	23° \mathcal{Q} 26'15	
	4080 Sep 01 03:01	0° \mathfrak{A}			4081 Aug 08 00:16	0° \mathfrak{P}	
desc. node	4080 Sep 07 21:09	10° \mathfrak{A} 42'10		desc. node	4081 Aug 25 18:09	29° \mathfrak{P} 49'59	
	4080 Sep 23 07:48	0° \mathfrak{M}			4081 Aug 25 21:01	0° \mathfrak{A}	
evening max el	4080 Sep 23 17:17	0° \mathfrak{M} 22'44	27°23'07	evening max el	4081 Sep 06 02:26	13° \mathfrak{A} 14'50	27°22'28
retrograde	4080 Oct 07 06:33	7° \mathfrak{M} 41'05		retrograde	4081 Sep 19 21:28	20° \mathfrak{A} 30'00	
evening set	4080 Oct 14 08:25	5° \mathfrak{M} 01'12		evening set	4081 Sep 27 01:51	18° \mathfrak{A} 02'26	
min. Earth dist.	4080 Oct 18 02:03	1° \mathfrak{M} 38'16	0.64183 AU	min. Earth dist.	4081 Sep 30 16:33	15° \mathfrak{A} 07'57	0.62407 AU
	4080 Oct 19 15:35	30° $\mathcal{R}\mathfrak{A}$		inferior conj	4081 Oct 03 14:15	12° \mathfrak{A} 24'17	-3°42'16
inferior conj	4080 Oct 20 12:27	29° \mathfrak{A} 04'41	-2°42'53	minimum elong	4081 Oct 03 20:05	12° \mathfrak{A} 10'34	3°40'32
minimum elong	4080 Oct 20 17:02	28° \mathfrak{A} 52'36	2°41'12	morning rise	4081 Oct 10 15:58	7° \mathfrak{A} 18'45	
morning rise	4080 Oct 27 02:56	23° \mathfrak{A} 41'00		direct	4081 Oct 13 01:02	6° \mathfrak{A} 53'28	
asc. node	4080 Oct 28 20:45	23° \mathfrak{A} 11'53		asc. node	4081 Oct 15 17:47	7° \mathfrak{A} 27'01	
direct	4080 Oct 29 15:37	23° \mathfrak{A} 08'43		morning max el	4081 Oct 19 20:05	10° \mathfrak{A} 21'23	17°51'07
morning max el	4080 Nov 05 03:58	26° \mathfrak{A} 34'16	17°54'24		4081 Nov 01 20:50	0° \mathfrak{M}	
	4080 Nov 08 03:09	0° \mathfrak{M}		morning set	4081 Nov 04 19:56	5° \mathfrak{M} 16'59	
morning set	4080 Nov 22 04:07	22° \mathfrak{M} 27'36					
	4080 Nov 26 14:53	0° \mathcal{X}		superior conj	4081 Nov 16 00:10	24° \mathfrak{M} 51'51	0°39'18
desc. node	4080 Dec 04 20:23	13° \mathcal{X} 36'22		minimum elong	4081 Nov 16 03:36	25° \mathfrak{M} 06'26	0°38'48
					4081 Nov 19 01:31	0° \mathcal{X}	
superior conj	4080 Dec 05 05:27	14° \mathcal{X} 13'07	-0°02'38	desc. node	4081 Nov 21 17:26	4° \mathcal{X} 23'39	
minimum elong	4080 Dec 05 05:08	14° \mathcal{X} 11'53	0°02'35	max. Earth dist.	4081 Nov 23 01:37	6° \mathcal{X} 34'45	1.43355 AU
behind sun begin	4080 Dec 04 19:08	13° \mathcal{X} 31'18		evening rise	4081 Nov 30 17:41	18° \mathcal{X} 45'24	
behind sun end	4080 Dec 05 15:09	14° \mathcal{X} 52'24			4081 Dec 08 02:10	0° \mathfrak{Z}	
max. Earth dist.	4080 Dec 10 10:25	22° \mathcal{X} 33'54	1.44617 AU		4081 Dec 29 20:12	0° \mathfrak{A}	
	4080 Dec 15 03:49	0° \mathfrak{Z}		evening max el	4081 Dec 31 15:35	1° \mathfrak{A} 56'18	21°30'26
evening rise	4080 Dec 21 06:39	9° \mathfrak{Z} 28'41		retrograde	4082 Jan 09 13:27	7° \mathfrak{A} 13'45	
	4081 Jan 03 20:32	0° \mathfrak{A}		asc. node	4082 Jan 11 17:02	6° \mathfrak{A} 48'42	
evening max el	4081 Jan 17 17:47	18° \mathfrak{A} 22'56	20°20'21	evening set	4082 Jan 13 19:29	5° \mathfrak{A} 33'29	
asc. node	4081 Jan 24 20:01	22° \mathfrak{A} 58'15			4082 Jan 18 15:24	30° $\mathcal{R}\mathfrak{Z}$	
retrograde	4081 Jan 25 15:53	23° \mathfrak{A} 01'59		inferior conj	4082 Jan 19 03:44	29° \mathfrak{Z} 17'19	2°18'26
evening set	4081 Jan 29 11:47	21° \mathfrak{A} 37'01		minimum elong	4082 Jan 19 01:18	29° \mathfrak{Z} 25'44	2°17'40
inferior conj	4081 Feb 03 20:58	15° \mathfrak{A} 30'56	2°53'23	min. Earth dist.	4082 Jan 19 08:51	28° \mathfrak{Z} 59'35	0.67875 AU
minimum elong	4081 Feb 03 18:33	15° \mathfrak{A} 39'09	2°52'49	morning rise	4082 Jan 24 06:56	23° \mathfrak{Z} 05'04	
min. Earth dist.	4081 Feb 04 14:24	14° \mathfrak{A} 31'42	0.67352 AU	direct	4082 Jan 29 09:08	20° \mathfrak{Z} 52'40	
morning rise	4081 Feb 09 01:05	9° \mathfrak{A} 16'57		morning max el	4082 Feb 08 13:53	26° \mathfrak{Z} 56'02	23°09'30
direct	4081 Feb 14 17:53	6° \mathfrak{A} 44'23			4082 Feb 11 10:14	0° \mathfrak{A}	
morning max el	4081 Feb 26 04:50	13° \mathfrak{A} 35'23	24°38'26	desc. node	4082 Feb 17 16:37	7° \mathfrak{A} 45'00	
desc. node	4081 Mar 02 19:34	18° \mathfrak{A} 41'30			4082 Mar 05 03:19	0° \mathcal{X}	
	4081 Mar 11 12:22	0° \mathcal{X}		morning set	4082 Mar 15 09:00	16° \mathcal{X} 26'04	
	4081 Mar 30 20:54	0° \mathcal{Y}		max. Earth dist.	4082 Mar 19 15:12	23° \mathcal{X} 40'54	1.39529 AU
morning set	4081 Apr 03 05:07	5° \mathcal{Y} 47'22			4082 Mar 23 05:25	0° \mathcal{Y}	
max. Earth dist.	4081 Apr 06 20:19	12° \mathcal{Y} 18'15	1.37361 AU				
				superior conj	4082 Mar 27 07:28	7° \mathcal{Y} 25'16	-1°48'26
superior conj	4081 Apr 13 13:28	24° \mathcal{Y} 57'42	-1°24'30	minimum elong	4082 Mar 27 12:10	7° \mathcal{Y} 46'58	1°47'59
minimum elong	4081 Apr 13 17:51	25° \mathcal{Y} 18'56	1°23'53				

evening rise	4082 Apr 05 20:20	25° Υ 31'08		evening rise	4083 Mar 20 01:28	8° Υ 26'49	
	4082 Apr 08 04:35	0° \mathcal{B}		asc. node	4083 Mar 27 13:23	21° Υ 56'15	
asc. node	4082 Apr 09 16:21	2° \mathcal{B} 48'29			4083 Apr 01 16:57	0° \mathcal{B}	
evening max el	4082 Apr 22 01:11	21° \mathcal{B} 36'15	18°34'33	evening max el	4083 Apr 05 10:09	4° \mathcal{B} 25'39	18°11'21
retrograde	4082 Apr 29 19:34	25° \mathcal{B} 25'26		retrograde	4083 Apr 12 07:26	7° \mathcal{B} 53'54	
evening set	4082 May 02 01:54	25° \mathcal{B} 07'03		evening set	4083 Apr 14 20:22	7° \mathcal{B} 26'16	
inferior conj	4082 May 09 17:08	20° \mathcal{B} 39'50	1°54'04	inferior conj	4083 Apr 21 17:46	2° \mathcal{B} 38'03	2°54'46
minimum elong	4082 May 09 20:38	20° \mathcal{B} 33'02	1°53'01	minimum elong	4083 Apr 21 21:02	2° \mathcal{B} 30'41	2°54'05
min. Earth dist.	4082 May 13 02:29	18° \mathcal{B} 03'41	0.57881 AU		4083 Apr 24 15:57	30° $\mathcal{R}\Upsilon$	
desc. node	4082 May 16 15:48	15° \mathcal{B} 45'32		min. Earth dist.	4083 Apr 25 02:18	29° Υ 37'40	0.60019 AU
morning rise	4082 May 17 12:11	15° \mathcal{B} 19'29		morning rise	4083 Apr 28 19:19	26° Υ 52'16	
direct	4082 May 23 07:33	13° \mathcal{B} 54'17		desc. node	4083 May 03 12:50	25° Υ 01'05	
morning max el	4082 Jun 06 16:34	21° \mathcal{B} 31'50	26°40'59	direct	4083 May 05 07:43	24° Υ 52'07	
	4082 Jun 14 02:04	0° \mathbb{I}			4083 May 16 15:40	0° \mathcal{B}	
	4082 Jul 02 06:10	0° \mathcal{E}		morning max el	4083 May 19 15:34	2° \mathcal{B} 43'53	27°34'56
morning set	4082 Jul 06 02:58	7° \mathcal{E} 55'19			4083 Jun 08 12:57	0° \mathbb{I}	
asc. node	4082 Jul 06 15:37	9° \mathcal{E} 02'12		morning set	4083 Jun 20 10:09	22° \mathbb{I} 31'40	
				asc. node	4083 Jun 23 12:40	29° \mathbb{I} 06'07	
superior conj	4082 Jul 13 03:01	23° \mathcal{E} 08'31	1°03'20		4083 Jun 23 22:40	0° \mathcal{E}	
minimum elong	4082 Jul 13 00:46	22° \mathcal{E} 56'07	1°02'56	max. Earth dist.	4083 Jun 26 18:59	6° \mathcal{E} 12'39	1.32048 AU
max. Earth dist.	4082 Jul 13 07:21	23° \mathcal{E} 32'25	1.32089 AU				
	4082 Jul 16 05:52	0° \mathcal{Q}		superior conj	4083 Jun 27 14:33	8° \mathcal{E} 00'18	0°41'41
evening rise	4082 Jul 20 00:14	8° \mathcal{Q} 05'07		minimum elong	4083 Jun 27 12:50	7° \mathcal{E} 50'47	0°41'20
	4082 Jul 31 10:39	0° \mathcal{M}		evening rise	4083 Jul 04 10:11	22° \mathcal{E} 52'40	
desc. node	4082 Aug 12 15:08	18° \mathcal{M} 06'30			4083 Jul 07 20:32	0° \mathcal{Q}	
evening max el	4082 Aug 19 06:17	25° \mathcal{M} 25'19	26°48'33		4083 Jul 26 00:05	0° \mathcal{M}	
	4082 Aug 25 02:03	0° \mathcal{L}		desc. node	4083 Jul 30 12:08	5° \mathcal{M} 10'51	
retrograde	4082 Sep 02 04:24	2° \mathcal{L} 35'55		evening max el	4083 Aug 01 02:41	6° \mathcal{M} 46'52	25°42'45
evening set	4082 Sep 09 02:00	0° \mathcal{L} 33'19		retrograde	4083 Aug 15 01:53	13° \mathcal{M} 53'29	
	4082 Sep 09 23:48	30° $\mathcal{R}\mathcal{M}$		evening set	4083 Aug 21 04:05	12° \mathcal{M} 26'02	
min. Earth dist.	4082 Sep 12 20:23	27° \mathcal{M} 55'51	0.60405 AU	min. Earth dist.	4083 Aug 25 14:46	9° \mathcal{M} 48'39	0.58348 AU
inferior conj	4082 Sep 16 01:45	25° \mathcal{M} 16'40	-4°33'22	inferior conj	4083 Aug 28 19:24	7° \mathcal{M} 31'59	-5°06'12
minimum elong	4082 Sep 16 07:21	25° \mathcal{M} 05'04	4°32'15	minimum elong	4083 Aug 28 22:08	7° \mathcal{M} 27'04	5°06'00
morning rise	4082 Sep 23 14:39	20° \mathcal{M} 32'26		morning rise	4083 Sep 05 18:27	3° \mathcal{M} 11'02	
direct	4082 Sep 25 23:18	20° \mathcal{M} 11'10		direct	4083 Sep 08 05:55	2° \mathcal{M} 51'31	
asc. node	4082 Oct 02 14:50	23° \mathcal{M} 08'26		morning max el	4083 Sep 16 14:26	6° \mathcal{M} 50'24	18°43'14
morning max el	4082 Oct 03 08:39	23° \mathcal{M} 49'41	18°06'54	asc. node	4083 Sep 19 11:53	10° \mathcal{M} 01'58	
	4082 Oct 08 08:16	0° \mathcal{L}			4083 Oct 01 10:01	0° \mathcal{L}	
morning set	4082 Oct 19 03:43	18° \mathcal{L} 51'34		morning set	4083 Oct 02 22:41	2° \mathcal{L} 57'58	
	4082 Oct 25 03:18	0° \mathcal{M}					
superior conj	4082 Oct 28 20:37	6° \mathcal{M} 45'19	1°10'44	superior conj	4083 Oct 11 14:00	19° \mathcal{L} 40'17	1°31'10
minimum elong	4082 Oct 29 00:43	7° \mathcal{M} 03'38	1°10'15	minimum elong	4083 Oct 11 16:59	19° \mathcal{L} 54'22	1°30'56
max. Earth dist.	4082 Nov 05 12:08	20° \mathcal{M} 01'30	1.41590 AU		4083 Oct 17 04:46	0° \mathcal{M}	
desc. node	4082 Nov 08 14:27	25° \mathcal{M} 09'59		max. Earth dist.	4083 Oct 18 18:09	2° \mathcal{M} 45'57	1.39541 AU
evening rise	4082 Nov 10 18:54	28° \mathcal{M} 43'09		evening rise	4083 Oct 22 18:31	9° \mathcal{M} 42'07	
	4082 Nov 11 14:02	0° \mathcal{X}		desc. node	4083 Oct 26 11:28	15° \mathcal{M} 51'55	
	4082 Dec 01 17:11	0° \mathcal{Z}			4083 Nov 04 12:11	0° \mathcal{X}	
evening max el	4082 Dec 14 08:31	15° \mathcal{Z} 31'51	22°48'17	evening max el	4083 Nov 26 22:07	29° \mathcal{X} 10'22	24°08'08
	4082 Dec 24 08:47	21° \mathcal{Z} 28'23			4083 Nov 27 18:32	0° \mathcal{Z}	
retrograde	4082 Dec 29 02:42	19° \mathcal{Z} 31'58		retrograde	4083 Dec 08 00:45	5° \mathcal{Z} 41'51	
evening set	4082 Dec 29 02:42	19° \mathcal{Z} 31'58		evening set	4083 Dec 13 07:51	3° \mathcal{Z} 29'23	
asc. node	4082 Dec 29 14:03	19° \mathcal{Z} 07'14		asc. node	4083 Dec 16 11:07	0° \mathcal{Z} 07'45	
inferior conj	4083 Jan 03 11:36	13° \mathcal{Z} 09'13	1°35'56		4083 Dec 16 13:34	30° $\mathcal{R}\mathcal{X}$	
minimum elong	4083 Jan 03 09:37	13° \mathcal{Z} 16'03	1°35'11	min. Earth dist.	4083 Dec 18 01:40	28° \mathcal{X} 01'32	0.67799 AU
min. Earth dist.	4083 Jan 03 05:23	13° \mathcal{Z} 30'41	0.68016 AU	inferior conj	4083 Dec 18 18:45	27° \mathcal{X} 03'52	0°46'56
morning rise	4083 Jan 08 16:25	7° \mathcal{Z} 00'24		minimum elong	4083 Dec 18 17:39	27° \mathcal{X} 07'35	0°46'28
direct	4083 Jan 13 03:58	5° \mathcal{Z} 10'54		morning rise	4083 Dec 24 03:29	21° \mathcal{X} 00'24	
morning max el	4083 Jan 22 02:58	10° \mathcal{Z} 24'52	21°43'14	direct	4083 Dec 28 01:21	19° \mathcal{X} 33'26	
desc. node	4083 Feb 04 13:40	27° \mathcal{Z} 22'54		morning max el	4084 Jan 04 23:12	24° \mathcal{X} 05'00	20°26'20
	4083 Feb 06 09:43	0° \mathcal{A}			4084 Jan 10 02:09	0° \mathcal{Z}	
morning set	4083 Feb 23 08:06	25° \mathcal{A} 42'47		desc. node	4084 Jan 22 10:42	17° \mathcal{Z} 25'12	
	4083 Feb 26 00:04	0° \mathcal{H}			4084 Jan 30 18:14	0° \mathcal{A}	
max. Earth dist.	4083 Mar 01 14:45	5° \mathcal{H} 55'32	1.41653 AU	morning set	4084 Feb 02 08:12	3° \mathcal{A} 59'00	
				max. Earth dist.	4084 Feb 11 21:46	19° \mathcal{A} 04'39	1.43447 AU
superior conj	4083 Mar 09 05:57	18° \mathcal{H} 56'07	-2°04'16				
minimum elong	4083 Mar 09 08:49	19° \mathcal{H} 08'41	2°04'09	superior conj	4084 Feb 18 03:58	29° \mathcal{A} 18'30	-2°06'45
	4083 Mar 15 10:45	0° Υ		minimum elong	4084 Feb 18 02:00	29° \mathcal{A} 10'20	2°06'43

	4084 Feb 18 13:57	0° H		superior conj	4085 Jan 28 00:32	8° \approx 34'06	-1°50'56
evening rise	4084 Mar 01 14:11	20° H 34'48		minimum elong	4085 Jan 27 16:45	8° \approx 03'04	1°50'22
	4084 Mar 06 23:42	0° Y			4085 Feb 10 04:19	0° H	
asc. node	4084 Mar 13 10:26	10° Y 33'42		evening rise	4085 Feb 11 06:13	1° H 47'43	
evening max el	4084 Mar 18 22:23	17° Y 34'40	18°07'41	asc. node	4085 Feb 28 07:28	28° H 31'39	
retrograde	4084 Mar 25 09:53	20° Y 57'21			4085 Mar 01 13:43	0° Y	
evening set	4084 Mar 28 04:46	20° Y 18'57		evening max el	4085 Mar 02 10:57	0° Y 56'09	18°22'54
inferior conj	4084 Apr 03 12:15	15° Y 10'37	3°26'48	retrograde	4085 Mar 08 22:15	4° Y 26'31	
minimum elong	4084 Apr 03 13:57	15° Y 06'14	3°26'36	evening set	4085 Mar 11 23:00	3° Y 36'17	
min. Earth dist.	4084 Apr 06 10:21	12° Y 10'33	0.62178 AU		4085 Mar 16 05:05	30° R H	
morning rise	4084 Apr 09 21:40	9° Y 09'14		inferior conj	4085 Mar 17 20:27	28° H 09'21	3°36'28
direct	4084 Apr 16 18:10	6° Y 39'33		minimum elong	4085 Mar 17 20:26	28° H 09'26	3°36'28
desc. node	4084 Apr 19 09:52	7° Y 00'07		min. Earth dist.	4085 Mar 20 03:50	25° H 30'19	0.64120 AU
morning max el	4084 Apr 30 20:45	14° Y 38'21	27°51'54	morning rise	4085 Mar 23 17:04	21° H 59'56	
	4084 May 13 07:16	0° B		direct	4085 Mar 30 13:03	19° H 12'44	
	4084 May 31 01:39	0° II		desc. node	4085 Apr 06 06:55	21° H 25'53	
morning set	4084 Jun 03 12:13	6° II 50'00		morning max el	4085 Apr 13 05:39	27° H 09'30	27°32'04
max. Earth dist.	4084 Jun 09 03:29	18° II 40'02	1.32415 AU		4085 Apr 15 21:55	0° Y	
asc. node	4084 Jun 09 09:44	19° II 13'44			4085 May 06 23:12	0° B	
				morning set	4085 May 18 06:37	20° B 42'26	
superior conj	4084 Jun 11 00:12	22° II 42'25	0°16'45		4085 May 22 20:40	0° II	
minimum elong	4084 Jun 10 23:26	22° II 38'11	0°16'35	max. Earth dist.	4085 May 23 04:44	0° II 42'00	1.33218 AU
	4084 Jun 14 08:21	0° B					
evening rise	4084 Jun 17 21:53	7° B 41'50		superior conj	4085 May 26 06:05	7° II 09'00	-0°10'44
	4084 Jun 29 12:38	0° Ω		minimum elong	4085 May 26 06:37	7° II 11'53	0°10'37
evening max el	4084 Jul 12 16:40	17° Ω 26'25	24°13'58	behind sun begin	4085 May 26 02:33	6° II 50'12	
desc. node	4084 Jul 16 09:09	20° Ω 34'39		behind sun end	4085 May 26 10:41	7° II 33'36	
retrograde	4084 Jul 26 12:22	24° Ω 24'31		asc. node	4085 May 27 06:46	9° II 20'58	
evening set	4084 Jul 31 06:07	23° Ω 34'31		evening rise	4085 Jun 02 09:26	22° II 26'27	
min. Earth dist.	4084 Aug 06 03:21	20° Ω 38'41	0.56508 AU		4085 Jun 06 01:20	0° B	
inferior conj	4084 Aug 08 16:54	19° Ω 02'36	-5°06'12	evening max el	4085 Jun 24 06:24	27° B 50'11	22°36'55
minimum elong	4084 Aug 08 13:57	19° Ω 07'14	5°05'59		4085 Jun 26 16:47	0° Ω	
morning rise	4084 Aug 17 00:23	15° Ω 02'16		desc. node	4085 Jul 03 06:10	3° Ω 43'05	
direct	4084 Aug 19 17:11	14° Ω 43'00		retrograde	4085 Jul 07 10:26	4° Ω 23'11	
morning max el	4084 Aug 29 10:22	19° Ω 14'26	19°41'14	evening set	4085 Jul 10 15:55	4° Ω 00'17	
asc. node	4084 Sep 05 08:58	27° Ω 52'40		min. Earth dist.	4085 Jul 18 14:10	0° Ω 32'02	0.55239 AU
	4084 Sep 06 17:10	0° H		inferior conj	4085 Jul 19 20:02	29° B 49'28	-4°18'41
morning set	4084 Sep 16 01:22	17° H 26'39		minimum elong	4085 Jul 19 12:01	0° Ω 00'54	4°16'55
	4084 Sep 22 06:26	0° B			4085 Jul 19 12:39	30° R B	
				morning rise	4085 Jul 28 10:14	25° B 58'47	
superior conj	4084 Sep 23 22:57	3° B 21'41	1°41'47	direct	4085 Jul 31 10:39	25° B 37'52	
minimum elong	4084 Sep 24 00:17	3° B 28'14	1°41'44		4085 Aug 10 18:09	0° Ω	
max. Earth dist.	4084 Sep 29 22:46	14° B 53'09	1.37466 AU	morning max el	4085 Aug 11 18:30	0° Ω 53'59	21°00'19
evening rise	4084 Oct 03 17:00	21° B 44'40		asc. node	4085 Aug 23 06:00	16° Ω 26'52	
	4084 Oct 08 11:06	0° H			4085 Aug 30 07:49	0° H	
desc. node	4084 Oct 12 08:30	6° H 25'39		morning set	4085 Aug 31 09:01	2° H 09'27	
	4084 Oct 28 09:47	0° H					
evening max el	4084 Nov 08 10:26	12° H 52'17	25°23'13	superior conj	4085 Sep 07 18:51	17° H 35'07	1°44'09
retrograde	4084 Nov 20 12:28	19° H 50'06		minimum elong	4085 Sep 07 18:37	17° H 33'53	1°44'08
evening set	4084 Nov 26 09:19	17° H 23'20		max. Earth dist.	4085 Sep 12 07:38	26° H 44'14	1.35601 AU
min. Earth dist.	4084 Nov 30 19:29	12° H 29'51	0.67237 AU		4085 Sep 13 23:42	0° B	
inferior conj	4084 Dec 01 23:25	10° H 59'35	-0°07'29	evening rise	4085 Sep 16 10:39	4° B 40'55	
minimum elong	4084 Dec 01 23:36	10° H 58'58	0°07'24	desc. node	4085 Sep 29 05:31	26° B 45'28	
transit middle	4084 Dec 01 23:36	10° H 58'58	0°07'24		4085 Oct 01 07:24	0° H	
transit begin	4084 Dec 01 21:07	11° H 07'01		evening max el	4085 Oct 21 22:56	26° H 33'31	26°26'17
transit end	4084 Dec 02 02:05	10° H 50'57			4085 Oct 25 21:57	0° H	
asc. node	4084 Dec 02 08:10	10° H 31'23		retrograde	4085 Nov 03 19:07	3° H 46'17	
morning rise	4084 Dec 07 14:12	5° H 03'28		evening set	4085 Nov 10 05:11	1° H 09'08	
direct	4084 Dec 10 23:58	3° H 56'33			4085 Nov 11 11:48	30° R H	
morning max el	4084 Dec 18 03:23	7° H 56'31	19°22'59	min. Earth dist.	4085 Nov 14 08:25	26° H 51'02	0.66328 AU
greatest brilliancy	4084 Dec 31 11:08	25° H 45'23	-0.7m	inferior conj	4085 Nov 15 23:40	24° H 52'05	-1°06'08
	4085 Jan 03 06:23	0° B		minimum elong	4085 Nov 16 01:29	24° H 46'36	1°05'22
desc. node	4085 Jan 08 07:45	7° B 45'36		asc. node	4085 Nov 19 05:12	21° H 13'34	
morning set	4085 Jan 11 06:54	12° B 20'31		morning rise	4085 Nov 21 22:24	19° H 05'57	
	4085 Jan 22 14:40	0° \approx		direct	4085 Nov 24 22:10	18° H 15'27	
max. Earth dist.	4085 Jan 24 11:14	2° \approx 55'38	1.44692 AU	morning max el	4085 Dec 01 14:12	21° H 54'34	18°35'17
					4085 Dec 08 01:12	0° H	

morning set	4085 Dec 22 03:19	21° ♄ 51'58	desc. node	4086 Dec 13 01:49	18° ♄ 59'46
desc. node	4085 Dec 26 04:47	28° ♄ 18'27			
	4085 Dec 27 06:28	0° ♄	superior conj	4086 Dec 17 11:00	26° ♄ 00'37 -0°29'48
			minimum elong	4086 Dec 17 07:18	25° ♄ 45'51 0°29'17
superior conj	4086 Jan 07 04:24	17° ♄ 10'04 -1°16'08		4086 Dec 19 23:27	0° ♄
minimum elong	4086 Jan 06 19:37	16° ♄ 35'39 1°15'07	max. Earth dist.	4086 Dec 21 00:32	1° ♄ 38'54 1.45064 AU
max. Earth dist.	4086 Jan 07 04:59	17° ♄ 12'22 1.45250 AU	evening rise	4087 Jan 02 18:54	21° ♄ 32'13
	4086 Jan 15 08:22	0° ♄		4087 Jan 08 06:38	0° ♄
evening rise	4086 Jan 22 22:55	12° ♄ 03'06	greatest brilliancy	4087 Jan 16 05:28	12° ♄ 04'48 -0.7m
greatest brilliancy	4086 Jan 31 14:38	25° ♄ 49'08 -0.8m	evening max el	4087 Jan 28 03:39	27° ♄ 55'59 19°45'27
	4086 Feb 03 06:51	0° ♄		4087 Jan 30 09:38	0° ♄
evening max el	4086 Feb 13 21:21	14° ♄ 24'30 18°56'01	asc. node	4087 Feb 02 01:29	1° ♄ 40'13
asc. node	4086 Feb 15 04:29	15° ♄ 38'25	retrograde	4087 Feb 04 14:00	2° ♄ 14'22
retrograde	4086 Feb 20 16:37	18° ♄ 13'59	evening set	4087 Feb 08 04:58	0° ♄ 57'33
evening set	4086 Feb 23 23:54	17° ♄ 10'58		4087 Feb 09 09:16	30° ♄
inferior conj	4086 Mar 01 14:34	11° ♄ 27'09 3°29'24	inferior conj	4087 Feb 13 15:31	24° ♄ 58'52 3°09'32
minimum elong	4086 Mar 01 13:12	11° ♄ 31'26 3°29'16	minimum elong	4087 Feb 13 13:20	25° ♄ 06'06 3°09'07
min. Earth dist.	4086 Mar 03 06:24	9° ♄ 22'40 0.65703 AU	min. Earth dist.	4087 Feb 14 16:39	23° ♄ 35'29 0.66874 AU
morning rise	4086 Mar 07 02:07	5° ♄ 14'15	morning rise	4087 Feb 18 21:28	18° ♄ 44'58
direct	4086 Mar 13 14:48	2° ♄ 23'44	direct	4087 Feb 24 22:18	16° ♄ 03'24
desc. node	4086 Mar 24 03:58	7° ♄ 44'13	morning max el	4087 Mar 09 00:35	23° ♄ 16'21 25°27'14
morning max el	4086 Mar 26 15:30	10° ♄ 05'50 26°41'00	desc. node	4087 Mar 11 01:00	25° ♄ 24'01
	4086 Apr 11 08:33	0° ♄		4087 Mar 14 23:50	0° ♄
	4086 Apr 29 11:03	0° ♄		4087 Apr 04 17:06	0° ♄
morning set	4086 May 01 14:02	3° ♄ 58'54	morning set	4087 Apr 14 05:54	16° ♄ 25'42
max. Earth dist.	4086 May 05 19:27	12° ♄ 12'07 1.34483 AU	max. Earth dist.	4087 Apr 17 22:54	23° ♄ 17'11 1.36206 AU
				4087 Apr 21 10:50	0° ♄
superior conj	4086 May 10 05:59	21° ♄ 13'32 -0°39'42			
minimum elong	4086 May 10 08:05	21° ♄ 24'27 0°39'17	superior conj	4087 Apr 23 21:06	4° ♄ 47'18 -1°08'40
asc. node	4086 May 14 03:48	29° ♄ 23'55	minimum elong	4087 Apr 24 00:46	5° ♄ 05'35 1°08'04
	4086 May 14 10:39	0° ♄	asc. node	4087 May 01 00:48	19° ♄ 17'39
evening rise	4086 May 17 18:56	7° ♄ 00'29	evening rise	4087 May 02 00:11	21° ♄ 16'27
	4086 May 30 06:46	0° ♄		4087 May 06 09:48	0° ♄
evening max el	4086 Jun 06 03:52	8° ♄ 31'23 21°06'28	evening max el	4087 May 19 13:06	19° ♄ 48'38 19°51'50
retrograde	4086 Jun 17 23:32	14° ♄ 19'15	retrograde	4087 May 29 15:24	24° ♄ 43'43
evening set	4086 Jun 20 04:59	14° ♄ 07'41	evening set	4087 May 31 14:14	24° ♄ 33'30
desc. node	4086 Jun 20 03:11	14° ♄ 08'26	desc. node	4087 Jun 07 00:12	22° ♄ 01'02
inferior conj	4086 Jun 29 13:39	10° ♄ 09'49 -2°43'15	inferior conj	4087 Jun 09 11:53	20° ♄ 32'21 -0°44'16
minimum elong	4086 Jun 29 06:20	10° ♄ 20'08 2°40'49	minimum elong	4087 Jun 09 09:51	20° ♄ 35'28 0°43'30
min. Earth dist.	4086 Jun 30 01:27	9° ♄ 53'13 0.54829 AU	min. Earth dist.	4087 Jun 11 14:12	19° ♄ 15'35 0.55382 AU
morning rise	4086 Jul 08 07:52	6° ♄ 10'56	morning rise	4087 Jun 18 03:27	16° ♄ 06'41
direct	4086 Jul 11 20:15	5° ♄ 44'16	direct	4087 Jun 22 10:22	15° ♄ 26'16
morning max el	4086 Jul 24 15:40	11° ♄ 50'24 22°36'21	morning max el	4087 Jul 06 06:17	22° ♄ 17'24 24°19'50
	4086 Aug 07 01:50	0° ♄		4087 Jul 13 01:26	0° ♄
asc. node	4086 Aug 10 03:03	5° ♄ 34'14	asc. node	4087 Jul 28 00:05	25° ♄ 05'23
morning set	4086 Aug 15 19:35	17° ♄ 00'52		4087 Jul 30 09:28	0° ♄
	4086 Aug 21 21:45	0° ♄	morning set	4087 Jul 31 07:19	1° ♄ 54'58
superior conj	4086 Aug 22 22:16	2° ♄ 10'37 1°39'37	superior conj	4087 Aug 07 06:31	16° ♄ 59'10 1°29'18
minimum elong	4086 Aug 22 20:51	2° ♄ 03'05 1°39'31	minimum elong	4087 Aug 07 04:24	16° ♄ 47'39 1°29'04
max. Earth dist.	4086 Aug 26 01:11	8° ♄ 44'16 1.34094 AU	max. Earth dist.	4087 Aug 09 03:30	21° ♄ 02'26 1.32988 AU
evening rise	4086 Aug 30 19:09	18° ♄ 19'28		4087 Aug 13 09:24	0° ♄
	4086 Sep 06 00:27	0° ♄	evening rise	4087 Aug 14 14:26	2° ♄ 28'31
desc. node	4086 Sep 16 02:31	16° ♄ 44'51		4087 Aug 29 20:34	0° ♄
	4086 Sep 25 12:34	0° ♄	desc. node	4087 Sep 02 23:32	6° ♄ 14'47
evening max el	4086 Oct 04 11:36	10° ♄ 05'50 27°09'42	evening max el	4087 Sep 16 22:41	23° ♄ 16'14 27°26'40
retrograde	4086 Oct 17 19:55	17° ♄ 23'18		4087 Sep 27 03:53	0° ♄
evening set	4086 Oct 24 17:11	14° ♄ 42'07	retrograde	4087 Sep 30 14:25	0° ♄ 32'38
min. Earth dist.	4086 Oct 28 14:07	10° ♄ 59'31 0.65072 AU		4087 Oct 03 21:37	30° ♄
inferior conj	4086 Oct 30 17:20	8° ♄ 36'53 -2°07'23	evening set	4087 Oct 07 18:26	27° ♄ 56'37
minimum elong	4086 Oct 30 20:56	8° ♄ 26'51 2°05'57	min. Earth dist.	4087 Oct 11 10:25	24° ♄ 46'49 0.63473 AU
morning rise	4086 Nov 06 01:40	3° ♄ 03'48	inferior conj	4087 Oct 14 01:47	22° ♄ 07'45 -3°08'36
asc. node	4086 Nov 06 02:14	3° ♄ 03'08	minimum elong	4087 Oct 14 07:00	21° ♄ 54'38 3°06'49
direct	4086 Nov 08 17:44	2° ♄ 25'50	morning rise	4087 Oct 20 20:59	16° ♄ 51'18
morning max el	4086 Nov 15 05:21	5° ♄ 53'43 18°04'17	direct	4087 Oct 23 07:54	16° ♄ 22'15
	4086 Dec 01 11:44	0° ♄	asc. node	4087 Oct 23 23:17	16° ♄ 24'16
morning set	4086 Dec 03 05:24	2° ♄ 52'38	morning max el	4087 Oct 29 22:00	19° ♄ 47'27 17°50'43

	4087 Nov 06 11:44	0°♍		direct	4088 Oct 05 13:02	29°♎57'03	
morning set	4087 Nov 15 09:20	15°♍08'20			4088 Oct 06 08:52	0°♊	
	4087 Nov 24 01:15	0°♊		asc. node	4088 Oct 09 20:21	1°♊17'48	
				morning max el	4088 Oct 12 13:06	3°♊28'04	17°55'27
superior conj	4087 Nov 27 14:24	5°♊54'39	0°16'18	morning set	4088 Oct 28 08:37	28°♊18'57	
minimum elong	4087 Nov 27 16:07	6°♊01'40	0°16'03		4088 Oct 29 06:47	0°♍	
behind sun begin	4087 Nov 27 15:13	5°♊57'58					
behind sun end	4087 Nov 27 17:00	6°♊05'21		superior conj	4088 Nov 07 20:34	17°♍07'03	0°53'59
desc. node	4087 Nov 29 22:50	9°♊45'59		minimum elong	4088 Nov 08 00:36	17°♍24'31	0°53'28
max. Earth dist.	4087 Dec 03 18:29	15°♊55'52	1.44159 AU		4088 Nov 15 11:43	0°♊	
	4087 Dec 12 17:37	0°♊		max. Earth dist.	4088 Nov 15 07:54	29°♍44'16	1.42652 AU
evening rise	4087 Dec 13 04:41	0°♊42'40		desc. node	4088 Nov 15 19:51	0°♊33'20	
	4088 Jan 01 23:09	0°♋		evening rise	4088 Nov 21 20:09	10°♊12'49	
evening max el	4088 Jan 11 04:36	11°♋28'52	20°48'52		4088 Dec 04 20:59	0°♊	
retrograde	4088 Jan 19 12:09	16°♋23'42		evening max el	4088 Dec 24 00:03	25°♊02'34	22°02'50
asc. node	4088 Jan 19 22:31	16°♋22'40			4088 Dec 30 13:07	0°♋	
evening set	4088 Jan 23 12:15	14°♋52'06		retrograde	4089 Jan 02 09:04	0°♋37'22	
inferior conj	4088 Jan 28 20:48	8°♋41'12	2°39'34		4089 Jan 05 00:48	30°♋♊	
minimum elong	4088 Jan 28 18:19	8°♋49'43	2°38'53	asc. node	4089 Jan 05 19:35	29°♊34'05	
min. Earth dist.	4088 Jan 29 08:45	8°♋00'08	0.67625 AU	evening set	4089 Jan 06 19:57	28°♊50'11	
morning rise	4088 Feb 03 00:13	2°♋27'57		inferior conj	4089 Jan 12 04:17	22°♊30'28	2°01'15
direct	4088 Feb 08 10:50	0°♋03'42		minimum elong	4089 Jan 12 01:59	22°♊38'26	2°00'28
morning max el	4088 Feb 19 09:11	6°♋34'50	24°00'54	min. Earth dist.	4089 Jan 12 04:25	22°♊30'00	0.67979 AU
desc. node	4088 Feb 25 22:02	14°♋02'16		morning rise	4089 Jan 17 07:53	16°♊19'24	
	4088 Mar 08 13:42	0°♋		direct	4089 Jan 22 03:38	14°♊16'51	
morning set	4088 Mar 26 00:42	27°♋48'29		morning max el	4089 Jan 31 19:40	19°♊59'18	22°31'59
	4088 Mar 27 07:03	0°♌			4089 Feb 09 06:45	0°♋	
max. Earth dist.	4088 Mar 29 19:10	4°♌25'02	1.38273 AU	desc. node	4089 Feb 11 19:04	3°♋21'50	
					4089 Mar 01 18:58	0°♋	
superior conj	4088 Apr 05 24:00	17°♌41'51	-1°35'22	morning set	4089 Mar 06 16:30	7°♋52'30	
minimum elong	4088 Apr 06 04:42	18°♌04'12	1°34'47	max. Earth dist.	4089 Mar 11 15:13	16°♋07'13	1.40454 AU
	4088 Apr 12 08:07	0°♌					
evening rise	4088 Apr 14 22:42	5°♌07'52		superior conj	4089 Mar 19 10:15	29°♋46'17	-1°56'26
asc. node	4088 Apr 16 21:49	8°♌57'58		minimum elong	4089 Mar 19 14:31	0°♌05'32	1°56'08
	4088 Apr 29 17:43	0°♍			4089 Mar 19 13:18	0°♌	
evening max el	4088 May 01 09:50	1°♍46'35	18°56'51	evening rise	4089 Mar 29 11:15	18°♌26'16	
retrograde	4088 May 09 22:00	5°♍56'01		asc. node	4089 Apr 03 18:52	28°♌19'29	
evening set	4088 May 12 00:25	5°♍41'49			4089 Apr 04 17:19	0°♌	
inferior conj	4088 May 20 03:03	1°♍25'33	1°04'28	evening max el	4089 Apr 14 15:20	14°♌19'54	18°22'15
minimum elong	4088 May 20 05:28	1°♍21'16	1°03'38	retrograde	4089 Apr 21 23:29	17°♌58'26	
	4088 May 22 03:16	30°♌♋		evening set	4089 Apr 24 08:32	17°♌36'31	
min. Earth dist.	4088 May 23 05:56	29°♌13'57	0.56789 AU	inferior conj	4089 May 01 15:46	13°♌00'35	2°23'42
desc. node	4088 May 23 21:13	28°♌48'29		minimum elong	4089 May 01 19:26	12°♌52'59	2°22'44
morning rise	4088 May 28 07:18	26°♌23'51		min. Earth dist.	4089 May 05 02:25	10°♌10'46	0.58762 AU
direct	4088 Jun 02 13:22	25°♌18'03		morning rise	4089 May 09 03:21	7°♌27'44	
	4088 Jun 13 18:55	0°♍		desc. node	4089 May 10 18:14	6°♌42'06	
morning max el	4088 Jun 16 20:55	2°♍42'45	25°55'44	direct	4089 May 15 06:50	5°♌47'26	
	4088 Jul 06 06:37	0°♎		morning max el	4089 May 29 16:20	13°♌33'08	27°08'18
asc. node	4088 Jul 13 21:07	14°♎53'33			4089 Jun 11 18:05	0°♍	
morning set	4088 Jul 14 18:36	16°♎46'29			4089 Jun 28 10:30	0°♎	
	4088 Jul 20 20:47	0°♏		morning set	4089 Jun 29 03:49	1°♎30'22	
				asc. node	4089 Jun 30 18:10	4°♎53'23	
superior conj	4088 Jul 21 17:29	1°♏53'54	1°14'04				
minimum elong	4088 Jul 21 15:08	1°♏41'03	1°13'43	superior conj	4089 Jul 06 05:20	16°♎48'56	0°54'36
max. Earth dist.	4088 Jul 22 12:04	3°♏36'04	1.32293 AU	minimum elong	4089 Jul 06 03:15	16°♎37'27	0°54'13
evening rise	4088 Jul 28 17:22	16°♏58'36		max. Earth dist.	4089 Jul 05 23:31	16°♎16'51	1.32010 AU
	4088 Aug 04 07:02	0°♎			4089 Jul 12 06:11	0°♏	
desc. node	4088 Aug 19 20:32	25°♎02'58		evening rise	4089 Jul 13 01:24	1°♏42'08	
	4088 Aug 23 18:31	0°♏			4089 Jul 28 08:00	0°♎	
evening max el	4088 Aug 29 05:43	5°♏51'18	27°12'04	desc. node	4089 Aug 06 17:32	12°♎52'27	
retrograde	4088 Sep 12 02:03	13°♏04'44		evening max el	4089 Aug 11 06:25	17°♎41'21	26°24'13
evening set	4088 Sep 19 05:07	10°♏45'52		retrograde	4089 Aug 25 05:40	24°♎51'21	
min. Earth dist.	4088 Sep 22 20:05	8°♏00'48	0.61578 AU	evening set	4089 Aug 31 20:35	23°♎02'34	
inferior conj	4088 Sep 25 21:56	5°♏16'46	-4°05'25	min. Earth dist.	4089 Sep 04 19:46	20°♎27'27	0.59513 AU
minimum elong	4088 Sep 26 03:55	5°♏03'25	4°03'53	inferior conj	4089 Sep 08 02:17	17°♎55'11	-4°50'21
morning rise	4088 Oct 03 04:31	0°♏20'18		minimum elong	4089 Sep 08 07:05	17°♎45'51	4°49'38
	4088 Oct 04 17:04	30°♏♎		morning rise	4089 Sep 15 19:44	13°♎21'03	

direct	4089 Sep 18 05:00	13° \mathbb{M} 00'55		minimum elong	4090 Aug 20 12:05	29° \mathcal{Q} 51'25	5°11'15
morning max el	4089 Sep 25 23:19	16° \mathbb{M} 47'00	18°19'48		4090 Aug 20 07:02	30° \mathcal{R} \mathcal{Q}	
asc. node	4089 Sep 26 17:24	17° \mathbb{M} 32'27		morning rise	4090 Aug 28 14:18	25° \mathcal{Q} 40'34	
	4089 Oct 05 08:12	0° \mathcal{L}		direct	4090 Aug 31 03:40	25° \mathcal{Q} 21'22	
morning set	4089 Oct 11 21:45	12° \mathcal{L} 09'09		morning max el	4090 Sep 09 01:13	29° \mathcal{Q} 33'06	19°05'12
					4090 Sep 09 12:20	0° \mathbb{M}	
superior conj	4089 Oct 21 02:43	29° \mathcal{L} 29'39	1°20'40	asc. node	4090 Sep 13 14:27	4° \mathbb{M} 51'57	
minimum elong	4089 Oct 21 06:29	29° \mathcal{L} 46'50	1°20'17	morning set	4090 Sep 25 20:23	26° \mathbb{M} 26'07	
	4089 Oct 21 09:21	0° \mathbb{M}			4090 Sep 27 15:30	0° \mathcal{L}	
max. Earth dist.	4089 Oct 28 15:52	12° \mathbb{M} 52'16	1.40737 AU				
evening rise	4089 Nov 02 06:32	20° \mathbb{M} 36'23		superior conj	4090 Oct 04 03:18	12° \mathcal{L} 45'52	1°36'47
desc. node	4089 Nov 02 16:53	21° \mathbb{M} 18'50		minimum elong	4090 Oct 04 05:36	12° \mathcal{L} 56'57	1°36'37
	4089 Nov 08 03:05	0° \mathcal{X}		max. Earth dist.	4090 Oct 10 20:34	25° \mathcal{L} 18'37	1.38650 AU
	4089 Nov 29 02:26	0° \mathcal{Z}			4090 Oct 13 11:50	0° \mathbb{M}	
evening max el	4089 Dec 06 15:17	8° \mathcal{Z} 39'34	23°22'18	evening rise	4090 Oct 14 16:11	2° \mathbb{M} 03'28	
retrograde	4089 Dec 17 03:15	14° \mathcal{Z} 52'17		desc. node	4090 Oct 20 13:55	11° \mathbb{M} 58'05	
evening set	4089 Dec 22 02:31	12° \mathcal{Z} 49'09			4090 Nov 01 08:30	0° \mathcal{X}	
asc. node	4089 Dec 23 16:38	11° \mathcal{Z} 16'50		evening max el	4090 Nov 19 04:19	22° \mathcal{X} 20'45	24°41'06
min. Earth dist.	4089 Dec 27 01:17	7° \mathcal{Z} 01'40	0.67970 AU	retrograde	4090 Nov 30 17:27	29° \mathcal{X} 04'18	
inferior conj	4089 Dec 27 12:06	6° \mathcal{Z} 24'31	1°15'53	evening set	4090 Dec 06 06:19	26° \mathcal{X} 45'45	
minimum elong	4089 Dec 27 10:27	6° \mathcal{Z} 30'12	1°15'14	asc. node	4090 Dec 10 13:40	21° \mathcal{X} 55'56	
morning rise	4090 Jan 01 18:18	0° \mathcal{Z} 17'27		min. Earth dist.	4090 Dec 10 20:53	21° \mathcal{X} 32'13	0.67607 AU
	4090 Jan 02 03:31	30° \mathcal{R} \mathcal{X}		inferior conj	4090 Dec 11 18:27	20° \mathcal{X} 20'33	0°24'29
direct	4090 Jan 05 23:50	28° \mathcal{X} 37'41		minimum elong	4090 Dec 11 17:51	20° \mathcal{X} 22'33	0°24'14
	4090 Jan 10 04:24	0° \mathcal{Z}		morning rise	4090 Dec 17 05:29	14° \mathcal{X} 19'43	
morning max el	4090 Jan 14 11:30	3° \mathcal{Z} 32'53	21°08'53	direct	4090 Dec 20 22:04	13° \mathcal{X} 01'28	
desc. node	4090 Jan 29 16:07	23° \mathcal{Z} 11'19		morning max el	4090 Dec 28 11:02	17° \mathcal{X} 18'01	19°57'27
	4090 Feb 03 07:20	0° \approx			4091 Jan 07 11:58	0° \mathcal{Z}	
morning set	4090 Feb 14 04:06	16° \approx 37'57		desc. node	4091 Jan 16 13:10	13° \mathcal{Z} 22'30	
max. Earth dist.	4090 Feb 21 17:09	28° \approx 43'12	1.42474 AU	morning set	4091 Jan 24 00:22	24° \mathcal{Z} 47'16	
	4090 Feb 22 11:53	0° \mathcal{H}			4091 Jan 27 09:05	0° \approx	
				max. Earth dist.	4091 Feb 04 03:17	12° \approx 13'03	1.44062 AU
superior conj	4090 Feb 28 22:48	10° \mathcal{H} 49'02	-2°07'17				
minimum elong	4090 Feb 28 23:59	10° \mathcal{H} 54'03	2°07'16	superior conj	4091 Feb 09 09:49	20° \approx 42'50	-2°02'29
	4090 Mar 11 20:03	0° \mathcal{Y}		minimum elong	4091 Feb 09 05:12	20° \approx 24'01	2°02'17
evening rise	4090 Mar 12 09:55	1° \mathcal{Y} 02'30			4091 Feb 15 00:58	0° \mathcal{H}	
asc. node	4090 Mar 21 15:55	17° \mathcal{Y} 15'30		evening rise	4091 Feb 22 14:19	12° \mathcal{H} 48'11	
evening max el	4090 Mar 29 02:08	27° \mathcal{Y} 19'02	18°07'30		4091 Mar 04 19:06	0° \mathcal{Y}	
	4090 Apr 01 17:32	0° \mathcal{B}		asc. node	4091 Mar 08 12:57	5° \mathcal{Y} 37'55	
retrograde	4090 Apr 04 17:56	0° \mathcal{B} 42'54		evening max el	4091 Mar 12 14:56	10° \mathcal{Y} 35'07	18°11'55
evening set	4090 Apr 07 09:28	0° \mathcal{B} 10'52		retrograde	4091 Mar 19 01:03	13° \mathcal{Y} 59'10	
	4090 Apr 07 19:41	30° \mathcal{R} \mathcal{Y}		evening set	4091 Mar 21 22:32	13° \mathcal{Y} 15'41	
inferior conj	4090 Apr 14 00:29	25° \mathcal{Y} 14'16	3°11'28	inferior conj	4091 Mar 28 01:18	7° \mathcal{Y} 59'15	3°33'13
minimum elong	4090 Apr 14 03:09	25° \mathcal{Y} 07'51	3°11'01	minimum elong	4091 Mar 28 02:15	7° \mathcal{Y} 56'42	3°33'10
min. Earth dist.	4090 Apr 17 05:35	22° \mathcal{Y} 10'50	0.60953 AU	min. Earth dist.	4091 Mar 30 17:25	5° \mathcal{Y} 06'11	0.63048 AU
morning rise	4090 Apr 20 18:49	19° \mathcal{Y} 20'51		morning rise	4091 Apr 03 04:51	1° \mathcal{Y} 54'03	
direct	4090 Apr 27 12:02	17° \mathcal{Y} 06'33			4091 Apr 06 09:49	30° \mathcal{R} \mathcal{H}	
desc. node	4090 Apr 27 15:17	17° \mathcal{Y} 06'37		direct	4091 Apr 10 02:14	29° \mathcal{H} 15'18	
morning max el	4090 May 11 17:56	25° \mathcal{Y} 02'38	27°46'47		4091 Apr 13 23:33	0° \mathcal{Y}	
	4090 May 16 06:56	0° \mathcal{B}		desc. node	4091 Apr 14 12:20	0° \mathcal{Y} 12'32	
	4090 Jun 05 03:18	0° \mathbb{I}		morning max el	4091 Apr 24 00:50	7° \mathcal{Y} 13'37	27°47'43
morning set	4090 Jun 13 09:03	15° \mathbb{I} 59'45			4091 May 11 10:48	0° \mathcal{B}	
asc. node	4090 Jun 17 15:12	24° \mathbb{I} 59'24		morning set	4091 May 28 08:09	0° \mathbb{I} 08'06	
max. Earth dist.	4090 Jun 19 10:04	28° \mathbb{I} 52'13	1.32145 AU		4091 May 28 06:33	0° \mathbb{I}	
	4090 Jun 19 22:28	0° \mathcal{E}		max. Earth dist.	4091 Jun 02 16:00	11° \mathbb{I} 10'37	1.32705 AU
				asc. node	4091 Jun 04 12:14	15° \mathbb{I} 07'38	
superior conj	4090 Jun 20 16:16	1° \mathcal{E} 37'29	0°31'29				
minimum elong	4090 Jun 20 14:53	1° \mathcal{E} 29'56	0°31'11	superior conj	4091 Jun 05 00:32	16° \mathbb{I} 14'01	0°05'23
evening rise	4090 Jun 27 12:17	16° \mathcal{E} 31'10		minimum elong	4091 Jun 05 00:17	16° \mathbb{I} 12'36	0°05'19
	4090 Jul 04 04:11	0° \mathcal{Q}		behind sun begin	4091 Jun 04 19:18	15° \mathbb{I} 45'42	
evening max el	4090 Jul 23 23:49	28° \mathcal{Q} 43'41	25°07'14	behind sun end	4091 Jun 05 05:15	16° \mathbb{I} 39'32	
desc. node	4090 Jul 24 14:34	29° \mathcal{Q} 18'20			4091 Jun 11 09:12	0° \mathcal{E}	
	4090 Jul 25 09:06	0° \mathbb{M}		evening rise	4091 Jun 12 00:09	1° \mathcal{E} 19'35	
retrograde	4090 Aug 06 22:49	5° \mathbb{M} 47'45			4091 Jun 27 20:09	0° \mathcal{Q}	
evening set	4090 Aug 12 12:15	4° \mathbb{M} 37'02		evening max el	4091 Jul 05 12:50	9° \mathcal{Q} 12'48	23°32'46
min. Earth dist.	4090 Aug 17 11:30	1° \mathbb{M} 53'35	0.57511 AU	desc. node	4091 Jul 11 11:34	13° \mathcal{Q} 49'05	
inferior conj	4090 Aug 20 11:31	29° \mathcal{Q} 52'23	-5°11'16	retrograde	4091 Jul 19 03:22	16° \mathcal{Q} 01'56	

evening set	4091 Jul 23 05:27	15°Ω25'20		inferior conj	4092 Jul 10 21:59	21°♄34'54	-3°43'06
min. Earth dist.	4091 Jul 29 22:41	12°Ω17'26	0.55884 AU	minimum elong	4092 Jul 10 13:26	21°♄46'53	3°40'45
inferior conj	4091 Aug 01 00:34	11°Ω03'13	-4°52'23	min. Earth dist.	4092 Jul 10 09:06	21°♄52'57	0.54949 AU
minimum elong	4091 Jul 31 19:02	11°Ω11'29	4°51'38	morning rise	4092 Jul 19 14:29	17°♄43'41	
morning rise	4091 Aug 09 11:04	7°Ω08'43		direct	4092 Jul 22 19:17	17°♄21'05	
direct	4091 Aug 12 07:06	6°Ω48'50		morning max el	4092 Aug 03 19:08	22°♄57'46	21°39'41
morning max el	4091 Aug 22 16:02	11°Ω37'48	20°12'25		4092 Aug 09 22:24	0°Ω	
asc. node	4091 Aug 31 11:29	23°Ω02'17		asc. node	4092 Aug 17 08:31	11°Ω51'37	
	4091 Sep 04 10:49	0°♍		morning set	4092 Aug 24 10:30	25°Ω48'37	
morning set	4091 Sep 10 01:25	11°♍01'24			4092 Aug 26 10:28	0°♍	
superior conj	4091 Sep 17 17:19	26°♍41'44	1°43'43	superior conj	4092 Aug 31 16:46	11°♍05'46	1°42'59
minimum elong	4091 Sep 17 17:57	26°♍44'53	1°43'41	minimum elong	4092 Aug 31 15:58	11°♍01'38	1°42'58
	4091 Sep 19 08:57	0°♎		max. Earth dist.	4092 Sep 04 15:00	19°♍10'07	1.34904 AU
max. Earth dist.	4091 Sep 23 02:40	7°♎17'12	1.36639 AU	evening rise	4092 Sep 08 23:42	27°♍44'57	
evening rise	4091 Sep 26 23:16	14°♎29'39			4092 Sep 10 04:08	0°♎	
	4091 Oct 05 22:42	0°♏		desc. node	4092 Sep 23 07:55	22°♎38'44	
desc. node	4091 Oct 07 10:56	2°♏26'33			4092 Sep 28 05:07	0°♏	
	4091 Oct 27 02:14	0°♐		evening max el	4092 Oct 14 05:13	19°♏41'46	26°47'34
evening max el	4091 Nov 01 16:45	6°♐03'29	25°52'00	retrograde	4092 Oct 27 07:04	26°♏57'48	
retrograde	4091 Nov 14 02:53	13°♐08'12		evening set	4092 Nov 02 22:27	24°♏17'38	
evening set	4091 Nov 20 05:37	10°♐36'25		min. Earth dist.	4092 Nov 06 22:47	20°♏15'06	0.65833 AU
min. Earth dist.	4091 Nov 24 12:48	5°♐58'04	0.66897 AU	inferior conj	4092 Nov 08 19:11	18°♏05'06	-1°31'54
inferior conj	4091 Nov 25 21:28	4°♐15'13	-0°31'54	minimum elong	4092 Nov 08 21:44	17°♏57'36	1°30'50
minimum elong	4091 Nov 25 22:18	4°♐12'34	0°31'32	asc. node	4092 Nov 13 07:44	13°♏26'32	
asc. node	4091 Nov 27 10:43	2°♐20'16		morning rise	4092 Nov 14 21:50	12°♏24'29	
	4091 Nov 29 14:23	30°♑♏		direct	4092 Nov 17 18:01	11°♏39'50	
morning rise	4091 Dec 01 15:24	28°♏23'07		morning max el	4092 Nov 24 07:21	15°♏12'55	18°20'08
direct	4091 Dec 04 20:45	27°♏23'30			4092 Dec 05 02:09	0°♐	
	4091 Dec 10 11:00	0°♐		morning set	4092 Dec 13 15:21	13°♐44'05	
morning max el	4091 Dec 11 18:16	1°♐12'54	19°00'44	desc. node	4092 Dec 20 07:14	24°♐26'14	
	4091 Dec 31 23:30	0°♑			4092 Dec 23 19:11	0°♑	
morning set	4092 Jan 03 06:20	3°♑33'49		superior conj	4092 Dec 28 23:53	8°♑11'53	-0°57'12
desc. node	4092 Jan 03 10:12	3°♑48'57		minimum elong	4092 Dec 28 16:48	7°♑44'02	0°56'19
max. Earth dist.	4092 Jan 17 19:37	26°♑20'03	1.45024 AU	max. Earth dist.	4092 Dec 30 14:38	10°♑43'57	1.45258 AU
superior conj	4092 Jan 19 21:27	29°♑36'23	-1°38'15		4093 Jan 11 21:56	0°♒	
minimum elong	4092 Jan 19 12:21	29°♑00'29	1°37'24	evening rise	4093 Jan 14 03:53	3°♒31'29	
	4092 Jan 20 03:26	0°♒		greatest brilliancy	4093 Jan 25 00:56	20°♒30'23	-0.8m
evening rise	4092 Feb 03 20:36	23°♒37'04			4093 Jan 31 10:39	0°♓	
	4092 Feb 07 18:21	0°♓		evening max el	4093 Feb 06 11:38	7°♓30'20	19°15'01
asc. node	4092 Feb 23 09:59	23°♓15'57		asc. node	4093 Feb 09 07:00	9°♓57'16	
evening max el	4092 Feb 24 02:51	24°♓00'16	18°34'46	retrograde	4093 Feb 13 12:37	11°♓31'25	
retrograde	4092 Mar 01 16:30	27°♓37'25		evening set	4093 Feb 16 22:56	10°♓22'43	
evening set	4092 Mar 04 19:58	26°♓41'44		inferior conj	4093 Feb 22 11:33	4°♓32'04	3°22'21
inferior conj	4092 Mar 10 14:09	21°♓07'05	3°35'13	minimum elong	4093 Feb 22 09:46	4°♓37'47	3°22'06
minimum elong	4092 Mar 10 13:30	21°♓09'02	3°35'12	min. Earth dist.	4093 Feb 23 20:55	2°♓44'38	0.66255 AU
min. Earth dist.	4092 Mar 12 14:44	18°♓41'53	0.64847 AU		4093 Feb 26 03:45	30°♒♒	
morning rise	4092 Mar 16 06:28	14°♓55'48		morning rise	4093 Feb 27 20:18	28°♒18'13	
direct	4092 Mar 22 23:56	12°♓05'56		direct	4093 Mar 06 04:12	25°♒30'20	
desc. node	4092 Mar 31 09:22	15°♓30'39			4093 Mar 15 14:09	0°♓	
morning max el	4092 Apr 05 10:34	19°♓57'32	27°13'43	desc. node	4093 Mar 18 06:26	2°♓27'20	
	4092 Apr 14 00:56	0°♔		morning max el	4093 Mar 18 20:29	3°♓02'22	26°11'45
	4092 May 03 11:57	0°♕			4093 Apr 08 07:00	0°♔	
morning set	4092 May 10 22:18	13°♕46'18		morning set	4093 Apr 23 23:45	26°♔43'40	
max. Earth dist.	4092 May 15 13:19	23°♕00'16	1.33707 AU		4093 Apr 25 17:29	0°♕	
	4092 May 18 22:06	0°♖		max. Earth dist.	4093 Apr 27 23:12	4°♕18'17	1.35169 AU
superior conj	4092 May 19 04:07	0°♖31'40	-0°22'55	superior conj	4093 May 03 00:38	14°♕23'55	-0°52'08
minimum elong	4092 May 19 05:18	0°♖37'56	0°22'40	minimum elong	4093 May 03 03:26	14°♕38'11	0°51'36
asc. node	4092 May 21 09:16	5°♖13'29		asc. node	4093 May 08 06:17	25°♕12'59	
evening rise	4092 May 26 11:04	16°♖00'26		evening rise	4093 May 10 19:02	0°♗27'33	
	4092 Jun 02 11:39	0°♘			4093 May 10 13:41	0°♗	
evening max el	4092 Jun 16 04:46	19°♘39'13	21°56'48		4093 May 28 17:22	0°♘	
desc. node	4092 Jun 27 08:34	25°♘50'09		evening max el	4093 May 29 06:53	0°♘33'49	20°32'20
retrograde	4092 Jun 28 20:42	25°♘55'25		retrograde	4093 Jun 09 09:43	5°♘59'45	
evening set	4092 Jul 01 13:58	25°♘38'52		evening set	4093 Jun 11 10:10	5°♘49'44	

desc. node	4093 Jun 14 05:36	5°☿05'06			4094 May 03 01:01	0°♊	
inferior conj	4093 Jun 20 15:44	1°☿52'15	-1°53'30	evening max el	4094 May 11 21:28	12°♊10'13	19°25'59
minimum elong	4093 Jun 20 10:25	1°☿59'56	1°51'34	retrograde	4094 May 21 06:34	16°♊43'58	
min. Earth dist.	4093 Jun 21 21:06	1°☿09'48	0.54943 AU	evening set	4094 May 23 06:09	16°♊32'39	
	4093 Jun 23 23:05	30°♋♊		inferior conj	4094 May 31 20:15	12°♊26'33	0°04'42
morning rise	4093 Jun 29 09:48	27°♊43'36		minimum elong	4094 May 31 20:27	12°♊26'13	0°04'37
direct	4093 Jul 03 04:54	27°♊12'31		transit middle	4094 May 31 20:27	12°♊26'13	0°04'37
	4093 Jul 11 21:25	0°☿		transit begin	4094 May 31 16:44	12°♊32'14	
morning max el	4093 Jul 16 12:57	3°☿39'33	23°20'25	transit end	4094 Jun 01 00:10	12°♊20'11	
	4093 Aug 03 15:09	0°♌		desc. node	4094 Jun 01 02:38	12°♊16'11	
asc. node	4093 Aug 04 05:33	1°♌09'52		min. Earth dist.	4094 Jun 03 11:20	10°♊44'51	0.55891 AU
morning set	4093 Aug 08 21:44	10°♌41'38		morning rise	4094 Jun 09 07:55	7°♊45'32	
				direct	4094 Jun 14 00:38	6°♊55'30	
superior conj	4093 Aug 15 22:31	25°♌47'52	1°35'53	morning max el	4094 Jun 28 02:52	14°♊03'12	25°02'25
minimum elong	4093 Aug 15 20:45	25°♌38'20	1°35'45		4094 Jul 10 15:59	0°☿	
	4093 Aug 17 21:45	0°♎		asc. node	4094 Jul 22 02:36	20°☿49'21	
max. Earth dist.	4093 Aug 18 12:07	1°♎15'57	1.33561 AU	morning set	4094 Jul 24 09:30	25°☿35'36	
evening rise	4093 Aug 23 13:10	11°♎37'33			4094 Jul 26 10:54	0°♌	
	4093 Sep 02 11:07	0°♏					
desc. node	4093 Sep 10 04:54	12°♏26'49		superior conj	4094 Jul 31 08:13	10°♌40'28	1°23'24
	4093 Sep 23 16:15	0°♐		minimum elong	4094 Jul 31 05:56	10°♌28'02	1°23'07
evening max el	4093 Sep 26 17:14	3°♐05'35	27°20'35	max. Earth dist.	4094 Aug 01 17:24	13°♌41'27	1.32642 AU
retrograde	4093 Oct 10 05:32	10°♐24'08		evening rise	4094 Aug 07 12:09	25°♌57'23	
evening set	4093 Oct 17 06:17	7°♐43'36			4094 Aug 09 12:03	0°♎	
min. Earth dist.	4093 Oct 21 00:42	4°♐15'39	0.64422 AU		4094 Aug 26 21:42	0°♏	
inferior conj	4093 Oct 23 09:14	1°♐44'34	-2°33'34	desc. node	4094 Aug 28 01:55	1°♏40'51	
minimum elong	4093 Oct 23 13:34	1°♐32'58	2°31'57	evening max el	4094 Sep 09 03:03	16°♏03'01	27°24'36
	4093 Oct 25 01:15	30°♋♏		retrograde	4094 Sep 22 21:19	23°♏18'22	
morning rise	4093 Oct 29 22:06	26°♏18'19		evening set	4094 Sep 30 01:51	20°♏48'21	
asc. node	4093 Oct 31 04:47	25°♏53'13		min. Earth dist.	4094 Oct 03 16:48	17°♏50'04	0.62694 AU
direct	4093 Nov 01 11:32	25°♏44'43		inferior conj	4094 Oct 06 12:53	15°♏07'18	-3°33'38
morning max el	4093 Nov 07 23:32	29°♏10'46	17°56'23	minimum elong	4094 Oct 06 18:35	14°♏53'37	3°31'53
	4093 Nov 08 18:26	0°♐		morning rise	4094 Oct 13 12:54	9°♏58'42	
morning set	4093 Nov 25 05:07	25°♐18'28		direct	4094 Oct 15 22:20	9°♏32'32	
	4093 Nov 27 23:54	0°♑		asc. node	4094 Oct 18 01:50	9°♏54'09	
desc. node	4093 Dec 07 04:14	15°♑09'53		morning max el	4094 Oct 22 15:52	12°♏59'31	17°50'22
					4094 Nov 03 05:22	0°♐	
superior conj	4093 Dec 08 13:46	17°♑25'22	-0°09'39	morning set	4094 Nov 07 18:02	7°♐59'30	
minimum elong	4093 Dec 08 12:38	17°♑20'46	0°09'29				
behind sun begin	4093 Dec 08 04:13	16°♑46'51		superior conj	4094 Nov 19 04:23	27°♐51'51	0°33'34
behind sun end	4093 Dec 08 21:02	17°♑54'38		minimum elong	4094 Nov 19 07:29	28°♐04'52	0°33'08
max. Earth dist.	4093 Dec 13 09:14	25°♑06'14	1.44755 AU		4094 Nov 20 10:56	0°♑	
	4093 Dec 16 11:51	0°♒		desc. node	4094 Nov 24 01:14	5°♑56'37	
evening rise	4093 Dec 24 17:39	12°♒47'28		max. Earth dist.	4094 Nov 26 01:12	9°♑11'33	1.43583 AU
	4094 Jan 05 01:17	0°♓		evening rise	4094 Dec 04 03:46	22°♑00'57	
greatest brilliancy	4094 Jan 08 08:40	4°♓54'06	-0.6m		4094 Dec 09 08:47	0°♒	
evening max el	4094 Jan 20 15:44	21°♓02'29	20°10'55		4094 Dec 30 12:54	0°♓	
asc. node	4094 Jan 27 04:02	25°♓27'08		evening max el	4095 Jan 03 14:22	4°♓35'45	21°19'27
retrograde	4094 Jan 28 10:39	25°♓35'58		retrograde	4095 Jan 12 08:21	9°♓47'07	
evening set	4094 Feb 01 05:11	24°♓13'13		asc. node	4095 Jan 14 01:06	9°♓31'27	
inferior conj	4094 Feb 06 14:39	18°♓09'03	2°57'58	evening set	4095 Jan 16 12:50	8°♓09'06	
minimum elong	4094 Feb 06 12:17	18°♓17'03	2°57'25	inferior conj	4095 Jan 21 21:07	1°♓54'19	2°24'16
min. Earth dist.	4094 Feb 07 10:05	17°♓03'25	0.67241 AU	minimum elong	4095 Jan 21 18:39	2°♓02'49	2°23'31
morning rise	4094 Feb 11 19:10	11°♓55'01		min. Earth dist.	4095 Jan 22 03:59	1°♓30'35	0.67822 AU
direct	4094 Feb 17 14:08	9°♓19'46			4095 Jan 23 06:27	30°♋♒	
morning max el	4094 Mar 01 05:12	16°♓16'59	24°51'23	morning rise	4095 Jan 27 00:18	25°♒41'50	
desc. node	4094 Mar 05 03:28	20°♓34'34		direct	4095 Feb 01 04:42	23°♒26'13	
	4094 Mar 12 13:47	0°♈		morning max el	4095 Feb 11 13:58	29°♒36'42	23°22'50
	4094 Apr 01 05:50	0°♉			4095 Feb 11 23:07	0°♓	
morning set	4094 Apr 06 07:32	8°♉46'20		desc. node	4095 Feb 20 00:30	9°♓31'48	
max. Earth dist.	4094 Apr 09 22:31	15°♉19'25	1.37051 AU		4095 Mar 06 09:40	0°♈	
				morning set	4095 Mar 18 15:27	19°♈36'52	
superior conj	4094 Apr 16 11:07	27°♉43'04	-1°20'27	max. Earth dist.	4095 Mar 22 17:34	26°♈37'29	1.39202 AU
minimum elong	4094 Apr 16 15:19	28°♉03'40	1°19'48		4095 Mar 24 15:35	0°♉	
	4094 Apr 17 15:01	0°♊					
evening rise	4094 Apr 24 21:49	14°♊34'33		superior conj	4095 Mar 30 07:35	10°♉18'14	-1°45'14
asc. node	4094 Apr 25 03:20	15°♊02'05		minimum elong	4095 Mar 30 12:21	10°♉40'23	1°44'44

evening rise	4095 Apr 08 16:33	28° Υ 13'04		evening rise	4096 Mar 21 23:45	11° Υ 14'57	
	4095 Apr 09 14:43	0° \mathcal{B}		asc. node	4096 Mar 28 21:27	23° Υ 46'57	
asc. node	4095 Apr 12 00:23	4° \mathcal{B} 35'16			4096 Apr 01 16:11	0° \mathcal{B}	
evening max el	4095 Apr 24 22:28	24° \mathcal{B} 24'55	18°39'40	evening max el	4096 Apr 07 06:37	7° \mathcal{B} 10'10	18°13'31
retrograde	4095 May 02 21:00	28° \mathcal{B} 18'47		retrograde	4096 Apr 14 06:23	10° \mathcal{B} 40'42	
evening set	4095 May 05 02:21	28° \mathcal{B} 01'32		evening set	4096 Apr 16 18:18	10° \mathcal{B} 14'37	
inferior conj	4095 May 12 20:29	23° \mathcal{B} 37'09	1°42'04	inferior conj	4096 Apr 23 18:07	5° \mathcal{B} 29'27	2°47'31
minimum elong	4095 May 12 23:48	23° \mathcal{B} 30'51	1°41'00	minimum elong	4096 Apr 23 21:32	5° \mathcal{B} 21'53	2°46'45
min. Earth dist.	4095 May 16 04:38	21° \mathcal{B} 06'51	0.57587 AU	min. Earth dist.	4096 Apr 27 03:29	2° \mathcal{B} 31'03	0.59691 AU
desc. node	4095 May 18 23:41	19° \mathcal{B} 16'53		morning rise	4096 Apr 30 22:14	29° Υ 46'36	
morning rise	4095 May 20 18:04	18° \mathcal{B} 21'30			4096 Apr 30 13:21	30° $\mathcal{R}\Upsilon$	
direct	4095 May 26 10:09	17° \mathcal{B} 01'36		desc. node	4096 May 04 20:44	28° Υ 08'48	
morning max el	4095 Jun 09 18:54	24° \mathcal{B} 35'48	26°30'07	direct	4096 May 07 08:31	27° Υ 51'35	
	4095 Jun 14 17:50	0° \mathcal{I}			4096 May 14 11:53	0° \mathcal{B}	
	4095 Jul 03 17:05	0° \mathcal{E}		morning max el	4096 May 21 17:02	5° \mathcal{B} 42'00	27°29'13
morning set	4095 Jul 08 20:07	10° \mathcal{E} 24'26			4096 Jun 08 19:13	0° \mathcal{I}	
asc. node	4095 Jul 08 23:38	10° \mathcal{E} 43'00		morning set	4096 Jun 22 03:54	25° \mathcal{I} 02'53	
				asc. node	4096 Jun 24 20:42	0° \mathcal{E} 45'52	
superior conj	4095 Jul 15 19:47	25° \mathcal{E} 35'56	1°06'18		4096 Jun 24 12:08	0° \mathcal{E}	
minimum elong	4095 Jul 15 17:30	25° \mathcal{E} 23'20	1°05'55	max. Earth dist.	4096 Jun 28 15:32	9° \mathcal{E} 00'50	1.32026 AU
max. Earth dist.	4095 Jul 16 03:46	26° \mathcal{E} 20'00	1.32133 AU				
	4095 Jul 17 19:45	0° \mathcal{Q}		superior conj	4096 Jun 29 07:27	10° \mathcal{E} 28'33	0°45'13
evening rise	4095 Jul 22 17:35	10° \mathcal{Q} 34'20		minimum elong	4096 Jun 29 05:37	10° \mathcal{E} 18'26	0°44'50
	4095 Aug 01 18:11	0° \mathcal{M}		evening rise	4096 Jul 06 03:05	25° \mathcal{E} 20'52	
desc. node	4095 Aug 14 22:57	20° \mathcal{M} 06'23			4096 Jul 08 08:27	0° \mathcal{Q}	
evening max el	4095 Aug 22 07:53	28° \mathcal{M} 20'24	26°55'39		4096 Jul 25 18:36	0° \mathcal{M}	
	4095 Aug 24 04:14	0° \mathcal{L}		desc. node	4096 Jul 31 19:59	7° \mathcal{M} 23'27	
retrograde	4095 Sep 05 05:27	5° \mathcal{L} 31'24		evening max el	4096 Aug 03 05:20	9° \mathcal{M} 48'55	25°54'17
evening set	4095 Sep 12 04:54	3° \mathcal{L} 24'14		retrograde	4096 Aug 17 04:35	16° \mathcal{M} 56'36	
min. Earth dist.	4095 Sep 15 22:05	0° \mathcal{L} 45'22	0.60714 AU	evening set	4096 Aug 23 10:34	15° \mathcal{M} 23'19	
	4095 Sep 16 20:10	30° $\mathcal{R}\mathcal{M}$		min. Earth dist.	4096 Aug 27 17:38	12° \mathcal{M} 47'14	0.58643 AU
inferior conj	4095 Sep 19 02:45	28° \mathcal{M} 04'27	-4°26'34	inferior conj	4096 Aug 30 23:15	10° \mathcal{M} 25'53	-5°03'03
minimum elong	4095 Sep 19 08:32	27° \mathcal{M} 52'14	4°25'19	minimum elong	4096 Aug 31 02:38	10° \mathcal{M} 19'40	5°02'43
morning rise	4095 Sep 26 14:03	23° \mathcal{M} 16'57		morning rise	4096 Sep 07 20:55	6° \mathcal{M} 01'40	
direct	4095 Sep 28 22:36	22° \mathcal{M} 55'11		direct	4096 Sep 10 07:42	5° \mathcal{M} 42'05	
asc. node	4095 Oct 04 22:53	25° \mathcal{M} 23'33		morning max el	4096 Sep 18 12:15	9° \mathcal{M} 37'11	18°36'32
morning max el	4095 Oct 06 05:12	26° \mathcal{M} 31'23	18°03'18	asc. node	4096 Sep 20 19:56	12° \mathcal{M} 07'17	
	4095 Oct 09 06:07	0° \mathcal{L}			4096 Oct 01 20:28	0° \mathcal{L}	
morning set	4095 Oct 21 23:50	21° \mathcal{L} 28'44		morning set	4096 Oct 04 17:25	5° \mathcal{L} 31'18	
	4095 Oct 26 14:08	0° \mathcal{M}					
superior conj	4095 Oct 31 21:20	9° \mathcal{M} 35'27	1°06'41	superior conj	4096 Oct 13 12:00	22° \mathcal{L} 22'45	1°28'44
minimum elong	4095 Nov 01 01:29	9° \mathcal{M} 53'50	1°06'11	minimum elong	4096 Oct 13 15:13	22° \mathcal{L} 37'47	1°28'26
max. Earth dist.	4095 Nov 08 12:45	22° \mathcal{M} 45'29	1.41877 AU		4096 Oct 17 15:30	0° \mathcal{M}	
desc. node	4095 Nov 10 22:15	26° \mathcal{M} 43'26		max. Earth dist.	4096 Oct 20 19:13	5° \mathcal{M} 36'08	1.39851 AU
	4095 Nov 12 22:34	0° \mathcal{X}		evening rise	4096 Oct 24 22:19	12° \mathcal{M} 40'47	
evening rise	4095 Nov 14 02:12	1° \mathcal{X} 51'08		desc. node	4096 Oct 27 19:16	17° \mathcal{M} 26'27	
	4095 Dec 02 19:49	0° \mathcal{Z}			4096 Nov 04 18:25	0° \mathcal{X}	
evening max el	4095 Dec 17 07:55	18° \mathcal{Z} 10'59	22°36'23		4096 Nov 27 03:45	0° \mathcal{Z}	
retrograde	4095 Dec 27 04:09	24° \mathcal{Z} 01'52		evening max el	4096 Nov 28 21:48	1° \mathcal{Z} 48'49	23°56'19
evening set	4095 Dec 31 20:14	22° \mathcal{Z} 07'46		retrograde	4096 Dec 09 20:45	8° \mathcal{Z} 15'56	
asc. node	4095 Dec 31 22:09	22° \mathcal{Z} 03'47		evening set	4096 Dec 15 01:48	6° \mathcal{Z} 05'46	
inferior conj	4096 Jan 06 04:57	15° \mathcal{Z} 45'38	1°42'48	asc. node	4096 Dec 17 19:12	3° \mathcal{Z} 14'19	
minimum elong	4096 Jan 06 02:52	15° \mathcal{Z} 52'50	1°42'03	min. Earth dist.	4096 Dec 19 20:49	0° \mathcal{Z} 32'49	0.67855 AU
min. Earth dist.	4096 Jan 06 00:19	16° \mathcal{Z} 01'39	0.68019 AU		4096 Dec 20 06:30	30° $\mathcal{R}\mathcal{X}$	
morning rise	4096 Jan 11 09:23	9° \mathcal{Z} 36'19		inferior conj	4096 Dec 20 12:18	29° \mathcal{X} 40'16	0°54'42
direct	4096 Jan 15 23:02	7° \mathcal{Z} 43'29		minimum elong	4096 Dec 20 11:03	29° \mathcal{X} 44'31	0°54'13
morning max el	4096 Jan 25 02:18	13° \mathcal{Z} 04'31	21°55'38	morning rise	4096 Dec 25 20:20	23° \mathcal{X} 35'47	
desc. node	4096 Feb 06 21:32	29° \mathcal{Z} 05'06		direct	4096 Dec 29 20:05	22° \mathcal{X} 05'40	
	4096 Feb 07 13:08	0° \mathcal{A}		morning max el	4097 Jan 06 21:23	26° \mathcal{X} 43'07	20°36'56
morning set	4096 Feb 26 18:49	29° \mathcal{A} 05'27			4097 Jan 09 21:10	0° \mathcal{Z}	
	4096 Feb 27 08:24	0° \mathcal{H}		desc. node	4097 Jan 23 18:32	19° \mathcal{Z} 04'06	
max. Earth dist.	4096 Mar 03 16:16	8° \mathcal{H} 44'11	1.41351 AU		4097 Jan 31 01:04	0° \mathcal{A}	
superior conj	4096 Mar 11 09:16	21° \mathcal{H} 57'59	-2°02'35	morning set	4097 Feb 04 21:16	7° \mathcal{A} 27'15	
minimum elong	4096 Mar 11 12:37	22° \mathcal{H} 12'43	2°02'26	max. Earth dist.	4097 Feb 13 21:49	21° \mathcal{A} 44'21	1.43211 AU
	4096 Mar 15 20:57	0° \mathcal{Y}			4097 Feb 18 22:56	0° \mathcal{H}	
				superior conj	4097 Feb 20 11:05	2° \mathcal{H} 30'34	-2°07'28

minimum elong	4097 Feb 20 10:01	2° H 26'05	2°07'27	superior conj	4098 Jan 31 11:10	11° \approx 55'12	-1°54'37
evening rise	4097 Mar 04 15:08	23° H 30'15		minimum elong	4098 Jan 31 04:06	11° \approx 26'53	1°54'09
	4097 Mar 08 07:35	0° Y			4098 Feb 11 12:44	0° H	
asc. node	4097 Mar 15 18:29	12° Y 29'28		evening rise	4098 Feb 14 10:24	4° H 51'16	
evening max el	4097 Mar 21 18:31	20° Y 16'34	18°07'04		4098 Mar 02 04:58	0° Y	
retrograde	4097 Mar 28 06:53	23° Y 39'13		asc. node	4098 Mar 02 15:30	0° Y 33'59	
evening set	4097 Mar 31 00:52	23° Y 02'34		evening max el	4098 Mar 05 07:11	3° Y 36'32	18°19'31
inferior conj	4097 Apr 06 10:11	17° Y 57'17	3°23'27	retrograde	4098 Mar 11 17:55	7° Y 04'50	
minimum elong	4097 Apr 06 12:09	17° Y 52'19	3°23'14	evening set	4098 Mar 14 17:49	6° Y 16'24	
min. Earth dist.	4097 Apr 09 10:17	14° Y 55'31	0.61862 AU	inferior conj	4098 Mar 20 16:32	0° Y 52'15	3°36'09
morning rise	4097 Apr 12 21:47	11° Y 57'36		minimum elong	4098 Mar 20 16:45	0° Y 51'38	3°36'09
direct	4097 Apr 19 17:41	9° Y 31'29			4098 Mar 21 10:52	30° R H	
desc. node	4097 Apr 21 17:46	9° Y 43'10		min. Earth dist.	4098 Mar 23 02:17	28° H 08'58	0.63852 AU
morning max el	4097 May 03 21:23	17° Y 30'14	27°51'50	morning rise	4098 Mar 26 14:50	24° H 43'48	
	4097 May 14 07:02	0° B		direct	4098 Apr 02 11:27	21° H 58'13	
	4097 Jun 01 12:30	0° II		desc. node	4098 Apr 08 14:47	23° H 48'42	
morning set	4097 Jun 06 06:53	9° II 24'40		morning max el	4098 Apr 16 05:44	29° H 55'53	27°37'11
asc. node	4097 Jun 11 17:45	20° II 53'31			4098 Apr 16 07:23	0° Y	
max. Earth dist.	4097 Jun 12 00:39	21° II 30'51	1.32326 AU		4098 May 08 06:31	0° B	
				morning set	4098 May 21 02:32	23° B 21'11	
superior conj	4097 Jun 13 17:30	25° II 12'52	0°20'45		4098 May 24 09:25	0° II	
minimum elong	4097 Jun 13 16:33	25° II 07'41	0°20'31	max. Earth dist.	4098 May 26 03:06	3° II 36'41	1.33064 AU
	4097 Jun 15 22:00	0° S					
evening rise	4097 Jun 20 14:37	10° S 10'24		superior conj	4098 May 29 00:01	9° II 42'01	-0°06'26
	4097 Jun 30 18:10	0° Ω		minimum elong	4098 May 29 00:20	9° II 43'44	0°06'23
evening max el	4097 Jul 15 20:01	20° Ω 34'02	24°28'12	behind sun begin	4098 May 28 19:23	9° II 17'15	
desc. node	4097 Jul 18 17:01	23° Ω 05'05		behind sun end	4098 May 29 05:17	10° II 10'15	
retrograde	4097 Jul 29 17:01	27° Ω 34'21		asc. node	4098 May 29 14:45	11° II 01'03	
evening set	4097 Aug 03 16:06	26° Ω 39'13		evening rise	4098 Jun 05 02:16	24° II 55'56	
min. Earth dist.	4097 Aug 09 07:02	23° Ω 47'00	0.56751 AU		4098 Jun 07 12:35	0° S	
inferior conj	4097 Aug 11 23:50	22° Ω 03'53	-5°09'02		4098 Jun 26 10:06	0° Ω	
minimum elong	4097 Aug 11 21:50	22° Ω 07'05	5°08'57	evening max el	4098 Jun 27 09:21	0° Ω 58'18	22°51'24
morning rise	4097 Aug 20 06:09	18° Ω 00'51		desc. node	4098 Jul 05 14:02	6° Ω 36'18	
direct	4097 Aug 22 21:55	17° Ω 41'42		retrograde	4098 Jul 10 16:43	7° Ω 36'02	
morning max el	4097 Sep 01 09:52	22° Ω 07'44	19°31'11	evening set	4098 Jul 14 03:13	7° Ω 10'10	
asc. node	4097 Sep 07 16:58	29° Ω 50'24		min. Earth dist.	4098 Jul 21 17:54	3° Ω 47'39	0.55380 AU
	4097 Sep 07 19:31	0° M		inferior conj	4098 Jul 23 05:20	2° Ω 56'41	-4°29'16
morning set	4097 Sep 18 19:08	19° M 57'17		minimum elong	4098 Jul 22 21:48	3° Ω 07'32	4°27'47
	4097 Sep 23 18:50	0° L			4098 Jul 28 22:23	30° R S	
				morning rise	4098 Jul 31 18:37	29° S 05'26	
superior conj	4097 Sep 26 18:56	5° L 58'13	1°40'44	direct	4098 Aug 03 17:49	28° S 44'50	
minimum elong	4097 Sep 26 20:31	6° L 05'59	1°40'39		4098 Aug 09 05:22	0° Ω	
max. Earth dist.	4097 Oct 02 23:28	17° L 46'59	1.37767 AU	morning max el	4098 Aug 14 19:42	3° Ω 53'48	20°47'14
evening rise	4097 Oct 06 17:36	24° L 34'37		asc. node	4098 Aug 25 13:59	18° Ω 18'37	
	4097 Oct 09 20:24	0° M			4098 Aug 31 19:27	0° M	
desc. node	4097 Oct 14 16:18	8° M 01'54		morning set	4098 Sep 03 02:08	4° M 38'09	
	4097 Oct 29 10:30	0° X					
evening max el	4097 Nov 11 10:13	15° X 30'32	25°12'35	superior conj	4098 Sep 10 13:24	20° M 07'13	1°44'15
retrograde	4097 Nov 23 09:10	22° X 25'12		minimum elong	4098 Sep 10 13:23	20° M 07'07	1°44'15
evening set	4097 Nov 29 03:54	20° X 00'31			4098 Sep 15 11:44	0° L	
min. Earth dist.	4097 Dec 03 15:11	15° X 01'42	0.67346 AU	max. Earth dist.	4098 Sep 15 07:27	29° M 39'05	1.35863 AU
inferior conj	4097 Dec 04 17:28	13° X 36'07	0°01'05	evening rise	4098 Sep 19 08:39	7° L 23'23	
minimum elong	4097 Dec 04 17:26	13° X 36'13	0°01'05	desc. node	4098 Oct 01 13:20	28° L 24'06	
transit middle	4097 Dec 04 17:26	13° X 36'13	0°01'05		4098 Oct 02 13:39	0° M	
transit begin	4097 Dec 04 14:39	13° X 45'16		evening max el	4098 Oct 24 22:46	29° M 12'35	26°17'58
transit end	4097 Dec 04 20:12	13° X 27'11			4098 Oct 25 18:47	0° X	
asc. node	4097 Dec 04 16:12	13° X 40'14		retrograde	4098 Nov 06 16:32	6° X 23'25	
morning rise	4097 Dec 10 07:12	7° X 38'37		evening set	4098 Nov 13 00:43	3° X 47'36	
direct	4097 Dec 13 18:39	6° X 28'53			4098 Nov 16 17:02	30° R M	
morning max el	4097 Dec 21 00:21	10° X 32'54	19°31'20	min. Earth dist.	4098 Nov 17 05:00	29° M 24'09	0.66487 AU
greatest brilliancy	4098 Jan 03 04:02	28° X 00'43	-0.7m	inferior conj	4098 Nov 18 18:30	27° M 29'20	-0°57'00
	4098 Jan 04 11:52	0° S		minimum elong	4098 Nov 18 20:02	27° M 24'36	0°56'21
desc. node	4098 Jan 10 15:34	9° S 22'02		asc. node	4098 Nov 21 13:12	24° M 16'00	
morning set	4098 Jan 14 18:23	15° S 42'41		morning rise	4098 Nov 24 15:54	21° M 41'27	
	4098 Jan 23 22:40	0° \approx		direct	4098 Nov 27 17:04	20° M 48'40	
max. Earth dist.	4098 Jan 27 10:12	5° \approx 29'08	1.44552 AU	morning max el	4098 Dec 04 10:16	24° M 30'08	18°41'19
					4098 Dec 09 00:58	0° X	

morning set	4098 Dec 25 10:46	25° ♁ 01'58		desc. node	4099 Dec 15 09:37	20° ♁ 33'34	
desc. node	4098 Dec 28 12:36	29° ♁ 53'26					
	4098 Dec 28 14:16	0° ♁		superior conj	4099 Dec 20 21:23	29° ♁ 19'04	-0°37'04
max. Earth dist.	4099 Jan 10 03:50	19° ♁ 44'42	1.45217 AU	minimum elong	4099 Dec 20 16:44	29° ♁ 00'38	0°36'26
					4099 Dec 21 07:44	0° ♁	
superior conj	4099 Jan 10 16:33	20° ♁ 34'36	-1°22'24	max. Earth dist.	4099 Dec 23 23:32	4° ♁ 11'36	1.45137 AU
minimum elong	4099 Jan 10 07:27	19° ♁ 58'53	1°21'25	evening rise	4100 Jan 06 05:19	24° ♁ 50'27	
	4099 Jan 16 16:18	0° ♁			4100 Jan 09 13:15	0° ♁	
evening rise	4099 Jan 26 06:40	15° ♁ 15'35		greatest brilliancy	4100 Jan 19 01:08	14° ♁ 32'28	-0.7m
greatest brilliancy	4099 Feb 02 23:44	27° ♁ 36'36	-0.9m		4100 Jan 30 11:29	0° ♁	
	4099 Feb 04 11:55	0° ♁		evening max el	4100 Jan 31 01:06	0° ♁ 35'48	19°37'04
evening max el	4099 Feb 16 18:06	17° ♁ 04'39	18°49'57	asc. node	4100 Feb 04 09:33	4° ♁ 02'18	
asc. node	4099 Feb 17 12:31	17° ♁ 49'37		retrograde	4100 Feb 07 08:47	4° ♁ 49'26	
retrograde	4099 Feb 23 11:35	20° ♁ 50'24		evening set	4100 Feb 10 22:32	3° ♁ 34'40	
evening set	4099 Feb 26 17:54	19° ♁ 49'16			4100 Feb 14 13:14	30° ♁	
inferior conj	4099 Mar 04 09:23	14° ♁ 07'48	3°31'21	inferior conj	4100 Feb 16 09:31	27° ♁ 37'53	3°13'15
minimum elong	4099 Mar 04 08:12	14° ♁ 11'30	3°31'14	minimum elong	4100 Feb 16 07:26	27° ♁ 44'47	3°12'51
min. Earth dist.	4099 Mar 06 03:27	11° ♁ 57'45	0.65498 AU	min. Earth dist.	4100 Feb 17 12:42	26° ♁ 08'20	0.66729 AU
morning rise	4099 Mar 09 22:05	7° ♁ 55'19		morning rise	4100 Feb 21 16:07	21° ♁ 24'00	
direct	4099 Mar 16 12:12	5° ♁ 04'35		direct	4100 Feb 27 18:50	18° ♁ 40'36	
desc. node	4099 Mar 26 11:49	9° ♁ 52'27		morning max el	4100 Mar 12 00:56	25° ♁ 58'44	25°39'14
morning max el	4099 Mar 29 15:34	12° ♁ 49'18	26°50'15	desc. node	4100 Mar 13 08:51	27° ♁ 21'42	
	4099 Apr 12 11:13	0° ♁			4100 Mar 15 17:45	0° ♁	
	4099 Apr 30 21:29	0° ♁			4100 Apr 06 00:35	0° ♁	
morning set	4099 May 04 11:46	6° ♁ 43'13		morning set	4100 Apr 17 06:19	19° ♁ 18'18	
max. Earth dist.	4099 May 08 19:33	15° ♁ 11'24	1.34270 AU	max. Earth dist.	4100 Apr 21 00:45	26° ♁ 19'42	1.35931 AU
					4100 Apr 22 22:38	0° ♁	
superior conj	4099 May 13 00:55	23° ♁ 49'54	-0°35'17				
minimum elong	4099 May 13 02:47	23° ♁ 59'36	0°34'53	superior conj	4100 Apr 26 17:33	7° ♁ 28'32	-1°04'23
	4099 May 15 23:31	0° ♁		minimum elong	4100 Apr 26 21:00	7° ♁ 45'51	1°03'47
asc. node	4099 May 16 11:48	1° ♁ 04'48		asc. node	4100 May 03 08:50	21° ♁ 00'07	
evening rise	4099 May 20 12:10	9° ♁ 31'38		evening rise	4100 May 04 18:14	23° ♁ 50'41	
	4099 May 31 08:04	0° ♁			4100 May 07 19:49	0° ♁	
evening max el	4099 Jun 09 05:10	11° ♁ 34'14	21°19'02	evening max el	4100 May 22 12:28	22° ♁ 44'47	20°01'38
retrograde	4099 Jun 21 06:20	17° ♁ 29'41		retrograde	4100 Jun 01 21:06	27° ♁ 47'52	
desc. node	4099 Jun 22 11:02	17° ♁ 26'21		evening set	4100 Jun 03 19:56	27° ♁ 37'53	
evening set	4099 Jun 23 14:20	17° ♁ 17'09		desc. node	4100 Jun 09 08:03	25° ♁ 38'00	
inferior conj	4099 Jul 02 23:23	13° ♁ 18'15	-3°00'02	inferior conj	4100 Jun 12 19:57	23° ♁ 37'59	-1°02'16
minimum elong	4099 Jul 02 15:32	13° ♁ 29'14	2°57'31	minimum elong	4100 Jun 12 17:03	23° ♁ 42'21	1°01'11
min. Earth dist.	4099 Jul 03 04:46	13° ♁ 10'42	0.54831 AU	min. Earth dist.	4100 Jun 14 17:13	22° ♁ 30'02	0.55239 AU
morning rise	4099 Jul 11 17:19	9° ♁ 22'06		morning rise	4100 Jun 21 12:27	19° ♁ 17'10	
direct	4099 Jul 15 03:38	8° ♁ 56'39		direct	4100 Jun 25 16:03	18° ♁ 39'37	
morning max el	4099 Jul 27 18:09	14° ♁ 55'00	22°21'21	morning max el	4100 Jul 09 09:25	25° ♁ 24'46	24°04'42
	4099 Aug 08 07:31	0° ♁			4100 Jul 13 16:38	0° ♁	
asc. node	4099 Aug 12 11:02	7° ♁ 21'12		asc. node	4100 Jul 30 08:06	26° ♁ 49'07	
morning set	4099 Aug 18 12:23	19° ♁ 28'18			4100 Jul 31 21:46	0° ♁	
	4099 Aug 23 11:17	0° ♁		morning set	4100 Aug 03 00:05	4° ♁ 22'19	
superior conj	4099 Aug 25 15:51	4° ♁ 39'32	1°40'41	superior conj	4100 Aug 09 23:34	19° ♁ 26'39	1°31'12
minimum elong	4099 Aug 25 14:35	4° ♁ 32'50	1°40'37	minimum elong	4100 Aug 09 21:31	19° ♁ 15'34	1°31'00
max. Earth dist.	4099 Aug 28 23:43	11° ♁ 36'55	1.34292 AU	max. Earth dist.	4100 Aug 12 00:47	23° ♁ 51'55	1.33118 AU
evening rise	4099 Sep 02 15:09	20° ♁ 55'49			4100 Aug 14 22:26	0° ♁	
	4099 Sep 07 10:37	0° ♁		evening rise	4100 Aug 17 09:04	5° ♁ 00'48	
desc. node	4099 Sep 18 10:20	18° ♁ 26'54			4100 Aug 31 02:24	0° ♁	
	4099 Sep 26 11:07	0° ♁		desc. node	4100 Sep 05 07:21	8° ♁ 02'04	
evening max el	4099 Oct 07 11:27	12° ♁ 46'38	27°04'46	evening max el	4100 Sep 19 22:50	26° ♁ 00'59	27°26'05
retrograde	4099 Oct 20 18:08	20° ♁ 03'40			4100 Sep 24 18:23	0° ♁	
evening set	4099 Oct 27 14:03	17° ♁ 22'30		retrograde	4100 Oct 03 13:42	3° ♁ 18'07	
min. Earth dist.	4099 Oct 31 11:52	13° ♁ 34'49	0.65280 AU	evening set	4100 Oct 10 17:10	0° ♁ 40'26	
inferior conj	4099 Nov 02 13:17	11° ♁ 15'20	-1°58'00		4100 Oct 11 14:07	30° ♁	
minimum elong	4099 Nov 02 16:36	11° ♁ 05'56	1°56'41	min. Earth dist.	4100 Oct 14 09:37	27° ♁ 26'17	0.63728 AU
asc. node	4099 Nov 08 10:15	5° ♁ 52'53		inferior conj	4100 Oct 16 23:20	24° ♁ 48'51	-2°59'29
morning rise	4099 Nov 08 20:05	5° ♁ 40'12		minimum elong	4100 Oct 17 04:20	24° ♁ 36'02	2°57'44
direct	4099 Nov 11 13:12	5° ♁ 00'34		morning rise	4100 Oct 23 16:52	19° ♁ 29'52	
morning max el	4099 Nov 18 00:58	8° ♁ 29'23	18°07'51	direct	4100 Oct 26 04:22	18° ♁ 59'45	
	4099 Dec 02 19:30	0° ♁		asc. node	4100 Oct 26 07:19	18° ♁ 59'49	
morning set	4099 Dec 06 08:31	5° ♁ 49'46		morning max el	4100 Nov 01 17:41	22° ♁ 24'48	17°51'38

	4100 Nov 07 15:18	0°♄		asc. node	4101 Oct 13 04:23	3°♄39'44	
morning set	4100 Nov 18 09:02	17°♄55'31		morning max el	4101 Oct 16 09:14	6°♄07'56	17°53'32
	4100 Nov 25 10:35	0°♄			4101 Oct 31 16:50	0°♄	
				morning set	4101 Nov 01 05:51	0°♄58'59	
superior conj	4100 Nov 30 21:03	9°♄02'02	0°09'43				
minimum elong	4100 Nov 30 22:07	9°♄06'21	0°09'34	superior conj	4101 Nov 11 23:18	20°♄02'55	0°48'57
behind sun begin	4100 Nov 30 14:10	8°♄33'48		minimum elong	4101 Nov 12 03:10	20°♄19'35	0°48'26
behind sun end	4100 Dec 01 06:03	9°♄38'52			4101 Nov 17 20:55	0°♄	
desc. node	4100 Dec 02 06:38	11°♄19'10		desc. node	4101 Nov 19 03:40	2°♄06'28	
max. Earth dist.	4100 Dec 06 17:48	18°♄30'38	1.44333 AU	max. Earth dist.	4101 Nov 19 07:46	2°♄23'14	1.42908 AU
	4100 Dec 14 01:15	0°♄		evening rise	4101 Nov 26 05:17	13°♄25'40	
evening rise	4100 Dec 16 15:39	4°♄00'59			4101 Dec 07 02:27	0°♄	
	4101 Jan 03 01:11	0°♄		evening max el	4101 Dec 27 23:07	27°♄41'36	21°51'22
evening max el	4101 Jan 14 02:52	14°♄08'11	20°38'39		4101 Dec 30 10:24	0°♄	
retrograde	4101 Jan 22 07:02	18°♄57'29		retrograde	4102 Jan 06 04:15	3°♄10'30	
asc. node	4101 Jan 22 06:36	18°♄57'29		asc. node	4102 Jan 09 03:39	2°♄22'52	
evening set	4101 Jan 26 05:38	17°♄28'12		evening set	4102 Jan 10 13:24	1°♄25'46	
inferior conj	4101 Jan 31 14:21	11°♄18'51	2°44'41		4102 Jan 12 01:54	30°♄	
minimum elong	4101 Jan 31 11:53	11°♄27'17	2°44'02				
min. Earth dist.	4101 Feb 01 04:11	10°♄31'30	0.67538 AU				
morning rise	4101 Feb 05 17:58	5°♄05'15					
direct	4101 Feb 11 06:43	2°♄38'04					
morning max el	4101 Feb 22 09:37	9°♄16'25	24°14'06				
desc. node	4101 Feb 28 05:54	15°♄52'11					
	4101 Mar 10 17:54	0°♄					
	4101 Mar 29 16:42	0°♄					
morning set	4101 Mar 30 04:42	0°♄51'56					
max. Earth dist.	4101 Apr 02 21:37	7°♄24'42	1.37952 AU				
superior conj	4101 Apr 09 22:34	20°♄29'36	-1°31'36				
minimum elong	4101 Apr 10 03:11	20°♄51'42	1°31'00				
	4101 Apr 14 19:42	0°♄					
evening rise	4101 Apr 18 17:59	7°♄46'19					
asc. node	4101 Apr 20 05:54	10°♄42'49					
	4101 May 01 09:14	0°♄					
evening max el	4101 May 05 07:43	4°♄37'18	19°03'43				
retrograde	4101 May 14 01:05	8°♄52'39					
evening set	4101 May 16 02:33	8°♄39'22					
inferior conj	4101 May 24 08:14	4°♄25'58	0°49'41				
minimum elong	4101 May 24 10:10	4°♄22'36	0°48'59				
desc. node	4101 May 27 05:06	2°♄27'25					
min. Earth dist.	4101 May 27 08:37	2°♄21'34	0.56534 AU				
	4101 May 31 10:17	30°♄					
morning rise	4101 Jun 01 14:34	29°♄29'24					
direct	4101 Jun 06 17:10	28°♄28'01					
	4101 Jun 13 00:23	0°♄					
morning max el	4101 Jun 20 23:48	5°♄49'02	25°42'37				
	4101 Jul 08 14:25	0°♄					
asc. node	4101 Jul 17 05:09	16°♄35'04					
morning set	4101 Jul 18 11:32	19°♄14'30					
	4101 Jul 23 10:47	0°♄					
superior conj	4101 Jul 25 10:16	4°♄20'58	1°16'41				
minimum elong	4101 Jul 25 07:56	4°♄08'08	1°16'20				
max. Earth dist.	4101 Jul 26 08:33	6°♄23'15	1.32365 AU				
evening rise	4101 Aug 01 11:03	19°♄28'18					
	4101 Aug 06 17:35	0°♄					
desc. node	4101 Aug 23 04:23	26°♄57'34					
	4101 Aug 25 11:48	0°♄					
evening max el	4101 Sep 02 06:37	8°♄41'55	27°16'26				
retrograde	4101 Sep 16 02:37	15°♄56'13					
evening set	4101 Sep 23 06:20	13°♄33'58					
min. Earth dist.	4101 Sep 26 21:01	10°♄45'55	0.61869 AU				
inferior conj	4101 Sep 29 21:32	8°♄01'37	-3°57'26				
minimum elong	4101 Sep 30 03:30	7°♄48'03	3°55'48				
morning rise	4101 Oct 07 02:27	3°♄01'59					
direct	4101 Oct 09 11:02	2°♄38'08					