conjunction	3601 Dec 08 08:51	16°♐21'44	-0°16'53
minimum elong	3601 Dec 08 08:11	16°♐20'35	0°16'52
	3601 Dec 27 18:28	0°♑	
morning rise	3602 Jan 27 16:55	22°♑22'05	
	3602 Feb 07 00:49	0°♒	
	3602 Mar 18 18:21	0°♓	
	3602 Apr 26 14:27	0°♈	
	3602 Jun 04 08:35	0°♉	
	3602 Jul 14 01:18	0°♊	
	3602 Aug 25 01:50	0°♋	
asc. node	3602 Sep 13 17:09	13°♋04'56	
	3602 Oct 11 06:03	0°♌	
retrograde	3602 Dec 30 06:09	28°♌51'26	
min. Earth dist.	3603 Feb 04 00:58	20°♌35'18	0.63012 AU
opposition	3603 Feb 08 06:58	18°♌53'40	4°35'31
greatest brilliancy	3603 Feb 07 14:02	19°♌10'33	-1.5m
direct	3603 Mar 18 19:46	9°♌52'11	
	3603 May 27 02:27	0°♍	
	3603 Jul 22 22:04	0°♎	
	3603 Sep 10 18:18	0°♏	
desc. node	3603 Sep 26 17:03	10°♏08'54	
	3603 Oct 26 19:39	0°♐	
evening set	3603 Dec 04 00:22	26°♐29'40	
	3603 Dec 08 22:02	0°♑	
max. Earth dist.	3603 Dec 18 13:29	6°♑57'53	2.44802 AU
	3604 Jan 18 15:50	0°♒	
conjunction	3604 Jan 27 16:25	6°♒50'08	-0°59'29
minimum elong	3604 Jan 27 14:49	6°♒47'04	0°59'29
	3604 Feb 26 17:58	0°♓	
morning rise	3604 Mar 31 10:34	26°♓25'15	
	3604 Apr 04 23:40	0°♈	
	3604 May 13 05:37	0°♉	
	3604 Jun 21 09:18	0°♊	
asc. node	3604 Jul 31 14:51	29°♊28'55	
	3604 Aug 01 08:19	0°♋	
	3604 Sep 14 03:33	0°♌	
	3604 Nov 01 20:15	0°♍	
	3605 Jan 07 14:05	0°♎	
retrograde	3605 Feb 02 00:31	3°♎39'49	
	3605 Feb 25 16:04	30°℞♍	
opposition	3605 Mar 14 07:02	23°♍54'27	4°12'15
greatest brilliancy	3605 Mar 14 05:32	23°♍55'56	-1.3m
min. Earth dist.	3605 Mar 13 22:24	24°♍03'03	0.67745 AU
direct	3605 Apr 24 00:45	14°♍08'56	
	3605 Jun 22 20:01	0°♎	
desc. node	3605 Aug 13 15:34	26°♎52'22	
	3605 Aug 19 00:26	0°♏	
	3605 Oct 05 23:33	0°♐	
	3605 Nov 18 12:58	0°♑	
	3605 Dec 29 04:45	0°♒	
evening set	3606 Jan 29 05:22	23°♒53'36	
	3606 Feb 06 00:42	0°♓	
	3606 Mar 16 00:38	0°♈	
conjunction	3606 Apr 06 11:17	16°♈56'09	-0°45'32
minimum elong	3606 Apr 06 14:43	17°♈02'55	0°45'29
	3606 Apr 23 03:22	0°♉	
max. Earth dist.	3606 May 23 18:05	23°♉34'44	2.38859 AU
	3606 Jun 01 05:55	0°♊	
morning rise	3606 Jun 15 16:47	10°♊47'19	
asc. node	3606 Jun 18 14:23	12°♊55'54	
	3606 Jul 12 01:56	0°♋	
	3606 Aug 24 05:12	0°♌	
	3606 Oct 09 05:49	0°♍	
	3606 Nov 28 14:26	0°♎	
	3607 Jan 31 15:03	0°♏	
retrograde	3607 Mar 09 04:18	6°♏49'58	
	3607 Apr 11 12:32	30°℞♎	
opposition	3607 Apr 17 12:20	27°♎41'45	2°36'25
greatest brilliancy	3607 Apr 17 20:30	27°♎33'45	-1.4m
min. Earth dist.	3607 Apr 21 00:04	26°♎19'52	0.65849 AU
direct	3607 May 29 00:47	17°♎39'35	
desc. node	3607 Jul 01 14:14	23°♎39'09	
	3607 Jul 18 09:46	0°♏	
	3607 Sep 12 21:49	0°♐	
	3607 Oct 28 12:01	0°♑	
	3607 Dec 08 18:19	0°♒	
	3608 Jan 16 18:30	0°♓	
	3608 Feb 23 20:55	0°♈	
	3608 Apr 02 03:47	0°♉	
evening set	3608 Apr 10 08:51	6°♉20'44	
asc. node	3608 May 05 14:17	25°♉33'04	
	3608 May 11 12:46	0°♊	
conjunction	3608 Jun 13 11:13	24°♊08'40	0°24'49
minimum elong	3608 Jun 13 09:35	24°♊05'45	0°24'48
	3608 Jun 21 15:39	0°♋	
max. Earth dist.	3608 Jul 22 06:51	21°♋24'56	2.52330 AU
	3608 Aug 03 21:04	0°♌	
morning rise	3608 Aug 09 12:51	3°♌48'59	
	3608 Sep 18 07:21	0°♍	
	3608 Nov 05 00:15	0°♎	
	3608 Dec 25 20:26	0°♏	
	3609 Feb 23 09:41	0°♐	
retrograde	3609 Apr 17 22:59	13°♐11'28	
desc. node	3609 May 18 13:17	7°♐28'57	
opposition	3609 May 25 01:38	5°♐07'26	-0°16'29
greatest brilliancy	3609 May 25 03:22	5°♐05'49	-1.8m
min. Earth dist.	3609 Jun 01 03:18	2°♐29'33	0.57529 AU
	3609 Jun 08 07:29	30°℞♏	
direct	3609 Jul 04 12:45	25°♏29'37	
	3609 Aug 01 02:07	0°♐	
	3609 Oct 01 02:51	0°♑	
	3609 Nov 14 10:31	0°♒	
	3609 Dec 24 15:34	0°♓	
	3610 Feb 01 11:38	0°♈	
	3610 Mar 12 10:15	0°♉	
asc. node	3610 Mar 23 12:51	8°♉25'45	
	3610 Apr 21 11:37	0°♊	
	3610 Jun 02 06:42	0°♋	
evening set	3610 Jun 10 07:07	5°♋36'01	
	3610 Jul 16 00:54	0°♌	
conjunction	3610 Aug 02 13:18	11°♌39'40	1°03'25
minimum elong	3610 Aug 02 12:16	11°♌37'57	1°03'24
max. Earth dist.	3610 Aug 21 07:51	23°♌58'32	2.62476 AU
	3610 Aug 30 14:29	0°♍	
morning rise	3610 Sep 19 23:45	13°♍06'52	
	3610 Oct 16 13:49	0°♎	
	3610 Dec 03 15:32	0°♏	
	3611 Jan 22 03:05	0°♐	
	3611 Mar 16 02:05	0°♑	
desc. node	3611 Apr 05 11:44	10°♑20'21	
	3611 Jun 02 21:58	0°♒	
retrograde	3611 Jun 12 19:10	0°♒34'45	
	3611 Jun 22 08:56	30°℞♑	
opposition	3611 Jul 15 16:24	24°♑21'57	-4°44'38
greatest brilliancy	3611 Jul 17 00:53	23°♑55'47	-2.4m
min. Earth dist.	3611 Jul 23 21:10	21°♑44'07	0.44598 AU

direct	3611 Aug 20 15:14	16°♋48'44	
	3611 Oct 06 21:06	0°♒	
	3611 Nov 25 16:06	0°♓	
	3612 Jan 07 00:47	0°♈	
asc. node	3612 Feb 08 11:24	23°♈39'36	
	3612 Feb 17 04:22	0°♉	
	3612 Mar 29 22:49	0°♊	
	3612 May 12 03:35	0°♋	
	3612 Jun 25 23:38	0°♌	
evening set	3612 Jul 24 21:15	18°♌50'33	
	3612 Aug 11 04:55	0°♍	
conjunction	3612 Sep 10 06:38	19°♍13'17	1°05'39
minimum elong	3612 Sep 10 07:15	19°♍14'15	1°05'39
max. Earth dist.	3612 Sep 13 08:12	21°♍10'26	2.67350 AU
	3612 Sep 27 05:11	0°♎	
morning rise	3612 Oct 25 00:31	17°♎40'52	
	3612 Nov 13 08:39	0°♏	
	3612 Dec 30 05:17	0°♐	
	3613 Feb 14 17:46	0°♑	
desc. node	3613 Feb 20 11:01	3°♑41'40	
	3613 Apr 02 06:30	0°♒	
	3613 May 19 22:04	0°♓	
	3613 Jul 13 00:58	0°♈	
retrograde	3613 Aug 30 03:22	12°♈51'26	
min. Earth dist.	3613 Sep 27 21:08	8°♈09'44	0.37181 AU
opposition	3613 Sep 29 15:44	7°♈41'05	-5°33'44
greatest brilliancy	3613 Sep 29 12:09	7°♈43'29	-3.0m
direct	3613 Oct 29 03:09	2°♈47'07	
asc. node	3613 Dec 26 11:01	20°♈35'34	
	3614 Jan 12 21:17	0°♉	
	3614 Mar 03 10:16	0°♊	
	3614 Apr 19 14:46	0°♋	
	3614 Jun 05 19:59	0°♌	
	3614 Jul 23 10:43	0°♍	
evening set	3614 Sep 01 05:59	25°♍03'28	
	3614 Sep 09 01:42	0°♎	
max. Earth dist.	3614 Oct 06 10:53	17°♎24'22	2.66741 AU
conjunction	3614 Oct 16 12:25	23°♎51'14	0°42'36
minimum elong	3614 Oct 16 13:28	23°♎52'56	0°42'36
	3614 Oct 26 01:31	0°♏	
morning rise	3614 Nov 29 20:22	22°♏41'07	
	3614 Dec 10 21:35	0°♐	
desc. node	3615 Jan 08 10:39	19°♐09'47	
	3615 Jan 24 07:47	0°♑	
	3615 Mar 08 08:34	0°♒	
	3615 Apr 19 05:00	0°♓	
	3615 May 30 09:30	0°♈	
	3615 Jul 11 02:19	0°♉	
	3615 Aug 25 13:31	0°♊	
retrograde	3615 Nov 02 20:26	25°♊30'15	
asc. node	3615 Nov 13 09:33	24°♊40'19	
min. Earth dist.	3615 Dec 01 03:46	19°♊58'51	0.46888 AU
opposition	3615 Dec 09 10:14	17°♊02'23	1°28'20
greatest brilliancy	3615 Dec 08 22:00	17°♊13'16	-2.4m
direct	3616 Jan 11 10:59	10°♊10'34	
	3616 Mar 17 10:48	0°♋	
	3616 May 12 07:41	0°♌	
	3616 Jul 02 07:41	0°♍	
	3616 Aug 20 10:40	0°♎	
	3616 Oct 06 21:15	0°♏	
evening set	3616 Oct 07 00:10	0°♏04'43	
max. Earth dist.	3616 Oct 29 23:19	15°♏02'55	2.60786 AU
	3616 Nov 21 09:46	0°♐	
conjunction	3616 Nov 22 03:28	0°♐29'50	0°01'52
minimum elong	3616 Nov 22 03:29	0°♐29'52	0°01'52
behind sun begin	3616 Nov 21 08:01	29°♏57'03	
behind sun end	3616 Nov 22 22:57	1°♐02'43	
desc. node	3616 Nov 25 09:21	2°♐41'27	
	3617 Jan 03 21:39	0°♑	
morning rise	3617 Jan 08 16:14	3°♑22'38	
	3617 Feb 14 12:36	0°♒	
	3617 Mar 26 15:38	0°♓	
	3617 May 04 20:52	0°♈	
	3617 Jun 12 23:46	0°♉	
	3617 Jul 23 04:06	0°♊	
	3617 Sep 04 07:37	0°♋	
asc. node	3617 Sep 30 08:37	16°♋12'25	
	3617 Oct 26 05:12	0°♌	
retrograde	3617 Dec 15 18:35	13°♌54'35	
min. Earth dist.	3618 Jan 18 14:38	6°♌18'33	0.59431 AU
greatest brilliancy	3618 Jan 23 10:27	4°♌24'26	-1.7m
opposition	3618 Jan 24 08:06	4°♌03'04	4°18'28
	3618 Feb 04 06:33	30°℞♋	
direct	3618 Mar 02 15:14	25°♋27'42	
	3618 Mar 31 14:26	0°♌	
	3618 Jun 08 04:12	0°♍	
	3618 Jul 31 07:09	0°♎	
	3618 Sep 18 02:52	0°♏	
desc. node	3618 Oct 13 07:45	16°♏17'17	
	3618 Nov 02 21:33	0°♐	
evening set	3618 Nov 16 02:49	9°♐00'46	
max. Earth dist.	3618 Nov 30 22:42	19°♐18'50	2.49975 AU
	3618 Dec 16 00:44	0°♑	
conjunction	3619 Jan 06 02:28	15°♑16'14	-0°45'34
minimum elong	3619 Jan 06 00:44	15°♑13'04	0°45'32
	3619 Jan 25 22:54	0°♒	
morning rise	3619 Mar 04 11:08	28°♒36'27	
	3619 Mar 06 06:18	0°♓	
	3619 Apr 13 16:41	0°♈	
	3619 May 22 02:02	0°♉	
	3619 Jun 30 08:20	0°♊	
	3619 Aug 10 12:18	0°♋	
asc. node	3619 Aug 18 08:43	5°♋30'04	
	3619 Sep 23 23:42	0°♌	
	3619 Nov 14 12:44	0°♍	
retrograde	3620 Jan 20 17:45	20°♍47'48	
min. Earth dist.	3620 Feb 28 04:26	11°♍39'11	0.66667 AU
opposition	3620 Mar 01 01:43	10°♍53'56	4°30'53
greatest brilliancy	3620 Feb 29 18:15	11°♍01'24	-1.3m
direct	3620 Apr 10 02:38	1°♍22'11	
	3620 Jul 05 16:13	0°♎	
	3620 Aug 27 15:42	0°♏	
desc. node	3620 Aug 30 06:28	1°♏35'38	
	3620 Oct 13 15:22	0°♐	
	3620 Nov 25 22:39	0°♑	
evening set	3621 Jan 04 15:45	29°♑17'11	
	3621 Jan 05 14:23	0°♒	
max. Earth dist.	3621 Feb 10 19:16	27°♒53'19	2.37542 AU
	3621 Feb 13 12:04	0°♓	
conjunction	3621 Mar 08 02:38	17°♓47'01	-1°02'10
minimum elong	3621 Mar 08 04:21	17°♓50'25	1°02'09
	3621 Mar 23 13:38	0°♈	
	3621 Apr 30 16:55	0°♉	
morning rise	3621 May 18 08:38	13°♉40'51	
	3621 Jun 08 18:48	0°♊	
asc. node	3621 Jul 05 07:27	19°♊40'39	
	3621 Jul 19 14:13	0°♋	
	3621 Aug 31 20:02	0°♌	
	3621 Oct 17 10:52	0°♍	

	3621 Dec 09 07:27	0°♎	
retrograde	3622 Feb 23 03:51	24°♎01'20	
opposition	3622 Apr 04 00:08	14°♎35'57	3°21'37
greatest brilliancy	3622 Apr 04 05:55	14°♎30'15	-1.3m
min. Earth dist.	3622 Apr 05 24:00	13°♎48'42	0.67372 AU
direct	3622 May 15 09:51	4°♎36'49	
desc. node	3622 Jul 18 05:14	22°♎39'54	
	3622 Aug 01 23:03	0°♏	
	3622 Sep 22 06:33	0°♐	
	3622 Nov 05 18:21	0°♑	
	3622 Dec 16 16:32	0°♒	
	3623 Jan 24 13:36	0°♓	
	3623 Mar 03 13:54	0°♈	
evening set	3623 Mar 14 01:22	8°♈16'44	
	3623 Apr 10 18:04	0°♉	
	3623 May 19 23:20	0°♊	
conjunction	3623 May 20 23:24	0°♊45'05	-0°01'33
minimum elong	3623 May 20 23:33	0°♊45'21	0°01'33
behind sun begin	3623 May 19 20:04	29°♉53'52	
behind sun end	3623 May 22 03:01	1°♊36'46	
asc. node	3623 May 23 05:46	2°♊26'47	
	3623 Jun 29 22:16	0°♋	
max. Earth dist.	3623 Jul 07 07:00	5°♋14'16	2.47175 AU
morning rise	3623 Jul 22 04:53	15°♋41'57	
	3623 Aug 12 01:05	0°♌	
	3623 Sep 26 13:41	0°♍	
	3623 Nov 13 21:54	0°♎	
	3624 Jan 06 03:42	0°♏	
retrograde	3624 Mar 31 23:25	28°♏28'57	
opposition	3624 May 09 03:31	19°♏55'34	1°01'11
greatest brilliancy	3624 May 09 09:13	19°♏50'06	-1.6m
min. Earth dist.	3624 May 14 21:21	17°♏43'58	0.61509 AU
desc. node	3624 Jun 04 03:54	11°♏31'28	
direct	3624 Jun 19 07:37	10°♏00'52	
	3624 Aug 23 07:21	0°♐	
	3624 Oct 12 08:47	0°♑	
	3624 Nov 23 21:44	0°♒	
	3625 Jan 02 10:31	0°♓	
	3625 Feb 09 20:48	0°♈	
	3625 Mar 20 10:58	0°♉	
asc. node	3625 Apr 09 05:35	15°♉05'03	
	3625 Apr 29 03:47	0°♊	
evening set	3625 May 19 20:27	15°♊09'14	
	3625 Jun 09 14:40	0°♋	
conjunction	3625 Jul 15 19:29	25°♋04'27	0°53'28
minimum elong	3625 Jul 15 17:47	25°♋01'34	0°53'26
	3625 Jul 23 02:09	0°♌	
max. Earth dist.	3625 Aug 10 20:12	12°♌31'42	2.59112 AU
morning rise	3625 Sep 04 21:00	28°♌55'48	
	3625 Sep 06 12:37	0°♍	
	3625 Oct 23 15:39	0°♎	
	3625 Dec 11 10:50	0°♏	
	3626 Feb 01 01:07	0°♐	
	3626 Apr 03 12:58	0°♑	
desc. node	3626 Apr 22 03:17	6°♑11'13	
retrograde	3626 May 19 08:28	10°♑11'04	
opposition	3626 Jun 23 03:59	3°♑08'20	-2°51'16
greatest brilliancy	3626 Jun 24 00:25	2°♑50'36	-2.1m
min. Earth dist.	3626 Jul 01 15:03	0°♑12'20	0.49874 AU
	3626 Jul 02 05:42	30°℞♐	
direct	3626 Jul 31 11:32	24°♐28'53	
	3626 Aug 30 04:38	0°♑	
	3626 Oct 26 08:05	0°♒	
	3626 Dec 08 09:37	0°♓	
	3627 Jan 17 14:47	0°♈	
asc. node	3627 Feb 25 04:03	28°♈58'57	
	3627 Feb 26 12:47	0°♉	
	3627 Apr 08 09:36	0°♊	
	3627 May 20 21:28	0°♋	
	3627 Jul 04 04:47	0°♌	
evening set	3627 Jul 09 09:50	3°♌27'12	
	3627 Aug 19 02:02	0°♍	
conjunction	3627 Aug 27 12:58	5°♍26'43	1°08'17
minimum elong	3627 Aug 27 13:03	5°♍26'50	1°08'17
max. Earth dist.	3627 Sep 05 08:39	11°♍06'12	2.66095 AU
	3627 Oct 05 00:05	0°♎	
morning rise	3627 Oct 12 06:48	4°♎37'10	
	3627 Nov 21 09:31	0°♏	
	3628 Jan 07 23:56	0°♐	
	3628 Feb 25 01:57	0°♑	
desc. node	3628 Mar 09 02:19	7°♑59'35	
	3628 Apr 14 21:54	0°♒	
	3628 Jun 11 13:25	0°♓	
retrograde	3628 Jul 28 18:44	11°♓33'17	
opposition	3628 Aug 27 22:17	6°♓32'30	-6°43'10
greatest brilliancy	3628 Aug 28 21:28	6°♓16'48	-2.9m
min. Earth dist.	3628 Aug 31 17:59	5°♓30'32	0.38118 AU
direct	3628 Sep 27 22:53	1°♓07'26	
	3628 Dec 13 05:28	0°♈	
asc. node	3629 Jan 12 01:57	18°♈50'21	
	3629 Jan 28 23:09	0°♉	
	3629 Mar 14 14:11	0°♊	
	3629 Apr 28 13:59	0°♋	
	3629 Jun 13 14:18	0°♌	
	3629 Jul 30 12:50	0°♍	
evening set	3629 Aug 17 19:53	11°♍36'17	
	3629 Sep 15 20:14	0°♎	
max. Earth dist.	3629 Sep 27 13:21	7°♎26'33	2.67640 AU
conjunction	3629 Oct 02 13:22	10°♎37'34	0°53'59
minimum elong	3629 Oct 02 14:24	10°♎39'14	0°53'58
	3629 Nov 01 20:00	0°♏	
morning rise	3629 Nov 15 16:07	8°♏55'41	
	3629 Dec 17 23:25	0°♐	
desc. node	3630 Jan 25 01:11	25°♐18'03	
	3630 Feb 01 00:49	0°♑	
	3630 Mar 17 00:58	0°♒	
	3630 Apr 29 05:19	0°♓	
	3630 Jun 11 07:01	0°♈	
	3630 Jul 26 12:59	0°♉	
	3630 Oct 03 02:39	0°♊	
retrograde	3630 Oct 12 04:07	0°♊35'31	
	3630 Oct 21 02:19	30°℞♉	
min. Earth dist.	3630 Nov 07 18:43	25°♉50'44	0.41751 AU
opposition	3630 Nov 15 09:28	23°♉24'15	-0°56'37
greatest brilliancy	3630 Nov 15 03:39	23°♉28'57	-2.7m
asc. node	3630 Nov 30 02:20	19°♉17'03	
direct	3630 Dec 16 13:41	17°♉28'44	
	3631 Feb 03 13:18	0°♊	
	3631 Apr 02 02:44	0°♋	
	3631 May 22 19:56	0°♌	
	3631 Jul 11 02:08	0°♍	
	3631 Aug 28 11:30	0°♎	
evening set	3631 Sep 23 15:33	16°♎31'13	
	3631 Oct 14 16:17	0°♏	
max. Earth dist.	3631 Oct 21 00:57	4°♏07'03	2.63729 AU
conjunction	3631 Nov 08 01:34	15°♏54'06	0°19'14
minimum elong	3631 Nov 08 02:11	15°♏55'07	0°19'13
	3631 Nov 29 06:33	0°♐	
desc. node	3631 Dec 13 00:04	9°♐16'29	

morning rise	3631 Dec 23 19:09	16°♐38'53	
	3632 Jan 12 01:32	0°♑	
	3632 Feb 23 03:21	0°♒	
	3632 Apr 03 19:03	0°♓	
	3632 May 13 13:26	0°♈	
	3632 Jun 22 06:51	0°♉	
	3632 Aug 02 09:29	0°♊	
	3632 Sep 17 01:13	0°♋	
asc. node	3632 Oct 17 02:18	15°♋55'51	
retrograde	3632 Nov 30 02:38	27°♋14'34	
min. Earth dist.	3632 Dec 31 19:15	20°♋24'39	0.54954 AU
opposition	3633 Jan 07 21:01	17°♋41'11	3°39'05
greatest brilliancy	3633 Jan 06 21:40	18°♋03'43	-1.9m
direct	3633 Feb 12 16:27	9°♋39'31	
	3633 Apr 22 06:55	0°♌	
	3633 Jun 18 01:32	0°♍	
	3633 Aug 08 02:20	0°♎	
	3633 Sep 25 05:44	0°♏	
desc. node	3633 Oct 29 22:36	22°♏40'08	
evening set	3633 Oct 30 18:28	23°♏13'16	
	3633 Nov 09 20:45	0°♐	
max. Earth dist.	3633 Nov 16 23:58	4°♐50'33	2.54698 AU
conjunction	3633 Dec 18 05:22	26°♐32'15	-0°27'45
minimum elong	3633 Dec 18 04:16	26°♐30'17	0°27'45
	3633 Dec 23 02:24	0°♑	
	3634 Feb 02 06:07	0°♒	
morning rise	3634 Feb 08 15:11	4°♒46'01	
	3634 Mar 13 19:54	0°♓	
	3634 Apr 21 12:05	0°♈	
	3634 May 30 02:19	0°♉	
	3634 Jul 08 13:43	0°♊	
	3634 Aug 19 03:38	0°♋	
asc. node	3634 Sep 04 00:22	10°♋49'51	
	3634 Oct 03 21:59	0°♌	
	3634 Dec 01 22:25	0°♍	
retrograde	3635 Jan 07 05:24	7°♍22'52	
	3635 Feb 09 22:08	30°℞♌	
min. Earth dist.	3635 Feb 13 00:44	28°♌46'30	0.64591 AU
opposition	3635 Feb 16 10:17	27°♌25'03	4°37'54
greatest brilliancy	3635 Feb 15 20:40	27°♌38'40	-1.4m
direct	3635 Mar 27 13:27	18°♌11'23	
	3635 May 16 20:38	0°♍	
	3635 Jul 16 20:35	0°♎	
	3635 Sep 05 15:05	0°♏	
desc. node	3635 Sep 16 21:10	7°♏03'48	
	3635 Oct 22 00:11	0°♐	
	3635 Dec 04 04:44	0°♑	
evening set	3635 Dec 15 02:35	7°♑52'49	
max. Earth dist.	3635 Dec 31 20:12	20°♑11'35	2.41955 AU
	3636 Jan 13 22:25	0°♒	
conjunction	3636 Feb 10 07:06	20°♒55'41	-1°03'59
minimum elong	3636 Feb 10 06:15	20°♒54'03	1°03'59
	3636 Feb 21 23:14	0°♓	
	3636 Mar 31 03:21	0°♈	
morning rise	3636 Apr 17 12:34	13°♈42'00	
	3636 May 08 07:54	0°♉	
	3636 Jun 16 09:55	0°♊	
asc. node	3636 Jul 21 23:30	26°♊13'14	
	3636 Jul 27 06:01	0°♋	
	3636 Sep 08 17:42	0°♌	
	3636 Oct 26 09:05	0°♍	
	3636 Dec 23 14:11	0°♎	
retrograde	3637 Feb 09 15:47	11°♎24'13	
opposition	3637 Mar 21 20:05	1°♎45'03	3°56'31
greatest brilliancy	3637 Mar 21 21:35	1°♎43'34	-1.3m
min. Earth dist.	3637 Mar 22 07:57	1°♎33'16	0.67891 AU
	3637 Mar 26 06:25	30°℞♍	
direct	3637 May 01 21:04	21°♍53'27	
	3637 Jun 11 06:42	0°♎	
desc. node	3637 Aug 03 20:20	24°♎59'54	
	3637 Aug 12 19:04	0°♏	
	3637 Sep 30 17:13	0°♐	
	3637 Nov 13 13:52	0°♑	
	3637 Dec 24 08:04	0°♒	
	3638 Feb 01 04:29	0°♓	
evening set	3638 Feb 13 12:48	9°♓42'43	
	3638 Mar 11 04:27	0°♈	
	3638 Apr 18 07:25	0°♉	
conjunction	3638 Apr 23 03:49	3°♉46'26	-0°30'42
minimum elong	3638 Apr 23 06:34	3°♉51'48	0°30'40
	3638 May 27 10:17	0°♊	
asc. node	3638 Jun 08 22:52	9°♊21'26	
max. Earth dist.	3638 Jun 14 08:50	13°♊21'40	2.41702 AU
morning rise	3638 Jun 29 21:36	24°♊42'08	
	3638 Jul 07 06:17	0°♋	
	3638 Aug 19 07:57	0°♌	
	3638 Oct 04 01:47	0°♍	
	3638 Nov 22 10:45	0°♎	
	3639 Jan 19 08:44	0°♏	
retrograde	3639 Mar 17 11:55	14°♏47'59	
opposition	3639 Apr 25 11:52	5°♏50'48	2°04'52
greatest brilliancy	3639 Apr 25 20:08	5°♏42'47	-1.4m
min. Earth dist.	3639 Apr 29 19:30	4°♏10'13	0.64579 AU
	3639 May 11 10:55	30°℞♎	
direct	3639 Jun 05 23:52	25°♎49'07	
desc. node	3639 Jun 21 19:44	27°♎17'59	
	3639 Jul 03 08:49	0°♏	
	3639 Sep 06 04:21	0°♐	
	3639 Oct 22 21:40	0°♑	
	3639 Dec 03 12:54	0°♒	
	3640 Jan 11 16:37	0°♓	
	3640 Feb 18 20:59	0°♈	
	3640 Mar 28 05:36	0°♉	
evening set	3640 Apr 25 12:46	21°♉38'11	
asc. node	3640 Apr 25 20:53	21°♉53'28	
	3640 May 06 16:23	0°♊	
	3640 Jun 16 21:04	0°♋	
conjunction	3640 Jun 25 23:34	6°♋26'09	0°37'14
minimum elong	3640 Jun 25 21:37	6°♋22'44	0°37'13
max. Earth dist.	3640 Jul 29 22:34	29°♋51'26	2.54971 AU
	3640 Jul 30 03:37	0°♌	
morning rise	3640 Aug 19 13:57	13°♌40'29	
	3640 Sep 13 12:41	0°♍	
	3640 Oct 30 22:37	0°♎	
	3640 Dec 19 20:05	0°♏	
	3641 Feb 13 05:00	0°♐	
retrograde	3641 Apr 28 12:02	22°♐39'58	
desc. node	3641 May 08 18:10	22°♐00'43	
opposition	3641 Jun 03 21:46	14°♐55'11	-1°08'24
greatest brilliancy	3641 Jun 04 05:18	14°♐48'18	-1.9m
min. Earth dist.	3641 Jun 11 14:55	12°♐06'19	0.54998 AU
direct	3641 Jul 13 19:23	5°♐32'32	
	3641 Sep 22 12:09	0°♑	
	3641 Nov 07 22:03	0°♒	
	3641 Dec 18 19:33	0°♓	
	3642 Jan 26 23:54	0°♈	
	3642 Mar 07 04:28	0°♉	
asc. node	3642 Mar 13 20:29	5°♉02'27	
	3642 Apr 16 10:40	0°♊	
	3642 May 28 09:55	0°♋	

evening set	3642 Jun 21 10:42	16°♋35'06	
	3642 Jul 11 07:27	0°♌	
conjunction	3642 Aug 12 00:13	20°♌56'34	1°06'38
minimum elong	3642 Aug 11 23:36	20°♌55'35	1°06'38
	3642 Aug 25 22:42	0°♍	
max. Earth dist.	3642 Aug 27 02:54	0°♍45'36	2.64005 AU
morning rise	3642 Sep 28 07:07	21°♍23'30	
	3642 Oct 11 20:34	0°♎	
	3642 Nov 28 15:02	0°♏	
	3643 Jan 16 06:32	0°♐	
	3643 Mar 07 20:55	0°♑	
desc. node	3643 Mar 26 16:49	10°♑31'31	
	3643 May 04 15:22	0°♒	
retrograde	3643 Jun 28 10:19	14°♒18'09	
opposition	3643 Jul 30 06:58	8°♒34'32	-5°44'47
greatest brilliancy	3643 Jul 31 17:44	8°♒08'03	-2.6m
min. Earth dist.	3643 Aug 06 14:15	6°♒22'00	0.41881 AU
direct	3643 Sep 02 12:10	1°♒47'37	
	3643 Nov 15 11:22	0°♓	
	3643 Dec 30 11:51	0°♈	
asc. node	3644 Jan 29 19:59	21°♈28'25	
	3644 Feb 10 19:16	0°♉	
	3644 Mar 24 06:38	0°♊	
	3644 May 06 22:40	0°♋	
	3644 Jun 21 02:27	0°♌	
evening set	3644 Aug 02 19:56	27°♌38'16	
	3644 Aug 06 12:28	0°♍	
conjunction	3644 Sep 18 11:47	27°♍23'08	1°02'19
minimum elong	3644 Sep 18 12:37	27°♍24'26	1°02'20
max. Earth dist.	3644 Sep 18 14:36	27°♍27'36	2.67687 AU
	3644 Sep 22 14:28	0°♎	
morning rise	3644 Nov 01 21:12	25°♎39'21	
	3644 Nov 08 16:13	0°♏	
	3644 Dec 25 05:50	0°♐	
	3645 Feb 09 03:44	0°♑	
desc. node	3645 Feb 10 16:15	1°♑00'04	
	3645 Mar 26 13:39	0°♒	
	3645 May 11 00:07	0°♓	
	3645 Jun 27 08:52	0°♈	
	3645 Sep 02 16:27	0°♉	
retrograde	3645 Sep 16 02:48	1°♉12'55	
	3645 Sep 29 12:27	30°℞♈	
min. Earth dist.	3645 Oct 13 00:40	26°♈46'57	0.38077 AU
opposition	3645 Oct 17 16:16	25°♈28'30	-4°00'18
greatest brilliancy	3645 Oct 17 04:17	25°♈36'56	-2.9m
direct	3645 Nov 16 05:44	20°♈23'09	
asc. node	3645 Dec 16 18:40	25°♈55'57	
	3645 Dec 27 15:22	0°♉	
	3646 Feb 23 01:08	0°♊	
	3646 Apr 13 07:15	0°♋	
	3646 May 31 10:53	0°♌	
	3646 Jul 18 13:06	0°♍	
	3646 Sep 04 09:35	0°♎	
evening set	3646 Sep 09 10:16	3°♎10'28	
max. Earth dist.	3646 Oct 11 19:08	23°♎46'54	2.65892 AU
	3646 Oct 21 10:57	0°♏	
conjunction	3646 Oct 24 15:00	2°♏02'53	0°34'40
minimum elong	3646 Oct 24 15:57	2°♏04'26	0°34'40
	3646 Dec 06 04:53	0°♐	
morning rise	3646 Dec 08 07:03	1°♐23'42	
desc. node	3646 Dec 29 15:01	15°♐45'58	
	3647 Jan 19 09:32	0°♑	
	3647 Mar 03 01:32	0°♒	
	3647 Apr 13 10:23	0°♓	
	3647 May 23 23:51	0°♈	
	3647 Jul 03 17:34	0°♉	
	3647 Aug 15 18:34	0°♊	
	3647 Oct 08 16:19	0°♋	
asc. node	3647 Nov 03 17:54	7°♋28'10	
retrograde	3647 Nov 13 17:45	8°♋11'10	
min. Earth dist.	3647 Dec 13 04:48	2°♋12'02	0.49838 AU
	3647 Dec 19 04:15	30°℞♊	
greatest brilliancy	3647 Dec 20 11:30	29°♊31'01	-2.2m
opposition	3647 Dec 21 06:36	29°♊13'22	2°28'16
direct	3648 Jan 24 08:22	21°♊54'07	
	3648 Mar 03 11:44	0°♋	
	3648 May 05 08:07	0°♌	
	3648 Jun 26 19:58	0°♍	
	3648 Aug 15 12:49	0°♎	
	3648 Oct 02 04:59	0°♏	
evening set	3648 Oct 15 11:06	8°♏34'56	
max. Earth dist.	3648 Nov 05 04:29	22°♏14'13	2.58798 AU
desc. node	3648 Nov 15 13:47	29°♏11'40	
	3648 Nov 16 18:28	0°♐	
conjunction	3648 Dec 01 05:54	9°♐50'41	-0°08'57
minimum elong	3648 Dec 01 05:33	9°♐50'05	0°08'57
behind sun begin	3648 Nov 30 12:35	9°♐21'01	
behind sun end	3648 Dec 01 22:31	10°♐19'09	
	3648 Dec 30 04:17	0°♑	
morning rise	3649 Jan 19 04:41	14°♑19'20	
	3649 Feb 09 15:20	0°♒	
	3649 Mar 21 13:38	0°♓	
	3649 Apr 29 13:48	0°♈	
	3649 Jun 07 11:21	0°♉	
	3649 Jul 17 07:31	0°♊	
	3649 Aug 28 15:40	0°♋	
asc. node	3649 Sep 20 17:49	15°♋03'17	
	3649 Oct 16 02:18	0°♌	
retrograde	3649 Dec 24 04:16	23°♌04'32	
min. Earth dist.	3650 Jan 28 02:56	15°♌05'31	0.61524 AU
greatest brilliancy	3650 Feb 01 05:26	13°♌27'47	-1.6m
opposition	3650 Feb 02 00:41	13°♌08'39	4°30'51
direct	3650 Mar 12 01:06	4°♌17'59	
	3650 May 31 16:29	0°♍	
	3650 Jul 25 18:22	0°♎	
	3650 Sep 13 04:46	0°♏	
desc. node	3650 Oct 03 12:55	13°♏01'14	
	3650 Oct 29 04:31	0°♐	
evening set	3650 Nov 26 01:31	19°♐10'07	
max. Earth dist.	3650 Dec 10 04:35	29°♐10'14	2.47132 AU
	3650 Dec 11 08:24	0°♑	
conjunction	3651 Jan 17 22:45	27°♑33'05	-0°54'17
minimum elong	3651 Jan 17 20:57	27°♑29'43	0°54'15
	3651 Jan 21 05:06	0°♒	
	3651 Mar 01 10:06	0°♓	
morning rise	3651 Mar 19 18:21	14°♓18'47	
	3651 Apr 08 17:52	0°♈	
	3651 May 17 00:57	0°♉	
	3651 Jun 25 04:51	0°♊	
	3651 Aug 05 04:14	0°♋	
asc. node	3651 Aug 08 15:29	2°♋27'24	
	3651 Sep 18 03:25	0°♌	
	3651 Nov 06 15:31	0°♍	
retrograde	3652 Jan 28 08:46	28°♍41'44	
opposition	3652 Mar 08 16:51	18°♍52'14	4°21'16
min. Earth dist.	3652 Mar 07 16:14	19°♍16'48	0.67396 AU
greatest brilliancy	3652 Mar 08 12:49	18°♍56'15	-1.3m
direct	3652 Apr 18 03:53	9°♍12'18	
	3652 Jun 27 19:34	0°♎	

desc. node	3652 Aug 20 11:51	29°♎05'00	
	3652 Aug 22 00:50	0°♏	
	3652 Oct 08 15:06	0°♐	
	3652 Nov 21 03:12	0°♑	
	3652 Dec 31 20:07	0°♒	
evening set	3653 Jan 18 02:13	13°♒10'58	
	3653 Feb 08 17:24	0°♓	
	3653 Mar 18 17:59	0°♈	
conjunction	3653 Mar 24 11:00	4°♈31'00	-0°54'30
minimum elong	3653 Mar 24 14:04	4°♈37'03	0°54'27
max. Earth dist.	3653 Apr 19 18:48	25°♈15'22	2.37150 AU
	3653 Apr 25 20:26	0°♉	
morning rise	3653 Jun 03 19:51	29°♉56'34	
	3653 Jun 03 21:40	0°♊	
asc. node	3653 Jun 25 14:29	16°♊09'36	
	3653 Jul 14 15:52	0°♋	
	3653 Aug 26 18:27	0°♌	
	3653 Oct 11 22:16	0°♍	
	3653 Dec 02 00:50	0°♎	
	3654 Feb 13 08:11	0°♏	
retrograde	3654 Mar 03 02:16	1°♏48'13	
	3654 Mar 19 21:27	30°℞♎	
opposition	3654 Apr 11 16:57	22°♎31'56	2°56'20
greatest brilliancy	3654 Apr 12 00:18	22°♎24'42	-1.3m
min. Earth dist.	3654 Apr 14 13:11	21°♎24'57	0.66663 AU
direct	3654 May 23 05:22	12°♎30'25	
desc. node	3654 Jul 08 10:17	23°♎01'33	
	3654 Jul 24 09:33	0°♏	
	3654 Sep 16 08:27	0°♐	
	3654 Oct 31 12:03	0°♑	
	3654 Dec 11 15:53	0°♒	
	3655 Jan 19 15:18	0°♓	
greatest brilliancy	3655 Feb 07 12:19	14°♓50'38	1.2m
	3655 Feb 26 16:43	0°♈	
evening set	3655 Mar 30 04:00	24°♈44'52	
	3655 Apr 05 21:52	0°♉	
asc. node	3655 May 13 14:42	28°♉49'46	
	3655 May 15 04:10	0°♊	
conjunction	3655 Jun 04 05:51	14°♊52'20	0°14'13
minimum elong	3655 Jun 04 04:46	14°♊50'21	0°14'11
behind sun begin	3655 Jun 03 16:41	14°♊28'13	
behind sun end	3655 Jun 04 16:51	15°♊12'28	
	3655 Jun 25 03:47	0°♋	
max. Earth dist.	3655 Jul 16 20:34	15°♋17'38	2.50076 AU
morning rise	3655 Aug 02 12:13	26°♋45'42	
	3655 Aug 07 06:31	0°♌	
	3655 Sep 21 15:57	0°♍	
	3655 Nov 08 13:12	0°♎	
	3655 Dec 30 04:09	0°♏	
	3656 Mar 03 15:00	0°♐	
retrograde	3656 Apr 10 09:49	7°♐11'01	
	3656 May 15 01:18	30°℞♏	
opposition	3656 May 18 00:58	28°♏53'04	0°17'58
greatest brilliancy	3656 May 18 02:59	28°♏51'09	-1.7m
min. Earth dist.	3656 May 24 13:26	26°♏25'40	0.59420 AU
desc. node	3656 May 25 09:04	26°♏07'30	
direct	3656 Jun 27 21:33	19°♏06'03	
	3656 Aug 12 01:30	0°♐	
	3656 Oct 05 14:32	0°♑	
	3656 Nov 18 02:05	0°♒	
	3656 Dec 27 23:54	0°♓	
	3657 Feb 04 15:06	0°♈	
	3657 Mar 15 09:09	0°♉	
asc. node	3657 Mar 30 13:25	11°♉33'23	
	3657 Apr 24 05:33	0°♊	
evening set	3657 Jun 01 07:59	27°♊32'33	
	3657 Jun 04 19:30	0°♋	
	3657 Jul 18 09:24	0°♌	
conjunction	3657 Jul 26 03:17	5°♌11'46	0°59'56
minimum elong	3657 Jul 26 01:57	5°♌09'32	0°59'54
max. Earth dist.	3657 Aug 17 01:25	19°♌42'27	2.61070 AU
	3657 Sep 01 20:15	0°♍	
morning rise	3657 Sep 13 15:32	7°♍37'05	
	3657 Oct 18 20:06	0°♎	
	3657 Dec 06 04:00	0°♏	
	3658 Jan 25 09:32	0°♐	
	3658 Mar 21 20:13	0°♑	
desc. node	3658 Apr 12 07:43	9°♑41'53	
retrograde	3658 Jun 01 15:48	21°♑44'46	
opposition	3658 Jul 05 09:52	15°♑08'39	-3°55'25
greatest brilliancy	3658 Jul 06 13:50	14°♑45'13	-2.3m
min. Earth dist.	3658 Jul 13 21:06	12°♑18'58	0.46948 AU
direct	3658 Aug 11 12:28	7°♑02'28	
	3658 Oct 16 05:58	0°♒	
	3658 Dec 01 01:26	0°♓	
	3659 Jan 11 06:37	0°♈	
asc. node	3659 Feb 15 11:39	26°♈06'12	
	3659 Feb 20 18:25	0°♉	
	3659 Apr 03 01:17	0°♊	
	3659 May 15 20:39	0°♋	
	3659 Jun 29 09:43	0°♌	
evening set	3659 Jul 18 23:27	12°♌51'28	
	3659 Aug 14 10:21	0°♍	
conjunction	3659 Sep 05 01:33	13°♍52'18	1°07'13
minimum elong	3659 Sep 05 01:57	13°♍52'56	1°07'13
max. Earth dist.	3659 Sep 10 15:33	17°♍26'11	2.66891 AU
	3659 Sep 30 09:03	0°♎	
morning rise	3659 Oct 20 04:40	12°♎35'15	
	3659 Nov 16 14:51	0°♏	
	3660 Jan 02 18:39	0°♐	
	3660 Feb 18 21:56	0°♑	
desc. node	3660 Feb 28 06:45	5°♑56'25	
	3660 Apr 06 15:08	0°♒	
	3660 May 26 24:00	0°♓	
retrograde	3660 Aug 16 03:21	29°♓16'59	
opposition	3660 Sep 15 04:26	24°♓19'31	-6°21'51
greatest brilliancy	3660 Sep 15 12:46	24°♓13'59	-2.9m
min. Earth dist.	3660 Sep 15 23:56	24°♓06'34	0.37194 AU
direct	3660 Oct 15 02:42	19°♓20'08	
	3660 Nov 26 20:37	0°♈	
asc. node	3661 Jan 02 11:12	19°♈18'58	
	3661 Jan 20 01:47	0°♉	
	3661 Mar 07 20:29	0°♊	
	3661 Apr 22 21:14	0°♋	
	3661 Jun 08 11:44	0°♌	
	3661 Jul 25 18:16	0°♍	
evening set	3661 Aug 26 03:19	19°♍48'57	
	3661 Sep 11 05:38	0°♎	
max. Earth dist.	3661 Oct 02 17:38	13°♎39'35	2.67249 AU
conjunction	3661 Oct 10 13:19	18°♎39'09	0°47'40
minimum elong	3661 Oct 10 14:23	18°♎40'52	0°47'40
	3661 Oct 28 05:44	0°♏	
morning rise	3661 Nov 23 17:36	17°♏11'15	
	3661 Dec 13 05:22	0°♐	
desc. node	3662 Jan 15 06:28	22°♐05'07	
	3662 Jan 26 22:33	0°♑	
	3662 Mar 11 09:18	0°♒	
	3662 Apr 22 18:41	0°♓	
	3662 Jun 03 15:33	0°♈	

	3662 Jul 16 10:48	0°♉		
	3662 Sep 03 06:21	0°♊		
retrograde	3662 Oct 24 20:43	15°♊40'44		
asc. node	3662 Nov 20 10:15	10°♊49'29		
min. Earth dist.	3662 Nov 21 07:43	10°♊31'50	0.44517 AU	
opposition	3662 Nov 29 12:31	7°♊43'42	0°32'50	
greatest brilliancy	3662 Nov 29 07:52	7°♊47'41	-2.5m	
direct	3662 Dec 31 16:43	1°♊16'18		
	3663 Mar 24 14:16	0°♋		
	3663 May 16 18:15	0°♌		
	3663 Jul 05 22:06	0°♍		
	3663 Aug 23 17:12	0°♎		
evening set	3663 Oct 01 19:39	24°♎41'30		
	3663 Oct 10 01:54	0°♏		
max. Earth dist.	3663 Oct 26 17:25	10°♏48'41	2.62204 AU	
conjunction	3663 Nov 16 13:23	24°♏34'07	0°09'21	
minimum elong	3663 Nov 16 13:42	24°♏34'39	0°09'21	
behind sun begin	3663 Nov 15 21:43	24°♏08'02		
behind sun end	3663 Nov 17 05:41	25°♏01'18		
	3663 Nov 24 16:04	0°♐		
desc. node	3663 Dec 03 05:14	5°♐46'09		
morning rise	3664 Jan 02 04:27	26°♐23'30		
	3664 Jan 07 08:05	0°♑		
	3664 Feb 18 04:28	0°♒		
	3664 Mar 29 13:28	0°♓		
	3664 May 08 00:07	0°♈		
	3664 Jun 16 08:15	0°♉		
	3664 Jul 26 19:30	0°♊		
	3664 Sep 08 15:59	0°♋		
asc. node	3664 Oct 07 08:55	17°♋02'17		
	3664 Nov 03 23:48	0°♌		
retrograde	3664 Dec 09 06:23	7°♌28'25		
min. Earth dist.	3665 Jan 11 03:51	0°♌12'12	0.57542 AU	
	3665 Jan 11 16:30	30°℞♋		
opposition	3665 Jan 17 12:18	27°♋43'17	4°05'25	
greatest brilliancy	3665 Jan 16 13:19	28°♋05'47	-1.8m	
direct	3665 Feb 23 04:35	19°♋21'46		
	3665 Apr 10 20:13	0°♌		
	3665 Jun 11 16:55	0°♍		
	3665 Aug 02 21:17	0°♎		
	3665 Sep 20 10:49	0°♏		
desc. node	3665 Oct 20 03:30	19°♏16'04		
	3665 Nov 05 05:04	0°♐		
evening set	3665 Nov 08 22:08	2°♐30'37		
max. Earth dist.	3665 Nov 24 13:53	13°♐14'08	2.52163 AU	
	3665 Dec 18 10:38	0°♑		
conjunction	3665 Dec 28 15:26	7°♑19'11	-0°38'16	
minimum elong	3665 Dec 28 13:56	7°♑16'28	0°38'15	
	3666 Jan 28 12:14	0°♒		
morning rise	3666 Feb 21 14:06	18°♒11'38		
	3666 Mar 08 23:11	0°♓		
	3666 Apr 16 12:13	0°♈		
	3666 May 24 23:13	0°♉		
	3666 Jul 03 06:38	0°♊		
	3666 Aug 13 12:29	0°♋		
asc. node	3666 Aug 25 08:44	8°♋13'51		
	3666 Sep 27 08:15	0°♌		
	3666 Nov 19 18:22	0°♍		
retrograde	3667 Jan 15 01:10	15°♍38'46		
min. Earth dist.	3667 Feb 21 19:07	6°♍43'47	0.65866 AU	
opposition	3667 Feb 24 08:17	5°♍42'38	4°35'26	
greatest brilliancy	3667 Feb 23 22:07	5°♍52'49	-1.4m	
	3667 Mar 11 23:35	30°℞♌		
direct	3667 Apr 05 00:05	26°♌18'16		
	3667 May 01 05:28	0°♍		
	3667 Jul 10 07:59	0°♎		
	3667 Aug 31 08:35	0°♏		
desc. node	3667 Sep 07 02:16	4°♏09'37		
	3667 Oct 17 03:15	0°♐		
	3667 Nov 29 10:46	0°♑		
evening set	3667 Dec 26 22:47	20°♑04'47		
	3668 Jan 09 04:24	0°♒		
max. Earth dist.	3668 Jan 19 21:23	8°♒07'57	2.39275 AU	
	3668 Feb 17 04:11	0°♓		
conjunction	3668 Feb 24 23:48	6°♓07'13	-1°04'42	
minimum elong	3668 Feb 25 00:17	6°♓08'11	1°04'42	
	3668 Mar 26 06:59	0°♈		
	3668 May 03 10:24	0°♉		
morning rise	3668 May 04 23:56	1°♉13'09		
	3668 Jun 11 11:29	0°♊		
asc. node	3668 Jul 12 07:46	22°♊50'55		
	3668 Jul 22 05:37	0°♋		
	3668 Sep 03 11:45	0°♌		
	3668 Oct 20 08:54	0°♍		
	3668 Dec 13 17:05	0°♎		
retrograde	3669 Feb 17 08:33	19°♎07'47		
opposition	3669 Mar 29 09:23	9°♎35'55	3°37'10	
greatest brilliancy	3669 Mar 29 13:27	9°♎31'54	-1.3m	
min. Earth dist.	3669 Mar 30 17:33	9°♎04'04	0.67734 AU	
	3669 May 02 06:47	30°℞♍		
direct	3669 May 09 16:09	29°♍39'30		
	3669 May 17 05:34	0°♎		
desc. node	3669 Jul 25 01:17	23°♎43'02		
	3669 Aug 05 23:59	0°♏		
	3669 Sep 25 06:25	0°♐		
	3669 Nov 08 13:04	0°♑		
	3669 Dec 19 10:32	0°♒		
	3670 Jan 27 07:55	0°♓		
evening set	3670 Mar 01 10:44	26°♓07'56		
	3670 Mar 06 07:59	0°♈		
	3670 Apr 13 11:00	0°♉		
conjunction	3670 May 09 04:56	19°♉51'38	-0°14'08	
minimum elong	3670 May 09 06:14	19°♉54'06	0°14'07	
behind sun begin	3670 May 08 16:31	19°♉27'58		
behind sun end	3670 May 09 19:56	20°♉20'14		
	3670 May 22 14:16	0°♊		
asc. node	3670 May 30 06:16	5°♊44'29		
max. Earth dist.	3670 Jun 28 14:39	27°♊15'05	2.44733 AU	
	3670 Jul 02 10:29	0°♋		
morning rise	3670 Jul 12 23:04	7°♋29'23		
	3670 Aug 14 11:13	0°♌		
	3670 Sep 29 00:02	0°♍		
	3670 Nov 16 15:37	0°♎		
	3671 Jan 10 06:59	0°♏		
retrograde	3671 Mar 26 04:27	23°♏01'06		
opposition	3671 May 03 18:32	14°♏16'33	1°29'10	
greatest brilliancy	3671 May 04 01:45	14°♏09'36	-1.5m	
min. Earth dist.	3671 May 08 21:39	12°♏18'06	0.63001 AU	
desc. node	3671 Jun 11 23:42	4°♏19'27		
direct	3671 Jun 14 03:32	4°♏17'40		
	3671 Aug 29 11:49	0°♐		
	3671 Oct 16 23:18	0°♑		
	3671 Nov 28 03:11	0°♒		
	3672 Jan 06 12:29	0°♓		
	3672 Feb 13 19:56	0°♈		
	3672 Mar 23 06:51	0°♉		
asc. node	3672 Apr 16 05:51	18°♉18'44		
	3672 May 01 19:52	0°♊		
evening set	3672 May 09 15:28	5°♊47'27		
	3672 Jun 12 02:28	0°♋		

conjunction	3672 Jul 07 12:53	17°♋47'06	0°47'22
minimum elong	3672 Jul 07 10:59	17°♋43'49	0°47'22
	3672 Jul 25 10:20	0°♌	
max. Earth dist.	3672 Aug 05 23:09	7°♌45'14	2.57351 AU
morning rise	3672 Aug 29 01:25	23°♌01'08	
	3672 Sep 08 18:45	0°♍	
	3672 Oct 25 23:28	0°♎	
	3672 Dec 14 03:36	0°♏	
	3673 Feb 04 23:32	0°♐	
	3673 Apr 17 09:38	0°♑	
desc. node	3673 Apr 28 22:54	2°♑05'58	
retrograde	3673 May 09 23:08	2°♑48'14	
	3673 May 31 03:38	30°℞♐	
opposition	3673 Jun 14 12:20	25°♐25'46	-2°05'36
greatest brilliancy	3673 Jun 15 02:58	25°♐12'43	-2.0m
min. Earth dist.	3673 Jun 22 17:03	22°♐30'40	0.52216 AU
direct	3673 Jul 23 15:00	16°♐24'14	
	3673 Sep 11 00:47	0°♑	
	3673 Oct 31 13:48	0°♒	
	3673 Dec 12 12:57	0°♓	
	3674 Jan 21 05:46	0°♈	
	3674 Mar 01 18:37	0°♉	
asc. node	3674 Mar 04 04:37	1°♉48'58	
	3674 Apr 11 07:35	0°♊	
	3674 May 23 12:16	0°♋	
evening set	3674 Jul 01 21:27	26°♋52'07	
	3674 Jul 06 13:53	0°♌	
conjunction	3674 Aug 21 00:14	29°♌48'35	1°08'08
minimum elong	3674 Aug 21 00:02	29°♌48'16	1°08'08
	3674 Aug 21 07:18	0°♍	
max. Earth dist.	3674 Sep 01 15:16	7°♍18'15	2.65263 AU
morning rise	3674 Oct 06 08:46	29°♍28'31	
	3674 Oct 07 04:36	0°♎	
	3674 Nov 23 17:20	0°♏	
	3675 Jan 10 17:29	0°♐	
	3675 Feb 28 17:45	0°♑	
desc. node	3675 Mar 16 22:18	9°♑37'21	
	3675 Apr 21 22:48	0°♒	
retrograde	3675 Jul 15 14:15	29°♒29'02	
opposition	3675 Aug 15 09:28	24°♒12'53	-6°29'10
greatest brilliancy	3675 Aug 16 16:51	23°♒50'37	-2.8m
min. Earth dist.	3675 Aug 21 03:34	22°♒35'24	0.39524 AU
direct	3675 Sep 16 18:21	18°♒14'22	
	3675 Oct 31 03:36	0°♓	
	3675 Dec 21 13:18	0°♈	
asc. node	3676 Jan 20 02:28	19°♈53'35	
	3676 Feb 03 18:50	0°♉	
	3676 Mar 18 06:25	0°♊	
	3676 May 01 13:39	0°♋	
	3676 Jun 16 03:23	0°♌	
	3676 Aug 01 19:23	0°♍	
evening set	3676 Aug 11 12:00	6°♍10'21	
	3676 Sep 18 00:08	0°♎	
max. Earth dist.	3676 Sep 23 18:32	3°♎39'55	2.67773 AU
conjunction	3676 Sep 26 13:43	5°♎26'43	0°57'50
minimum elong	3676 Sep 26 14:42	5°♎28'16	0°57'49
	3676 Nov 04 00:50	0°♏	
morning rise	3676 Nov 09 17:58	3°♏40'11	
	3676 Dec 20 08:56	0°♐	
desc. node	3677 Jan 31 21:21	28°♐03'19	
	3677 Feb 03 19:24	0°♑	
	3677 Mar 20 09:20	0°♒	
	3677 May 03 10:15	0°♓	
	3677 Jun 16 20:47	0°♈	
	3677 Aug 04 15:35	0°♉	
retrograde	3677 Oct 01 10:31	18°♉42'16	
min. Earth dist.	3677 Oct 27 19:56	14°♉11'01	0.39830 AU
opposition	3677 Nov 03 10:39	12°♉11'02	-2°14'04
greatest brilliancy	3677 Nov 02 23:34	12°♉19'27	-2.8m
direct	3677 Dec 03 20:04	6°♉40'32	
asc. node	3677 Dec 07 02:40	6°♉44'49	
	3678 Feb 12 15:53	0°♊	
	3678 Apr 06 10:35	0°♋	
	3678 May 25 20:42	0°♌	
	3678 Jul 13 13:24	0°♍	
	3678 Aug 30 17:05	0°♎	
evening set	3678 Sep 17 13:47	11°♎16'15	
	3678 Oct 16 20:52	0°♏	
max. Earth dist.	3678 Oct 17 04:35	0°♏12'28	2.64803 AU
conjunction	3678 Nov 01 19:45	10°♏21'19	0°25'56
minimum elong	3678 Nov 01 20:32	10°♏22'35	0°25'56
	3678 Dec 01 13:25	0°♐	
morning rise	3678 Dec 16 23:55	10°♐23'30	
desc. node	3678 Dec 19 20:07	12°♐19'12	
	3679 Jan 14 13:28	0°♑	
	3679 Feb 25 22:00	0°♒	
	3679 Apr 07 21:29	0°♓	
	3679 May 17 23:45	0°♈	
	3679 Jun 27 01:52	0°♉	
	3679 Aug 07 19:01	0°♊	
	3679 Sep 24 10:05	0°♋	
asc. node	3679 Oct 25 02:51	14°♋07'21	
retrograde	3679 Nov 23 21:20	19°♋47'55	
min. Earth dist.	3679 Dec 24 13:29	13°♋20'37	0.52722 AU
greatest brilliancy	3679 Dec 31 05:12	10°♋49'33	-2.0m
opposition	3680 Jan 01 03:47	10°♋28'07	3°13'54
direct	3680 Feb 05 05:53	2°♋44'11	
	3680 Apr 27 10:49	0°♌	
	3680 Jun 21 02:27	0°♍	
	3680 Aug 10 13:07	0°♎	
	3680 Sep 27 12:27	0°♏	
evening set	3680 Oct 24 02:26	17°♏17'05	
desc. node	3680 Nov 05 18:33	25°♏42'25	
max. Earth dist.	3680 Nov 11 17:54	29°♏43'12	2.56624 AU
	3680 Nov 12 03:52	0°♐	
conjunction	3680 Dec 10 16:59	19°♐34'44	-0°19'49
minimum elong	3680 Dec 10 16:12	19°♐33'22	0°19'48
	3680 Dec 25 12:33	0°♑	
morning rise	3681 Jan 30 09:34	25°♑58'12	
	3681 Feb 04 20:17	0°♒	
	3681 Mar 16 14:20	0°♓	
	3681 Apr 24 10:05	0°♈	
	3681 Jun 02 02:53	0°♉	
	3681 Jul 11 16:49	0°♊	
	3681 Aug 22 11:35	0°♋	
asc. node	3681 Sep 11 01:02	13°♋09'29	
	3681 Oct 08 00:04	0°♌	
	3681 Dec 15 03:36	0°♍	
retrograde	3682 Jan 01 07:57	1°♍51'22	
	3682 Jan 17 17:03	30°℞♌	
min. Earth dist.	3682 Feb 06 08:07	23°♌30'43	0.63341 AU
opposition	3682 Feb 10 09:27	21°♌53'40	4°37'06
greatest brilliancy	3682 Feb 09 17:15	22°♌09'50	-1.5m
direct	3682 Mar 21 01:04	12°♌49'29	
	3682 May 22 21:24	0°♍	
	3682 Jul 19 22:45	0°♎	
	3682 Sep 08 03:57	0°♏	
desc. node	3682 Sep 23 17:12	9°♏50'36	
	3682 Oct 24 10:14	0°♐	
evening set	3682 Dec 06 14:19	29°♐57'01	

	3682 Dec 06 15:59	0°♉	
max. Earth dist.	3682 Dec 21 07:16	10°♉34'39	2.44269 AU
	3683 Jan 16 12:01	0°♒	
conjunction	3683 Jan 30 16:52	10°♒45'56	-1°00'55
minimum elong	3683 Jan 30 15:25	10°♒43'10	1°00'54
	3683 Feb 24 15:23	0°♓	
	3683 Apr 03 21:16	0°♈	
morning rise	3683 Apr 05 03:17	0°♈59'08	
	3683 May 12 02:24	0°♉	
	3683 Jun 20 04:14	0°♊	
asc. node	3683 Jul 29 23:44	29°♊16'28	
	3683 Jul 31 00:06	0°♋	
	3683 Sep 12 13:56	0°♌	
	3683 Oct 30 17:53	0°♍	
	3684 Jan 01 04:40	0°♎	
retrograde	3684 Feb 04 23:59	6°♎29'43	
	3684 Mar 07 23:11	30°℞♍	
opposition	3684 Mar 16 06:34	26°♍45'35	4°08'01
greatest brilliancy	3684 Mar 16 05:47	26°♍46'23	-1.3m
min. Earth dist.	3684 Mar 16 02:34	26°♍49'35	0.67795 AU
direct	3684 Apr 26 01:45	16°♍58'36	
	3684 Jun 18 06:15	0°♎	
desc. node	3684 Aug 10 16:26	26°♎54'13	
	3684 Aug 16 01:44	0°♏	
	3684 Oct 03 10:57	0°♐	
	3684 Nov 16 05:25	0°♑	
	3684 Dec 27 00:07	0°♒	
evening set	3685 Feb 01 15:23	28°♒13'50	
	3685 Feb 03 21:38	0°♓	
	3685 Mar 13 22:05	0°♈	
conjunction	3685 Apr 10 05:40	21°♈33'30	-0°42'15
minimum elong	3685 Apr 10 09:02	21°♈40'06	0°42'13
	3685 Apr 21 00:22	0°♉	
max. Earth dist.	3685 May 29 07:20	29°♉25'32	2.39379 AU
	3685 May 30 01:37	0°♊	
asc. node	3685 Jun 15 23:31	12°♊37'56	
morning rise	3685 Jun 19 00:32	14°♊52'43	
	3685 Jul 09 19:29	0°♋	
	3685 Aug 21 19:40	0°♌	
	3685 Oct 06 15:23	0°♍	
	3685 Nov 25 12:56	0°♎	
	3686 Jan 25 18:23	0°♏	
retrograde	3686 Mar 11 05:13	9°♏39'49	
opposition	3686 Apr 19 12:42	0°♏33'41	2°27'31
greatest brilliancy	3686 Apr 19 20:51	0°♏25'44	-1.4m
	3686 Apr 20 23:11	30°℞♎	
min. Earth dist.	3686 Apr 23 05:01	29°♎07'30	0.65634 AU
direct	3686 May 31 01:59	20°♎31'11	
desc. node	3686 Jun 28 15:39	25°♎00'06	
	3686 Jul 13 07:30	0°♏	
	3686 Sep 09 23:59	0°♐	
	3686 Oct 26 01:12	0°♑	
	3686 Dec 06 12:08	0°♒	
	3687 Jan 14 14:26	0°♓	
	3687 Feb 21 17:26	0°♈	
	3687 Mar 31 23:51	0°♉	
evening set	3687 Apr 14 23:01	10°♉46'34	
asc. node	3687 May 03 21:38	25°♉10'55	
	3687 May 10 07:40	0°♊	
conjunction	3687 Jun 17 12:51	27°♊58'29	0°28'14
minimum elong	3687 Jun 17 11:05	27°♊55'19	0°28'12
	3687 Jun 20 08:52	0°♋	
max. Earth dist.	3687 Jul 25 04:33	24°♋19'50	2.52873 AU
	3687 Aug 02 12:14	0°♌	
morning rise	3687 Aug 13 01:17	7°♌06'29	
	3687 Sep 16 19:58	0°♍	
	3687 Nov 03 08:56	0°♎	
	3687 Dec 23 20:05	0°♏	
	3688 Feb 19 17:13	0°♐	
retrograde	3688 Apr 20 09:47	16°♐16'13	
desc. node	3688 May 15 14:03	12°♐19'52	
opposition	3688 May 27 09:34	8°♐15'42	-0°29'59
greatest brilliancy	3688 May 27 12:43	8°♐12'47	-1.8m
min. Earth dist.	3688 Jun 03 14:48	5°♐35'02	0.57083 AU
	3688 Jun 22 17:07	30°℞♏	
direct	3688 Jul 06 19:19	28°♏40'00	
	3688 Jul 21 06:46	0°♐	
	3688 Sep 27 23:18	0°♑	
	3688 Nov 11 22:02	0°♒	
	3688 Dec 22 08:16	0°♓	
	3689 Jan 30 06:07	0°♈	
	3689 Mar 10 04:47	0°♉	
asc. node	3689 Mar 20 20:41	8°♉05'51	
	3689 Apr 19 05:13	0°♊	
	3689 May 30 22:52	0°♋	
evening set	3689 Jun 13 01:43	9°♋09'03	
	3689 Jul 13 15:33	0°♌	
conjunction	3689 Aug 04 23:05	14°♌50'41	1°04'28
minimum elong	3689 Aug 04 22:10	14°♌49'10	1°04'28
max. Earth dist.	3689 Aug 23 00:57	26°♌40'38	2.62806 AU
	3689 Aug 28 03:45	0°♍	
morning rise	3689 Sep 22 03:20	16°♍04'11	
	3689 Oct 14 01:37	0°♎	
	3689 Dec 01 00:48	0°♏	
	3690 Jan 19 06:22	0°♐	
	3690 Mar 12 11:11	0°♑	
desc. node	3690 Apr 02 12:50	11°♑00'47	
	3690 May 18 16:03	0°♒	
retrograde	3690 Jun 16 03:50	4°♒25'39	
	3690 Jul 13 09:34	30°℞♑	
opposition	3690 Jul 18 21:16	28°♑18'07	-4°59'31
greatest brilliancy	3690 Jul 20 06:40	27°♑51'24	-2.5m
min. Earth dist.	3690 Jul 26 22:32	25°♑44'41	0.44072 AU
direct	3690 Aug 23 11:08	20°♑53'18	
	3690 Sep 30 21:27	0°♒	
	3690 Nov 22 11:06	0°♓	
	3691 Jan 04 08:29	0°♈	
asc. node	3691 Feb 05 20:24	23°♈34'53	
	3691 Feb 14 16:36	0°♉	
	3691 Mar 28 12:36	0°♊	
	3691 May 10 17:28	0°♋	
	3691 Jun 24 13:05	0°♌	
evening set	3691 Jul 28 04:18	21°♌54'31	
	3691 Aug 09 17:54	0°♍	
conjunction	3691 Sep 13 09:37	22°♍08'37	1°04'48
minimum elong	3691 Sep 13 10:17	22°♍09'41	1°04'47
max. Earth dist.	3691 Sep 15 22:23	23°♍45'19	2.67437 AU
	3691 Sep 25 18:01	0°♎	
morning rise	3691 Oct 28 01:22	20°♎32'48	
	3691 Nov 11 21:21	0°♏	
	3691 Dec 28 17:08	0°♐	
	3692 Feb 13 03:05	0°♑	
desc. node	3692 Feb 18 12:13	3°♑29'19	
	3692 Mar 30 09:53	0°♒	
	3692 May 16 11:16	0°♓	
	3692 Jul 07 03:56	0°♈	
retrograde	3692 Sep 03 01:30	17°♈43'29	
min. Earth dist.	3692 Oct 01 06:42	13°♈07'18	0.37267 AU
opposition	3692 Oct 03 16:33	12°♈28'21	-5°14'26

greatest brilliancy	3692 Oct 03	10:42	12°♈32'17	-3.0m
direct	3692 Nov 02	01:14	7°♈33'51	
asc. node	3692 Dec 23	19:22	22°♈00'11	
	3693 Jan 08	11:34	0°♉	
	3693 Feb 28	07:16	0°♊	
	3693 Apr 16	20:38	0°♋	
	3693 Jun 03	05:21	0°♌	
	3693 Jul 20	21:50	0°♍	
evening set	3693 Sep 03	08:52	27°♍58'00	
	3693 Sep 06	14:07	0°♎	
max. Earth dist.	3693 Oct 08	00:59	19°♎59'14	2.66605 AU
conjunction	3693 Oct 18	14:32	26°♎45'47	0°40'23
minimum elong	3693 Oct 18	15:33	26°♎47'26	0°40'22
	3693 Oct 23	15:12	0°♏	
morning rise	3693 Dec 01	23:40	25°♏40'34	
	3693 Dec 08	12:18	0°♐	
desc. node	3694 Jan 05	10:47	18°♐44'22	
	3694 Jan 21	23:03	0°♑	
	3694 Mar 05	23:34	0°♒	
	3694 Apr 16	18:49	0°♓	
	3694 May 27	20:28	0°♈	
	3694 Jul 08	06:35	0°♉	
	3694 Aug 21	20:34	0°♊	
retrograde	3694 Nov 05	12:09	29°♊21'00	
asc. node	3694 Nov 10	18:15	29°♊08'44	
min. Earth dist.	3694 Dec 03	23:43	23°♊45'30	0.47438 AU
opposition	3694 Dec 12	07:11	20°♊47'08	1°45'22
greatest brilliancy	3694 Dec 11	16:47	21°♊00'02	-2.3m
direct	3695 Jan 14	13:03	13°♊50'03	
	3695 Mar 13	20:27	0°♋	
	3695 May 10	04:50	0°♌	
	3695 Jun 30	13:48	0°♍	
	3695 Aug 18	21:02	0°♎	
	3695 Oct 05	10:27	0°♏	
evening set	3695 Oct 10	03:33	3°♏02'17	
max. Earth dist.	3695 Nov 01	16:58	17°♏46'27	2.60410 AU
	3695 Nov 20	01:11	0°♐	
desc. node	3695 Nov 23	09:25	2°♐15'14	
conjunction	3695 Nov 25	09:21	3°♐36'14	-0°01'09
minimum elong	3695 Nov 25	09:17	3°♐36'08	0°01'09
behind sun begin	3695 Nov 24	13:42	3°♐03'02	
behind sun end	3695 Nov 26	04:51	4°♐09'14	
	3696 Jan 02	14:44	0°♑	
morning rise	3696 Jan 12	04:19	6°♑46'29	
	3696 Feb 13	06:45	0°♒	
	3696 Mar 24	10:16	0°♓	
	3696 May 02	15:14	0°♈	
	3696 Jun 10	16:44	0°♉	
	3696 Jul 20	17:34	0°♊	
	3696 Sep 01	12:16	0°♋	
asc. node	3696 Sep 27	18:06	16°♋36'57	
	3696 Oct 21	21:20	0°♌	
retrograde	3696 Dec 17	23:03	17°♌01'41	
min. Earth dist.	3697 Jan 21	00:12	9°♌20'49	0.59850 AU
opposition	3697 Jan 26	13:21	7°♌09'22	4°23'05
greatest brilliancy	3697 Jan 25	16:05	7°♌30'25	-1.6m
	3697 Feb 17	22:43	30°℞♋	
direct	3697 Mar 04	23:56	28°♋30'48	
	3697 Mar 20	22:12	0°♌	
	3697 Jun 04	18:49	0°♍	
	3697 Jul 28	12:30	0°♎	
	3697 Sep 15	14:30	0°♏	
desc. node	3697 Oct 10	08:34	15°♏55'51	
	3697 Oct 31	13:03	0°♐	
evening set	3697 Nov 18	11:44	12°♐14'19	
max. Earth dist.	3697 Dec 02	22:58	22°♐19'31	2.49420 AU
	3697 Dec 13	18:52	0°♑	
conjunction	3698 Jan 08	20:00	18°♑53'51	-0°47'58
minimum elong	3698 Jan 08	18:13	18°♑50'35	0°47'57
	3698 Jan 23	18:37	0°♒	
	3698 Mar 04	02:44	0°♓	
morning rise	3698 Mar 07	20:51	2°♓54'35	
	3698 Apr 11	13:01	0°♈	
	3698 May 19	21:27	0°♉	
	3698 Jun 28	01:53	0°♊	
	3698 Aug 08	02:24	0°♋	
asc. node	3698 Aug 15	16:03	5°♋19'50	
	3698 Sep 21	06:43	0°♌	
	3698 Nov 10	21:05	0°♍	
retrograde	3699 Jan 22	17:37	23°♍39'15	
min. Earth dist.	3699 Mar 02	09:08	14°♍26'53	0.66840 AU
opposition	3699 Mar 04	01:36	13°♍46'25	4°28'35
greatest brilliancy	3699 Mar 03	18:57	13°♍53'05	-1.3m
direct	3699 Apr 13	04:19	4°♍12'52	
	3699 Jul 03	03:32	0°♎	
	3699 Aug 25	22:00	0°♏	
desc. node	3699 Aug 28	07:42	1°♏27'09	
	3699 Oct 12	05:05	0°♐	
	3699 Nov 24	16:39	0°♑	
	3700 Jan 04	10:57	0°♒	
evening set	3700 Jan 08	14:54	3°♒09'16	
	3700 Feb 12	09:50	0°♓	
max. Earth dist.	3700 Feb 21	10:57	7°♓05'32	2.37219 AU
conjunction	3700 Mar 12	17:07	22°♓16'48	-1°00'47
minimum elong	3700 Mar 12	19:13	22°♓20'57	1°00'47
	3700 Mar 22	11:27	0°♈	
	3700 Apr 29	13:45	0°♉	
morning rise	3700 May 23	04:47	18°♉17'43	
	3700 Jun 07	13:49	0°♊	
asc. node	3700 Jul 03	14:34	19°♊21'55	
	3700 Jul 18	06:34	0°♋	
	3700 Aug 30	08:36	0°♌	
	3700 Oct 15	16:48	0°♍	
	3700 Dec 06	18:13	0°♎	
retrograde	3701 Feb 26	04:17	26°♎51'17	
opposition	3701 Apr 07	00:10	17°♎27'44	3°14'23
greatest brilliancy	3701 Apr 07	06:19	17°♎21'41	-1.3m
min. Earth dist.	3701 Apr 09	04:49	16°♎35'52	0.67274 AU
direct	3701 May 18	10:42	7°♎27'49	
desc. node	3701 Jul 16	06:12	23°♎14'40	
	3701 Jul 30	07:55	0°♏	
	3701 Sep 20	13:50	0°♐	
	3701 Nov 04	09:31	0°♑	
	3701 Dec 15	11:39	0°♒	
	3702 Jan 23	10:44	0°♓	
	3702 Mar 02	11:37	0°♈	
evening set	3702 Mar 18	15:06	12°♈45'09	
	3702 Apr 09	15:13	0°♉	
	3702 May 18	19:00	0°♊	
asc. node	3702 May 21	15:04	2°♊07'41	
conjunction	3702 May 25	07:53	4°♊53'41	0°02'31
minimum elong	3702 May 25	07:37	4°♊53'12	0°02'31
behind sun begin	3702 May 24	04:27	4°♊02'30	
behind sun end	3702 May 26	10:48	5°♊43'50	
	3702 Jun 28	15:43	0°♋	
max. Earth dist.	3702 Jul 10	15:46	8°♋32'04	2.47719 AU
morning rise	3702 Jul 25	23:53	19°♋15'23	
	3702 Aug 10	15:48	0°♌	
	3702 Sep 25	00:55	0°♍	

	3702 Nov 12 03:19	0°♎	
	3703 Jan 03 17:03	0°♏	
	3703 Mar 20 04:53	0°♐	
retrograde	3703 Apr 05 06:16	1°♐28'00	
	3703 Apr 20 13:15	30°℞♏	
opposition	3703 May 13 08:27	22°♏57'32	0°49'22
greatest brilliancy	3703 May 13 13:14	22°♏52'59	-1.6m
min. Earth dist.	3703 May 19 06:40	20°♏42'09	0.61137 AU
desc. node	3703 Jun 03 04:42	15°♏46'01	
direct	3703 Jun 23 11:49	13°♏03'50	
	3703 Aug 21 06:09	0°♐	
	3703 Oct 11 14:40	0°♑	
	3703 Nov 23 12:14	0°♒	
	3704 Jan 02 04:34	0°♓	
	3704 Feb 09 16:09	0°♈	
	3704 Mar 19 06:17	0°♉	
asc. node	3704 Apr 07 14:00	14°♉45'08	
	3704 Apr 27 22:10	0°♊	
evening set	3704 May 23 20:07	18°♊56'57	
	3704 Jun 08 07:31	0°♋	
conjunction	3704 Jul 19 08:54	28°♋24'52	0°55'22
minimum elong	3704 Jul 19 07:16	28°♋22'07	0°55'22
	3704 Jul 21 17:10	0°♌	
max. Earth dist.	3704 Aug 13 11:43	15°♌12'53	2.59501 AU
	3704 Sep 05 01:38	0°♍	
morning rise	3704 Sep 08 02:52	1°♍58'40	
	3704 Oct 22 02:14	0°♎	
	3704 Dec 09 17:07	0°♏	
	3705 Jan 29 20:18	0°♐	
	3705 Mar 29 23:39	0°♑	
desc. node	3705 Apr 20 03:34	7°♑54'25	
retrograde	3705 May 23 08:16	13°♑38'45	
opposition	3705 Jun 26 22:12	6°♑40'46	-3°06'57
greatest brilliancy	3705 Jun 27 20:34	6°♑21'25	-2.2m
min. Earth dist.	3705 Jul 05 08:55	3°♑45'45	0.49335 AU
	3705 Jul 18 11:11	30°℞♐	
direct	3705 Aug 04 00:24	28°♐06'32	
	3705 Aug 20 20:51	0°♑	
	3705 Oct 24 01:02	0°♒	
	3705 Dec 06 18:02	0°♓	
	3706 Jan 16 04:18	0°♈	
asc. node	3706 Feb 23 12:01	28°♈45'26	
	3706 Feb 25 04:02	0°♉	
	3706 Apr 07 01:02	0°♊	
	3706 May 19 12:18	0°♋	
	3706 Jul 02 18:47	0°♌	
evening set	3706 Jul 12 19:55	6°♌39'07	
	3706 Aug 17 15:14	0°♍	
conjunction	3706 Aug 30 17:41	8°♍26'00	1°08'06
minimum elong	3706 Aug 30 17:52	8°♍26'18	1°08'06
max. Earth dist.	3706 Sep 08 00:28	13°♍44'24	2.66266 AU
	3706 Oct 03 12:34	0°♎	
morning rise	3706 Oct 15 08:13	7°♎30'12	
	3706 Nov 19 20:53	0°♏	
	3707 Jan 06 08:52	0°♐	
	3707 Feb 23 05:15	0°♑	
desc. node	3707 Mar 08 02:37	7°♑58'52	
	3707 Apr 13 11:00	0°♒	
	3707 Jun 07 11:37	0°♓	
retrograde	3707 Aug 03 18:57	16°♓11'05	
opposition	3707 Sep 02 20:45	11°♓12'03	-6°41'55
greatest brilliancy	3707 Sep 03 17:34	10°♓58'00	-2.9m
min. Earth dist.	3707 Sep 06 03:51	10°♓18'42	0.37882 AU
direct	3707 Oct 03 17:17	5°♓52'49	
	3707 Dec 11 00:00	0°♈	

asc. node	3708 Jan 11 11:34	19°♈18'14	
	3708 Jan 27 21:42	0°♉	
	3708 Mar 12 21:13	0°♊	
	3708 Apr 27 00:15	0°♋	
	3708 Jun 12 01:48	0°♌	
	3708 Jul 29 01:00	0°♍	
evening set	3708 Aug 20 22:34	14°♍30'51	
	3708 Sep 14 09:07	0°♎	
max. Earth dist.	3708 Sep 29 22:30	9°♎53'01	2.67587 AU
conjunction	3708 Oct 05 14:12	13°♎29'03	0°52'16
minimum elong	3708 Oct 05 15:16	13°♎30'45	0°52'14
	3708 Oct 31 09:36	0°♏	
morning rise	3708 Nov 18 17:08	11°♏49'18	
	3708 Dec 16 13:21	0°♐	
desc. node	3709 Jan 23 02:19	24°♐57'18	
	3709 Jan 30 14:09	0°♑	
	3709 Mar 15 12:26	0°♒	
	3709 Apr 27 13:12	0°♓	
	3709 Jun 09 07:48	0°♈	
	3709 Jul 23 18:47	0°♉	
	3709 Sep 19 00:01	0°♊	
retrograde	3709 Oct 16 03:53	4°♊57'23	
min. Earth dist.	3709 Nov 11 23:36	0°♊08'10	0.42275 AU
	3709 Nov 12 09:54	30°℞♉	
opposition	3709 Nov 19 18:06	27°♉36'19	-0°33'08
greatest brilliancy	3709 Nov 19 14:32	27°♉39'14	-2.7m
asc. node	3709 Nov 28 11:06	24°♉56'01	
direct	3709 Dec 21 01:53	21°♉34'29	
	3710 Jan 29 04:35	0°♊	
	3710 Mar 30 18:19	0°♋	
	3710 May 21 00:12	0°♌	
	3710 Jul 09 11:15	0°♍	
	3710 Aug 26 23:25	0°♎	
evening set	3710 Sep 26 16:37	19°♎22'40	
	3710 Oct 13 06:28	0°♏	
max. Earth dist.	3710 Oct 23 17:07	6°♏45'31	2.63470 AU
conjunction	3710 Nov 11 03:27	18°♏49'46	0°16'32
minimum elong	3710 Nov 11 03:59	18°♏50'39	0°16'31
	3710 Nov 27 22:39	0°♐	
desc. node	3710 Dec 11 01:10	8°♐50'12	
morning rise	3710 Dec 27 00:48	19°♐45'40	
	3711 Jan 10 19:00	0°♑	
	3711 Feb 21 21:26	0°♒	
	3711 Apr 03 12:55	0°♓	
	3711 May 13 06:05	0°♈	
	3711 Jun 21 20:42	0°♉	
	3711 Aug 01 17:10	0°♊	
	3711 Sep 15 14:50	0°♋	
asc. node	3711 Oct 16 09:15	17°♋00'20	
	3711 Nov 25 00:07	0°♌	
retrograde	3711 Dec 04 11:29	0°♌37'05	
	3711 Dec 13 17:16	30°℞♋	
min. Earth dist.	3712 Jan 05 09:19	23°♋41'43	0.55490 AU
greatest brilliancy	3712 Jan 11 08:03	21°♋23'58	-1.9m
opposition	3712 Jan 12 07:39	21°♋01'06	3°47'45
direct	3712 Feb 17 07:54	12°♋55'03	
	3712 Apr 18 22:58	0°♌	
	3712 Jun 16 00:57	0°♍	
	3712 Aug 06 10:32	0°♎	
	3712 Sep 23 18:35	0°♏	
desc. node	3712 Oct 27 23:32	22°♏16'03	
evening set	3712 Nov 02 23:33	26°♏16'07	
	3712 Nov 08 12:53	0°♐	
max. Earth dist.	3712 Nov 19 19:29	7°♐39'09	2.54245 AU

conjunction	3712 Dec 21 15:24	29°♐50'04	-0°30'35
minimum elong	3712 Dec 21 14:11	29°♐47'54	0°30'33
	3712 Dec 21 21:00	0°♑	
	3713 Feb 01 02:23	0°♒	
morning rise	3713 Feb 12 11:43	8°♒31'24	
	3713 Mar 12 17:00	0°♓	
	3713 Apr 20 09:06	0°♈	
	3713 May 28 22:11	0°♉	
	3713 Jul 07 07:03	0°♊	
	3713 Aug 17 16:01	0°♋	
asc. node	3713 Sep 02 08:54	10°♋48'18	
	3713 Oct 01 22:55	0°♌	
	3713 Nov 27 07:58	0°♍	
retrograde	3714 Jan 10 07:09	10°♍19'51	
min. Earth dist.	3714 Feb 16 06:52	1°♍39'16	0.64865 AU
opposition	3714 Feb 19 11:52	0°♍22'17	4°38'00
greatest brilliancy	3714 Feb 18 22:58	0°♍35'12	-1.4m
	3714 Feb 20 10:11	30°℞♌	
direct	3714 Mar 30 17:06	21°♌06'13	
	3714 May 12 10:16	0°♍	
	3714 Jul 14 18:15	0°♎	
	3714 Sep 04 00:17	0°♏	
desc. node	3714 Sep 14 22:21	6°♏48'38	
	3714 Oct 20 14:58	0°♐	
	3714 Dec 02 22:58	0°♑	
evening set	3714 Dec 18 19:05	11°♑26'59	
max. Earth dist.	3715 Jan 05 16:21	24°♑40'17	2.41416 AU
	3715 Jan 12 18:47	0°♒	
conjunction	3715 Feb 14 12:09	25°♒03'13	-1°04'34
minimum elong	3715 Feb 14 11:36	25°♒02'09	1°04'33
	3715 Feb 20 20:44	0°♓	
	3715 Mar 31 01:05	0°♈	
morning rise	3715 Apr 23 08:48	18°♈22'37	
	3715 May 08 04:59	0°♉	
	3715 Jun 16 05:24	0°♊	
asc. node	3715 Jul 21 08:27	25°♊58'21	
	3715 Jul 26 22:46	0°♋	
	3715 Sep 08 05:49	0°♌	
	3715 Oct 25 11:26	0°♍	
	3715 Dec 20 21:43	0°♎	
retrograde	3716 Feb 13 15:41	14°♎13'31	
opposition	3716 Mar 24 19:32	4°♎35'51	3°51'07
greatest brilliancy	3716 Mar 24 21:37	4°♎33'47	-1.3m
min. Earth dist.	3716 Mar 25 11:50	4°♎19'39	0.67890 AU
	3716 Apr 05 21:10	30°℞♍	
direct	3716 May 04 21:28	24°♍43'02	
	3716 Jun 05 17:01	0°♎	
desc. node	3716 Aug 01 21:27	25°♎10'12	
	3716 Aug 10 16:40	0°♏	
	3716 Sep 29 04:05	0°♐	
	3716 Nov 12 06:42	0°♑	
	3716 Dec 23 04:05	0°♒	
	3717 Jan 31 02:00	0°♓	
evening set	3717 Feb 18 00:24	14°♓06'47	
	3717 Mar 10 02:14	0°♈	
	3717 Apr 17 04:28	0°♉	
conjunction	3717 Apr 27 19:11	8°♉15'11	-0°26'49
minimum elong	3717 Apr 27 21:39	8°♉19'57	0°26'47
	3717 May 26 05:49	0°♊	
asc. node	3717 Jun 07 06:57	9°♊01'15	
max. Earth dist.	3717 Jun 19 00:24	17°♊40'57	2.42276 AU
morning rise	3717 Jul 04 00:43	28°♊35'34	
	3717 Jul 05 23:42	0°♋	
	3717 Aug 17 22:32	0°♌	
	3717 Oct 02 12:13	0°♍	
	3717 Nov 20 12:37	0°♎	
	3718 Jan 16 00:34	0°♏	
retrograde	3718 Mar 20 15:41	17°♏42'07	
opposition	3718 Apr 28 14:10	8°♏47'30	1°54'48
greatest brilliancy	3718 Apr 28 22:09	8°♏39'46	-1.4m
min. Earth dist.	3718 May 03 02:08	7°♏02'54	0.64301 AU
	3718 May 26 06:49	30°℞♎	
direct	3718 Jun 09 01:55	28°♎46'02	
desc. node	3718 Jun 19 19:37	29°♎28'15	
	3718 Jun 23 09:56	0°♏	
	3718 Sep 03 23:50	0°♐	
	3718 Oct 21 08:41	0°♑	
	3718 Dec 02 06:03	0°♒	
	3719 Jan 10 12:38	0°♓	
	3719 Feb 17 17:59	0°♈	
	3719 Mar 28 02:16	0°♉	
asc. node	3719 Apr 25 06:17	21°♉33'49	
evening set	3719 Apr 30 19:41	25°♉45'09	
	3719 May 06 11:45	0°♊	
	3719 Jun 16 14:32	0°♋	
conjunction	3719 Jun 30 18:44	10°♋00'46	0°40'04
minimum elong	3719 Jun 30 16:46	9°♋57'18	0°40'02
	3719 Jul 29 18:53	0°♌	
max. Earth dist.	3719 Aug 02 17:46	2°♌40'31	2.55429 AU
morning rise	3719 Aug 23 22:54	16°♌50'29	
	3719 Sep 13 01:31	0°♍	
	3719 Oct 30 08:06	0°♎	
	3719 Dec 18 22:43	0°♏	
	3720 Feb 11 08:35	0°♐	
retrograde	3720 May 02 04:51	25°♐54'37	
desc. node	3720 May 06 18:34	25°♐46'58	
opposition	3720 Jun 07 10:06	18°♐14'14	-1°23'08
greatest brilliancy	3720 Jun 07 19:24	18°♐05'47	-1.9m
min. Earth dist.	3720 Jun 15 05:09	15°♐24'03	0.54466 AU
direct	3720 Jul 17 04:05	8°♐55'00	
	3720 Sep 19 16:12	0°♑	
	3720 Nov 06 03:47	0°♒	
	3720 Dec 17 08:58	0°♓	
	3721 Jan 25 16:24	0°♈	
	3721 Mar 05 21:57	0°♉	
asc. node	3721 Mar 12 05:21	4°♉46'10	
	3721 Apr 15 03:52	0°♊	
	3721 May 27 02:07	0°♋	
evening set	3721 Jun 25 00:15	19°♋56'08	
	3721 Jul 09 22:16	0°♌	
conjunction	3721 Aug 15 06:16	23°♌59'34	1°07'10
minimum elong	3721 Aug 15 05:47	23°♌58'47	1°07'11
	3721 Aug 24 12:13	0°♍	
max. Earth dist.	3721 Aug 29 17:23	3°♍22'24	2.64266 AU
morning rise	3721 Oct 01 08:21	24°♍16'23	
	3721 Oct 10 08:49	0°♎	
	3721 Nov 27 01:24	0°♏	
	3722 Jan 14 12:43	0°♐	
	3722 Mar 05 15:53	0°♑	
desc. node	3722 Mar 24 18:25	10°♑52'26	
	3722 Apr 30 11:05	0°♒	
retrograde	3722 Jul 03 03:13	18°♒25'54	
opposition	3722 Aug 03 18:55	12°♒48'14	-5°56'51
greatest brilliancy	3722 Aug 05 05:51	12°♒22'04	-2.6m
min. Earth dist.	3722 Aug 10 21:55	10°♒41'06	0.41368 AU
direct	3722 Sep 06 14:26	6°♒11'19	
	3722 Nov 12 08:09	0°♓	
	3722 Dec 28 11:03	0°♈	
asc. node	3723 Jan 28 03:11	21°♈30'56	
	3723 Feb 09 02:41	0°♉	

	3723 Mar 23 17:23	0°♊	
	3723 May 06 10:45	0°♋	
	3723 Jun 20 14:55	0°♌	
	3723 Aug 06 01:03	0°♍	
evening set	3723 Aug 07 00:59	0°♍38'16	
conjunction	3723 Sep 22 13:16	0°♎15'59	1°01'08
minimum elong	3723 Sep 22 14:09	0°♎17'23	1°01'08
max. Earth dist.	3723 Sep 22 02:03	29°♍58'08	2.67731 AU
	3723 Sep 22 03:13	0°♎	
morning rise	3723 Nov 05 21:09	28°♎30'28	
	3723 Nov 08 05:07	0°♏	
	3723 Dec 24 18:28	0°♐	
	3724 Feb 08 14:53	0°♑	
desc. node	3724 Feb 09 17:20	0°♑43'35	
	3724 Mar 24 21:17	0°♒	
	3724 May 09 00:05	0°♓	
	3724 Jun 24 12:13	0°♈	
	3724 Aug 21 01:38	0°♉	
retrograde	3724 Sep 20 17:27	5°♉57'35	
min. Earth dist.	3724 Oct 17 10:42	1°♉31'26	0.38321 AU
opposition	3724 Oct 22 11:47	0°♉05'15	-3°36'04
greatest brilliancy	3724 Oct 21 23:41	0°♉13'54	-2.9m
	3724 Oct 22 19:07	30°℞♈	
direct	3724 Nov 21 05:44	24°♈56'06	
asc. node	3724 Dec 15 02:58	28°♈27'29	
	3724 Dec 20 06:17	0°♉	
	3725 Feb 20 10:30	0°♊	
	3725 Apr 11 08:40	0°♋	
	3725 May 29 18:01	0°♌	
	3725 Jul 16 23:05	0°♍	
	3725 Sep 02 21:34	0°♎	
evening set	3725 Sep 12 12:42	6°♎04'31	
max. Earth dist.	3725 Oct 14 08:31	26°♎20'58	2.65717 AU
	3725 Oct 20 00:38	0°♏	
conjunction	3725 Oct 27 16:56	4°♏57'50	0°32'15
minimum elong	3725 Oct 27 17:51	4°♏59'19	0°32'14
	3725 Dec 04 19:54	0°♐	
morning rise	3725 Dec 11 10:39	4°♐25'05	
desc. node	3725 Dec 27 15:44	15°♐20'55	
	3726 Jan 18 01:17	0°♑	
	3726 Mar 01 17:23	0°♒	
	3726 Apr 12 01:33	0°♓	
	3726 May 22 13:16	0°♈	
	3726 Jul 02 02:47	0°♉	
	3726 Aug 13 16:18	0°♊	
	3726 Oct 03 21:08	0°♋	
asc. node	3726 Nov 02 03:11	10°♋12'37	
retrograde	3726 Nov 17 06:42	11°♋48'22	
min. Earth dist.	3726 Dec 16 22:11	5°♋44'17	0.50385 AU
opposition	3726 Dec 24 22:29	2°♋46'20	2°41'47
greatest brilliancy	3726 Dec 24 02:08	3°♋05'13	-2.2m
	3727 Jan 01 18:09	30°℞♊	
direct	3727 Jan 28 06:06	25°♊22'05	
	3727 Feb 25 21:27	0°♋	
	3727 May 03 22:38	0°♌	
	3727 Jun 25 23:53	0°♍	
	3727 Aug 14 22:19	0°♎	
	3727 Oct 01 18:06	0°♏	
evening set	3727 Oct 19 14:42	11°♏33'26	
max. Earth dist.	3727 Nov 08 22:42	24°♏59'00	2.58411 AU
desc. node	3727 Nov 14 14:22	28°♏46'02	
	3727 Nov 16 10:22	0°♐	
conjunction	3727 Dec 05 12:24	12°♐59'00	-0°11'54
minimum elong	3727 Dec 05 11:56	12°♐58'13	0°11'53
behind sun begin	3727 Dec 04 22:03	12°♐34'21	
behind sun end	3727 Dec 06 01:50	13°♐22'05	
	3727 Dec 29 22:14	0°♑	
morning rise	3728 Jan 23 18:11	17°♑47'17	
	3728 Feb 09 10:32	0°♒	
	3728 Mar 20 09:15	0°♓	
	3728 Apr 28 09:03	0°♈	
	3728 Jun 06 05:12	0°♉	
	3728 Jul 15 22:19	0°♊	
	3728 Aug 26 23:47	0°♋	
asc. node	3728 Sep 19 01:35	15°♋13'42	
	3728 Oct 13 13:36	0°♌	
retrograde	3728 Dec 27 08:04	26°♌07'58	
min. Earth dist.	3729 Jan 31 11:36	18°♌04'02	0.61897 AU
greatest brilliancy	3729 Feb 04 09:59	16°♌30'13	-1.5m
opposition	3729 Feb 05 04:39	16°♌11'37	4°33'40
direct	3729 Mar 15 07:21	7°♌18'03	
	3729 May 28 21:17	0°♍	
	3729 Jul 23 21:05	0°♎	
	3729 Sep 11 15:16	0°♏	
desc. node	3729 Oct 01 13:03	12°♏40'52	
	3729 Oct 27 19:39	0°♐	
evening set	3729 Nov 29 13:01	22°♐30'20	
	3729 Dec 10 02:45	0°♑	
max. Earth dist.	3729 Dec 13 15:16	2°♑31'12	2.46606 AU
	3730 Jan 20 01:35	0°♒	
conjunction	3730 Jan 21 19:23	1°♒18'27	-0°56'11
minimum elong	3730 Jan 21 17:38	1°♒15'10	0°56'11
	3730 Feb 28 07:42	0°♓	
morning rise	3730 Mar 24 07:13	18°♓43'25	
	3730 Apr 07 15:37	0°♈	
	3730 May 15 21:51	0°♉	
	3730 Jun 23 23:48	0°♊	
	3730 Aug 03 19:53	0°♋	
asc. node	3730 Aug 06 23:58	2°♋15'20	
	3730 Sep 16 13:02	0°♌	
	3730 Nov 04 09:32	0°♍	
	3731 Jan 15 08:07	0°♎	
retrograde	3731 Jan 31 09:25	1°♎32'23	
	3731 Feb 15 15:34	30°℞♍	
opposition	3731 Mar 12 16:41	21°♍43'58	4°17'53
min. Earth dist.	3731 Mar 11 20:41	22°♍03'56	0.67492 AU
greatest brilliancy	3731 Mar 12 13:24	21°♍47'15	-1.3m
direct	3731 Apr 22 04:30	12°♍02'24	
	3731 Jun 25 18:49	0°♎	
desc. node	3731 Aug 19 12:03	29°♎00'54	
	3731 Aug 21 04:15	0°♏	
	3731 Oct 08 03:22	0°♐	
	3731 Nov 20 20:12	0°♑	
	3731 Dec 31 16:00	0°♒	
evening set	3732 Jan 23 08:36	17°♒20'58	
	3732 Feb 08 14:52	0°♓	
	3732 Mar 17 15:59	0°♈	
conjunction	3732 Mar 29 05:01	9°♈07'42	-0°51'57
minimum elong	3732 Mar 29 08:17	9°♈14'09	0°51'55
	3732 Apr 24 17:58	0°♉	
max. Earth dist.	3732 May 03 12:10	6°♉49'23	2.37476 AU
	3732 Jun 02 17:46	0°♊	
morning rise	3732 Jun 08 08:13	4°♊13'12	
asc. node	3732 Jun 23 23:57	15°♊52'06	
	3732 Jul 13 09:39	0°♋	
	3732 Aug 25 08:51	0°♌	
	3732 Oct 10 07:08	0°♍	
	3732 Nov 29 20:12	0°♎	
	3733 Feb 04 17:55	0°♏	

retrograde	3733 Mar 06 03:33	4°♏37'20	
	3733 Apr 02 04:55	30°℞♎	
opposition	3733 Apr 14 17:03	25°♎23'03	2°48'12
greatest brilliancy	3733 Apr 15 00:35	25°♎15'40	-1.3m
min. Earth dist.	3733 Apr 17 17:44	24°♎11'45	0.66488 AU
direct	3733 May 26 05:37	15°♎20'54	
desc. node	3733 Jul 06 11:21	23°♎58'39	
	3733 Jul 21 03:20	0°♏	
	3733 Sep 14 13:07	0°♐	
	3733 Oct 30 02:04	0°♑	
	3733 Dec 10 10:08	0°♒	
	3734 Jan 18 11:29	0°♓	
	3734 Feb 25 13:29	0°♈	
evening set	3734 Apr 03 20:23	29°♈17'33	
	3734 Apr 04 18:12	0°♉	
asc. node	3734 May 11 22:20	28°♉27'57	
	3734 May 13 23:20	0°♊	
conjunction	3734 Jun 08 10:55	18°♊51'15	0°17'57
minimum elong	3734 Jun 08 09:36	18°♊48'51	0°17'57
	3734 Jun 23 21:14	0°♋	
max. Earth dist.	3734 Jul 19 22:21	18°♋20'51	2.50645 AU
	3734 Aug 05 21:47	0°♌	
morning rise	3734 Aug 06 03:01	0°♌08'53	
	3734 Sep 20 04:24	0°♍	
	3734 Nov 06 21:04	0°♎	
	3734 Dec 28 00:50	0°♏	
	3735 Feb 27 15:22	0°♐	
retrograde	3735 Apr 14 19:10	10°♐12'26	
opposition	3735 May 22 07:25	1°♐57'44	0°05'10
greatest brilliancy	3735 May 22 08:04	1°♐57'07	-1.7m
desc. node	3735 May 24 09:48	1°♐10'14	
	3735 May 27 12:19	30°℞♏	
min. Earth dist.	3735 May 28 23:08	29°♏27'31	0.59007 AU
direct	3735 Jul 02 02:13	22°♏12'11	
	3735 Aug 08 10:49	0°♐	
	3735 Oct 04 16:02	0°♑	
	3735 Nov 17 15:13	0°♒	
	3735 Dec 27 17:18	0°♓	
	3736 Feb 04 09:56	0°♈	
	3736 Mar 14 03:54	0°♉	
asc. node	3736 Mar 28 20:50	11°♉12'32	
	3736 Apr 22 23:15	0°♊	
	3736 Jun 03 11:42	0°♋	
evening set	3736 Jun 05 05:44	1°♋14'04	
	3736 Jul 16 23:58	0°♌	
conjunction	3736 Jul 29 15:05	8°♌27'58	1°01'21
minimum elong	3736 Jul 29 13:50	8°♌25'54	1°01'21
max. Earth dist.	3736 Aug 19 16:35	22°♌22'32	2.61443 AU
	3736 Aug 31 09:17	0°♍	
morning rise	3736 Sep 16 20:08	10°♍37'06	
	3736 Oct 17 07:20	0°♎	
	3736 Dec 04 12:07	0°♏	
	3737 Jan 23 10:01	0°♐	
	3737 Mar 18 17:46	0°♑	
desc. node	3737 Apr 10 08:38	10°♑43'41	
retrograde	3737 Jun 05 19:07	25°♑24'31	
opposition	3737 Jul 09 09:27	18°♑53'23	-4°10'59
greatest brilliancy	3737 Jul 10 14:53	18°♑28'52	-2.3m
min. Earth dist.	3737 Jul 17 18:57	16°♑06'32	0.46409 AU
direct	3737 Aug 15 04:20	10°♑54'26	
	3737 Oct 13 01:20	0°♒	
	3737 Nov 29 03:43	0°♓	
	3738 Jan 09 17:17	0°♈	
asc. node	3738 Feb 13 20:38	25°♈57'58	
	3738 Feb 19 08:07	0°♉	
	3738 Apr 01 15:46	0°♊	
	3738 May 14 10:48	0°♋	
	3738 Jun 27 23:08	0°♌	
evening set	3738 Jul 22 08:09	15°♌59'52	
	3738 Aug 12 23:08	0°♍	
conjunction	3738 Sep 08 05:33	16°♍50'15	1°06'38
minimum elong	3738 Sep 08 06:03	16°♍51'03	1°06'38
max. Earth dist.	3738 Sep 13 08:22	20°♍06'07	2.67021 AU
	3738 Sep 28 21:26	0°♎	
morning rise	3738 Oct 23 05:38	15°♎27'56	
	3738 Nov 15 02:45	0°♏	
	3739 Jan 01 05:10	0°♐	
	3739 Feb 17 04:50	0°♑	
desc. node	3739 Feb 26 08:07	5°♑49'25	
	3739 Apr 05 13:34	0°♒	
	3739 May 24 22:37	0°♓	
	3739 Jul 27 02:18	0°♈	
retrograde	3739 Aug 22 02:50	4°♈07'41	
	3739 Sep 18 00:15	30°℞♓	
opposition	3739 Sep 21 06:08	29°♓08'35	-6°09'55
greatest brilliancy	3739 Sep 21 11:18	29°♓05'09	-3.0m
min. Earth dist.	3739 Sep 21 09:37	29°♓06'16	0.37121 AU
direct	3739 Oct 20 22:55	24°♓11'56	
	3739 Nov 20 15:51	0°♈	
asc. node	3740 Jan 01 20:01	20°♈13'33	
	3740 Jan 18 10:25	0°♉	
	3740 Mar 05 22:05	0°♊	
	3740 Apr 21 04:45	0°♋	
	3740 Jun 06 21:37	0°♌	
	3740 Jul 24 05:20	0°♍	
evening set	3740 Aug 29 06:07	22°♍44'18	
	3740 Sep 09 17:41	0°♎	
max. Earth dist.	3740 Oct 05 04:56	16°♎10'37	2.67153 AU
conjunction	3740 Oct 13 14:50	21°♎33'06	0°45'39
minimum elong	3740 Oct 13 15:55	21°♎34'48	0°45'38
	3740 Oct 26 18:50	0°♏	
morning rise	3740 Nov 26 19:35	20°♏08'22	
	3740 Dec 11 19:20	0°♐	
desc. node	3741 Jan 13 06:41	21°♐41'26	
	3741 Jan 25 12:48	0°♑	
	3741 Mar 09 22:54	0°♒	
	3741 Apr 21 06:21	0°♓	
	3741 Jun 01 23:07	0°♈	
	3741 Jul 14 08:27	0°♉	
	3741 Aug 30 13:02	0°♊	
retrograde	3741 Oct 28 16:41	19°♊44'58	
asc. node	3741 Nov 18 18:40	16°♊34'21	
min. Earth dist.	3741 Nov 25 06:56	14°♊32'09	0.45058 AU
opposition	3741 Dec 03 14:22	11°♊40'26	0°52'50
greatest brilliancy	3741 Dec 03 06:52	11°♊46'54	-2.5m
direct	3742 Jan 04 23:20	5°♊07'24	
	3742 Mar 21 15:57	0°♋	
	3742 May 14 18:09	0°♌	
	3742 Jul 04 05:00	0°♍	
	3742 Aug 22 03:42	0°♎	
evening set	3742 Oct 04 22:16	27°♎37'32	
	3742 Oct 08 14:57	0°♏	
max. Earth dist.	3742 Oct 29 12:18	13°♏33'50	2.61875 AU
conjunction	3742 Nov 19 17:55	27°♏37'13	0°06'29
minimum elong	3742 Nov 19 18:09	27°♏37'37	0°06'28
behind sun begin	3742 Nov 19 00:09	27°♏07'32	
behind sun end	3742 Nov 20 12:10	28°♏07'43	
	3742 Nov 23 07:12	0°♐	
desc. node	3742 Dec 01 05:13	5°♐19'57	

morning rise	3743 Jan 05 13:56	29°♐41'00	
	3743 Jan 06 00:47	0°♑	
	3743 Feb 16 22:12	0°♒	
	3743 Mar 29 07:36	0°♓	
	3743 May 07 17:51	0°♈	
	3743 Jun 16 00:19	0°♉	
	3743 Jul 26 07:21	0°♊	
	3743 Sep 07 16:35	0°♋	
asc. node	3743 Oct 06 18:10	17°♋39'48	
	3743 Oct 31 07:29	0°♌	
retrograde	3743 Dec 13 12:25	10°♌40'17	
min. Earth dist.	3744 Jan 15 14:56	3°♌18'39	0.57996 AU
opposition	3744 Jan 21 18:55	0°♌53'36	4°11'33
greatest brilliancy	3744 Jan 20 20:05	1°♌16'03	-1.7m
	3744 Jan 24 01:54	30°℞♋	
direct	3744 Feb 27 14:24	22°♋28'34	
	3744 Apr 05 20:59	0°♌	
	3744 Jun 09 11:38	0°♍	
	3744 Aug 01 03:46	0°♎	
	3744 Sep 18 22:50	0°♏	
desc. node	3744 Oct 18 04:32	18°♏53'57	
	3744 Nov 03 20:41	0°♐	
evening set	3744 Nov 12 05:26	5°♐39'34	
max. Earth dist.	3744 Nov 27 13:02	16°♐11'13	2.51631 AU
	3744 Dec 17 04:42	0°♑	
conjunction	3745 Jan 01 06:11	10°♑49'07	-0°40'55
minimum elong	3745 Jan 01 04:36	10°♑46'15	0°40'54
	3745 Jan 27 07:50	0°♒	
morning rise	3745 Feb 25 18:49	22°♒17'26	
	3745 Mar 07 19:29	0°♓	
	3745 Apr 15 08:27	0°♈	
	3745 May 23 18:35	0°♉	
	3745 Jul 02 00:03	0°♊	
	3745 Aug 12 02:11	0°♋	
asc. node	3745 Aug 23 16:52	8°♋06'58	
	3745 Sep 25 13:45	0°♌	
	3745 Nov 16 16:59	0°♍	
retrograde	3746 Jan 18 01:41	18°♍30'44	
min. Earth dist.	3746 Feb 24 23:45	9°♍31'46	0.66081 AU
opposition	3746 Feb 27 08:14	8°♍35'14	4°34'06
greatest brilliancy	3746 Feb 26 22:49	8°♍44'40	-1.4m
	3746 Mar 27 12:54	30°℞♌	
direct	3746 Apr 08 01:22	29°♌08'56	
	3746 Apr 20 03:34	0°♍	
	3746 Jul 08 00:46	0°♎	
	3746 Aug 29 16:35	0°♏	
desc. node	3746 Sep 05 03:47	3°♏57'49	
	3746 Oct 15 17:50	0°♐	
	3746 Nov 28 05:14	0°♑	
evening set	3746 Dec 30 18:04	23°♑46'26	
	3747 Jan 08 01:14	0°♒	
max. Earth dist.	3747 Jan 25 08:24	13°♒09'50	2.38796 AU
	3747 Feb 16 02:06	0°♓	
conjunction	3747 Mar 01 10:08	10°♓27'03	-1°04'13
minimum elong	3747 Mar 01 11:01	10°♓28'47	1°04'12
	3747 Mar 26 04:54	0°♈	
	3747 May 03 07:24	0°♉	
morning rise	3747 May 10 22:16	5°♉56'17	
	3747 Jun 11 06:43	0°♊	
asc. node	3747 Jul 11 15:09	22°♊32'49	
	3747 Jul 21 22:13	0°♋	
	3747 Sep 03 00:25	0°♌	
	3747 Oct 19 14:06	0°♍	
	3747 Dec 11 21:35	0°♎	
retrograde	3748 Feb 21 09:17	21°♎56'02	
opposition	3748 Apr 01 08:58	12°♎25'49	3°30'45
greatest brilliancy	3748 Apr 01 13:30	12°♎21'20	-1.3m
min. Earth dist.	3748 Apr 02 21:35	11°♎49'34	0.67683 AU
direct	3748 May 12 15:47	2°♎28'27	
desc. node	3748 Jul 23 02:18	24°♎04'47	
	3748 Aug 03 15:40	0°♏	
	3748 Sep 23 15:46	0°♐	
	3748 Nov 07 05:23	0°♑	
	3748 Dec 18 06:33	0°♒	
	3749 Jan 26 05:48	0°♓	
evening set	3749 Mar 05 23:16	0°♈33'26	
	3749 Mar 05 06:22	0°♈	
	3749 Apr 12 08:47	0°♉	
conjunction	3749 May 13 16:34	24°♉08'22	-0°10'04
minimum elong	3749 May 13 17:30	24°♉10'08	0°10'04
behind sun begin	3749 May 12 19:02	23°♉27'28	
behind sun end	3749 May 14 15:58	24°♉52'45	
	3749 May 21 10:29	0°♊	
asc. node	3749 May 28 15:23	5°♊24'29	
	3749 Jul 01 04:27	0°♋	
max. Earth dist.	3749 Jul 02 07:51	0°♋49'10	2.45285 AU
morning rise	3749 Jul 16 21:37	11°♋10'29	
	3749 Aug 13 02:23	0°♌	
	3749 Sep 27 11:28	0°♍	
	3749 Nov 14 20:25	0°♎	
	3750 Jan 07 15:10	0°♏	
retrograde	3750 Mar 29 10:01	25°♏55'59	
opposition	3750 May 06 21:45	17°♏14'11	1°18'13
greatest brilliancy	3750 May 07 04:21	17°♏07'50	-1.5m
min. Earth dist.	3750 May 12 04:54	15°♏11'59	0.62673 AU
desc. node	3750 Jun 10 00:32	7°♏36'12	
direct	3750 Jun 17 05:35	7°♏15'48	
	3750 Aug 26 22:26	0°♐	
	3750 Oct 15 08:05	0°♑	
	3750 Nov 26 19:14	0°♒	
	3751 Jan 05 07:42	0°♓	
	3751 Feb 12 16:21	0°♈	
	3751 Mar 23 03:12	0°♉	
asc. node	3751 Apr 15 14:43	17°♉57'59	
	3751 May 01 15:13	0°♊	
evening set	3751 May 14 18:17	9°♊42'41	
	3751 Jun 11 20:11	0°♋	
conjunction	3751 Jul 12 04:42	21°♋12'32	0°49'41
minimum elong	3751 Jul 12 02:51	21°♋09'20	0°49'39
	3751 Jul 25 02:02	0°♌	
max. Earth dist.	3751 Aug 09 15:57	10°♌28'28	2.57763 AU
morning rise	3751 Sep 02 08:27	26°♌06'03	
	3751 Sep 08 08:10	0°♍	
	3751 Oct 25 10:01	0°♎	
	3751 Dec 13 09:00	0°♏	
	3752 Feb 03 14:31	0°♐	
	3752 Apr 09 06:42	0°♑	
desc. node	3752 Apr 26 23:33	4°♑31'53	
retrograde	3752 May 13 18:42	6°♑07'24	
	3752 Jun 14 17:48	30°℞♐	
opposition	3752 Jun 18 02:49	28°♐49'13	-2°20'51
greatest brilliancy	3752 Jun 18 19:21	28°♐34'32	-2.0m
min. Earth dist.	3752 Jun 26 08:08	25°♐54'07	0.51691 AU
direct	3752 Jul 27 00:32	19°♐51'53	
	3752 Sep 06 19:16	0°♑	
	3752 Oct 29 14:33	0°♒	
	3752 Dec 11 00:29	0°♓	
	3753 Jan 19 21:06	0°♈	
	3753 Feb 28 11:06	0°♉	
asc. node	3753 Mar 02 12:44	1°♉33'12	

	3753 Apr 09 23:54	0°♊	
	3753 May 22 03:43	0°♋	
evening set	3753 Jul 05 08:50	0°♌07'34	
	3753 Jul 05 04:17	0°♌	
	3753 Aug 19 20:40	0°♍	
conjunction	3753 Aug 24 05:34	2°♍49'29	1°08'15
minimum elong	3753 Aug 24 05:29	2°♍49'21	1°08'16
max. Earth dist.	3753 Sep 04 05:44	9°♍54'38	2.65475 AU
	3753 Oct 05 16:57	0°♎	
morning rise	3753 Oct 09 10:09	2°♎21'37	
	3753 Nov 22 04:14	0°♏	
	3754 Jan 09 01:14	0°♐	
	3754 Feb 26 18:03	0°♑	
desc. node	3754 Mar 14 22:38	9°♑43'54	
	3754 Apr 19 01:22	0°♒	
	3754 Jun 24 10:13	0°♓	
retrograde	3754 Jul 20 13:37	3°♓53'18	
	3754 Aug 15 08:38	30°℞♒	
opposition	3754 Aug 20 03:30	28°♒41'08	-6°34'50
greatest brilliancy	3754 Aug 21 09:46	28°♒19'53	-2.8m
min. Earth dist.	3754 Aug 25 12:18	27°♒10'56	0.39167 AU
direct	3754 Sep 21 06:19	22°♒50'37	
	3754 Oct 24 23:12	0°♓	
	3754 Dec 19 02:00	0°♈	
asc. node	3755 Jan 18 11:57	20°♈08'48	
	3755 Feb 01 22:41	0°♉	
	3755 Mar 17 15:39	0°♊	
	3755 May 01 00:53	0°♋	
	3755 Jun 15 15:16	0°♌	
	3755 Aug 01 07:35	0°♍	
evening set	3755 Aug 15 15:27	9°♍07'06	
	3755 Sep 17 12:43	0°♎	
max. Earth dist.	3755 Sep 27 05:28	6°♎09'44	2.67753 AU
conjunction	3755 Sep 30 14:57	8°♎19'15	0°56'19
minimum elong	3755 Sep 30 15:58	8°♎20'52	0°56'19
	3755 Nov 03 13:52	0°♏	
morning rise	3755 Nov 13 18:44	6°♏33'28	
	3755 Dec 19 21:55	0°♐	
desc. node	3756 Jan 30 21:58	27°♐44'15	
	3756 Feb 03 07:20	0°♑	
	3756 Mar 18 18:41	0°♒	
	3756 May 01 14:35	0°♓	
	3756 Jun 14 14:32	0°♈	
	3756 Jul 31 21:18	0°♉	
retrograde	3756 Oct 05 14:57	23°♉16'31	
min. Earth dist.	3756 Nov 01 03:07	18°♉42'13	0.40270 AU
opposition	3756 Nov 08 00:11	16°♉35'08	-1°48'59
greatest brilliancy	3756 Nov 07 14:30	16°♉42'37	-2.8m
asc. node	3756 Dec 05 11:48	11°♉02'26	
direct	3756 Dec 08 13:01	10°♉58'38	
	3757 Feb 09 03:03	0°♊	
	3757 Apr 04 07:22	0°♋	
	3757 May 24 02:20	0°♌	
	3757 Jul 11 22:46	0°♍	
	3757 Aug 29 04:48	0°♎	
evening set	3757 Sep 20 15:01	14°♎08'28	
	3757 Oct 15 10:35	0°♏	
max. Earth dist.	3757 Oct 19 18:26	2°♏47'31	2.64579 AU
conjunction	3757 Nov 04 21:28	13°♏16'37	0°23'21
minimum elong	3757 Nov 04 22:12	13°♏17'48	0°23'20
	3757 Nov 30 04:49	0°♐	
desc. node	3757 Dec 17 20:48	11°♐53'21	
morning rise	3757 Dec 20 04:27	13°♐27'49	
	3758 Jan 13 05:58	0°♑	
	3758 Feb 24 14:49	0°♒	
	3758 Apr 06 13:46	0°♓	
	3758 May 16 14:25	0°♈	
	3758 Jun 25 13:10	0°♉	
	3758 Aug 05 22:29	0°♊	
	3758 Sep 21 10:28	0°♋	
asc. node	3758 Oct 23 09:41	15°♋45'16	
retrograde	3758 Nov 27 08:52	23°♋18'57	
min. Earth dist.	3758 Dec 28 06:21	16°♋45'32	0.53290 AU
opposition	3759 Jan 04 17:10	13°♋55'29	3°24'33
greatest brilliancy	3759 Jan 03 17:58	14°♋17'38	-2.0m
direct	3759 Feb 09 00:02	6°♋06'44	
	3759 Apr 25 14:14	0°♌	
	3759 Jun 20 03:33	0°♍	
	3759 Aug 09 21:28	0°♎	
	3759 Sep 27 00:56	0°♏	
evening set	3759 Oct 28 06:17	20°♏17'40	
desc. node	3759 Nov 04 19:29	25°♏18'39	
	3759 Nov 11 19:26	0°♐	
max. Earth dist.	3759 Nov 15 14:20	2°♐33'13	2.56203 AU
conjunction	3759 Dec 15 00:52	22°♐47'49	-0°22'42
minimum elong	3759 Dec 14 23:59	22°♐46'16	0°22'42
	3759 Dec 25 06:29	0°♑	
morning rise	3760 Feb 04 02:16	29°♑34'52	
	3760 Feb 04 15:50	0°♒	
	3760 Mar 15 10:41	0°♓	
	3760 Apr 23 06:16	0°♈	
	3760 May 31 21:47	0°♉	
	3760 Jul 10 08:53	0°♊	
	3760 Aug 20 21:57	0°♋	
asc. node	3760 Sep 09 09:03	13°♋12'49	
	3760 Oct 05 20:11	0°♌	
	3760 Dec 06 15:30	0°♍	
retrograde	3761 Jan 04 11:12	4°♍52'53	
	3761 Jan 31 05:43	30°℞♌	
min. Earth dist.	3761 Feb 09 15:27	26°♌27'44	0.63664 AU
opposition	3761 Feb 13 12:24	24°♌54'51	4°38'16
greatest brilliancy	3761 Feb 12 20:47	25°♌10'28	-1.5m
direct	3761 Mar 24 05:51	15°♌48'08	
	3761 May 19 08:10	0°♍	
	3761 Jul 17 22:14	0°♎	
	3761 Sep 06 13:18	0°♏	
desc. node	3761 Sep 21 18:11	9°♏34'05	
	3761 Oct 23 00:46	0°♐	
	3761 Dec 05 09:51	0°♑	
evening set	3761 Dec 10 04:11	3°♑24'42	
max. Earth dist.	3761 Dec 25 09:51	14°♑28'05	2.43720 AU
	3762 Jan 15 08:02	0°♒	
conjunction	3762 Feb 03 17:51	14°♒43'38	-1°02'08
minimum elong	3762 Feb 03 16:34	14°♒41'11	1°02'08
	3762 Feb 23 12:37	0°♓	
	3762 Apr 02 18:47	0°♈	
morning rise	3762 Apr 09 21:15	5°♈35'49	
	3762 May 10 23:20	0°♉	
	3762 Jun 18 23:33	0°♊	
asc. node	3762 Jul 28 09:02	29°♊03'38	
	3762 Jul 29 16:27	0°♋	
	3762 Sep 11 01:07	0°♌	
	3762 Oct 28 17:24	0°♍	
	3762 Dec 27 06:48	0°♎	
retrograde	3763 Feb 08 00:34	9°♎20'03	
	3763 Mar 19 07:06	30°℞♍	
opposition	3763 Mar 20 06:03	29°♍37'09	4°03'25
greatest brilliancy	3763 Mar 20 05:52	29°♍37'19	-1.3m
min. Earth dist.	3763 Mar 20 06:14	29°♍36'57	0.67837 AU

direct	3763 Apr 30 01:47	19°♍48'48	
	3763 Jun 15 04:53	0°♎	
desc. node	3763 Aug 09 17:05	26°♎57'33	
	3763 Aug 15 01:58	0°♏	
	3763 Oct 02 22:31	0°♐	
	3763 Nov 15 22:26	0°♑	
	3763 Dec 26 20:09	0°♒	
	3764 Feb 03 19:11	0°♓	
evening set	3764 Feb 07 00:43	2°♓31'52	
	3764 Mar 12 19:53	0°♈	
conjunction	3764 Apr 14 23:11	26°♈08'28	-0°38'47
minimum elong	3764 Apr 15 02:26	26°♈14'51	0°38'45
	3764 Apr 19 21:30	0°♉	
	3764 May 28 21:17	0°♊	
max. Earth dist.	3764 Jun 04 20:24	5°♊14'23	2.39904 AU
asc. node	3764 Jun 14 07:33	12°♊17'55	
morning rise	3764 Jun 23 08:15	18°♊57'30	
	3764 Jul 08 12:58	0°♋	
	3764 Aug 20 10:10	0°♌	
	3764 Oct 05 01:14	0°♍	
	3764 Nov 23 12:36	0°♎	
	3765 Jan 21 15:07	0°♏	
retrograde	3765 Mar 14 08:45	12°♏32'21	
opposition	3765 Apr 22 14:14	3°♏28'32	2°18'15
greatest brilliancy	3765 Apr 22 22:19	3°♏20'39	-1.4m
min. Earth dist.	3765 Apr 26 10:34	1°♏58'27	0.65402 AU
	3765 May 01 14:59	30°℞♎	
direct	3765 Jun 03 02:43	23°♎25'52	
desc. node	3765 Jun 26 15:29	26°♎33'25	
	3765 Jul 08 07:18	0°♏	
	3765 Sep 07 23:52	0°♐	
	3765 Oct 24 13:51	0°♑	
	3765 Dec 05 06:13	0°♒	
	3766 Jan 13 11:04	0°♓	
	3766 Feb 20 14:53	0°♈	
	3766 Mar 30 20:52	0°♉	
evening set	3766 Apr 19 09:06	15°♉02'18	
asc. node	3766 May 02 06:29	24°♉50'02	
	3766 May 09 03:21	0°♊	
	3766 Jun 19 02:36	0°♋	
conjunction	3766 Jun 21 11:23	1°♋41'20	0°31'27
minimum elong	3766 Jun 21 09:31	1°♋38'01	0°31'26
max. Earth dist.	3766 Jul 28 04:53	27°♋18'27	2.53368 AU
	3766 Aug 01 03:45	0°♌	
morning rise	3766 Aug 16 12:33	10°♌21'26	
	3766 Sep 15 08:53	0°♍	
	3766 Nov 01 18:04	0°♎	
	3766 Dec 21 20:53	0°♏	
	3767 Feb 16 08:56	0°♐	
retrograde	3767 Apr 25 00:30	19°♐26'02	
desc. node	3767 May 14 14:09	17°♐01'22	
opposition	3767 May 31 19:56	11°♐29'23	-0°43'59
greatest brilliancy	3767 Jun 01 00:35	11°♐25'04	-1.8m
min. Earth dist.	3767 Jun 08 03:06	8°♐47'08	0.56587 AU
direct	3767 Jul 11 02:00	1°♐56'22	
	3767 Sep 26 14:25	0°♑	
	3767 Nov 11 07:11	0°♒	
	3767 Dec 21 23:41	0°♓	
	3768 Jan 30 00:05	0°♈	
	3768 Mar 08 23:27	0°♉	
asc. node	3768 Mar 19 05:50	7°♉47'55	
	3768 Apr 17 23:24	0°♊	
	3768 May 29 15:48	0°♋	
evening set	3768 Jun 16 17:43	12°♋35'41	
	3768 Jul 12 06:58	0°♌	
conjunction	3768 Aug 08 06:47	17°♌56'50	1°05'21
minimum elong	3768 Aug 08 05:58	17°♌55'30	1°05'21
max. Earth dist.	3768 Aug 25 13:45	29°♌14'42	2.63105 AU
	3768 Aug 26 17:40	0°♍	
morning rise	3768 Sep 25 05:30	18°♍58'20	
	3768 Oct 12 14:02	0°♎	
	3768 Nov 29 10:54	0°♏	
	3769 Jan 17 11:04	0°♐	
	3769 Mar 10 00:15	0°♑	
desc. node	3769 Mar 31 14:12	11°♑35'05	
	3769 May 11 07:14	0°♒	
retrograde	3769 Jun 20 14:27	8°♒20'13	
opposition	3769 Jul 23 03:45	2°♒18'43	-5°13'57
greatest brilliancy	3769 Jul 24 14:07	1°♒51'38	-2.5m
	3769 Jul 30 12:46	30°℞♑	
min. Earth dist.	3769 Jul 31 03:07	29°♑49'05	0.43509 AU
direct	3769 Aug 27 08:58	25°♑03'24	
	3769 Sep 23 23:50	0°♒	
	3769 Nov 20 00:35	0°♓	
	3770 Jan 02 13:15	0°♈	
asc. node	3770 Feb 04 03:49	23°♈31'06	
	3770 Feb 13 02:54	0°♉	
	3770 Mar 27 01:14	0°♊	
	3770 May 09 06:51	0°♋	
	3770 Jun 23 02:31	0°♌	
evening set	3770 Jul 31 10:30	24°♌56'34	
	3770 Aug 08 07:08	0°♍	
conjunction	3770 Sep 16 11:41	25°♍01'57	1°03'51
minimum elong	3770 Sep 16 12:26	25°♍03'08	1°03'51
max. Earth dist.	3770 Sep 18 12:39	26°♍19'48	2.67520 AU
	3770 Sep 24 07:08	0°♎	
morning rise	3770 Oct 31 01:05	23°♎22'43	
	3770 Nov 10 10:19	0°♏	
	3770 Dec 27 05:22	0°♐	
	3771 Feb 11 13:08	0°♑	
desc. node	3771 Feb 16 13:15	3°♑15'19	
	3771 Mar 29 14:51	0°♒	
	3771 May 15 04:22	0°♓	
	3771 Jul 04 03:14	0°♈	
retrograde	3771 Sep 08 22:59	22°♈34'26	
min. Earth dist.	3771 Oct 06 18:05	18°♈01'40	0.37363 AU
opposition	3771 Oct 09 16:24	17°♈14'04	-4°53'45
greatest brilliancy	3771 Oct 09 08:59	17°♈19'06	-3.0m
direct	3771 Nov 08 01:19	12°♈18'31	
asc. node	3771 Dec 23 03:11	23°♈38'08	
	3772 Jan 05 13:18	0°♉	
	3772 Feb 27 01:00	0°♊	
	3772 Apr 15 00:49	0°♋	
	3772 Jun 01 13:42	0°♌	
	3772 Jul 19 08:21	0°♍	
	3772 Sep 05 02:16	0°♎	
evening set	3772 Sep 06 11:00	0°♎51'41	
max. Earth dist.	3772 Oct 10 10:58	22°♎27'45	2.66471 AU
conjunction	3772 Oct 21 15:43	29°♎39'01	0°38'08
minimum elong	3772 Oct 21 16:43	29°♎40'38	0°38'07
	3772 Oct 22 04:45	0°♏	
morning rise	3772 Dec 05 01:47	28°♏38'30	
	3772 Dec 07 02:56	0°♐	
desc. node	3773 Jan 03 11:33	18°♐20'09	
	3773 Jan 20 14:15	0°♑	
	3773 Mar 04 14:35	0°♒	
	3773 Apr 15 08:45	0°♓	
	3773 May 26 07:55	0°♈	
	3773 Jul 06 12:15	0°♉	
	3773 Aug 19 08:51	0°♊	

	3773 Oct 18 17:06	0°♋	
retrograde	3773 Nov 09 04:47	3°♋09'04	
asc. node	3773 Nov 09 03:24	3°♋09'04	
	3773 Nov 30 00:35	30°℞♊	
min. Earth dist.	3773 Dec 07 20:01	27°♊28'32	0.47992 AU
greatest brilliancy	3773 Dec 15 10:40	24°♊44'20	-2.3m
opposition	3773 Dec 16 02:57	24°♊29'37	2°01'35
direct	3774 Jan 18 14:49	17°♊27'07	
	3774 Mar 09 17:31	0°♋	
	3774 May 07 23:39	0°♌	
	3774 Jun 28 18:50	0°♍	
	3774 Aug 17 06:48	0°♎	
	3774 Oct 03 23:29	0°♏	
evening set	3774 Oct 13 06:14	5°♏58'54	
max. Earth dist.	3774 Nov 04 11:40	20°♏31'37	2.60060 AU
	3774 Nov 18 16:45	0°♐	
desc. node	3774 Nov 21 10:19	1°♐50'16	
conjunction	3774 Nov 28 14:20	6°♐40'56	-0°04'06
minimum elong	3774 Nov 28 14:11	6°♐40'41	0°04'06
behind sun begin	3774 Nov 27 18:53	6°♐07'59	
behind sun end	3774 Nov 29 09:28	7°♐13'24	
	3775 Jan 01 08:10	0°♑	
morning rise	3775 Jan 15 15:03	10°♑07'52	
	3775 Feb 12 01:17	0°♒	
	3775 Mar 24 05:09	0°♓	
	3775 May 02 09:39	0°♈	
	3775 Jun 10 09:36	0°♉	
	3775 Jul 20 07:01	0°♊	
	3775 Aug 31 17:38	0°♋	
asc. node	3775 Sep 27 02:07	16°♋56'50	
	3775 Oct 19 21:01	0°♌	
retrograde	3775 Dec 22 03:37	20°♌09'10	
min. Earth dist.	3776 Jan 25 09:35	12°♌23'10	0.60261 AU
opposition	3776 Jan 30 18:12	10°♌15'48	4°27'09
greatest brilliancy	3776 Jan 29 21:19	10°♌36'31	-1.6m
direct	3776 Mar 08 06:49	1°♌34'14	
	3776 Jun 02 05:47	0°♍	
	3776 Jul 26 16:19	0°♎	
	3776 Sep 14 01:12	0°♏	
desc. node	3776 Oct 08 09:13	15°♏35'25	
	3776 Oct 30 04:04	0°♐	
evening set	3776 Nov 21 20:55	15°♐28'58	
max. Earth dist.	3776 Dec 06 04:52	25°♐30'26	2.48911 AU
	3776 Dec 12 12:58	0°♑	
conjunction	3777 Jan 12 13:01	22°♑30'29	-0°50'15
minimum elong	3777 Jan 12 11:15	22°♑27'12	0°50'13
	3777 Jan 22 14:45	0°♒	
	3777 Mar 02 23:53	0°♓	
morning rise	3777 Mar 12 04:40	7°♓08'09	
	3777 Apr 10 10:12	0°♈	
	3777 May 18 17:39	0°♉	
	3777 Jun 26 20:03	0°♊	
	3777 Aug 06 16:59	0°♋	
asc. node	3777 Aug 14 00:36	5°♋10'49	
	3777 Sep 19 14:27	0°♌	
	3777 Nov 08 09:02	0°♍	
retrograde	3778 Jan 25 18:33	26°♍31'29	
min. Earth dist.	3778 Mar 05 13:13	17°♍15'39	0.66984 AU
opposition	3778 Mar 07 01:28	16°♍39'23	4°26'03
greatest brilliancy	3778 Mar 06 19:31	16°♍45'20	-1.3m
direct	3778 Apr 16 04:53	7°♍04'11	
	3778 Jun 30 10:36	0°♎	
	3778 Aug 24 02:40	0°♏	
desc. node	3778 Aug 26 07:56	1°♏19'43	
	3778 Oct 10 17:36	0°♐	
	3778 Nov 23 09:36	0°♑	
	3779 Jan 03 06:41	0°♒	
evening set	3779 Jan 12 16:25	7°♒07'42	
	3779 Feb 11 07:11	0°♓	
max. Earth dist.	3779 Mar 04 15:14	16°♓45'38	2.37032 AU
conjunction	3779 Mar 17 07:47	26°♓47'08	-0°59'09
minimum elong	3779 Mar 17 10:13	26°♓51'58	0°59'08
	3779 Mar 21 09:20	0°♈	
	3779 Apr 28 11:08	0°♉	
morning rise	3779 May 27 20:31	22°♉44'12	
	3779 Jun 06 09:44	0°♊	
asc. node	3779 Jul 02 00:38	19°♊06'30	
	3779 Jul 17 00:04	0°♋	
	3779 Aug 28 22:26	0°♌	
	3779 Oct 14 00:23	0°♍	
	3779 Dec 04 09:03	0°♎	
retrograde	3780 Feb 29 05:30	29°♎39'59	
opposition	3780 Apr 08 23:46	20°♎18'09	3°07'01
greatest brilliancy	3780 Apr 09 06:11	20°♎11'50	-1.3m
min. Earth dist.	3780 Apr 11 08:19	19°♎22'23	0.67144 AU
direct	3780 May 20 09:54	10°♎17'28	
desc. node	3780 Jul 13 07:09	23°♎54'21	
	3780 Jul 26 12:41	0°♏	
	3780 Sep 17 20:07	0°♐	
	3780 Nov 01 23:59	0°♑	
	3780 Dec 13 06:02	0°♒	
	3781 Jan 21 07:03	0°♓	
	3781 Feb 28 08:35	0°♈	
evening set	3781 Mar 22 07:58	17°♈20'36	
	3781 Apr 07 11:49	0°♉	
	3781 May 16 14:30	0°♊	
asc. node	3781 May 18 23:06	1°♊46'22	
conjunction	3781 May 28 16:08	9°♊01'23	0°06'31
minimum elong	3781 May 28 15:36	9°♊00'23	0°06'29
behind sun begin	3781 May 27 14:28	8°♊13'43	
behind sun end	3781 May 29 16:44	9°♊47'00	
	3781 Jun 26 09:30	0°♋	
max. Earth dist.	3781 Jul 12 23:33	11°♋47'05	2.48306 AU
morning rise	3781 Jul 28 17:11	22°♋44'32	
	3781 Aug 08 07:18	0°♌	
	3781 Sep 22 13:21	0°♍	
	3781 Nov 09 10:31	0°♎	
	3781 Dec 31 10:20	0°♏	
	3782 Mar 09 15:36	0°♐	
retrograde	3782 Apr 07 13:25	4°♐24'53	
	3782 May 04 04:03	30°℞♏	
opposition	3782 May 15 12:37	25°♏57'19	0°37'30
greatest brilliancy	3782 May 15 16:25	25°♏53'43	-1.6m
min. Earth dist.	3782 May 21 13:48	23°♏39'08	0.60762 AU
desc. node	3782 May 31 05:48	20°♏15'24	
direct	3782 Jun 25 14:00	16°♏04'30	
	3782 Aug 16 22:10	0°♐	
	3782 Oct 08 20:09	0°♑	
	3782 Nov 21 02:57	0°♒	
	3782 Dec 30 22:56	0°♓	
	3783 Feb 07 11:44	0°♈	
	3783 Mar 18 01:42	0°♉	
asc. node	3783 Apr 05 21:19	14°♉23'00	
	3783 Apr 26 16:33	0°♊	
evening set	3783 May 27 21:09	22°♊46'23	
	3783 Jun 07 00:23	0°♋	
	3783 Jul 20 08:21	0°♌	
conjunction	3783 Jul 22 22:45	1°♌45'25	0°57'11
minimum elong	3783 Jul 22 21:13	1°♌42'49	0°57'10

max. Earth dist.	3783 Aug 16 03:33	17°♌54'02	2.59906 AU
	3783 Sep 03 15:06	0°♍	
morning rise	3783 Sep 11 08:11	4°♍59'53	
	3783 Oct 20 13:36	0°♎	
	3783 Dec 08 00:41	0°♏	
	3784 Jan 27 18:10	0°♐	
	3784 Mar 25 02:39	0°♑	
desc. node	3784 Apr 17 04:35	9°♑23'56	
retrograde	3784 May 26 06:51	17°♑07'15	
opposition	3784 Jun 29 16:58	10°♑13'45	-3°22'34
greatest brilliancy	3784 Jun 30 17:03	9°♑53'00	-2.2m
min. Earth dist.	3784 Jul 08 03:40	7°♑19'56	0.48801 AU
direct	3784 Aug 06 12:43	1°♑45'28	
	3784 Oct 20 14:25	0°♒	
	3784 Dec 04 01:48	0°♓	
	3785 Jan 13 17:55	0°♈	
asc. node	3785 Feb 20 21:08	28°♈33'27	
	3785 Feb 22 19:37	0°♉	
	3785 Apr 04 16:50	0°♊	
	3785 May 17 03:26	0°♋	
	3785 Jun 30 08:57	0°♌	
evening set	3785 Jul 15 05:42	9°♌49'55	
	3785 Aug 15 04:35	0°♍	
conjunction	3785 Sep 01 22:10	11°♍24'32	1°07'48
minimum elong	3785 Sep 01 22:27	11°♍24'58	1°07'48
max. Earth dist.	3785 Sep 09 15:53	16°♍21'42	2.66442 AU
	3785 Oct 01 01:21	0°♎	
morning rise	3785 Oct 17 09:05	10°♎21'55	
	3785 Nov 17 08:54	0°♏	
	3786 Jan 03 18:56	0°♐	
	3786 Feb 20 10:27	0°♑	
desc. node	3786 Mar 05 03:57	7°♑56'15	
	3786 Apr 10 04:00	0°♒	
	3786 Jun 02 06:45	0°♓	
retrograde	3786 Aug 07 17:48	20°♓52'04	
opposition	3786 Sep 06 20:30	15°♓54'18	-6°38'16
greatest brilliancy	3786 Sep 07 14:19	15°♓42'20	-2.9m
min. Earth dist.	3786 Sep 09 12:40	15°♓11'13	0.37661 AU
direct	3786 Oct 07 10:19	10°♓40'47	
	3786 Dec 06 06:51	0°♈	
asc. node	3787 Jan 08 20:39	19°♈50'59	
	3787 Jan 24 17:22	0°♉	
	3787 Mar 11 03:05	0°♊	
	3787 Apr 25 10:01	0°♋	
	3787 Jun 10 13:04	0°♌	
	3787 Jul 27 12:58	0°♍	
evening set	3787 Aug 24 01:46	17°♍26'22	
	3787 Sep 12 21:46	0°♎	
max. Earth dist.	3787 Oct 02 10:46	12°♎24'41	2.67528 AU
conjunction	3787 Oct 08 15:44	16°♎21'54	0°50'25
minimum elong	3787 Oct 08 16:48	16°♎23'36	0°50'25
	3787 Oct 29 23:04	0°♏	
morning rise	3787 Nov 21 18:28	14°♏43'47	
	3787 Dec 15 03:25	0°♐	
desc. node	3788 Jan 21 02:27	24°♐33'53	
	3788 Jan 29 04:08	0°♑	
	3788 Mar 13 01:11	0°♒	
	3788 Apr 24 23:06	0°♓	
	3788 Jun 06 11:42	0°♈	
	3788 Jul 20 07:08	0°♉	
	3788 Sep 11 01:00	0°♊	
retrograde	3788 Oct 19 04:11	9°♊13'40	
min. Earth dist.	3788 Nov 15 01:12	4°♊21'31	0.42771 AU
opposition	3788 Nov 23 00:46	1°♊44'04	-0°10'27
greatest brilliancy	3788 Apr 13 13:08	21°♒58'05	0.4m
asc. node	3788 Nov 25 19:12	0°♊50'06	
	3788 Nov 28 11:07	30°℞♉	
direct	3788 Dec 24 12:29	25°♉36'27	
	3789 Jan 20 21:17	0°♊	
	3789 Mar 27 06:13	0°♋	
	3789 May 18 02:54	0°♌	
	3789 Jul 06 19:22	0°♍	
	3789 Aug 24 10:32	0°♎	
evening set	3789 Sep 28 19:14	22°♎17'50	
	3789 Oct 10 19:47	0°♏	
max. Earth dist.	3789 Oct 25 10:06	9°♏26'40	2.63183 AU
conjunction	3789 Nov 13 07:28	21°♏50'28	0°13'43
minimum elong	3789 Nov 13 07:55	21°♏51'13	0°13'43
behind sun begin	3789 Nov 12 21:47	21°♏34'27	
behind sun end	3789 Nov 13 18:04	22°♏08'00	
	3789 Nov 25 13:49	0°♐	
desc. node	3789 Dec 08 00:49	8°♐23'08	
morning rise	3789 Dec 29 08:25	22°♐57'50	
	3790 Jan 08 11:35	0°♑	
	3790 Feb 19 14:52	0°♒	
	3790 Apr 01 06:34	0°♓	
	3790 May 10 23:07	0°♈	
	3790 Jun 19 11:38	0°♉	
	3790 Jul 30 02:54	0°♊	
	3790 Sep 12 09:25	0°♋	
asc. node	3790 Oct 13 18:24	17°♋56'53	
	3790 Nov 12 00:53	0°♌	
retrograde	3790 Dec 06 19:16	3°♌55'29	
	3790 Dec 30 04:59	30°℞♋	
min. Earth dist.	3791 Jan 07 22:25	26°♋54'27	0.55973 AU
opposition	3791 Jan 14 16:35	24°♋17'07	3°55'37
greatest brilliancy	3791 Jan 13 16:50	24°♋40'15	-1.8m
direct	3791 Feb 19 19:46	16°♋07'17	
	3791 Apr 15 06:15	0°♌	
	3791 Jun 13 22:34	0°♍	
	3791 Aug 04 17:40	0°♎	
	3791 Sep 22 06:31	0°♏	
desc. node	3791 Oct 26 00:19	21°♏53'26	
evening set	3791 Nov 06 05:41	29°♏22'22	
	3791 Nov 07 04:05	0°♐	
max. Earth dist.	3791 Nov 22 19:49	10°♐37'39	2.53741 AU
	3791 Dec 20 14:30	0°♑	
conjunction	3791 Dec 25 03:47	3°♑14'19	-0°33'24
minimum elong	3791 Dec 25 02:28	3°♑11'58	0°33'24
	3792 Jan 30 21:22	0°♒	
morning rise	3792 Feb 16 11:59	12°♒26'45	
	3792 Mar 10 12:45	0°♓	
	3792 Apr 18 04:53	0°♈	
	3792 May 26 17:07	0°♉	
	3792 Jul 04 23:56	0°♊	
	3792 Aug 15 04:43	0°♋	
asc. node	3792 Aug 30 17:43	10°♋45'58	
	3792 Sep 29 01:44	0°♌	
	3792 Nov 22 11:57	0°♍	
retrograde	3793 Jan 12 08:17	13°♍15'00	
min. Earth dist.	3793 Feb 18 11:52	4°♍30'32	0.65122 AU
opposition	3793 Feb 21 12:39	3°♍17'38	4°37'34
greatest brilliancy	3793 Feb 21 00:26	3°♍29'53	-1.4m
	3793 Mar 02 00:30	30°℞♌	
direct	3793 Apr 01 19:16	23°♌59'37	
	3793 May 06 01:55	0°♍	
	3793 Jul 11 13:55	0°♎	
	3793 Sep 01 08:33	0°♏	
desc. node	3793 Sep 11 23:31	6°♏34'53	
	3793 Oct 18 05:13	0°♐	

	3793 Nov 30 16:52	0°♉		
evening set	3793 Dec 21 11:53	15°♉02'39		
max. Earth dist.	3794 Jan 09 09:47	29°♉05'15	2.40873 AU	
	3794 Jan 10 14:55	0°♒		
conjunction	3794 Feb 17 19:03	29°♒15'30	-1°04'53	
minimum elong	3794 Feb 17 18:48	29°♒15'01	1°04'53	
	3794 Feb 18 17:54	0°♓		
	3794 Mar 28 22:18	0°♈		
morning rise	3794 Apr 27 08:13	23°♈10'37		
	3794 May 06 01:19	0°♉		
	3794 Jun 14 00:02	0°♊		
asc. node	3794 Jul 18 15:46	25°♊41'54		
	3794 Jul 24 14:45	0°♋		
	3794 Sep 05 17:30	0°♌		
	3794 Oct 22 14:26	0°♍		
	3794 Dec 16 14:32	0°♎		
retrograde	3795 Feb 15 16:34	17°♎02'48		
opposition	3795 Mar 27 18:51	7°♎26'32	3°45'24	
greatest brilliancy	3795 Mar 27 21:26	7°♎23'58	-1.3m	
min. Earth dist.	3795 Mar 28 15:07	7°♎06'24	0.67883 AU	
	3795 Apr 18 07:10	30°℞♍		
direct	3795 May 07 20:44	27°♍32'47		
	3795 May 28 22:30	0°♎		
desc. node	3795 Jul 30 21:53	25°♎23'07		
	3795 Aug 08 11:51	0°♏		
	3795 Sep 27 13:54	0°♐		
	3795 Nov 10 22:54	0°♑		
	3795 Dec 21 23:49	0°♒		
	3796 Jan 29 23:32	0°♓		
evening set	3796 Feb 22 11:56	18°♓30'49		
	3796 Mar 08 00:13	0°♈		
	3796 Apr 15 01:44	0°♉		
conjunction	3796 May 01 10:30	12°♉42'58	-0°22'51	
minimum elong	3796 May 01 12:39	12°♉47'06	0°22'49	
	3796 May 24 01:26	0°♊		
asc. node	3796 Jun 04 15:26	8°♊41'40		
max. Earth dist.	3796 Jun 22 05:19	21°♊40'17	2.42823 AU	
	3796 Jul 03 16:58	0°♋		
morning rise	3796 Jul 07 03:36	2°♋28'22		
	3796 Aug 15 12:50	0°♌		
	3796 Sep 29 22:26	0°♍		
	3796 Nov 17 15:02	0°♎		
	3797 Jan 11 23:06	0°♏		
retrograde	3797 Mar 22 20:34	20°♏36'22		
opposition	3797 Apr 30 16:32	11°♏44'13	1°44'36	
greatest brilliancy	3797 May 01 00:08	11°♏36'51	-1.5m	
min. Earth dist.	3797 May 05 08:03	9°♏56'10	0.64015 AU	
direct	3797 Jun 11 02:50	1°♏42'59		
desc. node	3797 Jun 16 20:20	1°♏55'17		
	3797 Aug 31 16:39	0°♐		
	3797 Oct 18 18:44	0°♑		
	3797 Nov 29 22:27	0°♒		
	3798 Jan 08 07:57	0°♓		
	3798 Feb 15 14:25	0°♈		
	3798 Mar 25 22:34	0°♉		
asc. node	3798 Apr 22 15:09	21°♉13'30		
evening set	3798 May 04 01:42	29°♉50'09		
	3798 May 04 06:58	0°♊		
	3798 Jun 14 08:01	0°♋		
conjunction	3798 Jul 03 13:28	13°♋34'10	0°42'45	
minimum elong	3798 Jul 03 11:29	13°♋30'42	0°42'45	
	3798 Jul 27 10:11	0°♌		
max. Earth dist.	3798 Aug 04 15:40	5°♌34'02	2.55876 AU	
morning rise	3798 Aug 26 07:50	20°♌00'24		
	3798 Sep 10 14:23	0°♍		
	3798 Oct 27 17:44	0°♎		
	3798 Dec 16 02:08	0°♏		
	3799 Feb 07 16:40	0°♐		
desc. node	3799 May 04 19:23	29°♐08'22		
retrograde	3799 May 05 21:41	29°♐08'48		
opposition	3799 Jun 10 22:07	21°♐32'12	-1°37'46	
greatest brilliancy	3799 Jun 11 09:08	21°♐22'11	-1.9m	
min. Earth dist.	3799 Jun 18 18:33	18°♐41'12	0.53961 AU	
direct	3799 Jul 20 11:42	12°♐16'24		
	3799 Sep 16 14:40	0°♑		
	3799 Nov 04 08:55	0°♒		
	3799 Dec 15 22:13	0°♓		
	3800 Jan 24 08:40	0°♈		
	3800 Mar 04 15:03	0°♉		
asc. node	3800 Mar 10 13:21	4°♉29'01		
	3800 Apr 13 20:37	0°♊		
	3800 May 25 17:54	0°♋		
evening set	3800 Jun 28 13:51	23°♋17'19		
	3800 Jul 08 12:51	0°♌		
conjunction	3800 Aug 18 13:04	27°♌03'50	1°07'37	
minimum elong	3800 Aug 18 12:42	27°♌03'14	1°07'37	
	3800 Aug 23 01:36	0°♍		
max. Earth dist.	3800 Sep 01 05:43	5°♍55'57	2.64521 AU	
morning rise	3800 Oct 04 10:32	27°♍10'59		
	3800 Oct 08 20:58	0°♎		
	3800 Nov 25 11:44	0°♏		
	3801 Jan 12 19:09	0°♐		
	3801 Mar 03 12:24	0°♑		
desc. node	3801 Mar 22 18:22	11°♑07'41		
	3801 Apr 26 19:23	0°♒		
retrograde	3801 Jul 07 22:10	22°♒34'53		
opposition	3801 Aug 08 07:07	17°♒02'33	-6°07'20	
greatest brilliancy	3801 Aug 09 18:11	16°♒36'39	-2.7m	
min. Earth dist.	3801 Aug 15 04:30	15°♒00'56	0.40917 AU	
direct	3801 Sep 10 20:26	10°♒34'28		
	3801 Nov 08 21:13	0°♓		
	3801 Dec 26 09:30	0°♈		
asc. node	3802 Jan 26 12:12	21°♈36'24		
	3802 Feb 07 10:22	0°♉		
	3802 Mar 22 04:34	0°♊		
	3802 May 04 23:09	0°♋		
	3802 Jun 19 03:35	0°♌		
	3802 Aug 04 13:47	0°♍		
evening set	3802 Aug 10 05:44	3°♍37'22		
	3802 Sep 20 16:07	0°♎		
conjunction	3802 Sep 25 15:11	3°♎09'10	0°59'51	
minimum elong	3802 Sep 25 16:07	3°♎10'38	0°59'51	
max. Earth dist.	3802 Sep 24 16:06	2°♎32'29	2.67750 AU	
	3802 Nov 06 18:08	0°♏		
morning rise	3802 Nov 08 21:43	1°♏22'33		
	3802 Dec 23 07:05	0°♐		
desc. node	3803 Feb 07 17:35	0°♑25'54		
	3803 Feb 07 01:55	0°♑		
	3803 Mar 24 04:46	0°♒		
	3803 May 08 00:30	0°♓		
	3803 Jun 22 19:29	0°♈		
	3803 Aug 15 00:54	0°♉		
retrograde	3803 Sep 26 03:20	10°♉42'01		
min. Earth dist.	3803 Oct 22 20:22	6°♉14'50	0.38644 AU	
opposition	3803 Oct 28 06:37	4°♉40'21	-3°10'54	
greatest brilliancy	3803 Oct 27 18:36	4°♉49'06	-2.9m	
	3803 Nov 18 00:01	30°℞♈		
direct	3803 Nov 27 04:10	29°♈26'20		
	3803 Dec 06 09:24	0°♉		

asc. node	3803 Dec 14 12:16	1°♉21'27	
	3804 Feb 18 16:32	0°♊	
	3804 Apr 09 09:58	0°♋	
	3804 May 28 01:35	0°♌	
	3804 Jul 15 09:31	0°♍	
	3804 Sep 01 09:55	0°♎	
evening set	3804 Sep 15 13:36	8°♎55'26	
max. Earth dist.	3804 Oct 16 18:53	28°♎49'32	2.65531 AU
	3804 Oct 18 14:42	0°♏	
conjunction	3804 Oct 30 17:57	7°♏50'37	0°29'47
minimum elong	3804 Oct 30 18:49	7°♏52'01	0°29'47
	3804 Dec 03 11:25	0°♐	
morning rise	3804 Dec 14 13:45	7°♐25'08	
desc. node	3804 Dec 25 16:39	14°♐55'17	
	3805 Jan 16 17:38	0°♑	
	3805 Feb 28 09:45	0°♒	
	3805 Apr 10 17:00	0°♓	
	3805 May 21 02:40	0°♈	
	3805 Jun 30 11:57	0°♉	
	3805 Aug 11 15:05	0°♊	
	3805 Sep 29 20:38	0°♋	
asc. node	3805 Oct 31 10:18	12°♋38'35	
retrograde	3805 Nov 20 20:38	15°♋27'15	
min. Earth dist.	3805 Dec 20 17:36	9°♋16'40	0.50981 AU
opposition	3805 Dec 28 14:54	6°♋20'14	2°54'47
greatest brilliancy	3805 Dec 27 17:26	6°♋40'21	-2.1m
	3806 Jan 19 00:52	30°℞♊	
direct	3806 Feb 01 03:14	28°♊50'38	
	3806 Feb 14 19:38	0°♋	
	3806 May 01 10:37	0°♌	
	3806 Jun 24 03:28	0°♍	
	3806 Aug 13 07:54	0°♎	
	3806 Sep 30 07:20	0°♏	
evening set	3806 Oct 22 17:22	14°♏30'09	
max. Earth dist.	3806 Nov 11 19:20	27°♏47'27	2.58029 AU
desc. node	3806 Nov 12 15:32	28°♏21'15	
	3806 Nov 15 02:27	0°♐	
conjunction	3806 Dec 08 18:24	16°♐06'13	-0°14'48
minimum elong	3806 Dec 08 17:49	16°♐05'14	0°14'48
behind sun begin	3806 Dec 08 09:31	15°♐50'55	
behind sun end	3806 Dec 09 02:08	16°♐19'33	
	3806 Dec 28 16:31	0°♑	
morning rise	3807 Jan 27 07:37	21°♑14'47	
	3807 Feb 08 06:17	0°♒	
	3807 Mar 20 05:38	0°♓	
	3807 Apr 28 05:07	0°♈	
	3807 Jun 05 23:48	0°♉	
	3807 Jul 15 13:44	0°♊	
	3807 Aug 26 08:41	0°♋	
asc. node	3807 Sep 18 09:20	15°♋22'14	
	3807 Oct 12 04:11	0°♌	
retrograde	3807 Dec 31 11:23	29°♌12'06	
min. Earth dist.	3808 Feb 04 19:26	21°♌03'36	0.62267 AU
opposition	3808 Feb 09 08:26	19°♌14'53	4°35'59
greatest brilliancy	3808 Feb 08 14:14	19°♌33'04	-1.5m
direct	3808 Mar 18 13:22	10°♌18'43	
	3808 May 25 21:08	0°♍	
	3808 Jul 21 22:58	0°♎	
	3808 Sep 10 01:35	0°♏	
desc. node	3808 Sep 29 14:15	12°♏22'34	
	3808 Oct 26 10:41	0°♐	
evening set	3808 Dec 03 00:19	25°♐50'41	
	3808 Dec 08 20:55	0°♑	
max. Earth dist.	3808 Dec 17 08:25	6°♑04'15	2.46067 AU
	3809 Jan 18 21:52	0°♒	
conjunction	3809 Jan 25 16:15	5°♒05'12	-0°57'56
minimum elong	3809 Jan 25 14:36	5°♒02'05	0°57'55
	3809 Feb 27 05:08	0°♓	
morning rise	3809 Mar 28 20:41	23°♓09'55	
	3809 Apr 06 13:19	0°♈	
	3809 May 14 18:52	0°♉	
	3809 Jun 22 19:02	0°♊	
	3809 Aug 02 11:56	0°♋	
asc. node	3809 Aug 05 09:47	2°♋04'48	
	3809 Sep 14 23:15	0°♌	
	3809 Nov 02 05:41	0°♍	
	3810 Jan 06 09:25	0°♎	
retrograde	3810 Feb 03 09:47	4°♎23'10	
	3810 Mar 01 05:51	30°℞♍	
opposition	3810 Mar 15 16:04	24°♍35'38	4°14'04
min. Earth dist.	3810 Mar 14 23:50	24°♍51'52	0.67581 AU
greatest brilliancy	3810 Mar 15 13:24	24°♍38'18	-1.3m
direct	3810 Apr 25 04:49	14°♍52'45	
	3810 Jun 22 11:21	0°♎	
desc. node	3810 Aug 17 12:53	28°♎59'09	
	3810 Aug 19 06:46	0°♏	
	3810 Oct 06 15:35	0°♐	
	3810 Nov 19 13:20	0°♑	
	3810 Dec 30 11:56	0°♒	
evening set	3811 Jan 27 13:44	21°♒28'59	
	3811 Feb 07 12:12	0°♓	
	3811 Mar 17 13:38	0°♈	
conjunction	3811 Apr 03 21:49	13°♈42'44	-0°49'10
minimum elong	3811 Apr 04 01:10	13°♈49'22	0°49'08
	3811 Apr 24 15:00	0°♉	
max. Earth dist.	3811 May 13 18:15	14°♉52'12	2.37851 AU
	3811 Jun 02 13:23	0°♊	
morning rise	3811 Jun 13 19:59	8°♊28'58	
asc. node	3811 Jun 23 08:28	15°♊33'32	
	3811 Jul 13 03:04	0°♋	
	3811 Aug 24 23:03	0°♌	
	3811 Oct 09 16:07	0°♍	
	3811 Nov 28 16:54	0°♎	
	3812 Jan 30 20:16	0°♏	
retrograde	3812 Mar 09 06:17	7°♏28'31	
	3812 Apr 13 06:28	30°℞♎	
opposition	3812 Apr 17 17:34	28°♎16'11	2°39'39
greatest brilliancy	3812 Apr 18 01:08	28°♎08'45	-1.4m
min. Earth dist.	3812 Apr 20 21:43	27°♎01'26	0.66309 AU
direct	3812 May 29 05:11	18°♎13'44	
desc. node	3812 Jul 04 11:29	25°♎05'01	
	3812 Jul 17 10:09	0°♏	
	3812 Sep 12 15:53	0°♐	
	3812 Oct 28 15:33	0°♑	
	3812 Dec 09 04:30	0°♒	
	3813 Jan 17 08:09	0°♓	
	3813 Feb 24 10:49	0°♈	
	3813 Apr 03 15:03	0°♉	
evening set	3813 Apr 08 08:41	3°♉40'49	
asc. node	3813 May 10 06:49	28°♉07'07	
	3813 May 12 18:47	0°♊	
conjunction	3813 Jun 12 12:55	22°♊43'47	0°21'32
minimum elong	3813 Jun 12 11:25	22°♊41'02	0°21'30
	3813 Jun 22 14:45	0°♋	
max. Earth dist.	3813 Jul 23 05:34	21°♋33'17	2.51174 AU
	3813 Aug 04 12:59	0°♌	
morning rise	3813 Aug 09 16:46	3°♌30'14	
	3813 Sep 18 16:50	0°♍	
	3813 Nov 05 05:08	0°♎	
	3813 Dec 25 22:40	0°♏	

	3814 Feb 23 09:42	0°♐		
retrograde	3814 Apr 18 06:54	13°♐17'33		
desc. node	3814 May 22 09:59	6°♐17'38		
opposition	3814 May 25 14:58	5°♐06'14	-0°07'56	
greatest brilliancy	3812 Nov 11 22:00	10°♑02'21	1.1m	
min. Earth dist.	3814 Jun 01 08:48	2°♐34'09	0.58559 AU	
	3814 Jun 08 16:12	30°℞♏		
direct	3814 Jul 05 06:23	25°♏22'46		
	3814 Aug 02 08:11	0°♐		
	3814 Oct 02 13:42	0°♑		
	3814 Nov 16 02:34	0°♒		
	3814 Dec 26 09:53	0°♓		
	3815 Feb 03 04:41	0°♈		
	3815 Mar 13 23:05	0°♉		
asc. node	3815 Mar 28 06:30	10°♉54'50		
	3815 Apr 22 17:42	0°♊		
	3815 Jun 03 04:43	0°♋		
evening set	3815 Jun 10 00:21	4°♋48'04		
	3815 Jul 16 15:14	0°♌		
conjunction	3815 Aug 03 00:25	11°♌38'42	1°02'36	
minimum elong	3815 Aug 02 23:18	11°♌36'50	1°02'35	
max. Earth dist.	3815 Aug 23 06:11	24°♌59'04	2.61768 AU	
	3815 Aug 30 22:50	0°♍		
morning rise	3815 Sep 20 22:55	13°♍33'26		
	3815 Oct 16 19:04	0°♎		
	3815 Dec 03 20:57	0°♏		
	3816 Jan 22 11:58	0°♐		
	3816 Mar 15 21:10	0°♑		
desc. node	3816 Apr 08 09:55	11°♑37'34		
retrograde	3816 Jun 10 00:18	29°♑07'53		
opposition	3816 Jul 13 10:42	22°♑42'26	-4°26'31	
greatest brilliancy	3816 Jul 14 17:36	22°♑16'59	-2.4m	
min. Earth dist.	3816 Jul 21 20:23	19°♑57'35	0.45825 AU	
direct	3816 Aug 18 22:07	14°♑51'53		
	3816 Oct 09 07:26	0°♒		
	3816 Nov 27 02:10	0°♓		
	3817 Jan 08 01:43	0°♈		
asc. node	3817 Feb 12 04:51	25°♈50'58		
	3817 Feb 17 20:29	0°♉		
	3817 Mar 31 05:37	0°♊		
	3817 May 13 00:54	0°♋		
	3817 Jun 26 12:52	0°♌		
evening set	3817 Jul 25 14:51	19°♌04'02		
	3817 Aug 11 12:24	0°♍		
conjunction	3817 Sep 11 07:45	19°♍44'23	1°05'57	
minimum elong	3817 Sep 11 08:20	19°♍45'17	1°05'56	
max. Earth dist.	3817 Sep 15 22:02	22°♍40'08	2.67145 AU	
	3817 Sep 27 10:20	0°♎		
morning rise	3817 Oct 26 05:05	18°♎17'28		
	3817 Nov 13 15:16	0°♏		
	3817 Dec 30 16:34	0°♐		
	3818 Feb 15 13:09	0°♑		
desc. node	3818 Feb 24 09:04	5°♑39'09		
	3818 Apr 03 14:41	0°♒		
	3818 May 22 04:28	0°♓		
	3818 Jul 18 12:58	0°♈		
retrograde	3818 Aug 27 05:12	8°♈57'40		
opposition	3818 Sep 26 07:32	3°♈56'44	-5°55'45	
greatest brilliancy	3818 Sep 26 10:02	3°♈55'05	-3.0m	
min. Earth dist.	3818 Sep 25 20:59	4°♈03'41	0.37061 AU	
	3818 Oct 13 18:09	30°℞♓		
direct	3818 Oct 25 19:41	29°♓02'25		
	3818 Nov 06 22:48	0°♈		
asc. node	3818 Dec 31 03:29	21°♈15'13		
	3819 Jan 15 13:15	0°♉		
	3819 Mar 04 21:35	0°♊		
	3819 Apr 20 11:16	0°♋		
	3819 Jun 06 07:10	0°♌		
	3819 Jul 23 16:32	0°♍		
evening set	3819 Sep 02 08:24	25°♍38'09		
	3819 Sep 09 06:07	0°♎		
max. Earth dist.	3819 Oct 08 15:09	18°♎39'07	2.67054 AU	
conjunction	3819 Oct 17 15:50	24°♎25'20	0°43'34	
minimum elong	3819 Oct 17 16:53	24°♎27'02	0°43'34	
	3819 Oct 26 08:26	0°♏		
morning rise	3819 Nov 30 20:54	23°♏03'48		
	3819 Dec 11 09:49	0°♐		
desc. node	3820 Jan 12 07:16	21°♐17'28		
	3820 Jan 25 03:35	0°♑		
	3820 Mar 08 13:13	0°♒		
	3820 Apr 19 19:05	0°♓		
	3820 May 31 08:25	0°♈		
	3820 Jul 12 09:29	0°♉		
	3820 Aug 27 08:32	0°♊		
retrograde	3820 Nov 01 12:46	23°♊43'23		
asc. node	3820 Nov 17 03:40	21°♊55'38		
min. Earth dist.	3820 Nov 29 05:27	18°♊26'06	0.45588 AU	
opposition	3820 Dec 07 14:06	15°♊32'07	1°11'47	
greatest brilliancy	3820 Dec 07 04:03	15°♊40'51	-2.4m	
direct	3821 Jan 09 05:16	8°♊53'20		
	3821 Mar 18 11:55	0°♋		
	3821 May 12 16:54	0°♌		
	3821 Jul 02 11:38	0°♍		
	3821 Aug 20 14:20	0°♎		
	3821 Oct 07 04:29	0°♏		
evening set	3821 Oct 08 00:51	0°♏32'43		
max. Earth dist.	3821 Nov 01 04:38	16°♏13'54	2.61557 AU	
	3821 Nov 21 22:58	0°♐		
conjunction	3821 Nov 22 22:15	0°♐38'58	0°03'36	
minimum elong	3821 Nov 22 22:23	0°♐39'13	0°03'37	
behind sun begin	3821 Nov 22 03:17	0°♐07'14		
behind sun end	3821 Nov 23 17:30	1°♐11'13		
desc. node	3821 Nov 29 06:02	4°♐54'09		
	3822 Jan 04 18:09	0°♑		
morning rise	3822 Jan 08 22:39	2°♑56'24		
	3822 Feb 15 16:30	0°♒		
	3822 Mar 28 02:07	0°♓		
	3822 May 06 11:50	0°♈		
	3822 Jun 14 16:39	0°♉		
	3822 Jul 24 19:47	0°♊		
	3822 Sep 05 19:06	0°♋		
asc. node	3822 Oct 05 02:55	18°♋11'34		
	3822 Oct 27 10:25	0°♌		
retrograde	3822 Dec 16 17:47	13°♌51'44		
min. Earth dist.	3823 Jan 19 01:32	6°♌24'57	0.58438 AU	
greatest brilliancy	3823 Jan 24 02:42	4°♌25'47	-1.7m	
opposition	3823 Jan 25 01:25	4°♌03'23	4°17'08	
	3823 Feb 05 01:51	30°℞♋		
direct	3823 Mar 02 23:12	25°♋35'13		
	3823 Mar 31 11:35	0°♌		
	3823 Jun 08 03:58	0°♍		
	3823 Jul 31 09:17	0°♎		
	3823 Sep 18 10:20	0°♏		
desc. node	3823 Oct 17 05:06	18°♏31'40		
	3823 Nov 03 12:09	0°♐		
evening set	3823 Nov 16 12:50	8°♐49'00		
max. Earth dist.	3823 Dec 01 17:21	19°♐17'14	2.51141 AU	
	3823 Dec 16 23:01	0°♑		
conjunction	3824 Jan 05 20:17	14°♑17'37	-0°43'27	

minimum elong	3824 Jan 05 18:38	14°♑14'38	0°43'27
	3824 Jan 27 04:04	0°♒	
morning rise	3824 Mar 01 22:08	26°♒19'38	
	3824 Mar 06 16:38	0°♓	
	3824 Apr 14 05:34	0°♈	
	3824 May 22 14:44	0°♉	
	3824 Jun 30 18:06	0°♊	
	3824 Aug 10 16:24	0°♋	
asc. node	3824 Aug 22 01:15	7°♋59'28	
	3824 Sep 23 20:10	0°♌	
	3824 Nov 13 21:14	0°♍	
retrograde	3825 Jan 21 02:42	21°♍24'25	
min. Earth dist.	3825 Feb 28 03:54	12°♍22'10	0.66275 AU
opposition	3825 Mar 02 08:42	11°♍29'15	4°32'22
greatest brilliancy	3825 Mar 01 23:58	11°♍38'01	-1.3m
direct	3825 Apr 11 03:12	2°♍01'17	
	3825 Jul 05 13:47	0°♎	
	3825 Aug 27 22:43	0°♏	
desc. node	3825 Sep 03 03:30	3°♏46'08	
	3825 Oct 14 07:00	0°♐	
	3825 Nov 26 22:34	0°♑	
evening set	3826 Jan 03 16:11	27°♑35'17	
	3826 Jan 06 21:17	0°♒	
max. Earth dist.	3826 Jan 31 16:42	18°♒54'47	2.38385 AU
	3826 Feb 14 23:42	0°♓	
conjunction	3826 Mar 05 21:39	14°♓49'43	-1°03'28
minimum elong	3826 Mar 05 22:54	14°♓52'11	1°03'28
	3826 Mar 25 03:01	0°♈	
	3826 May 02 05:00	0°♉	
morning rise	3826 May 15 17:34	10°♉31'57	
	3826 Jun 10 02:48	0°♊	
asc. node	3826 Jul 10 00:56	22°♊17'18	
	3826 Jul 20 15:45	0°♋	
	3826 Sep 01 14:02	0°♌	
	3826 Oct 17 20:34	0°♍	
	3826 Dec 09 06:37	0°♎	
retrograde	3827 Feb 24 10:25	24°♎44'48	
opposition	3827 Apr 05 08:21	15°♎16'04	3°24'04
greatest brilliancy	3827 Apr 05 13:15	15°♎11'12	-1.3m
min. Earth dist.	3827 Apr 07 00:27	14°♎36'19	0.67594 AU
direct	3827 May 16 15:05	5°♎17'58	
desc. node	3827 Jul 22 02:28	24°♎30'46	
	3827 Aug 02 03:25	0°♏	
	3827 Sep 22 23:21	0°♐	
	3827 Nov 06 20:11	0°♑	
	3827 Dec 18 01:05	0°♒	
	3828 Jan 26 02:15	0°♓	
	3828 Mar 04 03:29	0°♈	
evening set	3828 Mar 10 16:31	5°♈10'38	
	3828 Apr 11 05:35	0°♉	
conjunction	3828 May 18 04:56	28°♉27'02	-0°05'57
minimum elong	3828 May 18 05:27	28°♉28'00	0°05'57
behind sun begin	3828 May 17 02:58	27°♉37'54	
behind sun end	3828 May 19 07:57	29°♉18'03	
	3828 May 20 06:10	0°♊	
asc. node	3828 May 26 23:38	5°♊03'39	
	3828 Jun 29 22:16	0°♋	
max. Earth dist.	3828 Jul 06 00:19	4°♋21'47	2.45880 AU
morning rise	3828 Jul 20 18:04	14°♋47'40	
	3828 Aug 11 17:43	0°♌	
	3828 Sep 25 23:21	0°♍	
	3828 Nov 13 02:09	0°♎	
	3829 Jan 05 03:05	0°♏	
retrograde	3829 Apr 01 16:00	28°♏51'02	
opposition	3829 May 10 00:44	20°♏11'48	1°07'04
greatest brilliancy	3829 May 10 06:37	20°♏06'08	-1.5m
min. Earth dist.	3829 May 15 10:44	18°♏06'50	0.62333 AU
desc. node	3829 Jun 08 01:43	11°♏13'14	
direct	3829 Jun 20 06:39	10°♏14'03	
	3829 Aug 24 04:16	0°♐	
	3829 Oct 13 15:42	0°♑	
	3829 Nov 25 10:31	0°♒	
	3830 Jan 04 02:08	0°♓	
	3830 Feb 11 11:47	0°♈	
	3830 Mar 21 22:25	0°♉	
asc. node	3830 Apr 13 21:39	17°♉35'46	
	3830 Apr 30 09:23	0°♊	
evening set	3830 May 18 22:57	13°♊42'41	
	3830 Jun 10 12:49	0°♋	
conjunction	3830 Jul 15 21:16	24°♋40'20	0°51'54
minimum elong	3830 Jul 15 19:28	24°♋37'15	0°51'53
	3830 Jul 23 16:56	0°♌	
max. Earth dist.	3830 Aug 12 11:47	13°♌17'47	2.58212 AU
morning rise	3830 Sep 05 15:20	29°♌11'26	
	3830 Sep 06 21:10	0°♍	
	3830 Oct 23 20:33	0°♎	
	3830 Dec 11 14:55	0°♏	
	3831 Feb 01 07:48	0°♐	
	3831 Apr 04 11:47	0°♑	
desc. node	3831 Apr 26 00:21	6°♑41'06	
retrograde	3831 May 18 13:42	9°♑29'09	
opposition	3831 Jun 22 18:14	2°♑15'01	-2°36'04
greatest brilliancy	3831 Jun 23 12:31	1°♑58'49	-2.1m
	3831 Jun 29 02:30	30°℞♐	
min. Earth dist.	3831 Jul 01 00:38	29°♐19'57	0.51172 AU
direct	3831 Jul 31 10:29	23°♐22'35	
	3831 Sep 02 11:22	0°♑	
	3831 Oct 28 12:34	0°♒	
	3831 Dec 10 11:01	0°♓	
	3832 Jan 19 11:52	0°♈	
	3832 Feb 28 03:10	0°♉	
asc. node	3832 Feb 29 21:23	1°♉19'15	
	3832 Apr 08 15:47	0°♊	
	3832 May 20 18:39	0°♋	
	3832 Jul 03 18:04	0°♌	
evening set	3832 Jul 08 20:49	3°♌24'43	
	3832 Aug 18 09:29	0°♍	
conjunction	3832 Aug 27 11:30	5°♍52'02	1°08'16
minimum elong	3832 Aug 27 11:32	5°♍52'05	1°08'15
max. Earth dist.	3832 Sep 06 18:38	12°♍29'20	2.65699 AU
	3832 Oct 04 05:01	0°♎	
morning rise	3832 Oct 12 11:48	5°♎15'36	
	3832 Nov 20 15:13	0°♏	
	3833 Jan 07 09:36	0°♐	
	3833 Feb 24 19:54	0°♑	
desc. node	3833 Mar 12 23:25	9°♑48'04	
	3833 Apr 16 08:55	0°♒	
	3833 Jun 15 22:42	0°♓	
retrograde	3833 Jul 25 11:22	8°♓21'56	
opposition	3833 Aug 24 22:55	3°♓13'24	-6°38'43
greatest brilliancy	3833 Aug 26 03:17	2°♓53'36	-2.8m
min. Earth dist.	3833 Aug 29 19:38	1°♓52'10	0.38817 AU
	3833 Sep 06 01:52	30°℞♒	
direct	3833 Sep 25 19:01	27°♒30'41	
	3833 Oct 15 00:24	0°♓	
	3833 Dec 16 08:49	0°♈	
asc. node	3834 Jan 16 21:00	20°♈27'46	
	3834 Jan 31 00:20	0°♉	
	3834 Mar 15 23:48	0°♊	
	3834 Apr 29 11:31	0°♋	

	3834 Jun 14 02:45	0°♌		
	3834 Jul 30 19:24	0°♍		
evening set	3834 Aug 18 19:45	12°♍05'35		
	3834 Sep 16 00:58	0°♎		
max. Earth dist.	3834 Sep 29 20:44	8°♎46'51	2.67733 AU	
conjunction	3834 Oct 03 16:51	11°♎13'17	0°54'42	
minimum elong	3834 Oct 03 17:53	11°♎14'56	0°54'41	
	3834 Nov 02 02:42	0°♏		
morning rise	3834 Nov 16 19:32	9°♏27'14		
	3834 Dec 18 11:04	0°♐		
desc. node	3835 Jan 28 22:17	27°♐23'34		
	3835 Feb 01 19:58	0°♑		
	3835 Mar 18 05:23	0°♒		
	3835 Apr 30 21:08	0°♓		
	3835 Jun 13 12:05	0°♈		
	3835 Jul 29 15:00	0°♉		
retrograde	3835 Oct 10 20:08	27°♉47'23		
min. Earth dist.	3835 Nov 06 07:45	23°♉11'31	0.40695 AU	
opposition	3835 Nov 13 12:43	20°♉56'50	-1°23'59	
greatest brilliancy	3835 Nov 13 04:44	21°♉03'04	-2.8m	
asc. node	3835 Dec 04 19:43	15°♉50'33		
direct	3835 Dec 14 04:21	15°♉14'51		
	3836 Feb 06 00:54	0°♊		
	3836 Apr 02 01:25	0°♋		
	3836 May 22 06:45	0°♌		
	3836 Jul 10 07:22	0°♍		
	3836 Aug 27 15:52	0°♎		
evening set	3836 Sep 23 17:09	17°♎02'56		
	3836 Oct 13 23:39	0°♏		
max. Earth dist.	3836 Oct 22 07:44	5°♏22'41	2.64338 AU	
conjunction	3836 Nov 08 00:27	16°♏14'59	0°20'39	
minimum elong	3836 Nov 08 01:06	16°♏16'03	0°20'39	
	3836 Nov 28 19:37	0°♐		
desc. node	3836 Dec 15 20:46	11°♐27'13		
morning rise	3836 Dec 23 10:06	16°♐35'18		
	3837 Jan 11 22:06	0°♑		
	3837 Feb 23 07:40	0°♒		
	3837 Apr 05 06:39	0°♓		
	3837 May 15 06:21	0°♈		
	3837 Jun 24 02:28	0°♉		
	3837 Aug 04 05:06	0°♊		
	3837 Sep 18 19:13	0°♋		
asc. node	3837 Oct 21 18:46	17°♋09'57		
retrograde	3837 Nov 30 18:10	26°♋44'57		
min. Earth dist.	3837 Dec 31 21:34	20°♋05'32	0.53808 AU	
greatest brilliancy	3838 Jan 07 04:54	17°♋40'48	-2.0m	
opposition	3838 Jan 08 04:41	17°♋17'58	3°34'26	
direct	3838 Feb 12 14:31	9°♋24'59		
	3838 Apr 22 12:59	0°♌		
	3838 Jun 18 03:45	0°♍		
	3838 Aug 08 05:31	0°♎		
	3838 Sep 25 13:16	0°♏		
evening set	3838 Oct 31 11:19	23°♏20'34		
desc. node	3838 Nov 02 20:07	24°♏54'54		
	3838 Nov 10 10:45	0°♐		
max. Earth dist.	3838 Nov 18 14:40	5°♐30'15	2.55737 AU	
conjunction	3838 Dec 18 11:07	26°♐05'57	-0°25'38	
minimum elong	3838 Dec 18 10:07	26°♐04'11	0°25'37	
	3838 Dec 24 00:00	0°♑		
	3839 Feb 03 10:49	0°♒		
morning rise	3839 Feb 07 22:33	3°♒19'42		
	3839 Mar 15 06:28	0°♓		
	3839 Apr 23 02:06	0°♈		
	3839 May 31 16:47	0°♉		
	3839 Jul 10 01:42	0°♊		
	3839 Aug 20 10:01	0°♋		
asc. node	3839 Sep 08 18:33	13°♋14'49		
	3839 Oct 04 20:10	0°♌		
	3839 Dec 02 02:00	0°♍		
retrograde	3840 Jan 08 11:59	7°♍49'37		
	3840 Feb 12 04:48	30°℞♌		
min. Earth dist.	3840 Feb 13 20:20	29°♌20'49	0.63962 AU	
opposition	3840 Feb 17 13:42	27°♌51'22	4°38'54	
greatest brilliancy	3840 Feb 16 22:40	28°♌06'26	-1.5m	
direct	3840 Mar 27 09:19	18°♌42'38		
	3840 May 15 10:24	0°♍		
	3840 Jul 15 21:17	0°♎		
	3840 Sep 04 22:56	0°♏		
desc. node	3840 Sep 19 19:24	9°♏17'33		
	3840 Oct 21 15:47	0°♐		
	3840 Dec 04 04:13	0°♑		
evening set	3840 Dec 13 18:33	6°♑52'40		
max. Earth dist.	3840 Dec 29 13:03	18°♑22'18	2.43148 AU	
	3841 Jan 14 04:27	0°♒		
conjunction	3841 Feb 07 20:49	18°♒45'12	-1°03'10	
minimum elong	3841 Feb 07 19:45	18°♒43'10	1°03'10	
	3841 Feb 22 09:58	0°♓		
	3841 Apr 01 16:09	0°♈		
morning rise	3841 Apr 14 18:25	10°♈19'21		
	3841 May 09 19:52	0°♉		
	3841 Jun 17 18:26	0°♊		
asc. node	3841 Jul 26 16:38	28°♊47'59		
	3841 Jul 28 08:38	0°♋		
	3841 Sep 09 12:45	0°♌		
	3841 Oct 26 18:58	0°♍		
	3841 Dec 23 05:55	0°♎		
retrograde	3842 Feb 11 00:49	12°♎08'11		
opposition	3842 Mar 23 05:01	2°♎26'23	3°58'29	
greatest brilliancy	3842 Mar 23 05:23	2°♎26'01	-1.3m	
min. Earth dist.	3842 Mar 23 08:36	2°♎22'48	0.67877 AU	
	3842 Mar 29 09:33	30°℞♍		
direct	3842 May 03 01:26	22°♍37'08		
	3842 Jun 10 11:58	0°♎		
desc. node	3842 Aug 07 17:46	27°♎02'24		
	3842 Aug 13 01:17	0°♏		
	3842 Oct 01 10:00	0°♐		
	3842 Nov 14 15:37	0°♑		
	3842 Dec 25 16:34	0°♒		
	3843 Feb 02 17:13	0°♓		
evening set	3843 Feb 11 08:50	6°♓46'56		
	3843 Mar 12 18:16	0°♈		
	3843 Apr 19 19:08	0°♉		
conjunction	3843 Apr 20 16:00	0°♉40'48	-0°35'10	
minimum elong	3843 Apr 20 19:05	0°♉46'50	0°35'08	
	3843 May 28 17:18	0°♊		
max. Earth dist.	3843 Jun 11 04:17	10°♊06'50	2.40420 AU	
asc. node	3843 Jun 13 15:45	11°♊57'36		
morning rise	3843 Jun 28 15:37	23°♊00'43		
	3843 Jul 08 06:37	0°♋		
	3843 Aug 20 00:47	0°♌		
	3843 Oct 04 11:25	0°♍		
	3843 Nov 22 13:44	0°♎		
	3844 Jan 19 00:52	0°♏		
retrograde	3844 Mar 17 12:26	15°♏23'43		
opposition	3844 Apr 25 15:27	6°♏21'58	2°08'47	
greatest brilliancy	3844 Apr 25 23:19	6°♏14'17	-1.4m	
min. Earth dist.	3844 Apr 29 14:48	4°♏48'55	0.65170 AU	
	3844 May 13 05:51	30°℞♎		
direct	3844 Jun 06 02:48	26°♎19'25		

desc. node	3844 Jun 24 16:19	28°♎18'55	
	3844 Jul 01 19:05	0°♏	
	3844 Sep 05 22:04	0°♐	
	3844 Oct 23 01:50	0°♑	
	3844 Dec 03 23:49	0°♒	
	3845 Jan 12 07:21	0°♓	
	3845 Feb 19 12:08	0°♈	
	3845 Mar 29 17:54	0°♉	
evening set	3845 Apr 23 17:41	19°♉14'21	
asc. node	3845 Apr 30 15:36	24°♉29'12	
	3845 May 07 23:14	0°♊	
	3845 Jun 17 20:37	0°♋	
conjunction	3845 Jun 25 09:12	5°♋21'57	0°34'33
minimum elong	3845 Jun 25 07:15	5°♋18'29	0°34'31
	3845 Jul 30 19:30	0°♌	
max. Earth dist.	3845 Jul 31 08:33	0°♌22'12	2.53848 AU
morning rise	3845 Aug 19 23:37	13°♌35'33	
	3845 Sep 13 21:59	0°♍	
	3845 Oct 31 03:32	0°♎	
	3845 Dec 19 22:54	0°♏	
	3846 Feb 13 08:13	0°♐	
retrograde	3846 Apr 28 13:33	22°♐33'41	
desc. node	3846 May 12 15:19	21°♐18'20	
opposition	3846 Jun 04 04:55	14°♐40'27	-0°57'51
greatest brilliancy	3846 Jun 04 11:05	14°♐34'45	-1.8m
min. Earth dist.	3846 Jun 11 14:05	11°♐56'47	0.56114 AU
direct	3846 Jul 14 07:17	5°♐10'15	
	3846 Sep 24 02:43	0°♑	
	3846 Nov 09 15:50	0°♒	
	3846 Dec 20 14:45	0°♓	
	3847 Jan 28 17:34	0°♈	
	3847 Mar 08 17:30	0°♉	
asc. node	3847 Mar 18 14:21	7°♉29'56	
	3847 Apr 17 16:57	0°♊	
	3847 May 29 08:12	0°♋	
evening set	3847 Jun 21 09:30	16°♋02'20	
	3847 Jul 11 21:57	0°♌	
conjunction	3847 Aug 12 14:47	21°♌03'59	1°06'08
minimum elong	3847 Aug 12 14:06	21°♌02'52	1°06'07
	3847 Aug 26 07:09	0°♍	
max. Earth dist.	3847 Aug 29 02:27	1°♍49'15	2.63388 AU
morning rise	3847 Sep 29 08:01	21°♍53'51	
	3847 Oct 12 01:58	0°♎	
	3847 Nov 28 20:32	0°♏	
	3848 Jan 16 15:46	0°♐	
	3848 Mar 07 15:32	0°♑	
desc. node	3848 Mar 29 14:12	12°♑02'48	
	3848 May 05 20:39	0°♒	
retrograde	3848 Jun 25 02:42	12°♒14'40	
opposition	3848 Jul 27 09:49	6°♒18'55	-5°27'19
greatest brilliancy	3848 Jul 28 21:15	5°♒51'22	-2.5m
min. Earth dist.	3848 Aug 04 06:55	3°♒52'46	0.43001 AU
	3848 Aug 20 15:53	30°℞♑	
direct	3848 Aug 31 09:01	29°♑12'10	
	3848 Sep 11 03:27	0°♒	
	3848 Nov 17 11:12	0°♓	
	3848 Dec 31 17:41	0°♈	
asc. node	3849 Feb 02 12:52	23°♈30'20	
	3849 Feb 11 13:12	0°♉	
	3849 Mar 25 13:41	0°♊	
	3849 May 07 19:49	0°♋	
	3849 Jun 21 15:20	0°♌	
evening set	3849 Aug 03 15:50	27°♌58'02	
	3849 Aug 06 19:43	0°♍	

conjunction	3849 Sep 19 13:49	27°♍56'15	1°02'48
minimum elong	3849 Sep 19 14:38	27°♍57'32	1°02'48
max. Earth dist.	3849 Sep 21 02:48	28°♍55'03	2.67584 AU
	3849 Sep 22 19:39	0°♎	
morning rise	3849 Nov 03 01:27	26°♎14'47	
	3849 Nov 08 22:40	0°♏	
	3849 Dec 25 16:55	0°♐	
	3850 Feb 09 22:27	0°♑	
desc. node	3850 Feb 14 13:12	3°♑00'38	
	3850 Mar 27 19:22	0°♒	
	3850 May 12 22:31	0°♓	
	3850 Jun 30 13:39	0°♈	
retrograde	3850 Sep 13 15:14	27°♈24'46	
min. Earth dist.	3850 Oct 11 05:12	22°♈53'26	0.37547 AU
opposition	3850 Oct 14 14:52	21°♈57'17	-4°31'28
greatest brilliancy	3850 Oct 14 06:08	22°♈03'19	-2.9m
direct	3850 Nov 13 03:20	16°♈58'58	
asc. node	3850 Dec 21 12:42	25°♈30'46	
	3850 Dec 31 23:22	0°♉	
	3851 Feb 24 17:08	0°♊	
	3851 Apr 14 04:52	0°♋	
	3851 May 31 22:08	0°♌	
	3851 Jul 18 18:52	0°♍	
	3851 Sep 04 14:17	0°♎	
evening set	3851 Sep 10 12:02	3°♎43'37	
max. Earth dist.	3851 Oct 13 20:56	24°♎56'19	2.66313 AU
	3851 Oct 21 18:14	0°♏	
conjunction	3851 Oct 25 16:35	2°♏31'51	0°35'49
minimum elong	3851 Oct 25 17:33	2°♏33'25	0°35'49
	3851 Dec 06 17:35	0°♐	
morning rise	3851 Dec 09 04:12	1°♐37'14	
desc. node	3852 Jan 02 12:27	17°♐56'10	
	3852 Jan 20 05:28	0°♑	
	3852 Mar 03 05:28	0°♒	
	3852 Apr 13 22:22	0°♓	
	3852 May 24 18:54	0°♈	
	3852 Jul 04 17:49	0°♉	
	3852 Aug 16 23:35	0°♊	
	3852 Oct 10 22:23	0°♋	
asc. node	3852 Nov 07 11:11	6°♋44'36	
retrograde	3852 Nov 12 20:43	6°♋57'15	
min. Earth dist.	3852 Dec 11 17:37	1°♋10'08	0.48590 AU
	3852 Dec 14 23:49	30°℞♊	
opposition	3852 Dec 19 22:21	28°♊11'36	2°17'02
greatest brilliancy	3852 Dec 19 04:21	28°♊28'01	-2.3m
direct	3853 Jan 22 15:14	21°♊03'17	
	3853 Mar 04 20:10	0°♋	
	3853 May 05 16:55	0°♌	
	3853 Jun 26 23:41	0°♍	
	3853 Aug 15 16:39	0°♎	
	3853 Oct 02 12:36	0°♏	
evening set	3853 Oct 16 08:27	8°♏54'33	
max. Earth dist.	3853 Nov 07 05:39	23°♏15'24	2.59706 AU
	3853 Nov 17 08:26	0°♐	
desc. node	3853 Nov 19 11:21	1°♐25'25	
conjunction	3853 Dec 01 19:11	9°♐45'18	-0°07'00
minimum elong	3853 Dec 01 18:56	9°♐44'53	0°07'00
behind sun begin	3853 Dec 01 00:47	9°♐14'02	
behind sun end	3853 Dec 02 13:05	10°♐15'45	
	3853 Dec 31 01:51	0°♑	
morning rise	3854 Jan 19 01:54	13°♑29'18	
	3854 Feb 10 20:14	0°♒	
	3854 Mar 23 00:35	0°♓	
	3854 May 01 04:36	0°♈	
	3854 Jun 09 02:55	0°♉	

	3854 Jul 18 20:52	0°♊	
	3854 Aug 29 23:50	0°♋	
asc. node	3854 Sep 25 09:51	17°♋13'54	
	3854 Oct 17 02:15	0°♌	
retrograde	3854 Dec 25 07:15	23°♌17'44	
min. Earth dist.	3855 Jan 28 18:25	15°♌27'13	0.60676 AU
opposition	3855 Feb 02 23:29	13°♌23'00	4°30'48
greatest brilliancy	3855 Feb 02 02:53	13°♌43'30	-1.6m
direct	3855 Mar 12 15:08	4°♌38'39	
	3855 May 31 13:37	0°♍	
	3855 Jul 25 19:40	0°♎	
	3855 Sep 13 11:49	0°♏	
desc. node	3855 Oct 07 10:03	15°♏15'34	
	3855 Oct 29 19:00	0°♐	
evening set	3855 Nov 26 06:03	18°♐43'55	
max. Earth dist.	3855 Dec 10 17:05	28°♐52'53	2.48390 AU
	3855 Dec 12 06:56	0°♑	
conjunction	3856 Jan 17 06:21	26°♑08'23	-0°52'23
minimum elong	3856 Jan 17 04:35	26°♑05'06	0°52'22
	3856 Jan 22 10:46	0°♒	
	3856 Mar 01 21:07	0°♓	
morning rise	3856 Mar 16 13:38	11°♓24'21	
	3856 Apr 09 07:42	0°♈	
	3856 May 17 14:26	0°♉	
	3856 Jun 25 14:58	0°♊	
	3856 Aug 05 08:27	0°♋	
asc. node	3856 Aug 12 10:09	5°♋01'51	
	3856 Sep 17 23:25	0°♌	
	3856 Nov 06 00:33	0°♍	
retrograde	3857 Jan 28 18:38	29°♍23'47	
min. Earth dist.	3857 Mar 08 16:21	20°♍05'08	0.67126 AU
opposition	3857 Mar 10 01:17	19°♍32'08	4°23'03
greatest brilliancy	3857 Mar 09 19:57	19°♍37'29	-1.3m
direct	3857 Apr 19 06:37	9°♍55'30	
	3857 Jun 27 13:38	0°♎	
	3857 Aug 22 06:59	0°♏	
desc. node	3857 Aug 24 08:24	1°♏13'11	
	3857 Oct 09 06:23	0°♐	
	3857 Nov 22 02:57	0°♑	
	3858 Jan 02 02:40	0°♒	
evening set	3858 Jan 16 18:25	11°♒07'02	
	3858 Feb 10 04:35	0°♓	
	3858 Mar 20 07:07	0°♈	
conjunction	3858 Mar 21 23:32	1°♈19'56	-0°57'11
minimum elong	3858 Mar 22 02:17	1°♈25'22	0°57'11
max. Earth dist.	3858 Mar 21 19:16	1°♈11'30	2.36917 AU
	3858 Apr 27 08:24	0°♉	
morning rise	3858 Jun 01 13:10	27°♉11'56	
	3858 Jun 05 05:41	0°♊	
asc. node	3858 Jun 30 09:04	18°♊47'43	
	3858 Jul 15 17:46	0°♋	
	3858 Aug 27 12:44	0°♌	
	3858 Oct 12 08:47	0°♍	
	3858 Dec 02 02:28	0°♎	
	3859 Feb 11 03:48	0°♏	
retrograde	3859 Mar 04 07:31	2°♏29'56	
	3859 Mar 23 23:51	30°℞♎	
opposition	3859 Apr 12 23:41	23°♎09'43	2°59'13
greatest brilliancy	3859 Apr 13 06:15	23°♎03'14	-1.3m
min. Earth dist.	3859 Apr 15 11:18	22°♎10'53	0.67011 AU
direct	3859 May 24 09:33	13°♎08'41	
desc. node	3859 Jul 12 07:08	24°♎39'58	
	3859 Jul 24 11:22	0°♏	
	3859 Sep 17 01:34	0°♐	
	3859 Nov 01 14:39	0°♑	
	3859 Dec 13 01:06	0°♒	
	3860 Jan 21 04:13	0°♓	
	3860 Feb 28 06:19	0°♈	
evening set	3860 Mar 26 22:51	21°♈50'27	
	3860 Apr 06 09:00	0°♉	
	3860 May 15 10:18	0°♊	
asc. node	3860 May 17 07:03	1°♊24'16	
conjunction	3860 Jun 01 22:35	13°♊04'43	0°10'24
minimum elong	3860 Jun 01 21:45	13°♊03'11	0°10'23
behind sun begin	3860 Jun 01 01:02	12°♊24'53	
behind sun end	3860 Jun 02 18:27	13°♊41'26	
	3860 Jun 25 03:20	0°♋	
max. Earth dist.	3860 Jul 16 14:39	15°♋14'36	2.48864 AU
morning rise	3860 Aug 01 09:56	26°♋12'33	
	3860 Aug 06 22:45	0°♌	
	3860 Sep 21 01:46	0°♍	
	3860 Nov 07 17:58	0°♎	
	3860 Dec 29 05:11	0°♏	
	3861 Mar 03 08:32	0°♐	
retrograde	3861 Apr 10 23:09	7°♐26'08	
	3861 May 16 04:28	30°℞♏	
opposition	3861 May 18 18:32	29°♏01'30	0°25'07
greatest brilliancy	3861 May 18 21:11	28°♏58'59	-1.6m
min. Earth dist.	3861 May 24 22:04	26°♏41'14	0.60358 AU
desc. node	3861 May 29 05:51	25°♏06'08	
direct	3861 Jun 28 17:12	19°♏10'22	
	3861 Aug 12 23:53	0°♐	
	3861 Oct 06 22:48	0°♑	
	3861 Nov 19 16:27	0°♒	
	3861 Dec 29 16:53	0°♓	
	3862 Feb 06 07:28	0°♈	
	3862 Mar 16 21:36	0°♉	
asc. node	3862 Apr 04 06:51	14°♉03'54	
	3862 Apr 25 11:33	0°♊	
evening set	3862 May 31 19:04	26°♊28'32	
	3862 Jun 05 17:50	0°♋	
	3862 Jul 18 23:58	0°♌	
conjunction	3862 Jul 26 10:38	5°♌01'33	0°58'49
minimum elong	3862 Jul 26 09:10	4°♌59'07	0°58'48
max. Earth dist.	3862 Aug 18 21:28	20°♌38'00	2.60273 AU
	3862 Sep 02 04:51	0°♍	
morning rise	3862 Sep 14 12:38	7°♍59'13	
	3862 Oct 19 01:16	0°♎	
	3862 Dec 06 08:46	0°♏	
	3863 Jan 25 17:26	0°♐	
	3863 Mar 22 15:11	0°♑	
desc. node	3863 Apr 16 05:22	10°♑43'26	
retrograde	3863 May 31 07:47	20°♑41'37	
opposition	3863 Jul 04 14:26	13°♑53'20	-3°38'19
greatest brilliancy	3863 Jul 05 16:15	13°♑31'17	-2.2m
min. Earth dist.	3863 Jul 13 02:24	11°♑00'17	0.48217 AU
direct	3863 Aug 11 03:48	5°♑32'12	
	3863 Oct 18 19:57	0°♒	
	3863 Dec 03 06:06	0°♓	
	3864 Jan 13 05:20	0°♈	
asc. node	3864 Feb 20 05:36	28°♈22'52	
	3864 Feb 22 09:51	0°♉	
	3864 Apr 03 07:58	0°♊	
	3864 May 15 18:22	0°♋	
	3864 Jun 28 23:12	0°♌	
evening set	3864 Jul 18 14:02	12°♌57'52	
	3864 Aug 13 18:06	0°♍	
conjunction	3864 Sep 05 01:30	14°♍20'47	1°07'23
minimum elong	3864 Sep 05 01:53	14°♍21'23	1°07'23

max. Earth dist.	3864 Sep 12 03:15	18°♍52'13	2.66608 AU
	3864 Sep 29 14:18	0°♎	
morning rise	3864 Oct 20 09:13	13°♎12'16	
	3864 Nov 15 21:09	0°♏	
	3865 Jan 02 05:32	0°♐	
	3865 Feb 18 16:49	0°♑	
desc. node	3865 Mar 03 04:35	7°♑50'16	
	3865 Apr 07 23:54	0°♒	
	3865 May 29 15:39	0°♓	
retrograde	3865 Aug 12 20:16	25°♓35'22	
opposition	3865 Sep 11 20:50	20°♓39'09	-6°32'30
greatest brilliancy	3865 Sep 12 11:45	20°♓29'14	-2.9m
min. Earth dist.	3865 Sep 13 23:22	20°♓05'36	0.37440 AU
direct	3865 Oct 12 02:14	15°♓31'31	
	3865 Dec 01 19:33	0°♈	
asc. node	3866 Jan 07 03:39	20°♈28'43	
	3866 Jan 22 08:23	0°♉	
	3866 Mar 09 06:27	0°♊	
	3866 Apr 23 18:14	0°♋	
	3866 Jun 08 23:26	0°♌	
	3866 Jul 26 00:28	0°♍	
evening set	3866 Aug 27 04:52	20°♍22'02	
	3866 Sep 11 10:10	0°♎	
max. Earth dist.	3866 Oct 04 23:52	14°♎57'57	2.67465 AU
conjunction	3866 Oct 11 16:48	19°♎14'20	0°48'32
minimum elong	3866 Oct 11 17:52	19°♎16'03	0°48'31
	3866 Oct 28 12:17	0°♏	
morning rise	3866 Nov 24 19:04	17°♏37'41	
	3866 Dec 13 17:15	0°♐	
desc. node	3867 Jan 19 03:08	24°♐11'43	
	3867 Jan 27 17:58	0°♑	
	3867 Mar 12 14:04	0°♒	
	3867 Apr 24 09:39	0°♓	
	3867 Jun 05 17:14	0°♈	
	3867 Jul 18 23:53	0°♉	
	3867 Sep 06 23:37	0°♊	
retrograde	3867 Oct 24 04:56	13°♊26'24	
min. Earth dist.	3867 Nov 20 02:57	8°♊30'32	0.43262 AU
asc. node	3867 Nov 25 03:51	6°♊50'50	
opposition	3867 Nov 28 05:57	5°♊48'55	0°11'32
greatest brilliancy	3865 Feb 02 20:54	20°♐01'15	-5.8m
	3867 Dec 22 04:16	30°℞♉	
direct	3867 Dec 29 23:56	29°♉35'31	
	3868 Jan 06 22:49	0°♊	
	3868 Mar 24 13:36	0°♋	
	3868 May 16 03:48	0°♌	
	3868 Jul 05 02:25	0°♍	
	3868 Aug 22 21:00	0°♎	
evening set	3868 Oct 01 21:15	25°♎12'31	
	3868 Oct 09 08:49	0°♏	
max. Earth dist.	3868 Oct 27 22:30	12°♏00'42	2.62906 AU
conjunction	3868 Nov 16 10:41	24°♏50'11	0°10'56
minimum elong	3868 Nov 16 11:03	24°♏50'47	0°10'55
behind sun begin	3868 Nov 15 20:43	24°♏27'02	
behind sun end	3868 Nov 17 01:23	25°♏14'32	
	3868 Nov 24 04:54	0°♐	
desc. node	3868 Dec 06 01:56	7°♐58'45	
morning rise	3869 Jan 01 15:08	26°♐08'55	
	3869 Jan 07 04:07	0°♑	
	3869 Feb 18 08:11	0°♒	
	3869 Mar 31 00:01	0°♓	
	3869 May 09 15:55	0°♈	
	3869 Jun 18 02:29	0°♉	
	3869 Jul 28 13:07	0°♊	
	3869 Sep 10 06:35	0°♋	
asc. node	3869 Oct 12 03:44	18°♋46'53	
	3869 Nov 05 13:36	0°♌	
retrograde	3869 Dec 10 01:27	7°♌13'14	
min. Earth dist.	3870 Jan 11 10:25	0°♌06'56	0.56452 AU
	3870 Jan 11 17:38	30°℞♋	
greatest brilliancy	3870 Jan 17 00:58	27°♋55'52	-1.8m
opposition	3870 Jan 18 00:54	27°♋32'29	4°02'51
direct	3870 Feb 23 06:50	19°♋19'14	
	3870 Apr 11 00:11	0°♌	
	3870 Jun 11 17:59	0°♍	
	3870 Aug 02 23:48	0°♎	
	3870 Sep 20 18:00	0°♏	
desc. node	3870 Oct 24 00:53	21°♏30'49	
	3870 Nov 05 19:14	0°♐	
evening set	3870 Nov 09 11:34	2°♐28'22	
max. Earth dist.	3870 Nov 25 21:22	13°♐38'06	2.53278 AU
	3870 Dec 19 08:22	0°♑	
conjunction	3870 Dec 28 15:18	6°♑36'40	-0°36'07
minimum elong	3870 Dec 28 13:54	6°♑34'10	0°36'06
	3871 Jan 29 17:01	0°♒	
morning rise	3871 Feb 20 11:05	16°♒19'12	
	3871 Mar 10 09:13	0°♓	
	3871 Apr 18 01:18	0°♈	
	3871 May 26 12:30	0°♉	
	3871 Jul 04 17:07	0°♊	
	3871 Aug 14 17:43	0°♋	
asc. node	3871 Aug 30 01:58	10°♋41'57	
	3871 Sep 28 05:33	0°♌	
	3871 Nov 20 02:28	0°♍	
retrograde	3872 Jan 16 08:44	16°♍10'59	
min. Earth dist.	3872 Feb 22 15:57	7°♍23'25	0.65365 AU
opposition	3872 Feb 25 13:31	6°♍13'40	4°36'48
greatest brilliancy	3872 Feb 25 01:54	6°♍25'19	-1.4m
	3872 Mar 14 01:21	30°℞♌	
direct	3872 Apr 04 22:38	26°♌53'53	
	3872 Apr 28 20:41	0°♍	
	3872 Jul 09 06:52	0°♎	
	3872 Aug 30 15:35	0°♏	
desc. node	3872 Sep 09 23:21	6°♏20'59	
	3872 Oct 16 18:39	0°♐	
	3872 Nov 29 10:20	0°♑	
evening set	3872 Dec 25 06:32	18°♑42'27	
	3873 Jan 09 10:58	0°♒	
max. Earth dist.	3873 Jan 14 00:42	3°♒26'29	2.40384 AU
	3873 Feb 17 15:26	0°♓	
conjunction	3873 Feb 22 02:08	3°♓27'54	-1°04'59
minimum elong	3873 Feb 22 02:14	3°♓28'05	1°04'59
	3873 Mar 27 20:14	0°♈	
morning rise	3873 May 02 04:00	27°♈49'36	
	3873 May 04 22:37	0°♉	
	3873 Jun 12 19:43	0°♊	
asc. node	3873 Jul 17 01:15	25°♊27'22	
	3873 Jul 23 07:46	0°♋	
	3873 Sep 04 06:18	0°♌	
	3873 Oct 20 19:07	0°♍	
	3873 Dec 13 14:51	0°♎	
retrograde	3874 Feb 18 16:58	19°♎51'48	
opposition	3874 Mar 30 18:04	10°♎16'42	3°39'30
greatest brilliancy	3874 Mar 30 21:05	10°♎13'42	-1.3m
min. Earth dist.	3874 Mar 31 17:28	9°♎53'26	0.67843 AU
direct	3874 May 10 20:49	0°♎22'12	
desc. node	3874 Jul 28 22:08	25°♎39'09	
	3874 Aug 06 04:38	0°♏	
	3874 Sep 25 22:42	0°♐	
	3874 Nov 09 14:14	0°♑	

	3874 Dec 20 18:39	0°♒	
	3875 Jan 28 20:16	0°♓	
evening set	3875 Feb 27 02:28	23°♓02'08	
	3875 Mar 07 21:41	0°♈	
	3875 Apr 14 22:56	0°♉	
conjunction	3875 May 07 01:23	17°♉09'02	-0°18'47
minimum elong	3875 May 07 03:10	17°♉12'27	0°18'46
	3875 May 23 21:30	0°♊	
asc. node	3875 Jun 04 00:27	8°♊21'54	
max. Earth dist.	3875 Jun 27 09:50	25°♊36'53	2.43410 AU
	3875 Jul 03 11:09	0°♋	
morning rise	3875 Jul 12 03:29	6°♋13'47	
	3875 Aug 15 04:20	0°♌	
	3875 Sep 29 10:09	0°♍	
	3875 Nov 16 19:41	0°♎	
	3876 Jan 10 04:31	0°♏	
retrograde	3876 Mar 26 00:58	23°♏28'31	
opposition	3876 May 03 18:09	14°♏38'27	1°34'15
greatest brilliancy	3876 May 04 01:16	14°♏31'34	-1.5m
min. Earth dist.	3876 May 08 12:25	12°♏47'44	0.63724 AU
direct	3876 Jun 14 03:05	4°♏37'37	
desc. node	3876 Jun 14 21:44	4°♏37'51	
	3876 Aug 29 07:22	0°♐	
	3876 Oct 17 04:36	0°♑	
	3876 Nov 28 14:52	0°♒	
	3877 Jan 07 03:09	0°♓	
	3877 Feb 14 10:34	0°♈	
	3877 Mar 24 18:28	0°♉	
asc. node	3877 Apr 20 22:20	20°♉50'39	
	3877 May 03 01:51	0°♊	
evening set	3877 May 08 09:30	3°♊58'18	
	3877 Jun 13 01:26	0°♋	
conjunction	3877 Jul 07 08:43	17°♋07'47	0°45'23
minimum elong	3877 Jul 07 06:45	17°♋04'20	0°45'21
	3877 Jul 26 01:51	0°♌	
max. Earth dist.	3877 Aug 07 15:32	8°♌29'59	2.56365 AU
morning rise	3877 Aug 29 16:18	23°♌08'22	
	3877 Sep 09 04:02	0°♍	
	3877 Oct 26 04:33	0°♎	
	3877 Dec 14 07:24	0°♏	
	3878 Feb 05 05:26	0°♐	
	3878 Apr 18 20:43	0°♑	
desc. node	3878 May 02 20:18	2°♑05'53	
retrograde	3878 May 09 12:09	2°♑21'49	
	3878 May 28 20:58	30°℞♐	
opposition	3878 Jun 14 09:49	24°♐48'51	-1°52'24
greatest brilliancy	3878 Jun 14 22:32	24°♐37'21	-2.0m
min. Earth dist.	3878 Jun 22 08:14	21°♐56'58	0.53468 AU
direct	3878 Jul 23 19:06	15°♐37'00	
	3878 Sep 13 05:07	0°♑	
	3878 Nov 02 13:25	0°♒	
	3878 Dec 14 11:45	0°♓	
	3879 Jan 23 01:26	0°♈	
	3879 Mar 03 08:36	0°♉	
asc. node	3879 Mar 08 22:00	4°♉12'13	
	3879 Apr 12 13:42	0°♊	
	3879 May 24 09:52	0°♋	
evening set	3879 Jul 02 03:51	26°♋38'36	
	3879 Jul 07 03:30	0°♌	
conjunction	3879 Aug 21 19:57	0°♍07'49	1°07'56
minimum elong	3879 Aug 21 19:42	0°♍07'24	1°07'57
	3879 Aug 21 15:09	0°♍	
max. Earth dist.	3879 Sep 03 18:07	8°♍29'17	2.64779 AU
morning rise	3879 Oct 07 12:21	0°♎04'30	
	3879 Oct 07 09:31	0°♎	
	3879 Nov 23 22:46	0°♏	
	3880 Jan 11 02:48	0°♐	
	3880 Feb 29 11:24	0°♑	
desc. node	3880 Mar 19 19:04	11°♑19'26	
	3880 Apr 22 13:21	0°♒	
retrograde	3880 Jul 11 16:33	26°♒47'08	
opposition	3880 Aug 11 20:44	21°♒19'43	-6°16'37
greatest brilliancy	3880 Aug 13 07:18	20°♒54'24	-2.7m
min. Earth dist.	3880 Aug 18 09:39	19°♒25'12	0.40476 AU
direct	3880 Sep 14 03:02	15°♒00'16	
	3880 Nov 03 20:20	0°♓	
	3880 Dec 23 05:21	0°♈	
asc. node	3881 Jan 23 21:44	21°♈44'38	
	3881 Feb 04 17:12	0°♉	
	3881 Mar 19 15:28	0°♊	
	3881 May 02 11:28	0°♋	
	3881 Jun 16 16:09	0°♌	
	3881 Aug 02 02:22	0°♍	
evening set	3881 Aug 12 10:25	6°♍36'18	
	3881 Sep 18 04:54	0°♎	
max. Earth dist.	3881 Sep 26 07:44	5°♎09'27	2.67776 AU
conjunction	3881 Sep 27 17:05	6°♎02'27	0°58'27
minimum elong	3881 Sep 27 18:03	6°♎04'00	0°58'27
	3881 Nov 04 07:15	0°♏	
morning rise	3881 Nov 10 22:08	4°♏14'27	
	3881 Dec 20 20:09	0°♐	
desc. node	3882 Feb 04 18:11	0°♑07'07	
	3882 Feb 04 13:53	0°♑	
	3882 Mar 21 13:51	0°♒	
	3882 May 05 03:31	0°♓	
	3882 Jun 19 08:10	0°♈	
	3882 Aug 08 20:36	0°♉	
retrograde	3882 Sep 29 13:04	15°♉23'18	
min. Earth dist.	3882 Oct 26 03:12	10°♉56'15	0.38972 AU
opposition	3882 Nov 01 00:04	9°♉12'41	-2°45'25
greatest brilliancy	3882 Oct 31 12:25	9°♉21'16	-2.9m
direct	3882 Nov 30 23:00	3°♉53'59	
asc. node	3882 Dec 11 20:28	4°♉40'16	
	3883 Feb 14 16:07	0°♊	
	3883 Apr 07 09:14	0°♋	
	3883 May 26 08:03	0°♌	
	3883 Jul 13 19:06	0°♍	
	3883 Aug 30 21:28	0°♎	
evening set	3883 Sep 18 15:32	11°♎49'06	
	3883 Oct 17 03:56	0°♏	
max. Earth dist.	3883 Oct 19 07:04	1°♏22'15	2.65327 AU
conjunction	3883 Nov 02 20:19	10°♏46'56	0°27'14
minimum elong	3883 Nov 02 21:08	10°♏48'15	0°27'14
	3883 Dec 02 02:11	0°♐	
morning rise	3883 Dec 17 18:11	10°♐28'50	
desc. node	3883 Dec 23 16:45	14°♐29'24	
	3884 Jan 15 09:31	0°♑	
	3884 Feb 27 02:07	0°♒	
	3884 Apr 08 09:03	0°♓	
	3884 May 18 17:19	0°♈	
	3884 Jun 27 23:06	0°♉	
	3884 Aug 08 17:23	0°♊	
	3884 Sep 25 11:19	0°♋	
asc. node	3884 Oct 28 19:22	14°♋44'57	
retrograde	3884 Nov 23 07:28	19°♋01'13	
min. Earth dist.	3884 Dec 23 10:53	12°♋44'32	0.51518 AU
greatest brilliancy	3884 Dec 30 06:35	10°♋10'53	-2.1m
opposition	3884 Dec 31 05:07	9°♋49'38	3°06'51
direct	3885 Feb 03 20:45	2°♋15'28	

	3885 Apr 27 18:51	0°♌	
	3885 Jun 21 05:37	0°♍	
	3885 Aug 10 16:29	0°♎	
	3885 Sep 27 19:39	0°♏	
evening set	3885 Oct 24 21:47	17°♏31'22	
desc. node	3885 Nov 09 15:42	27°♏56'41	
	3885 Nov 12 17:28	0°♐	
max. Earth dist.	3885 Nov 13 16:32	0°♐38'40	2.57595 AU
conjunction	3885 Dec 11 02:56	19°♐20'05	-0°17'47
minimum elong	3885 Dec 11 02:15	19°♐18'55	0°17'46
	3885 Dec 26 09:31	0°♑	
morning rise	3886 Jan 30 00:18	24°♑51'05	
	3886 Feb 06 00:41	0°♒	
	3886 Mar 18 00:47	0°♓	
	3886 Apr 26 00:19	0°♈	
	3886 Jun 03 18:05	0°♉	
	3886 Jul 13 05:37	0°♊	
	3886 Aug 23 19:05	0°♋	
asc. node	3886 Sep 15 19:21	15°♋30'43	
	3886 Oct 08 23:09	0°♌	
	3886 Dec 14 17:44	0°♍	
retrograde	3887 Jan 02 12:25	2°♍12'37	
	3887 Jan 20 06:19	30°℞♌	
min. Earth dist.	3887 Feb 07 00:55	24°♌00'43	0.62605 AU
opposition	3887 Feb 11 10:56	22°♌14'54	4°37'45
greatest brilliancy	3887 Feb 10 17:10	22°♌32'38	-1.5m
direct	3887 Mar 21 18:52	13°♌16'32	
	3887 May 22 15:17	0°♍	
	3887 Jul 19 23:40	0°♎	
	3887 Sep 08 11:15	0°♏	
desc. node	3887 Sep 27 15:03	12°♏04'43	
	3887 Oct 25 01:12	0°♐	
evening set	3887 Dec 06 12:28	29°♐13'41	
	3887 Dec 07 14:35	0°♑	
max. Earth dist.	3887 Dec 21 01:54	9°♑39'16	2.45489 AU
	3888 Jan 17 17:28	0°♒	
conjunction	3888 Jan 29 15:36	8°♒58'33	-0°59'32
minimum elong	3888 Jan 29 14:02	8°♒55'35	0°59'31
	3888 Feb 26 01:39	0°♓	
morning rise	3888 Apr 01 14:36	27°♓47'36	
	3888 Apr 04 09:55	0°♈	
	3888 May 12 14:43	0°♉	
	3888 Jun 20 13:16	0°♊	
	3888 Jul 31 03:23	0°♋	
asc. node	3888 Aug 02 17:20	1°♋51'05	
	3888 Sep 12 09:41	0°♌	
	3888 Oct 30 04:02	0°♍	
	3888 Dec 30 12:49	0°♎	
retrograde	3889 Feb 05 09:14	7°♎12'43	
	3889 Mar 11 03:03	30°℞♍	
opposition	3889 Mar 17 15:01	27°♍26'00	4°09'54
min. Earth dist.	3889 Mar 17 01:51	27°♍39'10	0.67672 AU
greatest brilliancy	3889 Mar 17 12:55	27°♍28'07	-1.3m
direct	3889 Apr 27 05:30	17°♍42'03	
	3889 Jun 17 19:19	0°♎	
desc. node	3889 Aug 14 13:29	28°♎59'04	
	3889 Aug 16 08:00	0°♏	
	3889 Oct 04 03:19	0°♐	
	3889 Nov 17 06:19	0°♑	
	3889 Dec 28 07:58	0°♒	
evening set	3890 Jan 30 19:05	25°♒37'33	
	3890 Feb 05 09:44	0°♓	
	3890 Mar 15 11:28	0°♈	
conjunction	3890 Apr 07 15:55	18°♈20'04	-0°46'08
minimum elong	3890 Apr 07 19:21	18°♈26'51	0°46'06
	3890 Apr 22 12:06	0°♉	
max. Earth dist.	3890 May 22 15:53	23°♉22'00	2.38257 AU
	3890 May 31 08:50	0°♊	
morning rise	3890 Jun 17 09:08	12°♊47'04	
asc. node	3890 Jun 20 15:54	15°♊13'20	
	3890 Jul 10 20:11	0°♋	
	3890 Aug 22 12:59	0°♌	
	3890 Oct 07 01:10	0°♍	
	3890 Nov 25 15:06	0°♎	
	3891 Jan 25 03:54	0°♏	
retrograde	3891 Mar 12 08:46	10°♏19'30	
opposition	3891 Apr 20 18:05	1°♏08'55	2°30'56
greatest brilliancy	3891 Apr 21 01:36	1°♏01'32	-1.4m
	3891 Apr 23 16:17	30°℞♎	
min. Earth dist.	3891 Apr 24 01:02	29°♎51'26	0.66125 AU
direct	3891 Jun 01 05:27	21°♎06'31	
desc. node	3891 Jul 02 12:01	26°♎20'56	
	3891 Jul 13 03:20	0°♏	
	3891 Sep 10 17:07	0°♐	
	3891 Oct 27 04:24	0°♑	
	3891 Dec 07 22:30	0°♒	
	3892 Jan 16 04:40	0°♓	
	3892 Feb 23 08:14	0°♈	
	3892 Apr 01 12:08	0°♉	
evening set	3892 Apr 11 20:28	8°♉02'11	
asc. node	3892 May 07 15:56	27°♉46'49	
	3892 May 10 14:33	0°♊	
conjunction	3892 Jun 15 14:37	26°♊34'46	0°25'01
minimum elong	3892 Jun 15 12:56	26°♊31'43	0°25'00
	3892 Jun 20 08:32	0°♋	
max. Earth dist.	3892 Jul 25 14:29	24°♋48'09	2.51684 AU
	3892 Aug 02 04:20	0°♌	
morning rise	3892 Aug 12 06:20	6°♌50'53	
	3892 Sep 16 05:20	0°♍	
	3892 Nov 02 13:31	0°♎	
	3892 Dec 22 22:02	0°♏	
	3893 Feb 18 17:29	0°♐	
retrograde	3893 Apr 20 17:18	16°♐21'48	
desc. node	3893 May 19 11:07	11°♐15'32	
opposition	3893 May 27 22:16	8°♐13'31	-0°21'05
greatest brilliancy	3893 May 28 00:24	8°♐11'31	-1.7m
min. Earth dist.	3893 Jun 03 18:37	5°♐39'32	0.58117 AU
	3893 Jun 22 18:40	30°℞♏	
direct	3893 Jul 07 10:54	28°♏32'24	
	3893 Jul 22 18:45	0°♐	
	3893 Sep 29 09:36	0°♑	
	3893 Nov 13 13:29	0°♒	
	3893 Dec 24 02:05	0°♓	
	3894 Jan 31 22:56	0°♈	
	3894 Mar 11 17:45	0°♉	
asc. node	3894 Mar 25 15:07	10°♉36'02	
	3894 Apr 20 11:44	0°♊	
	3894 May 31 21:31	0°♋	
evening set	3894 Jun 12 18:56	8°♋21'49	
	3894 Jul 14 06:28	0°♌	
conjunction	3894 Aug 05 10:29	14°♌50'23	1°03'43
minimum elong	3894 Aug 05 09:28	14°♌48'41	1°03'43
max. Earth dist.	3894 Aug 24 22:58	27°♌40'45	2.62089 AU
	3894 Aug 28 12:26	0°♍	
morning rise	3894 Sep 23 02:45	16°♍31'25	
	3894 Oct 14 06:50	0°♎	
	3894 Dec 01 05:56	0°♏	
	3895 Jan 19 14:48	0°♐	
	3895 Mar 13 05:12	0°♑	

desc. node	3895 Apr 06 09:48	12°♉21'46	
	3895 May 22 18:25	0°♒	
retrograde	3895 Jun 14 06:40	2°♒50'47	
	3895 Jul 05 19:09	30°℞♉	
opposition	3895 Jul 17 12:01	26°♉30'55	-4°41'14
greatest brilliancy	3895 Jul 18 20:33	26°♉04'27	-2.4m
min. Earth dist.	3895 Jul 25 21:26	23°♉47'59	0.45289 AU
direct	3895 Aug 22 18:18	18°♉47'57	
	3895 Oct 04 23:21	0°♒	
	3895 Nov 24 23:41	0°♓	
	3896 Jan 06 10:21	0°♈	
asc. node	3896 Feb 10 13:20	25°♈44'05	
	3896 Feb 16 09:05	0°♉	
	3896 Mar 28 19:29	0°♊	
	3896 May 10 14:51	0°♋	
	3896 Jun 24 02:23	0°♌	
evening set	3896 Jul 27 21:52	22°♌08'45	
	3896 Aug 09 01:31	0°♍	
conjunction	3896 Sep 13 10:59	22°♍40'13	1°05'09
minimum elong	3896 Sep 13 11:38	22°♍41'15	1°05'09
max. Earth dist.	3896 Sep 17 09:52	25°♍11'24	2.67254 AU
	3896 Sep 24 23:10	0°♎	
morning rise	3896 Oct 28 06:05	21°♎09'41	
	3896 Nov 11 03:41	0°♏	
	3896 Dec 28 03:46	0°♐	
	3897 Feb 12 21:20	0°♑	
desc. node	3897 Feb 21 08:35	5°♑26'38	
	3897 Mar 31 16:16	0°♒	
	3897 May 18 13:56	0°♓	
	3897 Jul 11 14:47	0°♈	
retrograde	3897 Aug 31 03:38	13°♈47'43	
min. Earth dist.	3897 Sep 29 09:03	8°♈58'35	0.37082 AU
opposition	3897 Sep 30 08:15	8°♈43'11	-5°39'23
greatest brilliancy	3897 Sep 30 08:25	8°♈43'04	-3.0m
direct	3897 Oct 29 20:25	3°♈49'26	
asc. node	3897 Dec 28 12:53	22°♈26'26	
	3898 Jan 11 11:08	0°♉	
	3898 Mar 01 20:43	0°♊	
	3898 Apr 17 18:09	0°♋	
	3898 Jun 03 17:05	0°♌	
	3898 Jul 21 03:57	0°♍	
evening set	3898 Sep 04 10:17	28°♍30'55	
	3898 Sep 06 18:42	0°♎	
max. Earth dist.	3898 Oct 10 03:58	21°♎11'26	2.66927 AU
conjunction	3898 Oct 19 16:48	27°♎17'24	0°41'25
minimum elong	3898 Oct 19 17:50	27°♎19'04	0°41'25
	3898 Oct 23 22:08	0°♏	
morning rise	3898 Dec 02 22:41	26°♏00'04	
	3898 Dec 09 00:24	0°♐	
desc. node	3899 Jan 09 08:12	20°♐54'06	
	3899 Jan 22 18:20	0°♑	
	3899 Mar 07 03:15	0°♒	
	3899 Apr 18 07:18	0°♓	
	3899 May 29 17:12	0°♈	
	3899 Jul 10 10:49	0°♉	
	3899 Aug 24 10:11	0°♊	
retrograde	3899 Nov 05 08:07	27°♊42'27	
asc. node	3899 Nov 15 12:03	26°♊55'51	
min. Earth dist.	3899 Dec 03 06:18	22°♊18'35	0.46178 AU
opposition	3899 Dec 11 13:51	19°♊23'34	1°30'10
greatest brilliancy	3899 Dec 11 01:25	19°♊34'33	-2.4m
direct	3900 Jan 13 10:27	12°♊38'37	
	3900 Mar 15 00:09	0°♋	
	3900 May 10 14:38	0°♌	
	3900 Jun 30 18:05	0°♍	
	3900 Aug 19 00:55	0°♎	
	3900 Oct 05 17:57	0°♏	
evening set	3900 Oct 11 02:17	3°♏26'01	
max. Earth dist.	3900 Nov 03 18:12	18°♏49'21	2.61241 AU
	3900 Nov 20 14:50	0°♐	
conjunction	3900 Nov 26 01:49	3°♐39'29	0°00'42
minimum elong	3900 Nov 26 01:48	3°♐39'28	0°00'42
behind sun begin	3900 Nov 25 06:24	3°♐06'54	
behind sun end	3900 Nov 26 21:12	4°♐12'03	
desc. node	3900 Nov 27 07:08	4°♐28'45	
	3901 Jan 03 11:48	0°♑	
morning rise	3901 Jan 12 07:14	6°♑11'30	
	3901 Feb 14 11:12	0°♒	
	3901 Mar 26 21:03	0°♓	
	3901 May 05 06:05	0°♈	
	3901 Jun 13 09:02	0°♉	
	3901 Jul 23 08:11	0°♊	
	3901 Sep 03 22:16	0°♋	
asc. node	3901 Oct 03 10:28	18°♋39'06	
	3901 Oct 24 00:01	0°♌	
retrograde	3901 Dec 19 21:56	17°♌04'43	
min. Earth dist.	3902 Jan 22 11:26	9°♌33'28	0.58906 AU
greatest brilliancy	3902 Jan 27 09:42	7°♌36'51	-1.7m
opposition	3902 Jan 28 08:19	7°♌14'32	4°22'09
	3902 Feb 20 12:18	30°℞♋	
direct	3902 Mar 06 09:49	28°♋43'15	
	3902 Mar 21 04:54	0°♌	
	3902 Jun 05 17:44	0°♍	
	3902 Jul 29 14:10	0°♎	
	3902 Sep 16 21:32	0°♏	
desc. node	3902 Oct 15 05:41	18°♏10'03	
	3902 Nov 02 03:20	0°♐	
evening set	3902 Nov 19 20:03	11°♐58'39	
max. Earth dist.	3902 Dec 04 24:00	22°♐27'52	2.50650 AU
	3902 Dec 15 17:04	0°♑	
conjunction	3903 Jan 09 10:24	17°♑46'59	-0°45'53
minimum elong	3903 Jan 09 08:43	17°♑43'55	0°45'52
	3903 Jan 26 00:08	0°♒	
	3903 Mar 06 13:49	0°♓	
morning rise	3903 Mar 07 02:24	0°♓24'14	
	3903 Apr 14 02:57	0°♈	
	3903 May 22 11:17	0°♉	
	3903 Jun 30 12:34	0°♊	
	3903 Aug 10 07:02	0°♋	
asc. node	3903 Aug 21 10:21	7°♋52'23	
	3903 Sep 23 03:18	0°♌	
	3903 Nov 12 05:47	0°♍	
retrograde	3904 Jan 25 02:15	24°♍18'37	
min. Earth dist.	3904 Mar 03 07:13	15°♍13'35	0.66469 AU
opposition	3904 Mar 05 09:00	14°♍23'43	4°30'15
greatest brilliancy	3904 Mar 05 00:51	14°♍31'52	-1.3m
direct	3904 Apr 14 06:20	4°♍54'09	
	3904 Jul 02 23:38	0°♎	
	3904 Aug 26 04:18	0°♏	
desc. node	3904 Sep 01 04:09	3°♏36'44	
	3904 Oct 12 20:07	0°♐	
	3904 Nov 25 15:53	0°♑	
	3905 Jan 05 17:10	0°♒	
evening set	3905 Jan 07 14:31	1°♒25'13	
max. Earth dist.	3905 Feb 08 19:42	26°♒04'17	2.37977 AU
	3905 Feb 13 20:55	0°♓	
conjunction	3905 Mar 10 09:50	19°♓14'52	-1°02'26
minimum elong	3905 Mar 10 11:28	19°♓18'06	1°02'25
	3905 Mar 24 00:36	0°♈	

	3905 May 01 02:05	0°♉	
morning rise	3905 May 20 12:39	15°♉07'45	
	3905 Jun 08 22:29	0°♊	
asc. node	3905 Jul 08 09:44	22°♊00'23	
	3905 Jul 19 09:04	0°♋	
	3905 Aug 31 03:38	0°♌	
	3905 Oct 16 03:28	0°♍	
	3905 Dec 06 18:44	0°♎	
retrograde	3906 Feb 27 11:17	27°♎34'47	
opposition	3906 Apr 08 07:51	18°♎07'22	3°17'01
greatest brilliancy	3906 Apr 08 13:00	18°♎02'16	-1.3m
min. Earth dist.	3906 Apr 10 02:51	17°♎24'47	0.67512 AU
direct	3906 May 19 15:18	8°♎08'51	
desc. node	3906 Jul 20 03:03	25°♎02'32	
	3906 Jul 30 11:02	0°♏	
	3906 Sep 21 06:16	0°♐	
	3906 Nov 05 11:10	0°♑	
	3906 Dec 16 20:06	0°♒	
	3907 Jan 24 23:11	0°♓	
	3907 Mar 04 00:56	0°♈	
evening set	3907 Mar 16 07:05	9°♈41'42	
	3907 Apr 11 02:30	0°♉	
	3907 May 20 01:40	0°♊	
conjunction	3907 May 23 15:02	2°♊41'04	-0°01'51
minimum elong	3907 May 23 15:12	2°♊41'23	0°01'52
behind sun begin	3907 May 22 11:27	1°♊49'07	
behind sun end	3907 May 24 18:57	3°♊33'36	
asc. node	3907 May 26 07:50	4°♊42'57	
	3907 Jun 29 15:49	0°♋	
max. Earth dist.	3907 Jul 10 23:50	8°♋07'06	2.46456 AU
morning rise	3907 Jul 25 13:59	18°♋24'08	
	3907 Aug 11 08:46	0°♌	
	3907 Sep 25 11:04	0°♍	
	3907 Nov 12 08:08	0°♎	
	3908 Jan 03 17:13	0°♏	
	3908 Mar 17 21:03	0°♐	
retrograde	3908 Apr 04 22:58	1°♐49'25	
	3908 Apr 21 21:09	30°℞♏	
opposition	3908 May 13 04:44	23°♏12'37	0°55'33
greatest brilliancy	3908 May 13 09:47	23°♏07'47	-1.6m
min. Earth dist.	3908 May 18 17:19	21°♏05'25	0.61986 AU
desc. node	3908 Jun 06 01:47	15°♏15'12	
direct	3908 Jun 23 08:57	13°♏16'08	
	3908 Aug 21 02:11	0°♐	
	3908 Oct 11 21:25	0°♑	
	3908 Nov 24 01:17	0°♒	
	3909 Jan 02 20:47	0°♓	
	3909 Feb 10 07:55	0°♈	
	3909 Mar 20 18:33	0°♉	
asc. node	3909 Apr 12 07:22	17°♉17'00	
	3909 Apr 29 04:28	0°♊	
evening set	3909 May 22 23:55	17°♊33'37	
	3909 Jun 09 06:14	0°♋	
conjunction	3909 Jul 19 11:37	28°♋02'52	0°53'55
minimum elong	3909 Jul 19 09:53	27°♋59'55	0°53'54
	3909 Jul 22 08:26	0°♌	
max. Earth dist.	3909 Aug 15 10:00	16°♌10'03	2.58618 AU
	3909 Sep 05 10:40	0°♍	
morning rise	3909 Sep 08 21:24	2°♍14'37	
	3909 Oct 22 07:38	0°♎	
	3909 Dec 09 21:38	0°♏	
	3910 Jan 30 03:09	0°♐	
	3910 Mar 30 18:58	0°♑	
desc. node	3910 Apr 24 00:52	8°♑35'53	
retrograde	3910 May 22 10:01	12°♑55'04	
opposition	3910 Jun 26 11:35	5°♑45'41	-2°51'39
greatest brilliancy	3910 Jun 27 07:42	5°♑28'00	-2.1m
min. Earth dist.	3910 Jul 04 20:19	2°♑50'09	0.50604 AU
	3910 Jul 13 22:55	30°℞♐	
direct	3910 Aug 03 23:14	26°♐59'09	
	3910 Aug 25 15:48	0°♑	
	3910 Oct 26 05:50	0°♒	
	3910 Dec 08 19:25	0°♓	
	3911 Jan 18 01:38	0°♈	
	3911 Feb 26 19:02	0°♉	
asc. node	3911 Feb 28 06:40	1°♉06'48	
	3911 Apr 08 08:04	0°♊	
	3911 May 20 10:22	0°♋	
	3911 Jul 03 08:48	0°♌	
evening set	3911 Jul 13 06:25	6°♌36'00	
	3911 Aug 17 23:12	0°♍	
conjunction	3911 Aug 31 15:15	8°♍49'33	1°08'08
minimum elong	3911 Aug 31 15:22	8°♍49'45	1°08'08
max. Earth dist.	3911 Sep 10 05:18	14°♍59'01	2.65892 AU
	3911 Oct 03 17:54	0°♎	
morning rise	3911 Oct 16 11:54	8°♎05'53	
	3911 Nov 20 03:05	0°♏	
	3912 Jan 06 19:11	0°♐	
	3912 Feb 23 23:47	0°♑	
desc. node	3912 Mar 11 00:18	9°♑48'35	
	3912 Apr 13 21:23	0°♒	
	3912 Jun 10 01:00	0°♓	
retrograde	3912 Jul 30 09:57	12°♓53'18	
opposition	3912 Aug 29 19:39	7°♓48'38	-6°40'46
greatest brilliancy	3912 Aug 30 21:47	7°♓30'37	-2.8m
min. Earth dist.	3912 Sep 03 04:46	6°♓36'29	0.38461 AU
direct	3912 Sep 30 05:29	2°♓14'20	
	3912 Dec 13 08:12	0°♈	
asc. node	3913 Jan 15 04:22	20°♈49'12	
	3913 Jan 28 23:17	0°♉	
	3913 Mar 14 06:39	0°♊	
	3913 Apr 27 21:40	0°♋	
	3913 Jun 12 14:20	0°♌	
	3913 Jul 29 07:42	0°♍	
evening set	3913 Aug 21 22:51	15°♍01'01	
	3913 Sep 14 13:53	0°♎	
max. Earth dist.	3913 Oct 02 10:44	11°♎20'49	2.67714 AU
conjunction	3913 Oct 06 17:34	14°♎04'20	0°53'01
minimum elong	3913 Oct 06 18:37	14°♎06'01	0°53'01
	3913 Oct 31 16:13	0°♏	
morning rise	3913 Nov 19 19:31	12°♏18'41	
	3913 Dec 17 00:56	0°♐	
desc. node	3914 Jan 26 23:07	27°♐02'19	
	3914 Jan 31 09:26	0°♑	
	3914 Mar 16 17:18	0°♒	
	3914 Apr 29 05:34	0°♓	
	3914 Jun 11 13:02	0°♈	
	3914 Jul 26 18:11	0°♉	
	3914 Sep 27 05:58	0°♊	
retrograde	3914 Oct 15 01:41	2°♊12'02	
	3914 Nov 01 16:49	30°℞♉	
min. Earth dist.	3914 Nov 10 11:46	27°♉33'43	0.41125 AU
opposition	3914 Nov 17 22:58	25°♉12'52	-0°59'44
greatest brilliancy	3914 Nov 17 17:02	25°♉17'33	-2.7m
asc. node	3914 Dec 03 04:12	21°♉03'15	
direct	3914 Dec 18 19:39	19°♉25'19	
	3915 Feb 01 04:51	0°♊	
	3915 Mar 31 17:17	0°♋	
	3915 May 21 10:34	0°♌	
	3915 Jul 09 15:58	0°♍	

	3915 Aug 27 03:18	0°♎	
evening set	3915 Sep 27 18:49	19°♎55'46	
	3915 Oct 13 13:19	0°♏	
max. Earth dist.	3915 Oct 25 18:16	7°♏52'21	2.64094 AU
conjunction	3915 Nov 12 02:51	19°♏11'30	0°17'58
minimum elong	3915 Nov 12 03:25	19°♏12'26	0°17'58
	3915 Nov 28 11:04	0°♐	
desc. node	3915 Dec 14 21:52	11°♐02'04	
morning rise	3915 Dec 27 15:23	19°♐41'22	
	3916 Jan 11 14:47	0°♑	
	3916 Feb 23 00:58	0°♒	
	3916 Apr 03 23:54	0°♓	
	3916 May 13 22:42	0°♈	
	3916 Jun 22 16:29	0°♉	
	3916 Aug 02 13:19	0°♊	
	3916 Sep 16 09:22	0°♋	
asc. node	3916 Oct 20 04:33	18°♋23'36	
	3916 Nov 29 20:21	0°♌	
retrograde	3916 Dec 04 01:17	0°♌07'37	
	3916 Dec 08 04:59	30°℞♋	
min. Earth dist.	3917 Jan 04 10:49	23°♋23'06	0.54313 AU
opposition	3917 Jan 11 15:01	20°♋37'34	3°43'30
greatest brilliancy	3917 Jan 10 14:42	21°♋00'59	-1.9m
direct	3917 Feb 16 04:08	12°♋40'53	
	3917 Apr 19 05:25	0°♌	
	3917 Jun 16 02:50	0°♍	
	3917 Aug 06 13:17	0°♎	
	3917 Sep 24 01:42	0°♏	
desc. node	3917 Oct 31 20:31	24°♏30'18	
evening set	3917 Nov 03 16:09	26°♏22'36	
	3917 Nov 09 02:29	0°♐	
max. Earth dist.	3917 Nov 21 11:36	8°♐20'49	2.55295 AU
conjunction	3917 Dec 21 20:24	29°♐21'41	-0°28'28
minimum elong	3917 Dec 21 19:17	29°♐19'44	0°28'27
	3917 Dec 22 18:08	0°♑	
	3918 Feb 02 06:30	0°♒	
morning rise	3918 Feb 11 17:34	7°♒01'31	
	3918 Mar 14 02:50	0°♓	
	3918 Apr 21 22:19	0°♈	
	3918 May 30 11:58	0°♉	
	3918 Jul 08 18:36	0°♊	
	3918 Aug 18 22:21	0°♋	
asc. node	3918 Sep 07 02:52	13°♋13'57	
	3918 Oct 02 21:35	0°♌	
	3918 Nov 27 15:16	0°♍	
retrograde	3919 Jan 11 12:22	10°♍47'15	
min. Earth dist.	3919 Feb 17 01:07	2°♍15'20	0.64252 AU
opposition	3919 Feb 20 15:29	0°♍48'56	4°39'05
greatest brilliancy	3919 Feb 20 01:01	1°♍03'24	-1.4m
	3919 Feb 22 16:39	30°℞♌	
direct	3919 Mar 31 14:28	21°♌38'13	
	3919 May 11 20:16	0°♍	
	3919 Jul 14 17:52	0°♎	
	3919 Sep 04 07:10	0°♏	
desc. node	3919 Sep 18 19:07	9°♏00'48	
	3919 Oct 21 05:48	0°♐	
	3919 Dec 03 22:00	0°♑	
evening set	3919 Dec 18 09:53	10°♑23'31	
max. Earth dist.	3920 Jan 03 12:49	22°♑11'21	2.42630 AU
	3920 Jan 14 00:43	0°♒	
conjunction	3920 Feb 12 23:33	22°♒46'36	-1°03'59
minimum elong	3920 Feb 12 22:43	22°♒44'58	1°03'59
	3920 Feb 22 07:37	0°♓	
	3920 Mar 31 14:06	0°♈	
morning rise	3920 Apr 19 13:09	14°♈56'53	
	3920 May 08 17:06	0°♉	
	3920 Jun 16 13:59	0°♊	
asc. node	3920 Jul 25 01:25	28°♊33'18	
	3920 Jul 27 01:23	0°♋	
	3920 Sep 08 00:58	0°♌	
	3920 Oct 24 21:45	0°♍	
	3920 Dec 19 16:37	0°♎	
retrograde	3921 Feb 14 00:19	14°♎57'40	
opposition	3921 Mar 26 04:13	5°♎16'49	3°53'15
greatest brilliancy	3921 Mar 26 05:04	5°♎15'58	-1.3m
min. Earth dist.	3921 Mar 26 11:00	5°♎10'04	0.67892 AU
	3921 Apr 09 07:00	30°℞♍	
direct	3921 May 06 02:26	25°♍26'41	
	3921 Jun 04 12:30	0°♎	
desc. node	3921 Aug 05 17:45	27°♎10'31	
	3921 Aug 10 21:38	0°♏	
	3921 Sep 29 19:40	0°♐	
	3921 Nov 13 07:14	0°♑	
	3921 Dec 24 11:35	0°♒	
	3922 Feb 01 14:08	0°♓	
evening set	3922 Feb 15 20:35	11°♓11'30	
	3922 Mar 11 15:54	0°♈	
	3922 Apr 18 16:31	0°♉	
conjunction	3922 Apr 25 09:25	5°♉14'19	-0°31'24
minimum elong	3922 Apr 25 12:17	5°♉19'54	0°31'22
	3922 May 27 13:29	0°♊	
asc. node	3922 Jun 12 01:08	11°♊38'51	
max. Earth dist.	3922 Jun 15 22:40	14°♊32'48	2.40977 AU
morning rise	3922 Jul 02 20:14	26°♊57'43	
	3922 Jul 07 00:44	0°♋	
	3922 Aug 18 16:00	0°♌	
	3922 Oct 02 22:21	0°♍	
	3922 Nov 20 16:17	0°♎	
	3923 Jan 15 19:20	0°♏	
retrograde	3923 Mar 21 15:27	18°♏15'13	
opposition	3923 Apr 29 16:21	9°♏15'18	1°59'08
greatest brilliancy	3923 Apr 29 23:55	9°♏07'54	-1.4m
min. Earth dist.	3923 May 03 18:42	7°♏39'25	0.64919 AU
	3923 May 30 03:43	30°℞♎	
direct	3923 Jun 10 03:11	29°♎13'03	
	3923 Jun 21 14:10	0°♏	
desc. node	3923 Jun 23 17:22	0°♏18'29	
	3923 Sep 04 17:40	0°♐	
	3923 Oct 22 12:39	0°♑	
	3923 Dec 03 16:25	0°♒	
	3924 Jan 12 02:34	0°♓	
	3924 Feb 19 08:13	0°♈	
	3924 Mar 28 13:44	0°♉	
evening set	3924 Apr 28 05:06	23°♉33'15	
asc. node	3924 Apr 28 23:13	24°♉07'34	
	3924 May 06 18:02	0°♊	
	3924 Jun 16 13:51	0°♋	
conjunction	3924 Jun 29 07:31	9°♋04'11	0°37'34
minimum elong	3924 Jun 29 05:31	9°♋00'38	0°37'33
	3924 Jul 29 10:48	0°♌	
max. Earth dist.	3924 Aug 03 10:43	3°♌24'01	2.54368 AU
morning rise	3924 Aug 23 09:47	16°♌48'32	
	3924 Sep 12 10:58	0°♍	
	3924 Oct 29 13:14	0°♎	
	3924 Dec 18 01:52	0°♏	
	3925 Feb 10 12:42	0°♐	
retrograde	3925 May 02 01:12	25°♐42'32	
desc. node	3925 May 10 16:08	25°♐14'28	
opposition	3925 Jun 07 14:21	17°♐52'38	-1°11'49

greatest brilliancy	3925 Jun 07 22:03	17°♐45'32	-1.9m
min. Earth dist.	3925 Jun 15 02:23	15°♐07'09	0.55643 AU
direct	3925 Jul 17 13:40	8°♐25'37	
	3925 Sep 21 10:11	0°♑	
	3925 Nov 07 23:27	0°♒	
	3925 Dec 19 05:24	0°♓	
	3926 Jan 27 10:43	0°♈	
	3926 Mar 07 11:07	0°♉	
asc. node	3926 Mar 16 22:24	7°♉11'57	
	3926 Apr 16 09:55	0°♊	
	3926 May 27 23:54	0°♋	
evening set	3926 Jun 25 02:12	19°♋31'18	
	3926 Jul 10 12:16	0°♌	
conjunction	3926 Aug 15 23:27	24°♌12'54	1°06'48
minimum elong	3926 Aug 15 22:53	24°♌11'58	1°06'47
	3926 Aug 24 20:12	0°♍	
max. Earth dist.	3926 Aug 31 18:01	4°♍29'07	2.63688 AU
morning rise	3926 Oct 02 10:52	24°♍50'17	
	3926 Oct 10 13:45	0°♎	
	3926 Nov 27 06:23	0°♏	
	3927 Jan 14 21:15	0°♐	
	3927 Mar 06 09:17	0°♑	
desc. node	3927 Mar 28 14:35	12°♑26'23	
	3927 May 02 08:59	0°♒	
retrograde	3927 Jun 30 17:14	16°♒14'06	
opposition	3927 Aug 01 17:59	10°♒23'46	-5°39'50
greatest brilliancy	3927 Aug 03 06:04	9°♒55'57	-2.6m
min. Earth dist.	3927 Aug 09 09:35	8°♒02'53	0.42504 AU
direct	3927 Sep 05 10:53	3°♒25'19	
	3927 Nov 15 15:40	0°♓	
	3927 Dec 30 20:22	0°♈	
asc. node	3928 Feb 01 22:08	23°♈31'28	
	3928 Feb 10 22:49	0°♉	
	3928 Mar 24 01:51	0°♊	
	3928 May 06 08:34	0°♋	
	3928 Jun 20 03:56	0°♌	
	3928 Aug 05 08:06	0°♍	
evening set	3928 Aug 06 22:01	1°♍00'53	
	3928 Sep 21 08:03	0°♎	
conjunction	3928 Sep 22 16:36	0°♎51'46	1°01'38
minimum elong	3928 Sep 22 17:28	0°♎53'07	1°01'38
max. Earth dist.	3928 Sep 23 15:46	1°♎28'35	2.67656 AU
morning rise	3928 Nov 06 02:21	29°♎07'33	
	3928 Nov 07 11:13	0°♏	
	3928 Dec 24 05:03	0°♐	
	3929 Feb 08 08:51	0°♑	
desc. node	3929 Feb 12 13:46	2°♑45'02	
	3929 Mar 26 01:36	0°♒	
	3929 May 10 19:44	0°♓	
	3929 Jun 27 09:35	0°♈	
	3929 Aug 30 20:34	0°♉	
retrograde	3929 Sep 18 05:48	2°♉15'34	
	3929 Oct 06 22:22	30°℞♈	
min. Earth dist.	3929 Oct 15 14:15	27°♈46'59	0.37740 AU
opposition	3929 Oct 19 13:21	26°♈40'42	-4°07'47
greatest brilliancy	3929 Oct 19 03:20	26°♈47'41	-2.9m
direct	3929 Nov 18 02:04	21°♈39'29	
asc. node	3929 Dec 19 21:08	27°♈41'09	
	3929 Dec 26 02:48	0°♉	
	3930 Feb 22 05:22	0°♊	
	3930 Apr 12 07:33	0°♋	
	3930 May 30 05:57	0°♌	
	3930 Jul 17 04:59	0°♍	
	3930 Sep 03 01:58	0°♎	
evening set	3930 Sep 13 14:25	6°♎38'02	
max. Earth dist.	3930 Oct 16 11:32	27°♎32'41	2.66146 AU
	3930 Oct 20 07:23	0°♏	
conjunction	3930 Oct 28 18:31	5°♏26'58	0°33'25
minimum elong	3930 Oct 28 19:26	5°♏28'27	0°33'25
	3930 Dec 05 08:04	0°♐	
morning rise	3930 Dec 12 07:24	4°♐37'45	
desc. node	3930 Dec 31 12:39	17°♐31'00	
	3931 Jan 18 20:51	0°♑	
	3931 Mar 02 21:02	0°♒	
	3931 Apr 13 13:16	0°♓	
	3931 May 24 07:48	0°♈	
	3931 Jul 04 02:04	0°♉	
	3931 Aug 15 19:14	0°♊	
	3931 Oct 06 14:01	0°♋	
asc. node	3931 Nov 06 19:56	9°♋53'34	
retrograde	3931 Nov 17 10:28	10°♋41'49	
min. Earth dist.	3931 Dec 16 13:58	4°♋48'38	0.49143 AU
opposition	3931 Dec 24 16:38	1°♋50'18	2°31'48
greatest brilliancy	3931 Dec 23 20:57	2°♋08'25	-2.2m
	3931 Dec 29 20:05	30°℞♊	
direct	3932 Jan 27 12:52	24°♊36'59	
	3932 Feb 27 14:27	0°♋	
	3932 May 03 07:38	0°♌	
	3932 Jun 25 03:35	0°♍	
	3932 Aug 14 01:56	0°♎	
	3932 Oct 01 01:13	0°♏	
evening set	3932 Oct 19 11:59	11°♏53'07	
max. Earth dist.	3932 Nov 09 22:26	25°♏58'06	2.59318 AU
	3932 Nov 15 23:34	0°♐	
desc. node	3932 Nov 17 11:16	0°♐59'44	
conjunction	3932 Dec 05 01:58	12°♐54'08	-0°09'58
minimum elong	3932 Dec 05 01:35	12°♐53'29	0°09'58
behind sun begin	3932 Dec 04 09:38	12°♐26'18	
behind sun end	3932 Dec 05 17:32	13°♐20'42	
	3932 Dec 29 18:57	0°♑	
morning rise	3933 Jan 22 15:26	16°♑56'59	
	3933 Feb 09 14:40	0°♒	
	3933 Mar 21 19:44	0°♓	
	3933 Apr 29 23:44	0°♈	
	3933 Jun 07 21:01	0°♉	
	3933 Jul 17 12:13	0°♊	
	3933 Aug 28 08:40	0°♋	
asc. node	3933 Sep 23 19:53	17°♋28'45	
	3933 Oct 14 14:31	0°♌	
retrograde	3933 Dec 28 08:54	26°♌21'28	
min. Earth dist.	3934 Feb 01 00:54	18°♌27'30	0.61061 AU
greatest brilliancy	3934 Feb 05 07:04	16°♌46'03	-1.6m
opposition	3934 Feb 06 03:19	16°♌25'57	4°33'46
direct	3934 Mar 15 22:51	7°♌38'59	
	3934 May 28 18:22	0°♍	
	3934 Jul 23 22:37	0°♎	
	3934 Sep 11 22:28	0°♏	
desc. node	3934 Oct 05 10:26	14°♏55'01	
	3934 Oct 28 10:02	0°♐	
evening set	3934 Nov 29 16:23	22°♐00'59	
	3934 Dec 11 00:54	0°♑	
max. Earth dist.	3934 Dec 14 02:16	2°♑10'12	2.47826 AU
conjunction	3935 Jan 21 02:21	29°♑52'06	-0°54'26
minimum elong	3935 Jan 21 00:37	29°♑48'52	0°54'25
	3935 Jan 21 06:35	0°♒	
	3935 Mar 01 17:53	0°♓	
morning rise	3935 Mar 22 03:05	15°♓50'49	
	3935 Apr 09 04:35	0°♈	
greatest brilliancy	3935 May 10 20:47	24°♈51'40	1.2m

	3935 May 17 10:36	0°♉	
	3935 Jun 25 09:32	0°♊	
	3935 Aug 05 00:03	0°♋	
asc. node	3935 Aug 11 18:03	4°♋49'22	
	3935 Sep 17 09:25	0°♌	
	3935 Nov 04 19:45	0°♍	
	3936 Jan 13 07:45	0°♎	
retrograde	3936 Feb 01 17:16	2°♎13'18	
	3936 Feb 19 22:31	30°℞♍	
min. Earth dist.	3936 Mar 11 18:29	22°♍52'17	0.67265 AU
opposition	3936 Mar 13 00:24	22°♍22'22	4°19'38
greatest brilliancy	3936 Mar 12 19:39	22°♍27'06	-1.3m
direct	3936 Apr 22 08:22	12°♍44'26	
	3936 Jun 24 12:09	0°♎	
	3936 Aug 20 10:52	0°♏	
desc. node	3936 Aug 22 09:25	1°♏08'12	
	3936 Oct 07 19:20	0°♐	
	3936 Nov 20 20:42	0°♑	
	3936 Dec 31 23:12	0°♒	
evening set	3937 Jan 20 20:17	15°♒05'37	
	3937 Feb 09 02:28	0°♓	
	3937 Mar 19 05:10	0°♈	
conjunction	3937 Mar 26 16:00	5°♈53'52	-0°54'58
minimum elong	3937 Mar 26 19:00	5°♈59'49	0°54'56
max. Earth dist.	3937 Apr 08 02:42	15°♈44'15	2.36898 AU
	3937 Apr 26 05:39	0°♉	
	3937 Jun 04 01:19	0°♊	
morning rise	3937 Jun 06 06:28	1°♊40'49	
asc. node	3937 Jun 28 16:22	18°♊27'32	
	3937 Jul 14 11:03	0°♋	
	3937 Aug 26 02:44	0°♌	
	3937 Oct 10 17:25	0°♍	
	3937 Nov 29 22:08	0°♎	
	3938 Feb 03 13:58	0°♏	
retrograde	3938 Mar 07 08:35	5°♏19'24	
	3938 Apr 05 09:43	30°℞♎	
opposition	3938 Apr 15 23:42	26°♎00'42	2°51'09
greatest brilliancy	3938 Apr 16 06:21	25°♎54'09	-1.3m
min. Earth dist.	3938 Apr 18 14:17	24°♎59'03	0.66878 AU
direct	3938 May 27 10:23	15°♎59'37	
desc. node	3938 Jul 10 07:58	25°♎33'13	
	3938 Jul 21 02:49	0°♏	
	3938 Sep 15 05:45	0°♐	
	3938 Oct 31 04:45	0°♑	
	3938 Dec 11 19:52	0°♒	
	3939 Jan 20 01:21	0°♓	
	3939 Feb 27 04:14	0°♈	
greatest brilliancy	3939 Mar 18 16:25	15°♈24'37	1.2m
evening set	3939 Apr 01 11:50	26°♈15'46	
	3939 Apr 06 06:29	0°♉	
	3939 May 15 06:24	0°♊	
asc. node	3939 May 16 16:36	1°♊04'33	
conjunction	3939 Jun 07 03:54	17°♊05'01	0°14'12
minimum elong	3939 Jun 07 02:47	17°♊02'58	0°14'11
behind sun begin	3939 Jun 06 14:30	16°♊40'21	
behind sun end	3939 Jun 07 15:04	17°♊25'35	
	3939 Jun 24 21:20	0°♋	
max. Earth dist.	3939 Jul 21 03:18	18°♋37'28	2.49396 AU
morning rise	3939 Aug 06 02:13	29°♋39'32	
	3939 Aug 06 14:11	0°♌	
	3939 Sep 20 14:07	0°♍	
	3939 Nov 07 01:40	0°♎	
	3939 Dec 28 01:51	0°♏	
	3940 Feb 27 11:11	0°♐	
retrograde	3940 Apr 14 06:32	10°♐26'24	
opposition	3940 May 21 23:50	2°♐04'27	0°12'47
greatest brilliancy	3940 May 22 01:15	2°♐03'07	-1.7m
desc. node	3940 May 27 06:49	0°♐03'54	
	3940 May 27 10:58	30°℞♏	
min. Earth dist.	3940 May 28 06:26	29°♏41'44	0.59963 AU
direct	3940 Jul 01 20:47	22°♏15'11	
	3940 Aug 08 08:27	0°♐	
	3940 Oct 04 23:47	0°♑	
	3940 Nov 18 05:09	0°♒	
	3940 Dec 28 10:08	0°♓	
	3941 Feb 05 02:31	0°♈	
	3941 Mar 15 16:54	0°♉	
asc. node	3941 Apr 02 15:59	13°♉45'03	
	3941 Apr 24 06:09	0°♊	
evening set	3941 Jun 04 16:13	0°♋09'12	
	3941 Jun 04 11:02	0°♋	
	3941 Jul 17 15:26	0°♌	
conjunction	3941 Jul 29 22:34	8°♌17'49	1°00'19
minimum elong	3941 Jul 29 21:14	8°♌15'34	1°00'18
max. Earth dist.	3941 Aug 21 17:51	23°♌26'13	2.60629 AU
	3941 Aug 31 18:27	0°♍	
morning rise	3941 Sep 17 17:36	10°♍59'40	
	3941 Oct 17 12:43	0°♎	
	3941 Dec 04 16:48	0°♏	
	3942 Jan 23 17:40	0°♐	
	3942 Mar 19 11:42	0°♑	
desc. node	3942 Apr 14 05:32	11°♑50'51	
retrograde	3942 Jun 04 08:42	24°♑14'17	
opposition	3942 Jul 08 10:58	17°♑31'17	-3°53'36
greatest brilliancy	3942 Jul 09 14:41	17°♑07'52	-2.3m
min. Earth dist.	3942 Jul 17 00:23	14°♑38'36	0.47668 AU
direct	3942 Aug 14 20:31	9°♑16'41	
	3942 Oct 15 20:22	0°♒	
	3942 Dec 01 09:47	0°♓	
	3943 Jan 11 16:38	0°♈	
asc. node	3943 Feb 18 14:06	28°♈12'46	
	3943 Feb 20 23:53	0°♉	
	3943 Apr 02 22:42	0°♊	
	3943 May 15 08:47	0°♋	
	3943 Jun 28 12:54	0°♌	
evening set	3943 Jul 22 22:07	16°♌05'55	
	3943 Aug 13 07:05	0°♍	
conjunction	3943 Sep 09 04:53	17°♍17'55	1°06'52
minimum elong	3943 Sep 09 05:20	17°♍18'38	1°06'51
max. Earth dist.	3943 Sep 15 13:32	21°♍21'49	2.66749 AU
	3943 Sep 29 02:43	0°♎	
morning rise	3943 Oct 24 09:56	16°♎04'31	
	3943 Nov 15 08:48	0°♏	
	3944 Jan 01 15:29	0°♐	
	3944 Feb 17 22:50	0°♑	
desc. node	3944 Mar 01 04:19	7°♑43'04	
	3944 Apr 05 20:43	0°♒	
	3944 May 26 09:04	0°♓	
	3944 Aug 10 20:10	0°♈	
retrograde	3944 Aug 17 22:38	0°♈19'05	
	3944 Aug 24 23:26	30°℞♓	
opposition	3944 Sep 16 20:42	25°♓23'00	-6°24'00
greatest brilliancy	3944 Sep 17 09:04	25°♓14'49	-2.9m
min. Earth dist.	3944 Sep 18 11:13	24°♓57'34	0.37302 AU
direct	3944 Oct 16 21:25	20°♓19'38	
	3944 Nov 26 08:10	0°♈	
asc. node	3945 Jan 05 13:20	21°♈14'05	
	3945 Jan 19 21:28	0°♉	
	3945 Mar 07 09:44	0°♊	
	3945 Apr 22 02:37	0°♋	

	3945 Jun 07 09:50	0°♌	
	3945 Jul 24 11:53	0°♍	
evening set	3945 Aug 30 06:53	23°♍15'53	
	3945 Sep 09 22:29	0°♎	
max. Earth dist.	3945 Oct 07 14:16	17°♎33'18	2.67380 AU
conjunction	3945 Oct 14 17:30	22°♎06'20	0°46'34
minimum elong	3945 Oct 14 18:34	22°♎08'02	0°46'34
	3945 Oct 27 01:29	0°♏	
morning rise	3945 Nov 27 20:15	20°♏32'45	
	3945 Dec 12 07:01	0°♐	
desc. node	3946 Jan 17 03:57	23°♐50'03	
	3946 Jan 26 07:34	0°♑	
	3946 Mar 11 02:28	0°♒	
	3946 Apr 22 19:36	0°♓	
	3946 Jun 03 22:30	0°♈	
	3946 Jul 16 18:17	0°♉	
	3946 Sep 02 19:58	0°♊	
retrograde	3946 Oct 28 03:32	17°♊36'43	
asc. node	3946 Nov 23 12:59	12°♊48'33	
min. Earth dist.	3946 Nov 24 05:59	12°♊34'50	0.43822 AU
opposition	3946 Dec 02 09:40	9°♊50'26	0°32'37
greatest brilliancy	3946 Dec 02 05:06	9°♊54'18	-2.6m
direct	3947 Jan 03 09:24	3°♊30'31	
	3947 Mar 22 17:44	0°♋	
	3947 May 15 04:38	0°♌	
	3947 Jul 04 09:51	0°♍	
	3947 Aug 22 07:52	0°♎	
evening set	3947 Oct 05 22:07	28°♎04'34	
	3947 Oct 08 22:15	0°♏	
max. Earth dist.	3947 Oct 31 09:38	14°♏31'52	2.62620 AU
conjunction	3947 Nov 20 13:10	27°♏47'58	0°08'08
minimum elong	3947 Nov 20 13:27	27°♏48'26	0°08'09
behind sun begin	3947 Nov 19 20:36	27°♏20'27	
behind sun end	3947 Nov 21 06:18	28°♏16'26	
	3947 Nov 23 20:30	0°♐	
desc. node	3947 Dec 05 03:03	7°♐33'30	
morning rise	3948 Jan 05 22:01	29°♐19'28	
	3948 Jan 06 21:19	0°♑	
	3948 Feb 18 02:13	0°♒	
	3948 Mar 29 18:03	0°♓	
	3948 May 08 09:02	0°♈	
	3948 Jun 16 17:25	0°♉	
	3948 Jul 26 23:26	0°♊	
	3948 Sep 08 05:12	0°♋	
asc. node	3948 Oct 10 11:12	19°♋29'35	
	3948 Oct 31 16:13	0°♌	
retrograde	3948 Dec 13 06:25	10°♌30'59	
min. Earth dist.	3949 Jan 14 21:22	3°♌20'16	0.56963 AU
greatest brilliancy	3949 Jan 20 09:25	1°♌11'21	-1.8m
opposition	3949 Jan 21 09:28	0°♌47'51	4°09'29
	3949 Jan 23 10:52	30°℞♋	
direct	3949 Feb 26 19:54	22°♋30'59	
	3949 Apr 05 23:01	0°♌	
	3949 Jun 09 12:23	0°♍	
	3949 Aug 01 06:08	0°♎	
	3949 Sep 19 05:50	0°♏	
desc. node	3949 Oct 22 01:21	21°♏07'39	
	3949 Nov 04 10:42	0°♐	
evening set	3949 Nov 12 17:08	5°♐33'20	
max. Earth dist.	3949 Nov 28 21:55	16°♐36'26	2.52811 AU
	3949 Dec 18 02:32	0°♑	
conjunction	3950 Jan 01 02:22	9°♑58'02	-0°38'45
minimum elong	3950 Jan 01 00:53	9°♑55'22	0°38'44
	3950 Jan 28 13:03	0°♒	

morning rise	3950 Feb 24 10:19	20°♒11'32	
	3950 Mar 09 06:19	0°♓	
	3950 Apr 16 22:30	0°♈	
	3950 May 25 08:45	0°♉	
	3950 Jul 03 11:09	0°♊	
	3950 Aug 13 07:36	0°♋	
asc. node	3950 Aug 28 10:40	10°♋36'55	
	3950 Sep 26 10:50	0°♌	
	3950 Nov 17 01:05	0°♍	
retrograde	3951 Jan 19 08:19	19°♍06'50	
min. Earth dist.	3951 Feb 25 20:11	10°♍16'13	0.65611 AU
opposition	3951 Feb 28 14:41	9°♍09'39	4°35'34
greatest brilliancy	3951 Feb 28 03:43	9°♍20'38	-1.4m
	3951 Apr 03 10:49	30°℞♌	
direct	3951 Apr 09 03:17	29°♌47'54	
	3951 Apr 14 23:01	0°♍	
	3951 Jul 07 22:09	0°♎	
	3951 Aug 29 22:39	0°♏	
desc. node	3951 Sep 08 23:57	6°♏08'16	
	3951 Oct 16 08:24	0°♐	
	3951 Nov 29 04:02	0°♑	
evening set	3951 Dec 30 01:07	22°♑22'09	
	3952 Jan 09 07:08	0°♒	
max. Earth dist.	3952 Jan 20 01:28	8°♒06'50	2.39882 AU
	3952 Feb 17 12:59	0°♓	
conjunction	3952 Feb 27 10:02	7°♓42'11	-1°04'49
minimum elong	3952 Feb 27 10:28	7°♓43'01	1°04'49
	3952 Mar 26 18:13	0°♈	
	3952 May 03 20:07	0°♉	
morning rise	3952 May 07 00:13	2°♉28'55	
	3952 Jun 11 15:48	0°♊	
asc. node	3952 Jul 15 10:17	25°♊10'52	
	3952 Jul 22 01:23	0°♋	
	3952 Sep 02 19:54	0°♌	
	3952 Oct 19 01:07	0°♍	
	3952 Dec 10 20:44	0°♎	
retrograde	3953 Feb 21 16:30	22°♎40'45	
opposition	3953 Apr 02 17:12	13°♎06'47	3°33'07
greatest brilliancy	3953 Apr 02 20:34	13°♎03'26	-1.3m
min. Earth dist.	3953 Apr 03 19:45	12°♎40'26	0.67813 AU
direct	3953 May 13 21:45	3°♎11'34	
desc. node	3953 Jul 26 22:51	25°♎58'57	
	3953 Aug 03 19:08	0°♏	
	3953 Sep 24 07:32	0°♐	
	3953 Nov 08 06:10	0°♑	
	3953 Dec 19 14:15	0°♒	
	3954 Jan 27 17:41	0°♓	
evening set	3954 Mar 03 16:12	27°♓30'46	
	3954 Mar 06 19:37	0°♈	
	3954 Apr 13 20:21	0°♉	
conjunction	3954 May 11 15:37	21°♉33'05	-0°14'40
minimum elong	3954 May 11 17:00	21°♉35'44	0°14'39
behind sun begin	3954 May 11 05:07	21°♉12'58	
behind sun end	3954 May 12 04:53	21°♉58'28	
	3954 May 22 17:36	0°♊	
asc. node	3954 Jun 02 08:46	8°♊00'44	
max. Earth dist.	3954 Jul 01 20:17	29°♊43'45	2.43991 AU
	3954 Jul 02 05:16	0°♋	
morning rise	3954 Jul 16 03:33	9°♋59'16	
	3954 Aug 13 19:50	0°♌	
	3954 Sep 27 22:00	0°♍	
	3954 Nov 15 00:50	0°♎	
	3955 Jan 07 13:20	0°♏	
retrograde	3955 Mar 30 05:34	26°♏23'51	
opposition	3955 May 07 20:56	17°♏35'58	1°23'25

greatest brilliancy	3955 May 08 03:26	17°♏29'41	-1.5m
min. Earth dist.	3955 May 12 18:13	15°♏42'37	0.63425 AU
desc. node	3955 Jun 13 21:29	7°♏43'18	
direct	3955 Jun 18 05:29	7°♏36'04	
	3955 Aug 27 16:57	0°♐	
	3955 Oct 16 13:12	0°♑	
	3955 Nov 28 07:07	0°♒	
	3956 Jan 06 22:49	0°♓	
	3956 Feb 14 07:29	0°♈	
	3956 Mar 23 15:11	0°♉	
asc. node	3956 Apr 19 07:55	20°♉30'55	
	3956 May 01 21:23	0°♊	
evening set	3956 May 12 14:04	7°♊58'34	
	3956 Jun 11 19:12	0°♋	
conjunction	3956 Jul 11 01:47	20°♋36'51	0°47'49
minimum elong	3956 Jul 10 23:50	20°♋33'29	0°47'48
	3956 Jul 24 17:33	0°♌	
max. Earth dist.	3956 Aug 10 15:07	11°♌25'21	2.56808 AU
morning rise	3956 Sep 02 00:02	26°♌15'09	
	3956 Sep 07 17:33	0°♍	
	3956 Oct 24 15:17	0°♎	
	3956 Dec 12 12:52	0°♏	
	3957 Feb 02 20:07	0°♐	
	3957 Apr 10 03:34	0°♑	
desc. node	3957 Apr 30 20:19	4°♑47'29	
retrograde	3957 May 13 05:33	5°♑41'15	
	3957 Jun 12 22:09	30°℞♐	
opposition	3957 Jun 18 00:24	28°♐12'41	-2°07'28
greatest brilliancy	3957 Jun 18 14:53	27°♐59'40	-2.0m
min. Earth dist.	3957 Jun 26 02:00	25°♐19'17	0.52922 AU
direct	3957 Jul 27 06:38	19°♐05'41	
	3957 Sep 09 02:01	0°♑	
	3957 Oct 31 13:44	0°♒	
	3957 Dec 12 23:05	0°♓	
	3958 Jan 21 17:00	0°♈	
	3958 Mar 02 01:41	0°♉	
asc. node	3958 Mar 07 07:24	3°♉57'34	
	3958 Apr 11 06:49	0°♊	
	3958 May 23 02:08	0°♋	
evening set	3958 Jul 05 15:34	29°♋55'05	
	3958 Jul 05 18:30	0°♌	
	3958 Aug 20 04:53	0°♍	
conjunction	3958 Aug 25 01:04	3°♍08'28	1°08'07
minimum elong	3958 Aug 25 00:56	3°♍08'15	1°08'06
max. Earth dist.	3958 Sep 06 08:07	11°♍04'51	2.65005 AU
	3958 Oct 05 22:10	0°♎	
morning rise	3958 Oct 10 13:18	2°♎56'30	
	3958 Nov 22 09:59	0°♏	
	3959 Jan 09 10:58	0°♐	
	3959 Feb 27 11:51	0°♑	
desc. node	3959 Mar 18 19:52	11°♑28'19	
	3959 Apr 20 13:40	0°♒	
	3959 Jul 04 00:07	0°♓	
retrograde	3959 Jul 17 11:47	1°♓06'10	
	3959 Jul 30 18:47	30°℞♒	
opposition	3959 Aug 17 12:50	25°♒43'55	-6°24'39
greatest brilliancy	3959 Aug 18 22:18	25°♒19'38	-2.7m
min. Earth dist.	3959 Aug 23 16:35	23°♒57'23	0.40018 AU
direct	3959 Sep 19 09:14	19°♒33'55	
	3959 Oct 30 17:42	0°♓	
	3959 Dec 21 19:34	0°♈	
asc. node	3960 Jan 23 05:02	21°♈55'00	
	3960 Feb 03 21:00	0°♉	
	3960 Mar 18 00:28	0°♊	
	3960 Apr 30 22:40	0°♋	
	3960 Jun 15 04:09	0°♌	
	3960 Jul 31 14:42	0°♍	
evening set	3960 Aug 15 14:38	9°♍34'32	
	3960 Sep 16 17:34	0°♎	
max. Earth dist.	3960 Sep 28 19:41	7°♎40'43	2.67799 AU
conjunction	3960 Sep 30 18:21	8°♎54'53	0°56'59
minimum elong	3960 Sep 30 19:20	8°♎56'28	0°56'58
	3960 Nov 02 20:17	0°♏	
morning rise	3960 Nov 13 22:18	7°♏06'08	
	3960 Dec 19 09:14	0°♐	
desc. node	3961 Feb 02 18:50	29°♐47'58	
	3961 Feb 03 02:06	0°♑	
	3961 Mar 19 23:37	0°♒	
	3961 May 03 08:06	0°♓	
	3961 Jun 17 00:49	0°♈	
	3961 Aug 04 15:40	0°♉	
retrograde	3961 Oct 04 00:35	20°♉02'42	
min. Earth dist.	3961 Oct 30 09:39	15°♉35'34	0.39304 AU
opposition	3961 Nov 05 16:37	13°♉43'37	-2°19'41
greatest brilliancy	3961 Nov 05 05:54	13°♉51'36	-2.9m
direct	3961 Dec 05 18:18	8°♉20'17	
asc. node	3961 Dec 10 04:31	8°♉27'57	
	3962 Feb 11 06:52	0°♊	
	3962 Apr 05 05:48	0°♋	
	3962 May 24 13:08	0°♌	
	3962 Jul 12 03:56	0°♍	
	3962 Aug 29 08:38	0°♎	
evening set	3962 Sep 21 17:26	14°♎43'01	
	3962 Oct 15 16:58	0°♏	
max. Earth dist.	3962 Oct 21 19:38	3°♏55'48	2.65118 AU
conjunction	3962 Nov 05 22:04	13°♏42'37	0°24'40
minimum elong	3962 Nov 05 22:48	13°♏43'50	0°24'40
	3962 Nov 30 16:48	0°♐	
morning rise	3962 Dec 20 22:02	13°♐32'07	
desc. node	3962 Dec 21 17:37	14°♐05'11	
	3963 Jan 14 01:12	0°♑	
	3963 Feb 25 18:16	0°♒	
	3963 Apr 08 00:58	0°♓	
	3963 May 18 08:05	0°♈	
	3963 Jun 27 10:52	0°♉	
	3963 Aug 07 21:28	0°♊	
	3963 Sep 23 11:09	0°♋	
asc. node	3963 Oct 28 05:04	16°♋36'19	
retrograde	3963 Nov 27 16:54	22°♋33'30	
min. Earth dist.	3963 Dec 28 02:21	16°♋12'01	0.52045 AU
opposition	3964 Jan 04 18:47	13°♋17'56	3°18'13
greatest brilliancy	3964 Jan 03 19:14	13°♋40'13	-2.1m
direct	3964 Feb 08 13:49	5°♋39'40	
	3964 Apr 24 22:17	0°♌	
	3964 Jun 19 06:14	0°♍	
	3964 Aug 09 00:21	0°♎	
	3964 Sep 26 07:43	0°♏	
evening set	3964 Oct 28 01:37	20°♏31'34	
desc. node	3964 Nov 07 16:05	27°♏32'23	
	3964 Nov 11 08:38	0°♐	
max. Earth dist.	3964 Nov 16 08:29	3°♐20'51	2.57188 AU
conjunction	3964 Dec 14 10:20	22°♐31'42	-0°20'41
minimum elong	3964 Dec 14 09:33	22°♐30'19	0°20'39
	3964 Dec 25 02:58	0°♑	
morning rise	3965 Feb 02 15:56	28°♑25'08	
	3965 Feb 04 19:35	0°♒	
	3965 Mar 16 20:17	0°♓	
	3965 Apr 24 19:42	0°♈	
	3965 Jun 02 12:24	0°♉	

	3965 Jul 11 21:29	0°♊	
	3965 Aug 22 05:47	0°♋	
asc. node	3965 Sep 14 03:42	15°♋35'14	
	3965 Oct 06 20:13	0°♌	
	3965 Dec 06 19:28	0°♍	
retrograde	3966 Jan 05 13:11	5°♍13'35	
	3966 Feb 02 07:15	30°℞♌	
min. Earth dist.	3966 Feb 10 06:49	26°♌58'14	0.62943 AU
opposition	3966 Feb 14 13:38	25°♌15'43	4°39'03
greatest brilliancy	3966 Feb 13 20:27	25°♌32'51	-1.5m
direct	3966 Mar 25 01:33	16°♌14'57	
	3966 May 19 00:30	0°♍	
	3966 Jul 17 22:29	0°♎	
	3966 Sep 06 20:00	0°♏	
desc. node	3966 Sep 25 14:45	11°♏46'24	
	3966 Oct 23 15:19	0°♐	
	3966 Dec 06 08:20	0°♑	
evening set	3966 Dec 10 01:12	2°♑37'44	
max. Earth dist.	3966 Dec 24 14:45	13°♑05'54	2.44968 AU
	3967 Jan 16 13:38	0°♒	
conjunction	3967 Feb 02 14:24	12°♒50'02	-1°00'57
minimum elong	3967 Feb 02 13:00	12°♒47'22	1°00'56
	3967 Feb 24 23:08	0°♓	
	3967 Apr 04 07:39	0°♈	
morning rise	3967 Apr 07 06:18	2°♈19'02	
	3967 May 12 11:41	0°♉	
	3967 Jun 20 08:27	0°♊	
	3967 Jul 30 19:38	0°♋	
asc. node	3967 Aug 02 01:45	1°♋37'27	
	3967 Sep 11 20:54	0°♌	
	3967 Oct 29 04:07	0°♍	
	3967 Dec 26 21:21	0°♎	
retrograde	3968 Feb 09 07:59	10°♎02'58	
opposition	3968 Mar 20 14:24	0°♎17'07	4°05'24
min. Earth dist.	3968 Mar 20 04:43	0°♎26'47	0.67739 AU
greatest brilliancy	3968 Mar 20 12:53	0°♎18'38	-1.3m
	3968 Mar 21 07:34	30°℞♍	
direct	3968 Apr 30 07:29	20°♍31'58	
	3968 Jun 13 14:15	0°♎	
desc. node	3968 Aug 12 13:38	29°♎01'10	
	3968 Aug 14 07:16	0°♏	
	3968 Oct 02 13:59	0°♐	
	3968 Nov 15 22:31	0°♑	
	3968 Dec 27 03:26	0°♒	
evening set	3969 Feb 04 02:51	29°♒51'49	
	3969 Feb 04 07:03	0°♓	
	3969 Mar 14 09:30	0°♈	
conjunction	3969 Apr 12 09:00	22°♈54'14	-0°42'57
minimum elong	3969 Apr 12 12:24	23°♈00'55	0°42'54
	3969 Apr 21 09:49	0°♉	
max. Earth dist.	3969 May 29 07:36	29°♉18'49	2.38731 AU
	3969 May 30 05:16	0°♊	
asc. node	3969 Jun 19 01:54	14°♊55'46	
morning rise	3969 Jun 21 17:40	16°♊54'05	
	3969 Jul 09 14:29	0°♋	
	3969 Aug 21 04:12	0°♌	
	3969 Oct 05 11:45	0°♍	
	3969 Nov 23 15:51	0°♎	
	3970 Jan 21 05:29	0°♏	
retrograde	3970 Mar 15 10:20	13°♏09'30	
opposition	3970 Apr 23 18:31	4°♏00'35	2°21'57
greatest brilliancy	3970 Apr 24 01:56	3°♏53'19	-1.4m
min. Earth dist.	3970 Apr 27 04:55	2°♏39'53	0.65917 AU
	3970 May 04 06:15	30°℞♎	
direct	3970 Jun 04 06:31	23°♎58'14	
desc. node	3970 Jun 30 13:06	27°♎46'47	
	3970 Jul 07 23:34	0°♏	
	3970 Sep 08 16:52	0°♐	
	3970 Oct 25 16:34	0°♑	
	3970 Dec 06 15:52	0°♒	
	3971 Jan 15 00:28	0°♓	
	3971 Feb 22 04:59	0°♈	
	3971 Apr 01 08:42	0°♉	
evening set	3971 Apr 17 10:10	12°♉27'27	
asc. node	3971 May 07 00:23	27°♉25'31	
	3971 May 10 10:08	0°♊	
conjunction	3971 Jun 20 15:53	0°♋23'58	0°28'25
minimum elong	3971 Jun 20 14:04	0°♋20'40	0°28'23
	3971 Jun 20 02:34	0°♋	
max. Earth dist.	3971 Jul 29 16:33	27°♋50'05	2.52230 AU
	3971 Aug 01 20:19	0°♌	
morning rise	3971 Aug 16 18:18	10°♌07'23	
	3971 Sep 15 18:49	0°♍	
	3971 Nov 01 23:16	0°♎	
	3971 Dec 21 23:45	0°♏	
	3972 Feb 16 11:33	0°♐	
retrograde	3972 Apr 24 01:55	19°♐24'25	
desc. node	3972 May 17 11:53	15°♐58'35	
opposition	3972 May 31 05:04	11°♐19'09	-0°34'18
greatest brilliancy	3972 May 31 08:32	11°♐15'55	-1.8m
min. Earth dist.	3972 Jun 07 05:10	8°♐42'25	0.57683 AU
direct	3972 Jul 10 16:13	1°♐40'24	
	3972 Sep 27 03:25	0°♑	
	3972 Nov 12 00:15	0°♒	
	3972 Dec 22 18:25	0°♓	
	3973 Jan 30 17:18	0°♈	
	3973 Mar 10 12:23	0°♉	
asc. node	3973 Mar 23 22:50	10°♉15'37	
	3973 Apr 19 05:38	0°♊	
	3973 May 30 14:11	0°♋	
evening set	3973 Jun 16 14:13	11°♋56'29	
	3973 Jul 12 21:42	0°♌	
conjunction	3973 Aug 08 20:41	18°♌01'55	1°04'44
minimum elong	3973 Aug 08 19:48	18°♌00'28	1°04'44
	3973 Aug 27 02:17	0°♍	
max. Earth dist.	3973 Aug 27 17:26	0°♍24'41	2.62432 AU
morning rise	3973 Sep 26 06:18	19°♍28'15	
	3973 Oct 12 19:09	0°♎	
	3973 Nov 29 15:48	0°♏	
	3974 Jan 17 19:10	0°♐	
	3974 Mar 10 17:27	0°♑	
desc. node	3974 Apr 04 10:21	12°♑59'27	
	3974 May 14 02:02	0°♒	
retrograde	3974 Jun 18 15:41	6°♒35'55	
opposition	3974 Jul 21 14:24	0°♒21'32	-4°55'35
	3974 Jul 22 17:07	30°℞♑	
greatest brilliancy	3974 Jul 23 00:21	29°♑54'09	-2.4m
min. Earth dist.	3974 Jul 29 21:08	27°♑41'53	0.44759 AU
direct	3974 Aug 26 15:09	22°♑46'04	
	3974 Sep 29 11:23	0°♒	
	3974 Nov 22 18:25	0°♓	
	3975 Jan 04 18:15	0°♈	
asc. node	3975 Feb 08 22:38	25°♈39'02	
	3975 Feb 14 21:34	0°♉	
	3975 Mar 28 09:26	0°♊	
	3975 May 10 04:51	0°♋	
	3975 Jun 23 15:52	0°♌	
evening set	3975 Aug 01 04:53	25°♌13'15	
	3975 Aug 08 14:31	0°♍	

conjunction	3975 Sep 17 13:41	25°♍35'19	1°04'15
minimum elong	3975 Sep 17 14:24	25°♍36'28	1°04'14
max. Earth dist.	3975 Sep 20 20:22	27°♍40'36	2.67363 AU
	3975 Sep 24 11:57	0°♎	
morning rise	3975 Nov 01 06:27	24°♎00'47	
	3975 Nov 10 16:18	0°♏	
	3975 Dec 27 15:33	0°♐	
	3976 Feb 12 06:35	0°♑	
desc. node	3976 Feb 20 09:39	5°♑14'37	
	3976 Mar 29 19:43	0°♒	
	3976 May 16 03:33	0°♓	
	3976 Jul 06 21:44	0°♈	
retrograde	3976 Sep 04 23:27	18°♈40'23	
min. Earth dist.	3976 Oct 03 19:34	13°♈56'52	0.37122 AU
opposition	3976 Oct 05 09:30	13°♈31'24	-5°20'49
greatest brilliancy	3976 Oct 05 07:06	13°♈33'00	-3.0m
direct	3976 Nov 03 21:45	8°♈37'38	
asc. node	3976 Dec 26 22:03	23°♈50'01	
	3977 Jan 07 22:52	0°♉	
	3977 Feb 27 17:08	0°♊	
	3977 Apr 15 23:47	0°♋	
	3977 Jun 02 02:15	0°♌	
	3977 Jul 19 14:46	0°♍	
	3977 Sep 05 06:43	0°♎	
evening set	3977 Sep 07 12:30	1°♎24'53	
max. Earth dist.	3977 Oct 12 19:58	23°♎49'34	2.66806 AU
conjunction	3977 Oct 22 18:01	0°♏10'39	0°39'12
minimum elong	3977 Oct 22 19:01	0°♏12'16	0°39'11
	3977 Oct 22 11:22	0°♏	
morning rise	3977 Dec 06 00:43	28°♏57'21	
	3977 Dec 07 14:44	0°♐	
desc. node	3978 Jan 07 08:32	20°♐29'40	
	3978 Jan 21 09:16	0°♑	
	3978 Mar 05 18:00	0°♒	
	3978 Apr 16 20:47	0°♓	
	3978 May 28 03:50	0°♈	
	3978 Jul 08 14:56	0°♉	
	3978 Aug 21 18:52	0°♊	
	3978 Oct 24 20:21	0°♋	
retrograde	3978 Nov 09 00:11	1°♋37'35	
asc. node	3978 Nov 13 20:38	1°♋26'56	
	3978 Nov 23 18:46	30°℞♊	
min. Earth dist.	3978 Dec 07 04:52	26°♊08'00	0.46731 AU
opposition	3978 Dec 15 11:46	23°♊11'35	1°47'38
greatest brilliancy	3978 Dec 14 21:01	23°♊24'43	-2.4m
direct	3979 Jan 17 11:45	16°♊21'09	
	3979 Mar 11 00:34	0°♋	
	3979 May 08 09:58	0°♌	
	3979 Jun 28 23:16	0°♍	
	3979 Aug 17 10:31	0°♎	
	3979 Oct 04 06:28	0°♏	
evening set	3979 Oct 14 05:02	6°♏22'50	
max. Earth dist.	3979 Nov 06 08:15	21°♏27'11	2.60894 AU
	3979 Nov 19 05:42	0°♐	
desc. node	3979 Nov 25 07:02	4°♐03'07	
conjunction	3979 Nov 29 07:02	6°♐44'33	-0°02'17
minimum elong	3979 Nov 29 06:54	6°♐44'21	0°02'17
behind sun begin	3979 Nov 28 11:29	6°♐11'40	
behind sun end	3979 Nov 30 02:19	7°♐17'04	
	3980 Jan 02 04:30	0°♑	
morning rise	3980 Jan 15 18:04	9°♑32'30	
	3980 Feb 13 05:11	0°♒	
	3980 Mar 24 15:37	0°♓	
	3980 May 03 00:29	0°♈	
	3980 Jun 11 02:08	0°♉	
	3980 Jul 20 21:58	0°♊	
	3980 Sep 01 04:02	0°♋	
asc. node	3980 Sep 30 20:19	19°♋03'56	
	3980 Oct 20 00:04	0°♌	
retrograde	3980 Dec 22 00:38	20°♌13'13	
min. Earth dist.	3981 Jan 24 19:16	12°♌38'15	0.59331 AU
opposition	3981 Jan 30 13:34	10°♌21'54	4°26'35
greatest brilliancy	3981 Jan 29 15:12	10°♌43'58	-1.7m
direct	3981 Mar 08 19:35	1°♌47'31	
	3981 Jun 02 04:51	0°♍	
	3981 Jul 26 18:11	0°♎	
	3981 Sep 14 08:10	0°♏	
desc. node	3981 Oct 12 05:59	17°♏49'00	
	3981 Oct 30 17:58	0°♐	
evening set	3981 Nov 22 04:36	15°♐11'40	
max. Earth dist.	3981 Dec 07 02:25	25°♐32'30	2.50105 AU
	3981 Dec 13 10:25	0°♑	
conjunction	3982 Jan 12 02:51	21°♑22'36	-0°48'15
minimum elong	3982 Jan 12 01:08	21°♑19'27	0°48'14
	3982 Jan 23 19:16	0°♒	
	3982 Mar 04 09:55	0°♓	
morning rise	3982 Mar 10 10:13	4°♓38'27	
	3982 Apr 11 23:14	0°♈	
	3982 May 20 06:58	0°♉	
	3982 Jun 28 06:36	0°♊	
	3982 Aug 07 21:55	0°♋	
asc. node	3982 Aug 18 19:03	7°♋43'41	
	3982 Sep 20 11:45	0°♌	
	3982 Nov 08 19:20	0°♍	
retrograde	3983 Jan 27 00:37	27°♍09'57	
min. Earth dist.	3983 Mar 06 10:09	18°♍02'07	0.66653 AU
opposition	3983 Mar 08 08:34	17°♍15'42	4°27'42
greatest brilliancy	3983 Mar 08 01:06	17°♍23'10	-1.3m
direct	3983 Apr 17 09:02	7°♍44'30	
	3983 Jun 30 06:18	0°♎	
	3983 Aug 24 09:15	0°♏	
desc. node	3983 Aug 30 05:20	3°♏29'05	
	3983 Oct 11 09:05	0°♐	
	3983 Nov 24 09:18	0°♑	
	3984 Jan 04 13:14	0°♒	
evening set	3984 Jan 11 12:43	5°♒15'01	
	3984 Feb 12 18:17	0°♓	
max. Earth dist.	3984 Feb 16 09:35	2°♓50'10	2.37585 AU
conjunction	3984 Mar 13 23:32	23°♓43'23	-1°01'06
minimum elong	3984 Mar 14 01:32	23°♓47'20	1°01'06
	3984 Mar 21 22:08	0°♈	
	3984 Apr 28 22:53	0°♉	
morning rise	3984 May 24 09:28	19°♉47'07	
	3984 Jun 06 17:43	0°♊	
asc. node	3984 Jul 05 16:59	21°♊41'21	
	3984 Jul 17 01:57	0°♋	
	3984 Aug 28 17:07	0°♌	
	3984 Oct 13 11:01	0°♍	
	3984 Dec 03 10:15	0°♎	
	3985 Feb 21 09:29	0°♏	
retrograde	3985 Mar 01 10:39	0°♏23'31	
	3985 Mar 09 06:14	30°℞♎	
opposition	3985 Apr 10 07:11	20°♎57'33	3°09'39
greatest brilliancy	3985 Apr 10 12:34	20°♎52'13	-1.3m
min. Earth dist.	3985 Apr 12 05:41	20°♎11'36	0.67430 AU
direct	3985 May 21 16:29	10°♎58'36	
desc. node	3985 Jul 17 03:49	25°♎39'15	
	3985 Jul 26 14:20	0°♏	
	3985 Sep 18 12:24	0°♐	
	3985 Nov 03 01:56	0°♑	

	3985 Dec 14 15:12	0°♒	
	3986 Jan 22 20:31	0°♓	
	3986 Mar 01 23:00	0°♈	
evening set	3986 Mar 19 20:57	14°♈09'58	
	3986 Apr 09 00:07	0°♉	
	3986 May 17 21:50	0°♊	
asc. node	3986 May 23 17:13	4°♊23'13	
conjunction	3986 May 27 00:47	6°♊52'46	0°02'16
minimum elong	3986 May 27 00:35	6°♊52'23	0°02'16
behind sun begin	3986 May 25 21:05	6°♊00'47	
behind sun end	3986 May 28 04:04	7°♊43'54	
	3986 Jun 27 09:49	0°♋	
max. Earth dist.	3986 Jul 13 17:11	11°♋40'22	2.47007 AU
morning rise	3986 Jul 28 09:55	21°♋59'39	
	3986 Aug 09 00:06	0°♌	
	3986 Sep 22 23:05	0°♍	
	3986 Nov 09 14:49	0°♎	
	3986 Dec 31 10:13	0°♏	
	3987 Mar 08 23:41	0°♐	
retrograde	3987 Apr 08 04:11	4°♐46'46	
	3987 May 05 21:23	30°℞♏	
opposition	3987 May 16 08:41	26°♏12'27	0°43'52
greatest brilliancy	3987 May 16 12:48	26°♏08'30	-1.6m
min. Earth dist.	3987 May 22 00:58	24°♏02'09	0.61632 AU
desc. node	3987 Jun 04 02:17	19°♏35'17	
direct	3987 Jun 26 12:31	16°♏17'18	
	3987 Aug 17 16:32	0°♐	
	3987 Oct 10 02:06	0°♑	
	3987 Nov 22 15:36	0°♒	
	3988 Jan 01 15:05	0°♓	
	3988 Feb 09 03:50	0°♈	
	3988 Mar 18 14:38	0°♉	
asc. node	3988 Apr 09 16:48	16°♉57'28	
	3988 Apr 26 23:42	0°♊	
evening set	3988 May 25 23:59	21°♊21'55	
	3988 Jun 06 23:57	0°♋	
	3988 Jul 20 00:14	0°♌	
conjunction	3988 Jul 22 01:33	1°♌23'54	0°55'48
minimum elong	3988 Jul 21 23:54	1°♌21'06	0°55'48
max. Earth dist.	3988 Aug 17 06:59	18°♌59'48	2.59009 AU
	3988 Sep 03 00:23	0°♍	
morning rise	3988 Sep 11 03:31	5°♍17'29	
	3988 Oct 19 18:55	0°♎	
	3988 Dec 07 04:57	0°♏	
	3989 Jan 27 00:38	0°♐	
	3989 Mar 25 19:53	0°♑	
desc. node	3989 Apr 21 01:10	10°♑14'09	
retrograde	3989 May 25 07:17	16°♑19'25	
opposition	3989 Jun 29 04:47	9°♑14'59	-3°06'51
greatest brilliancy	3989 Jun 30 02:52	8°♑55'45	-2.1m
min. Earth dist.	3989 Jul 07 15:52	6°♑18'44	0.50054 AU
direct	3989 Aug 06 13:19	0°♑33'51	
	3989 Oct 22 20:49	0°♒	
	3989 Dec 06 03:30	0°♓	
	3990 Jan 15 15:15	0°♈	
	3990 Feb 24 10:38	0°♉	
asc. node	3990 Feb 25 14:47	0°♉52'44	
	3990 Apr 05 23:58	0°♊	
	3990 May 18 01:45	0°♋	
	3990 Jun 30 23:17	0°♌	
evening set	3990 Jul 15 16:23	9°♌47'49	
	3990 Aug 15 12:47	0°♍	
conjunction	3990 Sep 02 19:43	11°♍48'22	1°07'53
minimum elong	3990 Sep 02 19:57	11°♍48'45	1°07'53
max. Earth dist.	3990 Sep 11 18:07	17°♍32'19	2.66069 AU
	3990 Oct 01 06:37	0°♎	
morning rise	3990 Oct 18 13:11	10°♎58'24	
	3990 Nov 17 14:44	0°♏	
	3991 Jan 04 04:38	0°♐	
	3991 Feb 21 04:03	0°♑	
desc. node	3991 Mar 08 23:57	9°♑46'02	
	3991 Apr 11 12:31	0°♒	
	3991 Jun 05 08:16	0°♓	
retrograde	3991 Aug 04 10:52	17°♓24'30	
opposition	3991 Sep 03 15:58	12°♓22'52	-6°40'19
greatest brilliancy	3991 Sep 04 16:05	12°♓06'28	-2.9m
min. Earth dist.	3991 Sep 07 15:02	11°♓18'27	0.38182 AU
direct	3991 Oct 04 17:52	6°♓55'45	
	3991 Dec 10 01:20	0°♈	
asc. node	3992 Jan 13 13:39	21°♈15'22	
	3992 Jan 26 21:30	0°♉	
	3992 Mar 11 13:31	0°♊	
	3992 Apr 25 07:50	0°♋	
	3992 Jun 10 01:48	0°♌	
	3992 Jul 26 19:50	0°♍	
evening set	3992 Aug 24 02:07	17°♍56'42	
	3992 Sep 12 02:37	0°♎	
max. Earth dist.	3992 Oct 03 23:27	13°♎52'58	2.67671 AU
conjunction	3992 Oct 08 18:57	16°♎56'45	0°51'15
minimum elong	3992 Oct 08 20:01	16°♎58'26	0°51'14
	3992 Oct 29 05:35	0°♏	
morning rise	3992 Nov 21 20:53	15°♏12'52	
	3992 Dec 14 14:31	0°♐	
desc. node	3993 Jan 23 23:19	26°♐40'44	
	3993 Jan 28 22:27	0°♑	
	3993 Mar 14 04:32	0°♒	
	3993 Apr 26 13:22	0°♓	
	3993 Jun 08 14:08	0°♈	
	3993 Jul 23 01:38	0°♉	
	3993 Sep 16 09:51	0°♊	
retrograde	3993 Oct 18 04:53	6°♊35'10	
min. Earth dist.	3993 Nov 13 17:30	1°♊52'04	0.41624 AU
	3993 Nov 19 14:25	30°℞♉	
opposition	3993 Nov 21 08:10	29°♉26'25	-0°35'51
greatest brilliancy	3993 Nov 21 04:29	29°♉29'22	-2.7m
asc. node	3993 Nov 30 13:47	26°♉39'31	
direct	3993 Dec 22 11:29	23°♉32'23	
	3994 Jan 25 01:19	0°♊	
	3994 Mar 28 07:06	0°♋	
	3994 May 18 14:04	0°♌	
	3994 Jul 07 00:29	0°♍	
	3994 Aug 24 14:34	0°♎	
evening set	3994 Sep 29 19:47	22°♎47'33	
	3994 Oct 11 02:47	0°♏	
max. Earth dist.	3994 Oct 27 07:08	10°♏25'56	2.63837 AU
conjunction	3994 Nov 14 04:39	22°♏07'19	0°15'16
minimum elong	3994 Nov 14 05:08	22°♏08'08	0°15'15
behind sun begin	3994 Nov 13 23:07	21°♏58'14	
behind sun end	3994 Nov 14 11:09	22°♏18'02	
	3994 Nov 26 02:26	0°♐	
desc. node	3994 Dec 11 22:39	10°♐36'29	
morning rise	3994 Dec 29 20:48	22°♐48'00	
	3995 Jan 09 07:30	0°♑	
	3995 Feb 20 18:16	0°♒	
	3995 Apr 02 16:57	0°♓	
	3995 May 12 14:37	0°♈	
	3995 Jun 21 05:51	0°♉	
	3995 Jul 31 21:04	0°♊	
	3995 Sep 14 01:19	0°♋	

asc. node	3995 Oct 18 11:55	19°♋28'18	
	3995 Nov 14 02:27	0°♌	
retrograde	3995 Dec 07 08:30	3°♌32'24	
	3995 Dec 29 13:58	30°℞♋	
min. Earth dist.	3996 Jan 07 23:53	26°♋43'28	0.54862 AU
greatest brilliancy	3996 Jan 14 01:34	24°♋23'11	-1.9m
opposition	3996 Jan 15 02:17	23°♋59'21	3°52'02
direct	3996 Feb 19 20:31	15°♋58'33	
	3996 Apr 14 12:07	0°♌	
	3996 Jun 13 00:15	0°♍	
	3996 Aug 03 20:16	0°♎	
	3996 Sep 21 13:33	0°♏	
desc. node	3996 Oct 28 20:58	24°♏06'46	
evening set	3996 Nov 05 20:27	29°♏24'28	
	3996 Nov 06 17:45	0°♐	
max. Earth dist.	3996 Nov 23 06:24	11°♐08'32	2.54861 AU
	3996 Dec 20 11:59	0°♑	
conjunction	3996 Dec 24 05:13	2°♑37'26	-0°31'14
minimum elong	3996 Dec 24 04:01	2°♑35'19	0°31'12
	3997 Jan 31 02:09	0°♒	
morning rise	3997 Feb 14 12:46	10°♒44'12	
	3997 Mar 11 23:25	0°♓	
	3997 Apr 19 18:53	0°♈	
	3997 May 28 07:29	0°♉	
	3997 Jul 06 11:42	0°♊	
	3997 Aug 16 10:49	0°♋	
asc. node	3997 Sep 04 10:58	13°♋12'15	
	3997 Sep 29 23:47	0°♌	
	3997 Nov 22 19:19	0°♍	
retrograde	3998 Jan 13 12:33	13°♍46'13	
min. Earth dist.	3998 Feb 19 06:37	5°♍10'48	0.64552 AU
opposition	3998 Feb 22 17:31	3°♍48'00	4°38'53
greatest brilliancy	3998 Feb 22 03:44	4°♍01'46	-1.4m
	3998 Mar 04 16:08	30°℞♌	
direct	3998 Apr 02 20:12	24°♌34'54	
	3998 May 05 03:29	0°♍	
	3998 Jul 11 12:22	0°♎	
	3998 Sep 01 14:41	0°♏	
desc. node	3998 Sep 15 19:36	8°♏46'23	
	3998 Oct 18 19:22	0°♐	
	3998 Dec 01 15:19	0°♑	
evening set	3998 Dec 21 01:35	13°♑56'07	
max. Earth dist.	3999 Jan 06 13:48	26°♑04'03	2.42103 AU
	3999 Jan 11 20:32	0°♒	
conjunction	3999 Feb 16 03:23	26°♒51'18	-1°04'35
minimum elong	3999 Feb 16 02:49	26°♒50'13	1°04'34
	3999 Feb 20 04:51	0°♓	
	3999 Mar 30 11:47	0°♈	
morning rise	3999 Apr 24 08:40	19°♈36'23	
	3999 May 07 14:18	0°♉	
	3999 Jun 15 09:38	0°♊	
asc. node	3999 Jul 23 10:53	28°♊19'27	
	3999 Jul 25 18:19	0°♋	
	3999 Sep 06 13:26	0°♌	
	3999 Oct 23 01:20	0°♍	
	3999 Dec 16 11:19	0°♎	
retrograde	4000 Feb 16 22:56	17°♎47'42	
opposition	4000 Mar 28 03:21	8°♎07'58	3°47'38
greatest brilliancy	4000 Mar 28 04:42	8°♎06'37	-1.3m
min. Earth dist.	4000 Mar 28 13:44	7°♎57'39	0.67912 AU
	4000 Apr 21 16:43	30°℞♍	
direct	4000 May 08 04:03	28°♍16'43	
	4000 May 25 15:28	0°♎	
desc. node	4000 Aug 02 18:44	27°♎22'46	
	4000 Aug 07 16:00	0°♏	
	4000 Sep 27 05:07	0°♐	
	4000 Nov 10 23:04	0°♑	
	4000 Dec 22 06:51	0°♒	
	4001 Jan 30 11:07	0°♓	
evening set	4001 Feb 19 07:45	15°♓35'08	
	4001 Mar 09 13:22	0°♈	
	4001 Apr 16 13:30	0°♉	
conjunction	4001 Apr 29 01:45	9°♉46'01	-0°27'30
minimum elong	4001 Apr 29 04:19	9°♉50'59	0°27'28
	4001 May 25 09:11	0°♊	
asc. node	4001 Jun 09 09:50	11°♊19'35	
max. Earth dist.	4001 Jun 20 06:30	19°♊23'35	2.41541 AU
	4001 Jul 04 18:27	0°♋	
morning rise	4001 Jul 06 00:06	0°♋53'44	
	4001 Aug 16 06:59	0°♌	
	4001 Sep 30 09:18	0°♍	
	4001 Nov 17 19:27	0°♎	
	4002 Jan 11 19:21	0°♏	
retrograde	4002 Mar 23 17:58	21°♏09'10	
opposition	4002 May 01 18:11	12°♏11'15	1°49'03
greatest brilliancy	4002 May 02 01:24	12°♏04'14	-1.4m
min. Earth dist.	4002 May 06 00:03	10°♏32'14	0.64668 AU
direct	4002 Jun 12 05:53	2°♏09'29	
desc. node	4002 Jun 20 17:19	2°♏35'36	
	4002 Sep 01 09:52	0°♐	
	4002 Oct 19 22:43	0°♑	
	4002 Dec 01 09:10	0°♒	
	4003 Jan 09 22:23	0°♓	
	4003 Feb 17 05:06	0°♈	
	4003 Mar 27 10:22	0°♉	
asc. node	4003 Apr 27 08:33	23°♉47'50	
evening set	4003 May 02 12:58	27°♉43'20	
	4003 May 05 13:28	0°♊	
	4003 Jun 15 07:28	0°♋	
conjunction	4003 Jul 03 03:33	12°♋41'18	0°40'26
minimum elong	4003 Jul 03 01:31	12°♋37'43	0°40'24
	4003 Jul 28 02:19	0°♌	
max. Earth dist.	4003 Aug 06 09:21	6°♌19'26	2.54850 AU
morning rise	4003 Aug 26 19:20	19°♌59'59	
	4003 Sep 11 00:09	0°♍	
	4003 Oct 27 23:17	0°♎	
	4003 Dec 16 05:42	0°♏	
	4004 Feb 07 20:57	0°♐	
retrograde	4004 May 04 14:59	28°♐55'19	
desc. node	4004 May 07 15:49	28°♐51'55	
opposition	4004 Jun 10 01:35	21°♐09'23	-1°26'14
greatest brilliancy	4004 Jun 10 10:56	21°♐00'50	-1.9m
min. Earth dist.	4004 Jun 17 17:22	18°♐21'33	0.55137 AU
direct	4004 Jul 19 23:16	11°♐46'01	
	4004 Sep 17 09:07	0°♑	
	4004 Nov 05 04:34	0°♒	
	4004 Dec 16 19:01	0°♓	
	4005 Jan 25 03:43	0°♈	
	4005 Mar 05 05:14	0°♉	
asc. node	4005 Mar 14 07:59	6°♉55'41	
	4005 Apr 14 03:49	0°♊	
	4005 May 25 16:45	0°♋	
evening set	4005 Jun 27 16:08	22°♋53'04	
	4005 Jul 08 03:43	0°♌	
conjunction	4005 Aug 18 05:51	27°♌16'17	1°07'17
minimum elong	4005 Aug 18 05:25	27°♌15'34	1°07'18
	4005 Aug 22 10:14	0°♍	
max. Earth dist.	4005 Sep 02 11:21	7°♍10'08	2.63952 AU
morning rise	4005 Oct 04 12:25	27°♍43'11	

	4005 Oct 08 02:29	0°♎	
	4005 Nov 24 17:17	0°♏	
	4006 Jan 12 04:11	0°♐	
	4006 Mar 03 05:51	0°♑	
desc. node	4006 Mar 25 15:38	12°♑45'43	
	4006 Apr 27 12:29	0°♒	
retrograde	4006 Jul 04 07:53	20°♒18'45	
opposition	4006 Aug 05 04:26	14°♒34'04	-5°51'53
greatest brilliancy	4006 Aug 06 16:35	14°♒06'26	-2.6m
min. Earth dist.	4006 Aug 12 13:45	12°♒19'27	0.41974 AU
direct	4006 Sep 08 12:01	7°♒45'00	
	4006 Nov 11 10:28	0°♓	
	4006 Dec 27 19:38	0°♈	
asc. node	4007 Jan 30 06:03	23°♈33'40	
	4007 Feb 08 06:45	0°♉	
	4007 Mar 22 13:21	0°♊	
	4007 May 04 21:26	0°♋	
	4007 Jun 18 17:08	0°♌	
	4007 Aug 03 21:16	0°♍	
evening set	4007 Aug 10 02:31	3°♍59'26	
	4007 Sep 19 21:16	0°♎	
conjunction	4007 Sep 25 17:24	3°♎42'47	1°00'24
minimum elong	4007 Sep 25 18:19	3°♎44'14	1°00'23
max. Earth dist.	4007 Sep 26 01:13	3°♎55'12	2.67715 AU
	4007 Nov 06 00:34	0°♏	
morning rise	4007 Nov 09 01:41	1°♏56'41	
	4007 Dec 22 18:08	0°♐	
	4008 Feb 06 20:33	0°♑	
desc. node	4008 Feb 10 14:52	2°♑27'59	
	4008 Mar 23 09:49	0°♒	
	4008 May 07 20:14	0°♓	
	4008 Jun 23 13:46	0°♈	
	4008 Aug 19 06:28	0°♉	
retrograde	4008 Sep 21 22:57	7°♉03'58	
min. Earth dist.	4008 Oct 18 22:26	2°♉38'16	0.37942 AU
opposition	4008 Oct 23 11:04	1°♉22'01	-3°43'12
greatest brilliancy	4008 Oct 23 00:17	1°♉29'35	-2.9m
	4008 Oct 28 10:33	30°℞♈	
direct	4008 Nov 21 23:27	26°♈17'59	
	4008 Dec 16 13:16	0°♉	
asc. node	4008 Dec 17 05:11	0°♉11'26	
	4009 Feb 18 12:59	0°♊	
	4009 Apr 09 08:42	0°♋	
	4009 May 27 13:15	0°♌	
	4009 Jul 14 15:12	0°♍	
	4009 Aug 31 14:06	0°♎	
evening set	4009 Sep 15 16:00	9°♎30'11	
	4009 Oct 17 21:06	0°♏	
max. Earth dist.	4009 Oct 18 02:00	0°♏07'50	2.65982 AU
conjunction	4009 Oct 30 19:21	8°♏19'26	0°31'00
minimum elong	4009 Oct 30 20:14	8°♏20'51	0°30'59
	4009 Dec 02 23:06	0°♐	
morning rise	4009 Dec 14 09:49	7°♐36'14	
desc. node	4009 Dec 28 13:24	17°♐05'54	
	4010 Jan 16 12:46	0°♑	
	4010 Feb 28 13:12	0°♒	
	4010 Apr 11 04:55	0°♓	
	4010 May 21 21:47	0°♈	
	4010 Jul 01 12:05	0°♉	
	4010 Aug 12 18:37	0°♊	
	4010 Oct 01 09:20	0°♋	
asc. node	4010 Nov 04 05:34	12°♋37'53	
retrograde	4010 Nov 19 21:51	14°♋21'26	
min. Earth dist.	4010 Dec 19 07:09	8°♋23'42	0.49678 AU
greatest brilliancy	4010 Dec 26 11:55	5°♋44'34	-2.2m
opposition	4010 Dec 27 09:07	5°♋25'00	2°45'32
	4011 Jan 13 18:16	30°℞♊	
direct	4011 Jan 30 09:07	28°♊07'06	
	4011 Feb 17 02:34	0°♋	
	4011 Apr 30 19:39	0°♌	
	4011 Jun 23 06:45	0°♍	
	4011 Aug 12 11:04	0°♎	
	4011 Sep 29 14:04	0°♏	
evening set	4011 Oct 22 14:56	14°♏49'59	
max. Earth dist.	4011 Nov 12 11:17	28°♏33'27	2.58943 AU
	4011 Nov 14 15:13	0°♐	
desc. node	4011 Nov 15 11:53	0°♐34'30	
conjunction	4011 Dec 08 07:42	16°♐00'28	-0°12'52
minimum elong	4011 Dec 08 07:13	15°♐59'38	0°12'52
behind sun begin	4011 Dec 07 18:54	15°♐38'35	
behind sun end	4011 Dec 08 19:31	16°♐20'43	
	4011 Dec 28 12:39	0°♑	
morning rise	4012 Jan 26 04:03	20°♑22'29	
	4012 Feb 08 09:37	0°♒	
	4012 Mar 19 15:14	0°♓	
	4012 Apr 27 19:00	0°♈	
	4012 Jun 05 15:07	0°♉	
	4012 Jul 15 03:39	0°♊	
	4012 Aug 25 18:05	0°♋	
asc. node	4012 Sep 21 04:40	17°♋39'36	
	4012 Oct 11 06:18	0°♌	
retrograde	4012 Dec 30 10:28	29°♌24'36	
min. Earth dist.	4013 Feb 03 07:58	21°♌26'44	0.61439 AU
greatest brilliancy	4013 Feb 07 11:11	19°♌48'19	-1.6m
opposition	4013 Feb 08 06:53	19°♌28'45	4°36'20
direct	4013 Mar 18 06:30	10°♌38'58	
	4013 May 24 17:30	0°♍	
	4013 Jul 20 23:59	0°♎	
	4013 Sep 09 08:16	0°♏	
desc. node	4013 Oct 02 10:34	14°♏35'15	
	4013 Oct 26 00:38	0°♐	
evening set	4013 Dec 02 02:28	25°♐17'59	
	4013 Dec 08 18:51	0°♑	
max. Earth dist.	4013 Dec 16 07:31	5°♑20'49	2.47309 AU
	4014 Jan 19 02:45	0°♒	
conjunction	4014 Jan 23 20:53	3°♒32'55	-0°56'18
minimum elong	4014 Jan 23 19:11	3°♒29'44	0°56'17
	4014 Feb 27 15:15	0°♓	
morning rise	4014 Mar 25 13:45	20°♓11'03	
	4014 Apr 07 02:06	0°♈	
greatest brilliancy	4014 Apr 14 04:28	5°♈34'47	1.2m
	4014 May 15 07:21	0°♉	
	4014 Jun 23 04:30	0°♊	
	4014 Aug 02 15:55	0°♋	
asc. node	4014 Aug 09 02:38	4°♋37'35	
	4014 Sep 14 19:44	0°♌	
	4014 Nov 01 16:35	0°♍	
	4015 Jan 04 11:41	0°♎	
retrograde	4015 Feb 03 15:49	5°♎04'17	
	4015 Mar 03 13:01	30°℞♍	
min. Earth dist.	4015 Mar 14 22:08	25°♍40'09	0.67381 AU
opposition	4015 Mar 16 00:03	25°♍14'18	4°15'58
greatest brilliancy	4015 Mar 15 20:01	25°♍18'19	-1.3m
direct	4015 Apr 25 10:41	15°♍34'51	
	4015 Jun 21 02:04	0°♎	
	4015 Aug 18 12:12	0°♏	
desc. node	4015 Aug 20 09:30	1°♏05'35	
	4015 Oct 06 06:30	0°♐	
	4015 Nov 19 13:01	0°♑	
	4015 Dec 30 18:41	0°♒	

evening set	4016 Jan 24 23:37	19°♒09'03	
	4016 Feb 07 23:48	0°♓	
	4016 Mar 17 03:10	0°♈	
conjunction	4016 Mar 30 07:20	10°♈25'31	-0°52'32
minimum elong	4016 Mar 30 10:33	10°♈31'52	0°52'31
max. Earth dist.	4016 Apr 22 23:55	29°♈06'20	2.37081 AU
	4016 Apr 24 03:16	0°♉	
	4016 Jun 01 21:35	0°♊	
morning rise	4016 Jun 09 19:09	5°♊59'11	
asc. node	4016 Jun 26 02:33	18°♊11'14	
	4016 Jul 12 05:03	0°♋	
	4016 Aug 23 17:29	0°♌	
	4016 Oct 08 02:58	0°♍	
	4016 Nov 26 19:52	0°♎	
	4017 Jan 28 02:52	0°♏	
retrograde	4017 Mar 09 08:34	8°♏08'49	
	4017 Apr 15 01:42	30°℞♎	
opposition	4017 Apr 17 23:24	28°♎51'49	2°42'56
greatest brilliancy	4017 Apr 18 06:10	28°♎45'11	-1.3m
min. Earth dist.	4017 Apr 20 18:05	27°♎46'19	0.66715 AU
direct	4017 May 29 11:30	18°♎50'24	
desc. node	4017 Jul 07 08:35	26°♎34'34	
	4017 Jul 16 07:38	0°♏	
	4017 Sep 12 07:48	0°♐	
	4017 Oct 28 17:21	0°♑	
	4017 Dec 09 13:13	0°♒	
	4018 Jan 17 21:06	0°♓	
greatest brilliancy	4018 Feb 19 12:18	25°♓37'59	1.2m
	4018 Feb 25 00:56	0°♈	
	4018 Apr 04 03:05	0°♉	
evening set	4018 Apr 05 03:32	0°♉47'47	
	4018 May 13 02:03	0°♊	
asc. node	4018 May 14 01:32	0°♊44'23	
conjunction	4018 Jun 10 08:53	21°♊04'23	0°17'56
minimum elong	4018 Jun 10 07:32	21°♊01'55	0°17'55
	4018 Jun 22 15:18	0°♋	
max. Earth dist.	4018 Jul 23 05:56	21°♋42'24	2.49959 AU
	4018 Aug 04 05:55	0°♌	
morning rise	4018 Aug 08 16:39	3°♌02'34	
	4018 Sep 18 02:59	0°♍	
	4018 Nov 04 10:12	0°♎	
	4018 Dec 25 00:30	0°♏	
	4019 Feb 22 08:43	0°♐	
retrograde	4019 Apr 17 12:59	13°♐26'01	
opposition	4019 May 25 04:50	5°♐06'55	0°00'16
greatest brilliancy	4020 Sep 23 01:41	16°♍00'55	3.9m
desc. node	4019 May 25 07:24	5°♐04'30	
min. Earth dist.	4019 May 31 15:44	2°♐40'48	0.59561 AU
	4019 Jun 08 05:43	30°℞♏	
direct	4019 Jul 05 01:33	25°♏19'16	
	4019 Aug 02 10:35	0°♐	
	4019 Oct 02 23:00	0°♑	
	4019 Nov 16 17:17	0°♒	
	4019 Dec 27 02:58	0°♓	
	4020 Feb 03 21:01	0°♈	
	4020 Mar 13 11:31	0°♉	
asc. node	4020 Mar 30 23:25	13°♉24'16	
	4020 Apr 21 23:58	0°♊	
	4020 Jun 02 03:30	0°♋	
evening set	4020 Jun 07 14:16	3°♋52'13	
	4020 Jul 15 06:23	0°♌	
conjunction	4020 Aug 01 10:19	11°♌34'16	1°01'42
minimum elong	4020 Aug 01 09:05	11°♌32'12	1°01'41
max. Earth dist.	4020 Aug 23 12:07	26°♌11'22	2.61014 AU
	4020 Aug 29 07:48	0°♍	
morning rise	4020 Sep 19 21:53	13°♍59'11	
	4020 Oct 15 00:18	0°♎	
	4020 Dec 02 01:24	0°♏	
	4021 Jan 20 19:20	0°♐	
	4021 Mar 15 14:15	0°♑	
desc. node	4021 Apr 11 06:01	12°♑49'24	
retrograde	4021 Jun 07 12:56	27°♑49'36	
opposition	4021 Jul 11 08:56	21°♑11'52	-4°08'37
greatest brilliancy	4021 Jul 12 14:28	20°♑47'05	-2.3m
min. Earth dist.	4021 Jul 19 21:12	18°♑21'04	0.47125 AU
direct	4021 Aug 17 13:25	13°♑03'36	
	4021 Oct 11 11:46	0°♒	
	4021 Nov 28 11:49	0°♓	
	4022 Jan 09 03:26	0°♈	
asc. node	4022 Feb 15 22:59	28°♈03'43	
	4022 Feb 18 13:45	0°♉	
	4022 Mar 31 13:20	0°♊	
	4022 May 12 23:04	0°♋	
	4022 Jun 26 02:26	0°♌	
evening set	4022 Jul 25 06:54	19°♌14'58	
	4022 Aug 10 19:56	0°♍	
conjunction	4022 Sep 11 08:32	20°♍15'29	1°06'13
minimum elong	4022 Sep 11 09:05	20°♍16'21	1°06'14
max. Earth dist.	4022 Sep 17 02:00	23°♍54'56	2.66895 AU
	4022 Sep 26 15:10	0°♎	
morning rise	4022 Oct 26 10:42	18°♎56'39	
	4022 Nov 12 20:48	0°♏	
	4022 Dec 30 02:12	0°♐	
	4023 Feb 15 06:09	0°♑	
desc. node	4023 Feb 27 05:13	7°♑35'15	
	4023 Apr 03 19:56	0°♒	
	4023 May 23 09:46	0°♓	
	4023 Jul 24 12:09	0°♈	
retrograde	4023 Aug 22 22:15	5°♈06'35	
opposition	4023 Sep 21 21:39	0°♈09'34	-6°13'10
greatest brilliancy	4023 Sep 22 07:07	0°♈03'18	-2.9m
	4023 Sep 22 12:05	30°℞♓	
min. Earth dist.	4023 Sep 22 21:56	29°♓53'28	0.37184 AU
direct	4023 Oct 21 20:22	25°♓09'31	
	4023 Nov 18 13:31	0°♈	
asc. node	4024 Jan 03 22:45	22°♈06'51	
	4024 Jan 17 05:47	0°♉	
	4024 Mar 04 11:30	0°♊	
	4024 Apr 19 10:23	0°♋	
	4024 Jun 04 19:59	0°♌	
	4024 Jul 21 23:11	0°♍	
evening set	4024 Sep 01 10:04	26°♍11'27	
	4024 Sep 07 10:44	0°♎	
max. Earth dist.	4024 Oct 09 04:37	20°♎08'32	2.67303 AU
conjunction	4024 Oct 16 19:05	24°♎59'41	0°44'31
minimum elong	4024 Oct 16 20:09	25°♎01'22	0°44'30
	4024 Oct 24 14:45	0°♏	
morning rise	4024 Nov 29 22:03	23°♏28'36	
	4024 Dec 09 21:09	0°♐	
desc. node	4025 Jan 14 03:57	23°♐25'50	
	4025 Jan 23 21:59	0°♑	
	4025 Mar 08 16:11	0°♒	
	4025 Apr 20 07:23	0°♓	
	4025 Jun 01 06:10	0°♈	
	4025 Jul 13 16:28	0°♉	
	4025 Aug 29 07:20	0°♊	
retrograde	4025 Oct 30 23:18	21°♊44'44	
asc. node	4025 Nov 20 21:26	18°♊36'25	
min. Earth dist.	4025 Nov 27 07:55	16°♊37'30	0.44353 AU

opposition	4025 Dec 05 12:40	13°♊49'55	0°53'13
greatest brilliancy	4025 Dec 05 05:10	13°♊56'20	-2.5m
direct	4026 Jan 06 16:13	7°♊24'04	
	4026 Mar 18 15:37	0°♋	
	4026 May 12 03:48	0°♌	
	4026 Jul 01 16:29	0°♍	
	4026 Aug 19 18:08	0°♎	
	4026 Oct 06 11:05	0°♏	
evening set	4026 Oct 08 00:39	1°♏00'05	
max. Earth dist.	4026 Nov 02 00:56	17°♏10'46	2.62310 AU
	4026 Nov 21 11:27	0°♐	
conjunction	4026 Nov 22 17:14	0°♐49'35	0°05'17
minimum elong	4026 Nov 22 17:25	0°♐49'54	0°05'16
behind sun begin	4026 Nov 21 22:59	0°♐19'12	
behind sun end	4026 Nov 23 11:52	1°♐20'37	
desc. node	4026 Dec 02 02:32	7°♐06'39	
	4027 Jan 04 14:02	0°♑	
morning rise	4027 Jan 08 06:38	2°♑34'15	
	4027 Feb 15 20:05	0°♒	
	4027 Mar 28 12:25	0°♓	
	4027 May 07 03:04	0°♈	
	4027 Jun 15 09:52	0°♉	
	4027 Jul 25 11:56	0°♊	
	4027 Sep 06 07:28	0°♋	
asc. node	4027 Oct 08 20:35	20°♋06'49	
	4027 Oct 27 17:34	0°♌	
retrograde	4027 Dec 16 11:32	13°♌45'09	
min. Earth dist.	4028 Jan 18 07:41	6°♌30'17	0.57429 AU
opposition	4028 Jan 24 17:11	4°♌00'22	4°15'31
greatest brilliancy	4028 Jan 23 17:12	4°♌23'49	-1.8m
	4028 Feb 04 16:09	30°℞♋	
direct	4028 Mar 01 08:31	25°♋39'55	
	4028 Mar 29 11:27	0°♌	
	4028 Jun 06 04:38	0°♍	
	4028 Jul 29 11:34	0°♎	
	4028 Sep 16 17:03	0°♏	
desc. node	4028 Oct 19 01:24	20°♏44'58	
	4028 Nov 02 01:33	0°♐	
evening set	4028 Nov 15 00:29	8°♐42'20	
max. Earth dist.	4028 Nov 30 19:23	19°♐30'42	2.52294 AU
	4028 Dec 15 19:59	0°♑	
conjunction	4029 Jan 03 16:19	13°♑26'22	-0°41'22
minimum elong	4029 Jan 03 14:47	13°♑23'35	0°41'21
	4029 Jan 26 08:13	0°♒	
morning rise	4029 Feb 27 13:30	24°♒13'47	
	4029 Mar 07 02:29	0°♓	
	4029 Apr 14 18:57	0°♈	
	4029 May 23 04:37	0°♉	
	4029 Jul 01 05:22	0°♊	
	4029 Aug 10 22:23	0°♋	
asc. node	4029 Aug 25 19:57	10°♋30'45	
	4029 Sep 23 18:09	0°♌	
	4029 Nov 13 07:21	0°♍	
retrograde	4030 Jan 21 07:12	21°♍59'14	
min. Earth dist.	4030 Feb 28 00:12	13°♍05'15	0.65836 AU
opposition	4030 Mar 02 14:46	12°♍02'44	4°33'57
greatest brilliancy	4030 Mar 02 04:32	12°♍12'58	-1.4m
direct	4030 Apr 11 06:28	2°♍38'58	
	4030 Jul 04 11:08	0°♎	
	4030 Aug 27 05:08	0°♏	
desc. node	4030 Sep 06 00:53	5°♏56'57	
	4030 Oct 13 21:55	0°♐	
	4030 Nov 26 21:40	0°♑	
evening set	4031 Jan 01 20:41	26°♑04'12	
	4031 Jan 07 03:13	0°♒	
max. Earth dist.	4031 Jan 24 21:10	13°♒24'17	2.39363 AU
	4031 Feb 15 10:19	0°♓	
conjunction	4031 Mar 02 20:49	12°♓03'11	-1°04'22
minimum elong	4031 Mar 02 21:38	12°♓04'47	1°04'21
	4031 Mar 25 15:45	0°♈	
	4031 May 02 16:55	0°♉	
morning rise	4031 May 11 23:26	7°♉15'10	
	4031 Jun 10 11:06	0°♊	
asc. node	4031 Jul 13 17:46	24°♊52'45	
	4031 Jul 20 18:19	0°♋	
	4031 Sep 01 09:11	0°♌	
	4031 Oct 17 07:40	0°♍	
	4031 Dec 08 06:59	0°♎	
retrograde	4032 Feb 24 14:58	25°♎28'44	
opposition	4032 Apr 04 16:12	15°♎56'16	3°26'30
greatest brilliancy	4032 Apr 04 20:00	15°♎52'30	-1.3m
min. Earth dist.	4032 Apr 05 22:55	15°♎25'51	0.67779 AU
direct	4032 May 15 22:55	6°♎00'12	
desc. node	4032 Jul 23 23:41	26°♎22'57	
	4032 Jul 31 06:19	0°♏	
	4032 Sep 21 15:23	0°♐	
	4032 Nov 05 21:39	0°♑	
	4032 Dec 17 09:39	0°♒	
	4033 Jan 25 15:06	0°♓	
	4033 Mar 04 17:38	0°♈	
evening set	4033 Mar 07 05:19	1°♈58'07	
	4033 Apr 11 17:48	0°♉	
conjunction	4033 May 15 04:55	25°♉55'04	-0°10'32
minimum elong	4033 May 15 05:54	25°♉56'57	0°10'31
behind sun begin	4033 May 14 07:55	25°♉14'58	
behind sun end	4033 May 16 03:53	26°♉38'53	
	4033 May 20 13:34	0°♊	
asc. node	4033 May 30 17:40	7°♊40'56	
	4033 Jun 29 23:03	0°♋	
max. Earth dist.	4033 Jul 05 00:21	3°♋39'11	2.44558 AU
morning rise	4033 Jul 19 03:19	13°♋44'27	
	4033 Aug 11 10:53	0°♌	
	4033 Sep 25 09:31	0°♍	
	4033 Nov 12 06:18	0°♎	
	4034 Jan 04 01:25	0°♏	
retrograde	4034 Apr 01 09:15	29°♏19'03	
opposition	4034 May 09 23:52	20°♏33'34	1°12'29
greatest brilliancy	4034 May 10 05:45	20°♏27'54	-1.5m
min. Earth dist.	4034 May 15 01:25	18°♏36'32	0.63116 AU
desc. node	4034 Jun 10 21:55	11°♏09'11	
direct	4034 Jun 20 08:48	10°♏34'30	
	4034 Aug 23 21:22	0°♐	
	4034 Oct 13 20:14	0°♑	
	4034 Nov 25 22:17	0°♒	
	4035 Jan 04 17:35	0°♓	
	4035 Feb 12 03:42	0°♈	
	4035 Mar 22 11:27	0°♉	
asc. node	4035 Apr 17 17:27	20°♉11'31	
	4035 Apr 30 16:43	0°♊	
evening set	4035 May 16 17:25	11°♊56'18	
	4035 Jun 10 12:50	0°♋	
conjunction	4035 Jul 14 18:12	24°♋04'43	0°50'07
minimum elong	4035 Jul 14 16:18	24°♋01'27	0°50'05
	4035 Jul 23 09:06	0°♌	
max. Earth dist.	4035 Aug 13 11:03	14°♌14'57	2.57237 AU
morning rise	4035 Sep 05 07:38	29°♌22'03	
	4035 Sep 06 06:50	0°♍	
	4035 Oct 23 01:52	0°♎	
	4035 Dec 10 18:45	0°♏	

	4036 Jan 31 13:23	0°♐	
	4036 Apr 03 05:34	0°♑	
desc. node	4036 Apr 27 20:48	7°♑07'27	
retrograde	4036 May 15 22:39	8°♑58'20	
opposition	4036 Jun 20 13:50	1°♑34'21	-2°22'18
greatest brilliancy	4036 Jun 21 06:13	1°♑19'43	-2.0m
	4036 Jun 24 23:09	30°℞♐	
min. Earth dist.	4036 Jun 28 18:16	28°♐39'22	0.52391 AU
direct	4036 Jul 29 17:27	22°♐31'31	
	4036 Sep 03 02:53	0°♑	
	4036 Oct 28 12:26	0°♒	
	4036 Dec 10 09:42	0°♓	
	4037 Jan 19 07:50	0°♈	
	4037 Feb 27 17:57	0°♉	
asc. node	4037 Mar 04 15:34	3°♉42'11	
	4037 Apr 08 23:07	0°♊	
	4037 May 20 17:44	0°♋	
	4037 Jul 03 09:01	0°♌	
evening set	4037 Jul 08 03:35	3°♌12'22	
	4037 Aug 17 18:17	0°♍	
conjunction	4037 Aug 27 06:37	6°♍10'18	1°08'11
minimum elong	4037 Aug 27 06:34	6°♍10'15	1°08'11
max. Earth dist.	4037 Sep 08 00:04	13°♍44'04	2.65221 AU
	4037 Oct 03 10:26	0°♎	
morning rise	4037 Oct 12 14:51	5°♎50'10	
	4037 Nov 19 20:48	0°♏	
	4038 Jan 06 18:56	0°♐	
	4038 Feb 24 13:03	0°♑	
desc. node	4038 Mar 15 19:53	11°♑33'50	
	4038 Apr 16 19:15	0°♒	
	4038 Jun 20 03:12	0°♓	
retrograde	4038 Jul 21 06:19	5°♓23'13	
opposition	4038 Aug 21 03:41	0°♓05'37	-6°30'46
	4038 Aug 21 11:34	30°℞♒	
greatest brilliancy	4038 Aug 22 12:07	29°♒42'28	-2.7m
min. Earth dist.	4038 Aug 27 00:27	28°♒25'47	0.39626 AU
direct	4038 Sep 22 14:28	24°♒04'29	
	4038 Oct 23 01:16	0°♓	
	4038 Dec 18 07:29	0°♈	
asc. node	4039 Jan 20 14:16	22°♈09'20	
	4039 Feb 01 00:29	0°♉	
	4039 Mar 16 09:27	0°♊	
	4039 Apr 29 09:44	0°♋	
	4039 Jun 13 15:54	0°♌	
	4039 Jul 30 02:45	0°♍	
evening set	4039 Aug 18 18:15	12°♍31'57	
	4039 Sep 15 05:59	0°♎	
max. Earth dist.	4039 Oct 01 05:18	10°♎08'39	2.67797 AU
conjunction	4039 Oct 03 19:24	11°♎47'21	0°55'25
minimum elong	4039 Oct 03 20:25	11°♎48'59	0°55'25
	4039 Nov 01 09:03	0°♏	
morning rise	4039 Nov 16 22:51	9°♏59'03	
	4039 Dec 17 21:59	0°♐	
desc. node	4040 Jan 31 19:05	29°♐28'48	
	4040 Feb 01 13:54	0°♑	
	4040 Mar 17 09:01	0°♒	
	4040 Apr 30 12:48	0°♓	
	4040 Jun 13 19:24	0°♈	
	4040 Jul 31 00:50	0°♉	
retrograde	4040 Oct 07 09:18	24°♉37'46	
min. Earth dist.	4040 Nov 02 17:23	20°♉07'42	0.39711 AU
opposition	4040 Nov 09 07:04	18°♉09'08	-1°54'19
greatest brilliancy	4040 Nov 08 21:41	18°♉16'13	-2.8m
asc. node	4040 Dec 07 14:42	12°♉41'39	
direct	4040 Dec 09 14:52	12°♉40'03	

	4041 Feb 06 13:22	0°♊	
	4041 Apr 02 01:48	0°♋	
	4041 May 21 18:32	0°♌	
	4041 Jul 09 13:10	0°♍	
	4041 Aug 26 20:12	0°♎	
evening set	4041 Sep 23 18:10	17°♎34'08	
	4041 Oct 13 06:28	0°♏	
max. Earth dist.	4041 Oct 23 10:28	6°♏32'09	2.64897 AU
conjunction	4041 Nov 07 23:05	16°♏36'24	0°22'05
minimum elong	4041 Nov 07 23:45	16°♏37'31	0°22'04
	4041 Nov 28 07:57	0°♐	
desc. node	4041 Dec 18 18:17	13°♐39'44	
morning rise	4041 Dec 23 02:03	16°♐34'59	
	4042 Jan 11 17:28	0°♑	
	4042 Feb 23 10:53	0°♒	
	4042 Apr 05 17:06	0°♓	
	4042 May 15 22:49	0°♈	
	4042 Jun 24 22:33	0°♉	
	4042 Aug 05 02:11	0°♊	
	4042 Sep 19 16:52	0°♋	
asc. node	4042 Oct 25 12:53	18°♋12'50	
retrograde	4042 Nov 30 02:02	26°♋04'00	
min. Earth dist.	4042 Dec 30 17:08	19°♋37'48	0.52617 AU
greatest brilliancy	4043 Jan 06 07:46	17°♋07'43	-2.0m
opposition	4043 Jan 07 08:02	16°♋44'42	3°28'45
direct	4043 Feb 11 08:52	9°♋01'49	
	4043 Apr 21 21:38	0°♌	
	4043 Jun 17 06:44	0°♍	
	4043 Aug 07 08:37	0°♎	
	4043 Sep 24 20:16	0°♏	
evening set	4043 Oct 31 04:42	23°♏29'32	
desc. node	4043 Nov 05 16:55	27°♏08'03	
	4043 Nov 10 00:21	0°♐	
max. Earth dist.	4043 Nov 18 23:52	6°♐01'05	2.56784 AU
conjunction	4043 Dec 17 17:09	25°♐41'24	-0°23'30
minimum elong	4043 Dec 17 16:15	25°♐39'50	0°23'30
	4043 Dec 23 21:07	0°♑	
	4044 Feb 03 15:21	0°♒	
morning rise	4044 Feb 06 07:29	1°♒57'59	
	4044 Mar 14 16:50	0°♓	
	4044 Apr 22 16:05	0°♈	
	4044 May 31 07:34	0°♉	
	4044 Jul 09 14:02	0°♊	
	4044 Aug 19 17:14	0°♋	
asc. node	4044 Sep 11 11:36	15°♋37'21	
	4044 Oct 03 19:17	0°♌	
	4044 Nov 30 07:43	0°♍	
retrograde	4045 Jan 07 14:25	8°♍14'06	
	4045 Feb 12 08:05	30°℞♌	
min. Earth dist.	4045 Feb 12 13:29	29°♌54'39	0.63290 AU
opposition	4045 Feb 16 16:25	28°♌16'05	4°39'55
greatest brilliancy	4045 Feb 15 23:56	28°♌32'32	-1.5m
direct	4045 Mar 27 07:57	19°♌12'31	
	4045 May 13 23:20	0°♍	
	4045 Jul 14 20:44	0°♎	
	4045 Sep 04 04:59	0°♏	
desc. node	4045 Sep 22 15:31	11°♏29'31	
	4045 Oct 21 05:42	0°♐	
	4045 Dec 04 02:12	0°♑	
evening set	4045 Dec 12 13:38	6°♑01'12	
max. Earth dist.	4045 Dec 27 04:39	16°♑34'32	2.44437 AU
	4046 Jan 14 09:52	0°♒	
conjunction	4046 Feb 05 13:18	16°♒41'54	-1°02'09
minimum elong	4046 Feb 05 12:02	16°♒39'30	1°02'09

	4046 Feb 22 20:47	0°♓	
	4046 Apr 02 05:46	0°♈	
morning rise	4046 Apr 10 22:14	6°♈50'21	
	4046 May 10 09:17	0°♉	
	4046 Jun 18 04:29	0°♊	
	4046 Jul 28 12:49	0°♋	
asc. node	4046 Jul 30 11:49	1°♋24'57	
	4046 Sep 09 09:11	0°♌	
	4046 Oct 26 06:06	0°♍	
	4046 Dec 21 23:22	0°♎	
retrograde	4047 Feb 11 06:30	12°♎52'25	
opposition	4047 Mar 23 13:39	3°♎07'40	4°00'34
min. Earth dist.	4047 Mar 23 08:03	3°♎13'14	0.67806 AU
greatest brilliancy	4047 Mar 23 12:45	3°♎08'33	-1.3m
	4047 Mar 31 14:05	30°℞♍	
direct	4047 May 03 09:05	23°♍21'02	
	4047 Jun 08 14:37	0°♎	
desc. node	4047 Aug 10 14:30	29°♎05'38	
	4047 Aug 12 05:36	0°♏	
	4047 Oct 01 00:49	0°♐	
	4047 Nov 14 15:04	0°♑	
	4047 Dec 25 23:10	0°♒	
	4048 Feb 03 04:27	0°♓	
evening set	4048 Feb 08 10:21	4°♓05'41	
	4048 Mar 12 07:25	0°♈	
conjunction	4048 Apr 16 02:02	27°♈28'18	-0°39'31
minimum elong	4048 Apr 16 05:22	27°♈34'51	0°39'29
	4048 Apr 19 07:19	0°♉	
	4048 May 28 01:33	0°♊	
max. Earth dist.	4048 Jun 03 17:00	5°♊02'24	2.39231 AU
asc. node	4048 Jun 16 10:51	14°♊36'18	
morning rise	4048 Jun 25 01:49	21°♊00'03	
	4048 Jul 07 08:48	0°♋	
	4048 Aug 18 19:39	0°♌	
	4048 Oct 02 22:47	0°♍	
	4048 Nov 20 17:47	0°♎	
	4049 Jan 16 17:36	0°♏	
retrograde	4049 Mar 17 11:06	16°♏00'27	
opposition	4049 Apr 25 19:07	6°♏53'31	2°12'38
greatest brilliancy	4049 Apr 26 02:25	6°♏46'23	-1.4m
min. Earth dist.	4049 Apr 29 09:40	5°♏29'01	0.65713 AU
	4049 May 15 04:46	30°℞♎	
direct	4049 Jun 06 08:31	26°♎51'06	
desc. node	4049 Jun 27 12:59	29°♎24'43	
	4049 Jun 30 00:01	0°♏	
	4049 Sep 05 14:30	0°♐	
	4049 Oct 23 04:28	0°♑	
	4049 Dec 04 09:35	0°♒	
	4050 Jan 12 20:55	0°♓	
	4050 Feb 20 02:23	0°♈	
	4050 Mar 30 05:47	0°♉	
evening set	4050 Apr 20 21:25	16°♉46'27	
asc. node	4050 May 04 09:12	27°♉04'21	
	4050 May 08 05:59	0°♊	
	4050 Jun 17 20:35	0°♋	
conjunction	4050 Jun 23 15:38	4°♋09'54	0°31'41
minimum elong	4050 Jun 23 13:42	4°♋06'26	0°31'40
	4050 Jul 30 12:07	0°♌	
max. Earth dist.	4050 Jul 31 15:02	0°♌46'09	2.52741 AU
morning rise	4050 Aug 19 06:05	13°♌23'45	
	4050 Sep 13 08:04	0°♍	
	4050 Oct 30 08:52	0°♎	
	4050 Dec 19 01:48	0°♏	
	4051 Feb 12 10:39	0°♐	
retrograde	4051 Apr 27 12:57	22°♐31'50	
desc. node	4051 May 15 11:18	20°♐31'02	
opposition	4051 Jun 03 13:49	14°♐30'14	-0°47'58
greatest brilliancy	4051 Jun 03 18:42	14°♐25'41	-1.8m
min. Earth dist.	4051 Jun 10 17:43	11°♐50'41	0.57218 AU
direct	4051 Jul 13 23:52	4°♐54'04	
	4051 Sep 24 15:26	0°♑	
	4051 Nov 10 08:53	0°♒	
	4051 Dec 21 09:51	0°♓	
	4052 Jan 29 11:29	0°♈	
	4052 Mar 08 07:16	0°♉	
asc. node	4052 Mar 21 08:36	9°♉58'27	
	4052 Apr 16 23:57	0°♊	
	4052 May 28 07:12	0°♋	
evening set	4052 Jun 19 06:24	15°♋24'41	
	4052 Jul 10 13:05	0°♌	
conjunction	4052 Aug 11 04:27	21°♌09'13	1°05'35
minimum elong	4052 Aug 11 03:41	21°♌07'56	1°05'35
	4052 Aug 24 16:05	0°♍	
max. Earth dist.	4052 Aug 29 11:00	3°♍07'12	2.62737 AU
morning rise	4052 Sep 28 08:39	22°♍23'26	
	4052 Oct 10 07:22	0°♎	
	4052 Nov 27 01:43	0°♏	
	4053 Jan 15 00:00	0°♐	
	4053 Mar 07 08:00	0°♑	
desc. node	4053 Apr 01 11:09	13°♑33'02	
	4053 May 06 23:30	0°♒	
retrograde	4053 Jun 22 02:29	10°♒29'19	
opposition	4053 Jul 24 20:04	4°♒20'38	-5°09'45
greatest brilliancy	4053 Jul 26 06:58	3°♒52'40	-2.5m
min. Earth dist.	4053 Aug 01 22:27	1°♒45'46	0.44191 AU
	4053 Aug 08 00:00	30°℞♑	
direct	4053 Aug 29 12:17	26°♑53'45	
	4053 Sep 20 01:21	0°♒	
	4053 Nov 19 06:29	0°♓	
	4054 Jan 01 22:50	0°♈	
asc. node	4054 Feb 06 07:05	25°♈36'23	
	4054 Feb 12 08:02	0°♉	
	4054 Mar 25 22:16	0°♊	
	4054 May 07 18:23	0°♋	
	4054 Jun 21 05:14	0°♌	
evening set	4054 Aug 03 10:34	28°♌15'16	
	4054 Aug 06 03:30	0°♍	
conjunction	4054 Sep 19 15:05	28°♍28'21	1°03'14
minimum elong	4054 Sep 19 15:52	28°♍29'35	1°03'15
max. Earth dist.	4054 Sep 22 07:26	0°♎10'45	2.67453 AU
	4054 Sep 22 00:41	0°♎	
morning rise	4054 Nov 03 06:00	26°♎50'50	
	4054 Nov 08 04:52	0°♏	
	4054 Dec 25 03:30	0°♐	
	4055 Feb 09 16:27	0°♑	
desc. node	4055 Feb 17 10:32	5°♑01'02	
	4055 Mar 28 00:36	0°♒	
	4055 May 13 20:43	0°♓	
	4055 Jul 02 22:47	0°♈	
retrograde	4055 Sep 09 20:09	23°♈33'39	
min. Earth dist.	4055 Oct 08 04:31	18°♈56'35	0.37169 AU
opposition	4055 Oct 10 10:23	18°♈20'18	-5°00'34
greatest brilliancy	4055 Oct 10 05:37	18°♈23'30	-3.0m
direct	4055 Nov 08 19:11	13°♈26'28	
asc. node	4055 Dec 25 05:45	25°♈27'10	
	4056 Jan 03 19:37	0°♉	
	4056 Feb 25 09:32	0°♊	
	4056 Apr 13 03:23	0°♋	
	4056 May 30 10:18	0°♌	
	4056 Jul 17 01:04	0°♍	

	4056 Sep 02 18:31	0°♎	
evening set	4056 Sep 09 14:48	4°♎19'01	
max. Earth dist.	4056 Oct 14 09:41	26°♎24'13	2.66681 AU
	4056 Oct 20 00:30	0°♏	
conjunction	4056 Oct 24 19:01	3°♏03'48	0°36'55
minimum elong	4056 Oct 24 20:00	3°♏05'22	0°36'55
	4056 Dec 05 04:58	0°♐	
morning rise	4056 Dec 08 02:38	1°♐54'54	
desc. node	4057 Jan 04 08:44	20°♐05'12	
	4057 Jan 19 00:06	0°♑	
	4057 Mar 03 08:48	0°♒	
	4057 Apr 14 10:38	0°♓	
	4057 May 25 15:22	0°♈	
	4057 Jul 05 20:57	0°♉	
	4057 Aug 18 08:52	0°♊	
	4057 Oct 13 20:31	0°♋	
retrograde	4057 Nov 11 15:16	5°♋29'23	
asc. node	4057 Nov 11 05:56	5°♋29'19	
	4057 Dec 09 19:53	30°℞♊	
min. Earth dist.	4057 Dec 10 01:10	29°♊55'25	0.47263 AU
opposition	4057 Dec 18 08:33	26°♊57'17	2°04'17
greatest brilliancy	4057 Dec 17 15:40	27°♊12'24	-2.3m
direct	4058 Jan 20 12:32	20°♊01'51	
	4058 Mar 05 07:44	0°♋	
	4058 May 05 02:46	0°♌	
	4058 Jun 26 03:25	0°♍	
	4058 Aug 14 19:38	0°♎	
	4058 Oct 01 18:53	0°♏	
evening set	4058 Oct 16 07:38	9°♏19'22	
max. Earth dist.	4058 Nov 07 22:13	24°♏04'44	2.60546 AU
	4058 Nov 16 20:40	0°♐	
desc. node	4058 Nov 22 07:25	3°♐38'15	
conjunction	4058 Dec 01 11:35	9°♐48'34	-0°05'11
minimum elong	4058 Dec 01 11:23	9°♐48'14	0°05'12
behind sun begin	4058 Nov 30 16:34	9°♐16'28	
behind sun end	4058 Dec 02 06:11	10°♐20'01	
	4058 Dec 30 21:20	0°♑	
morning rise	4059 Jan 18 04:20	12°♑52'47	
	4059 Feb 10 23:14	0°♒	
	4059 Mar 23 10:09	0°♓	
	4059 May 01 18:49	0°♈	
	4059 Jun 09 19:15	0°♉	
	4059 Jul 19 12:02	0°♊	
	4059 Aug 30 10:55	0°♋	
asc. node	4059 Sep 29 05:21	19°♋24'09	
	4059 Oct 17 06:24	0°♌	
retrograde	4059 Dec 25 04:24	23°♌21'29	
min. Earth dist.	4060 Jan 28 04:25	15°♌42'06	0.59752 AU
opposition	4060 Feb 02 18:57	13°♌29'24	4°30'27
greatest brilliancy	4060 Feb 01 21:03	13°♌51'03	-1.6m
direct	4060 Mar 11 04:56	4°♌51'48	
	4060 May 29 11:57	0°♍	
	4060 Jul 23 20:54	0°♎	
	4060 Sep 11 18:15	0°♏	
desc. node	4060 Oct 09 06:12	17°♏28'23	
	4060 Oct 28 08:32	0°♐	
evening set	4060 Nov 24 13:04	18°♐24'21	
max. Earth dist.	4060 Dec 09 02:18	28°♐32'18	2.49598 AU
	4060 Dec 11 04:08	0°♑	
conjunction	4061 Jan 14 18:37	24°♑56'13	-0°50'29
minimum elong	4061 Jan 14 16:53	24°♑53'03	0°50'28
	4061 Jan 21 15:06	0°♒	
	4061 Mar 02 06:50	0°♓	
morning rise	4061 Mar 13 16:43	8°♓49'02	
	4061 Apr 09 20:20	0°♈	
	4061 May 18 03:19	0°♉	
	4061 Jun 26 01:10	0°♊	
	4061 Aug 05 13:16	0°♋	
asc. node	4061 Aug 16 03:27	7°♋33'31	
	4061 Sep 17 20:55	0°♌	
	4061 Nov 05 11:47	0°♍	
	4062 Jan 26 16:51	0°♎	
retrograde	4062 Jan 28 23:56	0°♎02'02	
	4062 Jan 31 06:41	30°℞♍	
min. Earth dist.	4062 Mar 08 14:40	20°♍50'34	0.66816 AU
opposition	4062 Mar 10 08:33	20°♍08'44	4°24'50
greatest brilliancy	4062 Mar 10 01:53	20°♍15'24	-1.3m
direct	4062 Apr 19 11:22	10°♍35'40	
	4062 Jun 26 07:32	0°♎	
	4062 Aug 21 12:31	0°♏	
desc. node	4062 Aug 27 05:03	3°♏21'45	
	4062 Oct 08 21:02	0°♐	
	4062 Nov 22 02:05	0°♑	
	4063 Jan 02 09:05	0°♒	
evening set	4063 Jan 14 12:42	9°♒08'58	
	4063 Feb 10 15:54	0°♓	
max. Earth dist.	4063 Feb 24 12:40	10°♓49'53	2.37290 AU
conjunction	4063 Mar 18 12:50	28°♓10'13	-0°59'32
minimum elong	4063 Mar 18 15:11	28°♓14'52	0°59'31
	4063 Mar 20 20:23	0°♈	
	4063 Apr 27 20:41	0°♉	
morning rise	4063 May 29 02:21	24°♉16'17	
	4063 Jun 05 14:04	0°♊	
asc. node	4063 Jul 04 02:56	21°♊25'08	
	4063 Jul 15 19:58	0°♋	
	4063 Aug 27 07:40	0°♌	
	4063 Oct 11 19:49	0°♍	
	4063 Dec 01 04:43	0°♎	
	4064 Feb 08 09:55	0°♏	
retrograde	4064 Mar 03 10:11	3°♏12'02	
	4064 Mar 25 18:45	30°℞♎	
opposition	4064 Apr 12 06:40	23°♎47'45	3°02'07
greatest brilliancy	4064 Apr 12 12:21	23°♎42'09	-1.3m
min. Earth dist.	4064 Apr 14 09:45	22°♎57'25	0.67312 AU
direct	4064 May 23 17:25	13°♎48'02	
desc. node	4064 Jul 14 04:03	26°♎21'20	
	4064 Jul 22 11:32	0°♏	
	4064 Sep 15 17:01	0°♐	
	4064 Oct 31 15:37	0°♑	
	4064 Dec 12 09:16	0°♒	
	4065 Jan 20 16:49	0°♓	
	4065 Feb 27 20:16	0°♈	
evening set	4065 Mar 23 13:09	18°♈43'56	
	4065 Apr 06 21:17	0°♉	
	4065 May 15 18:03	0°♊	
asc. node	4065 May 21 02:22	4°♊02'45	
conjunction	4065 May 30 09:18	11°♊01'10	0°06'16
minimum elong	4065 May 30 08:45	11°♊00'09	0°06'15
behind sun begin	4065 May 29 07:08	10°♊12'18	
behind sun end	4065 May 31 10:22	11°♊47'56	
	4065 Jun 25 04:20	0°♋	
max. Earth dist.	4065 Jul 15 23:03	14°♋51'57	2.47588 AU
morning rise	4065 Jul 31 03:19	25°♋29'08	
	4065 Aug 06 16:17	0°♌	
	4065 Sep 20 12:12	0°♍	
	4065 Nov 06 23:01	0°♎	
	4065 Dec 28 06:19	0°♏	
	4066 Mar 02 01:25	0°♐	
retrograde	4066 Apr 10 09:16	7°♐42'44	

	4066 May 16 08:55	30℞♏	
opposition	4066 May 18 12:29	29°♏11'07	0°32'06
greatest brilliancy	4066 May 18 15:37	29°♏08'07	-1.6m
min. Earth dist.	4066 May 24 09:17	26°♏56'59	0.61266 AU
desc. node	4066 Jun 01 03:03	24°♏10'11	
direct	4066 Jun 28 16:24	19°♏16'55	
	4066 Aug 12 20:23	0°♐	
	4066 Oct 07 05:39	0°♑	
	4066 Nov 20 05:24	0°♒	
	4066 Dec 30 08:52	0°♓	
	4067 Feb 06 23:04	0°♈	
	4067 Mar 17 09:56	0°♉	
asc. node	4067 Apr 07 24:00	16°♉35'09	
	4067 Apr 25 18:10	0°♊	
evening set	4067 May 30 01:22	25°♊13'09	
	4067 Jun 05 17:05	0°♋	
	4067 Jul 18 15:47	0°♌	
conjunction	4067 Jul 25 15:23	4°♌44'55	0°57'35
minimum elong	4067 Jul 25 13:50	4°♌42'18	0°57'34
max. Earth dist.	4067 Aug 19 23:00	21°♌41'22	2.59439 AU
	4067 Sep 01 14:15	0°♍	
morning rise	4067 Sep 14 08:56	8°♍18'52	
	4067 Oct 18 06:44	0°♎	
	4067 Dec 05 13:14	0°♏	
	4068 Jan 25 00:15	0°♐	
	4068 Mar 21 08:27	0°♑	
desc. node	4068 Apr 18 01:44	11°♑39'00	
retrograde	4068 May 28 05:59	19°♑43'56	
opposition	4068 Jul 01 21:57	12°♑44'21	-3°21'56
greatest brilliancy	4068 Jul 02 22:00	12°♑23'31	-2.2m
min. Earth dist.	4068 Jul 10 09:17	9°♑48'35	0.49519 AU
direct	4068 Aug 09 02:04	4°♑08'15	
	4068 Oct 19 07:55	0°♒	
	4068 Dec 03 10:45	0°♓	
	4069 Jan 13 04:33	0°♈	
asc. node	4069 Feb 22 23:23	0°♉39'59	
	4069 Feb 22 02:01	0°♉	
	4069 Apr 03 15:38	0°♊	
	4069 May 15 16:47	0°♋	
	4069 Jun 28 13:23	0°♌	
evening set	4069 Jul 18 03:12	13°♌01'12	
	4069 Aug 13 02:03	0°♍	
conjunction	4069 Sep 05 00:24	14°♍47'48	1°07'32
minimum elong	4069 Sep 05 00:43	14°♍48'19	1°07'32
max. Earth dist.	4069 Sep 13 09:43	20°♍10'19	2.66258 AU
	4069 Sep 28 19:15	0°♎	
morning rise	4069 Oct 20 14:03	13°♎50'25	
	4069 Nov 15 02:34	0°♏	
	4070 Jan 01 14:36	0°♐	
	4070 Feb 18 09:26	0°♑	
desc. node	4070 Mar 06 01:01	9°♑43'21	
	4070 Apr 08 06:28	0°♒	
	4070 May 31 08:26	0°♓	
retrograde	4070 Aug 08 12:03	21°♓59'57	
opposition	4070 Sep 07 13:34	17°♓00'34	-6°37'43
greatest brilliancy	4070 Sep 08 11:30	16°♓45'46	-2.9m
min. Earth dist.	4070 Sep 11 01:18	16°♓04'09	0.37921 AU
direct	4070 Oct 08 10:27	11°♓39'51	
	4070 Dec 05 06:20	0°♈	
asc. node	4071 Jan 10 23:30	21°♈47'45	
	4071 Jan 23 16:51	0°♉	
	4071 Mar 09 19:10	0°♊	
	4071 Apr 23 17:18	0°♋	
	4071 Jun 08 12:42	0°♌	
	4071 Jul 25 07:23	0°♍	
evening set	4071 Aug 27 05:25	20°♍53'01	
	4071 Sep 10 14:49	0°♎	
max. Earth dist.	4071 Oct 06 10:21	16°♎22'57	2.67636 AU
conjunction	4071 Oct 11 20:00	19°♎49'19	0°49'23
minimum elong	4071 Oct 11 21:04	19°♎51'01	0°49'23
	4071 Oct 27 18:34	0°♏	
morning rise	4071 Nov 24 21:38	18°♏06'35	
	4071 Dec 13 04:08	0°♐	
desc. node	4072 Jan 21 23:47	26°♐18'50	
	4072 Jan 27 11:57	0°♑	
	4072 Mar 11 16:49	0°♒	
	4072 Apr 23 22:43	0°♓	
	4072 Jun 05 17:34	0°♈	
	4072 Jul 19 14:08	0°♉	
	4072 Sep 09 05:11	0°♊	
retrograde	4072 Oct 21 05:10	10°♊56'38	
min. Earth dist.	4072 Nov 16 22:27	6°♊08'56	0.42111 AU
opposition	4072 Nov 24 16:19	3°♊38'12	-0°12'32
greatest brilliancy	4072 Nov 24 15:00	3°♊39'16	-2.7m
asc. node	4072 Nov 27 22:31	2°♊35'30	
	4072 Dec 07 02:49	30℞♉	
direct	4072 Dec 25 23:24	27°♉38'02	
	4073 Jan 14 12:53	0°♊	
	4073 Mar 24 16:31	0°♋	
	4073 May 15 15:47	0°♌	
	4073 Jul 04 07:52	0°♍	
	4073 Aug 22 00:57	0°♎	
evening set	4073 Oct 01 21:49	25°♎42'10	
	4073 Oct 08 15:26	0°♏	
max. Earth dist.	4073 Oct 29 00:22	13°♏07'48	2.63571 AU
conjunction	4073 Nov 16 07:30	25°♏06'19	0°12'29
minimum elong	4073 Nov 16 07:54	25°♏06'59	0°12'29
behind sun begin	4073 Nov 15 19:42	24°♏46'53	
behind sun end	4073 Nov 16 20:06	25°♏27'06	
	4073 Nov 23 17:03	0°♐	
desc. node	4073 Dec 08 22:14	10°♐10'10	
morning rise	4074 Jan 01 03:16	25°♐57'47	
	4074 Jan 06 23:41	0°♑	
	4074 Feb 18 11:30	0°♒	
	4074 Mar 31 10:30	0°♓	
	4074 May 10 07:35	0°♈	
	4074 Jun 18 20:50	0°♉	
	4074 Jul 29 07:08	0°♊	
	4074 Sep 10 21:48	0°♋	
asc. node	4074 Oct 15 21:06	20°♋24'50	
	4074 Nov 06 06:14	0°♌	
retrograde	4074 Dec 09 15:42	6°♌52'48	
	4075 Jan 10 11:19	30℞♋	
min. Earth dist.	4075 Jan 10 12:09	29°♋59'13	0.55361 AU
greatest brilliancy	4075 Jan 16 10:57	27°♋41'31	-1.9m
opposition	4075 Jan 17 11:49	27°♋17'28	3°59'52
direct	4075 Feb 22 11:01	19°♋12'38	
	4075 Apr 10 06:23	0°♌	
	4075 Jun 10 19:48	0°♍	
	4075 Aug 02 02:22	0°♎	
	4075 Sep 20 00:44	0°♏	
desc. node	4075 Oct 26 21:13	23°♏44'11	
	4075 Nov 05 08:20	0°♐	
evening set	4075 Nov 09 02:29	2°♐30'23	
max. Earth dist.	4075 Nov 26 01:06	13°♐57'24	2.54376 AU
	4075 Dec 19 05:00	0°♑	
conjunction	4075 Dec 27 16:42	5°♑59'40	-0°34'00
minimum elong	4075 Dec 27 15:23	5°♑57'22	0°34'00
	4076 Jan 29 20:52	0°♒	

morning rise	4076 Feb 18 11:12	14°♒35'19	
	4076 Mar 09 19:08	0°♓	
	4076 Apr 17 14:52	0°♈	
	4076 May 26 02:53	0°♉	
	4076 Jul 04 05:17	0°♊	
	4076 Aug 14 00:33	0°♋	
asc. node	4076 Sep 01 21:01	13°♋10'56	
	4076 Sep 27 04:41	0°♌	
	4076 Nov 18 12:31	0°♍	
retrograde	4077 Jan 15 12:35	16°♍40'47	
min. Earth dist.	4077 Feb 21 11:39	8°♍01'23	0.64815 AU
opposition	4077 Feb 24 18:05	6°♍43'03	4°38'13
greatest brilliancy	4077 Feb 24 05:04	6°♍56'03	-1.4m
	4077 Mar 16 03:04	30°℞♌	
direct	4077 Apr 04 23:33	27°♌27'39	
	4077 Apr 26 08:53	0°♍	
	4077 Jul 08 05:33	0°♎	
	4077 Aug 29 22:02	0°♏	
desc. node	4077 Sep 12 20:40	8°♏33'09	
	4077 Oct 16 08:59	0°♐	
	4077 Nov 29 08:41	0°♑	
evening set	4077 Dec 23 17:50	17°♑30'05	
	4078 Jan 09 16:13	0°♒	
max. Earth dist.	4078 Jan 10 00:46	0°♒15'58	2.41533 AU
	4078 Feb 18 01:44	0°♓	
conjunction	4078 Feb 19 09:34	1°♓01'43	-1°04'56
minimum elong	4078 Feb 19 09:17	1°♓01'10	1°04'56
	4078 Mar 28 08:54	0°♈	
morning rise	4078 Apr 28 07:13	24°♈23'09	
	4078 May 05 10:50	0°♉	
	4078 Jun 13 04:45	0°♊	
asc. node	4078 Jul 20 19:02	28°♊03'29	
	4078 Jul 23 11:04	0°♋	
	4078 Sep 04 02:19	0°♌	
	4078 Oct 20 06:32	0°♍	
	4078 Dec 12 13:49	0°♎	
retrograde	4079 Feb 18 21:26	20°♎35'15	
opposition	4079 Mar 31 02:07	10°♎56'58	3°41'43
greatest brilliancy	4079 Mar 31 04:01	10°♎55'04	-1.3m
min. Earth dist.	4079 Mar 31 17:01	10°♎42'10	0.67924 AU
direct	4079 May 11 04:31	1°♎04'31	
desc. node	4079 Jul 31 19:27	27°♎36'52	
	4079 Aug 05 08:38	0°♏	
	4079 Sep 25 14:22	0°♐	
	4079 Nov 09 15:07	0°♑	
	4079 Dec 21 02:34	0°♒	
	4080 Jan 29 08:42	0°♓	
evening set	4080 Feb 23 18:34	19°♓57'02	
	4080 Mar 07 11:28	0°♈	
	4080 Apr 14 11:01	0°♉	
conjunction	4080 May 02 17:53	14°♉16'06	-0°23'29
minimum elong	4080 May 02 20:07	14°♉20'25	0°23'28
	4080 May 23 05:14	0°♊	
asc. node	4080 Jun 06 18:04	10°♊58'50	
max. Earth dist.	4080 Jun 24 06:37	23°♊58'49	2.42102 AU
	4080 Jul 02 12:21	0°♋	
morning rise	4080 Jul 09 04:17	4°♋49'25	
	4080 Aug 13 22:11	0°♌	
	4080 Sep 27 20:44	0°♍	
	4080 Nov 14 23:57	0°♎	
	4081 Jan 08 01:22	0°♏	
retrograde	4081 Mar 25 20:23	24°♏01'13	
opposition	4081 May 03 19:47	15°♏05'39	1°38'50
greatest brilliancy	4081 May 04 02:38	14°♏59'01	-1.4m
min. Earth dist.	4081 May 08 06:17	13°♏22'27	0.64406 AU
direct	4081 Jun 14 07:57	5°♏04'08	
desc. node	4081 Jun 17 17:34	5°♏08'27	
	4081 Aug 28 23:27	0°♐	
	4081 Oct 17 08:13	0°♑	
	4081 Nov 29 01:44	0°♒	
	4082 Jan 07 18:13	0°♓	
	4082 Feb 15 02:16	0°♈	
	4082 Mar 25 07:31	0°♉	
asc. node	4082 Apr 24 18:04	23°♉27'12	
	4082 May 03 09:33	0°♊	
evening set	4082 May 05 19:53	1°♊49'50	
	4082 Jun 13 01:44	0°♋	
conjunction	4082 Jul 05 23:05	16°♋16'08	0°43'08
minimum elong	4082 Jul 05 21:03	16°♋12'33	0°43'07
	4082 Jul 25 18:23	0°♌	
max. Earth dist.	4082 Aug 08 05:20	9°♌09'28	2.55304 AU
morning rise	4082 Aug 29 04:43	23°♌10'24	
	4082 Sep 08 13:45	0°♍	
	4082 Oct 25 09:49	0°♎	
	4082 Dec 13 10:39	0°♏	
	4083 Feb 04 09:25	0°♐	
	4083 Apr 18 20:21	0°♑	
desc. node	4083 May 05 16:24	2°♑03'36	
retrograde	4083 May 08 05:13	2°♑05'55	
	4083 May 26 12:52	30°℞♐	
opposition	4083 Jun 13 12:19	24°♐24'08	-1°40'27
greatest brilliancy	4083 Jun 13 23:23	24°♐14'03	-1.9m
min. Earth dist.	4083 Jun 21 07:06	21°♐34'09	0.54633 AU
direct	4083 Jul 23 07:33	15°♐03'52	
	4083 Sep 14 01:04	0°♑	
	4083 Nov 03 08:54	0°♒	
	4083 Dec 15 08:19	0°♓	
	4084 Jan 23 20:21	0°♈	
	4084 Mar 02 22:55	0°♉	
asc. node	4084 Mar 11 16:41	6°♉38'35	
	4084 Apr 11 21:18	0°♊	
	4084 May 23 09:18	0°♋	
evening set	4084 Jun 30 05:55	26°♋14'27	
	4084 Jul 05 19:00	0°♌	
conjunction	4084 Aug 20 12:30	0°♍20'07	1°07'41
minimum elong	4084 Aug 20 12:10	0°♍19'34	1°07'40
	4084 Aug 20 00:09	0°♍	
max. Earth dist.	4084 Sep 04 03:40	9°♍49'44	2.64209 AU
	4084 Oct 05 15:03	0°♎	
morning rise	4084 Oct 06 14:30	0°♎37'18	
	4084 Nov 22 04:03	0°♏	
	4085 Jan 09 11:21	0°♐	
	4085 Feb 28 04:01	0°♑	
desc. node	4085 Mar 22 15:36	12°♑59'40	
	4085 Apr 23 02:55	0°♒	
retrograde	4085 Jul 07 21:03	24°♒21'58	
opposition	4085 Aug 08 14:13	18°♒42'32	-6°02'19
greatest brilliancy	4085 Aug 10 02:19	18°♒15'18	-2.6m
min. Earth dist.	4085 Aug 15 18:47	16°♒33'27	0.41504 AU
direct	4085 Sep 11 12:12	12°♒02'36	
	4085 Nov 06 21:07	0°♓	
	4085 Dec 24 17:56	0°♈	
asc. node	4086 Jan 27 15:03	23°♈38'15	
	4086 Feb 05 14:27	0°♉	
	4086 Mar 20 00:36	0°♊	
	4086 May 02 09:53	0°♋	
	4086 Jun 16 05:49	0°♌	
	4086 Aug 01 09:55	0°♍	
evening set	4086 Aug 12 07:16	6°♍58'53	
	4086 Sep 17 09:58	0°♎	

conjunction	4086 Sep 27 19:05	6°♎35'58	0°59'04
minimum elong	4086 Sep 27 20:02	6°♎37'28	0°59'03
max. Earth dist.	4086 Sep 27 11:34	6°♎24'01	2.67746 AU
	4086 Nov 03 13:21	0°♏	
morning rise	4086 Nov 11 02:24	4°♏49'08	
	4086 Dec 20 06:31	0°♐	
	4087 Feb 04 07:30	0°♑	
desc. node	4087 Feb 07 14:34	2°♑09'51	
	4087 Mar 21 17:27	0°♒	
	4087 May 05 21:08	0°♓	
	4087 Jun 20 22:20	0°♈	
	4087 Aug 12 19:04	0°♉	
retrograde	4087 Sep 26 13:33	11°♉47'31	
min. Earth dist.	4087 Oct 23 07:08	7°♉21'51	0.38223 AU
opposition	4087 Oct 28 06:07	5°♉57'32	-3°18'11
greatest brilliancy	4087 Oct 27 19:21	6°♉05'11	-2.9m
direct	4087 Nov 26 22:04	0°♉49'30	
asc. node	4087 Dec 15 15:17	3°♉01'38	
	4088 Feb 15 16:59	0°♊	
	4088 Apr 06 09:13	0°♋	
	4088 May 24 20:18	0°♌	
	4088 Jul 12 01:09	0°♍	
	4088 Aug 29 01:54	0°♎	
evening set	4088 Sep 17 17:28	12°♎22'25	
	4088 Oct 15 10:31	0°♏	
max. Earth dist.	4088 Oct 19 16:27	2°♏43'25	2.65793 AU
conjunction	4088 Nov 01 20:39	11°♏13'14	0°28'31
minimum elong	4088 Nov 01 21:28	11°♏14'34	0°28'31
	4088 Nov 30 13:50	0°♐	
morning rise	4088 Dec 16 13:19	10°♐37'25	
desc. node	4088 Dec 25 13:31	16°♐40'26	
	4089 Jan 14 04:15	0°♑	
	4089 Feb 26 04:40	0°♒	
	4089 Apr 08 19:35	0°♓	
	4089 May 19 10:37	0°♈	
	4089 Jun 28 21:11	0°♉	
	4089 Aug 09 18:25	0°♊	
	4089 Sep 26 18:12	0°♋	
asc. node	4089 Nov 01 13:52	15°♋03'16	
retrograde	4089 Nov 22 10:14	18°♋00'54	
min. Earth dist.	4089 Dec 22 00:39	11°♋58'16	0.50266 AU
greatest brilliancy	4089 Dec 29 03:15	9°♋20'34	-2.2m
opposition	4089 Dec 30 01:39	8°♋59'48	2°58'32
direct	4090 Feb 02 07:47	1°♋36'50	
	4090 Apr 27 04:24	0°♌	
	4090 Jun 20 09:02	0°♍	
	4090 Aug 09 19:39	0°♎	
	4090 Sep 27 02:25	0°♏	
evening set	4090 Oct 24 17:18	17°♏46'35	
desc. node	4090 Nov 12 12:33	0°♐10'12	
	4090 Nov 12 06:25	0°♐	
max. Earth dist.	4090 Nov 14 03:09	1°♐14'29	2.58561 AU
conjunction	4090 Dec 10 13:05	19°♐07'02	-0°15'45
minimum elong	4090 Dec 10 12:30	19°♐06'01	0°15'44
behind sun begin	4090 Dec 10 07:53	18°♐58'06	
behind sun end	4090 Dec 10 17:07	19°♐13'56	
	4090 Dec 26 06:06	0°♑	
morning rise	4091 Jan 28 16:55	23°♑49'14	
	4091 Feb 06 04:32	0°♒	
	4091 Mar 18 10:46	0°♓	
	4091 Apr 26 14:13	0°♈	
	4091 Jun 04 09:00	0°♉	
	4091 Jul 13 18:41	0°♊	
	4091 Aug 24 03:15	0°♋	
asc. node	4091 Sep 19 12:04	17°♋47'58	
	4091 Oct 08 23:44	0°♌	
	4091 Dec 13 15:24	0°♍	
retrograde	4092 Jan 02 13:57	2°♍29'57	
	4092 Jan 21 11:35	30°℞♌	
min. Earth dist.	4092 Feb 06 16:39	24°♌27'19	0.61839 AU
opposition	4092 Feb 11 11:13	22°♌33'32	4°38'20
greatest brilliancy	4092 Feb 10 16:10	22°♌52'29	-1.5m
direct	4092 Mar 20 14:08	13°♌40'37	
	4092 May 20 09:30	0°♍	
	4092 Jul 17 23:52	0°♎	
	4092 Sep 06 17:19	0°♏	
desc. node	4092 Sep 29 11:12	14°♏17'30	
	4092 Oct 23 14:39	0°♐	
evening set	4092 Dec 04 12:48	28°♐36'34	
	4092 Dec 06 12:13	0°♑	
max. Earth dist.	4092 Dec 18 14:13	8°♑35'13	2.46782 AU
	4093 Jan 16 22:25	0°♒	
conjunction	4093 Jan 26 16:22	7°♒16'46	-0°58'00
minimum elong	4093 Jan 26 14:46	7°♒13'45	0°58'00
	4093 Feb 25 12:18	0°♓	
morning rise	4093 Mar 29 02:11	24°♓35'22	
	4093 Apr 04 23:36	0°♈	
	4093 May 13 04:18	0°♉	
	4093 Jun 20 23:46	0°♊	
	4093 Jul 31 08:06	0°♋	
asc. node	4093 Aug 06 12:19	4°♋27'05	
	4093 Sep 12 06:29	0°♌	
	4093 Oct 29 14:57	0°♍	
	4093 Dec 28 22:39	0°♎	
retrograde	4094 Feb 05 15:21	7°♎55'48	
	4094 Mar 13 05:34	30°℞♍	
opposition	4094 Mar 17 23:38	28°♍06'51	4°11'52
min. Earth dist.	4094 Mar 17 02:13	28°♍28'14	0.67494 AU
greatest brilliancy	4094 Mar 17 20:19	28°♍10'10	-1.3m
direct	4094 Apr 27 12:07	18°♍25'39	
	4094 Jun 16 06:08	0°♎	
	4094 Aug 15 12:23	0°♏	
desc. node	4094 Aug 17 09:53	1°♏05'01	
	4094 Oct 03 17:26	0°♐	
	4094 Nov 17 05:15	0°♑	
	4094 Dec 28 13:59	0°♒	
evening set	4095 Jan 28 04:05	23°♒15'35	
	4095 Feb 05 20:46	0°♓	
	4095 Mar 16 00:41	0°♈	
conjunction	4095 Apr 04 00:21	15°♈01'19	-0°49'49
minimum elong	4095 Apr 04 03:42	15°♈07'56	0°49'47
	4095 Apr 23 00:24	0°♉	
max. Earth dist.	4095 May 07 21:59	11°♉38'51	2.37364 AU
	4095 May 31 17:30	0°♊	
morning rise	4095 Jun 14 08:05	10°♊18'11	
asc. node	4095 Jun 24 11:36	17°♊53'13	
	4095 Jul 10 22:52	0°♋	
	4095 Aug 22 08:13	0°♌	
	4095 Oct 06 12:45	0°♍	
	4095 Nov 24 18:49	0°♎	
	4096 Jan 23 15:22	0°♏	
retrograde	4096 Mar 11 08:58	10°♏59'14	
opposition	4096 Apr 19 23:27	1°♏44'10	2°34'16
greatest brilliancy	4096 Apr 20 06:18	1°♏37'27	-1.3m
min. Earth dist.	4096 Apr 22 22:36	0°♏34'24	0.66557 AU
	4096 Apr 24 09:53	30°℞♎	
direct	4096 May 31 12:39	21°♎42'11	
desc. node	4096 Jul 04 08:37	27°♎44'45	
	4096 Jul 10 21:08	0°♏	
	4096 Sep 09 08:40	0°♐	

	4096 Oct 26	06:07	0°♉		
	4096 Dec 07	07:09	0°♒		
	4097 Jan 15	17:31	0°♓		
	4097 Feb 22	22:08	0°♈		
	4097 Apr 01	23:55	0°♉		
evening set	4097 Apr 08	17:16	5°♉14'54		
	4097 May 10	21:41	0°♊		
asc. node	4097 May 11	09:44	0°♊22'51		
conjunction	4097 Jun 13	12:41	25°♊01'12	0°21'36	
minimum elong	4097 Jun 13	11:07	24°♊58'21	0°21'34	
	4097 Jun 20	09:06	0°♋		
max. Earth dist.	4097 Jul 25	07:12	24°♋45'08	2.50505 AU	
	4097 Aug 01	21:31	0°♌		
morning rise	4097 Aug 11	07:20	6°♌25'59		
	4097 Sep 15	15:52	0°♍		
	4097 Nov 01	19:00	0°♎		
	4097 Dec 22	00:13	0°♏		
	4098 Feb 17	17:06	0°♐		
retrograde	4098 Apr 19	22:12	16°♐29'24		
desc. node	4098 May 22	07:00	10°♐08'34		
opposition	4098 May 27	11:45	8°♐13'36	-0°12'40	
greatest brilliancy	4098 May 27	13:00	8°♐12'25	-1.7m	
min. Earth dist.	4098 Jun 03	02:22	5°♐44'24	0.59142 AU	
	4098 Jun 22	02:08	30°℞♏		
direct	4098 Jul 07	07:17	28°♏27'39		
	4098 Jul 23	00:43	0°♐		
	4098 Sep 29	18:49	0°♑		
	4098 Nov 14	04:29	0°♒		
	4098 Dec 24	19:50	0°♓		
	4099 Feb 01	16:08	0°♈		
	4099 Mar 12	07:04	0°♉		
asc. node	4099 Mar 29	09:05	13°♉05'52		
	4099 Apr 20	18:46	0°♊		
	4099 May 31	20:51	0°♋		
evening set	4099 Jun 11	09:33	7°♋28'14		
	4099 Jul 13	22:01	0°♌		
conjunction	4099 Aug 04	20:14	14°♌46'21	1°02'55	
minimum elong	4099 Aug 04	19:07	14°♌44'30	1°02'54	
max. Earth dist.	4099 Aug 26	03:56	28°♌51'32	2.61364 AU	
	4099 Aug 27	21:45	0°♍		
morning rise	4099 Sep 23	01:32	16°♍56'48		
	4099 Oct 13	12:30	0°♎		
	4099 Nov 30	10:51	0°♏		
	4100 Jan 18	22:26	0°♐		
	4100 Mar 12	21:26	0°♑		
desc. node	4100 Apr 09	06:37	13°♑40'36		
	4100 May 26	13:07	0°♒		
retrograde	4100 Jun 11	18:32	1°♒30'39		
	4100 Jun 27	05:27	30°℞♑		
opposition	4100 Jul 15	09:15	24°♑58'16	-4°23'47	
greatest brilliancy	4100 Jul 16	16:17	24°♑32'23	-2.3m	
min. Earth dist.	4100 Jul 23	19:24	22°♑10'24	0.46547 AU	
direct	4100 Aug 21	06:22	16°♑57'22		
	4100 Oct 07	11:21	0°♒		
	4100 Nov 26	10:02	0°♓		
	4101 Jan 07	12:27	0°♈		
asc. node	4101 Feb 14	08:10	27°♈56'41		
	4101 Feb 17	02:55	0°♉		
	4101 Mar 30	04:05	0°♊		
	4101 May 11	14:00	0°♋		
	4101 Jun 24	16:52	0°♌		
evening set	4101 Jul 28	14:06	22°♌19'33		
	4101 Aug 09	09:43	0°♍		
conjunction	4101 Sep 14	10:42	23°♍09'10	1°05'29	
minimum elong	4101 Sep 14	11:19	23°♍10'09	1°05'29	
max. Earth dist.	4101 Sep 19	16:23	26°♍29'36	2.67021 AU	
	4101 Sep 25	04:28	0°♎		
morning rise	4101 Oct 29	10:11	21°♎45'35		
	4101 Nov 11	09:39	0°♏		
	4101 Dec 28	13:58	0°♐		