conjunction	15600 Sep 10 21:56	5°♎19'14	0°35'05
minimum elong	15600 Sep 10 19:02	5°♎13'36	0°35'02
	15600 Oct 12 08:56	0°♏	
	15600 Nov 19 05:42	0°♐	
morning rise	15600 Nov 22 11:38	2°♐34'01	
	15600 Dec 27 12:45	0°♑	
	15601 Feb 05 03:41	0°♒	
	15601 Mar 19 00:40	0°♓	
	15601 May 03 07:24	0°♈	
desc. node	15601 May 17 20:41	8°♈59'39	
	15601 Jun 23 21:04	0°♉	
retrograde	15601 Sep 11 08:53	25°♉52'23	
opposition	15601 Oct 22 01:17	16°♉10'50	-4°34'07
greatest brilliancy	15601 Oct 22 01:34	16°♉10'33	-1.2m
min. Earth dist.	15601 Oct 22 10:41	16°♉01'33	0.68702 AU
direct	15601 Dec 02 07:53	6°♉19'01	
	15602 Feb 16 12:12	0°♊	
	15602 Apr 10 07:03	0°♋	
	15602 May 25 22:03	0°♌	
asc. node	15602 Jun 07 14:54	8°♌52'48	
	15602 Jul 06 18:00	0°♍	
	15602 Aug 15 04:40	0°♎	
evening set	15602 Sep 16 10:09	25°♎19'25	
	15602 Sep 22 07:39	0°♏	
	15602 Oct 30 02:43	0°♐	
conjunction	15602 Nov 28 20:12	23°♐18'36	1°04'31
minimum elong	15602 Nov 28 22:28	23°♐23'01	1°05'22
	15602 Dec 07 11:55	0°♑	
	15603 Jan 16 06:43	0°♒	
max. Earth dist.	15603 Jan 20 13:42	3°♒09'12	2.42178 AU
morning rise	15603 Feb 03 10:21	13°♒13'11	
	15603 Feb 27 02:47	0°♓	
desc. node	15603 Apr 04 13:34	24°♓46'17	
	15603 Apr 12 12:10	0°♈	
	15603 May 30 03:00	0°♉	
	15603 Jul 22 03:47	0°♊	
retrograde	15603 Oct 17 01:37	28°♊44'06	
opposition	15603 Nov 25 10:31	19°♊43'25	-4°49'14
greatest brilliancy	15603 Nov 26 03:50	19°♊26'36	-1.4m
min. Earth dist.	15603 Nov 29 17:37	18°♊03'17	0.65154 AU
direct	15604 Jan 05 22:02	9°♊41'11	
	15604 Mar 12 13:05	0°♋	
asc. node	15604 Apr 24 18:03	25°♋02'26	
	15604 May 02 10:04	0°♌	
	15604 Jun 14 14:11	0°♍	
	15604 Jul 24 10:05	0°♎	
	15604 Aug 31 17:07	0°♏	
	15604 Oct 08 17:45	0°♐	
	15604 Nov 16 12:06	0°♑	
evening set	15604 Dec 01 03:48	11°♑04'23	
	15604 Dec 26 18:35	0°♒	
conjunction	15605 Jan 29 23:22	24°♒23'32	0°12'34
minimum elong	15605 Jan 30 00:08	24°♒24'52	0°13'09
behind sun begin	15605 Jan 29 10:57	24°♒01'51	
behind sun end	15605 Jan 30 13:19	24°♒47'52	
	15605 Feb 07 00:56	0°♓	
desc. node	15605 Feb 19 02:55	8°♓18'22	
max. Earth dist.	15605 Mar 02 14:50	16°♓06'13	2.55815 AU
morning rise	15605 Mar 22 16:55	29°♓29'42	
	15605 Mar 23 11:18	0°♈	
	15605 May 09 01:40	0°♉	
	15605 Jun 26 23:59	0°♊	
	15605 Aug 18 14:27	0°♋	
	15605 Oct 23 15:38	0°♌	
retrograde	15605 Nov 28 05:07	6°♌23'33	
	15605 Dec 30 16:51	30°℞♋	
opposition	15606 Jan 03 15:04	28°♋34'26	-3°17'01
greatest brilliancy	15606 Jan 04 15:36	28°♋11'43	-1.9m
min. Earth dist.	15606 Jan 11 09:41	25°♋42'04	0.54978 AU
direct	15606 Feb 12 05:56	19°♋08'51	
asc. node	15606 Mar 13 01:54	24°♋14'08	
	15606 Mar 27 22:19	0°♌	
	15606 May 19 11:55	0°♍	
	15606 Jun 30 18:11	0°♎	
	15606 Aug 09 04:18	0°♏	
	15606 Sep 17 01:34	0°♐	
	15606 Oct 26 17:10	0°♑	
	15606 Dec 06 21:55	0°♒	
desc. node	15607 Jan 06 17:51	21°♒35'23	
	15607 Jan 19 00:44	0°♓	
evening set	15607 Jan 24 20:01	3°♓56'18	
	15607 Mar 05 00:26	0°♈	
conjunction	15607 Mar 14 21:15	6°♈26'09	-0°38'13
minimum elong	15607 Mar 14 19:59	6°♈24'05	0°38'12
max. Earth dist.	15607 Mar 29 01:57	15°♈37'19	2.64882 AU
	15607 Apr 20 13:03	0°♉	
morning rise	15607 Apr 29 00:25	5°♉22'57	
	15607 Jun 07 04:22	0°♊	
	15607 Jul 25 17:34	0°♋	
	15607 Sep 13 14:11	0°♌	
	15607 Nov 05 20:57	0°♍	
retrograde	15608 Jan 28 17:26	28°♍36'58	
asc. node	15608 Jan 29 08:07	28°♍36'49	
opposition	15608 Feb 29 03:43	22°♍54'19	2°05'16
greatest brilliancy	15608 Feb 29 17:00	22°♍44'10	-2.7m
min. Earth dist.	15608 Mar 07 15:35	20°♍37'16	0.41014 AU
direct	15608 Apr 02 23:29	16°♍07'05	
	15608 May 20 21:54	0°♎	
	15608 Jul 09 01:04	0°♏	
	15608 Aug 20 21:50	0°♐	
	15608 Oct 02 05:39	0°♑	
	15608 Nov 14 13:06	0°♒	
desc. node	15608 Nov 23 16:39	6°♒12'44	
	15608 Dec 29 07:39	0°♓	
	15609 Feb 13 10:44	0°♈	
evening set	15609 Mar 05 13:27	12°♈52'39	
	15609 Apr 01 11:31	0°♉	
conjunction	15609 Apr 19 02:31	11°♉10'27	-1°07'18
minimum elong	15609 Apr 19 01:37	11°♉09'01	1°07'49
max. Earth dist.	15609 Apr 19 17:24	11°♉34'02	2.68477 AU
	15609 May 18 19:18	0°♊	
morning rise	15609 Jun 01 02:32	8°♊26'55	
	15609 Jul 04 21:07	0°♋	
	15609 Aug 20 08:54	0°♌	
	15609 Oct 05 03:27	0°♍	
	15609 Nov 19 08:17	0°♎	
asc. node	15609 Dec 16 12:16	18°♎01'42	
	15610 Jan 03 19:01	0°♏	
	15610 Feb 22 09:30	0°♐	
retrograde	15610 Apr 19 18:16	17°♐55'32	
min. Earth dist.	15610 May 15 23:24	13°♐37'59	0.37712 AU
greatest brilliancy	15610 May 19 20:45	12°♐31'55	-2.9m
opposition	15610 May 21 00:08	12°♐12'25	7°07'24
direct	15610 Jun 19 10:41	7°♐09'14	
	15610 Aug 27 17:17	0°♑	
desc. node	15610 Oct 11 21:33	25°♑38'59	

	15610 Oct 19 04:03	0°♒	
	15610 Dec 07 07:56	0°♓	
	15611 Jan 24 21:41	0°♈	
	15611 Mar 14 04:20	0°♉	
evening set	15611 Apr 10 03:03	16°♉54'08	
	15611 Apr 30 19:31	0°♊	
max. Earth dist.	15611 May 11 20:08	7°♊02'07	2.66566 AU
conjunction	15611 May 23 18:35	14°♊41'58	-1°12'05
minimum elong	15611 May 23 19:00	14°♊42'38	1°12'55
	15611 Jun 16 08:11	0°♋	
morning rise	15611 Jul 06 23:45	13°♋36'39	
	15611 Jul 31 10:12	0°♌	
	15611 Sep 12 21:27	0°♍	
	15611 Oct 24 18:47	0°♎	
asc. node	15611 Nov 03 09:10	7°♎01'24	
	15611 Dec 04 08:49	0°♏	
	15612 Jan 13 08:30	0°♐	
	15612 Feb 23 03:59	0°♑	
	15612 Apr 08 07:23	0°♒	
retrograde	15612 Jun 15 20:09	24°♒54'23	
min. Earth dist.	15612 Jul 15 11:05	18°♒50'50	0.50323 AU
opposition	15612 Jul 23 12:44	15°♒52'24	1°54'06
greatest brilliancy	15612 Jul 22 23:37	16°♒04'32	-2.2m
direct	15612 Aug 27 02:23	8°♒28'30	
desc. node	15612 Aug 29 05:13	8°♒30'14	
	15612 Nov 06 02:45	0°♓	
	15613 Jan 01 13:22	0°♈	
	15613 Feb 21 18:49	0°♉	
	15613 Apr 11 12:30	0°♊	
evening set	15613 May 14 15:36	21°♊11'18	
	15613 May 28 02:39	0°♋	
max. Earth dist.	15613 Jun 04 12:44	4°♋54'32	2.59237 AU
conjunction	15613 Jun 29 19:19	21°♋55'38	-0°48'52
minimum elong	15613 Jun 29 20:52	21°♋58'18	0°49'42
	15613 Jul 11 13:20	0°♌	
morning rise	15613 Aug 18 22:05	27°♌06'25	
	15613 Aug 22 22:05	0°♍	
asc. node	15613 Sep 19 23:25	20°♍37'58	
	15613 Oct 02 11:08	0°♎	
	15613 Nov 10 15:22	0°♏	
	15613 Dec 19 03:39	0°♐	
	15614 Jan 26 22:56	0°♑	
	15614 Mar 08 08:23	0°♒	
	15614 Apr 21 13:33	0°♓	
	15614 Jun 16 23:10	0°♈	
desc. node	15614 Jul 17 12:11	8°♈11'57	
retrograde	15614 Jul 26 11:08	8°♈43'16	
min. Earth dist.	15614 Aug 30 19:21	0°♈41'51	0.62251 AU
	15614 Sep 01 13:56	30°℞♓	
opposition	15614 Sep 04 17:51	28°♓44'59	-2°03'12
greatest brilliancy	15614 Sep 04 07:43	28°♓54'59	-1.6m
direct	15614 Oct 13 05:53	19°♓51'59	
	15614 Nov 28 14:17	0°♈	
	15615 Jan 30 08:04	0°♉	
	15615 Mar 23 01:29	0°♊	
	15615 May 09 11:57	0°♋	
	15615 Jun 22 20:14	0°♌	
evening set	15615 Jun 24 12:26	1°♌10'13	
max. Earth dist.	15615 Jul 08 01:33	10°♌44'01	2.47089 AU
	15615 Aug 03 15:32	0°♍	
asc. node	15615 Aug 07 13:12	2°♍52'55	
conjunction	15615 Aug 17 21:10	10°♍34'34	0°07'10
minimum elong	15615 Aug 17 20:41	10°♍33'40	0°06'46
behind sun begin	15615 Aug 16 21:47	9°♍50'48	
behind sun end	15615 Aug 18 19:36	11°♍16'34	
	15615 Sep 12 11:14	0°♎	
	15615 Oct 20 23:13	0°♏	
morning rise	15615 Oct 22 04:19	0°♏57'20	
greatest brilliancy	15615 Oct 29 15:14	6°♏50'09	1.2m
	15615 Nov 27 22:36	0°♐	
	15616 Jan 05 06:50	0°♑	
	15616 Feb 13 22:52	0°♒	
	15616 Mar 27 00:50	0°♓	
	15616 May 12 05:06	0°♈	
desc. node	15616 Jun 03 14:05	13°♈03'37	
	15616 Jul 07 07:45	0°♉	
retrograde	15616 Aug 29 04:21	13°♉25'35	
min. Earth dist.	15616 Oct 07 20:53	4°♉01'05	0.68199 AU
opposition	15616 Oct 09 00:13	3°♉34'00	-4°07'48
greatest brilliancy	15616 Oct 08 18:52	3°♉39'19	-1.3m
	15616 Oct 18 07:00	30°℞♈	
direct	15616 Nov 18 18:55	23°♈53'41	
	15616 Dec 23 15:10	0°♉	
	15617 Feb 27 07:36	0°♊	
	15617 Apr 18 12:50	0°♋	
	15617 Jun 02 13:04	0°♌	
asc. node	15617 Jun 24 07:41	15°♌24'55	
	15617 Jul 14 06:17	0°♍	
evening set	15617 Aug 18 12:57	26°♍44'36	
	15617 Aug 22 17:55	0°♎	
	15617 Sep 29 22:00	0°♏	
conjunction	15617 Oct 28 09:28	22°♏37'20	1°06'15
minimum elong	15617 Oct 28 07:35	22°♏33'35	1°06'54
	15617 Nov 06 16:47	0°♐	
max. Earth dist.	15617 Dec 10 03:48	26°♐15'03	2.36893 AU
	15617 Dec 15 00:06	0°♑	
morning rise	15618 Jan 09 11:59	19°♑26'13	
	15618 Jan 23 16:04	0°♒	
	15618 Mar 06 10:22	0°♓	
	15618 Apr 19 23:44	0°♈	
desc. node	15618 Apr 21 07:35	0°♈51'37	
	15618 Jun 07 12:05	0°♉	
	15618 Aug 03 16:41	0°♊	
retrograde	15618 Oct 02 16:28	15°♊53'47	
opposition	15618 Nov 11 17:20	6°♊34'23	-4°53'05
greatest brilliancy	15618 Nov 12 03:58	6°♊23'58	-1.3m
min. Earth dist.	15618 Nov 14 11:46	5°♊29'19	0.67360 AU
	15618 Nov 30 01:11	30°℞♉	
direct	15618 Dec 23 07:09	26°♉32'45	
	15619 Jan 17 08:10	0°♊	
	15619 Mar 25 15:09	0°♋	
asc. node	15619 May 12 07:26	29°♋54'36	
	15619 May 12 10:38	0°♌	
	15619 Jun 23 20:54	0°♍	
	15619 Aug 02 11:15	0°♎	
	15619 Sep 09 15:32	0°♏	
	15619 Oct 17 12:47	0°♐	
evening set	15619 Nov 04 04:42	13°♐50'45	
	15619 Nov 25 02:18	0°♑	
	15620 Jan 04 02:46	0°♒	
conjunction	15620 Jan 09 12:00	3°♒55'55	0°35'39
minimum elong	15620 Jan 09 14:20	4°♒00'10	0°36'23
	15620 Feb 15 03:23	0°♓	
max. Earth dist.	15620 Feb 18 19:03	2°♓32'02	2.50888 AU
morning rise	15620 Mar 05 20:36	13°♓32'42	
desc. node	15620 Mar 07 21:24	14°♓55'25	
	15620 Mar 30 11:11	0°♈	
	15620 May 16 06:48	0°♉	
	15620 Jul 05 05:19	0°♊	

	15620	Aug	30	14:11	0°♋				15625	Dec	16	00:22	0°♓	
retrograde	15620	Nov	10	00:26	20°♋54'54				15626	Feb	01	08:51	0°♈	
opposition	15620	Dec	17	19:20	12°♋32'42	-4°10'32			15626	Mar	21	00:58	0°♉	
greatest brilliancy	15620	Dec	18	20:00	12°♋09'14	-1.6m	evening set		15626	Mar	27	13:37	4°♉06'40	
min. Earth dist.	15620	Dec	24	08:19	10°♋03'38	0.59681 AU	max. Earth dist.		15626	May	03	01:34	27°♉11'27	2.67968 AU
direct	15621	Jan	27	11:07	2°♋43'56				15626	May	07	11:36	0°♊	
asc. node	15621	Mar	29	13:52	21°♋21'51									
	15621	Apr	14	06:21	0°♌		conjunction		15626	May	10	04:55	1°♊43'57	-1°13'19
	15621	May	30	12:22	0°♍		minimum elong		15626	May	10	04:47	1°♊43'44	1°14'03
	15621	Jul	10	07:58	0°♎		morning rise		15626	Jun	22	12:36	29°♊35'15	
	15621	Aug	18	02:42	0°♏				15626	Jun	23	03:49	0°♋	
	15621	Sep	25	12:49	0°♐				15626	Aug	07	16:21	0°♌	
	15621	Nov	03	17:38	0°♑				15626	Sep	20	20:19	0°♍	
	15621	Dec	14	11:32	0°♒				15626	Nov	02	15:24	0°♎	
evening set	15622	Jan	05	21:41	15°♒55'54		asc. node		15626	Nov	20	01:45	12°♎28'17	
desc. node	15622	Jan	23	11:40	28°♒08'57				15626	Dec	14	07:53	0°♏	
	15622	Jan	26	04:19	0°♓				15627	Jan	24	18:37	0°♐	
									15627	Mar	09	09:15	0°♑	
conjunction	15622	Feb	27	03:58	21°♓35'50	-0°20'49			15627	May	08	19:58	0°♒	
minimum elong	15622	Feb	27	03:05	21°♓34'22	0°20'35	retrograde		15627	May	28	05:34	2°♒38'17	
	15622	Mar	11	20:59	0°♈				15627	Jun	16	05:14	30°℞♑	
max. Earth dist.	15622	Mar	19	11:51	4°♈59'41	2.61965 AU	min. Earth dist.		15627	Jun	24	12:01	27°♑29'37	0.44768 AU
morning rise	15622	Apr	15	04:21	22°♈15'06		opposition		15627	Jul	02	21:27	24°♑37'33	4°05'06
	15622	Apr	27	08:03	0°♉		greatest brilliancy		15627	Jul	01	17:52	25°♑01'16	-2.5m
	15622	Jun	14	07:21	0°♊		direct		15627	Aug	04	09:24	18°♑06'55	
	15622	Aug	02	22:18	0°♋		desc. node		15627	Sep	15	17:24	27°♑30'30	
	15622	Sep	24	15:30	0°♌				15627	Sep	21	22:19	0°♒	
	15622	Nov	29	20:41	0°♍				15627	Nov	20	13:29	0°♓	
retrograde	15623	Jan	01	08:13	5°♍36'29				15628	Jan	11	11:38	0°♈	
	15623	Jan	31	21:34	30°℞♌				15628	Mar	01	05:14	0°♉	
opposition	15623	Feb	04	00:25	28°♌57'19	-0°39'39			15628	Apr	18	09:43	0°♊	
greatest brilliancy	15623	Feb	04	06:52	28°♌51'50	-2.4m	evening set		15628	Apr	30	13:06	7°♊43'15	
min. Earth dist.	15623	Feb	12	16:51	26°♌01'19	0.46397 AU	max. Earth dist.		15628	May	25	11:59	23°♊49'48	2.62728 AU
asc. node	15623	Feb	14	22:30	25°♌18'22				15628	Jun	03	21:59	0°♋	
direct	15623	Mar	12	17:18	20°♌48'04									
	15623	Apr	20	04:39	0°♍		conjunction		15628	Jun	14	05:50	6°♋49'34	-1°01'34
	15623	Jun	11	06:23	0°♎		minimum elong		15628	Jun	14	07:05	6°♋51'39	1°02'27
	15623	Jul	23	10:18	0°♏				15628	Jul	18	13:28	0°♌	
	15623	Sep	01	19:59	0°♐		morning rise		15628	Jul	31	06:38	8°♌47'25	
	15623	Oct	12	15:49	0°♑				15628	Aug	30	07:00	0°♍	
	15623	Nov	23	21:05	0°♒		asc. node		15628	Oct	06	19:06	27°♍24'54	
desc. node	15623	Dec	11	06:21	12°♒00'34				15628	Oct	10	06:23	0°♎	
	15624	Jan	06	20:04	0°♓				15628	Nov	18	20:46	0°♏	
evening set	15624	Feb	19	16:48	28°♓53'13				15628	Dec	27	18:18	0°♐	
	15624	Feb	21	09:58	0°♈				15629	Feb	05	00:02	0°♑	
									15629	Mar	18	05:15	0°♒	
conjunction	15624	Apr	05	11:46	28°♈17'34	-0°58'50			15629	May	04	03:54	0°♓	
minimum elong	15624	Apr	05	10:33	28°♈15'37	0°59'10	retrograde		15629	Jul	11	18:28	23°♓29'22	
	15624	Apr	08	04:09	0°♉		desc. node		15629	Aug	03	00:57	19°♓59'33	
max. Earth dist.	15624	Apr	11	05:53	1°♉57'14	2.67733 AU	min. Earth dist.		15629	Aug	14	01:05	16°♓08'58	0.58193 AU
morning rise	15624	May	18	21:43	25°♉48'41		opposition		15629	Aug	20	08:50	13°♓41'18	-0°47'30
	15624	May	25	12:49	0°♊		greatest brilliancy		15629	Aug	20	03:44	13°♓46'15	-1.8m
	15624	Jul	12	00:57	0°♋		direct		15629	Sep	26	12:42	5°♓16'36	
	15624	Aug	28	11:30	0°♌				15629	Dec	14	14:13	0°♈	
	15624	Oct	14	23:57	0°♍				15630	Feb	08	08:15	0°♉	
	15624	Dec	02	11:33	0°♎				15630	Mar	30	12:56	0°♊	
asc. node	15625	Jan	02	03:07	17°♎51'22				15630	May	16	12:59	0°♋	
	15625	Jan	25	11:10	0°♏		evening set		15630	Jun	07	12:02	14°♋38'41	
retrograde	15625	Mar	19	09:26	14°♏54'59		max. Earth dist.		15630	Jun	23	01:37	25°♋16'41	2.52336 AU
opposition	15625	Apr	17	19:25	10°♏03'30	6°43'32			15630	Jun	29	21:13	0°♌	
greatest brilliancy	15625	Apr	17	20:03	10°♏03'04	-3.0m								
min. Earth dist.	15625	Apr	18	05:12	9°♏57'02	0.36395 AU	conjunction		15630	Jul	27	16:12	19°♌40'46	-0°18'29
direct	15625	May	17	02:31	5°♏09'37		minimum elong		15630	Jul	27	17:14	19°♌42'38	0°19'06
	15625	Jul	26	10:16	0°♐				15630	Aug	10	21:07	0°♍	
	15625	Sep	13	14:00	0°♑		asc. node		15630	Aug	24	08:28	9°♍56'43	
desc. node	15625	Oct	28	08:44	28°♑47'24				15630	Sep	19	22:50	0°♎	
	15625	Oct	30	05:47	0°♒		morning rise		15630	Sep	23	15:04	2°♎48'41	

	15630 Oct 28 16:16	0°♏	
	15630 Dec 05 19:21	0°♐	
	15631 Jan 13 05:52	0°♑	
	15631 Feb 22 00:56	0°♒	
	15631 Apr 05 12:51	0°♓	
	15631 May 23 09:02	0°♈	
desc. node	15631 Jun 21 04:11	15°♈04'07	
	15631 Aug 06 12:17	0°♉	
retrograde	15631 Aug 16 23:15	0°♉40'18	
	15631 Aug 27 00:38	30°℞♈	
min. Earth dist.	15631 Sep 24 02:28	21°♈45'15	0.66670 AU
opposition	15631 Sep 26 18:11	20°♈42'02	-3°30'04
greatest brilliancy	15631 Sep 26 08:49	20°♈51'20	-1.3m
direct	15631 Nov 05 19:59	11°♈16'42	
	15632 Jan 11 17:03	0°♉	
	15632 Mar 08 12:03	0°♊	
	15632 Apr 26 06:16	0°♋	
	15632 Jun 09 21:48	0°♌	
asc. node	15632 Jul 10 23:56	22°♌11'28	
	15632 Jul 21 14:48	0°♍	
evening set	15632 Jul 24 22:34	2°♍28'00	
max. Earth dist.	15632 Aug 15 08:33	18°♍35'46	2.38646 AU
	15632 Aug 30 04:55	0°♎	
conjunction	15632 Sep 27 01:52	21°♎46'54	0°49'50
minimum elong	15632 Sep 26 22:02	21°♎39'20	0°50'02
	15632 Oct 07 11:35	0°♏	
	15632 Nov 14 07:30	0°♐	
morning rise	15632 Dec 10 19:19	20°♐50'29	
	15632 Dec 22 14:11	0°♑	
	15633 Jan 31 04:41	0°♒	
	15633 Mar 13 23:01	0°♓	
	15633 Apr 27 20:21	0°♈	
desc. node	15633 May 08 01:27	6°♈27'28	
	15633 Jun 16 20:54	0°♉	
	15633 Aug 24 20:08	0°♊	
retrograde	15633 Sep 18 23:40	3°♊25'17	
	15633 Oct 12 05:03	30°℞♉	
opposition	15633 Oct 29 11:43	23°♉50'38	-4°44'31
greatest brilliancy	15633 Oct 29 15:32	23°♉46'52	-1.2m
min. Earth dist.	15633 Oct 30 17:08	23°♉21'38	0.68523 AU
direct	15633 Dec 09 22:24	13°♉54'15	
	15634 Feb 07 20:51	0°♊	
	15634 Apr 04 11:22	0°♋	
	15634 May 20 17:56	0°♌	
asc. node	15634 May 28 22:47	5°♌40'16	
	15634 Jul 01 18:28	0°♍	
	15634 Aug 10 06:14	0°♎	
	15634 Sep 17 09:23	0°♏	
evening set	15634 Oct 04 01:49	13°♏15'24	
	15634 Oct 25 04:35	0°♐	
	15634 Dec 02 14:30	0°♑	
conjunction	15634 Dec 15 04:01	9°♑36'12	0°56'22
minimum elong	15634 Dec 15 07:11	9°♑42'13	0°57'13
	15635 Jan 11 10:24	0°♒	
max. Earth dist.	15635 Feb 02 08:36	15°♒55'07	2.45390 AU
morning rise	15635 Feb 15 17:18	25°♒24'05	
	15635 Feb 22 06:51	0°♓	
desc. node	15635 Mar 25 15:45	21°♓25'36	
	15635 Apr 07 14:09	0°♈	
	15635 May 24 19:06	0°♉	
	15635 Jul 15 07:46	0°♊	
	15635 Sep 18 14:21	0°♋	
retrograde	15635 Oct 25 17:35	6°♋50'28	
	15635 Nov 28 09:46	30°℞♊	
opposition	15635 Dec 03 14:25	28°♊01'55	-4°40'05
greatest brilliancy	15635 Dec 04 10:55	27°♊42'07	-1.4m
min. Earth dist.	15635 Dec 08 16:54	26°♊03'40	0.63500 AU
direct	15636 Jan 13 20:48	18°♊02'12	
	15636 Mar 02 05:55	0°♋	
asc. node	15636 Apr 15 02:59	23°♋14'12	
	15636 Apr 26 00:20	0°♌	
	15636 Jun 08 24:00	0°♍	
	15636 Jul 19 02:44	0°♎	
	15636 Aug 26 13:06	0°♏	
	15636 Oct 03 16:01	0°♐	
	15636 Nov 11 12:45	0°♑	
evening set	15636 Dec 15 02:11	25°♑01'40	
	15636 Dec 21 21:55	0°♒	
	15637 Feb 02 06:27	0°♓	
conjunction	15637 Feb 09 19:56	5°♓12'07	-0°00'24
minimum elong	15637 Feb 09 19:58	5°♓12'12	0°00'04
behind sun begin	15637 Feb 08 23:24	4°♓36'58	
behind sun end	15637 Feb 10 16:33	5°♓47'23	
desc. node	15637 Feb 09 04:24	4°♓45'32	
max. Earth dist.	15637 Mar 09 06:22	23°♓43'28	2.58221 AU
	15637 Mar 18 17:46	0°♈	
morning rise	15637 Mar 31 13:58	8°♈24'59	
	15637 May 04 05:22	0°♉	
	15637 Jun 21 16:55	0°♊	
	15637 Aug 11 22:04	0°♋	
	15637 Oct 09 05:33	0°♌	
retrograde	15637 Dec 09 14:30	16°♌32'30	
opposition	15638 Jan 14 03:17	9°♌05'23	-2°31'31
greatest brilliancy	15638 Jan 15 00:18	8°♌46'21	-2.0m
min. Earth dist.	15638 Jan 22 10:14	6°♌05'56	0.52043 AU
direct	15638 Feb 21 21:36	0°♌00'30	
asc. node	15638 Mar 03 09:52	0°♌37'20	
	15638 May 11 02:41	0°♍	
	15638 Jun 24 01:32	0°♎	
	15638 Aug 03 03:18	0°♏	
	15638 Sep 11 09:54	0°♐	
	15638 Oct 21 08:52	0°♑	
	15638 Dec 01 20:14	0°♒	
desc. node	15638 Dec 27 22:19	18°♒12'57	
	15639 Jan 14 04:17	0°♓	
evening set	15639 Feb 03 15:13	13°♓43'55	
	15639 Feb 28 07:37	0°♈	
conjunction	15639 Mar 23 07:52	14°♈55'16	-0°46'50
minimum elong	15639 Mar 23 06:31	14°♈53'06	0°46'58
max. Earth dist.	15639 Apr 03 09:29	22°♈01'47	2.66120 AU
	15639 Apr 15 21:00	0°♉	
morning rise	15639 May 06 16:41	13°♉12'28	
	15639 Jun 02 08:51	0°♊	
	15639 Jul 20 11:21	0°♋	
	15639 Sep 07 06:17	0°♌	
	15639 Oct 27 16:35	0°♍	
	15639 Dec 23 16:09	0°♎	
asc. node	15640 Jan 19 16:32	10°♎09'04	
retrograde	15640 Feb 15 03:29	14°♎11'48	
opposition	15640 Mar 16 10:23	8°♎58'21	3°56'36
greatest brilliancy	15640 Mar 17 03:57	8°♎45'44	-2.9m
min. Earth dist.	15640 Mar 22 02:22	7°♎20'55	0.38600 AU
direct	15640 Apr 17 11:09	3°♎01'03	
	15640 Jun 27 22:55	0°♏	
	15640 Aug 12 22:21	0°♐	
	15640 Sep 25 15:15	0°♑	
	15640 Nov 08 19:01	0°♒	
desc. node	15640 Nov 13 22:20	3°♒26'38	
	15640 Dec 24 02:47	0°♓	
	15641 Feb 08 14:26	0°♈	

evening set	15641 Mar 13 16:46	21°♈03'26	
	15641 Mar 27 19:32	0°♉	
max. Earth dist.	15641 Apr 24 15:45	17°♉37'46	2.68521 AU
conjunction	15641 Apr 26 18:58	18°♉58'53	-1°10'38
minimum elong	15641 Apr 26 18:19	18°♉57'51	1°11'14
	15641 May 14 03:40	0°♊	
morning rise	15641 Jun 08 18:26	16°♊19'43	
	15641 Jun 30 01:35	0°♋	
	15641 Aug 15 04:06	0°♌	
	15641 Sep 29 06:58	0°♍	
	15641 Nov 12 10:27	0°♎	
asc. node	15641 Dec 06 18:51	16°♎45'02	
	15641 Dec 26 00:53	0°♏	
	15642 Feb 08 19:25	0°♐	
	15642 Apr 05 20:33	0°♑	
retrograde	15642 May 04 22:24	5°♑41'06	
min. Earth dist.	15642 May 30 20:14	1°♑16'18	0.39735 AU
	15642 Jun 04 00:51	30°℞♐	
greatest brilliancy	15642 Jun 05 10:30	29°♐34'10	-2.8m
opposition	15642 Jun 06 20:25	29°♐08'14	6°17'25
direct	15642 Jul 07 02:15	23°♐37'36	
	15642 Aug 09 11:49	0°♑	
desc. node	15642 Oct 02 03:52	25°♑12'49	
	15642 Oct 10 18:57	0°♒	
	15642 Dec 01 03:20	0°♓	
	15643 Jan 19 15:27	0°♈	
	15643 Mar 09 08:41	0°♉	
evening set	15643 Apr 17 20:30	24°♉43'47	
	15643 Apr 26 04:03	0°♊	
max. Earth dist.	15643 May 17 00:51	13°♊20'24	2.65413 AU
conjunction	15643 May 31 17:43	22°♊51'05	-1°09'32
minimum elong	15643 May 31 18:27	22°♊52'17	1°10'23
	15643 Jun 11 16:30	0°♋	
morning rise	15643 Jul 15 17:55	22°♋38'30	
	15643 Jul 26 14:33	0°♌	
	15643 Sep 07 19:16	0°♍	
	15643 Oct 19 08:06	0°♎	
asc. node	15643 Oct 24 13:07	3°♎50'18	
	15643 Nov 28 12:43	0°♏	
	15644 Jan 07 00:52	0°♐	
	15644 Feb 16 01:48	0°♑	
	15644 Mar 30 01:20	0°♒	
	15644 May 25 03:56	0°♓	
retrograde	15644 Jun 25 17:20	6°♓17'08	
	15644 Jul 25 23:53	30°℞♒	
min. Earth dist.	15644 Jul 26 17:03	29°♒44'11	0.53292 AU
opposition	15644 Aug 03 05:41	26°♒53'15	0°48'43
greatest brilliancy	15644 Aug 03 00:18	26°♒58'20	-2.0m
desc. node	15644 Aug 19 12:44	21°♒32'09	
direct	15644 Sep 07 18:47	19°♒05'02	
	15644 Oct 25 06:23	0°♓	
	15644 Dec 26 01:14	0°♈	
	15645 Feb 16 12:39	0°♉	
	15645 Apr 06 17:24	0°♊	
evening set	15645 May 22 23:11	29°♊40'18	
	15645 May 23 11:09	0°♋	
max. Earth dist.	15645 Jun 10 18:51	12°♋11'19	2.56972 AU
	15645 Jul 06 21:10	0°♌	
conjunction	15645 Jul 09 06:51	1°♌40'02	-0°39'18
minimum elong	15645 Jul 09 08:25	1°♌42'46	0°40'04
	15645 Aug 18 03:01	0°♍	
morning rise	15645 Aug 30 17:29	9°♍13'58	
asc. node	15645 Sep 10 04:23	16°♍59'00	
	15645 Sep 27 11:52	0°♎	
	15645 Nov 05 11:59	0°♏	
	15645 Dec 13 20:19	0°♐	
	15646 Jan 21 11:12	0°♑	
	15646 Mar 02 13:09	0°♒	
	15646 Apr 14 20:46	0°♓	
	15646 Jun 05 06:38	0°♈	
desc. node	15646 Jul 07 18:13	13°♈06'32	
retrograde	15646 Aug 03 10:25	17°♈16'41	
min. Earth dist.	15646 Sep 08 19:46	8°♈55'02	0.64116 AU
opposition	15646 Sep 12 23:18	7°♈16'33	-2°39'30
greatest brilliancy	15646 Sep 12 12:22	7°♈27'22	-1.5m
	15646 Oct 05 04:51	30°℞♓	
direct	15646 Oct 22 02:30	28°♓10'41	
	15646 Nov 09 06:44	0°♈	
	15647 Jan 23 15:55	0°♉	
	15647 Mar 17 18:52	0°♊	
	15647 May 04 15:51	0°♋	
	15647 Jun 18 03:01	0°♌	
evening set	15647 Jul 05 00:06	11°♌54'38	
max. Earth dist.	15647 Jul 18 19:52	21°♌52'26	2.44055 AU
asc. node	15647 Jul 28 19:07	29°♌10'19	
	15647 Jul 29 22:04	0°♍	
conjunction	15647 Aug 31 09:21	24°♍24'47	0°23'03
minimum elong	15647 Aug 31 07:32	24°♍21'18	0°22'50
	15647 Sep 07 16:02	0°♎	
	15647 Oct 16 02:07	0°♏	
morning rise	15647 Nov 09 00:16	18°♏55'54	
	15647 Nov 22 23:49	0°♐	
	15647 Dec 31 06:32	0°♑	
	15648 Feb 08 20:37	0°♒	
	15648 Mar 21 17:31	0°♓	
	15648 May 06 05:37	0°♈	
desc. node	15648 May 24 16:59	11°♈12'49	
	15648 Jun 28 01:35	0°♉	
retrograde	15648 Sep 05 17:19	21°♉04'13	
opposition	15648 Oct 16 11:39	11°♉17'38	-4°24'45
greatest brilliancy	15648 Oct 16 09:13	11°♉20'03	-1.2m
min. Earth dist.	15648 Oct 16 04:09	11°♉25'03	0.68615 AU
direct	15648 Nov 26 13:34	1°♉30'38	
	15649 Feb 20 11:26	0°♊	
	15649 Apr 13 03:21	0°♋	
	15649 May 28 13:19	0°♌	
asc. node	15649 Jun 14 13:51	11°♌57'23	
	15649 Jul 09 09:24	0°♍	
	15649 Aug 17 21:20	0°♎	
evening set	15649 Sep 03 05:29	12°♎45'33	
	15649 Sep 25 01:17	0°♏	
	15649 Nov 01 20:02	0°♐	
conjunction	15649 Nov 15 06:50	10°♐36'54	1°07'35
minimum elong	15649 Nov 15 07:34	10°♐38'19	1°08'22
	15649 Dec 10 03:36	0°♑	
max. Earth dist.	15650 Jan 07 12:57	21°♑36'02	2.39640 AU
	15650 Jan 18 19:56	0°♒	
morning rise	15650 Jan 24 02:14	3°♒52'28	
	15650 Mar 01 13:28	0°♓	
desc. node	15650 Apr 11 10:20	27°♓42'21	
	15650 Apr 14 22:23	0°♈	
	15650 Jun 01 18:50	0°♉	
	15650 Jul 26 01:13	0°♊	
retrograde	15650 Oct 10 18:56	23°♊39'59	
opposition	15650 Nov 19 11:15	14°♊30'18	-4°52'26
greatest brilliancy	15650 Nov 20 01:37	14°♊16'16	-1.3m
min. Earth dist.	15650 Nov 23 01:32	13°♊06'05	0.66278 AU
direct	15650 Dec 31 00:16	4°♊27'40	
	15651 Mar 18 06:18	0°♋	

asc. node	15651 May 02 15:39	27°♋19'32	
	15651 May 06 17:05	0°♌	
	15651 Jun 18 14:20	0°♍	
	15651 Jul 28 08:22	0°♎	
	15651 Sep 04 14:25	0°♏	
	15651 Oct 12 13:10	0°♐	
evening set	15651 Nov 20 09:59	0°♑10'36	
	15651 Nov 20 04:27	0°♑	
	15651 Dec 30 07:07	0°♒	
conjunction	15652 Jan 22 01:01	16°♒24'03	0°22'24
minimum elong	15652 Jan 22 02:26	16°♒26'35	0°23'02
	15652 Feb 10 09:25	0°♓	
max. Earth dist.	15652 Feb 26 11:52	11°♓04'39	2.53698 AU
desc. node	15652 Feb 27 00:18	11°♓25'49	
morning rise	15652 Mar 15 15:38	23°♓19'26	
	15652 Mar 25 17:05	0°♈	
	15652 May 11 07:49	0°♉	
	15652 Jun 29 13:50	0°♊	
	15652 Aug 22 09:21	0°♋	
	15652 Nov 19 17:51	0°♌	
retrograde	15652 Nov 20 00:42	0°♌00'02	
	15652 Nov 20 07:31	30°℞♋	
opposition	15652 Dec 27 02:26	21°♋54'56	-3°42'49
greatest brilliancy	15652 Dec 28 03:33	21°♋31'20	-1.7m
min. Earth dist.	15653 Jan 03 08:10	19°♋12'08	0.57198 AU
direct	15653 Feb 05 05:27	12°♋17'08	
asc. node	15653 Mar 19 22:59	22°♋30'16	
	15653 Apr 04 18:26	0°♌	
	15653 May 23 21:03	0°♍	
	15653 Jul 04 10:36	0°♎	
	15653 Aug 12 13:20	0°♏	
	15653 Sep 20 04:44	0°♐	
	15653 Oct 29 14:06	0°♑	
	15653 Dec 09 12:33	0°♒	
desc. node	15654 Jan 13 14:33	24°♒39'19	
evening set	15654 Jan 16 21:52	26°♒55'50	
	15654 Jan 21 09:19	0°♓	
	15654 Mar 07 04:35	0°♈	
conjunction	15654 Mar 08 06:21	0°♈42'17	-0°31'21
minimum elong	15654 Mar 08 05:11	0°♈40'22	0°31'15
max. Earth dist.	15654 Mar 25 02:20	11°♈40'46	2.63678 AU
	15654 Apr 22 15:18	0°♉	
morning rise	15654 Apr 23 03:29	0°♉19'23	
	15654 Jun 09 09:05	0°♊	
	15654 Jul 28 07:46	0°♋	
	15654 Sep 17 04:33	0°♌	
	15654 Nov 12 18:50	0°♍	
retrograde	15655 Jan 16 02:42	18°♍30'45	
asc. node	15655 Feb 05 05:32	15°♍58'30	
opposition	15655 Feb 17 13:37	12°♍22'26	0°47'58
greatest brilliancy	15655 Feb 17 19:36	12°♍17'37	-2.6m
min. Earth dist.	15655 Feb 25 21:00	9°♍42'43	0.43327 AU
direct	15655 Mar 24 19:15	4°♍55'47	
	15655 May 31 19:47	0°♎	
	15655 Jul 15 17:31	0°♏	
	15655 Aug 26 06:13	0°♐	
	15655 Oct 06 18:40	0°♑	
	15655 Nov 18 12:05	0°♒	
desc. node	15655 Dec 01 12:11	8°♒54'59	
	15656 Jan 01 20:00	0°♓	
	15656 Feb 16 15:58	0°♈	
evening set	15656 Feb 28 06:15	7°♈28'11	
	15656 Apr 03 12:58	0°♉	
conjunction	15656 Apr 13 07:01	6°♉11'28	-1°04'16
minimum elong	15656 Apr 13 05:57	6°♉09'47	1°04'42
max. Earth dist.	15656 Apr 16 05:38	8°♉03'28	2.68248 AU
	15656 May 20 20:51	0°♊	
morning rise	15656 May 26 09:57	3°♊30'50	
	15656 Jul 07 03:02	0°♋	
	15656 Aug 23 00:13	0°♌	
	15656 Oct 08 11:27	0°♍	
	15656 Nov 23 20:21	0°♎	
asc. node	15656 Dec 23 10:06	18°♎48'25	
	15657 Jan 10 15:30	0°♏	
	15657 Mar 12 13:25	0°♐	
retrograde	15657 Apr 06 15:26	4°♐03'28	
	15657 May 02 13:01	30°℞♏	
min. Earth dist.	15657 May 03 22:26	29°♏37'45	0.36695 AU
opposition	15657 May 06 17:45	28°♏52'21	7°18'51
greatest brilliancy	15657 May 06 01:34	29°♏03'17	-3.0m
direct	15657 Jun 04 19:39	24°♏02'05	
	15657 Jul 06 03:50	0°♐	
	15657 Sep 04 05:09	0°♑	
desc. node	15657 Oct 18 16:04	27°♑02'44	
	15657 Oct 23 10:01	0°♒	
	15657 Dec 10 08:39	0°♓	
	15658 Jan 27 07:56	0°♈	
	15658 Mar 16 07:32	0°♉	
evening set	15658 Apr 04 07:21	11°♉55'47	
	15658 May 02 20:52	0°♊	
max. Earth dist.	15658 May 08 01:41	3°♊18'46	2.67302 AU
conjunction	15658 May 17 21:22	9°♊35'14	-1°13'08
minimum elong	15658 May 17 21:33	9°♊35'31	1°13'55
	15658 Jun 18 11:40	0°♋	
morning rise	15658 Jun 30 15:07	7°♋57'01	
	15658 Aug 02 18:54	0°♌	
	15658 Sep 15 14:09	0°♍	
	15658 Oct 27 21:01	0°♎	
asc. node	15658 Nov 10 08:37	9°♎46'19	
	15658 Dec 07 21:55	0°♏	
	15659 Jan 17 10:07	0°♐	
	15659 Feb 28 01:52	0°♑	
	15659 Apr 17 00:37	0°♒	
retrograde	15659 Jun 08 17:08	16°♒14'35	
min. Earth dist.	15659 Jul 07 06:21	10°♒35'07	0.47838 AU
opposition	15659 Jul 15 14:05	7°♒36'02	2°47'59
greatest brilliancy	15659 Jul 14 18:36	7°♒53'36	-2.3m
direct	15659 Aug 18 06:20	0°♒34'28	
desc. node	15659 Sep 05 23:15	2°♒39'32	
	15659 Nov 12 10:53	0°♓	
	15660 Jan 05 14:53	0°♈	
	15660 Feb 25 03:54	0°♉	
	15660 Apr 13 16:16	0°♊	
evening set	15660 May 08 12:08	15°♊49'36	
	15660 May 30 06:32	0°♋	
max. Earth dist.	15660 May 31 05:07	0°♋37'08	2.60902 AU
conjunction	15660 Jun 22 21:57	15°♋44'26	-0°54'51
minimum elong	15660 Jun 22 23:25	15°♋46'54	0°55'42
	15660 Jul 13 20:19	0°♌	
morning rise	15660 Aug 10 11:48	19°♌19'31	
	15660 Aug 25 10:04	0°♍	
asc. node	15660 Sep 26 23:48	23°♍52'28	
	15660 Oct 05 04:26	0°♎	
	15660 Nov 13 13:36	0°♏	
	15660 Dec 22 05:47	0°♐	
	15661 Jan 30 04:21	0°♑	
	15661 Mar 11 19:23	0°♒	
	15661 Apr 25 18:28	0°♓	
	15661 Jun 28 20:42	0°♈	

retrograde	15661 Jul 20 06:18	2°♈51'42	
desc. node	15661 Jul 24 06:34	2°♈44'58	
	15661 Aug 09 12:07	30℞♓	
min. Earth dist.	15661 Aug 23 16:48	25°♓08'18	0.60540 AU
opposition	15661 Aug 29 07:04	22°♓56'32	-1°34'00
greatest brilliancy	15661 Aug 28 22:15	23°♓05'11	-1.6m
direct	15661 Oct 06 05:39	14°♓15'30	
	15661 Dec 05 05:06	0°♈	
	15662 Feb 02 09:42	0°♉	
	15662 Mar 25 11:34	0°♊	
	15662 May 11 18:48	0°♋	
evening set	15662 Jun 16 21:55	24°♋16'37	
	15662 Jun 25 04:18	0°♌	
max. Earth dist.	15662 Jul 01 04:34	4°♌12'01	2.49497 AU
	15662 Aug 06 02:52	0°♍	
conjunction	15662 Aug 08 05:13	1°♍32'31	-0°04'22
minimum elong	15662 Aug 08 05:30	1°♍33'02	0°04'51
behind sun begin	15662 Aug 07 06:39	0°♍51'02	
behind sun end	15662 Aug 09 04:21	2°♍15'06	
asc. node	15662 Aug 14 13:01	6°♍12'56	
	15662 Sep 15 02:01	0°♎	
morning rise	15662 Oct 09 01:25	18°♎32'09	
	15662 Oct 23 16:53	0°♏	
	15662 Nov 30 17:56	0°♐	
greatest brilliancy	15663 Jan 02 13:05	25°♐41'44	1.2m
	15663 Jan 08 02:29	0°♑	
	15663 Feb 16 18:28	0°♒	
	15663 Mar 30 22:12	0°♓	
	15663 May 16 13:19	0°♈	
desc. node	15663 Jun 11 09:42	14°♈34'54	
	15663 Jul 15 00:56	0°♉	
retrograde	15663 Aug 24 13:04	8°♉31'29	
	15663 Sep 30 20:28	30℞♈	
min. Earth dist.	15663 Oct 02 12:56	29°♈20'01	0.67642 AU
opposition	15663 Oct 04 09:03	28°♈36'18	-3°53'51
greatest brilliancy	15663 Oct 04 01:34	28°♈43'42	-1.3m
direct	15663 Nov 13 20:58	19°♈02'20	
	15664 Jan 01 11:21	0°♉	
	15664 Mar 02 12:12	0°♊	
	15664 Apr 21 03:21	0°♋	
	15664 Jun 05 01:15	0°♌	
asc. node	15664 Jul 01 06:33	18°♌36'42	
	15664 Jul 16 19:47	0°♍	
evening set	15664 Aug 07 05:53	16°♍04'37	
	15664 Aug 25 09:19	0°♎	
max. Earth dist.	15664 Sep 20 15:09	20°♎31'14	2.36367 AU
	15664 Oct 02 14:55	0°♏	
conjunction	15664 Oct 14 08:14	9°♏17'58	1°01'10
minimum elong	15664 Oct 14 04:52	9°♏11'17	1°01'36
	15664 Nov 09 10:04	0°♐	
	15664 Dec 17 16:21	0°♑	
morning rise	15664 Dec 28 01:17	7°♑59'03	
	15665 Jan 26 06:26	0°♒	
	15665 Mar 08 23:04	0°♓	
	15665 Apr 22 13:16	0°♈	
desc. node	15665 Apr 28 04:16	3°♈37'00	
	15665 Jun 10 11:51	0°♉	
	15665 Aug 09 11:11	0°♊	
retrograde	15665 Sep 26 18:26	11°♊02'02	
opposition	15665 Nov 06 00:25	1°♊35'18	-4°51'00
greatest brilliancy	15665 Nov 06 07:57	1°♊27'54	-1.3m
min. Earth dist.	15665 Nov 08 01:50	0°♊46'45	0.68009 AU
	15665 Nov 10 01:38	30℞♉	
direct	15665 Dec 17 13:17	21°♉35'38	
	15666 Jan 27 12:11	0°♊	
	15666 Mar 29 05:09	0°♋	
	15666 May 15 09:17	0°♌	
asc. node	15666 May 19 05:35	2°♌37'09	
	15666 Jun 26 16:45	0°♍	
	15666 Aug 05 06:50	0°♎	
	15666 Sep 12 10:58	0°♏	
greatest brilliancy	15666 Oct 15 05:16	25°♏59'17	1.1m
	15666 Oct 20 07:07	0°♐	
evening set	15666 Oct 21 18:01	1°♐08'52	
	15666 Nov 27 18:08	0°♑	
conjunction	15666 Dec 29 22:33	24°♑18'54	0°45'11
minimum elong	15666 Dec 30 01:29	24°♑24'20	0°45'59
	15667 Jan 06 15:17	0°♒	
max. Earth dist.	15667 Feb 12 09:21	26°♒24'30	2.48479 AU
	15667 Feb 17 12:32	0°♓	
morning rise	15667 Feb 26 21:00	6°♓29'03	
desc. node	15667 Mar 15 18:18	17°♓59'46	
	15667 Apr 02 18:17	0°♈	
	15667 May 19 15:45	0°♉	
	15667 Jul 09 02:24	0°♊	
	15667 Sep 05 21:32	0°♋	
retrograde	15667 Nov 03 19:26	15°♋13'33	
opposition	15667 Dec 12 02:27	6°♋38'47	-4°25'12
greatest brilliancy	15667 Dec 13 01:30	6°♋16'40	-1.5m
min. Earth dist.	15667 Dec 17 23:56	4°♋23'16	0.61499 AU
	15667 Dec 30 21:31	30℞♊	
direct	15668 Jan 22 01:26	26°♊44'04	
	15668 Feb 14 13:39	0°♋	
asc. node	15668 Apr 05 10:31	22°♋07'12	
	15668 Apr 18 21:45	0°♌	
	15668 Jun 03 02:19	0°♍	
	15668 Jul 13 14:39	0°♎	
	15668 Aug 21 05:39	0°♏	
	15668 Sep 28 12:11	0°♐	
	15668 Nov 06 12:26	0°♑	
	15668 Dec 17 01:09	0°♒	
evening set	15668 Dec 27 19:27	7°♒44'13	
	15669 Jan 28 12:53	0°♓	
desc. node	15669 Jan 30 08:32	1°♓15'10	
conjunction	15669 Feb 19 21:25	15°♓13'37	-0°12'35
minimum elong	15669 Feb 19 20:51	15°♓12'39	0°12'16
behind sun begin	15669 Feb 19 07:10	14°♓49'39	
behind sun end	15669 Feb 20 10:31	15°♓35'39	
	15669 Mar 14 01:41	0°♈	
max. Earth dist.	15669 Mar 15 07:51	0°♈49'40	2.60387 AU
morning rise	15669 Apr 09 00:05	16°♈54'08	
	15669 Apr 29 11:39	0°♉	
	15669 Jun 16 14:51	0°♊	
	15669 Aug 05 19:18	0°♋	
	15669 Sep 29 07:12	0°♌	
retrograde	15669 Dec 21 21:54	27°♌25'08	
opposition	15670 Jan 25 11:34	20°♌23'07	-1°33'10
greatest brilliancy	15670 Jan 26 01:47	20°♌10'40	-2.2m
min. Earth dist.	15670 Feb 03 03:27	17°♌21'47	0.48945 AU
asc. node	15670 Feb 21 19:03	12°♌32'34	
direct	15670 Mar 04 05:14	11°♌45'46	
	15670 Apr 30 11:08	0°♍	
	15670 Jun 16 15:10	0°♎	
	15670 Jul 27 16:18	0°♏	
	15670 Sep 05 11:45	0°♐	
	15670 Oct 15 20:23	0°♑	
	15670 Nov 26 15:51	0°♒	
desc. node	15670 Dec 18 02:20	14°♒54'07	
	15671 Jan 09 06:43	0°♓	
evening set	15671 Feb 12 22:45	23°♓01'55	

	15671 Feb 23 14:42	0°♈	
conjunction	15671 Mar 31 11:49	23°♈08'12	-0°54'19
minimum elong	15671 Mar 31 10:31	23°♈06'07	0°54'33
max. Earth dist.	15671 Apr 08 12:26	28°♈15'39	2.67127 AU
	15671 Apr 11 05:55	0°♉	
morning rise	15671 May 14 06:09	20°♉55'34	
	15671 May 28 15:30	0°♊	
	15671 Jul 15 09:16	0°♋	
	15671 Sep 01 08:39	0°♌	
	15671 Oct 19 22:55	0°♍	
	15671 Dec 09 22:05	0°♎	
asc. node	15672 Jan 10 00:38	16°♎08'30	
	15672 Feb 18 23:13	0°♏	
retrograde	15672 Mar 04 13:03	1°♏20'25	
	15672 Mar 19 03:32	30°℞♎	
opposition	15672 Apr 03 03:01	26°♎26'30	5°42'15
greatest brilliancy	15672 Apr 03 15:00	26°♎18'24	-3.0m
min. Earth dist.	15672 Apr 06 03:20	25°♎37'43	0.36978 AU
direct	15672 May 03 09:17	21°♎11'39	
	15672 Jun 10 02:43	0°♏	
	15672 Aug 03 10:14	0°♐	
	15672 Sep 18 10:23	0°♑	
	15672 Nov 02 17:59	0°♒	
desc. node	15672 Nov 04 03:16	0°♒54'45	
	15672 Dec 18 18:41	0°♓	
	15673 Feb 03 16:33	0°♈	
evening set	15673 Mar 21 16:14	29°♈04'50	
	15673 Mar 23 03:11	0°♉	
max. Earth dist.	15673 Apr 29 13:42	23°♉40'30	2.68323 AU
conjunction	15673 May 04 10:45	26°♉46'12	-1°12'44
minimum elong	15673 May 04 10:23	26°♉45'36	1°13'23
	15673 May 09 12:45	0°♊	
morning rise	15673 Jun 16 12:58	24°♊19'40	
	15673 Jun 25 07:42	0°♋	
	15673 Aug 10 02:41	0°♌	
	15673 Sep 23 16:47	0°♍	
	15673 Nov 06 01:17	0°♎	
asc. node	15673 Nov 27 00:36	14°♎46'34	
	15673 Dec 18 11:14	0°♏	
	15674 Jan 29 23:40	0°♐	
	15674 Mar 17 04:53	0°♑	
retrograde	15674 May 18 15:21	21°♑58'17	
min. Earth dist.	15674 Jun 14 01:19	17°♑12'02	0.42379 AU
greatest brilliancy	15674 Jun 20 18:41	15°♑00'50	-2.6m
opposition	15674 Jun 22 02:49	14°♑34'29	5°05'10
direct	15674 Jul 23 14:38	8°♑30'41	
desc. node	15674 Sep 22 11:01	26°♑06'24	
	15674 Sep 30 12:01	0°♒	
	15674 Nov 24 11:13	0°♓	
	15675 Jan 14 04:45	0°♈	
	15675 Mar 04 11:04	0°♉	
	15675 Apr 21 11:58	0°♊	
evening set	15675 Apr 25 15:10	2°♊37'25	
max. Earth dist.	15675 May 22 10:00	19°♊48'28	2.64039 AU
	15675 Jun 07 01:04	0°♋	
conjunction	15675 Jun 08 21:26	1°♋12'49	-1°05'30
minimum elong	15675 Jun 08 22:28	1°♋14'33	1°06'22
	15675 Jul 21 20:24	0°♌	
morning rise	15675 Jul 24 21:40	2°♌05'24	
	15675 Sep 02 19:44	0°♍	
asc. node	15675 Oct 14 18:48	0°♎31'49	
	15675 Oct 14 01:38	0°♎	
	15675 Nov 22 22:20	0°♏	
	15676 Jan 01 01:47	0°♐	
	15676 Feb 09 13:49	0°♑	
	15676 Mar 22 07:26	0°♒	
	15676 May 10 08:32	0°♓	
retrograde	15676 Jul 05 00:35	16°♓50'47	
min. Earth dist.	15676 Aug 06 07:29	9°♓50'52	0.56095 AU
desc. node	15676 Aug 09 19:11	8°♓30'32	
opposition	15676 Aug 13 05:07	7°♓11'16	-0°09'45
greatest brilliancy	15682 May 27 03:54	29°♈53'41	1.5m
	15676 Sep 06 12:19	30°℞♒	
direct	15676 Sep 18 16:31	29°♒01'53	
	15676 Oct 01 13:15	0°♓	
	15676 Dec 18 19:48	0°♈	
	15677 Feb 11 00:46	0°♉	
	15677 Apr 01 19:35	0°♊	
	15677 May 18 17:59	0°♋	
evening set	15677 May 31 15:25	8°♋32'21	
max. Earth dist.	15677 Jun 17 15:57	20°♋01'12	2.54504 AU
	15677 Jul 02 04:18	0°♌	
conjunction	15677 Jul 19 09:42	12°♌04'25	-0°27'57
minimum elong	15677 Jul 19 11:04	12°♌06'50	0°28'39
	15677 Aug 13 08:05	0°♍	
asc. node	15677 Aug 31 08:42	13°♍16'59	
morning rise	15677 Sep 12 15:47	22°♍29'19	
	15677 Sep 22 13:55	0°♎	
	15677 Oct 31 10:44	0°♏	
	15677 Dec 08 16:07	0°♐	
	15678 Jan 16 03:44	0°♑	
	15678 Feb 24 23:55	0°♒	
	15678 Apr 08 16:45	0°♓	
	15678 May 27 12:16	0°♈	
desc. node	15678 Jun 27 23:17	15°♈16'07	
retrograde	15678 Aug 11 04:59	25°♈32'11	
min. Earth dist.	15678 Sep 17 13:56	16°♈51'52	0.65653 AU
opposition	15678 Sep 20 22:16	15°♈32'16	-3°11'01
greatest brilliancy	15678 Sep 20 11:42	15°♈42'44	-1.4m
direct	15678 Oct 30 15:07	6°♈15'08	
	15679 Jan 16 03:59	0°♉	
	15679 Mar 12 06:30	0°♊	
	15679 Apr 29 16:41	0°♋	
	15679 Jun 13 07:42	0°♌	
evening set	15679 Jul 16 10:34	23°♌37'38	
asc. node	15679 Jul 18 23:13	25°♌28'31	
	15679 Jul 25 02:54	0°♍	
max. Earth dist.	15679 Aug 01 17:21	5°♍38'24	2.40987 AU
	15679 Sep 02 19:39	0°♎	
conjunction	15679 Sep 15 09:40	9°♎45'30	0°38'56
minimum elong	15679 Sep 15 06:27	9°♎39'15	0°38'57
	15679 Oct 11 04:16	0°♏	
	15679 Nov 18 01:01	0°♐	
morning rise	15679 Nov 27 12:42	7°♐29'44	
	15679 Dec 26 07:11	0°♑	
	15680 Feb 03 20:14	0°♒	
	15680 Mar 16 13:51	0°♓	
	15680 Apr 30 14:11	0°♈	
desc. node	15680 May 14 21:46	8°♈55'54	
	15680 Jun 20 10:07	0°♉	
retrograde	15680 Sep 13 06:30	28°♉38'25	
opposition	15680 Oct 23 21:49	18°♉57'50	-4°37'49
greatest brilliancy	15680 Oct 23 22:42	18°♉56'58	-1.2m
min. Earth dist.	15680 Oct 24 10:16	18°♉45'33	0.68695 AU
direct	15680 Dec 04 05:23	9°♉05'20	
	15681 Feb 12 17:35	0°♊	
	15681 Apr 07 12:07	0°♋	
	15681 May 23 10:58	0°♌	
asc. node	15681 Jun 04 21:11	8°♌38'37	

	15681 Jul 04 10:50	0°♍	
	15681 Aug 12 23:29	0°♎	
evening set	15681 Sep 20 05:52	0°♏05'20	
	15681 Sep 20 03:11	0°♏	
	15681 Oct 27 21:59	0°♐	
conjunction	15681 Dec 02 14:35	27°♐57'17	1°02'59
minimum elong	15681 Dec 02 17:15	28°♐02'25	1°03'49
	15681 Dec 05 06:10	0°♑	
	15682 Jan 13 23:17	0°♒	
max. Earth dist.	15682 Jan 24 02:18	7°♒25'39	2.42810 AU
morning rise	15682 Feb 06 08:45	17°♒01'03	
	15682 Feb 24 17:03	0°♓	
desc. node	15682 Apr 01 13:02	24°♓26'06	
	15682 Apr 09 23:06	0°♈	
	15682 May 27 08:03	0°♉	
	15682 Jul 18 17:05	0°♊	
	15682 Oct 02 04:56	0°♋	
retrograde	15682 Oct 19 03:59	1°♋35'23	
	15682 Nov 04 01:23	30°℞♊	
opposition	15682 Nov 27 09:54	22°♊36'37	-4°46'57
greatest brilliancy	15682 Nov 28 03:43	22°♊19'18	-1.4m
min. Earth dist.	15682 Dec 01 19:54	20°♊53'43	0.64880 AU
direct	15683 Jan 07 19:53	12°♊34'50	
	15683 Mar 09 13:15	0°♋	
asc. node	15683 Apr 23 00:33	25°♋07'49	
	15683 Apr 30 15:32	0°♌	
	15683 Jun 13 04:07	0°♍	
	15683 Jul 23 03:38	0°♎	
	15683 Aug 30 12:04	0°♏	
	15683 Oct 07 12:40	0°♐	
	15683 Nov 15 06:00	0°♑	
evening set	15683 Dec 05 09:44	15°♑12'26	
	15683 Dec 25 10:51	0°♒	
conjunction	15684 Feb 02 14:44	27°♒54'05	0°09'04
minimum elong	15684 Feb 02 15:17	27°♒55'01	0°09'35
behind sun begin	15684 Feb 01 20:45	27°♒22'48	
behind sun end	15684 Feb 03 09:48	28°♒27'14	
	15684 Feb 05 15:15	0°♓	
desc. node	15684 Feb 17 01:40	7°♓52'46	
max. Earth dist.	15684 Mar 04 13:50	19°♓04'26	2.56297 AU
	15684 Mar 20 23:22	0°♈	
morning rise	15684 Mar 24 21:56	2°♈35'51	
	15684 May 06 10:54	0°♉	
	15684 Jun 24 04:19	0°♊	
	15684 Aug 15 06:22	0°♋	
	15684 Oct 17 00:26	0°♌	
retrograde	15684 Nov 30 17:37	9°♌36'43	
opposition	15685 Jan 06 00:21	1°♌51'17	-3°05'41
greatest brilliancy	15685 Jan 06 23:56	1°♌29'31	-1.9m
	15685 Jan 11 00:43	30°℞♋	
min. Earth dist.	15685 Jan 13 21:25	28°♋57'30	0.54443 AU
direct	15685 Feb 14 10:57	22°♋29'26	
asc. node	15685 Mar 10 06:54	26°♋03'11	
	15685 Mar 22 00:18	0°♌	
	15685 May 16 10:03	0°♍	
	15685 Jun 28 04:06	0°♎	
	15685 Aug 06 18:26	0°♏	
	15685 Sep 14 17:09	0°♐	
	15685 Oct 24 08:42	0°♑	
	15685 Dec 04 12:35	0°♒	
desc. node	15686 Jan 03 18:41	21°♒13'06	
	15686 Jan 16 14:05	0°♓	
evening set	15686 Jan 27 04:50	7°♓11'47	
	15686 Mar 02 12:22	0°♈	

conjunction	15686 Mar 16 23:22	9°♈25'36	-0°40'49
minimum elong	15686 Mar 16 22:03	9°♈23'29	0°40'51
max. Earth dist.	15686 Mar 30 12:44	18°♈11'16	2.65127 AU
	15686 Apr 17 23:35	0°♉	
morning rise	15686 Apr 30 22:27	8°♉13'44	
	15686 Jun 04 13:11	0°♊	
	15686 Jul 22 23:18	0°♋	
	15686 Sep 10 12:53	0°♌	
	15686 Nov 01 22:37	0°♍	
	15687 Jan 10 11:13	0°♎	
asc. node	15687 Jan 26 13:50	2°♎34'20	
retrograde	15687 Feb 01 09:51	2°♎47'02	
	15687 Feb 22 12:05	30°℞♍	
opposition	15687 Mar 04 13:35	27°♍10'26	2°31'13
greatest brilliancy	15687 Mar 05 04:51	26°♍58'53	-2.7m
min. Earth dist.	15687 Mar 11 17:54	25°♍00'14	0.40502 AU
direct	15687 Apr 07 02:28	20°♍32'35	
	15687 May 15 15:50	0°♎	
	15687 Jul 06 14:22	0°♏	
	15687 Aug 19 00:12	0°♐	
	15687 Sep 30 12:55	0°♑	
	15687 Nov 12 22:24	0°♒	
desc. node	15687 Nov 21 17:56	5°♒58'46	
	15687 Dec 27 17:44	0°♓	
	15688 Feb 11 21:01	0°♈	
evening set	15688 Mar 07 13:49	15°♈48'09	
	15688 Mar 29 21:50	0°♉	
conjunction	15688 Apr 21 00:35	14°♉01'07	-1°08'29
minimum elong	15688 Apr 20 23:44	13°♉59'48	1°09'00
max. Earth dist.	15688 Apr 21 04:59	14°♉08'06	2.68502 AU
	15688 May 16 05:34	0°♊	
morning rise	15688 Jun 03 00:06	11°♊17'42	
	15688 Jul 02 07:03	0°♋	
	15688 Aug 17 17:48	0°♌	
	15688 Oct 02 10:05	0°♍	
	15688 Nov 16 10:11	0°♎	
asc. node	15688 Dec 13 17:28	18°♎16'03	
	15688 Dec 31 10:02	0°♏	
	15689 Feb 17 09:24	0°♐	
retrograde	15689 Apr 23 03:59	22°♐42'32	
min. Earth dist.	15689 May 19 05:33	18°♐25'38	0.38023 AU
opposition	15689 May 24 17:29	16°♐50'57	7°00'01
greatest brilliancy	15689 May 23 12:12	17°♐12'02	-2.9m
direct	15689 Jun 23 05:34	11°♐43'33	
	15689 Aug 22 20:16	0°♑	
desc. node	15689 Oct 08 22:08	25°♑54'53	
	15689 Oct 15 20:20	0°♒	
	15689 Dec 04 10:11	0°♓	
	15690 Jan 22 04:04	0°♈	
	15690 Mar 11 13:02	0°♉	
evening set	15690 Apr 12 00:51	19°♉44'27	
	15690 Apr 28 05:54	0°♊	
max. Earth dist.	15690 May 13 04:11	9°♊31'29	2.66356 AU
conjunction	15690 May 25 17:35	17°♊35'53	-1°11'36
minimum elong	15690 May 25 18:06	17°♊36'43	1°12'24
	15690 Jun 13 19:50	0°♋	
morning rise	15690 Jul 09 02:15	16°♋40'17	
	15690 Jul 28 22:41	0°♌	
	15690 Sep 10 10:20	0°♍	
	15690 Oct 22 07:35	0°♎	
asc. node	15690 Oct 31 12:47	6°♎44'45	
	15690 Dec 01 20:50	0°♏	
	15691 Jan 10 18:19	0°♐	
	15691 Feb 20 07:54	0°♑	
	15691 Apr 05 15:16	0°♒	

retrograde	15691 Jun 19 04:19	28°♒28'18	
min. Earth dist.	15691 Jul 19 02:27	22°♒18'35	0.50888 AU
opposition	15691 Jul 27 01:11	19°♒21'32	1°36'50
greatest brilliancy	15691 Jul 26 14:03	19°♒31'53	-2.1m
desc. node	15691 Aug 27 06:41	11°♒57'47	
direct	15691 Aug 30 18:21	11°♒53'00	
	15691 Nov 02 16:53	0°♓	
	15691 Dec 30 09:56	0°♈	
	15692 Feb 19 23:57	0°♉	
	15692 Apr 08 21:59	0°♊	
evening set	15692 May 16 15:08	24°♊06'41	
	15692 May 25 15:03	0°♋	
max. Earth dist.	15692 Jun 06 04:11	7°♋38'21	2.58818 AU
conjunction	15692 Jul 02 00:00	25°♋04'38	-0°46'31
minimum elong	15692 Jul 02 01:35	25°♋07'19	0°47'19
	15692 Jul 09 03:50	0°♌	
	15692 Aug 20 14:01	0°♍	
morning rise	15692 Aug 21 13:01	0°♍41'39	
asc. node	15692 Sep 17 04:19	20°♍16'17	
	15692 Sep 30 03:51	0°♎	
	15692 Nov 08 08:12	0°♏	
	15692 Dec 16 19:49	0°♐	
	15693 Jan 24 13:14	0°♑	
	15693 Mar 05 18:32	0°♒	
	15693 Apr 18 13:14	0°♓	
	15693 Jun 11 15:17	0°♈	
desc. node	15693 Jul 14 13:19	10°♈30'30	
retrograde	15693 Jul 28 10:11	11°♈44'02	
min. Earth dist.	15693 Sep 01 23:09	3°♈39'17	0.62642 AU
opposition	15693 Sep 06 18:58	1°♈45'06	-2°14'22
greatest brilliancy	15693 Sep 06 08:15	1°♈55'40	-1.5m
	15693 Sep 11 07:17	30°♓℞	
direct	15693 Oct 15 10:34	22°♓49'43	
	15693 Nov 22 11:57	0°♈	
	15694 Jan 27 01:35	0°♉	
	15694 Mar 20 07:08	0°♊	
	15694 May 06 23:18	0°♋	
	15694 Jun 20 11:14	0°♌	
evening set	15694 Jun 26 20:15	4°♌27'24	
max. Earth dist.	15694 Jul 10 11:39	14°♌07'16	2.46534 AU
	15694 Aug 01 09:02	0°♍	
asc. node	15694 Aug 04 18:56	2°♍30'51	
conjunction	15694 Aug 20 17:59	14°♍24'39	0°11'01
minimum elong	15694 Aug 20 17:12	14°♍23'10	0°10'42
behind sun begin	15694 Aug 19 22:00	13°♍47'06	
behind sun end	15694 Aug 21 12:23	14°♍59'17	
	15694 Sep 10 06:13	0°♎	
	15694 Oct 18 18:43	0°♏	
morning rise	15694 Oct 25 22:08	5°♏37'54	
	15694 Nov 25 17:41	0°♐	
	15695 Jan 03 00:30	0°♑	
	15695 Feb 11 13:55	0°♒	
	15695 Mar 25 11:27	0°♓	
	15695 May 10 06:26	0°♈	
desc. node	15695 Jun 01 13:03	13°♈12'24	
	15695 Jul 03 20:13	0°♉	
retrograde	15695 Sep 01 01:47	16°♉15'27	
opposition	15695 Oct 11 21:41	6°♉24'27	-4°13'33
min. Earth dist.	15695 Oct 10 21:22	6°♉48'31	0.68320 AU
greatest brilliancy	15695 Oct 11 16:45	6°♉29'19	-1.3m
	15695 Oct 29 21:59	30°♈℞	
direct	15695 Nov 21 18:29	26°♈42'54	
	15695 Dec 16 14:51	0°♉	
	15696 Feb 25 00:58	0°♊	
	15696 Apr 15 20:11	0°♋	
	15696 May 31 02:32	0°♌	
asc. node	15696 Jun 21 12:44	15°♌06'12	
	15696 Jul 11 23:16	0°♍	
	15696 Aug 20 12:59	0°♎	
evening set	15696 Aug 21 20:03	1°♎00'11	
	15696 Sep 27 18:04	0°♏	
conjunction	15696 Nov 01 06:04	27°♏23'56	1°07'13
minimum elong	15696 Nov 01 04:45	27°♏21'20	1°07'52
	15696 Nov 04 12:51	0°♐	
	15696 Dec 12 19:11	0°♑	
max. Earth dist.	15696 Dec 18 14:49	4°♑29'15	2.37341 AU
morning rise	15697 Jan 12 20:39	23°♑39'10	
	15697 Jan 21 09:11	0°♒	
	15697 Mar 04 00:31	0°♓	
	15697 Apr 17 09:19	0°♈	
desc. node	15697 Apr 18 06:46	0°♈34'58	
	15697 Jun 04 12:54	0°♉	
	15697 Jul 30 09:57	0°♊	
retrograde	15697 Oct 04 16:25	18°♊43'32	
opposition	15697 Nov 13 15:25	9°♊25'33	-4°53'23
greatest brilliancy	15697 Nov 14 02:44	9°♊14'29	-1.3m
min. Earth dist.	15697 Nov 16 12:50	8°♊17'34	0.67188 AU
	15697 Dec 15 11:43	30°♉℞	
direct	15697 Dec 25 05:15	29°♉23'45	
	15698 Jan 04 07:53	0°♊	
	15698 Mar 22 08:50	0°♋	
asc. node	15698 May 09 13:15	29°♋49'14	
	15698 May 09 19:42	0°♌	
	15698 Jun 21 11:57	0°♍	
	15698 Jul 31 05:09	0°♎	
	15698 Sep 07 10:34	0°♏	
	15698 Oct 15 07:51	0°♐	
evening set	15698 Nov 07 20:09	18°♐24'37	
	15698 Nov 22 20:32	0°♑	
	15699 Jan 01 19:31	0°♒	
conjunction	15699 Jan 12 10:28	7°♒44'45	0°32'21
minimum elong	15699 Jan 12 12:36	7°♒48'38	0°33'04
	15699 Feb 12 18:06	0°♓	
max. Earth dist.	15699 Feb 20 19:48	5°♓35'46	2.51439 AU
desc. node	15699 Mar 05 21:31	14°♓32'44	
morning rise	15699 Mar 09 05:21	16°♓48'00	
	15699 Mar 28 23:14	0°♈	
	15699 May 14 14:56	0°♉	
	15699 Jul 03 05:52	0°♊	
	15699 Aug 27 14:05	0°♋	
retrograde	15699 Nov 13 07:51	23°♋58'00	
opposition	15699 Dec 20 23:52	15°♋38'32	-4°03'19
greatest brilliancy	15699 Dec 22 00:25	15°♋15'13	-1.6m
min. Earth dist.	15699 Dec 27 15:33	13°♋07'15	0.59241 AU
direct	15700 Jan 30 13:01	5°♋51'43	
asc. node	15700 Mar 27 19:36	22°♋05'48	
	15700 Apr 11 17:11	0°♌	
	15700 May 28 20:01	0°♍	
	15700 Jul 08 22:10	0°♎	
	15700 Aug 16 19:22	0°♏	
	15700 Sep 24 06:01	0°♐	
	15700 Nov 02 10:15	0°♑	
	15700 Dec 13 02:55	0°♒	
evening set	15701 Jan 09 12:25	19°♒26'21	
desc. node	15701 Jan 21 11:31	27°♒44'34	
	15701 Jan 24 18:13	0°♓	
conjunction	15701 Mar 02 09:20	24°♓42'53	-0°23'52
minimum elong	15701 Mar 02 08:21	24°♓41'16	0°23'42
	15701 Mar 10 09:16	0°♈	

max. Earth dist.	15701 Mar 22 02:54	7°♈41'24	2.62307 AU
morning rise	15701 Apr 18 03:55	25°♈08'57	
	15701 Apr 25 18:29	0°♉	
	15701 Jun 12 15:03	0°♊	
	15701 Aug 01 00:29	0°♋	
	15701 Sep 22 03:06	0°♌	
	15701 Nov 23 07:21	0°♍	
retrograde	15702 Jan 05 12:22	9°♍20'24	
opposition	15702 Feb 07 23:20	2°♍46'57	-0°18'55
greatest brilliancy	15702 Feb 08 02:32	2°♍44'16	-2.4m
asc. node	15702 Feb 13 02:29	1°♍03'12	
	15702 Feb 16 06:49	30°℞♌	
min. Earth dist.	15702 Feb 16 15:41	29°♌52'48	0.45814 AU
direct	15702 Mar 16 11:11	24°♌45'13	
	15702 Apr 13 17:39	0°♍	
	15702 Jun 08 21:50	0°♎	
	15702 Jul 21 15:57	0°♏	
	15702 Aug 31 06:30	0°♐	
	15702 Oct 11 04:05	0°♑	
	15702 Nov 22 09:35	0°♒	
desc. node	15702 Dec 09 07:34	11°♒41'24	
	15703 Jan 05 08:11	0°♓	
	15703 Feb 19 21:31	0°♈	
evening set	15703 Feb 22 19:00	1°♈52'38	
	15703 Apr 07 15:14	0°♉	
conjunction	15703 Apr 09 10:12	1°♉08'22	-1°00'37
minimum elong	15703 Apr 09 09:01	1°♉06'29	1°00'57
max. Earth dist.	15703 Apr 14 13:56	4°♉25'03	2.67852 AU
morning rise	15703 May 22 18:34	28°♉36'35	
	15703 May 24 23:21	0°♊	
	15703 Jul 11 10:18	0°♋	
	15703 Aug 27 18:09	0°♌	
	15703 Oct 14 00:46	0°♍	
	15703 Nov 30 22:43	0°♎	
asc. node	15704 Jan 01 07:30	18°♎44'39	
	15704 Jan 21 18:26	0°♏	
retrograde	15704 Mar 24 12:58	19°♏58'15	
opposition	15704 Apr 22 23:07	15°♏04'51	6°57'27
greatest brilliancy	15704 Apr 22 20:50	15°♏06'22	-3.0m
min. Earth dist.	15704 Apr 22 18:38	15°♏07'48	0.36372 AU
direct	15704 May 22 04:18	10°♏13'36	
	15704 Jul 22 12:16	0°♐	
	15704 Sep 11 05:38	0°♑	
desc. node	15704 Oct 26 10:29	28°♑46'47	
	15704 Oct 28 08:11	0°♒	
	15704 Dec 14 07:11	0°♓	
	15705 Jan 30 17:43	0°♈	
	15705 Mar 19 11:03	0°♉	
evening set	15705 Mar 30 11:24	6°♉56'01	
	15705 May 05 22:39	0°♊	
max. Earth dist.	15705 May 05 12:06	29°♉43'14	2.67864 AU
conjunction	15705 May 13 01:54	4°♊32'33	-1°13'30
minimum elong	15705 May 13 01:51	4°♊32'28	1°14'13
	15705 Jun 21 15:41	0°♋	
morning rise	15705 Jun 25 11:01	2°♋28'31	
	15705 Aug 06 04:41	0°♌	
	15705 Sep 19 08:26	0°♍	
	15705 Nov 01 02:24	0°♎	
asc. node	15705 Nov 18 07:36	12°♎20'34	
	15705 Dec 12 16:13	0°♏	
	15706 Jan 22 21:06	0°♐	
	15706 Mar 06 19:28	0°♑	
	15706 Apr 30 00:36	0°♒	
retrograde	15706 Jun 01 00:29	6°♒45'38	
min. Earth dist.	15706 Jun 28 13:04	1°♒30'22	0.45348 AU
	15706 Jul 02 22:27	30°℞♑	
opposition	15706 Jul 06 22:07	28°♑36'27	3°46'01
greatest brilliancy	15706 Jul 05 20:23	28°♑58'52	-2.4m
direct	15706 Aug 08 15:42	21°♑59'30	
desc. node	15706 Sep 13 17:10	29°♑03'08	
	15706 Sep 16 09:00	0°♒	
	15706 Nov 18 01:46	0°♓	
	15707 Jan 09 13:03	0°♈	
	15707 Feb 28 12:03	0°♉	
	15707 Apr 17 19:41	0°♊	
evening set	15707 May 04 11:28	10°♊35'23	
max. Earth dist.	15707 May 28 22:48	26°♊24'43	2.62414 AU
	15707 Jun 03 10:14	0°♋	
conjunction	15707 Jun 18 06:57	9°♋49'37	-0°59'57
minimum elong	15707 Jun 18 08:16	9°♋51'48	1°00'47
	15707 Jul 18 03:31	0°♌	
morning rise	15707 Aug 04 14:00	12°♌03'58	
	15707 Aug 29 22:25	0°♍	
asc. node	15707 Oct 05 23:49	27°♍03'30	
	15707 Oct 09 22:40	0°♎	
	15707 Nov 18 13:14	0°♏	
	15707 Dec 27 09:56	0°♐	
	15708 Feb 04 13:01	0°♑	
	15708 Mar 16 11:36	0°♒	
	15708 May 01 13:04	0°♓	
retrograde	15708 Jul 14 20:09	26°♓41'31	
desc. node	15708 Aug 01 00:35	24°♓35'55	
min. Earth dist.	15708 Aug 17 08:09	19°♓17'22	0.58653 AU
opposition	15708 Aug 23 13:38	16°♓51'44	-1°01'22
greatest brilliancy	15708 Aug 23 07:10	16°♓58'02	-1.7m
direct	15708 Sep 29 21:39	8°♓23'59	
	15708 Dec 11 13:11	0°♈	
	15709 Feb 06 07:22	0°♉	
	15709 Mar 28 20:05	0°♊	
	15709 May 15 00:34	0°♋	
evening set	15709 Jun 10 16:18	17°♋46'35	
max. Earth dist.	15709 Jun 26 02:14	28°♋20'18	2.51814 AU
	15709 Jun 28 11:47	0°♌	
conjunction	15709 Jul 31 05:38	23°♌12'28	-0°15'00
minimum elong	15709 Jul 31 06:31	23°♌14'04	0°15'34
behind sun begin	15709 Jul 31 00:21	23°♌02'54	
behind sun end	15709 Jul 31 12:42	23°♌25'13	
	15709 Aug 09 13:44	0°♍	
asc. node	15709 Aug 22 12:55	9°♍33'08	
	15709 Sep 18 16:45	0°♎	
morning rise	15709 Sep 27 21:46	7°♎03'10	
	15709 Oct 27 10:45	0°♏	
	15709 Dec 04 13:37	0°♐	
	15710 Jan 11 22:53	0°♑	
	15710 Feb 20 15:12	0°♒	
	15710 Apr 03 21:32	0°♓	
	15710 May 21 03:04	0°♈	
desc. node	15710 Jun 19 04:52	15°♈39'48	
	15710 Jul 25 22:58	0°♉	
retrograde	15710 Aug 19 20:24	3°♉32'45	
	15710 Sep 12 01:15	30°℞♈	
min. Earth dist.	15710 Sep 27 03:20	24°♈35'08	0.66880 AU
opposition	15710 Sep 29 16:10	23°♈34'52	-3°37'56
greatest brilliancy	15710 Sep 29 06:56	23°♈44'01	-1.3m
direct	15710 Nov 08 20:44	14°♈08'02	
	15711 Jan 08 08:03	0°♉	
	15711 Mar 07 11:41	0°♊	
	15711 Apr 25 15:27	0°♋	
	15711 Jun 09 12:00	0°♌	
asc. node	15711 Jul 10 05:36	21°♌51'36	

	15711 Jul 21 08:02	0°♍	
evening set	15711 Jul 29 19:22	6°♍17'31	
max. Earth dist.	15711 Aug 21 19:12	23°♍41'44	2.38128 AU
	15711 Aug 29 23:53	0°♎	
conjunction	15711 Oct 02 17:12	26°♎22'36	0°52'57
minimum elong	15711 Oct 02 13:19	26°♎14'56	0°53'12
	15711 Oct 07 07:11	0°♏	
	15711 Nov 14 02:49	0°♐	
morning rise	15711 Dec 16 15:22	25°♐34'06	
	15711 Dec 22 08:23	0°♑	
	15712 Jan 30 20:50	0°♒	
	15712 Mar 12 11:59	0°♓	
	15712 Apr 26 03:50	0°♈	
desc. node	15712 May 06 00:59	6°♈17'47	
	15712 Jun 14 15:18	0°♉	
	15712 Aug 18 01:12	0°♊	
retrograde	15712 Sep 21 22:27	6°♊14'19	
	15712 Oct 23 17:30	30°℞♉	
opposition	15712 Nov 01 09:15	26°♉40'55	-4°47'02
greatest brilliancy	15712 Nov 01 13:43	26°♉36'31	-1.2m
min. Earth dist.	15712 Nov 02 17:42	26°♉08'58	0.68448 AU
direct	15712 Dec 12 20:42	16°♉44'10	
	15713 Feb 04 06:50	0°♊	
	15713 Apr 02 12:04	0°♋	
	15713 May 19 04:50	0°♌	
asc. node	15713 May 27 04:05	5°♌28'31	
	15713 Jun 30 10:18	0°♍	
	15713 Aug 09 00:47	0°♎	
	15713 Sep 16 05:07	0°♏	
evening set	15713 Oct 08 21:05	18°♏00'02	
	15713 Oct 24 00:21	0°♐	
	15713 Dec 01 09:19	0°♑	
conjunction	15713 Dec 19 12:06	13°♑50'00	0°53'57
minimum elong	15713 Dec 19 15:20	13°♑56'05	0°54'45
	15714 Jan 10 03:26	0°♒	
max. Earth dist.	15714 Feb 05 23:37	19°♒28'13	2.45970 AU
morning rise	15714 Feb 19 08:09	28°♒54'43	
	15714 Feb 20 21:27	0°♓	
desc. node	15714 Mar 23 15:18	21°♓04'01	
	15714 Apr 06 01:32	0°♈	
	15714 May 23 01:27	0°♉	
	15714 Jul 13 02:29	0°♊	
	15714 Sep 13 10:57	0°♋	
retrograde	15714 Oct 28 21:29	9°♋46'18	
opposition	15714 Dec 06 15:38	1°♋00'02	-4°36'18
greatest brilliancy	15714 Dec 07 12:31	0°♋39'52	-1.5m
	15714 Dec 09 05:44	30°℞♊	
min. Earth dist.	15714 Dec 11 21:13	28°♊58'56	0.63132 AU
direct	15715 Jan 16 20:33	21°♊01'19	
	15715 Feb 26 21:56	0°♋	
asc. node	15715 Apr 14 07:32	23°♋28'30	
	15715 Apr 25 00:08	0°♌	
	15715 Jun 08 10:52	0°♍	
	15715 Jul 18 18:08	0°♎	
	15715 Aug 26 06:28	0°♏	
	15715 Oct 03 09:56	0°♐	
	15715 Nov 11 06:17	0°♑	
evening set	15715 Dec 20 01:20	28°♑52'43	
	15715 Dec 21 14:18	0°♒	
	15716 Feb 01 21:14	0°♓	
desc. node	15716 Feb 08 05:50	4°♓23'05	
conjunction	15716 Feb 14 05:48	8°♓29'36	-0°03'46
minimum elong	15716 Feb 14 05:36	8°♓29'15	0°03'23
behind sun begin	15716 Feb 13 08:09	7°♓52'38	
behind sun end	15716 Feb 15 03:02	9°♓05'49	
max. Earth dist.	15716 Mar 11 23:20	26°♓29'21	2.58650 AU
	15716 Mar 17 06:33	0°♈	
morning rise	15716 Apr 03 15:16	11°♈22'41	
	15716 May 02 15:41	0°♉	
	15716 Jun 19 23:17	0°♊	
	15716 Aug 09 19:38	0°♋	
	15716 Oct 05 17:16	0°♌	
retrograde	15716 Dec 13 05:56	19°♌51'43	
opposition	15717 Jan 17 15:27	12°♌28'57	-2°17'30
greatest brilliancy	15717 Jan 18 10:55	12°♌11'26	-2.1m
min. Earth dist.	15717 Jan 26 01:41	9°♌27'56	0.51457 AU
direct	15717 Feb 25 06:02	3°♌28'51	
asc. node	15717 Mar 01 15:47	3°♌36'53	
	15717 May 08 13:40	0°♍	
	15717 Jun 22 07:14	0°♎	
	15717 Aug 01 14:42	0°♏	
	15717 Sep 09 23:17	0°♐	
	15717 Oct 19 22:42	0°♑	
	15717 Nov 30 09:43	0°♒	
desc. node	15717 Dec 25 22:55	17°♒51'23	
	15718 Jan 12 17:05	0°♓	
evening set	15718 Feb 06 21:56	16°♓53'50	
	15718 Feb 26 19:36	0°♈	
conjunction	15718 Mar 26 08:12	17°♈50'21	-0°49'08
minimum elong	15718 Mar 26 06:52	17°♈48'12	0°49'18
max. Earth dist.	15718 Apr 05 17:26	24°♈30'03	2.66342 AU
	15718 Apr 14 08:07	0°♉	
morning rise	15718 May 09 13:29	16°♉00'16	
	15718 May 31 18:45	0°♊	
	15718 Jul 18 19:02	0°♋	
	15718 Sep 05 09:11	0°♌	
	15718 Oct 25 07:34	0°♍	
	15718 Dec 19 05:56	0°♎	
asc. node	15719 Jan 17 22:28	12°♎29'31	
retrograde	15719 Feb 19 21:34	18°♎37'01	
opposition	15719 Mar 22 01:56	13°♎28'09	4°22'22
greatest brilliancy	15719 Mar 22 19:29	13°♎15'41	-2.9m
min. Earth dist.	15719 Mar 27 07:02	11°♎59'39	0.38228 AU
direct	15719 Apr 22 17:08	7°♎39'38	
	15719 Jun 25 13:03	0°♏	
	15719 Aug 11 17:43	0°♐	
	15719 Sep 24 19:15	0°♑	
	15719 Nov 08 02:32	0°♒	
desc. node	15719 Nov 12 22:17	3°♒13'34	
	15719 Dec 23 11:51	0°♓	
	15720 Feb 08 00:18	0°♈	
evening set	15720 Mar 16 16:40	23°♈57'05	
	15720 Mar 26 06:01	0°♉	
max. Earth dist.	15720 Apr 27 02:55	20°♉10'24	2.68516 AU
conjunction	15720 Apr 29 16:44	21°♉48'21	-1°11'29
minimum elong	15720 Apr 29 16:10	21°♉47'27	1°12'05
	15720 May 12 14:36	0°♊	
morning rise	15720 Jun 11 16:02	19°♊10'10	
	15720 Jun 28 12:41	0°♋	
	15720 Aug 13 14:43	0°♌	
	15720 Sep 27 16:07	0°♍	
	15720 Nov 10 16:39	0°♎	
asc. node	15720 Dec 04 23:31	16°♎47'14	
	15720 Dec 24 01:00	0°♏	
	15721 Feb 06 03:54	0°♐	
	15721 Mar 29 23:34	0°♑	
retrograde	15721 May 09 03:31	10°♑13'01	
min. Earth dist.	15721 Jun 04 00:22	5°♑45'05	0.40200 AU
greatest brilliancy	15721 Jun 09 21:36	3°♑56'38	-2.7m

opposition	15721 Jun 11 07:14	3°♋30'36	6°02'43
	15721 Jun 23 22:16	30°℞♐	
direct	15721 Jul 11 19:15	27°♐53'52	
	15721 Jul 30 06:14	0°♋	
desc. node	15721 Sep 30 04:56	25°♋46'04	
	15721 Oct 08 00:52	0°♒	
	15721 Nov 29 02:33	0°♓	
	15722 Jan 17 20:44	0°♈	
	15722 Mar 07 17:06	0°♉	
evening set	15722 Apr 20 18:40	27°♉34'18	
	15722 Apr 24 14:40	0°♊	
max. Earth dist.	15722 May 19 09:57	15°♊51'03	2.65186 AU
conjunction	15722 Jun 03 17:17	25°♊45'53	-1°08'38
minimum elong	15722 Jun 03 18:07	25°♊47'14	1°09'28
	15722 Jun 10 04:56	0°♋	
morning rise	15722 Jul 18 21:23	25°♋44'01	
	15722 Jul 25 04:22	0°♌	
	15722 Sep 06 09:55	0°♍	
	15722 Oct 17 22:59	0°♎	
asc. node	15722 Oct 22 18:18	3°♎32'27	
	15722 Nov 27 03:02	0°♏	
	15723 Jan 05 13:26	0°♐	
	15723 Feb 14 10:02	0°♑	
	15723 Mar 28 21:30	0°♒	
	15723 May 20 18:53	0°♓	
retrograde	15723 Jun 29 22:39	9°♓42'37	
min. Earth dist.	15723 Jul 31 04:52	3°♓04'43	0.53840 AU
opposition	15723 Aug 07 15:23	0°♓15'06	0°32'29
greatest brilliancy	15723 Aug 07 11:49	0°♓18'28	-2.0m
	15723 Aug 08 07:19	30°℞♒	
desc. node	15723 Aug 18 13:36	26°♒24'02	
direct	15723 Sep 12 08:47	22°♒22'49	
	15723 Oct 21 01:06	0°♓	
	15723 Dec 24 16:28	0°♈	
	15724 Feb 15 15:54	0°♉	
	15724 Apr 05 01:57	0°♊	
	15724 May 21 23:05	0°♋	
evening set	15724 May 26 01:06	2°♋41'19	
max. Earth dist.	15724 Jun 13 15:13	15°♋04'54	2.56533 AU
	15724 Jul 05 11:40	0°♌	
conjunction	15724 Jul 12 14:41	4°♌56'47	-0°36'29
minimum elong	15724 Jul 12 16:12	4°♌59'26	0°37'12
	15724 Aug 16 19:27	0°♍	
morning rise	15724 Sep 03 12:55	13°♍00'02	
asc. node	15724 Sep 08 09:00	16°♍35'24	
	15724 Sep 26 05:39	0°♎	
	15724 Nov 04 06:20	0°♏	
	15724 Dec 12 14:18	0°♐	
	15725 Jan 20 03:33	0°♑	
	15725 Mar 01 01:53	0°♒	
	15725 Apr 13 01:20	0°♓	
	15725 Jun 02 06:21	0°♈	
desc. node	15725 Jul 05 18:25	14°♈32'29	
retrograde	15725 Aug 06 08:19	20°♈13'56	
min. Earth dist.	15725 Sep 11 22:31	11°♈49'15	0.64429 AU
opposition	15725 Sep 15 23:17	10°♈13'37	-2°49'35
greatest brilliancy	15725 Sep 15 12:04	10°♈24'42	-1.4m
direct	15725 Oct 25 06:11	1°♈05'37	
	15726 Jan 21 02:54	0°♉	
	15726 Mar 15 22:19	0°♊	
	15726 May 03 01:54	0°♋	
	15726 Jun 16 16:57	0°♌	
evening set	15726 Jul 08 14:11	15°♌27'17	
max. Earth dist.	15726 Jul 22 20:43	25°♌47'11	2.43465 AU
asc. node	15726 Jul 26 22:51	28°♌46'59	
	15726 Jul 28 14:33	0°♍	
conjunction	15726 Sep 04 15:16	28°♍37'34	0°27'05
minimum elong	15726 Sep 04 13:06	28°♍33'24	0°26'57
	15726 Sep 06 10:11	0°♎	
	15726 Oct 14 21:08	0°♏	
morning rise	15726 Nov 14 00:17	23°♏50'42	
	15726 Nov 21 18:52	0°♐	
	15726 Dec 30 00:42	0°♑	
	15727 Feb 07 12:46	0°♒	
	15727 Mar 21 05:57	0°♓	
	15727 May 05 10:42	0°♈	
desc. node	15727 May 23 17:50	11°♈14'07	
	15727 Jun 26 07:53	0°♉	
retrograde	15727 Sep 09 13:56	23°♉51'39	
opposition	15727 Oct 20 08:13	14°♉05'56	-4°29'21
greatest brilliancy	15727 Oct 20 06:21	14°♉07'47	-1.2m
min. Earth dist.	15727 Oct 20 03:58	14°♉10'08	0.68657 AU
direct	15727 Nov 30 12:11	4°♉17'58	
	15728 Feb 18 22:09	0°♊	
	15728 Apr 11 08:54	0°♋	
	15728 May 27 01:55	0°♌	
asc. node	15728 Jun 12 19:28	11°♌41'57	
	15728 Jul 08 01:38	0°♍	
	15728 Aug 16 15:33	0°♎	
evening set	15728 Sep 07 21:43	17°♎23'53	
	15728 Sep 23 20:17	0°♏	
	15728 Oct 31 14:54	0°♐	
conjunction	15728 Nov 20 05:50	15°♐28'14	1°07'03
minimum elong	15728 Nov 20 07:07	15°♐30'46	1°07'51
	15728 Dec 08 21:33	0°♑	
max. Earth dist.	15729 Jan 12 22:26	26°♑36'12	2.40252 AU
	15729 Jan 17 12:16	0°♒	
morning rise	15729 Jan 28 05:47	7°♒53'30	
	15729 Feb 28 03:21	0°♓	
desc. node	15729 Apr 09 10:10	27°♓24'39	
	15729 Apr 13 08:35	0°♈	
	15729 May 30 22:12	0°♉	
	15729 Jul 23 08:27	0°♊	
retrograde	15729 Oct 13 19:28	26°♊30'40	
opposition	15729 Nov 22 09:49	17°♊22'40	-4°51'16
greatest brilliancy	15729 Nov 23 00:46	17°♊08'04	-1.3m
min. Earth dist.	15729 Nov 26 03:18	15°♊55'27	0.66049 AU
direct	15730 Jan 02 22:34	7°♊20'17	
	15730 Mar 15 15:04	0°♋	
asc. node	15730 Apr 30 22:04	27°♋20'32	
	15730 May 04 23:54	0°♌	
	15730 Jun 17 04:31	0°♍	
	15730 Jul 27 01:52	0°♎	
	15730 Sep 03 09:09	0°♏	
	15730 Oct 11 07:48	0°♐	
	15730 Nov 18 22:02	0°♑	
evening set	15730 Nov 24 21:21	4°♑33'20	
	15730 Dec 28 23:02	0°♒	
conjunction	15731 Jan 25 20:00	20°♒04'29	0°18'52
minimum elong	15731 Jan 25 21:12	20°♒06'36	0°19'28
	15731 Feb 08 23:17	0°♓	
desc. node	15731 Feb 24 23:06	11°♓01'33	
max. Earth dist.	15731 Mar 01 10:35	14°♓04'37	2.54222 AU
morning rise	15731 Mar 19 22:36	26°♓31'03	
	15731 Mar 25 04:35	0°♈	
	15731 May 10 16:09	0°♉	
	15731 Jun 28 16:25	0°♊	
	15731 Aug 20 20:00	0°♋	
	15731 Oct 31 06:08	0°♌	

retrograde	15731 Nov 24 10:45	3°♌09'05	
	15731 Dec 16 20:38	30°℞♋	
opposition	15731 Dec 31 09:44	25°♋07'19	-3°33'16
greatest brilliancy	15732 Jan 01 10:18	24°♋44'19	-1.8m
min. Earth dist.	15732 Jan 07 18:50	22°♋22'10	0.56695 AU
direct	15732 Feb 09 10:07	15°♋32'32	
asc. node	15732 Mar 18 03:43	23°♋44'59	
	15732 Apr 01 07:39	0°♌	
	15732 May 21 23:32	0°♍	
	15732 Jul 02 22:15	0°♎	
	15732 Aug 11 04:28	0°♏	
	15732 Sep 18 20:57	0°♐	
	15732 Oct 28 06:04	0°♑	
	15732 Dec 08 03:28	0°♒	
desc. node	15733 Jan 11 15:05	24°♒16'32	
	15733 Jan 19 22:45	0°♓	
evening set	15733 Jan 20 09:22	0°♓18'11	
	15733 Mar 05 16:28	0°♈	
conjunction	15733 Mar 11 10:03	3°♈45'41	-0°34'10
minimum elong	15733 Mar 11 08:49	3°♈43'41	0°34'08
max. Earth dist.	15733 Mar 27 16:58	14°♈21'40	2.63964 AU
	15733 Apr 21 01:35	0°♉	
morning rise	15733 Apr 26 02:25	3°♉12'14	
	15733 Jun 07 17:18	0°♊	
	15733 Jul 26 12:09	0°♋	
	15733 Sep 14 23:39	0°♌	
	15733 Nov 09 03:43	0°♍	
retrograde	15734 Jan 20 14:31	22°♍27'52	
asc. node	15734 Feb 03 10:42	21°♍14'13	
opposition	15734 Feb 21 18:15	16°♍25'44	1°11'58
greatest brilliancy	15734 Feb 22 02:58	16°♍18'48	-2.6m
min. Earth dist.	15734 Mar 01 21:23	13°♍50'42	0.42754 AU
direct	15734 Mar 28 17:38	9°♍07'47	
	15734 May 28 12:36	0°♎	
	15734 Jul 13 15:24	0°♏	
	15734 Aug 24 12:22	0°♐	
	15734 Oct 05 04:04	0°♑	
	15734 Nov 16 22:45	0°♒	
desc. node	15734 Nov 29 13:11	8°♒38'16	
	15734 Dec 31 06:58	0°♓	
	15735 Feb 15 02:51	0°♈	
evening set	15735 Mar 03 07:56	10°♈26'07	
	15735 Apr 02 23:39	0°♉	
conjunction	15735 Apr 17 05:43	9°♉02'54	-1°05'42
minimum elong	15735 Apr 17 04:43	9°♉01'19	1°06'10
max. Earth dist.	15735 Apr 19 14:38	10°♉33'09	2.68316 AU
	15735 May 20 07:15	0°♊	
morning rise	15735 May 30 07:43	6°♊21'02	
	15735 Jul 06 12:49	0°♋	
	15735 Aug 22 08:28	0°♌	
	15735 Oct 07 16:22	0°♍	
	15735 Nov 22 18:07	0°♎	
asc. node	15735 Dec 22 15:30	19°♎15'07	
	15736 Jan 08 18:28	0°♏	
	15736 Mar 03 22:28	0°♐	
retrograde	15736 Apr 11 06:52	8°♐59'24	
min. Earth dist.	15736 May 08 07:18	4°♐37'28	0.36858 AU
opposition	15736 May 11 16:19	3°♐42'08	7°19'57
greatest brilliancy	15736 May 10 21:06	3°♐55'17	-3.0m
	15736 May 27 11:16	30°℞♏	
direct	15736 Jun 09 18:48	28°♏50'05	
	15736 Jun 23 01:37	0°♐	
	15736 Sep 01 06:27	0°♑	
desc. node	15736 Oct 16 16:21	27°♑08'41	
	15736 Oct 21 07:33	0°♒	
	15736 Dec 08 13:08	0°♓	
	15737 Jan 25 15:36	0°♈	
	15737 Mar 14 17:01	0°♉	
evening set	15737 Apr 07 05:37	14°♉46'06	
	15737 May 01 07:39	0°♊	
max. Earth dist.	15737 May 10 12:38	5°♊51'48	2.67129 AU
conjunction	15737 May 20 19:56	12°♊27'17	-1°12'56
minimum elong	15737 May 20 20:13	12°♊27'44	1°13'42
	15737 Jun 16 23:27	0°♋	
morning rise	15737 Jul 03 16:18	10°♋56'40	
	15737 Aug 01 07:18	0°♌	
	15737 Sep 14 02:42	0°♍	
	15737 Oct 26 09:13	0°♎	
asc. node	15737 Nov 08 12:08	9°♎30'57	
	15737 Dec 06 08:56	0°♏	
	15738 Jan 15 18:03	0°♐	
	15738 Feb 26 01:28	0°♑	
	15738 Apr 13 13:54	0°♒	
retrograde	15738 Jun 12 04:17	19°♒59'15	
min. Earth dist.	15738 Jul 11 00:49	14°♒13'45	0.48410 AU
opposition	15738 Jul 19 06:51	11°♒14'36	2°29'46
greatest brilliancy	15738 Jul 18 13:21	11°♒30'29	-2.3m
direct	15738 Aug 22 02:38	4°♒07'57	
desc. node	15738 Sep 04 00:23	5°♒08'47	
	15738 Nov 09 13:49	0°♓	
	15739 Jan 03 14:17	0°♈	
	15739 Feb 23 10:14	0°♉	
	15739 Apr 13 02:21	0°♊	
evening set	15739 May 12 11:00	18°♊42'32	
	15739 May 29 19:14	0°♋	
max. Earth dist.	15739 Jun 03 16:29	3°♋12'58	2.60519 AU
conjunction	15739 Jun 27 01:11	18°♋48'55	-0°52'49
minimum elong	15739 Jun 27 02:41	18°♋51'27	0°53'37
	15739 Jul 13 10:54	0°♌	
morning rise	15739 Aug 14 23:50	22°♌46'35	
	15739 Aug 25 01:55	0°♍	
asc. node	15739 Sep 26 03:52	23°♍29'28	
	15739 Oct 04 20:56	0°♎	
	15739 Nov 13 06:11	0°♏	
	15739 Dec 21 21:40	0°♐	
	15740 Jan 29 18:14	0°♑	
	15740 Mar 10 04:34	0°♒	
	15740 Apr 23 14:33	0°♓	
	15740 Jun 21 14:46	0°♈	
desc. node	15740 Jul 22 07:44	5°♈54'56	
retrograde	15740 Jul 23 05:51	5°♈55'17	
	15740 Aug 21 23:55	30°℞♓	
min. Earth dist.	15740 Aug 26 21:47	28°♓08'23	0.60978 AU
opposition	15740 Sep 01 09:23	25°♓59'20	-1°46'13
greatest brilliancy	15740 Aug 31 23:42	26°♓08'49	-1.6m
direct	15740 Oct 09 12:19	17°♓15'30	
	15740 Dec 01 08:48	0°♈	
	15741 Jan 31 06:25	0°♉	
	15741 Mar 23 18:21	0°♊	
	15741 May 10 06:41	0°♋	
evening set	15741 Jun 20 03:31	27°♋27'35	
	15741 Jun 23 19:34	0°♌	
max. Earth dist.	15741 Jul 04 08:30	7°♌22'00	2.48961 AU
	15741 Aug 04 20:27	0°♍	
conjunction	15741 Aug 11 22:08	5°♍12'13	-0°00'37
minimum elong	15741 Aug 11 22:13	5°♍12'24	0°01'03
behind sun begin	15741 Aug 10 22:24	4°♍28'24	
behind sun end	15741 Aug 12 22:03	5°♍56'26	
asc. node	15741 Aug 12 18:59	5°♍50'45	

	15741 Sep 13	20:58	0°♎		
morning rise	15741 Oct 13	14:42	23°♎01'29		
	15741 Oct 22	12:17	0°♏		
	15741 Nov 29	12:50	0°♐		
greatest brilliancy	15741 Dec 18	02:12	14°♐36'41	1.2m	
	15742 Jan 06	19:53	0°♑		
	15742 Feb 15	09:09	0°♒		
	15742 Mar 29	08:02	0°♓		
	15742 May 14	12:19	0°♈		
desc. node	15742 Jun 09	08:45	14°♈52'19		
	15742 Jul 10	16:01	0°♉		
retrograde	15742 Aug 27	09:37	11°♉22'04		
min. Earth dist.	15742 Oct 05	13:54	2°♉07'54	0.67818 AU	
opposition	15742 Oct 07	06:47	1°♉27'27	-4°00'29	
greatest brilliancy	15742 Oct 06	23:40	1°♉34'29	-1.3m	
	15742 Oct 10	23:46	30°℞♈		
direct	15742 Nov 16	21:43	21°♈52'00		
	15742 Dec 27	19:52	0°♉		
	15743 Mar 01	08:38	0°♊		
	15743 Apr 20	11:37	0°♋		
	15743 Jun 04	15:05	0°♌		
asc. node	15743 Jun 30	11:50	18°♌17'15		
	15743 Jul 16	12:56	0°♍		
evening set	15743 Aug 12	07:45	20°♍07'05		
	15743 Aug 25	04:28	0°♎		
	15743 Oct 02	10:59	0°♏		
max. Earth dist.	15743 Oct 11	03:59	6°♏54'18	2.36158 AU	
conjunction	15743 Oct 20	02:58	14°♏01'14	1°03'10	
minimum elong	15743 Oct 19	23:57	13°♏55'13	1°03'40	
	15743 Nov 09	06:02	0°♐		
	15743 Dec 17	11:13	0°♑		
morning rise	15744 Jan 02	15:12	12°♑25'49		
	15744 Jan 25	23:15	0°♒		
	15744 Mar 07	12:43	0°♓		
	15744 Apr 20	21:57	0°♈		
desc. node	15744 Apr 26	03:16	3°♈22'43		
	15744 Jun 08	10:22	0°♉		
	15744 Aug 05	12:38	0°♊		
retrograde	15744 Sep 29	16:53	13°♊51'28		
opposition	15744 Nov 08	22:13	4°♊26'01	-4°52'17	
greatest brilliancy	15744 Nov 09	06:26	4°♊17'57	-1.3m	
min. Earth dist.	15744 Nov 11	02:59	3°♊34'14	0.67888 AU	
	15744 Nov 20	15:05	30°℞♉		
direct	15744 Dec 20	12:15	24°♉26'02		
	15745 Jan 22	00:52	0°♊		
	15745 Mar 27	02:06	0°♋		
	15745 May 13	18:59	0°♌		
asc. node	15745 May 17	11:08	2°♌29'02		
	15745 Jun 25	07:50	0°♍		
	15745 Aug 04	00:35	0°♎		
	15745 Sep 11	05:53	0°♏		
greatest brilliancy	15745 Oct 03	22:43	18°♏00'48	1.1m	
	15745 Oct 19	02:06	0°♐		
evening set	15745 Oct 26	12:22	5°♐51'26		
	15745 Nov 26	12:19	0°♑		
conjunction	15746 Jan 03	01:25	28°♑19'27	0°42'09	
minimum elong	15746 Jan 03	04:13	28°♑24'38	0°42'53	
	15746 Jan 05	07:57	0°♒		
max. Earth dist.	15746 Feb 15	10:54	29°♒31'51	2.49053 AU	
	15746 Feb 16	03:00	0°♓		
morning rise	15746 Mar 02	08:24	9°♓51'21		
desc. node	15746 Mar 13	18:40	17°♓38'41		
	15746 Apr 01	05:50	0°♈		
	15746 May 17	22:54	0°♉		
	15746 Jul 07	00:36	0°♊		
	15746 Sep 02	09:16	0°♋		
retrograde	15746 Nov 06	23:56	18°♋13'04		
opposition	15746 Dec 15	04:54	9°♋40'41	-4°19'30	
greatest brilliancy	15746 Dec 16	04:07	9°♋18'28	-1.6m	
min. Earth dist.	15746 Dec 21	05:53	7°♋22'13	0.61109 AU	
	15747 Jan 19	11:04	30°℞♊		
direct	15747 Jan 25	02:36	29°♊47'20		
	15747 Jan 30	20:50	0°♋		
asc. node	15747 Apr 04	16:25	22°♋36'46		
	15747 Apr 17	15:26	0°♌		
	15747 Jun 02	11:38	0°♍		
	15747 Jul 13	05:25	0°♎		
	15747 Aug 20	22:31	0°♏		
	15747 Sep 28	05:26	0°♐		
	15747 Nov 06	05:02	0°♑		
	15747 Dec 16	16:31	0°♒		
evening set	15748 Jan 01	13:46	11°♒24'15		
	15748 Jan 28	02:41	0°♓		
desc. node	15748 Jan 29	08:56	0°♓52'11		
conjunction	15748 Feb 24	04:56	18°♓26'21	-0°15'47	
minimum elong	15748 Feb 24	04:13	18°♓25'09	0°15'31	
behind sun begin	15748 Feb 23	23:42	18°♓17'34		
behind sun end	15748 Feb 24	08:44	18°♓32'44		
	15748 Mar 12	13:45	0°♈		
max. Earth dist.	15748 Mar 18	00:25	3°♈35'08	2.60773 AU	
morning rise	15748 Apr 12	00:49	19°♈51'04		
	15748 Apr 27	21:34	0°♉		
	15748 Jun 14	21:29	0°♊		
	15748 Aug 03	19:12	0°♋		
	15748 Sep 26	11:11	0°♌		
	15748 Dec 13	00:06	0°♍		
retrograde	15748 Dec 25	20:21	0°♍58'10		
	15749 Jan 07	06:21	30°℞♌		
opposition	15749 Jan 29	05:25	24°♌01'23	-1°15'24	
greatest brilliancy	15749 Jan 29	17:09	23°♌51'11	-2.3m	
min. Earth dist.	15749 Feb 06	22:43	21°♌00'14	0.48363 AU	
asc. node	15749 Feb 19	23:41	17°♌16'00		
direct	15749 Mar 07	19:06	15°♌30'05		
	15749 Apr 26	18:23	0°♍		
	15749 Jun 14	14:34	0°♎		
	15749 Jul 26	01:12	0°♏		
	15749 Sep 04	00:02	0°♐		
	15749 Oct 14	09:36	0°♑		
	15749 Nov 25	04:52	0°♒		
desc. node	15749 Dec 16	03:26	14°♒34'10		
	15750 Jan 07	19:00	0°♓		
evening set	15750 Feb 16	02:16	26°♓05'09		
	15750 Feb 22	02:11	0°♈		
conjunction	15750 Apr 03	10:36	26°♈00'36	-0°56'18	
minimum elong	15750 Apr 03	09:19	25°♈58'33	0°56'35	
	15750 Apr 09	16:40	0°♉		
max. Earth dist.	15750 Apr 10	20:27	0°♉44'15	2.67279 AU	
morning rise	15750 May 17	02:51	23°♉43'42		
	15750 May 27	01:25	0°♊		
	15750 Jul 13	17:34	0°♋		
	15750 Aug 30	13:24	0°♌		
	15750 Oct 17	19:43	0°♍		
	15750 Dec 06	21:09	0°♎		
asc. node	15751 Jan 08	05:08	17°♎31'51		
	15751 Feb 06	00:30	0°♏		
retrograde	15751 Mar 10	18:17	6°♏13'15		
opposition	15751 Apr 09	04:19	1°♏21'14	6°03'59	
greatest brilliancy	15751 Apr 09	14:17	1°♏14'35	-3.0m	
min. Earth dist.	15751 Apr 11	15:07	0°♏42'00	0.36786 AU	
	15751 Apr 14	06:57	30°℞♎		

direct	15751 May 09 03:22	26°♎12'54	
	15751 Jun 02 05:11	0°♏	
	15751 Aug 01 13:23	0°♐	
	15751 Sep 17 08:39	0°♑	
	15751 Nov 01 23:10	0°♒	
desc. node	15751 Nov 03 05:11	0°♒49'11	
	15751 Dec 18 02:50	0°♓	
	15752 Feb 03 02:07	0°♈	
	15752 Mar 21 13:35	0°♉	
evening set	15752 Mar 24 14:10	1°♉54'29	
max. Earth dist.	15752 May 02 01:04	26°♉13'15	2.68262 AU
conjunction	15752 May 07 07:24	29°♉33'47	-1°13'10
minimum elong	15752 May 07 07:08	29°♉33'21	1°13'51
	15752 May 07 23:54	0°♊	
morning rise	15752 Jun 19 10:35	27°♊10'36	
	15752 Jun 23 19:26	0°♋	
	15752 Aug 08 14:33	0°♌	
	15752 Sep 22 03:59	0°♍	
	15752 Nov 04 10:39	0°♎	
asc. node	15752 Nov 25 06:24	14°♎43'00	
	15752 Dec 16 16:45	0°♏	
	15753 Jan 27 20:32	0°♐	
	15753 Mar 13 21:32	0°♑	
retrograde	15753 May 22 14:19	26°♑19'01	
min. Earth dist.	15753 Jun 18 05:13	21°♑26'52	0.42929 AU
greatest brilliancy	15753 Jun 25 01:50	19°♑11'05	-2.6m
opposition	15753 Jun 26 08:35	18°♑45'28	4°46'41
direct	15753 Jul 28 02:56	12°♑34'56	
desc. node	15753 Sep 20 11:29	27°♑08'28	
	15753 Sep 26 17:27	0°♒	
	15753 Nov 22 05:04	0°♓	
	15754 Jan 12 08:18	0°♈	
	15754 Mar 02 18:59	0°♉	
	15754 Apr 19 22:35	0°♊	
evening set	15754 Apr 28 13:06	5°♊27'31	
max. Earth dist.	15754 May 24 18:48	22°♊18'47	2.63763 AU
	15754 Jun 05 13:46	0°♋	
conjunction	15754 Jun 11 21:26	4°♋09'06	-1°04'11
minimum elong	15754 Jun 11 22:34	4°♋10'57	1°05'01
	15754 Jul 20 10:44	0°♌	
morning rise	15754 Jul 28 02:56	5°♌15'32	
	15754 Sep 01 11:19	0°♍	
asc. node	15754 Oct 12 23:38	0°♎10'37	
	15754 Oct 12 17:54	0°♎	
	15754 Nov 21 14:36	0°♏	
	15754 Dec 30 16:54	0°♐	
	15755 Feb 08 01:41	0°♑	
	15755 Mar 21 11:02	0°♒	
	15755 May 08 04:55	0°♓	
retrograde	15755 Jul 09 03:42	20°♓08'08	
desc. node	15755 Aug 08 18:59	13°♓46'56	
min. Earth dist.	15755 Aug 10 16:10	13°♓04'28	0.56592 AU
opposition	15755 Aug 17 12:08	10°♓26'20	-0°24'43
greatest brilliancy	15755 Aug 17 09:18	10°♓29'04	-1.8m
direct	15755 Sep 23 04:23	2°♓13'20	
	15755 Dec 17 03:16	0°♈	
	15756 Feb 10 02:16	0°♉	
	15756 Mar 31 03:54	0°♊	
	15756 May 17 06:14	0°♋	
evening set	15756 Jun 03 18:22	11°♋35'45	
max. Earth dist.	15756 Jun 20 12:37	22°♋55'54	2.54009 AU
	15756 Jun 30 19:12	0°♌	
conjunction	15756 Jul 22 20:00	15°♌27'28	-0°24'46
minimum elong	15756 Jul 22 21:15	15°♌29'42	0°25'23
	15756 Aug 12 00:55	0°♍	
asc. node	15756 Aug 29 13:03	12°♍52'36	
morning rise	15756 Sep 16 16:48	26°♍29'12	
	15756 Sep 21 08:01	0°♎	
	15756 Oct 30 05:27	0°♏	
	15756 Dec 07 10:39	0°♐	
	15757 Jan 14 21:01	0°♑	
	15757 Feb 23 14:18	0°♒	
	15757 Apr 07 00:47	0°♓	
	15757 May 25 01:55	0°♈	
desc. node	15757 Jun 25 23:59	16°♈07'45	
retrograde	15757 Aug 14 02:13	28°♈25'49	
min. Earth dist.	15757 Sep 20 15:51	19°♈42'41	0.65908 AU
opposition	15757 Sep 23 21:09	18°♈26'14	-3°19'49
greatest brilliancy	15757 Sep 23 10:35	18°♈36'40	-1.4m
direct	15757 Nov 02 17:14	9°♈07'15	
	15758 Jan 13 05:32	0°♉	
	15758 Mar 10 08:18	0°♊	
	15758 Apr 28 02:46	0°♋	
	15758 Jun 11 22:19	0°♌	
asc. node	15758 Jul 17 04:54	25°♌07'38	
evening set	15758 Jul 20 03:21	27°♌16'30	
	15758 Jul 23 20:21	0°♍	
max. Earth dist.	15758 Aug 05 21:18	9°♍41'14	2.40421 AU
	15758 Sep 01 14:44	0°♎	
conjunction	15758 Sep 19 20:14	14°♎09'03	0°42'34
minimum elong	15758 Sep 19 16:48	14°♎02'20	0°42'39
	15758 Oct 10 00:00	0°♏	
	15758 Nov 16 20:32	0°♐	
morning rise	15758 Dec 02 11:34	12°♐20'38	
	15758 Dec 25 01:37	0°♑	
	15759 Feb 02 12:40	0°♒	
	15759 Mar 16 02:58	0°♓	
	15759 Apr 29 21:15	0°♈	
desc. node	15759 May 13 21:39	8°♈49'25	
	15759 Jun 19 01:19	0°♉	
	15759 Sep 01 06:56	0°♊	
retrograde	15759 Sep 17 03:48	1°♊26'37	
	15759 Oct 02 04:32	30°℞♉	
opposition	15759 Oct 27 19:02	21°♉47'18	-4°41'14
greatest brilliancy	15759 Oct 27 20:33	21°♉45'48	-1.2m
min. Earth dist.	15759 Oct 28 10:54	21°♉31'39	0.68673 AU
direct	15759 Dec 08 04:24	11°♉54'07	
	15760 Feb 10 16:13	0°♊	
	15760 Apr 05 14:59	0°♋	
	15760 May 21 22:43	0°♌	
asc. node	15760 Jun 03 02:25	8°♌24'24	
	15760 Jul 03 03:08	0°♍	
	15760 Aug 11 18:18	0°♎	
	15760 Sep 18 23:09	0°♏	
evening set	15760 Sep 25 00:14	4°♏47'48	
	15760 Oct 26 17:57	0°♐	
	15760 Dec 04 01:08	0°♑	
conjunction	15760 Dec 07 04:27	2°♑25'15	1°01'13
minimum elong	15760 Dec 07 07:22	2°♑30'52	1°02'02
	15761 Jan 12 16:26	0°♒	
max. Earth dist.	15761 Jan 28 03:03	11°♒18'57	2.43399 AU
morning rise	15761 Feb 10 04:07	20°♒42'14	
	15761 Feb 23 07:39	0°♓	
desc. node	15761 Mar 30 12:26	24°♓05'18	
	15761 Apr 08 10:12	0°♈	
	15761 May 25 13:25	0°♉	
	15761 Jul 16 08:07	0°♊	
	15761 Sep 22 19:34	0°♋	
retrograde	15761 Oct 22 05:57	4°♋29'46	

	15761 Nov 18 04:09	30°℞♊	
opposition	15761 Nov 30 10:18	25°♊33'07	-4°44'24
greatest brilliancy	15761 Dec 01 04:40	25°♊15'18	-1.4m
min. Earth dist.	15761 Dec 04 23:54	23°♊46'56	0.64558 AU
direct	15762 Jan 10 20:05	15°♊32'05	
	15762 Mar 06 03:47	0°♋	
asc. node	15762 Apr 21 04:42	25°♋14'38	
	15762 Apr 28 17:56	0°♌	
	15762 Jun 11 15:55	0°♍	
	15762 Jul 21 19:33	0°♎	
	15762 Aug 29 05:50	0°♏	
	15762 Oct 06 06:55	0°♐	
	15762 Nov 13 23:43	0°♑	
evening set	15762 Dec 09 13:16	19°♑15'16	
	15762 Dec 24 03:18	0°♒	
	15763 Feb 04 05:51	0°♓	
conjunction	15763 Feb 06 03:05	1°♓18'30	0°05'41
minimum elong	15763 Feb 06 03:25	1°♓19'04	0°06'09
behind sun begin	15763 Feb 05 06:18	0°♓42'27	
behind sun end	15763 Feb 07 00:32	1°♓55'39	
desc. node	15763 Feb 15 03:07	7°♓31'08	
max. Earth dist.	15763 Mar 08 06:01	21°♓50'41	2.56758 AU
	15763 Mar 20 11:45	0°♈	
morning rise	15763 Mar 29 00:40	5°♈37'37	
	15763 May 05 20:27	0°♉	
	15763 Jun 23 09:14	0°♊	
	15763 Aug 14 00:13	0°♋	
	15763 Oct 13 09:21	0°♌	
retrograde	15763 Dec 05 06:38	12°♌51'28	
opposition	15764 Jan 10 10:23	5°♌10'08	-2°53'45
greatest brilliancy	15764 Jan 11 09:00	4°♌49'22	-1.9m
min. Earth dist.	15764 Jan 18 11:23	2°♌13'52	0.53869 AU
	15764 Jan 25 01:52	30°℞♋	
direct	15764 Feb 18 18:26	25°♋52'10	
asc. node	15764 Mar 08 12:17	28°♋08'24	
	15764 Mar 15 10:10	0°♌	
	15764 May 14 04:38	0°♍	
	15764 Jun 26 11:54	0°♎	
	15764 Aug 05 06:42	0°♏	
	15764 Sep 13 07:01	0°♐	
	15764 Oct 22 22:47	0°♑	
	15764 Dec 03 02:11	0°♒	
desc. node	15765 Jan 01 19:29	20°♒52'02	
	15765 Jan 15 02:49	0°♓	
evening set	15765 Jan 30 13:42	10°♓27'48	
	15765 Mar 01 00:03	0°♈	
conjunction	15765 Mar 20 00:48	12°♈24'10	-0°43'20
minimum elong	15765 Mar 19 23:27	12°♈21'59	0°43'25
max. Earth dist.	15765 Apr 02 00:07	20°♈46'17	2.65386 AU
	15765 Apr 16 10:05	0°♉	
morning rise	15765 May 03 19:48	11°♉03'30	
	15765 Jun 02 22:07	0°♊	
	15765 Jul 21 05:25	0°♋	
	15765 Sep 08 12:45	0°♌	
	15765 Oct 30 04:51	0°♍	
	15766 Jan 01 02:05	0°♎	
asc. node	15766 Jan 24 19:44	6°♎04'17	
retrograde	15766 Feb 05 23:35	6°♎59'00	
opposition	15766 Mar 08 23:42	1°♎27'53	2°57'15
greatest brilliancy	15766 Mar 09 16:29	1°♎15'17	-2.8m
	15766 Mar 13 20:40	30°℞♍	
min. Earth dist.	15766 Mar 15 20:20	29°♍24'53	0.40020 AU
direct	15766 Apr 11 03:24	24°♍59'13	
	15766 May 08 11:37	0°♎	
	15766 Jul 03 23:33	0°♏	
	15766 Aug 17 00:45	0°♐	
	15766 Sep 28 18:53	0°♑	
	15766 Nov 11 06:37	0°♒	
desc. node	15766 Nov 19 17:12	5°♒43'13	
	15766 Dec 26 02:55	0°♓	
	15767 Feb 10 06:41	0°♈	
evening set	15767 Mar 11 15:00	18°♈45'19	
	15767 Mar 29 07:52	0°♉	
conjunction	15767 Apr 24 22:55	16°♉52'26	-1°09'35
minimum elong	15767 Apr 24 22:09	16°♉51'13	1°10'08
max. Earth dist.	15767 Apr 24 13:17	16°♉37'10	2.68543 AU
	15767 May 15 15:51	0°♊	
morning rise	15767 Jun 06 21:46	14°♊08'39	
	15767 Jul 01 17:10	0°♋	
	15767 Aug 17 03:00	0°♌	
	15767 Oct 01 17:08	0°♍	
	15767 Nov 15 12:54	0°♎	
asc. node	15767 Dec 12 21:55	18°♎26'54	
	15767 Dec 30 03:20	0°♏	
	15768 Feb 14 20:55	0°♐	
retrograde	15768 Apr 27 15:04	27°♐28'46	
min. Earth dist.	15768 May 23 12:06	23°♐11'18	0.38379 AU
greatest brilliancy	15768 May 28 03:47	21°♐50'29	-2.9m
opposition	15768 May 29 10:22	21°♐28'15	6°50'26
direct	15768 Jun 28 01:09	16°♐16'00	
	15768 Aug 18 08:01	0°♑	
desc. node	15768 Oct 06 22:45	26°♑14'43	
	15768 Oct 13 10:04	0°♒	
	15768 Dec 02 11:24	0°♓	
	15769 Jan 20 09:55	0°♈	
	15769 Mar 09 21:26	0°♉	
evening set	15769 Apr 14 23:15	22°♉35'46	
	15769 Apr 26 16:11	0°♊	
max. Earth dist.	15769 May 15 15:11	12°♊05'27	2.66163 AU
conjunction	15769 May 28 16:28	20°♊29'33	-1°11'00
minimum elong	15769 May 28 17:04	20°♊30'32	1°11'48
	15769 Jun 12 07:41	0°♋	
morning rise	15769 Jul 12 04:13	19°♋42'36	
	15769 Jul 27 11:41	0°♌	
	15769 Sep 08 23:57	0°♍	
	15769 Oct 20 21:11	0°♎	
asc. node	15769 Oct 29 17:26	6°♎28'30	
	15769 Nov 30 09:36	0°♏	
	15770 Jan 09 04:51	0°♐	
	15770 Feb 18 12:49	0°♑	
	15770 Apr 03 02:55	0°♒	
	15770 Jun 05 06:02	0°♓	
retrograde	15770 Jun 22 12:07	2°♓03'29	
	15770 Jul 09 06:34	30°℞♒	
min. Earth dist.	15770 Jul 22 16:54	25°♒48'50	0.51463 AU
opposition	15770 Jul 30 14:28	22°♒52'03	1°19'24
greatest brilliancy	15770 Jul 30 05:21	23°♒00'34	-2.1m
desc. node	15770 Aug 25 07:40	15°♒52'17	
direct	15770 Sep 03 12:24	15°♒18'53	
	15770 Oct 29 21:06	0°♓	
	15770 Dec 28 04:30	0°♈	
	15771 Feb 18 04:08	0°♉	
	15771 Apr 08 06:51	0°♊	
evening set	15771 May 20 15:57	27°♊04'47	
	15771 May 25 03:04	0°♋	
max. Earth dist.	15771 Jun 09 19:32	10°♋22'32	2.58419 AU
conjunction	15771 Jul 06 05:40	28°♋15'44	-0°44'01
minimum elong	15771 Jul 06 07:14	28°♋18'25	0°44'47
	15771 Jul 08 18:17	0°♌	

	15771 Aug 20	06:21	0°♍		
morning rise	15771 Aug 26	04:33	4°♍17'44		
asc. node	15771 Sep 16	08:52	19°♍52'42		
	15771 Sep 29	21:23	0°♎		
	15771 Nov 08	02:13	0°♏		
	15771 Dec 16	13:23	0°♐		
	15772 Jan 24	05:00	0°♑		
	15772 Mar 04	06:15	0°♒		
	15772 Apr 16	15:15	0°♓		
	15772 Jun 07	22:25	0°♈		
desc. node	15772 Jul 12	13:03	12°♈32'03		
retrograde	15772 Jul 31	08:48	14°♈44'15		
min. Earth dist.	15772 Sep 05	03:24	6°♈36'00	0.63008 AU	
opposition	15772 Sep 09	20:08	4°♈44'58	-2°25'26	
greatest brilliancy	15772 Sep 09	08:56	4°♈56'00	-1.5m	
	15772 Sep 22	20:08	30°℞♓		
direct	15772 Oct 18	15:55	25°♓46'57		
	15772 Nov 15	23:42	0°♈		
	15773 Jan 24	17:00	0°♉		
	15773 Mar 18	11:54	0°♊		
	15773 May 05	09:59	0°♋		
	15773 Jun 19	01:34	0°♌		
evening set	15773 Jun 30	07:26	7°♌51'50		
max. Earth dist.	15773 Jul 14	01:38	17°♌39'00	2.45960 AU	
	15773 Jul 31	01:53	0°♍		
asc. node	15773 Aug 02	22:40	2°♍06'22		
conjunction	15773 Aug 24	18:52	18°♍23'58	0°15'03	
minimum elong	15773 Aug 24	17:45	18°♍21'52	0°14'47	
behind sun begin	15773 Aug 24	07:12	18°♍01'57		
behind sun end	15773 Aug 25	04:18	18°♍41'47		
	15773 Sep 09	00:47	0°♎		
	15773 Oct 17	14:11	0°♏		
morning rise	15773 Oct 30	18:52	10°♏24'30		
	15773 Nov 24	13:12	0°♐		
	15774 Jan 01	19:04	0°♑		
	15774 Feb 10	06:17	0°♒		
	15774 Mar 23	23:46	0°♓		
	15774 May 08	10:17	0°♈		
desc. node	15774 May 30	13:30	13°♈18'28		
	15774 Jun 30	17:59	0°♉		
retrograde	15774 Sep 03	21:42	19°♉02'47		
opposition	15774 Oct 14	18:30	9°♉12'37	-4°19'02	
min. Earth dist.	15774 Oct 13	21:49	9°♉33'04	0.68412 AU	
greatest brilliancy	15774 Oct 14	14:06	9°♉16'59	-1.2m	
	15774 Nov 15	16:31	30°℞♈		
direct	15774 Nov 24	17:53	29°♈29'44		
	15774 Dec 04	02:10	0°♉		
	15775 Feb 22	16:52	0°♊		
	15775 Apr 15	03:20	0°♋		
	15775 May 30	15:55	0°♌		
asc. node	15775 Jun 20	17:50	14°♌47'55		
	15775 Jul 11	16:01	0°♍		
	15775 Aug 20	07:34	0°♎		
evening set	15775 Aug 27	07:23	5°♎25'33		
	15775 Sep 27	13:25	0°♏		
	15775 Nov 04	08:09	0°♐		
conjunction	15775 Nov 07	06:35	2°♐19'28	1°07'50	
minimum elong	15775 Nov 07	05:56	2°♐18'11	1°08'33	
	15775 Dec 12	13:39	0°♑		
max. Earth dist.	15775 Dec 26	16:10	10°♑51'10	2.37872 AU	
morning rise	15776 Jan 18	05:19	27°♑52'11		
	15776 Jan 21	02:04	0°♒		
	15776 Mar 02	14:55	0°♓		
	15776 Apr 15	19:45	0°♈		
desc. node	15776 Apr 16	07:18	0°♈18'55		
	15776 Jun 02	15:36	0°♉		
	15776 Jul 27	10:33	0°♊		
retrograde	15776 Oct 07	15:08	21°♊31'46		
opposition	15776 Nov 16	13:22	12°♊15'22	-4°53'14	
greatest brilliancy	15776 Nov 17	01:19	12°♊03'40	-1.3m	
min. Earth dist.	15776 Nov 19	14:27	11°♊03'57	0.67009 AU	
direct	15776 Dec 28	04:05	2°♊13'30		
	15777 Mar 20	00:28	0°♋		
asc. node	15777 May 07	19:37	29°♋45'17		
	15777 May 08	04:30	0°♌		
	15777 Jun 20	03:07	0°♍		
	15777 Jul 29	23:14	0°♎		
	15777 Sep 06	05:44	0°♏		
	15777 Oct 14	02:53	0°♐		
evening set	15777 Nov 12	12:22	22°♐59'33		
	15777 Nov 21	14:32	0°♑		
	15777 Dec 31	11:52	0°♒		
conjunction	15778 Jan 16	09:44	11°♒35'07	0°28'55	
minimum elong	15778 Jan 16	11:39	11°♒38'34	0°29'34	
	15778 Feb 11	08:25	0°♓		
max. Earth dist.	15778 Feb 23	18:42	8°♓36'51	2.52003 AU	
desc. node	15778 Mar 03	20:37	14°♓08'45		
morning rise	15778 Mar 12	14:40	20°♓04'33		
	15778 Mar 27	11:04	0°♈		
	15778 May 12	23:19	0°♉		
	15778 Jul 01	07:34	0°♊		
	15778 Aug 24	19:01	0°♋		
retrograde	15778 Nov 16	14:42	27°♋01'01		
opposition	15778 Dec 24	04:34	18°♋44'35	-3°55'33	
greatest brilliancy	15778 Dec 25	04:59	18°♋21'29	-1.7m	
min. Earth dist.	15778 Dec 31	00:19	16°♋10'11	0.58790 AU	
direct	15779 Feb 02	16:30	8°♋59'57		
asc. node	15779 Mar 26	00:45	22°♋55'49		
	15779 Apr 08	22:57	0°♌		
	15779 May 27	02:17	0°♍		
	15779 Jul 07	11:44	0°♎		
	15779 Aug 15	11:44	0°♏		
	15779 Sep 22	23:09	0°♐		
	15779 Nov 01	02:55	0°♑		
	15779 Dec 11	18:21	0°♒		
evening set	15780 Jan 13	03:10	22°♒56'18		
desc. node	15780 Jan 19	11:51	27°♒21'02		
	15780 Jan 23	08:04	0°♓		
conjunction	15780 Mar 04	14:56	27°♓50'28	-0°26'54	
minimum elong	15780 Mar 04	13:52	27°♓48'41	0°26'46	
	15780 Mar 07	21:23	0°♈		
max. Earth dist.	15780 Mar 23	19:18	10°♈25'36	2.62638 AU	
morning rise	15780 Apr 20	03:50	28°♈03'41		
	15780 Apr 23	04:46	0°♉		
	15780 Jun 09	22:50	0°♊		
	15780 Jul 29	03:29	0°♋		
	15780 Sep 18	17:45	0°♌		
	15780 Nov 17	05:30	0°♍		
retrograde	15781 Jan 08	18:55	13°♍04'42		
opposition	15781 Feb 10	22:30	6°♍37'16	0°02'18	
asc. node	15781 Feb 10	07:45	6°♍49'30		
greatest brilliancy	15782 Jun 19	21:33	18°♊01'59	1.8m	
min. Earth dist.	15781 Feb 19	12:47	3°♍45'59	0.45213 AU	
	15781 Mar 05	18:10	30°℞♌		
direct	15781 Mar 19	04:44	28°♌43'01		
	15781 Apr 01	16:47	0°♍		
	15781 Jun 05	08:45	0°♎		
	15781 Jul 18	19:26	0°♏		
	15781 Aug 28	15:29	0°♐		
	15781 Oct 08	15:10	0°♑		

	15781 Nov 19 21:13	0°♒	
desc. node	15781 Dec 06 08:48	11°♒23'35	
	15782 Jan 02 19:38	0°♓	
	15782 Feb 17 08:28	0°♈	
evening set	15782 Feb 24 21:35	4°♈53'19	
	15782 Apr 05 01:40	0°♉	
conjunction	15782 Apr 11 08:55	4°♉00'37	-1°02'17
minimum elong	15782 Apr 11 07:46	3°♉58'47	1°02'40
max. Earth dist.	15782 Apr 15 21:59	6°♉53'55	2.67955 AU
	15782 May 22 09:14	0°♊	
morning rise	15782 May 24 15:50	1°♊26'18	
	15782 Jul 08 19:12	0°♋	
	15782 Aug 25 00:56	0°♌	
	15782 Oct 11 02:54	0°♍	
	15782 Nov 27 14:00	0°♎	
asc. node	15782 Dec 29 13:21	19°♎30'06	
	15783 Jan 16 20:47	0°♏	
retrograde	15783 Mar 29 09:23	24°♏55'13	
opposition	15783 Apr 27 23:51	19°♏59'17	7°08'26
min. Earth dist.	15783 Apr 27 04:15	20°♏12'17	0.36364 AU
greatest brilliancy	15783 Apr 27 18:19	20°♏02'57	-3.0m
direct	15783 May 27 04:10	15°♏09'50	
	15783 Jul 17 23:10	0°♐	
	15783 Sep 08 18:11	0°♑	
desc. node	15783 Oct 24 11:01	28°♑46'55	
	15783 Oct 26 08:55	0°♒	
	15783 Dec 12 12:47	0°♓	
	15784 Jan 29 01:38	0°♈	
	15784 Mar 16 20:20	0°♉	
evening set	15784 Apr 01 09:49	9°♉47'21	
	15784 May 03 08:58	0°♊	
max. Earth dist.	15784 May 07 00:41	2°♊19'24	2.67737 AU
conjunction	15784 May 14 24:00	7°♊24'10	-1°13'34
minimum elong	15784 May 15 00:02	7°♊24'14	1°14'18
	15784 Jun 19 02:44	0°♋	
morning rise	15784 Jun 27 11:06	5°♋26'04	
	15784 Aug 03 16:08	0°♌	
	15784 Sep 16 19:50	0°♍	
	15784 Oct 29 13:07	0°♎	
asc. node	15784 Nov 15 11:22	12°♎09'02	
	15784 Dec 10 01:08	0°♏	
	15785 Jan 20 01:38	0°♐	
	15785 Mar 03 11:24	0°♑	
	15785 Apr 23 08:56	0°♒	
retrograde	15785 Jun 03 14:15	10°♒42'02	
min. Earth dist.	15785 Jul 01 09:59	5°♒21'03	0.45905 AU
opposition	15785 Jul 09 18:43	2°♒25'31	3°27'22
greatest brilliancy	15785 Jul 08 18:48	2°♒46'31	-2.4m
	15785 Jul 17 00:46	30°℞♑	
direct	15785 Aug 11 16:05	25°♑42'58	
	15785 Sep 08 03:18	0°♒	
desc. node	15785 Sep 10 18:28	0°♒46'54	
	15785 Nov 14 12:12	0°♓	
	15786 Jan 06 13:55	0°♈	
	15786 Feb 25 18:34	0°♉	
	15786 Apr 15 05:29	0°♊	
evening set	15786 May 06 10:04	13°♊27'58	
max. Earth dist.	15786 May 30 08:07	28°♊57'21	2.62062 AU
	15786 May 31 22:22	0°♋	
conjunction	15786 Jun 20 09:10	12°♋51'53	-0°58'12
minimum elong	15786 Jun 20 10:32	12°♋54'10	0°59'01
	15786 Jul 15 17:22	0°♌	
morning rise	15786 Aug 06 23:44	15°♌25'36	
	15786 Aug 27 13:24	0°♍	
asc. node	15786 Oct 03 03:19	26°♍41'06	
	15786 Oct 07 14:16	0°♎	
	15786 Nov 16 04:54	0°♏	
	15786 Dec 25 00:52	0°♐	
	15787 Feb 02 01:44	0°♑	
	15787 Mar 14 18:45	0°♒	
	15787 Apr 29 02:55	0°♓	
retrograde	15787 Jul 17 20:53	29°♓49'18	
desc. node	15787 Jul 30 02:25	28°♓46'09	
min. Earth dist.	15787 Aug 20 14:35	22°♓21'15	0.59123 AU
opposition	15787 Aug 26 17:18	19°♓58'23	-1°14'33
greatest brilliancy	15787 Aug 26 09:40	20°♓05'49	-1.7m
direct	15787 Oct 03 06:14	11°♓27'22	
	15787 Dec 08 08:01	0°♈	
	15788 Feb 04 06:13	0°♉	
	15788 Mar 26 03:25	0°♊	
	15788 May 12 12:28	0°♋	
evening set	15788 Jun 12 20:12	20°♋53'19	
	15788 Jun 26 02:46	0°♌	
max. Earth dist.	15788 Jun 28 00:26	1°♌19'10	2.51290 AU
conjunction	15788 Aug 02 19:03	26°♌43'46	-0°11'30
minimum elong	15788 Aug 02 19:45	26°♌45'03	0°12'00
behind sun begin	15788 Aug 02 04:08	26°♌16'42	
behind sun end	15788 Aug 03 11:23	27°♌13'24	
	15788 Aug 07 06:51	0°♍	
asc. node	15788 Aug 19 18:40	9°♍11'11	
	15788 Sep 16 11:08	0°♎	
morning rise	15788 Oct 01 05:31	11°♎19'40	
	15788 Oct 25 05:32	0°♏	
	15788 Dec 02 07:57	0°♐	
	15789 Jan 09 15:49	0°♑	
	15789 Feb 18 05:24	0°♒	
	15789 Apr 01 06:29	0°♓	
	15789 May 17 23:08	0°♈	
desc. node	15789 Jun 16 04:32	16°♈08'58	
	15789 Jul 18 09:18	0°♉	
retrograde	15789 Aug 21 17:01	6°♉24'21	
	15789 Sep 22 11:05	30°℞♈	
min. Earth dist.	15789 Sep 29 05:20	27°♈23'32	0.67103 AU
opposition	15789 Oct 01 14:29	26°♈27'01	-3°45'22
greatest brilliancy	15789 Oct 01 05:31	26°♈35'53	-1.3m
direct	15789 Nov 10 22:10	16°♈58'19	
	15790 Jan 03 15:39	0°♉	
	15790 Mar 04 10:36	0°♊	
	15790 Apr 23 00:29	0°♋	
	15790 Jun 07 02:10	0°♌	
asc. node	15790 Jul 07 11:10	21°♌31'33	
	15790 Jul 19 01:23	0°♍	
evening set	15790 Aug 01 16:21	10°♍07'32	
	15790 Aug 27 19:12	0°♎	
max. Earth dist.	15790 Aug 27 18:59	29°♍59'36	2.37658 AU
	15790 Oct 05 03:23	0°♏	
conjunction	15790 Oct 06 08:38	0°♏57'51	0°55'49
minimum elong	15790 Oct 06 04:50	0°♏50'20	0°56'09
	15790 Nov 11 22:54	0°♐	
morning rise	15790 Dec 20 10:21	0°♑13'34	
	15790 Dec 20 03:21	0°♑	
	15791 Jan 28 13:43	0°♒	
	15791 Mar 11 01:37	0°♓	
	15791 Apr 24 12:09	0°♈	
desc. node	15791 May 03 23:57	6°♈05'32	
	15791 Jun 12 11:47	0°♉	
	15791 Aug 12 21:20	0°♊	
retrograde	15791 Sep 24 19:39	9°♊02'26	
	15791 Nov 03 00:25	30°℞♉	

opposition	15791 Nov 04 06:39	29°♉30'19	-4°49'11
greatest brilliancy	15791 Nov 04 11:51	29°♉25'12	-1.2m
min. Earth dist.	15791 Nov 05 19:05	28°♉54'31	0.68377 AU
direct	15791 Dec 15 19:59	19°♉32'51	
	15792 Jan 31 07:01	0°♊	
	15792 Mar 30 12:09	0°♋	
	15792 May 16 15:40	0°♌	
asc. node	15792 May 24 08:59	5°♌16'20	
	15792 Jun 28 02:02	0°♍	
	15792 Aug 06 19:06	0°♎	
	15792 Sep 14 00:37	0°♏	
evening set	15792 Oct 12 17:25	22°♏47'02	
	15792 Oct 21 20:00	0°♐	
	15792 Nov 29 04:13	0°♑	
conjunction	15792 Dec 22 20:22	18°♑03'00	0°51'18
minimum elong	15792 Dec 22 23:36	18°♑09'04	0°52'06
	15793 Jan 07 20:47	0°♒	
max. Earth dist.	15793 Feb 08 04:17	22°♒41'57	2.46560 AU
	15793 Feb 18 12:31	0°♓	
morning rise	15793 Feb 21 23:03	2°♓24'20	
desc. node	15793 Mar 20 15:47	20°♓43'02	
	15793 Apr 03 13:25	0°♈	
	15793 May 20 08:26	0°♉	
	15793 Jul 09 22:50	0°♊	
	15793 Sep 08 03:14	0°♋	
retrograde	15793 Oct 31 00:06	12°♋42'09	
opposition	15793 Dec 08 16:50	3°♋58'06	-4°31'59
greatest brilliancy	15793 Dec 09 14:06	3°♋37'37	-1.5m
min. Earth dist.	15793 Dec 14 02:38	1°♋53'21	0.62782 AU
	15793 Dec 19 05:00	30°℞♊	
direct	15794 Jan 18 21:39	24°♊00'13	
	15794 Feb 20 15:53	0°♋	
asc. node	15794 Apr 11 13:20	23°♋46'20	
	15794 Apr 21 23:06	0°♌	
	15794 Jun 05 22:06	0°♍	
	15794 Jul 16 10:02	0°♎	
	15794 Aug 24 00:10	0°♏	
	15794 Oct 01 03:54	0°♐	
	15794 Nov 08 23:33	0°♑	
	15794 Dec 19 06:18	0°♒	
evening set	15794 Dec 22 23:43	2°♒42'27	
	15795 Jan 30 11:37	0°♓	
desc. node	15795 Feb 05 06:19	3°♓59'36	
conjunction	15795 Feb 16 15:30	11°♓47'10	-0°07'06
minimum elong	15795 Feb 16 15:10	11°♓46'36	0°06'46
behind sun begin	15795 Feb 15 19:19	11°♓12'51	
behind sun end	15795 Feb 17 11:00	12°♓20'19	
max. Earth dist.	15795 Mar 14 14:21	29°♓12'30	2.59079 AU
	15795 Mar 15 19:02	0°♈	
morning rise	15795 Apr 06 17:10	14°♈21'45	
	15795 May 01 01:46	0°♉	
	15795 Jun 18 05:33	0°♊	
	15795 Aug 07 17:42	0°♋	
	15795 Oct 02 10:51	0°♌	
retrograde	15795 Dec 17 00:23	23°♌16'05	
opposition	15796 Jan 21 05:56	15°♌58'06	-2°02'15
greatest brilliancy	15796 Jan 21 23:41	15°♌42'15	-2.1m
min. Earth dist.	15796 Jan 29 18:22	12°♌56'12	0.50885 AU
asc. node	15796 Feb 27 20:42	7°♌03'06	
direct	15796 Feb 28 17:19	7°♌02'47	
	15796 May 04 18:59	0°♍	
	15796 Jun 19 11:54	0°♎	
	15796 Jul 30 02:10	0°♏	
	15796 Sep 07 13:06	0°♐	
	15796 Oct 17 12:58	0°♑	
	15796 Nov 27 23:27	0°♒	
desc. node	15796 Dec 22 23:18	17°♒29'15	
	15797 Jan 10 05:53	0°♓	
evening set	15797 Feb 09 03:37	20°♓01'49	
	15797 Feb 24 07:24	0°♈	
conjunction	15797 Mar 28 08:12	20°♈45'11	-0°51'23
minimum elong	15797 Mar 28 06:51	20°♈43'01	0°51'34
max. Earth dist.	15797 Apr 07 04:52	27°♈04'16	2.66534 AU
	15797 Apr 11 18:58	0°♉	
morning rise	15797 May 11 10:50	18°♉49'23	
	15797 May 29 04:25	0°♊	
	15797 Jul 16 02:31	0°♋	
	15797 Sep 02 12:02	0°♌	
	15797 Oct 21 23:18	0°♍	
	15797 Dec 14 06:43	0°♎	
asc. node	15798 Jan 15 02:17	14°♎36'12	
retrograde	15798 Feb 23 23:10	23°♎15'03	
opposition	15798 Mar 25 22:18	18°♎10'40	4°48'26
greatest brilliancy	15798 Mar 26 15:26	17°♎58'42	-2.9m
min. Earth dist.	15798 Mar 30 16:50	16°♎51'01	0.37894 AU
direct	15798 Apr 26 03:47	12°♎31'14	
	15798 Jun 20 11:47	0°♏	
	15798 Aug 08 09:21	0°♐	
	15798 Sep 21 21:58	0°♑	
	15798 Nov 05 09:42	0°♒	
desc. node	15798 Nov 09 23:44	3°♒03'34	
	15798 Dec 20 20:55	0°♓	
	15799 Feb 05 10:12	0°♈	
evening set	15799 Mar 19 15:42	26°♈49'04	
	15799 Mar 24 16:27	0°♉	
max. Earth dist.	15799 Apr 29 12:06	22°♉39'58	2.68494 AU
conjunction	15799 May 02 13:53	24°♉36'55	-1°12'12
minimum elong	15799 May 02 13:23	24°♉36'08	1°12'49
	15799 May 11 01:30	0°♊	
morning rise	15799 Jun 14 13:42	22°♊00'52	
	15799 Jun 26 23:50	0°♋	
	15799 Aug 12 01:33	0°♌	
	15799 Sep 26 01:35	0°♍	
	15799 Nov 08 23:16	0°♎	
asc. node	15799 Dec 03 04:35	16°♎49'14	
	15799 Dec 22 01:50	0°♏	
	15800 Feb 03 14:56	0°♐	
	15800 Mar 24 17:20	0°♑	
retrograde	15800 May 13 08:19	14°♑50'50	
min. Earth dist.	15800 Jun 08 08:06	10°♑18'06	0.40695 AU
greatest brilliancy	15800 Jun 14 10:23	8°♑23'59	-2.7m
opposition	15800 Jun 15 19:36	7°♑57'48	5°46'21
direct	15800 Jul 16 14:40	2°♑14'24	
desc. node	15800 Sep 28 05:43	26°♑27'35	
	15800 Oct 05 00:07	0°♒	
	15800 Nov 26 23:43	0°♓	
	15801 Jan 16 01:11	0°♈	
	15801 Mar 06 01:03	0°♉	
evening set	15801 Apr 23 16:28	0°♊24'40	
	15801 Apr 23 00:53	0°♊	
max. Earth dist.	15801 May 21 20:29	18°♊24'33	2.64944 AU
conjunction	15801 Jun 06 16:15	28°♊40'29	-1°07'37
minimum elong	15801 Jun 06 17:10	28°♊41'58	1°08'26
	15801 Jun 08 16:56	0°♋	
morning rise	15801 Jul 22 00:44	28°♋50'12	
	15801 Jul 23 17:52	0°♌	
	15801 Sep 05 00:28	0°♍	
	15801 Oct 16 14:04	0°♎	
asc. node	15801 Oct 20 23:08	3°♎13'32	

	15801 Nov 25 17:50	0°♏	
	15802 Jan 04 02:39	0°♐	
	15802 Feb 12 19:09	0°♑	
	15802 Mar 26 19:40	0°♒	
	15802 May 16 10:02	0°♓	
retrograde	15802 Jul 03 04:46	13°♓09'32	
min. Earth dist.	15802 Aug 03 16:32	6°♓27'31	0.54379 AU
opposition	15802 Aug 11 01:44	3°♓38'55	0°16'09
greatest brilliancy	15802 Aug 10 23:59	3°♓40'34	-2.0m
desc. node	15802 Aug 16 13:08	1°♓37'09	
	15802 Aug 21 07:15	30°℞♒	
direct	15802 Sep 16 00:39	25°♒42'27	
	15802 Oct 14 03:26	0°♓	
	15802 Dec 22 04:30	0°♈	
	15803 Feb 13 17:59	0°♉	
	15803 Apr 04 09:59	0°♊	
	15803 May 21 10:43	0°♋	
evening set	15803 May 30 02:53	5°♋42'35	
max. Earth dist.	15803 Jun 17 06:49	17°♋51'04	2.56076 AU
	15803 Jul 05 01:51	0°♌	
conjunction	15803 Jul 16 22:32	8°♌14'31	-0°33'34
minimum elong	15803 Jul 17 00:00	8°♌17'05	0°34'15
	15803 Aug 16 11:30	0°♍	
asc. node	15803 Sep 07 12:59	16°♍11'34	
morning rise	15803 Sep 08 09:23	16°♍49'28	
	15803 Sep 25 22:59	0°♎	
	15803 Nov 04 00:18	0°♏	
	15803 Dec 12 08:06	0°♐	
	15804 Jan 19 20:02	0°♑	
	15804 Feb 28 15:05	0°♒	
	15804 Apr 11 07:05	0°♓	
	15804 May 30 11:40	0°♈	
desc. node	15804 Jul 03 18:28	15°♈47'43	
retrograde	15804 Aug 09 06:31	23°♈11'02	
min. Earth dist.	15804 Sep 15 01:43	14°♈43'04	0.64733 AU
opposition	15804 Sep 18 23:02	13°♈10'58	-2°59'19
greatest brilliancy	15804 Sep 18 11:41	13°♈22'11	-1.4m
direct	15804 Oct 28 09:14	4°♈00'39	
	15805 Jan 18 10:26	0°♉	
	15805 Mar 14 00:57	0°♊	
	15805 May 01 11:54	0°♋	
	15805 Jun 15 07:12	0°♌	
evening set	15805 Jul 12 03:46	18°♌58'34	
asc. node	15805 Jul 25 04:17	28°♌26'03	
max. Earth dist.	15805 Jul 26 10:48	29°♌22'00	2.42880 AU
	15805 Jul 27 07:30	0°♍	
	15805 Sep 05 04:44	0°♎	
conjunction	15805 Sep 08 21:07	2°♎49'59	0°31'00
minimum elong	15805 Sep 08 18:37	2°♎45'09	0°30'55
	15805 Oct 13 16:21	0°♏	
morning rise	15805 Nov 19 00:03	28°♏45'05	
	15805 Nov 20 13:53	0°♐	
	15805 Dec 28 18:41	0°♑	
	15806 Feb 06 04:41	0°♒	
	15806 Mar 19 18:18	0°♓	
	15806 May 03 16:13	0°♈	
desc. node	15806 May 21 17:52	11°♈12'47	
	15806 Jun 23 17:34	0°♉	
retrograde	15806 Sep 12 10:33	26°♉40'21	
opposition	15806 Oct 23 05:24	16°♉55'50	-4°33'34
greatest brilliancy	15806 Oct 23 04:09	16°♉57'04	-1.2m
min. Earth dist.	15806 Oct 23 05:02	16°♉56'11	0.68688 AU
direct	15806 Dec 03 11:24	7°♉06'46	
	15807 Feb 16 04:37	0°♊	
	15807 Apr 10 13:19	0°♋	
	15807 May 26 14:15	0°♌	
asc. node	15807 Jun 12 00:45	11°♌26'06	
	15807 Jul 07 18:11	0°♍	
	15807 Aug 16 10:26	0°♎	
evening set	15807 Sep 13 12:22	21°♎57'51	
	15807 Sep 23 16:10	0°♏	
	15807 Oct 31 10:41	0°♐	
conjunction	15807 Nov 25 23:56	20°♐07'48	1°06'12
minimum elong	15807 Nov 26 01:46	20°♐11'24	1°06'59
	15807 Dec 08 16:20	0°♑	
	15808 Jan 17 05:14	0°♒	
max. Earth dist.	15808 Jan 19 00:04	1°♒19'23	2.40832 AU
morning rise	15808 Feb 02 06:01	11°♒46'46	
	15808 Feb 27 17:45	0°♓	
desc. node	15808 Apr 07 09:42	27°♓05'25	
	15808 Apr 11 19:20	0°♈	
	15808 May 29 02:32	0°♉	
	15808 Jul 20 19:02	0°♊	
retrograde	15808 Oct 16 19:58	29°♊23'07	
opposition	15808 Nov 25 09:33	20°♊17'06	-4°49'43
greatest brilliancy	15808 Nov 26 01:10	20°♊01'54	-1.3m
min. Earth dist.	15808 Nov 29 07:09	18°♊46'06	0.65781 AU
direct	15809 Jan 05 22:59	10°♊15'01	
	15809 Mar 12 18:09	0°♋	
asc. node	15809 Apr 29 02:06	27°♋20'58	
	15809 May 03 04:50	0°♌	
	15809 Jun 15 17:33	0°♍	
	15809 Jul 25 18:41	0°♎	
	15809 Sep 02 03:44	0°♏	
	15809 Oct 10 02:47	0°♐	
	15809 Nov 17 16:26	0°♑	
evening set	15809 Nov 29 05:26	8°♑47'27	
	15809 Dec 27 16:03	0°♒	
conjunction	15810 Jan 29 11:32	23°♒36'15	0°15'27
minimum elong	15810 Jan 29 12:31	23°♒37'58	0°15'59
	15810 Feb 07 14:22	0°♓	
desc. node	15810 Feb 23 00:14	10°♓39'05	
max. Earth dist.	15810 Mar 04 02:33	16°♓51'01	2.54714 AU
morning rise	15810 Mar 23 03:14	29°♓36'40	
	15810 Mar 23 17:19	0°♈	
	15810 May 09 01:48	0°♉	
	15810 Jun 26 20:44	0°♊	
	15810 Aug 18 10:26	0°♋	
	15810 Oct 23 15:46	0°♌	
retrograde	15810 Nov 27 20:35	6°♌17'12	
	15810 Dec 30 02:34	30°℞♋	
opposition	15811 Jan 03 17:01	28°♋19'12	-3°23'22
greatest brilliancy	15811 Jan 04 17:10	27°♋56'43	-1.8m
min. Earth dist.	15811 Jan 11 06:24	25°♋30'53	0.56158 AU
direct	15811 Feb 12 15:39	18°♋47'14	
asc. node	15811 Mar 17 08:54	25°♋09'43	
	15811 Mar 29 09:11	0°♌	
	15811 May 21 00:06	0°♍	
	15811 Jul 02 08:42	0°♎	
	15811 Aug 10 18:34	0°♏	
	15811 Sep 18 12:19	0°♐	
	15811 Oct 27 21:32	0°♑	
	15811 Dec 07 18:21	0°♒	
desc. node	15812 Jan 10 16:18	23°♒54'17	
	15812 Jan 19 12:38	0°♓	
evening set	15812 Jan 24 20:39	3°♓38'53	
	15812 Mar 04 05:07	0°♈	
conjunction	15812 Mar 14 12:45	6°♈46'00	-0°36'54
minimum elong	15812 Mar 14 11:28	6°♈43'55	0°36'53

max. Earth dist.	15812 Mar 30 06:25	16°♈59'14	2.64262 AU
	15812 Apr 19 12:48	0°♉	
morning rise	15812 Apr 29 00:16	6°♉01'55	
	15812 Jun 06 02:33	0°♊	
	15812 Jul 24 17:55	0°♋	
	15812 Sep 12 21:18	0°♌	
	15812 Nov 05 22:10	0°♍	
retrograde	15813 Jan 24 23:52	26°♍24'04	
asc. node	15813 Feb 01 16:58	26°♍00'59	
opposition	15813 Feb 25 22:26	20°♍27'40	1°36'07
greatest brilliancy	15813 Feb 26 09:38	20°♍18'48	-2.6m
min. Earth dist.	15813 Mar 05 20:24	17°♍58'00	0.42203 AU
direct	15813 Apr 01 13:30	13°♍18'11	
	15813 May 24 19:58	0°♎	
	15813 Jul 11 11:32	0°♏	
	15813 Aug 22 17:40	0°♐	
	15813 Oct 03 12:47	0°♑	
	15813 Nov 15 08:49	0°♒	
desc. node	15813 Nov 27 12:45	8°♒20'03	
	15813 Dec 29 17:29	0°♓	
	15814 Feb 13 13:31	0°♈	
evening set	15814 Mar 06 09:40	13°♈23'59	
	15814 Apr 01 10:23	0°♉	
conjunction	15814 Apr 20 03:48	11°♉53'07	-1°07'03
minimum elong	15814 Apr 20 02:52	11°♉51'38	1°07'31
max. Earth dist.	15814 Apr 21 21:08	12°♉58'38	2.68393 AU
	15814 May 18 17:55	0°♊	
morning rise	15814 Jun 02 04:42	9°♊09'41	
	15814 Jul 04 23:00	0°♋	
	15814 Aug 20 17:16	0°♌	
	15814 Oct 05 22:08	0°♍	
	15814 Nov 20 17:38	0°♎	
asc. node	15814 Dec 20 20:10	19°♎36'17	
	15815 Jan 06 02:33	0°♏	
	15815 Feb 27 00:58	0°♐	
retrograde	15815 Apr 16 23:22	13°♐52'14	
min. Earth dist.	15815 May 13 14:29	9°♐33'29	0.37071 AU
opposition	15815 May 17 13:28	8°♐28'15	7°18'21
greatest brilliancy	15815 May 16 15:32	8°♐43'20	-2.9m
direct	15815 Jun 15 15:19	3°♐33'43	
	15815 Aug 30 01:50	0°♑	
desc. node	15815 Oct 15 17:00	27°♑17'45	
	15815 Oct 20 03:27	0°♒	
	15815 Dec 07 16:46	0°♓	
	15816 Jan 24 22:40	0°♈	
	15816 Mar 13 02:07	0°♉	
evening set	15816 Apr 10 04:00	17°♉36'46	
	15816 Apr 29 18:17	0°♊	
max. Earth dist.	15816 May 13 01:01	8°♊27'13	2.66975 AU
conjunction	15816 May 23 18:09	15°♊18'53	-1°12'37
minimum elong	15816 May 23 18:31	15°♊19'28	1°13'24
	15816 Jun 15 11:21	0°♋	
morning rise	15816 Jul 06 17:00	13°♋55'22	
	15816 Jul 30 20:03	0°♌	
	15816 Sep 12 15:44	0°♍	
	15816 Oct 24 21:54	0°♎	
asc. node	15816 Nov 06 16:30	9°♎16'18	
	15816 Dec 04 20:23	0°♏	
	15817 Jan 14 02:32	0°♐	
	15817 Feb 24 02:27	0°♑	
	15817 Apr 10 11:32	0°♒	
retrograde	15817 Jun 15 14:23	23°♒42'46	
min. Earth dist.	15817 Jul 14 17:20	17°♒52'18	0.48992 AU
opposition	15817 Jul 22 23:00	14°♒52'29	2°11'28
greatest brilliancy	15817 Jul 22 07:35	15°♒06'32	-2.2m
direct	15817 Aug 26 00:01	7°♒40'43	
desc. node	15817 Sep 02 01:57	7°♒59'23	
	15817 Nov 06 10:52	0°♓	
	15818 Jan 01 11:46	0°♈	
	15818 Feb 21 15:20	0°♉	
	15818 Apr 11 11:29	0°♊	
evening set	15818 May 15 11:02	21°♊38'28	
	15818 May 28 07:15	0°♋	
max. Earth dist.	15818 Jun 06 04:24	5°♋50'43	2.60153 AU
conjunction	15818 Jun 30 05:08	21°♋55'38	-0°50'38
minimum elong	15818 Jun 30 06:39	21°♋58'13	0°51'25
	15818 Jul 12 01:09	0°♌	
morning rise	15818 Aug 18 12:09	26°♌14'41	
	15818 Aug 23 17:50	0°♍	
asc. node	15818 Sep 24 08:39	23°♍07'10	
	15818 Oct 03 13:53	0°♎	
	15818 Nov 11 23:27	0°♏	
	15818 Dec 20 14:18	0°♐	
	15819 Jan 28 08:51	0°♑	
	15819 Mar 09 14:35	0°♒	
	15819 Apr 22 12:36	0°♓	
	15819 Jun 17 08:07	0°♈	
desc. node	15819 Jul 21 08:03	8°♈45'21	
retrograde	15819 Jul 27 06:02	8°♈59'21	
min. Earth dist.	15819 Aug 31 03:36	1°♈08'24	0.61389 AU
	15819 Sep 03 01:30	30°℞♓	
opposition	15819 Sep 05 11:45	29°♓02'46	-1°58'14
greatest brilliancy	15819 Sep 05 01:21	29°♓12'58	-1.6m
direct	15819 Oct 13 18:46	20°♓15'54	
	15819 Nov 27 22:14	0°♈	
	15820 Jan 30 00:39	0°♉	
	15820 Mar 21 23:35	0°♊	
	15820 May 08 17:12	0°♋	
	15820 Jun 22 09:29	0°♌	
evening set	15820 Jun 23 12:00	0°♌45'54	
max. Earth dist.	15820 Jul 07 13:39	10°♌36'43	2.48406 AU
	15820 Aug 03 12:49	0°♍	
asc. node	15820 Aug 10 22:50	5°♍26'59	
conjunction	15820 Aug 15 18:01	9°♍00'04	0°03'20
minimum elong	15820 Aug 15 17:50	8°♍59'44	0°02'58
behind sun begin	15820 Aug 14 17:53	8°♍15'20	
behind sun end	15820 Aug 16 17:47	9°♍44'10	
	15820 Sep 12 15:01	0°♎	
morning rise	15820 Oct 18 05:45	27°♎35'52	
	15820 Oct 21 07:15	0°♏	
	15820 Nov 28 07:50	0°♐	
greatest brilliancy	15820 Dec 06 03:54	6°♐11'08	1.2m
	15821 Jan 05 13:53	0°♑	
	15821 Feb 14 00:49	0°♒	
	15821 Mar 27 19:11	0°♓	
	15821 May 12 13:35	0°♈	
desc. node	15821 Jun 07 09:11	15°♈06'53	
	15821 Jul 06 22:02	0°♉	
retrograde	15821 Aug 30 06:03	14°♉11'21	
min. Earth dist.	15821 Oct 08 15:20	4°♉53'57	0.67955 AU
opposition	15821 Oct 10 04:09	4°♉17'35	-4°06'47
greatest brilliancy	15821 Oct 09 21:30	4°♉24'09	-1.3m
	15821 Oct 21 12:43	30°℞♈	
direct	15821 Nov 19 21:17	24°♈40'29	
	15821 Dec 22 03:47	0°♉	
	15822 Feb 27 03:05	0°♊	
	15822 Apr 18 18:50	0°♋	
	15822 Jun 03 04:00	0°♌	
asc. node	15822 Jun 28 16:26	17°♌58'25	
	15822 Jul 15 05:03	0°♍	

evening set	15822 Aug 16 13:56	24°♍20'34	
	15822 Aug 23 22:26	0°♎	
	15822 Oct 01 05:50	0°♏	
conjunction	15822 Oct 25 02:41	18°♏56'44	1°04'57
minimum elong	15822 Oct 25 00:08	18°♏51'40	1°05'29
	15822 Nov 08 00:55	0°♐	
max. Earth dist.	15822 Nov 11 21:59	3°♐04'22	2.36182 AU
	15822 Dec 16 05:21	0°♑	
morning rise	15823 Jan 07 05:33	16°♑53'49	
	15823 Jan 24 15:50	0°♒	
	15823 Mar 07 02:42	0°♓	
	15823 Apr 20 07:38	0°♈	
desc. node	15823 Apr 25 04:25	3°♈10'01	
	15823 Jun 07 11:00	0°♉	
	15823 Aug 03 01:28	0°♊	
retrograde	15823 Oct 03 14:15	16°♊38'58	
opposition	15823 Nov 12 19:24	7°♊15'07	-4°53'03
greatest brilliancy	15823 Nov 13 04:22	7°♊06'19	-1.3m
min. Earth dist.	15823 Nov 15 04:21	6°♊19'21	0.67755 AU
	15823 Dec 03 14:32	30°℞♉	
direct	15823 Dec 24 10:44	27°♉14'36	
	15824 Jan 15 15:45	0°♊	
	15824 Mar 24 21:33	0°♋	
	15824 May 12 04:28	0°♌	
asc. node	15824 May 15 17:07	2°♌22'02	
	15824 Jun 23 22:58	0°♍	
	15824 Aug 02 18:26	0°♎	
	15824 Sep 10 00:47	0°♏	
greatest brilliancy	15824 Sep 21 06:09	8°♏54'01	1.1m
	15824 Oct 17 20:52	0°♐	
evening set	15824 Oct 31 09:15	10°♐38'59	
	15824 Nov 25 06:07	0°♑	
	15825 Jan 04 00:10	0°♒	
conjunction	15825 Jan 07 06:02	2°♒23'20	0°38'53
minimum elong	15825 Jan 07 08:39	2°♒28'09	0°39'36
	15825 Feb 14 17:09	0°♓	
max. Earth dist.	15825 Feb 18 11:44	2°♓38'19	2.49649 AU
morning rise	15825 Mar 05 20:38	13°♓15'11	
desc. node	15825 Mar 11 18:09	17°♓16'16	
	15825 Mar 30 17:21	0°♈	
	15825 May 16 06:32	0°♉	
	15825 Jul 05 00:19	0°♊	
	15825 Aug 30 04:47	0°♋	
retrograde	15825 Nov 10 04:37	21°♋12'32	
opposition	15825 Dec 18 07:54	12°♋42'55	-4°13'13
greatest brilliancy	15825 Dec 19 07:16	12°♋20'38	-1.6m
min. Earth dist.	15825 Dec 24 13:16	10°♋20'48	0.60702 AU
direct	15826 Jan 28 05:15	2°♋50'57	
asc. node	15826 Apr 02 21:58	23°♋10'22	
	15826 Apr 15 06:11	0°♌	
	15826 May 31 20:20	0°♍	
	15826 Jul 11 20:10	0°♎	
	15826 Aug 19 15:40	0°♏	
	15826 Sep 26 23:04	0°♐	
	15826 Nov 04 22:00	0°♑	
	15826 Dec 15 08:08	0°♒	
evening set	15827 Jan 05 08:05	15°♒03'22	
	15827 Jan 26 16:34	0°♓	
desc. node	15827 Jan 27 08:34	0°♓27'39	
conjunction	15827 Feb 27 12:32	21°♓38'57	-0°18'59
minimum elong	15827 Feb 27 11:42	21°♓37'33	0°18'47
	15827 Mar 12 01:49	0°♈	
max. Earth dist.	15827 Mar 21 15:21	6°♈17'54	2.61152 AU
morning rise	15827 Apr 16 01:48	22°♈48'20	
	15827 Apr 27 07:38	0°♉	
	15827 Jun 14 04:42	0°♊	
	15827 Aug 02 20:34	0°♋	
	15827 Sep 24 19:45	0°♌	
	15827 Dec 01 19:46	0°♍	
retrograde	15827 Dec 30 22:11	4°♍32'53	
	15828 Jan 27 01:26	30°℞♌	
opposition	15828 Feb 03 00:44	27°♌41'38	-0°56'52
greatest brilliancy	15828 Feb 03 09:48	27°♌33'49	-2.3m
min. Earth dist.	15828 Feb 11 17:25	24°♌41'57	0.47755 AU
asc. node	15828 Feb 19 04:39	22°♌23'03	
direct	15828 Mar 11 09:33	19°♌16'30	
	15828 Apr 22 09:11	0°♍	
	15828 Jun 12 11:07	0°♎	
	15828 Jul 24 08:39	0°♏	
	15828 Sep 02 11:24	0°♐	
	15828 Oct 12 22:18	0°♑	
	15828 Nov 23 17:41	0°♒	
desc. node	15828 Dec 14 04:16	14°♒13'54	
	15829 Jan 06 07:17	0°♓	
evening set	15829 Feb 19 06:32	29°♓09'10	
	15829 Feb 20 13:43	0°♈	
conjunction	15829 Apr 06 10:11	28°♈54'12	-0°58'14
minimum elong	15829 Apr 06 08:56	28°♈52'11	0°58'33
	15829 Apr 08 03:26	0°♉	
max. Earth dist.	15829 Apr 13 07:26	3°♉17'30	2.67421 AU
morning rise	15829 May 20 00:26	26°♉33'19	
	15829 May 25 11:23	0°♊	
	15829 Jul 12 02:13	0°♋	
	15829 Aug 28 19:10	0°♌	
	15829 Oct 15 18:59	0°♍	
	15829 Dec 04 03:10	0°♎	
asc. node	15830 Jan 06 10:28	18°♎41'51	
	15830 Jan 29 21:05	0°♏	
retrograde	15830 Mar 15 19:31	11°♏02'47	
opposition	15830 Apr 14 04:07	6°♏12'02	6°23'32
greatest brilliancy	15830 Apr 14 11:58	6°♏06'48	-3.0m
min. Earth dist.	15830 Apr 16 01:17	5°♏41'57	0.36609 AU
direct	15830 May 13 23:40	1°♏09'11	
	15830 Jul 29 10:36	0°♐	
	15830 Sep 15 04:49	0°♑	
	15830 Oct 31 03:07	0°♒	
desc. node	15830 Nov 01 05:38	0°♒43'16	
	15830 Dec 16 10:10	0°♓	
	15831 Feb 01 11:09	0°♈	
	15831 Mar 20 23:37	0°♉	
evening set	15831 Mar 28 13:33	4°♉46'43	
max. Earth dist.	15831 May 05 11:44	28°♉45'30	2.68178 AU
	15831 May 07 10:39	0°♊	
conjunction	15831 May 11 05:45	2°♊24'46	-1°13'31
minimum elong	15831 May 11 05:34	2°♊24'28	1°14'12
morning rise	15831 Jun 23 10:17	0°♋05'51	
	15831 Jun 23 06:40	0°♋	
	15831 Aug 08 01:52	0°♌	
	15831 Sep 21 14:51	0°♍	
	15831 Nov 03 20:13	0°♎	
asc. node	15831 Nov 24 10:09	14°♎34'37	
	15831 Dec 15 23:31	0°♏	
	15832 Jan 26 20:37	0°♐	
	15832 Mar 11 00:20	0°♑	
	15832 May 18 05:11	0°♒	
retrograde	15832 May 26 08:30	0°♒29'35	
	15832 Jun 03 10:18	30°℞♑	
min. Earth dist.	15832 Jun 22 06:14	25°♑31'54	0.43458 AU
greatest brilliancy	15832 Jun 29 05:17	23°♑12'05	-2.5m

opposition	15832 Jun 30 10:45	22°♋47'16	4°28'16
direct	15832 Aug 01 09:05	16°♋30'44	
desc. node	15832 Sep 18 12:24	28°♋18'20	
	15832 Sep 22 11:51	0°♒	
	15832 Nov 19 21:22	0°♓	
	15833 Jan 10 11:08	0°♈	
	15833 Mar 01 02:22	0°♉	
	15833 Apr 18 08:44	0°♊	
evening set	15833 May 01 11:38	8°♊19'11	
max. Earth dist.	15833 May 27 05:44	24°♊53'15	2.63442 AU
	15833 Jun 04 01:56	0°♋	
conjunction	15833 Jun 14 22:36	7°♋08'22	-1°02'45
minimum elong	15833 Jun 14 23:48	7°♋10'20	1°03'33
	15833 Jul 19 00:21	0°♌	
morning rise	15833 Jul 31 10:29	8°♌31'17	
	15833 Aug 31 01:55	0°♍	
asc. node	15833 Oct 11 02:41	29°♍48'16	
	15833 Oct 11 09:01	0°♎	
	15833 Nov 20 05:44	0°♏	
	15833 Dec 29 07:10	0°♐	
	15834 Feb 06 13:21	0°♑	
	15834 Mar 19 15:52	0°♒	
	15834 May 05 09:01	0°♓	
retrograde	15834 Jul 12 07:05	23°♓21'39	
desc. node	15834 Aug 06 20:36	18°♓49'16	
min. Earth dist.	15834 Aug 14 01:07	16°♓13'35	0.57100 AU
opposition	15834 Aug 20 18:09	13°♓38'12	-0°39'10
greatest brilliancy	15834 Aug 20 13:43	13°♓42'28	-1.8m
direct	15834 Sep 26 15:24	5°♓21'29	
	15834 Dec 14 07:32	0°♈	
	15835 Feb 08 02:55	0°♉	
	15835 Mar 30 11:45	0°♊	
	15835 May 16 18:14	0°♋	
evening set	15835 Jun 07 21:01	14°♋38'55	
max. Earth dist.	15835 Jun 24 05:03	25°♋43'43	2.53507 AU
	15835 Jun 30 10:02	0°♌	
conjunction	15835 Jul 27 06:47	18°♌51'55	-0°21'29
minimum elong	15835 Jul 27 07:56	18°♌53'56	0°22'05
	15835 Aug 11 17:42	0°♍	
asc. node	15835 Aug 28 18:17	12°♍30'10	
morning rise	15835 Sep 21 19:51	0°♎34'05	
	15835 Sep 21 01:54	0°♎	
	15835 Oct 29 23:42	0°♏	
	15835 Dec 07 04:29	0°♐	
	15836 Jan 14 13:25	0°♑	
	15836 Feb 23 03:51	0°♒	
	15836 Apr 05 08:28	0°♓	
	15836 May 22 17:42	0°♈	
desc. node	15836 Jun 23 23:40	16°♈52'01	
	15836 Aug 02 07:10	0°♉	
retrograde	15836 Aug 16 23:55	1°♉19'15	
	15836 Aug 31 02:51	30°℞♈	
min. Earth dist.	15836 Sep 23 19:00	22°♈32'21	0.66181 AU
opposition	15836 Sep 26 19:59	21°♈20'14	-3°28'09
greatest brilliancy	15836 Sep 26 09:36	21°♈30'30	-1.4m
direct	15836 Nov 05 18:45	11°♈59'07	
	15837 Jan 10 01:43	0°♉	
	15837 Mar 08 08:52	0°♊	
	15837 Apr 26 12:10	0°♋	
	15837 Jun 10 12:29	0°♌	
asc. node	15837 Jul 15 10:30	24°♌47'14	
	15837 Jul 22 13:35	0°♍	
evening set	15837 Jul 23 20:20	0°♍56'33	
max. Earth dist.	15837 Aug 10 07:02	13°♍55'50	2.39874 AU
	15837 Aug 31 09:48	0°♎	
conjunction	15837 Sep 24 07:31	18°♎34'30	0°46'03
minimum elong	15837 Sep 24 03:54	18°♎27'23	0°46'11
	15837 Oct 08 19:53	0°♏	
	15837 Nov 15 16:11	0°♐	
morning rise	15837 Dec 07 10:29	17°♐11'07	
	15837 Dec 23 20:01	0°♑	
	15838 Feb 01 04:51	0°♒	
	15838 Mar 14 15:41	0°♓	
	15838 Apr 28 04:03	0°♈	
desc. node	15838 May 11 20:19	8°♈40'59	
	15838 Jun 16 17:53	0°♉	
	15838 Aug 22 20:45	0°♊	
retrograde	15838 Sep 20 00:46	4°♊15'25	
	15838 Oct 16 01:12	30°℞♉	
opposition	15838 Oct 30 16:25	24°♉37'26	-4°44'13
greatest brilliancy	15838 Oct 30 18:44	24°♉35'09	-1.2m
min. Earth dist.	15838 Oct 31 12:50	24°♉17'20	0.68656 AU
direct	15838 Dec 11 03:25	14°♉43'09	
	15839 Feb 07 08:22	0°♊	
	15839 Apr 04 16:43	0°♋	
	15839 May 21 09:50	0°♌	
asc. node	15839 Jun 02 07:00	8°♌10'16	
	15839 Jul 02 18:48	0°♍	
	15839 Aug 11 12:25	0°♎	
	15839 Sep 18 18:25	0°♏	
evening set	15839 Sep 30 19:09	9°♏32'49	
	15839 Oct 26 13:20	0°♐	
	15839 Dec 03 19:42	0°♑	
conjunction	15839 Dec 12 17:19	6°♑51'23	0°59'12
minimum elong	15839 Dec 12 20:28	6°♑57'26	1°00'00
	15840 Jan 12 09:22	0°♒	
max. Earth dist.	15840 Feb 01 16:14	14°♒51'16	2.43996 AU
morning rise	15840 Feb 14 22:59	24°♒22'22	
	15840 Feb 22 22:08	0°♓	
desc. node	15840 Mar 28 12:48	23°♓46'06	
	15840 Apr 06 21:14	0°♈	
	15840 May 23 18:55	0°♉	
	15840 Jul 14 00:46	0°♊	
	15840 Sep 16 13:30	0°♋	
retrograde	15840 Oct 25 07:18	7°♋24'11	
	15840 Nov 29 12:12	30°℞♊	
opposition	15840 Dec 03 10:37	28°♊29'41	-4°41'13
greatest brilliancy	15840 Dec 04 05:34	28°♊11'21	-1.4m
min. Earth dist.	15840 Dec 08 04:51	26°♊39'21	0.64257 AU
direct	15841 Jan 13 20:44	18°♊28'57	
	15841 Mar 02 08:53	0°♋	
asc. node	15841 Apr 19 10:19	25°♋25'01	
	15841 Apr 26 19:39	0°♌	
	15841 Jun 10 03:48	0°♍	
	15841 Jul 20 11:33	0°♎	
	15841 Aug 27 23:29	0°♏	
	15841 Oct 05 00:48	0°♐	
	15841 Nov 12 16:54	0°♑	
evening set	15841 Dec 13 16:02	23°♑17'02	
	15842 Feb 02 20:00	0°♒	
		0°♓	
conjunction	15842 Feb 09 15:30	4°♓43'31	0°02'14
minimum elong	15842 Feb 09 15:39	4°♓43'47	0°02'39
behind sun begin	15842 Feb 08 17:30	4°♓05'31	
behind sun end	15842 Feb 10 13:48	5°♓22'00	
desc. node	15842 Feb 13 03:28	7°♓08'16	
max. Earth dist.	15842 Mar 10 19:54	24°♓33'38	2.57224 AU
	15842 Mar 18 23:50	0°♈	
morning rise	15842 Apr 01 04:06	8°♈41'00	
	15842 May 04 05:51	0°♉	

	15842 Jun 21 14:14	0°♊	
	15842 Aug 11 19:08	0°♋	
	15842 Oct 09 08:21	0°♌	
retrograde	15842 Dec 08 21:02	16°♌08'18	
opposition	15843 Jan 13 21:05	8°♌31'13	-2°40'56
greatest brilliancy	15843 Jan 14 18:37	8°♌11'35	-2.0m
min. Earth dist.	15843 Jan 22 00:54	5°♌33'07	0.53329 AU
	15843 Feb 11 22:18	30°℞♋	
direct	15843 Feb 22 02:39	29°♋16'42	
	15843 Mar 04 10:58	0°♌	
asc. node	15843 Mar 07 17:42	0°♌31'00	
	15843 May 12 20:56	0°♍	
	15843 Jun 25 19:54	0°♎	
	15843 Aug 04 19:48	0°♏	
	15843 Sep 12 21:48	0°♐	
	15843 Oct 22 13:39	0°♑	
	15843 Dec 02 16:18	0°♒	
desc. node	15843 Dec 31 19:37	20°♒29'07	
	15844 Jan 14 15:50	0°♓	
evening set	15844 Feb 03 21:44	13°♓41'29	
	15844 Feb 28 11:55	0°♈	
conjunction	15844 Mar 23 02:08	15°♈22'08	-0°45'48
minimum elong	15844 Mar 23 00:46	15°♈19'56	0°45'55
max. Earth dist.	15844 Apr 04 13:47	23°♈24'39	2.65620 AU
	15844 Apr 14 20:47	0°♉	
morning rise	15844 May 06 17:37	13°♉53'51	
	15844 Jun 01 07:17	0°♊	
	15844 Jul 19 11:48	0°♋	
	15844 Sep 06 13:08	0°♌	
	15844 Oct 27 13:31	0°♍	
	15844 Dec 25 15:21	0°♎	
asc. node	15845 Jan 22 23:30	9°♎13'23	
retrograde	15845 Feb 10 17:40	11°♎19'57	
opposition	15845 Mar 13 13:31	5°♎54'19	3°23'56
greatest brilliancy	15845 Mar 14 07:25	5°♎41'05	-2.8m
min. Earth dist.	15845 Mar 20 02:26	3°♎58'59	0.39580 AU
	15845 Apr 07 18:40	30°℞♍	
direct	15845 Apr 15 07:01	29°♍35'28	
	15845 Apr 22 20:34	0°♎	
	15845 Jul 01 03:09	0°♏	
	15845 Aug 15 00:20	0°♐	
	15845 Sep 27 01:18	0°♑	
	15845 Nov 09 15:47	0°♒	
desc. node	15845 Nov 17 18:56	5°♒30'10	
	15845 Dec 24 13:07	0°♓	
	15846 Feb 08 17:14	0°♈	
evening set	15846 Mar 14 14:20	21°♈38'00	
	15846 Mar 27 18:37	0°♉	
conjunction	15846 Apr 27 19:46	19°♉40'18	-1°10'34
minimum elong	15846 Apr 27 19:05	19°♉39'12	1°11'07
max. Earth dist.	15846 Apr 26 20:17	19°♉03'06	2.68554 AU
	15846 May 14 02:49	0°♊	
morning rise	15846 Jun 09 18:46	16°♊57'31	
	15846 Jun 30 04:06	0°♋	
	15846 Aug 15 13:11	0°♌	
	15846 Sep 30 01:16	0°♍	
	15846 Nov 13 16:50	0°♎	
asc. node	15846 Dec 11 02:33	18°♎35'45	
	15846 Dec 27 22:35	0°♏	
	15847 Feb 11 15:51	0°♐	
	15847 Apr 14 18:29	0°♑	
retrograde	15847 May 03 02:50	2°♑19'40	
	15847 May 21 09:10	30°℞♐	
min. Earth dist.	15847 May 28 21:59	27°♐59'46	0.38785 AU
greatest brilliancy	15847 Jun 02 21:29	26°♐32'07	-2.8m
opposition	15847 Jun 04 04:51	26°♐08'54	6°38'33
direct	15847 Jul 04 02:28	20°♐50'53	
	15847 Aug 13 16:50	0°♑	
desc. node	15847 Oct 06 00:21	26°♑40'16	
	15847 Oct 11 20:50	0°♒	
	15847 Dec 01 12:17	0°♓	
	15848 Jan 19 16:13	0°♈	
	15848 Mar 08 06:30	0°♉	
evening set	15848 Apr 17 20:39	25°♉24'10	
	15848 Apr 25 03:10	0°♊	
max. Earth dist.	15848 May 18 03:44	14°♊40'44	2.65960 AU
conjunction	15848 May 31 14:24	23°♊20'44	-1°10'17
minimum elong	15848 May 31 15:06	23°♊21'51	1°11'04
	15848 Jun 10 20:12	0°♋	
morning rise	15848 Jul 15 05:53	22°♋43'33	
	15848 Jul 26 01:26	0°♌	
	15848 Sep 07 14:31	0°♍	
	15848 Oct 19 11:57	0°♎	
asc. node	15848 Oct 27 22:39	6°♎11'03	
	15848 Nov 28 23:44	0°♏	
	15849 Jan 07 16:52	0°♐	
	15849 Feb 16 19:35	0°♑	
	15849 Mar 31 18:43	0°♒	
	15849 May 27 09:22	0°♓	
retrograde	15849 Jun 25 20:49	5°♓37'12	
	15849 Jul 24 08:23	30°℞♒	
min. Earth dist.	15849 Jul 26 06:53	29°♒18'01	0.52031 AU
opposition	15849 Aug 03 03:27	26°♒21'44	1°01'59
greatest brilliancy	15849 Aug 02 20:22	26°♒28'22	-2.1m
desc. node	15849 Aug 23 07:38	20°♒12'23	
direct	15849 Sep 07 07:34	18°♒43'47	
	15849 Oct 25 12:09	0°♓	
	15849 Dec 25 21:37	0°♈	
	15850 Feb 16 08:13	0°♉	
	15850 Apr 06 16:00	0°♊	
evening set	15850 May 23 16:41	0°♋02'01	
	15850 May 23 15:27	0°♋	
max. Earth dist.	15850 Jun 12 07:49	13°♋01'02	2.57997 AU
	15850 Jul 07 08:59	0°♌	
conjunction	15850 Jul 09 11:21	1°♌26'42	-0°41'25
minimum elong	15850 Jul 09 12:53	1°♌29'21	0°42'09
	15850 Aug 18 22:48	0°♍	
morning rise	15850 Aug 29 20:53	7°♍55'40	
asc. node	15850 Sep 14 13:05	19°♍28'26	
	15850 Sep 28 15:01	0°♎	
	15850 Nov 06 20:24	0°♏	
	15850 Dec 15 07:19	0°♐	
	15851 Jan 22 21:25	0°♑	
	15851 Mar 03 18:59	0°♒	
	15851 Apr 15 19:12	0°♓	
	15851 Jun 05 16:03	0°♈	
desc. node	15851 Jul 11 13:17	14°♈18'24	
retrograde	15851 Aug 04 08:35	17°♈43'12	
min. Earth dist.	15851 Sep 09 08:03	9°♈31'02	0.63355 AU
opposition	15851 Sep 13 20:49	7°♈43'54	-2°36'10
greatest brilliancy	15851 Sep 13 09:17	7°♈55'17	-1.5m
	15851 Oct 08 14:06	30°℞♓	
direct	15851 Oct 22 19:26	28°♓43'15	
	15851 Nov 06 19:18	0°♈	
	15852 Jan 23 06:14	0°♉	
	15852 Mar 16 16:19	0°♊	
	15852 May 03 20:48	0°♋	
	15852 Jun 17 16:09	0°♌	
evening set	15852 Jul 03 17:50	11°♌14'38	
max. Earth dist.	15852 Jul 17 07:11	20°♌55'30	2.45374 AU

	15852 Jul 29	18:58	0°♍		
asc. node	15852 Aug 01	03:56	1°♍44'26		
conjunction	15852 Aug 28	19:23	22°♍22'55	0°19'00	
minimum elong	15852 Aug 28	17:56	22°♍20'11	0°18'48	
	15852 Sep 07	19:20	0°♎		
	15852 Oct 16	09:24	0°♏		
morning rise	15852 Nov 04	15:56	15°♏12'43		
	15852 Nov 23	08:18	0°♐		
	15852 Dec 31	13:10	0°♑		
	15853 Feb 08	22:19	0°♒		
	15853 Mar 22	12:01	0°♓		
	15853 May 06	14:46	0°♈		
desc. node	15853 May 28	14:00	13°♈22'43		
	15853 Jun 27	20:51	0°♉		
retrograde	15853 Sep 06	18:44	21°♉51'25		
opposition	15853 Oct 17	15:49	12°♉02'29	-4°24'06	
min. Earth dist.	15853 Oct 16	23:30	12°♉18'36	0.68492 AU	
greatest brilliancy	15853 Oct 17	12:03	12°♉06'13	-1.2m	
direct	15853 Nov 27	16:36	2°♉18'13		
	15854 Feb 20	05:05	0°♊		
	15854 Apr 13	09:08	0°♋		
	15854 May 29	04:44	0°♌		
asc. node	15854 Jun 18	23:17	14°♌30'54		
	15854 Jul 10	08:45	0°♍		
	15854 Aug 19	02:28	0°♎		
evening set	15854 Aug 31	17:14	9°♎47'54		
	15854 Sep 26	09:13	0°♏		
	15854 Nov 03	03:49	0°♐		
conjunction	15854 Nov 12	03:34	7°♐07'03	1°08'05	
minimum elong	15854 Nov 12	03:33	7°♐07'00	1°08'47	
	15854 Dec 11	08:17	0°♑		
max. Earth dist.	15855 Jan 02	22:33	17°♑20'24	2.38388 AU	
	15855 Jan 19	18:53	0°♒		
morning rise	15855 Jan 22	11:15	1°♒59'30		
	15855 Mar 02	05:09	0°♓		
desc. node	15855 Apr 15	07:06	0°♈01'43		
	15855 Apr 15	06:03	0°♈		
	15855 Jun 01	18:34	0°♉		
	15855 Jul 25	14:50	0°♊		
retrograde	15855 Oct 11	14:33	24°♊22'41		
opposition	15855 Nov 20	12:09	15°♊08'20	-4°52'41	
greatest brilliancy	15855 Nov 21	00:55	14°♊55'52	-1.3m	
min. Earth dist.	15855 Nov 23	17:52	13°♊52'34	0.66793 AU	
direct	15856 Jan 01	03:25	5°♊06'19		
	15856 Mar 17	10:57	0°♋		
asc. node	15856 May 05	23:42	29°♋41'38		
	15856 May 06	10:54	0°♌		
	15856 Jun 18	16:43	0°♍		
	15856 Jul 28	16:22	0°♎		
	15856 Sep 05	00:31	0°♏		
	15856 Oct 12	22:02	0°♐		
evening set	15856 Nov 17	01:34	27°♐27'12		
	15856 Nov 20	08:58	0°♑		
	15856 Dec 30	04:46	0°♒		
conjunction	15857 Jan 20	05:25	15°♒17'37	0°25'30	
minimum elong	15857 Jan 20	07:06	15°♒20'39	0°26'08	
	15857 Feb 09	23:12	0°♓		
max. Earth dist.	15857 Feb 26	12:39	11°♓28'37	2.52518 AU	
desc. node	15857 Mar 01	21:22	13°♓46'48		
morning rise	15857 Mar 15	21:34	23°♓16'17		
	15857 Mar 25	23:13	0°♈		
	15857 May 11	07:59	0°♉		
	15857 Jun 29	09:56	0°♊		
	15857 Aug 22	03:17	0°♋		
	15857 Nov 15	20:15	0°♌		
retrograde	15857 Nov 19	22:45	0°♌06'02		
	15857 Nov 24	00:02	30°℞♋		
opposition	15857 Dec 27	10:05	21°♋53'07	-3°47'18	
greatest brilliancy	15857 Dec 28	10:26	21°♋30'10	-1.7m	
min. Earth dist.	15858 Jan 03	10:11	19°♋15'07	0.58288 AU	
direct	15858 Feb 05	20:30	12°♋10'28		
asc. node	15858 Mar 24	05:42	23°♋54'37		
	15858 Apr 05	21:11	0°♌		
	15858 May 25	05:53	0°♍		
	15858 Jul 05	23:19	0°♎		
	15858 Aug 14	02:27	0°♏		
	15858 Sep 21	14:55	0°♐		
	15858 Oct 30	18:36	0°♑		
	15858 Dec 10	09:15	0°♒		
evening set	15859 Jan 16	16:53	26°♒24'18		
desc. node	15859 Jan 17	13:03	26°♒59'14		
	15859 Jan 21	21:44	0°♓		
	15859 Mar 07	09:34	0°♈		
conjunction	15859 Mar 08	18:53	0°♈55'00	-0°29'48	
minimum elong	15859 Mar 08	17:44	0°♈53'06	0°29'44	
max. Earth dist.	15859 Mar 27	07:24	13°♈02'36	2.62974 AU	
	15859 Apr 22	15:16	0°♉		
morning rise	15859 Apr 24	02:15	0°♉55'50		
	15859 Jun 09	07:00	0°♊		
	15859 Jul 28	07:18	0°♋		
	15859 Sep 17	10:46	0°♌		
	15859 Nov 13	23:05	0°♍		
retrograde	15860 Jan 14	00:11	16°♍50'53		
asc. node	15860 Feb 09	13:50	12°♍30'13		
opposition	15860 Feb 15	22:17	10°♍29'00	0°24'01	
greatest brilliancy	15860 Feb 16	01:27	10°♍26'22	-2.5m	
min. Earth dist.	15860 Feb 24	09:39	7°♍41'17	0.44618 AU	
direct	15860 Mar 22	21:06	2°♍42'16		
	15860 Jun 02	14:38	0°♎		
	15860 Jul 16	20:58	0°♏		
	15860 Aug 26	23:03	0°♐		
	15860 Oct 07	01:01	0°♑		
	15860 Nov 18	07:49	0°♒		
desc. node	15860 Dec 04	08:26	11°♒04'36		
	15861 Jan 01	06:20	0°♓		
	15861 Feb 15	19:01	0°♈		
evening set	15861 Feb 28	00:36	7°♈54'54		
	15861 Apr 03	12:00	0°♉		
conjunction	15861 Apr 14	07:33	6°♉52'47	-1°03'52	
minimum elong	15861 Apr 14	06:27	6°♉51'03	1°04'17	
max. Earth dist.	15861 Apr 18	06:55	9°♉24'13	2.68069 AU	
	15861 May 20	19:15	0°♊		
morning rise	15861 May 27	12:51	4°♊15'35		
	15861 Jul 07	04:22	0°♋		
	15861 Aug 23	08:12	0°♌		
	15861 Oct 09	06:01	0°♍		
	15861 Nov 25	07:46	0°♎		
asc. node	15861 Dec 27	17:46	20°♎07'04		
	15862 Jan 13	10:14	0°♏		
retrograde	15862 Apr 03	05:01	29°♏50'10		
opposition	15862 May 02	23:11	24°♏50'49	7°16'27	
min. Earth dist.	15862 May 01	12:05	25°♏14'12	0.36409 AU	
greatest brilliancy	15862 May 02	14:21	24°♏56'42	-3.0m	
direct	15862 Jun 01	00:32	20°♏02'08		
	15862 Jul 12	09:24	0°♐		
	15862 Sep 06	03:35	0°♑		
desc. node	15862 Oct 22	11:15	28°♑48'29		
	15862 Oct 24	08:30	0°♒		
	15862 Dec 10	17:45	0°♓		

	15863 Jan 27 09:11	0°♈	
	15863 Mar 16 05:32	0°♉	
evening set	15863 Apr 05 09:00	12°♉39'38	
	15863 May 02 19:28	0°♊	
max. Earth dist.	15863 May 10 11:19	4°♊52'08	2.67622 AU
conjunction	15863 May 18 22:20	10°♊15'51	-1°13'32
minimum elong	15863 May 18 22:29	10°♊16'05	1°14'16
	15863 Jun 18 14:12	0°♋	
morning rise	15863 Jul 01 11:11	8°♋23'05	
	15863 Aug 03 04:08	0°♌	
	15863 Sep 16 07:45	0°♍	
	15863 Oct 29 00:16	0°♎	
asc. node	15863 Nov 14 15:16	11°♎56'57	
	15863 Dec 09 10:28	0°♏	
	15864 Jan 19 06:54	0°♐	
	15864 Mar 01 05:45	0°♑	
	15864 Apr 18 21:09	0°♒	
retrograde	15864 Jun 07 04:12	14°♒37'34	
min. Earth dist.	15864 Jul 05 05:53	9°♒11'32	0.46485 AU
opposition	15864 Jul 13 15:18	6°♒14'05	3°08'24
greatest brilliancy	15864 Jul 12 17:20	6°♒33'29	-2.4m
	15864 Aug 06 12:28	30°℞♑	
direct	15864 Aug 15 17:49	29°♑25'56	
	15864 Aug 25 07:28	0°♒	
desc. node	15864 Sep 08 19:54	2°♒46'29	
	15864 Nov 11 19:10	0°♓	
	15865 Jan 04 13:44	0°♈	
	15865 Feb 24 00:33	0°♉	
	15865 Apr 13 15:00	0°♊	
evening set	15865 May 09 09:30	16°♊22'02	
	15865 May 30 10:28	0°♋	
max. Earth dist.	15865 Jun 01 20:22	1°♋34'48	2.61729 AU
conjunction	15865 Jun 23 11:30	15°♋54'24	-0°56'21
minimum elong	15865 Jun 23 12:54	15°♋56'46	0°57'08
	15865 Jul 14 07:32	0°♌	
morning rise	15865 Aug 10 09:10	18°♌46'15	
	15865 Aug 26 05:03	0°♍	
asc. node	15865 Oct 01 08:12	26°♍19'37	
	15865 Oct 06 06:48	0°♎	
	15865 Nov 14 21:35	0°♏	
	15865 Dec 23 16:47	0°♐	
	15866 Jan 31 15:23	0°♑	
	15866 Mar 13 03:00	0°♒	
	15866 Apr 26 19:48	0°♓	
	15866 Jun 29 07:02	0°♈	
retrograde	15866 Jul 20 23:35	2°♈58'14	
desc. node	15866 Jul 28 02:37	2°♈37'04	
	15866 Aug 10 14:57	30°℞♓	
min. Earth dist.	15866 Aug 23 22:43	25°♓25'29	0.59585 AU
opposition	15866 Aug 29 21:42	23°♓06'06	-1°27'45
greatest brilliancy	15866 Aug 29 13:00	23°♓14'35	-1.7m
direct	15866 Oct 06 14:22	14°♓31'34	
	15866 Dec 04 18:57	0°♈	
	15867 Feb 02 03:18	0°♉	
	15867 Mar 25 09:46	0°♊	
	15867 May 11 23:36	0°♋	
evening set	15867 Jun 17 02:37	24°♋05'29	
	15867 Jun 25 17:08	0°♌	
max. Earth dist.	15867 Jul 01 22:43	4°♌19'23	2.50765 AU
	15867 Aug 06 23:34	0°♍	
conjunction	15867 Aug 07 11:02	0°♍20'53	-0°07'49
minimum elong	15867 Aug 07 11:32	0°♍21'47	0°08'17
behind sun begin	15867 Aug 06 15:20	29°♌45'00	
behind sun end	15867 Aug 08 07:44	0°♍58'36	
asc. node	15867 Aug 18 22:41	8°♍46'35	
	15867 Sep 16 05:31	0°♎	
morning rise	15867 Oct 06 15:01	15°♎39'50	
	15867 Oct 25 00:47	0°♏	
	15867 Dec 02 03:12	0°♐	
	15868 Jan 09 09:58	0°♑	
	15868 Feb 17 21:00	0°♒	
	15868 Mar 30 17:08	0°♓	
	15868 May 15 22:02	0°♈	
desc. node	15868 Jun 14 04:17	16°♈32'18	
	15868 Jul 13 09:55	0°♉	
retrograde	15868 Aug 24 14:42	9°♉14'46	
min. Earth dist.	15868 Oct 02 07:49	0°♉10'15	0.67289 AU
	15868 Oct 02 18:11	30°℞♈	
opposition	15868 Oct 04 12:27	29°♈18'12	-3°52'38
greatest brilliancy	15868 Oct 04 03:53	29°♈26'41	-1.3m
direct	15868 Nov 13 21:39	19°♈47'36	
	15868 Dec 30 12:02	0°♉	
	15869 Mar 02 08:02	0°♊	
	15869 Apr 21 08:46	0°♋	
	15869 Jun 05 15:38	0°♌	
asc. node	15869 Jul 05 15:03	21°♌09'57	
	15869 Jul 17 17:56	0°♍	
evening set	15869 Aug 05 17:53	14°♍08'12	
	15869 Aug 26 13:37	0°♎	
max. Earth dist.	15869 Sep 04 17:03	7°♎04'16	2.37199 AU
	15869 Oct 03 22:43	0°♏	
conjunction	15869 Oct 11 05:23	5°♏45'43	0°58'34
minimum elong	15869 Oct 11 01:43	5°♏38'26	0°58'57
	15869 Nov 10 18:18	0°♐	
	15869 Dec 18 22:01	0°♑	
morning rise	15869 Dec 25 06:06	4°♑54'33	
	15870 Jan 27 06:42	0°♒	
	15870 Mar 09 15:50	0°♓	
	15870 Apr 22 21:33	0°♈	
desc. node	15870 May 02 01:02	5°♈54'31	
	15870 Jun 10 10:37	0°♉	
	15870 Aug 08 15:01	0°♊	
retrograde	15870 Sep 27 16:51	11°♊48'56	
opposition	15870 Nov 07 03:38	2°♊18'25	-4°50'56
greatest brilliancy	15870 Nov 07 09:40	2°♊12'30	-1.2m
min. Earth dist.	15870 Nov 08 20:41	1°♊38'09	0.68290 AU
	15870 Nov 13 01:46	30°℞♉	
direct	15870 Dec 18 17:45	22°♉20'03	
	15871 Jan 26 16:00	0°♊	
	15871 Mar 29 11:05	0°♋	
	15871 May 16 02:18	0°♌	
asc. node	15871 May 23 14:34	5°♌05'41	
	15871 Jun 27 17:41	0°♍	
	15871 Aug 06 13:12	0°♎	
	15871 Sep 13 19:39	0°♏	
evening set	15871 Oct 18 16:07	27°♏39'49	
	15871 Oct 21 14:55	0°♐	
	15871 Nov 28 22:13	0°♑	
conjunction	15871 Dec 28 06:05	22°♑19'40	0°48'24
minimum elong	15871 Dec 28 09:15	22°♑25'38	0°49'09
	15872 Jan 07 13:14	0°♒	
max. Earth dist.	15872 Feb 12 10:30	25°♒59'32	2.47184 AU
	15872 Feb 18 02:53	0°♓	
morning rise	15872 Feb 26 14:36	5°♓55'51	
desc. node	15872 Mar 18 15:35	20°♓21'28	
	15872 Apr 02 01:00	0°♈	
	15872 May 18 15:41	0°♉	
	15872 Jul 07 20:40	0°♊	
	15872 Sep 04 08:23	0°♋	

retrograde	15872 Nov 03 03:19	15°♋38'24	
opposition	15872 Dec 11 18:34	6°♋56'59	-4°27'02
greatest brilliancy	15872 Dec 12 16:16	6°♋36'09	-1.5m
min. Earth dist.	15872 Dec 17 08:46	4°♋48'19	0.62424 AU
	15872 Dec 31 13:52	30°℞♊	
direct	15873 Jan 21 23:00	26°♊59'52	
	15873 Feb 13 11:06	0°♋	
asc. node	15873 Apr 09 19:04	24°♋07'56	
	15873 Apr 19 19:39	0°♌	
	15873 Jun 04 08:35	0°♍	
	15873 Jul 15 01:42	0°♎	
	15873 Aug 22 17:50	0°♏	
	15873 Sep 29 21:52	0°♐	
	15873 Nov 07 16:44	0°♑	
	15873 Dec 17 21:58	0°♒	
evening set	15873 Dec 26 22:04	6°♒32'05	
	15874 Jan 29 01:28	0°♓	
desc. node	15874 Feb 03 05:16	3°♓34'20	
conjunction	15874 Feb 20 01:35	15°♓06'03	-0°10'28
minimum elong	15874 Feb 20 01:05	15°♓05'12	0°10'10
behind sun begin	15874 Feb 19 08:19	14°♓36'47	
behind sun end	15874 Feb 20 17:50	15°♓33'35	
	15874 Mar 14 06:56	0°♈	
max. Earth dist.	15874 Mar 17 04:12	1°♈54'41	2.59502 AU
morning rise	15874 Apr 09 19:32	17°♈22'29	
	15874 Apr 29 11:29	0°♉	
	15874 Jun 16 11:55	0°♊	
	15874 Aug 05 16:50	0°♋	
	15874 Sep 29 10:26	0°♌	
retrograde	15874 Dec 20 21:35	26°♌41'59	
opposition	15875 Jan 24 20:58	19°♌28'59	-1°46'21
greatest brilliancy	15875 Jan 25 12:47	19°♌14'57	-2.1m
min. Earth dist.	15875 Feb 02 10:06	16°♌27'10	0.50295 AU
asc. node	15875 Feb 26 01:28	10°♌54'27	
direct	15875 Mar 04 04:11	10°♌38'33	
	15875 May 02 16:41	0°♍	
	15875 Jun 18 14:11	0°♎	
	15875 Jul 29 12:14	0°♏	
	15875 Sep 07 02:00	0°♐	
	15875 Oct 17 02:39	0°♑	
	15875 Nov 27 12:49	0°♒	
desc. node	15875 Dec 22 00:11	17°♒08'27	
	15876 Jan 09 18:24	0°♓	
evening set	15876 Feb 13 09:42	23°♓10'34	
	15876 Feb 23 18:51	0°♈	
conjunction	15876 Mar 31 08:43	23°♈41'26	-0°53'33
minimum elong	15876 Mar 31 07:23	23°♈39'17	0°53'47
max. Earth dist.	15876 Apr 09 18:31	29°♈42'39	2.66715 AU
	15876 Apr 10 05:24	0°♉	
morning rise	15876 May 14 08:30	21°♉39'51	
	15876 May 27 13:42	0°♊	
	15876 Jul 14 09:59	0°♋	
	15876 Aug 31 15:38	0°♌	
	15876 Oct 19 17:44	0°♍	
	15876 Dec 10 19:28	0°♎	
asc. node	15877 Jan 13 07:27	16°♎24'58	
retrograde	15877 Mar 01 00:39	27°♎52'21	
opposition	15877 Mar 30 18:08	22°♎52'06	5°13'03
greatest brilliancy	15877 Mar 31 10:43	22°♎40'40	-2.9m
min. Earth dist.	15877 Apr 04 01:46	21°♎40'48	0.37567 AU
direct	15877 Apr 30 16:38	17°♎21'06	
	15877 Jun 15 15:38	0°♏	
	15877 Aug 05 21:16	0°♐	
	15877 Sep 19 22:45	0°♑	
	15877 Nov 03 15:32	0°♒	
desc. node	15877 Nov 08 00:57	2°♒55'23	
	15877 Dec 19 05:00	0°♓	
	15878 Feb 03 19:19	0°♈	
evening set	15878 Mar 22 15:06	29°♈42'29	
	15878 Mar 23 02:10	0°♉	
max. Earth dist.	15878 May 01 19:51	25°♉08'25	2.68450 AU
conjunction	15878 May 05 11:40	27°♉27'41	-1°12'48
minimum elong	15878 May 05 11:16	27°♉27'03	1°13'27
	15878 May 09 11:40	0°♊	
morning rise	15878 Jun 17 12:19	24°♊54'31	
	15878 Jun 25 10:15	0°♋	
	15878 Aug 10 11:49	0°♌	
	15878 Sep 24 10:57	0°♍	
	15878 Nov 07 06:34	0°♎	
asc. node	15878 Dec 01 08:46	16°♎47'21	
	15878 Dec 20 04:45	0°♏	
	15879 Feb 01 07:10	0°♐	
	15879 Mar 20 13:49	0°♑	
retrograde	15879 May 17 07:37	19°♑17'14	
min. Earth dist.	15879 Jun 12 12:31	14°♑39'54	0.41177 AU
greatest brilliancy	15879 Jun 18 18:58	12°♑40'29	-2.7m
opposition	15879 Jun 20 03:38	12°♑14'20	5°29'25
direct	15879 Jul 21 03:11	6°♑24'43	
desc. node	15879 Sep 26 06:44	27°♑14'15	
	15879 Oct 01 18:24	0°♒	
	15879 Nov 24 19:44	0°♓	
	15880 Jan 14 05:03	0°♈	
	15880 Mar 03 08:39	0°♉	
	15880 Apr 20 10:50	0°♊	
evening set	15880 Apr 25 14:40	3°♊15'54	
max. Earth dist.	15880 May 23 09:41	21°♊02'46	2.64663 AU
	15880 Jun 06 04:37	0°♋	
conjunction	15880 Jun 08 16:20	1°♋37'34	-1°06'29
minimum elong	15880 Jun 08 17:20	1°♋39'13	1°07'17
	15880 Jul 21 06:51	0°♌	
morning rise	15880 Jul 24 06:15	2°♌01'16	
	15880 Sep 02 14:18	0°♍	
	15880 Oct 14 04:21	0°♎	
asc. node	15880 Oct 18 02:17	2°♎52'56	
	15880 Nov 23 08:01	0°♏	
	15881 Jan 01 15:47	0°♐	
	15881 Feb 10 05:09	0°♑	
	15881 Mar 23 20:51	0°♒	
	15881 May 11 19:32	0°♓	
retrograde	15881 Jul 05 10:12	16°♓28'50	
min. Earth dist.	15881 Aug 06 03:15	9°♓41'57	0.54913 AU
opposition	15881 Aug 13 09:31	6°♓55'50	0°00'40
greatest brilliancy	15880 Mar 12 19:12	5°♉49'59	1.8m
desc. node	15881 Aug 13 14:55	6°♓50'41	
	15881 Sep 05 15:46	30°℞♒	
direct	15881 Sep 18 13:33	28°♒55'11	
	15881 Oct 02 01:27	0°♓	
	15881 Dec 18 15:19	0°♈	
	15882 Feb 10 20:13	0°♉	
	15882 Apr 01 18:24	0°♊	
	15882 May 18 22:52	0°♋	
evening set	15882 Jun 01 04:24	8°♋42'27	
max. Earth dist.	15882 Jun 18 19:52	20°♋31'59	2.55595 AU
	15882 Jul 02 16:37	0°♌	
conjunction	15882 Jul 19 07:01	11°♌32'44	-0°30'35
minimum elong	15882 Jul 19 08:25	11°♌35'11	0°31'13
	15882 Aug 14 04:00	0°♍	
asc. node	15882 Sep 04 17:56	15°♍48'58	
morning rise	15882 Sep 11 07:49	20°♍42'46	

	15882 Sep 23 16:30	0°♎	
	15882 Nov 01 18:06	0°♏	
	15882 Dec 10 01:27	0°♐	
	15883 Jan 17 12:00	0°♑	
	15883 Feb 26 04:02	0°♒	
	15883 Apr 09 13:30	0°♓	
	15883 May 27 21:50	0°♈	
desc. node	15883 Jul 01 19:07	16°♈52'31	
retrograde	15883 Aug 12 05:20	26°♈05'39	
min. Earth dist.	15883 Sep 18 05:48	17°♈33'22	0.65048 AU
opposition	15883 Sep 21 22:22	16°♈05'54	-3°08'33
greatest brilliancy	15883 Sep 21 11:00	16°♈17'07	-1.4m
direct	15883 Oct 31 10:36	6°♈53'15	
	15884 Jan 15 15:37	0°♉	
	15884 Mar 11 03:36	0°♊	
	15884 Apr 28 22:13	0°♋	
	15884 Jun 12 21:53	0°♌	
evening set	15884 Jul 14 16:40	22°♌27'57	
asc. node	15884 Jul 22 10:02	28°♌04'47	
	15884 Jul 25 01:01	0°♍	
max. Earth dist.	15884 Jul 29 02:00	2°♍58'12	2.42309 AU
	15884 Sep 03 00:00	0°♎	
conjunction	15884 Sep 12 02:52	7°♎01'26	0°34'46
minimum elong	15884 Sep 12 00:03	6°♎56'00	0°34'46
	15884 Oct 11 12:20	0°♏	
	15884 Nov 18 09:36	0°♐	
morning rise	15884 Nov 22 23:40	3°♐37'57	
	15884 Dec 26 13:10	0°♑	
	15885 Feb 03 20:56	0°♒	
	15885 Mar 17 06:58	0°♓	
	15885 Apr 30 22:25	0°♈	
desc. node	15885 May 18 16:47	11°♈08'00	
	15885 Jun 20 06:31	0°♉	
retrograde	15885 Sep 14 08:01	29°♉28'20	
opposition	15885 Oct 25 02:50	19°♉45'05	-4°37'26
greatest brilliancy	15885 Oct 25 02:22	19°♉45'32	-1.2m
min. Earth dist.	15885 Oct 25 07:16	19°♉40'42	0.68724 AU
direct	15885 Dec 05 09:39	9°♉54'40	
	15886 Feb 12 07:35	0°♊	
	15886 Apr 07 17:17	0°♋	
	15886 May 24 02:27	0°♌	
asc. node	15886 Jun 09 05:24	11°♌09'29	
	15886 Jul 05 10:36	0°♍	
	15886 Aug 14 05:15	0°♎	
evening set	15886 Sep 17 03:46	26°♎33'30	
	15886 Sep 21 12:08	0°♏	
	15886 Oct 29 06:45	0°♐	
conjunction	15886 Nov 29 17:01	24°♐44'07	1°05'03
minimum elong	15886 Nov 29 19:17	24°♐48'33	1°05'50
	15886 Dec 06 11:35	0°♑	
	15887 Jan 14 22:46	0°♒	
max. Earth dist.	15887 Jan 22 05:00	5°♒22'32	2.41418 AU
morning rise	15887 Feb 05 05:40	15°♒37'23	
	15887 Feb 25 08:44	0°♓	
desc. node	15887 Apr 05 09:54	26°♓46'09	
	15887 Apr 10 06:41	0°♈	
	15887 May 27 07:44	0°♉	
	15887 Jul 18 08:36	0°♊	
	15887 Sep 29 15:39	0°♋	
retrograde	15887 Oct 19 20:16	2°♋14'23	
	15887 Nov 07 19:08	30°℞♊	
opposition	15887 Nov 28 08:47	23°♊10'29	-4°47'44
greatest brilliancy	15887 Nov 29 01:09	22°♊54'35	-1.4m
min. Earth dist.	15887 Dec 02 11:14	21°♊34'58	0.65524 AU
direct	15888 Jan 08 22:12	13°♊08'15	
	15888 Mar 08 16:29	0°♋	
asc. node	15888 Apr 26 07:30	27°♋24'09	
	15888 Apr 30 09:28	0°♌	
	15888 Jun 13 06:42	0°♍	
	15888 Jul 23 11:34	0°♎	
	15888 Aug 30 22:10	0°♏	
	15888 Oct 07 21:27	0°♐	
	15888 Nov 15 10:26	0°♑	
evening set	15888 Dec 02 13:14	13°♑01'03	
	15888 Dec 25 08:42	0°♒	
conjunction	15889 Feb 01 03:16	27°♒08'30	0°11'57
minimum elong	15889 Feb 01 04:01	27°♒09'48	0°12'28
behind sun begin	15889 Jan 31 13:18	26°♒43'57	
behind sun end	15889 Feb 01 18:44	27°♒35'37	
	15889 Feb 05 05:10	0°♓	
desc. node	15889 Feb 20 00:44	10°♓15'48	
max. Earth dist.	15889 Mar 05 18:11	19°♓37'11	2.55205 AU
	15889 Mar 21 05:50	0°♈	
morning rise	15889 Mar 25 08:15	2°♈43'14	
	15889 May 06 11:16	0°♉	
	15889 Jun 24 01:05	0°♊	
	15889 Aug 15 02:12	0°♋	
	15889 Oct 17 00:05	0°♌	
retrograde	15889 Nov 30 08:23	9°♌27'33	
opposition	15890 Jan 06 01:01	1°♌33'23	-3°12'35
greatest brilliancy	15890 Jan 07 00:35	1°♌11'33	-1.8m
	15890 Jan 10 05:27	30°℞♋	
min. Earth dist.	15890 Jan 13 17:34	28°♋42'35	0.55648 AU
direct	15890 Feb 14 21:26	22°♋03'52	
asc. node	15890 Mar 14 14:42	26°♋47'10	
	15890 Mar 23 15:51	0°♌	
	15890 May 17 23:17	0°♍	
	15890 Jun 29 19:18	0°♎	
	15890 Aug 08 09:09	0°♏	
	15890 Sep 16 04:04	0°♐	
	15890 Oct 25 13:06	0°♑	
	15890 Dec 05 08:58	0°♒	
desc. node	15891 Jan 07 16:13	23°♒30'32	
	15891 Jan 17 02:00	0°♓	
evening set	15891 Jan 27 06:53	6°♓58'07	
	15891 Mar 02 17:09	0°♈	
conjunction	15891 Mar 17 15:22	9°♈47'00	-0°39'34
minimum elong	15891 Mar 17 14:02	9°♈44'50	0°39'37
max. Earth dist.	15891 Apr 01 18:30	19°♈35'36	2.64542 AU
	15891 Apr 17 23:26	0°♉	
morning rise	15891 May 01 22:40	8°♉53'33	
	15891 Jun 04 11:17	0°♊	
	15891 Jul 22 23:11	0°♋	
	15891 Sep 10 18:48	0°♌	
	15891 Nov 02 20:10	0°♍	
	15892 Jan 20 09:47	0°♎	
retrograde	15892 Jan 29 11:25	0°♎30'37	
asc. node	15892 Jan 30 20:39	0°♎29'53	
	15892 Feb 07 10:13	30°℞♍	
opposition	15892 Mar 01 06:30	24°♍39'51	2°01'30
greatest brilliancy	15892 Mar 01 19:55	24°♍29'22	-2.7m
min. Earth dist.	15892 Mar 08 23:39	22°♍16'05	0.41690 AU
direct	15892 Apr 04 11:59	17°♍39'52	
	15892 May 19 07:59	0°♎	
	15892 Jul 08 04:16	0°♏	
	15892 Aug 19 22:04	0°♐	
	15892 Sep 30 21:29	0°♑	
	15892 Nov 12 19:08	0°♒	
desc. node	15892 Nov 24 14:17	8°♒04'46	
	15892 Dec 27 04:11	0°♓	

	15893 Feb 11	00:07	0°♈		
evening set	15893 Mar 08	10:04	16°♈19'38		
	15893 Mar 29	20:54	0°♉		
conjunction	15893 Apr 22	01:15	14°♉42'40	-1°08'17	
minimum elong	15893 Apr 22	00:22	14°♉41'17	1°08'48	
max. Earth dist.	15893 Apr 23	05:52	15°♉28'01	2.68439 AU	
	15893 May 16	04:21	0°♊		
morning rise	15893 Jun 04	01:48	11°♊59'03		
	15893 Jul 02	09:03	0°♋		
	15893 Aug 18	02:01	0°♌		
	15893 Oct 03	03:53	0°♍		
	15893 Nov 17	17:18	0°♎		
asc. node	15893 Dec 17	23:57	19°♎55'14		
	15894 Jan 02	12:24	0°♏		
	15894 Feb 21	04:42	0°♐		
retrograde	15894 Apr 20	18:10	18°♐54'11		
min. Earth dist.	15894 May 17	01:51	14°♐36'28	0.37347 AU	
opposition	15894 May 21	13:13	13°♐22'04	7°13'47	
greatest brilliancy	15894 May 20	13:01	13°♐38'53	-2.9m	
direct	15894 Jun 19	17:54	8°♐24'00		
	15894 Aug 25	10:28	0°♑		
desc. node	15894 Oct 12	18:53	27°♑32'53		
	15894 Oct 16	20:42	0°♒		
	15894 Dec 04	19:32	0°♓		
	15895 Jan 22	05:28	0°♈		
	15895 Mar 11	11:06	0°♉		
evening set	15895 Apr 13	01:50	20°♉26'34		
	15895 Apr 28	04:48	0°♊		
max. Earth dist.	15895 May 15	12:39	11°♊01'36	2.66809 AU	
conjunction	15895 May 26	15:54	18°♊10'01	-1°12'11	
minimum elong	15895 May 26	16:22	18°♊10'47	1°12'58	
	15895 Jun 13	23:09	0°♋		
morning rise	15895 Jul 09	17:37	16°♋54'18		
	15895 Jul 29	08:48	0°♌		
	15895 Sep 11	04:58	0°♍		
	15895 Oct 23	10:57	0°♎		
asc. node	15895 Nov 04	21:46	9°♎02'30		
	15895 Dec 03	08:17	0°♏		
	15896 Jan 12	11:31	0°♐		
	15896 Feb 22	04:24	0°♑		
	15896 Apr 06	14:35	0°♒		
retrograde	15896 Jun 18	02:59	27°♒28'41		
min. Earth dist.	15896 Jul 17	10:42	21°♒33'24	0.49585 AU	
opposition	15896 Jul 25	16:06	18°♒33'08	1°52'52	
greatest brilliancy	15896 Jul 25	02:52	18°♒45'15	-2.2m	
direct	15896 Aug 28	23:35	11°♒15'57		
desc. node	15896 Aug 30	01:51	11°♒16'25		
	15896 Nov 01	23:44	0°♓		
	15896 Dec 29	07:22	0°♈		
	15897 Feb 18	19:45	0°♉		
	15897 Apr 08	20:16	0°♊		
evening set	15897 May 17	10:50	24°♊34'23		
	15897 May 25	18:57	0°♋		
max. Earth dist.	15897 Jun 07	17:16	8°♋30'29	2.59767 AU	
conjunction	15897 Jul 02	08:46	25°♋02'37	-0°48'21	
minimum elong	15897 Jul 02	10:18	25°♋05'14	0°49'05	
	15897 Jul 09	15:04	0°♌		
morning rise	15897 Aug 21	00:46	29°♌44'24		
	15897 Aug 21	09:27	0°♍		
asc. node	15897 Sep 21	13:01	22°♍44'31		
	15897 Oct 01	06:41	0°♎		
	15897 Nov 09	16:47	0°♏		
	15897 Dec 18	07:14	0°♐		
	15898 Jan 26	00:01	0°♑		
	15898 Mar 07	01:25	0°♒		
	15898 Apr 19	12:34	0°♓		
	15898 Jun 12	00:42	0°♈		
desc. node	15898 Jul 18	07:41	11°♈17'03		
retrograde	15898 Jul 29	08:00	12°♈04'02		
min. Earth dist.	15898 Sep 02	10:18	4°♈08'30	0.61786 AU	
opposition	15898 Sep 07	14:13	2°♈06'49	-2°10'04	
greatest brilliancy	15898 Sep 07	03:10	2°♈17'41	-1.6m	
	15898 Sep 13	01:43	30°℞♓		
direct	15898 Oct 15	23:42	23°♓16'58		
	15898 Nov 21	13:53	0°♈		
	15899 Jan 26	16:53	0°♉		
	15899 Mar 20	04:23	0°♊		
	15899 May 07	03:48	0°♋		
	15899 Jun 20	23:40	0°♌		
evening set	15899 Jun 26	20:13	4°♌03'30		
max. Earth dist.	15899 Jul 10	13:56	13°♌42'35	2.47834 AU	
	15899 Aug 02	05:22	0°♍		
asc. node	15899 Aug 09	03:13	5°♍03'57		
conjunction	15899 Aug 19	14:17	12°♍48'50	0°07'14	
minimum elong	15899 Aug 19	13:48	12°♍47'56	0°06'54	
behind sun begin	15899 Aug 18	15:17	12°♍06'01		
behind sun end	15899 Aug 20	12:20	13°♍29'53		
	15899 Sep 11	09:04	0°♎		
	15899 Oct 20	02:04	0°♏		
morning rise	15899 Oct 22	22:35	2°♏14'32		
greatest brilliancy	15899 Nov 23	04:32	26°♏54'09	1.2m	
	15899 Nov 27	02:35	0°♐		
	15900 Jan 04	07:41	0°♑		
	15900 Feb 12	16:28	0°♒		
	15900 Mar 26	06:39	0°♓		
	15900 May 10	16:00	0°♈		
desc. node	15900 Jun 05	09:26	15°♈18'13		
	15900 Jul 03	13:19	0°♉		
retrograde	15900 Sep 02	04:00	17°♉01'28		
min. Earth dist.	15900 Oct 11	17:30	7°♉40'41	0.68082 AU	
opposition	15900 Oct 13	01:46	7°♉08'47	-4°12'48	
greatest brilliancy	15900 Oct 12	19:39	7°♉14'50	-1.3m	
	15900 Nov 02	21:11	30°℞♈		
direct	15900 Nov 22	19:44	27°♈30'06		
	15900 Dec 14	06:20	0°♉		
	15901 Feb 24	19:12	0°♊		
	15901 Apr 17	01:36	0°♋		
	15901 Jun 01	17:12	0°♌		
asc. node	15901 Jun 26	21:38	17°♌39'45		
	15901 Jul 13	21:56	0°♍		
evening set	15901 Aug 20	19:12	28°♍31'05		
	15901 Aug 22	17:23	0°♎		
	15901 Sep 30	01:39	0°♏		
conjunction	15901 Oct 30	00:21	23°♏46'25	1°06'19	
minimum elong	15901 Oct 29	22:18	23°♏42'22	1°06'55	
	15901 Nov 06	20:34	0°♐		
max. Earth dist.	15901 Dec 03	13:51	21°♐05'09	2.36414 AU	
	15901 Dec 14	23:58	0°♑		
morning rise	15902 Jan 11	17:23	21°♑15'50		
	15902 Jan 23	08:38	0°♒		
	15902 Mar 05	16:46	0°♓		
	15902 Apr 18	17:28	0°♈		
desc. node	15902 Apr 23	04:07	2°♈54'28		
	15902 Jun 05	12:27	0°♉		
	15902 Jul 30	20:56	0°♊		
retrograde	15902 Oct 06	13:35	19°♊28'45		
opposition	15902 Nov 15	17:48	10°♊06'52	-4°53'30	
greatest brilliancy	15902 Nov 16	03:39	9°♊57'14	-1.3m	
min. Earth dist.	15902 Nov 18	07:34	9°♊06'28	0.67590 AU	

direct	15902 Dec 27 09:07	0°♊05'51	
	15903 Mar 23 13:41	0°♋	
	15903 May 11 12:39	0°♌	
asc. node	15903 May 14 21:21	2°♌14'14	
	15903 Jun 23 13:35	0°♍	
	15903 Aug 02 12:20	0°♎	
	15903 Sep 09 20:13	0°♏	
greatest brilliancy	15903 Sep 10 05:11	0°♏17'43	1.2m
	15903 Oct 17 16:33	0°♐	
evening set	15903 Nov 06 02:04	15°♐15'56	
	15903 Nov 25 01:01	0°♑	
	15904 Jan 03 17:29	0°♒	
conjunction	15904 Jan 12 06:05	6°♒16'16	0°35'38
minimum elong	15904 Jan 12 08:31	6°♒20'42	0°36'17
	15904 Feb 14 08:17	0°♓	
max. Earth dist.	15904 Feb 22 11:22	5°♓40'49	2.50192 AU
morning rise	15904 Mar 09 06:21	16°♓32'57	
desc. node	15904 Mar 09 18:21	16°♓53'25	
	15904 Mar 29 05:46	0°♈	
	15904 May 14 15:05	0°♉	
	15904 Jul 03 01:30	0°♊	
	15904 Aug 27 05:59	0°♋	
retrograde	15904 Nov 13 11:32	24°♋13'47	
opposition	15904 Dec 21 12:08	15°♋47'24	-4°06'31
greatest brilliancy	15904 Dec 22 11:45	15°♋24'57	-1.6m
min. Earth dist.	15904 Dec 27 21:43	13°♋21'33	0.60244 AU
direct	15905 Jan 31 07:46	5°♋56'46	
asc. node	15905 Apr 01 02:15	23°♋49'02	
	15905 Apr 12 16:02	0°♌	
	15905 May 30 02:56	0°♍	
	15905 Jul 10 09:27	0°♎	
	15905 Aug 18 07:45	0°♏	
	15905 Sep 25 16:05	0°♐	
	15905 Nov 03 14:52	0°♑	
	15905 Dec 14 00:06	0°♒	
evening set	15906 Jan 09 00:40	18°♒37'47	
desc. node	15906 Jan 25 09:43	0°♓04'27	
	15906 Jan 25 07:09	0°♓	
conjunction	15906 Mar 02 18:13	24°♓46'41	-0°22'04
minimum elong	15906 Mar 02 17:16	24°♓45'06	0°21'54
	15906 Mar 10 14:45	0°♈	
max. Earth dist.	15906 Mar 24 01:54	8°♈52'01	2.61522 AU
morning rise	15906 Apr 19 01:10	25°♈41'37	
	15906 Apr 25 18:38	0°♉	
	15906 Jun 12 12:59	0°♊	
	15906 Jul 31 23:34	0°♋	
	15906 Sep 22 08:20	0°♌	
	15906 Nov 24 20:06	0°♍	
retrograde	15907 Jan 03 23:11	8°♍07'38	
opposition	15907 Feb 06 19:50	1°♍21'38	-0°37'51
greatest brilliancy	15907 Feb 07 02:00	1°♍16'20	-2.3m
	15907 Feb 10 18:23	30°℞♌	
min. Earth dist.	15907 Feb 15 11:33	28°♌23'45	0.47141 AU
asc. node	15907 Feb 17 10:21	27°♌45'32	
direct	15907 Mar 15 21:52	23°♌02'51	
	15907 Apr 17 21:57	0°♍	
	15907 Jun 11 04:45	0°♎	
	15907 Jul 23 14:35	0°♏	
	15907 Sep 01 21:34	0°♐	
	15907 Oct 12 10:00	0°♑	
	15907 Nov 23 05:47	0°♒	
desc. node	15907 Dec 13 04:34	13°♒53'38	
	15908 Jan 05 19:11	0°♓	
	15908 Feb 20 01:14	0°♈	
evening set	15908 Feb 23 10:50	2°♈12'56	
	15908 Apr 06 14:26	0°♉	
conjunction	15908 Apr 09 09:19	1°♉46'39	-1°00'03
minimum elong	15908 Apr 09 08:05	1°♉44'41	1°00'24
max. Earth dist.	15908 Apr 15 19:13	5°♉51'37	2.67573 AU
morning rise	15908 May 22 21:08	29°♉21'13	
	15908 May 23 21:41	0°♊	
	15908 Jul 10 11:17	0°♋	
	15908 Aug 27 01:35	0°♌	
	15908 Oct 13 19:38	0°♍	
	15908 Dec 01 13:24	0°♎	
asc. node	15909 Jan 04 15:13	19°♎41'13	
	15909 Jan 24 13:11	0°♏	
retrograde	15909 Mar 20 16:20	15°♏51'34	
opposition	15909 Apr 19 02:56	11°♏01'05	6°40'37
greatest brilliancy	15909 Apr 19 08:02	10°♏57'41	-3.0m
min. Earth dist.	15909 Apr 20 08:43	10°♏41'16	0.36476 AU
direct	15909 May 18 17:53	6°♏02'42	
	15909 Jul 26 00:05	0°♐	
	15909 Sep 12 22:51	0°♑	
	15909 Oct 29 05:55	0°♒	
desc. node	15909 Oct 30 06:04	0°♒39'13	
	15909 Dec 14 16:39	0°♓	
	15910 Jan 30 19:30	0°♈	
	15910 Mar 19 09:12	0°♉	
evening set	15910 Mar 31 12:34	7°♉38'50	
	15910 May 05 21:12	0°♊	
max. Earth dist.	15910 May 07 19:01	1°♊12'44	2.68105 AU
conjunction	15910 May 14 03:26	5°♊15'01	-1°13'46
minimum elong	15910 May 14 03:21	5°♊14'52	1°14'28
	15910 Jun 21 17:55	0°♋	
morning rise	15910 Jun 26 09:10	3°♋00'03	
	15910 Aug 06 13:19	0°♌	
	15910 Sep 20 01:51	0°♍	
	15910 Nov 02 05:54	0°♎	
asc. node	15910 Nov 22 14:01	14°♎26'09	
	15910 Dec 14 06:29	0°♏	
	15911 Jan 24 21:37	0°♐	
	15911 Mar 09 07:53	0°♑	
	15911 May 05 03:14	0°♒	
retrograde	15911 May 31 02:21	4°♒38'08	
	15911 Jun 25 23:13	30°℞♑	
min. Earth dist.	15911 Jun 27 04:58	29°♑35'50	0.44020 AU
greatest brilliancy	15911 Jul 04 08:08	27°♑11'07	-2.5m
opposition	15911 Jul 05 12:01	26°♑47'27	4°09'14
direct	15911 Aug 06 14:52	20°♑24'51	
desc. node	15911 Sep 17 13:51	29°♑39'58	
	15911 Sep 18 10:34	0°♒	
	15911 Nov 18 10:53	0°♓	
	15912 Jan 09 12:41	0°♈	
	15912 Feb 28 08:54	0°♉	
	15912 Apr 16 18:17	0°♊	
evening set	15912 May 04 10:18	11°♊11'43	
max. Earth dist.	15912 May 29 19:43	27°♊33'12	2.63147 AU
	15912 Jun 02 13:48	0°♋	
conjunction	15912 Jun 17 23:25	10°♋07'32	-1°01'12
minimum elong	15912 Jun 18 00:41	10°♋09'37	1°02'00
	15912 Jul 17 14:03	0°♌	
morning rise	15912 Aug 03 17:20	11°♌45'55	
	15912 Aug 29 16:55	0°♍	
asc. node	15912 Oct 09 07:47	29°♍28'42	
	15912 Oct 10 00:42	0°♎	
	15912 Nov 18 21:24	0°♏	
	15912 Dec 27 21:50	0°♐	
	15913 Feb 05 01:21	0°♑	

	15913 Mar 17 21:21	0°♒	
	15913 May 02 17:23	0°♓	
retrograde	15913 Jul 15 11:31	26°♓36'02	
desc. node	15913 Aug 04 21:13	23°♓39'08	
min. Earth dist.	15913 Aug 17 10:54	19°♓22'39	0.57600 AU
opposition	15913 Aug 23 23:59	16°♓50'40	-0°53'23
greatest brilliancy	15913 Aug 23 18:06	16°♓56'22	-1.8m
direct	15913 Sep 30 00:46	8°♓30'07	
	15913 Dec 11 06:12	0°♈	
	15914 Feb 06 01:40	0°♉	
	15914 Mar 28 18:23	0°♊	
	15914 May 15 05:14	0°♋	
evening set	15914 Jun 11 01:30	17°♋46'42	
max. Earth dist.	15914 Jun 26 23:06	28°♋35'42	2.53011 AU
	15914 Jun 29 00:06	0°♌	
conjunction	15914 Jul 30 19:15	22°♌20'41	-0°18'05
minimum elong	15914 Jul 30 20:14	22°♌22'28	0°18'37
	15914 Aug 10 10:02	0°♍	
asc. node	15914 Aug 26 22:35	12°♍06'32	
	15914 Sep 19 19:47	0°♎	
morning rise	15914 Sep 25 23:20	4°♎40'31	
	15914 Oct 28 18:21	0°♏	
	15914 Dec 05 22:59	0°♐	
	15915 Jan 13 06:40	0°♑	
	15915 Feb 21 18:20	0°♒	
	15915 Apr 04 17:22	0°♓	
	15915 May 21 12:19	0°♈	
desc. node	15915 Jun 22 23:42	17°♈30'06	
	15915 Jul 24 18:31	0°♉	
retrograde	15915 Aug 20 22:43	4°♉12'22	
	15915 Sep 15 05:57	30°℞♈	
min. Earth dist.	15915 Sep 27 22:04	25°♈21'34	0.66412 AU
opposition	15915 Sep 30 18:33	24°♈13'50	-3°36'16
greatest brilliancy	15915 Sep 30 08:22	24°♈23'54	-1.3m
direct	15915 Nov 09 18:25	14°♈50'42	
	15916 Jan 07 14:53	0°♉	
	15916 Mar 06 07:50	0°♊	
	15916 Apr 24 20:30	0°♋	
	15916 Jun 09 01:36	0°♌	
asc. node	15916 Jul 13 14:05	24°♌25'16	
	15916 Jul 21 05:42	0°♍	
evening set	15916 Jul 27 16:46	4°♍45'28	
max. Earth dist.	15916 Aug 15 23:18	19°♍10'46	2.39317 AU
	15916 Aug 30 03:48	0°♎	
conjunction	15916 Sep 28 22:40	23°♎09'58	0°49'28
minimum elong	15916 Sep 28 18:56	23°♎02'37	0°49'40
	15916 Oct 07 14:54	0°♏	
	15916 Nov 14 11:22	0°♐	
morning rise	15916 Dec 12 09:35	22°♐01'57	
	15916 Dec 22 14:28	0°♑	
	15917 Jan 30 21:35	0°♒	
	15917 Mar 13 05:24	0°♓	
	15917 Apr 26 12:24	0°♈	
desc. node	15917 May 09 21:32	8°♈33'36	
	15917 Jun 14 13:37	0°♉	
	15917 Aug 16 18:12	0°♊	
retrograde	15917 Sep 22 22:21	7°♊02'11	
	15917 Oct 26 21:45	30°℞♉	
opposition	15917 Nov 02 13:15	27°♉25'39	-4°46'51
greatest brilliancy	15917 Nov 02 16:21	27°♉22'35	-1.2m
min. Earth dist.	15917 Nov 03 14:10	27°♉01'08	0.68615 AU
direct	15917 Dec 14 00:23	17°♉30'15	
	15918 Feb 03 16:55	0°♊	
	15918 Apr 02 17:40	0°♋	
	15918 May 19 20:48	0°♌	
asc. node	15918 May 31 12:22	7°♌57'51	
	15918 Jul 01 10:24	0°♍	
	15918 Aug 10 06:21	0°♎	
	15918 Sep 17 13:19	0°♏	
evening set	15918 Oct 05 17:27	14°♏25'32	
	15918 Oct 25 08:12	0°♐	
	15918 Dec 02 13:44	0°♑	
conjunction	15918 Dec 17 08:20	11°♑21'47	0°56'53
minimum elong	15918 Dec 17 11:37	11°♑28'04	0°57'39
	15919 Jan 11 01:57	0°♒	
max. Earth dist.	15919 Feb 05 05:57	18°♒24'26	2.44637 AU
morning rise	15919 Feb 18 18:25	28°♒03'09	
	15919 Feb 21 12:39	0°♓	
desc. node	15919 Mar 27 13:09	23°♓26'02	
	15919 Apr 06 08:49	0°♈	
	15919 May 23 01:37	0°♉	
	15919 Jul 12 20:12	0°♊	
	15919 Sep 12 15:56	0°♋	
retrograde	15919 Oct 29 09:11	10°♋17'13	
opposition	15919 Dec 07 10:50	1°♋25'11	-4°37'35
greatest brilliancy	15919 Dec 08 06:23	1°♋06'18	-1.4m
	15919 Dec 11 03:00	30°℞♊	
min. Earth dist.	15919 Dec 12 09:21	29°♊30'49	0.63942 AU
direct	15920 Jan 17 20:12	21°♊24'41	
	15920 Feb 27 00:04	0°♋	
asc. node	15920 Apr 17 16:21	25°♋37'46	
	15920 Apr 24 20:20	0°♌	
	15920 Jun 08 15:47	0°♍	
	15920 Jul 19 04:01	0°♎	
	15920 Aug 26 17:45	0°♏	
	15920 Oct 03 19:17	0°♐	
	15920 Nov 11 10:31	0°♑	
evening set	15920 Dec 17 19:16	27°♑18'25	
	15920 Dec 21 11:16	0°♒	
	15921 Feb 01 10:14	0°♓	
desc. node	15921 Feb 11 02:24	6°♓42'42	
conjunction	15921 Feb 13 04:33	8°♓09'05	-0°01'20
minimum elong	15921 Feb 13 04:27	8°♓08'54	0°00'57
behind sun begin	15921 Feb 12 06:22	7°♓30'55	
behind sun end	15921 Feb 14 02:31	8°♓46'50	
max. Earth dist.	15921 Mar 13 11:22	27°♓19'03	2.57682 AU
	15921 Mar 17 12:01	0°♈	
morning rise	15921 Apr 04 07:42	11°♈44'25	
	15921 May 02 15:35	0°♉	
	15921 Jun 19 20:05	0°♊	
	15921 Aug 09 16:08	0°♋	
	15921 Oct 05 18:38	0°♌	
retrograde	15921 Dec 12 14:24	19°♌26'14	
opposition	15922 Jan 17 08:48	11°♌53'36	-2°27'23
greatest brilliancy	15922 Jan 18 05:02	11°♌35'12	-2.0m
min. Earth dist.	15922 Jan 25 13:56	8°♌54'43	0.52764 AU
direct	15922 Feb 25 10:21	2°♌42'50	
asc. node	15922 Mar 05 22:31	3°♌12'41	
	15922 May 10 09:15	0°♍	
	15922 Jun 24 02:39	0°♎	
	15922 Aug 03 08:24	0°♏	
	15922 Sep 11 12:31	0°♐	
	15922 Oct 21 04:41	0°♑	
	15922 Dec 01 06:44	0°♒	
desc. node	15922 Dec 29 20:20	20°♒06'37	
	15923 Jan 13 05:09	0°♓	
evening set	15923 Feb 07 05:31	16°♓53'57	
	15923 Feb 26 23:59	0°♈	
conjunction	15923 Mar 27 03:41	18°♈20'01	-0°48'12

minimum elong	15923 Mar 27 02:18	18°♈17'48	0°48'22
max. Earth dist.	15923 Apr 08 02:38	26°♈01'27	2.65847 AU
	15923 Apr 14 07:39	0°♉	
morning rise	15923 May 10 15:38	16°♉44'16	
	15923 May 31 16:47	0°♊	
	15923 Jul 18 18:58	0°♋	
	15923 Sep 05 15:13	0°♌	
	15923 Oct 26 02:30	0°♍	
	15923 Dec 21 15:28	0°♎	
asc. node	15924 Jan 22 04:21	11°♎57'24	
retrograde	15924 Feb 16 15:44	15°♎42'14	
opposition	15924 Mar 18 04:27	10°♎22'22	3°50'23
greatest brilliancy	15924 Mar 18 23:20	10°♎08'38	-2.8m
min. Earth dist.	15924 Mar 24 10:03	8°♎34'04	0.39135 AU
direct	15924 Apr 19 13:31	4°♎13'26	
	15924 Jun 27 23:28	0°♏	
	15924 Aug 12 21:18	0°♐	
	15924 Sep 25 06:12	0°♑	
	15924 Nov 08 00:00	0°♒	
desc. node	15924 Nov 15 20:23	5°♒18'10	
	15924 Dec 22 22:44	0°♓	
	15925 Feb 07 03:24	0°♈	
evening set	15925 Mar 17 14:28	24°♈32'19	
	15925 Mar 26 05:01	0°♉	
max. Earth dist.	15925 Apr 29 04:56	21°♉32'10	2.68549 AU
conjunction	15925 Apr 30 17:53	22°♉30'41	-1°11'26
minimum elong	15925 Apr 30 17:16	22°♉29'43	1°12'01
	15925 May 12 13:25	0°♊	
morning rise	15925 Jun 12 17:08	19°♊49'22	
	15925 Jun 28 14:42	0°♋	
	15925 Aug 13 23:15	0°♌	
	15925 Sep 28 09:51	0°♍	
	15925 Nov 11 22:11	0°♎	
asc. node	15925 Dec 09 06:53	18°♎40'05	
	15925 Dec 25 21:05	0°♏	
	15926 Feb 08 19:44	0°♐	
	15926 Apr 04 15:28	0°♑	
retrograde	15926 May 07 08:03	7°♑00'44	
min. Earth dist.	15926 Jun 02 05:53	2°♑37'56	0.39178 AU
greatest brilliancy	15926 Jun 07 11:17	1°♑04'13	-2.8m
opposition	15926 Jun 08 19:17	0°♑40'05	6°25'20
	15926 Jun 11 01:01	30°℞♐	
direct	15926 Jul 08 21:48	25°♐16'31	
	15926 Aug 06 02:05	0°♑	
desc. node	15926 Oct 04 01:04	27°♑09'07	
	15926 Oct 09 04:07	0°♒	
	15926 Nov 29 11:45	0°♓	
	15927 Jan 17 21:35	0°♈	
	15927 Mar 07 14:51	0°♉	
evening set	15927 Apr 21 19:18	28°♉15'28	
	15927 Apr 24 13:27	0°♊	
max. Earth dist.	15927 May 21 16:46	17°♊17'57	2.65719 AU
conjunction	15927 Jun 04 14:11	26°♊16'12	-1°09'26
minimum elong	15927 Jun 04 14:58	26°♊17'28	1°10'13
	15927 Jun 10 07:55	0°♋	
morning rise	15927 Jul 19 09:52	25°♋50'18	
	15927 Jul 25 14:10	0°♌	
	15927 Sep 07 03:56	0°♍	
	15927 Oct 19 01:36	0°♎	
asc. node	15927 Oct 27 01:47	5°♎51'44	
	15927 Nov 28 13:05	0°♏	
	15928 Jan 07 04:47	0°♐	
	15928 Feb 16 03:25	0°♑	
	15928 Mar 29 14:28	0°♒	
	15928 May 21 16:52	0°♓	
retrograde	15928 Jun 29 05:23	9°♓05'09	
min. Earth dist.	15928 Jul 29 20:30	2°♓40'42	0.52585 AU
	15928 Aug 05 23:52	30°℞♒	
opposition	15928 Aug 06 14:25	29°♒46'18	0°45'11
greatest brilliancy	15928 Aug 06 09:20	29°♒51'05	-2.0m
desc. node	15928 Aug 21 08:54	24°♒50'38	
direct	15928 Sep 10 23:37	22°♒03'43	
	15928 Oct 20 08:52	0°♓	
	15928 Dec 23 12:56	0°♈	
	15929 Feb 14 11:27	0°♉	
	15929 Apr 05 00:32	0°♊	
	15929 May 22 03:18	0°♋	
evening set	15929 May 26 17:18	2°♋59'55	
max. Earth dist.	15929 Jun 14 21:19	15°♋42'24	2.57543 AU
	15929 Jul 05 23:11	0°♌	
conjunction	15929 Jul 12 17:51	4°♌40'15	-0°38'43
minimum elong	15929 Jul 12 19:23	4°♌42'53	0°39'24
	15929 Aug 17 14:37	0°♍	
morning rise	15929 Sep 02 15:20	11°♍39'27	
asc. node	15929 Sep 12 17:19	19°♍05'41	
	15929 Sep 27 07:47	0°♎	
	15929 Nov 05 13:29	0°♏	
	15929 Dec 13 23:58	0°♐	
	15930 Jan 21 12:36	0°♑	
	15930 Mar 02 06:54	0°♒	
	15930 Apr 13 23:25	0°♓	
	15930 Jun 02 16:31	0°♈	
desc. node	15930 Jul 09 14:08	15°♈52'01	
retrograde	15930 Aug 07 08:51	20°♈41'39	
min. Earth dist.	15930 Sep 12 13:14	12°♈24'52	0.63716 AU
opposition	15930 Sep 16 21:16	10°♈42'13	-2°46'21
greatest brilliancy	15930 Sep 16 09:28	10°♈53'52	-1.5m
direct	15930 Oct 25 21:41	1°♈39'05	
	15931 Jan 20 16:37	0°♉	
	15931 Mar 15 19:41	0°♊	
	15931 May 03 07:01	0°♋	
	15931 Jun 17 06:27	0°♌	
evening set	15931 Jul 08 04:02	14°♌37'41	
max. Earth dist.	15931 Jul 21 13:40	24°♌14'09	2.44798 AU
	15931 Jul 29 11:58	0°♍	
asc. node	15931 Jul 31 09:08	1°♍22'35	
conjunction	15931 Sep 02 20:35	26°♍23'41	0°22'56
minimum elong	15931 Sep 02 18:49	26°♍20'20	0°22'46
	15931 Sep 07 13:59	0°♎	
	15931 Oct 16 04:43	0°♏	
morning rise	15931 Nov 10 14:26	20°♏04'10	
	15931 Nov 23 03:21	0°♐	
	15931 Dec 31 06:57	0°♑	
	15932 Feb 08 13:48	0°♒	
	15932 Mar 20 23:39	0°♓	
	15932 May 04 19:04	0°♈	
desc. node	15932 May 26 12:48	13°♈23'48	
	15932 Jun 25 03:10	0°♉	
retrograde	15932 Sep 09 17:01	24°♉41'09	
opposition	15932 Oct 20 13:26	14°♉53'21	-4°28'49
greatest brilliancy	15932 Oct 20 10:20	14°♉56'25	-1.2m
min. Earth dist.	15932 Oct 20 01:43	15°♉04'55	0.68575 AU
direct	15932 Nov 30 14:39	5°♉07'42	
	15933 Feb 17 13:50	0°♊	
	15933 Apr 11 13:47	0°♋	
	15933 May 27 16:50	0°♌	
asc. node	15933 Jun 17 03:48	14°♌13'30	
	15933 Jul 09 00:56	0°♍	
	15933 Aug 17 21:00	0°♎	
evening set	15933 Sep 05 04:26	14°♎13'48	

	15933 Sep 25 04:54	0°♏	
	15933 Nov 01 23:34	0°♐	
conjunction	15933 Nov 16 23:48	11°♐52'42	1°07'59
minimum elong	15933 Nov 17 00:25	11°♐53'55	1°08'42
	15933 Dec 10 03:06	0°♑	
max. Earth dist.	15934 Jan 09 02:32	22°♑57'33	2.38920 AU
	15934 Jan 18 11:50	0°♒	
morning rise	15934 Jan 26 16:03	6°♒03'57	
	15934 Feb 28 19:21	0°♓	
desc. node	15934 Apr 13 06:37	29°♓44'05	
	15934 Apr 13 16:15	0°♈	
	15934 May 30 21:47	0°♉	
	15934 Jul 22 22:22	0°♊	
retrograde	15934 Oct 14 14:48	27°♊13'56	
opposition	15934 Nov 23 11:00	18°♊01'38	-4°51'45
greatest brilliancy	15934 Nov 24 00:35	17°♊48'24	-1.3m
min. Earth dist.	15934 Nov 26 21:18	16°♊41'26	0.66579 AU
direct	15935 Jan 04 01:47	7°♊59'10	
	15935 Mar 15 18:00	0°♋	
asc. node	15935 May 05 04:42	29°♋40'28	
	15935 May 05 16:43	0°♌	
	15935 Jun 18 06:01	0°♍	
	15935 Jul 28 09:06	0°♎	
	15935 Sep 04 18:46	0°♏	
	15935 Oct 12 16:33	0°♐	
	15935 Nov 20 02:50	0°♑	
evening set	15935 Nov 22 13:55	1°♑53'33	
	15935 Dec 29 21:17	0°♒	
conjunction	15936 Jan 25 00:46	18°♒59'35	0°22'02
minimum elong	15936 Jan 25 02:13	19°♒02'11	0°22'36
	15936 Feb 09 13:48	0°♓	
desc. node	15936 Feb 28 21:49	13°♓24'25	
max. Earth dist.	15936 Mar 01 09:14	14°♓25'02	2.53039 AU
morning rise	15936 Mar 19 04:43	26°♓28'32	
	15936 Mar 24 11:19	0°♈	
	15936 May 09 16:40	0°♉	
	15936 Jun 27 12:39	0°♊	
	15936 Aug 19 14:05	0°♋	
	15936 Oct 29 22:17	0°♌	
retrograde	15936 Nov 23 08:34	3°♌12'19	
	15936 Dec 16 00:01	30°℞♋	
opposition	15936 Dec 30 16:05	25°♋02'48	-3°38'22
greatest brilliancy	15936 Dec 31 16:13	24°♋40'07	-1.7m
min. Earth dist.	15937 Jan 06 19:17	22°♋22'04	0.57816 AU
direct	15937 Feb 09 00:15	15°♋21'50	
asc. node	15937 Mar 22 11:14	25°♋01'39	
	15937 Apr 02 11:51	0°♌	
	15937 May 23 09:00	0°♍	
	15937 Jul 04 11:22	0°♎	
	15937 Aug 12 17:45	0°♏	
	15937 Sep 20 07:10	0°♐	
	15937 Oct 29 10:32	0°♑	
	15937 Dec 09 00:09	0°♒	
desc. node	15938 Jan 15 12:56	26°♒35'13	
evening set	15938 Jan 20 05:50	29°♒50'31	
	15938 Jan 20 11:20	0°♓	
	15938 Mar 05 21:43	0°♈	
conjunction	15938 Mar 11 23:13	3°♈59'57	-0°32'42
minimum elong	15938 Mar 11 21:59	3°♈57'56	0°32'39
max. Earth dist.	15938 Mar 29 17:18	15°♈36'01	2.63298 AU
	15938 Apr 21 01:51	0°♉	
morning rise	15938 Apr 27 01:30	3°♉49'14	
	15938 Jun 07 15:22	0°♊	
	15938 Jul 26 11:28	0°♋	

	15938 Sep 15 04:57	0°♌	
	15938 Nov 10 03:36	0°♍	
retrograde	15939 Jan 18 06:04	20°♍42'56	
asc. node	15939 Feb 07 17:36	18°♍04'51	
opposition	15939 Feb 20 00:16	14°♍26'30	0°46'55
greatest brilliancy	15939 Feb 20 06:14	14°♍21'36	-2.5m
min. Earth dist.	15939 Feb 28 09:16	11°♍42'39	0.44061 AU
direct	15939 Mar 27 14:23	6°♍48'08	
	15939 May 31 13:55	0°♎	
	15939 Jul 15 21:34	0°♏	
	15939 Aug 26 07:07	0°♐	
	15939 Oct 06 11:53	0°♑	
	15939 Nov 17 19:32	0°♒	
desc. node	15939 Dec 03 09:53	10°♒46'54	
	15939 Dec 31 18:01	0°♓	
	15940 Feb 15 06:20	0°♈	
evening set	15940 Mar 03 02:13	10°♈52'48	
	15940 Apr 01 22:59	0°♉	
conjunction	15940 Apr 17 05:33	9°♉42'51	-1°05'22
minimum elong	15940 Apr 17 04:30	9°♉41'11	1°05'48
max. Earth dist.	15940 Apr 20 18:31	11°♉57'38	2.68152 AU
	15940 May 19 05:52	0°♊	
morning rise	15940 May 30 09:40	7°♊03'44	
	15940 Jul 05 14:13	0°♋	
	15940 Aug 21 16:08	0°♌	
	15940 Oct 07 09:49	0°♍	
	15940 Nov 23 02:46	0°♎	
asc. node	15940 Dec 25 21:18	20°♎39'39	
	15941 Jan 10 05:31	0°♏	
	15941 Mar 11 07:58	0°♐	
retrograde	15941 Apr 08 06:04	4°♐54'41	
min. Earth dist.	15941 May 05 23:24	0°♐24'30	0.36523 AU
	15941 May 07 12:12	30°℞♏	
opposition	15941 May 08 02:06	29°♏50'44	7°21'37
greatest brilliancy	15941 May 07 13:56	29°♏58'51	-3.0m
direct	15941 Jun 06 01:00	25°♏01'57	
	15941 Jul 04 10:33	0°♐	
	15941 Sep 03 08:22	0°♑	
desc. node	15941 Oct 20 13:37	28°♑54'37	
	15941 Oct 22 07:21	0°♒	
	15941 Dec 08 23:07	0°♓	
	15942 Jan 25 17:28	0°♈	
	15942 Mar 14 15:27	0°♉	
evening set	15942 Apr 08 06:25	15°♉27'51	
	15942 May 01 06:38	0°♊	
max. Earth dist.	15942 May 12 19:31	7°♊19'53	2.67498 AU
conjunction	15942 May 21 19:18	13°♊04'15	-1°13'23
minimum elong	15942 May 21 19:31	13°♊04'37	1°14'08
	15942 Jun 17 02:25	0°♋	
morning rise	15942 Jul 04 10:25	11°♋17'44	
	15942 Aug 01 17:03	0°♌	
	15942 Sep 14 20:47	0°♍	
	15942 Oct 27 12:36	0°♎	
asc. node	15942 Nov 12 20:38	11°♎45'22	
	15942 Dec 07 20:56	0°♏	
	15943 Jan 17 13:20	0°♐	
	15943 Feb 28 02:15	0°♑	
	15943 Apr 16 00:59	0°♒	
retrograde	15943 Jun 11 20:21	18°♒34'33	
min. Earth dist.	15943 Jul 10 02:17	13°♒03'33	0.47093 AU
opposition	15943 Jul 18 12:39	10°♒04'16	2°48'51
greatest brilliancy	15943 Jul 17 16:53	10°♒21'50	-2.3m
direct	15943 Aug 20 22:11	3°♒10'00	
desc. node	15943 Sep 07 20:04	5°♒04'59	
	15943 Nov 09 21:42	0°♓	

	15944 Jan 03 12:47	0°♈	
	15944 Feb 23 06:37	0°♉	
	15944 Apr 12 00:47	0°♊	
evening set	15944 May 12 08:13	19°♊14'22	
	15944 May 28 22:50	0°♋	
max. Earth dist.	15944 Jun 04 11:06	4°♋15'46	2.61386 AU
conjunction	15944 Jun 26 13:16	18°♋55'43	-0°54'22
minimum elong	15944 Jun 26 14:43	18°♋58'09	0°55'09
	15944 Jul 12 21:55	0°♌	
morning rise	15944 Aug 13 18:31	22°♌06'49	
	15944 Aug 24 21:01	0°♍	
asc. node	15944 Sep 29 12:58	25°♍57'04	
	15944 Oct 04 23:50	0°♎	
	15944 Nov 13 14:59	0°♏	
	15944 Dec 22 09:36	0°♐	
	15945 Jan 30 06:02	0°♑	
	15945 Mar 11 12:32	0°♒	
	15945 Apr 24 15:35	0°♓	
	15945 Jun 22 01:04	0°♈	
retrograde	15945 Jul 24 02:47	6°♈06'42	
desc. node	15945 Jul 26 02:09	6°♈05'06	
	15945 Aug 23 06:24	30°℞♓	
min. Earth dist.	15945 Aug 27 06:48	28°♓28'55	0.60024 AU
opposition	15945 Sep 02 01:31	26°♓13'16	-1°40'40
greatest brilliancy	15945 Sep 01 15:50	26°♓22'45	-1.7m
direct	15945 Oct 09 20:39	17°♓35'35	
	15945 Nov 30 19:37	0°♈	
	15946 Jan 30 22:59	0°♉	
	15946 Mar 23 15:52	0°♊	
	15946 May 10 10:50	0°♋	
evening set	15946 Jun 20 08:43	27°♋16'59	
	15946 Jun 24 07:38	0°♌	
max. Earth dist.	15946 Jul 04 19:46	7°♌17'20	2.50214 AU
	15946 Aug 05 16:17	0°♍	
conjunction	15946 Aug 11 03:14	3°♍58'51	-0°04'07
minimum elong	15946 Aug 11 03:29	3°♍59'19	0°04'32
behind sun begin	15946 Aug 10 04:47	3°♍17'48	
behind sun end	15946 Aug 12 02:12	4°♍40'53	
asc. node	15946 Aug 17 02:43	8°♍22'20	
	15946 Sep 14 23:39	0°♎	
morning rise	15946 Oct 11 01:39	20°♎03'26	
	15946 Oct 23 19:38	0°♏	
	15946 Nov 30 22:00	0°♐	
	15947 Jan 08 03:47	0°♑	
	15947 Feb 16 12:30	0°♒	
	15947 Mar 30 04:03	0°♓	
	15947 May 14 22:17	0°♈	
desc. node	15947 Jun 13 05:02	16°♈53'10	
	15947 Jul 10 05:48	0°♉	
retrograde	15947 Aug 28 13:20	12°♉05'55	
min. Earth dist.	15947 Oct 06 10:01	2°♉58'01	0.67459 AU
opposition	15947 Oct 08 10:22	2°♉10'08	-3°59'28
greatest brilliancy	15947 Oct 08 02:10	2°♉18'16	-1.3m
	15947 Oct 13 23:26	30°℞♈	
direct	15947 Nov 17 20:24	22°♈37'59	
	15947 Dec 26 14:04	0°♉	
	15948 Feb 29 03:25	0°♊	
	15948 Apr 19 16:23	0°♋	
	15948 Jun 04 05:01	0°♌	
asc. node	15948 Jul 03 20:19	20°♌50'44	
	15948 Jul 16 10:43	0°♍	
evening set	15948 Aug 09 17:44	18°♍05'45	
	15948 Aug 25 08:20	0°♎	
max. Earth dist.	15948 Sep 12 19:52	14°♎19'53	2.36774 AU
	15948 Oct 02 18:15	0°♏	
conjunction	15948 Oct 16 00:06	10°♏29'25	1°00'58
minimum elong	15948 Oct 15 20:41	10°♏22'38	1°01'24
	15948 Nov 09 13:43	0°♐	
	15948 Dec 17 16:28	0°♑	
morning rise	15948 Dec 29 23:22	9°♑30'41	
	15949 Jan 25 23:19	0°♒	
	15949 Mar 08 05:37	0°♓	
	15949 Apr 21 06:41	0°♈	
desc. node	15949 Apr 30 01:05	5°♈42'00	
	15949 Jun 08 09:59	0°♉	
	15949 Aug 04 20:05	0°♊	
retrograde	15949 Sep 30 16:12	14°♊38'14	
opposition	15949 Nov 10 01:30	5°♊09'31	-4°52'14
greatest brilliancy	15949 Nov 10 08:22	5°♊02'47	-1.2m
min. Earth dist.	15949 Nov 11 22:57	4°♊24'54	0.68179 AU
	15949 Nov 23 20:46	30°℞♉	
direct	15949 Dec 21 15:06	25°♉10'27	
	15950 Jan 20 18:36	0°♊	
	15950 Mar 27 06:42	0°♋	
	15950 May 14 11:19	0°♌	
asc. node	15950 May 21 19:24	4°♌56'24	
	15950 Jun 26 08:33	0°♍	
	15950 Aug 05 07:09	0°♎	
	15950 Sep 12 15:00	0°♏	
	15950 Oct 20 10:26	0°♐	
evening set	15950 Oct 23 11:08	2°♐23'48	
greatest brilliancy	15950 Nov 15 02:22	20°♐12'05	1.1m
	15950 Nov 27 16:54	0°♑	
conjunction	15951 Jan 01 11:18	26°♑26'05	0°45'26
minimum elong	15951 Jan 01 14:21	26°♑31'48	0°46'09
	15951 Jan 06 06:16	0°♒	
max. Earth dist.	15951 Feb 15 17:51	29°♒18'02	2.47753 AU
	15951 Feb 16 17:40	0°♓	
morning rise	15951 Mar 02 03:45	9°♓22'18	
desc. node	15951 Mar 17 15:35	19°♓59'36	
	15951 Apr 01 12:52	0°♈	
	15951 May 17 23:14	0°♉	
	15951 Jul 06 19:26	0°♊	
	15951 Sep 01 21:44	0°♋	
retrograde	15951 Nov 07 08:58	18°♋37'12	
opposition	15951 Dec 15 21:10	9°♋58'49	-4°21'43
greatest brilliancy	15951 Dec 16 19:17	9°♋37'37	-1.5m
min. Earth dist.	15951 Dec 21 15:19	7°♋46'27	0.62010 AU
direct	15952 Jan 25 23:35	0°♋02'34	
asc. node	15952 Apr 07 23:07	24°♋33'40	
	15952 Apr 17 11:51	0°♌	
	15952 Jun 02 16:42	0°♍	
	15952 Jul 13 15:40	0°♎	
	15952 Aug 21 10:21	0°♏	
	15952 Sep 28 15:15	0°♐	
	15952 Nov 06 09:52	0°♑	
	15952 Dec 16 14:02	0°♒	
evening set	15952 Dec 30 18:13	10°♒16'10	
	15953 Jan 27 15:56	0°♓	
desc. node	15953 Feb 01 06:46	3°♓12'15	
conjunction	15953 Feb 23 09:13	18°♓19'23	-0°13'42
minimum elong	15953 Feb 23 08:34	18°♓18'17	0°13'27
behind sun begin	15953 Feb 22 21:02	17°♓58'47	
behind sun end	15953 Feb 23 20:07	18°♓37'46	
	15953 Mar 12 19:28	0°♈	
max. Earth dist.	15953 Mar 19 16:09	4°♈32'40	2.59896 AU
morning rise	15953 Apr 12 19:38	20°♈18'37	
	15953 Apr 27 21:48	0°♉	
	15953 Jun 14 19:00	0°♊	
	15953 Aug 03 17:24	0°♋	

	15953	Sep	26	15:09	0°♌				15958	Sep	28	05:03	0°♒	
	15953	Dec	19	19:06	0°♍				15958	Nov	22	14:18	0°♓	
retrograde	15953	Dec	24	18:24	0°♍08'57				15959	Jan	12	08:28	0°♈	
	15953	Dec	29	15:20	30°℞♌				15959	Mar	02	16:09	0°♉	
opposition	15954	Jan	28	12:20	23°♌00'49	-1°30'00			15959	Apr	19	20:57	0°♊	
greatest brilliancy	15954	Jan	29	02:00	22°♌48'44	-2.2m	evening set		15959	Apr	29	13:31	6°♊07'43	
min. Earth dist.	15954	Feb	06	01:39	19°♌59'35	0.49679 AU	max. Earth dist.		15959	May	26	23:27	23°♊41'17	2.64403 AU
asc. node	15954	Feb	24	06:57	15°♌10'18				15959	Jun	05	16:45	0°♋	
direct	15954	Mar	07	13:08	14°♌15'37									
	15954	Apr	29	04:53	0°♍		conjunction		15959	Jun	12	16:34	4°♋34'15	-1°05'14
	15954	Jun	16	13:59	0°♎		minimum elong		15959	Jun	12	17:38	4°♋36'00	1°06'01
	15954	Jul	27	20:38	0°♏				15959	Jul	20	20:32	0°♌	
	15954	Sep	05	13:30	0°♐		morning rise		15959	Jul	28	11:09	5°♌10'31	
	15954	Oct	15	15:12	0°♑				15959	Sep	02	05:01	0°♍	
	15954	Nov	26	01:25	0°♒				15959	Oct	13	19:33	0°♎	
desc. node	15954	Dec	20	01:01	16°♒48'28		asc. node		15959	Oct	17	07:02	2°♎33'40	
	15955	Jan	08	06:34	0°♓				15959	Nov	22	23:00	0°♏	
evening set	15955	Feb	16	15:07	26°♓17'56				15960	Jan	01	05:35	0°♐	
	15955	Feb	22	06:22	0°♈				15960	Feb	09	15:48	0°♑	
									15960	Mar	21	23:22	0°♒	
conjunction	15955	Apr	04	08:28	26°♈35'48	-0°55'36			15960	May	08	14:12	0°♓	
minimum elong	15955	Apr	04	07:09	26°♈33'41	0°55'52	retrograde		15960	Jul	08	16:50	19°♓49'33	
	15955	Apr	09	16:11	0°♉		min. Earth dist.		15960	Aug	09	15:37	12°♓56'46	0.55445 AU
max. Earth dist.	15955	Apr	13	05:49	2°♉16'41	2.66910 AU	desc. node		15960	Aug	11	15:33	12°♓11'21	
morning rise	15955	May	18	05:13	24°♉28'13		opposition		15960	Aug	16	17:54	10°♓13'44	-0°14'52
	15955	May	26	23:33	0°♊		greatest brilliancy		15960	Aug	16	16:09	10°♓15'24	-1.9m
	15955	Jul	13	18:09	0°♋		direct		15960	Sep	22	01:24	2°♓08'55	
	15955	Aug	30	20:21	0°♌				15960	Dec	15	22:26	0°♈	
	15955	Oct	18	14:28	0°♍				15961	Feb	08	21:05	0°♉	
	15955	Dec	08	16:30	0°♎				15961	Mar	31	01:57	0°♊	
asc. node	15956	Jan	12	12:35	17°♎58'19				15961	May	17	10:21	0°♋	
	15956	Feb	14	15:55	0°♏		evening set		15961	Jun	04	07:21	11°♋45'41	
retrograde	15956	Mar	05	22:48	2°♏30'31		max. Earth dist.		15961	Jun	21	13:36	23°♋21'35	2.55131 AU
	15956	Mar	26	02:14	30°℞♎				15961	Jul	01	07:00	0°♌	
opposition	15956	Apr	04	14:05	27°♎33'29	5°36'23								
greatest brilliancy	15956	Apr	05	05:35	27°♎22'51	-2.9m	conjunction		15961	Jul	22	16:38	14°♌53'37	-0°27'27
min. Earth dist.	15956	Apr	08	08:46	26°♎31'22	0.37274 AU	minimum elong		15961	Jul	22	17:57	14°♌55'56	0°28'03
direct	15956	May	05	07:12	22°♎09'47				15961	Aug	12	20:32	0°♍	
	15956	Jun	09	11:14	0°♏		asc. node		15961	Sep	02	22:10	15°♍24'36	
	15956	Aug	03	05:30	0°♐		morning rise		15961	Sep	15	06:22	24°♍36'16	
	15956	Sep	17	22:08	0°♑				15961	Sep	22	10:31	0°♎	
	15956	Nov	01	20:35	0°♒				15961	Oct	31	12:48	0°♏	
desc. node	15956	Nov	06	01:05	2°♒46'41				15961	Dec	08	19:55	0°♐	
	15956	Dec	17	12:36	0°♓				15962	Jan	16	05:07	0°♑	
	15957	Feb	02	04:14	0°♈				15962	Feb	24	18:08	0°♒	
	15957	Mar	21	11:59	0°♉				15962	Apr	07	21:18	0°♓	
evening set	15957	Mar	25	14:44	2°♉35'58				15962	May	25	11:42	0°♈	
max. Earth dist.	15957	May	04	03:10	27°♉35'38	2.68415 AU	desc. node		15962	Jun	29	18:57	17°♈48'21	
	15957	May	07	22:13	0°♊		retrograde		15962	Aug	15	05:16	29°♈01'15	
							min. Earth dist.		15962	Sep	21	09:38	20°♈24'58	0.65331 AU
conjunction	15957	May	08	09:36	0°♊18'02	-1°13'20	opposition		15962	Sep	24	21:58	19°♈01'29	-3°17'37
minimum elong	15957	May	08	09:16	0°♊17'32	1°13'58	greatest brilliancy		15962	Sep	24	10:36	19°♈12'45	-1.4m
morning rise	15957	Jun	20	10:49	27°♊47'18		direct		15962	Nov	03	11:32	9°♈46'45	
	15957	Jun	23	21:15	0°♋				15963	Jan	12	15:35	0°♉	
	15957	Aug	08	22:44	0°♌				15963	Mar	10	04:31	0°♊	
	15957	Sep	22	21:00	0°♍				15963	Apr	28	07:17	0°♋	
	15957	Nov	05	14:40	0°♎				15963	Jun	12	11:24	0°♌	
asc. node	15957	Nov	29	12:28	16°♎42'54		evening set		15963	Jul	19	09:30	26°♌06'59	
	15957	Dec	18	08:53	0°♏		asc. node		15963	Jul	21	12:58	27°♌40'32	
	15958	Jan	30	02:10	0°♐				15963	Jul	24	17:25	0°♍	
	15958	Mar	17	00:18	0°♑		max. Earth dist.		15963	Aug	03	12:23	7°♍12'16	2.41725 AU
retrograde	15958	May	21	05:57	23°♑39'39				15963	Sep	02	18:20	0°♎	
min. Earth dist.	15958	Jun	16	14:33	18°♑58'34	0.41681 AU								
greatest brilliancy	15958	Jun	23	02:25	16°♑53'13	-2.6m	conjunction		15963	Sep	17	12:55	11°♎23'34	0°38'37
opposition	15958	Jun	24	10:23	16°♑27'23	5°11'36	minimum elong		15963	Sep	17	09:50	11°♎17'35	0°38'39
direct	15958	Jul	25	13:42	10°♑31'40				15963	Oct	11	07:44	0°♏	
desc. node	15958	Sep	24	07:45	28°♑08'01				15963	Nov	18	05:12	0°♐	

morning rise	15963 Nov 29 00:32	8°♐33'09	
	15963 Dec 26 08:03	0°♑	
	15964 Feb 03 13:59	0°♒	
	15964 Mar 15 20:43	0°♓	
	15964 Apr 29 06:06	0°♈	
desc. node	15964 May 16 17:34	11°♈03'11	
	15964 Jun 17 22:52	0°♉	
	15964 Aug 28 05:06	0°♊	
retrograde	15964 Sep 17 06:13	2°♊15'30	
	15964 Oct 06 01:46	30°℞♉	
opposition	15964 Oct 27 23:48	22°♉33'32	-4°40'58
greatest brilliancy	15964 Oct 28 00:04	22°♉33'17	-1.2m
min. Earth dist.	15964 Oct 28 08:22	22°♉25'06	0.68723 AU
direct	15964 Dec 08 06:38	12°♉42'01	
	15965 Feb 09 05:06	0°♊	
	15965 Apr 05 20:00	0°♋	
	15965 May 22 13:54	0°♌	
asc. node	15965 Jun 07 10:09	10°♌54'28	
	15965 Jul 04 02:18	0°♍	
	15965 Aug 12 23:13	0°♎	
	15965 Sep 20 07:03	0°♏	
evening set	15965 Sep 22 00:23	1°♏21'51	
	15965 Oct 28 01:41	0°♐	
conjunction	15965 Dec 04 13:04	29°♐27'35	1°03'33
minimum elong	15965 Dec 04 15:46	29°♐32'51	1°04'18
	15965 Dec 05 05:46	0°♑	
	15966 Jan 13 15:30	0°♒	
max. Earth dist.	15966 Jan 26 06:42	9°♒20'31	2.42057 AU
morning rise	15966 Feb 09 05:18	19°♒28'36	
	15966 Feb 23 23:17	0°♓	
desc. node	15966 Apr 03 10:22	26°♓27'18	
	15966 Apr 08 18:00	0°♈	
	15966 May 25 13:32	0°♉	
	15966 Jul 16 00:39	0°♊	
	15966 Sep 21 10:07	0°♋	
retrograde	15966 Oct 22 21:50	5°♋05'55	
	15966 Nov 20 16:37	30°℞♊	
opposition	15966 Dec 01 08:15	26°♊04'21	-4°45'13
greatest brilliancy	15966 Dec 02 01:19	25°♊47'47	-1.4m
min. Earth dist.	15966 Dec 05 14:36	24°♊25'01	0.65249 AU
direct	15967 Jan 11 20:28	16°♊02'06	
	15967 Mar 06 06:55	0°♋	
asc. node	15967 Apr 25 13:28	27°♋30'31	
	15967 Apr 29 12:42	0°♌	
	15967 Jun 12 19:20	0°♍	
	15967 Jul 23 04:09	0°♎	
	15967 Aug 30 16:18	0°♏	
	15967 Oct 07 15:41	0°♐	
	15967 Nov 15 03:49	0°♑	
evening set	15967 Dec 07 21:37	17°♑16'18	
	15967 Dec 25 00:35	0°♒	
	15968 Feb 04 19:10	0°♓	
conjunction	15968 Feb 05 19:46	0°♓43'03	0°08'23
minimum elong	15968 Feb 05 20:18	0°♓43'58	0°08'49
behind sun begin	15968 Feb 05 00:47	0°♓09'51	
behind sun end	15968 Feb 06 15:48	1°♓18'02	
desc. node	15968 Feb 18 23:36	9°♓50'58	
max. Earth dist.	15968 Mar 08 14:08	22°♓31'46	2.55708 AU
	15968 Mar 19 17:41	0°♈	
morning rise	15968 Mar 28 13:43	5°♈51'33	
	15968 May 04 20:23	0°♉	
	15968 Jun 22 05:36	0°♊	
	15968 Aug 12 19:42	0°♋	
	15968 Oct 12 08:20	0°♌	
retrograde	15968 Dec 03 22:32	12°♌40'19	
opposition	15969 Jan 09 10:04	4°♌50'01	-3°01'08
greatest brilliancy	15969 Jan 10 08:47	4°♌28'59	-1.9m
min. Earth dist.	15969 Jan 17 04:11	1°♌57'59	0.55121 AU
	15969 Jan 22 20:17	30°℞♋	
direct	15969 Feb 18 02:26	25°♋23'22	
asc. node	15969 Mar 12 19:12	28°♋38'35	
	15969 Mar 17 10:19	0°♌	
	15969 May 15 19:08	0°♍	
	15969 Jun 28 04:24	0°♎	
	15969 Aug 06 22:53	0°♏	
	15969 Sep 14 19:21	0°♐	
	15969 Oct 24 04:23	0°♑	
	15969 Dec 03 23:22	0°♒	
desc. node	15970 Jan 05 16:29	23°♒07'47	
	15970 Jan 15 15:04	0°♓	
evening set	15970 Jan 30 17:07	10°♓17'31	
	15970 Mar 01 04:50	0°♈	
conjunction	15970 Mar 20 18:31	12°♈49'16	-0°42'13
minimum elong	15970 Mar 20 17:09	12°♈47'03	0°42'18
max. Earth dist.	15970 Apr 04 05:14	22°♈10'23	2.64816 AU
	15970 Apr 16 09:45	0°♉	
morning rise	15970 May 04 21:26	11°♉46'20	
	15970 Jun 02 19:57	0°♊	
	15970 Jul 21 04:54	0°♋	
	15970 Sep 08 17:54	0°♌	
	15970 Oct 30 23:56	0°♍	
	15971 Jan 05 07:09	0°♎	
asc. node	15971 Jan 29 01:05	4°♎29'05	
retrograde	15971 Feb 03 02:56	4°♎38'38	
	15971 Mar 03 00:34	30°℞♍	
opposition	15971 Mar 06 15:24	28°♍54'17	2°27'08
greatest brilliancy	15971 Mar 07 06:57	28°♍42'20	-2.7m
min. Earth dist.	15971 Mar 14 04:29	26°♍35'49	0.41157 AU
direct	15971 Apr 09 12:19	22°♍04'18	
	15971 May 14 14:11	0°♎	
	15971 Jul 06 16:23	0°♏	
	15971 Aug 19 00:05	0°♐	
	15971 Sep 30 04:40	0°♑	
	15971 Nov 12 04:28	0°♒	
desc. node	15971 Nov 23 15:53	7°♒51'09	
	15971 Dec 26 14:14	0°♓	
	15972 Feb 10 10:18	0°♈	
evening set	15972 Mar 11 11:08	19°♈16'49	
	15972 Mar 28 07:00	0°♉	
conjunction	15972 Apr 24 23:35	17°♉34'11	-1°09'26
minimum elong	15972 Apr 24 22:46	17°♉32'54	1°09'56
max. Earth dist.	15972 Apr 25 17:29	18°♉02'32	2.68474 AU
	15972 May 14 14:21	0°♊	
morning rise	15972 Jun 06 23:28	14°♊50'09	
	15972 Jun 30 18:48	0°♋	
	15972 Aug 16 10:51	0°♌	
	15972 Oct 01 10:29	0°♍	
	15972 Nov 15 19:09	0°♎	
asc. node	15972 Dec 16 04:47	20°♎10'12	
	15972 Dec 31 03:17	0°♏	
	15973 Feb 17 05:36	0°♐	
retrograde	15973 Apr 25 07:28	23°♐48'33	
min. Earth dist.	15973 May 21 12:28	19°♐30'47	0.37614 AU
greatest brilliancy	15973 May 25 07:50	18°♐26'33	-2.9m
opposition	15973 May 26 09:52	18°♐08'07	7°07'06
direct	15973 Jun 24 19:31	13°♐06'16	
	15973 Aug 21 07:22	0°♑	
desc. node	15973 Oct 10 19:39	27°♑49'55	
	15973 Oct 14 11:28	0°♒	
	15973 Dec 02 21:07	0°♓	

	15974 Jan 20 11:33	0°♈	
	15974 Mar 09 19:35	0°♉	
evening set	15974 Apr 16 00:05	23°♉17'32	
	15974 Apr 26 14:54	0°♊	
max. Earth dist.	15974 May 17 22:20	13°♊33'32	2.66617 AU
conjunction	15974 May 29 14:49	21°♊03'44	-1°11'38
minimum elong	15974 May 29 15:23	21°♊04'38	1°12'23
	15974 Jun 12 10:30	0°♋	
morning rise	15974 Jul 12 19:51	19°♋57'04	
	15974 Jul 27 21:03	0°♌	
	15974 Sep 09 17:44	0°♍	
	15974 Oct 21 23:48	0°♎	
asc. node	15974 Nov 03 01:07	8°♎45'23	
	15974 Dec 01 20:30	0°♏	
	15975 Jan 10 21:44	0°♐	
	15975 Feb 20 09:08	0°♑	
	15975 Apr 05 01:23	0°♒	
	15975 Jun 10 01:31	0°♓	
retrograde	15975 Jun 22 14:14	1°♓06'04	
	15975 Jul 04 18:40	30°℞♒	
min. Earth dist.	15975 Jul 22 03:10	25°♒04'54	0.50156 AU
opposition	15975 Jul 30 06:14	22°♒05'46	1°34'53
greatest brilliancy	15975 Jul 29 19:12	22°♒15'56	-2.2m
desc. node	15975 Aug 29 02:47	14°♒51'57	
direct	15975 Sep 02 19:18	14°♒43'22	
	15975 Oct 30 05:44	0°♓	
	15975 Dec 28 02:25	0°♈	
	15976 Feb 18 00:14	0°♉	
	15976 Apr 07 05:18	0°♊	
evening set	15976 May 20 10:32	27°♊29'36	
	15976 May 24 06:57	0°♋	
max. Earth dist.	15976 Jun 10 08:40	11°♋13'55	2.59348 AU
conjunction	15976 Jul 05 13:30	28°♋11'11	-0°45'57
minimum elong	15976 Jul 05 15:02	28°♋13'49	0°46'40
	15976 Jul 08 05:14	0°♌	
	15976 Aug 20 01:06	0°♍	
morning rise	15976 Aug 24 15:41	3°♍18'50	
asc. node	15976 Sep 19 16:44	22°♍21'02	
	15976 Sep 29 23:15	0°♎	
	15976 Nov 08 09:41	0°♏	
	15976 Dec 16 23:43	0°♐	
	15977 Jan 24 14:59	0°♑	
	15977 Mar 05 12:44	0°♒	
	15977 Apr 17 14:42	0°♓	
	15977 Jun 08 09:40	0°♈	
desc. node	15977 Jul 16 09:07	13°♈28'20	
retrograde	15977 Aug 01 08:32	15°♈04'35	
min. Earth dist.	15977 Sep 05 15:46	7°♈04'28	0.62184 AU
opposition	15977 Sep 10 15:23	5°♈06'42	-2°21'17
greatest brilliancy	15977 Sep 10 03:47	5°♈18'08	-1.6m
	15977 Sep 24 20:42	30°℞♓	
direct	15977 Oct 19 02:59	26°♓14'19	
	15977 Nov 14 18:23	0°♈	
	15978 Jan 24 08:21	0°♉	
	15978 Mar 18 09:31	0°♊	
	15978 May 05 14:59	0°♋	
	15978 Jun 19 14:35	0°♌	
evening set	15978 Jun 30 03:54	7°♌19'07	
max. Earth dist.	15978 Jul 13 15:03	16°♌48'43	2.47260 AU
	15978 Jul 31 22:44	0°♍	
asc. node	15978 Aug 07 08:22	4°♍40'57	
conjunction	15978 Aug 23 10:56	16°♍37'18	0°11'05
minimum elong	15978 Aug 23 10:09	16°♍35'51	0°10'49
behind sun begin	15978 Aug 22 15:22	16°♍00'45	
behind sun end	15978 Aug 24 04:56	17°♍10'59	
	15978 Sep 10 03:55	0°♎	
	15978 Oct 18 21:28	0°♏	
morning rise	15978 Oct 27 16:37	6°♏55'03	
greatest brilliancy	15978 Nov 10 13:33	17°♏52'05	1.2m
	15978 Nov 25 21:41	0°♐	
	15979 Jan 03 01:34	0°♑	
	15979 Feb 11 08:04	0°♒	
	15979 Mar 24 18:14	0°♓	
	15979 May 08 19:25	0°♈	
desc. node	15979 Jun 03 09:07	15°♈25'43	
	15979 Jun 30 12:03	0°♉	
retrograde	15979 Sep 05 02:35	19°♉50'39	
opposition	15979 Oct 15 23:26	9°♉58'47	-4°18'20
min. Earth dist.	15979 Oct 14 19:17	10°♉26'39	0.68213 AU
greatest brilliancy	15979 Oct 15 17:52	10°♉04'19	-1.3m
direct	15979 Nov 25 18:02	0°♉18'47	
	15980 Feb 22 09:44	0°♊	
	15980 Apr 14 08:07	0°♋	
	15980 May 30 06:20	0°♌	
asc. node	15980 Jun 24 02:36	17°♌20'50	
	15980 Jul 11 14:51	0°♍	
	15980 Aug 20 12:34	0°♎	
evening set	15980 Aug 24 00:31	2°♎41'43	
	15980 Sep 27 21:56	0°♏	
conjunction	15980 Nov 02 20:54	28°♏32'44	1°07'22
minimum elong	15980 Nov 02 19:27	28°♏29'53	1°07'58
	15980 Nov 04 16:51	0°♐	
	15980 Dec 12 19:18	0°♑	
max. Earth dist.	15980 Dec 13 13:27	0°♑35'18	2.36763 AU
morning rise	15981 Jan 15 03:40	25°♑33'00	
	15981 Jan 21 02:03	0°♒	
	15981 Mar 03 07:19	0°♓	
	15981 Apr 16 03:48	0°♈	
desc. node	15981 Apr 20 03:22	2°♈37'13	
	15981 Jun 02 14:56	0°♉	
	15981 Jul 26 22:14	0°♊	
retrograde	15981 Oct 08 13:36	22°♊17'52	
opposition	15981 Nov 17 16:00	12°♊57'46	-4°53'30
greatest brilliancy	15981 Nov 18 02:39	12°♊47'20	-1.3m
min. Earth dist.	15981 Nov 20 09:46	11°♊53'23	0.67428 AU
direct	15981 Dec 29 06:28	2°♊56'10	
	15982 Mar 20 03:39	0°♋	
	15982 May 08 20:24	0°♌	
asc. node	15982 May 12 02:20	2°♌08'30	
	15982 Jun 21 03:53	0°♍	
	15982 Jul 31 05:49	0°♎	
greatest brilliancy	15982 Aug 23 23:12	18°♎26'41	1.1m
	15982 Sep 07 15:09	0°♏	
	15982 Oct 15 11:45	0°♐	
evening set	15982 Nov 09 18:27	19°♐52'13	
	15982 Nov 22 19:37	0°♑	
	15983 Jan 01 10:45	0°♒	
conjunction	15983 Jan 15 05:46	10°♒08'01	0°32'16
minimum elong	15983 Jan 15 07:59	10°♒12'02	0°32'54
	15983 Feb 11 23:30	0°♓	
max. Earth dist.	15983 Feb 24 14:13	8°♓48'32	2.50740 AU
desc. node	15983 Mar 07 19:05	16°♓31'02	
morning rise	15983 Mar 12 16:05	19°♓50'25	
	15983 Mar 27 18:19	0°♈	
	15983 May 12 23:49	0°♉	
	15983 Jul 01 03:17	0°♊	
	15983 Aug 24 11:10	0°♋	
retrograde	15983 Nov 16 19:07	27°♋15'04	
opposition	15983 Dec 24 15:57	18°♋51'45	-3°59'11

greatest brilliancy	15983 Dec 25 15:35	18°♋29'16	-1.6m
min. Earth dist.	15983 Dec 31 04:23	16°♋23'11	0.59810 AU
direct	15984 Feb 03 09:04	9°♋02'20	
asc. node	15984 Mar 29 07:51	24°♋34'17	
	15984 Apr 08 21:59	0°♌	
	15984 May 27 09:13	0°♍	
	15984 Jul 07 22:55	0°♎	
	15984 Aug 15 23:58	0°♏	
	15984 Sep 23 09:01	0°♐	
	15984 Nov 01 07:22	0°♑	
	15984 Dec 11 15:30	0°♒	
evening set	15985 Jan 11 16:47	22°♒11'48	
desc. node	15985 Jan 22 10:13	29°♒41'09	
	15985 Jan 22 21:05	0°♓	
conjunction	15985 Mar 05 00:10	27°♓55'37	-0°25'08
minimum elong	15985 Mar 04 23:07	27°♓53'52	0°25'02
	15985 Mar 08 03:05	0°♈	
max. Earth dist.	15985 Mar 25 12:20	11°♈26'58	2.61878 AU
morning rise	15985 Apr 21 00:54	28°♈36'30	
	15985 Apr 23 05:04	0°♉	
	15985 Jun 09 20:43	0°♊	
	15985 Jul 29 02:11	0°♋	
	15985 Sep 18 21:57	0°♌	
	15985 Nov 18 09:42	0°♍	
retrograde	15986 Jan 06 23:43	11°♍47'45	
opposition	15986 Feb 09 16:36	5°♍06'50	-0°17'49
greatest brilliancy	15986 Feb 09 19:36	5°♍04'17	-2.4m
asc. node	15986 Feb 14 14:39	3°♍25'47	
min. Earth dist.	15986 Feb 18 07:46	2°♍11'05	0.46564 AU
	15986 Feb 25 11:57	30°℞♌	
direct	15986 Mar 18 11:14	26°♌55'08	
	15986 Apr 08 21:20	0°♍	
	15986 Jun 07 18:59	0°♎	
	15986 Jul 20 19:55	0°♏	
	15986 Aug 30 07:53	0°♐	
	15986 Oct 09 22:00	0°♑	
	15986 Nov 20 18:01	0°♒	
desc. node	15986 Dec 10 05:45	13°♒34'50	
	15987 Jan 03 06:59	0°♓	
	15987 Feb 17 12:25	0°♈	
evening set	15987 Feb 25 13:36	5°♈14'29	
	15987 Apr 05 01:02	0°♉	
conjunction	15987 Apr 12 08:06	4°♉39'01	-1°01'48
minimum elong	15987 Apr 12 06:55	4°♉37'08	1°02'10
max. Earth dist.	15987 Apr 18 06:51	8°♉26'04	2.67701 AU
	15987 May 22 07:39	0°♊	
morning rise	15987 May 25 18:06	2°♊10'16	
	15987 Jul 08 20:02	0°♋	
	15987 Aug 25 07:41	0°♌	
	15987 Oct 11 20:07	0°♍	
	15987 Nov 29 00:48	0°♎	
asc. node	15988 Jan 02 18:36	20°♎34'55	
	15988 Jan 20 00:02	0°♏	
retrograde	15988 Mar 24 18:46	20°♏51'38	
opposition	15988 Apr 23 05:31	16°♏00'18	6°55'30
greatest brilliancy	15988 Apr 23 07:25	15°♏59'02	-3.0m
min. Earth dist.	15988 Apr 23 19:00	15°♏51'22	0.36420 AU
direct	15988 May 22 14:24	11°♏05'31	
	15988 Jul 21 00:02	0°♐	
	15988 Sep 09 14:01	0°♑	
	15988 Oct 26 08:00	0°♒	
desc. node	15988 Oct 27 08:20	0°♒39'17	
	15988 Dec 11 23:06	0°♓	
	15989 Jan 28 03:57	0°♈	
	15989 Mar 16 18:48	0°♉	
evening set	15989 Apr 02 10:21	10°♉28'48	
	15989 May 03 07:47	0°♊	
max. Earth dist.	15989 May 09 02:32	3°♊40'14	2.68014 AU
conjunction	15989 May 16 00:34	8°♊04'15	-1°13'54
minimum elong	15989 May 16 00:34	8°♊04'15	1°14'35
	15989 Jun 19 05:19	0°♋	
morning rise	15989 Jun 28 07:58	5°♋54'07	
	15989 Aug 04 01:07	0°♌	
	15989 Sep 17 13:21	0°♍	
	15989 Oct 30 16:07	0°♎	
asc. node	15989 Nov 19 18:56	14°♎18'34	
	15989 Dec 11 14:00	0°♏	
	15990 Jan 21 23:23	0°♐	
	15990 Mar 05 18:28	0°♑	
	15990 Apr 27 00:08	0°♒	
retrograde	15990 Jun 02 22:54	8°♒49'46	
min. Earth dist.	15990 Jun 30 04:49	3°♒42'38	0.44612 AU
opposition	15990 Jul 08 14:26	0°♒50'46	3°49'23
greatest brilliancy	15990 Jul 07 12:24	1°♒13'03	-2.5m
	15990 Jul 11 02:30	30°℞♑	
direct	15990 Aug 10 00:41	24°♑21'40	
	15990 Sep 10 19:17	0°♒	
desc. node	15990 Sep 14 14:22	1°♒15'54	
	15990 Nov 14 21:06	0°♓	
	15991 Jan 06 13:24	0°♈	
	15991 Feb 25 15:16	0°♉	
	15991 Apr 15 03:49	0°♊	
evening set	15991 May 07 08:49	14°♊03'55	
max. Earth dist.	15991 Jun 01 10:50	0°♋14'58	2.62840 AU
	15991 Jun 01 01:39	0°♋	
conjunction	15991 Jun 21 00:12	13°♋06'46	-0°59'32
minimum elong	15991 Jun 21 01:31	13°♋08'58	1°00'18
	15991 Jul 16 03:44	0°♌	
morning rise	15991 Aug 07 00:10	15°♌01'00	
	15991 Aug 28 08:03	0°♍	
asc. node	15991 Oct 07 12:29	29°♍07'43	
	15991 Oct 08 16:45	0°♎	
	15991 Nov 17 13:43	0°♏	
	15991 Dec 26 13:20	0°♐	
	15992 Feb 03 14:19	0°♑	
	15992 Mar 15 04:11	0°♒	
	15992 Apr 29 05:47	0°♓	
retrograde	15992 Jul 17 16:07	29°♓51'30	
desc. node	15992 Aug 01 20:35	28°♓12'27	
min. Earth dist.	15992 Aug 19 21:00	22°♓32'49	0.58079 AU
opposition	15992 Aug 26 06:10	20°♓04'00	-1°07'37
greatest brilliancy	15992 Aug 25 22:52	20°♓11'06	-1.8m
direct	15992 Oct 02 09:43	11°♓40'03	
	15992 Dec 06 22:28	0°♈	
	15993 Feb 02 23:14	0°♉	
	15993 Mar 26 00:44	0°♊	
	15993 May 12 16:13	0°♋	
evening set	15993 Jun 13 05:51	20°♋54'18	
	15993 Jun 26 14:09	0°♌	
max. Earth dist.	15993 Jun 28 20:11	1°♌32'58	2.52490 AU
conjunction	15993 Aug 02 08:10	25°♌50'48	-0°14'35
minimum elong	15993 Aug 02 09:00	25°♌52'18	0°15'05
behind sun begin	15993 Aug 02 00:50	25°♌37'37	
behind sun end	15993 Aug 02 17:10	26°♌07'00	
	15993 Aug 08 02:16	0°♍	
asc. node	15993 Aug 24 02:07	11°♍41'51	
	15993 Sep 17 13:29	0°♎	
morning rise	15993 Sep 29 04:32	8°♎51'07	
	15993 Oct 26 12:52	0°♏	

	15993 Dec 03 17:31	0°♐	
	15994 Jan 11 00:12	0°♑	
	15994 Feb 19 09:25	0°♒	
	15994 Apr 02 03:17	0°♓	
	15994 May 18 09:26	0°♈	
desc. node	15994 Jun 20 00:20	18°♈03'02	
	15994 Jul 17 15:50	0°♉	
retrograde	15994 Aug 22 21:45	7°♉05'45	
	15994 Sep 25 09:03	30°℞♈	
min. Earth dist.	15994 Sep 30 00:30	28°♈11'33	0.66632 AU
opposition	15994 Oct 02 17:05	27°♈07'31	-3°44'05
greatest brilliancy	15994 Oct 02 07:05	27°♈17'26	-1.3m
direct	15994 Nov 11 18:24	17°♈42'44	
	15995 Jan 02 18:43	0°♉	
	15995 Mar 04 05:40	0°♊	
	15995 Apr 23 04:51	0°♋	
	15995 Jun 07 15:12	0°♌	
asc. node	15995 Jul 11 18:46	24°♌04'16	
	15995 Jul 19 22:28	0°♍	
evening set	15995 Jul 31 12:51	8°♍33'03	
max. Earth dist.	15995 Aug 21 12:32	24°♍20'05	2.38777 AU
	15995 Aug 28 22:26	0°♎	
conjunction	15995 Oct 03 13:56	27°♎45'02	0°52'39
minimum elong	15995 Oct 03 10:06	27°♎37'31	0°52'54
	15995 Oct 06 10:25	0°♏	
	15995 Nov 13 06:51	0°♐	
morning rise	15995 Dec 17 08:20	26°♐51'20	
	15995 Dec 21 09:04	0°♑	
	15996 Jan 29 14:25	0°♒	
	15996 Mar 10 19:16	0°♓	
	15996 Apr 23 21:12	0°♈	
desc. node	15996 May 06 21:37	8°♈23'18	
	15996 Jun 11 10:56	0°♉	
	15996 Aug 10 21:28	0°♊	
retrograde	15996 Sep 24 21:52	9°♊50'55	
opposition	15996 Nov 04 10:54	0°♊15'53	-4°49'07
greatest brilliancy	15996 Nov 04 14:47	0°♊12'04	-1.2m
	15996 Nov 05 03:02	30°℞♉	
min. Earth dist.	15996 Nov 05 15:43	29°♉47'30	0.68552 AU
direct	15996 Dec 15 21:35	20°♉19'47	
	15997 Jan 29 11:56	0°♊	
	15997 Mar 30 16:36	0°♋	
	15997 May 17 07:08	0°♌	
asc. node	15997 May 28 17:19	7°♌45'32	
	15997 Jun 29 02:04	0°♍	
	15997 Aug 08 00:51	0°♎	
	15997 Sep 15 09:08	0°♏	
evening set	15997 Oct 09 13:37	19°♏12'05	
	15997 Oct 23 04:05	0°♐	
	15997 Nov 30 08:43	0°♑	
conjunction	15997 Dec 20 19:16	15°♑42'00	0°54'23
minimum elong	15997 Dec 20 22:38	15°♑48'25	0°55'07
	15998 Jan 08 19:17	0°♒	
max. Earth dist.	15998 Feb 08 00:24	22°♒04'35	2.45227 AU
	15998 Feb 19 03:40	0°♓	
morning rise	15998 Feb 21 11:24	1°♓38'17	
desc. node	15998 Mar 24 12:38	23°♓03'40	
	15998 Apr 03 20:47	0°♈	
	15998 May 20 08:51	0°♉	
	15998 Jul 09 17:05	0°♊	
	15998 Sep 07 11:04	0°♋	
retrograde	15998 Oct 31 14:19	13°♋13'23	
opposition	15998 Dec 09 12:36	4°♋24'04	-4°33'29
greatest brilliancy	15998 Dec 10 08:41	4°♋04'41	-1.4m
min. Earth dist.	15998 Dec 14 14:37	2°♋26'17	0.63574 AU
	15998 Dec 21 04:50	30°℞♊	
direct	15999 Jan 19 19:39	24°♊24'12	
	15999 Feb 20 12:01	0°♋	
asc. node	15999 Apr 15 20:00	25°♋52'16	
	15999 Apr 22 17:38	0°♌	
	15999 Jun 07 01:51	0°♍	
	15999 Jul 17 19:12	0°♎	
	15999 Aug 25 11:16	0°♏	
	15999 Oct 02 13:33	0°♐	
	15999 Nov 10 04:26	0°♑	
	15999 Dec 20 04:02	0°♒	
evening set	15999 Dec 21 19:39	1°♒12'37	
	16000 Jan 31 01:17	0°♓	
desc. node	16000 Feb 09 03:39	6°♓19'35	
conjunction	16000 Feb 16 14:56	11°♓28'15	-0°04'44
minimum elong	16000 Feb 16 14:42	11°♓27'51	0°04'25
behind sun begin	16000 Feb 15 17:20	10°♓51'14	
behind sun end	16000 Feb 17 12:04	12°♓04'26	
max. Earth dist.	16000 Mar 15 03:58	0°♈04'55	2.58112 AU
	16000 Mar 15 01:00	0°♈	
morning rise	16000 Apr 06 09:22	14°♈43'22	
	16000 Apr 30 02:05	0°♉	
	16000 Jun 17 02:52	0°♊	
	16000 Aug 06 14:54	0°♋	
	16000 Oct 01 12:58	0°♌	
retrograde	16000 Dec 15 07:47	22°♌46'02	
opposition	16001 Jan 19 21:12	15°♌17'43	-2°13'18
greatest brilliancy	16001 Jan 20 15:53	15°♌00'46	-2.0m
min. Earth dist.	16001 Jan 28 03:32	12°♌18'22	0.52166 AU
direct	16001 Feb 27 16:57	6°♌11'14	
asc. node	16001 Mar 03 03:04	6°♌16'09	
	16001 May 06 15:51	0°♍	
	16001 Jun 21 06:54	0°♎	
	16001 Jul 31 19:05	0°♏	
	16001 Sep 09 01:35	0°♐	
	16001 Oct 18 18:26	0°♑	
	16001 Nov 28 20:18	0°♒	
desc. node	16001 Dec 26 21:22	19°♒45'33	
	16002 Jan 10 18:05	0°♓	
evening set	16002 Feb 09 12:47	20°♓05'25	
	16002 Feb 24 12:06	0°♈	
conjunction	16002 Mar 29 04:36	21°♈16'26	-0°50'30
minimum elong	16002 Mar 29 03:14	21°♈14'13	0°50'42
max. Earth dist.	16002 Apr 09 11:28	28°♈31'28	2.66085 AU
	16002 Apr 11 18:46	0°♉	
morning rise	16002 May 12 12:49	19°♉33'02	
	16002 May 29 02:41	0°♊	
	16002 Jul 16 02:43	0°♋	
	16002 Sep 02 18:24	0°♌	
	16002 Oct 22 18:27	0°♍	
	16002 Dec 16 11:14	0°♎	
asc. node	16003 Jan 19 09:39	14°♎19'23	
retrograde	16003 Feb 20 12:38	20°♎05'45	
opposition	16003 Mar 22 19:27	14°♎51'11	4°16'16
greatest brilliancy	16003 Mar 23 15:01	14°♎37'06	-2.9m
min. Earth dist.	16003 Mar 28 15:32	13°♎10'37	0.38703 AU
direct	16003 Apr 23 21:50	8°♎51'23	
	16003 Jun 24 10:28	0°♏	
	16003 Aug 10 15:23	0°♐	
	16003 Sep 23 09:18	0°♑	
	16003 Nov 06 06:50	0°♒	
desc. node	16003 Nov 13 20:15	5°♒05'44	
	16003 Dec 21 07:16	0°♓	
	16004 Feb 05 12:48	0°♈	
evening set	16004 Mar 19 14:51	27°♈27'38	

	16004 Mar 23 14:58	0°♉	
max. Earth dist.	16004 Apr 30 15:02	24°♉03'56	2.68553 AU
conjunction	16004 May 02 15:50	25°♉21'13	-1°12'14
minimum elong	16004 May 02 15:19	25°♉20'23	1°12'48
	16004 May 09 23:46	0°♊	
morning rise	16004 Jun 14 14:45	22°♊40'31	
	16004 Jun 26 01:11	0°♋	
	16004 Aug 11 09:17	0°♌	
	16004 Sep 25 18:31	0°♍	
	16004 Nov 09 03:57	0°♎	
asc. node	16004 Dec 06 10:52	18°♎42'25	
	16004 Dec 22 20:56	0°♏	
	16005 Feb 05 04:26	0°♐	
	16005 Mar 28 07:41	0°♑	
retrograde	16005 May 10 12:13	11°♑38'18	
min. Earth dist.	16005 Jun 05 11:12	7°♑13'20	0.39594 AU
greatest brilliancy	16005 Jun 10 23:40	5°♑32'48	-2.8m
opposition	16005 Jun 12 08:08	5°♑08'00	6°10'35
	16005 Jul 05 08:40	30°℞♐	
direct	16005 Jul 12 13:31	29°♐38'51	
	16005 Jul 19 21:22	0°♑	
desc. node	16005 Oct 01 01:48	27°♑43'51	
	16005 Oct 05 06:34	0°♒	
	16005 Nov 26 09:22	0°♓	
	16006 Jan 15 01:49	0°♈	
	16006 Mar 04 22:24	0°♉	
	16006 Apr 21 23:15	0°♊	
evening set	16006 Apr 23 17:38	1°♊06'57	
max. Earth dist.	16006 May 23 02:44	19°♊50'42	2.65504 AU
conjunction	16006 Jun 06 13:30	29°♊11'14	-1°08'29
minimum elong	16006 Jun 06 14:22	29°♊12'39	1°09'15
	16006 Jun 07 19:31	0°♋	
morning rise	16006 Jul 21 12:55	28°♋55'40	
	16006 Jul 23 03:05	0°♌	
	16006 Sep 04 17:40	0°♍	
	16006 Oct 16 15:35	0°♎	
asc. node	16006 Oct 24 06:02	5°♎33'55	
	16006 Nov 26 02:39	0°♏	
	16007 Jan 04 16:49	0°♐	
	16007 Feb 13 11:33	0°♑	
	16007 Mar 27 11:49	0°♒	
	16007 May 17 04:20	0°♓	
retrograde	16007 Jul 02 13:35	12°♓33'50	
min. Earth dist.	16007 Aug 02 11:06	6°♓02'54	0.53146 AU
opposition	16007 Aug 10 01:05	3°♓11'07	0°28'30
greatest brilliancy	16007 Aug 09 21:55	3°♓14'07	-2.0m
	16007 Aug 18 22:19	30°℞♒	
desc. node	16007 Aug 19 09:46	29°♒50'39	
direct	16007 Sep 14 13:58	25°♒23'58	
	16007 Oct 13 16:39	0°♓	
	16007 Dec 21 01:08	0°♈	
	16008 Feb 12 13:16	0°♉	
	16008 Apr 02 08:06	0°♊	
	16008 May 19 14:30	0°♋	
evening set	16008 May 28 18:45	6°♋00'10	
max. Earth dist.	16008 Jun 16 15:53	18°♋33'00	2.57117 AU
	16008 Jul 03 13:06	0°♌	
conjunction	16008 Jul 15 00:58	7°♌55'27	-0°35'54
minimum elong	16008 Jul 15 02:26	7°♌58'01	0°36'32
	16008 Aug 15 06:37	0°♍	
morning rise	16008 Sep 05 09:31	15°♍22'45	
asc. node	16008 Sep 09 21:44	18°♍42'30	
	16008 Sep 25 01:08	0°♎	
	16008 Nov 03 07:26	0°♏	
	16008 Dec 11 17:36	0°♐	
	16009 Jan 19 04:43	0°♑	
	16009 Feb 27 19:41	0°♒	
	16009 Apr 11 04:53	0°♓	
	16009 May 29 22:14	0°♈	
desc. node	16009 Jul 06 14:18	17°♈14'04	
retrograde	16009 Aug 09 08:49	23°♈40'35	
min. Earth dist.	16009 Sep 14 17:08	15°♈19'58	0.64047 AU
opposition	16009 Sep 18 21:34	13°♈40'39	-2°56'25
greatest brilliancy	16009 Sep 18 09:30	13°♈52'36	-1.5m
direct	16009 Oct 28 00:05	4°♈35'21	
	16010 Jan 16 23:17	0°♉	
	16010 Mar 12 21:42	0°♊	
	16010 Apr 30 16:16	0°♋	
	16010 Jun 14 19:50	0°♌	
evening set	16010 Jul 10 17:17	18°♌08'03	
max. Earth dist.	16010 Jul 24 10:12	28°♌00'00	2.44213 AU
	16010 Jul 27 04:11	0°♍	
asc. node	16010 Jul 28 12:21	0°♍58'41	
	16010 Sep 05 08:04	0°♎	
conjunction	16010 Sep 06 00:39	0°♎31'41	0°26'54
minimum elong	16010 Sep 05 22:34	0°♎27'41	0°26'48
	16010 Oct 13 23:53	0°♏	
morning rise	16010 Nov 14 12:41	24°♏55'01	
	16010 Nov 20 22:43	0°♐	
	16010 Dec 29 01:33	0°♑	
	16011 Feb 06 06:27	0°♒	
	16011 Mar 19 12:46	0°♓	
	16011 May 03 01:24	0°♈	
desc. node	16011 May 24 13:45	13°♈24'06	
	16011 Jun 22 14:30	0°♉	
retrograde	16011 Sep 12 15:18	27°♉29'07	
opposition	16011 Oct 23 10:28	17°♉42'14	-4°33'16
greatest brilliancy	16011 Oct 23 07:58	17°♉44'43	-1.2m
min. Earth dist.	16011 Oct 23 02:20	17°♉50'17	0.68620 AU
direct	16011 Dec 03 12:10	7°♉55'30	
	16012 Feb 14 19:30	0°♊	
	16012 Apr 08 17:51	0°♋	
	16012 May 25 04:34	0°♌	
asc. node	16012 Jun 14 08:19	13°♌56'56	
	16012 Jul 06 16:38	0°♍	
	16012 Aug 15 14:54	0°♎	
evening set	16012 Sep 08 20:12	18°♎50'29	
	16012 Sep 22 23:51	0°♏	
	16012 Oct 30 18:40	0°♐	
conjunction	16012 Nov 20 22:50	16°♐44'31	1°07'32
minimum elong	16012 Nov 21 00:03	16°♐46'54	1°08'15
	16012 Dec 07 21:33	0°♑	
max. Earth dist.	16013 Jan 13 03:24	27°♑42'29	2.39528 AU
	16013 Jan 16 04:53	0°♒	
morning rise	16013 Jan 29 20:18	10°♒06'23	
	16013 Feb 26 10:09	0°♓	
desc. node	16013 Apr 10 07:33	29°♓26'41	
	16013 Apr 11 03:36	0°♈	
	16013 May 28 02:56	0°♉	
	16013 Jul 19 10:39	0°♊	
	16013 Oct 13 17:52	0°♋	
retrograde	16013 Oct 16 15:37	0°♋03'00	
	16013 Oct 19 12:35	30°℞♊	
opposition	16013 Nov 25 09:18	20°♊52'36	-4°50'20
greatest brilliancy	16013 Nov 25 23:36	20°♊38'39	-1.3m
min. Earth dist.	16013 Nov 28 23:06	19°♊28'53	0.66356 AU
direct	16014 Jan 05 22:48	10°♊49'54	
	16014 Mar 11 21:32	0°♋	
asc. node	16014 May 02 10:48	29°♋41'14	

	16014 May 02 22:29	0°♌	
	16014 Jun 15 19:46	0°♍	
	16014 Jul 26 02:20	0°♎	
	16014 Sep 02 13:23	0°♏	
	16014 Oct 10 11:15	0°♐	
	16014 Nov 17 20:44	0°♑	
evening set	16014 Nov 26 03:28	6°♑21'29	
	16014 Dec 27 13:46	0°♒	
conjunction	16015 Jan 27 21:19	22°♒43'03	0°18'26
minimum elong	16015 Jan 27 22:31	22°♒45'11	0°18'57
	16015 Feb 07 04:28	0°♓	
desc. node	16015 Feb 25 21:14	12°♓59'47	
max. Earth dist.	16015 Mar 04 10:13	17°♓28'26	2.53585 AU
morning rise	16015 Mar 22 12:19	29°♓40'52	
	16015 Mar 22 23:47	0°♈	
	16015 May 08 02:08	0°♉	
	16015 Jun 25 16:50	0°♊	
	16015 Aug 17 04:29	0°♋	
	16015 Oct 22 10:07	0°♌	
retrograde	16015 Nov 26 19:17	6°♌18'18	
	16015 Dec 29 00:43	30℞♋	
opposition	16016 Jan 02 22:18	28°♋12'06	-3°28'46
greatest brilliancy	16016 Jan 03 21:59	27°♋49'51	-1.7m
min. Earth dist.	16016 Jan 10 03:21	25°♋29'47	0.57332 AU
direct	16016 Feb 12 02:31	18°♋33'20	
asc. node	16016 Mar 19 16:04	26°♋16'42	
	16016 Mar 28 15:23	0°♌	
	16016 May 20 10:49	0°♍	
	16016 Jul 01 23:16	0°♎	
	16016 Aug 10 09:21	0°♏	
	16016 Sep 17 23:55	0°♐	
	16016 Oct 27 03:01	0°♑	
	16016 Dec 06 15:32	0°♒	
desc. node	16017 Jan 12 13:15	26°♒11'19	
	16017 Jan 18 01:14	0°♓	
evening set	16017 Jan 22 18:43	3°♓15'36	
	16017 Mar 03 10:04	0°♈	
conjunction	16017 Mar 14 03:42	7°♈04'38	-0°35'33
minimum elong	16017 Mar 14 02:24	7°♈02'30	0°35'33
max. Earth dist.	16017 Mar 31 04:20	18°♈10'59	2.63607 AU
	16017 Apr 18 12:38	0°♉	
morning rise	16017 Apr 29 00:37	6°♉42'11	
	16017 Jun 05 00:11	0°♊	
	16017 Jul 23 16:39	0°♋	
	16017 Sep 12 01:35	0°♌	
	16017 Nov 05 18:26	0°♍	
retrograde	16018 Jan 21 14:19	24°♍36'10	
asc. node	16018 Feb 04 22:01	23°♍18'35	
opposition	16018 Feb 23 03:28	18°♍26'01	1°10'21
greatest brilliancy	16018 Feb 23 12:07	18°♍19'01	-2.6m
min. Earth dist.	16018 Mar 03 10:57	15°♍45'38	0.43479 AU
direct	16018 Mar 30 10:13	10°♍56'49	
	16018 May 27 03:51	0°♎	
	16018 Jul 12 19:27	0°♏	
	16018 Aug 23 13:40	0°♐	
	16018 Oct 03 21:48	0°♑	
	16018 Nov 15 06:40	0°♒	
desc. node	16018 Nov 30 11:32	10°♒30'21	
	16018 Dec 29 05:21	0°♓	
	16019 Feb 12 17:24	0°♈	
evening set	16019 Mar 06 04:06	13°♈51'18	
	16019 Mar 31 09:42	0°♉	
conjunction	16019 Apr 20 04:19	12°♉34'26	-1°06'46
minimum elong	16019 Apr 20 03:20	12°♉32'53	1°07'14
max. Earth dist.	16019 Apr 23 07:00	14°♉32'52	2.68231 AU
	16019 May 17 16:16	0°♊	
morning rise	16019 Jun 02 07:06	9°♊53'26	
	16019 Jul 03 24:00	0°♋	
	16019 Aug 20 00:28	0°♌	
	16019 Oct 05 14:55	0°♍	
	16019 Nov 21 00:46	0°♎	
asc. node	16019 Dec 24 02:23	21°♎07'05	
	16020 Jan 07 09:00	0°♏	
	16020 Mar 02 07:20	0°♐	
retrograde	16020 Apr 12 02:53	9°♐53'47	
min. Earth dist.	16020 May 09 11:10	5°♐27'11	0.36642 AU
greatest brilliancy	16020 May 11 11:37	4°♐54'42	-3.0m
opposition	16020 May 12 02:32	4°♐44'41	7°23'54
	16020 Jun 06 15:08	30℞♏	
direct	16020 Jun 10 02:52	29°♏55'09	
	16020 Jun 13 14:41	0°♐	
	16020 Aug 30 07:26	0°♑	
desc. node	16020 Oct 17 14:25	29°♑01'43	
	16020 Oct 19 03:59	0°♒	
	16020 Dec 06 03:05	0°♓	
	16021 Jan 23 00:41	0°♈	
	16021 Mar 12 00:29	0°♉	
evening set	16021 Apr 10 04:54	18°♉18'58	
	16021 Apr 28 16:56	0°♊	
max. Earth dist.	16021 May 14 03:36	9°♊48'50	2.67344 AU
conjunction	16021 May 23 18:08	15°♊57'03	-1°13'07
minimum elong	16021 May 23 18:29	15°♊57'35	1°13'51
	16021 Jun 14 13:42	0°♋	
morning rise	16021 Jul 06 11:46	14°♋17'42	
	16021 Jul 30 05:01	0°♌	
	16021 Sep 12 09:01	0°♍	
	16021 Oct 25 00:34	0°♎	
asc. node	16021 Nov 10 00:01	11°♎30'22	
	16021 Dec 05 07:47	0°♏	
	16022 Jan 14 21:15	0°♐	
	16022 Feb 25 02:19	0°♑	
	16022 Apr 11 18:54	0°♒	
retrograde	16022 Jun 14 11:06	22°♒23'24	
min. Earth dist.	16022 Jul 12 22:00	16°♒46'17	0.47664 AU
opposition	16022 Jul 21 06:50	13°♒46'56	2°29'56
greatest brilliancy	16022 Jul 20 13:17	14°♒02'41	-2.3m
direct	16022 Aug 23 22:18	6°♒47'00	
desc. node	16022 Sep 04 20:54	7°♒40'03	
	16022 Nov 05 19:40	0°♓	
	16022 Dec 31 10:28	0°♈	
	16023 Feb 20 11:47	0°♉	
	16023 Apr 10 09:48	0°♊	
evening set	16023 May 15 07:45	22°♊09'09	
	16023 May 27 10:25	0°♋	
max. Earth dist.	16023 Jun 07 03:12	7°♋00'18	2.60996 AU
conjunction	16023 Jun 29 16:54	22°♋01'43	-0°52'16
minimum elong	16023 Jun 29 18:23	22°♋04'14	0°52'59
	16023 Jul 11 11:23	0°♌	
morning rise	16023 Aug 17 06:31	25°♌34'33	
	16023 Aug 23 11:48	0°♍	
asc. node	16023 Sep 27 15:53	25°♍33'42	
	16023 Oct 03 15:28	0°♎	
	16023 Nov 12 06:56	0°♏	
	16023 Dec 21 01:11	0°♐	
	16024 Jan 28 20:00	0°♑	
	16024 Mar 08 22:19	0°♒	
	16024 Apr 21 13:52	0°♓	
	16024 Jun 15 20:35	0°♈	
desc. node	16024 Jul 23 03:54	9°♈08'34	

retrograde	16024 Jul 26 04:03	9°♈12'15	
min. Earth dist.	16024 Aug 29 13:10	1°♈30'06	0.60456 AU
	16024 Sep 02 09:09	30°℞♓	
opposition	16024 Sep 04 04:17	29°♓17'37	-1°53'01
greatest brilliancy	16024 Sep 03 17:41	29°♓28'00	-1.6m
direct	16024 Oct 12 02:02	20°♓37'19	
	16024 Nov 25 06:54	0°♈	
	16025 Jan 27 17:05	0°♉	
	16025 Mar 20 21:11	0°♊	
	16025 May 07 21:33	0°♋	
	16025 Jun 21 21:47	0°♌	
evening set	16025 Jun 22 14:24	0°♌28'34	
max. Earth dist.	16025 Jul 06 19:14	10°♌20'09	2.49653 AU
	16025 Aug 03 08:46	0°♍	
conjunction	16025 Aug 13 20:18	7°♍39'20	-0°00'20
minimum elong	16025 Aug 13 20:23	7°♍39'29	0°00'43
behind sun begin	16025 Aug 12 20:50	6°♍56'15	
behind sun end	16025 Aug 14 19:56	8°♍22'47	
asc. node	16025 Aug 14 07:46	8°♍00'24	
	16025 Sep 12 17:32	0°♎	
morning rise	16025 Oct 14 15:06	24°♎33'59	
	16025 Oct 21 14:03	0°♏	
	16025 Nov 28 16:09	0°♐	
	16026 Jan 05 20:46	0°♑	
greatest brilliancy	16026 Jan 13 02:50	5°♑37'40	1.2m
	16026 Feb 14 03:10	0°♒	
	16026 Mar 27 14:26	0°♓	
	16026 May 11 23:11	0°♈	
desc. node	16026 Jun 10 05:08	17°♈10'11	
	16026 Jul 05 13:58	0°♉	
retrograde	16026 Aug 30 11:53	14°♉57'12	
min. Earth dist.	16026 Oct 08 11:26	5°♉46'20	0.67641 AU
opposition	16026 Oct 10 08:14	5°♉01'56	-4°05'54
greatest brilliancy	16026 Oct 10 00:23	5°♉09'43	-1.3m
	16026 Oct 23 22:05	30°℞♈	
direct	16026 Nov 19 19:34	25°♈28'25	
	16026 Dec 19 10:15	0°♉	
	16027 Feb 25 20:49	0°♊	
	16027 Apr 17 23:12	0°♋	
	16027 Jun 02 17:53	0°♌	
asc. node	16027 Jul 02 01:14	20°♌31'42	
	16027 Jul 15 03:10	0°♍	
evening set	16027 Aug 13 18:33	22°♍05'50	
	16027 Aug 24 03:00	0°♎	
max. Earth dist.	16027 Sep 24 22:43	24°♎46'02	2.36430 AU
	16027 Oct 01 13:58	0°♏	
conjunction	16027 Oct 20 19:54	15°♏15'04	1°03'05
minimum elong	16027 Oct 20 16:48	15°♏08'54	1°03'33
	16027 Nov 08 09:27	0°♐	
	16027 Dec 16 11:10	0°♑	
morning rise	16028 Jan 03 16:19	14°♑05'11	
	16028 Jan 24 16:03	0°♒	
	16028 Mar 05 19:22	0°♓	
	16028 Apr 18 15:49	0°♈	
desc. node	16028 Apr 26 23:48	5°♈27'04	
	16028 Jun 05 10:04	0°♉	
	16028 Jul 31 09:55	0°♊	
retrograde	16028 Oct 02 16:10	17°♊27'58	
opposition	16028 Nov 11 23:26	8°♊00'43	-4°53'14
greatest brilliancy	16028 Nov 12 07:03	7°♊53'14	-1.2m
min. Earth dist.	16028 Nov 14 00:21	7°♊12'39	0.68066 AU
	16028 Dec 05 22:07	30°℞♉	
direct	16028 Dec 23 12:33	28°♉01'06	
	16029 Jan 11 06:53	0°♊	
	16029 Mar 24 00:27	0°♋	
	16029 May 11 19:45	0°♌	
asc. node	16029 May 18 23:58	4°♌47'43	
	16029 Jun 23 22:57	0°♍	
	16029 Aug 03 00:35	0°♎	
	16029 Sep 10 09:51	0°♏	
	16029 Oct 18 05:35	0°♐	
greatest brilliancy	16029 Oct 24 11:24	4°♐56'17	1.1m
evening set	16029 Oct 27 07:04	7°♐09'53	
	16029 Nov 25 11:24	0°♑	
	16030 Jan 03 23:18	0°♒	
conjunction	16030 Jan 04 15:54	0°♒30'50	0°42'19
minimum elong	16030 Jan 04 18:49	0°♒36'16	0°42'59
	16030 Feb 14 08:34	0°♓	
max. Earth dist.	16030 Feb 18 03:57	2°♓40'54	2.48326 AU
morning rise	16030 Mar 04 16:28	12°♓47'34	
desc. node	16030 Mar 14 15:54	19°♓37'53	
	16030 Mar 30 00:52	0°♈	
	16030 May 15 07:03	0°♉	
	16030 Jul 03 19:11	0°♊	
	16030 Aug 28 17:51	0°♋	
retrograde	16030 Nov 09 15:16	21°♋36'06	
opposition	16030 Dec 17 23:49	13°♋00'21	-4°15'51
greatest brilliancy	16030 Dec 18 22:10	12°♋38'55	-1.5m
min. Earth dist.	16030 Dec 23 20:40	10°♋45'21	0.61615 AU
direct	16031 Jan 27 23:43	3°♋05'01	
asc. node	16031 Apr 06 04:18	25°♋03'41	
	16031 Apr 15 02:03	0°♌	
	16031 Jun 01 00:53	0°♍	
	16031 Jul 12 05:54	0°♎	
	16031 Aug 20 02:58	0°♏	
	16031 Sep 27 08:29	0°♐	
	16031 Nov 05 02:39	0°♑	
	16031 Dec 15 05:42	0°♒	
evening set	16032 Jan 03 14:16	14°♒00'01	
	16032 Jan 26 06:08	0°♓	
desc. node	16032 Jan 30 07:16	2°♓48'49	
conjunction	16032 Feb 26 17:38	21°♓33'56	-0°16'57
minimum elong	16032 Feb 26 16:50	21°♓32'36	0°16'45
	16032 Mar 10 07:55	0°♈	
max. Earth dist.	16032 Mar 21 06:23	7°♈14'28	2.60293 AU
morning rise	16032 Apr 14 20:40	23°♈16'15	
	16032 Apr 25 08:09	0°♉	
	16032 Jun 12 02:14	0°♊	
	16032 Jul 31 18:31	0°♋	
	16032 Sep 22 22:58	0°♌	
	16032 Dec 01 17:38	0°♍	
retrograde	16032 Dec 27 14:35	3°♍38'58	
	16033 Jan 20 18:14	30°℞♌	
opposition	16033 Jan 31 04:48	26°♌35'19	-1°12'34
greatest brilliancy	16033 Jan 31 15:58	26°♌25'29	-2.2m
min. Earth dist.	16033 Feb 08 19:16	23°♌34'27	0.49108 AU
asc. node	16033 Feb 21 11:12	19°♌52'39	
direct	16033 Mar 09 23:44	17°♌55'50	
	16033 Apr 24 04:20	0°♍	
	16033 Jun 13 12:46	0°♎	
	16033 Jul 25 05:30	0°♏	
	16033 Sep 03 01:48	0°♐	
	16033 Oct 13 04:31	0°♑	
	16033 Nov 23 14:33	0°♒	
desc. node	16033 Dec 17 01:29	16°♒27'04	
	16034 Jan 05 19:04	0°♓	
evening set	16034 Feb 18 19:51	29°♓23'30	
	16034 Feb 19 18:07	0°♈	
conjunction	16034 Apr 06 08:34	29°♈30'11	-0°57'36

minimum elong	16034 Apr 06 07:17	29°♈28'07	0°57'54
	16034 Apr 07 03:13	0°♉	
max. Earth dist.	16034 Apr 14 14:51	4°♉46'46	2.67086 AU
morning rise	16034 May 20 02:46	27°♉17'35	
	16034 May 24 09:42	0°♊	
	16034 Jul 11 02:39	0°♋	
	16034 Aug 28 01:24	0°♌	
	16034 Oct 15 11:55	0°♍	
	16034 Dec 04 17:35	0°♎	
asc. node	16035 Jan 09 15:44	19°♎20'38	
	16035 Feb 03 03:06	0°♏	
retrograde	16035 Mar 10 22:30	7°♏18'05	
opposition	16035 Apr 09 13:29	2°♏23'26	5°58'34
greatest brilliancy	16035 Apr 10 02:57	2°♏14'16	-3.0m
min. Earth dist.	16035 Apr 12 17:08	1°♏32'06	0.37049 AU
	16035 Apr 18 15:32	30°℞♎	
direct	16035 May 09 22:25	27°♎06'40	
	16035 May 30 15:59	0°♏	
	16035 Jul 31 08:36	0°♐	
	16035 Sep 15 20:40	0°♑	
	16035 Oct 31 02:00	0°♒	
desc. node	16035 Nov 04 02:56	2°♒40'10	
	16035 Dec 15 20:55	0°♓	
	16036 Jan 31 13:51	0°♈	
	16036 Mar 18 22:22	0°♉	
evening set	16036 Mar 27 13:05	5°♉26'20	
	16036 May 05 09:16	0°♊	
max. Earth dist.	16036 May 05 13:06	0°♊06'05	2.68358 AU
conjunction	16036 May 10 06:40	3°♊06'13	-1°13'44
minimum elong	16036 May 10 06:27	3°♊05'51	1°14'23
	16036 Jun 21 08:47	0°♋	
morning rise	16036 Jun 22 08:45	0°♋38'36	
	16036 Aug 06 10:20	0°♌	
	16036 Sep 20 07:47	0°♍	
	16036 Nov 02 23:26	0°♎	
asc. node	16036 Nov 26 17:00	16°♎38'42	
	16036 Dec 15 13:43	0°♏	
	16037 Jan 26 22:33	0°♐	
	16037 Mar 12 18:24	0°♑	
retrograde	16037 May 24 07:54	28°♑05'52	
min. Earth dist.	16037 Jun 19 17:44	23°♑20'48	0.42236 AU
greatest brilliancy	16037 Jun 26 11:58	21°♑09'07	-2.6m
opposition	16037 Jun 27 18:44	20°♑43'59	4°52'22
direct	16037 Jul 29 04:39	14°♑41'39	
desc. node	16037 Sep 21 08:47	29°♑12'15	
	16037 Sep 23 03:08	0°♒	
	16037 Nov 19 06:50	0°♓	
	16038 Jan 09 11:29	0°♈	
	16038 Feb 27 23:40	0°♉	
	16038 Apr 17 07:10	0°♊	
evening set	16038 May 01 11:15	8°♊57'30	
max. Earth dist.	16038 May 28 11:05	26°♊16'08	2.64141 AU
	16038 Jun 03 04:59	0°♋	
conjunction	16038 Jun 14 16:08	7°♋29'41	-1°03'52
minimum elong	16038 Jun 14 17:18	7°♋31'35	1°04'38
	16038 Jul 18 10:27	0°♌	
morning rise	16038 Jul 30 15:42	8°♌19'08	
	16038 Aug 30 20:08	0°♍	
	16038 Oct 11 11:23	0°♎	
asc. node	16038 Oct 14 11:40	2°♎12'59	
	16038 Nov 20 14:47	0°♏	
	16038 Dec 29 20:15	0°♐	
	16039 Feb 07 03:23	0°♑	
	16039 Mar 20 03:19	0°♒	
	16039 May 05 15:43	0°♓	
retrograde	16039 Jul 11 22:22	23°♓10'58	
desc. node	16039 Aug 09 15:01	17°♓30'31	
min. Earth dist.	16039 Aug 13 03:15	16°♓12'46	0.55967 AU
opposition	16039 Aug 20 02:08	13°♓32'11	-0°30'16
greatest brilliancy	16039 Aug 19 22:33	13°♓35'38	-1.9m
direct	16039 Sep 25 12:49	5°♓23'38	
	16039 Dec 13 01:08	0°♈	
	16040 Feb 06 20:54	0°♉	
	16040 Mar 28 09:09	0°♊	
	16040 May 14 21:40	0°♋	
evening set	16040 Jun 06 09:56	14°♋48'39	
max. Earth dist.	16040 Jun 23 10:59	26°♋17'45	2.54649 AU
	16040 Jun 28 21:09	0°♌	
conjunction	16040 Jul 25 02:31	18°♌15'43	-0°24'14
minimum elong	16040 Jul 25 03:43	18°♌17'51	0°24'47
	16040 Aug 10 12:46	0°♍	
asc. node	16040 Aug 31 01:48	14°♍59'47	
morning rise	16040 Sep 18 06:17	28°♍33'32	
	16040 Sep 20 04:13	0°♎	
	16040 Oct 29 07:16	0°♏	
	16040 Dec 06 14:21	0°♐	
	16041 Jan 13 22:26	0°♑	
	16041 Feb 22 08:40	0°♒	
	16041 Apr 05 05:56	0°♓	
	16041 May 22 04:24	0°♈	
desc. node	16041 Jun 26 19:30	18°♈37'38	
	16041 Jul 30 03:57	0°♉	
retrograde	16041 Aug 17 03:59	1°♉56'48	
	16041 Sep 03 03:38	30°℞♈	
min. Earth dist.	16041 Sep 23 11:54	23°♈17'23	0.65600 AU
opposition	16041 Sep 26 21:01	21°♈57'00	-3°26'22
greatest brilliancy	16041 Sep 26 09:36	22°♈08'19	-1.4m
direct	16041 Nov 05 12:57	12°♈40'29	
	16042 Jan 08 09:26	0°♉	
	16042 Mar 07 04:19	0°♊	
	16042 Apr 25 16:08	0°♋	
	16042 Jun 10 01:02	0°♌	
asc. node	16042 Jul 18 17:43	27°♌19'29	
evening set	16042 Jul 22 01:40	29°♌44'54	
	16042 Jul 22 09:56	0°♍	
max. Earth dist.	16042 Aug 07 02:02	11°♍32'54	2.41136 AU
	16042 Aug 31 12:36	0°♎	
conjunction	16042 Sep 20 22:28	15°♎45'36	0°42'16
minimum elong	16042 Sep 20 19:08	15°♎39'06	0°42'22
	16042 Oct 09 02:48	0°♏	
	16042 Nov 16 00:16	0°♐	
morning rise	16042 Dec 03 00:57	13°♐28'26	
	16042 Dec 24 02:17	0°♑	
	16043 Feb 01 06:25	0°♒	
	16043 Mar 14 10:03	0°♓	
	16043 Apr 27 13:50	0°♈	
desc. node	16043 May 14 18:11	10°♈57'27	
	16043 Jun 15 16:49	0°♉	
	16043 Aug 20 05:13	0°♊	
retrograde	16043 Sep 20 05:23	5°♊04'39	
	16043 Oct 18 15:02	30°℞♉	
opposition	16043 Oct 30 21:11	25°♉23'51	-4°44'07
greatest brilliancy	16043 Oct 30 22:04	25°♉22'58	-1.2m
min. Earth dist.	16043 Oct 31 09:00	25°♉12'10	0.68712 AU
direct	16043 Dec 11 04:09	15°♉31'39	
	16044 Feb 05 18:14	0°♊	
	16044 Apr 02 20:49	0°♋	
	16044 May 20 00:39	0°♌	
asc. node	16044 Jun 04 15:29	10°♌41'23	
	16044 Jul 01 17:55	0°♍	

	16044 Aug 10 17:30	0°♎	
	16044 Sep 18 02:30	0°♏	
evening set	16044 Sep 25 17:54	6°♏03'21	
	16044 Oct 25 21:10	0°♐	
	16044 Dec 03 00:20	0°♑	
conjunction	16044 Dec 08 04:57	4°♑01'32	1°01'46
minimum elong	16044 Dec 08 07:57	4°♑07'21	1°02'31
	16045 Jan 11 08:23	0°♒	
max. Earth dist.	16045 Jan 29 15:09	13°♒30'00	2.42651 AU
morning rise	16045 Feb 12 02:31	23°♒14'57	
	16045 Feb 21 13:48	0°♓	
desc. node	16045 Mar 31 09:50	26°♓06'42	
	16045 Apr 06 05:17	0°♈	
	16045 May 22 19:32	0°♉	
	16045 Jul 12 18:11	0°♊	
	16045 Sep 14 12:40	0°♋	
retrograde	16045 Oct 25 01:35	8°♋00'19	
	16045 Nov 30 19:24	30°℞♊	
opposition	16045 Dec 03 08:34	29°♊01'00	-4°42'19
greatest brilliancy	16045 Dec 04 02:10	28°♊43'54	-1.4m
min. Earth dist.	16045 Dec 07 18:01	27°♊18'36	0.64943 AU
direct	16046 Jan 13 18:46	18°♊59'11	
	16046 Mar 01 08:30	0°♋	
asc. node	16046 Apr 22 17:18	27°♋38'05	
	16046 Apr 26 13:07	0°♌	
	16046 Jun 10 06:25	0°♍	
	16046 Jul 20 19:53	0°♎	
	16046 Aug 28 10:10	0°♏	
	16046 Oct 05 10:11	0°♐	
	16046 Nov 12 21:53	0°♑	
evening set	16046 Dec 11 02:28	21°♑22'30	
	16046 Dec 22 17:22	0°♒	
	16047 Feb 02 10:07	0°♓	
conjunction	16047 Feb 08 09:24	4°♓10'28	0°04'54
minimum elong	16047 Feb 08 09:42	4°♓10'58	0°05'18
behind sun begin	16047 Feb 07 11:53	3°♓32'59	
behind sun end	16047 Feb 09 07:30	4°♓48'55	
desc. node	16047 Feb 16 00:52	9°♓28'34	
max. Earth dist.	16047 Mar 11 11:13	25°♓26'41	2.56171 AU
	16047 Mar 18 06:23	0°♈	
morning rise	16047 Mar 31 17:11	8°♈55'07	
	16047 May 03 06:19	0°♉	
	16047 Jun 20 11:09	0°♊	
	16047 Aug 10 15:19	0°♋	
	16047 Oct 08 08:09	0°♌	
retrograde	16047 Dec 07 12:25	15°♌54'23	
opposition	16048 Jan 12 19:33	8°♌07'55	-2°49'10
greatest brilliancy	16048 Jan 13 17:14	7°♌47'52	-1.9m
min. Earth dist.	16048 Jan 20 15:44	5°♌14'31	0.54553 AU
	16048 Feb 07 22:36	30°℞♋	
direct	16048 Feb 21 07:04	28°♋44'47	
	16048 Mar 06 02:44	0°♌	
asc. node	16048 Mar 09 23:26	0°♌45'51	
	16048 May 12 11:14	0°♍	
	16048 Jun 25 11:38	0°♎	
	16048 Aug 04 11:14	0°♏	
	16048 Sep 12 09:37	0°♐	
	16048 Oct 21 19:05	0°♑	
	16048 Dec 01 13:40	0°♒	
desc. node	16049 Jan 02 18:19	22°♒47'16	
	16049 Jan 13 04:28	0°♓	
evening set	16049 Feb 02 01:59	13°♓33'25	
	16049 Feb 26 17:07	0°♈	
conjunction	16049 Mar 22 20:03	15°♈47'39	-0°44'43
minimum elong	16049 Mar 22 18:40	15°♈45'23	0°44'50
max. Earth dist.	16049 Apr 05 13:35	24°♈40'12	2.65081 AU
	16049 Apr 13 20:48	0°♉	
morning rise	16049 May 06 18:35	14°♉35'27	
	16049 May 31 05:25	0°♊	
	16049 Jul 18 11:42	0°♋	
	16049 Sep 05 18:53	0°♌	
	16049 Oct 27 08:49	0°♍	
	16049 Dec 27 18:39	0°♎	
asc. node	16050 Jan 26 06:44	7°♎58'46	
retrograde	16050 Feb 06 19:49	8°♎47'04	
opposition	16050 Mar 10 00:47	3°♎08'58	2°52'46
greatest brilliancy	16050 Mar 10 18:18	2°♎55'40	-2.7m
min. Earth dist.	16050 Mar 17 07:58	0°♎56'23	0.40626 AU
	16050 Mar 20 14:25	30°℞♍	
direct	16050 Apr 12 15:09	26°♍28'29	
	16050 May 05 07:17	0°♎	
	16050 Jul 03 00:33	0°♏	
	16050 Aug 16 00:31	0°♐	
	16050 Sep 27 10:49	0°♑	
	16050 Nov 09 13:04	0°♒	
desc. node	16050 Nov 20 15:53	7°♒35'54	
	16050 Dec 23 23:54	0°♓	
	16051 Feb 07 20:27	0°♈	
evening set	16051 Mar 14 12:02	22°♈13'07	
	16051 Mar 26 17:27	0°♉	
conjunction	16051 Apr 27 21:39	20°♉24'26	-1°10'28
minimum elong	16051 Apr 27 20:55	20°♉23'16	1°11'00
max. Earth dist.	16051 Apr 28 05:07	20°♉36'17	2.68520 AU
	16051 May 13 00:56	0°♊	
morning rise	16051 Jun 09 20:36	17°♊39'38	
	16051 Jun 29 05:12	0°♋	
	16051 Aug 14 20:25	0°♌	
	16051 Sep 29 18:02	0°♍	
	16051 Nov 13 22:33	0°♎	
asc. node	16051 Dec 14 09:05	20°♎20'24	
	16051 Dec 28 21:33	0°♏	
	16052 Feb 13 19:28	0°♐	
retrograde	16052 Apr 28 16:28	28°♐36'17	
min. Earth dist.	16052 May 24 20:07	24°♐18'32	0.37912 AU
greatest brilliancy	16052 May 28 23:52	23°♐07'14	-2.9m
opposition	16052 May 30 03:43	22°♐47'13	6°58'09
direct	16052 Jun 28 15:47	17°♐41'05	
	16052 Aug 15 11:50	0°♑	
desc. node	16052 Oct 07 20:08	28°♑09'19	
	16052 Oct 11 00:08	0°♒	
	16052 Nov 29 22:05	0°♓	
	16053 Jan 17 17:24	0°♈	
	16053 Mar 07 04:06	0°♉	
evening set	16053 Apr 17 22:29	26°♉08'11	
	16053 Apr 24 01:20	0°♊	
max. Earth dist.	16053 May 19 05:57	16°♊01'26	2.66435 AU
conjunction	16053 May 31 13:54	23°♊56'52	-1°10'59
minimum elong	16053 May 31 14:33	23°♊57'55	1°11'44
	16053 Jun 09 22:27	0°♋	
morning rise	16053 Jul 14 21:52	22°♋58'39	
	16053 Jul 25 10:04	0°♌	
	16053 Sep 07 07:15	0°♍	
	16053 Oct 19 13:16	0°♎	
asc. node	16053 Oct 31 04:44	8°♎27'38	
	16053 Nov 29 09:13	0°♏	
	16054 Jan 08 08:27	0°♐	
	16054 Feb 17 14:51	0°♑	
	16054 Apr 01 15:55	0°♒	
	16054 May 29 06:17	0°♓	

retrograde	16054 Jun 25 00:17	4°♓42'25	
	16054 Jul 20 18:09	30°℞♒	
min. Earth dist.	16054 Jul 24 20:08	28°♒34'35	0.50732 AU
opposition	16054 Aug 01 19:53	25°♒37'04	1°17'04
greatest brilliancy	16054 Aug 01 10:56	25°♒45'22	-2.1m
desc. node	16054 Aug 26 04:13	18°♒52'23	
direct	16054 Sep 05 12:43	18°♒09'39	
	16054 Oct 24 23:20	0°♓	
	16054 Dec 24 19:38	0°♈	
	16055 Feb 15 03:58	0°♉	
	16055 Apr 05 13:53	0°♊	
	16055 May 22 18:44	0°♋	
evening set	16055 May 23 11:07	0°♋26'40	
max. Earth dist.	16055 Jun 13 02:53	14°♋02'12	2.58951 AU
	16055 Jul 06 19:27	0°♌	
conjunction	16055 Jul 08 18:41	1°♌20'40	-0°43'26
minimum elong	16055 Jul 08 20:13	1°♌23'18	0°44'06
	16055 Aug 18 17:08	0°♍	
morning rise	16055 Aug 28 06:08	6°♍52'13	
asc. node	16055 Sep 17 21:03	21°♍57'37	
	16055 Sep 28 16:29	0°♎	
	16055 Nov 07 03:22	0°♏	
	16055 Dec 15 16:59	0°♐	
	16056 Jan 23 06:41	0°♑	
	16056 Mar 03 00:48	0°♒	
	16056 Apr 14 18:10	0°♓	
	16056 Jun 04 03:36	0°♈	
desc. node	16056 Jul 13 09:34	15°♈24'49	
retrograde	16056 Aug 03 08:52	18°♈06'31	
min. Earth dist.	16056 Sep 07 20:34	10°♈02'40	0.62562 AU
opposition	16056 Sep 12 17:05	8°♈07'46	-2°32'21
greatest brilliancy	16056 Sep 12 04:56	8°♈19'45	-1.5m
	16056 Oct 10 05:01	30°℞♓	
direct	16056 Oct 21 07:41	29°♓13'01	
	16056 Nov 02 00:12	0°♈	
	16057 Jan 20 20:29	0°♉	
	16057 Mar 15 12:57	0°♊	
	16057 May 03 00:47	0°♋	
	16057 Jun 17 04:15	0°♌	
evening set	16057 Jul 02 14:07	10°♌41'29	
max. Earth dist.	16057 Jul 16 04:49	20°♌19'30	2.46692 AU
	16057 Jul 29 15:06	0°♍	
asc. node	16057 Aug 04 11:51	4°♍16'44	
conjunction	16057 Aug 26 10:07	20°♍32'42	0°15'04
minimum elong	16057 Aug 26 09:02	20°♍30'40	0°14'51
behind sun begin	16057 Aug 25 22:54	20°♍11'39	
behind sun end	16057 Aug 26 19:10	20°♍49'42	
	16057 Sep 07 22:09	0°♎	
	16057 Oct 16 16:44	0°♏	
morning rise	16057 Oct 31 11:10	11°♏37'17	
	16057 Nov 23 17:04	0°♐	
	16057 Dec 31 20:06	0°♑	
	16058 Feb 09 00:33	0°♒	
	16058 Mar 22 06:54	0°♓	
	16058 May 06 00:25	0°♈	
desc. node	16058 May 31 09:34	15°♈30'55	
	16058 Jun 26 16:35	0°♉	
retrograde	16058 Sep 07 00:32	22°♉39'41	
opposition	16058 Oct 17 20:40	12°♉48'30	-4°23'39
min. Earth dist.	16058 Oct 16 19:43	13°♉13'13	0.68309 AU
greatest brilliancy	16058 Oct 17 15:33	12°♉53'34	-1.2m
direct	16058 Nov 27 16:41	3°♉07'21	
	16059 Feb 18 20:57	0°♊	
	16059 Apr 12 13:09	0°♋	
	16059 May 28 18:13	0°♌	

asc. node	16059 Jun 22 06:23	17°♌02'13	
	16059 Jul 10 06:25	0°♍	
	16059 Aug 19 06:19	0°♎	
evening set	16059 Aug 28 11:40	7°♎06'50	
	16059 Sep 26 16:48	0°♏	
	16059 Nov 03 11:57	0°♐	
conjunction	16059 Nov 07 21:53	3°♐30'12	1°08'05
minimum elong	16059 Nov 07 21:05	3°♐28'37	1°08'44
	16059 Dec 11 13:48	0°♑	
max. Earth dist.	16059 Dec 24 13:29	10°♑03'37	2.37248 AU
morning rise	16060 Jan 19 13:55	29°♑50'17	
	16060 Jan 19 19:07	0°♒	
	16060 Feb 29 21:58	0°♓	
	16060 Apr 13 14:37	0°♈	
desc. node	16060 Apr 17 04:15	2°♈21'35	
	16060 May 30 18:35	0°♉	
	16060 Jul 23 04:21	0°♊	
retrograde	16060 Oct 10 13:54	25°♊06'41	
opposition	16060 Nov 19 13:47	15°♊48'11	-4°53'07
greatest brilliancy	16060 Nov 20 01:06	15°♊37'05	-1.3m
min. Earth dist.	16060 Nov 22 10:41	14°♊40'40	0.67252 AU
direct	16060 Dec 31 03:27	5°♊46'21	
	16061 Mar 16 14:22	0°♋	
	16061 May 06 03:18	0°♌	
asc. node	16061 May 09 07:58	2°♌05'13	
	16061 Jun 18 17:45	0°♍	
	16061 Jul 28 22:51	0°♎	
	16061 Sep 05 09:27	0°♏	
	16061 Oct 13 06:05	0°♐	
evening set	16061 Nov 13 13:24	24°♐34'53	
	16061 Nov 20 13:07	0°♑	
	16061 Dec 30 02:50	0°♒	
conjunction	16062 Jan 18 06:50	14°♒03'41	0°28'44
minimum elong	16062 Jan 18 08:49	14°♒07'16	0°29'18
	16062 Feb 09 13:43	0°♓	
max. Earth dist.	16062 Feb 26 18:55	12°♓00'52	2.51328 AU
desc. node	16062 Mar 04 18:34	16°♓07'56	
morning rise	16062 Mar 15 02:06	23°♓09'32	
	16062 Mar 25 06:10	0°♈	
	16062 May 10 08:19	0°♉	
	16062 Jun 28 05:37	0°♊	
	16062 Aug 20 19:47	0°♋	
	16062 Nov 11 22:31	0°♌	
retrograde	16062 Nov 19 03:40	0°♌18'11	
	16062 Nov 26 03:22	30°℞♋	
opposition	16062 Dec 26 20:30	21°♋57'44	-3°51'15
greatest brilliancy	16062 Dec 27 19:58	21°♋35'26	-1.6m
min. Earth dist.	16063 Jan 02 11:16	19°♋27'08	0.59368 AU
direct	16063 Feb 05 10:13	12°♋10'07	
asc. node	16063 Mar 27 12:46	25°♋26'10	
	16063 Apr 05 21:18	0°♌	
	16063 May 25 13:58	0°♍	
	16063 Jul 06 11:45	0°♎	
	16063 Aug 14 15:54	0°♏	
	16063 Sep 22 01:46	0°♐	
	16063 Oct 30 23:38	0°♑	
	16063 Dec 10 06:32	0°♒	
evening set	16064 Jan 15 09:18	25°♒46'54	
desc. node	16064 Jan 20 09:50	29°♒17'06	
	16064 Jan 21 10:30	0°♓	
	16064 Mar 05 14:49	0°♈	
conjunction	16064 Mar 07 06:54	1°♈06'33	-0°28'14
minimum elong	16064 Mar 07 05:45	1°♈04'38	0°28'09
max. Earth dist.	16064 Mar 27 03:26	14°♈10'22	2.62232 AU

	16064 Apr 20 15:02	0°♉	
morning rise	16064 Apr 23 01:13	1°♉33'06	
	16064 Jun 07 04:22	0°♊	
	16064 Jul 26 05:24	0°♋	
	16064 Sep 15 13:55	0°♌	
	16064 Nov 12 21:32	0°♍	
retrograde	16065 Jan 10 02:14	15°♍30'26	
asc. node	16065 Feb 11 18:33	9°♍12'12	
opposition	16065 Feb 12 14:46	8°♍55'13	0°03'05
greatest brilliancy	16066 Jun 24 21:17	22°♊50'56	1.8m
min. Earth dist.	16065 Feb 21 06:35	6°♍00'57	0.45969 AU
direct	16065 Mar 21 03:16	0°♍51'18	
	16065 Jun 04 03:55	0°♎	
	16065 Jul 17 23:03	0°♏	
	16065 Aug 27 16:53	0°♐	
	16065 Oct 07 09:10	0°♑	
	16065 Nov 18 05:44	0°♒	
desc. node	16065 Dec 07 06:52	13°♒16'38	
	16065 Dec 31 18:26	0°♓	
	16066 Feb 14 23:20	0°♈	
evening set	16066 Feb 27 17:11	8°♈17'30	
	16066 Apr 02 11:24	0°♉	
conjunction	16066 Apr 14 07:52	7°♉33'16	-1°03'28
minimum elong	16066 Apr 14 06:44	7°♉31'27	1°03'52
max. Earth dist.	16066 Apr 19 17:10	10°♉58'49	2.67826 AU
	16066 May 19 17:28	0°♊	
morning rise	16066 May 27 15:49	5°♊00'56	
	16066 Jul 06 04:56	0°♋	
	16066 Aug 22 14:30	0°♌	
	16066 Oct 08 22:21	0°♍	
	16066 Nov 25 16:22	0°♎	
asc. node	16066 Dec 30 23:29	21°♎20'49	
	16067 Jan 15 04:07	0°♏	
retrograde	16067 Mar 29 22:04	25°♏49'39	
opposition	16067 Apr 28 07:19	20°♏57'10	7°07'45
greatest brilliancy	16067 Apr 28 06:17	20°♏57'51	-3.0m
min. Earth dist.	16067 Apr 28 06:48	20°♏57'31	0.36369 AU
direct	16067 May 27 11:42	16°♏05'36	
	16067 Jul 16 06:17	0°♐	
	16067 Sep 07 01:37	0°♑	
	16067 Oct 24 08:25	0°♒	
desc. node	16067 Oct 25 09:06	0°♒39'33	
	16067 Dec 10 04:36	0°♓	
	16068 Jan 26 11:50	0°♈	
	16068 Mar 14 04:01	0°♉	
evening set	16068 Apr 04 09:10	13°♉20'49	
	16068 Apr 30 17:56	0°♊	
max. Earth dist.	16068 May 10 12:28	6°♊12'09	2.67900 AU
conjunction	16068 May 17 23:00	10°♊56'14	-1°13'54
minimum elong	16068 May 17 23:06	10°♊56'23	1°14'36
	16068 Jun 16 16:16	0°♋	
morning rise	16068 Jun 30 07:59	8°♋51'10	
	16068 Aug 01 12:33	0°♌	
	16068 Sep 15 00:48	0°♍	
	16068 Oct 28 02:54	0°♎	
asc. node	16068 Nov 16 22:37	14°♎07'04	
	16068 Dec 08 22:58	0°♏	
	16069 Jan 19 04:00	0°♐	
	16069 Mar 02 11:04	0°♑	
	16069 Apr 20 23:05	0°♒	
retrograde	16069 Jun 05 17:53	12°♒52'30	
min. Earth dist.	16069 Jul 03 04:03	7°♒39'29	0.45174 AU
opposition	16069 Jul 11 13:51	4°♒45'44	3°29'47
greatest brilliancy	16069 Jul 10 13:54	5°♒06'30	-2.4m
	16069 Jul 27 16:05	30°℞♑	
direct	16069 Aug 13 06:25	28°♑10'27	
	16069 Aug 30 14:01	0°♒	
desc. node	16069 Sep 11 15:08	3°♒03'21	
	16069 Nov 11 04:47	0°♓	
	16070 Jan 03 13:28	0°♈	
	16070 Feb 22 21:23	0°♉	
	16070 Apr 12 13:16	0°♊	
evening set	16070 May 09 07:44	16°♊56'47	
	16070 May 29 13:25	0°♋	
max. Earth dist.	16070 Jun 02 23:30	2°♋52'53	2.62496 AU
conjunction	16070 Jun 23 02:34	16°♋08'59	-0°57'44
minimum elong	16070 Jun 23 03:57	16°♋11'16	0°58'28
	16070 Jul 13 17:11	0°♌	
morning rise	16070 Aug 09 09:27	18°♌21'22	
	16070 Aug 25 22:43	0°♍	
asc. node	16070 Oct 04 14:53	28°♍43'40	
	16070 Oct 06 08:12	0°♎	
	16070 Nov 15 05:29	0°♏	
	16070 Dec 24 04:40	0°♐	
	16071 Feb 01 03:49	0°♑	
	16071 Mar 13 12:45	0°♒	
	16071 Apr 26 23:23	0°♓	
	16071 Jun 28 23:09	0°♈	
retrograde	16071 Jul 20 17:48	3°♈00'40	
desc. node	16071 Jul 30 22:24	2°♈16'04	
	16071 Aug 10 09:29	30°℞♓	
min. Earth dist.	16071 Aug 23 04:06	25°♓37'44	0.58547 AU
opposition	16071 Aug 29 10:18	23°♓11'27	-1°21'02
greatest brilliancy	16071 Aug 29 01:45	23°♓19'47	-1.7m
direct	16071 Oct 05 17:11	14°♓44'33	
	16071 Dec 03 09:15	0°♈	
	16072 Jan 31 20:38	0°♉	
	16072 Mar 23 07:24	0°♊	
	16072 May 10 03:42	0°♋	
evening set	16072 Jun 15 09:43	24°♋00'17	
	16072 Jun 24 04:47	0°♌	
max. Earth dist.	16072 Jun 30 18:46	4°♌31'50	2.51953 AU
conjunction	16072 Aug 04 22:01	29°♌22'01	-0°11'03
minimum elong	16072 Aug 04 22:40	29°♌23'12	0°11'29
behind sun begin	16072 Aug 04 06:26	28°♌53'55	
behind sun end	16072 Aug 05 14:54	29°♌52'31	
	16072 Aug 05 19:02	0°♍	
asc. node	16072 Aug 21 06:43	11°♍18'22	
	16072 Sep 15 07:31	0°♎	
morning rise	16072 Oct 02 12:42	13°♎07'41	
	16072 Oct 24 07:25	0°♏	
	16072 Dec 01 11:46	0°♐	
	16073 Jan 08 17:18	0°♑	
	16073 Feb 17 00:09	0°♒	
	16073 Mar 30 13:24	0°♓	
	16073 May 15 08:26	0°♈	
desc. node	16073 Jun 17 00:55	18°♈30'10	
	16073 Jul 11 22:13	0°♉	
retrograde	16073 Aug 24 19:30	9°♉57'02	
min. Earth dist.	16073 Oct 02 01:34	1°♉00'04	0.66864 AU
opposition	16073 Oct 04 15:06	29°♈59'05	-3°51'20
greatest brilliancy	16073 Oct 04 05:18	0°♉08'48	-1.3m
	16073 Oct 04 14:11	30°℞♈	
direct	16073 Nov 13 18:43	20°♈32'45	
	16073 Dec 28 11:12	0°♉	
	16074 Mar 01 02:49	0°♊	
	16074 Apr 20 13:15	0°♋	
	16074 Jun 05 05:03	0°♌	
asc. node	16074 Jul 09 00:11	23°♌44'05	
	16074 Jul 17 15:37	0°♍	

evening set	16074 Aug 03 08:44	12°♍19'49	
max. Earth dist.	16074 Aug 25 15:10	29°♍09'26	2.38260 AU
	16074 Aug 26 17:35	0°♎	
	16074 Oct 04 06:29	0°♏	
conjunction	16074 Oct 07 05:10	2°♏19'24	0°55'34
minimum elong	16074 Oct 07 01:23	2°♏11'56	0°55'53
	16074 Nov 11 02:48	0°♐	
	16074 Dec 19 03:57	0°♑	
morning rise	16074 Dec 21 05:43	1°♑37'02	
	16075 Jan 27 07:19	0°♒	
	16075 Mar 09 09:07	0°♓	
	16075 Apr 22 06:10	0°♈	
desc. node	16075 May 04 20:27	8°♈10'20	
	16075 Jun 09 09:29	0°♉	
	16075 Aug 06 18:31	0°♊	
retrograde	16075 Sep 27 21:01	12°♊39'28	
opposition	16075 Nov 07 08:32	3°♊05'36	-4°50'57
greatest brilliancy	16075 Nov 07 13:04	3°♊01'08	-1.2m
min. Earth dist.	16075 Nov 08 16:23	2°♊34'14	0.68494 AU
	16075 Nov 15 08:10	30°℞♉	
direct	16075 Dec 18 19:33	23°♉08'58	
	16076 Jan 24 12:57	0°♊	
	16076 Mar 27 14:09	0°♋	
	16076 May 14 16:54	0°♌	
asc. node	16076 May 25 21:52	7°♌33'34	
	16076 Jun 26 17:15	0°♍	
	16076 Aug 05 18:54	0°♎	
	16076 Sep 13 04:34	0°♏	
evening set	16076 Oct 13 09:25	23°♏58'11	
	16076 Oct 20 23:47	0°♐	
	16076 Nov 28 03:43	0°♑	
conjunction	16076 Dec 24 04:34	19°♑58'23	0°51'43
minimum elong	16076 Dec 24 07:56	20°♑04'44	0°52'25
	16077 Jan 06 12:45	0°♒	
max. Earth dist.	16077 Feb 10 17:52	25°♒42'20	2.45812 AU
	16077 Feb 16 18:49	0°♓	
morning rise	16077 Feb 24 03:23	5°♓11'13	
desc. node	16077 Mar 21 12:48	22°♓42'09	
	16077 Apr 01 08:51	0°♈	
	16077 May 17 16:17	0°♉	
	16077 Jul 06 15:05	0°♊	
	16077 Sep 02 18:02	0°♋	
retrograde	16077 Nov 02 18:26	16°♋08'54	
opposition	16077 Dec 11 13:31	7°♋21'49	-4°28'56
greatest brilliancy	16077 Dec 12 09:56	7°♋02'06	-1.5m
min. Earth dist.	16077 Dec 16 18:19	5°♋21'24	0.63233 AU
	16078 Jan 01 20:58	30°℞♊	
direct	16078 Jan 21 18:39	27°♊22'40	
	16078 Feb 11 21:41	0°♋	
asc. node	16078 Apr 13 01:01	26°♋10'51	
	16078 Apr 19 13:30	0°♌	
	16078 Jun 04 11:44	0°♍	
	16078 Jul 15 10:15	0°♎	
	16078 Aug 23 04:27	0°♏	
	16078 Sep 30 07:16	0°♐	
	16078 Nov 07 21:40	0°♑	
	16078 Dec 17 20:09	0°♒	
evening set	16078 Dec 24 19:43	5°♒06'37	
	16079 Jan 28 15:48	0°♓	
desc. node	16079 Feb 06 04:42	5°♓56'55	
conjunction	16079 Feb 19 01:50	14°♓48'47	-0°08'08
minimum elong	16079 Feb 19 01:26	14°♓48'05	0°07'51
behind sun begin	16079 Feb 18 06:09	14°♓15'09	
behind sun end	16079 Feb 19 20:43	15°♓20'59	
	16079 Mar 13 13:35	0°♈	
max. Earth dist.	16079 Mar 17 21:45	2°♈53'24	2.58542 AU
morning rise	16079 Apr 09 11:42	17°♈44'03	
	16079 Apr 28 12:11	0°♉	
	16079 Jun 15 09:17	0°♊	
	16079 Aug 04 13:51	0°♋	
	16079 Sep 28 11:57	0°♌	
retrograde	16079 Dec 18 23:41	26°♌07'47	
opposition	16080 Jan 23 09:47	18°♌43'32	-1°58'24
greatest brilliancy	16080 Jan 24 02:41	18°♌28'16	-2.1m
min. Earth dist.	16080 Jan 31 18:23	15°♌43'19	0.51614 AU
asc. node	16080 Feb 29 07:51	9°♌42'56	
direct	16080 Mar 02 01:04	9°♌41'41	
	16080 May 02 17:03	0°♍	
	16080 Jun 18 10:42	0°♎	
	16080 Jul 29 06:08	0°♏	
	16080 Sep 06 15:07	0°♐	
	16080 Oct 16 08:26	0°♑	
	16080 Nov 26 09:49	0°♒	
desc. node	16080 Dec 23 22:05	19°♒24'21	
	16081 Jan 08 06:39	0°♓	
evening set	16081 Feb 11 19:00	23°♓15'34	
	16081 Feb 21 23:39	0°♈	
conjunction	16081 Mar 31 05:14	24°♈13'10	-0°52'44
minimum elong	16081 Mar 31 03:51	24°♈10'58	0°52'57
	16081 Apr 09 05:20	0°♉	
max. Earth dist.	16081 Apr 10 19:04	1°♉00'25	2.66293 AU
morning rise	16081 May 14 10:18	22°♉23'16	
	16081 May 26 12:00	0°♊	
	16081 Jul 13 09:53	0°♋	
	16081 Aug 30 21:08	0°♌	
	16081 Oct 19 10:50	0°♍	
	16081 Dec 11 16:27	0°♎	
asc. node	16082 Jan 16 13:02	16°♎26'10	
retrograde	16082 Feb 24 09:10	24°♎38'47	
opposition	16082 Mar 26 13:40	19°♎28'36	4°42'04
greatest brilliancy	16082 Mar 27 09:03	19°♎14'46	-2.9m
min. Earth dist.	16082 Mar 31 21:31	17°♎57'40	0.38342 AU
direct	16082 Apr 27 07:59	13°♎37'32	
	16082 Jun 19 07:08	0°♏	
	16082 Aug 07 07:05	0°♐	
	16082 Sep 20 12:09	0°♑	
	16082 Nov 03 14:01	0°♒	
desc. node	16082 Nov 10 22:03	4°♒56'00	
	16082 Dec 18 16:13	0°♓	
	16083 Feb 02 22:28	0°♈	
evening set	16083 Mar 22 13:40	0°♉20'00	
	16083 Mar 22 01:02	0°♉	
max. Earth dist.	16083 May 03 02:41	26°♉37'54	2.68532 AU
conjunction	16083 May 05 12:59	28°♉10'17	-1°12'54
minimum elong	16083 May 05 12:32	28°♉09'34	1°13'30
	16083 May 08 10:14	0°♊	
morning rise	16083 Jun 17 12:13	25°♊31'25	
	16083 Jun 24 11:51	0°♋	
	16083 Aug 09 19:32	0°♌	
	16083 Sep 24 03:24	0°♍	
	16083 Nov 07 09:54	0°♎	
asc. node	16083 Dec 04 14:52	18°♎44'24	
	16083 Dec 20 21:10	0°♏	
	16084 Feb 02 15:22	0°♐	
	16084 Mar 22 08:03	0°♑	
retrograde	16084 May 13 18:40	16°♑19'00	
min. Earth dist.	16084 Jun 08 16:43	11°♑51'35	0.40081 AU
opposition	16084 Jun 15 21:55	9°♑38'33	5°53'54
greatest brilliancy	16084 Jun 14 13:24	10°♑03'39	-2.7m

direct	16084 Jul 16 08:13	4°♋03'07	
desc. node	16084 Sep 28 03:33	28°♋26'29	
	16084 Oct 01 03:11	0°♒	
	16084 Nov 23 06:00	0°♓	
	16085 Jan 12 06:04	0°♈	
	16085 Mar 02 06:13	0°♉	
	16085 Apr 19 09:22	0°♊	
evening set	16085 Apr 25 15:06	3°♊56'25	
max. Earth dist.	16085 May 24 11:22	22°♊20'44	2.65275 AU
	16085 Jun 05 07:26	0°♋	
conjunction	16085 Jun 08 12:28	2°♋05'11	-1°07'25
minimum elong	16085 Jun 08 13:25	2°♋06'44	1°08'10
	16085 Jul 20 16:28	0°♌	
morning rise	16085 Jul 23 16:00	2°♌00'41	
	16085 Sep 02 08:03	0°♍	
	16085 Oct 14 06:21	0°♎	
asc. node	16085 Oct 21 10:34	5°♎15'09	
	16085 Nov 23 17:03	0°♏	
	16086 Jan 02 05:41	0°♐	
	16086 Feb 10 20:34	0°♑	
	16086 Mar 24 11:01	0°♒	
	16086 May 12 08:01	0°♓	
retrograde	16086 Jul 04 20:27	16°♓03'16	
min. Earth dist.	16086 Aug 05 00:40	9°♓26'50	0.53706 AU
opposition	16086 Aug 12 12:04	6°♓36'32	0°11'47
greatest brilliancy	16076 May 01 23:03	21°♋38'32	1.3m
desc. node	16086 Aug 16 09:53	5°♓09'00	
	16086 Sep 03 11:01	30°℞♒	
direct	16086 Sep 17 04:36	28°♒45'08	
	16086 Oct 01 18:48	0°♓	
	16086 Dec 17 10:47	0°♈	
	16087 Feb 09 14:47	0°♉	
	16087 Mar 31 15:52	0°♊	
	16087 May 18 01:55	0°♋	
evening set	16087 May 31 20:00	8°♋59'47	
max. Earth dist.	16087 Jun 19 12:31	21°♋26'47	2.56669 AU
	16087 Jul 02 03:07	0°♌	
conjunction	16087 Jul 18 08:11	11°♌10'57	-0°32'59
minimum elong	16087 Jul 18 09:37	11°♌13'25	0°33'35
	16087 Aug 13 22:38	0°♍	
asc. node	16087 Sep 08 01:28	18°♍18'04	
morning rise	16087 Sep 09 04:37	19°♍08'12	
	16087 Sep 23 18:33	0°♎	
	16087 Nov 02 01:37	0°♏	
	16087 Dec 10 11:44	0°♐	
	16088 Jan 17 21:36	0°♑	
	16088 Feb 26 09:31	0°♒	
	16088 Apr 08 11:54	0°♓	
	16088 May 26 08:47	0°♈	
desc. node	16088 Jul 03 14:29	18°♈25'22	
retrograde	16088 Aug 11 07:34	26°♈39'06	
min. Earth dist.	16088 Sep 16 20:16	18°♈15'21	0.64366 AU
opposition	16088 Sep 20 21:56	16°♈38'47	-3°06'08
greatest brilliancy	16088 Sep 20 09:36	16°♈50'58	-1.4m
direct	16088 Oct 30 03:39	7°♈31'25	
	16089 Jan 13 02:19	0°♉	
	16089 Mar 09 23:18	0°♊	
	16089 Apr 28 01:46	0°♋	
	16089 Jun 12 09:41	0°♌	
evening set	16089 Jul 13 06:07	21°♌37'10	
	16089 Jul 24 20:47	0°♍	
asc. node	16089 Jul 25 16:49	0°♍36'26	
max. Earth dist.	16089 Jul 27 09:10	1°♍49'59	2.43615 AU
	16089 Sep 03 02:22	0°♎	
conjunction	16089 Sep 09 05:11	4°♎40'47	0°30'49
minimum elong	16089 Sep 09 02:46	4°♎36'09	0°30'46
	16089 Oct 11 19:01	0°♏	
morning rise	16089 Nov 18 12:43	29°♏49'41	
	16089 Nov 18 17:55	0°♐	
	16089 Dec 26 19:57	0°♑	
	16090 Feb 03 23:06	0°♒	
	16090 Mar 17 02:12	0°♓	
	16090 Apr 30 08:36	0°♈	
desc. node	16090 May 21 14:17	13°♈21'38	
	16090 Jun 19 04:56	0°♉	
	16090 Sep 07 12:33	0°♊	
retrograde	16090 Sep 14 13:28	0°♊17'52	
	16090 Sep 21 09:27	30°℞♉	
opposition	16090 Oct 25 07:41	20°♉31'54	-4°37'15
greatest brilliancy	16090 Oct 25 05:43	20°♉33'50	-1.2m
min. Earth dist.	16090 Oct 25 02:35	20°♉36'56	0.68663 AU
direct	16090 Dec 05 10:35	10°♉44'20	
	16091 Feb 10 20:10	0°♊	
	16091 Apr 06 20:59	0°♋	
	16091 May 23 16:20	0°♌	
asc. node	16091 Jun 12 13:23	13°♌40'59	
	16091 Jul 05 08:52	0°♍	
	16091 Aug 14 09:35	0°♎	
evening set	16091 Sep 13 10:29	23°♎23'08	
	16091 Sep 21 19:39	0°♏	
	16091 Oct 29 14:29	0°♐	
conjunction	16091 Nov 25 19:39	21°♐30'16	1°06'43
minimum elong	16091 Nov 25 21:28	21°♐33'49	1°07'27
	16091 Dec 06 16:28	0°♑	
	16092 Jan 14 22:08	0°♒	
max. Earth dist.	16092 Jan 18 06:51	2°♒30'46	2.40101 AU
morning rise	16092 Feb 02 23:14	14°♒05'36	
	16092 Feb 25 01:01	0°♓	
desc. node	16092 Apr 07 06:57	29°♓06'33	
	16092 Apr 08 14:59	0°♈	
	16092 May 25 08:25	0°♉	
	16092 Jul 16 00:57	0°♊	
	16092 Sep 25 09:34	0°♋	
retrograde	16092 Oct 18 17:54	2°♋55'21	
	16092 Nov 09 07:11	30°℞♊	
opposition	16092 Nov 27 08:50	23°♊46'51	-4°48'27
greatest brilliancy	16092 Nov 27 23:41	23°♊32'22	-1.3m
min. Earth dist.	16092 Dec 01 01:32	22°♊20'20	0.66105 AU
direct	16093 Jan 07 21:14	13°♊44'28	
	16093 Mar 07 17:04	0°♋	
asc. node	16093 Apr 29 14:36	29°♋41'59	
	16093 Apr 30 01:57	0°♌	
	16093 Jun 13 08:22	0°♍	
	16093 Jul 23 19:06	0°♎	
	16093 Aug 31 08:05	0°♏	
	16093 Oct 08 06:27	0°♐	
	16093 Nov 15 15:19	0°♑	
evening set	16093 Nov 29 13:18	10°♑40'07	
	16093 Dec 25 06:56	0°♒	
conjunction	16094 Jan 30 14:35	26°♒19'05	0°14'54
minimum elong	16094 Jan 30 15:33	26°♒20'48	0°15'21
behind sun begin	16094 Jan 30 09:13	26°♒09'36	
behind sun end	16094 Jan 30 21:53	26°♒32'01	
	16094 Feb 04 19:40	0°♓	
desc. node	16094 Feb 22 21:51	12°♓36'23	
max. Earth dist.	16094 Mar 06 09:49	20°♓28'37	2.54087 AU
	16094 Mar 20 12:35	0°♈	
morning rise	16094 Mar 24 17:59	2°♈49'14	
	16094 May 05 11:54	0°♉	

	16094 Jun 22 21:35	0°♊	
	16094 Aug 13 20:50	0°♋	
	16094 Oct 15 19:20	0°♌	
retrograde	16094 Nov 29 06:47	9°♌28'01	
opposition	16095 Jan 05 06:05	1°♌25'16	-3°18'38
greatest brilliancy	16095 Jan 06 05:08	1°♌03'40	-1.8m
	16095 Jan 09 00:50	30°℞♋	
min. Earth dist.	16095 Jan 12 13:55	28°♋40'55	0.56798 AU
direct	16095 Feb 14 06:37	21°♋49'31	
asc. node	16095 Mar 17 19:45	27°♋44'13	
	16095 Mar 23 22:29	0°♌	
	16095 May 18 08:52	0°♍	
	16095 Jun 30 08:45	0°♎	
	16095 Aug 08 23:05	0°♏	
	16095 Sep 16 15:17	0°♐	
	16095 Oct 25 18:36	0°♑	
	16095 Dec 05 06:32	0°♒	
desc. node	16096 Jan 10 14:57	25°♒49'48	
	16096 Jan 16 15:07	0°♓	
evening set	16096 Jan 26 06:10	6°♓37'48	
	16096 Feb 29 22:34	0°♈	
conjunction	16096 Mar 16 06:43	10°♈06'29	-0°38'17
minimum elong	16096 Mar 16 05:23	10°♈04'17	0°38'19
max. Earth dist.	16096 Apr 01 16:06	20°♈46'51	2.63907 AU
	16096 Apr 15 23:36	0°♉	
morning rise	16096 Apr 30 22:37	9°♉33'04	
	16096 Jun 02 09:14	0°♊	
	16096 Jul 20 22:23	0°♋	
	16096 Sep 08 23:45	0°♌	
	16096 Nov 01 16:15	0°♍	
retrograde	16097 Jan 25 01:59	28°♍31'36	
asc. node	16097 Feb 02 03:13	28°♍06'55	
opposition	16097 Feb 26 07:23	22°♍27'53	1°34'16
greatest brilliancy	16097 Feb 26 18:43	22°♍18'50	-2.6m
min. Earth dist.	16097 Mar 06 12:13	19°♍51'14	0.42889 AU
direct	16097 Apr 02 07:48	15°♍07'31	
	16097 May 22 04:40	0°♎	
	16097 Jul 09 13:53	0°♏	
	16097 Aug 20 17:59	0°♐	
	16097 Oct 01 05:54	0°♑	
	16097 Nov 12 16:18	0°♒	
desc. node	16097 Nov 27 11:28	10°♒13'13	
	16097 Dec 26 15:34	0°♓	
	16098 Feb 10 03:46	0°♈	
evening set	16098 Mar 08 06:21	16°♈50'58	
	16098 Mar 28 20:04	0°♉	
conjunction	16098 Apr 22 03:01	15°♉26'18	-1°08'04
minimum elong	16098 Apr 22 02:05	15°♉24'51	1°08'32
max. Earth dist.	16098 Apr 24 16:40	17°♉04'04	2.68322 AU
	16098 May 15 02:29	0°♊	
morning rise	16098 Jun 04 04:14	12°♊43'03	
	16098 Jul 01 09:41	0°♋	
	16098 Aug 17 08:48	0°♌	
	16098 Oct 02 20:21	0°♍	
	16098 Nov 18 00:05	0°♎	
asc. node	16098 Dec 21 06:43	21°♎29'15	
	16099 Jan 03 17:13	0°♏	
	16099 Feb 24 14:53	0°♐	
retrograde	16099 Apr 16 18:29	14°♐50'17	
min. Earth dist.	16099 May 13 21:13	10°♐26'44	0.36789 AU
greatest brilliancy	16099 May 16 07:25	9°♐47'10	-3.0m
opposition	16099 May 17 01:05	9°♐35'07	7°23'34
direct	16099 Jun 15 03:39	4°♐43'52	
	16099 Aug 26 23:12	0°♑	
desc. node	16099 Oct 15 14:27	29°♑11'12	
	16099 Oct 16 22:15	0°♒	
	16099 Dec 04 05:39	0°♓	
	16100 Jan 21 06:54	0°♈	
	16100 Mar 10 08:48	0°♉	
evening set	16100 Apr 13 03:27	21°♉10'54	
	16100 Apr 27 02:49	0°♊	
max. Earth dist.	16100 May 16 12:34	12°♊19'39	2.67198 AU
conjunction	16100 May 26 16:38	18°♊49'45	-1°12'45
minimum elong	16100 May 26 17:03	18°♊50'26	1°13'28
	16100 Jun 13 00:49	0°♋	
morning rise	16100 Jul 09 12:19	17°♋16'51	
	16100 Jul 28 16:56	0°♌	
	16100 Sep 10 21:12	0°♍	
	16100 Oct 23 12:26	0°♎	
asc. node	16100 Nov 08 03:18	11°♎15'23	
	16100 Dec 03 18:31	0°♏	
	16101 Jan 13 05:16	0°♐	
	16101 Feb 23 03:22	0°♑	
	16101 Apr 08 19:47	0°♒	
retrograde	16101 Jun 17 23:42	26°♒11'45	
min. Earth dist.	16101 Jul 16 17:56	20°♒27'57	0.48248 AU
greatest brilliancy	16101 Jul 24 09:09	17°♒42'47	-2.3m
opposition	16101 Jul 25 00:31	17°♒28'51	2°10'59
direct	16101 Aug 27 19:53	10°♒23'24	
desc. node	16101 Sep 02 22:29	10°♒37'39	
	16101 Nov 02 10:30	0°♓	
	16101 Dec 29 06:11	0°♈	