evening set	9600 Apr 05	23:03	29°♈41'15	
	9600 Apr 07	08:26	0°♉	
max. Earth dist.	9600 Apr 16	10:12	2°♉03'04	6.27183 AU
conjunction	9600 Apr 18	17:43	2°♉34'31	-0°24'48
minimum elong	9600 Apr 18	17:42	2°♉34'31	0°24'58
morning rise	9600 May 01	11:42	5°♉27'46	
	9600 Jun 15	10:13	15°♉	
retrograde	9600 Sep 03	10:09	23°♉41'52	
opposition	9600 Nov 03	00:49	18°♉48'01	-0°50'59
min. Earth dist.	9600 Nov 04	12:38	18°♉36'26	4.18711 AU
	9600 Dec 06	14:42	15°℞♉	
direct	9601 Jan 03	01:41	13°♉49'49	
	9601 Jan 30	11:00	15°♉	
	9601 Apr 27	10:20	0°♊	
evening set	9601 May 08	20:39	2°♊38'28	
max. Earth dist.	9601 May 19	22:45	5°♊14'34	6.10300 AU
conjunction	9601 May 21	16:58	5°♊39'25	-0°41'30
minimum elong	9601 May 21	16:57	5°♊39'25	0°41'49
morning rise	9601 Jun 03	13:43	8°♊40'57	
retrograde	9601 Oct 10	01:20	28°♊10'06	
opposition	9601 Dec 09	02:10	23°♊14'13	-1°07'34
min. Earth dist.	9601 Dec 09	23:38	23°♊07'10	4.02500 AU
direct	9602 Feb 06	17:49	18°♊18'12	
	9602 May 09	17:05	0°♋	
evening set	9602 Jun 13	01:02	7°♋56'09	
max. Earth dist.	9602 Jun 25	11:56	10°♋56'56	5.96263 AU
conjunction	9602 Jun 26	02:21	11°♋05'40	-0°44'19
minimum elong	9602 Jun 26	02:21	11°♋05'40	0°44'40
morning rise	9602 Jul 09	05:27	14°♋16'22	
	9602 Sep 21	23:55	0°♌	
retrograde	9602 Nov 17	12:05	4°♌48'53	
	9603 Jan 14	20:37	30°℞♋	
opposition	9603 Jan 16	02:44	29°♋49'57	-0°59'06
min. Earth dist.	9603 Jan 15	23:03	29°♋51'10	3.92148 AU
direct	9603 Mar 15	11:52	24°♋55'20	
	9603 May 11	07:40	0°♌	
evening set	9603 Jul 20	06:50	15°♌01'19	
	9603 Jul 20	04:40	15°♌	
conjunction	9603 Aug 02	15:08	18°♌16'52	-0°29'51
minimum elong	9603 Aug 02	15:09	18°♌16'53	0°30'06
max. Earth dist.	9603 Aug 03	13:34	18°♌30'35	5.90655 AU
morning rise	9603 Aug 16	02:00	21°♌33'46	
	9603 Sep 21	07:09	0°♍	
retrograde	9603 Dec 26	04:31	12°♍25'17	
min. Earth dist.	9604 Feb 22	11:31	7°♍31'52	3.92026 AU
opposition	9604 Feb 23	13:47	7°♍22'58	-0°25'58
direct	9604 Apr 21	12:09	2°♍27'47	
evening set	9604 Aug 26	09:46	22°♍25'25	
conjunction	9604 Sep 08	23:54	25°♍41'07	-0°03'16
minimum elong	9604 Sep 08	23:54	25°♍41'08	0°03'19
behind sun begin	9604 Sep 08	15:35	25°♍36'09	
behind sun end	9604 Sep 09	08:14	25°♍46'07	
max. Earth dist.	9604 Sep 11	04:36	26°♍12'48	5.96002 AU
morning rise	9604 Sep 22	15:55	28°♍57'39	
	9604 Sep 27	00:57	0°♎	
asc. node	9604 Oct 24	03:51	6°♎12'41	
retrograde	9605 Jan 31	03:43	19°♎11'57	
min. Earth dist.	9605 Mar 30	01:45	14°♎20'32	4.02211 AU
opposition	9605 Mar 31	15:06	14°♎07'51	0°16'47
direct	9605 May 28	23:52	9°♎10'39	
evening set	9605 Oct 02	18:08	28°♎28'37	
	9605 Oct 09	08:01	0°♏	
conjunction	9605 Oct 16	09:26	1°♏38'18	0°23'53
minimum elong	9605 Oct 16	09:25	1°♏38'18	0°24'02
max. Earth dist.	9605 Oct 18	20:37	2°♏12'38	6.09943 AU
morning rise	9605 Oct 30	01:39	4°♏48'05	
	9605 Dec 16	10:29	15°♏	
retrograde	9606 Mar 06	08:53	23°♏51'39	
min. Earth dist.	9606 May 03	18:26	19°♏00'16	4.18399 AU
opposition	9606 May 05	05:54	18°♏48'19	0°50'42
	9606 Jun 06	15:54	15°℞♏	
direct	9606 Jul 03	16:45	13°♏48'57	
	9606 Jul 31	00:32	15°♏	
	9606 Oct 27	20:31	0°♐	
evening set	9606 Nov 07	02:19	2°♐15'29	
conjunction	9606 Nov 20	14:51	5°♐16'26	0°41'22
minimum elong	9606 Nov 20	14:50	5°♐16'25	0°41'41
max. Earth dist.	9606 Nov 22	12:06	5°♐41'43	6.26973 AU
morning rise	9606 Dec 04	02:45	8°♐16'46	
retrograde	9607 Apr 07	04:49	26°♐08'25	
opposition	9607 Jun 06	11:24	21°♐07'51	1°05'57
min. Earth dist.	9607 Jun 05	13:50	21°♐15'00	4.34782 AU
direct	9607 Aug 06	06:35	16°♐07'03	
	9607 Nov 22	04:18	0°♑	
evening set	9607 Dec 10	03:55	3°♑48'50	
conjunction	9607 Dec 23	11:34	6°♑41'51	0°45'23
minimum elong	9607 Dec 23	11:35	6°♑41'51	0°45'44
max. Earth dist.	9607 Dec 24	06:16	6°♑51'59	6.41457 AU
morning rise	9608 Jan 05	17:43	9°♑33'55	
retrograde	9608 May 06	07:42	26°♑33'09	
opposition	9608 Jul 06	00:31	21°♑35'52	1°01'43
min. Earth dist.	9608 Jul 05	21:22	21°♑36'53	4.46417 AU
direct	9608 Sep 05	22:23	16°♑34'20	
	9608 Dec 22	03:10	0°♒	
evening set	9609 Jan 09	09:43	3°♒48'53	
conjunction	9609 Jan 22	12:25	6°♒36'51	0°36'45
minimum elong	9609 Jan 22	12:26	6°♒36'52	0°37'02
max. Earth dist.	9609 Jan 22	02:26	6°♒31'31	6.49431 AU
morning rise	9609 Feb 04	12:51	9°♒23'44	
	9609 Mar 03	16:53	15°♒	
retrograde	9609 Jun 04	22:07	25°♒58'55	
opposition	9609 Aug 04	21:44	21°♒04'20	0°41'38
min. Earth dist.	9609 Aug 05	13:53	20°♒59'09	4.50324 AU
direct	9609 Oct 06	11:48	16°♒02'48	
	9610 Jan 24	10:54	0°♓	
evening set	9610 Feb 08	16:00	3°♓11'50	
max. Earth dist.	9610 Feb 20	01:35	5°♓38'32	6.48966 AU
conjunction	9610 Feb 21	14:17	5°♓58'17	0°18'37
minimum elong	9610 Feb 21	14:18	5°♓58'17	0°18'48
morning rise	9610 Mar 06	10:41	8°♓43'52	
retrograde	9610 Jul 05	03:18	25°♓25'54	
opposition	9610 Sep 04	04:09	20°♓32'44	0°10'50
min. Earth dist.	9610 Sep 05	12:40	20°♓22'21	4.45546 AU
direct	9610 Nov 05	20:16	15°♓31'38	
desc. node	9611 Jan 04	23:36	20°♓27'45	
	9611 Feb 25	03:35	0°♈	
evening set	9611 Mar 10	22:40	2°♈58'04	
max. Earth dist.	9611 Mar 21	13:48	5°♈17'50	6.40144 AU
conjunction	9611 Mar 23	18:15	5°♈46'41	-0°04'45

minimum elong	9611 Mar 23 18:15	5°♈46'41	0°04'46
behind sun begin	9611 Mar 23 10:28	5°♈42'25	
behind sun end	9611 Mar 24 02:02	5°♈50'56	
morning rise	9611 Apr 05 12:11	8°♈34'45	
retrograde	9611 Aug 05 21:19	25°♈54'13	
opposition	9611 Oct 05 19:43	21°♈01'10	-0°24'07
min. Earth dist.	9611 Oct 07 11:05	20°♈48'34	4.33163 AU
direct	9611 Dec 06 20:28	16°♈01'14	
	9612 Mar 22 17:50	0°♉	
evening set	9612 Apr 10 05:55	4°♉05'52	
max. Earth dist.	9612 Apr 20 17:37	6°♉28'39	6.25062 AU
conjunction	9612 Apr 23 00:36	6°♉59'58	-0°27'33
minimum elong	9612 Apr 23 00:35	6°♉59'58	0°27'44
morning rise	9612 May 05 18:41	9°♉54'07	
	9612 May 28 18:17	15°♉	
retrograde	9612 Sep 08 05:10	28°♉17'37	
opposition	9612 Nov 07 17:00	23°♉23'32	-0°54'17
min. Earth dist.	9612 Nov 09 05:15	23°♉11'49	4.16334 AU
direct	9613 Jan 07 14:32	18°♉25'31	
	9613 Apr 10 18:47	0°♊	
evening set	9613 May 13 10:21	7°♊21'41	
max. Earth dist.	9613 May 24 13:56	9°♊59'29	6.07866 AU
conjunction	9613 May 26 07:12	10°♊23'55	-0°42'48
minimum elong	9613 May 26 07:12	10°♊23'54	0°43'07
morning rise	9613 Jun 08 04:45	13°♊26'51	
	9613 Aug 30 22:24	0°♋	
retrograde	9613 Oct 15 02:44	3°♋07'06	
	9613 Nov 29 22:35	30°℞♊	
opposition	9613 Dec 14 02:44	28°♊10'51	-1°08'02
min. Earth dist.	9613 Dec 14 20:59	28°♊04'51	4.00233 AU
direct	9614 Feb 11 12:16	23°♊15'03	
	9614 Apr 19 16:03	0°♋	
evening set	9614 Jun 17 23:39	13°♋00'24	
conjunction	9614 Jul 01 01:53	16°♋11'14	-0°43'21
minimum elong	9614 Jul 01 01:54	16°♋11'14	0°43'42
max. Earth dist.	9614 Jun 30 15:41	16°♋05'01	5.94385 AU
morning rise	9614 Jul 14 06:07	19°♋23'20	
	9614 Aug 29 20:06	0°♌	
retrograde	9614 Nov 22 21:04	10°♌04'06	
opposition	9615 Jan 21 09:23	5°♌04'41	-0°55'51
min. Earth dist.	9615 Jan 21 02:52	5°♌06'52	3.90866 AU
direct	9615 Mar 20 16:17	0°♌10'04	
	9615 Jul 03 04:21	15°♌	
evening set	9615 Jul 25 12:40	20°♌19'49	
conjunction	9615 Aug 07 22:13	23°♌36'11	-0°26'41
minimum elong	9615 Aug 07 22:14	23°♌36'12	0°26'54
max. Earth dist.	9615 Aug 09 03:01	23°♌53'48	5.90123 AU
morning rise	9615 Aug 21 10:03	26°♌53'49	
	9615 Sep 03 08:03	0°♍	
retrograde	9615 Dec 31 12:59	17°♍45'54	
opposition	9616 Feb 28 20:39	12°♍43'13	-0°20'11
min. Earth dist.	9616 Feb 27 15:58	12°♍52'57	3.92318 AU
direct	9616 Apr 26 17:59	7°♍47'51	
evening set	9616 Aug 31 17:39	27°♍43'38	
asc. node	9616 Sep 02 16:34	28°♍11'37	
	9616 Sep 10 05:40	0°♎	
conjunction	9616 Sep 14 08:14	0°♎59'04	0°00'51
minimum elong	9616 Sep 14 08:14	0°♎59'04	0°00'51
behind sun begin	9616 Sep 13 23:50	0°♎54'04	
behind sun end	9616 Sep 14 16:37	1°♎04'04	
max. Earth dist.	9616 Sep 16 15:13	1°♎32'00	5.97061 AU
morning rise	9616 Sep 28 00:51	4°♎15'17	
retrograde	9617 Feb 05 03:25	24°♎22'33	
min. Earth dist.	9617 Apr 04 01:07	19°♎31'39	4.03908 AU
opposition	9617 Apr 05 16:22	19°♎18'19	0°22'24
direct	9617 Jun 03 03:09	14°♎20'46	
	9617 Sep 22 07:08	0°♏	
evening set	9617 Oct 07 21:42	3°♏32'39	
conjunction	9617 Oct 21 12:52	6°♏41'17	0°27'04
minimum elong	9617 Oct 21 12:51	6°♏41'16	0°27'16
max. Earth dist.	9617 Oct 23 23:52	7°♏15'21	6.12109 AU
morning rise	9617 Nov 04 04:37	9°♏49'51	
	9617 Nov 27 07:38	15°♏	
retrograde	9618 Mar 11 01:43	28°♏43'05	
opposition	9618 May 09 23:09	23°♏39'58	0°54'03
min. Earth dist.	9618 May 08 13:19	23°♏51'20	4.20781 AU
direct	9618 Jul 08 15:16	18°♏40'18	
	9618 Oct 10 03:56	0°♐	
evening set	9618 Nov 11 22:12	6°♐59'36	
conjunction	9618 Nov 25 10:06	9°♐59'16	0°42'44
minimum elong	9618 Nov 25 10:05	9°♐59'16	0°43'04
max. Earth dist.	9618 Nov 27 05:18	10°♐23'16	6.29344 AU
morning rise	9618 Dec 08 21:13	12°♐58'15	
	9619 Mar 21 20:39	0°♑	
retrograde	9619 Apr 11 11:52	0°♑40'33	
	9619 May 02 00:53	30°℞♐	
opposition	9619 Jun 10 21:04	25°♐40'22	1°06'25
min. Earth dist.	9619 Jun 10 00:55	25°♐47'02	4.36941 AU
direct	9619 Aug 10 19:38	20°♐39'24	
	9619 Nov 04 04:33	0°♑	
evening set	9619 Dec 14 16:02	8°♑15'33	
conjunction	9619 Dec 27 22:56	11°♑07'33	0°44'49
minimum elong	9619 Dec 27 22:56	11°♑07'34	0°45'11
max. Earth dist.	9619 Dec 28 13:44	11°♑15'33	6.43231 AU
morning rise	9620 Jan 10 04:08	13°♑58'34	
	9620 Apr 16 19:45	0°♒	
retrograde	9620 May 10 12:30	0°♒52'00	
	9620 Jun 03 01:08	30°℞♑	
opposition	9620 Jul 10 06:00	25°♑55'11	0°59'41
min. Earth dist.	9620 Jul 10 06:01	25°♑55'10	4.47676 AU
direct	9620 Sep 10 07:31	20°♑53'40	
	9620 Dec 04 11:07	0°♒	
evening set	9621 Jan 13 16:30	8°♒05'25	
conjunction	9621 Jan 26 18:24	10°♒52'51	0°34'39
minimum elong	9621 Jan 26 18:25	10°♒52'52	0°34'55
max. Earth dist.	9621 Jan 26 03:10	10°♒44'43	6.50070 AU
morning rise	9621 Feb 08 18:16	13°♒39'17	
	9621 Feb 15 02:58	15°♒	
	9621 May 28 06:14	0°♓	
retrograde	9621 Jun 09 02:32	0°♓13'07	
	9621 Jun 20 21:50	30°℞♒	
opposition	9621 Aug 09 02:22	25°♒18'48	0°37'46
min. Earth dist.	9621 Aug 09 21:24	25°♒12'41	4.50319 AU
direct	9621 Oct 10 17:21	20°♒17'17	
	9622 Jan 07 06:29	0°♓	
evening set	9622 Feb 12 20:55	7°♓27'03	
max. Earth dist.	9622 Feb 24 04:20	9°♓52'47	6.48314 AU
conjunction	9622 Feb 25 18:52	10°♓13'34	0°15'32
minimum elong	9622 Feb 25 18:53	10°♓13'34	0°15'41
behind sun begin	9622 Feb 25 17:07	10°♓12'37	
behind sun end	9622 Feb 25 20:39	10°♓14'31	
morning rise	9622 Mar 10 14:37	12°♓59'11	
retrograde	9622 Jul 09 09:59	29°♓44'26	
opposition	9622 Sep 08 11:30	24°♓51'24	0°05'59

min. Earth dist.	9622 Sep 09 21:14	24°♓40'38	4.44284 AU
direct	9622 Nov 10 01:43	19°♓50'28	
desc. node	9622 Nov 14 15:59	19°♓52'22	
	9623 Feb 08 01:03	0°♈	
evening set	9623 Mar 15 05:34	7°♈21'03	
max. Earth dist.	9623 Mar 25 18:17	9°♈40'06	6.38347 AU
conjunction	9623 Mar 28 00:46	10°♈10'13	-0°08'08
minimum elong	9623 Mar 28 00:46	10°♈10'12	0°08'10
behind sun begin	9623 Mar 27 17:41	10°♈06'19	
behind sun end	9623 Mar 28 07:51	10°♈14'06	
morning rise	9623 Apr 09 18:39	12°♈58'57	
	9623 Jul 24 19:42	0°♉	
retrograde	9623 Aug 10 13:48	0°♉26'04	
	9623 Aug 27 05:59	30°℞♈	
opposition	9623 Oct 10 09:46	25°♈32'59	-0°28'53
min. Earth dist.	9623 Oct 12 02:26	25°♈19'56	4.30922 AU
direct	9623 Dec 11 08:03	20°♈33'15	
	9624 Mar 04 21:59	0°♉	
evening set	9624 Apr 14 17:59	8°♉44'51	
max. Earth dist.	9624 Apr 25 06:09	11°♉08'43	6.22550 AU
conjunction	9624 Apr 27 12:52	11°♉40'03	-0°30'18
minimum elong	9624 Apr 27 12:51	11°♉40'02	0°30'31
morning rise	9624 May 10 07:13	14°♉35'21	
	9624 May 12 02:31	15°♉	
	9624 Jul 29 06:03	0°♊	
retrograde	9624 Sep 13 04:50	3°♊09'49	
	9624 Oct 29 21:51	30°℞♉	
opposition	9624 Nov 12 15:40	28°♉15'31	-0°57'28
min. Earth dist.	9624 Nov 14 01:34	28°♉04'31	4.13747 AU
direct	9625 Jan 12 06:56	23°♉17'51	
	9625 Mar 21 11:07	0°♊	
evening set	9625 May 18 06:46	12°♊22'15	
max. Earth dist.	9625 May 29 14:22	15°♊03'19	6.05431 AU
conjunction	9625 May 31 04:09	15°♊25'48	-0°43'52
minimum elong	9625 May 31 04:08	15°♊25'48	0°44'12
morning rise	9625 Jun 13 02:29	18°♊30'10	
	9625 Aug 04 10:28	0°♋	
retrograde	9625 Oct 20 12:32	8°♋21'32	
opposition	9625 Dec 19 10:02	3°♋24'54	-1°07'58
min. Earth dist.	9625 Dec 20 01:34	3°♋19'46	3.98187 AU
	9626 Jan 17 01:53	30°℞♊	
direct	9626 Feb 16 15:50	28°♊29'22	
	9626 Mar 18 23:36	0°♋	
evening set	9626 Jun 23 04:27	18°♋20'57	
conjunction	9626 Jul 06 07:51	21°♋33'00	-0°41'58
minimum elong	9626 Jul 06 07:52	21°♋33'00	0°42'19
max. Earth dist.	9626 Jul 06 04:00	21°♋30'39	5.92961 AU
morning rise	9626 Jul 19 13:09	24°♋46'17	
	9626 Aug 10 13:00	0°♌	
	9626 Nov 10 03:48	15°♌	
retrograde	9626 Nov 28 10:44	15°♌32'49	
	9626 Dec 16 14:17	15°℞♌	
opposition	9627 Jan 26 20:57	10°♌32'58	-0°51'56
min. Earth dist.	9627 Jan 26 10:46	10°♌36'23	3.90271 AU
direct	9627 Mar 26 00:27	5°♌38'26	
	9627 Jun 13 15:00	15°♌	
evening set	9627 Jul 30 22:40	25°♌48'52	
conjunction	9627 Aug 13 08:59	29°♌05'30	-0°23'10
minimum elong	9627 Aug 13 09:00	29°♌05'31	0°23'22
max. Earth dist.	9627 Aug 14 17:56	29°♌25'38	5.90416 AU
	9627 Aug 17 02:12	0°♍	
morning rise	9627 Aug 26 21:55	2°♍23'26	

retrograde	9628 Jan 05 19:53	23°♍12'07	
min. Earth dist.	9628 Mar 03 20:57	18°♍19'56	3.93484 AU
opposition	9628 Mar 05 05:05	18°♍09'02	-0°14'05
direct	9628 May 02 02:48	13°♍13'24	
asc. node	9628 Jul 12 10:26	20°♍50'50	
	9628 Aug 24 01:30	0°♎	
evening set	9628 Sep 06 02:12	3°♎03'48	
conjunction	9628 Sep 19 17:09	6°♎18'28	0°04'57
minimum elong	9628 Sep 19 17:09	6°♎18'28	0°04'57
behind sun begin	9628 Sep 19 09:00	6°♎13'37	
behind sun end	9628 Sep 20 01:18	6°♎23'18	
max. Earth dist.	9628 Sep 22 02:37	6°♎52'43	5.98979 AU
morning rise	9628 Oct 03 09:50	9°♎33'45	
retrograde	9629 Feb 10 02:38	29°♎30'39	
min. Earth dist.	9629 Apr 09 01:35	24°♎39'28	4.06332 AU
opposition	9629 Apr 10 16:15	24°♎26'20	0°27'49
direct	9629 Jun 08 07:48	19°♎28'25	
	9629 Sep 03 22:35	0°♏	
evening set	9629 Oct 12 23:09	8°♏31'49	
conjunction	9629 Oct 26 14:03	11°♏39'04	0°30'01
minimum elong	9629 Oct 26 14:02	11°♏39'04	0°30'14
max. Earth dist.	9629 Oct 29 00:56	12°♏12'51	6.14805 AU
morning rise	9629 Nov 09 05:15	14°♏46'09	
	9629 Nov 10 05:37	15°♏	
	9630 Jan 26 19:38	0°♐	
retrograde	9630 Mar 15 12:57	3°♐27'29	
	9630 May 02 12:14	30°℞♏	
min. Earth dist.	9630 May 13 04:03	28°♏35'48	4.23492 AU
opposition	9630 May 14 13:16	28°♏24'39	0°56'56
direct	9630 Jul 13 08:54	23°♏24'45	
	9630 Sep 20 00:37	0°♐	
evening set	9630 Nov 16 14:38	11°♐36'02	
conjunction	9630 Nov 30 01:45	14°♐34'20	0°43'48
minimum elong	9630 Nov 30 01:44	14°♐34'20	0°44'08
max. Earth dist.	9630 Dec 01 16:05	14°♐55'32	6.31846 AU
morning rise	9630 Dec 13 12:05	17°♐31'56	
	9631 Feb 15 06:27	0°♑	
retrograde	9631 Apr 15 17:58	5°♑05'04	
min. Earth dist.	9631 Jun 14 11:37	0°♑10'45	4.39042 AU
opposition	9631 Jun 15 04:04	0°♑05'20	1°06'29
	9631 Jun 15 20:13	30°℞♐	
direct	9631 Aug 15 08:07	25°♐04'11	
	9631 Oct 13 23:34	0°♑	
evening set	9631 Dec 19 00:56	12°♑35'00	
conjunction	9632 Jan 01 07:10	15°♑26'08	0°44'03
minimum elong	9632 Jan 01 07:11	15°♑26'08	0°44'23
max. Earth dist.	9632 Jan 01 17:45	15°♑31'50	6.44776 AU
morning rise	9632 Jan 14 11:33	18°♑16'14	
	9632 Mar 15 15:23	0°♒	
retrograde	9632 May 14 13:33	5°♒04'52	
opposition	9632 Jul 14 09:06	0°♒08'24	0°57'23
min. Earth dist.	9632 Jul 14 11:32	0°♒07'36	4.48593 AU
	9632 Jul 15 11:00	30°℞♑	
direct	9632 Sep 14 12:20	25°♑06'49	
	9632 Nov 13 15:37	0°♒	
evening set	9633 Jan 17 21:15	12°♒16'56	
conjunction	9633 Jan 30 22:35	15°♒04'03	0°32'24
minimum elong	9633 Jan 30 22:36	15°♒04'03	0°32'41
max. Earth dist.	9633 Jan 30 03:54	14°♒54'03	6.50302 AU
	9633 Jan 30 15:01	15°♒	
morning rise	9633 Feb 12 21:45	17°♒50'08	
	9633 Apr 18 14:51	0°♓	

retrograde	9633 Jun 13 06:08	4°♓23'58	
	9633 Aug 09 07:57	30°℞♒	
opposition	9633 Aug 13 05:59	29°♒29'57	0°33'47
min. Earth dist.	9633 Aug 14 04:00	29°♒22'54	4.49857 AU
direct	9633 Oct 14 22:11	24°♒28'30	
	9633 Dec 18 06:47	0°♓	
evening set	9634 Feb 17 01:10	11°♓40'20	
max. Earth dist.	9634 Feb 28 03:30	14°♓03'48	6.47176 AU
conjunction	9634 Mar 01 22:34	14°♓27'05	0°12'24
minimum elong	9634 Mar 01 22:35	14°♓27'05	0°12'31
behind sun begin	9634 Mar 01 17:24	14°♓24'18	
behind sun end	9634 Mar 02 03:46	14°♓29'52	
morning rise	9634 Mar 14 18:10	17°♓13'03	
	9634 May 21 15:44	0°♈	
retrograde	9634 Jul 13 19:36	4°♈03'11	
	9634 Sep 06 06:53	30°℞♓	
opposition	9634 Sep 12 19:39	29°♓10'12	0°01'07
min. Earth dist.	9634 Sep 14 07:16	28°♓58'49	4.42539 AU
desc. node	9634 Sep 25 07:17	27°♓36'03	
direct	9634 Nov 14 08:17	24°♓09'21	
	9635 Jan 19 01:32	0°♈	
evening set	9635 Mar 19 13:03	11°♈45'31	
max. Earth dist.	9635 Mar 30 01:32	14°♈05'07	6.36126 AU
conjunction	9635 Apr 01 08:16	14°♈35'31	-0°11'27
minimum elong	9635 Apr 01 08:16	14°♈35'30	0°11'31
behind sun begin	9635 Apr 01 02:29	14°♈32'19	
behind sun end	9635 Apr 01 14:02	14°♈38'42	
morning rise	9635 Apr 14 01:58	17°♈25'05	
	9635 Jun 16 23:05	0°♉	
retrograde	9635 Aug 15 06:13	5°♉01'17	
opposition	9635 Oct 15 01:28	0°♉08'09	-0°33'31
	9635 Oct 16 02:50	30°℞♈	
min. Earth dist.	9635 Oct 16 17:26	29°♈55'19	4.28378 AU
direct	9635 Dec 15 18:43	25°♈08'44	
	9636 Feb 12 02:39	0°♉	
evening set	9636 Apr 19 08:20	13°♉28'19	
	9636 Apr 26 00:19	15°♉	
max. Earth dist.	9636 Apr 29 21:47	15°♉53'49	6.19886 AU
conjunction	9636 May 02 03:18	16°♉24'41	-0°32'53
minimum elong	9636 May 02 03:16	16°♉24'40	0°33'08
morning rise	9636 May 14 22:08	19°♉21'16	
	9636 Jul 03 18:16	0°♊	
retrograde	9636 Sep 18 08:37	8°♊07'19	
opposition	9636 Nov 17 17:00	3°♊12'46	-1°00'16
min. Earth dist.	9636 Nov 19 01:02	3°♊02'20	4.11173 AU
	9636 Dec 14 15:04	30°℞♉	
direct	9637 Jan 17 04:02	28°♉15'26	
	9637 Feb 19 10:06	0°♊	
evening set	9637 May 23 05:19	17°♊27'48	
max. Earth dist.	9637 Jun 03 18:44	20°♊13'06	6.03200 AU
conjunction	9637 Jun 05 03:32	20°♊32'42	-0°44'37
minimum elong	9637 Jun 05 03:31	20°♊32'42	0°44'58
morning rise	9637 Jun 18 02:38	23°♊38'26	
	9637 Jul 15 14:11	0°♋	
retrograde	9637 Oct 25 23:48	13°♋39'44	
opposition	9637 Dec 24 19:10	8°♋42'45	-1°07'18
min. Earth dist.	9637 Dec 25 06:54	8°♋38'52	3.96551 AU
direct	9638 Feb 21 20:06	3°♋47'32	
evening set	9638 Jun 28 10:39	23°♋43'31	
conjunction	9638 Jul 11 14:50	26°♋56'25	-0°40'12
minimum elong	9638 Jul 11 14:51	26°♋56'26	0°40'32
max. Earth dist.	9638 Jul 11 15:28	26°♋56'48	5.92066 AU
morning rise	9638 Jul 24 21:22	0°♌10'40	
	9638 Jul 24 03:48	0°♌	
	9638 Oct 01 08:41	15°♌	
retrograde	9638 Dec 03 20:48	21°♌00'22	
opposition	9639 Feb 01 07:52	15°♌59'58	-0°47'31
min. Earth dist.	9639 Jan 31 17:16	16°♌04'53	3.90234 AU
	9639 Feb 08 19:29	15°℞♌	
direct	9639 Mar 31 09:04	11°♌05'24	
	9639 May 19 14:43	15°♌	
	9639 Jul 31 04:32	0°♍	
evening set	9639 Aug 05 07:47	1°♍14'26	
conjunction	9639 Aug 18 19:01	4°♍31'06	-0°19'28
minimum elong	9639 Aug 18 19:02	4°♍31'06	0°19'39
max. Earth dist.	9639 Aug 20 09:20	4°♍54'27	5.91231 AU
morning rise	9639 Sep 01 08:34	7°♍48'56	
retrograde	9640 Jan 11 02:24	28°♍32'09	
min. Earth dist.	9640 Mar 09 01:59	23°♍39'58	3.95030 AU
opposition	9640 Mar 10 11:00	23°♍28'45	-0°07'56
direct	9640 May 07 11:26	18°♍32'50	
asc. node	9640 May 22 01:30	18°♍54'52	
	9640 Aug 05 20:59	0°♎	
evening set	9640 Sep 11 08:14	8°♎16'56	
conjunction	9640 Sep 24 23:27	11°♎30'43	0°08'53
minimum elong	9640 Sep 24 23:26	11°♎30'43	0°08'56
behind sun begin	9640 Sep 24 16:17	11°♎26'30	
behind sun end	9640 Sep 25 06:35	11°♎34'56	
max. Earth dist.	9640 Sep 27 11:09	12°♎06'07	6.01082 AU
morning rise	9640 Oct 08 16:10	14°♎45'00	
	9640 Dec 22 05:52	0°♏	
retrograde	9641 Feb 14 21:45	4°♏31'18	
	9641 Apr 11 11:57	30°℞♎	
min. Earth dist.	9641 Apr 13 21:56	29°♎40'24	4.08765 AU
opposition	9641 Apr 15 13:07	29°♎27'07	0°32'54
direct	9641 Jun 13 06:56	24°♎28'56	
	9641 Aug 13 05:03	0°♏	
evening set	9641 Oct 17 22:00	13°♏24'28	
	9641 Oct 24 21:57	15°♏	
conjunction	9641 Oct 31 12:22	16°♏30'24	0°32'43
minimum elong	9641 Oct 31 12:20	16°♏30'23	0°32'58
max. Earth dist.	9641 Nov 02 19:41	17°♏01'58	6.17337 AU
morning rise	9641 Nov 14 03:06	19°♏36'07	
	9642 Jan 02 13:01	0°♐	
retrograde	9642 Mar 19 23:51	8°♐06'55	
min. Earth dist.	9642 May 17 19:05	3°♐14'39	4.25900 AU
opposition	9642 May 19 01:29	3°♐04'28	0°59'27
	9642 Jun 12 22:45	30°℞♏	
direct	9642 Jul 18 02:34	28°♏04'20	
	9642 Aug 22 14:36	0°♐	
evening set	9642 Nov 21 05:27	16°♐09'05	
conjunction	9642 Dec 04 16:04	19°♐06'17	0°44'37
minimum elong	9642 Dec 04 16:03	19°♐06'17	0°44'58
max. Earth dist.	9642 Dec 06 03:50	19°♐25'58	6.33953 AU
morning rise	9642 Dec 18 01:27	22°♐02'40	
	9643 Jan 25 08:38	0°♑	
retrograde	9643 Apr 19 21:42	9°♑28'13	
opposition	9643 Jun 19 10:04	4°♑28'59	1°06'13
min. Earth dist.	9643 Jun 18 19:33	4°♑33'45	4.40718 AU
	9643 Aug 01 02:59	30°℞♐	
direct	9643 Aug 19 16:57	29°♐27'47	
	9643 Sep 07 12:39	0°♑	
evening set	9643 Dec 23 09:43	16°♑54'51	
conjunction	9644 Jan 05 15:09	19°♑45'16	0°43'02

minimum elong	9644 Jan 05 15:10	19°♓45'16	0°43'22
max. Earth dist.	9644 Jan 05 20:21	19°♓48'03	6.45903 AU
morning rise	9644 Jan 18 18:52	22°♓34'40	
	9644 Feb 24 04:40	0°♒	
retrograde	9644 May 18 17:49	9°♒19'57	
opposition	9644 Jul 18 13:06	4°♒23'55	0°54'48
min. Earth dist.	9644 Jul 18 19:23	4°♒21'53	4.49117 AU
	9644 Aug 29 09:08	30°℞♓	
direct	9644 Sep 18 20:03	29°♓22'19	
	9644 Oct 09 09:36	0°♒	
	9645 Jan 14 20:39	15°♒	
evening set	9645 Jan 22 02:46	16°♒31'54	
max. Earth dist.	9645 Feb 03 04:47	19°♒06'40	6.50179 AU
conjunction	9645 Feb 04 03:34	19°♒18'51	0°29'58
minimum elong	9645 Feb 04 03:35	19°♒18'52	0°30'14
morning rise	9645 Feb 17 02:11	22°♒04'48	
	9645 Mar 28 07:48	0°♓	
retrograde	9645 Jun 17 10:47	8°♓39'46	
opposition	9645 Aug 17 11:18	3°♓45'56	0°29'33
min. Earth dist.	9645 Aug 18 10:58	3°♓38'21	4.49121 AU
	9645 Sep 19 21:27	30°℞♒	
direct	9645 Oct 19 02:58	28°♒44'32	
	9645 Nov 17 13:58	0°♓	
evening set	9646 Feb 21 07:08	15°♓59'10	
max. Earth dist.	9646 Mar 04 08:07	18°♓22'20	6.45885 AU
conjunction	9646 Mar 06 04:15	18°♓46'16	0°09'08
minimum elong	9646 Mar 06 04:15	18°♓46'16	0°09'13
behind sun begin	9646 Mar 05 21:30	18°♓42'38	
behind sun end	9646 Mar 06 10:59	18°♓49'54	
morning rise	9646 Mar 18 23:20	21°♓32'35	
	9646 Apr 29 10:53	0°♈	
retrograde	9646 Jul 18 06:09	8°♈27'57	
desc. node	9646 Aug 05 02:02	7°♈58'28	
opposition	9646 Sep 17 05:49	3°♈35'04	-0°03'53
min. Earth dist.	9646 Sep 18 18:38	3°♈23'19	4.40782 AU
	9646 Oct 18 14:37	30°℞♓	
direct	9646 Nov 18 16:38	28°♓34'28	
	9646 Dec 19 19:35	0°♈	
evening set	9647 Mar 23 22:41	16°♈16'05	
max. Earth dist.	9647 Apr 03 09:29	18°♈35'30	6.34040 AU
conjunction	9647 Apr 05 17:35	19°♈06'48	-0°14'48
minimum elong	9647 Apr 05 17:35	19°♈06'48	0°14'53
behind sun begin	9647 Apr 05 14:21	19°♈05'00	
behind sun end	9647 Apr 05 20:48	19°♈08'35	
morning rise	9647 Apr 18 11:27	21°♈57'14	
	9647 May 26 11:15	0°♉	
retrograde	9647 Aug 20 01:39	9°♉42'04	
opposition	9647 Oct 19 19:19	4°♉48'46	-0°38'04
min. Earth dist.	9647 Oct 21 10:29	4°♉36'10	4.26116 AU
	9647 Dec 09 21:44	30°℞♈	
direct	9647 Dec 20 09:25	29°♈49'38	
	9647 Dec 30 21:29	0°♉	
	9648 Apr 09 13:44	15°♉	
evening set	9648 Apr 23 23:42	18°♉15'54	
max. Earth dist.	9648 May 04 17:04	20°♉44'21	6.17658 AU
conjunction	9648 May 06 19:02	21°♉13'17	-0°35'19
minimum elong	9648 May 06 19:01	21°♉13'17	0°35'35
morning rise	9648 May 19 14:05	24°♉10'57	
	9648 Jun 14 11:32	0°♊	
retrograde	9648 Sep 23 11:33	13°♊06'42	
opposition	9648 Nov 22 18:47	8°♊11'53	-1°02'42
min. Earth dist.	9648 Nov 24 00:15	8°♊02'17	4.09188 AU
direct	9649 Jan 22 01:10	3°♊14'55	
evening set	9649 May 28 03:48	22°♊32'50	
max. Earth dist.	9649 Jun 08 21:05	25°♊21'04	6.01639 AU
conjunction	9649 Jun 10 02:26	25°♊38'40	-0°45'04
minimum elong	9649 Jun 10 02:26	25°♊38'40	0°45'25
morning rise	9649 Jun 23 02:29	28°♊45'29	
	9649 Jun 28 07:53	0°♋	
retrograde	9649 Oct 31 06:52	18°♋53'47	
opposition	9649 Dec 30 02:00	13°♋56'17	-1°06'08
min. Earth dist.	9649 Dec 30 09:27	13°♋53'49	3.95588 AU
direct	9650 Feb 26 23:20	9°♋01'12	
evening set	9650 Jul 03 14:09	28°♋59'01	
	9650 Jul 07 18:26	0°♌	
conjunction	9650 Jul 16 19:21	2°♌12'28	-0°38'12
minimum elong	9650 Jul 16 19:22	2°♌12'29	0°38'30
max. Earth dist.	9650 Jul 17 02:30	2°♌16'50	5.91812 AU
morning rise	9650 Jul 30 02:40	5°♌27'14	
	9650 Sep 09 10:44	15°♌	
retrograde	9650 Dec 09 04:17	26°♌17'14	
opposition	9651 Feb 06 14:21	21°♌16'21	-0°42'53
min. Earth dist.	9651 Feb 05 21:43	21°♌21'57	3.90724 AU
direct	9651 Apr 05 15:28	16°♌21'41	
	9651 Jul 14 01:59	0°♍	
evening set	9651 Aug 10 12:09	6°♍27'25	
conjunction	9651 Aug 24 00:03	9°♍43'50	-0°15'48
minimum elong	9651 Aug 24 00:04	9°♍43'50	0°15'56
behind sun begin	9651 Aug 23 23:31	9°♍43'30	
behind sun end	9651 Aug 24 00:36	9°♍44'10	
max. Earth dist.	9651 Aug 25 18:06	10°♍09'21	5.92397 AU
morning rise	9651 Sep 06 14:18	13°♍01'22	
	9651 Nov 28 17:08	0°♎	
retrograde	9652 Jan 16 01:22	3°♎37'43	
	9652 Mar 04 18:58	30°℞♍	
min. Earth dist.	9652 Mar 14 00:12	28°♍45'58	3.96748 AU
opposition	9652 Mar 15 11:04	28°♍34'07	-0°02'03
asc. node	9652 Apr 03 04:46	26°♍08'23	
direct	9652 May 12 12:15	23°♍37'56	
	9652 Jul 16 06:50	0°♎	
evening set	9652 Sep 16 08:53	13°♎15'33	
conjunction	9652 Sep 30 00:05	16°♎28'22	0°12'35
minimum elong	9652 Sep 30 00:04	16°♎28'21	0°12'40
behind sun begin	9652 Sep 29 18:51	16°♎25'18	
behind sun end	9652 Sep 30 05:17	16°♎31'25	
max. Earth dist.	9652 Oct 02 10:22	17°♎02'45	6.03163 AU
morning rise	9652 Oct 13 16:52	19°♎41'38	
	9652 Nov 29 16:38	0°♏	
retrograde	9653 Feb 19 11:42	9°♏17'56	
min. Earth dist.	9653 Apr 18 14:53	4°♏26'39	4.10988 AU
opposition	9653 Apr 20 04:34	4°♏13'53	0°37'32
	9653 May 27 23:23	30°℞♎	
direct	9653 Jun 18 02:44	29°♎15'23	
	9653 Jul 09 10:08	0°♏	
	9653 Oct 08 22:21	15°♏	
evening set	9653 Oct 22 15:54	18°♏04'13	
conjunction	9653 Nov 05 06:05	21°♏09'04	0°35'06
minimum elong	9653 Nov 05 06:04	21°♏09'04	0°35'21
max. Earth dist.	9653 Nov 07 12:06	21°♏39'43	6.19529 AU
morning rise	9653 Nov 18 20:07	24°♏13'33	
	9653 Dec 15 05:39	0°♐	
retrograde	9654 Mar 24 06:57	12°♐35'21	
min. Earth dist.	9654 May 22 04:59	7°♐42'57	4.27884 AU
opposition	9654 May 23 09:39	7°♐33'23	1°01'32
direct	9654 Jul 22 14:13	2°♐33'08	

evening set	9654 Nov 25 16:53	20°♐32'56	
conjunction	9654 Dec 09 02:45	23°♐29'13	0°45'09
minimum elong	9654 Dec 09 02:45	23°♐29'13	0°45'31
max. Earth dist.	9654 Dec 10 09:05	23°♐45'51	6.35585 AU
morning rise	9654 Dec 22 11:37	26°♐24'42	
	9655 Jan 08 05:35	0°♑	
retrograde	9655 Apr 24 01:35	13°♑44'32	
opposition	9655 Jun 23 14:08	8°♑45'47	1°05'38
min. Earth dist.	9655 Jun 23 03:01	8°♑49'26	4.41914 AU
direct	9655 Aug 24 01:10	3°♑44'30	
evening set	9655 Dec 27 16:24	21°♑09'16	
conjunction	9656 Jan 09 21:24	23°♑59'13	0°41'49
minimum elong	9656 Jan 09 21:24	23°♑59'13	0°42'09
max. Earth dist.	9656 Jan 10 00:02	24°♑00'38	6.46599 AU
morning rise	9656 Jan 23 00:17	26°♑48'06	
	9656 Feb 07 05:02	0°♒	
retrograde	9656 May 22 18:55	13°♒31'22	
opposition	9656 Jul 22 15:55	8°♒35'44	0°52'00
min. Earth dist.	9656 Jul 22 23:38	8°♒33'14	4.49303 AU
direct	9656 Sep 22 23:40	3°♒34'12	
	9656 Dec 29 11:06	15°♒	
evening set	9657 Jan 26 07:35	20°♒44'11	
max. Earth dist.	9657 Feb 07 05:43	23°♒17'05	6.49850 AU
conjunction	9657 Feb 08 07:46	23°♒31'03	0°27'26
minimum elong	9657 Feb 08 07:47	23°♒31'03	0°27'40
morning rise	9657 Feb 21 05:54	26°♒16'56	
	9657 Mar 10 23:43	0°♓	
retrograde	9657 Jun 21 16:30	12°♓53'32	
opposition	9657 Aug 21 16:22	7°♓59'57	0°25'13
min. Earth dist.	9657 Aug 22 18:38	7°♓51'33	4.48298 AU
direct	9657 Oct 23 09:07	2°♓58'40	
evening set	9658 Feb 25 12:20	20°♓16'05	
max. Earth dist.	9658 Mar 08 10:11	22°♓38'02	6.44610 AU
conjunction	9658 Mar 10 09:03	23°♓03'31	0°05'51
minimum elong	9658 Mar 10 09:03	23°♓03'31	0°05'55
behind sun begin	9658 Mar 10 01:26	22°♓59'24	
behind sun end	9658 Mar 10 16:40	23°♓07'38	
morning rise	9658 Mar 23 03:57	25°♓50'14	
	9658 Apr 11 18:12	0°♈	
desc. node	9658 Jun 15 07:55	10°♈45'48	
retrograde	9658 Jul 22 15:59	12°♈50'48	
opposition	9658 Sep 21 15:36	7°♈57'52	-0°08'49
min. Earth dist.	9658 Sep 23 04:28	7°♈46'05	4.39118 AU
direct	9658 Nov 23 00:02	2°♈57'25	
evening set	9659 Mar 28 07:02	20°♈43'58	
max. Earth dist.	9659 Apr 07 19:16	23°♈04'46	6.32088 AU
conjunction	9659 Apr 10 01:55	23°♈35'24	-0°18'01
minimum elong	9659 Apr 10 01:54	23°♈35'24	0°18'08
morning rise	9659 Apr 22 19:36	26°♈26'34	
	9659 May 08 23:40	0°♉	
retrograde	9659 Aug 24 19:01	14°♉19'36	
opposition	9659 Oct 24 11:53	9°♉26'10	-0°42'18
min. Earth dist.	9659 Oct 26 02:51	9°♉13'39	4.23980 AU
direct	9659 Dec 24 22:45	4°♉27'20	
	9660 Mar 23 04:44	15°♉	
evening set	9660 Apr 28 13:52	22°♉59'59	
max. Earth dist.	9660 May 09 07:52	25°♉29'37	6.15484 AU
conjunction	9660 May 11 09:16	25°♉58'22	-0°37'28
minimum elong	9660 May 11 09:15	25°♉58'21	0°37'45
morning rise	9660 May 24 04:55	28°♉57'09	
	9660 May 28 17:47	0°♊	
retrograde	9660 Sep 28 12:44	18°♊02'44	
opposition	9660 Nov 27 18:54	13°♊07'35	-1°04'37
min. Earth dist.	9660 Nov 28 21:31	12°♊58'53	4.07142 AU
direct	9661 Jan 26 20:43	8°♊10'52	
evening set	9661 Jun 02 00:48	27°♊34'58	
	9661 Jun 12 02:38	0°♋	
max. Earth dist.	9661 Jun 14 00:21	0°♋27'31	5.99915 AU
conjunction	9661 Jun 15 00:18	0°♋41'56	-0°45'09
minimum elong	9661 Jun 15 00:18	0°♋41'56	0°45'31
morning rise	9661 Jun 28 01:04	3°♋49'55	
retrograde	9661 Nov 05 15:15	24°♋06'11	
opposition	9662 Jan 04 08:01	19°♋08'16	-1°04'26
min. Earth dist.	9662 Jan 04 13:12	19°♋06'33	3.94368 AU
direct	9662 Mar 04 02:03	14°♋13'21	
	9662 Jun 21 00:35	0°♌	
evening set	9662 Jul 08 17:28	4°♌14'20	
conjunction	9662 Jul 21 23:34	7°♌28'32	-0°35'52
minimum elong	9662 Jul 21 23:35	7°♌28'33	0°36'10
max. Earth dist.	9662 Jul 22 10:54	7°♌35'27	5.91213 AU
morning rise	9662 Aug 04 08:03	10°♌44'05	
	9662 Aug 22 03:58	15°♌	
	9662 Nov 12 23:43	0°♍	
retrograde	9662 Dec 14 11:04	1°♍35'49	
	9663 Jan 14 20:11	30°℞♌	
opposition	9663 Feb 11 20:47	26°♌34'31	-0°37'53
min. Earth dist.	9663 Feb 11 00:26	26°♌41'23	3.90844 AU
direct	9663 Apr 10 19:50	21°♌39'44	
	9663 Jun 24 11:20	0°♍	
evening set	9663 Aug 15 18:03	11°♍44'02	
conjunction	9663 Aug 29 06:36	15°♍00'23	-0°11'56
minimum elong	9663 Aug 29 06:36	15°♍00'23	0°12'03
behind sun begin	9663 Aug 29 00:56	14°♍56'58	
behind sun end	9663 Aug 29 12:15	15°♍03'48	
max. Earth dist.	9663 Aug 31 02:52	15°♍27'12	5.93207 AU
morning rise	9663 Sep 11 21:33	18°♍17'48	
	9663 Nov 03 08:39	0°♎	
retrograde	9664 Jan 21 02:00	8°♎48'46	
asc. node	9664 Feb 13 05:04	7°♎55'26	
min. Earth dist.	9664 Mar 19 00:58	3°♎57'03	3.98141 AU
opposition	9664 Mar 20 12:38	3°♎44'54	0°03'57
	9664 Apr 21 01:10	30°℞♍	
direct	9664 May 17 15:56	28°♍48'23	
	9664 Jun 13 09:06	0°♎	
evening set	9664 Sep 21 11:54	18°♎20'50	
conjunction	9664 Oct 05 03:25	21°♎32'53	0°16'16
minimum elong	9664 Oct 05 03:24	21°♎32'52	0°16'23
max. Earth dist.	9664 Oct 07 15:41	22°♎08'16	6.05011 AU
morning rise	9664 Oct 18 19:59	24°♎45'11	
	9664 Nov 10 21:38	0°♏	
retrograde	9665 Feb 24 05:31	14°♏12'11	
min. Earth dist.	9665 Apr 23 09:33	9°♏20'53	4.13094 AU
opposition	9665 Apr 24 22:43	9°♏08'20	0°42'00
direct	9665 Jun 23 00:37	4°♏09'36	
	9665 Sep 21 02:44	15°♏	
evening set	9665 Oct 27 12:48	22°♏51'56	
conjunction	9665 Nov 10 02:24	25°♏55'37	0°37'19
minimum elong	9665 Nov 10 02:23	25°♏55'36	0°37'36
max. Earth dist.	9665 Nov 12 05:31	26°♏24'29	6.21713 AU
morning rise	9665 Nov 23 15:59	28°♏58'54	
	9665 Nov 28 05:30	0°♐	
retrograde	9666 Mar 28 16:09	17°♐11'33	
opposition	9666 May 27 20:37	12°♐09'57	1°03'17

min. Earth dist.	9666 May 26	17:41	12°♐18'56	4.29994 AU
direct	9666 Jul 27	05:36	7°♐09'30	
evening set	9666 Nov 30	06:43	25°♐03'38	
conjunction	9666 Dec 13	16:02	27°♐58'52	0°45'28
minimum elong	9666 Dec 13	16:02	27°♐58'52	0°45'49
max. Earth dist.	9666 Dec 14	20:32	28°♐14'27	6.37503 AU
	9666 Dec 22	21:54	0°♑	
morning rise	9666 Dec 26	23:53	0°♑53'12	
retrograde	9667 Apr 28	05:40	18°♑06'03	
opposition	9667 Jun 27	19:57	13°♑07'46	1°04'43
min. Earth dist.	9667 Jun 27	10:33	13°♑10'50	4.43529 AU
direct	9667 Aug 28	10:32	8°♑06'27	
evening set	9668 Jan 01	00:21	25°♑27'10	
conjunction	9668 Jan 14	04:26	28°♑16'19	0°40'25
minimum elong	9668 Jan 14	04:27	28°♑16'20	0°40'46
max. Earth dist.	9668 Jan 14	02:17	28°♑15'10	6.47808 AU
	9668 Jan 22	05:54	0°♒	
morning rise	9668 Jan 27	06:42	1°♒04'28	
	9668 Apr 13	20:54	15°♒	
retrograde	9668 May 26	22:03	17°♒43'57	
	9668 Jul 09	04:02	15°℞♒	
opposition	9668 Jul 26	19:29	12°♒48'36	0°48'58
min. Earth dist.	9668 Jul 27	06:16	12°♒45'08	4.50044 AU
direct	9668 Sep 27	06:31	7°♒47'01	
	9668 Dec 10	23:32	15°♒	
evening set	9669 Jan 30	11:24	24°♒55'14	
max. Earth dist.	9669 Feb 11	06:44	27°♒26'36	6.50068 AU
conjunction	9669 Feb 12	11:05	27°♒41'47	0°24'49
minimum elong	9669 Feb 12	11:06	27°♒41'47	0°25'01
	9669 Feb 23	05:12	0°♓	
morning rise	9669 Feb 25	08:29	0°♓27'20	
retrograde	9669 Jun 25	18:14	17°♓03'54	
opposition	9669 Aug 25	20:08	12°♓10'25	0°20'54
min. Earth dist.	9669 Aug 26	23:22	12°♓01'42	4.47975 AU
direct	9669 Oct 27	12:28	7°♓09'10	
evening set	9670 Mar 01	15:27	24°♓27'39	
max. Earth dist.	9670 Mar 12	11:21	26°♓48'51	6.43754 AU
conjunction	9670 Mar 14	11:40	27°♓15'12	0°02'40
minimum elong	9670 Mar 14	11:40	27°♓15'12	0°02'44
behind sun begin	9670 Mar 14	03:42	27°♓10'53	
behind sun end	9670 Mar 14	19:37	27°♓19'31	
morning rise	9670 Mar 27	06:08	0°♈02'05	
	9670 Mar 27	02:18	0°♈	
desc. node	9670 Apr 27	05:42	6°♈31'15	
retrograde	9670 Jul 26	23:47	17°♈06'36	
opposition	9670 Sep 25	22:49	12°♈13'40	-0°13'30
min. Earth dist.	9670 Sep 27	13:51	12°♈01'12	4.37745 AU
direct	9670 Nov 27	06:52	7°♈13'19	
evening set	9671 Apr 01	12:28	25°♈03'57	
max. Earth dist.	9671 Apr 11	22:24	27°♈24'05	6.30280 AU
conjunction	9671 Apr 14	07:10	27°♈56'01	-0°20'59
minimum elong	9671 Apr 14	07:09	27°♈56'00	0°21'08
	9671 Apr 23	11:32	0°♉	
morning rise	9671 Apr 27	00:59	0°♉47'55	
	9671 Jul 09	09:44	15°♉	
retrograde	9671 Aug 29	08:54	18°♉48'58	
	9671 Oct 20	15:03	15°℞♉	
opposition	9671 Oct 29	01:25	13°♉55'19	-0°46'08
min. Earth dist.	9671 Oct 30	15:27	13°♉43'03	4.21834 AU
direct	9671 Dec 29	08:06	8°♉56'38	
	9672 Mar 03	12:12	15°♉	
evening set	9672 May 03	00:52	27°♉35'58	
	9672 May 13	08:04	0°♊	
max. Earth dist.	9672 May 13	21:56	0°♊08'07	6.13173 AU
conjunction	9672 May 15	20:42	0°♊35'28	-0°39'17
minimum elong	9672 May 15	20:41	0°♊35'28	0°39'35
morning rise	9672 May 28	16:42	3°♊35'26	
retrograde	9672 Oct 03	13:54	22°♊51'41	
opposition	9672 Dec 02	16:39	17°♊56'16	-1°06'04
min. Earth dist.	9672 Dec 03	18:30	17°♊47'48	4.04840 AU
direct	9673 Jan 31	14:19	12°♊59'48	
	9673 May 27	05:36	0°♋	
evening set	9673 Jun 06	20:08	2°♋31'21	
conjunction	9673 Jun 19	20:24	5°♋39'39	-0°44'55
minimum elong	9673 Jun 19	20:24	5°♋39'39	0°45'16
max. Earth dist.	9673 Jun 18	22:46	5°♋26'35	5.97836 AU
morning rise	9673 Jul 02	22:18	8°♋49'04	
retrograde	9673 Nov 10	20:44	29°♋14'46	
opposition	9674 Jan 09	12:25	24°♋16'28	-1°02'19
min. Earth dist.	9674 Jan 09	13:41	24°♋16'03	3.92746 AU
direct	9674 Mar 09	01:02	19°♋21'42	
	9674 Jun 03	00:26	0°♌	
evening set	9674 Jul 13	20:48	9°♌27'51	
conjunction	9674 Jul 27	03:59	12°♌43'04	-0°33'18
minimum elong	9674 Jul 27	04:01	12°♌43'05	0°33'35
max. Earth dist.	9674 Jul 27	19:46	12°♌52'44	5.90221 AU
	9674 Aug 05	11:43	15°♌	
morning rise	9674 Aug 09	13:39	15°♌59'39	
	9674 Oct 12	06:13	0°♍	
retrograde	9674 Dec 19	19:09	6°♍54'47	
min. Earth dist.	9675 Feb 16	04:44	2°♍00'46	3.90593 AU
opposition	9675 Feb 17	03:34	1°♍53'02	-0°32'40
	9675 Mar 03	11:00	30°℞♌	
direct	9675 Apr 16	01:51	26°♌58'07	
	9675 May 29	01:10	0°♍	
evening set	9675 Aug 21	01:06	17°♍02'32	
conjunction	9675 Sep 03	14:37	20°♍19'03	-0°08'02
minimum elong	9675 Sep 03	14:37	20°♍19'03	0°08'08
behind sun begin	9675 Sep 03	07:12	20°♍14'35	
behind sun end	9675 Sep 03	22:02	20°♍23'31	
max. Earth dist.	9675 Sep 05	16:14	20°♍49'03	5.93736 AU
morning rise	9675 Sep 17	06:08	23°♍36'30	
	9675 Oct 14	16:16	0°♎	
asc. node	9675 Dec 25	04:44	12°♎23'31	
retrograde	9676 Jan 26	05:45	14°♎02'54	
min. Earth dist.	9676 Mar 24	02:39	9°♎11'29	3.99376 AU
opposition	9676 Mar 25	15:43	8°♎58'53	0°09'51
direct	9676 May 22	20:17	4°♎02'08	
evening set	9676 Sep 26	17:06	23°♎29'55	
conjunction	9676 Oct 10	08:32	26°♎41'08	0°19'50
minimum elong	9676 Oct 10	08:31	26°♎41'07	0°19'58
max. Earth dist.	9676 Oct 12	21:02	27°♎16'28	6.06808 AU
morning rise	9676 Oct 24	01:09	29°♎52'33	
	9676 Oct 24	14:01	0°♏	
	9677 Jan 07	11:40	15°♏	
retrograde	9677 Feb 28	22:52	19°♏10'08	
	9677 Apr 23	02:47	15°℞♏	
min. Earth dist.	9677 Apr 28	04:48	14°♏19'02	4.15251 AU
opposition	9677 Apr 29	18:12	14°♏06'23	0°46'09
direct	9677 Jun 27	23:44	9°♏07'20	
	9677 Aug 30	15:38	15°♏	
evening set	9677 Nov 01	11:15	27°♏42'55	
	9677 Nov 11	15:42	0°♐	

conjunction	9677 Nov 15 00:26	0°♐45'23	0°39'16
minimum elong	9677 Nov 15 00:25	0°♐45'23	0°39'34
max. Earth dist.	9677 Nov 17 02:06	1°♐13'18	6.24042 AU
morning rise	9677 Nov 28 13:12	3°♐47'20	
retrograde	9678 Apr 02 03:35	21°♐50'12	
min. Earth dist.	9678 May 31 07:50	16°♐57'15	4.32256 AU
opposition	9678 Jun 01 08:40	16°♐49'01	1°04'36
direct	9678 Jul 31 22:38	11°♐48'22	
evening set	9678 Dec 04 21:15	29°♐36'14	
	9678 Dec 06 17:08	0°♑	
conjunction	9678 Dec 18 05:44	2°♑30'22	0°45'28
minimum elong	9678 Dec 18 05:44	2°♑30'22	0°45'49
max. Earth dist.	9678 Dec 19 05:56	2°♑43'32	6.39490 AU
morning rise	9678 Dec 31 12:53	5°♑23'36	
retrograde	9679 May 02 10:54	22°♑29'28	
opposition	9679 Jul 02 02:38	17°♑31'35	1°03'21
min. Earth dist.	9679 Jul 01 19:50	17°♑33'48	4.45097 AU
direct	9679 Sep 01 20:34	12°♑30'08	
evening set	9680 Jan 05 08:37	29°♑47'06	
	9680 Jan 06 08:52	0°♒	
conjunction	9680 Jan 18 12:07	2°♒35'36	0°38'44
minimum elong	9680 Jan 18 12:08	2°♒35'37	0°39'03
max. Earth dist.	9680 Jan 18 07:13	2°♒32'59	6.48838 AU
morning rise	9680 Jan 31 13:26	5°♒23'02	
	9680 Mar 20 06:40	15°♒	
retrograde	9680 May 31 01:00	21°♒59'38	
opposition	9680 Jul 31 00:01	17°♒04'39	0°45'35
min. Earth dist.	9680 Jul 31 13:00	17°♒00'28	4.50470 AU
	9680 Aug 16 15:59	15°℞♒	
direct	9680 Oct 01 12:27	12°♒03'06	
	9680 Nov 16 10:43	15°♒	
evening set	9681 Feb 03 16:53	29°♒10'49	
	9681 Feb 07 13:08	0°♓	
max. Earth dist.	9681 Feb 15 06:50	1°♓39'29	6.49848 AU
conjunction	9681 Feb 16 15:49	1°♓57'11	0°21'57
minimum elong	9681 Feb 16 15:50	1°♓57'11	0°22'09
morning rise	9681 Mar 01 12:49	4°♓42'40	
retrograde	9681 Jun 30 01:28	21°♓20'51	
opposition	9681 Aug 30 02:30	16°♓27'31	0°16'15
min. Earth dist.	9681 Aug 31 08:53	16°♓17'49	4.47115 AU
direct	9681 Oct 31 19:34	11°♓26'18	
evening set	9682 Mar 05 21:15	28°♓47'43	
desc. node	9682 Mar 05 22:34	28°♓48'26	
	9682 Mar 11 10:08	0°♈	
max. Earth dist.	9682 Mar 16 14:36	1°♈07'59	6.42302 AU
conjunction	9682 Mar 18 17:15	1°♈35'41	-0°00'47
minimum elong	9682 Mar 18 17:15	1°♈35'42	0°00'46
behind sun begin	9682 Mar 18 09:16	1°♈31'21	
behind sun end	9682 Mar 19 01:14	1°♈40'02	
morning rise	9682 Mar 31 11:28	4°♈23'03	
retrograde	9682 Jul 31 10:58	21°♈33'45	
opposition	9682 Sep 30 10:23	16°♈40'45	-0°18'24
min. Earth dist.	9682 Oct 02 01:21	16°♈28'17	4.35787 AU
direct	9682 Dec 01 14:42	11°♈40'33	
evening set	9683 Apr 05 22:36	29°♈37'15	
	9683 Apr 07 15:09	0°♉	
max. Earth dist.	9683 Apr 16 09:15	1°♉58'30	6.27953 AU
conjunction	9683 Apr 18 17:16	2°♉30'13	-0°24'02
minimum elong	9683 Apr 18 17:15	2°♉30'12	0°24'13
morning rise	9683 May 01 11:09	5°♉23'06	
	9683 Jun 15 21:42	15°♉	
retrograde	9683 Sep 03 07:35	23°♉34'09	
opposition	9683 Nov 02 21:15	18°♉40'20	-0°49'58
min. Earth dist.	9683 Nov 04 11:28	18°♉27'59	4.19286 AU
	9683 Dec 04 22:33	15°℞♉	
direct	9684 Jan 03 00:25	13°♉41'54	
	9684 Jan 31 22:13	15°♉	
	9684 Apr 27 00:05	0°♊	
evening set	9684 May 07 18:25	2°♊29'13	
max. Earth dist.	9684 May 18 17:07	5°♊03'11	6.10620 AU
conjunction	9684 May 20 14:41	5°♊30'00	-0°40'59
minimum elong	9684 May 20 14:41	5°♊29'59	0°41'19
morning rise	9684 Jun 02 11:26	8°♊31'22	
retrograde	9684 Oct 08 19:18	27°♊59'01	
opposition	9684 Dec 07 21:18	23°♊03'14	-1°07'09
min. Earth dist.	9684 Dec 08 19:28	22°♊55'58	4.02526 AU
direct	9685 Feb 05 12:39	18°♊07'03	
	9685 May 09 09:45	0°♋	
evening set	9685 Jun 11 22:25	7°♋45'53	
conjunction	9685 Jun 24 23:36	10°♋55'28	-0°44'19
minimum elong	9685 Jun 24 23:37	10°♋55'29	0°44'40
max. Earth dist.	9685 Jun 24 07:11	10°♋45'30	5.95992 AU
morning rise	9685 Jul 08 02:33	14°♋06'14	
	9685 Sep 21 20:27	0°♌	
retrograde	9685 Nov 16 09:55	4°♌40'05	
	9686 Jan 12 15:24	30°℞♋	
opposition	9686 Jan 14 23:25	29°♋41'17	-0°59'31
min. Earth dist.	9686 Jan 14 21:30	29°♋41'56	3.91590 AU
direct	9686 Mar 14 09:50	24°♋46'36	
	9686 May 11 00:41	0°♌	
evening set	9686 Jul 19 05:40	14°♌55'33	
	9686 Jul 19 12:58	15°♌	
conjunction	9686 Aug 01 14:01	18°♌11'27	-0°30'19
minimum elong	9686 Aug 01 14:03	18°♌11'28	0°30'34
max. Earth dist.	9686 Aug 02 12:47	18°♌25'24	5.89903 AU
morning rise	9686 Aug 15 00:40	21°♌28'39	
	9686 Sep 20 13:15	0°♍	
retrograde	9686 Dec 25 06:20	12°♍23'32	
opposition	9687 Feb 22 13:57	7°♍21'21	-0°26'56
min. Earth dist.	9687 Feb 21 12:03	7°♍30'08	3.91188 AU
direct	9687 Apr 21 11:09	2°♍26'17	
evening set	9687 Aug 26 11:12	22°♍27'12	
conjunction	9687 Sep 09 01:07	25°♍43'15	-0°03'57
minimum elong	9687 Sep 09 01:06	25°♍43'15	0°04'01
behind sun begin	9687 Sep 08 16:50	25°♍38'17	
behind sun end	9687 Sep 09 09:22	25°♍48'12	
max. Earth dist.	9687 Sep 11 05:12	26°♍14'37	5.95163 AU
morning rise	9687 Sep 22 17:15	29°♍00'11	
	9687 Sep 26 21:46	0°♎	
asc. node	9687 Nov 03 02:56	8°♎23'33	
retrograde	9688 Jan 31 06:36	19°♎17'55	
min. Earth dist.	9688 Mar 29 03:51	14°♎26'57	4.01470 AU
opposition	9688 Mar 30 18:47	14°♎13'43	0°15'45
direct	9688 May 28 02:02	9°♎16'34	
evening set	9688 Oct 01 21:30	28°♎36'34	
	9688 Oct 07 21:32	0°♏	
conjunction	9688 Oct 15 12:52	1°♏46'32	0°23'14
minimum elong	9688 Oct 15 12:51	1°♏46'31	0°23'24
max. Earth dist.	9688 Oct 18 01:20	2°♏21'40	6.09363 AU
morning rise	9688 Oct 29 05:01	4°♏56'33	
	9688 Dec 14 18:44	15°♏	
retrograde	9689 Mar 05 15:45	24°♏02'16	
min. Earth dist.	9689 May 03 00:12	19°♏10'44	4.17983 AU
opposition	9689 May 04 11:49	18°♏58'44	0°49'54

	9689 Jun 07 23:59	15°℞♏		
direct	9689 Jul 02 22:53	13°♏59'22		
	9689 Jul 28 01:57	15°♏		
	9689 Oct 26 05:05	0°♐		
evening set	9689 Nov 06 06:45	2°♐26'26		
conjunction	9689 Nov 19 19:18	5°♐27'29	0°40'55	
minimum elong	9689 Nov 19 19:17	5°♐27'29	0°41'15	
max. Earth dist.	9689 Nov 21 18:31	5°♐53'52	6.26705 AU	
morning rise	9689 Dec 03 07:20	8°♐27'58		
retrograde	9690 Apr 06 09:49	26°♐20'31		
opposition	9690 Jun 05 17:42	21°♐19'43	1°05'30	
min. Earth dist.	9690 Jun 04 18:33	21°♐27'24	4.34647 AU	
direct	9690 Aug 05 11:16	16°♐18'54		
	9690 Nov 20 10:34	0°♑		
evening set	9690 Dec 09 08:33	4°♑00'28		
conjunction	9690 Dec 22 16:19	6°♑53'31	0°45'12	
minimum elong	9690 Dec 22 16:19	6°♑53'31	0°45'35	
max. Earth dist.	9690 Dec 23 12:08	7°♑04'16	6.41436 AU	
morning rise	9691 Jan 04 22:31	9°♑45'37		
retrograde	9691 May 06 14:22	26°♑45'06		
opposition	9691 Jul 06 06:42	21°♑47'42	1°01'42	
min. Earth dist.	9691 Jul 06 03:25	21°♑48'47	4.46473 AU	
direct	9691 Sep 06 04:34	16°♑46'13		
	9691 Dec 21 09:20	0°♒		
evening set	9692 Jan 09 14:28	4°♒00'15		
conjunction	9692 Jan 22 17:13	6°♒48'13	0°36'53	
minimum elong	9692 Jan 22 17:14	6°♒48'14	0°37'11	
max. Earth dist.	9692 Jan 22 06:38	6°♒42'34	6.49538 AU	
morning rise	9692 Feb 04 18:00	9°♒35'11		
	9692 Mar 01 23:11	15°♒		
retrograde	9692 Jun 04 04:04	26°♒10'13		
opposition	9692 Aug 04 03:11	21°♒15'32	0°42'02	
min. Earth dist.	9692 Aug 04 19:19	21°♒10'21	4.50472 AU	
direct	9692 Oct 05 16:36	16°♒13'58		
	9693 Jan 22 18:43	0°♓		
evening set	9693 Feb 07 20:42	3°♓22'34		
max. Earth dist.	9693 Feb 19 08:11	5°♓50'08	6.49150 AU	
conjunction	9693 Feb 20 19:20	6°♓09'02	0°19'01	
minimum elong	9693 Feb 20 19:21	6°♓09'03	0°19'12	
morning rise	9693 Mar 05 15:44	8°♓54'35		
retrograde	9693 Jul 04 07:05	25°♓36'07		
opposition	9693 Sep 03 08:39	20°♓42'59	0°11'34	
min. Earth dist.	9693 Sep 04 16:27	20°♓32'49	4.45763 AU	
direct	9693 Nov 04 23:54	15°♓41'55		
desc. node	9694 Jan 13 05:27	22°♓04'09		
	9694 Feb 23 13:27	0°♈		
evening set	9694 Mar 10 03:29	3°♈07'55		
max. Earth dist.	9694 Mar 20 18:04	5°♈27'20	6.40383 AU	
conjunction	9694 Mar 22 23:04	5°♈56'29	-0°04'11	
minimum elong	9694 Mar 22 23:04	5°♈56'29	0°04'12	
behind sun begin	9694 Mar 22 15:13	5°♈52'11		
behind sun end	9694 Mar 23 06:55	6°♈00'46		
morning rise	9694 Apr 04 17:14	8°♈44'33		
retrograde	9694 Aug 05 02:36	26°♈03'09		
opposition	9694 Oct 04 23:23	21°♈10'11	-0°23'14	
min. Earth dist.	9694 Oct 06 15:50	20°♈57'13	4.33409 AU	
direct	9694 Dec 06 01:22	16°♈10'11		
	9695 Mar 22 06:07	0°♉		
evening set	9695 Apr 10 10:24	4°♉14'26		
max. Earth dist.	9695 Apr 20 21:24	6°♉36'44	6.25307 AU	
conjunction	9695 Apr 23 05:16	7°♉08'32	-0°26'58	
minimum elong	9695 Apr 23 05:15	7°♉08'31	0°27'09	
morning rise	9695 May 05 23:24	10°♉02'37		
	9695 May 28 07:35	15°♉		
retrograde	9695 Sep 08 07:00	28°♉24'53		
opposition	9695 Nov 07 19:27	23°♉30'55	-0°53'30	
min. Earth dist.	9695 Nov 09 07:12	23°♉19'21	4.16581 AU	
direct	9696 Jan 07 16:11	18°♉32'53		
	9696 Apr 09 09:07	0°♊		
evening set	9696 May 12 14:28	7°♊28'44		
max. Earth dist.	9696 May 23 17:37	10°♊06'13	6.08098 AU	
conjunction	9696 May 25 11:14	10°♊30'51	-0°42'24	
minimum elong	9696 May 25 11:13	10°♊30'51	0°42'44	
morning rise	9696 Jun 07 08:41	13°♊33'39		
	9696 Aug 29 07:30	0°♋		
retrograde	9696 Oct 14 05:11	3°♋12'40		
	9696 Nov 29 18:43	30°℞♊		
opposition	9696 Dec 13 04:41	28°♊16'32	-1°07'41	
min. Earth dist.	9696 Dec 14 00:03	28°♊10'10	4.00425 AU	
direct	9697 Feb 10 16:03	23°♊20'41		
	9697 Apr 18 06:57	0°♋		
evening set	9697 Jun 17 02:51	13°♋05'43		
conjunction	9697 Jun 30 05:04	16°♋16'28	-0°43'19	
minimum elong	9697 Jun 30 05:04	16°♋16'28	0°43'41	
max. Earth dist.	9697 Jun 29 18:52	16°♋10'16	5.94536 AU	
morning rise	9697 Jul 13 09:01	19°♋28'23		
	9697 Aug 28 13:35	0°♌		
retrograde	9697 Nov 21 23:25	10°♌08'10		
opposition	9698 Jan 20 10:58	5°♌08'56	-0°56'08	
min. Earth dist.	9698 Jan 20 05:01	5°♌10'55	3.90973 AU	
direct	9698 Mar 19 17:53	0°♌14'21		
	9698 Jul 01 23:44	15°♌		
evening set	9698 Jul 24 15:11	20°♌23'56		
conjunction	9698 Aug 07 00:17	23°♌40'08	-0°27'04	
minimum elong	9698 Aug 07 00:19	23°♌40'08	0°27'18	
max. Earth dist.	9698 Aug 08 03:04	23°♌56'30	5.90158 AU	
morning rise	9698 Aug 20 12:02	26°♌57'39		
	9698 Sep 02 03:24	0°♍		
retrograde	9698 Dec 30 13:16	17°♍49'34		
opposition	9699 Feb 27 22:31	12°♍46'57	-0°21'00	
min. Earth dist.	9699 Feb 26 17:18	12°♍56'52	3.92279 AU	
direct	9699 Apr 26 19:42	7°♍51'39		
evening set	9699 Aug 31 19:18	27°♍47'27		
	9699 Sep 10 00:56	0°♎		
asc. node	9699 Sep 11 19:07	0°♎25'18		
conjunction	9699 Sep 14 09:44	1°♎02'51	0°00'11	
minimum elong	9699 Sep 14 09:44	1°♎02'50	0°00'11	
behind sun begin	9699 Sep 14 01:25	0°♎57'53		
behind sun end	9699 Sep 14 18:03	1°♎07'48		
max. Earth dist.	9699 Sep 16 16:42	1°♎35'48	5.96965 AU	
morning rise	9699 Sep 28 02:01	4°♎18'58		
retrograde	9700 Feb 05 06:55	24°♎27'03		
min. Earth dist.	9700 Apr 04 04:53	19°♎35'49	4.03749 AU	
opposition	9700 Apr 05 19:15	19°♎22'46	0°21'25	
direct	9700 Jun 03 06:51	14°♎25'18		
	9700 Sep 22 00:34	0°♏		
evening set	9700 Oct 07 23:17	3°♏37'20		
conjunction	9700 Oct 21 14:26	6°♏46'02	0°26'26	
minimum elong	9700 Oct 21 14:25	6°♏46'01	0°26'38	
max. Earth dist.	9700 Oct 24 02:39	7°♏20'48	6.11895 AU	
morning rise	9700 Nov 04 06:10	9°♏54'41		
	9700 Nov 27 00:02	15°♏		
retrograde	9701 Mar 11 04:05	28°♏49'04		

min. Earth dist.	9701 May 08 15:38	23°♏57'38	4.20536 AU
opposition	9701 May 10 02:40	23°♏45'51	0°53'16
direct	9701 Jul 08 16:50	18°♏46'15	
	9701 Oct 09 18:02	0°♐	
evening set	9701 Nov 12 00:27	7°♐05'57	
conjunction	9701 Nov 25 12:19	10°♐05'43	0°42'20
minimum elong	9701 Nov 25 12:18	10°♐05'43	0°42'39
max. Earth dist.	9701 Nov 27 06:45	10°♐29'19	6.29077 AU
morning rise	9701 Dec 08 23:36	13°♐04'52	
	9702 Mar 20 01:48	0°♑	
retrograde	9702 Apr 11 17:13	0°♑48'28	
	9702 May 04 03:37	30°℞♐	
min. Earth dist.	9702 Jun 10 06:05	25°♐54'36	4.36661 AU
opposition	9702 Jun 11 01:37	25°♐48'08	1°06'03
direct	9702 Aug 11 00:30	20°♐47'09	
	9702 Nov 03 14:36	0°♑	
evening set	9702 Dec 14 19:01	8°♑23'45	
conjunction	9702 Dec 28 02:09	11°♑15'57	0°44'43
minimum elong	9702 Dec 28 02:10	11°♑15'57	0°45'05
max. Earth dist.	9702 Dec 28 17:57	11°♑24'29	6.42946 AU
morning rise	9703 Jan 10 07:34	14°♑07'10	
	9703 Apr 15 21:00	0°♒	
retrograde	9703 May 11 16:41	1°♒01'46	
	9703 Jun 06 10:15	30°℞♑	
opposition	9703 Jul 11 10:58	26°♑04'45	0°59'45
min. Earth dist.	9703 Jul 11 09:56	26°♑05'05	4.47411 AU
direct	9703 Sep 11 10:34	21°♑03'12	
	9703 Dec 04 17:45	0°♒	
evening set	9704 Jan 14 20:45	8°♒15'33	
conjunction	9704 Jan 27 22:55	11°♒03'10	0°34'50
minimum elong	9704 Jan 27 22:56	11°♒03'10	0°35'07
max. Earth dist.	9704 Jan 27 08:56	10°♒55'41	6.49844 AU
morning rise	9704 Feb 09 22:57	13°♒49'45	
	9704 Feb 15 11:48	15°♒	
	9704 May 24 03:21	0°♓	
retrograde	9704 Jun 09 08:31	0°♓24'20	
	9704 Jun 25 11:45	30°℞♒	
opposition	9704 Aug 09 07:40	25°♒29'58	0°38'14
min. Earth dist.	9704 Aug 10 02:42	25°♒23'52	4.50141 AU
direct	9704 Oct 10 22:42	20°♒28'27	
	9705 Jan 06 11:09	0°♓	
evening set	9705 Feb 13 02:22	7°♓38'46	
max. Earth dist.	9705 Feb 24 08:46	10°♓04'02	6.48194 AU
conjunction	9705 Feb 26 00:24	10°♓25'24	0°15'57
minimum elong	9705 Feb 26 00:25	10°♓25'24	0°16'06
morning rise	9705 Mar 10 20:33	13°♓11'11	
retrograde	9705 Jul 09 16:48	29°♓56'43	
opposition	9705 Sep 08 17:02	25°♓03'39	0°06'42
min. Earth dist.	9705 Sep 10 02:41	24°♓52'53	4.44250 AU
direct	9705 Nov 10 07:09	20°♓02'40	
desc. node	9705 Nov 23 05:09	20°♓17'43	
	9706 Feb 07 05:11	0°♈	
evening set	9706 Mar 15 11:33	7°♈33'31	
max. Earth dist.	9706 Mar 26 01:57	9°♈53'25	6.38432 AU
conjunction	9706 Mar 28 07:07	10°♈22'47	-0°07'35
minimum elong	9706 Mar 28 07:06	10°♈22'46	0°07'38
behind sun begin	9706 Mar 27 23:52	10°♈18'48	
behind sun end	9706 Mar 28 14:20	10°♈26'45	
morning rise	9706 Apr 10 01:01	13°♈11'32	
	9706 Jul 21 12:38	0°♉	
retrograde	9706 Aug 10 18:13	0°♉38'02	
	9706 Aug 31 00:16	30°℞♈	
opposition	9706 Oct 10 14:45	25°♈45'01	-0°28'05
min. Earth dist.	9706 Oct 12 06:25	25°♈32'18	4.31167 AU
direct	9706 Dec 11 12:09	20°♈45'20	
	9707 Mar 05 03:25	0°♉	
evening set	9707 Apr 16 00:11	8°♉56'23	
max. Earth dist.	9707 Apr 26 12:24	11°♉20'11	6.22959 AU
conjunction	9707 Apr 28 18:58	11°♉51'26	-0°29'47
minimum elong	9707 Apr 28 18:57	11°♉51'25	0°30'01
morning rise	9707 May 11 13:26	14°♉46'35	
	9707 May 12 13:01	15°♉	
	9707 Jul 29 05:32	0°♊	
retrograde	9707 Sep 14 09:00	3°♊18'59	
	9707 Nov 01 07:33	30°℞♉	
opposition	9707 Nov 13 19:21	28°♉24'46	-0°56'46
min. Earth dist.	9707 Nov 15 05:28	28°♉13'41	4.14321 AU
direct	9708 Jan 13 12:35	23°♉27'03	
	9708 Mar 20 20:28	0°♊	
evening set	9708 May 18 11:18	12°♊29'33	
max. Earth dist.	9708 May 29 19:34	15°♊10'44	6.06148 AU
conjunction	9708 May 31 08:40	15°♊32'46	-0°43'33
minimum elong	9708 May 31 08:40	15°♊32'45	0°43'53
morning rise	9708 Jun 13 06:43	18°♊36'42	
	9708 Aug 04 03:43	0°♋	
retrograde	9708 Oct 20 12:55	8°♋24'23	
opposition	9708 Dec 19 11:14	3°♋27'53	-1°07'42
min. Earth dist.	9708 Dec 20 02:52	3°♋22'44	3.99008 AU
	9709 Jan 17 16:36	30°℞♊	
direct	9709 Feb 16 18:01	28°♊32'21	
	9709 Mar 18 14:46	0°♋	
evening set	9709 Jun 23 06:02	18°♋20'53	
conjunction	9709 Jul 06 08:55	21°♋32'20	-0°42'02
minimum elong	9709 Jul 06 08:56	21°♋32'21	0°42'24
max. Earth dist.	9709 Jul 06 02:55	21°♋28'41	5.93779 AU
morning rise	9709 Jul 19 13:59	24°♋45'05	
	9709 Aug 10 16:47	0°♌	
	9709 Nov 11 12:24	15°♌	
retrograde	9709 Nov 28 06:40	15°♌27'49	
	9709 Dec 15 00:55	15°℞♌	
opposition	9710 Jan 26 19:12	10°♌28'01	-0°52'24
min. Earth dist.	9710 Jan 26 09:11	10°♌31'23	3.90977 AU
direct	9710 Mar 26 00:06	5°♌33'26	
	9710 Jun 14 02:10	15°♌	
evening set	9710 Jul 30 20:40	25°♌41'21	
conjunction	9710 Aug 13 06:42	28°♌57'34	-0°23'43
minimum elong	9710 Aug 13 06:43	28°♌57'35	0°23'56
max. Earth dist.	9710 Aug 14 15:02	29°♌17'19	5.90926 AU
	9710 Aug 17 12:57	0°♍	
morning rise	9710 Aug 26 19:02	2°♍15'02	
retrograde	9711 Jan 05 17:19	23°♍02'05	
min. Earth dist.	9711 Mar 04 19:57	18°♍09'22	3.93714 AU
opposition	9711 Mar 06 02:02	17°♍59'09	-0°15'11
direct	9711 May 03 01:33	13°♍03'36	
asc. node	9711 Jul 24 11:20	22°♍53'07	
	9711 Aug 25 15:36	0°♎	
evening set	9711 Sep 06 22:17	2°♎53'24	
conjunction	9711 Sep 20 13:00	6°♎08'00	0°04'08
minimum elong	9711 Sep 20 13:00	6°♎08'00	0°04'09
behind sun begin	9711 Sep 20 04:45	6°♎03'06	
behind sun end	9711 Sep 20 21:16	6°♎12'54	
max. Earth dist.	9711 Sep 22 21:54	6°♎41'55	5.98903 AU
morning rise	9711 Oct 04 05:29	9°♎23'15	
retrograde	9712 Feb 10 23:57	29°♎21'28	

min. Earth dist.	9712 Apr 08 22:59	24°♎30'30	4.05988 AU
opposition	9712 Apr 10 13:54	24°♎17'18	0°26'39
direct	9712 Jun 08 03:32	19°♎19'33	
	9712 Sep 04 11:13	0°♏	
evening set	9712 Oct 12 19:56	8°♏24'24	
conjunction	9712 Oct 26 10:42	11°♏31'55	0°29'19
minimum elong	9712 Oct 26 10:41	11°♏31'54	0°29'33
max. Earth dist.	9712 Oct 28 19:29	12°♏04'32	6.14223 AU
morning rise	9712 Nov 09 02:06	14°♏39'20	
	9712 Nov 10 14:27	15°♏	
	9713 Jan 27 07:24	0°♐	
retrograde	9713 Mar 15 13:57	3°♐23'53	
	9713 May 02 00:49	30°℞♏	
min. Earth dist.	9713 May 13 05:03	28°♏31'52	4.22743 AU
opposition	9713 May 14 13:18	28°♏21'02	0°56'11
direct	9713 Jul 13 08:25	23°♏21'14	
	9713 Sep 20 05:19	0°♐	
evening set	9713 Nov 16 13:42	11°♐35'03	
conjunction	9713 Nov 30 01:10	14°♐33'50	0°43'26
minimum elong	9713 Nov 30 01:09	14°♐33'49	0°43'47
max. Earth dist.	9713 Dec 01 17:16	14°♐56'01	6.31006 AU
morning rise	9713 Dec 13 11:37	17°♐31'52	
	9714 Feb 15 01:59	0°♑	
retrograde	9714 Apr 15 20:14	5°♑08'28	
opposition	9714 Jun 15 06:35	0°♑08'40	1°06'15
min. Earth dist.	9714 Jun 14 12:46	0°♑14'33	4.38197 AU
	9714 Jun 16 08:53	30°℞♐	
direct	9714 Aug 15 07:48	25°♐07'40	
	9714 Oct 13 13:32	0°♑	
evening set	9714 Dec 19 03:02	12°♑41'00	
conjunction	9715 Jan 01 09:24	15°♑32'32	0°44'01
minimum elong	9715 Jan 01 09:25	15°♑32'32	0°44'23
max. Earth dist.	9715 Jan 01 20:05	15°♑38'18	6.43997 AU
morning rise	9715 Jan 14 14:11	18°♑23'05	
	9715 Mar 15 21:14	0°♒	
retrograde	9715 May 15 20:10	5°♒14'27	
opposition	9715 Jul 15 13:53	0°♒17'55	0°57'35
min. Earth dist.	9715 Jul 15 16:28	0°♒17'05	4.47937 AU
	9715 Jul 17 21:10	30°℞♑	
direct	9715 Sep 15 17:05	25°♑16'24	
	9715 Nov 13 15:56	0°♒	
evening set	9716 Jan 19 01:44	12°♒28'18	
	9716 Jan 30 21:58	15°♒	
max. Earth dist.	9716 Jan 31 09:45	15°♒06'19	6.49816 AU
conjunction	9716 Feb 01 03:23	15°♒15'45	0°32'39
minimum elong	9716 Feb 01 03:24	15°♒15'45	0°32'56
morning rise	9716 Feb 14 02:53	18°♒02'09	
	9716 Apr 17 09:24	0°♓	
retrograde	9716 Jun 13 11:58	4°♓37'24	
	9716 Aug 11 07:33	30°℞♒	
opposition	9716 Aug 13 11:45	29°♒43'15	0°34'18
min. Earth dist.	9716 Aug 14 08:10	29°♒36'42	4.49586 AU
direct	9716 Oct 15 02:22	24°♒41'49	
	9716 Dec 17 00:57	0°♓	
evening set	9717 Feb 17 07:07	11°♓54'19	
max. Earth dist.	9717 Feb 28 12:18	14°♓19'17	6.47155 AU
conjunction	9717 Mar 02 04:49	14°♓41'11	0°12'50
minimum elong	9717 Mar 02 04:49	14°♓41'12	0°12'57
behind sun begin	9717 Mar 01 23:56	14°♓38'34	
behind sun end	9717 Mar 02 09:42	14°♓43'49	
morning rise	9717 Mar 15 00:26	17°♓27'13	
	9717 May 20 07:04	0°♈	
retrograde	9717 Jul 14 01:08	4°♈17'00	
	9717 Sep 08 08:17	30°℞♓	
opposition	9717 Sep 13 01:17	29°♓24'01	0°01'51
min. Earth dist.	9717 Sep 14 12:08	29°♓12'54	4.42778 AU
desc. node	9717 Oct 03 17:50	26°♓52'46	
direct	9717 Nov 14 14:02	24°♓23'15	
	9718 Jan 17 21:28	0°♈	
evening set	9718 Mar 19 19:03	11°♈58'29	
max. Earth dist.	9718 Mar 30 07:17	14°♈17'51	6.36611 AU
conjunction	9718 Apr 01 14:12	14°♈48'19	-0°10'55
minimum elong	9718 Apr 01 14:11	14°♈48'19	0°10'58
behind sun begin	9718 Apr 01 08:08	14°♈44'59	
behind sun end	9718 Apr 01 20:14	14°♈51'39	
morning rise	9718 Apr 14 08:09	17°♈37'46	
	9718 Jun 15 23:38	0°♉	
retrograde	9718 Aug 15 10:19	5°♉11'44	
opposition	9718 Oct 15 05:22	0°♉18'32	-0°32'41
min. Earth dist.	9718 Oct 16 20:54	0°♉05'51	4.29084 AU
	9718 Oct 17 15:07	30°℞♈	
direct	9718 Dec 16 00:13	25°♈19'03	
	9719 Feb 11 05:57	0°♉	
evening set	9719 Apr 20 12:33	13°♉36'13	
	9719 Apr 26 15:07	15°♉	
max. Earth dist.	9719 May 01 03:28	16°♉02'13	6.20767 AU
conjunction	9719 May 03 07:38	16°♉32'14	-0°32'22
minimum elong	9719 May 03 07:37	16°♉32'13	0°32'37
morning rise	9719 May 16 02:14	19°♉28'23	
	9719 Jul 04 10:23	0°♊	
retrograde	9719 Sep 19 08:08	8°♊10'18	
opposition	9719 Nov 18 17:39	3°♊15'50	-0°59'34
min. Earth dist.	9719 Nov 20 01:55	3°♊05'22	4.12173 AU
	9719 Dec 16 04:47	30°℞♉	
direct	9720 Jan 18 06:08	28°♉18'26	
	9720 Feb 20 01:44	0°♊	
evening set	9720 May 23 06:33	17°♊27'17	
max. Earth dist.	9720 Jun 03 17:40	20°♊10'54	6.04216 AU
conjunction	9720 Jun 05 04:19	20°♊31'34	-0°44'20
minimum elong	9720 Jun 05 04:19	20°♊31'34	0°44'41
morning rise	9720 Jun 18 03:16	23°♊36'44	
	9720 Jul 15 19:28	0°♋	
retrograde	9720 Oct 25 19:04	13°♋33'21	
opposition	9720 Dec 24 16:12	8°♋36'24	-1°07'10
min. Earth dist.	9720 Dec 25 04:16	8°♋32'24	3.97471 AU
direct	9721 Feb 21 19:03	3°♋41'00	
evening set	9721 Jun 28 07:58	23°♋33'46	
conjunction	9721 Jul 11 11:56	26°♋46'09	-0°40'25
minimum elong	9721 Jul 11 11:57	26°♋46'10	0°40'45
max. Earth dist.	9721 Jul 11 12:09	26°♋46'17	5.92808 AU
morning rise	9721 Jul 24 17:52	29°♋59'48	
	9721 Jul 24 18:11	0°♌	
	9721 Oct 02 10:21	15°♌	
retrograde	9721 Dec 03 15:45	20°♌46'20	
opposition	9722 Feb 01 02:29	15°♌46'05	-0°48'14
min. Earth dist.	9722 Jan 31 14:14	15°♌50'12	3.90691 AU
	9722 Feb 06 20:05	15°℞♌	
direct	9722 Mar 31 05:46	10°♌51'27	
	9722 May 21 00:19	15°♌	
	9722 Aug 01 00:38	0°♍	
evening set	9722 Aug 05 02:29	0°♍59'08	
conjunction	9722 Aug 18 13:19	4°♍15'34	-0°20'10
minimum elong	9722 Aug 18 13:20	4°♍15'34	0°20'21
max. Earth dist.	9722 Aug 20 01:29	4°♍37'36	5.91342 AU

morning rise	9722 Sep	01	02:37	7°♍33'12	
retrograde	9723 Jan	10	20:32	28°♍16'34	
min. Earth dist.	9723 Mar	09	20:56	23°♍24'26	3.94797 AU
opposition	9723 Mar	11	05:40	23°♍13'19	-0°09'12
direct	9723 May	08	04:56	18°♍17'29	
asc. node	9723 Jun	03	15:48	19°♍28'09	
	9723 Aug	07	19:02	0°♎	
evening set	9723 Sep	12	02:47	8°♎02'50	
conjunction	9723 Sep	25	17:43	11°♎16'47	0°08'02
minimum elong	9723 Sep	25	17:43	11°♎16'46	0°08'04
behind sun begin	9723 Sep	25	10:17	11°♎12'23	
behind sun end	9723 Sep	26	01:09	11°♎21'10	
max. Earth dist.	9723 Sep	28	02:44	11°♎50'38	6.00526 AU
morning rise	9723 Oct	09	10:28	14°♎31'19	
	9723 Dec	24	07:36	0°♏	
retrograde	9724 Feb	15	19:25	4°♏20'55	
	9724 Apr	10	02:36	30°℞♎	
min. Earth dist.	9724 Apr	13	20:19	29°♎29'41	4.07956 AU
opposition	9724 Apr	15	10:30	29°♎16'43	0°31'46
direct	9724 Jun	13	03:55	24°♎18'38	
	9724 Aug	14	00:25	0°♏	
evening set	9724 Oct	17	18:50	13°♏17'06	
	9724 Oct	25	07:20	15°♏	
conjunction	9724 Oct	31	09:30	16°♏23'34	0°32'04
minimum elong	9724 Oct	31	09:28	16°♏23'33	0°32'19
max. Earth dist.	9724 Nov	02	18:20	16°♏56'03	6.16377 AU
morning rise	9724 Nov	14	00:15	19°♏29'46	
	9725 Jan	02	20:35	0°♐	
retrograde	9725 Mar	20	01:27	8°♐04'47	
min. Earth dist.	9725 May	17	18:56	3°♐12'49	4.24901 AU
opposition	9725 May	19	02:15	3°♐02'20	0°58'47
	9725 Jun	12	14:53	30°℞♏	
direct	9725 Jul	18	01:02	28°♏02'23	
	9725 Aug	22	20:08	0°♐	
evening set	9725 Nov	21	05:55	16°♐10'15	
conjunction	9725 Dec	04	16:35	19°♐07'54	0°44'19
minimum elong	9725 Dec	04	16:34	19°♐07'54	0°44'41
max. Earth dist.	9725 Dec	06	04:12	19°♐27'33	6.33018 AU
morning rise	9725 Dec	18	02:26	22°♐04'50	
	9726 Jan	25	02:58	0°♑	
retrograde	9726 Apr	20	02:50	9°♑33'51	
opposition	9726 Jun	19	13:58	4°♑34'29	1°06'05
min. Earth dist.	9726 Jun	18	23:02	4°♑39'25	4.39954 AU
	9726 Aug	02	22:43	30°℞♐	
direct	9726 Aug	19	20:10	29°♐33'23	
	9726 Sep	05	20:18	0°♑	
evening set	9726 Dec	23	12:42	17°♑02'20	
conjunction	9727 Jan	05	18:32	19°♑53'05	0°43'05
minimum elong	9727 Jan	05	18:33	19°♑53'05	0°43'26
max. Earth dist.	9727 Jan	06	03:15	19°♑57'46	6.45405 AU
morning rise	9727 Jan	18	22:23	22°♑42'46	
	9727 Feb	23	14:18	0°♒	
retrograde	9727 May	19	21:46	9°♒29'32	
opposition	9727 Jul	19	18:06	4°♒33'22	0°55'07
min. Earth dist.	9727 Jul	19	21:54	4°♒32'08	4.48933 AU
	9727 Sep	02	08:53	30°℞♑	
direct	9727 Sep	19	23:13	29°♑31'52	
	9727 Oct	07	17:51	0°♒	
	9728 Jan	15	06:35	15°♒	
evening set	9728 Jan	23	07:06	16°♒41'27	
max. Earth dist.	9728 Feb	04	10:56	19°♒17'09	6.50339 AU
conjunction	9728 Feb	05	07:58	19°♒28'24	0°30'20
minimum elong	9728 Feb	05	07:59	19°♒28'25	0°30'36
morning rise	9728 Feb	18	06:48	22°♒14'22	
	9728 Mar	27	16:28	0°♓	
retrograde	9728 Jun	17	15:32	8°♓48'27	
opposition	9728 Aug	17	15:39	3°♓54'34	0°30'16
min. Earth dist.	9728 Aug	18	14:56	3°♓47'06	4.49601 AU
	9728 Sep	21	20:25	30°℞♒	
direct	9728 Oct	19	08:36	28°♒53'11	
	9728 Nov	15	23:56	0°♓	
evening set	9729 Feb	21	10:37	16°♓05'53	
max. Earth dist.	9729 Mar	04	11:54	18°♓28'59	6.46644 AU
conjunction	9729 Mar	06	07:46	18°♓52'43	0°09'45
minimum elong	9729 Mar	06	07:46	18°♓52'43	0°09'50
behind sun begin	9729 Mar	06	01:15	18°♓49'13	
behind sun end	9729 Mar	06	14:17	18°♓56'14	
morning rise	9729 Mar	19	03:01	21°♓38'47	
	9729 Apr	29	03:17	0°♈	
retrograde	9729 Jul	18	06:44	8°♈31'15	
desc. node	9729 Aug	16	16:46	7°♈12'48	
opposition	9729 Sep	17	07:26	3°♈38'15	-0°02'50
min. Earth dist.	9729 Sep	18	19:06	3°♈26'51	4.41759 AU
	9729 Oct	19	06:53	30°℞♓	
direct	9729 Nov	18	18:50	28°♓37'33	
	9729 Dec	19	08:56	0°♈	
evening set	9730 Mar	23	23:36	16°♈15'52	
max. Earth dist.	9730 Apr	03	12:01	18°♈35'46	6.35141 AU
conjunction	9730 Apr	05	18:38	19°♈06'10	-0°14'01
minimum elong	9730 Apr	05	18:37	19°♈06'10	0°14'07
behind sun begin	9730 Apr	05	14:36	19°♈03'56	
behind sun end	9730 Apr	05	22:39	19°♈08'23	
morning rise	9730 Apr	18	12:18	21°♈56'07	
	9730 May	26	17:09	0°♉	
retrograde	9730 Aug	19	22:15	9°♉36'41	
opposition	9730 Oct	19	16:55	4°♉43'24	-0°36'53
min. Earth dist.	9730 Oct	21	09:06	4°♉30'30	4.27230 AU
	9730 Dec	07	07:47	30°℞♈	
direct	9730 Dec	20	09:01	29°♈44'08	
	9731 Jan	02	10:05	0°♉	
	9731 Apr	11	02:46	15°♉	
evening set	9731 Apr	24	21:37	18°♉06'57	
max. Earth dist.	9731 May	05	11:46	20°♉33'17	6.18651 AU
conjunction	9731 May	07	16:40	21°♉03'51	-0°34'37
minimum elong	9731 May	07	16:39	21°♉03'51	0°34'54
morning rise	9731 May	20	11:46	24°♉01'04	
	9731 Jun	16	04:58	0°♊	
retrograde	9731 Sep	24	04:17	12°♊52'48	
opposition	9731 Nov	23	12:33	7°♊58'02	-1°01'53
min. Earth dist.	9731 Nov	24	19:06	7°♊48'05	4.09940 AU
direct	9732 Jan	22	20:47	3°♊00'50	
evening set	9732 May	27	22:48	22°♊16'54	
conjunction	9732 Jun	09	21:25	25°♊22'29	-0°44'47
minimum elong	9732 Jun	09	21:25	25°♊22'29	0°45'10
max. Earth dist.	9732 Jun	08	14:53	25°♊04'11	6.02074 AU
morning rise	9732 Jun	22	21:03	28°♊28'58	
	9732 Jun	29	06:32	0°♋	
retrograde	9732 Oct	31	00:38	18°♋35'37	
opposition	9732 Dec	29	18:25	13°♋38'20	-1°06'12
min. Earth dist.	9732 Dec	30	04:47	13°♋34'54	3.95633 AU
direct	9733 Feb	26	17:05	8°♋43'09	
evening set	9733 Jul	03	08:23	28°♋41'53	
	9733 Jul	08	16:36	0°♌	
conjunction	9733 Jul	16	13:20	1°♌55'25	-0°38'32

minimum elong	9733 Jul 16	13:21	1°♌55'25	0°38'52	
max. Earth dist.	9733 Jul 16	16:56	1°♌57'36	5.91452 AU	
morning rise	9733 Jul 29	20:36	5°♌10'18		
	9733 Sep 10	11:02	15°♌		
retrograde	9733 Dec 08	22:33	26°♌02'21		
opposition	9734 Feb 06	08:27	21°♌01'42	-0°43'49	
min. Earth dist.	9734 Feb 05	16:16	21°♌07'09	3.89995 AU	
direct	9734 Apr 05	08:14	16°♌07'03		
	9734 Jul 14	19:00	0°♍		
evening set	9734 Aug 10	08:18	6°♍16'33		
conjunction	9734 Aug 23	20:03	9°♍33'24	-0°16'32	
minimum elong	9734 Aug 23	20:04	9°♍33'25	0°16'41	
max. Earth dist.	9734 Aug 25	11:40	9°♍57'32	5.91378 AU	
morning rise	9734 Sep 06	10:16	12°♍51'26		
	9734 Nov 29	08:17	0°♎		
retrograde	9735 Jan 16	00:47	3°♎32'49		
	9735 Mar 05	02:55	30°℞♍		
min. Earth dist.	9735 Mar 14	23:38	28°♍40'53	3.95545 AU	
opposition	9735 Mar 16	09:49	28°♍29'15	-0°03'15	
asc. node	9735 Apr 15	02:51	24°♍54'05		
direct	9735 May 13	10:20	23°♍33'09		
	9735 Jul 17	12:44	0°♎		
evening set	9735 Sep 17	08:33	13°♎15'24		
conjunction	9735 Oct 01	00:01	16°♎28'53	0°11'49	
minimum elong	9735 Sep 30	24:00	16°♎28'52	0°11'54	
behind sun begin	9735 Sep 30	18:16	16°♎25'30		
behind sun end	9735 Oct 01	05:44	16°♎32'15		
max. Earth dist.	9735 Oct 03	12:28	17°♎04'39	6.01920 AU	
morning rise	9735 Oct 14	16:45	19°♎42'46		
	9735 Nov 30	10:29	0°♏		
retrograde	9736 Feb 20	16:50	9°♏24'16		
min. Earth dist.	9736 Apr 18	17:38	4°♏33'13	4.09827 AU	
opposition	9736 Apr 20	08:13	4°♏20'09	0°36'35	
	9736 May 29	15:53	30°℞♎		
direct	9736 Jun 18	04:43	29°♎21'47		
	9736 Jul 07	21:02	0°♏		
	9736 Oct 08	08:42	15°♏		
evening set	9736 Oct 22	19:32	18°♏14'08		
conjunction	9736 Nov 05	09:42	21°♏19'27	0°34'33	
minimum elong	9736 Nov 05	09:41	21°♏19'26	0°34'49	
max. Earth dist.	9736 Nov 07	16:34	21°♏50'39	6.18535 AU	
morning rise	9736 Nov 19	00:07	24°♏24'29		
	9736 Dec 14	11:33	0°♐		
retrograde	9737 Mar 24	13:44	12°♐49'45		
min. Earth dist.	9737 May 22	10:33	7°♐57'33	4.27131 AU	
opposition	9737 May 23	16:29	7°♐47'33	1°00'58	
direct	9737 Jul 22	20:00	2°♐47'18		
evening set	9737 Nov 25	22:45	20°♐48'42		
conjunction	9737 Dec 09	08:54	23°♐45'14	0°44'54	
minimum elong	9737 Dec 09	08:54	23°♐45'14	0°45'16	
max. Earth dist.	9737 Dec 10	18:49	24°♐03'51	6.35135 AU	
morning rise	9737 Dec 22	17:45	26°♐40'55		
	9738 Jan 07	04:42	0°♑		
retrograde	9738 Apr 24	09:08	14°♑01'57		
opposition	9738 Jun 23	22:10	9°♑03'01	1°05'29	
min. Earth dist.	9738 Jun 23	09:06	9°♑07'18	4.41770 AU	
direct	9738 Aug 24	08:20	4°♑01'47		
evening set	9738 Dec 27	22:59	21°♑26'03		
conjunction	9739 Jan 10	03:54	24°♑15'56	0°41'51	
minimum elong	9739 Jan 10	03:55	24°♑15'57	0°42'12	
max. Earth dist.	9739 Jan 10	07:13	24°♑17'43	6.46760 AU	
morning rise	9739 Jan 23	07:07	27°♑04'49		
	9739 Feb 06	03:41	0°♒		
retrograde	9739 May 24	02:27	13°♒47'17		
opposition	9739 Jul 23	23:12	8°♒51'27	0°52'15	
min. Earth dist.	9739 Jul 24	06:31	8°♒49'05	4.49735 AU	
direct	9739 Sep 24	07:50	3°♒49'50		
	9739 Dec 29	11:42	15°♒		
evening set	9740 Jan 27	13:09	20°♒57'48		
conjunction	9740 Feb 09	13:33	23°♒44'27	0°27'46	
minimum elong	9740 Feb 09	13:34	23°♒44'28	0°28'01	
max. Earth dist.	9740 Feb 08	13:32	23°♒31'37	6.50521 AU	
morning rise	9740 Feb 22	11:40	26°♒30'06		
	9740 Mar 10	04:41	0°♓		
retrograde	9740 Jun 21	19:16	13°♓04'17		
opposition	9740 Aug 21	21:08	8°♓10'33	0°25'55	
min. Earth dist.	9740 Aug 22	21:50	8°♓02'39	4.49152 AU	
direct	9740 Oct 23	13:39	3°♓09'12		
evening set	9741 Feb 25	16:04	20°♓23'37		
max. Earth dist.	9741 Mar 08	14:52	22°♓45'45	6.45585 AU	
conjunction	9741 Mar 10	12:46	23°♓10'40	0°06'28	
minimum elong	9741 Mar 10	12:46	23°♓10'40	0°06'33	
behind sun begin	9741 Mar 10	05:17	23°♓06'37		
behind sun end	9741 Mar 10	20:15	23°♓14'42		
morning rise	9741 Mar 23	07:38	25°♓57'00		
	9741 Apr 11	09:55	0°♈		
desc. node	9741 Jun 26	14:10	11°♈51'46		
retrograde	9741 Jul 22	17:20	12°♈54'06		
opposition	9741 Sep 21	17:14	8°♈01'08	-0°07'46	
min. Earth dist.	9741 Sep 23	07:13	7°♈49'00	4.40130 AU	
direct	9741 Nov 23	04:06	3°♈00'32		
evening set	9742 Mar 28	08:10	20°♈43'51		
max. Earth dist.	9742 Apr 07	18:09	23°♈03'06	6.33052 AU	
conjunction	9742 Apr 10	03:00	23°♈34'53	-0°17'15	
minimum elong	9742 Apr 10	02:59	23°♈34'53	0°17'23	
morning rise	9742 Apr 22	20:47	26°♈25'40		
	9742 May 09	03:22	0°♉		
retrograde	9742 Aug 24	15:44	14°♉15'03		
opposition	9742 Oct 24	09:48	9°♉21'34	-0°41'12	
min. Earth dist.	9742 Oct 26	01:04	9°♉08'56	4.24809 AU	
direct	9742 Dec 24	21:37	4°♉22'28		
	9743 Mar 24	15:51	15°♉		
evening set	9743 Apr 29	12:35	22°♉52'51		
max. Earth dist.	9743 May 10	06:01	25°♉21'51	6.16101 AU	
conjunction	9743 May 12	08:04	25°♉50'57	-0°36'50	
minimum elong	9743 May 12	08:03	25°♉50'56	0°37'08	
morning rise	9743 May 25	03:28	28°♉49'24		
	9743 May 30	06:02	0°♊		
retrograde	9743 Sep 29	09:36	17°♊52'24		
opposition	9743 Nov 28	14:35	12°♊57'24	-1°03'57	
min. Earth dist.	9743 Nov 29	19:56	12°♊47'49	4.07465 AU	
direct	9744 Jan 27	18:18	8°♊00'29		
evening set	9744 Jun 01	22:17	27°♊24'20		
	9744 Jun 12	17:42	0°♋		
conjunction	9744 Jun 14	21:36	0°♋31'15	-0°44'57	
minimum elong	9744 Jun 14	21:36	0°♋31'15	0°45'20	
max. Earth dist.	9744 Jun 13	17:50	0°♋14'32	5.99903 AU	
morning rise	9744 Jun 27	22:22	3°♋39'11		
retrograde	9744 Nov 05	10:36	23°♋55'35		
opposition	9745 Jan 04	03:49	18°♋57'52	-1°04'36	
min. Earth dist.	9745 Jan 04	09:38	18°♋55'56	3.94014 AU	
direct	9745 Mar 03	20:59	14°♋02'53		
	9745 Jun 21	13:12	0°♌		
evening set	9745 Jul 08	15:44	4°♌06'19		

conjunction	9745 Jul 21	21:45	7°♌20'47	-0°36'12	
minimum elong	9745 Jul 21	21:46	7°♌20'48	0°36'31	
max. Earth dist.	9745 Jul 22	07:09	7°♌26'33	5.90571 AU	
morning rise	9745 Aug 04	06:05	10°♌36'36		
	9745 Aug 22	13:56	15°♌		
	9745 Nov 13	17:51	0°♍		
retrograde	9745 Dec 14	11:12	1°♍31'33		
	9746 Jan 14	02:07	30°℞♌		
opposition	9746 Feb 11	19:45	26°♌30'25	-0°38'44	
min. Earth dist.	9746 Feb 11	00:39	26°♌36'52	3.89976 AU	
direct	9746 Apr 10	19:09	21°♌35'41		
	9746 Jun 24	15:59	0°♍		
evening set	9746 Aug 15	18:49	11°♍43'54		
conjunction	9746 Aug 29	07:30	15°♍00'45	-0°12'36	
minimum elong	9746 Aug 29	07:30	15°♍00'45	0°12'43	
behind sun begin	9746 Aug 29	02:16	14°♍57'35		
behind sun end	9746 Aug 29	12:44	15°♍03'54		
max. Earth dist.	9746 Aug 31	05:05	15°♍28'25	5.92246 AU	
morning rise	9746 Sep 11	22:17	18°♍18'37		
	9746 Nov 03	04:07	0°♎		
retrograde	9747 Jan 21	06:49	8°♎53'48		
asc. node	9747 Feb 22	22:03	7°♎09'32		
min. Earth dist.	9747 Mar 20	03:50	4°♎02'16	3.97208 AU	
opposition	9747 Mar 21	15:54	3°♎50'00	0°02'55	
	9747 Apr 23	04:19	30°℞♍		
direct	9747 May 18	17:35	28°♍53'39		
	9747 Jun 13	10:03	0°♎		
evening set	9747 Sep 22	15:37	18°♎29'15		
conjunction	9747 Oct 06	06:59	21°♎41'39	0°15'36	
minimum elong	9747 Oct 06	06:58	21°♎41'39	0°15'44	
behind sun begin	9747 Oct 06	05:53	21°♎41'01		
behind sun end	9747 Oct 06	08:02	21°♎42'16		
max. Earth dist.	9747 Oct 08	19:36	22°♎17'18	6.04184 AU	
morning rise	9747 Oct 19	23:47	24°♎54'25		
	9747 Nov 11	07:40	0°♏		
retrograde	9748 Feb 25	10:58	14°♏24'35		
min. Earth dist.	9748 Apr 23	14:20	9°♏33'38	4.12441 AU	
opposition	9748 Apr 25	05:01	9°♏20'33	0°41'08	
direct	9748 Jun 23	05:40	4°♏21'51		
	9748 Sep 20	06:06	15°♏		
evening set	9748 Oct 27	18:19	23°♏05'42		
conjunction	9748 Nov 10	08:04	26°♏09'36	0°36'48	
minimum elong	9748 Nov 10	08:03	26°♏09'36	0°37'06	
max. Earth dist.	9748 Nov 12	13:14	26°♏39'40	6.21271 AU	
morning rise	9748 Nov 23	21:36	29°♏13'05		
	9748 Nov 27	09:36	0°♐		
retrograde	9749 Mar 29	00:33	17°♐27'10		
min. Earth dist.	9749 May 27	00:43	12°♐34'36	4.29735 AU	
opposition	9749 May 28	04:16	12°♐25'26	1°02'43	
direct	9749 Jul 27	13:10	7°♐25'00		
evening set	9749 Nov 30	12:54	25°♐19'12		
conjunction	9749 Dec 13	22:11	28°♐14'30	0°45'12	
minimum elong	9749 Dec 13	22:11	28°♐14'29	0°45'34	
max. Earth dist.	9749 Dec 15	03:15	28°♐30'23	6.37393 AU	
	9749 Dec 21	23:27	0°♑		
morning rise	9749 Dec 27	06:18	1°♑08'56		
retrograde	9750 Apr 28	12:59	18°♑22'09		
opposition	9750 Jun 28	03:33	13°♑23'41	1°04'32	
min. Earth dist.	9750 Jun 27	17:26	13°♑27'00	4.43542 AU	
direct	9750 Aug 28	17:21	8°♑22'20		
evening set	9751 Jan 01	06:20	25°♑42'32		
conjunction	9751 Jan 14	10:42	28°♑31'43	0°40'26	
minimum elong	9751 Jan 14	10:43	28°♑31'44	0°40'47	
max. Earth dist.	9751 Jan 14	10:39	28°♑31'41	6.47923 AU	
	9751 Jan 21	07:22	0°♒		
morning rise	9751 Jan 27	12:57	1°♒19'51		
	9751 Apr 13	01:56	15°♒		
retrograde	9751 May 28	04:10	17°♒59'05		
	9751 Jul 12	14:59	15°℞♒		
opposition	9751 Jul 28	02:17	13°♒03'41	0°49'12	
min. Earth dist.	9751 Jul 28	12:11	13°♒00'30	4.50228 AU	
direct	9751 Sep 28	12:31	8°♒02'08		
	9751 Dec 10	18:53	15°♒		
evening set	9752 Jan 31	17:29	25°♒09'40		
max. Earth dist.	9752 Feb 12	11:56	27°♒40'30	6.50295 AU	
conjunction	9752 Feb 13	17:09	27°♒56'09	0°25'06	
minimum elong	9752 Feb 13	17:10	27°♒56'10	0°25'19	
	9752 Feb 23	08:33	0°♓		
morning rise	9752 Feb 26	14:52	0°♓41'43		
retrograde	9752 Jun 26	01:13	17°♓17'38		
opposition	9752 Aug 26	02:01	12°♓24'08	0°21'30	
min. Earth dist.	9752 Aug 27	06:11	12°♓15'08	4.48225 AU	
direct	9752 Oct 27	19:21	7°♓22'49		
evening set	9753 Mar 01	21:09	24°♓40'42		
max. Earth dist.	9753 Mar 12	17:05	27°♓01'47	6.44014 AU	
conjunction	9753 Mar 14	17:37	27°♓28'14	0°03'10	
minimum elong	9753 Mar 14	17:38	27°♓28'14	0°03'14	
behind sun begin	9753 Mar 14	09:42	27°♓23'56		
behind sun end	9753 Mar 15	01:34	27°♓32'32		
	9753 Mar 26	08:25	0°♈		
morning rise	9753 Mar 27	12:12	0°♈15'04		
desc. node	9753 May 06	04:11	8°♈24'46		
retrograde	9753 Jul 27	03:30	17°♈18'39		
opposition	9753 Sep 26	03:29	12°♈25'43	-0°12'40	
min. Earth dist.	9753 Sep 27	17:42	12°♈13'31	4.38018 AU	
direct	9753 Nov 27	10:39	7°♈25'18		
evening set	9754 Apr 01	17:54	25°♈15'26		
max. Earth dist.	9754 Apr 12	04:23	27°♈35'45	6.30549 AU	
conjunction	9754 Apr 14	12:43	28°♈07'26	-0°20'24	
minimum elong	9754 Apr 14	12:42	28°♈07'25	0°20'34	
	9754 Apr 22	20:49	0°♉		
morning rise	9754 Apr 27	06:33	0°♉59'16		
	9754 Jul 08	08:57	15°♉		
retrograde	9754 Aug 29	14:02	18°♉59'06		
	9754 Oct 22	02:59	15°℞♉		
opposition	9754 Oct 29	05:06	14°♉05'34	-0°45'19	
min. Earth dist.	9754 Oct 30	20:35	13°♉52'50	4.22082 AU	
direct	9754 Dec 29	13:18	9°♉06'47		
	9755 Mar 03	17:10	15°♉		
evening set	9755 May 04	05:55	27°♉45'46		
	9755 May 13	20:27	0°♊		
max. Earth dist.	9755 May 15	00:59	0°♊16'40	6.13382 AU	
conjunction	9755 May 17	01:45	0°♊45'11	-0°38'49	
minimum elong	9755 May 17	01:44	0°♊45'10	0°39'08	
morning rise	9755 May 29	21:51	3°♊45'05		
retrograde	9755 Oct 04	15:28	23°♊00'03		
opposition	9755 Dec 03	19:24	18°♊04'43	-1°05'34	
min. Earth dist.	9755 Dec 04	20:50	17°♊56'23	4.05013 AU	
direct	9756 Feb 01	16:36	13°♊08'10		
	9756 May 26	19:59	0°♋		
evening set	9756 Jun 07	00:40	2°♋39'37		
max. Earth dist.	9756 Jun 19	02:54	5°♋34'33	5.97963 AU	
conjunction	9756 Jun 20	00:49	5°♋47'48	-0°44'45	
minimum elong	9756 Jun 20	00:49	5°♋47'48	0°45'07	

morning rise	9756 Jul	03	02:30	8°♋57'05	
retrograde	9756 Nov	11	00:06	29°♋21'57	
opposition	9757 Jan	09	15:12	24°♋23'43	-1°02'23
min. Earth dist.	9757 Jan	09	17:44	24°♋22'53	3.92808 AU
direct	9757 Mar	09	05:58	19°♋28'53	
	9757 Jun	02	14:50	0°♌	
evening set	9757 Jul	14	00:35	9°♌35'03	
conjunction	9757 Jul	27	07:43	12°♌50'12	-0°33'32
minimum elong	9757 Jul	27	07:44	12°♌50'13	0°33'50
max. Earth dist.	9757 Jul	28	00:01	13°♌00'11	5.90224 AU
	9757 Aug	05	03:44	15°♌	
morning rise	9757 Aug	09	17:04	16°♌06'39	
	9757 Oct	11	18:04	0°♍	
retrograde	9757 Dec	19	22:41	7°♍01'34	
min. Earth dist.	9758 Feb	16	08:13	2°♍07'32	3.90545 AU
opposition	9758 Feb	17	06:43	1°♍59'55	-0°33'18
	9758 Mar	04	12:25	30°℞♌	
direct	9758 Apr	16	04:39	27°♌05'03	
	9758 May	28	08:04	0°♍	
evening set	9758 Aug	21	04:36	17°♍09'38	
conjunction	9758 Sep	03	17:42	20°♍26'02	-0°08'34
minimum elong	9758 Sep	03	17:43	20°♍26'03	0°08'40
behind sun begin	9758 Sep	03	10:28	20°♍21'41	
behind sun end	9758 Sep	04	00:58	20°♍30'24	
max. Earth dist.	9758 Sep	05	17:42	20°♍55'04	5.93625 AU
morning rise	9758 Sep	17	09:12	23°♍43'29	
	9758 Oct	14	06:37	0°♎	
asc. node	9759 Jan	02	13:42	13°♎14'37	
retrograde	9759 Jan	26	08:16	14°♎10'26	
min. Earth dist.	9759 Mar	25	05:51	9°♎19'15	3.99220 AU
opposition	9759 Mar	26	19:41	9°♎06'23	0°08'57
direct	9759 May	23	23:59	4°♎09'39	
evening set	9759 Sep	27	20:15	23°♎37'39	
conjunction	9759 Oct	11	11:39	26°♎48'54	0°19'13
minimum elong	9759 Oct	11	11:38	26°♎48'53	0°19'21
max. Earth dist.	9759 Oct	14	00:31	27°♎24'29	6.06631 AU
morning rise	9759 Oct	25	04:04	0°♏00'20	
	9759 Oct	25	03:30	0°♏	
	9760 Jan	07	16:17	15°♏	
retrograde	9760 Mar	01	04:44	19°♏18'58	
	9760 Apr	24	09:56	15°℞♏	
min. Earth dist.	9760 Apr	28	10:20	14°♏27'36	4.15052 AU
opposition	9760 Apr	29	23:15	14°♏15'09	0°45'19
direct	9760 Jun	28	05:10	9°♏16'08	
	9760 Aug	29	22:24	15°♏	
evening set	9760 Nov	01	14:47	27°♏51'53	
	9760 Nov	11	03:07	0°♐	
conjunction	9760 Nov	15	03:59	0°♐54'27	0°38'47
minimum elong	9760 Nov	15	03:58	0°♐54'27	0°39'07
max. Earth dist.	9760 Nov	17	06:35	1°♐22'54	6.23821 AU
morning rise	9760 Nov	28	16:53	3°♐56'32	
retrograde	9761 Apr	02	07:58	22°♐00'29	
opposition	9761 Jun	01	14:13	16°♐59'08	1°04'07
min. Earth dist.	9761 May	31	12:17	17°♐07'45	4.32034 AU
direct	9761 Aug	01	02:28	11°♐58'31	
evening set	9761 Dec	05	01:25	29°♐46'40	
	9761 Dec	06	02:03	0°♑	
conjunction	9761 Dec	18	10:02	2°♑40'55	0°45'15
minimum elong	9761 Dec	18	10:02	2°♑40'55	0°45'38
max. Earth dist.	9761 Dec	19	10:49	2°♑54'25	6.39282 AU
morning rise	9761 Dec	31	17:15	5°♑34'16	
retrograde	9762 May	02	17:47	22°♑41'07	
opposition	9762 Jul	02	08:47	17°♑43'08	1°03'16
min. Earth dist.	9762 Jul	02	02:03	17°♑45'19	4.44901 AU
direct	9762 Sep	02	02:32	12°♑41'43	
evening set	9763 Jan	05	13:38	29°♑58'59	
	9763 Jan	05	15:32	0°♒	
conjunction	9763 Jan	18	17:14	2°♒47'37	0°38'49
minimum elong	9763 Jan	18	17:15	2°♒47'38	0°39'09
max. Earth dist.	9763 Jan	18	11:42	2°♒44'39	6.48655 AU
morning rise	9763 Jan	31	18:56	5°♒35'14	
	9763 Mar	20	07:43	15°♒	
retrograde	9763 Jun	01	07:59	22°♒12'35	
opposition	9763 Aug	01	06:19	17°♒17'29	0°45'53
min. Earth dist.	9763 Aug	01	19:14	17°♒13'20	4.50313 AU
	9763 Aug	19	18:37	15°℞♒	
direct	9763 Oct	02	17:47	12°♒15'53	
	9763 Nov	15	20:58	15°♒	
evening set	9764 Feb	04	22:46	29°♒24'04	
	9764 Feb	07	18:13	0°♓	
conjunction	9764 Feb	17	22:06	2°♓10'36	0°22'17
minimum elong	9764 Feb	17	22:07	2°♓10'37	0°22'29
max. Earth dist.	9764 Feb	16	14:47	1°♓53'48	6.49733 AU
morning rise	9764 Mar	01	19:09	4°♓56'11	
retrograde	9764 Jun	30	07:16	21°♓34'45	
opposition	9764 Aug	30	08:45	16°♓41'26	0°16'52
min. Earth dist.	9764 Aug	31	14:16	16°♓32'00	4.47054 AU
direct	9764 Nov	01	00:39	11°♓40'16	
evening set	9765 Mar	06	04:05	29°♓02'05	
	9765 Mar	10	14:39	0°♈	
desc. node	9765 Mar	14	07:49	0°♈48'40	
max. Earth dist.	9765 Mar	16	21:12	1°♈22'14	6.42311 AU
conjunction	9765 Mar	19	00:07	1°♈50'06	-0°00'17
minimum elong	9765 Mar	19	00:06	1°♈50'06	0°00'16
behind sun begin	9765 Mar	18	16:10	1°♈45'47	
behind sun end	9765 Mar	19	08:02	1°♈54'25	
morning rise	9765 Mar	31	18:35	4°♈37'32	
retrograde	9765 Jul	31	18:57	21°♈48'07	
opposition	9765 Sep	30	16:40	16°♈55'14	-0°17'38
min. Earth dist.	9765 Oct	02	08:17	16°♈42'33	4.35883 AU
direct	9765 Dec	01	21:57	11°♈55'02	
evening set	9766 Apr	06	05:40	29°♈51'45	
	9766 Apr	06	20:23	0°♉	
max. Earth dist.	9766 Apr	16	16:25	2°♉12'59	6.28164 AU
conjunction	9766 Apr	19	00:32	2°♉44'43	-0°23'31
minimum elong	9766 Apr	19	00:31	2°♉44'42	0°23'42
morning rise	9766 May	01	18:30	5°♉37'34	
	9766 Jun	14	23:20	15°♉	
retrograde	9766 Sep	03	12:03	23°♉47'27	
opposition	9766 Nov	03	02:30	18°♉53'46	-0°49'14
min. Earth dist.	9766 Nov	04	15:29	18°♉41'49	4.19648 AU
	9766 Dec	07	21:16	15°℞♉	
direct	9767 Jan	03	04:48	13°♉55'24	
	9767 Jan	29	12:16	15°♉	
	9767 Apr	27	08:14	0°♊	
evening set	9767 May	09	00:59	2°♊41'48	
max. Earth dist.	9767 May	20	00:21	5°♊16'01	6.11125 AU
conjunction	9767 May	21	21:09	5°♊42'21	-0°40'35
minimum elong	9767 May	21	21:08	5°♊42'20	0°40'56
morning rise	9767 Jun	03	17:46	8°♊43'27	
retrograde	9767 Oct	09	23:19	28°♊08'35	
opposition	9767 Dec	09	01:05	23°♊12'55	-1°06'44
min. Earth dist.	9767 Dec	09	23:56	23°♊05'25	4.03146 AU
direct	9768 Feb	06	18:39	18°♊16'44	

	9768 May 08 23:06	0°♋		
evening set	9768 Jun 12 02:42	7°♋53'20		
max. Earth dist.	9768 Jun 24 11:26	10°♋52'39	5.96682 AU	
conjunction	9768 Jun 25 03:43	11°♋02'31	-0°44'14	
minimum elong	9768 Jun 25 03:43	11°♋02'31	0°44'36	
morning rise	9768 Jul 08 06:18	14°♋12'48		
	9768 Sep 21 11:59	0°♌		
retrograde	9768 Nov 16 10:51	4°♌43'11		
	9769 Jan 13 02:20	30°℞♋		
opposition	9769 Jan 15 00:43	29°♋44'32	-0°59'43	
min. Earth dist.	9769 Jan 14 23:05	29°♋45'05	3.92287 AU	
direct	9769 Mar 14 11:55	24°♋49'53		
	9769 May 10 20:51	0°♌		
evening set	9769 Jul 19 06:59	14°♌56'12		
	9769 Jul 19 13:14	15°♌		
conjunction	9769 Aug 01 14:46	18°♌11'36	-0°30'42	
minimum elong	9769 Aug 01 14:47	18°♌11'36	0°30'57	
max. Earth dist.	9769 Aug 02 10:55	18°♌23'55	5.90495 AU	
morning rise	9769 Aug 15 01:09	21°♌28'21		
	9769 Sep 20 15:21	0°♍		
retrograde	9769 Dec 25 03:28	12°♍20'47		
min. Earth dist.	9770 Feb 21 11:33	7°♍27'23	3.91586 AU	
opposition	9770 Feb 22 13:10	7°♍18'42	-0°27'48	
direct	9770 Apr 21 10:55	2°♍23'39		
evening set	9770 Aug 26 09:51	22°♍23'16		
conjunction	9770 Sep 08 23:33	25°♍39'06	-0°04'40	
minimum elong	9770 Sep 08 23:34	25°♍39'06	0°04'43	
behind sun begin	9770 Sep 08 15:23	25°♍34'12		
behind sun end	9770 Sep 09 07:44	25°♍44'00		
max. Earth dist.	9770 Sep 11 02:51	26°♍10'00	5.95325 AU	
morning rise	9770 Sep 22 15:14	28°♍55'48		
	9770 Sep 27 03:12	0°♎		
asc. node	9770 Nov 13 11:07	10°♎25'47		
retrograde	9771 Jan 31 06:55	19°♎13'45		
min. Earth dist.	9771 Mar 30 04:52	14°♎22'20	4.01369 AU	
opposition	9771 Mar 31 18:10	14°♎09'39	0°14'38	
direct	9771 May 29 02:21	9°♎12'38		
evening set	9771 Oct 02 19:40	28°♎33'06		
	9771 Oct 09 01:28	0°♏		
conjunction	9771 Oct 16 10:56	1°♏43'11	0°22'32	
minimum elong	9771 Oct 16 10:55	1°♏43'11	0°22'42	
max. Earth dist.	9771 Oct 18 23:23	2°♏18'19	6.09008 AU	
morning rise	9771 Oct 30 03:06	4°♏53'24		
	9771 Dec 15 21:59	15°♏		
retrograde	9772 Mar 05 15:57	24°♏01'24		
min. Earth dist.	9772 May 03 00:13	19°♏10'09	4.17441 AU	
opposition	9772 May 04 12:36	18°♏57'53	0°49'02	
	9772 Jun 07 20:47	15°℞♏		
direct	9772 Jul 02 21:07	13°♏58'40		
	9772 Jul 28 04:57	15°♏		
	9772 Oct 26 03:14	0°♐		
evening set	9772 Nov 06 06:42	2°♐27'36		
conjunction	9772 Nov 19 19:18	5°♐29'00	0°40'28	
minimum elong	9772 Nov 19 19:17	5°♐28'59	0°40'48	
max. Earth dist.	9772 Nov 21 17:22	5°♐54'47	6.26029 AU	
morning rise	9772 Dec 03 07:32	8°♐29'50		
retrograde	9773 Apr 06 14:34	26°♐25'27		
opposition	9773 Jun 05 20:53	21°♐24'36	1°05'07	
min. Earth dist.	9773 Jun 04 22:28	21°♐32'03	4.33902 AU	
direct	9773 Aug 05 14:01	16°♐23'52		
	9773 Nov 19 23:50	0°♑		
evening set	9773 Dec 09 10:57	4°♑07'38		
conjunction	9773 Dec 22 18:59	7°♑01'06	0°45'05	
minimum elong	9773 Dec 22 18:59	7°♑01'06	0°45'28	
max. Earth dist.	9773 Dec 23 16:00	7°♑12'30	6.40686 AU	
morning rise	9774 Jan 05 01:28	9°♑53'37		
retrograde	9774 May 06 19:16	26°♑55'50		
opposition	9774 Jul 06 11:53	21°♑58'18	1°01'46	
min. Earth dist.	9774 Jul 06 07:15	21°♑59'48	4.45792 AU	
direct	9774 Sep 06 07:07	16°♑56'51		
	9774 Dec 20 14:12	0°♒		
evening set	9775 Jan 09 19:17	4°♒12'44		
conjunction	9775 Jan 22 22:21	7°♒01'02	0°37'02	
minimum elong	9775 Jan 22 22:21	7°♒01'02	0°37'21	
max. Earth dist.	9775 Jan 22 13:36	6°♒56'21	6.48989 AU	
morning rise	9775 Feb 04 23:19	9°♒48'17		
	9775 Mar 02 01:27	15°♒		
retrograde	9775 Jun 05 11:37	26°♒25'00		
opposition	9775 Aug 05 09:47	21°♒30'15	0°42'26	
min. Earth dist.	9775 Aug 06 01:21	21°♒25'15	4.50090 AU	
direct	9775 Oct 06 22:53	16°♒28'43		
	9776 Jan 22 18:51	0°♓		
evening set	9776 Feb 09 03:25	3°♓38'16		
max. Earth dist.	9776 Feb 20 14:44	6°♓05'51	6.48962 AU	
conjunction	9776 Feb 22 02:08	6°♓24'53	0°19'23	
minimum elong	9776 Feb 22 02:09	6°♓24'54	0°19'34	
morning rise	9776 Mar 05 22:55	9°♓10'37		
retrograde	9776 Jul 04 15:09	25°♓52'25		
opposition	9776 Sep 03 15:32	20°♓59'11	0°12'12	
min. Earth dist.	9776 Sep 04 22:46	20°♓49'11	4.45794 AU	
direct	9776 Nov 05 06:43	15°♓58'03		
desc. node	9777 Jan 21 11:24	23°♓42'30		
	9777 Feb 22 14:15	0°♈		
evening set	9777 Mar 10 10:34	3°♈23'48		
max. Earth dist.	9777 Mar 21 03:26	5°♈44'19	6.40646 AU	
conjunction	9777 Mar 23 06:29	6°♈12'21	-0°03'41	
minimum elong	9777 Mar 23 06:28	6°♈12'21	0°03'42	
behind sun begin	9777 Mar 22 22:34	6°♈08'02		
behind sun end	9777 Mar 23 14:22	6°♈16'40		
morning rise	9777 Apr 05 00:35	9°♈00'19		
retrograde	9777 Aug 05 07:18	26°♈17'28		
opposition	9777 Oct 05 05:09	21°♈24'28	-0°22'28	
min. Earth dist.	9777 Oct 06 20:17	21°♈11'57	4.33912 AU	
direct	9777 Dec 06 06:33	16°♈24'29		
	9778 Mar 21 12:16	0°♉		
evening set	9778 Apr 10 16:42	4°♉26'59		
max. Earth dist.	9778 Apr 21 03:53	6°♉49'11	6.26007 AU	
conjunction	9778 Apr 23 11:26	7°♉20'46	-0°26'26	
minimum elong	9778 Apr 23 11:25	7°♉20'45	0°26'38	
morning rise	9778 May 06 05:38	10°♉14'33		
	9778 May 27 16:31	15°♉		
retrograde	9778 Sep 08 10:35	28°♉33'38		
opposition	9778 Nov 07 22:51	23°♉39'39	-0°52'46	
min. Earth dist.	9778 Nov 09 11:06	23°♉27'55	4.17425 AU	
direct	9779 Jan 07 22:04	18°♉41'28		
	9779 Apr 10 00:20	0°♊		
evening set	9779 May 13 18:14	7°♊34'24		
max. Earth dist.	9779 May 24 21:20	10°♊11'30	6.09018 AU	
conjunction	9779 May 26 14:56	10°♊36'03	-0°42'01	
minimum elong	9779 May 26 14:56	10°♊36'03	0°42'23	
morning rise	9779 Jun 08 12:06	13°♊38'20		
	9779 Aug 30 04:42	0°♋		
retrograde	9779 Oct 15 03:55	3°♋12'56		
	9779 Nov 30 19:39	30°℞♊		

opposition	9779 Dec 14	04:37	28°♊16'54	-1°07'20
min. Earth dist.	9779 Dec 15	00:20	28°♊10'25	4.01351 AU
direct	9780 Feb 11	17:06	23°♊20'59	
	9780 Apr 18	10:16	0°♋	
evening set	9780 Jun 17	03:18	13°♋02'44	
conjunction	9780 Jun 30	05:00	16°♋12'53	-0°43'21
minimum elong	9780 Jun 30	05:01	16°♋12'53	0°43'44
max. Earth dist.	9780 Jun 29	16:17	16°♋05'09	5.95359 AU
morning rise	9780 Jul 13	08:42	19°♋24'16	
	9780 Aug 28	23:27	0°♌	
retrograde	9780 Nov 21	18:26	10°♌00'23	
opposition	9781 Jan 20	08:05	5°♌01'12	-0°56'33
min. Earth dist.	9781 Jan 20	02:49	5°♌02'58	3.91587 AU
direct	9781 Mar 19	16:38	0°♌06'31	
	9781 Jul 02	13:30	15°♌	
evening set	9781 Jul 24	12:22	20°♌14'07	
conjunction	9781 Aug 06	21:17	23°♌29'59	-0°27'35
minimum elong	9781 Aug 06	21:18	23°♌30'00	0°27'50
max. Earth dist.	9781 Aug 07	23:21	23°♌45'56	5.90506 AU
morning rise	9781 Aug 20	08:29	26°♌47'08	
	9781 Sep 02	17:51	0°♍	
retrograde	9781 Dec 30	10:31	17°♍38'07	
opposition	9782 Feb 27	18:56	12°♍35'39	-0°22'05
min. Earth dist.	9782 Feb 26	15:56	12°♍44'48	3.92303 AU
direct	9782 Apr 26	17:36	7°♍40'23	
evening set	9782 Aug 31	15:26	27°♍36'29	
	9782 Sep 10	15:05	0°♎	
conjunction	9782 Sep 14	05:38	0°♎51'55	-0°00'39
minimum elong	9782 Sep 14	05:37	0°♎51'55	0°00'39
behind sun begin	9782 Sep 13	21:14	0°♎46'55	
behind sun end	9782 Sep 14	14:00	0°♎56'55	
max. Earth dist.	9782 Sep 16	11:31	1°♎24'14	5.96656 AU
asc. node	9782 Sep 23	01:13	2°♎58'39	
morning rise	9782 Sep 27	21:48	4°♎08'09	
retrograde	9783 Feb 05	04:38	24°♎18'24	
min. Earth dist.	9783 Apr 04	02:34	19°♎27'23	4.03167 AU
opposition	9783 Apr 05	17:14	19°♎14'15	0°20'15
direct	9783 Jun 03	02:49	14°♎16'55	
	9783 Sep 22	09:39	0°♏	
evening set	9783 Oct 07	20:52	3°♏31'17	
conjunction	9783 Oct 21	11:57	6°♏40'21	0°25'44
minimum elong	9783 Oct 21	11:55	6°♏40'20	0°25'56
max. Earth dist.	9783 Oct 23	22:21	7°♏14'09	6.11098 AU
morning rise	9783 Nov 04	03:52	9°♏49'28	
	9783 Nov 27	06:10	15°♏	
retrograde	9784 Mar 10	06:36	28°♏47'49	
min. Earth dist.	9784 May 07	17:37	23°♏56'07	4.19614 AU
opposition	9784 May 09	03:52	23°♏44'35	0°52'28
direct	9784 Jul 07	17:20	18°♏45'07	
	9784 Oct 08	16:40	0°♐	
evening set	9784 Nov 11	00:57	7°♐07'54	
conjunction	9784 Nov 24	13:12	10°♐08'13	0°41'56
minimum elong	9784 Nov 24	13:11	10°♐08'13	0°42'16
max. Earth dist.	9784 Nov 26	09:52	10°♐33'06	6.28134 AU
morning rise	9784 Dec 08	00:38	13°♐07'53	
	9785 Mar 17	17:51	0°♑	
retrograde	9785 Apr 10	21:14	0°♑55'14	
	9785 May 04	21:50	30°℞♐	
min. Earth dist.	9785 Jun 09	08:28	26°♐01'57	4.35804 AU
opposition	9785 Jun 10	05:47	25°♐54'54	1°05'46
direct	9785 Aug 10	01:40	20°♐54'07	
	9785 Nov 01	23:53	0°♑	
evening set	9785 Dec 13	22:41	8°♑33'10	
conjunction	9785 Dec 27	05:56	11°♑25'43	0°44'39
minimum elong	9785 Dec 27	05:56	11°♑25'43	0°45'02
max. Earth dist.	9785 Dec 27	22:33	11°♑34'43	6.42279 AU
morning rise	9786 Jan 09	11:42	14°♑17'20	
	9786 Apr 12	14:36	0°♒	
retrograde	9786 May 11	00:30	1°♒14'13	
	9786 Jun 08	05:56	30°℞♑	
opposition	9786 Jul 10	17:15	26°♑17'09	0°59'55
min. Earth dist.	9786 Jul 10	15:45	26°♑17'39	4.47002 AU
direct	9786 Sep 10	16:53	21°♑15'45	
	9786 Dec 02	18:21	0°♒	
evening set	9787 Jan 14	02:04	8°♒28'52	
conjunction	9787 Jan 27	04:29	11°♒16'37	0°35'05
minimum elong	9787 Jan 27	04:30	11°♒16'38	0°35'22
max. Earth dist.	9787 Jan 26	16:31	11°♒10'14	6.49750 AU
morning rise	9787 Feb 09	04:46	14°♒03'20	
	9787 Feb 13	15:47	15°♒	
	9787 May 20	07:26	0°♓	
retrograde	9787 Jun 09	14:05	0°♓38'02	
	9787 Jun 29	19:40	30°℞♒	
opposition	9787 Aug 09	13:47	25°♒43'32	0°38'46
min. Earth dist.	9787 Aug 10	06:43	25°♒38'06	4.50381 AU
direct	9787 Oct 11	03:38	20°♒42'04	
	9788 Jan 05	12:38	0°♓	
evening set	9788 Feb 13	07:41	7°♓51'13	
max. Earth dist.	9788 Feb 24	17:12	10°♓17'55	6.48768 AU
conjunction	9788 Feb 26	05:56	10°♓37'42	0°16'27
minimum elong	9788 Feb 26	05:56	10°♓37'42	0°16'37
morning rise	9788 Mar 10	02:02	13°♓23'17	
	9788 Jun 30	10:10	0°♈	
retrograde	9788 Jul 08	20:12	0°♈06'34	
	9788 Jul 17	05:28	30°℞♓	
opposition	9788 Sep 07	21:13	25°♓13'28	0°07'37
min. Earth dist.	9788 Sep 09	06:05	25°♓02'59	4.45109 AU
direct	9788 Nov 09	12:06	20°♓12'31	
desc. node	9788 Dec 03	08:55	21°♓02'59	
	9789 Feb 05	16:07	0°♈	
evening set	9789 Mar 14	15:00	7°♈40'19	
max. Earth dist.	9789 Mar 25	04:39	9°♈59'32	6.39498 AU
conjunction	9789 Mar 27	10:23	10°♈29'08	-0°06'52
minimum elong	9789 Mar 27	10:23	10°♈29'08	0°06'55
behind sun begin	9789 Mar 27	02:58	10°♈25'05	
behind sun end	9789 Mar 27	17:47	10°♈33'12	
morning rise	9789 Apr 09	04:26	13°♈17'30	
	9789 Jul 19	23:31	0°♉	
retrograde	9789 Aug 09	18:34	0°♉39'58	
	9789 Aug 30	12:02	30°℞♈	
opposition	9789 Oct 09	15:17	25°♈46'52	-0°26'56
min. Earth dist.	9789 Oct 11	07:11	25°♈34'04	4.32337 AU
direct	9789 Dec 10	14:49	20°♈47'01	
	9790 Mar 04	04:55	0°♉	
evening set	9790 Apr 15	00:14	8°♉54'12	
max. Earth dist.	9790 Apr 25	12:36	11°♉17'38	6.24121 AU
conjunction	9790 Apr 27	19:08	11°♉48'46	-0°29'03
minimum elong	9790 Apr 27	19:07	11°♉48'45	0°29'17
morning rise	9790 May 10	13:20	14°♉43'21	
	9790 May 11	18:40	15°♉	
	9790 Jul 29	00:03	0°♊	
retrograde	9790 Sep 13	03:35	3°♊11'00	
	9790 Oct 30	01:27	30°℞♉	
opposition	9790 Nov 12	15:22	28°♉16'51	-0°55'47

min. Earth dist.	9790 Nov 14 02:41	28°♉05'25	4.15352 AU
direct	9791 Jan 12 10:02	23°♉18'57	
	9791 Mar 21 14:54	0°♊	
evening set	9791 May 18 08:11	12°♊18'23	
max. Earth dist.	9791 May 29 12:44	14°♊57'08	6.06920 AU
conjunction	9791 May 31 05:13	15°♊21'08	-0°43'06
minimum elong	9791 May 31 05:12	15°♊21'08	0°43'28
morning rise	9791 Jun 13 03:11	18°♊24'39	
	9791 Aug 05 03:45	0°♋	
retrograde	9791 Oct 20 05:37	8°♋09'11	
opposition	9791 Dec 19 04:27	3°♋12'47	-1°07'26
min. Earth dist.	9791 Dec 19 21:42	3°♋07'06	3.99404 AU
	9792 Jan 14 19:04	30°℞♊	
direct	9792 Feb 16 13:04	28°♊17'01	
	9792 Mar 19 23:46	0°♋	
evening set	9792 Jun 22 00:42	18°♋05'02	
conjunction	9792 Jul 05 03:34	21°♋16'25	-0°42'11
minimum elong	9792 Jul 05 03:35	21°♋16'26	0°42'33
max. Earth dist.	9792 Jul 04 20:07	21°♋11'54	5.93770 AU
morning rise	9792 Jul 18 08:12	24°♋29'02	
	9792 Aug 10 14:44	0°♌	
	9792 Nov 15 23:06	15°♌	
retrograde	9792 Nov 27 02:01	15°♌12'15	
	9792 Dec 08 03:28	15°℞♌	
opposition	9793 Jan 25 12:59	10°♌12'40	-0°53'05
min. Earth dist.	9793 Jan 25 05:37	10°♌15'08	3.90538 AU
direct	9793 Mar 24 18:20	5°♌18'02	
	9793 Jun 14 00:41	15°♌	
evening set	9793 Jul 29 16:18	25°♌28'39	
conjunction	9793 Aug 12 02:09	28°♌45'12	-0°24'22
minimum elong	9793 Aug 12 02:10	28°♌45'13	0°24'36
max. Earth dist.	9793 Aug 13 07:46	29°♌03'19	5.90097 AU
	9793 Aug 17 04:30	0°♍	
morning rise	9793 Aug 25 14:31	2°♍03'03	
retrograde	9794 Jan 04 15:22	22°♍54'14	
opposition	9794 Mar 04 23:22	17°♍51'26	-0°16'22
min. Earth dist.	9794 Mar 03 17:09	18°♍01'42	3.92602 AU
direct	9794 May 01 20:43	12°♍55'57	
asc. node	9794 Aug 03 15:43	25°♍11'21	
	9794 Aug 24 20:29	0°♎	
evening set	9794 Sep 05 21:19	2°♎50'28	
conjunction	9794 Sep 19 11:59	6°♎05'41	0°03'21
minimum elong	9794 Sep 19 11:59	6°♎05'40	0°03'21
behind sun begin	9794 Sep 19 03:39	6°♎00'43	
behind sun end	9794 Sep 19 20:19	6°♎10'38	
max. Earth dist.	9794 Sep 21 19:25	6°♎38'50	5.97626 AU
morning rise	9794 Oct 03 04:36	9°♎21'36	
retrograde	9795 Feb 10 03:38	29°♎25'29	
min. Earth dist.	9795 Apr 09 02:00	24°♎34'20	4.04676 AU
opposition	9795 Apr 10 16:39	24°♎21'12	0°25'35
direct	9795 Jun 08 05:19	19°♎23'30	
	9795 Sep 04 01:06	0°♏	
evening set	9795 Oct 12 23:00	8°♏32'42	
conjunction	9795 Oct 26 14:07	11°♏40'53	0°28'42
minimum elong	9795 Oct 26 14:06	11°♏40'52	0°28'56
max. Earth dist.	9795 Oct 29 01:55	12°♏15'19	6.13012 AU
morning rise	9795 Nov 09 05:34	14°♏48'54	
	9795 Nov 10 01:02	15°♏	
	9796 Jan 25 22:48	0°♐	
retrograde	9796 Mar 14 21:19	3°♐37'54	
	9796 May 03 03:24	30°℞♏	
min. Earth dist.	9796 May 12 10:11	28°♏46'18	4.21731 AU
opposition	9796 May 13 20:13	28°♏34'53	0°55'30
direct	9796 Jul 12 13:17	23°♏35'09	
	9796 Sep 18 00:24	0°♐	
evening set	9796 Nov 15 20:22	11°♐51'34	
conjunction	9796 Nov 29 07:49	14°♐50'41	0°43'05
minimum elong	9796 Nov 29 07:48	14°♐50'40	0°43'27
max. Earth dist.	9796 Dec 01 00:40	15°♐13'20	6.30258 AU
morning rise	9796 Dec 12 18:39	17°♐49'08	
	9797 Feb 12 10:39	0°♑	
retrograde	9797 Apr 15 05:55	5°♑27'57	
opposition	9797 Jun 14 15:44	0°♑27'55	1°05'57
min. Earth dist.	9797 Jun 13 21:11	0°♑34'02	4.37750 AU
	9797 Jun 18 04:23	30°℞♐	
direct	9797 Aug 14 17:06	25°♐26'53	
	9797 Oct 10 17:16	0°♑	
evening set	9797 Dec 18 10:58	13°♑00'42	
conjunction	9797 Dec 31 17:38	15°♑52'20	0°43'56
minimum elong	9797 Dec 31 17:38	15°♑52'21	0°44'19
max. Earth dist.	9798 Jan 01 07:59	16°♑00'05	6.43884 AU
morning rise	9798 Jan 13 22:24	18°♑42'57	
	9798 Mar 13 03:23	0°♒	
retrograde	9798 May 15 03:28	5°♒34'18	
opposition	9798 Jul 14 22:57	0°♒37'33	0°57'40
min. Earth dist.	9798 Jul 14 23:07	0°♒37'30	4.48144 AU
	9798 Jul 19 19:05	30°℞♑	
direct	9798 Sep 15 01:03	25°♑36'03	
	9798 Nov 10 18:49	0°♒	
evening set	9799 Jan 18 09:28	12°♒46'32	
	9799 Jan 28 19:55	15°♒	
conjunction	9799 Jan 31 11:06	15°♒33'47	0°32'51
minimum elong	9799 Jan 31 11:07	15°♒33'47	0°33'09
max. Earth dist.	9799 Jan 30 18:47	15°♒25'04	6.50326 AU
morning rise	9799 Feb 13 10:44	18°♒20'01	
	9799 Apr 15 20:44	0°♓	
retrograde	9799 Jun 13 19:13	4°♓53'20	
opposition	9799 Aug 13 19:06	29°♒59'06	0°34'47
	9799 Aug 13 16:16	30°℞♒	
min. Earth dist.	9799 Aug 14 15:28	29°♒52'34	4.50340 AU
direct	9799 Oct 15 11:27	24°♒57'37	
	9799 Dec 15 16:36	0°♓	
evening set	9800 Feb 17 13:08	12°♓07'21	
max. Earth dist.	9800 Feb 28 18:12	14°♓31'57	6.48092 AU
conjunction	9800 Mar 02 10:51	14°♓53'52	0°13'19
minimum elong	9800 Mar 02 10:51	14°♓53'52	0°13'27
behind sun begin	9800 Mar 02 06:21	14°♓51'27	
behind sun end	9800 Mar 02 15:22	14°♓56'17	
morning rise	9800 Mar 15 06:35	17°♓39'33	
	9800 May 19 08:28	0°♈	
retrograde	9800 Jul 14 04:00	4°♈26'03	
	9800 Sep 09 16:34	30°℞♓	
opposition	9800 Sep 13 05:20	29°♓32'57	0°02'45
min. Earth dist.	9800 Sep 14 15:26	29°♓22'03	4.43834 AU
desc. node	9800 Oct 14 06:28	25°♓59'38	
direct	9800 Nov 14 18:48	24°♓32'03	
	9801 Jan 17 06:07	0°♈	
evening set	9801 Mar 19 22:21	12°♈03'54	
max. Earth dist.	9801 Mar 30 11:48	14°♈23'32	6.37707 AU
conjunction	9801 Apr 01 17:36	14°♈53'19	-0°10'12
minimum elong	9801 Apr 01 17:36	14°♈53'18	0°10'16
behind sun begin	9801 Apr 01 11:15	14°♈49'49	
behind sun end	9801 Apr 01 23:57	14°♈56'48	
morning rise	9801 Apr 14 11:21	17°♈42'16	

	9801 Jun 15	20:40	0°♉		
retrograde	9801 Aug 15	09:36	5°♉12'13		
opposition	9801 Oct 15	05:36	0°♉19'04	-0°31'35	
min. Earth dist.	9801 Oct 16	22:14	0°♉06'02	4.30133 AU	
	9801 Oct 17	17:06	30°℞♈		
direct	9801 Dec 16	02:13	25°♈19'27		
	9802 Feb 11	08:16	0°♉		
evening set	9802 Apr 20	13:02	13°♉33'29		
	9802 Apr 26	20:36	15°♉		
max. Earth dist.	9802 May 01	00:44	15°♉57'24	6.21661 AU	
conjunction	9802 May 03	07:55	16°♉29'05	-0°31'40	
minimum elong	9802 May 03	07:53	16°♉29'04	0°31'56	
morning rise	9802 May 16	02:35	19°♉24'51		
	9802 Jul 04	21:01	0°♊		
retrograde	9802 Sep 19	04:21	8°♊03'19		
opposition	9802 Nov 18	14:29	3°♊08'53	-0°58'42	
min. Earth dist.	9802 Nov 19	23:58	2°♊58'00	4.12812 AU	
	9802 Dec 14	21:26	30°℞♉		
direct	9803 Jan 18	04:39	28°♉11'14		
	9803 Feb 21	04:53	0°♊		
evening set	9803 May 24	04:43	17°♊18'43		
max. Earth dist.	9803 Jun 04	14:42	20°♊01'28	6.04539 AU	
conjunction	9803 Jun 06	02:34	20°♊22'50	-0°43'59	
minimum elong	9803 Jun 06	02:33	20°♊22'50	0°44'21	
morning rise	9803 Jun 19	01:10	23°♊27'45		
	9803 Jul 17	09:59	0°♋		
retrograde	9803 Oct 26	16:29	13°♋23'08		
opposition	9803 Dec 25	11:57	8°♋26'25	-1°07'02	
min. Earth dist.	9803 Dec 26	02:48	8°♋21'30	3.97425 AU	
direct	9804 Feb 22	15:53	3°♋30'56		
evening set	9804 Jun 28	05:54	23°♋25'03		
conjunction	9804 Jul 11	09:39	26°♋37'34	-0°40'35	
minimum elong	9804 Jul 11	09:40	26°♋37'35	0°40'56	
max. Earth dist.	9804 Jul 11	06:17	26°♋35'31	5.92391 AU	
morning rise	9804 Jul 24	15:36	29°♋51'24		
	9804 Jul 25	05:47	0°♌		
	9804 Oct 03	00:40	15°♌		
retrograde	9804 Dec 03	13:26	20°♌40'10		
opposition	9805 Feb 01	00:13	15°♌40'09	-0°48'55	
min. Earth dist.	9805 Jan 31	12:11	15°♌44'11	3.89956 AU	
	9805 Feb 06	00:06	15°℞♌		
direct	9805 Mar 31	01:55	10°♌45'35		
	9805 May 21	12:11	15°♌		
	9805 Aug 01	04:14	0°♍		
evening set	9805 Aug 05	02:34	0°♍57'08		
conjunction	9805 Aug 18	13:21	4°♍14'00	-0°20'45	
minimum elong	9805 Aug 18	13:22	4°♍14'01	0°20'57	
max. Earth dist.	9805 Aug 19	23:51	4°♍35'05	5.90391 AU	
morning rise	9805 Sep 01	02:36	7°♍32'07		
retrograde	9806 Jan 10	23:43	28°♍20'04		
min. Earth dist.	9806 Mar 09	23:45	23°♍27'50	3.93740 AU	
opposition	9806 Mar 11	07:51	23°♍16'55	-0°10'13	
direct	9806 May 08	06:55	18°♍21'12		
asc. node	9806 Jun 13	08:18	20°♍30'28		
	9806 Aug 07	10:14	0°♎		
evening set	9806 Sep 12	06:02	8°♎10'39		
conjunction	9806 Sep 25	21:10	11°♎25'08	0°07'21	
minimum elong	9806 Sep 25	21:10	11°♎25'08	0°07'23	
behind sun begin	9806 Sep 25	13:32	11°♎20'37		
behind sun end	9806 Sep 26	04:49	11°♎29'40		
max. Earth dist.	9806 Sep 28	08:36	12°♎00'31	5.99504 AU	
morning rise	9806 Oct 09	13:49	14°♎40'10		
	9806 Dec 23	05:12	0°♏		
retrograde	9807 Feb 16	02:41	4°♏33'56		
	9807 Apr 12	23:21	30°℞♎		
min. Earth dist.	9807 Apr 15	01:30	29°♎43'02	4.07072 AU	
opposition	9807 Apr 16	16:49	29°♎29'42	0°30'50	
direct	9807 Jun 14	08:40	24°♎31'45		
	9807 Aug 13	20:18	0°♏		
evening set	9807 Oct 19	00:58	13°♏32'43		
	9807 Oct 25	09:50	15°♏		
conjunction	9807 Nov 01	15:32	16°♏39'28	0°31'30	
minimum elong	9807 Nov 01	15:31	16°♏39'28	0°31'45	
max. Earth dist.	9807 Nov 04	01:02	17°♏12'23	6.15685 AU	
morning rise	9807 Nov 15	06:35	19°♏46'04		
	9808 Jan 02	14:06	0°♐		
retrograde	9808 Mar 20	09:27	8°♐23'26		
min. Earth dist.	9808 May 18	02:25	3°♐31'35	4.24425 AU	
opposition	9808 May 19	10:45	3°♐20'44	0°58'08	
	9808 Jun 15	23:45	30°℞♏		
direct	9808 Jul 18	09:04	28°♏20'45		
	9808 Aug 20	02:29	0°♐		
evening set	9808 Nov 21	13:13	16°♐29'20		
conjunction	9808 Dec 05	00:07	19°♐27'09	0°43'58	
minimum elong	9808 Dec 05	00:07	19°♐27'09	0°44'21	
max. Earth dist.	9808 Dec 06	14:39	19°♐48'24	6.32766 AU	
morning rise	9808 Dec 18	09:55	22°♐24'11		
	9809 Jan 23	18:15	0°♑		
retrograde	9809 Apr 20	11:15	9°♑53'50		
opposition	9809 Jun 19	22:58	4°♑54'20	1°05'46	
min. Earth dist.	9809 Jun 19	06:40	4°♑59'41	4.39879 AU	
	9809 Aug 11	15:51	30°℞♐		
direct	9809 Aug 20	04:37	29°♐53'14		
	9809 Aug 28	17:42	0°♑		
evening set	9809 Dec 23	20:15	17°♑21'41		
conjunction	9810 Jan 06	02:00	20°♑12'24	0°42'59	
minimum elong	9810 Jan 06	02:00	20°♑12'24	0°43'21	
max. Earth dist.	9810 Jan 06	10:21	20°♑16'53	6.45468 AU	
morning rise	9810 Jan 19	06:08	23°♑02'07		
	9810 Feb 22	05:50	0°♒		
retrograde	9810 May 20	06:44	9°♒48'40		
opposition	9810 Jul 20	02:38	4°♒52'21	0°55'10	
min. Earth dist.	9810 Jul 20	06:39	4°♒51'03	4.49095 AU	
	9810 Sep 10	06:39	30°℞♑		
direct	9810 Sep 20	08:22	29°♑50'46		
	9810 Sep 30	10:18	0°♒		
	9811 Jan 14	03:08	15°♒		
evening set	9811 Jan 23	14:13	16°♒59'29		
conjunction	9811 Feb 05	15:23	19°♒46'25	0°30'31	
minimum elong	9811 Feb 05	15:24	19°♒46'25	0°30'47	
max. Earth dist.	9811 Feb 04	19:38	19°♒35'51	6.50574 AU	
morning rise	9811 Feb 18	14:16	22°♒32'19		
	9811 Mar 27	10:14	0°♓		
retrograde	9811 Jun 18	21:21	9°♓05'40		
opposition	9811 Aug 18	22:50	4°♓11'39	0°30'42	
min. Earth dist.	9811 Aug 19	21:00	4°♓04'33	4.49883 AU	
	9811 Sep 27	00:00	30°℞♒		
direct	9811 Oct 20	14:54	29°♒10'13		
	9811 Nov 13	10:39	0°♓		
evening set	9812 Feb 22	17:34	16°♓22'02		
max. Earth dist.	9812 Mar 04	19:25	18°♓45'20	6.46954 AU	
conjunction	9812 Mar 06	14:48	19°♓08'48	0°10'10	
minimum elong	9812 Mar 06	14:49	19°♓08'48	0°10'15	
behind sun begin	9812 Mar 06	08:28	19°♓05'23		

behind sun end	9812 Mar 06 21:09	19°♓12'13	
morning rise	9812 Mar 19 10:10	21°♓54'47	
	9812 Apr 28 00:59	0°♈	
retrograde	9812 Jul 18 13:25	8°♈46'10	
desc. node	9812 Aug 24 21:50	6°♈42'34	
opposition	9812 Sep 17 13:37	3°♈53'11	-0°02'06
min. Earth dist.	9812 Sep 19 02:21	3°♈41'27	4.42068 AU
	9812 Oct 22 12:44	30°℞♓	
direct	9812 Nov 19 02:34	28°♓52'23	
	9812 Dec 16 16:35	0°♈	
evening set	9813 Mar 24 06:03	16°♈29'54	
max. Earth dist.	9813 Apr 03 16:46	18°♈48'47	6.35431 AU
conjunction	9813 Apr 06 01:08	19°♈20'07	-0°13'29
minimum elong	9813 Apr 06 01:08	19°♈20'07	0°13'34
behind sun begin	9813 Apr 05 20:39	19°♈17'38	
behind sun end	9813 Apr 06 05:36	19°♈22'36	
morning rise	9813 Apr 18 19:01	22°♈10'00	
	9813 May 25 20:05	0°♉	
retrograde	9813 Aug 20 02:37	9°♉49'21	
opposition	9813 Oct 19 21:50	4°♉56'03	-0°36'04
min. Earth dist.	9813 Oct 21 13:41	4°♉43'14	4.27492 AU
	9813 Dec 14 14:32	30°℞♈	
direct	9813 Dec 20 14:01	29°♈56'38	
	9813 Dec 26 13:34	0°♉	
	9814 Apr 10 11:00	15°♉	
evening set	9814 Apr 25 03:38	18°♉18'59	
max. Earth dist.	9814 May 05 18:34	20°♉45'37	6.18877 AU
conjunction	9814 May 07 22:53	21°♉15'50	-0°34'07
minimum elong	9814 May 07 22:52	21°♉15'49	0°34'24
morning rise	9814 May 20 17:49	24°♉12'55	
	9814 Jun 15 13:22	0°♊	
retrograde	9814 Sep 24 09:34	13°♊03'23	
opposition	9814 Nov 23 16:34	8°♊08'44	-1°01'16
min. Earth dist.	9814 Nov 25 00:39	7°♊58'18	4.10115 AU
direct	9815 Jan 23 02:02	3°♊11'27	
evening set	9815 May 29 04:30	22°♊27'22	
max. Earth dist.	9815 Jun 09 18:05	25°♊13'10	6.02181 AU
conjunction	9815 Jun 11 02:57	25°♊32'51	-0°44'31
minimum elong	9815 Jun 11 02:57	25°♊32'51	0°44'55
morning rise	9815 Jun 24 02:37	28°♊39'15	
	9815 Jun 29 18:39	0°♋	
retrograde	9815 Nov 01 03:02	18°♋45'01	
opposition	9815 Dec 30 22:08	13°♋47'49	-1°06'03
min. Earth dist.	9815 Dec 31 08:04	13°♋44'31	3.95675 AU
direct	9816 Feb 27 20:28	8°♋52'34	
evening set	9816 Jul 03 13:32	28°♋51'32	
	9816 Jul 08 06:00	0°♌	
conjunction	9816 Jul 16 18:20	2°♌04'59	-0°38'37
minimum elong	9816 Jul 16 18:21	2°♌05'00	0°38'57
max. Earth dist.	9816 Jul 16 21:41	2°♌07'02	5.91435 AU
morning rise	9816 Jul 30 01:19	5°♌19'46	
	9816 Sep 09 21:47	15°♌	
retrograde	9816 Dec 09 03:22	26°♌11'46	
opposition	9817 Feb 06 12:48	21°♌11'10	-0°44'14
min. Earth dist.	9817 Feb 05 21:39	21°♌16'16	3.89909 AU
direct	9817 Apr 05 14:10	16°♌16'30	
	9817 Jul 14 06:51	0°♍	
evening set	9817 Aug 10 13:11	6°♍26'24	
conjunction	9817 Aug 24 00:52	9°♍43'15	-0°16'57
minimum elong	9817 Aug 24 00:53	9°♍43'16	0°17'06
max. Earth dist.	9817 Aug 25 17:30	10°♍08'00	5.91243 AU
morning rise	9817 Sep 06 14:46	13°♍01'13	
	9817 Nov 28 07:42	0°♎	
retrograde	9818 Jan 16 06:27	3°♎43'09	
	9818 Mar 06 15:48	30°℞♍	
min. Earth dist.	9818 Mar 15 04:44	28°♍51'18	3.95383 AU
opposition	9818 Mar 16 15:01	28°♍39'39	-0°04'02
asc. node	9818 Apr 22 17:05	24°♍28'35	
direct	9818 May 13 14:48	23°♍43'39	
	9818 Jul 16 18:00	0°♎	
evening set	9818 Sep 17 13:28	13°♎26'16	
conjunction	9818 Oct 01 04:34	16°♎39'43	0°11'15
minimum elong	9818 Oct 01 04:33	16°♎39'43	0°11'20
behind sun begin	9818 Sep 30 22:30	16°♎36'09	
behind sun end	9818 Oct 01 10:36	16°♎43'17	
max. Earth dist.	9818 Oct 03 16:00	17°♎14'54	6.01727 AU
morning rise	9818 Oct 14 21:21	19°♎53'40	
	9818 Nov 29 16:23	0°♏	
retrograde	9819 Feb 20 21:40	9°♏36'11	
min. Earth dist.	9819 Apr 19 23:07	4°♏45'18	4.09627 AU
opposition	9819 Apr 21 14:23	4°♏31'59	0°35'46
	9819 Jun 03 06:45	30°℞♎	
direct	9819 Jun 19 10:21	29°♎33'40	
	9819 Jul 05 17:05	0°♏	
	9819 Oct 08 15:52	15°♏	
evening set	9819 Oct 24 00:26	18°♏26'16	
conjunction	9819 Nov 06 14:42	21°♏31'41	0°34'03
minimum elong	9819 Nov 06 14:41	21°♏31'40	0°34'20
max. Earth dist.	9819 Nov 08 22:39	22°♏03'31	6.18350 AU
morning rise	9819 Nov 20 04:59	24°♏36'46	
	9819 Dec 14 16:55	0°♐	
retrograde	9820 Mar 24 21:25	13°♐03'05	
opposition	9820 May 23 23:29	8°♐00'50	1°00'23
min. Earth dist.	9820 May 22 17:29	8°♐10'51	4.26957 AU
direct	9820 Jul 23 02:58	3°♐00'39	
evening set	9820 Nov 26 04:18	21°♐02'12	
conjunction	9820 Dec 09 14:23	23°♐58'49	0°44'36
minimum elong	9820 Dec 09 14:23	23°♐58'48	0°44'59
max. Earth dist.	9820 Dec 11 00:11	24°♐17'22	6.34964 AU
morning rise	9820 Dec 22 23:30	26°♐54'38	
	9821 Jan 06 08:16	0°♑	
retrograde	9821 Apr 24 16:13	14°♑16'34	
opposition	9821 Jun 24 05:25	9°♑17'30	1°05'15
min. Earth dist.	9821 Jun 23 15:58	9°♑21'55	4.41615 AU
direct	9821 Aug 24 14:38	4°♑16'16	
evening set	9821 Dec 28 04:58	21°♑40'46	
conjunction	9822 Jan 10 10:10	24°♑30'47	0°41'50
minimum elong	9822 Jan 10 10:11	24°♑30'47	0°42'12
max. Earth dist.	9822 Jan 10 15:14	24°♑33'30	6.46634 AU
morning rise	9822 Jan 23 13:22	27°♑19'44	
	9822 Feb 05 05:17	0°♒	
retrograde	9822 May 24 09:28	14°♒02'52	
opposition	9822 Jul 24 06:33	9°♒06'59	0°52'24
min. Earth dist.	9822 Jul 24 13:07	9°♒04'52	4.49635 AU
direct	9822 Sep 24 14:07	4°♒05'27	
	9822 Dec 28 10:00	15°♒	
evening set	9823 Jan 27 19:56	21°♒13'39	
conjunction	9823 Feb 09 20:22	24°♒00'23	0°28'00
minimum elong	9823 Feb 09 20:23	24°♒00'24	0°28'15
max. Earth dist.	9823 Feb 08 19:26	23°♒47'03	6.50444 AU
morning rise	9823 Feb 22 18:51	26°♒46'10	
	9823 Mar 10 04:27	0°♓	
retrograde	9823 Jun 23 04:03	13°♓20'46	
opposition	9823 Aug 23 04:30	8°♓27'01	0°26'24

min. Earth dist.	9823 Aug 24	06:02	8°♓18'51	4.49097 AU
direct	9823 Oct 24	21:35	3°♓25'38	
evening set	9824 Feb 26	23:27	20°♓40'26	
max. Earth dist.	9824 Mar 08	22:41	23°♓02'46	6.45561 AU
conjunction	9824 Mar 10	20:26	23°♓27'36	0°06'53
minimum elong	9824 Mar 10	20:27	23°♓27'36	0°06'58
behind sun begin	9824 Mar 10	13:03	23°♓23'37	
behind sun end	9824 Mar 11	03:51	23°♓31'36	
morning rise	9824 Mar 23	15:27	26°♓14'01	
	9824 Apr 10	08:59	0°♈	
desc. node	9824 Jul 04	10:04	12°♈39'10	
retrograde	9824 Jul 22	23:38	13°♈11'11	
opposition	9824 Sep 22	00:15	8°♈18'16	-0°07'05
min. Earth dist.	9824 Sep 23	13:08	8°♈06'28	4.40162 AU
direct	9824 Nov 23	09:51	3°♈17'42	
evening set	9825 Mar 28	16:07	21°♈01'17	
max. Earth dist.	9825 Apr 08	03:16	23°♈21'09	6.33156 AU
conjunction	9825 Apr 10	11:05	23°♈52'21	-0°16'46
minimum elong	9825 Apr 10	11:04	23°♈52'21	0°16'53
morning rise	9825 Apr 23	04:54	26°♈43'09	
	9825 May 08	03:13	0°♉	
retrograde	9825 Aug 24	23:54	14°♉31'58	
opposition	9825 Oct 24	16:35	9°♉38'39	-0°40'28
min. Earth dist.	9825 Oct 26	08:41	9°♉25'45	4.25007 AU
direct	9825 Dec 25	05:40	4°♉39'36	
	9826 Mar 23	14:05	15°♉	
evening set	9826 Apr 29	20:27	23°♉09'41	
max. Earth dist.	9826 May 10	12:47	25°♉38'00	6.16403 AU
conjunction	9826 May 12	15:56	26°♉07'41	-0°36'24
minimum elong	9826 May 12	15:55	26°♉07'41	0°36'42
morning rise	9826 May 25	11:26	29°♉06'03	
	9826 May 29	09:02	0°♊	
retrograde	9826 Sep 29	14:06	18°♊07'24	
opposition	9826 Nov 28	20:09	13°♊12'29	-1°03'26
min. Earth dist.	9826 Nov 30	00:24	13°♊03'16	4.07891 AU
direct	9827 Jan 27	23:30	8°♊15'37	
evening set	9827 Jun 03	05:00	27°♊38'09	
	9827 Jun 13	01:46	0°♋	
max. Earth dist.	9827 Jun 15	01:12	0°♋28'32	6.00433 AU
conjunction	9827 Jun 16	04:09	0°♋44'45	-0°44'45
minimum elong	9827 Jun 16	04:09	0°♋44'45	0°45'09
morning rise	9827 Jun 29	04:36	3°♋52'20	
retrograde	9827 Nov 06	14:35	24°♋06'01	
opposition	9828 Jan 05	07:51	19°♋08'22	-1°04'33
min. Earth dist.	9828 Jan 05	14:43	19°♋06'05	3.94597 AU
direct	9828 Mar 04	03:33	14°♋13'22	
	9828 Jun 21	02:53	0°♌	
evening set	9828 Jul 08	19:52	4°♌14'30	
conjunction	9828 Jul 22	01:39	7°♌28'34	-0°36'24
minimum elong	9828 Jul 22	01:40	7°♌28'34	0°36'44
max. Earth dist.	9828 Jul 22	11:15	7°♌34'26	5.91144 AU
morning rise	9828 Aug 04	09:36	10°♌43'56	
	9828 Aug 22	05:33	15°♌	
	9828 Nov 12	23:46	0°♍	
retrograde	9828 Dec 14	12:47	1°♍36'07	
	9829 Jan 14	22:46	30°℞♌	
opposition	9829 Feb 11	21:46	26°♌35'04	-0°39'21
min. Earth dist.	9829 Feb 11	03:06	26°♌41'22	3.90468 AU
direct	9829 Apr 10	21:27	21°♌40'21	
	9829 Jun 24	10:45	0°♍	
evening set	9829 Aug 15	20:28	11°♍46'42	
conjunction	9829 Aug 29	08:37	15°♍03'10	-0°13'10
minimum elong	9829 Aug 29	08:38	15°♍03'11	0°13'18
behind sun begin	9829 Aug 29	03:51	15°♍00'17	
behind sun end	9829 Aug 29	13:25	15°♍06'04	
max. Earth dist.	9829 Aug 31	03:32	15°♍29'13	5.92564 AU
morning rise	9829 Sep 11	23:16	18°♍20'47	
	9829 Nov 03	01:29	0°♎	
retrograde	9830 Jan 21	06:11	8°♎55'03	
asc. node	9830 Mar 04	05:53	6°♎08'36	
min. Earth dist.	9830 Mar 20	05:10	4°♎03'32	3.97305 AU
opposition	9830 Mar 21	17:06	3°♎51'19	0°01'54
	9830 Apr 23	12:12	30°℞♍	
direct	9830 May 18	19:06	28°♍54'59	
	9830 Jun 13	05:13	0°♎	
evening set	9830 Sep 22	15:47	18°♎30'15	
conjunction	9830 Oct 06	07:05	21°♎42'39	0°14'54
minimum elong	9830 Oct 06	07:03	21°♎42'38	0°15'02
behind sun begin	9830 Oct 06	04:19	21°♎41'02	
behind sun end	9830 Oct 06	09:48	21°♎44'15	
max. Earth dist.	9830 Oct 08	19:10	22°♎18'01	6.04061 AU
morning rise	9830 Oct 19	23:35	24°♎55'23	
	9830 Nov 11	05:25	0°♏	
retrograde	9831 Feb 25	14:22	14°♏26'56	
min. Earth dist.	9831 Apr 24	17:38	9°♏35'39	4.12113 AU
opposition	9831 Apr 26	07:15	9°♏22'55	0°40'13
direct	9831 Jun 24	08:03	4°♏24'19	
	9831 Sep 21	01:11	15°♏	
evening set	9831 Oct 28	19:15	23°♏09'12	
conjunction	9831 Nov 11	09:02	26°♏13'21	0°36'17
minimum elong	9831 Nov 11	09:01	26°♏13'21	0°36'35
max. Earth dist.	9831 Nov 13	14:17	26°♏43'29	6.20766 AU
morning rise	9831 Nov 24	22:47	29°♏17'08	
	9831 Nov 28	03:23	0°♐	
retrograde	9832 Mar 29	03:51	17°♐33'44	
min. Earth dist.	9832 May 27	03:42	12°♐41'21	4.29127 AU
opposition	9832 May 28	08:05	12°♐31'53	1°02'12
direct	9832 Jul 27	14:36	7°♐31'31	
evening set	9832 Nov 30	15:54	25°♐27'33	
conjunction	9832 Dec 14	01:25	28°♐23'11	0°44'58
minimum elong	9832 Dec 14	01:25	28°♐23'11	0°45'21
max. Earth dist.	9832 Dec 15	06:55	28°♐39'20	6.36744 AU
	9832 Dec 21	10:26	0°♑	
morning rise	9832 Dec 27	09:42	1°♑17'58	
retrograde	9833 Apr 28	20:19	18°♑33'45	
opposition	9833 Jun 28	09:29	13°♑35'12	1°04'27
min. Earth dist.	9833 Jun 27	23:20	13°♑38'31	4.42903 AU
direct	9833 Aug 28	22:25	8°♑33'54	
evening set	9834 Jan 01	11:33	25°♑55'48	
conjunction	9834 Jan 14	16:05	28°♑45'18	0°40'30
minimum elong	9834 Jan 14	16:05	28°♑45'18	0°40'52
max. Earth dist.	9834 Jan 14	15:56	28°♑45'13	6.47343 AU
	9834 Jan 20	11:20	0°♒	
morning rise	9834 Jan 27	18:46	1°♒33'47	
	9834 Apr 11	08:29	15°♒	
retrograde	9834 May 28	12:26	18°♒14'58	
	9834 Jul 15	03:12	15°℞♒	
opposition	9834 Jul 28	09:40	13°♒19'25	0°49'29
min. Earth dist.	9834 Jul 28	18:59	13°♒16'24	4.49763 AU
direct	9834 Sep 28	18:24	8°♒17'49	
	9834 Dec 09	10:46	15°♒	
evening set	9835 Feb 01	00:32	25°♒26'32	
max. Earth dist.	9835 Feb 12	21:55	27°♒58'58	6.49994 AU

conjunction	9835 Feb 14 00:37	28°♒13'17	0°25'23
minimum elong	9835 Feb 14 00:38	28°♒13'17	0°25'36
	9835 Feb 22 07:49	0°♓	
morning rise	9835 Feb 26 22:25	0°♓59'01	
retrograde	9835 Jun 27 08:37	17°♓35'40	
opposition	9835 Aug 27 09:51	12°♓42'07	0°22'01
min. Earth dist.	9835 Aug 28 12:33	12°♓33'35	4.48116 AU
direct	9835 Oct 29 01:56	7°♓40'50	
evening set	9836 Mar 02 05:23	24°♓58'54	
max. Earth dist.	9836 Mar 13 01:43	27°♓20'12	6.44110 AU
conjunction	9836 Mar 15 01:54	27°♓46'27	0°03'37
minimum elong	9836 Mar 15 01:53	27°♓46'27	0°03'40
behind sun begin	9836 Mar 14 17:59	27°♓42'10	
behind sun end	9836 Mar 15 09:47	27°♓50'44	
	9836 Mar 25 07:15	0°♈	
morning rise	9836 Mar 27 20:44	0°♈33'19	
desc. node	9836 May 14 02:59	10°♈06'31	
retrograde	9836 Jul 27 12:26	17°♈36'13	
opposition	9836 Sep 26 11:07	12°♈43'17	-0°11'58
min. Earth dist.	9836 Sep 28 01:29	12°♈31'00	4.38319 AU
direct	9836 Nov 27 19:30	7°♈42'49	
evening set	9837 Apr 02 01:38	25°♈31'52	
max. Earth dist.	9837 Apr 12 12:38	27°♈52'17	6.31047 AU
conjunction	9837 Apr 14 20:36	28°♈23'43	-0°19'54
minimum elong	9837 Apr 14 20:35	28°♈23'43	0°20'05
	9837 Apr 21 23:57	0°♉	
morning rise	9837 Apr 27 14:28	1°♉15'22	
	9837 Jul 06 23:44	15°♉	
retrograde	9837 Aug 29 18:13	19°♉12'53	
	9837 Oct 24 04:07	15°℞♉	
opposition	9837 Oct 29 10:45	14°♉19'20	-0°44'34
min. Earth dist.	9837 Oct 31 00:52	14°♉07'03	4.22765 AU
direct	9837 Dec 29 18:34	9°♉20'32	
	9838 Mar 02 16:14	15°♉	
evening set	9838 May 04 12:07	27°♉57'13	
	9838 May 13 07:27	0°♊	
max. Earth dist.	9838 May 15 07:47	0°♊28'12	6.14191 AU
conjunction	9838 May 17 07:49	0°♊56'15	-0°38'24
minimum elong	9838 May 17 07:48	0°♊56'14	0°38'43
morning rise	9838 May 30 03:44	3°♊55'43	
retrograde	9838 Oct 04 18:24	23°♊06'59	
opposition	9838 Dec 03 22:13	18°♊11'43	-1°05'04
min. Earth dist.	9838 Dec 05 00:48	18°♊03'01	4.05871 AU
direct	9839 Feb 01 22:07	13°♊15'05	
	9839 May 27 16:01	0°♋	
evening set	9839 Jun 08 03:49	2°♋43'33	
max. Earth dist.	9839 Jun 20 04:59	5°♋37'30	5.98790 AU
conjunction	9839 Jun 21 03:47	5°♋51'15	-0°44'37
minimum elong	9839 Jun 21 03:47	5°♋51'15	0°45'01
morning rise	9839 Jul 04 05:07	9°♋00'00	
retrograde	9839 Nov 11 23:00	29°♋20'59	
opposition	9840 Jan 10 15:01	24°♋22'56	-1°02'30
min. Earth dist.	9840 Jan 10 18:05	24°♋21'55	3.93526 AU
direct	9840 Mar 09 06:29	19°♋28'05	
	9840 Jun 02 19:29	0°♌	
evening set	9840 Jul 14 00:37	9°♌31'49	
conjunction	9840 Jul 27 07:13	12°♌46'30	-0°33'53
minimum elong	9840 Jul 27 07:14	12°♌46'31	0°34'11
max. Earth dist.	9840 Jul 27 20:25	12°♌54'35	5.90738 AU
	9840 Aug 05 09:32	15°♌	
morning rise	9840 Aug 09 16:20	16°♌02'34	
	9840 Oct 12 04:08	0°♍	

retrograde	9840 Dec 19 19:18	6°♍55'38	
min. Earth dist.	9841 Feb 16 07:11	2°♍01'28	3.90780 AU
opposition	9841 Feb 17 04:56	1°♍54'06	-0°34'09
	9841 Mar 03 16:19	30°℞♌	
direct	9841 Apr 16 03:35	26°♌59'14	
	9841 May 29 00:42	0°♍	
evening set	9841 Aug 21 02:41	17°♍03'22	
conjunction	9841 Sep 03 15:40	20°♍19'43	-0°09'16
minimum elong	9841 Sep 03 15:41	20°♍19'43	0°09'23
behind sun begin	9841 Sep 03 08:42	20°♍15'31	
behind sun end	9841 Sep 03 22:40	20°♍23'56	
max. Earth dist.	9841 Sep 05 14:59	20°♍48'21	5.93567 AU
morning rise	9841 Sep 17 06:44	23°♍37'02	
	9841 Oct 14 15:16	0°♎	
asc. node	9842 Jan 13 00:16	13°♎47'22	
retrograde	9842 Jan 26 08:44	14°♎05'10	
min. Earth dist.	9842 Mar 25 06:42	9°♎13'32	3.98868 AU
opposition	9842 Mar 26 18:46	9°♎01'16	0°07'49
direct	9842 May 23 23:36	4°♎04'40	
evening set	9842 Sep 27 18:50	23°♎34'15	
conjunction	9842 Oct 11 10:09	26°♎45'45	0°18'29
minimum elong	9842 Oct 11 10:08	26°♎45'45	0°18'38
max. Earth dist.	9842 Oct 13 22:42	27°♎21'13	6.06016 AU
morning rise	9842 Oct 25 02:38	29°♎57'31	
	9842 Oct 25 06:54	0°♏	
	9843 Jan 07 17:39	15°♏	
retrograde	9843 Mar 02 06:02	19°♏19'29	
	9843 Apr 25 13:14	15°℞♏	
min. Earth dist.	9843 Apr 29 11:02	14°♏28'27	4.14267 AU
opposition	9843 May 01 00:45	14°♏15'42	0°44'26
direct	9843 Jun 29 03:57	9°♏16'51	
	9843 Aug 30 18:57	15°♏	
evening set	9843 Nov 02 15:49	27°♏55'25	
	9843 Nov 11 21:27	0°♐	
conjunction	9843 Nov 16 05:07	0°♐58'26	0°38'18
minimum elong	9843 Nov 16 05:06	0°♐58'26	0°38'38
max. Earth dist.	9843 Nov 18 06:59	1°♐26'33	6.22944 AU
morning rise	9843 Nov 29 18:15	4°♐01'01	
retrograde	9844 Apr 02 14:36	22°♐08'48	
opposition	9844 Jun 01 18:54	17°♐07'26	1°03'41
min. Earth dist.	9844 May 31 17:25	17°♐15'55	4.31153 AU
direct	9844 Aug 01 06:23	12°♐06'57	
evening set	9844 Dec 05 05:31	29°♐57'50	
	9844 Dec 05 09:30	0°♑	
conjunction	9844 Dec 18 14:26	2°♑52'32	0°45'05
minimum elong	9844 Dec 18 14:26	2°♑52'32	0°45'29
max. Earth dist.	9844 Dec 19 17:06	3°♑07'05	6.38491 AU
morning rise	9844 Dec 31 21:55	5°♑46'20	
retrograde	9845 May 03 00:24	22°♑56'01	
opposition	9845 Jul 02 15:42	17°♑57'57	1°03'17
min. Earth dist.	9845 Jul 02 07:06	18°♑00'46	4.44299 AU
direct	9845 Sep 02 06:40	12°♑56'41	
	9846 Jan 04 14:55	0°♒	
evening set	9846 Jan 05 20:03	0°♒15'29	
conjunction	9846 Jan 18 23:54	3°♒04'20	0°38'56
minimum elong	9846 Jan 18 23:55	3°♒04'21	0°39'17
max. Earth dist.	9846 Jan 18 20:59	3°♒02'47	6.48332 AU
morning rise	9846 Feb 01 01:44	5°♒52'09	
	9846 Mar 18 23:18	15°♒	
retrograde	9846 Jun 01 16:28	22°♒30'24	
opposition	9846 Aug 01 14:08	17°♒35'15	0°46'16
min. Earth dist.	9846 Aug 02 01:55	17°♒31'28	4.50306 AU

	9846 Aug 22 17:46	15°℞♒	
direct	9846 Oct 03 01:31	12°♒33'46	
	9846 Nov 13 13:48	15°♒	
evening set	9847 Feb 05 05:55	29°♒41'30	
	9847 Feb 06 16:41	0°♓	
max. Earth dist.	9847 Feb 16 22:29	2°♓11'28	6.50057 AU
conjunction	9847 Feb 18 05:15	2°♓27'57	0°22'40
minimum elong	9847 Feb 18 05:16	2°♓27'58	0°22'53
morning rise	9847 Mar 03 02:38	5°♓13'29	
retrograde	9847 Jul 01 14:24	21°♓50'38	
opposition	9847 Aug 31 15:20	16°♓57'13	0°17'36
min. Earth dist.	9847 Sep 01 19:57	16°♓48'04	4.47697 AU
direct	9847 Nov 02 07:45	11°♓56'00	
evening set	9848 Mar 06 09:52	29°♓15'25	
	9848 Mar 09 20:08	0°♈	
max. Earth dist.	9848 Mar 17 05:20	1°♈36'30	6.43235 AU
conjunction	9848 Mar 19 06:06	2°♈03'07	0°00'22
minimum elong	9848 Mar 19 06:05	2°♈03'07	0°00'23
behind sun begin	9848 Mar 18 22:08	1°♈58'48	
behind sun end	9848 Mar 19 14:03	2°♈07'26	
desc. node	9848 Mar 25 02:54	3°♈20'02	
morning rise	9848 Apr 01 00:25	4°♈50'10	
retrograde	9848 Jul 31 20:24	21°♈57'06	
opposition	9848 Sep 30 19:56	17°♈04'08	-0°16'36
min. Earth dist.	9848 Oct 02 10:28	16°♈51'49	4.37024 AU
direct	9848 Dec 02 01:26	12°♈03'52	
evening set	9849 Apr 06 08:35	29°♈56'39	
	9849 Apr 06 14:35	0°♉	
max. Earth dist.	9849 Apr 16 18:46	2°♉17'11	6.29408 AU
conjunction	9849 Apr 19 03:15	2°♉49'03	-0°22'47
minimum elong	9849 Apr 19 03:14	2°♉49'03	0°22'58
morning rise	9849 May 01 21:11	5°♉41'21	
	9849 Jun 14 21:38	15°♉	
retrograde	9849 Sep 03 11:04	23°♉46'16	
opposition	9849 Nov 03 01:28	18°♉52'31	-0°48'10
min. Earth dist.	9849 Nov 04 15:57	18°♉40'06	4.20859 AU
	9849 Dec 07 13:53	15°℞♉	
direct	9850 Jan 03 06:54	13°♉53'52	
	9850 Jan 29 21:36	15°♉	
	9850 Apr 27 16:17	0°♊	
evening set	9850 May 08 23:59	2°♊36'18	
max. Earth dist.	9850 May 19 21:33	5°♊09'03	6.12175 AU
conjunction	9850 May 21 20:08	5°♊36'21	-0°40'01
minimum elong	9850 May 21 20:07	5°♊36'20	0°40'23
morning rise	9850 Jun 03 16:29	8°♊36'53	
retrograde	9850 Oct 09 16:52	27°♊57'28	
opposition	9850 Dec 08 19:51	23°♊01'54	-1°06'10
min. Earth dist.	9850 Dec 09 20:08	22°♊53'57	4.03915 AU
direct	9851 Feb 06 14:25	18°♊05'30	
	9851 May 10 18:36	0°♋	
evening set	9851 Jun 12 22:50	7°♋40'04	
conjunction	9851 Jun 25 23:28	10°♋48'54	-0°44'10
minimum elong	9851 Jun 25 23:28	10°♋48'54	0°44'33
max. Earth dist.	9851 Jun 25 03:16	10°♋36'40	5.97069 AU
morning rise	9851 Jul 09 01:52	13°♋58'54	
	9851 Sep 23 21:09	0°♌	
retrograde	9851 Nov 17 03:49	4°♌27'55	
	9852 Jan 11 22:29	30°℞♋	
opposition	9852 Jan 15 18:22	29°♋29'22	-1°00'05
min. Earth dist.	9852 Jan 15 18:33	29°♋29'19	3.92212 AU
direct	9852 Mar 14 06:43	24°♋34'32	
	9852 May 12 03:52	0°♌	
evening set	9852 Jul 19 02:22	14°♌42'12	
	9852 Jul 20 07:35	15°♌	
conjunction	9852 Aug 01 10:12	17°♌57'48	-0°31'12
minimum elong	9852 Aug 01 10:13	17°♌57'48	0°31'28
max. Earth dist.	9852 Aug 02 05:01	18°♌09'20	5.89990 AU
morning rise	9852 Aug 14 20:14	21°♌14'41	
	9852 Sep 21 10:04	0°♍	
retrograde	9852 Dec 25 01:58	12°♍09'59	
min. Earth dist.	9853 Feb 21 10:07	7°♍16'00	3.90688 AU
opposition	9853 Feb 22 09:30	7°♍08'05	-0°28'53
direct	9853 Apr 21 07:23	2°♍13'03	
evening set	9853 Aug 26 07:55	22°♍16'52	
conjunction	9853 Sep 08 21:34	25°♍33'16	-0°05'27
minimum elong	9853 Sep 08 21:35	25°♍33'17	0°05'30
behind sun begin	9853 Sep 08 13:31	25°♍28'26	
behind sun end	9853 Sep 09 05:39	25°♍38'07	
max. Earth dist.	9853 Sep 10 23:44	26°♍03'33	5.94131 AU
morning rise	9853 Sep 22 13:25	28°♍50'37	
	9853 Sep 27 09:44	0°♎	
asc. node	9853 Nov 24 15:44	12°♎29'47	
retrograde	9854 Jan 31 08:42	19°♎14'02	
min. Earth dist.	9854 Mar 30 05:15	14°♎22'57	4.00027 AU
opposition	9854 Mar 31 19:25	14°♎09'58	0°13'29
direct	9854 May 29 00:47	9°♎13'02	
evening set	9854 Oct 02 22:03	28°♎38'29	
	9854 Oct 08 18:11	0°♏	
conjunction	9854 Oct 16 13:23	1°♏49'14	0°21'50
minimum elong	9854 Oct 16 13:22	1°♏49'14	0°22'00
max. Earth dist.	9854 Oct 19 01:24	2°♏24'15	6.07655 AU
morning rise	9854 Oct 30 05:48	5°♏00'10	
	9854 Dec 15 06:39	15°♏	
retrograde	9855 Mar 06 23:53	24°♏13'35	
min. Earth dist.	9855 May 04 06:39	19°♏22'12	4.16193 AU
opposition	9855 May 05 19:02	19°♏09'54	0°48'14
	9855 Jun 11 17:25	15°℞♏	
direct	9855 Jul 04 02:48	14°♏10'44	
	9855 Jul 26 16:14	15°♏	
	9855 Oct 26 05:35	0°♐	
evening set	9855 Nov 07 13:04	2°♐43'21	
conjunction	9855 Nov 21 02:02	5°♐45'18	0°40'01
minimum elong	9855 Nov 21 02:01	5°♐45'18	0°40'22
max. Earth dist.	9855 Nov 23 03:30	6°♐13'02	6.24997 AU
morning rise	9855 Dec 04 14:25	8°♐46'40	
retrograde	9856 Apr 06 23:29	26°♐45'38	
min. Earth dist.	9856 Jun 05 05:34	21°♐52'49	4.33151 AU
opposition	9856 Jun 06 06:21	21°♐44'35	1°04'42
direct	9856 Aug 05 21:02	16°♐43'55	
	9856 Nov 18 15:23	0°♑	
evening set	9856 Dec 09 19:59	4°♑29'20	
conjunction	9856 Dec 23 04:03	7°♑22'59	0°44'54
minimum elong	9856 Dec 23 04:03	7°♑22'59	0°45'18
max. Earth dist.	9856 Dec 24 02:21	7°♑35'06	6.40267 AU
morning rise	9857 Jan 05 10:48	10°♑15'45	
retrograde	9857 May 07 06:53	27°♑18'59	
opposition	9857 Jul 06 22:36	22°♑21'17	1°01'41
min. Earth dist.	9857 Jul 06 17:21	22°♑22'59	4.45706 AU
direct	9857 Sep 06 18:33	17°♑19'52	
	9857 Dec 19 02:43	0°♒	
evening set	9858 Jan 10 04:36	4°♒35'13	
conjunction	9858 Jan 23 07:48	7°♒23'28	0°37'07
minimum elong	9858 Jan 23 07:49	7°♒23'28	0°37'26

max. Earth dist.	9858 Jan 23 01:13	7°♒19'56	6.49234 AU
morning rise	9858 Feb 05 08:55	10°♒10'39	
	9858 Feb 28 14:49	15°♒	
retrograde	9858 Jun 05 19:55	26°♒46'19	
opposition	9858 Aug 05 19:18	21°♒51'23	0°42'44
min. Earth dist.	9858 Aug 06 08:55	21°♒47'00	4.50641 AU
direct	9858 Oct 07 07:41	16°♒49'52	
	9859 Jan 21 13:14	0°♓	
evening set	9859 Feb 09 11:37	3°♓57'13	
max. Earth dist.	9859 Feb 21 01:29	6°♓25'51	6.49784 AU
conjunction	9859 Feb 22 10:28	6°♓43'33	0°19'45
minimum elong	9859 Feb 22 10:29	6°♓43'33	0°19'56
morning rise	9859 Mar 07 07:09	9°♓28'57	
retrograde	9859 Jul 05 20:54	26°♓07'51	
opposition	9859 Sep 04 22:16	21°♓14'36	0°12'55
min. Earth dist.	9859 Sep 06 05:04	21°♓04'46	4.46817 AU
direct	9859 Nov 06 14:29	16°♓13'30	
desc. node	9860 Feb 01 14:15	25°♓45'00	
	9860 Feb 22 19:54	0°♈	
evening set	9860 Mar 10 16:26	3°♈35'52	
max. Earth dist.	9860 Mar 21 08:01	5°♈55'23	6.41787 AU
conjunction	9860 Mar 23 12:09	6°♈23'57	-0°03'04
minimum elong	9860 Mar 23 12:09	6°♈23'57	0°03'06
behind sun begin	9860 Mar 23 04:12	6°♈19'37	
behind sun end	9860 Mar 23 20:05	6°♈28'17	
morning rise	9860 Apr 05 06:24	9°♈11'30	
retrograde	9860 Aug 05 10:15	26°♈24'39	
opposition	9860 Oct 05 08:11	21°♈31'38	-0°21'26
min. Earth dist.	9860 Oct 06 23:50	21°♈18'55	4.35078 AU
direct	9860 Dec 06 11:30	16°♈31'30	
	9861 Mar 21 07:07	0°♉	
evening set	9861 Apr 10 19:07	4°♉30'21	
max. Earth dist.	9861 Apr 21 06:16	6°♉52'07	6.27110 AU
conjunction	9861 Apr 23 13:59	7°♉23'42	-0°25'43
minimum elong	9861 Apr 23 13:58	7°♉23'41	0°25'56
morning rise	9861 May 06 07:56	10°♉16'58	
	9861 May 27 15:44	15°♉	
retrograde	9861 Sep 08 08:05	28°♉31'51	
opposition	9861 Nov 07 21:44	23°♉37'57	-0°51'46
min. Earth dist.	9861 Nov 09 11:04	23°♉25'54	4.18370 AU
direct	9862 Jan 07 21:56	18°♉39'39	
	9862 Apr 10 06:56	0°♊	
evening set	9862 May 13 17:57	7°♊29'58	
max. Earth dist.	9862 May 24 17:35	10°♊04'49	6.09695 AU
conjunction	9862 May 26 14:23	10°♊31'14	-0°41'31
minimum elong	9862 May 26 14:22	10°♊31'14	0°41'54
morning rise	9862 Jun 08 11:30	13°♊33'10	
	9862 Aug 31 00:42	0°♋	
retrograde	9862 Oct 15 00:01	3°♋05'08	
	9862 Nov 29 14:33	30°℞♊	
opposition	9862 Dec 14 00:55	28°♊09'13	-1°06'55
min. Earth dist.	9862 Dec 14 22:26	28°♊02'09	4.01662 AU
direct	9863 Feb 11 15:23	23°♊13'06	
	9863 Apr 20 01:39	0°♋	
evening set	9863 Jun 18 01:17	12°♋54'48	
conjunction	9863 Jul 01 03:02	16°♋04'58	-0°43'20
minimum elong	9863 Jul 01 03:03	16°♋04'58	0°43'44
max. Earth dist.	9863 Jun 30 12:56	15°♋56'24	5.95283 AU
morning rise	9863 Jul 14 06:22	19°♋16'16	
	9863 Aug 30 12:05	0°♌	
retrograde	9863 Nov 22 17:16	9°♌53'09	
opposition	9864 Jan 21 05:09	4°♌54'13	-0°56'59
min. Earth dist.	9864 Jan 21 02:20	4°♌55'10	3.91117 AU
	9864 Mar 17 12:45	30°℞♋	
direct	9864 Mar 19 13:44	29°♋59'34	
	9864 Mar 21 14:44	0°♌	
	9864 Jul 02 20:37	15°♌	
evening set	9864 Jul 24 11:31	20°♌10'04	
conjunction	9864 Aug 06 20:15	23°♌26'18	-0°28'04
minimum elong	9864 Aug 06 20:16	23°♌26'19	0°28'20
max. Earth dist.	9864 Aug 07 19:29	23°♌40'32	5.89695 AU
morning rise	9864 Aug 20 07:31	26°♌43'52	
	9864 Sep 02 21:35	0°♍	
retrograde	9864 Dec 30 11:47	17°♍38'53	
opposition	9865 Feb 27 19:36	12°♍36'37	-0°23'03
min. Earth dist.	9865 Feb 26 16:10	12°♍45'55	3.91270 AU
direct	9865 Apr 26 16:17	7°♍41'28	
evening set	9865 Aug 31 17:53	27°♍42'03	
	9865 Sep 10 07:37	0°♎	
conjunction	9865 Sep 14 08:03	0°♎58'02	-0°01'21
minimum elong	9865 Sep 14 08:02	0°♎58'01	0°01'21
behind sun begin	9865 Sep 13 23:38	0°♎53'00	
behind sun end	9865 Sep 14 16:26	1°♎03'03	
max. Earth dist.	9865 Sep 16 13:05	1°♎29'56	5.95533 AU
morning rise	9865 Sep 28 00:16	4°♎14'50	
asc. node	9865 Oct 02 22:13	5°♎24'53	
retrograde	9866 Feb 05 11:05	24°♎30'02	
min. Earth dist.	9866 Apr 04 08:13	19°♎38'54	4.02076 AU
opposition	9866 Apr 05 22:43	19°♎25'49	0°19'16
direct	9866 Jun 03 07:42	14°♎28'34	
	9866 Sep 21 13:19	0°♏	
evening set	9866 Oct 08 02:37	3°♏46'28	
conjunction	9866 Oct 21 17:56	6°♏56'02	0°25'07
minimum elong	9866 Oct 21 17:55	6°♏56'01	0°25'20
max. Earth dist.	9866 Oct 24 07:32	7°♏31'45	6.10159 AU
morning rise	9866 Nov 04 09:50	10°♏05'34	
	9866 Nov 26 05:27	15°♏	
retrograde	9867 Mar 11 15:16	29°♏07'17	
min. Earth dist.	9867 May 09 00:37	24°♏16'00	4.18893 AU
opposition	9867 May 10 12:40	24°♏03'52	0°51'44
direct	9867 Jul 09 00:29	19°♏04'28	
	9867 Oct 08 08:19	0°♐	
evening set	9867 Nov 12 09:03	7°♐28'45	
conjunction	9867 Nov 25 21:12	10°♐29'15	0°41'30
minimum elong	9867 Nov 25 21:11	10°♐29'15	0°41'52
max. Earth dist.	9867 Nov 27 18:21	10°♐54'26	6.27652 AU
morning rise	9867 Dec 09 08:56	13°♐29'10	
	9868 Mar 13 11:50	0°♑	
retrograde	9868 Apr 11 07:26	1°♑17'54	
	9868 May 09 22:40	30°℞♐	
opposition	9868 Jun 10 15:54	26°♐17'15	1°05'20
min. Earth dist.	9868 Jun 09 18:15	26°♐24'25	4.35546 AU
direct	9868 Aug 10 12:25	21°♐16'23	
	9868 Oct 31 08:50	0°♑	
evening set	9868 Dec 14 07:19	8°♑55'20	
conjunction	9868 Dec 27 14:48	11°♑47'56	0°44'28
minimum elong	9868 Dec 27 14:48	11°♑47'57	0°44'52
max. Earth dist.	9868 Dec 28 10:17	11°♑58'29	6.42223 AU
morning rise	9869 Jan 09 20:32	14°♑39'34	
	9869 Apr 08 21:20	0°♒	
retrograde	9869 May 11 08:26	1°♒36'24	
	9869 Jun 12 17:59	30°℞♑	
opposition	9869 Jul 11 03:00	26°♑39'06	0°59'49
min. Earth dist.	9869 Jul 10 23:48	26°♑40'09	4.47103 AU

direct	9869 Sep 11 01:43	21°♑37'39	
	9869 Dec 01 03:45	0°♒	
evening set	9870 Jan 14 10:36	8°♒49'50	
conjunction	9870 Jan 27 13:00	11°♒37'30	0°35'09
minimum elong	9870 Jan 27 13:00	11°♒37'31	0°35'28
max. Earth dist.	9870 Jan 27 01:17	11°♒31'15	6.49971 AU
morning rise	9870 Feb 09 13:27	14°♒24'10	
	9870 Feb 12 09:07	15°♒	
	9870 May 15 18:16	0°♓	
retrograde	9870 Jun 09 23:14	0°♓58'05	
	9870 Jul 05 01:13	30°℞♒	
opposition	9870 Aug 09 22:39	26°♒03'28	0°39'03
min. Earth dist.	9870 Aug 10 16:09	25°♒57'51	4.50674 AU
direct	9870 Oct 11 13:50	21°♒01'55	
	9871 Jan 04 03:15	0°♓	
evening set	9871 Feb 13 15:39	8°♓09'55	
max. Earth dist.	9871 Feb 25 00:35	10°♓36'11	6.49098 AU
conjunction	9871 Feb 26 14:01	10°♓56'18	0°16'46
minimum elong	9871 Feb 26 14:01	10°♓56'19	0°16'56
morning rise	9871 Mar 11 10:20	13°♓41'50	
	9871 Jun 24 01:19	0°♈	
retrograde	9871 Jul 10 03:05	0°♈23'58	
	9871 Jul 26 04:36	30°℞♓	
opposition	9871 Sep 09 04:36	25°♓30'46	0°08'13
min. Earth dist.	9871 Sep 10 13:01	25°♓20'24	4.45453 AU
direct	9871 Nov 10 19:22	20°♓29'41	
desc. node	9871 Dec 12 02:51	21°♓55'18	
	9872 Feb 05 12:45	0°♈	
evening set	9872 Mar 14 22:24	7°♈56'31	
max. Earth dist.	9872 Mar 25 13:24	10°♈16'17	6.39837 AU
conjunction	9872 Mar 27 18:01	10°♈45'15	-0°06'23
minimum elong	9872 Mar 27 18:01	10°♈45'15	0°06'26
behind sun begin	9872 Mar 27 10:31	10°♈41'09	
behind sun end	9872 Mar 28 01:32	10°♈49'22	
morning rise	9872 Apr 09 12:00	13°♈33'29	
	9872 Jul 16 15:47	0°♉	
retrograde	9872 Aug 10 00:21	0°♉54'36	
	9872 Sep 03 08:23	30°℞♈	
opposition	9872 Oct 09 21:23	26°♈01'32	-0°26'10
min. Earth dist.	9872 Oct 11 13:58	25°♈48'32	4.32654 AU
direct	9872 Dec 10 21:43	21°♈01'38	
	9873 Mar 03 06:04	0°♉	
evening set	9873 Apr 15 07:13	9°♉08'04	
max. Earth dist.	9873 Apr 25 17:29	11°♉30'17	6.24390 AU
conjunction	9873 Apr 28 02:01	12°♉02'31	-0°28'31
minimum elong	9873 Apr 28 02:00	12°♉02'31	0°28'46
morning rise	9873 May 10 20:26	14°♉57'03	
	9873 May 11 01:37	15°♉	
	9873 Jul 27 15:47	0°♊	
retrograde	9873 Sep 13 08:40	3°♊23'28	
	9873 Oct 31 23:28	30°℞♉	
opposition	9873 Nov 12 20:23	28°♉29'20	-0°55'05
min. Earth dist.	9873 Nov 14 08:02	28°♉17'46	4.15551 AU
direct	9874 Jan 12 15:59	23°♉31'17	
	9874 Mar 20 17:07	0°♊	
evening set	9874 May 18 14:35	12°♊30'32	
max. Earth dist.	9874 May 29 19:38	15°♊09'28	6.07049 AU
conjunction	9874 May 31 11:47	15°♊33'16	-0°42'45
minimum elong	9874 May 31 11:46	15°♊33'16	0°43'07
morning rise	9874 Jun 13 09:31	18°♊36'40	
	9874 Aug 04 09:18	0°♋	
retrograde	9874 Oct 20 11:35	8°♋20'20	
opposition	9874 Dec 19 09:05	3°♋24'05	-1°07'07
min. Earth dist.	9874 Dec 20 03:46	3°♋17'56	3.99457 AU
	9875 Jan 16 22:31	30°℞♊	
direct	9875 Feb 16 18:26	28°♊28'18	
	9875 Mar 19 08:08	0°♋	
evening set	9875 Jun 23 06:55	18°♋16'36	
conjunction	9875 Jul 06 09:30	21°♋27'56	-0°42'08
minimum elong	9875 Jul 06 09:31	21°♋27'56	0°42'31
max. Earth dist.	9875 Jul 05 23:55	21°♋22'05	5.93737 AU
morning rise	9875 Jul 19 14:09	24°♋40'31	
	9875 Aug 11 00:35	0°♌	
	9875 Nov 12 19:05	15°♌	
retrograde	9875 Nov 28 05:56	15°♌23'40	
	9875 Dec 13 17:05	15°℞♌	
opposition	9876 Jan 26 17:59	10°♌24'11	-0°53'19
min. Earth dist.	9876 Jan 26 10:01	10°♌26'51	3.90435 AU
direct	9876 Mar 24 22:39	5°♌29'35	
	9876 Jun 13 07:45	15°♌	
evening set	9876 Jul 29 22:23	25°♌40'53	
conjunction	9876 Aug 12 08:04	28°♌57'27	-0°24'40
minimum elong	9876 Aug 12 08:05	28°♌57'28	0°24'54
max. Earth dist.	9876 Aug 13 13:09	29°♌15'15	5.89946 AU
	9876 Aug 16 14:17	0°♍	
morning rise	9876 Aug 25 20:12	2°♍15'16	
retrograde	9877 Jan 04 21:38	23°♍07'14	
min. Earth dist.	9877 Mar 04 00:05	18°♍14'29	3.92403 AU
opposition	9877 Mar 05 05:32	18°♍04'29	-0°17'01
direct	9877 May 02 03:59	13°♍09'03	
asc. node	9877 Aug 10 20:49	26°♍57'23	
	9877 Aug 24 03:18	0°♎	
evening set	9877 Sep 06 03:25	3°♎04'15	
conjunction	9877 Sep 19 18:04	6°♎19'31	0°02'50
minimum elong	9877 Sep 19 18:05	6°♎19'32	0°02'51
behind sun begin	9877 Sep 19 09:43	6°♎14'33	
behind sun end	9877 Sep 20 02:26	6°♎24'31	
max. Earth dist.	9877 Sep 22 03:07	6°♎53'40	5.97410 AU
morning rise	9877 Oct 03 10:26	9°♎35'29	
retrograde	9878 Feb 10 11:07	29°♎40'26	
min. Earth dist.	9878 Apr 09 08:41	24°♎49'32	4.04468 AU
opposition	9878 Apr 10 23:58	24°♎36'12	0°24'49
direct	9878 Jun 08 11:38	19°♎38'40	
	9878 Sep 03 01:29	0°♏	
evening set	9878 Oct 13 05:22	8°♏48'14	
conjunction	9878 Oct 26 20:14	11°♏56'26	0°28'11
minimum elong	9878 Oct 26 20:13	11°♏56'25	0°28'26
max. Earth dist.	9878 Oct 29 07:24	12°♏30'31	6.12810 AU
morning rise	9878 Nov 09 11:50	15°♏04'35	
	9878 Nov 09 03:49	15°♏	
	9879 Jan 24 06:57	0°♐	
retrograde	9879 Mar 16 04:40	3°♐54'42	
	9879 May 06 15:07	30°℞♏	
min. Earth dist.	9879 May 13 18:01	29°♏03'07	4.21552 AU
opposition	9879 May 15 04:20	28°♏51'35	0°54'51
direct	9879 Jul 13 21:09	23°♏51'55	
	9879 Sep 17 15:21	0°♐	
evening set	9879 Nov 17 02:57	12°♐08'30	
conjunction	9879 Nov 30 14:37	15°♐07'43	0°42'43
minimum elong	9879 Nov 30 14:36	15°♐07'43	0°43'06
max. Earth dist.	9879 Dec 02 09:24	15°♐31'28	6.30118 AU
morning rise	9879 Dec 14 01:21	18°♐06'15	
	9880 Feb 11 22:32	0°♑	
retrograde	9880 Apr 15 14:01	5°♑45'51	

min. Earth dist.	9880 Jun	14	04:43	0°♑52'10	4.37642 AU
opposition	9880 Jun	15	00:06	0°♑45'47	1°05'36
	9880 Jun	20	19:28	30°℞♐	
direct	9880 Aug	15	00:49	25°♐44'51	
	9880 Oct	08	22:51	0°♑	
evening set	9880 Dec	18	18:07	13°♑18'41	
conjunction	9881 Jan	01	00:42	16°♑10'23	0°43'48
minimum elong	9881 Jan	01	00:43	16°♑10'23	0°44'12
max. Earth dist.	9881 Jan	01	14:08	16°♑17'38	6.43797 AU
morning rise	9881 Jan	14	05:48	19°♑01'07	
	9881 Mar	11	13:35	0°♒	
retrograde	9881 May	15	12:45	5°♒53'03	
opposition	9881 Jul	15	07:31	0°♒56'13	0°57'40
min. Earth dist.	9881 Jul	15	08:07	0°♒56'02	4.48079 AU
	9881 Jul	22	13:43	30°℞♑	
direct	9881 Sep	15	09:51	25°♑54'42	
	9881 Nov	08	21:21	0°♒	
evening set	9882 Jan	18	16:47	13°♒05'13	
	9882 Jan	27	16:23	15°♒	
conjunction	9882 Jan	31	18:45	15°♒52'34	0°32'59
minimum elong	9882 Jan	31	18:46	15°♒52'35	0°33'17
max. Earth dist.	9882 Jan	31	03:45	15°♒44'33	6.50283 AU
morning rise	9882 Feb	13	18:28	18°♒38'53	
	9882 Apr	14	03:17	0°♓	
retrograde	9882 Jun	14	02:22	5°♓12'32	
opposition	9882 Aug	14	03:16	0°♓18'13	0°35'08
min. Earth dist.	9882 Aug	14	22:30	0°♓12'04	4.50322 AU
	9882 Aug	16	12:08	30°℞♒	
direct	9882 Oct	15	18:15	25°♒16'45	
	9882 Dec	13	20:42	0°♓	
evening set	9883 Feb	17	21:11	12°♓26'37	
max. Earth dist.	9883 Mar	01	02:49	14°♓51'31	6.48099 AU
conjunction	9883 Mar	02	19:01	15°♓13'12	0°13'40
minimum elong	9883 Mar	02	19:02	15°♓13'12	0°13'47
behind sun begin	9883 Mar	02	14:48	15°♓10'56	
behind sun end	9883 Mar	02	23:16	15°♓15'29	
morning rise	9883 Mar	15	14:56	17°♓58'58	
	9883 May	17	12:53	0°♈	
retrograde	9883 Jul	14	12:53	4°♈45'27	
	9883 Sep	12	13:33	30°℞♓	
opposition	9883 Sep	13	13:18	29°♓52'25	0°03'21
min. Earth dist.	9883 Sep	15	00:20	29°♓41'14	4.43860 AU
desc. node	9883 Oct	21	12:12	25°♓45'40	
direct	9883 Nov	15	03:55	24°♓51'30	
	9884 Jan	15	12:06	0°♈	
evening set	9884 Mar	19	06:53	12°♈23'33	
max. Earth dist.	9884 Mar	29	19:04	14°♈42'30	6.37757 AU
conjunction	9884 Apr	01	02:15	15°♈13'01	-0°09'45
minimum elong	9884 Apr	01	02:15	15°♈13'00	0°09'49
behind sun begin	9884 Mar	31	19:42	15°♈09'24	
behind sun end	9884 Apr	01	08:47	15°♈16'36	
morning rise	9884 Apr	13	20:15	18°♈02'02	
	9884 Jun	13	04:15	0°♉	
retrograde	9884 Aug	14	16:53	5°♉31'42	
opposition	9884 Oct	14	13:16	0°♉38'34	-0°30'53
min. Earth dist.	9884 Oct	16	05:11	0°♉25'45	4.30231 AU
	9884 Oct	19	13:43	30°℞♈	
direct	9884 Dec	15	09:35	25°♈38'54	
	9885 Feb	08	12:15	0°♉	
evening set	9885 Apr	19	21:41	13°♉52'59	
	9885 Apr	24	19:18	15°♉	
max. Earth dist.	9885 Apr	30	11:03	16°♉17'44	6.21830 AU
conjunction	9885 May	02	16:47	16°♉48'34	-0°31'13
minimum elong	9885 May	02	16:46	16°♉48'34	0°31'30
morning rise	9885 May	15	11:21	19°♉44'17	
	9885 Jul	02	13:05	0°♊	
retrograde	9885 Sep	18	12:29	8°♊21'43	
opposition	9885 Nov	17	21:38	3°♊27'26	-0°58'07
min. Earth dist.	9885 Nov	19	07:52	3°♊16'20	4.13076 AU
	9885 Dec	17	10:06	30°℞♉	
direct	9886 Jan	17	12:53	28°♉29'49	
	9886 Feb	17	10:02	0°♊	
evening set	9886 May	23	13:05	17°♊36'36	
max. Earth dist.	9886 Jun	03	21:27	20°♊18'19	6.04891 AU
conjunction	9886 Jun	05	10:43	20°♊40'31	-0°43'41
minimum elong	9886 Jun	05	10:43	20°♊40'31	0°44'05
morning rise	9886 Jun	18	09:23	23°♊45'16	
	9886 Jul	15	11:06	0°♋	
retrograde	9886 Oct	25	20:27	13°♋38'34	
opposition	9886 Dec	24	17:48	8°♋41'54	-1°06'49
min. Earth dist.	9886 Dec	25	07:43	8°♋37'18	3.97864 AU
direct	9887 Feb	21	21:53	3°♋46'23	
evening set	9887 Jun	28	12:32	23°♋38'53	
conjunction	9887 Jul	11	16:04	26°♋51'03	-0°40'38
minimum elong	9887 Jul	11	16:05	26°♋51'03	0°41'00
max. Earth dist.	9887 Jul	11	13:14	26°♋49'19	5.92882 AU
morning rise	9887 Jul	24	21:36	0°♌04'28	
	9887 Jul	24	14:13	0°♌	
	9887 Oct	02	02:40	15°♌	
retrograde	9887 Dec	03	17:56	20°♌50'43	
opposition	9888 Feb	01	04:42	15°♌50'43	-0°49'16
min. Earth dist.	9888 Jan	31	17:52	15°♌54'21	3.90428 AU
	9888 Feb	07	12:19	15°℞♌	
direct	9888 Mar	30	09:02	10°♌56'05	
	9888 May	19	14:57	15°♌	
	9888 Jul	30	18:15	0°♍	
evening set	9888 Aug	04	06:38	1°♍05'36	
conjunction	9888 Aug	17	17:12	4°♍22'09	-0°21'11
minimum elong	9888 Aug	17	17:13	4°♍22'09	0°21'23
max. Earth dist.	9888 Aug	19	04:03	4°♍43'25	5.90780 AU
morning rise	9888 Aug	31	06:04	7°♍39'53	
retrograde	9889 Jan	10	02:38	28°♍26'13	
min. Earth dist.	9889 Mar	09	03:18	23°♍33'55	3.93990 AU
opposition	9889 Mar	10	11:06	23°♍23'07	-0°11'04
direct	9889 May	07	09:47	18°♍27'26	
asc. node	9889 Jun	21	01:03	21°♍40'52	
	9889 Aug	06	02:47	0°♎	
evening set	9889 Sep	11	08:31	8°♎15'53	
conjunction	9889 Sep	24	23:14	11°♎30'11	0°06'43
minimum elong	9889 Sep	24	23:13	11°♎30'11	0°06'45
behind sun begin	9889 Sep	24	15:26	11°♎25'34	
behind sun end	9889 Sep	25	07:01	11°♎34'48	
max. Earth dist.	9889 Sep	27	08:16	12°♎04'08	5.99551 AU
morning rise	9889 Oct	08	15:51	14°♎45'08	
	9889 Dec	21	18:00	0°♏	
retrograde	9890 Feb	15	04:47	4°♏39'19	
	9890 Apr	12	18:40	30°℞♎	
min. Earth dist.	9890 Apr	14	05:01	29°♎48'21	4.06923 AU
opposition	9890 Apr	15	20:12	29°♎35'04	0°29'54
direct	9890 Jun	13	11:54	24°♎37'09	
	9890 Aug	12	09:37	0°♏	
evening set	9890 Oct	18	03:09	13°♏38'33	
	9890 Oct	24	01:45	15°♏	
conjunction	9890 Oct	31	17:49	16°♏45'28	0°30'56

minimum elong	9890 Oct 31 17:48	16°♏45'27	0°31'12
max. Earth dist.	9890 Nov 03 03:37	17°♏18'35	6.15367 AU
morning rise	9890 Nov 14 08:44	19°♏52'11	
	9891 Jan 01 02:08	0°♐	
retrograde	9891 Mar 20 15:23	8°♐31'29	
min. Earth dist.	9891 May 18 07:35	3°♐39'29	4.23975 AU
opposition	9891 May 19 15:35	3°♐28'46	0°57'30
	9891 Jun 17 13:51	30°℞♏	
direct	9891 Jul 18 13:22	28°♏28'53	
	9891 Aug 18 19:47	0°♐	
evening set	9891 Nov 21 16:57	16°♐38'48	
conjunction	9891 Dec 05 03:54	19°♐36'54	0°43'39
minimum elong	9891 Dec 05 03:54	19°♐36'53	0°44'03
max. Earth dist.	9891 Dec 06 17:54	19°♐57'52	6.32216 AU
morning rise	9891 Dec 18 14:03	22°♐34'16	
	9892 Jan 23 00:30	0°♑	
retrograde	9892 Apr 19 18:01	10°♑06'18	
opposition	9892 Jun 19 05:23	5°♑06'40	1°05'33
min. Earth dist.	9892 Jun 18 12:48	5°♑12'08	4.39295 AU
direct	9892 Aug 19 09:27	0°♑05'35	
evening set	9892 Dec 23 01:57	17°♑35'44	
conjunction	9893 Jan 05 08:04	20°♑26'46	0°42'57
minimum elong	9893 Jan 05 08:05	20°♑26'46	0°43'20
max. Earth dist.	9893 Jan 05 18:18	20°♑32'17	6.44911 AU
morning rise	9893 Jan 18 12:17	23°♑16'47	
	9893 Feb 20 04:38	0°♒	
retrograde	9893 May 19 14:50	10°♒05'20	
opposition	9893 Jul 19 10:33	5°♒08'58	0°55'19
min. Earth dist.	9893 Jul 19 13:34	5°♒07'59	4.48610 AU
direct	9893 Sep 19 14:44	0°♒07'28	
	9894 Jan 12 00:20	15°♒	
evening set	9894 Jan 22 21:57	17°♒17'30	
conjunction	9894 Feb 04 23:11	20°♒04'38	0°30'43
minimum elong	9894 Feb 04 23:12	20°♒04'39	0°31'00
max. Earth dist.	9894 Feb 04 03:08	19°♒53'55	6.50202 AU
morning rise	9894 Feb 17 22:30	22°♒50'49	
	9894 Mar 25 02:34	0°♓	
retrograde	9894 Jun 18 07:49	9°♓25'19	
opposition	9894 Aug 18 07:43	4°♓31'16	0°31'08
min. Earth dist.	9894 Aug 19 06:07	4°♓24'06	4.49655 AU
	9894 Oct 01 15:23	30°℞♒	
direct	9894 Oct 19 24:00	29°♒29'49	
	9894 Nov 07 09:53	0°♓	
evening set	9895 Feb 22 02:25	16°♓42'17	
max. Earth dist.	9895 Mar 05 05:44	19°♓06'20	6.46897 AU
conjunction	9895 Mar 06 24:00	19°♓29'11	0°10'32
minimum elong	9895 Mar 07 00:00	19°♓29'11	0°10'38
behind sun begin	9895 Mar 06 17:49	19°♓25'52	
behind sun end	9895 Mar 07 06:11	19°♓32'31	
morning rise	9895 Mar 19 19:30	22°♓15'16	
	9895 Apr 26 14:46	0°♈	
retrograde	9895 Jul 18 21:06	9°♈06'34	
desc. node	9895 Sep 01 05:30	6°♈17'17	
opposition	9895 Sep 17 22:13	4°♈13'34	-0°01'29
min. Earth dist.	9895 Sep 19 09:18	4°♈02'22	4.42206 AU
	9895 Oct 27 12:33	30°℞♓	
direct	9895 Nov 19 09:58	29°♓12'49	
	9895 Dec 12 10:11	0°♈	
evening set	9896 Mar 23 15:13	16°♈49'56	
max. Earth dist.	9896 Apr 03 03:40	19°♈09'39	6.35766 AU
conjunction	9896 Apr 05 10:23	19°♈40'04	-0°13'01
minimum elong	9896 Apr 05 10:23	19°♈40'04	0°13'07
behind sun begin	9896 Apr 05 05:34	19°♈37'24	
behind sun end	9896 Apr 05 15:12	19°♈42'44	
morning rise	9896 Apr 18 04:16	22°♈29'51	
	9896 May 23 13:56	0°♉	
retrograde	9896 Aug 19 10:58	10°♉07'38	
opposition	9896 Oct 19 05:26	5°♉14'25	-0°35'21
min. Earth dist.	9896 Oct 20 21:48	5°♉01'28	4.28009 AU
direct	9896 Dec 19 23:20	0°♉15'02	
	9897 Apr 08 12:11	15°♉	
evening set	9897 Apr 24 11:39	18°♉35'42	
max. Earth dist.	9897 May 05 01:31	21°♉01'32	6.19539 AU
conjunction	9897 May 07 06:51	21°♉32'17	-0°33'40
minimum elong	9897 May 07 06:49	21°♉32'16	0°33'58
morning rise	9897 May 20 01:50	24°♉29'06	
	9897 Jun 13 16:27	0°♊	
retrograde	9897 Sep 23 13:08	13°♊16'30	
opposition	9897 Nov 22 21:33	8°♊21'55	-1°00'40
min. Earth dist.	9897 Nov 24 04:41	8°♊11'47	4.10885 AU
direct	9898 Jan 22 07:14	3°♊24'34	
evening set	9898 May 28 10:09	22°♊37'58	
max. Earth dist.	9898 Jun 09 00:02	25°♊23'37	6.02989 AU
conjunction	9898 Jun 10 08:27	25°♊43'01	-0°44'16
minimum elong	9898 Jun 10 08:27	25°♊43'01	0°44'41
morning rise	9898 Jun 23 07:46	28°♊48'56	
	9898 Jun 28 07:42	0°♋	
retrograde	9898 Oct 31 05:24	18°♋51'00	
opposition	9898 Dec 30 00:25	13°♋53'55	-1°05'56
min. Earth dist.	9898 Dec 30 12:01	13°♋50'05	3.96427 AU
direct	9899 Feb 27 01:16	8°♋58'38	
evening set	9899 Jul 03 16:02	28°♋54'59	
	9899 Jul 08 02:56	0°♌	
conjunction	9899 Jul 16 20:34	2°♌08'01	-0°38'47
minimum elong	9899 Jul 16 20:35	2°♌08'02	0°39'08
max. Earth dist.	9899 Jul 16 22:49	2°♌09'23	5.92053 AU
morning rise	9899 Jul 30 03:11	5°♌22'20	
	9899 Sep 09 20:10	15°♌	
retrograde	9899 Dec 09 03:16	26°♌11'41	
opposition	9900 Feb 06 12:58	21°♌11'16	-0°44'49
min. Earth dist.	9900 Feb 05 22:31	21°♌16'08	3.90328 AU
direct	9900 Apr 05 14:32	16°♌16'39	
	9900 Jul 14 08:49	0°♍	
evening set	9900 Aug 10 13:28	6°♍25'19	
conjunction	9900 Aug 24 00:40	9°♍41'55	-0°17'32
minimum elong	9900 Aug 24 00:41	9°♍41'56	0°17'41
max. Earth dist.	9900 Aug 25 14:05	10°♍04'43	5.91398 AU
morning rise	9900 Sep 06 14:25	12°♍59'43	
	9900 Nov 28 11:44	0°♎	
retrograde	9901 Jan 16 05:01	3°♎41'39	
	9901 Mar 06 11:41	30°℞♍	
min. Earth dist.	9901 Mar 15 05:19	28°♍49'43	3.95249 AU
opposition	9901 Mar 16 15:00	28°♍38'16	-0°05'05
asc. node	9901 May 02 11:27	23°♍55'18	
direct	9901 May 13 14:50	23°♍42'19	
	9901 Jul 16 20:31	0°♎	
evening set	9901 Sep 17 13:13	13°♎25'48	
conjunction	9901 Oct 01 04:20	16°♎39'25	0°10'32
minimum elong	9901 Oct 01 04:19	16°♎39'24	0°10'38
behind sun begin	9901 Sep 30 21:54	16°♎35'37	
behind sun end	9901 Oct 01 10:44	16°♎43'12	
max. Earth dist.	9901 Oct 03 15:15	17°♎14'20	6.01333 AU
morning rise	9901 Oct 14 20:51	19°♎53'29	
	9901 Nov 29 14:45	0°♏	

retrograde	9902 Feb 21	01:27	9°♏38'31		
min. Earth dist.	9902 Apr 20	02:16	4°♏47'21	4.09014 AU	
opposition	9902 Apr 21	16:29	4°♏34'24	0°34'48	
	9902 Jun 04	02:48	30°℞♎		
direct	9902 Jun 19	12:15	29°♎36'13		
	9902 Jul 04	22:36	0°♏		
	9902 Oct 08	09:17	15°♏		
evening set	9902 Oct 24	01:52	18°♏31'02		
conjunction	9902 Nov 06	16:09	21°♏36'50	0°33'29	
minimum elong	9902 Nov 06	16:08	21°♏36'49	0°33'47	
max. Earth dist.	9902 Nov 09	00:09	22°♏08'45	6.17569 AU	
morning rise	9902 Nov 20	06:41	24°♏42'22		
	9902 Dec 14	06:59	0°♐		
retrograde	9903 Mar 26	02:02	13°♐12'15		
min. Earth dist.	9903 May 23	21:14	8°♐20'17	4.26109 AU	
opposition	9903 May 25	04:13	8°♐09'55	0°59'49	
direct	9903 Jul 24	04:56	3°♐09'51		
evening set	9903 Nov 27	08:38	21°♐14'07		
conjunction	9903 Dec 10	19:00	24°♐11'10	0°44'20	
minimum elong	9903 Dec 10	18:59	24°♐11'10	0°44'44	
max. Earth dist.	9903 Dec 12	05:38	24°♐30'14	6.34140 AU	
morning rise	9903 Dec 24	04:16	27°♐07'26		
	9904 Jan 06	12:21	0°♑		
retrograde	9904 Apr 25	01:22	14°♑32'28		
opposition	9904 Jun 24	12:50	9°♑33'23	1°05'07	
min. Earth dist.	9904 Jun 23	23:00	9°♑37'55	4.40895 AU	
direct	9904 Aug 24	20:59	4°♑32'17		
evening set	9904 Dec 28	12:01	21°♑58'45		
conjunction	9905 Jan 10	17:21	24°♑49'03	0°41'51	
minimum elong	9905 Jan 10	17:21	24°♑49'03	0°42'14	
max. Earth dist.	9905 Jan 10	23:10	24°♑52'11	6.46099 AU	
morning rise	9905 Jan 23	20:56	27°♑38'21		
	9905 Feb 04	00:47	0°♒		
retrograde	9905 May 24	19:03	14°♒23'09		
opposition	9905 Jul 24	15:30	9°♒27'09	0°52'38	
min. Earth dist.	9905 Jul 24	20:49	9°♒25'25	4.49364 AU	
direct	9905 Sep 24	21:32	4°♒25'39		
	9905 Dec 26	23:38	15°♒		
evening set	9906 Jan 28	04:10	21°♒34'12		
max. Earth dist.	9906 Feb 09	07:30	24°♒09'33	6.50497 AU	
conjunction	9906 Feb 10	04:56	24°♒21'02	0°28'16	
minimum elong	9906 Feb 10	04:57	24°♒21'02	0°28'32	
morning rise	9906 Feb 23	03:25	27°♒06'49		
	9906 Mar 08	21:16	0°♓		
retrograde	9906 Jun 23	11:31	13°♓40'53		
opposition	9906 Aug 23	13:00	8°♓47'04	0°26'58	
min. Earth dist.	9906 Aug 24	12:30	8°♓39'33	4.49491 AU	
direct	9906 Oct 25	05:21	3°♓45'44		
evening set	9907 Feb 27	07:29	20°♓58'50		
max. Earth dist.	9907 Mar 10	07:28	23°♓21'23	6.46278 AU	
conjunction	9907 Mar 12	04:23	23°♓45'44	0°07'24	
minimum elong	9907 Mar 12	04:23	23°♓45'44	0°07'28	
behind sun begin	9907 Mar 11	21:07	23°♓41'49		
behind sun end	9907 Mar 12	11:39	23°♓49'39		
morning rise	9907 Mar 24	23:33	26°♓31'54		
	9907 Apr 10	07:23	0°♈		
desc. node	9907 Jul 15	07:03	13°♈18'40		
retrograde	9907 Jul 24	06:20	13°♈26'10		
opposition	9907 Sep 23	06:27	8°♈33'10	-0°06'11	
min. Earth dist.	9907 Sep 24	19:26	8°♈21'21	4.41153 AU	
direct	9907 Nov 24	18:13	3°♈32'30		
evening set	9908 Mar 28	21:36	21°♈12'33		
max. Earth dist.	9908 Apr 08	08:55	23°♈32'05	6.34344 AU	
conjunction	9908 Apr 10	16:36	24°♈03'08	-0°16'05	
minimum elong	9908 Apr 10	16:35	24°♈03'07	0°16'14	
morning rise	9908 Apr 23	10:19	26°♈53'24		
	9908 May 07	14:41	0°♉		
retrograde	9908 Aug 24	23:36	14°♉37'25		
opposition	9908 Oct 24	18:32	9°♉44'01	-0°39'25	
min. Earth dist.	9908 Oct 26	09:47	9°♉31'24	4.26301 AU	
direct	9908 Dec 25	08:12	4°♉44'47		
	9909 Mar 23	11:13	15°♉		
evening set	9909 Apr 29	22:11	23°♉10'25		
max. Earth dist.	9909 May 10	14:04	25°♉38'02	6.17665 AU	
conjunction	9909 May 12	17:28	26°♉07'49	-0°35'46	
minimum elong	9909 May 12	17:27	26°♉07'48	0°36'05	
morning rise	9909 May 25	12:44	29°♉05'31		
	9909 May 29	11:34	0°♊		
retrograde	9909 Sep 29	11:24	18°♊01'38		
opposition	9909 Nov 28	17:34	13°♊06'44	-1°02'39	
min. Earth dist.	9909 Nov 30	00:09	12°♊56'45	4.08966 AU	
direct	9910 Jan 28	00:14	8°♊09'35		
evening set	9910 Jun 03	02:50	27°♊28'44		
	9910 Jun 13	15:43	0°♋		
max. Earth dist.	9910 Jun 14	19:52	0°♋16'54	6.01198 AU	
conjunction	9910 Jun 16	01:48	0°♋34'52	-0°44'30	
minimum elong	9910 Jun 16	01:48	0°♋34'52	0°44'55	
morning rise	9910 Jun 29	01:58	3°♋41'58		
retrograde	9910 Nov 06	08:11	23°♋52'24		
opposition	9911 Jan 05	02:13	18°♋54'56	-1°04'36	
min. Earth dist.	9911 Jan 05	10:38	18°♋52'09	3.94955 AU	
direct	9911 Mar 04	22:21	13°♋59'47		
	9911 Jun 22	22:30	0°♌		
evening set	9911 Jul 09	15:47	4°♌00'35		
conjunction	9911 Jul 22	21:11	7°♌14'32	-0°36'43	
minimum elong	9911 Jul 22	21:12	7°♌14'33	0°37'05	
max. Earth dist.	9911 Jul 23	02:27	7°♌17'46	5.91043 AU	
morning rise	9911 Aug 05	04:58	10°♌29'51		
	9911 Aug 24	00:35	15°♌		
	9911 Nov 16	02:05	0°♍		
retrograde	9911 Dec 15	07:51	1°♍23'12		
	9912 Jan 13	12:01	30°℞♌		
opposition	9912 Feb 12	17:08	26°♌22'19	-0°40'15	
min. Earth dist.	9912 Feb 12	00:02	26°♌28'05	3.89897 AU	
direct	9912 Apr 10	17:02	21°♌27'33		
	9912 Jun 25	06:19	0°♍		
evening set	9912 Aug 15	17:22	11°♍37'06		
conjunction	9912 Aug 29	05:38	14°♍54'03	-0°13'54	
minimum elong	9912 Aug 29	05:39	14°♍54'03	0°14'02	
behind sun begin	9912 Aug 29	01:32	14°♍51'34		
behind sun end	9912 Aug 29	09:46	14°♍56'33		
max. Earth dist.	9912 Aug 30	23:57	15°♍19'48	5.91608 AU	
morning rise	9912 Sep 11	20:03	18°♍12'04		
	9912 Nov 03	11:57	0°♎		
retrograde	9913 Jan 21	08:31	8°♎51'18		
asc. node	9913 Mar 15	02:40	4°♎41'12		
min. Earth dist.	9913 Mar 20	06:26	3°♎59'23	3.96068 AU	
opposition	9913 Mar 21	16:49	3°♎47'42	0°00'43	
	9913 Apr 22	18:18	30°℞♍		
direct	9913 May 18	18:07	28°♍51'29		
	9913 Jun 13	19:12	0°♎		
evening set	9913 Sep 22	16:44	18°♎31'47		
conjunction	9913 Oct 06	08:05	21°♎44'53	0°14'09	

minimum elong	9913 Oct 06 08:04	21°♎44'53	0°14'17
behind sun begin	9913 Oct 06 04:19	21°♎42'40	
behind sun end	9913 Oct 06 11:50	21°♎47'05	
max. Earth dist.	9913 Oct 08 20:22	22°♎20'28	6.02666 AU
morning rise	9913 Oct 20 00:51	24°♎58'23	
	9913 Nov 10 23:27	0°♏	
retrograde	9914 Feb 25 19:39	14°♏35'52	
min. Earth dist.	9914 Apr 24 21:06	9°♏45'03	4.10720 AU
opposition	9914 Apr 26 12:12	9°♏31'49	0°39'18
direct	9914 Jun 24 09:53	4°♏33'20	
	9914 Sep 20 06:37	15°♏	
evening set	9914 Oct 29 00:45	23°♏22'51	
conjunction	9914 Nov 11 14:42	26°♏27'38	0°35'44
minimum elong	9914 Nov 11 14:41	26°♏27'38	0°36'04
max. Earth dist.	9914 Nov 13 20:38	26°♏58'16	6.19504 AU
morning rise	9914 Nov 25 04:43	29°♏32'05	
	9914 Nov 27 06:27	0°♐	
retrograde	9915 Mar 30 15:06	17°♐53'17	
opposition	9915 May 29 17:24	12°♐51'17	1°01'40
min. Earth dist.	9915 May 28 12:41	13°♐00'52	4.28080 AU
direct	9915 Jul 28 23:11	7°♐50'59	
evening set	9915 Dec 02 00:49	25°♐49'47	
conjunction	9915 Dec 15 10:36	28°♐45'50	0°44'41
minimum elong	9915 Dec 15 10:36	28°♐45'50	0°45'05
max. Earth dist.	9915 Dec 16 19:00	29°♐03'35	6.35988 AU
	9915 Dec 21 02:00	0°♑	
morning rise	9915 Dec 28 19:07	1°♑41'01	
retrograde	9916 Apr 29 06:48	18°♑59'01	
opposition	9916 Jun 28 20:45	14°♑00'17	1°04'15
min. Earth dist.	9916 Jun 28 08:19	14°♑04'21	4.42476 AU
direct	9916 Aug 29 07:22	8°♑59'04	
evening set	9917 Jan 01 22:02	26°♑21'34	
conjunction	9917 Jan 15 02:41	29°♑11'08	0°40'28
minimum elong	9917 Jan 15 02:41	29°♑11'08	0°40'50
max. Earth dist.	9917 Jan 15 05:19	29°♑12'33	6.47283 AU
	9917 Jan 18 21:42	0°♒	
morning rise	9917 Jan 28 05:25	1°♒59'40	
	9917 Apr 08 13:29	15°♒	
retrograde	9917 May 28 23:56	18°♒40'43	
	9917 Jul 19 01:58	15°℞♒	
opposition	9917 Jul 28 20:59	13°♒45'05	0°49'36
min. Earth dist.	9917 Jul 29 05:10	13°♒42'27	4.50043 AU
direct	9917 Sep 29 06:06	8°♒43'36	
	9917 Dec 07 08:05	15°♒	
evening set	9918 Feb 01 10:34	25°♒50'48	
max. Earth dist.	9918 Feb 13 08:21	28°♒23'17	6.50590 AU
conjunction	9918 Feb 14 10:36	28°♒37'20	0°25'37
minimum elong	9918 Feb 14 10:36	28°♒37'20	0°25'51
	9918 Feb 20 21:09	0°♓	
morning rise	9918 Feb 27 08:37	1°♓22'54	
retrograde	9918 Jun 27 17:59	17°♓57'23	
opposition	9918 Aug 27 19:04	13°♓03'44	0°22'33
min. Earth dist.	9918 Aug 28 21:02	12°♓55'25	4.48979 AU
direct	9918 Oct 29 11:49	8°♓02'25	
evening set	9919 Mar 03 13:19	25°♓17'30	
max. Earth dist.	9919 Mar 14 11:42	27°♓39'30	6.45183 AU
conjunction	9919 Mar 16 09:59	28°♓04'39	0°04'07
minimum elong	9919 Mar 16 09:59	28°♓04'39	0°04'10
behind sun begin	9919 Mar 16 02:07	28°♓00'24	
behind sun end	9919 Mar 16 17:50	28°♓08'54	
	9919 Mar 25 06:17	0°♈	
morning rise	9919 Mar 29 04:38	0°♈51'05	
desc. node	9919 May 24 13:33	11°♈56'21	
retrograde	9919 Jul 28 16:07	17°♈50'09	
opposition	9919 Sep 27 16:37	12°♈57'12	-0°11'04
min. Earth dist.	9919 Sep 29 06:11	12°♈45'13	4.39526 AU
direct	9919 Nov 29 01:10	7°♈56'44	
evening set	9920 Apr 02 06:33	25°♈41'52	
max. Earth dist.	9920 Apr 12 16:39	28°♈01'26	6.32288 AU
conjunction	9920 Apr 15 01:18	28°♈33'10	-0°19'14
minimum elong	9920 Apr 15 01:17	28°♈33'10	0°19'24
	9920 Apr 21 12:15	0°♉	
morning rise	9920 Apr 27 19:08	1°♉24'17	
	9920 Jul 06 11:03	15°♉	
retrograde	9920 Aug 29 20:02	19°♉17'13	
	9920 Oct 24 19:03	15°℞♉	
opposition	9920 Oct 29 12:09	14°♉23'42	-0°43'32
min. Earth dist.	9920 Oct 31 03:53	14°♉10'53	4.23925 AU
direct	9920 Dec 29 22:45	9°♉24'42	
	9921 Mar 02 11:16	15°♉	
evening set	9921 May 04 13:23	27°♉57'45	
	9921 May 13 08:18	0°♊	
max. Earth dist.	9921 May 15 07:08	0°♊27'15	6.15170 AU
conjunction	9921 May 17 09:06	0°♊56'21	-0°37'48
minimum elong	9921 May 17 09:05	0°♊56'20	0°38'08
morning rise	9921 May 30 04:48	3°♊55'19	
retrograde	9921 Oct 04 14:31	23°♊02'34	
opposition	9921 Dec 03 19:40	18°♊07'25	-1°04'24
min. Earth dist.	9921 Dec 04 23:29	17°♊58'20	4.06569 AU
direct	9922 Feb 01 20:05	13°♊10'37	
	9922 May 28 00:59	0°♋	
evening set	9922 Jun 08 02:39	2°♋37'25	
max. Earth dist.	9922 Jun 20 00:01	5°♋29'00	5.99120 AU
conjunction	9922 Jun 21 02:18	5°♋44'51	-0°44'26
minimum elong	9922 Jun 21 02:18	5°♋44'51	0°44'50
morning rise	9922 Jul 04 03:30	8°♋53'21	
retrograde	9922 Nov 11 19:40	29°♋13'16	
opposition	9923 Jan 10 11:32	24°♋15'21	-1°02'39
min. Earth dist.	9923 Jan 10 16:31	24°♋13'42	3.93415 AU
direct	9923 Mar 10 04:19	19°♋20'21	
	9923 Jun 04 06:47	0°♌	
evening set	9923 Jul 14 22:55	9°♌25'36	
conjunction	9923 Jul 28 05:34	12°♌40'31	-0°34'13
minimum elong	9923 Jul 28 05:35	12°♌40'32	0°34'33
max. Earth dist.	9923 Jul 28 17:41	12°♌47'57	5.90224 AU
	9923 Aug 06 17:17	15°♌	
morning rise	9923 Aug 10 14:21	15°♌56'44	
	9923 Oct 13 11:51	0°♍	
retrograde	9923 Dec 20 20:34	6°♍52'41	
min. Earth dist.	9924 Feb 17 08:20	1°♍58'05	3.89921 AU
opposition	9924 Feb 18 04:10	1°♍51'22	-0°35'00
	9924 Mar 03 06:24	30°℞♌	
direct	9924 Apr 16 02:25	26°♌56'34	
	9924 May 29 06:27	0°♍	
evening set	9924 Aug 21 03:44	17°♍04'47	
conjunction	9924 Sep 03 16:37	20°♍21'39	-0°09'56
minimum elong	9924 Sep 03 16:38	20°♍21'40	0°10'02
behind sun begin	9924 Sep 03 09:55	20°♍17'36	
behind sun end	9924 Sep 03 23:21	20°♍25'43	
max. Earth dist.	9924 Sep 05 14:39	20°♍49'34	5.92468 AU
morning rise	9924 Sep 17 07:51	23°♍39'34	
	9924 Oct 14 09:59	0°♎	
asc. node	9925 Jan 22 17:01	14°♎11'12	
retrograde	9925 Jan 26 12:53	14°♎12'41	

min. Earth dist.	9925 Mar 25 09:23	9°♎21'28	3.97688 AU
opposition	9925 Mar 26 22:32	9°♎08'50	0°06'48
direct	9925 May 24 00:56	4°♎12'19	
evening set	9925 Sep 27 23:45	23°♎46'15	
conjunction	9925 Oct 11 15:06	26°♎58'18	0°17'50
minimum elong	9925 Oct 11 15:05	26°♎58'18	0°17'59
max. Earth dist.	9925 Oct 14 03:39	27°♎33'52	6.04888 AU
	9925 Oct 24 13:25	0°♏	
morning rise	9925 Oct 25 07:43	0°♏10'39	
	9926 Jan 06 05:14	15°♏	
retrograde	9926 Mar 02 15:27	19°♏37'01	
	9926 Apr 28 01:17	15°℞♏	
min. Earth dist.	9926 Apr 29 19:13	14°♏45'51	4.13290 AU
opposition	9926 May 01 09:02	14°♏33'03	0°43'37
direct	9926 Jun 29 11:52	9°♏34'13	
	9926 Aug 29 05:48	15°♏	
evening set	9926 Nov 02 23:35	28°♏15'20	
	9926 Nov 10 17:36	0°♐	
conjunction	9926 Nov 16 13:08	1°♐18'44	0°37'49
minimum elong	9926 Nov 16 13:07	1°♐18'43	0°38'10
max. Earth dist.	9926 Nov 18 18:25	1°♐48'47	6.22195 AU
morning rise	9926 Nov 30 02:21	4°♐21'39	
retrograde	9927 Apr 03 23:53	22°♐31'44	
min. Earth dist.	9927 Jun 02 01:36	17°♐39'19	4.30661 AU
opposition	9927 Jun 03 05:18	17°♐30'05	1°03'09
direct	9927 Aug 02 14:53	12°♐29'36	
	9927 Dec 04 23:59	0°♑	
evening set	9927 Dec 06 14:56	0°♑21'06	
conjunction	9927 Dec 19 23:49	3°♑15'53	0°44'49
minimum elong	9927 Dec 19 23:49	3°♑15'52	0°45'13
max. Earth dist.	9927 Dec 21 03:10	3°♑30'48	6.38251 AU
morning rise	9928 Jan 02 07:32	6°♑09'48	
retrograde	9928 May 03 11:50	23°♑19'56	
opposition	9928 Jul 03 02:33	18°♑21'37	1°03'04
min. Earth dist.	9928 Jul 02 17:56	18°♑24'26	4.44266 AU
direct	9928 Sep 02 18:38	13°♑20'15	
	9929 Jan 03 05:07	0°♒	
evening set	9929 Jan 06 05:26	0°♒38'22	
conjunction	9929 Jan 19 09:26	3°♒27'12	0°38'54
minimum elong	9929 Jan 19 09:26	3°♒27'13	0°39'16
max. Earth dist.	9929 Jan 19 07:49	3°♒26'20	6.48462 AU
morning rise	9929 Feb 01 11:23	6°♒15'00	
	9929 Mar 17 06:28	15°♒	
retrograde	9929 Jun 02 01:13	22°♒52'40	
opposition	9929 Aug 02 00:04	17°♒57'18	0°46'24
min. Earth dist.	9929 Aug 02 10:34	17°♒53'55	4.50559 AU
	9929 Aug 26 14:34	15°℞♒	
direct	9929 Oct 03 10:34	12°♒55'44	
	9929 Nov 10 14:14	15°♒	
evening set	9930 Feb 05 14:42	0°♓02'18	
	9930 Feb 05 10:23	0°♓	
max. Earth dist.	9930 Feb 17 08:57	2°♓32'59	6.50398 AU
conjunction	9930 Feb 18 14:14	2°♓48'40	0°22'53
minimum elong	9930 Feb 18 14:15	2°♓48'41	0°23'06
morning rise	9930 Mar 03 11:37	5°♓34'05	
retrograde	9930 Jul 01 22:35	22°♓10'06	
opposition	9930 Aug 31 23:54	17°♓16'38	0°18'04
min. Earth dist.	9930 Sep 02 04:34	17°♓07'28	4.48083 AU
direct	9930 Nov 02 16:43	12°♓15'22	
evening set	9931 Mar 07 18:11	29°♓33'37	
	9931 Mar 09 18:57	0°♈	
max. Earth dist.	9931 Mar 18 12:04	1°♈53'45	6.43624 AU
conjunction	9931 Mar 20 14:22	2°♈21'11	0°00'48
minimum elong	9931 Mar 20 14:22	2°♈21'11	0°00'48
behind sun begin	9931 Mar 20 06:23	2°♈16'51	
behind sun end	9931 Mar 20 22:20	2°♈25'31	
morning rise	9931 Apr 02 08:58	5°♈08'09	
desc. node	9931 Apr 02 16:05	5°♈12'01	
retrograde	9931 Aug 02 04:19	22°♈13'44	
opposition	9931 Oct 02 03:03	17°♈20'45	-0°15'54
min. Earth dist.	9931 Oct 03 18:10	17°♈08'14	4.37387 AU
direct	9931 Dec 03 09:26	12°♈20'21	
	9932 Apr 05 18:01	0°♉	
evening set	9932 Apr 06 16:04	0°♉12'18	
max. Earth dist.	9932 Apr 17 02:43	2°♉32'56	6.29728 AU
conjunction	9932 Apr 19 11:00	3°♉04'39	-0°22'17
minimum elong	9932 Apr 19 10:59	3°♉04'38	0°22'28
morning rise	9932 May 02 04:50	5°♉56'49	
	9932 Jun 13 21:59	15°♉	
retrograde	9932 Sep 03 16:12	24°♉00'24	
opposition	9932 Nov 03 07:15	19°♉06'44	-0°47'26
min. Earth dist.	9932 Nov 04 22:01	18°♉54'14	4.21129 AU
	9932 Dec 10 22:54	15°℞♉	
direct	9933 Jan 03 12:27	14°♉08'04	
	9933 Jan 27 02:19	15°♉	
	9933 Apr 26 22:47	0°♊	
evening set	9933 May 09 07:04	2°♊50'06	
max. Earth dist.	9933 May 20 02:55	5°♊21'49	6.12366 AU
conjunction	9933 May 22 03:05	5°♊50'03	-0°39'36
minimum elong	9933 May 22 03:04	5°♊50'03	0°39'58
morning rise	9933 Jun 03 23:32	8°♊50'32	
retrograde	9933 Oct 09 22:20	28°♊10'14	
opposition	9933 Dec 09 01:00	23°♊14'45	-1°05'43
min. Earth dist.	9933 Dec 10 02:04	23°♊06'32	4.04002 AU
direct	9934 Feb 06 21:02	18°♊18'16	
	9934 May 10 01:12	0°♋	
evening set	9934 Jun 13 05:28	7°♋53'09	
max. Earth dist.	9934 Jun 25 10:21	10°♋50'00	5.97062 AU
conjunction	9934 Jun 26 06:12	11°♋02'01	-0°44'00
minimum elong	9934 Jun 26 06:12	11°♋02'01	0°44'25
morning rise	9934 Jul 09 08:20	14°♋11'56	
	9934 Sep 22 17:35	0°♌	
retrograde	9934 Nov 17 10:33	4°♌40'48	
	9935 Jan 13 19:11	30°℞♋	
opposition	9935 Jan 15 23:49	29°♋42'28	-1°00'08
min. Earth dist.	9935 Jan 16 01:09	29°♋42'01	3.92122 AU
direct	9935 Mar 15 12:24	24°♋47'42	
	9935 May 12 02:23	0°♌	
evening set	9935 Jul 20 09:06	14°♌56'10	
	9935 Jul 20 15:24	15°♌	
conjunction	9935 Aug 02 16:37	18°♌11'44	-0°31'23
minimum elong	9935 Aug 02 16:39	18°♌11'45	0°31'40
max. Earth dist.	9935 Aug 03 09:39	18°♌22'11	5.89818 AU
morning rise	9935 Aug 16 02:40	21°♌28'41	
	9935 Sep 21 14:11	0°♍	
retrograde	9935 Dec 26 07:33	12°♍24'44	
opposition	9936 Feb 23 15:57	7°♍22'57	-0°29'23
min. Earth dist.	9936 Feb 22 15:42	7°♍31'10	3.90469 AU
direct	9936 Apr 21 12:58	2°♍28'01	
evening set	9936 Aug 26 14:52	22°♍32'47	
conjunction	9936 Sep 09 04:23	25°♍49'15	-0°05'52
minimum elong	9936 Sep 09 04:22	25°♍49'15	0°05'56
behind sun begin	9936 Sep 08 20:24	25°♍44'27	
behind sun end	9936 Sep 09 12:21	25°♍54'03	

max. Earth dist.	9936 Sep 11 05:56	26°♍19'12	5.93890 AU
morning rise	9936 Sep 22 20:02	29°♍06'39	
	9936 Sep 26 13:23	0°♎	
asc. node	9936 Dec 01 11:04	13°♎54'16	
retrograde	9937 Jan 31 16:54	19°♎31'21	
min. Earth dist.	9937 Mar 30 13:48	14°♎40'03	3.99775 AU
opposition	9937 Apr 01 03:19	14°♎27'17	0°12'46
direct	9937 May 29 09:23	9°♎30'27	
evening set	9937 Oct 03 05:13	28°♎56'31	
	9937 Oct 07 18:18	0°♏	
conjunction	9937 Oct 16 20:36	2°♏07'23	0°21'20
minimum elong	9937 Oct 16 20:35	2°♏07'23	0°21'31
max. Earth dist.	9937 Oct 19 10:44	2°♏43'39	6.07422 AU
morning rise	9937 Oct 30 12:50	5°♏18'23	
	9937 Dec 14 00:01	15°♏	
retrograde	9938 Mar 07 08:06	24°♏32'56	
min. Earth dist.	9938 May 04 14:23	19°♏41'53	4.16001 AU
opposition	9938 May 06 03:53	19°♏29'14	0°47'33
	9938 Jun 17 02:26	15°℞♏	
direct	9938 Jul 04 10:23	14°♏30'12	
	9938 Jul 21 22:32	15°♏	
	9938 Oct 25 01:13	0°♐	
evening set	9938 Nov 07 20:42	3°♐03'00	
conjunction	9938 Nov 21 09:29	6°♐04'59	0°39'37
minimum elong	9938 Nov 21 09:28	6°♐04'59	0°39'58
max. Earth dist.	9938 Nov 23 10:17	6°♐32'22	6.24844 AU
morning rise	9938 Dec 04 22:06	9°♐06'29	
retrograde	9939 Apr 08 08:55	27°♐06'17	
opposition	9939 Jun 07 15:43	22°♐05'07	1°04'15
min. Earth dist.	9939 Jun 06 15:13	22°♐13'15	4.33040 AU
direct	9939 Aug 07 06:55	17°♐04'27	
	9939 Nov 18 07:26	0°♑	
evening set	9939 Dec 11 03:46	4°♑49'47	
conjunction	9939 Dec 24 12:07	7°♑43'33	0°44'41
minimum elong	9939 Dec 24 12:07	7°♑43'33	0°45'06
max. Earth dist.	9939 Dec 25 12:31	7°♑56'48	6.40199 AU
morning rise	9940 Jan 06 18:51	10°♑36'22	
retrograde	9940 May 07 14:41	27°♑40'02	
opposition	9940 Jul 07 07:51	22°♑42'13	1°01'34
min. Earth dist.	9940 Jul 07 01:16	22°♑44'22	4.45674 AU
direct	9940 Sep 07 02:38	17°♑40'51	
	9940 Dec 17 17:32	0°♒	
evening set	9941 Jan 10 12:49	4°♒55'59	
conjunction	9941 Jan 23 16:02	7°♒44'15	0°37'09
minimum elong	9941 Jan 23 16:03	7°♒44'16	0°37'29
max. Earth dist.	9941 Jan 23 09:09	7°♒40'34	6.49235 AU
morning rise	9941 Feb 05 17:22	10°♒31'31	
	9941 Feb 27 05:47	15°♒	
retrograde	9941 Jun 06 05:45	27°♒07'20	
opposition	9941 Aug 06 04:27	22°♒12'20	0°42'57
min. Earth dist.	9941 Aug 06 18:45	22°♒07'44	4.50661 AU
direct	9941 Oct 07 17:47	17°♒10'47	
	9942 Jan 20 04:39	0°♓	
evening set	9942 Feb 09 20:03	4°♓17'56	
max. Earth dist.	9942 Feb 21 09:31	6°♓46'19	6.49814 AU
conjunction	9942 Feb 22 19:05	7°♓04'20	0°20'00
minimum elong	9942 Feb 22 19:06	7°♓04'20	0°20'12
morning rise	9942 Mar 07 16:02	9°♓49'49	
retrograde	9942 Jul 06 05:15	26°♓28'38	
opposition	9942 Sep 05 06:47	21°♓35'16	0°13'25
min. Earth dist.	9942 Sep 06 13:02	21°♓25'36	4.46857 AU
direct	9942 Nov 06 22:23	16°♓34'05	

desc. node	9943 Feb 08 16:35	27°♓23'48	
	9943 Feb 21 13:07	0°♈	
evening set	9943 Mar 12 01:16	3°♈56'29	
max. Earth dist.	9943 Mar 22 18:25	6°♈16'46	6.41842 AU
conjunction	9943 Mar 24 21:16	6°♈44'38	-0°02'39
minimum elong	9943 Mar 24 21:17	6°♈44'38	0°02'41
behind sun begin	9943 Mar 24 13:19	6°♈40'18	
behind sun end	9943 Mar 25 05:14	6°♈48'58	
morning rise	9943 Apr 06 15:32	9°♈32'11	
retrograde	9943 Aug 06 18:26	26°♈44'58	
opposition	9943 Oct 06 16:21	21°♈52'00	-0°20'46
min. Earth dist.	9943 Oct 08 08:25	21°♈39'11	4.35153 AU
direct	9943 Dec 07 20:10	16°♈51'52	
	9944 Mar 20 01:45	0°♉	
evening set	9944 Apr 11 04:21	4°♉50'46	
max. Earth dist.	9944 Apr 21 13:59	7°♉11'42	6.27208 AU
conjunction	9944 Apr 23 23:09	7°♉44'05	-0°25'16
minimum elong	9944 Apr 23 23:08	7°♉44'05	0°25'29
morning rise	9944 May 06 17:21	10°♉37'24	
	9944 May 26 11:20	15°♉	
retrograde	9944 Sep 08 16:07	28°♉51'38	
opposition	9944 Nov 08 05:35	23°♉57'46	-0°51'08
min. Earth dist.	9944 Nov 09 18:46	23°♉45'45	4.18508 AU
direct	9945 Jan 08 06:34	18°♉59'24	
	9945 Apr 09 02:11	0°♊	
evening set	9945 May 14 03:00	7°♊49'32	
max. Earth dist.	9945 May 25 03:57	10°♊25'03	6.09903 AU
conjunction	9945 May 26 23:37	10°♊50'47	-0°41'11
minimum elong	9945 May 26 23:37	10°♊50'46	0°41'33
morning rise	9945 Jun 08 20:32	13°♊52'34	
	9945 Aug 29 01:16	0°♋	
retrograde	9945 Oct 15 08:06	3°♋23'07	
	9945 Dec 02 08:28	30°℞♊	
opposition	9945 Dec 14 08:04	28°♊27'20	-1°06'33
min. Earth dist.	9945 Dec 15 06:15	28°♊20'03	4.01957 AU
direct	9946 Feb 11 23:18	23°♊31'13	
	9946 Apr 18 18:37	0°♋	
evening set	9946 Jun 18 09:38	13°♋11'57	
conjunction	9946 Jul 01 11:03	16°♋21'50	-0°43'15
minimum elong	9946 Jul 01 11:04	16°♋21'50	0°43'40
max. Earth dist.	9946 Jun 30 19:26	16°♋12'21	5.95639 AU
morning rise	9946 Jul 14 14:21	19°♋32'54	
	9946 Aug 29 12:38	0°♌	
retrograde	9946 Nov 22 21:23	10°♌07'39	
opposition	9947 Jan 21 11:09	5°♌08'45	-0°57'07
min. Earth dist.	9947 Jan 21 07:30	5°♌09'58	3.91511 AU
direct	9947 Mar 20 19:58	0°♌14'03	
	9947 Jul 03 04:21	15°♌	
evening set	9947 Jul 25 17:46	20°♌22'56	
conjunction	9947 Aug 08 02:15	23°♌38'49	-0°28'21
minimum elong	9947 Aug 08 02:16	23°♌38'50	0°28'37
max. Earth dist.	9947 Aug 09 01:27	23°♌53'01	5.90086 AU
morning rise	9947 Aug 21 13:05	26°♌56'00	
	9947 Sep 03 07:02	0°♍	
retrograde	9947 Dec 31 16:24	17°♍49'16	
min. Earth dist.	9948 Feb 27 22:24	12°♍55'53	3.91577 AU
opposition	9948 Feb 29 00:38	12°♍46'59	-0°23'43
direct	9948 Apr 26 23:16	7°♍51'47	
evening set	9948 Aug 31 22:11	27°♍51'03	
	9948 Sep 09 21:04	0°♎	
conjunction	9948 Sep 14 12:12	1°♎06'50	-0°01'54

minimum elong	9948 Sep 14 12:11	1°♎06'50	0°01'55
behind sun begin	9948 Sep 14 03:48	1°♎01'49	
behind sun end	9948 Sep 14 20:35	1°♎11'51	
max. Earth dist.	9948 Sep 16 17:44	1°♎39'02	5.95708 AU
morning rise	9948 Sep 28 04:05	4°♎23'25	
asc. node	9948 Oct 11 05:30	7°♎28'12	
retrograde	9949 Feb 05 15:29	24°♎38'15	
min. Earth dist.	9949 Apr 04 12:47	19°♎47'11	4.02096 AU
opposition	9949 Apr 06 03:18	19°♎34'06	0°18'22
direct	9949 Jun 03 11:32	14°♎36'57	
	9949 Sep 21 02:18	0°♏	
evening set	9949 Oct 08 06:18	3°♏54'44	
conjunction	9949 Oct 21 21:18	7°♏04'17	0°24'32
minimum elong	9949 Oct 21 21:17	7°♏04'16	0°24'46
max. Earth dist.	9949 Oct 24 08:58	7°♏38'54	6.09996 AU
morning rise	9949 Nov 04 13:18	10°♏13'55	
	9949 Nov 25 17:20	15°♏	
retrograde	9950 Mar 11 20:12	29°♏16'59	
min. Earth dist.	9950 May 09 06:26	24°♏25'34	4.18581 AU
opposition	9950 May 10 18:08	24°♏13'32	0°51'01
direct	9950 Jul 09 05:33	19°♏14'11	
	9950 Oct 07 16:07	0°♐	
evening set	9950 Nov 12 13:15	7°♐39'27	
conjunction	9950 Nov 26 01:39	10°♐40'13	0°41'07
minimum elong	9950 Nov 26 01:38	10°♐40'12	0°41'29
max. Earth dist.	9950 Nov 28 00:08	11°♐06'09	6.27232 AU
morning rise	9950 Dec 09 13:21	13°♐40'21	
	9951 Mar 12 08:41	0°♑	
retrograde	9951 Apr 12 14:37	1°♑31'10	
	9951 May 13 16:18	30°℞♐	
opposition	9951 Jun 11 22:46	26°♐30'32	1°04'59
min. Earth dist.	9951 Jun 11 00:32	26°♐37'54	4.35061 AU
direct	9951 Aug 11 18:01	21°♐29'47	
	9951 Oct 31 07:50	0°♑	
evening set	9951 Dec 15 13:30	9°♑10'14	
conjunction	9951 Dec 28 20:59	12°♑03'06	0°44'21
minimum elong	9951 Dec 28 21:00	12°♑03'06	0°44'46
max. Earth dist.	9951 Dec 29 15:26	12°♑13'05	6.41708 AU
morning rise	9952 Jan 11 03:07	14°♑55'03	
	9952 Apr 06 08:03	0°♒	
retrograde	9952 May 11 18:04	1°♒53'57	
	9952 Jun 16 02:02	30°℞♑	
opposition	9952 Jul 11 11:20	26°♑56'36	0°59'51
min. Earth dist.	9952 Jul 11 08:28	26°♑57'33	4.46610 AU
direct	9952 Sep 11 09:39	21°♑55'10	
	9952 Nov 29 18:22	0°♒	
evening set	9953 Jan 14 18:26	9°♒08'50	
conjunction	9953 Jan 27 21:12	11°♒56'47	0°35'16
minimum elong	9953 Jan 27 21:13	11°♒56'48	0°35'35
max. Earth dist.	9953 Jan 27 11:17	11°♒51'29	6.49549 AU
morning rise	9953 Feb 09 21:46	14°♒43'42	
	9953 Feb 11 04:30	15°♒	
	9953 May 11 20:51	0°♓	
retrograde	9953 Jun 10 07:50	1°♓19'04	
	9953 Jul 09 18:49	30°℞♒	
opposition	9953 Aug 10 07:54	26°♒24'25	0°39'22
min. Earth dist.	9953 Aug 10 23:49	26°♒19'18	4.50368 AU
direct	9953 Oct 11 21:09	21°♒22'57	
	9954 Jan 02 12:59	0°♓	
evening set	9954 Feb 14 01:00	8°♓31'52	
max. Earth dist.	9954 Feb 25 11:12	10°♓58'53	6.48940 AU
conjunction	9954 Feb 26 23:30	11°♓18'24	0°17'05
minimum elong	9954 Feb 26 23:31	11°♓18'25	0°17'15
morning rise	9954 Mar 11 20:02	14°♓04'05	
	9954 Jun 18 00:11	0°♈	
retrograde	9954 Jul 10 13:43	0°♈46'38	
	9954 Aug 02 01:20	30°℞♓	
opposition	9954 Sep 09 14:12	25°♓53'29	0°08'45
min. Earth dist.	9954 Sep 10 22:54	25°♓43'02	4.45457 AU
direct	9954 Nov 11 05:57	20°♓52'27	
desc. node	9954 Dec 19 03:47	22°♓56'41	
	9955 Feb 03 22:06	0°♈	
evening set	9955 Mar 16 08:24	8°♈19'20	
max. Earth dist.	9955 Mar 26 22:57	10°♈38'51	6.40009 AU
conjunction	9955 Mar 29 04:07	11°♈08'06	-0°05'58
minimum elong	9955 Mar 29 04:06	11°♈08'05	0°06'01
behind sun begin	9955 Mar 28 20:30	11°♈03'56	
behind sun end	9955 Mar 29 11:41	11°♈12'14	
morning rise	9955 Apr 10 22:18	13°♈56'19	
	9955 Jul 13 10:36	0°♉	
retrograde	9955 Aug 11 08:27	1°♉16'32	
	9955 Sep 09 08:23	30°℞♈	
opposition	9955 Oct 11 06:09	26°♈23'29	-0°25'29
min. Earth dist.	9955 Oct 12 21:35	26°♈10'51	4.33004 AU
direct	9955 Dec 12 06:28	21°♈23'34	
	9956 Mar 01 18:14	0°♉	
evening set	9956 Apr 15 16:35	9°♉29'00	
max. Earth dist.	9956 Apr 26 04:51	11°♉52'07	6.24905 AU
conjunction	9956 Apr 28 11:32	12°♉23'17	-0°28'04
minimum elong	9956 Apr 28 11:31	12°♉23'16	0°28'19
	9956 May 09 22:46	15°♉	
morning rise	9956 May 11 05:45	15°♉17'34	
	9956 Jul 25 16:53	0°♊	
retrograde	9956 Sep 13 15:53	3°♊41'35	
	9956 Nov 03 16:59	30°℞♉	
opposition	9956 Nov 13 03:26	28°♉47'33	-0°54'27
min. Earth dist.	9956 Nov 14 15:41	28°♉35'50	4.16210 AU
direct	9957 Jan 13 00:41	23°♉49'31	
	9957 Mar 19 08:54	0°♊	
evening set	9957 May 18 22:12	12°♊46'34	
max. Earth dist.	9957 May 30 01:19	15°♊24'10	6.07782 AU
conjunction	9957 May 31 19:08	15°♊48'55	-0°42'25
minimum elong	9957 May 31 19:08	15°♊48'55	0°42'48
morning rise	9957 Jun 13 16:53	18°♊51'58	
	9957 Aug 03 11:24	0°♋	
retrograde	9957 Oct 20 13:52	8°♋32'08	
opposition	9957 Dec 19 13:18	3°♋35'57	-1°06'48
min. Earth dist.	9957 Dec 20 07:31	3°♋29'57	4.00204 AU
	9958 Jan 19 06:54	30°℞♊	
direct	9958 Feb 16 23:24	28°♊40'05	
	9958 Mar 17 12:34	0°♋	
evening set	9958 Jun 23 11:41	18°♋25'52	
conjunction	9958 Jul 06 14:04	21°♋36'44	-0°42'08
minimum elong	9958 Jul 06 14:04	21°♋36'44	0°42'33
max. Earth dist.	9958 Jul 06 04:27	21°♋30'53	5.94426 AU
morning rise	9958 Jul 19 18:13	24°♋48'48	
	9958 Aug 10 15:04	0°♌	
	9958 Nov 11 05:12	15°♌	
retrograde	9958 Nov 28 08:01	15°♌28'50	
	9958 Dec 15 08:49	15°℞♌	
opposition	9959 Jan 26 20:00	10°♌29'29	-0°53'38
min. Earth dist.	9959 Jan 26 13:56	10°♌31'31	3.90972 AU
direct	9959 Mar 26 03:26	5°♌34'51	
	9959 Jun 14 02:00	15°♌	
evening set	9959 Jul 31 00:20	25°♌44'17	

conjunction	9959 Aug 13	09:45	29°♌00'32	-0°25'06	
minimum elong	9959 Aug 13	09:47	29°♌00'33	0°25'21	
max. Earth dist.	9959 Aug 14	14:09	29°♌17'54	5.90274 AU	
	9959 Aug 17	11:01	0°♍		
morning rise	9959 Aug 26	21:32	2°♍18'03		
retrograde	9960 Jan 05	22:36	23°♍08'54		
min. Earth dist.	9960 Mar 04	01:43	18°♍16'06	3.92488 AU	
opposition	9960 Mar 05	06:37	18°♍06'18	-0°17'55	
direct	9960 May 02	04:25	13°♍10'55		
asc. node	9960 Aug 20	10:40	29°♍09'43		
	9960 Aug 24	01:09	0°♎		
evening set	9960 Sep 06	04:21	3°♎06'05		
conjunction	9960 Sep 19	18:38	6°♎21'18	0°02'09	
minimum elong	9960 Sep 19	18:38	6°♎21'18	0°02'10	
behind sun begin	9960 Sep 19	10:15	6°♎16'18		
behind sun end	9960 Sep 20	03:01	6°♎26'18		
max. Earth dist.	9960 Sep 22	00:45	6°♎53'43	5.97224 AU	
morning rise	9960 Oct 03	11:00	9°♎37'19		
retrograde	9961 Feb 10	12:25	29°♎43'47		
min. Earth dist.	9961 Apr 09	11:20	24°♎52'46	4.04034 AU	
opposition	9961 Apr 11	02:11	24°♎39'34	0°23'49	
direct	9961 Jun 08	13:38	19°♎42'03		
	9961 Sep 02	18:51	0°♏		
evening set	9961 Oct 13	06:59	8°♏53'17		
conjunction	9961 Oct 26	22:00	12°♏01'47	0°27'34	
minimum elong	9961 Oct 26	21:59	12°♏01'46	0°27'50	
max. Earth dist.	9961 Oct 29	09:31	12°♏36'08	6.12187 AU	
	9961 Nov 08	19:38	15°♏		
morning rise	9961 Nov 09	13:29	15°♏10'12		
	9962 Jan 23	12:20	0°♐		
retrograde	9962 Mar 16	10:55	4°♐03'24		
	9962 May 07	22:13	30°℞♏		
min. Earth dist.	9962 May 13	23:00	29°♏11'44	4.20802 AU	
opposition	9962 May 15	09:06	29°♏00'17	0°54'10	
direct	9962 Jul 14	01:04	24°♏00'43		
	9962 Sep 16	20:06	0°♐		
evening set	9962 Nov 17	07:06	12°♐19'41		
conjunction	9962 Nov 30	18:49	15°♐19'19	0°42'22	
minimum elong	9962 Nov 30	18:48	15°♐19'18	0°42'45	
max. Earth dist.	9962 Dec 02	13:22	15°♐42'57	6.29303 AU	
morning rise	9962 Dec 14	05:58	18°♐18'19		
	9963 Feb 10	18:27	0°♑		
retrograde	9963 Apr 16	21:52	6°♑01'10		
min. Earth dist.	9963 Jun 15	11:24	1°♑07'34	4.36853 AU	
opposition	9963 Jun 16	07:24	1°♑00'58	1°05'19	
	9963 Jun 24	01:19	30°℞♐		
direct	9963 Aug 16	06:11	26°♐00'04		
	9963 Oct 08	08:14	0°♑		
evening set	9963 Dec 20	00:59	13°♑36'12		
conjunction	9964 Jan 02	07:59	16°♑28'16	0°43'44	
minimum elong	9964 Jan 02	07:59	16°♑28'17	0°44'08	
max. Earth dist.	9964 Jan 02	23:51	16°♑36'52	6.43130 AU	
morning rise	9964 Jan 15	13:11	19°♑19'21		
	9964 Mar 09	22:23	0°♒		
retrograde	9964 May 15	22:22	6°♒13'30		
opposition	9964 Jul 15	16:49	1°♒16'38	0°57'46	
min. Earth dist.	9964 Jul 15	15:53	1°♒16'56	4.47605 AU	
	9964 Jul 25	15:40	30°℞♑		
direct	9964 Sep 15	17:33	26°♑15'15		
	9964 Nov 06	16:36	0°♒		
evening set	9965 Jan 19	01:46	13°♒26'49		
	9965 Jan 26	08:45	15°♒		
conjunction	9965 Feb 01	03:44	16°♒14'19	0°33'09	
minimum elong	9965 Feb 01	03:45	16°♒14'19	0°33'28	
max. Earth dist.	9965 Jan 31	13:19	16°♒06'36	6.50074 AU	
morning rise	9965 Feb 14	03:49	19°♒00'49		
	9965 Apr 12	04:36	0°♓		
retrograde	9965 Jun 14	13:25	5°♓34'55		
opposition	9965 Aug 14	13:16	0°♓40'32	0°35'33	
min. Earth dist.	9965 Aug 15	08:00	0°♓34'31	4.50421 AU	
	9965 Aug 19	19:55	30°℞♒		
direct	9965 Oct 16	04:42	25°♒39'06		
	9965 Dec 11	16:42	0°♓		
evening set	9966 Feb 18	06:24	12°♓48'10		
max. Earth dist.	9966 Mar 01	14:31	15°♓14'13	6.48533 AU	
conjunction	9966 Mar 03	04:30	15°♓34'40	0°14'04	
minimum elong	9966 Mar 03	04:31	15°♓34'40	0°14'11	
behind sun begin	9966 Mar 03	00:38	15°♓32'36		
behind sun end	9966 Mar 03	08:23	15°♓36'45		
morning rise	9966 Mar 16	00:27	18°♓20'18		
	9966 May 15	17:03	0°♈		
retrograde	9966 Jul 14	19:23	5°♈04'55		
opposition	9966 Sep 13	21:33	0°♈11'47	0°04'05	
min. Earth dist.	9966 Sep 15	06:25	0°♈01'18	4.44624 AU	
	9966 Sep 15	10:29	30°℞♓		
desc. node	9966 Oct 30	12:56	25°♓33'55		
direct	9966 Nov 15	11:42	25°♓10'53		
	9967 Jan 13	19:23	0°♈		
evening set	9967 Mar 20	14:40	12°♈40'09		
max. Earth dist.	9967 Mar 31	04:44	14°♈59'47	6.38804 AU	
conjunction	9967 Apr 02	10:00	15°♈29'11	-0°09'09	
minimum elong	9967 Apr 02	09:59	15°♈29'11	0°09'13	
behind sun begin	9967 Apr 02	03:15	15°♈25'29		
behind sun end	9967 Apr 02	16:44	15°♈32'53		
morning rise	9967 Apr 15	03:54	18°♈17'46		
	9967 Jun 13	02:03	0°♉		
retrograde	9967 Aug 15	21:35	5°♉43'17		
opposition	9967 Oct 15	18:14	0°♉50'09	-0°29'54	
min. Earth dist.	9967 Oct 17	10:42	0°♉37'11	4.31477 AU	
	9967 Oct 22	07:18	30°℞♈		
direct	9967 Dec 16	17:17	25°♈50'24		
	9968 Feb 08	13:09	0°♉		
evening set	9968 Apr 20	01:58	14°♉00'06		
	9968 Apr 24	11:23	15°♉		
max. Earth dist.	9968 Apr 30	13:31	16°♉23'26	6.23161 AU	
conjunction	9968 May 02	20:51	16°♉55'04	-0°30'34	
minimum elong	9968 May 02	20:50	16°♉55'03	0°30'52	
morning rise	9968 May 15	15:22	19°♉50'10		
	9968 Jul 02	08:54	0°♊		
retrograde	9968 Sep 18	10:16	8°♊22'10		
opposition	9968 Nov 17	21:39	3°♊27'51	-0°57'13	
min. Earth dist.	9968 Nov 19	07:42	3°♊16'48	4.14363 AU	
	9968 Dec 17	12:16	30°℞♉		
direct	9969 Jan 17	14:08	28°♉30'01		
	9969 Feb 17	12:25	0°♊		
evening set	9969 May 23	13:06	17°♊32'31		
max. Earth dist.	9969 Jun 03	20:24	20°♊13'09	6.05994 AU	
conjunction	9969 Jun 05	10:34	20°♊35'51	-0°43'17	
minimum elong	9969 Jun 05	10:34	20°♊35'50	0°43'41	
morning rise	9969 Jun 18	08:48	23°♊39'56		
	9969 Jul 15	21:49	0°♋		
retrograde	9969 Oct 25	16:43	13°♋28'41		
opposition	9969 Dec 24	13:44	8°♋32'09	-1°06'32	
min. Earth dist.	9969 Dec 25	06:36	8°♋26'34	3.98628 AU	
direct	9970 Feb 21	20:35	3°♋36'27		

evening set	9970 Jun	28	09:14	23°♋26'56	
conjunction	9970 Jul	11	12:31	26°♋38'48	-0°40'45
minimum elong	9970 Jul	11	12:32	26°♋38'49	0°41'08
max. Earth dist.	9970 Jul	11	06:17	26°♋35'00	5.93218 AU
morning rise	9970 Jul	24	17:46	29°♋51'56	
	9970 Jul	25	07:04	0°♌	
	9970 Oct	03	05:22	15°♌	
retrograde	9970 Dec	03	13:03	20°♌37'15	
opposition	9971 Jan	31	23:38	15°♌37'30	-0°49'54
min. Earth dist.	9971 Jan	31	14:17	15°♌40'39	3.90290 AU
	9971 Feb	05	15:42	15°℞♌	
direct	9971 Mar	31	03:26	10°♌42'53	
	9971 May	21	20:47	15°♌	
	9971 Aug	01	09:47	0°♍	
evening set	9971 Aug	05	02:57	0°♍54'03	
conjunction	9971 Aug	18	13:12	4°♍10'47	-0°21'49
minimum elong	9971 Aug	18	13:14	4°♍10'48	0°22'02
max. Earth dist.	9971 Aug	19	20:04	4°♍29'39	5.90178 AU
morning rise	9971 Sep	01	02:03	7°♍28'48	
retrograde	9972 Jan	11	00:37	28°♍18'50	
min. Earth dist.	9972 Mar	09	02:14	23°♍26'21	3.92985 AU
opposition	9972 Mar	10	09:01	23°♍15'53	-0°12'14
direct	9972 May	07	06:44	18°♍20'16	
asc. node	9972 Jul	02	01:06	23°♍13'53	
	9972 Aug	06	09:44	0°♎	
evening set	9972 Sep	11	07:42	8°♎13'19	
conjunction	9972 Sep	24	22:38	11°♎28'18	0°05'56
minimum elong	9972 Sep	24	22:38	11°♎28'18	0°05'59
behind sun begin	9972 Sep	24	14:40	11°♎23'34	
behind sun end	9972 Sep	25	06:37	11°♎33'02	
max. Earth dist.	9972 Sep	27	07:46	12°♎02'25	5.98279 AU
morning rise	9972 Oct	08	15:11	14°♎43'53	
	9972 Dec	21	11:53	0°♏	
retrograde	9973 Feb	15	10:37	4°♏44'03	
	9973 Apr	13	12:03	30°℞♎	
min. Earth dist.	9973 Apr	14	08:46	29°♎52'59	4.05516 AU
opposition	9973 Apr	15	23:23	29°♎39'53	0°28'52
direct	9973 Jun	13	13:42	24°♎42'07	
	9973 Aug	11	20:14	0°♏	
evening set	9973 Oct	18	07:02	13°♏48'37	
	9973 Oct	23	11:35	15°♏	
conjunction	9973 Oct	31	21:49	16°♏56'15	0°30'19
minimum elong	9973 Oct	31	21:48	16°♏56'14	0°30'36
max. Earth dist.	9973 Nov	03	08:33	17°♏29'59	6.13952 AU
morning rise	9973 Nov	14	13:07	20°♏03'45	
	9973 Dec	31	01:56	0°♐	
retrograde	9974 Mar	20	23:39	8°♐48'32	
opposition	9974 May	19	23:33	3°♐45'42	0°56'50
min. Earth dist.	9974 May	18	13:49	3°♐57'01	4.22692 AU
	9974 Jun	20	23:58	30°℞♏	
direct	9974 Jul	18	18:16	28°♏45'53	
	9974 Aug	15	20:41	0°♐	
evening set	9974 Nov	22	00:57	16°♐59'37	
conjunction	9974 Dec	05	12:11	19°♐58'15	0°43'17
minimum elong	9974 Dec	05	12:10	19°♐58'15	0°43'42
max. Earth dist.	9974 Dec	07	04:17	20°♐20'27	6.31175 AU
morning rise	9974 Dec	18	22:31	22°♐56'09	
	9975 Jan	21	10:41	0°♑	
retrograde	9975 Apr	21	06:56	10°♑31'35	
opposition	9975 Jun	20	16:37	5°♑31'49	1°05'14
min. Earth dist.	9975 Jun	19	23:00	5°♑37'38	4.38546 AU
direct	9975 Aug	20	19:45	0°♑30'49	
evening set	9975 Dec	24	12:36	18°♑02'37	
conjunction	9976 Jan	06	18:48	20°♑53'52	0°42'49
minimum elong	9976 Jan	06	18:49	20°♑53'52	0°43'13
max. Earth dist.	9976 Jan	07	06:37	21°♑00'14	6.44497 AU
morning rise	9976 Jan	19	23:21	23°♑44'08	
	9976 Feb	19	06:57	0°♒	
retrograde	9976 May	20	03:02	10°♒33'39	
opposition	9976 Jul	19	22:39	5°♒37'06	0°55'18
min. Earth dist.	9976 Jul	20	00:09	5°♒36'37	4.48548 AU
direct	9976 Sep	20	01:38	0°♒35'36	
	9977 Jan	10	05:55	15°♒	
evening set	9977 Jan	23	08:56	17°♒45'07	
conjunction	9977 Feb	05	10:25	20°♒32'12	0°30'49
minimum elong	9977 Feb	05	10:26	20°♒32'13	0°31'07
max. Earth dist.	9977 Feb	04	17:59	20°♒23'25	6.50504 AU
morning rise	9977 Feb	18	09:38	23°♒18'15	
	9977 Mar	23	05:00	0°♓	
retrograde	9977 Jun	18	17:17	9°♓51'26	
opposition	9977 Aug	18	18:36	4°♓57'17	0°31'28
min. Earth dist.	9977 Aug	19	15:05	4°♓50'44	4.50289 AU
	9977 Oct	13	16:33	30°℞♒	
direct	9977 Oct	20	10:28	29°♒55'54	
	9977 Oct	27	04:59	0°♓	
evening set	9978 Feb	22	12:11	17°♓05'51	
max. Earth dist.	9978 Mar	05	15:53	19°♓29'51	6.47813 AU
conjunction	9978 Mar	07	09:38	19°♓52'24	0°10'54
minimum elong	9978 Mar	07	09:38	19°♓52'24	0°11'01
behind sun begin	9978 Mar	07	03:37	19°♓49'10	
behind sun end	9978 Mar	07	15:38	19°♓55'37	
morning rise	9978 Mar	20	05:16	22°♓38'09	
	9978 Apr	25	02:34	0°♈	
retrograde	9978 Jul	19	05:25	9°♈26'08	
desc. node	9978 Sep	09	17:42	5°♈37'45	
opposition	9978 Sep	18	06:12	4°♈33'05	-0°00'45
min. Earth dist.	9978 Sep	19	17:35	4°♈21'47	4.43331 AU
	9978 Nov	02	06:56	30°℞♓	
direct	9978 Nov	19	20:08	29°♓32'14	
	9978 Dec	07	09:22	0°♈	
evening set	9979 Mar	24	22:06	17°♈05'31	
max. Earth dist.	9979 Apr	04	10:26	19°♈24'46	6.37016 AU
conjunction	9979 Apr	06	17:18	19°♈55'09	-0°12'25
minimum elong	9979 Apr	06	17:17	19°♈55'09	0°12'31
behind sun begin	9979 Apr	06	12:05	19°♈52'17	
behind sun end	9979 Apr	06	22:30	19°♈58'02	
morning rise	9979 Apr	19	11:04	22°♈44'24	
	9979 May	23	17:59	0°♉	
retrograde	9979 Aug	20	12:23	10°♉17'29	
opposition	9979 Oct	20	08:57	5°♉24'14	-0°34'22
min. Earth dist.	9979 Oct	22	00:40	5°♉11'29	4.29300 AU
direct	9979 Dec	21	03:17	0°♉24'41	
	9980 Apr	08	04:27	15°♉	
evening set	9980 Apr	24	14:56	18°♉41'08	
max. Earth dist.	9980 May	05	04:22	21°♉06'18	6.20758 AU
conjunction	9980 May	07	09:57	21°♉37'08	-0°33'02
minimum elong	9980 May	07	09:56	21°♉37'07	0°33'20
morning rise	9980 May	20	04:43	24°♉33'20	
	9980 Jun	13	13:10	0°♊	
retrograde	9980 Sep	23	12:40	13°♊15'55	
opposition	9980 Nov	22	20:53	8°♊21'21	-0°59'50
min. Earth dist.	9980 Nov	24	06:24	8°♊10'27	4.11903 AU
direct	9981 Jan	22	09:35	3°♊23'47	
evening set	9981 May	28	09:53	22°♊34'03	

max. Earth dist.	9981 Jun 08	20:31	25°♊17'29	6.03701 AU	
conjunction	9981 Jun 10	08:03	25°♊38'41	-0°43'55	
minimum elong	9981 Jun 10	08:02	25°♊38'41	0°44'21	
morning rise	9981 Jun 23	07:11	28°♊44'11		
	9981 Jun 28	15:18	0°♋		
retrograde	9981 Oct 31	00:52	18°♋43'16		
opposition	9981 Dec 29	20:52	13°♋46'20	-1°05'47	
min. Earth dist.	9981 Dec 30	09:48	13°♋42'03	3.96748 AU	
direct	9982 Feb 26	22:03	8°♋50'53		
evening set	9982 Jul 03	14:10	28°♋47'03		
	9982 Jul 08	14:03	0°♌		
conjunction	9982 Jul 16	18:23	2°♌00'00	-0°38'58	
minimum elong	9982 Jul 16	18:24	2°♌00'01	0°39'20	
max. Earth dist.	9982 Jul 16	16:45	1°♌59'00	5.91939 AU	
morning rise	9982 Jul 30	00:50	5°♌14'17		
	9982 Sep 10	08:13	15°♌		
retrograde	9982 Dec 09	00:37	26°♌04'44		
opposition	9983 Feb 06	10:28	21°♌04'28	-0°45'30	
min. Earth dist.	9983 Feb 05	21:41	21°♌08'46	3.89769 AU	
direct	9983 Apr 05	12:28	16°♌09'47		
	9983 Jul 14	16:02	0°♍		
evening set	9983 Aug 10	12:41	6°♍21'37		
conjunction	9983 Aug 24	00:02	9°♍38'40	-0°18'08	
minimum elong	9983 Aug 24	00:03	9°♍38'40	0°18'18	
max. Earth dist.	9983 Aug 25	13:14	10°♍01'22	5.90495 AU	
morning rise	9983 Sep 06	13:34	12°♍56'52		
	9983 Nov 28	10:39	0°♎		
retrograde	9984 Jan 16	09:18	3°♎43'23		
	9984 Mar 05	18:57	30°℞♍		
min. Earth dist.	9984 Mar 14	08:18	28°♍51'09	3.94118 AU	
opposition	9984 Mar 15	16:45	28°♍40'08	-0°06'07	
asc. node	9984 May 11	03:47	23°♍44'31		
direct	9984 May 12	15:56	23°♍44'17		
	9984 Jul 15	14:33	0°♎		
evening set	9984 Sep 16	16:18	13°♎32'22		
conjunction	9984 Sep 30	07:26	16°♎46'36	0°09'51	
minimum elong	9984 Sep 30	07:25	16°♎46'35	0°09'57	
behind sun begin	9984 Sep 30	00:41	16°♎42'36		
behind sun end	9984 Sep 30	14:10	16°♎50'34		
max. Earth dist.	9984 Oct 02	18:33	17°♎21'43	6.00107 AU	
morning rise	9984 Oct 14	00:13	20°♎01'21		
	9984 Nov 27	22:47	0°♏		
retrograde	9985 Feb 20	07:53	9°♏51'27		
min. Earth dist.	9985 Apr 19	07:08	5°♏00'46	4.07846 AU	
opposition	9985 Apr 20	22:57	4°♏47'16	0°33'54	
	9985 Jun 08	08:26	30°℞♎		
direct	9985 Jun 18	16:07	29°♎49'10		
	9985 Jun 29	01:22	0°♏		
	9985 Oct 06	10:57	15°♏		
evening set	9985 Oct 23	08:42	18°♏47'40		
conjunction	9985 Nov 05	23:06	21°♏53'56	0°32'56	
minimum elong	9985 Nov 05	23:05	21°♏53'56	0°33'14	
max. Earth dist.	9985 Nov 08	08:00	22°♏26'28	6.16576 AU	
morning rise	9985 Nov 19	13:47	24°♏59'59		
	9985 Dec 12	03:51	0°♐		
retrograde	9986 Mar 25	13:27	13°♐33'20		
min. Earth dist.	9986 May 23	06:55	8°♐41'17	4.25346 AU	
opposition	9986 May 24	14:14	8°♐30'48	0°59'12	
direct	9986 Jul 23	14:48	3°♐30'44		
evening set	9986 Nov 26	17:46	21°♐36'36		
conjunction	9986 Dec 10	04:19	24°♐33'55	0°43'59	
minimum elong	9986 Dec 10	04:18	24°♐33'55	0°44'24	
max. Earth dist.	9986 Dec 11	17:37	24°♐54'28	6.33642 AU	
morning rise	9986 Dec 23	13:47	27°♐30'27		
	9987 Jan 04	02:25	0°♑		
retrograde	9987 Apr 25	11:06	14°♑56'46		
opposition	9987 Jun 24	23:50	9°♑57'25	1°04'47	
min. Earth dist.	9987 Jun 24	08:04	10°♑02'36	4.40653 AU	
direct	9987 Aug 25	06:12	4°♑56'15		
evening set	9987 Dec 28	21:56	22°♑22'41		
conjunction	9988 Jan 11	03:24	25°♑13'01	0°41'44	
minimum elong	9988 Jan 11	03:24	25°♑13'01	0°42'08	
max. Earth dist.	9988 Jan 11	10:59	25°♑17'06	6.46095 AU	
morning rise	9988 Jan 24	07:02	28°♑02'20		
	9988 Feb 02	13:16	0°♒		
retrograde	9988 May 24	06:00	14°♒46'53		
opposition	9988 Jul 24	02:15	9°♒50'45	0°52'38	
min. Earth dist.	9988 Jul 24	07:11	9°♒49'09	4.49535 AU	
direct	9988 Sep 24	08:50	4°♒49'14		
	9988 Dec 24	09:25	15°♒		
evening set	9989 Jan 27	13:41	21°♒56'45		
conjunction	9989 Feb 09	14:26	24°♒43'29	0°28'24	
minimum elong	9989 Feb 09	14:27	24°♒43'29	0°28'40	
max. Earth dist.	9989 Feb 08	16:27	24°♒31'44	6.50790 AU	
morning rise	9989 Feb 22	13:11	27°♒29'14		
	9989 Mar 06	11:58	0°♓		
retrograde	9989 Jun 22	21:29	14°♓02'19		
opposition	9989 Aug 22	22:27	9°♓08'23	0°27'19	
min. Earth dist.	9989 Aug 23	21:51	9°♓00'53	4.49862 AU	
direct	9989 Oct 24	14:54	4°♓06'58		
evening set	9990 Feb 26	16:09	21°♓18'52		
max. Earth dist.	9990 Mar 09	17:35	23°♓41'58	6.46693 AU	
conjunction	9990 Mar 11	13:21	24°♓05'40	0°07'45	
minimum elong	9990 Mar 11	13:21	24°♓05'40	0°07'49	
behind sun begin	9990 Mar 11	06:10	24°♓01'48		
behind sun end	9990 Mar 11	20:32	24°♓09'32		
morning rise	9990 Mar 24	08:28	26°♓51'42		
	9990 Apr 08	02:53	0°♈		
desc. node	9990 Jul 21	10:42	13°♈44'08		
retrograde	9990 Jul 23	13:04	13°♈44'33		
opposition	9990 Sep 22	14:04	8°♈51'34	-0°05'33	
min. Earth dist.	9990 Sep 24	02:34	8°♈39'55	4.41579 AU	
direct	9990 Nov 24	01:02	3°♈50'52		
evening set	9991 Mar 29	05:39	21°♈29'53		
max. Earth dist.	9991 Apr 08	16:04	23°♈48'49	6.34742 AU	
conjunction	9991 Apr 11	00:36	24°♈20'20	-0°15'36	
minimum elong	9991 Apr 11	00:35	24°♈20'19	0°15'45	
behind sun begin	9991 Apr 10	22:44	24°♈19'17		
behind sun end	9991 Apr 11	02:27	24°♈21'21		
morning rise	9991 Apr 23	18:29	27°♈10'29		
	9991 May 06	15:30	0°♉		
retrograde	9991 Aug 25	07:30	14°♉53'04		
opposition	9991 Oct 25	00:52	9°♉59'44	-0°38'41	
min. Earth dist.	9991 Oct 26	17:29	9°♉46'40	4.26632 AU	
direct	9991 Dec 25	16:00	5°♉00'24		
	9992 Mar 21	11:53	15°♉		
evening set	9992 Apr 29	05:16	23°♉25'26		
max. Earth dist.	9992 May 09	20:11	25°♉52'22	6.17915 AU	
conjunction	9992 May 12	00:43	26°♉22'46	-0°35'18	
minimum elong	9992 May 12	00:42	26°♉22'45	0°35'38	
morning rise	9992 May 24	19:57	29°♉20'22		
	9992 May 27	16:53	0°♊		
retrograde	9992 Sep 28	15:51	18°♊15'20		

opposition	9992 Nov 27 22:45	13°♊20'34	-1°02'05
min. Earth dist.	9992 Nov 29 05:25	13°♊10'34	4.09128 AU
direct	9993 Jan 27 04:36	8°♊23'23	
evening set	9993 Jun 02 09:43	27°♊42'38	
	9993 Jun 11 23:24	0°♋	
max. Earth dist.	9993 Jun 14 01:11	0°♋29'54	6.01254 AU
conjunction	9993 Jun 15 08:33	0°♋48'44	-0°44'15
minimum elong	9993 Jun 15 08:33	0°♋48'43	0°44'40
morning rise	9993 Jun 28 08:40	3°♋55'47	
retrograde	9993 Nov 05 13:53	24°♋05'52	
opposition	9994 Jan 04 07:22	19°♋08'32	-1°04'28
min. Earth dist.	9994 Jan 04 16:40	19°♋05'27	3.94888 AU
direct	9994 Mar 04 04:57	14°♋13'19	
	9994 Jun 21 05:00	0°♌	
evening set	9994 Jul 08 22:27	4°♌14'58	
conjunction	9994 Jul 22 03:53	7°♌28'59	-0°36'48
minimum elong	9994 Jul 22 03:54	7°♌29'00	0°37'10
max. Earth dist.	9994 Jul 22 09:43	7°♌32'33	5.90882 AU
morning rise	9994 Aug 04 11:22	10°♌44'17	
	9994 Aug 22 06:12	15°♌	
	9994 Nov 12 17:46	0°♍	
retrograde	9994 Dec 14 15:19	1°♍38'18	
	9995 Jan 15 10:08	30°℞♌	
opposition	9995 Feb 11 23:28	26°♌37'33	-0°40'37
min. Earth dist.	9995 Feb 11 07:16	26°♌43'02	3.89667 AU
direct	9995 Apr 10 23:07	21°♌42'53	
	9995 Jun 24 05:23	0°♍	
evening set	9995 Aug 16 00:29	11°♍53'30	
conjunction	9995 Aug 29 12:28	15°♍10'31	-0°14'15
minimum elong	9995 Aug 29 12:29	15°♍10'31	0°14'24
behind sun begin	9995 Aug 29 08:44	15°♍08'15	
behind sun end	9995 Aug 29 16:14	15°♍12'47	
max. Earth dist.	9995 Aug 31 05:46	15°♍35'39	5.91324 AU
morning rise	9995 Sep 12 02:55	18°♍28'39	
	9995 Nov 02 08:12	0°♎	
retrograde	9996 Jan 21 15:30	9°♎09'08	
min. Earth dist.	9996 Mar 19 13:03	4°♎17'38	3.95773 AU
asc. node	9996 Mar 20 11:39	4°♎09'57	
opposition	9996 Mar 21 00:32	4°♎05'34	0°00'03
	9996 Apr 25 19:54	30°℞♍	
direct	9996 May 18 00:48	29°♍09'25	
	9996 Jun 09 08:48	0°♎	
evening set	9996 Sep 22 00:25	18°♎50'40	
conjunction	9996 Oct 05 15:38	22°♎03'50	0°13'41
minimum elong	9996 Oct 05 15:37	22°♎03'49	0°13'49
behind sun begin	9996 Oct 05 11:23	22°♎01'20	
behind sun end	9996 Oct 05 19:52	22°♎06'19	
max. Earth dist.	9996 Oct 08 03:32	22°♎39'14	6.02389 AU
morning rise	9996 Oct 19 08:18	25°♎17'25	
	9996 Nov 08 20:21	0°♏	
retrograde	9997 Feb 25 05:20	14°♏56'11	
min. Earth dist.	9997 Apr 24 06:47	10°♏05'07	4.10474 AU
opposition	9997 Apr 25 21:19	9°♏52'04	0°38'37
direct	9997 Jun 23 19:28	4°♏53'38	
	9997 Sep 17 22:02	15°♏	
evening set	9997 Oct 28 08:44	23°♏43'30	
conjunction	9997 Nov 10 22:46	26°♏48'23	0°35'19
minimum elong	9997 Nov 10 22:44	26°♏48'22	0°35'39
max. Earth dist.	9997 Nov 13 06:53	27°♏20'15	6.19308 AU
morning rise	9997 Nov 24 12:42	29°♏52'53	
	9997 Nov 25 01:20	0°♐	
retrograde	9998 Mar 29 23:23	18°♐14'55	
min. Earth dist.	9998 May 27 20:54	13°♐22'52	4.27949 AU
opposition	9998 May 29 03:05	13°♐12'48	1°01'09
direct	9998 Jul 28 07:18	8°♐12'34	
evening set	9998 Dec 01 09:12	26°♐11'14	
conjunction	9998 Dec 14 18:55	29°♐07'18	0°44'25
minimum elong	9998 Dec 14 18:54	29°♐07'18	0°44'50
max. Earth dist.	9998 Dec 16 02:58	29°♐24'53	6.35917 AU
	9998 Dec 18 19:03	0°♑	
morning rise	9998 Dec 28 03:37	2°♑02'35	
retrograde	9999 Apr 29 17:23	19°♑20'58	
opposition	9999 Jun 29 06:38	14°♑22'05	1°04'01
min. Earth dist.	9999 Jun 28 18:44	14°♑26'00	4.42454 AU
direct	9999 Aug 29 18:18	9°♑20'50	
evening set	10000 Jan 02 06:34	26°♑42'59	
conjunction	10000 Jan 15 11:23	29°♑32'36	0°40'25
minimum elong	10000 Jan 15 11:24	29°♑32'36	0°40'48
max. Earth dist.	10000 Jan 15 14:53	29°♑34'28	6.47294 AU
	10000 Jan 17 14:28	0°♒	
morning rise	10000 Jan 28 14:15	2°♒21'10	
	10000 Apr 05 08:40	15°♒	
retrograde	10000 May 28 08:19	19°♒02'16	
	10000 Jul 21 07:40	15°℞♒	
opposition	10000 Jul 28 06:24	14°♒06'27	0°49'42
min. Earth dist.	10000 Jul 28 13:34	14°♒04'08	4.50089 AU
direct	10000 Sep 28 14:27	9°♒04'54	
	10000 Dec 04 12:18	15°♒	
evening set	10001 Jan 31 19:15	26°♒11'46	
conjunction	10001 Feb 13 19:28	28°♒58'18	0°25'48
minimum elong	10001 Feb 13 19:29	28°♒58'19	0°26'03
max. Earth dist.	10001 Feb 12 18:23	28°♒44'53	6.50666 AU
	10001 Feb 18 14:46	0°♓	
morning rise	10001 Feb 26 17:33	1°♓43'53	
retrograde	10001 Jun 27 02:55	18°♓18'07	
opposition	10001 Aug 27 04:00	13°♓24'24	0°22'57
min. Earth dist.	10001 Aug 28 06:08	13°♓16'03	4.49069 AU
direct	10001 Oct 28 20:56	8°♓23'03	
evening set	10002 Mar 02 22:15	25°♓37'52	
max. Earth dist.	10002 Mar 13 19:09	27°♓59'04	6.45271 AU
conjunction	10002 Mar 15 18:56	28°♓25'01	0°04'29
minimum elong	10002 Mar 15 18:56	28°♓25'01	0°04'32
behind sun begin	10002 Mar 15 11:07	28°♓20'48	
behind sun end	10002 Mar 16 02:46	28°♓29'15	
	10002 Mar 23 01:51	0°♈	
morning rise	10002 Mar 28 13:57	1°♈11'31	
desc. node	10002 May 30 13:02	13°♈19'12	
retrograde	10002 Jul 28 01:34	18°♈10'12	
opposition	10002 Sep 27 01:01	13°♈17'12	-0°10'27
min. Earth dist.	10002 Sep 28 15:03	13°♈05'02	4.39605 AU
direct	10002 Nov 28 10:05	8°♈16'36	
evening set	10003 Apr 02 15:39	26°♈01'46	
max. Earth dist.	10003 Apr 13 02:36	28°♈21'44	6.32364 AU
conjunction	10003 Apr 15 10:41	28°♈53'08	-0°18'47
minimum elong	10003 Apr 15 10:40	28°♈53'08	0°18'58
	10003 Apr 20 10:01	0°♉	
morning rise	10003 Apr 28 04:28	1°♉44'14	
	10003 Jul 04 15:30	15°♉	
retrograde	10003 Aug 30 03:19	19°♉36'37	
	10003 Oct 27 15:41	15°℞♉	
opposition	10003 Oct 29 20:02	14°♉43'10	-0°42'53
min. Earth dist.	10003 Oct 31 11:38	14°♉30'25	4.24021 AU
direct	10003 Dec 30 06:11	9°♉44'10	
	10004 Feb 28 19:54	15°♉	

evening set	10004 May 03 22:46	28°♉17'19	
	10004 May 11 08:02	0°♊	
max. Earth dist.	10004 May 14 15:40	0°♊46'20	6.15293 AU
conjunction	10004 May 16 18:22	1°♊15'51	-0°37'24
minimum elong	10004 May 16 18:21	1°♊15'51	0°37'45
morning rise	10004 May 29 14:11	4°♊14'49	
retrograde	10004 Oct 03 22:37	23°♊21'16	
opposition	10004 Dec 03 03:19	18°♊26'11	-1°03'56
min. Earth dist.	10004 Dec 04 07:26	18°♊17'00	4.06729 AU
direct	10005 Feb 01 05:15	13°♊29'20	
	10005 May 26 02:19	0°♋	
evening set	10005 Jun 07 11:32	2°♋55'52	
max. Earth dist.	10005 Jun 19 10:03	5°♋48'01	5.99340 AU
conjunction	10005 Jun 20 11:17	6°♋03'13	-0°44'15
minimum elong	10005 Jun 20 11:17	6°♋03'13	0°44'40
morning rise	10005 Jul 03 12:13	9°♋11'32	
retrograde	10005 Nov 11 03:15	29°♋29'58	
opposition	10006 Jan 09 18:31	24°♋32'11	-1°02'37
min. Earth dist.	10006 Jan 10 00:05	24°♋30'21	3.93700 AU
direct	10006 Mar 09 11:55	19°♋37'14	
	10006 Jun 02 07:55	0°♌	
evening set	10006 Jul 14 06:39	9°♌41'27	
conjunction	10006 Jul 27 12:52	12°♌56'03	-0°34'22
minimum elong	10006 Jul 27 12:54	12°♌56'03	0°34'42
max. Earth dist.	10006 Jul 27 23:25	13°♌02'30	5.90533 AU
	10006 Aug 04 23:24	15°♌	
morning rise	10006 Aug 09 21:33	16°♌12'01	
	10006 Oct 11 10:48	0°♍	
retrograde	10006 Dec 20 00:41	7°♍06'17	
opposition	10007 Feb 17 10:12	2°♍05'02	-0°35'29
min. Earth dist.	10007 Feb 16 13:33	2°♍12'00	3.90218 AU
	10007 Mar 05 09:20	30°℞♌	
direct	10007 Apr 16 08:32	27°♌10'15	
	10007 May 27 20:13	0°♍	
evening set	10007 Aug 21 09:33	17°♍17'12	
conjunction	10007 Sep 03 22:11	20°♍33'49	-0°10'23
minimum elong	10007 Sep 03 22:12	20°♍33'49	0°10'30
behind sun begin	10007 Sep 03 15:42	20°♍29'54	
behind sun end	10007 Sep 04 04:42	20°♍37'45	
max. Earth dist.	10007 Sep 05 19:27	21°♍01'17	5.92710 AU
morning rise	10007 Sep 17 13:04	23°♍51'28	
	10007 Oct 13 18:19	0°♎	
retrograde	10008 Jan 26 18:25	14°♎23'53	
asc. node	10008 Jan 30 09:51	14°♎22'31	
min. Earth dist.	10008 Mar 24 16:15	9°♎32'16	3.97808 AU
opposition	10008 Mar 26 04:08	9°♎20'03	0°05'58
direct	10008 May 23 08:02	4°♎23'35	
evening set	10008 Sep 27 04:18	23°♎56'59	
conjunction	10008 Oct 10 19:36	27°♎09'01	0°17'15
minimum elong	10008 Oct 10 19:35	27°♎09'00	0°17'25
max. Earth dist.	10008 Oct 13 09:05	27°♎45'08	6.04862 AU
	10008 Oct 22 23:25	0°♏	
morning rise	10008 Oct 24 12:00	0°♏21'18	
	10009 Jan 04 05:21	15°♏	
retrograde	10009 Mar 01 20:49	19°♏48'24	
	10009 Apr 28 17:01	15°℞♏	
min. Earth dist.	10009 Apr 29 00:36	14°♏57'27	4.13126 AU
opposition	10009 Apr 30 14:56	14°♏44'29	0°42'50
direct	10009 Jun 28 16:24	9°♏45'49	
	10009 Aug 27 05:44	15°♏	
evening set	10009 Nov 02 04:21	28°♏27'27	
	10009 Nov 09 00:43	0°♐	

conjunction	10009 Nov 15 17:43	1°♐30'57	0°37'22
minimum elong	10009 Nov 15 17:42	1°♐30'57	0°37'43
max. Earth dist.	10009 Nov 17 21:25	2°♐00'08	6.21898 AU
morning rise	10009 Nov 29 07:09	4°♐34'05	
retrograde	10010 Apr 03 07:28	22°♐45'59	
min. Earth dist.	10010 Jun 01 09:24	17°♐53'19	4.30268 AU
opposition	10010 Jun 02 12:25	17°♐44'18	1°02'41
direct	10010 Aug 01 21:54	12°♐43'54	
	10010 Dec 03 01:17	0°♑	
evening set	10010 Dec 05 20:51	0°♑36'36	
conjunction	10010 Dec 19 06:04	3°♑31'40	0°44'36
minimum elong	10010 Dec 19 06:04	3°♑31'40	0°45'01
max. Earth dist.	10010 Dec 20 11:11	3°♑47'34	6.37806 AU
morning rise	10011 Jan 01 13:50	6°♑25'51	
retrograde	10011 May 03 19:21	23°♑37'56	
opposition	10011 Jul 03 10:45	18°♑39'36	1°02'58
min. Earth dist.	10011 Jul 03 00:53	18°♑42'50	4.43814 AU
direct	10011 Sep 03 00:58	13°♑38'21	
	10012 Jan 02 00:09	0°♒	
evening set	10012 Jan 06 13:16	0°♒57'51	
conjunction	10012 Jan 19 17:20	3°♒46'55	0°38'57
minimum elong	10012 Jan 19 17:21	3°♒46'55	0°39'19
max. Earth dist.	10012 Jan 19 15:26	3°♒45'53	6.48044 AU
morning rise	10012 Feb 01 19:36	6°♒34'59	
	10012 Mar 14 17:23	15°♒	
retrograde	10012 Jun 01 12:03	23°♒14'13	
opposition	10012 Aug 01 09:36	18°♒18'51	0°46'37
min. Earth dist.	10012 Aug 01 20:30	18°♒15'20	4.50208 AU
	10012 Aug 29 14:33	15°℞♒	
direct	10012 Oct 02 20:21	13°♒17'20	
	10012 Nov 06 07:47	15°♒	
	10013 Feb 03 00:55	0°♓	
evening set	10013 Feb 04 23:51	0°♓24'54	
conjunction	10013 Feb 17 23:37	3°♓11'28	0°23'08
minimum elong	10013 Feb 17 23:38	3°♓11'29	0°23'21
max. Earth dist.	10013 Feb 16 18:35	2°♓55'55	6.50148 AU
morning rise	10013 Mar 02 21:17	5°♓57'06	
retrograde	10013 Jul 01 08:29	22°♓33'55	
opposition	10013 Aug 31 09:48	17°♓40'22	0°18'32
min. Earth dist.	10013 Sep 01 13:17	17°♓31'34	4.47970 AU
direct	10013 Nov 02 01:27	12°♓39'08	
evening set	10014 Mar 07 04:17	29°♓57'44	
	10014 Mar 07 08:28	0°♈	
max. Earth dist.	10014 Mar 18 00:37	2°♈19'09	6.43672 AU
conjunction	10014 Mar 20 00:46	2°♈45'24	0°01'11
minimum elong	10014 Mar 20 00:45	2°♈45'24	0°01'11
behind sun begin	10014 Mar 19 16:46	2°♈41'04	
behind sun end	10014 Mar 20 08:44	2°♈49'44	
morning rise	10014 Apr 01 19:21	5°♈32'23	
desc. node	10014 Apr 08 17:33	7°♈02'01	
retrograde	10014 Aug 01 13:48	22°♈37'30	
opposition	10014 Oct 01 12:33	17°♈44'34	-0°15'16
min. Earth dist.	10014 Oct 03 03:26	17°♈32'08	4.37607 AU
direct	10014 Dec 02 19:30	12°♈44'14	
	10015 Apr 04 10:26	0°♉	
evening set	10015 Apr 07 02:16	0°♉35'31	
max. Earth dist.	10015 Apr 17 12:02	2°♉55'36	6.30106 AU
conjunction	10015 Apr 19 21:05	3°♉27'43	-0°21'50
minimum elong	10015 Apr 19 21:04	3°♉27'43	0°22'02
morning rise	10015 May 02 15:07	6°♉19'47	
	10015 Jun 12 09:45	15°♉	
retrograde	10015 Sep 04 00:07	24°♉21'35	

opposition	10015 Nov 03 15:33	19°♉27'55	-0°46'47
min. Earth dist.	10015 Nov 05 05:54	19°♉15'32	4.21649 AU
	10015 Dec 16 19:56	15°℞♉	
direct	10016 Jan 03 22:01	14°♉29'10	
	10016 Jan 22 00:04	15°♉	
	10016 Apr 24 20:52	0°♊	
evening set	10016 May 08 15:44	3°♊09'27	
max. Earth dist.	10016 May 19 12:55	5°♊41'41	6.13000 AU
conjunction	10016 May 21 11:51	6°♊09'08	-0°39'13
minimum elong	10016 May 21 11:50	6°♊09'08	0°39'36
morning rise	10016 Jun 03 08:02	9°♊09'16	
retrograde	10016 Oct 09 04:22	28°♊25'52	
opposition	10016 Dec 08 06:59	23°♊30'29	-1°05'16
min. Earth dist.	10016 Dec 09 08:44	23°♊22'03	4.04712 AU
direct	10017 Feb 06 04:21	18°♊33'57	
	10017 May 08 05:50	0°♋	
evening set	10017 Jun 12 11:58	8°♋06'18	
conjunction	10017 Jun 25 12:18	11°♋14'41	-0°43'53
minimum elong	10017 Jun 25 12:18	11°♋14'41	0°44'18
max. Earth dist.	10017 Jun 24 14:17	11°♋01'22	5.97762 AU
morning rise	10017 Jul 08 14:20	14°♋24'11	
	10017 Sep 20 20:44	0°♌	
retrograde	10017 Nov 16 11:40	4°♌49'39	
	10018 Jan 14 01:12	30°℞♋	
opposition	10018 Jan 15 03:07	29°♋51'21	-1°00'13
min. Earth dist.	10018 Jan 15 04:20	29°♋50'57	3.92737 AU
direct	10018 Mar 14 16:27	24°♋56'29	
	10018 May 10 11:06	0°♌	
evening set	10018 Jul 19 12:40	15°♌02'46	
	10018 Jul 19 08:07	15°♌	
conjunction	10018 Aug 01 19:56	18°♌17'58	-0°31'40
minimum elong	10018 Aug 01 19:57	18°♌17'59	0°31'58
max. Earth dist.	10018 Aug 02 12:26	18°♌28'05	5.90290 AU
morning rise	10018 Aug 15 05:28	21°♌34'28	
	10018 Sep 20 07:24	0°♍	
retrograde	10018 Dec 25 09:50	12°♍28'41	
opposition	10019 Feb 22 18:05	7°♍26'57	-0°30'07
min. Earth dist.	10019 Feb 21 19:38	7°♍34'33	3.90723 AU
direct	10019 Apr 21 17:07	2°♍31'58	
evening set	10019 Aug 26 16:29	22°♍35'52	
conjunction	10019 Sep 09 05:50	25°♍52'14	-0°06'29
minimum elong	10019 Sep 09 05:50	25°♍52'14	0°06'33
behind sun begin	10019 Sep 08 21:59	25°♍47'30	
behind sun end	10019 Sep 09 13:41	25°♍56'57	
max. Earth dist.	10019 Sep 11 07:08	26°♍22'01	5.93899 AU
morning rise	10019 Sep 22 21:13	29°♍09'30	
	10019 Sep 26 09:43	0°♎	
asc. node	10019 Dec 10 16:34	15°♎24'29	
retrograde	10020 Jan 31 19:16	19°♎34'45	
min. Earth dist.	10020 Mar 29 16:20	14°♎43'28	3.99548 AU
opposition	10020 Mar 31 05:45	14°♎30'45	0°11'47
direct	10020 May 28 10:31	9°♎33'59	
evening set	10020 Oct 02 07:10	29°♎01'00	
	10020 Oct 06 12:28	0°♏	
conjunction	10020 Oct 15 22:17	2°♏12'00	0°20'42
minimum elong	10020 Oct 15 22:16	2°♏11'59	0°20'53
max. Earth dist.	10020 Oct 18 10:10	2°♏46'59	6.06960 AU
morning rise	10020 Oct 29 14:40	5°♏23'13	
	10020 Dec 12 14:28	15°♏	
retrograde	10021 Mar 06 12:17	24°♏40'18	
min. Earth dist.	10021 May 03 19:11	19°♏49'03	4.15365 AU
opposition	10021 May 05 08:14	19°♏36'32	0°46'46
	10021 Jun 18 13:50	15°℞♏	
direct	10021 Jul 03 14:12	14°♏37'32	
	10021 Jul 18 17:01	15°♏	
	10021 Oct 23 12:09	0°♐	
evening set	10021 Nov 07 00:14	3°♐12'26	
conjunction	10021 Nov 20 13:19	6°♐14'49	0°39'10
minimum elong	10021 Nov 20 13:18	6°♐14'49	0°39'33
max. Earth dist.	10021 Nov 22 15:37	6°♐43'05	6.24103 AU
morning rise	10021 Dec 04 01:55	9°♐16'41	
retrograde	10022 Apr 07 16:28	27°♐19'39	
opposition	10022 Jun 06 22:36	22°♐18'27	1°03'51
min. Earth dist.	10022 Jun 05 21:19	22°♐26'50	4.32266 AU
direct	10022 Aug 06 12:10	17°♐17'54	
	10022 Nov 16 07:58	0°♑	
evening set	10022 Dec 10 10:09	5°♑05'32	
conjunction	10022 Dec 23 18:33	7°♑59'40	0°44'31
minimum elong	10022 Dec 23 18:33	7°♑59'40	0°44'57
max. Earth dist.	10022 Dec 24 18:26	8°♑12'40	6.39456 AU
morning rise	10023 Jan 06 01:44	10°♑52'56	
retrograde	10023 May 08 01:11	27°♑59'19	
opposition	10023 Jul 07 16:59	23°♑01'26	1°01'32
min. Earth dist.	10023 Jul 07 10:18	23°♑03'37	4.45042 AU
direct	10023 Sep 07 11:00	18°♑00'07	
	10023 Dec 16 08:42	0°♒	
evening set	10024 Jan 10 21:28	5°♒16'59	
conjunction	10024 Jan 24 01:03	8°♒05'33	0°37'14
minimum elong	10024 Jan 24 01:04	8°♒05'34	0°37'35
max. Earth dist.	10024 Jan 23 20:55	8°♒03'21	6.48799 AU
morning rise	10024 Feb 06 02:29	10°♒53'04	
	10024 Feb 25 20:01	15°♒	
retrograde	10024 Jun 05 15:08	27°♒30'13	
opposition	10024 Aug 05 14:40	22°♒35'11	0°43'14
min. Earth dist.	10024 Aug 06 02:45	22°♒31'18	4.50489 AU
direct	10024 Oct 07 02:08	17°♒33'47	
	10025 Jan 17 16:28	0°♓	
evening set	10025 Feb 09 05:59	4°♓41'08	
max. Earth dist.	10025 Feb 20 21:34	7°♓10'37	6.49965 AU
conjunction	10025 Feb 22 05:05	7°♓27'32	0°20'19
minimum elong	10025 Feb 22 05:06	7°♓27'32	0°20'31
morning rise	10025 Mar 07 02:12	10°♓13'02	
retrograde	10025 Jul 05 15:33	26°♓51'05	
opposition	10025 Sep 04 16:37	21°♓57'45	0°14'01
min. Earth dist.	10025 Sep 05 22:28	21°♓48'13	4.47341 AU
direct	10025 Nov 06 09:38	16°♓56'39	
desc. node	10026 Feb 16 09:28	29°♓25'11	
	10026 Feb 19 05:22	0°♈	
evening set	10026 Mar 11 10:28	4°♈17'11	
max. Earth dist.	10026 Mar 22 03:59	6°♈37'28	6.42643 AU
conjunction	10026 Mar 24 06:30	7°♈05'05	-0°02'09
minimum elong	10026 Mar 24 06:29	7°♈05'04	0°02'10
behind sun begin	10026 Mar 23 22:30	7°♈00'44	
behind sun end	10026 Mar 24 14:28	7°♈09'24	
morning rise	10026 Apr 06 00:52	9°♈52'21	
retrograde	10026 Aug 05 23:59	27°♈02'00	
opposition	10026 Oct 05 23:24	22°♈08'59	-0°19'54
min. Earth dist.	10026 Oct 07 14:01	21°♈56'38	4.36234 AU
direct	10026 Dec 07 03:58	17°♈08'49	
	10027 Mar 19 05:38	0°♉	
evening set	10027 Apr 11 10:50	5°♉03'59	
max. Earth dist.	10027 Apr 21 22:20	7°♉25'31	6.28490 AU
conjunction	10027 Apr 24 05:39	7°♉56'47	-0°24'39

minimum elong	10027 Apr 24 05:38	7°♉56'46	0°24'52
morning rise	10027 May 06 23:32	10°♉49'29	
	10027 May 25 20:38	15°♉	
retrograde	10027 Sep 08 17:48	28°♉58'32	
opposition	10027 Nov 08 08:16	24°♉04'45	-0°50'11
min. Earth dist.	10027 Nov 09 22:21	23°♉52'27	4.19884 AU
direct	10028 Jan 08 11:56	19°♉06'18	
	10028 Apr 07 21:28	0°♊	
evening set	10028 May 13 05:19	7°♊51'41	
max. Earth dist.	10028 May 24 03:12	10°♊25'00	6.11221 AU
conjunction	10028 May 26 01:35	10°♊52'14	-0°40'40
minimum elong	10028 May 26 01:34	10°♊52'13	0°41'03
morning rise	10028 Jun 07 22:24	13°♊53'22	
	10028 Aug 28 10:56	0°♋	
retrograde	10028 Oct 14 03:41	3°♋18'25	
	10028 Nov 30 15:03	30°℞♊	
opposition	10028 Dec 13 05:42	28°♊22'42	-1°06'00
min. Earth dist.	10028 Dec 14 04:32	28°♊15'12	4.03064 AU
direct	10029 Feb 10 22:36	23°♊26'22	
	10029 Apr 18 07:08	0°♋	
evening set	10029 Jun 17 07:39	13°♋03'42	
conjunction	10029 Jun 30 08:53	16°♋13'05	-0°43'11
minimum elong	10029 Jun 30 08:53	16°♋13'06	0°43'37
max. Earth dist.	10029 Jun 29 15:37	16°♋02'37	5.96414 AU
morning rise	10029 Jul 13 11:40	19°♋23'36	
	10029 Aug 29 06:00	0°♌	
retrograde	10029 Nov 21 17:03	9°♌55'27	
opposition	10030 Jan 20 06:11	4°♌56'47	-0°57'28
min. Earth dist.	10030 Jan 20 05:44	4°♌56'55	3.91829 AU
direct	10030 Mar 19 17:16	0°♌02'00	
	10030 Jul 02 21:31	15°♌	
evening set	10030 Jul 24 13:41	20°♌10'41	
conjunction	10030 Aug 06 21:56	23°♌26'33	-0°28'51
minimum elong	10030 Aug 06 21:57	23°♌26'34	0°29'07
max. Earth dist.	10030 Aug 07 18:22	23°♌39'04	5.89914 AU
morning rise	10030 Aug 20 08:33	26°♌43'44	
	10030 Sep 02 22:53	0°♍	
retrograde	10030 Dec 30 13:28	17°♍38'40	
opposition	10031 Feb 27 20:50	12°♍36'39	-0°24'47
min. Earth dist.	10031 Feb 26 19:41	12°♍45'10	3.90944 AU
direct	10031 Apr 26 17:58	7°♍41'33	
evening set	10031 Aug 31 19:43	27°♍44'13	
	10031 Sep 10 05:19	0°♎	
conjunction	10031 Sep 14 09:33	1°♎00'28	-0°02'42
minimum elong	10031 Sep 14 09:33	1°♎00'28	0°02'43
behind sun begin	10031 Sep 14 01:11	0°♎55'27	
behind sun end	10031 Sep 14 17:55	1°♎05'29	
max. Earth dist.	10031 Sep 16 11:43	1°♎30'43	5.94681 AU
morning rise	10031 Sep 28 01:36	4°♎17'37	
asc. node	10031 Oct 22 12:01	9°♎59'46	
retrograde	10032 Feb 05 16:20	24°♎37'44	
min. Earth dist.	10032 Apr 03 13:56	19°♎46'35	4.00794 AU
opposition	10032 Apr 05 03:54	19°♎33'39	0°17'14
direct	10032 Jun 02 10:50	14°♎36'35	
	10032 Sep 19 20:55	0°♏	
evening set	10032 Oct 07 07:54	3°♏59'31	
conjunction	10032 Oct 20 23:16	7°♏09'50	0°23'50
minimum elong	10032 Oct 20 23:14	7°♏09'50	0°24'05
max. Earth dist.	10032 Oct 23 12:02	7°♏45'13	6.08573 AU
morning rise	10032 Nov 03 15:19	10°♏20'12	
	10032 Nov 24 06:11	15°♏	
retrograde	10033 Mar 11 04:29	29°♏29'11	
min. Earth dist.	10033 May 08 12:00	24°♏37'53	4.17171 AU
opposition	10033 May 10 00:08	24°♏25'43	0°50'13
direct	10033 Jul 08 09:54	19°♏26'29	
	10033 Oct 05 15:44	0°♐	
evening set	10033 Nov 11 19:34	7°♐56'14	
conjunction	10033 Nov 25 08:06	10°♐57'37	0°40'39
minimum elong	10033 Nov 25 08:05	10°♐57'37	0°41'03
max. Earth dist.	10033 Nov 27 07:27	11°♐24'07	6.25946 AU
morning rise	10033 Dec 08 20:16	13°♐58'28	
	10034 Mar 08 01:11	0°♑	
retrograde	10034 Apr 12 01:15	1°♑53'43	
	10034 May 16 21:56	30°℞♐	
min. Earth dist.	10034 Jun 10 09:07	27°♐00'43	4.34003 AU
opposition	10034 Jun 11 08:45	26°♐52'52	1°04'33
direct	10034 Aug 11 01:53	21°♐52'07	
	10034 Oct 28 12:48	0°♑	
evening set	10034 Dec 14 23:14	9°♑35'17	
conjunction	10034 Dec 28 07:08	12°♑28'34	0°44'08
minimum elong	10034 Dec 28 07:08	12°♑28'35	0°44'33
max. Earth dist.	10034 Dec 29 04:56	12°♑40'25	6.40966 AU
morning rise	10035 Jan 10 13:21	15°♑20'53	
	10035 Apr 02 13:30	0°♒	
retrograde	10035 May 12 06:09	2°♒21'47	
	10035 Jun 20 23:03	30°℞♑	
opposition	10035 Jul 11 23:15	27°♑24'18	0°59'43
min. Earth dist.	10035 Jul 11 18:28	27°♑25'51	4.46209 AU
direct	10035 Sep 11 20:18	22°♑22'55	
	10035 Nov 27 13:55	0°♒	
evening set	10036 Jan 15 05:52	9°♒37'03	
conjunction	10036 Jan 28 08:37	12°♒25'02	0°35'17
minimum elong	10036 Jan 28 08:38	12°♒25'03	0°35'37
max. Earth dist.	10036 Jan 27 23:36	12°♒20'13	6.49512 AU
	10036 Feb 09 10:52	15°♒	
morning rise	10036 Feb 10 09:31	15°♒12'02	
	10036 May 06 08:25	0°♓	
retrograde	10036 Jun 09 20:23	1°♓47'03	
	10036 Jul 14 07:41	30°℞♒	
opposition	10036 Aug 09 19:51	26°♒52'14	0°39'34
min. Earth dist.	10036 Aug 10 11:10	26°♒47'19	4.50684 AU
direct	10036 Oct 11 09:53	21°♒50'44	
	10036 Dec 30 12:03	0°♓	
evening set	10037 Feb 13 11:41	8°♓57'59	
max. Earth dist.	10037 Feb 25 00:28	11°♓26'07	6.49591 AU
conjunction	10037 Feb 26 10:24	11°♓44'20	0°17'20
minimum elong	10037 Feb 26 10:24	11°♓44'20	0°17'30
morning rise	10037 Mar 11 06:54	14°♓29'45	
	10037 Jun 12 05:06	0°♈	
retrograde	10037 Jul 09 21:07	1°♈09'46	
	10037 Aug 06 14:25	30°℞♓	
opposition	10037 Sep 08 23:44	26°♓16'28	0°09'19
min. Earth dist.	10037 Sep 10 06:25	26°♓06'40	4.46404 AU
direct	10037 Nov 10 15:14	21°♓15'24	
desc. node	10037 Dec 26 04:39	24°♓11'04	
	10038 Feb 01 09:44	0°♈	
evening set	10038 Mar 15 17:01	8°♈38'54	
max. Earth dist.	10038 Mar 26 09:02	10°♈58'50	6.41183 AU
conjunction	10038 Mar 28 12:41	11°♈27'10	-0°05'28
minimum elong	10038 Mar 28 12:40	11°♈27'10	0°05'31
behind sun begin	10038 Mar 28 05:00	11°♈22'58	
behind sun end	10038 Mar 28 20:21	11°♈31'21	
morning rise	10038 Apr 10 06:47	14°♈14'54	
	10038 Jul 09 23:08	0°♉	

retrograde	10038 Aug 10	13:50	1°♉30'41		
	10038 Sep 11	05:44	30°℞♈		
opposition	10038 Oct 10	11:51	26°♈37'38	-0°24'36	
min. Earth dist.	10038 Oct 12	04:05	26°♈24'45	4.34314 AU	
direct	10038 Dec 11	14:58	21°♈37'36		
	10039 Feb 28	22:43	0°♉		
evening set	10039 Apr 15	21:39	9°♉38'36		
max. Earth dist.	10039 Apr 26	07:50	12°♉00'09	6.26242 AU	
conjunction	10039 Apr 28	16:25	12°♉32'16	-0°27'26	
minimum elong	10039 Apr 28	16:24	12°♉32'16	0°27'42	
	10039 May 09	12:42	15°♉		
morning rise	10039 May 11	10:36	15°♉25'58		
	10039 Jul 25	06:38	0°♊		
retrograde	10039 Sep 13	14:49	3°♊44'42		
	10039 Nov 04	03:50	30°℞♉		
opposition	10039 Nov 13	04:23	28°♉50'38	-0°53'31	
min. Earth dist.	10039 Nov 14	16:34	28°♉38'55	4.17465 AU	
direct	10040 Jan 13	02:46	23°♉52'22		
	10040 Mar 18	07:31	0°♊		
evening set	10040 May 17	23:09	12°♊45'20		
max. Earth dist.	10040 May 29	01:26	15°♊21'59	6.08840 AU	
conjunction	10040 May 30	20:00	15°♊47'08	-0°41'57	
minimum elong	10040 May 30	19:59	15°♊47'08	0°42'21	
morning rise	10040 Jun 12	17:21	18°♊49'34		
	10040 Aug 02	20:14	0°♋		
retrograde	10040 Oct 19	11:25	8°♋25'26		
opposition	10040 Dec 18	10:28	3°♋29'21	-1°06'23	
min. Earth dist.	10040 Dec 19	07:35	3°♋22'24	4.00933 AU	
	10041 Jan 16	23:09	30°℞♊		
direct	10041 Feb 15	23:13	28°♊33'16		
	10041 Mar 17	17:29	0°♋		
evening set	10041 Jun 22	09:44	18°♋17'08		
conjunction	10041 Jul 05	11:52	21°♋27'45	-0°42'08	
minimum elong	10041 Jul 05	11:53	21°♋27'45	0°42'33	
max. Earth dist.	10041 Jul 04	22:34	21°♋19'39	5.94741 AU	
morning rise	10041 Jul 18	15:50	24°♋39'34		
	10041 Aug 10	05:01	0°♌		
	10041 Nov 13	10:44	15°♌		
retrograde	10041 Nov 27	03:57	15°♌18'35		
	10041 Dec 10	20:36	15°℞♌		
opposition	10042 Jan 25	16:02	10°♌19'27	-0°54'05	
min. Earth dist.	10042 Jan 25	11:17	10°♌21'03	3.90833 AU	
direct	10042 Mar 24	22:57	5°♌24'46		
	10042 Jun 13	17:43	15°♌		
evening set	10042 Jul 29	22:11	25°♌35'54		
conjunction	10042 Aug 12	07:20	28°♌52'20	-0°25'36	
minimum elong	10042 Aug 12	07:21	28°♌52'21	0°25'53	
max. Earth dist.	10042 Aug 13	07:59	29°♌07'26	5.89697 AU	
	10042 Aug 16	21:48	0°♍		
morning rise	10042 Aug 25	19:02	2°♍10'05		
retrograde	10043 Jan 04	22:00	23°♍04'24		
min. Earth dist.	10043 Mar 04	01:57	18°♍11'22	3.91542 AU	
opposition	10043 Mar 05	05:44	18°♍01'56	-0°18'55	
direct	10043 May 02	02:58	13°♍06'37		
	10043 Aug 24	02:33	0°♎		
asc. node	10043 Aug 30	15:22	1°♎32'25		
evening set	10043 Sep 06	04:50	3°♎06'09		
conjunction	10043 Sep 19	19:21	6°♎22'01	0°01'26	
minimum elong	10043 Sep 19	19:22	6°♎22'01	0°01'27	
behind sun begin	10043 Sep 19	10:58	6°♎17'00		
behind sun end	10043 Sep 20	03:46	6°♎27'03		
max. Earth dist.	10043 Sep 22	02:08	6°♎54'56	5.96056 AU	
morning rise	10043 Oct 03	11:38	9°♎38'37		
retrograde	10044 Feb 10	19:01	29°♎50'34		
min. Earth dist.	10044 Apr 08	15:48	24°♎59'30	4.02790 AU	
opposition	10044 Apr 10	06:19	24°♎46'25	0°22'49	
direct	10044 Jun 07	16:25	19°♎49'04		
	10044 Sep 01	04:14	0°♏		
evening set	10044 Oct 12	11:51	9°♏04'45		
conjunction	10044 Oct 26	02:53	12°♏13'50	0°26'57	
minimum elong	10044 Oct 26	02:52	12°♏13'50	0°27'14	
max. Earth dist.	10044 Oct 28	15:22	12°♏48'50	6.10991 AU	
	10044 Nov 07	02:45	15°♏		
morning rise	10044 Nov 08	18:42	15°♏22'56		
	10045 Jan 20	23:38	0°♐		
retrograde	10045 Mar 15	19:00	4°♐20'41		
	10045 May 09	10:27	30°℞♏		
min. Earth dist.	10045 May 13	05:29	29°♏29'29	4.19779 AU	
opposition	10045 May 14	17:22	29°♏17'25	0°53'27	
direct	10045 Jul 13	06:54	24°♏17'55		
	10045 Sep 14	07:09	0°♐		
evening set	10045 Nov 16	15:05	12°♐39'40		
conjunction	10045 Nov 30	03:01	15°♐39'42	0°41'57	
minimum elong	10045 Nov 30	03:00	15°♐39'41	0°42'21	
max. Earth dist.	10045 Dec 01	23:40	16°♐04'34	6.28538 AU	
morning rise	10045 Dec 13	14:14	18°♐39'04		
	10046 Feb 07	22:45	0°♑		
retrograde	10046 Apr 16	09:46	6°♑24'20		
opposition	10046 Jun 15	18:03	1°♑23'57	1°04'55	
min. Earth dist.	10046 Jun 14	21:12	1°♑30'51	4.36359 AU	
	10046 Jun 26	11:39	30°℞♐		
direct	10046 Aug 15	16:26	26°♐23'05		
	10046 Oct 04	21:40	0°♑		
evening set	10046 Dec 19	10:34	13°♑59'57		
conjunction	10047 Jan 01	17:36	16°♑52'08	0°43'32	
minimum elong	10047 Jan 01	17:36	16°♑52'09	0°43'57	
max. Earth dist.	10047 Jan 02	10:39	17°♑01'22	6.42901 AU	
morning rise	10047 Jan 14	23:06	19°♑43'23		
	10047 Mar 07	22:57	0°♒		
retrograde	10047 May 16	08:55	6°♒37'59		
opposition	10047 Jul 16	03:37	1°♒40'54	0°57'40	
min. Earth dist.	10047 Jul 16	01:43	1°♒41'31	4.47606 AU	
	10047 Jul 29	08:44	30°℞♑		
direct	10047 Sep 16	03:24	26°♑39'26		
	10047 Nov 04	01:06	0°♒		
evening set	10048 Jan 19	11:20	13°♒50'24		
	10048 Jan 24	22:17	15°♒		
conjunction	10048 Feb 01	13:33	16°♒37'52	0°33'12	
minimum elong	10048 Feb 01	13:34	16°♒37'52	0°33'32	
max. Earth dist.	10048 Feb 01	01:42	16°♒31'32	6.50272 AU	
morning rise	10048 Feb 14	13:33	19°♒24'17		
	10048 Apr 09	05:18	0°♓		
retrograde	10048 Jun 13	22:01	5°♓57'36		
opposition	10048 Aug 13	22:59	1°♓03'07	0°35'47	
min. Earth dist.	10048 Aug 14	16:36	0°♓57'28	4.50758 AU	
	10048 Aug 22	05:16	30°℞♒		
direct	10048 Oct 15	13:52	26°♒01'41		
	10048 Dec 08	10:13	0°♓		
evening set	10049 Feb 17	15:22	13°♓09'28		
max. Earth dist.	10049 Feb 28	22:46	15°♓35'02	6.48956 AU	
conjunction	10049 Mar 02	13:24	15°♓55'49	0°14'21	
minimum elong	10049 Mar 02	13:24	15°♓55'49	0°14'29	
behind sun begin	10049 Mar 02	09:50	15°♓53'55		
behind sun end	10049 Mar 02	16:58	15°♓57'44		

morning rise	10049 Mar 15 09:35	18°♓41'20	
	10049 May 12 22:26	0°♈	
retrograde	10049 Jul 14 04:38	5°♈24'33	
opposition	10049 Sep 13 05:44	0°♈31'24	0°04'39
min. Earth dist.	10049 Sep 14 15:29	0°♈20'37	4.45080 AU
	10049 Sep 17 08:10	30°℞♓	
desc. node	10049 Nov 05 14:27	25°♓38'12	
direct	10049 Nov 14 21:13	25°♓30'23	
	10050 Jan 10 23:43	0°♈	
evening set	10050 Mar 19 22:34	12°♈58'22	
max. Earth dist.	10050 Mar 30 12:11	15°♈17'35	6.39254 AU
conjunction	10050 Apr 01 18:06	15°♈47'17	-0°08'42
minimum elong	10050 Apr 01 18:06	15°♈47'17	0°08'46
behind sun begin	10050 Apr 01 11:11	15°♈43'30	
behind sun end	10050 Apr 02 01:00	15°♈51'04	
morning rise	10050 Apr 14 12:03	18°♈35'44	
	10050 Jun 10 16:27	0°♉	
retrograde	10050 Aug 15 02:49	5°♉59'34	
opposition	10050 Oct 15 00:27	1°♉06'27	-0°29'09
min. Earth dist.	10050 Oct 16 16:23	0°♉53'39	4.31892 AU
	10050 Oct 23 17:27	30°℞♈	
direct	10050 Dec 15 22:44	26°♈06'38	
	10051 Feb 05 23:12	0°♉	
evening set	10051 Apr 20 09:03	14°♉15'23	
	10051 Apr 23 15:43	15°♉	
max. Earth dist.	10051 Apr 30 20:42	16°♉38'37	6.23509 AU
conjunction	10051 May 03 03:58	17°♉10'13	-0°30'05
minimum elong	10051 May 03 03:57	17°♉10'13	0°30'22
morning rise	10051 May 15 22:25	20°♉05'09	
	10051 Jul 01 09:19	0°♊	
retrograde	10051 Sep 18 16:58	8°♊35'43	
opposition	10051 Nov 18 02:46	3°♊41'30	-0°56'33
min. Earth dist.	10051 Nov 19 14:35	3°♊29'52	4.14607 AU
	10051 Dec 20 06:42	30°℞♉	
direct	10052 Jan 17 20:52	28°♉43'34	
	10052 Feb 15 06:58	0°♊	
evening set	10052 May 22 19:29	17°♊45'46	
max. Earth dist.	10052 Jun 03 00:52	20°♊25'13	6.06120 AU
conjunction	10052 Jun 04 16:57	20°♊49'02	-0°42'57
minimum elong	10052 Jun 04 16:57	20°♊49'02	0°43'22
morning rise	10052 Jun 17 15:12	23°♊53'03	
	10052 Jul 14 04:39	0°♋	
retrograde	10052 Oct 24 20:20	13°♋40'59	
opposition	10052 Dec 23 18:09	8°♋44'34	-1°06'15
min. Earth dist.	10052 Dec 24 11:00	8°♋39'01	3.98636 AU
direct	10053 Feb 21 00:22	3°♋48'50	
evening set	10053 Jun 27 15:32	23°♋39'55	
conjunction	10053 Jul 10 18:37	26°♋51'46	-0°40'44
minimum elong	10053 Jul 10 18:37	26°♋51'47	0°41'07
max. Earth dist.	10053 Jul 10 10:50	26°♋47'02	5.93106 AU
morning rise	10053 Jul 23 23:45	0°♌04'54	
	10053 Jul 23 15:40	0°♌	
	10053 Oct 01 03:45	15°♌	
retrograde	10053 Dec 02 18:17	20°♌50'37	
opposition	10054 Jan 31 04:57	15°♌50'57	-0°50'09
min. Earth dist.	10054 Jan 30 20:18	15°♌53'51	3.90058 AU
	10054 Feb 06 13:24	15°℞♌	
direct	10054 Mar 30 09:47	10°♌56'17	
	10054 May 19 15:04	15°♌	
	10054 Jul 30 16:11	0°♍	
evening set	10054 Aug 04 09:24	1°♍08'40	
conjunction	10054 Aug 17 19:40	4°♍25'30	-0°22'06
minimum elong	10054 Aug 17 19:41	4°♍25'31	0°22'19
max. Earth dist.	10054 Aug 19 03:35	4°♍45'02	5.89875 AU
morning rise	10054 Aug 31 08:10	7°♍43'33	
retrograde	10055 Jan 10 08:52	28°♍34'54	
min. Earth dist.	10055 Mar 09 09:56	23°♍42'16	3.92649 AU
opposition	10055 Mar 10 16:06	23°♍32'01	-0°12'50
direct	10055 May 07 14:04	18°♍36'29	
asc. node	10055 Jul 08 11:43	24°♍32'10	
	10055 Aug 05 09:36	0°♎	
evening set	10055 Sep 11 15:01	8°♎30'38	
conjunction	10055 Sep 25 05:44	11°♎45'43	0°05'29
minimum elong	10055 Sep 25 05:43	11°♎45'43	0°05'32
behind sun begin	10055 Sep 24 21:39	11°♎40'55	
behind sun end	10055 Sep 25 13:46	11°♎50'30	
max. Earth dist.	10055 Sep 27 14:42	12°♎19'46	5.97930 AU
morning rise	10055 Oct 08 22:19	15°♎01'28	
	10055 Dec 19 20:24	0°♏	
retrograde	10056 Feb 15 18:00	5°♏03'01	
min. Earth dist.	10056 Apr 13 16:00	0°♏12'18	4.05199 AU
opposition	10056 Apr 15 07:49	29°♎58'47	0°28'10
	10056 Apr 15 04:14	30°℞♎	
direct	10056 Jun 12 20:58	25°♎01'03	
	10056 Aug 09 04:40	0°♏	
evening set	10056 Oct 17 14:59	14°♏08'15	
	10056 Oct 21 09:18	15°♏	
conjunction	10056 Oct 31 05:43	17°♏15'58	0°29'52
minimum elong	10056 Oct 31 05:42	17°♏15'57	0°30'09
max. Earth dist.	10056 Nov 02 16:29	17°♏49'46	6.13697 AU
morning rise	10056 Nov 13 20:56	20°♏23'33	
	10056 Dec 28 15:57	0°♐	
retrograde	10057 Mar 20 10:08	9°♐09'24	
min. Earth dist.	10057 May 17 23:54	4°♐17'38	4.22501 AU
opposition	10057 May 19 09:16	4°♐06'26	0°56'16
	10057 Jun 24 16:37	30°℞♏	
direct	10057 Jul 18 04:31	29°♏06'39	
	10057 Aug 10 20:54	0°♐	
evening set	10057 Nov 21 09:09	17°♐20'22	
conjunction	10057 Dec 04 20:27	20°♐19'04	0°42'58
minimum elong	10057 Dec 04 20:26	20°♐19'04	0°43'24
max. Earth dist.	10057 Dec 06 14:08	20°♐42'09	6.31051 AU
morning rise	10057 Dec 18 06:52	23°♐17'03	
	10058 Jan 19 00:54	0°♑	
retrograde	10058 Apr 20 15:10	10°♑53'00	
min. Earth dist.	10058 Jun 19 07:28	5°♑59'17	4.38496 AU
opposition	10058 Jun 20 02:25	5°♑53'03	1°04'54
direct	10058 Aug 20 03:58	0°♑52'02	
evening set	10058 Dec 23 21:08	18°♑23'30	
conjunction	10059 Jan 06 03:26	21°♑14'46	0°42'42
minimum elong	10059 Jan 06 03:27	21°♑14'46	0°43'07
max. Earth dist.	10059 Jan 06 16:04	21°♑21'35	6.44519 AU
morning rise	10059 Jan 19 08:02	24°♑05'03	
	10059 Feb 16 21:18	0°♒	
retrograde	10059 May 20 13:02	10°♒54'34	
opposition	10059 Jul 20 08:13	5°♒57'55	0°55'18
min. Earth dist.	10059 Jul 20 09:48	5°♒57'24	4.48619 AU
direct	10059 Sep 20 11:47	0°♒56'25	
	10060 Jan 08 22:57	15°♒	
evening set	10060 Jan 23 17:35	18°♒05'25	
conjunction	10060 Feb 05 19:04	20°♒52'30	0°30'56
minimum elong	10060 Feb 05 19:05	20°♒52'31	0°31'15
max. Earth dist.	10060 Feb 05 01:43	20°♒43'14	6.50602 AU
morning rise	10060 Feb 18 18:35	23°♒38'36	

	10060 Mar 20	20:01	0°♓		
retrograde	10060 Jun 18	02:59	10°♓11'31		
opposition	10060 Aug 18	03:37	5°♓17'15	0°31'47	
min. Earth dist.	10060 Aug 19	00:07	5°♓10'41	4.50407 AU	
direct	10060 Oct 19	19:16	0°♓15'46		
evening set	10061 Feb 21	20:37	17°♓25'19		
max. Earth dist.	10061 Mar 05	01:52	19°♓50'01	6.47942 AU	
conjunction	10061 Mar 06	18:24	20°♓11'53	0°11'13	
minimum elong	10061 Mar 06	18:24	20°♓11'54	0°11'20	
behind sun begin	10061 Mar 06	12:34	20°♓08'45		
behind sun end	10061 Mar 07	00:15	20°♓15'02		
morning rise	10061 Mar 19	14:02	22°♓57'38		
	10061 Apr 22	19:06	0°♈		
retrograde	10061 Jul 18	12:55	9°♈45'10		
desc. node	10061 Sep 15	13:12	5°♈07'47		
opposition	10061 Sep 17	14:21	4°♈52'06	-0°00'11	
min. Earth dist.	10061 Sep 19	01:13	4°♈40'58	4.43464 AU	
	10061 Nov 09	07:34	30°℞♓		
direct	10061 Nov 19	03:15	29°♓51'14		
	10061 Nov 29	00:18	0°♈		
evening set	10062 Mar 24	06:53	17°♈24'22		
max. Earth dist.	10062 Apr 03	18:30	19°♈43'12	6.37135 AU	
conjunction	10062 Apr 06	02:05	20°♈14'00	-0°11'58	
minimum elong	10062 Apr 06	02:04	20°♈14'00	0°12'05	
behind sun begin	10062 Apr 05	20:36	20°♈10'59		
behind sun end	10062 Apr 06	07:32	20°♈17'01		
morning rise	10062 Apr 18	20:04	23°♈03'16		
	10062 May 21	13:24	0°♉		
retrograde	10062 Aug 19	21:48	10°♉35'50		
opposition	10062 Oct 19	16:38	5°♉42'39	-0°33'42	
min. Earth dist.	10062 Oct 21	09:32	5°♉29'31	4.29394 AU	
direct	10062 Dec 20	12:09	0°♉43'02		
	10063 Apr 07	03:21	15°♉		
evening set	10063 Apr 24	23:42	18°♉59'39		
max. Earth dist.	10063 May 05	12:37	21°♉24'29	6.20839 AU	
conjunction	10063 May 07	18:54	21°♉55'41	-0°32'36	
minimum elong	10063 May 07	18:53	21°♉55'41	0°32'55	
morning rise	10063 May 20	13:41	24°♉51'53		
	10063 Jun 12	12:01	0°♊		
retrograde	10063 Sep 23	19:16	13°♊33'54		
opposition	10063 Nov 23	04:10	8°♊39'29	-0°59'17	
min. Earth dist.	10063 Nov 24	13:10	8°♊28'45	4.12002 AU	
direct	10064 Jan 22	15:50	3°♊41'57		
evening set	10064 May 27	18:43	22°♊52'22		
max. Earth dist.	10064 Jun 08	04:58	25°♊35'35	6.03829 AU	
conjunction	10064 Jun 09	16:45	25°♊56'57	-0°43'39	
minimum elong	10064 Jun 09	16:44	25°♊56'57	0°44'06	
morning rise	10064 Jun 22	15:51	29°♊02'23		
	10064 Jun 26	17:12	0°♋		
retrograde	10064 Oct 30	08:19	19°♋00'40		
opposition	10064 Dec 29	03:59	14°♋03'50	-1°05'36	
min. Earth dist.	10064 Dec 29	17:23	13°♋59'25	3.96908 AU	
direct	10065 Feb 26	06:53	9°♋08'23		
evening set	10065 Jul 02	22:15	29°♋04'13		
	10065 Jul 06	18:00	0°♌		
conjunction	10065 Jul 16	02:26	2°♌17'02	-0°39'00	
minimum elong	10065 Jul 16	02:27	2°♌17'02	0°39'23	
max. Earth dist.	10065 Jul 16	01:57	2°♌16'44	5.92142 AU	
morning rise	10065 Jul 29	08:32	5°♌31'06		
	10065 Sep 08	08:49	15°♌		
retrograde	10065 Dec 08	07:47	26°♌20'18		
opposition	10066 Feb 05	17:05	21°♌20'10	-0°45'49	
min. Earth dist.	10066 Feb 05	04:49	21°♌24'17	3.90005 AU	
direct	10066 Apr 04	19:21	16°♌25'34		
	10066 Jul 12	20:32	0°♍		
evening set	10066 Aug 09	19:26	6°♍36'24		
conjunction	10066 Aug 23	06:20	9°♍53'11	-0°18'30	
minimum elong	10066 Aug 23	06:20	9°♍53'11	0°18'40	
max. Earth dist.	10066 Aug 24	18:05	10°♍15'00	5.90712 AU	
morning rise	10066 Sep 05	19:45	13°♍11'11		
	10066 Nov 26	02:40	0°♎		
retrograde	10067 Jan 15	13:48	3°♎56'46		
	10067 Mar 07	17:51	30°℞♍		
opposition	10067 Mar 15	22:48	28°♍53'34	-0°06'51	
min. Earth dist.	10067 Mar 14	13:35	29°♍04'51	3.94284 AU	
direct	10067 May 12	21:43	23°♍57'46		
asc. node	10067 May 18	14:37	24°♍01'09		
	10067 Jul 14	14:20	0°♎		
evening set	10067 Sep 16	21:32	13°♎45'05		
conjunction	10067 Sep 30	12:28	16°♎59'10	0°09'18	
minimum elong	10067 Sep 30	12:28	16°♎59'10	0°09'24	
behind sun begin	10067 Sep 30	05:30	16°♎55'03		
behind sun end	10067 Sep 30	19:25	17°♎03'17		
max. Earth dist.	10067 Oct 02	22:40	17°♎33'46	6.00181 AU	
morning rise	10067 Oct 14	05:01	20°♎13'48		
	10067 Nov 27	02:54	0°♏		
retrograde	10068 Feb 20	14:44	10°♏04'13		
min. Earth dist.	10068 Apr 18	14:34	5°♏13'08	4.07793 AU	
opposition	10068 Apr 20	05:10	5°♏00'02	0°33'05	
direct	10068 Jun 17	23:04	0°♏02'00		
	10068 Oct 04	16:35	15°♏		
evening set	10068 Oct 22	13:29	19°♏00'33		
conjunction	10068 Nov 05	03:55	22°♏06'55	0°32'26	
minimum elong	10068 Nov 05	03:54	22°♏06'54	0°32'45	
max. Earth dist.	10068 Nov 07	13:58	22°♏40'06	6.16391 AU	
morning rise	10068 Nov 18	18:32	25°♏13'02		
	10068 Dec 10	08:07	0°♐		
retrograde	10069 Mar 24	19:14	13°♐47'43		
opposition	10069 May 23	21:05	8°♐45'11	0°58'37	
min. Earth dist.	10069 May 22	12:49	8°♐55'59	4.25062 AU	
direct	10069 Jul 22	19:39	3°♐45'15		
evening set	10069 Nov 25	23:25	21°♐51'55		
conjunction	10069 Dec 09	09:57	24°♐49'24	0°43'42	
minimum elong	10069 Dec 09	09:56	24°♐49'24	0°44'07	
max. Earth dist.	10069 Dec 10	22:21	25°♐09'28	6.33283 AU	
morning rise	10069 Dec 22	19:39	27°♐46'10		
	10070 Jan 02	02:42	0°♑		
retrograde	10070 Apr 24	20:28	15°♑14'17		
opposition	10070 Jun 24	07:55	10°♑14'53	1°04'34	
min. Earth dist.	10070 Jun 23	16:53	10°♑19'49	4.40254 AU	
direct	10070 Aug 24	14:28	5°♑13'47		
evening set	10070 Dec 28	04:58	22°♑41'19		
conjunction	10071 Jan 10	10:43	25°♑31'55	0°41'41	
minimum elong	10071 Jan 10	10:43	25°♑31'55	0°42'06	
max. Earth dist.	10071 Jan 10	19:17	25°♑36'31	6.45688 AU	
morning rise	10071 Jan 23	14:35	28°♑21'29		
	10071 Jan 31	08:11	0°♒		
	10071 May 15	15:03	15°♒		
retrograde	10071 May 24	14:32	15°♒07'38		
	10071 Jun 02	13:45	15°℞♒		
opposition	10071 Jul 24	11:12	10°♒11'23	0°52'46	
min. Earth dist.	10071 Jul 24	14:57	10°♒10'10	4.49164 AU	
direct	10071 Sep 24	15:58	5°♒09'54		
	10071 Dec 22	20:45	15°♒		

evening set	10072 Jan	27	22:19	22°♒18'28	
conjunction	10072 Feb	09	23:19	25°♒05'23	0°28'35
minimum elong	10072 Feb	09	23:20	25°♒05'23	0°28'51
max. Earth dist.	10072 Feb	09	02:50	24°♒54'25	6.50502 AU
morning rise	10072 Feb	22	22:11	27°♒51'19	
	10072 Mar	04	02:31	0°♓	
retrograde	10072 Jun	22	07:40	14°♓25'20	
opposition	10072 Aug	22	08:11	9°♓31'22	0°27'43
min. Earth dist.	10072 Aug	23	07:17	9°♓23'59	4.49680 AU
direct	10072 Oct	24	00:19	4°♓30'01	
evening set	10073 Feb	26	01:55	21°♓42'21	
max. Earth dist.	10073 Mar	09	02:47	24°♓05'13	6.46639 AU
conjunction	10073 Mar	10	23:10	24°♓29'15	0°08'05
minimum elong	10073 Mar	10	23:11	24°♓29'15	0°08'10
behind sun begin	10073 Mar	10	16:06	24°♓25'26	
behind sun end	10073 Mar	11	06:16	24°♓33'04	
morning rise	10073 Mar	23	18:40	27°♓15'24	
	10073 Apr	05	15:45	0°♈	
retrograde	10073 Jul	22	23:48	14°♈08'13	
desc. node	10073 Jul	27	07:38	14°♈06'27	
opposition	10073 Sep	21	23:45	9°♈15'11	-0°04'58
min. Earth dist.	10073 Sep	23	12:01	9°♈03'35	4.41668 AU
direct	10073 Nov	23	10:57	4°♈14'26	
evening set	10074 Mar	28	15:40	21°♈53'09	
max. Earth dist.	10074 Apr	08	03:54	24°♈12'58	6.34986 AU
conjunction	10074 Apr	10	10:55	24°♈43'36	-0°15'10
minimum elong	10074 Apr	10	10:54	24°♈43'35	0°15'19
behind sun begin	10074 Apr	10	08:16	24°♈42'08	
behind sun end	10074 Apr	10	13:32	24°♈45'03	
morning rise	10074 Apr	23	04:44	27°♈33'39	
	10074 May	04	07:19	0°♉	
	10074 Aug	12	00:38	15°♉	
retrograde	10074 Aug	24	15:06	15°♉14'54	
	10074 Sep	06	05:30	15°℞♉	
opposition	10074 Oct	24	09:31	10°♉21'35	-0°38'01
min. Earth dist.	10074 Oct	26	01:24	10°♉08'46	4.27038 AU
direct	10074 Dec	25	00:33	5°♉22'16	
	10075 Mar	20	02:40	15°♉	
evening set	10075 Apr	29	14:42	23°♉45'56	
max. Earth dist.	10075 May	10	05:14	26°♉12'31	6.18451 AU
conjunction	10075 May	12	09:58	26°♉43'00	-0°34'53
minimum elong	10075 May	12	09:57	26°♉42'59	0°35'13
morning rise	10075 May	25	05:14	29°♉40'22	
	10075 May	26	15:24	0°♊	
retrograde	10075 Sep	28	22:37	18°♊32'46	
opposition	10075 Nov	28	05:42	13°♊37'59	-1°01'32
min. Earth dist.	10075 Nov	29	12:41	13°♊27'53	4.09754 AU
direct	10076 Jan	27	13:52	8°♊40'42	
evening set	10076 Jun	01	17:03	27°♊57'42	
	10076 Jun	10	05:58	0°♋	
max. Earth dist.	10076 Jun	13	09:05	0°♋45'00	6.01926 AU
conjunction	10076 Jun	14	15:52	1°♋03'27	-0°44'01
minimum elong	10076 Jun	14	15:52	1°♋03'27	0°44'27
morning rise	10076 Jun	27	15:40	4°♋10'04	
retrograde	10076 Nov	04	18:14	24°♋16'46	
opposition	10077 Jan	03	11:46	19°♋19'32	-1°04'21
min. Earth dist.	10077 Jan	03	21:55	19°♋16'10	3.95550 AU
direct	10077 Mar	03	10:23	14°♋24'17	
	10077 Jun	19	18:33	0°♌	
evening set	10077 Jul	08	03:17	4°♌23'32	
conjunction	10077 Jul	21	08:14	7°♌37'05	-0°36'56
minimum elong	10077 Jul	21	08:15	7°♌37'06	0°37'19
max. Earth dist.	10077 Jul	21	11:31	7°♌39'05	5.91445 AU
morning rise	10077 Aug	03	15:33	10°♌51'59	
	10077 Aug	20	21:40	15°♌	
	10077 Nov	10	22:35	0°♍	
retrograde	10077 Dec	13	15:44	1°♍43'25	
	10078 Jan	15	08:55	30°℞♌	
min. Earth dist.	10078 Feb	10	09:38	26°♌48'16	3.90063 AU
opposition	10078 Feb	11	01:57	26°♌42'45	-0°41'08
direct	10078 Apr	10	02:08	21°♌48'03	
	10078 Jun	22	23:14	0°♍	
evening set	10078 Aug	15	02:49	11°♍57'18	
conjunction	10078 Aug	28	14:34	15°♍14'04	-0°14'46
minimum elong	10078 Aug	28	14:35	15°♍14'05	0°14'55
behind sun begin	10078 Aug	28	11:30	15°♍12'12	
behind sun end	10078 Aug	28	17:40	15°♍15'57	
max. Earth dist.	10078 Aug	30	06:42	15°♍38'30	5.91520 AU
morning rise	10078 Sep	11	04:36	18°♍31'57	
	10078 Nov	01	03:31	0°♎	
retrograde	10079 Jan	20	18:09	9°♎12'12	
min. Earth dist.	10079 Mar	19	17:08	4°♎20'11	3.95728 AU
opposition	10079 Mar	21	02:58	4°♎08'41	-0°00'53
asc. node	10079 Mar	29	08:41	3°♎02'03	
	10079 Apr	26	15:18	30°℞♍	
direct	10079 May	18	04:33	29°♍12'34	
	10079 Jun	08	17:49	0°♎	
evening set	10079 Sep	22	02:08	18°♎54'05	
conjunction	10079 Oct	05	17:19	22°♎07'21	0°13'02
minimum elong	10079 Oct	05	17:19	22°♎07'20	0°13'10
behind sun begin	10079 Oct	05	12:29	22°♎04'30	
behind sun end	10079 Oct	05	22:08	22°♎10'11	
max. Earth dist.	10079 Oct	08	05:34	22°♎42'59	6.02109 AU
morning rise	10079 Oct	19	09:51	25°♎21'02	
	10079 Nov	08	15:06	0°♏	
	10080 Feb	21	08:15	15°♏	
retrograde	10080 Feb	25	08:44	15°♏01'37	
	10080 Feb	29	09:02	15°℞♏	
min. Earth dist.	10080 Apr	23	09:59	10°♏10'43	4.10000 AU
opposition	10080 Apr	25	00:55	9°♏57'33	0°37'43
direct	10080 Jun	22	21:22	4°♏59'14	
	10080 Sep	16	11:55	15°♏	
evening set	10080 Oct	27	11:49	23°♏50'49	
conjunction	10080 Nov	10	01:44	26°♏55'59	0°34'47
minimum elong	10080 Nov	10	01:43	26°♏55'58	0°35'09
max. Earth dist.	10080 Nov	12	08:08	27°♏26'55	6.18671 AU
morning rise	10080 Nov	23	15:56	0°♐00'51	
	10080 Nov	23	14:24	0°♐	
retrograde	10081 Mar	29	06:15	18°♐25'55	
min. Earth dist.	10081 May	27	03:33	13°♐33'37	4.27218 AU
opposition	10081 May	28	09:07	13°♐23'44	1°00'37
direct	10081 Jul	27	12:47	8°♐23'34	
evening set	10081 Nov	30	14:22	26°♐24'33	
conjunction	10081 Dec	14	00:28	29°♐21'04	0°44'10
minimum elong	10081 Dec	14	00:28	29°♐21'04	0°44'35
max. Earth dist.	10081 Dec	15	10:37	29°♐39'49	6.35162 AU
	10081 Dec	16	23:23	0°♑	
morning rise	10081 Dec	27	09:17	2°♑16'44	
retrograde	10082 Apr	29	01:14	19°♑38'06	
opposition	10082 Jun	28	14:50	14°♑39'11	1°03'52
min. Earth dist.	10082 Jun	28	01:22	14°♑43'36	4.41747 AU
direct	10082 Aug	29	00:08	9°♑38'05	
evening set	10083 Jan	01	14:34	27°♑02'22	

conjunction	10083	Jan	14	19:30	29°♑52'17	0°40'25
minimum elong	10083	Jan	14	19:31	29°♑52'18	0°40'49
max. Earth dist.	10083	Jan	14	23:13	29°♑54'17	6.46711 AU
	10083	Jan	15	09:52	0°♒	
morning rise	10083	Jan	27	22:44	2°♒41'13	
	10083	Apr	03	06:24	15°♒	
retrograde	10083	May	28	19:49	19°♒24'20	
	10083	Jul	24	14:45	15°℞♒	
opposition	10083	Jul	28	16:21	14°♒28'33	0°49'53
min. Earth dist.	10083	Jul	28	23:26	14°♒26'16	4.49693 AU
direct	10083	Sep	29	00:24	9°♒27'08	
	10083	Dec	02	12:02	15°♒	
evening set	10084	Feb	01	04:57	26°♒35'04	
max. Earth dist.	10084	Feb	13	05:40	29°♒09'04	6.50525 AU
conjunction	10084	Feb	14	05:24	29°♒21'46	0°26'01
minimum elong	10084	Feb	14	05:25	29°♒21'47	0°26'16
	10084	Feb	17	04:52	0°♓	
morning rise	10084	Feb	27	03:42	2°♓07'30	
retrograde	10084	Jun	26	12:49	18°♓42'04	
opposition	10084	Aug	26	14:15	13°♓48'20	0°23'25
min. Earth dist.	10084	Aug	27	14:26	13°♓40'35	4.49241 AU
direct	10084	Oct	28	05:58	8°♓47'06	
evening set	10085	Mar	02	08:05	26°♓01'08	
max. Earth dist.	10085	Mar	13	08:23	28°♓23'59	6.45784 AU
conjunction	10085	Mar	15	04:59	28°♓48'12	0°04'54
minimum elong	10085	Mar	15	04:59	28°♓48'11	0°04'57
behind sun begin	10085	Mar	14	21:13	28°♓44'00	
behind sun end	10085	Mar	15	12:44	28°♓52'23	
	10085	Mar	20	17:17	0°♈	
morning rise	10085	Mar	27	23:55	1°♈34'30	
desc. node	10085	Jun	06	19:05	14°♈49'09	
retrograde	10085	Jul	27	09:30	18°♈31'07	
opposition	10085	Sep	26	09:32	13°♈38'10	-0°09'42
min. Earth dist.	10085	Sep	27	22:44	13°♈26'17	4.40450 AU
direct	10085	Nov	27	19:45	8°♈37'40	
evening set	10086	Apr	01	23:50	26°♈19'55	
max. Earth dist.	10086	Apr	12	10:18	28°♈39'18	6.33482 AU
conjunction	10086	Apr	14	18:40	29°♈10'48	-0°18'12
minimum elong	10086	Apr	14	18:39	29°♈10'48	0°18'24
	10086	Apr	18	10:43	0°♉	
morning rise	10086	Apr	27	12:33	2°♉01'27	
	10086	Jul	02	08:25	15°♉	
retrograde	10086	Aug	29	06:58	19°♉49'23	
	10086	Oct	28	12:06	15°℞♉	
opposition	10086	Oct	29	00:49	14°♉55'54	-0°41'58
min. Earth dist.	10086	Oct	30	16:06	14°♉43'15	4.25333 AU
direct	10086	Dec	29	13:12	9°♉56'49	
	10087	Feb	26	20:55	15°♉	
evening set	10087	May	04	03:01	28°♉25'25	
	10087	May	10	22:56	0°♊	
max. Earth dist.	10087	May	14	20:30	0°♊54'14	6.16687 AU
conjunction	10087	May	16	22:35	1°♊23'18	-0°36'51
minimum elong	10087	May	16	22:34	1°♊23'18	0°37'13
morning rise	10087	May	29	18:00	4°♊21'31	
retrograde	10087	Oct	03	21:07	23°♊22'04	
opposition	10087	Dec	03	03:03	18°♊27'05	-1°03'13
min. Earth dist.	10087	Dec	04	08:28	18°♊17'30	4.08073 AU
direct	10088	Feb	01	07:19	13°♊30'07	
	10088	May	25	07:38	0°♋	
evening set	10088	Jun	06	11:12	2°♋52'03	
max. Earth dist.	10088	Jun	18	05:34	5°♋41'19	6.00465 AU
conjunction	10088	Jun	19	10:28	5°♋58'42	-0°44'01
minimum elong	10088	Jun	19	10:29	5°♋58'42	0°44'27
morning rise	10088	Jul	02	11:13	9°♋06'22	
retrograde	10088	Nov	09	20:40	29°♋20'07	
opposition	10089	Jan	08	13:58	24°♋22'27	-1°02'38
min. Earth dist.	10089	Jan	08	20:46	24°♋20'11	3.94457 AU
direct	10089	Mar	08	08:45	19°♋27'19	
	10089	Jun	02	01:33	0°♌	
evening set	10089	Jul	13	02:45	9°♌29'32	
conjunction	10089	Jul	26	08:46	12°♌43'51	-0°34'41
minimum elong	10089	Jul	26	08:47	12°♌43'51	0°35'03
max. Earth dist.	10089	Jul	26	17:16	12°♌49'03	5.90845 AU
	10089	Aug	04	15:17	15°♌	
morning rise	10089	Aug	08	16:55	15°♌59'28	
	10089	Oct	11	10:23	0°♍	
retrograde	10089	Dec	18	20:50	6°♍53'11	
min. Earth dist.	10090	Feb	15	11:27	1°♍58'06	3.90024 AU
opposition	10090	Feb	16	05:06	1°♍52'09	-0°36'23
	10090	Mar	02	10:12	30°℞♌	
direct	10090	Apr	15	05:04	26°♌57'20	
	10090	May	28	06:23	0°♍	
evening set	10090	Aug	20	05:18	17°♍05'59	
conjunction	10090	Sep	02	17:50	20°♍22'52	-0°11'08
minimum elong	10090	Sep	02	17:51	20°♍22'53	0°11'15
behind sun begin	10090	Sep	02	11:43	20°♍19'10	
behind sun end	10090	Sep	02	23:58	20°♍26'35	
max. Earth dist.	10090	Sep	04	13:24	20°♍49'20	5.92044 AU
morning rise	10090	Sep	16	08:36	23°♍40'49	
	10090	Oct	13	07:27	0°♎	
retrograde	10091	Jan	25	17:26	14°♎17'05	
asc. node	10091	Feb	09	13:08	13°♎54'54	
min. Earth dist.	10091	Mar	24	14:34	9°♎25'31	3.96768 AU
opposition	10091	Mar	26	02:09	9°♎13'25	0°04'46
direct	10091	May	23	03:26	4°♎17'03	
evening set	10091	Sep	27	03:22	23°♎54'55	
conjunction	10091	Oct	10	18:37	27°♎07'35	0°16'29
minimum elong	10091	Oct	10	18:36	27°♎07'34	0°16'39
max. Earth dist.	10091	Oct	13	05:48	27°♎42'27	6.03552 AU
	10091	Oct	23	00:04	0°♏	
morning rise	10091	Oct	24	11:20	0°♏20'36	
	10092	Jan	03	22:12	15°♏	
retrograde	10092	Mar	01	00:46	19°♏53'34	
min. Earth dist.	10092	Apr	28	03:59	15°♏02'30	4.11689 AU
	10092	Apr	28	11:21	15°℞♏	
opposition	10092	Apr	29	18:04	14°♏49'36	0°41'53
direct	10092	Jun	27	18:10	9°♏50'58	
	10092	Aug	25	15:34	15°♏	
evening set	10092	Nov	01	07:58	28°♏37'30	
	10092	Nov	07	10:05	0°♐	
conjunction	10092	Nov	14	21:47	1°♐41'46	0°36'49
minimum elong	10092	Nov	14	21:46	1°♐41'46	0°37'11
max. Earth dist.	10092	Nov	17	03:52	2°♐12'25	6.20482 AU
morning rise	10092	Nov	28	11:19	4°♐45'36	
retrograde	10093	Apr	02	16:30	23°♐02'41	
opposition	10093	Jun	01	20:17	18°♐00'53	1°02'08
min. Earth dist.	10093	May	31	15:47	18°♐10'23	4.28989 AU
direct	10093	Aug	01	03:43	13°♐00'33	
	10093	Nov	30	20:02	0°♑	
evening set	10093	Dec	05	04:50	0°♑56'49	
conjunction	10093	Dec	18	14:09	3°♑52'24	0°44'19
minimum elong	10093	Dec	18	14:09	3°♑52'24	0°44'45
max. Earth dist.	10093	Dec	19	19:55	4°♑08'41	6.36758 AU
morning rise	10093	Dec	31	22:24	6°♑47'08	

retrograde	10094 May 03	07:27	24°♓02'25		
opposition	10094 Jul 02	21:41	19°♓03'51	1°02'45	
min. Earth dist.	10094 Jul 02	11:01	19°♓07'21	4.43060 AU	
direct	10094 Sep 02	11:11	14°♓02'34		
	10094 Dec 30	09:49	0°♒		
evening set	10095 Jan 05	23:42	1°♒23'39		
conjunction	10095 Jan 19	04:09	4°♒12'59	0°38'53	
minimum elong	10095 Jan 19	04:10	4°♒12'59	0°39'16	
max. Earth dist.	10095 Jan 19	05:49	4°♒13'52	6.47644 AU	
morning rise	10095 Feb 01	06:30	7°♒01'15		
	10095 Mar 12	18:34	15°♒		
retrograde	10095 Jun 01	22:30	23°♒41'15		
opposition	10095 Aug 01	21:18	18°♒45'42	0°46'42	
min. Earth dist.	10095 Aug 02	05:42	18°♒43'00	4.50171 AU	
	10095 Sep 04	01:49	15°℞♒		
direct	10095 Oct 03	06:38	13°♒44'15		
	10095 Nov 01	18:37	15°♒		
	10096 Feb 01	10:09	0°♓		
evening set	10096 Feb 05	10:57	0°♓51'12		
max. Earth dist.	10096 Feb 17	07:41	3°♓23'11	6.50486 AU	
conjunction	10096 Feb 18	10:43	3°♓37'39	0°23'18	
minimum elong	10096 Feb 18	10:44	3°♓37'40	0°23'32	
morning rise	10096 Mar 02	08:29	6°♓23'11		
retrograde	10096 Jun 30	19:09	22°♓58'26		
opposition	10096 Aug 30	20:28	18°♓04'48	0°18'57	
min. Earth dist.	10096 Aug 31	23:35	17°♓56'09	4.48645 AU	
direct	10096 Nov 01	13:57	13°♓03'35		
	10097 Mar 05	01:37	0°♈		
evening set	10097 Mar 06	13:53	0°♈19'32		
max. Earth dist.	10097 Mar 17	10:27	2°♈40'47	6.44640 AU	
conjunction	10097 Mar 19	10:20	3°♈06'50	0°01'37	
minimum elong	10097 Mar 19	10:20	3°♈06'50	0°01'37	
behind sun begin	10097 Mar 19	02:21	3°♈02'30		
behind sun end	10097 Mar 19	18:19	3°♈11'09		
morning rise	10097 Apr 01	05:02	5°♈53'27		
desc. node	10097 Apr 15	13:33	8°♈57'37		
retrograde	10097 Jul 31	19:21	22°♈54'54		
opposition	10097 Sep 30	19:48	18°♈01'52	-0°14'30	
min. Earth dist.	10097 Oct 02	09:26	17°♈49'50	4.38806 AU	
direct	10097 Dec 02	03:38	13°♈01'27		
	10098 Apr 02	16:57	0°♉		
evening set	10098 Apr 06	08:46	0°♉48'40		
max. Earth dist.	10098 Apr 16	20:05	3°♉09'08	6.31450 AU	
conjunction	10098 Apr 19	03:38	3°♉40'19	-0°21'14	
minimum elong	10098 Apr 19	03:37	3°♉40'18	0°21'27	
morning rise	10098 May 01	21:22	6°♉31'45		
	10098 Jun 10	18:58	15°♉		
retrograde	10098 Sep 03	01:50	24°♉28'18		
opposition	10098 Nov 02	18:15	19°♉34'42	-0°45'50	
min. Earth dist.	10098 Nov 04	09:37	19°♉22'02	4.23031 AU	
	10098 Dec 18	02:15	15°℞♉		
direct	10099 Jan 03	03:19	14°♉35'52		
	10099 Jan 19	03:28	15°♉		
	10099 Apr 24	18:31	0°♊		
evening set	10099 May 08	18:12	3°♊11'32		
max. Earth dist.	10099 May 19	12:11	5°♊41'31	6.14292 AU	
conjunction	10099 May 21	13:57	6°♊10'32	-0°38'40	
minimum elong	10099 May 21	13:56	6°♊10'32	0°39'04	
morning rise	10099 Jun 03	10:03	9°♊10'02		
retrograde	10099 Oct 09	00:28	28°♊21'23		
opposition	10099 Dec 08	04:56	23°♊26'03	-1°04'37	
min. Earth dist.	10099 Dec 09	07:23	23°♊17'24	4.05780 AU	
direct	10100 Feb 06	04:03	18°♊29'19		
	10100 May 08	17:09	0°♋		
evening set	10100 Jun 12	10:23	7°♋58'26		
max. Earth dist.	10100 Jun 24	11:07	10°♋52'12	5.98505 AU	
conjunction	10100 Jun 25	10:35	11°♋06'22	-0°43'43	
minimum elong	10100 Jun 25	10:36	11°♋06'22	0°44'09	
morning rise	10100 Jul 08	12:08	14°♋15'21		
	10100 Sep 21	21:04	0°♌		
retrograde	10100 Nov 16	07:56	4°♌37'58		
	10101 Jan 12	10:02	30°℞♋		
opposition	10101 Jan 14	22:27	29°♋39'54	-1°00'23	
min. Earth dist.	10101 Jan 15	02:51	29°♋38'26	3.93045 AU	
direct	10101 Mar 14	13:47	24°♋44'56		
	10101 May 11	11:57	0°♌		
evening set	10101 Jul 19	09:16	14°♌51'09		
	10101 Jul 19	23:47	15°♌		
conjunction	10101 Aug 01	16:16	18°♌06'19	-0°32'03	
minimum elong	10101 Aug 01	16:18	18°♌06'20	0°32'21	
max. Earth dist.	10101 Aug 02	05:30	18°♌14'26	5.90125 AU	
morning rise	10101 Aug 15	01:38	21°♌22'49		
	10101 Sep 20	23:55	0°♍		
retrograde	10101 Dec 25	06:56	12°♍18'32		