
























































































































































































































































evening set	3600 Mar 27 21:48	17° Υ 46'01	evening set	3605 Sep 21 04:39	9° $\underline{\mathfrak{a}}$ 22'40
conjunction	3600 Apr 10 01:05	20° Υ 57'21 -1°00'29	conjunction	3605 Oct 04 09:51	12° $\underline{\mathfrak{a}}$ 13'30 0°59'35
minimum elong	3600 Apr 10 01:05	20° Υ 57'21 1°00'30	minimum elong	3605 Oct 04 09:50	12° $\underline{\mathfrak{a}}$ 13'30 0°59'35
max. Earth dist.	3600 Apr 10 16:26	21° Υ 06'41 5.94144 AU	max. Earth dist.	3605 Oct 04 02:02	12° $\underline{\mathfrak{a}}$ 09'17 6.44346 AU
morning rise	3600 Apr 23 07:15	24° Υ 10'19	morning rise	3605 Oct 17 12:39	15° $\underline{\mathfrak{a}}$ 03'02
	3600 May 18 00:34	0° \mathfrak{B}		3606 Jan 11 06:52	0° \mathfrak{M}
retrograde	3600 Sep 02 18:21	14° \mathfrak{B} 56'05	retrograde	3606 Feb 14 23:58	1° \mathfrak{M} .49'57
opposition	3600 Nov 01 11:50	9° \mathfrak{B} 53'58 -1°29'14		3606 Mar 21 15:53	30° \mathfrak{R} $\underline{\mathfrak{a}}$
min. Earth dist.	3600 Oct 31 13:36	10° \mathfrak{B} 01'27 3.93419 AU	opposition	3606 Apr 16 11:49	26° $\underline{\mathfrak{a}}$ 55'05 1°29'17
direct	3600 Dec 29 09:39	4° \mathfrak{B} 59'52	min. Earth dist.	3606 Apr 17 01:48	26° $\underline{\mathfrak{a}}$ 50'33 4.46663 AU
	3601 Mar 22 05:40	15° \mathfrak{B}	direct	3606 Jun 17 21:53	21° $\underline{\mathfrak{a}}$ 52'33
evening set	3601 May 04 10:53	24° \mathfrak{B} 50'29		3606 Sep 05 18:46	0° \mathfrak{M}
			evening set	3606 Oct 22 04:24	9° \mathfrak{M} .16'47
conjunction	3601 May 17 22:12	28° \mathfrak{B} 05'11 -0°51'55	max. Earth dist.	3606 Nov 02 19:31	11° \mathfrak{M} .46'55 6.46908 AU
minimum elong	3601 May 17 22:14	28° \mathfrak{B} 05'12 0°51'55			
max. Earth dist.	3601 May 19 19:40	28° \mathfrak{B} 32'36 5.95079 AU	conjunction	3606 Nov 04 03:24	12° \mathfrak{M} .04'08 0°59'36
	3601 May 25 20:49	0° \mathfrak{I}	minimum elong	3606 Nov 04 03:25	12° \mathfrak{M} .04'08 0°59'35
morning rise	3601 May 31 12:33	1° \mathfrak{I} 21'20	morning rise	3606 Nov 16 23:34	14° \mathfrak{M} .50'13
retrograde	3601 Oct 10 05:42	21° \mathfrak{I} 52'13		3606 Nov 17 17:48	15° \mathfrak{M}
min. Earth dist.	3601 Dec 07 07:57	16° \mathfrak{I} 59'30 3.99207 AU		3607 Feb 13 06:50	0° \mathfrak{J}
opposition	3601 Dec 08 19:06	16° \mathfrak{I} 47'31 -0°58'43	retrograde	3607 Mar 17 02:29	1° \mathfrak{J} 32'23
direct	3602 Feb 04 18:41	11° \mathfrak{I} 51'08		3607 Apr 18 00:38	30° \mathfrak{R} \mathfrak{M}
	3602 Jun 05 11:35	0° \mathfrak{E}	opposition	3607 May 16 21:59	26° \mathfrak{M} .39'42 1°17'42
evening set	3602 Jun 11 02:17	1° \mathfrak{E} 18'19	min. Earth dist.	3607 May 18 02:50	26° \mathfrak{M} .30'28 4.45320 AU
			direct	3607 Jul 18 15:50	21° \mathfrak{M} .38'04
conjunction	3602 Jun 24 19:23	4° \mathfrak{E} 30'58 -0°23'10		3607 Oct 07 15:25	0° \mathfrak{J}
minimum elong	3602 Jun 24 19:25	4° \mathfrak{E} 30'59 0°23'10	evening set	3607 Nov 21 15:13	9° \mathfrak{J} 08'41
max. Earth dist.	3602 Jun 27 06:04	5° \mathfrak{E} 05'21 6.05112 AU	max. Earth dist.	3607 Dec 02 08:58	11° \mathfrak{J} 29'32 6.41702 AU
morning rise	3602 Jul 08 14:02	7° \mathfrak{E} 44'11			
retrograde	3602 Nov 14 11:17	27° \mathfrak{E} 15'50	conjunction	3607 Dec 04 09:45	11° \mathfrak{J} 56'18 0°43'40
min. Earth dist.	3603 Jan 11 14:12	22° \mathfrak{E} 23'12 4.12286 AU	minimum elong	3607 Dec 04 09:47	11° \mathfrak{J} 56'19 0°43'40
opposition	3603 Jan 13 01:02	22° \mathfrak{E} 11'22 -0°07'26	morning rise	3607 Dec 17 02:13	14° \mathfrak{J} 43'05
asc. node	3603 Mar 09 01:16	17° \mathfrak{E} 13'35		3608 Mar 12 15:33	0° \mathfrak{Z}
direct	3603 Mar 12 21:44	17° \mathfrak{E} 12'05	retrograde	3608 Apr 16 12:08	1° \mathfrak{Z} 49'45
	3603 Jun 20 05:05	0° \mathfrak{Q}		3608 May 21 12:58	30° \mathfrak{R} \mathfrak{J}
evening set	3603 Jul 17 10:50	5° \mathfrak{Q} 58'34	opposition	3608 Jun 16 09:26	26° \mathfrak{J} 57'49 0°44'58
			min. Earth dist.	3608 Jun 17 23:41	26° \mathfrak{J} 45'38 4.36534 AU
conjunction	3603 Jul 31 03:48	9° \mathfrak{Q} 04'27 0°12'54	direct	3608 Aug 17 20:46	21° \mathfrak{J} 57'46
minimum elong	3603 Jul 31 03:47	9° \mathfrak{Q} 04'26 0°12'54		3608 Nov 03 21:20	0° \mathfrak{Z}
behind sun begin	3603 Jul 30 22:50	9° \mathfrak{Q} 01'39	evening set	3608 Dec 21 11:37	9° \mathfrak{Z} 52'57
behind sun end	3603 Jul 31 08:44	9° \mathfrak{Q} 07'13	max. Earth dist.	3608 Dec 31 23:29	12° \mathfrak{Z} 14'34 6.29981 AU
max. Earth dist.	3603 Aug 02 02:47	9° \mathfrak{Q} 31'01 6.20058 AU			
morning rise	3603 Aug 13 20:50	12° \mathfrak{Q} 09'57	conjunction	3609 Jan 03 04:24	12° \mathfrak{Z} 44'25 0°15'09
	3603 Aug 26 15:23	15° \mathfrak{Q}	minimum elong	3609 Jan 03 04:24	12° \mathfrak{Z} 44'25 0°15'09
	3603 Nov 29 16:56	0° \mathfrak{M}	behind sun begin	3609 Jan 03 01:27	12° \mathfrak{Z} 42'46
retrograde	3603 Dec 17 03:23	0° \mathfrak{M} 29'39	behind sun end	3609 Jan 03 07:22	12° \mathfrak{Z} 46'05
	3604 Jan 03 11:24	30° \mathfrak{R} \mathfrak{Q}	morning rise	3609 Jan 15 20:05	15° \mathfrak{Z} 35'36
opposition	3604 Feb 14 23:47	25° \mathfrak{Q} 27'44 0°42'55		3609 Mar 31 15:58	0° \approx
min. Earth dist.	3604 Feb 14 00:25	25° \mathfrak{Q} 35'35 4.27620 AU	retrograde	3609 May 19 21:22	3° \approx 33'57
direct	3604 Apr 15 03:52	20° \mathfrak{Q} 26'12	desc. node	3609 Jun 28 18:53	1° \approx 13'33
	3604 Jul 09 15:56	0° \mathfrak{M}		3609 Jul 09 07:42	30° \mathfrak{R} \mathfrak{Z}
evening set	3604 Aug 19 19:09	8° \mathfrak{M} 32'01	opposition	3609 Jul 19 17:18	28° \mathfrak{Z} 41'06 -0°02'42
			min. Earth dist.	3609 Jul 21 03:49	28° \mathfrak{Z} 30'02 4.22560 AU
conjunction	3604 Sep 02 07:26	11° \mathfrak{M} 29'38 0°43'05	direct	3609 Sep 19 03:58	23° \mathfrak{Z} 43'19
minimum elong	3604 Sep 02 07:24	11° \mathfrak{M} 29'37 0°43'04		3609 Nov 24 19:20	0° \approx
max. Earth dist.	3604 Sep 03 06:18	11° \mathfrak{M} 42'11 6.34579 AU	evening set	3610 Jan 22 15:50	12° \approx 17'00
morning rise	3604 Sep 15 17:50	14° \mathfrak{M} 26'09	max. Earth dist.	3610 Feb 02 17:28	14° \approx 51'32 6.14916 AU
	3604 Dec 13 01:22	0° $\underline{\mathfrak{a}}$		3610 Feb 03 07:57	15° \approx
retrograde	3605 Jan 16 00:03	1° $\underline{\mathfrak{a}}$ 46'50			
	3605 Feb 18 19:05	30° \mathfrak{R} \mathfrak{M}	conjunction	3610 Feb 04 09:28	15° \approx 14'54 -0°19'15
opposition	3605 Mar 17 04:08	26° \mathfrak{M} 48'37 1°17'20	minimum elong	3610 Feb 04 09:27	15° \approx 14'53 0°19'14
min. Earth dist.	3605 Mar 16 22:35	26° \mathfrak{M} 50'27 4.40247 AU	morning rise	3610 Feb 17 03:20	18° \approx 13'15
direct	3605 May 17 15:06	21° \mathfrak{M} 46'05		3610 Apr 13 08:31	0° \mathfrak{H}
	3605 Aug 05 11:24	0° $\underline{\mathfrak{a}}$	retrograde	3610 Jun 24 19:23	7° \mathfrak{H} 21'20

opposition	3610 Aug 24 07:09	2° H 26'06 -0°52'52			3616 Feb 19 08:52	30° R Ω	
min. Earth dist.	3610 Aug 25 03:56	2° H 19'20 4.07509 AU	direct		3616 Apr 19 17:19	24° Ω 58'21	
	3610 Sep 12 21:40	30° R \approx			3616 Jun 18 07:22	0° H	
direct	3610 Oct 23 09:00	27° \approx 30'47	evening set		3616 Aug 24 08:37	12° H 59'41	
	3610 Dec 02 02:28	0° H					
evening set	3611 Feb 25 20:24	16° H 46'41	conjunction		3616 Sep 06 19:56	15° H 56'18 0°46'15	
			minimum elong		3616 Sep 06 19:54	15° H 56'17 0°46'15	
conjunction	3611 Mar 10 17:52	19° H 52'09 -0°48'39	max. Earth dist.		3616 Sep 07 13:32	16° H 05'55 6.36104 AU	
minimum elong	3611 Mar 10 17:50	19° H 52'08 0°48'38	morning rise		3616 Sep 20 05:30	18° H 51'49	
max. Earth dist.	3611 Mar 10 03:31	19° H 43'32 6.01219 AU			3616 Nov 15 10:05	0° Ω	
morning rise	3611 Mar 23 17:13	22° H 58'50	retrograde		3617 Jan 20 04:15	6° Ω 06'58	
	3611 Apr 23 01:37	0° Y	opposition		3617 Mar 21 09:27	1° Ω 09'13 1°20'22	
retrograde	3611 Aug 01 15:43	13° Y 12'57	min. Earth dist.		3617 Mar 21 06:46	1° Ω 10'06 4.41315 AU	
opposition	3611 Sep 30 17:40	8° Y 14'08 -1°26'40			3617 Mar 30 06:04	30° R H	
min. Earth dist.	3611 Sep 30 14:40	8° Y 15'08 3.96551 AU	direct		3617 May 21 23:52	26° H 06'36	
direct	3611 Nov 28 09:28	3° Y 20'21			3617 Jul 13 18:22	0° Ω	
evening set	3612 Apr 02 03:12	23° Y 05'54	evening set		3617 Sep 25 13:13	13° Ω 41'15	
conjunction	3612 Apr 15 07:30	26° Y 17'47 -1°00'45	conjunction		3617 Oct 08 17:39	16° Ω 31'32 1°00'33	
minimum elong	3612 Apr 15 07:30	26° Y 17'47 1°00'45	minimum elong		3617 Oct 08 17:38	16° Ω 31'32 1°00'33	
max. Earth dist.	3612 Apr 16 03:53	26° Y 30'10 5.94009 AU	max. Earth dist.		3617 Oct 08 07:15	16° Ω 25'55 6.44893 AU	
morning rise	3612 Apr 28 14:44	29° Y 31'18	morning rise		3617 Oct 21 19:19	19° Ω 20'28	
	3612 Apr 30 14:25	0° B			3617 Dec 15 03:22	0° M	
	3612 Jul 10 14:16	15° B	retrograde		3618 Feb 19 03:29	6° M 05'51	
retrograde	3612 Sep 08 01:45	20° B 16'49	opposition		3618 Apr 20 16:49	1° M 11'22 1°29'01	
opposition	3612 Nov 06 19:07	15° B 14'10 -1°26'52	min. Earth dist.		3618 Apr 21 08:42	1° M 06'14 4.46685 AU	
min. Earth dist.	3612 Nov 05 18:44	15° B 22'24 3.94020 AU			3618 Apr 29 23:58	30° R Ω	
	3612 Nov 08 13:03	15° R B	direct		3618 Jun 22 04:14	26° Ω 08'57	
direct	3613 Jan 03 16:57	10° B 19'49			3618 Aug 14 02:29	0° M	
	3613 Feb 26 20:47	15° B	evening set		3618 Oct 26 11:00	13° M 33'47	
evening set	3613 May 09 17:06	0° II 07'14			3618 Nov 02 03:15	15° M	
	3613 May 09 04:59	0° II	max. Earth dist.		3618 Nov 06 21:23	16° M 01'41 6.46402 AU	
conjunction	3613 May 23 05:31	3° II 21'49 -0°48'52	conjunction		3618 Nov 08 09:09	16° M 21'02 0°58'14	
minimum elong	3613 May 23 05:33	3° II 21'50 0°48'52	minimum elong		3618 Nov 08 09:10	16° M 21'02 0°58'14	
max. Earth dist.	3613 May 25 07:15	3° II 51'41 5.96349 AU	morning rise		3618 Nov 21 04:51	19° M 07'07	
morning rise	3613 Jun 05 20:36	6° II 37'42			3619 Jan 15 17:47	0° J	
retrograde	3613 Oct 15 06:51	27° II 00'57	retrograde		3619 Mar 21 11:10	5° J 51'36	
min. Earth dist.	3613 Dec 12 07:54	22° II 08'17 4.00993 AU	opposition		3619 May 21 06:03	0° J 59'05 1°14'14	
opposition	3613 Dec 13 19:31	21° II 56'09 -0°52'17	min. Earth dist.		3619 May 22 13:14	0° J 49'07 4.44331 AU	
direct	3614 Feb 09 21:18	16° II 59'23			3619 May 29 00:00	30° R M	
	3614 May 19 04:06	0° E	direct		3619 Jul 23 00:31	25° M 57'36	
evening set	3614 Jun 16 04:55	6° E 20'23	evening set		3619 Sep 15 03:54	0° J	
			max. Earth dist.		3619 Nov 25 22:09	13° J 31'04	
conjunction	3614 Jun 29 22:07	9° E 32'09 -0°18'17			3619 Dec 06 15:04	15° J 51'55 6.40302 AU	
minimum elong	3614 Jun 29 22:09	9° E 32'10 0°18'16					
max. Earth dist.	3614 Jul 02 06:48	10° E 05'11 6.07223 AU	conjunction		3619 Dec 08 16:28	16° J 19'07 0°40'15	
morning rise	3614 Jul 13 17:01	12° E 44'25	minimum elong		3619 Dec 08 16:30	16° J 19'08 0°40'15	
	3614 Oct 13 15:52	0° Ω	morning rise		3619 Dec 21 08:37	19° J 06'20	
retrograde	3614 Nov 19 01:05	2° Ω 05'33			3620 Feb 13 17:17	0° Z	
	3614 Dec 25 04:52	30° R E	retrograde		3620 Apr 21 00:39	6° Z 18'52	
min. Earth dist.	3615 Jan 16 06:52	27° E 12'47 4.14504 AU	opposition		3620 Jun 20 22:56	1° Z 26'50 0°38'54	
opposition	3615 Jan 17 16:42	27° E 01'17 0°00'00	min. Earth dist.		3620 Jun 22 12:07	1° Z 14'58 4.34814 AU	
asc. node	3615 Jan 17 16:10	27° E 01'28			3620 Jul 02 11:22	30° R J	
direct	3615 Mar 17 17:04	22° E 01'36	direct		3620 Aug 22 06:45	26° J 27'04	
	3615 Jun 01 02:41	0° Ω			3620 Oct 11 04:45	0° Z	
evening set	3615 Jul 22 06:51	10° Ω 41'55	evening set		3620 Dec 25 21:54	14° Z 26'47	
			max. Earth dist.		3621 Jan 05 11:25	16° Z 49'57 6.28069 AU	
conjunction	3615 Aug 04 23:30	13° Ω 46'40 0°17'38	conjunction		3621 Jan 07 14:33	17° Z 18'57 0°10'27	
minimum elong	3615 Aug 04 23:29	13° Ω 46'39 0°17'38	minimum elong		3621 Jan 07 14:33	17° Z 18'57 0°10'27	
max. Earth dist.	3615 Aug 06 19:35	14° Ω 11'29 6.22215 AU	behind sun begin		3621 Jan 07 08:16	17° Z 15'25	
	3615 Aug 10 09:47	15° Ω	behind sun end		3621 Jan 07 20:51	17° Z 22'30	
morning rise	3615 Aug 18 15:42	16° Ω 50'54	morning rise		3621 Jan 20 06:20	20° Z 10'57	
	3615 Oct 23 22:41	0° H			3621 Mar 07 18:10	0° \approx	
retrograde	3615 Dec 21 12:01	5° H 01'28			3621 May 08 05:40	7° \approx 52'12	
opposition	3616 Feb 19 08:40	0° H 00'04 0°48'49	desc. node		3621 May 24 19:19	8° \approx 17'49	
min. Earth dist.	3616 Feb 18 12:08	0° H 06'56 4.29537 AU	retrograde				

opposition	3621 Jul 24 13:53	3° \approx 24'41	-0°10'00			3627 Feb 05 13:32	30° \approx 8 $\frac{1}{2}$	
min. Earth dist.	3621 Jul 25 23:49	3° \approx 13'48	4.20562 AU	direct		3627 Mar 22 13:55	26° \approx 52'24	
	3621 Aug 22 22:53	30° \approx 8 $\frac{1}{2}$				3627 May 06 17:37	0° \approx 0	
direct	3621 Sep 23 21:34	28° \approx 327'14				3627 Jul 25 02:15	15° \approx 0	
	3621 Oct 25 14:19	0° \approx		evening set		3627 Jul 27 04:06	15° \approx 027'46	
	3622 Jan 18 04:54	15° \approx						
evening set	3622 Jan 27 07:38	17° \approx 06'11		conjunction		3627 Aug 09 20:16	18° \approx 031'30	0°22'18
max. Earth dist.	3622 Feb 07 11:45	19° \approx 42'51	6.12989 AU	minimum elong		3627 Aug 09 20:14	18° \approx 031'30	0°22'18
				max. Earth dist.		3627 Aug 11 13:27	18° \approx 054'36	6.24075 AU
conjunction	3622 Feb 09 01:35	20° \approx 05'02	-0°23'58	morning rise		3627 Aug 23 11:50	21° \approx 034'39	
minimum elong	3622 Feb 09 01:33	20° \approx 05'01	0°23'58			3627 Oct 02 08:22	0° \approx 0	
morning rise	3622 Feb 21 20:03	23° \approx 04'27		retrograde		3627 Dec 25 20:43	9° \approx 037'13	
	3622 Mar 24 12:53	0° \approx 0		opposition		3628 Feb 23 19:16	4° \approx 036'20	0°54'31
retrograde	3622 Jun 29 22:09	12° \approx 021'42		min. Earth dist.		3628 Feb 23 00:17	4° \approx 042'41	4.31228 AU
opposition	3622 Aug 29 10:01	7° \approx 025'59	-0°59'02			3628 Apr 08 00:19	30° \approx 8 $\frac{1}{2}$	
min. Earth dist.	3622 Aug 30 03:02	7° \approx 020'27	4.05822 AU	direct		3628 Apr 24 07:14	29° \approx 034'29	
direct	3622 Oct 28 06:16	2° \approx 030'57				3628 May 10 19:22	0° \approx 0	
evening set	3623 Mar 02 18:47	21° \approx 051'25		evening set		3628 Aug 28 24:00	17° \approx 032'06	
conjunction	3623 Mar 15 16:58	24° \approx 057'47	-0°51'37	conjunction		3628 Sep 11 10:27	20° \approx 027'47	0°49'14
minimum elong	3623 Mar 15 16:56	24° \approx 057'46	0°51'37	minimum elong		3628 Sep 11 10:25	20° \approx 027'46	0°49'14
max. Earth dist.	3623 Mar 15 07:17	24° \approx 051'58	5.99911 AU	max. Earth dist.		3628 Sep 12 00:35	20° \approx 035'30	6.37526 AU
morning rise	3623 Mar 28 17:13	28° \approx 005'28		morning rise		3628 Sep 24 18:52	23° \approx 022'17	
	3623 Apr 05 17:47	0° \approx 0				3628 Oct 26 12:36	0° \approx 0	
retrograde	3623 Aug 07 00:02	18° \approx 026'04		retrograde		3629 Jan 24 11:07	10° \approx 032'14	
opposition	3623 Oct 06 00:22	13° \approx 026'41	-1°28'55	opposition		3629 Mar 25 16:54	5° \approx 035'05	1°23'02
min. Earth dist.	3623 Oct 05 18:49	13° \approx 028'31	3.95759 AU	min. Earth dist.		3629 Mar 25 16:55	5° \approx 035'05	4.42402 AU
direct	3623 Dec 03 13:31	8° \approx 032'54		direct		3629 May 26 11:28	0° \approx 032'33	
evening set	3624 Apr 07 06:46	28° \approx 020'09		evening set		3629 Sep 29 23:44	18° \approx 005'02	
	3624 Apr 14 03:41	0° \approx 0						
				conjunction		3629 Oct 13 03:09	20° \approx 054'41	1°01'15
conjunction	3624 Apr 20 12:17	1° \approx 032'40	-1°00'31	minimum elong		3629 Oct 13 03:09	20° \approx 054'41	1°01'14
minimum elong	3624 Apr 20 12:17	1° \approx 032'40	1°00'31	max. Earth dist.		3629 Oct 12 12:46	20° \approx 046'56	6.45585 AU
max. Earth dist.	3624 Apr 21 14:00	1° \approx 048'18	5.93810 AU	morning rise		3629 Oct 26 03:59	23° \approx 043'01	
morning rise	3624 May 03 20:37	4° \approx 046'47				3629 Nov 25 12:52	0° \approx 0	
	3624 Jun 17 17:37	15° \approx 0		retrograde		3630 Feb 23 09:15	10° \approx 026'22	
retrograde	3624 Sep 13 08:42	25° \approx 032'17		opposition		3630 Apr 24 23:46	5° \approx 032'14	1°28'19
min. Earth dist.	3624 Nov 10 22:01	20° \approx 038'10	3.94459 AU	min. Earth dist.		3630 Apr 25 17:34	5° \approx 026'30	4.46988 AU
opposition	3624 Nov 12 00:21	20° \approx 029'16	-1°23'53	direct		3630 Jun 26 13:11	0° \approx 029'58	
direct	3625 Jan 08 21:08	15° \approx 034'44				3630 Oct 17 01:28	15° \approx 0	
	3625 Apr 22 02:48	0° \approx 0		evening set		3630 Oct 30 18:11	17° \approx 054'10	
evening set	3625 May 14 22:41	5° \approx 020'06		max. Earth dist.		3630 Nov 11 03:35	20° \approx 021'37	6.46314 AU
conjunction	3625 May 28 11:53	8° \approx 034'36	-0°45'27	conjunction		3630 Nov 12 15:44	20° \approx 041'12	0°56'36
minimum elong	3625 May 28 11:55	8° \approx 034'38	0°45'27	minimum elong		3630 Nov 12 15:46	20° \approx 041'12	0°56'37
max. Earth dist.	3625 May 30 14:22	9° \approx 004'50	5.97354 AU	morning rise		3630 Nov 25 10:34	23° \approx 027'02	
morning rise	3625 Jun 11 03:59	11° \approx 050'25				3630 Dec 27 00:26	0° \approx 0	
	3625 Sep 13 16:50	0° \approx 0		retrograde		3631 Mar 25 17:41	10° \approx 012'33	
retrograde	3625 Oct 20 05:28	2° \approx 007'14		opposition		3631 May 25 14:39	5° \approx 020'12	1°10'25
	3625 Nov 25 13:15	30° \approx 8 $\frac{1}{2}$		min. Earth dist.		3631 May 26 22:10	5° \approx 010'09	4.43863 AU
min. Earth dist.	3625 Dec 17 06:22	27° \approx 014'46	4.02445 AU	direct		3631 Jul 27 08:57	0° \approx 019'00	
opposition	3625 Dec 18 18:48	27° \approx 002'21	-0°45'32	evening set		3631 Nov 30 04:40	17° \approx 053'23	
direct	3626 Feb 14 22:11	22° \approx 005'09		max. Earth dist.		3631 Dec 10 19:32	20° \approx 013'29	6.39488 AU
	3626 Apr 29 12:28	0° \approx 0						
evening set	3626 Jun 21 07:41	11° \approx 021'42		conjunction		3631 Dec 12 22:21	20° \approx 041'31	0°36'43
				minimum elong		3631 Dec 12 22:23	20° \approx 041'32	0°36'43
conjunction	3626 Jul 05 01:19	14° \approx 032'48	-0°13'15	morning rise		3631 Dec 25 14:18	23° \approx 028'57	
minimum elong	3626 Jul 05 01:20	14° \approx 032'49	0°13'16			3632 Jan 25 08:25	0° \approx 0	
behind sun begin	3626 Jul 04 20:38	14° \approx 030'06		retrograde		3632 Apr 25 13:05	10° \approx 0345'32	
behind sun end	3626 Jul 05 06:02	14° \approx 035'32		opposition		3632 Jun 25 11:14	5° \approx 0353'25	0°32'46
max. Earth dist.	3626 Jul 07 09:29	15° \approx 005'25	6.09000 AU	min. Earth dist.		3632 Jun 27 01:14	5° \approx 041'18	4.33675 AU
morning rise	3626 Jul 18 20:07	17° \approx 044'14		direct		3632 Aug 26 18:27	0° \approx 053'53	
	3626 Sep 15 05:19	0° \approx 0		evening set		3632 Dec 30 05:55	18° \approx 0356'10	
retrograde	3626 Nov 23 18:09	6° \approx 056'18		max. Earth dist.		3633 Jan 09 20:18	21° \approx 0320'16	6.26700 AU
asc. node	3626 Nov 27 14:56	6° \approx 054'48						
min. Earth dist.	3627 Jan 21 01:28	2° \approx 003'08	4.16401 AU	conjunction		3633 Jan 11 22:35	21° \approx 0348'51	0°05'52
opposition	3627 Jan 22 09:10	1° \approx 052'23	0°07'28	minimum elong		3633 Jan 11 22:36	21° \approx 0348'52	0°05'53

behind sun begin	3633 Jan 11 14:59	21°  44'33	morning rise	3638 Jul 23 21:45	22°  40'15	
behind sun end	3633 Jan 12 06:12	21°  53'10		3638 Aug 26 02:28	0° 	
morning rise	3633 Jan 24 14:24	24°  41'26	asc. node	3638 Oct 08 12:41	7°  49'06	
	3633 Feb 17 15:10	0° 	retrograde	3638 Nov 28 08:13	11°  44'27	
desc. node	3633 Mar 20 01:01	5°  59'44	min. Earth dist.	3639 Jan 25 16:46	6°  51'31	4.17994 AU
retrograde	3633 May 29 11:22	12°  55'01	opposition	3639 Jan 27 00:25	6°  40'48	0°14'42
opposition	3633 Jul 29 07:07	8°  01'35 -0°16'56	direct	3639 Mar 27 07:46	1°  40'29	
min. Earth dist.	3633 Jul 30 14:58	7°  51'22 4.19045 AU		3639 Jul 08 03:32	15° 	
direct	3633 Sep 28 10:27	3°  04'26	evening set	3639 Aug 01 01:00	20°  11'48	
	3634 Jan 01 16:00	15° 				
evening set	3634 Jan 31 19:52	21°  47'13	conjunction	3639 Aug 14 16:34	23°  14'34	0°26'45
max. Earth dist.	3634 Feb 12 02:40	24°  26'00 6.11447 AU	minimum elong	3639 Aug 14 16:33	23°  14'34	0°26'45
			max. Earth dist.	3639 Aug 16 06:24	23°  35'43	6.25748 AU
conjunction	3634 Feb 13 14:02	24°  46'48 -0°28'18	morning rise	3639 Aug 28 07:23	26°  16'39	
minimum elong	3634 Feb 13 14:00	24°  46'47 0°28'18		3639 Sep 14 08:51	0° 	
morning rise	3634 Feb 26 09:01	27°  47'05	retrograde	3639 Dec 30 07:14	14°  11'36	
	3634 Mar 07 21:55	0° 	opposition	3640 Feb 28 05:38	9°  11'09	0°59'46
retrograde	3634 Jul 04 22:50	17°  12'24	min. Earth dist.	3640 Feb 27 13:25	9°  16'34	4.32830 AU
opposition	3634 Sep 03 08:39	12°  16'13 -1°04'31	direct	3640 Apr 28 23:12	4°  10'05	
min. Earth dist.	3634 Sep 04 00:07	12°  11'10 4.04366 AU	evening set	3640 Sep 02 14:48	22°  10'24	
direct	3634 Nov 02 01:41	7°  21'19				
evening set	3635 Mar 07 12:52	26°  45'47	conjunction	3640 Sep 16 00:22	24°  15'32	0°51'52
			minimum elong	3640 Sep 16 00:20	24°  15'31	0°51'52
conjunction	3635 Mar 20 11:56	29°  53'04 -0°54'05	max. Earth dist.	3640 Sep 16 11:46	25°  10'44	6.38915 AU
minimum elong	3635 Mar 20 11:54	29°  53'03 0°54'05	morning rise	3640 Sep 29 07:41	27°  15'02	
max. Earth dist.	3635 Mar 20 06:06	29°  49'33 5.98685 AU		3640 Oct 09 08:16	0° 	
	3635 Mar 20 23:25	0° 	retrograde	3641 Jan 28 15:44	14°  55'39	
morning rise	3635 Apr 02 13:05	3°  01'43	opposition	3641 Mar 30 00:00	9°  58'51	1°25'10
retrograde	3635 Aug 12 03:20	23°  07'21	min. Earth dist.	3641 Mar 30 01:30	9°  58'21	4.43481 AU
opposition	3635 Oct 11 02:01	18°  07'30 -1°30'26	direct	3641 May 30 21:16	4°  56'14	
min. Earth dist.	3635 Oct 10 18:05	18°  07'31 3.94918 AU	evening set	3641 Oct 04 09:18	22°  56'13	
direct	3635 Dec 08 11:00	13°  07'44				
	3636 Mar 29 00:31	0° 	conjunction	3641 Oct 17 11:45	25°  56'13	1°01'33
evening set	3636 Apr 12 06:44	3°  24'22	minimum elong	3641 Oct 17 11:45	25°  56'12	1°01'33
			max. Earth dist.	3641 Oct 16 18:41	25°  56'01	6.46244 AU
conjunction	3636 Apr 25 13:13	6°  37'34 -0°59'52	morning rise	3641 Oct 30 11:31	28°  56'53	
minimum elong	3636 Apr 25 13:13	6°  37'35 0°59'51		3641 Nov 08 15:58	0° 	
max. Earth dist.	3636 Apr 26 16:41	6°  54'15 5.93420 AU	retrograde	3642 Feb 27 14:33	14°  56'17	
morning rise	3636 May 08 22:53	9°  52'26	opposition	3642 Apr 29 06:15	9°  56'29	1°27'05
	3636 May 30 15:25	15° 	min. Earth dist.	3642 Apr 30 02:28	9°  56'58	4.47162 AU
	3636 Aug 29 14:20	0° 	direct	3642 Jun 30 22:24	4°  56'18	
retrograde	3636 Sep 18 10:06	0°  38'43		3642 Sep 29 23:15	15° 	
	3636 Oct 08 04:18	30°  38'43	evening set	3642 Nov 04 00:54	22°  38'15	
min. Earth dist.	3636 Nov 15 20:50	25°  44'58 3.94576 AU	max. Earth dist.	3642 Nov 15 05:31	24°  37'23	6.45951 AU
opposition	3636 Nov 17 01:19	25°  35'19 -1°20'24				
direct	3637 Jan 13 21:09	20°  40'26	conjunction	3642 Nov 16 21:39	24°  59'07	0°54'38
	3637 Apr 03 14:46	0° 	minimum elong	3642 Nov 16 21:40	24°  59'08	0°54'38
evening set	3637 May 20 01:14	10°  25'22	morning rise	3642 Nov 29 15:59	27°  59'54	
				3642 Dec 10 04:44	0° 	
conjunction	3637 Jun 02 15:34	13°  40'05 -0°41'50	retrograde	3643 Mar 30 02:10	14°  59'30	
minimum elong	3637 Jun 02 15:37	13°  40'06 0°41'49	opposition	3643 May 29 23:25	9°  59'15	1°06'09
max. Earth dist.	3637 Jun 04 20:32	14°  41'14 5.97986 AU	min. Earth dist.	3643 May 31 08:37	9°  59'39	4.42971 AU
morning rise	3637 Jun 16 08:22	16°  55'56	direct	3643 Jul 31 17:35	4°  59'11	
	3637 Aug 15 23:10	0° 	evening set	3643 Dec 04 11:23	22°  59'03	
retrograde	3637 Oct 25 04:10	7°  57'53	max. Earth dist.	3643 Dec 15 02:13	24°  59'33	6.38122 AU
min. Earth dist.	3637 Dec 22 04:10	2°  57'08 4.03501 AU				
opposition	3637 Dec 23 15:53	2°  57'02 -0°38'42	conjunction	3643 Dec 17 04:55	25°  59'37	0°32'54
	3638 Jan 08 04:20	30°  57'02	minimum elong	3643 Dec 17 04:57	25°  59'38	0°32'54
direct	3638 Feb 19 21:47	27°  57'02	morning rise	3643 Dec 29 20:30	27°  59'30	
	3638 Apr 03 12:58	0° 		3644 Jan 08 13:50	0° 	
evening set	3638 Jun 26 09:01	16°  57'53	retrograde	3644 Apr 30 02:12	15°  57'15	
			opposition	3644 Jun 30 01:15	10°  57'04	0°26'16
conjunction	3638 Jul 10 02:54	19°  57'29 -0°08'17	min. Earth dist.	3644 Jul 01 14:58	10°  57'03	4.31903 AU
minimum elong	3638 Jul 10 02:54	19°  57'29 0°08'17	direct	3644 Aug 31 05:05	5°  57'53	
behind sun begin	3638 Jul 09 19:32	19°  57'15	evening set	3645 Jan 03 16:21	23°  57'05	
behind sun end	3638 Jul 10 10:16	19°  57'44	max. Earth dist.	3645 Jan 14 06:52	25°  57'00	6.24651 AU
max. Earth dist.	3638 Jul 12 10:55	20°  57'53 6.10392 AU				

conjunction	3645 Jan 16 08:54	26°  24'35	0°01'02	behind sun end	3650 Jul 15 14:53	24°  36'21	
minimum elong	3645 Jan 16 08:54	26°  24'35	0°01'02	max. Earth dist.	3650 Jul 17 12:34	25°  02'40	6.12682 AU
behind sun begin	3645 Jan 16 00:55	26°  20'03		morning rise	3650 Jul 29 01:10	27°  04'09	
behind sun end	3645 Jan 16 16:52	26°  29'07			3650 Aug 08 06:44	0° 	
desc. node	3645 Jan 27 20:29	29°  01'53		asc. node	3650 Aug 18 04:15	2°  11'22	
morning rise	3645 Jan 29 01:04	29°  18'07			3650 Nov 01 13:12	15° 	
	3645 Feb 01 02:55	0° 		retrograde	3650 Dec 02 23:25	16°  03'41'5	
	3645 Apr 22 02:13	15° 			3651 Jan 03 03:07	15°  00'00	
retrograde	3645 Jun 03 10:38	17°  41'16		min. Earth dist.	3651 Jan 30 10:47	11°  04'05'1	4.20429 AU
	3645 Jul 16 08:10	15° 		opposition	3651 Jan 31 16:11	11°  03'0'54	0°21'52
opposition	3645 Aug 03 04:31	12°  47'34	-0°24'08	direct	3651 Apr 01 05:49	6°  03'0'14	
min. Earth dist.	3645 Aug 04 11:25	12°  37'37	4.16846 AU		3651 Jun 19 04:00	15° 	
direct	3645 Oct 03 04:09	7°  50'42		evening set	3651 Aug 05 20:40	24°  05'4'31	
	3645 Dec 13 02:08	15° 					
evening set	3646 Feb 05 12:49	26°  39'56		conjunction	3651 Aug 19 11:38	27°  05'5'58	0°31'01
max. Earth dist.	3646 Feb 16 23:48	29°  21'53	6.09299 AU	minimum elong	3651 Aug 19 11:36	27°  05'5'57	0°31'00
				max. Earth dist.	3651 Aug 20 23:39	28°  01'5'59	6.28129 AU
conjunction	3646 Feb 18 07:36	29°  40'41	-0°32'42		3651 Aug 28 18:59	0° 	
minimum elong	3646 Feb 18 07:35	29°  40'40	0°32'41	morning rise	3651 Sep 02 01:22	0°  00'00'56'34	
	3646 Feb 19 16:18	0° 		retrograde	3652 Jan 03 13:20	18°  00'41'5'6	
morning rise	3646 Mar 03 03:12	2°  42'11		opposition	3652 Mar 03 14:11	13°  00'41'5'8	1°04'34
retrograde	3646 Jul 10 05:08	22°  17'49		min. Earth dist.	3652 Mar 02 23:28	13°  00'46'5'1	4.34968 AU
opposition	3646 Sep 08 13:07	17°  12'15	-1°09'53	direct	3652 May 03 11:35	8°  00'39'44	
min. Earth dist.	3646 Sep 09 01:40	17°  17'09	4.02485 AU	evening set	3652 Sep 07 02:50	26°  00'27'5'8	
direct	3646 Nov 07 00:08	12°  12'6'40					
	3647 Mar 04 10:11	0° 		conjunction	3652 Sep 20 11:13	29°  00'21'3'3	0°54'09
evening set	3647 Mar 12 13:50	1°  00'56'49		minimum elong	3652 Sep 20 11:12	29°  00'21'3'2	0°54'08
				max. Earth dist.	3652 Sep 20 17:21	29°  00'24'5'2	6.40638 AU
conjunction	3647 Mar 25 13:42	5°  00'51'0	-0°56'17		3652 Sep 23 10:02	0° 	
minimum elong	3647 Mar 25 13:40	5°  00'50'9	0°56'17	morning rise	3652 Oct 03 17:29	2°  00'13'5'4	
max. Earth dist.	3647 Mar 25 11:19	5°  03'44	5.97235 AU	retrograde	3653 Feb 01 19:54	19°  00'12'3'9	
morning rise	3647 Apr 07 16:06	8°  00'15'01		opposition	3653 Apr 03 04:33	14°  00'16'1'9	1°26'46
retrograde	3647 Aug 17 12:29	28°  00'48'24		min. Earth dist.	3653 Apr 03 09:52	14°  00'14'3'5	4.44679 AU
opposition	3647 Oct 16 10:30	23°  00'48'02	-1°31'19	direct	3653 Jun 04 06:38	9°  00'13'3'9	
min. Earth dist.	3647 Oct 15 22:46	23°  00'51'58	3.94081 AU	evening set	3653 Oct 08 15:35	26°  00'14'0'5'5	
direct	3647 Dec 13 16:13	18°  00'54'17					
	3648 Mar 10 15:28	0° 		conjunction	3653 Oct 21 17:13	29°  00'12'2'1	1°01'31
evening set	3648 Apr 17 13:32	8°  00'46'04		minimum elong	3653 Oct 21 17:13	29°  00'12'2'1	1°01'32
				max. Earth dist.	3653 Oct 20 20:02	29°  00'17'5'6	6.46812 AU
conjunction	3648 Apr 30 21:23	11°  00'59'56	-0°58'40		3653 Oct 24 02:08	0° 	
minimum elong	3648 Apr 30 21:24	11°  00'59'57	0°58'40	morning rise	3653 Nov 03 16:04	2°  00'16'2'7	
max. Earth dist.	3648 May 02 06:45	12°  00'20'12	5.93301 AU		3654 Jan 10 14:59	15° 	
	3648 May 13 06:34	15° 		retrograde	3654 Mar 03 16:59	18°  00'15'6'3'7	
morning rise	3648 May 14 08:06	15°  00'15'2'3			3654 Apr 25 23:59	15°  00'15'0'0	
	3648 Jul 22 00:04	0° 		opposition	3654 May 03 10:23	14°  00'10'3'0'3	1°25'27
retrograde	3648 Sep 23 19:09	6°  00'00'44		min. Earth dist.	3654 May 04 08:32	13°  00'15'5'5'6	4.47080 AU
min. Earth dist.	3648 Nov 21 02:25	1°  00'07'08	3.95210 AU	direct	3654 Jul 05 02:53	9°  00'10'0'5'4	
opposition	3648 Nov 22 08:15	0°  00'12'57'00	-1°16'03		3654 Sep 10 10:27	15° 	
	3648 Nov 29 09:14	30°  00'18'8		evening set	3654 Nov 08 04:55	26°  00'12'5'2'9	
direct	3649 Jan 19 04:33	26°  00'18'01'54		max. Earth dist.	3654 Nov 19 07:10	28°  00'12'49'3'6	6.45217 AU
	3649 Mar 09 20:53	0° 					
evening set	3649 May 25 09:25	15°  00'12'44'04		conjunction	3654 Nov 21 01:09	29°  00'12'2'5	0°52'25
				minimum elong	3654 Nov 21 01:10	29°  00'12'2'5	0°52'24
conjunction	3649 Jun 08 00:32	18°  00'12'58'33	-0°37'42		3654 Nov 24 16:41	0° 	
minimum elong	3649 Jun 08 00:34	18°  00'12'58'34	0°37'42	morning rise	3654 Dec 03 18:52	1°  00'12'5'8'16	
max. Earth dist.	3649 Jun 10 08:07	19°  00'12'31'38	5.99320 AU	retrograde	3655 Apr 03 09:22	18°  00'12'5'49'2'5	
morning rise	3649 Jun 21 18:05	22°  00'12'14'04		opposition	3655 Jun 03 07:07	13°  00'12'5'7'1'7	1°01'38
	3649 Jul 25 23:01	0° 		min. Earth dist.	3655 Jun 04 18:15	13°  00'12'5'46'0'5	4.41611 AU
retrograde	3649 Oct 30 02:57	12°  00'12'06'17'36		direct	3655 Aug 05 00:29	8°  00'12'5'56'2'4	
min. Earth dist.	3649 Dec 27 02:47	7°  00'12'25'20	4.05398 AU	evening set	3655 Dec 08 17:16	26°  00'12'5'37'1'4	
opposition	3649 Dec 28 15:51	7°  00'12'12'42	-0°31'20	max. Earth dist.	3655 Dec 19 05:12	28°  00'12'5'56'4'8	6.36228 AU
direct	3650 Feb 24 23:42	2° 					
evening set	3650 Jul 01 12:46	21°  00'12'22'04		conjunction	3655 Dec 21 10:27	29°  00'12'5'26'2'5	0°28'56
				minimum elong	3655 Dec 21 10:28	29°  00'12'5'26'2'5	0°28'57
conjunction	3650 Jul 15 06:33	24°  00'12'31'35	-0°03'09		3655 Dec 23 22:50	0° 	
minimum elong	3650 Jul 15 06:32	24°  00'12'31'35	0°03'08	morning rise	3656 Jan 03 02:09	2°  00'12'5'15'0'3	
behind sun begin	3650 Jul 14 22:12	24°  00'12'26'48		retrograde	3656 May 04 17:55	19°  00'12'5'34'5'7	

opposition	3656 Jul 04 15:50	14° ♁ 53'37	0°19'38	direct	3662 Mar 02 03:29	7° ♁ 20'43	
min. Earth dist.	3656 Jul 06 05:36	14° ♁ 41'33	4.29578 AU	asc. node	3662 Jun 27 09:54	24° ♁ 15'55	
direct	3656 Sep 04 16:12	9° ♁ 54'39		evening set	3662 Jul 06 15:06	26° ♁ 21'04	
desc. node	3656 Dec 08 00:30	21° ♁ 19'22					
evening set	3657 Jan 08 03:41	28° ♁ 08'39		conjunction	3662 Jul 20 08:52	29° ♁ 29'27	0°02'08
	3657 Jan 16 06:25	0° ♁		minimum elong	3662 Jul 20 08:51	29° ♁ 29'27	0°02'08
max. Earth dist.	3657 Jan 18 20:58	0° ♁ 35'55	6.22098 AU	behind sun begin	3662 Jul 20 00:28	29° ♁ 24'41	
				behind sun end	3662 Jul 20 17:14	29° ♁ 34'13	
conjunction	3657 Jan 20 20:35	1° ♁ 03'17	-0°03'53		3662 Jul 22 14:15	0° ♁	
minimum elong	3657 Jan 20 20:36	1° ♁ 03'17	0°03'54	max. Earth dist.	3662 Jul 22 14:30	0° ♁ 00'09	6.15098 AU
behind sun begin	3657 Jan 20 12:43	0° ♁ 58'46		morning rise	3662 Aug 03 02:54	2° ♁ 37'42	
behind sun end	3657 Jan 21 04:29	1° ♁ 07'48			3662 Oct 02 06:23	15° ♁	
morning rise	3657 Feb 02 13:00	3° ♁ 58'01		retrograde	3662 Dec 07 12:44	21° ♁ 19'45	
	3657 Mar 26 18:16	15° ♁		min. Earth dist.	3663 Feb 04 02:19	16° ♁ 26'22	4.22835 AU
retrograde	3657 Jun 08 12:04	22° ♁ 32'30		opposition	3663 Feb 05 06:28	16° ♁ 16'53	0°28'51
opposition	3657 Aug 08 04:09	17° ♁ 38'31	-0°31'15		3663 Feb 14 21:23	15° ♁	
min. Earth dist.	3657 Aug 09 09:08	17° ♁ 29'10	4.14262 AU	direct	3663 Apr 06 00:10	11° ♁ 15'59	
	3657 Aug 29 18:50	15° ♁			3663 May 26 04:20	15° ♁	
direct	3657 Oct 07 21:55	12° ♁ 42'03		evening set	3663 Aug 10 15:30	29° ♁ 33'53	
	3657 Nov 15 11:22	15° ♁			3663 Aug 12 14:56	0° ♁	
	3658 Feb 03 07:31	0° ♁					
evening set	3658 Feb 10 08:31	1° ♁ 38'58		conjunction	3663 Aug 24 05:28	2° ♁ 34'02	0°35'05
max. Earth dist.	3658 Feb 21 22:44	4° ♁ 23'44	6.06910 AU	minimum elong	3663 Aug 24 05:26	2° ♁ 34'01	0°35'05
				max. Earth dist.	3663 Aug 25 12:01	2° ♁ 50'57	6.30327 AU
conjunction	3658 Feb 23 03:46	4° ♁ 40'59	-0°36'54	morning rise	3663 Sep 06 18:21	5° ♁ 33'19	
minimum elong	3658 Feb 23 03:44	4° ♁ 40'58	0°36'54	retrograde	3664 Jan 07 20:53	23° ♁ 10'17	
morning rise	3658 Mar 08 00:21	7° ♁ 43'55		opposition	3664 Mar 07 22:17	18° ♁ 10'51	1°09'01
retrograde	3658 Jul 15 14:09	27° ♁ 30'46		min. Earth dist.	3664 Mar 07 11:06	18° ♁ 14'34	4.36812 AU
opposition	3658 Sep 13 20:57	22° ♁ 33'39	-1°14'48	direct	3664 May 08 00:50	13° ♁ 08'30	
min. Earth dist.	3658 Sep 14 05:21	22° ♁ 30'53	4.00532 AU		3664 Sep 07 12:28	0° ♁	
direct	3658 Nov 12 02:29	17° ♁ 39'18		evening set	3664 Sep 11 14:29	0° ♁ 52'34	
	3659 Feb 14 14:35	0° ♁					
evening set	3659 Mar 17 17:59	7° ♁ 15'03		conjunction	3664 Sep 24 22:03	3° ♁ 45'14	0°56'10
				minimum elong	3664 Sep 24 22:02	3° ♁ 45'13	0°56'10
conjunction	3659 Mar 30 19:02	10° ♁ 24'31	-0°58'03	max. Earth dist.	3664 Sep 25 01:04	3° ♁ 46'52	6.41996 AU
minimum elong	3659 Mar 30 19:02	10° ♁ 24'30	0°58'03	morning rise	3664 Oct 08 03:04	6° ♁ 36'36	
max. Earth dist.	3659 Mar 30 23:48	10° ♁ 27'24	5.95923 AU	retrograde	3665 Feb 05 23:07	23° ♁ 31'01	
morning rise	3659 Apr 12 22:26	13° ♁ 35'26		opposition	3665 Apr 07 09:49	18° ♁ 35'11	1°27'59
	3659 Jul 01 02:53	0° ♁		min. Earth dist.	3665 Apr 07 17:01	18° ♁ 32'50	4.45492 AU
retrograde	3659 Aug 23 02:20	4° ♁ 14'20		direct	3665 Jun 08 13:23	13° ♁ 32'35	
	3659 Oct 16 01:53	30° ♁			3665 Oct 08 09:01	0° ♁	
opposition	3659 Oct 21 21:35	29° ♁ 13'24	-1°31'22	evening set	3665 Oct 12 22:54	0° ♁ 58'29	
min. Earth dist.	3659 Oct 21 07:00	29° ♁ 18'17	3.93581 AU				
direct	3659 Dec 19 01:13	24° ♁ 19'37		conjunction	3665 Oct 25 23:33	3° ♁ 46'29	1°01'12
	3660 Feb 17 05:36	0° ♁		minimum elong	3665 Oct 25 23:34	3° ♁ 46'29	1°01'12
evening set	3660 Apr 22 22:56	14° ♁ 11'51		max. Earth dist.	3665 Oct 24 22:01	3° ♁ 32'43	6.47016 AU
	3660 Apr 26 06:41	15° ♁		morning rise	3665 Nov 07 21:38	6° ♁ 33'12	
					3665 Dec 19 16:15	15° ♁	
conjunction	3660 May 06 07:50	17° ♁ 26'05	-0°56'56	retrograde	3666 Mar 07 23:42	23° ♁ 13'27	
minimum elong	3660 May 06 07:52	17° ♁ 26'06	0°56'57	opposition	3666 May 07 16:37	18° ♁ 20'15	1°23'22
max. Earth dist.	3660 May 07 21:37	17° ♁ 48'59	5.93636 AU	min. Earth dist.	3666 May 08 18:04	18° ♁ 12'06	4.46674 AU
morning rise	3660 May 19 19:50	20° ♁ 41'54			3666 Jun 05 06:03	15° ♁	
	3660 Jun 29 10:44	0° ♁		direct	3666 Jul 09 10:57	13° ♁ 18'14	
retrograde	3660 Sep 29 01:41	11° ♁ 23'36			3666 Aug 12 19:30	15° ♁	
min. Earth dist.	3660 Nov 26 06:33	6° ♁ 30'40	3.96344 AU		3666 Nov 09 00:30	0° ♁	
opposition	3660 Nov 27 15:24	6° ♁ 19'31	-1°11'00	evening set	3666 Nov 12 11:04	0° ♁ 44'28	
direct	3661 Jan 24 11:03	1° ♁ 24'03		max. Earth dist.	3666 Nov 23 09:44	3° ♁ 07'02	6.44218 AU
evening set	3661 May 30 17:50	21° ♁ 01'36					
				conjunction	3666 Nov 25 06:47	3° ♁ 31'34	0°49'52
conjunction	3661 Jun 13 09:34	24° ♁ 15'32	-0°33'15	minimum elong	3666 Nov 25 06:49	3° ♁ 31'35	0°49'52
minimum elong	3661 Jun 13 09:36	24° ♁ 15'33	0°33'15	morning rise	3666 Dec 08 00:07	6° ♁ 17'40	
max. Earth dist.	3661 Jun 15 17:37	24° ♁ 48'45	6.01105 AU	retrograde	3667 Apr 07 19:23	23° ♁ 13'16	
morning rise	3661 Jun 27 03:37	27° ♁ 30'23		opposition	3667 Jun 07 17:28	18° ♁ 21'13	0°56'38
	3661 Jul 07 20:42	0° ♁		min. Earth dist.	3667 Jun 09 05:09	18° ♁ 09'50	4.40088 AU
retrograde	3661 Nov 04 01:25	17° ♁ 23'59		direct	3667 Aug 09 08:17	13° ♁ 20'33	
min. Earth dist.	3662 Jan 01 02:43	12° ♁ 31'28	4.07596 AU		3667 Dec 08 02:09	0° ♁	
opposition	3662 Jan 02 14:56	12° ♁ 19'07	-0°23'45	evening set	3667 Dec 13 01:41	1° ♁ 05'52	

max. Earth dist.	3667 Dec 23 14:35	3°♁26'35	6.34300 AU	max. Earth dist.	3673 Jun 21 00:31	29°♊56'31	6.03061 AU
					3673 Jun 21 06:25	0°♁	
conjunction	3667 Dec 25 18:47	3°♁55'45	0°24'41	morning rise	3673 Jul 02 08:50	2°♁36'25	
minimum elong	3667 Dec 25 18:49	3°♁55'46	0°24'42	retrograde	3673 Nov 08 19:54	22°♁19'36	
morning rise	3668 Jan 07 10:20	6°♁45'09		min. Earth dist.	3674 Jan 05 21:47	17°♁27'01	4.09809 AU
retrograde	3668 May 09 12:45	24°♁24'23		opposition	3674 Jan 07 09:23	17°♁14'54	-0°16'18
opposition	3668 Jul 09 09:29	19°♁32'00	0°12'39	direct	3674 Mar 07 01:25	12°♁16'06	
min. Earth dist.	3668 Jul 10 23:10	19°♁19'58	4.27368 AU	asc. node	3674 May 07 23:35	17°♁57'58	
direct	3668 Sep 09 06:07	14°♁33'26			3674 Jul 06 09:47	0°♊	
desc. node	3668 Oct 17 03:34	16°♁42'02		evening set	3674 Jul 11 13:32	1°♊09'49	
	3668 Dec 30 22:29	0°♁					
evening set	3669 Jan 12 17:36	2°♁53'43		conjunction	3674 Jul 25 06:54	4°♊17'03	0°07'06
max. Earth dist.	3669 Jan 23 11:42	5°♁22'17	6.19794 AU	minimum elong	3674 Jul 25 06:53	4°♊17'02	0°07'05
				behind sun begin	3674 Jul 24 23:11	4°♊12'41	
conjunction	3669 Jan 25 10:34	5°♁49'21	-0°08'49	behind sun end	3674 Jul 25 14:34	4°♊21'23	
minimum elong	3669 Jan 25 10:34	5°♁49'21	0°08'48	max. Earth dist.	3674 Jul 27 08:25	4°♊45'13	6.17363 AU
behind sun begin	3669 Jan 25 03:38	5°♁45'22		morning rise	3674 Aug 08 00:38	7°♊24'05	
behind sun end	3669 Jan 25 17:29	5°♁53'20			3674 Sep 12 03:13	15°♊	
morning rise	3669 Feb 07 03:33	8°♁45'14		retrograde	3674 Dec 11 22:07	25°♊56'03	
	3669 Mar 07 03:16	15°♁		opposition	3675 Feb 09 17:12	20°♊53'35	0°35'23
retrograde	3669 Jun 13 14:39	27°♁30'20		min. Earth dist.	3675 Feb 08 15:31	21°♊02'14	4.24953 AU
opposition	3669 Aug 13 05:59	22°♁35'58	-0°38'21	direct	3675 Apr 10 15:31	15°♊52'22	
min. Earth dist.	3669 Aug 14 07:48	22°♁27'37	4.12064 AU		3675 Jul 27 08:22	0°♋	
direct	3669 Oct 12 18:10	17°♁39'52		evening set	3675 Aug 15 06:39	4°♋05'00	
	3670 Jan 16 21:03	0°♋					
evening set	3670 Feb 15 05:50	6°♋43'01		conjunction	3675 Aug 28 20:02	7°♋04'05	0°38'49
max. Earth dist.	3670 Feb 27 02:44	9°♋32'21	6.05045 AU	minimum elong	3675 Aug 28 20:00	7°♋04'04	0°38'49
				max. Earth dist.	3675 Aug 29 23:35	7°♋19'17	6.32151 AU
conjunction	3670 Feb 28 01:49	9°♋46'07	-0°40'55	morning rise	3675 Sep 11 07:47	10°♋02'10	
minimum elong	3670 Feb 28 01:47	9°♋46'06	0°40'55	retrograde	3676 Jan 12 01:44	27°♋32'13	
morning rise	3670 Mar 12 23:02	12°♋50'11		opposition	3676 Mar 12 04:12	22°♋33'22	1°12'59
	3670 Jun 08 11:25	0°♌		min. Earth dist.	3676 Mar 11 19:22	22°♋36'17	4.38226 AU
retrograde	3670 Jul 21 00:22	2°♌45'51		direct	3676 May 12 09:50	17°♋30'57	
	3670 Sep 01 21:19	30°♋♋			3676 Aug 22 04:08	0°♌	
opposition	3670 Sep 19 04:54	27°♋48'14	-1°19'10	evening set	3676 Sep 16 00:16	5°♌12'09	
min. Earth dist.	3670 Sep 19 10:31	27°♋46'23	3.99214 AU				
direct	3670 Nov 17 07:04	22°♋54'07		conjunction	3676 Sep 29 06:44	8°♌04'04	0°57'50
	3671 Jan 25 00:10	0°♌		minimum elong	3676 Sep 29 06:43	8°♌04'04	0°57'50
evening set	3671 Mar 22 22:02	12°♌33'00		max. Earth dist.	3676 Sep 29 03:57	8°♌02'34	6.42895 AU
				morning rise	3676 Oct 12 10:56	10°♌54'43	
conjunction	3671 Apr 04 23:58	15°♌43'11	-0°59'22	retrograde	3677 Feb 10 04:05	27°♌46'18	
minimum elong	3671 Apr 04 23:57	15°♌43'11	0°59'22	opposition	3677 Apr 11 14:22	22°♌50'55	1°28'43
max. Earth dist.	3671 Apr 05 09:11	15°♌48'47	5.95267 AU	min. Earth dist.	3677 Apr 12 01:04	22°♌47'26	4.45859 AU
morning rise	3671 Apr 18 04:38	18°♌54'57		direct	3677 Jun 12 21:01	17°♌48'19	
	3671 Jun 06 07:24	0°♍			3677 Sep 22 01:52	0°♍	
retrograde	3671 Aug 28 10:43	9°♍36'11		evening set	3677 Oct 17 05:26	5°♍14'07	
min. Earth dist.	3671 Oct 26 11:19	4°♍40'59	3.93697 AU	max. Earth dist.	3677 Oct 29 01:46	7°♍46'58	6.46829 AU
opposition	3671 Oct 27 06:04	4°♍34'41	-1°30'39				
	3671 Dec 10 16:22	30°♍♌		conjunction	3677 Oct 30 05:30	8°♍01'55	1°00'32
direct	3671 Dec 24 06:43	29°♌40'46		minimum elong	3677 Oct 30 05:31	8°♍01'55	1°00'31
	3672 Jan 06 22:18	0°♍		morning rise	3677 Nov 12 02:42	10°♍48'26	
	3672 Apr 09 03:17	15°♍			3677 Dec 02 01:09	15°♍	
evening set	3672 Apr 28 05:41	19°♍31'17		retrograde	3678 Mar 12 04:40	27°♍29'53	
				opposition	3678 May 11 23:03	22°♍36'56	1°20'51
conjunction	3672 May 11 15:35	22°♍45'36	-0°54'48	min. Earth dist.	3678 May 13 01:19	22°♍28'31	4.45973 AU
minimum elong	3672 May 11 15:37	22°♍45'37	0°54'47	direct	3678 Jul 13 16:18	17°♍35'07	
max. Earth dist.	3672 May 13 08:46	23°♍10'29	5.94491 AU		3678 Oct 23 17:28	0°♎	
morning rise	3672 May 25 04:33	26°♍01'25		evening set	3678 Nov 16 17:21	5°♎03'39	
	3672 Jun 11 00:25	0°♏		max. Earth dist.	3678 Nov 27 14:12	7°♎25'40	6.43058 AU
retrograde	3672 Oct 04 04:25	16°♏37'29					
min. Earth dist.	3672 Dec 01 08:58	11°♏44'29	3.97820 AU	conjunction	3678 Nov 29 12:32	7°♎51'00	0°47'02
opposition	3672 Dec 02 18:30	11°♏33'03	-1°05'31	minimum elong	3678 Nov 29 12:33	7°♎51'01	0°47'03
direct	3673 Jan 29 16:45	6°♏37'10		morning rise	3678 Dec 12 05:31	10°♎37'26	
evening set	3673 Jun 04 22:10	26°♏09'06		retrograde	3679 Apr 12 07:44	27°♎37'59	
				opposition	3679 Jun 12 04:57	22°♎46'00	0°51'16
conjunction	3673 Jun 18 14:35	29°♏22'23	-0°28'42	min. Earth dist.	3679 Jun 13 18:03	22°♎34'11	4.38530 AU
minimum elong	3673 Jun 18 14:36	29°♏22'24	0°28'42	direct	3679 Aug 13 18:44	17°♎45'38	

	3679 Nov 21 13:09	0°♁		conjunction	3685 Jun 23 18:44	4°♁27'23 -0°23'58	
evening set	3679 Dec 17 10:30	5°♁35'10		minimum elong	3685 Jun 23 18:45	4°♁27'24 0°23'58	
max. Earth dist.	3679 Dec 27 22:33	7°♁56'03	6.32463 AU	max. Earth dist.	3685 Jun 26 03:14	5°♁00'33	6.04688 AU
				morning rise	3685 Jul 07 13:28	7°♁40'48	
conjunction	3679 Dec 30 03:26	8°♁25'43	0°20'17	retrograde	3685 Nov 13 13:00	27°♁15'11	
minimum elong	3679 Dec 30 03:27	8°♁25'44	0°20'17	min. Earth dist.	3686 Jan 10 16:32	22°♁22'33	4.11656 AU
morning rise	3680 Jan 11 19:04	11°♁15'52		opposition	3686 Jan 12 03:31	22°♁10'38	-0°08'46
retrograde	3680 May 14 06:43	29°♁03'06		direct	3686 Mar 11 22:41	17°♁11'26	
opposition	3680 Jul 14 03:31	24°♁10'28	0°05'33	asc. node	3686 Mar 18 02:19	17°♁15'16	
min. Earth dist.	3680 Jul 15 15:10	23°♁59'04	4.25367 AU		3686 Jun 19 04:51	0°♁	
desc. node	3680 Aug 26 15:09	19°♁43'01		evening set	3686 Jul 16 12:11	6°♁00'04	
direct	3680 Sep 13 19:30	19°♁12'14					
	3680 Dec 13 14:24	0°♁		conjunction	3686 Jul 30 05:24	9°♁06'21	0°12'01
evening set	3681 Jan 17 07:27	7°♁37'56		minimum elong	3686 Jul 30 05:23	9°♁06'20	0°12'01
max. Earth dist.	3681 Jan 28 05:37	10°♁09'29	6.17794 AU	behind sun begin	3686 Jul 29 23:48	9°♁03'11	
				behind sun end	3686 Jul 30 10:58	9°♁09'29	
conjunction	3681 Jan 30 00:43	10°♁34'29	-0°13'40	max. Earth dist.	3686 Aug 01 05:02	9°♁33'21	6.19285 AU
minimum elong	3681 Jan 30 00:42	10°♁34'29	0°13'39	morning rise	3686 Aug 12 22:26	12°♁12'15	
behind sun begin	3681 Jan 29 20:13	10°♁31'53			3686 Aug 25 12:21	15°♁	
behind sun end	3681 Jan 30 05:11	10°♁37'04			3686 Nov 27 06:14	0°♁	
morning rise	3681 Feb 11 17:56	13°♁31'21		retrograde	3686 Dec 16 09:52	0°♁35'32	
	3681 Feb 18 04:19	15°♁			3687 Jan 04 08:47	30°♁	
	3681 May 09 16:00	0°♁		min. Earth dist.	3687 Feb 13 05:37	25°♁41'24	4.26775 AU
retrograde	3681 Jun 18 17:42	2°♁25'50		opposition	3687 Feb 14 04:59	25°♁33'34	0°41'46
	3681 Jul 29 03:38	30°♁		direct	3687 Apr 15 07:32	20°♁32'09	
opposition	3681 Aug 18 07:12	27°♁31'06	-0°45'08		3687 Jul 09 04:27	0°♁	
min. Earth dist.	3681 Aug 19 07:23	27°♁23'16	4.10206 AU	evening set	3687 Aug 19 23:29	8°♁40'31	
direct	3681 Oct 17 15:25	22°♁35'21					
	3681 Dec 28 05:52	0°♁		conjunction	3687 Sep 02 11:55	11°♁38'35	0°42'23
evening set	3682 Feb 20 02:07	11°♁43'31		minimum elong	3687 Sep 02 11:53	11°♁38'34	0°42'23
				max. Earth dist.	3687 Sep 03 10:50	11°♁51'11	6.33729 AU
conjunction	3682 Mar 04 22:37	14°♁47'34	-0°44'36	morning rise	3687 Sep 15 22:49	14°♁35'39	
minimum elong	3682 Mar 04 22:36	14°♁47'33	0°44'36		3687 Dec 11 09:16	0°♁	
max. Earth dist.	3682 Mar 04 02:24	14°♁35'28	6.03475 AU	retrograde	3688 Jan 16 08:15	1°♁59'34	
morning rise	3682 Mar 17 20:48	17°♁52'43			3688 Feb 21 04:33	30°♁	
	3682 May 12 05:29	0°♁		opposition	3688 Mar 16 11:52	27°♁01'12	1°16'37
retrograde	3682 Jul 26 06:41	7°♁56'08		min. Earth dist.	3688 Mar 16 05:32	27°♁03'18	4.39487 AU
opposition	3682 Sep 24 10:51	2°♁58'01	-1°22'51	direct	3688 May 16 21:07	21°♁58'44	
min. Earth dist.	3682 Sep 24 12:16	2°♁57'33	3.98103 AU		3688 Aug 03 11:22	0°♁	
	3682 Oct 18 15:14	30°♁		evening set	3688 Sep 20 11:43	9°♁37'25	
direct	3682 Nov 22 08:01	28°♁04'03					
	3682 Dec 26 15:58	0°♁		conjunction	3688 Oct 03 17:24	12°♁28'39	0°59'13
evening set	3683 Mar 28 00:20	17°♁45'42		minimum elong	3688 Oct 03 17:23	12°♁28'38	0°59'14
				max. Earth dist.	3688 Oct 03 12:31	12°♁26'01	6.43774 AU
conjunction	3683 Apr 10 03:15	20°♁56'36	-1°00'11	morning rise	3688 Oct 16 20:24	15°♁18'32	
minimum elong	3683 Apr 10 03:15	20°♁56'36	1°00'12		3689 Jan 07 22:59	0°♁	
max. Earth dist.	3683 Apr 10 17:15	21°♁05'06	5.94711 AU	retrograde	3689 Feb 14 09:00	2°♁07'15	
morning rise	3683 Apr 23 08:57	24°♁09'06			3689 Mar 23 20:35	30°♁	
	3683 May 18 04:59	0°♁		opposition	3689 Apr 15 20:59	27°♁12'18	1°29'01
retrograde	3683 Sep 02 18:00	14°♁52'34		min. Earth dist.	3689 Apr 16 09:13	27°♁08'20	4.46342 AU
opposition	3683 Nov 01 12:11	9°♁50'35	-1°29'14	direct	3689 Jun 17 05:36	22°♁09'53	
min. Earth dist.	3683 Oct 31 15:35	9°♁57'31	3.93764 AU		3689 Sep 03 11:24	0°♁	
direct	3683 Dec 29 11:55	4°♁56'29		evening set	3689 Oct 21 13:32	9°♁34'46	
	3684 Mar 21 14:06	15°♁		max. Earth dist.	3689 Nov 02 05:22	12°♁05'21	6.46899 AU
evening set	3684 May 03 10:55	24°♁46'02					
				conjunction	3689 Nov 03 12:36	12°♁22'12	0°59'34
conjunction	3684 May 16 22:01	28°♁00'33	-0°52'15	minimum elong	3689 Nov 03 12:36	12°♁22'12	0°59'34
minimum elong	3684 May 16 22:02	28°♁00'34	0°52'15		3689 Nov 15 17:28	15°♁	
max. Earth dist.	3684 May 18 19:27	28°♁27'57	5.95175 AU	morning rise	3689 Nov 16 09:10	15°♁08'25	
	3684 May 25 04:20	0°♁			3690 Feb 09 15:08	0°♁	
morning rise	3684 May 30 11:53	1°♁16'28		retrograde	3690 Mar 16 12:37	1°♁50'11	
retrograde	3684 Oct 09 06:58	21°♁47'38			3690 Apr 20 12:12	30°♁	
min. Earth dist.	3684 Dec 06 09:19	16°♁54'48	3.99046 AU	opposition	3690 May 16 07:07	26°♁57'27	1°17'55
opposition	3684 Dec 07 19:46	16°♁43'05	-0°59'38	min. Earth dist.	3690 May 17 11:32	26°♁48'21	4.45649 AU
direct	3685 Feb 03 18:58	11°♁46'51		direct	3690 Jul 18 01:57	21°♁55'48	
	3685 Jun 04 17:41	0°♁			3690 Oct 05 10:21	0°♁	
evening set	3685 Jun 10 01:59	1°♁14'39		evening set	3690 Nov 21 00:04	9°♁25'01	

max. Earth dist.	3690 Dec 01 19:59	11° \mathbb{A} 46'48	6.42374 AU	evening set	3696 May 08 12:21	29° \mathbb{B} 49'54	
					3696 May 09 05:12	0° \mathbb{H}	
conjunction	3690 Dec 03 18:49	12° \mathbb{A} 12'27	0°44'01				
minimum elong	3690 Dec 03 18:51	12° \mathbb{A} 12'28	0°44'01	conjunction	3696 May 22 00:21	3° \mathbb{H} 04'42	-0°49'26
morning rise	3690 Dec 16 11:17	14° \mathbb{A} 58'58		minimum elong	3696 May 22 00:23	3° \mathbb{H} 04'44	0°49'26
	3691 Mar 10 19:12	0° \mathbb{B}		max. Earth dist.	3696 May 23 22:32	3° \mathbb{H} 32'30	5.95572 AU
retrograde	3691 Apr 16 17:05	2° \mathbb{B} 02'45		morning rise	3696 Jun 04 15:24	6° \mathbb{H} 20'56	
	3691 May 23 22:44	30° \mathbb{R} \mathbb{A}		retrograde	3696 Oct 14 04:39	26° \mathbb{H} 48'36	
opposition	3691 Jun 16 16:05	27° \mathbb{A} 10'43	0°45'44	min. Earth dist.	3696 Dec 11 06:00	21° \mathbb{H} 55'59	3.99883 AU
min. Earth dist.	3691 Jun 18 04:23	26° \mathbb{A} 59'09	4.37530 AU	opposition	3696 Dec 12 17:26	21° \mathbb{H} 43'54	-0°53'35
direct	3691 Aug 18 03:34	22° \mathbb{A} 10'37		direct	3697 Feb 08 17:37	16° \mathbb{H} 47'16	
	3691 Nov 03 03:37	0° \mathbb{B}			3697 May 18 18:40	0° \mathbb{B}	
evening set	3691 Dec 21 18:16	10° \mathbb{B} 02'21		evening set	3697 Jun 15 03:09	6° \mathbb{B} 12'42	
max. Earth dist.	3692 Jan 01 07:14	12° \mathbb{B} 24'10	6.31223 AU				
				conjunction	3697 Jun 28 20:34	9° \mathbb{B} 25'08	-0°19'14
conjunction	3692 Jan 03 10:55	12° \mathbb{B} 53'16	0°15'54	minimum elong	3697 Jun 28 20:36	9° \mathbb{B} 25'09	0°19'14
minimum elong	3692 Jan 03 10:56	12° \mathbb{B} 53'17	0°15'54	max. Earth dist.	3697 Jul 01 05:42	9° \mathbb{B} 58'34	6.05915 AU
behind sun begin	3692 Jan 03 09:16	12° \mathbb{B} 52'21		morning rise	3697 Jul 12 15:26	12° \mathbb{B} 38'04	
behind sun end	3692 Jan 03 12:36	12° \mathbb{B} 54'13			3697 Oct 12 22:15	0° \mathbb{Q}	
morning rise	3692 Jan 16 02:29	15° \mathbb{B} 43'53		retrograde	3697 Nov 18 06:25	2° \mathbb{Q} 05'15	
	3692 Mar 30 06:48	0° \mathbb{A}			3697 Dec 24 07:20	30° \mathbb{R} \mathbb{B}	
retrograde	3692 May 18 23:31	3° \mathbb{A} 37'05		min. Earth dist.	3698 Jan 15 10:21	27° \mathbb{B} 12'20	4.13125 AU
desc. node	3692 Jul 08 07:41	0° \mathbb{A} 03'44		opposition	3698 Jan 16 19:50	27° \mathbb{B} 00'57	-0°01'26
	3692 Jul 08 19:51	30° \mathbb{R} \mathbb{B}		asc. node	3698 Jan 27 11:32	25° \mathbb{B} 35'22	
opposition	3692 Jul 18 19:43	28° \mathbb{B} 44'14	-0°01'21	direct	3698 Mar 16 18:39	22° \mathbb{B} 01'26	
min. Earth dist.	3692 Jul 20 07:26	28° \mathbb{B} 32'48	4.23938 AU		3698 May 31 00:41	0° \mathbb{Q}	
direct	3692 Sep 18 09:47	23° \mathbb{B} 46'17		evening set	3698 Jul 21 09:49	10° \mathbb{Q} 46'19	
	3692 Nov 23 19:53	0° \mathbb{A}					
evening set	3693 Jan 21 18:27	12° \mathbb{A} 15'20		conjunction	3698 Aug 04 02:42	13° \mathbb{Q} 51'46	0°16'44
max. Earth dist.	3693 Feb 01 17:51	14° \mathbb{A} 48'07	6.16292 AU	minimum elong	3698 Aug 04 02:40	13° \mathbb{Q} 51'45	0°16'44
	3693 Feb 02 14:16	15° \mathbb{A}		max. Earth dist.	3698 Aug 06 00:15	14° \mathbb{Q} 17'29	6.20882 AU
					3698 Aug 09 03:36	15° \mathbb{Q}	
conjunction	3693 Feb 03 11:50	15° \mathbb{A} 12'33	-0°18'14	morning rise	3698 Aug 17 19:18	16° \mathbb{Q} 56'45	
minimum elong	3693 Feb 03 11:49	15° \mathbb{A} 12'32	0°18'14		3698 Oct 22 04:50	0° \mathbb{P}	
morning rise	3693 Feb 16 05:30	18° \mathbb{A} 10'13		retrograde	3698 Dec 20 19:13	5° \mathbb{P} 12'22	
	3693 Apr 12 22:43	0° \mathbb{H}		opposition	3699 Feb 18 16:01	0° \mathbb{P} 10'48	0°47'44
retrograde	3693 Jun 23 14:08	7° \mathbb{H} 12'18		min. Earth dist.	3699 Feb 17 17:39	0° \mathbb{P} 18'18	4.28367 AU
opposition	3693 Aug 23 04:23	2° \mathbb{H} 17'08	-0°51'18		3699 Feb 20 00:15	30° \mathbb{R} \mathbb{Q}	
min. Earth dist.	3693 Aug 24 01:33	2° \mathbb{H} 10'16	4.08752 AU	direct	3699 Apr 19 21:42	25° \mathbb{Q} 09'11	
	3693 Sep 10 12:02	30° \mathbb{R} \mathbb{A}			3699 Jun 17 06:11	0° \mathbb{P}	
direct	3693 Oct 22 07:45	27° \mathbb{A} 21'38		evening set	3699 Aug 24 15:27	13° \mathbb{P} 13'46	
	3693 Dec 02 09:52	0° \mathbb{H}					
evening set	3694 Feb 24 18:30	16° \mathbb{H} 33'36		conjunction	3699 Sep 07 03:06	16° \mathbb{P} 10'54	0°45'37
				minimum elong	3699 Sep 07 03:04	16° \mathbb{P} 10'53	0°45'37
conjunction	3694 Mar 09 15:37	19° \mathbb{H} 38'27	-0°47'47	max. Earth dist.	3699 Sep 07 23:09	16° \mathbb{P} 21'54	6.35202 AU
minimum elong	3694 Mar 09 15:35	19° \mathbb{H} 38'26	0°47'46	morning rise	3699 Sep 20 12:55	19° \mathbb{P} 06'54	
max. Earth dist.	3694 Mar 08 23:11	19° \mathbb{H} 28'36	6.02197 AU		3699 Nov 14 02:38	0° \mathbb{B}	
morning rise	3694 Mar 22 14:30	22° \mathbb{H} 44'30		retrograde	3700 Jan 20 15:09	6° \mathbb{B} 24'58	
	3694 Apr 23 02:36	0° \mathbb{Y}		opposition	3700 Mar 21 19:26	1° \mathbb{B} 27'05	1°19'42
retrograde	3694 Jul 31 09:34	12° \mathbb{Y} 54'36		min. Earth dist.	3700 Mar 21 15:36	1° \mathbb{B} 28'21	4.40720 AU
opposition	3694 Sep 29 11:44	7° \mathbb{Y} 55'57	-1°25'45		3700 Apr 02 00:15	30° \mathbb{R} \mathbb{P}	
min. Earth dist.	3694 Sep 29 11:29	7° \mathbb{Y} 56'02	3.97125 AU	direct	3700 May 22 09:11	26° \mathbb{P} 24'35	
direct	3694 Nov 27 06:24	3° \mathbb{Y} 02'01			3700 Jul 11 20:32	0° \mathbb{B}	
evening set	3695 Apr 01 22:12	22° \mathbb{Y} 46'18		evening set	3700 Sep 25 22:20	14° \mathbb{B} 00'23	
conjunction	3695 Apr 15 02:15	25° \mathbb{Y} 57'59	-1°00'32	conjunction	3700 Oct 09 02:57	16° \mathbb{B} 50'52	1°00'14
minimum elong	3695 Apr 15 02:15	25° \mathbb{Y} 57'59	1°00'32	minimum elong	3700 Oct 09 02:56	16° \mathbb{B} 50'52	1°00'14
max. Earth dist.	3695 Apr 15 20:20	26° \mathbb{Y} 08'58	5.94133 AU	max. Earth dist.	3700 Oct 08 17:58	16° \mathbb{B} 46'01	6.44644 AU
morning rise	3695 Apr 28 09:04	29° \mathbb{Y} 11'16		morning rise	3700 Oct 22 05:03	19° \mathbb{B} 40'02	
	3695 May 01 18:02	0° \mathbb{B}			3700 Dec 13 14:05	0° \mathbb{M}	
	3695 Jul 12 10:03	15° \mathbb{B}		retrograde	3701 Feb 19 13:40	6° \mathbb{M} 25'53	
retrograde	3695 Sep 07 20:50	19° \mathbb{B} 56'55		opposition	3701 Apr 21 03:03	1° \mathbb{M} 31'14	1°28'47
	3695 Nov 05 21:14	15° \mathbb{R} \mathbb{B}		min. Earth dist.	3701 Apr 21 17:33	1° \mathbb{M} 26'32	4.46787 AU
opposition	3695 Nov 06 13:21	14° \mathbb{B} 54'34	-1°27'13		3701 May 03 01:56	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	3695 Nov 05 14:47	15° \mathbb{B} 02'10	3.93677 AU	direct	3701 Jun 22 14:03	26° \mathbb{B} 28'49	
direct	3696 Jan 03 10:50	10° \mathbb{B} 00'19			3701 Aug 12 00:36	0° \mathbb{M}	
	3696 Feb 28 14:53	15° \mathbb{B}		evening set	3701 Oct 26 20:22	13° \mathbb{M} 52'48	

	3701 Nov 01 01:33	15°♄		conjunction	3707 Apr 21 08:06	1°♄16'56	-1°00'25
max. Earth dist.	3701 Nov 07 10:18	16°♄22'24	6.46857 AU	minimum elong	3707 Apr 21 08:06	1°♄16'56	1°00'25
				max. Earth dist.	3707 Apr 22 05:36	1°♄30'01	5.93541 AU
conjunction	3701 Nov 08 18:49	16°♄39'58	0°58'16	morning rise	3707 May 04 16:16	4°♄31'05	
minimum elong	3701 Nov 08 18:50	16°♄39'59	0°58'16		3707 Jun 19 18:11	15°♄	
morning rise	3701 Nov 21 14:28	19°♄25'54		retrograde	3707 Sep 14 04:35	25°♄18'26	
	3702 Jan 14 08:04	0°♄		opposition	3707 Nov 12 20:44	20°♄15'37	-1°24'22
retrograde	3702 Mar 21 18:14	6°♄08'29		min. Earth dist.	3707 Nov 11 19:05	20°♄24'17	3.93806 AU
opposition	3702 May 21 14:29	1°♄15'56	1°14'31	direct	3708 Jan 09 17:13	15°♄21'08	
min. Earth dist.	3702 May 22 19:56	1°♄06'32	4.45099 AU		3708 Apr 22 20:02	0°♄	
	3702 May 31 14:52	30°♄		evening set	3708 May 14 20:10	5°♄09'37	
direct	3702 Jul 23 09:13	26°♄14'30					
	3702 Sep 13 12:47	0°♄		conjunction	3708 May 28 09:21	8°♄24'32	-0°46'03
evening set	3702 Nov 26 06:04	13°♄45'14		minimum elong	3708 May 28 09:24	8°♄24'33	0°46'04
max. Earth dist.	3702 Dec 06 22:54	16°♄05'47	6.41327 AU	max. Earth dist.	3708 May 30 11:53	8°♄54'52	5.96437 AU
				morning rise	3708 Jun 11 01:08	11°♄40'42	
conjunction	3702 Dec 09 00:13	16°♄32'52	0°40'42		3708 Sep 14 13:24	0°♄	
minimum elong	3702 Dec 09 00:15	16°♄32'53	0°40'41	retrograde	3708 Oct 20 08:03	2°♄02'11	
morning rise	3702 Dec 21 16:29	19°♄19'42			3708 Nov 24 19:53	30°♄	
	3703 Feb 12 21:42	0°♄		min. Earth dist.	3708 Dec 17 08:02	27°♄09'29	4.01389 AU
retrograde	3703 Apr 22 05:49	6°♄28'25		opposition	3708 Dec 18 19:38	26°♄57'20	-0°46'49
opposition	3703 Jun 22 04:02	1°♄36'21	0°39'49	direct	3709 Feb 14 22:20	22°♄00'19	
min. Earth dist.	3703 Jun 23 17:46	1°♄24'20	4.36016 AU		3709 Apr 29 19:35	0°♄	
	3703 Jul 04 23:46	30°♄		evening set	3709 Jun 21 08:21	11°♄20'30	
direct	3703 Aug 23 14:32	26°♄36'29					
	3703 Oct 11 08:24	0°♄		conjunction	3709 Jul 05 02:00	14°♄32'07	-0°14'11
evening set	3703 Dec 27 02:39	14°♄32'18		minimum elong	3709 Jul 05 02:00	14°♄32'07	0°14'12
max. Earth dist.	3704 Jan 06 15:51	16°♄54'51	6.29357 AU	behind sun begin	3709 Jul 04 22:13	14°♄29'55	
				behind sun end	3709 Jul 05 05:48	14°♄34'19	
conjunction	3704 Jan 08 19:20	17°♄23'57	0°11'18	max. Earth dist.	3709 Jul 07 11:36	15°♄05'38	6.07926 AU
minimum elong	3704 Jan 08 19:21	17°♄23'57	0°11'18	morning rise	3709 Jul 18 20:58	17°♄44'06	
behind sun begin	3704 Jan 08 13:27	17°♄20'38			3709 Sep 15 02:02	0°♄	
behind sun end	3704 Jan 09 01:15	17°♄27'16		retrograde	3709 Nov 23 22:18	7°♄00'37	
morning rise	3704 Jan 21 10:56	20°♄15'22		asc. node	3709 Dec 08 05:50	6°♄40'11	
	3704 Mar 07 17:21	0°♄		min. Earth dist.	3710 Jan 21 04:13	2°♄07'57	4.15438 AU
desc. node	3704 May 19 07:35	8°♄14'19		opposition	3710 Jan 22 13:51	1°♄56'32	0°06'04
retrograde	3704 May 24 17:18	8°♄17'04			3710 Feb 06 07:37	30°♄	
opposition	3704 Jul 24 14:08	3°♄24'00	-0°08'30	direct	3710 Mar 22 16:02	26°♄56'38	
min. Earth dist.	3704 Jul 25 23:58	3°♄13'09	4.21841 AU		3710 May 06 06:31	0°♄	
	3704 Aug 22 20:40	30°♄		evening set	3710 Jul 24 17:59	15°♄	
direct	3704 Sep 23 23:06	28°♄26'24			3710 Jul 27 08:00	15°♄34'34	
	3704 Oct 25 21:25	0°♄					
	3705 Jan 18 13:39	15°♄		conjunction	3710 Aug 10 00:15	18°♄38'41	0°21'24
evening set	3705 Jan 27 08:43	17°♄01'26		minimum elong	3710 Aug 10 00:14	18°♄38'40	0°21'24
max. Earth dist.	3705 Feb 07 11:01	19°♄36'39	6.14139 AU	max. Earth dist.	3710 Aug 11 18:32	19°♄02'26	6.23301 AU
				morning rise	3710 Aug 23 16:02	21°♄42'14	
conjunction	3705 Feb 09 02:23	19°♄59'40	-0°22'54		3710 Oct 01 19:27	0°♄	
minimum elong	3705 Feb 09 02:22	19°♄59'40	0°22'55	retrograde	3710 Dec 26 05:02	9°♄47'30	
morning rise	3705 Feb 21 20:35	22°♄58'28		min. Earth dist.	3711 Feb 23 07:08	4°♄52'50	4.30673 AU
	3705 Mar 25 02:37	0°♄		opposition	3711 Feb 24 02:29	4°♄46'22	0°53'22
retrograde	3705 Jun 29 18:55	12°♄10'57			3711 Apr 12 21:03	30°♄	
opposition	3705 Aug 29 06:26	7°♄15'22	-0°57'30	direct	3711 Apr 25 14:40	29°♄44'30	
min. Earth dist.	3705 Aug 30 01:51	7°♄09'03	4.06710 AU		3711 May 08 09:13	0°♄	
direct	3705 Oct 28 05:52	2°♄20'07		evening set	3711 Aug 30 05:33	17°♄42'53	
evening set	3706 Mar 02 16:15	21°♄38'06					
				conjunction	3711 Sep 12 16:14	20°♄38'47	0°48'33
conjunction	3706 Mar 15 14:15	24°♄44'07	-0°50'49	minimum elong	3711 Sep 12 16:12	20°♄38'46	0°48'33
minimum elong	3706 Mar 15 14:13	24°♄44'06	0°50'48	max. Earth dist.	3711 Sep 13 08:50	20°♄47'50	6.37204 AU
max. Earth dist.	3706 Mar 15 02:12	24°♄36'52	6.00461 AU	morning rise	3711 Sep 26 00:53	23°♄33'29	
morning rise	3706 Mar 28 14:08	27°♄51'23			3711 Oct 26 19:40	0°♄	
	3706 Apr 06 14:43	0°♄		retrograde	3712 Jan 25 17:21	10°♄44'16	
retrograde	3706 Aug 06 18:35	18°♄09'45		opposition	3712 Mar 26 00:28	5°♄46'49	1°22'17
opposition	3706 Oct 05 19:02	13°♄10'37	-1°28'11	min. Earth dist.	3712 Mar 25 22:41	5°♄47'24	4.42295 AU
min. Earth dist.	3706 Oct 05 15:17	13°♄11'52	3.95909 AU	direct	3712 May 26 17:33	0°♄44'11	
direct	3706 Dec 03 08:14	8°♄16'49		evening set	3712 Sep 30 05:51	18°♄16'15	
evening set	3707 Apr 08 03:02	28°♄04'28					
	3707 Apr 16 01:37	0°♄		conjunction	3712 Oct 13 09:30	21°♄05'56	1°00'54
























































































































minimum elong	3712 Oct 13 09:29	21° <u>♌</u> 05'55	1°00'54	direct	3718 Dec 08 14:39	13° <u>♍</u> 38'47	
max. Earth dist.	3712 Oct 12 20:47	20° <u>♌</u> 59'05	6.45667 AU		3719 Mar 29 20:54	0° <u>♋</u>	
morning rise	3712 Oct 26 10:30	23° <u>♌</u> 54'17		evening set	3719 Apr 13 11:02	3° <u>♋</u> 29'14	
	3712 Nov 24 20:52	0° <u>♍</u>					
retrograde	3713 Feb 23 16:04	10° <u>♍</u> 37'11		conjunction	3719 Apr 26 17:28	6° <u>♋</u> 42'27	-0°59'46
opposition	3713 Apr 25 06:34	5° <u>♍</u> 42'54	1°28'06	minimum elong	3719 Apr 26 17:29	6° <u>♋</u> 42'28	0°59'45
min. Earth dist.	3713 Apr 26 00:08	5° <u>♍</u> 37'15	4.47194 AU	max. Earth dist.	3719 Apr 27 21:53	6° <u>♋</u> 59'44	5.93257 AU
direct	3713 Jun 26 20:39	0° <u>♍</u> 40'33		morning rise	3719 May 10 02:43	9° <u>♋</u> 57'16	
	3713 Oct 16 12:38	15° <u>♍</u>			3719 May 31 10:35	15° <u>♋</u>	
evening set	3713 Oct 31 00:17	18° <u>♍</u> 03'50			3719 Aug 29 08:35	0° <u>♊</u>	
max. Earth dist.	3713 Nov 11 08:36	20° <u>♍</u> 30'38	6.46592 AU	retrograde	3719 Sep 19 15:43	0° <u>♊</u> 44'18	
					3719 Oct 10 17:46	30° <u>♊</u>	
conjunction	3713 Nov 12 21:56	20° <u>♍</u> 50'49	0°56'41	min. Earth dist.	3719 Nov 17 02:10	25° <u>♊</u> 50'23	3.94381 AU
minimum elong	3713 Nov 12 21:57	20° <u>♍</u> 50'49	0°56'41	opposition	3719 Nov 18 05:46	25° <u>♊</u> 41'02	-1°20'42
morning rise	3713 Nov 25 17:06	23° <u>♍</u> 36'38		direct	3720 Jan 15 02:23	20° <u>♊</u> 46'18	
	3713 Dec 26 12:03	0° <u>♎</u>			3720 Apr 03 07:05	0° <u>♊</u>	
retrograde	3714 Mar 25 23:41	10° <u>♎</u> 21'06		evening set	3720 May 20 05:31	10° <u>♊</u> 31'48	
opposition	3714 May 25 20:06	5° <u>♎</u> 28'40	1°10'49				
min. Earth dist.	3714 May 27 03:50	5° <u>♎</u> 18'31	4.44177 AU	conjunction	3720 Jun 02 19:31	13° <u>♊</u> 46'30	-0°42'15
direct	3714 Jul 27 14:51	0° <u>♎</u> 27'18		minimum elong	3720 Jun 02 19:33	13° <u>♊</u> 46'31	0°42'15
evening set	3714 Nov 30 10:17	18° <u>♎</u> 00'54		max. Earth dist.	3720 Jun 05 00:47	14° <u>♊</u> 18'21	5.97775 AU
max. Earth dist.	3714 Dec 11 02:20	20° <u>♎</u> 21'28	6.39811 AU	morning rise	3720 Jun 16 12:12	17° <u>♊</u> 02'23	
					3720 Aug 15 11:35	0° <u>♑</u>	
conjunction	3714 Dec 13 04:17	20° <u>♎</u> 49'00	0°37'13	retrograde	3720 Oct 25 08:25	7° <u>♑</u> 15'27	
minimum elong	3714 Dec 13 04:18	20° <u>♎</u> 49'01	0°37'13	min. Earth dist.	3720 Dec 22 08:22	2° <u>♑</u> 23'12	4.03315 AU
morning rise	3714 Dec 25 20:10	23° <u>♎</u> 36'20		opposition	3720 Dec 23 21:30	2° <u>♑</u> 10'33	-0°39'38
	3715 Jan 25 00:16	0° <u>♒</u>			3721 Jan 09 11:05	30° <u>♑</u>	
retrograde	3715 Apr 26 16:18	10° <u>♒</u> 51'36		direct	3721 Feb 20 01:51	27° <u>♑</u> 13'07	
opposition	3715 Jun 26 15:08	5° <u>♒</u> 59'31	0°33'45		3721 Apr 02 17:35	0° <u>♑</u>	
min. Earth dist.	3715 Jun 28 05:07	5° <u>♒</u> 47'25	4.33987 AU	evening set	3721 Jun 26 13:18	16° <u>♑</u> 26'50	
direct	3715 Aug 27 22:12	0° <u>♒</u> 59'55					
evening set	3715 Dec 31 11:17	19° <u>♒</u> 01'44		conjunction	3721 Jul 10 06:59	19° <u>♑</u> 37'25	-0°09'02
max. Earth dist.	3716 Jan 11 00:08	21° <u>♒</u> 24'55	6.26965 AU	minimum elong	3721 Jul 10 06:59	19° <u>♑</u> 37'25	0°09'02
				behind sun begin	3721 Jul 09 23:54	19° <u>♑</u> 33'20	
conjunction	3716 Jan 13 03:54	21° <u>♒</u> 54'21	0°06'40	behind sun end	3721 Jul 10 14:05	19° <u>♑</u> 41'30	
minimum elong	3716 Jan 13 03:53	21° <u>♒</u> 54'21	0°06'41	max. Earth dist.	3721 Jul 12 14:44	20° <u>♑</u> 09'41	6.10239 AU
behind sun begin	3716 Jan 12 20:26	21° <u>♒</u> 50'08		morning rise	3721 Jul 24 01:49	22° <u>♑</u> 48'14	
behind sun end	3716 Jan 13 11:21	21° <u>♒</u> 58'33			3721 Aug 25 14:58	0° <u>♓</u>	
morning rise	3716 Jan 25 19:52	24° <u>♒</u> 46'51		asc. node	3721 Oct 17 10:13	9° <u>♓</u> 07'36	
	3716 Feb 18 10:46	0° <u>♓</u>		retrograde	3721 Nov 28 14:54	11° <u>♓</u> 53'31	
desc. node	3716 Mar 29 19:57	7° <u>♓</u> 41'31		min. Earth dist.	3722 Jan 25 23:36	7° <u>♓</u> 00'21	4.17876 AU
retrograde	3716 May 29 15:30	12° <u>♓</u> 59'10		opposition	3722 Jan 27 06:53	6° <u>♓</u> 49'46	0°13'30
opposition	3716 Jul 29 09:59	8° <u>♓</u> 05'51	-0°15'38	direct	3722 Mar 27 15:08	1° <u>♓</u> 49'31	
min. Earth dist.	3716 Jul 30 19:13	7° <u>♓</u> 55'11	4.19236 AU		3722 Jul 07 15:13	15° <u>♓</u>	
direct	3716 Sep 28 15:03	3° <u>♓</u> 08'33		evening set	3722 Aug 01 05:18	20° <u>♓</u> 20'36	
	3717 Jan 01 12:43	15° <u>♓</u>					
evening set	3717 Feb 01 00:41	21° <u>♓</u> 51'26		conjunction	3722 Aug 14 21:03	23° <u>♓</u> 23'27	0°25'57
max. Earth dist.	3717 Feb 12 07:02	24° <u>♓</u> 29'53	6.11558 AU	minimum elong	3722 Aug 14 21:01	23° <u>♓</u> 23'26	0°25'56
				max. Earth dist.	3722 Aug 16 13:13	23° <u>♓</u> 45'53	6.25670 AU
conjunction	3717 Feb 13 18:58	24° <u>♓</u> 51'01	-0°27'26	morning rise	3722 Aug 28 11:52	26° <u>♓</u> 25'35	
minimum elong	3717 Feb 13 18:57	24° <u>♓</u> 51'00	0°27'26		3722 Sep 13 20:42	0° <u>♐</u>	
morning rise	3717 Feb 26 13:48	27° <u>♓</u> 51'13		retrograde	3722 Dec 30 12:39	14° <u>♐</u> 21'12	
	3717 Mar 07 19:33	0° <u>♐</u>		opposition	3723 Feb 28 12:10	9° <u>♐</u> 20'37	0°58'42
retrograde	3717 Jul 05 01:34	17° <u>♐</u> 15'38		min. Earth dist.	3723 Feb 27 18:25	9° <u>♐</u> 26'32	4.32794 AU
opposition	3717 Sep 03 11:08	12° <u>♐</u> 19'40	-1°03'21	direct	3723 Apr 30 04:04	4° <u>♐</u> 18'37	
min. Earth dist.	3717 Sep 04 03:13	12° <u>♐</u> 14'26	4.04405 AU	evening set	3723 Sep 03 19:19	22° <u>♐</u> 11'53	
direct	3717 Nov 02 04:01	7° <u>♐</u> 24'47					
evening set	3718 Mar 07 17:30	26° <u>♐</u> 49'47		conjunction	3723 Sep 17 04:55	25° <u>♐</u> 06'39	0°51'14
				minimum elong	3723 Sep 17 04:53	25° <u>♐</u> 06'38	0°51'15
conjunction	3718 Mar 20 16:17	29° <u>♐</u> 57'00	-0°53'28	max. Earth dist.	3723 Sep 17 16:05	25° <u>♐</u> 12'44	6.38917 AU
minimum elong	3718 Mar 20 16:15	29° <u>♐</u> 56'59	0°53'28	morning rise	3723 Sep 30 12:33	28° <u>♐</u> 00'15	
max. Earth dist.	3718 Mar 20 08:29	29° <u>♐</u> 52'18	5.98646 AU		3723 Oct 09 19:49	0° <u>♑</u>	
	3718 Mar 20 21:14	0° <u>♑</u>		retrograde	3724 Jan 29 23:09	15° <u>♑</u> 05'11	
morning rise	3718 Apr 02 17:23	3° <u>♑</u> 05'38		opposition	3724 Mar 30 06:21	10° <u>♑</u> 08'16	1°24'30
retrograde	3718 Aug 12 05:27	23° <u>♑</u> 32'14		min. Earth dist.	3724 Mar 30 08:21	10° <u>♑</u> 07'37	4.43507 AU
opposition	3718 Oct 11 05:05	18° <u>♑</u> 32'31	-1°29'54	direct	3724 May 31 04:14	5° <u>♑</u> 05'37	
min. Earth dist.	3718 Oct 10 21:07	18° <u>♑</u> 35'11	3.94799 AU	evening set	3724 Oct 04 14:02	22° <u>♑</u> 35'11	

conjunction	3724 Oct 17 16:50	25°♌24'17	1°01'17	retrograde	3730 Aug 17 17:06	28°♍53'04	
minimum elong	3724 Oct 17 16:50	25°♌24'17	1°01'16	opposition	3730 Oct 16 14:23	23°♍52'47	-1°30'51
max. Earth dist.	3724 Oct 17 00:07	25°♌15'16	6.46281 AU	min. Earth dist.	3730 Oct 16 03:36	23°♍56'23	3.94385 AU
morning rise	3724 Oct 30 16:53	28°♌12'02		direct	3730 Dec 13 21:43	18°♍59'03	
	3724 Nov 08 03:58	0°♍			3731 Mar 11 12:34	0°♌	
retrograde	3725 Feb 27 19:39	14°♍53'28		evening set	3731 Apr 18 17:35	8°♌49'28	
opposition	3725 Apr 29 11:49	9°♍59'31	1°26'59				
min. Earth dist.	3725 Apr 30 07:15	9°♍53'15	4.47206 AU	conjunction	3731 May 02 00:57	12°♌03'00	-0°58'39
direct	3725 Jul 01 02:31	4°♍57'14		minimum elong	3731 May 02 00:58	12°♌03'01	0°58'40
	3725 Sep 29 09:46	15°♍		max. Earth dist.	3731 May 03 09:19	12°♌22'38	5.93596 AU
evening set	3725 Nov 04 06:14	22°♍21'05			3731 May 14 05:18	15°♌	
max. Earth dist.	3725 Nov 15 12:05	24°♍46'47	6.46002 AU	morning rise	3731 May 15 11:27	15°♌18'09	
					3731 Jul 22 22:17	0°♍	
conjunction	3725 Nov 17 03:17	25°♍08'02	0°54'47	retrograde	3731 Sep 24 20:20	6°♍02'01	
minimum elong	3725 Nov 17 03:18	25°♍08'03	0°54'47	min. Earth dist.	3731 Nov 22 04:33	1°♍08'44	3.95456 AU
morning rise	3725 Nov 29 21:45	27°♍53'51		opposition	3731 Nov 23 11:12	0°♍58'20	-1°16'28
	3725 Dec 09 17:46	0°♌			3731 Nov 30 16:33	30°♌	
retrograde	3726 Mar 30 07:30	14°♌41'13		direct	3732 Jan 20 06:55	26°♌03'16	
opposition	3726 May 30 04:31	9°♌48'57	1°06'40		3732 Mar 09 21:19	0°♍	
min. Earth dist.	3726 May 31 14:08	9°♌38'14	4.43016 AU	evening set	3732 May 25 11:26	15°♍44'14	
direct	3726 Jul 31 22:54	4°♌47'48					
evening set	3726 Dec 04 17:16	22°♌24'48		conjunction	3732 Jun 08 02:09	18°♍58'28	-0°38'15
max. Earth dist.	3726 Dec 15 06:24	24°♌44'23	6.38154 AU	minimum elong	3732 Jun 08 02:11	18°♍58'29	0°38'15
				max. Earth dist.	3732 Jun 10 08:16	19°♍30'41	5.99459 AU
conjunction	3726 Dec 17 10:51	25°♌13'25	0°33'26	morning rise	3732 Jun 21 19:22	22°♍13'45	
minimum elong	3726 Dec 17 10:53	25°♌13'26	0°33'26		3732 Jul 26 01:03	0°♌	
morning rise	3726 Dec 30 02:47	28°♌01'23		retrograde	3732 Oct 30 05:27	12°♌17'24	
	3727 Jan 08 03:42	0°♌		min. Earth dist.	3732 Dec 27 06:43	7°♌24'48	4.05392 AU
retrograde	3727 May 01 07:58	15°♌23'48		opposition	3732 Dec 28 18:55	7°♌12'27	-0°32'27
opposition	3727 Jul 01 05:59	10°♌31'37	0°27'16	direct	3733 Feb 25 03:41	2°♌14'34	
min. Earth dist.	3727 Jul 02 20:02	10°♌19'28	4.31929 AU	evening set	3733 Jul 01 13:46	21°♌21'36	
direct	3727 Sep 01 10:08	5°♌32'16					
evening set	3728 Jan 04 22:40	23°♌39'54		conjunction	3733 Jul 15 07:36	24°♌31'10	-0°04'01
max. Earth dist.	3728 Jan 15 14:07	26°♌05'15	6.24688 AU	minimum elong	3733 Jul 15 07:36	24°♌31'10	0°04'01
				behind sun begin	3733 Jul 14 23:19	24°♌26'26	
conjunction	3728 Jan 17 15:31	26°♌33'28	0°01'49	behind sun end	3733 Jul 15 15:52	24°♌35'54	
minimum elong	3728 Jan 17 15:31	26°♌33'28	0°01'49	max. Earth dist.	3733 Jul 17 15:00	25°♌03'03	6.12526 AU
behind sun begin	3728 Jan 17 07:32	26°♌28'56		morning rise	3733 Jul 29 02:03	27°♌40'47	
behind sun end	3728 Jan 17 23:30	26°♌38'01			3733 Aug 08 08:13	0°♍	
morning rise	3728 Jan 30 07:36	29°♌27'00		asc. node	3733 Aug 27 23:10	4°♍16'40	
	3728 Feb 01 17:47	0°♌			3733 Nov 01 12:04	15°♍	
desc. node	3728 Feb 07 02:04	1°♌12'21		retrograde	3733 Dec 03 03:00	16°♍35'20	
	3728 Apr 21 04:26	15°♌			3734 Jan 03 11:22	15°♌	
retrograde	3728 Jun 03 15:27	17°♌49'27		opposition	3734 Jan 31 19:52	11°♍32'00	0°20'33
	3728 Jul 17 17:41	15°♌		min. Earth dist.	3734 Jan 30 13:46	11°♍42'10	4.20149 AU
opposition	3728 Aug 03 08:53	12°♌55'54	-0°22'55	direct	3734 Apr 01 07:50	6°♍31'29	
min. Earth dist.	3728 Aug 04 16:09	12°♌45'51	4.16923 AU		3734 Jun 19 02:50	15°♍	
direct	3728 Oct 03 08:33	7°♌59'01		evening set	3734 Aug 05 22:42	24°♍56'31	
	3728 Dec 12 13:36	15°♌					
evening set	3729 Feb 05 19:27	26°♌48'30		conjunction	3734 Aug 19 13:35	27°♍58'09	0°30'10
max. Earth dist.	3729 Feb 17 04:48	29°♌29'31	6.09422 AU	minimum elong	3734 Aug 19 13:33	27°♍58'08	0°30'10
				max. Earth dist.	3734 Aug 21 00:19	28°♍17'29	6.27737 AU
conjunction	3729 Feb 18 14:02	29°♌49'09	-0°31'55		3734 Aug 28 16:52	0°♍	
minimum elong	3729 Feb 18 14:01	29°♌49'08	0°31'54	morning rise	3734 Sep 02 03:40	0°♍59'03	
	3729 Feb 19 08:24	0°♌		retrograde	3735 Jan 03 19:18	18°♍46'34	
morning rise	3729 Mar 03 09:42	2°♌50'35		opposition	3735 Mar 04 19:11	13°♍46'31	1°03'32
retrograde	3729 Jul 10 08:47	22°♌25'07		min. Earth dist.	3735 Mar 04 04:57	13°♍51'15	4.34513 AU
opposition	3729 Sep 08 17:24	17°♌28'36	-1°08'51	direct	3735 May 04 16:08	8°♍44'21	
min. Earth dist.	3729 Sep 09 05:38	17°♌24'36	4.02668 AU	evening set	3735 Sep 08 06:19	26°♍33'53	
direct	3729 Nov 07 05:14	12°♌33'58					
	3730 Mar 04 04:21	0°♍		conjunction	3735 Sep 21 15:09	29°♍27'48	0°53'35
evening set	3730 Mar 12 19:28	2°♍03'36		minimum elong	3735 Sep 21 15:08	29°♍27'48	0°53'34
				max. Earth dist.	3735 Sep 21 23:13	29°♍32'11	6.40170 AU
conjunction	3730 Mar 25 19:18	5°♍11'47	-0°55'46		3735 Sep 24 02:23	0°♌	
minimum elong	3730 Mar 25 19:17	5°♍11'46	0°55'46	morning rise	3735 Oct 04 21:36	2°♌20'28	
max. Earth dist.	3730 Mar 25 18:23	5°♍11'14	5.97491 AU	retrograde	3736 Feb 03 01:35	19°♌21'12	
morning rise	3730 Apr 07 21:17	8°♍21'21		opposition	3736 Apr 03 10:33	14°♌24'49	1°26'14

min. Earth dist.	3736 Apr 03 14:25	14°♌23'33	4.44246 AU	evening set	3742 Mar 17 20:09	7°♏13'48	
direct	3736 Jun 04 09:58	9°♌22'13					
evening set	3736 Oct 08 21:11	26°♌50'50		conjunction	3742 Mar 30 20:44	10°♏22'47	-0°57'35
				minimum elong	3742 Mar 30 20:43	10°♏22'46	0°57'34
conjunction	3736 Oct 21 23:01	29°♌39'31	1°01'20	max. Earth dist.	3742 Mar 30 23:11	10°♏24'16	5.96582 AU
minimum elong	3736 Oct 21 23:01	29°♌39'31	1°01'20	morning rise	3742 Apr 12 23:55	13°♏33'16	
max. Earth dist.	3736 Oct 21 01:53	29°♌28'07	6.46459 AU		3742 Jul 01 14:47	0°♏	
	3736 Oct 23 13:01	0°♌		retrograde	3742 Aug 22 23:42	4°♏09'01	
morning rise	3736 Nov 03 22:17	2°♌26'54			3742 Oct 15 09:17	30°♏9°	
	3737 Jan 09 14:02	15°♌		opposition	3742 Oct 21 20:44	29°♏08'13	-1°31'04
retrograde	3737 Mar 04 01:42	19°♌08'19		min. Earth dist.	3742 Oct 21 06:05	29°♏13'07	3.94089 AU
	3737 Apr 27 19:46	15°♌		direct	3742 Dec 19 00:44	24°♏14'24	
opposition	3737 May 03 17:13	14°♌14'46	1°25'27		3743 Feb 17 19:08	0°♏	
min. Earth dist.	3737 May 04 15:50	14°♌07'30	4.46832 AU	evening set	3743 Apr 23 22:18	14°♏04'57	
direct	3737 Jul 05 09:53	9°♌12'38			3743 Apr 27 17:33	15°♏	
	3737 Sep 09 10:41	15°♌					
evening set	3737 Nov 08 12:00	26°♌38'07		conjunction	3743 May 07 06:47	17°♏18'50	-0°57'05
max. Earth dist.	3737 Nov 19 14:37	29°♌02'26	6.45101 AU	minimum elong	3743 May 07 06:48	17°♏18'51	0°57'05
				max. Earth dist.	3743 May 08 18:47	17°♏40'39	5.93937 AU
conjunction	3737 Nov 21 08:31	29°♌25'12	0°52'35	morning rise	3743 May 20 18:18	20°♏34'18	
minimum elong	3737 Nov 21 08:33	29°♌25'13	0°52'35		3743 Jul 01 00:04	0°♏	
	3737 Nov 24 00:34	0°♏		retrograde	3743 Sep 29 23:46	11°♏15'12	
morning rise	3737 Dec 04 02:33	2°♏11'13		min. Earth dist.	3743 Nov 27 06:52	6°♏21'51	3.96381 AU
retrograde	3738 Apr 03 16:19	19°♏02'32		opposition	3743 Nov 28 14:13	6°♏11'11	-1°11'43
opposition	3738 Jun 03 13:54	14°♏10'23	1°02'07	direct	3744 Jan 25 11:26	1°♏15'45	
min. Earth dist.	3738 Jun 04 23:54	13°♏59'33	4.41660 AU	evening set	3744 May 30 15:42	20°♏53'10	
direct	3738 Aug 05 06:11	9°♏09'29					
evening set	3738 Dec 09 00:57	26°♏50'24		conjunction	3744 Jun 13 07:17	24°♏07'06	-0°34'00
max. Earth dist.	3738 Dec 19 15:06	29°♏11'05	6.36455 AU	minimum elong	3744 Jun 13 07:19	24°♏07'07	0°34'00
				max. Earth dist.	3744 Jun 15 15:45	24°♏40'34	6.00884 AU
conjunction	3738 Dec 21 18:22	29°♏39'35	0°29'26	morning rise	3744 Jun 27 00:59	27°♏21'56	
minimum elong	3738 Dec 21 18:23	29°♏39'36	0°29'27		3744 Jul 08 08:35	0°♏	
	3738 Dec 23 07:04	0°♏		retrograde	3744 Nov 04 02:06	17°♏17'19	
morning rise	3739 Jan 03 10:01	2°♏28'09		min. Earth dist.	3745 Jan 01 02:56	12°♏24'47	4.07148 AU
retrograde	3739 May 06 00:14	19°♏57'47		opposition	3745 Jan 02 15:06	12°♏12'29	-0°25'07
opposition	3739 Jul 05 21:40	15°♏05'34	0°20'34	direct	3745 Mar 02 02:25	7°♏14'12	
min. Earth dist.	3739 Jul 07 11:39	14°♏53'28	4.29986 AU	evening set	3745 Jul 06 14:03	26°♏15'59	
direct	3739 Sep 05 22:48	10°♏06'37		asc. node	3745 Jul 08 05:40	26°♏38'34	
desc. node	3739 Dec 17 14:18	23°♏15'20					
evening set	3740 Jan 09 10:50	28°♏19'32		conjunction	3745 Jul 20 07:40	29°♏24'38	0°01'08
	3740 Jan 16 18:44	0°♏		minimum elong	3745 Jul 20 07:39	29°♏24'38	0°01'08
max. Earth dist.	3740 Jan 20 02:42	0°♏45'52	6.22651 AU	behind sun begin	3745 Jul 19 23:16	29°♏19'51	
				behind sun end	3745 Jul 20 16:02	29°♏29'24	
conjunction	3740 Jan 22 03:39	1°♏13'57	-0°03'09	max. Earth dist.	3745 Jul 22 11:36	29°♏54'23	6.14445 AU
minimum elong	3740 Jan 22 03:38	1°♏13'57	0°03'09		3745 Jul 22 21:23	0°♏	
behind sun begin	3740 Jan 21 19:41	1°♏09'24		morning rise	3745 Aug 03 01:59	2°♏33'15	
behind sun end	3740 Jan 22 11:34	1°♏18'29			3745 Oct 02 12:47	15°♏	
morning rise	3740 Feb 03 20:09	4°♏08'27		retrograde	3745 Dec 07 15:16	21°♏18'36	
	3740 Mar 26 04:40	15°♏		min. Earth dist.	3746 Feb 04 04:59	16°♏25'04	4.22048 AU
retrograde	3740 Jun 08 15:11	22°♏40'14		opposition	3746 Feb 05 09:00	16°♏15'36	0°27'28
opposition	3740 Aug 08 07:55	17°♏46'18	-0°30'03		3746 Feb 14 19:41	15°♏	
min. Earth dist.	3740 Aug 09 12:30	17°♏37'04	4.14930 AU	direct	3746 Apr 06 01:23	11°♏14'43	
	3740 Aug 31 04:06	15°♏			3746 May 26 07:33	15°♏	
direct	3740 Oct 08 02:39	12°♏49'44		evening set	3746 Aug 10 16:51	29°♏35'03	
	3740 Nov 14 14:04	15°♏			3746 Aug 12 14:07	0°♏	
	3741 Feb 03 02:36	0°♏					
evening set	3741 Feb 10 13:34	1°♏44'38		conjunction	3746 Aug 24 07:15	2°♏35'41	0°34'14
max. Earth dist.	3741 Feb 22 04:41	4°♏29'36	6.07645 AU	minimum elong	3746 Aug 24 07:13	2°♏35'40	0°34'15
				max. Earth dist.	3746 Aug 25 15:37	2°♏53'38	6.29483 AU
conjunction	3741 Feb 23 08:47	4°♏46'16	-0°36'08	morning rise	3746 Sep 06 20:16	5°♏35'26	
minimum elong	3741 Feb 23 08:45	4°♏46'15	0°36'07	retrograde	3747 Jan 08 02:40	23°♏15'47	
morning rise	3741 Mar 08 04:56	7°♏48'44		opposition	3747 Mar 09 03:27	18°♏16'16	1°08'04
retrograde	3741 Jul 15 15:37	27°♏31'55		min. Earth dist.	3747 Mar 08 15:11	18°♏20'20	4.35984 AU
opposition	3741 Sep 13 22:20	22°♏34'58	-1°13'45	direct	3747 May 09 03:31	13°♏14'01	
min. Earth dist.	3741 Sep 14 08:15	22°♏31'43	4.01270 AU		3747 Sep 08 02:22	0°♏	
direct	3741 Nov 12 06:29	17°♏40'36		evening set	3747 Sep 12 18:56	1°♏00'25	
	3742 Feb 14 17:50	0°♏					





























































































































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minimum elong	3747 Sep 26 02:39	3°♌53'29	0°55'39		3753 Aug 29 22:59	30°♏♏	
max. Earth dist.	3747 Sep 26 05:28	3°♌55'01	6.41259 AU	opposition	3753 Sep 18 22:35	27°♏29'58	-1°17'53
morning rise	3747 Oct 09 08:16	6°♌45'21		min. Earth dist.	3753 Sep 19 04:59	27°♏27'51	4.00186 AU
retrograde	3748 Feb 07 08:15	23°♌42'20		direct	3753 Nov 17 02:01	22°♏35'44	
opposition	3748 Apr 07 17:06	18°♌46'23	1°27'33		3754 Jan 26 13:17	0°♑	
min. Earth dist.	3748 Apr 08 00:05	18°♌44'06	4.44925 AU	evening set	3754 Mar 22 16:26	12°♑11'46	
direct	3748 Jun 08 19:57	13°♌43'49					
	3748 Oct 07 15:57	0°♌		conjunction	3754 Apr 04 17:59	15°♑21'30	-0°58'53
evening set	3748 Oct 13 05:44	1°♌11'13		minimum elong	3754 Apr 04 17:58	15°♑21'29	0°58'53
max. Earth dist.	3748 Oct 25 08:08	3°♌47'15	6.46700 AU	max. Earth dist.	3754 Apr 05 00:40	15°♑25'33	5.95857 AU
				morning rise	3754 Apr 17 22:06	18°♑32'46	
conjunction	3748 Oct 26 06:52	3°♌59'30	1°01'04		3754 Jun 07 22:26	0°♒	
minimum elong	3748 Oct 26 06:53	3°♌59'30	1°01'04	retrograde	3754 Aug 28 03:11	9°♒12'08	
morning rise	3748 Nov 08 05:08	6°♌46'27		opposition	3754 Oct 26 22:17	4°♒10'52	-1°30'35
	3748 Dec 18 18:36	15°♌		min. Earth dist.	3754 Oct 26 06:20	4°♒16'14	3.93809 AU
retrograde	3749 Mar 08 06:48	23°♌27'27			3754 Dec 03 12:23	30°♏♑	
opposition	3749 May 08 00:21	18°♌34'11	1°23'27	direct	3754 Dec 24 00:51	29°♑16'57	
min. Earth dist.	3749 May 08 23:31	18°♌26'45	4.46668 AU		3755 Jan 13 11:34	0°♒	
	3749 Jun 08 02:13	15°♏♌			3755 Apr 11 12:41	15°♒	
direct	3749 Jul 09 16:50	13°♌32'15		evening set	3755 Apr 28 22:26	19°♒07'57	
	3749 Aug 10 13:46	15°♌					
	3749 Nov 08 06:36	0°♒		conjunction	3755 May 12 08:06	22°♒22'18	-0°55'11
evening set	3749 Nov 12 19:02	0°♒58'16		minimum elong	3755 May 12 08:07	22°♒22'19	0°55'10
max. Earth dist.	3749 Nov 23 19:42	3°♒21'49	6.44562 AU	max. Earth dist.	3755 May 13 23:50	22°♒46'21	5.94131 AU
				morning rise	3755 May 25 20:40	25°♒38'10	
conjunction	3749 Nov 25 14:50	3°♒45'18	0°50'08		3755 Jun 13 08:11	0°♒	
minimum elong	3749 Nov 25 14:51	3°♒45'19	0°50'07	retrograde	3755 Oct 04 23:55	16°♒16'54	
morning rise	3749 Dec 08 08:20	6°♒31'20		min. Earth dist.	3755 Dec 02 04:18	11°♒23'47	3.97046 AU
retrograde	3750 Apr 08 02:43	23°♒25'16		opposition	3755 Dec 03 12:49	11°♒12'44	-1°06'41
opposition	3750 Jun 08 00:12	18°♒33'13	0°57'16	direct	3756 Jan 30 09:36	6°♒17'02	
min. Earth dist.	3750 Jun 09 11:38	18°♒21'56	4.40778 AU	evening set	3756 Jun 04 16:45	25°♒52'26	
direct	3750 Aug 09 16:33	13°♒32'34					
	3750 Dec 07 15:04	0°♒		conjunction	3756 Jun 18 08:52	29°♒06'10	-0°29'41
evening set	3750 Dec 13 08:17	1°♒15'26		minimum elong	3756 Jun 18 08:54	29°♒06'11	0°29'42
max. Earth dist.	3750 Dec 23 21:13	3°♒35'52	6.35297 AU	max. Earth dist.	3756 Jun 20 16:19	29°♒38'55	6.01947 AU
					3756 Jun 22 04:01	0°♒	
conjunction	3750 Dec 26 01:23	4°♒04'56	0°25'21	morning rise	3756 Jul 02 03:17	2°♒20'46	
minimum elong	3750 Dec 26 01:24	4°♒04'57	0°25'21	retrograde	3756 Nov 08 19:08	22°♒09'39	
morning rise	3751 Jan 07 16:59	6°♒53'56		min. Earth dist.	3757 Jan 05 20:28	17°♒17'08	4.08494 AU
retrograde	3751 May 10 14:25	24°♒29'02		opposition	3757 Jan 07 08:16	17°♒04'56	-0°17'56
opposition	3751 Jul 10 12:37	19°♒36'35	0°13'53	direct	3757 Mar 06 22:09	12°♒06'17	
min. Earth dist.	3751 Jul 12 00:59	19°♒24'59	4.28617 AU	asc. node	3757 May 20 00:48	19°♒58'20	
direct	3751 Sep 10 10:11	14°♒37'55			3757 Jul 06 17:55	0°♒	
desc. node	3751 Oct 29 01:53	18°♒04'22		evening set	3757 Jul 11 12:04	1°♒04'38	
	3752 Jan 01 00:18	0°♒					
evening set	3752 Jan 13 20:54	2°♒54'01		conjunction	3757 Jul 25 05:48	4°♒12'37	0°06'01
max. Earth dist.	3752 Jan 24 16:01	5°♒22'39	6.21185 AU	minimum elong	3757 Jul 25 05:47	4°♒12'36	0°06'00
				behind sun begin	3757 Jul 24 21:50	4°♒08'05	
conjunction	3752 Jan 26 13:48	5°♒49'02	-0°07'49	behind sun end	3757 Jul 25 13:43	4°♒17'07	
minimum elong	3752 Jan 26 13:48	5°♒49'02	0°07'49	max. Earth dist.	3757 Jul 27 08:57	4°♒41'50	6.15986 AU
behind sun begin	3752 Jan 26 06:36	5°♒44'54		morning rise	3757 Aug 07 23:39	7°♒20'22	
behind sun end	3752 Jan 26 21:00	5°♒53'09			3757 Sep 12 06:41	15°♒	
morning rise	3752 Feb 08 06:24	8°♒44'12		retrograde	3757 Dec 12 03:40	25°♒58'05	
	3752 Mar 07 10:19	15°♒		opposition	3758 Feb 09 20:56	20°♒55'31	0°34'00
retrograde	3752 Jun 13 12:29	27°♒23'20		min. Earth dist.	3758 Feb 08 18:36	21°♒04'23	4.23632 AU
opposition	3752 Aug 13 04:12	22°♒29'05	-0°36'43	direct	3758 Apr 10 16:56	15°♒54'27	
min. Earth dist.	3752 Aug 14 07:46	22°♒20'11	4.13464 AU		3758 Jul 27 01:20	0°♒	
direct	3752 Oct 12 19:36	17°♒32'51		evening set	3758 Aug 15 09:51	4°♒11'01	
	3753 Jan 17 14:58	0°♏					
evening set	3753 Feb 15 04:33	6°♏31'23		conjunction	3758 Aug 28 23:26	7°♒10'42	0°38'00
max. Earth dist.	3753 Feb 26 21:42	9°♏18'05	6.06300 AU	minimum elong	3758 Aug 28 23:24	7°♒10'41	0°38'00
				max. Earth dist.	3758 Aug 30 04:01	7°♒26'31	6.30983 AU
conjunction	3753 Feb 28 00:05	9°♏33'46	-0°39'55	morning rise	3758 Sep 11 11:43	10°♒09'29	
minimum elong	3753 Feb 28 00:04	9°♏33'45	0°39'55	retrograde	3759 Jan 12 09:19	27°♒43'34	
morning rise	3753 Mar 12 21:03	12°♏37'09		opposition	3759 Mar 13 11:17	22°♒44'29	1°12'05
	3753 Jun 10 16:13	0°♑		min. Earth dist.	3759 Mar 13 01:05	22°♒47'51	4.37302 AU

direct	3759 May 13 14:56	17° \mathbb{M} 42'07		minimum elong	3765 Mar 04 19:29	14° \mathbb{H} 32'06	0°43'36
	3759 Aug 22 08:43	0° \mathbb{L}		max. Earth dist.	3765 Mar 03 21:36	14° \mathbb{H} 19'02	6.04387 AU
evening set	3759 Sep 17 06:33	5° \mathbb{L} 25'34		morning rise	3765 Mar 17 17:14	17° \mathbb{H} 36'40	
					3765 May 13 15:24	0° \mathbb{Y}	
conjunction	3759 Sep 30 13:29	8° \mathbb{L} 17'52	0°57'22	retrograde	3765 Jul 26 00:01	7° \mathbb{Y} 36'15	
minimum elong	3759 Sep 30 13:28	8° \mathbb{L} 17'52	0°57'22	opposition	3765 Sep 24 04:02	2° \mathbb{Y} 38'17	-1°21'42
max. Earth dist.	3759 Sep 30 14:25	8° \mathbb{L} 18'22	6.42297 AU	min. Earth dist.	3765 Sep 24 08:13	2° \mathbb{Y} 36'54	3.98646 AU
morning rise	3759 Oct 13 17:51	11° \mathbb{L} 08'51			3765 Oct 15 07:31	30° \mathbb{R} \mathbb{H}	
retrograde	3760 Feb 11 12:17	28° \mathbb{L} 02'06		direct	3765 Nov 22 04:04	27° \mathbb{H} 44'10	
opposition	3760 Apr 11 22:50	23° \mathbb{L} 06'32	1°28'19		3765 Dec 29 10:03	0° \mathbb{Y}	
min. Earth dist.	3760 Apr 12 07:28	23° \mathbb{L} 03'44	4.45605 AU	evening set	3766 Mar 27 18:39	17° \mathbb{Y} 24'36	
direct	3760 Jun 13 04:07	18° \mathbb{L} 04'02					
	3760 Sep 21 01:52	0° \mathbb{M}		conjunction	3766 Apr 09 21:20	20° \mathbb{Y} 35'18	-0°59'49
evening set	3760 Oct 17 13:17	5° \mathbb{M} 29'56		minimum elong	3766 Apr 09 21:19	20° \mathbb{Y} 35'18	0°59'50
max. Earth dist.	3760 Oct 29 10:32	8° \mathbb{M} 03'16	6.46937 AU	max. Earth dist.	3766 Apr 10 08:51	20° \mathbb{Y} 42'18	5.94846 AU
				morning rise	3766 Apr 23 02:40	23° \mathbb{Y} 47'35	
conjunction	3760 Oct 30 13:25	8° \mathbb{M} 17'46	1°00'27		3766 May 19 12:35	0° \mathbb{B}	
minimum elong	3760 Oct 30 13:25	8° \mathbb{M} 17'46	1°00'26	retrograde	3766 Sep 02 11:37	14° \mathbb{B} 30'55	
morning rise	3760 Nov 12 11:01	11° \mathbb{M} 04'21		min. Earth dist.	3766 Oct 31 10:17	9° \mathbb{B} 35'39	3.93479 AU
	3760 Dec 01 02:38	15° \mathbb{M}		opposition	3766 Nov 01 05:27	9° \mathbb{B} 29'12	-1°29'21
retrograde	3761 Mar 12 13:19	27° \mathbb{M} 44'59		direct	3766 Dec 29 04:45	4° \mathbb{B} 35'11	
opposition	3761 May 12 06:54	22° \mathbb{M} 51'54	1°20'59		3767 Mar 23 23:17	15° \mathbb{B}	
min. Earth dist.	3761 May 13 08:46	22° \mathbb{M} 43'37	4.46420 AU	evening set	3767 May 04 05:25	24° \mathbb{B} 26'39	
direct	3761 Jul 14 01:08	17° \mathbb{M} 50'03					
	3761 Oct 22 21:43	0° \mathbb{J}		conjunction	3767 May 17 16:05	27° \mathbb{B} 41'20	-0°52'43
evening set	3761 Nov 17 00:31	5° \mathbb{J} 16'44		minimum elong	3767 May 17 16:07	27° \mathbb{B} 41'21	0°52'43
max. Earth dist.	3761 Nov 27 23:25	7° \mathbb{J} 39'35	6.43818 AU	max. Earth dist.	3767 May 19 10:08	28° \mathbb{B} 06'44	5.94508 AU
					3767 May 27 06:01	0° \mathbb{I}	
conjunction	3761 Nov 29 19:55	8° \mathbb{J} 03'52	0°47'22	morning rise	3767 May 31 05:53	0° \mathbb{I} 57'32	
minimum elong	3761 Nov 29 19:56	8° \mathbb{J} 03'52	0°47'23	retrograde	3767 Oct 10 03:21	21° \mathbb{I} 32'29	
morning rise	3761 Dec 12 12:52	10° \mathbb{J} 50'00		min. Earth dist.	3767 Dec 07 06:07	16° \mathbb{I} 39'44	3.98101 AU
retrograde	3762 Apr 12 11:05	27° \mathbb{J} 47'28		opposition	3767 Dec 08 16:26	16° \mathbb{I} 28'03	-1°00'51
opposition	3762 Jun 12 09:59	22° \mathbb{J} 55'24	0°52'03	direct	3768 Feb 04 14:34	11° \mathbb{I} 31'57	
min. Earth dist.	3762 Jun 13 21:19	22° \mathbb{J} 44'09	4.39560 AU		3768 Jun 05 10:06	0° \mathbb{O}	
direct	3762 Aug 13 23:53	17° \mathbb{J} 54'59		evening set	3768 Jun 09 22:50	1° \mathbb{O} 03'28	
	3762 Nov 21 04:50	0° \mathbb{Z}					
evening set	3762 Dec 17 15:24	5° \mathbb{Z} 41'02		conjunction	3768 Jun 23 15:42	4° \mathbb{O} 16'44	-0°24'57
max. Earth dist.	3762 Dec 28 04:19	8° \mathbb{Z} 02'01	6.33685 AU	minimum elong	3768 Jun 23 15:44	4° \mathbb{O} 16'45	0°24'56
				max. Earth dist.	3768 Jun 26 01:24	4° \mathbb{O} 50'42	6.03614 AU
conjunction	3762 Dec 30 08:14	8° \mathbb{Z} 31'04	0°21'04	morning rise	3768 Jul 07 10:17	7° \mathbb{O} 30'39	
minimum elong	3762 Dec 30 08:15	8° \mathbb{Z} 31'05	0°21'03	retrograde	3768 Nov 13 15:57	27° \mathbb{O} 10'03	
morning rise	3763 Jan 11 23:46	11° \mathbb{Z} 20'41		min. Earth dist.	3769 Jan 10 17:49	22° \mathbb{O} 17'22	4.10582 AU
retrograde	3763 May 15 07:28	29° \mathbb{Z} 03'02		opposition	3769 Jan 12 04:47	22° \mathbb{O} 05'28	-0°10'20
opposition	3763 Jul 15 04:25	24° \mathbb{Z} 10'26	0°06'58	direct	3769 Mar 11 22:46	17° \mathbb{O} 06'27	
min. Earth dist.	3763 Jul 16 17:23	23° \mathbb{Z} 58'37	4.26682 AU	asc. node	3769 Mar 29 20:28	17° \mathbb{O} 38'22	
desc. node	3763 Sep 08 06:08	19° \mathbb{Z} 16'15			3769 Jun 19 10:13	0° \mathbb{Q}	
direct	3763 Sep 14 23:37	19° \mathbb{Z} 12'02		evening set	3769 Jul 16 12:38	5° \mathbb{Q} 58'18	
	3763 Dec 14 21:35	0° \mathbb{A}					
evening set	3764 Jan 18 08:39	7° \mathbb{A} 33'28		conjunction	3769 Jul 30 05:57	9° \mathbb{Q} 05'04	0°10'58
max. Earth dist.	3764 Jan 29 04:30	10° \mathbb{A} 03'15	6.19086 AU	minimum elong	3769 Jul 30 05:56	9° \mathbb{Q} 05'03	0°10'58
				behind sun begin	3769 Jul 29 23:43	9° \mathbb{Q} 01'33	
conjunction	3764 Jan 31 01:43	10° \mathbb{A} 29'25	-0°12'35	behind sun end	3769 Jul 30 12:08	9° \mathbb{Q} 08'34	
minimum elong	3764 Jan 31 01:43	10° \mathbb{A} 29'24	0°12'34	max. Earth dist.	3769 Aug 01 07:13	9° \mathbb{Q} 33'03	6.18313 AU
behind sun begin	3764 Jan 30 20:28	10° \mathbb{A} 26'23		morning rise	3769 Aug 12 23:20	12° \mathbb{Q} 11'32	
behind sun end	3764 Jan 31 06:57	10° \mathbb{A} 32'25			3769 Aug 25 13:50	15° \mathbb{Q}	
morning rise	3764 Feb 12 18:48	13° \mathbb{A} 25'39			3769 Nov 26 16:20	0° \mathbb{P}	
	3764 Feb 19 15:35	15° \mathbb{A}		retrograde	3769 Dec 16 13:26	0° \mathbb{P} 38'31	
	3764 May 11 01:35	0° \mathbb{H}			3770 Jan 05 08:26	30° \mathbb{R} \mathbb{Q}	
retrograde	3764 Jun 18 11:25	2° \mathbb{H} 14'36		min. Earth dist.	3770 Feb 13 08:03	25° \mathbb{Q} 44'48	4.25993 AU
	3764 Jul 27 06:21	30° \mathbb{R} \mathbb{A}		opposition	3770 Feb 14 09:17	25° \mathbb{Q} 36'19	0°40'22
opposition	3764 Aug 18 03:15	27° \mathbb{A} 19'56	-0°43'26	direct	3770 Apr 15 09:28	20° \mathbb{Q} 34'58	
min. Earth dist.	3764 Aug 19 03:45	27° \mathbb{A} 12'00	4.11362 AU		3770 Jul 08 23:20	0° \mathbb{P}	
direct	3764 Oct 17 13:00	22° \mathbb{A} 23'59		evening set	3770 Aug 20 02:29	8° \mathbb{P} 45'04	
	3764 Dec 29 07:22	0° \mathbb{H}					
evening set	3765 Feb 19 23:17	11° \mathbb{H} 28'37		conjunction	3770 Sep 02 15:12	11° \mathbb{P} 43'27	0°41'33
				minimum elong	3770 Sep 02 15:10	11° \mathbb{P} 43'26	0°41'32
conjunction	3765 Mar 04 19:31	14° \mathbb{H} 32'07	-0°43'36	max. Earth dist.	3770 Sep 03 16:23	11° \mathbb{P} 57'20	6.33195 AU

morning rise	3770 Sep 16 02:17	14°  40'48		minimum elong	3776 Feb 04 14:33	15°  12'01	0°17'16
	3770 Dec 10 13:31	0° 		morning rise	3776 Feb 17 08:11	18°  09'35	
retrograde	3771 Jan 16 14:34	2°  06'26			3776 Apr 13 03:21	0° 	
	3771 Feb 22 12:10	30° 		retrograde	3776 Jun 23 15:46	7°  10'35	
opposition	3771 Mar 17 17:38	27°  07'52	1°15'38	opposition	3776 Aug 23 04:29	2°  15'35	-0°49'55
min. Earth dist.	3771 Mar 17 10:25	27°  10'14	4.39195 AU	min. Earth dist.	3776 Aug 24 03:24	2°  08'09	4.08829 AU
direct	3771 May 18 02:38	22°  05'24			3776 Sep 10 06:41	30° 	
	3771 Aug 04 00:17	0° 		direct	3776 Oct 22 09:53	27°  19'58	
evening set	3771 Sep 21 15:45	9°  44'08			3776 Dec 02 16:25	0° 	
				evening set	3777 Feb 24 20:49	16°  32'25	
conjunction	3771 Oct 04 21:35	12°  35'27	0°58'43				
minimum elong	3771 Oct 04 21:34	12°  35'27	0°58'44	conjunction	3777 Mar 09 17:54	19°  37'16	-0°47'00
max. Earth dist.	3771 Oct 04 17:29	12°  33'14	6.43704 AU	minimum elong	3777 Mar 09 17:53	19°  37'15	0°46'59
morning rise	3771 Oct 18 01:00	15°  25'29		max. Earth dist.	3777 Mar 09 00:22	19°  26'46	6.02168 AU
	3772 Jan 08 02:42	0° 		morning rise	3777 Mar 22 16:38	22°  43'17	
retrograde	3772 Feb 15 14:06	2°  14'18			3777 Apr 23 06:42	0° 	
	3772 Mar 25 03:38	30° 		retrograde	3777 Jul 31 10:16	12°  53'06	
opposition	3772 Apr 16 02:18	27°  19'06	1°28'36	opposition	3777 Sep 29 12:16	7°  54'39	-1°24'55
min. Earth dist.	3772 Apr 16 13:49	27°  15'21	4.46455 AU	min. Earth dist.	3777 Sep 29 12:18	7°  54'38	3.97008 AU
direct	3772 Jun 17 10:27	22°  16'34		direct	3777 Nov 27 06:05	3°  00'46	
	3772 Sep 03 01:10	0° 		evening set	3778 Apr 02 00:31	22°  45'58	
evening set	3772 Oct 21 17:36	9°  14'40					
max. Earth dist.	3772 Nov 02 11:54	12°  12'23	6.47154 AU	conjunction	3778 Apr 15 04:14	25°  57'38	-1°00'15
				minimum elong	3778 Apr 15 04:14	25°  57'38	1°00'15
conjunction	3772 Nov 03 17:04	12°  12'28'07	0°59'31	max. Earth dist.	3778 Apr 15 20:20	26°  07'26	5.93934 AU
minimum elong	3772 Nov 03 17:04	12°  12'28'07	0°59'31	morning rise	3778 Apr 28 10:56	29°  10'56	
	3772 Nov 15 11:02	15° 			3778 May 01 20:25	0° 	
morning rise	3772 Nov 16 13:41	15°  14'17			3778 Jul 12 11:02	15° 	
	3773 Feb 08 23:42	0° 		retrograde	3778 Sep 07 21:51	19°  57'23	
retrograde	3773 Mar 16 15:35	1°  55'04		opposition	3778 Nov 06 15:14	14°  55'07	-1°27'17
	3773 Apr 21 11:26	30° 		min. Earth dist.	3778 Nov 05 16:29	15°  02'48	3.93413 AU
opposition	3773 May 16 10:50	27°  02'14	1°18'09		3778 Nov 06 00:46	15° 	
min. Earth dist.	3773 May 17 14:25	26°  15'33'25	4.45991 AU	direct	3779 Jan 03 13:11	10°  00'54	
direct	3773 Jul 18 05:18	22°  00'33			3779 Feb 28 15:16	15° 	
	3773 Oct 05 04:26	0° 		evening set	3779 May 09 14:43	29°  51'31	
evening set	3773 Nov 21 03:54	9°  28'47			3779 May 10 04:52	0° 	
max. Earth dist.	3773 Dec 01 22:38	11°  49'49	6.42752 AU				
				conjunction	3779 May 23 02:38	3°  06'23	-0°49'45
conjunction	3773 Dec 03 22:40	12°  28'16'06	0°44'26	minimum elong	3779 May 23 02:40	3°  06'24	0°49'45
minimum elong	3773 Dec 03 22:42	12°  28'16'07	0°44'26	max. Earth dist.	3779 May 25 02:10	3°  35'01	5.95289 AU
morning rise	3773 Dec 16 15:25	15°  20'23'33		morning rise	3779 Jun 05 17:15	6°  22'35	
	3774 Mar 10 13:37	0° 		retrograde	3779 Oct 15 09:16	26°  11'51'39	
retrograde	3774 Apr 16 20:48	2°  30'45'58		min. Earth dist.	3779 Dec 12 10:10	21°  11'58'52	3.99608 AU
	3774 May 24 09:42	30° 		opposition	3779 Dec 13 21:06	21°  11'46'58	-0°54'26
opposition	3774 Jun 16 18:25	27°  12'56	0°46'39	direct	3780 Feb 09 21:28	16°  11'50'28	
min. Earth dist.	3774 Jun 18 07:54	27°  10'05'59	4.37900 AU		3780 May 18 15:04	0° 	
direct	3774 Aug 18 07:23	22°  12'41		evening set	3780 Jun 15 05:47	6°  16'23	
	3774 Nov 03 02:31	0° 					
evening set	3774 Dec 21 21:20	10°  30'34'41		conjunction	3780 Jun 28 22:56	9°  28'50	-0°19'58
max. Earth dist.	3775 Jan 01 09:43	12°  32'5'01	6.31552 AU	minimum elong	3780 Jun 28 22:57	9°  28'51	0°19'59
				max. Earth dist.	3780 Jul 01 09:02	10°  28'02'50	6.05664 AU
conjunction	3775 Jan 03 14:15	12°  35'4'33	0°16'42	morning rise	3780 Jul 12 17:47	12°  28'41'50	
minimum elong	3775 Jan 03 14:15	12°  35'4'34	0°16'42		3780 Oct 12 08:02	0° 	
morning rise	3775 Jan 16 05:50	15°  34'5'05		retrograde	3780 Nov 18 09:29	2°  10'17	
	3775 Mar 31 09:02	0° 			3780 Dec 25 06:07	30° 	
retrograde	3775 May 19 23:19	3°  36'48		min. Earth dist.	3781 Jan 15 13:30	27°  17'47	4.12934 AU
	3775 Jul 09 20:06	30° 		opposition	3781 Jan 17 00:32	27°  05'52	-0°02'41
opposition	3775 Jul 19 20:23	28°  34'4'01	0°00'02	asc. node	3781 Feb 05 23:14	24°  31'40	
desc. node	3775 Jul 20 02:22	28°  34'2'06		direct	3781 Mar 16 21:47	22°  30'6'26	
min. Earth dist.	3775 Jul 21 07:54	28°  33'2'39	4.24213 AU		3781 May 30 17:19	0° 	
direct	3775 Sep 19 10:00	23°  34'5'59		evening set	3781 Jul 21 12:38	10°  51'15	
	3775 Nov 24 22:51	0° 					
evening set	3776 Jan 22 21:12	12°  33'14'52		conjunction	3781 Aug 04 05:28	13°  56'44	0°15'51
max. Earth dist.	3776 Feb 02 19:46	14°  33'47'07	6.16481 AU	minimum elong	3781 Aug 04 05:27	13°  56'44	0°15'51
	3776 Feb 03 17:55	15°		max. Earth dist.	3781 Aug 06 03:25	14° 52'22'42	6.20760 AU
					3781 Aug 08 21:29	15°	
conjunction	3776 Feb 04 14:34	15° 52'12'01	-0°17'16	morning rise	3781 Aug 17 22:08	17° 52'01'48	

	3781 Oct 21 18:38	0°♎	morning rise	3787 Jan 20 15:30	20°♊18'34
retrograde	3781 Dec 21 01:01	5°♎18'13		3787 Mar 07 15:11	0°♊
opposition	3782 Feb 18 21:17	0°♎16'30 0°46'30	retrograde	3787 May 24 21:11	8°♊19'42
min. Earth dist.	3782 Feb 17 23:11	0°♎23'54 4.28305 AU	desc. node	3787 May 29 10:54	8°♊17'43
	3782 Feb 20 22:30	30°♎♎	opposition	3787 Jul 24 16:23	3°♊26'43 -0°07'12
direct	3782 Apr 20 03:49	25°♎14'54	min. Earth dist.	3787 Jul 26 03:24	3°♊15'29 4.21877 AU
	3782 Jun 16 19:14	0°♎		3787 Aug 23 10:38	30°♎♊
evening set	3782 Aug 24 18:24	13°♎18'58	direct	3787 Sep 24 02:53	28°♊28'59
				3787 Oct 25 13:21	0°♊
conjunction	3782 Sep 07 06:13	16°♎16'09 0°44'52		3788 Jan 18 12:38	15°♊
minimum elong	3782 Sep 07 06:11	16°♎16'07 0°44'52	evening set	3788 Jan 27 13:12	17°♊04'36
max. Earth dist.	3782 Sep 08 03:46	16°♎27'57 6.35190 AU	max. Earth dist.	3788 Feb 07 15:26	19°♊39'45 6.14175 AU
morning rise	3782 Sep 20 16:14	19°♎12'14			
	3782 Nov 13 17:43	0°♎	conjunction	3788 Feb 09 07:03	20°♊02'54 -0°22'01
retrograde	3783 Jan 20 18:33	6°♎30'34	minimum elong	3788 Feb 09 07:01	20°♊02'53 0°22'01
opposition	3783 Mar 22 00:17	1°♎32'29 1°18'50	morning rise	3788 Feb 22 01:09	23°♊01'40
min. Earth dist.	3783 Mar 21 19:10	1°♎34'10 4.40760 AU		3788 Mar 24 01:09	0°♋
	3783 Apr 02 22:22	30°♎♎	retrograde	3788 Jun 28 21:02	12°♋13'20
direct	3783 May 22 12:40	26°♎29'56	opposition	3788 Aug 28 08:32	7°♋17'58 -0°56'15
	3783 Jul 11 08:23	0°♎	min. Earth dist.	3788 Aug 29 03:59	7°♋11'39 4.06783 AU
evening set	3783 Sep 26 01:28	14°♎05'08	direct	3788 Oct 27 07:46	2°♋22'45
			evening set	3789 Mar 01 20:38	21°♋40'59
conjunction	3783 Oct 09 06:19	16°♎55'39 0°59'49			
minimum elong	3783 Oct 09 06:18	16°♎55'39 0°59'49	conjunction	3789 Mar 14 18:21	24°♋46'51 -0°50'08
max. Earth dist.	3783 Oct 08 22:20	16°♎51'21 6.44734 AU	minimum elong	3789 Mar 14 18:19	24°♋46'50 0°50'07
morning rise	3783 Oct 22 08:36	19°♎44'52	max. Earth dist.	3789 Mar 14 05:12	24°♋38'57 6.00579 AU
	3783 Dec 13 06:47	0°♌	morning rise	3789 Mar 27 18:08	27°♋54'01
retrograde	3784 Feb 19 18:06	6°♌30'33		3789 Apr 05 14:16	0°♌
opposition	3784 Apr 20 07:14	1°♌35'48 1°28'29	retrograde	3789 Aug 05 19:48	18°♌11'21
min. Earth dist.	3784 Apr 20 21:49	1°♌31'05 4.46900 AU	opposition	3789 Oct 04 21:14	13°♌12'18 -1°27'29
	3784 May 02 20:51	30°♌♌	min. Earth dist.	3789 Oct 04 17:17	13°♌13'37 3.96067 AU
direct	3784 Jun 21 18:42	26°♌33'20	direct	3789 Dec 02 11:37	8°♌18'31
	3784 Aug 10 14:27	0°♌	evening set	3790 Apr 07 06:10	28°♌05'37
evening set	3784 Oct 25 23:51	13°♌56'49		3790 Apr 15 02:58	0°♍
	3784 Oct 30 21:34	15°♌			
conjunction	3784 Nov 07 22:28	16°♌44'02 0°58'17	conjunction	3790 Apr 20 11:06	1°♍17'54 -1°00'14
minimum elong	3784 Nov 07 22:29	16°♌44'02 0°58'18	minimum elong	3790 Apr 20 11:06	1°♍17'54 1°00'13
max. Earth dist.	3784 Nov 06 12:32	16°♌25'43 6.46971 AU	max. Earth dist.	3790 Apr 21 09:59	1°♍31'49 5.93744 AU
morning rise	3784 Nov 20 18:32	19°♌30'02	morning rise	3790 May 03 18:46	4°♍31'45
	3785 Jan 13 02:58	0°♍		3790 Jun 18 19:54	15°♍
retrograde	3785 Mar 20 22:21	6°♍12'14	retrograde	3790 Sep 13 07:07	25°♍17'56
opposition	3785 May 20 17:50	1°♍19'34 1°14'53	opposition	3790 Nov 11 22:43	20°♍15'12 -1°24'32
min. Earth dist.	3785 May 21 23:39	1°♍10'01 4.45203 AU	min. Earth dist.	3790 Nov 10 21:56	20°♍23'35 3.94013 AU
	3785 May 31 05:37	30°♍♍	direct	3791 Jan 08 20:30	15°♍20'48
direct	3785 Jul 22 12:43	26°♍17'57		3791 Apr 22 23:47	0°♎
	3785 Sep 12 05:49	0°♍	evening set	3791 May 14 21:41	5°♎08'14
evening set	3785 Nov 25 09:49	13°♍48'37			
max. Earth dist.	3785 Dec 06 03:52	16°♍09'42 6.41418 AU	conjunction	3791 May 28 10:23	8°♎22'53 -0°46'28
			minimum elong	3791 May 28 10:25	8°♎22'54 0°46'28
conjunction	3785 Dec 08 04:22	16°♍36'19 0°41'10	max. Earth dist.	3791 May 30 12:09	8°♎52'44 5.96589 AU
minimum elong	3785 Dec 08 04:23	16°♍36'20 0°41'10	morning rise	3791 Jun 11 01:57	11°♎38'51
morning rise	3785 Dec 20 20:39	19°♍23'10		3791 Sep 14 22:01	0°♏
	3786 Feb 11 18:16	0°♏	retrograde	3791 Oct 20 07:58	1°♏59'57
retrograde	3786 Apr 21 07:53	6°♏31'19		3791 Nov 24 13:14	30°♎♎
opposition	3786 Jun 21 06:36	1°♏39'17 0°40'47	min. Earth dist.	3791 Dec 17 08:53	27°♎07'36 4.01457 AU
min. Earth dist.	3786 Jun 22 20:13	1°♏27'19 4.36094 AU	opposition	3791 Dec 18 21:24	26°♎55'09 -0°47'49
	3786 Jul 04 12:14	30°♎♎	direct	3792 Feb 14 23:05	21°♎58'15
direct	3786 Aug 22 16:37	26°♎39'20		3792 Apr 29 01:36	0°♏
	3786 Oct 10 02:52	0°♏	evening set	3792 Jun 20 08:31	11°♏17'51
evening set	3786 Dec 26 06:59	14°♏35'27			
max. Earth dist.	3787 Jan 05 18:58	16°♏57'20 6.29414 AU	conjunction	3792 Jul 04 01:53	14°♏29'23 -0°15'02
			minimum elong	3792 Jul 04 01:54	14°♏29'23 0°15'03
conjunction	3787 Jan 07 23:41	17°♏27'07 0°12'06	behind sun begin	3792 Jul 03 23:16	14°♏27'52
minimum elong	3787 Jan 07 23:41	17°♏27'07 0°12'06	behind sun end	3792 Jul 04 04:32	14°♏30'55
behind sun begin	3787 Jan 07 18:13	17°♏24'03	max. Earth dist.	3792 Jul 06 10:28	15°♏02'20 6.07878 AU
behind sun end	3787 Jan 08 05:10	17°♏30'12	morning rise	3792 Jul 17 20:43	17°♏41'20
				3792 Sep 14 07:28	0°♎

retrograde	3792 Nov 23 00:59	6°♏58'58		max. Earth dist.	3799 Jan 10 07:42	21°♁34'19	6.27382 AU
asc. node	3792 Dec 17 11:36	5°♏59'50					
min. Earth dist.	3793 Jan 20 07:34	2°♏05'57	4.15261 AU	conjunction	3799 Jan 12 10:04	22°♁02'54	0°07'24
opposition	3793 Jan 21 16:17	1°♏54'50	0°04'41	minimum elong	3799 Jan 12 10:04	22°♁02'55	0°07'25
	3793 Feb 05 04:23	30°♏		behind sun begin	3799 Jan 12 02:47	21°♁58'47	
direct	3793 Mar 21 19:03	26°♏55'03		behind sun end	3799 Jan 12 17:21	22°♁07'02	
	3793 May 05 12:24	0°♏		morning rise	3799 Jan 25 01:54	24°♁55'13	
	3793 Jul 23 20:36	15°♏			3799 Feb 17 01:47	0°♏	
evening set	3793 Jul 26 08:16	15°♏33'17		desc. node	3799 Apr 08 00:24	9°♏09'58	
				retrograde	3799 May 29 18:18	13°♏05'19	
conjunction	3793 Aug 09 00:42	18°♏37'36	0°20'28	opposition	3799 Jul 29 13:13	8°♏12'06	-0°14'25
minimum elong	3793 Aug 09 00:40	18°♏37'35	0°20'28	min. Earth dist.	3799 Jul 30 22:20	8°♏01'28	4.19807 AU
max. Earth dist.	3793 Aug 10 20:30	19°♏02'12	6.23008 AU	direct	3799 Sep 28 18:50	3°♏14'45	
morning rise	3793 Aug 22 16:32	21°♏41'20			3800 Jan 01 07:51	15°♏	
	3793 Sep 30 21:02	0°♏		evening set	3800 Feb 01 05:26	21°♏55'55	
retrograde	3793 Dec 25 07:28	9°♏48'26		max. Earth dist.	3800 Feb 12 10:13	24°♏33'16	6.12225 AU
min. Earth dist.	3794 Feb 22 09:10	4°♏54'07	4.30303 AU				
opposition	3794 Feb 23 05:40	4°♏47'16	0°52'09	conjunction	3800 Feb 13 23:26	24°♏55'07	-0°26'36
	3794 Apr 12 09:26	30°♏		minimum elong	3800 Feb 13 23:24	24°♏55'07	0°26'36
direct	3794 Apr 24 15:43	29°♏45'32		morning rise	3800 Feb 26 18:13	27°♏54'59	
	3794 May 07 00:35	0°♏			3800 Mar 07 17:43	0°♏	
evening set	3794 Aug 29 07:19	17°♏44'58		retrograde	3800 Jul 05 01:29	17°♏16'01	
				opposition	3800 Sep 03 12:04	12°♏20'06	-1°02'09
conjunction	3794 Sep 11 18:07	20°♏41'06	0°47'51	min. Earth dist.	3800 Sep 04 04:20	12°♏14'47	4.05113 AU
minimum elong	3794 Sep 11 18:05	20°♏41'05	0°47'51	direct	3800 Nov 02 06:42	7°♏25'06	
max. Earth dist.	3794 Sep 12 10:09	20°♏49'52	6.36790 AU	evening set	3801 Mar 07 19:24	26°♏47'41	
morning rise	3794 Sep 25 03:09	23°♏36'07					
	3794 Oct 25 15:57	0°♏		conjunction	3801 Mar 20 18:03	29°♏54'29	-0°52'51
retrograde	3795 Jan 24 23:29	10°♏48'52		minimum elong	3801 Mar 20 18:01	29°♏54'28	0°52'51
opposition	3795 Mar 26 04:58	5°♏51'22	1°21'33	max. Earth dist.	3801 Mar 20 10:51	29°♏50'09	5.99341 AU
min. Earth dist.	3795 Mar 26 03:41	5°♏51'47	4.41876 AU		3801 Mar 21 03:11	0°♏	
direct	3795 May 26 22:01	0°♏48'48		morning rise	3801 Apr 02 18:36	3°♏02'35	
evening set	3795 Sep 30 09:12	18°♏22'02		retrograde	3801 Aug 12 04:40	23°♏25'45	
				opposition	3801 Oct 11 03:58	18°♏26'10	-1°29'17
conjunction	3795 Oct 13 13:15	21°♏12'01	1°00'35	min. Earth dist.	3801 Oct 10 21:33	18°♏28'18	3.95409 AU
minimum elong	3795 Oct 13 13:15	21°♏12'01	1°00'34	direct	3801 Dec 08 15:37	13°♏32'25	
max. Earth dist.	3795 Oct 13 01:19	21°♏05'35	6.45279 AU		3802 Mar 30 10:08	0°♏	
morning rise	3795 Oct 26 14:36	24°♏00'41		evening set	3802 Apr 13 10:03	3°♏20'36	
	3795 Nov 24 11:29	0°♏					
retrograde	3796 Feb 23 21:06	10°♏45'04		conjunction	3802 Apr 26 15:55	6°♏33'23	-0°59'43
opposition	3796 Apr 24 11:41	5°♏50'41	1°27'56	minimum elong	3802 Apr 26 15:56	6°♏33'23	0°59'43
min. Earth dist.	3796 Apr 25 04:04	5°♏45'24	4.46884 AU	max. Earth dist.	3802 Apr 27 18:00	6°♏49'13	5.93703 AU
direct	3796 Jun 25 23:46	0°♏48'20		morning rise	3802 May 10 00:54	9°♏47'48	
	3796 Oct 15 01:01	15°♏			3802 Jun 01 01:35	15°♏	
evening set	3796 Oct 30 05:28	18°♏12'39			3802 Sep 01 03:46	0°♏	
max. Earth dist.	3796 Nov 10 15:47	20°♏40'31	6.46400 AU	retrograde	3802 Sep 19 11:25	0°♏33'02	
					3802 Oct 07 17:18	30°♏	
conjunction	3796 Nov 12 03:27	20°♏59'49	0°56'46	min. Earth dist.	3802 Nov 16 23:32	25°♏39'16	3.94615 AU
minimum elong	3796 Nov 12 03:28	20°♏59'50	0°56'46	opposition	3802 Nov 18 03:20	25°♏29'52	-1°21'09
morning rise	3796 Nov 24 22:48	23°♏45'49		direct	3803 Jan 14 23:32	20°♏35'09	
	3796 Dec 24 22:56	0°♏			3803 Apr 05 03:47	0°♏	
retrograde	3797 Mar 25 05:21	10°♏30'45		evening set	3803 May 21 02:26	10°♏19'49	
opposition	3797 May 25 01:26	5°♏38'21	1°11'13				
min. Earth dist.	3797 May 26 08:59	5°♏28'17	4.44123 AU	conjunction	3803 Jun 03 16:03	13°♏34'19	-0°42'53
direct	3797 Jul 26 20:14	0°♏37'00		minimum elong	3803 Jun 03 16:05	13°♏34'20	0°42'53
evening set	3797 Nov 29 16:31	18°♏10'55		max. Earth dist.	3803 Jun 05 19:28	14°♏05'05	5.97767 AU
max. Earth dist.	3797 Dec 10 07:47	20°♏31'04	6.39906 AU	morning rise	3803 Jun 17 08:20	16°♏50'02	
					3803 Aug 17 10:25	0°♏	
conjunction	3797 Dec 12 10:35	20°♏59'03	0°37'40	retrograde	3803 Oct 26 06:38	7°♏04'01	
minimum elong	3797 Dec 12 10:36	20°♏59'04	0°37'40	min. Earth dist.	3803 Dec 23 08:01	2°♏11'20	4.03053 AU
morning rise	3797 Dec 25 02:48	23°♏46'27		opposition	3803 Dec 24 19:51	1°♏59'06	-0°40'57
	3798 Jan 23 11:04	0°♏			3804 Jan 08 20:13	30°♏	
retrograde	3798 Apr 25 21:56	11°♏00'59		direct	3804 Feb 21 01:03	27°♏01'45	
opposition	3798 Jun 25 20:03	6°♏08'54	0°34'38		3804 Apr 04 02:26	0°♏	
min. Earth dist.	3798 Jun 27 09:45	5°♏56'53	4.34245 AU	evening set	3804 Jun 26 10:01	16°♏16'11	
direct	3798 Aug 27 03:45	1°♏09'13					
evening set	3798 Dec 30 17:12	19°♏10'24		conjunction	3804 Jul 10 03:44	19°♏26'58	-0°10'03

minimum elong	3804 Jul 10 03:44	19°  26'59	0°10'03	opposition	3810 Jul 01 09:46	10°  37'45	0°28'21
behind sun begin	3804 Jul 09 21:03	19°  23'08		min. Earth dist.	3810 Jul 02 23:27	10°  25'45	4.32929 AU
behind sun end	3804 Jul 10 10:25	19°  30'50		direct	3810 Sep 01 15:26	5°  38'26	
max. Earth dist.	3804 Jul 12 12:32	19°  59'53	6.09754 AU	evening set	3811 Jan 05 02:45	23°  42'42	
morning rise	3804 Jul 23 22:26	22°  38'00		max. Earth dist.	3811 Jan 15 17:02	26°  07'03	6.25926 AU
	3804 Aug 26 06:04	0°  ♏					
asc. node	3804 Oct 28 21:25	10°  ♏15'32		conjunction	3811 Jan 17 19:21	26°  35'43	0°02'46
retrograde	3804 Nov 28 15:14	11°  ♏46'04		minimum elong	3811 Jan 17 19:22	26°  35'44	0°02'46
min. Earth dist.	3805 Jan 25 23:07	6°  ♏53'07	4.17226 AU	behind sun begin	3811 Jan 17 11:24	26°  31'13	
opposition	3805 Jan 27 07:08	6°  ♏42'17	0°11'58	behind sun end	3811 Jan 18 03:19	26°  34'014	
direct	3805 Mar 27 13:13	1°  ♏42'09		morning rise	3811 Jan 30 11:28	29°  38'43	
	3805 Jul 08 01:20	15°  ♏			3811 Feb 01 18:46	0°  ♏	
evening set	3805 Aug 01 04:06	20°  ♏15'11		desc. node	3811 Feb 18 06:24	3°  ♏40'00	
					3811 Apr 22 13:34	15°  ♏	
conjunction	3805 Aug 14 19:52	23°  ♏18'25	0°24'58	retrograde	3811 Jun 04 13:34	17°  ♏45'54	
minimum elong	3805 Aug 14 19:50	23°  ♏18'24	0°24'57		3811 Jul 18 04:15	15°  ♏	
max. Earth dist.	3805 Aug 16 10:49	23°  ♏40'13	6.24895 AU	opposition	3811 Aug 04 08:13	12°  ♏52'22	-0°21'20
morning rise	3805 Aug 28 11:06	26°  ♏21'01		min. Earth dist.	3811 Aug 05 15:17	12°  ♏42'23	4.18299 AU
	3805 Sep 14 03:38	0°  ♏		direct	3811 Oct 04 10:00	7°  ♏55'20	
retrograde	3805 Dec 30 16:41	14°  ♏20'08			3811 Dec 14 02:15	15°  ♏	
opposition	3806 Feb 28 14:58	9°  ♏19'25	0°57'30	evening set	3812 Feb 06 19:11	26°  ♏40'16	
min. Earth dist.	3806 Feb 27 21:37	9°  ♏25'12	4.31963 AU	max. Earth dist.	3812 Feb 18 04:37	29°  ♏20'46	6.10805 AU
direct	3806 Apr 30 05:59	4°  ♏17'27					
evening set	3806 Sep 03 20:53	22°  ♏13'09		conjunction	3812 Feb 19 13:39	29°  ♏40'13	-0°30'50
				minimum elong	3812 Feb 19 13:37	29°  ♏40'12	0°30'50
conjunction	3806 Sep 17 06:59	25°  ♏08'25	0°50'35		3812 Feb 20 23:13	0°  ♏	
minimum elong	3806 Sep 17 06:57	25°  ♏08'24	0°50'35	morning rise	3812 Mar 03 08:46	2°  ♏40'52	
max. Earth dist.	3806 Sep 17 20:27	25°  ♏15'46	6.38108 AU	retrograde	3812 Jul 10 02:43	22°  ♏09'18	
morning rise	3806 Sep 30 14:51	28°  ♏02'29		opposition	3812 Sep 08 11:51	17°  ♏13'00	-1°07'19
	3806 Oct 09 17:37	0°  ♏		min. Earth dist.	3812 Sep 09 02:17	17°  ♏08'17	4.03909 AU
retrograde	3807 Jan 30 03:55	15°  ♏10'27		direct	3812 Nov 07 02:40	12°  ♏18'17	
opposition	3807 Mar 31 11:17	10°  ♏13'26	1°23'52		3813 Mar 05 08:12	0°  ♏	
min. Earth dist.	3807 Mar 31 11:29	10°  ♏13'22	4.42794 AU	evening set	3813 Mar 12 14:26	1°  ♏43'52	
direct	3807 Jun 01 06:09	5°  ♏10'55					
evening set	3807 Oct 05 18:36	22°  ♏42'30		conjunction	3813 Mar 25 13:41	4°  ♏51'24	-0°55'02
				minimum elong	3813 Mar 25 13:40	4°  ♏51'23	0°55'03
conjunction	3807 Oct 18 21:37	25°  ♏31'57	1°01'02	max. Earth dist.	3813 Mar 25 08:46	4°  ♏48'25	5.98447 AU
minimum elong	3807 Oct 18 21:36	25°  ♏31'56	1°01'01	morning rise	3813 Apr 07 15:21	8°  ♏00'21	
max. Earth dist.	3807 Oct 18 05:38	25°  ♏23'19	6.45747 AU	retrograde	3813 Aug 17 06:24	28°  ♏28'10	
morning rise	3807 Oct 31 22:07	28°  ♏20'05		opposition	3813 Oct 16 05:34	23°  ♏28'07	-1°30'19
	3807 Nov 08 17:49	0°  ♏		min. Earth dist.	3813 Oct 15 19:46	23°  ♏31'23	3.94939 AU
	3808 Feb 23 07:47	15°  ♏		direct	3813 Dec 13 13:46	18°  ♏34'21	
retrograde	3808 Feb 29 03:52	15°  ♏03'13			3814 Mar 13 04:09	0°  ♏	
	3808 Mar 05 23:39	15°  ♏		evening set	3814 Apr 18 09:21	8°  ♏23'30	
opposition	3808 Apr 29 18:11	10°  ♏09'17	1°26'55				
min. Earth dist.	3808 Apr 30 13:26	10°  ♏03'05	4.46908 AU	conjunction	3814 May 01 16:21	11°  ♏36'47	-0°58'46
direct	3808 Jul 01 08:51	5°  ♏07'05		minimum elong	3814 May 01 16:22	11°  ♏36'48	0°58'46
	3808 Sep 28 17:54	15°  ♏		max. Earth dist.	3814 May 02 22:02	11°  ♏54'49	5.93705 AU
evening set	3808 Nov 04 12:33	22°  ♏31'44		morning rise	3814 May 15 02:18	14°  ♏51'41	
max. Earth dist.	3808 Nov 15 19:55	24°  ♏58'14	6.45998 AU		3814 May 15 16:07	15°  ♏	
					3814 Jul 25 03:09	0°  ♏	
conjunction	3808 Nov 17 09:54	25°  ♏18'49	0°54'56	retrograde	3814 Sep 24 12:18	5°  ♏36'11	
minimum elong	3808 Nov 17 09:56	25°  ♏18'50	0°54'56	min. Earth dist.	3814 Nov 21 22:41	0°  ♏42'17	3.95087 AU
morning rise	3808 Nov 30 04:40	28°  ♏04'46		opposition	3814 Nov 23 02:55	0°  ♏32'42	-1°17'21
	3808 Dec 09 04:05	0°  ♏			3814 Nov 27 03:33	30°  ♏	
retrograde	3809 Mar 30 13:19	14°  ♏51'47		direct	3815 Jan 19 23:39	25°  ♏37'44	
opposition	3809 May 30 10:34	9°  ♏59'30	1°07'10		3815 Mar 13 07:34	0°  ♏	
min. Earth dist.	3809 May 31 18:20	9°  ♏49'22	4.43346 AU	evening set	3815 May 26 03:13	15°  ♏20'44	
direct	3809 Aug 01 04:08	4°  ♏58'24					
evening set	3809 Dec 04 23:34	22°  ♏34'15		conjunction	3815 Jun 08 17:49	18°  ♏35'16	-0°39'09
max. Earth dist.	3809 Dec 15 15:44	24°  ♏55'15	6.38833 AU	minimum elong	3815 Jun 08 17:51	18°  ♏35'17	0°39'09
				max. Earth dist.	3815 Jun 10 23:28	19°  ♏07'15	5.98675 AU
conjunction	3809 Dec 17 17:20	25°  ♏22'40	0°34'00	morning rise	3815 Jun 22 10:49	21°  ♏50'52	
minimum elong	3809 Dec 17 17:21	25°  ♏22'41	0°34'00		3815 Jul 28 09:14	0°  ♏	
morning rise	3809 Dec 30 09:09	28°  ♏10'21		retrograde	3815 Oct 31 01:58	11°  ♏58'59	
	3810 Jan 07 17:56	0°  ♏		min. Earth dist.	3815 Dec 28 02:05	7°  ♏06'29	4.04303 AU
retrograde	3810 May 01 11:13	15°  ♏29'51		opposition	3815 Dec 29 14:15	6°  ♏54'10	-0°34'09

direct	3816 Feb 25 20:45	1°♏56'29		conjunction	3821 Dec 21 23:10	29°♏44'48	0°30'06
evening set	3816 Jul 01 08:47	21°♏07'33		minimum elong	3821 Dec 21 23:11	29°♏44'49	0°30'07
					3821 Dec 23 02:35	0°♏	
conjunction	3816 Jul 15 02:32	24°♏17'44	-0°05'13	morning rise	3822 Jan 03 14:54	2°♏32'58	
minimum elong	3816 Jul 15 02:31	24°♏17'43	0°05'12	retrograde	3822 May 06 00:19	19°♏58'27	
behind sun begin	3816 Jul 14 18:25	24°♏13'03		opposition	3822 Jul 05 23:03	15°♏06'09	0°21'50
behind sun end	3816 Jul 15 10:38	24°♏22'23		min. Earth dist.	3822 Jul 07 11:57	14°♏54'23	4.31202 AU
max. Earth dist.	3816 Jul 17 08:26	24°♏48'51	6.11232 AU	direct	3822 Sep 06 01:05	10°♏07'02	
morning rise	3816 Jul 28 21:21	27°♏28'04		desc. node	3822 Dec 29 13:18	25°♏48'17	
	3816 Aug 09 01:19	0°♏		evening set	3823 Jan 09 12:24	28°♏16'00	
asc. node	3816 Sep 09 23:43	6°♏47'36			3823 Jan 17 03:07	0°♏	
	3816 Nov 02 18:44	15°♏		max. Earth dist.	3823 Jan 20 05:10	0°♏42'21	6.23962 AU
retrograde	3816 Dec 03 04:01	16°♏28'29					
	3817 Jan 02 07:05	15°♏♏		conjunction	3823 Jan 22 05:12	1°♏09'50	-0°02'06
opposition	3817 Jan 31 19:58	11°♏24'59	0°18'54	minimum elong	3823 Jan 22 05:10	1°♏09'49	0°02'06
min. Earth dist.	3817 Jan 30 13:39	11°♏35'15	4.18788 AU	behind sun begin	3823 Jan 21 21:12	1°♏05'17	
direct	3817 Apr 01 05:58	6°♏24'32		behind sun end	3823 Jan 22 13:09	1°♏14'22	
	3817 Jun 19 12:01	15°♏		morning rise	3823 Feb 03 21:22	4°♏03'41	
evening set	3817 Aug 05 22:07	24°♏53'50			3823 Mar 27 20:55	15°♏	
				retrograde	3823 Jun 09 11:35	22°♏29'57	
conjunction	3817 Aug 19 13:31	27°♏56'12	0°29'09	opposition	3823 Aug 09 04:42	17°♏36'07	-0°28'19
minimum elong	3817 Aug 19 13:29	27°♏56'12	0°29'09	min. Earth dist.	3823 Aug 10 11:01	17°♏26'21	4.16223 AU
max. Earth dist.	3817 Aug 21 03:00	28°♏17'08	6.26440 AU		3823 Aug 30 11:19	15°♏♏	
	3817 Aug 28 19:36	0°♏		direct	3823 Oct 09 02:23	12°♏39'23	
morning rise	3817 Sep 02 03:50	0°♏57'48			3823 Nov 17 03:21	15°♏	
retrograde	3818 Jan 04 00:15	18°♏50'04			3824 Feb 05 00:40	0°♏	
opposition	3818 Mar 04 23:11	13°♏49'50	1°02'22	evening set	3824 Feb 11 11:09	1°♏30'10	
min. Earth dist.	3818 Mar 04 07:19	13°♏55'07	4.33376 AU	max. Earth dist.	3824 Feb 22 22:32	4°♏12'34	6.08790 AU
direct	3818 May 04 17:12	8°♏47'46					
evening set	3818 Sep 08 09:53	26°♏40'20		conjunction	3824 Feb 24 05:59	4°♏31'10	-0°35'01
				minimum elong	3824 Feb 24 05:57	4°♏31'09	0°35'01
conjunction	3818 Sep 21 18:54	29°♏34'44	0°52'57	morning rise	3824 Mar 08 01:58	7°♏33'01	
minimum elong	3818 Sep 21 18:52	29°♏34'43	0°52'56	retrograde	3824 Jul 15 05:59	27°♏11'11	
max. Earth dist.	3818 Sep 22 03:35	29°♏39'27	6.39275 AU	opposition	3824 Sep 13 14:55	22°♏14'22	-1°12'17
	3818 Sep 23 17:19	0°♏		min. Earth dist.	3824 Sep 14 01:34	22°♏10'53	4.02149 AU
morning rise	3818 Oct 05 01:55	2°♏27'56		direct	3824 Nov 12 00:22	17°♏19'50	
retrograde	3819 Feb 03 09:48	19°♏31'25			3825 Feb 16 04:35	0°♏	
opposition	3819 Apr 04 17:07	14°♏34'47	1°25'38	evening set	3825 Mar 17 13:56	6°♏50'35	
min. Earth dist.	3819 Apr 04 20:18	14°♏33'44	4.43649 AU				
direct	3819 Jun 05 15:47	9°♏32'10		conjunction	3825 Mar 30 14:14	9°♏59'09	-0°56'57
evening set	3819 Oct 10 02:51	27°♏01'55		minimum elong	3825 Mar 30 14:13	9°♏59'09	0°56'56
max. Earth dist.	3819 Oct 22 11:27	29°♏41'17	6.46208 AU	max. Earth dist.	3825 Mar 30 14:39	9°♏59'24	5.97114 AU
				morning rise	3825 Apr 12 16:52	13°♏09'11	
conjunction	3819 Oct 23 05:10	29°♏50'51	1°01'06		3825 Jul 04 05:08	0°♏	
minimum elong	3819 Oct 23 05:10	29°♏50'50	1°01'07	retrograde	3825 Aug 22 15:38	3°♏43'04	
	3819 Oct 23 22:09	0°♏			3825 Oct 11 17:37	30°♏	
morning rise	3819 Nov 05 04:37	2°♏38'25		opposition	3825 Oct 21 12:08	28°♏42'30	-1°30'44
	3820 Jan 09 12:17	15°♏		min. Earth dist.	3825 Oct 21 00:19	28°♏46'28	3.94190 AU
retrograde	3820 Mar 04 07:26	19°♏20'10		direct	3825 Dec 18 18:15	23°♏48'41	
	3820 Apr 29 15:13	15°♏♏			3826 Feb 19 22:16	0°♏	
opposition	3820 May 03 23:51	14°♏26'25	1°25'25	evening set	3826 Apr 23 14:34	13°♏39'42	
min. Earth dist.	3820 May 04 20:02	14°♏19'56	4.46937 AU		3826 Apr 29 03:24	15°♏	
direct	3820 Jul 05 14:51	9°♏24'17					
	3820 Sep 08 11:52	15°♏		conjunction	3826 May 06 22:48	16°♏53'37	-0°57'19
evening set	3820 Nov 08 18:22	26°♏48'55		minimum elong	3826 May 06 22:49	16°♏53'38	0°57'19
max. Earth dist.	3820 Nov 19 22:49	29°♏14'05	6.45558 AU	max. Earth dist.	3826 May 08 09:11	17°♏14'29	5.93615 AU
				morning rise	3826 May 20 10:00	20°♏09'07	
conjunction	3820 Nov 21 14:57	29°♏35'53	0°52'47		3826 Jul 02 14:16	0°♏	
minimum elong	3820 Nov 21 14:58	29°♏35'53	0°52'47	retrograde	3826 Sep 29 18:06	10°♏52'21	
	3820 Nov 23 11:23	0°♏		min. Earth dist.	3826 Nov 27 01:02	5°♏59'00	3.95697 AU
morning rise	3820 Dec 04 09:09	2°♏21'46		opposition	3826 Nov 28 07:40	5°♏48'37	-1°12'43
retrograde	3821 Apr 03 21:47	19°♏10'59		direct	3827 Jan 25 03:20	0°♏53'24	
opposition	3821 Jun 03 18:53	14°♏18'47	1°02'43	evening set	3827 May 31 09:39	20°♏33'57	
min. Earth dist.	3821 Jun 05 04:49	14°♏07'58	4.42428 AU				
direct	3821 Aug 05 12:51	9°♏17'49		conjunction	3827 Jun 14 00:54	23°♏48'14	-0°34'56
evening set	3821 Dec 09 05:45	26°♏56'00		minimum elong	3827 Jun 14 00:56	23°♏48'15	0°34'56
max. Earth dist.	3821 Dec 19 19:36	29°♏16'13	6.37477 AU	max. Earth dist.	3827 Jun 16 07:10	24°♏20'29	5.99925 AU

morning rise	3827 Jun 27 18:41	27° Π 03'33		opposition	3833 Jun 08 00:57	18° X 32'22	0°58'03
	3827 Jul 10 09:22	0° \mathfrak{E}		min. Earth dist.	3833 Jun 09 11:32	18° X 21'21	4.41210 AU
retrograde	3827 Nov 04 23:56	17° \mathfrak{E} 03'55		direct	3833 Aug 09 16:31	13° X 31'36	
min. Earth dist.	3828 Jan 02 00:19	12° \mathfrak{E} 11'33	4.06060 AU		3833 Dec 07 20:07	0° \mathfrak{Z}	
opposition	3828 Jan 03 12:48	11° \mathfrak{E} 59'07	-0°26'47	evening set	3833 Dec 13 09:51	1° \mathfrak{Z} 13'25	
direct	3828 Mar 01 22:38	7° \mathfrak{E} 01'02		max. Earth dist.	3833 Dec 23 22:45	3° \mathfrak{Z} 33'40	6.35717 AU
evening set	3828 Jul 06 11:07	26° \mathfrak{E} 06'31					
conjunction	3828 Jul 20 05:01	29° \mathfrak{E} 15'45	-0°00'04	conjunction	3833 Dec 26 03:02	4° \mathfrak{Z} 02'48	0°26'07
minimum elong	3828 Jul 20 05:00	29° \mathfrak{E} 15'45	0°00'04	minimum elong	3833 Dec 26 03:03	4° \mathfrak{Z} 02'48	0°26'07
behind sun begin	3828 Jul 19 21:07	29° \mathfrak{E} 11'15		morning rise	3834 Jan 07 18:41	6° \mathfrak{Z} 51'39	
behind sun end	3828 Jul 20 12:52	29° \mathfrak{E} 20'15		retrograde	3834 May 10 14:53	24° \mathfrak{Z} 24'58	
asc. node	3828 Jul 20 20:21	29° \mathfrak{E} 24'34		opposition	3834 Jul 10 11:48	19° \mathfrak{Z} 32'36	0°15'16
max. Earth dist.	3828 Jul 22 11:15	29° \mathfrak{E} 46'55	6.13376 AU	min. Earth dist.	3834 Jul 12 01:54	19° \mathfrak{Z} 20'26	4.28978 AU
	3828 Jul 23 10:01	0° Ω		direct	3834 Sep 10 11:09	14° \mathfrak{Z} 33'46	
morning rise	3828 Aug 02 23:20	2° Ω 24'55		desc. node	3834 Nov 09 16:27	19° \mathfrak{Z} 41'35	
	3828 Oct 03 00:53	15° Ω			3835 Jan 01 09:25	0° \approx	
retrograde	3828 Dec 07 18:19	21° Ω 14'51		evening set	3835 Jan 13 21:46	2° \approx 49'18	
min. Earth dist.	3829 Feb 04 05:42	16° Ω 21'32	4.21102 AU	max. Earth dist.	3835 Jan 24 14:31	5° \approx 16'31	6.21450 AU
opposition	3829 Feb 05 10:40	16° Ω 11'45	0°25'52	conjunction	3835 Jan 26 14:42	5° \approx 44'14	-0°06'47
	3829 Feb 14 09:25	15° \mathfrak{R} Ω		minimum elong	3835 Jan 26 14:42	5° \approx 44'14	0°06'47
direct	3829 Apr 06 01:11	11° Ω 11'03		behind sun begin	3835 Jan 26 07:14	5° \approx 39'57	
	3829 May 26 16:26	15° Ω		behind sun end	3835 Jan 26 22:09	5° \approx 48'30	
evening set	3829 Aug 10 17:16	29° Ω 33'50		morning rise	3835 Feb 08 07:24	8° \approx 39'19	
	3829 Aug 12 16:37	0° \mathfrak{P}			3835 Mar 08 20:57	15° \approx	
conjunction	3829 Aug 24 07:46	2° \mathfrak{P} 34'53	0°33'15	retrograde	3835 Jun 14 09:23	27° \approx 16'56	
minimum elong	3829 Aug 24 07:45	2° \mathfrak{P} 34'52	0°33'15	opposition	3835 Aug 14 01:58	22° \approx 22'46	-0°35'09
max. Earth dist.	3829 Aug 25 17:17	2° \mathfrak{P} 53'29	6.28731 AU	min. Earth dist.	3835 Aug 15 05:33	22° \approx 13'52	4.13616 AU
morning rise	3829 Sep 06 21:16	5° \mathfrak{P} 35'06		direct	3835 Oct 13 17:26	17° \approx 26'23	
retrograde	3830 Jan 08 06:24	23° \mathfrak{P} 18'08			3836 Jan 19 02:38	0° \mathfrak{H}	
opposition	3830 Mar 09 07:12	18° \mathfrak{P} 18'21	1°06'52	evening set	3836 Feb 16 04:58	6° \mathfrak{H} 25'13	
min. Earth dist.	3830 Mar 08 17:41	18° \mathfrak{P} 22'51	4.35469 AU	max. Earth dist.	3836 Feb 27 21:38	9° \mathfrak{H} 11'36	6.06328 AU
direct	3830 May 09 05:43	13° \mathfrak{P} 16'08		conjunction	3836 Feb 29 00:30	9° \mathfrak{H} 27'35	-0°38'58
	3830 Sep 07 23:04	0° \mathfrak{U}		minimum elong	3836 Feb 29 00:28	9° \mathfrak{H} 27'34	0°38'58
evening set	3830 Sep 12 21:01	1° \mathfrak{U} 03'19		morning rise	3836 Mar 12 21:14	12° \mathfrak{H} 30'51	
					3836 Jun 11 14:29	0° \mathfrak{Y}	
conjunction	3830 Sep 26 05:09	3° \mathfrak{U} 56'38	0°55'00	retrograde	3836 Jul 20 15:25	2° \mathfrak{Y} 20'34	
minimum elong	3830 Sep 26 05:08	3° \mathfrak{U} 56'37	0°54'59		3836 Aug 28 20:50	30° \mathfrak{R} \mathfrak{H}	
max. Earth dist.	3830 Sep 26 11:14	3° \mathfrak{U} 59'56	6.41013 AU	opposition	3836 Sep 18 20:44	27° \mathfrak{H} 23'18	-1°16'45
morning rise	3830 Oct 09 10:51	6° \mathfrak{U} 48'39		min. Earth dist.	3836 Sep 19 04:58	27° \mathfrak{H} 20'35	4.00071 AU
retrograde	3831 Feb 07 11:41	23° \mathfrak{U} 46'17		direct	3836 Nov 17 02:03	22° \mathfrak{H} 28'59	
opposition	3831 Apr 08 21:02	18° \mathfrak{U} 50'07	1°26'54		3837 Jan 27 02:34	0° \mathfrak{Y}	
min. Earth dist.	3831 Apr 09 02:25	18° \mathfrak{U} 48'22	4.44914 AU	evening set	3837 Mar 22 16:41	12° \mathfrak{Y} 06'00	
direct	3831 Jun 09 22:48	13° \mathfrak{U} 47'34					
	3831 Oct 08 12:34	0° \mathfrak{M}		conjunction	3837 Apr 04 18:05	15° \mathfrak{Y} 15'47	-0°58'24
evening set	3831 Oct 14 08:22	1° \mathfrak{M} 14'20		minimum elong	3837 Apr 04 18:04	15° \mathfrak{Y} 15'46	0°58'24
max. Earth dist.	3831 Oct 26 10:39	3° \mathfrak{M} 50'16	6.46887 AU	max. Earth dist.	3837 Apr 04 23:44	15° \mathfrak{Y} 19'12	5.95624 AU
				morning rise	3837 Apr 17 22:01	18° \mathfrak{Y} 27'04	
conjunction	3831 Oct 27 09:35	4° \mathfrak{M} 02'37	1°00'52		3837 Jun 08 08:50	0° \mathfrak{B}	
minimum elong	3831 Oct 27 09:35	4° \mathfrak{M} 02'37	1°00'52	retrograde	3837 Aug 28 02:34	9° \mathfrak{B} 07'07	
morning rise	3831 Nov 09 08:17	6° \mathfrak{M} 49'37		opposition	3837 Oct 26 21:48	4° \mathfrak{B} 06'00	-1°30'21
	3831 Dec 19 15:37	15° \mathfrak{M}		min. Earth dist.	3837 Oct 26 05:45	4° \mathfrak{B} 11'23	3.93495 AU
retrograde	3832 Mar 08 10:36	23° \mathfrak{M} 29'49			3837 Dec 02 08:54	30° \mathfrak{R} \mathfrak{Y}	
opposition	3832 May 08 03:07	18° \mathfrak{M} 36'23	1°23'30	direct	3837 Dec 23 23:28	29° \mathfrak{Y} 12'09	
min. Earth dist.	3832 May 09 02:41	18° \mathfrak{M} 28'49	4.46988 AU		3838 Jan 14 14:47	0° \mathfrak{B}	
	3832 Jun 08 14:24	15° \mathfrak{R} \mathfrak{M}			3838 Apr 11 19:46	15° \mathfrak{B}	
direct	3832 Jul 09 20:19	13° \mathfrak{M} 34'19		evening set	3838 Apr 28 23:15	19° \mathfrak{B} 04'31	
	3832 Aug 10 07:20	15° \mathfrak{M}					
	3832 Nov 08 06:56	0° X		conjunction	3838 May 12 08:31	22° \mathfrak{B} 18'53	-0°55'20
evening set	3832 Nov 12 21:09	0° X 59'11		minimum elong	3838 May 12 08:33	22° \mathfrak{B} 18'54	0°55'19
max. Earth dist.	3832 Nov 23 22:44	3° X 23'02	6.44962 AU	max. Earth dist.	3838 May 13 22:33	22° \mathfrak{B} 41'56	5.93762 AU
				morning rise	3838 May 25 20:58	25° \mathfrak{B} 34'50	
conjunction	3832 Nov 25 17:19	3° X 46'11	0°50'26		3838 Jun 13 13:40	0° Π	
minimum elong	3832 Nov 25 17:20	3° X 46'11	0°50'26	retrograde	3838 Oct 05 00:33	16° Π 15'11	
morning rise	3832 Dec 08 10:55	6° X 32'06		min. Earth dist.	3838 Dec 02 05:26	11° Π 22'11	3.96656 AU
retrograde	3833 Apr 08 02:44	23° X 24'29		opposition	3838 Dec 03 14:19	11° Π 11'00	-1°07'22

direct	3839 Jan 30 11:21	6° Π 15'21	morning rise	3844 Dec 12 15:34	10° X 49'34	
evening set	3839 Jun 05 17:57	25° Π 51'49	retrograde	3845 Apr 12 13:58	27° X 46'20	
			opposition	3845 Jun 12 11:08	22° X 54'16	0°52'54
conjunction	3839 Jun 19 10:02	29° Π 05'39 -0°30'21	min. Earth dist.	3845 Jun 13 23:47	22° X 42'35	4.39710 AU
minimum elong	3839 Jun 19 10:04	29° Π 05'40 0°30'22	direct	3845 Aug 14 02:15	17° X 53'42	
max. Earth dist.	3839 Jun 21 19:26	29° Π 39'36 6.01593 AU		3845 Nov 21 09:13	0° Z	
	3839 Jun 23 05:54	0° E	evening set	3845 Dec 17 17:43	5° Z 39'51	
morning rise	3839 Jul 03 04:05	2° E 20'18	max. Earth dist.	3845 Dec 28 06:07	8° Z 00'27	6.33787 AU
retrograde	3839 Nov 09 23:07	22° E 10'51				
min. Earth dist.	3840 Jan 06 23:49	17° E 18'17 4.08203 AU	conjunction	3845 Dec 30 10:50	8° Z 29'56	0°21'50
opposition	3840 Jan 08 11:42	17° E 06'03 -0°19'09	minimum elong	3845 Dec 30 10:51	8° Z 29'56	0°21'50
direct	3840 Mar 07 01:23	12° E 07'31	morning rise	3846 Jan 12 02:26	11° Z 19'33	
asc. node	3840 May 29 21:05	21° E 52'21	retrograde	3846 May 15 07:17	29° Z 01'14	
	3840 Jul 06 17:04	0° Ω	opposition	3846 Jul 15 04:46	24° Z 08'43	0°08'19
evening set	3840 Jul 11 13:44	1° Ω 06'06	min. Earth dist.	3846 Jul 16 17:23	23° Z 57'01	4.26748 AU
			direct	3846 Sep 14 23:00	19° Z 10'15	
conjunction	3840 Jul 25 07:17	4° Ω 14'07 0°05'07	desc. node	3846 Sep 19 03:13	19° Z 11'52	
minimum elong	3840 Jul 25 07:16	4° Ω 14'07 0°05'07		3846 Dec 15 02:26	0° \approx	
behind sun begin	3840 Jul 24 23:09	4° Ω 09'30	evening set	3847 Jan 18 11:19	7° \approx 32'17	
behind sun end	3840 Jul 25 15:23	4° Ω 18'43	max. Earth dist.	3847 Jan 29 06:52	10° \approx 01'53	6.19110 AU
max. Earth dist.	3840 Jul 27 11:25	4° Ω 43'54 6.15765 AU				
morning rise	3840 Aug 08 01:17	7° Ω 22'00	conjunction	3847 Jan 31 04:27	10° \approx 28'16	-0°11'37
	3840 Sep 12 04:39	15° Ω	minimum elong	3847 Jan 31 04:26	10° \approx 28'15	0°11'37
retrograde	3840 Dec 12 06:06	26° Ω 00'48	behind sun begin	3847 Jan 30 22:39	10° \approx 24'56	
min. Earth dist.	3841 Feb 08 21:19	21° Ω 07'21 4.23503 AU	behind sun end	3847 Jan 31 10:12	10° \approx 31'35	
opposition	3841 Feb 10 01:01	20° Ω 58'01 0°32'40	morning rise	3847 Feb 12 21:32	13° \approx 24'30	
direct	3841 Apr 10 19:42	15° Ω 56'59		3847 Feb 19 20:23	15° \approx	
	3841 Jul 26 23:14	0° Π		3847 May 12 08:54	0° H	
evening set	3841 Aug 15 11:48	4° Π 13'12	retrograde	3847 Jun 19 13:31	2° H 12'58	
				3847 Jul 28 01:03	30° R \approx	
conjunction	3841 Aug 29 01:31	7° Π 12'56 0°37'09	opposition	3847 Aug 19 03:37	27° \approx 18'30	-0°42'02
minimum elong	3841 Aug 29 01:30	7° Π 12'55 0°37'09	min. Earth dist.	3847 Aug 20 05:40	27° \approx 10'04	4.11352 AU
max. Earth dist.	3841 Aug 30 07:32	7° Π 29'32 6.30955 AU	direct	3847 Oct 18 15:11	22° \approx 22'30	
morning rise	3841 Sep 11 13:52	10° Π 11'45		3847 Dec 30 11:51	0° H	
retrograde	3842 Jan 12 13:33	27° Π 46'11	evening set	3848 Feb 21 02:03	11° H 27'55	
opposition	3842 Mar 13 15:20	22° Π 46'57 1°11'02				
min. Earth dist.	3842 Mar 13 04:53	22° Π 50'24 4.37352 AU	conjunction	3848 Mar 04 22:16	14° H 31'26	-0°42'47
direct	3842 May 13 19:15	17° Π 44'37	minimum elong	3848 Mar 04 22:15	14° H 31'25	0°42'47
	3842 Aug 22 07:04	0° A	max. Earth dist.	3848 Mar 03 23:35	14° H 17'53	6.04368 AU
evening set	3842 Sep 17 08:36	5° A 27'17	morning rise	3848 Mar 17 19:53	17° H 35'58	
				3848 May 13 19:18	0° Y	
conjunction	3842 Sep 30 15:38	8° A 19'36 0°56'48	retrograde	3848 Jul 26 00:32	7° Y 35'00	
minimum elong	3842 Sep 30 15:37	8° A 19'36 0°56'49	opposition	3848 Sep 24 04:41	2° Y 37'16	-1°20'45
max. Earth dist.	3842 Sep 30 16:31	8° A 20'05 6.42405 AU	min. Earth dist.	3848 Sep 24 08:33	2° Y 35'59	3.98660 AU
morning rise	3842 Oct 13 20:22	11° A 10'40		3848 Oct 15 04:45	30° R H	
retrograde	3843 Feb 11 15:16	28° A 03'45	direct	3848 Nov 22 04:08	27° H 43'14	
opposition	3843 Apr 13 02:08	23° A 07'59 1°27'48		3848 Dec 29 14:59	0° Y	
min. Earth dist.	3843 Apr 13 10:29	23° A 05'17 4.45762 AU	evening set	3849 Mar 27 21:05	17° Y 23'56	
direct	3843 Jun 14 06:58	18° A 05'24				
	3843 Sep 22 02:05	0° M	conjunction	3849 Apr 09 23:23	20° Y 34'29	-0°59'27
evening set	3843 Oct 18 15:13	5° M 30'34	minimum elong	3849 Apr 09 23:23	20° Y 34'29	0°59'27
			max. Earth dist.	3849 Apr 10 09:51	20° Y 40'51	5.94897 AU
conjunction	3843 Oct 31 15:45	8° M 18'26 1°00'20	morning rise	3849 Apr 23 04:30	23° Y 46'38	
minimum elong	3843 Oct 31 15:46	8° M 18'27 1°00'20		3849 May 19 16:01	0° B	
max. Earth dist.	3843 Oct 30 14:31	8° M 04'51 6.47130 AU	retrograde	3849 Sep 02 11:22	14° B 29'25	
morning rise	3843 Nov 13 13:26	11° M 05'01	min. Earth dist.	3849 Oct 31 11:09	9° B 34'17	3.93555 AU
	3843 Dec 02 04:09	15° M	opposition	3849 Nov 01 06:32	9° B 27'46	-1°29'14
retrograde	3844 Mar 12 14:47	27° M 45'06	direct	3849 Dec 29 06:57	4° B 33'48	
opposition	3844 May 12 08:58	22° M 51'57 1°21'09		3850 Mar 24 04:01	15° B	
min. Earth dist.	3844 May 13 10:12	22° M 43'52 4.46625 AU	evening set	3850 May 04 06:30	24° B 24'46	
direct	3844 Jul 14 02:35	17° M 50'03				
	3844 Oct 23 00:30	0° X	conjunction	3850 May 17 17:00	27° B 39'17	-0°52'57
evening set	3844 Nov 17 02:49	5° X 16'17	minimum elong	3850 May 17 17:02	27° B 39'18	0°52'57
max. Earth dist.	3844 Nov 28 00:18	7° X 38'21 6.44006 AU	max. Earth dist.	3850 May 19 12:31	28° B 05'34	5.94602 AU
				3850 May 27 10:15	0° Π	
conjunction	3844 Nov 29 22:16	8° X 03'24 0°47'45	morning rise	3850 May 31 06:17	0° Π 55'14	
minimum elong	3844 Nov 29 22:17	8° X 03'25 0°47'45	retrograde	3850 Oct 10 05:19	21° Π 29'52	

min. Earth dist.	3850 Dec 07 08:06	16° Π 36'55	3.98171 AU		3856 Apr 22 16:39	30° \mathbb{R} \mathbb{M}	
opposition	3850 Dec 08 17:46	16° Π 25'28	-1°01'39	opposition	3856 May 16 15:06	27° \mathbb{M} 08'29	1°18'25
direct	3851 Feb 04 16:37	11° Π 29'29		min. Earth dist.	3856 May 17 18:30	26° \mathbb{M} 59'43	4.45846 AU
	3851 Jun 06 15:33	0° \mathfrak{E}		direct	3856 Jul 18 09:19	22° \mathbb{M} 06'42	
evening set	3851 Jun 10 22:43	1° \mathfrak{E} 00'15			3856 Oct 04 18:08	0° \mathfrak{A}	
				evening set	3856 Nov 21 08:36	9° \mathfrak{A} 35'30	
conjunction	3851 Jun 24 15:10	4° \mathfrak{E} 13'21	-0°25'43	max. Earth dist.	3856 Dec 02 05:33	11° \mathfrak{A} 57'40	6.42738 AU
minimum elong	3851 Jun 24 15:11	4° \mathfrak{E} 13'22	0°25'42				
max. Earth dist.	3851 Jun 27 00:38	4° \mathfrak{E} 47'10	6.03607 AU	conjunction	3856 Dec 04 03:48	12° \mathfrak{A} 22'58	0°44'48
morning rise	3851 Jul 08 09:39	7° \mathfrak{E} 27'11		minimum elong	3856 Dec 04 03:50	12° \mathfrak{A} 22'58	0°44'49
retrograde	3851 Nov 14 15:32	27° \mathfrak{E} 07'12		morning rise	3856 Dec 16 20:36	15° \mathfrak{A} 09'28	
min. Earth dist.	3852 Jan 11 18:20	22° \mathfrak{E} 14'48	4.10491 AU		3857 Mar 09 17:53	0° \mathfrak{Z}	
opposition	3852 Jan 13 06:18	22° \mathfrak{E} 02'33	-0°11'41	retrograde	3857 Apr 16 23:56	2° \mathfrak{Z} 11'31	
direct	3852 Mar 11 22:53	17° \mathfrak{E} 03'38			3857 May 25 15:05	30° \mathbb{R} \mathfrak{A}	
asc. node	3852 Apr 09 07:33	18° \mathfrak{E} 21'55		opposition	3857 Jun 16 22:19	27° \mathfrak{A} 19'30	0°47'27
	3852 Jun 19 15:28	0° \mathbb{Q}		min. Earth dist.	3857 Jun 18 10:55	27° \mathfrak{A} 07'51	4.38037 AU
evening set	3852 Jul 16 12:01	5° \mathbb{Q} 55'21		direct	3857 Aug 18 10:48	22° \mathfrak{A} 19'14	
					3857 Nov 02 16:52	0° \mathfrak{Z}	
conjunction	3852 Jul 30 05:17	9° \mathbb{Q} 02'11	0°10'00	evening set	3857 Dec 22 02:33	10° \mathfrak{Z} 09'59	
minimum elong	3852 Jul 30 05:16	9° \mathbb{Q} 02'10	0°10'00	max. Earth dist.	3858 Jan 01 14:42	12° \mathfrak{Z} 31'09	6.31838 AU
behind sun begin	3852 Jul 29 22:36	8° \mathbb{Q} 58'24					
behind sun end	3852 Jul 30 11:56	9° \mathbb{Q} 05'56		conjunction	3858 Jan 03 19:25	13° \mathfrak{Z} 00'46	0°17'24
max. Earth dist.	3852 Aug 01 06:18	9° \mathbb{Q} 30'02	6.18132 AU	minimum elong	3858 Jan 03 19:26	13° \mathfrak{Z} 00'47	0°17'24
morning rise	3852 Aug 12 22:40	12° \mathbb{Q} 08'44		morning rise	3858 Jan 16 11:11	15° \mathfrak{Z} 51'13	
	3852 Aug 25 18:09	15° \mathbb{Q}			3858 Mar 30 22:43	0° \mathfrak{A}	
	3852 Nov 27 02:18	0° \mathbb{M}		retrograde	3858 May 20 03:19	3° \mathfrak{A} 41'21	
retrograde	3852 Dec 16 16:34	0° \mathbb{M} 37'14			3858 Jul 10 13:45	30° \mathbb{R} \mathfrak{Z}	
	3853 Jan 05 02:10	30° \mathbb{R} \mathbb{Q}		opposition	3858 Jul 19 23:23	28° \mathfrak{Z} 48'37	0°01'14
min. Earth dist.	3853 Feb 13 11:06	25° \mathbb{Q} 43'12	4.25724 AU	min. Earth dist.	3858 Jul 21 11:31	28° \mathfrak{Z} 37'03	4.24637 AU
opposition	3853 Feb 14 11:38	25° \mathbb{Q} 34'57	0°39'01	desc. node	3858 Jul 29 17:06	27° \mathfrak{Z} 34'31	
direct	3853 Apr 15 12:14	20° \mathbb{Q} 33'41		direct	3858 Sep 19 15:07	23° \mathfrak{Z} 50'27	
	3853 Jul 09 01:57	0° \mathbb{M}			3858 Nov 24 17:20	0° \mathfrak{A}	
evening set	3853 Aug 20 02:43	8° \mathbb{M} 44'18		evening set	3859 Jan 23 01:30	12° \mathfrak{A} 18'07	
				max. Earth dist.	3859 Feb 03 00:18	14° \mathfrak{A} 50'17	6.17024 AU
conjunction	3853 Sep 02 15:40	11° \mathbb{M} 42'56	0°40'43		3859 Feb 03 17:01	15° \mathfrak{A}	
minimum elong	3853 Sep 02 15:38	11° \mathbb{M} 42'54	0°40'43				
max. Earth dist.	3853 Sep 03 17:47	11° \mathbb{M} 57'18	6.32855 AU	conjunction	3859 Feb 04 18:57	15° \mathfrak{A} 15'04	-0°16'24
morning rise	3853 Sep 16 03:02	14° \mathbb{M} 40'33		minimum elong	3859 Feb 04 18:56	15° \mathfrak{A} 15'04	0°16'24
	3853 Dec 10 11:38	0° \mathfrak{L}		morning rise	3859 Feb 17 12:25	18° \mathfrak{A} 12'21	
retrograde	3854 Jan 16 16:40	2° \mathfrak{L} 07'56			3859 Apr 14 03:43	0° \mathfrak{H}	
	3854 Feb 22 20:41	30° \mathbb{R} \mathbb{M}		retrograde	3859 Jun 24 15:39	7° \mathfrak{H} 10'23	
opposition	3854 Mar 17 20:45	27° \mathbb{M} 09'13	1°14'42	opposition	3859 Aug 24 05:19	2° \mathfrak{H} 15'30	-0°48'37
min. Earth dist.	3854 Mar 17 12:28	27° \mathbb{M} 11'57	4.38823 AU	min. Earth dist.	3859 Aug 25 04:03	2° \mathfrak{H} 08'08	4.09470 AU
direct	3854 May 18 03:50	22° \mathbb{M} 06'48			3859 Sep 11 07:32	30° \mathbb{R} \mathfrak{A}	
	3854 Aug 03 21:52	0° \mathfrak{L}		direct	3859 Oct 23 11:13	27° \mathfrak{A} 19'50	
evening set	3854 Sep 21 17:33	9° \mathfrak{L} 46'28			3859 Dec 03 20:29	0° \mathfrak{H}	
				evening set	3860 Feb 25 23:11	16° \mathfrak{H} 30'14	
conjunction	3854 Oct 04 23:42	12° \mathfrak{L} 38'03	0°58'16				
minimum elong	3854 Oct 04 23:41	12° \mathfrak{L} 38'02	0°58'16	conjunction	3860 Mar 09 19:54	19° \mathfrak{H} 34'39	-0°46'15
max. Earth dist.	3854 Oct 04 20:34	12° \mathfrak{L} 36'22	6.43348 AU	minimum elong	3860 Mar 09 19:52	19° \mathfrak{H} 34'38	0°46'14
morning rise	3854 Oct 18 03:22	15° \mathfrak{L} 28'20		max. Earth dist.	3860 Mar 09 01:08	19° \mathfrak{H} 23'26	6.02840 AU
	3855 Jan 07 15:49	0° \mathbb{M}		morning rise	3860 Mar 22 18:24	22° \mathfrak{H} 40'14	
retrograde	3855 Feb 15 18:46	2° \mathbb{M} 18'36			3860 Apr 23 15:13	0° \mathfrak{Y}	
	3855 Mar 26 23:50	30° \mathbb{R} \mathfrak{L}		retrograde	3860 Jul 31 07:52	12° \mathfrak{Y} 46'40	
opposition	3855 Apr 17 06:16	27° \mathfrak{L} 23'20	1°28'15	opposition	3860 Sep 29 11:05	7° \mathfrak{Y} 48'18	-1°24'02
min. Earth dist.	3855 Apr 17 17:36	27° \mathfrak{L} 19'40	4.46140 AU	min. Earth dist.	3860 Sep 29 11:40	7° \mathfrak{Y} 48'07	3.97636 AU
direct	3855 Jun 18 14:13	22° \mathfrak{L} 20'51		direct	3860 Nov 27 07:05	2° \mathfrak{Y} 54'21	
	3855 Sep 03 17:27	0° \mathbb{M}		evening set	3861 Apr 01 23:44	22° \mathfrak{Y} 37'17	
evening set	3855 Oct 22 21:07	9° \mathbb{M} 45'48					
				conjunction	3861 Apr 15 03:14	25° \mathfrak{Y} 48'33	-0°59'59
conjunction	3855 Nov 04 20:48	12° \mathbb{M} 33'27	0°59'29	minimum elong	3861 Apr 15 03:14	25° \mathfrak{Y} 48'33	1°00'00
minimum elong	3855 Nov 04 20:48	12° \mathbb{M} 33'28	0°59'29	max. Earth dist.	3861 Apr 15 19:48	25° \mathfrak{Y} 58'37	5.94472 AU
max. Earth dist.	3855 Nov 03 14:51	12° \mathbb{M} 17'18	6.46909 AU	morning rise	3861 Apr 28 09:20	29° \mathfrak{Y} 01'22	
	3855 Nov 16 04:50	15° \mathbb{M}			3861 May 02 10:51	0° \mathfrak{B}	
morning rise	3855 Nov 17 17:55	15° \mathbb{M} 19'53			3861 Jul 13 12:53	15° \mathfrak{B}	
	3856 Feb 09 04:53	0° \mathfrak{A}		retrograde	3861 Sep 07 19:34	19° \mathfrak{B} 45'27	
retrograde	3856 Mar 16 20:51	2° \mathfrak{A} 01'25			3861 Nov 04 11:10	15° \mathbb{R} \mathfrak{B}	

opposition	3861 Nov 06 12:42	14° 8 43'20 -1°27'24	opposition	3867 Apr 21 11:58	1° ℓ 41'52 1°28'15
min. Earth dist.	3861 Nov 05 15:19	14° 8 50'32 3.93794 AU	min. Earth dist.	3867 Apr 22 00:55	1° ℓ 37'41 4.46395 AU
direct	3862 Jan 03 11:58	9° 8 49'11		3867 May 04 21:25	30° ℞ ♎
	3862 Mar 01 18:49	15° 8	direct	3867 Jun 22 21:01	26° ♎ 39'30
evening set	3862 May 09 11:41	29° 8 38'22		3867 Aug 10 21:50	0° ℓ
	3862 May 10 23:46	0° ♐	evening set	3867 Oct 27 04:32	14° ℓ 04'31
				3867 Oct 31 11:56	15° ℓ
conjunction	3862 May 22 23:02	2° ♐ 52'54 -0°50'11	max. Earth dist.	3867 Nov 07 20:03	16° ℓ 34'59 6.46705 AU
minimum elong	3862 May 22 23:04	2° ♐ 52'56 0°50'12			
max. Earth dist.	3862 May 24 20:25	3° ♐ 20'14 5.95455 AU	conjunction	3867 Nov 09 03:31	16° ℓ 51'59 0°58'19
morning rise	3862 Jun 05 13:25	6° ♐ 08'54	minimum elong	3867 Nov 09 03:32	16° ℓ 51'59 0°58'20
retrograde	3862 Oct 15 04:44	26° ♐ 37'50	morning rise	3867 Nov 21 23:49	19° ℓ 38'13
min. Earth dist.	3862 Dec 12 06:56	21° ♐ 45'17 3.99550 AU		3868 Jan 13 12:03	0° ♊
opposition	3862 Dec 13 18:19	21° ♐ 33'14 -0°55'34	retrograde	3868 Mar 21 03:57	6° ♊ 21'07
direct	3863 Feb 09 17:43	16° ♐ 36'50	opposition	3868 May 20 23:08	1° ♊ 28'30 1°15'14
	3863 May 20 12:10	0° ♑	min. Earth dist.	3868 May 22 04:04	1° ♊ 19'15 4.45221 AU
evening set	3863 Jun 16 01:45	6° ♑ 02'54		3868 Jun 01 16:03	30° ℞ ℓ
			direct	3868 Jul 22 17:55	26° ℓ 27'01
conjunction	3863 Jun 29 18:40	9° ♑ 15'23 -0°20'57		3868 Sep 11 07:22	0° ♊
minimum elong	3863 Jun 29 18:41	9° ♑ 15'23 0°20'57	evening set	3868 Nov 25 15:37	13° ♊ 57'37
max. Earth dist.	3863 Jul 02 03:28	9° ♑ 48'39 6.05382 AU	max. Earth dist.	3868 Dec 06 09:52	16° ♊ 18'45 6.41750 AU
morning rise	3863 Jul 13 13:18	12° ♑ 28'26			
	3863 Oct 14 23:42	0° ♋	conjunction	3868 Dec 08 10:12	16° ♊ 45'15 0°41'37
retrograde	3863 Nov 19 09:00	1° ♋ 59'06	minimum elong	3868 Dec 08 10:14	16° ♊ 45'16 0°41'37
	3863 Dec 24 11:42	30° ℞ ♑	morning rise	3868 Dec 21 02:48	19° ♊ 32'04
opposition	3864 Jan 17 23:25	26° ♑ 54'39 -0°04'16		3869 Feb 11 05:10	0° ♋
min. Earth dist.	3864 Jan 16 13:28	27° ♑ 06'12 4.12454 AU	retrograde	3869 Apr 21 12:16	6° ♋ 38'37
asc. node	3864 Feb 18 19:05	23° ♑ 07'52	opposition	3869 Jun 21 10:44	1° ♋ 46'36 0°41'43
direct	3864 Mar 16 20:46	21° ♑ 55'21	min. Earth dist.	3869 Jun 22 23:29	1° ♋ 34'53 4.36752 AU
	3864 May 31 13:10	0° ♋		3869 Jul 05 16:48	30° ℞ ♊
evening set	3864 Jul 21 09:31	10° ♋ 41'34	direct	3869 Aug 22 21:52	26° ♊ 46'38
				3869 Oct 09 09:57	0° ♋
conjunction	3864 Aug 04 02:33	13° ♋ 47'24 0°14'47	evening set	3869 Dec 26 11:29	14° ♋ 40'35
minimum elong	3864 Aug 04 02:32	13° ♋ 47'23 0°14'48	max. Earth dist.	3870 Jan 06 01:43	17° ♋ 03'22 6.30373 AU
behind sun begin	3864 Aug 03 23:33	13° ♋ 45'43			
behind sun end	3864 Aug 04 05:30	13° ♋ 49'04	conjunction	3870 Jan 08 04:20	17° ♋ 31'54 0°12'56
max. Earth dist.	3864 Aug 06 01:53	14° ♋ 14'10 6.20117 AU	minimum elong	3870 Jan 08 04:20	17° ♋ 31'54 0°12'57
	3864 Aug 09 10:58	15° ♋	behind sun begin	3870 Jan 07 23:23	17° ♋ 29'08
morning rise	3864 Aug 17 19:20	16° ♋ 52'49	behind sun end	3870 Jan 08 09:18	17° ♋ 34'41
	3864 Oct 22 10:49	0° ♌	morning rise	3870 Jan 20 19:55	20° ♋ 22'55
retrograde	3864 Dec 21 01:20	5° ♌ 12'28		3870 Mar 07 13:28	0° ♌
opposition	3865 Feb 18 22:06	0° ♌ 10'40 0°45'07	retrograde	3870 May 24 20:20	8° ♌ 19'48
min. Earth dist.	3865 Feb 17 22:48	0° ♌ 18'28 4.27568 AU	desc. node	3870 Jun 09 15:47	7° ♌ 56'31
	3865 Feb 20 05:54	30° ℞ ♋	opposition	3870 Jul 24 17:07	3° ♌ 26'54 -0°05'43
direct	3865 Apr 20 01:58	25° ♋ 09'11	min. Earth dist.	3870 Jul 26 03:36	3° ♌ 15'52 4.23092 AU
	3865 Jun 17 07:53	0° ♌		3870 Aug 23 12:52	30° ℞ ♋
evening set	3865 Aug 24 18:00	13° ♌ 15'29	direct	3870 Sep 24 04:57	28° ♋ 29'09
				3870 Oct 25 16:27	0° ♌
conjunction	3865 Sep 07 06:00	16° ♌ 13'06 0°44'04		3871 Jan 18 20:08	15° ♌
minimum elong	3865 Sep 07 05:58	16° ♌ 13'05 0°44'04	evening set	3871 Jan 27 14:30	17° ♌ 00'39
max. Earth dist.	3865 Sep 08 03:11	16° ♌ 24'44 6.34414 AU	max. Earth dist.	3871 Feb 07 15:07	19° ♌ 34'26 6.15519 AU
morning rise	3865 Sep 20 16:27	19° ♌ 09'40			
	3865 Nov 13 21:06	0° ♍	conjunction	3871 Feb 09 07:59	19° ♌ 58'15 -0°20'57
retrograde	3866 Jan 20 23:39	6° ♍ 31'13	minimum elong	3871 Feb 09 07:57	19° ♌ 58'15 0°20'57
opposition	3866 Mar 22 03:28	1° ♍ 33'03 1°17'59	morning rise	3871 Feb 22 01:57	22° ♌ 56'21
min. Earth dist.	3866 Mar 21 22:41	1° ♍ 34'38 4.40005 AU		3871 Mar 25 14:25	0° ♍
	3866 Apr 03 02:52	30° ℞ ♌	retrograde	3871 Jun 29 15:41	12° ♍ 02'04
direct	3866 May 22 15:19	26° ♌ 30'36	opposition	3871 Aug 29 04:28	7° ♍ 06'45 -0°54'37
	3866 Jul 11 06:18	0° ♍	min. Earth dist.	3871 Aug 30 00:46	7° ♍ 00'09 4.08116 AU
evening set	3866 Sep 26 03:47	14° ♍ 08'01	direct	3871 Oct 28 06:34	2° ♍ 11'20
			evening set	3872 Mar 01 16:59	21° ♍ 25'03
conjunction	3866 Oct 09 09:04	16° ♍ 58'59 0°59'25			
minimum elong	3866 Oct 09 09:04	16° ♍ 58'59 0°59'25	conjunction	3872 Mar 14 14:29	24° ♍ 30'15 -0°49'14
max. Earth dist.	3866 Oct 09 02:25	16° ♍ 55'24 6.44066 AU	minimum elong	3872 Mar 14 14:27	24° ♍ 30'14 0°49'14
morning rise	3866 Oct 22 11:45	19° ♍ 48'38	max. Earth dist.	3872 Mar 14 00:38	24° ♍ 21'56 6.01768 AU
	3866 Dec 12 23:04	0° ♎	morning rise	3872 Mar 27 13:38	27° ♍ 36'37
retrograde	3867 Feb 19 22:55	6° ♎ 36'42		3872 Apr 06 16:00	0° ♎

retrograde	3872 Aug 05 11:18	17° Υ 48'41	retrograde	3878 Jan 25 03:44	10° Ω 53'05	
opposition	3872 Oct 04 13:06	12° Υ 49'52 -1°26'31	opposition	3878 Mar 26 09:21	5° Ω 55'21 1°20'44	
min. Earth dist.	3872 Oct 04 11:33	12° Υ 50'23 3.96973 AU	min. Earth dist.	3878 Mar 26 05:44	5° Ω 56'33 4.41019 AU	
direct	3872 Dec 02 05:57	7° Υ 56'01	direct	3878 May 26 23:19	0° Ω 52'50	
evening set	3873 Apr 06 22:24	27° Υ 40'16	evening set	3878 Sep 30 13:07	18° Ω 28'07	
	3873 Apr 16 13:02	0° \mathcal{B}				
conjunction	3873 Apr 20 02:42	0° \mathcal{B} 52'02 -1°00'03	conjunction	3878 Oct 13 17:23	21° Ω 18'26 1°00'12	
minimum elong	3873 Apr 20 02:42	0° \mathcal{B} 52'02 1°00'02	minimum elong	3878 Oct 13 17:23	21° Ω 18'26 1°00'11	
max. Earth dist.	3873 Apr 20 21:30	1° \mathcal{B} 03'27 5.94261 AU	max. Earth dist.	3878 Oct 13 06:49	21° Ω 12'43 6.44728 AU	
morning rise	3873 May 03 10:03	4° \mathcal{B} 05'28	morning rise	3878 Oct 26 19:12	24° Ω 07'27	
	3873 Jun 20 15:32	15° \mathcal{B}		3878 Nov 24 01:48	0° \mathcal{M}	
retrograde	3873 Sep 12 20:06	24° \mathcal{B} 50'02	retrograde	3879 Feb 24 04:23	10° \mathcal{M} 53'15	
opposition	3873 Nov 11 13:13	19° \mathcal{B} 47'31 -1°24'58	opposition	3879 Apr 25 17:27	5° \mathcal{M} 58'44 1°27'43	
min. Earth dist.	3873 Nov 10 13:12	19° \mathcal{B} 55'37 3.94079 AU	min. Earth dist.	3879 Apr 26 09:18	5° \mathcal{M} 53'37 4.46656 AU	
	3873 Dec 31 08:37	15° $\mathcal{R}\mathcal{B}$	direct	3879 Jun 27 05:40	0° \mathcal{M} 56'22	
direct	3874 Jan 08 10:48	14° \mathcal{B} 53'08		3879 Oct 15 14:20	15° \mathcal{M}	
	3874 Jan 16 13:24	15° \mathcal{B}	evening set	3879 Oct 31 10:42	18° \mathcal{M} 20'49	
	3874 Apr 24 14:34	0° \mathcal{I}	max. Earth dist.	3879 Nov 11 22:46	20° \mathcal{M} 49'34 6.46514 AU	
evening set	3874 May 14 12:18	4° \mathcal{I} 40'59				
conjunction	3874 May 28 00:44	7° \mathcal{I} 55'39 -0°47'11	conjunction	3879 Nov 13 08:59	21° \mathcal{M} 08'04 0°56'50	
minimum elong	3874 May 28 00:46	7° \mathcal{I} 55'40 0°47'11	minimum elong	3879 Nov 13 09:00	21° \mathcal{M} 08'05 0°56'50	
max. Earth dist.	3874 May 30 00:05	8° \mathcal{I} 24'07 5.96216 AU	morning rise	3879 Nov 26 04:37	23° \mathcal{M} 54'07	
morning rise	3874 Jun 10 15:54	11° \mathcal{I} 11'39		3879 Dec 25 12:23	0° \mathcal{J}	
	3874 Sep 18 13:51	0° \mathcal{E}	retrograde	3880 Mar 25 09:36	10° \mathcal{J} 38'08	
retrograde	3874 Oct 20 01:39	1° \mathcal{E} 35'39	opposition	3880 May 25 06:11	5° \mathcal{J} 45'35 1°11'38	
	3874 Nov 20 07:41	30° $\mathcal{R}\mathcal{I}$	min. Earth dist.	3880 May 26 11:58	5° \mathcal{J} 36'04 4.44572 AU	
min. Earth dist.	3874 Dec 17 03:38	26° \mathcal{I} 42'45 4.00683 AU	direct	3880 Jul 27 00:24	0° \mathcal{J} 44'11	
opposition	3874 Dec 18 14:19	26° \mathcal{I} 30'56 -0°49'23	evening set	3880 Nov 29 21:18	18° \mathcal{J} 16'27	
direct	3875 Feb 14 16:12	21° \mathcal{I} 34'09	max. Earth dist.	3880 Dec 10 15:17	20° \mathcal{J} 37'47 6.40667 AU	
	3875 May 01 17:29	0° \mathcal{E}				
evening set	3875 Jun 21 00:50	10° \mathcal{E} 56'48	conjunction	3880 Dec 12 15:33	21° \mathcal{J} 04'20 0°38'12	
conjunction	3875 Jul 04 18:16	14° \mathcal{E} 08'50 -0°16'15	minimum elong	3880 Dec 12 15:34	21° \mathcal{J} 04'21 0°38'12	
minimum elong	3875 Jul 04 18:17	14° \mathcal{E} 08'50 0°16'15	morning rise	3880 Dec 25 07:41	23° \mathcal{J} 51'25	
max. Earth dist.	3875 Jul 07 03:28	14° \mathcal{E} 42'12 6.06800 AU		3881 Jan 23 07:32	0° \mathcal{Z}	
morning rise	3875 Jul 18 13:05	17° \mathcal{E} 21'19	retrograde	3881 Apr 25 23:25	11° \mathcal{Z} 02'44	
	3875 Sep 16 15:58	0° Ω	opposition	3881 Jun 25 22:10	6° \mathcal{Z} 10'41 0°35'43	
retrograde	3875 Nov 23 22:45	6° Ω 44'12	min. Earth dist.	3881 Jun 27 11:40	5° \mathcal{Z} 58'45 4.35264 AU	
asc. node	3876 Jan 01 01:39	4° Ω 25'28	direct	3881 Aug 27 07:27	1° \mathcal{Z} 10'58	
min. Earth dist.	3876 Jan 21 03:42	1° Ω 51'28 4.14016 AU	evening set	3881 Dec 30 19:37	19° \mathcal{Z} 08'49	
opposition	3876 Jan 22 13:23	1° Ω 40'03 0°02'52	max. Earth dist.	3882 Jan 10 08:37	21° \mathcal{Z} 31'33 6.28574 AU	
	3876 Feb 04 02:25	30° $\mathcal{R}\mathcal{E}$				
direct	3876 Mar 21 13:15	26° \mathcal{E} 40'25	conjunction	3882 Jan 12 12:15	22° \mathcal{Z} 00'47 0°08'21	
	3876 May 07 02:26	0° Ω	minimum elong	3882 Jan 12 12:16	22° \mathcal{Z} 00'47 0°08'21	
	3876 Jul 24 12:10	15° Ω	behind sun begin	3882 Jan 12 05:14	21° \mathcal{Z} 56'49	
evening set	3876 Jul 26 04:44	15° Ω 22'42	behind sun end	3882 Jan 12 19:18	22° \mathcal{Z} 04'45	
conjunction	3876 Aug 08 21:17	18° Ω 27'40 0°19'19	morning rise	3882 Jan 25 04:08	24° \mathcal{Z} 52'36	
minimum elong	3876 Aug 08 21:16	18° Ω 27'39 0°19'18		3882 Feb 17 10:31	0° \approx	
max. Earth dist.	3876 Aug 10 16:26	18° Ω 51'59 6.21704 AU	desc. node	3882 Apr 20 00:51	10° \approx 36'17	
morning rise	3876 Aug 22 13:38	21° Ω 32'09	retrograde	3882 May 29 15:22	12° \approx 57'45	
	3876 Oct 01 09:45	0° \mathcal{M}	opposition	3882 Jul 29 11:08	8° \approx 04'33 -0°12'46	
retrograde	3876 Dec 25 10:40	9° \mathcal{M} 44'29	min. Earth dist.	3882 Jul 30 20:18	7° \approx 53'54 4.21080 AU	
min. Earth dist.	3877 Feb 22 10:32	4° \mathcal{M} 49'59 4.29052 AU	direct	3882 Sep 28 18:52	3° \approx 07'02	
opposition	3877 Feb 23 07:06	4° \mathcal{M} 43'06 0°50'44		3883 Jan 02 02:15	15° \approx	
	3877 Apr 10 17:49	30° $\mathcal{R}\mathcal{O}$	evening set	3883 Feb 01 03:58	21° \approx 44'11	
direct	3877 Apr 24 15:47	29° Ω 41'22	max. Earth dist.	3883 Feb 12 08:41	24° \approx 20'59 6.13471 AU	
	3877 May 08 15:16	0° \mathcal{M}				
evening set	3877 Aug 29 07:58	17° \mathcal{M} 44'21	conjunction	3883 Feb 13 21:56	24° \approx 42'48 -0°25'27	
conjunction	3877 Sep 11 19:20	20° \mathcal{M} 41'08 0°47'02	minimum elong	3883 Feb 13 21:55	24° \approx 42'47 0°25'27	
minimum elong	3877 Sep 11 19:18	20° \mathcal{M} 41'07 0°47'03	morning rise	3883 Feb 26 16:16	27° \approx 41'57	
max. Earth dist.	3877 Sep 12 14:30	20° \mathcal{M} 51'37 6.35700 AU		3883 Mar 08 15:08	0° \mathcal{H}	
morning rise	3877 Sep 25 04:40	23° \mathcal{M} 36'45	retrograde	3883 Jul 04 18:35	16° \mathcal{H} 57'30	
	3877 Oct 25 14:32	0° Ω	opposition	3883 Sep 03 05:27	12° \mathcal{H} 01'49 -1°00'28	
			min. Earth dist.	3883 Sep 03 23:48	11° \mathcal{H} 55'50 4.06212 AU	
			direct	3883 Nov 02 02:32	7° \mathcal{H} 06'43	
			evening set	3884 Mar 06 13:59	26° \mathcal{H} 25'59	
			conjunction	3884 Mar 19 12:06	29° \mathcal{H} 32'13 -0°51'59	





























































































































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max. Earth dist.	3884 Mar 19 00:49	29° H 25'26	6.00170 AU		3889 Oct 08 17:56	0° A	
	3884 Mar 21 10:15	0° Y		retrograde	3890 Jan 29 08:07	15° A 12'11	
morning rise	3884 Apr 01 12:24	2° Y 39'47		opposition	3890 Mar 30 14:22	10° A 14'55	1°23'00
retrograde	3884 Aug 10 17:29	22° Y 59'28		min. Earth dist.	3890 Mar 30 14:09	10° A 15'00	4.42609 AU
opposition	3884 Oct 09 18:37	18° Y 00'08	-1°28'31	direct	3890 May 31 09:01	5° A 12'20	
min. Earth dist.	3884 Oct 09 13:09	18° Y 01'57	3.95868 AU	evening set	3890 Oct 04 20:02	22° A 43'41	
direct	3884 Dec 07 07:11	13° Y 06'20					
	3885 Mar 30 23:28	0° B		conjunction	3890 Oct 17 23:29	25° A 33'13	1°00'39
evening set	3885 Apr 12 01:43	2° B 53'41		minimum elong	3890 Oct 17 23:28	25° A 33'13	1°00'40
				max. Earth dist.	3890 Oct 17 10:20	25° A 26'08	6.45812 AU
conjunction	3885 Apr 25 07:17	6° B 06'17	-0°59'39	morning rise	3890 Oct 31 00:06	28° A 21'23	
minimum elong	3885 Apr 25 07:18	6° B 06'17	0°59'39		3890 Nov 07 17:27	0° M	
max. Earth dist.	3885 Apr 26 07:22	6° B 20'55	5.93760 AU		3891 Feb 21 16:24	15° M	
morning rise	3885 May 08 15:43	9° B 20'29		retrograde	3891 Feb 28 04:52	15° M 04'02	
	3885 Jun 01 15:52	15° B			3891 Mar 06 17:12	15° R M	
	3885 Sep 10 03:09	0° II		opposition	3891 Apr 29 20:16	10° M 09'51	1°26'44
retrograde	3885 Sep 18 03:49	0° II 06'26		min. Earth dist.	3891 Apr 30 13:44	10° M 04'12	4.47177 AU
	3885 Sep 26 03:15	30° R B		direct	3891 Jul 01 09:30	5° M 07'32	
opposition	3885 Nov 16 18:51	25° B 03'30	-1°21'47		3891 Sep 28 19:42	15° M	
min. Earth dist.	3885 Nov 15 17:27	25° B 12'06	3.94246 AU	evening set	3891 Nov 04 13:54	22° M 30'56	
direct	3886 Jan 13 16:04	20° B 08'55		max. Earth dist.	3891 Nov 15 21:51	24° M 57'36	6.46415 AU
	3886 Apr 05 21:02	0° II					
evening set	3886 May 19 18:24	9° II 55'42		conjunction	3891 Nov 17 11:22	25° M 17'55	0°55'05
				minimum elong	3891 Nov 17 11:23	25° M 17'55	0°55'05
conjunction	3886 Jun 02 07:50	13° II 10'29	-0°43'40	morning rise	3891 Nov 30 06:22	28° M 03'46	
minimum elong	3886 Jun 02 07:52	13° II 10'30	0°43'39		3891 Dec 09 08:00	0° A	
max. Earth dist.	3886 Jun 04 10:47	13° II 41'00	5.97038 AU	retrograde	3892 Mar 29 14:26	14° A 49'05	
morning rise	3886 Jun 15 23:54	16° II 26'29		opposition	3892 May 29 10:49	9° A 56'43	1°07'45
	3886 Aug 18 02:14	0° B		min. Earth dist.	3892 May 30 19:29	9° A 46'18	4.43837 AU
retrograde	3886 Oct 25 02:25	6° B 44'37		direct	3892 Jul 31 05:44	4° A 55'26	
min. Earth dist.	3886 Dec 22 02:39	1° B 52'12	4.02091 AU	evening set	3892 Dec 04 00:05	22° A 29'50	
opposition	3886 Dec 23 14:47	1° B 39'54	-0°42'33	max. Earth dist.	3892 Dec 14 14:42	24° A 49'49	6.39329 AU
	3887 Jan 05 02:16	30° R II					
direct	3887 Feb 19 17:34	26° II 42'49		conjunction	3892 Dec 16 17:58	25° A 18'06	0°34'40
	3887 Apr 06 03:51	0° B		minimum elong	3892 Dec 16 17:59	25° A 18'07	0°34'40
evening set	3887 Jun 26 04:50	16° B 00'55		morning rise	3892 Dec 29 09:59	28° A 05'39	
					3893 Jan 07 03:40	0° B	
conjunction	3887 Jul 09 22:21	19° B 12'11	-0°11'13	retrograde	3893 Apr 30 09:10	15° B 23'03	
minimum elong	3887 Jul 09 22:22	19° B 12'11	0°11'14	opposition	3893 Jun 30 07:50	10° B 30'53	0°29'39
behind sun begin	3887 Jul 09 16:17	19° B 08'40		min. Earth dist.	3893 Jul 01 21:21	10° B 18'55	4.33387 AU
behind sun end	3887 Jul 10 04:28	19° B 15'43		direct	3893 Aug 31 13:30	5° B 31'20	
max. Earth dist.	3887 Jul 12 06:04	19° B 44'33	6.08673 AU	evening set	3894 Jan 04 02:18	23° B 34'39	
morning rise	3887 Jul 23 17:18	22° B 23'48		max. Earth dist.	3894 Jan 14 16:53	25° B 58'58	6.26304 AU
	3887 Aug 27 01:46	0° B					
asc. node	3887 Nov 10 22:38	11° B 06'05		conjunction	3894 Jan 16 19:05	26° B 27'32	0°03'48
retrograde	3887 Nov 28 15:14	11° B 36'55		minimum elong	3894 Jan 16 19:05	26° B 27'33	0°03'48
min. Earth dist.	3888 Jan 25 21:57	6° B 44'02	4.16169 AU	behind sun begin	3894 Jan 16 11:13	26° B 23'05	
opposition	3888 Jan 27 06:24	6° B 33'01	0°10'14	behind sun end	3894 Jan 17 02:58	26° B 32'01	
direct	3888 Mar 26 11:07	1° B 33'03		morning rise	3894 Jan 29 11:03	29° B 20'20	
	3888 Jul 07 12:02	15° B			3894 Feb 01 09:15	0° A	
evening set	3888 Jul 31 02:07	20° B 09'10		desc. node	3894 Mar 01 10:39	6° A 07'02	
					3894 Apr 22 20:12	15° A	
conjunction	3888 Aug 13 18:17	23° B 12'56	0°23'51	retrograde	3894 Jun 03 11:00	17° A 35'38	
minimum elong	3888 Aug 13 18:15	23° B 12'55	0°23'50		3894 Jul 15 13:07	15° R A	
max. Earth dist.	3888 Aug 15 12:33	23° B 36'38	6.23984 AU	opposition	3894 Aug 03 04:47	12° A 42'13	-0°19'41
morning rise	3888 Aug 27 09:38	26° B 16'02		min. Earth dist.	3894 Aug 04 13:41	12° A 31'38	4.18558 AU
	3888 Sep 13 10:47	0° M		direct	3894 Oct 03 07:58	7° A 45'00	
retrograde	3888 Dec 29 19:09	14° M 18'36			3894 Dec 13 23:40	15° A	
opposition	3889 Feb 27 17:02	9° M 17'43	0°56'06	evening set	3895 Feb 05 18:08	26° A 29'47	
min. Earth dist.	3889 Feb 26 21:50	9° M 24'07	4.31267 AU	max. Earth dist.	3895 Feb 17 00:18	29° A 08'22	6.10909 AU
direct	3889 Apr 29 05:39	4° M 15'52					
evening set	3889 Sep 02 21:37	22° M 12'59		conjunction	3895 Feb 18 12:28	29° A 29'40	-0°29'46
				minimum elong	3895 Feb 18 12:27	29° A 29'39	0°29'45
conjunction	3889 Sep 16 07:48	25° M 08'30	0°49'46		3895 Feb 20 15:59	0° H	
minimum elong	3889 Sep 16 07:46	25° M 08'29	0°49'47	morning rise	3895 Mar 03 07:41	2° H 30'16	
max. Earth dist.	3889 Sep 16 21:53	25° M 16'12	6.37666 AU	retrograde	3895 Jul 09 21:53	21° H 57'44	

opposition	3895 Sep 08 07:55	17° X 01'33	-1°05'55	direct	3901 May 04 20:15	8° P 49'29	
min. Earth dist.	3895 Sep 08 22:34	16° X 56'46	4.03843 AU	evening set	3901 Sep 08 11:24	26° P 41'21	
direct	3895 Nov 06 23:01	12° X 06'41					
	3896 Mar 05 00:51	0° Y		conjunction	3901 Sep 21 20:45	29° P 35'47	0°52'16
evening set	3896 Mar 11 13:10	1° Y 33'17		minimum elong	3901 Sep 21 20:43	29° P 35'46	0°52'16
				max. Earth dist.	3901 Sep 22 07:51	29° P 41'49	6.39400 AU
conjunction	3896 Mar 24 12:23	4° Y 40'52	-0°54'21		3901 Sep 23 17:14	0° A	
minimum elong	3896 Mar 24 12:21	4° Y 40'51	0°54'21	morning rise	3901 Oct 05 03:48	2° A 28'59	
max. Earth dist.	3896 Mar 24 07:06	4° Y 37'41	5.98230 AU	retrograde	3902 Feb 03 12:15	19° A 32'18	
morning rise	3896 Apr 06 13:41	7° Y 49'47		opposition	3902 Apr 04 20:13	14° A 35'33	1°24'55
retrograde	3896 Aug 16 05:21	28° Y 18'15		min. Earth dist.	3902 Apr 04 22:19	14° A 34'52	4.43858 AU
opposition	3896 Oct 15 03:12	23° Y 18'21	-1°29'47	direct	3902 Jun 05 18:00	9° A 33'00	
min. Earth dist.	3896 Oct 14 19:05	23° Y 21'04	3.94579 AU	evening set	3902 Oct 10 04:16	27° A 01'42	
direct	3896 Dec 12 12:47	18° Y 24'35					
	3897 Mar 12 19:24	0° B		conjunction	3902 Oct 23 06:38	29° A 50'35	1°00'50
evening set	3897 Apr 17 08:34	8° B 15'25		minimum elong	3902 Oct 23 06:37	29° A 50'35	1°00'51
				max. Earth dist.	3902 Oct 22 12:05	29° A 40'36	6.46474 AU
conjunction	3897 Apr 30 15:22	11° B 28'50	-0°58'43		3902 Oct 24 00:07	0° M	
minimum elong	3897 Apr 30 15:23	11° B 28'51	0°58'44	morning rise	3902 Nov 05 06:30	2° M 38'11	
max. Earth dist.	3897 May 01 20:49	11° B 46'44	5.93249 AU		3903 Jan 09 16:15	15° M	
morning rise	3897 May 14 01:09	14° B 43'52		retrograde	3903 Mar 05 10:26	19° M 19'17	
	3897 May 15 03:55	15° B			3903 Apr 30 14:08	15° R M	
	3897 Jul 24 17:56	0° I		opposition	3903 May 05 01:48	14° M 25'27	1°25'21
retrograde	3897 Sep 23 12:21	5° I 30'13		min. Earth dist.	3903 May 05 22:40	14° M 18'44	4.47230 AU
min. Earth dist.	3897 Nov 20 22:02	0° I 36'36	3.94596 AU	direct	3903 Jul 06 17:20	9° M 23'13	
opposition	3897 Nov 22 02:50	0° I 26'51	-1°17'48		3903 Sep 09 16:27	15° M	
	3897 Nov 25 10:14	30° R B		evening set	3903 Nov 09 19:28	26° M 46'59	
direct	3898 Jan 18 22:20	25° B 32'00		max. Earth dist.	3903 Nov 21 00:38	29° M 12'22	6.45850 AU
	3898 Mar 12 21:31	0° I					
evening set	3898 May 25 03:34	15° I 16'41		conjunction	3903 Nov 22 16:27	29° M 33'58	0°53'02
				minimum elong	3903 Nov 22 16:28	29° M 33'59	0°53'01
conjunction	3898 Jun 07 17:48	18° I 31'19	-0°39'42		3903 Nov 24 16:27	0° J	
minimum elong	3898 Jun 07 17:50	18° I 31'20	0°39'42	morning rise	3903 Dec 05 10:47	2° J 19'49	
max. Earth dist.	3898 Jun 09 22:29	19° I 02'47	5.98186 AU	retrograde	3904 Apr 03 21:31	19° J 08'05	
morning rise	3898 Jun 21 10:44	21° I 47'06		opposition	3904 Jun 03 19:07	14° J 15'51	1°03'24
	3898 Jul 27 15:02	0° E		min. Earth dist.	3904 Jun 05 04:20	14° J 05'15	4.42699 AU
retrograde	3898 Oct 30 03:30	11° E 57'26		direct	3904 Aug 05 11:52	9° J 14'48	
min. Earth dist.	3898 Dec 27 03:49	7° E 05'03	4.03863 AU	evening set	3904 Dec 09 06:55	26° J 52'38	
opposition	3898 Dec 28 16:32	6° E 52'32	-0°35'16	max. Earth dist.	3904 Dec 19 20:38	29° J 12'40	6.37700 AU
direct	3899 Feb 24 22:59	1° E 54'56					
evening set	3899 Jul 01 09:40	21° E 06'53		conjunction	3904 Dec 22 00:27	29° J 41'24	0°30'48
				minimum elong	3904 Dec 22 00:29	29° J 41'25	0°30'49
conjunction	3899 Jul 15 03:30	24° E 17'12	-0°06'04		3904 Dec 23 10:00	0° Z	
minimum elong	3899 Jul 15 03:29	24° E 17'12	0°06'04	morning rise	3905 Jan 03 16:18	2° Z 29'32	
behind sun begin	3899 Jul 14 19:32	24° E 12'38		retrograde	3905 May 06 01:27	19° Z 54'06	
behind sun end	3899 Jul 15 11:26	24° E 21'46		opposition	3905 Jul 05 22:25	15° Z 01'55	0°23'07
max. Earth dist.	3899 Jul 17 12:00	24° E 49'52	6.10893 AU	min. Earth dist.	3905 Jul 07 13:01	14° Z 49'36	4.31350 AU
morning rise	3899 Jul 28 22:05	27° E 27'38		direct	3905 Sep 06 01:43	10° Z 02'42	
	3899 Aug 09 02:42	0° O		evening set	3906 Jan 09 13:31	28° Z 11'54	
asc. node	3899 Sep 19 20:54	8° O 40'43		desc. node	3906 Jan 09 22:19	28° Z 16'53	
	3899 Nov 02 16:56	15° O			3906 Jan 17 11:23	0° \approx	
retrograde	3899 Dec 03 07:59	16° O 29'39		max. Earth dist.	3906 Jan 20 04:10	0° \approx 37'02	6.24022 AU
	3900 Jan 02 15:26	15° R O					
opposition	3900 Jan 31 23:42	11° O 26'02	0°17'34	conjunction	3906 Jan 22 06:24	1° \approx 05'46	-0°01'06
min. Earth dist.	3900 Jan 30 16:32	11° O 36'35	4.18568 AU	minimum elong	3906 Jan 22 06:23	1° \approx 05'45	0°01'06
direct	3900 Apr 01 08:51	6° O 25'44		behind sun begin	3906 Jan 21 22:24	1° \approx 01'13	
	3900 Jun 19 11:31	15° O		behind sun end	3906 Jan 22 14:22	1° \approx 10'18	
evening set	3900 Aug 05 23:39	24° O 54'55		morning rise	3906 Feb 03 22:45	3° \approx 59'39	
					3906 Mar 28 07:21	15° \approx	
conjunction	3900 Aug 19 14:58	27° O 57'19	0°28'16	retrograde	3906 Jun 09 10:01	22° \approx 25'21	
minimum elong	3900 Aug 19 14:56	27° O 57'18	0°28'16	opposition	3906 Aug 09 03:30	17° \approx 31'38	-0°26'49
max. Earth dist.	3900 Aug 21 04:53	28° O 18'29	6.26335 AU	min. Earth dist.	3906 Aug 10 09:36	17° \approx 21'56	4.16207 AU
	3900 Aug 28 19:08	0° P			3906 Aug 29 18:02	15° R \approx	
morning rise	3900 Sep 02 05:35	0° P 59'03		direct	3906 Oct 09 00:38	12° \approx 34'50	
retrograde	3901 Jan 04 03:22	18° P 51'58			3906 Nov 17 18:26	15° \approx	
min. Earth dist.	3901 Mar 04 10:26	13° P 57'04	4.33385 AU		3907 Feb 05 08:19	0° H	
opposition	3901 Mar 05 03:01	13° P 51'32	1°01'12	evening set	3907 Feb 11 12:36	1° H 26'34	

max. Earth dist.	3907 Feb 23 00:15	4° X 09'07	6.08714 AU	minimum elong	3912 Aug 24 07:43	2° P 33'03	0°32'21
conjunction	3907 Feb 24 07:30	4° X 27'38	-0°34'05	max. Earth dist.	3912 Aug 25 18:09	2° P 52'11	6.28498 AU
minimum elong	3907 Feb 24 07:28	4° X 27'36	0°34'05	morning rise	3912 Sep 06 21:20	5° P 33'27	
morning rise	3907 Mar 09 03:18	7° X 29'28		retrograde	3913 Jan 08 09:43	23° P 17'54	
retrograde	3907 Jul 16 07:14	27° X 07'29		opposition	3913 Mar 09 09:59	18° P 18'00	1°05'46
opposition	3907 Sep 14 14:20	22° X 10'54	-1°11'06	min. Earth dist.	3913 Mar 08 20:32	18° P 22'28	4.35195 AU
min. Earth dist.	3907 Sep 15 02:30	22° X 06'55	4.02031 AU	direct	3913 May 09 08:17	13° P 15'50	
direct	3907 Nov 13 01:32	17° X 16'22		evening set	3913 Sep 07 23:49	0° P	
evening set	3908 Feb 17 11:04	0° Y			3913 Sep 12 22:04	1° P 03'31	
	3908 Mar 17 15:33	6° Y 48'05		conjunction	3913 Sep 26 06:23	3° P 57'02	0°54'25
conjunction	3908 Mar 30 15:41	9° Y 56'39	-0°56'23	minimum elong	3913 Sep 26 06:21	3° P 57'01	0°54'25
minimum elong	3908 Mar 30 15:39	9° Y 56'38	0°56'23	max. Earth dist.	3913 Sep 26 12:08	4° P 00'10	6.40709 AU
max. Earth dist.	3908 Mar 30 15:20	9° Y 56'27	5.96990 AU	morning rise	3913 Oct 09 12:32	6° P 49'20	
morning rise	3908 Apr 12 18:10	13° Y 06'40		retrograde	3914 Feb 07 15:05	23° P 48'19	
retrograde	3908 Jul 04 12:42	0° Z		opposition	3914 Apr 09 00:21	18° P 51'59	1°26'22
	3908 Aug 22 15:31	3° Z 40'33		min. Earth dist.	3914 Apr 09 05:28	18° P 50'19	4.44621 AU
	3908 Oct 11 10:33	30° R Y		direct	3914 Jun 10 01:09	13° P 49'23	
opposition	3908 Oct 21 12:31	28° Y 40'08	-1°30'20	evening set	3914 Oct 08 10:09	0° M	
min. Earth dist.	3908 Oct 20 24:00	28° Y 44'19	3.94101 AU		3914 Oct 14 10:45	1° M 16'54	
direct	3908 Dec 18 17:37	23° Y 46'24		conjunction	3914 Oct 27 12:26	4° M 05'25	1°00'42
evening set	3909 Feb 20 04:27	0° Z		minimum elong	3914 Oct 27 12:27	4° M 05'25	1°00'42
	3909 Apr 23 15:49	13° Z 37'42		max. Earth dist.	3914 Oct 26 15:30	3° M 54'08	6.46643 AU
	3909 Apr 29 07:56	15° Z		morning rise	3914 Nov 09 11:18	6° M 52'37	
conjunction	3909 May 06 23:38	16° Z 51'29	-0°57'21		3914 Dec 19 11:57	15° M	
minimum elong	3909 May 06 23:40	16° Z 51'29	0°57'22	retrograde	3915 Mar 09 13:53	23° M 33'40	
max. Earth dist.	3909 May 08 08:57	17° Z 11'42	5.93562 AU	opposition	3915 May 09 06:40	18° M 40'09	1°23'35
morning rise	3909 May 20 10:36	20° Z 06'52		min. Earth dist.	3915 May 10 05:13	18° M 32'55	4.46819 AU
retrograde	3909 Jul 02 18:48	0° II		direct	3915 Jun 10 10:50	15° R M	
min. Earth dist.	3909 Sep 29 18:02	10° II 50'12			3915 Jul 10 22:42	13° M 38'05	
opposition	3909 Nov 27 02:00	5° II 56'53	3.95661 AU		3915 Aug 10 16:41	15° M	
direct	3909 Nov 28 08:50	5° II 46'24	-1°13'15	evening set	3915 Nov 09 02:40	0° Z	
evening set	3910 Jan 25 05:32	0° II 51'12		max. Earth dist.	3915 Nov 14 01:04	1° Z 03'32	
	3910 May 31 09:55	20° II 31'21			3915 Nov 25 02:07	3° Z 27'08	6.44887 AU
conjunction	3910 Jun 14 01:02	23° II 45'32	-0°35'33	conjunction	3915 Nov 26 21:21	3° Z 50'38	0°50'42
minimum elong	3910 Jun 14 01:04	23° II 45'33	0°35'33	minimum elong	3915 Nov 26 21:22	3° Z 50'39	0°50'42
max. Earth dist.	3910 Jun 16 09:03	24° II 18'50	5.99896 AU	morning rise	3915 Dec 09 15:22	6° Z 36'43	
morning rise	3910 Jun 27 18:21	27° II 00'41		retrograde	3916 Apr 08 08:03	23° Z 29'07	
retrograde	3910 Jul 10 14:04	0° O		opposition	3916 Jun 08 04:31	18° Z 36'59	0°58'43
min. Earth dist.	3910 Nov 05 01:59	17° O 01'26		min. Earth dist.	3916 Jun 09 15:45	18° Z 25'45	4.41243 AU
opposition	3911 Jan 02 02:16	12° O 08'54	4.06006 AU	direct	3916 Aug 09 21:04	13° Z 36'07	
direct	3911 Jan 03 14:30	11° O 56'33	-0°28'00	evening set	3916 Dec 07 16:05	0° Z	
evening set	3911 Mar 03 00:18	6° O 58'34		max. Earth dist.	3916 Dec 13 14:22	1° Z 18'05	
	3911 Jul 07 10:46	26° O 03'34			3916 Dec 24 03:48	3° Z 38'34	6.35869 AU
conjunction	3911 Jul 21 04:22	29° O 12'45	-0°01'01	conjunction	3916 Dec 26 07:50	4° Z 07'30	0°26'45
minimum elong	3911 Jul 21 04:21	29° O 12'44	0°01'02	minimum elong	3916 Dec 26 07:51	4° Z 07'31	0°26'45
behind sun begin	3911 Jul 20 19:57	29° O 07'56		morning rise	3917 Jan 07 23:34	6° Z 56'21	
behind sun end	3911 Jul 21 12:44	29° O 17'32		retrograde	3917 May 10 16:34	24° Z 28'37	
max. Earth dist.	3911 Jul 23 10:29	29° O 43'50	6.13253 AU	opposition	3917 Jul 10 14:29	19° Z 36'16	0°16'24
asc. node	3911 Aug 01 04:43	1° O 44'18		min. Earth dist.	3917 Jul 12 03:27	19° Z 24'28	4.29270 AU
morning rise	3911 Aug 03 22:46	2° O 21'58		direct	3917 Sep 10 13:08	14° Z 37'24	
retrograde	3911 Oct 04 06:36	15° O		desc. node	3917 Nov 19 11:09	21° Z 20'54	
min. Earth dist.	3911 Dec 08 18:43	21° O 12'57		evening set	3918 Jan 01 08:02	0° Z	
opposition	3912 Feb 05 07:01	16° O 19'43	4.20920 AU	max. Earth dist.	3918 Jan 14 02:08	2° Z 52'19	
direct	3912 Feb 06 12:44	16° O 09'41	0°24'29		3918 Jan 24 19:36	5° Z 19'47	6.21869 AU
evening set	3912 Apr 06 01:52	11° O 09'01		conjunction	3918 Jan 26 19:03	5° Z 47'05	-0°05'57
	3912 May 26 22:58	15° O		minimum elong	3918 Jan 26 19:03	5° Z 47'05	0°05'56
	3912 Aug 10 17:03	29° O 31'53		behind sun begin	3918 Jan 26 11:26	5° Z 42'43	
	3912 Aug 12 19:57	0° P		behind sun end	3918 Jan 27 02:41	5° Z 51'26	
conjunction	3912 Aug 24 07:45	2° P 33'04	0°32'21	morning rise	3918 Feb 08 11:42	8° Z 41'59	
					3918 Mar 08 20:58	15° Z	
				retrograde	3918 Jun 14 11:48	27° Z 17'22	
				opposition	3918 Aug 14 03:21	22° Z 23'19	-0°33'49

min. Earth dist.	3918 Aug 15 08:06	22° \approx 14'02	4.14133 AU		3924 Jul 27 09:09	0° \mathfrak{M}	
direct	3918 Oct 13 21:18	17° \approx 26'51		evening set	3924 Aug 15 10:05	4° \mathfrak{M} 07'22	
	3919 Jan 19 06:27	0° \mathfrak{H}					
evening set	3919 Feb 16 07:49	6° \mathfrak{H} 24'12		conjunction	3924 Aug 29 00:04	7° \mathfrak{M} 07'32	0°36'14
max. Earth dist.	3919 Feb 27 23:29	9° \mathfrak{H} 09'47	6.06903 AU	minimum elong	3924 Aug 29 00:03	7° \mathfrak{M} 07'31	0°36'14
				max. Earth dist.	3924 Aug 30 06:56	7° \mathfrak{M} 24'36	6.30265 AU
conjunction	3919 Mar 01 03:15	9° \mathfrak{H} 26'16	-0°38'08	morning rise	3924 Sep 11 12:46	10° \mathfrak{M} 06'47	
minimum elong	3919 Mar 01 03:13	9° \mathfrak{H} 26'15	0°38'09	retrograde	3925 Jan 12 14:46	27° \mathfrak{M} 44'15	
morning rise	3919 Mar 13 23:49	12° \mathfrak{H} 29'13		opposition	3925 Mar 13 17:10	22° \mathfrak{M} 44'54	1°09'59
	3919 Jun 13 05:16	0° \mathfrak{Y}		min. Earth dist.	3925 Mar 13 05:37	22° \mathfrak{M} 48'43	4.36635 AU
retrograde	3919 Jul 21 13:27	2° \mathfrak{Y} 15'48		direct	3925 May 13 18:40	17° \mathfrak{M} 42'37	
	3919 Aug 29 03:05	30° \mathfrak{K}			3925 Aug 22 08:41	0° \mathfrak{L}	
opposition	3919 Sep 19 20:00	27° \mathfrak{H} 18'43	-1°15'41	evening set	3925 Sep 17 09:36	5° \mathfrak{L} 27'27	
min. Earth dist.	3919 Sep 20 04:02	27° \mathfrak{H} 16'04	4.00671 AU				
direct	3919 Nov 18 01:41	22° \mathfrak{H} 24'24		conjunction	3925 Sep 30 17:01	8° \mathfrak{L} 20'12	0°56'16
	3920 Jan 28 14:48	0° \mathfrak{Y}		minimum elong	3925 Sep 30 17:00	8° \mathfrak{L} 20'11	0°56'16
evening set	3920 Mar 22 17:07	11° \mathfrak{Y} 59'29		max. Earth dist.	3925 Sep 30 19:01	8° \mathfrak{L} 21'17	6.41725 AU
				morning rise	3925 Oct 13 22:05	11° \mathfrak{L} 11'41	
conjunction	3920 Apr 04 18:05	15° \mathfrak{Y} 08'49	-0°57'57	retrograde	3926 Feb 11 20:08	28° \mathfrak{L} 07'18	
minimum elong	3920 Apr 04 18:04	15° \mathfrak{Y} 08'48	0°57'57	opposition	3926 Apr 13 05:54	23° \mathfrak{L} 11'30	1°27'22
max. Earth dist.	3920 Apr 04 22:18	15° \mathfrak{Y} 11'22	5.96184 AU	min. Earth dist.	3926 Apr 13 13:49	23° \mathfrak{L} 08'56	4.45168 AU
morning rise	3920 Apr 17 21:39	18° \mathfrak{Y} 19'40		direct	3926 Jun 14 09:58	18° \mathfrak{L} 09'01	
	3920 Jun 09 01:00	0° \mathfrak{B}			3926 Sep 21 19:23	0° \mathfrak{M}	
retrograde	3920 Aug 27 22:52	8° \mathfrak{B} 57'08		evening set	3926 Oct 18 18:41	5° \mathfrak{M} 35'56	
opposition	3920 Oct 26 19:36	3° \mathfrak{B} 56'09	-1°30'07				
min. Earth dist.	3920 Oct 26 04:16	4° \mathfrak{B} 01'18	3.93940 AU	conjunction	3926 Oct 31 19:29	8° \mathfrak{M} 24'08	1°00'14
	3920 Nov 30 03:09	30° \mathfrak{K} \mathfrak{Y}		minimum elong	3926 Oct 31 19:29	8° \mathfrak{M} 24'08	1°00'13
direct	3920 Dec 23 23:11	29° \mathfrak{Y} 02'19		max. Earth dist.	3926 Oct 30 18:06	8° \mathfrak{M} 10'27	6.46680 AU
	3921 Jan 16 17:48	0° \mathfrak{B}		morning rise	3926 Nov 13 17:41	11° \mathfrak{M} 11'04	
	3921 Apr 12 12:53	15° \mathfrak{B}			3926 Dec 01 20:15	15° \mathfrak{M}	
evening set	3921 Apr 28 20:53	18° \mathfrak{B} 53'05		retrograde	3927 Mar 13 20:43	27° \mathfrak{M} 52'35	
				opposition	3927 May 13 13:45	22° \mathfrak{M} 59'22	1°21'20
conjunction	3921 May 12 05:56	22° \mathfrak{B} 07'10	-0°55'33	min. Earth dist.	3927 May 14 14:16	22° \mathfrak{M} 51'30	4.46381 AU
minimum elong	3921 May 12 05:58	22° \mathfrak{B} 07'11	0°55'32	direct	3927 Jul 15 06:48	17° \mathfrak{M} 57'29	
max. Earth dist.	3921 May 13 20:24	22° \mathfrak{B} 30'28	5.94062 AU		3927 Oct 23 13:16	0° \mathfrak{X}	
morning rise	3921 May 25 17:48	25° \mathfrak{B} 22'45		evening set	3927 Nov 18 07:54	5° \mathfrak{X} 24'30	
	3921 Jun 14 07:42	0° \mathfrak{I}		max. Earth dist.	3927 Nov 29 08:33	7° \mathfrak{X} 48'11	6.44031 AU
retrograde	3921 Oct 04 22:31	16° \mathfrak{I} 02'16					
min. Earth dist.	3921 Dec 02 03:55	11° \mathfrak{I} 09'02	3.96770 AU	conjunction	3927 Dec 01 03:48	8° \mathfrak{X} 11'46	0°48'04
opposition	3921 Dec 03 11:42	10° \mathfrak{I} 58'14	-1°08'13	minimum elong	3927 Dec 01 03:49	8° \mathfrak{X} 11'46	0°48'05
direct	3922 Jan 30 09:25	6° \mathfrak{I} 02'43		morning rise	3927 Dec 13 21:10	10° \mathfrak{X} 57'59	
evening set	3922 Jun 05 14:16	25° \mathfrak{I} 38'44		retrograde	3928 Apr 12 17:15	27° \mathfrak{X} 54'12	
				opposition	3928 Jun 12 15:23	23° \mathfrak{X} 02'11	0°53'39
conjunction	3922 Jun 19 05:54	28° \mathfrak{I} 52'27	-0°31'12	min. Earth dist.	3928 Jun 14 02:28	22° \mathfrak{X} 51'00	4.40043 AU
minimum elong	3922 Jun 19 05:56	28° \mathfrak{I} 52'28	0°31'12	direct	3928 Aug 14 06:05	18° \mathfrak{X} 01'41	
max. Earth dist.	3922 Jun 21 13:47	29° \mathfrak{I} 25'31	6.01487 AU		3928 Nov 21 00:04	0° \mathfrak{Z}	
	3922 Jun 24 00:05	0° \mathfrak{E}		evening set	3928 Dec 17 22:57	5° \mathfrak{Z} 46'45	
morning rise	3922 Jul 02 23:52	2° \mathfrak{E} 07'05		max. Earth dist.	3928 Dec 28 11:54	8° \mathfrak{Z} 07'31	6.34427 AU
retrograde	3922 Nov 09 19:41	21° \mathfrak{E} 58'58					
min. Earth dist.	3923 Jan 06 21:21	17° \mathfrak{E} 06'37	4.07904 AU	conjunction	3928 Dec 30 15:59	8° \mathfrak{Z} 36'36	0°22'33
opposition	3923 Jan 08 09:50	16° \mathfrak{E} 54'11	-0°20'39	minimum elong	3928 Dec 30 16:00	8° \mathfrak{Z} 36'37	0°22'33
direct	3923 Mar 07 22:01	11° \mathfrak{E} 55'48		morning rise	3929 Jan 12 07:43	11° \mathfrak{Z} 26'00	
asc. node	3923 Jun 11 16:46	24° \mathfrak{E} 08'11		retrograde	3929 May 15 09:58	29° \mathfrak{Z} 04'43	
	3923 Jul 08 08:44	0° \mathfrak{Q}		opposition	3929 Jul 15 07:03	24° \mathfrak{Z} 12'14	0°09'36
evening set	3923 Jul 12 10:07	0° \mathfrak{Q} 55'15		min. Earth dist.	3929 Jul 16 19:51	24° \mathfrak{Z} 00'28	4.27671 AU
				direct	3929 Sep 15 04:07	19° \mathfrak{Z} 13'40	
conjunction	3923 Jul 26 03:41	4° \mathfrak{Q} 03'29	0°04'03	desc. node	3929 Sep 30 02:13	19° \mathfrak{Z} 34'23	
minimum elong	3923 Jul 26 03:40	4° \mathfrak{Q} 03'28	0°04'02		3929 Dec 15 02:28	0° \mathfrak{A}	
behind sun begin	3923 Jul 25 19:25	3° \mathfrak{Q} 58'46		evening set	3930 Jan 18 14:05	7° \mathfrak{A} 32'31	
behind sun end	3923 Jul 26 11:55	4° \mathfrak{Q} 08'10		max. Earth dist.	3930 Jan 29 10:04	10° \mathfrak{A} 01'58	6.20251 AU
max. Earth dist.	3923 Jul 28 07:28	4° \mathfrak{Q} 33'06	6.15299 AU				
morning rise	3923 Aug 08 21:39	7° \mathfrak{Q} 11'36		conjunction	3930 Jan 31 07:12	10° \mathfrak{A} 28'01	-0°10'38
	3923 Sep 13 20:26	15° \mathfrak{Q}		minimum elong	3930 Jan 31 07:11	10° \mathfrak{A} 28'00	0°10'37
retrograde	3923 Dec 13 07:21	25° \mathfrak{Q} 53'10		behind sun begin	3930 Jan 31 00:56	10° \mathfrak{A} 24'25	
min. Earth dist.	3924 Feb 09 22:07	20° \mathfrak{Q} 59'26	4.22907 AU	behind sun end	3930 Jan 31 13:26	10° \mathfrak{A} 31'35	
opposition	3924 Feb 11 01:05	20° \mathfrak{Q} 50'20	0°31'10	morning rise	3930 Feb 13 00:03	13° \mathfrak{A} 23'41	
direct	3924 Apr 10 19:27	15° \mathfrak{Q} 49'26			3930 Feb 20 00:45	15° \mathfrak{A}	

	3930 May 13 02:59	0°♄			3936 Jan 03 08:38	30°♄♂	
retrograde	3930 Jun 19 09:36	2°♄06'50	min. Earth dist.		3936 Feb 14 08:51	25°♄33'54	4.24491 AU
	3930 Jul 26 23:47	30°♄≈	opposition		3936 Feb 15 10:57	25°♄25'07	0°37'24
opposition	3930 Aug 19 01:40	27°≈12'26 -0°40'25	direct		3936 Apr 15 08:15	20°♄23'58	
min. Earth dist.	3930 Aug 20 03:24	27°≈04'07 4.12632 AU			3936 Jul 09 15:58	0°♄	
direct	3930 Oct 18 14:37	22°≈16'18	evening set		3936 Aug 20 01:18	8°♄38'18	
	3930 Dec 31 04:43	0°♄					
evening set	3931 Feb 21 00:51	11°♄17'17	conjunction		3936 Sep 02 14:31	11°♄37'32	0°39'46
			minimum elong		3936 Sep 02 14:29	11°♄37'31	0°39'45
conjunction	3931 Mar 05 20:37	14°♄20'03 -0°41'47	max. Earth dist.		3936 Sep 03 17:05	11°♄52'13	6.31690 AU
minimum elong	3931 Mar 05 20:35	14°♄20'02 0°41'48	morning rise		3936 Sep 16 02:23	14°♄35'50	
max. Earth dist.	3931 Mar 04 20:24	14°♄05'38 6.05639 AU			3936 Dec 10 17:56	0°♄	
morning rise	3931 Mar 18 17:52	17°♄23'50	retrograde		3937 Jan 16 21:39	2°♄07'28	
	3931 May 16 00:44	0°♄			3937 Feb 22 21:59	30°♄♄	
retrograde	3931 Jul 26 16:44	7°♄17'03	opposition		3937 Mar 17 23:38	27°♄08'35	1°13'39
opposition	3931 Sep 24 22:15	2°♄19'24 -1°19'30	min. Earth dist.		3937 Mar 17 15:10	27°♄11'24	4.37807 AU
min. Earth dist.	3931 Sep 25 03:42	2°♄17'36 3.99765 AU	direct		3937 May 18 05:51	22°♄06'13	
	3931 Oct 13 07:56	30°♄♄			3937 Aug 03 21:39	0°♄	
direct	3931 Nov 23 00:51	27°♄25'11	evening set		3937 Sep 21 19:43	9°♄48'35	
	3932 Jan 02 00:13	0°♄					
evening set	3932 Mar 27 15:00	17°♄02'08	conjunction		3937 Oct 05 02:19	12°♄40'39	0°57'44
			minimum elong		3937 Oct 05 02:18	12°♄40'39	0°57'44
conjunction	3932 Apr 09 16:59	20°♄12'07 -0°58'59	max. Earth dist.		3937 Oct 05 01:20	12°♄40'08	6.42556 AU
minimum elong	3932 Apr 09 16:58	20°♄12'06 0°59'00	morning rise		3937 Oct 18 06:23	15°♄31'26	
max. Earth dist.	3932 Apr 10 02:24	20°♄17'49 5.95728 AU			3938 Jan 07 02:35	0°♄	
morning rise	3932 Apr 22 21:26	23°♄23'36	retrograde		3938 Feb 15 23:21	2°♄24'06	
	3932 May 21 02:55	0°♄			3938 Mar 28 00:21	30°♄♄	
retrograde	3932 Sep 02 02:45	14°♄03'00	opposition		3938 Apr 17 10:59	27°♄28'39	1°27'50
opposition	3932 Oct 31 21:41	9°♄01'34 -1°29'11	min. Earth dist.		3938 Apr 17 20:18	27°♄25'38	4.45626 AU
min. Earth dist.	3932 Oct 31 04:30	9°♄07'20 3.94010 AU	direct		3938 Jun 18 16:42	22°♄26'11	
direct	3932 Dec 28 23:30	4°♄07'36			3938 Sep 03 07:46	0°♄	
	3933 Mar 25 22:35	15°♄	evening set		3938 Oct 23 01:30	9°♄52'16	
evening set	3933 May 03 21:38	23°♄57'21	max. Earth dist.		3938 Nov 03 22:29	12°♄25'32	6.46726 AU
conjunction	3933 May 17 07:32	27°♄11'37 -0°53'23	conjunction		3938 Nov 05 01:31	12°♄40'07	0°59'25
minimum elong	3933 May 17 07:33	27°♄11'38 0°53'23	minimum elong		3938 Nov 05 01:31	12°♄40'08	0°59'24
max. Earth dist.	3933 May 18 23:16	27°♄35'37 5.94625 AU			3938 Nov 15 21:02	15°♄	
	3933 May 28 22:52	0°♄	morning rise		3938 Nov 17 22:50	15°♄26'43	
morning rise	3933 May 30 20:35	0°♄27'25			3939 Feb 08 07:49	0°♄	
retrograde	3933 Oct 09 19:43	21°♄03'00	retrograde		3939 Mar 18 01:42	2°♄08'26	
min. Earth dist.	3933 Dec 07 00:09	16°♄10'05 3.97775 AU			3939 Apr 25 00:43	30°♄♄	
opposition	3933 Dec 08 09:32	15°♄58'43 -1°02'55	opposition		3939 May 17 19:57	27°♄15'27	1°18'37
direct	3934 Feb 04 07:12	11°♄02'49	min. Earth dist.		3939 May 18 22:18	27°♄07'01	4.45992 AU
	3934 Jun 08 01:31	0°♄	direct		3939 Jul 19 14:18	22°♄13'43	
evening set	3934 Jun 10 14:04	0°♄35'28			3939 Oct 05 07:29	0°♄	
			evening set		3939 Nov 22 13:29	9°♄41'46	
conjunction	3934 Jun 24 06:24	3°♄48'51 -0°26'49	max. Earth dist.		3939 Dec 03 10:33	12°♄03'54	6.43199 AU
minimum elong	3934 Jun 24 06:25	3°♄48'51 0°26'49					
max. Earth dist.	3934 Jun 26 14:18	4°♄21'49 6.02848 AU	conjunction		3939 Dec 05 08:43	12°♄29'07	0°45'11
morning rise	3934 Jul 08 00:41	7°♄02'59	minimum elong		3939 Dec 05 08:45	12°♄29'08	0°45'11
retrograde	3934 Nov 14 12:19	26°♄47'20	morning rise		3939 Dec 18 01:50	15°♄15'32	
min. Earth dist.	3935 Jan 11 14:55	21°♄54'31 4.09461 AU			3940 Mar 09 06:16	0°♄	
opposition	3935 Jan 13 01:38	21°♄42'42 -0°13'32	retrograde		3940 Apr 17 03:09	2°♄15'32	
direct	3935 Mar 12 17:40	16°♄43'55			3940 May 26 08:51	30°♄♄	
asc. node	3935 Apr 23 23:41	19°♄32'47	opposition		3940 Jun 17 01:23	27°♄23'28	0°48'18
	3935 Jun 21 17:56	0°♄	min. Earth dist.		3940 Jun 18 13:24	27°♄12'00	4.38782 AU
evening set	3935 Jul 17 06:20	5°♄39'10	direct		3940 Aug 18 15:08	22°♄23'08	
					3940 Nov 02 13:51	0°♄	
conjunction	3935 Jul 30 23:48	8°♄46'36 0°08'46	evening set		3940 Dec 22 05:50	10°♄11'29	
minimum elong	3935 Jul 30 23:48	8°♄46'36 0°08'46	max. Earth dist.		3941 Jan 01 19:47	12°♄33'17	6.32820 AU
behind sun begin	3935 Jul 30 16:38	8°♄42'32					
behind sun end	3935 Jul 31 06:58	8°♄50'40	conjunction		3941 Jan 03 22:52	13°♄01'55	0°18'13
max. Earth dist.	3935 Aug 02 02:16	9°♄15'21 6.16934 AU	minimum elong		3941 Jan 03 22:53	13°♄01'55	0°18'13
morning rise	3935 Aug 13 17:26	11°♄53'49	morning rise		3941 Jan 16 14:24	15°♄51'55	
	3935 Aug 27 15:10	15°♄			3941 Mar 31 06:46	0°♄	
	3935 Nov 30 21:43	0°♄	retrograde		3941 May 20 01:09	3°♄37'55	
retrograde	3935 Dec 17 15:50	0°♄27'31			3941 Jul 10 02:18	30°♄♄	

opposition	3941 Jul 19 22:54	28°  45'16	0°02'42	min. Earth dist.	3947 Jan 16 09:32	26°  53'25	4.11396 AU
min. Earth dist.	3941 Jul 21 10:40	28°  33'50	4.25796 AU	opposition	3947 Jan 17 20:51	26°  41'25	-0°06'01
desc. node	3941 Aug 10 11:09	26°  08'32		asc. node	3947 Mar 03 19:56	22°  01'41	
direct	3941 Sep 19 15:55	23°  47'04		direct	3947 Mar 17 15:30	21°  42'20	
	3941 Nov 25 05:10	0°  ≈			3947 Jun 02 09:59	0°  ♂	
evening set	3942 Jan 23 01:47	12°  ≈11'03		evening set	3947 Jul 22 06:07	10°  ♂31'53	
max. Earth dist.	3942 Feb 02 22:49	14°  ≈41'50	6.18251 AU				
				conjunction	3947 Aug 04 23:09	13°  ♂38'12	0°13'37
conjunction	3942 Feb 04 18:55	15°  ≈07'23	-0°15'18	minimum elong	3947 Aug 04 23:08	13°  ♂38'12	0°13'38
minimum elong	3942 Feb 04 18:54	15°  ≈07'23	0°15'18	behind sun begin	3947 Aug 04 18:48	13°  ♂35'45	
behind sun begin	3942 Feb 04 16:06	15°  ≈05'46		behind sun end	3947 Aug 05 03:28	13°  ♂40'39	
behind sun end	3942 Feb 04 21:43	15°  ≈09'00		max. Earth dist.	3947 Aug 06 22:29	14°  ♂05'03	6.19104 AU
	3942 Feb 04 06:09	15°  ≈			3947 Aug 10 23:29	15°  ♂	
morning rise	3942 Feb 17 12:16	18°  ≈04'05		morning rise	3947 Aug 18 16:18	16°  ♂44'13	
	3942 Apr 15 02:48	0°  ♂			3947 Oct 24 00:27	0°  ♂	
retrograde	3942 Jun 24 10:13	6°  ♂56'51		retrograde	3947 Dec 22 03:43	5°  ♂08'02	
opposition	3942 Aug 24 00:30	2°  ♂02'04	-0°46'53	opposition	3948 Feb 19 23:11	0°  ♂06'01	0°43'35
min. Earth dist.	3942 Aug 25 00:23	1°  ♂54'20	4.10644 AU	min. Earth dist.	3948 Feb 18 23:27	0°  ♂13'59	4.26705 AU
	3942 Sep 09 05:03	30°  ♂≈			3948 Feb 20 17:05	30°  ♂♂	
direct	3942 Oct 23 09:19	27°  ≈06'13		direct	3948 Apr 20 02:16	25°  ♂04'37	
	3942 Dec 05 14:33	0°  ♂			3948 Jun 17 17:37	0°  ♂	
evening set	3943 Feb 25 19:14	16°  ♂12'58		evening set	3948 Aug 24 17:29	13°  ♂12'54	
conjunction	3943 Mar 10 15:48	19°  ♂16'50	-0°45'15	conjunction	3948 Sep 07 05:55	16°  ♂10'55	0°43'08
minimum elong	3943 Mar 10 15:46	19°  ♂16'49	0°45'14	minimum elong	3948 Sep 07 05:53	16°  ♂10'54	0°43'08
max. Earth dist.	3943 Mar 09 20:03	19°  ♂05'02	6.03855 AU	max. Earth dist.	3948 Sep 08 06:36	16°  ♂24'29	6.33786 AU
morning rise	3943 Mar 23 13:46	22°  ♂21'45		morning rise	3948 Sep 20 16:34	19°  ♂07'52	
	3943 Apr 25 22:21	0°  ♂			3948 Nov 13 23:42	0°  ♂	
retrograde	3943 Jul 31 23:11	12°  ♂23'41		retrograde	3949 Jan 21 01:23	6°  ♂31'24	
opposition	3943 Sep 30 02:44	7°  ♂25'35	-1°22'53	opposition	3949 Mar 22 05:57	1°  ♂33'00	1°16'56
min. Earth dist.	3943 Sep 30 05:31	7°  ♂24'40	3.98379 AU	min. Earth dist.	3949 Mar 21 22:49	1°  ♂35'21	4.39642 AU
direct	3943 Nov 28 00:34	2°  ♂31'36			3949 Apr 03 05:15	30°  ♂♂	
evening set	3944 Apr 01 16:22	22°  ♂12'29		direct	3949 May 22 15:27	26°  ♂30'33	
					3949 Jul 11 07:28	0°  ♂	
conjunction	3944 Apr 14 19:15	25°  ♂23'20	-0°59'39	evening set	3949 Sep 26 04:59	14°  ♂08'14	
minimum elong	3944 Apr 14 19:15	25°  ♂23'20	0°59'38				
max. Earth dist.	3944 Apr 15 07:41	25°  ♂30'53	5.94853 AU	conjunction	3949 Oct 09 10:25	16°  ♂59'18	0°58'54
morning rise	3944 Apr 28 01:04	28°  ♂35'48		minimum elong	3949 Oct 09 10:24	16°  ♂59'18	0°58'54
	3944 May 03 21:20	0°  ♂		max. Earth dist.	3949 Oct 09 04:50	16°  ♂56'17	6.43987 AU
	3944 Jul 16 00:40	15°  ♂		morning rise	3949 Oct 22 13:27	19°  ♂49'05	
retrograde	3944 Sep 07 09:03	19°  ♂18'46			3949 Dec 13 00:02	0°  ♂	
	3944 Oct 31 19:02	15°  ♂♂		retrograde	3950 Feb 20 02:17	6°  ♂37'05	
min. Earth dist.	3944 Nov 05 06:53	14°  ♂23'50	3.93763 AU	opposition	3950 Apr 21 14:26	1°  ♂42'02	1°27'50
opposition	3944 Nov 06 03:31	14°  ♂16'53	-1°27'34	min. Earth dist.	3950 Apr 22 03:14	1°  ♂37'53	4.46562 AU
direct	3945 Jan 03 02:57	9°  ♂22'47			3950 May 04 23:54	30°  ♂♂	
	3945 Mar 04 00:45	15°  ♂		direct	3950 Jun 23 00:12	26°  ♂39'31	
evening set	3945 May 09 03:04	29°  ♂12'49			3950 Aug 10 23:48	0°  ♂	
	3945 May 12 09:38	0°  ♂♂		evening set	3950 Oct 27 05:33	14°  ♂03'19	
					3950 Oct 31 15:16	15°  ♂	
conjunction	3945 May 22 14:12	2°  ♂♂27'26	-0°50'43	max. Earth dist.	3950 Nov 07 22:02	16°  ♂34'07	6.47072 AU
minimum elong	3945 May 22 14:14	2°  ♂♂27'27	0°50'44				
max. Earth dist.	3945 May 24 09:58	2°  ♂♂53'51	5.95040 AU	conjunction	3950 Nov 09 04:48	16°  ♂50'43	0°58'18
morning rise	3945 Jun 05 04:08	5°  ♂♂43'29		minimum elong	3950 Nov 09 04:49	16°  ♂50'43	0°58'19
retrograde	3945 Oct 14 23:04	26°  ♂♂15'23		morning rise	3950 Nov 22 01:22	19°  ♂36'53	
min. Earth dist.	3945 Dec 12 02:04	21°  ♂♂22'24	3.98797 AU		3951 Jan 13 18:44	0°  ♂♂	
opposition	3945 Dec 13 11:44	21°  ♂♂10'56	-0°56'55	retrograde	3951 Mar 22 03:45	6°  ♂♂18'13	
direct	3946 Feb 09 11:13	16°  ♂♂14'43		opposition	3951 May 21 23:38	1°  ♂♂25'23	1°15'34
	3946 May 21 17:27	0°  ♂♂		min. Earth dist.	3951 May 23 03:36	1°  ♂♂16'25	4.45728 AU
evening set	3946 Jun 15 18:56	5°  ♂♂43'53			3951 Jun 02 06:13	30°  ♂♂♂	
				direct	3951 Jul 23 18:01	26°  ♂♂23'40	
conjunction	3946 Jun 29 11:50	8°  ♂♂56'48	-0°22'03		3951 Sep 12 19:07	0°  ♂♂	
minimum elong	3946 Jun 29 11:51	8°  ♂♂56'49	0°22'03	evening set	3951 Nov 26 15:51	13°  ♂♂25'32	
max. Earth dist.	3946 Jul 01 21:22	9°  ♂♂30'35	6.04400 AU	max. Earth dist.	3951 Dec 07 11:28	16°  ♂♂14'09	6.42330 AU
morning rise	3946 Jul 13 06:27	12°  ♂♂01'21					
	3946 Oct 17 00:47	0°  ♂♂		conjunction	3951 Dec 09 10:41	16°  ♂♂40'01	0°42'09
retrograde	3946 Nov 19 06:43	1°  ♂♂45'50		minimum elong	3951 Dec 09 10:42	16°  ♂♂40'02	0°42'08
	3946 Dec 22 06:46	30°  ♂♂♂♂		morning rise	3951 Dec 22 03:16	19°  ♂♂26'36	

	3952 Feb 12 20:44	0°♂		3957 Sep 19 03:56	0°♄
retrograde	3952 Apr 21 10:09	6°♂30'47	retrograde	3957 Oct 20 03:15	1°♄32'41
opposition	3952 Jun 21 08:44	1°♂38'44 0°42'49		3957 Nov 19 21:11	30°♄II
min. Earth dist.	3952 Jun 22 22:15	1°♂26'48 4.37335 AU	min. Earth dist.	3957 Dec 17 04:00	26°♄II40'14 4.00092 AU
	3952 Jul 04 12:26	30°♄♂	opposition	3957 Dec 18 15:55	26°♄II28'00 -0°50'20
direct	3952 Aug 22 21:02	26°♄♂38'34	direct	3958 Feb 14 15:49	21°♄II31'24
	3952 Oct 10 10:45	0°♂		3958 May 01 22:41	0°♄
evening set	3952 Dec 26 10:38	14°♂31'00	evening set	3958 Jun 21 01:54	10°♄55'46
max. Earth dist.	3953 Jan 05 22:11	16°♂52'09 6.30884 AU			
			conjunction	3958 Jul 04 19:03	14°♄07'57 -0°17'01
conjunction	3953 Jan 08 03:24	17°♂22'07 0°13'54	minimum elong	3958 Jul 04 19:04	14°♄07'57 0°17'02
minimum elong	3953 Jan 08 03:25	17°♂22'08 0°13'55	max. Earth dist.	3958 Jul 07 03:58	14°♄41'13 6.06292 AU
behind sun begin	3953 Jan 07 23:10	17°♂19'45	morning rise	3958 Jul 18 13:55	17°♄20'39
behind sun end	3953 Jan 08 07:39	17°♂24'30		3958 Sep 16 16:06	0°♄
morning rise	3953 Jan 20 19:12	20°♂12'57	retrograde	3958 Nov 24 02:19	6°♄45'51
	3953 Mar 08 11:32	0°♄	asc. node	3959 Jan 10 15:41	3°♄18'10
retrograde	3953 May 24 16:55	8°♄07'37	min. Earth dist.	3959 Jan 21 06:58	1°♄53'09 4.13632 AU
desc. node	3953 Jun 22 02:00	6°♄53'59	opposition	3959 Jan 22 17:06	1°♄41'33 0°01'36
opposition	3953 Jul 24 13:08	3°♄14'43 -0°04'06		3959 Feb 04 10:45	30°♄♄
min. Earth dist.	3953 Jul 26 00:31	3°♄03'22 4.23478 AU	direct	3959 Mar 22 16:55	26°♄42'01
	3953 Aug 21 04:39	30°♄♄		3959 May 07 23:31	0°♄
direct	3953 Sep 24 02:07	28°♂16'40		3959 Jul 25 10:06	15°♄
	3953 Oct 27 17:36	0°♄	evening set	3959 Jul 27 06:23	15°♄24'49
	3954 Jan 19 16:56	15°♄			
evening set	3954 Jan 27 12:26	16°♄47'36	conjunction	3959 Aug 09 23:08	18°♄29'55 0°18'26
max. Earth dist.	3954 Feb 07 12:42	19°♄21'01 6.15747 AU	minimum elong	3959 Aug 09 23:07	18°♄29'54 0°18'25
			max. Earth dist.	3959 Aug 11 21:29	18°♄56'03 6.21480 AU
conjunction	3954 Feb 09 06:06	19°♄45'09 -0°19'49	morning rise	3959 Aug 23 15:23	21°♄34'30
minimum elong	3954 Feb 09 06:05	19°♄45'08 0°19'49		3959 Oct 02 06:24	0°♄
morning rise	3954 Feb 21 23:51	22°♄43'05	retrograde	3959 Dec 26 14:35	9°♄47'54
	3954 Mar 26 13:45	0°♄	opposition	3960 Feb 24 11:26	4°♄46'23 0°49'31
retrograde	3954 Jun 29 11:33	11°♄47'26	min. Earth dist.	3960 Feb 23 13:16	4°♄53'48 4.28990 AU
opposition	3954 Aug 28 23:32	6°♄52'17 -0°53'03		3960 Apr 12 05:12	30°♄♄
min. Earth dist.	3954 Aug 29 21:38	6°♄45'07 4.08161 AU	direct	3960 Apr 24 18:36	29°♄44'48
direct	3954 Oct 28 02:24	1°♄56'45		3960 May 07 10:32	0°♄
evening set	3955 Mar 02 14:48	21°♄11'12	evening set	3960 Aug 29 10:00	17°♄47'11
conjunction	3955 Mar 15 12:01	24°♄16'23 -0°48'22	conjunction	3960 Sep 11 21:20	20°♄43'57 0°46'18
minimum elong	3955 Mar 15 12:00	24°♄16'22 0°48'22	minimum elong	3960 Sep 11 21:18	20°♄43'56 0°46'18
max. Earth dist.	3955 Mar 14 18:51	24°♄06'05 6.01609 AU	max. Earth dist.	3960 Sep 12 16:26	20°♄54'25 6.35784 AU
morning rise	3955 Mar 28 11:12	27°♄22'48	morning rise	3960 Sep 25 07:03	23°♄39'40
	3955 Apr 08 12:54	0°♄		3960 Oct 25 11:24	0°♄
retrograde	3955 Aug 06 06:31	17°♄35'12	retrograde	3961 Jan 25 08:12	10°♄55'57
opposition	3955 Oct 05 09:00	12°♄36'33 -1°25'40	opposition	3961 Mar 26 13:09	5°♄58'04 1°19'51
min. Earth dist.	3955 Oct 05 07:38	12°♄37'00 3.96618 AU	min. Earth dist.	3961 Mar 26 09:40	5°♄59'13 4.41225 AU
direct	3955 Dec 03 01:49	7°♄42'39	direct	3961 May 27 03:19	0°♄55'33
evening set	3956 Apr 06 20:35	27°♄28'56	evening set	3961 Sep 30 14:41	18°♄29'39
	3956 Apr 17 05:38	0°♄			
			conjunction	3961 Oct 13 19:19	21°♄19'57 0°59'48
conjunction	3956 Apr 20 00:50	0°♄40'53 -0°59'47	minimum elong	3961 Oct 13 19:19	21°♄19'57 0°59'48
minimum elong	3956 Apr 20 00:50	0°♄40'53 0°59'47	max. Earth dist.	3961 Oct 13 10:53	21°♄15'24 6.45036 AU
max. Earth dist.	3956 Apr 20 19:41	0°♄52'21 5.93764 AU	morning rise	3961 Oct 26 21:12	24°♄08'54
morning rise	3956 May 03 07:48	3°♄54'26		3961 Nov 24 01:30	0°♄
	3956 Jun 21 09:08	15°♄	retrograde	3962 Feb 24 05:32	10°♄53'54
retrograde	3956 Sep 12 20:21	24°♄41'14	opposition	3962 Apr 25 19:44	5°♄59'16 1°27'26
opposition	3956 Nov 11 11:59	19°♄38'49 -1°25'08	min. Earth dist.	3962 Apr 26 10:14	5°♄54'35 4.47035 AU
min. Earth dist.	3956 Nov 10 13:13	19°♄46'31 3.93481 AU	direct	3962 Jun 27 06:32	0°♄56'53
	3956 Dec 27 05:12	15°♄♄		3962 Oct 15 16:35	15°♄
direct	3957 Jan 08 10:14	14°♄44'32	evening set	3962 Oct 31 11:53	18°♄20'01
	3957 Jan 20 14:18	15°♄	max. Earth dist.	3962 Nov 12 00:04	20°♄48'41 6.46932 AU
	3957 Apr 25 01:44	0°♄			
evening set	3957 May 14 11:50	4°♄34'43	conjunction	3962 Nov 13 10:17	21°♄07'10 0°56'54
			minimum elong	3962 Nov 13 10:18	21°♄07'11 0°56'55
conjunction	3957 May 28 00:05	7°♄49'37 -0°47'34	morning rise	3962 Nov 26 06:11	23°♄53'09
minimum elong	3957 May 28 00:08	7°♄49'39 0°47'34		3962 Dec 25 16:46	0°♄
max. Earth dist.	3957 May 30 00:21	8°♄18'40 5.95581 AU	retrograde	3963 Mar 26 11:14	10°♄♄35'52
morning rise	3957 Jun 10 15:09	11°♄05'52	opposition	3963 May 26 06:45	5°♄43'18 1°12'05

min. Earth dist.	3963 May 27 13:35	5°♌33'28	4.44983 AU	conjunction	3969 Jun 02 08:42	13°♊08'57	-0°44'06
direct	3963 Jul 28 02:01	0°♌41'47		minimum elong	3969 Jun 02 08:44	13°♊08'58	0°44'05
evening set	3963 Nov 30 21:57	18°♌13'02		max. Earth dist.	3969 Jun 04 10:49	13°♊39'00	5.96890 AU
max. Earth dist.	3963 Dec 11 14:15	20°♌33'20	6.41025 AU	morning rise	3969 Jun 16 00:35	16°♊24'54	
					3969 Aug 18 05:50	0°♊	
conjunction	3963 Dec 13 16:23	21°♌00'52	0°38'46	retrograde	3969 Oct 25 03:33	6°♊43'38	
minimum elong	3963 Dec 13 16:24	21°♌00'53	0°38'46	min. Earth dist.	3969 Dec 22 04:43	1°♊51'08	4.01968 AU
morning rise	3963 Dec 26 08:46	23°♌47'54		opposition	3969 Dec 23 16:57	1°♊38'46	-0°43'33
	3964 Jan 24 16:18	0°♌			3970 Jan 05 00:57	30°♋♊	
retrograde	3964 Apr 25 22:31	10°♌57'53		direct	3970 Feb 19 20:41	26°♊41'41	
opposition	3964 Jun 25 21:01	6°♌05'49	0°36'51		3970 Apr 06 08:56	0°♊	
min. Earth dist.	3964 Jun 27 10:29	5°♌53'52	4.35544 AU	evening set	3970 Jun 26 05:25	15°♊59'29	
direct	3964 Aug 27 05:50	1°♌05'54					
evening set	3964 Dec 30 20:00	19°♌03'30		conjunction	3970 Jul 09 22:55	19°♊10'43	-0°12'03
max. Earth dist.	3965 Jan 10 09:22	21°♌26'19	6.28755 AU	minimum elong	3970 Jul 09 22:56	19°♊10'44	0°12'03
				behind sun begin	3970 Jul 09 17:20	19°♊07'29	
conjunction	3965 Jan 12 12:52	21°♌55'28	0°09'17	behind sun end	3970 Jul 10 04:33	19°♊13'58	
minimum elong	3965 Jan 12 12:53	21°♌55'29	0°09'18	max. Earth dist.	3970 Jul 12 08:38	19°♊44'16	6.08563 AU
behind sun begin	3965 Jan 12 06:09	21°♌51'41		morning rise	3970 Jul 23 17:33	22°♊22'17	
behind sun end	3965 Jan 12 19:36	21°♌59'16			3970 Aug 27 04:45	0°♋	
morning rise	3965 Jan 25 04:40	24°♌47'12		asc. node	3970 Nov 20 21:02	11°♋30'03	
	3965 Feb 17 21:25	0°♋		retrograde	3970 Nov 28 18:01	11°♋36'11	
desc. node	3965 May 01 14:12	11°♋39'10		min. Earth dist.	3971 Jan 26 00:21	6°♋43'17	4.16048 AU
retrograde	3965 May 29 14:39	12°♋51'24		opposition	3971 Jan 27 09:11	6°♋32'09	0°08'54
opposition	3965 Jul 29 09:14	7°♋58'20	-0°11'15	direct	3971 Mar 27 13:09	1°♋32'15	
min. Earth dist.	3965 Jul 30 20:02	7°♋47'10	4.21145 AU		3971 Jul 08 14:45	15°♋	
direct	3965 Sep 28 17:45	3°♋00'43		evening set	3971 Aug 01 02:38	20°♋08'04	
	3966 Jan 02 13:40	15°♋					
evening set	3966 Feb 01 04:34	21°♋38'27		conjunction	3971 Aug 14 18:39	23°♋11'52	0°22'57
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				max. Earth dist.	3971 Aug 16 12:22	23°♋35'16	6.23820 AU
conjunction	3966 Feb 13 22:27	24°♋37'06	-0°24'27	morning rise	3971 Aug 28 10:18	26°♋15'07	
minimum elong	3966 Feb 13 22:26	24°♋37'05	0°24'26		3971 Sep 14 12:57	0°♎	
morning rise	3966 Feb 26 16:57	27°♋36'20		retrograde	3971 Dec 30 21:45	14°♎18'50	
	3966 Mar 09 01:30	0°♎		opposition	3972 Feb 28 20:12	9°♎17'45	0°54'55
retrograde	3966 Jul 04 16:16	16°♎51'39		min. Earth dist.	3972 Feb 28 00:51	9°♎24'13	4.31070 AU
opposition	3966 Sep 03 03:39	11°♎56'05	-0°59'07	direct	3972 Apr 29 07:56	4°♎15'53	
min. Earth dist.	3966 Sep 03 21:58	11°♎50'07	4.06045 AU	evening set	3972 Sep 02 22:45	22°♎13'12	
direct	3966 Nov 02 00:50	7°♎00'53					
evening set	3967 Mar 07 14:57	26°♎21'33		conjunction	3972 Sep 16 09:19	25°♎08'56	0°49'06
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conjunction	3967 Mar 20 13:08	29°♎27'54	-0°51'17	max. Earth dist.	3972 Sep 17 01:15	25°♎17'38	6.37455 AU
minimum elong	3967 Mar 20 13:06	29°♎27'53	0°51'17	morning rise	3972 Sep 29 17:46	28°♎03'29	
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	3967 Mar 22 18:25	0°♏		retrograde	3973 Jan 29 11:22	15°♏13'53	
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				minimum elong	3973 Oct 18 02:05	25°♏35'32	1°00'22
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minimum elong	3968 Apr 25 08:21	6°♏03'47	0°59'29		3973 Nov 07 15:38	0°♐	
max. Earth dist.	3968 Apr 26 08:11	6°♏18'16	5.93511 AU		3974 Feb 19 13:11	15°♐	
morning rise	3968 May 08 16:36	9°♏18'00		retrograde	3974 Feb 28 10:14	15°♐07'28	
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retrograde	3968 Sep 18 04:10	0°♐04'34		min. Earth dist.	3974 Apr 30 18:09	10°♐07'23	4.47009 AU
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opposition	3968 Nov 16 20:04	25°♐01'42	-1°22'02		3974 Sep 28 15:14	15°♐	
min. Earth dist.	3968 Nov 15 17:41	25°♐10'37	3.94050 AU	evening set	3974 Nov 04 17:22	22°♐34'48	
direct	3969 Jan 13 16:22	20°♐07'11		max. Earth dist.	3974 Nov 16 02:43	25°♐02'11	6.46307 AU
	3969 Apr 06 01:34	0°♐					
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







































































































































































































































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	3974 Dec 09 04:12	0° \mathbb{A}			3980 Nov 24 05:24	30° \mathbb{R} \mathbb{B}	
retrograde	3975 Mar 30 17:45	14° \mathbb{A} 53'36		direct	3981 Jan 18 22:01	25° \mathbb{B} 22'55	
opposition	3975 May 30 14:23	10° \mathbb{A} 01'11	1°08'15		3981 Mar 13 19:46	0° \mathbb{H}	
min. Earth dist.	3975 May 31 21:46	9° \mathbb{A} 51'10	4.43816 AU	evening set	3981 May 25 00:57	15° \mathbb{H} 06'45	
direct	3975 Aug 01 07:34	4° \mathbb{A} 59'53					
evening set	3975 Dec 05 04:39	22° \mathbb{A} 34'41		conjunction	3981 Jun 07 15:01	18° \mathbb{H} 21'13	-0°40'20
max. Earth dist.	3975 Dec 15 20:09	24° \mathbb{A} 55'06	6.39406 AU	minimum elong	3981 Jun 07 15:03	18° \mathbb{H} 21'15	0°40'21
				max. Earth dist.	3981 Jun 09 20:31	18° \mathbb{H} 53'11	5.98239 AU
conjunction	3975 Dec 17 22:41	25° \mathbb{A} 23'00	0°35'11	morning rise	3981 Jun 21 07:28	21° \mathbb{H} 36'49	
minimum elong	3975 Dec 17 22:43	25° \mathbb{A} 23'01	0°35'11		3981 Jul 28 07:00	0° \mathbb{B}	
morning rise	3975 Dec 30 14:52	28° \mathbb{A} 10'35		retrograde	3981 Oct 30 03:04	11° \mathbb{B} 47'41	
	3976 Jan 07 23:33	0° \mathbb{B}		min. Earth dist.	3981 Dec 27 03:12	6° \mathbb{B} 55'09	4.03744 AU
retrograde	3976 Apr 30 13:58	15° \mathbb{B} 27'24		opposition	3981 Dec 28 15:16	6° \mathbb{B} 42'51	-0°36'35
opposition	3976 Jun 30 10:56	10° \mathbb{B} 35'20	0°30'38	direct	3982 Feb 24 21:29	1° \mathbb{B} 45'25	
min. Earth dist.	3976 Jul 02 01:23	10° \mathbb{B} 23'05	4.33568 AU	evening set	3982 Jul 01 06:47	20° \mathbb{B} 57'33	
direct	3976 Aug 31 17:48	5° \mathbb{B} 35'45					
evening set	3977 Jan 04 06:58	23° \mathbb{B} 38'55		conjunction	3982 Jul 15 00:16	24° \mathbb{B} 07'54	-0°07'05
max. Earth dist.	3977 Jan 14 20:26	26° \mathbb{B} 02'32	6.26583 AU	minimum elong	3982 Jul 15 00:16	24° \mathbb{B} 07'55	0°07'05
				behind sun begin	3982 Jul 14 16:33	24° \mathbb{B} 03'28	
conjunction	3977 Jan 16 23:48	26° \mathbb{B} 31'45	0°04'36	behind sun end	3982 Jul 15 07:59	24° \mathbb{B} 12'21	
minimum elong	3977 Jan 16 23:48	26° \mathbb{B} 31'45	0°04'36	max. Earth dist.	3982 Jul 17 07:48	24° \mathbb{B} 40'01	6.10589 AU
behind sun begin	3977 Jan 16 16:00	26° \mathbb{B} 27'20		morning rise	3982 Jul 28 18:58	27° \mathbb{B} 18'30	
behind sun end	3977 Jan 17 07:37	26° \mathbb{B} 36'10			3982 Aug 09 15:32	0° \mathbb{J}	
morning rise	3977 Jan 29 15:54	29° \mathbb{B} 24'29		asc. node	3982 Oct 01 07:27	10° \mathbb{J} 34'25	
	3977 Feb 01 06:46	0° \mathbb{K}			3982 Nov 03 23:14	15° \mathbb{J}	
desc. node	3977 Mar 11 02:29	8° \mathbb{K} 05'39		retrograde	3982 Dec 03 06:39	16° \mathbb{J} 22'35	
	3977 Apr 22 14:06	15° \mathbb{K}			3983 Jan 01 08:53	15° \mathbb{R} \mathbb{J}	
retrograde	3977 Jun 03 12:16	17° \mathbb{K} 38'12		opposition	3983 Jan 31 23:38	11° \mathbb{J} 18'53	0°16'02
	3977 Jul 16 00:24	15° \mathbb{R} \mathbb{K}		min. Earth dist.	3983 Jan 30 16:00	11° \mathbb{J} 29'35	4.18124 AU
opposition	3977 Aug 03 06:46	12° \mathbb{K} 44'51	-0°18'24	direct	3983 Apr 01 07:09	6° \mathbb{J} 18'39	
min. Earth dist.	3977 Aug 04 14:49	12° \mathbb{K} 34'33	4.18943 AU		3983 Jun 19 23:46	15° \mathbb{J}	
direct	3977 Oct 03 09:40	7° \mathbb{K} 47'36		evening set	3983 Aug 05 21:40	24° \mathbb{J} 49'01	
	3977 Dec 13 22:03	15° \mathbb{K}					
evening set	3978 Feb 05 21:51	26° \mathbb{K} 31'32		conjunction	3983 Aug 19 13:13	27° \mathbb{J} 51'44	0°27'17
max. Earth dist.	3978 Feb 17 05:04	29° \mathbb{K} 10'32	6.11375 AU	minimum elong	3983 Aug 19 13:12	27° \mathbb{J} 51'43	0°27'17
				max. Earth dist.	3983 Aug 21 04:01	28° \mathbb{J} 13'25	6.25793 AU
conjunction	3978 Feb 18 16:12	29° \mathbb{K} 31'13	-0°28'55		3983 Aug 29 03:05	0° \mathbb{H}	
minimum elong	3978 Feb 18 16:11	29° \mathbb{K} 31'12	0°28'55	morning rise	3983 Sep 02 03:56	0° \mathbb{H} 53'45	
	3978 Feb 20 17:06	0° \mathbb{H}		retrograde	3984 Jan 04 06:01	18° \mathbb{H} 49'20	
morning rise	3978 Mar 03 11:09	2° \mathbb{H} 31'33		opposition	3984 Mar 04 04:42	13° \mathbb{H} 48'48	0°59'59
retrograde	3978 Jul 09 23:20	21° \mathbb{H} 56'32		min. Earth dist.	3984 Mar 03 12:09	13° \mathbb{H} 54'19	4.32779 AU
opposition	3978 Sep 08 08:27	17° \mathbb{H} 00'32	-1°04'45	direct	3984 May 03 21:08	8° \mathbb{H} 46'50	
min. Earth dist.	3978 Sep 09 00:31	16° \mathbb{H} 55'17	4.04353 AU	evening set	3984 Sep 07 11:42	26° \mathbb{H} 40'21	
direct	3978 Nov 07 01:57	12° \mathbb{H} 05'39					
	3979 Mar 06 06:54	0° \mathbb{Y}		conjunction	3984 Sep 20 21:17	29° \mathbb{H} 35'10	0°51'37
evening set	3979 Mar 12 15:02	1° \mathbb{Y} 30'45		minimum elong	3984 Sep 20 21:15	29° \mathbb{H} 35'09	0°51'36
				max. Earth dist.	3984 Sep 21 08:08	29° \mathbb{H} 41'04	6.38762 AU
conjunction	3979 Mar 25 13:57	4° \mathbb{Y} 37'59	-0°53'46		3984 Sep 22 18:53	0° \mathbb{J}	
minimum elong	3979 Mar 25 13:55	4° \mathbb{Y} 37'58	0°53'46	morning rise	3984 Oct 04 04:52	2° \mathbb{J} 28'49	
max. Earth dist.	3979 Mar 25 07:19	4° \mathbb{Y} 33'59	5.98734 AU	retrograde	3985 Feb 02 15:53	19° \mathbb{J} 34'37	
morning rise	3979 Apr 07 15:02	7° \mathbb{Y} 46'34		opposition	3985 Apr 03 23:29	14° \mathbb{J} 37'42	1°24'17
retrograde	3979 Aug 17 03:02	28° \mathbb{Y} 12'22		min. Earth dist.	3985 Apr 04 01:13	14° \mathbb{J} 37'08	4.43244 AU
opposition	3979 Oct 16 02:05	23° \mathbb{Y} 12'41	-1°29'15	direct	3985 Jun 04 19:51	9° \mathbb{J} 35'08	
min. Earth dist.	3979 Oct 15 17:38	23° \mathbb{Y} 15'29	3.95040 AU	evening set	3985 Oct 09 06:55	27° \mathbb{J} 05'35	
direct	3979 Dec 13 11:34	18° \mathbb{Y} 18'58					
	3980 Mar 13 07:17	0° \mathbb{B}		conjunction	3985 Oct 22 09:47	29° \mathbb{J} 54'51	1°00'36
evening set	3980 Apr 17 08:01	8° \mathbb{B} 08'15		minimum elong	3985 Oct 22 09:47	29° \mathbb{J} 54'51	1°00'37
				max. Earth dist.	3985 Oct 21 17:31	29° \mathbb{J} 46'05	6.45949 AU
conjunction	3980 Apr 30 14:19	11° \mathbb{B} 21'18	-0°58'43		3985 Oct 22 19:21	0° \mathbb{M}	
minimum elong	3980 Apr 30 14:20	11° \mathbb{B} 21'18	0°58'43	morning rise	3985 Nov 04 09:51	2° \mathbb{M} 42'46	
max. Earth dist.	3980 May 01 18:00	11° \mathbb{B} 38'07	5.93615 AU		3986 Jan 08 04:57	15° \mathbb{M}	
morning rise	3980 May 13 23:42	14° \mathbb{B} 35'57		retrograde	3986 Mar 04 14:49	19° \mathbb{M} 25'35	
	3980 May 15 15:39	15° \mathbb{B}			3986 Apr 30 14:08	15° \mathbb{R} \mathbb{M}	
	3980 Jul 25 13:11	0° \mathbb{H}		opposition	3986 May 04 06:14	14° \mathbb{M} 31'41	1°25'21
retrograde	3980 Sep 23 09:19	5° \mathbb{H} 20'59		min. Earth dist.	3986 May 05 01:42	14° \mathbb{M} 25'25	4.46842 AU
min. Earth dist.	3980 Nov 20 21:01	0° \mathbb{H} 27'14	3.94811 AU	direct	3986 Jul 05 20:10	9° \mathbb{M} 29'32	

	3986 Sep 08 03:10	15°♍		conjunction	3992 May 05 16:10	16°♏27'26	-0°57'29
evening set	3986 Nov 09 00:17	26°♍54'27		minimum elong	3992 May 05 16:11	16°♏27'27	0°57'29
max. Earth dist.	3986 Nov 20 05:35	29°♍20'01	6.45655 AU	max. Earth dist.	3992 May 07 00:31	16°♏47'03	5.93938 AU
				morning rise	3992 May 19 02:29	19°♏42'23	
conjunction	3986 Nov 21 21:24	29°♍41'37	0°53'13		3992 Jul 03 10:28	0°♐	
minimum elong	3986 Nov 21 21:25	29°♍41'37	0°53'12	retrograde	3992 Sep 28 10:59	10°♐24'55	
	3986 Nov 23 07:18	0°♏		min. Earth dist.	3992 Nov 25 20:05	5°♐31'15	3.95644 AU
morning rise	3986 Dec 04 16:10	2°♏27'41		opposition	3992 Nov 27 01:16	5°♐21'21	-1°14'06
retrograde	3987 Apr 04 04:09	19°♏16'17		direct	3993 Jan 23 22:16	0°♐26'17	
opposition	3987 Jun 03 23:58	14°♏24'03	1°03'58	evening set	3993 May 30 01:48	20°♐06'54	
min. Earth dist.	3987 Jun 05 09:15	14°♏13'25	4.42737 AU				
direct	3987 Aug 05 17:36	9°♏22'58		conjunction	3993 Jun 12 16:27	23°♐21'07	-0°36'27
evening set	3987 Dec 09 12:28	27°♏00'43		minimum elong	3993 Jun 12 16:29	23°♐21'08	0°36'27
max. Earth dist.	3987 Dec 20 03:41	29°♏21'27	6.38006 AU	max. Earth dist.	3993 Jun 14 21:33	23°♐52'43	5.99481 AU
				morning rise	3993 Jun 26 09:42	26°♐36'25	
conjunction	3987 Dec 22 06:18	29°♏49'28	0°31'22		3993 Jul 10 23:06	0°♑	
minimum elong	3987 Dec 22 06:19	29°♏49'29	0°31'23	retrograde	3993 Nov 03 19:26	16°♑40'08	
	3987 Dec 23 01:20	0°♑		min. Earth dist.	3993 Dec 31 20:34	11°♑47'43	4.05266 AU
morning rise	3988 Jan 03 22:13	2°♑37'31		opposition	3994 Jan 02 08:56	11°♑35'20	-0°29'41
retrograde	3988 May 05 03:29	20°♑00'20		direct	3994 Mar 01 17:01	6°♑37'29	
opposition	3988 Jul 05 01:57	15°♑08'09	0°24'12	evening set	3994 Jul 06 04:22	25°♑45'19	
min. Earth dist.	3988 Jul 06 14:47	14°♑56'24	4.31951 AU				
direct	3988 Sep 05 04:55	10°♑08'55		conjunction	3994 Jul 19 22:02	28°♑54'57	-0°02'16
evening set	3989 Jan 08 18:06	28°♑16'07		minimum elong	3994 Jul 19 22:03	28°♑54'58	0°02'16
	3989 Jan 16 08:58	0°♒		behind sun begin	3994 Jul 19 13:40	28°♑50'10	
max. Earth dist.	3989 Jan 19 10:08	0°♒41'46	6.24888 AU	behind sun end	3994 Jul 20 06:26	28°♑59'46	
desc. node	3989 Jan 19 08:50	0°♒41'01		max. Earth dist.	3994 Jul 22 03:55	29°♑26'00	6.12277 AU
					3994 Jul 24 14:58	0°♓	
conjunction	3989 Jan 21 10:53	1°♒09'36	-0°00'11	morning rise	3994 Aug 02 16:29	2°♓04'41	
minimum elong	3989 Jan 21 10:53	1°♒09'36	0°00'11	asc. node	3994 Aug 13 12:17	4°♓31'38	
behind sun begin	3989 Jan 21 02:59	1°♒05'07			3994 Oct 04 12:14	15°♓	
behind sun end	3989 Jan 21 18:47	1°♒14'06		retrograde	3994 Dec 07 18:56	21°♓00'31	
morning rise	3989 Feb 03 03:06	4°♒03'05		min. Earth dist.	3995 Feb 04 05:54	16°♓07'04	4.19812 AU
	3989 Mar 27 07:23	15°♒		opposition	3995 Feb 05 11:06	15°♓57'12	0°22'46
retrograde	3989 Jun 08 10:58	22°♒24'42			3995 Feb 12 13:26	15°♓♓	
opposition	3989 Aug 08 04:18	17°♒31'02	-0°25'21	direct	3995 Apr 05 23:02	10°♓56'43	
min. Earth dist.	3989 Aug 09 11:17	17°♒21'04	4.17278 AU		3995 May 28 03:54	15°♓	
	3989 Aug 28 16:52	15°♓♓		evening set	3995 Aug 10 14:12	29°♓23'04	
direct	3989 Oct 08 04:47	12°♒34'07			3995 Aug 13 08:50	0°♔	
	3989 Nov 17 01:00	15°♒					
	3990 Feb 04 17:08	0°♔		conjunction	3995 Aug 24 05:12	2°♔24'54	0°31'18
evening set	3990 Feb 10 13:58	1°♔22'03		minimum elong	3995 Aug 24 05:10	2°♔24'53	0°31'18
max. Earth dist.	3990 Feb 22 00:16	4°♔03'24	6.09889 AU	max. Earth dist.	3995 Aug 25 16:53	2°♔44'45	6.27350 AU
				morning rise	3995 Sep 06 19:13	5°♔25'57	
conjunction	3990 Feb 23 08:39	4°♔22'30	-0°33'06	retrograde	3996 Jan 08 11:07	23°♔14'58	
minimum elong	3990 Feb 23 08:37	4°♔22'29	0°33'06	opposition	3996 Mar 08 11:41	18°♔14'54	1°04'33
morning rise	3990 Mar 08 04:11	7°♔23'42		min. Earth dist.	3996 Mar 07 20:39	18°♔19'54	4.34116 AU
retrograde	3990 Jul 15 01:16	26°♔56'03		direct	3996 May 08 07:04	13°♔12'49	
opposition	3990 Sep 13 10:36	21°♔59'34	-1°09'42		3996 Sep 07 00:52	0°♕	
min. Earth dist.	3990 Sep 13 22:48	21°♔55'35	4.03199 AU	evening set	3996 Sep 11 23:09	1°♕03'38	
direct	3990 Nov 11 23:06	17°♔04'55					
	3991 Feb 17 10:10	0°♖		conjunction	3996 Sep 25 07:53	3°♕57'41	0°53'45
evening set	3991 Mar 17 12:29	6°♖32'34		minimum elong	3996 Sep 25 07:51	3°♕57'40	0°53'45
				max. Earth dist.	3996 Sep 25 15:35	4°♕01'52	6.39795 AU
conjunction	3991 Mar 30 12:06	9°♖40'26	-0°55'44	morning rise	3996 Oct 08 14:23	6°♕50'30	
minimum elong	3991 Mar 30 12:05	9°♖40'25	0°55'44	retrograde	3997 Feb 06 20:27	23°♕52'33	
max. Earth dist.	3991 Mar 30 09:46	9°♖39'01	5.98011 AU	opposition	3997 Apr 08 04:35	18°♕56'08	1°25'45
morning rise	3991 Apr 12 14:04	12°♖49'44		min. Earth dist.	3997 Apr 08 08:46	18°♕54'46	4.43920 AU
	3991 Jul 06 17:38	0°♗		direct	3997 Jun 09 04:22	13°♕53'38	
retrograde	3991 Aug 22 07:07	3°♗19'11			3997 Oct 07 02:47	0°♘	
	3991 Oct 08 08:19	30°♗♖		evening set	3997 Oct 13 14:40	1°♘22'56	
opposition	3991 Oct 21 05:32	28°♖18'54	-1°29'51				
min. Earth dist.	3991 Oct 20 18:50	28°♖22'29	3.94830 AU	conjunction	3997 Oct 26 16:35	4°♘11'45	1°00'28
direct	3991 Dec 18 13:26	23°♖25'06		minimum elong	3997 Oct 26 16:35	4°♘11'45	1°00'29
	3992 Feb 21 23:56	0°♗		max. Earth dist.	3997 Oct 25 20:09	4°♘00'45	6.46205 AU
evening set	3992 Apr 22 08:41	13°♗14'02		morning rise	3997 Nov 08 15:56	6°♘59'17	
	3992 Apr 29 15:59	15°♗			3997 Dec 18 01:23	15°♘	

retrograde	3998 Mar 08 19:58	23° \mathbb{M} 41'30			4003 Nov 25 05:16	30° \mathbb{R} Υ	
opposition	3998 May 08 11:50	18° \mathbb{M} 47'52	1°23'35	direct	4003 Dec 23 15:58	28° Υ 38'52	
min. Earth dist.	3998 May 09 09:22	18° \mathbb{M} 40'56	4.46676 AU		4004 Jan 20 23:54	0° \mathcal{B}	
	3998 Jun 11 03:51	15° \mathbb{R} \mathbb{M}			4004 Apr 12 22:08	15° \mathcal{B}	
direct	3998 Jul 10 03:24	13° \mathbb{M} 45'47		evening set	4004 Apr 27 13:16	18° \mathcal{B} 29'09	
	3998 Aug 08 08:18	15° \mathbb{M}					
	3998 Nov 07 16:48	0° \mathcal{A}		conjunction	4004 May 10 21:44	21° \mathcal{B} 43'03	-0°55'48
evening set	3998 Nov 13 05:58	1° \mathcal{A} 11'23		minimum elong	4004 May 10 21:46	21° \mathcal{B} 43'04	0°55'47
max. Earth dist.	3998 Nov 24 10:25	3° \mathcal{A} 36'42	6.45059 AU	max. Earth dist.	4004 May 12 08:30	22° \mathcal{B} 04'07	5.93956 AU
				morning rise	4004 May 24 09:24	24° \mathcal{B} 58'34	
conjunction	3998 Nov 26 02:40	3° \mathcal{A} 58'34	0°50'55		4004 Jun 14 16:55	0° \mathbb{I}	
minimum elong	3998 Nov 26 02:41	3° \mathcal{A} 58'35	0°50'55	retrograde	4004 Oct 03 14:26	15° \mathbb{I} 39'25	
morning rise	3998 Dec 08 20:43	6° \mathcal{A} 44'38		min. Earth dist.	4004 Nov 30 21:07	10° \mathbb{I} 46'15	3.96293 AU
retrograde	3999 Apr 08 10:56	23° \mathcal{A} 36'01		opposition	4004 Dec 02 04:41	10° \mathbb{I} 35'32	-1°09'13
opposition	3999 Jun 08 08:34	18° \mathcal{A} 43'50	0°59'19	direct	4005 Jan 29 01:18	5° \mathbb{I} 40'07	
min. Earth dist.	3999 Jun 09 18:13	18° \mathcal{A} 33'07	4.41721 AU	evening set	4005 Jun 04 07:11	25° \mathbb{I} 18'19	
direct	3999 Aug 10 00:48	13° \mathcal{A} 43'01					
	3999 Dec 07 10:35	0° \mathcal{B}		conjunction	4005 Jun 17 22:45	28° \mathbb{I} 32'21	-0°32'08
evening set	3999 Dec 13 18:56	1° \mathcal{B} 23'23		minimum elong	4005 Jun 17 22:47	28° \mathbb{I} 32'22	0°32'08
max. Earth dist.	3999 Dec 24 08:37	3° \mathcal{B} 43'49	6.36614 AU	max. Earth dist.	4005 Jun 20 05:50	29° \mathbb{I} 05'01	6.00717 AU
					4005 Jun 24 02:36	0° \mathcal{D}	
conjunction	3999 Dec 26 12:18	4° \mathcal{B} 12'32	0°27'24	morning rise	4005 Jul 01 16:29	1° \mathcal{D} 47'17	
minimum elong	3999 Dec 26 12:19	4° \mathcal{B} 12'32	0°27'24	retrograde	4005 Nov 08 17:49	21° \mathcal{D} 43'27	
morning rise	4000 Jan 08 04:10	7° \mathcal{B} 01'06		min. Earth dist.	4006 Jan 05 19:01	16° \mathcal{D} 50'49	4.06940 AU
retrograde	4000 May 09 18:30	24° \mathcal{B} 30'11		opposition	4006 Jan 07 06:33	16° \mathcal{D} 38'42	-0°22'19
opposition	4000 Jul 09 15:59	19° \mathcal{B} 37'53	0°17'37	direct	4006 Mar 06 18:08	11° \mathcal{D} 40'30	
min. Earth dist.	4000 Jul 11 05:31	19° \mathcal{B} 25'54	4.30226 AU	asc. node	4006 Jun 23 07:22	26° \mathcal{D} 41'04	
direct	4000 Sep 09 17:28	14° \mathcal{B} 38'54			4006 Jul 08 02:03	0° \mathcal{Q}	
desc. node	4000 Nov 29 15:32	23° \mathcal{B} 22'33		evening set	4006 Jul 11 05:56	0° \mathcal{Q} 43'12	
	4000 Dec 31 12:10	0° \approx					
evening set	4001 Jan 13 04:08	2° \approx 50'45		conjunction	4006 Jul 24 23:35	3° \mathcal{Q} 51'56	0°02'53
max. Earth dist.	4001 Jan 23 21:27	5° \approx 17'46	6.22962 AU	minimum elong	4006 Jul 24 23:36	3° \mathcal{Q} 51'56	0°02'53
				behind sun begin	4006 Jul 24 15:14	3° \mathcal{Q} 47'10	
conjunction	4001 Jan 25 21:03	5° \approx 45'03	-0°04'58	behind sun end	4006 Jul 25 07:57	3° \mathcal{Q} 56'42	
minimum elong	4001 Jan 25 21:04	5° \approx 45'04	0°04'57	max. Earth dist.	4006 Jul 27 05:09	4° \mathcal{Q} 22'38	6.14266 AU
behind sun begin	4001 Jan 25 13:18	5° \approx 40'38		morning rise	4006 Aug 07 17:46	7° \mathcal{Q} 00'37	
behind sun end	4001 Jan 26 04:50	5° \approx 49'30			4006 Sep 13 11:47	15° \mathcal{Q}	
morning rise	4001 Feb 07 13:30	8° \approx 39'26		retrograde	4006 Dec 12 07:13	25° \mathcal{Q} 46'40	
	4001 Mar 08 05:23	15° \approx		min. Earth dist.	4007 Feb 08 20:29	20° \mathcal{Q} 53'29	4.21950 AU
retrograde	4001 Jun 13 07:12	27° \approx 10'00		opposition	4007 Feb 10 01:28	20° \mathcal{Q} 43'43	0°29'35
opposition	4001 Aug 13 00:50	22° \approx 16'03	-0°32'12	direct	4007 Apr 10 17:01	15° \mathcal{Q} 42'58	
min. Earth dist.	4001 Aug 14 05:24	22° \approx 06'51	4.15290 AU		4007 Jul 27 16:34	0° \mathbb{P}	
direct	4001 Oct 12 19:57	17° \approx 19'29		evening set	4007 Aug 15 09:11	4° \mathbb{P} 03'24	
	4002 Jan 18 23:28	0° \mathcal{H}					
evening set	4002 Feb 15 06:14	6° \mathcal{H} 13'06		conjunction	4007 Aug 28 23:21	7° \mathbb{P} 03'58	0°35'15
max. Earth dist.	4002 Feb 26 20:04	8° \mathcal{H} 57'13	6.08003 AU	minimum elong	4007 Aug 28 23:19	7° \mathbb{P} 03'57	0°35'14
				max. Earth dist.	4007 Aug 30 07:22	7° \mathbb{P} 21'44	6.29491 AU
conjunction	4002 Feb 28 01:19	9° \mathcal{H} 14'33	-0°37'06	morning rise	4007 Sep 11 12:25	10° \mathbb{P} 03'41	
minimum elong	4002 Feb 28 01:17	9° \mathcal{H} 14'32	0°37'06	retrograde	4008 Jan 12 19:00	27° \mathbb{P} 43'57	
morning rise	4002 Mar 12 21:35	12° \mathcal{H} 16'52		opposition	4008 Mar 12 19:58	22° \mathbb{P} 44'22	1°08'49
	4002 Jun 14 12:06	0° Υ		min. Earth dist.	4008 Mar 12 07:52	22° \mathbb{P} 48'22	4.36098 AU
retrograde	4002 Jul 20 06:39	1° Υ 58'35		direct	4008 May 12 21:12	17° \mathbb{P} 42'07	
	4002 Aug 25 03:37	30° \mathbb{R} \mathcal{H}			4008 Aug 21 09:29	0° \mathcal{L}	
opposition	4002 Sep 18 13:40	27° \mathcal{H} 01'36	-1°14'19	evening set	4008 Sep 16 10:42	5° \mathcal{L} 27'44	
min. Earth dist.	4002 Sep 18 23:36	26° \mathcal{H} 58'20	4.01581 AU				
direct	4002 Nov 16 22:18	22° \mathcal{H} 07'07		conjunction	4008 Sep 29 18:28	8° \mathcal{L} 20'43	0°55'38
	4003 Jan 29 00:42	0° Υ		minimum elong	4008 Sep 29 18:27	8° \mathcal{L} 20'42	0°55'38
evening set	4003 Mar 22 11:35	11° Υ 39'23		max. Earth dist.	4008 Sep 29 22:53	8° \mathcal{L} 23'06	6.41465 AU
				morning rise	4008 Oct 12 23:52	11° \mathcal{L} 12'25	
conjunction	4003 Apr 04 12:17	14° Υ 48'16	-0°57'22	retrograde	4009 Feb 10 22:12	28° \mathcal{L} 08'38	
minimum elong	4003 Apr 04 12:16	14° Υ 48'15	0°57'22	opposition	4009 Apr 12 08:55	23° \mathcal{L} 12'34	1°26'45
max. Earth dist.	4003 Apr 04 15:11	14° Υ 50'01	5.96820 AU	min. Earth dist.	4009 Apr 12 14:52	23° \mathcal{L} 10'38	4.45184 AU
morning rise	4003 Apr 17 15:18	17° Υ 58'36		direct	4009 Jun 13 11:31	18° \mathcal{L} 10'01	
	4003 Jun 10 15:36	0° \mathcal{B}			4009 Sep 20 20:05	0° \mathbb{M}	
retrograde	4003 Aug 27 14:54	8° \mathcal{B} 33'25		evening set	4009 Oct 17 20:16	5° \mathbb{M} 36'06	
opposition	4003 Oct 26 11:25	3° \mathcal{B} 32'41	-1°29'50				
min. Earth dist.	4003 Oct 25 22:01	3° \mathcal{B} 37'10	3.94225 AU	conjunction	4009 Oct 30 21:19	8° \mathbb{M} 24'15	1°00'03

minimum elong	4009 Oct 30 21:19	8° \mathbb{M} 24'15	1°00'03		4015 May 21 21:32	0° \mathcal{B}	
max. Earth dist.	4009 Oct 29 22:21	8° \mathbb{M} 11'53	6.46965 AU	retrograde	4015 Sep 01 23:47	13° \mathcal{B} 52'38	
morning rise	4009 Nov 12 19:39	11° \mathbb{M} 11'08		opposition	4015 Oct 31 19:12	8° \mathcal{B} 51'22	-1°29'04
	4009 Nov 30 22:33	15° \mathbb{M}		min. Earth dist.	4015 Oct 31 01:52	8° \mathcal{B} 57'11	3.93353 AU
retrograde	4010 Mar 12 21:45	27° \mathbb{M} 51'23		direct	4015 Dec 28 20:31	3° \mathcal{B} 57'28	
opposition	4010 May 12 15:21	22° \mathbb{M} 58'01	1°21'25		4016 Mar 25 13:12	15° \mathcal{B}	
min. Earth dist.	4010 May 13 15:21	22° \mathbb{M} 50'19	4.46871 AU	evening set	4016 May 02 20:42	23° \mathcal{B} 50'09	
direct	4010 Jul 14 09:04	17° \mathbb{M} 56'01					
	4010 Oct 22 19:42	0° \mathcal{A}		conjunction	4016 May 16 06:35	27° \mathcal{B} 04'43	-0°53'35
evening set	4010 Nov 17 08:42	5° \mathcal{A} 21'07		minimum elong	4016 May 16 06:36	27° \mathcal{B} 04'44	0°53'35
max. Earth dist.	4010 Nov 28 08:20	7° \mathcal{A} 44'04	6.44650 AU	max. Earth dist.	4016 May 17 23:02	27° \mathcal{B} 29'12	5.93885 AU
					4016 May 28 08:42	0° \mathbb{I}	
conjunction	4010 Nov 30 04:38	8° \mathcal{A} 08'10	0°48'25	morning rise	4016 May 29 19:18	0° \mathbb{I} 20'46	
minimum elong	4010 Nov 30 04:40	8° \mathcal{A} 08'11	0°48'25	retrograde	4016 Oct 08 22:05	20° \mathbb{I} 59'50	
morning rise	4010 Dec 12 22:20	10° \mathcal{A} 54'14		min. Earth dist.	4016 Dec 06 01:59	16° \mathbb{I} 06'45	3.97017 AU
retrograde	4011 Apr 12 16:31	27° \mathcal{A} 48'05		opposition	4016 Dec 07 10:43	15° \mathbb{I} 55'36	-1°03'39
opposition	4011 Jun 12 14:24	22° \mathcal{A} 55'55	0°54'31	direct	4017 Feb 03 08:26	10° \mathbb{I} 59'51	
min. Earth dist.	4011 Jun 14 01:55	22° \mathcal{A} 44'35	4.40713 AU		4017 Jun 07 03:34	0° \mathcal{C}	
direct	4011 Aug 14 06:23	17° \mathcal{A} 55'10		evening set	4017 Jun 09 15:16	0° \mathcal{C} 35'03	
	4011 Nov 21 14:39	0° \mathcal{C}					
evening set	4011 Dec 17 22:16	5° \mathcal{C} 38'20		conjunction	4017 Jun 23 07:30	3° \mathcal{C} 48'43	-0°27'28
max. Earth dist.	4011 Dec 28 11:36	7° \mathcal{C} 59'01	6.35074 AU	minimum elong	4017 Jun 23 07:31	3° \mathcal{C} 48'44	0°27'28
				max. Earth dist.	4017 Jun 25 17:07	4° \mathcal{C} 22'46	6.02145 AU
conjunction	4011 Dec 30 15:35	8° \mathcal{C} 28'00	0°23'23	morning rise	4017 Jul 07 01:44	7° \mathcal{C} 03'11	
minimum elong	4011 Dec 30 15:36	8° \mathcal{C} 28'01	0°23'23	retrograde	4017 Nov 13 15:33	26° \mathcal{C} 50'28	
morning rise	4012 Jan 12 07:13	11° \mathcal{C} 17'08		min. Earth dist.	4018 Jan 10 16:52	21° \mathcal{C} 58'14	4.08890 AU
retrograde	4012 May 14 05:22	28° \mathcal{C} 53'12		opposition	4018 Jan 12 05:28	21° \mathcal{C} 45'47	-0°14'40
opposition	4012 Jul 14 03:23	24° \mathcal{C} 00'45	0°11'06	direct	4018 Mar 11 19:26	16° \mathcal{C} 47'10	
min. Earth dist.	4012 Jul 15 16:40	23° \mathcal{C} 48'51	4.28230 AU	asc. node	4018 May 02 00:31	20° \mathcal{C} 48'57	
direct	4012 Sep 14 00:59	19° \mathcal{C} 02'02			4018 Jun 20 12:55	0° \mathcal{D}	
desc. node	4012 Oct 11 10:29	20° \mathcal{C} 10'20		evening set	4018 Jul 16 09:04	5° \mathcal{D} 43'43	
	4012 Dec 15 00:35	0° \approx					
evening set	4013 Jan 17 12:10	7° \approx 19'42		conjunction	4018 Jul 30 02:24	8° \mathcal{D} 51'18	0°07'57
max. Earth dist.	4013 Jan 28 05:33	9° \approx 47'34	6.20655 AU	minimum elong	4018 Jul 30 02:23	8° \mathcal{D} 51'18	0°07'57
				behind sun begin	4018 Jul 29 18:56	8° \mathcal{D} 47'04	
conjunction	4013 Jan 30 05:09	10° \approx 15'00	-0°09'31	behind sun end	4018 Jul 30 09:49	8° \mathcal{D} 55'31	
minimum elong	4013 Jan 30 05:08	10° \approx 14'59	0°09'31	max. Earth dist.	4018 Aug 01 05:08	9° \mathcal{D} 20'14	6.16531 AU
behind sun begin	4013 Jan 29 22:27	10° \approx 11'09		morning rise	4018 Aug 12 20:08	11° \mathcal{D} 58'43	
behind sun end	4013 Jan 30 11:49	10° \approx 18'49			4018 Aug 26 08:37	15° \mathcal{D}	
morning rise	4013 Feb 11 22:04	13° \approx 10'30			4018 Nov 28 04:37	0° \mathbb{N}	
	4013 Feb 19 22:11	15° \approx		retrograde	4018 Dec 16 21:44	0° \mathbb{N} 34'07	
	4013 May 14 06:54	0° \mathcal{H}			4019 Jan 04 10:53	30° \mathcal{R} \mathcal{D}	
retrograde	4013 Jun 18 05:24	1° \mathcal{H} 51'51		opposition	4019 Feb 14 16:21	25° \mathcal{D} 31'31	0°36'14
	4013 Jul 23 08:23	30° \mathcal{R} \approx		min. Earth dist.	4019 Feb 13 13:56	25° \mathcal{D} 40'25	4.24273 AU
opposition	4013 Aug 17 20:33	26° \approx 57'33	-0°38'46	direct	4019 Apr 15 13:58	20° \mathcal{D} 30'25	
min. Earth dist.	4013 Aug 19 00:01	26° \approx 48'40	4.12819 AU		4019 Jul 09 06:10	0° \mathbb{N}	
direct	4013 Oct 17 11:20	22° \approx 01'12		evening set	4019 Aug 20 04:21	8° \mathbb{N} 44'33	
	4013 Dec 31 09:09	0° \mathcal{H}					
evening set	4014 Feb 19 22:06	11° \mathcal{H} 02'29		conjunction	4019 Sep 02 17:49	11° \mathbb{N} 43'53	0°39'01
				minimum elong	4019 Sep 02 17:47	11° \mathbb{N} 43'52	0°39'00
conjunction	4014 Mar 04 17:59	14° \mathcal{H} 05'17	-0°40'49	max. Earth dist.	4019 Sep 03 23:29	12° \mathbb{N} 00'15	6.31667 AU
minimum elong	4014 Mar 04 17:57	14° \mathcal{H} 05'16	0°40'49	morning rise	4019 Sep 16 05:44	14° \mathbb{N} 42'14	
max. Earth dist.	4014 Mar 03 16:24	13° \mathcal{H} 50'03	6.05600 AU		4019 Dec 09 22:19	0° \mathcal{D}	
morning rise	4014 Mar 17 15:00	17° \mathcal{H} 09'02		retrograde	4020 Jan 17 01:19	2° \mathcal{D} 14'02	
	4014 May 16 05:56	0° \mathcal{Y}			4020 Feb 24 02:51	30° \mathcal{R} \mathbb{N}	
retrograde	4014 Jul 25 12:49	7° \mathcal{Y} 02'05		opposition	4020 Mar 17 04:39	27° \mathbb{N} 14'59	1°12'43
opposition	4014 Sep 23 17:18	2° \mathcal{Y} 04'41	-1°18'23	min. Earth dist.	4020 Mar 16 18:14	27° \mathbb{N} 18'25	4.37962 AU
min. Earth dist.	4014 Sep 24 00:21	2° \mathcal{Y} 02'22	3.99495 AU	direct	4020 May 17 09:16	22° \mathbb{N} 12'39	
	4014 Oct 10 00:42	30° \mathcal{R} \mathcal{H}			4020 Aug 02 11:53	0° \mathcal{D}	
direct	4014 Nov 21 19:54	27° \mathcal{H} 10'28		evening set	4020 Sep 20 22:48	9° \mathcal{D} 53'49	
	4015 Jan 02 18:47	0° \mathcal{Y}					
evening set	4015 Mar 27 12:49	16° \mathcal{Y} 49'21		conjunction	4020 Oct 04 05:25	12° \mathcal{D} 45'48	0°57'15
				minimum elong	4020 Oct 04 05:24	12° \mathcal{D} 45'48	0°57'15
conjunction	4015 Apr 09 14:28	19° \mathcal{Y} 59'27	-0°58'32	max. Earth dist.	4020 Oct 04 04:45	12° \mathcal{D} 45'26	6.42870 AU
minimum elong	4015 Apr 09 14:27	19° \mathcal{Y} 59'27	0°58'33	morning rise	4020 Oct 17 09:46	15° \mathcal{D} 36'32	
max. Earth dist.	4015 Apr 09 20:47	20° \mathcal{Y} 03'18	5.95243 AU		4021 Jan 05 15:07	0° \mathbb{M}	
morning rise	4015 Apr 22 18:54	23° \mathcal{Y} 11'08		retrograde	4021 Feb 15 03:50	2° \mathbb{M} 28'14	

	4021 Mar 27 18:38	30° $\mathbb{R}\underline{\mathfrak{A}}$		morning rise	4026 Mar 22 14:22	22° \mathbb{H} 15'56	
opposition	4021 Apr 16 14:47	27° $\underline{\mathfrak{A}}$ 32'40	1°27'22		4026 Apr 25 09:03	0° \mathbb{Y}	
min. Earth dist.	4021 Apr 17 00:29	27° $\underline{\mathfrak{A}}$ 29'32	4.46052 AU	retrograde	4026 Jul 30 21:36	12° \mathbb{Y} 18'28	
direct	4021 Jun 17 21:31	22° $\underline{\mathfrak{A}}$ 30'08		opposition	4026 Sep 29 01:39	7° \mathbb{Y} 20'30	-1°22'00
	4021 Sep 02 02:55	0° \mathbb{M}		min. Earth dist.	4026 Sep 29 04:25	7° \mathbb{Y} 19'36	3.98013 AU
evening set	4021 Oct 22 03:41	9° \mathbb{M} 54'31		direct	4026 Nov 26 23:40	2° \mathbb{Y} 26'28	
max. Earth dist.	4021 Nov 03 01:00	12° \mathbb{M} 27'45	6.47221 AU	evening set	4027 Apr 01 17:46	22° \mathbb{Y} 09'18	
conjunction	4021 Nov 04 03:56	12° \mathbb{M} 42'15	0°59'20	conjunction	4027 Apr 14 20:39	25° \mathbb{Y} 20'18	-0°59'19
minimum elong	4021 Nov 04 03:56	12° \mathbb{M} 42'16	0°59'20	minimum elong	4027 Apr 14 20:39	25° \mathbb{Y} 20'18	0°59'19
	4021 Nov 14 19:52	15° \mathbb{M}		max. Earth dist.	4027 Apr 15 09:53	25° \mathbb{Y} 28'20	5.94449 AU
morning rise	4021 Nov 17 01:28	15° \mathbb{M} 28'44		morning rise	4027 Apr 28 02:05	28° \mathbb{Y} 32'50	
	4022 Feb 07 07:41	0° \mathbb{X}			4027 May 04 03:13	0° \mathbb{B}	
retrograde	4022 Mar 17 02:42	2° \mathbb{X} 08'51			4027 Jul 16 06:38	15° \mathbb{B}	
	4022 Apr 24 03:30	30° $\mathbb{R}\mathbb{M}$		retrograde	4027 Sep 07 11:46	19° \mathbb{B} 17'12	
opposition	4022 May 16 21:38	27° \mathbb{M} 15'43	1°18'49		4027 Oct 31 15:47	15° $\mathbb{R}\mathbb{B}$	
min. Earth dist.	4022 May 17 23:24	27° \mathbb{M} 07'28	4.46522 AU	min. Earth dist.	4027 Nov 05 09:10	14° \mathbb{B} 22'02	3.93367 AU
direct	4022 Jul 18 15:31	22° \mathbb{M} 13'49		opposition	4027 Nov 06 04:51	14° \mathbb{B} 15'24	-1°27'33
	4022 Oct 04 10:17	0° \mathbb{X}		direct	4028 Jan 03 05:13	9° \mathbb{B} 21'22	
evening set	4022 Nov 21 14:44	9° \mathbb{X} 40'18			4028 Mar 03 05:07	15° \mathbb{B}	
max. Earth dist.	4022 Dec 02 12:51	12° \mathbb{X} 02'45	6.43719 AU	evening set	4028 May 08 05:10	29° \mathbb{B} 12'42	
					4028 May 11 11:48	0° \mathbb{I}	
conjunction	4022 Dec 04 10:14	12° \mathbb{X} 27'31	0°45'35	conjunction	4028 May 21 16:01	2° \mathbb{I} 27'22	-0°50'58
minimum elong	4022 Dec 04 10:16	12° \mathbb{X} 27'32	0°45'36	minimum elong	4028 May 21 16:03	2° \mathbb{I} 27'23	0°50'58
morning rise	4022 Dec 17 03:22	15° \mathbb{X} 13'46		max. Earth dist.	4028 May 23 12:32	2° \mathbb{I} 54'14	5.94693 AU
	4023 Mar 09 18:49	0° \mathbb{B}		morning rise	4028 Jun 04 05:50	5° \mathbb{I} 43'29	
retrograde	4023 Apr 17 02:39	2° \mathbb{B} 11'52		retrograde	4028 Oct 14 01:24	26° \mathbb{I} 16'36	
	4023 May 25 18:51	30° $\mathbb{R}\mathbb{X}$		min. Earth dist.	4028 Dec 11 03:46	21° \mathbb{I} 24'01	3.98534 AU
opposition	4023 Jun 17 00:53	27° \mathbb{X} 19'48	0°49'13	opposition	4028 Dec 12 14:45	21° \mathbb{I} 12'07	-0°57'40
min. Earth dist.	4023 Jun 18 13:45	27° \mathbb{X} 08'04	4.39245 AU	direct	4029 Feb 08 12:58	16° \mathbb{I} 15'58	
direct	4023 Aug 18 15:30	22° \mathbb{X} 19'18			4029 May 20 17:18	0° \mathfrak{E}	
	4023 Nov 02 23:46	0° \mathbb{B}		evening set	4029 Jun 14 21:15	5° \mathfrak{E} 45'27	
evening set	4023 Dec 22 06:30	10° \mathbb{B} 06'39					
max. Earth dist.	4024 Jan 01 17:42	12° \mathbb{B} 26'50	6.33170 AU	conjunction	4029 Jun 28 13:49	8° \mathfrak{E} 58'19	-0°22'43
				minimum elong	4029 Jun 28 13:51	8° \mathfrak{E} 58'20	0°22'44
conjunction	4024 Jan 03 23:30	12° \mathbb{B} 56'58	0°19'03	max. Earth dist.	4029 Jun 30 22:47	9° \mathfrak{E} 31'48	6.04206 AU
minimum elong	4024 Jan 03 23:31	12° \mathbb{B} 56'58	0°19'03	morning rise	4029 Jul 12 08:22	12° \mathfrak{E} 11'54	
morning rise	4024 Jan 16 15:18	15° \mathbb{B} 46'53			4029 Oct 15 18:26	0° \mathbb{Q}	
	4024 Mar 31 00:41	0° \approx		retrograde	4029 Nov 18 10:18	1° \mathbb{Q} 48'19	
retrograde	4024 May 19 00:11	3° \approx 31'20			4029 Dec 21 19:56	30° $\mathbb{R}\mathfrak{E}$	
	4024 Jul 08 02:58	30° $\mathbb{R}\mathbb{B}$		min. Earth dist.	4030 Jan 15 13:42	26° \mathfrak{E} 55'43	4.11242 AU
opposition	4024 Jul 18 20:53	28° \mathbb{B} 38'42	0°04'08	opposition	4030 Jan 17 00:54	26° \mathfrak{E} 43'44	-0°07'12
min. Earth dist.	4024 Jul 20 09:42	28° \mathbb{B} 26'55	4.26000 AU	asc. node	4030 Mar 12 01:54	21° \mathfrak{E} 46'58	
desc. node	4024 Aug 20 21:50	24° \mathbb{B} 54'59		direct	4030 Mar 16 20:12	21° \mathfrak{E} 44'40	
direct	4024 Sep 18 14:46	23° \mathbb{B} 40'13			4030 Jun 01 07:49	0° \mathbb{Q}	
	4024 Nov 24 20:32	0° \approx		evening set	4030 Jul 21 07:59	10° \mathbb{Q} 33'58	
evening set	4025 Jan 22 01:57	12° \approx 04'21					
max. Earth dist.	4025 Feb 01 22:43	14° \approx 34'53	6.18296 AU	conjunction	4030 Aug 04 01:08	13° \mathbb{Q} 40'21	0°12'46
				minimum elong	4030 Aug 04 01:07	13° \mathbb{Q} 40'20	0°12'47
conjunction	4025 Feb 03 19:20	15° \approx 00'44	-0°14'17	behind sun begin	4030 Aug 03 20:04	13° \mathbb{Q} 37'29	
minimum elong	4025 Feb 03 19:19	15° \approx 00'43	0°14'17	behind sun end	4030 Aug 04 06:10	13° \mathbb{Q} 43'11	
behind sun begin	4025 Feb 03 15:22	14° \approx 58'26		max. Earth dist.	4030 Aug 06 02:45	14° \mathbb{Q} 08'29	6.18975 AU
behind sun end	4025 Feb 03 23:16	15° \approx 03'00			4030 Aug 09 21:39	15° \mathbb{Q}	
	4025 Feb 03 18:04	15° \approx		morning rise	4030 Aug 17 18:08	16° \mathbb{Q} 46'22	
morning rise	4025 Feb 16 12:31	17° \approx 57'22			4030 Oct 22 20:18	0° \mathbb{P}	
	4025 Apr 14 18:14	0° \mathbb{H}		retrograde	4030 Dec 21 07:33	5° \mathbb{P} 11'06	
retrograde	4025 Jun 23 08:47	6° \mathbb{H} 49'29		min. Earth dist.	4031 Feb 18 02:46	0° \mathbb{P} 17'17	4.26584 AU
opposition	4025 Aug 22 22:13	1° \mathbb{H} 54'52	-0°45'26	opposition	4031 Feb 19 03:32	0° \mathbb{P} 08'58	0°42'24
min. Earth dist.	4025 Aug 23 23:31	1° \mathbb{H} 46'41	4.10536 AU		4031 Feb 20 06:15	30° $\mathbb{R}\mathbb{Q}$	
	4025 Sep 07 02:21	30° $\mathbb{R}\approx$		direct	4031 Apr 20 05:08	25° \mathbb{Q} 07'39	
direct	4025 Oct 22 07:10	26° \approx 58'55			4031 Jun 17 12:36	0° \mathbb{P}	
	4025 Dec 05 12:00	0° \mathbb{H}		evening set	4031 Aug 24 19:45	13° \mathbb{P} 15'48	
evening set	4026 Feb 24 19:54	16° \mathbb{H} 06'57					
conjunction	4026 Mar 09 16:18	19° \mathbb{H} 10'54	-0°44'25	conjunction	4031 Sep 07 08:10	16° \mathbb{P} 13'53	0°42'25
minimum elong	4026 Mar 09 16:16	19° \mathbb{H} 10'53	0°44'25	minimum elong	4031 Sep 07 08:08	16° \mathbb{P} 13'52	0°42'25
max. Earth dist.	4026 Mar 08 17:45	18° \mathbb{H} 57'25	6.03601 AU	max. Earth dist.	4031 Sep 08 07:57	16° \mathbb{P} 26'58	6.33655 AU

morning rise	4031 Sep 20 19:12	19°  11'01		conjunction	4037 Feb 08 10:55	19°  50'28 -0°19'00
	4031 Nov 13 18:37	0° 		minimum elong	4037 Feb 08 10:54	19°  50'27 0°19'01
retrograde	4032 Jan 21 06:54	6°  35'31		morning rise	4037 Feb 21 04:46	22°  48'17
opposition	4032 Mar 21 10:32	1°  36'59 1°16'06			4037 Mar 25 09:24	0° 
min. Earth dist.	4032 Mar 21 03:56	1°  39'10 4.39502 AU		retrograde	4037 Jun 28 12:44	11°  50'45
	4032 Apr 02 22:12	30°  R 		opposition	4037 Aug 28 01:35	6°  55'42 -0°51'51
direct	4032 May 21 19:53	26°  R  34'32		min. Earth dist.	4037 Aug 28 23:09	6°  48'41 4.08551 AU
	4032 Jul 09 22:09	0° 		direct	4037 Oct 27 05:00	2°  00'07
evening set	4032 Sep 25 07:54	14°  12'26		evening set	4038 Mar 01 18:24	21°  13'34
conjunction	4032 Oct 08 13:45	17°  03'42 0°58'30		conjunction	4038 Mar 14 15:36	24°  18'32 -0°47'42
minimum elong	4032 Oct 08 13:45	17°  03'42 0°58'30		minimum elong	4038 Mar 14 15:34	24°  18'31 0°47'42
max. Earth dist.	4032 Oct 08 09:54	17°  01'37 6.43851 AU		max. Earth dist.	4038 Mar 13 23:20	24°  08'46 6.02031 AU
morning rise	4032 Oct 21 16:58	19°  05'38		morning rise	4038 Mar 27 14:21	27°  24'36
	4032 Dec 11 16:39	0°  M 			4038 Apr 07 13:18	0°  Y 
retrograde	4033 Feb 19 06:13	6°  M  42'25		retrograde	4038 Aug 05 08:12	17°  Y  34'41
opposition	4033 Apr 20 18:55	1°  M  47'18 1°27'32		opposition	4038 Oct 04 09:50	12°  Y  36'13 -1°24'56
min. Earth dist.	4033 Apr 21 06:27	1°  M  43'33 4.46443 AU		min. Earth dist.	4038 Oct 04 09:54	12°  Y  36'12 3.97028 AU
	4033 May 04 21:55	30°  R  0		direct	4038 Dec 02 04:52	7°  Y  42'20
direct	4033 Jun 22 02:41	26°  0		evening set	4039 Apr 06 22:15	27°  Y  27'13
	4033 Aug 09 10:31	0°  M 			4039 Apr 17 10:09	0°  B 
evening set	4033 Oct 26 09:34	14°  M  09'02		conjunction	4039 Apr 20 02:03	0°  B  38'50 -0°59'35
	4033 Oct 30 08:39	15°  M 		minimum elong	4039 Apr 20 02:03	0°  B  38'50 0°59'35
max. Earth dist.	4033 Nov 07 02:21	16°  M  40'02 6.46993 AU		max. Earth dist.	4039 Apr 20 19:29	0°  B  49'26 5.94117 AU
conjunction	4033 Nov 08 08:59	16°  M  56'34 0°58'19		morning rise	4039 May 03 08:45	3°  B  52'04
minimum elong	4033 Nov 08 09:00	16°  M  56'34 0°58'19			4039 Jun 21 15:39	15°  B 
morning rise	4033 Nov 21 05:52	19°  M  42'53		retrograde	4039 Sep 12 18:41	24°  B  37'08
	4034 Jan 12 08:47	0°  X 		opposition	4039 Nov 11 11:57	19°  B  34'52 -1°25'17
retrograde	4034 Mar 21 09:44	6°  X  24'37		min. Earth dist.	4039 Nov 10 12:42	19°  B  42'42 3.93752 AU
opposition	4034 May 21 04:08	1°  X  31'48 1°15'52			4039 Dec 25 19:00	15°  R  B 
min. Earth dist.	4034 May 22 08:44	1°  X  22'39 4.45696 AU		direct	4040 Jan 08 09:44	14°  B  40'40
	4034 Jun 02 07:31	30°  R  M 			4040 Jan 22 02:10	15°  B 
direct	4034 Jul 22 22:55	26°  M  30'06		evening set	4040 Apr 24 09:56	0°  II 
	4034 Sep 11 03:18	0°  X 			4040 May 13 11:25	4°  II  29'43
evening set	4034 Nov 25 20:41	13°  X  59'20		conjunction	4040 May 26 23:11	7°  II  44'21 -0°47'58
max. Earth dist.	4034 Dec 06 15:33	16°  X  20'31 6.42353 AU		minimum elong	4040 May 26 23:13	7°  II  44'22 0°47'59
conjunction	4034 Dec 08 15:45	16°  X  46'55 0°42'32		max. Earth dist.	4040 May 28 21:46	8°  II  12'23 5.95733 AU
minimum elong	4034 Dec 08 15:47	16°  X  46'56 0°42'32		morning rise	4040 Jun 09 13:54	11°  II  00'21
morning rise	4034 Dec 21 08:39	19°  X  33'36			4040 Sep 19 02:35	0°  B 
	4035 Feb 11 10:04	0°  B 		retrograde	4040 Oct 19 02:24	1°  B  27'04
retrograde	4035 Apr 21 14:28	6°  B  37'33			4040 Nov 17 21:19	30°  R  II 
opposition	4035 Jun 21 12:38	1°  B  45'31 0°43'38		min. Earth dist.	4040 Dec 16 04:45	26°  II  34'24 4.00095 AU
min. Earth dist.	4035 Jun 23 01:25	1°  B  33'47 4.37433 AU		opposition	4040 Dec 17 15:59	26°  II  22'23 -0°51'21
	4035 Jul 05 15:01	30°  R  X 		direct	4041 Feb 13 17:11	21°  II  25'50
direct	4035 Aug 22 23:59	26°  X  45'18			4041 May 01 09:49	0°  B 
	4035 Oct 09 18:09	0°  B 		evening set	4041 Jun 20 00:25	10°  B  49'52
evening set	4035 Dec 26 15:54	14°  B  37'55		conjunction	4041 Jul 03 17:31	14°  B  02'03 -0°17'54
max. Earth dist.	4036 Jan 06 05:01	16°  B  59'49 6.31067 AU		minimum elong	4041 Jul 03 17:32	14°  B  02'03 0°17'54
conjunction	4036 Jan 08 08:56	17°  B  29'03 0°14'35		max. Earth dist.	4041 Jul 06 03:44	14°  B  36'05 6.06150 AU
minimum elong	4036 Jan 08 08:57	17°  B  29'03 0°14'36		morning rise	4041 Jul 17 12:03	17°  B  14'43
behind sun begin	4036 Jan 08 05:21	17°  B  27'02			4041 Sep 16 02:44	0°  Q 
behind sun end	4036 Jan 08 12:32	17°  B  31'04		retrograde	4041 Nov 23 03:34	6°  Q  41'12
morning rise	4036 Jan 21 00:39	20°  B  19'49		min. Earth dist.	4042 Jan 20 07:45	1°  Q  48'30 4.13362 AU
	4036 Mar 07 02:55	0°  B 		asc. node	4042 Jan 20 09:40	1°  Q  47'51
retrograde	4036 May 23 21:03	8°  B  13'23		opposition	4042 Jan 21 18:00	1°  Q  36'53 0°00'11
desc. node	4036 Jun 30 08:42	6°  B  08'15			4042 Feb 02 20:57	30°  R  B  B 
opposition	4036 Jul 23 16:23	3°  B  20'38 -0°02'56		direct	4042 Mar 21 16:46	26°  B  37'28
min. Earth dist.	4036 Jul 25 04:24	3°  B  09'06 4.23748 AU			4042 May 07 12:51	0°  Q 
	4036 Aug 21 09:00	30°  R  B 		evening set	4042 Jul 24 16:24	15°  Q 
direct	4036 Sep 23 06:02	28°  B  22'37			4042 Jul 26 05:24	15°  Q  20'45
	4036 Oct 25 21:43	0°  B 		conjunction	4042 Aug 08 21:58	18°  Q  25'59 0°17'28
	4037 Jan 18 12:06	15°  B 		minimum elong	4042 Aug 08 21:57	18°  Q  25'58 0°17'27
evening set	4037 Jan 26 17:25	16°  B  53'05		max. Earth dist.	4042 Aug 10 19:18	18°  Q  51'34 6.21082 AU
max. Earth dist.	4037 Feb 06 15:54	19°  B  25'25 6.16084 AU				

morning rise	4042 Aug 22 14:31	21°♏30'50			4049 Jan 01 11:51	15°♏	
	4042 Oct 01 11:56	0°♏		evening set	4049 Jan 31 08:35	21°♏40'40	
retrograde	4042 Dec 25 16:29	9°♏46'24		max. Earth dist.	4049 Feb 11 11:58	24°♏16'23	6.14393 AU
opposition	4043 Feb 23 13:38	4°♏44'41	0°48'15				
min. Earth dist.	4043 Feb 22 15:29	4°♏52'07	4.28508 AU	conjunction	4049 Feb 13 02:24	24°♏38'52	-0°23'32
	4043 Apr 11 14:55	30°♏♏		minimum elong	4049 Feb 13 02:23	24°♏38'51	0°23'32
direct	4043 Apr 24 19:34	29°♏43'06		morning rise	4049 Feb 25 20:32	27°♏37'32	
	4043 May 08 03:09	0°♏			4049 Mar 08 03:39	0°♏	
evening set	4043 Aug 29 10:22	17°♏46'39		retrograde	4049 Jul 03 16:03	16°♏48'11	
				opposition	4049 Sep 02 03:24	11°♏52'43	-0°57'44
conjunction	4043 Sep 11 22:07	20°♏43'46	0°45'33	min. Earth dist.	4049 Sep 02 23:06	11°♏46'19	4.07124 AU
minimum elong	4043 Sep 11 22:06	20°♏43'45	0°45'34	direct	4049 Nov 01 03:42	6°♏57'26	
max. Earth dist.	4043 Sep 12 19:07	20°♏55'17	6.35259 AU	evening set	4050 Mar 06 15:11	26°♏14'17	
morning rise	4043 Sep 25 07:58	23°♏39'47					
	4043 Oct 25 11:19	0°♏		conjunction	4050 Mar 19 12:57	29°♏19'59	-0°50'31
retrograde	4044 Jan 25 11:50	10°♏58'18		minimum elong	4050 Mar 19 12:55	29°♏19'58	0°50'32
opposition	4044 Mar 25 16:41	6°♏00'17	1°19'04	max. Earth dist.	4050 Mar 19 00:03	29°♏12'14	6.00990 AU
min. Earth dist.	4044 Mar 25 12:16	6°♏01'44	4.40689 AU		4050 Mar 22 07:33	0°♏	
direct	4044 May 26 05:04	0°♏57'47		morning rise	4050 Apr 01 12:40	2°♏26'56	
evening set	4044 Sep 29 17:29	18°♏33'21		retrograde	4050 Aug 10 12:34	22°♏42'11	
				opposition	4050 Oct 09 14:14	17°♏43'11	-1°27'02
conjunction	4044 Oct 12 22:15	21°♏23'57	0°59'27	min. Earth dist.	4050 Oct 09 10:15	17°♏44'30	3.96508 AU
minimum elong	4044 Oct 12 22:15	21°♏23'56	0°59'26	direct	4050 Dec 07 05:04	12°♏49'22	
max. Earth dist.	4044 Oct 12 13:01	21°♏18'58	6.44522 AU		4051 Apr 01 04:29	0°♏	
morning rise	4044 Oct 26 00:41	24°♏13'17		evening set	4051 Apr 11 23:06	2°♏34'50	
	4044 Nov 22 19:33	0°♏					
retrograde	4045 Feb 23 12:01	11°♏00'04		conjunction	4051 Apr 25 03:53	5°♏46'53	-0°59'21
opposition	4045 Apr 25 00:33	6°♏05'19	1°27'15	minimum elong	4051 Apr 25 03:54	5°♏46'53	0°59'21
min. Earth dist.	4045 Apr 25 15:24	6°♏00'31	4.46586 AU	max. Earth dist.	4051 Apr 26 01:15	5°♏59'51	5.94155 AU
direct	4045 Jun 26 11:03	1°♏02'54		morning rise	4051 May 08 11:36	9°♏00'33	
	4045 Oct 14 07:21	15°♏			4051 Jun 02 22:57	15°♏	
evening set	4045 Oct 30 16:33	18°♏27'22		retrograde	4051 Sep 17 21:17	29°♏44'57	
max. Earth dist.	4045 Nov 11 06:42	20°♏57'08	6.46600 AU	opposition	4051 Nov 16 14:18	24°♏42'15	-1°22'24
				min. Earth dist.	4051 Nov 15 13:39	24°♏50'35	3.94341 AU
conjunction	4045 Nov 12 15:25	21°♏14'49	0°56'57	direct	4052 Jan 13 12:21	19°♏47'48	
minimum elong	4045 Nov 12 15:26	21°♏14'49	0°56'58		4052 Apr 06 10:08	0°♏	
morning rise	4045 Nov 25 11:31	24°♏01'01		evening set	4052 May 18 13:13	9°♏34'11	
	4045 Dec 24 05:48	0°♏					
retrograde	4046 Mar 25 16:21	10°♏44'40		conjunction	4052 Jun 01 02:03	12°♏48'46	-0°44'44
opposition	4046 May 25 12:07	5°♏52'03	1°12'27	minimum elong	4052 Jun 01 02:05	12°♏48'47	0°44'43
min. Earth dist.	4046 May 26 17:12	5°♏42'45	4.44823 AU	max. Earth dist.	4052 Jun 03 03:48	13°♏18'36	5.96821 AU
direct	4046 Jul 27 05:21	0°♏50'33		morning rise	4052 Jun 14 17:28	16°♏04'36	
evening set	4046 Nov 30 04:07	18°♏22'25			4052 Aug 18 19:32	0°♏	
max. Earth dist.	4046 Dec 10 22:08	20°♏43'37	6.41083 AU	retrograde	4052 Oct 24 00:00	6°♏24'50	
				min. Earth dist.	4052 Dec 21 00:57	1°♏32'10	4.01561 AU
conjunction	4046 Dec 12 22:43	21°♏10'19	0°39'12	opposition	4052 Dec 22 12:13	1°♏20'09	-0°44'57
minimum elong	4046 Dec 12 22:45	21°♏10'20	0°39'12		4053 Jan 01 10:42	30°♏♏	
morning rise	4046 Dec 25 15:18	23°♏57'24		direct	4053 Feb 18 15:12	26°♏23'16	
	4047 Jan 23 04:13	0°♏			4053 Apr 07 07:57	0°♏	
retrograde	4047 Apr 26 04:59	11°♏06'44		evening set	4053 Jun 24 23:45	15°♏42'49	
opposition	4047 Jun 26 02:06	6°♏14'44	0°37'43				
min. Earth dist.	4047 Jun 27 15:49	6°♏02'43	4.35847 AU	conjunction	4053 Jul 08 17:00	18°♏54'19	-0°13'09
direct	4047 Aug 27 12:10	1°♏14'50		minimum elong	4053 Jul 08 17:01	18°♏54'20	0°13'09
evening set	4047 Dec 31 02:08	19°♏11'34		behind sun begin	4053 Jul 08 12:13	18°♏51'33	
max. Earth dist.	4048 Jan 10 15:14	21°♏34'04	6.29304 AU	behind sun end	4053 Jul 08 21:50	18°♏57'07	
				max. Earth dist.	4053 Jul 11 00:53	19°♏26'51	6.07851 AU
conjunction	4048 Jan 12 19:00	22°♏03'20	0°10'01	morning rise	4053 Jul 22 11:49	22°♏06'16	
minimum elong	4048 Jan 12 19:01	22°♏03'20	0°10'02		4053 Aug 27 03:56	0°♏	
behind sun begin	4048 Jan 12 12:33	21°♏59'42		retrograde	4053 Nov 27 15:43	11°♏24'11	
behind sun end	4048 Jan 13 01:28	22°♏06'58		asc. node	4053 Dec 02 10:52	11°♏21'51	
morning rise	4048 Jan 25 10:54	24°♏54'52		min. Earth dist.	4054 Jan 24 22:14	6°♏31'22	4.15132 AU
	4048 Feb 17 14:04	0°♏		opposition	4054 Jan 26 07:20	6°♏20'08	0°07'14
desc. node	4048 May 10 07:13	12°♏24'39		direct	4054 Mar 26 09:14	1°♏20'23	
retrograde	4048 May 28 16:26	12°♏56'18			4054 Jul 08 05:37	15°♏	
opposition	4048 Jul 28 12:18	8°♏03'16	-0°09'59	evening set	4054 Jul 30 23:32	19°♏59'17	
min. Earth dist.	4048 Jul 29 21:47	7°♏52'31	4.21938 AU				
direct	4048 Sep 27 21:09	3°♏05'35		conjunction	4054 Aug 13 15:53	23°♏03'39	0°21'52

minimum elong	4054 Aug 13 15:51	23° Ω 03'38	0°21'52		4060 Jul 14 21:09	15° \mathbb{R} \approx	
max. Earth dist.	4054 Aug 15 10:51	23° Ω 27'49	6.22801 AU	opposition	4060 Aug 02 07:08	12° \approx \approx 43'58	-0°16'58
morning rise	4054 Aug 27 07:40	26° Ω 07'27		min. Earth dist.	4060 Aug 03 16:26	12° \approx \approx 33'17	4.19981 AU
	4054 Sep 13 23:39	0° \mathbb{P}		direct	4060 Oct 02 13:24	7° \approx \approx 46'35	
retrograde	4054 Dec 30 00:55	14° \mathbb{P} 15'38			4060 Dec 13 04:54	15° \approx	
opposition	4055 Feb 27 21:48	9° \mathbb{P} 14'28	0°53'35	evening set	4061 Feb 04 22:51	26° \approx \approx 27'02	
min. Earth dist.	4055 Feb 27 02:04	9° \mathbb{P} 21'04	4.30041 AU	max. Earth dist.	4061 Feb 16 04:09	29° \approx \approx 04'35	6.12435 AU
direct	4055 Apr 29 07:46	4° \mathbb{P} 12'47					
evening set	4055 Sep 02 23:20	22° \mathbb{P} 13'06		conjunction	4061 Feb 17 17:00	29° \approx \approx 26'12	-0°27'56
				minimum elong	4061 Feb 17 16:58	29° \approx \approx 26'11	0°27'55
conjunction	4055 Sep 16 10:11	25° \mathbb{P} 09'22	0°48'20		4061 Feb 20 02:36	0° \mathbb{H}	
minimum elong	4055 Sep 16 10:09	25° \mathbb{P} 09'21	0°48'20	morning rise	4061 Mar 02 11:47	2° \mathbb{H} 25'57	
max. Earth dist.	4055 Sep 17 02:32	25° \mathbb{P} 18'19	6.36491 AU	retrograde	4061 Jul 08 17:44	21° \mathbb{H} 46'02	
morning rise	4055 Sep 29 19:13	28° \mathbb{P} 04'32		opposition	4061 Sep 07 04:51	16° \mathbb{H} 50'07	-1°03'18
	4055 Oct 08 17:26	0° $\underline{\Omega}$		min. Earth dist.	4061 Sep 07 21:01	16° \mathbb{H} 44'51	4.05342 AU
retrograde	4056 Jan 29 16:11	15° $\underline{\Omega}$ 18'25		direct	4061 Nov 05 23:27	11° \mathbb{H} 55'05	
opposition	4056 Mar 29 21:59	10° $\underline{\Omega}$ 20'52	1°21'31		4062 Mar 06 03:10	0° \mathbb{Y}	
min. Earth dist.	4056 Mar 29 20:02	10° $\underline{\Omega}$ 21'30	4.41573 AU	evening set	4062 Mar 11 12:25	1° \mathbb{Y} 16'58	
direct	4056 May 30 13:28	5° $\underline{\Omega}$ 18'21					
evening set	4056 Oct 04 02:08	22° $\underline{\Omega}$ 52'26		conjunction	4062 Mar 24 10:58	4° \mathbb{Y} 23'39	-0°53'02
				minimum elong	4062 Mar 24 10:56	4° \mathbb{Y} 23'38	0°53'02
conjunction	4056 Oct 17 06:13	25° $\underline{\Omega}$ 42'33	1°00'01	max. Earth dist.	4062 Mar 24 02:32	4° \mathbb{Y} 18'35	5.99543 AU
minimum elong	4056 Oct 17 06:13	25° $\underline{\Omega}$ 42'32	1°00'01	morning rise	4062 Apr 06 11:36	7° \mathbb{Y} 31'40	
max. Earth dist.	4056 Oct 16 19:07	25° $\underline{\Omega}$ 36'33	6.45008 AU	retrograde	4062 Aug 15 20:14	27° \mathbb{Y} 53'55	
morning rise	4056 Oct 30 07:33	28° $\underline{\Omega}$ 31'19		opposition	4062 Oct 14 19:52	22° \mathbb{Y} 54'20	-1°28'35
	4056 Nov 06 05:58	0° \mathbb{M}		min. Earth dist.	4062 Oct 14 13:33	22° \mathbb{Y} 56'26	3.95552 AU
	4057 Feb 14 09:24	15° \mathbb{M}		direct	4062 Dec 12 07:58	18° \mathbb{Y} 00'30	
retrograde	4057 Feb 27 15:41	15° \mathbb{M} .16'37			4063 Mar 14 13:39	0° \mathbb{B}	
	4057 Mar 12 21:29	15° $\mathbb{R}\mathbb{M}$.		evening set	4063 Apr 17 02:22	7° \mathbb{B} 48'22	
opposition	4057 Apr 29 05:41	10° \mathbb{M} .22'14	1°26'26				
min. Earth dist.	4057 Apr 29 21:51	10° \mathbb{M} .17'01	4.46657 AU	conjunction	4063 Apr 30 08:24	11° \mathbb{B} 01'09	-0°58'40
direct	4057 Jun 30 17:08	5° \mathbb{M} .19'58		minimum elong	4063 Apr 30 08:25	11° \mathbb{B} 01'10	0°58'41
	4057 Sep 26 23:53	15° \mathbb{M} .		max. Earth dist.	4063 May 01 10:59	11° \mathbb{B} 17'18	5.93787 AU
	4057 Nov 03 22:49	22° \mathbb{M} .44'39		morning rise	4063 May 13 17:15	14° \mathbb{B} 15'32	
max. Earth dist.	4057 Nov 15 08:43	25° \mathbb{M} .12'23	6.46235 AU		4063 May 16 19:12	15° \mathbb{B}	
					4063 Jul 27 09:32	0° \mathbb{I}	
conjunction	4057 Nov 16 20:50	25° \mathbb{M} .31'56	0°55'17	retrograde	4063 Sep 23 03:55	5° \mathbb{I} 00'21	
minimum elong	4057 Nov 16 20:51	25° \mathbb{M} .31'57	0°55'17	opposition	4063 Nov 21 19:04	29° \mathbb{B} 57'17	-1°18'52
morning rise	4057 Nov 29 16:28	28° \mathbb{M} .18'05		min. Earth dist.	4063 Nov 20 16:21	0° \mathbb{I} 06'19	3.94625 AU
	4057 Dec 07 15:05	0° \mathbb{J}			4063 Nov 21 11:01	30° $\mathbb{R}\mathbb{B}$	
retrograde	4058 Mar 30 00:46	15° \mathbb{J} 03'34		direct	4064 Jan 18 15:52	25° \mathbb{B} 02'35	
opposition	4058 May 29 19:53	10° \mathbb{J} 11'05	1°08'37		4064 Mar 14 16:12	0° \mathbb{I}	
min. Earth dist.	4058 May 31 03:10	10° \mathbb{J} 01'05	4.44024 AU	evening set	4064 May 23 18:55	14° \mathbb{I} 47'31	
direct	4058 Jul 31 14:05	5° \mathbb{J} 09'43					
evening set	4058 Dec 04 10:10	22° \mathbb{J} 43'40		conjunction	4064 Jun 06 08:32	18° \mathbb{I} 02'05	-0°41'03
max. Earth dist.	4058 Dec 15 03:09	25° \mathbb{J} 04'42	6.39885 AU	minimum elong	4064 Jun 06 08:34	18° \mathbb{I} 02'06	0°41'03
				max. Earth dist.	4064 Jun 08 11:09	18° \mathbb{I} 32'21	5.97706 AU
conjunction	4058 Dec 17 04:29	25° \mathbb{J} 31'53	0°35'39	morning rise	4064 Jun 20 00:58	21° \mathbb{I} 17'53	
minimum elong	4058 Dec 17 04:31	25° \mathbb{J} 31'54	0°35'39		4064 Jul 28 10:35	0° \mathbb{E}	
morning rise	4058 Dec 29 20:43	28° \mathbb{J} 19'19		retrograde	4064 Oct 28 22:37	11° \mathbb{E} 32'02	
	4059 Jan 06 13:30	0° \mathbb{Z}		min. Earth dist.	4064 Dec 25 23:29	6° \mathbb{E} 39'38	4.02948 AU
retrograde	4059 Apr 30 15:44	15° \mathbb{Z} 33'52		opposition	4064 Dec 27 11:49	6° \mathbb{E} 27'14	-0°38'01
opposition	4059 Jun 30 14:18	10° \mathbb{Z} 41'44	0°31'35	direct	4065 Feb 23 16:25	1° \mathbb{E} 29'55	
min. Earth dist.	4059 Jul 02 03:12	10° \mathbb{Z} 29'58	4.34299 AU	evening set	4065 Jun 30 02:50	20° \mathbb{E} 45'04	
direct	4059 Aug 31 20:54	5° \mathbb{Z} 42'05					
evening set	4060 Jan 04 11:06	23° \mathbb{Z} 42'53		conjunction	4065 Jul 13 20:26	23° \mathbb{E} 55'53	-0°08'08
max. Earth dist.	4060 Jan 15 01:31	26° \mathbb{Z} 06'44	6.27507 AU	minimum elong	4065 Jul 13 20:27	23° \mathbb{E} 55'54	0°08'08
				behind sun begin	4065 Jul 13 13:03	23° \mathbb{E} 51'37	
conjunction	4060 Jan 17 03:53	26° \mathbb{Z} 35'20	0°05'25	behind sun end	4065 Jul 14 03:52	24° \mathbb{E} 00'10	
minimum elong	4060 Jan 17 03:53	26° \mathbb{Z} 35'20	0°05'25	max. Earth dist.	4065 Jul 16 04:26	24° \mathbb{E} 28'21	6.09641 AU
behind sun begin	4060 Jan 16 20:12	26° \mathbb{Z} 31'00		morning rise	4065 Jul 27 15:05	27° \mathbb{E} 06'57	
behind sun end	4060 Jan 17 11:34	26° \mathbb{Z} 39'41			4065 Aug 09 07:39	0° \mathbb{Q}	
morning rise	4060 Jan 29 19:50	29° \mathbb{Z} 27'38		asc. node	4065 Oct 12 04:06	12° \mathbb{Q} 17'22	
	4060 Feb 01 05:18	0° \approx			4065 Nov 04 08:14	15° \mathbb{Q}	
desc. node	4060 Mar 20 11:27	10° \approx 03'40		retrograde	4065 Dec 02 08:48	16° \mathbb{Q} 15'33	
	4060 Apr 21 16:03	15° \approx			4065 Dec 30 02:14	15° $\mathbb{R}\mathbb{Q}$	
retrograde	4060 Jun 02 12:48	17° \approx 37'16		min. Earth dist.	4066 Jan 29 16:32	11° \mathbb{Q} 22'30	4.17147 AU

opposition	4066 Jan 31 00:04	11°♏11'49	0°14'29	behind sun begin	4072 Jan 21 01:56	0°≈55'06	
direct	4066 Mar 31 06:30	6°♏11'48		behind sun end	4072 Jan 21 17:53	1°≈04'08	
	4066 Jun 19 10:09	15°♏		desc. node	4072 Jan 31 08:43	3°≈15'43	
evening set	4066 Aug 04 20:58	24°♏45'03		morning rise	4072 Feb 03 02:03	3°≈52'50	
					4072 Mar 27 07:07	15°≈	
conjunction	4066 Aug 18 12:42	27°♏48'15	0°26'18	retrograde	4072 Jun 07 05:03	22°≈11'53	
minimum elong	4066 Aug 18 12:40	27°♏48'14	0°26'17	opposition	4072 Aug 06 23:34	17°≈18'21	-0°23'43
max. Earth dist.	4066 Aug 20 05:21	28°♏11'00	6.24897 AU	min. Earth dist.	4072 Aug 08 07:11	17°≈08'11	4.17682 AU
	4066 Aug 28 08:26	0°♐			4072 Aug 25 15:03	15°≈	
morning rise	4066 Sep 01 03:46	0°♐50'48		direct	4072 Oct 07 00:20	12°≈21'16	
retrograde	4067 Jan 03 08:23	18°♐49'51			4072 Nov 17 17:23	15°≈	
opposition	4067 Mar 04 07:54	13°♐49'07	0°58'46		4073 Feb 04 13:35	0°♐	
min. Earth dist.	4067 Mar 03 13:20	13°♐55'19	4.32077 AU	evening set	4073 Feb 09 11:40	1°♐08'47	
direct	4067 May 03 21:56	8°♐47'15		max. Earth dist.	4073 Feb 20 19:46	3°♐48'47	6.10055 AU
evening set	4067 Sep 07 13:33	26°♐42'18					
				conjunction	4073 Feb 22 06:14	4°♐09'08	-0°32'03
conjunction	4067 Sep 20 23:26	29°♐37'25	0°50'54	minimum elong	4073 Feb 22 06:13	4°♐09'07	0°32'03
minimum elong	4067 Sep 20 23:25	29°♐37'24	0°50'54	morning rise	4073 Mar 07 01:41	7°♐10'13	
max. Earth dist.	4067 Sep 21 12:50	29°♐44'43	6.38334 AU	retrograde	4073 Jul 13 21:32	26°♐41'44	
	4067 Sep 22 16:51	0°♑		opposition	4073 Sep 12 05:29	21°♐45'25	-1°08'23
morning rise	4067 Oct 04 07:16	2°♑31'21		min. Earth dist.	4073 Sep 12 19:58	21°♐40'41	4.03078 AU
retrograde	4068 Feb 02 20:36	19°♑38'28		direct	4073 Nov 10 19:52	16°♐50'36	
opposition	4068 Apr 03 03:45	14°♑41'24	1°23'33		4074 Feb 17 07:15	0°♑	
min. Earth dist.	4068 Apr 03 04:21	14°♑41'13	4.43098 AU	evening set	4074 Mar 16 10:01	6°♑19'46	
direct	4068 Jun 03 23:46	9°♑38'54					
evening set	4068 Oct 08 09:52	27°♑09'04		conjunction	4074 Mar 29 09:40	9°♑27'48	-0°55'07
				minimum elong	4074 Mar 29 09:39	9°♑27'48	0°55'06
conjunction	4068 Oct 21 12:51	29°♑58'21	1°00'17	max. Earth dist.	4074 Mar 29 05:55	9°♑25'33	5.97622 AU
minimum elong	4068 Oct 21 12:51	29°♑58'21	1°00'18	morning rise	4074 Apr 11 11:26	12°♑37'13	
max. Earth dist.	4068 Oct 20 21:10	29°♑49'54	6.46086 AU		4074 Jul 07 00:33	0°♒	
	4068 Oct 21 15:56	0°♒		retrograde	4074 Aug 21 04:58	3°♒08'12	
morning rise	4068 Nov 03 13:19	2°♒46'20			4074 Oct 05 18:30	30°♒♑	
	4069 Jan 07 00:02	15°♒		opposition	4074 Oct 20 02:18	28°♑08'12	-1°29'26
retrograde	4069 Mar 03 18:19	19°♒28'25		min. Earth dist.	4074 Oct 19 16:44	28°♑11'23	3.94209 AU
	4069 Apr 30 01:49	15°♒♒		direct	4074 Dec 17 09:30	23°♑14'27	
opposition	4069 May 03 09:35	14°♒34'19	1°25'12		4075 Feb 21 19:12	0°♒	
min. Earth dist.	4069 May 04 04:20	14°♒28'17	4.47232 AU	evening set	4075 Apr 22 07:46	13°♒06'27	
direct	4069 Jul 04 23:49	9°♒32'04			4075 Apr 30 03:08	15°♒	
	4069 Sep 07 00:28	15°♒					
evening set	4069 Nov 08 02:29	26°♒55'19		conjunction	4075 May 05 14:55	16°♒20'07	-0°57'30
max. Earth dist.	4069 Nov 19 10:27	29°♒22'02	6.46255 AU	minimum elong	4075 May 05 14:56	16°♒20'08	0°57'30
				max. Earth dist.	4075 May 06 20:54	16°♒38'21	5.93141 AU
conjunction	4069 Nov 20 23:56	29°♒42'20	0°53'23	morning rise	4075 May 19 01:15	19°♒35'26	
minimum elong	4069 Nov 20 23:58	29°♒42'21	0°53'23		4075 Jul 03 19:54	0°♓	
	4069 Nov 22 08:34	0°♓		retrograde	4075 Sep 28 11:14	10°♓21'35	
morning rise	4069 Dec 03 18:42	2°♓28'11		min. Earth dist.	4075 Nov 25 19:55	5°♓28'13	3.94756 AU
retrograde	4070 Apr 03 03:27	19°♓14'30		opposition	4075 Nov 27 01:45	5°♓18'05	-1°14'36
opposition	4070 Jun 03 00:42	14°♓22'09	1°04'32	direct	4076 Jan 23 21:41	0°♓23'06	
min. Earth dist.	4070 Jun 04 09:10	14°♓11'48	4.43473 AU	evening set	4076 May 29 03:11	20°♓07'05	
direct	4070 Aug 04 18:25	9°♓20'59					
evening set	4070 Dec 08 13:17	26°♓56'27		conjunction	4076 Jun 11 17:53	23°♓21'42	-0°36'58
max. Earth dist.	4070 Dec 19 03:23	29°♓16'20	6.38784 AU	minimum elong	4076 Jun 11 17:56	23°♓21'43	0°36'58
				max. Earth dist.	4076 Jun 14 00:15	23°♓54'08	5.98611 AU
conjunction	4070 Dec 21 07:04	29°♓44'55	0°32'02	morning rise	4076 Jun 25 10:56	26°♓37'21	
minimum elong	4070 Dec 21 07:06	29°♓44'55	0°32'03		4076 Jul 09 22:00	0°♔	
	4070 Dec 22 10:23	0°♔		retrograde	4076 Nov 03 00:55	16°♔44'52	
morning rise	4071 Jan 02 23:11	2°♔32'42		min. Earth dist.	4076 Dec 31 01:00	11°♔52'21	4.04484 AU
retrograde	4071 May 05 02:14	19°♔52'33		opposition	4077 Jan 01 13:17	11°♔39'59	-0°30'40
opposition	4071 Jul 04 23:47	15°♔00'22	0°25'29	direct	4077 Feb 28 20:58	6°♔42'15	
min. Earth dist.	4071 Jul 06 14:21	14°♔48'04	4.32674 AU	evening set	4077 Jul 05 08:06	25°♔52'15	
direct	4071 Sep 05 05:15	10°♔00'55					
evening set	4072 Jan 08 17:00	28°♔06'20		conjunction	4077 Jul 19 01:47	29°♔02'12	-0°03'00
	4072 Jan 17 01:18	0°♕		minimum elong	4077 Jul 19 01:46	29°♔02'11	0°03'00
max. Earth dist.	4072 Jan 19 07:20	0°≈30'47	6.25479 AU	behind sun begin	4077 Jul 18 17:24	28°♔57'23	
				behind sun end	4077 Jul 19 10:07	29°♔06'59	
conjunction	4072 Jan 21 09:55	0°≈59'37	0°00'53	max. Earth dist.	4077 Jul 21 09:54	29°♔34'33	6.11646 AU
minimum elong	4072 Jan 21 09:54	0°≈59'37	0°00'53		4077 Jul 23 06:03	0°♌	

morning rise	4077 Aug 01 20:17	2°♏12'13		desc. node	4083 Dec 10 17:59	25°♁28'16	
asc. node	4077 Aug 20 19:59	6°♏28'06			4083 Dec 31 23:02	0°♁	
	4077 Oct 02 19:35	15°♏		evening set	4084 Jan 13 04:58	2°♁45'01	
retrograde	4077 Dec 07 00:03	21°♏10'23		max. Earth dist.	4084 Jan 23 19:48	5°♁10'32	6.23203 AU
min. Earth dist.	4078 Feb 03 10:10	16°♏17'31	4.19387 AU				
opposition	4078 Feb 04 17:36	16°♏06'53	0°21'42	conjunction	4084 Jan 25 21:48	5°♁39'12	-0°04'00
	4078 Feb 13 01:23	15°♏♏		minimum elong	4084 Jan 25 21:49	5°♁39'12	0°03'59
direct	4078 Apr 05 03:47	11°♏06'29		behind sun begin	4084 Jan 25 13:56	5°♁34'43	
	4078 May 26 05:24	15°♏		behind sun end	4084 Jan 26 05:42	5°♁43'42	
evening set	4078 Aug 09 19:03	29°♏33'18		morning rise	4084 Feb 07 14:21	8°♁33'29	
	4078 Aug 11 19:15	0°♏			4084 Mar 07 17:54	15°♁	
				retrograde	4084 Jun 12 06:42	27°♁02'54	
conjunction	4078 Aug 23 10:02	2°♏35'12	0°30'35	opposition	4084 Aug 11 22:57	22°♁09'02	-0°30'44
minimum elong	4078 Aug 23 10:01	2°♏35'11	0°30'35	min. Earth dist.	4084 Aug 13 05:18	21°♁59'14	4.15318 AU
max. Earth dist.	4078 Aug 24 22:54	2°♏55'44	6.27160 AU	direct	4084 Oct 11 19:40	17°♁12'14	
morning rise	4078 Sep 06 00:12	5°♏36'23			4085 Jan 18 11:57	0°♏	
retrograde	4079 Jan 07 18:52	23°♏26'03		evening set	4085 Feb 14 06:46	6°♏06'41	
opposition	4079 Mar 08 18:48	18°♏25'47	1°03'37	max. Earth dist.	4085 Feb 25 19:30	8°♏50'11	6.07827 AU
min. Earth dist.	4079 Mar 08 03:26	18°♏30'54	4.34145 AU				
direct	4079 May 08 14:52	13°♏23'43		conjunction	4085 Feb 27 02:00	9°♏08'15	-0°36'12
	4079 Sep 06 11:17	0°♏		minimum elong	4085 Feb 27 01:58	9°♏08'14	0°36'13
evening set	4079 Sep 12 03:58	1°♏13'28		morning rise	4085 Mar 11 22:08	12°♏10'37	
					4085 Jun 14 10:17	0°♏	
conjunction	4079 Sep 25 12:54	4°♏07'29	0°53'13	retrograde	4085 Jul 19 06:22	1°♏52'42	
minimum elong	4079 Sep 25 12:52	4°♏07'29	0°53'13		4085 Aug 23 04:21	30°♏♏	
max. Earth dist.	4079 Sep 25 22:27	4°♏12'41	6.40027 AU	opposition	4085 Sep 17 12:31	26°♏55'56	-1°13'15
morning rise	4079 Oct 08 19:35	7°♏00'17		min. Earth dist.	4085 Sep 17 23:30	26°♏52'20	4.01232 AU
retrograde	4080 Feb 07 00:48	24°♏01'30		direct	4085 Nov 15 20:41	22°♏01'27	
opposition	4080 Apr 07 10:23	19°♏04'51	1°25'10		4086 Jan 28 11:31	0°♏	
min. Earth dist.	4080 Apr 07 13:07	19°♏03'57	4.44322 AU	evening set	4086 Mar 21 13:17	11°♏35'53	
direct	4080 Jun 08 09:24	14°♏02'16					
	4080 Oct 05 17:44	0°♏		conjunction	4086 Apr 03 13:43	14°♏44'55	-0°56'53
evening set	4080 Oct 12 18:45	1°♏29'44		minimum elong	4086 Apr 03 13:41	14°♏44'54	0°56'53
				max. Earth dist.	4086 Apr 03 14:07	14°♏45'10	5.96335 AU
conjunction	4080 Oct 25 20:51	4°♏18'23	1°00'16	morning rise	4086 Apr 16 16:43	17°♏55'27	
minimum elong	4080 Oct 25 20:52	4°♏18'23	1°00'16		4086 Jun 09 21:23	0°♏	
max. Earth dist.	4080 Oct 25 02:03	4°♏08'15	6.46752 AU	retrograde	4086 Aug 26 15:36	8°♏32'07	
morning rise	4080 Nov 07 20:17	7°♏05'44		opposition	4086 Oct 25 12:34	3°♏31'31	-1°29'34
	4080 Dec 16 17:34	15°♏		min. Earth dist.	4086 Oct 24 22:52	3°♏36'06	3.93668 AU
retrograde	4081 Mar 07 23:05	23°♏46'08			4086 Nov 24 01:28	30°♏♏	
opposition	4081 May 07 15:42	18°♏52'23	1°23'32	direct	4086 Dec 22 16:56	28°♏37'45	
min. Earth dist.	4081 May 08 13:08	18°♏45'30	4.47304 AU		4087 Jan 20 05:35	0°♏	
	4081 Jun 11 05:49	15°♏♏			4087 Apr 12 23:28	15°♏	
direct	4081 Jul 09 08:09	13°♏50'14		evening set	4087 Apr 27 16:04	18°♏30'25	
	4081 Aug 06 14:56	15°♏					
	4081 Nov 06 15:09	0°♏		conjunction	4087 May 11 00:30	21°♏44'31	-0°55'52
evening set	4081 Nov 12 08:47	1°♏13'39		minimum elong	4087 May 11 00:32	21°♏44'32	0°55'51
max. Earth dist.	4081 Nov 23 11:46	3°♏37'58	6.45711 AU	max. Earth dist.	4087 May 12 12:44	22°♏06'30	5.93416 AU
				morning rise	4087 May 24 11:47	25°♏00'10	
conjunction	4081 Nov 25 05:29	4°♏00'36	0°51'09		4087 Jun 14 15:46	0°♏	
minimum elong	4081 Nov 25 05:30	4°♏00'36	0°51'09	retrograde	4087 Oct 03 19:34	15°♏43'16	
morning rise	4081 Dec 07 23:51	6°♏46'30		min. Earth dist.	4087 Dec 01 01:39	10°♏49'57	3.95820 AU
retrograde	4082 Apr 07 12:32	23°♏35'39		opposition	4087 Dec 02 08:44	10°♏39'23	-1°09'43
opposition	4082 Jun 07 09:56	18°♏43'22	0°59'59	direct	4088 Jan 29 05:50	5°♏44'05	
min. Earth dist.	4082 Jun 08 20:14	18°♏32'25	4.42345 AU	evening set	4088 Jun 03 10:57	25°♏23'33	
direct	4082 Aug 09 03:22	13°♏42'17					
	4082 Dec 06 16:19	0°♁		conjunction	4088 Jun 17 02:17	28°♏37'39	-0°32'39
evening set	4082 Dec 12 20:25	1°♁20'58		minimum elong	4088 Jun 17 02:19	28°♏37'41	0°32'39
max. Earth dist.	4082 Dec 23 10:18	3°♁41'15	6.37155 AU	max. Earth dist.	4088 Jun 19 10:49	29°♏11'12	6.00337 AU
					4088 Jun 22 21:05	0°♁	
conjunction	4082 Dec 25 14:05	4°♁09'58	0°28'05	morning rise	4088 Jun 30 19:57	1°♁52'44	
minimum elong	4082 Dec 25 14:07	4°♁09'59	0°28'05	retrograde	4088 Nov 07 22:10	21°♁50'23	
morning rise	4083 Jan 07 05:53	6°♁58'19		min. Earth dist.	4089 Jan 04 22:51	16°♁58'13	4.06673 AU
retrograde	4083 May 09 16:38	24°♁25'16		opposition	4089 Jan 06 12:04	16°♁45'32	-0°23'18
opposition	4083 Jul 09 14:55	19°♁32'59	0°18'53	direct	4089 Mar 05 21:57	11°♁47'25	
min. Earth dist.	4083 Jul 11 04:57	19°♁20'51	4.30644 AU	asc. node	4089 Jun 30 17:25	28°♁38'29	
direct	4083 Sep 09 16:41	14°♁33'49			4089 Jul 06 17:36	0°♏	

evening set	4089 Jul 10 09:59	0°Ω50'18		min. Earth dist.	4095 Jul 15 21:32	23°358'19	4.28404 AU
				direct	4095 Sep 14 06:15	19°311'27	
conjunction	4089 Jul 24 03:28	3°Ω59'03 0°02'08		desc. node	4095 Oct 20 03:32	21°306'59	
minimum elong	4089 Jul 24 03:26	3°Ω59'02 0°02'08			4095 Dec 14 12:10	0°≈	
behind sun begin	4089 Jul 23 19:03	3°Ω54'15		evening set	4096 Jan 17 18:25	7°≈29'02	
behind sun end	4089 Jul 24 11:49	4°Ω03'49		max. Earth dist.	4096 Jan 28 12:49	9°≈57'19	6.20884 AU
max. Earth dist.	4089 Jul 26 08:42	4°Ω29'35 6.14085 AU					
morning rise	4089 Aug 06 21:37	7°Ω07'47		conjunction	4096 Jan 30 11:37	10°≈24'17 -0°08'47	
	4089 Sep 12 01:13	15°Ω		minimum elong	4096 Jan 30 11:36	10°≈24'17 0°08'46	
retrograde	4089 Dec 11 13:41	25°Ω54'49		behind sun begin	4096 Jan 30 04:40	10°≈20'18	
min. Earth dist.	4090 Feb 08 03:00	21°Ω01'22 4.21823 AU		behind sun end	4096 Jan 30 18:32	10°≈28'15	
opposition	4090 Feb 09 07:40	20°Ω51'41 0°28'28		morning rise	4096 Feb 12 04:22	13°≈19'39	
direct	4090 Apr 09 23:52	15°Ω50'58			4096 Feb 19 12:25	15°≈	
	4090 Jul 26 05:58	0°♐			4096 May 12 05:25	0°♐	
evening set	4090 Aug 14 13:02	4°♐11'08		retrograde	4096 Jun 17 09:23	1°♐59'31	
					4096 Jul 23 18:50	30°♐≈	
conjunction	4090 Aug 28 03:24	7°♐11'47 0°34'32		opposition	4096 Aug 17 00:21	27°≈05'21 -0°37'37	
minimum elong	4090 Aug 28 03:22	7°♐11'46 0°34'31		min. Earth dist.	4096 Aug 18 04:11	26°≈56'22 4.13110 AU	
max. Earth dist.	4090 Aug 29 13:34	7°♐30'44 6.29396 AU		direct	4096 Oct 16 15:19	22°≈09'00	
morning rise	4090 Sep 10 16:29	10°♐11'35			4096 Dec 29 22:43	0°♐	
retrograde	4091 Jan 11 23:58	27°♐52'36		evening set	4097 Feb 19 03:45	11°♐09'38	
opposition	4091 Mar 13 02:05	22°♐52'54 1°07'55					
min. Earth dist.	4091 Mar 12 12:36	22°♐57'22 4.36025 AU		conjunction	4097 Mar 03 23:22	14°♐12'13 -0°40'07	
direct	4091 May 13 01:31	17°♐50'43		minimum elong	4097 Mar 03 23:20	14°♐12'12 0°40'06	
	4091 Aug 20 21:07	0°♑		max. Earth dist.	4097 Mar 02 20:09	13°♐56'02 6.05923 AU	
evening set	4091 Sep 16 15:06	5°♑36'13		morning rise	4097 Mar 16 20:24	17°♐15'47	
					4097 May 14 21:47	0°♑	
conjunction	4091 Sep 29 22:57	8°♑29'16 0°55'09		retrograde	4097 Jul 24 14:09	7°♑06'54	
minimum elong	4091 Sep 29 22:55	8°♑29'16 0°55'10		opposition	4097 Sep 22 20:05	2°♑09'34 -1°17'31	
max. Earth dist.	4091 Sep 30 03:00	8°♑31'28 6.41408 AU		min. Earth dist.	4097 Sep 23 02:57	2°♑07'18 3.99823 AU	
morning rise	4091 Oct 13 04:40	11°♑21'07			4097 Oct 09 20:31	30°♐♐	
retrograde	4092 Feb 11 05:28	28°♑17'54		direct	4097 Nov 20 23:55	27°♐15'16	
opposition	4092 Apr 11 14:59	23°♑21'48 1°26'18			4098 Jan 01 08:09	0°♑	
min. Earth dist.	4092 Apr 11 21:38	23°♑19'38 4.45133 AU		evening set	4098 Mar 26 16:49	16°♑53'11	
direct	4092 Jun 12 18:01	18°♑19'15					
	4092 Sep 19 06:17	0°♒		conjunction	4098 Apr 08 18:23	20°♑03'03 -0°58'11	
evening set	4092 Oct 17 01:18	5°♒45'25		minimum elong	4098 Apr 08 18:23	20°♑03'02 0°58'11	
max. Earth dist.	4092 Oct 29 03:43	8°♒21'22 6.46922 AU		max. Earth dist.	4098 Apr 09 01:30	20°♑07'21 5.95559 AU	
				morning rise	4098 Apr 21 22:20	23°♑14'23	
conjunction	4092 Oct 30 02:38	8°♒33'43 0°59'56			4098 May 20 19:34	0°♒	
minimum elong	4092 Oct 30 02:38	8°♒33'43 0°59'55		retrograde	4098 Sep 01 02:45	13°♒54'10	
morning rise	4092 Nov 12 01:16	11°♒20'43		opposition	4098 Oct 30 21:26	8°♒53'02 -1°28'54	
	4092 Nov 29 09:36	15°♒		min. Earth dist.	4098 Oct 30 05:26	8°♒58'24 3.93618 AU	
retrograde	4093 Mar 12 03:19	28°♒01'19		direct	4098 Dec 28 00:34	3°♒59'09	
opposition	4093 May 11 21:05	23°♒07'52 1°21'30			4099 Mar 25 14:02	15°♒	
min. Earth dist.	4093 May 12 20:21	23°♒00'24 4.46854 AU		evening set	4099 May 02 22:57	23°♒50'42	
direct	4093 Jul 13 13:36	18°♒05'50					
	4093 Oct 21 05:19	0°♓		conjunction	4099 May 16 08:22	27°♒05'00 -0°53'46	
evening set	4093 Nov 16 14:28	5°♓31'11		minimum elong	4099 May 16 08:23	27°♒05'01 0°53'46	
max. Earth dist.	4093 Nov 27 15:46	7°♓54'57 6.44678 AU		max. Earth dist.	4099 May 17 23:59	27°♒28'59 5.94066 AU	
					4099 May 28 10:10	0°♓	
conjunction	4093 Nov 29 10:43	8°♓18'20 0°48'40		morning rise	4099 May 29 20:50	0°♓20'49	
minimum elong	4093 Nov 29 10:45	8°♓18'21 0°48'41		retrograde	4099 Oct 08 22:42	20°♓59'12	
morning rise	4093 Dec 12 04:30	11°♓04'27		min. Earth dist.	4099 Dec 06 03:19	16°♓06'23 3.97107 AU	
retrograde	4094 Apr 11 22:06	27°♓58'07		opposition	4099 Dec 07 12:44	15°♓55'02 -1°04'21	
opposition	4094 Jun 11 19:40	23°♓06'02 0°55'07		direct	4100 Feb 03 09:38	10°♓59'22	
min. Earth dist.	4094 Jun 13 07:19	22°♓54'40 4.40791 AU			4100 Jun 07 06:28	0°♓	
direct	4094 Aug 13 11:49	18°♓05'15		evening set	4100 Jun 09 16:17	0°♓33'56	
	4094 Nov 20 00:49	0°♓					
evening set	4094 Dec 17 04:40	5°♓48'34		conjunction	4100 Jun 23 08:09	3°♓47'27 -0°28'09	
max. Earth dist.	4094 Dec 27 16:28	8°♓08'24 6.35199 AU		minimum elong	4100 Jun 23 08:11	3°♓47'28 0°28'09	
				max. Earth dist.	4100 Jun 25 16:21	4°♓20'40 6.02124 AU	
conjunction	4094 Dec 29 22:00	8°♓38'14 0°23'57		morning rise	4100 Jul 07 02:13	7°♓01'50	
minimum elong	4094 Dec 29 22:01	8°♓38'15 0°23'57		retrograde	4100 Nov 13 17:55	26°♓49'50	
morning rise	4095 Jan 11 13:57	11°♓27'24		min. Earth dist.	4101 Jan 10 20:15	21°♓57'16 4.08748 AU	
retrograde	4095 May 14 11:03	29°♓02'42		opposition	4101 Jan 12 08:04	21°♓45'04 -0°15'54	
opposition	4095 Jul 14 08:02	24°♓10'18 0°12'06		direct	4101 Mar 11 22:57	16°♓46'29	

asc. node	4101 May 11 20:58	22°♊19'32	
	4101 Jun 20 15:07	0°♊	
evening set	4101 Jul 16 09:45	5°♊43'05	
conjunction	4101 Jul 30 03:13	8°♊50'48	0°07'04
minimum elong	4101 Jul 30 03:11	8°♊50'47	0°07'04
behind sun begin	4101 Jul 29 19:30	8°♊46'25	
behind sun end	4101 Jul 30 10:53	8°♊55'09	
max. Earth dist.	4101 Aug 01 07:35	9°♊20'41	6.16283 AU
morning rise	4101 Aug 12 20:49	11°♊58'18	
	4101 Aug 26 09:57	15°♊	
	4101 Nov 28 00:03	0°♐	
retrograde	4101 Dec 17 01:00	0°♐35'16	
	4102 Jan 04 22:16	30°♐♊	