


























































































































retrograde	9600 Jan 03 19:56	10° <u>0</u> 22'32	max. Earth dist.	9606 Sep 29 06:51	16° <u>0</u> 05'34	46.06477 AU
opposition	9600 Mar 26 16:15	9° <u>0</u> 21'32 -7°31'06				
min. Earth dist.	9600 Mar 27 13:01	9° <u>0</u> 20'32 45.14994 AU	conjunction	9606 Sep 30 13:07	16° <u>0</u> 07'24 -5°25'45	
direct	9600 Jun 16 04:34	8° <u>0</u> 21'00	minimum elong	9606 Sep 30 13:15	16° <u>0</u> 07'25 5°25'41	
evening set	9600 Sep 09 15:08	9° <u>0</u> 31'28	morning rise	9606 Oct 15 10:31	16° <u>0</u> 28'46	
			retrograde	9607 Jan 11 02:08	17° <u>0</u> 42'19	
conjunction	9600 Sep 23 15:02	9° <u>0</u> 51'09 -7°04'17	opposition	9607 Apr 03 15:26	16° <u>0</u> 40'23 -5°31'28	
minimum elong	9600 Sep 23 15:12	9° <u>0</u> 51'10 7°04'15	min. Earth dist.	9607 Apr 04 19:25	16° <u>0</u> 39'00 43.98212 AU	
max. Earth dist.	9600 Sep 22 17:14	9° <u>0</u> 49'52 47.05780 AU	direct	9607 Jun 24 02:55	15° <u>0</u> 38'47	
morning rise	9600 Oct 07 16:37	10° <u>0</u> 10'58	evening set	9607 Sep 16 23:04	16° <u>0</u> 49'58	
retrograde	9601 Jan 04 00:19	11° <u>0</u> 24'02				
opposition	9601 Mar 27 22:29	10° <u>0</u> 22'56 -7°14'45	conjunction	9607 Oct 01 21:31	17° <u>0</u> 11'27 -5°08'31	
min. Earth dist.	9601 Mar 28 19:14	10° <u>0</u> 21'56 44.99476 AU	minimum elong	9607 Oct 01 21:39	17° <u>0</u> 11'28 5°08'26	
direct	9601 Jun 17 13:18	9° <u>0</u> 22'17	max. Earth dist.	9607 Sep 30 14:48	17° <u>0</u> 09'36 45.88311 AU	
evening set	9601 Sep 10 18:52	10° <u>0</u> 32'49	morning rise	9607 Oct 16 21:37	17° <u>0</u> 33'04	
			retrograde	9608 Jan 12 10:09	18° <u>0</u> 46'44	
conjunction	9601 Sep 24 22:10	10° <u>0</u> 52'46 -6°48'27	opposition	9608 Apr 03 22:46	17° <u>0</u> 44'36 -5°13'23	
minimum elong	9601 Sep 24 22:19	10° <u>0</u> 52'46 6°48'23	min. Earth dist.	9608 Apr 05 03:57	17° <u>0</u> 43'09 43.79745 AU	
max. Earth dist.	9601 Sep 23 22:25	10° <u>0</u> 51'21 46.90244 AU	direct	9608 Jun 24 10:27	16° <u>0</u> 42'47	
morning rise	9601 Oct 09 03:28	11° <u>0</u> 12'51	evening set	9608 Sep 17 04:50	17° <u>0</u> 54'07	
retrograde	9602 Jan 05 08:45	12° <u>0</u> 25'58	max. Earth dist.	9608 Sep 30 21:56	18° <u>0</u> 13'53 45.69767 AU	
opposition	9602 Mar 29 04:50	11° <u>0</u> 24'46 -6°58'09				
min. Earth dist.	9602 Mar 30 02:51	11° <u>0</u> 23'42 44.83670 AU	conjunction	9608 Oct 02 05:57	18° <u>0</u> 15'50 -4°51'03	
direct	9602 Jun 18 18:41	10° <u>0</u> 23'59	minimum elong	9608 Oct 02 06:04	18° <u>0</u> 15'50 4°50'57	
evening set	9602 Sep 11 22:43	11° <u>0</u> 34'36	morning rise	9608 Oct 17 08:52	18° <u>0</u> 37'41	
max. Earth dist.	9602 Sep 25 05:27	11° <u>0</u> 53'23 46.74379 AU	retrograde	9609 Jan 12 20:39	19° <u>0</u> 51'29	
			opposition	9609 Apr 05 06:12	18° <u>0</u> 49'09 -4°55'03	
conjunction	9602 Sep 26 05:37	11° <u>0</u> 54'49 -6°32'22	min. Earth dist.	9609 Apr 06 11:43	18° <u>0</u> 47'41 43.60932 AU	
minimum elong	9602 Sep 26 05:46	11° <u>0</u> 54'50 6°32'20	direct	9609 Jun 25 15:44	17° <u>0</u> 47'06	
morning rise	9602 Oct 10 14:16	12° <u>0</u> 15'10	evening set	9609 Sep 18 10:54	18° <u>0</u> 58'37	
retrograde	9603 Jan 06 17:34	13° <u>0</u> 28'22	max. Earth dist.	9609 Oct 02 05:04	19° <u>0</u> 18'32 45.50876 AU	
opposition	9603 Mar 30 11:28	12° <u>0</u> 27'03 -6°41'18				
min. Earth dist.	9603 Mar 31 10:43	12° <u>0</u> 25'55 44.67502 AU	conjunction	9609 Oct 03 14:34	19° <u>0</u> 20'34 -4°33'20	
direct	9603 Jun 20 00:21	11° <u>0</u> 26'09	minimum elong	9609 Oct 03 14:41	19° <u>0</u> 20'34 4°33'14	
evening set	9603 Sep 13 02:55	12° <u>0</u> 36'52	morning rise	9609 Oct 18 20:02	19° <u>0</u> 42'39	
max. Earth dist.	9603 Sep 26 11:46	12° <u>0</u> 55'50 46.58132 AU	retrograde	9610 Jan 14 06:20	20° <u>0</u> 56'36	
			opposition	9610 Apr 06 13:53	19° <u>0</u> 54'04 -4°36'27	
conjunction	9603 Sep 27 13:06	12° <u>0</u> 57'20 -6°16'03	min. Earth dist.	9610 Apr 07 21:06	19° <u>0</u> 52'31 43.41813 AU	
minimum elong	9603 Sep 27 13:15	12° <u>0</u> 57'21 6°16'00	direct	9610 Jun 26 22:28	18° <u>0</u> 51'48	
morning rise	9603 Oct 12 01:08	13° <u>0</u> 17'57	evening set	9610 Sep 19 17:10	20° <u>0</u> 03'31	
retrograde	9604 Jan 08 04:49	14° <u>0</u> 31'14				
opposition	9604 Mar 30 18:10	13° <u>0</u> 29'48 -6°24'13	conjunction	9610 Oct 04 23:24	20° <u>0</u> 25'42 -4°15'22	
min. Earth dist.	9604 Mar 31 17:53	13° <u>0</u> 28'38 44.50916 AU	minimum elong	9610 Oct 04 23:30	20° <u>0</u> 25'43 4°15'16	
direct	9604 Jun 20 03:36	12° <u>0</u> 28'45	max. Earth dist.	9610 Oct 03 14:02	20° <u>0</u> 23'40 45.31719 AU	
evening set	9604 Sep 13 07:37	13° <u>0</u> 39'35	morning rise	9610 Oct 20 07:10	20° <u>0</u> 48'01	
			retrograde	9611 Jan 15 13:44	22° <u>0</u> 02'08	
conjunction	9604 Sep 27 21:00	14° <u>0</u> 00'19 -5°59'31	opposition	9611 Apr 07 21:40	20° <u>0</u> 59'25 -4°17'35	
minimum elong	9604 Sep 27 21:08	14° <u>0</u> 00'19 5°59'28	min. Earth dist.	9611 Apr 09 04:36	20° <u>0</u> 57'52 43.22450 AU	
max. Earth dist.	9604 Sep 26 17:39	13° <u>0</u> 58'41 46.41409 AU	direct	9611 Jun 28 07:38	19° <u>0</u> 56'56	
morning rise	9604 Oct 12 12:19	14° <u>0</u> 21'11	evening set	9611 Sep 20 23:48	21° <u>0</u> 08'52	
retrograde	9605 Jan 08 13:53	15° <u>0</u> 34'33	max. Earth dist.	9611 Oct 04 21:00	21° <u>0</u> 29'08 45.12330 AU	
opposition	9605 Apr 01 01:06	14° <u>0</u> 32'58 -6°06'52				
min. Earth dist.	9605 Apr 02 03:09	14° <u>0</u> 31'41 44.33839 AU	conjunction	9611 Oct 06 08:12	21° <u>0</u> 31'17 -3°57'10	
direct	9605 Jun 21 08:53	13° <u>0</u> 31'45	minimum elong	9611 Oct 06 08:18	21° <u>0</u> 31'18 3°57'04	
evening set	9605 Sep 14 12:32	14° <u>0</u> 42'42	morning rise	9611 Oct 21 18:27	21° <u>0</u> 53'51	
max. Earth dist.	9605 Sep 28 01:15	15° <u>0</u> 02'00 46.24190 AU	retrograde	9612 Jan 16 23:09	23° <u>0</u> 08'10	
			opposition	9612 Apr 08 05:46	22° <u>0</u> 05'15 -3°58'27	
conjunction	9605 Sep 29 05:09	15° <u>0</u> 03'41 -5°42'45	min. Earth dist.	9612 Apr 09 14:02	22° <u>0</u> 03'38 43.02879 AU	
minimum elong	9605 Sep 29 05:18	15° <u>0</u> 03'41 5°42'41	direct	9612 Jun 28 15:10	21° <u>0</u> 02'34	
morning rise	9605 Oct 13 23:25	15° <u>0</u> 24'48	evening set	9612 Sep 21 06:50	22° <u>0</u> 14'45	
retrograde	9606 Jan 09 18:45	16° <u>0</u> 38'15	max. Earth dist.	9612 Oct 05 06:21	22° <u>0</u> 35'14 44.92725 AU	
opposition	9606 Apr 02 08:09	15° <u>0</u> 36'30 -5°49'18				
min. Earth dist.	9606 Apr 03 10:33	15° <u>0</u> 35'12 44.16257 AU	conjunction	9612 Oct 06 17:35	22° <u>0</u> 37'25 -3°38'42	
direct	9606 Jun 22 18:57	14° <u>0</u> 35'06	minimum elong	9612 Oct 06 17:40	22° <u>0</u> 37'25 3°38'35	
evening set	9606 Sep 15 17:42	15° <u>0</u> 46'10	morning rise	9612 Oct 22 05:48	23° <u>0</u> 00'12	

retrograde	9613 Jan 17 07:20	24° <u>♄</u> 14'46	evening set	9619 Sep 29 20:27	0° <u>♄</u> 15'14	
opposition	9613 Apr 09 13:56	23° <u>♄</u> 11'40 -3°39'03	max. Earth dist.	9619 Oct 13 22:13	0° <u>♄</u> 36'35	43.46970 AU
min. Earth dist.	9613 Apr 10 22:45	23° <u>♄</u> 10'00 42.83093 AU				
direct	9613 Jun 29 23:57	22° <u>♄</u> 08'48	conjunction	9619 Oct 15 17:58	0° <u>♄</u> 39'23	-1°22'36
evening set	9613 Sep 22 14:21	23° <u>♄</u> 21'16	minimum elong	9619 Oct 15 18:00	0° <u>♄</u> 39'23	1°22'26
max. Earth dist.	9613 Oct 06 14:41	23° <u>♄</u> 41'53 44.72917 AU	morning rise	9619 Oct 31 16:44	1° <u>♄</u> 03'38	
			retrograde	9620 Jan 26 14:21	2° <u>♄</u> 20'30	
conjunction	9613 Oct 08 03:02	23° <u>♄</u> 44'09 -3°19'59	opposition	9620 Apr 17 06:38	1° <u>♄</u> 16'00	-1°15'50
minimum elong	9613 Oct 08 03:07	23° <u>♄</u> 44'09 3°19'53	min. Earth dist.	9620 Apr 18 22:58	1° <u>♄</u> 13'54	41.35736 AU
morning rise	9613 Oct 23 17:21	24° <u>♄</u> 07'09	direct	9620 Jul 07 09:08	0° <u>♄</u> 11'30	
retrograde	9614 Jan 18 20:01	25° <u>♄</u> 21'59	evening set	9620 Sep 30 07:03	1° <u>♄</u> 26'36	
opposition	9614 Apr 10 22:21	24° <u>♄</u> 18'44 -3°19'22	max. Earth dist.	9620 Oct 14 09:23	1° <u>♄</u> 48'05	43.24665 AU
min. Earth dist.	9614 Apr 12 07:28	24° <u>♄</u> 17'03 42.63098 AU				
direct	9614 Jul 01 04:56	23° <u>♄</u> 15'40	conjunction	9620 Oct 16 05:30	1° <u>♄</u> 50'55	-1°02'12
evening set	9614 Sep 23 22:08	24° <u>♄</u> 28'28	minimum elong	9620 Oct 16 05:32	1° <u>♄</u> 50'55	1°02'01
max. Earth dist.	9614 Oct 07 23:09	24° <u>♄</u> 49'14 44.52851 AU	morning rise	9620 Nov 01 05:03	2° <u>♄</u> 15'21	
			retrograde	9621 Jan 27 04:24	3° <u>♄</u> 32'36	
conjunction	9614 Oct 09 12:39	24° <u>♄</u> 51'34 -3°01'01	opposition	9621 Apr 18 16:41	2° <u>♄</u> 27'49	-0°54'20
minimum elong	9614 Oct 09 12:44	24° <u>♄</u> 51'34 3°00'53	min. Earth dist.	9621 Apr 20 08:58	2° <u>♄</u> 25'43	41.13260 AU
morning rise	9614 Oct 25 04:46	25° <u>♄</u> 14'48	direct	9621 Jul 08 18:09	1° <u>♄</u> 23'02	
retrograde	9615 Jan 20 08:36	26° <u>♄</u> 29'56	evening set	9621 Oct 01 18:12	2° <u>♄</u> 38'35	
opposition	9615 Apr 12 07:11	25° <u>♄</u> 26'31 -2°59'26	max. Earth dist.	9621 Oct 15 19:07	3° <u>♄</u> 00'07	43.02081 AU
min. Earth dist.	9615 Apr 13 18:06	25° <u>♄</u> 24'44 42.42823 AU				
direct	9615 Jul 02 10:27	24° <u>♄</u> 23'15	conjunction	9621 Oct 17 17:11	3° <u>♄</u> 03'05	-0°41'33
evening set	9615 Sep 25 06:27	25° <u>♄</u> 36'24	minimum elong	9621 Oct 17 17:12	3° <u>♄</u> 03'05	0°41'23
max. Earth dist.	9615 Oct 09 08:58	25° <u>♄</u> 57'21 44.32483 AU	morning rise	9621 Nov 02 17:26	3° <u>♄</u> 27'41	
			retrograde	9622 Jan 28 16:42	4° <u>♄</u> 45'21	
conjunction	9615 Oct 10 22:47	25° <u>♄</u> 59'43 -2°41'49	opposition	9622 Apr 20 03:16	3° <u>♄</u> 40'18	-0°32'35
minimum elong	9615 Oct 10 22:51	25° <u>♄</u> 59'44 2°41'42	min. Earth dist.	9622 Apr 21 21:16	3° <u>♄</u> 38'06	40.90552 AU
morning rise	9615 Oct 26 16:30	26° <u>♄</u> 23'10	direct	9622 Jul 10 04:09	2° <u>♄</u> 35'13	
retrograde	9616 Jan 21 18:04	27° <u>♄</u> 38'38	evening set	9622 Oct 03 05:31	3° <u>♄</u> 51'14	
opposition	9616 Apr 12 16:01	26° <u>♄</u> 35'01 -2°39'14	max. Earth dist.	9622 Oct 17 07:18	4° <u>♄</u> 12'56	42.79286 AU
min. Earth dist.	9616 Apr 14 03:04	26° <u>♄</u> 33'14 42.22214 AU				
direct	9616 Jul 02 20:44	25° <u>♄</u> 31'33	conjunction	9622 Oct 19 05:07	4° <u>♄</u> 15'54	-0°20'41
evening set	9616 Sep 25 15:25	26° <u>♄</u> 45'04	minimum elong	9622 Oct 19 05:07	4° <u>♄</u> 15'54	0°20'30
max. Earth dist.	9616 Oct 09 16:57	27° <u>♄</u> 06'05 44.11731 AU	morning rise	9622 Nov 04 05:37	4° <u>♄</u> 40'41	
			retrograde	9623 Jan 30 01:40	5° <u>♄</u> 58'47	
conjunction	9616 Oct 11 09:10	27° <u>♄</u> 08'37 -2°22'22	opposition	9623 Apr 21 14:05	4° <u>♄</u> 53'28	-0°10'33
minimum elong	9616 Oct 11 09:14	27° <u>♄</u> 08'37 2°22'13	min. Earth dist.	9623 Apr 23 08:02	4° <u>♄</u> 51'15	40.67659 AU
morning rise	9616 Oct 27 04:32	27° <u>♄</u> 32'17	direct	9623 Jul 11 17:30	3° <u>♄</u> 48'04	
retrograde	9617 Jan 22 04:05	28° <u>♄</u> 48'04	evening set	9623 Oct 04 17:38	5° <u>♄</u> 04'36	
opposition	9617 Apr 14 01:21	27° <u>♄</u> 44'16 -2°18'46	asc. node	9623 Oct 12 21:37	5° <u>♄</u> 17'11	
min. Earth dist.	9617 Apr 15 14:19	27° <u>♄</u> 42'22 42.01202 AU	max. Earth dist.	9623 Oct 18 18:05	5° <u>♄</u> 26'21	42.56333 AU
direct	9617 Jul 04 06:43	26° <u>♄</u> 40'34				
evening set	9617 Sep 27 00:39	27° <u>♄</u> 54'27	conjunction	9623 Oct 20 17:21	5° <u>♄</u> 29'26	0°00'29
max. Earth dist.	9617 Oct 11 03:20	28° <u>♄</u> 15'39 43.90548 AU	minimum elong	9623 Oct 20 17:21	5° <u>♄</u> 29'26	0°00'40
			behind sun begin	9623 Oct 20 10:52	5° <u>♄</u> 29'02	
conjunction	9617 Oct 12 19:57	28° <u>♄</u> 18'13 -2°02'41	behind sun end	9623 Oct 20 23:50	5° <u>♄</u> 29'50	
minimum elong	9617 Oct 12 20:00	28° <u>♄</u> 18'13 2°02'32	morning rise	9623 Nov 05 18:14	5° <u>♄</u> 54'22	
morning rise	9617 Oct 28 16:27	28° <u>♄</u> 42'05	retrograde	9624 Jan 31 13:58	7° <u>♄</u> 12'58	
retrograde	9618 Jan 23 12:55	29° <u>♄</u> 58'13	opposition	9624 Apr 22 01:05	6° <u>♄</u> 07'22	0°11'43
opposition	9618 Apr 15 10:50	28° <u>♄</u> 54'12 -1°58'03	min. Earth dist.	9624 Apr 23 19:42	6° <u>♄</u> 05'06	40.44641 AU
min. Earth dist.	9618 Apr 17 00:38	28° <u>♄</u> 52'15 41.79756 AU	direct	9624 Jul 12 03:46	5° <u>♄</u> 01'40	
direct	9618 Jul 05 17:32	27° <u>♄</u> 50'16	evening set	9624 Oct 05 06:13	6° <u>♄</u> 18'45	
evening set	9618 Sep 28 10:25	29° <u>♄</u> 04'32	max. Earth dist.	9624 Oct 19 06:22	6° <u>♄</u> 40'36	42.33238 AU
max. Earth dist.	9618 Oct 12 12:21	29° <u>♄</u> 25'47 43.68955 AU				
			conjunction	9624 Oct 21 06:07	6° <u>♄</u> 43'44	0°21'49
conjunction	9618 Oct 14 06:49	29° <u>♄</u> 28'29 -1°42'45	minimum elong	9624 Oct 21 06:07	6° <u>♄</u> 43'44	0°22'00
minimum elong	9618 Oct 14 06:52	29° <u>♄</u> 28'29 1°42'36	morning rise	9624 Nov 06 06:53	7° <u>♄</u> 08'50	
morning rise	9618 Oct 30 04:39	29° <u>♄</u> 52'33	retrograde	9625 Feb 01 02:52	8° <u>♄</u> 27'56	
	9618 Nov 04 06:20	0° <u>♄</u>	opposition	9625 Apr 23 12:38	7° <u>♄</u> 22'05	0°34'15
retrograde	9619 Jan 25 01:20	1° <u>♄</u> 09'02	min. Earth dist.	9625 Apr 25 08:17	7° <u>♄</u> 19'45	40.21492 AU
opposition	9619 Apr 16 20:33	0° <u>♄</u> 04'47 -1°37'04	direct	9625 Jul 13 13:20	6° <u>♄</u> 16'06	
min. Earth dist.	9619 Apr 18 11:14	0° <u>♄</u> 02'47 41.57926 AU	evening set	9625 Oct 06 19:22	7° <u>♄</u> 33'45	
	9619 Apr 20 16:59	30° <u>♄</u>	max. Earth dist.	9625 Oct 20 18:58	7° <u>♄</u> 55'42	42.10026 AU
direct	9619 Jul 07 01:15	29° <u>♄</u> 00'35				
	9619 Sep 19 08:26	0° <u>♄</u>	conjunction	9625 Oct 22 19:05	7° <u>♄</u> 58'53	0°43'23

minimum elong	9625 Oct 22 19:04	7° ℳ 58'53	0°43'35	min. Earth dist.	9632 May 04 09:30	16° ℳ 29'45	38.53345 AU
morning rise	9625 Nov 07 19:39	8° ℳ 24'07		direct	9632 Jul 21 23:06	15° ℳ 24'19	
retrograde	9626 Feb 02 18:09	9° ℳ 43'48		evening set	9632 Oct 16 10:29	16° ℳ 47'08	
opposition	9626 Apr 25 00:19	8° ℳ 37'41	0°57'01	max. Earth dist.	9632 Oct 29 18:58	17° ℳ 09'08	40.40646 AU
min. Earth dist.	9626 Apr 26 19:46	8° ℳ 35'21	39.98222 AU				
direct	9626 Jul 14 23:11	7° ℳ 31'25		conjunction	9632 Nov 01 02:27	17° ℳ 12'59	3°20'17
evening set	9626 Oct 08 09:12	8° ℳ 49'42		minimum elong	9632 Nov 01 02:20	17° ℳ 12'59	3°20'32
max. Earth dist.	9626 Oct 22 06:42	9° ℳ 11'40	41.86658 AU	morning rise	9632 Nov 16 18:32	17° ℳ 38'54	
				retrograde	9633 Feb 12 08:05	19° ℳ 03'26	
conjunction	9626 Oct 24 08:28	9° ℳ 14'59	1°05'10	opposition	9633 May 03 21:43	17° ℳ 55'16	3°42'58
minimum elong	9626 Oct 24 08:26	9° ℳ 14'59	1°05'22	min. Earth dist.	9633 May 05 23:50	17° ℳ 52'29	38.28258 AU
morning rise	9626 Nov 09 08:37	9° ℳ 40'21		direct	9633 Jul 23 15:01	16° ℳ 46'40	
retrograde	9627 Feb 04 10:27	11° ℳ 00'37		evening set	9633 Oct 18 05:10	18° ℳ 10'22	
opposition	9627 Apr 26 12:33	9° ℳ 54'15	1°20'02	max. Earth dist.	9633 Oct 31 09:19	18° ℳ 32'15	40.15389 AU
min. Earth dist.	9627 Apr 28 09:43	9° ℳ 51'49	39.74786 AU				
direct	9627 Jul 16 09:41	8° ℳ 47'42		conjunction	9633 Nov 02 18:46	18° ℳ 36'16	3°43'28
evening set	9627 Oct 09 23:33	10° ℳ 06'40		minimum elong	9633 Nov 02 18:39	18° ℳ 36'15	3°43'44
max. Earth dist.	9627 Oct 23 20:46	10° ℳ 28'45	41.63085 AU	morning rise	9633 Nov 18 08:41	19° ℳ 02'13	
				retrograde	9634 Feb 14 02:11	20° ℳ 27'34	
conjunction	9627 Oct 25 22:22	10° ℳ 32'04	1°27'11	opposition	9634 May 05 12:41	19° ℳ 19'04	4°07'31
minimum elong	9627 Oct 25 22:19	10° ℳ 32'04	1°27'24	min. Earth dist.	9634 May 07 16:14	19° ℳ 16'11	38.03029 AU
morning rise	9627 Nov 10 21:43	10° ℳ 57'34		direct	9634 Jul 25 06:00	18° ℳ 10'04	
retrograde	9628 Feb 06 00:33	12° ℳ 18'28		evening set	9634 Oct 20 00:27	19° ℳ 34'42	
opposition	9628 Apr 27 01:04	11° ℳ 11'51	1°43'18	max. Earth dist.	9634 Nov 02 02:35	19° ℳ 56'36	39.90007 AU
min. Earth dist.	9628 Apr 28 22:22	11° ℳ 09'24	39.51108 AU				
direct	9628 Jul 16 23:32	10° ℳ 05'00		conjunction	9634 Nov 04 11:43	20° ℳ 00'38	4°06'49
evening set	9628 Oct 10 14:55	11° ℳ 24'41		minimum elong	9634 Nov 04 11:35	20° ℳ 00'37	4°07'04
max. Earth dist.	9628 Oct 24 08:53	11° ℳ 46'42	41.39228 AU	morning rise	9634 Nov 19 22:53	20° ℳ 26'36	
				retrograde	9635 Feb 15 17:59	21° ℳ 52'50	
conjunction	9628 Oct 26 12:42	11° ℳ 50'12	1°49'24	opposition	9635 May 07 04:05	20° ℳ 43'58	4°32'16
minimum elong	9628 Oct 26 12:38	11° ℳ 50'12	1°49'37	min. Earth dist.	9635 May 09 07:43	20° ℳ 41'04	37.77713 AU
morning rise	9628 Nov 11 11:15	12° ℳ 15'48		direct	9635 Jul 26 22:18	19° ℳ 34'36	
retrograde	9629 Feb 06 15:37	13° ℳ 37'23		evening set	9635 Oct 21 20:37	21° ℳ 00'12	
opposition	9629 Apr 28 13:55	12° ℳ 30'29	2°06'47	max. Earth dist.	9635 Nov 03 18:40	21° ℳ 21'59	39.64570 AU
min. Earth dist.	9629 Apr 30 12:49	12° ℳ 27'56	39.27137 AU				
direct	9629 Jul 18 11:14	11° ℳ 23'19		conjunction	9635 Nov 06 04:57	21° ℳ 26'08	4°30'19
evening set	9629 Oct 12 06:48	12° ℳ 43'44		minimum elong	9635 Nov 06 04:49	21° ℳ 26'07	4°30'35
max. Earth dist.	9629 Oct 25 23:05	13° ℳ 05'48	41.15037 AU	morning rise	9635 Nov 21 13:24	21° ℳ 52'07	
				retrograde	9636 Feb 17 11:16	23° ℳ 19'16	
conjunction	9629 Oct 28 03:37	13° ℳ 09'22	2°11'50	opposition	9636 May 07 19:55	22° ℳ 10'04	4°57'09
minimum elong	9629 Oct 28 03:33	13° ℳ 09'22	2°12'04	min. Earth dist.	9636 May 09 23:57	22° ℳ 07'07	37.52377 AU
morning rise	9629 Nov 13 00:49	13° ℳ 35'04		direct	9636 Jul 27 12:30	21° ℳ 00'18	
retrograde	9630 Feb 08 04:47	14° ℳ 57'20		evening set	9636 Oct 22 17:37	22° ℳ 26'55	
opposition	9630 Apr 30 03:23	13° ℳ 50'09	2°30'30	max. Earth dist.	9636 Nov 04 12:01	22° ℳ 48'37	39.39100 AU
min. Earth dist.	9630 May 02 03:21	13° ℳ 47'31	39.02829 AU				
direct	9630 Jul 20 00:34	12° ℳ 42'39		conjunction	9636 Nov 06 22:55	22° ℳ 52'51	4°53'56
evening set	9630 Oct 13 23:16	14° ℳ 03'50		minimum elong	9636 Nov 06 22:46	22° ℳ 52'50	4°54'12
max. Earth dist.	9630 Oct 27 12:55	14° ℳ 25'52	40.90527 AU	morning rise	9636 Nov 22 04:01	23° ℳ 18'48	
				retrograde	9637 Feb 18 05:02	24° ℳ 46'57	
conjunction	9630 Oct 29 18:38	14° ℳ 29'33	2°34'27	opposition	9637 May 09 12:17	23° ℳ 37'24	5°22'12
minimum elong	9630 Oct 29 18:34	14° ℳ 29'32	2°34'41	min. Earth dist.	9637 May 11 17:17	23° ℳ 34'22	37.27039 AU
morning rise	9630 Nov 14 14:30	14° ℳ 55'20		direct	9637 Jul 29 02:11	22° ℳ 27'15	
	9630 Nov 17 12:48	15° ℳ		evening set	9637 Oct 24 15:29	23° ℳ 54'57	
retrograde	9631 Feb 09 21:46	16° ℳ 18'20		max. Earth dist.	9637 Nov 06 06:26	24° ℳ 16'36	39.13654 AU
opposition	9631 May 01 17:07	15° ℳ 10'50	2°54'27				
min. Earth dist.	9631 May 03 17:27	15° ℳ 08'10	38.78223 AU	conjunction	9637 Nov 08 17:18	24° ℳ 20'51	5°17'40
	9631 May 09 22:57	15° ℳ		minimum elong	9637 Nov 08 17:08	24° ℳ 20'50	5°17'57
direct	9631 Jul 21 11:39	14° ℳ 02'59		morning rise	9637 Nov 23 18:52	24° ℳ 46'46	
	9631 Sep 29 11:56	15° ℳ		retrograde	9638 Feb 20 01:45	26° ℳ 15'57	
evening set	9631 Oct 15 16:33	15° ℳ 24'57		opposition	9638 May 11 05:08	25° ℳ 06'04	5°47'23
max. Earth dist.	9631 Oct 29 02:57	15° ℳ 46'56	40.65707 AU	min. Earth dist.	9638 May 13 09:34	25° ℳ 03'04	37.01732 AU
				direct	9638 Jul 30 16:01	23° ℳ 55'32	
conjunction	9631 Oct 31 10:18	15° ℳ 50'45	2°57'17	evening set	9638 Oct 26 14:08	25° ℳ 24'24	
minimum elong	9631 Oct 31 10:13	15° ℳ 50'45	2°57'32	max. Earth dist.	9638 Nov 07 23:50	25° ℳ 45'52	38.88206 AU
morning rise	9631 Nov 16 04:27	16° ℳ 16'37					
retrograde	9632 Feb 11 14:54	17° ℳ 40'22		conjunction	9638 Nov 10 12:04	25° ℳ 50'14	5°41'30
opposition	9632 May 02 07:15	16° ℳ 32'32	3°18'36	minimum elong	9638 Nov 10 11:53	25° ℳ 50'14	5°41'47

morning rise	9638 Nov 25 09:48	26° 11 16'06	direct	9645 Aug 09 23:56	4° 27 54'00	
retrograde	9639 Feb 21 23:00	27° 11 46'23	evening set	9645 Nov 08 09:59	6° 27 32'22	
opposition	9639 May 12 22:38	26° 11 36'10 6°12'40	max. Earth dist.	9645 Nov 19 00:28	6° 27 51'55	37.07593 AU
min. Earth dist.	9639 May 15 04:36	26° 11 33'03	36.76422 AU			
direct	9639 Aug 01 07:45	25° 11 25'15	conjunction	9645 Nov 21 18:10	6° 27 57'00	8°29'44
evening set	9639 Oct 28 13:51	26° 11 55'20	minimum elong	9645 Nov 21 17:53	6° 27 56'58	8°30'03
max. Earth dist.	9639 Nov 09 19:53	27° 11 16'42	38.62725 AU	morning rise	9645 Dec 05 01:38	7° 27 21'36
				retrograde	9646 Mar 05 11:07	9° 27 00'51
conjunction	9639 Nov 12 07:44	27° 11 21'05 6°05'26	opposition	9646 May 23 16:44	7° 27 47'53	9°11'25
minimum elong	9639 Nov 12 07:32	27° 11 21'04 6°05'43	min. Earth dist.	9646 May 26 03:06	7° 27 44'22	34.96900 AU
morning rise	9639 Nov 27 01:05	27° 11 46'52	direct	9646 Aug 11 20:20	6° 27 33'51	
retrograde	9640 Feb 23 20:25	29° 11 18'16	evening set	9646 Nov 10 16:50	8° 27 13'49	
opposition	9640 May 13 16:29	28° 11 07'43 6°38'03	max. Earth dist.	9646 Nov 21 01:11	8° 27 33'03	36.81673 AU
min. Earth dist.	9640 May 15 22:24	28° 11 04'36	36.51055 AU			
direct	9640 Aug 02 03:18	26° 11 56'26	conjunction	9646 Nov 23 18:00	8° 27 38'07	8°53'40
evening set	9640 Oct 29 14:46	28° 11 27'46	minimum elong	9646 Nov 23 17:44	8° 27 38'06	8°54'00
max. Earth dist.	9640 Nov 10 14:09	28° 11 48'51	38.37148 AU	morning rise	9646 Dec 06 18:06	9° 27 02'23
				retrograde	9647 Mar 07 12:07	10° 27 43'08
conjunction	9640 Nov 13 03:55	28° 11 53'26 6°29'25	opposition	9647 May 25 14:55	9° 27 29'45	9°36'52
minimum elong	9640 Nov 13 03:43	28° 11 53'25 6°29'42	min. Earth dist.	9647 May 28 00:50	9° 27 26'14	34.71279 AU
morning rise	9640 Nov 27 16:48	29° 11 19'05	direct	9647 Aug 13 19:54	8° 27 15'13	
	9640 Dec 22 19:22	0° 27	evening set	9647 Nov 13 01:09	9° 27 56'52	
retrograde	9641 Feb 24 19:07	0° 27 51'41	max. Earth dist.	9647 Nov 23 00:33	10° 27 15'36	36.55912 AU
	9641 May 01 13:34	30° 27 11				
opposition	9641 May 15 11:04	29° 11 40'47 7°03'32	conjunction	9647 Nov 25 18:30	10° 27 20'48	9°17'29
min. Earth dist.	9641 May 17 18:13	29° 11 37'34	36.25586 AU	minimum elong	9647 Nov 25 18:12	10° 27 20'47
direct	9641 Aug 03 21:16	28° 11 29'04	morning rise	9647 Dec 08 11:03	10° 27 44'42	
	9641 Oct 30 16:53	0° 27	retrograde	9648 Mar 08 14:19	12° 27 27'02	
evening set	9641 Oct 31 16:26	0° 27 01'43	opposition	9648 May 26 13:37	11° 27 13'13	10°02'11
max. Earth dist.	9641 Nov 12 10:46	0° 27 22'36	38.11426 AU	min. Earth dist.	9648 May 28 23:55	11° 27 09'39
				direct	9648 Aug 14 17:22	9° 27 58'12
conjunction	9641 Nov 15 00:46	0° 27 27'14 6°53'27	evening set	9648 Nov 14 10:33	11° 27 41'37	
minimum elong	9641 Nov 15 00:33	0° 27 27'13 6°53'46	max. Earth dist.	9648 Nov 24 02:23	11° 27 59'56	36.30369 AU
morning rise	9641 Nov 29 08:25	0° 27 52'46				
retrograde	9642 Feb 26 14:19	2° 27 26'35	conjunction	9648 Nov 26 19:52	12° 27 05'08	9°41'07
opposition	9642 May 17 06:19	1° 27 15'18 7°29'04	minimum elong	9648 Nov 26 19:34	12° 27 05'07	9°41'27
min. Earth dist.	9642 May 19 14:10	1° 27 12'01	35.99973 AU	morning rise	9648 Dec 09 04:03	12° 27 28'37
direct	9642 Aug 05 16:26	0° 27 03'10	retrograde	9649 Mar 10 14:23	14° 27 12'37	
evening set	9642 Nov 02 19:18	1° 27 37'10	opposition	9649 May 28 13:15	12° 27 58'24	10°27'19
max. Earth dist.	9642 Nov 14 07:07	1° 27 57'45	37.85580 AU	min. Earth dist.	9649 May 30 23:36	12° 27 54'48
				direct	9649 Aug 16 16:16	11° 27 42'55
conjunction	9642 Nov 16 22:09	2° 27 02'31 7°17'32	evening set	9649 Nov 16 21:12	13° 27 28'11	
minimum elong	9642 Nov 16 21:56	2° 27 02'30 7°17'51	max. Earth dist.	9649 Nov 26 04:13	13° 27 45'58	36.05115 AU
morning rise	9642 Dec 01 00:29	2° 27 27'51				
retrograde	9643 Feb 28 11:44	4° 27 02'57	conjunction	9649 Nov 28 21:39	13° 27 51'14	10°04'32
opposition	9643 May 19 01:57	2° 27 51'17 7°54'40	minimum elong	9649 Nov 28 21:20	13° 27 51'13	10°04'52
min. Earth dist.	9643 May 21 10:04	2° 27 47'58	35.74257 AU	morning rise	9649 Dec 10 21:09	14° 27 14'14
direct	9643 Aug 07 10:23	1° 27 38'41	retrograde	9650 Mar 12 17:38	16° 27 00'00	
evening set	9643 Nov 04 23:03	3° 27 14'04	opposition	9650 May 30 13:27	14° 27 45'24	10°52'12
max. Earth dist.	9643 Nov 16 03:57	3° 27 34'20	37.59616 AU	min. Earth dist.	9650 Jun 01 23:03	14° 27 41'49
				direct	9650 Aug 18 14:14	13° 27 29'28
conjunction	9643 Nov 18 20:13	3° 27 39'14 7°41'38	evening set	9650 Nov 19 09:06	15° 27 16'40	
minimum elong	9643 Nov 18 19:58	3° 27 39'12 7°41'57	max. Earth dist.	9650 Nov 28 06:40	15° 27 33'53	35.80151 AU
morning rise	9643 Dec 02 16:41	4° 27 04'21				
retrograde	9644 Mar 01 09:45	5° 27 40'47	conjunction	9650 Dec 01 00:24	15° 27 39'13	10°27'42
opposition	9644 May 19 22:23	4° 27 28'42 8°20'16	minimum elong	9650 Dec 01 00:05	15° 27 39'11	10°28'03
min. Earth dist.	9644 May 22 08:00	4° 27 25'16	35.48458 AU	morning rise	9650 Dec 12 14:36	16° 27 01'42
direct	9644 Aug 08 03:40	3° 27 15'38	retrograde	9651 Mar 14 20:36	17° 27 49'19	
evening set	9644 Nov 06 04:00	4° 27 52'28	opposition	9651 Jun 01 14:27	16° 27 34'20	11°16'49
max. Earth dist.	9644 Nov 17 02:46	5° 27 12'27	37.33602 AU	min. Earth dist.	9651 Jun 04 00:59	16° 27 30'40
				direct	9651 Aug 20 11:12	15° 27 17'58
conjunction	9644 Nov 19 18:57	5° 27 17'23 8°05'42	evening set	9651 Nov 21 22:32	17° 27 07'13	
minimum elong	9644 Nov 19 18:42	5° 27 17'22 8°06'01	max. Earth dist.	9651 Nov 30 10:57	17° 27 23'51	35.55477 AU
morning rise	9644 Dec 03 09:03	5° 27 42'16				
retrograde	9645 Mar 03 09:35	7° 27 20'04	conjunction	9651 Dec 03 03:57	17° 27 29'11	10°50'33
opposition	9645 May 21 19:09	6° 27 07'33 8°45'52	minimum elong	9651 Dec 03 03:37	17° 27 29'09	10°50'54
min. Earth dist.	9645 May 24 04:16	6° 27 04'08	35.22647 AU	morning rise	9651 Dec 14 08:13	17° 27 51'05

retrograde	9652 Mar 16 01:52	19°  40'39		evening set	9658 Dec 09 15:04	0°  59'49	
opposition	9652 Jun 02 16:09	18°  25'18	11°41'07	max. Earth dist.	9658 Dec 14 10:19	1°  09'53	33.89238 AU
min. Earth dist.	9652 Jun 05 01:49	18°  21'40	33.47025 AU				
direct	9652 Aug 21 12:46	17°  08'29		conjunction	9658 Dec 17 03:13	1°  15'35	13°18'32
evening set	9652 Nov 23 13:23	18°  59'52		minimum elong	9658 Dec 17 02:54	1°  15'33	13°18'54
max. Earth dist.	9652 Dec 01 14:04	19°  15'44	35.31024 AU	morning rise	9658 Dec 24 14:25	1°  31'16	
				retrograde	9659 Mar 31 08:51	3°  36'34	
conjunction	9652 Dec 04 08:17	19°  21'12	11°13'05	opposition	9659 Jun 17 02:54	2°  18'22	14°18'12
minimum elong	9652 Dec 04 07:57	19°  21'10	11°13'27	min. Earth dist.	9659 Jun 19 12:14	2°  14'35	31.83767 AU
morning rise	9652 Dec 15 02:10	19°  42'28		direct	9659 Sep 04 16:29	0°  58'14	
retrograde	9653 Mar 18 09:08	21°  34'02		evening set	9659 Dec 12 17:28	3°  06'59	
opposition	9653 Jun 04 18:43	20°  18'19	12°05'04	max. Earth dist.	9659 Dec 16 20:04	3°  15'40	33.66886 AU
min. Earth dist.	9653 Jun 07 05:29	20°  14'35	33.22956 AU				
direct	9653 Aug 23 13:21	19°  01'04		conjunction	9659 Dec 19 13:08	3°  21'26	13°37'14
evening set	9653 Nov 26 05:43	20°  54'40		minimum elong	9659 Dec 19 12:48	3°  21'24	13°37'36
max. Earth dist.	9653 Dec 03 20:18	21°  09'50	35.06775 AU	morning rise	9659 Dec 26 07:54	3°  35'48	
				retrograde	9660 Apr 01 18:52	5°  43'46	
conjunction	9653 Dec 06 13:33	21°  15'17	11°35'14	opposition	9660 Jun 18 11:09	4°  25'08	14°37'58
minimum elong	9653 Dec 06 13:12	21°  15'16	11°35'35	min. Earth dist.	9660 Jun 20 20:53	4°  21'18	31.61971 AU
morning rise	9653 Dec 16 20:08	21°  35'51		direct	9660 Sep 05 21:18	3°  04'31	
retrograde	9654 Mar 20 15:14	23°  29'30		evening set	9660 Dec 14 22:15	5°  16'13	
opposition	9654 Jun 06 22:09	22°  13'23	12°28'36	max. Earth dist.	9660 Dec 18 08:37	5°  23'33	33.45106 AU
min. Earth dist.	9654 Jun 09 08:18	22°  09'41	32.99080 AU				
direct	9654 Aug 25 16:57	20°  55'41		conjunction	9660 Dec 20 23:50	5°  29'11	13°55'07
evening set	9654 Nov 28 23:27	22°  51'34		minimum elong	9660 Dec 20 23:31	5°  29'10	13°55'29
max. Earth dist.	9654 Dec 06 00:59	23°  05'49	34.82725 AU	morning rise	9660 Dec 27 00:30	5°  42'07	
				retrograde	9661 Apr 04 05:52	7°  52'52	
conjunction	9654 Dec 08 19:22	23°  11'25	11°56'58	opposition	9661 Jun 20 20:07	6°  33'50	14°56'50
minimum elong	9654 Dec 08 19:02	23°  11'23	11°57'19	min. Earth dist.	9661 Jun 23 04:06	6°  30'06	31.40772 AU
morning rise	9654 Dec 18 14:18	23°  31'11		direct	9661 Sep 08 06:47	5°  12'46	
retrograde	9655 Mar 22 23:53	25°  27'00		evening set	9661 Dec 18 05:35	7°  27'37	
opposition	9655 Jun 09 02:21	24°  10'28	12°51'42	max. Earth dist.	9661 Dec 20 19:55	7°  33'13	33.23971 AU
min. Earth dist.	9655 Jun 11 13:01	24°  06'43	32.75417 AU				
direct	9655 Aug 27 19:50	22°  52'18		conjunction	9661 Dec 23 11:14	7°  38'55	14°12'05
evening set	9655 Dec 01 18:52	24°  50'33		minimum elong	9661 Dec 23 10:55	7°  38'53	14°12'26
max. Earth dist.	9655 Dec 08 08:32	25°  03'56	34.58884 AU	morning rise	9661 Dec 28 16:07	7°  50'10	
				retrograde	9662 Apr 06 19:21	10°  03'57	
conjunction	9655 Dec 11 02:18	25°  09'32	12°18'13	opposition	9662 Jun 23 06:01	8°  44'32	15°14'41
minimum elong	9655 Dec 11 01:57	25°  09'30	12°18'34	min. Earth dist.	9662 Jun 25 13:37	8°  40'48	31.20247 AU
morning rise	9655 Dec 20 08:32	25°  28'26		direct	9662 Sep 10 15:17	7°  23'01	
retrograde	9656 Mar 24 07:10	27°  26'28		evening set	9662 Dec 21 16:38	9°  41'20	
opposition	9656 Jun 10 07:18	26°  09'32	13°14'16	max. Earth dist.	9662 Dec 23 10:29	9°  45'08	33.03530 AU
min. Earth dist.	9656 Jun 12 18:07	26°  05'44	32.51982 AU				
direct	9656 Aug 29 01:05	24°  50'54		conjunction	9662 Dec 25 23:31	9°  50'40	14°28'03
evening set	9656 Dec 03 16:01	26°  51'37		minimum elong	9662 Dec 25 23:14	9°  50'39	14°28'25
max. Earth dist.	9656 Dec 09 15:43	27°  03'56	34.35316 AU	morning rise	9662 Dec 30 05:42	9°  59'57	
				retrograde	9663 Apr 09 07:54	12°  17'02	
conjunction	9656 Dec 12 09:53	27°  09'38	12°38'57	opposition	9663 Jun 25 16:45	10°  57'16	15°31'27
minimum elong	9656 Dec 12 09:32	27°  09'36	12°39'19	min. Earth dist.	9663 Jun 27 23:07	10°  53'36	31.00396 AU
morning rise	9656 Dec 21 02:45	27°  27'33		direct	9663 Sep 13 01:57	9°  35'22	
retrograde	9657 Mar 26 16:47	29°  27'55		evening set	9663 Dec 25 09:30	11°  57'37	
opposition	9657 Jun 12 13:02	28°  10'34	13°36'16	max. Earth dist.	9663 Dec 25 23:45	11°  58'55	32.83786 AU
min. Earth dist.	9657 Jun 14 23:15	28°  06'47	32.28855 AU				
direct	9657 Aug 31 05:40	26°  51'26		conjunction	9663 Dec 28 12:37	12°  04'30	14°42'58
evening set	9657 Dec 06 14:29	28°  54'42		minimum elong	9663 Dec 28 12:20	12°  04'28	14°43'19
max. Earth dist.	9657 Dec 12 00:15	29°  05'55	34.12068 AU	morning rise	9663 Dec 31 15:08	12°  31'19	
				retrograde	9664 Apr 10 23:43	14°  32'11	
conjunction	9657 Dec 14 18:08	29°  11'39	12°59'04	opposition	9664 Jun 27 04:11	13°  12'06	15°47'05
minimum elong	9657 Dec 14 17:47	29°  11'37	12°59'26	min. Earth dist.	9664 Jun 29 09:41	13°  08'28	30.81227 AU
morning rise	9657 Dec 22 20:42	29°  28'30		direct	9664 Sep 14 12:17	11°  49'50	
	9658 Jan 07 09:39	0°  31'18		evening set	9664 Dec 28 19:22	14°  17'32	
retrograde	9658 Mar 28 23:13	0°  13'31	13°57'36	max. Earth dist.	9664 Dec 27 15:37	14°  14'58	32.64702 AU
opposition	9658 Jun 14 19:42	0°  31'31					
min. Earth dist.	9658 Jun 17 06:22	0°  30'40	32.06085 AU	conjunction	9664 Dec 30 02:43	14°  20'25	14°56'47
	9658 Jun 23 10:51	30°  09'40		minimum elong	9664 Dec 30 02:28	14°  20'24	14°57'08
direct	9658 Sep 02 10:16	28°  53'53		morning rise	9664 Dec 31 09:34	14°  23'17	
	9658 Nov 09 05:22	0°  31'18		retrograde	9665 Apr 13 14:28	16°  49'24	

opposition	9665 Jun 29 16:43	15° $\overline{3}$ 29'01	16°01'29	opposition	9673 Jul 18 23:10	4° \approx 48'33	17°04'42
min. Earth dist.	9665 Jul 01 21:48	15° $\overline{3}$ 25'24	30.62688 AU	min. Earth dist.	9673 Jul 20 17:51	4° \approx 45'33	29.38917 AU
direct	9665 Sep 17 00:16	14° $\overline{3}$ 06'24		direct	9673 Oct 06 00:30	3° \approx 23'23	
max. Earth dist.	9665 Dec 30 06:49	16° $\overline{3}$ 32'57	32.46269 AU	max. Earth dist.	9674 Jan 19 18:08	6° \approx 00'04	31.24697 AU
conjunction	9666 Jan 01 17:18	16° $\overline{3}$ 38'25	15°09'25	conjunction	9674 Jan 21 15:09	6° \approx 04'29	16°00'25
minimum elong	9666 Jan 01 17:02	16° $\overline{3}$ 38'23	15°09'46	minimum elong	9674 Jan 21 15:07	6° \approx 04'29	16°00'43
retrograde	9666 Apr 16 07:13	19° $\overline{3}$ 08'39		retrograde	9674 May 06 03:31	8° \approx 42'36	
opposition	9666 Jul 02 05:57	17° $\overline{3}$ 47'58	16°14'37	opposition	9674 Jul 21 17:54	7° \approx 19'49	17°04'57
min. Earth dist.	9666 Jul 04 09:27	17° $\overline{3}$ 44'27	30.44774 AU	min. Earth dist.	9674 Jul 23 10:40	7° \approx 16'56	29.27350 AU
direct	9666 Sep 19 12:53	16° $\overline{3}$ 25'00		direct	9674 Oct 08 20:24	5° \approx 54'27	
max. Earth dist.	9667 Jan 01 23:34	18° $\overline{3}$ 53'00	32.28455 AU	max. Earth dist.	9675 Jan 22 15:30	8° \approx 32'02	31.13688 AU
conjunction	9667 Jan 04 08:57	18° $\overline{3}$ 58'23	15°20'49	conjunction	9675 Jan 24 10:59	8° \approx 36'20	15°59'30
minimum elong	9667 Jan 04 08:44	18° $\overline{3}$ 58'22	15°21'10	minimum elong	9675 Jan 24 11:02	8° \approx 36'20	15°59'48
retrograde	9667 Apr 18 22:02	21° $\overline{3}$ 29'50		retrograde	9675 May 09 00:23	11° \approx 15'06	
opposition	9667 Jul 04 20:02	20° $\overline{3}$ 08'52	16°26'25	opposition	9675 Jul 24 12:49	9° \approx 52'10	17°03'16
min. Earth dist.	9667 Jul 06 23:36	20° $\overline{3}$ 05'19	30.27467 AU	min. Earth dist.	9675 Jul 26 02:55	9° \approx 49'29	29.16877 AU
direct	9667 Sep 22 01:04	18° $\overline{3}$ 45'33		direct	9675 Oct 11 15:23	8° \approx 26'38	
max. Earth dist.	9668 Jan 04 17:16	21° $\overline{3}$ 14'57	32.11294 AU	max. Earth dist.	9676 Jan 25 15:04	11° \approx 05'15	31.03794 AU
conjunction	9668 Jan 07 01:19	21° $\overline{3}$ 20'15	15°30'55	conjunction	9676 Jan 27 07:24	11° \approx 09'15	15°56'47
minimum elong	9668 Jan 07 01:06	21° $\overline{3}$ 20'14	15°31'16	minimum elong	9676 Jan 27 07:27	11° \approx 09'15	15°57'05
retrograde	9668 Apr 20 15:43	23° $\overline{3}$ 52'51		retrograde	9676 May 10 20:33	13° \approx 48'36	
opposition	9668 Jul 06 10:51	22° $\overline{3}$ 31'36	16°36'48	opposition	9676 Jul 26 08:30	12° \approx 25'34	16°59'38
min. Earth dist.	9668 Jul 08 12:28	22° $\overline{3}$ 28'10	30.10797 AU	min. Earth dist.	9676 Jul 27 21:10	12° \approx 22'58	29.07480 AU
direct	9668 Sep 23 15:32	21° $\overline{3}$ 07'56		direct	9676 Oct 13 10:58	10° \approx 59'56	
max. Earth dist.	9669 Jan 06 10:56	23° $\overline{3}$ 38'37	31.94794 AU	max. Earth dist.	9677 Jan 27 13:33	13° \approx 39'20	30.95014 AU
conjunction	9669 Jan 08 18:16	23° $\overline{3}$ 43'54	15°39'40	conjunction	9677 Jan 29 03:51	13° \approx 43'08	15°52'15
minimum elong	9669 Jan 08 18:06	23° $\overline{3}$ 43'53	15°40'00	minimum elong	9677 Jan 29 03:58	13° \approx 43'09	15°52'32
retrograde	9669 Apr 23 07:57	26° $\overline{3}$ 17'36			9677 Mar 03 16:43	15° \approx	
opposition	9669 Jul 09 02:31	24° $\overline{3}$ 56'03	16°45'41	retrograde	9677 May 13 18:35	16° \approx 22'59	
min. Earth dist.	9669 Jul 11 04:03	24° $\overline{3}$ 52'36	29.94803 AU	opposition	9677 Jul 29 04:25	14° \approx 59'52	16°54'02
direct	9669 Sep 26 04:18	23° $\overline{3}$ 32'02			9677 Jul 29 02:38	15° \approx 8	
max. Earth dist.	9670 Jan 09 06:47	26° $\overline{3}$ 04'05	31.79035 AU	min. Earth dist.	9677 Jul 30 14:01	14° \approx 57'29	28.99148 AU
conjunction	9670 Jan 11 11:53	26° $\overline{3}$ 09'11	15°46'58	direct	9677 Oct 16 08:01	13° \approx 34'10	
minimum elong	9670 Jan 11 11:44	26° $\overline{3}$ 09'10	15°47'18		9677 Dec 29 02:05	15° \approx	
retrograde	9670 Apr 26 00:55	28° $\overline{3}$ 43'55		max. Earth dist.	9678 Jan 30 13:11	16° \approx 14'20	30.87297 AU
opposition	9670 Jul 11 18:42	27° $\overline{3}$ 22'05	16°52'59	conjunction	9678 Feb 01 00:46	16° \approx 17'52	15°45'54
min. Earth dist.	9670 Jul 13 18:03	27° $\overline{3}$ 18'47	29.79545 AU	minimum elong	9678 Feb 01 00:54	16° \approx 17'53	15°46'11
direct	9670 Sep 28 21:27	25° $\overline{3}$ 57'46		retrograde	9678 May 16 14:05	18° \approx 58'07	
max. Earth dist.	9671 Jan 12 01:27	28° $\overline{3}$ 30'57	31.64065 AU	opposition	9678 Aug 01 00:48	17° \approx 34'57	16°46'28
conjunction	9671 Jan 14 05:56	28° $\overline{3}$ 36'01	15°52'46	min. Earth dist.	9678 Aug 02 09:23	17° \approx 32'38	28.91840 AU
minimum elong	9671 Jan 14 05:50	28° $\overline{3}$ 36'00	15°53'06	direct	9678 Oct 19 03:28	16° \approx 09'11	
	9671 Feb 21 09:12	0° \approx		conjunction	9679 Feb 03 21:51	18° \approx 53'16	15°37'44
retrograde	9671 Apr 28 18:55	1° \approx 11'42		minimum elong	9679 Feb 03 22:02	18° \approx 53'17	15°37'59
	9671 Jul 08 06:27	30° \approx 8		max. Earth dist.	9679 Feb 02 12:40	18° \approx 49'57	30.80631 AU
opposition	9671 Jul 14 11:37	29° $\overline{3}$ 49'36	16°58'39	retrograde	9679 May 19 11:55	21° \approx 33'48	
min. Earth dist.	9671 Jul 16 10:13	29° $\overline{3}$ 46'20	29.65095 AU	opposition	9679 Aug 03 21:24	20° \approx 10'36	16°36'57
direct	9671 Oct 01 13:05	28° $\overline{3}$ 24'57		min. Earth dist.	9679 Aug 05 02:56	20° \approx 08'30	28.85526 AU
	9671 Dec 19 15:57	0° \approx		direct	9679 Oct 22 01:25	18° \approx 44'47	
max. Earth dist.	9672 Jan 14 23:08	0° \approx 59'26	31.49962 AU	max. Earth dist.	9680 Feb 05 12:00	21° \approx 26'01	30.74968 AU
conjunction	9672 Jan 17 00:41	1° \approx 04'15	15°56'59	conjunction	9680 Feb 06 19:07	21° \approx 29'08	15°27'46
minimum elong	9672 Jan 17 00:36	1° \approx 04'14	15°57'18	minimum elong	9680 Feb 06 19:19	21° \approx 29'09	15°28'01
retrograde	9672 Apr 30 12:51	3° \approx 40'48		retrograde	9680 May 21 08:25	24° \approx 09'51	
opposition	9672 Jul 16 05:04	2° \approx 18'27	17°02'35	opposition	9680 Aug 05 18:20	22° \approx 46'36	16°25'29
min. Earth dist.	9672 Jul 18 01:33	2° \approx 15'20	29.51516 AU	min. Earth dist.	9680 Aug 06 22:41	22° \approx 44'35	28.80200 AU
direct	9672 Oct 03 06:46	0° \approx 53'32		direct	9680 Oct 23 21:01	21° \approx 20'45	
max. Earth dist.	9673 Jan 16 19:14	3° \approx 29'02	31.36811 AU				
conjunction	9673 Jan 18 19:42	3° \approx 33'46	15°59'33	conjunction	9681 Feb 08 16:26	24° \approx 05'15	15°16'01
minimum elong	9673 Jan 18 19:40	3° \approx 33'46	15°59'52	minimum elong	9681 Feb 08 16:41	24° \approx 05'16	15°16'15
retrograde	9673 May 03 08:45	6° \approx 11'08		max. Earth dist.	9681 Feb 07 12:15	24° \approx 02'25	30.70333 AU
				retrograde	9681 May 24 04:01	26° \approx 46'00	

opposition	9681 Aug 08 15:23	25° \approx 22'45	16°12'07	minimum elong	9688 Feb 27 16:12	12° \approx 09'03	13°06'11
min. Earth dist.	9681 Aug 09 16:41	25° \approx 20'57	28.75860 AU	max. Earth dist.	9688 Feb 27 06:50	12° \approx 08'07	30.68612 AU
direct	9681 Oct 26 19:52	23° \approx 56'54		morning rise	9688 Mar 06 09:21	12° \approx 27'25	
max. Earth dist.	9682 Feb 10 11:04	26° \approx 38'44	30.66717 AU	retrograde	9688 Jun 10 17:41	14° \approx 47'31	
				opposition	9688 Aug 26 16:26	13° \approx 24'39	13°47'22
conjunction	9682 Feb 11 13:32	26° \approx 41'23	15°02'30	min. Earth dist.	9688 Aug 26 23:02	13° \approx 24'11	28.76141 AU
minimum elong	9682 Feb 11 13:48	26° \approx 41'25	15°02'44	direct	9688 Nov 14 04:19	11° \approx 59'27	
retrograde	9682 May 26 23:52	29° \approx 22'07		evening set	9689 Feb 21 00:07	14° \approx 21'03	
opposition	9682 Aug 11 12:31	27° \approx 58'50	15°56'50				
min. Earth dist.	9682 Aug 12 12:07	27° \approx 57'09	28.72538 AU	conjunction	9689 Mar 01 10:58	14° \approx 41'05	12°41'12
direct	9682 Oct 29 16:26	26° \approx 32'58		minimum elong	9689 Mar 01 11:22	14° \approx 41'08	12°41'19
evening set	9683 Feb 11 19:05	29° \approx 10'58		max. Earth dist.	9689 Mar 01 05:50	14° \approx 40'35	30.73195 AU
max. Earth dist.	9683 Feb 13 11:45	29° \approx 15'03	30.64154 AU	morning rise	9689 Mar 09 21:50	15° \approx 01'09	
				retrograde	9689 Jun 13 10:47	17° \approx 19'00	
conjunction	9683 Feb 14 10:45	29° \approx 17'21	14°47'14	opposition	9689 Aug 29 12:20	15° \approx 56'19	13°20'01
minimum elong	9683 Feb 14 11:03	29° \approx 17'23	14°47'26	min. Earth dist.	9689 Aug 29 17:08	15° \approx 55'59	28.80967 AU
morning rise	9683 Feb 17 02:58	29° \approx 23'48		direct	9689 Nov 17 00:50	14° \approx 31'23	
	9683 Mar 04 08:57	0° \approx		evening set	9690 Feb 23 02:28	16° \approx 50'43	
retrograde	9683 May 29 19:00	1° \approx 57'55					
opposition	9683 Aug 14 09:28	0° \approx 34'39	15°39'42	conjunction	9690 Mar 04 05:28	17° \approx 12'17	12°15'01
min. Earth dist.	9683 Aug 15 06:30	0° \approx 33'09	28.70241 AU	minimum elong	9690 Mar 04 05:53	17° \approx 12'19	12°15'08
	9683 Sep 04 08:36	30° \approx		max. Earth dist.	9690 Mar 04 02:49	17° \approx 12'01	30.78963 AU
direct	9683 Nov 01 14:44	29° \approx 08'48		morning rise	9690 Mar 13 08:28	17° \approx 33'51	
	9683 Dec 27 10:16	0° \approx		retrograde	9690 Jun 16 05:40	19° \approx 49'30	
evening set	9684 Feb 13 06:25	1° \approx 43'14		opposition	9690 Sep 01 07:42	18° \approx 27'04	12°51'17
max. Earth dist.	9684 Feb 16 10:20	1° \approx 50'50	30.62668 AU	min. Earth dist.	9690 Sep 01 08:50	18° \approx 26'59	28.86924 AU
				direct	9690 Nov 19 22:27	17° \approx 02'24	
conjunction	9684 Feb 17 07:38	1° \approx 52'58	14°30'16	evening set	9691 Feb 25 05:25	19° \approx 19'33	
minimum elong	9684 Feb 17 07:57	1° \approx 53'00	14°30'29				
morning rise	9684 Feb 21 09:21	2° \approx 02'45		conjunction	9691 Mar 06 23:41	19° \approx 42'30	11°47'35
retrograde	9684 May 31 14:25	4° \approx 33'17		minimum elong	9691 Mar 07 00:05	19° \approx 42'33	11°47'40
opposition	9684 Aug 16 06:29	3° \approx 10'01	15°20'43	max. Earth dist.	9691 Mar 06 23:59	19° \approx 42'32	30.85818 AU
min. Earth dist.	9684 Aug 17 01:00	3° \approx 08'42	28.69042 AU	morning rise	9691 Mar 16 17:47	20° \approx 05'27	
direct	9684 Nov 03 11:53	1° \approx 44'13		retrograde	9691 Jun 18 23:18	22° \approx 18'58	
evening set	9685 Feb 14 00:45	4° \approx 15'42		opposition	9691 Sep 04 02:46	20° \approx 56'46	12°21'16
max. Earth dist.	9685 Feb 18 11:00	4° \approx 26'19	30.62319 AU	min. Earth dist.	9691 Sep 04 02:12	20° \approx 56'49	28.93950 AU
				direct	9691 Nov 22 18:14	19° \approx 32'25	
conjunction	9685 Feb 19 04:12	4° \approx 28'02	14°11'37	evening set	9692 Feb 27 09:02	21° \approx 47'24	
minimum elong	9685 Feb 19 04:33	4° \approx 28'04	14°11'48				
morning rise	9685 Feb 24 08:02	4° \approx 40'25		conjunction	9692 Mar 08 17:23	22° \approx 11'37	11°19'01
retrograde	9685 Jun 03 08:12	7° \approx 08'01		minimum elong	9692 Mar 08 17:48	22° \approx 11'40	11°19'06
opposition	9685 Aug 19 03:24	5° \approx 44'47	14°59'57	max. Earth dist.	9692 Mar 08 20:22	22° \approx 11'55	30.93723 AU
min. Earth dist.	9685 Aug 19 19:28	5° \approx 43'39	28.68977 AU	morning rise	9692 Mar 19 01:28	22° \approx 35'49	
direct	9685 Nov 06 10:54	4° \approx 19'04		retrograde	9692 Jun 20 15:35	24° \approx 47'16	
evening set	9686 Feb 15 22:17	6° \approx 47'53		opposition	9692 Sep 05 21:26	23° \approx 25'19	11°50'05
max. Earth dist.	9686 Feb 21 09:07	7° \approx 00'55	30.63166 AU	min. Earth dist.	9692 Sep 05 17:44	23° \approx 25'35	29.01979 AU
				direct	9692 Nov 24 15:28	22° \approx 01'16	
conjunction	9686 Feb 22 00:22	7° \approx 02'27	13°51'20	evening set	9693 Feb 28 12:46	24° \approx 14'08	
minimum elong	9686 Feb 22 00:44	7° \approx 02'29	13°51'31				
morning rise	9686 Feb 28 02:51	7° \approx 17'03		conjunction	9693 Mar 11 10:21	24° \approx 39'31	10°49'26
retrograde	9686 Jun 06 04:03	9° \approx 42'00		minimum elong	9693 Mar 11 10:45	24° \approx 39'33	10°49'29
opposition	9686 Aug 21 23:54	8° \approx 18'50	14°37'25	max. Earth dist.	9693 Mar 11 15:30	24° \approx 40'01	31.02597 AU
min. Earth dist.	9686 Aug 22 12:29	8° \approx 17'57	28.70131 AU	morning rise	9693 Mar 22 07:40	25° \approx 04'52	
direct	9686 Nov 09 08:14	6° \approx 53'14		retrograde	9693 Jun 23 06:48	27° \approx 14'16	
evening set	9687 Feb 17 21:45	9° \approx 19'33		opposition	9693 Sep 08 15:42	25° \approx 52'35	11°17'50
				min. Earth dist.	9693 Sep 08 09:58	25° \approx 52'58	29.10979 AU
conjunction	9687 Feb 24 20:23	9° \approx 36'07	13°29'27	direct	9693 Nov 27 09:53	24° \approx 28'50	
minimum elong	9687 Feb 24 20:46	9° \approx 36'09	13°29'35	evening set	9694 Mar 02 16:59	26° \approx 39'37	
max. Earth dist.	9687 Feb 24 09:13	9° \approx 35'00	30.65258 AU				
morning rise	9687 Mar 03 19:13	9° \approx 52'43		conjunction	9694 Mar 14 02:57	27° \approx 06'02	10°18'53
retrograde	9687 Jun 08 21:44	12° \approx 15'11		minimum elong	9694 Mar 14 03:21	27° \approx 06'04	10°18'57
opposition	9687 Aug 24 20:23	10° \approx 52'09	14°13'11	max. Earth dist.	9694 Mar 14 11:12	27° \approx 06'50	31.12418 AU
min. Earth dist.	9687 Aug 25 06:50	10° \approx 51'25	28.72514 AU	morning rise	9694 Mar 25 12:21	27° \approx 32'25	
direct	9687 Nov 12 05:46	9° \approx 26'43		retrograde	9694 Jun 25 21:04	29° \approx 39'50	
evening set	9688 Feb 19 22:30	11° \approx 50'38		opposition	9694 Sep 11 09:13	28° \approx 18'24	10°44'38
				min. Earth dist.	9694 Sep 11 01:08	28° \approx 18'57	29.20891 AU
conjunction	9688 Feb 27 15:48	12° \approx 09'01	13°06'03	direct	9694 Nov 30 05:24	26° \approx 54'57	

evening set	9695 Mar 04 21:29	29° \mathbf{K} 03'42		max. Earth dist.	9701 Apr 01 03:39	13° \mathbf{Y} 27'00	32.06627 AU
				morning rise	9701 Apr 14 02:45	13° \mathbf{Y} 55'37	
conjunction	9695 Mar 16 18:48	29° \mathbf{K} 31'03	9°47'31	retrograde	9701 Jul 12 08:43	15° \mathbf{Y} 50'46	
minimum elong	9695 Mar 16 19:11	29° \mathbf{K} 31'05	9°47'32	opposition	9701 Sep 28 18:52	14° \mathbf{Y} 31'12	6°33'54
max. Earth dist.	9695 Mar 17 04:32	29° \mathbf{K} 31'59	31.23131 AU	min. Earth dist.	9701 Sep 27 16:54	14° \mathbf{Y} 32'55	30.16206 AU
morning rise	9695 Mar 28 15:43	29° \mathbf{K} 58'22		direct	9701 Dec 18 02:13	13° \mathbf{Y} 10'07	
	9695 Mar 29 08:56	0° \mathbf{Y}		evening set	9702 Mar 19 05:44	15° \mathbf{Y} 06'07	
retrograde	9695 Jun 28 11:29	2° \mathbf{Y} 03'51					
opposition	9695 Sep 14 02:16	0° \mathbf{Y} 42'40	10°10'35	conjunction	9702 Apr 02 13:07	15° \mathbf{Y} 37'28	5°51'51
min. Earth dist.	9695 Sep 13 15:32	0° \mathbf{Y} 43'23	29.31710 AU	minimum elong	9702 Apr 02 13:23	15° \mathbf{Y} 37'30	5°51'48
	9695 Oct 11 12:50	30° \mathbf{K}		max. Earth dist.	9702 Apr 03 16:44	15° \mathbf{Y} 40'01	32.23766 AU
direct	9695 Dec 02 22:44	29° \mathbf{K} 19'31		morning rise	9702 Apr 16 19:35	16° \mathbf{Y} 08'45	
	9696 Jan 22 07:50	0° \mathbf{Y}		retrograde	9702 Jul 14 18:42	18° \mathbf{Y} 02'26	
evening set	9696 Mar 06 01:56	1° \mathbf{Y} 26'15		min. Earth dist.	9702 Sep 30 03:30	16° \mathbf{Y} 45'02	30.33530 AU
				opposition	9702 Oct 01 07:11	16° \mathbf{Y} 43'14	5°56'37
conjunction	9696 Mar 18 10:01	1° \mathbf{Y} 54'27	9°15'23	direct	9702 Dec 20 15:39	15° \mathbf{Y} 22'33	
minimum elong	9696 Mar 18 10:24	1° \mathbf{Y} 54'29	9°15'25	evening set	9703 Mar 21 10:24	17° \mathbf{Y} 17'01	
max. Earth dist.	9696 Mar 18 23:11	1° \mathbf{Y} 55'42	31.34733 AU				
morning rise	9696 Mar 30 17:18	2° \mathbf{Y} 22'36		conjunction	9703 Apr 04 23:15	17° \mathbf{Y} 48'38	5°16'57
retrograde	9696 Jun 29 22:34	4° \mathbf{Y} 26'11		minimum elong	9703 Apr 04 23:28	17° \mathbf{Y} 48'39	5°16'52
opposition	9696 Sep 15 18:46	3° \mathbf{Y} 05'14	9°35'47	max. Earth dist.	9703 Apr 06 05:16	17° \mathbf{Y} 51'23	32.41703 AU
min. Earth dist.	9696 Sep 15 06:14	3° \mathbf{Y} 06'05	29.43415 AU	morning rise	9703 Apr 19 10:56	18° \mathbf{Y} 20'10	
direct	9696 Dec 04 17:39	1° \mathbf{Y} 42'23		retrograde	9703 Jul 17 03:19	20° \mathbf{Y} 12'27	
evening set	9697 Mar 08 06:38	3° \mathbf{Y} 47'09		opposition	9703 Oct 03 18:57	18° \mathbf{Y} 53'37	5°19'15
				min. Earth dist.	9703 Oct 02 13:08	18° \mathbf{Y} 55'33	30.51608 AU
conjunction	9697 Mar 21 00:21	4° \mathbf{Y} 16'06	8°42'37	direct	9703 Dec 23 06:31	17° \mathbf{Y} 33'22	
minimum elong	9697 Mar 21 00:42	4° \mathbf{Y} 16'08	8°42'36	evening set	9704 Mar 22 15:05	19° \mathbf{Y} 26'22	
max. Earth dist.	9697 Mar 21 14:52	4° \mathbf{Y} 17'29	31.47228 AU				
morning rise	9697 Apr 02 17:31	4° \mathbf{Y} 44'59		conjunction	9704 Apr 06 08:29	19° \mathbf{Y} 58'10	4°42'00
retrograde	9697 Jul 02 11:58	6° \mathbf{Y} 46'45		minimum elong	9704 Apr 06 08:41	19° \mathbf{Y} 58'11	4°41'54
opposition	9697 Sep 18 10:27	5° \mathbf{Y} 26'02	9°00'20	max. Earth dist.	9704 Apr 07 15:54	20° \mathbf{Y} 01'01	32.60326 AU
min. Earth dist.	9697 Sep 17 18:37	5° \mathbf{Y} 27'06	29.56052 AU	morning rise	9704 Apr 21 00:58	20° \mathbf{Y} 29'53	
direct	9697 Dec 07 10:02	4° \mathbf{Y} 03'29		retrograde	9704 Jul 18 11:38	22° \mathbf{Y} 20'51	
evening set	9698 Mar 10 11:05	6° \mathbf{Y} 06'21		min. Earth dist.	9704 Oct 03 22:00	21° \mathbf{Y} 04'27	30.70380 AU
				opposition	9704 Oct 05 06:07	21° \mathbf{Y} 02'22	4°41'54
conjunction	9698 Mar 23 14:00	6° \mathbf{Y} 35'56	8°09'16	direct	9704 Dec 24 17:55	19° \mathbf{Y} 42'33	
minimum elong	9698 Mar 23 14:21	6° \mathbf{Y} 35'58	8°09'15	evening set	9705 Mar 24 19:39	21° \mathbf{Y} 34'08	
max. Earth dist.	9698 Mar 24 08:09	6° \mathbf{Y} 37'39	31.60645 AU				
morning rise	9698 Apr 05 16:00	7° \mathbf{Y} 05'28		conjunction	9705 Apr 08 17:15	22° \mathbf{Y} 06'04	4°07'04
retrograde	9698 Jul 04 22:37	9° \mathbf{Y} 05'28		minimum elong	9705 Apr 08 17:25	22° \mathbf{Y} 06'05	4°06'56
min. Earth dist.	9698 Sep 20 08:17	7° \mathbf{Y} 46'09	29.69636 AU	max. Earth dist.	9705 Apr 10 03:23	22° \mathbf{Y} 09'08	32.79579 AU
opposition	9698 Sep 21 01:38	7° \mathbf{Y} 45'00	8°24'20	morning rise	9705 Apr 23 13:37	22° \mathbf{Y} 37'54	
direct	9698 Dec 10 02:00	6° \mathbf{Y} 22'46		retrograde	9705 Jul 20 16:56	24° \mathbf{Y} 27'36	
evening set	9699 Mar 12 15:50	8° \mathbf{Y} 23'48		min. Earth dist.	9705 Oct 06 07:18	23° \mathbf{Y} 11'37	30.89750 AU
				opposition	9705 Oct 07 16:33	23° \mathbf{Y} 09'29	4°04'38
conjunction	9699 Mar 26 02:51	8° \mathbf{Y} 53'57	7°35'25	direct	9705 Dec 27 06:15	21° \mathbf{Y} 50'05	
minimum elong	9699 Mar 26 03:09	8° \mathbf{Y} 53'59	7°35'23	evening set	9706 Mar 27 00:17	23° \mathbf{Y} 40'19	
max. Earth dist.	9699 Mar 26 22:40	8° \mathbf{Y} 55'49	31.75015 AU				
morning rise	9699 Apr 08 13:06	9° \mathbf{Y} 24'02		conjunction	9706 Apr 11 01:11	24° \mathbf{Y} 12'19	3°32'13
retrograde	9699 Jul 07 11:11	11° \mathbf{Y} 22'20		minimum elong	9706 Apr 11 01:20	24° \mathbf{Y} 12'20	3°32'06
opposition	9699 Sep 23 15:55	10° \mathbf{Y} 02'08	7°47'52	max. Earth dist.	9706 Apr 12 11:51	24° \mathbf{Y} 15'25	32.99375 AU
min. Earth dist.	9699 Sep 22 18:54	10° \mathbf{Y} 03'33	29.84199 AU	morning rise	9706 Apr 26 01:09	24° \mathbf{Y} 44'13	
direct	9699 Dec 12 19:27	8° \mathbf{Y} 40'15		retrograde	9706 Jul 23 00:29	26° \mathbf{Y} 32'43	
evening set	9700 Mar 14 20:28	10° \mathbf{Y} 39'32		min. Earth dist.	9706 Oct 08 14:30	25° \mathbf{Y} 17'13	31.09659 AU
				opposition	9706 Oct 10 02:16	25° \mathbf{Y} 14'56	3°27'32
conjunction	9700 Mar 28 15:05	11° \mathbf{Y} 10'10	7°01'11	direct	9706 Dec 29 15:46	23° \mathbf{Y} 55'56	
minimum elong	9700 Mar 28 15:23	11° \mathbf{Y} 10'12	7°01'09	evening set	9707 Mar 29 04:45	25° \mathbf{Y} 44'54	
max. Earth dist.	9700 Mar 29 14:14	11° \mathbf{Y} 12'20	31.90346 AU				
morning rise	9700 Apr 11 08:42	11° \mathbf{Y} 40'44		conjunction	9707 Apr 13 08:35	26° \mathbf{Y} 16'53	2°57'32
retrograde	9700 Jul 09 22:06	13° \mathbf{Y} 37'25		minimum elong	9707 Apr 13 08:42	26° \mathbf{Y} 16'54	2°57'23
min. Earth dist.	9700 Sep 25 07:06	12° \mathbf{Y} 19'02	29.99742 AU	max. Earth dist.	9707 Apr 14 21:44	26° \mathbf{Y} 20'11	33.19650 AU
opposition	9700 Sep 26 05:50	12° \mathbf{Y} 17'32	7°11'01	morning rise	9707 Apr 28 11:12	26° \mathbf{Y} 48'48	
direct	9700 Dec 15 10:30	10° \mathbf{Y} 56'02		retrograde	9707 Jul 25 05:19	28° \mathbf{Y} 36'09	
evening set	9701 Mar 17 01:03	12° \mathbf{Y} 53'38		min. Earth dist.	9707 Oct 10 23:10	27° \mathbf{Y} 21'00	31.30043 AU
				opposition	9707 Oct 12 11:25	27° \mathbf{Y} 18'42	2°50'39
conjunction	9701 Mar 31 02:23	13° \mathbf{Y} 24'40	6°26'38	direct	9708 Jan 01 01:34	26° \mathbf{Y} 00'06	
minimum elong	9701 Mar 31 02:40	13° \mathbf{Y} 24'41	6°26'34	evening set	9708 Mar 30 09:12	27° \mathbf{Y} 47'49	

conjunction	9708 Apr 14 15:10	28° Υ 19'45	2°23'04	minimum elong	9714 Apr 26 15:37	10° \mathcal{S} 00'39	0°56'55
minimum elong	9708 Apr 14 15:17	28° Υ 19'46	2°22'55	max. Earth dist.	9714 Apr 28 15:58	10° \mathcal{S} 04'43	34.74537 AU
max. Earth dist.	9708 Apr 16 04:53	28° Υ 23'04	33.40373 AU	morning rise	9714 May 11 23:09	10° \mathcal{S} 31'19	
morning rise	9708 Apr 29 20:09	28° Υ 51'37		retrograde	9714 Aug 07 03:50	12° \mathcal{S} 12'05	
	9708 Jun 06 16:10	0° \mathcal{S}		min. Earth dist.	9714 Oct 24 07:47	10° \mathcal{S} 59'48	32.86363 AU
retrograde	9708 Jul 26 12:07	0° \mathcal{S} 37'51		opposition	9714 Oct 26 07:39	10° \mathcal{S} 56'53	-1°17'00
	9708 Sep 16 16:34	30° $\mathcal{R}\Upsilon$		direct	9715 Jan 15 10:22	9° \mathcal{S} 40'56	
min. Earth dist.	9708 Oct 12 04:57	29° Υ 23'11	31.50885 AU	evening set	9715 Apr 13 10:13	11° \mathcal{S} 21'33	
opposition	9708 Oct 13 19:49	29° Υ 20'44	2°14'03				
direct	9709 Jan 02 12:01	28° Υ 02'30		conjunction	9715 Apr 28 17:22	11° \mathcal{S} 51'56	-1°28'28
evening set	9709 Apr 01 13:15	29° Υ 49'01		minimum elong	9715 Apr 28 17:19	11° \mathcal{S} 51'55	1°28'42
	9709 Apr 06 21:16	0° \mathcal{S}		max. Earth dist.	9715 Apr 30 17:59	11° \mathcal{S} 55'59	34.98533 AU
				morning rise	9715 May 13 23:47	12° \mathcal{S} 22'15	
conjunction	9709 Apr 16 20:59	0° \mathcal{S} 20'52	1°48'52	retrograde	9715 Aug 09 05:33	14° \mathcal{S} 02'18	
minimum elong	9709 Apr 16 21:03	0° \mathcal{S} 20'52	1°48'42	min. Earth dist.	9715 Oct 26 09:05	12° \mathcal{S} 50'30	33.10579 AU
max. Earth dist.	9709 Apr 18 12:54	0° \mathcal{S} 24'21	33.61522 AU	opposition	9715 Oct 28 11:18	12° \mathcal{S} 47'27	-1°50'22
morning rise	9709 May 02 03:38	0° \mathcal{S} 52'37		direct	9716 Jan 17 13:29	11° \mathcal{S} 31'55	
retrograde	9709 Jul 28 17:51	2° \mathcal{S} 37'49		evening set	9716 Apr 14 13:07	13° \mathcal{S} 11'44	
min. Earth dist.	9709 Oct 14 11:57	1° \mathcal{S} 23'29	31.72190 AU				
opposition	9709 Oct 16 03:36	1° \mathcal{S} 20'59	1°37'47	conjunction	9716 Apr 29 18:40	13° \mathcal{S} 41'46	-1°59'41
direct	9710 Jan 04 20:30	0° \mathcal{S} 03'07		minimum elong	9716 Apr 29 18:36	13° \mathcal{S} 41'45	1°59'55
evening set	9710 Apr 03 17:13	1° \mathcal{S} 48'31		max. Earth dist.	9716 May 01 21:21	13° \mathcal{S} 45'58	35.22856 AU
				morning rise	9716 May 14 23:24	14° \mathcal{S} 11'44	
conjunction	9710 Apr 19 02:07	2° \mathcal{S} 20'12	1°14'58		9716 Jun 10 23:55	15° \mathcal{S}	
minimum elong	9710 Apr 19 02:10	2° \mathcal{S} 20'12	1°14'48	retrograde	9716 Aug 10 06:16	15° \mathcal{S} 51'08	
max. Earth dist.	9710 Apr 20 19:19	2° \mathcal{S} 23'46	33.83129 AU		9716 Oct 13 04:33	15° $\mathcal{R}\mathcal{S}$	
morning rise	9710 May 04 09:56	2° \mathcal{S} 51'49		min. Earth dist.	9716 Oct 27 12:07	14° \mathcal{S} 39'40	33.35112 AU
retrograde	9710 Jul 30 21:27	4° \mathcal{S} 36'00		opposition	9716 Oct 29 14:36	14° \mathcal{S} 36'38	-2°23'08
min. Earth dist.	9710 Oct 16 16:36	3° \mathcal{S} 22'05	31.93975 AU	direct	9717 Jan 18 15:53	13° \mathcal{S} 21'30	
opposition	9710 Oct 18 10:22	3° \mathcal{S} 19'29	1°01'54	evening set	9717 Apr 16 15:47	15° \mathcal{S} 00'34	
direct	9711 Jan 07 06:08	2° \mathcal{S} 01'58			9717 Apr 16 08:44	15° \mathcal{S}	
evening set	9711 Apr 05 21:04	3° \mathcal{S} 46'17		conjunction	9717 May 01 19:18	15° \mathcal{S} 30'12	-2°30'21
				minimum elong	9717 May 01 19:12	15° \mathcal{S} 30'11	2°30'37
conjunction	9711 Apr 21 06:29	4° \mathcal{S} 17'47	0°41'26	max. Earth dist.	9717 May 03 22:34	15° \mathcal{S} 34'25	35.47442 AU
minimum elong	9711 Apr 21 06:31	4° \mathcal{S} 17'47	0°41'14	morning rise	9717 May 16 22:03	15° \mathcal{S} 59'47	
max. Earth dist.	9711 Apr 23 01:10	4° \mathcal{S} 21'27	34.05210 AU	retrograde	9717 Aug 12 07:17	17° \mathcal{S} 38'33	
morning rise	9711 May 06 15:02	4° \mathcal{S} 49'13		min. Earth dist.	9717 Oct 29 12:58	16° \mathcal{S} 27'31	33.59869 AU
retrograde	9711 Aug 02 01:07	6° \mathcal{S} 32'27		opposition	9717 Oct 31 17:07	16° \mathcal{S} 24'24	-2°55'18
min. Earth dist.	9711 Oct 18 21:20	5° \mathcal{S} 18'56	32.16298 AU	direct	9718 Jan 20 20:28	15° \mathcal{S} 09'38	
opposition	9711 Oct 20 16:45	5° \mathcal{S} 16'14	0°26'26	evening set	9718 Apr 18 18:30	16° \mathcal{S} 48'01	
direct	9712 Jan 09 14:07	3° \mathcal{S} 59'06					
evening set	9712 Apr 07 00:30	5° \mathcal{S} 42'24		conjunction	9718 May 03 19:29	17° \mathcal{S} 17'14	-3°00'28
				minimum elong	9718 May 03 19:22	17° \mathcal{S} 17'14	3°00'43
conjunction	9712 Apr 22 10:10	6° \mathcal{S} 13'40	0°08'19	max. Earth dist.	9718 May 05 23:38	17° \mathcal{S} 21'30	35.72192 AU
minimum elong	9712 Apr 22 10:10	6° \mathcal{S} 13'40	0°08'08	morning rise	9718 May 18 19:54	17° \mathcal{S} 46'25	
behind sun begin	9712 Apr 22 04:28	6° \mathcal{S} 13'12		retrograde	9718 Aug 14 08:44	19° \mathcal{S} 24'36	
behind sun end	9712 Apr 22 15:52	6° \mathcal{S} 14'08		min. Earth dist.	9718 Oct 31 14:20	18° \mathcal{S} 13'54	33.84792 AU
max. Earth dist.	9712 Apr 24 07:08	6° \mathcal{S} 17'30	34.27821 AU	opposition	9718 Nov 02 19:05	18° \mathcal{S} 10'46	-3°26'48
morning rise	9712 May 07 18:43	6° \mathcal{S} 44'52		direct	9719 Jan 22 22:45	16° \mathcal{S} 56'23	
desc. node	9712 Jul 23 18:00	8° \mathcal{S} 25'36		evening set	9719 Apr 20 20:56	18° \mathcal{S} 34'06	
retrograde	9712 Aug 03 02:20	8° \mathcal{S} 27'13					
min. Earth dist.	9712 Oct 20 01:31	7° \mathcal{S} 14'06	32.39151 AU	conjunction	9719 May 05 19:15	19° \mathcal{S} 02'53	-3°30'00
opposition	9712 Oct 21 22:25	7° \mathcal{S} 11'19	-0°08'34	minimum elong	9719 May 05 19:08	19° \mathcal{S} 02'53	3°30'16
direct	9713 Jan 10 23:20	5° \mathcal{S} 54'35		max. Earth dist.	9719 May 08 00:28	19° \mathcal{S} 07'12	35.97068 AU
evening set	9713 Apr 09 03:59	7° \mathcal{S} 36'55		morning rise	9719 May 20 16:46	19° \mathcal{S} 31'38	
				retrograde	9719 Aug 16 06:24	21° \mathcal{S} 09'15	
conjunction	9713 Apr 24 13:09	8° \mathcal{S} 07'56	-0°24'28	min. Earth dist.	9719 Nov 02 15:20	19° \mathcal{S} 58'53	34.09806 AU
minimum elong	9713 Apr 24 13:08	8° \mathcal{S} 07'56	0°24'41	opposition	9719 Nov 04 20:35	19° \mathcal{S} 55'43	-3°57'41
max. Earth dist.	9713 Apr 26 10:56	8° \mathcal{S} 11'48	34.50940 AU	direct	9720 Jan 25 02:57	18° \mathcal{S} 41'42	
morning rise	9713 May 09 21:33	8° \mathcal{S} 38'52		evening set	9720 Apr 21 23:11	20° \mathcal{S} 18'47	
retrograde	9713 Aug 05 04:55	10° \mathcal{S} 20'24					
min. Earth dist.	9713 Oct 22 03:56	9° \mathcal{S} 07'46	32.62533 AU	conjunction	9720 May 06 18:12	20° \mathcal{S} 47'07	-3°58'56
opposition	9713 Oct 24 03:16	9° \mathcal{S} 04'51	-0°43'03	minimum elong	9720 May 06 18:03	20° \mathcal{S} 47'06	3°59'11
direct	9714 Jan 13 04:28	7° \mathcal{S} 48'30		max. Earth dist.	9720 May 08 23:17	20° \mathcal{S} 51'23	36.22001 AU
evening set	9714 Apr 11 07:07	9° \mathcal{S} 29'57		morning rise	9720 May 21 12:47	21° \mathcal{S} 15'25	
				retrograde	9720 Aug 17 04:23	22° \mathcal{S} 52'30	
conjunction	9714 Apr 26 15:39	10° \mathcal{S} 00'40	-0°56'43				

min. Earth dist.	9720 Nov 03 14:52	21° 8 42'29	34.34897 AU	conjunction	9727 May 18 20:28	2° II 18'21	-7°03'58
opposition	9720 Nov 05 21:32	21° 8 39'16	-4°27'53	minimum elong	9727 May 18 20:15	2° II 18'20	7°04'17
direct	9721 Jan 26 05:01	20° 8 25'35		max. Earth dist.	9727 May 21 07:16	2° II 22'51	37.99557 AU
evening set	9721 Apr 24 01:09	22° 8 02'03		morning rise	9727 Jun 01 08:59	2° II 43'03	
				retrograde	9727 Aug 29 01:01	4° II 17'26	
conjunction	9721 May 08 16:52	22° 8 29'55	-4°27'16	min. Earth dist.	9727 Nov 15 23:24	3° II 09'43	36.14025 AU
minimum elong	9721 May 08 16:43	22° 8 29'54	4°27'33	opposition	9727 Nov 18 12:10	3° II 06'15	-7°40'04
max. Earth dist.	9721 May 10 23:40	22° 8 34'17	36.46991 AU	direct	9728 Feb 08 02:05	1° II 54'56	
morning rise	9721 May 23 07:54	22° 8 57'44		evening set	9728 May 06 08:03	3° II 28'18	
retrograde	9721 Aug 18 23:42	24° 8 34'19					
min. Earth dist.	9721 Nov 05 15:20	23° 8 24'33	34.60046 AU	conjunction	9728 May 19 15:25	3° II 52'27	-7°27'49
opposition	9721 Nov 07 21:45	23° 8 21'21	-4°57'26	minimum elong	9728 May 19 15:13	3° II 52'26	7°28'08
direct	9722 Jan 28 07:54	22° 8 08'00		max. Earth dist.	9728 May 22 03:59	3° II 57'03	38.25429 AU
evening set	9722 Apr 26 02:55	23° 8 43'53		morning rise	9728 Jun 01 22:28	4° II 16'35	
				retrograde	9728 Aug 29 18:10	5° II 50'45	
conjunction	9722 May 10 14:45	24° 8 11'15	-4°54'59	min. Earth dist.	9728 Nov 16 20:41	4° II 43'18	36.40091 AU
minimum elong	9722 May 10 14:35	24° 8 11'14	4°55'15	opposition	9728 Nov 19 09:00	4° II 39'53	-8°04'43
max. Earth dist.	9722 May 12 21:14	24° 8 15'35	36.72048 AU	direct	9729 Feb 09 00:34	3° II 28'56	
morning rise	9722 May 25 02:11	24° 8 38'35		evening set	9729 May 08 08:21	5° II 02'00	
retrograde	9722 Aug 20 21:09	26° 8 14'42					
min. Earth dist.	9722 Nov 07 13:05	25° 8 05'18	34.85296 AU	conjunction	9729 May 21 10:01	5° II 25'34	-7°51'01
opposition	9722 Nov 09 21:23	25° 8 02'01	-5°26'17	minimum elong	9729 May 21 09:48	5° II 25'33	7°51'21
direct	9723 Jan 30 07:56	23° 8 48'57		max. Earth dist.	9729 May 23 22:05	5° II 30'07	38.51298 AU
evening set	9723 Apr 28 04:17	25° 8 24'19		morning rise	9729 Jun 03 11:33	5° II 49'08	
				retrograde	9729 Aug 31 13:01	7° II 23'06	
conjunction	9723 May 12 12:04	25° 8 51'10	-5°22'04	min. Earth dist.	9729 Nov 18 15:25	6° II 16'02	36.66123 AU
minimum elong	9723 May 12 11:54	25° 8 51'09	5°22'22	opposition	9729 Nov 21 05:06	6° II 12'34	-8°28'39
max. Earth dist.	9723 May 14 20:17	25° 8 55'36	36.97210 AU	direct	9730 Feb 10 20:35	5° II 01'57	
morning rise	9723 May 26 19:24	26° 8 18'00		evening set	9730 May 10 08:25	6° II 34'45	
retrograde	9723 Aug 22 17:51	27° 8 53'42					
min. Earth dist.	9723 Nov 09 12:23	26° 8 44'33	35.10699 AU	conjunction	9730 May 23 04:17	6° II 57'45	-8°13'35
opposition	9723 Nov 11 20:41	26° 8 41'17	-5°54'27	minimum elong	9730 May 23 04:05	6° II 57'44	8°13'55
direct	9724 Feb 01 07:22	25° 8 28'33		max. Earth dist.	9730 May 25 17:14	7° II 02'20	38.77084 AU
evening set	9724 Apr 29 05:31	27° 8 03'25		morning rise	9730 Jun 05 00:03	7° II 20'45	
				retrograde	9730 Sep 02 08:33	8° II 54'32	
conjunction	9724 May 13 08:55	27° 8 29'45	-5°48'31	min. Earth dist.	9730 Nov 20 12:00	7° II 47'42	36.92053 AU
minimum elong	9724 May 13 08:45	27° 8 29'44	5°48'49	opposition	9730 Nov 23 01:06	7° II 44'17	-8°51'56
max. Earth dist.	9724 May 15 17:38	27° 8 34'11	37.22549 AU	direct	9731 Feb 12 15:20	6° II 34'01	
morning rise	9724 May 27 11:53	27° 8 56'03		evening set	9731 May 12 08:18	8° II 06'34	
retrograde	9724 Aug 23 15:17	29° 8 31'22					
min. Earth dist.	9724 Nov 10 09:19	28° 8 22'35	35.36286 AU	conjunction	9731 May 24 22:09	8° II 28'58	-8°35'32
opposition	9724 Nov 12 19:16	28° 8 19'14	-6°21'55	minimum elong	9731 May 24 21:55	8° II 28'57	8°35'53
direct	9725 Feb 02 06:18	27° 8 06'50		max. Earth dist.	9731 May 27 11:00	8° II 33'31	39.02735 AU
evening set	9725 May 01 06:27	28° 8 41'16		morning rise	9731 Jun 06 11:46	8° II 51'23	
				retrograde	9731 Sep 04 03:49	10° II 24'59	
conjunction	9725 May 15 05:09	29° 8 07'04	-6°14'19	min. Earth dist.	9731 Nov 22 07:02	9° II 18'27	37.17806 AU
minimum elong	9725 May 15 04:58	29° 8 07'03	6°14'38	opposition	9731 Nov 24 20:34	9° II 15'02	-9°14'32
max. Earth dist.	9725 May 17 14:49	29° 8 11'33	37.48063 AU	direct	9732 Feb 14 09:58	8° II 05'04	
morning rise	9725 May 29 03:39	29° 8 32'51		evening set	9732 May 13 08:08	9° II 37'23	
	9725 Jun 13 14:21	0° II					
retrograde	9725 Aug 25 12:53	1° II 07'49		conjunction	9732 May 25 15:38	9° II 59'12	-8°56'52
	9725 Nov 11 19:33	30° 8		minimum elong	9732 May 25 15:25	9° II 59'11	8°57'13
min. Earth dist.	9725 Nov 12 06:37	29° 8 59'22	35.62069 AU	max. Earth dist.	9732 May 28 04:10	10° II 03'42	39.28185 AU
opposition	9725 Nov 14 17:27	29° 8 55'59	-6°48'41	morning rise	9732 Jun 06 23:11	10° II 21'01	
direct	9726 Feb 04 03:34	28° 8 43'56		retrograde	9732 Sep 04 21:54	11° II 54'28	
	9726 Apr 23 03:34	0° II		min. Earth dist.	9732 Nov 23 01:56	10° II 48'11	37.43365 AU
evening set	9726 May 03 07:11	0° II 17'59		opposition	9732 Nov 25 15:42	10° II 44'46	-9°36'28
				direct	9733 Feb 15 04:38	9° II 35'06	
conjunction	9726 May 17 01:07	0° II 43'14	-6°39'28	evening set	9733 May 15 07:35	11° II 07'12	
minimum elong	9726 May 17 00:55	0° II 43'14	6°39'46				
max. Earth dist.	9726 May 19 12:06	0° II 47'47	37.73753 AU	conjunction	9733 May 27 08:49	11° II 28'24	-9°17'35
morning rise	9726 May 30 18:35	1° II 08'29		minimum elong	9733 May 27 08:35	11° II 28'23	9°17'56
retrograde	9726 Aug 27 06:26	2° II 43'09		max. Earth dist.	9733 May 29 22:08	11° II 32'56	39.53427 AU
min. Earth dist.	9726 Nov 14 03:40	1° II 35'02	35.87991 AU	morning rise	9733 Jun 08 09:49	11° II 49'37	
opposition	9726 Nov 16 14:57	1° II 31'38	-7°14'44	retrograde	9733 Sep 06 11:59	13° II 22'54	
direct	9727 Feb 06 03:43	0° II 19'57		min. Earth dist.	9733 Nov 24 21:10	12° II 16'50	37.68692 AU
evening set	9727 May 05 07:51	1° II 53'39		opposition	9733 Nov 27 10:20	12° II 13'27	-9°57'46

direct	9734 Feb 17 02:49	11°II04'03	retrograde	9740 Sep 15 20:42	23°II13'42
evening set	9734 May 17 06:59	12°II35'56	min. Earth dist.	9740 Dec 04 18:32	22°II09'16 39.42884 AU
			opposition	9740 Dec 07 09:11	22°II05'54 -12°08'44
conjunction	9734 May 29 01:25	12°II56'32 -9°37'42	direct	9741 Feb 27 06:18	20°II58'23
minimum elong	9734 May 29 01:13	12°II56'31 9°38'03	evening set	9741 May 28 20:16	22°II29'29
max. Earth dist.	9734 May 31 13:44	13°II00'57 39.78453 AU			
morning rise	9734 Jun 09 19:56	13°II17'08	conjunction	9741 Jun 07 11:24	22°II45'42 -11°41'36
retrograde	9734 Sep 08 03:16	14°II50'16	minimum elong	9741 Jun 07 11:12	22°II45'41 11°41'58
min. Earth dist.	9734 Nov 26 14:12	13°II44'27 37.93840 AU	max. Earth dist.	9741 Jun 10 01:28	22°II50'04 41.50855 AU
opposition	9734 Nov 29 04:22	13°II41'02 -10°18'25	morning rise	9741 Jun 17 02:36	23°II01'54
direct	9735 Feb 18 22:40	12°II31'53	retrograde	9741 Sep 17 10:44	24°II34'45
evening set	9735 May 19 05:58	14°II03'35	min. Earth dist.	9741 Dec 06 09:09	23°II30'37 39.67268 AU
			opposition	9741 Dec 09 00:42	23°II27'13 -12°24'56
conjunction	9735 May 30 17:43	14°II23'33 -9°57'13	direct	9742 Feb 28 22:16	22°II19'59
minimum elong	9735 May 30 17:29	14°II23'32 9°57'34	evening set	9742 May 30 18:08	23°II51'05
max. Earth dist.	9735 Jun 02 07:14	14°II28'02 40.03324 AU			
morning rise	9735 Jun 11 05:22	14°II43'32	conjunction	9742 Jun 09 01:20	24°II06'39 -11°56'59
retrograde	9735 Sep 09 17:40	16°II16'33	minimum elong	9742 Jun 09 01:08	24°II06'38 11°57'22
min. Earth dist.	9735 Nov 28 08:52	15°II10'54 38.18868 AU	max. Earth dist.	9742 Jun 11 15:50	24°II11'01 41.74908 AU
opposition	9735 Nov 30 22:16	15°II07'32 -10°38'25	morning rise	9742 Jun 18 08:35	24°II22'13
direct	9736 Feb 20 18:15	13°II58'39	retrograde	9742 Sep 19 01:19	25°II55'07
evening set	9736 May 20 04:47	15°II30'09	min. Earth dist.	9742 Dec 08 01:41	24°II51'10 39.91384 AU
			opposition	9742 Dec 10 16:01	24°II47'51 -12°40'34
conjunction	9736 May 31 09:27	15°II49'30 -10°16'07	direct	9743 Mar 02 13:34	23°II40'54
minimum elong	9736 May 31 09:14	15°II49'29 10°16'28	evening set	9743 Jun 01 16:07	25°II12'01
max. Earth dist.	9736 Jun 02 22:43	15°II53'57 40.28107 AU			
morning rise	9736 Jun 11 14:05	16°II08'52	conjunction	9743 Jun 10 15:06	25°II26'56 -12°11'49
retrograde	9736 Sep 10 09:20	17°II41'47	minimum elong	9743 Jun 10 14:54	25°II26'55 12°12'11
min. Earth dist.	9736 Nov 29 00:53	16°II36'25 38.43819 AU	max. Earth dist.	9743 Jun 13 05:12	25°II31'15 41.98678 AU
opposition	9736 Dec 01 15:33	16°II33'00 -10°57'45	morning rise	9743 Jun 19 14:01	25°II41'52
direct	9737 Feb 21 11:54	15°II24'22	retrograde	9743 Sep 20 15:57	27°II14'50
evening set	9737 May 22 03:24	16°II55'43	min. Earth dist.	9743 Dec 09 16:31	26°II11'07 40.15168 AU
			opposition	9743 Dec 12 06:59	26°II07'48 -12°55'39
conjunction	9737 Jun 02 00:54	17°II14'27 -10°34'24	direct	9744 Mar 03 03:55	25°II01'07
minimum elong	9737 Jun 02 00:40	17°II14'26 10°34'45	evening set	9744 Jun 02 13:52	26°II32'15
max. Earth dist.	9737 Jun 04 14:41	17°II18'54 40.52822 AU			
morning rise	9737 Jun 12 22:29	17°II33'12	conjunction	9744 Jun 11 04:24	26°II46'31 -12°26'08
retrograde	9737 Sep 12 02:57	19°II06'03	minimum elong	9744 Jun 11 04:12	26°II46'31 12°26'31
min. Earth dist.	9737 Nov 30 17:53	18°II00'53 38.68725 AU	max. Earth dist.	9744 Jun 13 17:39	26°II50'46 42.22088 AU
opposition	9737 Dec 03 08:25	17°II57'29 -11°16'27	morning rise	9744 Jun 19 19:04	27°II00'48
direct	9738 Feb 23 02:54	16°II49'07	retrograde	9744 Sep 21 07:41	28°II33'51
evening set	9738 May 24 01:53	18°II20'22	min. Earth dist.	9744 Dec 10 07:38	27°II30'19 40.38591 AU
			opposition	9744 Dec 12 21:45	27°II27'03 -13°10'11
conjunction	9738 Jun 03 16:07	18°II38'29 -10°52'05	direct	9745 Mar 04 16:14	26°II20'36
minimum elong	9738 Jun 03 15:55	18°II38'28 10°52'27	evening set	9745 Jun 04 11:40	27°II51'47
max. Earth dist.	9738 Jun 06 06:29	18°II42'57 40.77496 AU			
morning rise	9738 Jun 14 06:15	18°II56'36	conjunction	9745 Jun 12 17:42	28°II05'24 -12°39'57
retrograde	9738 Sep 13 17:44	20°II29'24	minimum elong	9745 Jun 12 17:31	28°II05'23 12°40'19
min. Earth dist.	9738 Dec 02 10:17	19°II24'29 38.93554 AU	max. Earth dist.	9745 Jun 15 07:14	28°II09'38 42.45128 AU
opposition	9738 Dec 05 00:58	19°II21'06 -11°34'30	morning rise	9745 Jun 20 23:39	28°II19'00
direct	9739 Feb 24 19:38	18°II13'00	retrograde	9745 Sep 22 19:04	29°II52'08
evening set	9739 May 26 00:06	19°II44'10	min. Earth dist.	9745 Dec 11 23:00	28°II48'45 40.61618 AU
			opposition	9745 Dec 14 11:58	28°II45'33 -13°24'11
conjunction	9739 Jun 05 06:43	20°II01'39 -11°09'10	direct	9746 Mar 06 08:17	27°II39'19
minimum elong	9739 Jun 05 06:30	20°II01'38 11°09'32	evening set	9746 Jun 06 09:24	29°II10'34
max. Earth dist.	9739 Jun 07 20:34	20°II06'03 41.02081 AU			
morning rise	9739 Jun 15 13:28	20°II19'08	conjunction	9746 Jun 14 06:29	29°II23'30 -12°53'16
retrograde	9739 Sep 15 08:46	21°II51'56	minimum elong	9746 Jun 14 06:18	29°II23'29 12°53'39
min. Earth dist.	9739 Dec 04 01:43	20°II47'18 39.18294 AU	max. Earth dist.	9746 Jun 16 18:35	29°II27'37 42.67798 AU
opposition	9739 Dec 06 17:15	20°II43'53 -11°51'55	morning rise	9746 Jun 22 03:38	29°II36'26
direct	9740 Feb 26 11:46	19°II36'04		9746 Jul 06 22:15	0°☾
evening set	9740 May 26 22:11	21°II07'12	retrograde	9746 Sep 24 05:48	1°☾09'40
			min. Earth dist.	9746 Dec 13 12:26	0°☾06'29 40.84305 AU
conjunction	9740 Jun 05 21:16	21°II24'03 -11°25'40	opposition	9746 Dec 16 01:57	0°☾03'16 -13°37'39
minimum elong	9740 Jun 05 21:04	21°II24'02 11°26'03		9746 Dec 18 16:21	30°☾II
max. Earth dist.	9740 Jun 08 12:22	21°II28'30 41.26554 AU	direct	9747 Mar 08 00:00	28°II57'15
morning rise	9740 Jun 15 20:18	21°II40'53		9747 May 21 03:27	0°☾

evening set	9747 Jun 08 06:46	0° $\overline{028}$ '34		min. Earth dist.	9753 Dec 22 07:01	8° $\overline{050}$ '32	42.36954 AU
				opposition	9753 Dec 24 19:19	8° $\overline{047}$ '27	-14°57'13
conjunction	9747 Jun 15 18:53	0° $\overline{040}$ '49	-13°06'04	direct	9754 Mar 16 20:36	7° $\overline{042}$ '57	
minimum elong	9747 Jun 15 18:43	0° $\overline{040}$ '48	13°06'27	evening set	9754 Jun 19 15:56	9° $\overline{015}$ '41	
max. Earth dist.	9747 Jun 18 07:46	0° $\overline{044}$ '58	42.90151 AU				
morning rise	9747 Jun 23 06:59	0° $\overline{053}$ '04		conjunction	9754 Jun 24 02:38	9° $\overline{022}$ '42	-14°21'45
retrograde	9747 Sep 25 16:48	2° $\overline{026}$ '25		minimum elong	9754 Jun 24 02:30	9° $\overline{022}$ '42	14°22'07
min. Earth dist.	9747 Dec 15 03:23	1° $\overline{023}$ '21	41.06709 AU	max. Earth dist.	9754 Jun 26 14:03	9° $\overline{026}$ '38	44.40916 AU
opposition	9747 Dec 17 15:46	1° $\overline{020}$ '12	-13°50'36	morning rise	9754 Jun 28 13:16	9° $\overline{029}$ '44	
direct	9748 Mar 08 16:11	0° $\overline{014}$ '23		retrograde	9754 Oct 04 02:12	11° $\overline{004}$ '48	
evening set	9748 Jun 09 04:21	1° $\overline{045}$ '47		min. Earth dist.	9754 Dec 23 20:02	10° $\overline{003}$ '00	42.57785 AU
				opposition	9754 Dec 26 07:11	9° $\overline{059}$ '59	-15°06'36
conjunction	9748 Jun 16 07:04	1° $\overline{057}$ '20	-13°18'22	direct	9755 Mar 18 07:57	8° $\overline{055}$ '43	
minimum elong	9748 Jun 16 06:54	1° $\overline{057}$ '20	13°18'46	evening set	9755 Jun 21 15:41	10° $\overline{028}$ '51	
max. Earth dist.	9748 Jun 18 19:22	2° $\overline{001}$ '26	43.12270 AU				
morning rise	9748 Jun 23 09:44	2° $\overline{008}$ '54		conjunction	9755 Jun 25 13:11	10° $\overline{034}$ '59	-14°30'41
retrograde	9748 Sep 26 05:15	3° $\overline{042}$ '24		minimum elong	9755 Jun 25 13:05	10° $\overline{034}$ '58	14°31'04
min. Earth dist.	9748 Dec 15 15:53	2° $\overline{039}$ '32	41.28895 AU	max. Earth dist.	9755 Jun 28 00:27	10° $\overline{038}$ '52	44.61422 AU
opposition	9748 Dec 18 04:59	2° $\overline{036}$ '22	-14°03'01	morning rise	9755 Jun 29 10:36	10° $\overline{041}$ '06	
direct	9749 Mar 10 05:53	1° $\overline{030}$ '45		retrograde	9755 Oct 05 12:48	12° $\overline{016}$ '37	
evening set	9749 Jun 11 01:47	3° $\overline{002}$ '17		min. Earth dist.	9755 Dec 25 08:06	11° $\overline{014}$ '59	42.78222 AU
				opposition	9755 Dec 27 18:46	11° $\overline{012}$ '00	-15°15'31
conjunction	9749 Jun 17 18:54	3° $\overline{013}$ '08	-13°30'10	direct	9756 Mar 18 19:26	10° $\overline{007}$ '56	
minimum elong	9749 Jun 17 18:45	3° $\overline{013}$ '07	13°30'33	evening set	9756 Jun 22 16:46	11° $\overline{041}$ '34	
max. Earth dist.	9749 Jun 20 07:02	3° $\overline{017}$ '11	43.34189 AU				
morning rise	9749 Jun 24 12:03	3° $\overline{024}$ '00		conjunction	9756 Jun 25 23:34	11° $\overline{046}$ '42	-14°39'12
retrograde	9749 Sep 27 19:01	4° $\overline{057}$ '39		minimum elong	9756 Jun 25 23:27	11° $\overline{046}$ '42	14°39'34
min. Earth dist.	9749 Dec 17 05:26	3° $\overline{054}$ '57	41.50906 AU	max. Earth dist.	9756 Jun 28 09:15	11° $\overline{050}$ '28	44.81514 AU
opposition	9749 Dec 19 18:05	3° $\overline{051}$ '49	-14°14'53	morning rise	9756 Jun 29 06:16	11° $\overline{051}$ '51	
direct	9750 Mar 11 17:21	2° $\overline{046}$ '25		retrograde	9756 Oct 06 00:50	13° $\overline{027}$ '54	
evening set	9750 Jun 12 23:20	4° $\overline{018}$ '06		min. Earth dist.	9756 Dec 25 19:46	12° $\overline{026}$ '24	42.98236 AU
				opposition	9756 Dec 28 06:03	12° $\overline{023}$ '27	-15°24'01
conjunction	9750 Jun 19 06:33	4° $\overline{028}$ '14	-13°41'27	direct	9757 Mar 20 04:41	11° $\overline{019}$ '34	
minimum elong	9750 Jun 19 06:23	4° $\overline{028}$ '13	13°41'50	evening set	9757 Jun 24 20:31	12° $\overline{053}$ '53	
max. Earth dist.	9750 Jun 21 19:19	4° $\overline{032}$ '19	43.55947 AU				
morning rise	9750 Jun 25 13:39	4° $\overline{038}$ '22		conjunction	9757 Jun 27 09:54	12° $\overline{057}$ '52	-14°47'19
retrograde	9750 Sep 29 06:43	6° $\overline{012}$ '14		minimum elong	9757 Jun 27 09:48	12° $\overline{057}$ '52	14°47'42
min. Earth dist.	9750 Dec 18 18:20	5° $\overline{009}$ '43	41.72730 AU	morning rise	9757 Jun 29 23:08	13° $\overline{001}$ '51	
opposition	9750 Dec 21 06:46	5° $\overline{006}$ '36	-14°26'14	max. Earth dist.	9757 Jun 29 19:54	13° $\overline{001}$ '38	45.01167 AU
direct	9751 Mar 13 05:10	4° $\overline{001}$ '26		retrograde	9757 Oct 07 09:01	14° $\overline{038}$ '35	
evening set	9751 Jun 14 21:02	5° $\overline{033}$ '18		min. Earth dist.	9757 Dec 27 08:31	13° $\overline{037}$ '10	43.17786 AU
				opposition	9757 Dec 29 17:12	13° $\overline{034}$ '18	-15°32'06
conjunction	9751 Jun 20 17:50	5° $\overline{042}$ '43	-13°52'14	direct	9758 Mar 21 17:14	12° $\overline{030}$ '35	
minimum elong	9751 Jun 20 17:42	5° $\overline{042}$ '42	13°52'37	evening set	9758 Jun 27 06:06	14° $\overline{005}$ '58	
max. Earth dist.	9751 Jun 23 05:35	5° $\overline{046}$ '42	43.77529 AU				
morning rise	9751 Jun 26 14:40	5° $\overline{052}$ '06		conjunction	9758 Jun 28 19:48	14° $\overline{008}$ '25	-14°55'01
retrograde	9751 Sep 30 19:17	7° $\overline{026}$ '12		minimum elong	9758 Jun 28 19:42	14° $\overline{008}$ '24	14°55'23
min. Earth dist.	9751 Dec 20 06:11	6° $\overline{023}$ '55	41.94381 AU	morning rise	9758 Jun 30 09:21	14° $\overline{010}$ '51	
opposition	9751 Dec 22 19:17	6° $\overline{020}$ '46	-14°37'03	max. Earth dist.	9758 Jul 01 04:11	14° $\overline{012}$ '04	45.20381 AU
direct	9752 Mar 13 16:06	5° $\overline{015}$ '50		retrograde	9758 Oct 08 17:34	15° $\overline{048}$ '40	
evening set	9752 Jun 15 18:47	6° $\overline{047}$ '56		min. Earth dist.	9758 Dec 28 18:50	14° $\overline{047}$ '25	43.36913 AU
				opposition	9758 Dec 31 03:58	14° $\overline{044}$ '32	-15°39'45
conjunction	9752 Jun 21 04:57	6° $\overline{056}$ '35	-14°02'33	direct	9759 Mar 23 04:38	13° $\overline{040}$ '59	
minimum elong	9752 Jun 21 04:48	6° $\overline{056}$ '35	14°02'55				
max. Earth dist.	9752 Jun 23 17:32	7° $\overline{000}$ '37	43.98917 AU	conjunction	9759 Jun 30 05:29	15° $\overline{018}$ '19	-15°02'20
morning rise	9752 Jun 26 15:01	7° $\overline{005}$ '14		minimum elong	9759 Jun 30 05:24	15° $\overline{018}$ '19	15°02'43
retrograde	9752 Oct 01 03:28	8° $\overline{039}$ '37		max. Earth dist.	9759 Jul 02 13:49	15° $\overline{021}$ '57	45.39201 AU
min. Earth dist.	9752 Dec 20 19:47	7° $\overline{037}$ '27	42.15803 AU	retrograde	9759 Oct 10 03:01	16° $\overline{058}$ '08	
opposition	9752 Dec 23 07:35	7° $\overline{034}$ '23	-14°47'23	min. Earth dist.	9759 Dec 30 07:00	15° $\overline{056}$ '56	43.55688 AU
direct	9753 Mar 15 06:45	6° $\overline{029}$ '40		opposition	9760 Jan 01 14:40	15° $\overline{054}$ '08	-15°47'00
evening set	9753 Jun 17 17:12	8° $\overline{002}$ '03		direct	9760 Mar 23 17:12	14° $\overline{050}$ '44	
conjunction	9753 Jun 22 15:55	8° $\overline{009}$ '55	-14°12'22	conjunction	9760 Jun 30 14:57	16° $\overline{027}$ '36	-15°09'14
minimum elong	9753 Jun 22 15:48	8° $\overline{009}$ '54	14°12'45	minimum elong	9760 Jun 30 14:53	16° $\overline{027}$ '36	15°09'36
max. Earth dist.	9753 Jun 25 03:30	8° $\overline{013}$ '52	44.20068 AU	max. Earth dist.	9760 Jul 02 23:07	16° $\overline{031}$ '13	45.57712 AU
morning rise	9753 Jun 27 14:35	8° $\overline{017}$ '46		retrograde	9760 Oct 10 13:08	18° $\overline{007}$ '00	
retrograde	9753 Oct 02 13:08	9° $\overline{052}$ '28		min. Earth dist.	9760 Dec 30 17:09	17° $\overline{005}$ '56	43.74160 AU

opposition	9761 Jan 02 00:56	17°☾03'09 -15°53'49	conjunction	9769 Jul 10 20:30	26°☾32'00 -15°53'38
direct	9761 Mar 25 03:38	15°☾59'54	minimum elong	9769 Jul 10 20:29	26°☾32'00 15°53'58
			max. Earth dist.	9769 Jul 12 23:35	26°☾35'10 47.11547 AU
conjunction	9761 Jul 02 00:09	17°☾36'20 -15°15'43	retrograde	9769 Oct 20 19:24	28°☾08'12
minimum elong	9761 Jul 02 00:05	17°☾36'20 15°16'06	min. Earth dist.	9770 Jan 10 11:37	27°☾08'17 45.27151 AU
max. Earth dist.	9761 Jul 04 07:19	17°☾39'51 45.75947 AU	opposition	9770 Jan 12 13:08	27°☾05'52 -16°36'58
retrograde	9761 Oct 12 01:00	19°☾15'18	direct	9770 Apr 04 13:47	26°☾04'13
min. Earth dist.	9762 Jan 01 03:23	18°☾14'23 43.92388 AU			
opposition	9762 Jan 03 10:56	18°☾11'37 -16°00'12	conjunction	9770 Jul 12 04:32	27°☾37'20 -15°56'50
direct	9762 Mar 26 10:40	17°☾08'33	minimum elong	9770 Jul 12 04:32	27°☾37'20 15°57'11
			max. Earth dist.	9770 Jul 14 06:32	27°☾40'26 47.26604 AU
conjunction	9762 Jul 03 09:19	18°☾44'34 -15°21'48	retrograde	9770 Oct 22 02:05	29°☾13'11
minimum elong	9762 Jul 03 09:15	18°☾44'33 15°22'09	min. Earth dist.	9771 Jan 11 20:11	28°☾13'23 45.42013 AU
max. Earth dist.	9762 Jul 05 17:09	18°☾48'07 45.93955 AU	opposition	9771 Jan 13 21:36	28°☾10'58 -16°39'59
retrograde	9762 Oct 13 08:36	20°☾23'09	direct	9771 Apr 06 00:52	27°☾09'26
min. Earth dist.	9763 Jan 02 14:13	19°☾22'20 44.10373 AU			
opposition	9763 Jan 04 20:52	19°☾19'37 -16°06'10	conjunction	9771 Jul 13 12:05	28°☾42'11 -15°59'42
direct	9763 Mar 27 21:26	18°☾16'44	minimum elong	9771 Jul 13 12:05	28°☾42'11 16°00'03
			max. Earth dist.	9771 Jul 15 12:55	28°☾45'12 47.41190 AU
conjunction	9763 Jul 04 18:01	19°☾52'21 -15°27'28		9771 Sep 13 02:44	0°♂
minimum elong	9763 Jul 04 17:57	19°☾52'21 15°27'50	retrograde	9771 Oct 23 12:46	0°♂17'42
max. Earth dist.	9763 Jul 07 00:37	19°☾55'49 46.11736 AU		9771 Dec 03 17:53	30°♂☾
retrograde	9763 Oct 14 15:42	21°☾30'34	min. Earth dist.	9772 Jan 13 05:44	29°☾17'56 45.56450 AU
min. Earth dist.	9764 Jan 03 23:19	20°☾29'57 44.28123 AU	opposition	9772 Jan 15 06:02	29°☾15'35 -16°42'41
opposition	9764 Jan 06 06:35	20°☾27'13 -16°11'42	direct	9772 Apr 06 08:26	28°☾14'10
direct	9764 Mar 28 07:41	19°☾24'31			
			conjunction	9772 Jul 13 19:46	29°☾46'33 -16°02'15
conjunction	9764 Jul 05 02:46	20°☾59'46 -15°32'44	minimum elong	9772 Jul 13 19:46	29°☾46'33 16°02'37
minimum elong	9764 Jul 05 02:44	20°☾59'45 15°33'06	max. Earth dist.	9772 Jul 15 20:49	29°☾49'33 47.55391 AU
max. Earth dist.	9764 Jul 07 09:42	21°☾03'14 46.29264 AU		9772 Jul 22 23:30	0°♂
retrograde	9764 Oct 15 00:05	22°☾37'38	retrograde	9772 Oct 23 20:04	1°♂21'43
min. Earth dist.	9765 Jan 04 10:17	21°☾37'08 44.45605 AU	min. Earth dist.	9773 Jan 13 14:36	0°♂22'00 45.70513 AU
opposition	9765 Jan 06 16:06	21°☾34'28 -16°16'50	opposition	9773 Jan 15 14:02	0°♂19'42 -16°45'02
direct	9765 Mar 29 18:44	20°☾31'58		9773 Feb 01 18:51	30°♂☾
			direct	9773 Apr 07 16:47	29°☾18'23
conjunction	9765 Jul 06 11:23	22°☾06'50 -15°37'37		9773 Jun 08 19:44	0°♂
minimum elong	9765 Jul 06 11:20	22°☾06'50 15°37'59			
max. Earth dist.	9765 Jul 08 17:43	22°☾10'15 46.46518 AU	conjunction	9773 Jul 15 03:07	0°♂50'25 -16°04'28
retrograde	9765 Oct 16 09:10	23°☾44'22	minimum elong	9773 Jul 15 03:08	0°♂50'25 16°04'48
min. Earth dist.	9766 Jan 05 19:24	22°☾44'03 44.62764 AU	max. Earth dist.	9773 Jul 17 02:34	0°♂53'19 47.69256 AU
opposition	9766 Jan 08 01:21	22°☾41'23 -16°21'34	retrograde	9773 Oct 25 03:38	2°♂25'15
direct	9766 Mar 31 04:40	21°☾39'05	min. Earth dist.	9774 Jan 14 22:23	1°♂25'38 45.84267 AU
			opposition	9774 Jan 16 21:57	1°♂23'20 -16°47'03
conjunction	9766 Jul 07 19:41	23°☾13'36 -15°42'08	direct	9774 Apr 08 22:22	0°♂22'08
minimum elong	9766 Jul 07 19:40	23°☾13'36 15°42'30			
max. Earth dist.	9766 Jul 10 00:54	23°☾16'56 46.63421 AU	conjunction	9774 Jul 16 10:17	1°♂53'51 -16°06'21
retrograde	9766 Oct 17 20:47	24°☾50'48	minimum elong	9774 Jul 16 10:18	1°♂53'51 16°06'42
min. Earth dist.	9767 Jan 07 05:37	23°☾50'37 44.79561 AU	max. Earth dist.	9774 Jul 18 10:08	1°♂56'46 47.82821 AU
opposition	9767 Jan 09 10:36	23°☾48'01 -16°25'56	retrograde	9774 Oct 26 08:45	3°♂28'22
direct	9767 Apr 01 11:33	22°☾45'54	min. Earth dist.	9775 Jan 16 07:42	2°♂28'47 45.97725 AU
			opposition	9775 Jan 18 05:50	2°♂26'34 -16°48'43
conjunction	9767 Jul 09 04:08	24°☾20'04 -15°46'18	direct	9775 Apr 10 07:12	1°♂25'29
minimum elong	9767 Jul 09 04:06	24°☾20'04 15°46'39			
max. Earth dist.	9767 Jul 11 09:33	24°☾23'24 46.79938 AU	conjunction	9775 Jul 17 17:25	2°♂56'53 -16°07'54
retrograde	9767 Oct 19 05:38	25°☾56'57	minimum elong	9775 Jul 17 17:27	2°♂56'54 16°08'14
min. Earth dist.	9768 Jan 08 15:55	24°☾56'52 44.95920 AU	max. Earth dist.	9775 Jul 19 16:26	2°♂59'45 47.96121 AU
opposition	9768 Jan 10 19:39	24°☾54'20 -16°29'56	retrograde	9775 Oct 27 14:20	4°♂31'07
direct	9768 Apr 01 18:52	23°☾52'24	min. Earth dist.	9776 Jan 17 14:46	3°♂31'41 46.10903 AU
			opposition	9776 Jan 19 13:24	3°♂29'26 -16°50'02
conjunction	9768 Jul 09 12:18	25°☾26'13 -15°50'08	direct	9776 Apr 10 16:01	2°♂28'29
minimum elong	9768 Jul 09 12:18	25°☾26'13 15°50'29			
max. Earth dist.	9768 Jul 11 15:48	25°☾29'25 46.95997 AU	conjunction	9776 Jul 18 00:18	3°♂59'35 -16°09'07
retrograde	9768 Oct 19 14:34	27°☾02'45	minimum elong	9776 Jul 18 00:19	3°♂59'35 16°09'28
min. Earth dist.	9769 Jan 09 00:53	26°☾02'49 45.11797 AU	max. Earth dist.	9776 Jul 19 22:26	4°♂02'23 48.09128 AU
opposition	9769 Jan 11 04:29	26°☾00'18 -16°33'37	retrograde	9776 Oct 27 23:03	5°♂33'33
direct	9769 Apr 03 01:58	24°☾58'31	min. Earth dist.	9777 Jan 17 23:37	4°♂34'10 46.23784 AU
			opposition	9777 Jan 19 21:00	4°♂31'59 -16°51'01

direct	9777 Apr 12 00:04	3°Ω31'11		minimum elong	9785 Jul 27 11:07	13°Ω12'26	16°07'26
				max. Earth dist.	9785 Jul 29 01:32	13°Ω14'43	49.07549 AU
conjunction	9777 Jul 19 07:17	5°Ω02'00 -16°10'01		retrograde	9785 Nov 06 08:52	14°Ω44'13	
minimum elong	9777 Jul 19 07:20	5°Ω02'00 16°10'21		min. Earth dist.	9786 Jan 27 20:51	13°Ω45'24	47.20224 AU
max. Earth dist.	9777 Jul 21 05:40	5°Ω04'48 48.21828 AU		opposition	9786 Jan 29 10:43	13°Ω43'37	-16°46'47
retrograde	9777 Oct 29 07:07	6°Ω35'42		direct	9786 Apr 21 11:26	12°Ω43'46	
min. Earth dist.	9778 Jan 19 07:34	5°Ω36'25 46.36315 AU					
opposition	9778 Jan 21 04:13	5°Ω34'17 -16°51'41		conjunction	9786 Jul 28 16:53	14°Ω12'24	-16°05'33
direct	9778 Apr 13 06:39	4°Ω33'36		minimum elong	9786 Jul 28 17:00	14°Ω12'25	16°05'50
				max. Earth dist.	9786 Jul 30 06:36	14°Ω14'38	49.16409 AU
conjunction	9778 Jul 20 14:00	6°Ω04'11 -16°10'37			9786 Sep 02 01:29	15°Ω	
minimum elong	9778 Jul 20 14:02	6°Ω04'11 16°10'57		retrograde	9786 Nov 07 15:11	15°Ω43'59	
max. Earth dist.	9778 Jul 22 10:36	6°Ω06'52 48.34170 AU			9787 Jan 15 22:34	15°RΩ	
retrograde	9778 Oct 30 16:22	7°Ω37'37		min. Earth dist.	9787 Jan 29 04:32	14°Ω45'11	47.28925 AU
min. Earth dist.	9779 Jan 20 15:05	6°Ω38'28 46.48474 AU		opposition	9787 Jan 30 17:03	14°Ω43'28	-16°44'54
opposition	9779 Jan 22 11:31	6°Ω36'21 -16°52'02		direct	9787 Apr 22 20:01	13°Ω43'43	
direct	9779 Apr 14 10:48	5°Ω35'49			9787 Jul 21 07:53	15°Ω	
conjunction	9779 Jul 21 20:40	7°Ω06'08 -16°10'55		conjunction	9787 Jul 29 22:42	15°Ω12'08	-16°03'40
minimum elong	9779 Jul 21 20:45	7°Ω06'09 16°11'15		minimum elong	9787 Jul 29 22:48	15°Ω12'08	16°03'58
max. Earth dist.	9779 Jul 23 17:18	7°Ω08'49 48.46101 AU		max. Earth dist.	9787 Jul 31 12:42	15°Ω14'22	49.25002 AU
retrograde	9779 Oct 31 21:07	8°Ω39'21		retrograde	9787 Nov 08 22:20	16°Ω43'31	
min. Earth dist.	9780 Jan 22 00:20	7°Ω40'14 46.60181 AU		min. Earth dist.	9788 Jan 30 10:54	15°Ω44'48	47.37337 AU
opposition	9780 Jan 23 18:47	7°Ω38'12 -16°52'06		opposition	9788 Jan 31 23:09	15°Ω43'05	-16°42'43
direct	9780 Apr 14 18:55	6°Ω37'49			9788 Mar 14 07:17	15°RΩ	
				direct	9788 Apr 23 02:58	14°Ω43'25	
conjunction	9780 Jul 22 03:27	8°Ω07'53 -16°10'57			9788 May 31 23:10	15°Ω	
minimum elong	9780 Jul 22 03:30	8°Ω07'53 16°11'16					
max. Earth dist.	9780 Jul 23 22:38	8°Ω10'29 48.57567 AU		conjunction	9788 Jul 30 04:26	16°Ω11'38	-16°01'31
retrograde	9780 Nov 01 01:50	9°Ω40'52		minimum elong	9788 Jul 30 04:33	16°Ω11'39	16°01'47
min. Earth dist.	9781 Jan 22 07:23	8°Ω41'52 46.71387 AU		max. Earth dist.	9788 Jul 31 16:45	16°Ω13'46	49.33313 AU
opposition	9781 Jan 24 01:39	8°Ω39'50 -16°51'53		retrograde	9788 Nov 09 07:56	17°Ω42'50	
direct	9781 Apr 16 03:47	7°Ω39'34		min. Earth dist.	9789 Jan 30 17:08	16°Ω44'11	47.45470 AU
				opposition	9789 Feb 01 05:04	16°Ω42'30	-16°40'15
conjunction	9781 Jul 23 10:03	9°Ω09'24 -16°10'43		direct	9789 Apr 24 04:58	15°Ω42'56	
minimum elong	9781 Jul 23 10:09	9°Ω09'25 16°11'02					
max. Earth dist.	9781 Jul 25 03:49	9°Ω11'54 48.68504 AU		conjunction	9789 Jul 31 10:12	17°Ω10'59	-15°59'04
retrograde	9781 Nov 02 10:27	10°Ω42'09		minimum elong	9789 Jul 31 10:18	17°Ω10'59	15°59'22
min. Earth dist.	9782 Jan 23 16:14	9°Ω43'10 46.82062 AU		max. Earth dist.	9789 Aug 01 22:42	17°Ω13'07	49.41325 AU
opposition	9782 Jan 25 08:41	9°Ω41'14 -16°51'24		retrograde	9789 Nov 10 13:11	18°Ω41'59	
direct	9782 Apr 17 11:23	8°Ω41'04		min. Earth dist.	9790 Feb 01 00:42	17°Ω43'22	47.53273 AU
				opposition	9790 Feb 02 11:04	17°Ω41'45	-16°37'30
conjunction	9782 Jul 24 16:32	10°Ω10'39 -16°10'13		direct	9790 Apr 25 10:25	16°Ω42'18	
minimum elong	9782 Jul 24 16:36	10°Ω10'39 16°10'32					
max. Earth dist.	9782 Jul 26 09:56	10°Ω13'07 48.78925 AU		conjunction	9790 Aug 01 15:43	18°Ω10'09	-15°56'21
retrograde	9782 Nov 03 17:05	11°Ω43'09		minimum elong	9790 Aug 01 15:51	18°Ω10'10	15°56'38
min. Earth dist.	9783 Jan 24 23:48	10°Ω44'13 46.92212 AU		max. Earth dist.	9790 Aug 03 03:08	18°Ω12'14	49.49006 AU
opposition	9783 Jan 26 15:28	10°Ω42'19 -16°50'40		retrograde	9790 Nov 11 15:48	19°Ω41'00	
direct	9783 Apr 18 18:36	9°Ω42'15		min. Earth dist.	9791 Feb 02 06:24	18°Ω42'29	47.60713 AU
				opposition	9791 Feb 03 16:54	18°Ω40'51	-16°34'29
conjunction	9783 Jul 25 22:47	11°Ω11'34 -16°09'28		direct	9791 Apr 26 16:55	17°Ω41'30	
minimum elong	9783 Jul 25 22:52	11°Ω11'35 16°09'47					
max. Earth dist.	9783 Jul 27 14:18	11°Ω13'55 48.88860 AU		conjunction	9791 Aug 02 21:18	19°Ω09'12	-15°53'24
retrograde	9783 Nov 05 01:10	12°Ω43'50		minimum elong	9791 Aug 02 21:25	19°Ω09'13	15°53'40
min. Earth dist.	9784 Jan 26 06:59	11°Ω44'56 47.01923 AU		max. Earth dist.	9791 Aug 04 07:35	19°Ω11'12	49.56285 AU
opposition	9784 Jan 27 22:04	11°Ω43'05 -16°49'40		retrograde	9791 Nov 12 21:11	20°Ω39'54	
direct	9784 Apr 18 22:14	10°Ω43'05		opposition	9792 Feb 04 22:46	19°Ω39'50	-16°31'13
				min. Earth dist.	9792 Feb 03 14:09	19°Ω41'22	47.67730 AU
conjunction	9784 Jul 26 04:58	12°Ω12'10 -16°08'27		direct	9792 Apr 27 00:12	18°Ω40'35	
minimum elong	9784 Jul 26 05:03	12°Ω12'10 16°08'44					
max. Earth dist.	9784 Jul 27 20:37	12°Ω14'31 48.98378 AU		conjunction	9792 Aug 03 03:02	20°Ω08'07	-15°50'11
retrograde	9784 Nov 05 05:22	13°Ω44'11		minimum elong	9792 Aug 03 03:11	20°Ω08'07	15°50'28
min. Earth dist.	9785 Jan 26 15:03	12°Ω45'16 47.11238 AU		max. Earth dist.	9792 Aug 04 12:55	20°Ω10'05	49.63114 AU
opposition	9785 Jan 28 04:34	12°Ω43'30 -16°48'22		retrograde	9792 Nov 13 02:55	21°Ω38'39	
direct	9785 Apr 20 04:46	11°Ω43'35		min. Earth dist.	9793 Feb 03 20:36	20°Ω40'10	47.74242 AU
				opposition	9793 Feb 05 04:29	20°Ω38'40	-16°27'42
conjunction	9785 Jul 27 11:01	13°Ω12'26 -16°07'08		direct	9793 Apr 28 07:26	19°Ω39'29	

conjunction	9793 Aug 04 08:34	21°06'51	-15°46'45			9801 Oct 11 15:52	0°00'
minimum elong	9793 Aug 04 08:42	21°06'51	15°47'00	retrograde		9801 Nov 23 02:26	0°00'18"20
max. Earth dist.	9793 Aug 05 16:12	21°08'41	49.69419 AU			9802 Jan 05 09:16	30°00'00"
retrograde	9793 Nov 14 11:13	22°03'13		min. Earth dist.		9802 Feb 14 04:43	29°00'19"57 48.13205 AU
min. Earth dist.	9794 Feb 05 03:19	21°03'45	47.80227 AU	opposition		9802 Feb 15 04:20	29°00'18"51 -15°45'18
opposition	9794 Feb 06 10:08	21°03'19	-16°23'58	direct		9802 May 08 04:59	28°00'20"09
direct	9794 Apr 29 11:07	20°03'38"11					
conjunction	9794 Aug 05 14:09	22°05'23	-15°43'06	conjunction		9802 Aug 14 07:16	29°00'46"21 -15°05'13
minimum elong	9794 Aug 05 14:18	22°05'23	15°43'22	minimum elong		9802 Aug 14 07:26	29°00'46"21 15°05'27
max. Earth dist.	9794 Aug 06 21:32	22°07'12	49.75193 AU	max. Earth dist.		9802 Aug 15 08:17	29°00'47"47 50.07348 AU
retrograde	9794 Nov 15 16:29	23°03'34				9802 Aug 24 06:16	0°00'00"
min. Earth dist.	9795 Feb 06 10:46	22°03'04	47.85679 AU	retrograde		9802 Nov 24 07:50	1°00'15"35
opposition	9795 Feb 07 15:49	22°03'42	-16°20'00	min. Earth dist.		9803 Feb 15 10:04	0°00'17"15 48.15789 AU
direct	9795 Apr 30 15:48	21°03'38		opposition		9803 Feb 16 09:20	0°00'16"10 -15°39'20
conjunction	9795 Aug 06 19:28	23°03'39	-15°39'13	direct		9803 Mar 03 01:13	30°00'00"00
minimum elong	9795 Aug 06 19:36	23°03'39	15°39'28			9803 May 09 11:32	29°00'17"33
max. Earth dist.	9795 Aug 08 01:18	23°05'22	49.80477 AU	conjunction		9803 Jul 13 05:07	0°00'00"
retrograde	9795 Nov 16 20:17	24°03'39		minimum elong		9803 Aug 15 12:09	0°00'43"40 -14°59'24
opposition	9796 Feb 08 21:16	23°03'50	-16°15'49	max. Earth dist.		9803 Aug 15 12:20	0°00'43"41 14°59'36
min. Earth dist.	9796 Feb 07 16:13	23°03'52	47.90663 AU	retrograde		9803 Aug 16 11:14	0°00'44"59 50.09818 AU
direct	9796 Apr 30 20:30	22°03'47		opposition		9803 Nov 25 16:12	2°00'12"51
conjunction	9796 Aug 07 00:47	24°01'39	-15°35'07	min. Earth dist.		9804 Feb 17 14:23	1°00'13"30 -15°33'08
minimum elong	9796 Aug 07 00:56	24°01'39	15°35'22	direct		9804 Feb 16 16:17	1°00'14"32 48.17943 AU
max. Earth dist.	9796 Aug 08 05:33	24°03'19	49.85308 AU	evening set		9804 May 09 14:24	0°00'14"57
retrograde	9796 Nov 17 00:41	25°03'10				9804 Aug 13 20:21	1°00'38"27
min. Earth dist.	9797 Feb 07 23:28	24°03'25	47.95236 AU	conjunction		9804 Aug 15 17:21	1°00'41"01 -14°53'21
opposition	9797 Feb 09 02:35	24°03'14	-16°11'22	minimum elong		9804 Aug 15 17:32	1°00'41"01 14°53'33
direct	9797 May 02 03:54	23°03'24		morning rise		9804 Aug 17 14:46	1°00'43"36
conjunction	9797 Aug 08 06:06	24°05'25	-15°30'45	max. Earth dist.		9804 Aug 16 16:03	1°00'42"19 50.11811 AU
minimum elong	9797 Aug 08 06:16	24°05'25	15°31'00	retrograde		9804 Nov 25 22:10	3°00'10"07
max. Earth dist.	9797 Aug 09 10:50	25°01'04	49.89770 AU	opposition		9805 Feb 17 19:17	2°00'10"50 -15°26'44
retrograde	9797 Nov 18 05:25	26°02'07		min. Earth dist.		9805 Feb 16 23:00	2°00'11"47 48.19578 AU
min. Earth dist.	9798 Feb 09 04:53	25°03'38	47.99448 AU	direct		9805 May 10 17:21	1°00'12"20
opposition	9798 Feb 10 07:50	25°02'23	-16°06'40	evening set		9805 Aug 14 07:27	2°00'34"44
direct	9798 May 03 11:09	24°03'02		conjunction		9805 Aug 16 22:29	2°00'38"21 -14°47'06
conjunction	9798 Aug 09 11:02	25°05'59	-15°26'09	minimum elong		9805 Aug 16 22:41	2°00'38"21 14°47'19
minimum elong	9798 Aug 09 11:11	25°05'59	15°26'24	max. Earth dist.		9805 Aug 17 19:23	2°00'39"32 50.13278 AU
max. Earth dist.	9798 Aug 10 14:01	25°05'32	49.93896 AU	morning rise		9805 Aug 19 14:01	2°00'41"58
retrograde	9798 Nov 19 13:55	27°02'34		retrograde		9805 Nov 27 02:35	4°00'07"22
min. Earth dist.	9799 Feb 10 10:42	26°02'06	48.03352 AU	min. Earth dist.		9806 Feb 18 04:16	3°00'09"03 48.20665 AU
opposition	9799 Feb 11 13:07	26°02'52	-16°01'43	opposition		9806 Feb 19 00:13	3°00'08"08 -15°20'07
direct	9799 May 04 13:27	25°02'58		direct		9806 May 11 20:18	2°00'09"39
conjunction	9799 Aug 10 16:11	26°05'42	-15°21'18	evening set		9806 Aug 14 21:59	3°00'31"10
minimum elong	9799 Aug 10 16:22	26°05'42	15°21'32	conjunction		9806 Aug 18 03:24	3°00'35"35 -14°40'39
max. Earth dist.	9799 Aug 11 19:27	26°05'55	49.97722 AU	minimum elong		9806 Aug 18 03:35	3°00'35"36 14°40'51
retrograde	9799 Nov 20 19:40	28°02'53		max. Earth dist.		9806 Aug 18 22:49	3°00'36"42 50.14182 AU
opposition	9800 Feb 12 18:16	27°02'41	-15°56'30	morning rise		9806 Aug 21 09:19	3°00'40"02
min. Earth dist.	9800 Feb 11 17:10	27°02'52	48.06949 AU	retrograde		9806 Nov 28 05:58	5°00'04"32
direct	9800 May 05 17:40	26°02'52		min. Earth dist.		9807 Feb 19 11:31	4°00'06"08 48.21202 AU
conjunction	9800 Aug 11 21:14	27°05'14	-15°16'11	opposition		9807 Feb 20 05:17	4°00'05"18 -15°13'18
minimum elong	9800 Aug 11 21:23	27°05'14	15°16'25	direct		9807 May 13 02:51	3°00'06"51
max. Earth dist.	9800 Aug 12 23:20	27°05'31	50.01260 AU	evening set		9807 Aug 15 14:48	4°00'27"34
retrograde	9800 Nov 21 22:25	29°02'10		conjunction		9807 Aug 19 08:29	4°00'32"41 -14°34'00
opposition	9801 Feb 13 23:16	28°02'13	-15°51'02	minimum elong		9807 Aug 19 08:40	4°00'32"42 14°34'13
min. Earth dist.	9801 Feb 12 21:58	28°02'24	48.10244 AU	max. Earth dist.		9807 Aug 20 03:30	4°00'33"46 50.14569 AU
direct	9801 May 06 22:20	27°02'24		morning rise		9807 Aug 23 02:41	4°00'37"50
conjunction	9801 Aug 13 02:10	28°04'03	-15°10'49	retrograde		9807 Nov 29 08:59	6°00'01"33
minimum elong	9801 Aug 13 02:21	28°04'03	15°11'03	opposition		9808 Feb 21 10:00	5°00'02"20 -15°06'17
max. Earth dist.	9801 Aug 14 03:17	28°05'02	50.04471 AU	min. Earth dist.		9808 Feb 20 16:42	5°00'03"08 48.21234 AU
				direct		9808 May 13 11:09	4°00'03"51
				evening set		9808 Aug 15 08:35	5°00'23"53

conjunction	9808 Aug 19 13:20	5° $\mathring{\mu}$ 29'37	-14°27'09	direct	9815 May 20 17:19	10° $\mathring{\mu}$ 39'28	
minimum elong	9808 Aug 19 13:31	5° $\mathring{\mu}$ 29'38	14°27'20	evening set	9815 Aug 20 04:35	11° $\mathring{\mu}$ 55'47	
max. Earth dist.	9808 Aug 20 06:12	5° $\mathring{\mu}$ 30'35	50.14485 AU				
morning rise	9808 Aug 23 18:42	5° $\mathring{\mu}$ 35'24		conjunction	9815 Aug 26 22:51	12° $\mathring{\mu}$ 05'00	-13°32'43
retrograde	9808 Nov 29 17:10	6° $\mathring{\mu}$ 58'24		minimum elong	9815 Aug 26 23:02	12° $\mathring{\mu}$ 05'00	13°32'52
opposition	9809 Feb 21 14:47	5° $\mathring{\mu}$ 59'10	-14°59'02	max. Earth dist.	9815 Aug 27 10:29	12° $\mathring{\mu}$ 05'39	50.04248 AU
min. Earth dist.	9809 Feb 20 22:31	5° $\mathring{\mu}$ 59'56	48.20837 AU	morning rise	9815 Sep 02 18:00	12° $\mathring{\mu}$ 14'15	
direct	9809 May 14 14:43	5° $\mathring{\mu}$ 00'41		retrograde	9815 Dec 07 03:35	13° $\mathring{\mu}$ 33'33	
evening set	9809 Aug 16 03:11	6° $\mathring{\mu}$ 20'04		opposition	9816 Feb 28 23:08	12° $\mathring{\mu}$ 34'23	-14°01'39
				min. Earth dist.	9816 Feb 28 12:15	12° $\mathring{\mu}$ 34'53	48.08584 AU
conjunction	9809 Aug 20 18:12	6° $\mathring{\mu}$ 26'22	-14°20'04	direct	9816 May 20 19:30	11° $\mathring{\mu}$ 35'57	
minimum elong	9809 Aug 20 18:23	6° $\mathring{\mu}$ 26'23	14°20'15	evening set	9816 Aug 20 01:58	12° $\mathring{\mu}$ 51'54	
max. Earth dist.	9809 Aug 21 11:08	6° $\mathring{\mu}$ 27'20	50.13988 AU				
morning rise	9809 Aug 25 09:50	6° $\mathring{\mu}$ 32'44		conjunction	9816 Aug 27 03:46	13° $\mathring{\mu}$ 01'31	-13°24'03
retrograde	9809 Nov 30 23:38	7° $\mathring{\mu}$ 55'05		minimum elong	9816 Aug 27 03:59	13° $\mathring{\mu}$ 01'32	13°24'11
opposition	9810 Feb 22 19:28	6° $\mathring{\mu}$ 55'50	-14°51'33	max. Earth dist.	9816 Aug 27 13:59	13° $\mathring{\mu}$ 02'06	50.01332 AU
min. Earth dist.	9810 Feb 22 04:36	6° $\mathring{\mu}$ 56'32	48.20049 AU	morning rise	9816 Sep 03 06:35	13° $\mathring{\mu}$ 11'12	
direct	9810 May 15 18:32	5° $\mathring{\mu}$ 57'21		retrograde	9816 Dec 07 07:45	14° $\mathring{\mu}$ 30'06	
evening set	9810 Aug 16 22:29	7° $\mathring{\mu}$ 16'07		opposition	9817 Mar 01 03:51	13° $\mathring{\mu}$ 30'57	-13°52'32
				min. Earth dist.	9817 Feb 28 19:14	13° $\mathring{\mu}$ 31'21	48.05300 AU
conjunction	9810 Aug 21 22:59	7° $\mathring{\mu}$ 22'58	-14°12'46	direct	9817 May 22 00:16	12° $\mathring{\mu}$ 32'32	
minimum elong	9810 Aug 21 23:11	7° $\mathring{\mu}$ 22'59	14°12'56	evening set	9817 Aug 20 23:43	13° $\mathring{\mu}$ 48'06	
max. Earth dist.	9810 Aug 22 14:44	7° $\mathring{\mu}$ 23'52	50.13152 AU				
morning rise	9810 Aug 27 00:09	7° $\mathring{\mu}$ 29'51		conjunction	9817 Aug 28 08:48	13° $\mathring{\mu}$ 58'07	-13°15'10
retrograde	9810 Dec 02 03:10	8° $\mathring{\mu}$ 51'36		minimum elong	9817 Aug 28 09:00	13° $\mathring{\mu}$ 58'08	13°15'18
min. Earth dist.	9811 Feb 23 09:00	7° $\mathring{\mu}$ 53'04	48.18942 AU	max. Earth dist.	9817 Aug 28 18:25	13° $\mathring{\mu}$ 58'40	49.97911 AU
opposition	9811 Feb 24 00:06	7° $\mathring{\mu}$ 52'22	-14°43'50	morning rise	9817 Sep 04 18:48	14° $\mathring{\mu}$ 08'13	
direct	9811 May 16 21:32	6° $\mathring{\mu}$ 53'52		retrograde	9817 Dec 08 10:49	15° $\mathring{\mu}$ 26'44	
evening set	9811 Aug 17 18:03	8° $\mathring{\mu}$ 12'04		opposition	9818 Mar 02 08:26	14° $\mathring{\mu}$ 27'34	-13°43'14
				min. Earth dist.	9818 Mar 02 00:15	14° $\mathring{\mu}$ 27'57	48.01478 AU
conjunction	9811 Aug 23 03:40	8° $\mathring{\mu}$ 19'26	-14°05'13	direct	9818 May 23 07:39	13° $\mathring{\mu}$ 29'09	
minimum elong	9811 Aug 23 03:51	8° $\mathring{\mu}$ 19'27	14°05'23	evening set	9818 Aug 21 21:41	14° $\mathring{\mu}$ 44'21	
max. Earth dist.	9811 Aug 23 18:22	8° $\mathring{\mu}$ 20'17	50.11995 AU				
morning rise	9811 Aug 28 14:02	8° $\mathring{\mu}$ 26'50		conjunction	9818 Aug 29 13:43	14° $\mathring{\mu}$ 54'46	-13°06'06
retrograde	9811 Dec 03 05:49	9° $\mathring{\mu}$ 48'02		minimum elong	9818 Aug 29 13:56	14° $\mathring{\mu}$ 54'47	13°06'14
opposition	9812 Feb 25 04:52	8° $\mathring{\mu}$ 48'47	-14°35'52	max. Earth dist.	9818 Aug 29 20:57	14° $\mathring{\mu}$ 55'11	49.93956 AU
min. Earth dist.	9812 Feb 24 15:24	8° $\mathring{\mu}$ 49'24	48.17526 AU	morning rise	9818 Sep 06 06:53	15° $\mathring{\mu}$ 05'16	
direct	9812 May 17 03:29	7° $\mathring{\mu}$ 50'17		retrograde	9818 Dec 09 18:35	16° $\mathring{\mu}$ 23'23	
evening set	9812 Aug 17 14:19	9° $\mathring{\mu}$ 07'59		opposition	9819 Mar 03 13:07	15° $\mathring{\mu}$ 24'14	-13°33'43
				min. Earth dist.	9819 Mar 03 06:21	15° $\mathring{\mu}$ 24'32	47.97138 AU
conjunction	9812 Aug 23 08:34	9° $\mathring{\mu}$ 15'49	-13°57'26	direct	9819 May 24 11:19	14° $\mathring{\mu}$ 25'47	
minimum elong	9812 Aug 23 08:47	9° $\mathring{\mu}$ 15'50	13°57'36	evening set	9819 Aug 22 19:40	15° $\mathring{\mu}$ 40'36	
max. Earth dist.	9812 Aug 23 23:20	9° $\mathring{\mu}$ 16'40	50.10546 AU				
morning rise	9812 Aug 29 03:33	9° $\mathring{\mu}$ 23'43		conjunction	9819 Aug 30 18:43	15° $\mathring{\mu}$ 51'25	-12°56'50
retrograde	9812 Dec 03 08:58	10° $\mathring{\mu}$ 44'23		minimum elong	9819 Aug 30 18:55	15° $\mathring{\mu}$ 51'26	12°56'57
opposition	9813 Feb 25 09:18	9° $\mathring{\mu}$ 45'08	-14°27'40	max. Earth dist.	9819 Aug 31 01:39	15° $\mathring{\mu}$ 51'49	49.89489 AU
min. Earth dist.	9813 Feb 24 19:55	9° $\mathring{\mu}$ 45'46	48.15802 AU	morning rise	9819 Sep 07 18:48	16° $\mathring{\mu}$ 02'18	
direct	9813 May 18 10:20	8° $\mathring{\mu}$ 46'39		retrograde	9819 Dec 11 01:34	17° $\mathring{\mu}$ 20'03	
evening set	9813 Aug 18 10:46	10° $\mathring{\mu}$ 03'52		opposition	9820 Mar 03 17:47	16° $\mathring{\mu}$ 20'52	-13°24'00
				min. Earth dist.	9820 Mar 03 12:33	16° $\mathring{\mu}$ 21'07	47.92297 AU
conjunction	9813 Aug 24 13:16	10° $\mathring{\mu}$ 12'10	-13°49'26	direct	9820 May 24 14:31	15° $\mathring{\mu}$ 22'24	
minimum elong	9813 Aug 24 13:28	10° $\mathring{\mu}$ 12'11	13°49'36	evening set	9820 Aug 22 18:03	16° $\mathring{\mu}$ 36'51	
max. Earth dist.	9813 Aug 25 02:14	10° $\mathring{\mu}$ 12'55	50.08791 AU				
morning rise	9813 Aug 30 16:39	10° $\mathring{\mu}$ 20'32		conjunction	9820 Aug 30 23:41	16° $\mathring{\mu}$ 48'03	-12°47'22
retrograde	9813 Dec 04 16:11	11° $\mathring{\mu}$ 40'43		minimum elong	9820 Aug 30 23:53	16° $\mathring{\mu}$ 48'04	12°47'29
opposition	9814 Feb 26 13:59	10° $\mathring{\mu}$ 41'30	-14°19'14	max. Earth dist.	9820 Aug 31 05:07	16° $\mathring{\mu}$ 48'22	49.84566 AU
min. Earth dist.	9814 Feb 26 01:32	10° $\mathring{\mu}$ 42'05	48.13773 AU	morning rise	9820 Sep 08 06:27	16° $\mathring{\mu}$ 59'19	
direct	9814 May 19 13:42	9° $\mathring{\mu}$ 43'02		retrograde	9820 Dec 11 06:23	18° $\mathring{\mu}$ 16'42	
evening set	9814 Aug 19 07:24	10° $\mathring{\mu}$ 59'48		opposition	9821 Mar 04 22:10	17° $\mathring{\mu}$ 17'29	-13°14'04
				min. Earth dist.	9821 Mar 04 17:07	17° $\mathring{\mu}$ 17'43	47.87035 AU
conjunction	9814 Aug 25 17:59	11° $\mathring{\mu}$ 08'33	-13°41'11	direct	9821 May 25 16:57	16° $\mathring{\mu}$ 18'58	
minimum elong	9814 Aug 25 18:12	11° $\mathring{\mu}$ 08'34	13°41'21	evening set	9821 Aug 23 16:22	17° $\mathring{\mu}$ 33'06	
max. Earth dist.	9814 Aug 26 07:01	11° $\mathring{\mu}$ 09'17	50.06705 AU				
morning rise	9814 Sep 01 05:26	11° $\mathring{\mu}$ 17'22		conjunction	9821 Sep 01 04:35	17° $\mathring{\mu}$ 44'40	-12°37'40
retrograde	9814 Dec 05 22:15	12° $\mathring{\mu}$ 37'06		minimum elong	9821 Sep 01 04:47	17° $\mathring{\mu}$ 44'41	12°37'47
opposition	9815 Feb 27 18:41	11° $\mathring{\mu}$ 37'54	-14°10'33	max. Earth dist.	9821 Sep 01 08:46	17° $\mathring{\mu}$ 44'54	49.79236 AU
min. Earth dist.	9815 Feb 27 07:30	11° $\mathring{\mu}$ 38'25	48.11380 AU	morning rise	9821 Sep 09 18:03	17° $\mathring{\mu}$ 56'18	

retrograde	9821 Dec 12 08:44	19° $\mathring{\mu}$ 13'21	minimum elong	9828 Sep 07 15:58	24° $\mathring{\mu}$ 22'53	11°23'31
opposition	9822 Mar 06 02:51	18° $\mathring{\mu}$ 14'05 -13°03'54	max. Earth dist.	9828 Sep 07 13:36	24° $\mathring{\mu}$ 22'45	49.33164 AU
min. Earth dist.	9822 Mar 05 23:33	18° $\mathring{\mu}$ 14'15 47.81404 AU	morning rise	9828 Sep 17 23:50	24° $\mathring{\mu}$ 36'58	
direct	9822 May 26 23:13	17° $\mathring{\mu}$ 15'33	retrograde	9828 Dec 18 21:23	25° $\mathring{\mu}$ 52'07	
evening set	9822 Aug 24 14:45	18° $\mathring{\mu}$ 29'22	opposition	9829 Mar 12 11:25	24° $\mathring{\mu}$ 52'42	-11°46'06
			min. Earth dist.	9829 Mar 12 13:47	24° $\mathring{\mu}$ 52'36	47.33168 AU
conjunction	9822 Sep 02 09:25	18° $\mathring{\mu}$ 41'17 -12°27'46	direct	9829 Jun 02 07:37	23° $\mathring{\mu}$ 53'57	
minimum elong	9822 Sep 02 09:37	18° $\mathring{\mu}$ 41'18 12°27'52	evening set	9829 Aug 29 09:04	25° $\mathring{\mu}$ 06'01	
max. Earth dist.	9822 Sep 02 13:44	18° $\mathring{\mu}$ 41'32 49.73575 AU				
morning rise	9822 Sep 11 05:12	18° $\mathring{\mu}$ 53'17	conjunction	9829 Sep 08 21:16	25° $\mathring{\mu}$ 20'21	-11°11'59
retrograde	9822 Dec 13 11:13	20° $\mathring{\mu}$ 10'00	minimum elong	9829 Sep 08 21:29	25° $\mathring{\mu}$ 20'22	11°12'03
opposition	9823 Mar 07 07:25	19° $\mathring{\mu}$ 10'43 -12°53'30	max. Earth dist.	9829 Sep 08 18:37	25° $\mathring{\mu}$ 20'12	49.25027 AU
min. Earth dist.	9823 Mar 07 04:06	19° $\mathring{\mu}$ 10'52 47.75450 AU	morning rise	9829 Sep 19 10:53	25° $\mathring{\mu}$ 34'47	
direct	9823 May 28 06:41	18° $\mathring{\mu}$ 12'08	retrograde	9829 Dec 20 04:46	26° $\mathring{\mu}$ 49'42	
evening set	9823 Aug 25 13:28	19° $\mathring{\mu}$ 25'39	opposition	9830 Mar 13 16:24	25° $\mathring{\mu}$ 50'15	-11°34'06
			min. Earth dist.	9830 Mar 13 20:18	25° $\mathring{\mu}$ 50'04	47.24624 AU
conjunction	9823 Sep 03 14:18	19° $\mathring{\mu}$ 37'56 -12°17'37	direct	9830 Jun 03 11:47	24° $\mathring{\mu}$ 51'26	
minimum elong	9823 Sep 03 14:31	19° $\mathring{\mu}$ 37'56 12°17'43	evening set	9830 Aug 30 09:01	26° $\mathring{\mu}$ 03'17	
max. Earth dist.	9823 Sep 03 16:47	19° $\mathring{\mu}$ 38'04 49.67610 AU				
morning rise	9823 Sep 12 16:31	19° $\mathring{\mu}$ 50'18	conjunction	9830 Sep 10 02:34	26° $\mathring{\mu}$ 17'56	-11°00'18
retrograde	9823 Dec 14 18:24	21° $\mathring{\mu}$ 06'43	minimum elong	9830 Sep 10 02:46	26° $\mathring{\mu}$ 17'57	11°00'21
opposition	9824 Mar 07 11:57	20° $\mathring{\mu}$ 07'24 -12°42'52	max. Earth dist.	9830 Sep 09 22:11	26° $\mathring{\mu}$ 17'41	49.16365 AU
min. Earth dist.	9824 Mar 07 09:37	20° $\mathring{\mu}$ 07'30 47.69216 AU	morning rise	9830 Sep 20 21:40	26° $\mathring{\mu}$ 32'42	
direct	9824 May 28 10:24	19° $\mathring{\mu}$ 08'47	retrograde	9830 Dec 21 12:13	27° $\mathring{\mu}$ 47'23	
evening set	9824 Aug 25 12:13	20° $\mathring{\mu}$ 22'00	opposition	9831 Mar 14 21:19	26° $\mathring{\mu}$ 47'52	-11°21'53
			min. Earth dist.	9831 Mar 15 01:39	26° $\mathring{\mu}$ 47'40	47.15553 AU
conjunction	9824 Sep 03 19:21	20° $\mathring{\mu}$ 34'38 -12°07'15	direct	9831 Jun 04 14:03	25° $\mathring{\mu}$ 48'59	
minimum elong	9824 Sep 03 19:33	20° $\mathring{\mu}$ 34'39 12°07'21	evening set	9831 Aug 31 09:08	27° $\mathring{\mu}$ 00'38	
max. Earth dist.	9824 Sep 03 21:51	20° $\mathring{\mu}$ 34'47 49.61360 AU				
morning rise	9824 Sep 13 03:44	20° $\mathring{\mu}$ 47'22	conjunction	9831 Sep 11 08:05	27° $\mathring{\mu}$ 15'36	-10°48'25
retrograde	9824 Dec 15 01:00	22° $\mathring{\mu}$ 03'30	minimum elong	9831 Sep 11 08:17	27° $\mathring{\mu}$ 15'37	10°48'29
opposition	9825 Mar 08 16:36	21° $\mathring{\mu}$ 04'10 -12°31'59	max. Earth dist.	9831 Sep 11 02:03	27° $\mathring{\mu}$ 15'15	49.07170 AU
min. Earth dist.	9825 Mar 08 15:16	21° $\mathring{\mu}$ 04'13 47.62686 AU	morning rise	9831 Sep 22 08:42	27° $\mathring{\mu}$ 30'40	
direct	9825 May 29 14:14	20° $\mathring{\mu}$ 05'31	retrograde	9831 Dec 22 16:14	28° $\mathring{\mu}$ 45'09	
evening set	9825 Aug 26 11:12	21° $\mathring{\mu}$ 18'28	opposition	9832 Mar 15 02:16	27° $\mathring{\mu}$ 45'32	-11°09'27
			min. Earth dist.	9832 Mar 15 08:47	27° $\mathring{\mu}$ 45'14	47.05976 AU
conjunction	9825 Sep 05 00:15	21° $\mathring{\mu}$ 31'28 -11°56'38	direct	9832 Jun 04 19:29	26° $\mathring{\mu}$ 46'34	
minimum elong	9825 Sep 05 00:29	21° $\mathring{\mu}$ 31'29 11°56'43	evening set	9832 Aug 31 09:26	27° $\mathring{\mu}$ 58'01	
max. Earth dist.	9825 Sep 05 01:43	21° $\mathring{\mu}$ 31'33 49.54831 AU				
morning rise	9825 Sep 14 14:41	21° $\mathring{\mu}$ 44'32	conjunction	9832 Sep 11 13:42	28° $\mathring{\mu}$ 13'18	-10°36'20
retrograde	9825 Dec 16 07:31	23° $\mathring{\mu}$ 00'23	minimum elong	9832 Sep 11 13:55	28° $\mathring{\mu}$ 13'19	10°36'22
opposition	9826 Mar 09 21:11	22° $\mathring{\mu}$ 01'02 -12°20'51	max. Earth dist.	9832 Sep 11 07:22	28° $\mathring{\mu}$ 12'56	48.97505 AU
min. Earth dist.	9826 Mar 09 19:48	22° $\mathring{\mu}$ 01'06 47.55869 AU	morning rise	9832 Sep 22 19:27	28° $\mathring{\mu}$ 28'41	
direct	9826 May 30 15:27	21° $\mathring{\mu}$ 02'22	retrograde	9832 Dec 22 18:32	29° $\mathring{\mu}$ 42'57	
evening set	9826 Aug 27 10:15	22° $\mathring{\mu}$ 15'06	opposition	9833 Mar 16 07:09	28° $\mathring{\mu}$ 43'15	-10°56'48
			min. Earth dist.	9833 Mar 16 13:54	28° $\mathring{\mu}$ 42'56	46.95949 AU
conjunction	9826 Sep 06 05:17	22° $\mathring{\mu}$ 28'26 -11°45'48	direct	9833 Jun 06 02:54	27° $\mathring{\mu}$ 44'11	
minimum elong	9826 Sep 06 05:29	22° $\mathring{\mu}$ 28'27 11°45'53	evening set	9833 Sep 01 09:47	28° $\mathring{\mu}$ 55'28	
max. Earth dist.	9826 Sep 06 05:35	22° $\mathring{\mu}$ 28'27 49.47988 AU				
morning rise	9826 Sep 16 01:47	22° $\mathring{\mu}$ 41'51	conjunction	9833 Sep 12 19:03	29° $\mathring{\mu}$ 11'03	-10°24'02
retrograde	9826 Dec 17 12:17	23° $\mathring{\mu}$ 57'27	minimum elong	9833 Sep 12 19:15	29° $\mathring{\mu}$ 11'04	10°24'04
opposition	9827 Mar 11 01:58	22° $\mathring{\mu}$ 58'05 -12°09'30	max. Earth dist.	9833 Sep 12 10:37	29° $\mathring{\mu}$ 10'34	48.87417 AU
min. Earth dist.	9827 Mar 11 02:29	22° $\mathring{\mu}$ 58'03 47.48723 AU	morning rise	9833 Sep 24 06:06	29° $\mathring{\mu}$ 26'45	
direct	9827 May 31 18:51	21° $\mathring{\mu}$ 59'24		9833 Oct 20 09:01	0° $\mathring{\mu}$	
evening set	9827 Aug 28 09:35	23° $\mathring{\mu}$ 11'54	retrograde	9833 Dec 24 01:04	0° $\mathring{\mu}$ 40'50	
				9834 Feb 28 11:05	30° $\mathring{\mu}$	
conjunction	9827 Sep 07 10:30	23° $\mathring{\mu}$ 25'34 -11°34'44	opposition	9834 Mar 17 12:09	29° $\mathring{\mu}$ 41'03	-10°43'56
minimum elong	9827 Sep 07 10:43	23° $\mathring{\mu}$ 25'35 11°34'48	min. Earth dist.	9834 Mar 17 20:13	29° $\mathring{\mu}$ 40'40	46.85541 AU
max. Earth dist.	9827 Sep 07 10:37	23° $\mathring{\mu}$ 25'34 49.40796 AU	direct	9834 Jun 07 07:46	28° $\mathring{\mu}$ 41'53	
morning rise	9827 Sep 17 12:44	23° $\mathring{\mu}$ 39'19	evening set	9834 Sep 02 10:16	29° $\mathring{\mu}$ 53'00	
retrograde	9827 Dec 18 14:54	24° $\mathring{\mu}$ 54'42		9834 Sep 07 13:24	0° $\mathring{\mu}$	
opposition	9828 Mar 11 06:40	23° $\mathring{\mu}$ 55'18 -11°57'54				
min. Earth dist.	9828 Mar 11 07:25	23° $\mathring{\mu}$ 55'16 47.41177 AU	conjunction	9834 Sep 14 00:43	0° $\mathring{\mu}$ 08'54	-10°11'30
direct	9828 Jun 01 02:24	22° $\mathring{\mu}$ 56'36	minimum elong	9834 Sep 14 00:56	0° $\mathring{\mu}$ 08'54	10°11'31
evening set	9828 Aug 28 09:17	24° $\mathring{\mu}$ 08'53	max. Earth dist.	9834 Sep 13 16:13	0° $\mathring{\mu}$ 08'24	48.76967 AU
			morning rise	9834 Sep 25 16:45	0° $\mathring{\mu}$ 24'54	
conjunction	9828 Sep 07 15:46	24° $\mathring{\mu}$ 22'52 -11°23'27	retrograde	9834 Dec 25 07:14	1° $\mathring{\mu}$ 38'49	

opposition	9835 Mar 18 17:12	0° <u>♁</u> 38'57 -10°30'49	conjunction	9841 Sep 20 18:27	7° <u>♁</u> 00'18 -8°37'19
min. Earth dist.	9835 Mar 19 02:11	0° <u>♁</u> 38'32 46.74790 AU	minimum elong	9841 Sep 20 18:38	7° <u>♁</u> 00'18 8°37'17
	9835 Apr 25 02:55	30° <u>♁</u> 17	max. Earth dist.	9841 Sep 20 02:16	6° <u>♁</u> 59'21 47.94839 AU
direct	9835 Jun 08 13:00	29° <u>♁</u> 39'42	morning rise	9841 Oct 03 19:15	7° <u>♁</u> 18'24
	9835 Jul 22 03:47	0° <u>♁</u>	retrograde	9842 Jan 01 06:56	8° <u>♁</u> 31'40
evening set	9835 Sep 03 11:01	0° <u>♁</u> 50'40	opposition	9842 Mar 25 06:51	7° <u>♁</u> 31'21 -8°52'13
			min. Earth dist.	9842 Mar 25 22:51	7° <u>♁</u> 30'35 45.90408 AU
conjunction	9835 Sep 15 06:19	1° <u>♁</u> 06'52 -9°58'44	direct	9842 Jun 14 19:14	6° <u>♁</u> 31'34
minimum elong	9835 Sep 15 06:31	1° <u>♁</u> 06'53 9°58'46	evening set	9842 Sep 08 21:49	7° <u>♁</u> 42'05
max. Earth dist.	9835 Sep 14 20:40	1° <u>♁</u> 06'19 48.66210 AU	max. Earth dist.	9842 Sep 21 08:18	7° <u>♁</u> 59'22 47.81414 AU
morning rise	9835 Sep 27 03:21	1° <u>♁</u> 23'11			
retrograde	9835 Dec 26 14:43	2° <u>♁</u> 36'56	conjunction	9842 Sep 22 01:03	8° <u>♁</u> 00'20 -8°22'58
opposition	9836 Mar 18 22:16	1° <u>♁</u> 37'00 -10°17'27	minimum elong	9842 Sep 22 01:14	8° <u>♁</u> 00'21 8°22'57
min. Earth dist.	9836 Mar 19 07:22	1° <u>♁</u> 36'34 46.63744 AU	morning rise	9842 Oct 05 05:59	8° <u>♁</u> 18'43
direct	9836 Jun 08 15:13	0° <u>♁</u> 37'40	retrograde	9843 Jan 02 10:17	9° <u>♁</u> 31'56
evening set	9836 Sep 03 11:55	1° <u>♁</u> 48'31	opposition	9843 Mar 26 12:34	8° <u>♁</u> 31'30 -8°37'12
			min. Earth dist.	9843 Mar 27 04:57	8° <u>♁</u> 30'43 45.76585 AU
conjunction	9836 Sep 15 12:05	2° <u>♁</u> 05'01 -9°45'45	direct	9843 Jun 16 03:30	7° <u>♁</u> 31'35
minimum elong	9836 Sep 15 12:17	2° <u>♁</u> 05'02 9°45'45	evening set	9843 Sep 10 00:21	8° <u>♁</u> 42'05
max. Earth dist.	9836 Sep 15 01:13	2° <u>♁</u> 04'24 48.55144 AU			
morning rise	9836 Sep 27 14:03	2° <u>♁</u> 21'38	conjunction	9843 Sep 23 07:36	9° <u>♁</u> 00'37 -8°08'24
retrograde	9836 Dec 26 20:38	3° <u>♁</u> 35'16	minimum elong	9843 Sep 23 07:46	9° <u>♁</u> 00'38 8°08'22
opposition	9837 Mar 20 03:26	2° <u>♁</u> 35'15 -10°03'51	max. Earth dist.	9843 Sep 22 12:21	8° <u>♁</u> 59'30 47.67474 AU
min. Earth dist.	9837 Mar 20 14:15	2° <u>♁</u> 34'45 46.52403 AU	morning rise	9843 Oct 06 16:51	9° <u>♁</u> 19'17
direct	9837 Jun 09 19:09	1° <u>♁</u> 35'51	retrograde	9844 Jan 03 16:42	10° <u>♁</u> 32'27
evening set	9837 Sep 04 12:58	2° <u>♁</u> 46'37	opposition	9844 Mar 26 18:29	9° <u>♁</u> 31'53 -8°21'58
			min. Earth dist.	9844 Mar 27 12:37	9° <u>♁</u> 31'01 45.62273 AU
conjunction	9837 Sep 16 17:58	3° <u>♁</u> 03'25 -9°32'31	direct	9844 Jun 16 10:17	8° <u>♁</u> 31'50
minimum elong	9837 Sep 16 18:09	3° <u>♁</u> 03'26 9°32'32	evening set	9844 Sep 10 02:58	9° <u>♁</u> 42'17
max. Earth dist.	9837 Sep 16 07:05	3° <u>♁</u> 02'47 48.43803 AU			
morning rise	9837 Sep 29 00:33	3° <u>♁</u> 20'20	conjunction	9844 Sep 23 14:23	10° <u>♁</u> 01'06 -7°53'38
retrograde	9837 Dec 28 00:15	4° <u>♁</u> 33'51	minimum elong	9844 Sep 23 14:34	10° <u>♁</u> 01'06 7°53'36
opposition	9838 Mar 21 08:41	3° <u>♁</u> 33'48 -9°49'59	max. Earth dist.	9844 Sep 22 18:48	9° <u>♁</u> 59'57 47.53055 AU
min. Earth dist.	9838 Mar 21 19:18	3° <u>♁</u> 33'17 46.40772 AU	morning rise	9844 Oct 07 03:32	10° <u>♁</u> 20'02
direct	9838 Jun 11 02:14	2° <u>♁</u> 34'19	retrograde	9845 Jan 03 22:47	11° <u>♁</u> 33'10
evening set	9838 Sep 05 14:10	3° <u>♁</u> 45'01	opposition	9845 Mar 28 00:21	10° <u>♁</u> 32'28 -8°06'29
			min. Earth dist.	9845 Mar 28 19:30	10° <u>♁</u> 31'32 45.47511 AU
conjunction	9838 Sep 17 23:41	4° <u>♁</u> 02'06 -9°19'03	direct	9845 Jun 17 17:20	9° <u>♁</u> 32'15
minimum elong	9838 Sep 17 23:53	4° <u>♁</u> 02'07 9°19'04	evening set	9845 Sep 11 05:52	10° <u>♁</u> 42'41
max. Earth dist.	9838 Sep 17 10:59	4° <u>♁</u> 01'22 48.32159 AU			
morning rise	9838 Sep 30 11:08	4° <u>♁</u> 19'19	conjunction	9845 Sep 24 21:06	11° <u>♁</u> 01'46 -7°38'37
retrograde	9838 Dec 29 07:01	5° <u>♁</u> 32'46	minimum elong	9845 Sep 24 21:17	11° <u>♁</u> 01'46 7°38'34
opposition	9839 Mar 22 14:08	4° <u>♁</u> 32'39 -9°35'54	max. Earth dist.	9845 Sep 24 00:07	11° <u>♁</u> 00'32 47.38238 AU
min. Earth dist.	9839 Mar 23 02:08	4° <u>♁</u> 32'05 46.28827 AU	morning rise	9845 Oct 08 14:14	11° <u>♁</u> 20'59
direct	9839 Jun 12 07:46	3° <u>♁</u> 33'07	retrograde	9846 Jan 05 08:16	12° <u>♁</u> 34'04
evening set	9839 Sep 06 15:39	4° <u>♁</u> 43'45	opposition	9846 Mar 29 06:19	11° <u>♁</u> 33'13 -7°50'46
			min. Earth dist.	9846 Mar 30 01:52	11° <u>♁</u> 32'17 45.32389 AU
conjunction	9839 Sep 19 05:53	5° <u>♁</u> 01'08 -9°05'22	direct	9846 Jun 18 20:32	10° <u>♁</u> 32'51
minimum elong	9839 Sep 19 06:04	5° <u>♁</u> 01'09 9°05'21	evening set	9846 Sep 12 08:46	11° <u>♁</u> 43'16
max. Earth dist.	9839 Sep 18 17:00	5° <u>♁</u> 00'24 48.20161 AU	max. Earth dist.	9846 Sep 25 05:39	12° <u>♁</u> 01'19 47.23065 AU
morning rise	9839 Oct 01 21:47	5° <u>♁</u> 18'39			
retrograde	9839 Dec 30 14:59	6° <u>♁</u> 32'03	conjunction	9846 Sep 26 03:50	12° <u>♁</u> 02'37 -7°23'22
opposition	9840 Mar 22 19:30	5° <u>♁</u> 31'52 -9°21'34	minimum elong	9846 Sep 26 04:00	12° <u>♁</u> 02'38 7°23'20
min. Earth dist.	9840 Mar 23 08:46	5° <u>♁</u> 31'15 46.16491 AU	morning rise	9846 Oct 10 00:50	12° <u>♁</u> 22'06
direct	9840 Jun 12 12:19	4° <u>♁</u> 32'16	retrograde	9847 Jan 06 17:13	13° <u>♁</u> 35'10
evening set	9840 Sep 06 17:34	5° <u>♁</u> 42'51	opposition	9847 Mar 30 12:34	12° <u>♁</u> 34'10 -7°34'48
			min. Earth dist.	9847 Mar 31 09:48	12° <u>♁</u> 33'09 45.16942 AU
conjunction	9840 Sep 19 12:08	6° <u>♁</u> 00'33 -8°51'27	direct	9847 Jun 20 00:27	11° <u>♁</u> 33'39
minimum elong	9840 Sep 19 12:20	6° <u>♁</u> 00'33 8°51'26	evening set	9847 Sep 13 12:02	12° <u>♁</u> 44'05
max. Earth dist.	9840 Sep 18 21:36	5° <u>♁</u> 59'42 48.07751 AU			
morning rise	9840 Oct 02 08:33	6° <u>♁</u> 18'21	conjunction	9847 Sep 27 10:54	13° <u>♁</u> 03'42 -7°07'53
retrograde	9840 Dec 31 01:00	7° <u>♁</u> 31'41	minimum elong	9847 Sep 27 11:04	13° <u>♁</u> 03'43 7°07'50
opposition	9841 Mar 24 01:01	6° <u>♁</u> 31'27 -9°07'00	max. Earth dist.	9847 Sep 26 12:40	13° <u>♁</u> 02'24 47.07602 AU
min. Earth dist.	9841 Mar 24 14:50	6° <u>♁</u> 30'48 46.03709 AU	morning rise	9847 Oct 11 11:29	13° <u>♁</u> 23'27
direct	9841 Jun 13 13:54	5° <u>♁</u> 31'46	retrograde	9848 Jan 07 22:25	14° <u>♁</u> 36'30
evening set	9841 Sep 07 19:32	6° <u>♁</u> 42'19	opposition	9848 Mar 30 18:36	13° <u>♁</u> 35'22 -7°18'34
			min. Earth dist.	9848 Mar 31 15:34	13° <u>♁</u> 34'21 45.01221 AU

direct	9848 Jun 20 07:28	12° <u>♂</u> 34'40	retrograde	9855 Jan 15 04:33	21° <u>♂</u> 56'50
evening set	9848 Sep 13 15:39	13° <u>♂</u> 45'09	opposition	9855 Apr 07 18:35	20° <u>♂</u> 54'44 -5°17'45
			min. Earth dist.	9855 Apr 08 22:40	20° <u>♂</u> 53'21 43.82859 AU
conjunction	9848 Sep 27 17:57	14° <u>♂</u> 05'02 -6°52'10	direct	9855 Jun 28 06:57	19° <u>♂</u> 52'59
minimum elong	9848 Sep 27 18:06	14° <u>♂</u> 05'03 6°52'06	evening set	9855 Sep 21 00:48	21° <u>♂</u> 04'20
max. Earth dist.	9848 Sep 26 17:52	14° <u>♂</u> 03'36 46.91872 AU	max. Earth dist.	9855 Oct 04 17:36	21° <u>♂</u> 24'05 45.72996 AU
morning rise	9848 Oct 11 22:17	14° <u>♂</u> 25'03			
retrograde	9849 Jan 08 04:28	15° <u>♂</u> 38'08	conjunction	9855 Oct 06 01:03	21° <u>♂</u> 26'00 -4°55'16
opposition	9849 Apr 01 01:00	14° <u>♂</u> 36'51 -7°02'05	minimum elong	9855 Oct 06 01:10	21° <u>♂</u> 26'00 4°55'10
min. Earth dist.	9849 Apr 01 23:23	14° <u>♂</u> 35'45 44.85256 AU	morning rise	9855 Oct 21 03:09	21° <u>♂</u> 47'48
direct	9849 Jun 21 14:42	13° <u>♂</u> 36'00	retrograde	9856 Jan 16 15:12	23° <u>♂</u> 01'38
evening set	9849 Sep 14 19:14	14° <u>♂</u> 46'32	opposition	9856 Apr 08 01:58	21° <u>♂</u> 59'23 -4°59'29
max. Earth dist.	9849 Sep 28 01:16	15° <u>♂</u> 05'16 46.75895 AU	min. Earth dist.	9856 Apr 09 07:02	21° <u>♂</u> 57'56 43.64303 AU
			direct	9856 Jun 28 12:15	20° <u>♂</u> 57'25
conjunction	9849 Sep 29 01:10	15° <u>♂</u> 06'41 -6°36'11	evening set	9856 Sep 21 06:50	22° <u>♂</u> 08'57
minimum elong	9849 Sep 29 01:20	15° <u>♂</u> 06'41 6°36'07	max. Earth dist.	9856 Oct 05 00:58	22° <u>♂</u> 28'52 45.54315 AU
morning rise	9849 Oct 13 08:49	15° <u>♂</u> 26'58			
retrograde	9850 Jan 09 10:37	16° <u>♂</u> 40'06	conjunction	9856 Oct 06 09:45	22° <u>♂</u> 30'51 -4°37'38
opposition	9850 Apr 02 07:33	15° <u>♂</u> 38'40 -6°45'20	minimum elong	9856 Oct 06 09:52	22° <u>♂</u> 30'52 4°37'30
min. Earth dist.	9850 Apr 03 06:25	15° <u>♂</u> 37'33 44.69040 AU	morning rise	9856 Oct 21 14:25	22° <u>♂</u> 52'54
direct	9850 Jun 22 22:38	14° <u>♂</u> 37'41	retrograde	9857 Jan 17 02:13	24° <u>♂</u> 06'54
evening set	9850 Sep 15 23:20	15° <u>♂</u> 48'18	opposition	9857 Apr 09 09:44	23° <u>♂</u> 04'27 -4°40'58
max. Earth dist.	9850 Sep 29 07:19	16° <u>♂</u> 07'12 46.59681 AU	min. Earth dist.	9857 Apr 10 16:33	23° <u>♂</u> 02'54 43.45335 AU
			direct	9857 Jun 29 17:38	22° <u>♂</u> 02'17
conjunction	9850 Sep 30 08:32	16° <u>♂</u> 08'43 -6°19'58	evening set	9857 Sep 22 13:00	23° <u>♂</u> 14'01
minimum elong	9850 Sep 30 08:41	16° <u>♂</u> 08'43 6°19'53	max. Earth dist.	9857 Oct 06 09:18	23° <u>♂</u> 34'08 45.35264 AU
morning rise	9850 Oct 14 19:40	16° <u>♂</u> 29'15			
retrograde	9851 Jan 10 21:03	17° <u>♂</u> 42'28	conjunction	9857 Oct 07 18:27	23° <u>♂</u> 36'09 -4°19'45
opposition	9851 Apr 03 14:06	16° <u>♂</u> 40'55 -6°28'19	minimum elong	9857 Oct 07 18:34	23° <u>♂</u> 36'10 4°19'37
min. Earth dist.	9851 Apr 04 13:19	16° <u>♂</u> 39'47 44.52576 AU	morning rise	9857 Oct 23 01:31	23° <u>♂</u> 58'26
direct	9851 Jun 24 02:15	15° <u>♂</u> 39'47	retrograde	9858 Jan 18 11:48	25° <u>♂</u> 12'36
evening set	9851 Sep 17 03:43	16° <u>♂</u> 50'31	opposition	9858 Apr 10 17:31	24° <u>♂</u> 09'57 -4°22'11
			min. Earth dist.	9858 Apr 12 00:12	24° <u>♂</u> 08'25 43.26028 AU
conjunction	9851 Oct 01 16:13	17° <u>♂</u> 11'11 -6°03'30	direct	9858 Jul 01 00:40	23° <u>♂</u> 07'35
minimum elong	9851 Oct 01 16:22	17° <u>♂</u> 11'12 6°03'24	evening set	9858 Sep 23 19:43	24° <u>♂</u> 19'32
max. Earth dist.	9851 Sep 30 13:54	17° <u>♂</u> 09'37 46.43167 AU	max. Earth dist.	9858 Oct 07 16:20	24° <u>♂</u> 39'45 45.15888 AU
morning rise	9851 Oct 16 06:36	17° <u>♂</u> 31'59			
retrograde	9852 Jan 12 06:17	18° <u>♂</u> 45'18	conjunction	9858 Oct 09 03:22	24° <u>♂</u> 41'54 -4°01'37
opposition	9852 Apr 03 21:00	17° <u>♂</u> 43'38 -6°11'03	minimum elong	9858 Oct 09 03:29	24° <u>♂</u> 41'55 4°01'28
min. Earth dist.	9852 Apr 04 22:05	17° <u>♂</u> 42'24 44.35783 AU	morning rise	9858 Oct 24 12:54	25° <u>♂</u> 04'25
direct	9852 Jun 24 07:11	16° <u>♂</u> 42'22	retrograde	9859 Jan 19 19:53	26° <u>♂</u> 18'47
evening set	9852 Sep 17 08:29	17° <u>♂</u> 53'14	opposition	9859 Apr 12 01:32	25° <u>♂</u> 15'56 -4°03'09
max. Earth dist.	9852 Sep 30 21:24	18° <u>♂</u> 12'33 46.26300 AU	min. Earth dist.	9859 Apr 13 09:56	25° <u>♂</u> 14'18 43.06438 AU
			direct	9859 Jul 02 09:24	24° <u>♂</u> 13'21
conjunction	9852 Oct 02 00:09	18° <u>♂</u> 14'09 -5°46'47	evening set	9859 Sep 25 02:37	25° <u>♂</u> 25'32
minimum elong	9852 Oct 02 00:18	18° <u>♂</u> 14'10 5°46'41	max. Earth dist.	9859 Oct 09 01:45	25° <u>♂</u> 45'59 44.96244 AU
morning rise	9852 Oct 16 17:33	18° <u>♂</u> 35'13			
retrograde	9853 Jan 12 13:32	19° <u>♂</u> 48'37	conjunction	9859 Oct 10 12:41	25° <u>♂</u> 48'08 -3°43'14
opposition	9853 Apr 05 03:51	18° <u>♂</u> 46'50 -5°53'32	minimum elong	9859 Oct 10 12:46	25° <u>♂</u> 48'09 3°43'06
min. Earth dist.	9853 Apr 06 05:10	18° <u>♂</u> 45'35 44.18600 AU	morning rise	9859 Oct 26 00:13	26° <u>♂</u> 10'53
direct	9853 Jun 25 14:51	17° <u>♂</u> 45'25	retrograde	9860 Jan 21 02:05	27° <u>♂</u> 25'27
evening set	9853 Sep 18 13:41	18° <u>♂</u> 56'27	opposition	9860 Apr 12 09:45	26° <u>♂</u> 22'25 -3°43'50
max. Earth dist.	9853 Oct 02 03:03	19° <u>♂</u> 15'52 46.09001 AU	min. Earth dist.	9860 Apr 13 18:23	26° <u>♂</u> 20'46 42.86597 AU
			direct	9860 Jul 02 20:18	25° <u>♂</u> 19'37
conjunction	9853 Oct 03 08:13	19° <u>♂</u> 17'38 -5°29'51	evening set	9860 Sep 25 10:02	26° <u>♂</u> 32'03
minimum elong	9853 Oct 03 08:21	19° <u>♂</u> 17'38 5°29'45	max. Earth dist.	9860 Oct 09 09:32	26° <u>♂</u> 52'38 44.76373 AU
morning rise	9853 Oct 18 04:44	19° <u>♂</u> 38'56			
retrograde	9854 Jan 13 21:32	20° <u>♂</u> 52'29	conjunction	9860 Oct 10 22:00	26° <u>♂</u> 54'53 -3°24'37
opposition	9854 Apr 06 11:09	19° <u>♂</u> 50'33 -5°35'46	minimum elong	9860 Oct 10 22:05	26° <u>♂</u> 54'54 3°24'27
min. Earth dist.	9854 Apr 07 14:23	19° <u>♂</u> 49'12 44.00972 AU	morning rise	9860 Oct 26 11:41	27° <u>♂</u> 17'51
direct	9854 Jun 26 22:17	18° <u>♂</u> 48'58	retrograde	9861 Jan 21 13:05	28° <u>♂</u> 32'41
evening set	9854 Sep 19 18:57	20° <u>♂</u> 00'09	opposition	9861 Apr 13 18:06	27° <u>♂</u> 29'27 -3°24'15
max. Earth dist.	9854 Oct 03 11:01	20° <u>♂</u> 19'48 45.91232 AU	min. Earth dist.	9861 Apr 15 03:16	27° <u>♂</u> 27'46 42.66555 AU
			direct	9861 Jul 04 02:38	26° <u>♂</u> 26'26
conjunction	9854 Oct 04 16:33	20° <u>♂</u> 21'35 -5°12'40	evening set	9861 Sep 26 17:44	27° <u>♂</u> 39'10
minimum elong	9854 Oct 04 16:40	20° <u>♂</u> 21'35 5°12'33	max. Earth dist.	9861 Oct 10 18:37	27° <u>♂</u> 59'55 44.56291 AU
morning rise	9854 Oct 19 15:46	20° <u>♂</u> 43'09			

conjunction	9861 Oct 12 07:40	28° <u>02</u> '13 -3°05'44	morning rise	9867 Nov 04 23:08	5° <u>00</u> '25'05
minimum elong	9861 Oct 12 07:45	28° <u>02</u> '14 3°05'35	retrograde	9868 Jan 30 21:28	6° <u>00</u> '42'18
morning rise	9861 Oct 27 23:09	28° <u>02</u> '25'24	opposition	9868 Apr 21 12:19	5° <u>00</u> '37'36 -0°59'47
retrograde	9862 Jan 23 00:22	29° <u>00</u> '40'31	min. Earth dist.	9868 Apr 23 04:04	5° <u>00</u> '35'32 41.18519 AU
opposition	9862 Apr 15 02:53	28° <u>03</u> '37'06 -3°04'24	direct	9868 Jul 11 13:36	4° <u>00</u> '32'56
min. Earth dist.	9862 Apr 16 13:15	28° <u>03</u> '35'21 42.46313 AU	evening set	9868 Oct 04 12:59	5° <u>00</u> '48'23
direct	9862 Jul 05 09:02	27° <u>03</u> '33'52	max. Earth dist.	9868 Oct 18 14:05	6° <u>00</u> '09'54 43.07380 AU
evening set	9862 Sep 28 01:44	28° <u>03</u> '46'55			
max. Earth dist.	9862 Oct 12 04:10	29° <u>03</u> '07'51 44.36022 AU	conjunction	9868 Oct 20 11:37	6° <u>00</u> '12'50 -0°46'48
			minimum elong	9868 Oct 20 11:38	6° <u>00</u> '12'50 0°46'35
conjunction	9862 Oct 13 17:30	29° <u>03</u> '10'11 -2°46'37	morning rise	9868 Nov 05 11:32	6° <u>00</u> '37'24
minimum elong	9862 Oct 13 17:34	29° <u>03</u> '10'12 2°46'27	retrograde	9869 Jan 31 10:17	7° <u>00</u> '55'02
morning rise	9862 Oct 29 10:43	29° <u>03</u> '33'35	opposition	9869 Apr 22 22:54	6° <u>00</u> '50'04 -0°38'07
	9862 Nov 17 10:05	0° <u>00</u> '	min. Earth dist.	9869 Apr 24 16:41	6° <u>00</u> '47'52 40.95870 AU
retrograde	9863 Jan 24 12:30	0° <u>00</u> '49'00	direct	9869 Jul 12 23:21	5° <u>00</u> '45'05
	9863 Apr 04 10:52	30° <u>00</u> ' <u>00</u> '	evening set	9869 Oct 06 00:25	7° <u>00</u> '01'00
opposition	9863 Apr 16 11:44	29° <u>03</u> '45'23 -2°44'17	max. Earth dist.	9869 Oct 20 02:09	7° <u>00</u> '22'40 42.84592 AU
min. Earth dist.	9863 Apr 17 21:58	29° <u>03</u> '43'39 42.25865 AU			
direct	9863 Jul 06 16:28	28° <u>03</u> '41'57	conjunction	9869 Oct 21 23:44	7° <u>00</u> '25'38 -0°26'00
evening set	9863 Sep 29 10:28	29° <u>03</u> '55'22	minimum elong	9869 Oct 21 23:44	7° <u>00</u> '25'38 0°25'47
	9863 Oct 02 14:05	0° <u>00</u> '	morning rise	9869 Nov 06 24:00	7° <u>00</u> '50'22
max. Earth dist.	9863 Oct 13 12:27	0° <u>00</u> '16'23 44.15504 AU	retrograde	9870 Feb 01 21:25	9° <u>00</u> '08'25
			opposition	9870 Apr 24 09:40	8° <u>00</u> '03'10 -0°16'11
conjunction	9863 Oct 15 03:42	0° <u>00</u> '18'51 -2°27'15	min. Earth dist.	9870 Apr 26 03:30	8° <u>00</u> '00'58 40.72920 AU
minimum elong	9863 Oct 15 03:46	0° <u>00</u> '18'51 2°27'04	direct	9870 Jul 14 12:11	6° <u>00</u> '57'53
morning rise	9863 Oct 30 22:34	0° <u>00</u> '42'28	evening set	9870 Oct 07 12:25	8° <u>00</u> '14'17
retrograde	9864 Jan 26 00:41	1° <u>00</u> '58'11	max. Earth dist.	9870 Oct 21 12:21	8° <u>00</u> '35'59 42.61524 AU
opposition	9864 Apr 16 20:52	0° <u>00</u> '54'24 -2°23'54			
min. Earth dist.	9864 Apr 18 09:00	0° <u>00</u> '52'33 42.05155 AU	conjunction	9870 Oct 23 11:55	8° <u>00</u> '39'05 -0°05'02
	9864 Jun 08 20:50	30° <u>00</u> ' <u>00</u> '	minimum elong	9870 Oct 23 11:55	8° <u>00</u> '39'05 0°04'48
direct	9864 Jul 07 00:38	29° <u>03</u> '50'45	behind sun begin	9870 Oct 23 05:35	8° <u>00</u> '38'42
	9864 Aug 04 01:49	0° <u>00</u> '	behind sun end	9870 Oct 23 18:15	8° <u>00</u> '39'28
evening set	9864 Sep 29 19:33	1° <u>00</u> '04'32	morning rise	9870 Nov 08 12:38	9° <u>00</u> '03'59
max. Earth dist.	9864 Oct 13 23:06	1° <u>00</u> '25'46 43.94684 AU	asc. node	9871 Jan 17 08:13	10° <u>00</u> '18'59
			retrograde	9871 Feb 03 10:03	10° <u>00</u> '22'30
conjunction	9864 Oct 15 14:22	1° <u>00</u> '28'15 -2°07'38	opposition	9871 Apr 25 20:47	9° <u>00</u> '16'58 0°06'00
minimum elong	9864 Oct 15 14:26	1° <u>00</u> '28'15 2°07'27	min. Earth dist.	9871 Apr 27 15:52	9° <u>00</u> '14'41 40.49730 AU
morning rise	9864 Oct 31 10:26	1° <u>00</u> '52'04	direct	9871 Jul 15 23:06	8° <u>00</u> '11'22
retrograde	9865 Jan 26 09:41	3° <u>00</u> '08'08	evening set	9871 Oct 09 00:56	9° <u>00</u> '28'18
opposition	9865 Apr 18 06:17	2° <u>00</u> '04'09 -2°03'16	max. Earth dist.	9871 Oct 23 00:54	9° <u>00</u> '50'07 42.38219 AU
min. Earth dist.	9865 Apr 19 18:47	2° <u>00</u> '02'16 41.84106 AU			
direct	9865 Jul 08 11:44	1° <u>00</u> '00'17	conjunction	9871 Oct 25 00:42	9° <u>00</u> '53'15 0°16'20
evening set	9865 Oct 01 05:08	2° <u>00</u> '14'28	minimum elong	9871 Oct 25 00:41	9° <u>00</u> '53'15 0°16'35
max. Earth dist.	9865 Oct 15 07:43	2° <u>00</u> '35'44 43.73493 AU	morning rise	9871 Nov 10 01:18	10° <u>00</u> '18'19
			retrograde	9872 Feb 04 21:15	11° <u>00</u> '37'19
conjunction	9865 Oct 17 01:02	2° <u>00</u> '38'22 -1°47'46	opposition	9872 Apr 26 08:07	10° <u>00</u> '31'31 0°28'27
minimum elong	9865 Oct 17 01:05	2° <u>00</u> '38'22 1°47'35	min. Earth dist.	9872 Apr 28 03:56	10° <u>00</u> '29'10 40.26337 AU
morning rise	9865 Nov 01 22:27	3° <u>00</u> '02'23	direct	9872 Jul 16 10:42	9° <u>00</u> '25'36
retrograde	9866 Jan 27 20:11	4° <u>00</u> '18'50	evening set	9872 Oct 09 14:03	10° <u>00</u> '43'06
opposition	9866 Apr 19 16:04	3° <u>00</u> '14'38 -1°42'22	max. Earth dist.	9872 Oct 23 13:03	11° <u>00</u> '04'59 42.14750 AU
min. Earth dist.	9866 Apr 21 05:56	3° <u>00</u> '12'40 41.62669 AU			
direct	9866 Jul 09 20:59	2° <u>00</u> '10'31	conjunction	9872 Oct 25 13:38	11° <u>00</u> '08'12 0°37'49
evening set	9866 Oct 02 15:15	3° <u>00</u> '25'06	minimum elong	9872 Oct 25 13:37	11° <u>00</u> '08'12 0°38'02
max. Earth dist.	9866 Oct 16 17:57	3° <u>00</u> '46'29 43.51871 AU	morning rise	9872 Nov 10 14:10	11° <u>00</u> '33'24
			retrograde	9873 Feb 05 12:03	12° <u>00</u> '52'57
conjunction	9866 Oct 18 12:21	3° <u>00</u> '49'11 -1°27'41	opposition	9873 Apr 27 19:49	11° <u>00</u> '46'52 0°51'08
minimum elong	9866 Oct 18 12:23	3° <u>00</u> '49'12 1°27'30	min. Earth dist.	9873 Apr 29 15:40	11° <u>00</u> '44'31 40.02811 AU
morning rise	9866 Nov 03 10:40	4° <u>00</u> '13'24	direct	9873 Jul 17 19:57	10° <u>00</u> '40'38
retrograde	9867 Jan 29 07:31	5° <u>00</u> '30'14	evening set	9873 Oct 11 03:33	11° <u>00</u> '58'46
opposition	9867 Apr 21 02:06	4° <u>00</u> '25'47 -1°21'12	max. Earth dist.	9873 Oct 25 00:59	12° <u>00</u> '20'42 41.91136 AU
min. Earth dist.	9867 Apr 22 17:32	4° <u>00</u> '23'44 41.40797 AU			
direct	9867 Jul 11 06:02	3° <u>00</u> '21'24	conjunction	9873 Oct 27 02:48	12° <u>00</u> '24'00 0°59'31
evening set	9867 Oct 04 01:53	4° <u>00</u> '36'25	minimum elong	9873 Oct 27 02:46	12° <u>00</u> '24'00 0°59'47
max. Earth dist.	9867 Oct 18 04:21	4° <u>00</u> '57'54 43.29832 AU	morning rise	9873 Nov 12 02:55	12° <u>00</u> '49'20
			retrograde	9874 Feb 07 04:15	14° <u>00</u> '09'29
conjunction	9867 Oct 19 23:53	5° <u>00</u> '00'41 -1°07'21	opposition	9874 Apr 29 08:02	13° <u>00</u> '03'07 1°14'04
minimum elong	9867 Oct 19 23:55	5° <u>00</u> '00'41 1°07'09	min. Earth dist.	9874 May 01 05:17	13° <u>00</u> '00'41 39.79165 AU

direct	9874 Jul 19 05:14	11° \mathbb{M} .56'36		max. Earth dist.	9880 Nov 03 03:15	21° \mathbb{M} .40'07	40.20552 AU
evening set	9874 Oct 12 17:45	13° \mathbb{M} .15'23					
max. Earth dist.	9874 Oct 26 15:01	13° \mathbb{M} .37'27	41.67416 AU	conjunction	9880 Nov 05 12:13	21° \mathbb{M} .44'06	3°37'18
				minimum elong	9880 Nov 05 12:07	21° \mathbb{M} .44'05	3°37'35
conjunction	9874 Oct 28 16:34	13° \mathbb{M} .40'45	1°21'27	morning rise	9880 Nov 21 02:39	22° \mathbb{M} .10'03	
minimum elong	9874 Oct 28 16:31	13° \mathbb{M} .40'45	1°21'42	retrograde	9881 Feb 16 21:23	23° \mathbb{M} .35'19	
morning rise	9874 Nov 13 16:00	14° \mathbb{M} .06'13		opposition	9881 May 08 07:36	22° \mathbb{M} .26'54	4°00'58
	9874 Dec 23 02:43	15° \mathbb{M} .		min. Earth dist.	9881 May 10 10:57	22° \mathbb{M} .24'03	38.08171 AU
retrograde	9875 Feb 08 18:59	15° \mathbb{M} .26'59		direct	9881 Jul 27 22:19	21° \mathbb{M} .18'03	
	9875 Mar 29 00:59	15° \mathbb{R} \mathbb{M} .		evening set	9881 Oct 22 17:10	22° \mathbb{M} .42'30	
opposition	9875 Apr 30 20:21	14° \mathbb{M} .20'22	1°37'14	max. Earth dist.	9881 Nov 04 20:13	23° \mathbb{M} .04'26	39.95162 AU
min. Earth dist.	9875 May 02 17:13	14° \mathbb{M} .17'57	39.55409 AU				
direct	9875 Jul 20 17:35	13° \mathbb{M} .13'33		conjunction	9881 Nov 07 05:00	23° \mathbb{M} .08'26	4°00'35
evening set	9875 Oct 14 08:46	14° \mathbb{M} .33'03		minimum elong	9881 Nov 07 04:52	23° \mathbb{M} .08'26	4°00'53
max. Earth dist.	9875 Oct 28 03:17	14° \mathbb{M} .55'04	41.43558 AU	morning rise	9881 Nov 22 16:47	23° \mathbb{M} .34'25	
				retrograde	9882 Feb 18 13:00	25° \mathbb{M} .00'31	
conjunction	9875 Oct 30 06:40	14° \mathbb{M} .58'32	1°43'36	opposition	9882 May 09 22:56	23° \mathbb{M} .51'45	4°25'39
minimum elong	9875 Oct 30 06:37	14° \mathbb{M} .58'32	1°43'52	min. Earth dist.	9882 May 12 02:14	23° \mathbb{M} .48'52	37.82790 AU
	9875 Oct 31 04:21	15° \mathbb{M} .		direct	9882 Jul 29 15:03	22° \mathbb{M} .42'30	
morning rise	9875 Nov 15 05:23	15° \mathbb{M} .24'07		evening set	9882 Oct 24 13:15	24° \mathbb{M} .07'53	
retrograde	9876 Feb 10 10:00	16° \mathbb{M} .45'33		max. Earth dist.	9882 Nov 06 11:49	24° \mathbb{M} .29'41	39.69618 AU
opposition	9876 May 01 09:13	15° \mathbb{M} .38'41	2°00'39				
min. Earth dist.	9876 May 03 07:39	15° \mathbb{M} .36'10	39.31508 AU	conjunction	9882 Nov 08 22:12	24° \mathbb{M} .33'50	4°24'01
	9876 Jun 02 00:08	15° \mathbb{R} \mathbb{M} .		minimum elong	9882 Nov 08 22:04	24° \mathbb{M} .33'49	4°24'19
direct	9876 Jul 21 05:54	14° \mathbb{M} .31'34		morning rise	9882 Nov 24 07:22	24° \mathbb{M} .59'49	
	9876 Sep 07 15:50	15° \mathbb{M} .		retrograde	9883 Feb 20 06:11	26° \mathbb{M} .26'48	
evening set	9876 Oct 15 00:18	15° \mathbb{M} .51'49		opposition	9883 May 11 14:34	25° \mathbb{M} .17'40	4°50'29
max. Earth dist.	9876 Oct 28 17:54	16° \mathbb{M} .13'56	41.19506 AU	min. Earth dist.	9883 May 13 18:51	25° \mathbb{M} .14'43	37.57307 AU
				direct	9883 Jul 31 07:01	24° \mathbb{M} .07'59	
conjunction	9876 Oct 30 21:17	16° \mathbb{M} .17'26	2°05'57	evening set	9883 Oct 26 10:02	25° \mathbb{M} .34'22	
minimum elong	9876 Oct 30 21:14	16° \mathbb{M} .17'25	2°06'13	max. Earth dist.	9883 Nov 08 05:26	25° \mathbb{M} .56'07	39.43972 AU
morning rise	9876 Nov 15 18:42	16° \mathbb{M} .43'07					
retrograde	9877 Feb 10 22:40	18° \mathbb{M} .05'15		conjunction	9883 Nov 10 16:05	26° \mathbb{M} .00'19	4°47'36
opposition	9877 May 02 22:27	16° \mathbb{M} .58'07	2°24'17	minimum elong	9883 Nov 10 15:56	26° \mathbb{M} .00'18	4°47'55
min. Earth dist.	9877 May 04 21:29	16° \mathbb{M} .55'33	39.07387 AU	morning rise	9883 Nov 25 21:58	26° \mathbb{M} .26'17	
direct	9877 Jul 22 20:27	15° \mathbb{M} .50'43		retrograde	9884 Feb 21 22:25	27° \mathbb{M} .54'12	
evening set	9877 Oct 16 16:43	17° \mathbb{M} .11'44		opposition	9884 May 12 06:52	26° \mathbb{M} .44'42	5°15'29
max. Earth dist.	9877 Oct 30 07:16	17° \mathbb{M} .33'49	40.95215 AU	min. Earth dist.	9884 May 14 11:54	26° \mathbb{M} .41'40	37.31762 AU
				direct	9884 Jul 31 22:49	25° \mathbb{M} .34'36	
conjunction	9877 Nov 01 12:16	17° \mathbb{M} .37'27	2°28'30	evening set	9884 Oct 27 07:36	27° \mathbb{M} .02'00	
minimum elong	9877 Nov 01 12:12	17° \mathbb{M} .37'26	2°28'47	max. Earth dist.	9884 Nov 08 23:08	27° \mathbb{M} .23'39	39.18304 AU
morning rise	9877 Nov 17 08:27	18° \mathbb{M} .03'14					
retrograde	9878 Feb 12 15:09	19° \mathbb{M} .26'07		conjunction	9884 Nov 11 10:11	27° \mathbb{M} .27'55	5°11'18
opposition	9878 May 04 12:04	18° \mathbb{M} .18'41	2°48'08	minimum elong	9884 Nov 11 10:02	27° \mathbb{M} .27'54	5°11'37
min. Earth dist.	9878 May 06 11:50	18° \mathbb{M} .16'04	38.83014 AU	morning rise	9884 Nov 26 12:40	27° \mathbb{M} .53'51	
direct	9878 Jul 24 07:43	17° \mathbb{M} .10'57		retrograde	9885 Feb 22 17:30	29° \mathbb{M} .22'46	
evening set	9878 Oct 18 09:43	18° \mathbb{M} .32'47		opposition	9885 May 13 23:31	28° \mathbb{M} .12'53	5°40'37
max. Earth dist.	9878 Oct 31 21:32	18° \mathbb{M} .54'50	40.70619 AU	min. Earth dist.	9885 May 16 04:11	28° \mathbb{M} .09'52	37.06236 AU
				direct	9885 Aug 02 13:21	27° \mathbb{M} .02'22	
conjunction	9878 Nov 03 03:49	18° \mathbb{M} .58'35	2°51'15	evening set	9885 Oct 29 06:04	28° \mathbb{M} .30'53	
minimum elong	9878 Nov 03 03:44	18° \mathbb{M} .58'34	2°51'32	max. Earth dist.	9885 Nov 10 16:48	28° \mathbb{M} .52'22	38.92655 AU
morning rise	9878 Nov 18 22:17	19° \mathbb{M} .24'27					
retrograde	9879 Feb 14 07:15	20° \mathbb{M} .48'06		conjunction	9885 Nov 13 04:56	28° \mathbb{M} .56'44	5°35'06
opposition	9879 May 06 02:17	19° \mathbb{M} .40'22	3°12'12	minimum elong	9885 Nov 13 04:45	28° \mathbb{M} .56'43	5°35'25
min. Earth dist.	9879 May 08 03:43	19° \mathbb{M} .37'38	38.58331 AU	morning rise	9885 Nov 28 03:36	29° \mathbb{M} .22'37	
direct	9879 Jul 25 19:34	18° \mathbb{M} .32'17			9885 Dec 21 10:55	0° \mathbb{X}	
evening set	9879 Oct 20 03:34	19° \mathbb{M} .54'57		retrograde	9886 Feb 24 13:40	0° \mathbb{X} .52'35	
max. Earth dist.	9879 Nov 02 13:02	20° \mathbb{M} .17'00	40.45726 AU		9886 May 02 18:39	30° \mathbb{R} \mathbb{M} .	
				opposition	9886 May 15 16:50	29° \mathbb{M} .42'19	6°05'53
conjunction	9879 Nov 04 19:52	20° \mathbb{M} .20'48	3°14'11	min. Earth dist.	9886 May 17 22:40	29° \mathbb{M} .39'13	36.80766 AU
minimum elong	9879 Nov 04 19:46	20° \mathbb{M} .20'48	3°14'28	direct	9886 Aug 04 04:16	28° \mathbb{M} .31'24	
morning rise	9879 Nov 20 12:24	20° \mathbb{M} .46'44			9886 Oct 30 14:20	0° \mathbb{X}	
retrograde	9880 Feb 16 01:49	22° \mathbb{M} .11'10		evening set	9886 Oct 31 05:21	0° \mathbb{X} .01'04	
opposition	9880 May 06 16:36	21° \mathbb{M} .03'07	3°36'29	max. Earth dist.	9886 Nov 12 12:47	0° \mathbb{X} .22'30	38.67076 AU
min. Earth dist.	9880 May 08 18:08	21° \mathbb{M} .00'22	38.33370 AU				
direct	9880 Jul 26 08:55	19° \mathbb{M} .54'39		conjunction	9886 Nov 15 00:16	0° \mathbb{X} .26'51	5°58'59
evening set	9880 Oct 20 22:09	21° \mathbb{M} .18'12		minimum elong	9886 Nov 15 00:05	0° \mathbb{X} .26'50	5°59'19

morning rise	9886 Nov 29 18:44	0°♂52'39		conjunction	9893 Nov 26 09:23	11°♂40'33	8°46'54
retrograde	9887 Feb 26 11:31	2°♂23'44		minimum elong	9893 Nov 26 09:07	11°♂40'31	8°47'16
opposition	9887 May 17 10:36	1°♂13'07	6°31'13	morning rise	9893 Dec 09 11:31	12°♂04'56	
min. Earth dist.	9887 May 19 15:47	1°♂10'02	36.55368 AU	retrograde	9894 Mar 10 04:19	13°♂45'24	
direct	9887 Aug 05 21:42	0°♂01'47		opposition	9894 May 28 08:00	12°♂32'11	9°29'40
evening set	9887 Nov 02 05:50	1°♂32'42		min. Earth dist.	9894 May 30 17:16	12°♂28'43	34.77165 AU
max. Earth dist.	9887 Nov 14 07:03	1°♂53'52	38.41550 AU	direct	9894 Aug 16 11:11	11°♂17'51	
				evening set	9894 Nov 15 14:18	12°♂59'08	
conjunction	9887 Nov 16 20:09	1°♂58'23	6°22'56	max. Earth dist.	9894 Nov 25 16:06	13°♂18'02	36.61855 AU
minimum elong	9887 Nov 16 19:57	1°♂58'22	6°23'16				
morning rise	9887 Dec 01 10:14	2°♂24'05		conjunction	9894 Nov 28 09:48	13°♂23'12	9°10'43
retrograde	9888 Feb 28 09:39	3°♂56'20		minimum elong	9894 Nov 28 09:30	13°♂23'11	9°11'07
opposition	9888 May 18 04:53	2°♂45'22	6°56'39	morning rise	9894 Dec 11 04:33	13°♂47'14	
min. Earth dist.	9888 May 20 11:21	2°♂42'12	36.30028 AU	retrograde	9895 Mar 12 06:41	15°♂29'16	
direct	9888 Aug 06 14:17	1°♂33'39		opposition	9895 May 30 06:45	14°♂15'38	9°55'00
evening set	9888 Nov 03 07:09	3°♂05'52		min. Earth dist.	9895 Jun 01 17:01	14°♂12'04	34.51699 AU
max. Earth dist.	9888 Nov 15 04:05	3°♂26'54	38.16043 AU	direct	9895 Aug 18 08:22	13°♂00'49	
				evening set	9895 Nov 17 23:24	14°♂43'50	
conjunction	9888 Nov 17 16:48	3°♂31'26	6°46'55	max. Earth dist.	9895 Nov 27 17:55	15°♂02'20	36.36204 AU
minimum elong	9888 Nov 17 16:35	3°♂31'25	6°47'17				
morning rise	9888 Dec 02 01:47	3°♂57'00		conjunction	9895 Nov 30 11:02	15°♂07'30	9°34'23
retrograde	9889 Mar 01 05:55	5°♂30'28		minimum elong	9895 Nov 30 10:45	15°♂07'29	9°34'45
opposition	9889 May 19 23:52	4°♂19'10	7°22'07	morning rise	9895 Dec 12 21:33	15°♂31'07	
min. Earth dist.	9889 May 22 06:28	4°♂15'58	36.04688 AU	retrograde	9896 Mar 13 07:42	17°♂14'48	
direct	9889 Aug 08 09:53	3°♂07'04		opposition	9896 May 31 06:07	16°♂00'45	10°20'10
evening set	9889 Nov 05 09:33	4°♂40'39		min. Earth dist.	9896 Jun 02 16:21	15°♂57'09	34.26378 AU
max. Earth dist.	9889 Nov 16 23:52	5°♂01'23	37.90513 AU	direct	9896 Aug 19 08:58	14°♂45'27	
				evening set	9896 Nov 19 09:52	16°♂30'17	
conjunction	9889 Nov 19 13:48	5°♂06'03	7°10'56	max. Earth dist.	9896 Nov 28 19:03	16°♂48'13	36.10749 AU
minimum elong	9889 Nov 19 13:34	5°♂06'02	7°11'17				
morning rise	9889 Dec 03 17:38	5°♂31'27		conjunction	9896 Dec 01 12:46	16°♂53'30	9°57'51
retrograde	9890 Mar 03 04:26	7°♂06'13		minimum elong	9896 Dec 01 12:28	16°♂53'29	9°58'15
opposition	9890 May 21 19:26	5°♂54'34	7°47'39	morning rise	9896 Dec 13 14:49	17°♂16'40	
min. Earth dist.	9890 May 24 02:34	5°♂51'19	35.79310 AU	retrograde	9897 Mar 15 11:46	19°♂02'04	
direct	9890 Aug 10 04:01	4°♂42'03		opposition	9897 Jun 02 06:11	17°♂47'35	10°45'07
evening set	9890 Nov 07 13:05	6°♂17'03		min. Earth dist.	9897 Jun 04 16:05	17°♂43'59	34.01303 AU
max. Earth dist.	9890 Nov 18 21:08	6°♂37'31	37.64890 AU	direct	9897 Aug 21 07:34	16°♂31'48	
				evening set	9897 Nov 21 21:16	18°♂18'32	
conjunction	9890 Nov 21 11:49	6°♂42'16	7°34'59	max. Earth dist.	9897 Nov 30 21:40	18°♂35'56	35.85542 AU
minimum elong	9890 Nov 21 11:35	6°♂42'15	7°35'20				
morning rise	9890 Dec 05 09:50	7°♂07'28		conjunction	9897 Dec 03 15:14	18°♂41'14	10°21'05
retrograde	9891 Mar 05 02:01	8°♂43'35		minimum elong	9897 Dec 03 14:55	18°♂41'13	10°21'27
opposition	9891 May 23 15:39	7°♂31'34	8°13'11	morning rise	9897 Dec 15 08:05	19°♂03'54	
min. Earth dist.	9891 May 26 00:07	7°♂28'13	35.53840 AU	retrograde	9898 Mar 17 12:45	20°♂51'06	
direct	9891 Aug 11 21:43	6°♂18'38		opposition	9898 Jun 04 07:08	19°♂36'12	11°09'48
evening set	9891 Nov 09 17:50	7°♂55'06		min. Earth dist.	9898 Jun 06 17:31	19°♂32'33	33.76511 AU
max. Earth dist.	9891 Nov 20 19:18	8°♂15'15	37.39186 AU	direct	9898 Aug 23 06:06	18°♂19'58	
				evening set	9898 Nov 24 10:21	20°♂08'40	
conjunction	9891 Nov 23 10:26	8°♂20'05	7°59'00	max. Earth dist.	9898 Dec 03 01:34	20°♂25'30	35.60657 AU
minimum elong	9891 Nov 23 10:10	8°♂20'04	7°59'21				
morning rise	9891 Dec 07 02:18	8°♂45'03		conjunction	9898 Dec 05 18:34	20°♂30'49	10°44'01
retrograde	9892 Mar 06 01:49	10°♂22'34		minimum elong	9898 Dec 05 18:15	20°♂30'47	10°44'25
opposition	9892 May 24 12:27	9°♂10'10	8°38'44	morning rise	9898 Dec 17 01:43	20°♂52'54	
min. Earth dist.	9892 May 26 20:41	9°♂06'48	35.28301 AU	retrograde	9899 Mar 19 16:39	22°♂42'00	
direct	9892 Aug 12 17:19	7°♂56'47		opposition	9899 Jun 06 08:33	21°♂26'42	11°34'11
evening set	9892 Nov 10 23:28	9°♂34'47		min. Earth dist.	9899 Jun 08 17:57	21°♂23'05	33.52058 AU
max. Earth dist.	9892 Nov 21 16:47	9°♂54'31	37.13402 AU	direct	9899 Aug 25 06:06	20°♂10'00	
				evening set	9899 Nov 27 00:43	22°♂00'47	
conjunction	9892 Nov 24 09:30	9°♂59'31	8°22'59	max. Earth dist.	9899 Dec 05 04:58	22°♂16'54	35.36099 AU
minimum elong	9892 Nov 24 09:14	9°♂59'29	8°23'22				
morning rise	9892 Dec 07 18:49	10°♂24'13		conjunction	9899 Dec 07 22:41	22°♂22'19	11°06'37
retrograde	9893 Mar 08 03:00	12°♂03'11		minimum elong	9899 Dec 07 22:22	22°♂22'18	11°07'00
opposition	9893 May 26 10:00	10°♂50'22	9°04'14	morning rise	9899 Dec 18 19:38	22°♂43'47	
min. Earth dist.	9893 May 28 19:45	10°♂46'54	35.02721 AU	retrograde	9900 Mar 21 21:57	24°♂34'51	
direct	9893 Aug 14 12:37	9°♂36'31		opposition	9900 Jun 08 11:01	23°♂19'10	11°58'11
evening set	9893 Nov 13 06:17	11°♂16'08		min. Earth dist.	9900 Jun 10 21:17	23°♂15'29	33.27943 AU
max. Earth dist.	9893 Nov 23 17:14	11°♂35'33	36.87606 AU	direct	9900 Aug 27 04:35	22°♂02'01	

evening set	9900 Nov 29 16:27	23° $\overline{\text{X}}$ 55'00		conjunction	9906 Dec 23 02:37	6° $\overline{\text{Z}}$ 19'34	13°31'24
max. Earth dist.	9900 Dec 07 11:00	24° $\overline{\text{X}}$ 10'27	35.11870 AU	minimum elong	9906 Dec 23 02:16	6° $\overline{\text{Z}}$ 19'32	13°31'48
				morning rise	9906 Dec 30 02:42	6° $\overline{\text{Z}}$ 34'23	
conjunction	9900 Dec 10 03:31	24° $\overline{\text{X}}$ 15'50	11°28'49	retrograde	9907 Apr 06 10:05	8° $\overline{\text{Z}}$ 41'39	
minimum elong	9900 Dec 10 03:11	24° $\overline{\text{X}}$ 15'48	11°29'14	opposition	9907 Jun 23 02:24	7° $\overline{\text{Z}}$ 23'09	14°31'48
morning rise	9900 Dec 20 13:25	24° $\overline{\text{X}}$ 36'37		min. Earth dist.	9907 Jun 25 12:19	7° $\overline{\text{Z}}$ 19'18	31.66998 AU
retrograde	9901 Mar 24 04:17	26° $\overline{\text{X}}$ 29'45		direct	9907 Sep 10 13:14	6° $\overline{\text{Z}}$ 02'41	
opposition	9901 Jun 10 14:09	25° $\overline{\text{X}}$ 13'41	12°21'47	evening set	9907 Dec 19 05:48	8° $\overline{\text{Z}}$ 13'32	
min. Earth dist.	9901 Jun 12 23:28	25° $\overline{\text{X}}$ 10'02	33.04135 AU	max. Earth dist.	9907 Dec 22 21:36	8° $\overline{\text{Z}}$ 21'20	33.50062 AU
direct	9901 Aug 29 07:16	23° $\overline{\text{X}}$ 56'06					
evening set	9901 Dec 02 09:48	25° $\overline{\text{X}}$ 51'20		conjunction	9907 Dec 25 13:16	8° $\overline{\text{Z}}$ 27'00	13°49'29
max. Earth dist.	9901 Dec 09 15:39	26° $\overline{\text{X}}$ 05'54	34.87926 AU	minimum elong	9907 Dec 25 12:57	8° $\overline{\text{Z}}$ 26'59	13°49'53
				morning rise	9907 Dec 31 19:51	8° $\overline{\text{Z}}$ 40'25	
conjunction	9901 Dec 12 09:13	26° $\overline{\text{X}}$ 11'25	11°50'36	retrograde	9908 Apr 07 20:48	10° $\overline{\text{Z}}$ 50'25	
minimum elong	9901 Dec 12 08:53	26° $\overline{\text{X}}$ 11'23	11°51'00	opposition	9908 Jun 24 11:15	9° $\overline{\text{Z}}$ 31'30	14°50'55
morning rise	9901 Dec 22 07:41	26° $\overline{\text{X}}$ 31'26		min. Earth dist.	9908 Jun 26 19:37	9° $\overline{\text{Z}}$ 27'44	31.45439 AU
retrograde	9902 Mar 26 13:24	28° $\overline{\text{X}}$ 26'42		direct	9908 Sep 11 22:20	8° $\overline{\text{Z}}$ 10'34	
opposition	9902 Jun 12 18:05	27° $\overline{\text{X}}$ 10'16	12°44'55	evening set	9908 Dec 21 12:10	10° $\overline{\text{Z}}$ 24'29	
min. Earth dist.	9902 Jun 15 04:08	27° $\overline{\text{X}}$ 06'33	32.80606 AU	max. Earth dist.	9908 Dec 24 08:35	10° $\overline{\text{Z}}$ 30'37	33.28506 AU
direct	9902 Aug 31 10:05	25° $\overline{\text{X}}$ 52'13					
evening set	9902 Dec 05 04:45	27° $\overline{\text{X}}$ 49'49		conjunction	9908 Dec 27 00:27	10° $\overline{\text{Z}}$ 36'21	14°06'43
max. Earth dist.	9902 Dec 11 23:18	28° $\overline{\text{X}}$ 03'34	34.64228 AU	minimum elong	9908 Dec 27 00:08	10° $\overline{\text{Z}}$ 36'19	14°07'08
				morning rise	9909 Jan 01 11:58	10° $\overline{\text{Z}}$ 48'10	
conjunction	9902 Dec 14 15:59	28° $\overline{\text{X}}$ 09'04	12°11'55	retrograde	9909 Apr 10 08:49	13° $\overline{\text{Z}}$ 01'06	
minimum elong	9902 Dec 14 15:38	28° $\overline{\text{X}}$ 09'02	12°12'20	opposition	9909 Jun 26 21:00	11° $\overline{\text{Z}}$ 41'46	15°09'04
morning rise	9902 Dec 24 02:00	28° $\overline{\text{X}}$ 28'14		min. Earth dist.	9909 Jun 29 05:29	11° $\overline{\text{Z}}$ 37'58	31.24452 AU
	9903 Feb 15 17:02	0° $\overline{\text{Z}}$		direct	9909 Sep 14 05:46	10° $\overline{\text{Z}}$ 20'21	
retrograde	9903 Mar 28 21:13	0° $\overline{\text{Z}}$ 25'44		evening set	9909 Dec 24 22:02	12° $\overline{\text{Z}}$ 37'36	
	9903 May 09 19:04	30° $\overline{\text{R}}$ $\overline{\text{X}}$		max. Earth dist.	9909 Dec 26 22:55	12° $\overline{\text{Z}}$ 42'01	33.07572 AU
opposition	9903 Jun 14 22:59	29° $\overline{\text{X}}$ 08'53	13°07'33				
min. Earth dist.	9903 Jun 17 08:53	29° $\overline{\text{X}}$ 05'09	32.57303 AU	conjunction	9909 Dec 29 12:38	12° $\overline{\text{Z}}$ 47'37	14°22'59
direct	9903 Sep 02 15:43	27° $\overline{\text{X}}$ 50'23		minimum elong	9909 Dec 29 12:20	12° $\overline{\text{Z}}$ 47'35	14°23'23
evening set	9903 Dec 08 01:24	29° $\overline{\text{X}}$ 50'25		morning rise	9910 Jan 03 02:28	12° $\overline{\text{Z}}$ 57'35	
	9903 Dec 12 17:30	0° $\overline{\text{Z}}$		retrograde	9910 Apr 12 21:15	15° $\overline{\text{Z}}$ 13'41	
max. Earth dist.	9903 Dec 14 05:52	0° $\overline{\text{Z}}$ 03'07	34.40768 AU	opposition	9910 Jun 29 07:24	13° $\overline{\text{Z}}$ 53'57	15°26'11
				min. Earth dist.	9910 Jul 01 14:14	13° $\overline{\text{Z}}$ 50'15	31.04108 AU
conjunction	9903 Dec 16 23:23	0° $\overline{\text{Z}}$ 08'44	12°32'43	direct	9910 Sep 16 16:00	12° $\overline{\text{Z}}$ 32'06	
minimum elong	9903 Dec 16 23:03	0° $\overline{\text{Z}}$ 08'43	12°33'06	evening set	9910 Dec 28 12:37	14° $\overline{\text{Z}}$ 53'04	
morning rise	9903 Dec 25 20:24	0° $\overline{\text{Z}}$ 26'59		max. Earth dist.	9910 Dec 29 11:51	14° $\overline{\text{Z}}$ 55'12	32.87337 AU
retrograde	9904 Mar 30 06:34	2° $\overline{\text{Z}}$ 26'46					
opposition	9904 Jun 16 04:34	1° $\overline{\text{Z}}$ 09'32	13°29'37	conjunction	9911 Jan 01 01:30	15° $\overline{\text{Z}}$ 00'50	14°38'14
min. Earth dist.	9904 Jun 18 14:23	1° $\overline{\text{Z}}$ 05'47	32.34254 AU	minimum elong	9911 Jan 01 01:13	15° $\overline{\text{Z}}$ 00'48	14°38'39
	9904 Aug 09 17:55	30° $\overline{\text{R}}$ $\overline{\text{X}}$		morning rise	9911 Jan 04 13:46	15° $\overline{\text{Z}}$ 08'32	
direct	9904 Sep 03 20:17	29° $\overline{\text{X}}$ 50'33		retrograde	9911 Apr 15 12:38	17° $\overline{\text{Z}}$ 28'13	
	9904 Sep 28 14:42	0° $\overline{\text{Z}}$		opposition	9911 Jul 01 18:46	16° $\overline{\text{Z}}$ 08'07	15°42'09
evening set	9904 Dec 09 23:36	1° $\overline{\text{Z}}$ 53'07		min. Earth dist.	9911 Jul 04 00:52	16° $\overline{\text{Z}}$ 04'27	30.84490 AU
max. Earth dist.	9904 Dec 15 14:33	2° $\overline{\text{Z}}$ 04'46	34.17560 AU	direct	9911 Sep 19 02:26	14° $\overline{\text{Z}}$ 45'52	
				evening set	9912 Jan 01 13:31	17° $\overline{\text{Z}}$ 11'28	
conjunction	9904 Dec 18 07:44	2° $\overline{\text{Z}}$ 10'25	12°52'56	max. Earth dist.	9912 Jan 01 03:56	17° $\overline{\text{Z}}$ 10'35	32.67851 AU
minimum elong	9904 Dec 18 07:24	2° $\overline{\text{Z}}$ 10'23	12°53'21				
morning rise	9904 Dec 26 14:46	2° $\overline{\text{Z}}$ 27'37		conjunction	9912 Jan 03 15:14	17° $\overline{\text{Z}}$ 16'03	14°52'22
retrograde	9905 Apr 01 14:29	4° $\overline{\text{Z}}$ 29'48		minimum elong	9912 Jan 03 14:58	17° $\overline{\text{Z}}$ 16'02	14°52'45
opposition	9905 Jun 18 11:08	3° $\overline{\text{Z}}$ 12'08	13°51'04	morning rise	9912 Jan 05 16:24	17° $\overline{\text{Z}}$ 20'35	
min. Earth dist.	9905 Jun 20 21:21	3° $\overline{\text{Z}}$ 08'20	32.11476 AU	retrograde	9912 Apr 17 02:46	19° $\overline{\text{Z}}$ 44'44	
direct	9905 Sep 06 01:46	1° $\overline{\text{Z}}$ 52'41		opposition	9912 Jul 03 06:58	18° $\overline{\text{Z}}$ 24'19	15°56'54
evening set	9905 Dec 12 23:38	3° $\overline{\text{Z}}$ 57'52		min. Earth dist.	9912 Jul 05 11:56	18° $\overline{\text{Z}}$ 20'43	30.65612 AU
max. Earth dist.	9905 Dec 17 23:46	4° $\overline{\text{Z}}$ 08'21	33.94674 AU	direct	9912 Sep 20 14:47	17° $\overline{\text{Z}}$ 01'42	
				max. Earth dist.	9913 Jan 02 18:53	19° $\overline{\text{Z}}$ 27'52	32.49148 AU
conjunction	9905 Dec 20 16:40	4° $\overline{\text{Z}}$ 14'02	13°12'31				
minimum elong	9905 Dec 20 16:20	4° $\overline{\text{Z}}$ 14'00	13°12'55	conjunction	9913 Jan 05 05:35	19° $\overline{\text{Z}}$ 33'20	15°05'18
morning rise	9905 Dec 28 08:46	4° $\overline{\text{Z}}$ 30'06		minimum elong	9913 Jan 05 05:20	19° $\overline{\text{Z}}$ 33'18	15°05'43
retrograde	9906 Apr 04 01:26	6° $\overline{\text{Z}}$ 34'46		retrograde	9913 Apr 19 19:23	22° $\overline{\text{Z}}$ 03'18	
opposition	9906 Jun 20 18:21	5° $\overline{\text{Z}}$ 16'41	14°11'50	opposition	9913 Jul 05 19:51	20° $\overline{\text{Z}}$ 42'36	16°10'21
min. Earth dist.	9906 Jun 23 03:32	5° $\overline{\text{Z}}$ 12'55	31.89039 AU	min. Earth dist.	9913 Jul 07 23:21	20° $\overline{\text{Z}}$ 39'04	30.47501 AU
direct	9906 Sep 08 07:55	3° $\overline{\text{Z}}$ 56'44		direct	9913 Sep 23 02:47	19° $\overline{\text{Z}}$ 19'38	
evening set	9906 Dec 16 01:34	6° $\overline{\text{Z}}$ 04'40		max. Earth dist.	9914 Jan 05 11:56	21° $\overline{\text{Z}}$ 47'20	32.31193 AU
max. Earth dist.	9906 Dec 20 09:34	6° $\overline{\text{Z}}$ 13'49	33.72141 AU				

conjunction	9914 Jan 07 20:51	21° \mathfrak{Z} 52'40	15°16'59	conjunction	9922 Jan 27 22:10	11° \approx 28'48	15°58'33
minimum elong	9914 Jan 07 20:38	21° \mathfrak{Z} 52'39	15°17'22	minimum elong	9922 Jan 27 22:11	11° \approx 28'48	15°58'52
retrograde	9914 Apr 22 11:06	24° \mathfrak{Z} 23'53		retrograde	9922 May 12 11:47	14° \approx 07'28	
opposition	9914 Jul 08 09:43	23° \mathfrak{Z} 02'55	16°22'27	opposition	9922 Jul 28 01:15	12° \approx 44'30	17°02'30
min. Earth dist.	9914 Jul 10 12:49	22° \mathfrak{Z} 59'24	30.30101 AU	min. Earth dist.	9922 Jul 29 16:17	12° \approx 41'44	29.18015 AU
direct	9914 Sep 25 15:15	21° \mathfrak{Z} 39'38		direct	9922 Oct 15 01:50	11° \approx 18'56	
max. Earth dist.	9915 Jan 08 05:03	24° \mathfrak{Z} 08'45	32.13971 AU	max. Earth dist.	9923 Jan 29 01:34	13° \approx 57'16	31.04706 AU
conjunction	9915 Jan 10 12:54	24° \mathfrak{Z} 14'02	15°27'23	conjunction	9923 Jan 30 18:28	14° \approx 01'19	15°56'20
minimum elong	9915 Jan 10 12:42	24° \mathfrak{Z} 14'01	15°27'46	minimum elong	9923 Jan 30 18:32	14° \approx 01'19	15°56'39
retrograde	9915 Apr 25 05:38	26° \mathfrak{Z} 46'26			9923 Feb 25 00:52	15° \approx	
opposition	9915 Jul 11 00:10	25° \mathfrak{Z} 25'12	16°33'08	retrograde	9923 May 15 06:59	16° \approx 40'32	
min. Earth dist.	9915 Jul 13 01:25	25° \mathfrak{Z} 21'48	30.13401 AU	opposition	9923 Jul 30 20:42	15° \approx 17'24	16°59'24
direct	9915 Sep 28 05:03	24° \mathfrak{Z} 01'36		min. Earth dist.	9923 Aug 01 09:56	15° \approx 14'46	29.08165 AU
max. Earth dist.	9916 Jan 10 23:01	26° \mathfrak{Z} 32'05	31.97450 AU		9923 Aug 10 03:28	15° \mathfrak{R} \approx	
conjunction	9916 Jan 13 05:45	26° \mathfrak{Z} 37'18	15°36'24	direct	9923 Oct 17 22:40	13° \approx 51'40	
minimum elong	9916 Jan 13 05:35	26° \mathfrak{Z} 37'17	15°36'46		9923 Dec 22 05:05	15° \approx	
retrograde	9916 Apr 26 21:09	29° \mathfrak{Z} 10'51		max. Earth dist.	9924 Jan 31 23:46	16° \approx 30'46	30.95499 AU
opposition	9916 Jul 12 15:43	27° \mathfrak{Z} 49'20	16°42'19	conjunction	9924 Feb 02 14:53	16° \approx 34'39	15°52'18
min. Earth dist.	9916 Jul 14 16:50	27° \mathfrak{Z} 45'56	29.97392 AU	minimum elong	9924 Feb 02 14:59	16° \approx 34'39	15°52'36
direct	9916 Sep 29 18:05	26° \mathfrak{Z} 25'26		retrograde	9924 May 17 04:13	19° \approx 14'21	
max. Earth dist.	9917 Jan 12 18:16	28° \mathfrak{Z} 57'16	31.81662 AU	opposition	9924 Aug 01 16:30	17° \approx 51'06	16°54'19
conjunction	9917 Jan 14 23:04	29° \mathfrak{Z} 02'21	15°44'01	min. Earth dist.	9924 Aug 03 02:31	17° \approx 48'41	28.99468 AU
minimum elong	9917 Jan 14 22:56	29° \mathfrak{Z} 02'20	15°44'23	direct	9924 Oct 19 19:15	16° \approx 25'15	
	9917 Feb 09 14:04	0° \approx		max. Earth dist.	9925 Feb 02 23:48	19° \approx 05'11	30.87468 AU
retrograde	9917 Apr 29 14:53	1° \approx 36'57		conjunction	9925 Feb 04 11:34	19° \approx 08'45	15°46'25
opposition	9917 Jul 15 07:47	0° \approx 15'11	16°49'58	minimum elong	9925 Feb 04 11:43	19° \approx 08'46	15°46'43
min. Earth dist.	9917 Jul 17 06:46	0° \approx 11'54	29.82094 AU	retrograde	9925 May 20 00:11	21° \approx 48'52	
	9917 Jul 24 10:43	30° \mathfrak{R} \mathfrak{Z}		opposition	9925 Aug 04 12:46	20° \approx 25'33	16°47'14
direct	9917 Oct 02 10:36	28° \mathfrak{Z} 50'58		min. Earth dist.	9925 Aug 05 21:21	20° \approx 23'14	28.91910 AU
	9917 Dec 07 20:53	0° \approx		direct	9925 Oct 22 15:00	18° \approx 59'39	
max. Earth dist.	9918 Jan 15 13:01	1° \approx 23'59	31.66618 AU	max. Earth dist.	9926 Feb 05 23:00	21° \approx 40'12	30.80613 AU
conjunction	9918 Jan 17 17:09	1° \approx 29'01	15°50'08	conjunction	9926 Feb 07 08:30	21° \approx 43'33	15°38'40
minimum elong	9918 Jan 17 17:02	1° \approx 29'00	15°50'29	minimum elong	9926 Feb 07 08:39	21° \approx 43'34	15°38'57
retrograde	9918 May 02 08:49	4° \approx 04'36		retrograde	9926 May 22 22:30	24° \approx 23'59	
opposition	9918 Jul 18 00:30	2° \approx 42'34	16°55'59	opposition	9926 Aug 07 09:02	23° \approx 00'38	16°38'10
min. Earth dist.	9918 Jul 19 23:06	2° \approx 39'19	29.67546 AU	min. Earth dist.	9926 Aug 08 14:24	22° \approx 58'33	28.85473 AU
direct	9918 Oct 05 00:37	1° \approx 18'03		direct	9926 Oct 25 12:40	21° \approx 34'43	
max. Earth dist.	9919 Jan 18 10:16	3° \approx 52'20	31.52377 AU	max. Earth dist.	9927 Feb 08 22:56	24° \approx 15'51	30.74869 AU
conjunction	9919 Jan 20 11:54	3° \approx 57'09	15°54'43	conjunction	9927 Feb 10 05:42	24° \approx 18'56	15°29'06
minimum elong	9919 Jan 20 11:49	3° \approx 57'09	15°55'05	minimum elong	9927 Feb 10 05:55	24° \approx 18'57	15°29'22
retrograde	9919 May 05 02:18	6° \approx 33'38		retrograde	9927 May 25 18:24	26° \approx 59'36	
opposition	9919 Jul 20 17:54	5° \approx 11'21	17°00'19	opposition	9927 Aug 10 05:53	25° \approx 36'15	16°27'07
min. Earth dist.	9919 Jul 22 14:20	5° \approx 08'14	29.53787 AU	min. Earth dist.	9927 Aug 11 10:06	25° \approx 34'15	28.80109 AU
direct	9919 Oct 07 18:37	3° \approx 46'32		direct	9927 Oct 28 08:28	24° \approx 10'20	
max. Earth dist.	9920 Jan 21 06:00	6° \approx 21'49	31.38986 AU	max. Earth dist.	9928 Feb 11 22:46	26° \approx 51'56	30.70220 AU
conjunction	9920 Jan 23 06:52	6° \approx 26'36	15°57'41	conjunction	9928 Feb 13 02:48	26° \approx 54'45	15°17'43
minimum elong	9920 Jan 23 06:48	6° \approx 26'35	15°58'02	minimum elong	9928 Feb 13 03:02	26° \approx 54'46	15°17'58
retrograde	9920 May 06 20:59	9° \approx 03'53		retrograde	9928 May 27 15:28	29° \approx 35'33	
opposition	9920 Jul 22 11:53	7° \approx 41'22	17°02'54	opposition	9928 Aug 12 02:50	28° \approx 12'13	16°14'08
min. Earth dist.	9920 Jul 24 07:05	7° \approx 38'19	29.40899 AU	min. Earth dist.	9928 Aug 13 03:48	28° \approx 10'26	28.75783 AU
direct	9920 Oct 09 12:07	6° \approx 16'16		direct	9928 Oct 30 07:03	26° \approx 46'20	
max. Earth dist.	9921 Jan 23 04:48	8° \approx 52'43	31.26526 AU	max. Earth dist.	9929 Feb 13 22:06	29° \approx 28'14	30.66618 AU
conjunction	9921 Jan 25 02:26	8° \approx 57'12	15°58'59	conjunction	9929 Feb 15 00:04	29° \approx 30'50	15°04'34
minimum elong	9921 Jan 25 02:25	8° \approx 57'12	15°59'20	minimum elong	9929 Feb 15 00:21	29° \approx 30'52	15°04'48
retrograde	9921 May 09 15:22	11° \approx 35'13			9929 Feb 27 04:35	0° \mathfrak{H}	
opposition	9921 Jul 25 06:20	10° \approx 12'27	17°03'39	retrograde	9929 May 30 12:11	2° \mathfrak{H} 11'39	
min. Earth dist.	9921 Jul 26 23:35	10° \approx 09'32	29.28943 AU	opposition	9929 Aug 14 23:54	0° \mathfrak{H} 48'21	15°59'13
direct	9921 Oct 12 07:17	8° \approx 47'06		min. Earth dist.	9929 Aug 15 23:26	0° \mathfrak{H} 46'40	28.72486 AU
max. Earth dist.	9922 Jan 26 01:48	11° \approx 24'26	31.15077 AU		9929 Sep 14 03:27	30° \mathfrak{R} \approx	
				direct	9929 Nov 02 02:49	29° \approx 22'30	

	9929 Dec 19 12:31	0°♄		retrograde	9936 Jun 16 22:40	20°♄12'19	
evening set	9930 Feb 15 12:05	2°♄01'14		opposition	9936 Sep 02 00:39	18°♄49'36	13°25'22
				min. Earth dist.	9936 Sep 02 06:24	18°♄49'12	28.78898 AU
conjunction	9930 Feb 17 21:20	2°♄06'58	14°49'39	direct	9936 Nov 20 10:31	17°♄24'35	
minimum elong	9930 Feb 17 21:37	2°♄07'00	14°49'52	evening set	9937 Feb 26 17:37	19°♄44'24	
max. Earth dist.	9930 Feb 16 22:25	2°♄04'40	30.64067 AU				
morning rise	9930 Feb 20 07:06	2°♄12'46		conjunction	9937 Mar 07 17:39	20°♄05'41	12°20'10
retrograde	9930 Jun 02 07:52	4°♄47'41		minimum elong	9937 Mar 07 18:04	20°♄05'44	12°20'16
opposition	9930 Aug 17 21:01	3°♄24'26	15°42'28	max. Earth dist.	9937 Mar 07 13:52	20°♄05'19	30.76602 AU
min. Earth dist.	9930 Aug 18 17:41	3°♄22'58	28.70186 AU	morning rise	9937 Mar 16 17:45	20°♄27'00	
direct	9930 Nov 05 01:09	1°♄58'40		retrograde	9937 Jun 19 17:51	22°♄43'08	
evening set	9931 Feb 16 21:42	4°♄33'41		opposition	9937 Sep 04 19:59	21°♄20'36	12°57'01
				min. Earth dist.	9937 Sep 04 21:52	21°♄20'28	28.84447 AU
conjunction	9931 Feb 20 18:22	4°♄42'58	14°33'02	direct	9937 Nov 23 08:57	19°♄55'50	
minimum elong	9931 Feb 20 18:42	4°♄43'00	14°33'14	evening set	9938 Feb 28 20:31	22°♄13'26	
max. Earth dist.	9931 Feb 19 21:08	4°♄40'50	30.62538 AU				
morning rise	9931 Feb 24 15:35	4°♄52'18		conjunction	9938 Mar 10 12:02	22°♄36'08	11°53'05
retrograde	9931 Jun 05 03:12	7°♄23'30		minimum elong	9938 Mar 10 12:27	22°♄36'11	11°53'10
opposition	9931 Aug 20 18:07	6°♄00'18	15°23'52	max. Earth dist.	9938 Mar 10 11:48	22°♄36'07	30.83101 AU
min. Earth dist.	9931 Aug 21 12:51	5°♄58'58	28.68911 AU	morning rise	9938 Mar 20 03:23	22°♄58'51	
direct	9931 Nov 07 22:16	4°♄34'35		retrograde	9938 Jun 22 10:32	25°♄12'50	
evening set	9932 Feb 18 15:48	7°♄06'40		opposition	9938 Sep 07 15:13	23°♄50'31	12°27'20
				min. Earth dist.	9938 Sep 07 15:19	23°♄50'30	28.91164 AU
conjunction	9932 Feb 23 15:19	7°♄18'37	14°14'45	direct	9938 Nov 26 05:20	22°♄26'02	
minimum elong	9932 Feb 23 15:39	7°♄18'39	14°14'57	evening set	9939 Mar 03 00:02	24°♄41'28	
max. Earth dist.	9932 Feb 22 21:40	7°♄16'51	30.62064 AU				
morning rise	9932 Feb 28 15:14	7°♄30'37		conjunction	9939 Mar 13 05:46	25°♄05'28	11°24'48
retrograde	9932 Jun 06 21:43	9°♄58'51		minimum elong	9939 Mar 13 06:11	25°♄05'30	11°24'51
opposition	9932 Aug 22 15:08	8°♄35'43	15°03'30	max. Earth dist.	9939 Mar 13 08:06	25°♄05'41	30.90747 AU
min. Earth dist.	9932 Aug 23 07:25	8°♄34'34	28.68664 AU	morning rise	9939 Mar 23 11:18	25°♄29'27	
direct	9932 Nov 09 20:36	7°♄10'06		retrograde	9939 Jun 25 03:44	27°♄41'20	
evening set	9933 Feb 19 13:09	9°♄39'30		opposition	9939 Sep 10 09:52	26°♄19'16	11°56'26
				min. Earth dist.	9939 Sep 10 06:23	26°♄19'31	28.98979 AU
conjunction	9933 Feb 25 11:41	9°♄53'44	13°54'52	direct	9939 Nov 29 02:29	24°♄55'06	
minimum elong	9933 Feb 25 12:04	9°♄53'46	13°55'01	evening set	9940 Mar 04 03:49	27°♄08'24	
max. Earth dist.	9933 Feb 24 19:45	9°♄52'08	30.62659 AU				
morning rise	9933 Mar 03 10:40	10°♄08'00		conjunction	9940 Mar 14 23:00	27°♄33'35	10°55'27
retrograde	9933 Jun 09 17:25	12°♄33'34		minimum elong	9940 Mar 14 23:24	27°♄33'37	10°55'30
opposition	9933 Aug 25 11:53	11°♄10'30	14°41'24	max. Earth dist.	9940 Mar 15 04:01	27°♄34'04	30.99448 AU
min. Earth dist.	9933 Aug 26 01:22	11°♄09'33	28.69498 AU	morning rise	9940 Mar 25 17:54	27°♄58'44	
direct	9933 Nov 12 17:09	9°♄44'59			9940 Jun 04 14:22	0°♄	
evening set	9934 Feb 21 12:42	12°♄11'52		retrograde	9940 Jun 26 20:16	0°♄08'35	
					9940 Jul 19 08:44	30°♄	
conjunction	9934 Feb 28 07:58	12°♄28'07	13°33'24	opposition	9940 Sep 12 04:11	28°♄46'46	11°24'25
minimum elong	9934 Feb 28 08:21	12°♄28'09	13°33'33	min. Earth dist.	9940 Sep 11 22:54	28°♄47'08	29.07840 AU
max. Earth dist.	9934 Feb 27 19:55	12°♄26'55	30.64362 AU	direct	9940 Nov 30 21:23	27°♄22'55	
morning rise	9934 Mar 07 03:26	12°♄44'24		evening set	9941 Mar 06 07:58	29°♄34'08	
retrograde	9934 Jun 12 10:32	15°♄07'28					
opposition	9934 Aug 28 08:21	13°♄44'29	14°17'39	conjunction	9941 Mar 17 15:39	0°♄00'22	10°25'07
min. Earth dist.	9934 Aug 28 19:45	13°♄43'41	28.71439 AU	minimum elong	9941 Mar 17 16:04	0°♄00'25	10°25'08
direct	9934 Nov 15 16:05	12°♄19'06			9941 Mar 17 11:48	0°♄	
evening set	9935 Feb 23 13:34	14°♄43'34		max. Earth dist.	9941 Mar 17 23:30	0°♄01'08	31.09160 AU
				morning rise	9941 Mar 28 22:51	0°♄26'35	
conjunction	9935 Mar 03 03:39	15°♄01'38	13°10'25	retrograde	9941 Jun 29 11:43	2°♄34'27	
minimum elong	9935 Mar 03 04:03	15°♄01'40	13°10'32	opposition	9941 Sep 14 21:54	1°♄12'54	10°51'26
max. Earth dist.	9935 Mar 02 17:31	15°♄00'38	30.67226 AU	min. Earth dist.	9941 Sep 14 13:51	1°♄13'27	29.17657 AU
morning rise	9935 Mar 10 18:02	15°♄19'45			9941 Nov 07 20:16	30°♄	
retrograde	9935 Jun 15 05:51	17°♄40'25		direct	9941 Dec 03 17:54	29°♄49'22	
opposition	9935 Aug 31 04:36	16°♄17'32	13°52'16		9941 Dec 29 01:19	0°♄	
min. Earth dist.	9935 Aug 31 12:20	16°♄16'59	28.74564 AU	evening set	9942 Mar 08 12:27	1°♄58'33	
direct	9935 Nov 18 14:03	14°♄52'19					
evening set	9936 Feb 25 15:07	17°♄14'26		conjunction	9942 Mar 20 07:42	2°♄25'45	9°53'56
				minimum elong	9942 Mar 20 08:06	2°♄25'47	9°53'57
conjunction	9936 Mar 04 22:53	17°♄34'10	12°45'59	max. Earth dist.	9942 Mar 20 17:20	2°♄26'41	31.19786 AU
minimum elong	9936 Mar 04 23:17	17°♄34'13	12°46'06	morning rise	9942 Apr 01 02:33	2°♄52'54	
max. Earth dist.	9936 Mar 04 16:49	17°♄33'34	30.71295 AU	retrograde	9942 Jul 02 01:36	4°♄58'50	
morning rise	9936 Mar 13 06:41	17°♄53'57		opposition	9942 Sep 17 15:04	3°♄37'34	10°17'34

min. Earth dist.	9942 Sep 17 04:50	3°♊38'15	29.28394 AU	morning rise	9949 Apr 19 09:31	19°♊07'15	
direct	9942 Dec 06 11:32	2°♊14'20		retrograde	9949 Jul 17 09:57	21°♊01'18	
evening set	9943 Mar 10 17:08	4°♊21'32		opposition	9949 Oct 03 21:32	19°♊41'55	6°04'40
				min. Earth dist.	9949 Oct 02 19:10	19°♊43'39	30.27549 AU
conjunction	9943 Mar 22 23:16	4°♊49'36	9°21'59	direct	9949 Dec 23 05:29	18°♊21'04	
minimum elong	9943 Mar 22 23:39	4°♊49'38	9°21'58	evening set	9950 Mar 24 02:27	20°♊15'54	
max. Earth dist.	9943 Mar 23 12:03	4°♊50'50	31.31302 AU				
morning rise	9943 Apr 04 04:38	5°♊17'36		conjunction	9950 Apr 07 14:22	20°♊47'30	5°24'30
retrograde	9943 Jul 04 13:57	7°♊21'39		minimum elong	9950 Apr 07 14:36	20°♊47'31	5°24'23
opposition	9943 Sep 20 07:48	6°♊00'39	9°42'57	max. Earth dist.	9950 Apr 08 19:08	20°♊50'08	32.35463 AU
min. Earth dist.	9943 Sep 19 19:30	6°♊01'29	29.39990 AU	morning rise	9950 Apr 22 01:09	21°♊19'00	
direct	9943 Dec 09 06:24	4°♊37'45		retrograde	9950 Jul 19 19:09	23°♊11'38	
evening set	9944 Mar 11 21:52	6°♊42'59		min. Earth dist.	9950 Oct 05 04:09	21°♊54'30	30.45241 AU
				opposition	9950 Oct 06 09:17	21°♊52'36	5°27'22
conjunction	9944 Mar 24 13:49	7°♊11'49	8°49'22	direct	9950 Dec 25 20:33	20°♊32'09	
minimum elong	9944 Mar 24 14:11	7°♊11'51	8°49'22	evening set	9951 Mar 26 07:09	22°♊25'32	
max. Earth dist.	9944 Mar 25 03:54	7°♊13'09	31.43651 AU				
morning rise	9944 Apr 06 05:14	7°♊40'34		conjunction	9951 Apr 09 23:48	22°♊57'20	4°49'35
retrograde	9944 Jul 06 03:46	9°♊42'48		minimum elong	9951 Apr 10 00:01	22°♊57'21	4°49'26
opposition	9944 Sep 21 23:48	8°♊22'03	9°07'40	max. Earth dist.	9951 Apr 11 06:32	23°♊00'07	32.53774 AU
min. Earth dist.	9944 Sep 21 08:41	8°♊23'04	29.52435 AU	morning rise	9951 Apr 24 15:31	23°♊29'02	
direct	9944 Dec 10 22:38	6°♊59'27		retrograde	9951 Jul 22 03:15	25°♊20'20	
evening set	9945 Mar 14 02:40	9°♊02'49		opposition	9951 Oct 08 20:34	24°♊01'40	4°50'02
				min. Earth dist.	9951 Oct 07 13:17	24°♊03'42	30.63757 AU
conjunction	9945 Mar 27 03:57	9°♊32'18	8°16'11	direct	9951 Dec 28 08:00	22°♊41'39	
minimum elong	9945 Mar 27 04:18	9°♊32'20	8°16'08	evening set	9952 Mar 27 11:32	24°♊33'36	
max. Earth dist.	9945 Mar 27 21:17	9°♊33'57	31.56822 AU				
morning rise	9945 Apr 09 04:18	10°♊01'44		conjunction	9952 Apr 11 08:32	25°♊05'33	4°14'40
retrograde	9945 Jul 08 14:01	12°♊02'11		minimum elong	9952 Apr 11 08:43	25°♊05'34	4°14'32
opposition	9945 Sep 24 15:05	10°♊41'41	8°31'50	max. Earth dist.	9952 Apr 12 18:03	25°♊08'34	32.72841 AU
min. Earth dist.	9945 Sep 23 22:37	10°♊42'47	29.65700 AU	morning rise	9952 Apr 26 04:17	25°♊37'23	
direct	9945 Dec 13 15:58	9°♊19'25		retrograde	9952 Jul 23 09:19	27°♊27'24	
evening set	9946 Mar 16 07:38	11°♊20'55		min. Earth dist.	9952 Oct 08 22:07	26°♊11'15	30.82986 AU
				opposition	9952 Oct 10 07:06	26°♊09'07	4°12'46
conjunction	9946 Mar 29 17:11	11°♊50'59	7°42'30	direct	9952 Dec 29 21:18	24°♊49'32	
minimum elong	9946 Mar 29 17:30	11°♊51'01	7°42'27	evening set	9953 Mar 29 16:12	26°♊40'08	
max. Earth dist.	9946 Mar 30 11:40	11°♊52'44	31.70811 AU				
morning rise	9946 Apr 12 02:01	12°♊20'59		conjunction	9953 Apr 13 16:35	27°♊12'09	3°39'49
retrograde	9946 Jul 11 02:23	14°♊19'43		minimum elong	9953 Apr 13 16:44	27°♊12'10	3°39'39
min. Earth dist.	9946 Sep 26 09:59	13°♊00'48	29.79815 AU	max. Earth dist.	9953 Apr 15 03:04	27°♊15'15	32.92558 AU
opposition	9946 Sep 27 05:40	12°♊59'29	7°55'32	morning rise	9953 Apr 28 16:03	27°♊44'05	
direct	9946 Dec 16 08:23	11°♊37'31		retrograde	9953 Jul 25 17:12	29°♊32'53	
evening set	9947 Mar 18 12:18	13°♊37'15		min. Earth dist.	9953 Oct 11 05:20	28°♊17'14	31.02866 AU
				opposition	9953 Oct 12 16:47	28°♊14'58	3°35'38
conjunction	9947 Apr 01 05:37	14°♊07'49	7°08'24	direct	9954 Jan 01 07:07	26°♊55'48	
minimum elong	9947 Apr 01 05:55	14°♊07'51	7°08'19	evening set	9954 Mar 31 20:40	28°♊45'08	
max. Earth dist.	9947 Apr 02 03:31	14°♊09'52	31.85638 AU				
morning rise	9947 Apr 14 21:54	14°♊38'19		conjunction	9954 Apr 16 00:09	29°♊17'09	3°05'06
retrograde	9947 Jul 13 12:11	16°♊35'25		minimum elong	9954 Apr 16 00:17	29°♊17'10	3°04'57
opposition	9947 Sep 29 19:46	15°♊15'26	7°18'50	max. Earth dist.	9954 Apr 17 13:19	29°♊20'28	33.12856 AU
min. Earth dist.	9947 Sep 28 22:38	15°♊16'50	29.94809 AU	morning rise	9954 May 01 02:23	29°♊49'07	
direct	9947 Dec 18 23:16	13°♊53'49			9954 May 06 09:33	0°♊	
evening set	9948 Mar 19 17:07	15°♊51'50		retrograde	9954 Jul 27 21:10	1°♊36'45	
				min. Earth dist.	9954 Oct 13 13:54	0°♊21'30	31.23301 AU
conjunction	9948 Apr 02 17:14	16°♊22'49	6°33'59	opposition	9954 Oct 15 02:05	0°♊19'12	2°58'42
minimum elong	9948 Apr 02 17:31	16°♊22'50	6°33'55		9954 Oct 27 18:18	30°♊	
max. Earth dist.	9948 Apr 03 16:56	16°♊25'01	32.01354 AU	direct	9955 Jan 03 18:01	29°♊00'28	
morning rise	9948 Apr 16 16:27	16°♊53'43			9955 Mar 08 17:42	0°♊	
retrograde	9948 Jul 14 23:31	18°♊49'15		evening set	9955 Apr 03 01:06	0°♊48'32	
min. Earth dist.	9948 Sep 30 08:16	17°♊31'11	30.10720 AU				
opposition	9948 Oct 01 08:54	17°♊29'33	6°41'51	conjunction	9955 Apr 18 06:47	1°♊20'32	2°30'36
direct	9948 Dec 20 15:11	16°♊08'18		minimum elong	9955 Apr 18 06:53	1°♊20'32	2°30'24
evening set	9949 Mar 21 21:46	18°♊04'41		max. Earth dist.	9955 Apr 19 20:26	1°♊23'51	33.33656 AU
				morning rise	9955 May 03 11:31	1°♊52'26	
conjunction	9949 Apr 05 04:09	18°♊36'01	5°59'20	retrograde	9955 Jul 30 03:27	3°♊39'00	
minimum elong	9949 Apr 05 04:24	18°♊36'02	5°59'13	min. Earth dist.	9955 Oct 15 19:50	2°♊24'14	31.44234 AU
max. Earth dist.	9949 Apr 06 06:43	18°♊38'28	32.17965 AU	opposition	9955 Oct 17 10:38	2°♊21'47	2°22'03

direct	9956 Jan 06 02:40	1°8'03"26		conjunction	9962 May 01 10:48	14°8'55"58	-1°21'26
evening set	9956 Apr 04 05:24	2°8'50"20		minimum elong	9962 May 01 10:44	14°8'55"58	1°21'41
				max. Earth dist.	9962 May 03 10:39	14°8'59"58	34.90876 AU
conjunction	9956 Apr 19 12:59	3°8'22"14	1°56'21		9962 May 03 11:05	15°8'	
minimum elong	9956 Apr 19 13:04	3°8'22"14	1°56'09	morning rise	9962 May 16 17:41	15°8'26"23	
max. Earth dist.	9956 Apr 21 04:58	3°8'25"44	33.54896 AU	retrograde	9962 Aug 11 22:59	17°8'06"33	
morning rise	9956 May 04 19:25	3°8'54"03		min. Earth dist.	9962 Oct 29 01:42	15°8'54"31	33.02839 AU
retrograde	9956 Jul 31 07:53	5°8'39"34		opposition	9962 Oct 31 03:19	15°8'51"30	-1°42'59
min. Earth dist.	9956 Oct 17 03:16	4°8'25"08	31.65609 AU		9962 Dec 08 20:56	15°8'8"	
opposition	9956 Oct 18 18:31	4°8'22"40	1°45'43	direct	9963 Jan 20 06:50	14°8'35"44	
direct	9957 Jan 07 09:58	3°8'04"43			9963 Mar 02 07:47	15°8'	
evening set	9957 Apr 06 09:34	4°8'50"28		evening set	9963 Apr 18 05:58	16°8'15"43	
conjunction	9957 Apr 21 18:24	5°8'22"13	1°22'23	conjunction	9963 May 03 12:07	16°8'45"50	-1°52'45
minimum elong	9957 Apr 21 18:27	5°8'22"14	1°22'10	minimum elong	9963 May 03 12:03	16°8'45"50	1°53'03
max. Earth dist.	9957 Apr 23 11:04	5°8'25"46	33.76541 AU	max. Earth dist.	9963 May 05 14:26	16°8'50"01	35.15078 AU
morning rise	9957 May 07 02:10	5°8'53"55		morning rise	9963 May 18 17:21	17°8'15"54	
retrograde	9957 Aug 02 13:02	7°8'38"24		retrograde	9963 Aug 13 22:23	18°8'55"24	
min. Earth dist.	9957 Oct 19 08:06	6°8'24"25	31.87377 AU	min. Earth dist.	9963 Oct 31 04:43	17°8'43"44	33.27295 AU
opposition	9957 Oct 21 01:37	6°8'21"49	1°09'46	opposition	9963 Nov 02 06:42	17°8'40"42	-2°15'52
direct	9958 Jan 09 20:00	5°8'04"14		direct	9964 Jan 22 10:44	16°8'25"20	
evening set	9958 Apr 08 13:34	6°8'48"53		evening set	9964 Apr 19 08:45	18°8'04"35	
conjunction	9958 Apr 23 23:05	7°8'20"28	0°48'47	conjunction	9964 May 04 12:53	18°8'34"19	-2°23'32
minimum elong	9958 Apr 23 23:07	7°8'20"28	0°48'34	minimum elong	9964 May 04 12:48	18°8'34"18	2°23'49
max. Earth dist.	9958 Apr 25 17:22	7°8'24"06	33.98549 AU	max. Earth dist.	9964 May 06 15:39	18°8'38"30	35.39653 AU
morning rise	9958 May 09 07:38	7°8'51"58		morning rise	9964 May 19 16:17	19°8'04"00	
retrograde	9958 Aug 04 18:01	9°8'35"29		retrograde	9964 Aug 14 23:38	20°8'42"52	
min. Earth dist.	9958 Oct 21 13:41	8°8'21"50	32.09554 AU	min. Earth dist.	9964 Nov 01 05:04	19°8'31"40	33.52097 AU
opposition	9958 Oct 23 08:09	8°8'19"12	0°34'13	opposition	9964 Nov 03 09:10	19°8'28"32	-2°48'08
direct	9959 Jan 12 04:05	7°8'01"58		direct	9965 Jan 23 13:27	18°8'13"34	
evening set	9959 Apr 10 17:14	8°8'45"34		evening set	9965 Apr 21 11:22	19°8'52"07	
conjunction	9959 Apr 26 03:06	9°8'16"55	0°15'35	conjunction	9965 May 06 13:09	20°8'21"27	-2°53'45
minimum elong	9959 Apr 26 03:06	9°8'16"55	0°15'20	minimum elong	9965 May 06 13:02	20°8'21"27	2°54'04
behind sun begin	9959 Apr 26 00:59	9°8'16"45		max. Earth dist.	9965 May 08 17:31	20°8'25"44	35.64511 AU
behind sun end	9959 Apr 26 05:13	9°8'17"06		morning rise	9965 May 21 14:15	20°8'50"45	
max. Earth dist.	9959 Apr 27 22:58	9°8'20"40	34.20962 AU	retrograde	9965 Aug 17 00:59	22°8'29"02	
morning rise	9959 May 11 11:50	9°8'48"12		min. Earth dist.	9965 Nov 03 06:46	21°8'18"11	33.77171 AU
retrograde	9959 Aug 06 20:25	11°8'30"47		opposition	9965 Nov 05 11:22	21°8'15"03	-3°19'46
desc. node	9959 Oct 16 12:23	10°8'28"12		direct	9966 Jan 25 14:34	20°8'00"30	
min. Earth dist.	9959 Oct 23 17:53	10°8'17"31	32.32156 AU	evening set	9966 Apr 23 13:45	21°8'38"24	
opposition	9959 Oct 25 13:56	10°8'14"48	-0°00'52				
direct	9960 Jan 14 13:14	8°8'57"54		conjunction	9966 May 08 12:52	22°8'07"18	-3°23'23
evening set	9960 Apr 11 20:42	10°8'40"31		minimum elong	9966 May 08 12:45	22°8'07"18	3°23'41
				max. Earth dist.	9966 May 10 18:10	22°8'11"38	35.89587 AU
conjunction	9960 Apr 27 06:10	11°8'11"36	-0°17'16	morning rise	9966 May 23 11:12	22°8'36"10	
minimum elong	9960 Apr 27 06:09	11°8'11"36	0°17'30	retrograde	9966 Aug 18 23:30	24°8'13"55	
max. Earth dist.	9960 Apr 29 03:05	11°8'15"25	34.43799 AU	min. Earth dist.	9966 Nov 05 07:14	23°8'03"29	34.02421 AU
morning rise	9960 May 12 14:51	11°8'42"38		opposition	9966 Nov 07 12:55	23°8'00"18	-3°50'45
retrograde	9960 Aug 07 22:20	13°8'24"21		direct	9967 Jan 27 18:26	21°8'46"09	
min. Earth dist.	9960 Oct 24 21:00	12°8'11"29	32.55241 AU	evening set	9967 Apr 25 16:10	23°8'23"27	
opposition	9960 Oct 26 19:06	12°8'08"39	-0°35'27				
direct	9961 Jan 15 19:11	10°8'52"07		conjunction	9967 May 10 12:03	23°8'51"54	-3°52'25
evening set	9961 Apr 13 23:57	12°8'33"47		minimum elong	9967 May 10 11:55	23°8'51"53	3°52'45
				max. Earth dist.	9967 May 12 17:38	23°8'56"13	36.14790 AU
conjunction	9961 Apr 29 08:53	13°8'04"35	-0°49'35	morning rise	9967 May 25 07:30	24°8'20"20	
minimum elong	9961 Apr 29 08:51	13°8'04"35	0°49'51	retrograde	9967 Aug 20 22:53	25°8'57"34	
max. Earth dist.	9961 May 01 08:15	13°8'08"34	34.67106 AU	min. Earth dist.	9967 Nov 07 07:18	24°8'47"31	34.27803 AU
morning rise	9961 May 14 16:43	13°8'35"19		opposition	9967 Nov 09 14:02	24°8'44"17	-4°21'04
	9961 Jul 07 22:38	15°8'		direct	9968 Jan 29 20:33	23°8'30"31	
retrograde	9961 Aug 09 21:18	15°8'16"14		evening set	9968 Apr 26 18:09	25°8'07"15	
	9961 Sep 12 18:59	15°8'8"					
min. Earth dist.	9961 Oct 27 00:28	14°8'03"44	32.78801 AU	conjunction	9968 May 11 10:50	25°8'35"15	-4°20'51
opposition	9961 Oct 28 23:28	14°8'00"51	-1°09'30	minimum elong	9968 May 11 10:41	25°8'35"14	4°21'10
direct	9962 Jan 18 02:47	12°8'44"41		max. Earth dist.	9968 May 13 17:51	25°8'39"39	36.40073 AU
evening set	9962 Apr 16 03:11	14°8'25"29		morning rise	9968 May 26 02:46	26°8'03"12	

retrograde	9968 Aug 21 19:12	27° 8 39'59		evening set	9975 May 10 02:31	6° II 38'09	
min. Earth dist.	9968 Nov 08 07:57	26° 8 30'14	34.53222 AU				
opposition	9968 Nov 10 14:35	26° 8 27'01	-4°50'43	conjunction	9975 May 23 11:17	7° II 02'27	-7°22'18
direct	9969 Jan 31 00:04	25° 8 13'38		minimum elong	9975 May 23 11:04	7° II 02'26	7°22'40
evening set	9969 Apr 28 20:14	26° 8 49'49		max. Earth dist.	9975 May 25 22:55	7° II 07'00	38.17845 AU
				morning rise	9975 Jun 05 19:37	7° II 26'44	
conjunction	9969 May 13 09:02	27° 8 17'19	-4°48'40	retrograde	9975 Sep 02 15:28	9° II 00'57	
minimum elong	9969 May 13 08:52	27° 8 17'18	4°49'00	min. Earth dist.	9975 Nov 20 15:29	7° II 53'22	36.32385 AU
max. Earth dist.	9969 May 15 15:31	27° 8 21'39	36.65360 AU	opposition	9975 Nov 23 03:03	7° II 49'59	-7°59'01
morning rise	9969 May 27 21:27	27° 8 44'48		direct	9976 Feb 12 17:43	6° II 38'52	
retrograde	9969 Aug 23 16:48	29° 8 21'07		evening set	9976 May 11 02:47	8° II 12'04	
min. Earth dist.	9969 Nov 10 06:13	28° 8 11'46	34.78650 AU				
opposition	9969 Nov 12 14:25	28° 8 08'28	-5°19'42	conjunction	9976 May 24 05:51	8° II 35'47	-7°45'38
direct	9970 Feb 02 00:28	26° 8 55'26		minimum elong	9976 May 24 05:39	8° II 35'46	7°46'01
evening set	9970 Apr 30 21:57	28° 8 31'05		max. Earth dist.	9976 May 26 17:08	8° II 40'17	38.43577 AU
				morning rise	9976 Jun 06 08:49	8° II 59'30	
conjunction	9970 May 15 06:51	28° 8 58'05	-5°15'52	retrograde	9976 Sep 03 08:36	10° II 33'29	
minimum elong	9970 May 15 06:41	28° 8 58'05	5°16'12	min. Earth dist.	9976 Nov 21 10:10	9° II 26'17	36.58324 AU
max. Earth dist.	9970 May 17 14:51	29° 8 02'31	36.90636 AU	opposition	9976 Nov 23 23:22	9° II 22'49	-8°23'06
morning rise	9970 May 29 15:10	29° 8 25'05		direct	9977 Feb 13 15:12	8° II 12'02	
	9970 Jun 18 12:14	0° II		evening set	9977 May 13 02:48	9° II 44'57	
retrograde	9970 Aug 25 12:29	1° II 00'59					
	9970 Nov 06 09:14	30° 8		conjunction	9977 May 26 00:11	10° II 08'05	-8°08'20
min. Earth dist.	9970 Nov 12 06:14	29° 8 51'51	35.04075 AU	minimum elong	9977 May 25 23:58	10° II 08'04	8°08'43
opposition	9970 Nov 14 13:58	29° 8 48'37	-5°48'00	max. Earth dist.	9977 May 28 12:53	10° II 12'40	38.69321 AU
direct	9971 Feb 04 00:56	28° 8 35'54		morning rise	9977 Jun 07 21:20	10° II 31'13	
	9971 Apr 26 21:03	0° II		retrograde	9977 Sep 05 02:06	12° II 05'01	
evening set	9971 May 02 23:19	0° II 11'03		min. Earth dist.	9977 Nov 23 06:40	10° II 58'03	36.84254 AU
				opposition	9977 Nov 25 19:20	10° II 54'39	-8°46'30
conjunction	9971 May 17 03:51	0° II 37'32	-5°42'26	direct	9978 Feb 15 11:43	9° II 44'12	
minimum elong	9971 May 17 03:40	0° II 37'31	5°42'47	evening set	9978 May 15 02:45	11° II 16'50	
max. Earth dist.	9971 May 19 11:39	0° II 41'55	37.15917 AU				
morning rise	9971 May 31 07:59	1° II 04'00		conjunction	9978 May 27 18:07	11° II 39'24	-8°30'23
retrograde	9971 Aug 27 10:08	2° II 39'30		minimum elong	9978 May 27 17:54	11° II 39'23	8°30'47
min. Earth dist.	9971 Nov 14 03:33	1° II 30'43	35.29527 AU	max. Earth dist.	9978 May 30 06:35	11° II 43'55	38.95030 AU
opposition	9971 Nov 16 12:48	1° II 27'25	-6°15'36	morning rise	9978 Jun 09 09:16	12° II 01'56	
direct	9972 Feb 05 23:10	0° II 15'00		retrograde	9978 Sep 06 20:37	13° II 35'34	
evening set	9972 May 04 00:30	1° II 49'41		min. Earth dist.	9978 Nov 25 01:14	12° II 28'56	37.10109 AU
				opposition	9978 Nov 27 14:53	12° II 25'29	-9°09'13
conjunction	9972 May 18 00:26	2° II 15'38	-6°08'22	direct	9979 Feb 17 06:40	11° II 15'22	
minimum elong	9972 May 18 00:15	2° II 15'37	6°08'43	evening set	9979 May 17 02:25	12° II 47'46	
max. Earth dist.	9972 May 20 09:22	2° II 20'04	37.41234 AU				
morning rise	9972 Jun 01 00:04	2° II 41'34		conjunction	9979 May 29 11:32	13° II 09'43	-8°51'49
retrograde	9972 Aug 28 07:03	4° II 16'42		minimum elong	9979 May 29 11:18	13° II 09'42	8°52'12
min. Earth dist.	9972 Nov 15 01:38	3° II 08'11	35.55069 AU	max. Earth dist.	9979 Jun 01 00:17	13° II 14'14	39.20620 AU
opposition	9972 Nov 17 11:04	3° II 04'53	-6°42'31	morning rise	9979 Jun 10 20:39	13° II 31'41	
direct	9973 Feb 06 20:31	1° II 52'47		retrograde	9979 Sep 08 15:25	15° II 05'09	
evening set	9973 May 06 01:25	3° II 27'02		min. Earth dist.	9979 Nov 26 20:40	13° II 58'46	37.35837 AU
				opposition	9979 Nov 29 10:10	13° II 55'21	-9°31'16
conjunction	9973 May 19 20:36	3° II 52'27	-6°33'40	direct	9980 Feb 19 01:05	12° II 45'33	
minimum elong	9973 May 19 20:24	3° II 52'26	6°34'01	evening set	9980 May 18 02:01	14° II 17'43	
max. Earth dist.	9973 May 22 06:25	3° II 56'55	37.66656 AU				
morning rise	9973 Jun 02 15:19	4° II 17'50		conjunction	9980 May 30 04:52	14° II 39'05	-9°12'38
retrograde	9973 Aug 30 02:21	5° II 52'38		minimum elong	9980 May 30 04:39	14° II 39'04	9°13'02
min. Earth dist.	9973 Nov 16 22:25	4° II 44'25	35.80716 AU	max. Earth dist.	9980 Jun 01 18:08	14° II 43'37	39.46049 AU
opposition	9973 Nov 19 08:49	4° II 41'05	-7°08'43	morning rise	9980 Jun 11 07:28	15° II 00'27	
direct	9974 Feb 08 20:49	3° II 29'18		retrograde	9980 Sep 09 08:02	16° II 33'46	
evening set	9974 May 08 02:07	5° II 03'10		min. Earth dist.	9980 Nov 27 15:34	15° II 27'37	37.61354 AU
				opposition	9980 Nov 30 04:46	15° II 24'14	-9°52'40
conjunction	9974 May 21 16:02	5° II 28'01	-6°58'18	direct	9981 Feb 19 21:08	14° II 14'43	
minimum elong	9974 May 21 15:50	5° II 28'00	6°58'41	evening set	9981 May 20 01:36	15° II 46'43	
max. Earth dist.	9974 May 24 02:04	5° II 32'28	37.92188 AU				
morning rise	9974 Jun 04 05:49	5° II 52'52		conjunction	9981 May 31 21:43	16° II 07'28	-9°32'51
retrograde	9974 Aug 31 22:24	7° II 27'21		minimum elong	9981 May 31 21:29	16° II 07'27	9°33'14
min. Earth dist.	9974 Nov 18 18:28	6° II 19'29	36.06501 AU	max. Earth dist.	9981 Jun 03 09:58	16° II 11'54	39.71243 AU
opposition	9974 Nov 21 06:10	6° II 16'05	-7°34'13	morning rise	9981 Jun 12 17:54	16° II 28'14	
direct	9975 Feb 10 18:47	5° II 04'38		retrograde	9981 Sep 11 01:28	18° II 01'24	

min. Earth dist.	9981 Nov 29 09:15	16°II55'32	37.86636 AU	max. Earth dist.	9988 Jun 12 21:59	26°II02'48	41.42537 AU
opposition	9981 Dec 01 23:08	16°II52'08	-10°13'25	morning rise	9988 Jun 20 01:48	26°II14'51	
direct	9982 Feb 21 15:40	15°II42'54		retrograde	9988 Sep 20 07:57	27°II47'40	
evening set	9982 May 22 00:42	17°II14'42		min. Earth dist.	9988 Dec 09 04:59	26°II43'24	39.58885 AU
				opposition	9988 Dec 11 20:07	26°II40'02	-12°20'58
conjunction	9982 Jun 02 14:12	17°II34'51	-9°52'27	direct	9989 Mar 03 17:01	25°II32'38	
minimum elong	9982 Jun 02 13:59	17°II34'50	9°52'52	evening set	9989 Jun 02 13:19	27°II03'48	
max. Earth dist.	9982 Jun 05 03:23	17°II39'19	39.96186 AU				
morning rise	9982 Jun 14 03:32	17°II54'59		conjunction	9989 Jun 11 22:34	27°II19'32	-11°53'10
retrograde	9982 Sep 12 14:54	19°II28'03		minimum elong	9989 Jun 11 22:23	27°II19'31	11°53'35
min. Earth dist.	9982 Dec 01 04:24	18°II22'21	38.11659 AU	max. Earth dist.	9989 Jun 14 12:56	27°II23'54	41.66589 AU
opposition	9982 Dec 03 17:12	18°II19'00	-10°33'32	morning rise	9989 Jun 21 07:50	27°II35'16	
direct	9983 Feb 23 12:20	17°II10'02		retrograde	9989 Sep 21 20:22	29°II08'08	
evening set	9983 May 23 23:48	18°II41'40		min. Earth dist.	9989 Dec 10 21:22	28°II04'04	39.83056 AU
				opposition	9989 Dec 13 11:29	28°II00'46	-12°36'42
conjunction	9983 Jun 04 06:15	19°II01'11	-10°11'29	direct	9990 Mar 05 10:30	26°II53'39	
minimum elong	9983 Jun 04 06:02	19°II01'10	10°11'53	evening set	9990 Jun 04 11:04	28°II24'50	
max. Earth dist.	9983 Jun 06 18:27	19°II05'33	40.20895 AU				
morning rise	9983 Jun 15 12:41	19°II20'43		conjunction	9990 Jun 13 12:08	28°II39'55	-12°08'06
retrograde	9983 Sep 14 06:00	20°II53'40		minimum elong	9990 Jun 13 11:56	28°II39'54	12°08'32
min. Earth dist.	9983 Dec 02 20:46	19°II48'13	38.36469 AU	max. Earth dist.	9990 Jun 16 01:58	28°II44'14	41.90481 AU
opposition	9983 Dec 05 10:37	19°II44'50	-10°53'01	morning rise	9990 Jun 22 13:10	28°II55'00	
direct	9984 Feb 25 06:57	18°II36'07			9990 Aug 06 11:15	0°☾	
evening set	9984 May 24 22:27	20°II07'35		retrograde	9990 Sep 23 11:07	0°☾27'57	
					9990 Nov 12 05:39	30°R II	
conjunction	9984 Jun 04 21:50	20°II26'29	-10°29'55	min. Earth dist.	9990 Dec 12 11:38	29°II24'10	40.07028 AU
minimum elong	9984 Jun 04 21:37	20°II26'28	10°30'20	opposition	9990 Dec 15 02:25	29°II20'50	-12°51'51
max. Earth dist.	9984 Jun 07 10:52	20°II30'53	40.45409 AU	direct	9991 Mar 07 01:10	28°II14'00	
morning rise	9984 Jun 15 21:14	20°II45'23		evening set	9991 Jun 06 08:44	29°II45'13	
retrograde	9984 Sep 14 22:32	22°II18'16					
min. Earth dist.	9984 Dec 03 14:34	21°II12'59	38.61125 AU	conjunction	9991 Jun 15 01:29	29°II59'39	-12°22'29
opposition	9984 Dec 06 03:47	21°II09'39	-11°11'52	minimum elong	9991 Jun 15 01:18	29°II59'38	12°22'54
direct	9985 Feb 25 23:29	20°II01'11			9991 Jun 15 06:36	0°☾	
evening set	9985 May 26 21:01	21°II32'31		max. Earth dist.	9991 Jun 17 15:14	0°☾03'56	42.14141 AU
				morning rise	9991 Jun 23 18:20	0°☾14'06	
conjunction	9985 Jun 06 13:06	21°II50'47	-10°47'45	retrograde	9991 Sep 25 03:18	1°☾47'08	
minimum elong	9985 Jun 06 12:53	21°II50'46	10°48'09	min. Earth dist.	9991 Dec 14 02:55	0°☾43'32	40.30755 AU
max. Earth dist.	9985 Jun 09 02:15	21°II55'10	40.69802 AU	opposition	9991 Dec 16 17:07	0°☾40'16	-13°06'27
morning rise	9985 Jun 17 05:04	22°II09'04			9992 Jan 19 18:13	30°R II	
retrograde	9985 Sep 16 13:13	23°II41'53		direct	9992 Mar 07 12:57	29°II33'42	
min. Earth dist.	9985 Dec 05 06:27	22°II36'51	38.85668 AU		9992 Apr 22 20:21	0°☾	
opposition	9985 Dec 07 20:20	22°II33'30	-11°30'05	evening set	9992 Jun 07 06:24	1°☾04'57	
direct	9986 Feb 27 16:26	21°II25'17					
evening set	9986 May 28 19:23	22°II56'32		conjunction	9992 Jun 15 14:43	1°☾18'44	-12°36'21
				minimum elong	9992 Jun 15 14:31	1°☾18'43	12°36'46
conjunction	9986 Jun 08 03:55	23°II14'10	-11°04'59	max. Earth dist.	9992 Jun 18 04:40	1°☾23'00	42.37527 AU
minimum elong	9986 Jun 08 03:42	23°II14'09	11°05'24	morning rise	9992 Jun 23 22:56	1°☾32'31	
max. Earth dist.	9986 Jun 10 16:52	23°II18'31	40.94110 AU	retrograde	9992 Sep 25 15:47	3°☾05'39	
morning rise	9986 Jun 18 12:34	23°II31'50		min. Earth dist.	9992 Dec 14 17:55	2°☾02'15	40.54150 AU
retrograde	9986 Sep 18 05:22	25°II04'36		opposition	9992 Dec 17 07:29	1°☾59'01	-13°20'30
min. Earth dist.	9986 Dec 06 22:22	23°II59'49	39.10159 AU	direct	9993 Mar 09 04:22	0°☾52'43	
opposition	9986 Dec 09 12:45	23°II56'28	-11°47'40	evening set	9993 Jun 09 04:05	2°☾24'01	
direct	9987 Mar 01 07:43	22°II48'30					
evening set	9987 May 30 17:24	24°II19'42		conjunction	9993 Jun 17 03:34	2°☾37'09	-12°49'42
				minimum elong	9993 Jun 17 03:24	2°☾37'08	12°50'07
conjunction	9987 Jun 09 18:26	24°II36'43	-11°21'38	max. Earth dist.	9993 Jun 19 16:04	2°☾41'18	42.60558 AU
minimum elong	9987 Jun 09 18:14	24°II36'42	11°22'02	morning rise	9993 Jun 25 03:08	2°☾50'16	
max. Earth dist.	9987 Jun 12 08:37	24°II41'07	41.18366 AU	retrograde	9993 Sep 27 04:33	4°☾23'30	
morning rise	9987 Jun 19 19:21	24°II53'43		min. Earth dist.	9993 Dec 16 07:48	3°☾20'19	40.77183 AU
retrograde	9987 Sep 19 17:58	26°II26'31		opposition	9993 Dec 18 21:33	3°☾17'05	-13°34'01
min. Earth dist.	9987 Dec 08 14:44	25°II21'57	39.34569 AU	direct	9994 Mar 10 18:05	2°☾11'01	
opposition	9987 Dec 11 04:43	25°II18'37	-12°04'38	evening set	9994 Jun 11 01:39	3°☾42'24	
direct	9988 Mar 02 01:36	24°II10'56					
evening set	9988 May 31 15:30	25°II42'06		conjunction	9994 Jun 18 16:19	3°☾54'51	-13°02'33
				minimum elong	9994 Jun 18 16:08	3°☾54'50	13°02'59
conjunction	9988 Jun 10 08:37	25°II58'29	-11°37'41	max. Earth dist.	9994 Jun 21 05:21	3°☾59'01	42.83217 AU
minimum elong	9988 Jun 10 08:24	25°II58'28	11°38'07	morning rise	9994 Jun 26 06:55	4°☾07'17	

retrograde	9994 Sep 28 15:03	5°☾40'38		minimum elong	10001 Jun 27 00:29	12°☾37'34	14°19'19
min. Earth dist.	9994 Dec 17 23:10	4°☾37'34	40.99830 AU	max. Earth dist.	10001 Jun 29 12:06	12°☾41'30	44.34056 AU
opposition	9994 Dec 20 11:30	4°☾34'25	-13°47'01	morning rise	10001 Jul 01 15:02	12°☾44'52	
direct	9995 Mar 12 10:05	3°☾28'33		retrograde	10001 Oct 06 21:34	14°☾19'43	
evening set	9995 Jun 12 23:13	5°☾00'01		min. Earth dist.	10001 Dec 26 16:42	13°☾17'48	42.50952 AU
				opposition	10001 Dec 29 03:39	13°☾14'48	-15°03'42
conjunction	9995 Jun 20 04:34	5°☾11'46	-13°14'55	direct	10002 Mar 21 05:39	12°☾10'23	
minimum elong	9995 Jun 20 04:25	5°☾11'45	13°15'21	evening set	10002 Jun 24 09:25	13°☾43'21	
max. Earth dist.	9995 Jun 22 16:27	5°☾15'50	43.05512 AU				
morning rise	9995 Jun 27 09:56	5°☾23'31		conjunction	10002 Jun 28 11:13	13°☾49'46	-14°27'52
retrograde	9995 Sep 30 01:53	6°☾56'59		minimum elong	10002 Jun 28 11:06	13°☾49'46	14°28'17
min. Earth dist.	9995 Dec 19 11:59	5°☾54'07	41.22120 AU	max. Earth dist.	10002 Jun 30 22:22	13°☾53'40	44.54737 AU
opposition	9995 Dec 22 00:56	5°☾50'57	-13°59'30	morning rise	10002 Jul 02 12:55	13°☾56'12	
direct	9996 Mar 13 01:13	4°☾45'17		retrograde	10002 Oct 08 08:31	15°☾31'29	
evening set	9996 Jun 13 20:40	6°☾16'50		min. Earth dist.	10002 Dec 28 04:00	14°☾29'47	42.71614 AU
				opposition	10002 Dec 30 15:13	14°☾26'47	-15°12'40
conjunction	9996 Jun 20 16:36	6°☾27'53	-13°26'48	direct	10003 Mar 22 17:20	13°☾22'35	
minimum elong	9996 Jun 20 16:26	6°☾27'52	13°27'13	evening set	10003 Jun 26 09:38	14°☾56'02	
max. Earth dist.	9996 Jun 23 04:28	6°☾31'56	43.27471 AU				
morning rise	9996 Jun 27 12:33	6°☾38'57		conjunction	10003 Jun 29 21:28	15°☾01'31	-14°36'25
retrograde	9996 Sep 30 14:31	8°☾12'33		minimum elong	10003 Jun 29 21:21	15°☾01'30	14°36'51
min. Earth dist.	9996 Dec 20 02:09	7°☾09'47	41.44117 AU	max. Earth dist.	10003 Jul 02 07:39	15°☾05'19	44.75102 AU
opposition	9996 Dec 22 14:02	7°☾06'40	-14°11'29	morning rise	10003 Jul 03 09:12	15°☾06'59	
direct	9997 Mar 14 15:07	6°☾01'11		retrograde	10003 Oct 09 22:00	16°☾42'48	
evening set	9997 Jun 15 18:19	7°☾32'52		min. Earth dist.	10003 Dec 29 16:07	15°☾41'16	42.91945 AU
				opposition	10004 Jan 01 02:39	15°☾38'18	-15°21'11
conjunction	9997 Jun 22 04:25	7°☾43'12	-13°38'12	direct	10004 Mar 23 01:52	14°☾34'21	
minimum elong	9997 Jun 22 04:16	7°☾43'11	13°38'38	evening set	10004 Jun 27 12:04	16°☾08'25	
max. Earth dist.	9997 Jun 24 16:22	7°☾47'14	43.49180 AU				
morning rise	9997 Jun 28 14:26	7°☾53'33		conjunction	10004 Jun 30 07:50	16°☾12'50	-14°44'33
retrograde	9997 Oct 02 03:10	9°☾27'19		minimum elong	10004 Jun 30 07:44	16°☾12'49	14°44'57
min. Earth dist.	9997 Dec 21 14:56	8°☾24'42	41.65871 AU	morning rise	10004 Jul 03 03:29	16°☾17'14	
opposition	9997 Dec 24 02:52	8°☾21'37	-14°22'57	max. Earth dist.	10004 Jul 02 18:17	16°☾16'38	44.95105 AU
direct	9998 Mar 16 03:16	7°☾16'19		retrograde	10004 Oct 10 08:05	17°☾53'41	
evening set	9998 Jun 17 15:47	8°☾48'09		min. Earth dist.	10004 Dec 30 04:29	16°☾52'17	43.11859 AU
				opposition	10005 Jan 01 13:40	16°☾49'24	-15°29'17
conjunction	9998 Jun 23 15:40	8°☾57'46	-13°49'06	direct	10005 Mar 24 12:41	15°☾45'39	
minimum elong	9998 Jun 23 15:31	8°☾57'45	13°49'31	evening set	10005 Jun 29 18:33	17°☾20'38	
max. Earth dist.	9998 Jun 26 02:54	9°☾01'43	43.70674 AU				
morning rise	9998 Jun 29 15:35	9°☾07'23		conjunction	10005 Jul 01 17:55	17°☾23'42	-14°52'17
retrograde	9998 Oct 03 16:08	10°☾41'21		minimum elong	10005 Jul 01 17:49	17°☾23'42	14°52'42
min. Earth dist.	9998 Dec 23 03:13	9°☾38'56	41.87443 AU	morning rise	10005 Jul 03 17:08	17°☾26'46	
opposition	9998 Dec 25 15:32	9°☾35'49	-14°33'53	max. Earth dist.	10005 Jul 04 02:35	17°☾27'23	45.14678 AU
direct	9999 Mar 17 14:13	8°☾30'44		retrograde	10005 Oct 11 17:33	19°☾04'08	
evening set	9999 Jun 19 13:37	10°☾02'46		min. Earth dist.	10005 Dec 31 15:18	18°☾02'56	43.31326 AU
				opposition	10006 Jan 03 00:38	18°☾00'03	-15°36'58
conjunction	9999 Jun 25 02:58	10°☾11'38	-13°59'30	direct	10006 Mar 25 23:22	16°☾56'30	
minimum elong	9999 Jun 25 02:50	10°☾11'38	13°59'56				
max. Earth dist.	9999 Jun 27 15:10	10°☾15'38	43.91996 AU	conjunction	10006 Jul 03 03:45	18°☾34'06	-14°59'37
morning rise	9999 Jun 30 16:16	10°☾20'30		minimum elong	10006 Jul 03 03:40	18°☾34'06	15°00'02
retrograde	9999 Oct 05 00:59	11°☾54'43		max. Earth dist.	10006 Jul 05 12:26	18°☾37'46	45.33780 AU
min. Earth dist.	9999 Dec 24 16:25	10°☾52'26	42.08824 AU	retrograde	10006 Oct 13 01:11	20°☾14'08	
opposition	9999 Dec 27 03:47	10°☾49'23	-14°44'19	min. Earth dist.	10007 Jan 02 03:59	19°☾13'00	43.50309 AU
direct	10000 Mar 18 04:01	9°☾44'30		opposition	10007 Jan 04 11:31	19°☾10'12	-15°44'14
evening set	10000 Jun 20 11:43	11°☾16'47		direct	10007 Mar 27 13:22	18°☾06'50	
conjunction	10000 Jun 25 13:54	11°☾24'53	-14°09'26	conjunction	10007 Jul 04 13:31	19°☾43'59	-15°06'34
minimum elong	10000 Jun 25 13:46	11°☾24'53	14°09'51	minimum elong	10007 Jul 04 13:25	19°☾43'59	15°06'59
max. Earth dist.	10000 Jun 28 00:54	11°☾28'48	44.13137 AU	max. Earth dist.	10007 Jul 06 21:03	19°☾47'34	45.52424 AU
morning rise	10000 Jun 30 16:03	11°☾32'58		retrograde	10007 Oct 14 10:58	21°☾23'35	
retrograde	10000 Oct 05 10:47	13°☾07'29		min. Earth dist.	10008 Jan 03 14:21	20°☾22'36	43.68834 AU
min. Earth dist.	10000 Dec 25 03:34	12°☾05'26	42.30006 AU	opposition	10008 Jan 05 21:51	20°☾19'49	-15°51'08
opposition	10000 Dec 27 15:46	12°☾02'21	-14°54'15	direct	10008 Mar 28 01:08	19°☾16'36	
direct	10001 Mar 19 16:50	10°☾57'42					
evening set	10001 Jun 22 10:07	12°☾30'17		conjunction	10008 Jul 04 22:53	20°☾53'18	-15°13'08
				minimum elong	10008 Jul 04 22:50	20°☾53'18	15°13'33
conjunction	10001 Jun 27 00:37	12°☾37'35	-14°18'53	max. Earth dist.	10008 Jul 07 05:32	20°☾56'48	45.70632 AU

retrograde	10008 Oct 14 22:29	22°☾32'29		retrograde	10016 Oct 23 18:30	1°♂26'10	
min. Earth dist.	10009 Jan 04 01:38	21°☾31'34 43.86966 AU		min. Earth dist.	10017 Jan 13 08:54	0°♂26'11 45.21336 AU	
opposition	10009 Jan 06 08:09	21°☾28'51 -15°57'37		opposition	10017 Jan 15 10:41	0°♂23'45 -16°35'04	
direct	10009 Mar 29 10:06	20°☾25'48			10017 Feb 05 05:10	30°♂☾	
				direct	10017 Apr 07 11:37	29°☾22'00	
conjunction	10009 Jul 06 08:05	22°☾02'03 -15°19'19			10017 Jun 05 09:01	0°♂	
minimum elong	10009 Jul 06 08:01	22°☾02'02 15°19'43		conjunction	10017 Jul 15 03:16	0°♂55'13 -15°54'58	
max. Earth dist.	10009 Jul 08 15:04	22°☾05'33 45.88485 AU		minimum elong	10017 Jul 15 03:16	0°♂55'13 15°55'20	
retrograde	10009 Oct 16 07:31	23°☾40'48		max. Earth dist.	10017 Jul 17 05:20	0°♂58'19 47.20957 AU	
min. Earth dist.	10010 Jan 05 12:14	22°☾40'00 44.04755 AU		retrograde	10017 Oct 25 00:33	2°♂31'08	
opposition	10010 Jan 07 18:08	22°☾37'19 -16°03'42		min. Earth dist.	10018 Jan 14 17:24	1°♂31'17 45.36467 AU	
direct	10010 Mar 30 19:48	21°☾34'25		opposition	10018 Jan 16 19:13	1°♂28'51 -16°38'07	
				direct	10018 Apr 08 21:15	0°♂27'15	
conjunction	10010 Jul 07 17:00	23°☾10'14 -15°25'06		conjunction	10018 Jul 16 11:07	2°♂00'07 -15°57'52	
minimum elong	10010 Jul 07 16:57	23°☾10'14 15°25'31		minimum elong	10018 Jul 16 11:07	2°♂00'07 15°58'15	
max. Earth dist.	10010 Jul 09 22:34	23°☾13'38 46.06043 AU		max. Earth dist.	10018 Jul 18 12:15	2°♂03'09 47.35782 AU	
retrograde	10010 Oct 17 16:39	24°☾48'35		retrograde	10018 Oct 26 09:10	3°♂35'42	
min. Earth dist.	10011 Jan 06 21:40	23°☾47'56 44.22280 AU		min. Earth dist.	10019 Jan 16 03:43	2°♂35'53 45.51099 AU	
opposition	10011 Jan 09 03:56	23°☾45'15 -16°09'21		opposition	10019 Jan 18 03:45	2°♂33'33 -16°40'50	
direct	10011 Apr 01 03:33	22°☾42'30		direct	10019 Apr 10 06:47	1°♂32'04	
				conjunction	10019 Jul 17 18:52	3°♂04'35 -16°00'27	
conjunction	10011 Jul 09 01:46	24°☾17'55 -15°30'30		minimum elong	10019 Jul 17 18:54	3°♂04'35 16°00'50	
minimum elong	10011 Jul 09 01:43	24°☾17'55 15°30'53		max. Earth dist.	10019 Jul 19 19:38	3°♂07'35 47.50122 AU	
max. Earth dist.	10011 Jul 11 07:56	24°☾21'20 46.23342 AU		retrograde	10019 Oct 27 16:49	4°♂39'50	
retrograde	10011 Oct 18 23:33	25°☾55'53		min. Earth dist.	10020 Jan 17 12:29	3°♂40'06 45.65229 AU	
min. Earth dist.	10012 Jan 08 08:42	24°☾55'18 44.39542 AU		opposition	10020 Jan 19 11:56	3°♂37'47 -16°43'15	
opposition	10012 Jan 10 13:35	24°☾52'41 -16°14'37		direct	10020 Apr 10 15:57	2°♂36'25	
direct	10012 Apr 01 14:02	23°☾50'06					
				conjunction	10020 Jul 18 02:19	4°♂08'35 -16°02'44	
conjunction	10012 Jul 09 10:25	25°☾25'07 -15°35'30		minimum elong	10020 Jul 18 02:19	4°♂08'35 16°03'07	
minimum elong	10012 Jul 09 10:23	25°☾25'07 15°35'54		max. Earth dist.	10020 Jul 20 01:11	4°♂11'27 47.63990 AU	
max. Earth dist.	10012 Jul 11 15:45	25°☾28'29 46.40398 AU		retrograde	10020 Oct 28 02:25	5°♂43'30	
retrograde	10012 Oct 19 06:17	27°☾02'43		min. Earth dist.	10021 Jan 17 20:56	4°♂43'50 45.78936 AU	
min. Earth dist.	10013 Jan 08 17:19	26°☾02'19 44.56542 AU		opposition	10021 Jan 19 19:50	4°♂41'34 -16°45'20	
opposition	10013 Jan 10 22:45	25°☾59'40 -16°19'28		direct	10021 Apr 11 21:10	3°♂40'18	
direct	10013 Apr 03 01:47	24°☾57'15					
				conjunction	10021 Jul 19 09:40	5°♂12'08 -16°04'42	
conjunction	10013 Jul 10 18:48	26°☾31'53 -15°40'06		minimum elong	10021 Jul 19 09:43	5°♂12'08 16°05'04	
minimum elong	10013 Jul 10 18:46	26°☾31'53 15°40'30		max. Earth dist.	10021 Jul 21 08:59	5°♂15'01 47.77469 AU	
max. Earth dist.	10013 Jul 12 23:33	26°☾35'12 46.57184 AU		retrograde	10021 Oct 29 08:55	6°♂46'44	
retrograde	10013 Oct 20 16:49	28°☾09'08		min. Earth dist.	10022 Jan 19 06:16	5°♂47'05 45.92275 AU	
min. Earth dist.	10014 Jan 10 03:39	27°☾08'50 44.73270 AU		opposition	10022 Jan 21 03:44	5°♂44'53 -16°47'06	
opposition	10014 Jan 12 08:05	27°☾06'15 -16°23'55		direct	10022 Apr 13 05:00	4°♂43'44	
direct	10014 Apr 04 11:24	26°☾04'00					
				conjunction	10022 Jul 20 16:41	6°♂15'15 -16°06'21	
conjunction	10014 Jul 12 03:04	27°☾38'16 -15°44'21		minimum elong	10022 Jul 20 16:43	6°♂15'15 16°06'43	
minimum elong	10014 Jul 12 03:03	27°☾38'16 15°44'45		max. Earth dist.	10022 Jul 22 14:50	6°♂18'04 47.90629 AU	
max. Earth dist.	10014 Jul 14 08:06	27°☾41'35 46.73691 AU		retrograde	10022 Oct 30 13:47	7°♂49'33	
retrograde	10014 Oct 22 02:40	29°☾15'10		min. Earth dist.	10023 Jan 20 13:21	6°♂50'02 46.05315 AU	
min. Earth dist.	10015 Jan 11 13:19	28°☾14'59 44.89674 AU		opposition	10023 Jan 22 11:22	6°♂47'48 -16°48'31	
opposition	10015 Jan 13 17:08	28°☾12'27 -16°28'00		direct	10023 Apr 14 13:30	5°♂46'46	
direct	10015 Apr 05 19:27	27°☾10'22					
				conjunction	10023 Jul 21 23:41	7°♂18'00 -16°07'40	
conjunction	10015 Jul 13 11:11	28°☾44'16 -15°48'13		minimum elong	10023 Jul 21 23:45	7°♂18'00 16°08'02	
minimum elong	10015 Jul 13 11:11	28°☾44'16 15°48'36		max. Earth dist.	10023 Jul 23 21:28	7°♂20'46 48.03499 AU	
max. Earth dist.	10015 Jul 15 14:39	28°☾47'29 46.89858 AU		retrograde	10023 Oct 31 20:34	8°♂52'01	
	10015 Sep 09 17:59	0°♂		min. Earth dist.	10024 Jan 21 22:13	7°♂52'33 46.18082 AU	
retrograde	10015 Oct 23 12:46	0°♂20'51		opposition	10024 Jan 23 18:50	7°♂50'23 -16°49'36	
	10015 Dec 07 04:14	30°♂☾		direct	10024 Apr 14 23:04	6°♂49'29	
min. Earth dist.	10016 Jan 12 22:18	29°☾20'48 45.05723 AU					
opposition	10016 Jan 15 01:55	29°☾18'17 -16°31'42		conjunction	10024 Jul 22 06:39	8°♂20'25 -16°08'39	
direct	10016 Apr 06 02:03	28°☾16'22		minimum elong	10024 Jul 22 06:42	8°♂20'26 16°09'00	
				max. Earth dist.	10024 Jul 24 04:23	8°♂23'12 48.16118 AU	
conjunction	10016 Jul 13 19:21	29°☾49'56 -15°51'45		retrograde	10024 Nov 01 04:46	9°♂54'11	
minimum elong	10016 Jul 13 19:20	29°☾49'56 15°52'09					
max. Earth dist.	10016 Jul 15 22:59	29°☾53'08 47.05631 AU					
	10016 Jul 20 13:50	0°♂					

min. Earth dist.	10025 Jan 22 05:35	8°Ω54'50	46.30573 AU	max. Earth dist.	10032 Aug 01 00:41	16°Ω34'19	49.04031 AU
opposition	10025 Jan 24 02:09	8°Ω52'42	-16°50'20	retrograde	10032 Nov 09 11:57	18°Ω03'56	
direct	10025 Apr 16 06:47	7°Ω51'55		min. Earth dist.	10033 Jan 30 19:18	17°Ω05'09	47.16723 AU
				opposition	10033 Feb 01 09:02	17°Ω03'22	-16°45'30
conjunction	10025 Jul 23 13:13	9°Ω22'36	-16°09'19	direct	10033 Apr 24 08:18	16°Ω03'32	
minimum elong	10025 Jul 23 13:17	9°Ω22'36	16°09'40				
max. Earth dist.	10025 Jul 25 09:37	9°Ω25'16	48.28461 AU	conjunction	10033 Jul 31 16:21	17°Ω32'16	-16°04'19
retrograde	10025 Nov 02 14:25	10°Ω56'06		minimum elong	10033 Jul 31 16:26	17°Ω32'17	16°04'38
min. Earth dist.	10026 Jan 23 13:16	9°Ω56'52	46.42791 AU	max. Earth dist.	10033 Aug 02 05:59	17°Ω34'30	49.12940 AU
opposition	10026 Jan 25 09:27	9°Ω54'45	-16°50'45	retrograde	10033 Nov 10 14:58	19°Ω03'55	
direct	10026 Apr 17 11:22	8°Ω54'08		min. Earth dist.	10034 Feb 01 03:29	18°Ω05'06	47.25420 AU
				opposition	10034 Feb 02 15:29	18°Ω03'24	-16°43'40
conjunction	10026 Jul 24 19:56	10°Ω24'33	-16°09'39	direct	10034 Apr 25 17:23	17°Ω03'38	
minimum elong	10026 Jul 24 20:00	10°Ω24'34	16°10'00				
max. Earth dist.	10026 Jul 26 16:46	10°Ω27'15	48.40518 AU	conjunction	10034 Aug 01 22:19	18°Ω32'08	-16°02'30
retrograde	10026 Nov 03 20:12	11°Ω57'50		minimum elong	10034 Aug 01 22:27	18°Ω32'08	16°02'49
min. Earth dist.	10027 Jan 24 21:43	10°Ω58'40	46.54690 AU	max. Earth dist.	10034 Aug 03 11:43	18°Ω34'20	49.21494 AU
opposition	10027 Jan 26 16:36	10°Ω56'37	-16°50'50	retrograde	10034 Nov 11 19:40	20°Ω03'33	
direct	10027 Apr 18 17:30	9°Ω56'09		min. Earth dist.	10035 Feb 02 09:36	19°Ω04'48	47.33770 AU
				opposition	10035 Feb 03 21:35	19°Ω03'06	-16°41'34
conjunction	10027 Jul 26 02:28	11°Ω26'20	-16°09'42	direct	10035 Apr 27 01:56	18°Ω03'23	
minimum elong	10027 Jul 26 02:32	11°Ω26'20	16°10'03				
max. Earth dist.	10027 Jul 27 21:50	11°Ω28'56	48.52251 AU	conjunction	10035 Aug 03 04:02	19°Ω31'40	-16°00'24
retrograde	10027 Nov 05 01:09	12°Ω59'22		minimum elong	10035 Aug 03 04:09	19°Ω31'40	16°00'43
min. Earth dist.	10028 Jan 26 04:36	12°Ω00'21	46.66229 AU	max. Earth dist.	10035 Aug 04 15:55	19°Ω33'46	49.29720 AU
opposition	10028 Jan 27 23:34	11°Ω58'18	-16°50'37	retrograde	10035 Nov 13 03:59	21°Ω02'53	
direct	10028 Apr 18 23:58	10°Ω57'58		min. Earth dist.	10036 Feb 03 16:29	20°Ω04'09	47.41816 AU
				opposition	10036 Feb 05 03:41	20°Ω02'29	-16°39'11
conjunction	10028 Jul 26 08:59	12°Ω27'56	-16°09'27	direct	10036 Apr 27 06:57	19°Ω02'51	
minimum elong	10028 Jul 26 09:04	12°Ω27'56	16°09'46				
max. Earth dist.	10028 Jul 28 03:43	12°Ω30'30	48.63577 AU	conjunction	10036 Aug 03 09:50	20°Ω30'55	-15°58'02
retrograde	10028 Nov 05 07:07	14°Ω00'46		minimum elong	10036 Aug 03 09:58	20°Ω30'56	15°58'20
min. Earth dist.	10029 Jan 26 13:28	13°Ω01'47	46.77338 AU	max. Earth dist.	10036 Aug 04 22:03	20°Ω33'03	49.37646 AU
opposition	10029 Jan 28 06:28	12°Ω59'49	-16°50'08	retrograde	10036 Nov 13 10:01	22°Ω01'56	
direct	10029 Apr 20 08:05	11°Ω59'38		min. Earth dist.	10037 Feb 03 23:25	21°Ω03'14	47.49548 AU
				opposition	10037 Feb 05 09:35	21°Ω01'38	-16°36'30
conjunction	10029 Jul 27 15:33	13°Ω29'21	-16°08'56	direct	10037 Apr 28 12:29	20°Ω02'05	
minimum elong	10029 Jul 27 15:38	13°Ω29'21	16°09'16				
max. Earth dist.	10029 Jul 29 09:41	13°Ω31'52	48.74460 AU	conjunction	10037 Aug 04 15:26	21°Ω29'58	-15°55'24
	10029 Oct 24 03:19	15°Ω		minimum elong	10037 Aug 04 15:33	21°Ω29'58	15°55'41
retrograde	10029 Nov 06 13:24	15°Ω01'58		max. Earth dist.	10037 Aug 06 02:12	21°Ω32'00	49.45283 AU
	10029 Nov 20 06:03	15°℞Ω		retrograde	10037 Nov 14 15:33	23°Ω00'47	
min. Earth dist.	10030 Jan 27 20:43	14°Ω03'05	46.87955 AU	min. Earth dist.	10038 Feb 05 05:04	22°Ω02'11	47.56986 AU
opposition	10030 Jan 29 13:17	14°Ω01'09	-16°49'21	opposition	10038 Feb 06 15:27	22°Ω00'34	-16°33'33
direct	10030 Apr 21 17:02	13°Ω01'04		direct	10038 Apr 29 16:04	21°Ω01'07	
conjunction	10030 Jul 28 21:50	14°Ω30'33	-16°08'09	conjunction	10038 Aug 05 20:54	22°Ω28'50	-15°52'29
minimum elong	10030 Jul 28 21:56	14°Ω30'33	16°08'29	minimum elong	10038 Aug 05 21:03	22°Ω28'50	15°52'47
max. Earth dist.	10030 Jul 30 13:55	14°Ω32'56	48.84830 AU	max. Earth dist.	10038 Aug 07 07:22	22°Ω30'50	49.52602 AU
	10030 Aug 18 21:11	15°Ω		retrograde	10038 Nov 15 20:07	23°Ω59'30	
retrograde	10030 Nov 07 23:36	16°Ω02'56		opposition	10039 Feb 07 21:23	22°Ω59'22	-16°30'19
min. Earth dist.	10031 Jan 29 04:41	15°Ω04'05	46.98054 AU	min. Earth dist.	10039 Feb 06 12:48	23°Ω00'54	47.64089 AU
opposition	10031 Jan 30 20:08	15°Ω02'13	-16°48'19	direct	10039 Apr 30 22:07	22°Ω00'01	
	10031 Feb 01 18:49	15°℞Ω					
direct	10031 Apr 22 21:44	14°Ω02'14		conjunction	10039 Aug 07 02:34	23°Ω27'34	-15°49'18
	10031 Jul 07 14:42	15°Ω		minimum elong	10039 Aug 07 02:42	23°Ω27'35	15°49'35
				max. Earth dist.	10039 Aug 08 12:31	23°Ω29'33	49.59582 AU
conjunction	10031 Jul 30 04:17	15°Ω31'29	-16°07'08	retrograde	10039 Nov 17 00:35	24°Ω58'06	
minimum elong	10031 Jul 30 04:22	15°Ω31'29	16°07'28	min. Earth dist.	10040 Feb 07 18:27	23°Ω59'36	47.70808 AU
max. Earth dist.	10031 Jul 31 20:18	15°Ω33'51	48.94677 AU	opposition	10040 Feb 09 02:56	23°Ω58'04	-16°26'50
retrograde	10031 Nov 09 07:02	17°Ω03'37		direct	10040 May 01 05:50	22°Ω58'49	
min. Earth dist.	10032 Jan 30 12:56	16°Ω04'45	47.07621 AU				
opposition	10032 Feb 01 02:38	16°Ω02'58	-16°47'03	conjunction	10040 Aug 07 08:03	24°Ω26'14	-15°45'53
direct	10032 Apr 23 02:55	15°Ω03'04		minimum elong	10040 Aug 07 08:11	24°Ω26'14	15°46'10
				max. Earth dist.	10040 Aug 08 16:09	24°Ω28'06	49.66145 AU
conjunction	10032 Jul 30 10:27	16°Ω32'04	-16°05'51	retrograde	10040 Nov 17 09:09	25°Ω56'38	
minimum elong	10032 Jul 30 10:34	16°Ω32'04	16°06'10	min. Earth dist.	10041 Feb 08 01:38	24°Ω58'09	47.77094 AU

opposition	10041 Feb 09 08:41	24° Ω 56'42	-16°23'05	retrograde	10048 Nov 25 03:17	3° η 39'52	
direct	10041 May 02 10:35	23° Ω 57'33		min. Earth dist.	10049 Feb 16 04:36	2° η 41'24	48.09929 AU
				opposition	10049 Feb 17 03:28	2° η 40'20	-15°44'53
conjunction	10041 Aug 08 13:33	25° Ω 24'49	-15°42'13	direct	10049 May 10 02:00	1° η 41'35	
minimum elong	10041 Aug 08 13:42	25° Ω 24'50	15°42'29				
max. Earth dist.	10041 Aug 09 21:39	25° Ω 26'41	49.72238 AU	conjunction	10049 Aug 16 07:12	3° η 07'49	-15°04'50
retrograde	10041 Nov 18 16:16	26° Ω 55'05		minimum elong	10049 Aug 16 07:24	3° η 07'49	15°05'05
min. Earth dist.	10042 Feb 09 08:49	25° Ω 56'38	47.82863 AU	max. Earth dist.	10049 Aug 17 07:35	3° η 09'13	50.04004 AU
opposition	10042 Feb 10 14:24	25° Ω 55'15	-16°19'07	retrograde	10049 Nov 26 05:50	4° η 37'02	
direct	10042 May 03 14:41	24° Ω 56'11		min. Earth dist.	10050 Feb 17 09:18	3° η 38'38	48.12393 AU
				opposition	10050 Feb 18 08:28	3° η 37'33	-15°39'00
conjunction	10042 Aug 09 19:04	26° Ω 23'20	-15°38'21	direct	10050 May 11 09:19	2° η 38'50	
minimum elong	10042 Aug 09 19:13	26° Ω 23'20	15°38'37	evening set	10050 Aug 16 21:19	4° η 04'07	
max. Earth dist.	10042 Aug 11 01:03	26° Ω 25'04	49.77809 AU				
retrograde	10042 Nov 19 22:42	27° Ω 53'27		conjunction	10050 Aug 17 12:04	4° η 04'58	-14°59'05
opposition	10043 Feb 11 19:56	26° Ω 53'41	-16°14'55	minimum elong	10050 Aug 17 12:15	4° η 04'59	14°59'18
min. Earth dist.	10043 Feb 10 14:45	26° Ω 55'03	47.88096 AU	morning rise	10050 Aug 18 03:13	4° η 05'50	
direct	10043 May 04 17:46	25° Ω 54'41		max. Earth dist.	10050 Aug 18 10:52	4° η 06'17	50.06408 AU
				retrograde	10050 Nov 27 12:27	5° η 34'07	
conjunction	10043 Aug 11 00:33	27° Ω 21'42	-15°34'15	opposition	10051 Feb 19 13:26	4° η 34'41	-15°32'52
minimum elong	10043 Aug 11 00:43	27° Ω 21'42	15°34'31	min. Earth dist.	10051 Feb 18 15:31	4° η 35'42	48.14552 AU
max. Earth dist.	10043 Aug 12 05:30	27° Ω 23'22	49.82824 AU	direct	10051 May 12 15:11	3° η 36'02	
retrograde	10043 Nov 21 01:16	28° Ω 51'41		evening set	10051 Aug 16 19:16	4° η 59'28	
min. Earth dist.	10044 Feb 11 22:31	27° Ω 53'13	47.92775 AU				
opposition	10044 Feb 13 01:31	27° Ω 51'58	-16°10'31	conjunction	10051 Aug 18 17:06	5° η 02'05	-14°53'04
direct	10044 May 05 01:25	26° Ω 53'01		minimum elong	10051 Aug 18 17:17	5° η 02'05	14°53'18
				morning rise	10051 Aug 20 15:22	5° η 04'44	
conjunction	10044 Aug 11 05:56	28° Ω 19'52	-15°29'56	max. Earth dist.	10051 Aug 19 16:10	5° η 03'24	50.08486 AU
minimum elong	10044 Aug 11 06:04	28° Ω 19'53	15°30'12	retrograde	10051 Nov 28 19:31	6° η 31'09	
max. Earth dist.	10044 Aug 12 10:08	28° Ω 21'30	49.87323 AU	opposition	10052 Feb 20 18:22	5° η 31'47	-15°26'29
retrograde	10044 Nov 21 04:25	29° Ω 49'43		min. Earth dist.	10052 Feb 19 21:32	5° η 32'45	48.16343 AU
min. Earth dist.	10045 Feb 12 04:03	28° Ω 51'17	47.96952 AU	direct	10052 May 12 19:33	4° η 33'10	
opposition	10045 Feb 13 06:46	28° Ω 50'02	-16°05'53	evening set	10052 Aug 16 06:16	5° η 55'31	
direct	10045 May 06 09:36	27° Ω 51'07					
				conjunction	10052 Aug 18 21:57	5° η 59'09	-14°46'50
conjunction	10045 Aug 12 11:04	29° Ω 17'50	-15°25'24	minimum elong	10052 Aug 18 22:08	5° η 59'10	14°47'02
minimum elong	10045 Aug 12 11:15	29° Ω 17'51	15°25'39	max. Earth dist.	10052 Aug 19 19:12	6° η 00'22	50.10182 AU
max. Earth dist.	10045 Aug 13 13:29	29° Ω 19'22	49.91354 AU	morning rise	10052 Aug 21 14:07	6° η 02'49	
	10045 Sep 13 03:48	0° η		retrograde	10052 Nov 29 03:17	7° η 28'09	
retrograde	10045 Nov 22 12:17	0° η 47'32		opposition	10053 Feb 20 23:09	6° η 28'50	-15°19'52
	10046 Feb 03 14:36	30° κ Ω		min. Earth dist.	10053 Feb 20 02:37	6° η 29'47	48.17726 AU
min. Earth dist.	10046 Feb 13 10:38	29° Ω 49'05	48.00714 AU	direct	10053 May 13 21:03	5° η 30'16	
opposition	10046 Feb 14 12:08	29° Ω 47'54	-16°01'00	evening set	10053 Aug 16 21:04	6° η 51'45	
direct	10046 May 07 14:35	28° Ω 49'01					
	10046 Aug 02 08:03	0° η		conjunction	10053 Aug 20 02:56	6° η 56'12	-14°40'23
				minimum elong	10053 Aug 20 03:07	6° η 56'12	14°40'36
conjunction	10046 Aug 13 16:13	0° η 15'35	-15°20'38	max. Earth dist.	10053 Aug 20 23:19	6° η 57'21	50.11425 AU
minimum elong	10046 Aug 13 16:22	0° η 15'36	15°20'52	morning rise	10053 Aug 23 09:19	7° η 00'40	
max. Earth dist.	10046 Aug 14 18:49	0° η 17'07	49.94998 AU	retrograde	10053 Nov 30 06:24	8° η 25'08	
retrograde	10046 Nov 23 18:11	1° η 45'10		min. Earth dist.	10054 Feb 21 09:47	7° η 26'41	48.18628 AU
opposition	10047 Feb 15 17:21	0° η 45'33	-15°55'53	opposition	10054 Feb 22 04:08	7° η 25'50	-15°13'03
min. Earth dist.	10047 Feb 14 16:50	0° η 46'42	48.04098 AU	direct	10054 May 15 02:07	6° η 27'19	
	10047 Apr 03 02:48	30° κ Ω		evening set	10054 Aug 17 13:53	7° η 48'02	
direct	10047 May 08 19:48	29° Ω 46'43					
	10047 Jun 12 20:26	0° η		conjunction	10054 Aug 21 07:59	7° η 53'11	-14°33'44
				minimum elong	10054 Aug 21 08:11	7° η 53'11	14°33'55
conjunction	10047 Aug 14 21:18	1° η 13'09	-15°15'37	max. Earth dist.	10054 Aug 22 03:32	7° η 54'18	50.12176 AU
minimum elong	10047 Aug 14 21:29	1° η 13'10	15°15'51	morning rise	10054 Aug 25 02:38	7° η 58'21	
max. Earth dist.	10047 Aug 15 22:23	1° η 14'36	49.98304 AU	retrograde	10054 Dec 01 08:20	9° η 22'03	
retrograde	10047 Nov 24 23:49	2° η 42'35		opposition	10055 Feb 23 08:59	8° η 22'47	-15°06'01
opposition	10048 Feb 16 22:18	1° η 43'01	-15°50'31	min. Earth dist.	10055 Feb 22 14:58	8° η 23'37	48.18999 AU
min. Earth dist.	10048 Feb 15 21:49	1° η 44'09	48.07166 AU	direct	10055 May 16 09:10	7° η 24'16	
direct	10048 May 08 21:30	0° η 44'13		evening set	10055 Aug 18 07:52	8° η 44'18	
conjunction	10048 Aug 15 02:20	2° η 10'33	-15°10'21	conjunction	10055 Aug 22 12:58	8° η 50'04	-14°26'53
minimum elong	10048 Aug 15 02:29	2° η 10'34	15°10'35	minimum elong	10055 Aug 22 13:09	8° η 50'04	14°27'04
max. Earth dist.	10048 Aug 16 02:58	2° η 11'58	50.01295 AU	max. Earth dist.	10055 Aug 23 06:14	8° η 51'03	50.12382 AU

morning rise	10055 Aug 26 18:42	8° \mathring{M} 55'52	conjunction	10062 Aug 28 22:30	15° \mathring{M} 25'23	-13°32'47
retrograde	10055 Dec 02 14:36	10° \mathring{M} 18'52	minimum elong	10062 Aug 28 22:43	15° \mathring{M} 25'23	13°32'56
opposition	10056 Feb 24 13:44	9° \mathring{M} 19'36 -14°58'47	max. Earth dist.	10062 Aug 29 10:02	15° \mathring{M} 26'02	50.02403 AU
min. Earth dist.	10056 Feb 23 21:28	9° \mathring{M} 20'21 48.18842 AU	morning rise	10062 Sep 04 17:34	15° \mathring{M} 34'38	
direct	10056 May 16 14:34	8° \mathring{M} 21'06	retrograde	10062 Dec 09 04:49	16° \mathring{M} 53'57	
evening set	10056 Aug 18 02:44	9° \mathring{M} 40'29	opposition	10063 Mar 02 22:19	15° \mathring{M} 54'45	-14°01'45
			min. Earth dist.	10063 Mar 02 11:05	15° \mathring{M} 55'16	48.06829 AU
conjunction	10056 Aug 22 18:01	9° \mathring{M} 46'49 -14°19'49	direct	10063 May 23 18:38	14° \mathring{M} 56'18	
minimum elong	10056 Aug 22 18:14	9° \mathring{M} 46'50 14°20'00	evening set	10063 Aug 23 01:41	16° \mathring{M} 12'16	
max. Earth dist.	10056 Aug 23 11:07	9° \mathring{M} 47'48 50.12078 AU				
morning rise	10056 Aug 27 09:56	9° \mathring{M} 53'11	conjunction	10063 Aug 30 03:22	16° \mathring{M} 21'53	-13°24'08
retrograde	10056 Dec 02 19:47	11° \mathring{M} 15'33	minimum elong	10063 Aug 30 03:34	16° \mathring{M} 21'54	13°24'15
opposition	10057 Feb 24 18:31	10° \mathring{M} 16'17 -14°51'20	max. Earth dist.	10063 Aug 30 14:15	16° \mathring{M} 22'30	49.99696 AU
min. Earth dist.	10057 Feb 24 03:22	10° \mathring{M} 16'59 48.18184 AU	morning rise	10063 Sep 06 06:01	16° \mathring{M} 31'33	
direct	10057 May 17 20:13	9° \mathring{M} 17'47	retrograde	10063 Dec 10 08:46	17° \mathring{M} 50'29	
evening set	10057 Aug 18 22:00	10° \mathring{M} 36'34	opposition	10064 Mar 03 02:53	16° \mathring{M} 51'19	-13°52'39
			min. Earth dist.	10064 Mar 02 17:34	16° \mathring{M} 51'45	48.03820 AU
conjunction	10057 Aug 23 22:42	10° \mathring{M} 43'26 -14°12'33	direct	10064 May 23 22:19	15° \mathring{M} 52'54	
minimum elong	10057 Aug 23 22:53	10° \mathring{M} 43'26 14°12'44	evening set	10064 Aug 22 23:23	17° \mathring{M} 08'29	
max. Earth dist.	10057 Aug 24 14:06	10° \mathring{M} 44'18 50.11320 AU				
morning rise	10057 Aug 29 00:03	10° \mathring{M} 50'20	conjunction	10064 Aug 30 08:17	17° \mathring{M} 18'31	-13°15'15
retrograde	10057 Dec 04 02:01	12° \mathring{M} 12'05	minimum elong	10064 Aug 30 08:30	17° \mathring{M} 18'32	13°15'24
opposition	10058 Feb 25 23:15	11° \mathring{M} 12'49 -14°43'40	max. Earth dist.	10064 Aug 30 18:39	17° \mathring{M} 19'06	49.96626 AU
min. Earth dist.	10058 Feb 25 08:25	11° \mathring{M} 13'31 48.17112 AU	morning rise	10064 Sep 06 18:08	17° \mathring{M} 28'36	
direct	10058 May 18 22:13	10° \mathring{M} 14'18	retrograde	10064 Dec 10 10:21	18° \mathring{M} 47'09	
evening set	10058 Aug 19 17:49	11° \mathring{M} 32'32	opposition	10065 Mar 04 07:27	17° \mathring{M} 48'01	-13°43'19
			min. Earth dist.	10065 Mar 03 22:18	17° \mathring{M} 48'26	48.00405 AU
conjunction	10058 Aug 25 03:32	11° \mathring{M} 39'55 -14°05'04	direct	10065 May 25 05:12	16° \mathring{M} 49'37	
minimum elong	10058 Aug 25 03:45	11° \mathring{M} 39'55 14°05'14	evening set	10065 Aug 23 21:07	18° \mathring{M} 04'52	
max. Earth dist.	10058 Aug 25 18:18	11° \mathring{M} 40'45 50.10160 AU				
morning rise	10058 Aug 30 14:01	11° \mathring{M} 47'19	conjunction	10065 Aug 31 13:01	18° \mathring{M} 15'17	-13°06'10
retrograde	10058 Dec 05 05:52	13° \mathring{M} 08'31	minimum elong	10065 Aug 31 13:15	18° \mathring{M} 15'18	13°06'17
opposition	10059 Feb 27 03:55	12° \mathring{M} 09'14 -14°35'46	max. Earth dist.	10065 Aug 31 21:18	18° \mathring{M} 15'46	49.93106 AU
min. Earth dist.	10059 Feb 26 14:51	12° \mathring{M} 09'51 48.15669 AU	morning rise	10065 Sep 08 06:05	18° \mathring{M} 25'47	
direct	10059 May 20 02:22	11° \mathring{M} 10'43	retrograde	10065 Dec 11 16:21	19° \mathring{M} 43'58	
evening set	10059 Aug 20 14:07	12° \mathring{M} 28'26	opposition	10066 Mar 05 12:14	18° \mathring{M} 44'51	-13°33'47
			min. Earth dist.	10066 Mar 05 04:49	18° \mathring{M} 45'12	47.96518 AU
conjunction	10059 Aug 26 08:23	12° \mathring{M} 36'18 -13°57'21	direct	10066 May 26 10:53	17° \mathring{M} 46'27	
minimum elong	10059 Aug 26 08:34	12° \mathring{M} 36'18 13°57'30	evening set	10066 Aug 24 19:17	19° \mathring{M} 01'22	
max. Earth dist.	10059 Aug 26 22:42	12° \mathring{M} 37'06 50.08671 AU				
morning rise	10059 Sep 01 03:22	12° \mathring{M} 44'11	conjunction	10066 Sep 01 18:11	19° \mathring{M} 12'10	-12°56'53
retrograde	10059 Dec 06 08:10	14° \mathring{M} 04'51	minimum elong	10066 Sep 01 18:24	19° \mathring{M} 12'11	12°57'01
opposition	10060 Feb 28 08:27	13° \mathring{M} 05'36 -14°27'37	max. Earth dist.	10066 Sep 02 02:09	19° \mathring{M} 12'37	49.89078 AU
min. Earth dist.	10060 Feb 27 19:09	13° \mathring{M} 06'13 48.13901 AU	morning rise	10066 Sep 09 18:05	19° \mathring{M} 23'03	
direct	10060 May 20 08:25	12° \mathring{M} 07'05	retrograde	10066 Dec 12 22:09	20° \mathring{M} 40'54	
evening set	10060 Aug 20 10:33	13° \mathring{M} 24'19	opposition	10067 Mar 06 16:53	19° \mathring{M} 41'46	-13°24'03
			min. Earth dist.	10067 Mar 06 10:44	19° \mathring{M} 42'03	47.92085 AU
conjunction	10060 Aug 26 13:00	13° \mathring{M} 32'37 -13°49'24	direct	10067 May 27 16:22	18° \mathring{M} 43'22	
minimum elong	10060 Aug 26 13:13	13° \mathring{M} 32'38 13°49'33	evening set	10067 Aug 25 17:46	19° \mathring{M} 57'55	
max. Earth dist.	10060 Aug 27 01:46	13° \mathring{M} 33'21 50.06865 AU				
morning rise	10060 Sep 01 16:23	13° \mathring{M} 41'00	conjunction	10067 Sep 02 23:14	20° \mathring{M} 09'06	-12°47'25
retrograde	10060 Dec 06 13:59	15° \mathring{M} 01'11	minimum elong	10067 Sep 02 23:27	20° \mathring{M} 09'07	12°47'31
opposition	10061 Feb 28 13:06	14° \mathring{M} 01'56 -14°19'14	max. Earth dist.	10067 Sep 03 05:03	20° \mathring{M} 09'26	49.84509 AU
min. Earth dist.	10061 Feb 28 01:04	14° \mathring{M} 02'29 48.11840 AU	morning rise	10067 Sep 11 05:53	20° \mathring{M} 20'23	
direct	10061 May 21 13:51	13° \mathring{M} 03'26	retrograde	10067 Dec 14 05:50	21° \mathring{M} 37'51	
evening set	10061 Aug 21 07:20	14° \mathring{M} 20'13	opposition	10068 Mar 06 21:32	20° \mathring{M} 38'42	-13°14'07
			min. Earth dist.	10068 Mar 06 16:09	20° \mathring{M} 38'57	47.87110 AU
conjunction	10061 Aug 27 17:50	14° \mathring{M} 28'58 -13°41'13	direct	10068 May 27 18:03	19° \mathring{M} 40'16	
minimum elong	10061 Aug 27 18:02	14° \mathring{M} 28'59 13°41'21	evening set	10068 Aug 25 16:06	20° \mathring{M} 54'28	
max. Earth dist.	10061 Aug 28 06:54	14° \mathring{M} 29'43 50.04776 AU				
morning rise	10061 Sep 03 05:08	14° \mathring{M} 37'47	conjunction	10068 Sep 03 04:11	21° \mathring{M} 06'02	-12°37'44
retrograde	10061 Dec 07 20:28	15° \mathring{M} 57'32	minimum elong	10068 Sep 03 04:24	21° \mathring{M} 06'03	12°37'51
opposition	10062 Mar 01 17:43	14° \mathring{M} 58'18 -14°10'37	max. Earth dist.	10068 Sep 03 08:51	21° \mathring{M} 06'18	49.79393 AU
min. Earth dist.	10062 Mar 01 06:20	14° \mathring{M} 58'50 48.09483 AU	morning rise	10068 Sep 11 17:29	21° \mathring{M} 17'40	
direct	10062 May 22 18:12	13° \mathring{M} 59'49	retrograde	10068 Dec 14 10:47	22° \mathring{M} 34'47	
evening set	10062 Aug 22 04:23	15° \mathring{M} 16'11	opposition	10069 Mar 08 02:16	21° \mathring{M} 35'36	-13°03'59
			min. Earth dist.	10069 Mar 07 22:56	21° \mathring{M} 35'45	47.81613 AU

direct	10069 May 28 21:23	20° \mathring{M} 37'07	retrograde	10075 Dec 21 19:54	29° \mathring{M} 13'07
evening set	10069 Aug 26 14:48	21° \mathring{M} 50'59	opposition	10076 Mar 14 11:00	28° \mathring{M} 13'38 -11°46'39
			min. Earth dist.	10076 Mar 14 13:16	28° \mathring{M} 13'32 47.32828 AU
conjunction	10069 Sep 04 09:15	22° \mathring{M} 02'55 -12°27'52	direct	10076 Jun 04 07:33	27° \mathring{M} 14'50
minimum elong	10069 Sep 04 09:28	22° \mathring{M} 02'56 12°27'58	evening set	10076 Aug 31 08:58	28° \mathring{M} 26'51
max. Earth dist.	10069 Sep 04 13:17	22° \mathring{M} 03'09 49.73806 AU			
morning rise	10069 Sep 13 04:51	22° \mathring{M} 14'55	conjunction	10076 Sep 10 20:47	28° \mathring{M} 41'10 -11°12'31
retrograde	10069 Dec 15 12:48	23° \mathring{M} 31'41	minimum elong	10076 Sep 10 21:00	28° \mathring{M} 41'11 11°12'33
opposition	10070 Mar 09 06:50	22° \mathring{M} 32'27 -12°53'38	max. Earth dist.	10076 Sep 10 18:46	28° \mathring{M} 41'03 49.24771 AU
min. Earth dist.	10070 Mar 09 03:30	22° \mathring{M} 32'36 47.75670 AU	morning rise	10076 Sep 21 10:00	28° \mathring{M} 55'34
direct	10070 May 30 02:41	21° \mathring{M} 33'54		10076 Nov 20 06:51	0° \mathring{A}
evening set	10070 Aug 27 13:28	22° \mathring{M} 47'28	retrograde	10076 Dec 22 01:23	0° \mathring{A} 10'28
				10077 Jan 23 05:04	30° \mathring{R} \mathring{M}
conjunction	10070 Sep 05 14:07	22° \mathring{M} 59'44 -12°17'47	opposition	10077 Mar 15 15:50	29° \mathring{M} 10'57 -11°34'41
minimum elong	10070 Sep 05 14:19	22° \mathring{M} 59'45 12°17'52	min. Earth dist.	10077 Mar 15 18:58	29° \mathring{M} 10'48 47.24487 AU
max. Earth dist.	10070 Sep 05 16:17	22° \mathring{M} 59'52 49.67791 AU	direct	10077 Jun 05 13:18	28° \mathring{M} 12'07
morning rise	10070 Sep 14 16:09	23° \mathring{M} 12'06	evening set	10077 Sep 01 08:59	29° \mathring{M} 23'58
retrograde	10070 Dec 16 17:28	24° \mathring{M} 28'33			
opposition	10071 Mar 10 11:32	23° \mathring{M} 29'15 -12°43'04	conjunction	10077 Sep 12 02:07	29° \mathring{M} 38'35 -11°00'52
min. Earth dist.	10071 Mar 10 09:51	23° \mathring{M} 29'19 47.69338 AU	minimum elong	10077 Sep 12 02:20	29° \mathring{M} 38'36 11°00'55
direct	10071 May 31 08:56	22° \mathring{M} 30'39	max. Earth dist.	10077 Sep 11 22:11	29° \mathring{M} 38'22 49.16356 AU
evening set	10071 Aug 28 12:23	23° \mathring{M} 43'54	morning rise	10077 Sep 22 20:53	29° \mathring{M} 53'19
				10077 Sep 27 20:11	0° \mathring{A}
conjunction	10071 Sep 06 19:16	23° \mathring{M} 56'31 -12°07'28	retrograde	10077 Dec 23 09:42	1° \mathring{A} 08'02
minimum elong	10071 Sep 06 19:30	23° \mathring{M} 56'32 12°07'33	opposition	10078 Mar 16 20:43	0° \mathring{A} 08'30 -11°22'29
max. Earth dist.	10071 Sep 06 21:31	23° \mathring{M} 56'38 49.61407 AU	min. Earth dist.	10078 Mar 17 00:42	0° \mathring{A} 08'18 47.15697 AU
morning rise	10071 Sep 16 03:22	24° \mathring{M} 09'14		10078 Mar 24 10:11	30° \mathring{R} \mathring{M}
retrograde	10071 Dec 17 22:09	25° \mathring{M} 25'22	direct	10078 Jun 06 15:28	29° \mathring{M} 09'37
opposition	10072 Mar 10 16:03	24° \mathring{M} 26'01 -12°32'16		10078 Aug 17 02:33	0° \mathring{A}
min. Earth dist.	10072 Mar 10 15:03	24° \mathring{M} 26'03 47.62647 AU	evening set	10078 Sep 02 09:04	0° \mathring{A} 21'17
direct	10072 May 31 15:34	23° \mathring{M} 27'21			
evening set	10072 Aug 28 11:30	24° \mathring{M} 40'18	conjunction	10078 Sep 13 07:39	0° \mathring{A} 36'15 -10°49'00
			minimum elong	10078 Sep 13 07:52	0° \mathring{A} 36'15 10°49'01
conjunction	10072 Sep 07 00:15	24° \mathring{M} 53'17 -11°56'57	max. Earth dist.	10078 Sep 13 02:27	0° \mathring{A} 35'57 49.07437 AU
minimum elong	10072 Sep 07 00:27	24° \mathring{M} 53'17 11°57'01	morning rise	10078 Sep 24 07:50	0° \mathring{A} 51'18
max. Earth dist.	10072 Sep 07 00:53	24° \mathring{M} 53'19 49.54702 AU	retrograde	10078 Dec 24 15:56	2° \mathring{A} 05'49
morning rise	10072 Sep 16 14:24	25° \mathring{M} 06'20	opposition	10079 Mar 18 01:49	1° \mathring{A} 06'14 -11°10'04
retrograde	10072 Dec 18 06:29	26° \mathring{M} 22'10	min. Earth dist.	10079 Mar 18 07:52	1° \mathring{A} 05'57 47.06372 AU
opposition	10073 Mar 11 20:43	25° \mathring{M} 22'47 -12°21'13	direct	10079 Jun 07 19:02	0° \mathring{A} 07'18
min. Earth dist.	10073 Mar 11 19:54	25° \mathring{M} 22'49 47.55657 AU	evening set	10079 Sep 03 09:30	1° \mathring{A} 18'49
direct	10073 Jun 01 17:09	24° \mathring{M} 24'04			
evening set	10073 Aug 29 10:27	25° \mathring{M} 36'45	conjunction	10079 Sep 14 13:20	1° \mathring{A} 34'05 -10°36'56
			minimum elong	10079 Sep 14 13:32	1° \mathring{A} 34'06 10°36'58
conjunction	10073 Sep 08 05:12	25° \mathring{M} 50'04 -11°46'11	max. Earth dist.	10079 Sep 14 07:11	1° \mathring{A} 33'44 48.97989 AU
minimum elong	10073 Sep 08 05:25	25° \mathring{M} 50'05 11°46'16	morning rise	10079 Sep 25 18:41	1° \mathring{A} 49'27
max. Earth dist.	10073 Sep 08 05:18	25° \mathring{M} 50'05 49.47688 AU	retrograde	10079 Dec 25 19:24	3° \mathring{A} 03'47
morning rise	10073 Sep 18 01:21	26° \mathring{M} 03'28	opposition	10080 Mar 18 06:41	2° \mathring{A} 04'09 -10°57'27
retrograde	10073 Dec 19 12:24	27° \mathring{M} 19'02	min. Earth dist.	10080 Mar 18 13:04	2° \mathring{A} 03'51 46.96510 AU
opposition	10074 Mar 13 01:33	26° \mathring{M} 19'36 -12°09'56	direct	10080 Jun 08 00:23	1° \mathring{A} 05'08
min. Earth dist.	10074 Mar 13 02:23	26° \mathring{M} 19'34 47.48361 AU	evening set	10080 Sep 03 10:02	2° \mathring{A} 16'30
direct	10074 Jun 02 20:13	25° \mathring{M} 20'52			
evening set	10074 Aug 30 09:52	26° \mathring{M} 33'18	conjunction	10080 Sep 14 18:54	2° \mathring{A} 32'04 -10°24'41
			minimum elong	10080 Sep 14 19:07	2° \mathring{A} 32'05 10°24'41
conjunction	10074 Sep 09 10:23	26° \mathring{M} 46'57 -11°35'11	max. Earth dist.	10080 Sep 14 10:31	2° \mathring{A} 31'35 48.88008 AU
minimum elong	10074 Sep 09 10:36	26° \mathring{M} 46'58 11°35'15	morning rise	10080 Sep 26 05:33	2° \mathring{A} 47'45
max. Earth dist.	10074 Sep 09 10:09	26° \mathring{M} 46'56 49.40387 AU	retrograde	10080 Dec 26 00:51	4° \mathring{A} 01'54
morning rise	10074 Sep 19 12:15	27° \mathring{M} 00'41	opposition	10081 Mar 19 11:51	3° \mathring{A} 02'11 -10°44'38
retrograde	10074 Dec 20 14:50	28° \mathring{M} 16'00	min. Earth dist.	10081 Mar 19 20:10	3° \mathring{A} 01'48 46.86150 AU
opposition	10075 Mar 14 06:08	27° \mathring{M} 16'32 -11°58'25	direct	10081 Jun 09 06:24	2° \mathring{A} 03'06
min. Earth dist.	10075 Mar 14 06:49	27° \mathring{M} 16'30 47.40762 AU	evening set	10081 Sep 04 10:26	3° \mathring{A} 14'17
direct	10075 Jun 04 02:04	26° \mathring{M} 17'45			
evening set	10075 Aug 31 09:23	27° \mathring{M} 29'59	conjunction	10081 Sep 16 00:29	3° \mathring{A} 30'10 -10°12'12
			minimum elong	10081 Sep 16 00:41	3° \mathring{A} 30'10 10°12'13
conjunction	10075 Sep 10 15:31	27° \mathring{M} 43'58 -11°23'58	max. Earth dist.	10081 Sep 15 15:58	3° \mathring{A} 29'40 48.77555 AU
minimum elong	10075 Sep 10 15:44	27° \mathring{M} 43'58 11°24'02	morning rise	10081 Sep 27 16:05	3° \mathring{A} 46'09
max. Earth dist.	10075 Sep 10 13:24	27° \mathring{M} 43'50 49.32762 AU	retrograde	10081 Dec 27 05:35	5° \mathring{A} 00'09
morning rise	10075 Sep 20 23:16	27° \mathring{M} 58'02	opposition	10082 Mar 20 16:59	4° \mathring{A} 00'21 -10°31'35

min. Earth dist.	10082 Mar 21 02:00	3° <u>♁</u> 59'55	46.75338 AU	morning rise	10088 Oct 05 17:59	10° <u>♁</u> 39'20	
direct	10082 Jun 10 13:43	3° <u>♁</u> 01'10		retrograde	10089 Jan 03 04:04	11° <u>♁</u> 52'34	
evening set	10082 Sep 05 11:17	4° <u>♁</u> 12'11		opposition	10089 Mar 27 06:10	10° <u>♁</u> 52'11	-8°53'26
				min. Earth dist.	10089 Mar 27 21:14	10° <u>♁</u> 51'28	45.90820 AU
conjunction	10082 Sep 17 06:08	4° <u>♁</u> 28'22	-9°59'31	direct	10089 Jun 16 21:12	9° <u>♁</u> 52'21	
minimum elong	10082 Sep 17 06:21	4° <u>♁</u> 28'23	9°59'31	evening set	10089 Sep 10 21:19	11° <u>♁</u> 02'49	
max. Earth dist.	10082 Sep 16 19:53	4° <u>♁</u> 27'47	48.66692 AU	max. Earth dist.	10089 Sep 23 08:16	11° <u>♁</u> 20'07	47.82025 AU
morning rise	10082 Sep 29 02:46	4° <u>♁</u> 44'40					
retrograde	10082 Dec 28 14:42	5° <u>♁</u> 58'30		conjunction	10089 Sep 24 00:01	11° <u>♁</u> 21'02	-8°24'09
opposition	10083 Mar 21 21:57	4° <u>♁</u> 58'37	-10°18'17	minimum elong	10089 Sep 24 00:13	11° <u>♁</u> 21'03	8°24'05
min. Earth dist.	10083 Mar 22 07:34	4° <u>♁</u> 58'09	46.64155 AU	morning rise	10089 Oct 07 04:29	11° <u>♁</u> 39'23	
direct	10083 Jun 11 15:43	3° <u>♁</u> 59'19		retrograde	10090 Jan 04 11:03	12° <u>♁</u> 52'34	
evening set	10083 Sep 06 12:09	5° <u>♁</u> 10'13		opposition	10090 Mar 28 11:51	11° <u>♁</u> 52'06	-8°38'26
				min. Earth dist.	10090 Mar 29 03:08	11° <u>♁</u> 51'22	45.77428 AU
conjunction	10083 Sep 18 11:55	5° <u>♁</u> 26'42	-9°46'36	direct	10090 Jun 18 01:31	10° <u>♁</u> 52'10	
minimum elong	10083 Sep 18 12:06	5° <u>♁</u> 26'43	9°46'35	evening set	10090 Sep 11 23:53	12° <u>♁</u> 02'37	
max. Earth dist.	10083 Sep 18 00:54	5° <u>♁</u> 26'04	48.55463 AU				
morning rise	10083 Sep 30 13:24	5° <u>♁</u> 43'18		conjunction	10090 Sep 25 06:37	12° <u>♁</u> 21'08	-8°09'36
retrograde	10083 Dec 29 22:43	6° <u>♁</u> 56'59		minimum elong	10090 Sep 25 06:48	12° <u>♁</u> 21'09	8°09'33
opposition	10084 Mar 22 03:11	5° <u>♁</u> 57'00	-10°04'46	max. Earth dist.	10090 Sep 24 12:33	12° <u>♁</u> 20'04	47.68523 AU
min. Earth dist.	10084 Mar 22 14:27	5° <u>♁</u> 56'28	46.52634 AU	morning rise	10090 Oct 08 15:23	12° <u>♁</u> 39'46	
direct	10084 Jun 11 18:10	4° <u>♁</u> 57'37		retrograde	10091 Jan 05 17:27	13° <u>♁</u> 52'54	
evening set	10084 Sep 06 13:07	6° <u>♁</u> 08'24		opposition	10091 Mar 29 17:42	12° <u>♁</u> 52'20	-8°23'12
				min. Earth dist.	10091 Mar 30 11:11	12° <u>♁</u> 51'30	45.63554 AU
conjunction	10084 Sep 18 17:36	6° <u>♁</u> 25'11	-9°33'27	direct	10091 Jun 19 07:29	11° <u>♁</u> 52'17	
minimum elong	10084 Sep 18 17:48	6° <u>♁</u> 25'12	9°33'26	evening set	10091 Sep 13 02:34	13° <u>♁</u> 02'43	
max. Earth dist.	10084 Sep 18 06:16	6° <u>♁</u> 24'32	48.43935 AU				
morning rise	10084 Sep 30 23:44	6° <u>♁</u> 42'05		conjunction	10091 Sep 26 13:30	13° <u>♁</u> 21'30	-7°54'50
retrograde	10084 Dec 30 01:50	7° <u>♁</u> 55'37		minimum elong	10091 Sep 26 13:41	13° <u>♁</u> 21'31	7°54'46
opposition	10085 Mar 23 08:20	6° <u>♁</u> 55'33	-9°51'00	max. Earth dist.	10091 Sep 25 18:59	13° <u>♁</u> 20'25	47.54518 AU
min. Earth dist.	10085 Mar 23 19:16	6° <u>♁</u> 55'02	46.40827 AU	morning rise	10091 Oct 10 02:07	13° <u>♁</u> 40'25	
direct	10085 Jun 13 00:24	5° <u>♁</u> 56'04		retrograde	10092 Jan 06 21:30	14° <u>♁</u> 53'32	
evening set	10085 Sep 07 14:21	7° <u>♁</u> 06'46		opposition	10092 Mar 29 23:42	13° <u>♁</u> 52'50	-8°07'45
				min. Earth dist.	10092 Mar 30 17:53	13° <u>♁</u> 51'57	45.49160 AU
conjunction	10085 Sep 19 23:22	7° <u>♁</u> 23'50	-9°20'04	direct	10092 Jun 19 16:08	12° <u>♁</u> 52'39	
minimum elong	10085 Sep 19 23:33	7° <u>♁</u> 23'50	9°20'02	evening set	10092 Sep 13 05:27	14° <u>♁</u> 03'04	
max. Earth dist.	10085 Sep 19 10:18	7° <u>♁</u> 23'04	48.32129 AU				
morning rise	10085 Oct 02 10:19	7° <u>♁</u> 41'01		conjunction	10092 Sep 26 20:09	14° <u>♁</u> 22'07	-7°39'51
retrograde	10085 Dec 31 06:00	8° <u>♁</u> 54'28		minimum elong	10092 Sep 26 20:19	14° <u>♁</u> 22'08	7°39'47
opposition	10086 Mar 24 13:41	7° <u>♁</u> 54'18	-9°36'59	max. Earth dist.	10092 Sep 25 23:34	14° <u>♁</u> 20'54	47.40014 AU
min. Earth dist.	10086 Mar 25 02:03	7° <u>♁</u> 53'43	46.28763 AU	morning rise	10092 Oct 10 12:50	14° <u>♁</u> 41'18	
direct	10086 Jun 14 07:06	6° <u>♁</u> 54'44		retrograde	10093 Jan 07 06:06	15° <u>♁</u> 54'23	
evening set	10086 Sep 08 15:40	8° <u>♁</u> 05'20		opposition	10093 Mar 31 05:47	14° <u>♁</u> 53'34	-7°52'04
				min. Earth dist.	10093 Apr 01 00:58	14° <u>♁</u> 52'38	45.34291 AU
conjunction	10086 Sep 21 05:25	8° <u>♁</u> 22'42	-9°06'26	direct	10093 Jun 20 21:02	13° <u>♁</u> 53'14	
minimum elong	10086 Sep 21 05:37	8° <u>♁</u> 22'43	9°06'25	evening set	10093 Sep 14 08:30	15° <u>♁</u> 03'38	
max. Earth dist.	10086 Sep 20 16:40	8° <u>♁</u> 21'58	48.20065 AU	max. Earth dist.	10093 Sep 27 05:35	15° <u>♁</u> 21'42	47.25039 AU
morning rise	10086 Oct 03 20:48	8° <u>♁</u> 40'11					
retrograde	10087 Jan 01 10:59	9° <u>♁</u> 53'32		conjunction	10093 Sep 28 03:06	15° <u>♁</u> 22'58	-7°24'39
opposition	10087 Mar 25 19:05	8° <u>♁</u> 53'18	-9°22'43	minimum elong	10093 Sep 28 03:17	15° <u>♁</u> 22'58	7°24'34
min. Earth dist.	10087 Mar 26 07:52	8° <u>♁</u> 52'41	46.16422 AU	morning rise	10093 Oct 11 23:34	15° <u>♁</u> 42'25	
direct	10087 Jun 15 14:31	7° <u>♁</u> 53'38		retrograde	10094 Jan 08 15:08	16° <u>♁</u> 55'29	
evening set	10087 Sep 09 17:25	9° <u>♁</u> 04'11		opposition	10094 Apr 01 11:58	15° <u>♁</u> 54'31	-7°36'08
				min. Earth dist.	10094 Apr 02 08:55	15° <u>♁</u> 53'30	45.18984 AU
conjunction	10087 Sep 22 11:27	9° <u>♁</u> 21'50	-8°52'34	direct	10094 Jun 22 01:18	14° <u>♁</u> 54'01	
minimum elong	10087 Sep 22 11:38	9° <u>♁</u> 21'50	8°52'31	evening set	10094 Sep 15 11:47	16° <u>♁</u> 04'27	
max. Earth dist.	10087 Sep 21 21:04	9° <u>♁</u> 21'00	48.07726 AU	max. Earth dist.	10094 Sep 28 11:54	16° <u>♁</u> 22'44	47.09669 AU
morning rise	10087 Oct 05 07:23	9° <u>♁</u> 39'36					
retrograde	10088 Jan 02 19:42	10° <u>♁</u> 52'54		conjunction	10094 Sep 29 10:09	16° <u>♁</u> 24'02	-7°09'13
opposition	10088 Mar 26 00:27	9° <u>♁</u> 52'35	-9°08'11	minimum elong	10094 Sep 29 10:18	16° <u>♁</u> 24'03	7°09'07
min. Earth dist.	10088 Mar 26 13:51	9° <u>♁</u> 51'57	46.03798 AU	morning rise	10094 Oct 13 10:18	16° <u>♁</u> 43'45	
direct	10088 Jun 15 17:54	8° <u>♁</u> 52'50		retrograde	10095 Jan 09 21:52	17° <u>♁</u> 56'49	
evening set	10088 Sep 09 19:15	10° <u>♁</u> 03'20		opposition	10095 Apr 02 18:09	16° <u>♁</u> 55'42	-7°19'58
				min. Earth dist.	10095 Apr 03 15:04	16° <u>♁</u> 54'42	45.03306 AU
conjunction	10088 Sep 22 17:42	10° <u>♁</u> 21'16	-8°38'28	direct	10095 Jun 23 06:58	15° <u>♁</u> 55'03	
minimum elong	10088 Sep 22 17:53	10° <u>♁</u> 21'17	8°38'26	evening set	10095 Sep 16 15:24	17° <u>♁</u> 05'31	
max. Earth dist.	10088 Sep 22 02:31	10° <u>♁</u> 20'23	47.95061 AU				

conjunction	10095 Sep 30 17:13	17° <u>0</u> 25'22	-6°53'33
minimum elong	10095 Sep 30 17:23	17° <u>0</u> 25'23	6°53'27
max. Earth dist.	10095 Sep 29 17:08	17° <u>0</u> 23'56	46.93935 AU
morning rise	10095 Oct 14 21:05	17° <u>0</u> 45'21	
retrograde	10096 Jan 11 04:06	18° <u>0</u> 58'26	
opposition	10096 Apr 03 00:30	17° <u>0</u> 57'10	-7°03'33
min. Earth dist.	10096 Apr 03 23:08	17° <u>0</u> 56'04	44.87304 AU
direct	10096 Jun 23 14:01	16° <u>0</u> 56'21	
evening set	10096 Sep 16 19:05	18° <u>0</u> 06'53	
max. Earth dist.	10096 Sep 30 00:43	18° <u>0</u> 25'35	46.77904 AU

conjunction	10096 Oct 01 00:33	18° <u>0</u> 27'00	-6°37'38
minimum elong	10096 Oct 01 00:42	18° <u>0</u> 27'00	6°37'31
morning rise	10096 Oct 15 07:43	18° <u>0</u> 47'14	
retrograde	10097 Jan 11 09:10	20° <u>0</u> 00'22	
opposition	10097 Apr 04 07:01	18° <u>0</u> 58'58	-6°46'52
min. Earth dist.	10097 Apr 05 05:48	18° <u>0</u> 57'51	44.71020 AU
direct	10097 Jun 24 22:44	17° <u>0</u> 58'00	
evening set	10097 Sep 17 23:04	19° <u>0</u> 08'36	
max. Earth dist.	10097 Oct 01 06:17	19° <u>0</u> 27'27	46.61613 AU

conjunction	10097 Oct 02 07:45	19° <u>0</u> 28'58	-6°21'28
minimum elong	10097 Oct 02 07:55	19° <u>0</u> 28'59	6°21'22
morning rise	10097 Oct 16 18:27	19° <u>0</u> 49'29	
retrograde	10098 Jan 12 18:22	21° <u>0</u> 02'41	
opposition	10098 Apr 05 13:41	20° <u>0</u> 01'09	-6°29'56
min. Earth dist.	10098 Apr 06 13:10	20° <u>0</u> 00'00	44.54494 AU
direct	10098 Jun 26 03:44	19° <u>0</u> 00'02	
evening set	10098 Sep 19 03:22	20° <u>0</u> 10'44	

conjunction	10098 Oct 03 15:26	20° <u>0</u> 31'22	-6°05'04
minimum elong	10098 Oct 03 15:34	20° <u>0</u> 31'23	6°04'57
max. Earth dist.	10098 Oct 02 13:24	20° <u>0</u> 29'49	46.45064 AU
morning rise	10098 Oct 18 05:17	20° <u>0</u> 52'08	
retrograde	10099 Jan 14 03:45	22° <u>0</u> 05'26	
opposition	10099 Apr 06 20:28	21° <u>0</u> 03'46	-6°12'43
min. Earth dist.	10099 Apr 07 21:11	21° <u>0</u> 02'34	44.37711 AU
direct	10099 Jun 27 08:39	20° <u>0</u> 02'32	
evening set	10099 Sep 20 08:01	21° <u>0</u> 13'22	

conjunction	10099 Oct 04 23:13	21° <u>0</u> 34'15	-5°48'25
minimum elong	10099 Oct 04 23:21	21° <u>0</u> 34'16	5°48'18
max. Earth dist.	10099 Oct 03 20:43	21° <u>0</u> 32'40	46.28271 AU
morning rise	10099 Oct 19 16:11	21° <u>0</u> 55'17	
retrograde	10100 Jan 15 13:47	23° <u>0</u> 08'41	
opposition	10100 Apr 08 03:21	22° <u>0</u> 06'54	-5°55'15
min. Earth dist.	10100 Apr 09 04:01	22° <u>0</u> 05'42	44.20668 AU
direct	10100 Jun 28 13:13	21° <u>0</u> 05'31	
evening set	10100 Sep 21 12:53	22° <u>0</u> 16'31	
max. Earth dist.	10100 Oct 05 02:42	22° <u>0</u> 35'58	46.11176 AU

conjunction	10100 Oct 06 06:59	22° <u>0</u> 37'40	-5°31'32
minimum elong	10100 Oct 06 07:07	22° <u>0</u> 37'41	5°31'23
morning rise	10100 Oct 21 03:03	22° <u>0</u> 58'57	
retrograde	10101 Jan 16 22:44	24° <u>0</u> 12'30	
opposition	10101 Apr 09 10:37	23° <u>0</u> 10'36	-5°37'32
min. Earth dist.	10101 Apr 10 13:12	23° <u>0</u> 09'17	44.03306 AU
direct	10101 Jun 29 19:21	22° <u>0</u> 09'05	
evening set	10101 Sep 22 18:10	23° <u>0</u> 20'16	
max. Earth dist.	10101 Oct 06 10:55	23° <u>0</u> 39'56	45.93730 AU

conjunction	10101 Oct 07 15:18	23° <u>0</u> 41'39	-5°14'24
minimum elong	10101 Oct 07 15:26	23° <u>0</u> 41'40	5°14'15
morning rise	10101 Oct 22 14:05	24° <u>0</u> 03'12	