	2000 Feb 14 21:40	0° ႘		minimum elong	2005 Oct 22 12:55	29° £ 13'12	1°02'39
evening set	2000 Apr 24 13:59	14° 8 38'47			2005 Oct 26 02:52	0°M	1 0237
evening sec	2000 Apr 26 01:49	15° 8		morning rise	2005 Nov 04 06:20	1°M59'12	
	2000 Hpr 20 01.15	15 0		morning 115¢	2006 Jan 12 06:04	15°M	
conjunction	2000 May 08 04:08	17° 8 52'37	-0°51'44	retrograde	2006 Mar 04 18:02	18°M51'42	
minimum elong	2000 May 08 04:11	17° 8 52'38	0°51'44	renograde	2006 Apr 26 15:57	15°RM	
max. Earth dist.	2000 May 10 07:40	18° 8 23'17	5.99610 AU	opposition	2006 May 04 14:36	13°M59'40	1°20'12
morning rise	2000 May 21 21:05	21° 8 07'40	0.55010110	min. Earth dist.	2006 May 05 23:44	13°M49'06	4.41270 AU
morning rise	2000 Jun 30 07:35	0°II		direct	2006 Jul 06 07:19	8°M58'43	270110
retrograde	2000 Sep 29 12:52	11° Ⅱ 14'05			2006 Sep 11 08:21	15° ™	
min. Earth dist.	2000 Nov 26 15:07		4.04935 AU	evening set	2006 Nov 09 06:39	26°M41'27	
opposition	2000 Nov 28 02:12	6° Ⅱ 09'03		max. Earth dist.	2006 Nov 19 20:53	29°M02'14	6.36473 AU
direct	2001 Jan 25 08:38	1° Ⅱ 11'16					
evening set	2001 May 31 18:20	20° Ⅲ 20′38		conjunction	2006 Nov 21 23:15	29°M30'15	0°43'25
				minimum elong	2006 Nov 21 23:17	29°M30'16	0°43'25
conjunction	2001 Jun 14 12:38	23° II 30'50	-0°19'06		2006 Nov 24 04:43	0° ⊼ ¹	
minimum elong	2001 Jun 14 12:39	23° I I30'51	0°19'05	morning rise	2006 Dec 04 14:10	2° х 18′26	
max. Earth dist.	2001 Jun 16 18:10	24° ∏ 01'42	6.11521 AU	retrograde	2007 Apr 06 01:22	19° х 46'44	
morning rise	2001 Jun 28 07:42	26° I [41'12	0.11021110	opposition	2007 Jun 05 23:13	14° × 754'38	0°41'52
	2001 Jul 13 00:03	0ಂ ತ		min. Earth dist.	2007 Jun 07 12:16	14° ₹ '42'50	4.30438 AU
retrograde	2001 Nov 02 15:35	15° 5 41'30		direct	2007 Aug 07 02:05	9° х 55'48	
asc. node	2001 Dec 30 23:32	10° © 48'17		evening set	2007 Dec 10 13:49	28° х 06'49	
min. Earth dist.	2001 Dec 31 01:04	10°547'46	4.18746 AU	evening see	2007 Dec 18 20:11	0°ਰ	
opposition	2002 Jan 01 05:53	10°538'01	0°00'11	max. Earth dist.	2007 Dec 21 07:01		6.23484 AU
direct	2002 Mar 01 15:15	5°937'24	0 00 11	man. Bartii dibt.	2007 200 21 07.01	0 000 .2	0.25 .0
evening set	2002 Jul 06 09:10	24°907'50		conjunction	2007 Dec 23 05:56	1° る 00'35	0°10'59
evening sec	2002 001 00 07.10	2. 00,00		minimum elong	2007 Dec 23 05:56	1°る00'35	0°10'58
conjunction	2002 Jul 20 01:19	27° © 10'44	0°18'48	behind sun begin	2007 Dec 22 23:52	0° る 57'08	0 1000
minimum elong	2002 Jul 20 01:17	27°510'44	0°18'48	behind sun end	2007 Dec 23 12:01	1°る04'03	
max. Earth dist.	2002 Jul 21 11:20	27°529'44	6.26068 AU	morning rise	2008 Jan 04 21:40	3°る54'25	
man zarm ulov.	2002 Aug 01 17:20	0°Ω	0.20000110	desc. node	2008 Apr 17 16:02	21° る 37'34	
morning rise	2002 Aug 02 16:39	0° Ω 12'54		retrograde	2008 May 09 12:11	22° る 22'06	
morning not	2002 Oct 20 08:09	15° Ω		opposition	2008 Jul 09 07:39	17° る 28'18	-0°11'40
retrograde	2002 Dec 04 12:22	18° Ω 06'16		min. Earth dist.	2008 Jul 10 10:59	17° る 19'30	4.16102 AU
retrograde	2003 Jan 18 18:29	15°R Ω		direct	2008 Sep 08 04:16	12° る 32'01	1.10102110
opposition	2003 Feb 02 09:12	13° Ω 06'06	0°51'42		2009 Jan 05 15:41	0° ≈	
min. Earth dist.	2003 Feb 01 19:11	13° Ω 10'46	4.32714 AU	evening set	2009 Jan 11 11:11	1°≈21'27	
direct	2003 Apr 04 03:04	8° Ω 03'39		max. Earth dist.	2009 Jan 23 02:42	4°≈06'15	6.09056 AU
	2003 Jun 14 19:56	15° Ω					
evening set	2003 Aug 09 00:11	25° Ω 59'49		conjunction	2009 Jan 24 05:44	4° ≈ 22'14	-0°26'28
Č	Č			minimum elong	2009 Jan 24 05:43	4° ≈ 22'13	
conjunction	2003 Aug 22 10:08	28° Ω 54'56	0°49'13	morning rise	2009 Feb 06 01:21	7°≈23'52	
minimum elong	2003 Aug 22 10:06	28° Ω 54'55	0°49'13	Č	2009 Mar 11 15:11	15° ≈	
max. Earth dist.	2003 Aug 22 17:36	28° Ω 59'00	6.38381 AU	retrograde	2009 Jun 15 07:50	27°≈01'03	
	2003 Aug 27 09:26	0° m)		opposition	2009 Aug 14 17:53	22° ≈ 04'09	-1°04'49
morning rise	2003 Sep 04 17:34	1° m 48'43		min. Earth dist.	2009 Aug 15 03:13	22° ≈ 01'06	4.02783 AU
retrograde	2004 Jan 03 23:57	18° m 54'13		direct	2009 Oct 13 04:34	17° ≈ 09'59	
opposition	2004 Mar 04 05:05	13° m 57'48	1°25'38		2010 Jan 18 02:10	0° ∀	
min. Earth dist.	2004 Mar 04 09:17	13° m 56'26	4.42565 AU	evening set	2010 Feb 15 10:49	6°) 36′06	
direct	2004 May 05 03:07	8° m 54'53		· ·			
evening set	2004 Sep 08 21:37	26° m 29'46		conjunction	2010 Feb 28 10:44	9°) 44′05	-0°56'02
C	•			minimum elong	2010 Feb 28 10:42	9°) 44'04	0°56'01
conjunction	2004 Sep 21 23:48	29° m 19'08	1°04'47	max. Earth dist.	2010 Feb 28 13:56	9°) 46′00	5.98065 AU
minimum elong	2004 Sep 21 23:47	29° m 19'08	1°04'48	morning rise	2010 Mar 13 13:11	12°) 53′34	
max. Earth dist.	2004 Sep 21 02:34	29° m 07'39	6.44986 AU	Č	2010 Jun 06 06:28	$0^{\circ}\mathbf{\Upsilon}$	
	2004 Sep 25 03:23	0∘ <u>⊽</u>		retrograde	2010 Jul 23 12:03	3° Y 24′07	
morning rise	2004 Oct 04 23:18	2° ٩ 07'07		<i>-</i>	2010 Sep 09 04:49	30° ₹ ₩	
retrograde	2005 Feb 02 02:26	18° ≏ 51'45		opposition	2010 Sep 21 11:36	28°) 23′19	-1°35'50
opposition	2005 Apr 03 15:30	13° ≏ 58'15	1°35'36	min. Earth dist.	2010 Sep 20 21:19		3.95393 AU
min. Earth dist.	2005 Apr 04 13:38	13° ≏ 51'07	4.45665 AU	direct	2010 Nov 18 16:54	23°) (29'41	
direct	2005 Jun 05 07:21	8° £ 55'50			2011 Jan 22 17:11	$0^{\circ}\mathbf{\Upsilon}$	
evening set	2005 Oct 09 16:43	26° ₽ 26′00		evening set	2011 Mar 24 07:07	13° Ƴ 14'25	
max. Earth dist.	2005 Oct 20 20:25	28° ჲ 51'10	6.44285 AU	ū			
				conjunction	2011 Apr 06 14:40	16° Ƴ 27'21	-1°04'43
conjunction	2005 Oct 22 12:54	29° ₽ 13'12	1°02'40	minimum elong	2011 Apr 06 14:41	16° Ƴ 27'21	1°04'43
				-			

max. Earth dist.	2011 Apr 08 01:39	16° Ƴ 48'30	5.94919 AU	min. Earth dist.	2017 Apr 08 21:23	18° Ω 07'35	4.45490 AU
morning rise	2011 Apr 08 01:39 2011 Apr 20 01:29	19° Y 41'57	3.9 4)1) A0	direct	2017 Apr 08 21:23 2017 Jun 09 14:03	13° ⊆ 12'58	4.43470 AC
morning 1130	2011 Jun 04 13:56	0°8		direct	2017 Oct 10 13:20	0°M	
retrograde	2011 Aug 30 09:17	10° 8 21'20		evening set	2017 Oct 13 13:20 2017 Oct 13 22:46	0°M43'54	
min. Earth dist.	2011 Oct 27 18:41	_	3.96975 AU	max. Earth dist.	2017 Oct 24 22:20	3°ML07'11	6.43536 AU
opposition	2011 Oct 29 01:42	5° 8 17'10		man. Darm dige.	2017 000 21 22.20	3 110/07/11	0.15550116
direct	2011 Dec 25 22:08	0° 8 21'52	1 2001	conjunction	2017 Oct 26 18:09	3°M31'06	1°00'56
	2012 Apr 08 13:26	15° 8		minimum elong	2017 Oct 26 18:11	3°M31'07	1°00'55
evening set	2012 Apr 29 22:12	19° 8 57'04		morning rise	2017 Nov 08 11:12	6°M17'14	
<i>8</i>	r			. 8	2017 Dec 21 01:33	15° ™	
conjunction	2012 May 13 13:23	23° 8 10'41	-0°47'56	retrograde	2018 Mar 09 04:45	23°M13'21	
minimum elong	2012 May 13 13:25	23° 8 10'42	0°47'56	opposition	2018 May 09 00:39	18° M 21'24	1°16'04
max. Earth dist.	2012 May 15 20:29	23° 8 43'20	6.01014 AU	min. Earth dist.	2018 May 10 11:53	18° M .10'10	4.39983 AU
morning rise	2012 May 27 06:49	26° 8 25'18			2018 Jun 06 23:14	15°RM	
C	2012 Jun 11 17:22	0° I I		direct	2018 Jul 10 17:02	13°M20'40	
retrograde	2012 Oct 04 13:18	16° Ⅲ 22'53			2018 Aug 13 10:38	15° ™	
min. Earth dist.	2012 Dec 01 14:50	11° Ⅱ 29'47	4.06853 AU		2018 Nov 08 12:39	0° ⊼	
opposition	2012 Dec 03 01:45	11° Ⅱ 17'52	-0°47'36	evening set	2018 Nov 13 14:03	1° х 06'53	
direct	2013 Jan 30 11:37	6° Ⅱ 19'38		max. Earth dist.	2018 Nov 24 03:39	3° ∡ ¹27'54	6.34749 AU
evening set	2013 Jun 05 22:01	25° Ⅱ 22'51					
				conjunction	2018 Nov 26 06:33	3° ∡ 56'19	0°39'30
conjunction	2013 Jun 19 16:11	28° Ⅲ 32'01	-0°13'42	minimum elong	2018 Nov 26 06:35	3° ∡ 56′20	0°39'30
minimum elong	2013 Jun 19 16:12	28° Ⅲ 32′02	0°13'42	morning rise	2018 Dec 08 21:21	6° ⊀ ¹45'09	
behind sun begin	2013 Jun 19 11:55	28° Ⅱ 29'35		retrograde	2019 Apr 10 17:01	24° ₹ '21'01	
behind sun end	2013 Jun 19 20:29	28° Ⅱ 34'29		opposition	2019 Jun 10 15:28	19° ∡ ¹28'46	0°34'59
max. Earth dist.	2013 Jun 21 19:20	29° Ⅱ 01'22	6.13746 AU	min. Earth dist.	2019 Jun 12 03:04	19° √ 17'25	4.28391 AU
	2013 Jun 26 01:40	0ංම		direct	2019 Aug 11 13:37	14° ∡ °30′18	
morning rise	2013 Jul 03 11:11	1° © 41'17			2019 Dec 02 18:20	8°0	
retrograde	2013 Nov 07 05:03	20° © 30'39		evening set	2019 Dec 15 02:09	2°る46'57	
asc. node	2013 Nov 09 05:45	20°530'14		max. Earth dist.	2019 Dec 25 21:56	5° ප 16'03	6.21293 AU
opposition	2014 Jan 05 21:11	15° 5 27'29	0°08'06				
min. Earth dist.	2014 Jan 04 17:38	15° 5 36'49	4.21043 AU	conjunction	2019 Dec 27 18:25	5° る 41'41	0°05'46
direct	2014 Mar 06 10:42	10° 5 26'31		minimum elong	2019 Dec 27 18:26	5° る 41'41	0°05'46
evening set	2014 Jul 11 05:13	28° © 50'41		behind sun begin	2019 Dec 27 10:47	5° る 37'18	
	2014 Jul 16 10:31	$0^{\circ}\Omega$		behind sun end	2019 Dec 28 02:04	5°₹46'04	
				morning rise	2020 Jan 09 10:31	8° ප 36'36	
conjunction	2014 Jul 24 20:44	1° Ω 52'20	0°23'46	desc. node	2020 Feb 26 02:46	18° る 49'05	
minimum elong	2014 Jul 24 20:42	1° Ω 52'19	0°23'46	retrograde	2020 May 14 14:32	27° る 14'25	
max. Earth dist.	2014 Jul 26 03:40	2° Ω 09'32	6.28258 AU	opposition	2020 Jul 14 07:58	22° る 20'18	-0°19'40
morning rise	2014 Aug 07 10:57	4° Ω 53'07		min. Earth dist.	2020 Jul 15 09:57	22° る 11'55	4.13933 AU
	2014 Sep 25 18:26	15° Ω		direct	2020 Sep 13 00:41	17° る 24'24	
retrograde	2014 Dec 08 20:41	22° Ω 37'37			2020 Dec 19 13:07	0° ≈	
opposition	2015 Feb 06 18:20	17° Ω 38'00	0°57'43	evening set	2021 Jan 16 06:30	6°≈19'52	
min. Earth dist.	2015 Feb 06 07:06	17° Ω 41'44	4.34620 AU	max. Earth dist.	2021 Jan 28 02:16	9° ≈ 07'52	6.07126 AU
	2015 Feb 27 16:10	15°R Ω					
direct	2015 Apr 08 16:57	12° Ω 35′26		conjunction	2021 Jan 29 01:40	9° ≈ 21'45	
	2015 May 19 04:29	15° Ω		minimum elong	2021 Jan 29 01:38	9° ≈ 21'44	0°31'27
	2015 Aug 11 11:11	0° m ∕		morning rise	2021 Feb 10 22:08	12° ≈ 24'36	
evening set	2015 Aug 13 13:17	0° m ,27'01			2021 Feb 21 23:41	15° ≈	
					2021 May 13 22:36	0° ∀	
conjunction	2015 Aug 26 22:02	-		retrograde	2021 Jun 20 15:05	2°) 11'04	
minimum elong	2015 Aug 26 22:00	3° Mp 21'03	0°52'23		2021 Jul 28 12:42	30° ₹ ≈	
max. Earth dist.	2015 Aug 27 00:08	3°m/22'12	6.39850 AU	opposition	2021 Aug 20 00:29	27° ≈ 13'41	
morning rise	2015 Sep 09 04:25	6° Mp 13′48		min. Earth dist.	2021 Aug 20 05:26	27° ≈ 12'03	4.01320 AU
retrograde	2016 Jan 08 04:40	23° Mp 14'17		direct	2021 Oct 18 05:30	22°≈19'46	
opposition	2016 Mar 08 10:57	18° m) 18'17	1°28'30		2021 Dec 29 04:10	0°) (40140	
min. Earth dist.	2016 Mar 08 18:12	18° m 15'55	4.43535 AU	evening set	2022 Feb 20 13:21	11°)(49'40	
direct	2016 May 09 12:14	13° Mp 15'19			2022 15 25 11 5	1.463/ 5	0050:::
• .	2016 Sep 09 11:18	0° ∵		conjunction	2022 Mar 05 14:06	14°) 58'27	
evening set	2016 Sep 13 05:38	0° £ 48'16	C 45305 133	minimum elong	2022 Mar 05 14:05	14°) 58'25	
max. Earth dist.	2016 Sep 25 07:32	3° ± 24'25	6.45387 AU	max. Earth dist.	2022 Mar 05 22:11	15° ₩ 03'20	5.97207 AU
	20160	20.5	1005/22	morning rise	2022 Mar 18 17:37	18°) €08'47	
conjunction	2016 Sep 26 07:00	3° £ 37'06	1°05'33		2022 May 10 23:22	0° Υ	
minimum elong	2016 Sep 26 06:59	3° £ 37'06	1°05'33	retrograde	2022 Jul 28 20:38	8° Υ 43'04	1025115
morning rise	2016 Oct 09 05:20	6° £ 24'32		opposition	2022 Sep 26 19:33	3°Υ41'39	
retrograde	2017 Feb 06 06:52	23° £ 08'25		min. Earth dist.	2022 Sep 26 02:14	3° Y 47′28	3.95256 AU
opposition	2017 Apr 07 21:39	18° ≏ 15'12	1°34'55		2022 Oct 28 05:10	30° ₹	

direct	2022 Nov 23 23:02	28°)(47'54		conjunction	2028 Sep 30 12:51	7° ♀ 53'25	1°05'57
	2022 Dec 20 14:33	0 ° Υ		minimum elong	2028 Sep 30 12:51	7° ≙ 53'25	1°05'57
evening set	2023 Mar 29 13:21	18° Ƴ 32'02		morning rise	2028 Oct 13 10:28	10° ≏ 40'35	
				retrograde	2029 Feb 10 13:07	27° £ 25′26	
conjunction	2023 Apr 11 22:07	21° Υ '45'14		opposition	2029 Apr 12 04:05	22° ≏ 32'29	1°33'45
minimum elong	2023 Apr 11 22:08	21° Y 45'14		min. Earth dist.	2029 Apr 13 06:00	22° ≏ 24'10	4.44891 AU
max. Earth dist.	2023 Apr 13 14:33	22° Y 09'37	5.95513 AU	direct	2029 Jun 13 21:07	17° ≙ 30'25	
morning rise	2023 Apr 25 09:50	24° Y 59'59			2029 Sep 24 06:24	0° M ₊	
	2023 May 16 17:20	0°8		evening set	2029 Oct 18 04:57	5° M ₊03'26	
	2023 Aug 16 17:05	15° 8		max. Earth dist.	2029 Oct 29 03:46	7° M 26'41	6.42459 AU
retrograde	2023 Sep 04 14:11	15° 8 34'55					
	2023 Sep 23 06:25	15° ₹8		conjunction	2029 Oct 30 23:57	7° M 50'52	0°58'51
min. Earth dist.	2023 Nov 01 21:01	.T.	3.98237 AU	minimum elong	2029 Oct 30 23:59	7° M 50′52	0°58'51
opposition	2023 Nov 03 05:02	10° 8 30'30	-1°24'44	morning rise	2029 Nov 12 16:22	10°M37'13	
direct	2023 Dec 31 02:40	5° 8 34'52			2029 Dec 03 04:56	15° M ₊	
	2024 Mar 20 16:44	15° 8		retrograde	2030 Mar 13 14:33	27°M38'00	
evening set	2024 May 05 03:04	25° 8 05'20		opposition	2030 May 13 11:33	22°M46'08	1°11'29
				min. Earth dist.	2030 May 14 22:40	22°M34'57	4.38506 AU
conjunction	2024 May 18 18:45	28° 8 18'23	-0°43'53	direct	2030 Jul 15 01:26	17° M 45'45	
minimum elong	2024 May 18 18:48	28° 8 18'25	0°43'53		2030 Oct 22 23:14	0° ∡ ¹	
max. Earth dist.	2024 May 21 01:41	28° 8 50'46	6.02787 AU	evening set	2030 Nov 17 22:32	5° ∡ ³35'57	
	2024 May 25 23:15	Π $^{\circ}0$		max. Earth dist.	2030 Nov 28 11:40	7° ∡ 757'21	6.32987 AU
morning rise	2024 Jun 01 12:52	1° Ⅲ 32′25					
retrograde	2024 Oct 09 07:05	21° Ⅱ 20′16		conjunction	2030 Nov 30 14:43	8° ∡ ¹25'59	0°35'19
min. Earth dist.	2024 Dec 06 10:00	16° Ⅲ 27'17	4.08936 AU	minimum elong	2030 Nov 30 14:45	8° ∡ ¹26′00	0°35'19
opposition	2024 Dec 07 20:58	16° Ⅱ 15'22	-0°40'11	morning rise	2030 Dec 13 05:38	11° ∡ °15'33	
direct	2025 Feb 04 09:40	11° Ⅱ 16'42		retrograde	2031 Apr 15 12:04	28° ₹ ′59′10	
	2025 Jun 09 21:02	0°ಅ		opposition	2031 Jun 15 09:20	24° ∡ ¹06'44	0°27'47
evening set	2025 Jun 10 21:10	0°ഇ13'41		min. Earth dist.	2031 Jun 16 20:35	23° ₹ 55′28	4.26444 AU
Ü				direct	2031 Aug 16 04:59	19° ∡ ¹08'36	
conjunction	2025 Jun 24 15:17	3°521'50	-0°08'25		2031 Nov 15 10:30	0°ප	
minimum elong	2025 Jun 24 15:18	3° © 21'51		evening set	2031 Dec 19 15:05	7° ට 30'13	
behind sun begin	2025 Jun 24 08:00	3° © 17'42		max. Earth dist.	2031 Dec 30 13:54	10° ට 01'42	6.19333 AU
behind sun end	2025 Jun 24 22:36	3°\$25'59					,
max. Earth dist.	2025 Jun 26 16:02	3°549'40	6.15961 AU	conjunction	2032 Jan 01 07:41	10° る 25'52	0°00'26
morning rise	2025 Jul 08 09:47	6° \$ 29'53	0.13701 110	minimum elong	2032 Jan 01 07:41	10 3 25'52	
asc. node	2025 Sep 19 20:40	20°957'50		behind sun begin	2031 Dec 31 23:42	10° ට 23'32	0 00 20
retrograde	2025 Nov 11 16:41	25°509'09		behind sun end	2032 Jan 01 15:39	10°る30'27	
min. Earth dist.	2026 Jan 09 08:06		4.23168 AU	desc. node	2032 Jan 05 16:24	10 03027 11°る26'27	
opposition	2026 Jan 10 08:42	20°506'28		morning rise	2032 Jan 14 00:09	13° る 21'46	
direct	2026 Mar 11 03:30	15° © 05'14	0 13 41	morning risc	2032 Apr 12 00:59	0°≈	
direct	2026 Jun 30 05:52	0°Ω		retrograde	2032 Apr 12 00:39 2032 May 19 14:48	0 ∞ 2°≈08'42	
avanina aat				retrograde	2032 Jun 26 12:56	2 ≈08 42 30°Rる	
evening set	2026 Jul 15 21:35	3° Ω 24'06		onnosition	2032 Jul 19 08:34	30 KO 27° る 14'10	0027122
agniumation	2026 Jul 29 12:18	6° Ω 24'39	0020125	opposition min. Earth dist.	2032 Jul 19 08.34 2032 Jul 20 07:13		4.12118 AU
conjunction							4.12116 AU
minimum elong	2026 Jul 29 12:16	6° Ω 24'38	0°28'25	direct	2032 Sep 17 19:52	22° る 18'37	
max. Earth dist.	2026 Jul 30 15:07	6° Ω 39'30	6.30122 AU	. ,	2032 Nov 30 03:32	0° ≈	
morning rise	2026 Aug 12 01:36	9° Ω 24'15		evening set	2033 Jan 21 01:53	11° ≈ 18'43	
	2026 Sep 07 06:09	15° Ω			2022 5 1 02 21 20	1.40 0.1100	002 (11.1
retrograde	2026 Dec 13 00:57	27° Ω 01'29	1002115	conjunction	2033 Feb 02 21:30	14°≈21'28	
opposition	2027 Feb 11 00:29	22° Ω 02'24		minimum elong	2033 Feb 02 21:28	14°≈21'27	
min. Earth dist.	2027 Feb 10 15:32	22° Ω 05'22	4.36112 AU	max. Earth dist.	2033 Feb 02 02:00	14° ≈ 09'52	6.05600 AU
direct	2027 Apr 13 02:11	16° Ω 59'44			2033 Feb 05 14:10	15° ≈	
	2027 Jul 26 04:49	0° ™		morning rise	2033 Feb 15 18:48	17° ≈ 25′19	
evening set	2027 Aug 17 23:43	4° ™ 48'21			2033 Apr 14 22:45	0° ∀	
				retrograde	2033 Jun 25 21:52	7° ∺ 19'22	
conjunction	2027 Aug 31 07:30	7° m 41'36	0°55'12	opposition	2033 Aug 25 05:40	2° ∺ 21'22	-1°16'39
minimum elong	2027 Aug 31 07:27	7° Mp 41'35	0°55'12	min. Earth dist.	2033 Aug 25 07:41	2° 升 20'42	4.00224 AU
max. Earth dist.	2027 Aug 31 05:51	7° ™ 40'42	6.40865 AU		2033 Sep 12 22:28	30° R ≈	
morning rise	2027 Sep 13 12:41	10° Mp 33'28		direct	2033 Oct 23 07:19	27° ≈ 27'31	
retrograde	2028 Jan 12 08:54	27° Mp 30'44			2033 Dec 01 22:35	0° ℋ	
opposition	2028 Mar 12 15:37	22° m 35'16	1°30'53	evening set	2034 Feb 25 14:26	16° ¥ 59'58	
min. Earth dist.	2028 Mar 13 01:46	22° m 31'58	4.44032 AU				
direct	2028 May 13 20:00	17° m 32'25		conjunction	2034 Mar 10 16:18	20° ₩ 09'27	-1°00'57
	2028 Aug 24 05:08	0∘ ⊽		minimum elong	2034 Mar 10 16:16	20° ₩ 09'26	1°00'58
evening set	2028 Sep 17 12:29	5° ≙ 04'55		max. Earth dist.	2034 Mar 11 06:02	20°) 17′46	5.96639 AU
max. Earth dist.	2028 Sep 29 08:52	7° ≏ 38'17	6.45317 AU	morning rise	2034 Mar 23 20:47	23° ∺ 20′30	

1948 1948	-							
minimath dist 2034 or 2015 20		2034 Apr 21 09:40	$_{0}^{\circ}\Upsilon$			2040 Feb 20 05:35	30°R ₩	
mateun	retrograde	•	13° Ƴ 57'03		opposition			1°32'49
opposition Q104 OR 0.00 0.0 0.0 s. defended 4°P0'1752 or 2018 core page 2018 core p	•		9° Ƴ 01'40	3.95305 AU	* *	2040 Mar 17 09:43		4.44399 AU
diece 2034 No. 29 02.29 at 9°A°91015 compination 2005 Apr 17 17313 compination 20°A'9717 2314 compination 20°A'9718 11 20°A'974 compination 10°C2 compination 2005 Apr 18 21 11 11 45 20°C de 40°C de 10°C d			8° Ƴ 55'09	-1°37'52		2040 May 18 03:57		
companded 293 Apr 10 3173 29"49422 10025 contained 2040 Oct 04 2024 12"41301 1900 1000 1000 1000 1900 1000 1000 12"41301 1900 1100 1000 1900 1000 1000 1000 19"24 1100 1000 1000 19"00 1000 1000 1000 1000 19"24 1100 1000 1000 1000 19"24 1100 1000 1000 1000 1000 1000 1000 10	11	2034 Nov 29 02:24	4° Ƴ 01'15			•	-	
Compunetion	evening set		23° Ƴ 44'22		evening set	-		
minimoding 2015 Apr 18 2118 27°97204 19025 minimodined 2010 0c of 18 124 1923 0s 4525 Apr 18 218 27°92005 6425 Apr 18 168 27°82005 6425 Apr 18 168 27°82005 6425 Apr 18 168 27°82005 2010 0c of 18 16 17 1764 1428048 4255 Apr 18 168 42	C	1			C	1		
Max. Farth dist	conjunction	2035 Apr 17 03:13	26° Ƴ 57'43	-1°02'26	conjunction	2040 Oct 04 20:24	12° ≏ 13'03	1°06'01
100 100	minimum elong	2035 Apr 17 03:14	26° Ƴ 57'44	1°02'25	minimum elong	2040 Oct 04 20:24	12° ≏ 13'03	1°06'01
100 100	max. Earth dist.	2035 Apr 18 21:18	27° Y 23'02	5.96142 AU	max. Earth dist.	2040 Oct 03 14:50	11° ≏ 57'03	6.45253 AU
morning record 2015 May 0 00 00 00 00 00 00 0		2035 Apr 29 18:57	$B_{\circ 0}$		morning rise	2040 Oct 17 17:04	14° ≙ 59'54	
1908 1918	morning rise		0° 8 12'39		•	2041 Jan 11 19:33	0° M .	
min Earth disk		2035 Jul 09 10:50	15° ∀		retrograde	2041 Feb 14 20:22	1°ML45'34	
opposition 2035 Nov 2 St. 343 by 35° 35° 30° 30° 40° 40° 20° 30° 30° 40° 40° 40° 40° 40° 40° 40° 40° 40° 4	retrograde	2035 Sep 09 14:14	20° 8 43'05			2041 Mar 21 00:01	30° ₹ Ω	
direct	min. Earth dist.	2035 Nov 06 20:01	15° 8 49'53	3.99381 AU	opposition	2041 Apr 16 12:21	26° £ 52'56	1°32'05
direct 2036 Fab 2 of 2047 10°E4 720	opposition	2035 Nov 08 05:43	15° 8 38'25	-1°20'04	min. Earth dist.	2041 Apr 17 15:39	26° ≏ 44'11	4.44426 AU
Companies 1908 1918 19		2035 Nov 12 22:58	15° ₹ 8		direct	2041 Jun 18 06:14	21° ≏ 51'11	
Part	direct	2036 Jan 05 03:59	10° 8 42'20			2041 Sep 06 00:12	0°M₊	
cvening set 036 May 10 06.07 0°108*5 conjunction 2041 Nov 04 06.35 12°IL1278 0°5627A conjunction 2036 May 23 22.35 3°112131 0°3934 minimum clong 2041 Nov 10 22.42 12°IL1279 0°5627A minimum clong 2065 May 23 22.35 3°112131 0°3934 morning rise 2041 Nov 16 22.33 15°IL1 0°5627A morning rise 2036 Oct 10 1038 6°113479 critograde 2042 Feb 08 23.53 0°24 1°27-0413 min. Earth dist 2036 Oct 11 1442 21°11073 4.10717 AU cretograde 2042 May 19 11.01 2°78-0413 0°600 opopesition 2037 Feb 0 2742 12°11073 4.10717 AU cretograde 2042 May 19 11.02 2°78-0140 0°600 derect 2037 Feb 0 2742 12°11073 10°10723 0°3237 0°905160 2042 May 19 11.02 2°78-0413 0°603 conjunction 2037 Feb 0 2742 12°11073 10°10723 0°3036 0°602 2°120 May 20 0°6.50 0°624 2°78-0173 0°603 0°602 0°6		2036 Feb 26 06:47	15° ∀		evening set	2041 Oct 22 12:14	9°M25'27	
Conjunction 2036 May 23 22:33 3°H21'33 3°93'35 minimum loon 2041 Nov 04 66.35 12°H1.12'58 0°56'27 minimum loon 2036 May 23 22:35 3°H21'34 0°39'34 moming rise 2041 Nov 16 22:4 14°H1.59'32 max. Earth dist. 2036 May 26 05:38 3°H21'34 0°43'34 moming rise 2041 Nov 16 22:4 14°H1.59'32 max. Earth dist. 2036 May 26 05:38 3°H21'34 0°43'34 moming rise 2041 Nov 16 22:4 14°H1.59'32 max. Earth dist. 2036 Oct 14 01:38 20°H14'08 retrograde 2041 Nov 16 22:4 21°H1.29'3 0°42'4 min. Earth dist. 2036 Oct 14 01:38 20°H14'08 retrograde 2042 Mar 18 02:47 22°H0'13 min. Earth dist. 2036 Oct 12 14'2 21°H10'23 0°42'7 0°40'4 10°40'4 22°H10'12 10°40'4 min. Earth dist. 2037 Feb 09 07:42 16°H10'17 min. Earth dist. 2042 May 17 23:55 27°H1.12'1 10°63'0 min. Earth dist. 2037 Jun 25 13:44 5°520'18 10°90'4 min. Earth dist. 2042 May 19 11:16 27°H10'10 43°78'8 AU minimum clong 2037 Jun 29 13:44 8°520'18 min. Earth dist. 2042 Dec 04 23:06 10°P2'* 10°10'4 minimum clong 2037 Jun 29 13:44 8°520'18 min. Earth dist. 2042 Dec 04 23:07 12°P2'75 3616'14 minimum clong 2037 Jun 29 13:44 8°520'18 min. Earth dist. 2042 Dec 04 23:07 12°P2'75 3616'14 minimum clong 2037 Jun 29 13:44 8°520'18 minimum clong 2042 Dec 04 23:07 12°P2'75 3616'14 minimum clong 2037 Jun 29 13:44 8°520'18 minimum clong 2042 Dec 04 23:07 12°P2'75 3616'14 minimum clong 2037 Jun 29 13:44 8°520'18 minimum clong 2043 Jun 20 12:42 2078 2078 max. Earth dist. 2037 Jun 13 08:05 15°P2'16 12°P2'75 12°P2'75 12°P2'75 12°P2'75 moming rise 2037 Jun 13 08:05 15°P2'16 12°P2'75 12°P2'75 12°P2'75 12°P2'75 12°P2'75 moming rise 2037 Jun 13 08:05 15°P2'16 12°P2'75 12°P		2036 May 09 14:52	$\Pi^{\circ}0$		max. Earth dist.	2041 Nov 02 08:11	11°ML47'32	6.41639 AU
conjunction 205 May 25 22:38 3°E1213 a 0°3935 minimum ellong 204 Nov 0 6 0.635 1°E11259 0°5072 mmx minimum ellong 2036 May 25 22:38 3°E1213 b 0°3934 moming rise 2041 Nov 16 22:33 1°FU	evening set	2036 May 10 06:07	0° Ⅱ 08'54					
minimum chong 2036 May 23 22.36 3°BT21'SI 0°39'34 moming rise 2041 Nov 16 22.42 14°BB/32 1					conjunction	2041 Nov 04 06:33	12°ML12'58	0°56'27
max. Earth dist. 2036 May 26 05.88 3° H35'4 04.947 AU eventograde retrograde 2041 Rev 16 23.33 15° May 17 center retrograde 2042 Feb 08 23.53 0° ×7 Pertrograde retrograde 2042 Mar 18 02.47 2° ×70-013 Pertrograde retrograde 2042 Mar 19 02.41 2074 Mar 24 21 10 10 10 10 10 10 10 10 10 10 10 10 10	conjunction	2036 May 23 22:33	3° Ⅱ 21'33	-0°39'35	minimum elong	2041 Nov 04 06:35	12°M12'59	0°56'27
moming rise 2036 Lu 0 16.59 6°II 4978 retrograde 2042 Lu 18 18 2042 Lu 18 18 18 18 18 18 18 1	minimum elong	2036 May 23 22:36	3° Ⅱ 21'34	0°39'34	morning rise	2041 Nov 16 22:42	14°M59'32	
retrograde 2036 Oct 14 01.38 26° II 1400 21° II 2000 2042 Apr 24 12.41 21° 120° 120° 120° 120° 120° 120° 120°	max. Earth dist.	2036 May 26 05:38	3° Ⅱ 53'54	6.04347 AU		2041 Nov 16 23:33	15° M ₊	
nin. Earth dist. 2036 Dec 12 1442 21°TEO'39 4.0717 AU poposition 2042 Apr 24 12.41 21°E1021 10°G00 opposition 2037 Feb 9 0°742 16°TEI 10°T min. Earth dist. 2042 May 17 23:55 27°TEI 12°T 10°G00 evening set 2037 May 24 0213 0°G0 conjunction 2042 Oct 04 09:56 0°72 22°TEI 17°T conjunction 2037 Jun 29 13:44 8°G0093 0°300 max. Earth dist. 2042 Oct 04 09:56 0°72-07 0°104 AU behind sun begin 2037 Jun 29 13:44 8°G0093 0°306 minimum clong 2042 Dec 04 23:05 12°25530 0°3059 behind sun begin 2037 Jun 29 10:04 8°G2045 conjunction 2042 Dec 10 43:05 12°25530 0°3059 max. Earth dist. 2037 Jul 3 10:05 11°25(638 617818 AU morning rise 2042 Dec 10 43:05 12°25550 0°3059 asc. node 2037 Jul 3 10:05 11°25(638 617818 AU morning rise 2043 Mar 0 17:06 12°25550 0°3052 retorigente 2038 Jul 3 10 10°80 2	morning rise	2036 Jun 06 16:59	6° Ⅱ 34'59			2042 Feb 08 23:53	0° ∡ ¹	
opposition 2036 Dec 12 14:42 21°H0923 0°92371 opposition 2021 May 19 11:16 27°H0109 37386 AD direct 2037 Feb 90 0°742 10°ET 10°T min. Earth dist. 2042 May 19 11:16 27°H0109 37386 AD evening set 2037 Jun 15 19:41 5°E90218 evening set 2042 Oct 04 09:59 0°73 0°734 Set conjunction 2037 Jun 29 13:43 8°E90935 0°0306 max. Earth dist. 0°42 Dec 04 23:05 12°27579 3.61674 AU behind sun begin 2037 Jun 29 0°523 8°E90452 onjunction 2042 Dec 04 23:05 12°27550 0°3056 max. Earth dist. 2037 Jun 1 31 08:05 8°E90451 minimum elong 2042 Dec 04 23:05 12°27550 0°3059 max. Earth dist. 2037 Jun 1 31 08:05 15°E91606 retrograde 2043 Mar 1 17:06 0°5 12°275530 0°3059 asc. node 2037 Nov 16 02:11 29°E9470 retrograde 2043 Apr 20 04:22 29°E9470 29°E9470 20°E94748 0°230 Dec 20 04:32 28°E9452 4°E3016 28°E9452 4°E3016	retrograde	2036 Oct 14 01:38	26° Ⅱ 14′08		retrograde	2042 Mar 18 02:47	2° ∡ ¹04'13	
drect 2037 Feb 9 97.42 16° II 10° IT Imm. Earth dist. 2042 May 9 11:16 27° II 01° IS 4.3738 AU evening set 2037 May 24 02:13 0°25 cerd direct 2042 Jul 19 12:48 22° III 12'17 evening set 2037 Jun 15 19:41 5°590218 cerding set 2042 Oct 04 09:59 0°25 conjunction 2037 Jun 29 13:44 8°20935 0°0306 recening set 2042 Dec 04 23:07 12°87275 3.1674 AU behind sun head 2037 Jun 29 13:44 8°20935 0°0306 recening set 2042 Dec 04 23:07 12°87530 0°3059 max. Earth dist. 2037 Jun 12 12:35 8°20415 conjunction 2042 Dec 04 23:07 12°875530 0°3059 max. Earth dist. 2037 Jul 13 07:51 11°216'8 recrograde 2047 Jul 13 07:51 11°216'8 recrograde 2037 Jul 13 07:51 11°25'818 0°30 recrograde 2037 Jul 13 07:52 29°247'02 recrograde 2038 Jul 14 14 24°85'14 42936 AU min Earth dist. 2038 Jul 20 12:2 20°37 20°37 20°37	min. Earth dist.	2036 Dec 11 05:38	21° Ⅱ 20′39	4.10717 AU		2042 Apr 24 12:41	30°RML	
evening set	opposition	2036 Dec 12 14:42	21° Ⅱ 09′23	-0°32'37	opposition	2042 May 17 23:55	27°M12'21	1°06'30
evening set 2037 Jun 15 19:41 5°80218 Fee only 18 18 19:41 5°80218 Fee only 18 20 20:60 0 09:50 00% 0°80 10 00% 0°80 10 00% 0°80 10 00% 0°80 10%	direct	2037 Feb 09 07:42	16° Ⅱ 10'17		min. Earth dist.	2042 May 19 11:16	27°ML01'05	4.37386 AU
Conjunction 2037 Jun 29 13.43 8°20075 0°0306 max. Earth dist. 2042 Dec 02 22.10 10°×0457 6.31674 AU minimmelong 2037 Jun 29 13.44 8°200935 0°0306 conjunction 2042 Dec 02 22.10 12°×75573 0°3057 0°3056 behind sun begin 2037 Jun 29 05.23 8°20452 0°306 conjunction 2042 Dec 04 23.05 12°×75573 0°3059 0°3059 max. Earth dist 2037 Jul 13 0°1.25 18°20418 0°8 conjunction 2042 Dec 04 23.05 12°×75573 0°3059 0°3059 max. Earth dist 2037 Jul 13 0°1.51 11°201638 retrograde 2043 Mar 01 17.06 0°5 15°×74575 0°305° asc. node 2037 Jul 13 0°5.0 15°×261606 retrograde 2043 Mar 01 17.06 0°5 3°58° 0°8 opposition 2038 Jul 13 12.02 22°×264148 0°2307 opposition 2043 Mar 01 17.06 0°5 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20124 4°20		2037 May 24 02:13	0		direct	2042 Jul 19 12:48		
conjunction 2037 Jun 29 13.43 8°20935 0°0306 max. Earth dist. 2042 Dec 02 22:10 22:759 3.01674 AU minimum elong behind sun begin 2037 Jun 29 05:23 8°20935 0°0306 conjunction 2042 Dec 04 23:05 12°x75730 0°3059059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059 0°3059	evening set	2037 Jun 15 19:41	5° © 02'18					
minimum elong 2037 Jun 29 05:23 8°©0935 0°0306 behind sun begin 2037 Jun 29 05:23 8°©0452 conjunction 2042 Dec 04 23:05 12°Å5530 0°30'59 behind sun end 2037 Jul 01 12:36 8°©36'13 6.17818 AU morning rise 2042 Dec 04 23:07 12°Å5530 0°30'59 max. Earth dist. 2037 Jul 10 10 12:36 8°©36'13 6.17818 AU morning rise 2042 Dec 04 23:07 12°Å5530 0°30'59 asc. node 2037 Jul 10 10 12:36 8°©36'13 6.17818 AU morning rise 2043 Mar 01 17:06 0°5 - asc. node 2037 Jul 10 80:80 18°©36'160 retrograde 2043 Jun 09 21:42 30°8.27 0°0 <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td>					•			
behind sun begin 0.37 Jun 29 05.23 8 °S 04′52 minimum elong 2042 Dec 04 23.05 12° Å5530 030′59 behind sun end 2037 Jun 29 22.04 8 °S 14′18 minimum elong 2042 Dec 17 13.49 15° Å4553 030′59 max. Earth dist. 2037 Jul 13 07.51 11° S 16′38 retrograde 2043 Mar 01 17.06 0° € 2038 Jun 14 19.58 24° S 24′48 0°230′7 0pposition 2043 Jun 20 02.26 28° Å42′4 0°20′32 min. Earth dist. 2038 Jun 14 19.58 24° S 24′48 0°230′7 0pposition 2038 Jun 14 19.58 24° S 24′48 0°230′7 0pposition 2038 Jun 12 15.26 0° Ω 24° S 24′8 0° 20′30 24° S 24′9 0° 20′30 0° 2	·				max. Earth dist.	2042 Dec 02 22:10	12° ∡ 27′59	6.31674 AU
behind sun end 2037 Jun 29 22:04 8°S14'18 minimum elong 2042 Dec 04 23:07 12°x5'530 0°30'59 max. Earth dist. 2037 Jul 10 1 12:36 8°S36'13 6.17818 AU morning rise 2042 Dec 17 13:49 15°x ² 45'35 morning rise 2037 Jul 31 08:05 11°S16'08 retrograde 2043 Apr 20 04:02 3°G5'52'4 retrograde 2037 Nov 16 02:17 29°S47'02 retrograde 2043 Jun 09 21:42 30°x ² √2 opposition 2038 Jun 14 19:58 24°S44'48 0°23'07 opposition 2043 Jun 20 02:36 22°x ² √24'4 0°20'32 min. Earth dist. 2038 Jun 12 15:25 19°S43'17 direct 2043 Jun 20 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 28°x ² √32'04 4.25919 AU direct 2038 Jun 12 15:26 0°Ω 4.24936 AU min. Earth dist. 2043 Jun 21 12:11 0°S 4.25919 AU evening set 2038 Jun 03 04:05 10°Ω 57°35 0°32'55 max. Earth dist. 2044 Jun 04 03:42 14°G01016 0°S max. Earth dist. 2038 Aug 03 04:05 11°Ω 0°52'73 0°32'55 0°32'55 0°32'45 0°44 Jun 05 19:38 15°G0612 0°44 Jun 05°G0612 0°44 Jun 05°G0612 0°44 Jun 05 19:38 15°G0612 0°44 Jun 05°G0612 0°44 Jun 05°G0612 0°44 Jun 05°G0612 0°44 J	•			0°03'06			=	
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Second 2037 Jul 31 08:05 15°\$1606 Fetrograde 2043 Apr 20 04:02 3°\$3524 Fetrograde 2037 Nov 16 02:17 29°\$4702 Fetrograde 2043 Jun 09 21:42 30°\$\$\chix\$ 30°\$\$\chix\$ 20°\$\chix\$ 20°\$\chix				6.17818 AU	morning rise			
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conjunction 2038 Aug 03 04:07 10° Q57'35 0°32'56 max. Earth dist. 2044 Jan 04 03:42 14° ₹43'01 6.17914 AU minimum elong 2038 Aug 03 04:05 10° Q57'34 0°32'55 """	evening set	2036 Jul 20 14.14	/ 82 38 02					
minimum elong 2038 Aug 03 04:05 10°\$\tilde{\Omega}\$57'34 0°32'55 max. Earth dist. 2038 Aug 04 02:20 11°\$\tilde{\Omega}\$09'51 6.31668 AU conjunction 2044 Jan 05 19:38 15°\$\tilde{\Omega}\$60'12 -0°04'49 morning rise 2038 Aug 16 16:29 13°\$\tilde{\Omega}\$56'08 minimum elong 2044 Jan 05 19:38 15°\$\tilde{\Omega}\$60'12 0°04'49 morning rise 2038 Nov 16 21:21 0°\$\tilde{\Omega}\$ behind sun begin 2044 Jan 05 11:50 15°\$\tilde{\Omega}\$60'12 0°04'49 retrograde 2038 Dec 17 08:40 1°\$\tilde{\Omega}\$71'11 morning rise 2044 Jan 06 03:26 15°\$\tilde{\Omega}\$61'042 morning rise 2039 Jan 16 14:55 30°\$\tilde{\Omega}\$8. Conjunction 2039 Feb 15 08:22 26°\$\tilde{\Omega}\$28'39 1°08'28 retrograde 2044 Jan 18 12:36 18°\$\tilde{\Omega}\$0'253 min. Earth dist. 2039 Feb 15 08:22 27 26°\$\tilde{\Omega}\$0'30'30 4.37328 AU opposition 2044 Jan 24 06:55 2°\$\tilde{\Omega}\$0'25 2°\$\tilde{\Omega}\$0'35'01 direct 2039 Jan 18 08:024 0°\$\tilde{\Omega}\$ 12:0°\$\tilde{\Omega}\$0'30'30 4.37328 AU opposition 2044 Jan 24 06:55 2°\$\tilde{\Omega}\$0'25 2°\$\tilde{\Omega}\$0'35'01 direct 2039 Jul 08 00:24 0°\$\tilde{\Omega}\$ 12:0°\$\tilde{\Omega}\$0'30'30 d.37328 AU opposition 2044 Jul 24 06:55 20°\$\tilde{\Omega}\$0'35'01 direct 2039 Jul 08 00:24 0°\$\tilde{\Omega}\$ 12:0°\$\tilde{\Omega}\$0'30'30 d.37328 AU opposition 2044 Jul 24 06:55 20°\$\tilde{\Omega}\$0'30'30 d.37328 AU opposition 2044 Jul 24 06:55 20°\$\tilde{\Omega}\$0'30'30 d.3793 dor\$\tilde{\Omega}\$0'30'30'30'30'30'30'30'30'30'30'30'30'30	conjunction	2038 Aug 03 04:07	10°Ω57'35	0°32'56	=			6 17914 AU
max. Earth dist. 2038 Aug 04 02:20 11°Ω0951 6.31668 AU conjunction 2044 Jan 05 19:38 15°⊠60f12 -0°04'49 morning rise 2038 Aug 16 16:29 13°Ω56'08 minimum elong 2044 Jan 05 19:38 15°⊠60f12 0°04'49 2038 Aug 21 13:36 15°Ω behind sun begin 2044 Jan 05 11:50 15°⊠60f142 0°04'49 retrograde 2038 Nov 16 21:21 0°m behind sun end 2044 Jan 06 03:26 15°ঊ01'42 15°Ū1'42 retrograde 2038 Dec 17 08:40 1°m27'11 morning rise 2044 Jan 18 12:36 18°ঊ02'53 18°Ѿ0'253 opposition 2039 Jan 16 14:55 30°RØ 1°08'28 retrograde 2044 May 24 14:03 6°≈57'12 0°≈ min. Earth dist. 2039 Feb 15 02:27 26°Ω30'30 4.37328 AU opposition 2044 Jul 24 06:55 2°≈02'16 -0°35'01 direct 2039 Jul 08 00:24 0°m 1°01'02'25' direct 2044 Aug 09 12:42 30°Rঊ evening set 2039 Sep 04 18:04 12°m04'41 0°57'44 evening set 2045 Jan 20 19:29 15°∞2	·	Č			max. Earth dist.	20113411 01 03.12	11 0 15 01	0.17711110
Morning rise 2038 Aug 16 16:29 13°A56'08 minimum elong 2044 Jan 05 19:38 15°δ06'12 0°04'49 2038 Aug 21 13:36 15°Ω behind sun begin 2044 Jan 05 11:50 15°δ01'42 2038 Nov 16 21:21 0°	•	•			conjunction	2044 Jan 05 19:38	15° ⋜ 06'12	-0°04'49
2038 Aug 21 13:36 15° Ω behind sun begin 2044 Jan 05 11:50 15° ₹01'42 15° ₹10'42		-		0.51000110	•			
Petrograde 2038 Nov 16 21:21 0° m Behind sun end 2044 Jan 06 03:26 15° ₹10'42 Petrograde 2038 Dec 17 08:40 1° mp 27'11 morning rise 2044 Jan 18 12:36 18° ₹02'53 2039 Jan 16 14:55 30° κ Ω 2044 Mar 15 04:27 0° ≈ Petrograde 2039 Feb 15 08:02 26° Ω 28'39 1° 08'28 retrograde 2044 Mar 24 14:03 6° ≈ 57'12 Petrograde 2039 Feb 15 02:27 26° Ω 30'30 4.37328 AU opposition 2044 Jul 24 06:55 2° ≈ 02'16 -0° 35'01 Petrograde 2039 Apr 17 14:51 21° Ω 25'54 min. Earth dist. 2044 Jul 25 03:24 1° ≈ 55'38 4.10799 AU Petrograde 2039 Jul 08 00:24 0° m 2044 Aug 09 12:42 30° κ ₹	5 - 5	-			Č			
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2039 Jan 16 14:55 30°R	retrograde	2038 Dec 17 08:40			morning rise	2044 Jan 18 12:36		
min. Earth dist. 2039 Feb 15 02:27 26°Ω30'30 4.37328 AU opposition 2044 Jul 24 06:55 2°≈02'16 -0°35'01 direct 2039 Apr 17 14:51 21°Ω25'54 min. Earth dist. 2044 Jul 25 03:24 1°≈55'38 4.10799 AU 2039 Jul 08 00:24 0° m/p 2044 Aug 09 12:42 30° R € evening set 2039 Aug 22 11:15 9° m/p 12'09 direct 2044 Sep 22 14:53 27° ₹ 306'57 2044 Nov 04 17:33 0°≈ conjunction 2039 Sep 04 18:04 12° m/p 04'41 0°57'44 evening set 2045 Jan 20 19:29 15°≈ minimum elong 2039 Sep 04 18:02 12° m/p 04'40 0°57'44 evening set 2045 Jan 20 19:29 15°≈ max. Earth dist. 2039 Sep 04 12:51 12° m/p 01'52 6.41659 AU morning rise 2039 Sep 17 22:10 14° m/p 55'49 conjunction 2045 Feb 07 14:44 19°≈13'40 -0°40'29 minimum elong 2039 Dec 12 22:05 0° Ω minimum elong 2045 Feb 07 14:41 19°≈13'40 -0°40'29	Č	2039 Jan 16 14:55			C	2044 Mar 15 04:27		
direct 2039 Apr 17 14:51 21°Ω25'54 min. Earth dist. 2044 Jul 25 03:24 1°≈55'38 4.10799 AU 2039 Jul 08 00:24 0° m/s evening set 2039 Aug 22 11:15 9° m/p12'09 direct 2044 Sep 22 14:53 27° ₹06'57 conjunction 2039 Sep 04 18:04 12° m/04'41 0°57'44 evening set 2045 Jan 20 19:29 15°≈ minimum elong 2039 Sep 04 18:02 12° m/04'40 0°57'44 evening set 2045 Jan 20 19:29 15°≈ max. Earth dist. 2039 Sep 04 12:51 12° m/01'52 6.41659 AU morning rise 2039 Sep 17 22:10 14° m/55'49 conjunction 2045 Feb 07 14:44 19°≈13'40 -0°40'29 minimum elong 2039 Dec 12 22:05 0° Ω minimum elong 2045 Feb 07 14:41 19°≈13'39 0°40'29	opposition		26° Ω 28'39	1°08'28	retrograde	2044 May 24 14:03	6° ≈ 57'12	
evening set 2039 Jul 88 00:24 0° m/s evening set 2039 Aug 22 11:15 9° m/s 12'09 direct 2044 Sep 22 14:53 27° ₹306'57 conjunction 2039 Sep 04 18:04 12° m/s 04'41 0° 57'44 evening set 2045 Jan 20 19:29 15° ≈ minimum elong 2039 Sep 04 18:02 12° m/s 04'54 evening set 2045 Jan 20 19:29 15° ≈ max. Earth dist. 2039 Sep 17 22:10 14° m/s 55'49 conjunction 2045 Feb 07 14:44 19° ≈ 13'40 -0° 40'29 morning rise 2039 Dec 12 22:05 0° ♀ minimum elong 2045 Feb 07 14:41 19° ≈ 13'39 0° 40'29	min. Earth dist.	2039 Feb 15 02:27	26° Ω 30'30	4.37328 AU	opposition	2044 Jul 24 06:55	2° ≈ 02'16	-0°35'01
2039 Jul 08 00:24 0° m/9 2044 Aug 09 12:42 30° R	direct	2039 Apr 17 14:51	21° Ω 25'54			2044 Jul 25 03:24	1° ≈ 55'38	4.10799 AU
2044 Nov 04 17:33 0°≈ Conjunction 2039 Sep 04 18:04 12° mo4'41 0°57'44 evening set 2045 Jan 20 19:29 15°≈ 16°≈10'09 max. Earth dist. 2039 Sep 04 12:51 12° mo1'52 6.41659 AU morning rise 2039 Sep 17 22:10 14° mo55'49 conjunction 2045 Feb 07 14:44 19°≈13'40 -0°40'29 2039 Dec 12 22:05 0° Ω minimum elong 2045 Feb 07 14:41 19°≈13'39 0°40'29		2039 Jul 08 00:24	0° m			2044 Aug 09 12:42	30°Ŗる	
conjunction 2039 Sep 04 18:04 12° № 04'41 0°57'44 evening set 2045 Jan 20 19:29 15° ≈ 15° ≈ minimum elong 2039 Sep 04 18:02 12° № 04'40 0°57'44 evening set 2045 Jan 25 18:23 16° ≈ 10'09 - max. Earth dist. 2039 Sep 04 12:51 12° № 01'52 6.41659 AU -<	evening set	2039 Aug 22 11:15	9° ™ 12'09		direct	2044 Sep 22 14:53	27° る 06'57	
minimum elong 2039 Sep 04 18:02 12° mp 04'40 0°57'44 evening set 2045 Jan 25 18:23 16° ≈10'09 max. Earth dist. 2039 Sep 04 12:51 12° mp 01'52 6.41659 AU morning rise 2039 Sep 17 22:10 14° mp 55'49 conjunction 2045 Feb 07 14:44 19° ≈13'40 -0° 40'29 2039 Dec 12 22:05 0° Ω minimum elong 2045 Feb 07 14:41 19° ≈13'39 0° 40'29						2044 Nov 04 17:33	0° ≈	
max. Earth dist. 2039 Sep 04 12:51 12° № 01'52 6.41659 AU morning rise 2039 Sep 17 22:10 14° № 55'49 conjunction 2045 Feb 07 14:44 19° ≈ 13'40 -0° 40'29 2039 Dec 12 22:05 0° ♀ minimum elong 2045 Feb 07 14:41 19° ≈ 13'39 0° 40'29	conjunction	2039 Sep 04 18:04	12°Mp 04'41	0°57'44		2045 Jan 20 19:29	15° ≈	
morning rise 2039 Sep 17 22:10 14° m 55'49 conjunction 2045 Feb 07 14:44 19° ≈ 13'40 -0° 40'29 2039 Dec 12 22:05 0° ♀ minimum elong 2045 Feb 07 14:41 19° ≈ 13'39 0° 40'29	minimum elong	2039 Sep 04 18:02	12° m 04'40	0°57'44	evening set	2045 Jan 25 18:23	16° ≈ 10′09	
2039 Dec 12 22:05 0° ♀ minimum elong 2045 Feb 07 14:41 19° ≈ 13'39 0°40'29	max. Earth dist.	-		6.41659 AU				
	morning rise	-			·			
retrograde 2040 Jan 16 13:18 1° ⊆ 50'27 max. Earth dist. 2045 Feb 06 23:51 19° ≈ 04'48 6.04506 AU					Č			
	retrograde	2040 Jan 16 13:18	1° £ 50′27		max. Earth dist.	2045 Feb 06 23:51	19° ≈ 04'48	6.04506 AU

morning rise	2045 Feb 20 12:39 2045 Mar 26 05:08	22°≈18'18 0°¥		retrograde opposition	2050 Dec 21 13:17 2051 Feb 19 14:40	5° m 51'59 0° m 53'54	1°13'10
retrograde	2045 Jul 01 00:37	12°) 18′20		min. Earth dist.	2051 Feb 19 10:12	0° m 55'23	4.38393 AU
opposition	2045 Aug 30 07:02	7° ¥ 19'53			2051 Feb 26 11:01	30°R Ω	
min. Earth dist.	2045 Aug 30 06:43		3.99480 AU	direct	2051 Apr 22 00:08	25° Ω 51'05	
direct	2045 Oct 28 04:36	2°)(26'10		. ,	2051 Jun 15 11:27	0°M)	
evening set	2046 Mar 02 11:55	22° ∺ 00'17		evening set	2051 Aug 26 22:00	13° Mp 35'10	
conjunction	2046 Mar 15 14:31	25° ∺ 10'17		conjunction	2051 Sep 09 03:41	16° M 26'57	0°59'53
minimum elong	2046 Mar 15 14:30	25° ∺ 10′17		minimum elong	2051 Sep 09 03:39	16° Mp 26'56	0°59'53
max. Earth dist.	2046 Mar 16 06:19	25° ¥ 19'51	5.96290 AU	max. Earth dist.	2051 Sep 08 18:46	16° Mp 22'07	6.42412 AU
morning rise	2046 Mar 28 20:12	28°) €22'00		morning rise	2051 Sep 22 06:46	19° m) 17'21	
	2046 Apr 04 16:11	0° Υ		_	2051 Nov 15 14:44	0∘ ⊽	
retrograde	2046 Aug 08 04:13	19° Y ′00'07		retrograde	2052 Jan 20 18:58	6° Ω 09'18	
min. Earth dist.	2046 Oct 06 03:22		3.95412 AU	opposition	2052 Mar 21 03:58	1° £ 14'36	1°34'11
opposition	2046 Oct 07 01:29	13° Y 57'48 9° Y 03'42	-1°3/'43	min. Earth dist.	2052 Mar 21 18:29	1° £ 09'54	4.44793 AU
direct	2046 Dec 04 01:07	28° Υ 46'13		T' A	2052 Mar 30 20:30	30°RM)	
evening set	2047 Apr 08 17:46 2047 Apr 13 21:04	0° 8		direct	2052 May 22 13:37 2052 Jul 14 00:23	26°Mp11'52 0°₽	
	204 / Apr 13 21.04	0.0		evening set	2052 Sep 26 03:52	0 <u>₽</u> 13° ₽ 43'11	
conjunction	2047 Apr 22 04:38	1° 8 59'50	-1°00'38	max. Earth dist.	2052 Oct 07 18:15	16° £ 13'32	6.45220 AU
minimum elong	2047 Apr 22 04:39	1° 8 59'51		max. Earth dist.	2032 Oct 07 10.13	10 -13 32	0.43220 AO
max. Earth dist.	2047 Apr 24 01:17	2° 8 26'40	5.96701 AU	conjunction	2052 Oct 09 02:34	16° ₽ 31'02	1°05'42
morning rise	2047 May 05 18:24	5° 8 14'56	3.50701710	minimum elong	2052 Oct 09 02:34 2052 Oct 09 02:34	16° ⊆ 31'02	1°05'42
morning rise	2047 Jun 17 23:30	15° 8		morning rise	2052 Oct 21 22:26	19° ⊆ 17'35	1 03 12
retrograde	2047 Sep 14 12:36	25° 8 41'30			2052 Dec 15 06:53	0° M	
min. Earth dist.	2047 Nov 11 17:10	_	4.00322 AU	retrograde	2053 Feb 19 01:56	6°ML03'50	
opposition	2047 Nov 13 02:11	20° 8 36'42		opposition	2053 Apr 20 19:41	1°ML11'16	1°29'54
direct	2048 Jan 10 02:18	15° 8 40'16		min. Earth dist.	2053 Apr 21 23:52	1°ML02'15	4.43959 AU
	2048 Apr 23 01:44	$\Pi^{\circ}0$			2053 Apr 30 04:32	30° ₽ Ω	
evening set	2048 May 15 05:47	5° Ⅲ 04'10		direct	2053 Jun 22 13:33	26° ≙ 09'37	
					2053 Aug 14 07:30	0°M₊	
conjunction	2048 May 28 22:54	8° Ⅱ 16'33	-0°35'10	evening set	2053 Oct 26 18:07	13°M44'56	
minimum elong	2048 May 28 22:56	8° Ⅱ 16′34	0°35'10		2053 Nov 01 11:29	15° M ₊	
max. Earth dist.	2048 May 31 06:14	8° Ⅱ 48'57	6.05591 AU	max. Earth dist.	2053 Nov 06 13:46	16°ML07'09	6.40749 AU
morning rise	2048 Jun 11 17:46	11° Ⅱ 29'37					
	2048 Sep 23 12:58	0		conjunction	2053 Nov 08 12:00	16°M32'35	0°53'45
retrograde	2048 Oct 18 15:58	1° © 01'31		minimum elong	2053 Nov 08 12:02	16°M32'36	0°53'45
	2048 Nov 12 14:05	30°Ŗ Ⅱ		morning rise	2053 Nov 21 03:36	19°M19'19	
min. Earth dist.	2048 Dec 15 20:35		4.12144 AU	_	2054 Jan 13 07:59	0° ⊼ ¹	
opposition	2048 Dec 17 05:33	25° Ⅱ 57'02	-0°25'09	retrograde	2054 Mar 22 12:50	6° ∡ 728′03	
direct	2049 Feb 14 00:24	20° Ⅱ 57'37		opposition	2054 May 22 11:03	1°×736'10	1°01'08
,	2049 May 05 18:13	0.00 0.00		min. Earth dist.	2054 May 23 23:10	1° ∡ 724'40	4.36091 AU
asc. node	2049 Jun 12 03:56	7°951'55		J:4	2054 Jun 04 06:27	30°RM	
evening set	2049 Jun 20 16:00	9° © 46'11		direct	2054 Jul 23 22:39 2054 Sep 10 18:30	26°M36'21 0° <i>⊼</i> ¹	
conjunction	2049 Jul 04 09:46	12° © 52'43	0°02'11	evening set	2054 Nov 26 14:36	0 x . 14° ∡ ³32'12	
minimum elong	2049 Jul 04 09:45	12°952'43	0°02'12	max. Earth dist.	2054 Dec 07 04:34	16° x 52 12	6.30055 AU
behind sun begin	2049 Jul 04 01:24	12°548'00	0 02 12	max. Earth dist.	2034 DCC 07 04.54	10 × 33 03	0.50055710
behind sun end	2049 Jul 04 18:07	12°957'26		conjunction	2054 Dec 09 06:30	17° ∡ ¹23'16	0°26'27
max. Earth dist.	2049 Jul 06 04:55	13° © 17'10	6.19317 AU	minimum elong	2054 Dec 09 06:31	17° ∡ 123'17	0°26'28
morning rise	2049 Jul 18 03:33	15° 9 58'55		morning rise	2054 Dec 21 21:29	20° ∡ 14'05	
C	2049 Sep 27 10:29	$0^{\circ}\Omega$		C	2055 Feb 06 08:36	0°ರ	
retrograde	2049 Nov 20 12:41	4° Ω 22'03		retrograde	2055 Apr 24 21:45	8° る 11'23	
	2050 Jan 14 07:24	30° ₹ 5		opposition	2055 Jun 24 19:51	3° ට 18'29	0°13'04
min. Earth dist.	2050 Jan 18 09:16	29° 5 27'12	4.26380 AU	min. Earth dist.	2055 Jun 26 04:23	3° ⋜ 08'04	4.23157 AU
opposition	2050 Jan 19 05:57	29° © 20'15	0°30'12		2055 Jul 23 04:36	30° ₹ 🎜	
direct	2050 Mar 20 09:07	24° © 18'29		direct	2055 Aug 25 08:18	28° ∡ ′21′02	
	2050 May 22 21:49	0 ° Ω		desc. node	2055 Sep 27 07:34	0° る 00'22	
evening set	2050 Jul 25 05:40	12° Ω 30′06			2055 Sep 27 06:03	0°ಕ	
	2050 Aug 05 14:34	15° Ω		evening set	2055 Dec 28 15:13	16° පි 50'45	
		_		max. Earth dist.	2056 Jan 08 19:45	19° ට 26'41	6.15974 AU
conjunction	2050 Aug 07 18:55	15° Ω 28'49					
minimum elong	2050 Aug 07 18:52	15° Ω 28'48	0°37'07	conjunction	2056 Jan 10 08:18	19°る47'59	
max. Earth dist.	2050 Aug 08 15:12	15° Ω 39'59	6.32958 AU	minimum elong	2056 Jan 10 08:17	19° る 47'58	0°10'01
morning rise	2050 Aug 21 06:11	18° Ω 26′24		behind sun begin	2056 Jan 10 01:47	19° る 44'12	
	2050 Oct 18 12:46	0° m)		behind sun end	2056 Jan 10 14:47	19° る 51'44	

morning rise	2056 Jan 23 01:36	22° る 45'40		retrograde	2061 Nov 24 22:06	8° Ω 58'40	
morning risc	2056 Feb 24 10:59	0°≈		opposition	2062 Jan 23 16:51	3° Ω 57'24	0°37'11
retrograde	2056 May 29 15:44	11° ≈ 49'21		min. Earth dist.	2062 Jan 22 21:11	4° Ω 03'59	4.28558 AU
opposition	2056 Jul 29 06:47	6° ≈ 54'00	-0°42'28		2062 Feb 26 23:35	30° ₹ 5	
min. Earth dist.	2056 Jul 30 01:24	6° ≈ 47'59	4.08938 AU	direct	2062 Mar 25 00:12	28°\$55'28	
direct	2056 Sep 27 09:48	1° ≈ 58'59			2062 Apr 20 08:57	$0^{\circ}\Omega$	
	2057 Jan 04 01:25	15° ≈			2062 Jul 20 12:46	15° Ω	
evening set	2057 Jan 30 13:43	21° ≈ 07'25		evening set	2062 Jul 29 21:03	17° Ω 01'19	
conjunction	2057 Feb 12 10:36	24° ≈ 11'55	-0°44'39	conjunction	2062 Aug 12 09:06	19° Ω 58'46	0°41'07
minimum elong	2057 Feb 12 10:34	24° ≈ 11'54	0°44'38	minimum elong	2062 Aug 12 09:04	19° Ω 58'45	0°41'07
max. Earth dist.	2057 Feb 11 22:06	24° ≈ 04'26	6.02881 AU	max. Earth dist.	2062 Aug 13 00:24	20° Ω 07'09	6.34957 AU
morning rise	2057 Feb 25 09:37	27° ≈ 17'43		morning rise	2062 Aug 25 19:22	22° Ω 55′03	
	2057 Mar 08 20:52	0° ∀			2062 Sep 28 16:17	0° т р	
retrograde	2057 Jul 06 05:36	17°) (25'41		retrograde	2062 Dec 25 18:29	10° m 13'09	
opposition	2057 Sep 04 11:29	12°) € 26'39		opposition	2063 Feb 23 20:35	5° Mp 15'35	1°17'23
min. Earth dist.	2057 Sep 04 07:32	12° H 27'57 7° H 32'59	3.98269 AU	min. Earth dist. direct	2063 Feb 23 19:24	5° Mp 15'58	4.40071 AU
direct evening set	2057 Nov 02 04:27 2058 Mar 07 13:51	27° ¥ 10′35		evening set	2063 Apr 26 11:21 2063 Aug 31 06:17	0° Mp 12'40 17° Mp 52'37	
evening set	2058 Mar 19 06:18	27 γ (1033		evening set	2003 Aug 31 00.17	17 110/3237	
				conjunction	2063 Sep 13 11:01	20° m 43'29	1°01'41
conjunction	2058 Mar 20 17:43	0° Y 21′27	-1°03'54	minimum elong	2063 Sep 13 11:00	20° m 43'29	1°01'40
minimum elong	2058 Mar 20 17:43	0° Υ 21'27	1°03'53	max. Earth dist.	2063 Sep 12 23:23	20° m 37'12	6.43630 AU
max. Earth dist.	2058 Mar 21 14:59	0° Υ 34'20	5.95615 AU	morning rise	2063 Sep 26 12:48	23° m 32'56	
morning rise	2058 Apr 03 00:26	3° Y 33'58			2063 Oct 27 15:33	0∘ ⊽	
retrograde	2058 Aug 13 12:05	24°Υ14'31	2.05260 ATT	retrograde	2064 Jan 24 19:38	10° £ 21'09	102450
min. Earth dist.	2058 Oct 11 07:11	19° Ƴ 19'40 19° Ƴ 11'45	3.95360 AU	opposition	2064 Mar 25 07:21	5° Ω 26'50 5° Ω 21'38	1°34'59 4.45484 AU
opposition direct	2058 Oct 12 06:38 2058 Dec 09 05:35	19 γ 11 43 14° γ 17'28	-1 3046	min. Earth dist. direct	2064 Mar 25 23:26 2064 May 26 18:28	ე° <u>ჲ</u> 2138	4.43464 AU
uncet	2059 Mar 27 23:46	0°8		evening set	2064 Sep 30 07:51	17° £ 53'59	
evening set	2059 Apr 13 23:20	3° 8 59'47		max. Earth dist.	2064 Oct 11 17:58	20° ≏ 22'06	6.45317 AU
conjunction	2059 Apr 27 11:17	7° 8 13'39		conjunction	2064 Oct 13 05:37	20° £ 41′26	1°05'02
minimum elong	2059 Apr 27 11:19	7° 8 13'41		minimum elong	2064 Oct 13 05:37	20° £ 41'27	1°05'03
max. Earth dist.	2059 Apr 29 11:01	7° 8 42'15 10° 8 28'57	5.97277 AU	morning rise	2064 Oct 26 00:43 2064 Nov 26 12:00	23° ≏ 27'39 0° ™	
morning rise	2059 May 11 02:10 2059 May 30 10:27	10 82 837		retrograde	2064 Nov 26 12.00 2065 Feb 23 06:14	10°MJ14'34	
	2059 Aug 27 19:03	0°II		opposition	2065 Apr 25 00:17	5°M22'14	1°27'17
retrograde	2059 Sep 19 13:33	0° П 50'47		min. Earth dist.	2065 Apr 26 07:24	5°ML12'18	4.43439 AU
rouogrado	2059 Oct 12 03:33	30°R8		direct	2065 Jun 26 19:30	0°M20'45	
min. Earth dist.	2059 Nov 16 16:13		4.01486 AU		2065 Oct 17 03:38	15° ™	
opposition	2059 Nov 18 03:01	25° 8 45'56	-1°09'13	evening set	2065 Oct 30 20:53	17°M57'35	
direct	2060 Jan 15 03:10	20° 8 49'11		max. Earth dist.	2065 Nov 10 13:10	20°M18'24	6.39626 AU
	2060 Apr 04 01:53	Π °0					
evening set	2060 May 20 10:18	10° Ⅱ 09′23		conjunction	2065 Nov 12 14:21	20°M45'31	0°50'50
	20/01 02 02 47	120Ж21112	0020110	minimum elong	2065 Nov 12 14:23	20°M45'32	0°50'49
conjunction minimum elong	2060 Jun 03 03:47 2060 Jun 03 03:49	13° Ⅲ 21'13 13° Ⅲ 21'14		morning rise	2065 Nov 25 05:46 2065 Dec 25 16:54	23° M .32'37 0° ∡ 7	
max. Earth dist.	2060 Jun 05 09:59		6.07254 AU	retrograde	2066 Mar 26 21:28	0 x ⁴ 10° x ⁴46'43	
morning rise	2060 Jun 16 22:58	16° Д 33'36	0.07254 AO	opposition	2066 May 26 20:10	5°×754'46	0°55'34
morning rise	2060 Aug 20 18:13	0.2 2		min. Earth dist.	2066 May 28 08:32	5° ∡ 143'11	4.34419 AU
retrograde	2060 Oct 23 09:32	5°956'15		direct	2066 Jul 28 04:47	0° ∡ 755'10	
opposition	2060 Dec 21 23:27	0°952'00	-0°17'14	evening set	2066 Nov 30 20:17	18° ₹ 55'44	
min. Earth dist.	2060 Dec 20 15:43	1° 5 02'48	4.14131 AU	max. Earth dist.	2066 Dec 11 11:39	21° ≮ ¹20′03	6.27963 AU
	2060 Dec 28 09:15	30°RⅡ					
direct	2061 Feb 18 23:14	25° Ⅱ 52'14		conjunction	2066 Dec 13 12:19	21° ∡ ⁴47'40	0°21'52
	2061 Apr 12 05:05	0		minimum elong	2066 Dec 13 12:20	21° х 47′40	0°21'52
asc. node	2061 Apr 22 04:56	1°533'12		morning rise	2066 Dec 26 03:20	24° ₹ 39'23	
evening set	2061 Jun 25 14:52	14° © 35'06			2067 Jan 19 09:28	0°る	
	20(1 1.1 00 00 27	1706 40122	0007120	retrograde	2067 Apr 29 16:00	12°る46'11	0005127
conjunction	2061 Jul 09 08:25	17°540'33	0°07'28	opposition	2067 Jun 29 12:23	7°る53'07	0°05'37
minimum elong	2061 Jul 09 08:24 2061 Jul 09 00:50	17° © 40'33 17° © 36'18	0°07'29	min. Earth dist.	2067 Jun 30 20:46	7°る42'45 3°る37'29	4.20771 AU
behind sun begin behind sun end	2061 Jul 09 00:50 2061 Jul 09 15:58	17°936'18 17°9344'47		desc. node direct	2067 Aug 08 17:36 2067 Aug 29 20:32	3°る3/29 2°る55'59	
max. Earth dist.	2061 Jul	17 944 47 18°904'32	6.21497 AU	evening set	2068 Jan 02 03:46	2 033 39 21° る 32'45	
morning rise	2061 Jul 23 01:22	20°545'28	5.21.57.110	max. Earth dist.	2068 Jan 13 09:22	24°る10'13	6.13492 AU
	2061 Sep 04 21:41	0°Ω		Durin dist.	_000 tan 15 07.22		J.13 172 110
	·r						

:	20(0 1 14 21.00	24° ට 31'11	0015107	habind and and	2072 I1 14 11.20	22° © 31'15	
conjunction	2068 Jan 14 21:09			behind sun end	2073 Jul 14 11:38		(227(2 AII
minimum elong	2068 Jan 14 21:09	24°₹31'11	0°15'07	max. Earth dist.	2073 Jul 15 20:47	22°5649'51	6.23763 AU
behind sun begin	2068 Jan 14 18:05	24° る 29'23		morning rise	2073 Jul 27 22:55	25° © 32'01	
behind sun end	2068 Jan 15 00:13	24° る 32'58			2073 Aug 17 10:19	0 \circ Ω	
morning rise	2068 Jan 27 15:20	27° る 30'16		retrograde	2073 Nov 29 07:53	13° Ω 35′27	
	2068 Feb 07 10:27	0° ≈		min. Earth dist.	2074 Jan 27 10:54	8° Ω 40'17	4.30652 AU
	2068 Apr 30 22:07	15° ≈		opposition	2074 Jan 28 03:54	8° Ω 34'36	0°43'59
retrograde	2068 Jun 03 17:40	16° ≈ 45'36		direct	2074 Mar 29 16:22	3° £ 32′23	
•	2068 Jul 07 17:10	15°R≈			2074 Jul 03 07:58	15° Ω	
opposition	2068 Aug 03 07:45	11° ≈ 49'47	-0°49'39	evening set	2074 Aug 03 12:25	21° Ω 33'01	
min. Earth dist.	2068 Aug 03 23:00	11° ≈ 44'49	4.06576 AU	evening sec	20711148 05 12:25	21 0000 01	
direct	2068 Oct 02 04:27	6°≈55'01	4.00370 AC	conjunction	2074 Aug 16 23:36	24° Ω 29'19	0°44'56
unect				3	•		
	2068 Dec 15 21:45	15° ≈		minimum elong	2074 Aug 16 23:34	24° Ω 29'18	0°44'56
evening set	2069 Feb 04 11:00	26° ≈ 10'44		max. Earth dist.	2074 Aug 17 12:05	24° Ω 36′08	6.36724 AU
				morning rise	2074 Aug 30 08:28	27° Ω 24'21	
conjunction	2069 Feb 17 08:57	29° ≈ 16'33	-0°48'30		2074 Sep 11 10:20	0° m)	
minimum elong	2069 Feb 17 08:54	29° ≈ 16′32	0°48'30	retrograde	2074 Dec 29 23:20	14° m 36'00	
max. Earth dist.	2069 Feb 17 02:12	29° ≈ 12'30	6.00866 AU	opposition	2075 Feb 28 03:11	9° m ,38′57	1°21'18
	2069 Feb 20 09:12	0°) €		min. Earth dist.	2075 Feb 28 04:12	9° m 38'37	4.41405 AU
morning rise	2069 Mar 02 08:53	2° ¥ 23'41		direct	2075 Apr 30 21:01	4° m/36'02	
retrograde	2069 Jul 11 16:19	22°) 41'01		evening set	2075 Sep 04 15:54	22° m 13'04	
opposition	2069 Sep 09 18:52	17°) 41'27	-1°29'40	evening sec	2070 Sep 0. 10.0.	22	
min. Earth dist.	2069 Sep 09 12:27		3.96830 AU	agniumation	2075 San 17 10:24	250 m 02!11	1°03'12
	1		3.90830 AU	conjunction	2075 Sep 17 19:24	25° m 03'11	
direct	2069 Nov 07 08:42	12°) 47′50		minimum elong	2075 Sep 17 19:23	25° m 03'10	1°03'12
	2070 Mar 02 08:59	0° Υ		max. Earth dist.	2075 Sep 17 02:25	24° m 54'00	6.44422 AU
evening set	2070 Mar 12 19:10	2° Y 29'33		morning rise	2075 Sep 30 20:16	27° m 51'55	
					2075 Oct 10 20:42	0∘ ಹ	
conjunction	2070 Mar 26 00:11	5° Ƴ 41'19	-1°04'38	retrograde	2076 Jan 29 01:37	14° ≏ 37'58	
minimum elong	2070 Mar 26 00:10	5° Ƴ 41'19	1°04'37	opposition	2076 Mar 29 13:21	9° ≏ 44'01	1°35'24
max. Earth dist.	2070 Mar 27 02:12	5° Ƴ 57'05	5.94881 AU	min. Earth dist.	2076 Mar 30 08:54	9° ₽ 37'43	4.45707 AU
morning rise	2070 Apr 08 08:17	8° Ƴ 54'46		direct	2076 May 31 03:14	4° ₽ 41'26	
retrograde	2070 Aug 18 20:34	29° Y 37'09		evening set	2076 Oct 04 14:06	22° ≙ 11'04	
min. Earth dist.	2070 Oct 16 11:14	24° Υ '43'03	3.95447 AU	max. Earth dist.	2076 Oct 15 21:28	24° ₽ 37'52	6.44945 AU
opposition	2070 Oct 10 11:14 2070 Oct 17 14:18	24° Y 33'54		max. Lartii dist.	2070 Oct 13 21.20	2 4 — 37 32	0.44743 AO
**		19° Υ 39'20	-1 33 01	agnismation	2076 Oct. 17, 11:15	249 0 59122	1904/02
direct	2070 Dec 14 10:40			conjunction	2076 Oct 17 11:15	24° £ 58'23	1°04'03
_	2071 Mar 09 02:50	0°8		minimum elong	2076 Oct 17 11:16	24° ≏ 58'24	1°04'03
evening set	2071 Apr 19 08:03	9° 8 20'38		morning rise	2076 Oct 30 05:34	27° ≏ 44'28	
					2076 Nov 09 18:46	0° M	
conjunction	2071 May 02 20:58	12° 8 34'34	-0°55'24	retrograde	2077 Feb 27 13:00	14° M ₊33'37	
minimum elong	2071 May 02 21:00	12° 8 34'35	0°55'23	opposition	2077 Apr 29 08:41	9° ጤ 41'26	1°24'12
max. Earth dist.	2071 May 04 22:53	13° 8 04'24	5.98149 AU	min. Earth dist.	2077 Apr 30 16:25	9° M ₊31'18	4.42508 AU
	2071 May 13 00:49	15° 8		direct	2077 Jul 01 02:15	4° M 40'10	
morning rise	2071 May 16 12:49	15° 8 49'50			2077 Sep 30 04:05	15° M ₊	
	2071 Jul 22 08:27	0°II		evening set	2077 Nov 04 03:39	22° M 19'42	
retrograde	2071 Sep 24 15:23	6° Ⅱ 05'06		max. Earth dist.	2077 Nov 14 18:52	24°M40'25	6.38204 AU
min. Earth dist.	2071 Nov 21 18:00		4.03002 AU	max. Earth dist.	20//1407 14 10.32	24 11040 23	0.30204710
					2077 N 16 20-42	250 M 00101	0047121
opposition	2071 Nov 23 05:15	1° I I00'00	-1 02 44	conjunction	2077 Nov 16 20:42	25°M08'01	0°47'31
	2071 Nov 30 14:28	30° ₹8		minimum elong	2077 Nov 16 20:43	25°M08'02	0°47'32
direct	2072 Jan 20 08:44	26° 8 02'43		morning rise	2077 Nov 29 11:52	27°M55'36	
	2072 Mar 10 11:52	\mathfrak{I} 00			2077 Dec 08 23:30	0° ∡ ¹	
evening set	2072 May 25 15:57	15° Ⅱ 17'39		retrograde	2078 Mar 31 12:35	15° ∡ 16′02	
				opposition	2078 May 31 10:15	10° ∡ ¹24'05	0°49'25
conjunction	2072 Jun 08 09:56	18° Ⅲ 28'44	-0°25'10	min. Earth dist.	2078 Jun 01 23:44	10° ∡ 12'09	4.32575 AU
minimum elong	2072 Juli 00 07.50						
max. Earth dist.	2072 Jun 08 09:57	18° Ⅱ 28'45	0°25'10	direct		5° ∡ ¹24'49	
	2072 Jun 08 09:57				2078 Aug 01 16:51		
morning rise	2072 Jun 08 09:57 2072 Jun 10 17:23	19° Ⅱ 00'53	0°25'10 6.09260 AU	evening set	2078 Aug 01 16:51 2078 Dec 05 06:44	23° ∡ ³30′29	6.25851 AU
morning rise	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01	19° Ⅱ 00'53 21° Ⅱ 40'09			2078 Aug 01 16:51		6.25851 AU
-	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33	19°∏00'53 21°∏40'09 0°€		evening set max. Earth dist.	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52	23° х ³30′29 25° х ³55′24	
retrograde	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34	19° II 00'53 21° II 40'09 0° 552'04	6.09260 AU	evening set max. Earth dist.	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48	23° ₹30'29 25° ₹55'24 26° ₹23'17	0°16'55
retrograde min. Earth dist.	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51	19° II 00'53 21° II 40'09 0° 55 10° 552'04 5° 558'33	6.09260 AU 4.16376 AU	evening set max. Earth dist. conjunction minimum elong	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49	23° 🖈 30'29 25° 🖈 55'24 26° 🖈 23'17 26° 🖈 23'18	
retrograde min. Earth dist. opposition	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41	19° II 00'53 21° II 40'09 0° 95 10° 9552'04 5° 958'33 5° 9548'06	6.09260 AU 4.16376 AU	evening set max. Earth dist.	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13	23° ₹30'29 25° ₹55'24 26° ₹23'17 26° ₹23'18 29° ₹16'01	0°16'55
retrograde min. Earth dist. opposition direct	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46	19°H00'53 21°H40'09 0°© 10°©52'04 5°©58'33 5°©48'06 0°©47'55	6.09260 AU 4.16376 AU	evening set max. Earth dist. conjunction minimum elong morning rise	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56	23° ₹30′29 25° ₹55′24 26° ₹23′17 26° ₹23′18 29° ₹16′01 0° ₹	0°16'55
retrograde min. Earth dist. opposition direct asc. node	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46 2073 Mar 01 06:58	19°H00'53 21°H40'09 0°\$ 10°\$52'04 5°\$58'33 5°\$48'06 0°\$47'55 0°\$50'47	6.09260 AU 4.16376 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06	23° ₹30′29 25° ₹55′24 26° ₹23′17 26° ₹23′18 29° ₹16′01 0° ₹ 17° ₹32′29	0°16'55
retrograde min. Earth dist. opposition direct	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46	19°H00'53 21°H40'09 0°© 10°©52'04 5°©58'33 5°©48'06 0°©47'55	6.09260 AU 4.16376 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde desc. node	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06 2079 Jun 18 04:17	23° ₹30′29 25° ₹55′24 26° ₹23′17 26° ₹23′18 29° ₹16′01 0° ₹	0°16'55
retrograde min. Earth dist. opposition direct asc. node	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46 2073 Mar 01 06:58 2073 Jun 30 13:47	19°H00'53 21°H40'09 0°\$ 10°\$52'04 5°\$58'33 5°\$48'06 0°\$47'55 0°\$50'47	6.09260 AU 4.16376 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06	23° ₹30′29 25° ₹55′24 26° ₹23′17 26° ₹23′18 29° ₹16′01 0° ₹ 17° ₹32′29	0°16′55 0°16′55
retrograde min. Earth dist. opposition direct asc. node	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46 2073 Mar 01 06:58	19°H00'53 21°H40'09 0°\$ 10°\$52'04 5°\$58'33 5°\$48'06 0°\$47'55 0°\$50'47	6.09260 AU 4.16376 AU -0°09'09	evening set max. Earth dist. conjunction minimum elong morning rise retrograde desc. node	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06 2079 Jun 18 04:17	23° ₹30'29 25° ₹55'24 26° ₹23'17 26° ₹23'18 29° ₹16'01 0° ₹ 17° ₹32'29 14° ₹40'12	0°16′55 0°16′55
retrograde min. Earth dist. opposition direct asc. node evening set	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46 2073 Mar 01 06:58 2073 Jun 30 13:47	19° H00'53 21° H40'09 0° 5 10° 552'04 5° 558'33 5° 548'06 0° 50'47 19° 524'15	6.09260 AU 4.16376 AU -0°09'09	evening set max. Earth dist. conjunction minimum elong morning rise retrograde desc. node opposition	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06 2079 Jun 18 04:17 2079 Jul 04 10:06	23° ₹30'29 25° ₹55'24 26° ₹23'17 26° ₹23'18 29° ₹16'01 0° ጜ 17° ₹32'29 14° ₹40'12 12° ₹39'07	0°16'55 0°16'55 -0°02'16
retrograde min. Earth dist. opposition direct asc. node evening set conjunction	2072 Jun 08 09:57 2072 Jun 10 17:23 2072 Jun 22 05:01 2072 Jul 30 03:33 2072 Oct 28 03:34 2072 Dec 25 10:51 2072 Dec 26 17:41 2073 Feb 23 21:46 2073 Jun 30 13:47 2073 Jul 14 06:35	19° H00'53 21° H40'09 0° 95 10° 9552'04 5° 9558'33 5° 9548'06 0° 950'47 19° 9524'15 22° 9528'26	6.09260 AU 4.16376 AU -0°09'09	evening set max. Earth dist. conjunction minimum elong morning rise retrograde desc. node opposition min. Earth dist.	2078 Aug 01 16:51 2078 Dec 05 06:44 2078 Dec 15 21:52 2078 Dec 17 22:48 2078 Dec 17 22:49 2078 Dec 30 14:13 2079 Jan 02 19:56 2079 May 04 14:06 2079 Jun 18 04:17 2079 Jul 04 10:06 2079 Jul 05 15:51	23° \$\frac{3}{3}0'29 25° \$\frac{3}{5}5'24 26° \$\frac{2}{2}3'17 26° \$\frac{2}{2}3'18 29° \$\frac{1}{6}'01 0° \$\frac{1}{6}'01 17° \$\frac{3}{2}'29 14° \$\frac{1}{6}'01 12° \$\frac{3}{3}9'07 12° \$\frac{2}{2}9'34	0°16'55 0°16'55 -0°02'16

max. Earth dist.	2080 Jan 18 07:28	29° පි 06'41	6.11366 AU		2085 Jul 31 23:22	$0^{\circ}\Omega$	
· · · · · · · · · · · · ·	2000 I 10 14-20	200=225102	0920122	morning rise	2085 Aug 01 16:14	0° Ω 09'20	
conjunction	2080 Jan 19 14:38 2080 Jan 19 14:37	29°る25'02 29°る25'01		ratra arada	2085 Oct 19 16:51	15° Ω 18° Ω 04'09	
minimum elong	2080 Jan 19 14.37 2080 Jan 22 02:00	29 3 23 01 0° ≈	0 20 21	retrograde	2085 Dec 03 15:24 2086 Jan 17 13:54	18 3 (04 09 15°RΩ	
morning rise	2080 Feb 01 09:21	0 ∞ 2°≈25'18		opposition	2086 Feb 01 11:41	13° Ω 03'53	0°50'17
morning rise	2080 Mar 31 11:23	15° ≈		min. Earth dist.	2086 Jan 31 21:31		4.32454 AU
retrograde	2080 Jun 09 01:23	21°≈50'58		direct	2086 Apr 03 04:30	8° Ω 01'32	
opposition	2080 Aug 08 12:58	16° ≈ 54'44	-0°56'45		2086 Jun 14 01:11	15° Ω	
min. Earth dist.	2080 Aug 09 01:57	16° ≈ 50′30	4.04758 AU	evening set	2086 Aug 08 00:37	25° Ω 58′08	
	2080 Aug 23 14:25	15° R ≈					
direct	2080 Oct 07 05:26	12° ≈ 00′20		conjunction	2086 Aug 21 10:43	28° Ω 53'28	0°48'23
	2080 Nov 19 18:36	15° ≈		minimum elong	2086 Aug 21 10:41	28° Ω 53′26	0°48'23
	2081 Feb 03 19:34	0° ∀		max. Earth dist.	2086 Aug 21 17:39	28° Ω 57'14	6.38081 AU
evening set	2081 Feb 09 11:39	1°) €21'05			2086 Aug 26 12:45	0° m)	
	2001 E 1 22 10 22	40)/07150	0050106	morning rise	2086 Sep 03 18:39	1° Mp 47'32	
conjunction	2081 Feb 22 10:23	4°) €27'53		retrograde	2087 Jan 03 03:33	18° Mp 54'31	1024142
minimum elong max. Earth dist.	2081 Feb 22 10:21 2081 Feb 22 07:55	4°) 27′52 4°) 26′24	0°52'06 5.99543 AU	opposition min. Earth dist.	2087 Mar 04 08:08 2087 Mar 04 12:14	13° Mp 57'56	1°24′43 4.42262 AU
morning rise	2081 Feb 22 07.33 2081 Mar 07 11:27	7° ¥ 36'06	3.99343 AU	direct	2087 May 05 04:54	8° Mp 54'58	4.42202 AU
retrograde	2081 Jul 17 01:35	27° ¥ 59'33		evening set	2087 Sep 08 23:32	26° Mp 30'39	
opposition	2081 Sep 15 03:14	22° H 59'28	-1°32'47	max. Earth dist.	2087 Sep 08 25:52 2087 Sep 21 06:58	=	6.44720 AU
min. Earth dist.	2081 Sep 14 16:25		3.96195 AU	max. Dartii dist.	2007 Sep 21 00.50	27 mg 07 32	0.11720710
direct	2081 Nov 12 12:39	18° ₩ 05'55		conjunction	2087 Sep 22 02:15	29° m 20'18	1°04'22
	2082 Feb 12 09:08	$0^{\circ}\mathbf{\Upsilon}$		minimum elong	2087 Sep 22 02:14	29° m 20'17	1°04'22
evening set	2082 Mar 18 01:10	7° Y 48'46		-	2087 Sep 25 03:40	0∘ ⊽	
				morning rise	2087 Oct 05 01:57	2° ഫ 08'30	
conjunction	2082 Mar 31 07:13	11° Y 00'59		retrograde	2088 Feb 02 05:42	18° ≏ 54'05	
minimum elong	2082 Mar 31 07:13	11° Y 00'59	1°04'53	opposition	2088 Apr 02 18:45	14° ≙ 00'30	1°35'20
max. Earth dist.	2082 Apr 01 13:32	11° Υ 19'21	5.94982 AU	min. Earth dist.	2088 Apr 03 15:52	13° ≏ 53'42	4.45458 AU
morning rise	2082 Apr 13 16:27	14° Y 14'53		direct	2088 Jun 04 09:07	8° ≏ 58'05	
	2082 Jun 27 18:49	0°8		evening set	2088 Oct 08 20:21	26° Ω 28'57	
retrograde	2082 Aug 24 02:28	4° 8 55'35		max. Earth dist.	2088 Oct 19 23:31	28° ≏ 53'53	6.44164 AU
	2082 Oct 21 20:09	30° ₹ Υ 29° Υ 51'53	1922/20	:	2000 0-4 21 16-41	200 0 17110	1°02'44
opposition	2082 Oct 22 20:05			conjunction	2088 Oct 21 16:41	29° Ω 16'18	
	2082 Oct 21 15:12	0°×01'/1	3 06274 ATT	minimum along	2088 Oct 21 16:42	20°Ω16'18	1902/43
min. Earth dist.	2082 Oct 21 15:12 2082 Dec 19 16:52	0° 8 01'41	3.96274 AU	minimum elong	2088 Oct 21 16:42	29° ≏ 16'18 0° m .	1°02'43
direct	2082 Dec 19 16:52	24° Y 57'02	3.96274 AU	_	2088 Oct 25 00:57	0°M	1°02'43
direct	2082 Dec 19 16:52 2083 Feb 14 07:51	24° Y 57′02 0° 8	3.96274 AU	minimum elong morning rise	2088 Oct 25 00:57 2088 Nov 03 10:33	0°ጤ 2°ጤ02'30	1°02'43
	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08	24° Y 57'02 0° 8 14° 8 34'45	3.96274 AU	morning rise	2088 Oct 25 00:57	0°M 2°M02'30 15°M	1°02'43
direct	2082 Dec 19 16:52 2083 Feb 14 07:51	24° Y 57′02 0° 8	3.96274 AU	_	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33	0°ጤ 2°ጤ02'30	1°02'43
direct	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08	24° Y 57'02 0° 8 14° 8 34'45		morning rise	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19	0°M 2°M02'30 15°M 18°M55'10	1°02'43 1°20'38
direct evening set	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46	24°Y57'02 0°8 14°834'45 15°8	-0°52'09	morning rise	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22	0°M 2°M02'30 15°M 18°M55'10 15°RM	
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evening set conjunction minimum elong max. Earth dist. morning rise	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22	24°Y57'02 0°8 14°8'34'45 15°8 17°8'48'27 17°8'48'28 18°8'20'16 21°8'03'18 0°II	-0°52'09 0°52'09	morning rise retrograde opposition min. Earth dist. direct evening set	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58	0°M 2°M02'30 15°M 18°M55'10 15°RM 14°M03'06 13°M52'20 9°M02'03 15°M 26°M45'02	1°20'38 4.41251 AU
evening set conjunction minimum elong max. Earth dist. morning rise retrograde	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0°Ⅲ 11°Ⅲ09'59	-0°52'09 0°52'09 5.99616 AU	morning rise retrograde opposition min. Earth dist. direct	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28	0°M 2°M02'30 15°M 18°M55'10 15°RM 14°M03'06 13°M52'20 9°M02'03 15°M 26°M45'02	1°20'38
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conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0° II 11° II 09'59 6° II 16'54 6° II 04'55 1° II 07'15 20° II 15'58 23° II 26'05 23° II 26'06 23° II 36'32 26° II 36'29 0° ©	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15	0°M. 2°M.02'30 15°M. 18°M.55'10 15°RM. 14°M.03'06 13°M.52'20 9°M.02'03 15°M. 26°M.45'02 29°M.06'05 29°M.33'55 29°M.33'56 0°\$\vec{x}\$ 2°\$\vec{x}\$22'07 19°\$\vec{x}\$49'33 14°\$\vec{x}\$57'26 14°\$\vec{x}\$46'01 9°\$\vec{x}\$58'32 28°\$\vec{x}\$09'05	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0°II 11°II09'59 6°II16'54 6°I04'55 1°I07'15 20°II5'58 23°I26'06 23°I56'32 26°I36'29 0°9 15°937'46	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51	0°M. 2°M.02'30 15°M. 18°M.55'10 15°RM. 14°M.03'06 13°M.52'20 9°M.02'03 15°M. 26°M.45'02 29°M.06'05 29°M.33'55 29°M.33'56 0° 2° ₹22'07 19° ₹49'33 14° ₹57'26 14° ₹46'01 9° ₹58'32 28° ₹09'05 0° 5	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0°II 11°II09'59 6°II16'54 6°I04'55 1°I07'15 20°II5'58 23°I26'06 23°I56'32 26°I36'29 0°9 15°937'46 10°944'06	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51	0°M. 2°M02'30 15°M. 18°M55'10 15°RM. 14°M03'06 13°M52'20 9°M02'03 15°M. 26°M45'02 29°M06'05 29°M33'55 29°M33'55 29°M33'56 0°ズ 2°ズ22'07 19°ズ49'33 14°ズ57'26 14°ズ46'01 9°ズ58'32 28°ズ09'05 0°♂ 0°♂36'14	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13 2084 Dec 31 07:37	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0°II 11°II09'59 6°II16'54 6°II04'55 1°II07'15 20°II15'58 23°II26'05 23°II26'06 23°II36'32 26°II36'29 0°9 15°937'46 10°934'07	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min Earth dist.	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Poc 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 20 12:07 2090 Dec 22 10:23 2090 Dec 22 10:23	0°M. 2°M02'30 15°M. 18°M55'10 15°RM. 14°M03'06 13°M52'20 9°M02'03 15°M. 26°M45'02 29°M33'55 29°M33'55 29°M33'56 0° 2° ₹22'07 19° ₹49'33 14° ₹57'26 14° ₹46'01 9° ₹58'32 28° ₹09'05 0° ₹36'14 1° ₹02'44 1° ₹02'44	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. morning rise	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13 2084 Dec 31 07:37 2085 Jan 09 18:29	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0°II 11°II 09'59 6°II 16'54 6°II 04'55 1°II 07'15 20°II 15'58 23°II 26'05 23°II 26'06 23°II 56'32 26°II 36'29 0°9 15°937'46 10°934'07 9°918'12	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 04:45	0°M. 2°M02'30 15°M. 18°M55'10 15°RM. 14°M03'06 13°M52'20 9°M02'03 15°M. 26°M45'02 29°M33'55 29°M33'55 29°M33'56 0° 2° ₹22'07 19° ₹49'33 14° ₹57'26 14° ₹46'01 9° ₹58'32 28° ₹09'05 0° ₹36'14 1° ₹02'44 1° ₹02'44 0° ₹59'31	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. morning rise retrograde min. Earth dist. opposition asc. node direct evening set	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13 2084 Dec 31 07:37 2085 Jan 09 18:29 2085 Feb 28 15:47 2085 Jul 05 08:33	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0° II 11° II 09'59 6° II 16'54 6° II 07'15 20° II 15'58 23° II 26'05 23° II 26'06 23° II 56'32 26° II 36'29 0°9 15°937'46 10°934'07 9°918'12 5°933'34 24°904'00	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU -0°01'20	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong behind sun begin behind sun end	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 16:02	0°M. 2°M02'30 15°M. 18°M.55'10 15°RM. 14°M03'06 13°M.52'20 9°M02'03 15°M. 26°M.45'02 29°M.06'05 29°M.33'55 29°M.33'56 0° 🗷 2° 🗷 22'07 19° 🗷 49'33 14° 🗷 57'26 14° 🗷 46'01 9° 🗷 58'32 28° 🗷 09'05 0° 🛪 36'14 1° 🛪 02'44 1° 🛪 02'44 1° 🛪 02'44 1° 🛪 05'57	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. morning rise retrograde min. Earth dist. opposition asc. node direct evening set conjunction	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 Jan 25 10:03 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13 2084 Dec 31 07:37 2085 Jan 09 18:29 2085 Feb 28 15:47 2085 Jul 05 08:33	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0° II 11° II 09'59 6° II 16'54 6° II 04'55 1° II 07'15 20° II 15'58 23° II 26'06 23° II 26'06 23° II 36'29 0°9 15° 937'46 10° 934'07 9° 918'12 5° 933'34 24° 904'00 27° 907'03	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU -0°01'20	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51 2090 Dec 20 12:07 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 16:02 2091 Jan 04 02:03	0°M. 2°M02'30 15°M. 18°M.55'10 15°RM. 14°M.03'06 13°M.52'20 9°M.02'03 15°M. 26°M.45'02 29°M.06'05 29°M.33'55 29°M.33'56 0° 🗷 2° 🗷 22'07 19° 🗷 49'33 14° 🗷 57'26 14° 🗷 46'01 9° 🗷 58'32 28° 🗷 09'05 0° 536'14 1°502'44 1°502'44 1°502'44 0°559'31 1°505'57 3°556'23	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51
conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. morning rise retrograde min. Earth dist. opposition asc. node direct evening set	2082 Dec 19 16:52 2083 Feb 14 07:51 2083 Apr 24 14:08 2083 Apr 26 08:46 2083 May 08 04:06 2083 May 08 04:09 2083 May 10 09:34 2083 May 21 20:33 2083 Jun 30 15:22 2083 Sep 29 14:38 2083 Nov 26 16:32 2083 Nov 28 03:43 2084 Jan 25 10:03 2084 May 30 17:43 2084 Jun 13 11:40 2084 Jun 13 11:41 2084 Jun 15 16:27 2084 Jun 15 16:27 2084 Jun 27 06:49 2084 Jul 12 07:28 2084 Nov 01 16:04 2084 Dec 30 02:13 2084 Dec 31 07:37 2085 Jan 09 18:29 2085 Feb 28 15:47 2085 Jul 05 08:33	24°Y57'02 0°8 14°834'45 15°8 17°848'27 17°848'28 18°820'16 21°803'18 0° II 11° II 09'59 6° II 16'54 6° II 04'55 1° II 07'15 20° II 15'58 23° II 26'05 23° II 26'06 23° II 56'32 26° II 36'29 0°9 15° 937'46 10° 934'07 9° 918'12 5° 933'34 24° 904'00 27° 907'03 27° 907'03	-0°52'09 0°52'09 5.99616 AU 4.04928 AU -0°55'59 -0°20'01 0°20'00 6.11448 AU 4.18603 AU -0°01'20	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong behind sun begin behind sun end	2088 Oct 25 00:57 2088 Nov 03 10:33 2089 Jan 11 00:33 2089 Mar 03 23:19 2089 Apr 26 06:22 2089 May 03 18:05 2089 May 05 03:50 2089 Jul 05 11:27 2089 Sep 10 03:28 2089 Nov 08 10:58 2089 Nov 19 01:46 2089 Nov 21 03:53 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 21 03:55 2089 Nov 23 02:48 2089 Dec 03 18:54 2090 Apr 05 03:24 2090 Jun 05 01:52 2090 Jun 06 13:42 2090 Aug 06 03:59 2090 Dec 09 18:15 2090 Dec 17 20:51 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 10:23 2090 Dec 22 16:02	0°M. 2°M02'30 15°M. 18°M.55'10 15°RM. 14°M03'06 13°M.52'20 9°M02'03 15°M. 26°M.45'02 29°M.06'05 29°M.33'55 29°M.33'56 0° 🗷 2° 🗷 22'07 19° 🗷 49'33 14° 🗷 57'26 14° 🗷 46'01 9° 🗷 58'32 28° 🗷 09'05 0° 🛪 36'14 1° 🛪 02'44 1° 🛪 02'44 1° 🛪 02'44 1° 🛪 05'57	1°20'38 4.41251 AU 6.36571 AU 0°43'56 0°43'56 0°42'54 4.30679 AU 6.23852 AU 0°11'51

opposition	2091 Jul 09 09:04	17° ට 28'15	-0°10'14		2097 Jul 15 23:44	$0^{\circ}\Omega$	
min. Earth dist.	2091 Jul 10 13:32	17° る 19'06	4.16576 AU				
direct	2091 Sep 08 08:02	12° る 31'52		conjunction	2097 Jul 23 18:36	1° Ω 43'57	0°22'39
direct	-			,			
	2092 Jan 05 21:14	0° ≈		minimum elong	2097 Jul 23 18:35	1° Ω 43'56	0°22'39
evening set	2092 Jan 11 14:17	1° ≈ 19'58		max. Earth dist.	2097 Jul 25 01:58	2° Ω 01′24	6.27587 AU
max. Earth dist.	2092 Jan 23 04:40	4° ≈ 03'54	6.09602 AU	morning rise	2097 Aug 06 09:11	4° Ω 45'10	
					2097 Sep 25 08:10	15° Ω	
conjunction	2092 Jan 24 08:42	4°≈20'28	-0°25'29	retrograde	2097 Dec 07 21:48	22° Ω 32'48	
minimum elong	2092 Jan 24 08:40	4°≈20'27		opposition	2098 Feb 05 19:51	17°Ω33'02	0°56'19
_			0 23 29				
morning rise	2092 Feb 06 04:10	7° ≈ 21'47		min. Earth dist.	2098 Feb 05 07:42	17° Ω 37'04	4.33902 AU
	2092 Mar 10 22:55	15° ≈			2098 Feb 25 23:54	15°R Ω	
retrograde	2092 Jun 14 05:46	26° ≈ 55'55		direct	2098 Apr 07 15:46	12° Ω 30′32	
opposition	2092 Aug 13 17:27	21°≈59'09	-1°03'25		2098 May 18 20:09	15° Ω	
min. Earth dist.	2092 Aug 14 02:17	21°≈56'16	4.03373 AU		2098 Aug 10 16:36	0° m p	
direct	2092 Oct 12 04:36	17°≈04'57	4.03373710	arramina aat	-	0°Mp24'14	
direct				evening set	2098 Aug 12 13:30	0 11/2414	
	2093 Jan 17 14:38	0° ∀					
evening set	2093 Feb 14 11:33	6° ∺ 29'05		conjunction	2098 Aug 25 22:40	3° Mp 18'44	0°51'36
				minimum elong	2098 Aug 25 22:38	3° mp 18'43	0°51'35
conjunction	2093 Feb 27 11:05	9° ¥ 36'39	-0°55'17	max. Earth dist.	2098 Aug 26 02:12	3° m/20'40	6.39152 AU
minimum elong	2093 Feb 27 11:03	9° ₩ 36'38		morning rise	2098 Sep 08 05:23	6° mp 11'55	0.57102110
				•	•		
max. Earth dist.	2093 Feb 27 13:16	9° ∺ 37'58	5.98639 AU	retrograde	2099 Jan 07 09:22	23° Mp 15'07	
morning rise	2093 Mar 12 13:08	12°) (45′42		opposition	2099 Mar 08 14:17	18° m y 19'05	1°27'42
	2093 Jun 06 10:42	0° Y		min. Earth dist.	2099 Mar 08 21:05	18° Mp 16'52	4.42906 AU
retrograde	2093 Jul 22 08:59	3° Y 13′30		direct	2099 May 09 14:23	13° Mp 16'14	
1011081440	2093 Sep 06 16:50	30° R ₩			2099 Sep 09 09:05	0∘ ⊽	
.,.			1025107		•		
opposition	2093 Sep 20 09:38	28° 升 12'46		evening set	2099 Sep 13 08:35	0° £ 51'05	
min. Earth dist.	2093 Sep 19 20:16	28° ∺ 17'14	3.95873 AU	max. Earth dist.	2099 Sep 25 10:39	3° £ 27'31	6.44883 AU
direct	2093 Nov 17 17:08	23° ₩ 19'07					
	2094 Jan 22 16:49	$0^{\circ}\Upsilon$		conjunction	2099 Sep 26 10:15	3° ₽ 40'17	1°05'12
evening set	2094 Mar 23 05:04	13° Y ′02'04		minimum elong	2099 Sep 26 10:14	3° ≙ 40'17	1°05'12
evening set	2074 Mai 25 05.04	13 02 04		- C	-		1 03 12
				morning rise	2099 Oct 09 09:10	6° Ω 28'07	
conjunction	2094 Apr 05 12:20	16° Ƴ 14'40		retrograde	2100 Feb 06 12:46	23° ≏ 13'41	
minimum elong	2094 Apr 05 12:21	16° Ƴ 14'40	1°04'37				
max. Earth dist.	2094 Apr 06 23:41	16° Ƴ 36′01	5.95266 AU				
morning rise	2094 Apr 18 22:34	19° Ƴ 28'52					
morning rise	2094 Jun 04 13:21	0°8					
. 1							
retrograde	2094 Aug 29 06:55	10° 8 07'01					
opposition	2094 Oct 27 23:04	5° 8 03'00	-1°29'17				
min. Earth dist.	2094 Oct 26 16:58	5° 8 13'13	3.97152 AU				
direct	2094 Dec 24 20:03	0° 8 07'50					
	2095 Apr 09 11:55	15° 8					
. ,	-						
evening set	2095 Apr 29 18:25	19° 8 42'14					
conjunction	2095 May 13 09:02	22° 8 55'38	-0°48'34				
minimum elong	2095 May 13 09:05	22° 8 55'39	0°48'35				
max. Earth dist.	2095 May 15 14:18	23° 8 27'12	6.00978 AU				
morning rise	2095 May 27 02:20	26° 8 10'11					
morning 1150	•						
	2095 Jun 12 15:12	0°II					
retrograde	2095 Oct 04 09:44	16° Ⅱ 08'49					
opposition	2095 Dec 02 23:44	11° Ⅱ 03'48	-0°48'59				
min. Earth dist.	2095 Dec 01 12:24	11° Ⅱ 15'51	4.06622 AU				
direct	2096 Jan 30 08:35	6° Ⅱ 05'40					
evening set	2096 Jun 04 17:58	25° Ⅱ 09'27					
evening set	2090 Juli 04 17.36	23 110927					

conjunction	2096 Jun 18 12:09	28° Ⅱ 18'48	-0°14'48				
minimum elong	2096 Jun 18 12:10	28° Ⅱ 18'48	0°14'48				
behind sun begin	2096 Jun 18 09:12	28° Ⅱ 17'06					
behind sun end	2096 Jun 18 15:08	28° Ⅲ 20'30					
			6 12220 ATT				
max. Earth dist.	2096 Jun 20 15:23	28° Ⅱ 48'14	6.13338 AU				
	2096 Jun 25 20:30	0ංම					
morning rise	2096 Jul 02 07:02	1° 5 28'13					
retrograde	2096 Nov 06 05:57	20°520'15					
asc. node	2096 Nov 20 06:10	20°900'32					
opposition	2097 Jan 04 20:53	15°917'01	0°06'24				
* *							
min. Earth dist.	2097 Jan 03 18:04	15° © 26'06	4.20489 AU				
direct	2097 Mar 05 09:48	10°916'10					
arranina aat	2007 Jul 10 02:55	20000/11/55					

28°**©**41'55

2097 Jul 10 02:55

evening set