

Attention, astronomical year style is used: The year -12400 in astronomical counting style is the year 12401 BCE in historical counting style.

evening set	-12400 Mar 18 j 12:42	12° $\text{Z}$ 55'49		retrograde	-12395 Sep 24 j 04:12	20° $\text{K}$ 11'12	
				asc. node	-12395 Oct 26 j 10:27	19° $\text{K}$ 22'09	
conjunction	-12400 Apr 05 j 03:05	15° $\text{Z}$ 02'05	-2°08'01	opposition	-12395 Dec 02 j 20:11	16° $\text{K}$ 57'15	0°03'23
minimum elong	-12400 Apr 05 j 03:08	15° $\text{Z}$ 02'06	2°08'45	min. Earth dist.	-12395 Dec 03 j 11:29	16° $\text{K}$ 54'27	9.32467 AU
max. Earth dist.	-12400 Apr 05 j 19:27	15° $\text{Z}$ 07'01	10.71749 AU	direct	-12394 Feb 13 j 01:24	13° $\text{K}$ 37'24	
morning rise	-12400 Apr 22 j 12:27	17° $\text{Z}$ 06'51		evening set	-12394 May 26 j 20:41	20° $\text{K}$ 29'53	
retrograde	-12400 Jul 30 j 23:28	24° $\text{Z}$ 17'01					
opposition	-12400 Oct 06 j 14:50	20° $\text{Z}$ 57'14	-2°27'31	conjunction	-12394 Jun 12 j 15:38	22° $\text{K}$ 23'48	0°16'52
min. Earth dist.	-12400 Oct 06 j 04:45	20° $\text{Z}$ 59'12	8.80114 AU	minimum elong	-12394 Jun 12 j 15:38	22° $\text{K}$ 23'47	0°16'45
direct	-12400 Dec 15 j 21:17	17° $\text{Z}$ 31'53		max. Earth dist.	-12394 Jun 11 j 19:14	22° $\text{K}$ 17'59	11.33602 AU
evening set	-12399 Mar 31 j 06:02	24° $\text{Z}$ 58'09		morning rise	-12394 Jun 29 j 06:49	24° $\text{K}$ 16'41	
					-12394 Sep 02 j 06:04	0° $\text{Y}$	
conjunction	-12399 Apr 17 j 17:00	27° $\text{Z}$ 01'22	-1°50'35	retrograde	-12394 Oct 05 j 03:34	0° $\text{Y}$ 52'35	
minimum elong	-12399 Apr 17 j 17:03	27° $\text{Z}$ 01'23	1°51'16		-12394 Nov 07 j 19:18	30° $\text{R}$ $\text{K}$	
max. Earth dist.	-12399 Apr 18 j 02:41	27° $\text{Z}$ 04'14	10.88077 AU	opposition	-12394 Dec 14 j 04:33	27° $\text{K}$ 38'37	0°36'38
morning rise	-12399 May 04 j 22:45	29° $\text{Z}$ 03'01		min. Earth dist.	-12394 Dec 14 j 23:28	27° $\text{K}$ 35'11	9.33966 AU
	-12399 May 13 j 06:09	0° $\approx$		direct	-12393 Feb 24 j 11:07	24° $\text{K}$ 19'21	
retrograde	-12399 Aug 11 j 14:36	6° $\approx$ 01'52			-12393 May 27 j 01:29	0° $\text{Y}$	
opposition	-12399 Oct 18 j 16:18	2° $\approx$ 43'57	-2°03'06	evening set	-12393 Jun 06 j 17:50	1° $\text{Y}$ 10'09	
min. Earth dist.	-12399 Oct 18 j 11:34	2° $\approx$ 44'51	8.95621 AU	max. Earth dist.	-12393 Jun 22 j 10:29	2° $\text{Y}$ 56'44	11.33454 AU
	-12399 Nov 29 j 12:01	30° $\text{R}$ $\text{Z}$					
direct	-12399 Dec 28 j 13:08	29° $\text{Z}$ 19'54		conjunction	-12393 Jun 23 j 10:02	3° $\text{Y}$ 03'27	0°43'44
	-12398 Jan 26 j 13:43	0° $\approx$		minimum elong	-12393 Jun 23 j 10:00	3° $\text{Y}$ 03'26	0°43'45
evening set	-12398 Apr 12 j 11:07	6° $\approx$ 36'21		morning rise	-12393 Jul 09 j 22:55	4° $\text{Y}$ 55'56	
				retrograde	-12393 Oct 16 j 07:55	11° $\text{Y}$ 34'01	
conjunction	-12398 Apr 29 j 18:43	8° $\approx$ 36'51	-1°29'03	opposition	-12393 Dec 25 j 14:18	8° $\text{Y}$ 19'40	1°08'37
minimum elong	-12398 Apr 29 j 18:47	8° $\approx$ 36'52	1°29'39	min. Earth dist.	-12393 Dec 26 j 11:48	8° $\text{Y}$ 15'46	9.32216 AU
max. Earth dist.	-12398 Apr 29 j 21:09	8° $\approx$ 37'33	11.02638 AU	direct	-12392 Mar 06 j 19:08	5° $\text{Y}$ 00'46	
morning rise	-12398 May 16 j 21:13	10° $\approx$ 35'51		evening set	-12392 Jun 16 j 14:10	11° $\text{Y}$ 51'32	
	-12398 Jun 29 j 05:46	15° $\approx$		max. Earth dist.	-12392 Jul 02 j 01:29	13° $\text{Y}$ 37'10	11.30075 AU
retrograde	-12398 Aug 22 j 22:48	17° $\approx$ 25'31					
	-12398 Oct 19 j 01:31	15° $\text{R}$ $\approx$		conjunction	-12392 Jul 03 j 03:46	13° $\text{Y}$ 44'42	1°09'09
opposition	-12398 Oct 30 j 11:07	14° $\approx$ 09'08	-1°34'33	minimum elong	-12392 Jul 03 j 03:43	13° $\text{Y}$ 44'41	1°09'19
min. Earth dist.	-12398 Oct 30 j 11:11	14° $\approx$ 09'07	9.09058 AU	morning rise	-12392 Jul 19 j 14:41	15° $\text{Y}$ 37'16	
direct	-12397 Jan 09 j 22:10	10° $\approx$ 46'19		retrograde	-12392 Oct 26 j 14:05	22° $\text{Y}$ 19'40	
	-12397 Mar 28 j 00:12	15° $\approx$		opposition	-12391 Jan 05 j 02:58	19° $\text{Y}$ 04'34	1°38'27
evening set	-12397 Apr 24 j 05:59	17° $\approx$ 54'17		min. Earth dist.	-12391 Jan 06 j 03:15	19° $\text{Y}$ 00'09	9.27289 AU
				direct	-12391 Mar 18 j 00:38	15° $\text{Y}$ 45'48	
conjunction	-12397 May 11 j 10:26	19° $\approx$ 52'30	-1°04'34	evening set	-12391 Jun 27 j 11:37	22° $\text{Y}$ 38'16	
minimum elong	-12397 May 11 j 10:29	19° $\approx$ 52'30	1°05'04				
max. Earth dist.	-12397 May 11 j 06:42	19° $\approx$ 51'25	11.14839 AU	conjunction	-12391 Jul 13 j 22:52	24° $\text{Y}$ 31'44	1°32'20
morning rise	-12397 May 28 j 09:47	21° $\approx$ 49'15		minimum elong	-12391 Jul 13 j 22:49	24° $\text{Y}$ 31'43	1°32'38
retrograde	-12397 Sep 03 j 03:24	28° $\approx$ 32'00		max. Earth dist.	-12391 Jul 12 j 17:38	24° $\text{Y}$ 23'17	11.23591 AU
opposition	-12397 Nov 11 j 00:45	25° $\approx$ 16'47	-1°03'13	morning rise	-12391 Jul 30 j 08:33	26° $\text{Y}$ 24'52	
min. Earth dist.	-12397 Nov 11 j 05:34	25° $\approx$ 15'53	9.19886 AU		-12391 Sep 02 j 18:47	0° $\text{Z}$	
direct	-12396 Jan 21 j 20:44	21° $\approx$ 55'07		retrograde	-12391 Nov 07 j 02:34	3° $\text{Z}$ 13'43	
evening set	-12396 May 04 j 16:35	28° $\approx$ 56'13		opposition	-12390 Jan 16 j 19:52	29° $\text{Y}$ 57'30	2°05'13
	-12396 May 14 j 02:07	0° $\text{K}$			-12390 Jan 16 j 06:11	30° $\text{R}$ $\text{Y}$	
conjunction	-12396 May 21 j 17:56	0° $\text{K}$ 52'35	-0°38'08	min. Earth dist.	-12390 Jan 17 j 22:23	29° $\text{Y}$ 52'40	9.19348 AU
minimum elong	-12396 May 21 j 17:57	0° $\text{K}$ 52'35	0°38'31	direct	-12390 Mar 29 j 09:58	26° $\text{Y}$ 38'38	
max. Earth dist.	-12396 May 21 j 08:50	0° $\text{K}$ 49'58	11.24214 AU		-12390 Jun 04 j 11:30	0° $\text{Z}$	
morning rise	-12396 Jun 07 j 14:11	2° $\text{K}$ 47'35		evening set	-12390 Jul 08 j 11:41	3° $\text{Z}$ 34'30	
retrograde	-12396 Sep 13 j 04:28	9° $\text{K}$ 25'45					
opposition	-12396 Nov 21 j 11:19	6° $\text{K}$ 11'22	-0°30'13	conjunction	-12390 Jul 24 j 21:18	5° $\text{Z}$ 28'46	1°52'29
min. Earth dist.	-12396 Nov 21 j 21:36	6° $\text{K}$ 09'28	9.27746 AU	minimum elong	-12390 Jul 24 j 21:14	5° $\text{Z}$ 28'45	1°52'56
direct	-12395 Feb 01 j 13:23	2° $\text{K}$ 50'43		max. Earth dist.	-12390 Jul 23 j 14:52	5° $\text{Z}$ 19'52	11.14204 AU
evening set	-12395 May 15 j 20:49	9° $\text{K}$ 46'39		morning rise	-12390 Aug 10 j 06:20	7° $\text{Z}$ 23'00	
				retrograde	-12390 Nov 18 j 21:58	14° $\text{Z}$ 20'19	
conjunction	-12395 Jun 01 j 18:55	11° $\text{K}$ 41'34	-0°10'45	opposition	-12389 Jan 28 j 18:18	11° $\text{Z}$ 02'43	2°27'56
minimum elong	-12395 Jun 01 j 18:56	11° $\text{K}$ 41'34	0°11'00	min. Earth dist.	-12389 Jan 29 j 21:07	10° $\text{Z}$ 57'48	9.08624 AU
behind sun begin	-12395 Jun 01 j 13:38	11° $\text{K}$ 40'04		direct	-12389 Apr 09 j 21:41	7° $\text{Z}$ 43'34	
behind sun end	-12395 Jun 02 j 00:14	11° $\text{K}$ 43'03		evening set	-12389 Jul 19 j 16:19	14° $\text{Z}$ 44'28	
max. Earth dist.	-12395 Jun 01 j 03:49	11° $\text{K}$ 37'16	11.30504 AU		-12389 Jul 21 j 21:46	15° $\text{Z}$	
morning rise	-12395 Jun 18 j 12:28	13° $\text{K}$ 35'17		max. Earth dist.	-12389 Aug 03 j 19:23	16° $\text{Z}$ 31'15	11.02189 AU

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -12389 in astronomical counting style is the year 12390 BCE in historical counting style.

conjunction	-12389 Aug 05 j 01:08	16° <b>8</b> 40'05	2°08'48	morning rise	-12383 Nov 04 j 11:03	4° <b>Ω</b> 30'14	
minimum elong	-12389 Aug 05 j 01:05	16° <b>8</b> 40'04	2°09'20	retrograde	-12382 Feb 20 j 16:41	13° <b>Ω</b> 00'30	
morning rise	-12389 Aug 21 j 10:08	18° <b>8</b> 35'55		opposition	-12382 Apr 30 j 14:02	9° <b>Ω</b> 30'05	1°48'33
retrograde	-12389 Dec 01 j 04:25	25° <b>8</b> 43'41		min. Earth dist.	-12382 Apr 30 j 14:31	9° <b>Ω</b> 29'59	7.98649 AU
opposition	-12388 Feb 09 j 23:46	22° <b>8</b> 24'26	2°45'35	direct	-12382 Jul 05 j 21:57	6° <b>Ω</b> 05'14	
min. Earth dist.	-12388 Feb 11 j 01:30	22° <b>8</b> 19'40	8.95449 AU	evening set	-12382 Oct 15 j 07:34	14° <b>Ω</b> 11'52	
direct	-12388 Apr 20 j 14:38	19° <b>8</b> 04'51			-12382 Oct 21 j 09:52	15° <b>Ω</b>	
evening set	-12388 Jul 30 j 03:24	26° <b>8</b> 12'20					
max. Earth dist.	-12388 Aug 14 j 07:31	28° <b>8</b> 01'11	10.87952 AU	conjunction	-12382 Nov 01 j 18:03	16° <b>Ω</b> 30'36	1°11'40
				minimum elong	-12382 Nov 01 j 18:07	16° <b>Ω</b> 30'37	1°12'13
conjunction	-12388 Aug 15 j 12:18	28° <b>8</b> 09'52	2°20'23	max. Earth dist.	-12382 Nov 01 j 20:38	16° <b>Ω</b> 31'27	9.92585 AU
minimum elong	-12388 Aug 15 j 12:16	28° <b>8</b> 09'51	2°21'01	morning rise	-12382 Nov 19 j 10:25	18° <b>Ω</b> 51'15	
	-12388 Aug 30 j 19:38	0° <b>Π</b>		retrograde	-12381 Mar 08 j 03:44	27° <b>Ω</b> 31'42	
morning rise	-12388 Aug 31 j 22:21	0° <b>Π</b> 07'54		opposition	-12381 May 15 j 11:55	24° <b>Ω</b> 00'01	1°08'28
retrograde	-12388 Dec 12 j 20:43	7° <b>Π</b> 27'49		min. Earth dist.	-12381 May 15 j 06:07	24° <b>Ω</b> 01'13	7.87351 AU
opposition	-12387 Feb 21 j 13:43	4° <b>Π</b> 06'45	2°57'04	direct	-12381 Jul 20 j 06:59	20° <b>Ω</b> 34'05	
min. Earth dist.	-12387 Feb 22 j 13:48	4° <b>Π</b> 02'14	8.80283 AU	evening set	-12381 Oct 30 j 06:46	28° <b>Ω</b> 49'37	
direct	-12387 May 02 j 11:33	0° <b>Π</b> 46'35			-12381 Nov 08 j 02:19	0° <b>Π</b>	
evening set	-12387 Aug 10 j 22:36	8° <b>Π</b> 02'04		conjunction	-12381 Nov 16 j 23:39	1° <b>Π</b> 11'44	0°37'08
max. Earth dist.	-12387 Aug 26 j 05:10	9° <b>Π</b> 53'39	10.72009 AU	minimum elong	-12381 Nov 16 j 23:41	1° <b>Π</b> 11'44	0°37'31
conjunction	-12387 Aug 27 j 08:39	10° <b>Π</b> 02'05	2°26'24	max. Earth dist.	-12381 Nov 17 j 10:16	1° <b>Π</b> 15'18	9.83084 AU
minimum elong	-12387 Aug 27 j 08:39	10° <b>Π</b> 02'04	2°27'05	morning rise	-12381 Dec 04 j 22:20	3° <b>Π</b> 35'42	
morning rise	-12387 Sep 12 j 21:07	12° <b>Π</b> 02'56		retrograde	-12380 Mar 22 j 19:08	12° <b>Π</b> 22'40	
retrograde	-12387 Dec 25 j 23:36	19° <b>Π</b> 36'26		opposition	-12380 May 29 j 14:30	8° <b>Π</b> 50'08	0°22'50
opposition	-12386 Mar 06 j 13:00	16° <b>Π</b> 13'27	3°01'14	min. Earth dist.	-12380 May 29 j 02:50	8° <b>Π</b> 52'33	7.79822 AU
min. Earth dist.	-12386 Mar 07 j 11:05	16° <b>Π</b> 09'15	8.63691 AU	direct	-12380 Aug 03 j 01:24	5° <b>Π</b> 23'08	
direct	-12386 May 14 j 17:28	12° <b>Π</b> 52'31		evening set	-12380 Nov 13 j 17:40	13° <b>Π</b> 45'36	
evening set	-12386 Aug 23 j 03:48	20° <b>Π</b> 17'17		desc. node	-12380 Nov 27 j 02:23	15° <b>Π</b> 33'03	
conjunction	-12386 Sep 08 j 16:23	22° <b>Π</b> 20'21	2°25'59	conjunction	-12380 Dec 01 j 16:05	16° <b>Π</b> 10'08	-0°00'28
minimum elong	-12386 Sep 08 j 16:24	22° <b>Π</b> 20'22	2°26'43	minimum elong	-12380 Dec 01 j 16:05	16° <b>Π</b> 10'08	0°00'15
max. Earth dist.	-12386 Sep 07 j 16:20	22° <b>Π</b> 12'50	10.54979 AU	behind sun begin	-12380 Dec 01 j 08:47	16° <b>Π</b> 07'41	
morning rise	-12386 Sep 25 j 08:25	24° <b>Π</b> 24'35		behind sun end	-12380 Dec 01 j 23:23	16° <b>Π</b> 12'34	
	-12386 Nov 17 j 07:36	0° <b>Φ</b>		max. Earth dist.	-12380 Dec 02 j 10:20	16° <b>Π</b> 16'17	9.77653 AU
retrograde	-12385 Jan 08 j 15:30	2° <b>Φ</b> 12'40		morning rise	-12380 Dec 19 j 19:43	18° <b>Π</b> 36'17	
	-12385 Mar 03 j 22:11	30° <b>κ</b> <b>Π</b>		retrograde	-12379 Apr 07 j 10:35	27° <b>Π</b> 25'15	
opposition	-12385 Mar 19 j 22:10	28° <b>Π</b> 47'41	2°57'03	opposition	-12379 Jun 13 j 18:32	23° <b>Π</b> 52'23	-0°24'58
min. Earth dist.	-12385 Mar 20 j 16:41	28° <b>Π</b> 44'07	8.46365 AU	min. Earth dist.	-12379 Jun 13 j 01:53	23° <b>Π</b> 55'52	7.76619 AU
direct	-12385 May 27 j 09:35	25° <b>Π</b> 25'53		direct	-12379 Aug 18 j 03:07	20° <b>Π</b> 24'25	
	-12385 Aug 10 j 07:57	0° <b>Φ</b>		evening set	-12379 Nov 29 j 12:51	28° <b>Π</b> 51'12	
evening set	-12385 Sep 04 j 20:26	3° <b>Φ</b> 00'51			-12379 Dec 08 j 03:12	0° <b>Ω</b>	
conjunction	-12385 Sep 21 j 13:00	5° <b>Φ</b> 07'30	2°18'28	conjunction	-12379 Dec 17 j 15:18	1° <b>Ω</b> 16'53	-0°38'17
minimum elong	-12385 Sep 21 j 13:03	5° <b>Φ</b> 07'31	2°19'13	minimum elong	-12379 Dec 17 j 15:15	1° <b>Ω</b> 16'52	0°38'16
max. Earth dist.	-12385 Sep 20 j 18:23	5° <b>Φ</b> 01'34	10.37614 AU	max. Earth dist.	-12379 Dec 18 j 16:01	1° <b>Ω</b> 25'14	9.76675 AU
morning rise	-12385 Oct 08 j 09:49	7° <b>Φ</b> 15'36		morning rise	-12378 Jan 04 j 21:51	3° <b>Ω</b> 43'48	
retrograde	-12384 Jan 22 j 20:34	15° <b>Φ</b> 18'37		retrograde	-12378 Apr 22 j 21:54	12° <b>Ω</b> 30'05	
opposition	-12384 Apr 01 j 17:50	11° <b>Φ</b> 51'40	2°43'41	opposition	-12378 Jun 28 j 21:01	8° <b>Ω</b> 57'23	-1°11'10
min. Earth dist.	-12384 Apr 02 j 07:06	11° <b>Φ</b> 49'04	8.29125 AU	min. Earth dist.	-12378 Jun 28 j 00:26	9° <b>Ω</b> 01'43	7.77925 AU
direct	-12384 Jun 08 j 10:39	8° <b>Φ</b> 28'55		direct	-12378 Sep 02 j 08:41	5° <b>Ω</b> 28'38	
evening set	-12384 Sep 17 j 01:57	16° <b>Φ</b> 14'35		evening set	-12378 Dec 15 j 11:41	13° <b>Ω</b> 56'40	
conjunction	-12384 Oct 03 j 23:47	18° <b>Φ</b> 25'13	2°03'26	conjunction	-12377 Jan 02 j 16:18	16° <b>Ω</b> 22'07	-1°13'23
minimum elong	-12384 Oct 03 j 23:51	18° <b>Φ</b> 25'14	2°04'10	minimum elong	-12377 Jan 02 j 16:14	16° <b>Ω</b> 22'06	1°13'34
max. Earth dist.	-12384 Oct 03 j 11:48	18° <b>Φ</b> 21'20	10.20788 AU	max. Earth dist.	-12377 Jan 03 j 21:46	16° <b>Ω</b> 32'00	9.80132 AU
morning rise	-12384 Oct 21 j 02:30	20° <b>Φ</b> 37'32		morning rise	-12377 Jan 20 j 23:35	18° <b>Ω</b> 48'20	
retrograde	-12383 Feb 05 j 13:27	28° <b>Φ</b> 54'59		retrograde	-12377 May 08 j 01:44	27° <b>Ω</b> 27'38	
opposition	-12383 Apr 15 j 23:31	25° <b>Φ</b> 26'11	2°20'44	opposition	-12377 Jul 13 j 18:48	23° <b>Ω</b> 55'39	-1°52'03
min. Earth dist.	-12383 Apr 16 j 06:28	25° <b>Φ</b> 24'48	8.12893 AU	min. Earth dist.	-12377 Jul 12 j 19:31	24° <b>Ω</b> 00'33	7.83506 AU
direct	-12383 Jun 21 j 22:56	22° <b>Φ</b> 02'24		direct	-12377 Sep 17 j 14:33	20° <b>Ω</b> 26'23	
evening set	-12383 Sep 30 j 21:40	29° <b>Φ</b> 58'50		evening set	-12377 Dec 31 j 09:44	28° <b>Ω</b> 52'38	
	-12383 Oct 01 j 01:17	0° <b>Ω</b>			-12376 Jan 08 j 23:22	0° <b>Π</b>	
conjunction	-12383 Oct 18 j 01:36	2° <b>Ω</b> 13'36	1°40'56	conjunction	-12376 Jan 18 j 14:45	1° <b>Π</b> 16'39	-1°43'11
minimum elong	-12383 Oct 18 j 01:41	2° <b>Ω</b> 13'37	1°41'36	minimum elong	-12376 Jan 18 j 14:40	1° <b>Π</b> 16'37	1°43'33
max. Earth dist.	-12383 Oct 17 j 20:36	2° <b>Ω</b> 11'57	10.05453 AU	max. Earth dist.	-12376 Jan 19 j 22:43	1° <b>Π</b> 27'15	9.87639 AU

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

Attention, astronomical year style is used: The year -12376 in astronomical counting style is the year 12377 BCE in historical counting style.

morning rise	-12376 Feb 05 j 20:47	3° $\mathbb{M}$ 40'53	retrograde	-12370 Aug 06 j 18:43	1° $\approx$ 00'02
retrograde	-12376 May 21 j 19:42	12° $\mathbb{M}$ 09'43		-12370 Sep 10 j 07:34	30° $\mathbb{R}$ 3
min. Earth dist.	-12376 Jul 26 j 09:03	8° $\mathbb{M}$ 44'06 7.92864 AU	opposition	-12370 Oct 13 j 15:52	27° $\mathbb{Z}$ 40'47 -2°15'01
opposition	-12376 Jul 27 j 09:29	8° $\mathbb{M}$ 38'59 -2°24'44	min. Earth dist.	-12370 Oct 13 j 08:35	27° $\mathbb{Z}$ 42'11 8.86626 AU
direct	-12376 Oct 01 j 17:09	5° $\mathbb{M}$ 09'30	direct	-12370 Dec 23 j 07:24	24° $\mathbb{Z}$ 15'35
evening set	-12375 Jan 15 j 02:28	13° $\mathbb{M}$ 31'06		-12369 Mar 23 j 23:26	0° $\approx$
	-12375 Jan 26 j 13:06	15° $\mathbb{M}$	evening set	-12369 Apr 07 j 09:37	1° $\approx$ 37'16
conjunction	-12375 Feb 02 j 06:19	15° $\mathbb{M}$ 52'41 -2°05'46	conjunction	-12369 Apr 24 j 19:06	3° $\approx$ 39'15 -1°39'24
minimum elong	-12375 Feb 02 j 06:15	15° $\mathbb{M}$ 52'40 2°06'17	minimum elong	-12369 Apr 24 j 19:09	3° $\approx$ 39'16 1°40'02
max. Earth dist.	-12375 Feb 03 j 14:47	16° $\mathbb{M}$ 03'19 9.98654 AU	max. Earth dist.	-12369 Apr 25 j 00:52	3° $\approx$ 40'57 10.93941 AU
morning rise	-12375 Feb 20 j 09:34	18° $\mathbb{M}$ 13'59	morning rise	-12369 May 11 j 23:11	5° $\approx$ 39'41
retrograde	-12375 Jun 05 j 02:12	26° $\mathbb{M}$ 29'43	retrograde	-12369 Aug 18 j 07:31	12° $\approx$ 34'10
opposition	-12375 Aug 10 j 15:31	23° $\mathbb{M}$ 00'38 -2°47'20	opposition	-12369 Oct 25 j 14:02	9° $\approx$ 16'31 -1°48'08
min. Earth dist.	-12375 Aug 09 j 15:21	23° $\mathbb{M}$ 05'39 8.05405 AU	min. Earth dist.	-12369 Oct 25 j 12:03	9° $\approx$ 16'53 9.00772 AU
direct	-12375 Oct 16 j 13:39	19° $\mathbb{M}$ 31'16	direct	-12368 Jan 04 j 18:58	5° $\approx$ 52'30
evening set	-12374 Jan 30 j 09:37	27° $\mathbb{M}$ 45'31	evening set	-12368 Apr 18 j 09:35	13° $\approx$ 05'05
	-12374 Feb 16 j 22:45	0° $\mathbb{Z}$		-12368 May 04 j 23:55	15° $\approx$
conjunction	-12374 Feb 17 j 11:08	0° $\mathbb{Z}$ 03'59 -2°20'03	conjunction	-12368 May 05 j 15:44	15° $\approx$ 04'36 -1°16'05
minimum elong	-12374 Feb 17 j 11:05	0° $\mathbb{Z}$ 03'58 2°20'41	minimum elong	-12368 May 05 j 15:47	15° $\approx$ 04'37 1°16'37
max. Earth dist.	-12374 Feb 18 j 18:18	0° $\mathbb{Z}$ 14'00 10.12511 AU	max. Earth dist.	-12368 May 05 j 15:08	15° $\approx$ 04'25 11.07066 AU
morning rise	-12374 Mar 07 j 10:38	2° $\mathbb{Z}$ 21'43	morning rise	-12368 May 22 j 16:33	17° $\approx$ 02'36
retrograde	-12374 Jun 18 j 20:56	10° $\mathbb{Z}$ 22'42	retrograde	-12368 Aug 28 j 13:23	23° $\approx$ 49'03
opposition	-12374 Aug 24 j 11:40	6° $\mathbb{Z}$ 55'32 -2°59'12	opposition	-12368 Nov 05 j 06:29	20° $\approx$ 32'44 -1°17'51
min. Earth dist.	-12374 Aug 23 j 13:24	7° $\mathbb{Z}$ 00'06 8.20369 AU	min. Earth dist.	-12368 Nov 05 j 09:52	20° $\approx$ 32'06 9.12743 AU
direct	-12374 Oct 31 j 02:52	3° $\mathbb{Z}$ 26'33	direct	-12367 Jan 15 j 21:20	17° $\approx$ 09'53
evening set	-12373 Feb 14 j 04:20	11° $\mathbb{Z}$ 31'24	evening set	-12367 Apr 30 j 00:16	24° $\approx$ 14'49
conjunction	-12373 Mar 04 j 02:52	13° $\mathbb{Z}$ 46'23 -2°25'50	conjunction	-12367 May 17 j 03:04	26° $\approx$ 12'14 -0°50'22
minimum elong	-12373 Mar 04 j 02:51	13° $\mathbb{Z}$ 46'23 2°26'33	minimum elong	-12367 May 17 j 03:06	26° $\approx$ 12'15 0°50'48
max. Earth dist.	-12373 Mar 05 j 06:43	13° $\mathbb{Z}$ 55'11 10.28373 AU	max. Earth dist.	-12367 May 16 j 19:57	26° $\approx$ 10'12 11.17799 AU
morning rise	-12373 Mar 21 j 22:17	16° $\mathbb{Z}$ 00'19	morning rise	-12367 Jun 03 j 00:57	28° $\approx$ 08'16
retrograde	-12373 Jul 02 j 01:58	23° $\mathbb{Z}$ 45'55		-12367 Jun 20 j 02:49	0° $\mathbb{H}$
opposition	-12373 Sep 06 j 21:18	20° $\mathbb{Z}$ 20'49 -3°00'41	retrograde	-12367 Sep 08 j 14:53	4° $\mathbb{H}$ 49'01
min. Earth dist.	-12373 Sep 06 j 02:23	20° $\mathbb{Z}$ 24'39 8.36870 AU	opposition	-12367 Nov 16 j 18:46	1° $\mathbb{H}$ 33'40 -0°45'23
direct	-12373 Nov 14 j 07:19	16° $\mathbb{Z}$ 52'30	min. Earth dist.	-12367 Nov 17 j 02:25	1° $\mathbb{H}$ 32'14 9.22150 AU
evening set	-12372 Feb 28 j 08:54	24° $\mathbb{Z}$ 46'40		-12367 Dec 08 j 16:59	30° $\mathbb{R}$ $\approx$
conjunction	-12372 Mar 17 j 04:09	26° $\mathbb{Z}$ 58'05 -2°23'38	direct	-12366 Jan 27 j 19:01	28° $\approx$ 11'55
minimum elong	-12372 Mar 17 j 04:10	26° $\mathbb{Z}$ 58'05 2°24'23	evening set	-12366 Mar 17 j 18:31	0° $\mathbb{H}$
max. Earth dist.	-12372 Mar 18 j 02:39	27° $\mathbb{Z}$ 05'03 10.45313 AU		-12366 May 11 j 07:21	5° $\mathbb{H}$ 10'46
morning rise	-12372 Apr 03 j 19:31	29° $\mathbb{Z}$ 08'14	conjunction	-12366 May 28 j 07:02	7° $\mathbb{H}$ 06'31 -0°23'15
	-12372 Apr 11 j 00:19	0° $\mathbb{Z}$	minimum elong	-12366 May 28 j 07:03	7° $\mathbb{H}$ 06'31 0°23'33
retrograde	-12372 Jul 13 j 17:17	6° $\mathbb{Z}$ 38'51	max. Earth dist.	-12366 May 27 j 19:04	7° $\mathbb{H}$ 03'06 11.25803 AU
opposition	-12372 Sep 18 j 20:45	3° $\mathbb{Z}$ 15'50 -2°52'50	morning rise	-12366 Jun 14 j 02:04	9° $\mathbb{H}$ 01'00
min. Earth dist.	-12372 Sep 18 j 05:31	3° $\mathbb{Z}$ 18'52 8.53974 AU	retrograde	-12366 Sep 19 j 16:36	15° $\mathbb{H}$ 38'19
	-12372 Nov 12 j 01:48	30° $\mathbb{R}$ $\mathbb{Z}$	opposition	-12366 Nov 28 j 04:21	12° $\mathbb{H}$ 23'37 -0°11'52
direct	-12372 Nov 27 j 02:35	29° $\mathbb{Z}$ 48'24	min. Earth dist.	-12366 Nov 28 j 15:43	12° $\mathbb{H}$ 21'32 9.28695 AU
	-12372 Dec 12 j 03:11	0° $\mathbb{Z}$	direct	-12365 Feb 08 j 09:44	9° $\mathbb{H}$ 02'55
evening set	-12371 Mar 12 j 22:52	7° $\mathbb{Z}$ 31'23	asc. node	-12365 Apr 08 j 14:01	11° $\mathbb{H}$ 37'02
conjunction	-12371 Mar 30 j 14:45	9° $\mathbb{Z}$ 39'21 -2°14'22	evening set	-12365 May 22 j 09:11	15° $\mathbb{H}$ 57'21
minimum elong	-12371 Mar 30 j 14:47	9° $\mathbb{Z}$ 39'22 2°15'07	conjunction	-12365 Jun 08 j 05:51	17° $\mathbb{H}$ 51'51 0°04'29
max. Earth dist.	-12371 Mar 31 j 07:21	9° $\mathbb{Z}$ 44'24 10.62416 AU	minimum elong	-12365 Jun 08 j 05:50	17° $\mathbb{H}$ 51'51 0°04'18
morning rise	-12371 Apr 17 j 02:10	11° $\mathbb{Z}$ 45'54	behind sun begin	-12365 Jun 07 j 22:58	17° $\mathbb{H}$ 49'55
retrograde	-12371 Jul 25 j 22:38	19° $\mathbb{Z}$ 02'43	behind sun end	-12365 Jun 08 j 12:42	17° $\mathbb{H}$ 53'47
opposition	-12371 Oct 01 j 10:35	15° $\mathbb{Z}$ 41'40 -2°37'05	max. Earth dist.	-12365 Jun 07 j 13:52	17° $\mathbb{H}$ 47'18 11.30825 AU
min. Earth dist.	-12371 Sep 30 j 23:07	15° $\mathbb{Z}$ 43'55 8.70811 AU	morning rise	-12365 Jun 24 j 22:05	19° $\mathbb{H}$ 45'14
direct	-12371 Dec 10 j 10:19	12° $\mathbb{Z}$ 15'19	retrograde	-12365 Sep 30 j 16:20	26° $\mathbb{H}$ 21'20
evening set	-12370 Mar 25 j 22:42	19° $\mathbb{Z}$ 47'16	opposition	-12365 Dec 09 j 12:52	23° $\mathbb{H}$ 07'00 0°21'43
conjunction	-12370 Apr 12 j 11:21	21° $\mathbb{Z}$ 52'05 -1°59'13	min. Earth dist.	-12365 Dec 10 j 04:31	23° $\mathbb{H}$ 04'09 9.32185 AU
minimum elong	-12370 Apr 12 j 11:24	21° $\mathbb{Z}$ 52'06 1°59'56	direct	-12364 Feb 19 j 18:51	19° $\mathbb{H}$ 47'08
max. Earth dist.	-12370 Apr 12 j 22:22	21° $\mathbb{Z}$ 55'23 10.78863 AU	evening set	-12364 Jun 01 j 07:40	26° $\mathbb{H}$ 38'57
morning rise	-12370 Apr 29 j 18:59	23° $\mathbb{Z}$ 55'22	max. Earth dist.	-12364 Jun 17 j 04:35	28° $\mathbb{H}$ 26'44 11.32726 AU
	-12370 Jul 03 j 17:57	0° $\approx$	conjunction	-12364 Jun 18 j 01:12	28° $\mathbb{H}$ 32'36 0°31'45

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4

Attention, astronomical year style is used: The year -12364 in astronomical counting style is the year 12365 BCE in historical counting style.

minimum elong	-12364 Jun 18 j 01:10	28° $\text{X}$ 32'36	0°31'42	conjunction	-12358 Aug 22 j 11:09	4° $\text{II}$ 57'14	2°24'24
	-12364 Jun 30 j 20:45	0° $\text{Y}$		minimum elong	-12358 Aug 22 j 11:08	4° $\text{II}$ 57'14	2°25'04
morning rise	-12364 Jul 04 j 15:05	0° $\text{Y}$ 25'20		morning rise	-12358 Sep 07 j 22:14	6° $\text{II}$ 56'30	
retrograde	-12364 Oct 10 j 18:05	7° $\text{Y}$ 02'29		retrograde	-12358 Dec 20 j 10:59	14° $\text{II}$ 22'54	
opposition	-12364 Dec 19 j 22:13	3° $\text{Y}$ 48'09	0°54'26	opposition	-12357 Mar 01 j 02:43	11° $\text{II}$ 01'25	3°00'11
min. Earth dist.	-12364 Dec 20 j 17:57	3° $\text{Y}$ 44'34	9.32527 AU	min. Earth dist.	-12357 Mar 02 j 01:42	10° $\text{II}$ 57'06	8.73522 AU
direct	-12363 Mar 02 j 03:05	0° $\text{Y}$ 28'57		direct	-12357 May 09 j 16:16	7° $\text{II}$ 41'28	
evening set	-12363 Jun 12 j 04:21	7° $\text{Y}$ 19'51		evening set	-12357 Aug 18 j 01:53	15° $\text{II}$ 01'08	
conjunction	-12363 Jun 28 j 19:00	9° $\text{Y}$ 13'05	0°57'57	conjunction	-12357 Sep 03 j 13:08	17° $\text{II}$ 02'30	2°26'57
minimum elong	-12363 Jun 28 j 18:58	9° $\text{Y}$ 13'04	0°58'03	minimum elong	-12357 Sep 03 j 13:08	17° $\text{II}$ 02'30	2°27'40
max. Earth dist.	-12363 Jun 27 j 18:34	9° $\text{Y}$ 06'05	11.31455 AU	max. Earth dist.	-12357 Sep 02 j 12:01	16° $\text{II}$ 54'43	10.64934 AU
morning rise	-12363 Jul 15 j 06:56	11° $\text{Y}$ 05'38		morning rise	-12357 Sep 20 j 03:04	19° $\text{II}$ 04'51	
retrograde	-12363 Oct 21 j 21:59	17° $\text{Y}$ 46'02		retrograde	-12356 Jan 02 j 21:59	26° $\text{II}$ 45'23	
opposition	-12363 Dec 31 j 09:33	14° $\text{Y}$ 31'18	1°25'24	opposition	-12356 Mar 13 j 06:59	23° $\text{II}$ 21'53	2°59'52
min. Earth dist.	-12362 Jan 01 j 07:41	14° $\text{Y}$ 27'17	9.29700 AU	min. Earth dist.	-12356 Mar 14 j 02:49	23° $\text{II}$ 18'06	8.56335 AU
direct	-12362 Mar 13 j 10:05	11° $\text{Y}$ 12'34		direct	-12356 May 21 j 02:42	20° $\text{II}$ 01'04	
evening set	-12362 Jun 23 j 01:15	18° $\text{Y}$ 04'16		evening set	-12356 Aug 29 j 12:49	27° $\text{II}$ 30'28	
max. Earth dist.	-12362 Jul 08 j 11:21	19° $\text{Y}$ 50'00	11.27032 AU	max. Earth dist.	-12356 Sep 14 j 05:14	29° $\text{II}$ 28'15	10.47429 AU
conjunction	-12362 Jul 09 j 13:33	19° $\text{Y}$ 57'33	1°22'16	conjunction	-12356 Sep 15 j 03:15	29° $\text{II}$ 35'12	2°22'43
minimum elong	-12362 Jul 09 j 13:30	19° $\text{Y}$ 57'32	1°22'31	minimum elong	-12356 Sep 15 j 03:17	29° $\text{II}$ 35'12	2°23'28
morning rise	-12362 Jul 25 j 23:46	21° $\text{Y}$ 50'22			-12356 Sep 18 j 09:56	0° $\text{S}$	
retrograde	-12362 Nov 02 j 09:50	28° $\text{Y}$ 36'07		morning rise	-12356 Oct 01 j 21:33	1° $\text{S}$ 41'14	
opposition	-12361 Jan 12 j 00:13	25° $\text{Y}$ 20'40	1°53'40	retrograde	-12355 Jan 15 j 21:14	9° $\text{S}$ 36'35	
min. Earth dist.	-12361 Jan 12 j 23:49	25° $\text{Y}$ 16'23	9.23764 AU	opposition	-12355 Mar 26 j 21:31	6° $\text{S}$ 11'01	2°50'45
direct	-12361 Mar 24 j 19:00	22° $\text{Y}$ 02'10		min. Earth dist.	-12355 Mar 27 j 13:35	6° $\text{S}$ 07'54	8.38677 AU
evening set	-12361 Jul 04 j 00:10	28° $\text{Y}$ 56'20		direct	-12355 Jun 02 j 21:40	2° $\text{S}$ 49'08	
	-12361 Jul 13 j 05:51	0° $\text{S}$		evening set	-12355 Sep 11 j 11:58	10° $\text{S}$ 29'05	
max. Earth dist.	-12361 Jul 19 j 06:52	0° $\text{S}$ 42'06	11.19570 AU	conjunction	-12355 Sep 28 j 07:00	12° $\text{S}$ 37'38	2°11'07
conjunction	-12361 Jul 20 j 10:32	0° $\text{S}$ 50'09	1°43'54	minimum elong	-12355 Sep 28 j 07:03	12° $\text{S}$ 37'39	2°11'52
minimum elong	-12361 Jul 20 j 10:29	0° $\text{S}$ 50'08	1°44'17	max. Earth dist.	-12355 Sep 27 j 13:46	12° $\text{S}$ 32'05	10.29923 AU
morning rise	-12361 Aug 05 j 19:35	2° $\text{S}$ 43'45		morning rise	-12355 Oct 15 j 06:54	14° $\text{S}$ 47'47	
retrograde	-12361 Nov 14 j 02:14	9° $\text{S}$ 36'52		retrograde	-12354 Jan 30 j 07:00	22° $\text{S}$ 57'52	
opposition	-12360 Jan 23 j 20:09	6° $\text{S}$ 20'21	2°18'18	opposition	-12354 Apr 09 j 22:14	19° $\text{S}$ 30'15	2°32'13
min. Earth dist.	-12360 Jan 24 j 21:07	6° $\text{S}$ 15'48	9.14881 AU	min. Earth dist.	-12354 Apr 10 j 09:34	19° $\text{S}$ 28'00	8.21489 AU
direct	-12360 Apr 04 j 03:28	3° $\text{S}$ 01'52		direct	-12354 Jun 16 j 05:32	16° $\text{S}$ 07'10	
evening set	-12360 Jul 14 j 02:43	10° $\text{S}$ 00'08		evening set	-12354 Sep 25 j 00:33	23° $\text{S}$ 57'58	
max. Earth dist.	-12360 Jul 29 j 06:16	11° $\text{S}$ 46'18	11.09289 AU	conjunction	-12354 Oct 12 j 01:21	26° $\text{S}$ 10'37	1°52'02
conjunction	-12360 Jul 30 j 11:39	11° $\text{S}$ 54'57	2°02'02	minimum elong	-12354 Oct 12 j 01:25	26° $\text{S}$ 10'39	1°52'43
minimum elong	-12360 Jul 30 j 11:36	11° $\text{S}$ 54'56	2°02'31	max. Earth dist.	-12354 Oct 11 j 14:55	26° $\text{S}$ 07'13	10.13375 AU
morning rise	-12360 Aug 15 j 20:28	13° $\text{S}$ 49'53		morning rise	-12354 Oct 29 j 07:39	28° $\text{S}$ 25'05	
	-12360 Aug 26 j 03:46	15° $\text{S}$			-12354 Nov 10 j 22:05	0° $\text{S}$	
retrograde	-12360 Nov 25 j 03:00	20° $\text{S}$ 52'21		retrograde	-12353 Feb 14 j 04:02	6° $\text{S}$ 48'55	
opposition	-12359 Feb 03 j 22:32	17° $\text{S}$ 34'27	2°38'19	opposition	-12353 Apr 24 j 08:20	3° $\text{S}$ 19'21	2°04'15
min. Earth dist.	-12359 Feb 05 j 00:25	17° $\text{S}$ 29'41	9.03311 AU	min. Earth dist.	-12353 Apr 24 j 13:49	3° $\text{S}$ 18'15	8.05770 AU
	-12359 Mar 16 j 01:03	15° $\text{S}$			-12353 Jun 20 j 14:38	30° $\text{R}$ $\text{S}$	
direct	-12359 Apr 15 j 17:55	14° $\text{S}$ 15'41		direct	-12353 Jun 30 j 00:14	29° $\text{S}$ 55'00	
	-12359 May 15 j 20:41	15° $\text{S}$			-12353 Jul 09 j 07:44	0° $\text{S}$	
evening set	-12359 Jul 25 j 10:44	21° $\text{S}$ 19'36		evening set	-12353 Oct 09 j 03:08	7° $\text{S}$ 56'23	
conjunction	-12359 Aug 10 j 19:15	23° $\text{S}$ 16'01	2°15'49	conjunction	-12353 Oct 26 j 10:31	10° $\text{S}$ 13'10	1°25'48
minimum elong	-12359 Aug 10 j 19:12	23° $\text{S}$ 16'00	2°16'24	minimum elong	-12353 Oct 26 j 10:35	10° $\text{S}$ 13'12	1°26'23
max. Earth dist.	-12359 Aug 09 j 13:59	23° $\text{S}$ 07'16	10.96490 AU	max. Earth dist.	-12353 Oct 26 j 08:17	10° $\text{S}$ 12'26	9.98789 AU
morning rise	-12359 Aug 27 j 04:44	25° $\text{S}$ 12'49		morning rise	-12353 Nov 12 j 23:38	12° $\text{S}$ 31'52	
	-12359 Oct 12 j 15:21	0° $\text{II}$			-12353 Dec 02 j 15:35	15° $\text{S}$	
retrograde	-12359 Dec 07 j 13:18	2° $\text{II}$ 26'26		retrograde	-12352 Feb 29 j 10:38	21° $\text{S}$ 07'23	
	-12358 Feb 04 j 06:16	30° $\text{R}$ $\text{S}$		opposition	-12352 May 08 j 02:30	17° $\text{S}$ 36'08	1°27'40
opposition	-12358 Feb 16 j 08:15	29° $\text{S}$ 06'51	2°52'39	min. Earth dist.	-12352 May 08 j 01:11	17° $\text{S}$ 36'24	7.92518 AU
min. Earth dist.	-12358 Feb 17 j 09:32	29° $\text{S}$ 02'09	8.89387 AU		-12352 Jun 13 j 07:44	15° $\text{R}$ $\text{S}$	
direct	-12358 Apr 27 j 13:33	25° $\text{S}$ 47'34		direct	-12352 Jul 13 j 04:45	14° $\text{S}$ 10'29	
	-12358 Jul 10 j 11:58	0° $\text{II}$			-12352 Aug 11 j 13:16	15° $\text{S}$	
evening set	-12358 Aug 06 j 01:50	2° $\text{II}$ 58'39		evening set	-12352 Oct 22 j 19:37	22° $\text{S}$ 21'33	
max. Earth dist.	-12358 Aug 21 j 07:45	4° $\text{II}$ 48'55	10.81538 AU	conjunction	-12352 Nov 09 j 09:42	24° $\text{S}$ 42'06	0°53'32

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 5

Attention, astronomical year style is used: The year -12352 in astronomical counting style is the year 12353 BCE in historical counting style.

minimum elong	-12352 Nov 09 j 09:45	24° $\Omega$ 42'07	0°53'59			-12346 Aug 26 j 07:41	15° $\kappa$ $\mathbb{M}$	
max. Earth dist.	-12352 Nov 09 j 15:58	24° $\Omega$ 44'12	9.87120 AU	direct		-12346 Oct 10 j 05:29	13° $\mathbb{M}$ 13'50	
morning rise	-12352 Nov 27 j 05:28	27° $\Omega$ 04'34				-12346 Nov 23 j 17:50	15° $\mathbb{M}$	
	-12352 Dec 20 j 10:45	0° $\mathbb{M}$		evening set		-12345 Jan 23 j 20:52	21° $\mathbb{M}$ 32'15	
retrograde	-12351 Mar 15 j 23:52	5° $\mathbb{M}$ 48'35						
opposition	-12351 May 23 j 02:36	2° $\mathbb{M}$ 16'03	0°44'21	conjunction		-12345 Feb 10 j 23:31	23° $\mathbb{M}$ 52'23	-2°14'30
min. Earth dist.	-12351 May 22 j 18:30	2° $\mathbb{M}$ 17'43	7.82626 AU	minimum elong		-12345 Feb 10 j 23:27	23° $\mathbb{M}$ 52'22	2°15'05
	-12351 Jun 22 j 00:29	30° $\kappa$ $\Omega$		max. Earth dist.		-12345 Feb 12 j 07:23	24° $\mathbb{M}$ 02'44	10.04412 AU
direct	-12351 Jul 27 j 18:17	28° $\Omega$ 49'09		morning rise		-12345 Mar 01 j 01:07	26° $\mathbb{M}$ 12'01	
	-12351 Aug 31 j 20:56	0° $\mathbb{M}$				-12345 Apr 02 j 00:34	0° $\mathbb{M}$	
evening set	-12351 Nov 07 j 00:54	7° $\mathbb{M}$ 08'22		retrograde		-12345 Jun 13 j 01:13	4° $\mathbb{M}$ 20'22	
				opposition		-12345 Aug 18 j 15:35	0° $\mathbb{M}$ 51'46	-2°55'05
conjunction	-12351 Nov 24 j 21:01	9° $\mathbb{M}$ 31'55	0°17'08	min. Earth dist.		-12345 Aug 17 j 15:59	0° $\mathbb{M}$ 56'39	8.11985 AU
minimum elong	-12351 Nov 24 j 21:02	9° $\mathbb{M}$ 31'55	0°17'25			-12345 Aug 29 j 04:42	30° $\kappa$ $\mathbb{M}$	
max. Earth dist.	-12351 Nov 25 j 11:28	9° $\mathbb{M}$ 36'47	9.79176 AU	direct		-12345 Oct 24 j 23:28	27° $\mathbb{M}$ 22'06	
morning rise	-12351 Dec 12 j 22:23	11° $\mathbb{M}$ 57'11				-12345 Dec 19 j 15:36	0° $\mathbb{M}$	
retrograde	-12350 Mar 31 j 15:50	20° $\mathbb{M}$ 45'40		evening set		-12344 Feb 07 j 21:35	5° $\mathbb{M}$ 31'49	
desc. node	-12350 May 16 j 02:57	18° $\mathbb{M}$ 58'20						
opposition	-12350 Jun 07 j 05:47	17° $\mathbb{M}$ 12'23	-0°02'49	conjunction		-12344 Feb 25 j 21:37	7° $\mathbb{M}$ 48'34	-2°24'11
min. Earth dist.	-12350 Jun 06 j 15:40	17° $\mathbb{M}$ 15'20	7.76807 AU	minimum elong		-12344 Feb 25 j 21:35	7° $\mathbb{M}$ 48'34	2°24'51
direct	-12350 Aug 11 j 16:01	13° $\mathbb{M}$ 44'20		max. Earth dist.		-12344 Feb 27 j 03:13	7° $\mathbb{M}$ 58'00	10.19808 AU
evening set	-12350 Nov 22 j 16:12	22° $\mathbb{M}$ 09'28		morning rise		-12344 Mar 14 j 19:12	10° $\mathbb{M}$ 04'25	
				retrograde		-12344 Jun 25 j 11:33	17° $\mathbb{M}$ 57'26	
conjunction	-12350 Dec 10 j 17:05	24° $\mathbb{M}$ 34'52	-0°20'56	min. Earth dist.		-12344 Aug 30 j 08:00	14° $\mathbb{M}$ 35'27	8.28251 AU
minimum elong	-12350 Dec 10 j 17:03	24° $\mathbb{M}$ 34'52	0°20'50	opposition		-12344 Aug 31 j 05:56	14° $\mathbb{M}$ 30'59	-3°01'14
max. Earth dist.	-12350 Dec 11 j 14:50	24° $\mathbb{M}$ 42'13	9.75552 AU	direct		-12344 Nov 07 j 08:31	11° $\mathbb{M}$ 02'03	
morning rise	-12350 Dec 28 j 22:23	27° $\mathbb{M}$ 01'41		evening set		-12343 Feb 21 j 08:51	19° $\mathbb{M}$ 01'30	
	-12349 Jan 21 j 08:25	0° $\mathbb{M}$						
retrograde	-12349 Apr 16 j 05:53	5° $\mathbb{M}$ 50'05		conjunction		-12343 Mar 11 j 05:48	21° $\mathbb{M}$ 14'39	-2°25'33
opposition	-12349 Jun 22 j 09:14	2° $\mathbb{M}$ 16'37	-0°50'13	minimum elong		-12343 Mar 11 j 05:48	21° $\mathbb{M}$ 14'39	2°26'17
min. Earth dist.	-12349 Jun 21 j 14:16	2° $\mathbb{M}$ 20'37	7.75499 AU	max. Earth dist.		-12343 Mar 12 j 08:05	21° $\mathbb{M}$ 22'52	10.36743 AU
	-12349 Jul 21 j 21:26	30° $\kappa$ $\mathbb{M}$		morning rise		-12343 Mar 28 j 23:06	23° $\mathbb{M}$ 26'37	
direct	-12349 Aug 26 j 19:13	28° $\mathbb{M}$ 47'37				-12343 Jun 03 j 19:45	0° $\mathbb{M}$	
	-12349 Oct 01 j 07:34	0° $\mathbb{M}$		retrograde		-12343 Jul 08 j 09:52	1° $\mathbb{M}$ 04'19	
evening set	-12349 Dec 08 j 13:40	7° $\mathbb{M}$ 15'49				-12343 Aug 12 j 09:13	30° $\kappa$ $\mathbb{M}$	
				opposition		-12343 Sep 13 j 10:05	27° $\mathbb{M}$ 40'09	-2°57'29
conjunction	-12349 Dec 26 j 17:37	9° $\mathbb{M}$ 41'44	-0°57'38	min. Earth dist.		-12343 Sep 12 j 15:21	27° $\mathbb{M}$ 43'55	8.45567 AU
minimum elong	-12349 Dec 26 j 17:33	9° $\mathbb{M}$ 41'43	0°57'44	direct		-12343 Nov 21 j 07:06	24° $\mathbb{M}$ 12'14	
max. Earth dist.	-12349 Dec 27 j 21:03	9° $\mathbb{M}$ 50'58	9.76518 AU			-12342 Feb 18 j 00:13	0° $\mathbb{M}$	
morning rise	-12348 Jan 14 j 00:49	12° $\mathbb{M}$ 08'37		evening set		-12342 Mar 07 j 05:30	2° $\mathbb{M}$ 00'33	
retrograde	-12348 Apr 30 j 14:11	20° $\mathbb{M}$ 52'18						
min. Earth dist.	-12348 Jul 05 j 11:37	17° $\mathbb{M}$ 23'56	7.78783 AU	conjunction		-12342 Mar 24 j 23:08	4° $\mathbb{M}$ 10'10	-2°19'23
opposition	-12348 Jul 06 j 09:42	17° $\mathbb{M}$ 19'16	-1°34'01	minimum elong		-12342 Mar 24 j 23:10	4° $\mathbb{M}$ 10'10	2°20'08
direct	-12348 Sep 10 j 00:46	13° $\mathbb{M}$ 49'35		max. Earth dist.		-12342 Mar 25 j 20:49	4° $\mathbb{M}$ 16'49	10.54271 AU
evening set	-12348 Dec 23 j 13:00	22° $\mathbb{M}$ 17'40		morning rise		-12342 Apr 11 j 12:17	6° $\mathbb{M}$ 18'23	
				retrograde		-12342 Jul 20 j 21:55	13° $\mathbb{M}$ 41'38	
conjunction	-12347 Jan 10 j 18:05	24° $\mathbb{M}$ 42'44	-1°30'11	opposition		-12342 Sep 26 j 04:25	10° $\mathbb{M}$ 19'43	-2°45'07
minimum elong	-12347 Jan 10 j 18:00	24° $\mathbb{M}$ 42'42	1°30'28	min. Earth dist.		-12342 Sep 25 j 14:08	10° $\mathbb{M}$ 22'32	8.63029 AU
max. Earth dist.	-12347 Jan 12 j 01:00	24° $\mathbb{M}$ 53'03	9.81979 AU	direct		-12342 Dec 04 j 17:58	6° $\mathbb{M}$ 52'59	
morning rise	-12347 Jan 29 j 01:01	27° $\mathbb{M}$ 08'16		evening set		-12341 Mar 20 j 12:03	14° $\mathbb{M}$ 30'06	
	-12347 Feb 20 j 20:30	0° $\mathbb{M}$						
retrograde	-12347 May 15 j 13:27	5° $\mathbb{M}$ 43'03		conjunction		-12341 Apr 07 j 02:17	16° $\mathbb{M}$ 36'24	-2°06'45
min. Earth dist.	-12347 Jul 20 j 04:31	2° $\mathbb{M}$ 16'02	7.86383 AU	minimum elong		-12341 Apr 07 j 02:20	16° $\mathbb{M}$ 36'25	2°07'29
opposition	-12347 Jul 21 j 04:13	2° $\mathbb{M}$ 11'03	-2°10'50	max. Earth dist.		-12341 Apr 07 j 17:45	16° $\mathbb{M}$ 41'03	10.71518 AU
	-12347 Aug 18 j 06:15	30° $\kappa$ $\mathbb{M}$		morning rise		-12341 Apr 24 j 11:36	18° $\mathbb{M}$ 41'10	
direct	-12347 Sep 25 j 05:17	28° $\mathbb{M}$ 40'59		retrograde		-12341 Aug 01 j 21:27	25° $\mathbb{M}$ 51'21	
	-12347 Nov 01 j 22:26	0° $\mathbb{M}$		opposition		-12341 Oct 08 j 13:39	22° $\mathbb{M}$ 31'34	-2°25'42
evening set	-12346 Jan 08 j 08:59	7° $\mathbb{M}$ 05'44		min. Earth dist.		-12341 Oct 08 j 04:24	22° $\mathbb{M}$ 33'21	8.79809 AU
				direct		-12341 Dec 17 j 20:28	19° $\mathbb{M}$ 06'07	
conjunction	-12346 Jan 26 j 13:28	9° $\mathbb{M}$ 28'46	-1°56'18	evening set		-12340 Apr 01 j 05:18	26° $\mathbb{M}$ 32'35	
minimum elong	-12346 Jan 26 j 13:24	9° $\mathbb{M}$ 28'44	1°56'45					
max. Earth dist.	-12346 Jan 27 j 21:50	9° $\mathbb{M}$ 39'26	9.91509 AU	conjunction		-12340 Apr 18 j 16:09	28° $\mathbb{M}$ 35'50	-1°48'52
morning rise	-12346 Feb 13 j 18:21	11° $\mathbb{M}$ 51'45		minimum elong		-12340 Apr 18 j 16:12	28° $\mathbb{M}$ 35'51	1°49'32
	-12346 Mar 11 j 06:32	15° $\mathbb{M}$		max. Earth dist.		-12340 Apr 19 j 00:35	28° $\mathbb{M}$ 38'20	10.87699 AU
retrograde	-12346 May 30 j 01:24	20° $\mathbb{M}$ 14'23				-12340 Apr 30 j 13:14	0° $\mathbb{M}$	
opposition	-12346 Aug 04 j 14:46	16° $\mathbb{M}$ 43'54	-2°38'16	morning rise		-12340 May 05 j 21:58	0° $\mathbb{M}$ 37'33	
min. Earth dist.	-12346 Aug 03 j 14:33	16° $\mathbb{M}$ 48'58	7.97719 AU	retrograde		-12340 Aug 12 j 12:41	7° $\mathbb{M}$ 36'33	

Attention, astronomical year style is used: The year -12340 in astronomical counting style is the year 12341 BCE in historical counting style.

opposition	-12340 Oct 19 j 15:14	4°≈18'35	-2°00'46	conjunction	-12334 Jun 24 j 10:26	4°Υ42'05	0°46'23
min. Earth dist.	-12340 Oct 19 j 10:27	4°≈19'30	8.95174 AU	minimum elong	-12334 Jun 24 j 10:24	4°Υ42'05	0°46'25
direct	-12340 Dec 29 j 14:00	0°≈54'28		morning rise	-12334 Jul 10 j 23:08	6°Υ34'39	
evening set	-12339 Apr 13 j 10:29	8°≈11'12		retrograde	-12334 Oct 17 j 09:09	13°Υ13'22	
				opposition	-12334 Dec 26 j 16:13	9°Υ58'57	1°11'46
conjunction	-12339 Apr 30 j 18:05	10°≈11'45	-1°26'58	min. Earth dist.	-12334 Dec 27 j 13:47	9°Υ55'02	9.31401 AU
minimum elong	-12339 Apr 30 j 18:08	10°≈11'46	1°27'33	direct	-12333 Mar 08 j 18:57	6°Υ40'04	
max. Earth dist.	-12339 Apr 30 j 20:26	10°≈12'26	11.02136 AU	evening set	-12333 Jun 18 j 15:14	13°Υ31'16	
morning rise	-12339 May 17 j 20:31	12°≈10'48		max. Earth dist.	-12333 Jul 04 j 01:50	15°Υ16'49	11.29232 AU
	-12339 Jun 12 j 22:42	15°≈					
retrograde	-12339 Aug 23 j 23:04	19°≈00'44		conjunction	-12333 Jul 05 j 04:35	15°Υ24'30	1°11'38
opposition	-12339 Oct 31 j 10:27	15°≈44'17	-1°31'49	minimum elong	-12333 Jul 05 j 04:33	15°Υ24'29	1°11'49
min. Earth dist.	-12339 Oct 31 j 10:10	15°≈44'21	9.08502 AU	morning rise	-12333 Jul 21 j 15:28	17°Υ17'10	
	-12339 Nov 10 j 07:55	15°≈		retrograde	-12333 Oct 28 j 16:33	24°Υ00'16	
direct	-12338 Jan 10 j 20:57	12°≈21'28		opposition	-12332 Jan 07 j 05:23	20°Υ45'07	1°41'22
	-12338 Mar 11 j 12:40	15°≈		min. Earth dist.	-12332 Jan 08 j 06:03	20°Υ40'38	9.26427 AU
evening set	-12338 Apr 25 j 05:31	19°≈29'42		direct	-12332 Mar 19 j 02:52	17°Υ26'21	
				evening set	-12332 Jun 28 j 13:07	24°Υ19'18	
conjunction	-12338 May 12 j 09:58	21°≈27'59	-1°02'11	max. Earth dist.	-12332 Jul 13 j 19:01	26°Υ04'25	11.22709 AU
minimum elong	-12338 May 12 j 10:01	21°≈28'00	1°02'40				
max. Earth dist.	-12338 May 12 j 06:53	21°≈27'06	11.14257 AU	conjunction	-12332 Jul 15 j 00:11	26°Υ12'51	1°34'34
morning rise	-12338 May 29 j 09:07	23°≈24'49		minimum elong	-12332 Jul 15 j 00:08	26°Υ12'50	1°34'53
	-12338 Aug 22 j 16:38	0°≈		morning rise	-12332 Jul 31 j 09:50	28°Υ06'06	
retrograde	-12338 Sep 04 j 03:13	0°≈07'52			-12332 Aug 17 j 16:52	0°≈	
	-12338 Sep 16 j 15:05	30°≈		retrograde	-12332 Nov 08 j 04:45	4°≈55'42	
opposition	-12338 Nov 12 j 00:39	26°≈52'36	-1°00'10	opposition	-12331 Jan 17 j 22:54	1°≈39'26	2°07'45
min. Earth dist.	-12338 Nov 12 j 05:46	26°≈51'39	9.19282 AU	min. Earth dist.	-12331 Jan 19 j 00:56	1°≈34'41	9.18451 AU
direct	-12337 Jan 22 j 20:13	23°≈30'54			-12331 Feb 10 j 18:00	30°≈	
	-12337 May 01 j 20:15	0°≈		direct	-12331 Mar 30 j 12:07	28°Υ20'35	
evening set	-12337 May 06 j 16:18	0°≈32'17			-12331 May 15 j 15:36	0°≈	
				evening set	-12331 Jul 09 j 13:35	5°≈16'56	
conjunction	-12337 May 23 j 17:30	2°≈28'42	-0°35'33				
minimum elong	-12337 May 23 j 17:32	2°≈28'43	0°35'55	conjunction	-12331 Jul 25 j 23:10	7°≈11'19	1°54'22
max. Earth dist.	-12337 May 23 j 08:10	2°≈26'02	11.23595 AU	minimum elong	-12331 Jul 25 j 23:07	7°≈11'18	1°54'49
morning rise	-12337 Jun 09 j 13:42	4°≈23'47		max. Earth dist.	-12331 Jul 24 j 17:53	7°≈02'44	11.13291 AU
retrograde	-12337 Sep 15 j 04:40	11°≈02'18		morning rise	-12331 Aug 11 j 08:03	9°≈05'38	
opposition	-12337 Nov 23 j 11:36	7°≈47'51	-0°26'59		-12331 Oct 14 j 15:26	15°≈	
min. Earth dist.	-12337 Nov 23 j 22:25	7°≈45'52	9.27113 AU	retrograde	-12331 Nov 20 j 02:40	16°≈03'48	
direct	-12336 Feb 03 j 13:16	4°≈27'09			-12331 Dec 27 j 10:38	15°≈	
evening set	-12336 May 16 j 20:48	11°≈23'24		opposition	-12330 Jan 29 j 21:59	12°≈46'06	2°30'00
				min. Earth dist.	-12330 Jan 30 j 23:45	12°≈41'22	9.07707 AU
conjunction	-12336 Jun 02 j 18:42	13°≈18'22	-0°08'04	direct	-12330 Apr 11 j 01:14	9°≈26'59	
minimum elong	-12336 Jun 02 j 18:42	13°≈18'23	0°08'17		-12330 Jul 07 j 19:07	15°≈	
behind sun begin	-12336 Jun 02 j 12:31	13°≈16'38		evening set	-12330 Jul 20 j 18:48	16°≈28'21	
behind sun end	-12336 Jun 03 j 00:54	13°≈20'07		max. Earth dist.	-12330 Aug 04 j 22:15	18°≈15'22	11.01270 AU
max. Earth dist.	-12336 Jun 02 j 03:00	13°≈13'54	11.29845 AU				
morning rise	-12336 Jun 19 j 12:15	15°≈12'10		conjunction	-12330 Aug 06 j 03:35	18°≈24'05	2°10'13
asc. node	-12336 Sep 20 j 15:52	21°≈47'31		minimum elong	-12330 Aug 06 j 03:32	18°≈24'04	2°10'46
retrograde	-12336 Sep 25 j 03:35	21°≈48'31		morning rise	-12330 Aug 22 j 12:33	20°≈20'03	
opposition	-12336 Dec 03 j 20:48	18°≈34'29	0°06'42	retrograde	-12330 Dec 02 j 09:06	27°≈28'36	
min. Earth dist.	-12336 Dec 04 j 11:48	18°≈31'45	9.31780 AU	opposition	-12329 Feb 11 j 03:57	24°≈09'16	2°47'03
direct	-12335 Feb 14 j 02:06	15°≈14'37		min. Earth dist.	-12329 Feb 12 j 05:20	24°≈04'34	8.94539 AU
evening set	-12335 May 27 j 20:53	22°≈07'28		direct	-12329 Apr 22 j 16:18	20°≈49'42	
				evening set	-12329 Aug 01 j 06:26	27°≈57'39	
conjunction	-12335 Jun 13 j 15:46	24°≈01'26	0°19'35	max. Earth dist.	-12329 Aug 16 j 10:09	29°≈46'31	10.87058 AU
minimum elong	-12335 Jun 13 j 15:45	24°≈01'25	0°19'29				
max. Earth dist.	-12335 Jun 12 j 19:56	23°≈55'47	11.32882 AU	conjunction	-12329 Aug 17 j 15:15	29°≈55'18	2°21'16
morning rise	-12335 Jun 30 j 06:47	25°≈54'23		minimum elong	-12329 Aug 17 j 15:13	29°≈55'17	2°21'54
	-12335 Aug 10 j 07:05	0°≈			-12329 Aug 18 j 06:50	0°≈	
retrograde	-12335 Oct 06 j 05:57	2°≈30'50		morning rise	-12329 Sep 03 j 01:28	1°≈53'30	
	-12335 Dec 05 j 06:05	30°≈		retrograde	-12329 Dec 15 j 00:30	9°≈14'10	
opposition	-12335 Dec 15 j 05:49	29°≈16'48	0°39'55	opposition	-12328 Feb 23 j 18:25	5°≈53'01	2°57'49
min. Earth dist.	-12335 Dec 15 j 23:58	29°≈13'30	9.33211 AU	min. Earth dist.	-12328 Feb 24 j 18:44	5°≈48'27	8.79411 AU
direct	-12334 Feb 25 j 12:27	25°≈57'33		direct	-12328 May 03 j 15:19	2°≈32'48	
	-12334 May 12 j 00:58	0°≈		evening set	-12328 Aug 12 j 02:00	9°≈48'45	
evening set	-12334 Jun 07 j 18:20	2°≈48'42		max. Earth dist.	-12328 Aug 27 j 09:09	11°≈40'37	10.71171 AU
max. Earth dist.	-12334 Jun 23 j 11:29	4°≈35'32	11.32665 AU				

Attention, astronomical year style is used: The year -12328 in astronomical counting style is the year 12329 BCE in historical counting style.

conjunction	-12328 Aug 28 j 12:07	11°II48'54	2°26'40	conjunction	-12322 Nov 18 j 05:33	3°II02'18	0°34'01
minimum elong	-12328 Aug 28 j 12:07	11°II48'54	2°27'21	minimum elong	-12322 Nov 18 j 05:35	3°II02'19	0°34'23
morning rise	-12328 Sep 14 j 00:46	13°II49'55		max. Earth dist.	-12322 Nov 18 j 16:19	3°II05'55	9.83117 AU
retrograde	-12328 Dec 27 j 04:41	21°II24'09		morning rise	-12322 Dec 06 j 04:33	5°II26'20	
opposition	-12327 Mar 07 j 18:08	18°II01'02	3°01'11	retrograde	-12321 Mar 25 j 00:50	14°II13'00	
min. Earth dist.	-12327 Mar 08 j 15:59	17°II56'53	8.62893 AU	opposition	-12321 May 31 j 19:40	10°II40'26	0°18'50
direct	-12327 May 15 j 22:40	14°II40'03		min. Earth dist.	-12321 May 31 j 08:09	10°II42'50	7.79945 AU
evening set	-12327 Aug 24 j 07:35	22°II05'11		direct	-12321 Aug 05 j 07:40	7°II13'21	
				desc. node	-12321 Oct 28 j 02:24	13°II10'39	
				evening set	-12321 Nov 15 j 23:16	15°II35'44	
conjunction	-12327 Sep 09 j 20:28	24°II08'25	2°25'35				
minimum elong	-12327 Sep 09 j 20:29	24°II08'26	2°26'19	conjunction	-12321 Dec 03 j 21:57	18°II00'15	-0°03'43
max. Earth dist.	-12327 Sep 08 j 21:43	24°II01'18	10.54228 AU	minimum elong	-12321 Dec 03 j 21:58	18°II00'15	0°03'32
morning rise	-12327 Sep 26 j 12:42	26°II12'49		behind sun begin	-12321 Dec 03 j 14:41	17°II57'49	
	-12327 Oct 29 j 18:33	0°II		behind sun end	-12321 Dec 04 j 05:16	18°II02'42	
retrograde	-12326 Jan 09 j 21:29	4°II01'32		max. Earth dist.	-12321 Dec 04 j 16:46	18°II06'36	9.77868 AU
opposition	-12326 Mar 21 j 03:35	0°II36'24	2°56'09	morning rise	-12321 Dec 22 j 01:44	20°II26'23	
min. Earth dist.	-12326 Mar 21 j 21:09	0°II33'01	8.45672 AU	retrograde	-12320 Apr 08 j 14:57	29°II14'56	
	-12326 Mar 29 j 01:20	30°II		opposition	-12320 Jun 14 j 23:18	25°II42'03	-0°28'56
direct	-12326 May 28 j 13:50	27°II14'33		min. Earth dist.	-12320 Jun 14 j 06:21	25°II45'36	7.76933 AU
	-12326 Jul 24 j 12:05	0°II		direct	-12320 Aug 19 j 09:17	22°II14'03	
evening set	-12326 Sep 06 j 00:42	4°II49'49			-12320 Nov 25 j 14:32	0°II	
				evening set	-12320 Nov 30 j 18:24	0°II40'39	
conjunction	-12326 Sep 22 j 17:38	6°II56'38	2°17'23				
minimum elong	-12326 Sep 22 j 17:41	6°II56'39	2°18'08	conjunction	-12320 Dec 18 j 21:05	3°II06'17	-0°41'20
max. Earth dist.	-12326 Sep 22 j 00:01	6°II51'02	10.36979 AU	minimum elong	-12320 Dec 18 j 21:02	3°II06'16	0°41'21
morning rise	-12326 Oct 09 j 14:42	9°II04'54		max. Earth dist.	-12320 Dec 19 j 22:42	3°II14'55	9.77086 AU
retrograde	-12325 Jan 24 j 02:20	17°II08'25		morning rise	-12319 Jan 06 j 03:37	5°II33'05	
opposition	-12325 Apr 03 j 23:24	13°II41'19	2°41'55	retrograde	-12319 Apr 24 j 01:22	14°II18'48	
min. Earth dist.	-12325 Apr 04 j 11:37	13°II38'55	8.28558 AU	min. Earth dist.	-12319 Jun 29 j 03:57	10°II50'37	7.78447 AU
direct	-12325 Jun 10 j 15:42	10°II18'30		opposition	-12319 Jun 30 j 01:15	10°II46'08	-1°14'47
evening set	-12325 Sep 19 j 06:40	18°II04'23		direct	-12319 Sep 03 j 13:55	7°II17'23	
				evening set	-12319 Dec 16 j 17:15	15°II45'07	
conjunction	-12325 Oct 06 j 04:46	20°II15'11	2°01'41				
minimum elong	-12325 Oct 06 j 04:50	20°II15'12	2°02'24	conjunction	-12318 Jan 03 j 21:57	18°II10'28	-1°16'04
max. Earth dist.	-12325 Oct 05 j 17:01	20°II11'22	10.20294 AU	minimum elong	-12318 Jan 03 j 21:53	18°II10'26	1°16'17
morning rise	-12325 Oct 23 j 07:53	22°II27'40		max. Earth dist.	-12318 Jan 05 j 04:28	18°II20'41	9.80768 AU
	-12324 Jan 09 j 03:48	0°II		morning rise	-12318 Jan 22 j 05:02	20°II36'29	
retrograde	-12324 Feb 07 j 19:45	0°II45'26		retrograde	-12318 May 09 j 04:45	29°II15'01	
	-12324 Mar 08 j 17:58	30°II		opposition	-12318 Jul 14 j 22:24	25°II43'05	-1°55'04
opposition	-12324 Apr 17 j 05:14	27°II16'29	2°18'09	min. Earth dist.	-12318 Jul 13 j 22:27	25°II48'08	7.84269 AU
min. Earth dist.	-12324 Apr 17 j 11:34	27°II15'14	8.12477 AU	direct	-12318 Sep 18 j 18:28	22°II13'49	
direct	-12324 Jun 23 j 03:46	23°II52'38			-12318 Dec 27 j 12:16	0°II	
	-12324 Sep 17 j 15:37	0°II		evening set	-12317 Jan 01 j 14:52	0°II39'33	
evening set	-12324 Oct 02 j 02:41	1°II49'10					
conjunction	-12324 Oct 19 j 06:55	4°II04'05	1°38'35	conjunction	-12317 Jan 19 j 19:48	3°II03'22	-1°45'19
minimum elong	-12324 Oct 19 j 06:59	4°II04'06	1°39'14	minimum elong	-12317 Jan 19 j 19:43	3°II03'20	1°45'42
max. Earth dist.	-12324 Oct 19 j 01:41	4°II02'21	10.05127 AU	max. Earth dist.	-12317 Jan 21 j 04:32	3°II14'13	9.88514 AU
morning rise	-12324 Nov 05 j 16:52	6°II20'52		morning rise	-12317 Feb 07 j 01:31	5°II27'21	
retrograde	-12323 Feb 21 j 23:14	14°II51'16		retrograde	-12317 May 23 j 22:42	13°II55'12	
opposition	-12323 May 01 j 19:48	11°II20'45	1°45'17	min. Earth dist.	-12317 Jul 28 j 11:56	10°II29'39	7.93831 AU
min. Earth dist.	-12323 May 01 j 20:17	11°II20'39	7.98407 AU	opposition	-12317 Jul 29 j 12:25	10°II24'32	-2°26'57
direct	-12323 Jul 07 j 02:31	7°II55'47		direct	-12317 Oct 03 j 19:36	6°II55'02	
	-12323 Oct 08 j 11:17	15°II			-12316 Jan 15 j 04:47	15°II	
evening set	-12323 Oct 16 j 12:52	16°II02'27		evening set	-12316 Jan 17 j 06:46	15°II15'58	
conjunction	-12323 Nov 02 j 23:42	18°II21'17	1°08'51	conjunction	-12316 Feb 04 j 10:25	17°II37'19	-2°07'14
minimum elong	-12323 Nov 02 j 23:46	18°II21'18	1°09'22	minimum elong	-12316 Feb 04 j 10:21	17°II37'18	2°07'46
max. Earth dist.	-12323 Nov 03 j 02:08	18°II22'06	9.92440 AU	max. Earth dist.	-12316 Feb 05 j 18:53	17°II47'55	9.99669 AU
morning rise	-12323 Nov 20 j 16:33	20°II42'04		morning rise	-12316 Feb 22 j 13:24	19°II58'22	
retrograde	-12322 Mar 09 j 10:09	29°II22'26		retrograde	-12316 Jun 06 j 05:37	28°II13'03	
opposition	-12322 May 16 j 17:28	25°II50'40	1°04'42	opposition	-12316 Aug 11 j 17:43	24°II44'05	-2°48'41
min. Earth dist.	-12322 May 16 j 11:59	25°II51'48	7.87291 AU	min. Earth dist.	-12316 Aug 10 j 18:18	24°II48'56	8.06439 AU
direct	-12322 Jul 21 j 12:05	22°II24'37		direct	-12316 Oct 17 j 16:18	21°II14'42	
	-12322 Oct 26 j 09:37	0°II		evening set	-12315 Jan 31 j 13:13	29°II28'20	
evening set	-12322 Oct 31 j 12:19	0°II40'08			-12315 Feb 04 j 17:23	0°II	

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -12315 in astronomical counting style is the year 12316 BCE in historical counting style.

conjunction	-12315 Feb 18 j 14:28	1°♄46'34	-2°20'49	max. Earth dist.	-12309 May 07 j 14:26	16°♄42'25	11.06882 AU
minimum elong	-12315 Feb 18 j 14:25	1°♄46'34	2°21'27	morning rise	-12309 May 24 j 17:15	18°♄41'02	
max. Earth dist.	-12315 Feb 19 j 20:40	1°♄56'16	10.13525 AU	retrograde	-12309 Aug 30 j 13:14	25°♄27'40	
morning rise	-12315 Mar 08 j 13:46	4°♄04'05		opposition	-12309 Nov 07 j 07:18	22°♄11'22	-1°14'46
retrograde	-12315 Jun 19 j 22:20	12°♄04'05		min. Earth dist.	-12309 Nov 07 j 10:57	22°♄10'41	9.12438 AU
opposition	-12315 Aug 25 j 13:11	8°♄37'05	-2°59'41	direct	-12308 Jan 17 j 23:33	18°♄48'32	
min. Earth dist.	-12315 Aug 24 j 16:03	8°♄41'25	8.21348 AU	evening set	-12308 May 01 j 01:07	25°♄53'41	
direct	-12315 Nov 01 j 06:03	5°♄08'08					
evening set	-12314 Feb 15 j 07:09	13°♄12'28		conjunction	-12308 May 18 j 03:52	27°♄51'09	-0°47'44
				minimum elong	-12308 May 18 j 03:54	27°♄51'10	0°48'08
conjunction	-12314 Mar 05 j 05:25	15°♄27'15	-2°25'55	max. Earth dist.	-12308 May 17 j 20:23	27°♄49'00	11.17373 AU
minimum elong	-12314 Mar 05 j 05:24	15°♄27'15	2°26'37	morning rise	-12308 Jun 04 j 01:40	29°♄47'14	
max. Earth dist.	-12314 Mar 06 j 07:38	15°♄35'31	10.29287 AU		-12308 Jun 05 j 23:05	0°♄	
morning rise	-12314 Mar 23 j 00:42	17°♄40'59		retrograde	-12308 Sep 09 j 17:03	6°♄28'18	
retrograde	-12314 Jul 03 j 01:45	25°♄25'49		opposition	-12308 Nov 17 j 19:55	3°♄12'56	-0°42'04
opposition	-12314 Sep 07 j 22:24	22°♄00'53	-3°00'20	min. Earth dist.	-12308 Nov 18 j 03:24	3°♄11'33	9.21597 AU
min. Earth dist.	-12314 Sep 07 j 04:05	22°♄04'35	8.37713 AU		-12307 Jan 15 j 02:24	30°♄	
direct	-12314 Nov 15 j 10:20	18°♄32'37		direct	-12307 Jan 28 j 20:15	29°♄51'12	
evening set	-12313 Mar 01 j 10:51	26°♄26'21			-12307 Feb 11 j 12:02	0°♄	
				evening set	-12307 May 12 j 08:23	6°♄50'20	
conjunction	-12313 Mar 19 j 05:56	28°♄37'38	-2°23'04				
minimum elong	-12313 Mar 19 j 05:57	28°♄37'38	2°23'48	conjunction	-12307 May 29 j 08:02	8°♄46'10	-0°20'28
max. Earth dist.	-12313 Mar 20 j 03:10	28°♄44'12	10.46064 AU	minimum elong	-12307 May 29 j 08:03	8°♄46'10	0°20'45
	-12313 Mar 30 j 08:56	0°♄		max. Earth dist.	-12307 May 28 j 20:24	8°♄42'51	11.25134 AU
morning rise	-12313 Apr 05 j 21:11	0°♄47'37		morning rise	-12307 Jun 15 j 02:50	10°♄40'43	
retrograde	-12313 Jul 15 j 17:51	8°♄17'42		retrograde	-12307 Sep 20 j 17:45	17°♄18'29	
opposition	-12313 Sep 20 j 21:24	4°♄54'49	-2°51'44	opposition	-12307 Nov 29 j 06:06	14°♄03'44	-0°08'25
min. Earth dist.	-12313 Sep 20 j 06:14	4°♄57'50	8.54625 AU	min. Earth dist.	-12307 Nov 29 j 18:00	14°♄01'33	9.27914 AU
direct	-12313 Nov 29 j 03:55	1°♄27'28		direct	-12306 Feb 09 j 10:06	10°♄42'59	
evening set	-12312 Mar 14 j 00:15	9°♄10'08		asc. node	-12306 Mar 02 j 00:43	11°♄02'44	
				evening set	-12306 May 23 j 10:33	17°♄37'50	
conjunction	-12312 Mar 31 j 16:07	11°♄18'02	-2°13'13				
minimum elong	-12312 Mar 31 j 16:10	11°♄18'03	2°13'57	conjunction	-12306 Jun 09 j 07:00	19°♄32'24	0°07'19
max. Earth dist.	-12312 Apr 01 j 08:19	11°♄22'57	10.62961 AU	minimum elong	-12306 Jun 09 j 06:59	19°♄32'24	0°07'09
morning rise	-12312 Apr 18 j 03:22	13°♄24'29		behind sun begin	-12306 Jun 09 j 00:33	19°♄30'35	
retrograde	-12312 Jul 26 j 23:08	20°♄40'56		behind sun end	-12306 Jun 09 j 13:26	19°♄34'13	
opposition	-12312 Oct 02 j 11:00	17°♄20'01	-2°35'20	max. Earth dist.	-12306 Jun 08 j 14:24	19°♄27'41	11.29940 AU
min. Earth dist.	-12312 Oct 01 j 23:44	17°♄22'13	8.71235 AU	morning rise	-12306 Jun 25 j 23:09	21°♄25'53	
direct	-12312 Dec 11 j 11:15	13°♄53'44		retrograde	-12306 Oct 01 j 18:46	28°♄02'34	
evening set	-12311 Mar 26 j 23:47	21°♄25'32		opposition	-12306 Dec 10 j 15:09	24°♄48'08	0°25'11
				min. Earth dist.	-12306 Dec 11 j 07:35	24°♄45'08	9.31211 AU
conjunction	-12311 Apr 13 j 12:26	23°♄30'18	-1°57'34	direct	-12305 Feb 20 j 20:55	21°♄28'11	
minimum elong	-12311 Apr 13 j 12:29	23°♄30'19	1°58'16	evening set	-12305 Jun 03 j 09:20	28°♄20'29	
max. Earth dist.	-12311 Apr 13 j 23:24	23°♄33'35	10.79171 AU		-12305 Jun 18 j 00:47	0°♄	
morning rise	-12311 Apr 30 j 19:51	25°♄33'33		max. Earth dist.	-12305 Jun 19 j 05:19	0°♄08'09	11.31659 AU
	-12311 Jun 12 j 06:45	0°♄					
retrograde	-12311 Aug 07 j 19:47	2°♄38'02		conjunction	-12305 Jun 20 j 02:39	0°♄14'14	0°34'34
	-12311 Oct 05 j 17:38	30°♄		minimum elong	-12305 Jun 20 j 02:37	0°♄14'14	0°34'32
opposition	-12311 Oct 14 j 16:26	29°♄18'54	-2°12'43	morning rise	-12305 Jul 06 j 16:32	2°♄07'06	
min. Earth dist.	-12311 Oct 14 j 10:06	29°♄20'08	8.86806 AU	retrograde	-12305 Oct 12 j 19:32	8°♄44'56	
direct	-12311 Dec 24 j 08:04	25°♄53'47		opposition	-12305 Dec 22 j 00:55	5°♄30'26	0°57'49
	-12310 Mar 09 j 07:03	0°♄		min. Earth dist.	-12305 Dec 22 j 20:35	5°♄26'52	9.31383 AU
evening set	-12310 Apr 08 j 10:31	3°♄15'26		direct	-12304 Mar 03 j 05:16	2°♄11'09	
				evening set	-12304 Jun 13 j 06:23	9°♄02'37	
conjunction	-12310 Apr 25 j 19:51	5°♄17'24	-1°37'20				
minimum elong	-12310 Apr 25 j 19:55	5°♄17'25	1°37'57	conjunction	-12304 Jun 29 j 20:57	10°♄55'58	1°00'39
max. Earth dist.	-12310 Apr 26 j 00:49	5°♄18'51	10.93999 AU	minimum elong	-12304 Jun 29 j 20:55	10°♄55'57	1°00'46
morning rise	-12310 May 12 j 23:50	7°♄17'49		max. Earth dist.	-12304 Jun 28 j 21:05	10°♄49'07	11.30231 AU
retrograde	-12310 Aug 19 j 08:12	14°♄12'18		morning rise	-12304 Jul 16 j 08:43	12°♄48'38	
opposition	-12310 Oct 26 j 14:47	10°♄54'44	-1°45'24	retrograde	-12304 Oct 23 j 02:55	19°♄29'51	
min. Earth dist.	-12310 Oct 26 j 13:51	10°♄54'55	9.00711 AU	opposition	-12303 Jan 01 j 12:55	16°♄14'57	1°28'34
direct	-12309 Jan 05 j 18:55	7°♄30'47		min. Earth dist.	-12303 Jan 02 j 10:23	16°♄11'03	9.28412 AU
evening set	-12309 Apr 20 j 10:25	14°♄43'28		direct	-12303 Mar 14 j 14:06	12°♄56'08	
	-12309 Apr 22 j 20:24	15°♄		evening set	-12303 Jun 24 j 03:47	19°♄48'25	
conjunction	-12309 May 07 j 16:24	16°♄42'59	-1°13'41	conjunction	-12303 Jul 10 j 15:59	21°♄41'51	1°24'44
minimum elong	-12309 May 07 j 16:26	16°♄43'00	1°14'12	minimum elong	-12303 Jul 10 j 15:56	21°♄41'50	1°25'00



Attention, astronomical year style is used: The year -12303 in astronomical counting style is the year 12304 BCE in historical counting style.

max. Earth dist.	-12303 Jul 09 j 14:15	21° $\Upsilon$ 34'25	11.25686 AU	minimum elong	-12297 Sep 17 j 09:59	1° $\mathfrak{C}$ 29'34	2°22'34
morning rise	-12303 Jul 27 j 02:02	23° $\Upsilon$ 34'49		max. Earth dist.	-12297 Sep 16 j 12:25	1° $\mathfrak{C}$ 22'46	10.46664 AU
	-12303 Oct 13 j 12:32	0° $\mathfrak{C}$		morning rise	-12297 Oct 04 j 04:39	3° $\mathfrak{C}$ 35'48	
retrograde	-12303 Nov 03 j 13:32	0° $\mathfrak{C}$ 21'28		retrograde	-12296 Jan 18 j 04:17	11° $\mathfrak{C}$ 31'47	
	-12303 Nov 24 j 19:57	30° $\mathfrak{R}$ $\Upsilon$		opposition	-12296 Mar 28 j 05:46	8° $\mathfrak{C}$ 06'08	2°49'12
opposition	-12302 Jan 13 j 04:29	27° $\Upsilon$ 05'50	1°56'31	min. Earth dist.	-12296 Mar 28 j 21:38	8° $\mathfrak{C}$ 03'03	8.38021 AU
min. Earth dist.	-12302 Jan 14 j 03:59	27° $\Upsilon$ 01'33	9.22382 AU	direct	-12296 Jun 04 j 05:43	4° $\mathfrak{C}$ 44'14	
direct	-12302 Mar 25 j 20:28	23° $\Upsilon$ 47'15		evening set	-12296 Sep 12 j 18:53	12° $\mathfrak{C}$ 24'30	
	-12302 Jun 28 j 21:58	0° $\mathfrak{C}$					
evening set	-12302 Jul 05 j 03:16	0° $\mathfrak{C}$ 42'04		conjunction	-12296 Sep 29 j 14:20	14° $\mathfrak{C}$ 33'14	2°09'29
max. Earth dist.	-12302 Jul 20 j 09:22	2° $\mathfrak{C}$ 27'51	11.18159 AU	minimum elong	-12296 Sep 29 j 14:23	14° $\mathfrak{C}$ 33'15	2°10'13
				max. Earth dist.	-12296 Sep 28 j 22:21	14° $\mathfrak{C}$ 28'06	10.29385 AU
conjunction	-12302 Jul 21 j 13:27	2° $\mathfrak{C}$ 36'01	1°46'02	morning rise	-12296 Oct 16 j 14:36	16° $\mathfrak{C}$ 43'34	
minimum elong	-12302 Jul 21 j 13:24	2° $\mathfrak{C}$ 36'00	1°46'26	retrograde	-12295 Jan 31 j 15:14	24° $\mathfrak{C}$ 54'11	
morning rise	-12302 Aug 06 j 22:33	4° $\mathfrak{C}$ 29'48		opposition	-12295 Apr 11 j 06:45	21° $\mathfrak{C}$ 26'29	2°29'44
retrograde	-12302 Nov 15 j 06:50	11° $\mathfrak{C}$ 23'55		min. Earth dist.	-12295 Apr 11 j 17:27	21° $\mathfrak{C}$ 24'22	8.21069 AU
opposition	-12301 Jan 25 j 01:12	8° $\mathfrak{C}$ 07'13	2°20'43	direct	-12295 Jun 17 j 13:48	18° $\mathfrak{C}$ 03'25	
min. Earth dist.	-12301 Jan 26 j 02:28	8° $\mathfrak{C}$ 02'36	9.13461 AU	evening set	-12295 Sep 26 j 08:04	25° $\mathfrak{C}$ 54'25	
direct	-12301 Apr 06 j 07:49	4° $\mathfrak{C}$ 48'36					
evening set	-12301 Jul 16 j 06:28	11° $\mathfrak{C}$ 47'35		conjunction	-12295 Oct 13 j 09:25	28° $\mathfrak{C}$ 07'15	1°49'41
max. Earth dist.	-12301 Jul 31 j 10:18	13° $\mathfrak{C}$ 34'01	11.07868 AU	minimum elong	-12295 Oct 13 j 09:29	28° $\mathfrak{C}$ 07'17	1°50'21
				max. Earth dist.	-12295 Oct 13 j 00:31	28° $\mathfrak{C}$ 04'21	10.13076 AU
conjunction	-12301 Aug 01 j 15:19	13° $\mathfrak{C}$ 42'34	2°03'45		-12295 Oct 27 j 19:53	0° $\mathfrak{C}$	
minimum elong	-12301 Aug 01 j 15:16	13° $\mathfrak{C}$ 42'34	2°04'15	morning rise	-12295 Oct 30 j 16:04	0° $\mathfrak{C}$ 21'54	
	-12301 Aug 12 j 14:34	15° $\mathfrak{C}$		retrograde	-12294 Feb 15 j 13:26	8° $\mathfrak{C}$ 46'01	
morning rise	-12301 Aug 18 j 00:12	15° $\mathfrak{C}$ 37'41		opposition	-12294 Apr 25 j 16:51	5° $\mathfrak{C}$ 16'25	2°00'55
retrograde	-12301 Nov 27 j 08:32	22° $\mathfrak{C}$ 41'12		min. Earth dist.	-12294 Apr 25 j 21:15	5° $\mathfrak{C}$ 15'32	8.05596 AU
opposition	-12300 Feb 06 j 04:15	19° $\mathfrak{C}$ 23'06	2°40'09	direct	-12294 Jul 01 j 07:42	1° $\mathfrak{C}$ 52'07	
min. Earth dist.	-12300 Feb 07 j 05:37	19° $\mathfrak{C}$ 18'27	9.01911 AU	evening set	-12294 Oct 10 j 11:13	9° $\mathfrak{C}$ 53'35	
direct	-12300 Apr 16 j 22:53	16° $\mathfrak{C}$ 04'16					
evening set	-12300 Jul 26 j 15:07	23° $\mathfrak{C}$ 08'53		conjunction	-12294 Oct 27 j 19:05	12° $\mathfrak{C}$ 10'30	1°22'52
				minimum elong	-12294 Oct 27 j 19:09	12° $\mathfrak{C}$ 10'32	1°23'26
conjunction	-12300 Aug 11 j 23:44	25° $\mathfrak{C}$ 05'29	2°17'00	max. Earth dist.	-12294 Oct 27 j 17:55	12° $\mathfrak{C}$ 10'07	9.98740 AU
minimum elong	-12300 Aug 11 j 23:41	25° $\mathfrak{C}$ 05'28	2°17'36	morning rise	-12294 Nov 14 j 08:34	14° $\mathfrak{C}$ 29'20	
max. Earth dist.	-12300 Aug 10 j 19:51	24° $\mathfrak{C}$ 57'08	10.95123 AU		-12294 Nov 18 j 07:33	15° $\mathfrak{C}$	
morning rise	-12300 Aug 28 j 09:11	27° $\mathfrak{C}$ 02'29		retrograde	-12293 Mar 02 j 20:31	23° $\mathfrak{C}$ 04'52	
	-12300 Sep 24 j 01:58	0° $\mathfrak{C}$		opposition	-12293 May 10 j 10:57	19° $\mathfrak{C}$ 33'38	1°23'41
retrograde	-12300 Dec 08 j 20:00	4° $\mathfrak{C}$ 17'10		min. Earth dist.	-12293 May 10 j 08:30	19° $\mathfrak{C}$ 34'08	7.92598 AU
opposition	-12299 Feb 17 j 14:51	0° $\mathfrak{C}$ 57'23	2°53'47	direct	-12293 Jul 15 j 12:05	16° $\mathfrak{C}$ 08'03	
min. Earth dist.	-12299 Feb 18 j 14:45	0° $\mathfrak{C}$ 52'57	8.88085 AU	evening set	-12293 Oct 25 j 04:01	24° $\mathfrak{C}$ 19'04	
	-12299 Mar 02 j 15:56	30° $\mathfrak{R}$ $\mathfrak{C}$					
direct	-12299 Apr 28 j 19:25	27° $\mathfrak{C}$ 38'04		conjunction	-12293 Nov 11 j 18:26	26° $\mathfrak{C}$ 39'41	0°50'11
	-12299 Jun 21 j 23:08	0° $\mathfrak{C}$		minimum elong	-12293 Nov 11 j 18:29	26° $\mathfrak{C}$ 39'42	0°50'36
evening set	-12299 Aug 07 j 06:56	4° $\mathfrak{C}$ 49'47		max. Earth dist.	-12293 Nov 12 j 01:11	26° $\mathfrak{C}$ 41'57	9.87331 AU
				morning rise	-12293 Nov 29 j 14:33	29° $\mathfrak{C}$ 02'12	
conjunction	-12299 Aug 23 j 16:22	6° $\mathfrak{C}$ 48'34	2°24'58		-12293 Dec 07 j 00:38	0° $\mathfrak{C}$	
minimum elong	-12299 Aug 23 j 16:21	6° $\mathfrak{C}$ 48'33	2°25'38	retrograde	-12292 Mar 17 j 09:27	7° $\mathfrak{C}$ 45'59	
max. Earth dist.	-12299 Aug 22 j 14:04	6° $\mathfrak{C}$ 40'33	10.80317 AU	opposition	-12292 May 24 j 10:49	4° $\mathfrak{C}$ 13'30	0°39'58
morning rise	-12299 Sep 09 j 03:33	8° $\mathfrak{C}$ 48'02		min. Earth dist.	-12292 May 24 j 02:07	4° $\mathfrak{C}$ 15'18	7.82968 AU
retrograde	-12299 Dec 21 j 19:46	16° $\mathfrak{C}$ 15'24		direct	-12292 Jul 29 j 02:14	0° $\mathfrak{C}$ 46'40	
opposition	-12298 Mar 02 j 10:05	12° $\mathfrak{C}$ 53'45	3°00'30	evening set	-12292 Nov 08 j 09:30	9° $\mathfrak{C}$ 05'42	
min. Earth dist.	-12298 Mar 03 j 07:54	12° $\mathfrak{C}$ 49'39	8.72409 AU				
direct	-12298 May 10 j 22:05	9° $\mathfrak{C}$ 33'45		conjunction	-12292 Nov 26 j 05:51	11° $\mathfrak{C}$ 29'14	0°13'36
evening set	-12298 Aug 19 j 07:48	16° $\mathfrak{C}$ 53'55		minimum elong	-12292 Nov 26 j 05:51	11° $\mathfrak{C}$ 29'14	0°13'51
				behind sun begin	-12292 Nov 26 j 02:09	11° $\mathfrak{C}$ 28'00	
conjunction	-12298 Sep 04 j 19:08	18° $\mathfrak{C}$ 55'27	2°26'49	behind sun end	-12292 Nov 26 j 09:34	11° $\mathfrak{C}$ 30'28	
minimum elong	-12298 Sep 04 j 19:08	18° $\mathfrak{C}$ 55'27	2°27'32	max. Earth dist.	-12292 Nov 26 j 20:12	11° $\mathfrak{C}$ 34'03	9.79651 AU
max. Earth dist.	-12298 Sep 03 j 18:16	18° $\mathfrak{C}$ 47'45	10.63936 AU	morning rise	-12292 Dec 14 j 07:32	13° $\mathfrak{C}$ 54'29	
morning rise	-12298 Sep 21 j 09:24	20° $\mathfrak{C}$ 58'02		retrograde	-12291 Apr 02 j 00:12	22° $\mathfrak{C}$ 42'25	
retrograde	-12297 Jan 04 j 06:16	28° $\mathfrak{C}$ 39'19		desc. node	-12291 Apr 12 j 07:28	22° $\mathfrak{C}$ 36'29	
opposition	-12297 Mar 15 j 14:48	25° $\mathfrak{C}$ 15'42	2°59'16	opposition	-12291 Jun 08 j 13:33	19° $\mathfrak{C}$ 09'13	-0°07'16
min. Earth dist.	-12297 Mar 16 j 10:17	25° $\mathfrak{C}$ 11'59	8.55452 AU	min. Earth dist.	-12291 Jun 07 j 23:28	19° $\mathfrak{C}$ 12'10	7.77402 AU
direct	-12297 May 23 j 08:16	21° $\mathfrak{C}$ 54'50		direct	-12291 Aug 12 j 23:49	15° $\mathfrak{C}$ 41'13	
evening set	-12297 Aug 31 j 19:18	29° $\mathfrak{C}$ 24'41		evening set	-12291 Nov 24 j 00:48	24° $\mathfrak{C}$ 06'02	
	-12297 Sep 05 j 13:08	0° $\mathfrak{C}$					
				conjunction	-12291 Dec 12 j 01:47	26° $\mathfrak{C}$ 31'21	-0°24'24
conjunction	-12297 Sep 17 j 09:57	1° $\mathfrak{C}$ 29'34	2°21'50	minimum elong	-12291 Dec 12 j 01:46	26° $\mathfrak{C}$ 31'20	0°24'20

Attention, astronomical year style is used: The year -12291 in astronomical counting style is the year 12292 BCE in historical counting style.

max. Earth dist.	-12291 Dec 12 j 22:57	26° $\mathbb{M}$ 38'29	9.76262 AU	morning rise	-12284 Mar 30 j 02:54	25° $\mathbb{A}$ 11'35	
morning rise	-12291 Dec 30 j 07:18	28° $\mathbb{M}$ 58'03			-12284 May 13 j 01:52	0° $\mathbb{B}$	
	-12290 Jan 07 j 04:52	0° $\mathbb{A}$		retrograde	-12284 Jul 09 j 13:12	2° $\mathbb{B}$ 48'33	
retrograde	-12290 Apr 17 j 13:00	7° $\mathbb{A}$ 45'38			-12284 Sep 07 j 02:30	30° $\mathbb{R}$ $\mathbb{A}$	
opposition	-12290 Jun 23 j 16:22	4° $\mathbb{A}$ 12'18	-0°54'24	opposition	-12284 Sep 14 j 12:39	29° $\mathbb{A}$ 24'26	-2°56'41
min. Earth dist.	-12290 Jun 22 j 21:57	4° $\mathbb{A}$ 16'11	7.76309 AU	min. Earth dist.	-12284 Sep 13 j 19:10	29° $\mathbb{A}$ 27'57	8.46210 AU
direct	-12290 Aug 28 j 02:40	0° $\mathbb{A}$ 43'19		direct	-12284 Nov 22 j 09:30	25° $\mathbb{A}$ 56'27	
evening set	-12290 Dec 09 j 21:56	9° $\mathbb{A}$ 11'03			-12283 Feb 02 j 22:55	0° $\mathbb{B}$	
				evening set	-12283 Mar 08 j 09:08	3° $\mathbb{B}$ 44'21	
conjunction	-12290 Dec 28 j 01:49	11° $\mathbb{A}$ 36'48	-1°00'46				
minimum elong	-12290 Dec 28 j 01:46	11° $\mathbb{A}$ 36'47	1°00'53	conjunction	-12283 Mar 26 j 02:32	5° $\mathbb{B}$ 53'51	-2°18'26
max. Earth dist.	-12290 Dec 29 j 04:27	11° $\mathbb{A}$ 45'46	9.77414 AU	minimum elong	-12283 Mar 26 j 02:34	5° $\mathbb{B}$ 53'51	2°19'11
morning rise	-12289 Jan 15 j 09:03	14° $\mathbb{A}$ 03'30		max. Earth dist.	-12283 Mar 26 j 22:49	6° $\mathbb{B}$ 00'04	10.54796 AU
retrograde	-12289 May 02 j 20:12	22° $\mathbb{A}$ 46'12		morning rise	-12283 Apr 12 j 15:32	8° $\mathbb{B}$ 01'56	
opposition	-12289 Jul 08 j 16:02	19° $\mathbb{A}$ 13'19	-1°37'37	retrograde	-12283 Jul 21 j 23:07	15° $\mathbb{B}$ 24'37	
min. Earth dist.	-12289 Jul 07 j 18:32	19° $\mathbb{A}$ 17'51	7.79755 AU	opposition	-12283 Sep 27 j 06:37	12° $\mathbb{B}$ 02'44	-2°43'35
direct	-12289 Sep 12 j 07:50	15° $\mathbb{A}$ 43'38		min. Earth dist.	-12283 Sep 26 j 17:26	12° $\mathbb{B}$ 05'21	8.63438 AU
evening set	-12289 Dec 25 j 20:36	24° $\mathbb{A}$ 11'08		direct	-12283 Dec 05 j 21:39	8° $\mathbb{B}$ 35'57	
				evening set	-12282 Mar 21 j 15:04	16° $\mathbb{B}$ 12'48	
conjunction	-12288 Jan 13 j 01:35	26° $\mathbb{A}$ 35'59	-1°32'48				
minimum elong	-12288 Jan 13 j 01:30	26° $\mathbb{A}$ 35'57	1°33'06	conjunction	-12282 Apr 08 j 05:05	18° $\mathbb{B}$ 19'00	-2°05'14
max. Earth dist.	-12288 Jan 14 j 07:48	26° $\mathbb{A}$ 46'04	9.83002 AU	minimum elong	-12282 Apr 08 j 05:08	18° $\mathbb{B}$ 19'01	2°05'57
morning rise	-12288 Jan 31 j 08:26	29° $\mathbb{A}$ 01'16		max. Earth dist.	-12282 Apr 08 j 18:56	18° $\mathbb{B}$ 23'10	10.71801 AU
	-12288 Feb 07 j 22:22	0° $\mathbb{M}$		morning rise	-12282 Apr 25 j 14:22	20° $\mathbb{B}$ 23'43	
retrograde	-12288 May 16 j 18:31	7° $\mathbb{M}$ 34'59		retrograde	-12282 Aug 02 j 22:33	27° $\mathbb{B}$ 33'34	
min. Earth dist.	-12288 Jul 21 j 10:12	4° $\mathbb{M}$ 08'02	7.87444 AU	opposition	-12282 Oct 09 j 15:42	24° $\mathbb{B}$ 13'46	-2°23'31
opposition	-12288 Jul 22 j 09:37	4° $\mathbb{M}$ 03'06	-2°13'39	min. Earth dist.	-12282 Oct 09 j 06:42	24° $\mathbb{B}$ 15'31	8.79969 AU
direct	-12288 Sep 26 j 11:52	0° $\mathbb{M}$ 33'03		direct	-12282 Dec 19 j 00:28	20° $\mathbb{B}$ 48'16	
evening set	-12287 Jan 09 j 15:48	8° $\mathbb{M}$ 57'09		evening set	-12281 Apr 03 j 07:44	28° $\mathbb{B}$ 14'35	
					-12281 Apr 18 j 06:28	0° $\mathbb{A}$	
conjunction	-12287 Jan 27 j 20:13	11° $\mathbb{M}$ 19'56	-1°58'14				
minimum elong	-12287 Jan 27 j 20:08	11° $\mathbb{M}$ 19'55	1°58'42	conjunction	-12281 Apr 20 j 18:33	0° $\mathbb{A}$ 17'48	-1°46'52
max. Earth dist.	-12287 Jan 29 j 04:04	11° $\mathbb{M}$ 30'26	9.92580 AU	minimum elong	-12281 Apr 20 j 18:36	0° $\mathbb{A}$ 17'49	1°47'31
morning rise	-12287 Feb 15 j 00:52	13° $\mathbb{M}$ 42'40		max. Earth dist.	-12281 Apr 21 j 02:19	0° $\mathbb{A}$ 20'06	10.87734 AU
	-12287 Feb 25 j 04:39	15° $\mathbb{M}$		morning rise	-12281 May 08 j 00:16	2° $\mathbb{A}$ 19'29	
retrograde	-12287 May 31 j 05:49	22° $\mathbb{M}$ 04'12		retrograde	-12281 Aug 14 j 15:13	9° $\mathbb{A}$ 18'23	
opposition	-12287 Aug 05 j 19:14	18° $\mathbb{M}$ 33'49	-2°40'10	opposition	-12281 Oct 21 j 17:12	6° $\mathbb{A}$ 00'24	-1°58'04
min. Earth dist.	-12287 Aug 04 j 19:02	18° $\mathbb{M}$ 38'53	7.98783 AU	min. Earth dist.	-12281 Oct 21 j 12:23	6° $\mathbb{A}$ 01'19	8.95079 AU
direct	-12287 Oct 11 j 12:01	15° $\mathbb{M}$ 03'47		direct	-12281 Dec 31 j 16:01	2° $\mathbb{A}$ 36'15	
evening set	-12286 Jan 25 j 02:53	23° $\mathbb{M}$ 21'32		evening set	-12280 Apr 14 j 12:46	9° $\mathbb{A}$ 52'58	
conjunction	-12286 Feb 12 j 05:25	25° $\mathbb{M}$ 41'25	-2°15'41				
minimum elong	-12286 Feb 12 j 05:22	25° $\mathbb{M}$ 41'24	2°16'16	conjunction	-12280 May 01 j 20:23	11° $\mathbb{A}$ 53'33	-1°24'34
max. Earth dist.	-12286 Feb 13 j 13:05	25° $\mathbb{M}$ 51'41	10.05443 AU	minimum elong	-12280 May 01 j 20:26	11° $\mathbb{A}$ 53'34	1°25'08
morning rise	-12286 Mar 02 j 06:40	28° $\mathbb{M}$ 00'47		max. Earth dist.	-12280 May 01 j 22:54	11° $\mathbb{A}$ 54'17	11.01925 AU
	-12286 Mar 18 j 08:54	0° $\mathbb{A}$		morning rise	-12280 May 18 j 22:36	13° $\mathbb{A}$ 52'37	
retrograde	-12286 Jun 14 j 04:13	6° $\mathbb{A}$ 08'07			-12280 May 28 j 22:21	15° $\mathbb{A}$	
opposition	-12286 Aug 19 j 19:17	2° $\mathbb{A}$ 39'36	-2°56'03	retrograde	-12280 Aug 25 j 00:52	20° $\mathbb{A}$ 42'37	
min. Earth dist.	-12286 Aug 18 j 19:42	2° $\mathbb{A}$ 44'29	8.12968 AU	opposition	-12280 Nov 01 j 12:38	17° $\mathbb{A}$ 26'09	-1°28'43
	-12286 Sep 25 j 14:36	30° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	-12280 Nov 01 j 13:01	17° $\mathbb{A}$ 26'05	9.08176 AU
direct	-12286 Oct 26 j 04:58	29° $\mathbb{M}$ 09'57			-12280 Dec 07 j 19:53	15° $\mathbb{R}$ $\mathbb{A}$	
	-12286 Nov 25 j 17:47	0° $\mathbb{A}$		direct	-12279 Jan 11 j 23:01	14° $\mathbb{A}$ 03'17	
evening set	-12285 Feb 09 j 02:40	7° $\mathbb{A}$ 19'01			-12279 Feb 15 j 20:02	15° $\mathbb{A}$	
				evening set	-12279 Apr 26 j 07:53	21° $\mathbb{A}$ 11'42	
conjunction	-12285 Feb 27 j 02:33	9° $\mathbb{A}$ 35'33	-2°24'36				
minimum elong	-12285 Feb 27 j 02:32	9° $\mathbb{A}$ 35'33	2°25'17	conjunction	-12279 May 13 j 12:12	23° $\mathbb{A}$ 10'02	-0°59'29
max. Earth dist.	-12285 Feb 28 j 08:10	9° $\mathbb{A}$ 44'59	10.20726 AU	minimum elong	-12279 May 13 j 12:14	23° $\mathbb{A}$ 10'02	0°59'56
morning rise	-12285 Mar 16 j 23:46	11° $\mathbb{A}$ 51'09		max. Earth dist.	-12279 May 13 j 08:36	23° $\mathbb{A}$ 08'59	11.13834 AU
retrograde	-12285 Jun 27 j 14:29	19° $\mathbb{A}$ 43'17		morning rise	-12279 May 30 j 11:13	25° $\mathbb{A}$ 06'54	
min. Earth dist.	-12285 Sep 01 j 11:40	16° $\mathbb{A}$ 21'15	8.29090 AU		-12279 Jul 19 j 16:18	0° $\mathbb{H}$	
opposition	-12285 Sep 02 j 08:59	16° $\mathbb{A}$ 16'55	-3°01'17	retrograde	-12279 Sep 05 j 05:56	1° $\mathbb{H}$ 50'12	
direct	-12285 Nov 09 j 12:07	12° $\mathbb{A}$ 47'57			-12279 Oct 24 j 09:18	30° $\mathbb{R}$ $\mathbb{A}$	
evening set	-12284 Feb 23 j 13:05	20° $\mathbb{A}$ 46'50		opposition	-12279 Nov 13 j 03:19	28° $\mathbb{A}$ 34'55	-0°56'45
				min. Earth dist.	-12279 Nov 13 j 09:17	28° $\mathbb{A}$ 33'48	9.18776 AU
conjunction	-12284 Mar 12 j 09:52	22° $\mathbb{A}$ 59'49	-2°25'16	direct	-12278 Jan 23 j 22:16	25° $\mathbb{A}$ 13'11	
minimum elong	-12284 Mar 12 j 09:52	22° $\mathbb{A}$ 59'49	2°26'00		-12278 Apr 16 j 21:46	0° $\mathbb{H}$	
max. Earth dist.	-12284 Mar 13 j 11:42	23° $\mathbb{A}$ 07'53	10.37488 AU	evening set	-12278 May 07 j 18:43	2° $\mathbb{H}$ 14'48	

Attention, astronomical year style is used: The year -12278 in astronomical counting style is the year 12279 BCE in historical counting style.

conjunction	-12278 May 24 j 19:42	4° $\text{H}$ 11'17	-0°32'39	conjunction	-12272 Jul 27 j 04:24	9° $\text{S}$ 02'40	1°56'25
minimum elong	-12278 May 24 j 19:43	4° $\text{H}$ 11'17	0°32'59	minimum elong	-12272 Jul 27 j 04:20	9° $\text{S}$ 02'39	1°56'52
max. Earth dist.	-12278 May 24 j 09:25	4° $\text{H}$ 08'20	11.23016 AU	morning rise	-12272 Aug 12 j 13:11	10° $\text{S}$ 57'10	
morning rise	-12278 Jun 10 j 15:54	6° $\text{H}$ 06'26			-12272 Sep 20 j 10:43	15° $\text{S}$	
retrograde	-12278 Sep 16 j 06:14	12° $\text{H}$ 45'20		retrograde	-12272 Nov 21 j 10:50	17° $\text{S}$ 56'27	
opposition	-12278 Nov 24 j 14:38	9° $\text{H}$ 30'50	-0°23'23		-12271 Jan 26 j 09:00	15° $\text{R}$ $\text{S}$	
min. Earth dist.	-12278 Nov 25 j 01:26	9° $\text{H}$ 28'50	9.26467 AU	opposition	-12271 Jan 31 j 05:22	14° $\text{S}$ 38'40	2°32'15
direct	-12277 Feb 04 j 16:27	6° $\text{H}$ 10'06		min. Earth dist.	-12271 Feb 01 j 06:47	14° $\text{S}$ 34'00	9.06333 AU
evening set	-12277 May 18 j 23:25	13° $\text{H}$ 06'41		direct	-12271 Apr 12 j 06:08	11° $\text{S}$ 19'34	
					-12271 Jun 20 j 21:57	15° $\text{S}$	
conjunction	-12277 Jun 04 j 21:11	15° $\text{H}$ 01'43	-0°05'04	evening set	-12271 Jul 22 j 00:52	18° $\text{S}$ 21'42	
minimum elong	-12277 Jun 04 j 21:12	15° $\text{H}$ 01'43	0°05'16	max. Earth dist.	-12271 Aug 06 j 04:00	20° $\text{S}$ 08'50	10.99886 AU
behind sun begin	-12277 Jun 04 j 14:26	14° $\text{H}$ 59'48					
behind sun end	-12277 Jun 05 j 03:59	15° $\text{H}$ 03'38		conjunction	-12271 Aug 07 j 09:32	20° $\text{S}$ 17'37	2°11'45
max. Earth dist.	-12277 Jun 04 j 05:36	14° $\text{H}$ 57'16	11.29128 AU	minimum elong	-12271 Aug 07 j 09:29	20° $\text{S}$ 17'36	2°12'18
morning rise	-12277 Jun 21 j 14:38	16° $\text{H}$ 55'35		morning rise	-12271 Aug 23 j 18:38	22° $\text{S}$ 13'48	
asc. node	-12277 Aug 12 j 12:29	21° $\text{H}$ 51'52		retrograde	-12271 Dec 03 j 16:39	29° $\text{S}$ 23'31	
retrograde	-12277 Sep 27 j 08:16	23° $\text{H}$ 32'27		opposition	-12270 Feb 12 j 12:19	26° $\text{S}$ 04'04	2°48'36
opposition	-12277 Dec 06 j 00:11	20° $\text{H}$ 18'21	0°10'23	min. Earth dist.	-12270 Feb 13 j 13:50	25° $\text{S}$ 59'19	8.93159 AU
min. Earth dist.	-12277 Dec 06 j 14:44	20° $\text{H}$ 15'42	9.30984 AU	direct	-12270 Apr 23 j 23:00	22° $\text{S}$ 44'27	
direct	-12276 Feb 16 j 06:21	16° $\text{H}$ 58'28		evening set	-12270 Aug 02 j 13:14	29° $\text{S}$ 53'11	
evening set	-12276 May 28 j 23:50	23° $\text{H}$ 51'45			-12270 Aug 03 j 12:15	0° $\text{II}$	
conjunction	-12276 Jun 14 j 18:38	25° $\text{H}$ 45'48	0°22'37	conjunction	-12270 Aug 18 j 22:04	1° $\text{II}$ 51'02	2°22'11
minimum elong	-12276 Jun 14 j 18:37	25° $\text{H}$ 45'48	0°22'32	minimum elong	-12270 Aug 18 j 22:03	1° $\text{II}$ 51'02	2°22'49
max. Earth dist.	-12276 Jun 13 j 23:17	25° $\text{H}$ 40'17	11.32005 AU	max. Earth dist.	-12270 Aug 17 j 17:23	1° $\text{II}$ 42'22	10.85692 AU
morning rise	-12276 Jul 01 j 09:24	27° $\text{H}$ 38'51		morning rise	-12270 Sep 04 j 08:32	3° $\text{II}$ 49'28	
	-12276 Jul 23 j 10:34	0° $\text{Y}$		retrograde	-12270 Dec 16 j 10:11	11° $\text{II}$ 11'18	
retrograde	-12276 Oct 07 j 09:47	4° $\text{Y}$ 15'57		opposition	-12269 Feb 25 j 03:33	7° $\text{II}$ 50'00	2°58'33
opposition	-12276 Dec 16 j 09:57	1° $\text{Y}$ 01'52	0°43'34	min. Earth dist.	-12269 Feb 26 j 03:37	7° $\text{II}$ 45'29	8.78070 AU
min. Earth dist.	-12276 Dec 17 j 04:17	0° $\text{Y}$ 58'32	9.32256 AU	direct	-12269 May 05 j 23:42	4° $\text{II}$ 29'44	
	-12276 Dec 30 j 20:08	30° $\text{R}$ $\text{H}$		evening set	-12269 Aug 14 j 09:33	11° $\text{II}$ 46'24	
direct	-12275 Feb 26 j 14:33	27° $\text{H}$ 42'37					
	-12275 Apr 23 j 05:04	0° $\text{Y}$		conjunction	-12269 Aug 30 j 19:54	13° $\text{II}$ 46'46	2°26'52
evening set	-12275 Jun 08 j 21:47	4° $\text{Y}$ 34'19		minimum elong	-12269 Aug 30 j 19:54	13° $\text{II}$ 46'46	2°27'33
				max. Earth dist.	-12269 Aug 29 j 18:19	13° $\text{II}$ 38'54	10.69863 AU
conjunction	-12275 Jun 25 j 13:38	6° $\text{Y}$ 27'48	0°49'19	morning rise	-12269 Sep 16 j 08:43	15° $\text{II}$ 48'01	
minimum elong	-12275 Jun 25 j 13:36	6° $\text{Y}$ 27'47	0°49'22	retrograde	-12269 Dec 29 j 14:45	23° $\text{II}$ 23'22	
max. Earth dist.	-12275 Jun 24 j 14:11	6° $\text{Y}$ 21'06	11.31634 AU	opposition	-12268 Mar 09 j 03:58	20° $\text{II}$ 00'04	3°01'00
morning rise	-12275 Jul 12 j 02:12	8° $\text{Y}$ 20'29		min. Earth dist.	-12268 Mar 10 j 00:42	19° $\text{II}$ 56'07	8.61639 AU
retrograde	-12275 Oct 18 j 14:01	15° $\text{Y}$ 00'01		direct	-12268 May 17 j 07:00	16° $\text{II}$ 39'02	
opposition	-12275 Dec 27 j 21:09	11° $\text{Y}$ 45'33	1°15'16	evening set	-12268 Aug 25 j 15:53	24° $\text{II}$ 04'48	
min. Earth dist.	-12275 Dec 28 j 19:21	11° $\text{Y}$ 41'31	9.30306 AU	max. Earth dist.	-12268 Sep 10 j 07:31	26° $\text{II}$ 01'31	10.53034 AU
direct	-12274 Mar 09 j 23:14	8° $\text{Y}$ 26'40					
evening set	-12274 Jun 19 j 19:15	15° $\text{Y}$ 18'31		conjunction	-12268 Sep 11 j 05:05	26° $\text{II}$ 08'16	2°25'00
max. Earth dist.	-12274 Jul 05 j 05:16	17° $\text{Y}$ 04'04	11.28073 AU	minimum elong	-12268 Sep 11 j 05:06	26° $\text{II}$ 08'17	2°25'44
				morning rise	-12268 Sep 27 j 21:34	28° $\text{II}$ 12'55	
conjunction	-12274 Jul 06 j 08:22	17° $\text{Y}$ 11'52	1°14'23		-12268 Oct 12 j 19:32	0° $\text{S}$	
minimum elong	-12274 Jul 06 j 08:19	17° $\text{Y}$ 11'51	1°14'35	retrograde	-12267 Jan 11 j 08:11	6° $\text{S}$ 02'38	
morning rise	-12274 Jul 22 j 19:15	19° $\text{Y}$ 04'41		opposition	-12267 Mar 22 j 14:08	2° $\text{S}$ 37'18	2°54'58
retrograde	-12274 Oct 29 j 21:07	25° $\text{Y}$ 48'43		min. Earth dist.	-12267 Mar 23 j 06:24	2° $\text{S}$ 34'09	8.44560 AU
opposition	-12273 Jan 08 j 10:58	22° $\text{Y}$ 33'29	1°44'34		-12267 Apr 30 j 11:34	30° $\text{R}$ $\text{II}$	
min. Earth dist.	-12273 Jan 09 j 11:26	22° $\text{Y}$ 29'02	9.25215 AU	direct	-12267 May 29 j 23:25	29° $\text{II}$ 15'23	
direct	-12273 Mar 21 j 07:11	19° $\text{Y}$ 14'44			-12267 Jun 27 j 20:22	0° $\text{S}$	
evening set	-12273 Jun 30 j 17:41	26° $\text{Y}$ 08'25		evening set	-12267 Sep 07 j 09:48	6° $\text{S}$ 51'09	
max. Earth dist.	-12273 Jul 16 j 00:20	27° $\text{Y}$ 53'53	11.21439 AU	max. Earth dist.	-12267 Sep 23 j 09:51	8° $\text{S}$ 52'44	10.35959 AU
conjunction	-12273 Jul 17 j 04:42	28° $\text{Y}$ 02'07	1°37'01	conjunction	-12267 Sep 24 j 03:03	8° $\text{S}$ 58'13	2°16'00
minimum elong	-12273 Jul 17 j 04:39	28° $\text{Y}$ 02'06	1°37'21	minimum elong	-12267 Sep 24 j 03:06	8° $\text{S}$ 58'14	2°16'44
morning rise	-12273 Aug 02 j 14:13	29° $\text{Y}$ 55'31		morning rise	-12267 Oct 11 j 00:36	11° $\text{S}$ 06'46	
	-12273 Aug 03 j 06:01	0° $\text{S}$		retrograde	-12266 Jan 25 j 14:46	19° $\text{S}$ 11'03	
retrograde	-12273 Nov 10 j 12:31	6° $\text{S}$ 46'12		opposition	-12266 Apr 05 j 10:27	15° $\text{S}$ 43'46	2°39'43
opposition	-12272 Jan 20 j 05:16	3° $\text{S}$ 29'49	2°10'33	min. Earth dist.	-12266 Apr 05 j 21:56	15° $\text{S}$ 41'30	8.27641 AU
min. Earth dist.	-12272 Jan 21 j 06:27	3° $\text{S}$ 25'14	9.17138 AU	direct	-12266 Jun 12 j 00:53	12° $\text{S}$ 20'51	
direct	-12272 Mar 31 j 18:26	0° $\text{S}$ 11'00		evening set	-12266 Sep 20 j 16:32	20° $\text{S}$ 07'08	
evening set	-12272 Jul 10 j 18:52	7° $\text{S}$ 08'07					
max. Earth dist.	-12272 Jul 25 j 23:38	8° $\text{S}$ 54'14	11.11938 AU	conjunction	-12266 Oct 07 j 14:59	22° $\text{S}$ 18'09	1°59'30

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 12

Attention, astronomical year style is used: The year -12266 in astronomical counting style is the year 12267 BCE in historical counting style.

minimum elong	-12266 Oct 07 j 15:03	22°☾18'10	2°00'12	morning rise	-12260 Jan 08 j 14:58	7°♂35'35	
max. Earth dist.	-12266 Oct 07 j 03:17	22°☾14'21	10.19494 AU	retrograde	-12260 Apr 25 j 11:31	16°♂20'32	
morning rise	-12266 Oct 24 j 18:42	24°☾30'54		opposition	-12260 Jul 01 j 10:41	12°♂47'54	-1°19'01
	-12266 Dec 12 j 16:29	0°♂		min. Earth dist.	-12260 Jun 30 j 12:50	12°♂52'30	7.79142 AU
retrograde	-12265 Feb 09 j 08:13	2°♂49'10		direct	-12260 Sep 04 j 22:54	9°♂19'07	
	-12265 Apr 11 j 07:10	30°♂☾		evening set	-12260 Dec 18 j 04:17	17°♂46'27	
opposition	-12265 Apr 19 j 16:28	29°☾20'05	2°15'00				
min. Earth dist.	-12265 Apr 19 j 22:39	29°☾18'51	8.11797 AU	conjunction	-12259 Jan 05 j 08:59	20°♂11'37	-1°19'11
direct	-12265 Jun 25 j 13:22	25°☾56'05		minimum elong	-12259 Jan 05 j 08:54	20°♂11'36	1°19'25
	-12265 Sep 02 j 05:06	0°♂		max. Earth dist.	-12259 Jan 06 j 15:56	20°♂21'59	9.81595 AU
evening set	-12265 Oct 04 j 13:04	3°♂52'55		morning rise	-12259 Jan 23 j 15:56	22°♂37'27	
					-12259 Apr 03 j 16:27	0°♂	
conjunction	-12265 Oct 21 j 17:45	6°♂08'01	1°35'42	retrograde	-12259 May 10 j 14:45	1°♂14'59	
minimum elong	-12265 Oct 21 j 17:49	6°♂08'02	1°36'20		-12259 Jun 16 j 17:29	30°♂♂	
max. Earth dist.	-12265 Oct 21 j 13:00	6°♂06'27	10.04585 AU	min. Earth dist.	-12259 Jul 15 j 07:07	27°♂48'12	7.85237 AU
morning rise	-12265 Nov 08 j 04:16	8°♂25'01		opposition	-12259 Jul 16 j 07:05	27°♂43'09	-1°58'34
	-12264 Jan 07 j 20:31	15°♂		direct	-12259 Sep 20 j 03:22	24°♂13'53	
retrograde	-12264 Feb 24 j 10:44	16°♂55'40			-12259 Dec 12 j 20:38	0°♂	
	-12264 Apr 13 j 00:06	15°♂♂		evening set	-12258 Jan 03 j 01:25	2°♂39'03	
opposition	-12264 May 03 j 07:07	13°♂25'00	1°41'19				
min. Earth dist.	-12264 May 03 j 07:32	13°♂24'55	7.97999 AU	conjunction	-12258 Jan 21 j 06:08	5°♂02'37	-1°47'47
direct	-12264 Jul 08 j 13:51	9°♂59'54		minimum elong	-12258 Jan 21 j 06:03	5°♂02'35	1°48'10
	-12264 Sep 22 j 23:16	15°♂		max. Earth dist.	-12258 Jan 22 j 14:48	5°♂13'26	9.89620 AU
evening set	-12264 Oct 17 j 23:37	18°♂06'42		morning rise	-12258 Feb 08 j 11:39	7°♂26'20	
					-12258 Apr 24 j 10:10	15°♂	
conjunction	-12264 Nov 04 j 11:00	20°♂25'41	1°05'26	retrograde	-12258 May 25 j 07:26	15°♂52'56	
minimum elong	-12264 Nov 04 j 11:03	20°♂25'42	1°05'55		-12258 Jun 25 j 05:56	15°♂♂	
max. Earth dist.	-12264 Nov 04 j 14:26	20°♂26'50	9.92178 AU	opposition	-12258 Jul 30 j 20:20	12°♂22'24	-2°29'30
morning rise	-12264 Nov 22 j 04:19	22°♂46'36		min. Earth dist.	-12258 Jul 29 j 20:19	12°♂27'26	7.95070 AU
	-12263 Jan 29 j 04:37	0°♂		direct	-12258 Oct 05 j 05:05	8°♂52'56	
retrograde	-12263 Mar 10 j 20:37	1°♂26'56			-12258 Dec 31 j 19:26	15°♂	
	-12263 Apr 21 j 00:48	30°♂♂		evening set	-12257 Jan 18 j 16:15	17°♂13'03	
opposition	-12263 May 18 j 04:35	27°♂55'03	1°00'09				
min. Earth dist.	-12263 May 17 j 22:41	27°♂56'16	7.87171 AU	conjunction	-12257 Feb 05 j 19:34	19°♂34'05	-2°08'53
direct	-12263 Jul 23 j 00:26	24°♂28'53		minimum elong	-12257 Feb 05 j 19:30	19°♂34'03	2°09'25
	-12263 Oct 11 j 08:27	0°♂		max. Earth dist.	-12257 Feb 07 j 03:18	19°♂44'25	10.01004 AU
evening set	-12263 Nov 01 j 23:31	2°♂44'22		morning rise	-12257 Feb 23 j 22:19	21°♂54'48	
					-12257 May 27 j 11:33	0°♂♂	
conjunction	-12263 Nov 19 j 17:16	5°♂06'38	0°30'17	retrograde	-12257 Jun 08 j 11:42	0°♂♂08'08	
minimum elong	-12263 Nov 19 j 17:17	5°♂06'39	0°30'36		-12257 Jun 20 j 11:17	30°♂♂	
max. Earth dist.	-12263 Nov 20 j 05:10	5°♂10'38	9.83138 AU	min. Earth dist.	-12257 Aug 13 j 01:56	26°♂44'03	8.07839 AU
morning rise	-12263 Dec 07 j 16:34	7°♂30'42		opposition	-12257 Aug 14 j 00:38	26°♂39'20	-2°50'11
retrograde	-12262 Mar 26 j 10:24	16°♂17'03		direct	-12257 Oct 20 j 01:20	23°♂10'01	
opposition	-12262 Jun 02 j 06:16	12°♂44'24	0°14'03		-12256 Jan 22 j 17:37	0°♂♂	
min. Earth dist.	-12262 Jun 01 j 18:03	12°♂46'56	7.80107 AU	evening set	-12256 Feb 02 j 21:30	1°♂22'44	
direct	-12262 Aug 06 j 18:55	9°♂17'14					
desc. node	-12262 Sep 21 j 07:27	11°♂14'21		conjunction	-12256 Feb 20 j 22:27	3°♂40'39	-2°21'38
evening set	-12262 Nov 17 j 10:38	17°♂39'26		minimum elong	-12256 Feb 20 j 22:25	3°♂40'39	2°22'16
				max. Earth dist.	-12256 Feb 22 j 03:23	3°♂49'56	10.14942 AU
conjunction	-12262 Dec 05 j 09:43	20°♂03'59	-0°07'30	morning rise	-12256 Mar 09 j 21:34	5°♂57'51	
minimum elong	-12262 Dec 05 j 09:42	20°♂03'58	0°07'21	retrograde	-12256 Jun 21 j 03:02	13°♂56'35	
behind sun begin	-12262 Dec 05 j 02:59	20°♂01'44		opposition	-12256 Aug 26 j 19:02	10°♂29'47	-3°00'08
behind sun end	-12262 Dec 05 j 16:25	20°♂06'13		min. Earth dist.	-12256 Aug 25 j 22:23	10°♂34'00	8.22752 AU
max. Earth dist.	-12262 Dec 06 j 05:35	20°♂10'41	9.78163 AU	direct	-12256 Nov 02 j 13:27	7°♂00'54	
morning rise	-12262 Dec 23 j 13:34	22°♂30'03		evening set	-12255 Feb 16 j 14:18	15°♂04'23	
	-12261 Mar 04 j 03:02	0°♂					
retrograde	-12261 Apr 11 j 00:34	1°♂18'02		conjunction	-12255 Mar 06 j 12:21	17°♂18'54	-2°25'55
	-12261 May 19 j 06:23	30°♂♂		minimum elong	-12255 Mar 06 j 12:21	17°♂18'53	2°26'37
opposition	-12261 Jun 17 j 09:22	27°♂45'07	-0°33'37	max. Earth dist.	-12255 Mar 07 j 13:27	17°♂26'48	10.30643 AU
min. Earth dist.	-12261 Jun 16 j 15:37	27°♂48'50	7.77366 AU	morning rise	-12255 Mar 24 j 07:25	19°♂32'20	
direct	-12261 Aug 21 j 18:58	24°♂17'04		retrograde	-12255 Jul 04 j 06:34	27°♂16'05	
	-12261 Nov 11 j 19:46	0°♂		min. Earth dist.	-12255 Sep 08 j 09:10	23°♂55'02	8.38994 AU
evening set	-12261 Dec 03 j 05:37	2°♂43'21		opposition	-12255 Sep 09 j 03:27	23°♂51'21	-2°59'49
				direct	-12255 Nov 16 j 16:36	20°♂23'13	
conjunction	-12261 Dec 21 j 08:28	5°♂08'54	-0°44'55	evening set	-12254 Mar 02 j 16:58	28°♂16'11	
minimum elong	-12261 Dec 21 j 08:25	5°♂08'53	0°44'57		-12254 Mar 16 j 19:48	0°♂	
max. Earth dist.	-12261 Dec 22 j 10:58	5°♂17'50	9.77647 AU				

Attention, astronomical year style is used: The year -12254 in astronomical counting style is the year 12255 BCE in historical counting style.

conjunction	-12254 Mar 20 j 11:54	0° $\text{Z}$ 27'14	-2°22'19	conjunction	-12248 May 30 j 11:49	10° $\text{H}$ 32'57	-0°17'20
minimum elong	-12254 Mar 20 j 11:56	0° $\text{Z}$ 27'15	2°23'03	minimum elong	-12248 May 30 j 11:50	10° $\text{H}$ 32'57	0°17'35
max. Earth dist.	-12254 Mar 21 j 08:45	0° $\text{Z}$ 33'41	10.47258 AU	max. Earth dist.	-12248 May 29 j 23:30	10° $\text{H}$ 29'26	11.24614 AU
morning rise	-12254 Apr 07 j 02:50	2° $\text{Z}$ 37'00		morning rise	-12248 Jun 16 j 06:27	12° $\text{H}$ 27'33	
retrograde	-12254 Jul 16 j 22:01	10° $\text{Z}$ 06'13		retrograde	-12248 Sep 21 j 22:27	19° $\text{H}$ 05'41	
min. Earth dist.	-12254 Sep 21 j 10:59	6° $\text{Z}$ 46'29	8.55707 AU	opposition	-12248 Nov 30 j 10:40	15° $\text{H}$ 50'54	-0°04'34
opposition	-12254 Sep 22 j 01:54	6° $\text{Z}$ 43'31	-2°50'22	min. Earth dist.	-12248 Nov 30 j 23:42	15° $\text{H}$ 48'30	9.27250 AU
direct	-12254 Nov 30 j 09:37	3° $\text{Z}$ 16'19		asc. node	-12247 Jan 19 j 12:01	12° $\text{H}$ 52'35	
evening set	-12253 Mar 16 j 05:31	10° $\text{Z}$ 58'22		direct	-12247 Feb 10 j 14:46	12° $\text{H}$ 30'05	
				evening set	-12247 May 24 j 14:44	19° $\text{H}$ 25'16	
conjunction	-12253 Apr 02 j 21:17	13° $\text{Z}$ 06'06	-2°11'50				
minimum elong	-12253 Apr 02 j 21:19	13° $\text{Z}$ 06'07	2°12'33	conjunction	-12247 Jun 10 j 10:53	21° $\text{H}$ 19'55	0°10'29
max. Earth dist.	-12253 Apr 03 j 13:21	13° $\text{Z}$ 10'58	10.63930 AU	minimum elong	-12247 Jun 10 j 10:52	21° $\text{H}$ 19'54	0°10'21
morning rise	-12253 Apr 20 j 08:13	15° $\text{Z}$ 12'22		behind sun begin	-12247 Jun 10 j 05:20	21° $\text{H}$ 18'21	
retrograde	-12253 Jul 29 j 03:35	22° $\text{Z}$ 28'11		behind sun end	-12247 Jun 10 j 16:25	21° $\text{H}$ 21'28	
opposition	-12253 Oct 04 j 15:04	19° $\text{Z}$ 07'27	-2°33'15	max. Earth dist.	-12247 Jun 09 j 17:07	21° $\text{H}$ 14'51	11.29129 AU
min. Earth dist.	-12253 Oct 04 j 04:50	19° $\text{Z}$ 09'27	8.72073 AU	morning rise	-12247 Jun 27 j 02:59	23° $\text{H}$ 13'28	
direct	-12253 Dec 13 j 15:38	15° $\text{Z}$ 41'17		retrograde	-12247 Oct 02 j 22:06	29° $\text{H}$ 50'43	
evening set	-12252 Mar 28 j 04:31	23° $\text{Z}$ 12'40		opposition	-12247 Dec 11 j 20:17	26° $\text{H}$ 36'09	0°29'03
				min. Earth dist.	-12247 Dec 12 j 13:00	26° $\text{H}$ 33'06	9.30268 AU
conjunction	-12252 Apr 14 j 16:58	25° $\text{Z}$ 17'19	-1°55'37	direct	-12246 Feb 22 j 01:13	23° $\text{H}$ 16'08	
minimum elong	-12252 Apr 14 j 17:01	25° $\text{Z}$ 17'20	1°56'18		-12246 Jun 03 j 05:49	0° $\text{Y}$	
max. Earth dist.	-12252 Apr 15 j 02:59	25° $\text{Z}$ 20'19	10.79871 AU	evening set	-12246 Jun 04 j 13:39	0° $\text{Y}$ 08'52	
morning rise	-12252 May 02 j 00:12	27° $\text{Z}$ 20'26		max. Earth dist.	-12246 Jun 20 j 09:33	1° $\text{Y}$ 56'38	11.30580 AU
	-12252 May 25 j 21:43	0° $\approx$					
retrograde	-12252 Aug 08 j 23:28	4° $\approx$ 24'28		conjunction	-12246 Jun 21 j 06:50	2° $\text{Y}$ 02'43	0°37'41
opposition	-12252 Oct 15 j 20:17	1° $\approx$ 05'31	-2°10'01	minimum elong	-12246 Jun 21 j 06:48	2° $\text{Y}$ 02'42	0°37'41
min. Earth dist.	-12252 Oct 15 j 15:17	1° $\approx$ 06'29	8.87365 AU	morning rise	-12246 Jul 07 j 20:35	3° $\text{Y}$ 55'40	
	-12252 Oct 30 j 06:57	30° $\text{R}$		retrograde	-12246 Oct 14 j 02:10	10° $\text{Y}$ 34'16	
direct	-12252 Dec 25 j 11:34	27° $\text{Z}$ 40'29		opposition	-12246 Dec 23 j 06:35	7° $\text{Y}$ 19'36	1°01'33
	-12251 Feb 18 j 14:36	0° $\approx$		min. Earth dist.	-12246 Dec 24 j 01:46	7° $\text{Y}$ 16'06	9.30180 AU
evening set	-12251 Apr 09 j 14:54	5° $\approx$ 01'54		direct	-12245 Mar 05 j 11:42	4° $\text{Y}$ 00'12	
				evening set	-12245 Jun 15 j 11:10	10° $\text{Y}$ 52'12	
conjunction	-12251 Apr 26 j 23:57	7° $\approx$ 03'48	-1°34'55	max. Earth dist.	-12245 Jul 01 j 02:09	12° $\text{Y}$ 38'57	11.28904 AU
minimum elong	-12251 Apr 27 j 00:01	7° $\approx$ 03'49	1°35'32				
max. Earth dist.	-12251 Apr 27 j 03:13	7° $\approx$ 04'45	10.94408 AU	conjunction	-12245 Jul 02 j 01:39	12° $\text{Y}$ 45'42	1°03'36
morning rise	-12251 May 14 j 03:51	9° $\approx$ 04'10		minimum elong	-12245 Jul 02 j 01:36	12° $\text{Y}$ 45'41	1°03'45
	-12251 Jul 17 j 14:48	15° $\approx$		morning rise	-12245 Jul 18 j 13:11	14° $\text{Y}$ 38'29	
retrograde	-12251 Aug 20 j 10:18	15° $\approx$ 58'26		retrograde	-12245 Oct 25 j 09:06	21° $\text{Y}$ 20'35	
	-12251 Sep 23 j 20:46	15° $\text{R}$		opposition	-12244 Jan 03 j 19:16	18° $\text{Y}$ 05'29	1°32'04
opposition	-12251 Oct 27 j 18:34	12° $\approx$ 40'59	-1°42'14	min. Earth dist.	-12244 Jan 04 j 16:53	18° $\text{Y}$ 01'33	9.26980 AU
min. Earth dist.	-12251 Oct 27 j 18:09	12° $\approx$ 41'04	9.00970 AU	direct	-12244 Mar 15 j 18:29	14° $\text{Y}$ 46'33	
direct	-12250 Jan 07 j 00:24	9° $\approx$ 17'05		evening set	-12244 Jun 25 j 09:11	21° $\text{Y}$ 39'31	
	-12250 Apr 08 j 03:38	15° $\approx$					
evening set	-12250 Apr 21 j 14:26	16° $\approx$ 29'42					
				conjunction	-12244 Jul 11 j 21:09	23° $\text{Y}$ 33'05	1°27'26
conjunction	-12250 May 08 j 20:16	18° $\approx$ 29'11	-1°10'56	minimum elong	-12244 Jul 11 j 21:06	23° $\text{Y}$ 33'04	1°27'43
minimum elong	-12250 May 08 j 20:18	18° $\approx$ 29'12	1°11'26	max. Earth dist.	-12244 Jul 10 j 18:50	23° $\text{Y}$ 25'28	11.24155 AU
max. Earth dist.	-12250 May 08 j 17:33	18° $\approx$ 28'24	11.06990 AU	morning rise	-12244 Jul 28 j 07:09	25° $\text{Y}$ 26'13	
morning rise	-12250 May 25 j 20:59	20° $\approx$ 27'12			-12244 Sep 12 j 05:55	0° $\text{Z}$	
retrograde	-12250 Aug 31 j 18:11	27° $\approx$ 13'52		retrograde	-12244 Nov 04 j 20:35	2° $\text{Z}$ 13'54	
opposition	-12250 Nov 08 j 11:11	23° $\approx$ 57'35	-1°11'15		-12244 Dec 31 j 01:18	30° $\text{R}$	
min. Earth dist.	-12250 Nov 08 j 14:51	23° $\approx$ 56'54	9.12387 AU	opposition	-12243 Jan 14 j 11:49	28° $\text{Y}$ 58'03	1°59'38
direct	-12249 Jan 19 j 04:09	20° $\approx$ 34'49		min. Earth dist.	-12243 Jan 15 j 11:50	28° $\text{Y}$ 53'41	9.20771 AU
evening set	-12249 May 03 j 04:56	27° $\approx$ 40'00		direct	-12243 Mar 27 j 03:03	25° $\text{Y}$ 39'20	
					-12243 Jun 12 j 13:29	0° $\text{Z}$	
conjunction	-12249 May 20 j 07:39	29° $\approx$ 37'30	-0°44'44	evening set	-12243 Jul 06 j 09:15	2° $\text{Z}$ 34'55	
minimum elong	-12249 May 20 j 07:41	29° $\approx$ 37'30	0°45'07				
max. Earth dist.	-12249 May 20 j 00:13	29° $\approx$ 35'22	11.17167 AU	conjunction	-12243 Jul 22 j 19:15	4° $\text{Z}$ 29'03	1°48'22
	-12249 May 23 j 13:41	0° $\text{H}$		minimum elong	-12243 Jul 22 j 19:12	4° $\text{Z}$ 29'02	1°48'46
morning rise	-12249 Jun 06 j 05:13	1° $\text{H}$ 33'35		max. Earth dist.	-12243 Jul 21 j 14:59	4° $\text{Z}$ 20'48	11.16476 AU
retrograde	-12249 Sep 11 j 20:52	8° $\text{H}$ 14'51		morning rise	-12243 Aug 08 j 04:24	6° $\text{Z}$ 23'02	
opposition	-12249 Nov 20 j 00:03	4° $\text{H}$ 59'28	-0°38'20	retrograde	-12243 Nov 16 j 14:37	13° $\text{Z}$ 18'21	
min. Earth dist.	-12249 Nov 20 j 08:10	4° $\text{H}$ 57'58	9.21234 AU	opposition	-12242 Jan 26 j 09:24	10° $\text{Z}$ 01'24	2°23'19
direct	-12248 Jan 30 j 23:29	1° $\text{H}$ 37'45		min. Earth dist.	-12242 Jan 27 j 10:31	9° $\text{Z}$ 56'49	9.11722 AU
evening set	-12248 May 13 j 12:22	8° $\text{H}$ 37'05		direct	-12242 Apr 07 j 14:56	6° $\text{Z}$ 42'40	
				evening set	-12242 Jul 17 j 13:13	13° $\text{Z}$ 42'30	
					-12242 Jul 28 j 14:27	15° $\text{Z}$	

Attention, astronomical year style is used: The year -12242 in astronomical counting style is the year 12243 BCE in historical counting style.

conjunction	-12242 Aug 02 j 22:07	15° <b>8</b> 37'42	2°05'35	conjunction	-12236 Oct 14 j 22:28	0° <b>Ω</b> 16'43	1°46'53
minimum elong	-12242 Aug 02 j 22:04	15° <b>8</b> 37'42	2°06'05	minimum elong	-12236 Oct 14 j 22:32	0° <b>Ω</b> 16'45	1°47'33
max. Earth dist.	-12242 Aug 01 j 18:03	15° <b>8</b> 29'25	11.06082 AU	max. Earth dist.	-12236 Oct 14 j 14:43	0° <b>Ω</b> 14'12	10.12217 AU
morning rise	-12242 Aug 19 j 06:59	17° <b>8</b> 33'03		morning rise	-12236 Nov 01 j 05:41	2° <b>Ω</b> 31'40	
retrograde	-12242 Nov 28 j 17:33	24° <b>8</b> 37'53		retrograde	-12235 Feb 17 j 04:40	10° <b>Ω</b> 56'33	
opposition	-12241 Feb 07 j 13:15	21° <b>8</b> 19'32	2°42'07	opposition	-12235 Apr 27 j 06:51	7° <b>Ω</b> 26'53	1°56'58
min. Earth dist.	-12241 Feb 08 j 13:38	21° <b>8</b> 15'02	9.00099 AU	min. Earth dist.	-12235 Apr 27 j 10:00	7° <b>Ω</b> 26'15	8.04887 AU
direct	-12241 Apr 19 j 06:57	18° <b>8</b> 00'35		direct	-12235 Jul 02 j 20:24	4° <b>Ω</b> 02'35	
evening set	-12241 Jul 28 j 22:46	25° <b>8</b> 06'09		evening set	-12235 Oct 12 j 00:43	12° <b>Ω</b> 04'34	
max. Earth dist.	-12241 Aug 13 j 04:22	26° <b>8</b> 54'52	10.93298 AU				
conjunction	-12241 Aug 14 j 07:28	27° <b>8</b> 03'00	2°18'15	conjunction	-12235 Oct 29 j 09:06	14° <b>Ω</b> 21'45	1°19'22
minimum elong	-12241 Aug 14 j 07:26	27° <b>8</b> 02'59	2°18'50	minimum elong	-12235 Oct 29 j 09:10	14° <b>Ω</b> 21'46	1°19'55
morning rise	-12241 Aug 30 j 16:58	29° <b>8</b> 00'15		max. Earth dist.	-12235 Oct 29 j 08:24	14° <b>Ω</b> 21'31	9.98190 AU
	-12241 Sep 08 j 07:12	0° <b>Π</b>			-12235 Nov 03 j 04:28	15° <b>Ω</b>	
retrograde	-12241 Dec 11 j 07:57	6° <b>Π</b> 16'19		morning rise	-12235 Nov 15 j 23:13	16° <b>Ω</b> 40'50	
opposition	-12240 Feb 20 j 00:58	2° <b>Π</b> 56'20	2°54'57	retrograde	-12234 Mar 04 j 11:50	25° <b>Ω</b> 16'48	
min. Earth dist.	-12240 Feb 20 j 23:59	2° <b>Π</b> 52'02	8.86277 AU	opposition	-12234 May 12 j 01:14	21° <b>Ω</b> 45'34	1°18'57
	-12240 Apr 08 j 11:22	30° <b>κ</b> 8		min. Earth dist.	-12234 May 11 j 22:08	21° <b>Ω</b> 46'12	7.92214 AU
direct	-12240 Apr 30 j 03:48	29° <b>8</b> 36'56		direct	-12234 Jul 17 j 01:25	18° <b>Ω</b> 20'00	
	-12240 May 21 j 12:28	0° <b>Π</b>		evening set	-12234 Oct 26 j 18:20	26° <b>Ω</b> 31'22	
evening set	-12240 Aug 08 j 15:34	6° <b>Π</b> 49'35		conjunction	-12234 Nov 13 j 09:10	28° <b>Ω</b> 52'10	0°46'11
max. Earth dist.	-12240 Aug 23 j 22:53	8° <b>Π</b> 40'40	10.78553 AU	minimum elong	-12234 Nov 13 j 09:13	28° <b>Ω</b> 52'11	0°46'35
				max. Earth dist.	-12234 Nov 13 j 15:59	28° <b>Ω</b> 54'27	9.87125 AU
conjunction	-12240 Aug 25 j 01:03	8° <b>Π</b> 48'38	2°25'30		-12234 Nov 21 j 19:52	0° <b>η</b>	
minimum elong	-12240 Aug 25 j 01:02	8° <b>Π</b> 48'38	2°26'10	morning rise	-12234 Dec 01 j 05:51	1° <b>η</b> 14'51	
morning rise	-12240 Sep 10 j 12:31	10° <b>Π</b> 48'25		retrograde	-12233 Mar 20 j 00:27	9° <b>η</b> 58'42	
retrograde	-12240 Dec 23 j 07:01	18° <b>Π</b> 17'10		opposition	-12233 May 27 j 01:08	6° <b>η</b> 26'17	0°34'46
opposition	-12239 Mar 03 j 21:21	14° <b>Π</b> 55'20	3°00'45	min. Earth dist.	-12233 May 26 j 16:16	6° <b>η</b> 28'07	7.82944 AU
min. Earth dist.	-12239 Mar 04 j 18:49	14° <b>Π</b> 51'17	8.70719 AU	direct	-12233 Jul 31 j 15:41	2° <b>η</b> 59'27	
direct	-12239 May 12 j 06:33	11° <b>Π</b> 35'14		evening set	-12233 Nov 11 j 00:19	11° <b>η</b> 18'37	
evening set	-12239 Aug 20 j 17:27	18° <b>Π</b> 56'20					
max. Earth dist.	-12239 Sep 05 j 04:44	20° <b>Π</b> 50'38	10.62349 AU	conjunction	-12233 Nov 28 j 20:59	13° <b>η</b> 42'13	0°09'23
				minimum elong	-12233 Nov 28 j 21:00	13° <b>η</b> 42'13	0°09'37
conjunction	-12239 Sep 06 j 04:59	20° <b>Π</b> 58'09	2°26'34	behind sun begin	-12233 Nov 28 j 14:58	13° <b>η</b> 40'13	
minimum elong	-12239 Sep 06 j 05:00	20° <b>Π</b> 58'09	2°27'16	behind sun end	-12233 Nov 29 j 03:02	13° <b>η</b> 44'14	
morning rise	-12239 Sep 22 j 19:43	23° <b>Π</b> 01'02		max. Earth dist.	-12233 Nov 29 j 11:24	13° <b>η</b> 47'04	9.79816 AU
	-12239 Dec 07 j 03:31	0° <b>Φ</b>		morning rise	-12233 Dec 16 j 23:07	16° <b>η</b> 07'33	
retrograde	-12238 Jan 05 j 17:44	0° <b>Φ</b> 43'36		desc. node	-12232 Mar 02 j 14:28	23° <b>η</b> 59'21	
	-12238 Feb 04 j 18:33	30° <b>κ</b> Π		retrograde	-12232 Apr 03 j 14:51	24° <b>η</b> 55'10	
opposition	-12238 Mar 17 j 02:56	27° <b>Π</b> 19'48	2°58'29	opposition	-12232 Jun 10 j 03:38	21° <b>η</b> 22'04	-0°12'34
min. Earth dist.	-12238 Mar 17 j 22:07	27° <b>Π</b> 16'08	8.53975 AU	min. Earth dist.	-12232 Jun 09 j 13:38	21° <b>η</b> 25'00	7.77758 AU
direct	-12238 May 24 j 19:40	23° <b>Π</b> 58'50		direct	-12232 Aug 14 j 13:25	17° <b>η</b> 54'03	
	-12238 Aug 20 j 22:05	0° <b>Φ</b>		evening set	-12232 Nov 25 j 15:51	26° <b>η</b> 18'46	
evening set	-12238 Sep 02 j 05:53	1° <b>Φ</b> 29'30					
conjunction	-12238 Sep 18 j 20:58	3° <b>Φ</b> 34'41	2°20'43	conjunction	-12232 Dec 13 j 17:06	28° <b>η</b> 44'02	-0°28'32
minimum elong	-12238 Sep 18 j 21:01	3° <b>Φ</b> 34'42	2°21'27	minimum elong	-12232 Dec 13 j 17:04	28° <b>η</b> 44'02	0°28'29
max. Earth dist.	-12238 Sep 18 j 00:52	3° <b>Φ</b> 28'20	10.45303 AU	max. Earth dist.	-12232 Dec 14 j 14:22	28° <b>η</b> 51'13	9.76801 AU
morning rise	-12238 Oct 05 j 16:07	5° <b>Φ</b> 41'15			-12232 Dec 23 j 02:38	0° <b>Ω</b>	
retrograde	-12237 Jan 19 j 17:44	13° <b>Φ</b> 38'22		morning rise	-12232 Dec 31 j 22:50	1° <b>Ω</b> 10'41	
opposition	-12237 Mar 30 j 18:36	10° <b>Φ</b> 12'33	2°47'19	retrograde	-12231 Apr 19 j 03:14	9° <b>Ω</b> 57'33	
min. Earth dist.	-12237 Mar 31 j 09:37	10° <b>Φ</b> 09'37	8.36777 AU	min. Earth dist.	-12231 Jun 24 j 11:28	6° <b>Ω</b> 28'12	7.77027 AU
direct	-12237 Jun 06 j 17:43	6° <b>Φ</b> 50'36		opposition	-12231 Jun 25 j 05:50	6° <b>Ω</b> 24'20	-0°59'23
evening set	-12237 Sep 15 j 06:23	14° <b>Φ</b> 31'34		direct	-12231 Aug 29 j 17:00	2° <b>Ω</b> 55'22	
				evening set	-12231 Dec 11 j 12:58	11° <b>Ω</b> 22'46	
conjunction	-12237 Oct 02 j 02:23	16° <b>Φ</b> 40'37	2°07'31	conjunction	-12231 Dec 29 j 16:58	13° <b>Ω</b> 48'21	-1°04'30
minimum elong	-12237 Oct 02 j 02:27	16° <b>Φ</b> 40'38	2°08'14	minimum elong	-12231 Dec 29 j 16:54	13° <b>Ω</b> 48'20	1°04'39
max. Earth dist.	-12237 Oct 01 j 12:02	16° <b>Φ</b> 35'59	10.28259 AU	max. Earth dist.	-12231 Dec 30 j 19:49	13° <b>Ω</b> 57'22	9.78290 AU
morning rise	-12237 Oct 19 j 03:06	18° <b>Φ</b> 51'16		morning rise	-12230 Jan 17 j 00:09	16° <b>Ω</b> 14'51	
retrograde	-12236 Feb 03 j 06:10	27° <b>Φ</b> 02'51		retrograde	-12230 May 04 j 09:04	24° <b>Ω</b> 56'30	
opposition	-12236 Apr 12 j 20:13	23° <b>Φ</b> 35'02	2°26'46	min. Earth dist.	-12230 Jul 09 j 06:53	21° <b>Ω</b> 28'20	7.80783 AU
min. Earth dist.	-12236 Apr 13 j 05:36	23° <b>Φ</b> 33'11	8.20073 AU	opposition	-12230 Jul 10 j 04:38	21° <b>Ω</b> 23'45	-1°41'55
direct	-12236 Jun 19 j 01:27	20° <b>Φ</b> 11'58		direct	-12230 Sep 13 j 22:18	17° <b>Ω</b> 54'06	
evening set	-12236 Sep 27 j 20:33	28° <b>Φ</b> 03'36		evening set	-12230 Dec 27 j 11:03	26° <b>Ω</b> 21'01	
	-12236 Oct 12 j 19:19	0° <b>Ω</b>					
				conjunction	-12229 Jan 14 j 16:01	28° <b>Ω</b> 45'36	-1°35'53

Attention, astronomical year style is used: The year -12229 in astronomical counting style is the year 12230 BCE in historical counting style.

minimum elong	-12229 Jan 14 j 15:56	28° $\mathfrak{D}$ 45'34	1°36'12	max. Earth dist.	-12223 Apr 10 j 01:27	20° $\mathfrak{S}$ 16'30	10.72726 AU
max. Earth dist.	-12229 Jan 15 j 22:39	28° $\mathfrak{D}$ 55'48	9.84156 AU	morning rise	-12223 Apr 26 j 21:35	22° $\mathfrak{S}$ 17'07	
	-12229 Jan 23 j 23:47	0° $\mathfrak{M}$		retrograde	-12223 Aug 04 j 04:51	29° $\mathfrak{S}$ 26'13	
morning rise	-12229 Feb 01 j 22:35	1° $\mathfrak{M}$ 10'35		opposition	-12223 Oct 10 j 22:03	26° $\mathfrak{S}$ 06'27	-2°20'55
retrograde	-12229 May 19 j 05:42	9° $\mathfrak{M}$ 43'01		min. Earth dist.	-12223 Oct 10 j 13:10	26° $\mathfrak{S}$ 08'10	8.80749 AU
opposition	-12229 Jul 24 j 21:14	6° $\mathfrak{M}$ 11'17	-2°16'58	direct	-12223 Dec 20 j 07:27	22° $\mathfrak{S}$ 40'58	
min. Earth dist.	-12229 Jul 23 j 21:21	6° $\mathfrak{M}$ 16'18	7.88713 AU		-12222 Apr 03 j 15:18	0° $\mathfrak{A}$	
direct	-12229 Sep 29 j 01:36	2° $\mathfrak{M}$ 41'16		evening set	-12222 Apr 04 j 14:24	0° $\mathfrak{A}$ 06'41	
evening set	-12228 Jan 12 j 05:19	11° $\mathfrak{M}$ 04'33					
				conjunction	-12222 Apr 22 j 01:08	2° $\mathfrak{A}$ 09'47	-1°44'30
conjunction	-12228 Jan 30 j 09:38	13° $\mathfrak{M}$ 27'02	-2°00'29	minimum elong	-12222 Apr 22 j 01:11	2° $\mathfrak{A}$ 09'48	1°45'09
minimum elong	-12228 Jan 30 j 09:33	13° $\mathfrak{M}$ 27'00	2°00'58	max. Earth dist.	-12222 Apr 22 j 08:47	2° $\mathfrak{A}$ 12'03	10.88374 AU
max. Earth dist.	-12228 Jan 31 j 17:59	13° $\mathfrak{M}$ 37'40	9.93931 AU	morning rise	-12222 May 09 j 06:33	4° $\mathfrak{A}$ 11'19	
	-12228 Feb 11 j 05:16	15° $\mathfrak{M}$		retrograde	-12222 Aug 15 j 20:45	11° $\mathfrak{A}$ 09'43	
morning rise	-12228 Feb 17 j 13:54	15° $\mathfrak{M}$ 49'23		opposition	-12222 Oct 22 j 23:17	7° $\mathfrak{A}$ 51'46	-1°54'54
retrograde	-12228 Jun 01 j 15:32	24° $\mathfrak{M}$ 09'32		min. Earth dist.	-12222 Oct 22 j 19:13	7° $\mathfrak{A}$ 52'33	8.95564 AU
min. Earth dist.	-12228 Aug 06 j 05:24	20° $\mathfrak{M}$ 44'23	8.00195 AU	direct	-12221 Jan 01 j 22:46	4° $\mathfrak{A}$ 27'38	
opposition	-12228 Aug 07 j 05:46	20° $\mathfrak{M}$ 39'18	-2°42'21	evening set	-12221 Apr 16 j 18:55	11° $\mathfrak{A}$ 43'58	
direct	-12228 Oct 13 j 00:05	17° $\mathfrak{M}$ 09'17					
evening set	-12227 Jan 26 j 15:24	25° $\mathfrak{M}$ 26'05		conjunction	-12221 May 04 j 02:22	13° $\mathfrak{A}$ 44'29	-1°21'48
				minimum elong	-12221 May 04 j 02:25	13° $\mathfrak{A}$ 44'30	1°22'20
conjunction	-12227 Feb 13 j 17:44	27° $\mathfrak{M}$ 45'39	-2°17'01	max. Earth dist.	-12221 May 04 j 04:13	13° $\mathfrak{A}$ 45'01	11.02261 AU
minimum elong	-12227 Feb 13 j 17:41	27° $\mathfrak{M}$ 45'38	2°17'37		-12221 May 14 j 21:26	15° $\mathfrak{A}$	
max. Earth dist.	-12227 Feb 15 j 01:34	27° $\mathfrak{M}$ 55'57	10.06888 AU	morning rise	-12221 May 21 j 04:23	15° $\mathfrak{A}$ 43'27	
morning rise	-12227 Mar 03 j 18:32	0° $\mathfrak{A}$ 04'38		retrograde	-12221 Aug 27 j 06:45	22° $\mathfrak{A}$ 33'12	
	-12227 Mar 03 j 03:55	0° $\mathfrak{A}$		opposition	-12221 Nov 03 j 18:30	19° $\mathfrak{A}$ 16'47	-1°25'07
retrograde	-12227 Jun 15 j 13:42	8° $\mathfrak{A}$ 10'31		min. Earth dist.	-12221 Nov 03 j 20:06	19° $\mathfrak{A}$ 16'29	9.08363 AU
min. Earth dist.	-12227 Aug 20 j 05:43	4° $\mathfrak{A}$ 46'54	8.14422 AU	direct	-12220 Jan 14 j 05:02	15° $\mathfrak{A}$ 53'55	
opposition	-12227 Aug 21 j 04:45	4° $\mathfrak{A}$ 42'09	-2°57'05	evening set	-12220 Apr 27 j 13:46	23° $\mathfrak{A}$ 02'12	
direct	-12227 Oct 27 j 14:39	1° $\mathfrak{A}$ 12'30					
evening set	-12226 Feb 10 j 13:57	9° $\mathfrak{A}$ 20'35		conjunction	-12220 May 14 j 17:48	25° $\mathfrak{A}$ 00'29	-0°56'24
				minimum elong	-12220 May 14 j 17:50	25° $\mathfrak{A}$ 00'29	0°56'50
conjunction	-12226 Feb 28 j 13:32	11° $\mathfrak{A}$ 36'47	-2°25'02	max. Earth dist.	-12220 May 14 j 12:48	24° $\mathfrak{A}$ 59'02	11.13873 AU
minimum elong	-12226 Feb 28 j 13:30	11° $\mathfrak{A}$ 36'47	2°25'43	morning rise	-12220 May 31 j 16:45	26° $\mathfrak{A}$ 57'20	
max. Earth dist.	-12226 Mar 01 j 18:39	11° $\mathfrak{A}$ 46'02	10.22163 AU		-12220 Jun 29 j 09:56	0° $\mathfrak{H}$	
morning rise	-12226 Mar 18 j 10:20	13° $\mathfrak{A}$ 52'02		retrograde	-12220 Sep 06 j 10:00	3° $\mathfrak{H}$ 40'38	
retrograde	-12226 Jun 28 j 23:40	21° $\mathfrak{A}$ 42'46		opposition	-12220 Nov 14 j 09:16	0° $\mathfrak{H}$ 25'22	-0°52'52
opposition	-12226 Sep 03 j 17:35	18° $\mathfrak{A}$ 16'32	-3°01'12	min. Earth dist.	-12220 Nov 14 j 15:44	0° $\mathfrak{H}$ 24'10	9.18677 AU
min. Earth dist.	-12226 Sep 02 j 21:23	18° $\mathfrak{A}$ 20'39	8.30493 AU		-12220 Nov 20 j 02:09	30° $\mathfrak{R}$ $\mathfrak{A}$	
direct	-12226 Nov 10 j 21:34	14° $\mathfrak{A}$ 47'34		direct	-12219 Jan 25 j 04:37	27° $\mathfrak{A}$ 03'39	
evening set	-12225 Feb 24 j 22:55	22° $\mathfrak{A}$ 45'28			-12219 Mar 29 j 15:49	0° $\mathfrak{H}$	
				evening set	-12219 May 09 j 00:24	4° $\mathfrak{H}$ 05'20	
conjunction	-12225 Mar 14 j 19:22	24° $\mathfrak{A}$ 58'09	-2°24'50				
minimum elong	-12225 Mar 14 j 19:22	24° $\mathfrak{A}$ 58'09	2°25'33	conjunction	-12219 May 26 j 01:10	6° $\mathfrak{H}$ 01'47	-0°29'23
max. Earth dist.	-12225 Mar 15 j 19:53	25° $\mathfrak{A}$ 05'48	10.38828 AU	minimum elong	-12219 May 26 j 01:11	6° $\mathfrak{H}$ 01'47	0°29'41
morning rise	-12225 Apr 01 j 12:09	27° $\mathfrak{A}$ 09'38		max. Earth dist.	-12219 May 25 j 14:23	5° $\mathfrak{H}$ 58'42	11.22786 AU
	-12225 Apr 25 j 22:06	0° $\mathfrak{S}$		morning rise	-12219 Jun 11 j 21:13	7° $\mathfrak{H}$ 56'56	
retrograde	-12225 Jul 11 j 19:30	4° $\mathfrak{S}$ 45'21		retrograde	-12219 Sep 17 j 12:56	14° $\mathfrak{H}$ 36'06	
opposition	-12225 Sep 16 j 20:19	1° $\mathfrak{S}$ 21'21	-2°55'37	opposition	-12219 Nov 25 j 20:49	11° $\mathfrak{H}$ 21'34	-0°19'19
min. Earth dist.	-12225 Sep 16 j 03:51	1° $\mathfrak{S}$ 24'39	8.47475 AU	min. Earth dist.	-12219 Nov 26 j 07:18	11° $\mathfrak{H}$ 19'38	9.26112 AU
	-12225 Oct 04 j 06:02	30° $\mathfrak{R}$ $\mathfrak{A}$		direct	-12218 Feb 05 j 23:40	8° $\mathfrak{H}$ 00'52	
direct	-12225 Nov 24 j 19:34	27° $\mathfrak{A}$ 53'21		evening set	-12218 May 20 j 05:04	14° $\mathfrak{H}$ 57'36	
	-12224 Jan 14 j 18:10	0° $\mathfrak{S}$		max. Earth dist.	-12218 Jun 05 j 11:36	16° $\mathfrak{H}$ 48'21	11.28653 AU
evening set	-12224 Mar 09 j 17:48	5° $\mathfrak{S}$ 40'22					
				conjunction	-12218 Jun 06 j 02:47	16° $\mathfrak{H}$ 52'41	-0°01'41
conjunction	-12224 Mar 27 j 10:55	7° $\mathfrak{S}$ 49'36	-2°17'15	minimum elong	-12218 Jun 06 j 02:46	16° $\mathfrak{H}$ 52'41	0°01'53
minimum elong	-12224 Mar 27 j 10:57	7° $\mathfrak{S}$ 49'37	2°17'59	behind sun begin	-12218 Jun 05 j 19:46	16° $\mathfrak{H}$ 50'42	
max. Earth dist.	-12224 Mar 28 j 05:29	7° $\mathfrak{S}$ 55'17	10.55961 AU	behind sun end	-12218 Jun 06 j 09:45	16° $\mathfrak{H}$ 54'39	
morning rise	-12224 Apr 13 j 23:46	9° $\mathfrak{S}$ 57'27		morning rise	-12218 Jun 22 j 19:56	18° $\mathfrak{H}$ 46'34	
retrograde	-12224 Jul 23 j 04:15	17° $\mathfrak{S}$ 19'06		asc. node	-12218 Jun 28 j 14:17	19° $\mathfrak{H}$ 24'53	
opposition	-12224 Sep 28 j 13:26	13° $\mathfrak{S}$ 57'18	-2°41'40	retrograde	-12218 Sep 28 j 14:24	25° $\mathfrak{H}$ 23'51	
min. Earth dist.	-12224 Sep 28 j 00:38	13° $\mathfrak{S}$ 59'49	8.64489 AU	opposition	-12218 Dec 07 j 06:44	22° $\mathfrak{H}$ 09'42	0°14'29
direct	-12224 Dec 07 j 07:10	10° $\mathfrak{S}$ 30'29		min. Earth dist.	-12218 Dec 07 j 21:35	22° $\mathfrak{H}$ 07'00	9.30386 AU
evening set	-12223 Mar 22 j 22:40	18° $\mathfrak{S}$ 06'36		direct	-12217 Feb 17 j 11:19	18° $\mathfrak{H}$ 49'51	
				evening set	-12217 May 31 j 05:44	25° $\mathfrak{H}$ 43'27	
conjunction	-12223 Apr 09 j 12:32	20° $\mathfrak{S}$ 12'36	-2°03'24	max. Earth dist.	-12217 Jun 16 j 04:23	27° $\mathfrak{H}$ 31'52	11.31275 AU
minimum elong	-12223 Apr 09 j 12:35	20° $\mathfrak{S}$ 12'37	2°04'06				

Attention, astronomical year style is used: The year -12217 in astronomical counting style is the year 12218 BCE in historical counting style.

conjunction	-12217 Jun 17 j 00:18	27° $\text{K}$ 37'33	0°25'57	evening set	-12211 Aug 03 j 23:23	1° $\text{II}$ 57'39	
minimum elong	-12217 Jun 17 j 00:16	27° $\text{K}$ 37'33	0°25'53	max. Earth dist.	-12211 Aug 19 j 04:46	3° $\text{II}$ 47'25	10.83787 AU
morning rise	-12217 Jul 03 j 14:53	29° $\text{K}$ 30'40					
	-12217 Jul 08 j 00:34	0° $\text{Y}$		conjunction	-12211 Aug 20 j 08:25	3° $\text{II}$ 55'48	2°23'05
retrograde	-12217 Oct 09 j 17:02	6° $\text{Y}$ 08'22		minimum elong	-12211 Aug 20 j 08:24	3° $\text{II}$ 55'48	2°23'43
opposition	-12217 Dec 18 j 16:59	2° $\text{Y}$ 54'15	0°47'35	morning rise	-12211 Sep 05 j 19:03	5° $\text{II}$ 54'33	
min. Earth dist.	-12217 Dec 19 j 12:16	2° $\text{Y}$ 50'45	9.31399 AU	retrograde	-12211 Dec 17 j 23:22	13° $\text{II}$ 17'57	
	-12216 Feb 05 j 12:18	30° $\text{K}$		opposition	-12210 Feb 26 j 16:35	9° $\text{II}$ 56'25	2°59'15
direct	-12216 Feb 28 j 21:21	29° $\text{K}$ 35'00		min. Earth dist.	-12210 Feb 27 j 15:44	9° $\text{II}$ 52'05	8.76153 AU
	-12216 Mar 23 j 01:46	0° $\text{Y}$		direct	-12210 May 07 j 10:43	6° $\text{II}$ 36'05	
evening set	-12216 Jun 10 j 04:04	6° $\text{Y}$ 27'12		evening set	-12210 Aug 15 j 20:57	13° $\text{II}$ 53'50	
				max. Earth dist.	-12210 Aug 31 j 07:02	15° $\text{II}$ 46'58	10.67945 AU
conjunction	-12216 Jun 26 j 19:35	8° $\text{Y}$ 20'46	0°52'32				
minimum elong	-12216 Jun 26 j 19:33	8° $\text{Y}$ 20'46	0°52'36	conjunction	-12210 Sep 01 j 07:37	15° $\text{II}$ 54'32	2°26'58
max. Earth dist.	-12216 Jun 25 j 19:12	8° $\text{Y}$ 13'48	11.30640 AU	minimum elong	-12210 Sep 01 j 07:36	15° $\text{II}$ 54'32	2°27'39
morning rise	-12216 Jul 13 j 08:05	10° $\text{Y}$ 13'34		morning rise	-12210 Sep 17 j 20:40	17° $\text{II}$ 56'08	
retrograde	-12216 Oct 19 j 20:40	16° $\text{Y}$ 53'56		retrograde	-12210 Dec 31 j 05:59	25° $\text{II}$ 33'02	
opposition	-12216 Dec 29 j 04:52	13° $\text{Y}$ 39'24	1°19'05	opposition	-12209 Mar 11 j 18:04	22° $\text{II}$ 09'30	3°00'40
min. Earth dist.	-12216 Dec 30 j 03:21	13° $\text{Y}$ 35'19	9.29186 AU	min. Earth dist.	-12209 Mar 12 j 13:41	22° $\text{II}$ 05'45	8.59748 AU
direct	-12215 Mar 11 j 05:50	10° $\text{Y}$ 20'31		direct	-12209 May 19 j 19:45	18° $\text{II}$ 48'22	
evening set	-12215 Jun 21 j 01:57	17° $\text{Y}$ 13'02		evening set	-12209 Aug 28 j 04:32	26° $\text{II}$ 15'11	
conjunction	-12215 Jul 07 j 14:55	19° $\text{Y}$ 06'31	1°17'22	conjunction	-12209 Sep 13 j 18:01	28° $\text{II}$ 19'01	2°24'14
minimum elong	-12215 Jul 07 j 14:52	19° $\text{Y}$ 06'30	1°17'35	minimum elong	-12209 Sep 13 j 18:03	28° $\text{II}$ 19'02	2°24'57
max. Earth dist.	-12215 Jul 06 j 12:08	18° $\text{Y}$ 58'47	11.26822 AU	max. Earth dist.	-12209 Sep 12 j 20:46	28° $\text{II}$ 12'21	10.51192 AU
morning rise	-12215 Jul 24 j 01:38	20° $\text{Y}$ 59'28			-12209 Sep 27 j 05:04	0° $\text{E}$	
retrograde	-12215 Oct 31 j 06:34	27° $\text{Y}$ 44'35		morning rise	-12209 Sep 30 j 10:59	0° $\text{E}$ 24'03	
opposition	-12214 Jan 09 j 19:32	24° $\text{Y}$ 29'14	1°48'03	retrograde	-12208 Jan 14 j 01:18	8° $\text{E}$ 15'13	
min. Earth dist.	-12214 Jan 10 j 19:27	24° $\text{Y}$ 24'53	9.23847 AU	opposition	-12208 Mar 24 j 05:26	4° $\text{E}$ 49'40	2°53'29
direct	-12214 Mar 22 j 15:43	21° $\text{Y}$ 10'30		min. Earth dist.	-12208 Mar 24 j 21:02	4° $\text{E}$ 46'39	8.42787 AU
evening set	-12214 Jul 02 j 01:02	28° $\text{Y}$ 04'58		direct	-12208 May 31 j 12:16	1° $\text{E}$ 27'36	
max. Earth dist.	-12214 Jul 17 j 08:03	29° $\text{Y}$ 50'44	11.19951 AU	evening set	-12208 Sep 08 j 23:36	9° $\text{E}$ 04'21	
conjunction	-12214 Jul 18 j 12:00	29° $\text{Y}$ 58'51	1°39'40	conjunction	-12208 Sep 25 j 17:15	11° $\text{E}$ 11'47	2°14'17
minimum elong	-12214 Jul 18 j 11:57	29° $\text{Y}$ 58'50	1°40'01	minimum elong	-12208 Sep 25 j 17:18	11° $\text{E}$ 11'48	2°15'00
	-12214 Jul 18 j 15:57	0° $\text{E}$		max. Earth dist.	-12208 Sep 25 j 00:20	11° $\text{E}$ 06'23	10.34287 AU
morning rise	-12214 Aug 03 j 21:21	1° $\text{E}$ 52'26		morning rise	-12208 Oct 12 j 15:29	13° $\text{E}$ 20'44	
retrograde	-12214 Nov 11 j 22:51	8° $\text{E}$ 44'19		retrograde	-12207 Jan 27 j 08:06	21° $\text{E}$ 26'19	
opposition	-12213 Jan 21 j 14:48	5° $\text{E}$ 27'51	2°13'34	opposition	-12207 Apr 07 j 02:44	17° $\text{E}$ 58'48	2°37'03
min. Earth dist.	-12213 Jan 22 j 15:49	5° $\text{E}$ 23'17	9.15551 AU	min. Earth dist.	-12207 Apr 07 j 13:56	17° $\text{E}$ 56'36	8.26080 AU
direct	-12213 Apr 03 j 01:27	2° $\text{E}$ 09'02		direct	-12207 Jun 13 j 15:01	14° $\text{E}$ 35'43	
evening set	-12213 Jul 13 j 03:10	9° $\text{E}$ 07'04		evening set	-12207 Sep 22 j 07:34	22° $\text{E}$ 22'54	
max. Earth dist.	-12213 Jul 28 j 07:14	10° $\text{E}$ 53'12	11.10254 AU				
conjunction	-12213 Jul 29 j 12:31	11° $\text{E}$ 01'49	1°58'36	conjunction	-12207 Oct 09 j 06:38	24° $\text{E}$ 34'16	1°56'53
minimum elong	-12213 Jul 29 j 12:28	11° $\text{E}$ 01'48	1°59'04	minimum elong	-12207 Oct 09 j 06:42	24° $\text{E}$ 34'18	1°57'33
morning rise	-12213 Aug 14 j 21:20	12° $\text{E}$ 56'34		max. Earth dist.	-12207 Oct 08 j 19:47	24° $\text{E}$ 30'45	10.18078 AU
	-12213 Sep 02 j 09:30	15° $\text{E}$		morning rise	-12207 Oct 26 j 11:04	26° $\text{E}$ 47'24	
retrograde	-12213 Nov 23 j 20:53	19° $\text{E}$ 57'12			-12207 Nov 22 j 00:09	0° $\text{E}$	
opposition	-12212 Feb 02 j 16:02	16° $\text{E}$ 39'17	2°34'38	retrograde	-12206 Feb 11 j 00:44	5° $\text{E}$ 06'42	
min. Earth dist.	-12212 Feb 03 j 17:55	16° $\text{E}$ 34'32	9.04572 AU	opposition	-12206 Apr 21 j 09:21	1° $\text{E}$ 37'23	2°11'12
	-12212 Feb 26 j 05:24	15° $\text{E}$		min. Earth dist.	-12206 Apr 21 j 15:09	1° $\text{E}$ 36'14	8.10532 AU
direct	-12212 Apr 13 j 14:45	13° $\text{E}$ 20'08			-12206 May 12 j 13:01	30° $\text{E}$	
	-12212 May 29 j 08:41	15° $\text{E}$		direct	-12206 Jun 27 j 06:05	28° $\text{E}$ 13'13	
evening set	-12212 Jul 23 j 10:06	20° $\text{E}$ 23'20			-12206 Aug 10 j 08:47	0° $\text{E}$	
				evening set	-12206 Oct 06 j 05:11	6° $\text{E}$ 10'47	
conjunction	-12212 Aug 08 j 18:41	22° $\text{E}$ 19'29	2°13'21	conjunction	-12206 Oct 23 j 10:36	8° $\text{E}$ 26'14	1°32'15
minimum elong	-12212 Aug 08 j 18:38	22° $\text{E}$ 19'28	2°13'55	minimum elong	-12206 Oct 23 j 10:40	8° $\text{E}$ 26'15	1°32'51
max. Earth dist.	-12212 Aug 07 j 13:02	22° $\text{E}$ 10'39	10.98062 AU	max. Earth dist.	-12206 Oct 23 j 07:20	8° $\text{E}$ 25'09	10.03494 AU
morning rise	-12212 Aug 25 j 03:57	24° $\text{E}$ 15'57		morning rise	-12206 Nov 09 j 21:44	10° $\text{E}$ 43'33	
	-12212 Oct 23 j 13:31	0° $\text{E}$			-12206 Dec 15 j 15:04	15° $\text{E}$	
retrograde	-12212 Dec 05 j 05:10	1° $\text{E}$ 27'09		retrograde	-12205 Feb 26 j 03:41	19° $\text{E}$ 14'55	
	-12211 Jan 18 j 03:28	30° $\text{E}$		opposition	-12205 May 06 j 00:27	15° $\text{E}$ 44'03	1°36'34
opposition	-12211 Feb 14 j 00:15	28° $\text{E}$ 07'32	2°50'14	min. Earth dist.	-12205 May 05 j 23:58	15° $\text{E}$ 44'09	7.97096 AU
min. Earth dist.	-12211 Feb 15 j 01:43	28° $\text{E}$ 02'48	8.91288 AU		-12205 May 15 j 02:59	15° $\text{E}$	
direct	-12211 Apr 25 j 10:11	24° $\text{E}$ 47'52		direct	-12205 Jul 11 j 07:03	12° $\text{E}$ 18'48	
	-12211 Jul 17 j 20:44	0° $\text{E}$			-12205 Sep 03 j 14:52	15° $\text{E}$	



Attention, astronomical year style is used: The year -12205 in astronomical counting style is the year 12206 BCE in historical counting style.

evening set	-12205 Oct 20 j 16:36	20°Ω26'05		morning rise	-12199 Feb 10 j 04:28	9°ℳ41'22	
					-12199 Mar 28 j 02:09	15°ℳ	
conjunction	-12205 Nov 07 j 04:42	22°Ω45'21	1°01'20	retrograde	-12199 May 26 j 20:35	18°ℳ06'28	
minimum elong	-12205 Nov 07 j 04:45	22°Ω45'22	1°01'48		-12199 Jul 27 j 15:57	15°ℳ	
max. Earth dist.	-12205 Nov 07 j 09:53	22°Ω47'05	9.91473 AU	min. Earth dist.	-12199 Jul 31 j 10:35	14°ℳ41'07	7.96629 AU
morning rise	-12205 Nov 24 j 22:32	25°Ω06'31		opposition	-12199 Aug 01 j 10:20	14°ℳ36'10	-2°32'24
	-12204 Jan 05 j 00:14	0°ℳ		direct	-12199 Oct 06 j 20:59	11°ℳ06'44	
retrograde	-12204 Mar 12 j 14:18	3°ℳ47'11			-12199 Dec 13 j 16:18	15°ℳ	
opposition	-12204 May 19 j 22:01	0°ℳ15'08	0°54'44	evening set	-12198 Jan 20 j 08:16	19°ℳ25'50	
min. Earth dist.	-12204 May 19 j 14:51	0°ℳ16'36	7.86679 AU				
	-12204 May 22 j 23:35	30°ℳ		conjunction	-12198 Feb 07 j 11:18	21°ℳ46'29	-2°10'46
direct	-12204 Jul 24 j 17:06	26°Ω48'50		minimum elong	-12198 Feb 07 j 11:14	21°ℳ46'28	2°11'19
	-12204 Sep 21 j 22:49	0°ℳ		max. Earth dist.	-12198 Feb 08 j 18:30	21°ℳ56'38	10.02727 AU
evening set	-12204 Nov 03 j 17:18	5°ℳ04'35		morning rise	-12198 Feb 25 j 13:44	24°ℳ06'46	
					-12198 Apr 19 j 21:52	0°♂	
conjunction	-12204 Nov 21 j 11:38	7°ℳ27'01	0°25'48	retrograde	-12198 Jun 09 j 23:15	2°♂18'24	
minimum elong	-12204 Nov 21 j 11:40	7°ℳ27'01	0°26'07		-12198 Aug 01 j 03:13	30°ℳ	
max. Earth dist.	-12204 Nov 22 j 00:58	7°ℳ31'29	9.82861 AU	opposition	-12198 Aug 15 j 13:19	28°ℳ49'49	-2°51'49
morning rise	-12204 Dec 09 j 11:22	9°ℳ51'14		min. Earth dist.	-12198 Aug 14 j 14:32	28°ℳ54'32	8.09697 AU
retrograde	-12203 Mar 28 j 04:41	18°ℳ37'28		direct	-12198 Oct 21 j 15:45	25°ℳ20'34	
opposition	-12203 Jun 03 j 23:28	15°ℳ04'42	0°08'20		-12197 Jan 05 j 14:49	0°♂	
min. Earth dist.	-12203 Jun 03 j 10:07	15°ℳ07'28	7.80051 AU	evening set	-12197 Feb 04 j 11:53	3°♂32'01	
direct	-12203 Aug 08 j 11:04	11°ℳ37'24					
desc. node	-12203 Aug 08 j 17:30	11°ℳ37'25		conjunction	-12197 Feb 22 j 12:34	5°♂49'31	-2°22'31
evening set	-12203 Nov 19 j 04:56	19°ℳ59'39		minimum elong	-12197 Feb 22 j 12:32	5°♂49'31	2°23'09
				max. Earth dist.	-12197 Feb 23 j 17:10	5°♂58'41	10.16886 AU
conjunction	-12203 Dec 07 j 04:23	22°ℳ24'14	-0°12'01	morning rise	-12197 Mar 12 j 11:17	8°♂06'16	
minimum elong	-12203 Dec 07 j 04:22	22°ℳ24'14	0°11'54	retrograde	-12197 Jun 23 j 13:53	16°♂03'15	
behind sun begin	-12203 Dec 06 j 23:20	22°ℳ22'33		min. Earth dist.	-12197 Aug 28 j 09:28	12°♂40'56	8.24733 AU
behind sun end	-12203 Dec 07 j 09:23	22°ℳ25'55		opposition	-12197 Aug 29 j 06:18	12°♂36'40	-3°00'32
max. Earth dist.	-12203 Dec 08 j 01:07	22°ℳ31'14	9.78321 AU	direct	-12197 Nov 05 j 02:54	9°♂07'56	
morning rise	-12203 Dec 25 j 08:30	24°ℳ50'20		evening set	-12196 Feb 19 j 03:02	17°♂10'05	
	-12202 Feb 06 j 11:58	0°♂					
retrograde	-12202 Apr 12 j 19:06	3°♂37'46		conjunction	-12196 Mar 08 j 00:54	19°♂24'12	-2°25'51
min. Earth dist.	-12202 Jun 18 j 07:43	0°♂08'40	7.77740 AU	minimum elong	-12196 Mar 08 j 00:54	19°♂24'12	2°26'33
opposition	-12202 Jun 19 j 02:07	0°♂04'49	-0°39'11	max. Earth dist.	-12196 Mar 09 j 01:53	19°♂32'03	10.32618 AU
	-12202 Jun 20 j 01:05	30°ℳ		morning rise	-12196 Mar 25 j 19:30	21°♂37'14	
direct	-12202 Aug 23 j 11:33	26°ℳ36'40		retrograde	-12196 Jul 05 j 15:42	29°♂19'22	
	-12202 Oct 23 j 18:51	0°♂		opposition	-12196 Sep 10 j 13:28	25°♂54'52	-2°59'06
evening set	-12202 Dec 04 j 23:53	5°♂02'46		min. Earth dist.	-12196 Sep 09 j 19:27	25°♂58'30	8.40920 AU
				direct	-12196 Nov 18 j 04:43	22°♂26'53	
conjunction	-12202 Dec 23 j 02:50	7°♂28'13	-0°49'10		-12195 Mar 01 j 14:21	0°♂	
minimum elong	-12202 Dec 23 j 02:47	7°♂28'12	0°49'14	evening set	-12195 Mar 04 j 04:16	0°♂18'38	
max. Earth dist.	-12202 Dec 24 j 05:41	7°♂37'15	9.78228 AU				
morning rise	-12201 Jan 10 j 09:25	9°♂54'47		conjunction	-12195 Mar 21 j 22:59	2°♂29'21	-2°21'23
retrograde	-12201 Apr 28 j 04:55	18°♂38'49		minimum elong	-12195 Mar 21 j 23:01	2°♂29'21	2°22'07
min. Earth dist.	-12201 Jul 03 j 04:49	15°♂10'51	7.79931 AU	max. Earth dist.	-12195 Mar 22 j 19:39	2°♂35'43	10.49108 AU
opposition	-12201 Jul 04 j 02:43	15°♂06'14	-1°24'00	morning rise	-12195 Apr 08 j 13:27	4°♂38'43	
direct	-12201 Sep 07 j 15:47	11°♂37'25		retrograde	-12195 Jul 18 j 06:58	12°♂06'34	
evening set	-12201 Dec 20 j 22:10	20°♂04'19		opposition	-12195 Sep 23 j 11:00	8°♂44'08	-2°48'41
				min. Earth dist.	-12195 Sep 22 j 21:07	8°♂46'53	8.57453 AU
conjunction	-12200 Jan 08 j 02:47	22°♂29'17	-1°22'51	direct	-12195 Dec 01 j 19:41	5°♂17'05	
minimum elong	-12200 Jan 08 j 02:43	22°♂29'15	1°23'06	evening set	-12194 Mar 17 j 15:31	12°♂58'04	
max. Earth dist.	-12200 Jan 09 j 09:34	22°♂39'33	9.82581 AU				
morning rise	-12200 Jan 26 j 09:42	24°♂54'52		conjunction	-12194 Apr 04 j 06:58	15°♂05'30	-2°10'09
	-12200 Mar 09 j 08:04	0°ℳ		minimum elong	-12194 Apr 04 j 07:01	15°♂05'31	2°10'52
retrograde	-12200 May 12 j 06:03	3°ℳ31'10		max. Earth dist.	-12194 Apr 04 j 22:01	15°♂10'04	10.65552 AU
opposition	-12200 Jul 17 j 22:11	29°♂59'30	-2°02'38	morning rise	-12194 Apr 21 j 17:34	17°♂11'28	
min. Earth dist.	-12200 Jul 16 j 22:35	0°ℳ04'28	7.86420 AU	retrograde	-12194 Jul 30 j 11:50	24°♂26'09	
	-12200 Jul 17 j 19:51	30°ℳ		opposition	-12194 Oct 05 j 23:26	21°♂05'40	-2°30'45
direct	-12200 Sep 21 j 19:57	26°♂30'15		min. Earth dist.	-12194 Oct 05 j 14:31	21°♂07'24	8.73558 AU
	-12200 Nov 24 j 01:56	0°ℳ		direct	-12194 Dec 15 j 00:15	17°♂39'39	
evening set	-12199 Jan 04 j 18:36	4°ℳ54'44		evening set	-12193 Mar 30 j 13:21	25°♂10'09	
conjunction	-12199 Jan 22 j 23:07	7°ℳ17'59	-1°50'37	conjunction	-12193 Apr 17 j 01:29	27°♂14'35	-1°53'20
minimum elong	-12199 Jan 22 j 23:02	7°ℳ17'58	1°51'02	minimum elong	-12193 Apr 17 j 01:32	27°♂14'36	1°54'00
max. Earth dist.	-12199 Jan 24 j 07:17	7°ℳ28'37	9.90991 AU	max. Earth dist.	-12193 Apr 17 j 09:44	27°♂17'02	10.81197 AU

Attention, astronomical year style is used: The year -12193 in astronomical counting style is the year 12194 BCE in historical counting style.

morning rise	-12193 May 04 j 08:35	29° $\text{Z}$ 17'29	min. Earth dist.	-12188 Dec 13 j 21:04	28° $\text{H}$ 28'16	9.29425 AU
	-12193 May 10 j 11:44	0° $\approx$	direct	-12187 Feb 23 j 10:35	25° $\text{H}$ 11'13	
retrograde	-12193 Aug 11 j 05:10	6° $\approx$ 20'41		-12187 May 17 j 15:08	0° $\text{Y}$	
opposition	-12193 Oct 18 j 04:00	3° $\approx$ 01'56 -2°06'53	evening set	-12187 Jun 05 j 20:54	2° $\text{Y}$ 04'20	
min. Earth dist.	-12193 Oct 17 j 23:45	3° $\approx$ 02'44 8.88522 AU				
	-12193 Dec 06 j 02:22	30° $\text{R}$ $\text{Z}$	conjunction	-12187 Jun 22 j 13:56	3° $\text{Y}$ 58'16 0°41'07	
direct	-12193 Dec 27 j 21:40	29° $\text{Z}$ 37'00	minimum elong	-12187 Jun 22 j 13:54	3° $\text{Y}$ 58'15 0°41'08	
	-12192 Jan 18 j 15:39	0° $\approx$	max. Earth dist.	-12187 Jun 21 j 16:50	3° $\text{Y}$ 52'13 11.29543 AU	
evening set	-12192 Apr 10 j 22:56	6° $\approx$ 57'48	morning rise	-12187 Jul 09 j 03:24	5° $\text{Y}$ 51'18	
			retrograde	-12187 Oct 15 j 10:58	12° $\text{Y}$ 30'39	
conjunction	-12192 Apr 28 j 07:47	8° $\approx$ 59'31 -1°32'10	opposition	-12187 Dec 24 j 15:25	9° $\text{Y}$ 15'50 1°05'39	
minimum elong	-12192 Apr 28 j 07:50	8° $\approx$ 59'32 1°32'45	min. Earth dist.	-12187 Dec 25 j 10:50	9° $\text{Y}$ 12'18 9.28964 AU	
max. Earth dist.	-12192 Apr 28 j 09:45	9° $\approx$ 00'05 10.95382 AU	direct	-12186 Mar 06 j 18:45	5° $\text{Y}$ 56'22	
morning rise	-12192 May 15 j 11:31	10° $\approx$ 59'43	evening set	-12186 Jun 16 j 18:58	12° $\text{Y}$ 48'56	
	-12192 Jun 22 j 19:56	15° $\approx$	max. Earth dist.	-12186 Jul 02 j 09:01	14° $\text{Y}$ 35'35 11.27513 AU	
retrograde	-12192 Aug 21 j 17:52	17° $\approx$ 53'28				
	-12192 Oct 23 j 19:36	15° $\text{R}$ $\approx$	conjunction	-12186 Jul 03 j 09:12	14° $\text{Y}$ 42'32 1°06'50	
opposition	-12192 Oct 29 j 01:54	14° $\approx$ 36'08 -1°38'36	minimum elong	-12186 Jul 03 j 09:09	14° $\text{Y}$ 42'31 1°06'59	
min. Earth dist.	-12192 Oct 29 j 01:40	14° $\approx$ 36'11 9.01747 AU	morning rise	-12186 Jul 19 j 20:36	16° $\text{Y}$ 35'29	
direct	-12191 Jan 08 j 09:01	11° $\approx$ 12'22	retrograde	-12186 Oct 26 j 17:58	23° $\text{Y}$ 18'32	
	-12191 Mar 21 j 16:47	15° $\approx$	opposition	-12185 Jan 05 j 04:48	20° $\text{Y}$ 03'15 1°35'51	
evening set	-12191 Apr 22 j 21:53	18° $\approx$ 24'32	min. Earth dist.	-12185 Jan 06 j 03:19	19° $\text{Y}$ 59'09 9.25436 AU	
			direct	-12185 Mar 18 j 02:51	16° $\text{Y}$ 44'11	
conjunction	-12191 May 10 j 03:35	20° $\approx$ 23'55 -1°07'49	evening set	-12185 Jun 27 j 17:36	23° $\text{Y}$ 37'56	
minimum elong	-12191 May 10 j 03:38	20° $\approx$ 23'56 1°08'17	max. Earth dist.	-12185 Jul 13 j 02:08	25° $\text{Y}$ 23'47 11.22460 AU	
max. Earth dist.	-12191 May 10 j 00:36	20° $\approx$ 23'03 11.07571 AU				
morning rise	-12191 May 27 j 04:00	22° $\approx$ 21'49	conjunction	-12185 Jul 14 j 05:17	25° $\text{Y}$ 31'39 1°30'21	
retrograde	-12191 Sep 02 j 00:48	29° $\approx$ 08'14	minimum elong	-12185 Jul 14 j 05:14	25° $\text{Y}$ 31'38 1°30'39	
opposition	-12191 Nov 09 j 18:35	25° $\approx$ 52'02 -1°07'16	morning rise	-12185 Jul 30 j 15:17	27° $\text{Y}$ 24'59	
min. Earth dist.	-12191 Nov 09 j 22:57	25° $\approx$ 51'13 9.12762 AU		-12185 Aug 23 j 14:21	0° $\text{B}$	
direct	-12190 Jan 20 j 10:54	22° $\approx$ 29'21	retrograde	-12185 Nov 07 j 06:29	4° $\text{B}$ 13'52	
evening set	-12190 May 04 j 12:00	29° $\approx$ 34'18	opposition	-12184 Jan 16 j 22:13	0° $\text{B}$ 57'47 2°03'00	
	-12190 May 08 j 06:47	0° $\text{H}$	min. Earth dist.	-12184 Jan 17 j 22:33	0° $\text{B}$ 53'21 9.18944 AU	
				-12184 Jan 30 j 07:45	30° $\text{R}$ $\text{Y}$	
conjunction	-12190 May 21 j 14:31	1° $\text{H}$ 31'44 -0°41'22	direct	-12184 Mar 28 j 12:43	27° $\text{Y}$ 38'56	
minimum elong	-12190 May 21 j 14:33	1° $\text{H}$ 31'45 0°41'43		-12184 May 23 j 00:39	0° $\text{B}$	
max. Earth dist.	-12190 May 21 j 06:24	1° $\text{H}$ 29'24 11.17337 AU	evening set	-12184 Jul 07 j 18:18	4° $\text{B}$ 35'27	
morning rise	-12190 Jun 07 j 11:51	3° $\text{H}$ 27'47	max. Earth dist.	-12184 Jul 23 j 00:24	6° $\text{B}$ 21'40 11.14525 AU	
retrograde	-12190 Sep 13 j 04:25	10° $\text{H}$ 09'03				
opposition	-12190 Nov 21 j 07:34	6° $\text{H}$ 53'43 -0°34'08	conjunction	-12184 Jul 24 j 04:13	6° $\text{B}$ 29'48 1°50'51	
min. Earth dist.	-12190 Nov 21 j 17:01	6° $\text{H}$ 51'58 9.21202 AU	minimum elong	-12184 Jul 24 j 04:10	6° $\text{B}$ 29'47 1°51'17	
direct	-12189 Feb 01 j 07:17	3° $\text{H}$ 32'00	morning rise	-12184 Aug 09 j 13:18	8° $\text{B}$ 24'02	
evening set	-12189 May 15 j 19:25	10° $\text{H}$ 31'21		-12184 Oct 28 j 11:26	15° $\text{B}$	
			retrograde	-12184 Nov 18 j 02:15	15° $\text{B}$ 20'46	
conjunction	-12189 Jun 01 j 18:32	12° $\text{H}$ 27'12 -0°13'51		-12184 Dec 09 j 00:04	15° $\text{R}$ $\text{B}$	
minimum elong	-12189 Jun 01 j 18:33	12° $\text{H}$ 27'12 0°14'04	opposition	-12183 Jan 27 j 20:53	12° $\text{B}$ 03'33 2°26'07	
behind sun begin	-12189 Jun 01 j 14:59	12° $\text{H}$ 26'12	min. Earth dist.	-12183 Jan 28 j 21:20	11° $\text{B}$ 59'04 9.09670 AU	
behind sun end	-12189 Jun 01 j 22:06	12° $\text{H}$ 28'12	direct	-12183 Apr 09 j 01:36	8° $\text{B}$ 44'42	
max. Earth dist.	-12189 Jun 01 j 04:39	12° $\text{H}$ 23'14 11.24373 AU		-12183 Jul 12 j 08:01	15° $\text{B}$	
morning rise	-12189 Jun 18 j 13:04	14° $\text{H}$ 21'48	evening set	-12183 Jul 18 j 23:11	15° $\text{B}$ 45'36	
retrograde	-12189 Sep 24 j 04:33	21° $\text{H}$ 00'11	max. Earth dist.	-12183 Aug 03 j 04:46	17° $\text{B}$ 32'58 11.03941 AU	
opposition	-12189 Dec 02 j 18:19	17° $\text{H}$ 45'22 -0°00'17				
min. Earth dist.	-12189 Dec 03 j 08:08	17° $\text{H}$ 42'49 9.26810 AU	conjunction	-12183 Aug 04 j 08:08	17° $\text{B}$ 41'05 2°07'32	
asc. node	-12189 Dec 05 j 19:08	17° $\text{H}$ 32'00	minimum elong	-12183 Aug 04 j 08:05	17° $\text{B}$ 41'04 2°08'03	
direct	-12188 Feb 12 j 22:04	14° $\text{H}$ 24'32	morning rise	-12183 Aug 20 j 16:58	19° $\text{B}$ 36'42	
evening set	-12188 May 25 j 21:50	21° $\text{H}$ 19'56	retrograde	-12183 Nov 30 j 07:56	26° $\text{B}$ 43'07	
			opposition	-12182 Feb 09 j 01:55	23° $\text{B}$ 24'32 2°44'11	
conjunction	-12188 Jun 11 j 17:44	23° $\text{H}$ 14'35 0°13'59	min. Earth dist.	-12182 Feb 10 j 01:41	23° $\text{B}$ 20'09 8.97897 AU	
minimum elong	-12188 Jun 11 j 17:43	23° $\text{H}$ 14'35 0°13'53	direct	-12182 Apr 20 j 17:47	20° $\text{B}$ 05'28	
behind sun begin	-12188 Jun 11 j 14:00	23° $\text{H}$ 13'32	evening set	-12182 Jul 30 j 09:53	27° $\text{B}$ 12'12	
behind sun end	-12188 Jun 11 j 21:27	23° $\text{H}$ 15'38				
max. Earth dist.	-12188 Jun 10 j 23:20	23° $\text{H}$ 09'20 11.28483 AU	conjunction	-12182 Aug 15 j 18:36	29° $\text{B}$ 09'22 2°19'31	
morning rise	-12188 Jun 28 j 09:41	25° $\text{H}$ 08'12	minimum elong	-12182 Aug 15 j 18:34	29° $\text{B}$ 09'22 2°20'07	
	-12188 Aug 18 j 03:53	0° $\text{Y}$	max. Earth dist.	-12182 Aug 14 j 15:23	29° $\text{B}$ 01'12 10.91054 AU	
retrograde	-12188 Oct 04 j 06:38	1° $\text{Y}$ 45'59		-12182 Aug 22 j 19:09	0° $\text{II}$	
	-12188 Nov 22 j 03:48	30° $\text{R}$ $\text{H}$	morning rise	-12182 Sep 01 j 04:20	1° $\text{II}$ 07'00	
opposition	-12188 Dec 13 j 04:26	28° $\text{H}$ 31'18 0°33'18	retrograde	-12182 Dec 12 j 21:56	8° $\text{II}$ 24'44	

Attention, astronomical year style is used: The year -12181 in astronomical counting style is the year 12182 BCE in historical counting style.

opposition	-12181 Feb 21 j 14:56	5° <u>II</u> 04'32	2°56'07	direct	-12175 Jul 18 j 19:26	20° <u>Q</u> 45'25	
min. Earth dist.	-12181 Feb 22 j 13:55	5° <u>II</u> 00'14	8.84018 AU	evening set	-12175 Oct 28 j 14:11	28° <u>Q</u> 57'18	
direct	-12181 May 02 j 14:31	1° <u>II</u> 45'01			-12175 Nov 05 j 11:37	0° <u>II</u>	
evening set	-12181 Aug 11 j 03:53	8° <u>II</u> 58'58					
max. Earth dist.	-12181 Aug 26 j 11:32	10° <u>II</u> 50'27	10.76313 AU	conjunction	-12175 Nov 15 j 05:36	1° <u>II</u> 18'19	0°41'34
				minimum elong	-12175 Nov 15 j 05:39	1° <u>II</u> 18'20	0°41'57
conjunction	-12181 Aug 27 j 13:28	10° <u>II</u> 58'22	2°26'00	max. Earth dist.	-12175 Nov 15 j 12:59	1° <u>II</u> 20'47	9.86788 AU
minimum elong	-12181 Aug 27 j 13:27	10° <u>II</u> 58'22	2°26'39	morning rise	-12175 Dec 03 j 02:56	3° <u>II</u> 41'14	
morning rise	-12181 Sep 13 j 01:19	12° <u>II</u> 58'33		retrograde	-12174 Mar 21 j 21:30	12° <u>II</u> 25'11	
retrograde	-12181 Dec 25 j 22:27	20° <u>II</u> 29'04		opposition	-12174 May 28 j 20:48	8° <u>II</u> 52'48	0°28'46
opposition	-12180 Mar 05 j 12:41	17° <u>II</u> 07'01	3°00'53	min. Earth dist.	-12174 May 28 j 11:45	8° <u>II</u> 54'40	7.82842 AU
min. Earth dist.	-12180 Mar 06 j 09:53	17° <u>II</u> 03'00	8.68528 AU	direct	-12174 Aug 02 j 11:02	5° <u>II</u> 25'56	
direct	-12180 May 13 j 20:47	13° <u>II</u> 46'49		evening set	-12174 Nov 12 j 20:50	13° <u>II</u> 45'21	
evening set	-12180 Aug 22 j 06:59	21° <u>II</u> 09'10					
				conjunction	-12174 Nov 30 j 18:01	16° <u>II</u> 09'03	0°04'34
conjunction	-12180 Sep 07 j 18:54	23° <u>II</u> 11'24	2°26'09	minimum elong	-12174 Nov 30 j 18:02	16° <u>II</u> 09'03	0°04'46
minimum elong	-12180 Sep 07 j 18:55	23° <u>II</u> 11'24	2°26'52	behind sun begin	-12174 Nov 30 j 10:52	16° <u>II</u> 06'39	
max. Earth dist.	-12180 Sep 06 j 20:08	23° <u>II</u> 04'19	10.60247 AU	behind sun end	-12174 Dec 01 j 01:12	16° <u>II</u> 11'26	
morning rise	-12180 Sep 24 j 10:03	25° <u>II</u> 14'42		max. Earth dist.	-12174 Dec 01 j 09:20	16° <u>II</u> 14'11	9.79952 AU
	-12180 Nov 06 j 23:48	0° <u>III</u>		morning rise	-12174 Dec 18 j 20:32	18° <u>II</u> 34'27	
retrograde	-12179 Jan 07 j 11:26	2° <u>III</u> 59'00		desc. node	-12173 Jan 15 j 12:37	22° <u>II</u> 02'17	
	-12179 Mar 13 j 08:22	30° <u>R</u> <u>II</u>		retrograde	-12173 Apr 06 j 11:03	27° <u>II</u> 21'42	
opposition	-12179 Mar 18 j 19:32	29° <u>II</u> 34'58	2°57'27	opposition	-12173 Jun 12 j 23:03	23° <u>II</u> 48'39	-0°18'38
min. Earth dist.	-12179 Mar 19 j 13:38	29° <u>II</u> 31'30	8.51995 AU	min. Earth dist.	-12173 Jun 12 j 08:33	23° <u>II</u> 51'41	7.78138 AU
direct	-12179 May 26 j 10:31	26° <u>II</u> 13'54		direct	-12173 Aug 17 j 10:02	20° <u>II</u> 20'39	
	-12179 Aug 02 j 01:55	0° <u>III</u>		evening set	-12173 Nov 28 j 12:37	28° <u>II</u> 45'16	
evening set	-12179 Sep 03 j 20:45	3° <u>III</u> 45'41			-12173 Dec 07 j 20:56	0° <u>III</u>	
conjunction	-12179 Sep 20 j 12:25	5° <u>III</u> 51'17	2°19'21	conjunction	-12173 Dec 16 j 14:14	1° <u>III</u> 10'29	-0°33'14
minimum elong	-12179 Sep 20 j 12:28	5° <u>III</u> 51'18	2°20'04	minimum elong	-12173 Dec 16 j 14:12	1° <u>III</u> 10'29	0°33'14
max. Earth dist.	-12179 Sep 19 j 18:11	5° <u>III</u> 45'31	10.43461 AU	max. Earth dist.	-12173 Dec 17 j 12:37	1° <u>III</u> 18'02	9.77413 AU
morning rise	-12179 Oct 07 j 08:02	7° <u>III</u> 58'16		morning rise	-12172 Jan 03 j 20:07	3° <u>III</u> 37'03	
retrograde	-12178 Jan 21 j 12:34	15° <u>III</u> 56'54		retrograde	-12172 Apr 20 j 21:52	12° <u>III</u> 23'05	
opposition	-12178 Apr 01 j 12:12	12° <u>III</u> 30'51	2°45'03	min. Earth dist.	-12172 Jun 26 j 05:29	8° <u>III</u> 53'59	7.77871 AU
min. Earth dist.	-12178 Apr 02 j 01:39	12° <u>III</u> 28'14	8.35090 AU	opposition	-12172 Jun 27 j 00:35	8° <u>III</u> 49'58	-1°05'01
direct	-12178 Jun 08 j 09:13	9° <u>III</u> 08'50		direct	-12172 Aug 31 j 13:22	5° <u>III</u> 21'02	
evening set	-12178 Sep 16 j 22:40	16° <u>III</u> 50'50		evening set	-12172 Dec 13 j 09:42	13° <u>III</u> 47'59	
conjunction	-12178 Oct 03 j 19:14	19° <u>III</u> 00'15	2°05'10	conjunction	-12172 Dec 31 j 13:54	16° <u>III</u> 13'24	-1°08'44
minimum elong	-12178 Oct 03 j 19:17	19° <u>III</u> 00'16	2°05'52	minimum elong	-12172 Dec 31 j 13:50	16° <u>III</u> 13'22	1°08'54
max. Earth dist.	-12178 Oct 03 j 06:04	18° <u>III</u> 56'01	10.26727 AU	max. Earth dist.	-12171 Jan 01 j 17:46	16° <u>III</u> 22'45	9.79341 AU
morning rise	-12178 Oct 20 j 20:32	21° <u>III</u> 11'18		morning rise	-12171 Jan 18 j 20:57	18° <u>III</u> 39'39	
retrograde	-12177 Feb 05 j 01:32	29° <u>III</u> 24'10		retrograde	-12171 May 06 j 02:12	27° <u>III</u> 20'02	
opposition	-12177 Apr 15 j 14:40	25° <u>III</u> 56'11	2°23'17	opposition	-12171 Jul 11 j 22:23	23° <u>III</u> 47'25	-1°46'43
min. Earth dist.	-12177 Apr 15 j 22:42	25° <u>III</u> 54'36	8.18709 AU	min. Earth dist.	-12171 Jul 10 j 23:56	23° <u>III</u> 52'09	7.82033 AU
direct	-12177 Jun 21 j 18:25	22° <u>III</u> 33'04		direct	-12171 Sep 15 j 17:08	20° <u>III</u> 17'49	
	-12177 Sep 27 j 05:58	0° <u>III</u>		evening set	-12171 Dec 29 j 07:11	28° <u>III</u> 43'58	
evening set	-12177 Sep 30 j 14:05	0° <u>III</u> 25'34			-12170 Jan 07 j 22:32	0° <u>III</u>	
conjunction	-12177 Oct 17 j 16:33	2° <u>III</u> 39'04	1°43'37	conjunction	-12170 Jan 16 j 12:08	1° <u>III</u> 08'16	-1°39'19
minimum elong	-12177 Oct 17 j 16:38	2° <u>III</u> 39'05	1°44'15	minimum elong	-12170 Jan 16 j 12:03	1° <u>III</u> 08'15	1°39'40
max. Earth dist.	-12177 Oct 17 j 09:22	2° <u>III</u> 36'43	10.11035 AU	max. Earth dist.	-12170 Jan 17 j 19:33	1° <u>III</u> 18'43	9.85574 AU
morning rise	-12177 Nov 04 j 00:31	4° <u>III</u> 54'23		morning rise	-12170 Feb 03 j 18:21	3° <u>III</u> 32'53	
retrograde	-12176 Feb 20 j 01:23	13° <u>III</u> 20'15		retrograde	-12170 May 20 j 22:11	12° <u>III</u> 03'46	
opposition	-12176 Apr 29 j 02:04	9° <u>III</u> 50'29	1°52'22	opposition	-12170 Jul 26 j 13:55	8° <u>III</u> 32'12	-2°20'38
min. Earth dist.	-12176 Apr 29 j 04:25	9° <u>III</u> 50'01	8.03895 AU	min. Earth dist.	-12170 Jul 25 j 13:43	8° <u>III</u> 37'17	7.90282 AU
direct	-12176 Jul 04 j 13:27	6° <u>III</u> 26'09		direct	-12170 Sep 30 j 18:51	5° <u>III</u> 02'14	
evening set	-12176 Oct 13 j 19:25	14° <u>III</u> 28'50		evening set	-12169 Jan 14 j 00:14	13° <u>III</u> 24'28	
	-12176 Oct 17 j 18:53	15° <u>III</u>			-12169 Jan 26 j 06:16	15° <u>III</u>	
conjunction	-12176 Oct 31 j 04:24	16° <u>III</u> 46'19	1°15'18	conjunction	-12169 Feb 01 j 04:20	15° <u>III</u> 46'35	-2°02'58
minimum elong	-12176 Oct 31 j 04:27	16° <u>III</u> 46'21	1°15'49	minimum elong	-12169 Feb 01 j 04:16	15° <u>III</u> 46'34	2°03'27
max. Earth dist.	-12176 Oct 31 j 04:05	16° <u>III</u> 46'13	9.97410 AU	max. Earth dist.	-12169 Feb 02 j 13:01	15° <u>III</u> 57'18	9.95619 AU
morning rise	-12176 Nov 17 j 19:19	19° <u>III</u> 05'45		morning rise	-12169 Feb 19 j 08:11	18° <u>III</u> 08'30	
retrograde	-12175 Mar 06 j 09:13	27° <u>III</u> 42'18		retrograde	-12169 Jun 04 j 07:28	26° <u>III</u> 26'55	
opposition	-12175 May 13 j 20:54	24° <u>III</u> 11'02	1°13'28	opposition	-12169 Aug 09 j 21:11	22° <u>III</u> 56'52	-2°44'43
min. Earth dist.	-12175 May 13 j 17:30	24° <u>III</u> 11'44	7.91647 AU	min. Earth dist.	-12169 Aug 08 j 21:15	23° <u>III</u> 01'52	8.01979 AU

Attention, astronomical year style is used: The year -12169 in astronomical counting style is the year 12170 BCE in historical counting style.

direct	-12169 Oct 15 j 16:04	19° $\mathbb{M}$ 26'54			-12162 Apr 29 j 06:58	15° $\approx$	
evening set	-12168 Jan 29 j 08:59	27° $\mathbb{M}$ 42'30					
				conjunction	-12162 May 05 j 11:25	15° $\approx$ 43'19	-1°18'40
conjunction	-12168 Feb 16 j 10:59	0° $\mathbb{J}$ 01'39	-2°18'26	minimum elong	-12162 May 05 j 11:28	15° $\approx$ 43'20	1°19'12
minimum elong	-12168 Feb 16 j 10:57	0° $\mathbb{J}$ 01'38	2°19'02	max. Earth dist.	-12162 May 05 j 11:44	15° $\approx$ 43'25	11.02999 AU
	-12168 Feb 16 j 05:52	0° $\mathbb{J}$		morning rise	-12162 May 22 j 13:18	17° $\approx$ 42'10	
max. Earth dist.	-12168 Feb 17 j 18:17	0° $\mathbb{J}$ 11'45	10.08735 AU	retrograde	-12162 Aug 28 j 13:39	24° $\approx$ 31'27	
morning rise	-12168 Mar 05 j 11:24	2° $\mathbb{J}$ 20'12		opposition	-12162 Nov 05 j 03:26	21° $\approx$ 15'06	-1°21'05
retrograde	-12168 Jun 17 j 04:13	10° $\mathbb{J}$ 24'15		min. Earth dist.	-12162 Nov 05 j 05:51	21° $\approx$ 14'39	9.08928 AU
opposition	-12168 Aug 22 j 18:51	6° $\mathbb{J}$ 56'06	-2°58'06	direct	-12161 Jan 15 j 14:44	17° $\approx$ 52'16	
min. Earth dist.	-12168 Aug 21 j 20:48	7° $\mathbb{J}$ 00'39	8.16305 AU	evening set	-12161 Apr 29 j 22:29	25° $\approx$ 00'11	
direct	-12168 Oct 29 j 06:45	3° $\mathbb{J}$ 26'29					
evening set	-12167 Feb 12 j 05:59	11° $\mathbb{J}$ 33'18		conjunction	-12161 May 17 j 02:17	26° $\approx$ 58'22	-0°52'58
				minimum elong	-12161 May 17 j 02:19	26° $\approx$ 58'23	0°53'23
conjunction	-12167 Mar 02 j 05:10	13° $\mathbb{J}$ 49'05	-2°25'24	max. Earth dist.	-12161 May 16 j 20:12	26° $\approx$ 56'37	11.14261 AU
minimum elong	-12167 Mar 02 j 05:09	13° $\mathbb{J}$ 49'05	2°26'05	morning rise	-12161 Jun 03 j 01:06	28° $\approx$ 55'08	
max. Earth dist.	-12167 Mar 03 j 08:57	13° $\mathbb{J}$ 57'54	10.24048 AU		-12161 Jun 12 j 18:12	0° $\mathbb{H}$	
morning rise	-12167 Mar 20 j 01:39	16° $\mathbb{J}$ 03'55		retrograde	-12161 Sep 08 j 18:54	5° $\mathbb{H}$ 38'18	
retrograde	-12167 Jun 30 j 10:58	23° $\mathbb{J}$ 52'54		opposition	-12161 Nov 16 j 18:00	2° $\mathbb{H}$ 23'04	-0°48'33
min. Earth dist.	-12167 Sep 04 j 11:11	20° $\mathbb{J}$ 30'48	8.32356 AU	min. Earth dist.	-12161 Nov 17 j 00:33	2° $\mathbb{H}$ 21'51	9.18886 AU
opposition	-12167 Sep 05 j 06:29	20° $\mathbb{J}$ 26'53	-3°00'59		-12161 Dec 22 j 13:58	30° $\mathbb{R}$ $\approx$	
direct	-12167 Nov 12 j 13:29	16° $\mathbb{J}$ 57'57		direct	-12160 Jan 27 j 15:22	29° $\approx$ 01'25	
evening set	-12166 Feb 26 j 13:12	24° $\mathbb{J}$ 54'34			-12160 Mar 03 j 05:46	0° $\mathbb{H}$	
				evening set	-12160 May 10 j 08:49	6° $\mathbb{H}$ 02'56	
conjunction	-12166 Mar 16 j 09:16	27° $\mathbb{J}$ 06'52	-2°24'14				
minimum elong	-12166 Mar 16 j 09:17	27° $\mathbb{J}$ 06'52	2°24'57	conjunction	-12160 May 27 j 09:25	7° $\mathbb{H}$ 59'22	-0°25'46
max. Earth dist.	-12166 Mar 17 j 08:16	27° $\mathbb{J}$ 14'01	10.40639 AU	minimum elong	-12160 May 27 j 09:26	7° $\mathbb{H}$ 59'22	0°26'03
morning rise	-12166 Apr 03 j 01:46	29° $\mathbb{J}$ 17'57		max. Earth dist.	-12160 May 26 j 22:41	7° $\mathbb{H}$ 56'17	11.22826 AU
	-12166 Apr 08 j 21:05	0° $\mathbb{Z}$		morning rise	-12160 Jun 13 j 05:10	9° $\mathbb{H}$ 54'28	
retrograde	-12166 Jul 13 j 05:45	6° $\mathbb{Z}$ 52'07		retrograde	-12160 Sep 18 j 21:32	16° $\mathbb{H}$ 33'44	
opposition	-12166 Sep 18 j 08:00	3° $\mathbb{Z}$ 28'18	-2°54'17	opposition	-12160 Nov 27 j 05:46	13° $\mathbb{H}$ 19'13	-0°14'52
min. Earth dist.	-12166 Sep 17 j 15:53	3° $\mathbb{Z}$ 31'31	8.49213 AU	min. Earth dist.	-12160 Nov 27 j 16:32	13° $\mathbb{H}$ 17'14	9.25987 AU
direct	-12166 Nov 26 j 09:39	0° $\mathbb{Z}$ 00'21		direct	-12159 Feb 07 j 07:29	9° $\mathbb{H}$ 58'35	
evening set	-12165 Mar 12 j 06:27	7° $\mathbb{Z}$ 46'08		asc. node	-12159 May 10 j 11:05	15° $\mathbb{H}$ 42'19	
				evening set	-12159 May 21 j 13:25	16° $\mathbb{H}$ 55'21	
conjunction	-12165 Mar 29 j 23:20	9° $\mathbb{Z}$ 55'03	-2°15'49				
minimum elong	-12165 Mar 29 j 23:23	9° $\mathbb{Z}$ 55'04	2°16'32	conjunction	-12159 Jun 07 j 10:51	18° $\mathbb{H}$ 50'25	0°02'06
max. Earth dist.	-12165 Mar 30 j 16:58	10° $\mathbb{Z}$ 00'26	10.57605 AU	minimum elong	-12159 Jun 07 j 10:50	18° $\mathbb{H}$ 50'24	0°01'56
morning rise	-12165 Apr 16 j 11:53	12° $\mathbb{Z}$ 02'34		behind sun begin	-12159 Jun 07 j 03:51	18° $\mathbb{H}$ 48'26	
retrograde	-12165 Jul 25 j 14:28	19° $\mathbb{Z}$ 22'53		behind sun end	-12159 Jun 07 j 17:50	18° $\mathbb{H}$ 52'23	
min. Earth dist.	-12165 Sep 30 j 11:23	16° $\mathbb{Z}$ 03'42	8.66010 AU	max. Earth dist.	-12159 Jun 06 j 19:25	18° $\mathbb{H}$ 46'00	11.28375 AU
opposition	-12165 Oct 01 j 00:00	16° $\mathbb{Z}$ 01'13	-2°39'25	morning rise	-12159 Jun 24 j 03:44	20° $\mathbb{H}$ 44'18	
direct	-12165 Dec 09 j 19:08	12° $\mathbb{Z}$ 34'28		retrograde	-12159 Sep 29 j 23:20	27° $\mathbb{H}$ 21'55	
evening set	-12164 Mar 24 j 09:58	20° $\mathbb{Z}$ 09'31		opposition	-12159 Dec 08 j 16:07	24° $\mathbb{H}$ 07'46	0°18'57
				min. Earth dist.	-12159 Dec 09 j 07:54	24° $\mathbb{H}$ 04'53	9.29965 AU
conjunction	-12164 Apr 10 j 23:41	22° $\mathbb{Z}$ 15'16	-2°01'16	direct	-12158 Feb 18 j 20:27	20° $\mathbb{H}$ 47'55	
minimum elong	-12164 Apr 10 j 23:45	22° $\mathbb{Z}$ 15'17	2°01'57	evening set	-12158 Jun 01 j 14:08	27° $\mathbb{H}$ 41'43	
max. Earth dist.	-12164 Apr 11 j 12:20	22° $\mathbb{Z}$ 19'04	10.74117 AU	max. Earth dist.	-12158 Jun 17 j 11:20	29° $\mathbb{H}$ 29'51	11.30700 AU
morning rise	-12164 Apr 28 j 08:22	24° $\mathbb{Z}$ 19'30					
	-12164 Jun 25 j 07:17	0° $\approx$		conjunction	-12158 Jun 18 j 08:20	29° $\mathbb{H}$ 35'51	0°29'35
retrograde	-12164 Aug 05 j 13:47	1° $\approx$ 27'32		minimum elong	-12158 Jun 18 j 08:18	29° $\mathbb{H}$ 35'50	0°29'32
	-12164 Sep 16 j 16:30	30° $\mathbb{R}$ $\mathbb{Z}$			-12158 Jun 21 j 20:51	0° $\mathbb{Y}$	
opposition	-12164 Oct 12 j 07:53	28° $\mathbb{Z}$ 07'53	-2°17'54	morning rise	-12158 Jul 04 j 22:50	1° $\mathbb{Y}$ 29'00	
min. Earth dist.	-12164 Oct 11 j 23:49	28° $\mathbb{Z}$ 09'27	8.81982 AU	retrograde	-12158 Oct 11 j 01:19	8° $\mathbb{Y}$ 07'16	
direct	-12164 Dec 21 j 18:49	24° $\mathbb{Z}$ 42'28		opposition	-12158 Dec 20 j 02:42	4° $\mathbb{Y}$ 53'05	0°51'56
	-12163 Mar 18 j 01:11	0° $\approx$		min. Earth dist.	-12158 Dec 20 j 22:34	4° $\mathbb{Y}$ 49'28	9.30673 AU
evening set	-12163 Apr 06 j 00:39	2° $\approx$ 07'20		direct	-12157 Mar 02 j 06:11	1° $\mathbb{Y}$ 33'50	
				evening set	-12157 Jun 12 j 12:42	8° $\mathbb{Y}$ 26'26	
conjunction	-12163 Apr 23 j 11:07	4° $\approx$ 10'13	-1°41'49	max. Earth dist.	-12157 Jun 28 j 03:19	10° $\mathbb{Y}$ 13'00	11.29745 AU
minimum elong	-12163 Apr 23 j 11:11	4° $\approx$ 10'14	1°42'26				
max. Earth dist.	-12163 Apr 23 j 18:07	4° $\approx$ 12'17	10.89450 AU	conjunction	-12157 Jun 29 j 03:57	10° $\mathbb{Y}$ 20'04	0°56'00
morning rise	-12163 May 10 j 16:13	6° $\approx$ 11'32		minimum elong	-12157 Jun 29 j 03:55	10° $\mathbb{Y}$ 20'03	0°56'06
retrograde	-12163 Aug 17 j 05:54	13° $\approx$ 09'10		morning rise	-12157 Jul 15 j 16:17	12° $\mathbb{Y}$ 12'57	
opposition	-12163 Oct 24 j 08:39	9° $\approx$ 51'20	-1°51'18	retrograde	-12157 Oct 22 j 07:03	18° $\mathbb{Y}$ 54'07	
min. Earth dist.	-12163 Oct 24 j 05:57	9° $\approx$ 51'51	8.96474 AU	opposition	-12157 Dec 31 j 15:06	15° $\mathbb{Y}$ 39'29	1°23'10
direct	-12162 Jan 03 j 08:17	6° $\approx$ 27'14		min. Earth dist.	-12156 Jan 01 j 13:18	15° $\mathbb{Y}$ 35'27	9.28130 AU
evening set	-12162 Apr 18 j 04:18	13° $\approx$ 42'58		direct	-12156 Mar 12 j 16:23	12° $\mathbb{Y}$ 20'37	

Attention, astronomical year style is used: The year -12156 in astronomical counting style is the year 12157 BCE in historical counting style.

evening set	-12156 Jun 22 j 11:01	19° $\Upsilon$ 13'43		conjunction	-12150 Sep 15 j 10:02	0° $\ominus$ 37'17	2°23'15
				minimum elong	-12150 Sep 15 j 10:04	0° $\ominus$ 37'18	2°23'57
conjunction	-12156 Jul 08 j 23:50	21° $\Upsilon$ 07'19	1°20'34	max. Earth dist.	-12150 Sep 14 j 12:45	0° $\ominus$ 30'35	10.48979 AU
minimum elong	-12156 Jul 08 j 23:47	21° $\Upsilon$ 07'18	1°20'48	morning rise	-12150 Oct 02 j 03:38	2° $\ominus$ 42'48	
max. Earth dist.	-12156 Jul 07 j 21:26	20° $\Upsilon$ 59'42	11.25596 AU	retrograde	-12149 Jan 15 j 20:23	10° $\ominus$ 35'42	
morning rise	-12156 Jul 25 j 10:17	23° $\Upsilon$ 00'23		opposition	-12149 Mar 27 j 00:02	7° $\ominus$ 09'54	2°51'43
retrograde	-12156 Nov 01 j 18:43	29° $\Upsilon$ 46'33		min. Earth dist.	-12149 Mar 27 j 15:34	7° $\ominus$ 06'53	8.40617 AU
opposition	-12155 Jan 11 j 06:44	26° $\Upsilon$ 31'06	1°51'45	direct	-12149 Jun 03 j 04:29	3° $\ominus$ 47'39	
min. Earth dist.	-12155 Jan 12 j 06:34	26° $\Upsilon$ 26'46	9.22469 AU	evening set	-12149 Sep 11 j 16:40	11° $\ominus$ 25'43	
direct	-12155 Mar 24 j 01:25	23° $\Upsilon$ 12'23					
	-12155 Jul 02 j 08:04	0° $\mathcal{B}$		conjunction	-12149 Sep 28 j 10:53	13° $\ominus$ 33'36	2°12'17
evening set	-12155 Jul 03 j 10:47	0° $\mathcal{B}$ 07'35		minimum elong	-12149 Sep 28 j 10:56	13° $\ominus$ 33'37	2°12'59
				max. Earth dist.	-12149 Sep 27 j 18:49	13° $\ominus$ 28'27	10.32201 AU
conjunction	-12155 Jul 19 j 21:31	2° $\mathcal{B}$ 01'38	1°42'27	morning rise	-12149 Oct 15 j 09:49	15° $\ominus$ 43'02	
minimum elong	-12155 Jul 19 j 21:28	2° $\mathcal{B}$ 01'37	1°42'50	retrograde	-12148 Jan 30 j 03:30	23° $\ominus$ 50'16	
max. Earth dist.	-12155 Jul 18 j 17:04	1° $\mathcal{B}$ 53'21	11.18420 AU	opposition	-12148 Apr 08 j 22:33	20° $\ominus$ 22'30	2°33'59
morning rise	-12155 Aug 05 j 06:47	3° $\mathcal{B}$ 55'25		min. Earth dist.	-12148 Apr 09 j 09:19	20° $\ominus$ 20'22	8.24092 AU
retrograde	-12155 Nov 13 j 10:21	10° $\mathcal{B}$ 48'34		direct	-12148 Jun 15 j 10:13	16° $\ominus$ 59'13	
opposition	-12154 Jan 23 j 03:04	7° $\mathcal{B}$ 31'58	2°16'44	evening set	-12148 Sep 24 j 02:08	24° $\ominus$ 47'36	
min. Earth dist.	-12154 Jan 24 j 04:38	7° $\mathcal{B}$ 27'18	9.13886 AU				
direct	-12154 Apr 04 j 11:13	4° $\mathcal{B}$ 13'07		conjunction	-12148 Oct 11 j 02:00	26° $\ominus$ 59'28	1°53'53
evening set	-12154 Jul 14 j 13:51	11° $\mathcal{B}$ 12'06		minimum elong	-12148 Oct 11 j 02:04	26° $\ominus$ 59'30	1°54'32
				max. Earth dist.	-12148 Oct 10 j 16:44	26° $\ominus$ 56'27	10.16224 AU
conjunction	-12154 Jul 30 j 23:01	13° $\mathcal{B}$ 07'04	2°00'53	morning rise	-12148 Oct 28 j 07:08	29° $\ominus$ 13'06	
minimum elong	-12154 Jul 30 j 22:58	13° $\mathcal{B}$ 07'03	2°01'22		-12148 Nov 03 j 11:32	0° $\mathcal{Q}$	
max. Earth dist.	-12154 Jul 29 j 17:07	12° $\mathcal{B}$ 58'15	11.08460 AU	retrograde	-12147 Feb 12 j 22:13	7° $\mathcal{Q}$ 33'49	
morning rise	-12154 Aug 16 j 07:56	15° $\mathcal{B}$ 02'03		opposition	-12147 Apr 23 j 06:07	4° $\mathcal{Q}$ 04'15	2°06'55
	-12154 Aug 16 j 00:49	15° $\mathcal{B}$		min. Earth dist.	-12147 Apr 23 j 10:54	4° $\mathcal{Q}$ 03'17	8.08831 AU
retrograde	-12154 Nov 25 j 10:36	22° $\mathcal{B}$ 04'10		direct	-12147 Jun 29 j 01:37	0° $\mathcal{Q}$ 39'54	
opposition	-12153 Feb 04 j 05:18	18° $\mathcal{B}$ 46'05	2°37'07	evening set	-12147 Oct 08 j 01:19	8° $\mathcal{Q}$ 38'32	
min. Earth dist.	-12153 Feb 05 j 07:31	18° $\mathcal{B}$ 41'16	9.02664 AU				
direct	-12153 Apr 16 j 03:05	15° $\mathcal{B}$ 26'52		conjunction	-12147 Oct 25 j 07:34	10° $\mathcal{Q}$ 54'26	1°28'21
evening set	-12153 Jul 25 j 21:44	22° $\mathcal{B}$ 31'09		minimum elong	-12147 Oct 25 j 07:38	10° $\mathcal{Q}$ 54'27	1°28'56
max. Earth dist.	-12153 Aug 10 j 01:17	24° $\mathcal{B}$ 18'53	10.96050 AU	max. Earth dist.	-12147 Oct 25 j 05:58	10° $\mathcal{Q}$ 53'54	10.01970 AU
				morning rise	-12147 Nov 11 j 19:24	13° $\mathcal{Q}$ 12'12	
conjunction	-12153 Aug 11 j 06:22	24° $\mathcal{B}$ 27'35	2°15'00		-12147 Nov 26 j 00:19	15° $\mathcal{Q}$	
minimum elong	-12153 Aug 11 j 06:19	24° $\mathcal{B}$ 27'34	2°15'34	retrograde	-12146 Feb 28 j 03:03	21° $\mathcal{Q}$ 44'39	
morning rise	-12153 Aug 27 j 15:42	26° $\mathcal{B}$ 24'21		opposition	-12146 May 07 j 21:55	18° $\mathcal{Q}$ 13'33	1°31'13
	-12153 Sep 29 j 19:30	0° $\mathcal{I}$		min. Earth dist.	-12146 May 07 j 20:04	18° $\mathcal{Q}$ 13'56	7.95770 AU
retrograde	-12153 Dec 07 j 19:44	3° $\mathcal{I}$ 37'12			-12146 Jun 28 j 16:36	15° $\mathcal{R}$ $\mathcal{Q}$	
opposition	-12152 Feb 16 j 14:46	0° $\mathcal{I}$ 17'22	2°51'52	direct	-12146 Jul 13 j 02:42	14° $\mathcal{Q}$ 48'08	
min. Earth dist.	-12152 Feb 17 j 15:38	0° $\mathcal{I}$ 12'45	8.89190 AU		-12146 Jul 27 j 10:15	15° $\mathcal{Q}$	
	-12152 Feb 20 j 12:25	30° $\mathcal{R}$ $\mathcal{B}$		evening set	-12146 Oct 22 j 14:06	22° $\mathcal{Q}$ 56'19	
direct	-12152 Apr 26 j 22:49	26° $\mathcal{B}$ 57'38					
	-12152 Jun 27 j 22:37	0° $\mathcal{I}$		conjunction	-12146 Nov 09 j 02:54	25° $\mathcal{Q}$ 15'56	0°56'44
evening set	-12152 Aug 05 j 12:09	4° $\mathcal{I}$ 08'37		minimum elong	-12146 Nov 09 j 02:58	25° $\mathcal{Q}$ 15'57	0°57'11
				max. Earth dist.	-12146 Nov 09 j 09:24	25° $\mathcal{Q}$ 18'06	9.90363 AU
conjunction	-12152 Aug 21 j 21:24	6° $\mathcal{I}$ 07'05	2°23'58	morning rise	-12146 Nov 26 j 21:23	27° $\mathcal{Q}$ 37'28	
minimum elong	-12152 Aug 21 j 21:22	6° $\mathcal{I}$ 07'05	2°24'36		-12146 Dec 15 j 15:18	0° $\mathcal{P}$	
max. Earth dist.	-12152 Aug 20 j 18:37	5° $\mathcal{I}$ 58'58	10.81619 AU	retrograde	-12145 Mar 15 j 14:19	6° $\mathcal{P}$ 18'48	
morning rise	-12152 Sep 07 j 08:09	8° $\mathcal{I}$ 06'12		opposition	-12145 May 22 j 19:57	2° $\mathcal{P}$ 46'34	0°48'39
retrograde	-12152 Dec 19 j 16:35	15° $\mathcal{I}$ 31'22		min. Earth dist.	-12145 May 22 j 11:31	2° $\mathcal{P}$ 48'18	7.85806 AU
opposition	-12151 Feb 28 j 08:31	12° $\mathcal{I}$ 09'36	2°59'53		-12145 Jul 01 j 01:10	30° $\mathcal{R}$ $\mathcal{Q}$	
min. Earth dist.	-12151 Mar 01 j 06:44	12° $\mathcal{I}$ 05'25	8.73937 AU	direct	-12145 Jul 27 j 13:45	29° $\mathcal{Q}$ 20'06	
direct	-12151 May 09 j 01:14	8° $\mathcal{I}$ 49'10			-12145 Aug 22 j 19:07	0° $\mathcal{P}$	
evening set	-12151 Aug 17 j 11:11	16° $\mathcal{I}$ 08'10		evening set	-12145 Nov 06 j 15:54	7° $\mathcal{P}$ 36'30	
conjunction	-12151 Sep 02 j 22:05	18° $\mathcal{I}$ 09'16	2°26'58	conjunction	-12145 Nov 24 j 10:47	9° $\mathcal{P}$ 59'11	0°20'48
minimum elong	-12151 Sep 02 j 22:05	18° $\mathcal{I}$ 09'16	2°27'38	minimum elong	-12145 Nov 24 j 10:48	9° $\mathcal{P}$ 59'11	0°21'05
max. Earth dist.	-12151 Sep 01 j 21:37	18° $\mathcal{I}$ 01'42	10.65707 AU	max. Earth dist.	-12145 Nov 25 j 00:58	10° $\mathcal{P}$ 03'57	9.82235 AU
morning rise	-12151 Sep 19 j 11:33	20° $\mathcal{I}$ 11'17		morning rise	-12145 Dec 12 j 11:05	12° $\mathcal{P}$ 23'38	
retrograde	-12150 Jan 02 j 01:14	27° $\mathcal{I}$ 49'57		retrograde	-12144 Mar 30 j 04:29	21° $\mathcal{P}$ 10'03	
opposition	-12150 Mar 13 j 11:18	24° $\mathcal{I}$ 26'11	3°00'08	opposition	-12144 Jun 05 j 21:30	17° $\mathcal{P}$ 37'09	0°01'57
min. Earth dist.	-12150 Mar 14 j 06:30	24° $\mathcal{I}$ 22'31	8.57506 AU	min. Earth dist.	-12144 Jun 05 j 07:26	17° $\mathcal{P}$ 40'05	7.79686 AU
direct	-12150 May 21 j 09:46	21° $\mathcal{I}$ 04'54		desc. node	-12144 Jun 21 j 05:32	16° $\mathcal{P}$ 22'14	
evening set	-12150 Aug 29 j 20:13	28° $\mathcal{I}$ 33'02		direct	-12144 Aug 10 j 08:51	14° $\mathcal{P}$ 09'43	
	-12150 Sep 10 j 11:27	0° $\mathcal{Q}$		evening set	-12144 Nov 21 j 04:20	22° $\mathcal{P}$ 32'20	

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 22

Attention, astronomical year style is used: The year -12144 in astronomical counting style is the year 12145 BCE in historical counting style.

conjunction	-12144 Dec 09 j 04:09	24° $\mathbb{M}$ 57'02	-0°17'04	opposition	-12138 Aug 30 j 22:32	14° $\mathbb{A}$ 56'22	-3°00'52
minimum elong	-12144 Dec 09 j 04:08	24° $\mathbb{M}$ 57'01	0°16'59	min. Earth dist.	-12138 Aug 30 j 01:32	15° $\mathbb{A}$ 00'39	8.26987 AU
max. Earth dist.	-12144 Dec 10 j 01:11	25° $\mathbb{M}$ 04'07	9.78216 AU	direct	-12138 Nov 06 j 21:30	11° $\mathbb{A}$ 27'45	
morning rise	-12144 Dec 27 j 08:42	27° $\mathbb{M}$ 23'12		evening set	-12137 Feb 20 j 21:01	19° $\mathbb{A}$ 28'20	
	-12143 Jan 16 j 20:56	0° $\mathbb{L}$					
retrograde	-12143 Apr 14 j 17:49	6° $\mathbb{L}$ 10'17		conjunction	-12137 Mar 10 j 18:34	21° $\mathbb{A}$ 41'59	-2°25'39
opposition	-12143 Jun 20 j 23:52	2° $\mathbb{L}$ 37'18	-0°45'23	minimum elong	-12137 Mar 10 j 18:34	21° $\mathbb{A}$ 41'59	2°26'21
min. Earth dist.	-12143 Jun 20 j 05:21	2° $\mathbb{L}$ 41'11	7.77898 AU	max. Earth dist.	-12137 Mar 11 j 19:46	21° $\mathbb{A}$ 49'53	10.34938 AU
	-12143 Jul 26 j 11:52	30° $\mathbb{R}$ $\mathbb{M}$		morning rise	-12137 Mar 28 j 12:39	23° $\mathbb{A}$ 54'31	
direct	-12143 Aug 25 j 09:48	29° $\mathbb{M}$ 09'02			-12137 May 26 j 23:36	0° $\mathbb{Z}$	
	-12143 Sep 24 j 02:09	0° $\mathbb{L}$		retrograde	-12137 Jul 08 j 06:32	1° $\mathbb{Z}$ 34'42	
evening set	-12143 Dec 06 j 23:39	7° $\mathbb{L}$ 35'11			-12137 Aug 20 j 04:35	30° $\mathbb{R}$ $\mathbb{A}$	
				min. Earth dist.	-12137 Sep 12 j 10:59	28° $\mathbb{A}$ 13'57	8.43251 AU
conjunction	-12143 Dec 25 j 02:44	10° $\mathbb{L}$ 00'35	-0°53'54	opposition	-12137 Sep 13 j 04:16	28° $\mathbb{A}$ 10'28	-2°58'09
minimum elong	-12143 Dec 25 j 02:41	10° $\mathbb{L}$ 00'34	0°53'59	direct	-12137 Nov 20 j 20:20	24° $\mathbb{A}$ 42'37	
max. Earth dist.	-12143 Dec 26 j 05:30	10° $\mathbb{L}$ 09'35	9.78638 AU		-12136 Feb 12 j 20:39	0° $\mathbb{Z}$	
morning rise	-12142 Jan 12 j 09:28	12° $\mathbb{L}$ 27'03		evening set	-12136 Mar 05 j 20:30	2° $\mathbb{Z}$ 32'49	
retrograde	-12142 Apr 30 j 02:04	21° $\mathbb{L}$ 10'16					
opposition	-12142 Jul 05 j 23:50	17° $\mathbb{L}$ 37'45	-1°29'33	conjunction	-12136 Mar 23 j 14:50	4° $\mathbb{Z}$ 43'06	-2°20'14
min. Earth dist.	-12142 Jul 05 j 02:03	17° $\mathbb{L}$ 42'20	7.80597 AU	minimum elong	-12136 Mar 23 j 14:52	4° $\mathbb{Z}$ 43'07	2°20'57
direct	-12142 Sep 09 j 13:34	14° $\mathbb{L}$ 08'52		max. Earth dist.	-12136 Mar 24 j 10:44	4° $\mathbb{Z}$ 49'13	10.51416 AU
evening set	-12142 Dec 22 j 21:36	22° $\mathbb{L}$ 35'27		morning rise	-12136 Apr 10 j 04:53	6° $\mathbb{Z}$ 52'01	
				retrograde	-12136 Jul 19 j 19:58	14° $\mathbb{Z}$ 18'02	
conjunction	-12141 Jan 10 j 02:11	25° $\mathbb{L}$ 00'14	-1°26'54	min. Earth dist.	-12136 Sep 24 j 11:50	10° $\mathbb{Z}$ 58'24	8.59701 AU
minimum elong	-12141 Jan 10 j 02:06	25° $\mathbb{L}$ 00'13	1°27'11	opposition	-12136 Sep 25 j 00:29	10° $\mathbb{Z}$ 55'54	-2°46'39
max. Earth dist.	-12141 Jan 11 j 08:49	25° $\mathbb{L}$ 10'27	9.83484 AU	direct	-12136 Dec 03 j 10:30	7° $\mathbb{Z}$ 29'00	
morning rise	-12141 Jan 28 j 09:02	27° $\mathbb{L}$ 25'35		evening set	-12135 Mar 19 j 06:03	15° $\mathbb{Z}$ 08'33	
	-12141 Feb 17 j 19:03	0° $\mathbb{M}$					
retrograde	-12141 May 15 j 02:07	6° $\mathbb{M}$ 00'41		conjunction	-12135 Apr 05 j 21:04	17° $\mathbb{Z}$ 15'36	-2°08'11
opposition	-12141 Jul 20 j 18:23	2° $\mathbb{M}$ 29'09	-2°07'06	minimum elong	-12135 Apr 05 j 21:07	17° $\mathbb{Z}$ 15'37	2°08'53
min. Earth dist.	-12141 Jul 19 j 18:46	2° $\mathbb{M}$ 34'07	7.87564 AU	max. Earth dist.	-12135 Apr 06 j 10:27	17° $\mathbb{Z}$ 19'39	10.67709 AU
	-12141 Aug 22 j 20:10	30° $\mathbb{R}$ $\mathbb{L}$		morning rise	-12135 Apr 23 j 07:24	19° $\mathbb{Z}$ 21'11	
direct	-12141 Sep 24 j 17:18	28° $\mathbb{L}$ 59'52		retrograde	-12135 Jul 31 j 21:39	26° $\mathbb{Z}$ 34'20	
	-12141 Oct 27 j 11:05	0° $\mathbb{M}$		opposition	-12135 Oct 07 j 11:53	23° $\mathbb{Z}$ 14'06	-2°27'50
evening set	-12140 Jan 07 j 17:16	7° $\mathbb{M}$ 23'44		min. Earth dist.	-12135 Oct 07 j 03:39	23° $\mathbb{Z}$ 15'42	8.75601 AU
				direct	-12135 Dec 16 j 15:46	19° $\mathbb{Z}$ 48'15	
conjunction	-12140 Jan 25 j 21:39	9° $\mathbb{M}$ 46'42	-1°53'44	evening set	-12134 Apr 01 j 02:12	27° $\mathbb{Z}$ 17'28	
minimum elong	-12140 Jan 25 j 21:34	9° $\mathbb{M}$ 46'40	1°54'10				
max. Earth dist.	-12140 Jan 27 j 05:50	9° $\mathbb{M}$ 57'19	9.92356 AU	conjunction	-12134 Apr 18 j 14:01	29° $\mathbb{Z}$ 21'33	-1°50'42
morning rise	-12140 Feb 13 j 02:46	12° $\mathbb{M}$ 09'43		minimum elong	-12134 Apr 18 j 14:05	29° $\mathbb{Z}$ 21'34	1°51'21
	-12140 Mar 07 j 01:04	15° $\mathbb{M}$		max. Earth dist.	-12134 Apr 18 j 20:59	29° $\mathbb{Z}$ 23'38	10.83102 AU
retrograde	-12140 May 28 j 15:34	20° $\mathbb{M}$ 33'17			-12134 Apr 23 j 23:15	0° $\mathbb{A}$	
min. Earth dist.	-12140 Aug 02 j 05:10	17° $\mathbb{M}$ 08'13	7.98214 AU	morning rise	-12134 May 05 j 20:52	1° $\mathbb{A}$ 24'08	
opposition	-12140 Aug 03 j 05:20	17° $\mathbb{M}$ 03'11	-2°35'33	retrograde	-12134 Aug 12 j 16:20	8° $\mathbb{A}$ 26'08	
	-12140 Aug 29 j 14:23	15° $\mathbb{R}$ $\mathbb{M}$		opposition	-12134 Oct 19 j 15:30	5° $\mathbb{A}$ 07'34	-2°03'17
direct	-12140 Oct 08 j 17:54	13° $\mathbb{M}$ 33'49		min. Earth dist.	-12134 Oct 19 j 11:26	5° $\mathbb{A}$ 08'21	8.90264 AU
	-12140 Nov 17 j 14:43	15° $\mathbb{M}$		direct	-12134 Dec 29 j 10:57	1° $\mathbb{A}$ 42'51	
evening set	-12139 Jan 22 j 05:51	21° $\mathbb{M}$ 51'57		evening set	-12133 Apr 13 j 10:32	9° $\mathbb{A}$ 02'32	
conjunction	-12139 Feb 09 j 08:40	24° $\mathbb{M}$ 12'12	-2°12'47	conjunction	-12133 Apr 30 j 19:13	11° $\mathbb{A}$ 04'00	-1°29'02
minimum elong	-12139 Feb 09 j 08:37	24° $\mathbb{M}$ 12'11	2°13'21	minimum elong	-12133 Apr 30 j 19:16	11° $\mathbb{A}$ 04'01	1°29'35
max. Earth dist.	-12139 Feb 10 j 16:16	24° $\mathbb{M}$ 22'28	10.04520 AU	max. Earth dist.	-12133 Apr 30 j 20:45	11° $\mathbb{A}$ 04'27	10.96949 AU
morning rise	-12139 Feb 27 j 10:40	26° $\mathbb{M}$ 32'03		morning rise	-12133 May 17 j 22:36	13° $\mathbb{A}$ 03'55	
	-12139 Mar 28 j 08:06	0° $\mathbb{A}$			-12133 Jun 04 j 08:08	15° $\mathbb{A}$	
retrograde	-12139 Jun 11 j 16:29	4° $\mathbb{A}$ 41'50		retrograde	-12133 Aug 24 j 03:56	19° $\mathbb{A}$ 56'45	
min. Earth dist.	-12139 Aug 16 j 07:33	1° $\mathbb{A}$ 18'19	8.11681 AU	opposition	-12133 Oct 31 j 12:42	16° $\mathbb{A}$ 39'36	-1°34'30
opposition	-12139 Aug 17 j 06:59	1° $\mathbb{A}$ 13'29	-2°53'33	min. Earth dist.	-12133 Oct 31 j 13:08	16° $\mathbb{A}$ 39'31	9.03115 AU
	-12139 Sep 01 j 10:52	30° $\mathbb{R}$ $\mathbb{M}$			-12133 Nov 23 j 11:48	15° $\mathbb{R}$ $\mathbb{A}$	
direct	-12139 Oct 23 j 12:06	27° $\mathbb{M}$ 44'20		direct	-12132 Jan 10 j 20:13	13° $\mathbb{A}$ 15'59	
	-12139 Dec 13 j 18:06	0° $\mathbb{A}$			-12132 Feb 27 j 10:45	15° $\mathbb{A}$	
evening set	-12138 Feb 06 j 07:49	5° $\mathbb{A}$ 54'26		evening set	-12132 Apr 24 j 08:37	20° $\mathbb{A}$ 27'19	
conjunction	-12138 Feb 24 j 08:15	8° $\mathbb{A}$ 11'29	-2°23'24	conjunction	-12132 May 11 j 14:06	22° $\mathbb{A}$ 26'30	-1°04'19
minimum elong	-12138 Feb 24 j 08:13	8° $\mathbb{A}$ 11'28	2°24'03	minimum elong	-12132 May 11 j 14:08	22° $\mathbb{A}$ 26'31	1°04'46
max. Earth dist.	-12138 Feb 25 j 13:27	8° $\mathbb{A}$ 20'48	10.19031 AU	max. Earth dist.	-12132 May 11 j 10:29	22° $\mathbb{A}$ 25'27	11.08735 AU
morning rise	-12138 Mar 14 j 06:24	10° $\mathbb{A}$ 27'43		morning rise	-12132 May 28 j 14:10	24° $\mathbb{A}$ 24'12	
retrograde	-12138 Jun 25 j 04:57	18° $\mathbb{A}$ 22'43			-12132 Jul 27 j 23:44	0° $\mathbb{H}$	

Attention, astronomical year style is used: The year -12132 in astronomical counting style is the year 12133 BCE in historical counting style.

retrograde	-12132 Sep 03 j 10:44	1° $\text{H}$ 10'00	morning rise	-12126 Aug 01 j 01:17	29° $\text{Y}$ 28'40	
	-12132 Oct 11 j 16:16	30° $\text{R}$		-12126 Aug 05 j 16:21	0° $\text{B}$	
opposition	-12132 Nov 11 j 05:08	27° $\approx$ 53'58	-1°02'51	retrograde	-12126 Nov 08 j 18:26	6° $\text{B}$ 18'45
min. Earth dist.	-12132 Nov 11 j 10:51	27° $\approx$ 52'53	9.13711 AU	opposition	-12125 Jan 18 j 10:41	3° $\text{B}$ 02'26 2°06'31
direct	-12131 Jan 21 j 22:22	24° $\approx$ 31'23		min. Earth dist.	-12125 Jan 19 j 10:52	2° $\text{B}$ 58'02 9.17194 AU
	-12131 Apr 21 j 09:01	0° $\text{H}$			-12125 Mar 12 j 06:36	30° $\text{R}$ $\text{Y}$
evening set	-12131 May 05 j 22:05	1° $\text{H}$ 35'45		direct	-12125 Mar 31 j 00:24	29° $\text{Y}$ 43'28
					-12125 Apr 18 j 13:01	0° $\text{B}$
conjunction	-12131 May 23 j 00:12	3° $\text{H}$ 33'02	-0°37'40	evening set	-12125 Jul 10 j 05:16	6° $\text{B}$ 40'55
minimum elong	-12131 May 23 j 00:14	3° $\text{H}$ 33'02	0°37'59	max. Earth dist.	-12125 Jul 25 j 11:38	8° $\text{B}$ 27'25 11.12585 AU
max. Earth dist.	-12131 May 22 j 14:32	3° $\text{H}$ 30'15	11.18062 AU			
morning rise	-12131 Jun 08 j 21:21	5° $\text{H}$ 28'56		conjunction	-12125 Jul 26 j 15:07	8° $\text{B}$ 35'28 1°53'26
retrograde	-12131 Sep 14 j 12:56	12° $\text{H}$ 09'55		minimum elong	-12125 Jul 26 j 15:04	8° $\text{B}$ 35'27 1°53'53
opposition	-12131 Nov 22 j 17:57	8° $\text{H}$ 54'39	-0°29'31	morning rise	-12125 Aug 12 j 00:03	10° $\text{B}$ 29'55
min. Earth dist.	-12131 Nov 23 j 04:27	8° $\text{H}$ 52'43	9.21704 AU		-12125 Sep 25 j 06:12	15° $\text{B}$
direct	-12130 Feb 02 j 17:30	5° $\text{H}$ 33'02		retrograde	-12125 Nov 20 j 17:31	17° $\text{B}$ 28'07
evening set	-12130 May 17 j 05:03	12° $\text{H}$ 32'02			-12124 Jan 19 j 02:39	15° $\text{R}$ $\text{B}$
				opposition	-12124 Jan 30 j 10:25	14° $\text{B}$ 10'41 2°29'00
conjunction	-12130 Jun 03 j 03:52	14° $\text{H}$ 27'48	-0°10'02	min. Earth dist.	-12124 Jan 31 j 10:35	14° $\text{B}$ 06'15 9.07568 AU
minimum elong	-12130 Jun 03 j 03:52	14° $\text{H}$ 27'48	0°10'15	direct	-12124 Apr 10 j 13:53	10° $\text{B}$ 51'43
behind sun begin	-12130 Jun 02 j 22:16	14° $\text{H}$ 26'13			-12124 Jun 24 j 00:25	15° $\text{B}$
behind sun end	-12130 Jun 03 j 09:28	14° $\text{H}$ 29'23		evening set	-12124 Jul 20 j 11:07	17° $\text{B}$ 53'42
max. Earth dist.	-12130 Jun 02 j 12:47	14° $\text{H}$ 23'29	11.24640 AU			
morning rise	-12130 Jun 19 j 22:14	16° $\text{H}$ 22'20		conjunction	-12124 Aug 05 j 19:58	19° $\text{B}$ 49'29 2°09'30
retrograde	-12130 Sep 25 j 14:16	23° $\text{H}$ 00'45		minimum elong	-12124 Aug 05 j 19:55	19° $\text{B}$ 49'28 2°10'03
asc. node	-12130 Oct 17 j 02:47	22° $\text{H}$ 38'15		max. Earth dist.	-12124 Aug 04 j 16:14	19° $\text{B}$ 41'14 11.01689 AU
opposition	-12130 Dec 04 j 04:34	19° $\text{H}$ 45'55	0°04'23	morning rise	-12124 Aug 22 j 04:53	21° $\text{B}$ 45'26
min. Earth dist.	-12130 Dec 04 j 18:36	19° $\text{H}$ 43'20	9.26840 AU	retrograde	-12124 Dec 01 j 22:40	28° $\text{B}$ 53'32
direct	-12129 Feb 14 j 09:45	16° $\text{H}$ 25'07		opposition	-12123 Feb 10 j 16:51	25° $\text{B}$ 34'42 2°46'16
evening set	-12129 May 28 j 07:14	23° $\text{H}$ 20'26		min. Earth dist.	-12123 Feb 11 j 16:53	25° $\text{B}$ 30'15 8.95522 AU
max. Earth dist.	-12129 Jun 13 j 08:28	25° $\text{H}$ 09'47	11.28270 AU	direct	-12123 Apr 22 j 05:24	22° $\text{B}$ 15'29
				evening set	-12123 Jul 31 j 22:56	29° $\text{B}$ 23'33
conjunction	-12129 Jun 14 j 02:58	25° $\text{H}$ 15'05	0°17'47		-12123 Aug 06 j 01:52	0° $\text{II}$
minimum elong	-12129 Jun 14 j 02:57	25° $\text{H}$ 15'04	0°17'41	max. Earth dist.	-12123 Aug 16 j 04:01	1° $\text{II}$ 12'43 10.88580 AU
morning rise	-12129 Jun 30 j 18:36	27° $\text{H}$ 08'39				
	-12129 Jul 27 j 20:48	0° $\text{Y}$		conjunction	-12123 Aug 17 j 07:39	1° $\text{II}$ 21'03 2°20'46
retrograde	-12129 Oct 06 j 17:23	3° $\text{Y}$ 46'45		minimum elong	-12123 Aug 17 j 07:37	1° $\text{II}$ 21'03 2°21'23
opposition	-12129 Dec 15 j 14:59	0° $\text{Y}$ 32'01	0°37'51	morning rise	-12123 Sep 02 j 17:41	3° $\text{II}$ 19'04
min. Earth dist.	-12129 Dec 16 j 08:03	0° $\text{Y}$ 28'54	9.28971 AU	retrograde	-12123 Dec 14 j 14:06	10° $\text{II}$ 38'44
	-12129 Dec 22 j 23:07	30° $\text{R}$ $\text{H}$		opposition	-12122 Feb 23 j 07:13	7° $\text{II}$ 18'15 2°57'15
direct	-12128 Feb 25 j 20:35	27° $\text{H}$ 11'58		min. Earth dist.	-12122 Feb 24 j 06:28	7° $\text{II}$ 13'55 8.81467 AU
	-12128 Apr 27 j 15:48	0° $\text{Y}$		direct	-12122 May 04 j 05:28	3° $\text{II}$ 58'34
evening set	-12128 Jun 07 j 06:28	4° $\text{Y}$ 05'14		evening set	-12122 Aug 12 j 18:17	11° $\text{II}$ 14'01
				max. Earth dist.	-12122 Aug 28 j 02:56	13° $\text{II}$ 06'07 10.73715 AU
conjunction	-12128 Jun 23 j 23:12	5° $\text{Y}$ 59'11	0°44'47			
minimum elong	-12128 Jun 23 j 23:10	5° $\text{Y}$ 59'10	0°44'49	conjunction	-12122 Aug 29 j 04:08	13° $\text{II}$ 13'50 2°26'23
max. Earth dist.	-12128 Jun 23 j 01:25	5° $\text{Y}$ 52'57	11.28848 AU	minimum elong	-12122 Aug 29 j 04:07	13° $\text{II}$ 13'50 2°27'03
morning rise	-12128 Jul 10 j 12:23	7° $\text{Y}$ 52'16		morning rise	-12122 Sep 14 j 16:19	15° $\text{II}$ 14'28
retrograde	-12128 Oct 16 j 21:26	14° $\text{Y}$ 32'14		retrograde	-12122 Dec 27 j 17:24	22° $\text{II}$ 47'03
opposition	-12128 Dec 26 j 02:34	11° $\text{Y}$ 17'18	1°09'59	opposition	-12121 Mar 08 j 06:22	19° $\text{II}$ 24'43 3°00'53
min. Earth dist.	-12128 Dec 26 j 23:05	11° $\text{Y}$ 13'34	9.28045 AU	min. Earth dist.	-12121 Mar 09 j 02:56	19° $\text{II}$ 20'50 8.65916 AU
direct	-12127 Mar 08 j 04:48	7° $\text{Y}$ 57'47		direct	-12121 May 16 j 12:22	16° $\text{II}$ 04'24
evening set	-12127 Jun 18 j 04:50	14° $\text{Y}$ 50'47		evening set	-12121 Aug 24 j 22:54	23° $\text{II}$ 28'18
conjunction	-12127 Jul 04 j 18:42	16° $\text{Y}$ 44'28	1°10'15	conjunction	-12121 Sep 10 j 11:18	25° $\text{II}$ 31'01 2°25'35
minimum elong	-12127 Jul 04 j 18:39	16° $\text{Y}$ 44'27	1°10'26	minimum elong	-12121 Sep 10 j 11:19	25° $\text{II}$ 31'01 2°26'18
max. Earth dist.	-12127 Jul 03 j 17:17	16° $\text{Y}$ 37'09	11.26370 AU	max. Earth dist.	-12121 Sep 09 j 14:00	25° $\text{II}$ 24'22 10.57660 AU
morning rise	-12127 Jul 21 j 06:02	18° $\text{Y}$ 37'31		morning rise	-12121 Sep 27 j 02:49	27° $\text{II}$ 34'49
retrograde	-12127 Oct 28 j 05:05	25° $\text{Y}$ 21'29			-12121 Oct 17 j 16:27	0° $\text{B}$
opposition	-12126 Jan 06 j 16:33	22° $\text{Y}$ 06'02	1°39'51	retrograde	-12120 Jan 10 j 07:43	5° $\text{B}$ 21'13
min. Earth dist.	-12126 Jan 07 j 15:51	22° $\text{Y}$ 01'47	9.24087 AU	opposition	-12120 Mar 20 j 14:51	1° $\text{B}$ 56'54 2°56'12
direct	-12126 Mar 19 j 13:50	18° $\text{Y}$ 46'52		min. Earth dist.	-12120 Mar 21 j 07:28	1° $\text{B}$ 53'43 8.49480 AU
evening set	-12126 Jun 29 j 03:52	25° $\text{Y}$ 41'17			-12120 Apr 16 j 16:14	30° $\text{R}$ $\text{II}$
				direct	-12120 May 28 j 03:30	28° $\text{II}$ 35'45
conjunction	-12126 Jul 15 j 15:23	27° $\text{Y}$ 35'09	1°33'25		-12120 Jul 07 j 06:02	0° $\text{B}$
minimum elong	-12126 Jul 15 j 15:20	27° $\text{Y}$ 35'09	1°33'43	evening set	-12120 Sep 05 j 14:22	6° $\text{B}$ 09'02
max. Earth dist.	-12126 Jul 14 j 12:00	27° $\text{Y}$ 27'12	11.20900 AU			

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24

Attention, astronomical year style is used: The year -12120 in astronomical counting style is the year 12121 BCE in historical counting style.

conjunction	-12120 Sep 22 j 06:35	8°☾15'09	2°17'45	retrograde	-12114 Apr 08 j 11:14	0°☾00'11	
minimum elong	-12120 Sep 22 j 06:37	8°☾15'10	2°18'27		-12114 Apr 10 j 06:33	30°☾11	
max. Earth dist.	-12120 Sep 21 j 13:32	8°☾09'44	10.41058 AU	opposition	-12114 Jun 14 j 23:09	26°☾27'11	-0°25'20
morning rise	-12120 Oct 09 j 02:48	10°☾22'39		min. Earth dist.	-12114 Jun 14 j 07:28	26°☾30'28	7.78222 AU
retrograde	-12119 Jan 23 j 10:43	18°☾23'15		direct	-12114 Aug 19 j 10:28	22°☾59'10	
opposition	-12119 Apr 03 j 09:00	14°☾56'56	2°42'28		-12114 Nov 19 j 20:13	0°☾	
min. Earth dist.	-12119 Apr 03 j 21:03	14°☾54'35	8.32831 AU	evening set	-12114 Nov 30 j 14:37	1°☾23'56	
direct	-12119 Jun 10 j 03:58	11°☾34'46					
evening set	-12119 Sep 18 j 18:08	19°☾18'09		conjunction	-12114 Dec 18 j 16:37	3°☾49'11	-0°38'27
				minimum elong	-12114 Dec 18 j 16:35	3°☾49'10	0°38'28
conjunction	-12119 Oct 05 j 15:17	21°☾28'05	2°02'30	max. Earth dist.	-12114 Dec 19 j 16:36	3°☾57'16	9.77788 AU
minimum elong	-12119 Oct 05 j 15:21	21°☾28'06	2°03'10	morning rise	-12113 Jan 05 j 22:36	6°☾15'41	
max. Earth dist.	-12119 Oct 05 j 02:42	21°☾24'01	10.24634 AU	retrograde	-12113 Apr 23 j 21:38	15°☾01'03	
morning rise	-12119 Oct 22 j 17:25	23°☾39'41		min. Earth dist.	-12113 Jun 29 j 04:03	11°☾32'16	7.78544 AU
	-12119 Dec 21 j 06:33	0°☾		opposition	-12113 Jun 30 j 00:16	11°☾28'01	-1°11'15
retrograde	-12118 Feb 07 j 01:30	1°☾54'11		direct	-12113 Sep 03 j 12:49	7°☾59'05	
	-12118 Mar 27 j 23:55	30°☾		evening set	-12113 Dec 16 j 11:50	16°☾25'46	
opposition	-12118 Apr 17 j 12:38	28°☾26'00	2°19'21				
min. Earth dist.	-12118 Apr 17 j 19:54	28°☾24'33	8.16790 AU	conjunction	-12112 Jan 03 j 16:11	18°☾51'02	-1°13'23
direct	-12118 Jun 23 j 13:42	25°☾02'44		minimum elong	-12112 Jan 03 j 16:07	18°☾51'01	1°13'35
	-12118 Sep 08 j 10:36	0°☾		max. Earth dist.	-12112 Jan 04 j 21:13	19°☾00'46	9.80294 AU
evening set	-12118 Oct 02 j 11:12	2°☾56'30		morning rise	-12112 Jan 21 j 23:07	21°☾17'04	
				retrograde	-12112 May 08 j 01:58	29°☾56'14	
conjunction	-12118 Oct 19 j 14:20	5°☾10'29	1°39'56	opposition	-12112 Jul 13 j 21:12	26°☾23'46	-1°52'00
minimum elong	-12118 Oct 19 j 14:25	5°☾10'30	1°40'33	min. Earth dist.	-12112 Jul 12 j 22:12	26°☾28'36	7.83257 AU
max. Earth dist.	-12118 Oct 19 j 07:45	5°☾08'19	10.09312 AU	direct	-12112 Sep 17 j 15:55	22°☾54'10	
morning rise	-12118 Nov 05 j 23:11	7°☾26'19			-12112 Dec 21 j 00:07	0°☾	
	-12117 Jan 21 j 00:23	15°☾		evening set	-12112 Dec 31 j 08:54	1°☾19'40	
retrograde	-12117 Feb 22 j 02:33	15°☾53'32					
	-12117 Mar 26 j 09:38	15°☾		conjunction	-12111 Jan 18 j 13:43	3°☾43'39	-1°43'05
opposition	-12117 May 02 j 01:07	12°☾23'37	1°47'14	minimum elong	-12111 Jan 18 j 13:38	3°☾43'38	1°43'27
min. Earth dist.	-12117 May 02 j 03:00	12°☾23'15	8.02377 AU	max. Earth dist.	-12111 Jan 19 j 21:37	3°☾54'14	9.87041 AU
direct	-12117 Jul 07 j 10:23	8°☾59'09		morning rise	-12111 Feb 05 j 19:39	6°☾07'54	
	-12117 Sep 30 j 13:22	15°☾		retrograde	-12111 May 22 j 21:20	14°☾37'06	
evening set	-12117 Oct 16 j 18:02	17°☾02'58		min. Earth dist.	-12111 Jul 27 j 11:37	11°☾10'47	7.91972 AU
				opposition	-12111 Jul 28 j 11:40	11°☾05'45	-2°24'37
conjunction	-12117 Nov 03 j 03:47	19°☾20'52	1°10'46	direct	-12111 Oct 02 j 17:50	7°☾35'49	
minimum elong	-12117 Nov 03 j 03:51	19°☾20'54	1°11'16		-12110 Jan 08 j 13:05	15°☾	
max. Earth dist.	-12117 Nov 03 j 04:34	19°☾21'08	9.96123 AU	evening set	-12110 Jan 16 j 00:47	15°☾57'01	
morning rise	-12117 Nov 20 j 19:31	21°☾40'44					
	-12116 Feb 18 j 23:27	0°☾		conjunction	-12110 Feb 03 j 04:31	18°☾18'42	-2°05'37
retrograde	-12116 Mar 08 j 10:18	0°☾18'16		minimum elong	-12110 Feb 03 j 04:27	18°☾18'40	2°06'07
	-12116 Mar 26 j 21:05	30°☾		max. Earth dist.	-12110 Feb 04 j 12:56	18°☾29'18	9.97499 AU
opposition	-12116 May 15 j 20:42	26°☾46'54	1°07'23	morning rise	-12110 Feb 21 j 07:59	20°☾40'09	
min. Earth dist.	-12116 May 15 j 16:43	26°☾47'43	7.90606 AU	retrograde	-12110 Jun 06 j 03:59	28°☾56'35	
direct	-12116 Jul 20 j 18:50	23°☾21'11		opposition	-12110 Aug 11 j 17:34	25°☾26'48	-2°47'13
	-12116 Oct 18 j 10:41	0°☾		min. Earth dist.	-12110 Aug 10 j 18:16	25°☾31'39	8.04025 AU
evening set	-12116 Oct 30 j 14:20	1°☾33'58		direct	-12110 Oct 17 j 14:58	21°☾56'53	
					-12109 Jan 29 j 20:22	0°☾	
conjunction	-12116 Nov 17 j 06:33	3°☾55'20	0°36'27	evening set	-12109 Jan 31 j 07:49	0°☾11'09	
minimum elong	-12116 Nov 17 j 06:36	3°☾55'20	0°36'47				
max. Earth dist.	-12116 Nov 17 j 15:25	3°☾58'18	9.86010 AU	conjunction	-12109 Feb 18 j 09:25	2°☾29'49	-2°19'54
morning rise	-12116 Dec 05 j 04:31	6°☾18'33		minimum elong	-12109 Feb 18 j 09:22	2°☾29'48	2°20'30
retrograde	-12115 Mar 23 j 22:04	15°☾02'57		max. Earth dist.	-12109 Feb 19 j 15:46	2°☾39'35	10.10907 AU
opposition	-12115 May 30 j 20:54	11°☾30'32	0°22'07	morning rise	-12109 Mar 08 j 09:27	4°☾47'51	
min. Earth dist.	-12115 May 30 j 10:58	11°☾32'36	7.82343 AU	retrograde	-12109 Jun 19 j 21:30	12°☾49'48	
direct	-12115 Aug 04 j 11:35	8°☾03'37		opposition	-12109 Aug 25 j 13:39	9°☾21'56	-2°59'06
evening set	-12115 Nov 14 j 22:13	16°☾23'37		min. Earth dist.	-12109 Aug 24 j 16:12	9°☾26'21	8.18573 AU
desc. node	-12115 Nov 24 j 00:43	17°☾36'22		direct	-12109 Nov 01 j 04:47	5°☾52'24	
				evening set	-12108 Feb 15 j 02:55	13°☾57'42	
conjunction	-12115 Dec 02 j 20:02	18°☾47'30	-0°00'54				
minimum elong	-12115 Dec 02 j 20:03	18°☾47'31	0°00'44	conjunction	-12108 Mar 04 j 01:42	16°☾13'00	-2°25'42
behind sun begin	-12115 Dec 02 j 12:42	18°☾45'04		minimum elong	-12108 Mar 04 j 01:42	16°☾12'59	2°26'23
behind sun end	-12115 Dec 03 j 03:23	18°☾49'57		max. Earth dist.	-12108 Mar 05 j 04:19	16°☾21'24	10.26371 AU
max. Earth dist.	-12115 Dec 03 j 13:00	18°☾53'13	9.79737 AU	morning rise	-12108 Mar 21 j 21:49	18°☾27'18	
morning rise	-12115 Dec 20 j 22:56	21°☾13'02		retrograde	-12108 Jul 02 j 02:47	26°☾14'13	
	-12114 Apr 06 j 15:58	0°☾		opposition	-12108 Sep 06 j 23:41	22°☾48'27	-3°00'35



Attention, astronomical year style is used: The year -12108 in astronomical counting style is the year 12109 BCE in historical counting style.

min. Earth dist.	-12108 Sep 06 j 04:37	22° $\text{♁}$ 52'19	8.34697 AU	opposition	-12102 Nov 18 j 05:23	4° $\text{♁}$ 27'13	-0°43'53
direct	-12108 Nov 14 j 09:04	19° $\text{♁}$ 19'37		min. Earth dist.	-12102 Nov 18 j 12:20	4° $\text{♁}$ 25'56	9.19554 AU
evening set	-12107 Feb 28 j 08:08	27° $\text{♁}$ 14'38		direct	-12101 Jan 29 j 02:30	1° $\text{♁}$ 05'40	
				evening set	-12101 May 12 j 19:37	8° $\text{♁}$ 06'44	
conjunction	-12107 Mar 18 j 03:52	29° $\text{♁}$ 26'29	-2°23'28	conjunction	-12101 May 29 j 19:59	10° $\text{♁}$ 03'03	-0°21'53
minimum elong	-12107 Mar 18 j 03:53	29° $\text{♁}$ 26'29	2°24'11	minimum elong	-12101 May 29 j 20:00	10° $\text{♁}$ 03'03	0°22'08
max. Earth dist.	-12107 Mar 19 j 02:08	29° $\text{♁}$ 33'23	10.42967 AU	max. Earth dist.	-12101 May 29 j 08:50	9° $\text{♁}$ 59'51	11.23281 AU
	-12107 Mar 22 j 15:57	0° $\text{♁}$		morning rise	-12101 Jun 15 j 15:24	11° $\text{♁}$ 58'03	
morning rise	-12107 Apr 04 j 19:54	1° $\text{♁}$ 37'04		retrograde	-12101 Sep 21 j 08:17	18° $\text{♁}$ 37'11	
retrograde	-12107 Jul 14 j 20:43	9° $\text{♁}$ 09'18		opposition	-12101 Nov 29 j 17:04	15° $\text{♁}$ 22'43	-0°10'05
opposition	-12107 Sep 19 j 23:45	5° $\text{♁}$ 45'42	-2°52'40	min. Earth dist.	-12101 Nov 30 j 04:58	15° $\text{♁}$ 20'32	9.26239 AU
min. Earth dist.	-12107 Sep 19 j 07:41	5° $\text{♁}$ 48'55	8.51489 AU	direct	-12100 Feb 09 j 19:00	12° $\text{♁}$ 02'08	
direct	-12107 Nov 28 j 03:39	2° $\text{♁}$ 17'53		asc. node	-12100 Mar 19 j 11:17	13° $\text{♁}$ 10'27	
evening set	-12106 Mar 13 j 23:21	10° $\text{♁}$ 02'06		evening set	-12100 May 22 j 23:58	18° $\text{♁}$ 58'43	
conjunction	-12106 Mar 31 j 15:59	12° $\text{♁}$ 10'36	-2°14'08	conjunction	-12100 Jun 08 j 20:59	20° $\text{♁}$ 53'42	0°06'02
minimum elong	-12106 Mar 31 j 16:02	12° $\text{♁}$ 10'37	2°14'50	minimum elong	-12100 Jun 08 j 20:59	20° $\text{♁}$ 53'43	0°05'54
max. Earth dist.	-12106 Apr 01 j 09:27	12° $\text{♁}$ 15'56	10.59811 AU	behind sun begin	-12100 Jun 08 j 14:18	20° $\text{♁}$ 51'49	
morning rise	-12106 Apr 18 j 04:02	14° $\text{♁}$ 17'40		behind sun end	-12100 Jun 09 j 03:40	20° $\text{♁}$ 55'36	
retrograde	-12106 Jul 27 j 03:47	21° $\text{♁}$ 36'17		max. Earth dist.	-12100 Jun 08 j 04:16	20° $\text{♁}$ 48'56	11.28428 AU
opposition	-12106 Oct 02 j 14:27	18° $\text{♁}$ 14'49	-2°36'47	morning rise	-12100 Jun 25 j 13:42	22° $\text{♁}$ 47'33	
min. Earth dist.	-12106 Oct 02 j 02:32	18° $\text{♁}$ 17'10	8.68109 AU	retrograde	-12100 Oct 01 j 09:42	29° $\text{♁}$ 25'20	
direct	-12106 Dec 11 j 11:43	14° $\text{♁}$ 48'11		opposition	-12100 Dec 10 j 03:39	26° $\text{♁}$ 11'11	0°23'42
evening set	-12105 Mar 27 j 01:06	22° $\text{♁}$ 21'48		min. Earth dist.	-12100 Dec 10 j 20:16	26° $\text{♁}$ 08'09	9.29835 AU
conjunction	-12105 Apr 13 j 14:33	24° $\text{♁}$ 27'11	-1°58'50	direct	-12099 Feb 20 j 07:33	22° $\text{♁}$ 51'22	
minimum elong	-12105 Apr 13 j 14:36	24° $\text{♁}$ 27'12	1°59'30	evening set	-12099 Jun 03 j 00:27	29° $\text{♁}$ 45'10	
max. Earth dist.	-12105 Apr 14 j 02:34	24° $\text{♁}$ 30'47	10.76092 AU		-12099 Jun 05 j 05:22	0° $\text{♁}$	
morning rise	-12105 Apr 30 j 22:49	26° $\text{♁}$ 31'02		conjunction	-12099 Jun 19 j 18:19	1° $\text{♁}$ 39'16	0°33'25
	-12105 Jun 01 j 21:18	0° $\text{♁}$		minimum elong	-12099 Jun 19 j 18:18	1° $\text{♁}$ 39'16	0°33'24
retrograde	-12105 Aug 08 j 02:48	3° $\text{♁}$ 37'38		max. Earth dist.	-12099 Jun 18 j 20:41	1° $\text{♁}$ 33'05	11.30380 AU
opposition	-12105 Oct 14 j 21:12	0° $\text{♁}$ 18'11	-2°14'29	morning rise	-12099 Jul 06 j 08:40	3° $\text{♁}$ 32'26	
min. Earth dist.	-12105 Oct 14 j 14:30	0° $\text{♁}$ 19'28	8.83810 AU	retrograde	-12099 Oct 12 j 12:02	10° $\text{♁}$ 11'09	
	-12105 Oct 18 j 19:20	30° $\text{♁}$		opposition	-12099 Dec 21 j 14:30	6° $\text{♁}$ 56'53	0°56'31
direct	-12105 Dec 24 j 09:08	26° $\text{♁}$ 52'51		min. Earth dist.	-12099 Dec 22 j 10:19	6° $\text{♁}$ 53'16	9.30166 AU
	-12104 Feb 26 j 18:15	0° $\text{♁}$		direct	-12098 Mar 03 j 18:15	3° $\text{♁}$ 37'39	
evening set	-12104 Apr 07 j 14:23	4° $\text{♁}$ 16'30		evening set	-12098 Jun 13 j 23:09	10° $\text{♁}$ 30'28	
conjunction	-12104 Apr 25 j 00:28	6° $\text{♁}$ 19'04	-1°38'48	conjunction	-12098 Jun 30 j 14:14	12° $\text{♁}$ 24'08	0°59'39
minimum elong	-12104 Apr 25 j 00:31	6° $\text{♁}$ 19'05	1°39'24	minimum elong	-12098 Jun 30 j 14:11	12° $\text{♁}$ 24'07	0°59'46
max. Earth dist.	-12104 Apr 25 j 05:51	6° $\text{♁}$ 20'39	10.91111 AU	max. Earth dist.	-12098 Jun 29 j 13:47	12° $\text{♁}$ 17'07	11.29037 AU
morning rise	-12104 May 12 j 05:18	8° $\text{♁}$ 20'06		morning rise	-12098 Jul 17 j 02:16	14° $\text{♁}$ 17'03	
	-12104 Jul 31 j 19:57	15° $\text{♁}$		retrograde	-12098 Oct 23 j 20:12	20° $\text{♁}$ 58'55	
retrograde	-12104 Aug 18 j 15:58	15° $\text{♁}$ 16'35		opposition	-12097 Jan 02 j 03:19	17° $\text{♁}$ 44'12	1°27'27
	-12104 Sep 05 j 15:34	15° $\text{♁}$		min. Earth dist.	-12097 Jan 03 j 01:33	17° $\text{♁}$ 40'10	9.27224 AU
opposition	-12104 Oct 25 j 21:04	11° $\text{♁}$ 58'54	-1°47'18	direct	-12097 Mar 15 j 03:54	14° $\text{♁}$ 25'21	
min. Earth dist.	-12104 Oct 25 j 19:27	11° $\text{♁}$ 59'13	8.97956 AU	evening set	-12097 Mar 24 j 21:54	21° $\text{♁}$ 18'53	
direct	-12103 Jan 04 j 22:13	8° $\text{♁}$ 34'53		max. Earth dist.	-12097 Jul 10 j 07:36	23° $\text{♁}$ 04'49	11.24485 AU
	-12103 Apr 12 j 08:34	15° $\text{♁}$		conjunction	-12097 Jul 11 j 10:28	23° $\text{♁}$ 12'35	1°23'53
evening set	-12103 Apr 19 j 16:45	15° $\text{♁}$ 49'39		minimum elong	-12097 Jul 11 j 10:25	23° $\text{♁}$ 12'34	1°24'08
conjunction	-12103 May 06 j 23:31	17° $\text{♁}$ 49'45	-1°15'13	morning rise	-12097 Jul 27 j 20:43	25° $\text{♁}$ 05'46	
minimum elong	-12103 May 06 j 23:34	17° $\text{♁}$ 49'46	1°15'44		-12097 Sep 16 j 07:20	0° $\text{♁}$	
max. Earth dist.	-12103 May 06 j 22:18	17° $\text{♁}$ 49'24	11.04289 AU	retrograde	-12097 Nov 04 j 06:50	1° $\text{♁}$ 52'55	
morning rise	-12103 May 24 j 01:10	19° $\text{♁}$ 48'22			-12097 Dec 25 j 06:35	30° $\text{♁}$	
retrograde	-12103 Aug 30 j 00:27	26° $\text{♁}$ 36'54		opposition	-12096 Jan 13 j 19:53	28° $\text{♁}$ 37'21	1°55'35
opposition	-12103 Nov 06 j 15:13	23° $\text{♁}$ 20'38	-1°16'40	min. Earth dist.	-12096 Jan 14 j 20:27	28° $\text{♁}$ 32'53	9.21165 AU
min. Earth dist.	-12103 Nov 06 j 17:53	23° $\text{♁}$ 20'08	9.10018 AU	direct	-12096 Mar 25 j 12:12	25° $\text{♁}$ 18'37	
direct	-12102 Jan 17 j 04:57	19° $\text{♁}$ 57'54			-12096 Jun 14 j 10:00	0° $\text{♁}$	
evening set	-12102 May 01 j 09:50	27° $\text{♁}$ 05'05		evening set	-12096 Jul 04 j 22:20	2° $\text{♁}$ 14'33	
conjunction	-12102 May 18 j 13:26	29° $\text{♁}$ 03'06	-0°49'14	max. Earth dist.	-12096 Jul 20 j 03:20	4° $\text{♁}$ 00'09	11.16927 AU
minimum elong	-12102 May 18 j 13:28	29° $\text{♁}$ 03'06	0°49'37	conjunction	-12096 Jul 21 j 08:45	4° $\text{♁}$ 08'43	1°45'20
max. Earth dist.	-12102 May 18 j 06:59	29° $\text{♁}$ 01'14	11.15144 AU	minimum elong	-12096 Jul 21 j 08:42	4° $\text{♁}$ 08'42	1°45'44
	-12102 May 26 j 18:40	0° $\text{♁}$		morning rise	-12096 Aug 06 j 18:01	6° $\text{♁}$ 02'41	
morning rise	-12102 Jun 04 j 11:56	0° $\text{♁}$ 59'41		retrograde	-12096 Nov 15 j 00:42	12° $\text{♁}$ 57'09	
retrograde	-12102 Sep 10 j 05:59	7° $\text{♁}$ 42'24					

Attention, astronomical year style is used: The year -12095 in astronomical counting style is the year 12096 BCE in historical counting style.

opposition	-12095 Jan 24 j 17:16	9° <b>8</b> 40'24	2°19'59	opposition	-12089 Apr 11 j 21:07	22° <b>5</b> 52'59	2°30'34
min. Earth dist.	-12095 Jan 25 j 19:29	9° <b>8</b> 35'36	9.12218 AU	min. Earth dist.	-12089 Apr 12 j 06:49	22° <b>5</b> 51'04	8.21842 AU
direct	-12095 Apr 06 j 00:49	6° <b>8</b> 21'30		direct	-12089 Jun 18 j 06:52	19° <b>5</b> 29'33	
evening set	-12095 Jul 16 j 02:14	13° <b>8</b> 21'25		evening set	-12089 Sep 26 j 23:31	27° <b>5</b> 19'22	
	-12095 Jul 30 j 03:07	15° <b>8</b>					
max. Earth dist.	-12095 Jul 31 j 05:30	15° <b>8</b> 07'47	11.06625 AU	conjunction	-12089 Oct 14 j 00:11	29° <b>5</b> 31'46	1°50'33
				minimum elong	-12089 Oct 14 j 00:15	29° <b>5</b> 31'48	1°51'12
conjunction	-12095 Aug 01 j 11:20	15° <b>8</b> 16'36	2°03'12	max. Earth dist.	-12089 Oct 13 j 16:34	29° <b>5</b> 29'17	10.14112 AU
minimum elong	-12095 Aug 01 j 11:17	15° <b>8</b> 16'35	2°03'42		-12089 Oct 17 j 14:39	0° <b>0</b>	
morning rise	-12095 Aug 17 j 20:16	17° <b>8</b> 11'52		morning rise	-12089 Oct 31 j 06:03	1° <b>0</b> 45'57	
retrograde	-12095 Nov 27 j 01:36	24° <b>8</b> 15'31		retrograde	-12088 Feb 16 j 00:17	10° <b>0</b> 08'23	
opposition	-12094 Feb 05 j 20:32	20° <b>8</b> 57'15	2°39'37	opposition	-12088 Apr 25 j 05:56	6° <b>0</b> 38'33	2°02'11
min. Earth dist.	-12094 Feb 06 j 22:31	20° <b>8</b> 52'28	9.00678 AU	min. Earth dist.	-12088 Apr 25 j 09:12	6° <b>0</b> 37'53	8.06890 AU
direct	-12094 Apr 17 j 16:22	17° <b>8</b> 37'59		direct	-12088 Jun 30 j 23:01	3° <b>0</b> 14'03	
evening set	-12094 Jul 27 j 11:12	24° <b>8</b> 43'24		evening set	-12088 Oct 10 j 00:30	11° <b>0</b> 13'58	
conjunction	-12094 Aug 12 j 19:57	26° <b>8</b> 40'08	2°16'37	conjunction	-12088 Oct 27 j 07:33	13° <b>0</b> 30'22	1°24'04
minimum elong	-12094 Aug 12 j 19:55	26° <b>8</b> 40'08	2°17'12	minimum elong	-12088 Oct 27 j 07:37	13° <b>0</b> 30'23	1°24'37
max. Earth dist.	-12094 Aug 11 j 15:31	26° <b>8</b> 31'37	10.93920 AU	max. Earth dist.	-12088 Oct 27 j 07:10	13° <b>0</b> 30'15	10.00228 AU
morning rise	-12094 Aug 29 j 05:19	28° <b>8</b> 37'13			-12088 Nov 07 j 15:03	15° <b>0</b>	
	-12094 Sep 10 j 05:11	0° <b>0</b>		morning rise	-12088 Nov 13 j 20:13	15° <b>0</b> 48'40	
retrograde	-12094 Dec 09 j 13:34	5° <b>0</b> 51'51		retrograde	-12087 Mar 02 j 05:46	24° <b>0</b> 22'24	
opposition	-12093 Feb 18 j 07:21	2° <b>0</b> 31'49	2°53'27	opposition	-12087 May 09 j 22:38	20° <b>0</b> 51'05	1°25'23
min. Earth dist.	-12093 Feb 19 j 07:32	2° <b>0</b> 27'19	8.86940 AU	min. Earth dist.	-12087 May 09 j 19:30	20° <b>0</b> 51'43	7.94253 AU
	-12093 Mar 28 j 21:40	30° <b>8</b> 8		direct	-12087 Jul 15 j 01:54	17° <b>0</b> 25'30	
direct	-12093 Apr 29 j 13:54	29° <b>8</b> 12'01		evening set	-12087 Oct 24 j 15:00	25° <b>0</b> 34'46	
	-12093 May 30 j 12:39	0° <b>0</b>					
evening set	-12093 Aug 08 j 02:57	6° <b>0</b> 24'17		conjunction	-12087 Nov 11 j 04:29	27° <b>0</b> 54'49	0°51'43
max. Earth dist.	-12093 Aug 23 j 09:30	8° <b>0</b> 14'59	10.79271 AU	minimum elong	-12087 Nov 11 j 04:32	27° <b>0</b> 54'50	0°52'08
				max. Earth dist.	-12087 Nov 11 j 11:41	27° <b>0</b> 57'13	9.89093 AU
conjunction	-12093 Aug 24 j 12:19	8° <b>0</b> 23'08	2°24'46		-12087 Nov 26 j 20:43	0° <b>0</b>	
minimum elong	-12093 Aug 24 j 12:17	8° <b>0</b> 23'08	2°25'24	morning rise	-12087 Nov 28 j 23:45	0° <b>0</b> 16'45	
morning rise	-12093 Sep 09 j 23:18	10° <b>0</b> 22'38		retrograde	-12086 Mar 17 j 16:57	8° <b>0</b> 58'52	
retrograde	-12093 Dec 22 j 12:32	17° <b>0</b> 49'45		opposition	-12086 May 24 j 21:10	5° <b>0</b> 26'28	0°42'04
opposition	-12092 Mar 02 j 02:41	14° <b>0</b> 27'46	3°00'24	min. Earth dist.	-12086 May 24 j 11:58	5° <b>0</b> 28'22	7.84806 AU
min. Earth dist.	-12092 Mar 03 j 00:40	14° <b>0</b> 23'37	8.71515 AU	direct	-12086 Jul 29 j 13:56	1° <b>0</b> 59'50	
direct	-12092 May 10 j 16:18	11° <b>0</b> 07'14		evening set	-12086 Nov 08 j 18:01	10° <b>0</b> 17'02	
evening set	-12092 Aug 19 j 03:29	18° <b>0</b> 27'39					
				conjunction	-12086 Nov 26 j 13:27	12° <b>0</b> 40'00	0°15'23
conjunction	-12092 Sep 04 j 14:36	20° <b>0</b> 29'10	2°26'49	minimum elong	-12086 Nov 26 j 13:28	12° <b>0</b> 40'00	0°15'38
minimum elong	-12092 Sep 04 j 14:36	20° <b>0</b> 29'11	2°27'30	behind sun begin	-12086 Nov 26 j 12:09	12° <b>0</b> 39'34	
max. Earth dist.	-12092 Sep 03 j 13:59	20° <b>0</b> 21'33	10.63246 AU	behind sun end	-12086 Nov 26 j 14:47	12° <b>0</b> 40'26	
morning rise	-12092 Sep 21 j 04:37	22° <b>0</b> 31'41		max. Earth dist.	-12086 Nov 27 j 04:03	12° <b>0</b> 44'54	9.81518 AU
	-12092 Dec 19 j 04:04	0° <b>0</b>		morning rise	-12086 Dec 14 j 14:24	15° <b>0</b> 04'43	
retrograde	-12091 Jan 03 j 21:06	0° <b>0</b> 12'22		retrograde	-12085 Apr 02 j 06:53	23° <b>0</b> 51'19	
	-12091 Jan 19 j 16:09	30° <b>0</b> 8		desc. node	-12085 May 01 j 01:17	23° <b>0</b> 06'27	
opposition	-12091 Mar 15 j 07:04	26° <b>0</b> 48'21	2°59'26	opposition	-12085 Jun 08 j 22:54	20° <b>0</b> 18'21	-0°04'56
min. Earth dist.	-12091 Mar 16 j 02:19	26° <b>0</b> 44'40	8.55023 AU	min. Earth dist.	-12085 Jun 08 j 08:30	20° <b>0</b> 21'21	7.79267 AU
direct	-12091 May 23 j 02:54	23° <b>0</b> 26'56		direct	-12085 Aug 13 j 09:42	16° <b>0</b> 50'44	
	-12091 Aug 23 j 20:19	0° <b>0</b>		evening set	-12085 Nov 24 j 07:13	25° <b>0</b> 13'47	
evening set	-12091 Aug 31 j 14:06	0° <b>0</b> 56'36					
max. Earth dist.	-12091 Sep 16 j 07:46	2° <b>0</b> 54'49	10.46514 AU	conjunction	-12085 Dec 12 j 07:26	27° <b>0</b> 38'36	-0°22'29
				minimum elong	-12085 Dec 12 j 07:25	27° <b>0</b> 38'35	0°22'26
conjunction	-12091 Sep 17 j 04:26	3° <b>0</b> 01'20	2°22'04	max. Earth dist.	-12085 Dec 13 j 04:49	27° <b>0</b> 45'48	9.78094 AU
minimum elong	-12091 Sep 17 j 04:28	3° <b>0</b> 01'21	2°22'46		-12085 Dec 29 j 21:41	0° <b>0</b>	
morning rise	-12091 Oct 03 j 22:41	5° <b>0</b> 07'23		morning rise	-12085 Dec 30 j 12:25	0° <b>0</b> 04'52	
retrograde	-12090 Jan 17 j 17:59	13° <b>0</b> 02'19		retrograde	-12084 Apr 16 j 19:28	8° <b>0</b> 51'33	
opposition	-12090 Mar 28 j 21:13	9° <b>0</b> 36'15	2°49'40	min. Earth dist.	-12084 Jun 22 j 06:17	5° <b>0</b> 22'28	7.78077 AU
min. Earth dist.	-12090 Mar 29 j 12:27	9° <b>0</b> 33'17	8.38188 AU	opposition	-12084 Jun 23 j 00:57	5° <b>0</b> 18'33	-0°52'00
direct	-12090 Jun 05 j 00:27	6° <b>0</b> 13'51		direct	-12084 Aug 27 j 11:03	1° <b>0</b> 50'08	
evening set	-12090 Sep 13 j 12:16	13° <b>0</b> 53'26		evening set	-12084 Dec 09 j 02:57	10° <b>0</b> 16'20	
conjunction	-12090 Sep 30 j 07:12	16° <b>0</b> 01'52	2°10'01	conjunction	-12084 Dec 27 j 06:15	12° <b>0</b> 41'40	-0°58'55
minimum elong	-12090 Sep 30 j 07:15	16° <b>0</b> 01'53	2°10'43	minimum elong	-12084 Dec 27 j 06:12	12° <b>0</b> 41'39	0°59'02
max. Earth dist.	-12090 Sep 29 j 16:38	15° <b>0</b> 57'11	10.29847 AU	max. Earth dist.	-12084 Dec 28 j 09:21	12° <b>0</b> 50'47	9.79103 AU
morning rise	-12090 Oct 17 j 06:47	18° <b>0</b> 11'51		morning rise	-12083 Jan 14 j 13:06	15° <b>0</b> 08'03	
retrograde	-12089 Feb 01 j 03:33	26° <b>0</b> 21'02		retrograde	-12083 May 02 j 02:46	23° <b>0</b> 50'18	

Attention, astronomical year style is used: The year -12083 in astronomical counting style is the year 12084 BCE in historical counting style.

min. Earth dist.	-12083 Jul 07 j 02:03	20° $\Omega$ 22'28	7.81347 AU	min. Earth dist.	-12077 Sep 27 j 04:33	13° $\Xi$ 16'23	8.62250 AU
opposition	-12083 Jul 08 j 00:06	20° $\Omega$ 17'50	-1°35'23	direct	-12077 Dec 06 j 06:04	9° $\Xi$ 47'16	
direct	-12083 Sep 11 j 15:05	16° $\Omega$ 48'51		evening set	-12076 Mar 20 j 23:08	17° $\Xi$ 25'10	
evening set	-12083 Dec 25 j 00:36	25° $\Omega$ 15'06					
				conjunction	-12076 Apr 07 j 13:47	19° $\Xi$ 31'46	-2°05'58
conjunction	-12082 Jan 12 j 05:12	27° $\Omega$ 39'39	-1°31'09	minimum elong	-12076 Apr 07 j 13:50	19° $\Xi$ 31'46	2°06'39
minimum elong	-12082 Jan 12 j 05:08	27° $\Omega$ 39'37	1°31'27	max. Earth dist.	-12076 Apr 08 j 01:52	19° $\Xi$ 35'24	10.70188 AU
max. Earth dist.	-12082 Jan 13 j 12:18	27° $\Omega$ 50'01	9.84495 AU	morning rise	-12076 Apr 24 j 23:47	21° $\Xi$ 36'53	
	-12082 Jan 29 j 21:20	0° $\mathbb{M}$		retrograde	-12076 Aug 02 j 11:21	28° $\Xi$ 48'17	
morning rise	-12082 Jan 30 j 11:52	0° $\mathbb{M}$ 04'44		opposition	-12076 Oct 09 j 02:40	25° $\Xi$ 28'20	-2°24'37
retrograde	-12082 May 17 j 01:39	8° $\mathbb{M}$ 38'26		min. Earth dist.	-12076 Oct 08 j 18:35	25° $\Xi$ 29'54	8.77969 AU
opposition	-12082 Jul 22 j 17:39	5° $\mathbb{M}$ 07'02	-2°11'46	direct	-12076 Dec 18 j 09:04	22° $\Xi$ 02'42	
min. Earth dist.	-12082 Jul 21 j 17:27	5° $\mathbb{M}$ 12'06	7.88830 AU	evening set	-12075 Apr 02 j 17:29	29° $\Xi$ 30'23	
direct	-12082 Sep 26 j 18:54	1° $\mathbb{M}$ 37'44			-12075 Apr 06 j 22:57	0° $\approx$	
evening set	-12081 Jan 09 j 19:18	10° $\mathbb{M}$ 00'50					
				conjunction	-12075 Apr 20 j 05:02	1° $\approx$ 34'06	-1°47'49
conjunction	-12081 Jan 27 j 23:35	12° $\mathbb{M}$ 23'28	-1°56'56	minimum elong	-12075 Apr 20 j 05:05	1° $\approx$ 34'07	1°48'27
minimum elong	-12081 Jan 27 j 23:31	12° $\mathbb{M}$ 23'26	1°57'24	max. Earth dist.	-12075 Apr 20 j 11:34	1° $\approx$ 36'02	10.85346 AU
max. Earth dist.	-12081 Jan 29 j 08:29	12° $\mathbb{M}$ 34'18	9.93853 AU	morning rise	-12075 May 07 j 11:27	3° $\approx$ 36'16	
morning rise	-12081 Feb 15 j 04:18	14° $\mathbb{M}$ 46'06		retrograde	-12075 Aug 14 j 05:13	10° $\approx$ 36'50	
	-12081 Feb 16 j 23:36	15° $\mathbb{M}$		opposition	-12075 Oct 21 j 05:17	7° $\approx$ 18'31	-1°59'23
retrograde	-12081 May 31 j 13:00	23° $\mathbb{M}$ 07'57		min. Earth dist.	-12075 Oct 21 j 01:40	7° $\approx$ 19'13	8.92351 AU
min. Earth dist.	-12081 Aug 05 j 02:28	19° $\mathbb{M}$ 43'13	7.99930 AU	direct	-12075 Dec 31 j 01:42	3° $\approx$ 54'01	
opposition	-12081 Aug 06 j 03:20	19° $\mathbb{M}$ 38'02	-2°38'46	evening set	-12074 Apr 15 j 00:23	11° $\approx$ 12'23	
direct	-12081 Oct 11 j 18:21	16° $\mathbb{M}$ 08'43					
evening set	-12080 Jan 25 j 06:42	24° $\mathbb{M}$ 25'46		conjunction	-12074 May 02 j 08:49	13° $\approx$ 13'32	-1°25'38
				minimum elong	-12074 May 02 j 08:52	13° $\approx$ 13'33	1°26'11
conjunction	-12080 Feb 12 j 09:19	26° $\mathbb{M}$ 45'36	-2°14'49	max. Earth dist.	-12074 May 02 j 09:56	13° $\approx$ 13'51	10.98872 AU
minimum elong	-12080 Feb 12 j 09:15	26° $\mathbb{M}$ 45'35	2°15'23		-12074 May 17 j 14:03	15° $\approx$	
max. Earth dist.	-12080 Feb 13 j 17:45	26° $\mathbb{M}$ 56'07	10.06443 AU	morning rise	-12074 May 19 j 11:46	15° $\approx$ 13'08	
morning rise	-12080 Mar 01 j 10:46	29° $\mathbb{M}$ 04'58		retrograde	-12074 Aug 25 j 16:15	22° $\approx$ 04'50	
	-12080 Mar 08 j 18:22	0° $\mathbb{X}$		opposition	-12074 Nov 02 j 01:38	18° $\approx$ 47'55	-1°30'06
retrograde	-12080 Jun 13 j 12:22	7° $\mathbb{X}$ 12'48		min. Earth dist.	-12074 Nov 02 j 03:21	18° $\approx$ 47'35	9.04851 AU
min. Earth dist.	-12080 Aug 18 j 03:50	3° $\mathbb{X}$ 49'35	8.13791 AU	direct	-12073 Jan 12 j 10:19	15° $\approx$ 24'29	
opposition	-12080 Aug 19 j 03:34	3° $\mathbb{X}$ 44'41	-2°55'13	evening set	-12073 Apr 26 j 21:24	22° $\approx$ 34'47	
direct	-12080 Oct 25 j 10:40	0° $\mathbb{X}$ 15'39					
evening set	-12079 Feb 08 j 07:04	8° $\mathbb{X}$ 24'20		conjunction	-12073 May 14 j 02:30	24° $\approx$ 33'42	-1°00'35
				minimum elong	-12073 May 14 j 02:32	24° $\approx$ 33'43	1°01'01
conjunction	-12079 Feb 26 j 07:09	10° $\mathbb{X}$ 40'54	-2°24'12	max. Earth dist.	-12073 May 13 j 21:26	24° $\approx$ 32'14	11.10270 AU
minimum elong	-12079 Feb 26 j 07:07	10° $\mathbb{X}$ 40'53	2°24'51	morning rise	-12073 May 31 j 02:18	26° $\approx$ 31'09	
max. Earth dist.	-12079 Feb 27 j 12:55	10° $\mathbb{X}$ 50'22	10.21320 AU		-12073 Jul 03 j 07:39	0° $\mathbb{H}$	
morning rise	-12079 Mar 16 j 04:43	12° $\mathbb{X}$ 56'35		retrograde	-12073 Sep 05 j 21:37	3° $\mathbb{H}$ 16'08	
retrograde	-12079 Jun 27 j 00:02	20° $\mathbb{X}$ 49'26		opposition	-12073 Nov 13 j 17:28	0° $\mathbb{H}$ 00'17	-0°58'07
opposition	-12079 Sep 01 j 17:47	17° $\mathbb{X}$ 23'21	-3°01'02		-12073 Nov 13 j 18:58	30° $\mathbb{R}$ $\approx$	
min. Earth dist.	-12079 Aug 31 j 21:09	17° $\mathbb{X}$ 27'33	8.29416 AU	min. Earth dist.	-12073 Nov 14 j 00:27	29° $\approx$ 58'59	9.15036 AU
direct	-12079 Nov 08 j 17:50	13° $\mathbb{X}$ 54'51		direct	-12072 Jan 24 j 11:06	26° $\approx$ 37'52	
evening set	-12078 Feb 22 j 18:09	21° $\mathbb{X}$ 53'44			-12072 Apr 01 j 16:40	0° $\mathbb{H}$	
				evening set	-12072 May 07 j 10:02	3° $\mathbb{H}$ 41'29	
conjunction	-12078 Mar 12 j 15:15	24° $\mathbb{X}$ 06'53	-2°25'18				
minimum elong	-12078 Mar 12 j 15:15	24° $\mathbb{X}$ 06'53	2°26'00	conjunction	-12072 May 24 j 11:45	5° $\mathbb{H}$ 38'33	-0°33'43
max. Earth dist.	-12078 Mar 13 j 16:05	24° $\mathbb{X}$ 14'38	10.37468 AU	minimum elong	-12072 May 24 j 11:47	5° $\mathbb{H}$ 38'33	0°34'01
morning rise	-12078 Mar 30 j 08:50	26° $\mathbb{X}$ 18'52		max. Earth dist.	-12072 May 24 j 00:34	5° $\mathbb{H}$ 35'20	11.19163 AU
	-12078 May 01 j 17:04	0° $\Xi$		morning rise	-12072 Jun 10 j 08:40	7° $\mathbb{H}$ 34'17	
retrograde	-12078 Jul 09 j 23:40	3° $\Xi$ 56'51		retrograde	-12072 Sep 15 j 23:32	14° $\mathbb{H}$ 14'49	
opposition	-12078 Sep 14 j 21:56	0° $\Xi$ 32'55	-2°56'59	opposition	-12072 Nov 24 j 05:57	10° $\mathbb{H}$ 59'39	-0°24'39
min. Earth dist.	-12078 Sep 14 j 05:31	0° $\Xi$ 36'13	8.45832 AU	min. Earth dist.	-12072 Nov 24 j 16:51	10° $\mathbb{H}$ 57'39	9.22574 AU
	-12078 Sep 21 j 18:44	30° $\mathbb{R}$ $\mathbb{X}$		direct	-12071 Feb 04 j 07:19	7° $\mathbb{H}$ 38'10	
direct	-12078 Nov 22 j 16:11	27° $\mathbb{X}$ 05'12		evening set	-12071 May 18 j 16:18	14° $\mathbb{H}$ 36'41	
	-12077 Jan 22 j 02:54	0° $\Xi$					
evening set	-12077 Mar 08 j 15:33	4° $\Xi$ 53'40		conjunction	-12071 Jun 04 j 14:52	16° $\mathbb{H}$ 32'17	-0°06'02
				minimum elong	-12071 Jun 04 j 14:52	16° $\mathbb{H}$ 32'17	0°06'14
conjunction	-12077 Mar 26 j 09:26	7° $\Xi$ 03'26	-2°18'52	behind sun begin	-12071 Jun 04 j 08:14	16° $\mathbb{H}$ 30'25	
minimum elong	-12077 Mar 26 j 09:28	7° $\Xi$ 03'27	2°19'34	behind sun end	-12071 Jun 04 j 21:30	16° $\mathbb{H}$ 34'10	
max. Earth dist.	-12077 Mar 27 j 04:00	7° $\Xi$ 09'08	10.54003 AU	max. Earth dist.	-12071 Jun 03 j 23:28	16° $\mathbb{H}$ 27'53	11.25272 AU
morning rise	-12077 Apr 12 j 23:08	9° $\Xi$ 11'52		morning rise	-12071 Jun 21 j 08:55	18° $\mathbb{H}$ 26'41	
retrograde	-12077 Jul 22 j 09:38	16° $\Xi$ 35'51		asc. node	-12071 Aug 25 j 08:14	24° $\mathbb{H}$ 12'19	
opposition	-12077 Sep 27 j 16:34	13° $\Xi$ 14'00	-2°44'21	retrograde	-12071 Sep 27 j 02:19	25° $\mathbb{H}$ 04'59	

Attention, astronomical year style is used: The year -12071 in astronomical counting style is the year 12072 BCE in historical counting style.

opposition	-12071 Dec 05 j 16:27	21° $\text{K}$ 50'12	0°09'15	retrograde	-12065 Dec 04 j 14:20	1° $\text{II}$ 06'04	
min. Earth dist.	-12071 Dec 06 j 06:50	21° $\text{K}$ 47'34	9.27229 AU		-12064 Jan 11 j 11:58	30° $\text{R}$ 8	
direct	-12070 Feb 15 j 21:28	18° $\text{K}$ 29'31		opposition	-12064 Feb 13 j 08:37	27° $\text{B}$ 46'58	2°48'17
evening set	-12070 May 29 j 18:07	25° $\text{K}$ 24'34		min. Earth dist.	-12064 Feb 14 j 09:14	27° $\text{B}$ 42'24	8.93287 AU
				direct	-12064 Apr 23 j 20:06	24° $\text{B}$ 27'35	
conjunction	-12070 Jun 15 j 13:36	27° $\text{K}$ 19'09	0°21'44		-12064 Jul 19 j 12:13	0° $\text{II}$	
minimum elong	-12070 Jun 15 j 13:35	27° $\text{K}$ 19'08	0°21'40	evening set	-12064 Aug 02 j 12:37	1° $\text{II}$ 36'52	
max. Earth dist.	-12070 Jun 14 j 18:37	27° $\text{K}$ 13'43	11.28408 AU				
morning rise	-12070 Jul 02 j 04:54	29° $\text{K}$ 12'40		conjunction	-12064 Aug 18 j 21:26	3° $\text{II}$ 34'43	2°21'57
	-12070 Jul 09 j 07:59	0° $\text{Y}$		minimum elong	-12064 Aug 18 j 21:24	3° $\text{II}$ 34'42	2°22'34
retrograde	-12070 Oct 08 j 04:21	5° $\text{Y}$ 50'55		max. Earth dist.	-12064 Aug 17 j 18:00	3° $\text{II}$ 26'25	10.86213 AU
opposition	-12070 Dec 17 j 02:58	2° $\text{Y}$ 36'12	0°42'36	morning rise	-12064 Sep 04 j 07:42	5° $\text{II}$ 33'06	
min. Earth dist.	-12070 Dec 17 j 21:12	2° $\text{Y}$ 32'52	9.28866 AU	retrograde	-12064 Dec 16 j 07:55	12° $\text{II}$ 54'38	
	-12069 Jan 27 j 03:52	30° $\text{R}$ 8		opposition	-12063 Feb 25 j 00:17	9° $\text{II}$ 33'51	2°58'16
direct	-12069 Feb 27 j 07:36	29° $\text{K}$ 16'10		min. Earth dist.	-12063 Feb 25 j 23:18	9° $\text{II}$ 29'33	8.78988 AU
	-12069 Mar 30 j 02:26	0° $\text{Y}$		direct	-12063 May 05 j 20:49	6° $\text{II}$ 14'01	
evening set	-12069 Jun 09 j 17:20	6° $\text{Y}$ 09'29		evening set	-12063 Aug 14 j 09:20	13° $\text{II}$ 30'50	
max. Earth dist.	-12069 Jun 25 j 10:27	7° $\text{Y}$ 56'45	11.28490 AU				
conjunction	-12069 Jun 26 j 09:40	8° $\text{Y}$ 03'24	0°48'34	conjunction	-12063 Aug 30 j 19:32	15° $\text{II}$ 31'05	2°26'41
minimum elong	-12069 Jun 26 j 09:38	8° $\text{Y}$ 03'24	0°48'38	minimum elong	-12063 Aug 30 j 19:32	15° $\text{II}$ 31'05	2°27'21
morning rise	-12069 Jul 12 j 22:41	9° $\text{Y}$ 56'30		max. Earth dist.	-12063 Aug 29 j 19:16	15° $\text{II}$ 23'37	10.71150 AU
retrograde	-12069 Oct 19 j 09:08	16° $\text{Y}$ 36'56		morning rise	-12063 Sep 16 j 08:00	17° $\text{II}$ 32'10	
opposition	-12069 Dec 28 j 14:52	13° $\text{Y}$ 21'57	1°14'28	retrograde	-12063 Dec 29 j 12:20	25° $\text{II}$ 06'47	
min. Earth dist.	-12069 Dec 29 j 12:29	13° $\text{Y}$ 18'00	9.27451 AU	opposition	-12062 Mar 10 j 00:45	21° $\text{II}$ 44'09	3°00'45
direct	-12068 Mar 09 j 17:01	10° $\text{Y}$ 02'25		min. Earth dist.	-12062 Mar 10 j 20:22	21° $\text{II}$ 40'25	8.63297 AU
evening set	-12068 Jun 19 j 15:46	16° $\text{Y}$ 55'42		direct	-12062 May 18 j 04:32	18° $\text{II}$ 23'40	
max. Earth dist.	-12068 Jul 05 j 03:08	18° $\text{Y}$ 41'52	11.25532 AU	evening set	-12062 Aug 26 j 15:34	25° $\text{II}$ 49'07	
				max. Earth dist.	-12062 Sep 11 j 07:43	27° $\text{II}$ 45'51	10.55023 AU
conjunction	-12068 Jul 06 j 05:19	18° $\text{Y}$ 49'25	1°13'46	conjunction	-12062 Sep 12 j 04:23	27° $\text{II}$ 52'19	2°24'54
minimum elong	-12068 Jul 06 j 05:16	18° $\text{Y}$ 49'24	1°13'58	minimum elong	-12062 Sep 12 j 04:24	27° $\text{II}$ 52'19	2°25'35
morning rise	-12068 Jul 22 j 16:30	20° $\text{Y}$ 42'33		morning rise	-12062 Sep 28 j 20:23	29° $\text{II}$ 56'38	
retrograde	-12068 Oct 29 j 16:56	27° $\text{Y}$ 27'19			-12062 Sep 29 j 07:22	0° $\text{B}$	
opposition	-12067 Jan 08 j 05:24	24° $\text{Y}$ 11'42	1°43'56	retrograde	-12061 Jan 12 j 05:40	7° $\text{B}$ 45'10	
min. Earth dist.	-12067 Jan 09 j 04:50	24° $\text{Y}$ 07'26	9.23021 AU	opposition	-12061 Mar 23 j 10:52	4° $\text{B}$ 20'34	2°54'47
direct	-12067 Mar 21 j 02:03	20° $\text{Y}$ 52'30		min. Earth dist.	-12061 Mar 24 j 02:26	4° $\text{B}$ 17'34	8.46865 AU
evening set	-12067 Jun 30 j 15:01	27° $\text{Y}$ 47'26		direct	-12061 May 30 j 21:12	0° $\text{B}$ 59'15	
max. Earth dist.	-12067 Jul 15 j 23:18	29° $\text{Y}$ 33'32	11.19603 AU	evening set	-12061 Sep 08 j 08:44	8° $\text{B}$ 34'07	
				max. Earth dist.	-12061 Sep 24 j 08:43	10° $\text{B}$ 35'26	10.38521 AU
conjunction	-12067 Jul 17 j 02:26	29° $\text{Y}$ 41'25	1°36'31	conjunction	-12061 Sep 25 j 01:25	10° $\text{B}$ 40'46	2°15'59
minimum elong	-12067 Jul 17 j 02:23	29° $\text{Y}$ 41'24	1°36'51	minimum elong	-12061 Sep 25 j 01:28	10° $\text{B}$ 40'46	2°16'40
	-12067 Jul 19 j 18:22	0° $\text{B}$		morning rise	-12061 Oct 11 j 22:24	12° $\text{B}$ 48'50	
morning rise	-12067 Aug 02 j 12:07	1° $\text{B}$ 35'03		retrograde	-12060 Jan 26 j 10:37	20° $\text{B}$ 51'28	
retrograde	-12067 Nov 10 j 09:17	8° $\text{B}$ 26'14		opposition	-12060 Apr 05 j 06:38	17° $\text{B}$ 24'54	2°39'40
opposition	-12066 Jan 20 j 00:15	5° $\text{B}$ 09'44	2°10'03	min. Earth dist.	-12060 Apr 05 j 17:59	17° $\text{B}$ 22'40	8.30407 AU
min. Earth dist.	-12066 Jan 21 j 00:16	5° $\text{B}$ 05'21	9.15684 AU	direct	-12060 Jun 11 j 22:15	14° $\text{B}$ 02'33	
direct	-12066 Apr 01 j 13:27	1° $\text{B}$ 50'41		evening set	-12060 Sep 20 j 14:22	21° $\text{B}$ 47'26	
evening set	-12066 Jul 11 j 17:07	8° $\text{B}$ 48'52					
max. Earth dist.	-12066 Jul 26 j 22:53	10° $\text{B}$ 35'24	11.10864 AU	conjunction	-12060 Oct 07 j 12:10	23° $\text{B}$ 57'54	1°59'39
conjunction	-12066 Jul 28 j 02:50	10° $\text{B}$ 43'37	1°56'02	minimum elong	-12060 Oct 07 j 12:14	23° $\text{B}$ 57'55	2°00'18
minimum elong	-12066 Jul 28 j 02:47	10° $\text{B}$ 43'36	1°56'29	max. Earth dist.	-12060 Oct 07 j 00:15	23° $\text{B}$ 54'03	10.22374 AU
morning rise	-12066 Aug 13 j 11:41	12° $\text{B}$ 38'17		morning rise	-12060 Oct 24 j 15:12	26° $\text{B}$ 10'05	
	-12066 Sep 03 j 21:55	15° $\text{B}$			-12060 Nov 25 j 23:26	0° $\text{B}$	
retrograde	-12066 Nov 22 j 07:31	19° $\text{B}$ 37'49		retrograde	-12059 Feb 09 j 01:55	4° $\text{B}$ 26'21	
opposition	-12065 Feb 01 j 00:55	16° $\text{B}$ 20'09	2°31'51	opposition	-12059 Apr 19 j 11:32	0° $\text{B}$ 57'55	2°15'12
min. Earth dist.	-12065 Feb 02 j 01:35	16° $\text{B}$ 15'37	9.05659 AU	min. Earth dist.	-12059 Apr 19 j 18:26	0° $\text{B}$ 56'33	8.14700 AU
	-12065 Feb 19 j 18:03	15° $\text{R}$ 8			-12059 May 01 j 18:44	30° $\text{R}$ 8	
direct	-12065 Apr 13 j 01:08	13° $\text{B}$ 01'04		direct	-12059 Jun 25 j 10:26	27° $\text{B}$ 34'27	
	-12065 Jun 02 j 05:49	15° $\text{B}$			-12059 Aug 16 j 12:27	0° $\text{B}$	
evening set	-12065 Jul 22 j 23:50	20° $\text{B}$ 04'04		evening set	-12059 Oct 04 j 09:13	5° $\text{B}$ 29'37	
max. Earth dist.	-12065 Aug 07 j 03:55	21° $\text{B}$ 51'34	10.99608 AU				
conjunction	-12065 Aug 08 j 08:32	22° $\text{B}$ 00'05	2°11'28	conjunction	-12059 Oct 21 j 13:11	7° $\text{B}$ 44'07	1°36'04
minimum elong	-12065 Aug 08 j 08:29	22° $\text{B}$ 00'04	2°12'00	minimum elong	-12059 Oct 21 j 13:15	7° $\text{B}$ 44'08	1°36'39
morning rise	-12065 Aug 24 j 17:36	23° $\text{B}$ 56'19		max. Earth dist.	-12059 Oct 21 j 07:49	7° $\text{B}$ 42'21	10.07416 AU
	-12065 Oct 28 j 14:27	0° $\text{II}$		morning rise	-12059 Nov 07 j 22:53	10° $\text{B}$ 00'29	
					-12059 Dec 20 j 20:17	15° $\text{B}$	

Attention, astronomical year style is used: The year -12058 in astronomical counting style is the year 12059 BCE in historical counting style.

retrograde	-12058 Feb 24 j 02:54	18°♈29'09			-12053 Dec 01 j 13:15	0°♌	
	-12058 May 03 j 20:25	15°♋♌		evening set	-12052 Jan 03 j 12:38	4°♌00'18	
opposition	-12058 May 04 j 01:06	14°♈59'03	1°41'51				
min. Earth dist.	-12058 May 04 j 02:23	14°♈58'48	8.00677 AU	conjunction	-12052 Jan 21 j 17:15	6°♌24'00	-1°46'53
direct	-12058 Jul 09 j 09:57	11°♈34'26		minimum elong	-12052 Jan 21 j 17:11	6°♌23'59	1°47'16
	-12058 Sep 09 j 11:23	15°♈		max. Earth dist.	-12052 Jan 23 j 01:03	6°♌34'32	9.88306 AU
evening set	-12058 Oct 18 j 17:43	19°♈39'28		morning rise	-12052 Feb 08 j 22:59	8°♌47'56	
					-12052 Apr 04 j 11:56	15°♌	
conjunction	-12058 Nov 05 j 04:21	21°♈57'52	1°06'03	retrograde	-12052 May 24 j 21:17	17°♌15'39	
minimum elong	-12058 Nov 05 j 04:24	21°♈57'53	1°06'31		-12052 Jul 15 j 03:07	15°♋♌	
max. Earth dist.	-12058 Nov 05 j 06:49	21°♈58'41	9.94639 AU	min. Earth dist.	-12052 Jul 29 j 11:46	13°♌49'31	7.93487 AU
morning rise	-12058 Nov 22 j 20:49	24°♈18'11		opposition	-12052 Jul 30 j 11:29	13°♌44'32	-2°28'36
	-12057 Jan 11 j 07:52	0°♐		direct	-12052 Oct 04 j 19:45	10°♌14'39	
retrograde	-12057 Mar 11 j 11:18	2°♐56'51			-12052 Dec 19 j 12:00	15°♌	
	-12057 May 11 j 19:42	30°♋♌		evening set	-12051 Jan 18 j 03:39	18°♌35'03	
opposition	-12057 May 18 j 21:33	29°♈25'21	1°01'03				
min. Earth dist.	-12057 May 18 j 16:30	29°♈26'23	7.89355 AU	conjunction	-12051 Feb 05 j 07:02	20°♌56'20	-2°08'16
direct	-12057 Jul 23 j 19:00	25°♈59'32		minimum elong	-12051 Feb 05 j 06:58	20°♌56'19	2°08'47
	-12057 Sep 28 j 23:53	0°♐		max. Earth dist.	-12051 Feb 06 j 14:50	21°♌06'43	9.99230 AU
evening set	-12057 Nov 02 j 15:40	4°♐13'20		morning rise	-12051 Feb 23 j 10:07	23°♌17'22	
					-12051 Apr 27 j 22:18	0°♐	
conjunction	-12057 Nov 20 j 08:42	6°♐35'05	0°31'09	retrograde	-12051 Jun 08 j 01:34	1°♐31'58	
minimum elong	-12057 Nov 20 j 08:44	6°♐35'06	0°31'28		-12051 Jul 19 j 14:58	30°♋♌	
max. Earth dist.	-12057 Nov 20 j 19:23	6°♐38'40	9.85008 AU	opposition	-12051 Aug 13 j 16:08	28°♌02'29	-2°49'39
morning rise	-12057 Dec 08 j 07:16	8°♐58'39		min. Earth dist.	-12051 Aug 12 j 17:04	28°♌07'17	8.05953 AU
retrograde	-12056 Mar 26 j 00:30	17°♐43'45		direct	-12051 Oct 19 j 15:54	24°♌32'39	
opposition	-12056 Jun 01 j 22:17	14°♐11'15	0°15'15		-12050 Jan 10 j 12:38	0°♐	
min. Earth dist.	-12056 Jun 01 j 11:01	14°♐13'36	7.81612 AU	evening set	-12050 Feb 02 j 09:07	2°♐45'44	
direct	-12056 Aug 06 j 11:38	10°♐44'16					
desc. node	-12056 Oct 01 j 06:29	13°♐35'42		conjunction	-12050 Feb 20 j 10:19	5°♐03'57	-2°21'18
evening set	-12056 Nov 17 j 01:01	19°♐05'01		minimum elong	-12050 Feb 20 j 10:17	5°♐03'56	2°21'55
				max. Earth dist.	-12050 Feb 21 j 16:05	5°♐13'30	10.12997 AU
conjunction	-12056 Dec 04 j 23:28	21°♐29'10	-0°06'27	morning rise	-12050 Mar 10 j 09:54	7°♐21'28	
minimum elong	-12056 Dec 04 j 23:28	21°♐29'10	0°06'19	retrograde	-12050 Jun 21 j 17:47	15°♐21'26	
behind sun begin	-12056 Dec 04 j 16:32	21°♐26'52		opposition	-12050 Aug 27 j 10:45	11°♐53'51	-2°59'58
behind sun end	-12056 Dec 05 j 06:23	21°♐31'29		min. Earth dist.	-12050 Aug 26 j 13:10	11°♐58'17	8.20794 AU
max. Earth dist.	-12056 Dec 05 j 17:55	21°♐35'24	9.79279 AU	direct	-12050 Nov 03 j 04:10	8°♐24'26	
morning rise	-12056 Dec 23 j 02:45	23°♐54'54		evening set	-12049 Feb 17 j 02:19	16°♐28'17	
	-12055 Feb 13 j 20:55	0°♑					
retrograde	-12055 Apr 10 j 14:32	2°♑42'10		conjunction	-12049 Mar 07 j 00:48	18°♐43'06	-2°25'52
	-12055 Jun 06 j 19:48	30°♋♐		minimum elong	-12049 Mar 07 j 00:47	18°♐43'06	2°26'33
min. Earth dist.	-12055 Jun 16 j 07:55	29°♐12'42	7.78057 AU	max. Earth dist.	-12049 Mar 08 j 03:10	18°♐51'25	10.28693 AU
opposition	-12055 Jun 17 j 00:43	29°♐09'11	-0°32'13	morning rise	-12049 Mar 24 j 20:23	20°♐56'54	
direct	-12055 Aug 21 j 10:52	25°♐41'08		retrograde	-12049 Jul 04 j 21:47	28°♐41'45	
	-12055 Oct 30 j 10:07	0°♑		opposition	-12049 Sep 09 j 19:15	25°♐16'15	-2°59'59
evening set	-12055 Dec 02 j 18:23	4°♑06'20		min. Earth dist.	-12049 Sep 09 j 00:01	25°♐20'08	8.37075 AU
				direct	-12049 Nov 17 j 07:16	21°♐47'34	
conjunction	-12055 Dec 20 j 20:41	6°♑31'38	-0°43'47	evening set	-12048 Mar 02 j 05:40	29°♐41'00	
minimum elong	-12055 Dec 20 j 20:38	6°♑31'38	0°43'49		-12048 Mar 04 j 20:12	0°♑	
max. Earth dist.	-12055 Dec 21 j 21:43	6°♑40'04	9.77911 AU				
morning rise	-12054 Jan 08 j 02:48	8°♑58'09		conjunction	-12048 Mar 20 j 01:06	1°♑52'22	-2°22'32
retrograde	-12054 Apr 26 j 01:02	17°♑43'05		minimum elong	-12048 Mar 20 j 01:08	1°♑52'22	2°23'14
min. Earth dist.	-12054 Jul 01 j 04:47	14°♑14'32	7.78971 AU	max. Earth dist.	-12048 Mar 20 j 23:25	1°♑59'16	10.45380 AU
opposition	-12054 Jul 02 j 01:39	14°♑10'08	-1°17'37	morning rise	-12048 Apr 06 j 16:34	4°♑02'27	
direct	-12054 Sep 05 j 13:56	10°♑41'12		retrograde	-12048 Jul 16 j 13:42	11°♑32'41	
evening set	-12054 Dec 18 j 15:53	19°♑07'55		opposition	-12048 Sep 21 j 17:53	8°♑09'21	-2°50'49
				min. Earth dist.	-12048 Sep 21 j 02:14	8°♑12'28	8.53891 AU
conjunction	-12053 Jan 05 j 20:15	21°♑33'03	-1°18'07	direct	-12048 Nov 30 j 00:18	4°♑41'41	
minimum elong	-12053 Jan 05 j 20:10	21°♑33'01	1°18'20	evening set	-12047 Mar 15 j 18:56	12°♑24'17	
max. Earth dist.	-12053 Jan 07 j 01:49	21°♑42'56	9.81008 AU				
morning rise	-12053 Jan 24 j 03:08	23°♑58'55		conjunction	-12047 Apr 02 j 11:12	14°♑32'19	-2°12'14
	-12053 Mar 17 j 16:52	0°♌		minimum elong	-12047 Apr 02 j 11:15	14°♑32'20	2°12'56
retrograde	-12053 May 11 j 04:24	2°♌37'04		max. Earth dist.	-12047 Apr 03 j 04:23	14°♑37'32	10.62186 AU
	-12053 Jul 05 j 20:44	30°♋♑		morning rise	-12047 Apr 19 j 22:43	16°♑38'55	
opposition	-12053 Jul 16 j 21:59	29°♑04'47	-1°57'21	retrograde	-12047 Jul 28 j 20:22	23°♑55'41	
min. Earth dist.	-12053 Jul 15 j 22:56	29°♑09'38	7.84260 AU	opposition	-12047 Oct 04 j 07:20	20°♑34'28	-2°33'53
direct	-12053 Sep 20 j 18:00	25°♑35'12		min. Earth dist.	-12047 Oct 03 j 20:31	20°♑36'36	8.70424 AU

Attention, astronomical year style is used: The year -12047 in astronomical counting style is the year 12048 BCE in historical counting style.

direct	-12047 Dec 13 j 05:43	17° $\text{Z}$ 07'58				-12041 Aug 21 j 08:29	0° $\text{Y}$	
evening set	-12046 Mar 28 j 18:40	24° $\text{Z}$ 39'59		retrograde		-12041 Oct 03 j 20:17	1° $\text{Y}$ 31'04	
						-12041 Nov 17 j 19:49	30° $\text{R}$ $\text{X}$	
conjunction	-12046 Apr 15 j 07:41	26° $\text{Z}$ 44'58	-1°56'10	opposition		-12041 Dec 12 j 16:04	28° $\text{X}$ 16'54	0°28'35
minimum elong	-12046 Apr 15 j 07:44	26° $\text{Z}$ 44'59	1°56'49	min. Earth dist.		-12041 Dec 13 j 08:53	28° $\text{X}$ 13'50	9.30156 AU
max. Earth dist.	-12046 Apr 15 j 18:30	26° $\text{Z}$ 48'12	10.78324 AU	direct		-12040 Feb 22 j 20:39	24° $\text{X}$ 57'09	
morning rise	-12046 May 02 j 15:37	28° $\text{Z}$ 48'25				-12040 May 18 j 10:34	0° $\text{Y}$	
	-12046 May 13 j 00:43	0° $\approx$		evening set		-12040 Jun 04 j 11:41	1° $\text{Y}$ 50'41	
retrograde	-12046 Aug 09 j 16:16	5° $\approx$ 53'22		max. Earth dist.		-12040 Jun 20 j 07:45	3° $\text{Y}$ 38'32	11.30507 AU
opposition	-12046 Oct 16 j 12:46	2° $\approx$ 34'07	-2°10'46					
min. Earth dist.	-12046 Oct 16 j 07:02	2° $\approx$ 35'13	8.85936 AU	conjunction		-12040 Jun 21 j 05:16	3° $\text{Y}$ 44'41	0°37'21
	-12046 Nov 23 j 09:32	30° $\text{R}$ $\text{Z}$		minimum elong		-12040 Jun 21 j 05:15	3° $\text{Y}$ 44'40	0°37'22
direct	-12046 Dec 26 j 02:29	29° $\text{Z}$ 08'53		morning rise		-12040 Jul 07 j 19:16	5° $\text{Y}$ 37'46	
	-12045 Jan 27 j 18:07	0° $\approx$		retrograde		-12040 Oct 14 j 01:14	12° $\text{Y}$ 16'39	
evening set	-12045 Apr 10 j 06:15	6° $\approx$ 31'07		opposition		-12040 Dec 23 j 03:04	9° $\text{Y}$ 02'20	1°01'11
				min. Earth dist.		-12040 Dec 23 j 22:46	8° $\text{Y}$ 58'45	9.30103 AU
conjunction	-12045 Apr 27 j 15:56	8° $\approx$ 33'19	-1°35'32	direct		-12039 Mar 05 j 07:29	5° $\text{Y}$ 43'09	
minimum elong	-12045 Apr 27 j 15:59	8° $\approx$ 33'20	1°36'06	evening set		-12039 Jun 15 j 10:17	12° $\text{Y}$ 35'52	
max. Earth dist.	-12045 Apr 27 j 19:46	8° $\approx$ 34'27	10.93108 AU	max. Earth dist.		-12039 Jul 01 j 00:29	14° $\text{Y}$ 22'26	11.28775 AU
morning rise	-12045 May 14 j 20:30	10° $\approx$ 34'00						
	-12045 Jun 27 j 01:01	15° $\approx$		conjunction		-12039 Jul 02 j 01:06	14° $\text{Y}$ 29'30	1°03'20
retrograde	-12045 Aug 21 j 04:40	17° $\approx$ 29'09		minimum elong		-12039 Jul 02 j 01:04	14° $\text{Y}$ 29'30	1°03'28
	-12045 Oct 17 j 17:58	15° $\text{R}$ $\approx$		morning rise		-12039 Jul 18 j 12:51	16° $\text{Y}$ 22'25	
opposition	-12045 Oct 28 j 11:26	14° $\approx$ 11'36	-1°43'00	retrograde		-12039 Oct 25 j 07:46	23° $\text{Y}$ 04'41	
min. Earth dist.	-12045 Oct 28 j 10:07	14° $\approx$ 11'51	8.99803 AU	opposition		-12038 Jan 03 j 16:08	19° $\text{Y}$ 49'53	1°31'45
direct	-12044 Jan 07 j 15:59	10° $\approx$ 47'42		min. Earth dist.		-12038 Jan 04 j 15:06	19° $\text{Y}$ 45'43	9.26766 AU
	-12044 Mar 24 j 03:36	15° $\approx$		direct		-12038 Mar 16 j 14:33	16° $\text{Y}$ 31'03	
evening set	-12044 Apr 21 j 07:05	18° $\approx$ 01'14		evening set		-12038 Jun 26 j 09:13	23° $\text{Y}$ 24'47	
conjunction	-12044 May 08 j 13:34	20° $\approx$ 01'01	-1°11'33	conjunction		-12038 Jul 12 j 21:25	25° $\text{Y}$ 18'29	1°27'13
minimum elong	-12044 May 08 j 13:37	20° $\approx$ 01'02	1°12'01	minimum elong		-12038 Jul 12 j 21:22	25° $\text{Y}$ 18'28	1°27'29
max. Earth dist.	-12044 May 08 j 11:46	20° $\approx$ 00'30	11.05974 AU	max. Earth dist.		-12038 Jul 11 j 17:22	25° $\text{Y}$ 10'22	11.23815 AU
morning rise	-12044 May 25 j 14:52	21° $\approx$ 59'19		morning rise		-12038 Jul 29 j 07:34	27° $\text{Y}$ 11'44	
retrograde	-12044 Aug 31 j 13:28	28° $\approx$ 46'48				-12038 Aug 24 j 12:51	0° $\text{Z}$	
opposition	-12044 Nov 08 j 04:49	25° $\approx$ 30'39	-1°11'59	retrograde		-12038 Nov 05 j 19:41	3° $\text{Z}$ 59'35	
min. Earth dist.	-12044 Nov 08 j 07:43	25° $\approx$ 30'06	9.11518 AU	opposition		-12037 Jan 15 j 09:09	0° $\text{Z}$ 43'56	1°59'24
direct	-12043 Jan 18 j 19:07	22° $\approx$ 08'02		min. Earth dist.		-12037 Jan 16 j 10:45	0° $\text{Z}$ 39'17	9.20290 AU
evening set	-12043 May 02 j 22:52	29° $\approx$ 14'09				-12037 Jan 25 j 12:19	30° $\text{R}$ $\text{Y}$	
	-12043 May 09 j 16:11	0° $\text{X}$		direct		-12037 Mar 28 j 01:06	27° $\text{Y}$ 25'11	
						-12037 May 25 j 10:25	0° $\text{Z}$	
conjunction	-12043 May 20 j 02:12	1° $\text{X}$ 11'56	-0°45'18	evening set		-12037 Jul 07 j 09:59	4° $\text{Z}$ 21'35	
minimum elong	-12043 May 20 j 02:14	1° $\text{X}$ 11'57	0°45'39					
max. Earth dist.	-12043 May 19 j 19:36	1° $\text{X}$ 10'02	11.16457 AU	conjunction		-12037 Jul 23 j 20:10	6° $\text{Z}$ 15'51	1°48'11
morning rise	-12043 Jun 06 j 00:18	3° $\text{X}$ 08'17		minimum elong		-12037 Jul 23 j 20:07	6° $\text{Z}$ 15'50	1°48'35
retrograde	-12043 Sep 11 j 17:29	9° $\text{X}$ 50'17		max. Earth dist.		-12037 Jul 22 j 14:16	6° $\text{Z}$ 07'07	11.15838 AU
opposition	-12043 Nov 19 j 18:26	6° $\text{X}$ 35'11	-0°38'58	morning rise		-12037 Aug 09 j 05:21	8° $\text{Z}$ 09'56	
min. Earth dist.	-12043 Nov 20 j 02:24	6° $\text{X}$ 33'42	9.20671 AU			-12037 Nov 07 j 01:34	15° $\text{Z}$	
direct	-12042 Jan 30 j 16:05	3° $\text{X}$ 13'43		retrograde		-12037 Nov 17 j 13:56	15° $\text{Z}$ 05'26	
evening set	-12042 May 14 j 07:51	10° $\text{X}$ 14'01				-12037 Nov 28 j 04:48	15° $\text{R}$ $\text{Z}$	
				opposition		-12036 Jan 27 j 07:16	11° $\text{Z}$ 48'33	2°23'09
conjunction	-12042 May 31 j 07:50	12° $\text{X}$ 10'07	-0°17'49	min. Earth dist.		-12036 Jan 28 j 09:37	11° $\text{Z}$ 43'44	9.10926 AU
minimum elong	-12042 May 31 j 07:50	12° $\text{X}$ 10'07	0°18'02	direct		-12036 Apr 07 j 13:39	8° $\text{Z}$ 29'39	
max. Earth dist.	-12042 May 30 j 19:29	12° $\text{X}$ 06'35	11.24197 AU			-12036 Jul 13 j 04:56	15° $\text{Z}$	
morning rise	-12042 Jun 17 j 02:59	14° $\text{X}$ 04'56		evening set		-12036 Jul 17 j 14:28	15° $\text{Z}$ 30'17	
retrograde	-12042 Sep 22 j 19:51	20° $\text{X}$ 43'39						
opposition	-12042 Dec 01 j 05:38	17° $\text{X}$ 29'14	-0°05'06	conjunction		-12036 Aug 02 j 23:33	17° $\text{Z}$ 25'39	2°05'27
min. Earth dist.	-12042 Dec 01 j 18:40	17° $\text{X}$ 26'51	9.26958 AU	minimum elong		-12036 Aug 02 j 23:30	17° $\text{Z}$ 25'38	2°05'57
asc. node	-12041 Jan 26 j 04:03	14° $\text{X}$ 20'52		max. Earth dist.		-12036 Aug 01 j 18:06	17° $\text{Z}$ 16'56	11.05130 AU
direct	-12041 Feb 11 j 07:59	14° $\text{X}$ 08'44		morning rise		-12036 Aug 19 j 08:23	19° $\text{Z}$ 21'07	
evening set	-12041 May 25 j 11:37	21° $\text{X}$ 04'49		retrograde		-12036 Nov 28 j 17:50	26° $\text{Z}$ 26'08	
				opposition		-12035 Feb 07 j 11:34	23° $\text{Z}$ 07'42	2°42'01
conjunction	-12041 Jun 11 j 08:14	22° $\text{X}$ 59'40	0°10'05	min. Earth dist.		-12035 Feb 08 j 13:10	23° $\text{Z}$ 02'59	8.98998 AU
minimum elong	-12041 Jun 11 j 08:13	22° $\text{X}$ 59'40	0°09'58	direct		-12035 Apr 19 j 06:31	19° $\text{Z}$ 48'26	
behind sun begin	-12041 Jun 11 j 02:32	22° $\text{X}$ 58'03		evening set		-12035 Jul 29 j 00:24	26° $\text{Z}$ 54'48	
behind sun end	-12041 Jun 11 j 13:54	23° $\text{X}$ 01'16		max. Earth dist.		-12035 Aug 13 j 04:32	28° $\text{Z}$ 43'13	10.92062 AU
max. Earth dist.	-12041 Jun 10 j 14:21	22° $\text{X}$ 54'34	11.28944 AU					
morning rise	-12041 Jun 28 j 00:45	24° $\text{X}$ 53'24		conjunction		-12035 Aug 14 j 09:12	28° $\text{Z}$ 51'49	2°18'09

Attention, astronomical year style is used: The year -12035 in astronomical counting style is the year 12036 BCE in historical counting style.

minimum elong	-12035 Aug 14 j 09:09	28° <b>8</b> 51'48	2°18'45	morning rise	-12029 Nov 16 j 21:02	18° <b>Q</b> 25'21	
	-12035 Aug 23 j 20:42	0° <b>II</b>		retrograde	-12028 Mar 04 j 08:12	27° <b>Q</b> 00'40	
morning rise	-12035 Aug 30 j 18:40	0° <b>II</b> 49'12		opposition	-12028 May 11 j 23:29	23° <b>Q</b> 29'08	1°19'25
retrograde	-12035 Dec 11 j 07:16	8° <b>II</b> 05'26		min. Earth dist.	-12028 May 11 j 19:45	23° <b>Q</b> 29'54	7.92440 AU
opposition	-12034 Feb 19 j 23:37	4° <b>II</b> 45'14	2°54'55	direct	-12028 Jul 17 j 00:41	20° <b>Q</b> 03'20	
min. Earth dist.	-12034 Feb 20 j 23:52	4° <b>II</b> 40'43	8.84921 AU	evening set	-12028 Oct 26 j 16:07	28° <b>Q</b> 13'59	
direct	-12034 May 01 j 03:03	1° <b>II</b> 25'23			-12028 Nov 08 j 23:19	0° <b>II</b>	
evening set	-12034 Aug 09 j 17:24	8° <b>II</b> 38'53					
max. Earth dist.	-12034 Aug 24 j 23:15	10° <b>II</b> 29'39	10.77113 AU	conjunction	-12028 Nov 13 j 06:20	0° <b>II</b> 34'31	0°46'37
				minimum elong	-12028 Nov 13 j 06:23	0° <b>II</b> 34'32	0°46'59
conjunction	-12034 Aug 26 j 02:50	10° <b>II</b> 38'04	2°25'28	max. Earth dist.	-12028 Nov 13 j 13:57	0° <b>II</b> 37'04	9.87512 AU
minimum elong	-12034 Aug 26 j 02:49	10° <b>II</b> 38'04	2°26'07	morning rise	-12028 Dec 01 j 02:28	2° <b>II</b> 56'57	
morning rise	-12034 Sep 11 j 14:12	12° <b>II</b> 37'58		retrograde	-12027 Mar 19 j 20:26	11° <b>II</b> 40'07	
retrograde	-12034 Dec 24 j 06:01	20° <b>II</b> 06'55		opposition	-12027 May 26 j 22:45	8° <b>II</b> 07'34	0°35'20
opposition	-12033 Mar 04 j 20:23	16° <b>II</b> 44'45	3°00'46	min. Earth dist.	-12027 May 26 j 13:16	8° <b>II</b> 09'31	7.83478 AU
min. Earth dist.	-12033 Mar 05 j 18:52	16° <b>II</b> 40'30	8.69233 AU	direct	-12027 Jul 31 j 13:55	4° <b>II</b> 40'42	
direct	-12033 May 13 j 07:18	13° <b>II</b> 24'08		evening set	-12027 Nov 10 j 20:42	12° <b>II</b> 59'01	
evening set	-12033 Aug 21 j 19:16	20° <b>II</b> 45'59					
max. Earth dist.	-12033 Sep 06 j 06:10	22° <b>II</b> 40'18	10.60877 AU	conjunction	-12027 Nov 28 j 16:47	15° <b>II</b> 22'20	0°09'54
				minimum elong	-12027 Nov 28 j 16:47	15° <b>II</b> 22'20	0°10'07
conjunction	-12033 Sep 07 j 06:42	22° <b>II</b> 47'56	2°26'34	behind sun begin	-12027 Nov 28 j 10:57	15° <b>II</b> 20'23	
minimum elong	-12033 Sep 07 j 06:42	22° <b>II</b> 47'56	2°27'15	behind sun end	-12027 Nov 28 j 22:38	15° <b>II</b> 24'17	
morning rise	-12033 Sep 23 j 21:12	24° <b>II</b> 50'55		max. Earth dist.	-12027 Nov 29 j 08:03	15° <b>II</b> 27'28	9.80466 AU
	-12033 Nov 11 j 01:03	0° <b>III</b>		morning rise	-12027 Dec 16 j 18:22	17° <b>II</b> 47'23	
retrograde	-12032 Jan 06 j 16:56	2° <b>III</b> 33'39		desc. node	-12026 Mar 08 j 15:35	25° <b>II</b> 55'14	
	-12032 Mar 05 j 23:19	30° <b>II</b>		retrograde	-12026 Apr 04 j 10:37	26° <b>II</b> 34'30	
opposition	-12032 Mar 17 j 02:22	29° <b>II</b> 09'25	2°58'34	min. Earth dist.	-12026 Jun 10 j 10:08	23° <b>II</b> 04'30	7.78511 AU
min. Earth dist.	-12032 Mar 17 j 21:39	29° <b>II</b> 05'43	8.52581 AU	opposition	-12026 Jun 11 j 00:55	23° <b>II</b> 01'25	-0°11'55
direct	-12032 May 24 j 20:58	25° <b>II</b> 47'53		direct	-12026 Aug 15 j 11:31	19° <b>II</b> 33'35	
	-12032 Aug 04 j 18:08	0° <b>III</b>		evening set	-12026 Nov 26 j 10:55	27° <b>II</b> 57'23	
evening set	-12032 Sep 02 j 07:28	3° <b>III</b> 19'04			-12026 Dec 11 j 17:22	0° <b>III</b>	
conjunction	-12032 Sep 18 j 22:24	5° <b>III</b> 24'20	2°20'47	conjunction	-12026 Dec 14 j 11:39	0° <b>III</b> 22'22	-0°27'59
minimum elong	-12032 Sep 18 j 22:26	5° <b>III</b> 24'20	2°21'29	minimum elong	-12026 Dec 14 j 11:37	0° <b>III</b> 22'21	0°27'57
max. Earth dist.	-12032 Sep 18 j 02:49	5° <b>III</b> 18'08	10.44038 AU	max. Earth dist.	-12026 Dec 15 j 10:02	0° <b>III</b> 29'55	9.77638 AU
morning rise	-12032 Oct 05 j 17:13	7° <b>III</b> 30'55		morning rise	-12025 Jan 01 j 16:59	2° <b>III</b> 48'47	
retrograde	-12031 Jan 19 j 16:39	15° <b>III</b> 27'59		retrograde	-12025 Apr 19 j 22:29	11° <b>III</b> 35'22	
opposition	-12031 Mar 30 j 18:02	12° <b>III</b> 01'40	2°47'28	min. Earth dist.	-12025 Jun 25 j 07:34	8° <b>III</b> 06'22	7.77937 AU
min. Earth dist.	-12031 Mar 31 j 08:30	11° <b>III</b> 58'51	8.35700 AU	opposition	-12025 Jun 26 j 02:54	8° <b>III</b> 02'18	-0°58'42
direct	-12031 Jun 06 j 18:39	8° <b>III</b> 39'09		direct	-12025 Aug 30 j 14:08	4° <b>III</b> 33'43	
evening set	-12031 Sep 15 j 07:34	16° <b>III</b> 20'19		evening set	-12025 Dec 12 j 07:18	13° <b>III</b> 00'13	
conjunction	-12031 Oct 02 j 03:14	18° <b>III</b> 29'19	2°07'39	conjunction	-12025 Dec 30 j 10:56	15° <b>III</b> 25'34	-1°03'58
minimum elong	-12031 Oct 02 j 03:17	18° <b>III</b> 29'21	2°08'19	minimum elong	-12025 Dec 30 j 10:53	15° <b>III</b> 25'33	1°04'08
max. Earth dist.	-12031 Oct 01 j 13:46	18° <b>III</b> 24'59	10.27383 AU	max. Earth dist.	-12025 Dec 31 j 15:10	15° <b>III</b> 35'03	9.79266 AU
morning rise	-12031 Oct 19 j 03:28	20° <b>III</b> 39'54		morning rise	-12024 Jan 17 j 17:50	17° <b>III</b> 51'53	
retrograde	-12030 Feb 03 j 03:41	28° <b>III</b> 51'09		retrograde	-12024 May 04 j 04:32	26° <b>III</b> 33'25	
opposition	-12030 Apr 13 j 19:19	25° <b>III</b> 22'51	2°27'00	min. Earth dist.	-12024 Jul 09 j 02:35	23° <b>III</b> 05'47	7.81817 AU
min. Earth dist.	-12030 Apr 14 j 03:49	25° <b>III</b> 21'10	8.19435 AU	opposition	-12024 Jul 10 j 01:31	23° <b>III</b> 00'58	-1°41'16
direct	-12030 Jun 20 j 02:38	21° <b>III</b> 59'17		direct	-12024 Sep 13 j 18:28	19° <b>III</b> 31'51	
evening set	-12030 Sep 28 j 20:47	29° <b>III</b> 50'43		evening set	-12024 Dec 27 j 04:58	27° <b>III</b> 57'58	
	-12030 Sep 30 j 01:42	0° <b>IV</b>			-12023 Jan 11 j 14:31	0° <b>IV</b>	
conjunction	-12030 Oct 15 j 22:11	2° <b>IV</b> 03'43	1°47'06	conjunction	-12023 Jan 14 j 09:41	0° <b>IV</b> 22'21	-1°35'25
minimum elong	-12030 Oct 15 j 22:15	2° <b>IV</b> 03'44	1°47'43	minimum elong	-12023 Jan 14 j 09:36	0° <b>IV</b> 22'20	1°35'44
max. Earth dist.	-12030 Oct 15 j 15:15	2° <b>IV</b> 01'27	10.11802 AU	max. Earth dist.	-12023 Jan 15 j 17:56	0° <b>IV</b> 33'05	9.85250 AU
morning rise	-12030 Nov 02 j 04:52	4° <b>IV</b> 18'29		morning rise	-12023 Feb 01 j 16:05	2° <b>IV</b> 47'12	
retrograde	-12029 Feb 18 j 01:37	12° <b>IV</b> 42'50		retrograde	-12023 May 19 j 01:52	11° <b>IV</b> 19'41	
opposition	-12029 Apr 28 j 05:36	9° <b>IV</b> 12'44	1°57'18	opposition	-12023 Jul 24 j 18:17	7° <b>IV</b> 48'21	-2°16'24
min. Earth dist.	-12029 Apr 28 j 07:51	9° <b>IV</b> 12'17	8.04709 AU	min. Earth dist.	-12023 Jul 23 j 17:12	7° <b>IV</b> 53'37	7.89863 AU
direct	-12029 Jul 03 j 20:45	5° <b>IV</b> 48'04		direct	-12023 Sep 28 j 21:06	4° <b>IV</b> 19'00	
evening set	-12029 Oct 12 j 23:39	13° <b>IV</b> 49'31		evening set	-12022 Jan 11 j 22:54	12° <b>IV</b> 41'30	
	-12029 Oct 21 j 22:41	15° <b>IV</b>			-12022 Jan 29 j 15:25	15° <b>IV</b>	
conjunction	-12029 Oct 30 j 07:26	16° <b>IV</b> 06'29	1°19'41	conjunction	-12022 Jan 30 j 03:03	15° <b>IV</b> 03'49	-2°00'07
minimum elong	-12029 Oct 30 j 07:30	16° <b>IV</b> 06'30	1°20'12	minimum elong	-12022 Jan 30 j 02:59	15° <b>IV</b> 03'48	2°00'35
max. Earth dist.	-12029 Oct 30 j 07:30	16° <b>IV</b> 06'30	9.98218 AU	max. Earth dist.	-12022 Jan 31 j 13:02	15° <b>IV</b> 14'59	9.95145 AU

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 32

Attention, astronomical year style is used: The year -12022 in astronomical counting style is the year 12023 BCE in historical counting style.

morning rise	-12022 Feb 17 j 07:18	17° $\mathbb{M}$ 26'04		morning rise	-12016 May 09 j 03:25	5° $\approx$ 51'40	
retrograde	-12022 Jun 02 j 12:19	25° $\mathbb{M}$ 46'21		retrograde	-12016 Aug 15 j 19:10	12° $\approx$ 50'37	
min. Earth dist.	-12022 Aug 07 j 01:33	22° $\mathbb{M}$ 21'51	8.01465 AU	opposition	-12016 Oct 22 j 20:27	9° $\approx$ 32'36	-1°55'16
opposition	-12022 Aug 08 j 02:53	22° $\mathbb{M}$ 16'35	-2°41'55	min. Earth dist.	-12016 Oct 22 j 17:51	9° $\approx$ 33'06	8.94739 AU
direct	-12022 Oct 13 j 18:39	18° $\mathbb{M}$ 47'16		direct	-12015 Jan 01 j 18:44	6° $\approx$ 08'20	
evening set	-12021 Jan 27 j 09:05	27° $\mathbb{M}$ 03'19		evening set	-12015 Apr 16 j 15:39	13° $\approx$ 25'14	
					-12015 Apr 30 j 06:43	15° $\approx$	
conjunction	-12021 Feb 14 j 11:25	29° $\mathbb{M}$ 22'46	-2°16'46	conjunction	-12015 May 03 j 23:37	15° $\approx$ 25'59	-1°22'05
minimum elong	-12021 Feb 14 j 11:22	29° $\mathbb{M}$ 22'45	2°17'20	minimum elong	-12015 May 03 j 23:40	15° $\approx$ 26'00	1°22'37
max. Earth dist.	-12021 Feb 15 j 20:32	29° $\mathbb{M}$ 33'28	10.08208 AU	max. Earth dist.	-12015 May 03 j 23:40	15° $\approx$ 26'00	11.01116 AU
	-12021 Feb 19 j 06:41	0° $\mathbb{X}$		morning rise	-12015 May 21 j 02:12	17° $\approx$ 25'13	
morning rise	-12021 Mar 04 j 12:22	1° $\mathbb{X}$ 41'40		retrograde	-12015 Aug 27 j 05:03	24° $\approx$ 15'36	
retrograde	-12021 Jun 16 j 11:20	9° $\mathbb{X}$ 47'37		opposition	-12015 Nov 03 j 15:49	20° $\approx$ 58'57	-1°25'31
min. Earth dist.	-12021 Aug 21 j 02:15	6° $\mathbb{X}$ 24'36	8.15767 AU	min. Earth dist.	-12015 Nov 03 j 18:44	20° $\approx$ 58'24	9.06932 AU
opposition	-12021 Aug 22 j 01:50	6° $\mathbb{X}$ 19'44	-2°56'46	direct	-12014 Jan 14 j 00:59	17° $\approx$ 35'45	
direct	-12021 Oct 28 j 09:57	2° $\mathbb{X}$ 50'45		evening set	-12014 Apr 28 j 11:14	24° $\approx$ 44'49	
evening set	-12020 Feb 11 j 07:55	10° $\mathbb{X}$ 58'08					
conjunction	-12020 Feb 29 j 07:35	13° $\mathbb{X}$ 14'14	-2°24'54	conjunction	-12014 May 15 j 15:53	26° $\approx$ 43'25	-0°56'43
minimum elong	-12020 Feb 29 j 07:33	13° $\mathbb{X}$ 14'13	2°25'32	minimum elong	-12014 May 15 j 15:55	26° $\approx$ 43'25	0°57'07
max. Earth dist.	-12020 Mar 01 j 13:21	13° $\mathbb{X}$ 23'41	10.23498 AU	max. Earth dist.	-12014 May 15 j 09:14	26° $\approx$ 41'29	11.12164 AU
morning rise	-12020 Mar 18 j 04:41	15° $\mathbb{X}$ 29'25		morning rise	-12014 Jun 01 j 15:27	28° $\approx$ 40'34	
retrograde	-12020 Jun 28 j 20:37	23° $\mathbb{X}$ 20'09			-12014 Jun 13 j 13:50	0° $\mathbb{H}$	
opposition	-12020 Sep 03 j 14:42	19° $\mathbb{X}$ 54'21	-3°01'03	retrograde	-12014 Sep 07 j 08:49	5° $\mathbb{H}$ 24'35	
min. Earth dist.	-12020 Sep 02 j 18:30	19° $\mathbb{X}$ 58'27	8.31772 AU	opposition	-12014 Nov 15 j 06:43	2° $\mathbb{H}$ 08'56	-0°53'15
direct	-12020 Nov 10 j 17:16	16° $\mathbb{X}$ 25'57		min. Earth dist.	-12014 Nov 15 j 14:14	2° $\mathbb{H}$ 07'33	9.16729 AU
evening set	-12019 Feb 24 j 17:04	24° $\mathbb{X}$ 23'13			-12014 Dec 16 j 15:30	30° $\mathbb{R}$ $\approx$	
conjunction	-12019 Mar 14 j 13:39	26° $\mathbb{X}$ 35'49	-2°24'49	direct	-12013 Jan 26 j 02:29	28° $\approx$ 46'44	
minimum elong	-12019 Mar 14 j 13:40	26° $\mathbb{X}$ 35'50	2°25'30		-12013 Mar 07 j 00:41	0° $\mathbb{H}$	
max. Earth dist.	-12019 Mar 15 j 13:49	26° $\mathbb{X}$ 43'21	10.39982 AU	evening set	-12013 May 09 j 22:47	5° $\mathbb{H}$ 49'24	
morning rise	-12019 Apr 01 j 06:49	28° $\mathbb{X}$ 47'17		conjunction	-12013 May 27 j 00:11	7° $\mathbb{H}$ 46'12	-0°29'40
	-12019 Apr 11 j 09:21	0° $\mathbb{Z}$		minimum elong	-12013 May 27 j 00:12	7° $\mathbb{H}$ 46'13	0°29'57
retrograde	-12019 Jul 11 j 16:26	6° $\mathbb{Z}$ 23'04		max. Earth dist.	-12013 May 26 j 12:19	7° $\mathbb{H}$ 42'48	11.20636 AU
opposition	-12019 Sep 16 j 17:18	2° $\mathbb{Z}$ 59'25	-2°55'37	morning rise	-12013 Jun 12 j 20:45	9° $\mathbb{H}$ 41'41	
min. Earth dist.	-12019 Sep 16 j 01:04	3° $\mathbb{Z}$ 02'40	8.48455 AU	retrograde	-12013 Sep 18 j 12:29	16° $\mathbb{H}$ 21'35	
	-12019 Nov 01 j 05:08	30° $\mathbb{R}$ $\mathbb{X}$		opposition	-12013 Nov 26 j 18:37	13° $\mathbb{H}$ 06'35	-0°19'40
direct	-12019 Nov 24 j 15:18	29° $\mathbb{X}$ 31'51		min. Earth dist.	-12013 Nov 27 j 05:49	13° $\mathbb{H}$ 04'31	9.23812 AU
	-12019 Dec 18 j 01:16	0° $\mathbb{Z}$		direct	-12012 Feb 06 j 21:11	9° $\mathbb{H}$ 45'19	
evening set	-12018 Mar 10 j 12:14	7° $\mathbb{Z}$ 18'29		evening set	-12012 May 20 j 04:15	16° $\mathbb{H}$ 43'06	
conjunction	-12018 Mar 28 j 05:41	9° $\mathbb{Z}$ 27'44	-2°17'21	max. Earth dist.	-12012 Jun 05 j 10:47	18° $\mathbb{H}$ 34'02	11.26268 AU
minimum elong	-12018 Mar 28 j 05:43	9° $\mathbb{Z}$ 27'44	2°18'03	conjunction	-12012 Jun 06 j 02:33	18° $\mathbb{H}$ 38'32	-0°01'57
max. Earth dist.	-12018 Mar 28 j 23:30	9° $\mathbb{Z}$ 33'10	10.56695 AU	minimum elong	-12012 Jun 06 j 02:31	18° $\mathbb{H}$ 38'32	0°02'06
morning rise	-12018 Apr 14 j 18:59	11° $\mathbb{Z}$ 35'38		behind sun begin	-12012 Jun 05 j 19:31	18° $\mathbb{H}$ 36'33	
retrograde	-12018 Jul 24 j 02:08	18° $\mathbb{Z}$ 57'31		behind sun end	-12012 Jun 06 j 09:31	18° $\mathbb{H}$ 40'30	
opposition	-12018 Sep 29 j 10:16	15° $\mathbb{Z}$ 35'57	-2°41'49	morning rise	-12012 Jun 22 j 20:09	20° $\mathbb{H}$ 32'45	
min. Earth dist.	-12018 Sep 28 j 22:06	15° $\mathbb{Z}$ 38'20	8.64952 AU	asc. node	-12012 Jul 02 j 00:22	21° $\mathbb{H}$ 33'28	
direct	-12018 Dec 08 j 02:11	12° $\mathbb{Z}$ 09'25		retrograde	-12012 Sep 28 j 13:41	27° $\mathbb{H}$ 10'43	
evening set	-12017 Mar 23 j 17:44	19° $\mathbb{Z}$ 45'29		opposition	-12012 Dec 07 j 05:00	23° $\mathbb{H}$ 56'03	0°14'12
conjunction	-12017 Apr 10 j 08:05	21° $\mathbb{Z}$ 51'36	-2°03'35	min. Earth dist.	-12012 Dec 07 j 20:23	23° $\mathbb{H}$ 53'14	9.27980 AU
minimum elong	-12017 Apr 10 j 08:08	21° $\mathbb{Z}$ 51'37	2°04'16	direct	-12011 Feb 17 j 09:09	20° $\mathbb{H}$ 35'31	
max. Earth dist.	-12017 Apr 10 j 19:56	21° $\mathbb{Z}$ 55'10	10.72870 AU	evening set	-12011 May 31 j 05:30	27° $\mathbb{H}$ 30'08	
morning rise	-12017 Apr 27 j 17:37	23° $\mathbb{Z}$ 56'14		max. Earth dist.	-12011 Jun 16 j 04:17	29° $\mathbb{H}$ 18'46	11.28903 AU
	-12017 Jun 30 j 13:13	0° $\approx$		conjunction	-12011 Jun 17 j 00:34	29° $\mathbb{H}$ 24'34	0°25'44
retrograde	-12017 Aug 05 j 02:35	1° $\approx$ 05'44		minimum elong	-12011 Jun 17 j 00:33	29° $\mathbb{H}$ 24'34	0°25'42
	-12017 Sep 10 j 04:53	30° $\mathbb{R}$ $\mathbb{Z}$			-12011 Jun 22 j 04:26	0° $\mathbb{Y}$	
opposition	-12017 Oct 11 j 18:57	27° $\mathbb{Z}$ 46'03	-2°21'11	morning rise	-12011 Jul 03 j 15:38	1° $\mathbb{Y}$ 17'59	
min. Earth dist.	-12017 Oct 11 j 11:04	27° $\mathbb{Z}$ 47'35	8.80577 AU	retrograde	-12011 Oct 09 j 16:06	7° $\mathbb{Y}$ 56'15	
direct	-12017 Dec 21 j 03:08	24° $\mathbb{Z}$ 20'39		opposition	-12011 Dec 18 j 15:26	4° $\mathbb{Y}$ 41'34	0°47'23
	-12016 Mar 19 j 16:06	0° $\approx$		min. Earth dist.	-12011 Dec 19 j 10:59	4° $\mathbb{Y}$ 38'00	9.29112 AU
evening set	-12016 Apr 04 j 10:19	1° $\approx$ 46'40		direct	-12010 Feb 28 j 20:10	1° $\mathbb{Y}$ 21'38	
conjunction	-12016 Apr 21 j 21:32	3° $\approx$ 49'56	-1°44'46	evening set	-12010 Jun 11 j 04:29	8° $\mathbb{Y}$ 14'47	
minimum elong	-12016 Apr 21 j 21:36	3° $\approx$ 49'57	1°45'23	conjunction	-12010 Jun 27 j 20:25	10° $\mathbb{Y}$ 08'38	0°52'22
max. Earth dist.	-12016 Apr 22 j 03:58	3° $\approx$ 51'51	10.87863 AU	minimum elong	-12010 Jun 27 j 20:23	10° $\mathbb{Y}$ 08'38	0°52'28



Attention, astronomical year style is used: The year -12010 in astronomical counting style is the year 12011 BCE in historical counting style.

max. Earth dist.	-12010 Jun 26 j 19:57	10° $\Upsilon$ 01'37	11.28472 AU	retrograde	-12004 Dec 31 j 08:04	27° $\Pi$ 25'40	
morning rise	-12010 Jul 14 j 09:16	12° $\Upsilon$ 01'41		opposition	-12003 Mar 11 j 18:47	24° $\Pi$ 02'43	3°00'28
retrograde	-12010 Oct 20 j 19:46	18° $\Upsilon$ 42'27		min. Earth dist.	-12003 Mar 12 j 13:51	23° $\Pi$ 59'05	8.60715 AU
opposition	-12010 Dec 30 j 03:19	15° $\Upsilon$ 27'24	1°18'56	direct	-12003 May 19 j 20:37	20° $\Pi$ 42'04	
min. Earth dist.	-12010 Dec 31 j 01:26	15° $\Upsilon$ 23'22	9.27177 AU	evening set	-12003 Aug 28 j 07:56	28° $\Pi$ 09'00	
direct	-12009 Mar 12 j 05:01	12° $\Upsilon$ 07'54			-12003 Sep 12 j 04:39	0° $\Theta$	
evening set	-12009 Jun 22 j 02:49	19° $\Upsilon$ 01'18					
conjunction	-12009 Jul 08 j 16:09	20° $\Upsilon$ 55'01	1°17'15	conjunction	-12003 Sep 13 j 21:08	0° $\Theta$ 12'42	2°24'05
minimum elong	-12009 Jul 08 j 16:06	20° $\Upsilon$ 55'00	1°17'28	minimum elong	-12003 Sep 13 j 21:09	0° $\Theta$ 12'42	2°24'46
max. Earth dist.	-12009 Jul 07 j 13:50	20° $\Upsilon$ 47'25	11.24994 AU	max. Earth dist.	-12003 Sep 13 j 00:16	0° $\Theta$ 06'09	10.52401 AU
morning rise	-12009 Jul 25 j 03:03	22° $\Upsilon$ 48'10		morning rise	-12003 Sep 30 j 13:46	2° $\Theta$ 17'34	
retrograde	-12009 Nov 01 j 06:58	29° $\Upsilon$ 33'34		retrograde	-12002 Jan 14 j 03:26	10° $\Theta$ 08'10	
opposition	-12008 Jan 10 j 18:19	26° $\Upsilon$ 17'51	1°47'58	opposition	-12002 Mar 25 j 06:31	6° $\Theta$ 43'17	2°53'13
min. Earth dist.	-12008 Jan 11 j 17:45	26° $\Upsilon$ 13'35	9.22232 AU	min. Earth dist.	-12002 Mar 25 j 21:56	6° $\Theta$ 40'19	8.44229 AU
direct	-12008 Mar 22 j 15:26	22° $\Upsilon$ 58'38		direct	-12002 Jun 01 j 13:15	3° $\Theta$ 21'47	
evening set	-12008 Jul 02 j 02:18	29° $\Upsilon$ 53'54		evening set	-12002 Sep 10 j 02:51	10° $\Theta$ 58'17	
	-12008 Jul 02 j 23:43	0° $\Upsilon$		conjunction	-12002 Sep 26 j 20:04	13° $\Theta$ 05'28	2°14'06
max. Earth dist.	-12008 Jul 17 j 10:01	1° $\Upsilon$ 39'59	11.18562 AU	minimum elong	-12002 Sep 26 j 20:07	13° $\Theta$ 05'29	2°14'47
conjunction	-12008 Jul 18 j 13:30	1° $\Upsilon$ 47'59	1°39'35	max. Earth dist.	-12002 Sep 26 j 03:39	13° $\Theta$ 00'14	10.35934 AU
minimum elong	-12008 Jul 18 j 13:27	1° $\Upsilon$ 47'58	1°39'56	morning rise	-12002 Oct 13 j 17:50	15° $\Theta$ 14'09	
morning rise	-12008 Aug 03 j 22:58	3° $\Upsilon$ 41'43		retrograde	-12001 Jan 28 j 08:39	23° $\Theta$ 18'52	
retrograde	-12008 Nov 11 j 22:27	10° $\Upsilon$ 33'49		opposition	-12001 Apr 08 j 03:58	19° $\Theta$ 52'02	2°36'44
opposition	-12007 Jan 21 j 13:52	7° $\Upsilon$ 17'09	2°13'31	min. Earth dist.	-12001 Apr 08 j 15:02	19° $\Theta$ 49'51	8.27903 AU
min. Earth dist.	-12007 Jan 22 j 14:28	7° $\Upsilon$ 12'39	9.14411 AU	direct	-12001 Jun 14 j 17:32	16° $\Theta$ 29'30	
direct	-12007 Apr 03 j 00:30	3° $\Upsilon$ 58'02		evening set	-12001 Sep 23 j 10:19	24° $\Theta$ 16'01	
evening set	-12007 Jul 13 j 04:59	10° $\Upsilon$ 56'50		conjunction	-12001 Oct 10 j 08:54	26° $\Theta$ 27'03	1°56'41
max. Earth dist.	-12007 Jul 28 j 09:19	12° $\Upsilon$ 43'08	11.09366 AU	minimum elong	-12001 Oct 10 j 08:58	26° $\Theta$ 27'05	1°57'20
conjunction	-12007 Jul 29 j 14:28	12° $\Upsilon$ 51'43	1°58'33	max. Earth dist.	-12001 Oct 09 j 22:24	26° $\Theta$ 23'39	10.20021 AU
minimum elong	-12007 Jul 29 j 14:25	12° $\Upsilon$ 51'42	1°59'01	morning rise	-12001 Oct 27 j 12:46	28° $\Theta$ 39'49	
morning rise	-12007 Aug 14 j 23:21	14° $\Upsilon$ 46'35			-12001 Nov 07 j 05:07	0° $\Omega$	
	-12007 Aug 16 j 22:03	15° $\Upsilon$		retrograde	-12000 Feb 12 j 00:57	6° $\Omega$ 58'00	
retrograde	-12007 Nov 23 j 21:12	21° $\Upsilon$ 47'20		opposition	-12000 Apr 21 j 10:22	3° $\Omega$ 29'18	2°10'55
opposition	-12006 Feb 02 j 15:14	18° $\Upsilon$ 29'26	2°34'36	min. Earth dist.	-12000 Apr 21 j 16:25	3° $\Omega$ 28'05	8.12529 AU
min. Earth dist.	-12006 Feb 03 j 16:52	18° $\Upsilon$ 24'43	9.03952 AU	direct	-12000 Jun 27 j 08:22	0° $\Omega$ 05'39	
direct	-12006 Apr 14 j 14:30	15° $\Upsilon$ 10'13		evening set	-12000 Oct 06 j 07:07	8° $\Omega$ 02'15	
evening set	-12006 Jul 24 j 12:23	22° $\Upsilon$ 14'07		conjunction	-12000 Oct 23 j 12:00	10° $\Omega$ 17'18	1°32'06
conjunction	-12006 Aug 09 j 21:01	24° $\Upsilon$ 10'22	2°13'19	minimum elong	-12000 Oct 23 j 12:04	10° $\Omega$ 17'19	1°32'40
minimum elong	-12006 Aug 09 j 20:58	24° $\Upsilon$ 10'21	2°13'52	max. Earth dist.	-12000 Oct 23 j 08:33	10° $\Omega$ 16'10	10.05455 AU
max. Earth dist.	-12006 Aug 08 j 15:58	24° $\Upsilon$ 01'42	10.97702 AU	morning rise	-12000 Nov 09 j 22:30	12° $\Omega$ 34'13	
morning rise	-12006 Aug 26 j 06:12	26° $\Upsilon$ 06'52			-12000 Nov 29 j 10:01	15° $\Omega$	
	-12006 Oct 01 j 13:35	0° $\Pi$		retrograde	-11999 Feb 26 j 03:36	21° $\Omega$ 04'26	
retrograde	-12006 Dec 06 j 05:55	3° $\Pi$ 18'07		opposition	-11999 May 06 j 01:00	17° $\Omega$ 34'05	1°36'23
opposition	-12005 Feb 14 j 23:57	29° $\Upsilon$ 58'44	2°50'10	min. Earth dist.	-11999 May 06 j 01:02	17° $\Omega$ 34'05	7.98940 AU
	-12005 Feb 14 j 17:09	30° $\Upsilon$			-11999 Jun 10 j 23:00	15° $\Upsilon$	
min. Earth dist.	-12005 Feb 16 j 00:48	29° $\Upsilon$ 54'08	8.91199 AU	direct	-11999 Jul 11 j 08:30	14° $\Omega$ 09'19	
direct	-12005 Apr 26 j 10:02	26° $\Upsilon$ 39'13		evening set	-11999 Aug 10 j 04:13	15° $\Omega$	
	-12005 Jun 30 j 19:57	0° $\Pi$			-11999 Oct 20 j 17:29	22° $\Omega$ 15'36	
evening set	-12005 Aug 05 j 02:03	3° $\Pi$ 49'36		conjunction	-11999 Nov 07 j 04:57	24° $\Omega$ 34'29	1°01'16
max. Earth dist.	-12005 Aug 20 j 08:14	5° $\Pi$ 39'38	10.83962 AU	minimum elong	-11999 Nov 07 j 05:00	24° $\Omega$ 34'30	1°01'42
conjunction	-12005 Aug 21 j 11:04	5° $\Pi$ 47'46	2°23'02	max. Earth dist.	-11999 Nov 07 j 09:12	24° $\Omega$ 35'54	9.93130 AU
minimum elong	-12005 Aug 21 j 11:02	5° $\Pi$ 47'46	2°23'39	morning rise	-11999 Nov 24 j 22:07	26° $\Omega$ 55'16	
morning rise	-12005 Sep 06 j 21:27	7° $\Pi$ 46'30			-11999 Dec 19 j 14:31	0° $\Upsilon$	
retrograde	-12005 Dec 19 j 00:44	15° $\Pi$ 09'50		retrograde	-11998 Mar 13 j 13:55	5° $\Upsilon$ 35'04	
opposition	-12004 Feb 27 j 16:54	11° $\Pi$ 48'44	2°59'09	opposition	-11998 May 20 j 22:16	2° $\Upsilon$ 03'25	0°54'40
min. Earth dist.	-12004 Feb 28 j 15:16	11° $\Pi$ 44'33	8.76599 AU	min. Earth dist.	-11998 May 20 j 15:47	2° $\Upsilon$ 04'45	7.88097 AU
direct	-12004 May 07 j 11:37	8° $\Pi$ 28'45		direct	-11998 Jun 16 j 18:54	30° $\Upsilon$	
evening set	-12004 Aug 16 j 00:05	15° $\Pi$ 46'53			-11998 Jul 25 j 17:38	28° $\Omega$ 37'30	
max. Earth dist.	-12004 Aug 31 j 10:39	17° $\Pi$ 40'10	10.68652 AU	evening set	-11998 Sep 01 j 19:39	0° $\Upsilon$	
					-11998 Nov 04 j 17:03	6° $\Upsilon$ 52'22	
conjunction	-12004 Sep 01 j 10:36	17° $\Pi$ 47'33	2°26'52	conjunction	-11998 Nov 22 j 10:46	9° $\Upsilon$ 14'29	0°25'49
minimum elong	-12004 Sep 01 j 10:36	17° $\Pi$ 47'33	2°27'32	minimum elong	-11998 Nov 22 j 10:48	9° $\Upsilon$ 14'29	0°26'06
morning rise	-12004 Sep 17 j 23:25	19° $\Pi$ 49'04		max. Earth dist.	-11998 Nov 22 j 22:51	9° $\Upsilon$ 18'32	9.84005 AU

## Planetary Phenomena of Saturn from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34

Attention, astronomical year style is used: The year -11998 in astronomical counting style is the year 11999 BCE in historical counting style.

morning rise	-11998 Dec 10 j 09:56	11° $\mathring{M}$ 38'24			-11992 Aug 23 j 07:10	30° $\mathring{R}$ $\mathring{M}$	
retrograde	-11997 Mar 29 j 04:27	20° $\mathring{M}$ 24'11	direct		-11992 Oct 21 j 16:26	27° $\mathring{M}$ 08'23	
opposition	-11997 Jun 04 j 23:35	16° $\mathring{M}$ 51'38	0°08'23		-11992 Dec 18 j 15:47	0° $\mathring{J}$	
min. Earth dist.	-11997 Jun 04 j 11:07	16° $\mathring{M}$ 54'13	7.80890 AU	evening set	-11991 Feb 04 j 10:17	5° $\mathring{J}$ 20'17	
direct	-11997 Aug 09 j 11:29	13° $\mathring{M}$ 24'34					
desc. node	-11997 Aug 10 j 07:06	13° $\mathring{M}$ 24'36		conjunction	-11991 Feb 22 j 11:12	7° $\mathring{J}$ 38'03	-2°22'32
evening set	-11997 Nov 20 j 03:44	21° $\mathring{M}$ 46'08		minimum elong	-11991 Feb 22 j 11:10	7° $\mathring{J}$ 38'02	2°23'09
				max. Earth dist.	-11991 Feb 23 j 17:04	7° $\mathring{J}$ 47'37	10.15115 AU
conjunction	-11997 Dec 08 j 02:41	24° $\mathring{M}$ 10'30	-0°11'56	morning rise	-11991 Mar 12 j 10:15	9° $\mathring{J}$ 55'05	
minimum elong	-11997 Dec 08 j 02:40	24° $\mathring{M}$ 10'30	0°11'50	retrograde	-11991 Jun 23 j 14:12	17° $\mathring{J}$ 53'03	
behind sun begin	-11997 Dec 07 j 21:36	24° $\mathring{M}$ 08'48		min. Earth dist.	-11991 Aug 28 j 09:47	14° $\mathring{J}$ 30'16	8.23040 AU
behind sun end	-11997 Dec 08 j 07:43	24° $\mathring{M}$ 12'11		opposition	-11991 Aug 29 j 07:48	14° $\mathring{J}$ 25'46	-3°00'39
max. Earth dist.	-11997 Dec 08 j 22:01	24° $\mathring{M}$ 17'01	9.78839 AU	direct	-11991 Nov 05 j 03:53	10° $\mathring{J}$ 56'30	
morning rise	-11997 Dec 26 j 06:25	26° $\mathring{M}$ 36'25		evening set	-11990 Feb 19 j 01:31	18° $\mathring{J}$ 58'52	
	-11996 Jan 22 j 07:27	0° $\mathring{J}$					
retrograde	-11996 Apr 12 j 18:21	5° $\mathring{J}$ 23'49		conjunction	-11990 Mar 08 j 23:43	21° $\mathring{J}$ 13'12	-2°25'53
min. Earth dist.	-11996 Jun 18 j 08:44	1° $\mathring{J}$ 54'32	7.77917 AU	minimum elong	-11990 Mar 08 j 23:43	21° $\mathring{J}$ 13'12	2°26'34
opposition	-11996 Jun 19 j 02:11	1° $\mathring{J}$ 50'52	-0°39'03	max. Earth dist.	-11990 Mar 10 j 02:31	21° $\mathring{J}$ 21'38	10.31045 AU
	-11996 Jul 12 j 08:42	30° $\mathring{R}$ $\mathring{M}$		morning rise	-11990 Mar 26 j 18:43	23° $\mathring{J}$ 26'29	
direct	-11996 Aug 23 j 12:03	28° $\mathring{M}$ 22'46			-11990 May 31 j 19:23	0° $\mathring{J}$	
	-11996 Oct 03 j 21:37	0° $\mathring{J}$		retrograde	-11990 Jul 06 j 16:17	1° $\mathring{J}$ 09'19	
evening set	-11996 Dec 04 j 22:08	6° $\mathring{J}$ 48'28			-11990 Aug 11 j 22:34	30° $\mathring{R}$ $\mathring{J}$	
				opposition	-11990 Sep 11 j 14:51	27° $\mathring{J}$ 44'06	-2°59'14
conjunction	-11996 Dec 23 j 00:40	9° $\mathring{J}$ 13'49	-0°49'02	min. Earth dist.	-11990 Sep 10 j 19:47	27° $\mathring{J}$ 47'58	8.39488 AU
minimum elong	-11996 Dec 23 j 00:37	9° $\mathring{J}$ 13'48	0°49'07	direct	-11990 Nov 19 j 05:19	24° $\mathring{J}$ 15'35	
max. Earth dist.	-11996 Dec 24 j 02:01	9° $\mathring{J}$ 22'21	9.78062 AU		-11989 Feb 15 j 00:16	0° $\mathring{J}$	
morning rise	-11995 Jan 10 j 06:59	11° $\mathring{J}$ 40'20		evening set	-11989 Mar 05 j 02:59	2° $\mathring{J}$ 07'24	
retrograde	-11995 Apr 28 j 03:39	20° $\mathring{J}$ 24'47					
min. Earth dist.	-11995 Jul 03 j 05:54	16° $\mathring{J}$ 56'25	7.79426 AU	conjunction	-11989 Mar 22 j 22:04	4° $\mathring{J}$ 18'17	-2°21'27
opposition	-11995 Jul 04 j 02:52	16° $\mathring{J}$ 52'00	-1°23'52	minimum elong	-11989 Mar 22 j 22:06	4° $\mathring{J}$ 18'17	2°22'09
direct	-11995 Sep 07 j 15:56	13° $\mathring{J}$ 23'03		max. Earth dist.	-11989 Mar 23 j 20:21	4° $\mathring{J}$ 25'09	10.47836 AU
evening set	-11995 Dec 20 j 19:53	21° $\mathring{J}$ 49'50		morning rise	-11989 Apr 09 j 13:00	6° $\mathring{J}$ 27'51	
				retrograde	-11989 Jul 19 j 07:45	13° $\mathring{J}$ 56'05	
conjunction	-11994 Jan 08 j 00:13	24° $\mathring{J}$ 14'51	-1°22'44	opposition	-11989 Sep 24 j 12:01	10° $\mathring{J}$ 33'02	-2°48'48
minimum elong	-11994 Jan 08 j 00:08	24° $\mathring{J}$ 14'49	1°23'00	min. Earth dist.	-11989 Sep 23 j 21:17	10° $\mathring{J}$ 35'58	8.56348 AU
max. Earth dist.	-11994 Jan 09 j 05:43	24° $\mathring{J}$ 24'42	9.81750 AU	direct	-11989 Dec 02 j 19:26	7° $\mathring{J}$ 05'30	
morning rise	-11994 Jan 26 j 07:04	26° $\mathring{J}$ 40'32		evening set	-11988 Mar 17 j 14:20	14° $\mathring{J}$ 46'27	
	-11994 Feb 22 j 00:06	0° $\mathring{M}$					
retrograde	-11994 May 13 j 05:14	5° $\mathring{M}$ 17'41		conjunction	-11988 Apr 04 j 06:09	16° $\mathring{J}$ 54'02	-2°10'14
opposition	-11994 Jul 18 j 22:38	1° $\mathring{M}$ 45'37	-2°02'33	minimum elong	-11988 Apr 04 j 06:12	16° $\mathring{J}$ 54'03	2°10'54
min. Earth dist.	-11994 Jul 17 j 23:41	1° $\mathring{M}$ 50'27	7.85292 AU	max. Earth dist.	-11988 Apr 04 j 22:21	16° $\mathring{J}$ 58'56	10.64624 AU
	-11994 Aug 09 j 21:44	30° $\mathring{R}$ $\mathring{J}$		morning rise	-11988 Apr 21 j 17:15	19° $\mathring{J}$ 00'09	
direct	-11994 Sep 22 j 19:55	28° $\mathring{J}$ 16'04		retrograde	-11988 Jul 30 j 11:23	26° $\mathring{J}$ 15'03	
	-11994 Nov 05 j 05:24	0° $\mathring{M}$		opposition	-11988 Oct 06 j 00:12	22° $\mathring{J}$ 54'06	-2°30'51
evening set	-11993 Jan 05 j 16:10	6° $\mathring{M}$ 40'46		min. Earth dist.	-11988 Oct 05 j 14:16	22° $\mathring{J}$ 56'02	8.72812 AU
				direct	-11988 Dec 15 j 00:50	19° $\mathring{J}$ 27'43	
conjunction	-11993 Jan 23 j 20:38	9° $\mathring{M}$ 04'12	-1°50'32	evening set	-11987 Mar 30 j 12:05	26° $\mathring{J}$ 58'08	
minimum elong	-11993 Jan 23 j 20:33	9° $\mathring{M}$ 04'11	1°50'57				
max. Earth dist.	-11993 Jan 25 j 04:11	9° $\mathring{M}$ 14'38	9.89599 AU	conjunction	-11987 Apr 17 j 00:38	29° $\mathring{J}$ 02'40	-1°53'24
morning rise	-11993 Feb 11 j 02:09	11° $\mathring{M}$ 27'49		minimum elong	-11987 Apr 17 j 00:41	29° $\mathring{J}$ 02'41	1°54'02
	-11993 Mar 12 j 00:06	15° $\mathring{M}$		max. Earth dist.	-11987 Apr 17 j 10:03	29° $\mathring{J}$ 05'28	10.80641 AU
retrograde	-11993 May 27 j 20:24	19° $\mathring{M}$ 54'04			-11987 Apr 25 j 01:13	0° $\mathring{M}$	
min. Earth dist.	-11993 Aug 01 j 11:23	16° $\mathring{M}$ 28'12	7.95031 AU	morning rise	-11987 May 04 j 08:15	1° $\mathring{M}$ 05'42	
opposition	-11993 Aug 02 j 11:08	16° $\mathring{M}$ 23'13	-2°32'24	retrograde	-11987 Aug 11 j 05:23	8° $\mathring{M}$ 09'01	
	-11993 Aug 19 j 12:20	15° $\mathring{R}$ $\mathring{M}$		opposition	-11987 Oct 18 j 04:19	4° $\mathring{M}$ 49'57	-2°06'58
direct	-11993 Oct 07 j 20:50	12° $\mathring{M}$ 53'25		min. Earth dist.	-11987 Oct 17 j 22:49	4° $\mathring{M}$ 51'01	8.88156 AU
	-11993 Nov 25 j 12:54	15° $\mathring{M}$		direct	-11987 Dec 27 j 21:32	1° $\mathring{M}$ 24'51	
evening set	-11992 Jan 21 j 06:17	21° $\mathring{M}$ 12'59		evening set	-11986 Apr 11 j 21:52	8° $\mathring{M}$ 45'34	
conjunction	-11992 Feb 08 j 09:26	23° $\mathring{M}$ 33'54	-2°10'45	conjunction	-11986 Apr 29 j 07:14	10° $\mathring{M}$ 47'23	-1°32'13
minimum elong	-11992 Feb 08 j 09:22	23° $\mathring{M}$ 33'52	2°11'17	minimum elong	-11986 Apr 29 j 07:17	10° $\mathring{M}$ 47'24	1°32'46
max. Earth dist.	-11992 Feb 09 j 17:02	23° $\mathring{M}$ 44'12	10.00992 AU	max. Earth dist.	-11986 Apr 29 j 10:26	10° $\mathring{M}$ 48'19	10.95217 AU
morning rise	-11992 Feb 26 j 12:08	25° $\mathring{M}$ 54'29		morning rise	-11986 May 16 j 11:27	12° $\mathring{M}$ 47'40	
	-11992 Apr 01 j 01:02	0° $\mathring{J}$			-11986 Jun 05 j 09:48	15° $\mathring{M}$	
retrograde	-11992 Jun 09 j 23:54	4° $\mathring{J}$ 07'18		retrograde	-11986 Aug 22 j 18:35	19° $\mathring{M}$ 41'26	
opposition	-11992 Aug 15 j 14:30	0° $\mathring{J}$ 38'05	-2°51'54	opposition	-11986 Oct 30 j 01:45	16° $\mathring{M}$ 24'01	-1°38'38
min. Earth dist.	-11992 Aug 14 j 15:05	0° $\mathring{J}$ 42'57	8.07906 AU	min. Earth dist.	-11986 Oct 30 j 00:32	16° $\mathring{M}$ 24'15	9.01770 AU

Attention, astronomical year style is used: The year -11886 in astronomical counting style is the year 11987 BCE in historical counting style.

	-11986 Nov 18 j 03:05	15° $\approx$	conjunction	-11980 Jul 03 j 11:16	16° $\Upsilon$ 33'04	1°06'56
direct	-11985 Jan 09 j 07:43	13° $\approx$ 00'15	minimum elong	-11980 Jul 03 j 11:13	16° $\Upsilon$ 33'04	1°07'05
	-11985 Mar 01 j 12:29	15° $\approx$	morning rise	-11980 Jul 19 j 22:48	18° $\Upsilon$ 25'56	
evening set	-11985 Apr 23 j 21:15	20° $\approx$ 12'25	retrograde	-11980 Oct 26 j 19:13	25° $\Upsilon$ 08'28	
			opposition	-11979 Jan 05 j 04:16	21° $\Upsilon$ 53'38	1°35'56
conjunction	-11985 May 11 j 03:28	22° $\approx$ 11'53 -1°07'50	min. Earth dist.	-11979 Jan 06 j 04:09	21° $\Upsilon$ 49'18	9.26629 AU
minimum elong	-11985 May 11 j 03:31	22° $\approx$ 11'54 1°08'17	direct	-11979 Mar 18 j 02:42	18° $\Upsilon$ 34'49	
max. Earth dist.	-11985 May 11 j 01:34	22° $\approx$ 11'20 11.07795 AU	evening set	-11979 Jun 27 j 19:40	25° $\Upsilon$ 28'34	
morning rise	-11985 May 28 j 04:18	24° $\approx$ 09'52	max. Earth dist.	-11979 Jul 13 j 02:46	27° $\Upsilon$ 13'55	11.23492 AU
	-11985 Jul 31 j 15:13	0° $\approx$				
retrograde	-11985 Sep 03 j 01:26	0° $\approx$ 56'12	conjunction	-11979 Jul 14 j 07:32	27° $\Upsilon$ 22'15	1°30'26
	-11985 Oct 07 j 01:39	30° $\approx$	minimum elong	-11979 Jul 14 j 07:29	27° $\Upsilon$ 22'14	1°30'43
opposition	-11985 Nov 10 j 18:19	27° $\approx$ 40'10 -1°07'15	morning rise	-11979 Jul 30 j 17:35	29° $\Upsilon$ 15'30	
min. Earth dist.	-11985 Nov 10 j 22:03	27° $\approx$ 39'28 9.13170 AU		-11979 Aug 06 j 08:16	0° $\approx$	
direct	-11984 Jan 21 j 09:40	24° $\approx$ 17'40	retrograde	-11979 Nov 07 j 06:45	6° $\approx$ 03'52	
	-11984 Apr 21 j 23:55	0° $\approx$	opposition	-11978 Jan 16 j 21:27	2° $\approx$ 48'09	2°03'03
evening set	-11984 May 04 j 11:52	1° $\approx$ 22'40	min. Earth dist.	-11978 Jan 17 j 23:22	2° $\approx$ 43'27	9.19783 AU
				-11978 Mar 03 j 20:17	30° $\approx$	
conjunction	-11984 May 21 j 14:47	3° $\approx$ 20'09 -0°41'21	direct	-11978 Mar 29 j 12:28	29° $\Upsilon$ 29'26	
minimum elong	-11984 May 21 j 14:49	3° $\approx$ 20'09 0°41'41		-11978 Apr 23 j 20:46	0° $\approx$	
max. Earth dist.	-11984 May 21 j 07:19	3° $\approx$ 18'00 11.17939 AU	evening set	-11978 Jul 08 j 20:35	6° $\approx$ 26'05	
morning rise	-11984 Jun 07 j 12:31	5° $\approx$ 16'13	max. Earth dist.	-11978 Jul 24 j 01:01	8° $\approx$ 11'45	11.15129 AU
retrograde	-11984 Sep 13 j 05:11	11° $\approx$ 57'23				
opposition	-11984 Nov 21 j 07:18	8° $\approx$ 42'22 -0°34'04	conjunction	-11978 Jul 25 j 06:38	8° $\approx$ 20'24	1°50'55
min. Earth dist.	-11984 Nov 21 j 16:27	8° $\approx$ 40'41 9.21977 AU	minimum elong	-11978 Jul 25 j 06:34	8° $\approx$ 20'23	1°51'20
direct	-11983 Feb 01 j 05:50	5° $\approx$ 21'00	morning rise	-11978 Aug 10 j 15:37	10° $\approx$ 14'34	
evening set	-11983 May 15 j 19:52	12° $\approx$ 20'24		-11978 Sep 27 j 06:05	15° $\approx$	
			retrograde	-11978 Nov 19 j 03:01	17° $\approx$ 10'53	
conjunction	-11983 Jun 01 j 19:23	14° $\approx$ 16'17 -0°13'46		-11977 Jan 13 j 11:46	15° $\approx$	
minimum elong	-11983 Jun 01 j 19:24	14° $\approx$ 16'17 0°13'59	opposition	-11977 Jan 28 j 20:01	13° $\approx$ 53'55	2°26'10
behind sun begin	-11983 Jun 01 j 15:47	14° $\approx$ 15'15	min. Earth dist.	-11977 Jan 29 j 22:02	13° $\approx$ 49'09	9.10026 AU
behind sun end	-11983 Jun 01 j 23:02	14° $\approx$ 17'18	direct	-11977 Apr 10 j 02:04	10° $\approx$ 35'03	
max. Earth dist.	-11983 Jun 01 j 05:42	14° $\approx$ 12'22 11.25320 AU		-11977 Jun 26 j 09:57	15° $\approx$	
morning rise	-11983 Jun 18 j 14:20	16° $\approx$ 10'54	evening set	-11977 Jul 20 j 01:33	17° $\approx$ 36'12	
retrograde	-11983 Sep 24 j 05:28	22° $\approx$ 49'04	max. Earth dist.	-11977 Aug 04 j 04:57	19° $\approx$ 22'56	11.04034 AU
opposition	-11983 Dec 02 j 17:52	19° $\approx$ 34'41 -0°00'10				
min. Earth dist.	-11983 Dec 03 j 07:18	19° $\approx$ 32'13 9.27897 AU	conjunction	-11977 Aug 05 j 10:32	19° $\approx$ 31'41	2°07'34
asc. node	-11983 Dec 04 j 15:33	19° $\approx$ 26'19	minimum elong	-11977 Aug 05 j 10:29	19° $\approx$ 31'41	2°08'05
direct	-11982 Feb 12 j 20:52	16° $\approx$ 14'16	morning rise	-11977 Aug 21 j 19:16	21° $\approx$ 27'18	
evening set	-11982 May 26 j 22:49	23° $\approx$ 09'43	retrograde	-11977 Dec 01 j 08:33	28° $\approx$ 33'25	
			opposition	-11976 Feb 10 j 01:15	25° $\approx$ 14'54	2°44'14
conjunction	-11982 Jun 12 j 19:08	25° $\approx$ 04'23 0°14'05	min. Earth dist.	-11976 Feb 11 j 02:57	25° $\approx$ 10'10	8.97722 AU
minimum elong	-11982 Jun 12 j 19:07	25° $\approx$ 04'22 0°14'00	direct	-11976 Apr 20 j 17:52	21° $\approx$ 55'40	
behind sun begin	-11982 Jun 12 j 15:30	25° $\approx$ 03'21	evening set	-11976 Jul 30 j 12:12	29° $\approx$ 02'46	
behind sun end	-11982 Jun 12 j 22:45	25° $\approx$ 05'24		-11976 Aug 07 j 13:02	0° $\approx$	
max. Earth dist.	-11982 Jun 12 j 01:00	24° $\approx$ 59'12 11.29691 AU				
morning rise	-11982 Jun 29 j 11:21	26° $\approx$ 57'57	conjunction	-11976 Aug 15 j 20:55	0° $\approx$ 59'59	2°19'34
	-11982 Jul 28 j 11:18	0° $\approx$	minimum elong	-11976 Aug 15 j 20:53	0° $\approx$ 59'58	2°20'09
retrograde	-11982 Oct 05 j 08:27	3° $\approx$ 35'23	max. Earth dist.	-11976 Aug 14 j 15:23	0° $\approx$ 51'06	10.90616 AU
opposition	-11982 Dec 14 j 03:57	0° $\approx$ 21'14 0°33'24	morning rise	-11976 Sep 01 j 06:34	2° $\approx$ 57'37	
min. Earth dist.	-11982 Dec 14 j 20:41	0° $\approx$ 18'11 9.30716 AU	retrograde	-11976 Dec 12 j 21:24	10° $\approx$ 15'13	
	-11982 Dec 19 j 00:39	30° $\approx$	opposition	-11975 Feb 21 j 14:19	6° $\approx$ 54'55	2°56'12
direct	-11981 Feb 24 j 09:54	27° $\approx$ 01'35	min. Earth dist.	-11975 Feb 22 j 15:14	6° $\approx$ 50'16	8.83315 AU
	-11981 Apr 29 j 07:12	0° $\approx$	direct	-11975 May 02 j 15:26	3° $\approx$ 35'03	
evening set	-11981 Jun 06 j 22:27	3° $\approx$ 54'41	evening set	-11975 Aug 11 j 06:14	10° $\approx$ 49'33	
			max. Earth dist.	-11975 Aug 26 j 11:50	12° $\approx$ 40'29	10.75367 AU
conjunction	-11981 Jun 23 j 15:46	5° $\approx$ 48'35 0°41'13				
minimum elong	-11981 Jun 23 j 15:44	5° $\approx$ 48'34 0°41'15	conjunction	-11975 Aug 27 j 15:46	12° $\approx$ 49'01	2°26'03
max. Earth dist.	-11981 Jun 22 j 18:21	5° $\approx$ 42'28 11.30881 AU	minimum elong	-11975 Aug 27 j 15:45	12° $\approx$ 49'01	2°26'41
morning rise	-11981 Jul 10 j 05:22	7° $\approx$ 41'33	morning rise	-11975 Sep 13 j 03:27	14° $\approx$ 49'14	
retrograde	-11981 Oct 16 j 12:04	14° $\approx$ 20'26	retrograde	-11975 Dec 25 j 22:11	22° $\approx$ 19'47	
opposition	-11981 Dec 25 j 15:00	11° $\approx$ 06'07 1°05'45	opposition	-11974 Mar 06 j 12:04	18° $\approx$ 57'29	3°01'00
min. Earth dist.	-11981 Dec 26 j 11:12	11° $\approx$ 02'27 9.30306 AU	min. Earth dist.	-11974 Mar 07 j 10:56	18° $\approx$ 53'10	8.67354 AU
direct	-11980 Mar 06 j 18:03	7° $\approx$ 47'01	direct	-11974 May 14 j 22:02	15° $\approx$ 36'49	
evening set	-11980 Jun 16 j 20:52	14° $\approx$ 39'32	evening set	-11974 Aug 23 j 09:13	22° $\approx$ 59'51	
max. Earth dist.	-11980 Jul 02 j 09:47	16° $\approx$ 25'46 11.28803 AU				
			conjunction	-11974 Sep 08 j 21:02	25° $\approx$ 02'11	2°26'14

Attention, astronomical year style is used: The year -11974 in astronomical counting style is the year 11975 BCE in historical counting style.

minimum elong	-11974 Sep 08 j 21:03	25°II02'11	2°26'55	evening set	-11968 Nov 12 j 20:43	15°II34'23	
max. Earth dist.	-11974 Sep 07 j 21:08	24°II54'44	10.58894 AU				
morning rise	-11974 Sep 25 j 11:54	27°II05'35		conjunction	-11968 Nov 30 j 17:30	17°II58'02	0°04'41
	-11974 Oct 20 j 12:53	0°☾		minimum elong	-11968 Nov 30 j 17:31	17°II58'03	0°04'52
retrograde	-11973 Jan 08 j 11:22	4°☾50'06		behind sun begin	-11968 Nov 30 j 10:22	17°II55'39	
opposition	-11973 Mar 19 j 19:21	1°☾25'41	2°57'37	behind sun end	-11968 Dec 01 j 00:40	18°II00'26	
min. Earth dist.	-11973 Mar 20 j 14:08	1°☾22'04	8.50508 AU	max. Earth dist.	-11968 Dec 01 j 09:56	18°II03'34	9.79404 AU
	-11973 Apr 08 j 00:01	30°☿II		morning rise	-11968 Dec 18 j 19:38	20°II23'25	
direct	-11973 May 27 j 11:47	28°II04'06		desc. node	-11967 Jan 16 j 13:01	23°II58'43	
	-11973 Jul 13 j 20:46	0°☾		retrograde	-11967 Apr 06 j 10:41	29°II11'04	
evening set	-11973 Sep 04 j 22:49	5°☾36'35		min. Earth dist.	-11967 Jun 12 j 08:46	25°II41'05	7.77698 AU
				opposition	-11967 Jun 13 j 00:16	25°II37'50	-0°18'32
conjunction	-11973 Sep 21 j 14:18	7°☾42'18	2°19'26	direct	-11967 Aug 17 j 11:35	22°II09'50	
minimum elong	-11973 Sep 21 j 14:20	7°☾42'19	2°20'07		-11967 Nov 24 j 03:22	0°♊	
max. Earth dist.	-11973 Sep 20 j 19:28	7°☾36'20	10.41909 AU	evening set	-11967 Nov 28 j 12:02	0°♊34'24	
morning rise	-11973 Oct 08 j 09:36	9°☾49'22					
retrograde	-11972 Jan 22 j 12:14	17°☾48'19		conjunction	-11967 Dec 16 j 13:17	2°♊59'36	-0°33'11
opposition	-11972 Apr 01 j 12:24	14°☾21'47	2°45'14	minimum elong	-11967 Dec 16 j 13:15	2°♊59'35	0°33'10
min. Earth dist.	-11972 Apr 02 j 01:58	14°☾19'08	8.33536 AU	max. Earth dist.	-11967 Dec 17 j 13:07	3°♊07'38	9.77077 AU
direct	-11972 Jun 08 j 10:56	10°☾59'11		morning rise	-11966 Jan 03 j 18:50	5°♊26'08	
evening set	-11972 Sep 17 j 00:42	18°☾41'47		retrograde	-11966 Apr 21 j 21:57	14°♊12'46	
				min. Earth dist.	-11966 Jun 27 j 05:57	10°♊43'53	7.77649 AU
conjunction	-11972 Oct 03 j 20:58	20°☾51'18	2°05'16	opposition	-11966 Jun 28 j 02:20	10°♊39'36	-1°05'00
minimum elong	-11972 Oct 03 j 21:02	20°☾51'19	2°05'56	direct	-11966 Sep 01 j 14:07	7°♊10'51	
max. Earth dist.	-11972 Oct 03 j 07:42	20°☾47'01	10.25223 AU	evening set	-11966 Dec 14 j 09:03	15°♊37'45	
morning rise	-11972 Oct 20 j 21:56	23°☾02'25					
	-11972 Dec 28 j 11:56	0°♊		conjunction	-11965 Jan 01 j 12:59	18°♊03'09	-1°08'44
retrograde	-11971 Feb 05 j 01:11	1°♊15'30		minimum elong	-11965 Jan 01 j 12:55	18°♊03'08	1°08'54
	-11971 Mar 16 j 05:07	30°☿☾		max. Earth dist.	-11965 Jan 02 j 18:39	18°♊13'06	9.79241 AU
opposition	-11971 Apr 15 j 14:58	27°☾46'58	2°23'28	morning rise	-11965 Jan 19 j 19:52	20°♊29'25	
min. Earth dist.	-11971 Apr 15 j 22:52	27°☾45'24	8.17299 AU	retrograde	-11965 May 07 j 03:47	29°♊10'29	
direct	-11971 Jun 21 j 20:05	24°☾23'15		min. Earth dist.	-11965 Jul 12 j 00:45	25°♊43'01	7.82063 AU
	-11971 Sep 12 j 08:48	0°♊		opposition	-11965 Jul 13 j 00:37	25°♊37'59	-1°46'46
evening set	-11971 Sep 30 j 15:43	2°♊16'11		direct	-11965 Sep 16 j 17:47	22°♊08'44	
					-11965 Dec 25 j 19:20	0°♋	
conjunction	-11971 Oct 17 j 17:46	4°♊29'43	1°43'44	evening set	-11965 Dec 30 j 06:52	0°♋34'50	
minimum elong	-11971 Oct 17 j 17:50	4°♊29'44	1°44'20				
max. Earth dist.	-11971 Oct 17 j 10:41	4°♊27'23	10.09736 AU	conjunction	-11964 Jan 17 j 11:38	2°♋59'08	-1°39'22
morning rise	-11971 Nov 04 j 01:20	6°♊45'04		minimum elong	-11964 Jan 17 j 11:33	2°♋59'06	1°39'43
	-11970 Feb 05 j 13:12	15°♊		max. Earth dist.	-11964 Jan 18 j 20:56	3°♋10'12	9.85750 AU
retrograde	-11970 Feb 20 j 00:48	15°♊11'04		morning rise	-11964 Feb 04 j 17:49	5°♋23'47	
	-11970 Mar 06 j 12:10	15°☿♊		retrograde	-11964 May 21 j 00:59	13°♋55'19	
opposition	-11970 Apr 30 j 02:36	11°♊40'47	1°52'34	opposition	-11964 Jul 26 j 16:47	10°♋24'01	-2°20'43
min. Earth dist.	-11970 Apr 30 j 04:38	11°♊40'22	8.02730 AU	min. Earth dist.	-11964 Jul 25 j 15:21	10°♋29'21	7.90612 AU
direct	-11970 Jul 05 j 15:14	8°♊15'55		direct	-11964 Sep 30 j 19:36	6°♋54'34	
	-11970 Oct 04 j 13:58	15°♊			-11963 Jan 11 j 20:21	15°♋	
evening set	-11970 Oct 14 j 20:19	16°♊18'49		evening set	-11963 Jan 14 j 00:24	15°♋16'41	
conjunction	-11970 Nov 01 j 04:49	18°♊36'17	1°15'26	conjunction	-11963 Feb 01 j 04:20	17°♋38'46	-2°03'02
minimum elong	-11970 Nov 01 j 04:53	18°♊36'19	1°15'56	minimum elong	-11963 Feb 01 j 04:15	17°♋38'44	2°03'31
max. Earth dist.	-11970 Nov 01 j 05:07	18°♊36'23	9.96374 AU	max. Earth dist.	-11963 Feb 02 j 14:47	17°♋50'04	9.96124 AU
morning rise	-11970 Nov 18 j 19:19	20°♊55'43		morning rise	-11963 Feb 19 j 08:12	20°♋00'43	
retrograde	-11969 Mar 07 j 08:26	29°♊32'27		retrograde	-11963 Jun 04 j 11:12	28°♋19'40	
opposition	-11969 May 14 j 21:37	26°♊00'43	1°13'39	min. Earth dist.	-11963 Aug 08 j 23:26	24°♋55'14	8.02666 AU
min. Earth dist.	-11969 May 14 j 17:48	26°♊01'30	7.90748 AU	opposition	-11963 Aug 10 j 00:34	24°♋50'00	-2°44'46
direct	-11969 Jul 19 j 21:01	22°♊34'43		direct	-11963 Oct 15 j 17:26	21°♋20'39	
	-11969 Oct 23 j 15:10	0°♋		evening set	-11962 Jan 29 j 09:32	29°♋35'59	
evening set	-11969 Oct 29 j 14:31	0°♋46'41			-11962 Feb 01 j 13:14	0°♌	
conjunction	-11969 Nov 16 j 05:32	3°♋07'40	0°41'43	conjunction	-11962 Feb 16 j 11:29	1°♌55'05	-2°18'29
minimum elong	-11969 Nov 16 j 05:35	3°♋07'40	0°42'04	minimum elong	-11962 Feb 16 j 11:27	1°♌55'04	2°19'04
max. Earth dist.	-11969 Nov 16 j 13:53	3°♋10'28	9.86012 AU	max. Earth dist.	-11962 Feb 17 j 20:30	2°♌05'44	10.09615 AU
morning rise	-11969 Dec 04 j 02:28	5°♋30'33		morning rise	-11962 Mar 06 j 12:04	4°♌13'38	
retrograde	-11968 Mar 21 j 21:03	14°♋14'46		retrograde	-11962 Jun 18 j 07:50	12°♌17'59	
opposition	-11968 May 28 j 21:40	10°♋42'01	0°28'55	opposition	-11962 Aug 23 j 22:29	8°♌50'18	-2°58'06
min. Earth dist.	-11968 May 28 j 11:52	10°♋44'03	7.82187 AU	min. Earth dist.	-11962 Aug 22 j 23:18	8°♌55'05	8.17369 AU
direct	-11968 Aug 02 j 12:42	7°♋14'56		direct	-11962 Oct 30 j 09:07	5°♌21'20	

Attention, astronomical year style is used: The year -11961 in astronomical counting style is the year 11962 BCE in historical counting style.

evening set	-11961 Feb 13 j 07:00	13° $\nearrow$ 27'43		evening set	-11955 Apr 30 j 00:14	26° $\approx$ 53'29	
conjunction	-11961 Mar 03 j 06:15	15° $\nearrow$ 43'25	-2°25'24	conjunction	-11955 May 17 j 04:32	28° $\approx$ 51'44	-0°52'52
minimum elong	-11961 Mar 03 j 06:14	15° $\nearrow$ 43'25	2°26'04	minimum elong	-11955 May 17 j 04:34	28° $\approx$ 51'45	0°53'15
max. Earth dist.	-11961 Mar 04 j 11:27	15° $\nearrow$ 52'40	10.25283 AU	max. Earth dist.	-11955 May 16 j 21:18	28° $\approx$ 49'39	11.14151 AU
morning rise	-11961 Mar 21 j 03:01	17° $\nearrow$ 58'12			-11955 May 27 j 01:16	0° $\nmid$	
retrograde	-11961 Jul 01 j 14:26	25° $\nearrow$ 47'12		morning rise	-11955 Jun 03 j 03:47	0° $\nmid$ 48'35	
opposition	-11961 Sep 06 j 10:09	22° $\nearrow$ 21'39	-3°00'54	retrograde	-11955 Sep 08 j 21:16	7° $\nmid$ 31'36	
min. Earth dist.	-11961 Sep 05 j 13:58	22° $\nearrow$ 25'44	8.33726 AU	opposition	-11955 Nov 16 j 19:24	4° $\nmid$ 16'10	-0°48'26
direct	-11961 Nov 13 j 15:46	18° $\nearrow$ 53'20		min. Earth dist.	-11955 Nov 17 j 02:48	4° $\nmid$ 14'48	9.18562 AU
evening set	-11960 Feb 27 j 14:36	26° $\nearrow$ 49'20		direct	-11954 Jan 27 j 16:38	0° $\nmid$ 54'14	
				evening set	-11954 May 11 j 10:41	7° $\nmid$ 55'47	
conjunction	-11960 Mar 16 j 10:48	29° $\nearrow$ 01'31	-2°24'12	conjunction	-11954 May 28 j 11:49	9° $\nmid$ 52'20	-0°25'41
minimum elong	-11960 Mar 16 j 10:49	29° $\nearrow$ 01'31	2°24'53	minimum elong	-11954 May 28 j 11:50	9° $\nmid$ 52'20	0°25'56
max. Earth dist.	-11960 Mar 17 j 10:36	29° $\nearrow$ 08'54	10.42099 AU	max. Earth dist.	-11954 May 28 j 00:01	9° $\nmid$ 48'57	11.22303 AU
	-11960 Mar 24 j 07:19	0° $\nmid$		morning rise	-11954 Jun 14 j 07:57	11° $\nmid$ 47'32	
morning rise	-11960 Apr 03 j 03:33	1° $\nmid$ 12'30		retrograde	-11954 Sep 19 j 23:03	18° $\nmid$ 26'40	
retrograde	-11960 Jul 13 j 09:29	8° $\nmid$ 46'27		opposition	-11954 Nov 28 j 06:38	15° $\nmid$ 11'52	-0°14'46
opposition	-11960 Sep 18 j 11:28	5° $\nmid$ 23'03	-2°54'08	min. Earth dist.	-11954 Nov 28 j 18:29	15° $\nmid$ 09'40	9.25297 AU
min. Earth dist.	-11960 Sep 17 j 18:44	5° $\nmid$ 26'23	8.50703 AU	direct	-11953 Feb 08 j 08:47	11° $\nmid$ 50'48	
direct	-11960 Nov 26 j 11:49	1° $\nmid$ 55'39		asc. node	-11953 May 10 j 13:33	17° $\nmid$ 28'26	
evening set	-11959 Mar 12 j 07:53	9° $\nmid$ 40'44		evening set	-11953 May 22 j 15:22	18° $\nmid$ 47'44	
conjunction	-11959 Mar 30 j 01:01	11° $\nmid$ 49'33	-2°15'44	conjunction	-11953 Jun 08 j 13:14	20° $\nmid$ 42'55	0°02'10
minimum elong	-11959 Mar 30 j 01:04	11° $\nmid$ 49'33	2°16'25	minimum elong	-11953 Jun 08 j 13:14	20° $\nmid$ 42'55	0°02'02
max. Earth dist.	-11959 Mar 30 j 19:06	11° $\nmid$ 55'04	10.59056 AU	behind sun begin	-11953 Jun 08 j 06:14	20° $\nmid$ 40'56	
morning rise	-11959 Apr 16 j 13:50	13° $\nmid$ 56'58		behind sun end	-11953 Jun 08 j 20:13	20° $\nmid$ 44'53	
retrograde	-11959 Jul 25 j 18:06	21° $\nmid$ 17'00		max. Earth dist.	-11953 Jun 07 j 20:36	20° $\nmid$ 38'10	11.27560 AU
opposition	-11959 Oct 01 j 03:09	17° $\nmid$ 55'41	-2°39'14	morning rise	-11953 Jun 25 j 06:31	22° $\nmid$ 36'55	
min. Earth dist.	-11959 Sep 30 j 14:41	17° $\nmid$ 58'08	8.67369 AU	retrograde	-11953 Oct 01 j 00:47	29° $\nmid$ 14'24	
direct	-11959 Dec 09 j 21:03	14° $\nmid$ 29'21		opposition	-11953 Dec 09 j 16:41	25° $\nmid$ 59'53	0°19'02
evening set	-11958 Mar 25 j 11:25	22° $\nmid$ 03'48		min. Earth dist.	-11953 Dec 10 j 09:14	25° $\nmid$ 56'51	9.29074 AU
conjunction	-11958 Apr 12 j 01:29	24° $\nmid$ 09'29	-2°01'09	direct	-11952 Feb 19 j 21:46	22° $\nmid$ 39'31	
minimum elong	-11958 Apr 12 j 01:32	24° $\nmid$ 09'30	2°01'48	evening set	-11952 Jun 01 j 15:56	29° $\nmid$ 33'29	
max. Earth dist.	-11958 Apr 12 j 13:44	24° $\nmid$ 13'10	10.75321 AU		-11952 Jun 05 j 14:24	0° $\nmid$	
morning rise	-11958 Apr 29 j 10:31	26° $\nmid$ 13'40		conjunction	-11952 Jun 18 j 10:31	1° $\nmid$ 27'43	0°29'38
	-11958 Jun 03 j 08:03	0° $\approx$		minimum elong	-11952 Jun 18 j 10:29	1° $\nmid$ 27'43	0°29'37
retrograde	-11958 Aug 06 j 17:22	3° $\approx$ 21'27		max. Earth dist.	-11952 Jun 17 j 12:58	1° $\nmid$ 21'34	11.29786 AU
opposition	-11958 Oct 13 j 10:34	0° $\approx$ 02'04	-2°17'43	morning rise	-11952 Jul 05 j 01:22	3° $\nmid$ 20'58	
min. Earth dist.	-11958 Oct 13 j 03:15	0° $\approx$ 03'29	8.83009 AU	retrograde	-11952 Oct 11 j 01:14	9° $\nmid$ 59'01	
	-11958 Oct 13 j 21:13	30° $\nmid$		opposition	-11952 Dec 20 j 02:48	6° $\nmid$ 44'23	0°51'59
direct	-11958 Dec 22 j 20:31	26° $\nmid$ 36'53		min. Earth dist.	-11952 Dec 20 j 22:54	6° $\nmid$ 40'44	9.29784 AU
	-11957 Feb 28 j 02:17	0° $\approx$		direct	-11951 Mar 02 j 07:20	3° $\nmid$ 24'34	
evening set	-11957 Apr 07 j 02:23	4° $\approx$ 01'20		evening set	-11951 Jun 12 j 14:24	10° $\nmid$ 17'18	
conjunction	-11957 Apr 24 j 13:12	6° $\approx$ 04'12	-1°41'41	max. Earth dist.	-11951 Jun 28 j 05:21	12° $\nmid$ 03'55	11.28919 AU
minimum elong	-11957 Apr 24 j 13:16	6° $\approx$ 04'13	1°42'16	conjunction	-11951 Jun 29 j 06:03	12° $\nmid$ 11'00	0°56'02
max. Earth dist.	-11957 Apr 24 j 19:07	6° $\approx$ 05'57	10.90257 AU	minimum elong	-11951 Jun 29 j 06:01	12° $\nmid$ 11'00	0°56'09
morning rise	-11957 May 11 j 18:41	8° $\approx$ 05'31		morning rise	-11951 Jul 15 j 18:37	14° $\nmid$ 03'57	
	-11957 Aug 10 j 20:37	15° $\approx$		retrograde	-11951 Oct 22 j 07:04	20° $\nmid$ 44'45	
retrograde	-11957 Aug 18 j 08:41	15° $\approx$ 02'55		opposition	-11951 Dec 31 j 14:24	17° $\nmid$ 29'41	1°23'12
	-11957 Aug 25 j 20:07	15° $\nmid$		min. Earth dist.	-11950 Jan 01 j 12:30	17° $\nmid$ 25'40	9.27399 AU
opposition	-11957 Oct 25 j 10:55	11° $\approx$ 45'12	-1°51'08	direct	-11950 Mar 13 j 17:17	14° $\nmid$ 10'15	
min. Earth dist.	-11957 Oct 25 j 09:18	11° $\approx$ 45'31	8.97063 AU	evening set	-11950 Jun 23 j 12:29	21° $\nmid$ 03'26	
direct	-11956 Jan 04 j 10:03	8° $\approx$ 21'10		max. Earth dist.	-11950 Jul 08 j 23:08	22° $\nmid$ 49'27	11.24979 AU
	-11956 Apr 12 j 20:36	15° $\approx$		conjunction	-11950 Jul 10 j 01:35	22° $\nmid$ 57'05	1°20'35
evening set	-11956 Apr 18 j 06:10	15° $\approx$ 36'39		minimum elong	-11950 Jul 10 j 01:32	22° $\nmid$ 57'04	1°20'49
conjunction	-11956 May 05 j 13:39	17° $\approx$ 37'02	-1°18'33	morning rise	-11950 Jul 26 j 12:09	24° $\nmid$ 50'11	
minimum elong	-11956 May 05 j 13:42	17° $\approx$ 37'03	1°19'03		-11950 Sep 18 j 18:06	0° $\nmid$	
max. Earth dist.	-11956 May 05 j 12:23	17° $\approx$ 36'40	11.03347 AU	retrograde	-11950 Nov 02 j 17:29	1° $\nmid$ 35'51	
morning rise	-11956 May 22 j 15:57	19° $\approx$ 35'55			-11950 Dec 19 j 05:19	30° $\nmid$	
retrograde	-11956 Aug 28 j 15:50	26° $\approx$ 25'02		opposition	-11949 Jan 12 j 05:32	28° $\nmid$ 20'04	1°51'46
opposition	-11956 Nov 05 j 05:23	23° $\approx$ 08'38	-1°20'56	min. Earth dist.	-11949 Jan 13 j 05:30	28° $\nmid$ 15'42	9.21992 AU
min. Earth dist.	-11956 Nov 05 j 08:37	23° $\approx$ 08'01	9.09051 AU	direct	-11949 Mar 25 j 00:58	25° $\nmid$ 00'53	
direct	-11955 Jan 15 j 16:43	19° $\approx$ 45'41					

Attention, astronomical year style is used: The year -11949 in astronomical counting style is the year 11950 BCE in historical counting style.

	-11949 Jun 16 j 21:08	0°♄	conjunction	-11943 Sep 28 j 11:11	15°♄20'50	2°12'16
evening set	-11949 Jul 04 j 12:00	1°♄56'09	minimum elong	-11943 Sep 28 j 11:14	15°♄20'51	2°12'57
			max. Earth dist.	-11943 Sep 27 j 19:22	15°♄15'46	10.33665 AU
conjunction	-11949 Jul 20 j 22:51	3°♄50'13 1°42'28	morning rise	-11943 Oct 15 j 09:35	17°♄30'01	
minimum elong	-11949 Jul 20 j 22:47	3°♄50'12 1°42'50	retrograde	-11942 Jan 30 j 02:22	25°♄36'37	
max. Earth dist.	-11949 Jul 19 j 18:13	3°♄41'53 11.18092 AU	opposition	-11942 Apr 09 j 21:15	22°♄09'32	2°33'55
morning rise	-11949 Aug 06 j 08:10	5°♄43'58	min. Earth dist.	-11942 Apr 10 j 08:01	22°♄07'25	8.25646 AU
retrograde	-11949 Nov 14 j 08:54	12°♄36'37	direct	-11942 Jun 16 j 09:48	18°♄46'52	
opposition	-11948 Jan 24 j 01:27	9°♄19'49 2°16'44	evening set	-11942 Sep 25 j 02:32	26°♄34'52	
min. Earth dist.	-11948 Jan 25 j 03:09	9°♄15'07 9.13725 AU				
direct	-11948 Apr 04 j 11:26	6°♄00'38	conjunction	-11942 Oct 12 j 01:52	28°♄46'27	1°53'52
evening set	-11948 Jul 14 j 14:50	12°♄59'43	minimum elong	-11942 Oct 12 j 01:56	28°♄46'29	1°54'30
max. Earth dist.	-11948 Jul 29 j 18:09	14°♄45'51 11.08466 AU	max. Earth dist.	-11942 Oct 11 j 16:50	28°♄43'31	10.17830 AU
				-11942 Oct 21 j 12:18	0°♄	
conjunction	-11948 Jul 31 j 00:05	14°♄54'40 2°00'53	morning rise	-11942 Oct 29 j 06:22	0°♄59'46	
minimum elong	-11948 Jul 31 j 00:02	14°♄54'39 2°01'21	retrograde	-11941 Feb 13 j 21:26	9°♄19'47	
	-11948 Jul 31 j 18:12	15°♄	opposition	-11941 Apr 24 j 05:03	5°♄50'51	2°06'52
morning rise	-11948 Aug 16 j 08:59	16°♄49'37	min. Earth dist.	-11941 Apr 24 j 09:56	5°♄49'52	8.10452 AU
retrograde	-11948 Nov 25 j 08:55	23°♄51'11	direct	-11941 Jun 30 j 00:54	2°♄27'05	
opposition	-11947 Feb 04 j 03:12	20°♄33'06 2°37'07	evening set	-11941 Oct 09 j 01:10	10°♄25'06	
min. Earth dist.	-11947 Feb 05 j 05:22	20°♄28'17 9.02847 AU				
direct	-11947 Apr 16 j 02:10	17°♄13'46	conjunction	-11941 Oct 26 j 06:50	12°♄40'41	1°28'23
evening set	-11947 Jul 25 j 22:33	24°♄18'10	minimum elong	-11941 Oct 26 j 06:54	12°♄40'42	1°28'55
max. Earth dist.	-11947 Aug 10 j 02:23	26°♄05'56 10.96393 AU	max. Earth dist.	-11941 Oct 26 j 04:55	12°♄40'02	10.03536 AU
			morning rise	-11941 Nov 12 j 18:03	14°♄58'08	
conjunction	-11947 Aug 11 j 07:14	26°♄14'34 2°15'00		-11941 Nov 12 j 23:51	15°♄	
minimum elong	-11947 Aug 11 j 07:12	26°♄14'33 2°15'34	retrograde	-11940 Feb 29 j 01:48	23°♄29'53	
morning rise	-11947 Aug 27 j 16:25	28°♄11'15	opposition	-11940 May 07 j 20:51	19°♄59'20	1°31'15
	-11947 Sep 12 j 14:50	0°♄	min. Earth dist.	-11940 May 07 j 19:29	19°♄59'37	7.97206 AU
retrograde	-11947 Dec 07 j 18:06	5°♄23'35	direct	-11940 Jul 13 j 02:08	16°♄34'25	
opposition	-11946 Feb 16 j 12:29	2°♄03'57 2°51'51	evening set	-11940 Oct 22 j 13:28	24°♄42'02	
min. Earth dist.	-11946 Feb 17 j 13:07	1°♄59'23 8.89700 AU				
	-11946 Mar 18 j 12:22	30°♄	conjunction	-11940 Nov 09 j 01:38	27°♄01'21	0°56'48
direct	-11946 Apr 27 j 21:29	28°♄44'18	minimum elong	-11940 Nov 09 j 01:41	27°♄01'22	0°57'12
	-11946 Jun 06 j 01:33	0°♄	max. Earth dist.	-11940 Nov 09 j 06:45	27°♄03'04	9.91590 AU
evening set	-11946 Aug 06 j 12:55	5°♄55'26	morning rise	-11940 Nov 26 j 19:30	29°♄22'36	
				-11940 Dec 01 j 14:41	0°♄	
conjunction	-11946 Aug 22 j 22:03	7°♄53'51 2°23'58	retrograde	-11939 Mar 15 j 13:01	8°♄03'34	
minimum elong	-11946 Aug 22 j 22:01	7°♄53'50 2°24'36	opposition	-11939 May 22 j 18:55	4°♄31'47	0°48'44
max. Earth dist.	-11946 Aug 21 j 19:15	7°♄45'43 10.82282 AU	min. Earth dist.	-11939 May 22 j 11:32	4°♄33'18	7.86761 AU
morning rise	-11946 Sep 08 j 08:32	9°♄52'50	direct	-11939 Jul 27 j 12:55	1°♄05'44	
retrograde	-11946 Dec 20 j 15:49	17°♄17'30	evening set	-11939 Nov 06 j 14:40	9°♄21'48	
opposition	-11945 Mar 01 j 06:24	13°♄56'09 2°59'52				
min. Earth dist.	-11945 Mar 02 j 04:32	13°♄51'59 8.74757 AU	conjunction	-11939 Nov 24 j 08:56	11°♄44'17	0°20'52
direct	-11945 May 09 j 23:40	10°♄36'01	minimum elong	-11939 Nov 24 j 08:57	11°♄44'18	0°21'08
evening set	-11945 Aug 18 j 11:55	17°♄55'07	max. Earth dist.	-11939 Nov 24 j 21:20	11°♄48'27	9.82880 AU
			morning rise	-11939 Dec 12 j 08:43	14°♄08'34	
conjunction	-11945 Sep 03 j 22:35	19°♄56'06 2°26'58	retrograde	-11938 Mar 31 j 03:37	22°♄55'08	
minimum elong	-11945 Sep 03 j 22:35	19°♄56'06 2°27'38	opposition	-11938 Jun 06 j 20:59	19°♄22'33	0°02'01
max. Earth dist.	-11945 Sep 02 j 21:57	19°♄48'30 10.66674 AU	min. Earth dist.	-11938 Jun 06 j 08:07	19°♄25'13	7.79990 AU
morning rise	-11945 Sep 20 j 11:46	21°♄58'00	desc. node	-11938 Jun 22 j 19:23	18°♄04'57	
retrograde	-11944 Jan 03 j 00:01	29°♄36'10	direct	-11938 Aug 11 j 08:05	15°♄55'24	
opposition	-11944 Mar 13 j 09:32	26°♄12'57 3°00'06	evening set	-11938 Nov 22 j 02:41	24°♄17'57	
min. Earth dist.	-11944 Mar 14 j 04:53	26°♄09'16 8.58616 AU				
direct	-11944 May 21 j 08:20	22°♄52'07	conjunction	-11938 Dec 10 j 02:02	26°♄42'35	-0°17'01
	-11944 Aug 27 j 02:43	0°♄	minimum elong	-11938 Dec 10 j 02:00	26°♄42'35	0°16'56
evening set	-11944 Aug 29 j 20:58	0°♄20'17	max. Earth dist.	-11938 Dec 10 j 21:26	26°♄49'08	9.78173 AU
			morning rise	-11938 Dec 28 j 06:15	29°♄08'45	
conjunction	-11944 Sep 15 j 10:30	2°♄24'22 2°23'14		-11937 Jan 03 j 18:52	0°♄	
minimum elong	-11944 Sep 15 j 10:31	2°♄24'23 2°23'56	retrograde	-11937 Apr 15 j 17:20	7°♄56'30	
max. Earth dist.	-11944 Sep 14 j 13:13	2°♄17'41 10.50221 AU	min. Earth dist.	-11937 Jun 21 j 06:33	4°♄27'16	7.77500 AU
morning rise	-11944 Oct 02 j 03:44	4°♄29'42	opposition	-11937 Jun 22 j 00:01	4°♄23'36	-0°45'22
retrograde	-11943 Jan 15 j 19:10	12°♄22'03	direct	-11937 Aug 26 j 09:18	0°♄55'26	
opposition	-11943 Mar 26 j 22:31	8°♄56'55 2°51'38	evening set	-11937 Dec 07 j 22:13	9°♄21'52	
min. Earth dist.	-11943 Mar 27 j 14:18	8°♄53'52 8.41980 AU				
direct	-11943 Jun 03 j 03:35	5°♄35'14	conjunction	-11937 Dec 26 j 01:00	11°♄47'21	-0°53'53
evening set	-11943 Sep 11 j 17:23	13°♄13'09	minimum elong	-11937 Dec 26 j 00:56	11°♄47'20	0°54'00

Attention, astronomical year style is used: The year -11936 in astronomical counting style is the year 11937 BCE in historical counting style.

max. Earth dist.	-11937 Dec 27 j 02:17	11° $\mathbf{\text{♁}}$ 55'52	9.77895 AU	minimum elong	-11930 Mar 24 j 17:19	6° $\mathbf{\text{♁}}$ 40'19	2°20'58
morning rise	-11936 Jan 13 j 07:35	14° $\mathbf{\text{♁}}$ 13'57		max. Earth dist.	-11930 Mar 25 j 15:03	6° $\mathbf{\text{♁}}$ 47'00	10.49972 AU
retrograde	-11936 Apr 30 j 02:23	22° $\mathbf{\text{♁}}$ 58'15		morning rise	-11930 Apr 11 j 07:50	8° $\mathbf{\text{♁}}$ 49'27	
min. Earth dist.	-11936 Jul 05 j 03:49	19° $\mathbf{\text{♁}}$ 30'00	7.79520 AU	retrograde	-11930 Jul 20 j 23:23	16° $\mathbf{\text{♁}}$ 15'53	
opposition	-11936 Jul 06 j 00:43	19° $\mathbf{\text{♁}}$ 25'35	-1°29'37	opposition	-11930 Sep 26 j 04:45	12° $\mathbf{\text{♁}}$ 53'05	-2°46'43
direct	-11936 Sep 09 j 13:55	15° $\mathbf{\text{♁}}$ 56'36		min. Earth dist.	-11930 Sep 25 j 14:41	12° $\mathbf{\text{♁}}$ 55'53	8.58533 AU
evening set	-11936 Dec 22 j 20:31	24° $\mathbf{\text{♁}}$ 23'47		direct	-11930 Dec 04 j 14:24	9° $\mathbf{\text{♁}}$ 25'40	
				evening set	-11929 Mar 20 j 08:12	17° $\mathbf{\text{♁}}$ 05'08	
conjunction	-11935 Jan 10 j 00:57	26° $\mathbf{\text{♁}}$ 48'45	-1°26'59	conjunction	-11929 Apr 06 j 23:36	19° $\mathbf{\text{♁}}$ 12'17	-2°08'11
minimum elong	-11935 Jan 10 j 00:52	26° $\mathbf{\text{♁}}$ 48'44	1°27'15	minimum elong	-11929 Apr 06 j 23:39	19° $\mathbf{\text{♁}}$ 12'18	2°08'51
max. Earth dist.	-11935 Jan 11 j 06:31	26° $\mathbf{\text{♁}}$ 58'39	9.82096 AU	max. Earth dist.	-11929 Apr 07 j 14:44	19° $\mathbf{\text{♁}}$ 16'52	10.66837 AU
morning rise	-11935 Jan 28 j 07:47	29° $\mathbf{\text{♁}}$ 14'22		morning rise	-11929 Apr 24 j 10:26	21° $\mathbf{\text{♁}}$ 18'00	
	-11935 Feb 03 j 04:29	0° $\mathbf{\text{♁}}$		retrograde	-11929 Aug 02 j 00:29	28° $\mathbf{\text{♁}}$ 31'11	
retrograde	-11935 May 15 j 03:27	7° $\mathbf{\text{♁}}$ 50'54		opposition	-11929 Oct 08 j 15:41	25° $\mathbf{\text{♁}}$ 10'26	-2°27'49
opposition	-11935 Jul 20 j 20:15	4° $\mathbf{\text{♁}}$ 19'00	-2°07'18	min. Earth dist.	-11929 Oct 08 j 05:52	25° $\mathbf{\text{♁}}$ 12'21	8.75017 AU
min. Earth dist.	-11935 Jul 19 j 21:00	4° $\mathbf{\text{♁}}$ 23'53	7.85897 AU	direct	-11929 Dec 17 j 19:50	21° $\mathbf{\text{♁}}$ 34'11	
direct	-11935 Sep 24 j 18:25	0° $\mathbf{\text{♁}}$ 49'28		evening set	-11928 Apr 01 j 04:11	29° $\mathbf{\text{♁}}$ 13'04	
evening set	-11934 Jan 07 j 16:35	9° $\mathbf{\text{♁}}$ 14'07			-11928 Apr 07 j 20:19	0° $\mathbf{\text{♁}}$	
conjunction	-11934 Jan 25 j 21:01	11° $\mathbf{\text{♁}}$ 37'23	-1°53'52	conjunction	-11928 Apr 18 j 16:24	1° $\mathbf{\text{♁}}$ 17'12	-1°50'39
minimum elong	-11934 Jan 25 j 20:57	11° $\mathbf{\text{♁}}$ 37'21	1°54'18	minimum elong	-11928 Apr 18 j 16:27	1° $\mathbf{\text{♁}}$ 17'13	1°51'16
max. Earth dist.	-11934 Jan 27 j 04:59	11° $\mathbf{\text{♁}}$ 47'57	9.90446 AU	max. Earth dist.	-11928 Apr 19 j 01:18	1° $\mathbf{\text{♁}}$ 19'51	10.82825 AU
morning rise	-11934 Feb 13 j 02:17	14° $\mathbf{\text{♁}}$ 00'46		morning rise	-11928 May 05 j 23:39	3° $\mathbf{\text{♁}}$ 19'49	
	-11934 Feb 20 j 19:38	15° $\mathbf{\text{♁}}$		retrograde	-11928 Aug 12 j 19:01	10° $\mathbf{\text{♁}}$ 21'35	
retrograde	-11934 May 29 j 17:50	22° $\mathbf{\text{♁}}$ 25'59		opposition	-11928 Oct 19 j 18:39	7° $\mathbf{\text{♁}}$ 02'40	-2°03'11
min. Earth dist.	-11934 Aug 03 j 07:43	19° $\mathbf{\text{♁}}$ 00'27	7.96114 AU	min. Earth dist.	-11928 Oct 19 j 12:55	7° $\mathbf{\text{♁}}$ 03'46	8.90284 AU
opposition	-11934 Aug 04 j 08:08	18° $\mathbf{\text{♁}}$ 55'21	-2°35'51	direct	-11928 Dec 29 j 13:34	3° $\mathbf{\text{♁}}$ 37'43	
direct	-11934 Oct 09 j 19:43	15° $\mathbf{\text{♁}}$ 25'37		evening set	-11927 Apr 13 j 12:16	10° $\mathbf{\text{♁}}$ 56'55	
evening set	-11933 Jan 23 j 06:07	23° $\mathbf{\text{♁}}$ 44'42					
conjunction	-11933 Feb 10 j 09:10	26° $\mathbf{\text{♁}}$ 05'20	-2°12'58	conjunction	-11927 Apr 30 j 21:23	12° $\mathbf{\text{♁}}$ 58'23	-1°28'56
minimum elong	-11933 Feb 10 j 09:06	26° $\mathbf{\text{♁}}$ 05'19	2°13'31	minimum elong	-11927 Apr 30 j 21:26	12° $\mathbf{\text{♁}}$ 58'23	1°29'28
max. Earth dist.	-11933 Feb 11 j 17:25	26° $\mathbf{\text{♁}}$ 15'50	10.02294 AU	max. Earth dist.	-11927 May 01 j 00:52	12° $\mathbf{\text{♁}}$ 59'24	10.97282 AU
morning rise	-11933 Feb 28 j 11:27	28° $\mathbf{\text{♁}}$ 25'36		morning rise	-11927 May 18 j 01:08	14° $\mathbf{\text{♁}}$ 58'17	
	-11933 Mar 13 j 02:00	0° $\mathbf{\text{♁}}$			-11927 May 18 j 07:06	15° $\mathbf{\text{♁}}$	
retrograde	-11933 Jun 12 j 19:46	6° $\mathbf{\text{♁}}$ 37'01		retrograde	-11927 Aug 24 j 06:09	21° $\mathbf{\text{♁}}$ 50'39	
min. Earth dist.	-11933 Aug 17 j 10:32	3° $\mathbf{\text{♁}}$ 13'01	8.09403 AU	opposition	-11927 Oct 31 j 15:00	18° $\mathbf{\text{♁}}$ 33'23	-1°34'21
opposition	-11933 Aug 18 j 10:34	3° $\mathbf{\text{♁}}$ 08'03	-2°53'52	min. Earth dist.	-11927 Oct 31 j 14:17	18° $\mathbf{\text{♁}}$ 33'31	9.03742 AU
	-11933 Oct 04 j 18:23	30° $\mathbf{\text{♁}}$		direct	-11926 Jan 10 j 22:06	15° $\mathbf{\text{♁}}$ 09'43	
direct	-11933 Oct 24 j 14:45	29° $\mathbf{\text{♁}}$ 38'26		evening set	-11926 Apr 25 j 10:12	22° $\mathbf{\text{♁}}$ 20'31	
	-11933 Nov 13 j 10:00	0° $\mathbf{\text{♁}}$					
evening set	-11932 Feb 07 j 09:05	7° $\mathbf{\text{♁}}$ 49'29		conjunction	-11926 May 12 j 16:05	24° $\mathbf{\text{♁}}$ 19'39	-1°04'11
conjunction	-11932 Feb 25 j 09:48	10° $\mathbf{\text{♁}}$ 06'54	-2°23'34	minimum elong	-11926 May 12 j 16:07	24° $\mathbf{\text{♁}}$ 19'39	1°04'37
minimum elong	-11932 Feb 25 j 09:46	10° $\mathbf{\text{♁}}$ 06'53	2°24'12	max. Earth dist.	-11926 May 12 j 13:45	24° $\mathbf{\text{♁}}$ 18'58	11.09664 AU
max. Earth dist.	-11932 Feb 26 j 16:23	10° $\mathbf{\text{♁}}$ 16'40	10.16792 AU	morning rise	-11926 May 29 j 16:33	26° $\mathbf{\text{♁}}$ 17'17	
morning rise	-11932 Mar 14 j 08:19	12° $\mathbf{\text{♁}}$ 23'31			-11926 Jul 04 j 10:35	0° $\mathbf{\text{♁}}$	
retrograde	-11932 Jun 25 j 08:55	20° $\mathbf{\text{♁}}$ 19'52		retrograde	-11926 Sep 04 j 12:49	3° $\mathbf{\text{♁}}$ 02'27	
min. Earth dist.	-11932 Aug 30 j 04:48	16° $\mathbf{\text{♁}}$ 57'22	8.24861 AU		-11926 Nov 09 j 06:28	30° $\mathbf{\text{♁}}$	
opposition	-11932 Aug 31 j 02:55	16° $\mathbf{\text{♁}}$ 52'51	-3°01'09	opposition	-11926 Nov 12 j 06:37	29° $\mathbf{\text{♁}}$ 46'32	-1°02'39
direct	-11932 Nov 07 j 00:26	13° $\mathbf{\text{♁}}$ 23'42		min. Earth dist.	-11926 Nov 12 j 11:25	29° $\mathbf{\text{♁}}$ 45'38	9.14919 AU
evening set	-11931 Feb 20 j 22:50	21° $\mathbf{\text{♁}}$ 24'53		direct	-11925 Jan 22 j 23:15	26° $\mathbf{\text{♁}}$ 24'07	
					-11925 Apr 03 j 17:00	0° $\mathbf{\text{♁}}$	
conjunction	-11931 Mar 10 j 20:41	23° $\mathbf{\text{♁}}$ 38'50	-2°25'47	evening set	-11925 May 06 j 23:39	3° $\mathbf{\text{♁}}$ 27'56	
minimum elong	-11931 Mar 10 j 20:41	23° $\mathbf{\text{♁}}$ 38'50	2°26'27	conjunction	-11925 May 24 j 02:05	5° $\mathbf{\text{♁}}$ 25'06	-0°37'30
max. Earth dist.	-11931 Mar 11 j 23:51	23° $\mathbf{\text{♁}}$ 47'21	10.33000 AU	minimum elong	-11925 May 24 j 02:07	5° $\mathbf{\text{♁}}$ 25'07	0°37'49
morning rise	-11931 Mar 28 j 15:11	25° $\mathbf{\text{♁}}$ 51'40		max. Earth dist.	-11925 May 23 j 17:19	5° $\mathbf{\text{♁}}$ 22'35	11.19551 AU
	-11931 May 04 j 07:07	0° $\mathbf{\text{♁}}$		morning rise	-11925 Jun 09 j 23:34	7° $\mathbf{\text{♁}}$ 20'54	
retrograde	-11931 Jul 08 j 10:33	3° $\mathbf{\text{♁}}$ 32'45		retrograde	-11925 Sep 15 j 14:00	14° $\mathbf{\text{♁}}$ 01'08	
opposition	-11931 Sep 13 j 08:52	0° $\mathbf{\text{♁}}$ 07'49	-2°58'20	opposition	-11925 Nov 23 j 18:46	10° $\mathbf{\text{♁}}$ 46'12	-0°29'19
min. Earth dist.	-11931 Sep 12 j 14:22	0° $\mathbf{\text{♁}}$ 11'33	8.41542 AU	min. Earth dist.	-11925 Nov 24 j 04:25	10° $\mathbf{\text{♁}}$ 44'25	9.23446 AU
	-11931 Sep 14 j 23:37	30° $\mathbf{\text{♁}}$		direct	-11924 Feb 03 j 18:24	7° $\mathbf{\text{♁}}$ 24'55	
direct	-11931 Nov 21 j 00:14	26° $\mathbf{\text{♁}}$ 39'25		evening set	-11924 May 17 j 06:29	14° $\mathbf{\text{♁}}$ 23'20	
	-11930 Jan 24 j 22:54	0° $\mathbf{\text{♁}}$					
evening set	-11930 Mar 06 j 22:36	4° $\mathbf{\text{♁}}$ 29'50		conjunction	-11924 Jun 03 j 05:38	16° $\mathbf{\text{♁}}$ 18'57	-0°09'53
conjunction	-11930 Mar 24 j 17:17	6° $\mathbf{\text{♁}}$ 40'18	-2°20'18	minimum elong	-11924 Jun 03 j 05:38	16° $\mathbf{\text{♁}}$ 18'57	0°10'04
				behind sun begin	-11924 Jun 02 j 23:59	16° $\mathbf{\text{♁}}$ 17'21	

Attention, astronomical year style is used: The year -11924 in astronomical counting style is the year 11925 BCE in historical counting style.

behind sun end	-11924 Jun 03 j 11:18	16° $\text{K}$ 20'33		conjunction	-11918 Aug 06 j 19:15	21° $\text{B}$ 32'14	2°09'29
max. Earth dist.	-11924 Jun 02 j 15:26	16° $\text{K}$ 14'53	11.26632 AU	minimum elong	-11918 Aug 06 j 19:12	21° $\text{B}$ 32'13	2°10'01
morning rise	-11924 Jun 20 j 00:17	18° $\text{K}$ 13'19		max. Earth dist.	-11918 Aug 05 j 12:42	21° $\text{B}$ 23'10	11.03296 AU
retrograde	-11924 Sep 25 j 15:52	24° $\text{K}$ 50'52		morning rise	-11918 Aug 23 j 03:59	23° $\text{B}$ 27'57	
asc. node	-11924 Oct 14 j 23:44	24° $\text{K}$ 32'38			-11918 Nov 06 j 00:02	0° $\text{II}$	
opposition	-11924 Dec 04 j 04:46	21° $\text{K}$ 36'32	0°04'34	retrograde	-11918 Dec 02 j 18:30	0° $\text{II}$ 34'55	
min. Earth dist.	-11924 Dec 04 j 18:01	21° $\text{K}$ 34'06	9.29047 AU		-11918 Dec 29 j 23:05	30° $\text{R}$ 8	
direct	-11923 Feb 14 j 09:49	18° $\text{K}$ 16'13		opposition	-11917 Feb 11 j 12:24	27° $\text{B}$ 16'21	2°46'13
evening set	-11923 May 28 j 08:29	25° $\text{K}$ 10'52		min. Earth dist.	-11917 Feb 12 j 14:55	27° $\text{B}$ 11'27	8.96803 AU
max. Earth dist.	-11923 Jun 13 j 10:38	27° $\text{K}$ 00'14	11.30670 AU	direct	-11917 Apr 23 j 02:50	23° $\text{B}$ 57'09	
					-11917 Jul 23 j 13:47	0° $\text{II}$	
conjunction	-11923 Jun 14 j 04:34	27° $\text{K}$ 05'21	0°17'55	evening set	-11917 Aug 01 j 21:35	1° $\text{II}$ 04'50	
minimum elong	-11923 Jun 14 j 04:33	27° $\text{K}$ 05'20	0°17'52	max. Earth dist.	-11917 Aug 17 j 00:01	2° $\text{II}$ 53'05	10.89526 AU
morning rise	-11923 Jun 30 j 20:23	28° $\text{K}$ 58'43					
	-11923 Jul 10 j 03:13	0° $\text{Y}$		conjunction	-11917 Aug 18 j 06:12	3° $\text{II}$ 02'10	2°20'48
retrograde	-11923 Oct 06 j 17:49	5° $\text{Y}$ 35'46		minimum elong	-11917 Aug 18 j 06:10	3° $\text{II}$ 02'10	2°21'23
opposition	-11923 Dec 15 j 14:26	2° $\text{Y}$ 21'40	0°38'00	morning rise	-11917 Sep 03 j 16:01	4° $\text{II}$ 59'59	
min. Earth dist.	-11923 Dec 16 j 07:31	2° $\text{Y}$ 18'33	9.31524 AU	retrograde	-11917 Dec 15 j 09:45	12° $\text{II}$ 18'44	
	-11922 Jan 20 j 17:29	30° $\text{R}$ 8		opposition	-11916 Feb 24 j 02:14	8° $\text{II}$ 58'21	2°57'18
direct	-11922 Feb 25 j 19:19	29° $\text{K}$ 02'08		min. Earth dist.	-11916 Feb 25 j 03:43	8° $\text{II}$ 53'35	8.82057 AU
	-11922 Apr 02 j 08:16	0° $\text{Y}$		direct	-11916 May 04 j 02:51	5° $\text{II}$ 38'29	
evening set	-11922 Jun 08 j 07:39	5° $\text{Y}$ 54'41		evening set	-11916 Aug 12 j 16:22	12° $\text{II}$ 53'45	
max. Earth dist.	-11922 Jun 24 j 02:31	7° $\text{Y}$ 42'07	11.31514 AU	max. Earth dist.	-11916 Aug 27 j 22:32	14° $\text{II}$ 45'01	10.73959 AU
conjunction	-11922 Jun 25 j 00:35	7° $\text{Y}$ 48'25	0°44'53	conjunction	-11916 Aug 29 j 02:08	14° $\text{II}$ 53'29	2°26'30
minimum elong	-11922 Jun 25 j 00:33	7° $\text{Y}$ 48'24	0°44'57	minimum elong	-11916 Aug 29 j 02:07	14° $\text{II}$ 53'29	2°27'09
morning rise	-11922 Jul 11 j 13:54	9° $\text{Y}$ 41'15		morning rise	-11916 Sep 14 j 14:01	16° $\text{II}$ 53'59	
retrograde	-11922 Oct 17 j 21:14	16° $\text{Y}$ 20'01		retrograde	-11916 Dec 27 j 11:37	24° $\text{II}$ 25'52	
opposition	-11922 Dec 27 j 01:16	13° $\text{Y}$ 05'44	1°10'03	opposition	-11915 Mar 08 j 00:46	21° $\text{II}$ 03'27	3°01'06
min. Earth dist.	-11922 Dec 27 j 22:28	13° $\text{Y}$ 01'53	9.30780 AU	min. Earth dist.	-11915 Mar 08 j 23:25	20° $\text{II}$ 59'10	8.65804 AU
direct	-11921 Mar 09 j 04:21	9° $\text{Y}$ 46'43		direct	-11915 May 16 j 08:49	17° $\text{II}$ 42'46	
evening set	-11921 Jun 19 j 05:43	16° $\text{Y}$ 38'55		evening set	-11915 Aug 24 j 20:24	25° $\text{II}$ 06'48	
				max. Earth dist.	-11915 Sep 09 j 09:07	27° $\text{II}$ 02'08	10.57221 AU
conjunction	-11921 Jul 05 j 19:41	18° $\text{Y}$ 32'20	1°10'19				
minimum elong	-11921 Jul 05 j 19:38	18° $\text{Y}$ 32'20	1°10'30	conjunction	-11915 Sep 10 j 08:36	27° $\text{II}$ 09'28	2°25'49
max. Earth dist.	-11921 Jul 04 j 17:17	18° $\text{Y}$ 24'46	11.29115 AU	minimum elong	-11915 Sep 10 j 08:38	27° $\text{II}$ 09'28	2°26'30
morning rise	-11921 Jul 22 j 07:03	20° $\text{Y}$ 25'07		morning rise	-11915 Sep 26 j 23:45	29° $\text{II}$ 13'12	
retrograde	-11921 Oct 29 j 03:51	27° $\text{Y}$ 07'46			-11915 Oct 03 j 10:23	0° $\text{B}$	
opposition	-11920 Jan 07 j 14:33	23° $\text{Y}$ 52'55	1°39'50	retrograde	-11914 Jan 10 j 01:54	6° $\text{B}$ 59'15	
min. Earth dist.	-11920 Jan 08 j 14:44	23° $\text{Y}$ 48'32	9.26786 AU	opposition	-11914 Mar 21 j 09:08	3° $\text{B}$ 34'41	2°56'36
direct	-11920 Mar 19 j 12:43	20° $\text{Y}$ 34'12		min. Earth dist.	-11914 Mar 22 j 03:18	3° $\text{B}$ 31'12	8.48728 AU
evening set	-11920 Jun 29 j 04:11	27° $\text{Y}$ 27'46		direct	-11914 May 28 j 23:52	0° $\text{B}$ 13'04	
max. Earth dist.	-11920 Jul 14 j 11:16	29° $\text{Y}$ 13'07	11.23481 AU	evening set	-11914 Sep 06 j 11:17	7° $\text{B}$ 46'43	
				max. Earth dist.	-11914 Sep 22 j 08:08	9° $\text{B}$ 46'47	10.40056 AU
conjunction	-11920 Jul 15 j 15:49	29° $\text{Y}$ 21'23	1°33'25				
minimum elong	-11920 Jul 15 j 15:46	29° $\text{Y}$ 21'22	1°33'44	conjunction	-11914 Sep 23 j 03:10	9° $\text{B}$ 52'50	2°18'06
	-11920 Jul 21 j 05:16	0° $\text{B}$		minimum elong	-11914 Sep 23 j 03:12	9° $\text{B}$ 52'51	2°18'47
morning rise	-11920 Aug 01 j 01:38	1° $\text{B}$ 14'36		morning rise	-11914 Oct 09 j 23:00	12° $\text{B}$ 00'20	
retrograde	-11920 Nov 08 j 17:07	8° $\text{B}$ 03'21		retrograde	-11913 Jan 24 j 05:06	20° $\text{B}$ 00'56	
opposition	-11919 Jan 18 j 07:47	4° $\text{B}$ 47'34	2°06'26	opposition	-11913 Apr 04 j 03:30	16° $\text{B}$ 34'14	2°43'02
min. Earth dist.	-11919 Jan 19 j 09:21	4° $\text{B}$ 42'55	9.19602 AU	min. Earth dist.	-11913 Apr 04 j 16:47	16° $\text{B}$ 31'38	8.31625 AU
direct	-11919 Mar 30 j 23:12	1° $\text{B}$ 28'55		direct	-11913 Jun 10 j 23:56	13° $\text{B}$ 11'32	
evening set	-11919 Jul 10 j 05:12	8° $\text{B}$ 25'37		evening set	-11913 Sep 19 j 14:40	20° $\text{B}$ 55'24	
max. Earth dist.	-11919 Jul 25 j 09:34	10° $\text{B}$ 11'19	11.14760 AU				
				conjunction	-11913 Oct 06 j 11:26	23° $\text{B}$ 05'23	2°02'59
conjunction	-11919 Jul 26 j 15:06	10° $\text{B}$ 19'57	1°53'25	minimum elong	-11913 Oct 06 j 11:30	23° $\text{B}$ 05'24	2°03'38
minimum elong	-11919 Jul 26 j 15:02	10° $\text{B}$ 19'56	1°53'51	max. Earth dist.	-11913 Oct 05 j 21:45	23° $\text{B}$ 00'58	10.23303 AU
morning rise	-11919 Aug 11 j 23:51	12° $\text{B}$ 14'08		morning rise	-11913 Oct 23 j 13:10	25° $\text{B}$ 17'01	
	-11919 Sep 06 j 11:01	15° $\text{B}$			-11913 Dec 03 j 13:16	0° $\text{B}$	
retrograde	-11919 Nov 20 j 14:18	19° $\text{B}$ 11'02		retrograde	-11912 Feb 07 j 19:57	3° $\text{B}$ 31'43	
opposition	-11918 Jan 30 j 06:32	15° $\text{B}$ 54'02	2°28'54	opposition	-11912 Apr 17 j 07:22	0° $\text{B}$ 03'02	2°20'05
min. Earth dist.	-11918 Jan 31 j 08:42	15° $\text{B}$ 49'14	9.09475 AU		-11912 Apr 17 j 22:36	30° $\text{R}$ 8	
	-11918 Feb 11 j 17:22	15° $\text{R}$ 8		min. Earth dist.	-11912 Apr 17 j 15:24	0° $\text{B}$ 01'26	8.15379 AU
direct	-11918 Apr 11 j 10:58	12° $\text{B}$ 35'14		direct	-11912 Jun 23 j 09:32	26° $\text{B}$ 39'10	
	-11918 Jun 06 j 05:18	15° $\text{B}$			-11912 Aug 24 j 07:35	0° $\text{B}$	
evening set	-11918 Jul 21 j 10:29	19° $\text{B}$ 36'40		evening set	-11912 Oct 02 j 07:21	4° $\text{B}$ 33'27	



Attention, astronomical year style is used: The year -11912 in astronomical counting style is the year 11913 BCE in historical counting style.

conjunction	-11912 Oct 19 j 10:04	6° $\Omega$ 47'28	1°40'32	retrograde	-11906 May 09 j 01:22	1° $\mathbb{M}$ 38'48	
minimum elong	-11912 Oct 19 j 10:08	6° $\Omega$ 47'29	1°41'06		-11906 Jun 21 j 01:47	30° $\mathbb{R}$ $\underline{\Omega}$	
max. Earth dist.	-11912 Oct 19 j 03:03	6° $\Omega$ 45'09	10.07866 AU	opposition	-11906 Jul 14 j 20:23	28° $\underline{\Omega}$ 06'17	-1°51'47
morning rise	-11912 Nov 05 j 18:27	9° $\Omega$ 03'20		min. Earth dist.	-11906 Jul 13 j 20:10	28° $\underline{\Omega}$ 11'23	7.82247 AU
	-11912 Dec 28 j 23:39	15° $\Omega$		direct	-11906 Sep 18 j 13:30	24° $\underline{\Omega}$ 36'53	
retrograde	-11911 Feb 21 j 19:52	17° $\Omega$ 30'53			-11906 Dec 07 j 17:50	0° $\mathbb{M}$	
	-11911 Apr 19 j 08:50	15° $\mathbb{R}$ $\underline{\Omega}$		evening set	-11905 Jan 01 j 05:20	3° $\mathbb{M}$ 03'03	
opposition	-11911 May 01 j 20:09	14° $\Omega$ 00'25	1°48'04				
min. Earth dist.	-11911 May 01 j 22:22	13° $\Omega$ 59'58	8.00921 AU	conjunction	-11905 Jan 19 j 10:01	5° $\mathbb{M}$ 27'14	-1°42'57
direct	-11911 Jul 07 j 07:28	10° $\Omega$ 35'22		minimum elong	-11905 Jan 19 j 09:57	5° $\mathbb{M}$ 27'12	1°43'20
	-11911 Sep 16 j 15:20	15° $\Omega$		max. Earth dist.	-11905 Jan 20 j 19:37	5° $\mathbb{M}$ 38'24	9.86168 AU
evening set	-11911 Oct 16 j 13:38	18° $\Omega$ 39'39		morning rise	-11905 Feb 06 j 16:04	7° $\mathbb{M}$ 51'44	
					-11905 Apr 15 j 02:42	15° $\mathbb{M}$	
conjunction	-11911 Nov 02 j 22:53	20° $\Omega$ 57'35	1°11'26	retrograde	-11905 May 23 j 21:38	16° $\mathbb{M}$ 22'24	
minimum elong	-11911 Nov 02 j 22:57	20° $\Omega$ 57'37	1°11'54		-11905 Jul 01 j 21:54	15° $\mathbb{R}$ $\mathbb{M}$	
max. Earth dist.	-11911 Nov 02 j 23:59	20° $\Omega$ 57'57	9.94672 AU	min. Earth dist.	-11905 Jul 28 j 10:48	12° $\mathbb{M}$ 56'26	7.91264 AU
morning rise	-11911 Nov 20 j 14:06	23° $\Omega$ 17'29		opposition	-11905 Jul 29 j 12:02	12° $\mathbb{M}$ 51'09	-2°24'35
	-11910 Jan 20 j 21:27	0° $\mathbb{M}$		direct	-11905 Oct 03 j 16:13	9° $\mathbb{M}$ 21'35	
retrograde	-11910 Mar 09 j 03:39	1° $\mathbb{M}$ 55'33			-11905 Dec 25 j 21:39	15° $\mathbb{M}$	
	-11910 Apr 26 j 07:34	30° $\mathbb{R}$ $\underline{\Omega}$		evening set	-11904 Jan 16 j 22:31	17° $\mathbb{M}$ 43'27	
opposition	-11910 May 16 j 16:12	28° $\Omega$ 23'39	1°08'15				
min. Earth dist.	-11910 May 16 j 12:02	28° $\Omega$ 24'30	7.89176 AU	conjunction	-11904 Feb 04 j 02:12	20° $\mathbb{M}$ 05'17	-2°05'37
direct	-11910 Jul 21 j 15:35	24° $\Omega$ 57'27		minimum elong	-11904 Feb 04 j 02:08	20° $\mathbb{M}$ 05'16	2°06'07
	-11910 Oct 06 j 00:33	0° $\mathbb{M}$		max. Earth dist.	-11904 Feb 05 j 12:19	20° $\mathbb{M}$ 16'27	9.96986 AU
evening set	-11910 Oct 31 j 09:28	3° $\mathbb{M}$ 10'40		morning rise	-11904 Feb 22 j 05:50	22° $\mathbb{M}$ 26'59	
					-11904 May 08 j 20:49	0° $\mathbb{X}$	
conjunction	-11910 Nov 18 j 01:14	5° $\mathbb{M}$ 32'05	0°37'07	retrograde	-11904 Jun 06 j 05:38	0° $\mathbb{X}$ 44'42	
minimum elong	-11910 Nov 18 j 01:16	5° $\mathbb{M}$ 32'06	0°37'27		-11904 Jul 04 j 15:21	30° $\mathbb{R}$ $\mathbb{M}$	
max. Earth dist.	-11910 Nov 18 j 10:57	5° $\mathbb{M}$ 35'21	9.84602 AU	opposition	-11904 Aug 11 j 19:03	27° $\mathbb{M}$ 15'11	-2°47'17
morning rise	-11910 Dec 05 j 22:44	7° $\mathbb{M}$ 55'23		min. Earth dist.	-11904 Aug 10 j 18:18	27° $\mathbb{M}$ 20'20	8.03733 AU
retrograde	-11909 Mar 24 j 16:34	16° $\mathbb{M}$ 40'35		direct	-11904 Oct 17 j 14:20	23° $\mathbb{M}$ 45'46	
opposition	-11909 May 31 j 17:01	13° $\mathbb{M}$ 07'41	0°22'56		-11903 Jan 14 j 22:42	0° $\mathbb{X}$	
min. Earth dist.	-11909 May 31 j 06:23	13° $\mathbb{M}$ 09'53	7.80967 AU	evening set	-11903 Jan 31 j 06:41	2° $\mathbb{X}$ 00'31	
direct	-11909 Aug 05 j 08:02	9° $\mathbb{M}$ 40'25					
evening set	-11909 Nov 15 j 17:12	18° $\mathbb{M}$ 00'53		conjunction	-11903 Feb 18 j 08:19	4° $\mathbb{X}$ 19'19	-2°19'58
desc. node	-11909 Nov 30 j 23:30	20° $\mathbb{M}$ 03'34		minimum elong	-11903 Feb 18 j 08:16	4° $\mathbb{X}$ 19'18	2°20'34
				max. Earth dist.	-11903 Feb 19 j 16:41	4° $\mathbb{X}$ 29'44	10.10864 AU
conjunction	-11909 Dec 03 j 14:39	20° $\mathbb{M}$ 24'54	-0°00'16	morning rise	-11903 Mar 08 j 08:35	6° $\mathbb{X}$ 37'31	
minimum elong	-11909 Dec 03 j 14:39	20° $\mathbb{M}$ 24'54	0°00'06	retrograde	-11903 Jun 20 j 00:05	14° $\mathbb{X}$ 40'28	
behind sun begin	-11909 Dec 03 j 07:34	20° $\mathbb{M}$ 22'32		opposition	-11903 Aug 25 j 16:02	11° $\mathbb{X}$ 12'58	-2°59'11
behind sun end	-11909 Dec 03 j 21:45	20° $\mathbb{M}$ 27'16		min. Earth dist.	-11903 Aug 24 j 16:52	11° $\mathbb{X}$ 17'44	8.18790 AU
max. Earth dist.	-11909 Dec 04 j 08:32	20° $\mathbb{M}$ 30'55	9.78386 AU	direct	-11903 Nov 01 j 04:42	7° $\mathbb{X}$ 44'02	
morning rise	-11909 Dec 21 j 17:11	22° $\mathbb{M}$ 50'33		evening set	-11902 Feb 15 j 02:43	15° $\mathbb{X}$ 49'30	
	-11908 Feb 25 j 09:27	0° $\underline{\Omega}$					
retrograde	-11908 Apr 08 j 06:55	1° $\underline{\Omega}$ 38'46		conjunction	-11902 Mar 05 j 01:42	18° $\mathbb{X}$ 04'52	-2°25'46
	-11908 May 21 j 17:34	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	-11902 Mar 05 j 01:41	18° $\mathbb{X}$ 04'52	2°26'25
opposition	-11908 Jun 14 j 20:05	28° $\mathbb{M}$ 05'24	-0°24'40	max. Earth dist.	-11902 Mar 06 j 06:33	18° $\mathbb{X}$ 14'00	10.26862 AU
min. Earth dist.	-11908 Jun 14 j 03:33	28° $\mathbb{M}$ 08'52	7.76909 AU	morning rise	-11902 Mar 22 j 22:07	20° $\mathbb{X}$ 19'17	
direct	-11908 Aug 19 j 06:30	24° $\mathbb{M}$ 37'13		retrograde	-11902 Jul 03 j 06:27	28° $\mathbb{X}$ 06'46	
	-11908 Nov 06 j 08:45	0° $\underline{\Omega}$		min. Earth dist.	-11902 Sep 07 j 05:53	24° $\mathbb{X}$ 45'38	8.35443 AU
evening set	-11908 Nov 30 j 09:49	3° $\underline{\Omega}$ 02'33		opposition	-11902 Sep 08 j 02:37	24° $\mathbb{X}$ 41'26	-3°00'36
				direct	-11902 Nov 15 j 10:00	21° $\mathbb{X}$ 13'14	
conjunction	-11908 Dec 18 j 11:27	5° $\underline{\Omega}$ 27'57	-0°37'58	evening set	-11901 Mar 01 j 08:55	29° $\mathbb{X}$ 08'07	
minimum elong	-11908 Dec 18 j 11:25	5° $\underline{\Omega}$ 27'56	0°38'00		-11901 Mar 08 j 10:34	0° $\mathbb{Z}$	
max. Earth dist.	-11908 Dec 19 j 12:31	5° $\underline{\Omega}$ 36'24	9.76516 AU				
morning rise	-11907 Jan 05 j 17:09	7° $\underline{\Omega}$ 54'37		conjunction	-11901 Mar 19 j 04:54	1° $\mathbb{Z}$ 19'57	-2°23'30
retrograde	-11907 Apr 23 j 19:10	16° $\underline{\Omega}$ 41'19		minimum elong	-11901 Mar 19 j 04:56	1° $\mathbb{Z}$ 19'57	2°24'11
opposition	-11907 Jun 29 j 22:15	13° $\underline{\Omega}$ 08'03	-1°10'48	max. Earth dist.	-11901 Mar 20 j 05:04	1° $\mathbb{Z}$ 27'27	10.43958 AU
min. Earth dist.	-11907 Jun 29 j 01:00	13° $\underline{\Omega}$ 12'32	7.77339 AU	morning rise	-11901 Apr 05 j 21:14	3° $\mathbb{Z}$ 30'33	
direct	-11907 Sep 03 j 09:11	9° $\underline{\Omega}$ 39'08		retrograde	-11901 Jul 16 j 00:15	11° $\mathbb{Z}$ 02'54	
evening set	-11907 Dec 16 j 07:27	18° $\underline{\Omega}$ 06'29		min. Earth dist.	-11901 Sep 20 j 09:33	7° $\mathbb{Z}$ 43'11	8.52674 AU
				opposition	-11901 Sep 21 j 02:48	7° $\mathbb{Z}$ 39'44	-2°52'37
conjunction	-11906 Jan 03 j 11:31	20° $\underline{\Omega}$ 31'55	-1°13'05	direct	-11901 Nov 29 j 05:08	4° $\mathbb{Z}$ 12'30	
minimum elong	-11906 Jan 03 j 11:27	20° $\underline{\Omega}$ 31'53	1°13'17	evening set	-11900 Mar 14 j 00:39	11° $\mathbb{Z}$ 56'17	
max. Earth dist.	-11906 Jan 04 j 18:02	20° $\underline{\Omega}$ 42'09	9.79172 AU				
morning rise	-11906 Jan 21 j 18:22	22° $\underline{\Omega}$ 58'10		conjunction	-11900 Mar 31 j 17:33	14° $\mathbb{Z}$ 04'42	-2°14'07
	-11906 Mar 27 j 10:08	0° $\mathbb{M}$		minimum elong	-11900 Mar 31 j 17:35	14° $\mathbb{Z}$ 04'43	2°14'47

Attention, astronomical year style is used: The year -11900 in astronomical counting style is the year 11901 BCE in historical counting style.

max. Earth dist.	-11900 Apr 01 j 12:24	14° $\overline{3}$ 10'26	10.61146 AU
morning rise	-11900 Apr 18 j 05:52	16° $\overline{3}$ 11'43	
retrograde	-11900 Jul 27 j 07:31	23° $\overline{3}$ 30'08	
opposition	-11900 Oct 02 j 17:31	20° $\overline{3}$ 09'04	-2°36'41
min. Earth dist.	-11900 Oct 02 j 05:14	20° $\overline{3}$ 11'29	8.69531 AU
direct	-11900 Dec 11 j 13:16	16° $\overline{3}$ 42'55	
evening set	-11899 Mar 27 j 02:26	24° $\overline{3}$ 15'54	

conjunction	-11899 Apr 13 j 16:09	26° $\overline{3}$ 21'12	-1°58'47
minimum elong	-11899 Apr 13 j 16:12	26° $\overline{3}$ 21'13	1°59'25
max. Earth dist.	-11899 Apr 14 j 04:25	26° $\overline{3}$ 24'52	10.77539 AU
morning rise	-11899 May 01 j 00:47	28° $\overline{3}$ 24'59	
	-11899 May 14 j 21:27	0° $\approx$	
retrograde	-11899 Aug 08 j 06:00	5° $\approx$ 31'12	
opposition	-11899 Oct 14 j 23:48	2° $\approx$ 12'04	-2°14'22
min. Earth dist.	-11899 Oct 14 j 17:12	2° $\approx$ 13'21	8.85240 AU
	-11899 Nov 15 j 02:14	30° $\overline{8}$ $\overline{3}$	
direct	-11899 Dec 24 j 10:13	28° $\overline{3}$ 47'05	