

Attention, astronomical year style is used: The year -12900 in astronomical counting style is the year 12901 BCE in historical counting style.

evening set	-12900 Mar 25 j 17:52	16° $\text{Z}$ 35'48		morning rise	-12895 Jun 23 j 19:00	15° $\text{H}$ 54'59	
				retrograde	-12895 Sep 29 j 18:29	22° $\text{H}$ 32'28	
conjunction	-12900 Apr 12 j 04:30	18° $\text{Z}$ 38'34	-1°56'10	opposition	-12895 Dec 08 j 17:20	19° $\text{H}$ 18'22	0°25'17
minimum elong	-12900 Apr 12 j 04:33	18° $\text{Z}$ 38'34	1°56'58	min. Earth dist.	-12895 Dec 09 j 13:57	19° $\text{H}$ 14'37	9.31013 AU
max. Earth dist.	-12900 Apr 12 j 11:47	18° $\text{Z}$ 40'43	10.89745 AU	direct	-12894 Feb 18 j 21:36	15° $\text{H}$ 58'54	
morning rise	-12900 Apr 29 j 09:49	20° $\text{Z}$ 39'48		evening set	-12894 Jun 01 j 07:04	22° $\text{H}$ 51'35	
retrograde	-12900 Aug 06 j 01:15	27° $\text{Z}$ 37'29					
opposition	-12900 Oct 13 j 03:20	24° $\text{Z}$ 19'20	-2°10'52	conjunction	-12894 Jun 17 j 23:31	24° $\text{H}$ 45'24	0°34'37
min. Earth dist.	-12900 Oct 13 j 00:27	24° $\text{Z}$ 19'53	8.96752 AU	minimum elong	-12894 Jun 17 j 23:30	24° $\text{H}$ 45'24	0°34'33
direct	-12900 Dec 23 j 01:56	20° $\text{Z}$ 55'01		max. Earth dist.	-12894 Jun 16 j 21:49	24° $\text{H}$ 38'03	11.30191 AU
evening set	-12899 Apr 06 j 21:43	28° $\text{Z}$ 10'31		morning rise	-12894 Jul 04 j 12:51	26° $\text{H}$ 38'26	
	-12899 Apr 22 j 16:03	0° $\approx$			-12894 Aug 05 j 22:11	0° $\text{Y}$	
				retrograde	-12894 Oct 10 j 23:23	3° $\text{Y}$ 18'33	
conjunction	-12899 Apr 24 j 05:05	0° $\approx$ 10'48	-1°36'09	opposition	-12894 Dec 20 j 05:03	0° $\text{Y}$ 04'05	0°57'56
minimum elong	-12899 Apr 24 j 05:08	0° $\approx$ 10'49	1°36'54	min. Earth dist.	-12894 Dec 21 j 04:25	29° $\text{H}$ 59'50	9.28628 AU
max. Earth dist.	-12899 Apr 24 j 05:21	0° $\approx$ 10'53	11.03192 AU		-12894 Dec 21 j 03:31	30° $\text{R}$ $\text{H}$	
morning rise	-12899 May 11 j 07:12	2° $\approx$ 09'34		direct	-12893 Mar 02 j 07:26	26° $\text{H}$ 45'00	
retrograde	-12899 Aug 17 j 08:09	8° $\approx$ 58'47			-12893 May 07 j 23:41	0° $\text{Y}$	
opposition	-12899 Oct 24 j 21:04	5° $\approx$ 42'12	-1°44'00	evening set	-12893 Jun 12 j 05:27	3° $\text{Y}$ 38'08	
min. Earth dist.	-12899 Oct 24 j 23:43	5° $\approx$ 41'42	9.09105 AU				
direct	-12898 Jan 04 j 07:20	2° $\approx$ 19'05		conjunction	-12893 Jun 28 j 19:31	5° $\text{Y}$ 31'57	1°00'44
evening set	-12898 Apr 18 j 16:02	9° $\approx$ 26'58		minimum elong	-12893 Jun 28 j 19:28	5° $\text{Y}$ 31'56	1°00'48
				max. Earth dist.	-12893 Jun 27 j 15:29	5° $\text{Y}$ 23'52	11.26155 AU
conjunction	-12898 May 05 j 20:16	11° $\approx$ 25'09	-1°12'50	morning rise	-12893 Jul 15 j 06:59	7° $\text{Y}$ 25'10	
minimum elong	-12898 May 05 j 20:18	11° $\approx$ 25'10	1°13'29	retrograde	-12893 Oct 22 j 10:21	14° $\text{Y}$ 10'09	
max. Earth dist.	-12898 May 05 j 13:43	11° $\approx$ 23'16	11.14368 AU	opposition	-12893 Dec 31 j 20:10	10° $\text{Y}$ 54'58	1°28'50
morning rise	-12898 May 22 j 19:28	13° $\approx$ 21'54		min. Earth dist.	-12892 Jan 01 j 21:30	10° $\text{Y}$ 50'22	9.23009 AU
	-12898 Jun 06 j 16:15	15° $\approx$		direct	-12892 Mar 12 j 16:15	7° $\text{Y}$ 36'06	
retrograde	-12898 Aug 28 j 12:47	20° $\approx$ 04'53		evening set	-12892 Jun 22 j 05:22	14° $\text{Y}$ 31'25	
opposition	-12898 Nov 05 j 10:39	16° $\approx$ 49'29	-1°13'51	max. Earth dist.	-12892 Jul 07 j 11:09	16° $\text{Y}$ 16'55	11.18965 AU
min. Earth dist.	-12898 Nov 05 j 17:41	16° $\approx$ 48'10	9.18986 AU				
	-12898 Dec 01 j 09:53	15° $\text{R}$ $\approx$		conjunction	-12892 Jul 08 j 17:20	16° $\text{Y}$ 25'42	1°24'55
direct	-12897 Jan 16 j 07:19	13° $\approx$ 27'33		minimum elong	-12892 Jul 08 j 17:17	16° $\text{Y}$ 25'41	1°25'09
	-12897 Mar 02 j 08:55	15° $\approx$		morning rise	-12892 Jul 25 j 03:31	18° $\text{Y}$ 19'38	
evening set	-12897 Apr 30 j 02:35	20° $\approx$ 29'12		retrograde	-12892 Nov 02 j 02:15	25° $\text{Y}$ 11'39	
				opposition	-12891 Jan 11 j 16:10	21° $\text{Y}$ 55'23	1°57'01
conjunction	-12897 May 17 j 03:50	22° $\approx$ 25'41	-0°47'12	min. Earth dist.	-12891 Jan 12 j 19:27	21° $\text{Y}$ 50'24	9.14358 AU
minimum elong	-12897 May 17 j 03:52	22° $\approx$ 25'42	0°47'43	direct	-12891 Mar 24 j 02:32	18° $\text{Y}$ 36'28	
max. Earth dist.	-12897 May 16 j 16:22	22° $\approx$ 22'24	11.22891 AU	evening set	-12891 Jul 03 j 08:46	25° $\text{Y}$ 35'44	
morning rise	-12897 Jun 03 j 00:10	24° $\approx$ 20'50		max. Earth dist.	-12891 Jul 18 j 10:55	27° $\text{Y}$ 21'29	11.08900 AU
	-12897 Aug 04 j 19:24	0° $\text{H}$					
retrograde	-12897 Sep 08 j 15:28	0° $\text{H}$ 59'48		conjunction	-12891 Jul 19 j 19:00	27° $\text{Y}$ 30'56	1°46'20
	-12897 Oct 14 j 04:32	30° $\text{R}$ $\approx$		minimum elong	-12891 Jul 19 j 18:56	27° $\text{Y}$ 30'55	1°46'43
opposition	-12897 Nov 16 j 21:38	27° $\approx$ 45'13	-0°41'34	morning rise	-12891 Aug 05 j 04:38	29° $\text{Y}$ 26'05	
min. Earth dist.	-12897 Nov 17 j 08:59	27° $\approx$ 43'07	9.26068 AU		-12891 Aug 10 j 03:06	0° $\text{B}$	
direct	-12896 Jan 27 j 23:21	24° $\approx$ 24'20		retrograde	-12891 Nov 14 j 02:22	6° $\text{B}$ 27'08	
	-12896 Apr 27 j 21:51	0° $\text{H}$		opposition	-12890 Jan 23 j 18:20	3° $\text{B}$ 09'29	2°21'26
evening set	-12896 May 10 j 07:25	1° $\text{H}$ 21'18		min. Earth dist.	-12890 Jan 24 j 22:27	3° $\text{B}$ 04'19	9.03004 AU
					-12890 Mar 21 j 13:40	30° $\text{R}$ $\text{Y}$	
conjunction	-12896 May 27 j 05:43	3° $\text{H}$ 16'30	-0°20'11	direct	-12890 Apr 04 j 17:45	29° $\text{Y}$ 50'16	
minimum elong	-12896 May 27 j 05:44	3° $\text{H}$ 16'30	0°20'34		-12890 Apr 18 j 19:22	0° $\text{B}$	
max. Earth dist.	-12896 May 26 j 13:35	3° $\text{H}$ 11'54	11.28480 AU	evening set	-12890 Jul 14 j 17:07	6° $\text{B}$ 55'02	
morning rise	-12896 Jun 12 j 23:22	5° $\text{H}$ 10'30		max. Earth dist.	-12890 Jul 29 j 19:00	8° $\text{B}$ 42'15	10.96336 AU
retrograde	-12896 Sep 18 j 16:58	11° $\text{H}$ 47'37					
opposition	-12896 Nov 27 j 07:20	8° $\text{H}$ 33'29	-0°08'12	conjunction	-12890 Jul 31 j 02:30	8° $\text{B}$ 51'40	2°04'04
min. Earth dist.	-12896 Nov 27 j 23:34	8° $\text{H}$ 30'31	9.30130 AU	minimum elong	-12890 Jul 31 j 02:27	8° $\text{B}$ 51'39	2°04'36
direct	-12895 Feb 07 j 11:52	5° $\text{H}$ 13'25		morning rise	-12890 Aug 16 j 12:17	10° $\text{B}$ 48'33	
asc. node	-12895 Feb 25 j 22:24	5° $\text{H}$ 29'14			-12890 Sep 25 j 01:58	15° $\text{B}$	
evening set	-12895 May 21 j 08:19	12° $\text{H}$ 07'23		retrograde	-12890 Nov 26 j 11:11	18° $\text{B}$ 00'33	
max. Earth dist.	-12895 Jun 06 j 06:03	13° $\text{H}$ 55'33	11.30954 AU		-12889 Jan 31 j 22:28	15° $\text{R}$ $\text{B}$	
				opposition	-12889 Feb 05 j 04:04	14° $\text{B}$ 41'10	2°40'56
conjunction	-12895 Jun 07 j 03:37	14° $\text{H}$ 01'42	0°07'26	min. Earth dist.	-12889 Feb 06 j 07:00	14° $\text{B}$ 36'11	8.89365 AU
minimum elong	-12895 Jun 07 j 03:36	14° $\text{H}$ 01'42	0°07'12	direct	-12889 Apr 16 j 13:59	11° $\text{B}$ 21'27	
behind sun begin	-12895 Jun 06 j 21:10	13° $\text{H}$ 59'53			-12889 Jun 24 j 00:32	15° $\text{B}$	
behind sun end	-12895 Jun 07 j 10:02	14° $\text{H}$ 03'30		evening set	-12889 Jul 26 j 08:03	18° $\text{B}$ 33'08	

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -12889 in astronomical counting style is the year 12890 BCE in historical counting style.

conjunction	-12889 Aug 11 j 17:40	20° <b>8</b> 31'45	2°17'11	max. Earth dist.	-12883 Oct 29 j 03:55	9° <b>Ω</b> 47'40	9.89767 AU
minimum elong	-12889 Aug 11 j 17:37	20° <b>8</b> 31'44	2°17'51	morning rise	-12883 Nov 15 j 14:13	12° <b>Ω</b> 06'42	
max. Earth dist.	-12889 Aug 10 j 12:37	20° <b>8</b> 22'56	10.81727 AU		-12883 Dec 08 j 13:35	15° <b>Ω</b>	
morning rise	-12889 Aug 28 j 04:27	22° <b>8</b> 30'54		retrograde	-12882 Mar 04 j 08:16	20° <b>Ω</b> 48'47	
retrograde	-12889 Dec 09 j 08:21	29° <b>8</b> 55'28		opposition	-12882 May 11 j 15:33	17° <b>Ω</b> 16'26	1°14'15
opposition	-12888 Feb 17 j 22:20	26° <b>8</b> 34'08	2°54'20	min. Earth dist.	-12882 May 11 j 06:59	17° <b>Ω</b> 18'12	7.85211 AU
min. Earth dist.	-12888 Feb 18 j 22:26	26° <b>8</b> 29'36	8.73940 AU		-12882 Jun 10 j 19:24	15° <b>℞</b> <b>Ω</b>	
direct	-12888 Apr 27 j 17:16	23° <b>8</b> 13'44		direct	-12882 Jul 16 j 10:20	13° <b>Ω</b> 49'56	
	-12888 Aug 01 j 15:40	0° <b>Π</b>			-12882 Aug 20 j 09:14	15° <b>Ω</b>	
evening set	-12888 Aug 06 j 07:36	0° <b>Π</b> 33'36		evening set	-12882 Oct 26 j 11:03	22° <b>Ω</b> 06'35	
conjunction	-12888 Aug 22 j 18:24	2° <b>Π</b> 34'44	2°24'44	conjunction	-12882 Nov 13 j 04:32	24° <b>Ω</b> 29'01	0°41'57
minimum elong	-12888 Aug 22 j 18:23	2° <b>Π</b> 34'44	2°25'29	minimum elong	-12882 Nov 13 j 04:34	24° <b>Ω</b> 29'02	0°42'27
max. Earth dist.	-12888 Aug 21 j 15:57	2° <b>Π</b> 26'34	10.65633 AU	max. Earth dist.	-12882 Nov 13 j 19:18	24° <b>Ω</b> 33'59	9.81593 AU
morning rise	-12888 Sep 08 j 07:26	4° <b>Π</b> 36'44		morning rise	-12882 Dec 01 j 03:31	26° <b>Ω</b> 53'15	
retrograde	-12888 Dec 21 j 17:25	12° <b>Π</b> 15'03			-12882 Dec 25 j 19:59	0° <b>℞</b>	
opposition	-12887 Mar 02 j 01:50	8° <b>Π</b> 51'39	3°00'24	retrograde	-12881 Mar 19 j 22:46	5° <b>℞</b> 40'26	
min. Earth dist.	-12887 Mar 02 j 22:43	8° <b>Π</b> 47'40	8.57345 AU	opposition	-12881 May 26 j 17:58	2° <b>℞</b> 07'21	0°29'13
direct	-12887 May 10 j 02:27	5° <b>Π</b> 30'25		min. Earth dist.	-12881 May 26 j 03:16	2° <b>℞</b> 10'24	7.79030 AU
evening set	-12887 Aug 18 j 17:09	12° <b>Π</b> 59'33			-12881 Jun 23 j 04:45	30° <b>℞</b> <b>Ω</b>	
max. Earth dist.	-12887 Sep 03 j 07:25	14° <b>Π</b> 56'30	10.48737 AU	direct	-12881 Jul 31 j 05:56	28° <b>Ω</b> 39'52	
					-12881 Sep 06 j 14:48	0° <b>℞</b>	
conjunction	-12887 Sep 04 j 06:20	15° <b>Π</b> 03'43	2°25'49	evening set	-12881 Nov 10 j 22:08	7° <b>℞</b> 02'19	
minimum elong	-12887 Sep 04 j 06:20	15° <b>Π</b> 03'43	2°26'38				
morning rise	-12887 Sep 20 j 22:57	17° <b>Π</b> 09'04		conjunction	-12881 Nov 28 j 21:02	9° <b>℞</b> 26'53	0°04'48
retrograde	-12886 Jan 04 j 12:42	25° <b>Π</b> 01'55		minimum elong	-12881 Nov 28 j 21:03	9° <b>℞</b> 26'54	0°05'06
opposition	-12886 Mar 15 j 15:27	21° <b>Π</b> 36'25	2°58'00	behind sun begin	-12881 Nov 28 j 13:54	9° <b>℞</b> 24'31	
min. Earth dist.	-12886 Mar 16 j 08:18	21° <b>Π</b> 33'09	8.40317 AU	behind sun end	-12881 Nov 29 j 04:11	9° <b>℞</b> 29'17	
direct	-12886 May 22 j 21:50	18° <b>Π</b> 14'12		max. Earth dist.	-12881 Nov 29 j 19:11	9° <b>℞</b> 34'22	9.77525 AU
evening set	-12886 Aug 31 j 13:56	25° <b>Π</b> 53'20		morning rise	-12881 Dec 17 j 00:52	11° <b>℞</b> 53'01	
				desc. node	-12880 Jan 15 j 23:40	15° <b>℞</b> 37'01	
conjunction	-12886 Sep 17 j 06:57	28° <b>Π</b> 01'01	2°19'41	retrograde	-12880 Apr 03 j 12:20	20° <b>℞</b> 40'52	
minimum elong	-12886 Sep 17 j 06:59	28° <b>Π</b> 01'02	2°20'31	opposition	-12880 Jun 09 j 21:03	17° <b>℞</b> 07'36	-0°18'18
max. Earth dist.	-12886 Sep 16 j 13:25	27° <b>Π</b> 55'24	10.31822 AU	min. Earth dist.	-12880 Jun 09 j 01:27	17° <b>℞</b> 11'43	7.77172 AU
	-12886 Oct 02 j 20:05	0° <b>☾</b>		direct	-12880 Aug 14 j 06:58	13° <b>℞</b> 39'17	
morning rise	-12886 Oct 04 j 04:27	0° <b>☾</b> 10'11		evening set	-12880 Nov 25 j 16:11	22° <b>℞</b> 04'56	
retrograde	-12885 Jan 18 j 20:05	8° <b>☾</b> 17'39					
opposition	-12885 Mar 29 j 14:59	4° <b>☾</b> 50'04	2°46'12	conjunction	-12880 Dec 13 j 18:55	24° <b>℞</b> 30'22	-0°32'59
min. Earth dist.	-12885 Mar 30 j 02:46	4° <b>☾</b> 47'45	8.23686 AU	minimum elong	-12880 Dec 13 j 18:53	24° <b>℞</b> 30'22	0°32'54
direct	-12885 Jun 05 j 04:40	1° <b>☾</b> 26'48		max. Earth dist.	-12880 Dec 14 j 23:05	24° <b>℞</b> 39'51	9.77896 AU
evening set	-12885 Sep 13 j 23:28	9° <b>☾</b> 16'13		morning rise	-12879 Jan 01 j 01:35	26° <b>℞</b> 56'59	
					-12879 Jan 25 j 06:15	0° <b>♄</b>	
conjunction	-12885 Sep 30 j 21:43	11° <b>☾</b> 27'47	2°05'51	retrograde	-12879 Apr 18 j 21:11	5° <b>♄</b> 40'58	
minimum elong	-12885 Sep 30 j 21:46	11° <b>☾</b> 27'48	2°06'40	opposition	-12879 Jun 24 j 21:34	2° <b>♄</b> 08'05	-1°04'31
max. Earth dist.	-12885 Sep 30 j 11:26	11° <b>☾</b> 24'26	10.15746 AU	min. Earth dist.	-12879 Jun 23 j 22:31	2° <b>♄</b> 12'56	7.79813 AU
morning rise	-12885 Oct 18 j 01:07	13° <b>☾</b> 41'03			-12879 Jul 22 j 06:14	30° <b>℞</b> <b>℞</b>	
retrograde	-12884 Feb 02 j 15:17	22° <b>☾</b> 02'15		direct	-12879 Aug 29 j 10:41	28° <b>℞</b> 39'10	
opposition	-12884 Apr 11 j 23:40	18° <b>☾</b> 32'47	2°24'36		-12879 Oct 06 j 05:29	0° <b>♄</b>	
min. Earth dist.	-12884 Apr 12 j 05:11	18° <b>☾</b> 31'41	8.08350 AU	evening set	-12879 Dec 11 j 13:05	7° <b>♄</b> 05'01	
direct	-12884 Jun 17 j 20:52	15° <b>☾</b> 08'25					
evening set	-12884 Sep 26 j 22:19	23° <b>☾</b> 07'56		conjunction	-12879 Dec 29 j 17:49	9° <b>♄</b> 29'59	-1°08'17
				minimum elong	-12879 Dec 29 j 17:45	9° <b>♄</b> 29'57	1°08'26
conjunction	-12884 Oct 14 j 02:47	25° <b>☾</b> 23'28	1°44'22	max. Earth dist.	-12879 Dec 31 j 02:12	9° <b>♄</b> 40'48	9.82714 AU
minimum elong	-12884 Oct 14 j 02:51	25° <b>☾</b> 23'30	1°45'08	morning rise	-12878 Jan 17 j 01:10	11° <b>♄</b> 55'37	
max. Earth dist.	-12884 Oct 14 j 00:41	25° <b>☾</b> 22'47	10.01424 AU	retrograde	-12878 May 03 j 21:51	20° <b>♄</b> 31'31	
morning rise	-12884 Oct 31 j 12:46	27° <b>☾</b> 40'53		opposition	-12878 Jul 09 j 16:31	16° <b>♄</b> 59'36	-1°45'49
	-12884 Nov 18 j 23:50	0° <b>Ω</b>		min. Earth dist.	-12878 Jul 08 j 15:23	17° <b>♄</b> 04'53	7.86770 AU
retrograde	-12883 Feb 16 j 20:19	6° <b>Ω</b> 13'58		direct	-12878 Sep 13 j 13:50	13° <b>♄</b> 30'20	
opposition	-12883 Apr 26 j 16:30	2° <b>Ω</b> 42'52	1°53'31	evening set	-12878 Dec 27 j 08:10	21° <b>♄</b> 53'22	
min. Earth dist.	-12883 Apr 26 j 14:55	2° <b>Ω</b> 43'11	7.95230 AU				
	-12883 Jun 04 j 06:21	30° <b>℞</b> <b>☾</b>		conjunction	-12877 Jan 14 j 13:05	24° <b>♄</b> 16'36	-1°38'36
direct	-12883 Jul 01 j 22:40	29° <b>☾</b> 17'26		minimum elong	-12877 Jan 14 j 13:00	24° <b>♄</b> 16'35	1°38'57
	-12883 Jul 29 j 04:51	0° <b>Ω</b>		max. Earth dist.	-12877 Jan 15 j 23:31	24° <b>♄</b> 27'58	9.91625 AU
evening set	-12883 Oct 11 j 10:22	7° <b>Ω</b> 26'13		morning rise	-12877 Feb 01 j 19:05	26° <b>♄</b> 40'00	
					-12877 Mar 01 j 00:04	0° <b>℞</b>	
conjunction	-12883 Oct 28 j 21:27	9° <b>Ω</b> 45'30	1°15'54	retrograde	-12877 May 18 j 12:04	5° <b>℞</b> 04'25	
minimum elong	-12883 Oct 28 j 21:31	9° <b>Ω</b> 45'31	1°16'33	min. Earth dist.	-12877 Jul 23 j 01:50	1° <b>℞</b> 39'21	7.97516 AU

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

Attention, astronomical year style is used: The year -12877 in astronomical counting style is the year 12878 BCE in historical counting style.

opposition	-12877 Jul 24 j 03:47	1° $\mathbb{M}$ 33'56	-2°19'17	retrograde	-12871 Aug 01 j 11:12	22° $\mathbb{Z}$ 52'07	
	-12877 Aug 12 j 15:05	30° $\mathbb{R}\mathbb{A}$		opposition	-12871 Oct 08 j 10:05	19° $\mathbb{Z}$ 33'38	-2°21'05
direct	-12877 Sep 28 j 14:13	28° $\mathbb{A}$ 04'39		min. Earth dist.	-12871 Oct 08 j 05:31	19° $\mathbb{Z}$ 34'31	8.91872 AU
	-12877 Nov 13 j 23:24	0° $\mathbb{M}$		direct	-12871 Dec 18 j 03:41	16° $\mathbb{Z}$ 09'08	
evening set	-12876 Jan 11 j 20:48	6° $\mathbb{M}$ 22'01		evening set	-12870 Apr 02 j 03:16	23° $\mathbb{Z}$ 28'09	
conjunction	-12876 Jan 30 j 00:18	8° $\mathbb{M}$ 42'33	-2°02'01	conjunction	-12870 Apr 19 j 12:04	25° $\mathbb{Z}$ 29'23	-1°45'14
minimum elong	-12876 Jan 30 j 00:14	8° $\mathbb{M}$ 42'31	2°02'34	minimum elong	-12870 Apr 19 j 12:07	25° $\mathbb{Z}$ 29'24	1°46'00
max. Earth dist.	-12876 Jan 31 j 10:38	8° $\mathbb{M}$ 53'42	10.03968 AU	max. Earth dist.	-12870 Apr 19 j 13:51	25° $\mathbb{Z}$ 29'55	10.98542 AU
morning rise	-12876 Feb 17 j 03:20	11° $\mathbb{M}$ 02'46		morning rise	-12870 May 06 j 15:37	27° $\mathbb{Z}$ 29'07	
	-12876 Mar 21 j 12:34	15° $\mathbb{M}$			-12870 May 29 j 15:17	0° $\approx$	
retrograde	-12876 May 31 j 13:20	19° $\mathbb{M}$ 13'21		retrograde	-12870 Aug 12 j 22:15	4° $\approx$ 21'35	
min. Earth dist.	-12876 Aug 05 j 04:03	15° $\mathbb{M}$ 49'58	8.11275 AU	opposition	-12870 Oct 20 j 06:10	1° $\approx$ 04'36	-1°56'03
opposition	-12876 Aug 06 j 05:34	15° $\mathbb{M}$ 44'41	-2°43'08	min. Earth dist.	-12870 Oct 20 j 06:32	1° $\approx$ 04'32	9.04740 AU
	-12876 Aug 15 j 07:36	15° $\mathbb{R}\mathbb{M}$			-12870 Nov 03 j 17:56	30° $\mathbb{R}\mathbb{Z}$	
direct	-12876 Oct 12 j 08:23	12° $\mathbb{M}$ 15'42		direct	-12870 Dec 30 j 12:16	27° $\mathbb{Z}$ 41'12	
	-12876 Dec 08 j 01:33	15° $\mathbb{M}$			-12869 Feb 23 j 23:13	0° $\approx$	
evening set	-12875 Jan 25 j 23:14	20° $\mathbb{M}$ 25'01		evening set	-12869 Apr 14 j 01:34	4° $\approx$ 52'03	
conjunction	-12875 Feb 13 j 00:17	22° $\mathbb{M}$ 42'14	-2°17'30	conjunction	-12869 May 01 j 07:18	6° $\approx$ 51'04	-1°23'15
minimum elong	-12875 Feb 13 j 00:14	22° $\mathbb{M}$ 42'13	2°18'11	minimum elong	-12869 May 01 j 07:21	6° $\approx$ 51'05	1°23'56
max. Earth dist.	-12875 Feb 14 j 08:37	22° $\mathbb{M}$ 52'33	10.18885 AU	max. Earth dist.	-12869 May 01 j 03:23	6° $\approx$ 49'56	11.10311 AU
morning rise	-12875 Mar 02 j 23:24	24° $\mathbb{M}$ 58'44		morning rise	-12869 May 18 j 07:39	8° $\approx$ 48'36	
	-12875 Apr 16 j 22:51	0° $\mathbb{Z}$			-12869 Jul 29 j 07:31	15° $\approx$	
retrograde	-12875 Jun 14 j 01:54	2° $\mathbb{Z}$ 54'17		retrograde	-12869 Aug 24 j 04:58	15° $\approx$ 33'55	
	-12875 Aug 13 j 05:58	30° $\mathbb{R}\mathbb{M}$			-12869 Sep 19 j 08:24	15° $\mathbb{R}\mathbb{M}$	
opposition	-12875 Aug 19 j 21:02	29° $\mathbb{M}$ 27'40	-2°56'39	opposition	-12869 Oct 31 j 21:32	12° $\approx$ 18'07	-1°27'13
min. Earth dist.	-12875 Aug 18 j 21:29	29° $\mathbb{M}$ 32'28	8.27110 AU	min. Earth dist.	-12869 Nov 01 j 03:28	12° $\approx$ 17'01	9.15281 AU
direct	-12875 Oct 26 j 17:33	25° $\mathbb{M}$ 59'14		direct	-12868 Jan 11 j 13:47	8° $\approx$ 55'44	
	-12874 Jan 05 j 14:28	0° $\mathbb{Z}$			-12868 Apr 15 j 15:20	15° $\approx$	
evening set	-12874 Feb 09 j 12:52	3° $\mathbb{Z}$ 58'49		evening set	-12868 Apr 24 j 15:10	15° $\approx$ 59'46	
conjunction	-12874 Feb 27 j 10:54	6° $\mathbb{Z}$ 12'29	-2°24'48	conjunction	-12868 May 11 j 17:47	17° $\approx$ 56'56	-0°58'32
minimum elong	-12874 Feb 27 j 10:53	6° $\mathbb{Z}$ 12'29	2°25'35	minimum elong	-12868 May 11 j 17:49	17° $\approx$ 56'57	0°59'06
max. Earth dist.	-12874 Feb 28 j 15:27	6° $\mathbb{Z}$ 21'25	10.35381 AU	max. Earth dist.	-12868 May 11 j 07:31	17° $\approx$ 53'59	11.19563 AU
morning rise	-12874 Mar 17 j 05:43	8° $\mathbb{Z}$ 25'05		morning rise	-12868 May 28 j 15:19	19° $\approx$ 52'43	
retrograde	-12874 Jun 27 j 02:49	16° $\mathbb{Z}$ 05'26		retrograde	-12868 Sep 03 j 06:30	26° $\approx$ 33'04	
min. Earth dist.	-12874 Sep 01 j 06:31	12° $\mathbb{Z}$ 44'55	8.43993 AU	opposition	-12868 Nov 11 j 09:22	23° $\approx$ 18'06	-0°55'47
opposition	-12874 Sep 02 j 02:08	12° $\mathbb{Z}$ 40'58	-3°00'09	min. Earth dist.	-12868 Nov 11 j 20:40	23° $\approx$ 16'00	9.23164 AU
direct	-12874 Nov 09 j 16:16	9° $\mathbb{Z}$ 13'18		direct	-12867 Jan 22 j 08:21	19° $\approx$ 56'36	
evening set	-12873 Feb 23 j 12:39	17° $\mathbb{Z}$ 02'20		evening set	-12867 May 05 j 22:13	26° $\approx$ 55'21	
conjunction	-12873 Mar 13 j 07:16	19° $\mathbb{Z}$ 12'28	-2°24'20	conjunction	-12867 May 22 j 21:44	28° $\approx$ 51'05	-0°32'03
minimum elong	-12873 Mar 13 j 07:17	19° $\mathbb{Z}$ 12'28	2°25'09	minimum elong	-12867 May 22 j 21:46	28° $\approx$ 51'05	0°32'29
max. Earth dist.	-12873 Mar 14 j 05:52	19° $\mathbb{Z}$ 19'25	10.52416 AU	max. Earth dist.	-12867 May 22 j 05:27	28° $\approx$ 46'25	11.26018 AU
morning rise	-12873 Mar 30 j 21:48	21° $\mathbb{Z}$ 21'18			-12867 Jun 01 j 23:12	0° $\mathbb{H}$	
retrograde	-12873 Jul 09 j 16:05	28° $\mathbb{Z}$ 47'12		morning rise	-12867 Jun 08 j 16:44	0° $\mathbb{H}$ 45'34	
opposition	-12873 Sep 14 j 21:20	25° $\mathbb{Z}$ 24'54	-2°54'32	retrograde	-12867 Sep 14 j 07:10	7° $\mathbb{H}$ 23'10	
min. Earth dist.	-12873 Sep 14 j 06:52	25° $\mathbb{Z}$ 27'46	8.60925 AU	opposition	-12867 Nov 22 j 18:58	4° $\mathbb{H}$ 08'38	-0°22'49
direct	-12873 Nov 23 j 05:18	21° $\mathbb{Z}$ 58'11		min. Earth dist.	-12867 Nov 23 j 10:17	4° $\mathbb{H}$ 05'49	9.28142 AU
evening set	-12872 Mar 07 j 22:23	29° $\mathbb{Z}$ 36'38		direct	-12866 Feb 03 j 00:15	0° $\mathbb{H}$ 47'52	
	-12872 Mar 11 j 05:10	0° $\mathbb{Z}$		evening set	-12866 May 17 j 00:20	7° $\mathbb{H}$ 42'59	
conjunction	-12872 Mar 25 j 13:32	1° $\mathbb{Z}$ 43'27	-2°16'53	conjunction	-12866 Jun 02 j 20:59	9° $\mathbb{H}$ 37'41	-0°04'43
minimum elong	-12872 Mar 25 j 13:34	1° $\mathbb{Z}$ 43'28	2°17'43	minimum elong	-12866 Jun 02 j 21:00	9° $\mathbb{H}$ 37'41	0°05'00
max. Earth dist.	-12872 Mar 26 j 04:51	1° $\mathbb{Z}$ 48'05	10.69069 AU	behind sun begin	-12866 Jun 02 j 14:13	9° $\mathbb{H}$ 35'46	
morning rise	-12872 Apr 12 j 00:08	3° $\mathbb{Z}$ 48'51		behind sun end	-12866 Jun 03 j 03:48	9° $\mathbb{H}$ 39'36	
retrograde	-12872 Jul 20 j 17:12	11° $\mathbb{Z}$ 01'46		max. Earth dist.	-12866 Jun 02 j 00:46	9° $\mathbb{H}$ 31'55	11.29477 AU
opposition	-12872 Sep 26 j 07:37	7° $\mathbb{Z}$ 41'31	-2°41'02	morning rise	-12866 Jun 19 j 13:27	11° $\mathbb{H}$ 31'16	
min. Earth dist.	-12872 Sep 25 j 22:25	7° $\mathbb{Z}$ 43'18	8.77095 AU	asc. node	-12866 Aug 06 j 10:12	16° $\mathbb{H}$ 09'58	
direct	-12872 Dec 05 j 09:39	4° $\mathbb{Z}$ 15'52		retrograde	-12866 Sep 25 j 09:04	18° $\mathbb{H}$ 08'22	
evening set	-12871 Mar 20 j 18:43	11° $\mathbb{Z}$ 44'12		opposition	-12866 Dec 04 j 04:22	14° $\mathbb{H}$ 53'54	0°10'42
				min. Earth dist.	-12866 Dec 04 j 22:59	14° $\mathbb{H}$ 50'30	9.30069 AU
conjunction	-12871 Apr 07 j 06:36	13° $\mathbb{Z}$ 48'02	-2°03'29	direct	-12865 Feb 14 j 10:28	11° $\mathbb{H}$ 33'46	
minimum elong	-12871 Apr 07 j 06:38	13° $\mathbb{Z}$ 48'03	2°04'18	evening set	-12865 May 27 j 23:24	18° $\mathbb{H}$ 26'52	
max. Earth dist.	-12871 Apr 07 j 14:31	13° $\mathbb{Z}$ 50'23	10.84635 AU				
morning rise	-12871 Apr 24 j 13:36	15° $\mathbb{Z}$ 50'23		conjunction	-12865 Jun 13 j 17:18	20° $\mathbb{H}$ 20'56	0°22'48

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4

Attention, astronomical year style is used: The year -12865 in astronomical counting style is the year 12866 BCE in historical counting style.

minimum elong	-12865 Jun 13 j 17:17	20° $\text{X}$ 20'56	0°22'40	morning rise	-12859 Sep 03 j 08:19	29° $\text{B}$ 29'59	
max. Earth dist.	-12865 Jun 12 j 17:43	20° $\text{X}$ 14'12	11.29843 AU		-12859 Sep 07 j 12:52	0° $\text{II}$	
morning rise	-12865 Jun 30 j 07:25	22° $\text{X}$ 14'06		retrograde	-12859 Dec 16 j 04:00	7° $\text{II}$ 01'55	
retrograde	-12865 Oct 06 j 12:23	28° $\text{X}$ 52'53		opposition	-12858 Feb 24 j 16:02	3° $\text{II}$ 39'39	2°58'41
opposition	-12865 Dec 15 j 15:02	25° $\text{X}$ 38'10	0°43'48	min. Earth dist.	-12858 Feb 25 j 14:31	3° $\text{II}$ 35'24	8.65330 AU
min. Earth dist.	-12865 Dec 16 j 13:19	25° $\text{X}$ 34'06	9.28905 AU	direct	-12858 May 05 j 00:47	0° $\text{II}$ 19'02	
direct	-12864 Feb 25 j 18:52	22° $\text{X}$ 18'27		evening set	-12858 Aug 13 j 15:16	7° $\text{II}$ 43'52	
evening set	-12864 Jun 06 j 21:34	29° $\text{X}$ 11'18		max. Earth dist.	-12858 Aug 29 j 04:00	9° $\text{II}$ 39'18	10.57009 AU
	-12864 Jun 14 j 01:30	0° $\text{Y}$					
max. Earth dist.	-12864 Jun 22 j 09:08	0° $\text{Y}$ 57'14	11.27123 AU	conjunction	-12858 Aug 30 j 03:12	9° $\text{II}$ 46'33	2°26'10
				minimum elong	-12858 Aug 30 j 03:12	9° $\text{II}$ 46'33	2°26'58
conjunction	-12864 Jun 23 j 12:41	1° $\text{Y}$ 05'09	0°49'29	morning rise	-12858 Sep 15 j 18:00	11° $\text{II}$ 50'17	
minimum elong	-12864 Jun 23 j 12:39	1° $\text{Y}$ 05'09	0°49'29	retrograde	-12858 Dec 29 j 18:51	19° $\text{II}$ 36'27	
morning rise	-12864 Jul 10 j 01:00	2° $\text{Y}$ 58'19		opposition	-12857 Mar 10 j 01:14	16° $\text{II}$ 12'15	3°00'05
retrograde	-12864 Oct 16 j 19:09	9° $\text{Y}$ 40'58		min. Earth dist.	-12857 Mar 10 j 19:12	16° $\text{II}$ 08'48	8.48800 AU
opposition	-12864 Dec 26 j 04:05	6° $\text{Y}$ 25'41	1°15'35	direct	-12857 May 17 j 16:14	12° $\text{II}$ 50'54	
min. Earth dist.	-12864 Dec 27 j 05:22	6° $\text{Y}$ 21'04	9.24692 AU	evening set	-12857 Aug 26 j 07:01	20° $\text{II}$ 25'19	
direct	-12863 Mar 08 j 03:12	3° $\text{Y}$ 06'13					
evening set	-12863 Jun 17 j 20:22	10° $\text{Y}$ 00'32		conjunction	-12857 Sep 11 j 22:15	22° $\text{II}$ 31'18	2°23'16
max. Earth dist.	-12863 Jul 03 j 03:16	11° $\text{Y}$ 45'58	11.21402 AU	minimum elong	-12857 Sep 11 j 22:16	22° $\text{II}$ 31'18	2°24'05
				max. Earth dist.	-12857 Sep 11 j 04:08	22° $\text{II}$ 25'32	10.40378 AU
conjunction	-12863 Jul 04 j 09:09	11° $\text{Y}$ 54'38	1°14'36	morning rise	-12857 Sep 28 j 17:13	24° $\text{II}$ 38'36	
minimum elong	-12863 Jul 04 j 09:06	11° $\text{Y}$ 54'37	1°14'45		-12857 Nov 16 j 15:24	0° $\text{B}$	
morning rise	-12863 Jul 20 j 20:02	13° $\text{Y}$ 48'17		retrograde	-12856 Jan 12 j 22:30	2° $\text{B}$ 39'20	
retrograde	-12863 Oct 28 j 07:20	20° $\text{Y}$ 36'58			-12856 Mar 12 j 17:55	30° $\text{R}$ $\text{II}$	
opposition	-12862 Jan 06 j 21:23	17° $\text{Y}$ 20'46	1°45'04	opposition	-12856 Mar 22 j 20:25	29° $\text{II}$ 13'09	2°52'27
min. Earth dist.	-12862 Jan 07 j 23:51	17° $\text{Y}$ 15'56	9.17539 AU	min. Earth dist.	-12856 Mar 23 j 09:07	29° $\text{II}$ 10'41	8.32239 AU
direct	-12862 Mar 19 j 13:31	14° $\text{Y}$ 01'25		direct	-12856 May 29 j 17:28	25° $\text{II}$ 50'55	
evening set	-12862 Jun 28 j 21:33	20° $\text{Y}$ 58'52			-12856 Aug 08 j 03:06	0° $\text{B}$	
max. Earth dist.	-12862 Jul 14 j 02:33	22° $\text{Y}$ 44'52	11.12831 AU	evening set	-12856 Sep 07 j 11:01	3° $\text{B}$ 35'24	
conjunction	-12862 Jul 15 j 08:35	22° $\text{Y}$ 53'39	1°37'20	conjunction	-12856 Sep 24 j 06:43	5° $\text{B}$ 45'03	2°12'49
minimum elong	-12862 Jul 15 j 08:31	22° $\text{Y}$ 53'38	1°37'39	minimum elong	-12856 Sep 24 j 06:46	5° $\text{B}$ 45'04	2°13'38
morning rise	-12862 Jul 31 j 18:22	24° $\text{Y}$ 48'14		max. Earth dist.	-12856 Sep 23 j 18:05	5° $\text{B}$ 40'58	10.24134 AU
	-12862 Sep 23 j 02:45	0° $\text{B}$		morning rise	-12856 Oct 11 j 07:09	7° $\text{B}$ 56'19	
retrograde	-12862 Nov 09 j 05:18	1° $\text{B}$ 45'04		retrograde	-12855 Jan 26 j 13:39	16° $\text{B}$ 11'05	
	-12862 Dec 28 j 00:29	30° $\text{R}$ $\text{Y}$		opposition	-12855 Apr 06 j 01:08	12° $\text{B}$ 43'01	2°35'09
opposition	-12861 Jan 18 j 20:24	28° $\text{Y}$ 27'42	2°11'16	min. Earth dist.	-12855 Apr 06 j 08:17	12° $\text{B}$ 41'36	8.16479 AU
min. Earth dist.	-12861 Jan 19 j 22:45	28° $\text{Y}$ 22'52	9.07656 AU	direct	-12855 Jun 12 j 04:07	9° $\text{B}$ 19'46	
direct	-12861 Mar 31 j 02:40	25° $\text{Y}$ 08'19		evening set	-12855 Sep 21 j 03:55	17° $\text{B}$ 14'19	
	-12861 Jun 20 j 15:17	0° $\text{B}$					
evening set	-12861 Jul 10 j 03:13	2° $\text{B}$ 10'29		conjunction	-12855 Oct 08 j 05:15	19° $\text{B}$ 27'52	1°54'39
max. Earth dist.	-12861 Jul 25 j 06:43	3° $\text{B}$ 57'28	11.01679 AU	minimum elong	-12855 Oct 08 j 05:19	19° $\text{B}$ 27'53	1°55'26
				max. Earth dist.	-12855 Oct 07 j 22:57	19° $\text{B}$ 25'48	10.09124 AU
conjunction	-12861 Jul 26 j 13:01	4° $\text{B}$ 06'27	1°56'47	morning rise	-12855 Oct 25 j 12:08	21° $\text{B}$ 43'15	
minimum elong	-12861 Jul 26 j 12:57	4° $\text{B}$ 06'26	1°57'16		-12854 Jan 27 j 08:25	0° $\text{B}$	
morning rise	-12861 Aug 11 j 22:30	6° $\text{B}$ 02'31		retrograde	-12854 Feb 10 j 14:30	0° $\text{B}$ 10'42	
retrograde	-12861 Nov 21 j 10:03	13° $\text{B}$ 09'23			-12854 Feb 24 j 19:53	30° $\text{R}$ $\text{B}$	
opposition	-12860 Jan 31 j 02:24	9° $\text{B}$ 50'36	2°33'03	opposition	-12854 Apr 20 j 14:37	26° $\text{B}$ 40'54	2°08'08
min. Earth dist.	-12860 Feb 01 j 04:36	9° $\text{B}$ 45'45	8.95361 AU	min. Earth dist.	-12854 Apr 20 j 16:16	26° $\text{B}$ 40'34	8.02363 AU
direct	-12860 Apr 10 j 17:39	6° $\text{B}$ 30'59		direct	-12854 Jun 26 j 01:48	23° $\text{B}$ 16'31	
evening set	-12860 Jul 20 j 14:58	13° $\text{B}$ 39'25			-12854 Sep 24 j 22:02	0° $\text{B}$	
	-12860 Jul 31 j 21:08	15° $\text{B}$		evening set	-12854 Oct 05 j 10:00	1° $\text{B}$ 20'43	
max. Earth dist.	-12860 Aug 04 j 18:14	15° $\text{B}$ 28'02	10.88321 AU				
				conjunction	-12854 Oct 22 j 17:50	3° $\text{B}$ 38'09	1°29'07
conjunction	-12860 Aug 06 j 00:16	15° $\text{B}$ 37'05	2°12'03	minimum elong	-12854 Oct 22 j 17:54	3° $\text{B}$ 38'10	1°29'49
minimum elong	-12860 Aug 06 j 00:14	15° $\text{B}$ 37'04	2°12'40	max. Earth dist.	-12854 Oct 22 j 18:55	3° $\text{B}$ 38'30	9.96157 AU
morning rise	-12860 Aug 22 j 10:32	17° $\text{B}$ 35'10		morning rise	-12854 Nov 09 j 07:38	5° $\text{B}$ 57'31	
retrograde	-12860 Dec 03 j 01:07	24° $\text{B}$ 53'51		retrograde	-12853 Feb 25 j 23:00	14° $\text{B}$ 35'24	
opposition	-12859 Feb 11 j 16:39	21° $\text{B}$ 33'25	2°49'16	opposition	-12853 May 05 j 11:08	11° $\text{B}$ 04'11	1°32'15
min. Earth dist.	-12859 Feb 12 j 17:53	21° $\text{B}$ 28'42	8.81072 AU	min. Earth dist.	-12853 May 05 j 07:00	11° $\text{B}$ 05'01	7.90695 AU
direct	-12859 Apr 22 j 17:48	18° $\text{B}$ 13'21		direct	-12853 Jul 10 j 10:14	7° $\text{B}$ 38'40	
evening set	-12859 Aug 01 j 10:25	25° $\text{B}$ 29'26			-12853 Oct 13 j 14:48	15° $\text{B}$	
				evening set	-12853 Oct 20 j 05:16	15° $\text{B}$ 51'37	
conjunction	-12859 Aug 17 j 20:21	27° $\text{B}$ 29'21	2°22'09				
minimum elong	-12859 Aug 17 j 20:19	27° $\text{B}$ 29'20	2°22'53	conjunction	-12853 Nov 06 j 19:47	18° $\text{B}$ 12'34	0°57'21
max. Earth dist.	-12859 Aug 16 j 16:45	27° $\text{B}$ 20'53	10.73229 AU	minimum elong	-12853 Nov 06 j 19:50	18° $\text{B}$ 12'35	0°57'54

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 5

Attention, astronomical year style is used: The year -12853 in astronomical counting style is the year 12854 BCE in historical counting style.

max. Earth dist.	-12853 Nov 07 j 04:49	18° $\Omega$ 15'36	9.86044 AU	retrograde	-12846 Jun 08 j 17:39	27° $\mathbb{M}$ 17'47	
morning rise	-12853 Nov 24 j 16:09	20° $\Omega$ 35'25		min. Earth dist.	-12846 Aug 13 j 11:39	23° $\mathbb{M}$ 54'33	8.18320 AU
retrograde	-12852 Mar 12 j 11:50	29° $\Omega$ 20'29		opposition	-12846 Aug 14 j 10:49	23° $\mathbb{M}$ 49'47	-2°52'13
opposition	-12852 May 19 j 12:25	25° $\Omega$ 48'15	0°49'24	direct	-12846 Oct 20 j 23:01	20° $\mathbb{M}$ 20'32	
min. Earth dist.	-12852 May 19 j 02:13	25° $\Omega$ 50'22	7.82329 AU	evening set	-12845 Feb 03 j 17:18	28° $\mathbb{M}$ 25'18	
direct	-12852 Jul 24 j 03:20	22° $\Omega$ 21'40			-12845 Feb 16 j 07:40	0° $\mathbb{X}$	
	-12852 Oct 29 j 05:03	0° $\mathbb{M}$					
evening set	-12852 Nov 03 j 12:07	0° $\mathbb{M}$ 41'41		conjunction	-12845 Feb 21 j 16:42	0° $\mathbb{X}$ 40'47	-2°22'43
				minimum elong	-12845 Feb 21 j 16:40	0° $\mathbb{X}$ 40'46	2°23'27
conjunction	-12852 Nov 21 j 08:41	3° $\mathbb{M}$ 05'22	0°21'15	max. Earth dist.	-12845 Feb 22 j 21:43	0° $\mathbb{X}$ 49'57	10.26225 AU
minimum elong	-12852 Nov 21 j 08:43	3° $\mathbb{M}$ 05'22	0°21'38	morning rise	-12845 Mar 11 j 13:40	2° $\mathbb{X}$ 55'20	
max. Earth dist.	-12852 Nov 22 j 01:56	3° $\mathbb{M}$ 11'11	9.79624 AU	retrograde	-12845 Jun 21 j 23:11	10° $\mathbb{X}$ 43'04	
morning rise	-12852 Dec 09 j 10:32	5° $\mathbb{M}$ 30'43		opposition	-12845 Aug 27 j 20:49	7° $\mathbb{X}$ 17'07	-3°00'01
retrograde	-12851 Mar 28 j 02:09	14° $\mathbb{M}$ 18'51		min. Earth dist.	-12845 Aug 27 j 00:14	7° $\mathbb{X}$ 21'17	8.34644 AU
opposition	-12851 Jun 03 j 15:56	10° $\mathbb{M}$ 46'03	0°02'31	direct	-12845 Nov 04 j 03:32	3° $\mathbb{X}$ 48'29	
min. Earth dist.	-12851 Jun 02 j 23:48	10° $\mathbb{M}$ 49'26	7.78015 AU	evening set	-12844 Feb 17 j 23:23	11° $\mathbb{X}$ 42'58	
desc. node	-12851 Jun 23 j 10:02	9° $\mathbb{M}$ 10'45					
direct	-12851 Aug 08 j 02:21	7° $\mathbb{M}$ 18'28		conjunction	-12844 Mar 06 j 19:31	13° $\mathbb{X}$ 54'52	-2°25'32
evening set	-12851 Nov 19 j 03:41	15° $\mathbb{M}$ 43'07		minimum elong	-12844 Mar 06 j 19:30	13° $\mathbb{X}$ 54'52	2°26'20
				max. Earth dist.	-12844 Mar 07 j 19:46	14° $\mathbb{X}$ 02'23	10.43012 AU
conjunction	-12851 Dec 07 j 05:01	18° $\mathbb{M}$ 08'21	-0°16'40	morning rise	-12844 Mar 24 j 12:11	16° $\mathbb{X}$ 05'35	
minimum elong	-12851 Dec 07 j 05:00	18° $\mathbb{M}$ 08'21	0°16'30	retrograde	-12844 Jul 03 j 17:01	23° $\mathbb{X}$ 38'25	
max. Earth dist.	-12851 Dec 08 j 05:50	18° $\mathbb{M}$ 16'43	9.77496 AU	opposition	-12844 Sep 08 j 20:28	20° $\mathbb{X}$ 14'34	-2°58'12
morning rise	-12851 Dec 25 j 10:38	20° $\mathbb{M}$ 34'55		min. Earth dist.	-12844 Sep 08 j 03:04	20° $\mathbb{X}$ 18'03	8.51644 AU
retrograde	-12850 Apr 12 j 14:09	29° $\mathbb{M}$ 21'29		direct	-12844 Nov 16 j 21:46	16° $\mathbb{X}$ 46'50	
opposition	-12850 Jun 18 j 18:22	25° $\mathbb{M}$ 48'38	-0°44'46	evening set	-12843 Mar 02 j 15:16	24° $\mathbb{X}$ 30'32	
min. Earth dist.	-12850 Jun 17 j 21:14	25° $\mathbb{M}$ 53'04	7.78159 AU				
direct	-12850 Aug 23 j 05:24	22° $\mathbb{M}$ 20'09		conjunction	-12843 Mar 20 j 08:08	26° $\mathbb{X}$ 38'59	-2°20'59
	-12850 Nov 29 j 01:35	0° $\mathbb{X}$		minimum elong	-12843 Mar 20 j 08:09	26° $\mathbb{X}$ 38'59	2°21'49
evening set	-12850 Dec 05 j 00:25	0° $\mathbb{X}$ 46'35		max. Earth dist.	-12843 Mar 21 j 03:15	26° $\mathbb{X}$ 44'48	10.60043 AU
				morning rise	-12843 Apr 06 j 20:36	28° $\mathbb{X}$ 46'04	
conjunction	-12850 Dec 23 j 04:42	3° $\mathbb{X}$ 12'01	-0°53'23		-12843 Apr 17 j 09:11	0° $\mathbb{X}$	
minimum elong	-12850 Dec 23 j 04:39	3° $\mathbb{X}$ 12'00	0°53'26	retrograde	-12843 Jul 15 j 23:21	6° $\mathbb{X}$ 05'02	
max. Earth dist.	-12850 Dec 24 j 11:13	3° $\mathbb{X}$ 22'15	9.79869 AU	opposition	-12843 Sep 21 j 10:27	2° $\mathbb{X}$ 43'17	-2°47'55
morning rise	-12849 Jan 10 j 11:55	5° $\mathbb{X}$ 38'19		min. Earth dist.	-12843 Sep 20 j 21:22	2° $\mathbb{X}$ 45'51	8.68456 AU
retrograde	-12849 Apr 27 j 19:43	14° $\mathbb{X}$ 18'46			-12843 Oct 31 j 13:52	30° $\mathbb{X}$	
opposition	-12849 Jul 03 j 16:29	10° $\mathbb{X}$ 46'23	-1°28'40	direct	-12843 Nov 30 j 05:53	29° $\mathbb{X}$ 16'36	
min. Earth dist.	-12849 Jul 02 j 16:07	10° $\mathbb{X}$ 51'31	7.82766 AU		-12843 Dec 29 j 20:34	0° $\mathbb{X}$	
direct	-12849 Sep 07 j 09:11	7° $\mathbb{X}$ 17'16		evening set	-12842 Mar 15 j 17:27	6° $\mathbb{X}$ 49'42	
evening set	-12849 Dec 20 j 21:26	15° $\mathbb{X}$ 42'22					
				conjunction	-12842 Apr 02 j 07:02	8° $\mathbb{X}$ 54'57	-2°10'01
conjunction	-12848 Jan 08 j 02:39	18° $\mathbb{X}$ 06'39	-1°26'11	minimum elong	-12842 Apr 02 j 07:04	8° $\mathbb{X}$ 54'58	2°10'50
minimum elong	-12848 Jan 08 j 02:34	18° $\mathbb{X}$ 06'37	1°26'27	max. Earth dist.	-12842 Apr 02 j 20:18	8° $\mathbb{X}$ 58'56	10.76494 AU
max. Earth dist.	-12848 Jan 09 j 12:30	18° $\mathbb{X}$ 17'53	9.86564 AU	morning rise	-12842 Apr 19 j 15:34	10° $\mathbb{X}$ 58'44	
morning rise	-12848 Jan 26 j 09:20	20° $\mathbb{X}$ 31'18		retrograde	-12842 Jul 27 j 21:38	18° $\mathbb{X}$ 05'25	
retrograde	-12848 May 11 j 16:02	29° $\mathbb{X}$ 01'45		opposition	-12842 Oct 03 j 16:13	14° $\mathbb{X}$ 45'39	-2°30'33
min. Earth dist.	-12848 Jul 16 j 06:14	25° $\mathbb{X}$ 35'48	7.91472 AU	min. Earth dist.	-12842 Oct 03 j 08:36	14° $\mathbb{X}$ 47'08	8.84321 AU
opposition	-12848 Jul 17 j 07:54	25° $\mathbb{X}$ 30'25	-2°05'54	direct	-12842 Dec 13 j 02:46	11° $\mathbb{X}$ 20'10	
direct	-12848 Sep 21 j 11:23	22° $\mathbb{X}$ 00'55		evening set	-12841 Mar 28 j 06:58	18° $\mathbb{X}$ 43'18	
	-12847 Jan 01 j 17:59	0° $\mathbb{M}$					
evening set	-12847 Jan 04 j 13:42	0° $\mathbb{M}$ 21'39		conjunction	-12841 Apr 14 j 17:11	20° $\mathbb{X}$ 45'43	-1°53'43
				minimum elong	-12841 Apr 14 j 17:15	20° $\mathbb{X}$ 45'44	1°54'30
conjunction	-12847 Jan 22 j 18:06	2° $\mathbb{M}$ 43'38	-1°52'49	max. Earth dist.	-12841 Apr 14 j 23:34	20° $\mathbb{X}$ 47'36	10.91660 AU
minimum elong	-12847 Jan 22 j 18:01	2° $\mathbb{M}$ 43'37	1°53'17	morning rise	-12841 May 01 j 22:12	22° $\mathbb{X}$ 46'37	
max. Earth dist.	-12847 Jan 24 j 04:46	2° $\mathbb{M}$ 55'00	9.97062 AU	retrograde	-12841 Aug 08 j 10:23	29° $\mathbb{X}$ 42'56	
morning rise	-12847 Feb 09 j 22:32	5° $\mathbb{M}$ 05'32		opposition	-12841 Oct 15 j 14:54	26° $\mathbb{X}$ 24'57	-2°07'30
retrograde	-12847 May 25 j 23:54	13° $\mathbb{M}$ 23'08		min. Earth dist.	-12841 Oct 15 j 12:44	26° $\mathbb{X}$ 25'21	8.98607 AU
opposition	-12847 Jul 31 j 14:28	9° $\mathbb{M}$ 53'17	-2°34'09	direct	-12841 Dec 25 j 15:00	23° $\mathbb{X}$ 00'43	
min. Earth dist.	-12847 Jul 30 j 13:17	9° $\mathbb{M}$ 58'31	8.03612 AU		-12840 Apr 06 j 04:35	0° $\mathbb{X}$	
direct	-12847 Oct 06 j 09:06	6° $\mathbb{M}$ 23'44		evening set	-12840 Apr 08 j 09:21	0° $\mathbb{X}$ 14'58	
evening set	-12846 Jan 19 j 21:23	14° $\mathbb{M}$ 37'29					
	-12846 Jan 22 j 20:32	15° $\mathbb{M}$		conjunction	-12840 Apr 25 j 16:20	2° $\mathbb{X}$ 14'55	-1°33'12
				minimum elong	-12840 Apr 25 j 16:23	2° $\mathbb{X}$ 14'56	1°33'56
conjunction	-12846 Feb 06 j 23:41	16° $\mathbb{M}$ 56'25	-2°11'52	max. Earth dist.	-12840 Apr 25 j 15:31	2° $\mathbb{X}$ 14'40	11.04973 AU
minimum elong	-12846 Feb 06 j 23:37	16° $\mathbb{M}$ 56'24	2°12'28	morning rise	-12840 May 12 j 18:13	4° $\mathbb{X}$ 13'23	
max. Earth dist.	-12846 Feb 08 j 08:35	17° $\mathbb{M}$ 07'01	10.10590 AU	retrograde	-12840 Aug 18 j 17:37	11° $\mathbb{X}$ 01'27	
morning rise	-12846 Feb 25 j 00:42	19° $\mathbb{M}$ 14'49		opposition	-12840 Oct 26 j 07:46	7° $\mathbb{X}$ 44'57	-1°40'07

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 6

Attention, astronomical year style is used: The year -12840 in astronomical counting style is the year 12841 BCE in historical counting style.

min. Earth dist.	-12840 Oct 26 j 10:19	7° $\approx$ 44'28	9.10795 AU	morning rise	-12834 Jul 16 j 13:19	9° $\Upsilon$ 19'26	
direct	-12839 Jan 05 j 20:57	4° $\approx$ 21'57		retrograde	-12834 Oct 23 j 17:27	16° $\Upsilon$ 04'30	
evening set	-12839 Apr 20 j 02:13	11° $\approx$ 28'38		opposition	-12833 Jan 02 j 04:22	12° $\Upsilon$ 49'18	1°32'37
				min. Earth dist.	-12833 Jan 03 j 06:17	12° $\Upsilon$ 44'35	9.23116 AU
conjunction	-12839 May 07 j 06:13	13° $\approx$ 26'32	-1°09'31	direct	-12833 Mar 14 j 23:08	9° $\Upsilon$ 30'30	
minimum elong	-12839 May 07 j 06:16	13° $\approx$ 26'33	1°10'08	evening set	-12833 Jun 24 j 12:07	16° $\Upsilon$ 25'43	
max. Earth dist.	-12839 May 06 j 23:40	13° $\approx$ 24'39	11.15959 AU				
	-12839 May 20 j 19:51	15° $\approx$		conjunction	-12833 Jul 10 j 23:43	18° $\Upsilon$ 19'55	1°27'50
morning rise	-12839 May 24 j 05:08	15° $\approx$ 23'00		minimum elong	-12833 Jul 10 j 23:40	18° $\Upsilon$ 19'55	1°28'05
retrograde	-12839 Aug 29 j 21:50	22° $\approx$ 05'01		max. Earth dist.	-12833 Jul 09 j 16:31	18° $\Upsilon$ 10'51	11.18925 AU
opposition	-12839 Nov 06 j 20:32	18° $\approx$ 49'41	-1°09'38	morning rise	-12833 Jul 27 j 09:48	20° $\Upsilon$ 13'50	
min. Earth dist.	-12839 Nov 07 j 03:31	18° $\approx$ 48'23	9.20455 AU	retrograde	-12833 Nov 04 j 09:58	27° $\Upsilon$ 06'10	
direct	-12838 Jan 17 j 17:42	15° $\approx$ 27'52		opposition	-12832 Jan 14 j 00:32	23° $\Upsilon$ 49'54	2°00'20
evening set	-12838 May 01 j 11:44	22° $\approx$ 28'28		min. Earth dist.	-12832 Jan 15 j 04:37	23° $\Upsilon$ 44'46	9.14166 AU
				direct	-12832 Mar 25 j 10:38	20° $\Upsilon$ 31'01	
conjunction	-12838 May 18 j 12:45	24° $\approx$ 24'43	-0°43'40	evening set	-12832 Jul 04 j 15:31	27° $\Upsilon$ 30'22	
minimum elong	-12838 May 18 j 12:47	24° $\approx$ 24'43	0°44'09	max. Earth dist.	-12832 Jul 19 j 17:21	29° $\Upsilon$ 16'04	11.08547 AU
max. Earth dist.	-12838 May 18 j 01:21	24° $\approx$ 21'27	11.24236 AU				
morning rise	-12838 Jun 04 j 08:43	26° $\approx$ 19'38		conjunction	-12832 Jul 21 j 01:34	29° $\Upsilon$ 25'34	1°48'48
	-12838 Jul 10 j 05:42	0° $\text{X}$		minimum elong	-12832 Jul 21 j 01:31	29° $\Upsilon$ 25'33	1°49'12
retrograde	-12838 Sep 09 j 23:32	2° $\text{X}$ 57'50			-12832 Jul 25 j 22:26	0° $\text{B}$	
	-12838 Nov 14 j 12:05	30° $\text{R}$		morning rise	-12832 Aug 06 j 11:08	1° $\text{B}$ 20'46	
opposition	-12838 Nov 18 j 06:51	29° $\approx$ 43'19	-0°37'10	retrograde	-12832 Nov 15 j 09:46	8° $\text{B}$ 22'24	
min. Earth dist.	-12838 Nov 18 j 19:02	29° $\approx$ 41'04	9.27279 AU	opposition	-12831 Jan 25 j 02:49	5° $\text{B}$ 04'41	2°24'09
direct	-12837 Jan 29 j 09:18	26° $\approx$ 22'31		min. Earth dist.	-12831 Jan 26 j 06:59	4° $\text{B}$ 59'30	9.02488 AU
	-12837 Apr 10 j 16:51	0° $\text{X}$		direct	-12831 Apr 06 j 01:21	1° $\text{B}$ 45'31	
evening set	-12837 May 12 j 15:47	3° $\text{X}$ 18'39		evening set	-12831 Jul 16 j 00:06	8° $\text{B}$ 50'36	
				max. Earth dist.	-12831 Jul 31 j 02:21	10° $\text{B}$ 38'00	10.95647 AU
conjunction	-12837 May 29 j 13:42	5° $\text{X}$ 13'38	-0°16'33				
minimum elong	-12837 May 29 j 13:42	5° $\text{X}$ 13'38	0°16'54	conjunction	-12831 Aug 01 j 09:30	10° $\text{B}$ 47'19	2°06'00
max. Earth dist.	-12837 May 28 j 20:33	5° $\text{X}$ 08'45	11.29554 AU	minimum elong	-12831 Aug 01 j 09:27	10° $\text{B}$ 47'18	2°06'33
morning rise	-12837 Jun 15 j 07:07	7° $\text{X}$ 07'26		morning rise	-12831 Aug 17 j 19:11	12° $\text{B}$ 44'18	
retrograde	-12837 Sep 20 j 23:55	13° $\text{X}$ 44'01			-12831 Sep 06 j 20:33	15° $\text{B}$	
opposition	-12837 Nov 29 j 16:10	10° $\text{X}$ 29'57	-0°03'46	retrograde	-12831 Nov 27 j 21:32	19° $\text{B}$ 57'08	
min. Earth dist.	-12837 Nov 30 j 09:11	10° $\text{X}$ 26'50	9.31066 AU	opposition	-12830 Feb 06 j 13:01	16° $\text{B}$ 37'42	2°42'57
asc. node	-12836 Jan 10 j 05:00	7° $\text{X}$ 52'22		min. Earth dist.	-12830 Feb 07 j 15:37	16° $\text{B}$ 32'45	8.88512 AU
direct	-12836 Feb 09 j 20:38	7° $\text{X}$ 09'58			-12830 Mar 01 j 10:17	15° $\text{R}$	
evening set	-12836 May 22 j 15:55	14° $\text{X}$ 03'16		direct	-12830 Apr 17 j 22:35	13° $\text{B}$ 18'01	
					-12830 Jun 02 j 13:54	15° $\text{B}$	
conjunction	-12836 Jun 08 j 10:51	15° $\text{X}$ 57'24	0°11'02	evening set	-12830 Jul 27 j 15:36	20° $\text{B}$ 30'14	
minimum elong	-12836 Jun 08 j 10:50	15° $\text{X}$ 57'24	0°10'50	max. Earth dist.	-12830 Aug 11 j 19:46	22° $\text{B}$ 20'03	10.80713 AU
behind sun begin	-12836 Jun 08 j 05:29	15° $\text{X}$ 55'54					
behind sun end	-12836 Jun 08 j 16:11	15° $\text{X}$ 58'55		conjunction	-12830 Aug 13 j 01:12	22° $\text{B}$ 29'01	2°18'28
max. Earth dist.	-12836 Jun 07 j 12:38	15° $\text{X}$ 51'04	11.31748 AU	minimum elong	-12830 Aug 13 j 01:09	22° $\text{B}$ 29'00	2°19'09
morning rise	-12836 Jun 25 j 02:03	17° $\text{X}$ 50'33		morning rise	-12830 Aug 29 j 12:03	24° $\text{B}$ 28'20	
retrograde	-12836 Oct 01 j 01:28	24° $\text{X}$ 27'47			-12830 Oct 23 j 00:59	0° $\text{II}$	
opposition	-12836 Dec 10 j 01:46	21° $\text{X}$ 13'41	0°29'37	retrograde	-12830 Dec 10 j 19:25	1° $\text{II}$ 53'57	
min. Earth dist.	-12836 Dec 10 j 22:15	21° $\text{X}$ 09'58	9.31667 AU		-12829 Jan 30 j 06:29	30° $\text{R}$	
direct	-12835 Feb 20 j 07:11	17° $\text{X}$ 54'19		opposition	-12829 Feb 19 j 08:05	28° $\text{B}$ 32'34	2°55'31
evening set	-12835 Jun 02 j 14:11	24° $\text{X}$ 46'31		min. Earth dist.	-12829 Feb 20 j 08:21	28° $\text{B}$ 28'00	8.72776 AU
max. Earth dist.	-12835 Jun 18 j 05:10	26° $\text{X}$ 32'59	11.30705 AU	direct	-12829 Apr 30 j 00:17	25° $\text{B}$ 12'12	
					-12829 Jul 17 j 15:56	0° $\text{II}$	
conjunction	-12835 Jun 19 j 06:26	26° $\text{X}$ 40'13	0°38'06	evening set	-12829 Aug 08 j 15:55	2° $\text{II}$ 32'48	
minimum elong	-12835 Jun 19 j 06:25	26° $\text{X}$ 40'13	0°38'04	max. Earth dist.	-12829 Aug 23 j 23:25	4° $\text{II}$ 25'42	10.64341 AU
morning rise	-12835 Jul 05 j 19:27	28° $\text{X}$ 33'08					
	-12835 Jul 19 j 00:54	0° $\Upsilon$		conjunction	-12829 Aug 25 j 02:45	4° $\text{II}$ 34'10	2°25'17
retrograde	-12835 Oct 12 j 07:54	5° $\Upsilon$ 13'10		minimum elong	-12829 Aug 25 j 02:44	4° $\text{II}$ 34'09	2°26'02
opposition	-12835 Dec 21 j 13:12	1° $\Upsilon$ 58'42	1°02'03	morning rise	-12829 Sep 10 j 16:06	6° $\text{II}$ 36'25	
min. Earth dist.	-12835 Dec 22 j 12:20	1° $\Upsilon$ 54'30	9.29008 AU	retrograde	-12829 Dec 24 j 03:43	14° $\text{II}$ 16'00	
	-12834 Jan 19 j 18:20	30° $\text{R}$		opposition	-12828 Mar 03 j 12:35	10° $\text{II}$ 52'32	3°00'38
direct	-12834 Mar 03 j 15:46	28° $\text{X}$ 39'44		min. Earth dist.	-12828 Mar 04 j 10:06	10° $\text{II}$ 48'25	8.55927 AU
	-12834 Apr 14 j 10:34	0° $\Upsilon$		direct	-12828 May 11 j 11:12	7° $\text{II}$ 31'15	
evening set	-12834 Jun 13 j 12:19	5° $\Upsilon$ 32'32		evening set	-12828 Aug 20 j 02:25	15° $\text{II}$ 01'21	
max. Earth dist.	-12834 Jun 28 j 21:57	7° $\Upsilon$ 18'09	11.26398 AU				
				conjunction	-12828 Sep 05 j 15:52	17° $\text{II}$ 05'50	2°25'32
conjunction	-12834 Jun 30 j 02:07	7° $\Upsilon$ 26'16	1°03'59	minimum elong	-12828 Sep 05 j 15:53	17° $\text{II}$ 05'50	2°26'21
minimum elong	-12834 Jun 30 j 02:04	7° $\Upsilon$ 26'15	1°04'05	max. Earth dist.	-12828 Sep 04 j 16:45	16° $\text{II}$ 58'32	10.47223 AU

Attention, astronomical year style is used: The year -12828 in astronomical counting style is the year 12829 BCE in historical counting style.

morning rise	-12828 Sep 22 j 08:57	19° $\Pi$ 11'32		morning rise	-12822 Dec 18 j 19:35	14° $\Pi$ 12'57	
retrograde	-12827 Jan 06 j 00:35	27° $\Pi$ 05'48		retrograde	-12821 Apr 06 j 06:23	23° $\Pi$ 01'09	
opposition	-12827 Mar 17 j 03:09	23° $\Pi$ 40'11	2°57'10	opposition	-12821 Jun 12 j 13:57	19° $\Pi$ 27'47	-0°24'01
min. Earth dist.	-12827 Mar 17 j 20:25	23° $\Pi$ 36'50	8.38710 AU	min. Earth dist.	-12821 Jun 11 j 18:28	19° $\Pi$ 31'53	7.76563 AU
direct	-12827 May 24 j 08:58	20° $\Pi$ 17'54		direct	-12821 Aug 16 j 23:31	15° $\Pi$ 59'16	
evening set	-12827 Sep 02 j 00:23	27° $\Pi$ 58'07		evening set	-12821 Nov 28 j 10:59	24° $\Pi$ 25'34	
	-12827 Sep 17 j 22:37	0° $\mathfrak{D}$					
conjunction	-12827 Sep 18 j 17:54	0° $\mathfrak{D}$ 06'12	2°18'30	conjunction	-12821 Dec 16 j 14:01	26° $\Pi$ 51'09	-0°37'27
minimum elong	-12827 Sep 18 j 17:56	0° $\mathfrak{D}$ 06'13	2°19'20	minimum elong	-12821 Dec 16 j 13:58	26° $\Pi$ 51'08	0°37'24
max. Earth dist.	-12827 Sep 18 j 01:04	0° $\mathfrak{D}$ 00'47	10.30154 AU	max. Earth dist.	-12821 Dec 17 j 18:14	27° $\Pi$ 00'39	9.77501 AU
morning rise	-12827 Oct 05 j 15:51	2° $\mathfrak{D}$ 15'46		morning rise	-12820 Jan 03 j 20:56	29° $\Pi$ 17'51	
retrograde	-12826 Jan 20 j 10:21	10° $\mathfrak{D}$ 24'45			-12820 Jan 09 j 05:52	0° $\mathfrak{D}$	
opposition	-12826 Mar 31 j 03:44	6° $\mathfrak{D}$ 57'02	2°44'14	retrograde	-12820 Apr 20 j 14:55	8° $\mathfrak{D}$ 01'43	
min. Earth dist.	-12826 Mar 31 j 15:11	6° $\mathfrak{D}$ 54'46	8.21975 AU	opposition	-12820 Jun 26 j 14:26	4° $\mathfrak{D}$ 28'47	-1°09'55
direct	-12826 Jun 06 j 15:36	3° $\mathfrak{D}$ 33'41		min. Earth dist.	-12820 Jun 25 j 15:17	4° $\mathfrak{D}$ 33'39	7.79644 AU
evening set	-12826 Sep 15 j 11:17	11° $\mathfrak{D}$ 24'16		direct	-12820 Aug 31 j 04:16	0° $\mathfrak{D}$ 59'41	
				evening set	-12820 Dec 13 j 08:19	9° $\mathfrak{D}$ 25'53	
conjunction	-12826 Oct 02 j 10:09	13° $\mathfrak{D}$ 36'16	2°03'46	conjunction	-12820 Dec 31 j 13:12	11° $\mathfrak{D}$ 50'50	-1°12'20
minimum elong	-12826 Oct 02 j 10:13	13° $\mathfrak{D}$ 36'17	2°04'34	minimum elong	-12820 Dec 31 j 13:08	11° $\mathfrak{D}$ 50'49	1°12'30
max. Earth dist.	-12826 Oct 02 j 00:50	13° $\mathfrak{D}$ 33'13	10.14025 AU	max. Earth dist.	-12819 Jan 01 j 21:55	12° $\mathfrak{D}$ 01'46	9.82762 AU
morning rise	-12826 Oct 19 j 14:04	15° $\mathfrak{D}$ 49'59		morning rise	-12819 Jan 18 j 20:31	14° $\mathfrak{D}$ 16'26	
retrograde	-12825 Feb 04 j 07:04	24° $\mathfrak{D}$ 12'43		retrograde	-12819 May 05 j 14:53	22° $\mathfrak{D}$ 51'48	
opposition	-12825 Apr 14 j 13:34	20° $\mathfrak{D}$ 43'04	2°21'29	min. Earth dist.	-12819 Jul 10 j 07:27	19° $\mathfrak{D}$ 25'16	7.87040 AU
min. Earth dist.	-12825 Apr 14 j 18:10	20° $\mathfrak{D}$ 42'08	8.06644 AU	opposition	-12819 Jul 11 j 09:09	19° $\mathfrak{D}$ 19'52	-1°50'28
direct	-12825 Jun 20 j 08:47	17° $\mathfrak{D}$ 18'36		direct	-12819 Sep 15 j 08:14	15° $\mathfrak{D}$ 50'29	
evening set	-12825 Sep 29 j 11:42	25° $\mathfrak{D}$ 19'20		evening set	-12819 Dec 29 j 03:11	24° $\mathfrak{D}$ 13'30	
conjunction	-12825 Oct 16 j 16:49	27° $\mathfrak{D}$ 35'20	1°41'24	conjunction	-12818 Jan 16 j 08:08	26° $\mathfrak{D}$ 36'36	-1°41'56
minimum elong	-12825 Oct 16 j 16:54	27° $\mathfrak{D}$ 35'21	1°42'08	minimum elong	-12818 Jan 16 j 08:03	26° $\mathfrak{D}$ 36'34	1°42'19
max. Earth dist.	-12825 Oct 16 j 15:18	27° $\mathfrak{D}$ 34'49	9.99766 AU	max. Earth dist.	-12818 Jan 17 j 19:15	26° $\mathfrak{D}$ 48'11	9.92103 AU
morning rise	-12825 Nov 03 j 03:28	29° $\mathfrak{D}$ 53'12		morning rise	-12818 Feb 03 j 13:53	28° $\mathfrak{D}$ 59'49	
	-12825 Nov 04 j 00:27	0° $\mathfrak{D}$			-12818 Feb 11 j 10:43	0° $\mathfrak{D}$	
retrograde	-12824 Feb 19 j 13:06	8° $\mathfrak{D}$ 27'40		retrograde	-12818 May 20 j 03:47	7° $\mathfrak{D}$ 23'23	
opposition	-12824 Apr 28 j 07:28	4° $\mathfrak{D}$ 56'23	1°49'20	opposition	-12818 Jul 25 j 19:51	3° $\mathfrak{D}$ 52'57	-2°22'54
min. Earth dist.	-12824 Apr 28 j 05:04	4° $\mathfrak{D}$ 56'52	7.93645 AU	min. Earth dist.	-12818 Jul 24 j 17:08	3° $\mathfrak{D}$ 58'31	7.98197 AU
direct	-12824 Jul 03 j 12:17	1° $\mathfrak{D}$ 30'48		direct	-12818 Sep 30 j 08:12	0° $\mathfrak{D}$ 23'36	
evening set	-12824 Oct 13 j 01:30	9° $\mathfrak{D}$ 40'49		evening set	-12817 Jan 13 j 15:22	8° $\mathfrak{D}$ 40'36	
conjunction	-12824 Oct 30 j 13:10	12° $\mathfrak{D}$ 00'32	1°12'11	conjunction	-12817 Jan 31 j 18:48	11° $\mathfrak{D}$ 00'55	-2°04'28
minimum elong	-12824 Oct 30 j 13:13	12° $\mathfrak{D}$ 00'33	1°12'48	minimum elong	-12817 Jan 31 j 18:44	11° $\mathfrak{D}$ 00'53	2°05'01
max. Earth dist.	-12824 Oct 30 j 19:44	12° $\mathfrak{D}$ 02'44	9.88285 AU	max. Earth dist.	-12817 Feb 02 j 05:58	11° $\mathfrak{D}$ 12'20	10.04838 AU
morning rise	-12824 Nov 17 j 06:37	14° $\mathfrak{D}$ 22'09		morning rise	-12817 Feb 18 j 21:26	13° $\mathfrak{D}$ 20'51	
	-12824 Nov 22 j 02:44	15° $\mathfrak{D}$			-12817 Mar 04 j 04:38	15° $\mathfrak{D}$	
retrograde	-12823 Mar 06 j 01:22	23° $\mathfrak{D}$ 05'21		retrograde	-12817 Jun 03 j 04:18	21° $\mathfrak{D}$ 30'20	
opposition	-12823 May 13 j 07:20	19° $\mathfrak{D}$ 32'51	1°09'12	opposition	-12817 Aug 08 j 20:52	18° $\mathfrak{D}$ 01'47	-2°45'30
min. Earth dist.	-12823 May 12 j 22:24	19° $\mathfrak{D}$ 34'41	7.83857 AU	min. Earth dist.	-12817 Aug 07 j 18:53	18° $\mathfrak{D}$ 07'09	8.12318 AU
direct	-12823 Jul 18 j 00:59	16° $\mathfrak{D}$ 06'10			-12817 Sep 22 j 16:26	15° $\mathfrak{R}$	
evening set	-12823 Oct 28 j 03:38	24° $\mathfrak{D}$ 23'56		direct	-12817 Oct 15 j 00:37	14° $\mathfrak{D}$ 32'47	
					-12817 Nov 06 j 09:02	15° $\mathfrak{D}$	
conjunction	-12823 Nov 14 j 21:37	26° $\mathfrak{D}$ 46'44	0°37'41	evening set	-12816 Jan 28 j 16:58	22° $\mathfrak{D}$ 41'28	
minimum elong	-12823 Nov 14 j 21:39	26° $\mathfrak{D}$ 46'44	0°38'09				
max. Earth dist.	-12823 Nov 15 j 12:17	26° $\mathfrak{D}$ 51'40	9.80398 AU	conjunction	-12816 Feb 15 j 17:49	24° $\mathfrak{D}$ 58'25	-2°18'56
morning rise	-12823 Dec 02 j 21:14	29° $\mathfrak{D}$ 11'19		minimum elong	-12816 Feb 15 j 17:46	24° $\mathfrak{D}$ 58'24	2°19'37
	-12823 Dec 09 j 01:57	0° $\mathfrak{D}$		max. Earth dist.	-12816 Feb 17 j 02:52	25° $\mathfrak{D}$ 08'57	10.20093 AU
retrograde	-12822 Mar 21 j 16:26	7° $\mathfrak{D}$ 59'17		morning rise	-12816 Mar 04 j 16:27	27° $\mathfrak{D}$ 14'35	
opposition	-12822 May 28 j 10:31	4° $\mathfrak{D}$ 26'03	0°23'37		-12816 Mar 27 j 18:49	0° $\mathfrak{D}$	
min. Earth dist.	-12822 May 27 j 19:47	4° $\mathfrak{D}$ 29'08	7.78012 AU	retrograde	-12816 Jun 15 j 17:09	5° $\mathfrak{D}$ 08'52	
direct	-12822 Aug 01 j 21:15	0° $\mathfrak{D}$ 58'22		opposition	-12816 Aug 21 j 11:37	1° $\mathfrak{D}$ 42'24	-2°57'45
evening set	-12822 Nov 12 j 15:55	9° $\mathfrak{D}$ 21'44		min. Earth dist.	-12816 Aug 20 j 12:10	1° $\mathfrak{D}$ 47'11	8.28467 AU
					-12816 Sep 12 j 10:06	30° $\mathfrak{R}$	
conjunction	-12822 Nov 30 j 15:14	11° $\mathfrak{D}$ 46'35	0°00'13	direct	-12816 Oct 28 j 08:31	28° $\mathfrak{D}$ 14'01	
minimum elong	-12822 Nov 30 j 15:15	11° $\mathfrak{D}$ 46'35	0°00'28		-12816 Dec 12 j 23:57	0° $\mathfrak{D}$	
behind sun begin	-12822 Nov 30 j 07:54	11° $\mathfrak{D}$ 44'07		evening set	-12815 Feb 11 j 05:23	6° $\mathfrak{D}$ 12'45	
behind sun end	-12822 Nov 30 j 22:36	11° $\mathfrak{D}$ 49'02					
max. Earth dist.	-12822 Dec 01 j 13:19	11° $\mathfrak{D}$ 54'02	9.76704 AU	conjunction	-12815 Mar 01 j 03:03	8° $\mathfrak{D}$ 26'06	-2°25'13
desc. node	-12822 Dec 02 j 14:28	12° $\mathfrak{D}$ 02'32		minimum elong	-12815 Mar 01 j 03:01	8° $\mathfrak{D}$ 26'06	2°25'59

Attention, astronomical year style is used: The year -12815 in astronomical counting style is the year 12816 BCE in historical counting style.

max. Earth dist.	-12815 Mar 02 j 07:50	8°♂35'06	10.36885 AU	conjunction	-12809 May 14 j 01:42	19°♂53'38	-0°55'13
morning rise	-12815 Mar 18 j 21:26	10°♂38'22		minimum elong	-12809 May 14 j 01:44	19°♂53'38	0°55'46
retrograde	-12815 Jun 28 j 16:33	18°♂17'20		max. Earth dist.	-12809 May 13 j 14:21	19°♂50'22	11.21322 AU
opposition	-12815 Sep 03 j 15:51	14°♂53'05	-3°00'00	morning rise	-12809 May 30 j 23:02	21°♂49'09	
min. Earth dist.	-12815 Sep 02 j 20:39	14°♂56'56	8.45636 AU	retrograde	-12809 Sep 05 j 12:48	28°♂28'38	
direct	-12815 Nov 11 j 07:20	11°♂25'31		opposition	-12809 Nov 13 j 17:22	25°♂13'50	-0°51'37
evening set	-12814 Feb 25 j 03:48	19°♂13'30		min. Earth dist.	-12809 Nov 14 j 04:42	25°♂11'45	9.24805 AU
				direct	-12808 Jan 24 j 18:38	21°♂52'33	
conjunction	-12814 Mar 14 j 22:01	21°♂23'16	-2°23'47	evening set	-12808 May 07 j 05:28	28°♂50'22	
minimum elong	-12814 Mar 14 j 22:01	21°♂23'17	2°24'36		-12808 May 17 j 12:13	0°♂	
max. Earth dist.	-12814 Mar 15 j 20:10	21°♂30'04	10.54196 AU				
morning rise	-12814 Apr 01 j 12:15	23°♂31'46		conjunction	-12808 May 24 j 04:45	0°♂45'50	-0°28'35
	-12814 Jun 08 j 13:48	0°♂		minimum elong	-12808 May 24 j 04:46	0°♂45'51	0°29'00
retrograde	-12814 Jul 11 j 02:35	0°♂56'12		max. Earth dist.	-12808 May 23 j 12:31	0°♂41'12	11.27531 AU
	-12814 Aug 12 j 23:51	30°♂♂		morning rise	-12808 Jun 09 j 23:26	2°♂40'05	
opposition	-12814 Sep 16 j 09:57	27°♂34'08	-2°53'16	retrograde	-12808 Sep 15 j 14:35	9°♂17'01	
min. Earth dist.	-12814 Sep 15 j 19:33	27°♂36'58	8.62823 AU	opposition	-12808 Nov 24 j 02:26	6°♂02'37	-0°18'33
direct	-12814 Nov 24 j 20:51	24°♂07'33		min. Earth dist.	-12808 Nov 24 j 17:39	5°♂59'50	9.29512 AU
	-12813 Feb 23 j 07:25	0°♂		direct	-12807 Feb 04 j 08:08	2°♂42'04	
evening set	-12813 Mar 10 j 12:02	1°♂44'46		evening set	-12807 May 18 j 06:47	9°♂36'21	
				max. Earth dist.	-12807 Jun 03 j 06:59	11°♂25'05	11.30694 AU
conjunction	-12813 Mar 28 j 02:50	3°♂51'12	-2°15'30				
minimum elong	-12813 Mar 28 j 02:53	3°♂51'13	2°16'19	conjunction	-12807 Jun 04 j 03:16	11°♂30'52	-0°01'13
max. Earth dist.	-12813 Mar 28 j 17:39	3°♂55'40	10.71068 AU	minimum elong	-12807 Jun 04 j 03:14	11°♂30'51	0°01'28
morning rise	-12813 Apr 14 j 13:09	5°♂56'14		behind sun begin	-12807 Jun 03 j 20:15	11°♂28'53	
retrograde	-12813 Jul 23 j 03:57	13°♂07'41		behind sun end	-12807 Jun 04 j 10:14	11°♂32'49	
opposition	-12813 Sep 28 j 19:10	9°♂47'38	-2°38'50	morning rise	-12807 Jun 20 j 19:21	13°♂24'16	
min. Earth dist.	-12813 Sep 28 j 09:29	9°♂49'31	8.79148 AU	asc. node	-12807 Jun 20 j 08:13	13°♂21'09	
direct	-12813 Dec 07 j 23:00	6°♂22'12		retrograde	-12807 Sep 26 j 15:05	20°♂00'51	
evening set	-12812 Mar 22 j 06:46	13°♂49'10		opposition	-12807 Dec 05 j 11:25	16°♂46'31	0°14'54
				min. Earth dist.	-12807 Dec 06 j 06:49	16°♂42'58	9.31126 AU
conjunction	-12812 Apr 08 j 18:23	15°♂52'39	-2°01'24	direct	-12806 Feb 15 j 17:16	13°♂26'31	
minimum elong	-12812 Apr 08 j 18:27	15°♂52'40	2°02'12	evening set	-12806 May 29 j 05:22	20°♂19'00	
max. Earth dist.	-12812 Apr 09 j 02:34	15°♂55'05	10.86727 AU				
morning rise	-12812 Apr 26 j 01:01	17°♂54'38		conjunction	-12806 Jun 14 j 22:52	22°♂12'54	0°26'12
retrograde	-12812 Aug 02 j 20:39	24°♂54'58		minimum elong	-12806 Jun 14 j 22:51	22°♂12'53	0°26'06
opposition	-12812 Oct 09 j 20:38	21°♂36'43	-2°18'07	max. Earth dist.	-12806 Jun 13 j 22:07	22°♂05'49	11.30728 AU
min. Earth dist.	-12812 Oct 09 j 15:50	21°♂37'38	8.93954 AU	morning rise	-12806 Jul 01 j 12:49	24°♂05'53	
direct	-12812 Dec 19 j 15:28	18°♂12'27			-12806 Sep 07 j 12:37	0°♂	
evening set	-12811 Apr 03 j 13:52	25°♂30'08		retrograde	-12806 Oct 07 j 18:06	0°♂44'23	
					-12806 Nov 07 j 12:55	30°♂♂	
conjunction	-12811 Apr 20 j 22:25	27°♂31'02	-1°42'36	opposition	-12806 Dec 16 j 21:45	27°♂29'45	0°47'51
minimum elong	-12811 Apr 20 j 22:28	27°♂31'03	1°43'21	min. Earth dist.	-12806 Dec 17 j 21:04	27°♂25'30	9.29619 AU
max. Earth dist.	-12811 Apr 21 j 00:38	27°♂31'41	11.00606 AU	direct	-12805 Feb 27 j 01:52	24°♂10'08	
morning rise	-12811 May 08 j 01:35	29°♂30'25			-12805 May 30 j 16:34	0°♂	
	-12811 May 12 j 09:44	0°♂		evening set	-12805 Jun 09 j 03:03	1°♂02'32	
retrograde	-12811 Aug 14 j 07:25	6°♂21'38					
opposition	-12811 Oct 21 j 15:45	3°♂04'55	-1°52'31	conjunction	-12805 Jun 25 j 17:51	2°♂56'15	0°52'41
min. Earth dist.	-12811 Oct 21 j 16:47	3°♂04'43	9.06751 AU	minimum elong	-12805 Jun 25 j 17:48	2°♂56'14	0°52'43
	-12811 Dec 12 j 08:10	30°♂♂		max. Earth dist.	-12805 Jun 24 j 13:36	2°♂48'07	11.27655 AU
direct	-12811 Dec 31 j 23:14	29°♂41'44		morning rise	-12805 Jul 12 j 06:00	4°♂49'19	
	-12810 Jan 20 j 13:31	0°♂		retrograde	-12805 Oct 19 j 00:04	11°♂31'54	
evening set	-12810 Apr 15 j 10:56	6°♂51'22		opposition	-12805 Dec 28 j 10:42	8°♂16'35	1°19'20
				min. Earth dist.	-12805 Dec 29 j 12:05	8°♂11'58	9.25041 AU
conjunction	-12810 May 02 j 16:19	8°♂50'04	-1°20'12	direct	-12804 Mar 09 j 09:54	4°♂57'12	
minimum elong	-12810 May 02 j 16:22	8°♂50'05	1°20'52	evening set	-12804 Jun 19 j 01:26	11°♂51'13	
max. Earth dist.	-12810 May 02 j 11:41	8°♂48'43	11.12256 AU	max. Earth dist.	-12804 Jul 04 j 08:29	13°♂36'39	11.21559 AU
morning rise	-12810 May 19 j 16:24	10°♂47'17					
	-12810 Jun 30 j 06:52	15°♂		conjunction	-12804 Jul 05 j 14:04	13°♂45'13	1°17'32
retrograde	-12810 Aug 25 j 11:50	17°♂31'31		minimum elong	-12804 Jul 05 j 14:01	13°♂45'12	1°17'43
	-12810 Oct 23 j 08:03	15°♂		morning rise	-12804 Jul 22 j 00:42	15°♂38'48	
opposition	-12810 Nov 02 j 06:15	14°♂15'58	-1°23'17	retrograde	-12804 Oct 29 j 14:43	22°♂27'39	
min. Earth dist.	-12810 Nov 02 j 13:03	14°♂14'41	9.17141 AU	opposition	-12803 Jan 08 j 03:55	19°♂11'23	1°48'26
direct	-12809 Jan 12 j 22:39	10°♂53'47		min. Earth dist.	-12803 Jan 09 j 06:12	19°♂06'35	9.17510 AU
	-12809 Mar 30 j 02:36	15°♂		direct	-12803 Mar 20 j 20:24	15°♂52'04	
evening set	-12809 Apr 26 j 23:29	17°♂56'44		evening set	-12803 Jun 30 j 02:40	22°♂49'23	
				max. Earth dist.	-12803 Jul 15 j 07:00	24°♂35'13	11.12607 AU



Attention, astronomical year style is used: The year -12803 in astronomical counting style is the year 12804 BCE in historical counting style.

conjunction	-12803 Jul 16 j 13:30	24° $\Upsilon$ 44'09	1°39'53	evening set	-12797 Sep 09 j 19:53	5° $\ominus$ 35'23	
minimum elong	-12803 Jul 16 j 13:26	24° $\Upsilon$ 44'08	1°40'13				
morning rise	-12803 Aug 01 j 23:05	26° $\Upsilon$ 38'44		conjunction	-12797 Sep 26 j 15:59	7° $\ominus$ 45'26	2°11'16
	-12803 Sep 02 j 09:47	0° $\mathbf{8}$		minimum elong	-12797 Sep 26 j 16:02	7° $\ominus$ 45'27	2°12'04
retrograde	-12803 Nov 10 j 10:59	3° $\mathbf{8}$ 35'54		max. Earth dist.	-12797 Sep 26 j 03:01	7° $\ominus$ 41'13	10.22421 AU
opposition	-12802 Jan 20 j 03:01	0° $\mathbf{8}$ 18'25	2°14'07	morning rise	-12797 Oct 13 j 17:04	9° $\ominus$ 57'07	
min. Earth dist.	-12802 Jan 21 j 06:00	0° $\mathbf{8}$ 13'28	9.07249 AU	retrograde	-12796 Jan 29 j 01:26	18° $\ominus$ 13'20	
	-12802 Jan 24 j 07:27	30° $\mathbf{8}$ $\Upsilon$		opposition	-12796 Apr 07 j 12:03	14° $\ominus$ 45'07	2°32'43
direct	-12802 Apr 01 j 07:20	26° $\Upsilon$ 59'01		min. Earth dist.	-12796 Apr 07 j 19:28	14° $\ominus$ 43'38	8.14780 AU
	-12802 Jun 03 j 02:07	0° $\mathbf{8}$		direct	-12796 Jun 13 j 13:35	11° $\ominus$ 21'44	
evening set	-12802 Jul 11 j 08:26	4° $\mathbf{8}$ 01'17		evening set	-12796 Sep 22 j 14:10	19° $\ominus$ 17'32	
max. Earth dist.	-12802 Jul 26 j 10:33	5° $\mathbf{8}$ 47'57	11.01092 AU				
conjunction	-12802 Jul 27 j 17:59	5° $\mathbf{8}$ 57'17	1°58'52	conjunction	-12796 Oct 09 j 16:06	21° $\ominus$ 31'31	1°52'14
minimum elong	-12802 Jul 27 j 17:56	5° $\mathbf{8}$ 57'16	1°59'22	minimum elong	-12796 Oct 09 j 16:10	21° $\ominus$ 31'32	1°53'00
morning rise	-12802 Aug 13 j 03:30	7° $\mathbf{8}$ 53'24		max. Earth dist.	-12796 Oct 09 j 10:23	21° $\ominus$ 29'38	10.07496 AU
	-12802 Nov 18 j 11:51	15° $\mathbf{8}$		morning rise	-12796 Oct 26 j 23:39	23° $\ominus$ 47'20	
retrograde	-12802 Nov 22 j 16:26	15° $\mathbf{8}$ 00'52			-12796 Dec 22 j 05:03	0° $\mathbf{8}$	
	-12802 Nov 26 j 21:10	15° $\mathbf{8}$ $\mathbf{8}$		retrograde	-12795 Feb 12 j 02:31	2° $\mathbf{8}$ 16'09	
opposition	-12801 Feb 01 j 09:24	11° $\mathbf{8}$ 41'56	2°35'17		-12795 Apr 06 j 12:06	30° $\mathbf{8}$ $\mathbf{\Theta}$	
min. Earth dist.	-12801 Feb 02 j 12:31	11° $\mathbf{8}$ 36'54	8.94600 AU	opposition	-12795 Apr 22 j 02:32	28° $\ominus$ 46'13	2°04'39
direct	-12801 Apr 13 j 00:40	8° $\mathbf{8}$ 22'13		min. Earth dist.	-12795 Apr 22 j 03:59	28° $\ominus$ 45'56	8.00839 AU
	-12801 Jul 18 j 10:33	15° $\mathbf{8}$		direct	-12795 Jun 27 j 13:30	25° $\ominus$ 21'45	
evening set	-12801 Jul 22 j 20:22	15° $\mathbf{8}$ 30'58			-12795 Sep 08 j 21:07	0° $\mathbf{8}$	
max. Earth dist.	-12801 Aug 06 j 23:18	17° $\mathbf{8}$ 19'36	10.87395 AU	evening set	-12795 Oct 06 j 21:38	3° $\mathbf{8}$ 27'05	
conjunction	-12801 Aug 08 j 05:37	17° $\mathbf{8}$ 28'45	2°13'34	conjunction	-12795 Oct 24 j 06:09	5° $\mathbf{8}$ 44'56	1°25'56
minimum elong	-12801 Aug 08 j 05:34	17° $\mathbf{8}$ 28'44	2°14'11	minimum elong	-12795 Oct 24 j 06:14	5° $\mathbf{8}$ 44'58	1°26'37
morning rise	-12801 Aug 24 j 15:57	19° $\mathbf{8}$ 26'57		max. Earth dist.	-12795 Oct 24 j 08:40	5° $\mathbf{8}$ 45'46	9.94786 AU
retrograde	-12801 Dec 05 j 08:18	26° $\mathbf{8}$ 46'27		morning rise	-12795 Nov 10 j 20:31	8° $\mathbf{8}$ 04'42	
opposition	-12800 Feb 14 j 00:06	23° $\mathbf{8}$ 25'50	2°50'46		-12794 Jan 13 j 20:25	15° $\mathbf{8}$	
min. Earth dist.	-12800 Feb 15 j 01:36	23° $\mathbf{8}$ 21'04	8.79988 AU	retrograde	-12794 Feb 27 j 11:36	16° $\mathbf{8}$ 43'41	
direct	-12800 Apr 24 j 00:20	20° $\mathbf{8}$ 05'41			-12794 Apr 13 j 22:32	15° $\mathbf{8}$ $\mathbf{8}$	
evening set	-12800 Aug 02 j 16:20	27° $\mathbf{8}$ 22'17		opposition	-12794 May 06 j 23:53	13° $\mathbf{8}$ 12'20	1°27'52
max. Earth dist.	-12800 Aug 17 j 23:20	29° $\mathbf{8}$ 14'03	10.71997 AU	min. Earth dist.	-12794 May 06 j 18:55	13° $\mathbf{8}$ 13'21	7.89503 AU
conjunction	-12800 Aug 19 j 02:28	29° $\mathbf{8}$ 22'22	2°23'01	direct	-12794 Jul 11 j 22:34	9° $\mathbf{8}$ 46'44	
minimum elong	-12800 Aug 19 j 02:26	29° $\mathbf{8}$ 22'22	2°23'44		-12794 Sep 27 j 20:04	15° $\mathbf{8}$	
	-12800 Aug 24 j 04:59	0° $\mathbf{II}$		evening set	-12794 Oct 21 j 18:12	18° $\mathbf{8}$ 00'35	
morning rise	-12800 Sep 04 j 14:30	1° $\mathbf{II}$ 23'12		conjunction	-12794 Nov 08 j 09:23	20° $\mathbf{8}$ 21'54	0°53'34
retrograde	-12800 Dec 17 j 11:57	8° $\mathbf{II}$ 56'11		minimum elong	-12794 Nov 08 j 09:26	20° $\mathbf{8}$ 21'55	0°54'06
opposition	-12799 Feb 25 j 23:57	5° $\mathbf{II}$ 33'42	2°59'20	max. Earth dist.	-12794 Nov 08 j 20:02	20° $\mathbf{8}$ 25'29	9.85037 AU
min. Earth dist.	-12799 Feb 26 j 21:59	5° $\mathbf{II}$ 29'32	8.63964 AU	morning rise	-12794 Nov 26 j 06:13	22° $\mathbf{8}$ 45'04	
direct	-12799 May 06 j 07:50	2° $\mathbf{II}$ 12'58			-12793 Feb 01 j 17:08	0° $\mathbf{II}$	
evening set	-12799 Aug 14 j 21:57	9° $\mathbf{II}$ 38'34		retrograde	-12793 Mar 15 j 01:50	1° $\mathbf{II}$ 30'53	
max. Earth dist.	-12799 Aug 30 j 10:54	11° $\mathbf{II}$ 34'15	10.55523 AU		-12793 Apr 25 j 23:56	30° $\mathbf{8}$ $\mathbf{8}$	
conjunction	-12799 Aug 31 j 10:08	11° $\mathbf{II}$ 41'31	2°26'17	opposition	-12793 May 22 j 01:42	27° $\mathbf{8}$ 58'33	0°44'23
minimum elong	-12799 Aug 31 j 10:08	11° $\mathbf{II}$ 41'31	2°27'04	min. Earth dist.	-12793 May 21 j 14:26	28° $\mathbf{8}$ 00'53	7.81508 AU
morning rise	-12799 Sep 17 j 01:08	13° $\mathbf{II}$ 45'30		direct	-12793 Jul 26 j 15:08	24° $\mathbf{8}$ 31'53	
retrograde	-12799 Dec 31 j 05:00	21° $\mathbf{II}$ 32'55			-12793 Oct 14 j 10:04	0° $\mathbf{II}$	
opposition	-12798 Mar 11 j 10:01	18° $\mathbf{II}$ 08'30	2°59'47	evening set	-12793 Nov 06 j 02:17	2° $\mathbf{II}$ 52'40	
min. Earth dist.	-12798 Mar 12 j 03:37	18° $\mathbf{II}$ 05'07	8.47212 AU	conjunction	-12793 Nov 23 j 23:24	5° $\mathbf{II}$ 16'37	0°17'06
direct	-12798 May 18 j 23:41	14° $\mathbf{II}$ 47'02		minimum elong	-12793 Nov 23 j 23:26	5° $\mathbf{II}$ 16'37	0°17'28
evening set	-12798 Aug 27 j 14:40	22° $\mathbf{II}$ 22'24		max. Earth dist.	-12793 Nov 24 j 17:54	5° $\mathbf{II}$ 22'51	9.78981 AU
max. Earth dist.	-12798 Sep 12 j 11:27	24° $\mathbf{II}$ 22'45	10.38721 AU	morning rise	-12793 Dec 12 j 01:36	7° $\mathbf{II}$ 42'12	
conjunction	-12798 Sep 13 j 06:08	24° $\mathbf{II}$ 28'43	2°22'34	retrograde	-12792 Mar 29 j 17:42	16° $\mathbf{II}$ 30'44	
minimum elong	-12798 Sep 13 j 06:10	24° $\mathbf{II}$ 28'43	2°23'23	desc. node	-12792 May 14 j 07:36	14° $\mathbf{II}$ 42'53	
morning rise	-12798 Sep 30 j 01:34	26° $\mathbf{II}$ 36'23		opposition	-12792 Jun 05 j 05:33	12° $\mathbf{II}$ 57'55	-0°02'47
	-12798 Oct 28 j 21:54	0° $\mathbf{\Theta}$		min. Earth dist.	-12792 Jun 04 j 12:31	13° $\mathbf{II}$ 01'28	7.77554 AU
retrograde	-12797 Jan 14 j 10:17	4° $\mathbf{\Theta}$ 38'30		direct	-12792 Aug 09 j 14:43	9° $\mathbf{II}$ 30'16	
opposition	-12797 Mar 25 j 06:16	1° $\mathbf{\Theta}$ 12'08	2°51'07	evening set	-12792 Nov 20 j 18:52	17° $\mathbf{II}$ 55'33	
min. Earth dist.	-12797 Mar 25 j 19:03	1° $\mathbf{\Theta}$ 09'39	8.30529 AU	conjunction	-12792 Dec 08 j 20:30	20° $\mathbf{II}$ 20'55	-0°20'53
	-12797 Apr 10 j 00:02	30° $\mathbf{8}$ $\mathbf{II}$		minimum elong	-12792 Dec 08 j 20:28	20° $\mathbf{II}$ 20'55	0°20'44
direct	-12797 Jun 01 j 00:23	27° $\mathbf{II}$ 49'47		max. Earth dist.	-12792 Dec 09 j 22:04	20° $\mathbf{II}$ 29'33	9.77211 AU
	-12797 Jul 20 j 17:32	0° $\mathbf{\Theta}$		morning rise	-12792 Dec 27 j 02:17	22° $\mathbf{II}$ 47'36	
					-12791 Mar 03 j 12:33	0° $\mathbf{\Theta}$	

Attention, astronomical year style is used: The year -12791 in astronomical counting style is the year 12792 BCE in historical counting style.

retrograde	-12791 Apr 14 j 06:13	1°♊34'14		max. Earth dist.	-12785 Mar 10 j 09:17	16°♊08'51	10.44521 AU
	-12791 May 26 j 08:26	30°♋♌		morning rise	-12785 Mar 27 j 00:47	18°♊11'34	
min. Earth dist.	-12791 Jun 19 j 10:31	28°♌05'58	7.78062 AU	retrograde	-12785 Jul 06 j 02:50	25°♊43'08	
opposition	-12791 Jun 20 j 08:08	28°♌01'25	-0°49'58	opposition	-12785 Sep 11 j 07:07	22°♊19'28	-2°57'29
direct	-12791 Aug 24 j 18:42	24°♌32'56		min. Earth dist.	-12785 Sep 10 j 13:44	22°♊22'57	8.53203 AU
	-12791 Nov 12 j 21:20	0°♌		direct	-12785 Nov 19 j 10:25	18°♊51'50	
evening set	-12791 Dec 06 j 16:11	2°♌59'47		evening set	-12784 Mar 04 j 03:19	26°♊34'32	
conjunction	-12791 Dec 24 j 20:32	5°♌25'13	-0°57'22	conjunction	-12784 Mar 21 j 19:55	28°♊42'40	-2°20'02
minimum elong	-12791 Dec 24 j 20:28	5°♌25'12	0°57'26	minimum elong	-12784 Mar 21 j 19:57	28°♊42'41	2°20'52
max. Earth dist.	-12791 Dec 26 j 03:21	5°♌35'34	9.79954 AU	max. Earth dist.	-12784 Mar 22 j 15:21	28°♊48'35	10.61649 AU
morning rise	-12790 Jan 12 j 03:48	7°♌51'32			-12784 Apr 01 j 10:56	0°♋	
retrograde	-12790 Apr 29 j 11:15	16°♌31'41		morning rise	-12784 Apr 08 j 07:57	0°♋49'25	
min. Earth dist.	-12790 Jul 04 j 05:55	13°♌04'33	7.83042 AU	retrograde	-12784 Jul 17 j 09:40	8°♋07'07	
opposition	-12790 Jul 05 j 06:13	12°♌59'26	-1°33'22	opposition	-12784 Sep 22 j 20:26	4°♋45'33	-2°46'15
direct	-12790 Sep 08 j 23:33	9°♌30'18		min. Earth dist.	-12784 Sep 22 j 08:00	4°♋48'00	8.70084 AU
evening set	-12790 Dec 22 j 13:27	17°♌55'35		direct	-12784 Dec 01 j 16:04	1°♋18'59	
				evening set	-12783 Mar 17 j 04:07	8°♋50'57	
conjunction	-12789 Jan 09 j 18:34	20°♌19'46	-1°29'38	conjunction	-12783 Apr 03 j 17:21	10°♋55'55	-2°08'21
minimum elong	-12789 Jan 09 j 18:29	20°♌19'44	1°29'55	minimum elong	-12783 Apr 03 j 17:24	10°♋55'56	2°09'09
max. Earth dist.	-12789 Jan 11 j 04:09	20°♌30'54	9.87017 AU	max. Earth dist.	-12783 Apr 04 j 06:04	10°♋59'43	10.78133 AU
morning rise	-12789 Jan 28 j 01:12	22°♌44'18		morning rise	-12783 Apr 21 j 01:37	12°♋59'24	
	-12789 Apr 07 j 12:13	0°♌		retrograde	-12783 Jul 29 j 04:59	20°♋04'51	
retrograde	-12789 May 14 j 06:01	1°♌14'08		opposition	-12783 Oct 05 j 01:19	16°♋45'14	-2°28'05
	-12789 Jun 20 j 04:06	30°♋♌		min. Earth dist.	-12783 Oct 04 j 18:19	16°♋46'36	8.85954 AU
opposition	-12789 Jul 19 j 21:21	27°♌42'58	-2°09'45	direct	-12783 Dec 14 j 13:20	13°♋19'50	
min. Earth dist.	-12789 Jul 18 j 20:07	27°♌48'16	7.92105 AU	evening set	-12782 Mar 29 j 16:23	20°♋41'53	
direct	-12789 Sep 24 j 02:12	24°♌13'30					
	-12789 Dec 17 j 11:39	0°♌		conjunction	-12782 Apr 16 j 02:17	22°♋44'00	-1°51'27
evening set	-12788 Jan 07 j 05:38	2°♌34'07		minimum elong	-12782 Apr 16 j 02:20	22°♋44'01	1°52'13
conjunction	-12788 Jan 25 j 09:47	4°♌55'55	-1°55'30	max. Earth dist.	-12782 Apr 16 j 07:35	22°♋45'34	10.93272 AU
minimum elong	-12788 Jan 25 j 09:42	4°♌55'54	1°55'59	morning rise	-12782 May 03 j 07:08	24°♋44'37	
max. Earth dist.	-12788 Jan 26 j 19:49	5°♌07'03	9.97855 AU		-12782 Jun 26 j 02:31	0°♋	
morning rise	-12788 Feb 12 j 14:02	7°♌17'35		retrograde	-12782 Aug 09 j 16:47	1°♋39'49	
	-12788 May 02 j 17:29	15°♌			-12782 Sep 24 j 12:00	30°♋♌	
retrograde	-12788 May 27 j 12:09	15°♌34'18		opposition	-12782 Oct 16 j 23:02	28°♋21'56	-2°04'24
	-12788 Jun 21 j 07:58	15°♋♌		min. Earth dist.	-12782 Oct 16 j 20:47	28°♋22'22	9.00179 AU
min. Earth dist.	-12788 Aug 01 j 02:31	12°♌09'50	8.04565 AU	direct	-12782 Dec 27 j 02:07	24°♋57'47	
opposition	-12788 Aug 02 j 03:25	12°♌04'39	-2°36'55		-12781 Mar 21 j 19:11	0°♋	
direct	-12788 Oct 07 j 23:13	8°♌35'10		evening set	-12781 Apr 10 j 17:32	2°♋10'59	
	-12787 Jan 06 j 20:19	15°♌					
evening set	-12787 Jan 21 j 12:39	16°♌48'30		conjunction	-12781 Apr 28 j 00:19	4°♋10'39	-1°30'29
conjunction	-12787 Feb 08 j 14:41	19°♌07'12	-2°13'38	minimum elong	-12781 Apr 28 j 00:22	4°♋10'40	1°31'11
minimum elong	-12787 Feb 08 j 14:37	19°♌07'10	2°14'16	max. Earth dist.	-12781 Apr 27 j 23:24	4°♋10'23	11.06499 AU
max. Earth dist.	-12787 Feb 09 j 23:01	19°♌17'35	10.11682 AU	morning rise	-12781 May 15 j 01:56	6°♋08'51	
morning rise	-12787 Feb 26 j 15:25	21°♌25'18		retrograde	-12781 Aug 21 j 00:33	12°♋55'56	
retrograde	-12787 Jun 10 j 05:52	29°♌27'11		opposition	-12781 Oct 28 j 15:14	9°♋39'31	-1°36'34
opposition	-12787 Aug 15 j 23:07	25°♌59'23	-2°53'48	min. Earth dist.	-12781 Oct 28 j 17:30	9°♋39'05	9.12249 AU
min. Earth dist.	-12787 Aug 14 j 23:42	26°♌04'12	8.19544 AU	direct	-12780 Jan 08 j 05:03	6°♋16'38	
direct	-12787 Oct 22 j 12:34	22°♌30'13		evening set	-12780 Apr 21 j 09:15	13°♋22'16	
	-12786 Jan 31 j 15:51	0°♊			-12780 May 05 j 15:50	15°♋	
evening set	-12786 Feb 05 j 07:33	0°♊34'18		conjunction	-12780 May 08 j 13:04	15°♋19'56	-1°06'29
conjunction	-12786 Feb 23 j 06:44	2°♊49'30	-2°23'33	minimum elong	-12780 May 08 j 13:06	15°♋19'57	1°07'04
minimum elong	-12786 Feb 23 j 06:42	2°♊49'29	2°24'17	max. Earth dist.	-12780 May 08 j 06:54	15°♋18'10	11.17345 AU
max. Earth dist.	-12786 Feb 24 j 11:41	2°♊58'38	10.27563 AU	morning rise	-12780 May 25 j 11:37	17°♋16'10	
morning rise	-12786 Mar 13 j 03:21	5°♊03'45		retrograde	-12780 Aug 31 j 03:44	23°♋57'21	
retrograde	-12786 Jun 23 j 10:23	12°♊50'16		opposition	-12780 Nov 08 j 03:24	20°♋42'06	-1°05'47
min. Earth dist.	-12786 Aug 28 j 11:11	9°♊28'46	8.36072 AU	min. Earth dist.	-12780 Nov 08 j 10:53	20°♋40'42	9.21757 AU
opposition	-12786 Aug 29 j 08:17	9°♊24'30	-3°00'24	direct	-12779 Jan 19 j 01:19	17°♋20'22	
direct	-12786 Nov 05 j 16:52	5°♊55'58		evening set	-12779 May 02 j 17:53	24°♋20'04	
evening set	-12785 Feb 19 j 12:37	13°♊49'35		conjunction	-12779 May 19 j 18:36	26°♋16'05	-0°40'26
conjunction	-12785 Mar 09 j 08:34	16°♊01'11	-2°25'26	minimum elong	-12779 May 19 j 18:38	26°♋16'05	0°40'54
minimum elong	-12785 Mar 09 j 08:34	16°♊01'11	2°26'14	max. Earth dist.	-12779 May 19 j 06:33	26°♋12'39	11.25453 AU
				morning rise	-12779 Jun 05 j 14:21	28°♋10'47	

Attention, astronomical year style is used: The year -12779 in astronomical counting style is the year 12780 BCE in historical counting style.

	-12779 Jun 22 j 09:23	0°♄	conjunction	-12773 Jul 23 j 04:56	1°♄12'12	1°51'00
retrograde	-12779 Sep 11 j 04:25	4°♄48'18	minimum elong	-12773 Jul 23 j 04:53	1°♄12'11	1°51'25
opposition	-12779 Nov 19 j 13:01	1°♄33'52 -0°33'10	morning rise	-12773 Aug 08 j 14:18	3°♄07'21	
min. Earth dist.	-12779 Nov 20 j 02:00	1°♄31'28 9.28405 AU	retrograde	-12773 Nov 17 j 15:32	10°♄09'19	
	-12779 Dec 11 j 17:01	30°♄≈	opposition	-12772 Jan 27 j 07:51	6°♄51'35	2°26'33
direct	-12778 Jan 30 j 15:48	28°♄≈13'09	min. Earth dist.	-12772 Jan 28 j 11:28	6°♄46'30	9.02391 AU
	-12778 Mar 20 j 12:02	0°♄	direct	-12772 Apr 07 j 06:44	3°♄32'29	
evening set	-12778 May 13 j 21:08	5°♄08'31	evening set	-12772 Jul 17 j 03:38	10°♄37'35	
			max. Earth dist.	-12772 Aug 01 j 05:40	12°♄24'58	10.95421 AU
conjunction	-12778 May 30 j 18:42	7°♄03'18 -0°13'15				
minimum elong	-12778 May 30 j 18:43	7°♄03'19 0°13'34	conjunction	-12772 Aug 02 j 12:57	12°♄34'20	2°07'41
behind sun begin	-12778 May 30 j 14:47	7°♄02'12	minimum elong	-12772 Aug 02 j 12:54	12°♄34'19	2°08'15
behind sun end	-12778 May 30 j 22:39	7°♄04'25	morning rise	-12772 Aug 18 j 22:33	14°♄31'20	
max. Earth dist.	-12778 May 30 j 00:41	6°♄58'11 11.30580 AU		-12772 Aug 23 j 00:58	15°♄	
morning rise	-12778 Jun 16 j 12:00	8°♄56'57	retrograde	-12772 Nov 29 j 03:15	21°♄44'37	
retrograde	-12778 Sep 22 j 03:51	15°♄33'03	opposition	-12771 Feb 07 j 18:15	18°♄25'11	2°44'41
asc. node	-12778 Nov 27 j 22:15	12°♄32'04	min. Earth dist.	-12771 Feb 08 j 20:57	18°♄20'13	8.88164 AU
opposition	-12778 Nov 30 j 21:49	12°♄19'01 0°00'16	direct	-12771 Apr 19 j 01:21	15°♄05'35	
min. Earth dist.	-12778 Dec 01 j 14:48	12°♄15'55 9.31987 AU	evening set	-12771 Jul 28 j 19:29	22°♄17'59	
direct	-12777 Feb 11 j 03:32	8°♄59'08	max. Earth dist.	-12771 Aug 12 j 22:33	24°♄07'34	10.80242 AU
evening set	-12777 May 24 j 20:34	15°♄51'50				
			conjunction	-12771 Aug 14 j 04:57	24°♄16'49	2°19'34
conjunction	-12777 Jun 10 j 15:16	17°♄45'48 0°14'18	minimum elong	-12771 Aug 14 j 04:54	24°♄16'48	2°20'15
minimum elong	-12777 Jun 10 j 15:16	17°♄45'48 0°14'08	morning rise	-12771 Aug 30 j 15:56	26°♄16'15	
behind sun begin	-12777 Jun 10 j 11:44	17°♄44'48		-12771 Oct 03 j 11:02	0°♄	
behind sun end	-12777 Jun 10 j 18:47	17°♄46'47	retrograde	-12771 Dec 12 j 00:01	3°♄42'29	
max. Earth dist.	-12777 Jun 09 j 17:24	17°♄39'34 11.32563 AU	opposition	-12770 Feb 20 j 13:41	0°♄21'05	2°56'30
morning rise	-12777 Jun 27 j 06:12	19°♄38'47	min. Earth dist.	-12770 Feb 21 j 14:42	0°♄16'22	8.72185 AU
retrograde	-12777 Oct 03 j 07:01	26°♄15'44		-12770 Feb 25 j 05:52	30°♄♄	
opposition	-12777 Dec 12 j 07:08	23°♄01'41 0°33'33	direct	-12770 May 01 j 04:46	27°♄00'44	
min. Earth dist.	-12777 Dec 13 j 03:10	22°♄58'03 9.32374 AU		-12770 Jun 30 j 21:16	0°♄	
direct	-12776 Feb 22 j 13:01	19°♄42'27	evening set	-12770 Aug 09 j 20:10	4°♄21'45	
evening set	-12776 Jun 03 j 18:21	26°♄34'09	max. Earth dist.	-12770 Aug 25 j 03:24	6°♄14'40	10.63643 AU
max. Earth dist.	-12776 Jun 19 j 09:26	28°♄20'35 11.31309 AU				
			conjunction	-12770 Aug 26 j 07:02	6°♄23'14	2°25'43
conjunction	-12776 Jun 20 j 10:24	28°♄27'44 0°41'16	minimum elong	-12770 Aug 26 j 07:01	6°♄23'14	2°26'29
minimum elong	-12776 Jun 20 j 10:22	28°♄27'43 0°41'14	morning rise	-12770 Sep 11 j 20:36	8°♄25'38	
	-12776 Jul 03 j 22:09	0°♄	retrograde	-12770 Dec 25 j 09:46	16°♄06'02	
morning rise	-12776 Jul 06 j 23:08	0°♄20'31	opposition	-12769 Mar 05 j 18:44	12°♄42'31	3°00'46
retrograde	-12776 Oct 13 j 11:47	7°♄00'25	min. Earth dist.	-12769 Mar 06 j 16:42	12°♄38'19	8.55123 AU
opposition	-12776 Dec 22 j 18:23	3°♄46'00 1°05'47	direct	-12769 May 13 j 17:17	9°♄21'15	
min. Earth dist.	-12776 Dec 23 j 17:52	3°♄41'44 9.29519 AU	evening set	-12769 Aug 22 j 07:10	16°♄51'51	
direct	-12775 Mar 04 j 19:36	0°♄27'08				
evening set	-12775 Jun 14 j 16:14	7°♄19'36	conjunction	-12769 Sep 07 j 20:56	18°♄56'32	2°25'15
max. Earth dist.	-12775 Jun 30 j 00:48	9°♄04'54 11.26816 AU	minimum elong	-12769 Sep 07 j 20:57	18°♄56'32	2°26'04
			max. Earth dist.	-12769 Sep 06 j 22:24	18°♄49'25	10.46329 AU
conjunction	-12775 Jul 01 j 05:41	9°♄13'13 1°06'55	morning rise	-12769 Sep 24 j 14:15	21°♄02'27	
minimum elong	-12775 Jul 01 j 05:39	9°♄13'12 1°07'02	retrograde	-12768 Jan 08 j 08:22	28°♄57'40	
morning rise	-12775 Jul 17 j 16:47	11°♄06'17	opposition	-12768 Mar 18 j 09:53	25°♄31'57	2°56'22
retrograde	-12775 Oct 24 j 21:58	17°♄51'21	min. Earth dist.	-12768 Mar 19 j 02:52	25°♄28'40	8.37732 AU
opposition	-12774 Jan 03 j 09:23	14°♄36'12 1°36'00	direct	-12768 May 25 j 14:16	22°♄09'40	
min. Earth dist.	-12774 Jan 04 j 11:59	14°♄31'21 9.23450 AU	evening set	-12768 Sep 03 j 06:04	29°♄50'32	
direct	-12774 Mar 16 j 04:25	11°♄17'28		-12768 Sep 04 j 12:07	0°♄	
evening set	-12774 Jun 25 j 15:46	18°♄12'26	max. Earth dist.	-12768 Sep 19 j 07:41	1°♄53'37	10.29109 AU
max. Earth dist.	-12774 Jul 10 j 19:40	19°♄57'26 11.19162 AU				
			conjunction	-12768 Sep 20 j 00:00	1°♄58'52	2°17'27
conjunction	-12774 Jul 12 j 03:04	20°♄06'34 1°30'26	minimum elong	-12768 Sep 20 j 00:03	1°♄58'53	2°18'16
minimum elong	-12774 Jul 12 j 03:01	20°♄06'33 1°30'42	morning rise	-12768 Oct 06 j 22:14	4°♄08'42	
morning rise	-12774 Jul 28 j 13:04	22°♄00'25	retrograde	-12767 Jan 21 j 18:30	12°♄18'40	
retrograde	-12774 Nov 05 j 13:20	28°♄52'54	opposition	-12767 Apr 01 j 11:02	8°♄50'51	2°42'27
opposition	-12773 Jan 15 j 05:27	25°♄36'36 2°03'16	min. Earth dist.	-12767 Apr 01 j 21:51	8°♄48'43	8.20877 AU
min. Earth dist.	-12773 Jan 16 j 09:29	25°♄31'29 9.14303 AU	direct	-12767 Jun 07 j 21:49	5°♄27'28	
direct	-12773 Mar 27 j 15:08	22°♄17'48	evening set	-12767 Sep 16 j 17:57	13°♄18'49	
evening set	-12773 Jul 06 j 18:59	29°♄17'02				
	-12773 Jul 12 j 23:11	0°♄	conjunction	-12767 Oct 03 j 17:14	15°♄31'07	2°01'56
max. Earth dist.	-12773 Jul 21 j 21:22	1°♄02'54 11.08565 AU	minimum elong	-12767 Oct 03 j 17:18	15°♄31'08	2°02'43
			max. Earth dist.	-12767 Oct 03 j 07:51	15°♄28'03	10.12897 AU

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 12

Attention, astronomical year style is used: The year -12767 in astronomical counting style is the year 12768 BCE in historical counting style.

morning rise	-12767 Oct 20 j 21:35	17° $\overline{04}$ 5'09		morning rise	-12760 Jan 21 j 08:53	16° $\overline{02}$ 20'31	
retrograde	-12766 Feb 05 j 16:13	26° $\overline{08}$ 8'52		retrograde	-12760 May 07 j 00:53	24° $\overline{05}$ 53'39	
opposition	-12766 Apr 15 j 21:41	22° $\overline{03}$ 9'06	2°18'44	opposition	-12760 Jul 12 j 19:22	21° $\overline{02}$ 3'42	-1°54'21
min. Earth dist.	-12766 Apr 16 j 01:50	22° $\overline{03}$ 8'16	8.05500 AU	min. Earth dist.	-12760 Jul 11 j 16:57	21° $\overline{02}$ 9'15	7.87071 AU
direct	-12766 Jun 21 j 15:39	19° $\overline{06}$ 14'34		direct	-12760 Sep 16 j 19:03	17° $\overline{05}$ 54'14	
evening set	-12766 Sep 30 j 19:24	27° $\overline{06}$ 16'07		evening set	-12760 Dec 30 j 15:31	26° $\overline{05}$ 17'23	
conjunction	-12766 Oct 18 j 00:55	29° $\overline{06}$ 32'26	1°38'50	conjunction	-12759 Jan 17 j 20:28	28° $\overline{04}$ 40'26	-1°44'43
minimum elong	-12766 Oct 18 j 01:00	29° $\overline{06}$ 32'27	1°39'32	minimum elong	-12759 Jan 17 j 20:23	28° $\overline{04}$ 40'24	1°45'07
max. Earth dist.	-12766 Oct 17 j 22:57	29° $\overline{06}$ 31'46	9.98640 AU	max. Earth dist.	-12759 Jan 19 j 08:30	28° $\overline{05}$ 52'19	9.92270 AU
	-12766 Oct 21 j 12:01	0° $\overline{00}$			-12759 Jan 27 j 22:22	0° $\overline{00}$	
morning rise	-12766 Nov 04 j 12:11	1° $\overline{05}$ 50'39		morning rise	-12759 Feb 05 j 01:56	1° $\overline{06}$ 03'32	
retrograde	-12765 Feb 20 j 23:14	10° $\overline{09}$ 26'03		retrograde	-12759 May 21 j 13:59	9° $\overline{06}$ 26'39	
opposition	-12765 Apr 30 j 16:20	6° $\overline{09}$ 54'39	1°45'43	min. Earth dist.	-12759 Jul 26 j 02:45	6° $\overline{06}$ 01'52	7.98502 AU
min. Earth dist.	-12765 Apr 30 j 14:00	6° $\overline{09}$ 55'08	7.92543 AU	opposition	-12759 Jul 27 j 05:48	5° $\overline{06}$ 56'14	-2°25'54
direct	-12765 Jul 05 j 19:36	3° $\overline{09}$ 28'56		direct	-12759 Oct 01 j 17:43	2° $\overline{06}$ 26'49	
evening set	-12765 Oct 15 j 10:26	11° $\overline{09}$ 39'48		evening set	-12758 Jan 15 j 03:27	10° $\overline{06}$ 43'44	
conjunction	-12765 Nov 01 j 22:33	13° $\overline{09}$ 59'50	1°08'59	conjunction	-12758 Feb 02 j 06:44	13° $\overline{06}$ 03'56	-2°06'28
minimum elong	-12765 Nov 01 j 22:37	13° $\overline{09}$ 59'51	1°09'34	minimum elong	-12758 Feb 02 j 06:40	13° $\overline{06}$ 03'55	2°07'02
max. Earth dist.	-12765 Nov 02 j 04:37	14° $\overline{09}$ 01'52	9.87243 AU	max. Earth dist.	-12758 Feb 03 j 18:29	13° $\overline{06}$ 15'32	10.05274 AU
	-12765 Nov 09 j 10:06	15° $\overline{09}$			-12758 Feb 17 j 06:29	15° $\overline{06}$	
morning rise	-12765 Nov 19 j 16:38	16° $\overline{09}$ 21'48		morning rise	-12758 Feb 20 j 09:04	15° $\overline{06}$ 23'43	
retrograde	-12764 Mar 07 j 12:15	25° $\overline{09}$ 05'45		retrograde	-12758 Jun 04 j 15:24	23° $\overline{06}$ 32'32	
opposition	-12764 May 14 j 16:46	21° $\overline{09}$ 33'09	1°04'53	min. Earth dist.	-12758 Aug 09 j 04:42	20° $\overline{06}$ 09'21	8.12879 AU
min. Earth dist.	-12764 May 14 j 08:14	21° $\overline{09}$ 34'55	7.82880 AU	opposition	-12758 Aug 10 j 06:26	20° $\overline{06}$ 04'03	-2°47'28
direct	-12764 Jul 19 j 09:08	18° $\overline{09}$ 06'19		direct	-12758 Oct 16 j 10:10	16° $\overline{06}$ 35'00	
evening set	-12764 Oct 29 j 13:41	26° $\overline{09}$ 24'55		evening set	-12757 Jan 30 j 04:36	24° $\overline{06}$ 43'26	
conjunction	-12764 Nov 16 j 08:07	28° $\overline{09}$ 47'59	0°34'03	conjunction	-12757 Feb 17 j 05:10	27° $\overline{06}$ 00'13	-2°20'06
minimum elong	-12764 Nov 16 j 08:09	28° $\overline{09}$ 47'59	0°34'28	minimum elong	-12757 Feb 17 j 05:07	27° $\overline{06}$ 00'12	2°20'47
max. Earth dist.	-12764 Nov 16 j 22:36	28° $\overline{09}$ 52'52	9.79513 AU	max. Earth dist.	-12757 Feb 18 j 14:09	27° $\overline{06}$ 10'43	10.20773 AU
	-12764 Nov 25 j 05:46	0° $\overline{00}$		morning rise	-12757 Mar 07 j 03:32	29° $\overline{06}$ 16'12	
morning rise	-12764 Dec 04 j 08:15	1° $\overline{00}$ 12'52			-12757 Mar 13 j 01:32	0° $\overline{00}$	
retrograde	-12763 Mar 23 j 03:50	10° $\overline{00}$ 01'21		retrograde	-12757 Jun 18 j 02:24	7° $\overline{00}$ 09'39	
opposition	-12763 May 29 j 20:28	6° $\overline{00}$ 28'03	0°18'53	opposition	-12757 Aug 23 j 20:45	3° $\overline{00}$ 43'20	-2°58'37
min. Earth dist.	-12763 May 29 j 05:59	6° $\overline{00}$ 31'04	7.77229 AU	min. Earth dist.	-12757 Aug 22 j 21:54	3° $\overline{00}$ 47'59	8.29259 AU
direct	-12763 Aug 03 j 07:11	3° $\overline{00}$ 00'12		direct	-12757 Oct 30 j 19:12	0° $\overline{00}$ 14'57	
desc. node	-12763 Oct 26 j 07:57	8° $\overline{00}$ 59'40		evening set	-12756 Feb 13 j 16:17	8° $\overline{00}$ 13'17	
evening set	-12763 Nov 14 j 02:50	11° $\overline{00}$ 24'19		conjunction	-12756 Mar 02 j 13:36	10° $\overline{00}$ 26'24	-2°25'30
conjunction	-12763 Dec 02 j 02:36	13° $\overline{00}$ 49'22	-0°03'42	minimum elong	-12756 Mar 02 j 13:35	10° $\overline{00}$ 26'24	2°26'16
minimum elong	-12763 Dec 02 j 02:34	13° $\overline{00}$ 49'21	0°03'28	max. Earth dist.	-12756 Mar 03 j 17:43	10° $\overline{00}$ 35'11	10.37787 AU
behind sun begin	-12763 Dec 01 j 19:15	13° $\overline{00}$ 46'54		morning rise	-12756 Mar 20 j 07:46	12° $\overline{00}$ 38'27	
behind sun end	-12763 Dec 02 j 09:53	13° $\overline{00}$ 51'48		retrograde	-12756 Jun 29 j 23:41	20° $\overline{00}$ 16'32	
max. Earth dist.	-12763 Dec 03 j 00:55	13° $\overline{00}$ 56'54	9.76041 AU	min. Earth dist.	-12756 Sep 04 j 05:18	16° $\overline{00}$ 56'18	8.46648 AU
morning rise	-12763 Dec 20 j 07:14	16° $\overline{00}$ 15'55		opposition	-12756 Sep 05 j 00:27	16° $\overline{00}$ 52'27	-2°59'48
retrograde	-12762 Apr 07 j 17:23	25° $\overline{00}$ 04'26		direct	-12756 Nov 12 j 18:13	13° $\overline{00}$ 24'57	
min. Earth dist.	-12762 Jun 13 j 04:34	21° $\overline{00}$ 35'06	7.76031 AU	evening set	-12755 Feb 26 j 13:42	21° $\overline{00}$ 12'21	
opposition	-12762 Jun 14 j 00:11	21° $\overline{00}$ 30'59	-0°28'50	conjunction	-12755 Mar 16 j 07:38	23° $\overline{00}$ 21'54	-2°23'15
direct	-12762 Aug 18 j 10:42	18° $\overline{00}$ 02'19		minimum elong	-12755 Mar 16 j 07:39	23° $\overline{00}$ 21'54	2°24'03
evening set	-12762 Nov 29 j 22:41	26° $\overline{00}$ 29'12		max. Earth dist.	-12755 Mar 17 j 05:25	23° $\overline{00}$ 28'34	10.55323 AU
conjunction	-12762 Dec 18 j 02:05	28° $\overline{00}$ 54'54	-0°41'12	morning rise	-12755 Apr 02 j 21:40	25° $\overline{00}$ 30'09	
minimum elong	-12762 Dec 18 j 02:02	28° $\overline{00}$ 54'53	0°41'10		-12755 May 14 j 13:30	0° $\overline{00}$	
max. Earth dist.	-12762 Dec 19 j 06:54	29° $\overline{00}$ 04'37	9.77106 AU	retrograde	-12755 Jul 12 j 10:07	2° $\overline{00}$ 53'39	
	-12762 Dec 26 j 03:33	0° $\overline{00}$			-12755 Sep 11 j 18:05	30° $\overline{00}$ R $\overline{00}$	
morning rise	-12761 Jan 05 j 09:07	1° $\overline{00}$ 21'41		opposition	-12755 Sep 17 j 17:50	29° $\overline{00}$ 31'44	-2°52'05
retrograde	-12761 Apr 23 j 01:11	10° $\overline{00}$ 05'35		min. Earth dist.	-12755 Sep 17 j 02:48	29° $\overline{00}$ 34'42	8.64056 AU
min. Earth dist.	-12761 Jun 28 j 01:01	6° $\overline{00}$ 37'35	7.79392 AU	direct	-12755 Nov 26 j 05:58	26° $\overline{00}$ 05'17	
opposition	-12761 Jun 29 j 00:41	6° $\overline{00}$ 32'36	-1°14'26		-12754 Feb 06 j 02:56	0° $\overline{00}$	
direct	-12761 Sep 02 j 15:38	3° $\overline{00}$ 03'23		evening set	-12754 Mar 11 j 20:52	3° $\overline{00}$ 34'142	
evening set	-12761 Dec 15 j 20:35	11° $\overline{00}$ 29'58		conjunction	-12754 Mar 29 j 11:32	5° $\overline{00}$ 347'55	-2°14'13
conjunction	-12760 Jan 03 j 01:40	13° $\overline{00}$ 54'57	-1°15'43	minimum elong	-12754 Mar 29 j 11:34	5° $\overline{00}$ 347'55	2°15'01
minimum elong	-12760 Jan 03 j 01:36	13° $\overline{00}$ 54'56	1°15'54	max. Earth dist.	-12754 Mar 30 j 02:53	5° $\overline{00}$ 352'32	10.72415 AU
max. Earth dist.	-12760 Jan 04 j 11:13	14° $\overline{00}$ 06'09	9.82650 AU	morning rise	-12754 Apr 15 j 21:33	7° $\overline{00}$ 352'41	

Attention, astronomical year style is used: The year -12754 in astronomical counting style is the year 12755 BCE in historical counting style.

retrograde	-12754 Jul 24 j 10:24	15°♄03'06		behind sun begin	-12748 Jun 04 j 23:11	13°♄13'57	
opposition	-12754 Sep 30 j 02:21	11°♄43'13	-2°36'49	behind sun end	-12748 Jun 05 j 13:09	13°♄17'52	
min. Earth dist.	-12754 Sep 29 j 16:07	11°♄45'12	8.80575 AU	morning rise	-12748 Jun 21 j 22:05	15°♄09'07	
direct	-12754 Dec 09 j 07:33	8°♄17'54		retrograde	-12748 Sep 27 j 18:02	21°♄45'13	
evening set	-12753 Mar 24 j 14:36	15°♄43'57		opposition	-12748 Dec 06 j 15:12	18°♄30'59	0°18'41
				min. Earth dist.	-12748 Dec 07 j 11:23	18°♄27'19	9.32216 AU
conjunction	-12753 Apr 11 j 02:04	17°♄47'11	-1°59'30	direct	-12747 Feb 16 j 21:27	15°♄11'08	
minimum elong	-12753 Apr 11 j 02:07	17°♄47'11	2°00'17	evening set	-12747 May 30 j 08:05	22°♄02'57	
max. Earth dist.	-12753 Apr 11 j 11:03	17°♄49'50	10.88229 AU	max. Earth dist.	-12747 Jun 14 j 23:42	23°♄49'22	11.31712 AU
morning rise	-12753 Apr 28 j 08:18	19°♄48'53					
retrograde	-12753 Aug 05 j 02:57	26°♄48'11		conjunction	-12747 Jun 16 j 01:15	23°♄56'40	0°29'15
opposition	-12753 Oct 12 j 03:12	23°♄30'08	-2°15'26	minimum elong	-12747 Jun 16 j 01:13	23°♄56'39	0°29'10
min. Earth dist.	-12753 Oct 11 j 22:43	23°♄30'59	8.95492 AU	morning rise	-12747 Jul 02 j 15:04	25°♄49'30	
direct	-12753 Dec 21 j 23:11	20°♄06'00			-12747 Aug 13 j 12:14	0°♄	
evening set	-12752 Apr 04 j 20:39	27°♄22'43		retrograde	-12747 Oct 08 j 19:21	2°♄27'38	
					-12747 Dec 07 j 03:56	30°♄	
conjunction	-12752 Apr 22 j 04:54	29°♄23'21	-1°40'12	opposition	-12747 Dec 18 j 00:59	29°♄13'02	0°51'28
minimum elong	-12752 Apr 22 j 04:57	29°♄23'22	1°40'56	min. Earth dist.	-12747 Dec 19 j 00:23	29°♄08'47	9.30491 AU
max. Earth dist.	-12752 Apr 22 j 06:59	29°♄23'57	11.02170 AU	direct	-12746 Feb 28 j 05:30	25°♄53'32	
	-12752 Apr 27 j 10:31	0°♄			-12746 May 15 j 04:50	0°♄	
morning rise	-12752 May 09 j 07:47	1°♄22'28		evening set	-12746 Jun 10 j 05:13	2°♄45'23	
retrograde	-12752 Aug 15 j 12:24	8°♄12'42					
opposition	-12752 Oct 22 j 21:42	4°♄56'10	-1°49'19	conjunction	-12746 Jun 26 j 19:49	4°♄38'56	0°55'33
min. Earth dist.	-12752 Oct 22 j 23:18	4°♄55'51	9.08321 AU	minimum elong	-12746 Jun 26 j 19:47	4°♄38'56	0°55'37
direct	-12751 Jan 02 j 05:09	1°♄33'09		max. Earth dist.	-12746 Jun 25 j 15:56	4°♄30'56	11.28403 AU
evening set	-12751 Apr 16 j 16:37	8°♄41'49		morning rise	-12746 Jul 13 j 07:43	6°♄31'51	
				retrograde	-12746 Oct 20 j 03:54	13°♄14'14	
conjunction	-12751 May 03 j 21:40	10°♄40'15	-1°17'26	opposition	-12746 Dec 29 j 13:44	9°♄58'56	1°22'40
minimum elong	-12751 May 03 j 21:43	10°♄40'16	1°18'05	min. Earth dist.	-12746 Dec 30 j 14:44	9°♄54'23	9.25661 AU
max. Earth dist.	-12751 May 03 j 16:14	10°♄38'41	11.13813 AU	direct	-12745 Mar 11 j 14:15	6°♄39'38	
morning rise	-12751 May 20 j 21:38	12°♄37'16		evening set	-12745 Jun 21 j 03:14	13°♄33'11	
	-12751 Jun 11 j 22:09	15°♄		max. Earth dist.	-12745 Jul 06 j 10:07	15°♄18'31	11.22043 AU
retrograde	-12751 Aug 26 j 15:12	19°♄20'37					
opposition	-12751 Nov 03 j 11:25	16°♄05'13	-1°19'44	conjunction	-12745 Jul 07 j 15:40	15°♄27'05	1°20'07
min. Earth dist.	-12751 Nov 03 j 18:07	16°♄03'58	9.18667 AU	minimum elong	-12745 Jul 07 j 15:37	15°♄27'04	1°20'19
	-12751 Nov 18 j 08:02	15°♄		morning rise	-12745 Jul 24 j 02:01	17°♄20'33	
direct	-12750 Jan 14 j 06:06	12°♄43'13		retrograde	-12745 Oct 31 j 16:31	24°♄09'18	
	-12750 Mar 10 j 15:36	15°♄		opposition	-12744 Jan 10 j 06:53	20°♄53'01	1°51'23
evening set	-12750 Apr 28 j 04:14	19°♄45'16		min. Earth dist.	-12744 Jan 11 j 09:30	20°♄48'09	9.17862 AU
				direct	-12744 Mar 21 j 21:35	17°♄33'45	
conjunction	-12750 May 15 j 06:14	21°♄41'55	-0°52'13	evening set	-12744 Jul 01 j 04:17	24°♄30'45	
minimum elong	-12750 May 15 j 06:16	21°♄41'55	0°52'44	max. Earth dist.	-12744 Jul 16 j 07:18	26°♄16'11	11.12824 AU
max. Earth dist.	-12750 May 14 j 18:55	21°♄38'40	11.22804 AU				
morning rise	-12750 Jun 01 j 03:21	23°♄37'12		conjunction	-12744 Jul 17 j 14:50	26°♄25'25	1°42'07
	-12750 Aug 19 j 22:06	0°♄		minimum elong	-12744 Jul 17 j 14:47	26°♄25'24	1°42'28
retrograde	-12750 Sep 06 j 17:25	0°♄15'56		morning rise	-12744 Aug 03 j 00:24	28°♄19'57	
	-12750 Sep 24 j 16:08	30°♄			-12744 Aug 17 j 22:47	0°♄	
opposition	-12750 Nov 14 j 21:53	27°♄01'17	-0°47'51	retrograde	-12744 Nov 11 j 12:45	5°♄17'09	
min. Earth dist.	-12750 Nov 15 j 08:45	26°♄59'17	9.26222 AU	opposition	-12743 Jan 21 j 05:46	1°♄59'38	2°16'36
direct	-12749 Jan 26 j 00:02	23°♄40'12		min. Earth dist.	-12743 Jan 22 j 09:44	1°♄54'30	9.07332 AU
	-12749 May 03 j 19:02	0°♄			-12743 Feb 19 j 08:29	30°♄	
evening set	-12749 May 09 j 09:25	0°♄37'08		direct	-12743 Apr 02 j 10:10	28°♄40'11	
					-12743 May 13 j 07:03	0°♄	
conjunction	-12749 May 26 j 08:32	2°♄32'25	-0°25'28	evening set	-12743 Jul 12 j 09:54	5°♄42'20	
minimum elong	-12749 May 26 j 08:33	2°♄32'25	0°25'51	max. Earth dist.	-12743 Jul 27 j 11:25	7°♄28'49	11.01035 AU
max. Earth dist.	-12749 May 25 j 16:47	2°♄27'55	11.28881 AU				
morning rise	-12749 Jun 12 j 02:51	4°♄26'26		conjunction	-12743 Jul 28 j 19:16	7°♄38'17	2°00'40
retrograde	-12749 Sep 17 j 17:21	11°♄02'45		minimum elong	-12743 Jul 28 j 19:13	7°♄38'16	2°01'10
opposition	-12749 Nov 26 j 06:39	7°♄48'29	-0°14'43	morning rise	-12743 Aug 14 j 04:47	9°♄34'24	
min. Earth dist.	-12749 Nov 26 j 22:13	7°♄45'38	9.30781 AU		-12743 Oct 08 j 12:08	15°♄	
direct	-12748 Feb 06 j 11:49	4°♄28'07		retrograde	-12743 Nov 23 j 18:16	16°♄42'03	
asc. node	-12748 May 08 j 21:18	10°♄12'31			-12742 Jan 10 j 16:18	15°♄	
evening set	-12748 May 19 j 10:02	11°♄21'37		opposition	-12742 Feb 02 j 12:05	13°♄23'01	2°37'12
max. Earth dist.	-12748 Jun 04 j 09:18	13°♄09'58	11.31876 AU	min. Earth dist.	-12742 Feb 03 j 15:30	13°♄17'57	8.94404 AU
				direct	-12742 Apr 14 j 03:15	10°♄03'17	
conjunction	-12748 Jun 05 j 06:11	13°♄15'55	0°02'01		-12742 Jul 04 j 12:28	15°♄	
minimum elong	-12748 Jun 05 j 06:10	13°♄15'54	0°01'48	evening set	-12742 Jul 23 j 21:42	17°♄12'02	

Attention, astronomical year style is used: The year -12742 in astronomical counting style is the year 12743 BCE in historical counting style.

max. Earth dist.	-12742 Aug 08 j 01:05	19° $\text{♁}$ 00'48	10.87057 AU	conjunction	-12736 Oct 25 j 12:00	7° $\text{♁}$ 35'51	1°23'17
				minimum elong	-12736 Oct 25 j 12:04	7° $\text{♁}$ 35'52	1°23'56
conjunction	-12742 Aug 09 j 06:58	19° $\text{♁}$ 09'50	2°14'51	max. Earth dist.	-12736 Oct 25 j 15:38	7° $\text{♁}$ 37'04	9.93621 AU
minimum elong	-12742 Aug 09 j 06:56	19° $\text{♁}$ 09'49	2°15'29	morning rise	-12736 Nov 12 j 02:44	9° $\text{♁}$ 55'58	
morning rise	-12742 Aug 25 j 17:13	21° $\text{♁}$ 08'04			-12736 Dec 24 j 22:46	15° $\text{♁}$	
retrograde	-12742 Dec 06 j 10:51	28° $\text{♁}$ 27'59		retrograde	-12735 Feb 28 j 19:31	18° $\text{♁}$ 35'55	
opposition	-12741 Feb 15 j 02:53	25° $\text{♁}$ 07'13	2°52'02	opposition	-12735 May 08 j 06:01	15° $\text{♁}$ 04'28	1°24'13
min. Earth dist.	-12741 Feb 16 j 04:00	25° $\text{♁}$ 02'31	8.79515 AU	min. Earth dist.	-12735 May 07 j 23:58	15° $\text{♁}$ 05'42	7.88442 AU
direct	-12741 Apr 26 j 03:14	21° $\text{♁}$ 47'02			-12735 May 09 j 03:51	15° $\text{♁}$	
evening set	-12741 Aug 04 j 17:51	29° $\text{♁}$ 03'48		direct	-12735 Jul 13 j 03:03	11° $\text{♁}$ 38'48	
	-12741 Aug 12 j 11:22	0° $\text{♁}$			-12735 Sep 12 j 01:59	15° $\text{♁}$	
max. Earth dist.	-12741 Aug 20 j 00:53	0° $\text{♁}$ 55'38	10.71391 AU	evening set	-12735 Oct 23 j 00:40	19° $\text{♁}$ 53'31	
conjunction	-12741 Aug 21 j 04:03	1° $\text{♁}$ 03'59	2°23'44	conjunction	-12735 Nov 09 j 16:15	22° $\text{♁}$ 15'06	0°50'25
minimum elong	-12741 Aug 21 j 04:02	1° $\text{♁}$ 03'58	2°24'27	minimum elong	-12735 Nov 09 j 16:18	22° $\text{♁}$ 15'07	0°50'56
morning rise	-12741 Sep 06 j 16:07	3° $\text{♁}$ 04'54		max. Earth dist.	-12735 Nov 10 j 03:45	22° $\text{♁}$ 18'58	9.84102 AU
retrograde	-12741 Dec 19 j 16:22	10° $\text{♁}$ 38'27		morning rise	-12735 Nov 27 j 13:27	24° $\text{♁}$ 38'33	
opposition	-12740 Feb 28 j 03:00	7° $\text{♁}$ 15'50	2°59'52		-12734 Jan 11 j 19:26	0° $\text{♁}$	
min. Earth dist.	-12740 Feb 29 j 00:52	7° $\text{♁}$ 11'41	8.63231 AU	retrograde	-12734 Mar 16 j 10:41	3° $\text{♁}$ 25'04	
direct	-12740 May 07 j 09:42	3° $\text{♁}$ 55'02			-12734 May 21 j 20:54	30° $\text{♁}$	
evening set	-12740 Aug 15 j 23:51	11° $\text{♁}$ 20'58		opposition	-12734 May 23 j 08:26	29° $\text{♁}$ 52'38	0°40'13
max. Earth dist.	-12740 Aug 31 j 11:55	13° $\text{♁}$ 16'30	10.54674 AU	min. Earth dist.	-12734 May 22 j 20:21	29° $\text{♁}$ 55'08	7.80710 AU
				direct	-12734 Jul 27 j 20:54	26° $\text{♁}$ 25'53	
conjunction	-12740 Sep 01 j 12:05	13° $\text{♁}$ 24'04	2°26'22		-12734 Sep 28 j 18:01	0° $\text{♁}$	
minimum elong	-12740 Sep 01 j 12:05	13° $\text{♁}$ 24'04	2°27'09	evening set	-12734 Nov 07 j 09:44	4° $\text{♁}$ 47'23	
morning rise	-12740 Sep 18 j 03:23	15° $\text{♁}$ 28'15					
retrograde	-12739 Jan 01 j 09:19	23° $\text{♁}$ 16'23		conjunction	-12734 Nov 25 j 07:09	7° $\text{♁}$ 11'32	0°13'40
opposition	-12739 Mar 12 j 13:28	19° $\text{♁}$ 51'51	2°59'30	minimum elong	-12734 Nov 25 j 07:10	7° $\text{♁}$ 11'32	0°14'00
min. Earth dist.	-12739 Mar 13 j 07:38	19° $\text{♁}$ 48'21	8.46247 AU	behind sun begin	-12734 Nov 25 j 03:35	7° $\text{♁}$ 10'20	
direct	-12739 May 20 j 00:56	16° $\text{♁}$ 30'17		behind sun end	-12734 Nov 25 j 10:44	7° $\text{♁}$ 12'44	
evening set	-12739 Aug 28 j 17:04	24° $\text{♁}$ 06'13		max. Earth dist.	-12734 Nov 26 j 01:52	7° $\text{♁}$ 17'51	9.78310 AU
				morning rise	-12734 Dec 13 j 09:42	9° $\text{♁}$ 37'20	
conjunction	-12739 Sep 14 j 08:42	26° $\text{♁}$ 12'44	2°21'58	retrograde	-12733 Apr 01 j 02:34	18° $\text{♁}$ 26'18	
minimum elong	-12739 Sep 14 j 08:44	26° $\text{♁}$ 12'45	2°22'46	desc. node	-12733 Apr 11 j 23:04	18° $\text{♁}$ 19'40	
max. Earth dist.	-12739 Sep 13 j 13:18	26° $\text{♁}$ 06'33	10.37667 AU	opposition	-12733 Jun 07 j 12:39	14° $\text{♁}$ 53'26	-0°07'12
morning rise	-12739 Oct 01 j 04:32	28° $\text{♁}$ 20'39		min. Earth dist.	-12733 Jun 06 j 19:27	14° $\text{♁}$ 57'02	7.77007 AU
	-12739 Oct 14 j 17:40	0° $\text{♁}$		direct	-12733 Aug 11 j 21:34	11° $\text{♁}$ 25'43	
retrograde	-12738 Jan 15 j 13:33	6° $\text{♁}$ 23'40		evening set	-12733 Nov 23 j 03:18	19° $\text{♁}$ 51'39	
opposition	-12738 Mar 26 j 10:18	2° $\text{♁}$ 57'11	2°49'58				
min. Earth dist.	-12738 Mar 26 j 23:46	2° $\text{♁}$ 54'33	8.29385 AU	conjunction	-12733 Dec 11 j 05:05	22° $\text{♁}$ 17'10	-0°24'23
	-12738 May 11 j 10:14	30° $\text{♁}$		minimum elong	-12733 Dec 11 j 05:03	22° $\text{♁}$ 17'10	0°24'16
direct	-12738 Jun 02 j 04:02	29° $\text{♁}$ 34'44		max. Earth dist.	-12733 Dec 12 j 06:16	22° $\text{♁}$ 25'40	9.76779 AU
	-12738 Jun 23 j 15:18	0° $\text{♁}$		morning rise	-12733 Dec 29 j 11:06	24° $\text{♁}$ 43'59	
evening set	-12738 Sep 10 j 22:56	7° $\text{♁}$ 21'05			-12732 Feb 11 j 14:54	0° $\text{♁}$	
				retrograde	-12732 Apr 15 j 14:25	3° $\text{♁}$ 30'48	
conjunction	-12738 Sep 27 j 19:26	9° $\text{♁}$ 31'25	2°09'57	opposition	-12732 Jun 21 j 15:29	29° $\text{♁}$ 58'02	-0°54'17
minimum elong	-12738 Sep 27 j 19:29	9° $\text{♁}$ 31'26	2°10'45	min. Earth dist.	-12732 Jun 20 j 18:14	0° $\text{♁}$ 02'30	7.77751 AU
max. Earth dist.	-12738 Sep 27 j 06:40	9° $\text{♁}$ 27'16	10.21223 AU		-12732 Jun 21 j 06:07	30° $\text{♁}$	
morning rise	-12738 Oct 14 j 20:56	11° $\text{♁}$ 43'24		direct	-12732 Aug 26 j 01:58	26° $\text{♁}$ 29'29	
retrograde	-12737 Jan 30 j 05:56	20° $\text{♁}$ 00'41			-12732 Oct 27 j 17:00	0° $\text{♁}$	
opposition	-12737 Apr 09 j 16:47	16° $\text{♁}$ 32'20	2°30'40	evening set	-12732 Dec 08 j 01:16	4° $\text{♁}$ 56'53	
min. Earth dist.	-12737 Apr 10 j 00:23	16° $\text{♁}$ 30'50	8.13539 AU				
direct	-12737 Jun 15 j 18:00	13° $\text{♁}$ 08'52		conjunction	-12732 Dec 26 j 05:38	7° $\text{♁}$ 22'24	-1°00'39
evening set	-12737 Sep 24 j 18:13	21° $\text{♁}$ 05'32		minimum elong	-12732 Dec 26 j 05:34	7° $\text{♁}$ 22'23	1°00'45
				max. Earth dist.	-12732 Dec 27 j 11:46	7° $\text{♁}$ 32'30	9.79759 AU
conjunction	-12737 Oct 11 j 20:43	23° $\text{♁}$ 19'52	1°50'13	morning rise	-12731 Jan 13 j 13:00	9° $\text{♁}$ 48'44	
minimum elong	-12737 Oct 11 j 20:47	23° $\text{♁}$ 19'53	1°50'58	retrograde	-12731 Apr 30 j 19:05	18° $\text{♁}$ 28'54	
max. Earth dist.	-12737 Oct 11 j 15:56	23° $\text{♁}$ 18'18	10.06249 AU	opposition	-12731 Jul 06 j 13:47	14° $\text{♁}$ 56'44	-1°37'15
morning rise	-12737 Oct 29 j 04:40	25° $\text{♁}$ 36'02		min. Earth dist.	-12731 Jul 05 j 13:58	15° $\text{♁}$ 01'45	7.82975 AU
	-12737 Dec 05 j 03:46	0° $\text{♁}$		direct	-12731 Sep 10 j 07:16	11° $\text{♁}$ 27'34	
retrograde	-12736 Feb 14 j 08:58	4° $\text{♁}$ 05'58		evening set	-12731 Dec 23 j 22:50	19° $\text{♁}$ 53'13	
opposition	-12736 Apr 23 j 07:59	0° $\text{♁}$ 35'55	2°01'44				
min. Earth dist.	-12736 Apr 23 j 08:52	0° $\text{♁}$ 35'45	7.99613 AU	conjunction	-12730 Jan 11 j 03:55	22° $\text{♁}$ 17'24	-1°32'29
	-12736 Apr 30 j 18:51	30° $\text{♁}$		minimum elong	-12730 Jan 11 j 03:50	22° $\text{♁}$ 17'22	1°32'48
direct	-12736 Jun 28 j 17:38	27° $\text{♁}$ 11'23		max. Earth dist.	-12730 Jan 12 j 12:53	22° $\text{♁}$ 28'20	9.87071 AU
	-12736 Aug 23 j 11:51	0° $\text{♁}$		morning rise	-12730 Jan 29 j 10:33	24° $\text{♁}$ 41'54	
evening set	-12736 Oct 08 j 02:57	5° $\text{♁}$ 17'40			-12730 Mar 15 j 22:53	0° $\text{♁}$	

Attention, astronomical year style is used: The year -12730 in astronomical counting style is the year 12731 BCE in historical counting style.

retrograde	-12730 May 15 j 13:36	3°♌11'31		max. Earth dist.	-12724 Apr 05 j 11:43	12°♊50'42	10.79286 AU
	-12730 Jul 17 j 07:33	30°♊♌		morning rise	-12724 Apr 22 j 07:53	14°♊50'24	
min. Earth dist.	-12730 Jul 20 j 03:48	29°♌45'44	7.92286 AU	retrograde	-12724 Jul 30 j 09:07	21°♊54'59	
opposition	-12730 Jul 21 j 04:56	29°♌40'28	-2°12'57	opposition	-12724 Oct 06 j 06:44	18°♊35'30	-2°25'49
direct	-12730 Sep 25 j 10:12	26°♌10'59		min. Earth dist.	-12724 Oct 05 j 23:29	18°♊36'54	8.87134 AU
	-12730 Dec 01 j 05:53	0°♌		direct	-12724 Dec 15 j 21:04	15°♊10'11	
evening set	-12729 Jan 08 j 15:16	4°♌31'47		evening set	-12723 Mar 30 j 22:04	22°♊31'25	
conjunction	-12729 Jan 26 j 19:21	6°♌53'32	-1°57'44	conjunction	-12723 Apr 17 j 07:47	24°♊33'20	-1°49'23
minimum elong	-12729 Jan 26 j 19:17	6°♌53'30	1°58'13	minimum elong	-12723 Apr 17 j 07:51	24°♊33'21	1°50'08
max. Earth dist.	-12729 Jan 28 j 05:04	7°♌04'34	9.98156 AU	max. Earth dist.	-12723 Apr 17 j 13:04	24°♊34'53	10.94475 AU
morning rise	-12729 Feb 13 j 23:27	9°♌15'06		morning rise	-12723 May 04 j 12:26	26°♊33'43	
	-12729 Apr 06 j 07:26	15°♌			-12723 Jun 05 j 17:34	0°♌	
retrograde	-12729 May 29 j 19:56	17°♌31'22		retrograde	-12723 Aug 10 j 21:16	3°♌28'05	
	-12729 Jul 23 j 15:12	15°♌		opposition	-12723 Oct 18 j 03:43	0°♌10'18	-2°01'35
min. Earth dist.	-12729 Aug 03 j 09:33	14°♌07'06	8.04985 AU	min. Earth dist.	-12723 Oct 18 j 00:57	0°♌10'49	9.01378 AU
opposition	-12729 Aug 04 j 10:49	14°♌01'51	-2°39'12		-12723 Oct 20 j 09:55	30°♌♊	
direct	-12729 Oct 10 j 07:46	10°♌32'24		direct	-12723 Dec 28 j 07:37	26°♊46'15	
	-12729 Dec 23 j 02:42	15°♌			-12722 Mar 04 j 12:54	0°♌	
evening set	-12728 Jan 23 j 22:11	18°♌45'41		evening set	-12722 Apr 11 j 22:16	3°♌58'36	
conjunction	-12728 Feb 11 j 00:07	21°♌04'15	-2°15'06	conjunction	-12722 Apr 29 j 04:57	5°♌58'05	-1°28'01
minimum elong	-12728 Feb 11 j 00:03	21°♌04'14	2°15'44	minimum elong	-12722 Apr 29 j 05:00	5°♌58'05	1°28'41
max. Earth dist.	-12728 Feb 12 j 08:41	21°♌14'44	10.12216 AU	max. Earth dist.	-12722 Apr 29 j 04:43	5°♌58'00	11.07697 AU
morning rise	-12728 Feb 29 j 00:32	23°♌22'13		morning rise	-12722 May 16 j 06:15	7°♌56'04	
	-12728 May 03 j 06:28	0°♌♊		retrograde	-12722 Aug 22 j 03:50	14°♌42'21	
retrograde	-12728 Jun 11 j 12:57	1°♌23'30		opposition	-12722 Oct 29 j 19:24	11°♌26'02	-1°33'20
	-12728 Jul 21 j 05:34	30°♌♌		min. Earth dist.	-12722 Oct 29 j 21:57	11°♌25'33	9.13423 AU
min. Earth dist.	-12728 Aug 16 j 06:19	28°♌00'46	8.20184 AU	direct	-12721 Jan 09 j 10:04	8°♌03'14	
opposition	-12728 Aug 17 j 06:21	27°♌55'50	-2°55'05		-12721 Apr 22 j 08:28	15°♌	
direct	-12728 Oct 23 j 21:26	24°♌26'44		evening set	-12721 Apr 23 j 13:12	15°♌08'04	
	-12727 Jan 16 j 15:14	0°♌♊		conjunction	-12721 May 10 j 16:45	17°♌05'31	-1°03'44
evening set	-12727 Feb 06 j 16:31	2°♌30'31		minimum elong	-12721 May 10 j 16:47	17°♌05'32	1°04'18
conjunction	-12727 Feb 24 j 15:36	4°♌45'33	-2°24'12	max. Earth dist.	-12721 May 10 j 10:26	17°♌03'42	11.18498 AU
minimum elong	-12727 Feb 24 j 15:34	4°♌45'32	2°24'56	morning rise	-12721 May 27 j 15:02	19°♌01'32	
max. Earth dist.	-12727 Feb 25 j 21:19	4°♌54'55	10.28308 AU	retrograde	-12721 Sep 02 j 06:25	25°♌42'01	
morning rise	-12727 Mar 14 j 11:49	6°♌59'36		opposition	-12721 Nov 10 j 07:04	22°♌26'51	-1°02'18
retrograde	-12727 Jun 24 j 17:10	14°♌45'24		min. Earth dist.	-12721 Nov 10 j 15:14	22°♌25'20	9.22881 AU
opposition	-12727 Aug 30 j 15:11	11°♌19'46	-3°00'40	direct	-12720 Jan 21 j 04:57	19°♌05'12	
min. Earth dist.	-12727 Aug 29 j 17:54	11°♌24'05	8.36906 AU	evening set	-12720 May 03 j 21:00	26°♌04'07	
direct	-12727 Nov 07 j 00:32	7°♌51'19		conjunction	-12720 May 20 j 21:22	27°♌59'57	-0°37'31
evening set	-12726 Feb 20 j 21:01	15°♌44'27		minimum elong	-12720 May 20 j 21:24	27°♌59'57	0°37'57
conjunction	-12726 Mar 10 j 16:48	17°♌55'52	-2°25'17	max. Earth dist.	-12720 May 20 j 08:32	27°♌56'17	11.26542 AU
minimum elong	-12726 Mar 10 j 16:48	17°♌55'52	2°26'04	morning rise	-12720 Jun 06 j 17:02	29°♌54'29	
max. Earth dist.	-12726 Mar 11 j 18:03	18°♌03'41	10.45445 AU		-12720 Jun 07 j 12:48	0°♌♊	
morning rise	-12726 Mar 28 j 08:41	20°♌06'02		retrograde	-12720 Sep 12 j 05:12	6°♌31'23	
retrograde	-12726 Jul 07 j 09:59	27°♌36'45		opposition	-12720 Nov 20 j 16:01	3°♌17'00	-0°29'33
opposition	-12726 Sep 12 j 13:35	24°♌13'16	-2°56'48	min. Earth dist.	-12720 Nov 21 j 04:56	3°♌14'37	9.29452 AU
min. Earth dist.	-12726 Sep 11 j 20:43	24°♌16'37	8.54196 AU		-12719 Jan 23 j 00:21	30°♌♌	
direct	-12726 Nov 20 j 16:51	20°♌45'41		direct	-12719 Jan 31 j 20:00	29°♌56'21	
evening set	-12725 Mar 06 j 11:00	28°♌27'47			-12719 Feb 09 j 15:28	0°♌♊	
	-12725 Mar 19 j 05:38	0°♊		evening set	-12719 May 14 j 23:24	6°♌51'02	
conjunction	-12725 Mar 24 j 03:19	0°♊35'43	-2°19'09	conjunction	-12719 May 31 j 20:46	8°♌45'38	-0°10'17
minimum elong	-12725 Mar 24 j 03:21	0°♊35'43	2°19'57	minimum elong	-12719 May 31 j 20:47	8°♌45'39	0°10'34
max. Earth dist.	-12725 Mar 24 j 22:23	0°♊41'30	10.62709 AU	behind sun begin	-12719 May 31 j 15:20	8°♌44'07	
morning rise	-12725 Apr 10 j 15:08	2°♊42'15		behind sun end	-12719 Jun 01 j 02:15	8°♌47'11	
retrograde	-12725 Jul 19 j 14:35	9°♊59'02		max. Earth dist.	-12719 May 31 j 02:59	8°♌40'35	11.31576 AU
opposition	-12725 Sep 25 j 02:28	6°♊37'38	-2°44'42	morning rise	-12719 Jun 17 j 13:53	10°♌39'06	
min. Earth dist.	-12725 Sep 24 j 14:30	6°♊39'59	8.71193 AU	retrograde	-12719 Sep 23 j 06:50	17°♌14'44	
direct	-12725 Dec 03 j 23:29	3°♊11'08		asc. node	-12719 Oct 19 j 21:28	16°♌40'54	
evening set	-12724 Mar 18 j 10:50	10°♊42'24		opposition	-12719 Dec 02 j 00:13	14°♌00'44	0°03'53
				min. Earth dist.	-12719 Dec 02 j 16:42	13°♌57'43	9.32920 AU
conjunction	-12724 Apr 04 j 23:45	12°♊47'08	-2°06'48	direct	-12718 Feb 12 j 07:32	10°♌40'57	
minimum elong	-12724 Apr 04 j 23:48	12°♊47'09	2°07'35	evening set	-12718 May 25 j 22:11	17°♌33'01	

Attention, astronomical year style is used: The year -12718 in astronomical counting style is the year 12719 BCE in historical counting style.

conjunction	-12718 Jun 11 j 16:44	19° $\text{K}$ 26'50	0°17'14	minimum elong	-12712 Aug 15 j 04:42	25° $\text{S}$ 54'24	2°21'11
minimum elong	-12718 Jun 11 j 16:44	19° $\text{K}$ 26'50	0°17'06	morning rise	-12712 Aug 31 j 15:49	27° $\text{S}$ 53'51	
max. Earth dist.	-12718 Jun 10 j 19:23	19° $\text{K}$ 20'45	11.33432 AU		-12712 Sep 18 j 21:17	0° $\text{II}$	
morning rise	-12718 Jun 28 j 07:21	21° $\text{K}$ 19'40		retrograde	-12712 Dec 13 j 01:10	5° $\text{II}$ 20'20	
retrograde	-12718 Oct 04 j 07:58	27° $\text{K}$ 56'12		opposition	-12711 Feb 21 j 14:46	1° $\text{II}$ 58'56	2°57'18
opposition	-12718 Dec 13 j 09:13	24° $\text{K}$ 42'13	0°37'04	min. Earth dist.	-12711 Feb 22 j 16:22	1° $\text{II}$ 54'07	8.72059 AU
min. Earth dist.	-12718 Dec 14 j 05:25	24° $\text{K}$ 38'33	9.33178 AU		-12711 Mar 21 j 19:11	30° $\text{R}$ 8	
direct	-12717 Feb 23 j 14:05	21° $\text{K}$ 23'05		direct	-12711 May 02 j 06:00	28° $\text{S}$ 38'37	
evening set	-12717 Jun 05 j 19:29	28° $\text{K}$ 14'15			-12711 Jun 11 j 08:33	0° $\text{II}$	
max. Earth dist.	-12717 Jun 21 j 09:43	0° $\text{Y}$ 00'23	11.32050 AU	evening set	-12711 Aug 10 j 20:06	5° $\text{II}$ 59'42	
	-12717 Jun 21 j 08:22	0° $\text{Y}$		max. Earth dist.	-12711 Aug 26 j 03:56	7° $\text{II}$ 52'48	10.63406 AU
conjunction	-12717 Jun 22 j 11:13	0° $\text{Y}$ 07'40	0°44'04	conjunction	-12711 Aug 27 j 07:07	8° $\text{II}$ 01'14	2°26'05
minimum elong	-12717 Jun 22 j 11:11	0° $\text{Y}$ 07'40	0°44'04	minimum elong	-12711 Aug 27 j 07:07	8° $\text{II}$ 01'14	2°26'50
morning rise	-12717 Jul 08 j 23:48	2° $\text{Y}$ 00'20		morning rise	-12711 Sep 12 j 20:44	10° $\text{II}$ 03'43	
retrograde	-12717 Oct 15 j 13:00	8° $\text{Y}$ 39'58		retrograde	-12711 Dec 26 j 11:13	17° $\text{II}$ 44'31	
opposition	-12717 Dec 24 j 20:15	5° $\text{Y}$ 25'36	1°09'04	opposition	-12710 Mar 06 j 20:03	14° $\text{II}$ 20'58	3°00'49
min. Earth dist.	-12717 Dec 25 j 20:22	5° $\text{Y}$ 21'14	9.30205 AU	min. Earth dist.	-12710 Mar 07 j 17:47	14° $\text{II}$ 16'49	8.54776 AU
direct	-12716 Mar 05 j 21:50	2° $\text{Y}$ 06'50		direct	-12710 May 14 j 17:45	10° $\text{II}$ 59'45	
evening set	-12716 Jun 15 j 16:51	8° $\text{Y}$ 58'51		evening set	-12710 Aug 23 j 07:23	18° $\text{II}$ 30'33	
max. Earth dist.	-12716 Jul 01 j 00:49	10° $\text{Y}$ 43'55	11.27445 AU				
conjunction	-12716 Jul 02 j 06:02	10° $\text{Y}$ 52'19	1°09'30	conjunction	-12710 Sep 08 j 21:23	20° $\text{II}$ 35'21	2°24'59
minimum elong	-12716 Jul 02 j 05:59	10° $\text{Y}$ 52'19	1°09'38	minimum elong	-12710 Sep 08 j 21:24	20° $\text{II}$ 35'21	2°25'47
morning rise	-12716 Jul 18 j 17:03	12° $\text{Y}$ 45'18		max. Earth dist.	-12710 Sep 07 j 23:08	20° $\text{II}$ 28'19	10.45878 AU
retrograde	-12716 Oct 25 j 21:23	19° $\text{Y}$ 30'12		morning rise	-12710 Sep 25 j 14:48	22° $\text{II}$ 41'22	
opposition	-12715 Jan 04 j 10:51	16° $\text{Y}$ 15'02	1°38'58		-12710 Dec 13 j 08:09	0° $\text{S}$	
min. Earth dist.	-12715 Jan 05 j 13:20	16° $\text{Y}$ 10'13	9.24027 AU	retrograde	-12709 Jan 09 j 10:09	0° $\text{S}$ 37'09	
direct	-12715 Mar 17 j 05:29	12° $\text{Y}$ 56'24			-12709 Feb 05 j 20:04	30° $\text{R}$ II	
evening set	-12715 Jun 26 j 16:00	19° $\text{Y}$ 50'59		opposition	-12709 Mar 20 j 11:34	27° $\text{II}$ 11'24	2°55'38
max. Earth dist.	-12715 Jul 11 j 20:30	21° $\text{Y}$ 36'04	11.19676 AU	min. Earth dist.	-12709 Mar 21 j 04:02	27° $\text{II}$ 08'12	8.37183 AU
				direct	-12709 May 27 j 15:21	23° $\text{II}$ 49'08	
conjunction	-12715 Jul 13 j 03:11	21° $\text{Y}$ 44'59	1°32'43		-12709 Aug 24 j 01:59	0° $\text{S}$	
minimum elong	-12715 Jul 13 j 03:08	21° $\text{Y}$ 44'58	1°33'01	evening set	-12709 Sep 05 j 06:54	1° $\text{S}$ 30'20	
morning rise	-12715 Jul 29 j 12:57	23° $\text{Y}$ 38'44		max. Earth dist.	-12709 Sep 21 j 08:14	3° $\text{S}$ 33'26	10.28478 AU
	-12715 Oct 12 j 06:58	0° $\text{S}$		conjunction	-12709 Sep 22 j 01:05	3° $\text{S}$ 38'51	2°16'32
retrograde	-12715 Nov 06 j 15:05	0° $\text{S}$ 31'07		minimum elong	-12709 Sep 22 j 01:07	3° $\text{S}$ 38'52	2°17'20
	-12715 Dec 02 j 08:00	30° $\text{R}$ Y		morning rise	-12709 Oct 08 j 23:38	5° $\text{S}$ 48'53	
opposition	-12714 Jan 16 j 06:35	27° $\text{Y}$ 14'49	2°05'50	retrograde	-12708 Jan 23 j 21:52	13° $\text{S}$ 59'29	
min. Earth dist.	-12714 Jan 17 j 09:57	27° $\text{Y}$ 09'49	9.14756 AU	opposition	-12708 Apr 02 j 13:06	10° $\text{S}$ 31'36	2°40'55
direct	-12714 Mar 28 j 17:25	23° $\text{Y}$ 56'06		min. Earth dist.	-12708 Apr 02 j 23:55	10° $\text{S}$ 29'28	8.20164 AU
	-12714 Jun 29 j 17:17	0° $\text{S}$		direct	-12708 Jun 08 j 22:25	7° $\text{S}$ 08'12	
evening set	-12714 Jul 07 j 18:57	0° $\text{S}$ 54'59		evening set	-12708 Sep 17 j 19:29	15° $\text{S}$ 00'03	
max. Earth dist.	-12714 Jul 22 j 21:24	2° $\text{S}$ 40'50	11.08937 AU				
conjunction	-12714 Jul 24 j 04:46	2° $\text{S}$ 50'04	1°52'53	conjunction	-12708 Oct 04 j 19:01	17° $\text{S}$ 12'34	2°00'22
minimum elong	-12714 Jul 24 j 04:43	2° $\text{S}$ 50'03	1°53'20	minimum elong	-12708 Oct 04 j 19:05	17° $\text{S}$ 12'36	2°01'08
morning rise	-12714 Aug 09 j 13:56	4° $\text{S}$ 45'09		max. Earth dist.	-12708 Oct 04 j 08:41	17° $\text{S}$ 09'11	10.12132 AU
retrograde	-12714 Nov 18 j 16:48	11° $\text{S}$ 47'05		morning rise	-12708 Oct 21 j 23:51	19° $\text{S}$ 26'51	
opposition	-12713 Jan 28 j 09:01	8° $\text{S}$ 29'21	2°28'36	retrograde	-12707 Feb 06 j 20:33	27° $\text{S}$ 51'15	
min. Earth dist.	-12713 Jan 29 j 12:38	8° $\text{S}$ 24'16	9.02679 AU	opposition	-12707 Apr 17 j 00:18	24° $\text{S}$ 21'27	2°16'25
direct	-12713 Apr 09 j 06:22	5° $\text{S}$ 10'21		min. Earth dist.	-12707 Apr 17 j 04:59	24° $\text{S}$ 20'30	8.04677 AU
evening set	-12713 Jul 19 j 03:28	12° $\text{S}$ 15'11		direct	-12707 Jun 22 j 16:27	20° $\text{S}$ 56'50	
max. Earth dist.	-12713 Aug 03 j 04:30	14° $\text{S}$ 02'16	10.95615 AU	evening set	-12707 Oct 01 j 21:39	28° $\text{S}$ 59'01	
					-12707 Oct 09 j 15:39	0° $\text{S}$	
conjunction	-12713 Aug 04 j 12:34	14° $\text{S}$ 11'52	2°09'08	conjunction	-12707 Oct 19 j 03:30	1° $\text{S}$ 15'34	1°36'39
minimum elong	-12713 Aug 04 j 12:31	14° $\text{S}$ 11'51	2°09'42	minimum elong	-12707 Oct 19 j 03:35	1° $\text{S}$ 15'36	1°37'20
	-12713 Aug 11 j 05:37	15° $\text{S}$		max. Earth dist.	-12707 Oct 19 j 00:56	1° $\text{S}$ 14'43	9.97798 AU
morning rise	-12713 Aug 20 j 22:12	16° $\text{S}$ 08'51		morning rise	-12707 Nov 05 j 15:16	3° $\text{S}$ 14'03	
retrograde	-12713 Dec 01 j 02:53	23° $\text{S}$ 22'15		retrograde	-12706 Feb 22 j 03:32	12° $\text{S}$ 10'11	
opposition	-12712 Feb 09 j 19:26	20° $\text{S}$ 02'48	2°46'09	opposition	-12706 May 01 j 19:34	8° $\text{S}$ 38'44	1°42'39
min. Earth dist.	-12712 Feb 10 j 22:51	19° $\text{S}$ 57'42	8.88255 AU	min. Earth dist.	-12706 May 01 j 17:52	8° $\text{S}$ 39'04	7.91680 AU
direct	-12712 Apr 20 j 01:49	16° $\text{S}$ 43'15		direct	-12706 Jul 06 j 22:10	5° $\text{S}$ 12'55	
evening set	-12712 Jul 29 j 19:21	23° $\text{S}$ 55'35		evening set	-12706 Oct 16 j 13:33	13° $\text{S}$ 24'30	
max. Earth dist.	-12712 Aug 13 j 21:51	25° $\text{S}$ 45'01	10.80228 AU		-12706 Oct 28 j 12:45	15° $\text{S}$	
conjunction	-12712 Aug 15 j 04:44	25° $\text{S}$ 54'25	2°20'30	conjunction	-12706 Nov 03 j 02:07	15° $\text{S}$ 44'47	1°06'18



Attention, astronomical year style is used: The year -12706 in astronomical counting style is the year 12707 BCE in historical counting style.

minimum elong	-12706 Nov 03 j 02:11	15° <u>Ω</u> 44'48	1°06'52			-12699 Feb 04 j 06:39	15° <u>ℳ</u>	
max. Earth dist.	-12706 Nov 03 j 08:17	15° <u>Ω</u> 46'51	9.86394 AU	max. Earth dist.	-12699 Feb 05 j 00:30	15° <u>ℳ</u> 05'47	10.05366 AU	
morning rise	-12706 Nov 20 j 20:41	18° <u>Ω</u> 07'01		morning rise	-12699 Feb 21 j 15:16	17° <u>ℳ</u> 14'01		
retrograde	-12705 Mar 09 j 16:23	26° <u>Ω</u> 51'39		retrograde	-12699 Jun 05 j 20:07	25° <u>ℳ</u> 22'29		
opposition	-12705 May 16 j 20:29	23° <u>Ω</u> 18'59	1°01'16	min. Earth dist.	-12699 Aug 10 j 09:56	21° <u>ℳ</u> 59'15	8.13076 AU	
min. Earth dist.	-12705 May 16 j 12:14	23° <u>Ω</u> 20'41	7.82049 AU	opposition	-12699 Aug 11 j 11:09	21° <u>ℳ</u> 54'02	-2°49'06	
direct	-12705 Jul 21 j 13:25	19° <u>Ω</u> 52'02		direct	-12699 Oct 17 j 16:29	18° <u>ℳ</u> 24'55		
evening set	-12705 Oct 31 j 17:49	28° <u>Ω</u> 11'23		evening set	-12698 Jan 31 j 10:52	26° <u>ℳ</u> 33'22		
	-12705 Nov 14 j 06:03	0° <u>ℳ</u>						
conjunction	-12705 Nov 18 j 12:45	0° <u>ℳ</u> 34'43	0°31'00	conjunction	-12698 Feb 18 j 11:13	28° <u>ℳ</u> 50'02	-2°21'02	
minimum elong	-12705 Nov 18 j 12:46	0° <u>ℳ</u> 34'44	0°31'24	minimum elong	-12698 Feb 18 j 11:10	28° <u>ℳ</u> 50'01	2°21'44	
max. Earth dist.	-12705 Nov 19 j 03:45	0° <u>ℳ</u> 39'47	9.78722 AU	max. Earth dist.	-12698 Feb 19 j 19:27	29° <u>ℳ</u> 00'17	10.21062 AU	
morning rise	-12705 Dec 06 j 13:12	2° <u>ℳ</u> 59'49			-12698 Feb 27 j 15:35	0° <u>♂</u>		
retrograde	-12704 Mar 24 j 07:43	11° <u>ℳ</u> 48'54		morning rise	-12698 Mar 08 j 09:27	1° <u>♂</u> 05'54		
min. Earth dist.	-12704 May 30 j 09:55	8° <u>ℳ</u> 18'36	7.76488 AU	retrograde	-12698 Jun 19 j 05:51	8° <u>♂</u> 58'53		
opposition	-12704 May 31 j 00:37	8° <u>ℳ</u> 15'32	0°14'55	min. Earth dist.	-12698 Aug 24 j 02:26	5° <u>♂</u> 37'16	8.29641 AU	
direct	-12704 Aug 04 j 11:56	4° <u>ℳ</u> 47'36		opposition	-12698 Aug 25 j 01:10	5° <u>♂</u> 32'38	-2°59'18	
desc. node	-12704 Sep 25 j 10:13	7° <u>ℳ</u> 18'16		direct	-12698 Nov 01 j 00:53	2° <u>♂</u> 04'13		
evening set	-12704 Nov 15 j 07:51	13° <u>ℳ</u> 12'24		evening set	-12697 Feb 14 j 22:11	10° <u>♂</u> 02'22		
conjunction	-12704 Dec 03 j 07:59	15° <u>ℳ</u> 37'39	-0°06'54	conjunction	-12697 Mar 04 j 19:18	12° <u>♂</u> 15'23	-2°25'42	
minimum elong	-12704 Dec 03 j 07:58	15° <u>ℳ</u> 37'39	0°06'41	minimum elong	-12697 Mar 04 j 19:17	12° <u>♂</u> 15'23	2°26'28	
behind sun begin	-12704 Dec 03 j 01:06	15° <u>ℳ</u> 35'21		max. Earth dist.	-12697 Mar 05 j 22:54	12° <u>♂</u> 24'00	10.38256 AU	
behind sun end	-12704 Dec 03 j 14:50	15° <u>ℳ</u> 39'57		morning rise	-12697 Mar 22 j 13:17	14° <u>♂</u> 27'17		
max. Earth dist.	-12704 Dec 04 j 07:10	15° <u>ℳ</u> 45'30	9.75363 AU	retrograde	-12697 Jul 02 j 03:44	22° <u>♂</u> 04'49		
morning rise	-12704 Dec 21 j 12:45	18° <u>ℳ</u> 04'23		min. Earth dist.	-12697 Sep 06 j 08:48	18° <u>♂</u> 44'46	8.47197 AU	
retrograde	-12703 Apr 08 j 21:32	26° <u>ℳ</u> 53'21		opposition	-12697 Sep 07 j 04:31	18° <u>♂</u> 40'49	-2°59'34	
min. Earth dist.	-12703 Jun 14 j 08:26	23° <u>ℳ</u> 24'06	7.75435 AU	direct	-12697 Nov 14 j 23:09	15° <u>♂</u> 13'21		
opposition	-12703 Jun 15 j 04:42	23° <u>ℳ</u> 19'50	-0°32'52	evening set	-12696 Feb 28 j 19:01	23° <u>♂</u> 00'25		
direct	-12703 Aug 19 j 14:38	19° <u>ℳ</u> 51'05						
evening set	-12703 Dec 01 j 04:26	28° <u>ℳ</u> 18'34		conjunction	-12696 Mar 17 j 12:50	25° <u>♂</u> 09'50	-2°22'43	
	-12703 Dec 13 j 20:15	0° <u>♂</u>		minimum elong	-12696 Mar 17 j 12:51	25° <u>♂</u> 09'51	2°23'31	
conjunction	-12703 Dec 19 j 08:04	0° <u>♂</u> 44'25	-0°44'20	max. Earth dist.	-12696 Mar 18 j 11:04	25° <u>♂</u> 16'39	10.55966 AU	
minimum elong	-12703 Dec 19 j 08:01	0° <u>♂</u> 44'24	0°44'19	morning rise	-12696 Apr 04 j 02:35	27° <u>♂</u> 17'56		
max. Earth dist.	-12703 Dec 20 j 13:52	0° <u>♂</u> 54'28	9.76596 AU		-12696 Apr 27 j 17:46	0° <u>♂</u>		
morning rise	-12702 Jan 06 j 15:08	3° <u>♂</u> 11'19		retrograde	-12696 Jul 13 j 13:36	4° <u>♂</u> 40'50		
retrograde	-12702 Apr 24 j 06:36	11° <u>♂</u> 55'28		opposition	-12696 Sep 18 j 21:39	1° <u>♂</u> 19'01	-2°51'00	
min. Earth dist.	-12702 Jun 29 j 05:07	8° <u>♂</u> 27'33	7.78981 AU	min. Earth dist.	-12696 Sep 18 j 05:59	1° <u>♂</u> 22'06	8.64781 AU	
opposition	-12702 Jun 30 j 05:25	8° <u>♂</u> 22'25	-1°18'13		-12696 Oct 06 j 01:33	30° <u>♂</u>		
direct	-12702 Sep 03 j 19:21	4° <u>♂</u> 53'06		direct	-12696 Nov 27 j 10:50	27° <u>♂</u> 52'38		
evening set	-12702 Dec 17 j 02:55	13° <u>♂</u> 20'11			-12695 Jan 18 j 02:37	0° <u>♂</u>		
				evening set	-12695 Mar 13 j 01:26	5° <u>♂</u> 28'34		
conjunction	-12701 Jan 04 j 08:06	15° <u>♂</u> 45'15	-1°18'33	conjunction	-12695 Mar 30 j 16:01	7° <u>♂</u> 34'37	-2°13'03	
minimum elong	-12701 Jan 04 j 08:02	15° <u>♂</u> 45'13	1°18'45	minimum elong	-12695 Mar 30 j 16:04	7° <u>♂</u> 34'38	2°13'51	
max. Earth dist.	-12701 Jan 05 j 18:21	15° <u>♂</u> 56'41	9.82335 AU	max. Earth dist.	-12695 Mar 31 j 08:25	7° <u>♂</u> 39'33	10.73243 AU	
morning rise	-12701 Jan 22 j 15:13	18° <u>♂</u> 10'51		morning rise	-12695 Apr 17 j 01:44	9° <u>♂</u> 39'14		
retrograde	-12701 May 09 j 07:18	26° <u>♂</u> 46'01		retrograde	-12695 Jul 25 j 13:59	16° <u>♂</u> 48'58		
min. Earth dist.	-12701 Jul 13 j 21:41	23° <u>♂</u> 19'37	7.86861 AU	opposition	-12695 Oct 01 j 05:47	13° <u>♂</u> 29'12	-2°35'01	
opposition	-12701 Jul 15 j 00:12	23° <u>♂</u> 14'02	-1°57'37	min. Earth dist.	-12695 Sep 30 j 19:36	13° <u>♂</u> 31'10	8.81488 AU	
direct	-12701 Sep 18 j 23:10	19° <u>♂</u> 44'27		direct	-12695 Dec 10 j 11:44	10° <u>♂</u> 03'58		
evening set	-12700 Jan 01 j 22:13	28° <u>♂</u> 07'58		evening set	-12694 Mar 25 j 18:36	17° <u>♂</u> 29'23		
	-12700 Jan 16 j 04:57	0° <u>ℳ</u>						
conjunction	-12700 Jan 20 j 03:03	0° <u>ℳ</u> 31'00	-1°47'03	conjunction	-12694 Apr 12 j 05:51	19° <u>♂</u> 32'26	-1°57'47	
minimum elong	-12700 Jan 20 j 02:58	0° <u>ℳ</u> 30'59	1°47'27	minimum elong	-12694 Apr 12 j 05:54	19° <u>♂</u> 32'27	1°58'32	
max. Earth dist.	-12700 Jan 21 j 15:15	0° <u>ℳ</u> 42'56	9.92158 AU	max. Earth dist.	-12694 Apr 12 j 15:04	19° <u>♂</u> 35'10	10.89232 AU	
morning rise	-12700 Feb 07 j 08:20	2° <u>ℳ</u> 54'05		morning rise	-12694 Apr 29 j 11:52	21° <u>♂</u> 33'57		
retrograde	-12700 May 22 j 20:24	11° <u>ℳ</u> 17'01		retrograde	-12694 Aug 06 j 05:20	28° <u>♂</u> 32'29		
min. Earth dist.	-12700 Jul 27 j 07:59	7° <u>ℳ</u> 52'10	7.98496 AU	opposition	-12694 Oct 13 j 06:09	25° <u>♂</u> 14'33	-2°13'02	
opposition	-12700 Jul 28 j 10:39	7° <u>ℳ</u> 46'36	-2°28'25	min. Earth dist.	-12694 Oct 13 j 02:10	25° <u>♂</u> 15'19	8.96561 AU	
direct	-12700 Oct 02 j 23:01	4° <u>ℳ</u> 17'05		direct	-12694 Dec 23 j 02:00	21° <u>♂</u> 50'30		
evening set	-12699 Jan 16 j 10:03	12° <u>ℳ</u> 34'12		evening set	-12693 Apr 06 j 23:53	29° <u>♂</u> 06'31		
					-12693 Apr 14 j 17:46	0° <u>♂</u>		
conjunction	-12699 Feb 03 j 13:06	14° <u>ℳ</u> 54'19	-2°08'09	conjunction	-12693 Apr 24 j 07:50	1° <u>♂</u> 06'58	-1°38'03	
minimum elong	-12699 Feb 03 j 13:02	14° <u>ℳ</u> 54'17	2°08'43	minimum elong	-12693 Apr 24 j 07:53	1° <u>♂</u> 06'59	1°38'46	
				max. Earth dist.	-12693 Apr 24 j 09:11	1° <u>♂</u> 07'21	11.03289 AU	

Attention, astronomical year style is used: The year -12693 in astronomical counting style is the year 12694 BCE in historical counting style.

morning rise	-12693 May 11 j 10:37	3° $\approx$ 05'54	evening set	-12687 Jun 11 j 04:46	4° $\nabla$ 21'24	
retrograde	-12693 Aug 17 j 12:35	9° $\approx$ 55'24				
opposition	-12693 Oct 25 j 00:12	6° $\approx$ 38'59	-1°46'27	conjunction	-12687 Jun 27 j 19:15	6° $\nabla$ 14'50 0°58'07
min. Earth dist.	-12693 Oct 25 j 01:35	6° $\approx$ 38'43	9.09469 AU	minimum elong	-12687 Jun 27 j 19:12	6° $\nabla$ 14'49 0°58'12
direct	-12692 Jan 04 j 09:39	3° $\approx$ 16'04		max. Earth dist.	-12687 Jun 26 j 15:46	6° $\nabla$ 06'57 11.29144 AU
evening set	-12692 Apr 17 j 18:54	10° $\approx$ 24'00		morning rise	-12687 Jul 14 j 06:52	8° $\nabla$ 07'37
				retrograde	-12687 Oct 21 j 03:14	14° $\nabla$ 49'44
conjunction	-12692 May 04 j 23:46	12° $\approx$ 22'15	-1°14'58	opposition	-12687 Dec 30 j 13:55	11° $\nabla$ 34'29 1°25'39
minimum elong	-12692 May 04 j 23:49	12° $\approx$ 22'15	1°15'35	min. Earth dist.	-12687 Dec 31 j 15:07	11° $\nabla$ 29'54 9.26321 AU
max. Earth dist.	-12692 May 04 j 18:25	12° $\approx$ 20'42	11.14977 AU	direct	-12686 Mar 12 j 13:14	8° $\nabla$ 15'19
morning rise	-12692 May 21 j 23:34	14° $\approx$ 19'03		evening set	-12686 Jun 22 j 02:30	15° $\nabla$ 08'26
	-12692 May 28 j 02:03	15° $\approx$		max. Earth dist.	-12686 Jul 07 j 08:23	16° $\nabla$ 53'26 11.22619 AU
retrograde	-12692 Aug 27 j 17:32	21° $\approx$ 01'46				
opposition	-12692 Nov 04 j 13:24	17° $\approx$ 46'28	-1°16'33	conjunction	-12686 Jul 08 j 14:38	17° $\nabla$ 02'11 1°22'26
min. Earth dist.	-12692 Nov 04 j 19:26	17° $\approx$ 45'21	9.19825 AU	minimum elong	-12686 Jul 08 j 14:35	17° $\nabla$ 02'10 1°22'39
	-12692 Dec 18 j 15:19	15° $\approx$		morning rise	-12686 Jul 25 j 00:52	18° $\nabla$ 55'33
direct	-12691 Jan 15 j 09:17	14° $\approx$ 24'37		retrograde	-12686 Nov 01 j 15:58	25° $\nabla$ 44'09
	-12691 Feb 11 j 22:06	15° $\approx$		opposition	-12685 Jan 11 j 06:56	22° $\nabla$ 27'54 1°54'01
evening set	-12691 Apr 29 j 05:48	21° $\approx$ 25'55		min. Earth dist.	-12685 Jan 12 j 10:19	22° $\nabla$ 22'54 9.18356 AU
				direct	-12685 Mar 23 j 21:59	19° $\nabla$ 08'42
conjunction	-12691 May 16 j 07:43	23° $\approx$ 22'23	-0°49'31	evening set	-12685 Jul 03 j 03:13	26° $\nabla$ 05'22
minimum elong	-12691 May 16 j 07:45	23° $\approx$ 22'24	0°50'01	max. Earth dist.	-12685 Jul 18 j 05:34	27° $\nabla$ 50'35 11.13230 AU
max. Earth dist.	-12691 May 15 j 21:07	23° $\approx$ 19'21	11.23951 AU			
morning rise	-12691 Jun 02 j 04:32	25° $\approx$ 17'30		conjunction	-12685 Jul 19 j 13:31	27° $\nabla$ 59'56 1°44'06
	-12691 Jul 20 j 17:07	0° $\nabla$		minimum elong	-12685 Jul 19 j 13:28	27° $\nabla$ 59'55 1°44'28
retrograde	-12691 Sep 07 j 18:03	1° $\nabla$ 55'37		morning rise	-12685 Aug 04 j 23:03	29° $\nabla$ 54'23
	-12691 Oct 28 j 14:16	30° $\approx$			-12685 Aug 05 j 18:40	0° $\nabla$
opposition	-12691 Nov 15 j 23:22	28° $\approx$ 41'06	-0°44'29	retrograde	-12685 Nov 13 j 11:22	6° $\nabla$ 51'32
min. Earth dist.	-12691 Nov 16 j 10:20	28° $\approx$ 39'04	9.27341 AU	opposition	-12684 Jan 23 j 05:34	3° $\nabla$ 33'59 2°18'47
direct	-12690 Jan 27 j 01:19	25° $\approx$ 20'09		min. Earth dist.	-12684 Jan 24 j 09:46	3° $\nabla$ 28'49 9.07652 AU
	-12690 Apr 19 j 03:21	0° $\nabla$		direct	-12684 Apr 03 j 09:49	0° $\nabla$ 14'35
evening set	-12690 May 10 j 10:28	2° $\nabla$ 16'25		evening set	-12684 Jul 13 j 08:30	7° $\nabla$ 16'28
				max. Earth dist.	-12684 Jul 28 j 10:34	9° $\nabla$ 03'04 11.01256 AU
conjunction	-12690 May 27 j 09:20	4° $\nabla$ 11'30	-0°22'40			
minimum elong	-12690 May 27 j 09:21	4° $\nabla$ 11'31	0°23'01	conjunction	-12684 Jul 29 j 17:51	9° $\nabla$ 12'22 2°02'15
max. Earth dist.	-12690 May 26 j 17:23	4° $\nabla$ 06'58	11.29968 AU	minimum elong	-12684 Jul 29 j 17:48	9° $\nabla$ 12'21 2°02'46
morning rise	-12690 Jun 13 j 03:27	6° $\nabla$ 05'21		morning rise	-12684 Aug 15 j 03:14	11° $\nabla$ 08'25
retrograde	-12690 Sep 18 j 18:04	12° $\nabla$ 41'09			-12684 Sep 20 j 09:03	15° $\nabla$
opposition	-12690 Nov 27 j 07:53	9° $\nabla$ 27'01	-0°11'17	retrograde	-12684 Nov 24 j 17:24	18° $\nabla$ 16'08
min. Earth dist.	-12690 Nov 28 j 00:08	9° $\nabla$ 24'02	9.31829 AU		-12683 Feb 02 j 19:36	15° $\approx$
direct	-12689 Feb 07 j 13:37	6° $\nabla$ 06'47		opposition	-12683 Feb 03 j 11:36	14° $\nabla$ 57'02 2°38'52
asc. node	-12689 Apr 02 j 00:32	8° $\nabla$ 13'36		min. Earth dist.	-12683 Feb 04 j 14:33	14° $\nabla$ 52'03 8.94532 AU
evening set	-12689 May 21 j 10:33	12° $\nabla$ 59'40		direct	-12683 Apr 15 j 03:16	11° $\nabla$ 37'19
max. Earth dist.	-12689 Jun 06 j 08:45	14° $\nabla$ 47'38	11.32878 AU		-12683 Jun 20 j 01:31	15° $\nabla$
				evening set	-12683 Jul 24 j 20:11	18° $\nabla$ 45'55
conjunction	-12689 Jun 07 j 06:20	14° $\nabla$ 53'47	0°04'51	max. Earth dist.	-12683 Aug 08 j 23:39	20° $\nabla$ 34'41 10.87082 AU
minimum elong	-12689 Jun 07 j 06:20	14° $\nabla$ 53'47	0°04'39			
behind sun begin	-12689 Jun 06 j 23:30	14° $\nabla$ 51'51		conjunction	-12683 Aug 10 j 05:26	20° $\nabla$ 43'41 2°15'58
behind sun end	-12689 Jun 07 j 13:09	14° $\nabla$ 55'42		minimum elong	-12683 Aug 10 j 05:23	20° $\nabla$ 43'40 2°16'36
morning rise	-12689 Jun 23 j 22:09	16° $\nabla$ 46'50		morning rise	-12683 Aug 26 j 15:34	22° $\nabla$ 41'54
retrograde	-12689 Sep 29 j 16:41	23° $\nabla$ 22'32			-12683 Dec 01 j 05:00	0° $\nabla$
opposition	-12689 Dec 08 j 16:04	20° $\nabla$ 08'22	0°22'05	retrograde	-12683 Dec 07 j 11:41	0° $\nabla$ 01'56
min. Earth dist.	-12689 Dec 09 j 12:16	20° $\nabla$ 04'42	9.33167 AU		-12683 Dec 13 j 17:26	30° $\approx$
direct	-12688 Feb 18 j 22:23	16° $\nabla$ 48'40		opposition	-12682 Feb 16 j 02:21	26° $\nabla$ 41'08 2°53'06
evening set	-12688 May 31 j 08:02	23° $\nabla$ 39'55		min. Earth dist.	-12682 Feb 17 j 03:17	26° $\nabla$ 36'28 8.79446 AU
max. Earth dist.	-12688 Jun 15 j 23:50	25° $\nabla$ 26'16	11.32602 AU	direct	-12682 Apr 27 j 01:53	23° $\nabla$ 20'57
					-12682 Jul 31 j 09:58	0° $\nabla$
conjunction	-12688 Jun 17 j 01:02	25° $\nabla$ 33'28	0°31'59	evening set	-12682 Aug 05 j 16:18	0° $\nabla$ 37'38
minimum elong	-12688 Jun 17 j 01:01	25° $\nabla$ 33'27	0°31'55	max. Earth dist.	-12682 Aug 20 j 22:25	2° $\nabla$ 29'13 10.71231 AU
morning rise	-12688 Jul 03 j 14:41	27° $\nabla$ 26'09				
	-12688 Jul 27 j 18:49	0° $\nabla$		conjunction	-12682 Aug 22 j 02:25	2° $\nabla$ 37'49 2°24'20
retrograde	-12688 Oct 09 j 20:16	4° $\nabla$ 03'58		minimum elong	-12682 Aug 22 j 02:24	2° $\nabla$ 37'49 2°25'03
opposition	-12688 Dec 19 j 01:24	0° $\nabla$ 49'26	0°54'41	morning rise	-12682 Sep 07 j 14:37	4° $\nabla$ 38'47
min. Earth dist.	-12688 Dec 20 j 00:12	0° $\nabla$ 45'17	9.31311 AU	retrograde	-12682 Dec 20 j 15:22	12° $\nabla$ 12'34
	-12688 Dec 30 j 12:20	30° $\approx$		opposition	-12681 Mar 01 j 02:38	8° $\nabla$ 49'53 3°00'17
direct	-12687 Mar 01 j 07:15	27° $\nabla$ 30'04		min. Earth dist.	-12681 Mar 02 j 01:03	8° $\nabla$ 45'38 8.62979 AU
	-12687 Apr 28 j 08:05	0° $\nabla$		direct	-12681 May 09 j 07:41	5° $\nabla$ 29'03

Attention, astronomical year style is used: The year -12681 in astronomical counting style is the year 12682 BCE in historical counting style.

evening set	-12681 Aug 17 j 22:20	12°II55'03				-12675 Jun 12 j 18:24	30°RΩ	
max. Earth dist.	-12681 Sep 02 j 09:47	14°II50'26	10.54343 AU	direct		-12675 Jul 28 j 21:36	28°Ω06'06	
						-12675 Sep 11 j 19:04	0°Π	
conjunction	-12681 Sep 03 j 10:36	14°II58'13	2°26'25	evening set		-12675 Nov 08 j 11:23	6°Π28'00	
minimum elong	-12681 Sep 03 j 10:36	14°II58'13	2°27'12					
morning rise	-12681 Sep 20 j 02:10	17°II02'28		conjunction		-12675 Nov 26 j 08:58	8°Π52'17	0°10'51
retrograde	-12680 Jan 03 j 07:43	24°II50'57		minimum elong		-12675 Nov 26 j 08:59	8°Π52'17	0°11'09
opposition	-12680 Mar 13 j 13:10	21°II26'20	2°59'13	behind sun begin		-12675 Nov 26 j 03:34	8°Π50'29	
min. Earth dist.	-12680 Mar 14 j 08:05	21°II22'41	8.45827 AU	behind sun end		-12675 Nov 26 j 14:23	8°Π54'06	
direct	-12680 May 21 j 00:59	18°II04'42		max. Earth dist.		-12675 Nov 27 j 03:15	8°Π58'27	9.77933 AU
evening set	-12680 Aug 29 j 15:44	25°II40'50		morning rise		-12675 Dec 14 j 11:51	11°Π18'13	
				desc. node		-12674 Mar 15 j 12:34	19°Π50'03	
conjunction	-12680 Sep 15 j 07:37	27°II47'28	2°21'25	retrograde		-12674 Apr 02 j 04:09	20°Π07'21	
minimum elong	-12680 Sep 15 j 07:38	27°II47'29	2°22'13	opposition		-12674 Jun 08 j 14:04	16°Π34'27	-0°10'48
max. Earth dist.	-12680 Sep 14 j 12:26	27°II41'21	10.37170 AU	min. Earth dist.		-12674 Jun 07 j 21:18	16°Π37'58	7.76716 AU
morning rise	-12680 Oct 02 j 03:39	29°II55'31		direct		-12674 Aug 12 j 22:17	13°Π06'38	
	-12680 Oct 02 j 18:01	0°Ω		evening set		-12674 Nov 24 j 05:30	21°Π32'55	
retrograde	-12679 Jan 16 j 13:18	7°Ω58'59						
opposition	-12679 Mar 27 j 10:04	4°Ω32'25	2°48'56	conjunction		-12674 Dec 12 j 07:27	23°Π58'31	-0°27'13
min. Earth dist.	-12679 Mar 27 j 23:41	4°Ω29'45	8.28812 AU	minimum elong		-12674 Dec 12 j 07:25	23°Π58'31	0°27'08
direct	-12679 Jun 03 j 03:55	1°Ω09'53		max. Earth dist.		-12674 Dec 13 j 08:01	24°Π06'49	9.76563 AU
evening set	-12679 Sep 11 j 21:54	8°Ω56'33		morning rise		-12674 Dec 30 j 13:42	26°Π25'25	
						-12673 Jan 28 j 03:50	0°Ω	
conjunction	-12679 Sep 28 j 18:46	11°Ω07'03	2°08'49	retrograde		-12673 Apr 17 j 16:26	5°Ω12'16	
minimum elong	-12679 Sep 28 j 18:49	11°Ω07'04	2°09'36	opposition		-12673 Jun 23 j 16:55	1°Ω39'31	-0°57'47
max. Earth dist.	-12679 Sep 28 j 06:39	11°Ω03'07	10.20589 AU	min. Earth dist.		-12673 Jun 22 j 20:11	1°Ω43'53	7.77598 AU
morning rise	-12679 Oct 15 j 20:27	13°Ω19'13				-12673 Jul 14 j 06:39	30°RΠ	
retrograde	-12678 Jan 31 j 07:11	21°Ω37'04		direct		-12673 Aug 28 j 03:27	28°Π10'53	
opposition	-12678 Apr 10 j 16:52	18°Ω08'37	2°28'54			-12673 Oct 11 j 05:13	0°Ω	
min. Earth dist.	-12678 Apr 10 j 23:59	18°Ω07'12	8.12855 AU	evening set		-12673 Dec 10 j 03:56	6°Ω38'38	
direct	-12678 Jun 16 j 16:52	14°Ω45'06						
evening set	-12678 Sep 25 j 17:42	22°Ω42'11		conjunction		-12673 Dec 28 j 08:24	9°Ω04'11	-1°03'19
				minimum elong		-12673 Dec 28 j 08:20	9°Ω04'10	1°03'26
conjunction	-12678 Oct 12 j 20:34	24°Ω56'44	1°48'30	max. Earth dist.		-12673 Dec 29 j 14:05	9°Ω14'09	9.79658 AU
minimum elong	-12678 Oct 12 j 20:38	24°Ω56'45	1°49'14	morning rise		-12672 Jan 15 j 15:50	11°Ω30'34	
max. Earth dist.	-12678 Oct 12 j 16:14	24°Ω55'18	10.05534 AU	retrograde		-12672 May 01 j 21:19	20°Ω10'41	
morning rise	-12678 Oct 30 j 04:49	27°Ω13'06		opposition		-12672 Jul 07 j 15:22	16°Ω38'34	-1°40'24
	-12678 Nov 21 j 15:02	0°Ω		min. Earth dist.		-12672 Jul 06 j 15:37	16°Ω43'34	7.82927 AU
retrograde	-12677 Feb 15 j 10:36	5°Ω43'40		direct		-12672 Sep 11 j 09:37	13°Ω09'23	
opposition	-12677 Apr 25 j 08:28	2°Ω13'32	1°59'16	evening set		-12672 Dec 25 j 01:42	21°Ω35'19	
min. Earth dist.	-12677 Apr 25 j 08:38	2°Ω13'30	7.98886 AU					
	-12677 May 25 j 08:50	30°RΩ		conjunction		-12671 Jan 12 j 06:50	23°Ω59'29	-1°34'47
direct	-12677 Jun 30 j 17:15	28°Ω48'57		minimum elong		-12671 Jan 12 j 06:45	23°Ω59'28	1°35'06
	-12677 Aug 05 j 04:58	0°Ω		max. Earth dist.		-12671 Jan 13 j 15:50	24°Ω10'27	9.87069 AU
evening set	-12677 Oct 10 j 03:18	6°Ω55'47		morning rise		-12671 Jan 30 j 13:21	26°Ω23'58	
						-12671 Feb 28 j 22:04	0°Π	
conjunction	-12677 Oct 27 j 12:40	9°Ω14'12	1°21'04	retrograde		-12671 May 16 j 15:26	4°Π53'31	
minimum elong	-12677 Oct 27 j 12:44	9°Ω14'13	1°21'41	min. Earth dist.		-12671 Jul 21 j 04:59	1°Π27'53	7.92337 AU
max. Earth dist.	-12677 Oct 27 j 16:14	9°Ω15'23	9.92913 AU	opposition		-12671 Jul 22 j 06:32	1°Π22'32	-2°15'30
morning rise	-12677 Nov 14 j 03:46	11°Ω34'31				-12671 Aug 08 j 03:56	30°RΩ	
	-12677 Dec 11 j 18:34	15°Ω		direct		-12671 Sep 26 j 12:55	27°Ω53'04	
retrograde	-12676 Mar 01 j 21:22	20°Ω15'03				-12671 Nov 14 j 02:21	0°Π	
opposition	-12676 May 09 j 06:50	16°Ω43'33	1°21'10	evening set		-12670 Jan 09 j 18:19	6°Π14'04	
min. Earth dist.	-12676 May 09 j 00:23	16°Ω44'52	7.87780 AU					
	-12676 May 31 j 08:23	15°RΩ		conjunction		-12670 Jan 27 j 22:28	8°Π35'48	-1°59'30
direct	-12676 Jul 14 j 03:16	13°Ω17'50		minimum elong		-12670 Jan 27 j 22:23	8°Π35'46	2°00'00
	-12676 Aug 25 j 16:23	15°Ω		max. Earth dist.		-12670 Jan 29 j 08:39	8°Π46'59	9.98255 AU
evening set	-12676 Oct 24 j 01:46	21°Ω33'06		morning rise		-12670 Feb 15 j 02:21	10°Π57'18	
						-12670 Mar 21 j 01:12	15°Π	
conjunction	-12676 Nov 10 j 17:35	23°Ω54'52	0°47'48	retrograde		-12670 May 30 j 21:26	19°Π13'25	
minimum elong	-12676 Nov 10 j 17:38	23°Ω54'53	0°48'17	min. Earth dist.		-12670 Aug 04 j 10:42	15°Π49'20	8.05133 AU
max. Earth dist.	-12676 Nov 11 j 04:47	23°Ω58'38	9.83522 AU	opposition		-12670 Aug 05 j 12:24	15°Π43'59	-2°41'03
morning rise	-12676 Nov 28 j 15:10	26°Ω18'31				-12670 Aug 14 j 09:58	15°RΠ	
	-12676 Dec 28 j 07:22	0°Π		direct		-12670 Oct 11 j 10:11	12°Π14'34	
retrograde	-12675 Mar 17 j 12:27	5°Π05'25				-12670 Dec 07 j 02:04	15°Π	
opposition	-12675 May 24 j 09:39	1°Π32'56	0°36'45	evening set		-12669 Jan 25 j 01:22	20°Π27'59	
min. Earth dist.	-12675 May 23 j 21:37	1°Π35'26	7.80229 AU					

Attention, astronomical year style is used: The year -12669 in astronomical counting style is the year 12670 BCE in historical counting style.

conjunction	-12669 Feb 12 j 03:17	22° $\mathbb{M}$ 46'31	-2°16'16	conjunction	-12663 Apr 30 j 05:51	7° $\approx$ 36'39	-1°25'49
minimum elong	-12669 Feb 12 j 03:14	22° $\mathbb{M}$ 46'29	2°16'54	minimum elong	-12663 Apr 30 j 05:54	7° $\approx$ 36'40	1°26'29
max. Earth dist.	-12669 Feb 13 j 12:30	22° $\mathbb{M}$ 57'11	10.12414 AU	max. Earth dist.	-12663 Apr 30 j 05:49	7° $\approx$ 36'39	11.08350 AU
morning rise	-12669 Mar 02 j 03:25	25° $\mathbb{M}$ 04'22		morning rise	-12663 May 17 j 06:57	9° $\approx$ 34'31	
	-12669 Apr 14 j 16:14	0° $\mathbb{A}$			-12663 Jul 13 j 23:11	15° $\approx$	
retrograde	-12669 Jun 13 j 15:06	3° $\mathbb{A}$ 05'27		retrograde	-12663 Aug 23 j 04:33	16° $\approx$ 20'22	
	-12669 Aug 14 j 20:08	30° $\mathbb{R}$ $\mathbb{M}$			-12663 Oct 03 j 06:23	15° $\mathbb{R}$ $\approx$	
min. Earth dist.	-12669 Aug 18 j 08:01	29° $\mathbb{M}$ 42'49	8.20427 AU	opposition	-12663 Oct 30 j 20:05	13° $\approx$ 04'07	-1°30'29
opposition	-12669 Aug 19 j 08:03	29° $\mathbb{M}$ 37'53	-2°56'06	min. Earth dist.	-12663 Oct 30 j 23:13	13° $\approx$ 03'31	9.14090 AU
direct	-12669 Oct 25 j 22:25	26° $\mathbb{M}$ 08'49		direct	-12662 Jan 10 j 10:47	9° $\approx$ 41'22	
	-12668 Jan 02 j 22:26	0° $\mathbb{A}$			-12662 Apr 08 j 10:07	15° $\approx$	
evening set	-12668 Feb 08 j 19:38	4° $\mathbb{A}$ 12'37		evening set	-12662 Apr 24 j 13:49	16° $\approx$ 45'44	
conjunction	-12668 Feb 26 j 18:33	6° $\mathbb{A}$ 27'35	-2°24'41	conjunction	-12662 May 11 j 17:05	18° $\approx$ 43'04	-1°01'17
minimum elong	-12668 Feb 26 j 18:32	6° $\mathbb{A}$ 27'35	2°25'25	minimum elong	-12662 May 11 j 17:07	18° $\approx$ 43'05	1°01'50
max. Earth dist.	-12668 Feb 28 j 00:37	6° $\mathbb{A}$ 37'04	10.28602 AU	max. Earth dist.	-12662 May 11 j 10:03	18° $\approx$ 41'03	11.19173 AU
morning rise	-12668 Mar 15 j 14:30	8° $\mathbb{A}$ 41'33		morning rise	-12662 May 28 j 15:18	20° $\approx$ 38'59	
retrograde	-12668 Jun 25 j 20:12	16° $\mathbb{A}$ 27'02		retrograde	-12662 Sep 03 j 04:33	27° $\approx$ 19'02	
opposition	-12668 Aug 31 j 16:55	13° $\mathbb{A}$ 01'32	-3°00'51	opposition	-12662 Nov 11 j 07:21	24° $\approx$ 03'54	-0°59'12
min. Earth dist.	-12668 Aug 30 j 20:12	13° $\mathbb{A}$ 05'44	8.37249 AU	min. Earth dist.	-12662 Nov 11 j 15:30	24° $\approx$ 02'23	9.23562 AU
direct	-12668 Nov 08 j 01:45	9° $\mathbb{A}$ 33'07		direct	-12661 Jan 22 j 06:12	20° $\approx$ 42'17	
evening set	-12667 Feb 21 j 23:52	17° $\mathbb{A}$ 26'10		evening set	-12661 May 05 j 20:59	27° $\approx$ 40'44	
conjunction	-12667 Mar 11 j 19:25	19° $\mathbb{A}$ 37'30	-2°25'06	conjunction	-12661 May 22 j 21:09	29° $\approx$ 36'25	-0°34'55
minimum elong	-12667 Mar 11 j 19:25	19° $\mathbb{A}$ 37'31	2°25'53	minimum elong	-12661 May 22 j 21:10	29° $\approx$ 36'26	0°35'20
max. Earth dist.	-12667 Mar 12 j 20:16	19° $\mathbb{A}$ 45'12	10.45840 AU	max. Earth dist.	-12661 May 22 j 08:23	29° $\approx$ 32'47	11.27226 AU
morning rise	-12667 Mar 29 j 11:10	21° $\mathbb{A}$ 47'36			-12661 May 26 j 07:42	0° $\mathbb{H}$	
retrograde	-12667 Jul 08 j 10:58	29° $\mathbb{A}$ 17'55		morning rise	-12661 Jun 08 j 16:40	1° $\mathbb{H}$ 30'50	
opposition	-12667 Sep 13 j 15:10	25° $\mathbb{A}$ 54'34	-2°56'10	retrograde	-12661 Sep 14 j 05:29	8° $\mathbb{H}$ 07'22	
min. Earth dist.	-12667 Sep 12 j 22:48	25° $\mathbb{A}$ 57'49	8.54639 AU	opposition	-12661 Nov 22 j 16:00	4° $\mathbb{H}$ 52'59	-0°26'20
direct	-12667 Nov 21 j 19:36	22° $\mathbb{A}$ 27'02		min. Earth dist.	-12661 Nov 23 j 04:05	4° $\mathbb{H}$ 50'46	9.30130 AU
	-12666 Mar 06 j 07:19	0° $\mathbb{B}$		direct	-12660 Feb 02 j 21:28	1° $\mathbb{H}$ 32'25	
evening set	-12666 Mar 07 j 13:31	0° $\mathbb{B}$ 08'57		evening set	-12660 May 15 j 22:41	8° $\mathbb{H}$ 26'35	
conjunction	-12666 Mar 25 j 05:37	2° $\mathbb{B}$ 16'47	-2°18'20	conjunction	-12660 Jun 01 j 19:59	10° $\mathbb{H}$ 21'04	-0°07'38
minimum elong	-12666 Mar 25 j 05:39	2° $\mathbb{B}$ 16'48	2°19'08	minimum elong	-12660 Jun 01 j 20:00	10° $\mathbb{H}$ 21'04	0°07'54
max. Earth dist.	-12666 Mar 25 j 23:48	2° $\mathbb{B}$ 22'18	10.63197 AU	behind sun begin	-12660 Jun 01 j 13:43	10° $\mathbb{H}$ 19'18	
morning rise	-12666 Apr 11 j 17:23	4° $\mathbb{B}$ 23'14		behind sun end	-12660 Jun 02 j 02:17	10° $\mathbb{H}$ 22'50	
retrograde	-12666 Jul 20 j 14:51	11° $\mathbb{B}$ 39'37		max. Earth dist.	-12660 Jun 01 j 03:08	10° $\mathbb{H}$ 16'16	11.32250 AU
opposition	-12666 Sep 26 j 03:50	8° $\mathbb{B}$ 18'19	-2°43'20	morning rise	-12660 Jun 18 j 12:50	12° $\mathbb{H}$ 14'24	
min. Earth dist.	-12666 Sep 25 j 15:40	8° $\mathbb{B}$ 20'42	8.71716 AU	asc. node	-12660 Sep 14 j 16:23	18° $\mathbb{H}$ 45'09	
direct	-12666 Dec 05 j 02:48	4° $\mathbb{B}$ 51'53		retrograde	-12660 Sep 24 j 05:16	18° $\mathbb{H}$ 49'40	
evening set	-12665 Mar 20 j 12:55	12° $\mathbb{B}$ 22'52		opposition	-12660 Dec 02 j 23:51	15° $\mathbb{H}$ 35'41	0°07'06
conjunction	-12665 Apr 07 j 01:43	14° $\mathbb{B}$ 27'30	-2°05'27	min. Earth dist.	-12660 Dec 03 j 16:12	15° $\mathbb{H}$ 32'42	9.33583 AU
minimum elong	-12665 Apr 07 j 01:46	14° $\mathbb{B}$ 27'31	2°06'13	direct	-12659 Feb 13 j 06:07	12° $\mathbb{H}$ 15'58	
max. Earth dist.	-12665 Apr 07 j 13:37	14° $\mathbb{B}$ 31'03	10.79849 AU	evening set	-12659 May 26 j 21:06	19° $\mathbb{H}$ 07'33	
morning rise	-12665 Apr 24 j 09:41	16° $\mathbb{B}$ 30'39		conjunction	-12659 Jun 12 j 15:25	21° $\mathbb{H}$ 01'13	0°19'51
retrograde	-12665 Aug 01 j 10:25	23° $\mathbb{B}$ 34'50		minimum elong	-12659 Jun 12 j 15:24	21° $\mathbb{H}$ 01'13	0°19'44
opposition	-12665 Oct 08 j 07:55	20° $\mathbb{B}$ 15'26	-2°23'50	max. Earth dist.	-12659 Jun 11 j 17:55	20° $\mathbb{H}$ 55'06	11.34082 AU
min. Earth dist.	-12665 Oct 08 j 00:03	20° $\mathbb{B}$ 16'57	8.87717 AU	morning rise	-12659 Jun 29 j 05:51	22° $\mathbb{H}$ 53'56	
direct	-12665 Dec 17 j 22:30	16° $\mathbb{B}$ 50'12		retrograde	-12659 Oct 05 j 06:54	29° $\mathbb{H}$ 30'09	
evening set	-12664 Mar 31 j 23:37	24° $\mathbb{B}$ 11'03		opposition	-12659 Dec 14 j 08:28	26° $\mathbb{H}$ 16'12	0°40'11
conjunction	-12664 Apr 18 j 09:17	26° $\mathbb{B}$ 12'51	-1°47'34	min. Earth dist.	-12659 Dec 15 j 05:13	26° $\mathbb{H}$ 12'26	9.33819 AU
minimum elong	-12664 Apr 18 j 09:20	26° $\mathbb{B}$ 12'52	1°48'18	direct	-12658 Feb 24 j 14:02	22° $\mathbb{H}$ 57'06	
max. Earth dist.	-12664 Apr 18 j 15:24	26° $\mathbb{B}$ 14'39	10.95092 AU	evening set	-12658 Jun 06 j 17:58	29° $\mathbb{H}$ 47'50	
morning rise	-12664 May 05 j 13:40	28° $\mathbb{B}$ 13'08			-12658 Jun 08 j 13:27	0° $\mathbb{Y}$	
	-12664 May 21 j 12:34	0° $\approx$		max. Earth dist.	-12658 Jun 22 j 07:23	1° $\mathbb{Y}$ 33'42	11.32677 AU
retrograde	-12664 Aug 11 j 21:58	5° $\approx$ 07'04		conjunction	-12658 Jun 23 j 09:23	1° $\mathbb{Y}$ 41'07	0°46'34
opposition	-12664 Oct 19 j 04:43	1° $\approx$ 49'22	-1°59'06	minimum elong	-12658 Jun 23 j 09:21	1° $\mathbb{Y}$ 41'07	0°46'35
min. Earth dist.	-12664 Oct 19 j 01:59	1° $\approx$ 49'53	9.02010 AU	morning rise	-12658 Jul 09 j 21:53	3° $\mathbb{Y}$ 33'40	
	-12664 Nov 13 j 13:34	30° $\mathbb{R}$ $\mathbb{B}$		retrograde	-12658 Oct 16 j 10:01	10° $\mathbb{Y}$ 13'03	
direct	-12664 Dec 29 j 09:14	28° $\mathbb{B}$ 25'23		opposition	-12658 Dec 25 j 19:15	6° $\mathbb{Y}$ 58'41	1°12'00
	-12663 Feb 12 j 15:23	0° $\approx$		min. Earth dist.	-12658 Dec 26 j 19:14	6° $\mathbb{Y}$ 54'20	9.30822 AU
evening set	-12663 Apr 12 j 23:19	5° $\approx$ 37'17		direct	-12657 Mar 07 j 20:43	3° $\mathbb{Y}$ 39'59	
				evening set	-12657 Jun 17 j 14:48	10° $\mathbb{Y}$ 31'33	

Attention, astronomical year style is used: The year -12657 in astronomical counting style is the year 12658 BCE in historical counting style.

max. Earth dist.	-12657 Jul 02 j 23:25	12° $\Upsilon$ 16'44	11.28050 AU	minimum elong	-12651 Sep 09 j 18:02	22° $\Pi$ 04'23	2°25'32
				max. Earth dist.	-12651 Sep 08 j 19:04	21° $\Pi$ 57'07	10.45974 AU
conjunction	-12657 Jul 04 j 03:49	12° $\Upsilon$ 24'54	1°11'48	morning rise	-12651 Sep 26 j 11:35	24° $\Pi$ 10'26	
minimum elong	-12657 Jul 04 j 03:47	12° $\Upsilon$ 24'53	1°11'58		-12651 Nov 20 j 12:41	0° $\Theta$	
morning rise	-12657 Jul 20 j 14:39	14° $\Upsilon$ 17'45		retrograde	-12650 Jan 10 j 08:47	2° $\Theta$ 06'18	
retrograde	-12657 Oct 27 j 20:28	21° $\Upsilon$ 02'28			-12650 Mar 03 j 20:17	30° $\kappa$ $\Pi$	
opposition	-12656 Jan 06 j 09:33	17° $\Upsilon$ 47'18	1°41'37	opposition	-12650 Mar 21 j 08:59	28° $\Pi$ 40'34	2°55'00
min. Earth dist.	-12656 Jan 07 j 11:08	17° $\Upsilon$ 42'39	9.24626 AU	min. Earth dist.	-12650 Mar 22 j 01:41	28° $\Pi$ 37'19	8.37189 AU
direct	-12656 Mar 18 j 05:38	14° $\Upsilon$ 28'45		direct	-12650 May 28 j 11:27	25° $\Pi$ 18'21	
evening set	-12656 Jun 27 j 13:40	21° $\Upsilon$ 22'53			-12650 Aug 12 j 03:07	0° $\Theta$	
max. Earth dist.	-12656 Jul 12 j 18:46	23° $\Upsilon$ 08'04	11.20267 AU	evening set	-12650 Sep 06 j 03:36	2° $\Theta$ 59'32	
conjunction	-12656 Jul 14 j 00:45	23° $\Upsilon$ 16'47	1°34'45	conjunction	-12650 Sep 22 j 21:51	5° $\Theta$ 08'05	2°15'45
minimum elong	-12656 Jul 14 j 00:42	23° $\Upsilon$ 16'46	1°35'03	minimum elong	-12650 Sep 22 j 21:54	5° $\Theta$ 08'06	2°16'33
morning rise	-12656 Jul 30 j 10:16	25° $\Upsilon$ 10'25		max. Earth dist.	-12650 Sep 22 j 04:03	5° $\Theta$ 02'22	10.28412 AU
	-12656 Sep 17 j 08:49	0° $\delta$		morning rise	-12650 Oct 09 j 20:46	7° $\Theta$ 18'13	
retrograde	-12656 Nov 07 j 13:07	2° $\delta$ 02'32		retrograde	-12649 Jan 24 j 20:11	15° $\Theta$ 28'59	
	-12656 Dec 30 j 22:13	30° $\kappa$ $\Upsilon$		opposition	-12649 Apr 04 j 10:41	12° $\Theta$ 01'08	2°39'37
opposition	-12655 Jan 17 j 04:55	28° $\Upsilon$ 46'16	2°08'05	min. Earth dist.	-12649 Apr 04 j 22:18	11° $\Theta$ 58'51	8.20008 AU
min. Earth dist.	-12655 Jan 18 j 07:57	28° $\Upsilon$ 41'20	9.15346 AU	direct	-12649 Jun 10 j 18:48	8° $\Theta$ 37'44	
direct	-12655 Mar 29 j 14:24	25° $\Upsilon$ 27'37		evening set	-12649 Sep 19 j 16:26	16° $\Theta$ 29'44	
	-12655 Jun 16 j 12:17	0° $\delta$		conjunction	-12649 Oct 06 j 16:12	18° $\Theta$ 42'21	1°59'03
evening set	-12655 Jul 08 j 16:21	2° $\delta$ 26'03		minimum elong	-12649 Oct 06 j 16:17	18° $\Theta$ 42'22	1°59'49
max. Earth dist.	-12655 Jul 23 j 18:04	4° $\delta$ 11'38	11.09514 AU	max. Earth dist.	-12649 Oct 06 j 05:20	18° $\Theta$ 38'47	10.11908 AU
conjunction	-12655 Jul 25 j 01:55	4° $\delta$ 21'00	1°54'34	morning rise	-12649 Oct 23 j 21:25	20° $\Theta$ 56'45	
minimum elong	-12655 Jul 25 j 01:52	4° $\delta$ 21'00	1°55'01	retrograde	-12648 Feb 08 j 17:36	29° $\Theta$ 21'26	
morning rise	-12655 Aug 10 j 11:01	6° $\delta$ 15'59		opposition	-12648 Apr 17 j 22:01	25° $\Theta$ 51'38	2°14'28
retrograde	-12655 Nov 19 j 13:16	13° $\delta$ 17'41		min. Earth dist.	-12648 Apr 18 j 03:31	25° $\Theta$ 50'32	8.04370 AU
opposition	-12654 Jan 29 j 07:08	9° $\delta$ 59'57	2°30'23	direct	-12648 Jun 23 j 14:43	22° $\Theta$ 27'00	
min. Earth dist.	-12654 Jan 30 j 11:18	9° $\delta$ 54'47	9.03235 AU		-12648 Sep 28 j 23:52	0° $\delta$	
direct	-12654 Apr 10 j 04:09	6° $\delta$ 41'00		evening set	-12648 Oct 02 j 18:58	0° $\delta$ 29'28	
evening set	-12654 Jul 20 j 00:29	13° $\delta$ 45'27		conjunction	-12648 Oct 20 j 01:10	2° $\delta$ 46'10	1°34'52
	-12654 Jul 30 j 12:47	15° $\delta$		minimum elong	-12648 Oct 20 j 01:14	2° $\delta$ 46'12	1°35'32
max. Earth dist.	-12654 Aug 04 j 01:04	15° $\delta$ 32'20	10.96135 AU	max. Earth dist.	-12648 Oct 19 j 22:45	2° $\delta$ 45'22	9.97428 AU
conjunction	-12654 Aug 05 j 09:23	15° $\delta$ 42'00	2°10'23	morning rise	-12648 Nov 06 j 13:11	5° $\delta$ 04'48	
minimum elong	-12654 Aug 05 j 09:20	15° $\delta$ 41'59	2°10'57	retrograde	-12647 Feb 23 j 00:40	13° $\delta$ 41'18	
morning rise	-12654 Aug 21 j 19:01	17° $\delta$ 38'54		opposition	-12647 May 02 j 17:29	10° $\delta$ 09'50	1°40'09
retrograde	-12654 Dec 02 j 00:17	24° $\delta$ 52'08		min. Earth dist.	-12647 May 02 j 16:05	10° $\delta$ 10'08	7.91247 AU
opposition	-12653 Feb 10 j 17:16	21° $\delta$ 32'41	2°47'24	direct	-12647 Jul 07 j 20:30	6° $\delta$ 44'01	
min. Earth dist.	-12653 Feb 11 j 21:01	21° $\delta$ 27'32	8.88727 AU	evening set	-12647 Oct 17 j 11:20	14° $\delta$ 55'58	
direct	-12653 Apr 22 j 00:27	18° $\delta$ 13'11			-12647 Oct 17 j 23:36	15° $\delta$	
evening set	-12653 Jul 31 j 16:04	25° $\delta$ 25'09		conjunction	-12647 Nov 04 j 00:18	17° $\delta$ 16'27	1°04'07
max. Earth dist.	-12653 Aug 15 j 19:12	27° $\delta$ 14'42	10.80639 AU	minimum elong	-12647 Nov 04 j 00:22	17° $\delta$ 16'28	1°04'40
conjunction	-12653 Aug 17 j 01:29	27° $\delta$ 23'55	2°21'18	max. Earth dist.	-12647 Nov 04 j 07:04	17° $\delta$ 18'43	9.85914 AU
minimum elong	-12653 Aug 17 j 01:27	27° $\delta$ 23'54	2°21'58	morning rise	-12647 Nov 21 j 19:03	19° $\delta$ 38'50	
morning rise	-12653 Sep 02 j 12:31	29° $\delta$ 23'18		retrograde	-12646 Mar 10 j 14:27	28° $\delta$ 23'56	
	-12653 Sep 07 j 16:38	0° $\Pi$		opposition	-12646 May 17 j 18:42	24° $\delta$ 51'14	0°58'19
retrograde	-12653 Dec 14 j 21:54	6° $\Pi$ 49'41		min. Earth dist.	-12646 May 17 j 10:10	24° $\delta$ 53'00	7.81529 AU
opposition	-12652 Feb 23 j 12:16	3° $\Pi$ 28'16	2°57'57	direct	-12646 Jul 22 j 11:04	21° $\delta$ 24'15	
min. Earth dist.	-12652 Feb 24 j 13:30	3° $\Pi$ 23'31	8.72403 AU	evening set	-12646 Nov 01 j 16:15	29° $\delta$ 44'05	
direct	-12652 May 03 j 03:15	0° $\Pi$ 08'02			-12646 Nov 03 j 16:14	0° $\eta$	
evening set	-12652 Aug 11 j 16:43	7° $\Pi$ 28'51		conjunction	-12646 Nov 19 j 11:33	2° $\eta$ 07'36	0°28'32
max. Earth dist.	-12652 Aug 27 j 00:57	9° $\Pi$ 22'02	10.63668 AU	minimum elong	-12646 Nov 19 j 11:34	2° $\eta$ 07'36	0°28'56
conjunction	-12652 Aug 28 j 03:50	9° $\Pi$ 30'22	2°26'22	max. Earth dist.	-12646 Nov 20 j 03:06	2° $\eta$ 12'51	9.78173 AU
minimum elong	-12652 Aug 28 j 03:50	9° $\Pi$ 30'22	2°27'07	morning rise	-12646 Dec 07 j 12:10	4° $\eta$ 32'53	
morning rise	-12652 Sep 13 j 17:25	11° $\Pi$ 32'48		retrograde	-12645 Mar 26 j 07:01	13° $\eta$ 22'27	
retrograde	-12652 Dec 27 j 08:58	19° $\Pi$ 13'36		opposition	-12645 Jun 01 j 23:07	9° $\eta$ 49'01	0°11'43
opposition	-12651 Mar 07 j 17:23	15° $\Pi$ 50'04	3°00'51	min. Earth dist.	-12645 Jun 01 j 07:59	9° $\eta$ 52'11	7.75921 AU
min. Earth dist.	-12651 Mar 08 j 14:41	15° $\Pi$ 46'00	8.54955 AU	direct	-12645 Aug 06 j 09:01	6° $\eta$ 21'01	
direct	-12651 May 15 j 15:04	12° $\Pi$ 28'55		desc. node	-12645 Sep 01 j 19:19	7° $\eta$ 01'53	
evening set	-12651 Aug 24 j 04:00	19° $\Pi$ 59'34		evening set	-12645 Nov 17 j 07:08	14° $\eta$ 46'24	
conjunction	-12651 Sep 09 j 18:01	22° $\Pi$ 04'22	2°24'45	conjunction	-12645 Dec 05 j 07:28	17° $\eta$ 11'50	-0°09'28

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 22

Attention, astronomical year style is used: The year -12645 in astronomical counting style is the year 12646 BCE in historical counting style.

minimum elong	-12645 Dec 05 j 07:27	17° $\overline{m}$ 11'49	0°09'17	max. Earth dist.	-12638 Mar 07 j 00:28	14° $\overline{x}$ 02'12	10.38170 AU
behind sun begin	-12645 Dec 05 j 01:17	17° $\overline{m}$ 09'45		morning rise	-12638 Mar 23 j 14:13	16° $\overline{x}$ 05'20	
behind sun end	-12645 Dec 05 j 13:37	17° $\overline{m}$ 13'53		retrograde	-12638 Jul 03 j 03:26	23° $\overline{x}$ 42'43	
max. Earth dist.	-12645 Dec 06 j 06:53	17° $\overline{m}$ 19'45	9.74784 AU	min. Earth dist.	-12638 Sep 07 j 08:11	20° $\overline{x}$ 22'46	8.47170 AU
morning rise	-12645 Dec 23 j 12:20	19° $\overline{m}$ 38'43		opposition	-12638 Sep 08 j 04:25	20° $\overline{x}$ 18'43	-2°59'20
retrograde	-12644 Apr 09 j 22:16	28° $\overline{m}$ 28'08		direct	-12638 Nov 16 j 00:04	16° $\overline{x}$ 51'12	
min. Earth dist.	-12644 Jun 15 j 07:03	24° $\overline{m}$ 58'51	7.74861 AU	evening set	-12637 Mar 01 j 20:00	24° $\overline{x}$ 38'19	
opposition	-12644 Jun 16 j 03:30	24° $\overline{m}$ 54'33	-0°36'06				
direct	-12644 Aug 20 j 12:25	21° $\overline{m}$ 25'43		conjunction	-12637 Mar 19 j 13:49	26° $\overline{x}$ 47'42	-2°22'14
evening set	-12644 Dec 02 j 04:20	29° $\overline{m}$ 53'50		minimum elong	-12637 Mar 19 j 13:51	26° $\overline{x}$ 47'43	2°23'01
	-12644 Dec 02 j 22:58	0° $\underline{a}$		max. Earth dist.	-12637 Mar 20 j 12:59	26° $\overline{x}$ 54'48	10.56018 AU
				morning rise	-12637 Apr 06 j 03:19	28° $\overline{x}$ 55'45	
conjunction	-12644 Dec 20 j 08:02	2° $\underline{a}$ 19'49	-0°46'51		-12637 Apr 15 j 05:09	0° $\overline{z}$	
minimum elong	-12644 Dec 20 j 07:59	2° $\underline{a}$ 19'48	0°46'52	retrograde	-12637 Jul 15 j 14:03	6° $\overline{z}$ 18'27	
max. Earth dist.	-12644 Dec 21 j 13:44	2° $\underline{a}$ 29'50	9.76031 AU	opposition	-12637 Sep 20 j 21:45	2° $\overline{z}$ 56'40	-2°50'02
morning rise	-12643 Jan 07 j 15:08	4° $\underline{a}$ 46'50		min. Earth dist.	-12637 Sep 20 j 06:10	2° $\overline{z}$ 59'45	8.64905 AU
retrograde	-12643 Apr 25 j 07:56	13° $\underline{a}$ 31'23			-12637 Nov 05 j 02:24	30° $\overline{R}$ $\overline{x}$	
min. Earth dist.	-12643 Jun 30 j 04:33	10° $\underline{a}$ 03'22	7.78444 AU	direct	-12637 Nov 29 j 11:01	29° $\overline{x}$ 30'17	
opposition	-12643 Jul 01 j 04:36	9° $\underline{a}$ 58'17	-1°21'16		-12637 Dec 23 j 20:04	0° $\overline{z}$	
direct	-12643 Sep 04 j 18:24	6° $\underline{a}$ 28'51		evening set	-12636 Mar 14 j 02:09	7° $\overline{z}$ 06'06	
evening set	-12643 Dec 18 j 03:21	14° $\underline{a}$ 56'33					
				conjunction	-12636 Mar 31 j 16:35	9° $\overline{z}$ 12'07	-2°11'59
conjunction	-12642 Jan 05 j 08:30	17° $\underline{a}$ 21'42	-1°20'49	minimum elong	-12636 Mar 31 j 16:38	9° $\overline{z}$ 12'08	2°12'46
minimum elong	-12642 Jan 05 j 08:25	17° $\underline{a}$ 21'41	1°21'03	max. Earth dist.	-12636 Apr 01 j 09:24	9° $\overline{z}$ 17'10	10.73462 AU
max. Earth dist.	-12642 Jan 06 j 18:13	17° $\underline{a}$ 32'58	9.81825 AU	morning rise	-12636 Apr 18 j 02:09	11° $\overline{z}$ 16'39	
morning rise	-12642 Jan 23 j 15:40	19° $\underline{a}$ 47'24		retrograde	-12636 Jul 26 j 14:17	18° $\overline{z}$ 26'06	
retrograde	-12642 May 10 j 07:46	28° $\underline{a}$ 22'51		opposition	-12636 Oct 02 j 05:52	15° $\overline{z}$ 06'23	-2°33'24
opposition	-12642 Jul 15 j 23:42	24° $\underline{a}$ 50'50	-2°00'16	min. Earth dist.	-12636 Oct 01 j 19:56	15° $\overline{z}$ 08'18	8.81805 AU
min. Earth dist.	-12642 Jul 14 j 21:52	24° $\underline{a}$ 56'16	7.86393 AU	direct	-12636 Dec 11 j 11:10	11° $\overline{z}$ 41'10	
direct	-12642 Sep 19 j 23:10	21° $\underline{a}$ 21'07		evening set	-12635 Mar 26 j 19:00	19° $\overline{z}$ 06'20	
evening set	-12641 Jan 02 j 23:11	29° $\underline{a}$ 45'12					
	-12641 Jan 04 j 20:54	0° $\overline{m}$		conjunction	-12635 Apr 13 j 06:02	21° $\overline{z}$ 09'17	-1°56'14
conjunction	-12641 Jan 21 j 03:54	2° $\overline{m}$ 08'18	-1°48'55	minimum elong	-12635 Apr 13 j 06:05	21° $\overline{z}$ 09'18	1°56'59
minimum elong	-12641 Jan 21 j 03:49	2° $\overline{m}$ 08'16	1°49'21	max. Earth dist.	-12635 Apr 13 j 14:57	21° $\overline{z}$ 11'56	10.89658 AU
max. Earth dist.	-12641 Jan 22 j 15:08	2° $\overline{m}$ 19'55	9.91728 AU	morning rise	-12635 Apr 30 j 12:02	23° $\overline{z}$ 10'45	
morning rise	-12641 Feb 08 j 09:13	4° $\overline{m}$ 31'25			-12635 Jul 25 j 03:33	0° $\approx$	
retrograde	-12641 May 24 j 19:54	12° $\overline{m}$ 54'30		retrograde	-12635 Aug 07 j 03:20	0° $\approx$ 08'52	
min. Earth dist.	-12641 Jul 29 j 08:18	9° $\overline{m}$ 29'31	7.98119 AU		-12635 Aug 20 j 05:56	30° $\overline{R}$ $\overline{z}$	
opposition	-12641 Jul 30 j 10:21	9° $\overline{m}$ 24'04	-2°30'28	opposition	-12635 Oct 14 j 05:57	26° $\overline{z}$ 50'59	-2°10'52
direct	-12641 Oct 04 j 23:34	5° $\overline{m}$ 54'26		min. Earth dist.	-12635 Oct 14 j 01:37	26° $\overline{z}$ 51'49	8.97083 AU
evening set	-12640 Jan 18 j 11:16	14° $\overline{m}$ 11'59		direct	-12635 Dec 24 j 03:45	23° $\overline{z}$ 26'58	
	-12640 Jan 24 j 17:24	15° $\overline{m}$			-12634 Apr 01 j 16:57	0° $\approx$	
				evening set	-12634 Apr 07 j 23:50	0° $\approx$ 42'35	
conjunction	-12640 Feb 05 j 14:11	16° $\overline{m}$ 32'08	-2°09'30	conjunction	-12634 Apr 25 j 07:39	2° $\approx$ 42'55	-1°36'07
minimum elong	-12640 Feb 05 j 14:07	16° $\overline{m}$ 32'07	2°10'05	minimum elong	-12634 Apr 25 j 07:42	2° $\approx$ 42'56	1°36'48
max. Earth dist.	-12640 Feb 07 j 00:37	16° $\overline{m}$ 43'18	10.05036 AU	max. Earth dist.	-12634 Apr 25 j 09:07	2° $\approx$ 43'20	11.03903 AU
morning rise	-12640 Feb 23 j 16:18	18° $\overline{m}$ 51'51		morning rise	-12634 May 12 j 10:21	4° $\approx$ 41'44	
retrograde	-12640 Jun 06 j 19:24	27° $\overline{m}$ 00'23		retrograde	-12634 Aug 18 j 12:16	11° $\approx$ 30'48	
min. Earth dist.	-12640 Aug 11 j 09:49	23° $\overline{m}$ 37'07	8.12806 AU	opposition	-12634 Oct 25 j 23:45	8° $\approx$ 14'25	-1°43'53
opposition	-12640 Aug 12 j 11:02	23° $\overline{m}$ 31'54	-2°50'25	min. Earth dist.	-12634 Oct 26 j 00:13	8° $\approx$ 14'20	9.10142 AU
direct	-12640 Oct 18 j 16:42	20° $\overline{m}$ 02'41		direct	-12633 Jan 05 j 10:22	4° $\approx$ 51'36	
evening set	-12639 Feb 01 j 11:58	28° $\overline{m}$ 11'24		evening set	-12633 Apr 19 j 18:20	11° $\approx$ 59'01	
	-12639 Feb 15 j 20:02	0° $\overline{x}$					
conjunction	-12639 Feb 19 j 12:16	0° $\overline{x}$ 28'05	-2°21'47	conjunction	-12633 May 06 j 23:08	13° $\approx$ 57'09	-1°12'44
minimum elong	-12639 Feb 19 j 12:13	0° $\overline{x}$ 28'04	2°22'29	minimum elong	-12633 May 06 j 23:11	13° $\approx$ 57'10	1°13'19
max. Earth dist.	-12639 Feb 20 j 20:11	0° $\overline{x}$ 38'15	10.20849 AU	max. Earth dist.	-12633 May 06 j 18:51	13° $\approx$ 55'55	11.15713 AU
morning rise	-12639 Mar 09 j 10:25	2° $\overline{x}$ 43'57			-12633 May 16 j 01:27	15° $\approx$	
retrograde	-12639 Jun 20 j 06:11	10° $\overline{x}$ 36'54		morning rise	-12633 May 23 j 22:40	15° $\approx$ 53'49	
min. Earth dist.	-12639 Aug 25 j 01:46	7° $\overline{x}$ 15'21	8.29487 AU	retrograde	-12633 Aug 29 j 16:01	22° $\approx$ 36'06	
opposition	-12639 Aug 26 j 01:04	7° $\overline{x}$ 10'36	-2°59'51	opposition	-12633 Nov 06 j 12:47	19° $\approx$ 20'52	-1°13'41
direct	-12639 Nov 02 j 01:26	3° $\overline{x}$ 42'07		min. Earth dist.	-12633 Nov 06 j 18:32	19° $\approx$ 19'48	9.20595 AU
evening set	-12638 Feb 15 j 23:16	11° $\overline{x}$ 40'26		direct	-12632 Jan 17 j 08:16	15° $\approx$ 59'08	
				evening set	-12632 Apr 30 j 04:50	22° $\approx$ 59'54	
conjunction	-12638 Mar 05 j 20:25	13° $\overline{x}$ 53'27	-2°25'49	conjunction	-12632 May 17 j 06:35	24° $\approx$ 56'14	-0°47'05
minimum elong	-12638 Mar 05 j 20:25	13° $\overline{x}$ 53'27	2°26'35	minimum elong	-12632 May 17 j 06:37	24° $\approx$ 56'15	0°47'34

Attention, astronomical year style is used: The year -12632 in astronomical counting style is the year 12633 BCE in historical counting style.

max. Earth dist.	-12632 May 16 j 20:21	24° $\approx$ 53'19	11.24760 AU	conjunction	-12626 Jul 20 j 09:53	29° $\Upsilon$ 28'36	1°45'51
morning rise	-12632 Jun 03 j 03:11	26° $\approx$ 51'13		minimum elong	-12626 Jul 20 j 09:50	29° $\Upsilon$ 28'35	1°46'15
	-12632 Jul 03 j 06:44	0° $\mathfrak{H}$			-12626 Jul 24 j 21:09	0° $\mathfrak{B}$	
retrograde	-12632 Sep 08 j 16:53	3° $\mathfrak{H}$ 28'54		morning rise	-12626 Aug 05 j 19:14	1° $\mathfrak{B}$ 22'57	
opposition	-12632 Nov 16 j 22:26	0° $\mathfrak{H}$ 14'29	-0°41'26	retrograde	-12626 Nov 14 j 08:24	8° $\mathfrak{B}$ 19'56	
min. Earth dist.	-12632 Nov 17 j 09:54	0° $\mathfrak{H}$ 12'22	9.28175 AU	opposition	-12625 Jan 24 j 02:45	5° $\mathfrak{B}$ 02'23	2°20'42
	-12632 Nov 20 j 05:08	30° $\mathfrak{R}$ $\approx$		min. Earth dist.	-12625 Jan 25 j 06:18	4° $\mathfrak{B}$ 57'20	9.08197 AU
direct	-12631 Jan 28 j 00:34	26° $\approx$ 53'38		direct	-12625 Apr 05 j 08:01	1° $\mathfrak{B}$ 43'04	
	-12631 Apr 03 j 15:51	0° $\mathfrak{H}$		evening set	-12625 Jul 15 j 04:36	8° $\mathfrak{B}$ 44'32	
evening set	-12631 May 11 j 09:07	3° $\mathfrak{H}$ 49'24		max. Earth dist.	-12625 Jul 30 j 07:00	10° $\mathfrak{B}$ 31'11	11.01731 AU
conjunction	-12631 May 28 j 07:41	5° $\mathfrak{H}$ 44'21	-0°20'08	conjunction	-12625 Jul 31 j 13:54	10° $\mathfrak{B}$ 40'21	2°03'38
minimum elong	-12631 May 28 j 07:41	5° $\mathfrak{H}$ 44'21	0°20'28	minimum elong	-12625 Jul 31 j 13:51	10° $\mathfrak{B}$ 40'20	2°04'10
max. Earth dist.	-12631 May 27 j 15:06	5° $\mathfrak{H}$ 39'38	11.30819 AU	morning rise	-12625 Aug 16 j 23:06	12° $\mathfrak{B}$ 36'18	
morning rise	-12631 Jun 14 j 01:43	7° $\mathfrak{H}$ 38'04			-12625 Sep 07 j 10:50	15° $\mathfrak{B}$	
retrograde	-12631 Sep 19 j 14:45	14° $\mathfrak{H}$ 13'27		retrograde	-12625 Nov 26 j 15:12	19° $\mathfrak{B}$ 43'52	
opposition	-12631 Nov 28 j 06:33	10° $\mathfrak{H}$ 59'25	-0°08'11	opposition	-12624 Feb 05 j 08:29	16° $\mathfrak{B}$ 24'46	2°40'19
min. Earth dist.	-12631 Nov 28 j 22:47	10° $\mathfrak{H}$ 56'27	9.32688 AU	min. Earth dist.	-12624 Feb 06 j 11:10	16° $\mathfrak{B}$ 19'50	8.94941 AU
direct	-12630 Feb 08 j 12:30	7° $\mathfrak{H}$ 39'18			-12624 Feb 25 j 01:12	15° $\mathfrak{R}$ $\mathfrak{B}$	
asc. node	-12630 Feb 27 j 02:49	7° $\mathfrak{H}$ 55'22		direct	-12624 Apr 15 j 23:39	13° $\mathfrak{B}$ 05'06	
evening set	-12630 May 22 j 08:44	14° $\mathfrak{H}$ 31'43			-12624 Jun 03 j 19:08	15° $\mathfrak{B}$	
max. Earth dist.	-12630 Jun 07 j 07:01	16° $\mathfrak{H}$ 19'37	11.33736 AU	evening set	-12624 Jul 25 j 16:07	20° $\mathfrak{B}$ 13'20	
				max. Earth dist.	-12624 Aug 09 j 18:38	22° $\mathfrak{B}$ 01'48	10.87416 AU
conjunction	-12630 Jun 08 j 04:19	16° $\mathfrak{H}$ 25'41	0°07'23	conjunction	-12624 Aug 11 j 01:12	22° $\mathfrak{B}$ 11'01	2°16'57
minimum elong	-12630 Jun 08 j 04:18	16° $\mathfrak{H}$ 25'40	0°07'12	minimum elong	-12624 Aug 11 j 01:10	22° $\mathfrak{B}$ 11'01	2°17'35
behind sun begin	-12630 Jun 07 j 21:53	16° $\mathfrak{H}$ 23'52		morning rise	-12624 Aug 27 j 11:20	24° $\mathfrak{B}$ 09'11	
behind sun end	-12630 Jun 08 j 10:44	16° $\mathfrak{H}$ 27'29			-12624 Oct 26 j 06:44	0° $\mathfrak{H}$	
morning rise	-12630 Jun 24 j 19:57	18° $\mathfrak{H}$ 18'36		retrograde	-12624 Dec 08 j 06:48	1° $\mathfrak{H}$ 29'06	
retrograde	-12630 Sep 30 j 15:38	24° $\mathfrak{H}$ 53'57			-12623 Jan 21 j 12:38	30° $\mathfrak{R}$ $\mathfrak{B}$	
opposition	-12630 Dec 09 j 14:26	21° $\mathfrak{H}$ 39'53	0°25'08	opposition	-12623 Feb 16 j 22:55	28° $\mathfrak{B}$ 08'16	2°54'01
min. Earth dist.	-12630 Dec 10 j 09:53	21° $\mathfrak{H}$ 36'21	9.34013 AU	min. Earth dist.	-12623 Feb 18 j 00:28	28° $\mathfrak{B}$ 03'28	8.79705 AU
direct	-12629 Feb 19 j 22:37	18° $\mathfrak{H}$ 20'20		direct	-12623 Apr 27 j 21:05	24° $\mathfrak{B}$ 48'04	
evening set	-12629 Jun 02 j 05:45	25° $\mathfrak{H}$ 11'04			-12623 Jul 19 j 14:39	0° $\mathfrak{H}$	
conjunction	-12629 Jun 18 j 22:38	27° $\mathfrak{H}$ 04'30	0°34'27	evening set	-12623 Aug 06 j 11:57	2° $\mathfrak{H}$ 04'31	
minimum elong	-12629 Jun 18 j 22:36	27° $\mathfrak{H}$ 04'29	0°34'24	conjunction	-12623 Aug 22 j 21:58	4° $\mathfrak{H}$ 04'39	2°24'51
max. Earth dist.	-12629 Jun 17 j 22:15	26° $\mathfrak{H}$ 57'33	11.33431 AU	minimum elong	-12623 Aug 22 j 21:56	4° $\mathfrak{H}$ 04'39	2°25'34
morning rise	-12629 Jul 05 j 11:58	28° $\mathfrak{H}$ 57'03		max. Earth dist.	-12623 Aug 21 j 17:16	3° $\mathfrak{H}$ 55'51	10.71414 AU
	-12629 Jul 15 j 01:15	0° $\mathfrak{Y}$		morning rise	-12623 Sep 08 j 10:16	6° $\mathfrak{H}$ 05'35	
retrograde	-12629 Oct 11 j 17:49	5° $\mathfrak{Y}$ 34'32		retrograde	-12623 Dec 21 j 10:54	13° $\mathfrak{H}$ 39'19	
opposition	-12629 Dec 20 j 23:32	2° $\mathfrak{Y}$ 20'06	0°57'36	opposition	-12622 Mar 01 j 23:01	10° $\mathfrak{H}$ 16'36	3°00'36
min. Earth dist.	-12629 Dec 21 j 22:08	2° $\mathfrak{Y}$ 16'00	9.32120 AU	min. Earth dist.	-12622 Mar 02 j 22:10	10° $\mathfrak{H}$ 12'12	8.63077 AU
	-12628 Jan 25 j 16:52	30° $\mathfrak{R}$ $\mathfrak{H}$		direct	-12622 May 10 j 05:02	6° $\mathfrak{H}$ 55'43	
direct	-12628 Mar 02 j 04:06	29° $\mathfrak{H}$ 00'53		evening set	-12622 Aug 18 j 17:41	14° $\mathfrak{H}$ 21'32	
	-12628 Apr 07 j 00:17	0° $\mathfrak{Y}$		max. Earth dist.	-12622 Sep 03 j 05:33	16° $\mathfrak{H}$ 17'01	10.54360 AU
evening set	-12628 Jun 12 j 02:05	5° $\mathfrak{Y}$ 51'44		conjunction	-12622 Sep 04 j 06:04	16° $\mathfrak{H}$ 24'42	2°26'27
conjunction	-12628 Jun 28 j 16:20	7° $\mathfrak{Y}$ 45'02	1°00'26	minimum elong	-12622 Sep 04 j 06:04	16° $\mathfrak{H}$ 24'42	2°27'13
minimum elong	-12628 Jun 28 j 16:18	7° $\mathfrak{Y}$ 45'01	1°00'31	morning rise	-12622 Sep 20 j 21:41	18° $\mathfrak{H}$ 28'58	
max. Earth dist.	-12628 Jun 27 j 12:31	7° $\mathfrak{Y}$ 37'04	11.29923 AU	retrograde	-12621 Jan 04 j 04:00	26° $\mathfrak{H}$ 17'30	
morning rise	-12628 Jul 15 j 03:49	9° $\mathfrak{Y}$ 37'42		opposition	-12621 Mar 15 j 09:21	22° $\mathfrak{H}$ 52'48	2°58'56
retrograde	-12628 Oct 22 j 00:19	16° $\mathfrak{Y}$ 19'32		min. Earth dist.	-12621 Mar 16 j 04:21	22° $\mathfrak{H}$ 49'09	8.45756 AU
opposition	-12628 Dec 31 j 11:44	13° $\mathfrak{Y}$ 04'22	1°28'19	direct	-12621 May 22 j 21:08	19° $\mathfrak{H}$ 31'07	
min. Earth dist.	-12627 Jan 01 j 13:36	12° $\mathfrak{Y}$ 59'40	9.27069 AU	evening set	-12621 Aug 31 j 11:07	27° $\mathfrak{H}$ 07'10	
direct	-12627 Mar 13 j 11:09	9° $\mathfrak{Y}$ 45'17		max. Earth dist.	-12621 Sep 16 j 08:29	29° $\mathfrak{H}$ 07'53	10.37012 AU
evening set	-12627 Jun 22 j 23:28	16° $\mathfrak{Y}$ 38'00		conjunction	-12621 Sep 17 j 03:14	29° $\mathfrak{H}$ 13'52	2°20'57
max. Earth dist.	-12627 Jul 08 j 04:32	18° $\mathfrak{Y}$ 22'43	11.23323 AU	minimum elong	-12621 Sep 17 j 03:16	29° $\mathfrak{H}$ 13'52	2°21'44
conjunction	-12627 Jul 09 j 11:18	18° $\mathfrak{Y}$ 31'37	1°24'30		-12621 Sep 23 j 03:52	0° $\mathfrak{B}$	
minimum elong	-12627 Jul 09 j 11:15	18° $\mathfrak{Y}$ 31'36	1°24'44	morning rise	-12621 Oct 03 j 23:20	1° $\mathfrak{B}$ 21'57	
morning rise	-12627 Jul 25 j 21:29	20° $\mathfrak{Y}$ 24'52		retrograde	-12620 Jan 18 j 09:38	9° $\mathfrak{B}$ 25'34	
retrograde	-12627 Nov 02 j 11:48	27° $\mathfrak{Y}$ 13'13		opposition	-12620 Mar 28 j 06:01	5° $\mathfrak{B}$ 58'53	2°48'02
opposition	-12626 Jan 12 j 04:21	23° $\mathfrak{Y}$ 57'01	1°56'21	min. Earth dist.	-12620 Mar 28 j 19:15	5° $\mathfrak{B}$ 56'18	8.28566 AU
min. Earth dist.	-12626 Jan 13 j 07:56	23° $\mathfrak{Y}$ 51'59	9.19015 AU	direct	-12620 Jun 03 j 23:23	2° $\mathfrak{B}$ 36'19	
direct	-12626 Mar 24 j 19:23	20° $\mathfrak{Y}$ 37'54		evening set	-12620 Sep 12 j 17:26	10° $\mathfrak{B}$ 23'03	
evening set	-12626 Jul 03 j 23:42	27° $\mathfrak{Y}$ 34'10					
max. Earth dist.	-12626 Jul 19 j 02:31	29° $\mathfrak{Y}$ 19'26	11.13832 AU				

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24

Attention, astronomical year style is used: The year -12620 in astronomical counting style is the year 12621 BCE in historical counting style.

conjunction	-12620 Sep 29 j 14:30	12° $\mathfrak{E}$ 33'39	2°07'50	min. Earth dist.	-12614 Jun 23 j 17:23	3° $\mathfrak{A}$ 14'59	7.77351 AU
minimum elong	-12620 Sep 29 j 14:34	12° $\mathfrak{E}$ 33'40	2°08'37		-12614 Aug 11 j 10:14	30° $\mathfrak{R}$ $\mathfrak{M}$	
max. Earth dist.	-12620 Sep 29 j 02:09	12° $\mathfrak{E}$ 29'38	10.20260 AU	direct	-12614 Aug 29 j 02:00	29° $\mathfrak{M}$ 41'54	
morning rise	-12620 Oct 16 j 16:22	14° $\mathfrak{E}$ 45'54			-12614 Sep 15 j 14:42	0° $\mathfrak{A}$	
retrograde	-12619 Feb 01 j 03:21	23° $\mathfrak{E}$ 04'00		evening set	-12614 Dec 11 j 02:17	8° $\mathfrak{A}$ 09'59	
opposition	-12619 Apr 11 j 12:57	19° $\mathfrak{E}$ 35'27	2°27'23				
min. Earth dist.	-12619 Apr 11 j 19:48	19° $\mathfrak{E}$ 34'05	8.12444 AU	conjunction	-12614 Dec 29 j 06:58	10° $\mathfrak{A}$ 35'37	-1°05'34
direct	-12619 Jun 17 j 12:46	16° $\mathfrak{E}$ 11'53		minimum elong	-12614 Dec 29 j 06:54	10° $\mathfrak{A}$ 35'35	1°05'41
evening set	-12619 Sep 26 j 13:28	24° $\mathfrak{E}$ 09'11		max. Earth dist.	-12614 Dec 30 j 13:10	10° $\mathfrak{A}$ 45'45	9.79440 AU
				morning rise	-12613 Jan 16 j 14:21	13° $\mathfrak{A}$ 02'01	
conjunction	-12619 Oct 13 j 16:29	26° $\mathfrak{E}$ 23'51	1°47'03	retrograde	-12613 May 03 j 18:26	21° $\mathfrak{A}$ 42'16	
minimum elong	-12619 Oct 13 j 16:34	26° $\mathfrak{E}$ 23'53	1°47'46	opposition	-12613 Jul 09 j 12:57	18° $\mathfrak{A}$ 10'10	-1°43'02
max. Earth dist.	-12619 Oct 13 j 11:20	26° $\mathfrak{E}$ 22'09	10.05064 AU	min. Earth dist.	-12613 Jul 08 j 12:44	18° $\mathfrak{A}$ 15'16	7.82735 AU
morning rise	-12619 Oct 31 j 01:03	28° $\mathfrak{E}$ 40'23		direct	-12613 Sep 13 j 07:22	14° $\mathfrak{A}$ 40'58	
	-12619 Nov 10 j 11:26	0° $\mathfrak{A}$		evening set	-12613 Dec 27 j 00:28	23° $\mathfrak{A}$ 07'15	
retrograde	-12618 Feb 16 j 07:41	7° $\mathfrak{A}$ 11'19					
opposition	-12618 Apr 26 j 04:49	3° $\mathfrak{A}$ 41'06	1°57'11	conjunction	-12612 Jan 14 j 05:40	25° $\mathfrak{A}$ 31'28	-1°36'43
min. Earth dist.	-12618 Apr 26 j 05:13	3° $\mathfrak{A}$ 41'01	7.98356 AU	minimum elong	-12612 Jan 14 j 05:36	25° $\mathfrak{A}$ 31'27	1°37'02
direct	-12618 Jul 01 j 12:22	0° $\mathfrak{A}$ 16'26		max. Earth dist.	-12612 Jan 15 j 15:21	25° $\mathfrak{A}$ 42'39	9.86895 AU
evening set	-12618 Oct 10 j 23:34	8° $\mathfrak{A}$ 23'38		morning rise	-12612 Feb 01 j 12:00	27° $\mathfrak{A}$ 55'57	
					-12612 Feb 17 j 20:19	0° $\mathfrak{M}$	
conjunction	-12618 Oct 28 j 09:08	10° $\mathfrak{A}$ 42'13	1°19'11	retrograde	-12612 May 17 j 13:26	6° $\mathfrak{M}$ 25'38	
minimum elong	-12618 Oct 28 j 09:12	10° $\mathfrak{A}$ 42'15	1°19'47	min. Earth dist.	-12612 Jul 22 j 02:25	3° $\mathfrak{M}$ 00'07	7.92189 AU
max. Earth dist.	-12618 Oct 28 j 11:43	10° $\mathfrak{A}$ 43'05	9.92360 AU	opposition	-12612 Jul 23 j 04:20	2° $\mathfrak{M}$ 54'41	-2°17'40
morning rise	-12618 Nov 15 j 00:40	13° $\mathfrak{A}$ 02'45			-12612 Sep 02 j 12:39	30° $\mathfrak{R}$ $\mathfrak{A}$	
	-12618 Nov 30 j 08:10	15° $\mathfrak{A}$		direct	-12612 Sep 27 j 09:57	29° $\mathfrak{A}$ 25'14	
retrograde	-12617 Mar 03 j 19:13	21° $\mathfrak{A}$ 43'42			-12612 Oct 22 j 06:57	0° $\mathfrak{M}$	
opposition	-12617 May 11 j 03:32	18° $\mathfrak{A}$ 12'09	1°18'35	evening set	-12611 Jan 10 j 17:20	7° $\mathfrak{M}$ 46'34	
min. Earth dist.	-12617 May 10 j 21:43	18° $\mathfrak{A}$ 13'21	7.87209 AU				
	-12617 Jun 30 j 14:24	15° $\mathfrak{R}$ $\mathfrak{A}$		conjunction	-12611 Jan 28 j 21:27	10° $\mathfrak{M}$ 08'19	-2°01'00
direct	-12617 Jul 15 j 22:48	14° $\mathfrak{A}$ 46'20		minimum elong	-12611 Jan 28 j 21:22	10° $\mathfrak{M}$ 08'18	2°01'30
	-12617 Jul 31 j 06:11	15° $\mathfrak{A}$		max. Earth dist.	-12611 Jan 30 j 08:13	10° $\mathfrak{M}$ 19'42	9.98130 AU
evening set	-12617 Oct 25 j 22:42	23° $\mathfrak{A}$ 02'07		morning rise	-12611 Feb 16 j 01:08	12° $\mathfrak{M}$ 29'49	
					-12611 Mar 08 j 07:25	15° $\mathfrak{M}$	
conjunction	-12617 Nov 12 j 14:46	25° $\mathfrak{A}$ 24'03	0°45'36	retrograde	-12611 May 31 j 20:43	20° $\mathfrak{M}$ 46'02	
minimum elong	-12617 Nov 12 j 14:49	25° $\mathfrak{A}$ 24'04	0°46'04	min. Earth dist.	-12611 Aug 05 j 08:55	17° $\mathfrak{M}$ 21'57	8.05038 AU
max. Earth dist.	-12617 Nov 13 j 01:28	25° $\mathfrak{A}$ 27'39	9.82979 AU	opposition	-12611 Aug 06 j 10:24	17° $\mathfrak{M}$ 16'40	-2°42'35
morning rise	-12617 Nov 30 j 12:44	27° $\mathfrak{A}$ 47'53			-12611 Sep 05 j 10:02	15° $\mathfrak{R}$ $\mathfrak{M}$	
	-12617 Dec 17 j 16:54	0° $\mathfrak{M}$		direct	-12611 Oct 12 j 06:56	13° $\mathfrak{M}$ 47'15	
retrograde	-12616 Mar 18 j 10:29	6° $\mathfrak{M}$ 35'10			-12611 Nov 18 j 02:09	15° $\mathfrak{M}$	
opposition	-12616 May 25 j 06:45	3° $\mathfrak{M}$ 02'40	0°33'51	evening set	-12610 Jan 26 j 00:39	22° $\mathfrak{M}$ 00'58	
min. Earth dist.	-12616 May 24 j 19:11	3° $\mathfrak{M}$ 05'04	7.79731 AU				
	-12616 Jul 09 j 07:29	30° $\mathfrak{R}$ $\mathfrak{A}$		conjunction	-12610 Feb 13 j 02:27	24° $\mathfrak{M}$ 19'31	-2°17'13
direct	-12616 Jul 29 j 18:22	29° $\mathfrak{A}$ 35'44		minimum elong	-12610 Feb 13 j 02:24	24° $\mathfrak{M}$ 19'30	2°17'51
	-12616 Aug 19 j 02:16	0° $\mathfrak{M}$		max. Earth dist.	-12610 Feb 14 j 11:38	24° $\mathfrak{M}$ 30'11	10.12347 AU
evening set	-12616 Nov 09 j 08:49	7° $\mathfrak{M}$ 58'06		morning rise	-12610 Mar 03 j 02:27	26° $\mathfrak{M}$ 37'23	
					-12610 Mar 31 j 12:25	0° $\mathfrak{A}$	
conjunction	-12616 Nov 27 j 06:40	10° $\mathfrak{M}$ 22'30	0°08'28	retrograde	-12610 Jun 14 j 14:48	4° $\mathfrak{A}$ 38'27	
minimum elong	-12616 Nov 27 j 06:40	10° $\mathfrak{M}$ 22'30	0°08'45	min. Earth dist.	-12610 Aug 19 j 06:55	1° $\mathfrak{A}$ 15'47	8.20395 AU
behind sun begin	-12616 Nov 27 j 00:21	10° $\mathfrak{M}$ 20'23		opposition	-12610 Aug 20 j 06:16	1° $\mathfrak{A}$ 10'59	-2°56'57
behind sun end	-12616 Nov 27 j 12:59	10° $\mathfrak{M}$ 24'37			-12610 Sep 03 j 23:31	30° $\mathfrak{R}$ $\mathfrak{M}$	
max. Earth dist.	-12616 Nov 28 j 01:05	10° $\mathfrak{M}$ 28'43	9.77507 AU	direct	-12610 Oct 26 j 20:37	27° $\mathfrak{M}$ 41'56	
morning rise	-12616 Dec 15 j 09:46	12° $\mathfrak{M}$ 48'34			-12610 Dec 18 j 01:14	0° $\mathfrak{A}$	
desc. node	-12615 Feb 20 j 07:53	20° $\mathfrak{M}$ 04'15		evening set	-12609 Feb 09 j 19:08	5° $\mathfrak{A}$ 46'01	
retrograde	-12615 Apr 03 j 02:00	21° $\mathfrak{M}$ 37'56					
opposition	-12615 Jun 09 j 11:25	18° $\mathfrak{M}$ 04'59	-0°13'50	conjunction	-12609 Feb 27 j 17:50	8° $\mathfrak{A}$ 00'57	-2°25'04
min. Earth dist.	-12615 Jun 08 j 18:44	18° $\mathfrak{M}$ 08'29	7.76364 AU	minimum elong	-12609 Feb 27 j 17:49	8° $\mathfrak{A}$ 00'57	2°25'47
direct	-12615 Aug 13 j 20:33	14° $\mathfrak{M}$ 37'05		max. Earth dist.	-12609 Feb 28 j 23:12	8° $\mathfrak{A}$ 10'13	10.28600 AU
evening set	-12615 Nov 25 j 03:23	23° $\mathfrak{M}$ 03'43		morning rise	-12609 Mar 17 j 13:42	10° $\mathfrak{A}$ 14'54	
				retrograde	-12609 Jun 27 j 17:55	18° $\mathfrak{A}$ 00'20	
conjunction	-12615 Dec 13 j 05:35	25° $\mathfrak{M}$ 29'24	-0°29'37	opposition	-12609 Sep 02 j 15:17	14° $\mathfrak{A}$ 34'57	-3°00'58
minimum elong	-12615 Dec 13 j 05:33	25° $\mathfrak{M}$ 29'23	0°29'32	min. Earth dist.	-12609 Sep 01 j 19:04	14° $\mathfrak{A}$ 39'03	8.37287 AU
max. Earth dist.	-12615 Dec 14 j 06:35	25° $\mathfrak{M}$ 37'50	9.76270 AU	direct	-12609 Nov 10 j 01:27	11° $\mathfrak{A}$ 06'34	
morning rise	-12615 Dec 31 j 11:56	27° $\mathfrak{M}$ 56'22		evening set	-12608 Feb 23 j 23:17	18° $\mathfrak{A}$ 59'48	
	-12614 Jan 16 j 11:51	0° $\mathfrak{A}$					
retrograde	-12614 Apr 18 j 13:51	6° $\mathfrak{A}$ 43'22		conjunction	-12608 Mar 12 j 18:39	21° $\mathfrak{A}$ 11'05	-2°24'54
opposition	-12614 Jun 24 j 14:22	3° $\mathfrak{A}$ 10'35	-1°00'43	minimum elong	-12608 Mar 12 j 18:39	21° $\mathfrak{A}$ 11'05	2°25'41



Attention, astronomical year style is used: The year -12608 in astronomical counting style is the year 12609 BCE in historical counting style.

max. Earth dist.	-12608 Mar 13 j 18:40	21° $\text{♁}$ 18'31	10.45913 AU	conjunction	-12602 May 23 j 18:54	1° $\text{♁}$ 07'58	-0°32'32
morning rise	-12608 Mar 30 j 10:22	23° $\text{♁}$ 21'09		minimum elong	-12602 May 23 j 18:56	1° $\text{♁}$ 07'59	0°32'56
	-12608 Jun 08 j 10:09	0° $\text{♁}$		max. Earth dist.	-12602 May 23 j 06:59	1° $\text{♁}$ 04'34	11.27568 AU
retrograde	-12608 Jul 09 j 09:04	0° $\text{♁}$ 51'24		morning rise	-12602 Jun 09 j 14:11	3° $\text{♁}$ 02'17	
	-12608 Aug 09 j 14:52	30° $\text{♁}$		retrograde	-12602 Sep 15 j 02:53	9° $\text{♁}$ 38'37	
opposition	-12608 Sep 14 j 13:36	27° $\text{♁}$ 28'08	-2°55'34	opposition	-12602 Nov 23 j 14:04	6° $\text{♁}$ 24'13	-0°23'24
min. Earth dist.	-12608 Sep 13 j 20:58	27° $\text{♁}$ 31'26	8.54750 AU	min. Earth dist.	-12602 Nov 24 j 01:50	6° $\text{♁}$ 22'03	9.30471 AU
direct	-12608 Nov 22 j 18:52	24° $\text{♁}$ 00'39		direct	-12601 Feb 03 j 18:39	3° $\text{♁}$ 03'41	
	-12607 Feb 21 j 18:55	0° $\text{♁}$		evening set	-12601 May 17 j 20:09	9° $\text{♁}$ 57'29	
evening set	-12607 Mar 08 j 12:42	1° $\text{♁}$ 42'36					
conjunction	-12607 Mar 26 j 04:46	3° $\text{♁}$ 50'25	-2°17'35	conjunction	-12601 Jun 03 j 17:17	11° $\text{♁}$ 51'53	-0°05'13
minimum elong	-12607 Mar 26 j 04:48	3° $\text{♁}$ 50'26	2°18'22	minimum elong	-12601 Jun 03 j 17:17	11° $\text{♁}$ 51'53	0°05'28
max. Earth dist.	-12607 Mar 26 j 22:52	3° $\text{♁}$ 55'55	10.63347 AU	behind sun begin	-12601 Jun 03 j 10:33	11° $\text{♁}$ 49'59	
morning rise	-12607 Apr 12 j 16:27	5° $\text{♁}$ 56'49		behind sun end	-12601 Jun 04 j 00:02	11° $\text{♁}$ 53'47	
retrograde	-12607 Jul 21 j 13:43	13° $\text{♁}$ 13'05		max. Earth dist.	-12601 Jun 03 j 00:40	11° $\text{♁}$ 47'10	11.32598 AU
opposition	-12607 Sep 27 j 02:13	9° $\text{♁}$ 51'51	-2°42'06	morning rise	-12601 Jun 20 j 09:56	13° $\text{♁}$ 45'08	
min. Earth dist.	-12607 Sep 26 j 13:27	9° $\text{♁}$ 54'21	8.71890 AU	asc. node	-12601 Aug 14 j 03:19	18° $\text{♁}$ 51'43	
direct	-12607 Dec 06 j 01:17	6° $\text{♁}$ 25'28		retrograde	-12601 Sep 26 j 02:46	20° $\text{♁}$ 20'13	
evening set	-12606 Mar 21 j 11:59	13° $\text{♁}$ 56'24		opposition	-12601 Dec 04 j 21:50	17° $\text{♁}$ 06'13	0°10'04
				min. Earth dist.	-12601 Dec 05 j 14:36	17° $\text{♁}$ 03'09	9.33939 AU
conjunction	-12606 Apr 08 j 00:48	16° $\text{♁}$ 01'01	-2°04'12	direct	-12600 Feb 15 j 04:30	13° $\text{♁}$ 46'31	
minimum elong	-12606 Apr 08 j 00:51	16° $\text{♁}$ 01'01	2°04'57	evening set	-12600 May 27 j 18:20	20° $\text{♁}$ 37'45	
max. Earth dist.	-12606 Apr 08 j 13:26	16° $\text{♁}$ 04'47	10.80057 AU	conjunction	-12600 Jun 13 j 12:22	22° $\text{♁}$ 31'20	0°22'15
morning rise	-12606 Apr 25 j 08:34	18° $\text{♁}$ 04'07		minimum elong	-12600 Jun 13 j 12:21	22° $\text{♁}$ 31'20	0°22'09
retrograde	-12606 Aug 02 j 08:47	25° $\text{♁}$ 08'06		max. Earth dist.	-12600 Jun 12 j 14:20	22° $\text{♁}$ 25'04	11.34445 AU
opposition	-12606 Oct 09 j 06:21	21° $\text{♁}$ 34'46	-2°22'02	morning rise	-12600 Jun 30 j 02:46	24° $\text{♁}$ 23'58	
min. Earth dist.	-12606 Oct 08 j 22:31	21° $\text{♁}$ 50'17	8.87942 AU		-12600 Aug 31 j 20:24	0° $\text{♁}$	
direct	-12606 Dec 18 j 21:37	18° $\text{♁}$ 23'36		retrograde	-12600 Oct 06 j 02:22	1° $\text{♁}$ 00'00	
evening set	-12605 Apr 02 j 22:29	25° $\text{♁}$ 44'18			-12600 Nov 11 j 05:45	30° $\text{♁}$	
conjunction	-12605 Apr 20 j 08:04	27° $\text{♁}$ 46'04	-1°45'54	opposition	-12600 Dec 15 j 06:04	27° $\text{♁}$ 46'00	0°43'03
minimum elong	-12605 Apr 20 j 08:08	27° $\text{♁}$ 46'05	1°46'37	min. Earth dist.	-12600 Dec 16 j 02:47	27° $\text{♁}$ 42'15	9.34189 AU
max. Earth dist.	-12605 Apr 20 j 14:32	27° $\text{♁}$ 47'58	10.95346 AU	direct	-12599 Feb 25 j 11:18	24° $\text{♁}$ 26'56	
morning rise	-12605 May 07 j 12:16	29° $\text{♁}$ 46'17			-12599 May 26 j 19:45	0° $\text{♁}$	
	-12605 May 09 j 12:09	0° $\text{♁}$		evening set	-12599 Jun 07 j 14:50	1° $\text{♁}$ 17'21	
retrograde	-12605 Aug 13 j 20:52	6° $\text{♁}$ 40'00		max. Earth dist.	-12599 Jun 23 j 04:35	3° $\text{♁}$ 03'15	11.33050 AU
opposition	-12605 Oct 21 j 03:15	3° $\text{♁}$ 22'22	-1°56'51	conjunction	-12599 Jun 24 j 06:06	3° $\text{♁}$ 10'32	0°48'52
min. Earth dist.	-12605 Oct 21 j 01:08	3° $\text{♁}$ 22'46	9.02286 AU	minimum elong	-12599 Jun 24 j 06:04	3° $\text{♁}$ 10'31	0°48'54
	-12605 Dec 25 j 13:36	30° $\text{♁}$		morning rise	-12599 Jul 10 j 18:27	5° $\text{♁}$ 03'00	
direct	-12605 Dec 31 j 07:00	29° $\text{♁}$ 58'25		retrograde	-12599 Oct 17 j 07:25	11° $\text{♁}$ 42'14	
	-12604 Jan 06 j 01:05	0° $\text{♁}$		opposition	-12599 Dec 26 j 16:37	8° $\text{♁}$ 27'50	1°14'41
evening set	-12604 Apr 13 j 21:49	7° $\text{♁}$ 10'06		min. Earth dist.	-12599 Dec 27 j 15:41	8° $\text{♁}$ 23'39	9.31197 AU
conjunction	-12604 May 01 j 04:08	9° $\text{♁}$ 09'25	-1°23'50	direct	-12598 Mar 08 j 19:33	5° $\text{♁}$ 09'11	
minimum elong	-12604 May 01 j 04:11	9° $\text{♁}$ 09'26	1°24'28	evening set	-12598 Jun 18 j 11:22	12° $\text{♁}$ 00'25	
max. Earth dist.	-12604 May 01 j 03:29	9° $\text{♁}$ 09'13	11.08646 AU	max. Earth dist.	-12598 Jul 03 j 20:52	13° $\text{♁}$ 45'48	11.28428 AU
morning rise	-12604 May 18 j 05:14	11° $\text{♁}$ 07'14		conjunction	-12598 Jul 05 j 00:18	13° $\text{♁}$ 53'41	1°13'55
	-12604 Jun 24 j 19:54	15° $\text{♁}$		minimum elong	-12598 Jul 05 j 00:15	13° $\text{♁}$ 53'40	1°14'05
retrograde	-12604 Aug 24 j 00:48	17° $\text{♁}$ 52'51		morning rise	-12598 Jul 21 j 10:51	15° $\text{♁}$ 46'26	
	-12604 Oct 26 j 13:19	15° $\text{♁}$		retrograde	-12598 Oct 28 j 17:43	22° $\text{♁}$ 31'01	
opposition	-12604 Oct 31 j 18:26	14° $\text{♁}$ 36'37	-1°27'54	opposition	-12597 Jan 07 j 06:50	19° $\text{♁}$ 15'50	1°44'02
min. Earth dist.	-12604 Oct 31 j 21:34	14° $\text{♁}$ 36'02	9.14404 AU	min. Earth dist.	-12597 Jan 08 j 07:56	19° $\text{♁}$ 11'17	9.25019 AU
direct	-12603 Jan 11 j 09:39	11° $\text{♁}$ 13'53		direct	-12597 Mar 20 j 02:11	15° $\text{♁}$ 57'22	
	-12603 Mar 24 j 23:08	15° $\text{♁}$		evening set	-12597 Jun 29 j 10:04	22° $\text{♁}$ 51'08	
evening set	-12603 Apr 25 j 11:58	18° $\text{♁}$ 18'01					
conjunction	-12603 May 12 j 15:05	20° $\text{♁}$ 15'15	-0°59'03	conjunction	-12597 Jul 15 j 20:55	24° $\text{♁}$ 44'56	1°36'36
minimum elong	-12603 May 12 j 15:08	20° $\text{♁}$ 15'16	0°59'35	minimum elong	-12597 Jul 15 j 20:52	24° $\text{♁}$ 44'56	1°36'55
max. Earth dist.	-12603 May 12 j 07:56	20° $\text{♁}$ 13'12	11.19501 AU	max. Earth dist.	-12597 Jul 14 j 14:51	24° $\text{♁}$ 36'13	11.20681 AU
morning rise	-12603 May 29 j 13:16	22° $\text{♁}$ 11'06		morning rise	-12597 Aug 01 j 06:21	26° $\text{♁}$ 38'30	
retrograde	-12603 Sep 04 j 03:14	28° $\text{♁}$ 50'57			-12597 Sep 02 j 01:43	0° $\text{♁}$	
opposition	-12603 Nov 12 j 05:26	25° $\text{♁}$ 35'48	-0°56'23	retrograde	-12597 Nov 09 j 09:03	3° $\text{♁}$ 30'29	
min. Earth dist.	-12603 Nov 12 j 12:52	25° $\text{♁}$ 34'25	9.23894 AU	opposition	-12596 Jan 19 j 01:59	0° $\text{♁}$ 14'12	2°10'08
direct	-12602 Jan 23 j 06:19	22° $\text{♁}$ 14'13		min. Earth dist.	-12596 Jan 20 j 05:18	0° $\text{♁}$ 09'13	9.15791 AU
evening set	-12602 May 06 j 18:46	29° $\text{♁}$ 12'21			-12596 Jan 22 j 07:47	30° $\text{♁}$	
	-12602 May 13 j 20:15	0° $\text{♁}$		direct	-12596 Mar 30 j 11:02	26° $\text{♁}$ 55'36	
					-12596 Jun 02 j 05:36	0° $\text{♁}$	

## Planetary Phenomena of Saturn from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 26

Attention, astronomical year style is used: The year -12596 in astronomical counting style is the year 12597 BCE in historical counting style.

evening set	-12596 Jul 09 j 12:29	3° <b>8</b> 53'41		conjunction	-12590 Oct 07 j 11:32	20° <b>0</b> 07'34	1°57'51
				minimum elong	-12590 Oct 07 j 11:36	20° <b>0</b> 07'35	1°58'35
conjunction	-12596 Jul 25 j 21:50	5° <b>8</b> 48'32	1°56'05	max. Earth dist.	-12590 Oct 07 j 01:11	20° <b>0</b> 04'10	10.12042 AU
minimum elong	-12596 Jul 25 j 21:47	5° <b>8</b> 48'31	1°56'33	morning rise	-12590 Oct 24 j 16:53	22° <b>0</b> 22'00	
max. Earth dist.	-12596 Jul 24 j 13:50	5° <b>8</b> 39'07	11.09987 AU		-12589 Jan 10 j 14:56	0° <b>0</b>	
morning rise	-12596 Aug 11 j 06:57	7° <b>8</b> 43'25		retrograde	-12589 Feb 09 j 13:08	0° <b>0</b> 46'43	
retrograde	-12596 Nov 20 j 09:17	14° <b>8</b> 44'55			-12589 Mar 11 j 18:36	30° <b>0</b> 07'35	
opposition	-12595 Jan 30 j 03:51	11° <b>8</b> 27'12	2°32'00	opposition	-12589 Apr 19 j 17:37	27° <b>0</b> 16'57	2°12'40
min. Earth dist.	-12595 Jan 31 j 08:09	11° <b>8</b> 22'00	9.03731 AU	min. Earth dist.	-12589 Apr 19 j 23:03	27° <b>0</b> 15'52	8.04448 AU
direct	-12595 Apr 11 j 01:21	8° <b>8</b> 08'17		direct	-12589 Jun 25 j 10:01	23° <b>0</b> 52'23	
	-12595 Jul 19 j 01:49	15° <b>8</b>			-12589 Sep 19 j 12:04	0° <b>0</b>	
evening set	-12595 Jul 20 j 20:15	15° <b>8</b> 12'21		evening set	-12589 Oct 04 j 14:14	1° <b>0</b> 54'49	
max. Earth dist.	-12595 Aug 04 j 21:39	16° <b>8</b> 59'25	10.96635 AU				
				conjunction	-12589 Oct 21 j 20:45	4° <b>0</b> 11'35	1°33'15
conjunction	-12595 Aug 06 j 05:06	17° <b>8</b> 08'49	2°11'31	minimum elong	-12589 Oct 21 j 20:50	4° <b>0</b> 11'37	1°33'54
minimum elong	-12595 Aug 06 j 05:03	17° <b>8</b> 08'48	2°12'06	max. Earth dist.	-12589 Oct 21 j 18:50	4° <b>0</b> 10'57	9.97453 AU
morning rise	-12595 Aug 22 j 14:36	19° <b>8</b> 05'37		morning rise	-12589 Nov 08 j 08:53	6° <b>0</b> 30'16	
retrograde	-12595 Dec 02 j 19:37	26° <b>8</b> 18'40			-12588 Feb 13 j 15:05	15° <b>0</b>	
opposition	-12594 Feb 11 j 13:40	22° <b>8</b> 59'12	2°48'31	retrograde	-12588 Feb 24 j 21:15	15° <b>0</b> 06'50	
min. Earth dist.	-12594 Feb 12 j 16:44	22° <b>8</b> 54'11	8.89226 AU		-12588 Mar 07 j 03:37	15° <b>0</b> 07'35	
direct	-12594 Apr 22 j 20:59	19° <b>8</b> 39'47		opposition	-12588 May 03 j 12:54	11° <b>0</b> 35'24	1°37'53
evening set	-12594 Aug 01 j 11:32	26° <b>8</b> 51'23		min. Earth dist.	-12588 May 03 j 11:06	11° <b>0</b> 35'46	7.91219 AU
				direct	-12588 Jul 08 j 15:06	8° <b>0</b> 09'36	
conjunction	-12594 Aug 17 j 20:58	28° <b>8</b> 50'04	2°22'00		-12588 Oct 07 j 18:39	15° <b>0</b>	
minimum elong	-12594 Aug 17 j 20:56	28° <b>8</b> 50'03	2°22'40	evening set	-12588 Oct 18 j 06:50	16° <b>0</b> 21'38	
max. Earth dist.	-12594 Aug 16 j 15:20	28° <b>8</b> 41'03	10.81116 AU				
	-12594 Aug 27 j 11:23	0° <b>0</b>		conjunction	-12588 Nov 04 j 20:02	18° <b>0</b> 42'11	1°02'10
morning rise	-12594 Sep 03 j 07:52	0° <b>0</b> 49'22		minimum elong	-12588 Nov 04 j 20:05	18° <b>0</b> 42'12	1°02'42
retrograde	-12594 Dec 15 j 19:02	8° <b>0</b> 15'36		max. Earth dist.	-12588 Nov 05 j 02:50	18° <b>0</b> 44'29	9.85839 AU
opposition	-12593 Feb 24 j 08:28	4° <b>0</b> 54'12	2°58'31	morning rise	-12588 Nov 22 j 14:54	21° <b>0</b> 04'39	
min. Earth dist.	-12593 Feb 25 j 09:05	4° <b>0</b> 49'35	8.72858 AU	retrograde	-12587 Mar 11 j 11:22	29° <b>0</b> 49'52	
direct	-12593 May 04 j 23:40	1° <b>0</b> 34'03		opposition	-12587 May 18 j 14:11	26° <b>0</b> 17'09	0°55'43
evening set	-12593 Aug 13 j 12:02	8° <b>0</b> 54'32		min. Earth dist.	-12587 May 18 j 05:19	26° <b>0</b> 18'59	7.81411 AU
				direct	-12587 Jul 23 j 05:54	22° <b>0</b> 50'11	
conjunction	-12593 Aug 29 j 23:07	10° <b>0</b> 56'00	2°26'36		-12587 Oct 24 j 13:18	0° <b>0</b>	
minimum elong	-12593 Aug 29 j 23:07	10° <b>0</b> 56'00	2°27'21	evening set	-12587 Nov 02 j 12:01	1° <b>0</b> 10'11	
max. Earth dist.	-12593 Aug 28 j 19:45	10° <b>0</b> 47'31	10.64088 AU				
morning rise	-12593 Sep 15 j 12:47	12° <b>0</b> 58'24		conjunction	-12587 Nov 20 j 07:25	3° <b>0</b> 33'46	0°26'23
retrograde	-12593 Dec 29 j 05:38	20° <b>0</b> 39'02		minimum elong	-12587 Nov 20 j 07:27	3° <b>0</b> 33'47	0°26'44
opposition	-12592 Mar 08 j 13:23	17° <b>0</b> 15'34	3°00'49	max. Earth dist.	-12587 Nov 20 j 22:31	3° <b>0</b> 38'52	9.78017 AU
min. Earth dist.	-12592 Mar 09 j 10:51	17° <b>0</b> 11'28	8.55333 AU	morning rise	-12587 Dec 08 j 08:14	5° <b>0</b> 59'08	
direct	-12592 May 16 j 09:20	13° <b>0</b> 54'30		retrograde	-12586 Mar 27 j 03:57	14° <b>0</b> 48'50	
evening set	-12592 Aug 24 j 23:14	21° <b>0</b> 24'54		opposition	-12586 Jun 02 j 18:42	11° <b>0</b> 15'23	0°08'56
				min. Earth dist.	-12586 Jun 02 j 03:45	11° <b>0</b> 18'31	7.75729 AU
conjunction	-12592 Sep 10 j 13:12	23° <b>0</b> 29'40	2°24'29	direct	-12586 Aug 07 j 04:32	7° <b>0</b> 47'22	
minimum elong	-12592 Sep 10 j 13:14	23° <b>0</b> 29'41	2°25'16	desc. node	-12586 Aug 11 j 14:22	7° <b>0</b> 48'31	
max. Earth dist.	-12592 Sep 09 j 13:26	23° <b>0</b> 22'10	10.46312 AU	evening set	-12586 Nov 18 j 03:21	16° <b>0</b> 13'02	
morning rise	-12592 Sep 27 j 06:59	25° <b>0</b> 35'43					
	-12592 Nov 05 j 07:27	0° <b>0</b>		conjunction	-12586 Dec 06 j 03:45	18° <b>0</b> 38'32	-0°11'42
retrograde	-12591 Jan 11 j 03:45	3° <b>0</b> 31'28		minimum elong	-12586 Dec 06 j 03:44	18° <b>0</b> 38'31	0°11'31
opposition	-12591 Mar 22 j 04:48	0° <b>0</b> 05'49	2°54'21	behind sun begin	-12586 Dec 05 j 22:30	18° <b>0</b> 36'46	
min. Earth dist.	-12591 Mar 22 j 22:17	0° <b>0</b> 02'26	8.37473 AU	behind sun end	-12586 Dec 06 j 08:57	18° <b>0</b> 40'17	
	-12591 Mar 23 j 10:48	30° <b>0</b> 07'35		max. Earth dist.	-12586 Dec 07 j 02:13	18° <b>0</b> 46'08	9.74563 AU
direct	-12591 May 29 j 06:57	26° <b>0</b> 43'40		morning rise	-12586 Dec 24 j 08:48	21° <b>0</b> 05'29	
	-12591 Jul 30 j 08:46	0° <b>0</b>		retrograde	-12585 Apr 11 j 18:43	29° <b>0</b> 55'01	
evening set	-12591 Sep 06 j 22:41	4° <b>0</b> 24'42		opposition	-12585 Jun 17 j 23:09	26° <b>0</b> 21'26	-0°38'53
				min. Earth dist.	-12585 Jun 17 j 03:26	26° <b>0</b> 25'36	7.74612 AU
conjunction	-12591 Sep 23 j 17:03	6° <b>0</b> 33'16	2°15'00	direct	-12585 Aug 22 j 08:17	22° <b>0</b> 52'32	
minimum elong	-12591 Sep 23 j 17:06	6° <b>0</b> 33'17	2°15'47		-12585 Nov 23 j 15:58	0° <b>0</b>	
max. Earth dist.	-12591 Sep 22 j 23:12	6° <b>0</b> 27'31	10.28652 AU	evening set	-12585 Dec 04 j 00:56	1° <b>0</b> 21'00	
morning rise	-12591 Oct 10 j 16:09	8° <b>0</b> 43'23					
retrograde	-12590 Jan 25 j 14:26	16° <b>0</b> 54'09		conjunction	-12585 Dec 22 j 04:37	3° <b>0</b> 47'03	-0°49'00
opposition	-12590 Apr 05 j 06:26	13° <b>0</b> 26'21	2°38'22	minimum elong	-12585 Dec 22 j 04:34	3° <b>0</b> 47'02	0°49'02
min. Earth dist.	-12590 Apr 05 j 18:32	13° <b>0</b> 23'58	8.20191 AU	max. Earth dist.	-12585 Dec 23 j 09:08	3° <b>0</b> 56'40	9.75758 AU
direct	-12590 Jun 11 j 15:34	10° <b>0</b> 03'01		morning rise	-12584 Jan 09 j 11:52	6° <b>0</b> 14'08	
evening set	-12590 Sep 20 j 11:27	17° <b>0</b> 54'54		retrograde	-12584 Apr 26 j 03:41	14° <b>0</b> 58'48	
				min. Earth dist.	-12584 Jul 01 j 01:17	11° <b>0</b> 30'36	7.78155 AU

Attention, astronomical year style is used: The year -12584 in astronomical counting style is the year 12585 BCE in historical counting style.

opposition	-12584 Jul 02 j 00:29	11° $\Omega$ 25'42	-1°23'52	conjunction	-12577 Apr 02 j 13:58	10° $\mathfrak{Z}$ 41'38	-2°11'02
direct	-12584 Sep 05 j 14:06	7° $\Omega$ 56'10		minimum elong	-12577 Apr 02 j 14:01	10° $\mathfrak{Z}$ 41'39	2°11'48
evening set	-12584 Dec 19 j 00:07	16° $\Omega$ 24'14		max. Earth dist.	-12577 Apr 03 j 06:07	10° $\mathfrak{Z}$ 46'29	10.73263 AU
				morning rise	-12577 Apr 19 j 23:33	12° $\mathfrak{Z}$ 46'12	
conjunction	-12583 Jan 06 j 05:14	18° $\Omega$ 49'27	-1°22'45	retrograde	-12577 Jul 28 j 09:41	19° $\mathfrak{Z}$ 55'39	
minimum elong	-12583 Jan 06 j 05:09	18° $\Omega$ 49'25	1°22'59	opposition	-12577 Oct 04 j 02:56	16° $\mathfrak{Z}$ 35'57	-2°31'57
max. Earth dist.	-12583 Jan 07 j 13:49	19° $\Omega$ 00'20	9.81518 AU	min. Earth dist.	-12577 Oct 03 j 16:48	16° $\mathfrak{Z}$ 37'55	8.81664 AU
morning rise	-12583 Jan 24 j 12:30	21° $\Omega$ 15'11		direct	-12577 Dec 13 j 09:55	13° $\mathfrak{Z}$ 10'43	
retrograde	-12583 May 11 j 03:44	29° $\Omega$ 50'47		evening set	-12576 Mar 27 j 16:26	20° $\mathfrak{Z}$ 35'57	
opposition	-12583 Jul 16 j 19:43	26° $\Omega$ 18'44	-2°02'29				
min. Earth dist.	-12583 Jul 15 j 18:30	26° $\Omega$ 24'03	7.86078 AU	conjunction	-12576 Apr 14 j 03:24	22° $\mathfrak{Z}$ 38'55	-1°54'50
direct	-12583 Sep 20 j 19:14	22° $\Omega$ 48'54		minimum elong	-12576 Apr 14 j 03:27	22° $\mathfrak{Z}$ 38'56	1°55'34
	-12583 Dec 25 j 06:06	0° $\mathfrak{M}$		max. Earth dist.	-12576 Apr 14 j 12:20	22° $\mathfrak{Z}$ 41'33	10.89595 AU
evening set	-12582 Jan 03 j 20:14	1° $\mathfrak{M}$ 13'21		morning rise	-12576 May 01 j 09:24	24° $\mathfrak{Z}$ 40'22	
					-12576 Jun 24 j 19:38	0° $\approx$	
conjunction	-12582 Jan 22 j 00:58	3° $\mathfrak{M}$ 36'30	-1°50'29	retrograde	-12576 Aug 08 j 00:59	1° $\approx$ 38'28	
minimum elong	-12582 Jan 22 j 00:53	3° $\mathfrak{M}$ 36'29	1°50'55		-12576 Sep 22 j 09:03	30° $\mathfrak{R}$ $\mathfrak{Z}$	
max. Earth dist.	-12582 Jan 23 j 11:20	3° $\mathfrak{M}$ 47'51	9.91400 AU	opposition	-12576 Oct 15 j 03:02	28° $\mathfrak{Z}$ 20'34	-2°08'56
morning rise	-12582 Feb 09 j 06:18	5° $\mathfrak{M}$ 59'40		min. Earth dist.	-12576 Oct 14 j 21:47	28° $\mathfrak{Z}$ 21'34	8.97093 AU
retrograde	-12582 May 25 j 16:17	14° $\mathfrak{M}$ 22'51		direct	-12576 Dec 25 j 01:15	24° $\mathfrak{Z}$ 56'35	
min. Earth dist.	-12582 Jul 30 j 04:26	10° $\mathfrak{M}$ 57'48	7.97786 AU		-12575 Mar 19 j 19:55	0° $\approx$	
opposition	-12582 Jul 31 j 06:26	10° $\mathfrak{M}$ 52'23	-2°32'10	evening set	-12575 Apr 08 j 21:08	2° $\approx$ 12'08	
direct	-12582 Oct 05 j 20:09	7° $\mathfrak{M}$ 22'37					
	-12581 Jan 14 j 00:02	15° $\mathfrak{M}$		conjunction	-12575 Apr 26 j 04:59	4° $\approx$ 12'27	-1°34'22
evening set	-12581 Jan 19 j 08:32	15° $\mathfrak{M}$ 40'32		minimum elong	-12575 Apr 26 j 05:02	4° $\approx$ 12'28	1°35'02
				max. Earth dist.	-12575 Apr 26 j 07:30	4° $\approx$ 13'11	11.04002 AU
conjunction	-12581 Feb 06 j 11:30	18° $\mathfrak{M}$ 00'44	-2°10'37	morning rise	-12575 May 13 j 07:33	6° $\approx$ 11'15	
minimum elong	-12581 Feb 06 j 11:26	18° $\mathfrak{M}$ 00'43	2°11'11	retrograde	-12575 Aug 19 j 09:17	13° $\approx$ 00'12	
max. Earth dist.	-12581 Feb 07 j 21:40	18° $\mathfrak{M}$ 11'50	10.04695 AU	opposition	-12575 Oct 26 j 20:54	9° $\approx$ 43'50	-1°41'33
morning rise	-12581 Feb 24 j 13:31	20° $\mathfrak{M}$ 20'29		min. Earth dist.	-12575 Oct 26 j 20:59	9° $\approx$ 43'49	9.10304 AU
retrograde	-12581 Jun 08 j 15:58	28° $\mathfrak{M}$ 29'06		direct	-12574 Jan 06 j 07:19	6° $\approx$ 21'03	
min. Earth dist.	-12581 Aug 13 j 05:41	25° $\mathfrak{M}$ 05'52	8.12461 AU	evening set	-12574 Apr 20 j 15:35	13° $\approx$ 28'20	
opposition	-12581 Aug 14 j 07:21	25° $\mathfrak{M}$ 00'34	-2°51'31		-12574 May 04 j 00:38	15° $\approx$	
direct	-12581 Oct 20 j 13:59	21° $\mathfrak{M}$ 31'15					
evening set	-12580 Feb 03 j 09:17	29° $\mathfrak{M}$ 40'16		conjunction	-12574 May 07 j 20:18	15° $\approx$ 26'25	-1°10'42
	-12580 Feb 06 j 00:25	0° $\mathfrak{X}$		minimum elong	-12574 May 07 j 20:21	15° $\approx$ 26'26	1°11'16
conjunction	-12580 Feb 21 j 09:37	1° $\mathfrak{X}$ 56'59	-2°22'23	max. Earth dist.	-12574 May 07 j 16:41	15° $\approx$ 25'22	11.15944 AU
minimum elong	-12580 Feb 21 j 09:34	1° $\mathfrak{X}$ 56'58	2°23'04	morning rise	-12574 May 24 j 19:39	17° $\approx$ 23'02	
max. Earth dist.	-12580 Feb 22 j 17:59	2° $\mathfrak{X}$ 07'17	10.20507 AU	retrograde	-12574 Aug 30 j 13:30	24° $\approx$ 05'10	
morning rise	-12580 Mar 10 j 07:34	4° $\mathfrak{X}$ 12'51		opposition	-12574 Nov 07 j 10:02	20° $\approx$ 50'00	-1°11'04
retrograde	-12580 Jun 21 j 02:22	12° $\mathfrak{X}$ 05'55		min. Earth dist.	-12574 Nov 07 j 16:08	20° $\approx$ 48'52	9.20880 AU
opposition	-12580 Aug 26 j 21:33	8° $\mathfrak{X}$ 39'33	-3°00'17	direct	-12573 Jan 18 j 05:40	17° $\approx$ 28'20	
min. Earth dist.	-12580 Aug 25 j 21:59	8° $\mathfrak{X}$ 44'21	8.29149 AU	evening set	-12573 May 02 j 01:56	24° $\approx$ 28'55	
direct	-12580 Nov 02 j 22:28	5° $\mathfrak{X}$ 10'59					
evening set	-12579 Feb 16 j 20:39	13° $\mathfrak{X}$ 09'32		conjunction	-12573 May 19 j 03:26	26° $\approx$ 25'11	-0°44'51
				minimum elong	-12573 May 19 j 03:27	26° $\approx$ 25'12	0°45'19
conjunction	-12579 Mar 06 j 17:49	15° $\mathfrak{X}$ 22'36	-2°25'53	max. Earth dist.	-12573 May 18 j 16:50	26° $\approx$ 22'10	11.25098 AU
minimum elong	-12579 Mar 06 j 17:49	15° $\mathfrak{X}$ 22'35	2°26'38	morning rise	-12573 Jun 04 j 24:00	28° $\approx$ 20'06	
max. Earth dist.	-12579 Mar 07 j 22:27	15° $\mathfrak{X}$ 31'32	10.37848 AU		-12573 Jun 20 j 07:22	0° $\mathfrak{H}$	
morning rise	-12579 Mar 24 j 11:27	17° $\mathfrak{X}$ 34'29		retrograde	-12573 Sep 10 j 12:16	4° $\mathfrak{H}$ 57'39	
retrograde	-12579 Jul 04 j 01:16	25° $\mathfrak{X}$ 11'57		opposition	-12573 Nov 18 j 19:40	1° $\mathfrak{H}$ 43'18	-0°38'38
min. Earth dist.	-12579 Sep 08 j 05:14	21° $\mathfrak{X}$ 51'53	8.46862 AU	min. Earth dist.	-12573 Nov 19 j 07:04	1° $\mathfrak{H}$ 41'12	9.28562 AU
opposition	-12579 Sep 09 j 01:03	21° $\mathfrak{X}$ 47'54	-2°59'06		-12573 Dec 13 j 10:22	30° $\mathfrak{R}$ $\approx$	
direct	-12579 Nov 16 j 19:40	18° $\mathfrak{X}$ 20'18		direct	-12572 Jan 29 j 21:23	28° $\approx$ 22'33	
evening set	-12578 Mar 02 j 17:31	26° $\mathfrak{X}$ 07'38			-12572 Mar 16 j 11:22	0° $\mathfrak{H}$	
				evening set	-12572 May 12 j 05:52	5° $\mathfrak{H}$ 18'06	
conjunction	-12578 Mar 20 j 11:16	28° $\mathfrak{X}$ 17'04	-2°21'46	max. Earth dist.	-12572 May 28 j 11:51	7° $\mathfrak{H}$ 08'18	11.31245 AU
minimum elong	-12578 Mar 20 j 11:17	28° $\mathfrak{X}$ 17'04	2°22'32				
max. Earth dist.	-12578 Mar 21 j 10:26	28° $\mathfrak{X}$ 24'09	10.55738 AU	conjunction	-12572 May 29 j 04:17	7° $\mathfrak{H}$ 12'58	-0°17'47
	-12578 Apr 03 j 13:05	0° $\mathfrak{Z}$		minimum elong	-12572 May 29 j 04:18	7° $\mathfrak{H}$ 12'58	0°18'06
morning rise	-12578 Apr 07 j 00:41	0° $\mathfrak{Z}$ 25'08		morning rise	-12572 Jun 14 j 22:17	9° $\mathfrak{H}$ 06'38	
retrograde	-12578 Jul 16 j 11:20	7° $\mathfrak{Z}$ 47'50		retrograde	-12572 Sep 20 j 12:04	15° $\mathfrak{H}$ 41'54	
opposition	-12578 Sep 21 j 18:38	4° $\mathfrak{Z}$ 26'03	-2°49'10	opposition	-12572 Nov 29 j 03:34	12° $\mathfrak{H}$ 27'56	-0°05'18
min. Earth dist.	-12578 Sep 21 j 03:41	4° $\mathfrak{Z}$ 29'00	8.64658 AU	min. Earth dist.	-12572 Nov 29 j 18:53	12° $\mathfrak{H}$ 25'08	9.33145 AU
direct	-12578 Nov 30 j 07:32	0° $\mathfrak{Z}$ 59'36		asc. node	-12571 Jan 26 j 22:35	9° $\mathfrak{H}$ 16'21	
evening set	-12577 Mar 15 j 23:43	8° $\mathfrak{Z}$ 35'37		direct	-12571 Feb 09 j 11:00	9° $\mathfrak{H}$ 07'56	
				evening set	-12571 May 23 j 05:16	16° $\mathfrak{H}$ 00'06	

Attention, astronomical year style is used: The year -12571 in astronomical counting style is the year 12572 BCE in historical counting style.

max. Earth dist.	-12571 Jun 08 j 04:35	17° $\text{K}$ 48'15	11.34219 AU	conjunction	-12565 Aug 12 j 20:01	23° $\text{B}$ 35'57	2°17'50
				minimum elong	-12565 Aug 12 j 19:58	23° $\text{B}$ 35'56	2°18'28
conjunction	-12571 Jun 09 j 00:48	17° $\text{K}$ 53'59	0°09'44	max. Earth dist.	-12565 Aug 11 j 13:01	23° $\text{B}$ 26'36	10.87913 AU
minimum elong	-12571 Jun 09 j 00:47	17° $\text{K}$ 53'59	0°09'34	morning rise	-12565 Aug 29 j 06:13	25° $\text{B}$ 34'02	
behind sun begin	-12571 Jun 08 j 18:59	17° $\text{K}$ 52'21			-12565 Oct 10 j 00:47	0° $\text{II}$	
behind sun end	-12571 Jun 09 j 06:36	17° $\text{K}$ 55'37		retrograde	-12565 Dec 10 j 01:25	2° $\text{II}$ 53'40	
morning rise	-12571 Jun 25 j 16:12	19° $\text{K}$ 46'49			-12564 Feb 12 j 16:36	30° $\text{R}$ 8	
retrograde	-12571 Oct 01 j 12:17	26° $\text{K}$ 22'02		opposition	-12564 Feb 18 j 18:21	29° $\text{B}$ 32'49	2°54'49
opposition	-12571 Dec 10 j 11:24	23° $\text{K}$ 08'04	0°27'59	min. Earth dist.	-12564 Feb 19 j 20:25	29° $\text{B}$ 27'56	8.80174 AU
min. Earth dist.	-12571 Dec 11 j 06:24	23° $\text{K}$ 04'36	9.34517 AU	direct	-12564 Apr 28 j 17:47	26° $\text{B}$ 12'37	
direct	-12570 Feb 20 j 18:32	19° $\text{K}$ 48'39			-12564 Jul 07 j 02:33	0° $\text{II}$	
evening set	-12570 Jun 03 j 02:10	26° $\text{K}$ 39'07		evening set	-12564 Aug 07 j 06:30	3° $\text{II}$ 28'39	
conjunction	-12570 Jun 19 j 18:50	28° $\text{K}$ 32'26	0°36'45	conjunction	-12564 Aug 23 j 16:32	5° $\text{II}$ 28'43	2°25'18
minimum elong	-12570 Jun 19 j 18:49	28° $\text{K}$ 32'26	0°36'43	minimum elong	-12564 Aug 23 j 16:31	5° $\text{II}$ 28'42	2°26'01
max. Earth dist.	-12570 Jun 18 j 18:36	28° $\text{K}$ 25'32	11.33956 AU	max. Earth dist.	-12564 Aug 22 j 12:20	5° $\text{II}$ 20'03	10.71847 AU
	-12570 Jul 02 j 15:08	0° $\text{Y}$		morning rise	-12564 Sep 09 j 04:48	7° $\text{II}$ 29'35	
morning rise	-12570 Jul 06 j 08:00	0° $\text{Y}$ 24'55		retrograde	-12564 Dec 22 j 05:24	15° $\text{II}$ 03'02	
retrograde	-12570 Oct 12 j 14:35	7° $\text{Y}$ 02'17		opposition	-12563 Mar 02 j 18:00	11° $\text{II}$ 40'15	3°00'52
opposition	-12570 Dec 21 j 20:34	3° $\text{Y}$ 47'56	1°00'19	min. Earth dist.	-12563 Mar 03 j 16:57	11° $\text{II}$ 35'54	8.63470 AU
min. Earth dist.	-12570 Dec 22 j 19:30	3° $\text{Y}$ 43'46	9.32666 AU	direct	-12563 May 10 j 23:54	8° $\text{II}$ 19'22	
direct	-12569 Mar 04 j 01:08	0° $\text{Y}$ 28'50		evening set	-12563 Aug 19 j 11:48	15° $\text{II}$ 44'46	
evening set	-12569 Jun 13 j 22:14	7° $\text{Y}$ 19'23		max. Earth dist.	-12563 Sep 04 j 00:26	17° $\text{II}$ 40'24	10.54702 AU
max. Earth dist.	-12569 Jun 29 j 07:58	9° $\text{Y}$ 04'29	11.30483 AU	conjunction	-12563 Sep 05 j 00:18	17° $\text{II}$ 47'53	2°26'27
conjunction	-12569 Jun 30 j 12:11	9° $\text{Y}$ 12'34	1°02'35	minimum elong	-12563 Sep 05 j 00:19	17° $\text{II}$ 47'53	2°27'12
minimum elong	-12569 Jun 30 j 12:09	9° $\text{Y}$ 12'34	1°02'41	morning rise	-12563 Sep 21 j 15:51	19° $\text{II}$ 52'05	
morning rise	-12569 Jul 16 j 23:38	11° $\text{Y}$ 05'09		retrograde	-12562 Jan 04 j 22:01	27° $\text{II}$ 40'23	
retrograde	-12569 Oct 23 j 19:44	17° $\text{Y}$ 46'50		opposition	-12562 Mar 16 j 03:57	24° $\text{II}$ 15'36	2°58'38
opposition	-12568 Jan 02 j 08:31	14° $\text{Y}$ 31'45	1°30'48	min. Earth dist.	-12562 Mar 16 j 22:20	24° $\text{II}$ 12'03	8.46046 AU
min. Earth dist.	-12568 Jan 03 j 10:23	14° $\text{Y}$ 27'03	9.27643 AU	direct	-12562 May 23 j 16:04	20° $\text{II}$ 53'54	
direct	-12568 Mar 14 j 07:42	11° $\text{Y}$ 12'47		evening set	-12562 Sep 01 j 05:00	28° $\text{II}$ 29'35	
evening set	-12568 Jun 23 j 19:20	18° $\text{Y}$ 05'09			-12562 Sep 13 j 03:27	0° $\text{B}$	
max. Earth dist.	-12568 Jul 09 j 00:56	19° $\text{Y}$ 49'57	11.23896 AU	conjunction	-12562 Sep 17 j 21:12	0° $\text{B}$ 36'15	2°20'29
conjunction	-12568 Jul 10 j 07:02	19° $\text{Y}$ 58'40	1°26'26	minimum elong	-12562 Sep 17 j 21:14	0° $\text{B}$ 36'16	2°21'16
minimum elong	-12568 Jul 10 j 06:59	19° $\text{Y}$ 58'39	1°26'41	max. Earth dist.	-12562 Sep 17 j 02:09	0° $\text{B}$ 30'10	10.37247 AU
morning rise	-12568 Jul 26 j 17:04	21° $\text{Y}$ 51'49		morning rise	-12562 Oct 04 j 17:25	2° $\text{B}$ 44'18	
retrograde	-12568 Nov 03 j 07:56	28° $\text{Y}$ 40'01		retrograde	-12561 Jan 19 j 04:05	10° $\text{B}$ 47'42	
opposition	-12567 Jan 13 j 00:43	25° $\text{Y}$ 23'51	1°58'31	opposition	-12561 Mar 30 j 00:18	7° $\text{B}$ 20'57	2°47'10
min. Earth dist.	-12567 Jan 14 j 03:32	25° $\text{Y}$ 18'57	9.19587 AU	min. Earth dist.	-12561 Mar 30 j 13:25	7° $\text{B}$ 18'23	8.28736 AU
direct	-12567 Mar 25 j 16:44	22° $\text{Y}$ 04'50		direct	-12561 Jun 05 j 17:35	3° $\text{B}$ 58'19	
evening set	-12567 Jul 04 j 19:15	29° $\text{Y}$ 00'43		evening set	-12561 Sep 14 j 11:11	11° $\text{B}$ 44'46	
	-12567 Jul 13 j 08:45	0° $\text{B}$		conjunction	-12561 Oct 01 j 08:18	13° $\text{B}$ 55'22	2°06'57
max. Earth dist.	-12567 Jul 19 j 22:45	0° $\text{B}$ 46'07	11.14390 AU	minimum elong	-12561 Oct 01 j 08:22	13° $\text{B}$ 55'24	2°07'42
conjunction	-12567 Jul 21 j 05:22	0° $\text{B}$ 55'04	1°47'30	max. Earth dist.	-12561 Sep 30 j 18:56	13° $\text{B}$ 51'02	10.20371 AU
minimum elong	-12567 Jul 21 j 05:19	0° $\text{B}$ 55'03	1°47'54	morning rise	-12561 Oct 18 j 10:26	16° $\text{B}$ 07'39	
morning rise	-12567 Aug 06 j 14:28	2° $\text{B}$ 49'17		retrograde	-12560 Feb 02 j 22:17	24° $\text{B}$ 25'35	
retrograde	-12567 Nov 15 j 05:14	9° $\text{B}$ 46'04		opposition	-12560 Apr 12 j 07:00	20° $\text{B}$ 56'59	2°26'00
opposition	-12566 Jan 24 j 22:57	6° $\text{B}$ 28'34	2°22'29	min. Earth dist.	-12560 Apr 12 j 14:28	20° $\text{B}$ 55'29	8.12477 AU
min. Earth dist.	-12566 Jan 26 j 01:59	6° $\text{B}$ 23'36	9.08745 AU	direct	-12560 Jun 18 j 05:41	17° $\text{B}$ 33'19	
direct	-12566 Apr 06 j 03:39	3° $\text{B}$ 09'20		evening set	-12560 Sep 27 j 07:04	25° $\text{B}$ 30'30	
evening set	-12566 Jul 15 j 23:53	10° $\text{B}$ 10'23		conjunction	-12560 Oct 14 j 10:11	27° $\text{B}$ 45'11	1°45'46
max. Earth dist.	-12566 Jul 31 j 01:42	11° $\text{B}$ 56'48	11.02263 AU	minimum elong	-12560 Oct 14 j 10:15	27° $\text{B}$ 45'12	1°46'28
conjunction	-12566 Aug 01 j 08:58	12° $\text{B}$ 06'04	2°04'56	max. Earth dist.	-12560 Oct 14 j 04:06	27° $\text{B}$ 43'10	10.05036 AU
minimum elong	-12566 Aug 01 j 08:55	12° $\text{B}$ 06'03	2°05'27	morning rise	-12560 Oct 31 j 19:03	0° $\text{B}$ 01'46	
morning rise	-12566 Aug 17 j 18:06	14° $\text{B}$ 01'57			-12560 Oct 31 j 13:35	0° $\text{B}$	
	-12566 Aug 26 j 04:39	15° $\text{B}$		retrograde	-12559 Feb 17 j 02:15	8° $\text{B}$ 32'38	
retrograde	-12566 Nov 27 j 09:32	21° $\text{B}$ 09'16		opposition	-12559 Apr 26 j 22:47	5° $\text{B}$ 02'23	1°55'20
opposition	-12565 Feb 06 j 04:28	17° $\text{B}$ 50'11	2°41'38	min. Earth dist.	-12559 Apr 27 j 00:02	5° $\text{B}$ 02'08	7.98254 AU
min. Earth dist.	-12565 Feb 07 j 07:33	17° $\text{B}$ 45'10	8.95457 AU	direct	-12559 Jul 02 j 06:13	1° $\text{B}$ 37'38	
	-12565 Mar 24 j 01:46	15° $\text{R}$ 8		evening set	-12559 Oct 11 j 17:10	9° $\text{B}$ 44'52	
direct	-12565 Apr 17 j 18:34	14° $\text{B}$ 30'33		conjunction	-12559 Oct 29 j 02:57	12° $\text{B}$ 03'30	1°17'33
	-12565 May 12 j 04:01	15° $\text{B}$		minimum elong	-12559 Oct 29 j 03:01	12° $\text{B}$ 03'32	1°18'08
evening set	-12565 Jul 27 j 11:06	21° $\text{B}$ 38'23					

Attention, astronomical year style is used: The year -12559 in astronomical counting style is the year 12560 BCE in historical counting style.

max. Earth dist.	-12559 Oct 29 j 05:12	12° $\Omega$ 04'16	9.92207 AU	max. Earth dist.	-12552 Feb 01 j 03:03	11° $\mathbb{M}$ 43'46	9.97858 AU
morning rise	-12559 Nov 15 j 18:44	14° $\Omega$ 24'06		morning rise	-12552 Feb 17 j 20:40	13° $\mathbb{M}$ 54'10	
	-12559 Nov 20 j 09:08	15° $\Omega$			-12552 Feb 26 j 12:59	15° $\mathbb{M}$	
retrograde	-12558 Mar 04 j 12:49	23° $\Omega$ 05'08		retrograde	-12552 Jun 01 j 16:29	22° $\mathbb{M}$ 10'37	
opposition	-12558 May 11 j 21:29	19° $\Omega$ 33'34	1°16'21	min. Earth dist.	-12552 Aug 06 j 04:44	18° $\mathbb{M}$ 46'26	8.04752 AU
min. Earth dist.	-12558 May 11 j 16:17	19° $\Omega$ 34'38	7.87002 AU	opposition	-12552 Aug 07 j 05:17	18° $\mathbb{M}$ 41'20	-2°43'52
direct	-12558 Jul 16 j 17:41	16° $\Omega$ 07'41		direct	-12552 Oct 13 j 02:20	15° $\mathbb{M}$ 11'55	
evening set	-12558 Oct 26 j 16:34	24° $\Omega$ 23'38		evening set	-12551 Jan 26 j 20:37	23° $\mathbb{M}$ 26'08	
conjunction	-12558 Nov 13 j 08:57	26° $\Omega$ 45'41	0°43'42	conjunction	-12551 Feb 13 j 22:16	25° $\mathbb{M}$ 44'43	-2°18'00
minimum elong	-12558 Nov 13 j 09:00	26° $\Omega$ 45'42	0°44'09	minimum elong	-12551 Feb 13 j 22:13	25° $\mathbb{M}$ 44'42	2°18'38
max. Earth dist.	-12558 Nov 13 j 19:58	26° $\Omega$ 49'24	9.82741 AU	max. Earth dist.	-12551 Feb 15 j 06:17	25° $\mathbb{M}$ 55'01	10.12040 AU
morning rise	-12558 Dec 01 j 07:04	29° $\Omega$ 09'36		morning rise	-12551 Mar 03 j 22:18	28° $\mathbb{M}$ 02'39	
	-12558 Dec 07 j 17:17	0° $\mathbb{M}$			-12551 Mar 19 j 21:28	0° $\mathbb{M}$	
retrograde	-12557 Mar 20 j 03:46	7° $\mathbb{M}$ 57'03		retrograde	-12551 Jun 15 j 09:28	6° $\mathbb{M}$ 03'58	
opposition	-12557 May 27 j 00:46	4° $\mathbb{M}$ 24'32	0°31'21	min. Earth dist.	-12551 Aug 20 j 02:38	2° $\mathbb{M}$ 41'17	8.20083 AU
min. Earth dist.	-12557 May 26 j 13:12	4° $\mathbb{M}$ 26'56	7.79479 AU	opposition	-12551 Aug 21 j 01:28	2° $\mathbb{M}$ 36'36	-2°57'38
direct	-12557 Jul 31 j 13:17	0° $\mathbb{M}$ 57'35			-12551 Sep 26 j 04:37	30° $\mathbb{R}$ $\mathbb{M}$	
evening set	-12557 Nov 11 j 03:09	9° $\mathbb{M}$ 20'12		direct	-12551 Oct 27 j 16:42	29° $\mathbb{M}$ 07'33	
conjunction	-12557 Nov 29 j 01:14	11° $\mathbb{M}$ 44'42	0°06'26		-12551 Nov 28 j 04:01	0° $\mathbb{M}$	
minimum elong	-12557 Nov 29 j 01:14	11° $\mathbb{M}$ 44'42	0°06'42	evening set	-12550 Feb 10 j 15:28	7° $\mathbb{M}$ 12'07	
behind sun begin	-12557 Nov 28 j 18:23	11° $\mathbb{M}$ 42'24		conjunction	-12550 Feb 28 j 14:06	9° $\mathbb{M}$ 27'07	-2°25'21
behind sun end	-12557 Nov 29 j 08:05	11° $\mathbb{M}$ 47'00		minimum elong	-12550 Feb 28 j 14:05	9° $\mathbb{M}$ 27'07	2°26'04
max. Earth dist.	-12557 Nov 29 j 20:29	11° $\mathbb{M}$ 51'12	9.77265 AU	max. Earth dist.	-12550 Mar 01 j 18:26	9° $\mathbb{M}$ 36'04	10.28279 AU
morning rise	-12557 Dec 17 j 04:21	14° $\mathbb{M}$ 10'49		morning rise	-12550 Mar 18 j 09:59	11° $\mathbb{M}$ 41'07	
desc. node	-12556 Feb 01 j 12:13	19° $\mathbb{M}$ 40'31		retrograde	-12550 Jun 28 j 13:42	19° $\mathbb{M}$ 26'48	
retrograde	-12556 Apr 03 j 19:17	23° $\mathbb{M}$ 00'21		opposition	-12550 Sep 03 j 10:46	16° $\mathbb{M}$ 01'29	-3°01'01
opposition	-12556 Jun 10 j 05:30	19° $\mathbb{M}$ 27'23	-0°16'26	min. Earth dist.	-12550 Sep 02 j 14:23	16° $\mathbb{M}$ 05'36	8.36965 AU
min. Earth dist.	-12556 Jun 09 j 12:14	19° $\mathbb{M}$ 31'00	7.76153 AU	direct	-12550 Nov 10 j 20:48	12° $\mathbb{M}$ 33'07	
direct	-12556 Aug 14 j 14:45	15° $\mathbb{M}$ 59'27		evening set	-12549 Feb 24 j 19:50	20° $\mathbb{M}$ 26'45	
evening set	-12556 Nov 25 j 22:02	24° $\mathbb{M}$ 26'17		conjunction	-12549 Mar 14 j 15:14	22° $\mathbb{M}$ 38'08	-2°24'40
conjunction	-12556 Dec 14 j 00:22	26° $\mathbb{M}$ 52'02	-0°31'39	minimum elong	-12549 Mar 14 j 15:15	22° $\mathbb{M}$ 38'08	2°25'27
minimum elong	-12556 Dec 14 j 00:20	26° $\mathbb{M}$ 52'02	0°31'35	max. Earth dist.	-12549 Mar 15 j 15:05	22° $\mathbb{M}$ 45'31	10.45598 AU
max. Earth dist.	-12556 Dec 15 j 02:10	27° $\mathbb{M}$ 00'45	9.76085 AU	morning rise	-12549 Apr 01 j 06:52	24° $\mathbb{M}$ 48'14	
morning rise	-12555 Jan 01 j 06:39	29° $\mathbb{M}$ 19'02			-12549 May 20 j 07:18	0° $\mathbb{M}$	
	-12555 Jan 06 j 11:35	0° $\mathbb{M}$		retrograde	-12549 Jul 11 j 05:26	2° $\mathbb{M}$ 18'42	
retrograde	-12555 Apr 19 j 07:46	8° $\mathbb{M}$ 06'08			-12549 Sep 02 j 15:56	30° $\mathbb{R}$ $\mathbb{M}$	
min. Earth dist.	-12555 Jun 24 j 11:04	4° $\mathbb{M}$ 37'50	7.77184 AU	opposition	-12549 Sep 16 j 09:31	28° $\mathbb{M}$ 55'29	-2°54'59
opposition	-12555 Jun 25 j 08:31	4° $\mathbb{M}$ 33'19	-1°03'12	min. Earth dist.	-12549 Sep 15 j 16:18	28° $\mathbb{M}$ 58'54	8.54441 AU
direct	-12555 Aug 29 j 19:00	1° $\mathbb{M}$ 04'37		direct	-12549 Nov 24 j 14:56	25° $\mathbb{M}$ 28'02	
evening set	-12555 Dec 11 j 21:13	9° $\mathbb{M}$ 32'56			-12548 Feb 10 j 04:13	0° $\mathbb{M}$	
conjunction	-12555 Dec 30 j 01:57	11° $\mathbb{M}$ 58'36	-1°07'27	evening set	-12548 Mar 09 j 09:18	3° $\mathbb{M}$ 10'18	
minimum elong	-12555 Dec 30 j 01:53	11° $\mathbb{M}$ 58'35	1°07'35	conjunction	-12548 Mar 27 j 01:27	5° $\mathbb{M}$ 18'11	-2°16'52
max. Earth dist.	-12555 Dec 31 j 08:32	12° $\mathbb{M}$ 08'53	9.79266 AU	minimum elong	-12548 Mar 27 j 01:29	5° $\mathbb{M}$ 18'12	2°17'38
morning rise	-12554 Jan 17 j 09:16	14° $\mathbb{M}$ 25'02		max. Earth dist.	-12548 Mar 27 j 20:19	5° $\mathbb{M}$ 23'55	10.63058 AU
retrograde	-12554 May 04 j 14:04	23° $\mathbb{M}$ 05'26		morning rise	-12548 Apr 13 j 12:59	7° $\mathbb{M}$ 24'38	
min. Earth dist.	-12554 Jul 09 j 07:02	19° $\mathbb{M}$ 38'25	7.82547 AU	retrograde	-12548 Jul 22 j 10:12	14° $\mathbb{M}$ 41'05	
opposition	-12554 Jul 10 j 07:13	19° $\mathbb{M}$ 33'19	-1°45'15	opposition	-12548 Sep 27 j 22:28	11° $\mathbb{M}$ 19'53	-2°40'56
direct	-12554 Sep 14 j 00:29	16° $\mathbb{M}$ 04'06		min. Earth dist.	-12548 Sep 27 j 09:45	11° $\mathbb{M}$ 22'23	8.71614 AU
evening set	-12554 Dec 27 j 19:52	24° $\mathbb{M}$ 30'45		direct	-12548 Dec 06 j 21:45	7° $\mathbb{M}$ 53'32	
conjunction	-12553 Jan 15 j 01:01	26° $\mathbb{M}$ 55'01	-1°38'19	evening set	-12547 Mar 22 j 08:47	15° $\mathbb{M}$ 24'42	
minimum elong	-12553 Jan 15 j 00:56	26° $\mathbb{M}$ 55'00	1°38'40	conjunction	-12547 Apr 08 j 21:37	17° $\mathbb{M}$ 29'21	-2°03'01
max. Earth dist.	-12553 Jan 16 j 10:31	27° $\mathbb{M}$ 06'09	9.86676 AU	minimum elong	-12547 Apr 08 j 21:40	17° $\mathbb{M}$ 29'22	2°03'46
morning rise	-12553 Feb 02 j 07:15	29° $\mathbb{M}$ 19'32		max. Earth dist.	-12547 Apr 09 j 10:37	17° $\mathbb{M}$ 33'14	10.79809 AU
	-12553 Feb 07 j 12:47	0° $\mathbb{M}$		morning rise	-12547 Apr 26 j 05:16	19° $\mathbb{M}$ 32'29	
retrograde	-12553 May 19 j 09:56	7° $\mathbb{M}$ 49'24		retrograde	-12547 Aug 03 j 06:27	26° $\mathbb{M}$ 36'35	
opposition	-12553 Jul 24 j 22:50	4° $\mathbb{M}$ 18'30	-2°19'28	opposition	-12547 Oct 10 j 02:50	23° $\mathbb{M}$ 17'17	-2°20'22
min. Earth dist.	-12553 Jul 23 j 21:34	4° $\mathbb{M}$ 23'48	7.91946 AU	min. Earth dist.	-12547 Oct 09 j 19:36	23° $\mathbb{M}$ 18'41	8.87717 AU
direct	-12553 Sep 29 j 04:08	0° $\mathbb{M}$ 49'01		direct	-12547 Dec 19 j 17:03	19° $\mathbb{M}$ 52'07	
evening set	-12552 Jan 12 j 13:04	9° $\mathbb{M}$ 10'50		evening set	-12546 Apr 03 j 19:27	27° $\mathbb{M}$ 12'59	
conjunction	-12552 Jan 30 j 17:02	11° $\mathbb{M}$ 32'37	-2°02'14	conjunction	-12546 Apr 21 j 04:53	29° $\mathbb{M}$ 14'46	-1°44'20
minimum elong	-12552 Jan 30 j 16:57	11° $\mathbb{M}$ 32'36	2°02'44	minimum elong	-12546 Apr 21 j 04:56	29° $\mathbb{M}$ 14'47	1°45'02

Attention, astronomical year style is used: The year -12546 in astronomical counting style is the year 12547 BCE in historical counting style.

max. Earth dist.	-12546 Apr 21 j 10:47	29° $\text{Z}$ 16'30	10.95151 AU	direct	-12540 Feb 27 j 09:32	25° $\text{H}$ 54'30	
	-12546 Apr 27 j 14:59	0° $\approx$			-12540 May 13 j 09:51	0° $\text{Y}$	
morning rise	-12546 May 08 j 09:07	1° $\approx$ 15'02		evening set	-12540 Jun 08 j 10:53	2° $\text{Y}$ 44'40	
retrograde	-12546 Aug 14 j 16:00	8° $\approx$ 08'47		max. Earth dist.	-12540 Jun 24 j 01:42	4° $\text{Y}$ 30'50	11.33253 AU
opposition	-12546 Oct 22 j 00:01	4° $\approx$ 51'10	-1°54'45				
min. Earth dist.	-12546 Oct 21 j 22:00	4° $\approx$ 51'33	9.02119 AU	conjunction	-12540 Jun 25 j 02:07	4° $\text{Y}$ 37'48	0°51'03
direct	-12545 Jan 01 j 04:24	1° $\approx$ 27'12		minimum elong	-12540 Jun 25 j 02:05	4° $\text{Y}$ 37'48	0°51'06
evening set	-12545 Apr 15 j 18:40	8° $\approx$ 38'57		morning rise	-12540 Jul 11 j 14:15	6° $\text{Y}$ 30'12	
				retrograde	-12540 Oct 18 j 04:06	13° $\text{Y}$ 09'20	
conjunction	-12545 May 03 j 00:51	10° $\approx$ 38'15	-1°21'57	opposition	-12540 Dec 27 j 13:12	9° $\text{Y}$ 54'54	1°17'15
minimum elong	-12545 May 03 j 00:54	10° $\approx$ 38'16	1°22'34	min. Earth dist.	-12540 Dec 28 j 11:39	9° $\text{Y}$ 50'50	9.31434 AU
max. Earth dist.	-12545 May 02 j 23:56	10° $\approx$ 37'59	11.08514 AU	direct	-12539 Mar 09 j 15:22	6° $\text{Y}$ 36'16	
morning rise	-12545 May 20 j 01:58	12° $\approx$ 36'05		evening set	-12539 Jun 19 j 07:17	13° $\text{Y}$ 27'14	
	-12545 Jun 11 j 04:33	15° $\approx$					
retrograde	-12545 Aug 25 j 21:50	19° $\approx$ 21'46		conjunction	-12539 Jul 05 j 20:00	15° $\text{Y}$ 20'26	1°15'55
opposition	-12545 Nov 02 j 15:17	16° $\approx$ 05'29	-1°25'27	minimum elong	-12539 Jul 05 j 19:58	15° $\text{Y}$ 20'25	1°16'06
min. Earth dist.	-12545 Nov 02 j 17:37	16° $\approx$ 05'03	9.14298 AU	max. Earth dist.	-12539 Jul 04 j 16:43	15° $\text{Y}$ 12'35	11.28700 AU
	-12545 Nov 17 j 11:26	15° $\text{R}$ $\approx$		morning rise	-12539 Jul 22 j 06:26	17° $\text{Y}$ 13'06	
direct	-12544 Jan 13 j 08:04	12° $\approx$ 42'44		retrograde	-12539 Oct 29 j 13:00	23° $\text{Y}$ 57'35	
	-12544 Mar 08 j 16:53	15° $\approx$		opposition	-12538 Jan 08 j 03:24	20° $\text{Y}$ 42'24	1°46'20
evening set	-12544 Apr 26 j 08:41	19° $\approx$ 46'49		min. Earth dist.	-12538 Jan 09 j 04:43	20° $\text{Y}$ 37'48	9.25335 AU
				direct	-12538 Mar 20 j 22:05	17° $\text{Y}$ 23'57	
conjunction	-12544 May 13 j 11:50	21° $\approx$ 44'04	-0°56'57	evening set	-12538 Jun 30 j 05:46	24° $\text{Y}$ 17'28	
minimum elong	-12544 May 13 j 11:52	21° $\approx$ 44'05	0°57'27	max. Earth dist.	-12538 Jul 15 j 10:09	26° $\text{Y}$ 02'24	11.21043 AU
max. Earth dist.	-12544 May 13 j 05:34	21° $\approx$ 42'16	11.19433 AU				
morning rise	-12544 May 30 j 09:51	23° $\approx$ 39'54		conjunction	-12538 Jul 16 j 16:21	26° $\text{Y}$ 11'10	1°38'21
	-12544 Aug 16 j 04:47	0° $\text{H}$		minimum elong	-12538 Jul 16 j 16:18	26° $\text{Y}$ 11'09	1°38'41
retrograde	-12544 Sep 04 j 23:49	0° $\text{H}$ 19'43		morning rise	-12538 Aug 02 j 01:47	28° $\text{Y}$ 04'39	
	-12544 Sep 24 j 22:35	30° $\text{R}$ $\approx$			-12538 Aug 19 j 13:10	0° $\text{B}$	
opposition	-12544 Nov 13 j 02:17	27° $\approx$ 04'31	-0°53'42	retrograde	-12538 Nov 10 j 04:36	4° $\text{B}$ 56'31	
min. Earth dist.	-12544 Nov 13 j 09:17	27° $\approx$ 03'13	9.23849 AU	opposition	-12537 Jan 19 j 22:27	1° $\text{B}$ 40'13	2°12'05
direct	-12543 Jan 24 j 02:15	23° $\approx$ 42'56		min. Earth dist.	-12537 Jan 21 j 01:38	1° $\text{B}$ 35'16	9.16211 AU
	-12543 May 01 j 11:12	0° $\text{H}$			-12537 Feb 12 j 22:32	30° $\text{R}$ $\text{Y}$	
evening set	-12543 May 07 j 15:27	0° $\text{H}$ 40'57		direct	-12537 Apr 01 j 07:53	28° $\text{Y}$ 21'41	
					-12537 May 17 j 02:30	0° $\text{B}$	
conjunction	-12543 May 24 j 15:31	2° $\text{H}$ 36'33	-0°30'17	evening set	-12537 Jul 11 j 07:48	5° $\text{B}$ 19'26	
minimum elong	-12543 May 24 j 15:32	2° $\text{H}$ 36'33	0°30'39	max. Earth dist.	-12537 Jul 26 j 10:06	7° $\text{B}$ 05'04	11.10459 AU
max. Earth dist.	-12543 May 24 j 04:08	2° $\text{H}$ 33'18	11.27558 AU				
morning rise	-12543 Jun 10 j 10:37	4° $\text{H}$ 30'51		conjunction	-12537 Jul 27 j 17:05	7° $\text{B}$ 14'11	1°57'31
retrograde	-12543 Sep 15 j 23:44	11° $\text{H}$ 07'07		minimum elong	-12537 Jul 27 j 17:02	7° $\text{B}$ 14'10	1°58'00
opposition	-12543 Nov 24 j 11:01	7° $\text{H}$ 52'41	-0°20'36	morning rise	-12537 Aug 13 j 02:06	9° $\text{B}$ 09'00	
min. Earth dist.	-12543 Nov 24 j 23:10	7° $\text{H}$ 50'27	9.30493 AU		-12537 Oct 14 j 21:31	15° $\text{B}$	
direct	-12542 Feb 04 j 15:55	4° $\text{H}$ 32'06		retrograde	-12537 Nov 22 j 04:27	16° $\text{B}$ 10'20	
evening set	-12542 May 18 j 16:45	11° $\text{H}$ 25'46			-12537 Dec 31 j 12:39	15° $\text{R}$ $\text{B}$	
				opposition	-12536 Jan 31 j 23:56	12° $\text{B}$ 52'35	2°33'31
conjunction	-12542 Jun 04 j 13:37	13° $\text{H}$ 20'06	-0°02'54	min. Earth dist.	-12536 Feb 02 j 03:16	12° $\text{B}$ 47'34	9.04262 AU
minimum elong	-12542 Jun 04 j 13:37	13° $\text{H}$ 20'06	0°03'08	direct	-12536 Apr 11 j 21:50	9° $\text{B}$ 33'45	
behind sun begin	-12542 Jun 04 j 06:40	13° $\text{H}$ 18'09			-12536 Jul 07 j 08:34	15° $\text{B}$	
behind sun end	-12542 Jun 04 j 20:35	13° $\text{H}$ 22'04		evening set	-12536 Jul 21 j 15:18	16° $\text{B}$ 37'24	
max. Earth dist.	-12542 Jun 03 j 20:32	13° $\text{H}$ 15'15	11.32656 AU	max. Earth dist.	-12536 Aug 05 j 17:43	18° $\text{B}$ 24'41	10.97201 AU
morning rise	-12542 Jun 21 j 06:14	15° $\text{H}$ 13'19					
asc. node	-12542 Jul 13 j 21:54	17° $\text{H}$ 37'38		conjunction	-12536 Aug 07 j 00:08	18° $\text{B}$ 33'46	2°12'35
retrograde	-12542 Sep 26 j 22:05	21° $\text{H}$ 48'19		minimum elong	-12536 Aug 07 j 00:05	18° $\text{B}$ 33'45	2°13'10
opposition	-12542 Dec 05 j 18:45	18° $\text{H}$ 34'16	0°12'53	morning rise	-12536 Aug 23 j 09:27	20° $\text{B}$ 30'27	
min. Earth dist.	-12542 Dec 06 j 11:29	18° $\text{H}$ 31'13	9.34036 AU	retrograde	-12536 Dec 03 j 16:05	27° $\text{B}$ 43'15	
direct	-12541 Feb 16 j 01:16	15° $\text{H}$ 14'32		opposition	-12535 Feb 12 j 09:20	24° $\text{B}$ 23'49	2°49'32
evening set	-12541 May 29 j 14:39	22° $\text{H}$ 05'35		min. Earth dist.	-12535 Feb 13 j 11:33	24° $\text{B}$ 18'57	8.89828 AU
max. Earth dist.	-12541 Jun 14 j 10:54	23° $\text{H}$ 52'56	11.34580 AU	direct	-12535 Apr 23 j 16:53	21° $\text{B}$ 04'29	
				evening set	-12535 Aug 02 j 06:17	28° $\text{B}$ 15'38	
conjunction	-12541 Jun 15 j 08:32	23° $\text{H}$ 59'05	0°24'33		-12535 Aug 16 j 16:51	0° $\text{II}$	
minimum elong	-12541 Jun 15 j 08:31	23° $\text{H}$ 59'05	0°24'27	max. Earth dist.	-12535 Aug 17 j 09:45	0° $\text{II}$ 05'08	10.81731 AU
morning rise	-12541 Jul 01 j 22:52	25° $\text{H}$ 51'41					
	-12541 Aug 12 j 14:09	0° $\text{Y}$		conjunction	-12535 Aug 18 j 15:35	0° $\text{II}$ 14'12	2°22'38
retrograde	-12541 Oct 07 j 23:04	2° $\text{Y}$ 27'39		minimum elong	-12535 Aug 18 j 15:33	0° $\text{II}$ 14'11	2°23'18
	-12541 Dec 06 j 08:22	30° $\text{R}$ $\text{H}$		morning rise	-12535 Sep 04 j 02:28	2° $\text{II}$ 13'25	
opposition	-12541 Dec 17 j 02:48	29° $\text{H}$ 13'35	0°45'48	retrograde	-12535 Dec 16 j 14:12	9° $\text{II}$ 39'21	
min. Earth dist.	-12541 Dec 17 j 22:37	29° $\text{H}$ 09'59	9.34360 AU	opposition	-12534 Feb 25 j 03:55	6° $\text{II}$ 18'01	2°58'59

Attention, astronomical year style is used: The year -12534 in astronomical counting style is the year 12535 BCE in historical counting style.

min. Earth dist.	-12534 Feb 26 j 04:36	6° $\Pi$ 13'23	8.73477 AU		-12528 Feb 04 j 15:55	0° $\Pi$	
direct	-12534 May 05 j 17:22	2° $\Pi$ 57'58		retrograde	-12528 Mar 12 j 05:24	1° $\Pi$ 11'18	
evening set	-12534 Aug 14 j 06:27	10° $\Pi$ 18'00			-12528 Apr 18 j 02:09	30° $\mathbb{R}$ $\Omega$	
				opposition	-12528 May 19 j 07:53	27° $\Omega$ 38'38	0°53'20
conjunction	-12534 Aug 30 j 17:24	12° $\Pi$ 19'22	2°26'47	min. Earth dist.	-12528 May 18 j 23:36	27° $\Omega$ 40'21	7.81423 AU
minimum elong	-12534 Aug 30 j 17:24	12° $\Pi$ 19'22	2°27'31	direct	-12528 Jul 23 j 23:03	24° $\Omega$ 11'40	
max. Earth dist.	-12534 Aug 29 j 13:32	12° $\Pi$ 10'44	10.64701 AU		-12528 Oct 14 j 11:29	0° $\Pi$	
morning rise	-12534 Sep 16 j 07:12	14° $\Pi$ 21'42		evening set	-12528 Nov 03 j 05:52	2° $\Pi$ 31'43	
retrograde	-12534 Dec 29 j 23:08	22° $\Pi$ 02'04					
opposition	-12533 Mar 10 j 08:28	18° $\Pi$ 38'39	3°00'44	conjunction	-12528 Nov 21 j 01:19	4° $\Pi$ 55'21	0°24'25
min. Earth dist.	-12533 Mar 11 j 06:31	18° $\Pi$ 34'27	8.55923 AU	minimum elong	-12528 Nov 21 j 01:20	4° $\Pi$ 55'22	0°24'46
direct	-12533 May 18 j 04:58	15° $\Pi$ 17'40		max. Earth dist.	-12528 Nov 21 j 15:06	5° $\Pi$ 00'00	9.77971 AU
evening set	-12533 Aug 26 j 17:22	22° $\Pi$ 47'41		morning rise	-12528 Dec 09 j 02:22	7° $\Pi$ 20'46	
max. Earth dist.	-12533 Sep 11 j 07:48	24° $\Pi$ 44'56	10.46873 AU	retrograde	-12527 Mar 27 j 21:57	16° $\Pi$ 10'30	
				opposition	-12527 Jun 03 j 12:26	12° $\Pi$ 37'05	0°06'24
conjunction	-12533 Sep 12 j 07:25	24° $\Pi$ 52'24	2°24'13	min. Earth dist.	-12527 Jun 02 j 22:29	12° $\Pi$ 40'00	7.75618 AU
minimum elong	-12533 Sep 12 j 07:26	24° $\Pi$ 52'24	2°24'59	desc. node	-12527 Jul 23 j 12:48	9° $\Pi$ 22'56	
morning rise	-12533 Sep 29 j 01:16	26° $\Pi$ 58'23		direct	-12527 Aug 07 j 21:45	9° $\Pi$ 09'00	
	-12533 Oct 24 j 19:22	0° $\mathbb{E}$		evening set	-12527 Nov 18 j 21:26	17° $\Pi$ 34'51	
retrograde	-12532 Jan 12 j 21:45	4° $\mathbb{E}$ 53'51					
opposition	-12532 Mar 22 j 23:20	1° $\mathbb{E}$ 28'17	2°53'42	conjunction	-12527 Dec 06 j 21:55	20° $\Pi$ 00'24	-0°13'42
min. Earth dist.	-12532 Mar 23 j 17:07	1° $\mathbb{E}$ 24'50	8.37991 AU	minimum elong	-12527 Dec 06 j 21:54	20° $\Pi$ 00'24	0°13'33
	-12532 Apr 11 j 13:52	30° $\mathbb{R}$ $\Pi$		behind sun begin	-12527 Dec 06 j 17:58	19° $\Pi$ 59'04	
direct	-12532 May 30 j 02:13	28° $\Pi$ 06'13		behind sun end	-12527 Dec 07 j 01:50	20° $\Pi$ 01'43	
	-12532 Jul 15 j 13:47	0° $\mathbb{E}$		max. Earth dist.	-12527 Dec 07 j 19:15	20° $\Pi$ 07'37	9.74399 AU
evening set	-12532 Sep 07 j 16:31	5° $\mathbb{E}$ 46'54		morning rise	-12527 Dec 25 j 03:12	22° $\Pi$ 27'26	
				-12526 Mar 05 j 22:51	0° $\mathbb{E}$		
conjunction	-12532 Sep 24 j 11:06	7° $\mathbb{E}$ 55'26	2°14'17	retrograde	-12526 Apr 12 j 12:46	1° $\mathbb{E}$ 17'03	
minimum elong	-12532 Sep 24 j 11:09	7° $\mathbb{E}$ 55'27	2°15'03		-12526 May 20 j 07:56	30° $\mathbb{R}$ $\Pi$	
max. Earth dist.	-12532 Sep 23 j 17:51	7° $\mathbb{E}$ 49'53	10.29120 AU	opposition	-12526 Jun 18 j 16:57	27° $\Pi$ 43'29	-0°41'24
morning rise	-12532 Oct 11 j 10:12	10° $\mathbb{E}$ 05'31		min. Earth dist.	-12526 Jun 17 j 22:08	27° $\Pi$ 47'27	7.74390 AU
retrograde	-12531 Jan 26 j 09:08	18° $\mathbb{E}$ 16'03		direct	-12526 Aug 23 j 01:54	24° $\Pi$ 14'29	
opposition	-12531 Apr 06 j 00:38	14° $\mathbb{E}$ 48'19	2°37'11		-12526 Nov 13 j 10:49	0° $\mathbb{E}$	
min. Earth dist.	-12531 Apr 06 j 12:24	14° $\mathbb{E}$ 46'00	8.20603 AU	evening set	-12526 Dec 04 j 19:23	2° $\mathbb{E}$ 43'16	
direct	-12531 Jun 12 j 09:21	11° $\mathbb{E}$ 25'05					
evening set	-12531 Sep 21 j 05:06	19° $\mathbb{E}$ 16'40		conjunction	-12526 Dec 22 j 23:11	5° $\mathbb{E}$ 09'23	-0°50'56
				minimum elong	-12526 Dec 22 j 23:08	5° $\mathbb{E}$ 09'22	0°50'59
conjunction	-12531 Oct 08 j 05:22	21° $\mathbb{E}$ 29'19	1°56'42	max. Earth dist.	-12526 Dec 24 j 02:53	5° $\mathbb{E}$ 18'43	9.75484 AU
minimum elong	-12531 Oct 08 j 05:26	21° $\mathbb{E}$ 29'21	1°57'26	morning rise	-12525 Jan 10 j 06:32	7° $\mathbb{E}$ 36'32	
max. Earth dist.	-12531 Oct 07 j 19:16	21° $\mathbb{E}$ 26'01	10.12394 AU	retrograde	-12525 Apr 27 j 22:05	16° $\mathbb{E}$ 21'21	
morning rise	-12531 Oct 25 j 10:47	23° $\mathbb{E}$ 43'45		opposition	-12525 Jul 03 j 18:27	12° $\mathbb{E}$ 48'13	-1°26'11
	-12531 Dec 21 j 21:10	0° $\Omega$		min. Earth dist.	-12525 Jul 02 j 19:42	12° $\mathbb{E}$ 53'01	7.77832 AU
retrograde	-12530 Feb 10 j 07:51	2° $\Omega$ 08'18		direct	-12525 Sep 07 j 08:50	9° $\mathbb{E}$ 18'36	
	-12530 Apr 03 j 02:50	30° $\mathbb{R}$ $\mathbb{E}$		evening set	-12525 Dec 20 j 18:51	17° $\mathbb{E}$ 47'02	
opposition	-12530 Apr 20 j 11:35	28° $\mathbb{E}$ 38'35	2°10'59				
min. Earth dist.	-12530 Apr 20 j 16:35	28° $\mathbb{E}$ 37'35	8.04734 AU	conjunction	-12524 Jan 08 j 00:03	20° $\mathbb{E}$ 12'18	-1°24'28
direct	-12530 Jun 26 j 03:36	25° $\mathbb{E}$ 14'06		minimum elong	-12524 Jan 07 j 23:58	20° $\mathbb{E}$ 12'17	1°24'43
	-12530 Sep 08 j 18:32	0° $\Omega$		max. Earth dist.	-12524 Jan 09 j 08:19	20° $\mathbb{E}$ 23'06	9.81147 AU
evening set	-12530 Oct 05 j 07:57	3° $\Omega$ 16'20		morning rise	-12524 Jan 26 j 07:16	22° $\mathbb{E}$ 38'06	
				-12524 Apr 05 j 07:43	0° $\mathbb{M}$		
conjunction	-12530 Oct 22 j 14:37	5° $\Omega$ 33'08	1°31'44	retrograde	-12524 May 11 j 22:04	1° $\mathbb{M}$ 13'55	
minimum elong	-12530 Oct 22 j 14:41	5° $\Omega$ 33'09	1°32'22		-12524 Jun 17 j 17:23	30° $\mathbb{R}$ $\mathbb{E}$	
max. Earth dist.	-12530 Oct 22 j 12:11	5° $\Omega$ 32'19	9.97676 AU	opposition	-12524 Jul 17 j 13:52	27° $\mathbb{E}$ 41'49	-2°04'28
morning rise	-12530 Nov 09 j 02:55	7° $\Omega$ 51'49		min. Earth dist.	-12524 Jul 16 j 12:31	27° $\mathbb{E}$ 47'09	7.85671 AU
	-12529 Jan 15 j 11:47	15° $\Omega$		direct	-12524 Sep 21 j 14:31	24° $\mathbb{E}$ 11'54	
retrograde	-12529 Feb 25 j 15:20	16° $\Omega$ 28'15			-12524 Dec 14 j 17:02	0° $\mathbb{M}$	
	-12529 Apr 08 j 08:41	15° $\mathbb{R}$ $\Omega$		evening set	-12523 Jan 04 j 15:16	2° $\mathbb{M}$ 36'45	
opposition	-12529 May 05 j 06:37	12° $\Omega$ 56'51	1°35'48				
min. Earth dist.	-12529 May 05 j 04:50	12° $\Omega$ 57'13	7.91369 AU	conjunction	-12523 Jan 22 j 20:06	4° $\mathbb{M}$ 59'58	-1°51'53
direct	-12529 Jul 10 j 08:39	9° $\Omega$ 31'06		minimum elong	-12523 Jan 22 j 20:02	4° $\mathbb{M}$ 59'57	1°52'19
	-12529 Sep 28 j 12:42	15° $\Omega$		max. Earth dist.	-12523 Jan 24 j 06:40	5° $\mathbb{M}$ 11'23	9.90957 AU
evening set	-12529 Oct 20 j 00:39	17° $\Omega$ 43'05		morning rise	-12523 Feb 10 j 01:19	7° $\mathbb{M}$ 23'11	
				-12523 Apr 27 j 13:14	15° $\mathbb{M}$		
conjunction	-12529 Nov 06 j 13:55	20° $\Omega$ 03'40	1°00'23	retrograde	-12523 May 26 j 10:23	15° $\mathbb{M}$ 46'38	
minimum elong	-12529 Nov 06 j 13:58	20° $\Omega$ 03'41	1°00'53		-12523 Jun 24 j 10:48	15° $\mathbb{R}$ $\mathbb{M}$	
max. Earth dist.	-12529 Nov 06 j 19:35	20° $\Omega$ 05'34	9.85926 AU	min. Earth dist.	-12523 Jul 30 j 22:25	12° $\mathbb{M}$ 21'35	7.97314 AU
morning rise	-12529 Nov 24 j 09:02	22° $\Omega$ 26'10		opposition	-12523 Aug 01 j 00:47	12° $\mathbb{M}$ 16'04	-2°33'41

Attention, astronomical year style is used: The year -12523 in astronomical counting style is the year 12524 BCE in historical counting style.

direct	-12523 Oct 06 j 15:04	8° $\mathbb{M}$ 46'12	evening set	-12516 Apr 09 j 17:33	3° $\approx$ 39'27	
	-12522 Jan 03 j 09:44	15° $\mathbb{M}$				
evening set	-12522 Jan 20 j 03:57	17° $\mathbb{M}$ 04'33	conjunction	-12516 Apr 27 j 01:25	5° $\approx$ 39'48	-1°32'39
			minimum elong	-12516 Apr 27 j 01:28	5° $\approx$ 39'49	1°33'18
conjunction	-12522 Feb 07 j 07:00	19° $\mathbb{M}$ 24'50	max. Earth dist.	-12516 Apr 27 j 04:49	5° $\approx$ 40'48	11.03761 AU
minimum elong	-12522 Feb 07 j 06:57	19° $\mathbb{M}$ 24'49	morning rise	-12516 May 14 j 03:51	7° $\approx$ 38'38	
max. Earth dist.	-12522 Feb 08 j 17:42	19° $\mathbb{M}$ 36'05	retrograde	-12516 Aug 20 j 06:22	14° $\approx$ 27'40	
morning rise	-12522 Feb 25 j 08:51	21° $\mathbb{M}$ 44'37	opposition	-12516 Oct 27 j 17:20	11° $\approx$ 11'19	-1°39'17
retrograde	-12522 Jun 09 j 10:51	29° $\mathbb{M}$ 53'30	min. Earth dist.	-12516 Oct 27 j 17:44	11° $\approx$ 11'15	9.10134 AU
min. Earth dist.	-12522 Aug 14 j 00:26	26° $\mathbb{M}$ 30'09	direct	-12515 Jan 07 j 03:14	7° $\approx$ 48'33	
opposition	-12522 Aug 15 j 02:00	26° $\mathbb{M}$ 24'52	evening set	-12515 Apr 21 j 12:06	14° $\approx$ 55'54	
direct	-12522 Oct 21 j 08:15	22° $\mathbb{M}$ 55'26		-12515 Apr 22 j 02:37	15° $\approx$	
	-12521 Jan 26 j 10:37	0° $\mathbb{A}$				
evening set	-12521 Feb 04 j 05:05	1° $\mathbb{A}$ 04'53	conjunction	-12515 May 08 j 16:40	16° $\approx$ 54'00	-1°08'43
			minimum elong	-12515 May 08 j 16:42	16° $\approx$ 54'01	1°09'15
conjunction	-12521 Feb 22 j 05:23	3° $\mathbb{A}$ 21'41	max. Earth dist.	-12515 May 08 j 12:44	16° $\approx$ 52'52	11.15843 AU
minimum elong	-12521 Feb 22 j 05:21	3° $\mathbb{A}$ 21'40	morning rise	-12515 May 25 j 16:01	18° $\approx$ 50'38	
max. Earth dist.	-12521 Feb 23 j 14:03	3° $\mathbb{A}$ 32'05	retrograde	-12515 Aug 31 j 08:34	25° $\approx$ 32'47	
morning rise	-12521 Mar 12 j 03:10	5° $\mathbb{A}$ 37'35	opposition	-12515 Nov 08 j 06:31	22° $\approx$ 17'39	-1°08'31
retrograde	-12521 Jun 22 j 22:43	13° $\mathbb{A}$ 30'54	min. Earth dist.	-12515 Nov 08 j 12:40	22° $\approx$ 16'30	9.20838 AU
opposition	-12521 Aug 28 j 16:36	10° $\mathbb{A}$ 04'28	direct	-12514 Jan 19 j 01:42	18° $\approx$ 56'00	
min. Earth dist.	-12521 Aug 27 j 17:39	10° $\mathbb{A}$ 09'09	evening set	-12514 May 02 j 22:22	25° $\approx$ 56'37	
direct	-12521 Nov 04 j 16:15	6° $\mathbb{A}$ 35'46				
evening set	-12520 Feb 18 j 16:40	14° $\mathbb{A}$ 34'44	conjunction	-12514 May 19 j 23:43	27° $\approx$ 52'52	-0°42'41
			minimum elong	-12514 May 19 j 23:45	27° $\approx$ 52'52	0°43'07
conjunction	-12520 Mar 07 j 13:42	16° $\mathbb{A}$ 47'52	max. Earth dist.	-12514 May 19 j 13:01	27° $\approx$ 49'48	11.25106 AU
minimum elong	-12520 Mar 07 j 13:42	16° $\mathbb{A}$ 47'51	morning rise	-12514 Jun 05 j 20:17	29° $\approx$ 47'47	
max. Earth dist.	-12520 Mar 08 j 18:00	16° $\mathbb{A}$ 56'42		-12514 Jun 07 j 16:02	0° $\mathbb{H}$	
morning rise	-12520 Mar 25 j 07:17	18° $\mathbb{A}$ 59'49	retrograde	-12514 Sep 11 j 09:16	6° $\mathbb{H}$ 25'24	
retrograde	-12520 Jul 04 j 20:52	26° $\mathbb{A}$ 37'29	opposition	-12514 Nov 19 j 16:18	3° $\mathbb{H}$ 11'03	-0°35'55
opposition	-12520 Sep 09 j 20:24	23° $\mathbb{A}$ 13'23	min. Earth dist.	-12514 Nov 20 j 02:52	3° $\mathbb{H}$ 09'07	9.28607 AU
min. Earth dist.	-12520 Sep 09 j 01:16	23° $\mathbb{A}$ 17'14		-12513 Jan 16 j 09:29	30° $\mathbb{R}$ $\approx$	
direct	-12520 Nov 17 j 15:29	19° $\mathbb{A}$ 45'40	direct	-12513 Jan 30 j 19:50	29° $\approx$ 50'23	
evening set	-12519 Mar 03 j 13:41	27° $\mathbb{A}$ 33'24		-12513 Feb 14 j 03:10	0° $\mathbb{H}$	
			evening set	-12513 May 14 j 02:05	6° $\mathbb{H}$ 45'53	
conjunction	-12519 Mar 21 j 07:19	29° $\mathbb{A}$ 42'53	max. Earth dist.	-12513 May 30 j 09:04	8° $\mathbb{H}$ 36'21	11.31326 AU
minimum elong	-12519 Mar 21 j 07:20	29° $\mathbb{A}$ 42'54				
max. Earth dist.	-12519 Mar 22 j 05:35	29° $\mathbb{A}$ 49'43	conjunction	-12513 May 31 j 00:30	8° $\mathbb{H}$ 40'44	-0°15'31
	-12519 Mar 23 j 15:11	0° $\mathbb{B}$	minimum elong	-12513 May 31 j 00:30	8° $\mathbb{H}$ 40'44	0°15'48
morning rise	-12519 Apr 07 j 20:48	1° $\mathbb{B}$ 51'02	behind sun begin	-12513 May 30 j 23:00	8° $\mathbb{H}$ 40'19	
retrograde	-12519 Jul 17 j 05:58	9° $\mathbb{B}$ 13'57	behind sun end	-12513 May 31 j 02:00	8° $\mathbb{H}$ 41'10	
opposition	-12519 Sep 22 j 14:13	5° $\mathbb{B}$ 52'08	morning rise	-12513 Jun 16 j 18:19	10° $\mathbb{H}$ 34'22	
min. Earth dist.	-12519 Sep 21 j 23:16	5° $\mathbb{B}$ 55'04	retrograde	-12513 Sep 22 j 08:53	17° $\mathbb{H}$ 09'42	
direct	-12519 Dec 01 j 04:29	2° $\mathbb{B}$ 25'35	opposition	-12513 Dec 01 j 00:19	13° $\mathbb{H}$ 55'46	-0°02'30
evening set	-12518 Mar 16 j 20:04	10° $\mathbb{B}$ 01'57	min. Earth dist.	-12513 Dec 01 j 15:01	13° $\mathbb{H}$ 53'05	9.33251 AU
			asc. node	-12513 Dec 28 j 17:06	12° $\mathbb{H}$ 01'53	
conjunction	-12518 Apr 03 j 10:18	12° $\mathbb{B}$ 08'03	direct	-12512 Feb 11 j 06:32	10° $\mathbb{H}$ 35'53	
minimum elong	-12518 Apr 03 j 10:20	12° $\mathbb{B}$ 08'03	evening set	-12512 May 24 j 01:33	17° $\mathbb{H}$ 27'58	
max. Earth dist.	-12518 Apr 04 j 02:02	12° $\mathbb{B}$ 12'46				
morning rise	-12518 Apr 20 j 19:53	14° $\mathbb{B}$ 12'40	conjunction	-12512 Jun 09 j 20:57	19° $\mathbb{H}$ 21'49	0°12'02
retrograde	-12518 Jul 29 j 06:02	21° $\mathbb{B}$ 22'19	minimum elong	-12512 Jun 09 j 20:57	19° $\mathbb{H}$ 21'49	0°11'53
opposition	-12518 Oct 04 j 22:45	18° $\mathbb{B}$ 02'35	behind sun begin	-12512 Jun 09 j 16:03	19° $\mathbb{H}$ 20'26	
min. Earth dist.	-12518 Oct 04 j 11:55	18° $\mathbb{B}$ 04'41	behind sun end	-12512 Jun 10 j 01:51	19° $\mathbb{H}$ 23'11	
direct	-12518 Dec 14 j 06:01	14° $\mathbb{B}$ 37'20	max. Earth dist.	-12512 Jun 09 j 01:10	19° $\mathbb{H}$ 16'11	11.34351 AU
evening set	-12517 Mar 29 j 12:51	22° $\mathbb{B}$ 02'50	morning rise	-12512 Jun 26 j 12:11	21° $\mathbb{H}$ 14'38	
			retrograde	-12512 Oct 02 j 08:46	27° $\mathbb{H}$ 49'53	
conjunction	-12517 Apr 15 j 23:52	24° $\mathbb{B}$ 05'52	opposition	-12512 Dec 11 j 08:10	24° $\mathbb{H}$ 35'58	0°30'46
minimum elong	-12517 Apr 15 j 23:56	24° $\mathbb{B}$ 05'53	min. Earth dist.	-12512 Dec 12 j 03:32	24° $\mathbb{H}$ 32'27	9.34673 AU
max. Earth dist.	-12517 Apr 16 j 09:40	24° $\mathbb{B}$ 08'46	direct	-12511 Feb 21 j 14:57	21° $\mathbb{H}$ 16'38	
morning rise	-12517 May 03 j 05:45	26° $\mathbb{B}$ 07'22	evening set	-12511 Jun 03 j 22:28	28° $\mathbb{H}$ 07'03	
	-12517 Jun 08 j 21:38	0° $\approx$				
retrograde	-12517 Aug 09 j 21:13	3° $\approx$ 05'38	conjunction	-12511 Jun 20 j 14:53	0° $\mathbb{Y}$ 00'19	0°39'00
	-12517 Oct 14 j 06:56	30° $\mathbb{R}$ $\mathbb{B}$	minimum elong	-12511 Jun 20 j 14:51	0° $\mathbb{Y}$ 00'19	0°38'59
opposition	-12517 Oct 16 j 23:15	29° $\mathbb{B}$ 47'44	max. Earth dist.	-12511 Jun 19 j 14:09	29° $\mathbb{H}$ 53'16	11.34132 AU
min. Earth dist.	-12517 Oct 16 j 17:33	29° $\mathbb{B}$ 48'49		-12511 Jun 20 j 13:45	0° $\mathbb{Y}$	
direct	-12517 Dec 26 j 21:13	26° $\mathbb{B}$ 23'44	morning rise	-12511 Jul 07 j 04:00	1° $\mathbb{Y}$ 52'45	
	-12516 Mar 06 j 00:57	0° $\approx$	retrograde	-12511 Oct 13 j 10:05	8° $\mathbb{Y}$ 30'10	



Attention, astronomical year style is used: The year -12511 in astronomical counting style is the year 12512 BCE in historical counting style.

opposition	-12511 Dec 22 j 17:26	5° $\Upsilon$ 15'52	1°02'59	opposition	-12504 Mar 03 j 14:05	13° $\Pi$ 06'15	3°01'04
min. Earth dist.	-12511 Dec 23 j 16:27	5° $\Upsilon$ 11'41	9.32862 AU	min. Earth dist.	-12504 Mar 04 j 12:17	13° $\Pi$ 02'03	8.63698 AU
direct	-12510 Mar 04 j 21:33	1° $\Upsilon$ 56'52		direct	-12504 May 11 j 20:31	9° $\Pi$ 45'22	
evening set	-12510 Jun 14 j 18:22	8° $\Upsilon$ 47'18		evening set	-12504 Aug 20 j 07:04	17° $\Pi$ 10'26	
max. Earth dist.	-12510 Jun 30 j 04:23	10° $\Upsilon$ 32'28	11.30694 AU				
conjunction	-12510 Jul 01 j 08:10	10° $\Upsilon$ 40'26	1°04'41	conjunction	-12504 Sep 05 j 19:34	19° $\Pi$ 13'31	2°26'23
minimum elong	-12510 Jul 01 j 08:07	10° $\Upsilon$ 40'25	1°04'49	minimum elong	-12504 Sep 05 j 19:35	19° $\Pi$ 13'31	2°27'08
morning rise	-12510 Jul 17 j 19:30	12° $\Upsilon$ 32'58		max. Earth dist.	-12504 Sep 04 j 19:35	19° $\Pi$ 06'01	10.54914 AU
retrograde	-12510 Oct 24 j 16:17	19° $\Upsilon$ 14'44		morning rise	-12504 Sep 22 j 11:11	21° $\Pi$ 17'41	
opposition	-12509 Jan 03 j 05:24	15° $\Upsilon$ 59'39	1°33'15	retrograde	-12503 Jan 05 j 18:51	29° $\Pi$ 05'48	
min. Earth dist.	-12509 Jan 04 j 06:24	15° $\Upsilon$ 55'07	9.27865 AU	opposition	-12503 Mar 16 j 23:48	25° $\Pi$ 40'58	2°58'14
direct	-12509 Mar 16 j 05:23	12° $\Upsilon$ 40'47		min. Earth dist.	-12503 Mar 17 j 17:56	25° $\Pi$ 37'28	8.46243 AU
evening set	-12509 Jun 25 j 15:23	19° $\Upsilon$ 32'59		direct	-12503 May 24 j 11:00	22° $\Pi$ 19'14	
max. Earth dist.	-12509 Jul 10 j 21:58	21° $\Upsilon$ 18'03	11.24125 AU	evening set	-12503 Sep 02 j 00:01	29° $\Pi$ 54'35	
					-12503 Sep 02 j 17:22	0° $\Theta$	
conjunction	-12509 Jul 12 j 03:04	21° $\Upsilon$ 26'27	1°28'20	conjunction	-12503 Sep 18 j 16:12	2° $\Theta$ 01'13	2°19'57
minimum elong	-12509 Jul 12 j 03:01	21° $\Upsilon$ 26'26	1°28'36	minimum elong	-12503 Sep 18 j 16:14	2° $\Theta$ 01'14	2°20'44
morning rise	-12509 Jul 28 j 12:53	23° $\Upsilon$ 19'33		max. Earth dist.	-12503 Sep 17 j 20:24	1° $\Theta$ 54'54	10.37432 AU
	-12509 Oct 23 j 14:18	0° $\Xi$		morning rise	-12503 Oct 05 j 12:39	4° $\Theta$ 09'17	
retrograde	-12509 Nov 05 j 05:46	0° $\Xi$ 07'46		retrograde	-12502 Jan 19 j 23:56	12° $\Theta$ 12'29	
	-12509 Nov 17 j 21:31	30° $\Upsilon$		opposition	-12502 Mar 30 j 19:58	8° $\Theta$ 45'40	2°46'12
opposition	-12508 Jan 14 j 21:30	26° $\Upsilon$ 51'36	2°00'40	min. Earth dist.	-12502 Mar 31 j 09:34	8° $\Theta$ 43'00	8.28897 AU
min. Earth dist.	-12508 Jan 15 j 23:43	26° $\Upsilon$ 46'50	9.19823 AU	direct	-12502 Jun 06 j 12:15	5° $\Theta$ 22'58	
direct	-12508 Mar 26 j 13:23	23° $\Upsilon$ 32'41		evening set	-12502 Sep 15 j 05:59	13° $\Theta$ 09'10	
	-12508 Jul 01 j 11:21	0° $\Xi$					
evening set	-12508 Jul 05 j 15:17	0° $\Xi$ 28'22		conjunction	-12502 Oct 02 j 03:14	15° $\Theta$ 19'45	2°05'57
max. Earth dist.	-12508 Jul 20 j 18:29	2° $\Xi$ 13'39	11.14628 AU	minimum elong	-12502 Oct 02 j 03:18	15° $\Theta$ 19'46	2°06'42
				max. Earth dist.	-12502 Oct 01 j 13:32	15° $\Theta$ 15'18	10.20517 AU
conjunction	-12508 Jul 22 j 01:14	2° $\Xi$ 22'38	1°49'06	morning rise	-12502 Oct 19 j 05:38	17° $\Theta$ 32'03	
minimum elong	-12508 Jul 22 j 01:10	2° $\Xi$ 22'38	1°49'31	retrograde	-12501 Feb 03 j 16:35	25° $\Theta$ 49'47	
morning rise	-12508 Aug 07 j 10:14	4° $\Xi$ 16'50		opposition	-12501 Apr 14 j 02:20	22° $\Theta$ 21'07	2°24'29
retrograde	-12508 Nov 16 j 00:35	11° $\Xi$ 13'35		min. Earth dist.	-12501 Apr 14 j 10:28	22° $\Theta$ 19'30	8.12590 AU
opposition	-12507 Jan 25 j 19:43	7° $\Xi$ 56'04	2°24'14	direct	-12501 Jun 20 j 01:44	18° $\Theta$ 57'24	
min. Earth dist.	-12507 Jan 26 j 23:02	7° $\Xi$ 51'03	9.08988 AU	evening set	-12501 Sep 29 j 01:45	26° $\Theta$ 54'22	
direct	-12507 Apr 06 j 22:55	4° $\Xi$ 36'52					
evening set	-12507 Jul 16 j 19:45	11° $\Xi$ 37'43		conjunction	-12501 Oct 16 j 05:07	29° $\Theta$ 09'05	1°44'21
max. Earth dist.	-12507 Jul 31 j 21:00	13° $\Xi$ 23'57	11.02510 AU	minimum elong	-12501 Oct 16 j 05:12	29° $\Theta$ 09'07	1°45'03
				max. Earth dist.	-12501 Oct 15 j 23:18	29° $\Theta$ 07'10	10.05123 AU
conjunction	-12507 Aug 02 j 04:37	13° $\Xi$ 33'19	2°06'11		-12501 Oct 22 j 15:36	0° $\Omega$	
minimum elong	-12507 Aug 02 j 04:34	13° $\Xi$ 33'19	2°06'43	morning rise	-12501 Nov 02 j 14:09	1° $\Omega$ 25'41	
	-12507 Aug 14 j 09:57	15° $\Xi$		retrograde	-12500 Feb 18 j 19:30	9° $\Omega$ 56'24	
morning rise	-12507 Aug 18 j 13:47	15° $\Xi$ 29'09		opposition	-12500 Apr 27 j 17:44	6° $\Omega$ 26'06	1°53'21
retrograde	-12507 Nov 28 j 05:41	22° $\Xi$ 36'26		min. Earth dist.	-12500 Apr 27 j 19:13	6° $\Omega$ 25'48	7.98307 AU
opposition	-12506 Feb 07 j 01:08	19° $\Xi$ 17'19	2°42'55	direct	-12500 Jul 03 j 02:21	3° $\Omega$ 01'19	
min. Earth dist.	-12506 Feb 08 j 04:32	19° $\Xi$ 12'14	8.95706 AU	evening set	-12500 Oct 12 j 11:46	11° $\Omega$ 08'25	
direct	-12506 Apr 18 j 15:59	15° $\Xi$ 57'41					
evening set	-12506 Jul 28 j 06:43	23° $\Xi$ 05'14		conjunction	-12500 Oct 29 j 21:50	13° $\Omega$ 27'07	1°15'48
max. Earth dist.	-12506 Aug 12 j 09:23	24° $\Xi$ 53'39	10.88161 AU	minimum elong	-12500 Oct 29 j 21:54	13° $\Omega$ 27'08	1°16'23
				max. Earth dist.	-12500 Oct 30 j 00:45	13° $\Omega$ 28'05	9.92233 AU
conjunction	-12506 Aug 13 j 15:37	25° $\Xi$ 02'46	2°18'41		-12500 Nov 10 j 12:40	15° $\Omega$	
minimum elong	-12506 Aug 13 j 15:35	25° $\Xi$ 02'45	2°19'19	morning rise	-12500 Nov 16 j 13:42	15° $\Omega$ 47'44	
morning rise	-12506 Aug 30 j 01:47	27° $\Xi$ 00'48		retrograde	-12499 Mar 05 j 06:56	24° $\Omega$ 28'43	
	-12506 Sep 25 j 19:52	0° $\Pi$		opposition	-12499 May 12 j 16:17	20° $\Omega$ 57'05	1°14'00
retrograde	-12506 Dec 10 j 21:09	4° $\Pi$ 20'21		min. Earth dist.	-12499 May 12 j 10:44	20° $\Omega$ 58'13	7.87003 AU
opposition	-12505 Feb 19 j 14:46	0° $\Pi$ 59'26	2°55'35	direct	-12499 Jul 17 j 12:10	17° $\Omega$ 31'13	
min. Earth dist.	-12505 Feb 20 j 16:20	0° $\Pi$ 54'39	8.80422 AU	evening set	-12499 Oct 27 j 11:13	25° $\Omega$ 47'06	
	-12505 Mar 05 j 00:53	30° $\Upsilon$					
direct	-12505 Apr 30 j 14:08	27° $\Xi$ 39'14		conjunction	-12499 Nov 14 j 03:51	28° $\Omega$ 09'13	0°41'44
	-12505 Jun 23 j 05:46	0° $\Pi$		minimum elong	-12499 Nov 14 j 03:54	28° $\Omega$ 09'14	0°42'09
evening set	-12505 Aug 09 j 01:54	4° $\Pi$ 54'58		max. Earth dist.	-12499 Nov 14 j 15:35	28° $\Omega$ 13'10	9.82727 AU
max. Earth dist.	-12505 Aug 24 j 08:39	6° $\Pi$ 46'34	10.72083 AU		-12499 Nov 27 j 21:56	0° $\Pi$	
				morning rise	-12499 Dec 02 j 02:03	0° $\Pi$ 33'10	
conjunction	-12505 Aug 25 j 12:03	6° $\Pi$ 54'58	2°25'43	retrograde	-12498 Mar 20 j 23:00	9° $\Pi$ 20'38	
minimum elong	-12505 Aug 25 j 12:02	6° $\Pi$ 54'58	2°26'25	opposition	-12498 May 27 j 19:25	5° $\Pi$ 48'06	0°28'46
morning rise	-12505 Sep 11 j 00:15	8° $\Pi$ 55'47		min. Earth dist.	-12498 May 27 j 07:11	5° $\Pi$ 50'38	7.79462 AU
retrograde	-12505 Dec 24 j 01:13	16° $\Pi$ 29'07		direct	-12498 Aug 01 j 07:01	2° $\Pi$ 21'09	

Attention, astronomical year style is used: The year -12498 in astronomical counting style is the year 12499 BCE in historical counting style.

evening set	-12498 Nov 11 j 22:09	10° <u>10</u> 43'50		evening set	-12491 Feb 11 j 10:38	8° <u>27</u> 36'00	
conjunction	-12498 Nov 29 j 20:22	13° <u>10</u> 08'22	0°04'22	conjunction	-12491 Mar 01 j 09:20	10° <u>27</u> 51'03	-2°25'34
minimum elong	-12498 Nov 29 j 20:23	13° <u>10</u> 08'23	0°04'36	minimum elong	-12491 Mar 01 j 09:19	10° <u>27</u> 51'02	2°26'17
behind sun begin	-12498 Nov 29 j 13:11	13° <u>10</u> 05'58		max. Earth dist.	-12491 Mar 02 j 13:32	10° <u>27</u> 59'57	10.28162 AU
behind sun end	-12498 Nov 30 j 03:35	13° <u>10</u> 10'47		morning rise	-12491 Mar 19 j 05:06	13° <u>27</u> 05'04	
max. Earth dist.	-12498 Nov 30 j 16:03	13° <u>10</u> 15'01	9.77262 AU	retrograde	-12491 Jun 29 j 08:31	20° <u>27</u> 50'51	
morning rise	-12498 Dec 17 j 23:32	15° <u>10</u> 34'32		min. Earth dist.	-12491 Sep 03 j 08:38	17° <u>27</u> 29'45	8.36798 AU
desc. node	-12497 Jan 12 j 06:05	18° <u>10</u> 46'10		opposition	-12491 Sep 04 j 05:14	17° <u>27</u> 25'35	-3°00'59
retrograde	-12497 Apr 05 j 15:08	24° <u>10</u> 24'02		direct	-12491 Nov 11 j 16:01	13° <u>27</u> 57'15	
min. Earth dist.	-12497 Jun 11 j 06:18	20° <u>10</u> 54'47	7.76188 AU	evening set	-12490 Feb 25 j 15:15	21° <u>27</u> 51'11	
opposition	-12497 Jun 12 j 00:00	20° <u>10</u> 51'04	-0°19'03				
direct	-12497 Aug 16 j 08:26	17° <u>10</u> 23'09		conjunction	-12490 Mar 15 j 10:43	24° <u>27</u> 02'36	-2°24'24
evening set	-12497 Nov 27 j 17:13	25° <u>10</u> 50'03		minimum elong	-12490 Mar 15 j 10:44	24° <u>27</u> 02'36	2°25'10
				max. Earth dist.	-12490 Mar 16 j 10:55	24° <u>27</u> 10'05	10.45392 AU
conjunction	-12497 Dec 15 j 19:32	28° <u>10</u> 15'47	-0°33'42	morning rise	-12490 Apr 02 j 02:10	26° <u>27</u> 12'44	
minimum elong	-12497 Dec 15 j 19:30	28° <u>10</u> 15'47	0°33'39				
max. Earth dist.	-12497 Dec 16 j 21:24	28° <u>10</u> 24'31	9.76169 AU	retrograde	-12490 May 05 j 19:28	0° <u>27</u>	
	-12497 Dec 28 j 17:09	0° <u>27</u>		min. Earth dist.	-12490 Jul 12 j 00:56	3° <u>27</u> 43'21	
morning rise	-12496 Jan 03 j 01:50	0° <u>27</u> 42'46		opposition	-12490 Sep 16 j 11:30	0° <u>27</u> 23'33	8.54189 AU
retrograde	-12496 Apr 20 j 03:44	9° <u>27</u> 29'43		opposition	-12490 Sep 17 j 04:23	0° <u>27</u> 20'11	-2°54'23
min. Earth dist.	-12496 Jun 25 j 05:38	6° <u>27</u> 01'24	7.77318 AU		-12490 Sep 21 j 09:53	30° <u>27</u> R <u>27</u>	
opposition	-12496 Jun 26 j 02:59	5° <u>27</u> 56'54	-1°05'41	direct	-12490 Nov 25 j 09:30	26° <u>27</u> 52'46	
direct	-12496 Aug 30 j 13:34	2° <u>27</u> 28'11			-12489 Jan 27 j 12:10	0° <u>27</u>	
evening set	-12496 Dec 12 j 16:19	10° <u>27</u> 56'30		evening set	-12489 Mar 11 j 04:55	4° <u>27</u> 35'18	
conjunction	-12496 Dec 30 j 20:57	13° <u>27</u> 22'07	-1°09'18	conjunction	-12489 Mar 28 j 21:01	6° <u>27</u> 43'14	-2°16'08
minimum elong	-12496 Dec 30 j 20:53	13° <u>27</u> 22'06	1°09'27	minimum elong	-12489 Mar 28 j 21:04	6° <u>27</u> 43'15	2°16'53
max. Earth dist.	-12495 Jan 01 j 02:58	13° <u>27</u> 32'12	9.79425 AU	max. Earth dist.	-12489 Mar 29 j 15:58	6° <u>27</u> 49'00	10.62775 AU
morning rise	-12495 Jan 18 j 04:15	15° <u>27</u> 48'31		morning rise	-12489 Apr 15 j 08:25	8° <u>27</u> 49'43	
retrograde	-12495 May 05 j 09:11	24° <u>27</u> 28'42		retrograde	-12489 Jul 24 j 06:35	16° <u>27</u> 06'20	
min. Earth dist.	-12495 Jul 10 j 02:03	21° <u>27</u> 01'35	7.82712 AU	opposition	-12489 Sep 29 j 17:44	12° <u>27</u> 45'12	-2°39'47
opposition	-12495 Jul 11 j 01:32	20° <u>27</u> 56'38	-1°47'24	min. Earth dist.	-12489 Sep 29 j 05:52	12° <u>27</u> 47'31	8.71304 AU
direct	-12495 Sep 14 j 19:27	17° <u>27</u> 27'23		direct	-12489 Dec 08 j 15:48	9° <u>27</u> 18'50	
evening set	-12495 Dec 28 j 15:00	25° <u>27</u> 54'06		evening set	-12488 Mar 23 j 04:35	16° <u>27</u> 50'16	
conjunction	-12494 Jan 15 j 20:01	28° <u>27</u> 18'19	-1°39'52	conjunction	-12488 Apr 09 j 17:17	18° <u>27</u> 54'59	-2°01'52
minimum elong	-12494 Jan 15 j 19:56	28° <u>27</u> 18'17	1°40'13	minimum elong	-12488 Apr 09 j 17:20	18° <u>27</u> 55'00	2°02'36
max. Earth dist.	-12494 Jan 17 j 04:20	28° <u>27</u> 29'02	9.86822 AU	max. Earth dist.	-12488 Apr 10 j 05:25	18° <u>27</u> 58'37	10.79477 AU
	-12494 Jan 28 j 15:21	0° <u>27</u>		morning rise	-12488 Apr 27 j 00:59	20° <u>27</u> 58'11	
morning rise	-12494 Feb 03 j 02:16	0° <u>27</u> 42'47		retrograde	-12488 Aug 04 j 00:34	28° <u>27</u> 02'26	
retrograde	-12494 May 20 j 03:45	9° <u>27</u> 12'29		opposition	-12488 Oct 10 j 22:18	24° <u>27</u> 43'10	-2°18'43
opposition	-12494 Jul 25 j 17:01	5° <u>27</u> 41'41	-2°21'10	min. Earth dist.	-12488 Oct 10 j 15:25	24° <u>27</u> 44'29	8.87368 AU
min. Earth dist.	-12494 Jul 24 j 16:41	5° <u>27</u> 46'47	7.92064 AU	direct	-12488 Dec 20 j 13:05	21° <u>27</u> 31'57	
direct	-12494 Sep 29 j 22:48	2° <u>27</u> 12'12		evening set	-12487 Apr 04 j 15:22	28° <u>27</u> 39'06	
evening set	-12493 Jan 13 j 08:14	10° <u>27</u> 34'09			-12487 Apr 16 j 05:25	0° <u>27</u>	
conjunction	-12493 Jan 31 j 12:04	12° <u>27</u> 55'55	-2°03'23	conjunction	-12487 Apr 22 j 00:45	0° <u>27</u> 40'56	-1°42'48
minimum elong	-12493 Jan 31 j 12:00	12° <u>27</u> 55'54	2°03'54	minimum elong	-12487 Apr 22 j 00:48	0° <u>27</u> 40'57	1°43'29
max. Earth dist.	-12493 Feb 01 j 20:43	13° <u>27</u> 06'36	9.97929 AU	max. Earth dist.	-12487 Apr 22 j 05:56	0° <u>27</u> 42'27	10.94788 AU
	-12493 Feb 16 j 09:23	15° <u>27</u>		morning rise	-12487 May 09 j 05:02	2° <u>27</u> 41'15	
morning rise	-12493 Feb 18 j 15:41	15° <u>27</u> 17'26		retrograde	-12487 Aug 15 j 12:12	9° <u>27</u> 35'12	
retrograde	-12493 Jun 03 j 10:24	23° <u>27</u> 33'50		opposition	-12487 Oct 22 j 19:43	6° <u>27</u> 17'33	-1°52'41
opposition	-12493 Aug 08 j 23:34	20° <u>27</u> 04'38	-2°45'02	min. Earth dist.	-12487 Oct 22 j 17:15	6° <u>27</u> 18'01	9.01736 AU
min. Earth dist.	-12493 Aug 07 j 23:28	20° <u>27</u> 09'39	8.04782 AU	direct	-12486 Jan 02 j 01:30	2° <u>27</u> 53'34	
direct	-12493 Oct 14 j 20:52	16° <u>27</u> 35'14		evening set	-12486 Apr 16 j 14:42	10° <u>27</u> 05'32	
evening set	-12492 Jan 28 j 15:40	24° <u>27</u> 49'38					
				conjunction	-12486 May 03 j 20:56	12° <u>27</u> 04'54	-1°20'07
conjunction	-12492 Feb 15 j 17:16	27° <u>27</u> 08'14	-2°18'42	minimum elong	-12486 May 03 j 20:59	12° <u>27</u> 04'55	1°20'43
minimum elong	-12492 Feb 15 j 17:13	27° <u>27</u> 08'13	2°19'20	max. Earth dist.	-12486 May 03 j 20:29	12° <u>27</u> 04'46	11.08124 AU
max. Earth dist.	-12492 Feb 17 j 00:22	27° <u>27</u> 18'14	10.12018 AU	morning rise	-12486 May 20 j 21:56	14° <u>27</u> 02'46	
morning rise	-12492 Mar 04 j 17:14	29° <u>27</u> 26'08			-12486 May 29 j 10:22	15° <u>27</u>	
	-12492 Mar 09 j 05:32	0° <u>27</u>		retrograde	-12486 Aug 26 j 18:13	20° <u>27</u> 48'37	
retrograde	-12492 Jun 16 j 04:06	7° <u>27</u> 27'32		opposition	-12486 Nov 03 j 11:21	17° <u>27</u> 32'18	-1°23'04
opposition	-12492 Aug 21 j 19:48	4° <u>27</u> 00'13	-2°58'12	min. Earth dist.	-12486 Nov 03 j 13:22	17° <u>27</u> 31'56	9.13894 AU
min. Earth dist.	-12492 Aug 20 j 20:49	4° <u>27</u> 04'56	8.20013 AU		-12486 Dec 11 j 23:23	15° <u>27</u>	
direct	-12492 Oct 28 j 11:11	0° <u>27</u> 31'12		direct	-12485 Jan 14 j 03:23	14° <u>27</u> 09'33	
					-12485 Feb 16 j 01:55	15° <u>27</u>	

Attention, astronomical year style is used: The year -12485 in astronomical counting style is the year 12486 BCE in historical counting style.

evening set	-12485 Apr 28 j 04:50	21° $\approx$ 13'47		min. Earth dist.	-12479 Jan 10 j 01:50	22° $\circ$ 05'55	9.25225 AU
				direct	-12479 Mar 21 j 19:08	18° $\circ$ 52'04	
conjunction	-12485 May 15 j 07:58	23° $\approx$ 11'04	-0°54'53	evening set	-12479 Jul 01 j 02:05	25° $\circ$ 45'36	
minimum elong	-12485 May 15 j 08:00	23° $\approx$ 11'05	0°55'22	max. Earth dist.	-12479 Jul 16 j 07:11	27° $\circ$ 30'44	11.20987 AU
max. Earth dist.	-12485 May 15 j 02:20	23° $\approx$ 09'27	11.19031 AU				
morning rise	-12485 Jun 01 j 05:50	25° $\approx$ 06'56		conjunction	-12479 Jul 17 j 12:33	27° $\circ$ 39'16	1°40'06
	-12485 Jul 21 j 21:13	0° $\text{H}$		minimum elong	-12479 Jul 17 j 12:30	27° $\circ$ 39'15	1°40'27
retrograde	-12485 Sep 06 j 20:18	1° $\text{H}$ 46'57		morning rise	-12479 Aug 02 j 21:54	29° $\circ$ 32'45	
	-12485 Oct 25 j 07:44	30° $\text{R}$			-12479 Aug 06 j 22:19	0° $\text{B}$	
opposition	-12485 Nov 14 j 22:42	28° $\approx$ 31'42	-0°51'06	retrograde	-12479 Nov 11 j 00:50	6° $\text{B}$ 24'48	
min. Earth dist.	-12485 Nov 15 j 06:10	28° $\approx$ 30'19	9.23452 AU	opposition	-12478 Jan 20 j 19:39	3° $\text{B}$ 08'27	2°14'03
direct	-12484 Jan 25 j 22:38	25° $\approx$ 10'03		min. Earth dist.	-12478 Jan 21 j 21:47	3° $\text{B}$ 03'41	9.16222 AU
	-12484 Apr 18 j 14:03	0° $\text{H}$			-12478 Mar 18 j 16:37	30° $\text{R}$	
evening set	-12484 May 08 j 11:44	2° $\text{H}$ 08'14		direct	-12478 Apr 02 j 05:06	29° $\circ$ 49'58	
					-12478 Apr 16 j 14:24	0° $\text{B}$	
conjunction	-12484 May 25 j 11:37	4° $\text{H}$ 03'51	-0°28'04	evening set	-12478 Jul 12 j 04:00	6° $\text{B}$ 47'38	
minimum elong	-12484 May 25 j 11:38	4° $\text{H}$ 03'51	0°28'25	max. Earth dist.	-12478 Jul 27 j 07:38	8° $\text{B}$ 33'39	11.10538 AU
max. Earth dist.	-12484 May 24 j 23:45	4° $\text{H}$ 00'28	11.27168 AU				
morning rise	-12484 Jun 11 j 06:44	5° $\text{H}$ 58'10		conjunction	-12478 Jul 28 j 13:16	8° $\text{B}$ 42'22	1°58'57
retrograde	-12484 Sep 16 j 19:03	12° $\text{H}$ 34'37		minimum elong	-12478 Jul 28 j 13:13	8° $\text{B}$ 42'21	1°59'26
opposition	-12484 Nov 25 j 07:34	9° $\text{H}$ 20'06	-0°17'51	morning rise	-12478 Aug 13 j 22:06	10° $\text{B}$ 37'08	
min. Earth dist.	-12484 Nov 25 j 19:59	9° $\text{H}$ 17'50	9.30120 AU		-12478 Sep 25 j 12:54	15° $\text{B}$	
direct	-12483 Feb 05 j 11:50	5° $\text{H}$ 59'28		retrograde	-12478 Nov 23 j 02:57	17° $\text{B}$ 38'35	
evening set	-12483 May 19 j 13:06	12° $\text{H}$ 53'16			-12477 Jan 23 j 22:28	15° $\text{R}$	
				opposition	-12477 Feb 01 j 21:09	14° $\text{B}$ 20'50	2°35'02
conjunction	-12483 Jun 05 j 09:49	14° $\text{H}$ 47'37	-0°00'35	min. Earth dist.	-12477 Feb 02 j 23:19	14° $\text{B}$ 16'01	9.04427 AU
minimum elong	-12483 Jun 05 j 09:49	14° $\text{H}$ 47'37	0°00'48	direct	-12477 Apr 13 j 19:01	11° $\text{B}$ 02'04	
behind sun begin	-12483 Jun 05 j 02:50	14° $\text{H}$ 45'39			-12477 Jun 25 j 05:19	15° $\text{B}$	
behind sun end	-12483 Jun 05 j 16:47	14° $\text{H}$ 49'34		evening set	-12477 Jul 23 j 11:33	18° $\text{B}$ 05'31	
max. Earth dist.	-12483 Jun 04 j 16:35	14° $\text{H}$ 42'43	11.32297 AU				
asc. node	-12483 Jun 13 j 02:10	15° $\text{H}$ 40'02		conjunction	-12477 Aug 08 j 20:16	20° $\text{B}$ 01'50	2°13'38
morning rise	-12483 Jun 22 j 02:24	16° $\text{H}$ 40'51		minimum elong	-12477 Aug 08 j 20:14	20° $\text{B}$ 01'49	2°14'12
retrograde	-12483 Sep 27 j 18:25	23° $\text{H}$ 16'04		max. Earth dist.	-12477 Aug 07 j 14:08	19° $\text{B}$ 52'50	10.97449 AU
opposition	-12483 Dec 06 j 15:26	20° $\text{H}$ 01'54	0°15'40	morning rise	-12477 Aug 25 j 05:34	21° $\text{B}$ 58'29	
min. Earth dist.	-12483 Dec 07 j 07:23	19° $\text{H}$ 59'00	9.33697 AU	retrograde	-12477 Dec 05 j 12:25	29° $\text{B}$ 11'13	
direct	-12482 Feb 16 j 23:10	16° $\text{H}$ 42'08		opposition	-12476 Feb 14 j 06:21	25° $\text{B}$ 51'48	2°50'32
evening set	-12482 May 30 j 10:58	23° $\text{H}$ 33'16		min. Earth dist.	-12476 Feb 15 j 08:21	25° $\text{B}$ 46'58	8.90159 AU
max. Earth dist.	-12482 Jun 15 j 08:15	25° $\text{H}$ 20'56	11.34265 AU	direct	-12476 Apr 24 j 12:11	22° $\text{B}$ 32'32	
				evening set	-12476 Aug 03 j 02:22	29° $\text{B}$ 43'24	
conjunction	-12482 Jun 16 j 04:49	25° $\text{H}$ 26'47	0°26'49		-12476 Aug 05 j 10:10	0° $\text{II}$	
minimum elong	-12482 Jun 16 j 04:48	25° $\text{H}$ 26'47	0°26'44	max. Earth dist.	-12476 Aug 18 j 05:33	1° $\text{II}$ 32'47	10.82133 AU
morning rise	-12482 Jul 02 j 18:56	27° $\text{H}$ 19'22					
	-12482 Jul 28 j 04:24	0° $\text{Y}$		conjunction	-12476 Aug 19 j 11:31	1° $\text{II}$ 41'53	2°23'14
retrograde	-12482 Oct 08 j 20:34	3° $\text{Y}$ 55'33		minimum elong	-12476 Aug 19 j 11:29	1° $\text{II}$ 41'53	2°23'54
opposition	-12482 Dec 17 j 23:46	0° $\text{Y}$ 41'24	0°48'31	morning rise	-12476 Sep 04 j 22:31	3° $\text{II}$ 41'03	
min. Earth dist.	-12482 Dec 18 j 18:52	0° $\text{Y}$ 37'56	9.34074 AU	retrograde	-12476 Dec 17 j 09:23	11° $\text{II}$ 06'50	
	-12482 Dec 27 j 13:38	30° $\text{R}$		opposition	-12475 Feb 26 j 00:44	7° $\text{II}$ 45'32	2°59'25
direct	-12481 Feb 28 j 06:07	27° $\text{H}$ 22'19		min. Earth dist.	-12475 Feb 27 j 01:39	7° $\text{II}$ 40'50	8.73934 AU
	-12481 Apr 29 j 00:56	0° $\text{Y}$		direct	-12475 May 06 j 14:42	4° $\text{II}$ 25'32	
evening set	-12481 Jun 10 j 07:11	4° $\text{Y}$ 12'31		evening set	-12475 Aug 15 j 02:08	11° $\text{II}$ 45'13	
				max. Earth dist.	-12475 Aug 30 j 09:57	13° $\text{II}$ 38'06	10.65202 AU
conjunction	-12481 Jun 26 j 22:18	6° $\text{Y}$ 05'38	0°53'14				
minimum elong	-12481 Jun 26 j 22:16	6° $\text{Y}$ 05'38	0°53'18	conjunction	-12475 Aug 31 j 13:07	13° $\text{II}$ 46'31	2°26'55
max. Earth dist.	-12481 Jun 25 j 22:18	5° $\text{Y}$ 58'47	11.33001 AU	minimum elong	-12475 Aug 31 j 13:07	13° $\text{II}$ 46'31	2°27'38
morning rise	-12481 Jul 13 j 10:18	7° $\text{Y}$ 58'03		morning rise	-12475 Sep 17 j 02:59	15° $\text{II}$ 48'48	
retrograde	-12481 Oct 20 j 00:37	14° $\text{Y}$ 37'22		retrograde	-12475 Dec 30 j 19:37	23° $\text{II}$ 28'57	
opposition	-12481 Dec 29 j 10:20	11° $\text{Y}$ 22'53	1°19'49	opposition	-12474 Mar 11 j 04:57	20° $\text{II}$ 05'34	3°00'33
min. Earth dist.	-12481 Dec 30 j 08:55	11° $\text{Y}$ 18'47	9.31226 AU	min. Earth dist.	-12474 Mar 12 j 02:46	20° $\text{II}$ 01'25	8.56455 AU
direct	-12480 Mar 10 j 11:35	8° $\text{Y}$ 04'14		direct	-12474 May 19 j 01:35	16° $\text{II}$ 44'41	
evening set	-12480 Jun 20 j 03:41	14° $\text{Y}$ 55'15		evening set	-12474 Aug 27 j 12:49	24° $\text{II}$ 14'16	
				max. Earth dist.	-12474 Sep 12 j 04:31	26° $\text{II}$ 11'49	10.47424 AU
conjunction	-12480 Jul 06 j 16:10	16° $\text{Y}$ 48'25	1°17'55				
minimum elong	-12480 Jul 06 j 16:07	16° $\text{Y}$ 48'24	1°18'08	conjunction	-12474 Sep 13 j 03:03	26° $\text{II}$ 18'56	2°23'51
max. Earth dist.	-12480 Jul 05 j 12:32	16° $\text{Y}$ 40'28	11.28535 AU	minimum elong	-12474 Sep 13 j 03:05	26° $\text{II}$ 18'56	2°24'37
morning rise	-12480 Jul 23 j 02:36	18° $\text{Y}$ 41'06		morning rise	-12474 Sep 29 j 20:56	28° $\text{II}$ 24'52	
retrograde	-12480 Oct 30 j 09:24	25° $\text{Y}$ 25'44			-12474 Oct 12 j 23:30	0° $\text{B}$	
opposition	-12479 Jan 09 j 00:30	22° $\text{Y}$ 10'31	1°48'38	retrograde	-12473 Jan 13 j 17:41	6° $\text{B}$ 20'04	

Attention, astronomical year style is used: The year -12473 in astronomical counting style is the year 12474 BCE in historical counting style.

opposition	-12473 Mar 24 j 19:20	2°☾54'32	2°52'55	conjunction	-12468 Dec 07 j 16:25	21°♊22'55	-0°15'44
min. Earth dist.	-12473 Mar 25 j 12:22	2°☾51'14	8.38553 AU	minimum elong	-12468 Dec 07 j 16:24	21°♊22'55	0°15'35
	-12473 May 09 j 01:38	30°♈II		behind sun begin	-12468 Dec 07 j 15:08	21°♊22'30	
direct	-12473 May 31 j 21:54	29°♊32'35		behind sun end	-12468 Dec 07 j 17:40	21°♊23'21	
	-12473 Jun 23 j 09:24	0°☾		max. Earth dist.	-12468 Dec 08 j 13:45	21°♊30'08	9.74611 AU
evening set	-12473 Sep 09 j 11:47	7°☾12'50		morning rise	-12468 Dec 25 j 21:43	23°♊49'55	
					-12467 Feb 17 j 06:43	0°♊	
conjunction	-12473 Sep 26 j 06:31	9°☾21'19	2°13'27	retrograde	-12467 Apr 13 j 06:18	2°♊39'18	
minimum elong	-12473 Sep 26 j 06:35	9°☾21'20	2°14'12		-12467 Jun 08 j 14:26	30°♈♊	
max. Earth dist.	-12473 Sep 25 j 13:35	9°☾15'52	10.29680 AU	opposition	-12467 Jun 19 j 10:54	29°♊05'44	-0°43'54
morning rise	-12473 Oct 13 j 05:43	11°☾31'20		min. Earth dist.	-12467 Jun 18 j 16:11	29°♊09'41	7.74541 AU
retrograde	-12472 Jan 28 j 04:37	19°☾41'32		direct	-12467 Aug 23 j 21:18	25°♊36'43	
opposition	-12472 Apr 06 j 20:15	16°☾13'52	2°35'50		-12467 Nov 02 j 10:50	0°♊	
min. Earth dist.	-12472 Apr 07 j 07:23	16°☾11'40	8.21153 AU	evening set	-12467 Dec 05 j 13:46	4°♊05'27	
direct	-12472 Jun 13 j 04:59	12°☾50'44					
evening set	-12472 Sep 22 j 00:07	20°☾41'53		conjunction	-12467 Dec 23 j 17:43	6°♊31'33	-0°52'50
				minimum elong	-12467 Dec 23 j 17:40	6°♊31'32	0°52'54
conjunction	-12472 Oct 09 j 00:26	22°☾54'29	1°55'26	max. Earth dist.	-12467 Dec 24 j 21:37	6°♊40'58	9.75567 AU
minimum elong	-12472 Oct 09 j 00:31	22°☾54'30	1°56'09	morning rise	-12466 Jan 11 j 00:59	8°♊58'39	
max. Earth dist.	-12472 Oct 08 j 13:48	22°☾51'00	10.12933 AU	retrograde	-12466 Apr 28 j 15:08	17°♊43'22	
morning rise	-12472 Oct 26 j 06:04	25°☾08'52		opposition	-12466 Jul 04 j 12:12	14°♊10'13	-1°28'27
	-12472 Dec 07 j 00:27	0°♊		min. Earth dist.	-12466 Jul 03 j 13:19	14°♊15'03	7.77847 AU
retrograde	-12471 Feb 11 j 03:08	3°♊33'03		direct	-12466 Sep 08 j 03:17	10°♊40'33	
opposition	-12471 Apr 21 j 06:52	0°♊03'24	2°09'08	evening set	-12466 Dec 21 j 13:25	19°♊09'04	
min. Earth dist.	-12471 Apr 21 j 11:55	0°♊02'23	8.05247 AU				
	-12471 Apr 21 j 23:47	30°♈☾		conjunction	-12465 Jan 08 j 18:41	21°♊34'21	-1°26'08
direct	-12471 Jun 26 j 22:28	26°☾38'59		minimum elong	-12465 Jan 08 j 18:36	21°♊34'20	1°26'23
	-12471 Aug 27 j 10:42	0°♊		max. Earth dist.	-12465 Jan 10 j 03:11	21°♊45'13	9.81086 AU
evening set	-12471 Oct 06 j 02:43	4°♊40'48		morning rise	-12465 Jan 27 j 01:43	24°♊00'06	
					-12465 Mar 20 j 12:43	0°♊	
conjunction	-12471 Oct 23 j 09:27	6°♊57'33	1°30'07	retrograde	-12465 May 13 j 15:23	2°♊35'55	
minimum elong	-12471 Oct 23 j 09:31	6°♊57'34	1°30'44		-12465 Jul 08 j 01:31	30°♈♊	
max. Earth dist.	-12471 Oct 23 j 06:09	6°♊56'27	9.98173 AU	min. Earth dist.	-12465 Jul 18 j 06:11	29°♊09'07	7.85541 AU
morning rise	-12471 Nov 09 j 22:04	9°♊16'14		opposition	-12465 Jul 19 j 07:35	29°♊03'47	-2°06'21
	-12471 Dec 29 j 22:38	15°♊		direct	-12465 Sep 23 j 07:28	25°♊33'47	
retrograde	-12470 Feb 26 j 10:56	17°♊52'15			-12465 Dec 04 j 13:09	0°♊	
	-12470 Apr 28 j 00:59	15°♈♊		evening set	-12464 Jan 06 j 09:56	3°♊58'50	
opposition	-12470 May 06 j 01:33	14°♊20'56	1°33'34				
min. Earth dist.	-12470 May 06 j 00:26	14°♊21'09	7.91826 AU	conjunction	-12464 Jan 24 j 14:44	6°♊22'05	-1°53'13
direct	-12470 Jul 11 j 02:36	10°♊55'11		minimum elong	-12464 Jan 24 j 14:39	6°♊22'04	1°53'38
	-12470 Sep 17 j 02:29	15°♊		max. Earth dist.	-12464 Jan 26 j 01:26	6°♊33'32	9.90753 AU
evening set	-12470 Oct 20 j 19:17	19°♊06'50		morning rise	-12464 Feb 11 j 19:46	8°♊45'17	
					-12464 Apr 08 j 05:41	15°♊	
conjunction	-12470 Nov 07 j 08:41	21°♊27'22	0°58'30	retrograde	-12464 May 27 j 05:26	17°♊08'50	
minimum elong	-12470 Nov 07 j 08:44	21°♊27'23	0°58'59		-12464 Jul 16 j 00:56	15°♈♊	
max. Earth dist.	-12470 Nov 07 j 13:31	21°♊28'59	9.86352 AU	opposition	-12464 Aug 01 j 18:39	13°♊38'13	-2°35'05
morning rise	-12470 Nov 25 j 04:05	23°♊49'51		min. Earth dist.	-12464 Jul 31 j 16:42	13°♊43'39	7.97046 AU
	-12469 Jan 18 j 05:08	0°♊		direct	-12464 Oct 07 j 07:48	10°♊08'15	
retrograde	-12469 Mar 14 j 00:39	2°♊34'35			-12464 Dec 23 j 08:10	15°♊	
	-12469 May 09 j 06:23	30°♈♊		evening set	-12463 Jan 20 j 22:45	18°♊26'54	
opposition	-12469 May 21 j 02:26	29°♊01'59	0°50'51				
min. Earth dist.	-12469 May 20 j 19:04	29°♊03'31	7.81797 AU	conjunction	-12463 Feb 08 j 01:43	20°♊47'13	-2°12'30
direct	-12469 Jul 25 j 17:52	25°♊35'00		minimum elong	-12463 Feb 08 j 01:39	20°♊47'12	2°13'05
	-12469 Oct 04 j 10:33	0°♊		max. Earth dist.	-12463 Feb 09 j 12:05	20°♊58'23	10.03858 AU
evening set	-12469 Nov 05 j 00:20	3°♊54'49		morning rise	-12463 Feb 26 j 03:28	23°♊07'02	
					-12463 May 03 j 22:23	0°♊	
conjunction	-12469 Nov 22 j 19:56	6°♊18'24	0°22'24	retrograde	-12463 Jun 10 j 06:22	1°♊16'04	
minimum elong	-12469 Nov 22 j 19:57	6°♊18'24	0°22'43		-12463 Jul 17 j 20:11	30°♈♊	
max. Earth dist.	-12469 Nov 23 j 09:16	6°♊22'54	9.78298 AU	opposition	-12463 Aug 15 j 20:04	27°♊47'24	-2°53'20
morning rise	-12469 Dec 10 j 21:07	8°♊43'47		min. Earth dist.	-12463 Aug 14 j 19:29	27°♊52'30	8.11543 AU
retrograde	-12468 Mar 28 j 16:12	17°♊33'11		direct	-12463 Oct 22 j 01:59	24°♊17'50	
opposition	-12468 Jun 04 j 06:39	13°♊59'48	0°03'50		-12462 Jan 15 j 14:24	0°♊	
min. Earth dist.	-12468 Jun 03 j 17:17	14°♊02'36	7.75887 AU	evening set	-12462 Feb 05 j 00:11	2°♊27'42	
desc. node	-12468 Jul 04 j 04:34	11°♊42'26					
direct	-12468 Aug 08 j 17:07	10°♊31'42		conjunction	-12462 Feb 23 j 00:20	4°♊44'33	-2°23'20
evening set	-12468 Nov 19 j 15:47	18°♊57'24		minimum elong	-12462 Feb 23 j 00:18	4°♊44'32	2°24'02
				max. Earth dist.	-12462 Feb 24 j 07:57	4°♊54'37	10.19507 AU

Attention, astronomical year style is used: The year -12462 in astronomical counting style is the year 12463 BCE in historical counting style.

morning rise	-12462 Mar 12 j 22:06	7°♂00'32		morning rise	-12456 May 26 j 12:24	20°♂18'30	
retrograde	-12462 Jun 23 j 17:05	14°♂54'01		retrograde	-12456 Sep 01 j 04:56	27°♂00'56	
opposition	-12462 Aug 29 j 10:56	11°♂27'34	-3°00'55	opposition	-12456 Nov 09 j 03:01	23°♂45'46	-1°05'57
min. Earth dist.	-12462 Aug 28 j 12:53	11°♂32'04	8.28094 AU	min. Earth dist.	-12456 Nov 09 j 08:25	23°♂44'46	9.20412 AU
direct	-12462 Nov 05 j 11:41	7°♂58'44		direct	-12455 Jan 19 j 23:46	20°♂24'07	
evening set	-12461 Feb 19 j 11:57	15°♂58'11		evening set	-12455 May 03 j 18:55	27°♂24'58	
conjunction	-12461 Mar 09 j 08:52	18°♂11'22	-2°25'51	conjunction	-12455 May 20 j 20:16	29°♂21'16	-0°40'29
minimum elong	-12461 Mar 09 j 08:52	18°♂11'22	2°26'36	minimum elong	-12455 May 20 j 20:18	29°♂21'16	0°40'53
max. Earth dist.	-12461 Mar 10 j 11:51	18°♂19'48	10.36740 AU	max. Earth dist.	-12455 May 20 j 10:25	29°♂18'27	11.24732 AU
morning rise	-12461 Mar 27 j 02:29	20°♂23'24			-12455 May 26 j 11:38	0°♂	
retrograde	-12461 Jul 06 j 14:42	28°♂01'22		morning rise	-12455 Jun 06 j 16:42	1°♂16'13	
opposition	-12461 Sep 11 j 15:06	24°♂37'13	-2°58'31	retrograde	-12455 Sep 12 j 06:40	7°♂54'04	
min. Earth dist.	-12461 Sep 10 j 20:07	24°♂41'02	8.45730 AU	opposition	-12455 Nov 20 j 13:10	4°♂39'43	-0°33'09
direct	-12461 Nov 19 j 10:58	21°♂09'24		min. Earth dist.	-12455 Nov 20 j 23:05	4°♂37'53	9.28267 AU
evening set	-12460 Mar 04 j 09:01	28°♂57'35		direct	-12454 Jan 31 j 15:51	1°♂19'05	
	-12460 Mar 12 j 23:13	0°♂		evening set	-12454 May 14 j 22:47	8°♂14'44	
conjunction	-12460 Mar 22 j 02:39	1°♂07'11	-2°20'46	conjunction	-12454 May 31 j 21:06	10°♂09'37	-0°13'12
minimum elong	-12460 Mar 22 j 02:40	1°♂07'11	2°21'32	minimum elong	-12454 May 31 j 21:07	10°♂09'37	0°13'28
max. Earth dist.	-12460 Mar 23 j 00:18	1°♂13'49	10.54586 AU	behind sun begin	-12454 May 31 j 17:07	10°♂08'30	
morning rise	-12460 Apr 08 j 16:10	3°♂15'25		behind sun end	-12454 Jun 01 j 01:07	10°♂10'45	
retrograde	-12460 Jul 18 j 01:33	10°♂38'40		max. Earth dist.	-12454 May 31 j 06:26	10°♂05'27	11.31028 AU
opposition	-12460 Sep 23 j 09:11	7°♂16'47	-2°47'25	morning rise	-12454 Jun 17 j 14:44	12°♂03'17	
min. Earth dist.	-12460 Sep 22 j 17:44	7°♂19'50	8.63500 AU	retrograde	-12454 Sep 23 j 06:07	18°♂38'51	
direct	-12460 Dec 01 j 23:18	3°♂50'11		asc. node	-12454 Nov 27 j 23:03	15°♂42'10	
evening set	-12459 Mar 17 j 15:42	11°♂27'01		opposition	-12454 Dec 01 j 21:35	15°♂24'56	0°00'21
conjunction	-12459 Apr 04 j 06:03	13°♂33'13	-2°09'07	min. Earth dist.	-12454 Dec 02 j 12:29	15°♂22'12	9.32991 AU
minimum elong	-12459 Apr 04 j 06:05	13°♂33'14	2°09'51	direct	-12453 Feb 12 j 03:23	12°♂05'05	
max. Earth dist.	-12459 Apr 04 j 22:13	13°♂38'05	10.72127 AU	evening set	-12453 May 25 j 22:26	18°♂57'18	
morning rise	-12459 Apr 21 j 15:32	15°♂37'56		conjunction	-12453 Jun 11 j 17:37	20°♂51'09	0°14'23
retrograde	-12459 Jul 30 j 01:41	22°♂47'57		minimum elong	-12453 Jun 11 j 17:37	20°♂51'09	0°14'15
opposition	-12459 Oct 05 j 18:07	19°♂28'11	-2°29'06	behind sun begin	-12453 Jun 11 j 14:10	20°♂50'11	
min. Earth dist.	-12459 Oct 05 j 07:11	19°♂30'18	8.80547 AU	behind sun end	-12453 Jun 11 j 21:03	20°♂52'07	
direct	-12459 Dec 15 j 01:22	16°♂02'53		max. Earth dist.	-12453 Jun 10 j 21:26	20°♂45'25	11.34131 AU
evening set	-12458 Mar 30 j 08:50	23°♂28'52		morning rise	-12453 Jun 28 j 08:50	22°♂43'59	
conjunction	-12458 Apr 16 j 19:54	25°♂32'00	-1°52'06	retrograde	-12453 Oct 04 j 05:29	29°♂19'27	
minimum elong	-12458 Apr 16 j 19:58	25°♂32'01	1°52'48	opposition	-12453 Dec 13 j 05:35	26°♂05'33	0°33'37
max. Earth dist.	-12458 Apr 17 j 06:18	25°♂35'04	10.88553 AU	min. Earth dist.	-12453 Dec 14 j 01:05	26°♂02'01	9.34495 AU
morning rise	-12458 May 04 j 01:39	27°♂33'35		direct	-12452 Feb 23 j 11:55	22°♂46'16	
	-12458 May 26 j 02:08	0°♂		evening set	-12452 Jun 04 j 19:26	29°♂36'47	
retrograde	-12458 Aug 10 j 18:19	4°♂32'13			-12452 Jun 08 j 06:27	0°♂	
opposition	-12458 Oct 17 j 19:14	1°♂14'19	-2°05'09	max. Earth dist.	-12452 Jun 20 j 11:10	1°♂23'03	11.33988 AU
min. Earth dist.	-12458 Oct 17 j 13:58	1°♂15'19	8.96131 AU	conjunction	-12452 Jun 21 j 11:40	1°♂30'02	0°41'18
	-12458 Nov 03 j 10:13	30°♂		minimum elong	-12452 Jun 21 j 11:39	1°♂30'02	0°41'17
direct	-12458 Dec 27 j 16:36	27°♂50'18		morning rise	-12452 Jul 08 j 00:45	3°♂22'29	
	-12457 Feb 18 j 23:00	0°♂		retrograde	-12452 Oct 14 j 07:07	10°♂00'07	
evening set	-12457 Apr 11 j 13:47	5°♂06'25		opposition	-12452 Dec 23 j 14:57	6°♂45'48	1°05'43
conjunction	-12457 Apr 28 j 21:32	7°♂06'51	-1°30'55	min. Earth dist.	-12452 Dec 24 j 13:12	6°♂41'46	9.32750 AU
minimum elong	-12457 Apr 28 j 21:35	7°♂06'52	1°31'32	direct	-12451 Mar 05 j 19:33	3°♂26'51	
max. Earth dist.	-12457 Apr 29 j 00:42	7°♂07'47	11.03165 AU	evening set	-12451 Jun 15 j 15:23	10°♂17'21	
morning rise	-12457 May 15 j 23:59	9°♂05'46		max. Earth dist.	-12451 Jul 01 j 02:26	12°♂02'49	11.30611 AU
	-12457 Jul 20 j 01:51	15°♂		conjunction	-12451 Jul 02 j 05:07	12°♂10'28	1°06'51
retrograde	-12457 Aug 22 j 01:35	15°♂55'07		minimum elong	-12451 Jul 02 j 05:04	12°♂10'27	1°06'59
	-12457 Sep 24 j 15:01	15°♂		morning rise	-12451 Jul 18 j 16:13	14°♂02'59	
opposition	-12457 Oct 29 j 13:42	12°♂38'46	-1°37'00	retrograde	-12451 Oct 25 j 15:02	20°♂44'56	
min. Earth dist.	-12457 Oct 29 j 14:14	12°♂38'40	9.09595 AU	opposition	-12450 Jan 04 j 03:10	17°♂29'51	1°35'46
direct	-12456 Jan 08 j 22:59	9°♂15'58		min. Earth dist.	-12450 Jan 05 j 03:21	17°♂25'28	9.27814 AU
	-12456 Apr 09 j 17:28	15°♂		direct	-12450 Mar 17 j 02:52	14°♂11'04	
evening set	-12456 Apr 22 j 08:32	16°♂23'39		evening set	-12450 Jun 26 j 12:29	21°♂03'14	
conjunction	-12456 May 09 j 12:59	18°♂21'48	-1°06'42	max. Earth dist.	-12450 Jul 11 j 19:13	22°♂48'21	11.24105 AU
minimum elong	-12456 May 09 j 13:02	18°♂21'49	1°07'14	conjunction	-12450 Jul 13 j 00:00	22°♂56'41	1°30'16
max. Earth dist.	-12456 May 09 j 08:45	18°♂20'35	11.15365 AU	minimum elong	-12450 Jul 12 j 23:57	22°♂56'40	1°30'33

Attention, astronomical year style is used: The year -12450 in astronomical counting style is the year 12451 BCE in historical counting style.

morning rise	-12450 Jul 29 j 09:41	24° $\Upsilon$ 49'45		conjunction	-12444 Sep 19 j 12:39	3° $\ominus$ 29'28	2°19'19
	-12450 Sep 21 j 12:25	0° $\mathcal{B}$		minimum elong	-12444 Sep 19 j 12:41	3° $\ominus$ 29'29	2°20'05
retrograde	-12450 Nov 06 j 02:31	1° $\mathcal{B}$ 38'07		max. Earth dist.	-12444 Sep 18 j 16:53	3° $\ominus$ 23'10	10.37681 AU
	-12450 Dec 23 j 07:17	30° $\mathcal{R}\Upsilon$		morning rise	-12444 Oct 06 j 09:18	5° $\ominus$ 37'31	
opposition	-12449 Jan 15 j 19:31	28° $\Upsilon$ 21'57	2°02'52	retrograde	-12443 Jan 20 j 19:20	13° $\ominus$ 40'30	
min. Earth dist.	-12449 Jan 16 j 21:49	28° $\Upsilon$ 17'09	9.19840 AU	opposition	-12443 Mar 31 j 16:57	10° $\ominus$ 13'37	2°45'06
direct	-12449 Mar 28 j 09:45	25° $\Upsilon$ 03'04		min. Earth dist.	-12443 Apr 01 j 06:54	10° $\ominus$ 10'53	8.29142 AU
	-12449 Jun 19 j 13:54	0° $\mathcal{B}$		direct	-12443 Jun 07 j 10:16	6° $\ominus$ 50'53	
evening set	-12449 Jul 07 j 12:24	1° $\mathcal{B}$ 58'41		evening set	-12443 Sep 16 j 01:58	14° $\ominus$ 36'44	
conjunction	-12449 Jul 23 j 22:07	3° $\mathcal{B}$ 52'55	1°50'45	conjunction	-12443 Oct 02 j 23:29	16° $\ominus$ 47'19	2°04'50
minimum elong	-12449 Jul 23 j 22:04	3° $\mathcal{B}$ 52'54	1°51'10	minimum elong	-12443 Oct 02 j 23:33	16° $\ominus$ 47'20	2°05'35
max. Earth dist.	-12449 Jul 22 j 15:06	3° $\mathcal{B}$ 43'51	11.14677 AU	max. Earth dist.	-12443 Oct 02 j 10:32	16° $\ominus$ 43'07	10.20759 AU
morning rise	-12449 Aug 09 j 07:11	5° $\mathcal{B}$ 47'05		morning rise	-12443 Oct 20 j 02:02	18° $\ominus$ 59'36	
retrograde	-12449 Nov 17 j 22:20	12° $\mathcal{B}$ 43'55		retrograde	-12442 Feb 04 j 12:23	27° $\ominus$ 17'07	
opposition	-12448 Jan 27 j 17:41	9° $\mathcal{B}$ 26'23	2°26'02	opposition	-12442 Apr 14 j 22:54	23° $\ominus$ 48'23	2°22'49
min. Earth dist.	-12448 Jan 28 j 21:13	9° $\mathcal{B}$ 21'20	9.09069 AU	min. Earth dist.	-12442 Apr 15 j 06:50	23° $\ominus$ 46'49	8.12817 AU
direct	-12448 Apr 07 j 21:38	6° $\mathcal{B}$ 07'13		direct	-12442 Jun 20 j 22:49	20° $\ominus$ 24'38	
evening set	-12448 Jul 17 j 16:46	13° $\mathcal{B}$ 07'55		evening set	-12442 Sep 29 j 21:39	28° $\ominus$ 21'17	
max. Earth dist.	-12448 Aug 01 j 18:38	14° $\mathcal{B}$ 54'19	11.02615 AU		-12442 Oct 12 j 12:03	0° $\mathcal{Q}$	
	-12448 Aug 02 j 13:47	15° $\mathcal{B}$		conjunction	-12442 Oct 17 j 01:20	0° $\mathcal{Q}$ 36'01	1°42'50
conjunction	-12448 Aug 03 j 01:33	15° $\mathcal{B}$ 03'29	2°07'27	minimum elong	-12442 Oct 17 j 01:25	0° $\mathcal{Q}$ 36'02	1°43'30
minimum elong	-12448 Aug 03 j 01:30	15° $\mathcal{B}$ 03'29	2°08'00	max. Earth dist.	-12442 Oct 16 j 20:10	0° $\mathcal{Q}$ 34'18	10.05331 AU
morning rise	-12448 Aug 19 j 10:40	16° $\mathcal{B}$ 59'17		morning rise	-12442 Nov 03 j 10:29	2° $\mathcal{Q}$ 52'37	
retrograde	-12448 Nov 29 j 02:31	24° $\mathcal{B}$ 06'36		retrograde	-12441 Feb 19 j 16:09	11° $\mathcal{Q}$ 23'06	
opposition	-12447 Feb 07 j 23:00	20° $\mathcal{B}$ 47'25	2°44'13	opposition	-12441 Apr 29 j 13:46	7° $\mathcal{Q}$ 52'44	1°51'12
min. Earth dist.	-12447 Feb 09 j 01:46	20° $\mathcal{B}$ 42'28	8.95840 AU	min. Earth dist.	-12441 Apr 29 j 14:45	7° $\mathcal{Q}$ 52'32	7.98490 AU
direct	-12447 Apr 19 j 13:37	17° $\mathcal{B}$ 27'49		direct	-12441 Jul 04 j 21:43	4° $\mathcal{Q}$ 27'55	
evening set	-12447 Jul 29 j 03:35	24° $\mathcal{B}$ 35'11		evening set	-12441 Oct 14 j 07:33	12° $\mathcal{Q}$ 34'48	
max. Earth dist.	-12447 Aug 13 j 07:24	26° $\mathcal{B}$ 23'53	10.88312 AU	conjunction	-12441 Oct 31 j 17:51	14° $\mathcal{Q}$ 53'30	1°13'57
conjunction	-12447 Aug 14 j 12:31	26° $\mathcal{B}$ 32'39	2°19'32	minimum elong	-12441 Oct 31 j 17:55	14° $\mathcal{Q}$ 53'31	1°14'31
minimum elong	-12447 Aug 14 j 12:29	26° $\mathcal{B}$ 32'39	2°20'09	max. Earth dist.	-12441 Oct 31 j 20:56	14° $\mathcal{Q}$ 54'32	9.92387 AU
morning rise	-12447 Aug 30 j 22:34	28° $\mathcal{B}$ 30'38			-12441 Nov 01 j 13:19	15° $\mathcal{Q}$	
	-12447 Sep 12 j 20:00	0° $\mathcal{I}$		morning rise	-12441 Nov 18 j 09:51	17° $\mathcal{Q}$ 14'08	
retrograde	-12447 Dec 11 j 19:00	5° $\mathcal{I}$ 50'12		retrograde	-12440 Mar 06 j 03:55	25° $\mathcal{Q}$ 54'55	
opposition	-12446 Feb 20 j 12:35	2° $\mathcal{I}$ 29'12	2°56'19	opposition	-12440 May 13 j 12:01	22° $\mathcal{Q}$ 23'15	1°11'30
min. Earth dist.	-12446 Feb 21 j 13:07	2° $\mathcal{I}$ 24'36	8.80601 AU	min. Earth dist.	-12440 May 13 j 06:03	22° $\mathcal{Q}$ 24'29	7.87127 AU
	-12446 Mar 29 j 23:44	30° $\mathcal{R}\mathcal{B}$		direct	-12440 Jul 18 j 07:32	18° $\mathcal{Q}$ 57'22	
direct	-12446 May 01 j 12:16	29° $\mathcal{B}$ 09'01		evening set	-12440 Oct 28 j 06:54	27° $\mathcal{Q}$ 13'08	
	-12446 Jun 02 j 06:09	0° $\mathcal{I}$		conjunction	-12440 Nov 14 j 23:39	29° $\mathcal{Q}$ 35'15	0°39'39
evening set	-12446 Aug 09 j 22:38	6° $\mathcal{I}$ 24'27		minimum elong	-12440 Nov 14 j 23:41	29° $\mathcal{Q}$ 35'16	0°40'03
max. Earth dist.	-12446 Aug 25 j 05:29	8° $\mathcal{I}$ 16'03	10.72279 AU	max. Earth dist.	-12440 Nov 15 j 11:02	29° $\mathcal{Q}$ 39'05	9.82826 AU
conjunction	-12446 Aug 26 j 08:46	8° $\mathcal{I}$ 24'26	2°26'04		-12440 Nov 18 j 01:08	0° $\mathcal{M}$	
minimum elong	-12446 Aug 26 j 08:45	8° $\mathcal{I}$ 24'25	2°26'46	morning rise	-12440 Dec 02 j 22:01	1° $\mathcal{M}$ 59'13	
morning rise	-12446 Sep 11 j 21:02	10° $\mathcal{I}$ 25'13		retrograde	-12439 Mar 21 j 19:25	10° $\mathcal{M}$ 46'34	
retrograde	-12446 Dec 24 j 23:45	17° $\mathcal{I}$ 58'27		opposition	-12439 May 28 j 14:57	7° $\mathcal{M}$ 14'01	0°26'05
opposition	-12445 Mar 05 j 11:43	14° $\mathcal{I}$ 35'32	3°01'12	min. Earth dist.	-12439 May 28 j 02:43	7° $\mathcal{M}$ 16'34	7.79540 AU
min. Earth dist.	-12445 Mar 06 j 09:38	14° $\mathcal{I}$ 31'22	8.63913 AU	direct	-12439 Aug 02 j 02:24	3° $\mathcal{M}$ 47'04	
direct	-12445 May 13 j 17:01	11° $\mathcal{I}$ 14'37		evening set	-12439 Nov 12 j 17:56	12° $\mathcal{M}$ 09'45	
evening set	-12445 Aug 22 j 03:43	18° $\mathcal{I}$ 39'23		conjunction	-12439 Nov 30 j 16:13	14° $\mathcal{M}$ 34'19	0°02'12
conjunction	-12445 Sep 07 j 16:11	20° $\mathcal{I}$ 42'24	2°26'15	minimum elong	-12439 Nov 30 j 16:14	14° $\mathcal{M}$ 34'19	0°02'25
minimum elong	-12445 Sep 07 j 16:12	20° $\mathcal{I}$ 42'24	2°26'59	behind sun begin	-12439 Nov 30 j 08:52	14° $\mathcal{M}$ 31'51	
max. Earth dist.	-12445 Sep 06 j 15:41	20° $\mathcal{I}$ 34'45	10.55145 AU	behind sun end	-12439 Nov 30 j 23:35	14° $\mathcal{M}$ 36'47	
morning rise	-12445 Sep 24 j 08:00	22° $\mathcal{I}$ 46'34		max. Earth dist.	-12439 Dec 01 j 11:06	14° $\mathcal{M}$ 40'41	9.77335 AU
	-12445 Dec 12 j 09:54	0° $\ominus$		morning rise	-12439 Dec 18 j 19:36	17° $\mathcal{M}$ 00'29	
retrograde	-12444 Jan 07 j 15:03	0° $\ominus$ 34'29		desc. node	-12439 Dec 22 j 04:37	17° $\mathcal{M}$ 27'10	
	-12444 Feb 03 j 02:42	30° $\mathcal{R}\mathcal{I}$		retrograde	-12438 Apr 06 j 11:02	25° $\mathcal{M}$ 49'52	
opposition	-12444 Mar 17 j 21:05	27° $\mathcal{I}$ 09'36	2°57'44	opposition	-12438 Jun 12 j 19:22	22° $\mathcal{M}$ 16'57	-0°21'46
min. Earth dist.	-12444 Mar 18 j 15:39	27° $\mathcal{I}$ 06'01	8.46481 AU	min. Earth dist.	-12438 Jun 12 j 02:09	22° $\mathcal{M}$ 20'34	7.76266 AU
direct	-12444 May 25 j 07:47	23° $\mathcal{I}$ 47'49		direct	-12438 Aug 17 j 03:49	18° $\mathcal{M}$ 49'02	
	-12444 Aug 22 j 13:13	0° $\ominus$		evening set	-12438 Nov 28 j 13:11	27° $\mathcal{M}$ 16'00	
evening set	-12444 Sep 02 j 20:22	1° $\ominus$ 22'52		conjunction	-12438 Dec 16 j 15:30	29° $\mathcal{M}$ 41'45	-0°35'48

Attention, astronomical year style is used: The year -12438 in astronomical counting style is the year 12439 BCE in historical counting style.

minimum elong	-12438 Dec 16 j 15:28	29° $\mathbb{M}$ 41'44	0°35'47			-12431 Apr 23 j 03:06	0° $\mathfrak{Z}$	
max. Earth dist.	-12438 Dec 17 j 16:28	29° $\mathbb{M}$ 50'10	9.76276 AU	retrograde		-12431 Jul 12 j 21:34	5° $\mathfrak{Z}$ 09'10	
	-12438 Dec 18 j 21:35	0° $\mathfrak{A}$		opposition		-12431 Sep 17 j 23:45	1° $\mathfrak{Z}$ 46'04	-2°53'41
morning rise	-12437 Jan 03 j 21:57	2° $\mathfrak{A}$ 08'43		min. Earth dist.		-12431 Sep 17 j 07:51	1° $\mathfrak{Z}$ 49'14	8.53931 AU
retrograde	-12437 Apr 21 j 22:57	10° $\mathfrak{A}$ 55'29				-12431 Oct 11 j 08:26	30° $\mathbb{R}$ $\mathfrak{A}$	
opposition	-12437 Jun 27 j 22:18	7° $\mathfrak{A}$ 22'44	-1°08'13	direct		-12431 Nov 26 j 03:54	28° $\mathfrak{A}$ 18'37	
min. Earth dist.	-12437 Jun 27 j 01:35	7° $\mathfrak{A}$ 27'06	7.77467 AU			-12430 Jan 10 j 17:09	0° $\mathfrak{Z}$	
direct	-12437 Sep 01 j 08:58	3° $\mathfrak{A}$ 53'59		evening set		-12430 Mar 12 j 01:06	6° $\mathfrak{Z}$ 01'28	
evening set	-12437 Dec 14 j 12:11	12° $\mathfrak{A}$ 22'16						
conjunction	-12436 Jan 01 j 16:44	14° $\mathfrak{A}$ 47'51	-1°11'12	conjunction		-12430 Mar 29 j 17:03	8° $\mathfrak{Z}$ 09'27	-2°15'19
minimum elong	-12436 Jan 01 j 16:40	14° $\mathfrak{A}$ 47'49	1°11'22	minimum elong		-12430 Mar 29 j 17:05	8° $\mathfrak{Z}$ 09'28	2°16'04
max. Earth dist.	-12436 Jan 02 j 21:58	14° $\mathfrak{A}$ 57'39	9.79612 AU	max. Earth dist.		-12430 Mar 30 j 10:57	8° $\mathfrak{Z}$ 14'53	10.62468 AU
morning rise	-12436 Jan 20 j 00:07	17° $\mathfrak{A}$ 14'11		morning rise		-12430 Apr 16 j 04:27	10° $\mathfrak{Z}$ 15'59	
retrograde	-12436 May 06 j 03:42	25° $\mathfrak{A}$ 54'07		retrograde		-12430 Jul 25 j 01:14	17° $\mathfrak{Z}$ 32'45	
opposition	-12436 Jul 11 j 20:37	22° $\mathfrak{A}$ 22'05	-1°49'35	opposition		-12430 Sep 30 j 13:28	14° $\mathfrak{Z}$ 11'40	-2°38'31
min. Earth dist.	-12436 Jul 10 j 21:40	22° $\mathfrak{A}$ 26'55	7.82924 AU	min. Earth dist.		-12430 Sep 30 j 02:05	14° $\mathfrak{Z}$ 13'54	8.70957 AU
direct	-12436 Sep 15 j 14:32	18° $\mathfrak{A}$ 52'49		direct		-12430 Dec 09 j 12:42	10° $\mathfrak{Z}$ 45'16	
evening set	-12436 Dec 29 j 10:43	27° $\mathfrak{A}$ 19'27		evening set		-12429 Mar 25 j 00:54	18° $\mathfrak{Z}$ 17'02	
conjunction	-12435 Jan 16 j 15:42	29° $\mathfrak{A}$ 43'38	-1°41'26	conjunction		-12429 Apr 11 j 13:30	20° $\mathfrak{Z}$ 21'47	-2°00'37
minimum elong	-12435 Jan 16 j 15:38	29° $\mathfrak{A}$ 43'36	1°41'47	minimum elong		-12429 Apr 11 j 13:33	20° $\mathfrak{Z}$ 21'48	2°01'20
max. Earth dist.	-12435 Jan 17 j 23:15	29° $\mathfrak{A}$ 54'06	9.87027 AU	max. Earth dist.		-12429 Apr 12 j 00:45	20° $\mathfrak{Z}$ 25'09	10.79093 AU
	-12435 Jan 18 j 17:01	0° $\mathbb{M}$		morning rise		-12429 Apr 28 j 21:15	22° $\mathfrak{Z}$ 25'03	
morning rise	-12435 Feb 03 j 21:58	2° $\mathbb{M}$ 08'03		retrograde		-12429 Aug 05 j 20:39	29° $\mathfrak{Z}$ 29'32	
retrograde	-12435 May 20 j 22:46	10° $\mathbb{M}$ 37'31		opposition		-12429 Oct 12 j 18:20	26° $\mathfrak{Z}$ 10'15	-2°16'58
min. Earth dist.	-12435 Jul 25 j 11:44	7° $\mathbb{M}$ 11'48	7.92246 AU	min. Earth dist.		-12429 Oct 12 j 11:05	26° $\mathfrak{Z}$ 11'39	8.86948 AU
opposition	-12435 Jul 26 j 11:51	7° $\mathbb{M}$ 06'45	-2°22'52	direct		-12429 Dec 22 j 10:17	22° $\mathfrak{Z}$ 45'02	
direct	-12435 Sep 30 j 18:17	3° $\mathbb{M}$ 37'15				-12428 Apr 04 j 13:17	0° $\mathfrak{A}$	
evening set	-12434 Jan 14 j 03:54	11° $\mathbb{M}$ 59'14		evening set		-12428 Apr 05 j 11:47	0° $\mathfrak{A}$ 06'28	
conjunction	-12434 Feb 01 j 07:45	14° $\mathbb{M}$ 20'58	-2°04'31	conjunction		-12428 Apr 22 j 21:13	2° $\mathfrak{A}$ 08'23	-1°41'11
minimum elong	-12434 Feb 01 j 07:41	14° $\mathbb{M}$ 20'56	2°05'02	minimum elong		-12428 Apr 22 j 21:16	2° $\mathfrak{A}$ 08'24	1°41'51
max. Earth dist.	-12434 Feb 02 j 15:56	14° $\mathbb{M}$ 31'30	9.98066 AU	max. Earth dist.		-12428 Apr 23 j 02:39	2° $\mathfrak{A}$ 09'58	10.94340 AU
	-12434 Feb 06 j 07:03	15° $\mathbb{M}$		morning rise		-12428 May 10 j 01:27	4° $\mathfrak{A}$ 08'45	
morning rise	-12434 Feb 19 j 11:16	16° $\mathbb{M}$ 42'26		retrograde		-12428 Aug 16 j 09:04	11° $\mathfrak{A}$ 02'57	
retrograde	-12434 Jun 04 j 05:20	24° $\mathbb{M}$ 58'42		opposition		-12428 Oct 23 j 16:05	7° $\mathfrak{A}$ 45'16	-1°50'31
opposition	-12434 Aug 09 j 18:20	21° $\mathbb{M}$ 29'34	-2°46'09	min. Earth dist.		-12428 Oct 23 j 13:23	7° $\mathfrak{A}$ 45'47	9.01250 AU
min. Earth dist.	-12434 Aug 08 j 18:02	21° $\mathbb{M}$ 34'36	8.04866 AU	direct		-12427 Jan 02 j 21:06	4° $\mathfrak{A}$ 21'16	
direct	-12434 Oct 15 j 16:40	18° $\mathbb{M}$ 00'11		evening set		-12427 Apr 17 j 11:26	11° $\mathfrak{A}$ 33'31	
evening set	-12433 Jan 29 j 11:20	26° $\mathbb{M}$ 14'41		conjunction		-12427 May 04 j 17:41	13° $\mathfrak{A}$ 32'57	-1°18'12
conjunction	-12433 Feb 16 j 12:56	28° $\mathbb{M}$ 33'16	-2°19'22	minimum elong		-12427 May 04 j 17:44	13° $\mathfrak{A}$ 32'58	1°18'46
minimum elong	-12433 Feb 16 j 12:53	28° $\mathbb{M}$ 33'15	2°20'00	max. Earth dist.		-12427 May 04 j 17:44	13° $\mathfrak{A}$ 32'58	11.07615 AU
max. Earth dist.	-12433 Feb 17 j 20:09	28° $\mathbb{M}$ 43'19	10.12042 AU			-12427 May 17 j 06:25	15° $\mathfrak{A}$	
	-12433 Feb 27 j 19:17	0° $\mathfrak{A}$		morning rise		-12427 May 21 j 18:31	15° $\mathfrak{A}$ 30'53	
morning rise	-12433 Mar 06 j 12:42	0° $\mathfrak{A}$ 51'09		retrograde		-12427 Aug 27 j 15:28	22° $\mathfrak{A}$ 17'00	
retrograde	-12433 Jun 17 j 22:50	8° $\mathfrak{A}$ 52'32		opposition		-12427 Nov 04 j 08:10	19° $\mathfrak{A}$ 00'40	-1°20'34
opposition	-12433 Aug 23 j 14:40	5° $\mathfrak{A}$ 25'16	-2°58'43	min. Earth dist.		-12427 Nov 04 j 10:47	19° $\mathfrak{A}$ 00'11	9.13357 AU
min. Earth dist.	-12433 Aug 22 j 15:34	5° $\mathfrak{A}$ 30'01	8.19977 AU	direct		-12426 Jan 15 j 00:06	15° $\mathfrak{A}$ 37'51	
direct	-12433 Oct 30 j 06:39	1° $\mathfrak{A}$ 56'17		evening set		-12426 Apr 29 j 01:50	22° $\mathfrak{A}$ 42'23	
evening set	-12432 Feb 13 j 06:19	10° $\mathfrak{A}$ 01'15		conjunction		-12426 May 16 j 04:48	24° $\mathfrak{A}$ 39'43	-0°52'43
conjunction	-12432 Mar 02 j 05:02	12° $\mathfrak{A}$ 16'19	-2°25'43	minimum elong		-12426 May 16 j 04:50	24° $\mathfrak{A}$ 39'44	0°53'11
minimum elong	-12432 Mar 02 j 05:01	12° $\mathfrak{A}$ 16'18	2°26'26	max. Earth dist.		-12426 May 15 j 22:39	24° $\mathfrak{A}$ 37'57	11.18475 AU
max. Earth dist.	-12432 Mar 03 j 09:37	12° $\mathfrak{A}$ 25'20	10.28068 AU	morning rise		-12426 Jun 02 j 02:38	26° $\mathfrak{A}$ 35'39	
morning rise	-12432 Mar 20 j 00:36	14° $\mathfrak{A}$ 30'19		retrograde		-12426 Jul 04 j 20:22	0° $\mathfrak{H}$	
retrograde	-12432 Jun 30 j 04:07	22° $\mathfrak{A}$ 16'12		opposition		-12426 Sep 07 j 16:52	3° $\mathfrak{H}$ 15'57	
min. Earth dist.	-12432 Sep 04 j 04:15	18° $\mathfrak{A}$ 55'03	8.36646 AU			-12426 Nov 15 j 19:58	0° $\mathfrak{H}$ 00'39	-0°48'22
opposition	-12432 Sep 05 j 00:19	18° $\mathfrak{A}$ 50'59	-3°00'53	min. Earth dist.		-12426 Nov 15 j 23:29	30° $\mathbb{R}$ $\mathfrak{A}$	
direct	-12432 Nov 12 j 10:18	15° $\mathfrak{A}$ 22'39		direct		-12426 Nov 16 j 03:52	29° $\mathfrak{A}$ 59'11	9.22886 AU
evening set	-12431 Feb 26 j 11:09	23° $\mathfrak{A}$ 16'49				-12425 Jan 26 j 19:14	26° $\mathfrak{A}$ 38'57	
conjunction	-12431 Mar 16 j 06:33	25° $\mathfrak{A}$ 28'17	-2°24'04	evening set		-12425 Apr 05 j 01:43	0° $\mathfrak{H}$	
minimum elong	-12431 Mar 16 j 06:34	25° $\mathfrak{A}$ 28'17	2°24'49			-12425 May 10 j 08:47	3° $\mathfrak{H}$ 37'23	
max. Earth dist.	-12431 Mar 17 j 06:30	25° $\mathfrak{A}$ 35'42	10.45184 AU	conjunction		-12425 May 27 j 08:31	5° $\mathfrak{H}$ 33'03	-0°25'46
morning rise	-12431 Apr 02 j 21:55	27° $\mathfrak{A}$ 38'26		minimum elong		-12425 May 27 j 08:32	5° $\mathfrak{H}$ 33'03	0°26'05
				max. Earth dist.		-12425 May 26 j 20:10	5° $\mathfrak{H}$ 29'32	11.26589 AU

Attention, astronomical year style is used: The year -12425 in astronomical counting style is the year 12426 BCE in historical counting style.

morning rise	-12425 Jun 13 j 03:39	7° $\text{H}$ 27'27		morning rise	-12419 Aug 14 j 19:53	12° $\text{B}$ 10'00	
retrograde	-12425 Sep 18 j 16:09	14° $\text{H}$ 04'14			-12419 Sep 09 j 19:29	15° $\text{B}$	
opposition	-12425 Nov 27 j 05:02	10° $\text{H}$ 49'38	-0°14'59	retrograde	-12419 Nov 24 j 01:12	19° $\text{B}$ 11'50	
min. Earth dist.	-12425 Nov 27 j 16:56	10° $\text{H}$ 47'27	9.29532 AU	opposition	-12418 Feb 02 j 20:21	15° $\text{B}$ 54'02	2°36'37
direct	-12424 Feb 07 j 10:30	7° $\text{H}$ 28'56		min. Earth dist.	-12418 Feb 03 j 22:14	15° $\text{B}$ 49'16	9.04068 AU
asc. node	-12424 May 12 j 02:03	13° $\text{H}$ 28'01			-12418 Feb 15 j 06:01	15° $\text{R}$ $\text{B}$	
evening set	-12424 May 20 j 10:16	14° $\text{H}$ 22'59		direct	-12418 Apr 14 j 15:42	12° $\text{B}$ 35'18	
					-12418 Jun 09 j 03:22	15° $\text{B}$	
conjunction	-12424 Jun 06 j 06:58	16° $\text{H}$ 17'24	0°01'53	evening set	-12418 Jul 24 j 09:45	19° $\text{B}$ 38'52	
minimum elong	-12424 Jun 06 j 06:57	16° $\text{H}$ 17'23	0°01'41				
behind sun begin	-12424 Jun 05 j 23:58	16° $\text{H}$ 15'26		conjunction	-12418 Aug 09 j 18:19	21° $\text{B}$ 35'12	2°14'42
behind sun end	-12424 Jun 06 j 13:56	16° $\text{H}$ 19'21		minimum elong	-12418 Aug 09 j 18:16	21° $\text{B}$ 35'11	2°15'16
max. Earth dist.	-12424 Jun 05 j 14:26	16° $\text{H}$ 12'42	11.31700 AU	max. Earth dist.	-12418 Aug 08 j 12:09	21° $\text{B}$ 26'12	10.97168 AU
morning rise	-12424 Jun 22 j 23:23	18° $\text{H}$ 10'40		morning rise	-12418 Aug 26 j 03:44	23° $\text{B}$ 31'54	
retrograde	-12424 Sep 28 j 16:47	24° $\text{H}$ 46'14			-12418 Nov 06 j 01:33	0° $\text{II}$	
opposition	-12424 Dec 07 j 13:06	21° $\text{H}$ 31'59	0°18'34	retrograde	-12418 Dec 06 j 11:02	0° $\text{II}$ 44'56	
min. Earth dist.	-12424 Dec 08 j 04:27	21° $\text{H}$ 29'11	9.33091 AU		-12417 Jan 06 j 09:41	30° $\text{R}$ $\text{B}$	
direct	-12423 Feb 17 j 20:20	18° $\text{H}$ 12'11		opposition	-12417 Feb 15 j 05:40	27° $\text{B}$ 25'28	2°51'34
evening set	-12423 May 31 j 08:19	25° $\text{H}$ 03'33		min. Earth dist.	-12417 Feb 16 j 07:44	27° $\text{B}$ 20'37	8.89964 AU
max. Earth dist.	-12423 Jun 16 j 05:59	26° $\text{H}$ 51'24	11.33657 AU	direct	-12417 Apr 26 j 11:47	24° $\text{B}$ 06'11	
					-12417 Jul 24 j 23:48	0° $\text{II}$	
conjunction	-12423 Jun 17 j 02:05	26° $\text{H}$ 57'08	0°29'11	evening set	-12417 Aug 05 j 00:36	1° $\text{II}$ 17'06	
minimum elong	-12423 Jun 17 j 02:03	26° $\text{H}$ 57'07	0°29'08	max. Earth dist.	-12417 Aug 20 j 04:42	3° $\text{II}$ 06'46	10.82017 AU
morning rise	-12423 Jul 03 j 16:01	28° $\text{H}$ 49'45					
	-12423 Jul 14 j 08:43	0° $\text{Y}$		conjunction	-12417 Aug 21 j 09:47	3° $\text{II}$ 15'36	2°23'50
retrograde	-12423 Oct 09 j 18:02	5° $\text{Y}$ 26'19		minimum elong	-12417 Aug 21 j 09:45	3° $\text{II}$ 15'36	2°24'29
opposition	-12423 Dec 18 j 21:56	2° $\text{Y}$ 12'05	0°51'21	morning rise	-12417 Sep 06 j 20:51	5° $\text{II}$ 14'48	
min. Earth dist.	-12423 Dec 19 j 17:15	2° $\text{Y}$ 08'34	9.33472 AU	retrograde	-12417 Dec 19 j 08:40	12° $\text{II}$ 40'45	
	-12422 Jan 21 j 02:46	30° $\text{R}$ $\text{H}$		opposition	-12416 Feb 27 j 23:58	9° $\text{II}$ 19'24	2°59'50
direct	-12422 Mar 01 j 03:06	28° $\text{H}$ 52'57		min. Earth dist.	-12416 Feb 29 j 00:23	9° $\text{II}$ 14'49	8.73890 AU
	-12422 Apr 08 j 09:57	0° $\text{Y}$		direct	-12416 May 07 j 13:57	5° $\text{II}$ 59'26	
evening set	-12422 Jun 11 j 04:42	5° $\text{Y}$ 43'24		evening set	-12416 Aug 16 j 00:20	13° $\text{II}$ 19'02	
				max. Earth dist.	-12416 Aug 31 j 09:34	15° $\text{II}$ 12'19	10.65212 AU
conjunction	-12422 Jun 27 j 19:33	7° $\text{Y}$ 36'33	0°55'30				
minimum elong	-12422 Jun 27 j 19:31	7° $\text{Y}$ 36'33	0°55'35	conjunction	-12416 Sep 01 j 11:29	15° $\text{II}$ 20'20	2°26'59
max. Earth dist.	-12422 Jun 26 j 19:09	7° $\text{Y}$ 29'35	11.32408 AU	minimum elong	-12416 Sep 01 j 11:29	15° $\text{II}$ 20'20	2°27'42
morning rise	-12422 Jul 14 j 07:32	9° $\text{Y}$ 29'00		morning rise	-12416 Sep 18 j 01:19	17° $\text{II}$ 22'38	
retrograde	-12422 Oct 20 j 22:25	16° $\text{Y}$ 08'45		retrograde	-12416 Dec 31 j 18:17	25° $\text{II}$ 02'54	
opposition	-12422 Dec 30 j 08:47	12° $\text{Y}$ 54'10	1°22'29	opposition	-12415 Mar 12 j 04:09	21° $\text{II}$ 39'29	3°00'17
min. Earth dist.	-12422 Dec 31 j 07:32	12° $\text{Y}$ 50'02	9.30652 AU	min. Earth dist.	-12415 Mar 13 j 00:55	21° $\text{II}$ 35'31	8.56520 AU
direct	-12421 Mar 12 j 09:51	9° $\text{Y}$ 35'29		direct	-12415 May 20 j 00:23	18° $\text{II}$ 18'39	
evening set	-12421 Jun 22 j 01:20	16° $\text{Y}$ 26'44		evening set	-12415 Aug 28 j 11:04	25° $\text{II}$ 48'06	
max. Earth dist.	-12421 Jul 07 j 10:22	18° $\text{Y}$ 12'05	11.27979 AU	max. Earth dist.	-12415 Sep 13 j 03:28	27° $\text{II}$ 45'51	10.47530 AU
conjunction	-12421 Jul 08 j 13:41	18° $\text{Y}$ 19'56	1°20'00	conjunction	-12415 Sep 14 j 01:27	27° $\text{II}$ 52'46	2°23'22
minimum elong	-12421 Jul 08 j 13:38	18° $\text{Y}$ 19'56	1°20'14	minimum elong	-12415 Sep 14 j 01:29	27° $\text{II}$ 52'47	2°24'07
morning rise	-12421 Jul 25 j 00:04	20° $\text{Y}$ 12'41		morning rise	-12415 Sep 30 j 19:27	29° $\text{II}$ 58'43	
retrograde	-12421 Nov 01 j 07:10	26° $\text{Y}$ 57'45			-12415 Sep 30 j 23:35	0° $\text{B}$	
opposition	-12420 Jan 10 j 23:01	23° $\text{Y}$ 42'25	1°51'03	retrograde	-12414 Jan 14 j 17:27	7° $\text{B}$ 53'57	
min. Earth dist.	-12420 Jan 11 j 23:35	23° $\text{Y}$ 37'58	9.24694 AU	opposition	-12414 Mar 25 j 18:31	4° $\text{B}$ 28'25	2°51'57
direct	-12420 Mar 22 j 17:40	20° $\text{Y}$ 23'58		min. Earth dist.	-12414 Mar 26 j 10:47	4° $\text{B}$ 25'15	8.38701 AU
evening set	-12420 Jul 01 j 23:51	27° $\text{Y}$ 17'44		direct	-12414 Jun 01 j 20:40	1° $\text{B}$ 06'31	
max. Earth dist.	-12420 Jul 17 j 06:08	29° $\text{Y}$ 03'16	11.20480 AU	evening set	-12414 Sep 10 j 10:08	8° $\text{B}$ 46'34	
				max. Earth dist.	-12414 Sep 26 j 11:40	10° $\text{B}$ 49'31	10.29867 AU
conjunction	-12420 Jul 18 j 10:19	29° $\text{Y}$ 11'27	1°41'56				
minimum elong	-12420 Jul 18 j 10:16	29° $\text{Y}$ 11'26	1°42'17	conjunction	-12414 Sep 27 j 05:00	10° $\text{B}$ 55'05	2°12'24
	-12420 Jul 25 j 09:28	0° $\text{B}$		minimum elong	-12414 Sep 27 j 05:03	10° $\text{B}$ 55'06	2°13'10
morning rise	-12420 Aug 03 j 19:28	1° $\text{B}$ 04'57		morning rise	-12414 Oct 14 j 04:30	13° $\text{B}$ 05'09	
retrograde	-12420 Nov 12 j 01:09	7° $\text{B}$ 57'26		retrograde	-12413 Jan 29 j 04:49	21° $\text{B}$ 15'15	
opposition	-12419 Jan 21 j 18:28	4° $\text{B}$ 41'02	2°16'05	opposition	-12413 Apr 08 j 19:19	17° $\text{B}$ 47'37	2°34'12
min. Earth dist.	-12419 Jan 22 j 19:37	4° $\text{B}$ 36'26	9.15751 AU	min. Earth dist.	-12413 Apr 09 j 06:28	17° $\text{B}$ 45'25	8.21368 AU
direct	-12419 Apr 03 j 04:06	1° $\text{B}$ 22'34		direct	-12413 Jun 15 j 02:40	14° $\text{B}$ 24'31	
evening set	-12419 Jul 13 j 02:00	8° $\text{B}$ 20'25		evening set	-12413 Sep 23 j 22:32	22° $\text{B}$ 15'28	
max. Earth dist.	-12419 Jul 28 j 05:52	10° $\text{B}$ 06'34	11.10113 AU				
				conjunction	-12413 Oct 10 j 23:00	24° $\text{B}$ 28'05	1°53'53
conjunction	-12419 Jul 29 j 11:08	10° $\text{B}$ 15'11	2°00'26	minimum elong	-12413 Oct 10 j 23:04	24° $\text{B}$ 28'06	1°54'36
minimum elong	-12419 Jul 29 j 11:05	10° $\text{B}$ 15'10	2°00'55	max. Earth dist.	-12413 Oct 10 j 11:55	24° $\text{B}$ 24'27	10.13184 AU



Attention, astronomical year style is used: The year -12413 in astronomical counting style is the year 12414 BCE in historical counting style.

morning rise	-12413 Oct 28 j 04:59	26° $\Omega$ 42'31	direct	-12407 Sep 08 j 23:32	12° $\Omega$ 10'57	
	-12413 Nov 24 j 07:10	0° $\Omega$	evening set	-12407 Dec 22 j 11:32	20° $\Omega$ 39'19	
retrograde	-12412 Feb 13 j 02:42	5° $\Omega$ 06'30				
opposition	-12412 Apr 22 j 05:46	1° $\Omega$ 36'54	2°06'55	conjunction	-12406 Jan 09 j 16:44	23° $\Omega$ 04'31 -1°28'03
min. Earth dist.	-12412 Apr 22 j 11:18	1° $\Omega$ 35'47	8.05519 AU	minimum elong	-12406 Jan 09 j 16:39	23° $\Omega$ 04'29 1°28'19
	-12412 May 13 j 04:26	30° $\kappa$ $\Omega$		max. Earth dist.	-12406 Jan 11 j 00:54	23° $\Omega$ 15'16 9.81402 AU
direct	-12412 Jun 27 j 20:39	28° $\Omega$ 12'30		morning rise	-12406 Jan 27 j 23:40	25° $\Omega$ 30'11
	-12412 Aug 11 j 00:40	0° $\Omega$			-12406 Mar 06 j 05:41	0° $\Omega$
evening set	-12412 Oct 07 j 01:04	6° $\Omega$ 14'07		retrograde	-12406 May 14 j 13:46	4° $\Omega$ 05'36
				min. Earth dist.	-12406 Jul 19 j 03:39	0° $\Omega$ 38'42 7.85825 AU
conjunction	-12412 Oct 24 j 08:03	8° $\Omega$ 30'51	1°28'08	opposition	-12406 Jul 20 j 04:22	0° $\Omega$ 33'29 -2°08'29
minimum elong	-12412 Oct 24 j 08:07	8° $\Omega$ 30'53	1°28'45		-12406 Jul 26 j 20:06	30° $\kappa$ $\Omega$
max. Earth dist.	-12412 Oct 24 j 04:49	8° $\Omega$ 29'47	9.98478 AU	direct	-12406 Sep 24 j 04:24	27° $\Omega$ 03'27
morning rise	-12412 Nov 10 j 20:58	10° $\Omega$ 49'33			-12406 Nov 20 j 20:27	0° $\Omega$
	-12412 Dec 15 j 10:07	15° $\Omega$		evening set	-12405 Jan 07 j 07:53	5° $\Omega$ 28'27
retrograde	-12411 Feb 27 j 09:17	19° $\Omega$ 25'19				
opposition	-12411 May 07 j 00:15	15° $\Omega$ 54'02	1°30'52	conjunction	-12405 Jan 25 j 12:31	7° $\Omega$ 51'36 -1°54'41
min. Earth dist.	-12411 May 06 j 23:28	15° $\Omega$ 54'12	7.92151 AU	minimum elong	-12405 Jan 25 j 12:26	7° $\Omega$ 51'34 1°55'08
	-12411 May 18 j 03:58	15° $\kappa$ $\Omega$		max. Earth dist.	-12405 Jan 26 j 22:19	8° $\Omega$ 02'45 9.90991 AU
direct	-12411 Jul 12 j 02:19	12° $\Omega$ 28'20		morning rise	-12405 Feb 12 j 17:26	10° $\Omega$ 14'44
	-12411 Sep 02 j 13:24	15° $\Omega$			-12405 Mar 25 j 01:49	15° $\Omega$
evening set	-12411 Oct 21 j 17:35	20° $\Omega$ 39'42		retrograde	-12405 May 29 j 02:44	18° $\Omega$ 37'56
				opposition	-12405 Aug 03 j 15:18	15° $\Omega$ 07'21 -2°36'37
conjunction	-12411 Nov 08 j 07:19	23° $\Omega$ 00'15	0°56'13	min. Earth dist.	-12405 Aug 02 j 14:22	15° $\Omega$ 12'35 7.97244 AU
minimum elong	-12411 Nov 08 j 07:22	23° $\Omega$ 00'16	0°56'41		-12405 Aug 05 j 02:28	15° $\kappa$ $\Omega$
max. Earth dist.	-12411 Nov 08 j 12:41	23° $\Omega$ 02'03	9.86701 AU	direct	-12405 Oct 09 j 05:28	11° $\Omega$ 37'20
morning rise	-12411 Nov 26 j 02:55	25° $\Omega$ 22'43			-12405 Dec 11 j 02:38	15° $\Omega$
	-12410 Jan 03 j 08:23	0° $\Omega$		evening set	-12404 Jan 22 j 20:19	19° $\Omega$ 55'57
retrograde	-12410 Mar 14 j 21:41	4° $\Omega$ 07'08				
opposition	-12410 May 22 j 00:46	0° $\Omega$ 34'34	0°47'51	conjunction	-12404 Feb 09 j 23:06	22° $\Omega$ 16'12 -2°13'28
min. Earth dist.	-12410 May 21 j 17:22	0° $\Omega$ 36'06	7.82160 AU	minimum elong	-12404 Feb 09 j 23:02	22° $\Omega$ 16'11 2°14'03
	-12410 May 29 j 00:30	30° $\kappa$ $\Omega$		max. Earth dist.	-12404 Feb 11 j 08:07	22° $\Omega$ 26'55 10.03997 AU
direct	-12410 Jul 26 j 17:18	27° $\Omega$ 07'37		morning rise	-12404 Feb 28 j 00:48	24° $\Omega$ 35'58
	-12410 Sep 20 j 14:30	0° $\Omega$			-12404 Apr 16 j 00:55	0° $\Omega$
evening set	-12410 Nov 05 j 22:45	5° $\Omega$ 27'09		retrograde	-12404 Jun 11 j 02:05	2° $\Omega$ 44'46
					-12404 Aug 07 j 18:44	30° $\kappa$ $\Omega$
conjunction	-12410 Nov 23 j 18:38	7° $\Omega$ 50'44	0°19'58	opposition	-12404 Aug 16 j 16:32	29° $\Omega$ 16'08 -2°54'13
minimum elong	-12410 Nov 23 j 18:39	7° $\Omega$ 50'44	0°20'16	min. Earth dist.	-12404 Aug 15 j 16:48	29° $\Omega$ 21'02 8.11630 AU
max. Earth dist.	-12410 Nov 24 j 08:41	7° $\Omega$ 55'28	9.78670 AU	direct	-12404 Oct 22 j 23:36	25° $\Omega$ 46'29
morning rise	-12410 Dec 11 j 19:52	10° $\Omega$ 16'03			-12403 Jan 03 j 02:10	0° $\Omega$
retrograde	-12409 Mar 30 j 13:05	19° $\Omega$ 05'04		evening set	-12403 Feb 05 j 21:34	3° $\Omega$ 56'23
opposition	-12409 Jun 06 j 04:30	15° $\Omega$ 31'43	0°00'45			
min. Earth dist.	-12409 Jun 05 j 14:44	15° $\Omega$ 34'36	7.76267 AU	conjunction	-12403 Feb 23 j 21:36	6° $\Omega$ 13'12 -2°23'46
desc. node	-12409 Jun 12 j 01:01	15° $\Omega$ 02'25		minimum elong	-12403 Feb 23 j 21:35	6° $\Omega$ 13'12 2°24'27
direct	-12409 Aug 10 j 15:11	12° $\Omega$ 03'39		max. Earth dist.	-12403 Feb 25 j 03:45	6° $\Omega$ 22'49 10.19526 AU
evening set	-12409 Nov 21 j 14:06	20° $\Omega$ 29'04		morning rise	-12403 Mar 13 j 19:22	8° $\Omega$ 29'09
				retrograde	-12403 Jun 24 j 12:50	16° $\Omega$ 22'30
conjunction	-12409 Dec 09 j 14:55	22° $\Omega$ 54'34	-0°18'09	min. Earth dist.	-12403 Aug 29 j 09:23	13° $\Omega$ 00'30 8.28049 AU
minimum elong	-12409 Dec 09 j 14:54	22° $\Omega$ 54'33	0°18'02	opposition	-12403 Aug 30 j 07:13	12° $\Omega$ 56'03 -3°01'07
max. Earth dist.	-12409 Dec 10 j 12:53	23° $\Omega$ 02'00	9.74988 AU	direct	-12403 Nov 06 j 08:43	9° $\Omega$ 27'09
morning rise	-12409 Dec 27 j 20:09	25° $\Omega$ 21'28		evening set	-12402 Feb 20 j 09:10	17° $\Omega$ 26'42
	-12408 Feb 03 j 21:05	0° $\Omega$				
retrograde	-12408 Apr 14 j 03:36	4° $\Omega$ 10'28		conjunction	-12402 Mar 10 j 06:04	19° $\Omega$ 39'53 -2°25'45
opposition	-12408 Jun 20 j 08:24	0° $\Omega$ 36'55	-0°46'51	minimum elong	-12402 Mar 10 j 06:04	19° $\Omega$ 39'53 2°26'29
min. Earth dist.	-12408 Jun 19 j 13:14	0° $\Omega$ 40'57	7.74917 AU	max. Earth dist.	-12402 Mar 11 j 08:18	19° $\Omega$ 48'05 10.36624 AU
	-12408 Jun 27 j 16:35	30° $\kappa$ $\Omega$		morning rise	-12402 Mar 27 j 23:36	21° $\Omega$ 51'55
direct	-12408 Aug 24 j 18:12	27° $\Omega$ 07'54		retrograde	-12402 Jul 07 j 11:30	29° $\Omega$ 29'50
	-12408 Oct 19 j 17:15	0° $\Omega$		opposition	-12402 Sep 12 j 11:28	26° $\Omega$ 05'40 -2°58'04
evening set	-12408 Dec 06 j 11:55	5° $\Omega$ 36'24		min. Earth dist.	-12402 Sep 11 j 16:16	26° $\Omega$ 09'31 8.45541 AU
				direct	-12402 Nov 20 j 07:39	22° $\Omega$ 37'48
conjunction	-12408 Dec 24 j 15:55	8° $\Omega$ 02'27	-0°55'05		-12401 Mar 02 j 14:32	0° $\Omega$
minimum elong	-12408 Dec 24 j 15:52	8° $\Omega$ 02'25	0°55'10	evening set	-12401 Mar 06 j 06:00	0° $\Omega$ 26'07
max. Earth dist.	-12408 Dec 25 j 20:06	8° $\Omega$ 11'57	9.75929 AU			
morning rise	-12407 Jan 11 j 23:06	10° $\Omega$ 29'28		conjunction	-12401 Mar 23 j 23:42	2° $\Omega$ 35'45 -2°20'09
retrograde	-12407 Apr 29 j 13:00	19° $\Omega$ 13'46		minimum elong	-12401 Mar 23 j 23:44	2° $\Omega$ 35'46 2°20'54
min. Earth dist.	-12407 Jul 04 j 10:28	15° $\Omega$ 45'28	7.78193 AU	max. Earth dist.	-12401 Mar 24 j 21:30	2° $\Omega$ 42'27 10.54333 AU
opposition	-12407 Jul 05 j 09:20	15° $\Omega$ 40'38	-1°31'04	morning rise	-12401 Apr 10 j 13:03	4° $\Omega$ 44'01

Attention, astronomical year style is used: The year -12401 in astronomical counting style is the year 12402 BCE in historical counting style.

retrograde	-12401 Jul 19 j 22:00	12° $\overline{3}$ 07'21	
opposition	-12401 Sep 25 j 05:41	8° $\overline{3}$ 45'26	-2°46'22
min. Earth dist.	-12401 Sep 24 j 14:23	8° $\overline{3}$ 48'28	8.63177 AU
direct	-12401 Dec 03 j 20:18	5° $\overline{3}$ 18'47	
evening set	-12400 Mar 18 j 12:42	12° $\overline{3}$ 55'49	
conjunction	-12400 Apr 05 j 03:05	15° $\overline{3}$ 02'05	-2°08'01
minimum elong	-12400 Apr 05 j 03:08	15° $\overline{3}$ 02'06	2°08'45
max. Earth dist.	-12400 Apr 05 j 19:27	15° $\overline{3}$ 07'01	10.71749 AU
morning rise	-12400 Apr 22 j 12:27	17° $\overline{3}$ 06'51	
retrograde	-12400 Jul 30 j 23:28	24° $\overline{3}$ 17'01	
opposition	-12400 Oct 06 j 14:50	20° $\overline{3}$ 57'14	-2°27'31
min. Earth dist.	-12400 Oct 06 j 04:45	20° $\overline{3}$ 59'12	8.80114 AU
direct	-12400 Dec 15 j 21:17	17° $\overline{3}$ 31'53	
evening set	-12399 Mar 31 j 06:02	24° $\overline{3}$ 58'09	
conjunction	-12399 Apr 17 j 17:00	27° $\overline{3}$ 01'22	-1°50'35
minimum elong	-12399 Apr 17 j 17:03	27° $\overline{3}$ 01'23	1°51'16
max. Earth dist.	-12399 Apr 18 j 02:41	27° $\overline{3}$ 04'14	10.88077 AU
morning rise	-12399 May 04 j 22:45	29° $\overline{3}$ 03'01	
	-12399 May 13 j 06:09	0° $\approx$	
retrograde	-12399 Aug 11 j 14:36	6° $\approx$ 01'52	
opposition	-12399 Oct 18 j 16:18	2° $\approx$ 43'57	-2°03'06
min. Earth dist.	-12399 Oct 18 j 11:34	2° $\approx$ 44'51	8.95621 AU
	-12399 Nov 29 j 12:01	30° $\overline{8}$ $\overline{3}$	
direct	-12399 Dec 28 j 13:08	29° $\overline{3}$ 19'54	