

## Planetary Phenomena of Neptune from -4900 through -4398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1

Attention, astronomical year style is used: The year -4900 in astronomical counting style is the year 4901 BCE in historical counting style.

conjunction	-4900 Jan 08 j 15:56	12° <del>2</del> 20'04	-0°36'17	opposition	-4894 Jul 28 j 20:57	26° <del>2</del> 54'10	-1°13'00
minimum elong	-4900 Jan 08 j 15:56	12° <del>2</del> 20'04	0°36'32	min. Earth dist.	-4894 Jul 27 j 21:31	26° <del>2</del> 55'48	28.89265 AU
max. Earth dist.	-4900 Jan 09 j 17:48	12° <del>2</del> 22'30	30.93289 AU	direct	-4894 Oct 14 j 03:35	25° <del>2</del> 31'11	
morning rise	-4900 Jan 24 j 11:58	12° <del>2</del> 55'39		evening set	-4893 Jan 08 j 11:17	27° <del>2</del> 23'49	
retrograde	-4900 Apr 25 j 02:31	14° <del>2</del> 54'31					
opposition	-4900 Jul 14 j 20:25	13° <del>2</del> 29'10	-0°41'36	conjunction	-4893 Jan 24 j 06:36	27° <del>2</del> 59'15	-1°10'31
min. Earth dist.	-4900 Jul 13 j 20:09	13° <del>2</del> 30'51	28.92900 AU	minimum elong	-4893 Jan 24 j 06:35	27° <del>2</del> 59'15	1°10'46
direct	-4900 Sep 30 j 12:04	12° <del>2</del> 06'17		max. Earth dist.	-4893 Jan 25 j 08:32	28° <del>2</del> 01'41	30.88850 AU
evening set	-4900 Dec 25 j 11:16	13° <del>2</del> 58'32		morning rise	-4893 Feb 09 j 05:43	28° <del>2</del> 35'03	
					-4893 Mar 26 j 11:36	0° <del>2</del>	
conjunction	-4899 Jan 10 j 03:48	14° <del>2</del> 33'46	-0°41'23	retrograde	-4893 May 11 j 22:12	0° <del>2</del> 34'12	
minimum elong	-4899 Jan 10 j 03:47	14° <del>2</del> 33'46	0°41'37		-4893 Jun 28 j 14:02	30° <del>2</del> 8'2	
max. Earth dist.	-4899 Jan 11 j 05:03	14° <del>2</del> 36'09	30.92457 AU	min. Earth dist.	-4893 Jul 30 j 09:03	29° <del>2</del> 10'31	28.88560 AU
morning rise	-4899 Jan 26 j 00:28	15° <del>2</del> 09'23		opposition	-4893 Jul 31 j 08:57	29° <del>2</del> 08'50	-1°17'54
retrograde	-4899 Apr 27 j 16:26	17° <del>2</del> 08'18		direct	-4893 Oct 16 j 16:14	27° <del>2</del> 45'48	
min. Earth dist.	-4899 Jul 16 j 07:58	15° <del>2</del> 44'38	28.92141 AU	evening set	-4892 Jan 10 j 23:47	29° <del>2</del> 38'29	
opposition	-4899 Jul 17 j 08:34	15° <del>2</del> 42'56	-0°47'01		-4892 Jan 20 j 15:22	0° <del>2</del>	
direct	-4899 Oct 02 j 22:23	14° <del>2</del> 20'01					
evening set	-4899 Dec 27 j 22:49	16° <del>2</del> 12'18		conjunction	-4892 Jan 26 j 19:20	0° <del>2</del> 13'56	-1°15'03
				minimum elong	-4892 Jan 26 j 19:20	0° <del>2</del> 13'56	1°15'19
conjunction	-4898 Jan 12 j 15:54	16° <del>2</del> 47'35	-0°46'26	max. Earth dist.	-4892 Jan 27 j 19:48	0° <del>2</del> 16'14	30.88089 AU
minimum elong	-4898 Jan 12 j 15:54	16° <del>2</del> 47'35	0°46'41	morning rise	-4892 Feb 11 j 19:01	0° <del>2</del> 49'46	
max. Earth dist.	-4898 Jan 13 j 18:13	16° <del>2</del> 50'04	30.91743 AU	retrograde	-4892 May 13 j 12:28	2° <del>2</del> 48'55	
morning rise	-4898 Jan 28 j 12:57	17° <del>2</del> 23'15		opposition	-4892 Aug 01 j 21:04	1° <del>2</del> 23'30	-1°22'41
retrograde	-4898 Apr 30 j 04:32	19° <del>2</del> 22'12		min. Earth dist.	-4892 Jul 31 j 22:10	1° <del>2</del> 25'06	28.87761 AU
opposition	-4898 Jul 19 j 20:45	17° <del>2</del> 56'49	-0°52'23	direct	-4892 Oct 18 j 03:20	0° <del>2</del> 00'24	
min. Earth dist.	-4898 Jul 18 j 20:21	17° <del>2</del> 58'31	28.91482 AU	evening set	-4891 Jan 12 j 12:20	1° <del>2</del> 53'07	
direct	-4898 Oct 05 j 10:23	16° <del>2</del> 33'54					
evening set	-4898 Dec 30 j 10:34	18° <del>2</del> 26'15		conjunction	-4891 Jan 28 j 08:29	2° <del>2</del> 28'36	-1°19'28
				minimum elong	-4891 Jan 28 j 08:28	2° <del>2</del> 28'36	1°19'43
conjunction	-4897 Jan 15 j 04:05	19° <del>2</del> 01'33	-0°51'24	max. Earth dist.	-4891 Jan 29 j 09:42	2° <del>2</del> 30'58	30.87246 AU
minimum elong	-4897 Jan 15 j 04:04	19° <del>2</del> 01'33	0°51'39	morning rise	-4891 Feb 13 j 08:23	3° <del>2</del> 04'27	
max. Earth dist.	-4897 Jan 16 j 06:04	19° <del>2</del> 04'00	30.91137 AU	retrograde	-4891 May 16 j 01:10	5° <del>2</del> 03'34	
morning rise	-4897 Jan 31 j 01:37	19° <del>2</del> 37'15		min. Earth dist.	-4891 Aug 03 j 10:07	3° <del>2</del> 39'42	28.86891 AU
retrograde	-4897 May 02 j 19:27	21° <del>2</del> 36'15		opposition	-4891 Aug 04 j 08:52	3° <del>2</del> 38'07	-1°27'21
min. Earth dist.	-4897 Jul 21 j 07:31	20° <del>2</del> 12'38	28.90917 AU	direct	-4891 Oct 20 j 16:19	2° <del>2</del> 14'55	
opposition	-4897 Jul 22 j 08:43	20° <del>2</del> 10'53	-0°57'40	evening set	-4890 Jan 15 j 01:04	4° <del>2</del> 07'40	
direct	-4897 Oct 07 j 21:01	18° <del>2</del> 47'58					
evening set	-4896 Jan 01 j 22:30	20° <del>2</del> 40'22		conjunction	-4890 Jan 30 j 21:31	4° <del>2</del> 43'11	-1°23'46
				minimum elong	-4890 Jan 30 j 21:31	4° <del>2</del> 43'11	1°24'02
conjunction	-4896 Jan 17 j 16:23	21° <del>2</del> 15'43	-0°56'19	max. Earth dist.	-4890 Jan 31 j 21:25	4° <del>2</del> 45'25	30.86368 AU
minimum elong	-4896 Jan 17 j 16:23	21° <del>2</del> 15'43	0°56'35	morning rise	-4890 Feb 15 j 21:58	5° <del>2</del> 19'03	
max. Earth dist.	-4896 Jan 18 j 18:39	21° <del>2</del> 18'11	30.90589 AU	retrograde	-4890 May 18 j 15:39	7° <del>2</del> 18'08	
morning rise	-4896 Feb 02 j 14:22	21° <del>2</del> 51'26		opposition	-4890 Aug 06 j 20:41	5° <del>2</del> 52'38	-1°31'53
retrograde	-4896 May 04 j 06:33	23° <del>2</del> 50'30		min. Earth dist.	-4890 Aug 05 j 22:15	5° <del>2</del> 54'12	28.86026 AU
opposition	-4896 Jul 23 j 20:54	22° <del>2</del> 25'08	-1°02'52	direct	-4890 Oct 23 j 03:26	4° <del>2</del> 29'20	
min. Earth dist.	-4896 Jul 22 j 20:42	22° <del>2</del> 26'50	28.90393 AU	evening set	-4889 Jan 17 j 13:45	6° <del>2</del> 22'09	
direct	-4896 Oct 09 j 07:13	21° <del>2</del> 02'13					
evening set	-4895 Jan 03 j 10:26	22° <del>2</del> 54'42		conjunction	-4889 Feb 02 j 10:40	6° <del>2</del> 57'40	-1°27'56
				minimum elong	-4889 Feb 02 j 10:39	6° <del>2</del> 57'40	1°28'12
conjunction	-4895 Jan 19 j 04:52	23° <del>2</del> 30'04	-1°01'08	max. Earth dist.	-4889 Feb 03 j 11:12	6° <del>2</del> 59'59	30.85503 AU
minimum elong	-4895 Jan 19 j 04:51	23° <del>2</del> 30'03	1°01'23	morning rise	-4889 Feb 18 j 11:19	7° <del>2</del> 33'33	
max. Earth dist.	-4895 Jan 20 j 07:21	23° <del>2</del> 32'33	30.90071 AU	retrograde	-4889 May 21 j 04:15	9° <del>2</del> 32'36	
morning rise	-4895 Feb 04 j 03:13	24° <del>2</del> 05'49		min. Earth dist.	-4889 Aug 08 j 10:28	8° <del>2</del> 08'35	28.85202 AU
retrograde	-4895 May 06 j 19:53	26° <del>2</del> 04'55		opposition	-4889 Aug 09 j 08:20	8° <del>2</del> 07'03	-1°36'16
min. Earth dist.	-4895 Jul 25 j 08:01	24° <del>2</del> 41'19	28.89862 AU	direct	-4889 Oct 25 j 16:13	6° <del>2</del> 43'41	
opposition	-4895 Jul 26 j 08:55	24° <del>2</del> 39'35	-1°07'59	evening set	-4888 Jan 20 j 02:31	8° <del>2</del> 36'33	
direct	-4895 Oct 11 j 18:30	23° <del>2</del> 16'38					
evening set	-4894 Jan 05 j 22:51	25° <del>2</del> 09'12		conjunction	-4888 Feb 04 j 23:47	9° <del>2</del> 12'06	-1°31'58
				minimum elong	-4888 Feb 04 j 23:46	9° <del>2</del> 12'06	1°32'15
conjunction	-4894 Jan 21 j 17:35	25° <del>2</del> 44'35	-1°05'53	max. Earth dist.	-4888 Feb 05 j 23:37	9° <del>2</del> 14'21	30.84734 AU
minimum elong	-4894 Jan 21 j 17:34	25° <del>2</del> 44'35	1°06'08	morning rise	-4888 Feb 21 j 00:50	9° <del>2</del> 48'00	
max. Earth dist.	-4894 Jan 22 j 19:09	25° <del>2</del> 47'00	30.89500 AU	retrograde	-4888 May 22 j 18:50	11° <del>2</del> 47'01	
morning rise	-4894 Feb 06 j 16:27	26° <del>2</del> 20'23		opposition	-4888 Aug 10 j 19:55	10° <del>2</del> 21'27	-1°40'31
retrograde	-4894 May 09 j 08:52	28° <del>2</del> 19'31		min. Earth dist.	-4888 Aug 09 j 21:25	10° <del>2</del> 23'02	28.84500 AU

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Attention, astronomical year style is used: The year -4888 in astronomical counting style is the year 4889 BCE in historical counting style.

direct	-4888 Oct 27 j 03:46	8° $\overline{3}$ 58'00		retrograde	-4881 Jun 08 j 14:32	27° $\overline{3}$ 30'40	
evening set	-4887 Jan 21 j 15:18	10° $\overline{3}$ 50'56		min. Earth dist.	-4881 Aug 26 j 08:58	26° $\overline{3}$ 06'43	28.82616 AU
				opposition	-4881 Aug 27 j 04:14	26° $\overline{3}$ 05'21	-2°05'37
conjunction	-4887 Feb 06 j 12:56	11° $\overline{3}$ 26'31	-1°35'52	direct	-4881 Nov 12 j 08:20	24° $\overline{3}$ 41'42	
minimum elong	-4887 Feb 06 j 12:56	11° $\overline{3}$ 26'31	1°36'07	evening set	-4880 Feb 07 j 12:33	26° $\overline{3}$ 35'24	
max. Earth dist.	-4887 Feb 07 j 12:56	11° $\overline{3}$ 28'46	30.84080 AU				
morning rise	-4887 Feb 22 j 14:20	12° $\overline{3}$ 02'27		conjunction	-4880 Feb 23 j 12:46	27° $\overline{3}$ 11'09	-1°58'48
retrograde	-4887 May 25 j 06:07	14° $\overline{3}$ 01'26		minimum elong	-4880 Feb 23 j 12:46	27° $\overline{3}$ 11'09	1°59'02
min. Earth dist.	-4887 Aug 12 j 10:06	12° $\overline{3}$ 37'22	28.83926 AU	max. Earth dist.	-4880 Feb 24 j 10:01	27° $\overline{3}$ 13'08	30.82339 AU
opposition	-4887 Aug 13 j 07:34	12° $\overline{3}$ 35'51	-1°44'36	morning rise	-4880 Mar 10 j 16:02	27° $\overline{3}$ 47'10	
direct	-4887 Oct 29 j 14:31	11° $\overline{3}$ 12'22		retrograde	-4880 Jun 10 j 04:03	29° $\overline{3}$ 46'03	
evening set	-4886 Jan 24 j 04:14	13° $\overline{3}$ 05'23		opposition	-4880 Aug 28 j 15:39	28° $\overline{3}$ 20'45	-2°08'29
				min. Earth dist.	-4880 Aug 27 j 21:32	28° $\overline{3}$ 22'02	28.82348 AU
conjunction	-4886 Feb 09 j 02:21	13° $\overline{3}$ 40'59	-1°39'37	direct	-4880 Nov 13 j 21:48	26° $\overline{3}$ 57'02	
minimum elong	-4886 Feb 09 j 02:21	13° $\overline{3}$ 40'58	1°39'53	evening set	-4879 Feb 09 j 02:19	28° $\overline{3}$ 50'49	
max. Earth dist.	-4886 Feb 10 j 02:24	13° $\overline{3}$ 43'14	30.83581 AU				
morning rise	-4886 Feb 25 j 04:01	14° $\overline{3}$ 16'55		conjunction	-4879 Feb 25 j 02:52	29° $\overline{3}$ 26'35	-2°01'23
retrograde	-4886 May 27 j 19:33	16° $\overline{3}$ 15'54		minimum elong	-4879 Feb 25 j 02:52	29° $\overline{3}$ 26'35	2°01'37
opposition	-4886 Aug 15 j 18:54	14° $\overline{3}$ 50'20	-1°48'32	max. Earth dist.	-4879 Feb 25 j 22:29	29° $\overline{3}$ 28'25	30.82040 AU
min. Earth dist.	-4886 Aug 14 j 20:39	14° $\overline{3}$ 51'54	28.83502 AU		-4879 Mar 12 j 01:48	0° $\approx$	
direct	-4886 Nov 01 j 01:49	13° $\overline{3}$ 26'49		morning rise	-4879 Mar 13 j 06:30	0° $\approx$ 02'37	
evening set	-4885 Jan 26 j 17:21	15° $\overline{3}$ 19'56		retrograde	-4879 Jun 12 j 18:26	2° $\approx$ 01'26	
				min. Earth dist.	-4879 Aug 30 j 08:57	0° $\approx$ 37'23	28.82016 AU
conjunction	-4885 Feb 11 j 15:42	15° $\overline{3}$ 55'33	-1°43'14	opposition	-4879 Aug 31 j 02:58	0° $\approx$ 36'07	-2°11'09
minimum elong	-4885 Feb 11 j 15:42	15° $\overline{3}$ 55'33	1°43'28		-4879 Sep 22 j 01:54	30° $\overline{R}$ $\overline{3}$	
max. Earth dist.	-4885 Feb 12 j 15:04	15° $\overline{3}$ 57'45	30.83217 AU	direct	-4879 Nov 16 j 10:25	29° $\overline{3}$ 12'19	
morning rise	-4885 Feb 27 j 17:46	16° $\overline{3}$ 31'31			-4878 Jan 09 j 01:59	0° $\approx$	
retrograde	-4885 May 30 j 08:10	18° $\overline{3}$ 30'29		evening set	-4878 Feb 11 j 16:14	1° $\approx$ 06'11	
min. Earth dist.	-4885 Aug 17 j 09:27	17° $\overline{3}$ 06'27	28.83218 AU				
opposition	-4885 Aug 18 j 06:30	17° $\overline{3}$ 04'58	-1°52'18	conjunction	-4878 Feb 27 j 17:07	1° $\approx$ 41'57	-2°03'48
direct	-4885 Nov 03 j 10:33	15° $\overline{3}$ 41'25		minimum elong	-4878 Feb 27 j 17:07	1° $\approx$ 41'57	2°04'01
evening set	-4884 Jan 29 j 06:15	17° $\overline{3}$ 34'39		max. Earth dist.	-4878 Feb 28 j 12:14	1° $\approx$ 43'45	30.81673 AU
				morning rise	-4878 Mar 15 j 20:55	2° $\approx$ 18'00	
conjunction	-4884 Feb 14 j 05:08	18° $\overline{3}$ 10'17	-1°46'40	retrograde	-4878 Jun 15 j 06:26	4° $\approx$ 16'42	
minimum elong	-4884 Feb 14 j 05:08	18° $\overline{3}$ 10'17	1°46'56	opposition	-4878 Sep 02 j 14:10	2° $\approx$ 51'24	-2°13'37
max. Earth dist.	-4884 Feb 15 j 05:07	18° $\overline{3}$ 12'32	30.82991 AU	min. Earth dist.	-4878 Sep 01 j 21:48	2° $\approx$ 52'33	28.81648 AU
morning rise	-4884 Mar 01 j 07:22	18° $\overline{3}$ 46'16		direct	-4878 Nov 18 j 21:59	1° $\approx$ 27'30	
retrograde	-4884 May 31 j 20:55	20° $\overline{3}$ 45'15		evening set	-4877 Feb 14 j 06:03	3° $\approx$ 21'26	
opposition	-4884 Aug 19 j 17:56	19° $\overline{3}$ 19'46	-1°55'54				
min. Earth dist.	-4884 Aug 18 j 20:19	19° $\overline{3}$ 21'18	28.83038 AU	conjunction	-4877 Mar 02 j 07:19	3° $\approx$ 57'13	-2°06'01
direct	-4884 Nov 04 j 22:52	17° $\overline{3}$ 56'13		minimum elong	-4877 Mar 02 j 07:19	3° $\approx$ 57'13	2°06'14
evening set	-4883 Jan 30 j 19:41	19° $\overline{3}$ 49'34		max. Earth dist.	-4877 Mar 03 j 01:48	3° $\approx$ 58'57	30.81318 AU
				morning rise	-4877 Mar 18 j 11:19	4° $\approx$ 33'16	
conjunction	-4883 Feb 15 j 18:45	20° $\overline{3}$ 25'14	-1°49'58	retrograde	-4877 Jun 17 j 20:38	6° $\approx$ 31'52	
minimum elong	-4883 Feb 15 j 18:45	20° $\overline{3}$ 25'14	1°50'12	min. Earth dist.	-4877 Sep 04 j 08:31	5° $\approx$ 07'43	28.81313 AU
max. Earth dist.	-4883 Feb 16 j 17:17	20° $\overline{3}$ 27'21	30.82844 AU	opposition	-4877 Sep 05 j 01:14	5° $\approx$ 06'32	-2°15'53
morning rise	-4883 Mar 03 j 21:26	21° $\overline{3}$ 01'14		direct	-4877 Nov 21 j 10:26	3° $\approx$ 42'33	
retrograde	-4883 Jun 03 j 10:40	23° $\overline{3}$ 00'12		evening set	-4876 Feb 16 j 19:51	5° $\approx$ 36'32	
min. Earth dist.	-4883 Aug 21 j 08:56	21° $\overline{3}$ 36'14	28.82925 AU				
opposition	-4883 Aug 22 j 05:22	21° $\overline{3}$ 34'47	-1°59'19	conjunction	-4876 Mar 03 j 21:20	6° $\approx$ 12'20	-2°08'02
direct	-4883 Nov 07 j 09:04	20° $\overline{3}$ 11'12		minimum elong	-4876 Mar 03 j 21:20	6° $\approx$ 12'20	2°08'15
evening set	-4882 Feb 02 j 09:09	22° $\overline{3}$ 04'41		max. Earth dist.	-4876 Mar 04 j 14:53	6° $\approx$ 13'59	30.81008 AU
				morning rise	-4876 Mar 20 j 01:38	6° $\approx$ 48'24	
conjunction	-4882 Feb 18 j 08:45	22° $\overline{3}$ 40'23	-1°53'05	retrograde	-4876 Jun 19 j 08:29	8° $\approx$ 46'54	
minimum elong	-4882 Feb 18 j 08:45	22° $\overline{3}$ 40'23	1°53'20	opposition	-4876 Sep 06 j 12:25	7° $\approx$ 21'33	-2°17'57
max. Earth dist.	-4882 Feb 19 j 07:47	22° $\overline{3}$ 42'33	30.82726 AU	min. Earth dist.	-4876 Sep 05 j 21:13	7° $\approx$ 22'38	28.81059 AU
morning rise	-4882 Mar 06 j 11:31	23° $\overline{3}$ 16'24		direct	-4876 Nov 22 j 20:21	5° $\approx$ 57'29	
retrograde	-4882 Jun 05 j 23:39	25° $\overline{3}$ 15'22		evening set	-4875 Feb 18 j 09:42	7° $\approx$ 51'33	
opposition	-4882 Aug 24 j 16:47	23° $\overline{3}$ 50'00	-2°02'34				
min. Earth dist.	-4882 Aug 23 j 20:46	23° $\overline{3}$ 51'25	28.82795 AU	conjunction	-4875 Mar 06 j 11:39	8° $\approx$ 27'21	-2°09'52
direct	-4882 Nov 09 j 21:20	22° $\overline{3}$ 26'24		minimum elong	-4875 Mar 06 j 11:39	8° $\approx$ 27'21	2°10'04
evening set	-4881 Feb 04 j 22:51	24° $\overline{3}$ 20'00		max. Earth dist.	-4875 Mar 07 j 05:21	8° $\approx$ 29'01	30.80809 AU
				morning rise	-4875 Mar 22 j 16:03	9° $\approx$ 03'25	
conjunction	-4881 Feb 20 j 22:38	24° $\overline{3}$ 55'43	-1°56'02	retrograde	-4875 Jun 21 j 20:05	11° $\approx$ 01'48	
minimum elong	-4881 Feb 20 j 22:37	24° $\overline{3}$ 55'43	1°56'16	opposition	-4875 Sep 08 j 23:15	9° $\approx$ 36'29	-2°19'48
max. Earth dist.	-4881 Feb 21 j 19:49	24° $\overline{3}$ 57'42	30.82570 AU	min. Earth dist.	-4875 Sep 08 j 07:43	9° $\approx$ 37'35	28.80922 AU
morning rise	-4881 Mar 09 j 01:46	25° $\overline{3}$ 31'44		direct	-4875 Nov 25 j 09:11	8° $\approx$ 12'19	

## Planetary Phenomena of Neptune from -4900 through -4398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

Attention, astronomical year style is used: The year -4874 in astronomical counting style is the year 4875 BCE in historical counting style.

evening set	-4874 Feb 20 j 23:48	10°06'28		conjunction	-4868 Mar 22 j 16:58	24°13'12	-2°16'58
				minimum elong	-4868 Mar 22 j 16:59	24°13'12	2°17'07
conjunction	-4874 Mar 09 j 01:54	10°42'17	-2°11'30	max. Earth dist.	-4868 Mar 23 j 04:46	24°14'18	30.82614 AU
minimum elong	-4874 Mar 09 j 01:54	10°42'17	2°11'42	morning rise	-4868 Apr 07 j 22:34	24°49'16	
max. Earth dist.	-4874 Mar 09 j 18:02	10°43'48	30.80737 AU	retrograde	-4868 Jul 07 j 16:59	26°47'03	
morning rise	-4874 Mar 25 j 06:38	11°18'21		opposition	-4868 Sep 24 j 03:45	25°22'13	-2°26'36
retrograde	-4874 Jun 24 j 08:29	13°16'38		min. Earth dist.	-4868 Sep 23 j 17:19	25°22'57	28.82936 AU
opposition	-4874 Sep 11 j 10:19	11°51'21	-2°21'26	direct	-4868 Dec 10 j 19:37	23°57'51	
min. Earth dist.	-4874 Sep 10 j 19:49	11°52'22	28.80936 AU	evening set	-4867 Mar 09 j 03:38	25°52'46	
direct	-4874 Nov 27 j 19:06	10°27'07					
evening set	-4873 Feb 23 j 13:37	12°21'22		conjunction	-4867 Mar 25 j 07:50	26°28'42	-2°17'09
				minimum elong	-4867 Mar 25 j 07:50	26°28'42	2°17'18
conjunction	-4873 Mar 11 j 16:11	12°57'12	-2°12'55	max. Earth dist.	-4867 Mar 25 j 18:07	26°29'40	30.82880 AU
minimum elong	-4873 Mar 11 j 16:11	12°57'12	2°13'07	morning rise	-4867 Apr 10 j 13:36	27°04'47	
max. Earth dist.	-4873 Mar 12 j 08:56	12°58'46	30.80821 AU	retrograde	-4867 Jul 10 j 04:58	29°02'27	
morning rise	-4873 Mar 27 j 20:54	13°33'15		opposition	-4867 Sep 26 j 14:40	27°37'39	-2°26'41
	-4873 May 13 j 17:46	15°		min. Earth dist.	-4867 Sep 26 j 06:20	27°38'15	28.83162 AU
retrograde	-4873 Jun 26 j 20:30	15°31'27		direct	-4867 Dec 13 j 06:13	26°13'14	
	-4873 Aug 10 j 16:58	15°		evening set	-4866 Mar 11 j 18:10	28°08'14	
opposition	-4873 Sep 13 j 21:14	14°06'13	-2°22'51				
min. Earth dist.	-4873 Sep 13 j 06:53	14°07'14	28.81092 AU	conjunction	-4866 Mar 27 j 22:47	28°44'11	-2°17'07
direct	-4873 Nov 30 j 06:57	12°41'57		minimum elong	-4866 Mar 27 j 22:47	28°44'11	2°17'16
evening set	-4872 Feb 26 j 03:44	14°36'18		max. Earth dist.	-4866 Mar 28 j 08:22	28°45'05	30.83072 AU
	-4872 Mar 07 j 20:31	15°		morning rise	-4866 Apr 13 j 04:34	29°20'16	
					-4866 May 02 j 06:31	0°	
conjunction	-4872 Mar 13 j 06:27	15°12'08	-2°14'09	retrograde	-4866 Jul 12 j 17:06	1°17'47	
minimum elong	-4872 Mar 13 j 06:27	15°12'08	2°14'21		-4866 Sep 24 j 23:49	30°	
max. Earth dist.	-4872 Mar 13 j 21:34	15°13'33	30.81058 AU	opposition	-4866 Sep 29 j 01:28	29°53'03	-2°26'32
morning rise	-4872 Mar 29 j 11:32	15°48'12		min. Earth dist.	-4866 Sep 28 j 17:18	29°53'37	28.83312 AU
retrograde	-4872 Jun 28 j 10:12	17°46'20		direct	-4866 Dec 15 j 19:34	28°28'33	
opposition	-4872 Sep 15 j 08:07	16°21'09	-2°24'03		-4865 Mar 03 j 05:55	0°	
min. Earth dist.	-4872 Sep 14 j 18:20	16°22'08	28.81402 AU	evening set	-4865 Mar 14 j 08:38	0°23'37	
	-4872 Nov 18 j 07:42	15°					
direct	-4872 Dec 01 j 17:51	14°56'52		conjunction	-4865 Mar 30 j 13:20	0°59'35	-2°16'53
	-4872 Dec 15 j 05:28	15°		minimum elong	-4865 Mar 30 j 13:21	0°59'35	2°17'02
evening set	-4871 Feb 27 j 17:50	16°51'19		max. Earth dist.	-4865 Mar 30 j 20:57	1°00'18	30.83202 AU
				morning rise	-4865 Apr 15 j 19:22	1°35'40	
conjunction	-4871 Mar 15 j 21:00	17°27'11	-2°15'10	retrograde	-4865 Jul 15 j 05:16	3°33'03	
minimum elong	-4871 Mar 15 j 21:00	17°27'11	2°15'22	opposition	-4865 Oct 01 j 12:16	2°08'19	-2°26'11
max. Earth dist.	-4871 Mar 16 j 12:26	17°28'38	30.81413 AU	min. Earth dist.	-4865 Oct 01 j 05:37	2°08'48	28.83442 AU
morning rise	-4871 Apr 01 j 02:07	18°03'15		direct	-4865 Dec 18 j 05:42	0°43'45	
retrograde	-4871 Jun 30 j 22:49	20°01'18		evening set	-4864 Mar 15 j 23:01	2°38'53	
opposition	-4871 Sep 17 j 19:04	18°36'13	-2°25'01				
min. Earth dist.	-4871 Sep 17 j 06:25	18°37'07	28.81792 AU	conjunction	-4864 Apr 01 j 04:09	3°14'52	-2°16'27
direct	-4871 Dec 04 j 06:45	17°11'55		minimum elong	-4864 Apr 01 j 04:09	3°14'52	2°16'35
evening set	-4870 Mar 02 j 08:13	19°06'30		max. Earth dist.	-4864 Apr 01 j 11:49	3°15'35	30.83338 AU
				morning rise	-4864 Apr 17 j 10:08	3°50'56	
conjunction	-4870 Mar 18 j 11:34	19°42'23	-2°15'58	retrograde	-4864 Jul 16 j 16:27	5°48'09	
minimum elong	-4870 Mar 18 j 11:35	19°42'23	2°16'09	opposition	-4864 Oct 02 j 22:51	4°23'28	-2°25'35
max. Earth dist.	-4870 Mar 19 j 01:15	19°43'40	30.81834 AU	min. Earth dist.	-4864 Oct 02 j 16:47	4°23'54	28.83586 AU
morning rise	-4870 Apr 03 j 16:56	20°18'27		direct	-4864 Dec 19 j 17:38	2°58'49	
retrograde	-4870 Jul 03 j 13:13	22°16'25		evening set	-4863 Mar 18 j 13:32	4°54'01	
opposition	-4870 Sep 20 j 05:50	20°51'25	-2°25'46				
min. Earth dist.	-4870 Sep 19 j 17:24	20°52'19	28.82223 AU	conjunction	-4863 Apr 03 j 18:46	5°30'00	-2°15'48
direct	-4870 Dec 06 j 18:57	19°27'07		minimum elong	-4863 Apr 03 j 18:46	5°30'00	2°15'55
evening set	-4869 Mar 04 j 22:38	21°21'50		max. Earth dist.	-4863 Apr 04 j 00:25	5°30'31	30.83517 AU
				morning rise	-4863 Apr 20 j 01:02	6°06'05	
conjunction	-4869 Mar 21 j 02:18	21°57'44	-2°16'34	retrograde	-4863 Jul 19 j 04:31	8°03'09	
minimum elong	-4869 Mar 21 j 02:18	21°57'44	2°16'45	opposition	-4863 Oct 05 j 09:28	6°38'29	-2°24'47
max. Earth dist.	-4869 Mar 21 j 15:24	21°58'57	30.82246 AU	min. Earth dist.	-4863 Oct 05 j 04:09	6°38'52	28.83807 AU
morning rise	-4869 Apr 06 j 07:43	22°33'49		direct	-4863 Dec 22 j 05:09	5°13'45	
retrograde	-4869 Jul 06 j 02:04	24°31'42		evening set	-4862 Mar 21 j 03:53	7°09'02	
opposition	-4869 Sep 22 j 16:52	23°06'47	-2°26'18				
min. Earth dist.	-4869 Sep 22 j 06:17	23°07'32	28.82618 AU	conjunction	-4862 Apr 06 j 09:29	7°45'01	-2°14'57
direct	-4869 Dec 09 j 06:35	21°42'27		minimum elong	-4862 Apr 06 j 09:29	7°45'01	2°15'03
evening set	-4868 Mar 06 j 12:59	23°37'16		max. Earth dist.	-4862 Apr 06 j 15:24	7°45'34	30.83778 AU
				morning rise	-4862 Apr 22 j 15:37	8°21'05	

Attention, astronomical year style is used: The year -4862 in astronomical counting style is the year 4863 BCE in historical counting style.

retrograde	-4862 Jul 21 j 15:26	10° <del>H</del> 18'00	minimum elong	-4855 Apr 22 j 16:08	23° <del>H</del> 29'32	2°03'20
opposition	-4862 Oct 07 j 20:02	8° <del>H</del> 53'23 -2°23'46	max. Earth dist.	-4855 Apr 22 j 14:55	23° <del>H</del> 29'25	30.88270 AU
min. Earth dist.	-4862 Oct 07 j 15:47	8° <del>H</del> 53'42 28.84121 AU	morning rise	-4855 May 08 j 22:31	24° <del>H</del> 05'34	
direct	-4862 Dec 24 j 18:10	7° <del>H</del> 28'36	retrograde	-4855 Aug 06 j 07:10	26° <del>H</del> 01'30	
evening set	-4861 Mar 23 j 18:18	9° <del>H</del> 23'57	opposition	-4855 Oct 22 j 21:48	24° <del>H</del> 37'27 -2°10'32	
			min. Earth dist.	-4855 Oct 22 j 23:33	24° <del>H</del> 37'19 28.88695 AU	
conjunction	-4861 Apr 09 j 00:01	9° <del>H</del> 59'56 -2°13'53	direct	-4854 Jan 09 j 07:47	23° <del>H</del> 12'28	
minimum elong	-4861 Apr 09 j 00:01	9° <del>H</del> 59'56 2°13'59	evening set	-4854 Apr 08 j 23:47	25° <del>H</del> 08'21	
max. Earth dist.	-4861 Apr 09 j 04:12	10° <del>H</del> 00'20 30.84169 AU				
morning rise	-4861 Apr 25 j 06:22	10° <del>H</del> 36'00	conjunction	-4854 Apr 25 j 06:44	25° <del>H</del> 44'25 -2°00'50	
retrograde	-4861 Jul 24 j 04:50	12° <del>H</del> 32'47	minimum elong	-4854 Apr 25 j 06:44	25° <del>H</del> 44'25 2°00'52	
opposition	-4861 Oct 10 j 06:32	11° <del>H</del> 08'13 -2°22'31	max. Earth dist.	-4854 Apr 25 j 03:06	25° <del>H</del> 44'04 30.88830 AU	
min. Earth dist.	-4861 Oct 10 j 02:11	11° <del>H</del> 08'32 28.84582 AU	morning rise	-4854 May 11 j 13:14	26° <del>H</del> 20'26	
direct	-4861 Dec 27 j 06:05	9° <del>H</del> 43'22	retrograde	-4854 Aug 08 j 18:37	28° <del>H</del> 16'12	
evening set	-4860 Mar 25 j 08:32	11° <del>H</del> 38'48	opposition	-4854 Oct 25 j 08:19	26° <del>H</del> 52'12 -2°07'49	
			min. Earth dist.	-4854 Oct 25 j 11:07	26° <del>H</del> 52'00 28.89215 AU	
conjunction	-4860 Apr 10 j 14:33	12° <del>H</del> 14'48 -2°12'37	direct	-4853 Jan 11 j 19:18	25° <del>H</del> 27'08	
minimum elong	-4860 Apr 10 j 14:34	12° <del>H</del> 14'48 2°12'42	evening set	-4853 Apr 11 j 14:11	27° <del>H</del> 23'04	
max. Earth dist.	-4860 Apr 10 j 18:37	12° <del>H</del> 15'11 30.84695 AU				
morning rise	-4860 Apr 26 j 20:53	12° <del>H</del> 50'52	conjunction	-4853 Apr 27 j 21:25	27° <del>H</del> 59'08 -1°58'13	
retrograde	-4860 Jul 25 j 16:50	14° <del>H</del> 47'30	minimum elong	-4853 Apr 27 j 21:26	27° <del>H</del> 59'08 1°58'15	
opposition	-4860 Oct 11 j 17:10	13° <del>H</del> 23'01 -2°21'03	max. Earth dist.	-4853 Apr 27 j 17:43	27° <del>H</del> 58'47 30.89318 AU	
min. Earth dist.	-4860 Oct 11 j 14:21	13° <del>H</del> 23'13 28.85169 AU	morning rise	-4853 May 14 j 03:44	28° <del>H</del> 35'09	
direct	-4860 Dec 28 j 18:24	11° <del>H</del> 58'09		-4853 Jun 29 j 03:32	0° <del>Y</del>	
evening set	-4859 Mar 27 j 23:00	13° <del>H</del> 53'40	retrograde	-4853 Aug 11 j 04:43	0° <del>Y</del> 30'44	
				-4853 Sep 23 j 23:23	30° <del>R</del> <del>H</del>	
conjunction	-4859 Apr 13 j 05:14	14° <del>H</del> 29'41 -2°11'09	opposition	-4853 Oct 27 j 18:48	29° <del>H</del> 06'46 -2°04'56	
minimum elong	-4859 Apr 13 j 05:14	14° <del>H</del> 29'41 2°11'14	min. Earth dist.	-4853 Oct 27 j 23:03	29° <del>H</del> 06'28 28.89670 AU	
max. Earth dist.	-4859 Apr 13 j 08:06	14° <del>H</del> 29'57 30.85357 AU	direct	-4852 Jan 14 j 07:45	27° <del>H</del> 41'38	
morning rise	-4859 Apr 29 j 11:40	15° <del>H</del> 05'44	evening set	-4852 Apr 13 j 04:33	29° <del>H</del> 37'36	
retrograde	-4859 Jul 28 j 06:59	17° <del>H</del> 02'14		-4852 Apr 23 j 08:42	0° <del>Y</del>	
opposition	-4859 Oct 14 j 03:31	15° <del>H</del> 37'50 -2°19'22				
min. Earth dist.	-4859 Oct 14 j 00:35	15° <del>H</del> 38'02 28.85870 AU	conjunction	-4852 Apr 29 j 11:48	0° <del>Y</del> 13'40 -1°55'25	
direct	-4859 Dec 31 j 08:07	14° <del>H</del> 12'57	minimum elong	-4852 Apr 29 j 11:49	0° <del>Y</del> 13'40 1°55'26	
evening set	-4858 Mar 30 j 13:34	16° <del>H</del> 08'34	max. Earth dist.	-4852 Apr 29 j 05:58	0° <del>Y</del> 13'07 30.89773 AU	
			morning rise	-4852 May 15 j 18:16	0° <del>Y</del> 49'40	
conjunction	-4858 Apr 15 j 19:56	16° <del>H</del> 44'35 -2°09'28	retrograde	-4852 Aug 12 j 17:10	2° <del>Y</del> 45'04	
minimum elong	-4858 Apr 15 j 19:57	16° <del>H</del> 44'36 2°09'33	opposition	-4852 Oct 29 j 05:09	1° <del>Y</del> 21'08 -2°01'51	
max. Earth dist.	-4858 Apr 15 j 21:51	16° <del>H</del> 44'46 30.86095 AU	min. Earth dist.	-4852 Oct 29 j 09:38	1° <del>Y</del> 20'49 28.90115 AU	
morning rise	-4858 May 02 j 02:23	17° <del>H</del> 20'38		-4852 Dec 31 j 06:39	30° <del>R</del> <del>H</del>	
retrograde	-4858 Jul 30 j 18:46	19° <del>H</del> 17'01	direct	-4851 Jan 15 j 19:47	29° <del>H</del> 55'56	
opposition	-4858 Oct 16 j 14:10	17° <del>H</del> 52'43 -2°17'28		-4851 Jan 31 j 10:05	0° <del>Y</del>	
min. Earth dist.	-4858 Oct 16 j 13:07	17° <del>H</del> 52'47 28.86634 AU	evening set	-4851 Apr 15 j 18:53	1° <del>Y</del> 51'56	
direct	-4857 Jan 02 j 19:23	16° <del>H</del> 27'49				
evening set	-4857 Apr 02 j 03:55	18° <del>H</del> 23'31	conjunction	-4851 May 02 j 02:19	2° <del>Y</del> 28'00 -1°52'28	
			minimum elong	-4851 May 02 j 02:20	2° <del>Y</del> 28'00 1°52'28	
conjunction	-4857 Apr 18 j 10:32	18° <del>H</del> 59'33 -2°07'36	max. Earth dist.	-4851 May 01 j 20:12	2° <del>Y</del> 27'25 30.90224 AU	
minimum elong	-4857 Apr 18 j 10:32	18° <del>H</del> 59'34 2°07'40	morning rise	-4851 May 18 j 08:34	3° <del>Y</del> 03'59	
max. Earth dist.	-4857 Apr 18 j 11:50	18° <del>H</del> 59'41 30.86873 AU	retrograde	-4851 Aug 15 j 03:39	4° <del>Y</del> 59'12	
morning rise	-4857 May 04 j 16:57	19° <del>H</del> 35'36	opposition	-4851 Oct 31 j 15:32	3° <del>Y</del> 35'18 -1°58'36	
retrograde	-4857 Aug 02 j 07:38	21° <del>H</del> 31'51	min. Earth dist.	-4851 Oct 31 j 21:44	3° <del>Y</del> 34'51 28.90585 AU	
opposition	-4857 Oct 19 j 00:40	20° <del>H</del> 07'38 -2°15'22	direct	-4850 Jan 18 j 08:37	2° <del>Y</del> 10'02	
min. Earth dist.	-4857 Oct 18 j 23:49	20° <del>H</del> 07'42 28.87391 AU	evening set	-4850 Apr 18 j 09:08	4° <del>Y</del> 06'05	
direct	-4856 Jan 05 j 08:34	18° <del>H</del> 42'44				
evening set	-4856 Apr 03 j 18:34	20° <del>H</del> 38'31	conjunction	-4850 May 04 j 16:35	4° <del>Y</del> 42'08 -1°49'20	
			minimum elong	-4850 May 04 j 16:36	4° <del>Y</del> 42'08 1°49'19	
conjunction	-4856 Apr 20 j 01:14	21° <del>H</del> 14'34 -2°05'32	max. Earth dist.	-4850 May 04 j 09:09	4° <del>Y</del> 41'26 30.90743 AU	
minimum elong	-4856 Apr 20 j 01:15	21° <del>H</del> 14'34 2°05'35	morning rise	-4850 May 20 j 22:51	5° <del>Y</del> 18'06	
max. Earth dist.	-4856 Apr 20 j 00:28	21° <del>H</del> 14'29 30.87608 AU	retrograde	-4850 Aug 17 j 16:27	7° <del>Y</del> 13'09	
morning rise	-4856 May 06 j 07:46	21° <del>H</del> 50'36	opposition	-4850 Nov 03 j 01:50	5° <del>Y</del> 49'17 -1°55'10	
retrograde	-4856 Aug 03 j 20:27	23° <del>H</del> 46'42	min. Earth dist.	-4850 Nov 03 j 07:44	5° <del>Y</del> 48'52 28.91141 AU	
opposition	-4856 Oct 20 j 11:12	22° <del>H</del> 22'34 -2°13'03	direct	-4849 Jan 20 j 22:39	4° <del>Y</del> 23'58	
min. Earth dist.	-4856 Oct 20 j 12:04	22° <del>H</del> 22'31 28.88096 AU	evening set	-4849 Apr 20 j 23:07	6° <del>Y</del> 20'03	
direct	-4855 Jan 06 j 19:08	20° <del>H</del> 57'38				
evening set	-4855 Apr 06 j 09:08	22° <del>H</del> 53'29	conjunction	-4849 May 07 j 06:37	6° <del>Y</del> 56'06 -1°46'02	
			minimum elong	-4849 May 07 j 06:37	6° <del>Y</del> 56'06 1°46'02	
conjunction	-4855 Apr 22 j 16:08	23° <del>H</del> 29'32 -2°03'17	max. Earth dist.	-4849 May 06 j 22:38	6° <del>Y</del> 55'22 30.91354 AU	

## Planetary Phenomena of Neptune from -4900 through -4398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 5

Attention, astronomical year style is used: The year -4849 in astronomical counting style is the year 4850 BCE in historical counting style.

morning rise	-4849 May 23 j 12:44	7° $\Upsilon$ 32'03	conjunction	-4842 May 23 j 08:40	22° $\Upsilon$ 33'36	-1°18'51	
retrograde	-4849 Aug 20 j 03:23	9° $\Upsilon$ 26'57	minimum elong	-4842 May 23 j 08:41	22° $\Upsilon$ 33'36	1°18'45	
opposition	-4849 Nov 05 j 12:16	8° $\Upsilon$ 03'08	-1°51'34	max. Earth dist.	-4842 May 22 j 18:50	22° $\Upsilon$ 32'18	30.98222 AU
min. Earth dist.	-4849 Nov 05 j 19:43	8° $\Upsilon$ 02'37	28.91821 AU	morning rise	-4842 Jun 08 j 13:28	23° $\Upsilon$ 09'27	
direct	-4848 Jan 23 j 10:21	6° $\Upsilon$ 37'47		retrograde	-4842 Sep 04 j 09:11	25° $\Upsilon$ 03'24	
evening set	-4848 Apr 22 j 13:08	8° $\Upsilon$ 33'55		opposition	-4842 Nov 20 j 12:51	23° $\Upsilon$ 40'16	-1°21'58
				min. Earth dist.	-4842 Nov 21 j 01:59	23° $\Upsilon$ 39'21	28.98730 AU
conjunction	-4848 May 08 j 20:44	9° $\Upsilon$ 09'58	-1°42'36	direct	-4841 Feb 07 j 21:45	22° $\Upsilon$ 14'56	
minimum elong	-4848 May 08 j 20:45	9° $\Upsilon$ 09'58	1°42'34	evening set	-4841 May 09 j 15:10	24° $\Upsilon$ 11'26	
max. Earth dist.	-4848 May 08 j 12:23	9° $\Upsilon$ 09'12	30.92115 AU				
morning rise	-4848 May 25 j 02:44	9° $\Upsilon$ 45'54		conjunction	-4841 May 25 j 22:17	24° $\Upsilon$ 47'28	-1°14'27
retrograde	-4848 Aug 21 j 15:42	11° $\Upsilon$ 40'39		minimum elong	-4841 May 25 j 22:18	24° $\Upsilon$ 47'28	1°14'22
opposition	-4848 Nov 06 j 22:24	10° $\Upsilon$ 16'55	-1°47'47	max. Earth dist.	-4841 May 25 j 06:49	24° $\Upsilon$ 46'01	30.99090 AU
min. Earth dist.	-4848 Nov 07 j 05:38	10° $\Upsilon$ 16'24	28.92639 AU	morning rise	-4841 Jun 11 j 02:58	25° $\Upsilon$ 23'17	
direct	-4847 Jan 24 j 23:47	8° $\Upsilon$ 51'33		retrograde	-4841 Sep 06 j 21:04	27° $\Upsilon$ 17'05	
evening set	-4847 Apr 25 j 03:17	10° $\Upsilon$ 47'45		opposition	-4841 Nov 22 j 23:14	25° $\Upsilon$ 54'00	-1°17'12
				min. Earth dist.	-4841 Nov 23 j 12:20	25° $\Upsilon$ 53'05	28.99546 AU
conjunction	-4847 May 11 j 10:48	11° $\Upsilon$ 23'48	-1°38'59	direct	-4840 Feb 10 j 11:34	24° $\Upsilon$ 28'37	
minimum elong	-4847 May 11 j 10:48	11° $\Upsilon$ 23'48	1°38'58	evening set	-4840 May 11 j 05:02	26° $\Upsilon$ 25'09	
max. Earth dist.	-4847 May 11 j 01:03	11° $\Upsilon$ 22'54	30.93010 AU				
morning rise	-4847 May 27 j 16:43	11° $\Upsilon$ 59'44		conjunction	-4840 May 27 j 12:03	27° $\Upsilon$ 01'09	-1°09'56
retrograde	-4847 Aug 24 j 04:15	13° $\Upsilon$ 54'20		minimum elong	-4840 May 27 j 12:04	27° $\Upsilon$ 01'09	1°09'50
opposition	-4847 Nov 09 j 08:48	12° $\Upsilon$ 30'42	-1°43'51	max. Earth dist.	-4840 May 26 j 19:47	26° $\Upsilon$ 59'38	30.99872 AU
min. Earth dist.	-4847 Nov 09 j 17:09	12° $\Upsilon$ 30'06	28.93602 AU	morning rise	-4840 Jun 12 j 16:23	27° $\Upsilon$ 36'57	
direct	-4846 Jan 27 j 10:42	11° $\Upsilon$ 05'21		retrograde	-4840 Sep 08 j 07:30	29° $\Upsilon$ 30'35	
evening set	-4846 Apr 27 j 17:10	13° $\Upsilon$ 01'36		opposition	-4840 Nov 24 j 09:37	28° $\Upsilon$ 07'32	-1°12'20
				min. Earth dist.	-4840 Nov 25 j 00:36	28° $\Upsilon$ 06'29	29.00304 AU
conjunction	-4846 May 14 j 00:47	13° $\Upsilon$ 37'40	-1°35'14	direct	-4839 Feb 11 j 23:22	26° $\Upsilon$ 42'06	
minimum elong	-4846 May 14 j 00:48	13° $\Upsilon$ 37'40	1°35'11	evening set	-4839 May 13 j 18:48	28° $\Upsilon$ 38'38	
max. Earth dist.	-4846 May 13 j 15:14	13° $\Upsilon$ 36'46	30.94034 AU	max. Earth dist.	-4839 May 29 j 08:45	29° $\Upsilon$ 13'03	31.00626 AU
morning rise	-4846 May 30 j 06:26	14° $\Upsilon$ 13'34					
retrograde	-4846 Aug 26 j 14:21	16° $\Upsilon$ 08'03		conjunction	-4839 May 30 j 01:40	29° $\Upsilon$ 14'37	-1°05'20
opposition	-4846 Nov 11 j 19:06	14° $\Upsilon$ 44'32	-1°39'46	minimum elong	-4839 May 30 j 01:41	29° $\Upsilon$ 14'37	1°05'15
min. Earth dist.	-4846 Nov 12 j 03:56	14° $\Upsilon$ 43'55	28.94654 AU	morning rise	-4839 Jun 15 j 05:44	29° $\Upsilon$ 50'23	
direct	-4845 Jan 29 j 23:19	13° $\Upsilon$ 19'13			-4839 Jun 19 j 16:57	0° $\mathcal{B}$	
evening set	-4845 Apr 30 j 07:15	15° $\Upsilon$ 15'32		retrograde	-4839 Sep 10 j 19:23	1° $\mathcal{B}$ 43'51	
				opposition	-4839 Nov 26 j 20:00	0° $\mathcal{B}$ 20'50	-1°07'22
conjunction	-4845 May 16 j 14:40	15° $\Upsilon$ 51'35	-1°31'20	min. Earth dist.	-4839 Nov 27 j 10:56	0° $\mathcal{B}$ 19'47	29.01041 AU
minimum elong	-4845 May 16 j 14:41	15° $\Upsilon$ 51'35	1°31'18		-4839 Dec 09 j 06:16	30° $\mathcal{R}\Upsilon$	
max. Earth dist.	-4845 May 16 j 03:12	15° $\Upsilon$ 50'31	30.95128 AU	direct	-4838 Feb 14 j 13:58	28° $\Upsilon$ 55'21	
morning rise	-4845 Jun 01 j 20:17	16° $\Upsilon$ 27'30			-4838 Apr 20 j 15:56	0° $\mathcal{B}$	
retrograde	-4845 Aug 29 j 01:41	18° $\Upsilon$ 21'51		evening set	-4838 May 16 j 08:22	0° $\mathcal{B}$ 51'52	
opposition	-4845 Nov 14 j 05:23	16° $\Upsilon$ 58'27	-1°35'31				
min. Earth dist.	-4845 Nov 14 j 14:59	16° $\Upsilon$ 57'46	28.95763 AU	conjunction	-4838 Jun 01 j 14:56	1° $\mathcal{B}$ 27'50	-1°00'39
direct	-4844 Feb 01 j 10:04	15° $\Upsilon$ 33'08		minimum elong	-4838 Jun 01 j 14:56	1° $\mathcal{B}$ 27'50	1°00'31
evening set	-4844 May 01 j 21:10	17° $\Upsilon$ 29'32		max. Earth dist.	-4838 May 31 j 20:48	1° $\mathcal{B}$ 26'09	31.01373 AU
				morning rise	-4838 Jun 17 j 18:41	2° $\mathcal{B}$ 03'34	
conjunction	-4844 May 18 j 04:44	18° $\Upsilon$ 05'35	-1°27'18	retrograde	-4838 Sep 13 j 07:03	3° $\mathcal{B}$ 56'53	
minimum elong	-4844 May 18 j 04:45	18° $\Upsilon$ 05'35	1°27'13	opposition	-4838 Nov 29 j 06:26	2° $\mathcal{B}$ 33'53	-1°02'19
max. Earth dist.	-4844 May 17 j 17:25	18° $\Upsilon$ 04'32	30.96229 AU	min. Earth dist.	-4838 Nov 29 j 22:23	2° $\mathcal{B}$ 32'45	29.01819 AU
morning rise	-4844 Jun 03 j 10:00	18° $\Upsilon$ 41'29		direct	-4837 Feb 17 j 02:22	1° $\mathcal{B}$ 08'21	
retrograde	-4844 Aug 30 j 11:42	20° $\Upsilon$ 35'42		evening set	-4837 May 18 j 21:44	3° $\mathcal{B}$ 04'52	
opposition	-4844 Nov 15 j 15:52	19° $\Upsilon$ 12'25	-1°31'08	max. Earth dist.	-4837 Jun 03 j 10:21	3° $\mathcal{B}$ 39'09	31.02189 AU
min. Earth dist.	-4844 Nov 16 j 02:55	19° $\Upsilon$ 11'38	28.96831 AU				
direct	-4843 Feb 02 j 21:37	17° $\Upsilon$ 47'07		conjunction	-4837 Jun 04 j 04:12	3° $\mathcal{B}$ 40'49	-0°55'52
evening set	-4843 May 04 j 11:21	19° $\Upsilon$ 43'34		minimum elong	-4837 Jun 04 j 04:12	3° $\mathcal{B}$ 40'49	0°55'45
				morning rise	-4837 Jun 20 j 07:33	4° $\mathcal{B}$ 16'30	
conjunction	-4843 May 20 j 18:39	20° $\Upsilon$ 19'37	-1°23'08	retrograde	-4837 Sep 15 j 16:31	6° $\mathcal{B}$ 09'40	
minimum elong	-4843 May 20 j 18:40	20° $\Upsilon$ 19'37	1°23'04	opposition	-4837 Dec 01 j 16:44	4° $\mathcal{B}$ 46'43	-0°57'10
max. Earth dist.	-4843 May 20 j 05:08	20° $\Upsilon$ 18'21	30.97272 AU	min. Earth dist.	-4837 Dec 02 j 08:59	4° $\mathcal{B}$ 45'34	29.02670 AU
morning rise	-4843 Jun 05 j 23:51	20° $\Upsilon$ 55'29		direct	-4836 Feb 19 j 15:51	3° $\mathcal{B}$ 21'09	
retrograde	-4843 Sep 01 j 23:37	22° $\Upsilon$ 49'35		evening set	-4836 May 20 j 11:11	5° $\mathcal{B}$ 17'40	
opposition	-4843 Nov 18 j 02:14	21° $\Upsilon$ 26'23	-1°26'37				
min. Earth dist.	-4843 Nov 18 j 13:31	21° $\Upsilon$ 25'35	28.97830 AU	conjunction	-4836 Jun 05 j 17:15	5° $\mathcal{B}$ 53'35	-0°51'01
direct	-4842 Feb 05 j 08:49	20° $\Upsilon$ 01'04		minimum elong	-4836 Jun 05 j 17:15	5° $\mathcal{B}$ 53'35	0°50'52
evening set	-4842 May 07 j 01:21	21° $\Upsilon$ 57'34		max. Earth dist.	-4836 Jun 04 j 21:53	5° $\mathcal{B}$ 51'47	31.03101 AU
				morning rise	-4836 Jun 21 j 20:23	6° $\mathcal{B}$ 29'15	

## Planetary Phenomena of Neptune from -4900 through -4398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 6

Attention, astronomical year style is used: The year -4836 in astronomical counting style is the year 4837 BCE in historical counting style.

retrograde	-4836 Sep 17 j 03:39	8°8'22"16	evening set	-4829 Jun 06 j 07:23	20°8'46"37	
opposition	-4836 Dec 03 j 03:07	6°8'59"22 -0°51'56	max. Earth dist.	-4829 Jun 21 j 11:47	21°8'20"12	31.11141 AU
min. Earth dist.	-4836 Dec 03 j 19:35	6°8'58"13 29.03646 AU				
direct	-4835 Feb 21 j 03:14	5°8'33"48	conjunction	-4829 Jun 22 j 10:57	21°8'22"21 -0°15'21	
evening set	-4835 May 23 j 00:25	7°8'30"20	minimum elong	-4829 Jun 22 j 10:57	21°8'22"21 0°15'11	
max. Earth dist.	-4835 Jun 07 j 11:45	8°8'04"30 31.04137 AU	behind sun begin	-4829 Jun 22 j 08:58	21°8'22"10	
			behind sun end	-4829 Jun 22 j 12:56	21°8'22"32	
conjunction	-4835 Jun 08 j 06:21	8°8'06"14 -0°46'05	morning rise	-4829 Jul 08 j 10:53	21°8'57"47	
minimum elong	-4835 Jun 08 j 06:22	8°8'06"14 0°45'57	retrograde	-4829 Oct 03 j 06:46	23°8'50"12	
morning rise	-4835 Jun 24 j 08:55	8°8'41"51	opposition	-4829 Dec 19 j 05:12	22°8'27"55 -0°13'37	
retrograde	-4835 Sep 19 j 12:58	10°8'34"45	min. Earth dist.	-4829 Dec 20 j 02:07	22°8'26"28 29.11627 AU	
opposition	-4835 Dec 05 j 13:37	9°8'11"56 -0°46'38	direct	-4828 Mar 08 j 16:17	21°8'02"33	
min. Earth dist.	-4835 Dec 06 j 06:57	9°8'10"43 29.04736 AU	evening set	-4828 Jun 07 j 20:19	22°8'59"19	
direct	-4834 Feb 23 j 15:04	7°8'46"23				
evening set	-4834 May 25 j 13:45	9°8'42"56	conjunction	-4828 Jun 23 j 23:34	23°8'35"01 -0°10'08	
			minimum elong	-4828 Jun 23 j 23:34	23°8'35"01 0°09'56	
conjunction	-4834 Jun 10 j 19:13	10°8'18"49 -0°41'05	behind sun begin	-4828 Jun 23 j 18:17	23°8'34"32	
minimum elong	-4834 Jun 10 j 19:14	10°8'18"49 0°40'56	behind sun end	-4828 Jun 24 j 04:51	23°8'35"29	
max. Earth dist.	-4834 Jun 09 j 23:12	10°8'16"57 31.05300 AU	max. Earth dist.	-4828 Jun 23 j 00:25	23°8'32"52 31.12020 AU	
morning rise	-4834 Jun 26 j 21:33	10°8'54"25	morning rise	-4828 Jul 09 j 22:55	24°8'10"24	
retrograde	-4834 Sep 22 j 00:09	12°8'47"13	retrograde	-4828 Oct 04 j 16:17	26°8'02"43	
opposition	-4834 Dec 08 j 00:01	11°8'24"30 -0°41'15	opposition	-4828 Dec 20 j 15:59	24°8'40"29 -0°08'01	
min. Earth dist.	-4834 Dec 08 j 16:55	11°8'23"18 29.05948 AU	min. Earth dist.	-4828 Dec 21 j 13:26	24°8'38"59 29.12438 AU	
direct	-4833 Feb 26 j 02:09	9°8'58"58	direct	-4827 Mar 11 j 06:07	23°8'15"06	
evening set	-4833 May 28 j 02:44	11°8'55"34	evening set	-4827 Jun 10 j 09:16	25°8'11"52	
			max. Earth dist.	-4827 Jun 25 j 11:05	25°8'45"13 31.12787 AU	
conjunction	-4833 Jun 13 j 08:02	12°8'31"25 -0°36'02				
minimum elong	-4833 Jun 13 j 08:03	12°8'31"25 0°35'53	conjunction	-4827 Jun 26 j 11:52	25°8'47"31 -0°04'54	
max. Earth dist.	-4833 Jun 12 j 12:28	12°8'29"36 31.06546 AU	minimum elong	-4827 Jun 26 j 11:52	25°8'47"31 0°04'43	
morning rise	-4833 Jun 29 j 09:49	13°8'07"00	behind sun begin	-4827 Jun 26 j 05:28	25°8'46"57	
retrograde	-4833 Sep 24 j 09:11	14°8'59"43	behind sun end	-4827 Jun 26 j 18:15	25°8'48"05	
opposition	-4833 Dec 10 j 10:36	13°8'37"06 -0°35'49	morning rise	-4827 Jul 12 j 10:47	26°8'22"52	
min. Earth dist.	-4833 Dec 11 j 04:59	13°8'35"49 29.07209 AU	retrograde	-4827 Oct 07 j 03:35	28°8'15"06	
direct	-4832 Feb 28 j 13:52	12°8'11"38	opposition	-4827 Dec 23 j 02:43	26°8'52"53 -0°02'25	
evening set	-4832 May 29 j 16:00	14°8'08"16	min. Earth dist.	-4827 Dec 24 j 00:29	26°8'51"22 29.13175 AU	
			direct	-4826 Mar 13 j 18:20	25°8'27"29	
conjunction	-4832 Jun 14 j 20:50	14°8'44"06 -0°30'55	asc. node	-4826 May 31 j 02:49	26°8'57"14	
minimum elong	-4832 Jun 14 j 20:51	14°8'44"06 0°30'44	evening set	-4826 Jun 12 j 21:54	27°8'24"13	
max. Earth dist.	-4832 Jun 13 j 23:59	14°8'42"10 31.07816 AU	max. Earth dist.	-4826 Jun 28 j 00:07	27°8'57"37 31.13495 AU	
	-4832 Jun 22 j 00:03	15°8'				
morning rise	-4832 Jun 30 j 22:18	15°8'19"39	conjunction	-4826 Jun 29 j 00:10	27°8'59"51 0°00'26	
retrograde	-4832 Sep 25 j 20:43	17°8'12"17	minimum elong	-4826 Jun 29 j 00:09	27°8'59"51 0°00'39	
opposition	-4832 Dec 11 j 21:02	15°8'49"46 -0°30'19	behind sun begin	-4826 Jun 28 j 17:38	27°8'59"16	
min. Earth dist.	-4832 Dec 12 j 15:09	15°8'48"30 29.08456 AU	behind sun end	-4826 Jun 29 j 06:41	28°8'00"26	
	-4831 Jan 12 j 12:43	15°8'	morning rise	-4826 Jul 14 j 22:23	28°8'35"09	
direct	-4831 Mar 02 j 02:19	14°8'24"20		-4826 Aug 30 j 09:23	0°II	
	-4831 Apr 18 j 18:06	15°8'	retrograde	-4826 Oct 09 j 12:47	0°II27"17	
evening set	-4831 Jun 01 j 05:14	16°8'21"02		-4826 Nov 19 j 13:42	30°8'	
			opposition	-4826 Dec 25 j 13:32	29°8'05"06 0°03'11	
conjunction	-4831 Jun 17 j 09:43	16°8'56"50 -0°25'45	min. Earth dist.	-4826 Dec 26 j 12:16	29°8'03"31 29.13868 AU	
minimum elong	-4831 Jun 17 j 09:43	16°8'56"50 0°25'35	direct	-4825 Mar 16 j 07:02	27°8'39"40	
max. Earth dist.	-4831 Jun 16 j 12:25	16°8'54"52 31.09026 AU	evening set	-4825 Jun 15 j 10:25	29°8'36"23	
morning rise	-4831 Jul 03 j 10:36	17°8'32"21		-4825 Jun 26 j 03:33	0°II	
retrograde	-4831 Sep 28 j 07:13	19°8'24"56	max. Earth dist.	-4825 Jun 30 j 10:42	0°II09"37 31.14193 AU	
opposition	-4831 Dec 14 j 07:49	18°8'02"30 -0°24'47				
min. Earth dist.	-4831 Dec 15 j 03:37	18°8'01"07 29.09631 AU	conjunction	-4825 Jul 01 j 12:00	0°II11'58 0°05'43	
direct	-4830 Mar 04 j 13:24	16°8'37"07	minimum elong	-4825 Jul 01 j 12:00	0°II11'58 0°05'55	
evening set	-4830 Jun 03 j 18:16	18°8'33"50	behind sun begin	-4825 Jul 01 j 05:46	0°II11'24	
			behind sun end	-4825 Jul 01 j 18:14	0°II12'31	
conjunction	-4830 Jun 19 j 22:19	19°8'09"36 -0°20'34	morning rise	-4825 Jul 17 j 09:52	0°II47"14	
minimum elong	-4830 Jun 19 j 22:19	19°8'09"36 0°20'23	retrograde	-4825 Oct 11 j 22:58	2°II39"16	
max. Earth dist.	-4830 Jun 19 j 00:26	19°8'07"35 31.10149 AU	opposition	-4825 Dec 28 j 00:13	1°II17'05 0°08'47	
morning rise	-4830 Jul 05 j 22:44	19°8'45"05	min. Earth dist.	-4825 Dec 28 j 22:20	1°II15'33 29.14581 AU	
retrograde	-4830 Sep 30 j 18:55	21°8'37"35		-4824 Feb 23 j 18:26	30°8'	
opposition	-4830 Dec 16 j 18:33	20°8'15"14 -0°19'13	direct	-4824 Mar 17 j 19:02	29°8'51"38	
min. Earth dist.	-4830 Dec 17 j 14:17	20°8'13"52 29.10686 AU		-4824 Apr 09 j 13:21	0°II	
direct	-4829 Mar 07 j 03:53	18°8'49"52	evening set	-4824 Jun 16 j 22:47	1°II48"20	

Attention, astronomical year style is used: The year -4824 in astronomical counting style is the year 4825 BCE in historical counting style.

conjunction	-4824 Jul 02 j 23:59	2°II23'52	0°10'55	opposition	-4817 Jan 12 j 04:41	16°II38'35	0°47'02
minimum elong	-4824 Jul 02 j 23:59	2°II23'52	0°11'08	min. Earth dist.	-4817 Jan 13 j 04:00	16°II36'59	29.21262 AU
behind sun begin	-4824 Jul 02 j 19:09	2°II23'27		direct	-4817 Apr 03 j 07:37	15°II13'21	
behind sun end	-4824 Jul 03 j 04:48	2°II24'18		evening set	-4817 Jul 03 j 11:28	17°II10'04	
max. Earth dist.	-4824 Jul 01 j 23:25	2°II21'35	31.14921 AU	max. Earth dist.	-4817 Jul 18 j 07:17	17°II42'58	31.21620 AU
morning rise	-4824 Jul 18 j 21:04	2°II59'05					
retrograde	-4824 Oct 13 j 06:42	4°II51'03		conjunction	-4817 Jul 19 j 08:22	17°II45'18	0°46'33
opposition	-4824 Dec 29 j 11:01	3°II28'54	0°14'21	minimum elong	-4817 Jul 19 j 08:22	17°II45'18	0°46'47
min. Earth dist.	-4824 Dec 30 j 10:11	3°II27'17	29.15351 AU	morning rise	-4817 Aug 04 j 01:04	18°II20'11	
direct	-4823 Mar 20 j 06:38	2°II03'26		retrograde	-4817 Oct 29 j 08:26	20°II11'58	
evening set	-4823 Jun 19 j 11:12	4°II00'07		opposition	-4816 Jan 14 j 15:58	18°II50'09	0°52'17
max. Earth dist.	-4823 Jul 04 j 10:29	4°II33'16	31.15744 AU	min. Earth dist.	-4816 Jan 15 j 16:15	18°II48'29	29.22051 AU
				direct	-4816 Apr 04 j 20:57	17°II24'57	
conjunction	-4823 Jul 05 j 11:41	4°II35'37	0°16'06	evening set	-4816 Jul 04 j 23:27	19°II21'38	
minimum elong	-4823 Jul 05 j 11:41	4°II35'37	0°16'19				
morning rise	-4823 Jul 21 j 08:19	5°II10'47		conjunction	-4816 Jul 20 j 19:30	19°II56'49	0°51'25
retrograde	-4823 Oct 15 j 17:17	7°II02'41		minimum elong	-4816 Jul 20 j 19:29	19°II56'49	0°51'40
opposition	-4823 Dec 31 j 21:49	5°II40'33	0°19'54	max. Earth dist.	-4816 Jul 19 j 17:07	19°II54'21	31.22342 AU
min. Earth dist.	-4822 Jan 01 j 19:58	5°II39'01	29.16223 AU	morning rise	-4816 Aug 05 j 11:41	20°II31'39	
direct	-4822 Mar 22 j 18:08	4°II15'07		retrograde	-4816 Oct 30 j 18:54	22°II23'24	
evening set	-4822 Jun 21 j 23:16	6°II11'47		opposition	-4815 Jan 16 j 03:04	21°II01'37	0°57'27
				min. Earth dist.	-4815 Jan 17 j 02:45	20°II59'59	29.22714 AU
conjunction	-4822 Jul 07 j 23:14	6°II47'14	0°21'17	direct	-4815 Apr 07 j 09:13	19°II36'25	
minimum elong	-4822 Jul 07 j 23:14	6°II47'14	0°21'30	evening set	-4815 Jul 07 j 11:10	21°II33'05	
max. Earth dist.	-4822 Jul 06 j 22:24	6°II44'56	31.16665 AU	max. Earth dist.	-4815 Jul 22 j 04:58	22°II05'49	31.22935 AU
morning rise	-4822 Jul 23 j 19:09	7°II22'22					
retrograde	-4822 Oct 18 j 02:51	9°II14'14		conjunction	-4815 Jul 23 j 06:41	22°II08'13	0°56'13
opposition	-4821 Jan 03 j 08:45	7°II52'09	0°25'25	minimum elong	-4815 Jul 23 j 06:40	22°II08'12	0°56'27
min. Earth dist.	-4821 Jan 04 j 07:49	7°II50'33	29.17206 AU	morning rise	-4815 Aug 07 j 22:03	22°II43'00	
direct	-4821 Mar 25 j 04:44	6°II26'45		retrograde	-4815 Nov 02 j 03:08	24°II34'44	
evening set	-4821 Jun 24 j 11:24	8°II23'25		opposition	-4814 Jan 18 j 14:31	23°II12'56	1°02'32
max. Earth dist.	-4821 Jul 09 j 10:08	8°II56'32	31.17693 AU	min. Earth dist.	-4814 Jan 19 j 15:18	23°II11'14	29.23260 AU
				direct	-4814 Apr 09 j 21:04	21°II47'45	
conjunction	-4821 Jul 10 j 10:47	8°II58'50	0°26'25	evening set	-4814 Jul 09 j 22:41	23°II44'21	
minimum elong	-4821 Jul 10 j 10:47	8°II58'50	0°26'38				
morning rise	-4821 Jul 26 j 06:09	9°II33'55		conjunction	-4814 Jul 25 j 17:25	24°II19'26	1°00'55
retrograde	-4821 Oct 20 j 13:38	11°II25'44		minimum elong	-4814 Jul 25 j 17:24	24°II19'26	1°01'10
opposition	-4820 Jan 05 j 19:27	10°II03'44	0°30'54	max. Earth dist.	-4814 Jul 24 j 15:06	24°II16'59	31.23439 AU
min. Earth dist.	-4820 Jan 06 j 17:57	10°II02'11	29.18253 AU	morning rise	-4814 Aug 10 j 08:17	24°II54'11	
direct	-4820 Mar 26 j 18:31	8°II38'22		retrograde	-4814 Nov 04 j 13:19	26°II45'53	
evening set	-4820 Jun 25 j 23:35	10°II35'04		opposition	-4813 Jan 21 j 01:42	25°II24'05	1°07'31
				min. Earth dist.	-4813 Jan 22 j 01:33	25°II22'27	29.23727 AU
conjunction	-4820 Jul 11 j 22:18	11°II10'26	0°31'32	direct	-4813 Apr 12 j 08:55	23°II58'53	
minimum elong	-4820 Jul 11 j 22:18	11°II10'26	0°31'46	evening set	-4813 Jul 12 j 10:06	25°II55'27	
max. Earth dist.	-4820 Jul 10 j 21:03	11°II08'05	31.18752 AU	max. Earth dist.	-4813 Jul 27 j 02:11	26°II28'03	31.23874 AU
morning rise	-4820 Jul 27 j 17:03	11°II45'28					
retrograde	-4820 Oct 22 j 01:14	13°II37'17		conjunction	-4813 Jul 28 j 04:12	26°II30'29	1°05'32
opposition	-4819 Jan 07 j 06:28	12°II15'20	0°36'20	minimum elong	-4813 Jul 28 j 04:12	26°II30'29	1°05'47
min. Earth dist.	-4819 Jan 08 j 05:33	12°II13'45	29.19323 AU	morning rise	-4813 Aug 12 j 18:21	27°II05'10	
direct	-4819 Mar 29 j 05:58	10°II50'02		retrograde	-4813 Nov 06 j 22:28	28°II56'52	
evening set	-4819 Jun 28 j 11:34	12°II46'44		opposition	-4812 Jan 23 j 12:55	27°II35'03	1°12'23
max. Earth dist.	-4819 Jul 13 j 09:06	13°II19'46	31.19797 AU	min. Earth dist.	-4812 Jan 24 j 13:40	27°II33'21	29.24168 AU
				direct	-4812 Apr 13 j 19:44	26°II09'50	
conjunction	-4819 Jul 14 j 09:44	13°II22'04	0°36'36	evening set	-4812 Jul 13 j 21:25	28°II06'22	
minimum elong	-4819 Jul 14 j 09:43	13°II22'04	0°36'50				
morning rise	-4819 Jul 30 j 03:44	13°II57'03		conjunction	-4812 Jul 29 j 14:50	28°II41'20	1°10'03
retrograde	-4819 Oct 24 j 10:59	15°II48'51		minimum elong	-4812 Jul 29 j 14:50	28°II41'20	1°10'18
opposition	-4818 Jan 09 j 17:36	14°II26'58	0°41'43	max. Earth dist.	-4812 Jul 28 j 13:20	28°II38'57	31.24320 AU
min. Earth dist.	-4818 Jan 10 j 16:52	14°II25'22	29.20332 AU	morning rise	-4812 Aug 14 j 04:20	29°II15'59	
direct	-4818 Mar 31 j 19:14	13°II01'43			-4812 Sep 04 j 12:05	0°☾	
evening set	-4818 Jun 30 j 23:40	14°II58'25		retrograde	-4812 Nov 08 j 08:31	1°☾07'40	
					-4811 Jan 16 j 08:51	30°☾II	
conjunction	-4818 Jul 16 j 21:01	15°II33'42	0°41'36	opposition	-4811 Jan 25 j 00:14	29°II45'51	1°17'10
minimum elong	-4818 Jul 16 j 21:01	15°II33'42	0°41'51	min. Earth dist.	-4811 Jan 26 j 00:00	29°II44'13	29.24632 AU
max. Earth dist.	-4818 Jul 15 j 19:08	15°II31'17	31.20763 AU	direct	-4811 Apr 16 j 09:06	28°II20'38	
morning rise	-4818 Aug 01 j 14:31	16°II08'38			-4811 Jul 08 j 08:52	0°☾	
retrograde	-4818 Oct 26 j 22:59	18°II00'26		evening set	-4811 Jul 16 j 08:33	0°☾17'08	

## Planetary Phenomena of Neptune from -4900 through -4398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -4811 in astronomical counting style is the year 4812 BCE in historical counting style.

max. Earth dist.	-4811 Jul 30 j 23:37	0° $\overline{59}$ '39	31.24811 AU	min. Earth dist.	-4804 Feb 11 j 06:15	14° $\overline{59}$ '56	29.29545 AU
				direct	-4804 May 01 j 21:09	13° $\overline{36}$ '37	
conjunction	-4811 Aug 01 j 01:11	0° $\overline{52}$ '03	1°14'28	evening set	-4804 Jul 31 j 12:37	15° $\overline{33}$ '02	
minimum elong	-4811 Aug 01 j 01:10	0° $\overline{52}$ '03	1°14'42	max. Earth dist.	-4804 Aug 15 j 01:42	16° $\overline{05}$ '28	31.29683 AU
morning rise	-4811 Aug 16 j 14:02	1° $\overline{26}$ '39					
retrograde	-4811 Nov 10 j 19:40	3° $\overline{18}$ '22		conjunction	-4804 Aug 16 j 00:27	16° $\overline{07}$ '36	1°42'00
opposition	-4810 Jan 27 j 11:39	1° $\overline{56}$ '31	1°21'49	minimum elong	-4804 Aug 16 j 00:26	16° $\overline{07}$ '36	1°42'15
min. Earth dist.	-4810 Jan 28 j 11:18	1° $\overline{54}$ '54	29.25188 AU	morning rise	-4804 Aug 31 j 08:50	16° $\overline{41}$ '54	
direct	-4810 Apr 18 j 19:49	0° $\overline{31}$ '20		retrograde	-4804 Nov 25 j 18:38	18° $\overline{34}$ '01	
evening set	-4810 Jul 18 j 19:33	2° $\overline{27}$ '49		opposition	-4803 Feb 11 j 20:56	17° $\overline{12}$ '23	1°50'46
max. Earth dist.	-4810 Aug 02 j 11:22	3° $\overline{00}$ '25	31.25414 AU	min. Earth dist.	-4803 Feb 12 j 19:01	17° $\overline{10}$ '53	29.30037 AU
				direct	-4803 May 04 j 07:58	15° $\overline{47}$ '39	
conjunction	-4810 Aug 03 j 11:36	3° $\overline{02}$ '41	1°18'46	evening set	-4803 Aug 02 j 23:11	17° $\overline{44}$ '00	
minimum elong	-4810 Aug 03 j 11:35	3° $\overline{02}$ '41	1°19'01				
morning rise	-4810 Aug 18 j 23:42	3° $\overline{37}$ '14		conjunction	-4803 Aug 18 j 10:22	18° $\overline{18}$ '32	1°45'23
retrograde	-4810 Nov 13 j 05:05	5° $\overline{28}$ '58		minimum elong	-4803 Aug 18 j 10:21	18° $\overline{18}$ '32	1°45'37
opposition	-4809 Jan 29 j 23:00	4° $\overline{07}$ '09	1°26'21	max. Earth dist.	-4803 Aug 17 j 12:11	18° $\overline{16}$ '27	31.30104 AU
min. Earth dist.	-4809 Jan 30 j 22:08	4° $\overline{05}$ '34	29.25843 AU	morning rise	-4803 Sep 02 j 18:10	18° $\overline{52}$ '47	
direct	-4809 Apr 21 j 08:31	2° $\overline{42}$ '01		retrograde	-4803 Nov 28 j 04:17	20° $\overline{44}$ '56	
evening set	-4809 Jul 21 j 06:33	4° $\overline{38}$ '30		opposition	-4802 Feb 14 j 08:53	19° $\overline{23}$ '17	1°54'18
				min. Earth dist.	-4802 Feb 15 j 06:04	19° $\overline{21}$ '51	29.30386 AU
conjunction	-4809 Aug 05 j 21:46	5° $\overline{13}$ '18	1°22'57	direct	-4802 May 06 j 20:35	17° $\overline{58}$ '35	
minimum elong	-4809 Aug 05 j 21:46	5° $\overline{13}$ '18	1°23'12	evening set	-4802 Aug 05 j 09:48	19° $\overline{54}$ '52	
max. Earth dist.	-4809 Aug 04 j 20:59	5° $\overline{10}$ '59	31.26120 AU				
morning rise	-4809 Aug 21 j 09:24	5° $\overline{47}$ '49		conjunction	-4802 Aug 20 j 20:16	20° $\overline{29}$ '21	1°48'37
retrograde	-4809 Nov 15 j 17:20	7° $\overline{39}$ '36		minimum elong	-4802 Aug 20 j 20:16	20° $\overline{29}$ '21	1°48'52
opposition	-4808 Feb 01 j 10:23	6° $\overline{17}$ '49	1°30'46	max. Earth dist.	-4802 Aug 19 j 21:43	20° $\overline{27}$ '14	31.30386 AU
min. Earth dist.	-4808 Feb 02 j 08:46	6° $\overline{16}$ '17	29.26600 AU	morning rise	-4802 Sep 05 j 03:35	21° $\overline{03}$ '34	
direct	-4808 Apr 22 j 20:42	4° $\overline{52}$ '45		retrograde	-4802 Nov 30 j 15:22	22° $\overline{55}$ '46	
evening set	-4808 Jul 22 j 17:22	6° $\overline{49}$ '14		opposition	-4801 Feb 16 j 20:42	21° $\overline{34}$ '04	1°57'41
max. Earth dist.	-4808 Aug 06 j 08:51	7° $\overline{21}$ '50	31.26898 AU	min. Earth dist.	-4801 Feb 17 j 17:59	21° $\overline{32}$ '38	29.30630 AU
				direct	-4801 May 09 j 06:23	20° $\overline{09}$ '22	
conjunction	-4808 Aug 07 j 08:03	7° $\overline{24}$ '00	1°27'01	evening set	-4801 Aug 07 j 20:06	22° $\overline{05}$ '35	
minimum elong	-4808 Aug 07 j 08:03	7° $\overline{24}$ '00	1°27'17	max. Earth dist.	-4801 Aug 22 j 08:46	22° $\overline{38}$ '01	31.30577 AU
morning rise	-4808 Aug 22 j 18:52	7° $\overline{58}$ '28					
retrograde	-4808 Nov 17 j 03:10	9° $\overline{50}$ '19		conjunction	-4801 Aug 23 j 06:06	22° $\overline{40}$ '01	1°51'42
opposition	-4807 Feb 02 j 21:57	8° $\overline{28}$ '35	1°35'03	minimum elong	-4801 Aug 23 j 06:05	22° $\overline{40}$ '01	1°51'57
min. Earth dist.	-4807 Feb 03 j 20:43	8° $\overline{27}$ '01	29.27395 AU	morning rise	-4801 Sep 07 j 12:47	23° $\overline{14}$ '11	
direct	-4807 Apr 25 j 09:44	7° $\overline{03}$ '36		retrograde	-4801 Dec 03 j 00:51	25° $\overline{06}$ '26	
evening set	-4807 Jul 25 j 04:20	9° $\overline{00}$ '05		opposition	-4800 Feb 19 j 08:39	23° $\overline{44}$ '41	2°00'53
				min. Earth dist.	-4800 Feb 20 j 05:34	23° $\overline{43}$ '16	29.30778 AU
conjunction	-4807 Aug 09 j 18:08	9° $\overline{34}$ '48	1°30'58	direct	-4800 May 10 j 19:44	22° $\overline{19}$ '59	
minimum elong	-4807 Aug 09 j 18:08	9° $\overline{34}$ '48	1°31'13	evening set	-4800 Aug 09 j 06:24	24° $\overline{16}$ '07	
max. Earth dist.	-4807 Aug 08 j 18:23	9° $\overline{32}$ '34	31.27700 AU				
morning rise	-4807 Aug 25 j 04:29	10° $\overline{09}$ '13		conjunction	-4800 Aug 24 j 15:36	24° $\overline{50}$ '30	1°54'38
retrograde	-4807 Nov 19 j 14:00	12° $\overline{01}$ '08		minimum elong	-4800 Aug 24 j 15:36	24° $\overline{50}$ '30	1°54'52
opposition	-4806 Feb 05 j 09:33	10° $\overline{39}$ '27	1°39'12	max. Earth dist.	-4800 Aug 23 j 17:48	24° $\overline{48}$ '27	31.30705 AU
min. Earth dist.	-4806 Feb 06 j 07:06	10° $\overline{37}$ '58	29.28194 AU	morning rise	-4800 Sep 08 j 21:54	25° $\overline{24}$ '38	
direct	-4806 Apr 27 j 21:27	9° $\overline{14}$ '33		retrograde	-4800 Dec 04 j 13:00	27° $\overline{16}$ '55	
evening set	-4806 Jul 27 j 14:58	11° $\overline{11}$ '00		opposition	-4799 Feb 20 j 20:37	25° $\overline{55}$ '06	2°03'55
max. Earth dist.	-4806 Aug 11 j 05:35	11° $\overline{43}$ '34	31.28460 AU	min. Earth dist.	-4799 Feb 21 j 16:35	25° $\overline{53}$ '45	29.30915 AU
				direct	-4799 May 13 j 07:40	24° $\overline{30}$ '25	
conjunction	-4806 Aug 12 j 04:14	11° $\overline{45}$ '41	1°34'47	evening set	-4799 Aug 11 j 16:26	26° $\overline{26}$ '28	
minimum elong	-4806 Aug 12 j 04:13	11° $\overline{45}$ '41	1°35'02	max. Earth dist.	-4799 Aug 26 j 05:14	26° $\overline{58}$ '56	31.30842 AU
morning rise	-4806 Aug 27 j 13:49	12° $\overline{20}$ '04					
retrograde	-4806 Nov 21 j 22:40	14° $\overline{12}$ '03		conjunction	-4799 Aug 27 j 01:11	27° $\overline{00}$ '49	1°57'23
opposition	-4805 Feb 07 j 21:22	12° $\overline{50}$ '24	1°43'12	minimum elong	-4799 Aug 27 j 01:11	27° $\overline{00}$ '49	1°57'37
min. Earth dist.	-4805 Feb 08 j 19:45	12° $\overline{48}$ '52	29.28924 AU	morning rise	-4799 Sep 11 j 06:48	27° $\overline{34}$ '54	
direct	-4805 Apr 30 j 09:18	11° $\overline{25}$ '34		retrograde	-4799 Dec 06 j 22:36	29° $\overline{27}$ '14	
evening set	-4805 Jul 30 j 01:49	13° $\overline{22}$ '00		opposition	-4798 Feb 23 j 08:45	28° $\overline{05}$ '23	2°06'47
				min. Earth dist.	-4798 Feb 24 j 04:38	28° $\overline{04}$ '02	29.31082 AU
conjunction	-4805 Aug 14 j 14:18	13° $\overline{56}$ '38	1°38'28	direct	-4798 May 15 j 20:27	26° $\overline{40}$ '42	
minimum elong	-4805 Aug 14 j 14:18	13° $\overline{56}$ '38	1°38'42	evening set	-4798 Aug 14 j 02:24	28° $\overline{36}$ '42	
max. Earth dist.	-4805 Aug 13 j 15:18	13° $\overline{54}$ '29	31.29139 AU				
morning rise	-4805 Aug 29 j 23:23	14° $\overline{30}$ '58		conjunction	-4798 Aug 29 j 10:25	29° $\overline{10}$ '59	1°59'58
retrograde	-4805 Nov 24 j 09:19	16° $\overline{23}$ '01		minimum elong	-4798 Aug 29 j 10:25	29° $\overline{10}$ '59	2°00'12
opposition	-4804 Feb 10 j 08:57	15° $\overline{01}$ '23	1°47'04	max. Earth dist.	-4798 Aug 28 j 14:28	29° $\overline{09}$ '07	31.31047 AU



Attention, astronomical year style is used: The year -4798 in astronomical counting style is the year 4799 BCE in historical counting style.

morning rise	-4798 Sep 13 j 15:43	29° $\mathring{\text{O}}$ 45'02	direct	-4791 May 31 j 04:28	11° $\mathring{\text{O}}$ 54'17	
	-4798 Sep 20 j 13:23	0° $\mathring{\text{O}}$	evening set	-4791 Aug 28 j 23:09	13° $\mathring{\text{O}}$ 49'57	
retrograde	-4798 Dec 09 j 09:33	1° $\mathring{\text{O}}$ 37'27				
opposition	-4797 Feb 25 j 20:43	0° $\mathring{\text{O}}$ 15'34	2°09'27	conjunction	-4791 Sep 13 j 03:34	14° $\mathring{\text{O}}$ 24'01 2°13'06
min. Earth dist.	-4797 Feb 26 j 14:49	0° $\mathring{\text{O}}$ 14'20	29.31332 AU	minimum elong	-4791 Sep 13 j 03:34	14° $\mathring{\text{O}}$ 24'01 2°13'18
	-4797 Mar 07 j 11:40	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		max. Earth dist.	-4791 Sep 12 j 12:09	14° $\mathring{\text{O}}$ 22'34 31.32985 AU
direct	-4797 May 18 j 08:20	28° $\mathring{\text{O}}$ 50'56		morning rise	-4791 Sep 28 j 06:06	14° $\mathring{\text{O}}$ 57'55
	-4797 Jul 24 j 19:08	0° $\mathring{\text{O}}$			-4791 Sep 29 j 04:48	15° $\mathring{\text{O}}$
evening set	-4797 Aug 16 j 12:18	0° $\mathring{\text{O}}$ 46'52		retrograde	-4791 Dec 24 j 12:27	16° $\mathring{\text{O}}$ 51'09
				opposition	-4790 Mar 13 j 11:04	15° $\mathring{\text{O}}$ 29'14 2°22'49
conjunction	-4797 Aug 31 j 19:52	1° $\mathring{\text{O}}$ 21'07	2°02'23	min. Earth dist.	-4790 Mar 14 j 01:05	15° $\mathring{\text{O}}$ 28'18 29.33123 AU
minimum elong	-4797 Aug 31 j 19:52	1° $\mathring{\text{O}}$ 21'07	2°02'36		-4790 Mar 31 j 21:50	15° $\mathring{\text{R}}$ $\mathring{\text{O}}$
max. Earth dist.	-4797 Aug 31 j 01:24	1° $\mathring{\text{O}}$ 19'23	31.31328 AU	direct	-4790 Jun 02 j 15:32	14° $\mathring{\text{O}}$ 05'09
morning rise	-4797 Sep 16 j 00:33	1° $\mathring{\text{O}}$ 55'08			-4790 Aug 01 j 01:58	15° $\mathring{\text{O}}$
retrograde	-4797 Dec 11 j 18:45	3° $\mathring{\text{O}}$ 47'38		evening set	-4790 Aug 31 j 08:40	16° $\mathring{\text{O}}$ 00'46
opposition	-4796 Feb 28 j 08:47	2° $\mathring{\text{O}}$ 25'45	2°11'57			
min. Earth dist.	-4796 Feb 29 j 03:04	2° $\mathring{\text{O}}$ 24'30	29.31660 AU	conjunction	-4790 Sep 15 j 12:53	16° $\mathring{\text{O}}$ 34'48 2°14'14
direct	-4796 May 19 j 20:30	1° $\mathring{\text{O}}$ 01'11		minimum elong	-4790 Sep 15 j 12:53	16° $\mathring{\text{O}}$ 34'48 2°14'26
evening set	-4796 Aug 17 j 22:14	2° $\mathring{\text{O}}$ 57'05		max. Earth dist.	-4790 Sep 14 j 22:59	16° $\mathring{\text{O}}$ 33'30 31.32865 AU
max. Earth dist.	-4796 Sep 01 j 11:10	3° $\mathring{\text{O}}$ 29'36	31.31695 AU	morning rise	-4790 Sep 30 j 14:58	17° $\mathring{\text{O}}$ 08'41
				retrograde	-4790 Dec 26 j 22:46	19° $\mathring{\text{O}}$ 02'01
conjunction	-4796 Sep 02 j 05:10	3° $\mathring{\text{O}}$ 31'18	2°04'38	opposition	-4789 Mar 15 j 23:43	17° $\mathring{\text{O}}$ 40'03 2°23'55
minimum elong	-4796 Sep 02 j 05:10	3° $\mathring{\text{O}}$ 31'18	2°04'51	min. Earth dist.	-4789 Mar 16 j 13:59	17° $\mathring{\text{O}}$ 39'05 29.32923 AU
morning rise	-4796 Sep 17 j 09:30	4° $\mathring{\text{O}}$ 05'17		direct	-4789 Jun 05 j 03:45	16° $\mathring{\text{O}}$ 16'00
retrograde	-4796 Dec 13 j 05:35	5° $\mathring{\text{O}}$ 57'53		evening set	-4789 Sep 02 j 18:19	18° $\mathring{\text{O}}$ 11'32
opposition	-4795 Mar 01 j 20:56	4° $\mathring{\text{O}}$ 36'00	2°14'15			
min. Earth dist.	-4795 Mar 02 j 13:24	4° $\mathring{\text{O}}$ 34'54	29.32046 AU	conjunction	-4789 Sep 17 j 22:00	18° $\mathring{\text{O}}$ 45'32 2°15'11
direct	-4795 May 22 j 08:35	3° $\mathring{\text{O}}$ 11'32		minimum elong	-4789 Sep 17 j 22:00	18° $\mathring{\text{O}}$ 45'32 2°15'21
evening set	-4795 Aug 20 j 07:57	5° $\mathring{\text{O}}$ 07'23		max. Earth dist.	-4789 Sep 17 j 07:50	18° $\mathring{\text{O}}$ 44'12 31.32601 AU
				morning rise	-4789 Oct 02 j 23:59	19° $\mathring{\text{O}}$ 19'24
conjunction	-4795 Sep 04 j 14:23	5° $\mathring{\text{O}}$ 41'34	2°06'42	retrograde	-4789 Dec 29 j 10:13	21° $\mathring{\text{O}}$ 12'50
minimum elong	-4795 Sep 04 j 14:22	5° $\mathring{\text{O}}$ 41'34	2°06'54	opposition	-4788 Mar 17 j 12:08	19° $\mathring{\text{O}}$ 50'47 2°24'50
max. Earth dist.	-4795 Sep 03 j 21:11	5° $\mathring{\text{O}}$ 39'57	31.32086 AU	min. Earth dist.	-4788 Mar 18 j 00:52	19° $\mathring{\text{O}}$ 49'56 29.32599 AU
morning rise	-4795 Sep 19 j 18:16	6° $\mathring{\text{O}}$ 15'33		direct	-4788 Jun 06 j 15:53	18° $\mathring{\text{O}}$ 26'45
retrograde	-4795 Dec 15 j 15:26	8° $\mathring{\text{O}}$ 08'17		evening set	-4788 Sep 04 j 03:43	20° $\mathring{\text{O}}$ 22'11
opposition	-4794 Mar 04 j 09:19	6° $\mathring{\text{O}}$ 46'24	2°16'21			
min. Earth dist.	-4794 Mar 05 j 02:02	6° $\mathring{\text{O}}$ 45'16	29.32446 AU	conjunction	-4788 Sep 19 j 07:10	20° $\mathring{\text{O}}$ 56'10 2°15'56
direct	-4794 May 24 j 18:54	5° $\mathring{\text{O}}$ 22'02		minimum elong	-4788 Sep 19 j 07:10	20° $\mathring{\text{O}}$ 56'10 2°16'07
evening set	-4794 Aug 22 j 17:45	7° $\mathring{\text{O}}$ 17'51		max. Earth dist.	-4788 Sep 18 j 18:16	20° $\mathring{\text{O}}$ 54'57 31.32228 AU
				morning rise	-4788 Oct 04 j 08:49	21° $\mathring{\text{O}}$ 30'01
conjunction	-4794 Sep 06 j 23:42	7° $\mathring{\text{O}}$ 52'00	2°08'34	retrograde	-4788 Dec 30 j 20:16	23° $\mathring{\text{O}}$ 23'32
minimum elong	-4794 Sep 06 j 23:42	7° $\mathring{\text{O}}$ 52'00	2°08'47	opposition	-4787 Mar 20 j 00:54	22° $\mathring{\text{O}}$ 01'24 2°25'32
max. Earth dist.	-4794 Sep 06 j 07:39	7° $\mathring{\text{O}}$ 50'29	31.32469 AU	min. Earth dist.	-4787 Mar 20 j 13:49	22° $\mathring{\text{O}}$ 00'32 29.32202 AU
morning rise	-4794 Sep 22 j 03:10	8° $\mathring{\text{O}}$ 25'57		direct	-4787 Jun 09 j 04:59	20° $\mathring{\text{O}}$ 37'24
retrograde	-4794 Dec 18 j 01:19	10° $\mathring{\text{O}}$ 18'48		evening set	-4787 Sep 06 j 12:57	22° $\mathring{\text{O}}$ 32'42
opposition	-4793 Mar 06 j 21:29	8° $\mathring{\text{O}}$ 56'57	2°18'16			
min. Earth dist.	-4793 Mar 07 j 13:02	8° $\mathring{\text{O}}$ 55'54	29.32793 AU	conjunction	-4787 Sep 21 j 16:01	23° $\mathring{\text{O}}$ 06'40 2°16'30
direct	-4793 May 27 j 06:36	7° $\mathring{\text{O}}$ 32'40		minimum elong	-4787 Sep 21 j 16:01	23° $\mathring{\text{O}}$ 06'40 2°16'39
evening set	-4793 Aug 25 j 03:37	9° $\mathring{\text{O}}$ 28'26		max. Earth dist.	-4787 Sep 21 j 03:53	23° $\mathring{\text{O}}$ 05'31 31.31825 AU
				morning rise	-4787 Oct 06 j 17:33	23° $\mathring{\text{O}}$ 40'30
conjunction	-4793 Sep 09 j 09:00	10° $\mathring{\text{O}}$ 02'34	2°10'16	retrograde	-4786 Jan 02 j 07:19	25° $\mathring{\text{O}}$ 34'06
minimum elong	-4793 Sep 09 j 08:59	10° $\mathring{\text{O}}$ 02'34	2°10'28	opposition	-4786 Mar 22 j 13:27	24° $\mathring{\text{O}}$ 11'53 2°26'02
max. Earth dist.	-4793 Sep 08 j 16:43	10° $\mathring{\text{O}}$ 01'02	31.32767 AU	min. Earth dist.	-4786 Mar 23 j 00:22	24° $\mathring{\text{O}}$ 11'09 29.31797 AU
morning rise	-4793 Sep 24 j 12:11	10° $\mathring{\text{O}}$ 36'30		direct	-4786 Jun 11 j 17:58	22° $\mathring{\text{O}}$ 47'53
retrograde	-4793 Dec 20 j 13:08	12° $\mathring{\text{O}}$ 29'29		evening set	-4786 Sep 08 j 22:12	24° $\mathring{\text{O}}$ 43'06
opposition	-4792 Mar 08 j 09:57	11° $\mathring{\text{O}}$ 07'38	2°19'59			
min. Earth dist.	-4792 Mar 09 j 01:19	11° $\mathring{\text{O}}$ 06'35	29.33049 AU	conjunction	-4786 Sep 24 j 00:57	25° $\mathring{\text{O}}$ 17'02 2°16'52
direct	-4792 May 28 j 15:40	9° $\mathring{\text{O}}$ 43'25		minimum elong	-4786 Sep 24 j 00:58	25° $\mathring{\text{O}}$ 17'02 2°17'01
evening set	-4792 Aug 26 j 13:18	11° $\mathring{\text{O}}$ 39'10		max. Earth dist.	-4786 Sep 23 j 13:38	25° $\mathring{\text{O}}$ 15'58 31.31433 AU
				morning rise	-4786 Oct 09 j 02:19	25° $\mathring{\text{O}}$ 50'53
conjunction	-4792 Sep 10 j 18:19	12° $\mathring{\text{O}}$ 13'15	2°11'47	retrograde	-4785 Jan 04 j 16:28	27° $\mathring{\text{O}}$ 44'34
minimum elong	-4792 Sep 10 j 18:19	12° $\mathring{\text{O}}$ 13'15	2°11'59	opposition	-4785 Mar 25 j 01:57	26° $\mathring{\text{O}}$ 22'17 2°26'19
max. Earth dist.	-4792 Sep 10 j 03:30	12° $\mathring{\text{O}}$ 11'51	31.32950 AU	min. Earth dist.	-4785 Mar 25 j 12:48	26° $\mathring{\text{O}}$ 21'33 29.31447 AU
morning rise	-4792 Sep 25 j 21:00	12° $\mathring{\text{O}}$ 47'10		direct	-4785 Jun 14 j 04:36	24° $\mathring{\text{O}}$ 58'18
retrograde	-4792 Dec 21 j 23:17	14° $\mathring{\text{O}}$ 40'17		evening set	-4785 Sep 11 j 07:22	26° $\mathring{\text{O}}$ 53'25
opposition	-4791 Mar 10 j 22:32	13° $\mathring{\text{O}}$ 18'25	2°21'30			
min. Earth dist.	-4791 Mar 11 j 13:25	13° $\mathring{\text{O}}$ 17'24	29.33156 AU	conjunction	-4785 Sep 26 j 09:56	27° $\mathring{\text{O}}$ 27'21 2°17'02

Attention, astronomical year style is used: The year -4785 in astronomical counting style is the year 4786 BCE in historical counting style.

minimum elong	-4785 Sep 26 j 09:56	27°Ω27'21	2°17'11	opposition	-4778 Apr 09 j 19:34	11°♊36'18	2°22'28
max. Earth dist.	-4785 Sep 26 j 00:16	27°Ω26'26	31.31122 AU	min. Earth dist.	-4778 Apr 10 j 00:05	11°♊36'00	29.29709 AU
morning rise	-4785 Oct 11 j 11:05	28°Ω01'10		direct	-4778 Jun 29 j 10:41	10°♊12'48	
retrograde	-4784 Jan 07 j 01:38	29°Ω54'58		evening set	-4778 Sep 25 j 22:48	12°♊07'20	
opposition	-4784 Mar 26 j 14:32	28°Ω32'37	2°26'24				
min. Earth dist.	-4784 Mar 26 j 23:35	28°Ω32'01	29.31167 AU	conjunction	-4778 Oct 11 j 00:17	12°♊41'14	2°12'44
direct	-4784 Jun 15 j 16:46	27°Ω08'42		minimum elong	-4778 Oct 11 j 00:18	12°♊41'14	2°12'49
evening set	-4784 Sep 12 j 16:26	29°Ω03'43		max. Earth dist.	-4778 Oct 10 j 20:26	12°♊40'52	31.29277 AU
				morning rise	-4778 Oct 26 j 01:25	13°♊15'07	
conjunction	-4784 Sep 27 j 18:38	29°Ω37'38	2°17'01	retrograde	-4777 Jan 22 j 11:00	15°♊09'50	
minimum elong	-4784 Sep 27 j 18:38	29°Ω37'38	2°17'09	opposition	-4777 Apr 12 j 08:19	13°♊47'10	2°21'05
max. Earth dist.	-4784 Sep 27 j 09:15	29°Ω36'45	31.30885 AU	min. Earth dist.	-4777 Apr 12 j 11:09	13°♊46'59	29.29125 AU
	-4784 Oct 07 j 16:20	0°♊		direct	-4777 Jul 01 j 23:22	12°♊23'42	
morning rise	-4784 Oct 12 j 19:48	0°♊11'28		evening set	-4777 Sep 28 j 07:56	14°♊18'08	
retrograde	-4783 Jan 08 j 13:17	2°♊05'23					
opposition	-4783 Mar 29 j 03:16	0°♊43'00	2°26'16	conjunction	-4777 Oct 13 j 09:21	14°♊52'02	2°11'21
min. Earth dist.	-4783 Mar 29 j 11:29	0°♊42'27	29.30973 AU	minimum elong	-4777 Oct 13 j 09:21	14°♊52'02	2°11'26
	-4783 Apr 26 j 00:46	30°♊Ω		max. Earth dist.	-4777 Oct 13 j 05:46	14°♊51'42	31.28623 AU
direct	-4783 Jun 18 j 01:57	29°Ω19'08		morning rise	-4777 Oct 28 j 10:37	15°♊25'57	
	-4783 Aug 07 j 17:45	0°♊		retrograde	-4776 Jan 24 j 21:19	17°♊20'47	
evening set	-4783 Sep 15 j 01:25	1°♊14'04		opposition	-4776 Apr 13 j 21:24	15°♊58'01	2°19'30
				min. Earth dist.	-4776 Apr 14 j 00:27	15°♊57'49	29.28410 AU
conjunction	-4783 Sep 30 j 03:35	1°♊47'59	2°16'47	direct	-4776 Jul 03 j 10:21	14°♊34'34	
minimum elong	-4783 Sep 30 j 03:35	1°♊47'59	2°16'55	evening set	-4776 Sep 29 j 16:46	16°♊28'53	
max. Earth dist.	-4783 Sep 29 j 20:15	1°♊47'17	31.30719 AU				
morning rise	-4783 Oct 15 j 04:32	2°♊21'49		conjunction	-4776 Oct 14 j 18:17	17°♊02'48	2°09'47
retrograde	-4782 Jan 10 j 23:20	4°♊15'53		minimum elong	-4776 Oct 14 j 18:18	17°♊02'48	2°09'52
opposition	-4782 Mar 31 j 15:58	2°♊53'27	2°25'56	max. Earth dist.	-4776 Oct 14 j 16:18	17°♊02'36	31.27863 AU
min. Earth dist.	-4782 Mar 31 j 23:11	2°♊52'58	29.30817 AU	morning rise	-4776 Oct 29 j 19:37	17°♊36'43	
direct	-4782 Jun 20 j 14:07	1°♊29'40		retrograde	-4775 Jan 26 j 06:57	19°♊31'40	
evening set	-4782 Sep 17 j 10:30	3°♊24'32		opposition	-4775 Apr 16 j 10:24	18°♊08'48	2°17'44
				min. Earth dist.	-4775 Apr 16 j 11:54	18°♊08'42	29.27598 AU
conjunction	-4782 Oct 02 j 12:20	3°♊58'26	2°16'22	direct	-4775 Jul 05 j 23:12	16°♊45'22	
minimum elong	-4782 Oct 02 j 12:20	3°♊58'26	2°16'30	evening set	-4775 Oct 02 j 01:45	18°♊39'33	
max. Earth dist.	-4782 Oct 02 j 04:54	3°♊57'43	31.30576 AU				
morning rise	-4782 Oct 17 j 13:26	4°♊32'16		conjunction	-4775 Oct 17 j 03:10	19°♊13'28	2°08'02
retrograde	-4781 Jan 13 j 12:21	6°♊26'28		minimum elong	-4775 Oct 17 j 03:10	19°♊13'28	2°08'06
opposition	-4781 Apr 03 j 04:41	5°♊04'00	2°25'22	max. Earth dist.	-4775 Oct 17 j 01:12	19°♊13'17	31.27036 AU
min. Earth dist.	-4781 Apr 03 j 10:38	5°♊03'36	29.30665 AU	morning rise	-4775 Nov 01 j 04:50	19°♊47'25	
direct	-4781 Jun 22 j 23:43	3°♊40'18		retrograde	-4774 Jan 28 j 18:47	21°♊42'28	
evening set	-4781 Sep 19 j 19:28	5°♊35'05		opposition	-4774 Apr 18 j 23:17	20°♊19'30	2°15'46
				min. Earth dist.	-4774 Apr 19 j 00:08	20°♊19'27	29.26773 AU
conjunction	-4781 Oct 04 j 21:17	6°♊08'59	2°15'45	direct	-4774 Jul 08 j 08:54	18°♊56'04	
minimum elong	-4781 Oct 04 j 21:17	6°♊08'59	2°15'52	evening set	-4774 Oct 04 j 10:27	20°♊50'09	
max. Earth dist.	-4781 Oct 04 j 15:41	6°♊08'28	31.30395 AU				
morning rise	-4781 Oct 19 j 22:12	6°♊42'50		conjunction	-4774 Oct 19 j 12:07	21°♊24'04	2°06'06
retrograde	-4780 Jan 15 j 22:56	8°♊37'11		minimum elong	-4774 Oct 19 j 12:07	21°♊24'04	2°06'09
opposition	-4780 Apr 04 j 17:34	7°♊14'41	2°24'37	max. Earth dist.	-4774 Oct 19 j 12:14	21°♊24'05	31.26219 AU
min. Earth dist.	-4780 Apr 04 j 23:29	7°♊14'17	29.30448 AU	morning rise	-4774 Nov 03 j 13:49	21°♊58'02	
direct	-4780 Jun 24 j 10:46	5°♊51'03		retrograde	-4773 Jan 31 j 04:30	23°♊53'12	
evening set	-4780 Sep 21 j 04:39	7°♊45'46		opposition	-4773 Apr 21 j 12:10	22°♊30'09	2°13'36
				min. Earth dist.	-4773 Apr 21 j 11:51	22°♊30'10	29.25970 AU
conjunction	-4780 Oct 06 j 06:13	8°♊19'40	2°14'56	direct	-4773 Jul 10 j 21:10	21°♊06'45	
minimum elong	-4780 Oct 06 j 06:13	8°♊19'40	2°15'03	evening set	-4773 Oct 06 j 19:18	23°♊00'43	
max. Earth dist.	-4780 Oct 06 j 00:42	8°♊19'08	31.30147 AU				
morning rise	-4780 Oct 21 j 07:15	8°♊53'31		conjunction	-4773 Oct 21 j 20:51	23°♊34'39	2°03'59
retrograde	-4779 Jan 17 j 11:43	10°♊48'00		minimum elong	-4773 Oct 21 j 20:52	23°♊34'39	2°04'01
opposition	-4779 Apr 07 j 06:28	9°♊25'28	2°23'38	max. Earth dist.	-4773 Oct 21 j 21:07	23°♊34'40	31.25464 AU
min. Earth dist.	-4779 Apr 07 j 10:41	9°♊25'11	29.30145 AU	morning rise	-4773 Nov 05 j 22:55	24°♊08'38	
direct	-4779 Jun 26 j 22:22	8°♊01'54		retrograde	-4772 Feb 02 j 17:16	26°♊03'55	
evening set	-4779 Sep 23 j 13:38	9°♊56'32		opposition	-4772 Apr 23 j 01:01	24°♊40'47	2°11'15
				min. Earth dist.	-4772 Apr 22 j 23:04	24°♊40'55	29.25263 AU
conjunction	-4779 Oct 08 j 15:12	10°♊30'25	2°13'56	direct	-4772 Jul 12 j 06:24	23°♊17'25	
minimum elong	-4779 Oct 08 j 15:12	10°♊30'25	2°14'01	evening set	-4772 Oct 08 j 04:02	25°♊11'18	
max. Earth dist.	-4779 Oct 08 j 10:46	10°♊30'00	31.29776 AU				
morning rise	-4779 Oct 23 j 16:13	11°♊04'17		conjunction	-4772 Oct 23 j 05:49	25°♊45'15	2°01'41
retrograde	-4778 Jan 19 j 23:12	12°♊58'55		minimum elong	-4772 Oct 23 j 05:50	25°♊45'15	2°01'44

Attention, astronomical year style is used: The year -4772 in astronomical counting style is the year 4773 BCE in historical counting style.

max. Earth dist.	-4772 Oct 23 j 08:12	25° $\overline{17}$ 45'29	31.24806 AU	retrograde	-4765 Feb 18 j 05:48	11° $\overline{02}$ 22'37	
morning rise	-4772 Nov 07 j 08:00	26° $\overline{17}$ 19'16		opposition	-4765 May 09 j 20:02	9° $\overline{05}$ 59'10	1°49'36
retrograde	-4771 Feb 04 j 03:58	28° $\overline{17}$ 14'42		min. Earth dist.	-4765 May 09 j 12:02	9° $\overline{05}$ 59'42	29.21325 AU
opposition	-4771 Apr 25 j 14:01	26° $\overline{17}$ 51'30	2°08'42	direct	-4765 Jul 28 j 12:54	8° $\overline{05}$ 36'16	
min. Earth dist.	-4771 Apr 25 j 11:32	26° $\overline{17}$ 51'40	29.24653 AU	evening set	-4765 Oct 23 j 18:34	10° $\overline{05}$ 29'36	
direct	-4771 Jul 14 j 16:34	25° $\overline{17}$ 28'12					
evening set	-4771 Oct 10 j 12:46	27° $\overline{17}$ 22'00		conjunction	-4765 Nov 07 j 21:53	11° $\overline{05}$ 03'44	1°40'51
				minimum elong	-4765 Nov 07 j 21:53	11° $\overline{05}$ 03'44	1°40'49
conjunction	-4771 Oct 25 j 14:38	27° $\overline{17}$ 55'58	1°59'13	max. Earth dist.	-4765 Nov 08 j 06:30	11° $\overline{05}$ 04'33	31.20798 AU
minimum elong	-4771 Oct 25 j 14:39	27° $\overline{17}$ 55'58	1°59'14	morning rise	-4765 Nov 23 j 02:29	11° $\overline{05}$ 38'01	
max. Earth dist.	-4771 Oct 25 j 17:39	27° $\overline{17}$ 56'15	31.24259 AU	retrograde	-4764 Feb 20 j 15:29	13° $\overline{05}$ 34'23	
morning rise	-4771 Nov 09 j 17:13	28° $\overline{17}$ 30'01		opposition	-4764 May 11 j 09:11	12° $\overline{05}$ 10'50	1°45'50
	-4771 Dec 29 j 00:56	0° $\overline{05}$		min. Earth dist.	-4764 May 11 j 00:28	12° $\overline{05}$ 11'25	29.20434 AU
retrograde	-4770 Feb 06 j 17:15	0° $\overline{05}$ 25'35		direct	-4764 Jul 30 j 01:16	10° $\overline{05}$ 47'57	
	-4770 Mar 19 j 18:48	30° $\overline{05}$ 18'17		evening set	-4764 Oct 25 j 03:47	12° $\overline{05}$ 41'11	
opposition	-4770 Apr 28 j 02:53	29° $\overline{05}$ 02'21	2°05'58				
min. Earth dist.	-4770 Apr 27 j 22:19	29° $\overline{05}$ 02'39	29.24135 AU	conjunction	-4764 Nov 09 j 07:16	13° $\overline{05}$ 15'20	1°37'15
direct	-4770 Jul 17 j 03:41	27° $\overline{05}$ 39'07		minimum elong	-4764 Nov 09 j 07:17	13° $\overline{05}$ 15'20	1°37'13
evening set	-4770 Oct 12 j 21:36	29° $\overline{05}$ 32'51		max. Earth dist.	-4764 Nov 09 j 15:34	13° $\overline{05}$ 16'07	31.19862 AU
	-4770 Oct 24 j 23:21	0° $\overline{05}$		morning rise	-4764 Nov 24 j 12:29	13° $\overline{05}$ 49'39	
				retrograde	-4763 Feb 22 j 04:00	15° $\overline{05}$ 46'07	
conjunction	-4770 Oct 27 j 23:40	0° $\overline{05}$ 06'50	1°56'34	opposition	-4763 May 13 j 22:17	14° $\overline{05}$ 22'28	1°41'54
minimum elong	-4770 Oct 27 j 23:41	0° $\overline{05}$ 06'51	1°56'36	min. Earth dist.	-4763 May 13 j 12:32	14° $\overline{05}$ 23'08	29.19440 AU
max. Earth dist.	-4770 Oct 28 j 03:56	0° $\overline{05}$ 07'15	31.23767 AU	direct	-4763 Aug 01 j 11:02	12° $\overline{05}$ 59'35	
morning rise	-4770 Nov 12 j 02:31	0° $\overline{05}$ 40'55		evening set	-4763 Oct 27 j 12:48	14° $\overline{05}$ 52'41	
retrograde	-4769 Feb 09 j 05:46	2° $\overline{05}$ 36'38					
opposition	-4769 Apr 30 j 15:46	1° $\overline{05}$ 13'22	2°03'03	conjunction	-4763 Nov 11 j 16:45	15° $\overline{05}$ 26'52	1°33'31
min. Earth dist.	-4769 Apr 30 j 11:13	1° $\overline{05}$ 13'40	29.23660 AU	minimum elong	-4763 Nov 11 j 16:45	15° $\overline{05}$ 26'52	1°33'28
	-4769 Jun 24 j 22:48	30° $\overline{05}$ 18'17		max. Earth dist.	-4763 Nov 12 j 02:38	15° $\overline{05}$ 27'48	31.18825 AU
direct	-4769 Jul 19 j 15:02	29° $\overline{05}$ 50'13		morning rise	-4763 Nov 26 j 22:20	16° $\overline{05}$ 01'14	
	-4769 Aug 12 j 20:52	0° $\overline{05}$		retrograde	-4762 Feb 24 j 14:42	17° $\overline{05}$ 57'47	
evening set	-4769 Oct 15 j 06:27	1° $\overline{05}$ 43'53		opposition	-4762 May 16 j 11:24	16° $\overline{05}$ 34'01	1°37'50
				min. Earth dist.	-4762 May 16 j 01:34	16° $\overline{05}$ 34'41	29.18367 AU
conjunction	-4769 Oct 30 j 08:43	2° $\overline{05}$ 17'54	1°53'45	direct	-4762 Aug 03 j 21:54	15° $\overline{05}$ 11'07	
minimum elong	-4769 Oct 30 j 08:44	2° $\overline{05}$ 17'54	1°53'46	evening set	-4762 Oct 29 j 21:56	17° $\overline{05}$ 04'06	
max. Earth dist.	-4769 Oct 30 j 14:07	2° $\overline{05}$ 18'25	31.23313 AU				
morning rise	-4769 Nov 14 j 11:52	2° $\overline{05}$ 52'01		conjunction	-4762 Nov 14 j 02:10	17° $\overline{05}$ 38'18	1°29'39
retrograde	-4768 Feb 11 j 18:32	4° $\overline{05}$ 47'53		minimum elong	-4762 Nov 14 j 02:10	17° $\overline{05}$ 38'18	1°29'35
opposition	-4768 May 02 j 04:43	3° $\overline{05}$ 24'34	1°59'57	max. Earth dist.	-4762 Nov 14 j 12:30	17° $\overline{05}$ 39'17	31.17755 AU
min. Earth dist.	-4768 May 01 j 22:10	3° $\overline{05}$ 25'01	29.23188 AU	morning rise	-4762 Nov 29 j 08:17	18° $\overline{05}$ 12'42	
direct	-4768 Jul 21 j 02:55	2° $\overline{05}$ 01'30		retrograde	-4761 Feb 27 j 03:43	20° $\overline{05}$ 09'20	
evening set	-4768 Oct 16 j 15:21	3° $\overline{05}$ 55'07		opposition	-4761 May 19 j 00:12	18° $\overline{05}$ 45'27	1°33'38
				min. Earth dist.	-4761 May 18 j 12:34	18° $\overline{05}$ 46'15	29.17299 AU
conjunction	-4768 Oct 31 j 17:45	4° $\overline{05}$ 29'09	1°50'46	direct	-4761 Aug 06 j 09:01	17° $\overline{05}$ 22'33	
minimum elong	-4768 Oct 31 j 17:45	4° $\overline{05}$ 29'09	1°50'46	evening set	-4761 Nov 01 j 07:04	19° $\overline{05}$ 15'26	
max. Earth dist.	-4768 Oct 31 j 23:34	4° $\overline{05}$ 29'42	31.22826 AU				
morning rise	-4768 Nov 15 j 21:19	5° $\overline{05}$ 03'19		conjunction	-4761 Nov 16 j 11:37	19° $\overline{05}$ 49'40	1°25'38
retrograde	-4767 Feb 13 j 05:54	6° $\overline{05}$ 59'19		minimum elong	-4761 Nov 16 j 11:38	19° $\overline{05}$ 49'40	1°25'34
opposition	-4767 May 04 j 17:56	5° $\overline{05}$ 35'58	1°56'40	max. Earth dist.	-4761 Nov 16 j 23:02	19° $\overline{05}$ 50'45	31.16707 AU
min. Earth dist.	-4767 May 04 j 11:31	5° $\overline{05}$ 36'24	29.22674 AU	morning rise	-4761 Dec 01 j 18:12	20° $\overline{05}$ 24'07	
direct	-4767 Jul 23 j 13:40	4° $\overline{05}$ 12'59		retrograde	-4760 Feb 29 j 16:06	22° $\overline{05}$ 20'51	
evening set	-4767 Oct 19 j 00:21	6° $\overline{05}$ 06'30		opposition	-4760 May 20 j 13:17	20° $\overline{05}$ 56'51	1°29'17
				min. Earth dist.	-4760 May 20 j 01:34	20° $\overline{05}$ 57'39	29.16288 AU
conjunction	-4767 Nov 03 j 03:07	6° $\overline{05}$ 40'34	1°47'37	direct	-4760 Aug 07 j 19:49	19° $\overline{05}$ 33'57	
minimum elong	-4767 Nov 03 j 03:07	6° $\overline{05}$ 40'34	1°47'36	evening set	-4760 Nov 02 j 16:04	21° $\overline{05}$ 26'45	
max. Earth dist.	-4767 Nov 03 j 10:32	6° $\overline{05}$ 41'17	31.22275 AU				
morning rise	-4767 Nov 18 j 06:56	7° $\overline{05}$ 14'46		conjunction	-4760 Nov 17 j 21:04	22° $\overline{05}$ 01'01	1°21'31
retrograde	-4766 Feb 15 j 16:58	9° $\overline{05}$ 10'54		minimum elong	-4760 Nov 17 j 21:05	22° $\overline{05}$ 01'01	1°21'26
opposition	-4766 May 07 j 06:52	7° $\overline{05}$ 47'31	1°53'13	max. Earth dist.	-4760 Nov 18 j 09:52	22° $\overline{05}$ 02'14	31.15751 AU
min. Earth dist.	-4766 May 06 j 23:09	7° $\overline{05}$ 48'02	29.22060 AU	morning rise	-4760 Dec 03 j 04:06	22° $\overline{05}$ 35'30	
direct	-4766 Jul 26 j 02:41	6° $\overline{05}$ 24'35		retrograde	-4759 Mar 03 j 04:54	24° $\overline{05}$ 32'20	
evening set	-4766 Oct 21 j 09:33	8° $\overline{05}$ 18'01		opposition	-4759 May 23 j 02:12	23° $\overline{05}$ 08'16	1°24'48
				min. Earth dist.	-4759 May 22 j 12:19	23° $\overline{05}$ 09'13	29.15370 AU
conjunction	-4766 Nov 05 j 12:25	8° $\overline{05}$ 52'07	1°44'19	direct	-4759 Aug 10 j 07:27	21° $\overline{05}$ 45'23	
minimum elong	-4766 Nov 05 j 12:26	8° $\overline{05}$ 52'07	1°44'18	evening set	-4759 Nov 05 j 01:21	23° $\overline{05}$ 38'08	
max. Earth dist.	-4766 Nov 05 j 19:26	8° $\overline{05}$ 52'47	31.21606 AU				
morning rise	-4766 Nov 20 j 16:48	9° $\overline{05}$ 26'22		conjunction	-4759 Nov 20 j 06:38	24° $\overline{05}$ 12'26	1°17'16

Attention, astronomical year style is used: The year -4759 in astronomical counting style is the year 4760 BCE in historical counting style.

minimum elong	-4759 Nov 20 j 06:38	24° <u>♂</u> 12'26	1°17'10	opposition	-4752 Jun 07 j 20:45	8° <u>♂</u> 33'07	0°50'12
max. Earth dist.	-4759 Nov 20 j 19:51	24° <u>♂</u> 13'41	31.14884 AU	min. Earth dist.	-4752 Jun 07 j 02:18	8° <u>♂</u> 34'23	29.09738 AU
morning rise	-4759 Dec 05 j 14:17	24° <u>♂</u> 46'58		direct	-4752 Aug 25 j 11:30	7° <u>♂</u> 10'33	
retrograde	-4758 Mar 05 j 17:17	26° <u>♂</u> 43'54		evening set	-4752 Nov 19 j 20:20	9° <u>♂</u> 03'00	
opposition	-4758 May 25 j 15:04	25° <u>♂</u> 19'47	1°20'12				
min. Earth dist.	-4758 May 25 j 01:10	25° <u>♂</u> 20'44	29.14553 AU	conjunction	-4752 Dec 05 j 04:41	9° <u>♂</u> 37'36	0°44'33
direct	-4758 Aug 12 j 17:59	23° <u>♂</u> 56'57		minimum elong	-4752 Dec 05 j 04:41	9° <u>♂</u> 37'36	0°44'25
evening set	-4758 Nov 07 j 10:31	25° <u>♂</u> 49'38		max. Earth dist.	-4752 Dec 05 j 22:45	9° <u>♂</u> 39'18	31.09146 AU
				morning rise	-4752 Dec 20 j 16:07	10° <u>♂</u> 12'29	
conjunction	-4758 Nov 22 j 16:22	26° <u>♂</u> 23'58	1°12'53	retrograde	-4751 Mar 21 j 08:22	12° <u>♂</u> 10'18	
minimum elong	-4758 Nov 22 j 16:23	26° <u>♂</u> 23'58	1°12'48	opposition	-4751 Jun 10 j 09:49	10° <u>♂</u> 45'53	0°44'53
max. Earth dist.	-4758 Nov 23 j 07:28	26° <u>♂</u> 25'24	31.14113 AU	min. Earth dist.	-4751 Jun 09 j 16:01	10° <u>♂</u> 47'06	29.08599 AU
morning rise	-4758 Dec 08 j 00:24	26° <u>♂</u> 58'33		direct	-4751 Aug 27 j 21:52	9° <u>♂</u> 23'18	
retrograde	-4757 Mar 08 j 05:28	28° <u>♂</u> 55'37		evening set	-4751 Nov 22 j 06:17	11° <u>♂</u> 15'41	
opposition	-4757 May 28 j 03:56	27° <u>♂</u> 31'28	1°15'28				
min. Earth dist.	-4757 May 27 j 12:26	27° <u>♂</u> 32'31	29.13802 AU	conjunction	-4751 Dec 07 j 15:14	11° <u>♂</u> 50'19	0°39'34
direct	-4757 Aug 15 j 06:46	26° <u>♂</u> 08'41		minimum elong	-4751 Dec 07 j 15:14	11° <u>♂</u> 50'19	0°39'25
evening set	-4757 Nov 09 j 19:50	28° <u>♂</u> 01'19		max. Earth dist.	-4751 Dec 08 j 10:03	11° <u>♂</u> 52'06	31.07964 AU
				morning rise	-4751 Dec 23 j 03:11	12° <u>♂</u> 25'15	
conjunction	-4757 Nov 25 j 01:54	28° <u>♂</u> 35'42	1°08'24	retrograde	-4750 Mar 23 j 21:27	14° <u>♂</u> 23'08	
minimum elong	-4757 Nov 25 j 01:55	28° <u>♂</u> 35'42	1°08'18	opposition	-4750 Jun 12 j 22:28	12° <u>♂</u> 58'37	0°39'31
max. Earth dist.	-4757 Nov 25 j 16:55	28° <u>♂</u> 37'07	31.13394 AU	min. Earth dist.	-4750 Jun 12 j 03:14	12° <u>♂</u> 59'56	29.07364 AU
morning rise	-4757 Dec 10 j 10:38	29° <u>♂</u> 10'20		direct	-4750 Aug 30 j 09:16	11° <u>♂</u> 36'00	
	-4756 Jan 03 j 09:43	0° <u>♂</u>		evening set	-4750 Nov 24 j 16:20	13° <u>♂</u> 28'19	
retrograde	-4756 Mar 09 j 18:50	1° <u>♂</u> 07'33					
	-4756 May 19 j 10:13	30° <u>♂</u>		conjunction	-4750 Dec 10 j 01:37	14° <u>♂</u> 02'59	0°34'31
opposition	-4756 May 29 j 16:58	29° <u>♂</u> 43'21	1°10'37	minimum elong	-4750 Dec 10 j 01:37	14° <u>♂</u> 02'59	0°34'21
min. Earth dist.	-4756 May 29 j 01:01	29° <u>♂</u> 44'26	29.13100 AU	max. Earth dist.	-4750 Dec 10 j 20:18	14° <u>♂</u> 04'45	31.06703 AU
direct	-4756 Aug 16 j 16:46	28° <u>♂</u> 20'38		morning rise	-4750 Dec 25 j 14:16	14° <u>♂</u> 37'59	
	-4756 Nov 05 j 03:47	0° <u>♂</u>			-4749 Jan 04 j 18:22	15° <u>♂</u>	
evening set	-4756 Nov 11 j 05:12	0° <u>♂</u> 13'14		retrograde	-4749 Mar 26 j 10:39	16° <u>♂</u> 35'55	
				opposition	-4749 Jun 15 j 11:20	15° <u>♂</u> 11'17	0°34'05
conjunction	-4756 Nov 26 j 11:52	0° <u>♂</u> 47'39	1°03'49	min. Earth dist.	-4749 Jun 14 j 16:31	15° <u>♂</u> 12'35	29.06100 AU
minimum elong	-4756 Nov 26 j 11:53	0° <u>♂</u> 47'40	1°03'43		-4749 Jun 22 j 08:51	15° <u>♂</u>	
max. Earth dist.	-4756 Nov 27 j 04:41	0° <u>♂</u> 49'15	31.12696 AU	direct	-4749 Sep 01 j 20:31	13° <u>♂</u> 48'38	
morning rise	-4756 Dec 11 j 20:59	1° <u>♂</u> 22'21			-4749 Nov 07 j 14:24	15° <u>♂</u>	
retrograde	-4755 Mar 12 j 05:23	3° <u>♂</u> 19'42		evening set	-4749 Nov 27 j 02:07	15° <u>♂</u> 40'53	
opposition	-4755 Jun 01 j 05:53	1° <u>♂</u> 55'29	1°05'39				
min. Earth dist.	-4755 May 31 j 13:14	1° <u>♂</u> 56'37	29.12385 AU	conjunction	-4749 Dec 12 j 12:03	16° <u>♂</u> 15'36	0°29'24
direct	-4755 Aug 19 j 04:36	0° <u>♂</u> 32'50		minimum elong	-4749 Dec 12 j 12:03	16° <u>♂</u> 15'36	0°29'14
evening set	-4755 Nov 13 j 14:51	2° <u>♂</u> 25'24		max. Earth dist.	-4749 Dec 13 j 08:27	16° <u>♂</u> 17'31	31.05450 AU
				morning rise	-4749 Dec 28 j 01:06	16° <u>♂</u> 50'37	
conjunction	-4755 Nov 28 j 21:50	2° <u>♂</u> 59'52	0°59'08	retrograde	-4748 Mar 27 j 23:57	18° <u>♂</u> 48'37	
minimum elong	-4755 Nov 28 j 21:50	2° <u>♂</u> 59'52	0°59'00	min. Earth dist.	-4748 Jun 16 j 03:49	17° <u>♂</u> 25'17	29.04866 AU
max. Earth dist.	-4755 Nov 29 j 14:20	3° <u>♂</u> 01'26	31.11970 AU	opposition	-4748 Jun 17 j 00:03	17° <u>♂</u> 23'54	0°28'36
morning rise	-4755 Dec 14 j 07:38	3° <u>♂</u> 34'36		direct	-4748 Sep 03 j 09:55	16° <u>♂</u> 01'12	
retrograde	-4754 Mar 14 j 18:39	5° <u>♂</u> 32'05		evening set	-4748 Nov 28 j 12:17	17° <u>♂</u> 53'24	
opposition	-4754 Jun 03 j 18:50	4° <u>♂</u> 07'51	1°00'35				
min. Earth dist.	-4754 Jun 03 j 01:21	4° <u>♂</u> 09'03	29.11622 AU	conjunction	-4748 Dec 13 j 22:31	18° <u>♂</u> 28'09	0°24'16
direct	-4754 Aug 21 j 14:08	2° <u>♂</u> 45'15		minimum elong	-4748 Dec 13 j 22:31	18° <u>♂</u> 28'09	0°24'05
evening set	-4754 Nov 16 j 00:34	4° <u>♂</u> 37'47		max. Earth dist.	-4748 Dec 14 j 18:38	18° <u>♂</u> 30'03	31.04259 AU
				morning rise	-4748 Dec 29 j 12:19	19° <u>♂</u> 03'13	
conjunction	-4754 Dec 01 j 08:03	5° <u>♂</u> 12'17	0°54'21	retrograde	-4747 Mar 30 j 12:59	21° <u>♂</u> 01'17	
minimum elong	-4754 Dec 01 j 08:03	5° <u>♂</u> 12'17	0°54'13	opposition	-4747 Jun 19 j 12:42	19° <u>♂</u> 36'28	0°23'04
max. Earth dist.	-4754 Dec 02 j 01:45	5° <u>♂</u> 13'58	31.11150 AU	min. Earth dist.	-4747 Jun 18 j 16:13	19° <u>♂</u> 37'52	29.03731 AU
morning rise	-4754 Dec 16 j 18:17	5° <u>♂</u> 47'05		direct	-4747 Sep 05 j 20:13	18° <u>♂</u> 13'44	
retrograde	-4753 Mar 17 j 06:05	7° <u>♂</u> 44'42		evening set	-4747 Nov 30 j 22:21	20° <u>♂</u> 05'55	
opposition	-4753 Jun 06 j 07:47	6° <u>♂</u> 20'25	0°55'26				
min. Earth dist.	-4753 Jun 05 j 14:36	6° <u>♂</u> 21'36	29.10741 AU	conjunction	-4747 Dec 16 j 09:14	20° <u>♂</u> 40'41	0°19'05
direct	-4753 Aug 24 j 00:33	4° <u>♂</u> 57'51		minimum elong	-4747 Dec 16 j 09:14	20° <u>♂</u> 40'41	0°18'54
evening set	-4753 Nov 18 j 10:28	6° <u>♂</u> 50'21		max. Earth dist.	-4747 Dec 17 j 07:06	20° <u>♂</u> 42'45	31.03170 AU
				morning rise	-4747 Dec 31 j 23:27	21° <u>♂</u> 15'49	
conjunction	-4753 Dec 03 j 18:23	7° <u>♂</u> 24'54	0°49'29	retrograde	-4746 Apr 02 j 00:02	23° <u>♂</u> 13'57	
minimum elong	-4753 Dec 03 j 18:23	7° <u>♂</u> 24'54	0°49'21	min. Earth dist.	-4746 Jun 21 j 03:58	21° <u>♂</u> 50'31	29.02694 AU
max. Earth dist.	-4753 Dec 04 j 12:06	7° <u>♂</u> 26'34	31.10220 AU	opposition	-4746 Jun 22 j 01:17	21° <u>♂</u> 49'04	0°17'31
morning rise	-4753 Dec 19 j 05:12	7° <u>♂</u> 59'44		direct	-4746 Sep 08 j 08:38	20° <u>♂</u> 26'20	
retrograde	-4752 Mar 18 j 19:41	9° <u>♂</u> 57'27		evening set	-4746 Dec 03 j 08:36	22° <u>♂</u> 18'28	

Attention, astronomical year style is used: The year -4746 in astronomical counting style is the year 4747 BCE in historical counting style.

conjunction	-4746 Dec 18 j 19:50	22° $\mathcal{M}$ .53'17	0°13'52	behind sun end	-4741 Dec 30 j 07:24	3° $\mathcal{A}$ .58'52	
minimum elong	-4746 Dec 18 j 19:50	22° $\mathcal{M}$ .53'17	0°13'41	max. Earth dist.	-4741 Dec 31 j 03:08	4° $\mathcal{A}$ .00'44	30.98189 AU
behind sun begin	-4746 Dec 18 j 16:18	22° $\mathcal{M}$ .52'58		morning rise	-4740 Jan 14 j 20:56	4° $\mathcal{A}$ .33'53	
behind sun end	-4746 Dec 18 j 23:22	22° $\mathcal{M}$ .53'36		retrograde	-4740 Apr 15 j 05:56	6° $\mathcal{A}$ .32'33	
max. Earth dist.	-4746 Dec 19 j 17:31	22° $\mathcal{M}$ .55'20	31.02196 AU	min. Earth dist.	-4740 Jul 04 j 05:39	5° $\mathcal{A}$ .09'04	28.97773 AU
morning rise	-4745 Jan 03 j 10:43	23° $\mathcal{M}$ .28'27		opposition	-4740 Jul 05 j 04:39	5° $\mathcal{A}$ .07'29	-0°16'15
retrograde	-4745 Apr 04 j 13:36	25° $\mathcal{M}$ .26'40		direct	-4740 Sep 20 j 23:33	3° $\mathcal{A}$ .44'47	
opposition	-4745 Jun 24 j 13:48	24° $\mathcal{M}$ .01'44	0°11'55	evening set	-4740 Dec 16 j 00:45	5° $\mathcal{A}$ .36'58	
min. Earth dist.	-4745 Jun 23 j 15:30	24° $\mathcal{M}$ .03'15	29.01777 AU				
direct	-4745 Sep 10 j 19:04	22° $\mathcal{M}$ .39'00		conjunction	-4740 Dec 31 j 15:02	6° $\mathcal{A}$ .12'02	-0°17'46
evening set	-4745 Dec 05 j 18:53	24° $\mathcal{M}$ .31'07		minimum elong	-4740 Dec 31 j 15:02	6° $\mathcal{A}$ .12'02	0°17'59
				max. Earth dist.	-4739 Jan 01 j 15:53	6° $\mathcal{A}$ .14'22	30.97263 AU
conjunction	-4745 Dec 21 j 06:41	25° $\mathcal{M}$ .05'59	0°08'39	morning rise	-4739 Jan 16 j 09:02	6° $\mathcal{A}$ .47'28	
minimum elong	-4745 Dec 21 j 06:40	25° $\mathcal{M}$ .05'59	0°08'27	retrograde	-4739 Apr 17 j 19:50	8° $\mathcal{A}$ .46'11	
behind sun begin	-4745 Dec 21 j 01:00	25° $\mathcal{M}$ .05'28		opposition	-4739 Jul 07 j 17:01	7° $\mathcal{A}$ .21'04	-0°21'51
behind sun end	-4745 Dec 21 j 12:20	25° $\mathcal{M}$ .06'30		min. Earth dist.	-4739 Jul 06 j 17:22	7° $\mathcal{A}$ .22'42	28.96791 AU
max. Earth dist.	-4745 Dec 22 j 05:45	25° $\mathcal{M}$ .08'10	31.01324 AU	direct	-4739 Sep 23 j 12:27	5° $\mathcal{A}$ .58'20	
morning rise	-4744 Jan 05 j 22:01	25° $\mathcal{M}$ .41'12		evening set	-4739 Dec 18 j 12:03	7° $\mathcal{A}$ .50'32	
retrograde	-4744 Apr 06 j 01:04	27° $\mathcal{M}$ .39'30					
min. Earth dist.	-4744 Jun 25 j 04:12	26° $\mathcal{M}$ .16'03	29.00950 AU	conjunction	-4738 Jan 03 j 02:41	8° $\mathcal{A}$ .25'38	-0°22'59
opposition	-4744 Jun 26 j 02:26	26° $\mathcal{M}$ .14'31	0°06'18	minimum elong	-4738 Jan 03 j 02:40	8° $\mathcal{A}$ .25'38	0°23'12
direct	-4744 Sep 12 j 05:52	24° $\mathcal{M}$ .51'49		max. Earth dist.	-4738 Jan 04 j 02:25	8° $\mathcal{A}$ .27'52	30.96234 AU
evening set	-4744 Dec 07 j 05:15	26° $\mathcal{M}$ .43'56		morning rise	-4738 Jan 18 j 21:23	9° $\mathcal{A}$ .01'07	
				retrograde	-4738 Apr 20 j 09:35	10° $\mathcal{A}$ .59'52	
conjunction	-4744 Dec 22 j 17:33	27° $\mathcal{M}$ .18'50	0°03'24	min. Earth dist.	-4738 Jul 09 j 06:21	9° $\mathcal{A}$ .36'18	28.95725 AU
minimum elong	-4744 Dec 22 j 17:33	27° $\mathcal{M}$ .18'50	0°03'12	opposition	-4738 Jul 10 j 05:31	9° $\mathcal{A}$ .34'42	-0°27'25
behind sun begin	-4744 Dec 22 j 11:08	27° $\mathcal{M}$ .18'15		direct	-4738 Sep 25 j 22:57	8° $\mathcal{A}$ .11'55	
behind sun end	-4744 Dec 22 j 23:58	27° $\mathcal{M}$ .19'24		evening set	-4738 Dec 20 j 23:11	10° $\mathcal{A}$ .04'07	
max. Earth dist.	-4744 Dec 23 j 16:58	27° $\mathcal{M}$ .21'02	31.00545 AU				
morning rise	-4743 Jan 07 j 09:31	27° $\mathcal{M}$ .54'06		conjunction	-4737 Jan 05 j 14:24	10° $\mathcal{A}$ .39'15	-0°28'11
retrograde	-4743 Apr 08 j 14:05	29° $\mathcal{M}$ .52'29		minimum elong	-4737 Jan 05 j 14:23	10° $\mathcal{A}$ .39'15	0°28'25
opposition	-4743 Jun 28 j 14:59	28° $\mathcal{M}$ .27'29	0°00'40	max. Earth dist.	-4737 Jan 06 j 15:17	10° $\mathcal{A}$ .41'36	30.95130 AU
min. Earth dist.	-4743 Jun 27 j 15:29	28° $\mathcal{M}$ .29'06	29.00191 AU	morning rise	-4737 Jan 21 j 09:25	11° $\mathcal{A}$ .14'46	
desc. node	-4743 Aug 10 j 18:18	27° $\mathcal{M}$ .24'37		retrograde	-4737 Apr 22 j 21:48	13° $\mathcal{A}$ .13'33	
direct	-4743 Sep 14 j 16:21	27° $\mathcal{M}$ .04'47		opposition	-4737 Jul 12 j 17:48	11° $\mathcal{A}$ .48'18	-0°32'57
evening set	-4743 Dec 09 j 15:59	28° $\mathcal{M}$ .56'55		min. Earth dist.	-4737 Jul 11 j 18:23	11° $\mathcal{A}$ .49'56	28.94607 AU
				direct	-4737 Sep 28 j 11:51	10° $\mathcal{A}$ .25'29	
conjunction	-4743 Dec 25 j 04:43	29° $\mathcal{M}$ .31'52	-0°02'00	evening set	-4737 Dec 23 j 10:30	12° $\mathcal{A}$ .17'41	
minimum elong	-4743 Dec 25 j 04:42	29° $\mathcal{M}$ .31'52	0°02'13				
behind sun begin	-4743 Dec 24 j 22:15	29° $\mathcal{M}$ .31'17		conjunction	-4736 Jan 08 j 02:05	12° $\mathcal{A}$ .52'51	-0°33'19
behind sun end	-4743 Dec 25 j 11:09	29° $\mathcal{M}$ .32'26		minimum elong	-4736 Jan 08 j 02:05	12° $\mathcal{A}$ .52'51	0°33'33
max. Earth dist.	-4743 Dec 26 j 04:25	29° $\mathcal{M}$ .34'06	30.99786 AU	max. Earth dist.	-4736 Jan 09 j 02:18	12° $\mathcal{A}$ .55'08	30.94026 AU
	-4742 Jan 06 j 15:47	0° $\mathcal{A}$ .		morning rise	-4736 Jan 23 j 21:44	13° $\mathcal{A}$ .28'24	
morning rise	-4742 Jan 09 j 21:14	0° $\mathcal{A}$ .07'10		retrograde	-4736 Apr 24 j 12:19	15° $\mathcal{A}$ .27'13	
retrograde	-4742 Apr 11 j 02:19	2° $\mathcal{A}$ .05'39		min. Earth dist.	-4736 Jul 13 j 06:09	14° $\mathcal{A}$ .03'33	28.93532 AU
min. Earth dist.	-4742 Jun 30 j 04:46	0° $\mathcal{A}$ .42'12	28.99438 AU	opposition	-4736 Jul 14 j 06:02	14° $\mathcal{A}$ .01'54	-0°38'26
opposition	-4742 Jul 01 j 03:28	0° $\mathcal{A}$ .40'38	-0°04'59	direct	-4736 Sep 29 j 23:01	12° $\mathcal{A}$ .39'00	
	-4742 Jul 26 j 19:45	30° $\mathcal{R}$ .		evening set	-4736 Dec 24 j 21:50	14° $\mathcal{A}$ .31'13	
direct	-4742 Sep 17 j 01:48	29° $\mathcal{M}$ .17'57					
	-4742 Nov 06 j 05:30	0° $\mathcal{A}$ .		conjunction	-4735 Jan 09 j 13:57	15° $\mathcal{A}$ .06'26	-0°38'25
evening set	-4742 Dec 12 j 02:45	1° $\mathcal{A}$ .10'06		minimum elong	-4735 Jan 09 j 13:56	15° $\mathcal{A}$ .06'25	0°38'40
				max. Earth dist.	-4735 Jan 10 j 15:12	15° $\mathcal{A}$ .08'48	30.92970 AU
conjunction	-4742 Dec 27 j 16:03	1° $\mathcal{A}$ .45'05	-0°07'17	morning rise	-4735 Jan 25 j 10:02	15° $\mathcal{A}$ .42'01	
minimum elong	-4742 Dec 27 j 16:03	1° $\mathcal{A}$ .45'05	0°07'29	retrograde	-4735 Apr 26 j 23:39	17° $\mathcal{A}$ .40'51	
behind sun begin	-4742 Dec 27 j 10:09	1° $\mathcal{A}$ .44'33		opposition	-4735 Jul 16 j 18:14	16° $\mathcal{A}$ .15'29	-0°43'51
behind sun end	-4742 Dec 27 j 21:56	1° $\mathcal{A}$ .45'37		min. Earth dist.	-4735 Jul 15 j 18:43	16° $\mathcal{A}$ .17'07	28.92526 AU
max. Earth dist.	-4742 Dec 28 j 16:26	1° $\mathcal{A}$ .47'23	30.99024 AU	direct	-4735 Oct 02 j 10:25	14° $\mathcal{A}$ .52'33	
morning rise	-4741 Jan 12 j 09:01	2° $\mathcal{A}$ .20'26		evening set	-4735 Dec 27 j 09:20	16° $\mathcal{A}$ .44'48	
retrograde	-4741 Apr 13 j 16:05	4° $\mathcal{A}$ .19'01					
opposition	-4741 Jul 03 j 15:56	2° $\mathcal{A}$ .53'59	-0°10'37	conjunction	-4734 Jan 12 j 01:55	17° $\mathcal{A}$ .20'01	-0°43'28
min. Earth dist.	-4741 Jul 02 j 16:03	2° $\mathcal{A}$ .55'38	28.98646 AU	minimum elong	-4734 Jan 12 j 01:54	17° $\mathcal{A}$ .20'01	0°43'42
direct	-4741 Sep 19 j 12:51	1° $\mathcal{A}$ .31'18		max. Earth dist.	-4734 Jan 13 j 03:10	17° $\mathcal{A}$ .22'24	30.92023 AU
evening set	-4741 Dec 14 j 13:42	3° $\mathcal{A}$ .23'28		morning rise	-4734 Jan 27 j 22:28	17° $\mathcal{A}$ .55'39	
				retrograde	-4734 Apr 29 j 12:17	19° $\mathcal{A}$ .54'31	
conjunction	-4741 Dec 30 j 03:19	3° $\mathcal{A}$ .58'29	-0°12'32	min. Earth dist.	-4734 Jul 18 j 05:35	18° $\mathcal{A}$ .30'49	28.91646 AU
minimum elong	-4741 Dec 30 j 03:19	3° $\mathcal{A}$ .58'29	0°12'44	opposition	-4734 Jul 19 j 06:09	18° $\mathcal{A}$ .29'07	-0°49'13
behind sun begin	-4741 Dec 29 j 23:14	3° $\mathcal{A}$ .58'07		direct	-4734 Oct 04 j 21:09	17° $\mathcal{A}$ .06'09	

Attention, astronomical year style is used: The year -4734 in astronomical counting style is the year 4735 BCE in historical counting style.

evening set	-4734 Dec 29 j 20:56	18° $\nearrow$ 58'26		max. Earth dist.	-4727 Jan 28 j 17:59	3° $\ominus$ 01'34	30.88091 AU
				morning rise	-4727 Feb 12 j 16:29	3° $\ominus$ 35'02	
conjunction	-4733 Jan 14 j 13:53	19° $\nearrow$ 33'41	-0°48'27	retrograde	-4727 May 15 j 12:14	5° $\ominus$ 34'11	
minimum elong	-4733 Jan 14 j 13:53	19° $\nearrow$ 33'41	0°48'41	opposition	-4727 Aug 03 j 18:21	4° $\ominus$ 08'49	-1°24'20
max. Earth dist.	-4733 Jan 15 j 15:25	19° $\nearrow$ 36'06	30.91197 AU	min. Earth dist.	-4727 Aug 02 j 18:36	4° $\ominus$ 10'28	28.87883 AU
morning rise	-4733 Jan 30 j 10:56	20° $\nearrow$ 09'21		direct	-4727 Oct 20 j 02:18	2° $\ominus$ 45'43	
retrograde	-4733 May 02 j 00:15	22° $\nearrow$ 08'16		evening set	-4726 Jan 14 j 10:01	4° $\ominus$ 38'30	
opposition	-4733 Jul 21 j 18:20	20° $\nearrow$ 42'50	-0°54'30				
min. Earth dist.	-4733 Jul 20 j 18:24	20° $\nearrow$ 44'30	28.90899 AU	conjunction	-4726 Jan 30 j 06:02	5° $\ominus$ 13'59	-1°20'58
direct	-4733 Oct 07 j 06:22	19° $\nearrow$ 19'51		minimum elong	-4726 Jan 30 j 06:02	5° $\ominus$ 13'59	1°21'13
evening set	-4732 Jan 01 j 08:23	21° $\nearrow$ 12'11		max. Earth dist.	-4726 Jan 31 j 07:21	5° $\ominus$ 16'22	30.87466 AU
				morning rise	-4726 Feb 15 j 05:55	5° $\ominus$ 49'50	
conjunction	-4732 Jan 17 j 01:55	21° $\nearrow$ 47'28	-0°53'21	retrograde	-4726 May 18 j 00:01	7° $\ominus$ 48'58	
minimum elong	-4732 Jan 17 j 01:55	21° $\nearrow$ 47'28	0°53'35	min. Earth dist.	-4726 Aug 05 j 07:33	6° $\ominus$ 25'10	28.87214 AU
max. Earth dist.	-4732 Jan 18 j 04:13	21° $\nearrow$ 49'57	30.90522 AU	opposition	-4726 Aug 06 j 06:14	6° $\ominus$ 23'34	-1°28'55
morning rise	-4732 Feb 01 j 23:20	22° $\nearrow$ 23'09		direct	-4726 Oct 22 j 14:13	5° $\ominus$ 00'26	
retrograde	-4732 May 03 j 13:39	24° $\nearrow$ 22'08		evening set	-4725 Jan 16 j 22:43	6° $\ominus$ 53'14	
min. Earth dist.	-4732 Jul 22 j 05:08	22° $\nearrow$ 58'28	28.90287 AU				
opposition	-4732 Jul 23 j 06:20	22° $\nearrow$ 56'42	-0°59'43	conjunction	-4725 Feb 01 j 19:09	7° $\ominus$ 28'44	-1°25'12
direct	-4732 Oct 08 j 17:09	21° $\nearrow$ 33'42		minimum elong	-4725 Feb 01 j 19:09	7° $\ominus$ 28'44	1°25'26
evening set	-4731 Jan 02 j 20:18	23° $\nearrow$ 26'06		max. Earth dist.	-4725 Feb 02 j 19:40	7° $\ominus$ 31'03	30.86767 AU
				morning rise	-4725 Feb 17 j 19:26	8° $\ominus$ 04'37	
conjunction	-4731 Jan 18 j 14:08	24° $\nearrow$ 01'25	-0°58'11	retrograde	-4725 May 20 j 14:02	10° $\ominus$ 03'43	
minimum elong	-4731 Jan 18 j 14:08	24° $\nearrow$ 01'25	0°58'26	opposition	-4725 Aug 08 j 18:04	8° $\ominus$ 38'17	-1°33'22
max. Earth dist.	-4731 Jan 19 j 15:56	24° $\nearrow$ 03'51	30.89960 AU	min. Earth dist.	-4725 Aug 07 j 19:01	8° $\ominus$ 39'54	28.86491 AU
morning rise	-4731 Feb 03 j 12:09	24° $\nearrow$ 37'09		direct	-4725 Oct 25 j 02:03	7° $\ominus$ 15'03	
retrograde	-4731 May 06 j 02:50	26° $\nearrow$ 36'10		evening set	-4724 Jan 19 j 11:23	9° $\ominus$ 07'54	
opposition	-4731 Jul 25 j 18:21	25° $\nearrow$ 10'45	-1°04'50				
min. Earth dist.	-4731 Jul 24 j 18:03	25° $\nearrow$ 12'27	28.89786 AU	conjunction	-4724 Feb 04 j 08:11	9° $\ominus$ 43'26	-1°29'17
direct	-4731 Oct 11 j 03:22	23° $\nearrow$ 47'45		minimum elong	-4724 Feb 04 j 08:11	9° $\ominus$ 43'26	1°29'31
evening set	-4730 Jan 05 j 08:14	25° $\nearrow$ 40'13		max. Earth dist.	-4724 Feb 05 j 08:25	9° $\ominus$ 45'43	30.86017 AU
				morning rise	-4724 Feb 20 j 08:52	10° $\ominus$ 19'19	
conjunction	-4730 Jan 21 j 02:40	26° $\nearrow$ 15'35	-1°02'57	retrograde	-4724 May 22 j 02:23	12° $\ominus$ 18'24	
minimum elong	-4730 Jan 21 j 02:40	26° $\nearrow$ 15'35	1°03'11	min. Earth dist.	-4724 Aug 09 j 08:12	10° $\ominus$ 54'27	28.85749 AU
max. Earth dist.	-4730 Jan 22 j 05:33	26° $\nearrow$ 18'06	30.89493 AU	opposition	-4724 Aug 10 j 05:55	10° $\ominus$ 52'55	-1°37'40
morning rise	-4730 Feb 06 j 00:57	26° $\nearrow$ 51'19		direct	-4724 Oct 26 j 12:34	9° $\ominus$ 29'36	
retrograde	-4730 May 08 j 16:33	28° $\nearrow$ 50'23		evening set	-4723 Jan 21 j 00:12	11° $\ominus$ 22'30	
min. Earth dist.	-4730 Jul 27 j 05:22	27° $\nearrow$ 26'44	28.89342 AU				
opposition	-4730 Jul 28 j 06:17	27° $\nearrow$ 25'00	-1°09'52	conjunction	-4723 Feb 05 j 21:31	11° $\ominus$ 58'03	-1°33'14
direct	-4730 Oct 13 j 15:23	26° $\nearrow$ 01'59		minimum elong	-4723 Feb 05 j 21:31	11° $\ominus$ 58'03	1°33'29
evening set	-4729 Jan 07 j 20:24	27° $\nearrow$ 54'33		max. Earth dist.	-4723 Feb 06 j 21:48	12° $\ominus$ 00'20	30.85290 AU
				morning rise	-4723 Feb 21 j 22:28	12° $\ominus$ 33'57	
conjunction	-4729 Jan 23 j 15:04	28° $\nearrow$ 29'56	-1°07'36	retrograde	-4723 May 24 j 15:03	14° $\ominus$ 32'59	
minimum elong	-4729 Jan 23 j 15:04	28° $\nearrow$ 29'56	1°07'52	opposition	-4723 Aug 12 j 17:24	13° $\ominus$ 07'28	-1°41'49
max. Earth dist.	-4729 Jan 24 j 16:50	28° $\nearrow$ 32'22	30.89058 AU	min. Earth dist.	-4723 Aug 11 j 18:58	13° $\ominus$ 09'03	28.85051 AU
morning rise	-4729 Feb 08 j 13:54	29° $\nearrow$ 05'43		direct	-4723 Oct 29 j 00:21	11° $\ominus$ 44'04	
	-4729 Mar 07 j 02:31	0° $\ominus$		evening set	-4722 Jan 23 j 13:13	13° $\ominus$ 37'01	
retrograde	-4729 May 11 j 06:52	1° $\ominus$ 04'50					
	-4729 Jul 18 j 08:53	30° $\nwarrow$		conjunction	-4722 Feb 08 j 10:45	14° $\ominus$ 12'35	-1°37'03
opposition	-4729 Jul 30 j 18:21	29° $\nearrow$ 39'27	-1°14'48	minimum elong	-4722 Feb 08 j 10:45	14° $\ominus$ 12'35	1°37'17
min. Earth dist.	-4729 Jul 29 j 18:09	29° $\nearrow$ 41'09	28.88917 AU	max. Earth dist.	-4722 Feb 09 j 10:08	14° $\ominus$ 14'47	30.84621 AU
direct	-4729 Oct 16 j 01:16	28° $\nearrow$ 16'26		morning rise	-4722 Feb 24 j 12:09	14° $\ominus$ 48'30	
	-4728 Jan 06 j 05:05	0° $\ominus$		retrograde	-4722 May 27 j 03:01	16° $\ominus$ 47'30	
evening set	-4728 Jan 10 j 08:43	0° $\ominus$ 09'04		min. Earth dist.	-4722 Aug 14 j 07:45	15° $\ominus$ 23'28	28.84446 AU
				opposition	-4722 Aug 15 j 05:04	15° $\ominus$ 21'58	-1°45'49
conjunction	-4728 Jan 26 j 03:57	0° $\ominus$ 44'30	-1°12'10	direct	-4722 Oct 31 j 10:33	13° $\ominus$ 58'30	
minimum elong	-4728 Jan 26 j 03:56	0° $\ominus$ 44'30	1°12'25	evening set	-4721 Jan 26 j 01:57	15° $\ominus$ 51'31	
max. Earth dist.	-4728 Jan 27 j 06:29	0° $\ominus$ 47'00	30.88606 AU				
morning rise	-4728 Feb 11 j 03:01	1° $\ominus$ 20'18		conjunction	-4721 Feb 11 j 00:01	16° $\ominus$ 27'06	-1°40'43
retrograde	-4728 May 12 j 20:43	3° $\ominus$ 19'27		minimum elong	-4721 Feb 11 j 00:01	16° $\ominus$ 27'06	1°40'58
min. Earth dist.	-4728 Jul 31 j 06:21	1° $\ominus$ 55'45	28.88440 AU	max. Earth dist.	-4721 Feb 12 j 00:17	16° $\ominus$ 29'23	30.84067 AU
opposition	-4728 Aug 01 j 06:19	1° $\ominus$ 54'05	-1°19'38	morning rise	-4721 Feb 27 j 01:33	17° $\ominus$ 03'02	
direct	-4728 Oct 17 j 14:21	0° $\ominus$ 31'03		retrograde	-4721 May 29 j 15:41	19° $\ominus$ 02'01	
evening set	-4727 Jan 11 j 21:19	2° $\ominus$ 23'45		opposition	-4721 Aug 17 j 16:35	17° $\ominus$ 36'28	-1°49'39
				min. Earth dist.	-4721 Aug 16 j 18:39	17° $\ominus$ 38'01	28.83958 AU
conjunction	-4727 Jan 27 j 16:53	2° $\ominus$ 59'12	-1°16'38	direct	-4721 Nov 02 j 22:27	16° $\ominus$ 12'57	
minimum elong	-4727 Jan 27 j 16:52	2° $\ominus$ 59'12	1°16'53	evening set	-4720 Jan 28 j 15:06	18° $\ominus$ 06'04	

Attention, astronomical year style is used: The year -4720 in astronomical counting style is the year 4721 BCE in historical counting style.

conjunction	-4720 Feb 13 j 13:22	18° $\text{Z}$ 41'40	-1°44'14	max. Earth dist.	-4714 Feb 27 j 21:00	2° $\approx$ 14'14	30.82699 AU
minimum elong	-4720 Feb 13 j 13:22	18° $\text{Z}$ 41'40	1°44'28	morning rise	-4714 Mar 15 j 04:16	2° $\approx$ 48'22	
max. Earth dist.	-4720 Feb 14 j 12:24	18° $\text{Z}$ 43'50	30.83644 AU	retrograde	-4714 Jun 14 j 16:18	4° $\approx$ 47'11	
morning rise	-4720 Feb 29 j 15:23	19° $\text{Z}$ 17'37		min. Earth dist.	-4714 Sep 01 j 06:22	3° $\approx$ 23'14	28.82714 AU
retrograde	-4720 May 31 j 05:31	21° $\text{Z}$ 16'34		opposition	-4714 Sep 02 j 00:31	3° $\approx$ 21'57	-2°11'35
min. Earth dist.	-4720 Aug 18 j 06:52	19° $\text{Z}$ 52'33	28.83618 AU	direct	-4714 Nov 18 j 07:33	1° $\approx$ 58'13	
opposition	-4720 Aug 19 j 04:05	19° $\text{Z}$ 51'03	-1°53'20	evening set	-4713 Feb 13 j 14:04	3° $\approx$ 52'07	
direct	-4720 Nov 04 j 08:15	18° $\text{Z}$ 27'28					
evening set	-4719 Jan 30 j 04:11	20° $\text{Z}$ 20'42		conjunction	-4713 Mar 01 j 14:50	4° $\approx$ 27'52	-2°04'09
				minimum elong	-4713 Mar 01 j 14:50	4° $\approx$ 27'52	2°04'22
conjunction	-4719 Feb 15 j 03:01	20° $\text{Z}$ 56'20	-1°47'36	max. Earth dist.	-4713 Mar 02 j 09:32	4° $\approx$ 29'38	30.82397 AU
minimum elong	-4719 Feb 15 j 03:00	20° $\text{Z}$ 56'20	1°47'50	morning rise	-4713 Mar 17 j 18:39	5° $\approx$ 03'56	
max. Earth dist.	-4719 Feb 16 j 02:52	20° $\text{Z}$ 58'34	30.83359 AU	retrograde	-4713 Jun 17 j 04:07	7° $\approx$ 02'40	
morning rise	-4719 Mar 03 j 05:10	21° $\text{Z}$ 32'17		opposition	-4713 Sep 04 j 11:58	5° $\approx$ 37'26	-2°13'57
retrograde	-4719 Jun 02 j 18:56	23° $\text{Z}$ 31'14		min. Earth dist.	-4713 Sep 03 j 19:33	5° $\approx$ 38'36	28.82382 AU
opposition	-4719 Aug 21 j 15:32	22° $\text{Z}$ 05'45	-1°56'50	direct	-4713 Nov 20 j 18:02	4° $\approx$ 13'38	
min. Earth dist.	-4719 Aug 20 j 18:27	22° $\text{Z}$ 07'14	28.83392 AU	evening set	-4712 Feb 16 j 03:56	6° $\approx$ 07'35	
direct	-4719 Nov 06 j 21:10	20° $\text{Z}$ 42'09					
evening set	-4718 Feb 01 j 17:33	22° $\text{Z}$ 35'29		conjunction	-4712 Mar 03 j 05:13	6° $\approx$ 43'22	-2°06'16
				minimum elong	-4712 Mar 03 j 05:13	6° $\approx$ 43'22	2°06'28
conjunction	-4718 Feb 17 j 16:36	23° $\text{Z}$ 11'09	-1°50'48	max. Earth dist.	-4712 Mar 03 j 23:57	6° $\approx$ 45'08	30.82037 AU
minimum elong	-4718 Feb 17 j 16:36	23° $\text{Z}$ 11'09	1°51'01	morning rise	-4712 Mar 19 j 09:09	7° $\approx$ 19'25	
max. Earth dist.	-4718 Feb 18 j 15:04	23° $\text{Z}$ 13'15	30.83188 AU	retrograde	-4712 Jun 18 j 16:42	9° $\approx$ 18'04	
morning rise	-4718 Mar 05 j 19:10	23° $\text{Z}$ 47'07		opposition	-4712 Sep 05 j 23:03	7° $\approx$ 52'50	-2°16'06
retrograde	-4718 Jun 05 j 10:03	25° $\text{Z}$ 46'03		min. Earth dist.	-4712 Sep 05 j 06:43	7° $\approx$ 53'59	28.82001 AU
min. Earth dist.	-4718 Aug 23 j 05:59	24° $\text{Z}$ 22'06	28.83272 AU	direct	-4712 Nov 22 j 05:49	6° $\approx$ 28'55	
opposition	-4718 Aug 24 j 02:54	24° $\text{Z}$ 20'37	-2°00'10	evening set	-4711 Feb 17 j 18:02	8° $\approx$ 22'57	
direct	-4718 Nov 09 j 08:47	22° $\text{Z}$ 57'01					
evening set	-4717 Feb 04 j 06:57	24° $\text{Z}$ 50'29		conjunction	-4711 Mar 05 j 19:30	8° $\approx$ 58'45	-2°08'11
				minimum elong	-4711 Mar 05 j 19:30	8° $\approx$ 58'45	2°08'24
conjunction	-4717 Feb 20 j 06:25	25° $\text{Z}$ 26'10	-1°53'49	max. Earth dist.	-4711 Mar 06 j 12:23	9° $\approx$ 00'20	30.81653 AU
minimum elong	-4717 Feb 20 j 06:25	25° $\text{Z}$ 26'10	1°54'03	morning rise	-4711 Mar 21 j 23:49	9° $\approx$ 34'48	
max. Earth dist.	-4717 Feb 21 j 05:16	25° $\text{Z}$ 28'18	30.83089 AU	retrograde	-4711 Jun 21 j 05:07	11° $\approx$ 33'21	
morning rise	-4717 Mar 08 j 09:09	26° $\text{Z}$ 02'09		opposition	-4711 Sep 08 j 10:15	10° $\approx$ 08'06	-2°18'04
retrograde	-4717 Jun 07 j 22:40	28° $\text{Z}$ 01'05		min. Earth dist.	-4711 Sep 07 j 19:09	10° $\approx$ 09'10	28.81637 AU
opposition	-4717 Aug 26 j 14:21	26° $\text{Z}$ 35'43	-2°03'18	direct	-4711 Nov 24 j 16:18	8° $\approx$ 44'05	
min. Earth dist.	-4717 Aug 25 j 18:32	26° $\text{Z}$ 37'06	28.83196 AU	evening set	-4710 Feb 20 j 07:54	10° $\approx$ 38'11	
direct	-4717 Nov 11 j 20:23	25° $\text{Z}$ 12'06					
evening set	-4716 Feb 06 j 20:28	27° $\text{Z}$ 05'41		conjunction	-4710 Mar 08 j 09:50	11° $\approx$ 13'59	-2°09'55
				minimum elong	-4710 Mar 08 j 09:50	11° $\approx$ 13'59	2°10'06
conjunction	-4716 Feb 22 j 20:18	27° $\text{Z}$ 41'23	-1°56'40	max. Earth dist.	-4710 Mar 09 j 03:11	11° $\approx$ 15'37	30.81303 AU
minimum elong	-4716 Feb 22 j 20:17	27° $\text{Z}$ 41'23	1°56'53	morning rise	-4710 Mar 24 j 14:09	11° $\approx$ 50'03	
max. Earth dist.	-4716 Feb 23 j 18:03	27° $\text{Z}$ 43'26	30.83021 AU	retrograde	-4710 Jun 23 j 16:44	13° $\approx$ 48'28	
morning rise	-4716 Mar 09 j 23:22	28° $\text{Z}$ 17'24		opposition	-4710 Sep 10 j 21:14	12° $\approx$ 23'13	-2°19'48
	-4716 May 08 j 20:59	0° $\approx$		min. Earth dist.	-4710 Sep 10 j 06:32	12° $\approx$ 24'15	28.81326 AU
retrograde	-4716 Jun 09 j 14:03	0° $\approx$ 16'18		direct	-4710 Nov 27 j 05:33	10° $\approx$ 59'06	
	-4716 Jul 11 j 11:44	30° $\text{R}$ $\text{Z}$		evening set	-4709 Feb 22 j 21:55	12° $\approx$ 53'17	
min. Earth dist.	-4716 Aug 27 j 05:56	28° $\text{Z}$ 52'24	28.83117 AU				
opposition	-4716 Aug 28 j 01:45	28° $\text{Z}$ 51'00	-2°06'15	conjunction	-4709 Mar 11 j 00:01	13° $\approx$ 29'06	-2°11'27
direct	-4716 Nov 13 j 08:29	27° $\text{Z}$ 27'22		minimum elong	-4709 Mar 11 j 00:01	13° $\approx$ 29'06	2°11'39
evening set	-4715 Feb 08 j 10:21	29° $\text{Z}$ 21'04		max. Earth dist.	-4709 Mar 11 j 15:40	13° $\approx$ 30'34	30.81049 AU
				morning rise	-4709 Mar 27 j 04:42	14° $\approx$ 05'09	
conjunction	-4715 Feb 24 j 10:29	29° $\text{Z}$ 56'48	-1°59'21		-4709 Apr 23 j 05:01	15° $\approx$	
minimum elong	-4715 Feb 24 j 10:28	29° $\text{Z}$ 56'48	1°59'34	retrograde	-4709 Jun 26 j 06:33	16° $\approx$ 03'28	
max. Earth dist.	-4715 Feb 25 j 07:29	29° $\text{Z}$ 58'46	30.82897 AU		-4709 Aug 31 j 10:09	15° $\text{R}$ $\approx$	
	-4715 Feb 25 j 20:33	0° $\approx$		opposition	-4709 Sep 13 j 08:11	14° $\approx$ 38'13	-2°21'20
morning rise	-4715 Mar 12 j 13:47	0° $\approx$ 32'50		min. Earth dist.	-4709 Sep 12 j 17:45	14° $\approx$ 39'14	28.81143 AU
retrograde	-4715 Jun 12 j 03:17	2° $\approx$ 31'42		direct	-4709 Nov 29 j 17:15	13° $\approx$ 14'00	
opposition	-4715 Aug 30 j 13:09	1° $\approx$ 06'26	-2°09'01		-4708 Feb 21 j 16:22	15° $\approx$	
min. Earth dist.	-4715 Aug 29 j 19:11	1° $\approx$ 07'42	28.82963 AU	evening set	-4708 Feb 25 j 11:47	15° $\approx$ 08'16	
	-4715 Oct 14 j 17:02	30° $\text{R}$ $\text{Z}$					
direct	-4715 Nov 15 j 19:13	29° $\text{Z}$ 42'46		conjunction	-4708 Mar 12 j 14:20	15° $\approx$ 44'06	-2°12'47
	-4715 Dec 17 j 09:53	0° $\approx$		minimum elong	-4708 Mar 12 j 14:20	15° $\approx$ 44'06	2°12'57
evening set	-4714 Feb 11 j 00:13	1° $\approx$ 36'34		max. Earth dist.	-4708 Mar 13 j 06:21	15° $\approx$ 45'36	30.80923 AU
				morning rise	-4708 Mar 28 j 19:06	16° $\approx$ 20'09	
conjunction	-4714 Feb 27 j 00:47	2° $\approx$ 12'20	-2°01'50	retrograde	-4708 Jun 27 j 18:36	18° $\approx$ 18'22	
minimum elong	-4714 Feb 27 j 00:47	2° $\approx$ 12'20	2°02'02	opposition	-4708 Sep 14 j 19:11	16° $\approx$ 53'08	-2°22'38

Attention, astronomical year style is used: The year -4708 in astronomical counting style is the year 4709 BCE in historical counting style.

min. Earth dist.	-4708 Sep 14 j 05:44	16° $\approx$ 54'05	28.81089 AU	conjunction	-4701 Mar 29 j 20:18	1° $\mathbb{H}$ 30'02	-2°16'18
direct	-4708 Dec 01 j 05:09	15° $\approx$ 28'51		minimum elong	-4701 Mar 29 j 20:18	1° $\mathbb{H}$ 30'02	2°16'26
evening set	-4707 Feb 27 j 01:53	17° $\approx$ 23'12		max. Earth dist.	-4701 Mar 30 j 06:20	1° $\mathbb{H}$ 30'58	30.82841 AU
				morning rise	-4701 Apr 15 j 02:03	2° $\mathbb{H}$ 06'06	
conjunction	-4707 Mar 15 j 04:41	17° $\approx$ 59'03	-2°13'54	retrograde	-4701 Jul 14 j 12:20	4° $\mathbb{H}$ 03'37	
minimum elong	-4707 Mar 15 j 04:41	17° $\approx$ 59'03	2°14'05	opposition	-4701 Sep 30 j 23:02	2° $\mathbb{H}$ 38'51	-2°25'36
max. Earth dist.	-4707 Mar 15 j 19:30	18° $\approx$ 00'26	30.80952 AU	min. Earth dist.	-4701 Sep 30 j 15:07	2° $\mathbb{H}$ 39'25	28.83122 AU
morning rise	-4707 Mar 31 j 09:43	18° $\approx$ 35'06		direct	-4701 Dec 17 j 15:30	1° $\mathbb{H}$ 14'20	
retrograde	-4707 Jun 30 j 09:30	20° $\approx$ 33'12		evening set	-4700 Mar 15 j 06:15	3° $\mathbb{H}$ 09'23	
opposition	-4707 Sep 17 j 05:55	19° $\approx$ 08'00	-2°23'44				
min. Earth dist.	-4707 Sep 16 j 16:16	19° $\approx$ 08'58	28.81195 AU	conjunction	-4700 Mar 31 j 11:00	3° $\mathbb{H}$ 45'21	-2°15'58
direct	-4707 Dec 03 j 18:08	17° $\approx$ 43'41		minimum elong	-4700 Mar 31 j 11:01	3° $\mathbb{H}$ 45'21	2°16'05
evening set	-4706 Mar 01 j 16:00	19° $\approx$ 38'08		max. Earth dist.	-4700 Mar 31 j 18:39	3° $\mathbb{H}$ 46'04	30.83046 AU
				morning rise	-4700 Apr 16 j 17:05	4° $\mathbb{H}$ 21'26	
conjunction	-4706 Mar 17 j 19:06	20° $\approx$ 14'00	-2°14'50	retrograde	-4700 Jul 16 j 01:42	6° $\mathbb{H}$ 18'48	
minimum elong	-4706 Mar 17 j 19:06	20° $\approx$ 14'00	2°14'59	opposition	-4700 Oct 02 j 09:48	4° $\mathbb{H}$ 54'04	-2°25'09
max. Earth dist.	-4706 Mar 18 j 09:38	20° $\approx$ 15'21	30.81122 AU	min. Earth dist.	-4700 Oct 02 j 02:41	4° $\mathbb{H}$ 54'34	28.83299 AU
morning rise	-4706 Apr 03 j 00:15	20° $\approx$ 50'03		direct	-4700 Dec 19 j 03:06	3° $\mathbb{H}$ 29'28	
retrograde	-4706 Jul 02 j 21:48	22° $\approx$ 48'04		evening set	-4699 Mar 17 j 20:45	5° $\mathbb{H}$ 24'37	
opposition	-4706 Sep 19 j 16:55	21° $\approx$ 22'55	-2°24'36				
min. Earth dist.	-4706 Sep 19 j 04:45	21° $\approx$ 23'47	28.81438 AU	conjunction	-4699 Apr 03 j 01:53	6° $\mathbb{H}$ 00'35	-2°15'26
direct	-4706 Dec 06 j 05:35	19° $\approx$ 58'34		minimum elong	-4699 Apr 03 j 01:54	6° $\mathbb{H}$ 00'35	2°15'33
evening set	-4705 Mar 04 j 05:56	21° $\approx$ 53'07		max. Earth dist.	-4699 Apr 03 j 09:21	6° $\mathbb{H}$ 01'16	30.83198 AU
				morning rise	-4699 Apr 19 j 07:54	6° $\mathbb{H}$ 36'39	
conjunction	-4705 Mar 20 j 09:24	22° $\approx$ 29'00	-2°15'32	retrograde	-4699 Jul 18 j 12:59	8° $\mathbb{H}$ 33'52	
minimum elong	-4705 Mar 20 j 09:24	22° $\approx$ 29'00	2°15'42	opposition	-4699 Oct 04 j 20:27	7° $\mathbb{H}$ 09'10	-2°24'28
max. Earth dist.	-4705 Mar 20 j 23:23	22° $\approx$ 30'18	30.81434 AU	min. Earth dist.	-4699 Oct 04 j 14:50	7° $\mathbb{H}$ 09'34	28.83440 AU
morning rise	-4705 Apr 05 j 14:43	23° $\approx$ 05'04		direct	-4699 Dec 21 j 15:17	5° $\mathbb{H}$ 44'30	
retrograde	-4705 Jul 05 j 11:27	25° $\approx$ 02'59		evening set	-4698 Mar 20 j 11:14	7° $\mathbb{H}$ 39'43	
opposition	-4705 Sep 22 j 03:42	23° $\approx$ 37'55	-2°25'15				
min. Earth dist.	-4705 Sep 21 j 15:12	23° $\approx$ 38'49	28.81791 AU	conjunction	-4698 Apr 05 j 16:32	8° $\mathbb{H}$ 15'41	-2°14'42
direct	-4705 Dec 08 j 18:06	22° $\approx$ 13'33		minimum elong	-4698 Apr 05 j 16:33	8° $\mathbb{H}$ 15'41	2°14'48
evening set	-4704 Mar 05 j 20:18	24° $\approx$ 08'13		max. Earth dist.	-4698 Apr 05 j 22:15	8° $\mathbb{H}$ 16'13	30.83362 AU
				morning rise	-4698 Apr 21 j 22:47	8° $\mathbb{H}$ 51'45	
conjunction	-4704 Mar 21 j 23:57	24° $\approx$ 44'07	-2°16'03	retrograde	-4698 Jul 21 j 03:09	10° $\mathbb{H}$ 48'49	
minimum elong	-4704 Mar 21 j 23:57	24° $\approx$ 44'07	2°16'11	opposition	-4698 Oct 07 j 07:01	9° $\mathbb{H}$ 24'09	-2°23'34
max. Earth dist.	-4704 Mar 22 j 12:35	24° $\approx$ 45'17	30.81814 AU	min. Earth dist.	-4698 Oct 07 j 01:27	9° $\mathbb{H}$ 24'32	28.83622 AU
morning rise	-4704 Apr 07 j 05:29	25° $\approx$ 20'11		direct	-4698 Dec 24 j 04:58	7° $\mathbb{H}$ 59'24	
retrograde	-4704 Jul 07 j 00:05	27° $\approx$ 18'01		evening set	-4697 Mar 23 j 01:28	9° $\mathbb{H}$ 54'40	
opposition	-4704 Sep 23 j 14:32	25° $\approx$ 53'02	-2°25'40				
min. Earth dist.	-4704 Sep 23 j 03:51	25° $\approx$ 53'48	28.82194 AU	conjunction	-4697 Apr 08 j 07:04	10° $\mathbb{H}$ 30'39	-2°13'45
direct	-4704 Dec 10 j 04:20	24° $\approx$ 28'39		minimum elong	-4697 Apr 08 j 07:04	10° $\mathbb{H}$ 30'40	2°13'51
evening set	-4703 Mar 08 j 10:43	26° $\approx$ 23'25		max. Earth dist.	-4697 Apr 08 j 12:26	10° $\mathbb{H}$ 31'09	30.83571 AU
				morning rise	-4697 Apr 24 j 13:20	11° $\mathbb{H}$ 06'43	
conjunction	-4703 Mar 24 j 14:47	26° $\approx$ 59'21	-2°16'20	retrograde	-4697 Jul 23 j 14:28	13° $\mathbb{H}$ 03'39	
minimum elong	-4703 Mar 24 j 14:48	26° $\approx$ 59'21	2°16'29	opposition	-4697 Oct 09 j 17:39	11° $\mathbb{H}$ 38'59	-2°22'27
max. Earth dist.	-4703 Mar 25 j 03:07	27° $\approx$ 00'30	30.82217 AU	min. Earth dist.	-4697 Oct 09 j 13:49	11° $\mathbb{H}$ 39'16	28.83877 AU
morning rise	-4703 Apr 09 j 20:20	27° $\approx$ 35'26		direct	-4697 Dec 26 j 17:17	10° $\mathbb{H}$ 14'11	
retrograde	-4703 Jul 09 j 13:06	29° $\approx$ 33'09		evening set	-4696 Mar 24 j 15:50	12° $\mathbb{H}$ 09'31	
opposition	-4703 Sep 26 j 01:21	28° $\approx$ 08'16	-2°25'52				
min. Earth dist.	-4703 Sep 25 j 14:58	28° $\approx$ 09'00	28.82572 AU	conjunction	-4696 Apr 09 j 21:42	12° $\mathbb{H}$ 45'31	-2°12'37
direct	-4703 Dec 12 j 16:12	26° $\approx$ 43'51		minimum elong	-4696 Apr 09 j 21:42	12° $\mathbb{H}$ 45'31	2°12'41
evening set	-4702 Mar 11 j 01:15	28° $\approx$ 38'44		max. Earth dist.	-4696 Apr 10 j 02:09	12° $\mathbb{H}$ 45'55	30.83889 AU
				morning rise	-4696 Apr 26 j 04:05	13° $\mathbb{H}$ 21'34	
conjunction	-4702 Mar 27 j 05:24	29° $\approx$ 14'40	-2°16'25	retrograde	-4696 Jul 25 j 03:53	15° $\mathbb{H}$ 18'20	
minimum elong	-4702 Mar 27 j 05:24	29° $\approx$ 14'40	2°16'33	opposition	-4696 Oct 11 j 04:00	13° $\mathbb{H}$ 53'44	-2°21'07
max. Earth dist.	-4702 Mar 27 j 15:35	29° $\approx$ 15'37	30.82564 AU	min. Earth dist.	-4696 Oct 10 j 23:51	13° $\mathbb{H}$ 54'02	28.84249 AU
morning rise	-4702 Apr 12 j 11:12	29° $\approx$ 50'45		direct	-4696 Dec 28 j 06:26	12° $\mathbb{H}$ 28'51	
	-4702 Apr 16 j 17:43	0° $\mathbb{H}$		evening set	-4695 Mar 27 j 06:18	14° $\mathbb{H}$ 24'16	
retrograde	-4702 Jul 12 j 01:03	1° $\mathbb{H}$ 48'23					
opposition	-4702 Sep 28 j 12:16	0° $\mathbb{H}$ 23'34	-2°25'51	conjunction	-4695 Apr 12 j 12:18	15° $\mathbb{H}$ 00'16	-2°11'16
min. Earth dist.	-4702 Sep 28 j 03:25	0° $\mathbb{H}$ 24'11	28.82891 AU	minimum elong	-4695 Apr 12 j 12:19	15° $\mathbb{H}$ 00'16	2°11'21
	-4702 Oct 12 j 11:14	30° $\mathbb{R}$		max. Earth dist.	-4695 Apr 12 j 15:37	15° $\mathbb{H}$ 00'35	30.84328 AU
direct	-4702 Dec 15 j 02:42	28° $\approx$ 59'06		morning rise	-4695 Apr 28 j 18:45	15° $\mathbb{H}$ 36'20	
	-4701 Feb 14 j 21:55	0° $\mathbb{H}$		retrograde	-4695 Jul 27 j 16:32	17° $\mathbb{H}$ 32'56	
evening set	-4701 Mar 13 j 15:41	0° $\mathbb{H}$ 54'05		opposition	-4695 Oct 13 j 14:37	16° $\mathbb{H}$ 08'24	-2°19'34
				min. Earth dist.	-4695 Oct 13 j 11:57	16° $\mathbb{H}$ 08'35	28.84767 AU



Attention, astronomical year style is used: The year -4694 in astronomical counting style is the year 4695 BCE in historical counting style.

direct	-4695 Dec 30 j 17:29	14° $\text{H}$ 43'30		minimum elong	-4688 Apr 28 j 18:31	0° $\text{Y}$ 44'04	1°56'22
evening set	-4694 Mar 29 j 20:28	16° $\text{H}$ 38'58		max. Earth dist.	-4688 Apr 28 j 14:55	0° $\text{Y}$ 43'44	30.89780 AU
				morning rise	-4688 May 15 j 00:57	1° $\text{Y}$ 20'06	
conjunction	-4694 Apr 15 j 02:47	17° $\text{H}$ 14'59	-2°09'43	retrograde	-4688 Aug 12 j 02:07	3° $\text{Y}$ 15'42	
minimum elong	-4694 Apr 15 j 02:47	17° $\text{H}$ 14'59	2°09'47	opposition	-4688 Oct 28 j 16:04	1° $\text{Y}$ 51'47	-2°02'55
max. Earth dist.	-4694 Apr 15 j 06:02	17° $\text{H}$ 15'18	30.84927 AU	min. Earth dist.	-4688 Oct 28 j 20:11	1° $\text{Y}$ 51'30	28.90217 AU
morning rise	-4694 May 01 j 09:11	17° $\text{H}$ 51'03		direct	-4687 Jan 15 j 04:42	0° $\text{Y}$ 26'44	
retrograde	-4694 Jul 30 j 04:53	19° $\text{H}$ 47'30		evening set	-4687 Apr 15 j 01:45	2° $\text{Y}$ 22'43	
opposition	-4694 Oct 16 j 01:03	18° $\text{H}$ 23'03	-2°17'48				
min. Earth dist.	-4694 Oct 15 j 22:16	18° $\text{H}$ 23'15	28.85429 AU	conjunction	-4687 May 01 j 09:07	2° $\text{Y}$ 58'47	-1°53'30
direct	-4693 Jan 02 j 05:47	16° $\text{H}$ 58'08		minimum elong	-4687 May 01 j 09:08	2° $\text{Y}$ 58'47	1°53'31
evening set	-4693 Apr 01 j 10:52	18° $\text{H}$ 53'41		max. Earth dist.	-4687 May 01 j 04:01	2° $\text{Y}$ 58'19	30.90396 AU
				morning rise	-4687 May 17 j 15:35	3° $\text{Y}$ 34'48	
conjunction	-4693 Apr 17 j 17:15	19° $\text{H}$ 29'43	-2°07'59	retrograde	-4687 Aug 14 j 15:16	5° $\text{Y}$ 30'13	
minimum elong	-4693 Apr 17 j 17:15	19° $\text{H}$ 29'43	2°08'03	opposition	-4687 Oct 31 j 02:31	4° $\text{Y}$ 06'21	-1°59'46
max. Earth dist.	-4693 Apr 17 j 18:51	19° $\text{H}$ 29'52	30.85667 AU	min. Earth dist.	-4687 Oct 31 j 06:42	4° $\text{Y}$ 06'03	28.90787 AU
morning rise	-4693 May 03 j 23:50	20° $\text{H}$ 05'46		direct	-4686 Jan 17 j 18:36	2° $\text{Y}$ 41'14	
retrograde	-4693 Aug 01 j 16:04	22° $\text{H}$ 02'06		evening set	-4686 Apr 17 j 16:03	4° $\text{Y}$ 37'15	
opposition	-4693 Oct 18 j 11:29	20° $\text{H}$ 37'45	-2°15'50				
min. Earth dist.	-4693 Oct 18 j 09:55	20° $\text{H}$ 37'51	28.86234 AU	conjunction	-4686 May 03 j 23:28	5° $\text{Y}$ 13'19	-1°50'29
direct	-4692 Jan 04 j 16:19	19° $\text{H}$ 12'49		minimum elong	-4686 May 03 j 23:29	5° $\text{Y}$ 13'19	1°50'28
evening set	-4692 Apr 03 j 01:11	21° $\text{H}$ 08'27		max. Earth dist.	-4686 May 03 j 17:05	5° $\text{Y}$ 12'43	30.90942 AU
				morning rise	-4686 May 20 j 05:51	5° $\text{Y}$ 49'18	
conjunction	-4692 Apr 19 j 07:56	21° $\text{H}$ 44'30	-2°06'02	retrograde	-4686 Aug 17 j 03:13	7° $\text{Y}$ 44'33	
minimum elong	-4692 Apr 19 j 07:57	21° $\text{H}$ 44'30	2°06'05	opposition	-4686 Nov 02 j 13:02	6° $\text{Y}$ 20'42	-1°56'27
max. Earth dist.	-4692 Apr 19 j 09:44	21° $\text{H}$ 44'40	30.86522 AU	min. Earth dist.	-4686 Nov 02 j 19:01	6° $\text{Y}$ 20'17	28.91324 AU
morning rise	-4692 May 05 j 14:25	22° $\text{H}$ 20'33		direct	-4685 Jan 20 j 06:52	4° $\text{Y}$ 55'31	
retrograde	-4692 Aug 03 j 02:59	24° $\text{H}$ 16'45		evening set	-4685 Apr 20 j 06:17	6° $\text{Y}$ 51'34	
opposition	-4692 Oct 19 j 21:57	22° $\text{H}$ 52'31	-2°13'39				
min. Earth dist.	-4692 Oct 19 j 21:11	22° $\text{H}$ 52'34	28.87104 AU	conjunction	-4685 May 06 j 13:52	7° $\text{Y}$ 27'38	-1°47'17
direct	-4691 Jan 06 j 04:19	21° $\text{H}$ 27'35		minimum elong	-4685 May 06 j 13:53	7° $\text{Y}$ 27'38	1°47'17
evening set	-4691 Apr 05 j 15:46	23° $\text{H}$ 23'19		max. Earth dist.	-4685 May 06 j 06:58	7° $\text{Y}$ 26'59	30.91489 AU
				morning rise	-4685 May 22 j 20:09	8° $\text{Y}$ 03'36	
conjunction	-4691 Apr 21 j 22:30	23° $\text{H}$ 59'22	-2°03'54	retrograde	-4685 Aug 19 j 14:53	9° $\text{Y}$ 58'40	
minimum elong	-4691 Apr 21 j 22:31	23° $\text{H}$ 59'22	2°03'56	opposition	-4685 Nov 04 j 23:16	8° $\text{Y}$ 34'52	-1°52'57
max. Earth dist.	-4691 Apr 21 j 22:03	23° $\text{H}$ 59'20	30.87414 AU	min. Earth dist.	-4685 Nov 05 j 05:27	8° $\text{Y}$ 34'25	28.91869 AU
morning rise	-4691 May 08 j 05:08	24° $\text{H}$ 35'25		direct	-4684 Jan 22 j 20:33	7° $\text{Y}$ 09'37	
retrograde	-4691 Aug 05 j 15:56	26° $\text{H}$ 31'29		evening set	-4684 Apr 21 j 20:36	9° $\text{Y}$ 05'41	
opposition	-4691 Oct 22 j 08:24	25° $\text{H}$ 07'21	-2°11'15				
min. Earth dist.	-4691 Oct 22 j 08:23	25° $\text{H}$ 07'21	28.87995 AU	conjunction	-4684 May 08 j 04:08	9° $\text{Y}$ 41'45	-1°43'57
direct	-4690 Jan 08 j 14:48	23° $\text{H}$ 42'24		minimum elong	-4684 May 08 j 04:08	9° $\text{Y}$ 41'45	1°43'55
evening set	-4690 Apr 08 j 06:13	25° $\text{H}$ 38'14		max. Earth dist.	-4684 May 07 j 19:30	9° $\text{Y}$ 40'57	30.92062 AU
				morning rise	-4684 May 24 j 10:24	10° $\text{Y}$ 17'43	
conjunction	-4690 Apr 24 j 13:15	26° $\text{H}$ 14'18	-2°01'34	retrograde	-4684 Aug 21 j 01:58	12° $\text{Y}$ 12'36	
minimum elong	-4690 Apr 24 j 13:15	26° $\text{H}$ 14'18	2°01'35	opposition	-4684 Nov 06 j 09:40	10° $\text{Y}$ 48'50	-1°49'17
max. Earth dist.	-4690 Apr 24 j 12:36	26° $\text{H}$ 14'14	30.88283 AU	min. Earth dist.	-4684 Nov 06 j 17:03	10° $\text{Y}$ 48'18	28.92478 AU
morning rise	-4690 May 10 j 19:41	26° $\text{H}$ 50'20		direct	-4683 Jan 24 j 07:50	9° $\text{Y}$ 23'32	
retrograde	-4690 Aug 08 j 02:15	28° $\text{H}$ 46'16		evening set	-4683 Apr 24 j 10:39	11° $\text{Y}$ 19'38	
opposition	-4690 Oct 24 j 19:00	27° $\text{H}$ 22'14	-2°08'40				
min. Earth dist.	-4690 Oct 24 j 20:37	27° $\text{H}$ 22'07	28.88827 AU	conjunction	-4683 May 10 j 18:21	11° $\text{Y}$ 55'42	-1°40'26
direct	-4689 Jan 11 j 02:48	25° $\text{H}$ 57'16		minimum elong	-4683 May 10 j 18:21	11° $\text{Y}$ 55'42	1°40'24
evening set	-4689 Apr 10 j 20:40	27° $\text{H}$ 53'09		max. Earth dist.	-4683 May 10 j 10:00	11° $\text{Y}$ 54'55	30.92715 AU
				morning rise	-4683 May 27 j 00:20	12° $\text{Y}$ 31'38	
conjunction	-4689 Apr 27 j 03:44	28° $\text{H}$ 29'13	-1°59'03	retrograde	-4683 Aug 23 j 12:16	14° $\text{Y}$ 26'21	
minimum elong	-4689 Apr 27 j 03:45	28° $\text{H}$ 29'13	1°59'05	opposition	-4683 Nov 08 j 20:00	13° $\text{Y}$ 02'39	-1°45'28
max. Earth dist.	-4689 Apr 27 j 00:54	28° $\text{H}$ 28'57	30.89086 AU	min. Earth dist.	-4683 Nov 09 j 03:56	13° $\text{Y}$ 02'05	28.93174 AU
morning rise	-4689 May 13 j 10:20	29° $\text{H}$ 05'15		direct	-4682 Jan 26 j 20:19	11° $\text{Y}$ 37'19	
	-4689 Jun 09 j 13:41	0° $\text{Y}$		evening set	-4682 Apr 27 j 00:47	13° $\text{Y}$ 33'27	
retrograde	-4689 Aug 10 j 15:19	1° $\text{Y}$ 01'02					
	-4689 Oct 13 j 15:00	30° $\text{R}$ $\text{H}$		conjunction	-4682 May 13 j 08:19	14° $\text{Y}$ 09'31	-1°36'47
opposition	-4689 Oct 27 j 05:32	29° $\text{H}$ 37'04	-2°05'53	minimum elong	-4682 May 13 j 08:19	14° $\text{Y}$ 09'31	1°36'45
min. Earth dist.	-4689 Oct 27 j 07:31	29° $\text{H}$ 36'55	28.89574 AU	max. Earth dist.	-4682 May 12 j 22:08	14° $\text{Y}$ 08'34	30.93484 AU
direct	-4688 Jan 13 j 16:25	28° $\text{H}$ 12'03		morning rise	-4682 May 29 j 14:19	14° $\text{Y}$ 45'27	
	-4688 Apr 08 j 18:05	0° $\text{Y}$		retrograde	-4682 Aug 26 j 00:11	16° $\text{Y}$ 40'01	
evening set	-4688 Apr 12 j 11:14	0° $\text{Y}$ 08'00		opposition	-4682 Nov 11 j 06:19	15° $\text{Y}$ 16'23	-1°41'29
				min. Earth dist.	-4682 Nov 11 j 14:28	15° $\text{Y}$ 15'48	28.94011 AU
conjunction	-4688 Apr 28 j 18:30	0° $\text{Y}$ 44'04	-1°56'22	direct	-4681 Jan 29 j 06:42	13° $\text{Y}$ 51'01	

Attention, astronomical year style is used: The year -4681 in astronomical counting style is the year 4682 BCE in historical counting style.

evening set	-4681 Apr 29 j 14:36	15° $\Upsilon$ 47'13		morning rise	-4675 Jun 04 j 09:24	0° $\mathcal{B}$
					-4675 Jun 14 j 13:59	0° $\mathcal{B}$ 22'27
conjunction	-4681 May 15 j 22:19	16° $\Upsilon$ 23'17	-1°33'00	retrograde	-4675 Sep 10 j 07:40	2° $\mathcal{B}$ 16'07
minimum elong	-4681 May 15 j 22:20	16° $\Upsilon$ 23'17	1°32'57	opposition	-4675 Nov 26 j 07:20	0° $\mathcal{B}$ 53'08 -1°09'42
max. Earth dist.	-4681 May 15 j 12:32	16° $\Upsilon$ 22'22	30.94387 AU	min. Earth dist.	-4675 Nov 26 j 21:56	0° $\mathcal{B}$ 52'06 29.00737 AU
morning rise	-4681 Jun 01 j 04:02	16° $\Upsilon$ 59'12			-4675 Dec 30 j 05:32	30° $\mathcal{R}\Upsilon$
retrograde	-4681 Aug 28 j 09:29	18° $\Upsilon$ 53'38		direct	-4674 Feb 13 j 22:34	29° $\Upsilon$ 27'46
opposition	-4681 Nov 13 j 16:44	17° $\Upsilon$ 30'06	-1°37'21		-4674 Mar 30 j 21:26	0° $\mathcal{B}$
min. Earth dist.	-4681 Nov 14 j 02:05	17° $\Upsilon$ 29'26	28.94961 AU	evening set	-4674 May 15 j 16:17	1° $\mathcal{B}$ 24'20
direct	-4680 Jan 31 j 18:39	16° $\Upsilon$ 04'45				
evening set	-4680 May 01 j 04:44	18° $\Upsilon$ 01'01		conjunction	-4674 May 31 j 23:14	2° $\mathcal{B}$ 00'20 -1°02'52
				minimum elong	-4674 May 31 j 23:14	2° $\mathcal{B}$ 00'20 1°02'45
conjunction	-4680 May 17 j 12:16	18° $\Upsilon$ 37'04	-1°29'03	max. Earth dist.	-4674 May 31 j 06:34	1° $\mathcal{B}$ 58'47 31.01038 AU
minimum elong	-4680 May 17 j 12:16	18° $\Upsilon$ 37'04	1°28'59	morning rise	-4674 Jun 17 j 03:15	2° $\mathcal{B}$ 36'06
max. Earth dist.	-4680 May 17 j 00:43	18° $\Upsilon$ 36'00	30.95404 AU	retrograde	-4674 Sep 12 j 18:18	4° $\mathcal{B}$ 29'36
morning rise	-4680 Jun 02 j 17:58	19° $\Upsilon$ 12'58		opposition	-4674 Nov 28 j 17:46	3° $\mathcal{B}$ 06'40 -1°04'43
retrograde	-4680 Aug 29 j 21:39	21° $\Upsilon$ 07'17		min. Earth dist.	-4674 Nov 29 j 09:12	3° $\mathcal{B}$ 05'34 29.01423 AU
opposition	-4680 Nov 15 j 02:56	19° $\Upsilon$ 43'52	-1°33'04	direct	-4673 Feb 16 j 12:04	1° $\mathcal{B}$ 41'16
min. Earth dist.	-4680 Nov 15 j 12:14	19° $\Upsilon$ 43'12	28.96009 AU	evening set	-4673 May 18 j 05:57	3° $\mathcal{B}$ 37'49
direct	-4679 Feb 02 j 07:12	18° $\Upsilon$ 18'32				
evening set	-4679 May 03 j 18:45	20° $\Upsilon$ 14'53		conjunction	-4673 Jun 03 j 12:33	4° $\mathcal{B}$ 13'47 -0°58'09
				minimum elong	-4673 Jun 03 j 12:34	4° $\mathcal{B}$ 13'47 0°58'01
conjunction	-4679 May 20 j 02:19	20° $\Upsilon$ 50'56	-1°24'59	max. Earth dist.	-4673 Jun 02 j 17:57	4° $\mathcal{B}$ 12'04 31.01712 AU
minimum elong	-4679 May 20 j 02:20	20° $\Upsilon$ 50'56	1°24'55	morning rise	-4673 Jun 19 j 16:27	4° $\mathcal{B}$ 49'32
max. Earth dist.	-4679 May 19 j 14:42	20° $\Upsilon$ 49'51	30.96477 AU	retrograde	-4673 Sep 15 j 05:18	6° $\mathcal{B}$ 42'53
morning rise	-4679 Jun 05 j 07:40	21° $\Upsilon$ 26'49		opposition	-4673 Dec 01 j 04:09	5° $\mathcal{B}$ 19'57 -0°59'38
retrograde	-4679 Sep 01 j 08:05	23° $\Upsilon$ 21'01		min. Earth dist.	-4673 Dec 01 j 19:58	5° $\mathcal{B}$ 18'50 29.02086 AU
opposition	-4679 Nov 17 j 13:28	21° $\Upsilon$ 57'43	-1°28'38	direct	-4672 Feb 18 j 23:32	3° $\mathcal{B}$ 54'29
min. Earth dist.	-4679 Nov 18 j 00:36	21° $\Upsilon$ 56'56	28.97090 AU	evening set	-4672 May 19 j 19:26	5° $\mathcal{B}$ 51'02
direct	-4678 Feb 04 j 18:24	20° $\Upsilon$ 32'24		max. Earth dist.	-4672 Jun 04 j 07:43	6° $\mathcal{B}$ 25'18 31.02373 AU
evening set	-4678 May 06 j 08:38	22° $\Upsilon$ 28'49				
				conjunction	-4672 Jun 05 j 01:58	6° $\mathcal{B}$ 27'00 -0°53'21
conjunction	-4678 May 22 j 16:04	23° $\Upsilon$ 04'52	-1°20'47	minimum elong	-4672 Jun 05 j 01:58	6° $\mathcal{B}$ 27'00 0°53'13
minimum elong	-4678 May 22 j 16:04	23° $\Upsilon$ 04'52	1°20'42	morning rise	-4672 Jun 21 j 05:20	7° $\mathcal{B}$ 02'42
max. Earth dist.	-4678 May 22 j 03:09	23° $\Upsilon$ 03'40	30.97561 AU	retrograde	-4672 Sep 16 j 13:23	8° $\mathcal{B}$ 55'53
morning rise	-4678 Jun 07 j 21:17	23° $\Upsilon$ 40'44		opposition	-4672 Dec 02 j 14:35	7° $\mathcal{B}$ 33'00 -0°54'28
retrograde	-4678 Sep 03 j 20:51	25° $\Upsilon$ 34'49		min. Earth dist.	-4672 Dec 03 j 07:38	7° $\mathcal{B}$ 31'47 29.02754 AU
opposition	-4678 Nov 19 j 23:51	24° $\Upsilon$ 11'38	-1°24'05	direct	-4671 Feb 20 j 12:08	6° $\mathcal{B}$ 07'29
min. Earth dist.	-4678 Nov 20 j 10:55	24° $\Upsilon$ 10'51	28.98141 AU	evening set	-4671 May 22 j 08:57	8° $\mathcal{B}$ 04'01
direct	-4677 Feb 07 j 08:03	22° $\Upsilon$ 46'20				
evening set	-4677 May 08 j 22:40	24° $\Upsilon$ 42'48		conjunction	-4671 Jun 07 j 15:03	8° $\mathcal{B}$ 39'57 -0°48'29
				minimum elong	-4671 Jun 07 j 15:03	8° $\mathcal{B}$ 39'57 0°48'21
conjunction	-4677 May 25 j 05:59	25° $\Upsilon$ 18'51	-1°16'27	max. Earth dist.	-4671 Jun 06 j 19:16	8° $\mathcal{B}$ 38'06 31.03080 AU
minimum elong	-4677 May 25 j 06:00	25° $\Upsilon$ 18'51	1°16'22	morning rise	-4671 Jun 23 j 18:13	9° $\mathcal{B}$ 15'37
max. Earth dist.	-4677 May 24 j 15:56	25° $\Upsilon$ 17'32	30.98574 AU	retrograde	-4671 Sep 19 j 00:15	11° $\mathcal{B}$ 08'39
morning rise	-4677 Jun 10 j 10:56	25° $\Upsilon$ 54'42		opposition	-4671 Dec 05 j 00:59	9° $\mathcal{B}$ 45'47 -0°49'14
retrograde	-4677 Sep 06 j 08:50	27° $\Upsilon$ 48'40		min. Earth dist.	-4671 Dec 05 j 17:37	9° $\mathcal{B}$ 44'37 29.03501 AU
opposition	-4677 Nov 22 j 10:18	26° $\Upsilon$ 25'33	-1°19'24	direct	-4670 Feb 23 j 00:01	8° $\mathcal{B}$ 20'14
min. Earth dist.	-4677 Nov 22 j 23:15	26° $\Upsilon$ 24'38	28.99114 AU	evening set	-4670 May 24 j 22:01	10° $\mathcal{B}$ 16'45
direct	-4676 Feb 09 j 20:36	25° $\Upsilon$ 00'15		max. Earth dist.	-4670 Jun 09 j 08:37	10° $\mathcal{B}$ 50'52 31.03873 AU
evening set	-4676 May 10 j 12:40	26° $\Upsilon$ 56'46				
				conjunction	-4670 Jun 10 j 03:58	10° $\mathcal{B}$ 52'40 -0°43'33
conjunction	-4676 May 26 j 19:55	27° $\Upsilon$ 32'48	-1°12'01	minimum elong	-4670 Jun 10 j 03:58	10° $\mathcal{B}$ 52'40 0°43'25
minimum elong	-4676 May 26 j 19:56	27° $\Upsilon$ 32'48	1°11'56	morning rise	-4670 Jun 26 j 06:35	11° $\mathcal{B}$ 28'18
max. Earth dist.	-4676 May 26 j 05:02	27° $\Upsilon$ 31'25	30.99501 AU	retrograde	-4670 Sep 21 j 09:23	13° $\mathcal{B}$ 21'13
morning rise	-4676 Jun 12 j 00:35	28° $\Upsilon$ 08'37		opposition	-4670 Dec 07 j 11:30	11° $\mathcal{B}$ 58'23 -0°43'55
	-4676 Aug 26 j 22:24	0° $\mathcal{B}$		min. Earth dist.	-4670 Dec 08 j 05:28	11° $\mathcal{B}$ 57'07 29.04354 AU
retrograde	-4676 Sep 07 j 20:22	0° $\mathcal{B}$ 02'27		direct	-4669 Feb 25 j 10:42	10° $\mathcal{B}$ 32'48
	-4676 Sep 19 j 17:46	30° $\mathcal{R}\Upsilon$		evening set	-4669 May 27 j 11:16	12° $\mathcal{B}$ 29'20
opposition	-4676 Nov 23 j 20:49	28° $\Upsilon$ 39'24	-1°14'36			
min. Earth dist.	-4676 Nov 24 j 10:05	28° $\Upsilon$ 38'28	28.99971 AU	conjunction	-4669 Jun 12 j 16:50	13° $\mathcal{B}$ 05'12 -0°38'34
direct	-4675 Feb 11 j 10:58	27° $\Upsilon$ 14'05		minimum elong	-4669 Jun 12 j 16:50	13° $\mathcal{B}$ 05'12 0°38'25
evening set	-4675 May 13 j 02:36	29° $\Upsilon$ 10'38		max. Earth dist.	-4669 Jun 11 j 20:43	13° $\mathcal{B}$ 03'20 31.04800 AU
				morning rise	-4669 Jun 28 j 19:10	13° $\mathcal{B}$ 40'49
conjunction	-4675 May 29 j 09:34	29° $\Upsilon$ 46'39	-1°07'29		-4669 Aug 10 j 02:39	15° $\mathcal{B}$
minimum elong	-4675 May 29 j 09:34	29° $\Upsilon$ 46'39	1°07'23	retrograde	-4669 Sep 23 j 20:25	15° $\mathcal{B}$ 33'36
max. Earth dist.	-4675 May 28 j 16:53	29° $\Upsilon$ 45'06	31.00308 AU		-4669 Nov 08 j 16:13	15° $\mathcal{R}\mathcal{B}$

Attention, astronomical year style is used: The year -4669 in astronomical counting style is the year 4670 BCE in historical counting style.

opposition	-4669 Dec 09 j 21:45	14° <b>8</b> 10'50	-0°38'33	opposition	-4663 Dec 22 j 13:34	27° <b>8</b> 25'37	-0°05'27
min. Earth dist.	-4669 Dec 10 j 15:04	14° <b>8</b> 09'37	29.05337 AU	min. Earth dist.	-4663 Dec 23 j 11:04	27° <b>8</b> 24'07	29.11867 AU
direct	-4668 Feb 28 j 00:24	12° <b>8</b> 45'15		direct	-4662 Mar 13 j 03:08	26° <b>8</b> 00'12	
evening set	-4668 May 29 j 00:29	14° <b>8</b> 41'49		evening set	-4662 Jun 12 j 06:28	27° <b>8</b> 56'56	
	-4668 Jun 06 j 07:14	15° <b>8</b>		max. Earth dist.	-4662 Jun 27 j 08:40	28° <b>8</b> 30'21	31.12265 AU
max. Earth dist.	-4668 Jun 13 j 09:18	15° <b>8</b> 15'46	31.05844 AU				
conjunction	-4668 Jun 14 j 05:44	15° <b>8</b> 17'40	-0°33'31	conjunction	-4662 Jun 28 j 09:04	28° <b>8</b> 32'37	-0°02'30
minimum elong	-4668 Jun 14 j 05:44	15° <b>8</b> 17'40	0°33'22	minimum elong	-4662 Jun 28 j 09:03	28° <b>8</b> 32'37	0°02'19
morning rise	-4668 Jun 30 j 07:34	15° <b>8</b> 53'15		behind sun begin	-4662 Jun 28 j 02:31	28° <b>8</b> 32'02	
retrograde	-4668 Sep 25 j 07:19	17° <b>8</b> 45'56		behind sun end	-4662 Jun 28 j 15:36	28° <b>8</b> 33'12	
opposition	-4668 Dec 11 j 08:19	16° <b>8</b> 23'14	-0°33'08	morning rise	-4662 Jul 14 j 08:00	29° <b>8</b> 07'58	
min. Earth dist.	-4668 Dec 12 j 02:48	16° <b>8</b> 21'56	29.06440 AU		-4662 Aug 09 j 00:59	0° <b>II</b>	
	-4667 Feb 17 j 14:26	15° <b>8</b>		retrograde	-4662 Oct 08 j 23:19	1° <b>II</b> 00'12	
direct	-4667 Mar 01 j 12:12	14° <b>8</b> 57'41			-4662 Dec 11 j 16:05	30° <b>R</b> 8	
	-4667 Mar 13 j 10:53	15° <b>8</b>		asc. node	-4662 Dec 16 j 05:58	29° <b>8</b> 52'32	
evening set	-4667 May 31 j 13:30	16° <b>8</b> 54'17		opposition	-4662 Dec 25 j 00:15	29° <b>8</b> 37'58	0°00'08
				min. Earth dist.	-4662 Dec 25 j 21:28	29° <b>8</b> 36'29	29.12690 AU
conjunction	-4667 Jun 16 j 18:23	17° <b>8</b> 30'06	-0°28'25	direct	-4661 Mar 15 j 14:47	28° <b>8</b> 12'33	
minimum elong	-4667 Jun 16 j 18:24	17° <b>8</b> 30'06	0°28'15		-4661 Jun 10 j 11:47	0° <b>II</b>	
max. Earth dist.	-4667 Jun 15 j 21:53	17° <b>8</b> 28'12	31.06995 AU	evening set	-4661 Jun 14 j 19:11	0° <b>II</b> 09'17	
morning rise	-4667 Jul 02 j 19:47	18° <b>8</b> 05'39		conjunction	-4661 Jun 30 j 21:24	0° <b>II</b> 44'55	0°02'51
retrograde	-4667 Sep 27 j 18:18	19° <b>8</b> 58'16		minimum elong	-4661 Jun 30 j 21:25	0° <b>II</b> 44'55	0°03'03
opposition	-4667 Dec 13 j 18:49	18° <b>8</b> 35'40	-0°27'39	behind sun begin	-4661 Jun 30 j 14:54	0° <b>II</b> 44'21	
min. Earth dist.	-4667 Dec 14 j 13:07	18° <b>8</b> 34'23	29.07606 AU	behind sun end	-4661 Jul 01 j 03:56	0° <b>II</b> 45'30	
direct	-4666 Mar 04 j 01:55	17° <b>8</b> 10'09		max. Earth dist.	-4661 Jun 29 j 21:15	0° <b>II</b> 42'41	31.13038 AU
evening set	-4666 Jun 03 j 02:37	19° <b>8</b> 06'48		morning rise	-4661 Jul 16 j 19:39	1° <b>II</b> 20'14	
max. Earth dist.	-4666 Jun 18 j 09:22	19° <b>8</b> 40'35	31.08177 AU	retrograde	-4661 Oct 11 j 08:08	3° <b>II</b> 12'23	
conjunction	-4666 Jun 19 j 07:02	19° <b>8</b> 42'35	-0°23'16	opposition	-4661 Dec 27 j 10:58	1° <b>II</b> 50'11	0°05'42
minimum elong	-4666 Jun 19 j 07:02	19° <b>8</b> 42'35	0°23'06	min. Earth dist.	-4661 Dec 28 j 09:46	1° <b>II</b> 48'36	29.13432 AU
morning rise	-4666 Jul 05 j 08:00	20° <b>8</b> 18'06		direct	-4660 Mar 17 j 01:15	0° <b>II</b> 24'45	
retrograde	-4666 Sep 30 j 05:56	22° <b>8</b> 10'38		evening set	-4660 Jun 16 j 07:53	2° <b>II</b> 21'28	
opposition	-4666 Dec 16 j 05:19	20° <b>8</b> 48'08	-0°22'08	max. Earth dist.	-4660 Jul 01 j 08:31	2° <b>II</b> 54'44	31.13764 AU
min. Earth dist.	-4666 Dec 17 j 00:35	20° <b>8</b> 46'47	29.08796 AU	conjunction	-4660 Jul 02 j 09:30	2° <b>II</b> 57'04	0°08'02
direct	-4665 Mar 06 j 13:10	19° <b>8</b> 22'39		minimum elong	-4660 Jul 02 j 09:30	2° <b>II</b> 57'04	0°08'14
evening set	-4665 Jun 05 j 15:35	21° <b>8</b> 19'21		behind sun begin	-4660 Jul 02 j 03:43	2° <b>II</b> 56'33	
conjunction	-4665 Jun 21 j 19:44	21° <b>8</b> 55'07	-0°18'06	behind sun end	-4660 Jul 02 j 15:16	2° <b>II</b> 57'35	
minimum elong	-4665 Jun 21 j 19:44	21° <b>8</b> 55'07	0°17'55	morning rise	-4660 Jul 18 j 07:17	3° <b>II</b> 32'20	
max. Earth dist.	-4665 Jun 20 j 22:23	21° <b>8</b> 53'08	31.09343 AU	retrograde	-4660 Oct 12 j 18:27	5° <b>II</b> 24'24	
morning rise	-4665 Jul 07 j 20:07	22° <b>8</b> 30'35		opposition	-4660 Dec 28 j 21:42	4° <b>II</b> 02'13	0°11'16
retrograde	-4665 Oct 02 j 16:38	24° <b>8</b> 23'03		min. Earth dist.	-4660 Dec 29 j 19:51	4° <b>II</b> 00'41	29.14142 AU
opposition	-4665 Dec 18 j 16:01	23° <b>8</b> 00'38	-0°16'35	direct	-4659 Mar 19 j 15:07	2° <b>II</b> 36'46	
min. Earth dist.	-4665 Dec 19 j 12:00	22° <b>8</b> 59'14	29.09916 AU	evening set	-4659 Jun 18 j 20:14	4° <b>II</b> 33'28	
direct	-4664 Mar 08 j 02:58	21° <b>8</b> 35'12		conjunction	-4659 Jul 04 j 21:18	5° <b>II</b> 09'01	0°13'13
evening set	-4664 Mar 07 j 04:45	23° <b>8</b> 31'55		minimum elong	-4659 Jul 04 j 21:19	5° <b>II</b> 09'01	0°13'26
max. Earth dist.	-4664 Jun 22 j 09:08	24° <b>8</b> 05'31	31.10419 AU	behind sun begin	-4659 Jul 04 j 17:40	5° <b>II</b> 08'42	
conjunction	-4664 Jun 23 j 08:16	24° <b>8</b> 07'39	-0°12'55	behind sun end	-4659 Jul 05 j 00:57	5° <b>II</b> 09'21	
minimum elong	-4664 Jun 23 j 08:16	24° <b>8</b> 07'39	0°12'44	max. Earth dist.	-4659 Jul 03 j 20:16	5° <b>II</b> 06'42	31.14470 AU
behind sun begin	-4664 Jun 23 j 04:13	24° <b>8</b> 07'18		morning rise	-4659 Jul 20 j 18:26	5° <b>II</b> 44'15	
behind sun end	-4664 Jun 23 j 12:19	24° <b>8</b> 08'01		retrograde	-4659 Oct 15 j 04:40	7° <b>II</b> 36'15	
morning rise	-4664 Jul 09 j 08:15	24° <b>8</b> 43'06		opposition	-4659 Dec 31 j 08:34	6° <b>II</b> 14'04	0°16'48
retrograde	-4664 Oct 04 j 03:56	26° <b>8</b> 35'29		min. Earth dist.	-4658 Jan 01 j 07:41	6° <b>II</b> 12'28	29.14876 AU
opposition	-4664 Dec 20 j 02:41	25° <b>8</b> 13'09	-0°11'01	direct	-4658 Mar 22 j 02:32	4° <b>II</b> 48'36	
min. Earth dist.	-4664 Dec 20 j 22:55	25° <b>8</b> 11'44	29.10949 AU	evening set	-4658 Jun 21 j 08:28	6° <b>II</b> 45'18	
direct	-4663 Mar 10 j 14:38	23° <b>8</b> 47'44		max. Earth dist.	-4658 Jul 06 j 08:12	7° <b>II</b> 18'29	31.15233 AU
evening set	-4663 Jun 09 j 17:40	25° <b>8</b> 44'28		conjunction	-4658 Jul 07 j 09:01	7° <b>II</b> 20'48	0°18'22
conjunction	-4663 Jun 25 j 20:52	26° <b>8</b> 20'10	-0°07'43	minimum elong	-4658 Jul 07 j 09:01	7° <b>II</b> 20'48	0°18'34
minimum elong	-4663 Jun 25 j 20:53	26° <b>8</b> 20'10	0°07'31	morning rise	-4658 Jul 23 j 05:34	7° <b>II</b> 55'59	
behind sun begin	-4663 Jun 25 j 14:56	26° <b>8</b> 19'39		retrograde	-4658 Oct 17 j 14:45	9° <b>II</b> 47'54	
behind sun end	-4663 Jun 26 j 02:50	26° <b>8</b> 20'42		opposition	-4657 Jan 02 j 19:13	8° <b>II</b> 25'45	0°22'18
max. Earth dist.	-4663 Jun 24 j 22:08	26° <b>8</b> 18'04	31.11393 AU	min. Earth dist.	-4657 Jan 03 j 17:48	8° <b>II</b> 24'11	29.15674 AU
morning rise	-4663 Jul 11 j 20:10	26° <b>8</b> 55'34		direct	-4657 Mar 24 j 15:49	7° <b>II</b> 00'17	
retrograde	-4663 Oct 06 j 12:28	28° <b>8</b> 47'53		evening set	-4657 Jun 23 j 20:42	8° <b>II</b> 56'58	

Attention, astronomical year style is used: The year -4657 in astronomical counting style is the year 4658 BCE in historical counting style.

conjunction	-4657 Jul 09 j 20:36	9°II32'26	0°23'30	direct	-4650 Apr 09 j 05:39	22°II21'42	
minimum elong	-4657 Jul 09 j 20:35	9°II32'26	0°23'43	evening set	-4650 Jul 09 j 08:22	24°II18'24	
max. Earth dist.	-4657 Jul 08 j 19:08	9°II30'04	31.16077 AU	max. Earth dist.	-4650 Jul 24 j 02:06	24°II51'08	31.23021 AU
morning rise	-4657 Jul 25 j 16:35	10°II07'34					
retrograde	-4657 Oct 20 j 02:13	11°II59'26		conjunction	-4650 Jul 25 j 03:45	24°II53'32	0°58'04
opposition	-4656 Jan 05 j 06:06	10°II37'19	0°27'46	minimum elong	-4650 Jul 25 j 03:45	24°II53'32	0°58'17
min. Earth dist.	-4656 Jan 06 j 04:55	10°II35'45	29.16584 AU	morning rise	-4650 Aug 09 j 19:09	25°II28'20	
direct	-4656 Mar 26 j 03:33	9°II11'53		retrograde	-4650 Nov 04 j 00:41	27°II20'07	
evening set	-4656 Jun 25 j 08:45	11°II08'34		opposition	-4649 Jan 20 j 11:55	25°II58'23	1°04'29
max. Earth dist.	-4656 Jul 10 j 07:45	11°II41'43	31.17038 AU	min. Earth dist.	-4649 Jan 21 j 12:13	25°II56'42	29.23428 AU
				direct	-4649 Apr 11 j 16:05	24°II33'14	
				evening set	-4649 Jul 11 j 20:06	26°II29'54	
conjunction	-4656 Jul 11 j 08:09	11°II43'59	0°28'36				
minimum elong	-4656 Jul 11 j 08:09	11°II43'59	0°28'49	conjunction	-4649 Jul 27 j 14:51	27°II04'59	1°02'43
morning rise	-4656 Jul 27 j 03:24	12°II19'03		minimum elong	-4649 Jul 27 j 14:50	27°II04'59	1°02'57
retrograde	-4656 Oct 21 j 12:46	14°II10'54		max. Earth dist.	-4649 Jul 26 j 13:15	27°II02'35	31.23663 AU
opposition	-4655 Jan 06 j 17:02	12°II48'51	0°33'12	morning rise	-4649 Aug 12 j 05:35	27°II39'44	
min. Earth dist.	-4655 Jan 07 j 15:54	12°II47'16	29.17591 AU	retrograde	-4649 Nov 06 j 10:41	29°II31'30	
direct	-4655 Mar 28 j 17:54	11°II23'27		opposition	-4648 Jan 22 j 23:17	28°II09'46	1°09'24
evening set	-4655 Jun 27 j 20:54	13°II20'09		min. Earth dist.	-4648 Jan 23 j 23:13	28°II08'07	29.23999 AU
				direct	-4648 Apr 13 j 05:18	26°II44'37	
conjunction	-4655 Jul 13 j 19:30	13°II55'31	0°33'39	evening set	-4648 Jul 13 j 07:43	28°II41'15	
minimum elong	-4655 Jul 13 j 19:30	13°II55'31	0°33'53	max. Earth dist.	-4648 Jul 27 j 23:19	29°II13'49	31.24175 AU
max. Earth dist.	-4655 Jul 12 j 18:11	13°II53'09	31.18097 AU				
morning rise	-4655 Jul 29 j 14:16	14°II30'33		conjunction	-4648 Jul 29 j 01:40	29°II16'16	1°07'16
retrograde	-4655 Oct 23 j 23:51	16°II22'22		minimum elong	-4648 Jul 29 j 01:39	29°II16'16	1°07'30
opposition	-4654 Jan 09 j 03:58	15°II00'23	0°38'35	morning rise	-4648 Aug 13 j 15:47	29°II50'58	
min. Earth dist.	-4654 Jan 10 j 02:19	14°II58'50	29.18695 AU	-4648 Aug 17 j 19:40	0°00		
direct	-4654 Mar 31 j 05:22	13°II35'02		retrograde	-4648 Nov 07 j 22:00	1°0042'44	
evening set	-4654 Jun 30 j 08:41	15°II31'45		opposition	-4647 Jan 24 j 10:42	0°0020'58	1°14'13
max. Earth dist.	-4654 Jul 15 j 06:38	16°II04'49	31.19212 AU	min. Earth dist.	-4647 Jan 25 j 10:56	0°0019'19	29.24481 AU
				-4647 Feb 06 j 07:27	30°R00		
conjunction	-4654 Jul 16 j 06:51	16°II07'05	0°38'40	direct	-4647 Apr 15 j 17:12	28°II55'49	
minimum elong	-4654 Jul 16 j 06:51	16°II07'05	0°38'53	-4647 Jun 19 j 23:03	0°00		
morning rise	-4654 Aug 01 j 00:51	16°II42'04		evening set	-4647 Jul 15 j 19:04	0°0052'25	
retrograde	-4654 Oct 26 j 08:38	18°II33'53		max. Earth dist.	-4647 Jul 30 j 11:12	1°0025'01	31.24619 AU
opposition	-4653 Jan 11 j 15:03	17°II11'58	0°43'54				
min. Earth dist.	-4653 Jan 12 j 14:19	17°II10'22	29.19811 AU	conjunction	-4647 Jul 31 j 12:27	1°0027'23	1°11'43
direct	-4653 Apr 02 j 17:58	15°II46'42		minimum elong	-4647 Jul 31 j 12:27	1°0027'23	1°11'58
evening set	-4653 Jul 02 j 20:46	17°II43'25		morning rise	-4647 Aug 16 j 01:49	2°0002'01	
				retrograde	-4647 Nov 10 j 08:02	3°0053'46	
conjunction	-4653 Jul 18 j 18:07	18°II18'42	0°43'37	opposition	-4646 Jan 26 j 22:07	2°0032'00	1°18'55
minimum elong	-4653 Jul 18 j 18:07	18°II18'42	0°43'51	min. Earth dist.	-4646 Jan 27 j 22:25	2°0030'20	29.24907 AU
max. Earth dist.	-4653 Jul 17 j 16:43	18°II16'20	31.20315 AU	direct	-4646 Apr 18 j 07:21	1°0006'50	
morning rise	-4653 Aug 03 j 11:37	18°II53'38		evening set	-4646 Jul 18 j 06:18	3°0003'23	
retrograde	-4653 Oct 28 j 19:51	20°II45'26					
opposition	-4652 Jan 14 j 02:01	19°II23'36	0°49'10	conjunction	-4646 Aug 02 j 22:51	3°0038'18	1°16'04
min. Earth dist.	-4652 Jan 15 j 00:38	19°II22'03	29.20887 AU	minimum elong	-4646 Aug 02 j 22:51	3°0038'18	1°16'18
direct	-4652 Apr 04 j 05:44	17°II58'22		max. Earth dist.	-4646 Aug 01 j 20:52	3°0035'52	31.25039 AU
evening set	-4652 Jul 04 j 08:43	19°II55'06		morning rise	-4646 Aug 18 j 11:45	4°0012'54	
max. Earth dist.	-4652 Jul 19 j 04:40	20°II28'01	31.21337 AU	retrograde	-4646 Nov 12 j 19:00	6°0004'39	
				opposition	-4645 Jan 29 j 09:27	4°0042'51	1°23'30
conjunction	-4652 Jul 20 j 05:31	20°II30'20	0°48'30	min. Earth dist.	-4645 Jan 30 j 08:58	4°0041'14	29.25347 AU
minimum elong	-4652 Jul 20 j 05:31	20°II30'20	0°48'44	direct	-4645 Apr 20 j 19:02	3°0017'41	
morning rise	-4652 Aug 04 j 22:11	21°II05'14		evening set	-4645 Jul 20 j 17:21	5°0014'12	
retrograde	-4652 Oct 30 j 04:50	22°II57'02		max. Earth dist.	-4645 Aug 04 j 08:49	5°0046'47	31.25489 AU
opposition	-4651 Jan 15 j 13:24	21°II35'15	0°54'21				
min. Earth dist.	-4651 Jan 16 j 13:21	21°II33'36	29.21866 AU	conjunction	-4645 Aug 05 j 09:22	5°0049'04	1°20'18
direct	-4651 Apr 06 j 16:38	20°II10'04		minimum elong	-4645 Aug 05 j 09:21	5°0049'04	1°20'32
evening set	-4651 Jul 06 j 20:33	22°II06'47		morning rise	-4645 Aug 20 j 21:25	6°0023'37	
				retrograde	-4645 Nov 15 j 03:38	8°0015'22	
conjunction	-4651 Jul 22 j 16:35	22°II41'58	0°53'19	opposition	-4644 Jan 31 j 20:56	6°0053'35	1°27'57
minimum elong	-4651 Jul 22 j 16:34	22°II41'58	0°53'33	min. Earth dist.	-4644 Feb 01 j 20:48	6°0051'56	29.25836 AU
max. Earth dist.	-4651 Jul 21 j 15:08	22°II39'36	31.22253 AU	direct	-4644 Apr 22 j 08:15	5°0028'27	
morning rise	-4651 Aug 07 j 08:41	23°II16'49		evening set	-4644 Jul 22 j 04:29	7°0024'56	
retrograde	-4651 Nov 01 j 14:40	25°II08'37					
opposition	-4650 Jan 18 j 00:40	23°II46'52	0°59'28	conjunction	-4644 Aug 06 j 19:38	7°0059'45	1°24'25
min. Earth dist.	-4650 Jan 18 j 23:52	23°II45'16	29.22714 AU				

Attention, astronomical year style is used: The year -4644 in astronomical counting style is the year 4645 BCE in historical counting style.

minimum elong	-4644 Aug 06 j 19:38	7° $\overline{59}$ '45	1°24'38	evening set	-4637 Aug 07 j 07:40	22° $\overline{41}$ '28	
max. Earth dist.	-4644 Aug 05 j 18:38	7° $\overline{57}$ '25	31.26025 AU				
morning rise	-4644 Aug 22 j 07:11	8° $\overline{34}$ '15		conjunction	-4637 Aug 22 j 18:03	23° $\overline{15}$ '57	1°49'30
retrograde	-4644 Nov 16 j 14:47	10° $\overline{26}$ '02		minimum elong	-4637 Aug 22 j 18:03	23° $\overline{15}$ '57	1°49'44
opposition	-4643 Feb 02 j 08:24	9° $\overline{04}$ '15	1°32'17	max. Earth dist.	-4637 Aug 21 j 19:24	23° $\overline{13}$ '50	31.30053 AU
min. Earth dist.	-4643 Feb 03 j 06:48	9° $\overline{02}$ '43	29.26424 AU	morning rise	-4637 Sep 07 j 01:23	23° $\overline{50}$ '10	
direct	-4643 Apr 24 j 20:19	7° $\overline{39}$ '10		retrograde	-4637 Dec 02 j 15:33	25° $\overline{42}$ '27	
evening set	-4643 Jul 24 j 15:13	9° $\overline{35}$ '39		opposition	-4636 Feb 18 j 18:51	24° $\overline{20}$ '47	1°58'34
max. Earth dist.	-4643 Aug 08 j 06:05	10° $\overline{08}$ '11	31.26649 AU	min. Earth dist.	-4636 Feb 19 j 15:40	24° $\overline{19}$ '22	29.30289 AU
				direct	-4636 May 10 j 04:25	22° $\overline{56}$ '07	
conjunction	-4643 Aug 09 j 05:48	10° $\overline{10}$ '25	1°28'24	evening set	-4636 Aug 08 j 18:06	24° $\overline{52}$ '25	
minimum elong	-4643 Aug 09 j 05:48	10° $\overline{10}$ '25	1°28'39	max. Earth dist.	-4636 Aug 23 j 06:40	25° $\overline{24}$ '52	31.30216 AU
morning rise	-4643 Aug 24 j 16:35	10° $\overline{44}$ '52					
retrograde	-4643 Nov 18 j 23:38	12° $\overline{36}$ '43		conjunction	-4636 Aug 24 j 04:02	25° $\overline{26}$ '52	1°52'30
opposition	-4642 Feb 04 j 20:02	11° $\overline{14}$ '58	1°36'29	minimum elong	-4636 Aug 24 j 04:01	25° $\overline{26}$ '52	1°52'42
min. Earth dist.	-4642 Feb 05 j 19:02	11° $\overline{13}$ '24	29.27096 AU	morning rise	-4636 Sep 08 j 10:38	26° $\overline{01}$ '02	
direct	-4642 Apr 27 j 07:16	9° $\overline{49}$ '58		retrograde	-4636 Dec 04 j 01:09	27° $\overline{53}$ '22	
evening set	-4642 Jul 27 j 02:06	11° $\overline{46}$ '25		opposition	-4635 Feb 20 j 07:01	26° $\overline{31}$ '39	2°01'41
				min. Earth dist.	-4635 Feb 21 j 04:18	26° $\overline{30}$ '13	29.30397 AU
conjunction	-4642 Aug 11 j 15:56	12° $\overline{21}$ '08	1°32'16	direct	-4635 May 12 j 18:26	25° $\overline{07}$ '00	
minimum elong	-4642 Aug 11 j 15:56	12° $\overline{21}$ '08	1°32'30	evening set	-4635 Aug 11 j 04:23	27° $\overline{03}$ '13	
max. Earth dist.	-4642 Aug 10 j 16:24	12° $\overline{18}$ '56	31.27352 AU				
morning rise	-4642 Aug 27 j 02:13	12° $\overline{55}$ '33		conjunction	-4635 Aug 26 j 13:34	27° $\overline{37}$ '37	1°55'19
retrograde	-4642 Nov 21 j 09:14	14° $\overline{47}$ '28		minimum elong	-4635 Aug 26 j 13:34	27° $\overline{37}$ '37	1°55'33
opposition	-4641 Feb 07 j 07:25	13° $\overline{25}$ '46	1°40'33	max. Earth dist.	-4635 Aug 25 j 15:47	27° $\overline{35}$ '34	31.30279 AU
min. Earth dist.	-4641 Feb 08 j 05:08	13° $\overline{24}$ '17	29.27810 AU	morning rise	-4635 Sep 10 j 19:51	28° $\overline{11}$ '45	
direct	-4641 Apr 29 j 19:18	12° $\overline{00}$ '50			-4635 Nov 20 j 21:57	0° $\Omega$	
evening set	-4641 Jul 29 j 12:56	13° $\overline{57}$ '17		retrograde	-4635 Dec 06 j 12:43	0° $\Omega$ 04'07	
max. Earth dist.	-4641 Aug 13 j 02:54	14° $\overline{29}$ '48	31.28057 AU		-4635 Dec 22 j 04:10	30° $\overline{R}$ $\overline{5}$	
				opposition	-4634 Feb 22 j 18:59	28° $\overline{42}$ '21	2°04'37
conjunction	-4641 Aug 14 j 02:06	14° $\overline{31}$ '58	1°36'00	min. Earth dist.	-4634 Feb 23 j 14:52	28° $\overline{41}$ '00	29.30424 AU
minimum elong	-4641 Aug 14 j 02:05	14° $\overline{31}$ '58	1°36'15	direct	-4634 May 15 j 07:32	27° $\overline{17}$ '41	
morning rise	-4641 Aug 29 j 11:43	15° $\overline{06}$ '21		evening set	-4634 Aug 13 j 14:31	29° $\overline{13}$ '49	
retrograde	-4641 Nov 23 j 19:32	16° $\overline{58}$ '20					
opposition	-4640 Feb 09 j 19:12	15° $\overline{36}$ '40	1°44'28	conjunction	-4634 Aug 28 j 23:14	29° $\overline{48}$ '10	1°57'59
min. Earth dist.	-4640 Feb 10 j 17:25	15° $\overline{35}$ '09	29.28516 AU	minimum elong	-4634 Aug 28 j 23:14	29° $\overline{48}$ '10	1°58'11
direct	-4640 May 01 j 04:35	14° $\overline{11}$ '49		max. Earth dist.	-4634 Aug 28 j 02:35	29° $\overline{46}$ '14	31.30271 AU
evening set	-4640 Jul 30 j 23:36	16° $\overline{08}$ '16			-4634 Sep 03 j 05:16	0° $\Omega$	
				morning rise	-4634 Sep 13 j 04:53	0° $\Omega$ 22'16	
conjunction	-4640 Aug 15 j 12:07	16° $\overline{42}$ '54	1°39'36	retrograde	-4634 Dec 08 j 21:16	2° $\Omega$ 14'40	
minimum elong	-4640 Aug 15 j 12:06	16° $\overline{42}$ '54	1°39'50	opposition	-4633 Feb 25 j 06:57	0° $\Omega$ 52'50	2°07'22
max. Earth dist.	-4640 Aug 14 j 13:39	16° $\overline{40}$ '48	31.28728 AU	min. Earth dist.	-4633 Feb 26 j 03:24	0° $\Omega$ 51'27	29.30418 AU
morning rise	-4640 Aug 30 j 21:04	17° $\overline{17}$ '14			-4633 Apr 01 j 07:50	30° $\overline{R}$ $\overline{5}$	
retrograde	-4640 Nov 25 j 05:40	19° $\overline{09}$ '19		direct	-4633 May 17 j 19:24	29° $\overline{28}$ '10	
opposition	-4639 Feb 11 j 07:04	17° $\overline{47}$ '41	1°48'14		-4633 Jul 01 j 15:54	0° $\Omega$	
min. Earth dist.	-4639 Feb 12 j 04:32	17° $\overline{46}$ '13	29.29143 AU	evening set	-4633 Aug 16 j 00:38	1° $\Omega$ 24'13	
direct	-4639 May 03 j 16:54	16° $\overline{22}$ '54					
evening set	-4639 Aug 02 j 10:24	18° $\overline{19}$ '20		conjunction	-4633 Aug 31 j 08:41	1° $\Omega$ 58'31	2°00'29
				minimum elong	-4633 Aug 31 j 08:41	1° $\Omega$ 58'31	2°00'41
conjunction	-4639 Aug 17 j 22:08	18° $\overline{53}$ '55	1°43'03	max. Earth dist.	-4633 Aug 30 j 12:38	1° $\Omega$ 56'38	31.30275 AU
minimum elong	-4639 Aug 17 j 22:08	18° $\overline{53}$ '55	1°43'17	morning rise	-4633 Sep 15 j 13:55	2° $\Omega$ 32'35	
max. Earth dist.	-4639 Aug 16 j 23:09	18° $\overline{51}$ '45	31.29299 AU	retrograde	-4633 Dec 11 j 06:19	4° $\Omega$ 25'02	
morning rise	-4639 Sep 02 j 06:35	19° $\overline{28}$ '13		opposition	-4632 Feb 27 j 19:00	3° $\Omega$ 03'09	2°09'57
retrograde	-4639 Nov 27 j 17:38	21° $\overline{20}$ '22		min. Earth dist.	-4632 Feb 28 j 13:40	3° $\Omega$ 01'53	29.30444 AU
opposition	-4638 Feb 13 j 18:56	19° $\overline{58}$ '44	1°51'51	direct	-4632 May 19 j 08:03	1° $\Omega$ 38'29	
min. Earth dist.	-4638 Feb 14 j 16:27	19° $\overline{57}$ '16	29.29674 AU	evening set	-4632 Aug 17 j 10:30	3° $\Omega$ 34'27	
direct	-4638 May 06 j 03:56	18° $\overline{34}$ '01					
evening set	-4638 Aug 04 j 20:57	20° $\overline{30}$ '25		conjunction	-4632 Sep 01 j 17:58	4° $\Omega$ 08'43	2°02'48
max. Earth dist.	-4638 Aug 19 j 10:23	21° $\overline{02}$ '54	31.29752 AU	minimum elong	-4632 Sep 01 j 17:58	4° $\Omega$ 08'43	2°02'59
				max. Earth dist.	-4632 Aug 31 j 22:39	4° $\Omega$ 06'54	31.30329 AU
conjunction	-4638 Aug 20 j 08:11	21° $\overline{04}$ '57	1°46'21	morning rise	-4632 Sep 16 j 22:42	4° $\Omega$ 42'45	
minimum elong	-4638 Aug 20 j 08:11	21° $\overline{04}$ '57	1°46'34	retrograde	-4632 Dec 12 j 16:11	6° $\Omega$ 35'17	
morning rise	-4638 Sep 04 j 15:56	21° $\overline{39}$ '12		opposition	-4631 Mar 01 j 07:14	5° $\Omega$ 13'20	2°12'20
retrograde	-4638 Nov 30 j 04:11	23° $\overline{31}$ '26		min. Earth dist.	-4631 Mar 02 j 01:43	5° $\Omega$ 12'05	29.30560 AU
opposition	-4637 Feb 16 j 06:56	22° $\overline{09}$ '47	1°55'17	direct	-4631 May 21 j 18:03	3° $\Omega$ 48'43	
min. Earth dist.	-4637 Feb 17 j 04:30	22° $\overline{08}$ '20	29.30050 AU	evening set	-4631 Aug 19 j 20:20	5° $\Omega$ 44'36	
direct	-4637 May 08 j 17:18	20° $\overline{45}$ '06		max. Earth dist.	-4631 Sep 03 j 09:27	6° $\Omega$ 17'09	31.30494 AU

Attention, astronomical year style is used: The year -4631 in astronomical counting style is the year 4632 BCE in historical counting style.

conjunction	-4631 Sep 04 j 03:19	6°Ω18'50	2°04'57	morning rise	-4625 Oct 02 j 12:49	19°Ω55'05	
minimum elong	-4631 Sep 04 j 03:19	6°Ω18'50	2°05'09	retrograde	-4625 Dec 28 j 20:50	21°Ω48'26	
morning rise	-4631 Sep 19 j 07:34	6°Ω52'50		opposition	-4624 Mar 16 j 21:38	20°Ω26'25	2°23'36
retrograde	-4631 Dec 15 j 01:48	8°Ω45'27		min. Earth dist.	-4624 Mar 17 j 11:35	20°Ω25'28	29.31997 AU
opposition	-4630 Mar 03 j 19:14	7°Ω23'29	2°14'32	direct	-4624 Jun 06 j 03:14	19°Ω02'20	
min. Earth dist.	-4630 Mar 04 j 12:18	7°Ω22'19	29.30769 AU	evening set	-4624 Sep 03 j 16:01	20°Ω57'53	
direct	-4630 May 24 j 06:14	5°Ω58'55					
evening set	-4630 Aug 22 j 06:08	7°Ω54'45		conjunction	-4624 Sep 18 j 19:47	21°Ω31'54	2°14'49
				minimum elong	-4624 Sep 18 j 19:47	21°Ω31'54	2°14'58
conjunction	-4630 Sep 06 j 12:31	8°Ω28'56	2°06'55	max. Earth dist.	-4624 Sep 18 j 06:29	21°Ω30'39	31.31758 AU
minimum elong	-4630 Sep 06 j 12:30	8°Ω28'56	2°07'06	morning rise	-4624 Oct 03 j 21:44	22°Ω05'47	
max. Earth dist.	-4630 Sep 05 j 18:40	8°Ω27'16	31.30746 AU	retrograde	-4624 Dec 30 j 06:36	23°Ω59'14	
morning rise	-4630 Sep 21 j 16:29	9°Ω02'55		opposition	-4623 Mar 19 j 10:15	22°Ω37'11	2°24'24
retrograde	-4630 Dec 17 j 13:28	10°Ω55'39		min. Earth dist.	-4623 Mar 19 j 22:38	22°Ω36'21	29.31827 AU
opposition	-4629 Mar 06 j 07:25	9°Ω33'40	2°16'32	direct	-4623 Jun 08 j 16:07	21°Ω13'09	
min. Earth dist.	-4629 Mar 06 j 23:50	9°Ω32'33	29.31063 AU	evening set	-4623 Sep 06 j 01:33	23°Ω08'36	
direct	-4629 May 26 j 16:07	8°Ω09'11					
evening set	-4629 Aug 24 j 15:46	10°Ω04'59		conjunction	-4623 Sep 21 j 04:58	23°Ω42'37	2°15'29
				minimum elong	-4623 Sep 21 j 04:58	23°Ω42'37	2°15'39
conjunction	-4629 Sep 08 j 21:47	10°Ω39'08	2°08'42	max. Earth dist.	-4623 Sep 20 j 15:55	23°Ω41'23	31.31521 AU
minimum elong	-4629 Sep 08 j 21:46	10°Ω39'08	2°08'54	morning rise	-4623 Oct 06 j 06:45	24°Ω16'29	
max. Earth dist.	-4629 Sep 08 j 05:50	10°Ω37'38	31.31055 AU	retrograde	-4622 Jan 01 j 17:01	26°Ω10'02	
morning rise	-4629 Sep 24 j 01:12	11°Ω13'05		opposition	-4622 Mar 21 j 22:50	24°Ω47'55	2°25'00
retrograde	-4629 Dec 19 j 23:49	13°Ω05'56		min. Earth dist.	-4622 Mar 22 j 11:23	24°Ω47'04	29.31544 AU
opposition	-4628 Mar 07 j 19:43	11°Ω43'58	2°18'21	direct	-4622 Jun 11 j 02:24	23°Ω23'54	
min. Earth dist.	-4628 Mar 08 j 11:37	11°Ω42'53	29.31376 AU	evening set	-4622 Sep 08 j 10:52	25°Ω19'15	
direct	-4628 May 28 j 04:01	10°Ω19'35					
evening set	-4628 Aug 26 j 01:33	12°Ω15'20		conjunction	-4622 Sep 23 j 14:06	25°Ω53'14	2°15'57
				minimum elong	-4622 Sep 23 j 14:06	25°Ω53'14	2°16'05
conjunction	-4628 Sep 10 j 06:55	12°Ω49'27	2°10'18	max. Earth dist.	-4622 Sep 23 j 02:23	25°Ω52'08	31.31195 AU
minimum elong	-4628 Sep 10 j 06:55	12°Ω49'27	2°10'29	morning rise	-4622 Oct 08 j 15:37	26°Ω27'06	
max. Earth dist.	-4628 Sep 09 j 14:44	12°Ω47'56	31.31371 AU	retrograde	-4621 Jan 04 j 02:37	28°Ω20'45	
morning rise	-4628 Sep 25 j 10:08	13°Ω23'24		opposition	-4621 Mar 24 j 11:26	26°Ω58'33	2°25'24
	-4628 Nov 20 j 06:45	15°Ω		min. Earth dist.	-4621 Mar 24 j 22:41	26°Ω57'47	29.31175 AU
retrograde	-4628 Dec 21 j 12:04	15°Ω16'22		direct	-4621 Jun 13 j 15:11	25°Ω34'33	
	-4627 Jan 22 j 12:31	15°Ω		evening set	-4621 Sep 10 j 20:09	27°Ω29'48	
opposition	-4627 Mar 10 j 08:04	13°Ω54'24	2°19'58				
min. Earth dist.	-4627 Mar 10 j 22:42	13°Ω53'25	29.31684 AU	conjunction	-4621 Sep 25 j 22:55	28°Ω03'45	2°16'13
direct	-4627 May 30 j 14:11	12°Ω30'06		minimum elong	-4621 Sep 25 j 22:55	28°Ω03'45	2°16'22
evening set	-4627 Aug 28 j 11:04	14°Ω25'49		max. Earth dist.	-4621 Sep 25 j 11:14	28°Ω02'39	31.30813 AU
				morning rise	-4621 Oct 11 j 00:25	28°Ω37'37	
conjunction	-4627 Sep 12 j 16:09	14°Ω59'55	2°11'43		-4621 Nov 23 j 23:24	0°Ω	
minimum elong	-4627 Sep 12 j 16:09	14°Ω59'55	2°11'54	retrograde	-4620 Jan 06 j 13:57	0°Ω31'22	
max. Earth dist.	-4627 Sep 12 j 01:35	14°Ω58'33	31.31637 AU		-4620 Feb 21 j 01:38	30°Ω	
	-4627 Sep 12 j 17:01	15°Ω		opposition	-4620 Mar 26 j 00:08	29°Ω09'04	2°25'35
morning rise	-4627 Sep 27 j 18:53	15°Ω33'50		min. Earth dist.	-4620 Mar 26 j 10:35	29°Ω08'22	29.30805 AU
retrograde	-4627 Dec 23 j 22:35	17°Ω26'57		direct	-4620 Jun 15 j 01:04	27°Ω45'06	
opposition	-4626 Mar 12 j 20:35	16°Ω04'58	2°21'22	evening set	-4620 Sep 12 j 05:15	29°Ω40'14	
min. Earth dist.	-4626 Mar 13 j 11:28	16°Ω03'58	29.31909 AU		-4620 Sep 21 j 01:27	0°Ω	
	-4626 Apr 27 j 14:39	15°Ω					
direct	-4626 Jun 02 j 03:13	14°Ω40'46		conjunction	-4620 Sep 27 j 07:55	0°Ω14'11	2°16'18
	-4626 Jul 06 j 17:12	15°Ω		minimum elong	-4620 Sep 27 j 07:55	0°Ω14'11	2°16'25
evening set	-4626 Aug 30 j 20:50	16°Ω36'26		max. Earth dist.	-4620 Sep 26 j 22:23	0°Ω13'17	31.30458 AU
max. Earth dist.	-4626 Sep 14 j 10:31	17°Ω09'07	31.31813 AU	morning rise	-4620 Oct 12 j 09:07	0°Ω48'02	
				retrograde	-4619 Jan 08 j 00:01	2°Ω41'53	
conjunction	-4626 Sep 15 j 01:20	17°Ω10'30	2°12'56	opposition	-4619 Mar 28 j 12:51	1°Ω19'31	2°25'34
minimum elong	-4626 Sep 15 j 01:20	17°Ω10'30	2°13'06	min. Earth dist.	-4619 Mar 28 j 22:24	1°Ω18'53	29.30478 AU
morning rise	-4626 Sep 30 j 03:53	17°Ω44'24			-4619 May 31 j 21:35	30°Ω	
retrograde	-4626 Dec 26 j 11:04	19°Ω37'38		direct	-4619 Jun 17 j 12:18	29°Ω55'35	
opposition	-4625 Mar 15 j 08:53	18°Ω15'39	2°22'35		-4619 Jul 03 j 23:00	0°Ω	
min. Earth dist.	-4625 Mar 15 j 22:17	18°Ω14'45	29.32022 AU	evening set	-4619 Sep 14 j 14:22	1°Ω50'37	
direct	-4625 Jun 04 j 15:36	16°Ω51'31					
evening set	-4625 Sep 02 j 06:29	18°Ω47'08		conjunction	-4619 Sep 29 j 16:39	2°Ω24'33	2°16'11
				minimum elong	-4619 Sep 29 j 16:39	2°Ω24'33	2°16'19
conjunction	-4625 Sep 17 j 10:40	19°Ω21'11	2°13'59	max. Earth dist.	-4619 Sep 29 j 07:14	2°Ω23'40	31.30176 AU
minimum elong	-4625 Sep 17 j 10:39	19°Ω21'11	2°14'09	morning rise	-4619 Oct 14 j 17:56	2°Ω58'24	
max. Earth dist.	-4625 Sep 16 j 20:47	19°Ω19'53	31.31850 AU	retrograde	-4618 Jan 10 j 12:14	4°Ω52'22	

Attention, astronomical year style is used: The year -4618 in astronomical counting style is the year 4619 BCE in historical counting style.

opposition	-4618 Mar 31 j 01:28	3° $\mathring{M}$ 29'57	2°25'21	max. Earth dist.	-4612 Oct 14 j 04:00	17° $\mathring{M}$ 39'04	31.28651 AU
min. Earth dist.	-4618 Mar 31 j 09:17	3° $\mathring{M}$ 29'25	29.30241 AU	morning rise	-4612 Oct 29 j 08:46	18° $\mathring{M}$ 13'18	
direct	-4618 Jun 19 j 22:17	2° $\mathring{M}$ 06'04		retrograde	-4611 Jan 25 j 19:02	20° $\mathring{M}$ 08'11	
evening set	-4618 Sep 16 j 23:23	4° $\mathring{M}$ 01'01		opposition	-4611 Apr 15 j 19:40	18° $\mathring{M}$ 45'29	2°17'56
				min. Earth dist.	-4611 Apr 15 j 21:53	18° $\mathring{M}$ 45'20	29.28521 AU
conjunction	-4618 Oct 02 j 01:36	4° $\mathring{M}$ 34'56	2°15'53	direct	-4611 Jul 05 j 07:39	17° $\mathring{M}$ 22'05	
minimum elong	-4618 Oct 02 j 01:36	4° $\mathring{M}$ 34'56	2°15'58	evening set	-4611 Oct 01 j 14:50	19° $\mathring{M}$ 16'26	
max. Earth dist.	-4618 Oct 01 j 18:07	4° $\mathring{M}$ 34'14	31.29973 AU				
morning rise	-4618 Oct 17 j 02:39	5° $\mathring{M}$ 08'47		conjunction	-4611 Oct 16 j 16:30	19° $\mathring{M}$ 50'22	2°08'16
retrograde	-4617 Jan 12 j 23:16	7° $\mathring{M}$ 02'53		minimum elong	-4611 Oct 16 j 16:31	19° $\mathring{M}$ 50'22	2°08'20
opposition	-4617 Apr 02 j 14:08	5° $\mathring{M}$ 40'25	2°24'54	max. Earth dist.	-4611 Oct 16 j 14:52	19° $\mathring{M}$ 50'13	31.28039 AU
min. Earth dist.	-4617 Apr 02 j 21:39	5° $\mathring{M}$ 39'54	29.30072 AU	morning rise	-4611 Oct 31 j 17:56	20° $\mathring{M}$ 24'18	
direct	-4617 Jun 22 j 10:46	4° $\mathring{M}$ 16'36		retrograde	-4610 Jan 28 j 05:11	22° $\mathring{M}$ 19'18	
evening set	-4617 Sep 19 j 08:29	6° $\mathring{M}$ 11'29		opposition	-4610 Apr 18 j 08:43	20° $\mathring{M}$ 56'30	2°16'04
				min. Earth dist.	-4610 Apr 18 j 10:29	20° $\mathring{M}$ 56'23	29.27823 AU
conjunction	-4617 Oct 04 j 10:26	6° $\mathring{M}$ 45'24	2°15'22	direct	-4610 Jul 07 j 19:10	19° $\mathring{M}$ 33'08	
minimum elong	-4617 Oct 04 j 10:26	6° $\mathring{M}$ 45'24	2°15'29	evening set	-4610 Oct 03 j 23:57	21° $\mathring{M}$ 27'22	
max. Earth dist.	-4617 Oct 04 j 03:23	6° $\mathring{M}$ 44'44	31.29848 AU				
morning rise	-4617 Oct 19 j 11:33	7° $\mathring{M}$ 19'15		conjunction	-4610 Oct 19 j 01:30	22° $\mathring{M}$ 01'18	2°06'26
retrograde	-4616 Jan 15 j 12:24	9° $\mathring{M}$ 13'28		minimum elong	-4610 Oct 19 j 01:30	22° $\mathring{M}$ 01'18	2°06'28
opposition	-4616 Apr 04 j 02:53	7° $\mathring{M}$ 50'58	2°24'16	max. Earth dist.	-4610 Oct 18 j 23:36	22° $\mathring{M}$ 01'07	31.27289 AU
min. Earth dist.	-4616 Apr 04 j 08:20	7° $\mathring{M}$ 50'36	29.29961 AU	morning rise	-4610 Nov 03 j 03:15	22° $\mathring{M}$ 35'16	
direct	-4616 Jun 23 j 22:20	6° $\mathring{M}$ 27'15		retrograde	-4609 Jan 30 j 17:44	24° $\mathring{M}$ 30'22	
evening set	-4616 Sep 20 j 17:24	8° $\mathring{M}$ 22'03		opposition	-4609 Apr 20 j 21:37	23° $\mathring{M}$ 07'28	2°14'01
				min. Earth dist.	-4609 Apr 20 j 22:04	23° $\mathring{M}$ 07'26	29.27018 AU
conjunction	-4616 Oct 05 j 19:15	8° $\mathring{M}$ 55'58	2°14'40	direct	-4609 Jul 10 j 05:30	21° $\mathring{M}$ 44'06	
minimum elong	-4616 Oct 05 j 19:15	8° $\mathring{M}$ 55'58	2°14'45	evening set	-4609 Oct 06 j 08:50	23° $\mathring{M}$ 38'13	
max. Earth dist.	-4616 Oct 05 j 13:33	8° $\mathring{M}$ 55'25	31.29742 AU				
morning rise	-4616 Oct 20 j 20:19	9° $\mathring{M}$ 29'49		conjunction	-4609 Oct 21 j 10:34	24° $\mathring{M}$ 12'10	2°04'25
retrograde	-4615 Jan 16 j 22:51	11° $\mathring{M}$ 24'12		minimum elong	-4609 Oct 21 j 10:34	24° $\mathring{M}$ 12'10	2°04'28
opposition	-4615 Apr 06 j 15:51	10° $\mathring{M}$ 01'40	2°23'24	max. Earth dist.	-4609 Oct 21 j 10:19	24° $\mathring{M}$ 12'08	31.26446 AU
min. Earth dist.	-4615 Apr 06 j 21:28	10° $\mathring{M}$ 01'17	29.29853 AU	morning rise	-4609 Nov 05 j 12:24	24° $\mathring{M}$ 46'08	
direct	-4615 Jun 26 j 09:26	8° $\mathring{M}$ 38'02		retrograde	-4608 Feb 02 j 04:57	26° $\mathring{M}$ 41'21	
evening set	-4615 Sep 23 j 02:29	10° $\mathring{M}$ 32'45		opposition	-4608 Apr 22 j 10:45	25° $\mathring{M}$ 18'20	2°11'46
				min. Earth dist.	-4608 Apr 22 j 11:00	25° $\mathring{M}$ 18'19	29.26153 AU
conjunction	-4615 Oct 08 j 04:14	11° $\mathring{M}$ 06'40	2°13'46	direct	-4608 Jul 11 j 17:31	23° $\mathring{M}$ 55'00	
minimum elong	-4615 Oct 08 j 04:15	11° $\mathring{M}$ 06'40	2°13'52	evening set	-4608 Oct 07 j 17:39	25° $\mathring{M}$ 48'59	
max. Earth dist.	-4615 Oct 07 j 23:34	11° $\mathring{M}$ 06'13	31.29626 AU				
morning rise	-4615 Oct 23 j 05:20	11° $\mathring{M}$ 40'32		conjunction	-4608 Oct 22 j 19:24	26° $\mathring{M}$ 22'56	2°02'14
retrograde	-4614 Jan 19 j 09:44	13° $\mathring{M}$ 35'02		minimum elong	-4608 Oct 22 j 19:25	26° $\mathring{M}$ 22'56	2°02'14
opposition	-4614 Apr 09 j 04:32	12° $\mathring{M}$ 12'29	2°22'21	max. Earth dist.	-4608 Oct 22 j 19:45	26° $\mathring{M}$ 22'58	31.25595 AU
min. Earth dist.	-4614 Apr 09 j 08:26	12° $\mathring{M}$ 12'13	29.29697 AU	morning rise	-4608 Nov 06 j 21:34	26° $\mathring{M}$ 56'56	
direct	-4614 Jun 28 j 22:22	10° $\mathring{M}$ 48'55		retrograde	-4607 Feb 03 j 18:02	28° $\mathring{M}$ 52'15	
evening set	-4614 Sep 25 j 11:39	12° $\mathring{M}$ 43'34		opposition	-4607 Apr 24 j 23:42	27° $\mathring{M}$ 29'08	2°09'20
				min. Earth dist.	-4607 Apr 24 j 21:50	27° $\mathring{M}$ 29'16	29.25309 AU
conjunction	-4614 Oct 10 j 13:14	13° $\mathring{M}$ 17'29	2°12'41	direct	-4607 Jul 14 j 04:50	26° $\mathring{M}$ 05'48	
minimum elong	-4614 Oct 10 j 13:14	13° $\mathring{M}$ 17'29	2°12'45	evening set	-4607 Oct 10 j 02:33	27° $\mathring{M}$ 59'42	
max. Earth dist.	-4614 Oct 10 j 08:47	13° $\mathring{M}$ 17'04	31.29423 AU				
morning rise	-4614 Oct 25 j 14:27	13° $\mathring{M}$ 51'22		conjunction	-4607 Oct 25 j 04:25	28° $\mathring{M}$ 33'40	1°59'52
retrograde	-4613 Jan 21 j 21:23	15° $\mathring{M}$ 46'00		minimum elong	-4607 Oct 25 j 04:26	28° $\mathring{M}$ 33'40	1°59'53
opposition	-4613 Apr 11 j 17:34	14° $\mathring{M}$ 23'25	2°21'05	max. Earth dist.	-4607 Oct 25 j 06:00	28° $\mathring{M}$ 33'49	31.24773 AU
min. Earth dist.	-4613 Apr 11 j 21:31	14° $\mathring{M}$ 23'09	29.29447 AU	morning rise	-4607 Nov 09 j 06:49	29° $\mathring{M}$ 07'42	
direct	-4613 Jul 01 j 09:10	12° $\mathring{M}$ 59'56			-4607 Dec 04 j 16:30	0° $\mathring{M}$	
evening set	-4613 Sep 27 j 20:38	14° $\mathring{M}$ 54'29		retrograde	-4606 Feb 06 j 04:51	1° $\mathring{M}$ 03'08	
					-4606 Apr 14 j 23:50	30° $\mathring{R}$ $\mathring{M}$	
conjunction	-4613 Oct 12 j 22:17	15° $\mathring{M}$ 28'24	2°11'24	opposition	-4606 Apr 27 j 12:35	29° $\mathring{M}$ 39'56	2°06'43
minimum elong	-4613 Oct 12 j 22:17	15° $\mathring{M}$ 28'24	2°11'28	min. Earth dist.	-4606 Apr 27 j 10:41	29° $\mathring{M}$ 40'04	29.24527 AU
max. Earth dist.	-4613 Oct 12 j 19:17	15° $\mathring{M}$ 28'07	31.29112 AU	direct	-4606 Jul 16 j 15:44	28° $\mathring{M}$ 16'38	
morning rise	-4613 Oct 27 j 23:26	16° $\mathring{M}$ 02'18			-4606 Oct 07 j 16:59	0° $\mathring{M}$	
retrograde	-4612 Jan 24 j 07:22	17° $\mathring{M}$ 57'04		evening set	-4606 Oct 12 j 11:23	0° $\mathring{M}$ 10'27	
opposition	-4612 Apr 13 j 06:37	16° $\mathring{M}$ 34'26	2°19'36				
min. Earth dist.	-4612 Apr 13 j 09:19	16° $\mathring{M}$ 34'15	29.29054 AU	conjunction	-4606 Oct 27 j 13:27	0° $\mathring{M}$ 44'25	1°57'19
direct	-4612 Jul 02 j 21:48	15° $\mathring{M}$ 11'00		minimum elong	-4606 Oct 27 j 13:28	0° $\mathring{M}$ 44'25	1°57'20
evening set	-4612 Sep 29 j 05:53	17° $\mathring{M}$ 05'28		max. Earth dist.	-4606 Oct 27 j 16:29	0° $\mathring{M}$ 44'42	31.24043 AU
				morning rise	-4606 Nov 11 j 16:04	1° $\mathring{M}$ 18'29	
conjunction	-4612 Oct 14 j 07:21	17° $\mathring{M}$ 39'23	2°09'55	retrograde	-4605 Feb 08 j 16:26	3° $\mathring{M}$ 14'02	
minimum elong	-4612 Oct 14 j 07:21	17° $\mathring{M}$ 39'23	2°09'59	opposition	-4605 Apr 30 j 01:29	1° $\mathring{M}$ 50'46	2°03'55

Attention, astronomical year style is used: The year -4605 in astronomical counting style is the year 4606 BCE in historical counting style.

min. Earth dist.	-4605 Apr 29 j 21:23	1° <u>♁</u> 51'03	29.23828 AU	morning rise	-4599 Nov 26 j 11:14	16° <u>♁</u> 38'02	
direct	-4605 Jul 19 j 04:43	0° <u>♁</u> 27'32		retrograde	-4598 Feb 24 j 03:35	18° <u>♁</u> 34'33	
evening set	-4605 Oct 14 j 20:10	2° <u>♁</u> 21'16		opposition	-4598 May 15 j 20:53	17° <u>♁</u> 10'55	1°39'25
				min. Earth dist.	-4598 May 15 j 10:50	17° <u>♁</u> 11'36	29.18981 AU
conjunction	-4605 Oct 29 j 22:18	2° <u>♁</u> 55'16	1°54'37	direct	-4598 Aug 03 j 07:51	15° <u>♁</u> 48'03	
minimum elong	-4605 Oct 29 j 22:18	2° <u>♁</u> 55'16	1°54'38	evening set	-4598 Oct 29 j 11:31	17° <u>♁</u> 41'13	
max. Earth dist.	-4605 Oct 30 j 01:53	2° <u>♁</u> 55'36	31.23389 AU				
morning rise	-4605 Nov 14 j 01:20	3° <u>♁</u> 29'22		conjunction	-4598 Nov 13 j 15:29	18° <u>♁</u> 15'25	1°31'10
retrograde	-4604 Feb 11 j 04:50	5° <u>♁</u> 25'04		minimum elong	-4598 Nov 13 j 15:30	18° <u>♁</u> 15'25	1°31'06
opposition	-4604 May 01 j 14:37	4° <u>♁</u> 01'45	2°00'55	max. Earth dist.	-4598 Nov 14 j 00:52	18° <u>♁</u> 16'18	31.18373 AU
min. Earth dist.	-4604 May 01 j 10:07	4° <u>♁</u> 02'03	29.23213 AU	morning rise	-4598 Nov 28 j 21:14	18° <u>♁</u> 49'47	
direct	-4604 Jul 20 j 15:29	2° <u>♁</u> 38'35		retrograde	-4597 Feb 26 j 15:26	20° <u>♁</u> 46'24	
evening set	-4604 Oct 16 j 04:58	4° <u>♁</u> 32'13		opposition	-4597 May 18 j 10:06	19° <u>♁</u> 22'40	1°35'18
				min. Earth dist.	-4597 May 18 j 00:27	19° <u>♁</u> 23'19	29.17905 AU
conjunction	-4604 Oct 31 j 07:26	5° <u>♁</u> 06'15	1°51'44	direct	-4597 Aug 05 j 18:57	17° <u>♁</u> 59'47	
minimum elong	-4604 Oct 31 j 07:27	5° <u>♁</u> 06'15	1°51'43	evening set	-4597 Oct 31 j 20:31	19° <u>♁</u> 52'50	
max. Earth dist.	-4604 Oct 31 j 12:58	5° <u>♁</u> 06'47	31.22810 AU				
morning rise	-4604 Nov 15 j 10:40	5° <u>♁</u> 40'23		conjunction	-4597 Nov 16 j 00:56	20° <u>♁</u> 27'03	1°27'14
retrograde	-4603 Feb 12 j 15:03	7° <u>♁</u> 36'14		minimum elong	-4597 Nov 16 j 00:56	20° <u>♁</u> 27'04	1°27'11
opposition	-4603 May 04 j 03:31	6° <u>♁</u> 12'53	1°57'45	max. Earth dist.	-4597 Nov 16 j 11:34	20° <u>♁</u> 28'04	31.17269 AU
min. Earth dist.	-4603 May 03 j 21:26	6° <u>♁</u> 13'18	29.22639 AU	morning rise	-4597 Dec 01 j 07:05	21° <u>♁</u> 01'29	
direct	-4603 Jul 23 j 03:34	4° <u>♁</u> 49'48		retrograde	-4596 Feb 29 j 04:12	22° <u>♁</u> 58'10	
evening set	-4603 Oct 18 j 13:55	6° <u>♁</u> 43'22		opposition	-4596 May 19 j 23:06	21° <u>♁</u> 34'18	1°31'02
				min. Earth dist.	-4596 May 19 j 11:40	21° <u>♁</u> 35'04	29.16763 AU
conjunction	-4603 Nov 02 j 16:27	7° <u>♁</u> 17'25	1°48'41	direct	-4596 Aug 07 j 08:19	20° <u>♁</u> 11'24	
minimum elong	-4603 Nov 02 j 16:28	7° <u>♁</u> 17'25	1°48'41	evening set	-4596 Nov 02 j 05:45	22° <u>♁</u> 04'21	
max. Earth dist.	-4603 Nov 02 j 21:57	7° <u>♁</u> 17'56	31.22254 AU				
morning rise	-4603 Nov 17 j 20:14	7° <u>♁</u> 51'36		conjunction	-4596 Nov 17 j 10:23	22° <u>♁</u> 38'36	1°23'12
retrograde	-4602 Feb 15 j 02:52	9° <u>♁</u> 47'35		minimum elong	-4596 Nov 17 j 10:24	22° <u>♁</u> 38'36	1°23'07
opposition	-4602 May 06 j 16:34	8° <u>♁</u> 24'12	1°54'25	max. Earth dist.	-4596 Nov 17 j 21:11	22° <u>♁</u> 39'37	31.16123 AU
min. Earth dist.	-4602 May 06 j 09:47	8° <u>♁</u> 24'40	29.22077 AU	morning rise	-4596 Dec 02 j 17:10	23° <u>♁</u> 13'03	
direct	-4602 Jul 25 j 13:16	7° <u>♁</u> 01'11		retrograde	-4595 Mar 02 j 17:04	25° <u>♁</u> 09'49	
evening set	-4602 Oct 20 j 22:47	8° <u>♁</u> 54'41		opposition	-4595 May 22 j 12:03	23° <u>♁</u> 45'50	1°26'39
				min. Earth dist.	-4595 May 22 j 00:33	23° <u>♁</u> 46'37	29.15631 AU
conjunction	-4602 Nov 05 j 01:42	9° <u>♁</u> 28'47	1°45'29	direct	-4595 Aug 09 j 19:18	22° <u>♁</u> 22'55	
minimum elong	-4602 Nov 05 j 01:43	9° <u>♁</u> 28'47	1°45'26	evening set	-4595 Nov 04 j 14:50	24° <u>♁</u> 15'45	
max. Earth dist.	-4602 Nov 05 j 09:08	9° <u>♁</u> 29'29	31.21671 AU				
morning rise	-4602 Nov 20 j 05:40	10° <u>♁</u> 03'00		conjunction	-4595 Nov 19 j 20:00	24° <u>♁</u> 50'02	1°19'02
retrograde	-4601 Feb 17 j 13:24	11° <u>♁</u> 59'08		minimum elong	-4595 Nov 19 j 20:01	24° <u>♁</u> 50'02	1°18'58
opposition	-4601 May 09 j 05:38	10° <u>♁</u> 35'43	1°50'54	max. Earth dist.	-4595 Nov 20 j 08:42	24° <u>♁</u> 51'14	31.15017 AU
min. Earth dist.	-4601 May 08 j 22:16	10° <u>♁</u> 36'13	29.21456 AU	morning rise	-4595 Dec 05 j 03:08	25° <u>♁</u> 24'32	
direct	-4601 Jul 28 j 00:17	9° <u>♁</u> 12'46		retrograde	-4594 Mar 05 j 03:18	27° <u>♁</u> 21'23	
evening set	-4601 Oct 23 j 07:57	11° <u>♁</u> 06'12		min. Earth dist.	-4594 May 24 j 11:45	25° <u>♁</u> 58'11	29.14552 AU
				opposition	-4594 May 25 j 00:52	25° <u>♁</u> 57'17	1°22'09
conjunction	-4601 Nov 07 j 10:58	11° <u>♁</u> 40'18	1°42'07	direct	-4594 Aug 12 j 07:47	24° <u>♁</u> 34'22	
minimum elong	-4601 Nov 07 j 10:58	11° <u>♁</u> 40'18	1°42'05	evening set	-4594 Nov 07 j 00:01	26° <u>♁</u> 27'07	
max. Earth dist.	-4601 Nov 07 j 18:16	11° <u>♁</u> 41'00	31.21027 AU				
morning rise	-4601 Nov 22 j 15:27	12° <u>♁</u> 14'34		conjunction	-4594 Nov 22 j 05:23	27° <u>♁</u> 01'25	1°14'45
retrograde	-4600 Feb 20 j 02:39	14° <u>♁</u> 10'51		minimum elong	-4594 Nov 22 j 05:24	27° <u>♁</u> 01'25	1°14'39
opposition	-4600 May 10 j 18:46	12° <u>♁</u> 47'22	1°47'13	max. Earth dist.	-4594 Nov 22 j 18:06	27° <u>♁</u> 02'38	31.13992 AU
min. Earth dist.	-4600 May 10 j 10:09	12° <u>♁</u> 47'57	29.20763 AU	morning rise	-4594 Dec 07 j 13:09	27° <u>♁</u> 35'59	
direct	-4600 Jul 29 j 10:20	11° <u>♁</u> 24'28		retrograde	-4593 Mar 07 j 15:26	29° <u>♁</u> 32'55	
evening set	-4600 Oct 24 j 16:59	13° <u>♁</u> 17'49		opposition	-4593 May 27 j 13:46	28° <u>♁</u> 08'44	1°17'31
				min. Earth dist.	-4593 May 26 j 23:46	28° <u>♁</u> 09'41	29.13583 AU
conjunction	-4600 Nov 08 j 20:24	13° <u>♁</u> 51'58	1°38'36	direct	-4593 Aug 14 j 18:15	26° <u>♁</u> 45'50	
minimum elong	-4600 Nov 08 j 20:24	13° <u>♁</u> 51'58	1°38'33	evening set	-4593 Nov 09 j 09:10	28° <u>♁</u> 38'29	
max. Earth dist.	-4600 Nov 09 j 05:00	13° <u>♁</u> 52'47	31.20272 AU				
morning rise	-4600 Nov 24 j 01:12	14° <u>♁</u> 26'16		conjunction	-4593 Nov 24 j 15:05	29° <u>♁</u> 12'51	1°10'22
retrograde	-4599 Feb 21 j 14:18	16° <u>♁</u> 22'41		minimum elong	-4593 Nov 24 j 15:06	29° <u>♁</u> 12'51	1°10'17
opposition	-4599 May 13 j 08:00	14° <u>♁</u> 59'08	1°43'24	max. Earth dist.	-4593 Nov 25 j 05:56	29° <u>♁</u> 14'15	31.13080 AU
min. Earth dist.	-4599 May 12 j 23:30	14° <u>♁</u> 59'42	29.19938 AU	morning rise	-4593 Dec 09 j 23:13	29° <u>♁</u> 47'27	
direct	-4599 Jul 31 j 21:24	13° <u>♁</u> 36'16			-4593 Dec 15 j 16:56	0° <u>♁</u>	
evening set	-4599 Oct 27 j 02:16	15° <u>♁</u> 29'32		retrograde	-4592 Mar 09 j 02:15	1° <u>♁</u> 44'30	
				min. Earth dist.	-4592 May 28 j 11:47	0° <u>♁</u> 21'16	29.12721 AU
conjunction	-4599 Nov 11 j 05:57	16° <u>♁</u> 03'41	1°34'57	opposition	-4592 May 29 j 02:40	0° <u>♁</u> 20'15	1°12'45
minimum elong	-4599 Nov 11 j 05:57	16° <u>♁</u> 03'41	1°34'54		-4592 Jun 10 j 15:28	30° <u>♁</u>	
max. Earth dist.	-4599 Nov 11 j 14:44	16° <u>♁</u> 04'31	31.19393 AU	direct	-4592 Aug 16 j 05:42	28° <u>♁</u> 57'23	



Attention, astronomical year style is used: The year -4592 in astronomical counting style is the year 4593 BCE in historical counting style.

	-4592 Oct 17 j 12:35	0°M		morning rise	-4586 Dec 25 j 01:32	15°M.12'49	
evening set	-4592 Nov 10 j 18:26	0°M.49'59		retrograde	-4585 Mar 25 j 20:56	17°M.10'42	
				opposition	-4585 Jun 14 j 20:55	15°M.46'12	0°36'45
conjunction	-4592 Nov 26 j 00:41	1°M.24'22	1°05'52	min. Earth dist.	-4585 Jun 14 j 01:35	15°M.47'31	29.07099 AU
minimum elong	-4592 Nov 26 j 00:42	1°M.24'22	1°05'45		-4585 Jul 14 j 17:50	15°R.M.	
max. Earth dist.	-4592 Nov 26 j 15:43	1°M.25'48	31.12285 AU	direct	-4585 Sep 01 j 09:34	14°M.23'35	
morning rise	-4592 Dec 11 j 09:31	1°M.59'01			-4585 Oct 17 j 23:58	15°M.	
retrograde	-4591 Mar 11 j 15:17	3°M.56'11		evening set	-4585 Nov 26 j 14:41	16°M.15'57	
opposition	-4591 May 31 j 15:31	2°M.31'54	1°07'54				
min. Earth dist.	-4591 May 30 j 23:13	2°M.33'01	29.11965 AU	conjunction	-4585 Dec 12 j 00:01	16°M.50'37	0°31'55
direct	-4591 Aug 18 j 15:32	1°M.09'05		minimum elong	-4585 Dec 12 j 00:01	16°M.50'37	0°31'47
evening set	-4591 Nov 13 j 03:49	3°M.01'38		max. Earth dist.	-4585 Dec 12 j 18:54	16°M.52'24	31.06518 AU
				morning rise	-4585 Dec 27 j 12:44	17°M.25'38	
conjunction	-4591 Nov 28 j 10:33	3°M.36'04	1°01'16	retrograde	-4584 Mar 27 j 10:31	19°M.23'35	
minimum elong	-4591 Nov 28 j 10:33	3°M.36'04	1°01'10	opposition	-4584 Jun 16 j 09:49	17°M.59'00	0°31'19
max. Earth dist.	-4591 Nov 29 j 03:01	3°M.37'38	31.11556 AU	min. Earth dist.	-4584 Jun 15 j 14:20	18°M.00'19	29.05974 AU
morning rise	-4591 Dec 13 j 19:49	4°M.10'46		direct	-4584 Sep 02 j 20:51	16°M.36'22	
retrograde	-4590 Mar 14 j 02:37	6°M.08'04		evening set	-4584 Nov 28 j 00:39	18°M.28'39	
min. Earth dist.	-4590 Jun 02 j 11:59	4°M.44'52	29.11258 AU				
opposition	-4590 Jun 03 j 04:19	4°M.43'45	1°02'55	conjunction	-4584 Dec 13 j 10:38	19°M.03'23	0°26'50
direct	-4590 Aug 21 j 01:45	3°M.21'00		minimum elong	-4584 Dec 13 j 10:38	19°M.03'23	0°26'39
evening set	-4590 Nov 15 j 13:19	5°M.13'31		max. Earth dist.	-4584 Dec 14 j 07:05	19°M.05'19	31.05363 AU
				morning rise	-4584 Dec 28 j 23:47	19°M.38'26	
conjunction	-4590 Nov 30 j 20:28	5°M.47'59	0°56'34	retrograde	-4583 Mar 29 j 22:00	21°M.36'27	
minimum elong	-4590 Nov 30 j 20:29	5°M.47'59	0°56'26	opposition	-4583 Jun 18 j 22:34	20°M.11'46	0°25'51
max. Earth dist.	-4590 Dec 01 j 13:30	5°M.49'36	31.10880 AU	min. Earth dist.	-4583 Jun 18 j 02:44	20°M.13'07	29.04802 AU
morning rise	-4590 Dec 16 j 06:18	6°M.22'44		direct	-4583 Sep 05 j 09:12	18°M.49'06	
retrograde	-4589 Mar 16 j 16:20	8°M.20'10		evening set	-4583 Nov 30 j 10:50	20°M.41'20	
opposition	-4589 Jun 05 j 17:12	6°M.55'50	0°57'51				
min. Earth dist.	-4589 Jun 04 j 23:09	6°M.57'04	29.10576 AU	conjunction	-4583 Dec 15 j 21:11	21°M.16'05	0°21'41
direct	-4589 Aug 23 j 11:31	5°M.33'08		minimum elong	-4583 Dec 15 j 21:11	21°M.16'05	0°21'31
evening set	-4589 Nov 17 j 22:54	7°M.25'38		max. Earth dist.	-4583 Dec 16 j 17:27	21°M.18'00	31.04206 AU
				morning rise	-4583 Dec 31 j 10:59	21°M.51'11	
conjunction	-4589 Dec 03 j 06:25	8°M.00'09	0°51'47	retrograde	-4582 Apr 01 j 10:22	23°M.49'16	
minimum elong	-4589 Dec 03 j 06:25	8°M.00'09	0°51'40	opposition	-4582 Jun 21 j 11:08	22°M.24'29	0°20'20
max. Earth dist.	-4589 Dec 04 j 00:02	8°M.01'49	31.10184 AU	min. Earth dist.	-4582 Jun 20 j 14:17	22°M.25'55	29.03669 AU
morning rise	-4589 Dec 18 j 16:50	8°M.34'57		direct	-4582 Sep 07 j 19:44	21°M.01'48	
retrograde	-4588 Mar 18 j 05:12	10°M.32'32		evening set	-4582 Dec 02 j 21:00	22°M.53'59	
opposition	-4588 Jun 07 j 06:16	9°M.08'10	0°52'41				
min. Earth dist.	-4588 Jun 06 j 12:46	9°M.09'22	29.09860 AU	conjunction	-4582 Dec 18 j 07:51	23°M.28'47	0°16'31
direct	-4588 Aug 24 j 21:50	7°M.45'31		minimum elong	-4582 Dec 18 j 07:50	23°M.28'47	0°16'20
evening set	-4588 Nov 19 j 08:41	9°M.37'59		max. Earth dist.	-4582 Dec 19 j 05:20	23°M.30'48	31.03100 AU
				morning rise	-4581 Jan 02 j 22:08	24°M.03'55	
conjunction	-4588 Dec 04 j 16:46	10°M.12'33	0°46'55	retrograde	-4581 Apr 03 j 20:53	26°M.02'04	
minimum elong	-4588 Dec 04 j 16:46	10°M.12'33	0°46'47	opposition	-4581 Jun 23 j 23:50	24°M.37'13	0°14'47
max. Earth dist.	-4588 Dec 05 j 11:27	10°M.14'19	31.09440 AU	min. Earth dist.	-4581 Jun 23 j 02:59	24°M.38'39	29.02614 AU
morning rise	-4588 Dec 20 j 03:39	10°M.47'24		direct	-4581 Sep 10 j 06:14	23°M.14'30	
retrograde	-4587 Mar 20 j 19:20	12°M.45'05		evening set	-4581 Dec 05 j 07:07	25°M.06'39	
opposition	-4587 Jun 09 j 19:01	11°M.20'42	0°47'27				
min. Earth dist.	-4587 Jun 09 j 00:11	11°M.21'59	29.09061 AU	conjunction	-4581 Dec 20 j 18:29	25°M.41'29	0°11'20
direct	-4587 Aug 27 j 10:19	9°M.58'05		minimum elong	-4581 Dec 20 j 18:29	25°M.41'29	0°11'10
evening set	-4587 Nov 21 j 18:42	11°M.50'32		behind sun begin	-4581 Dec 20 j 13:40	25°M.41'03	
				behind sun end	-4581 Dec 20 j 23:18	25°M.41'55	
conjunction	-4587 Dec 07 j 03:06	12°M.25'08	0°41'59	max. Earth dist.	-4581 Dec 21 j 16:35	25°M.43'34	31.02109 AU
minimum elong	-4587 Dec 07 j 03:07	12°M.25'08	0°41'51	morning rise	-4580 Jan 05 j 09:20	26°M.16'39	
max. Earth dist.	-4587 Dec 07 j 21:18	12°M.26'51	31.08583 AU	retrograde	-4580 Apr 05 j 10:24	28°M.14'53	
morning rise	-4587 Dec 22 j 14:41	13°M.00'03		opposition	-4580 Jun 25 j 12:24	26°M.49'58	0°09'13
retrograde	-4586 Mar 23 j 09:23	14°M.57'51		min. Earth dist.	-4580 Jun 24 j 13:53	26°M.51'31	29.01677 AU
opposition	-4586 Jun 12 j 08:02	13°M.33'24	0°42'08	direct	-4580 Sep 11 j 16:07	25°M.27'15	
min. Earth dist.	-4586 Jun 11 j 13:42	13°M.34'39	29.08147 AU	evening set	-4580 Dec 06 j 17:34	27°M.19'23	
direct	-4586 Aug 29 j 20:58	12°M.10'48					
evening set	-4586 Nov 24 j 04:33	14°M.03'13		conjunction	-4580 Dec 22 j 05:21	27°M.54'15	0°06'08
				minimum elong	-4580 Dec 22 j 05:20	27°M.54'15	0°05'57
conjunction	-4586 Dec 09 j 13:34	14°M.37'51	0°36'59	behind sun begin	-4580 Dec 21 j 23:11	27°M.53'41	
minimum elong	-4586 Dec 09 j 13:34	14°M.37'51	0°36'49	behind sun end	-4580 Dec 22 j 11:30	27°M.54'48	
max. Earth dist.	-4586 Dec 10 j 09:05	14°M.39'42	31.07606 AU	max. Earth dist.	-4580 Dec 23 j 03:55	27°M.56'22	31.01219 AU
	-4586 Dec 19 j 08:00	15°M.		morning rise	-4579 Jan 06 j 20:48	28°M.29'28	

Attention, astronomical year style is used: The year -4579 in astronomical counting style is the year 4580 BCE in historical counting style.

	-4579 Feb 25 j 05:29	0°♊	direct	-4574 Sep 25 j 11:31	8°♊46'50	
retrograde	-4579 Apr 07 j 22:33	0°♊27'47	evening set	-4574 Dec 20 j 10:43	10°♊39'04	
	-4579 May 20 j 22:36	30°♋				
min. Earth dist.	-4579 Jun 27 j 02:51	29°♋04'20	29.00848 AU	conjunction	-4573 Jan 05 j 01:20	11°♊14'10 -0°25'19
opposition	-4579 Jun 28 j 00:53	29°♋02'49	0°03'37	minimum elong	-4573 Jan 05 j 01:20	11°♊14'10 0°25'32
direct	-4579 Sep 14 j 02:13	27°♋40'06		max. Earth dist.	-4573 Jan 06 j 01:36	11°♊16'27 30.96769 AU
evening set	-4579 Dec 09 j 03:57	29°♋32'14		morning rise	-4573 Jan 20 j 19:57	11°♊49'39
	-4579 Dec 21 j 12:54	0°♋		retrograde	-4573 Apr 22 j 08:37	13°♊48'25
				min. Earth dist.	-4573 Jul 11 j 04:09	12°♊24'57 28.96329 AU
conjunction	-4579 Dec 24 j 16:20	0°♋07'08	0°00'52	opposition	-4573 Jul 12 j 04:00	12°♊23'19 -0°29'53
minimum elong	-4579 Dec 24 j 16:20	0°♋07'08	0°00'41	direct	-4573 Sep 27 j 22:28	11°♊00'36
behind sun begin	-4579 Dec 24 j 09:54	0°♋06'33		evening set	-4573 Dec 22 j 22:00	12°♊52'50
behind sun end	-4579 Dec 24 j 22:47	0°♋07'43				
max. Earth dist.	-4579 Dec 25 j 16:09	0°♋09'22	31.00445 AU	conjunction	-4572 Jan 07 j 13:09	13°♊27'58 -0°30'28
morning rise	-4578 Jan 09 j 08:15	0°♋42'24		minimum elong	-4572 Jan 07 j 13:09	13°♊27'58 0°30'40
desc. node	-4578 Feb 21 j 04:21	2°♋03'54		max. Earth dist.	-4572 Jan 08 j 13:51	13°♊30'18 30.95781 AU
retrograde	-4578 Apr 10 j 12:20	2°♋40'47		morning rise	-4572 Jan 23 j 08:14	14°♊03'29
opposition	-4578 Jun 30 j 13:19	1°♋15'48	-0°01'59	retrograde	-4572 Apr 23 j 20:04	16°♊02'18
min. Earth dist.	-4578 Jun 29 j 13:48	1°♋17'25	29.00110 AU	opposition	-4572 Jul 13 j 16:32	14°♊37'08 -0°35'22
	-4578 Aug 27 j 07:45	30°♋		min. Earth dist.	-4572 Jul 12 j 17:29	14°♊38'43 28.95289 AU
direct	-4578 Sep 16 j 13:54	29°♋53'05		direct	-4572 Sep 29 j 09:45	13°♊14'22
	-4578 Oct 06 j 13:35	0°♋		evening set	-4572 Dec 24 j 09:27	15°♊06'36
evening set	-4578 Dec 11 j 14:31	1°♋45'14				
				conjunction	-4571 Jan 09 j 01:08	15°♊41'46 -0°35'34
conjunction	-4578 Dec 27 j 03:14	2°♋20'10	-0°04'29	minimum elong	-4571 Jan 09 j 01:08	15°♊41'46 0°35'48
minimum elong	-4578 Dec 27 j 03:13	2°♋20'10	0°04'41	max. Earth dist.	-4571 Jan 10 j 01:38	15°♊44'05 30.94710 AU
behind sun begin	-4578 Dec 26 j 20:54	2°♋19'36		morning rise	-4571 Jan 24 j 20:43	16°♊17'19
behind sun end	-4578 Dec 27 j 09:32	2°♋20'44		retrograde	-4571 Apr 26 j 09:52	18°♊16'09
max. Earth dist.	-4578 Dec 28 j 02:44	2°♋22'23	30.99738 AU	min. Earth dist.	-4571 Jul 15 j 04:46	16°♊52'35 28.94191 AU
morning rise	-4577 Jan 11 j 19:48	2°♋55'29		opposition	-4571 Jul 16 j 04:41	16°♊50'55 -0°40'48
retrograde	-4577 Apr 13 j 02:13	4°♋53'58		direct	-4571 Oct 01 j 20:29	15°♊28'05
min. Earth dist.	-4577 Jul 02 j 02:55	3°♋30'32	28.99435 AU	evening set	-4571 Dec 26 j 21:00	17°♊20'20
opposition	-4577 Jul 03 j 01:59	3°♋28'57	-0°07'36			
direct	-4577 Sep 18 j 23:38	2°♋06'15		conjunction	-4570 Jan 11 j 13:02	17°♊55'32 -0°40'37
evening set	-4577 Dec 14 j 01:13	3°♋58'25		minimum elong	-4570 Jan 11 j 13:02	17°♊55'32 0°40'50
				max. Earth dist.	-4570 Jan 12 j 13:28	17°♊57'50 30.93591 AU
conjunction	-4577 Dec 29 j 14:33	4°♋33'24	-0°09'42	morning rise	-4570 Jan 27 j 09:10	18°♊31'07
minimum elong	-4577 Dec 29 j 14:33	4°♋33'24	0°09'53	retrograde	-4570 Apr 28 j 21:15	20°♊29'59
behind sun begin	-4577 Dec 29 j 09:17	4°♋32'56		opposition	-4570 Jul 18 j 17:02	19°♊04'41 -0°46'10
behind sun end	-4577 Dec 29 j 19:49	4°♋33'53		min. Earth dist.	-4570 Jul 17 j 18:01	19°♊06'17 28.93089 AU
max. Earth dist.	-4577 Dec 30 j 15:29	4°♋35'45	30.99074 AU	direct	-4570 Oct 04 j 06:57	17°♊41'47
morning rise	-4576 Jan 14 j 07:30	5°♋08'45		evening set	-4570 Dec 29 j 08:20	19°♊34'03
retrograde	-4576 Apr 14 j 15:19	7°♋07'19				
opposition	-4576 Jul 04 j 14:24	5°♋42'18	-0°13'12	conjunction	-4569 Jan 14 j 00:56	20°♊09'16 -0°45'37
min. Earth dist.	-4576 Jul 03 j 14:30	5°♋43'57	28.98766 AU	minimum elong	-4569 Jan 14 j 00:56	20°♊09'16 0°45'51
direct	-4576 Sep 20 j 11:59	4°♋19'37		max. Earth dist.	-4569 Jan 15 j 02:18	20°♊11'40 30.92513 AU
evening set	-4576 Dec 15 j 12:16	6°♋11'48		morning rise	-4569 Jan 29 j 21:25	20°♊44'53
				retrograde	-4569 May 01 j 10:21	22°♊43'46
conjunction	-4576 Dec 31 j 01:56	6°♋46'50	-0°14'55	min. Earth dist.	-4569 Jul 20 j 04:58	21°♊20'06 28.92048 AU
minimum elong	-4576 Dec 31 j 01:56	6°♋46'50	0°15'08	opposition	-4569 Jul 21 j 05:09	21°♊18'25 -0°51'28
behind sun begin	-4576 Dec 30 j 23:41	6°♋46'37		direct	-4569 Oct 06 j 18:42	19°♊55'27
behind sun end	-4576 Dec 31 j 04:12	6°♋47'02		evening set	-4569 Dec 31 j 20:03	21°♊47'45
max. Earth dist.	-4575 Jan 01 j 01:59	6°♋49'06	30.98393 AU			
morning rise	-4575 Jan 15 j 19:36	7°♋22'14		conjunction	-4568 Jan 16 j 12:57	22°♊23'01 -0°50'32
retrograde	-4575 Apr 17 j 06:35	9°♋20'52		minimum elong	-4568 Jan 16 j 12:56	22°♊23'00 0°50'45
min. Earth dist.	-4575 Jul 06 j 03:19	7°♋57'28	28.98061 AU	max. Earth dist.	-4568 Jan 17 j 13:44	22°♊25'21 30.91513 AU
opposition	-4575 Jul 07 j 02:59	7°♋55'50	-0°18'47	morning rise	-4568 Feb 01 j 10:02	22°♊58'39
direct	-4575 Sep 22 j 23:11	6°♋33'09		retrograde	-4568 May 02 j 23:40	24°♊57'35
evening set	-4575 Dec 17 j 23:23	8°♋25'22		opposition	-4568 Jul 22 j 17:16	23°♊32'10 -0°56'42
				min. Earth dist.	-4568 Jul 21 j 17:46	23°♊33'48 28.91120 AU
conjunction	-4574 Jan 02 j 13:37	9°♋00'26	-0°20'08	direct	-4568 Oct 08 j 04:11	22°♊09'09
minimum elong	-4574 Jan 02 j 13:37	9°♋00'26	0°20'20	evening set	-4567 Jan 02 j 07:42	24°♊01'30
max. Earth dist.	-4574 Jan 03 j 14:44	9°♋02'48	30.97631 AU			
morning rise	-4574 Jan 18 j 07:37	9°♋35'52		conjunction	-4567 Jan 18 j 01:14	24°♊36'47 -0°55'23
retrograde	-4574 Apr 19 j 18:47	11°♋34'35		minimum elong	-4567 Jan 18 j 01:13	24°♊36'47 0°55'37
opposition	-4574 Jul 09 j 15:27	10°♋09'31	-0°24'21	max. Earth dist.	-4567 Jan 19 j 03:16	24°♊39'15 30.90639 AU
min. Earth dist.	-4574 Jul 08 j 15:56	10°♋11'09	28.97247 AU	morning rise	-4567 Feb 02 j 22:36	25°♊12'28

Attention, astronomical year style is used: The year -4567 in astronomical counting style is the year 4568 BCE in historical counting style.

retrograde	-4567 May 05 j 12:58	27° $\nearrow$ 11'25		evening set	-4560 Jan 18 j 21:32	9° $\searrow$ 42'00	
min. Earth dist.	-4567 Jul 24 j 04:51	25° $\nearrow$ 47'41	28.90309 AU				
opposition	-4567 Jul 25 j 05:15	25° $\nearrow$ 45'59	-1°01'50	conjunction	-4560 Feb 03 j 17:59	10° $\searrow$ 17'30	-1°26'40
direct	-4567 Oct 10 j 16:39	24° $\nearrow$ 22'57		minimum elong	-4560 Feb 03 j 17:58	10° $\searrow$ 17'30	1°26'53
evening set	-4566 Jan 04 j 19:32	26° $\nearrow$ 15'21		max. Earth dist.	-4560 Feb 04 j 19:06	10° $\searrow$ 19'52	30.86638 AU
				morning rise	-4560 Feb 19 j 18:09	10° $\searrow$ 53'23	
conjunction	-4566 Jan 20 j 13:19	26° $\nearrow$ 50'40	-1°00'09	retrograde	-4560 May 21 j 11:09	12° $\searrow$ 52'31	
minimum elong	-4566 Jan 20 j 13:19	26° $\nearrow$ 50'40	1°00'22	opposition	-4560 Aug 09 j 16:40	11° $\searrow$ 27'07	-1°34'54
max. Earth dist.	-4566 Jan 21 j 14:31	26° $\nearrow$ 53'02	30.89891 AU	min. Earth dist.	-4560 Aug 08 j 17:36	11° $\searrow$ 28'44	28.86390 AU
morning rise	-4566 Feb 05 j 11:16	27° $\nearrow$ 26'22		direct	-4560 Oct 25 j 23:33	10° $\searrow$ 03'54	
retrograde	-4566 May 08 j 04:26	29° $\nearrow$ 25'22		evening set	-4559 Jan 20 j 10:29	11° $\searrow$ 56'48	
opposition	-4566 Jul 27 j 17:16	27° $\nearrow$ 59'55	-1°06'54				
min. Earth dist.	-4566 Jul 26 j 16:58	28° $\nearrow$ 01'37	28.89636 AU	conjunction	-4559 Feb 05 j 07:11	12° $\searrow$ 32'19	-1°30'41
direct	-4566 Oct 13 j 03:53	26° $\nearrow$ 36'52		minimum elong	-4559 Feb 05 j 07:11	12° $\searrow$ 32'19	1°30'54
evening set	-4565 Jan 07 j 07:24	28° $\nearrow$ 29'20		max. Earth dist.	-4559 Feb 06 j 06:56	12° $\searrow$ 34'34	30.85928 AU
				morning rise	-4559 Feb 21 j 07:52	13° $\searrow$ 08'13	
conjunction	-4565 Jan 23 j 01:45	29° $\nearrow$ 04'42	-1°04'50	retrograde	-4559 May 23 j 23:58	15° $\searrow$ 07'20	
minimum elong	-4565 Jan 23 j 01:44	29° $\nearrow$ 04'42	1°05'04	min. Earth dist.	-4559 Aug 11 j 06:51	13° $\searrow$ 43'24	28.85662 AU
max. Earth dist.	-4565 Jan 24 j 04:14	29° $\nearrow$ 07'11	30.89269 AU	opposition	-4559 Aug 12 j 04:32	13° $\searrow$ 41'53	-1°39'06
morning rise	-4565 Feb 07 j 23:58	29° $\nearrow$ 40'26		direct	-4559 Oct 28 j 09:09	12° $\searrow$ 18'34	
	-4565 Feb 17 j 01:19	0° $\searrow$		evening set	-4558 Jan 22 j 23:11	14° $\searrow$ 11'32	
retrograde	-4565 May 10 j 16:46	1° $\searrow$ 39'28					
min. Earth dist.	-4565 Jul 29 j 04:55	0° $\searrow$ 15'44	28.89070 AU	conjunction	-4558 Feb 07 j 20:27	14° $\searrow$ 47'04	-1°34'33
opposition	-4565 Jul 30 j 05:14	0° $\searrow$ 14'02	-1°11'51	minimum elong	-4558 Feb 07 j 20:26	14° $\searrow$ 47'04	1°34'46
	-4565 Aug 07 j 15:06	30° $\nearrow$		max. Earth dist.	-4558 Feb 08 j 20:49	14° $\searrow$ 49'22	30.85178 AU
direct	-4565 Oct 15 j 15:56	28° $\nearrow$ 50'58		morning rise	-4558 Feb 23 j 21:16	15° $\searrow$ 22'58	
	-4565 Dec 19 j 21:38	0° $\searrow$		retrograde	-4558 May 26 j 12:22	17° $\searrow$ 22'02	
evening set	-4564 Jan 09 j 19:27	0° $\searrow$ 43'30		opposition	-4558 Aug 14 j 16:09	15° $\searrow$ 56'33	-1°43'10
				min. Earth dist.	-4558 Aug 13 j 18:09	15° $\searrow$ 58'06	28.84911 AU
conjunction	-4564 Jan 25 j 14:10	1° $\searrow$ 18'54	-1°09'25	direct	-4558 Oct 30 j 22:16	14° $\searrow$ 33'09	
minimum elong	-4564 Jan 25 j 14:09	1° $\searrow$ 18'54	1°09'38	evening set	-4557 Jan 25 j 12:10	16° $\searrow$ 26'09	
max. Earth dist.	-4564 Jan 26 j 15:56	1° $\searrow$ 21'20	30.88752 AU				
morning rise	-4564 Feb 10 j 12:57	1° $\searrow$ 54'40		conjunction	-4557 Feb 10 j 09:39	17° $\searrow$ 01'43	-1°38'16
retrograde	-4564 May 12 j 07:36	3° $\searrow$ 53'45		minimum elong	-4557 Feb 10 j 09:39	17° $\searrow$ 01'42	1°38'30
opposition	-4564 Jul 31 j 17:11	2° $\searrow$ 28'20	-1°16'42	max. Earth dist.	-4557 Feb 11 j 08:38	17° $\searrow$ 03'52	30.84445 AU
min. Earth dist.	-4564 Jul 30 j 16:37	2° $\searrow$ 30'03	28.88590 AU	morning rise	-4557 Feb 26 j 10:59	17° $\searrow$ 37'37	
direct	-4564 Oct 17 j 02:56	1° $\searrow$ 05'16		retrograde	-4557 May 29 j 02:36	19° $\searrow$ 36'39	
evening set	-4563 Jan 11 j 07:47	2° $\searrow$ 57'53		min. Earth dist.	-4557 Aug 16 j 06:21	18° $\searrow$ 12'37	28.84222 AU
				opposition	-4557 Aug 17 j 03:45	18° $\searrow$ 11'07	-1°47'04
conjunction	-4563 Jan 27 j 02:56	3° $\searrow$ 33'19	-1°13'54	direct	-4557 Nov 02 j 09:23	16° $\searrow$ 47'37	
minimum elong	-4563 Jan 27 j 02:55	3° $\searrow$ 33'19	1°14'08	evening set	-4556 Jan 28 j 01:03	18° $\searrow$ 40'40	
max. Earth dist.	-4563 Jan 28 j 05:06	3° $\searrow$ 35'47	30.88272 AU				
morning rise	-4563 Feb 12 j 02:01	4° $\searrow$ 09'07		conjunction	-4556 Feb 12 j 23:04	19° $\searrow$ 16'16	-1°41'50
retrograde	-4563 May 14 j 20:18	6° $\searrow$ 08'13		minimum elong	-4556 Feb 12 j 23:04	19° $\searrow$ 16'15	1°42'03
min. Earth dist.	-4563 Aug 02 j 05:27	4° $\searrow$ 44'29	28.88121 AU	max. Earth dist.	-4556 Feb 13 j 22:56	19° $\searrow$ 18'30	30.83785 AU
opposition	-4563 Aug 03 j 05:02	4° $\searrow$ 42'50	-1°21'26	morning rise	-4556 Feb 29 j 00:36	19° $\searrow$ 52'11	
direct	-4563 Oct 19 j 14:21	3° $\searrow$ 19'46		retrograde	-4556 May 30 j 14:45	21° $\searrow$ 51'09	
evening set	-4562 Jan 13 j 20:15	5° $\searrow$ 12'28		opposition	-4556 Aug 18 j 15:15	20° $\searrow$ 25'36	-1°50'48
				min. Earth dist.	-4556 Aug 17 j 18:08	20° $\searrow$ 27'05	28.83616 AU
conjunction	-4562 Jan 29 j 15:50	5° $\searrow$ 47'55	-1°18'17	direct	-4556 Nov 03 j 21:40	19° $\searrow$ 02'01	
minimum elong	-4562 Jan 29 j 15:49	5° $\searrow$ 47'55	1°18'30	evening set	-4555 Jan 29 j 14:11	20° $\searrow$ 55'09	
max. Earth dist.	-4562 Jan 30 j 17:29	5° $\searrow$ 50'20	30.87798 AU				
morning rise	-4562 Feb 14 j 15:18	6° $\searrow$ 23'45		conjunction	-4555 Feb 14 j 12:28	21° $\searrow$ 30'45	-1°45'16
retrograde	-4562 May 17 j 10:53	8° $\searrow$ 22'53		minimum elong	-4555 Feb 14 j 12:28	21° $\searrow$ 30'45	1°45'29
opposition	-4562 Aug 05 j 16:54	6° $\searrow$ 57'30	-1°26'03	max. Earth dist.	-4555 Feb 15 j 11:15	21° $\searrow$ 32'53	30.83240 AU
min. Earth dist.	-4562 Aug 04 j 16:46	6° $\searrow$ 59'12	28.87628 AU	morning rise	-4555 Mar 02 j 14:24	22° $\searrow$ 06'41	
direct	-4562 Oct 22 j 01:31	5° $\searrow$ 34'25		retrograde	-4555 Jun 02 j 05:38	24° $\searrow$ 05'37	
evening set	-4561 Jan 16 j 08:48	7° $\searrow$ 27'12		min. Earth dist.	-4555 Aug 20 j 05:21	22° $\searrow$ 41'33	28.83150 AU
				opposition	-4555 Aug 21 j 02:36	22° $\searrow$ 40'03	-1°54'22
conjunction	-4561 Feb 01 j 04:42	8° $\searrow$ 02'40	-1°22'32	direct	-4555 Nov 06 j 09:15	21° $\searrow$ 16'24	
minimum elong	-4561 Feb 01 j 04:41	8° $\searrow$ 02'40	1°22'46	evening set	-4554 Feb 01 j 03:16	23° $\searrow$ 09'37	
max. Earth dist.	-4561 Feb 02 j 05:47	8° $\searrow$ 05'02	30.87256 AU				
morning rise	-4561 Feb 17 j 04:35	8° $\searrow$ 38'32		conjunction	-4554 Feb 17 j 01:58	23° $\searrow$ 45'15	-1°48'31
retrograde	-4561 May 19 j 22:00	10° $\searrow$ 37'41		minimum elong	-4554 Feb 17 j 01:57	23° $\searrow$ 45'15	1°48'43
min. Earth dist.	-4561 Aug 07 j 06:17	9° $\searrow$ 13'53	28.87055 AU	max. Earth dist.	-4554 Feb 18 j 01:12	23° $\searrow$ 47'26	30.82832 AU
opposition	-4561 Aug 08 j 04:57	9° $\searrow$ 12'18	-1°30'32	morning rise	-4554 Mar 05 j 04:06	24° $\searrow$ 21'12	
direct	-4561 Oct 24 j 11:59	7° $\searrow$ 49'10		retrograde	-4554 Jun 04 j 18:29	26° $\searrow$ 20'05	

Attention, astronomical year style is used: The year -4554 in astronomical counting style is the year 4555 BCE in historical counting style.

opposition	-4554 Aug 23 j 14:04	24° $\text{Z}$ 54'32	-1°57'46	conjunction	-4547 Mar 05 j 03:40	9° $\text{Z}$ 30'47	-2°06'29
min. Earth dist.	-4554 Aug 22 j 17:38	24° $\text{Z}$ 55'59	28.82826 AU	minimum elong	-4547 Mar 05 j 03:40	9° $\text{Z}$ 30'47	2°06'40
direct	-4554 Nov 08 j 21:10	23° $\text{Z}$ 30'52		max. Earth dist.	-4547 Mar 05 j 22:48	9° $\text{Z}$ 32'35	30.82288 AU
evening set	-4553 Feb 03 j 16:17	25° $\text{Z}$ 24'09		morning rise	-4547 Mar 21 j 07:31	10° $\text{Z}$ 06'50	
				retrograde	-4547 Jun 20 j 13:50	12° $\text{Z}$ 05'29	
conjunction	-4553 Feb 19 j 15:23	25° $\text{Z}$ 59'48	-1°51'37	opposition	-4547 Sep 07 j 21:19	10° $\text{Z}$ 40'18	-2°16'17
minimum elong	-4553 Feb 19 j 15:23	25° $\text{Z}$ 59'48	1°51'50	min. Earth dist.	-4547 Sep 07 j 05:04	10° $\text{Z}$ 41'27	28.82346 AU
max. Earth dist.	-4553 Feb 20 j 14:08	26° $\text{Z}$ 01'57	30.82590 AU	direct	-4547 Nov 24 j 03:14	9° $\text{Z}$ 16'25	
morning rise	-4553 Mar 07 j 17:52	26° $\text{Z}$ 35'47		evening set	-4546 Feb 19 j 16:28	11° $\text{Z}$ 10'30	
retrograde	-4553 Jun 07 j 08:51	28° $\text{Z}$ 34'39					
min. Earth dist.	-4553 Aug 25 j 04:19	27° $\text{Z}$ 10'37	28.82655 AU	conjunction	-4546 Mar 07 j 17:55	11° $\text{Z}$ 46'17	-2°08'19
opposition	-4553 Aug 26 j 01:26	27° $\text{Z}$ 09'07	-2°00'59	minimum elong	-4546 Mar 07 j 17:54	11° $\text{Z}$ 46'17	2°08'29
direct	-4553 Nov 11 j 08:54	25° $\text{Z}$ 45'26		max. Earth dist.	-4546 Mar 08 j 11:10	11° $\text{Z}$ 47'54	30.82074 AU
evening set	-4552 Feb 06 j 05:41	27° $\text{Z}$ 38'50		morning rise	-4546 Mar 23 j 22:09	12° $\text{Z}$ 22'20	
				retrograde	-4546 Jun 23 j 04:38	14° $\text{Z}$ 20'54	
conjunction	-4552 Feb 22 j 05:05	28° $\text{Z}$ 14'30	-1°54'33	opposition	-4546 Sep 10 j 08:29	12° $\text{Z}$ 55'42	-2°18'08
minimum elong	-4552 Feb 22 j 05:05	28° $\text{Z}$ 14'30	1°54'44	min. Earth dist.	-4546 Sep 09 j 16:43	12° $\text{Z}$ 56'49	28.82119 AU
max. Earth dist.	-4552 Feb 23 j 03:26	28° $\text{Z}$ 16'36	30.82471 AU	direct	-4546 Nov 26 j 15:41	11° $\text{Z}$ 31'44	
morning rise	-4552 Mar 09 j 07:53	28° $\text{Z}$ 50'30		evening set	-4545 Feb 22 j 06:20	13° $\text{Z}$ 25'53	
	-4552 Apr 13 j 16:20	0° $\text{Z}$					
retrograde	-4552 Jun 08 j 20:43	0° $\text{Z}$ 49'20		conjunction	-4545 Mar 10 j 08:13	14° $\text{Z}$ 01'42	-2°09'56
	-4552 Aug 05 j 12:32	30° $\text{R}$ 3		minimum elong	-4545 Mar 10 j 08:13	14° $\text{Z}$ 01'42	2°10'07
opposition	-4552 Aug 27 j 12:47	29° $\text{Z}$ 23'53	-2°04'01	max. Earth dist.	-4545 Mar 11 j 01:28	14° $\text{Z}$ 03'19	30.81830 AU
min. Earth dist.	-4552 Aug 26 j 17:04	29° $\text{Z}$ 25'16	28.82600 AU	morning rise	-4545 Mar 26 j 12:35	14° $\text{Z}$ 37'45	
direct	-4552 Nov 12 j 19:08	28° $\text{Z}$ 00'11			-4545 Apr 05 j 22:05	15° $\text{Z}$	
evening set	-4551 Feb 07 j 19:08	29° $\text{Z}$ 53'42		retrograde	-4545 Jun 25 j 17:11	16° $\text{Z}$ 36'13	
	-4551 Feb 10 j 15:50	0° $\text{Z}$		opposition	-4545 Sep 12 j 19:39	15° $\text{Z}$ 11'01	-2°19'46
				min. Earth dist.	-4545 Sep 12 j 05:16	15° $\text{Z}$ 12'02	28.81882 AU
conjunction	-4551 Feb 23 j 19:01	0° $\text{Z}$ 29'24	-1°57'18		-4545 Sep 19 j 07:02	15° $\text{R}$	
minimum elong	-4551 Feb 23 j 19:00	0° $\text{Z}$ 29'24	1°57'30	direct	-4545 Nov 29 j 04:47	13° $\text{Z}$ 46'58	
max. Earth dist.	-4551 Feb 24 j 17:22	0° $\text{Z}$ 31'30	30.82462 AU		-4544 Feb 05 j 00:55	15° $\text{Z}$	
morning rise	-4551 Mar 11 j 21:59	1° $\text{Z}$ 05'24		evening set	-4544 Feb 24 j 20:25	15° $\text{Z}$ 41'11	
retrograde	-4551 Jun 11 j 10:43	3° $\text{Z}$ 04'13					
min. Earth dist.	-4551 Aug 29 j 03:57	1° $\text{Z}$ 40'16	28.82617 AU	conjunction	-4544 Mar 11 j 22:36	16° $\text{Z}$ 17'00	-2°11'22
opposition	-4551 Aug 30 j 00:03	1° $\text{Z}$ 38'50	-2°06'52	minimum elong	-4544 Mar 11 j 22:36	16° $\text{Z}$ 17'00	2°11'32
direct	-4551 Nov 15 j 06:25	0° $\text{Z}$ 15'08		max. Earth dist.	-4544 Mar 12 j 14:37	16° $\text{Z}$ 18'30	30.81620 AU
evening set	-4550 Feb 10 j 08:46	2° $\text{Z}$ 08'47		morning rise	-4544 Mar 28 j 03:15	16° $\text{Z}$ 53'04	
				retrograde	-4544 Jun 27 j 07:06	18° $\text{Z}$ 51'24	
conjunction	-4550 Feb 26 j 08:48	2° $\text{Z}$ 44'30	-1°59'52	opposition	-4544 Sep 14 j 06:29	17° $\text{Z}$ 26'12	-2°21'11
minimum elong	-4550 Feb 26 j 08:47	2° $\text{Z}$ 44'30	2°00'04	min. Earth dist.	-4544 Sep 13 j 15:54	17° $\text{Z}$ 27'14	28.81703 AU
max. Earth dist.	-4550 Feb 27 j 05:50	2° $\text{Z}$ 46'28	30.82483 AU	direct	-4544 Nov 30 j 17:34	16° $\text{Z}$ 02'04	
morning rise	-4550 Mar 14 j 12:07	3° $\text{Z}$ 20'31		evening set	-4543 Feb 26 j 10:33	17° $\text{Z}$ 56'22	
retrograde	-4550 Jun 13 j 23:19	5° $\text{Z}$ 19'20					
opposition	-4550 Sep 01 j 11:30	3° $\text{Z}$ 54'01	-2°09'31	conjunction	-4543 Mar 14 j 13:01	18° $\text{Z}$ 32'12	-2°12'36
min. Earth dist.	-4550 Aug 31 j 16:58	3° $\text{Z}$ 55'20	28.82651 AU	minimum elong	-4543 Mar 14 j 13:01	18° $\text{Z}$ 32'12	2°12'46
direct	-4550 Nov 17 j 15:34	2° $\text{Z}$ 30'18		max. Earth dist.	-4543 Mar 15 j 04:24	18° $\text{Z}$ 33'38	30.81471 AU
evening set	-4549 Feb 12 j 22:28	4° $\text{Z}$ 24'04		morning rise	-4543 Mar 30 j 17:49	19° $\text{Z}$ 08'16	
				retrograde	-4543 Jun 29 j 19:23	21° $\text{Z}$ 06'29	
conjunction	-4549 Feb 28 j 23:01	4° $\text{Z}$ 59'49	-2°02'16	opposition	-4543 Sep 16 j 17:33	19° $\text{Z}$ 41'18	-2°22'24
minimum elong	-4549 Feb 28 j 23:01	4° $\text{Z}$ 59'49	2°02'28	min. Earth dist.	-4543 Sep 16 j 04:29	19° $\text{Z}$ 42'13	28.81615 AU
max. Earth dist.	-4549 Mar 01 j 20:12	5° $\text{Z}$ 01'48	30.82496 AU	direct	-4543 Dec 03 j 04:47	18° $\text{Z}$ 17'05	
morning rise	-4549 Mar 17 j 02:25	5° $\text{Z}$ 35'50		evening set	-4542 Mar 01 j 00:25	20° $\text{Z}$ 11'27	
retrograde	-4549 Jun 16 j 11:44	7° $\text{Z}$ 34'38					
opposition	-4549 Sep 03 j 22:43	6° $\text{Z}$ 09'22	-2°11'59	conjunction	-4542 Mar 17 j 03:16	20° $\text{Z}$ 47'18	-2°13'38
min. Earth dist.	-4549 Sep 03 j 04:23	6° $\text{Z}$ 10'40	28.82634 AU	minimum elong	-4542 Mar 17 j 03:16	20° $\text{Z}$ 47'18	2°13'47
direct	-4549 Nov 20 j 04:17	4° $\text{Z}$ 45'37		max. Earth dist.	-4542 Mar 17 j 18:26	20° $\text{Z}$ 48'43	30.81448 AU
evening set	-4548 Feb 15 j 12:29	6° $\text{Z}$ 39'31		morning rise	-4542 Apr 02 j 08:12	21° $\text{Z}$ 23'21	
				retrograde	-4542 Jul 02 j 09:34	23° $\text{Z}$ 21'28	
conjunction	-4548 Mar 02 j 13:14	7° $\text{Z}$ 15'16	-2°04'28	opposition	-4542 Sep 19 j 04:25	21° $\text{Z}$ 56'18	-2°23'23
minimum elong	-4548 Mar 02 j 13:14	7° $\text{Z}$ 15'16	2°04'39	min. Earth dist.	-4542 Sep 18 j 14:53	21° $\text{Z}$ 57'16	28.81655 AU
max. Earth dist.	-4548 Mar 03 j 08:16	7° $\text{Z}$ 17'03	30.82439 AU	direct	-4542 Dec 05 j 17:13	20° $\text{Z}$ 32'02	
morning rise	-4548 Mar 18 j 17:04	7° $\text{Z}$ 51'18		evening set	-4541 Mar 03 j 14:36	22° $\text{Z}$ 26'29	
retrograde	-4548 Jun 18 j 01:37	9° $\text{Z}$ 50'03					
opposition	-4548 Sep 05 j 10:08	8° $\text{Z}$ 24'49	-2°14'14	conjunction	-4541 Mar 19 j 17:38	23° $\text{Z}$ 02'21	-2°14'27
min. Earth dist.	-4548 Sep 04 j 16:59	8° $\text{Z}$ 26'02	28.82540 AU	minimum elong	-4541 Mar 19 j 17:38	23° $\text{Z}$ 02'21	2°14'36
direct	-4548 Nov 21 j 15:12	7° $\text{Z}$ 01'00		max. Earth dist.	-4541 Mar 20 j 07:35	23° $\text{Z}$ 03'39	30.81553 AU
evening set	-4547 Feb 17 j 02:26	8° $\text{Z}$ 55'00		morning rise	-4541 Apr 04 j 22:51	23° $\text{Z}$ 38'25	

Attention, astronomical year style is used: The year -4541 in astronomical counting style is the year 4542 BCE in historical counting style.

retrograde	-4541 Jul 04 j 20:57	25° $\approx$ 36'25		min. Earth dist.	-4535 Oct 04 j 00:48	7° $\mathbb{H}$ 43'02	28.84053 AU
opposition	-4541 Sep 21 j 15:18	24° $\approx$ 11'18	-2°24'09	direct	-4535 Dec 21 j 03:14	6° $\mathbb{H}$ 17'58	
min. Earth dist.	-4541 Sep 21 j 03:14	24° $\approx$ 12'09	28.81842 AU	evening set	-4534 Mar 19 j 19:19	8° $\mathbb{H}$ 13'06	
direct	-4541 Dec 08 j 03:06	22° $\approx$ 46'58					
evening set	-4540 Mar 05 j 04:43	24° $\approx$ 41'30		conjunction	-4534 Apr 05 j 00:25	8° $\mathbb{H}$ 49'04	-2°14'23
				minimum elong	-4534 Apr 05 j 00:26	8° $\mathbb{H}$ 49'04	2°14'28
conjunction	-4540 Mar 21 j 08:14	25° $\approx$ 17'23	-2°15'04	max. Earth dist.	-4534 Apr 05 j 07:33	8° $\mathbb{H}$ 49'44	30.83979 AU
minimum elong	-4540 Mar 21 j 08:14	25° $\approx$ 17'23	2°15'12	morning rise	-4534 Apr 21 j 06:33	9° $\mathbb{H}$ 25'09	
max. Earth dist.	-4540 Mar 21 j 22:23	25° $\approx$ 18'43	30.81808 AU	retrograde	-4534 Jul 20 j 13:46	11° $\mathbb{H}$ 22'23	
morning rise	-4540 Apr 06 j 13:30	25° $\approx$ 53'28		opposition	-4534 Oct 06 j 19:10	9° $\mathbb{H}$ 57'44	-2°23'17
retrograde	-4540 Jul 06 j 08:43	27° $\approx$ 51'21		min. Earth dist.	-4534 Oct 06 j 13:41	9° $\mathbb{H}$ 58'07	28.84229 AU
opposition	-4540 Sep 23 j 02:08	26° $\approx$ 26'18	-2°24'41	direct	-4534 Dec 23 j 15:15	8° $\mathbb{H}$ 33'08	
min. Earth dist.	-4540 Sep 22 j 14:02	26° $\approx$ 27'10	28.82149 AU	evening set	-4533 Mar 22 j 09:48	10° $\mathbb{H}$ 28'20	
direct	-4540 Dec 09 j 15:44	25° $\approx$ 01'57					
evening set	-4539 Mar 07 j 19:02	26° $\approx$ 56'35		conjunction	-4533 Apr 07 j 15:15	11° $\mathbb{H}$ 04'19	-2°13'33
				minimum elong	-4533 Apr 07 j 15:16	11° $\mathbb{H}$ 04'19	2°13'38
conjunction	-4539 Mar 23 j 22:40	27° $\approx$ 32'29	-2°15'28	max. Earth dist.	-4533 Apr 07 j 21:21	11° $\mathbb{H}$ 04'53	30.84141 AU
minimum elong	-4539 Mar 23 j 22:40	27° $\approx$ 32'29	2°15'37	morning rise	-4533 Apr 23 j 21:29	11° $\mathbb{H}$ 40'23	
max. Earth dist.	-4539 Mar 24 j 10:58	27° $\approx$ 33'38	30.82171 AU	retrograde	-4533 Jul 23 j 03:40	13° $\mathbb{H}$ 37'27	
morning rise	-4539 Apr 09 j 04:14	28° $\approx$ 08'33		opposition	-4533 Oct 09 j 05:41	12° $\mathbb{H}$ 12'50	-2°22'16
	-4539 Jun 19 j 09:26	0° $\mathbb{H}$		min. Earth dist.	-4533 Oct 09 j 00:18	12° $\mathbb{H}$ 13'13	28.84365 AU
retrograde	-4539 Jul 08 j 21:39	0° $\mathbb{H}$ 06'22		direct	-4533 Dec 26 j 04:41	10° $\mathbb{H}$ 48'09	
	-4539 Jul 28 j 11:49	30° $\mathbb{R}$		evening set	-4532 Mar 24 j 00:24	12° $\mathbb{H}$ 43'24	
opposition	-4539 Sep 25 j 12:58	28° $\approx$ 41'24	-2°25'01				
min. Earth dist.	-4539 Sep 25 j 01:52	28° $\approx$ 42'11	28.82562 AU	conjunction	-4532 Apr 09 j 06:00	13° $\mathbb{H}$ 19'24	-2°12'30
direct	-4539 Dec 12 j 01:40	27° $\approx$ 17'00		minimum elong	-4532 Apr 09 j 06:00	13° $\mathbb{H}$ 19'24	2°12'36
evening set	-4538 Mar 10 j 09:17	29° $\approx$ 11'46		max. Earth dist.	-4532 Apr 09 j 10:32	13° $\mathbb{H}$ 19'50	30.84274 AU
				morning rise	-4532 Apr 25 j 12:23	13° $\mathbb{H}$ 55'29	
conjunction	-4538 Mar 26 j 13:22	29° $\approx$ 47'41	-2°15'40	retrograde	-4532 Jul 24 j 14:49	15° $\mathbb{H}$ 52'23	
minimum elong	-4538 Mar 26 j 13:22	29° $\approx$ 47'41	2°15'48	opposition	-4532 Oct 10 j 16:22	14° $\mathbb{H}$ 27'47	-2°21'04
max. Earth dist.	-4538 Mar 27 j 01:55	29° $\approx$ 48'51	30.82611 AU	min. Earth dist.	-4532 Oct 10 j 12:46	14° $\mathbb{H}$ 28'03	28.84515 AU
	-4538 Apr 01 j 01:22	0° $\mathbb{H}$		direct	-4532 Dec 27 j 15:34	13° $\mathbb{H}$ 03'01	
morning rise	-4538 Apr 11 j 18:53	0° $\mathbb{H}$ 23'45		evening set	-4531 Mar 26 j 14:41	14° $\mathbb{H}$ 58'21	
retrograde	-4538 Jul 11 j 09:26	2° $\mathbb{H}$ 21'27					
opposition	-4538 Sep 27 j 23:46	0° $\mathbb{H}$ 56'35	-2°25'06	conjunction	-4531 Apr 11 j 20:39	15° $\mathbb{H}$ 34'21	-2°11'16
min. Earth dist.	-4538 Sep 27 j 13:36	0° $\mathbb{H}$ 57'18	28.83010 AU	minimum elong	-4531 Apr 11 j 20:39	15° $\mathbb{H}$ 34'21	2°11'21
	-4538 Nov 03 j 06:07	30° $\mathbb{R}$		max. Earth dist.	-4531 Apr 12 j 01:05	15° $\mathbb{H}$ 34'46	30.84449 AU
direct	-4538 Dec 14 j 13:15	29° $\approx$ 32'11		morning rise	-4531 Apr 28 j 02:59	16° $\mathbb{H}$ 10'25	
	-4537 Jan 24 j 08:43	0° $\mathbb{H}$		retrograde	-4531 Jul 27 j 02:17	18° $\mathbb{H}$ 07'09	
evening set	-4537 Mar 12 j 23:42	1° $\mathbb{H}$ 27'03		opposition	-4531 Oct 13 j 02:50	16° $\mathbb{H}$ 42'36	-2°19'38
				min. Earth dist.	-4531 Oct 12 j 23:22	16° $\mathbb{H}$ 42'51	28.84716 AU
conjunction	-4537 Mar 29 j 03:57	2° $\mathbb{H}$ 02'58	-2°15'40	direct	-4531 Dec 30 j 04:37	15° $\mathbb{H}$ 17'46	
minimum elong	-4537 Mar 29 j 03:57	2° $\mathbb{H}$ 02'58	2°15'46	evening set	-4530 Mar 29 j 05:07	17° $\mathbb{H}$ 13'08	
max. Earth dist.	-4537 Mar 29 j 14:25	2° $\mathbb{H}$ 03'57	30.83065 AU				
morning rise	-4537 Apr 14 j 09:49	2° $\mathbb{H}$ 39'03		conjunction	-4530 Apr 14 j 11:08	17° $\mathbb{H}$ 49'09	-2°09'51
retrograde	-4537 Jul 13 j 23:17	4° $\mathbb{H}$ 36'40		minimum elong	-4530 Apr 14 j 11:08	17° $\mathbb{H}$ 49'09	2°09'55
opposition	-4537 Sep 30 j 10:37	3° $\mathbb{H}$ 11'51	-2°24'59	max. Earth dist.	-4530 Apr 14 j 13:41	17° $\mathbb{H}$ 49'24	30.84705 AU
min. Earth dist.	-4537 Sep 30 j 01:09	3° $\mathbb{H}$ 12'32	28.83446 AU	morning rise	-4530 Apr 30 j 17:41	18° $\mathbb{H}$ 25'13	
direct	-4537 Dec 17 j 01:27	1° $\mathbb{H}$ 47'25		retrograde	-4530 Jul 29 j 14:29	20° $\mathbb{H}$ 21'48	
evening set	-4536 Mar 14 j 14:16	3° $\mathbb{H}$ 42'24		opposition	-4530 Oct 15 j 13:18	18° $\mathbb{H}$ 57'17	-2°18'00
				min. Earth dist.	-4530 Oct 15 j 10:47	18° $\mathbb{H}$ 57'28	28.85039 AU
conjunction	-4536 Mar 30 j 18:54	4° $\mathbb{H}$ 18'21	-2°15'26	direct	-4529 Jan 01 j 14:31	17° $\mathbb{H}$ 32'23	
minimum elong	-4536 Mar 30 j 18:54	4° $\mathbb{H}$ 18'21	2°15'32	evening set	-4529 Mar 31 j 19:18	19° $\mathbb{H}$ 27'50	
max. Earth dist.	-4536 Mar 31 j 04:59	4° $\mathbb{H}$ 19'17	30.83457 AU				
morning rise	-4536 Apr 16 j 00:44	4° $\mathbb{H}$ 54'25		conjunction	-4529 Apr 17 j 01:43	20° $\mathbb{H}$ 03'51	-2°08'13
retrograde	-4536 Jul 15 j 11:13	6° $\mathbb{H}$ 51'55		minimum elong	-4529 Apr 17 j 01:44	20° $\mathbb{H}$ 03'51	2°08'15
opposition	-4536 Oct 01 j 21:28	5° $\mathbb{H}$ 27'11	-2°24'38	max. Earth dist.	-4529 Apr 17 j 04:37	20° $\mathbb{H}$ 04'07	30.85093 AU
min. Earth dist.	-4536 Oct 01 j 13:49	5° $\mathbb{H}$ 27'44	28.83793 AU	morning rise	-4529 May 03 j 08:11	20° $\mathbb{H}$ 39'55	
direct	-4536 Dec 18 j 14:11	4° $\mathbb{H}$ 02'43		retrograde	-4529 Aug 01 j 00:50	22° $\mathbb{H}$ 36'21	
evening set	-4535 Mar 17 j 04:54	5° $\mathbb{H}$ 57'47		opposition	-4529 Oct 17 j 23:47	21° $\mathbb{H}$ 11'53	-2°16'09
				min. Earth dist.	-4529 Oct 17 j 21:56	21° $\mathbb{H}$ 12'01	28.85484 AU
conjunction	-4535 Apr 02 j 09:45	6° $\mathbb{H}$ 33'44	-2°15'01	direct	-4528 Jan 04 j 02:17	19° $\mathbb{H}$ 46'56	
minimum elong	-4535 Apr 02 j 09:45	6° $\mathbb{H}$ 33'44	2°15'06	evening set	-4528 Apr 02 j 09:46	21° $\mathbb{H}$ 42'28	
max. Earth dist.	-4535 Apr 02 j 17:53	6° $\mathbb{H}$ 34'30	30.83768 AU				
morning rise	-4535 Apr 18 j 15:48	7° $\mathbb{H}$ 09'49		conjunction	-4528 Apr 18 j 16:13	22° $\mathbb{H}$ 18'29	-2°06'23
retrograde	-4535 Jul 18 j 01:22	9° $\mathbb{H}$ 07'11		minimum elong	-4528 Apr 18 j 16:13	22° $\mathbb{H}$ 18'29	2°06'26
opposition	-4535 Oct 04 j 08:17	7° $\mathbb{H}$ 42'30	-2°24'04	max. Earth dist.	-4528 Apr 18 j 17:13	22° $\mathbb{H}$ 18'35	30.85623 AU

Attention, astronomical year style is used: The year -4528 in astronomical counting style is the year 4529 BCE in historical counting style.

morning rise	-4528 May 04 j 22:52	22° $\mathbf{H}$ 54'33	direct	-4521 Jan 19 j 18:02	5° $\mathbf{V}$ 29'21	
retrograde	-4528 Aug 02 j 12:59	24° $\mathbf{H}$ 50'50	evening set	-4521 Apr 19 j 14:31	7° $\mathbf{V}$ 25'22	
opposition	-4528 Oct 19 j 10:09	23° $\mathbf{H}$ 26'27	-2°14'06			
min. Earth dist.	-4528 Oct 19 j 08:35	23° $\mathbf{H}$ 26'34	28.86088 AU	conjunction	-4521 May 05 j 21:59	8° $\mathbf{V}$ 01'27 -1°48'25
direct	-4527 Jan 05 j 14:15	22° $\mathbf{H}$ 01'28		minimum elong	-4521 May 05 j 21:59	8° $\mathbf{V}$ 01'27 1°48'23
evening set	-4527 Apr 05 j 00:02	23° $\mathbf{H}$ 57'05		max. Earth dist.	-4521 May 05 j 15:18	8° $\mathbf{V}$ 00'50 30.90871 AU
				morning rise	-4521 May 22 j 04:30	8° $\mathbf{V}$ 37'27
conjunction	-4527 Apr 21 j 06:49	24° $\mathbf{H}$ 33'07	-2°04'22	retrograde	-4521 Aug 19 j 02:47	10° $\mathbf{V}$ 32'42
minimum elong	-4527 Apr 21 j 06:49	24° $\mathbf{H}$ 33'07	2°04'24	opposition	-4521 Nov 04 j 11:24	9° $\mathbf{V}$ 08'52 -1°54'12
max. Earth dist.	-4527 Apr 21 j 08:04	24° $\mathbf{H}$ 33'14	30.86296 AU	min. Earth dist.	-4521 Nov 04 j 17:01	9° $\mathbf{V}$ 08'28 28.91264 AU
morning rise	-4527 May 07 j 13:20	25° $\mathbf{H}$ 09'10		direct	-4520 Jan 22 j 05:01	7° $\mathbf{V}$ 43'42
retrograde	-4527 Aug 04 j 23:52	27° $\mathbf{H}$ 05'20		evening set	-4520 Apr 21 j 04:47	9° $\mathbf{V}$ 39'45
opposition	-4527 Oct 21 j 20:41	25° $\mathbf{H}$ 41'02	-2°11'50			
min. Earth dist.	-4527 Oct 21 j 20:28	25° $\mathbf{H}$ 41'03	28.86818 AU	conjunction	-4520 May 07 j 12:29	10° $\mathbf{V}$ 15'49 -1°45'10
direct	-4526 Jan 08 j 02:14	24° $\mathbf{H}$ 16'03		minimum elong	-4520 May 07 j 12:30	10° $\mathbf{V}$ 15'49 1°45'08
evening set	-4526 Apr 07 j 14:15	26° $\mathbf{H}$ 11'45		max. Earth dist.	-4520 May 07 j 05:43	10° $\mathbf{V}$ 15'12 30.91430 AU
				morning rise	-4520 May 23 j 18:46	10° $\mathbf{V}$ 51'49
conjunction	-4526 Apr 23 j 21:08	26° $\mathbf{H}$ 47'47	-2°02'10	retrograde	-4520 Aug 20 j 12:14	12° $\mathbf{V}$ 46'52
minimum elong	-4526 Apr 23 j 21:08	26° $\mathbf{H}$ 47'47	2°02'12	opposition	-4520 Nov 05 j 21:44	11° $\mathbf{V}$ 23'05 -1°50'38
max. Earth dist.	-4526 Apr 23 j 20:50	26° $\mathbf{H}$ 47'46	30.87095 AU	min. Earth dist.	-4520 Nov 06 j 04:24	11° $\mathbf{V}$ 22'36 28.91799 AU
morning rise	-4526 May 10 j 03:49	27° $\mathbf{H}$ 23'51		direct	-4519 Jan 23 j 17:51	9° $\mathbf{V}$ 57'51
retrograde	-4526 Aug 07 j 13:18	29° $\mathbf{H}$ 19'53		evening set	-4519 Apr 23 j 19:05	11° $\mathbf{V}$ 53'54
opposition	-4526 Oct 24 j 07:03	27° $\mathbf{H}$ 55'41	-2°09'22			
min. Earth dist.	-4526 Oct 24 j 06:47	27° $\mathbf{H}$ 55'42	28.87647 AU	conjunction	-4519 May 10 j 02:39	12° $\mathbf{V}$ 29'58 -1°41'46
direct	-4525 Jan 10 j 14:35	26° $\mathbf{H}$ 30'41		minimum elong	-4519 May 10 j 02:40	12° $\mathbf{V}$ 29'58 1°41'43
evening set	-4525 Apr 10 j 04:42	28° $\mathbf{H}$ 26'29		max. Earth dist.	-4519 May 09 j 17:47	12° $\mathbf{V}$ 29'09 30.91983 AU
				morning rise	-4519 May 26 j 09:00	13° $\mathbf{V}$ 05'57
conjunction	-4525 Apr 26 j 11:46	29° $\mathbf{H}$ 02'32	-1°59'46	retrograde	-4519 Aug 22 j 23:27	15° $\mathbf{V}$ 00'49
minimum elong	-4525 Apr 26 j 11:46	29° $\mathbf{H}$ 02'32	1°59'47	opposition	-4519 Nov 08 j 08:04	13° $\mathbf{V}$ 37'04 -1°46'55
max. Earth dist.	-4525 Apr 26 j 10:48	29° $\mathbf{H}$ 02'27	30.87942 AU	min. Earth dist.	-4519 Nov 08 j 15:08	13° $\mathbf{V}$ 36'34 28.92368 AU
morning rise	-4525 May 12 j 18:22	29° $\mathbf{H}$ 38'35		direct	-4518 Jan 26 j 05:27	12° $\mathbf{V}$ 11'45
	-4525 May 22 j 19:45	0° $\mathbf{V}$		evening set	-4518 Apr 26 j 08:58	14° $\mathbf{V}$ 07'50
retrograde	-4525 Aug 10 j 01:26	1° $\mathbf{V}$ 34'29				
opposition	-4525 Oct 26 j 17:30	0° $\mathbf{V}$ 10'24	-2°06'42	conjunction	-4518 May 12 j 16:45	14° $\mathbf{V}$ 43'54 -1°38'13
min. Earth dist.	-4525 Oct 26 j 19:13	0° $\mathbf{V}$ 10'16	28.88498 AU	minimum elong	-4518 May 12 j 16:45	14° $\mathbf{V}$ 43'54 1°38'10
	-4525 Nov 01 j 19:49	30° $\mathbf{R}$ $\mathbf{H}$		max. Earth dist.	-4518 May 12 j 08:10	14° $\mathbf{V}$ 43'06 30.92577 AU
direct	-4524 Jan 13 j 02:58	28° $\mathbf{H}$ 45'24		morning rise	-4518 May 28 j 22:50	15° $\mathbf{V}$ 19'51
	-4524 Mar 22 j 19:41	0° $\mathbf{V}$		retrograde	-4518 Aug 25 j 09:11	17° $\mathbf{V}$ 14'33
evening set	-4524 Apr 11 j 19:13	0° $\mathbf{V}$ 41'17		opposition	-4518 Nov 10 j 18:27	15° $\mathbf{V}$ 50'50 -1°43'03
				min. Earth dist.	-4518 Nov 11 j 02:57	15° $\mathbf{V}$ 50'14 28.92992 AU
conjunction	-4524 Apr 28 j 02:27	1° $\mathbf{V}$ 17'21	-1°57'11	direct	-4517 Jan 28 j 17:12	14° $\mathbf{V}$ 25'28
minimum elong	-4524 Apr 28 j 02:27	1° $\mathbf{V}$ 17'21	1°57'12	evening set	-4517 Apr 28 j 23:03	16° $\mathbf{V}$ 21'35
max. Earth dist.	-4524 Apr 28 j 00:12	1° $\mathbf{V}$ 17'08	30.88790 AU			
morning rise	-4524 May 14 j 09:03	1° $\mathbf{V}$ 53'23		conjunction	-4517 May 15 j 06:44	16° $\mathbf{V}$ 57'38 -1°34'31
retrograde	-4524 Aug 11 j 14:56	3° $\mathbf{V}$ 49'09		minimum elong	-4517 May 15 j 06:44	16° $\mathbf{V}$ 57'38 1°34'27
opposition	-4524 Oct 28 j 03:57	2° $\mathbf{V}$ 25'08	-2°03'51	max. Earth dist.	-4517 May 14 j 20:34	16° $\mathbf{V}$ 56'41 30.93262 AU
min. Earth dist.	-4524 Oct 28 j 05:50	2° $\mathbf{V}$ 25'00	28.89308 AU	morning rise	-4517 May 31 j 12:50	17° $\mathbf{V}$ 33'35
direct	-4523 Jan 14 j 17:06	1° $\mathbf{V}$ 00'07		retrograde	-4517 Aug 27 j 21:04	19° $\mathbf{V}$ 28'06
evening set	-4523 Apr 14 j 09:41	2° $\mathbf{V}$ 56'04		opposition	-4517 Nov 13 j 04:35	18° $\mathbf{V}$ 04'26 -1°39'02
				min. Earth dist.	-4517 Nov 13 j 12:47	18° $\mathbf{V}$ 03'51 28.93729 AU
conjunction	-4523 Apr 30 j 16:56	3° $\mathbf{V}$ 32'09	-1°54'26	direct	-4516 Jan 31 j 05:36	16° $\mathbf{V}$ 39'01
minimum elong	-4523 Apr 30 j 16:57	3° $\mathbf{V}$ 32'09	1°54'25	evening set	-4516 Apr 30 j 13:02	18° $\mathbf{V}$ 35'11
max. Earth dist.	-4523 Apr 30 j 13:07	3° $\mathbf{V}$ 31'47	30.89561 AU			
morning rise	-4523 May 16 j 23:30	4° $\mathbf{V}$ 08'10		conjunction	-4516 May 16 j 20:46	19° $\mathbf{V}$ 11'14 -1°30'41
retrograde	-4523 Aug 14 j 02:27	6° $\mathbf{V}$ 03'47		minimum elong	-4516 May 16 j 20:46	19° $\mathbf{V}$ 11'14 1°30'38
opposition	-4523 Oct 30 j 14:33	4° $\mathbf{V}$ 39'51	-2°00'48	max. Earth dist.	-4516 May 16 j 10:26	19° $\mathbf{V}$ 10'16 30.94061 AU
min. Earth dist.	-4523 Oct 30 j 18:22	4° $\mathbf{V}$ 39'35	28.90042 AU	morning rise	-4516 Jun 02 j 02:35	19° $\mathbf{V}$ 47'09
direct	-4522 Jan 17 j 04:28	3° $\mathbf{V}$ 14'48		retrograde	-4516 Aug 29 j 07:46	21° $\mathbf{V}$ 41'32
evening set	-4522 Apr 17 j 00:03	5° $\mathbf{V}$ 10'48		opposition	-4516 Nov 14 j 15:02	20° $\mathbf{V}$ 17'56 -1°34'51
				min. Earth dist.	-4516 Nov 15 j 00:42	20° $\mathbf{V}$ 17'15 28.94597 AU
conjunction	-4522 May 03 j 07:32	5° $\mathbf{V}$ 46'52	-1°51'30	direct	-4515 Feb 01 j 18:03	18° $\mathbf{V}$ 52'31
minimum elong	-4522 May 03 j 07:33	5° $\mathbf{V}$ 46'52	1°51'30	evening set	-4515 May 03 j 02:49	20° $\mathbf{V}$ 48'43
max. Earth dist.	-4522 May 03 j 03:07	5° $\mathbf{V}$ 46'27	30.90259 AU			
morning rise	-4522 May 19 j 13:59	6° $\mathbf{V}$ 22'53		conjunction	-4515 May 19 j 10:28	21° $\mathbf{V}$ 24'45 -1°26'43
retrograde	-4522 Aug 16 j 14:42	8° $\mathbf{V}$ 18'19		minimum elong	-4515 May 19 j 10:29	21° $\mathbf{V}$ 24'45 1°26'38
opposition	-4522 Nov 02 j 00:55	6° $\mathbf{V}$ 54'27	-1°57'35	max. Earth dist.	-4515 May 18 j 23:21	21° $\mathbf{V}$ 23'43 30.95013 AU
min. Earth dist.	-4522 Nov 02 j 05:16	6° $\mathbf{V}$ 54'08	28.90683 AU	morning rise	-4515 Jun 04 j 16:09	22° $\mathbf{V}$ 00'39

Attention, astronomical year style is used: The year -4515 in astronomical counting style is the year 4516 BCE in historical counting style.

retrograde	-4515 Aug 31 j 20:06	23° $\Upsilon$ 54'54		evening set	-4508 May 19 j 04:00	6° $\mathcal{B}$ 24'37	
opposition	-4515 Nov 17 j 01:17	22° $\Upsilon$ 31'24	-1°30'32				
min. Earth dist.	-4515 Nov 17 j 10:31	22° $\Upsilon$ 30'44	28.95605 AU	conjunction	-4508 Jun 04 j 10:39	7° $\mathcal{B}$ 00'36	-0°55'38
direct	-4514 Feb 04 j 07:54	21° $\Upsilon$ 05'59		minimum elong	-4508 Jun 04 j 10:39	7° $\mathcal{B}$ 00'36	0°55'31
evening set	-4514 May 05 j 16:42	23° $\Upsilon$ 02'15		max. Earth dist.	-4508 Jun 03 j 16:31	6° $\mathcal{B}$ 58'55	31.02345 AU
				morning rise	-4508 Jun 20 j 14:32	7° $\mathcal{B}$ 36'21	
conjunction	-4514 May 22 j 00:16	23° $\Upsilon$ 38'18	-1°22'36	retrograde	-4508 Sep 16 j 01:30	9° $\mathcal{B}$ 29'43	
minimum elong	-4514 May 22 j 00:16	23° $\Upsilon$ 38'18	1°22'33	opposition	-4508 Dec 02 j 02:20	8° $\mathcal{B}$ 06'53	-0°56'56
max. Earth dist.	-4514 May 21 j 12:18	23° $\Upsilon$ 37'11	30.96087 AU	min. Earth dist.	-4508 Dec 02 j 17:42	8° $\mathcal{B}$ 05'48	29.02764 AU
morning rise	-4514 Jun 07 j 05:45	24° $\Upsilon$ 14'11		direct	-4507 Feb 19 j 19:27	6° $\mathcal{B}$ 41'30	
retrograde	-4514 Sep 03 j 07:26	26° $\Upsilon$ 08'19		evening set	-4507 May 21 j 17:28	8° $\mathcal{B}$ 38'04	
opposition	-4514 Nov 19 j 11:34	24° $\Upsilon$ 44'55	-1°26'05				
min. Earth dist.	-4514 Nov 19 j 22:19	24° $\Upsilon$ 44'09	28.96732 AU	conjunction	-4507 Jun 06 j 23:58	9° $\mathcal{B}$ 14'02	-0°50'49
direct	-4513 Feb 06 j 18:53	23° $\Upsilon$ 19'32		minimum elong	-4507 Jun 06 j 23:58	9° $\mathcal{B}$ 14'02	0°50'41
evening set	-4513 May 08 j 06:34	25° $\Upsilon$ 15'53		max. Earth dist.	-4507 Jun 06 j 05:37	9° $\mathcal{B}$ 12'19	31.03090 AU
				morning rise	-4507 Jun 23 j 03:22	9° $\mathcal{B}$ 49'45	
conjunction	-4513 May 24 j 14:09	25° $\Upsilon$ 51'55	-1°18'23	retrograde	-4507 Sep 18 j 10:58	11° $\mathcal{B}$ 42'59	
minimum elong	-4513 May 24 j 14:10	25° $\Upsilon$ 51'55	1°18'17	opposition	-4507 Dec 04 j 12:54	10° $\mathcal{B}$ 20'10	-0°51'45
max. Earth dist.	-4513 May 24 j 02:00	25° $\Upsilon$ 50'47	30.97257 AU	min. Earth dist.	-4507 Dec 05 j 05:58	10° $\mathcal{B}$ 18'58	29.03491 AU
morning rise	-4513 Jun 09 j 19:24	26° $\Upsilon$ 27'47		direct	-4506 Feb 22 j 08:09	8° $\mathcal{B}$ 54'44	
retrograde	-4513 Sep 05 j 19:47	28° $\Upsilon$ 21'47		evening set	-4506 May 24 j 06:58	10° $\mathcal{B}$ 51'18	
opposition	-4513 Nov 21 j 21:53	26° $\Upsilon$ 58'32	-1°21'30				
min. Earth dist.	-4513 Nov 22 j 08:55	26° $\Upsilon$ 57'45	28.97901 AU	conjunction	-4506 Jun 09 j 13:09	11° $\mathcal{B}$ 27'14	-0°45'56
direct	-4512 Feb 09 j 08:32	25° $\Upsilon$ 33'11		minimum elong	-4506 Jun 09 j 13:10	11° $\mathcal{B}$ 27'14	0°45'49
evening set	-4512 May 09 j 20:35	27° $\Upsilon$ 29'36		max. Earth dist.	-4506 Jun 08 j 17:49	11° $\mathcal{B}$ 25'26	31.03819 AU
				morning rise	-4506 Jun 25 j 16:18	12° $\mathcal{B}$ 02'56	
conjunction	-4512 May 26 j 03:54	28° $\Upsilon$ 05'38	-1°14'02	retrograde	-4506 Sep 20 j 22:06	13° $\mathcal{B}$ 56'00	
minimum elong	-4512 May 26 j 03:54	28° $\Upsilon$ 05'38	1°13'57	opposition	-4506 Dec 06 j 23:10	12° $\mathcal{B}$ 33'12	-0°46'30
max. Earth dist.	-4512 May 25 j 13:56	28° $\Upsilon$ 04'20	30.98428 AU	min. Earth dist.	-4506 Dec 07 j 15:58	12° $\mathcal{B}$ 32'02	29.04213 AU
morning rise	-4512 Jun 11 j 08:57	28° $\Upsilon$ 41'29		direct	-4505 Feb 24 j 21:50	11° $\mathcal{B}$ 07'44	
	-4512 Jul 23 j 02:45	0° $\mathcal{B}$		evening set	-4505 May 26 j 20:24	13° $\mathcal{B}$ 04'18	
retrograde	-4512 Sep 07 j 08:01	0° $\mathcal{B}$ 35'23		max. Earth dist.	-4505 Jun 11 j 06:14	13° $\mathcal{B}$ 38'21	31.04554 AU
	-4512 Oct 24 j 07:49	30° $\mathcal{R}\Upsilon$					
opposition	-4512 Nov 23 j 08:19	29° $\Upsilon$ 12'14	-1°16'47	conjunction	-4505 Jun 12 j 02:18	13° $\mathcal{B}$ 40'12	-0°41'00
min. Earth dist.	-4512 Nov 23 j 20:26	29° $\Upsilon$ 11'23	28.99062 AU	minimum elong	-4505 Jun 12 j 02:18	13° $\mathcal{B}$ 40'12	0°40'51
direct	-4511 Feb 10 j 19:32	27° $\Upsilon$ 46'55		morning rise	-4505 Jun 28 j 05:01	14° $\mathcal{B}$ 15'52	
evening set	-4511 May 12 j 10:26	29° $\Upsilon$ 43'24			-4505 Jul 19 j 16:46	15° $\mathcal{B}$	
	-4511 May 20 j 00:16	0° $\mathcal{B}$		retrograde	-4505 Sep 23 j 08:48	16° $\mathcal{B}$ 08'48	
					-4505 Dec 01 j 01:54	15° $\mathcal{R}\mathcal{B}$	
conjunction	-4511 May 28 j 17:46	0° $\mathcal{B}$ 19'26	-1°09'35	opposition	-4505 Dec 09 j 09:42	14° $\mathcal{B}$ 46'02	-0°41'11
minimum elong	-4511 May 28 j 17:46	0° $\mathcal{B}$ 19'26	1°09'28	min. Earth dist.	-4505 Dec 10 j 03:47	14° $\mathcal{B}$ 44'46	29.04984 AU
max. Earth dist.	-4511 May 28 j 03:46	0° $\mathcal{B}$ 18'08	30.99559 AU	direct	-4504 Feb 27 j 09:26	13° $\mathcal{B}$ 20'31	
morning rise	-4511 Jun 13 j 22:24	0° $\mathcal{B}$ 55'15			-4504 May 20 j 09:17	15° $\mathcal{B}$	
retrograde	-4511 Sep 09 j 17:40	2° $\mathcal{B}$ 49'02		evening set	-4504 May 28 j 09:35	15° $\mathcal{B}$ 17'05	
opposition	-4511 Nov 25 j 18:51	1° $\mathcal{B}$ 26'00	-1°11'58				
min. Earth dist.	-4511 Nov 26 j 08:02	1° $\mathcal{B}$ 25'04	29.00141 AU	conjunction	-4504 Jun 13 j 15:12	15° $\mathcal{B}$ 52'58	-0°36'00
direct	-4510 Feb 13 j 08:26	0° $\mathcal{B}$ 00'42		minimum elong	-4504 Jun 13 j 15:13	15° $\mathcal{B}$ 52'58	0°35'52
evening set	-4510 May 15 j 00:18	1° $\mathcal{B}$ 57'13		max. Earth dist.	-4504 Jun 12 j 19:17	15° $\mathcal{B}$ 51'07	31.05365 AU
				morning rise	-4504 Jun 29 j 17:28	16° $\mathcal{B}$ 28'34	
conjunction	-4510 May 31 j 07:19	2° $\mathcal{B}$ 33'14	-1°05'01	retrograde	-4504 Sep 24 j 20:14	18° $\mathcal{B}$ 21'23	
minimum elong	-4510 May 31 j 07:20	2° $\mathcal{B}$ 33'14	1°04'55	opposition	-4504 Dec 10 j 20:10	16° $\mathcal{B}$ 58'39	-0°35'49
max. Earth dist.	-4510 May 30 j 15:06	2° $\mathcal{B}$ 31'43	31.00597 AU	min. Earth dist.	-4504 Dec 11 j 14:05	16° $\mathcal{B}$ 57'24	29.05833 AU
morning rise	-4510 Jun 16 j 11:52	3° $\mathcal{B}$ 09'02		direct	-4503 Mar 01 j 00:11	15° $\mathcal{B}$ 33'07	
retrograde	-4510 Sep 12 j 04:55	5° $\mathcal{B}$ 02'42		evening set	-4503 May 30 j 22:49	17° $\mathcal{B}$ 29'42	
opposition	-4510 Nov 28 j 05:20	3° $\mathcal{B}$ 39'44	-1°07'03	max. Earth dist.	-4503 Jun 15 j 06:54	18° $\mathcal{B}$ 03'35	31.06275 AU
min. Earth dist.	-4510 Nov 28 j 19:03	3° $\mathcal{B}$ 38'46	29.01124 AU				
direct	-4509 Feb 15 j 19:44	2° $\mathcal{B}$ 14'25		conjunction	-4503 Jun 16 j 03:59	18° $\mathcal{B}$ 05'32	-0°30'57
evening set	-4509 May 17 j 14:08	4° $\mathcal{B}$ 10'58		minimum elong	-4503 Jun 16 j 03:59	18° $\mathcal{B}$ 05'32	0°30'48
				morning rise	-4503 Jul 02 j 05:52	18° $\mathcal{B}$ 41'07	
conjunction	-4509 Jun 02 j 21:07	4° $\mathcal{B}$ 46'59	-1°00'22	retrograde	-4503 Sep 27 j 07:38	20° $\mathcal{B}$ 33'49	
minimum elong	-4509 Jun 02 j 21:08	4° $\mathcal{B}$ 46'59	1°00'14	opposition	-4503 Dec 13 j 06:38	19° $\mathcal{B}$ 11'08	-0°30'24
max. Earth dist.	-4509 Jun 02 j 04:52	4° $\mathcal{B}$ 45'28	31.01519 AU	min. Earth dist.	-4503 Dec 14 j 00:57	19° $\mathcal{B}$ 09'51	29.06813 AU
morning rise	-4509 Jun 19 j 01:11	5° $\mathcal{B}$ 22'46		direct	-4502 Mar 03 j 12:03	17° $\mathcal{B}$ 45'36	
retrograde	-4509 Sep 14 j 14:34	7° $\mathcal{B}$ 16'17		evening set	-4502 Jun 02 j 11:43	19° $\mathcal{B}$ 42'12	
opposition	-4509 Nov 30 j 15:51	5° $\mathcal{B}$ 53'23	-1°02'02				
min. Earth dist.	-4509 Dec 01 j 07:19	5° $\mathcal{B}$ 52'18	29.01984 AU	conjunction	-4502 Jun 18 j 16:42	20° $\mathcal{B}$ 18'01	-0°25'52
direct	-4508 Feb 18 j 06:59	4° $\mathcal{B}$ 28'03		minimum elong	-4502 Jun 18 j 16:42	20° $\mathcal{B}$ 18'01	0°25'43

Attention, astronomical year style is used: The year -4502 in astronomical counting style is the year 4503 BCE in historical counting style.

max. Earth dist.	-4502 Jun 17 j 20:18	20°8'16"07	31.07312 AU	direct	-4496 Mar 16 j 12:19	1°II00'24	
morning rise	-4502 Jul 04 j 18:03	20°8'53"33		evening set	-4496 Jun 15 j 17:30	2°II57'09	
retrograde	-4502 Sep 29 j 17:01	22°8'46"09					
opposition	-4502 Dec 15 j 17:11	21°8'23"33	-0°24'56	conjunction	-4496 Jul 01 j 19:35	3°II32'46	0°05'18
min. Earth dist.	-4502 Dec 16 j 12:02	21°8'22"14	29.07884 AU	minimum elong	-4496 Jul 01 j 19:35	3°II32'46	0°05'28
direct	-4501 Mar 06 j 01:06	19°8'58"03		behind sun begin	-4496 Jul 01 j 13:17	3°II32'13	
evening set	-4501 Jun 05 j 00:54	21°8'54"40		behind sun end	-4496 Jul 02 j 01:53	3°II33'20	
max. Earth dist.	-4501 Jun 20 j 07:22	22°8'28"26	31.08430 AU	max. Earth dist.	-4496 Jun 30 j 19:03	3°II30'30	31.13461 AU
				morning rise	-4496 Jul 17 j 17:50	4°II08'06	
conjunction	-4501 Jun 21 j 05:19	22°8'30"28	-0°20'44	retrograde	-4496 Oct 12 j 07:23	6°II00'16	
minimum elong	-4501 Jun 21 j 05:19	22°8'30"28	0°20'34	opposition	-4496 Dec 28 j 09:33	4°II38'06	0°08'18
morning rise	-4501 Jul 07 j 06:20	23°8'05"58		min. Earth dist.	-4496 Dec 29 j 08:06	4°II36'32	29.13854 AU
retrograde	-4501 Oct 02 j 04:24	24°8'58"28		direct	-4495 Mar 18 j 23:52	3°II12'42	
opposition	-4501 Dec 18 j 03:39	23°8'35"58	-0°19'26	evening set	-4495 Jun 18 j 06:09	5°II09'27	
min. Earth dist.	-4501 Dec 18 j 22:29	23°8'34"39	29.09030 AU	max. Earth dist.	-4495 Jul 03 j 07:14	5°II42'45	31.14161 AU
direct	-4500 Mar 07 j 12:30	22°8'10"30					
evening set	-4500 Jun 06 j 13:52	24°8'07"09		conjunction	-4495 Jul 04 j 07:46	5°II45'02	0°10'27
				minimum elong	-4495 Jul 04 j 07:46	5°II45'02	0°10'39
conjunction	-4500 Jun 22 j 18:01	24°8'42"56	-0°15'35	behind sun begin	-4495 Jul 04 j 02:45	5°II44'35	
minimum elong	-4500 Jun 22 j 18:01	24°8'42"56	0°15'25	behind sun end	-4495 Jul 04 j 12:47	5°II45'29	
behind sun begin	-4500 Jun 22 j 16:25	24°8'42"47		morning rise	-4495 Jul 20 j 05:26	6°II20'18	
behind sun end	-4500 Jun 22 j 19:37	24°8'43"04		retrograde	-4495 Oct 14 j 18:28	8°II12'24	
max. Earth dist.	-4500 Jun 21 j 20:43	24°8'40"57	31.09582 AU	opposition	-4495 Dec 30 j 20:18	6°II50'15	0°13'50
morning rise	-4500 Jul 08 j 18:22	25°8'18"24		min. Earth dist.	-4495 Dec 31 j 18:53	6°II48'41	29.14505 AU
retrograde	-4500 Oct 03 j 13:55	27°8'10"50		direct	-4494 Mar 21 j 14:33	5°II24'51	
opposition	-4500 Dec 19 j 14:25	25°8'48"26	-0°13'54	evening set	-4494 Jun 20 j 18:42	7°II21'35	
min. Earth dist.	-4500 Dec 20 j 10:36	25°8'47"01	29.10173 AU				
direct	-4499 Mar 09 j 23:48	24°8'23"00		conjunction	-4494 Jul 06 j 19:42	7°II57'07	0°15'36
evening set	-4499 Jun 09 j 02:47	26°8'19"41		minimum elong	-4494 Jul 06 j 19:42	7°II57'07	0°15'47
max. Earth dist.	-4499 Jun 24 j 07:37	26°8'53"18	31.10708 AU	behind sun begin	-4494 Jul 06 j 18:50	7°II57'03	
				behind sun end	-4494 Jul 06 j 20:35	7°II57'12	
conjunction	-4499 Jun 25 j 06:20	26°8'55"25	-0°10'25	max. Earth dist.	-4494 Jul 05 j 17:59	7°II54'44	31.14781 AU
minimum elong	-4499 Jun 25 j 06:19	26°8'55"25	0°10'13	morning rise	-4494 Jul 22 j 16:53	8°II32'21	
behind sun begin	-4499 Jun 25 j 01:09	26°8'54"57		retrograde	-4494 Oct 17 j 05:39	10°II24'22	
behind sun end	-4499 Jun 25 j 11:30	26°8'55"53		opposition	-4493 Jan 02 j 07:06	9°II02'14	0°19'20
morning rise	-4499 Jul 11 j 06:20	27°8'30"51		min. Earth dist.	-4493 Jan 03 j 06:09	9°II00'38	29.15114 AU
retrograde	-4499 Oct 06 j 00:35	29°8'23"14		direct	-4493 Mar 24 j 02:50	7°II36'48	
opposition	-4499 Dec 22 j 01:05	28°8'00"54	-0°08'21	evening set	-4493 Jun 23 j 07:03	9°II33'31	
min. Earth dist.	-4499 Dec 22 j 20:54	27°8'59"31	29.11264 AU	max. Earth dist.	-4493 Jul 08 j 06:38	10°II06'42	31.15376 AU
direct	-4498 Mar 12 j 11:54	26°8'35"30					
evening set	-4498 Jun 11 j 15:43	28°8'32"13		conjunction	-4493 Jul 09 j 07:36	10°II09'01	0°20'43
				minimum elong	-4493 Jul 09 j 07:36	10°II09'01	0°20'56
conjunction	-4498 Jun 27 j 18:53	29°8'07"55	-0°05'14	morning rise	-4493 Jul 25 j 04:03	10°II44'12	
minimum elong	-4498 Jun 27 j 18:54	29°8'07"55	0°05'04	retrograde	-4493 Oct 19 j 14:40	12°II36'09	
behind sun begin	-4498 Jun 27 j 12:32	29°8'07"21		opposition	-4492 Jan 04 j 17:58	11°II14'01	0°24'47
behind sun end	-4498 Jun 28 j 01:15	29°8'08"29		min. Earth dist.	-4492 Jan 05 j 17:26	11°II12'24	29.15711 AU
max. Earth dist.	-4498 Jun 26 j 20:08	29°8'05"49	31.11742 AU	direct	-4492 Mar 25 j 16:22	9°II48'35	
morning rise	-4498 Jul 13 j 18:14	29°8'43"19		evening set	-4492 Jun 24 j 19:24	11°II45'17	
	-4498 Jul 21 j 13:20	0°II					
retrograde	-4498 Oct 08 j 09:52	1°II35'38		conjunction	-4492 Jul 10 j 19:11	12°II20'44	0°25'48
opposition	-4498 Dec 24 j 11:50	0°II13'22	-0°02'48	minimum elong	-4492 Jul 10 j 19:11	12°II20'44	0°26'00
min. Earth dist.	-4498 Dec 25 j 09:19	0°II11'53	29.12249 AU	max. Earth dist.	-4492 Jul 09 j 17:04	12°II18'18	31.15998 AU
	-4497 Jan 01 j 12:20	30°8'8		morning rise	-4492 Jul 26 j 15:10	12°II55'52	
direct	-4497 Mar 14 j 23:23	28°8'47"59		retrograde	-4492 Oct 21 j 01:49	14°II47'45	
	-4497 May 23 j 09:17	0°II		opposition	-4491 Jan 06 j 04:50	13°II25'38	0°30'13
evening set	-4497 Jun 14 j 04:42	0°II44'43		min. Earth dist.	-4491 Jan 07 j 03:44	13°II24'03	29.16380 AU
asc. node	-4497 Jun 28 j 04:02	1°II15'37		direct	-4491 Mar 28 j 04:39	12°II00'11	
max. Earth dist.	-4497 Jun 29 j 07:30	1°II18'11	31.12670 AU	evening set	-4491 Jun 27 j 07:17	13°II56'52	
				max. Earth dist.	-4491 Jul 12 j 05:45	14°II29'58	31.16703 AU
conjunction	-4497 Jun 30 j 07:20	1°II20'23	0°00'02				
minimum elong	-4497 Jun 30 j 07:20	1°II20'23	0°00'14	conjunction	-4491 Jul 13 j 06:38	14°II32'17	0°30'51
behind sun begin	-4497 Jun 30 j 00:51	1°II19'49		minimum elong	-4491 Jul 13 j 06:38	14°II32'17	0°31'04
behind sun end	-4497 Jun 30 j 13:48	1°II20'58		morning rise	-4491 Jul 29 j 01:50	15°II07'22	
morning rise	-4497 Jul 16 j 06:12	1°II55'45		retrograde	-4491 Oct 23 j 10:52	16°II59'12	
retrograde	-4497 Oct 10 j 20:50	3°II47'59		opposition	-4490 Jan 08 j 15:49	15°II37'08	0°35'35
opposition	-4497 Dec 26 j 22:38	2°II25'47	0°02'46	min. Earth dist.	-4490 Jan 09 j 15:29	15°II35'29	29.17140 AU
min. Earth dist.	-4497 Dec 27 j 19:50	2°II24'19	29.13107 AU	direct	-4490 Mar 30 j 16:40	14°II11'41	



Attention, astronomical year style is used: The year -4490 in astronomical counting style is the year 4491 BCE in historical counting style.

evening set	-4490 Jun	29 j 19:24	16°II08'22			-4484 Jul	31 j 20:04	0°☾	
					morning rise	-4484 Aug	13 j 03:34	0°☾27'21	
conjunction	-4490 Jul	15 j 17:59	16°II43'44	0°35'51	retrograde	-4484 Nov	07 j 10:01	2°☾19'10	
minimum elong	-4490 Jul	15 j 17:58	16°II43'44	0°36'03	opposition	-4483 Jan	23 j 21:44	0°☾57'24	1°11'18
max. Earth dist.	-4490 Jul	14 j 16:21	16°II41'21	31.17524 AU	min. Earth dist.	-4483 Jan	24 j 21:46	0°☾55'45	29.23377 AU
morning rise	-4490 Jul	31 j 12:42	17°II18'46			-4483 Mar	03 j 03:37	30°☾II	
retrograde	-4490 Oct	25 j 20:27	19°II10'34		direct	-4483 Apr	15 j 04:11	29°II32'15	
opposition	-4489 Jan	11 j 02:31	17°II48'33	0°40'54		-4483 May	27 j 04:01	0°☾	
min. Earth dist.	-4489 Jan	12 j 01:07	17°II46'59	29.18016 AU	evening set	-4483 Jul	15 j 05:48	1°☾28'56	
direct	-4489 Apr	02 j 04:35	16°II23'08						
evening set	-4489 Jul	02 j 07:20	18°II19'50		conjunction	-4483 Jul	30 j 23:40	2°☾03'57	1°09'00
max. Earth dist.	-4489 Jul	17 j 04:31	18°II52'50	31.18444 AU	minimum elong	-4483 Jul	30 j 23:40	2°☾03'57	1°09'14
					max. Earth dist.	-4483 Jul	29 j 21:29	2°☾01'31	31.23599 AU
conjunction	-4489 Jul	18 j 05:24	18°II55'09	0°40'48	morning rise	-4483 Aug	15 j 13:48	2°☾38'39	
minimum elong	-4489 Jul	18 j 05:24	18°II55'09	0°41'01	retrograde	-4483 Nov	09 j 21:43	4°☾30'27	
morning rise	-4489 Aug	02 j 23:20	19°II30'09		opposition	-4482 Jan	26 j 09:02	3°☾08'42	1°16'02
retrograde	-4489 Oct	28 j 05:14	21°II21'56		min. Earth dist.	-4482 Jan	27 j 08:37	3°☾07'05	29.23943 AU
opposition	-4488 Jan	13 j 13:37	19°II59'58	0°46'10	direct	-4482 Apr	17 j 17:10	1°☾43'32	
min. Earth dist.	-4488 Jan	14 j 13:09	19°II58'21	29.18984 AU	evening set	-4482 Jul	17 j 17:11	3°☾40'11	
direct	-4488 Apr	03 j 15:06	18°II34'37		max. Earth dist.	-4482 Aug	01 j 09:21	4°☾12'48	31.24103 AU
evening set	-4488 Jul	03 j 19:10	20°II31'19						
					conjunction	-4482 Aug	02 j 10:32	4°☾15'09	1°13'23
conjunction	-4488 Jul	19 j 16:30	21°II06'36	0°45'42	minimum elong	-4482 Aug	02 j 10:32	4°☾15'09	1°13'36
minimum elong	-4488 Jul	19 j 16:30	21°II06'36	0°45'54	morning rise	-4482 Aug	17 j 23:50	4°☾49'48	
max. Earth dist.	-4488 Jul	18 j 15:27	21°II04'16	31.19442 AU	retrograde	-4482 Nov	12 j 06:41	6°☾41'35	
morning rise	-4488 Aug	04 j 09:53	21°II41'33		opposition	-4481 Jan	28 j 20:25	5°☾19'49	1°20'39
retrograde	-4488 Oct	29 j 15:41	23°II33'20		min. Earth dist.	-4481 Jan	29 j 20:58	5°☾18'08	29.24409 AU
opposition	-4487 Jan	15 j 00:38	22°II11'26	0°51'21	direct	-4481 Apr	20 j 06:03	3°☾54'40	
min. Earth dist.	-4487 Jan	15 j 23:17	22°II09'53	29.19990 AU	evening set	-4481 Jul	20 j 04:36	5°☾51'15	
direct	-4487 Apr	06 j 02:29	20°II46'08						
evening set	-4487 Jul	06 j 07:01	22°II42'52		conjunction	-4481 Aug	04 j 21:06	6°☾26'10	1°17'39
max. Earth dist.	-4487 Jul	21 j 02:30	23°II15'44	31.20439 AU	minimum elong	-4481 Aug	04 j 21:06	6°☾26'10	1°17'53
					max. Earth dist.	-4481 Aug	03 j 19:17	6°☾23'45	31.24543 AU
conjunction	-4487 Jul	22 j 03:41	23°II18'05	0°50'31	morning rise	-4481 Aug	20 j 09:55	7°☾00'46	
minimum elong	-4487 Jul	22 j 03:41	23°II18'05	0°50'45	retrograde	-4481 Nov	14 j 16:28	8°☾52'32	
morning rise	-4487 Aug	06 j 20:23	23°II53'00		opposition	-4480 Jan	31 j 07:49	7°☾30'45	1°25'10
retrograde	-4487 Nov	01 j 02:08	25°II44'48		min. Earth dist.	-4480 Feb	01 j 07:12	7°☾29'09	29.24835 AU
opposition	-4486 Jan	17 j 11:43	24°II22'57	0°56'28	direct	-4480 Apr	21 j 18:34	6°☾05'35	
min. Earth dist.	-4486 Jan	18 j 11:18	24°II21'20	29.20987 AU	evening set	-4480 Jul	21 j 15:35	8°☾02'07	
direct	-4486 Apr	08 j 13:30	22°II57'43		max. Earth dist.	-4480 Aug	05 j 06:37	8°☾34'40	31.24955 AU
evening set	-4486 Jul	08 j 18:47	24°II54'26						
					conjunction	-4480 Aug	06 j 07:30	8°☾37'00	1°21'49
conjunction	-4486 Jul	24 j 14:51	25°II29'37	0°55'16	minimum elong	-4480 Aug	06 j 07:29	8°☾37'00	1°22'02
minimum elong	-4486 Jul	24 j 14:51	25°II29'37	0°55'29	morning rise	-4480 Aug	21 j 19:32	9°☾11'32	
max. Earth dist.	-4486 Jul	23 j 14:03	25°II27'18	31.21398 AU	retrograde	-4480 Nov	16 j 01:06	11°☾03'20	
morning rise	-4486 Aug	09 j 06:53	26°II04'28		opposition	-4479 Feb	01 j 19:25	9°☾41'31	1°29'32
retrograde	-4486 Nov	03 j 12:58	27°II56'17		min. Earth dist.	-4479 Feb	02 j 19:26	9°☾39'52	29.25273 AU
opposition	-4485 Jan	19 j 22:57	26°II34'29	1°01'31	direct	-4479 Apr	24 j 05:43	8°☾16'21	
min. Earth dist.	-4485 Jan	20 j 22:21	26°II32'52	29.21895 AU	evening set	-4479 Jul	24 j 02:36	10°☾12'50	
direct	-4485 Apr	11 j 03:12	25°II09'17						
evening set	-4485 Jul	11 j 06:37	27°II06'00		conjunction	-4479 Aug	08 j 17:46	10°☾47'39	1°25'51
max. Earth dist.	-4485 Jul	26 j 00:05	27°II38'44	31.22246 AU	minimum elong	-4479 Aug	08 j 17:46	10°☾47'39	1°26'04
					max. Earth dist.	-4479 Aug	07 j 17:09	10°☾45'21	31.25418 AU
conjunction	-4485 Jul	27 j 01:52	27°II41'08	0°59'57	morning rise	-4479 Aug	24 j 05:15	11°☾22'09	
minimum elong	-4485 Jul	27 j 01:52	27°II41'08	1°00'10	retrograde	-4479 Nov	18 j 10:52	13°☾13'57	
morning rise	-4485 Aug	11 j 17:17	28°II15'56		opposition	-4478 Feb	04 j 06:44	11°☾52'08	1°33'47
	-4485 Oct	15 j 19:23	0°☾		min. Earth dist.	-4478 Feb	05 j 05:24	11°☾50'35	29.25773 AU
retrograde	-4485 Nov	06 j 00:19	0°☾07'46		direct	-4478 Apr	26 j 17:24	10°☾27'00	
	-4485 Nov	27 j 11:09	30°☾II		evening set	-4478 Jul	26 j 13:33	12°☾23'27	
opposition	-4484 Jan	22 j 10:15	28°II45'59	1°06'27	max. Earth dist.	-4478 Aug	10 j 03:42	12°☾55'57	31.25955 AU
min. Earth dist.	-4484 Jan	23 j 09:53	28°II44'22	29.22702 AU					
direct	-4484 Apr	12 j 14:38	27°II20'48		conjunction	-4478 Aug	11 j 04:01	12°☾58'13	1°29'46
evening set	-4484 Jul	12 j 18:15	29°II17'31		minimum elong	-4478 Aug	11 j 04:00	12°☾58'13	1°29'58
max. Earth dist.	-4484 Jul	27 j 12:00	29°II50'16	31.22984 AU	morning rise	-4478 Aug	26 j 14:50	13°☾32'41	
					retrograde	-4478 Nov	20 j 21:01	15°☾24'31	
conjunction	-4484 Jul	28 j 12:58	29°II52'36	1°04'31	opposition	-4477 Feb	06 j 18:20	14°☾02'43	1°37'54
minimum elong	-4484 Jul	28 j 12:57	29°II52'36	1°04'44	min. Earth dist.	-4477 Feb	07 j 17:12	14°☾01'09	29.26374 AU

Attention, astronomical year style is used: The year -4477 in astronomical counting style is the year 4478 BCE in historical counting style.

direct	-4477 Apr 29 j 04:06	12° $\text{♁}$ 37'38			-4471 Oct 17 j 08:24	0° $\text{♁}$	
evening set	-4477 Jul 29 j 00:19	14° $\text{♁}$ 34'04		retrograde	-4471 Dec 05 j 23:15	0° $\text{♁}$ 40'44	
					-4470 Jan 26 j 21:43	30° $\text{♁}$	
conjunction	-4477 Aug 13 j 14:09	15° $\text{♁}$ 08'47	1°33'33	opposition	-4470 Feb 22 j 05:18	29° $\text{♁}$ 19'05	2°02'26
minimum elong	-4477 Aug 13 j 14:08	15° $\text{♁}$ 08'47	1°33'46	min. Earth dist.	-4470 Feb 23 j 02:18	29° $\text{♁}$ 17'40	29.30515 AU
max. Earth dist.	-4477 Aug 12 j 15:03	15° $\text{♁}$ 06'37	31.26599 AU	direct	-4470 May 14 j 16:52	27° $\text{♁}$ 54'30	
morning rise	-4477 Aug 29 j 00:16	15° $\text{♁}$ 43'11		evening set	-4470 Aug 13 j 02:42	29° $\text{♁}$ 50'47	
retrograde	-4477 Nov 23 j 07:24	17° $\text{♁}$ 35'06			-4470 Aug 17 j 06:49	0° $\text{♁}$	
opposition	-4476 Feb 09 j 05:58	16° $\text{♁}$ 13'19	1°41'52				
min. Earth dist.	-4476 Feb 10 j 03:55	16° $\text{♁}$ 11'49	29.27055 AU	conjunction	-4470 Aug 28 j 11:54	0° $\text{♁}$ 25'11	1°55'59
direct	-4476 Apr 30 j 16:38	14° $\text{♁}$ 48'18		minimum elong	-4470 Aug 28 j 11:54	0° $\text{♁}$ 25'11	1°56'10
evening set	-4476 Jul 30 j 11:10	16° $\text{♁}$ 44'44		max. Earth dist.	-4470 Aug 27 j 14:49	0° $\text{♁}$ 23'12	31.30456 AU
max. Earth dist.	-4476 Aug 14 j 00:49	17° $\text{♁}$ 17'13	31.27316 AU	morning rise	-4470 Sep 12 j 18:05	0° $\text{♁}$ 59'20	
				retrograde	-4470 Dec 08 j 09:11	2° $\text{♁}$ 51'46	
conjunction	-4476 Aug 15 j 00:11	17° $\text{♁}$ 19'24	1°37'12	opposition	-4469 Feb 24 j 17:22	1° $\text{♁}$ 30'05	2°05'16
minimum elong	-4476 Aug 15 j 00:11	17° $\text{♁}$ 19'24	1°37'24	min. Earth dist.	-4469 Feb 25 j 13:10	1° $\text{♁}$ 28'44	29.30648 AU
morning rise	-4476 Aug 30 j 09:49	17° $\text{♁}$ 53'47		direct	-4469 May 17 j 05:20	0° $\text{♁}$ 05'30	
retrograde	-4476 Nov 24 j 19:04	19° $\text{♁}$ 45'46		evening set	-4469 Aug 15 j 12:59	2° $\text{♁}$ 01'43	
opposition	-4475 Feb 10 j 17:38	18° $\text{♁}$ 24'01	1°45'42				
min. Earth dist.	-4475 Feb 11 j 15:07	18° $\text{♁}$ 22'33	29.27810 AU	conjunction	-4469 Aug 30 j 21:34	2° $\text{♁}$ 36'04	1°58'33
direct	-4475 May 03 j 02:42	16° $\text{♁}$ 59'06		minimum elong	-4469 Aug 30 j 21:34	2° $\text{♁}$ 36'04	1°58'45
evening set	-4475 Aug 01 j 21:41	18° $\text{♁}$ 55'32		max. Earth dist.	-4469 Aug 30 j 00:34	2° $\text{♁}$ 34'06	31.30524 AU
				morning rise	-4469 Sep 15 j 03:14	3° $\text{♁}$ 10'11	
conjunction	-4475 Aug 17 j 10:13	19° $\text{♁}$ 30'09	1°40'42	retrograde	-4469 Dec 10 j 18:55	5° $\text{♁}$ 02'40	
minimum elong	-4475 Aug 17 j 10:12	19° $\text{♁}$ 30'09	1°40'55	opposition	-4468 Feb 27 j 05:37	3° $\text{♁}$ 40'55	2°07'56
max. Earth dist.	-4475 Aug 16 j 12:20	19° $\text{♁}$ 28'06	31.28068 AU	min. Earth dist.	-4468 Feb 28 j 01:42	3° $\text{♁}$ 39'34	29.30682 AU
morning rise	-4475 Sep 01 j 19:07	20° $\text{♁}$ 04'29		direct	-4468 May 18 j 16:17	2° $\text{♁}$ 16'21	
retrograde	-4475 Nov 27 j 05:11	21° $\text{♁}$ 56'34		evening set	-4468 Aug 16 j 23:05	4° $\text{♁}$ 12'28	
opposition	-4474 Feb 13 j 05:26	20° $\text{♁}$ 34'52	1°49'22	max. Earth dist.	-4468 Aug 31 j 11:29	4° $\text{♁}$ 44'56	31.30523 AU
min. Earth dist.	-4474 Feb 14 j 02:57	20° $\text{♁}$ 33'24	29.28548 AU				
direct	-4474 May 05 j 15:39	19° $\text{♁}$ 10'02		conjunction	-4468 Sep 01 j 07:11	4° $\text{♁}$ 46'47	2°00'57
evening set	-4474 Aug 04 j 08:28	21° $\text{♁}$ 06'28		minimum elong	-4468 Sep 01 j 07:10	4° $\text{♁}$ 46'47	2°01'08
				morning rise	-4468 Sep 16 j 12:19	5° $\text{♁}$ 20'51	
conjunction	-4474 Aug 19 j 20:09	21° $\text{♁}$ 41'02	1°44'04	retrograde	-4468 Dec 12 j 04:23	7° $\text{♁}$ 13'24	
minimum elong	-4474 Aug 19 j 20:08	21° $\text{♁}$ 41'02	1°44'16	opposition	-4467 Feb 28 j 17:43	5° $\text{♁}$ 51'35	2°10'24
max. Earth dist.	-4474 Aug 18 j 21:29	21° $\text{♁}$ 38'55	31.28780 AU	min. Earth dist.	-4467 Mar 01 j 12:52	5° $\text{♁}$ 50'17	29.30660 AU
morning rise	-4474 Sep 04 j 04:36	22° $\text{♁}$ 15'20		direct	-4467 May 21 j 04:22	4° $\text{♁}$ 27'01	
retrograde	-4474 Nov 29 j 17:44	24° $\text{♁}$ 07'29		evening set	-4467 Aug 19 j 09:04	6° $\text{♁}$ 23'02	
opposition	-4473 Feb 15 j 17:09	22° $\text{♁}$ 45'50	1°52'53				
min. Earth dist.	-4473 Feb 16 j 13:50	22° $\text{♁}$ 44'25	29.29231 AU	conjunction	-4467 Sep 03 j 16:30	6° $\text{♁}$ 57'19	2°03'11
direct	-4473 May 08 j 04:13	21° $\text{♁}$ 21'05		minimum elong	-4467 Sep 03 j 16:30	6° $\text{♁}$ 57'19	2°03'22
evening set	-4473 Aug 06 j 19:06	23° $\text{♁}$ 17'30		max. Earth dist.	-4467 Sep 02 j 20:38	6° $\text{♁}$ 55'27	31.30496 AU
max. Earth dist.	-4473 Aug 21 j 08:52	23° $\text{♁}$ 50'02	31.29401 AU	morning rise	-4467 Sep 18 j 21:20	7° $\text{♁}$ 31'21	
				retrograde	-4467 Dec 14 j 15:41	9° $\text{♁}$ 23'58	
conjunction	-4473 Aug 22 j 06:16	23° $\text{♁}$ 52'03	1°47'17	opposition	-4466 Mar 03 j 05:52	8° $\text{♁}$ 02'04	2°12'42
minimum elong	-4473 Aug 22 j 06:15	23° $\text{♁}$ 52'03	1°47'29	min. Earth dist.	-4466 Mar 04 j 00:15	8° $\text{♁}$ 00'50	29.30657 AU
morning rise	-4473 Sep 06 j 13:57	24° $\text{♁}$ 26'18		direct	-4466 May 23 j 14:20	6° $\text{♁}$ 37'31	
retrograde	-4473 Dec 02 j 03:43	26° $\text{♁}$ 18'32		evening set	-4466 Aug 21 j 18:53	8° $\text{♁}$ 33'27	
opposition	-4472 Feb 18 j 05:17	24° $\text{♁}$ 56'54	1°56'14	max. Earth dist.	-4466 Sep 05 j 07:55	9° $\text{♁}$ 05'59	31.30507 AU
min. Earth dist.	-4472 Feb 19 j 02:41	24° $\text{♁}$ 55'27	29.29800 AU				
direct	-4472 May 09 j 16:44	23° $\text{♁}$ 32'13		conjunction	-4466 Sep 06 j 01:55	9° $\text{♁}$ 07'41	2°05'14
evening set	-4472 Aug 08 j 05:41	25° $\text{♁}$ 28'37		minimum elong	-4466 Sep 06 j 01:55	9° $\text{♁}$ 07'41	2°05'24
				morning rise	-4466 Sep 21 j 06:08	9° $\text{♁}$ 41'42	
conjunction	-4472 Aug 23 j 16:03	26° $\text{♁}$ 03'06	1°50'20	retrograde	-4466 Dec 17 j 01:28	11° $\text{♁}$ 34'22	
minimum elong	-4472 Aug 23 j 16:03	26° $\text{♁}$ 03'06	1°50'32	opposition	-4465 Mar 05 j 18:04	10° $\text{♁}$ 12'26	2°14'48
max. Earth dist.	-4472 Aug 22 j 18:13	26° $\text{♁}$ 01'03	31.29904 AU	min. Earth dist.	-4465 Mar 06 j 11:54	10° $\text{♁}$ 11'14	29.30701 AU
morning rise	-4472 Sep 07 j 23:20	26° $\text{♁}$ 37'19		direct	-4465 May 26 j 03:26	8° $\text{♁}$ 47'54	
retrograde	-4472 Dec 03 j 13:56	28° $\text{♁}$ 29'38		evening set	-4465 Aug 24 j 04:49	10° $\text{♁}$ 43'47	
opposition	-4471 Feb 19 j 17:17	27° $\text{♁}$ 08'00	1°59'25				
min. Earth dist.	-4471 Feb 20 j 13:26	27° $\text{♁}$ 06'38	29.30234 AU	conjunction	-4465 Sep 08 j 11:09	11° $\text{♁}$ 17'58	2°07'06
direct	-4471 May 12 j 05:18	25° $\text{♁}$ 43'23		minimum elong	-4465 Sep 08 j 11:09	11° $\text{♁}$ 17'58	2°07'17
evening set	-4471 Aug 10 j 16:12	27° $\text{♁}$ 39'44		max. Earth dist.	-4465 Sep 07 j 17:01	11° $\text{♁}$ 16'16	31.30598 AU
max. Earth dist.	-4471 Aug 25 j 04:51	28° $\text{♁}$ 12'11	31.30248 AU	morning rise	-4465 Sep 23 j 15:07	11° $\text{♁}$ 51'57	
				retrograde	-4465 Dec 19 j 14:04	13° $\text{♁}$ 44'43	
conjunction	-4471 Aug 26 j 02:03	28° $\text{♁}$ 14'11	1°53'15	opposition	-4464 Mar 07 j 06:19	12° $\text{♁}$ 22'44	2°16'42
minimum elong	-4471 Aug 26 j 02:03	28° $\text{♁}$ 14'11	1°53'26	min. Earth dist.	-4464 Mar 07 j 22:32	12° $\text{♁}$ 21'39	29.30843 AU
morning rise	-4471 Sep 10 j 08:41	28° $\text{♁}$ 48'21		direct	-4464 May 27 j 15:07	10° $\text{♁}$ 58'16	

Attention, astronomical year style is used: The year -4464 in astronomical counting style is the year 4465 BCE in historical counting style.

evening set	-4464 Aug 25 j 14:22	12° $\Omega$ 54'05		max. Earth dist.	-4458 Sep 22 j 14:26	26° $\Omega$ 30'27	31.31188 AU
				morning rise	-4458 Oct 08 j 05:32	27° $\Omega$ 05'35	
conjunction	-4464 Sep 09 j 20:23	13° $\Omega$ 28'14	2°08'48	retrograde	-4457 Jan 03 j 16:07	28° $\Omega$ 59'11	
minimum elong	-4464 Sep 09 j 20:23	13° $\Omega$ 28'14	2°08'57	opposition	-4457 Mar 23 j 21:54	27° $\Omega$ 37'04	2°24'25
max. Earth dist.	-4464 Sep 09 j 04:08	13° $\Omega$ 26'42	31.30771 AU	min. Earth dist.	-4457 Mar 24 j 09:58	27° $\Omega$ 36'15	29.31206 AU
morning rise	-4464 Sep 24 j 23:50	14° $\Omega$ 02'11		direct	-4457 Jun 12 j 23:04	26° $\Omega$ 13'04	
	-4464 Oct 23 j 14:59	15° $\Omega$		evening set	-4457 Sep 10 j 09:42	28° $\Omega$ 08'27	
retrograde	-4464 Dec 21 j 00:02	15° $\Omega$ 55'04					
	-4463 Feb 20 j 20:57	15° $\mathbb{R}$ $\Omega$		conjunction	-4457 Sep 25 j 12:57	28° $\Omega$ 42'27	2°15'21
opposition	-4463 Mar 09 j 18:43	14° $\Omega$ 33'05	2°18'24	minimum elong	-4457 Sep 25 j 12:57	28° $\Omega$ 42'27	2°15'29
min. Earth dist.	-4463 Mar 10 j 11:01	14° $\Omega$ 31'58	29.31046 AU	max. Earth dist.	-4457 Sep 25 j 01:20	28° $\Omega$ 41'21	31.30836 AU
direct	-4463 May 30 j 02:53	13° $\Omega$ 08'41		morning rise	-4457 Oct 10 j 14:28	29° $\Omega$ 16'19	
	-4463 Aug 25 j 23:29	15° $\Omega$			-4457 Oct 31 j 12:39	0° $\mathbb{N}$	
evening set	-4463 Aug 28 j 00:08	15° $\Omega$ 04'26		retrograde	-4456 Jan 06 j 02:28	1° $\mathbb{N}$ 10'02	
					-4456 Mar 17 j 21:26	30° $\mathbb{R}$ $\Omega$	
conjunction	-4463 Sep 12 j 05:34	15° $\Omega$ 38'34	2°10'18	opposition	-4456 Mar 25 j 10:42	29° $\Omega$ 47'50	2°24'42
minimum elong	-4463 Sep 12 j 05:34	15° $\Omega$ 38'34	2°10'28	min. Earth dist.	-4456 Mar 25 j 22:26	29° $\Omega$ 47'03	29.30788 AU
max. Earth dist.	-4463 Sep 11 j 13:33	15° $\Omega$ 37'03	31.31001 AU	direct	-4456 Jun 14 j 11:53	28° $\Omega$ 23'52	
morning rise	-4463 Sep 27 j 08:48	16° $\Omega$ 12'30			-4456 Sep 02 j 22:34	0° $\mathbb{N}$	
retrograde	-4463 Dec 23 j 11:01	18° $\Omega$ 05'29		evening set	-4456 Sep 11 j 19:02	0° $\mathbb{N}$ 19'09	
opposition	-4462 Mar 12 j 06:50	16° $\Omega$ 43'30	2°19'55				
min. Earth dist.	-4462 Mar 12 j 21:23	16° $\Omega$ 42'31	29.31279 AU	conjunction	-4456 Sep 26 j 21:52	0° $\mathbb{N}$ 53'07	2°15'32
direct	-4462 Jun 01 j 15:14	15° $\Omega$ 19'10		minimum elong	-4456 Sep 26 j 21:52	0° $\mathbb{N}$ 53'07	2°15'38
evening set	-4462 Aug 30 j 09:49	17° $\Omega$ 14'54		max. Earth dist.	-4456 Sep 26 j 10:00	0° $\mathbb{N}$ 52'00	31.30381 AU
				morning rise	-4456 Oct 11 j 23:26	1° $\mathbb{N}$ 26'59	
conjunction	-4462 Sep 14 j 14:51	17° $\Omega$ 49'00	2°11'37	retrograde	-4455 Jan 07 j 15:24	3° $\mathbb{N}$ 20'47	
minimum elong	-4462 Sep 14 j 14:51	17° $\Omega$ 49'00	2°11'46	opposition	-4455 Mar 27 j 23:20	1° $\mathbb{N}$ 58'30	2°24'48
max. Earth dist.	-4462 Sep 13 j 23:52	17° $\Omega$ 47'35	31.31218 AU	min. Earth dist.	-4455 Mar 28 j 09:37	1° $\mathbb{N}$ 57'48	29.30299 AU
morning rise	-4462 Sep 29 j 17:41	18° $\Omega$ 22'55		direct	-4455 Jun 16 j 23:14	0° $\mathbb{N}$ 34'33	
retrograde	-4462 Dec 25 j 21:24	20° $\Omega$ 16'01		evening set	-4455 Sep 14 j 04:12	2° $\mathbb{N}$ 29'43	
opposition	-4461 Mar 14 j 19:25	18° $\Omega$ 54'02	2°21'13				
min. Earth dist.	-4461 Mar 15 j 10:18	18° $\Omega$ 53'01	29.31485 AU	conjunction	-4455 Sep 29 j 06:56	3° $\mathbb{N}$ 03'41	2°15'31
direct	-4461 Jun 04 j 02:50	17° $\Omega$ 29'48		minimum elong	-4455 Sep 29 j 06:56	3° $\mathbb{N}$ 03'41	2°15'37
evening set	-4461 Sep 01 j 19:24	19° $\Omega$ 25'28		max. Earth dist.	-4455 Sep 28 j 20:46	3° $\mathbb{N}$ 02'43	31.29866 AU
				morning rise	-4455 Oct 14 j 08:14	3° $\mathbb{N}$ 37'32	
conjunction	-4461 Sep 16 j 24:00	19° $\Omega$ 59'33	2°12'45	retrograde	-4454 Jan 10 j 01:27	5° $\mathbb{N}$ 31'26	
minimum elong	-4461 Sep 16 j 24:00	19° $\Omega$ 59'33	2°12'54	opposition	-4454 Mar 30 j 11:56	4° $\mathbb{N}$ 09'04	2°24'41
max. Earth dist.	-4461 Sep 16 j 09:46	19° $\Omega$ 58'12	31.31393 AU	min. Earth dist.	-4454 Mar 30 j 22:18	4° $\mathbb{N}$ 08'22	29.29784 AU
morning rise	-4461 Oct 02 j 02:31	20° $\Omega$ 33'27		direct	-4454 Jun 19 j 10:36	2° $\mathbb{N}$ 45'07	
retrograde	-4461 Dec 28 j 07:50	22° $\Omega$ 26'41		evening set	-4454 Sep 16 j 13:25	4° $\mathbb{N}$ 40'12	
opposition	-4460 Mar 16 j 07:59	21° $\Omega$ 04'41	2°22'19				
min. Earth dist.	-4460 Mar 16 j 21:19	21° $\Omega$ 03'47	29.31610 AU	conjunction	-4454 Oct 01 j 15:49	5° $\mathbb{N}$ 14'08	2°15'18
direct	-4460 Jun 05 j 15:18	19° $\Omega$ 40'32		minimum elong	-4454 Oct 01 j 15:49	5° $\mathbb{N}$ 14'08	2°15'24
evening set	-4460 Sep 03 j 05:06	21° $\Omega$ 36'09		max. Earth dist.	-4454 Oct 01 j 06:14	5° $\mathbb{N}$ 13'14	31.29376 AU
				morning rise	-4454 Oct 16 j 17:07	5° $\mathbb{N}$ 47'59	
conjunction	-4460 Sep 18 j 09:14	22° $\Omega$ 10'12	2°13'41	retrograde	-4453 Jan 12 j 12:42	7° $\mathbb{N}$ 41'59	
minimum elong	-4460 Sep 18 j 09:14	22° $\Omega$ 10'12	2°13'49	opposition	-4453 Apr 02 j 00:34	6° $\mathbb{N}$ 19'32	2°24'21
max. Earth dist.	-4460 Sep 17 j 19:08	22° $\Omega$ 08'52	31.31459 AU	min. Earth dist.	-4453 Apr 02 j 08:45	6° $\mathbb{N}$ 18'59	29.29321 AU
morning rise	-4460 Oct 03 j 11:32	22° $\Omega$ 44'06		direct	-4453 Jun 21 j 23:31	4° $\mathbb{N}$ 55'37	
retrograde	-4460 Dec 29 j 18:22	24° $\Omega$ 37'28		evening set	-4453 Sep 18 j 22:22	6° $\mathbb{N}$ 50'35	
opposition	-4459 Mar 18 j 20:35	23° $\Omega$ 15'26	2°23'14				
min. Earth dist.	-4459 Mar 19 j 10:07	23° $\Omega$ 14'32	29.31628 AU	conjunction	-4453 Oct 04 j 00:36	7° $\mathbb{N}$ 24'31	2°14'54
direct	-4459 Jun 08 j 01:33	21° $\Omega$ 51'21		minimum elong	-4453 Oct 04 j 00:36	7° $\mathbb{N}$ 24'31	2°15'00
evening set	-4459 Sep 05 j 14:38	23° $\Omega$ 46'54		max. Earth dist.	-4453 Oct 03 j 16:20	7° $\mathbb{N}$ 23'44	31.28949 AU
				morning rise	-4453 Oct 19 j 01:47	7° $\mathbb{N}$ 58'23	
conjunction	-4459 Sep 20 j 18:32	24° $\Omega$ 20'56	2°14'26	retrograde	-4452 Jan 14 j 23:45	9° $\mathbb{N}$ 52'29	
minimum elong	-4459 Sep 20 j 18:32	24° $\Omega$ 20'56	2°14'34	opposition	-4452 Apr 03 j 13:25	8° $\mathbb{N}$ 29'58	2°23'49
max. Earth dist.	-4459 Sep 20 j 05:45	24° $\Omega$ 19'44	31.31404 AU	min. Earth dist.	-4452 Apr 03 j 21:21	8° $\mathbb{N}$ 29'25	29.28950 AU
morning rise	-4459 Oct 05 j 20:29	24° $\Omega$ 54'49		direct	-4452 Jun 23 j 11:31	7° $\mathbb{N}$ 06'06	
retrograde	-4458 Jan 01 j 04:15	26° $\Omega$ 48'18		evening set	-4452 Sep 20 j 07:23	9° $\mathbb{N}$ 00'59	
opposition	-4458 Mar 21 j 09:14	25° $\Omega$ 26'15	2°23'55				
min. Earth dist.	-4458 Mar 21 j 21:54	25° $\Omega$ 25'24	29.31488 AU	conjunction	-4452 Oct 05 j 09:29	9° $\mathbb{N}$ 34'55	2°14'18
direct	-4458 Jun 10 j 13:21	24° $\Omega$ 02'13		minimum elong	-4452 Oct 05 j 09:30	9° $\mathbb{N}$ 34'55	2°14'23
evening set	-4458 Sep 08 j 00:17	25° $\Omega$ 57'41		max. Earth dist.	-4452 Oct 05 j 02:36	9° $\mathbb{N}$ 34'16	31.28636 AU
				morning rise	-4452 Oct 20 j 10:38	10° $\mathbb{N}$ 08'46	
conjunction	-4458 Sep 23 j 03:40	26° $\Omega$ 31'42	2°14'59	retrograde	-4451 Jan 16 j 10:09	12° $\mathbb{N}$ 03'00	
minimum elong	-4458 Sep 23 j 03:40	26° $\Omega$ 31'42	2°15'07	opposition	-4451 Apr 06 j 01:58	10° $\mathbb{N}$ 40'26	2°23'05

Attention, astronomical year style is used: The year -4451 in astronomical counting style is the year 4452 BCE in historical counting style.

min. Earth dist.	-4451 Apr 06 j 07:49	10° $\mathring{M}$ 40'02	29.28673 AU	morning rise	-4445 Nov 05 j 02:00	25° $\mathring{M}$ 24'23	
direct	-4451 Jun 25 j 23:58	9° $\mathring{M}$ 16'38		retrograde	-4444 Feb 01 j 17:49	27° $\mathring{M}$ 19'33	
evening set	-4451 Sep 22 j 16:23	11° $\mathring{M}$ 11'26		opposition	-4444 Apr 21 j 20:40	25° $\mathring{M}$ 56'38	2°12'13
				min. Earth dist.	-4444 Apr 21 j 20:32	25° $\mathring{M}$ 56'39	29.26263 AU
conjunction	-4451 Oct 07 j 18:17	11° $\mathring{M}$ 45'22	2°13'31	direct	-4444 Jul 11 j 04:54	24° $\mathring{M}$ 33'17	
minimum elong	-4451 Oct 07 j 18:18	11° $\mathring{M}$ 45'22	2°13'36	evening set	-4444 Oct 07 j 07:32	26° $\mathring{M}$ 27'27	
max. Earth dist.	-4451 Oct 07 j 11:53	11° $\mathring{M}$ 44'45	31.28400 AU				
morning rise	-4451 Oct 22 j 19:32	12° $\mathring{M}$ 19'14		conjunction	-4444 Oct 22 j 09:20	27° $\mathring{M}$ 01'24	2°02'42
retrograde	-4450 Jan 18 j 20:29	14° $\mathring{M}$ 13'36		minimum elong	-4444 Oct 22 j 09:20	27° $\mathring{M}$ 01'24	2°02'43
opposition	-4450 Apr 08 j 14:46	12° $\mathring{M}$ 51'00	2°22'08	max. Earth dist.	-4444 Oct 22 j 08:53	27° $\mathring{M}$ 01'22	31.25752 AU
min. Earth dist.	-4450 Apr 08 j 20:15	12° $\mathring{M}$ 50'37	29.28472 AU	morning rise	-4444 Nov 06 j 11:23	27° $\mathring{M}$ 35'24	
direct	-4450 Jun 28 j 10:04	11° $\mathring{M}$ 27'17		retrograde	-4443 Feb 03 j 05:50	29° $\mathring{M}$ 30'39	
evening set	-4450 Sep 25 j 01:14	13° $\mathring{M}$ 22'00		opposition	-4443 Apr 24 j 09:40	28° $\mathring{M}$ 07'38	2°09'53
				min. Earth dist.	-4443 Apr 24 j 09:49	28° $\mathring{M}$ 07'38	29.25497 AU
conjunction	-4450 Oct 10 j 03:08	13° $\mathring{M}$ 55'55	2°12'32	direct	-4443 Jul 13 j 16:38	26° $\mathring{M}$ 44'18	
minimum elong	-4450 Oct 10 j 03:09	13° $\mathring{M}$ 55'56	2°12'36	evening set	-4443 Oct 09 j 16:26	28° $\mathring{M}$ 38'20	
max. Earth dist.	-4450 Oct 09 j 22:43	13° $\mathring{M}$ 55'30	31.28220 AU				
morning rise	-4450 Oct 25 j 04:17	14° $\mathring{M}$ 29'49		conjunction	-4443 Oct 24 j 18:25	29° $\mathring{M}$ 12'18	2°00'26
retrograde	-4449 Jan 21 j 06:02	16° $\mathring{M}$ 24'19		minimum elong	-4443 Oct 24 j 18:25	29° $\mathring{M}$ 12'18	2°00'27
opposition	-4449 Apr 11 j 03:37	15° $\mathring{M}$ 01'41	2°20'59	max. Earth dist.	-4443 Oct 24 j 19:12	29° $\mathring{M}$ 12'23	31.24960 AU
min. Earth dist.	-4449 Apr 11 j 07:44	15° $\mathring{M}$ 01'24	29.28287 AU	morning rise	-4443 Nov 08 j 20:39	29° $\mathring{M}$ 46'19	
direct	-4449 Jun 30 j 21:51	13° $\mathring{M}$ 38'03			-4443 Nov 15 j 02:52	0° $\mathring{A}$	
evening set	-4449 Sep 27 j 10:19	15° $\mathring{M}$ 32'41		retrograde	-4442 Feb 05 j 16:37	1° $\mathring{A}$ 41'40	
				opposition	-4442 Apr 26 j 22:36	0° $\mathring{A}$ 18'33	2°07'22
conjunction	-4449 Oct 12 j 11:59	16° $\mathring{M}$ 06'37	2°11'21	min. Earth dist.	-4442 Apr 26 j 20:52	0° $\mathring{A}$ 18'40	29.24669 AU
minimum elong	-4449 Oct 12 j 11:59	16° $\mathring{M}$ 06'37	2°11'26		-4442 May 08 j 12:02	30° $\mathring{R}$ $\mathring{M}$	
max. Earth dist.	-4449 Oct 12 j 07:32	16° $\mathring{M}$ 06'12	31.28041 AU	direct	-4442 Jul 16 j 05:31	28° $\mathring{M}$ 55'13	
morning rise	-4449 Oct 27 j 13:20	16° $\mathring{M}$ 40'31			-4442 Sep 18 j 06:38	0° $\mathring{A}$	
retrograde	-4448 Jan 23 j 18:38	18° $\mathring{M}$ 35'11		evening set	-4442 Oct 12 j 01:19	0° $\mathring{A}$ 49'08	
opposition	-4448 Apr 12 j 16:33	17° $\mathring{M}$ 12'31	2°19'37				
min. Earth dist.	-4448 Apr 12 j 19:45	17° $\mathring{M}$ 12'18	29.28097 AU	conjunction	-4442 Oct 27 j 03:15	1° $\mathring{A}$ 23'07	1°57'59
direct	-4448 Jul 02 j 07:19	15° $\mathring{M}$ 48'58		minimum elong	-4442 Oct 27 j 03:16	1° $\mathring{A}$ 23'07	1°57'59
evening set	-4448 Sep 28 j 19:11	17° $\mathring{M}$ 43'31		max. Earth dist.	-4442 Oct 27 j 04:24	1° $\mathring{A}$ 23'13	31.24132 AU
				morning rise	-4442 Nov 11 j 05:51	1° $\mathring{A}$ 57'10	
conjunction	-4448 Oct 13 j 20:59	18° $\mathring{M}$ 17'27	2°10'00	retrograde	-4441 Feb 08 j 03:28	3° $\mathring{A}$ 52'37	
minimum elong	-4448 Oct 13 j 20:59	18° $\mathring{M}$ 17'27	2°10'02	opposition	-4441 Apr 29 j 11:43	2° $\mathring{A}$ 29'24	2°04'41
max. Earth dist.	-4448 Oct 13 j 18:22	18° $\mathring{M}$ 17'12	31.27817 AU	min. Earth dist.	-4441 Apr 29 j 09:35	2° $\mathring{A}$ 29'32	29.23861 AU
morning rise	-4448 Oct 28 j 22:17	18° $\mathring{M}$ 51'22		direct	-4441 Jul 18 j 16:16	1° $\mathring{A}$ 06'05	
retrograde	-4447 Jan 25 j 05:03	20° $\mathring{M}$ 46'10		evening set	-4441 Oct 14 j 10:07	2° $\mathring{A}$ 59'53	
opposition	-4447 Apr 15 j 05:33	19° $\mathring{M}$ 23'28	2°18'04				
min. Earth dist.	-4447 Apr 15 j 08:19	19° $\mathring{M}$ 23'16	29.27823 AU	conjunction	-4441 Oct 29 j 12:20	3° $\mathring{A}$ 33'53	1°55'23
direct	-4447 Jul 04 j 19:09	17° $\mathring{M}$ 59'59		minimum elong	-4441 Oct 29 j 12:21	3° $\mathring{A}$ 33'53	1°55'23
evening set	-4447 Oct 01 j 04:22	19° $\mathring{M}$ 54'27		max. Earth dist.	-4441 Oct 29 j 15:38	3° $\mathring{A}$ 34'12	31.23355 AU
				morning rise	-4441 Nov 13 j 15:03	4° $\mathring{A}$ 07'57	
conjunction	-4447 Oct 16 j 05:59	20° $\mathring{M}$ 28'23	2°08'26	retrograde	-4440 Feb 10 j 13:15	6° $\mathring{A}$ 03'31	
minimum elong	-4447 Oct 16 j 05:59	20° $\mathring{M}$ 28'23	2°08'29	opposition	-4440 May 01 j 00:39	4° $\mathring{A}$ 40'13	2°01'48
max. Earth dist.	-4447 Oct 16 j 03:07	20° $\mathring{M}$ 28'07	31.27501 AU	min. Earth dist.	-4440 Apr 30 j 20:57	4° $\mathring{A}$ 40'28	29.23114 AU
morning rise	-4447 Oct 31 j 07:31	21° $\mathring{M}$ 02'19		direct	-4440 Jul 20 j 04:30	3° $\mathring{A}$ 16'57	
retrograde	-4446 Jan 27 j 18:15	22° $\mathring{M}$ 57'15		evening set	-4440 Oct 15 j 19:00	5° $\mathring{A}$ 10'39	
opposition	-4446 Apr 17 j 18:24	21° $\mathring{M}$ 34'29	2°16'18				
min. Earth dist.	-4446 Apr 17 j 19:49	21° $\mathring{M}$ 34'24	29.27444 AU	conjunction	-4440 Oct 30 j 21:15	5° $\mathring{A}$ 44'40	1°52'37
direct	-4446 Jul 07 j 05:12	20° $\mathring{M}$ 11'04		minimum elong	-4440 Oct 30 j 21:15	5° $\mathring{A}$ 44'40	1°52'36
evening set	-4446 Oct 03 j 13:27	22° $\mathring{M}$ 05'27		max. Earth dist.	-4440 Oct 31 j 00:40	5° $\mathring{A}$ 44'59	31.22662 AU
				morning rise	-4440 Nov 15 j 00:28	6° $\mathring{A}$ 18'47	
conjunction	-4446 Oct 18 j 15:10	22° $\mathring{M}$ 39'24	2°06'42	retrograde	-4439 Feb 12 j 01:52	8° $\mathring{A}$ 14'28	
minimum elong	-4446 Oct 18 j 15:10	22° $\mathring{M}$ 39'24	2°06'44	opposition	-4439 May 03 j 13:37	6° $\mathring{A}$ 51'06	1°58'45
max. Earth dist.	-4446 Oct 18 j 13:40	22° $\mathring{M}$ 39'15	31.27050 AU	min. Earth dist.	-4439 May 03 j 08:44	6° $\mathring{A}$ 51'26	29.22467 AU
morning rise	-4446 Nov 02 j 16:44	23° $\mathring{M}$ 13'21		direct	-4439 Jul 22 j 14:09	5° $\mathring{A}$ 27'53	
retrograde	-4445 Jan 30 j 05:12	25° $\mathring{M}$ 08'24		evening set	-4439 Oct 18 j 03:48	7° $\mathring{A}$ 21'30	
opposition	-4445 Apr 20 j 07:36	23° $\mathring{M}$ 45'34	2°14'21				
min. Earth dist.	-4445 Apr 20 j 09:15	23° $\mathring{M}$ 45'28	29.26921 AU	conjunction	-4439 Nov 02 j 06:23	7° $\mathring{A}$ 55'32	1°49'40
direct	-4445 Jul 09 j 16:06	22° $\mathring{M}$ 22'12		minimum elong	-4439 Nov 02 j 06:24	7° $\mathring{A}$ 55'32	1°49'39
evening set	-4445 Oct 05 j 22:28	24° $\mathring{M}$ 16'28		max. Earth dist.	-4439 Nov 02 j 11:53	7° $\mathring{A}$ 56'04	31.22055 AU
				morning rise	-4439 Nov 17 j 09:45	8° $\mathring{A}$ 29'41	
conjunction	-4445 Oct 21 j 00:11	24° $\mathring{M}$ 50'25	2°04'47	retrograde	-4438 Feb 14 j 12:04	10° $\mathring{A}$ 25'31	
minimum elong	-4445 Oct 21 j 00:12	24° $\mathring{M}$ 50'25	2°04'49	opposition	-4438 May 06 j 02:31	9° $\mathring{A}$ 02'07	1°55'31
max. Earth dist.	-4445 Oct 20 j 23:05	24° $\mathring{M}$ 50'19	31.26471 AU	min. Earth dist.	-4438 May 05 j 20:48	9° $\mathring{A}$ 02'30	29.21890 AU

Attention, astronomical year style is used: The year -4438 in astronomical counting style is the year 4439 BCE in historical counting style.

direct	-4438 Jul 25 j 01:25	7° <u>♂</u> 38'58		retrograde	-4431 Mar 02 j 03:30	25° <u>♂</u> 47'51	
evening set	-4438 Oct 20 j 12:45	9° <u>♂</u> 32'31		opposition	-4431 May 21 j 22:15	24° <u>♂</u> 24'04	1°28'25
				min. Earth dist.	-4431 May 21 j 11:00	24° <u>♂</u> 24'50	29.17043 AU
conjunction	-4438 Nov 04 j 15:25	10° <u>♂</u> 06'35	1°46'34	direct	-4431 Aug 09 j 08:29	23° <u>♂</u> 01'17	
minimum elong	-4438 Nov 04 j 15:26	10° <u>♂</u> 06'35	1°46'32	evening set	-4431 Nov 04 j 04:51	24° <u>♂</u> 54'17	
max. Earth dist.	-4438 Nov 04 j 21:10	10° <u>♂</u> 07'07	31.21530 AU				
morning rise	-4438 Nov 19 j 19:16	10° <u>♂</u> 40'46		conjunction	-4431 Nov 19 j 09:36	25° <u>♂</u> 28'34	1°20'43
retrograde	-4437 Feb 17 j 01:32	12° <u>♂</u> 36'45		minimum elong	-4431 Nov 19 j 09:37	25° <u>♂</u> 28'34	1°20'38
opposition	-4437 May 08 j 15:32	11° <u>♂</u> 13'18	1°52'07	max. Earth dist.	-4431 Nov 19 j 20:17	25° <u>♂</u> 29'35	31.16426 AU
min. Earth dist.	-4437 May 08 j 08:04	11° <u>♂</u> 13'49	29.21382 AU	morning rise	-4431 Dec 04 j 16:31	26° <u>♂</u> 03'03	
direct	-4437 Jul 27 j 10:39	9° <u>♂</u> 50'15		retrograde	-4430 Mar 04 j 16:02	27° <u>♂</u> 59'53	
evening set	-4437 Oct 22 j 21:35	11° <u>♂</u> 43'43		opposition	-4430 May 24 j 11:17	26° <u>♂</u> 36'00	1°23'59
				min. Earth dist.	-4430 May 23 j 23:25	26° <u>♂</u> 36'48	29.15922 AU
conjunction	-4437 Nov 07 j 00:35	12° <u>♂</u> 17'49	1°43'18	direct	-4430 Aug 11 j 18:57	25° <u>♂</u> 13'11	
minimum elong	-4437 Nov 07 j 00:36	12° <u>♂</u> 17'49	1°43'17	evening set	-4430 Nov 06 j 14:03	27° <u>♂</u> 06'04	
max. Earth dist.	-4437 Nov 07 j 07:58	12° <u>♂</u> 18'31	31.21032 AU				
morning rise	-4437 Nov 22 j 04:44	12° <u>♂</u> 52'03		conjunction	-4430 Nov 21 j 19:19	27° <u>♂</u> 40'23	1°16'31
retrograde	-4436 Feb 19 j 13:02	14° <u>♂</u> 48'11		minimum elong	-4430 Nov 21 j 19:19	27° <u>♂</u> 40'23	1°16'25
opposition	-4436 May 10 j 04:42	13° <u>♂</u> 24'43	1°48'33	max. Earth dist.	-4430 Nov 22 j 07:46	27° <u>♂</u> 41'34	31.15284 AU
min. Earth dist.	-4436 May 09 j 21:16	13° <u>♂</u> 25'13	29.20880 AU	morning rise	-4430 Dec 07 j 02:34	28° <u>♂</u> 14'55	
direct	-4436 Jul 28 j 20:32	12° <u>♂</u> 01'44			-4429 Feb 08 j 03:51	0° <u>♂</u>	
evening set	-4436 Oct 24 j 06:39	13° <u>♂</u> 55'09		retrograde	-4429 Mar 07 j 01:31	0° <u>♂</u> 11'49	
					-4429 Apr 03 j 15:33	30° <u>♂</u>	
conjunction	-4436 Nov 08 j 09:54	14° <u>♂</u> 29'16	1°39'53	min. Earth dist.	-4429 May 26 j 11:54	28° <u>♂</u> 48'40	29.14770 AU
minimum elong	-4436 Nov 08 j 09:54	14° <u>♂</u> 29'16	1°39'51	opposition	-4429 May 27 j 00:22	28° <u>♂</u> 47'49	1°19'25
max. Earth dist.	-4436 Nov 08 j 17:58	14° <u>♂</u> 30'02	31.20532 AU	direct	-4429 Aug 14 j 06:56	27° <u>♂</u> 25'00	
morning rise	-4436 Nov 23 j 14:29	15° <u>♂</u> 03'32		evening set	-4429 Nov 08 j 23:17	29° <u>♂</u> 17'46	
retrograde	-4435 Feb 21 j 02:43	16° <u>♂</u> 59'49					
opposition	-4435 May 12 j 17:33	15° <u>♂</u> 36'20	1°44'49	conjunction	-4429 Nov 24 j 04:51	29° <u>♂</u> 52'06	1°12'12
min. Earth dist.	-4435 May 12 j 08:22	15° <u>♂</u> 36'57	29.20345 AU	minimum elong	-4429 Nov 24 j 04:51	29° <u>♂</u> 52'06	1°12'06
direct	-4435 Jul 31 j 08:35	14° <u>♂</u> 13'25		max. Earth dist.	-4429 Nov 24 j 17:31	29° <u>♂</u> 53'18	31.14159 AU
evening set	-4435 Oct 26 j 15:50	16° <u>♂</u> 06'47			-4429 Nov 27 j 16:08	0° <u>♂</u>	
				morning rise	-4429 Dec 09 j 12:44	0° <u>♂</u> 26'40	
conjunction	-4435 Nov 10 j 19:18	16° <u>♂</u> 40'56	1°36'19	retrograde	-4428 Mar 08 j 14:18	2° <u>♂</u> 23'40	
minimum elong	-4435 Nov 10 j 19:19	16° <u>♂</u> 40'56	1°36'17	opposition	-4428 May 28 j 13:20	0° <u>♂</u> 59'33	1°14'45
max. Earth dist.	-4435 Nov 11 j 03:52	16° <u>♂</u> 41'45	31.19956 AU	min. Earth dist.	-4428 May 27 j 23:15	1° <u>♂</u> 00'30	29.13667 AU
morning rise	-4435 Nov 26 j 00:19	17° <u>♂</u> 15'15			-4428 Jul 08 j 05:28	30° <u>♂</u>	
retrograde	-4434 Feb 23 j 16:20	19° <u>♂</u> 11'40		direct	-4428 Aug 15 j 16:48	29° <u>♂</u> 36'42	
opposition	-4434 May 15 j 06:47	17° <u>♂</u> 48'08	1°40'56		-4428 Sep 21 j 22:14	0° <u>♂</u>	
min. Earth dist.	-4434 May 14 j 21:58	17° <u>♂</u> 48'43	29.19722 AU	evening set	-4428 Nov 10 j 08:38	1° <u>♂</u> 29'23	
direct	-4434 Aug 02 j 19:31	16° <u>♂</u> 25'17					
evening set	-4434 Oct 29 j 00:55	18° <u>♂</u> 18'34		conjunction	-4428 Nov 25 j 14:38	2° <u>♂</u> 03'46	1°07'46
				minimum elong	-4428 Nov 25 j 14:38	2° <u>♂</u> 03'46	1°07'40
conjunction	-4434 Nov 13 j 04:46	18° <u>♂</u> 52'45	1°32'37	max. Earth dist.	-4428 Nov 26 j 04:44	2° <u>♂</u> 05'06	31.13085 AU
minimum elong	-4434 Nov 13 j 04:47	18° <u>♂</u> 52'46	1°32'33	morning rise	-4428 Dec 10 j 22:58	2° <u>♂</u> 38'23	
max. Earth dist.	-4434 Nov 13 j 14:30	18° <u>♂</u> 53'41	31.19282 AU	retrograde	-4427 Mar 11 j 01:21	4° <u>♂</u> 35'28	
morning rise	-4434 Nov 28 j 10:07	19° <u>♂</u> 27'07		opposition	-4427 May 31 j 02:09	3° <u>♂</u> 11'15	1°09'58
retrograde	-4433 Feb 26 j 04:09	21° <u>♂</u> 23'40		min. Earth dist.	-4427 May 30 j 12:02	3° <u>♂</u> 12'13	29.12638 AU
opposition	-4433 May 17 j 19:56	20° <u>♂</u> 00'04	1°36'54	direct	-4427 Aug 18 j 03:04	1° <u>♂</u> 48'25	
min. Earth dist.	-4433 May 17 j 09:30	20° <u>♂</u> 00'46	29.18969 AU	evening set	-4427 Nov 12 j 17:59	3° <u>♂</u> 41'01	
direct	-4433 Aug 05 j 08:01	18° <u>♂</u> 37'16					
evening set	-4433 Oct 31 j 10:18	20° <u>♂</u> 30'29		conjunction	-4427 Nov 28 j 00:24	4° <u>♂</u> 15'25	1°03'15
				minimum elong	-4427 Nov 28 j 00:25	4° <u>♂</u> 15'25	1°03'09
conjunction	-4433 Nov 15 j 14:20	21° <u>♂</u> 04'41	1°28'47	max. Earth dist.	-4427 Nov 28 j 15:26	4° <u>♂</u> 16'51	31.12118 AU
minimum elong	-4433 Nov 15 j 14:21	21° <u>♂</u> 04'41	1°28'43	morning rise	-4427 Dec 13 j 09:15	4° <u>♂</u> 50'05	
max. Earth dist.	-4433 Nov 15 j 23:49	21° <u>♂</u> 05'35	31.18463 AU	retrograde	-4426 Mar 13 j 14:45	6° <u>♂</u> 47'16	
morning rise	-4433 Nov 30 j 20:16	21° <u>♂</u> 39'06		opposition	-4426 Jun 02 j 15:00	5° <u>♂</u> 22'59	1°05'05
retrograde	-4432 Feb 28 j 16:29	23° <u>♂</u> 35'45		min. Earth dist.	-4426 Jun 01 j 22:52	5° <u>♂</u> 24'05	29.11712 AU
opposition	-4432 May 19 j 09:10	22° <u>♂</u> 12'05	1°32'43	direct	-4426 Aug 20 j 14:25	4° <u>♂</u> 00'10	
min. Earth dist.	-4432 May 18 j 22:53	22° <u>♂</u> 12'46	29.18080 AU	evening set	-4426 Nov 15 j 03:18	5° <u>♂</u> 52'43	
direct	-4432 Aug 06 j 19:09	20° <u>♂</u> 49'17					
evening set	-4432 Nov 01 j 19:30	22° <u>♂</u> 42'24		conjunction	-4426 Nov 30 j 10:04	6° <u>♂</u> 27'09	0°58'38
				minimum elong	-4426 Nov 30 j 10:04	6° <u>♂</u> 27'09	0°58'31
conjunction	-4432 Nov 17 j 00:05	23° <u>♂</u> 16'39	1°24'48	max. Earth dist.	-4426 Dec 01 j 01:48	6° <u>♂</u> 28'38	31.11236 AU
minimum elong	-4432 Nov 17 j 00:05	23° <u>♂</u> 16'39	1°24'44	morning rise	-4426 Dec 15 j 19:30	7° <u>♂</u> 01'52	
max. Earth dist.	-4432 Nov 17 j 11:09	23° <u>♂</u> 17'42	31.17507 AU	retrograde	-4425 Mar 16 j 03:58	8° <u>♂</u> 59'10	
morning rise	-4432 Dec 02 j 06:21	23° <u>♂</u> 51'06		min. Earth dist.	-4425 Jun 04 j 11:59	7° <u>♂</u> 35'55	29.10874 AU

Attention, astronomical year style is used: The year -4425 in astronomical counting style is the year 4426 BCE in historical counting style.

opposition	-4425 Jun 05 j 04:03	7°M.34'49	1°00'06	conjunction	-4419 Dec 15 j 10:18	21°M.54'02	0°24'09
direct	-4425 Aug 23 j 00:23	6°M.12'02		minimum elong	-4419 Dec 15 j 10:18	21°M.54'02	0°24'00
evening set	-4425 Nov 17 j 12:44	8°M.04'32		max. Earth dist.	-4419 Dec 16 j 06:13	21°M.55'55	31.05016 AU
				morning rise	-4419 Dec 30 j 23:32	22°M.29'06	
conjunction	-4425 Dec 02 j 20:04	8°M.39'01	0°53'55	retrograde	-4418 Mar 31 j 19:30	24°M.27'09	
minimum elong	-4425 Dec 02 j 20:04	8°M.39'01	0°53'49	opposition	-4418 Jun 20 j 22:02	23°M.02'29	0°22'59
max. Earth dist.	-4425 Dec 03 j 13:19	8°M.40'39	31.10443 AU	min. Earth dist.	-4418 Jun 20 j 02:39	23°M.03'48	29.04441 AU
morning rise	-4425 Dec 18 j 05:57	9°M.13'47		direct	-4418 Sep 07 j 06:22	21°M.39'50	
retrograde	-4424 Mar 17 j 16:36	11°M.11'12		evening set	-4418 Dec 02 j 10:22	23°M.32'05	
opposition	-4424 Jun 06 j 16:47	9°M.46'49	0°55'01				
min. Earth dist.	-4424 Jun 05 j 22:59	9°M.48'02	29.10097 AU	conjunction	-4418 Dec 17 j 20:51	24°M.06'51	0°19'02
direct	-4424 Aug 24 j 12:15	8°M.24'04		minimum elong	-4418 Dec 17 j 20:51	24°M.06'51	0°18'52
evening set	-4424 Nov 18 j 22:25	10°M.16'33		max. Earth dist.	-4418 Dec 18 j 17:21	24°M.08'47	31.03817 AU
				morning rise	-4417 Jan 02 j 10:38	24°M.41'57	
conjunction	-4424 Dec 04 j 06:02	10°M.51'04	0°49'07	retrograde	-4417 Apr 03 j 08:38	26°M.40'04	
minimum elong	-4424 Dec 04 j 06:02	10°M.51'04	0°48'59	opposition	-4417 Jun 23 j 10:45	25°M.15'18	0°17'29
max. Earth dist.	-4424 Dec 04 j 23:10	10°M.52'41	31.09683 AU	min. Earth dist.	-4417 Jun 22 j 13:55	25°M.16'44	29.03227 AU
morning rise	-4424 Dec 19 j 16:37	11°M.25'53		direct	-4417 Sep 09 j 17:54	23°M.52'36	
retrograde	-4423 Mar 20 j 06:17	13°M.23'25		evening set	-4417 Dec 04 j 20:40	25°M.44'50	
opposition	-4423 Jun 09 j 05:44	11°M.59'00	0°49'50				
min. Earth dist.	-4423 Jun 08 j 12:02	12°M.00'13	29.09342 AU	conjunction	-4417 Dec 20 j 07:32	26°M.19'38	0°13'53
direct	-4423 Aug 26 j 22:52	10°M.36'19		minimum elong	-4417 Dec 20 j 07:32	26°M.19'38	0°13'43
evening set	-4423 Nov 21 j 08:02	12°M.28'45		behind sun begin	-4417 Dec 20 j 04:00	26°M.19'19	
				behind sun end	-4417 Dec 20 j 11:03	26°M.19'57	
conjunction	-4423 Dec 06 j 16:13	13°M.03'20	0°44'15	max. Earth dist.	-4417 Dec 21 j 04:15	26°M.21'35	31.02604 AU
minimum elong	-4423 Dec 06 j 16:13	13°M.03'20	0°44'07	morning rise	-4416 Jan 04 j 21:58	26°M.54'46	
max. Earth dist.	-4423 Dec 07 j 11:05	13°M.05'07	31.08917 AU	retrograde	-4416 Apr 04 j 21:19	28°M.52'57	
morning rise	-4423 Dec 22 j 03:09	13°M.38'11		opposition	-4416 Jun 24 j 23:22	27°M.28'05	0°11'58
	-4422 Feb 03 j 04:29	15°M.		min. Earth dist.	-4416 Jun 24 j 03:02	27°M.29'29	29.02046 AU
retrograde	-4422 Mar 22 j 18:37	15°M.35'51		direct	-4416 Sep 11 j 03:21	26°M.05'21	
	-4422 May 11 j 02:31	15°R.M.		evening set	-4416 Dec 06 j 06:52	27°M.57'32	
opposition	-4422 Jun 11 j 18:34	14°M.11'25	0°44'35				
min. Earth dist.	-4422 Jun 10 j 23:57	14°M.12'41	29.08546 AU	conjunction	-4416 Dec 21 j 18:21	28°M.32'23	0°08'43
direct	-4422 Aug 29 j 11:42	12°M.48'46		minimum elong	-4416 Dec 21 j 18:22	28°M.32'23	0°08'32
evening set	-4422 Nov 23 j 18:01	14°M.41'11		behind sun begin	-4416 Dec 21 j 12:43	28°M.31'52	
	-4422 Dec 02 j 03:38	15°M.		behind sun end	-4416 Dec 22 j 00:00	28°M.32'53	
				max. Earth dist.	-4416 Dec 22 j 16:25	28°M.34'27	31.01462 AU
conjunction	-4422 Dec 09 j 02:29	15°M.15'48	0°39'18	morning rise	-4415 Jan 06 j 09:13	29°M.07'34	
minimum elong	-4422 Dec 09 j 02:30	15°M.15'48	0°39'09		-4415 Jan 31 j 20:02	0°M.	
max. Earth dist.	-4422 Dec 09 j 20:50	15°M.17'32	31.08100 AU	retrograde	-4415 Apr 07 j 10:10	1°M.05'48	
morning rise	-4422 Dec 24 j 14:08	15°M.50'43			-4415 Jun 15 j 18:46	30°R.M.	
retrograde	-4421 Mar 25 j 08:10	17°M.48'30		opposition	-4415 Jun 27 j 11:50	29°M.40'52	0°06'25
opposition	-4421 Jun 14 j 07:31	16°M.24'01	0°39'16	min. Earth dist.	-4415 Jun 26 j 13:52	29°M.42'22	29.00947 AU
min. Earth dist.	-4421 Jun 13 j 12:35	16°M.25'18	29.07694 AU	direct	-4415 Sep 13 j 15:17	28°M.18'05	
direct	-4421 Aug 31 j 21:50	15°M.01'24			-4415 Dec 04 j 00:46	0°M.	
evening set	-4421 Nov 26 j 03:56	16°M.53'47		evening set	-4415 Dec 08 j 17:14	0°M.10'15	
conjunction	-4421 Dec 11 j 13:00	17°M.28'26	0°34'18	conjunction	-4415 Dec 24 j 05:00	0°M.45'08	0°03'33
minimum elong	-4421 Dec 11 j 13:01	17°M.28'26	0°34'09	minimum elong	-4415 Dec 24 j 05:00	0°M.45'08	0°03'22
max. Earth dist.	-4421 Dec 12 j 08:38	17°M.30'18	31.07188 AU	behind sun begin	-4415 Dec 23 j 22:35	0°M.44'33	
morning rise	-4421 Dec 27 j 01:05	18°M.03'25		behind sun end	-4415 Dec 24 j 11:24	0°M.45'42	
retrograde	-4420 Mar 26 j 18:47	20°M.01'18		max. Earth dist.	-4415 Dec 25 j 02:52	0°M.47'11	31.00415 AU
opposition	-4420 Jun 15 j 20:27	18°M.36'46	0°33'53	morning rise	-4414 Jan 08 j 20:32	1°M.20'21	
min. Earth dist.	-4420 Jun 15 j 01:26	18°M.38'04	29.06717 AU	retrograde	-4414 Apr 10 j 00:24	3°M.18'40	
direct	-4420 Sep 02 j 09:47	17°M.14'10		min. Earth dist.	-4414 Jun 29 j 02:31	1°M.55'10	28.99973 AU
evening set	-4420 Nov 27 j 14:10	19°M.06'31		opposition	-4414 Jun 30 j 00:27	1°M.53'39	0°00'51
				desc. node	-4414 Aug 25 j 15:18	0°M.38'39	
conjunction	-4420 Dec 12 j 23:38	19°M.41'13	0°29'15	direct	-4414 Sep 16 j 02:10	0°M.30'52	
minimum elong	-4420 Dec 12 j 23:38	19°M.41'13	0°29'06	evening set	-4414 Dec 11 j 03:34	2°M.23'01	
max. Earth dist.	-4420 Dec 13 j 18:47	19°M.43'01	31.06162 AU				
morning rise	-4420 Dec 28 j 12:21	20°M.16'14		conjunction	-4414 Dec 26 j 15:59	2°M.57'57	-0°01'47
retrograde	-4419 Mar 29 j 08:19	22°M.14'12		minimum elong	-4414 Dec 26 j 15:59	2°M.57'57	0°01'58
opposition	-4419 Jun 18 j 09:09	20°M.49'37	0°28'28	behind sun begin	-4414 Dec 26 j 09:32	2°M.57'22	
min. Earth dist.	-4419 Jun 17 j 13:16	20°M.50'58	29.05629 AU	behind sun end	-4414 Dec 26 j 22:26	2°M.58'31	
direct	-4419 Sep 04 j 19:50	19°M.26'59		max. Earth dist.	-4414 Dec 27 j 15:41	3°M.00'11	30.99503 AU
evening set	-4419 Nov 30 j 00:20	21°M.19'18		morning rise	-4413 Jan 11 j 07:54	3°M.33'13	
				retrograde	-4413 Apr 12 j 13:34	5°M.31'36	

Attention, astronomical year style is used: The year -4413 in astronomical counting style is the year 4414 BCE in historical counting style.

opposition	-4413 Jul 02 j 12:54	4°♏06'32	-0°04'42	evening set	-4407 Dec 26 j 08:40	17°♏56'47	
min. Earth dist.	-4413 Jul 01 j 13:53	4°♏08'07	28.99121 AU				
direct	-4413 Sep 18 j 15:00	2°♏43'45		conjunction	-4406 Jan 11 j 00:20	18°♏31'57	-0°37'49
evening set	-4413 Dec 13 j 14:09	4°♏35'55		minimum elong	-4406 Jan 11 j 00:20	18°♏31'57	0°38'01
				max. Earth dist.	-4406 Jan 12 j 01:40	18°♏34'20	30.94445 AU
conjunction	-4413 Dec 29 j 02:56	5°♏10'52	-0°07'00	morning rise	-4406 Jan 26 j 19:49	19°♏07'30	
minimum elong	-4413 Dec 29 j 02:55	5°♏10'52	0°07'11	retrograde	-4406 Apr 28 j 07:55	21°♏06'22	
behind sun begin	-4413 Dec 28 j 20:58	5°♏10'20		min. Earth dist.	-4406 Jul 17 j 03:42	19°♏42'50	28.94015 AU
behind sun end	-4413 Dec 29 j 08:52	5°♏11'24		opposition	-4406 Jul 18 j 03:56	19°♏41'09	-0°43'10
max. Earth dist.	-4413 Dec 30 j 02:14	5°♏13'04	30.98717 AU	direct	-4406 Oct 03 j 19:00	18°♏18'19	
morning rise	-4412 Jan 13 j 19:33	5°♏46'11		evening set	-4406 Dec 28 j 20:17	20°♏10'37	
retrograde	-4412 Apr 14 j 03:08	7°♏44'39					
min. Earth dist.	-4412 Jul 03 j 02:02	6°♏21'10	28.98391 AU	conjunction	-4405 Jan 13 j 12:15	20°♏45'49	-0°42'48
opposition	-4412 Jul 04 j 01:25	6°♏19'34	-0°10'16	minimum elong	-4405 Jan 13 j 12:15	20°♏45'49	0°43'01
direct	-4412 Sep 20 j 00:58	4°♏56'47		max. Earth dist.	-4405 Jan 14 j 12:37	20°♏48'06	30.93485 AU
evening set	-4412 Dec 15 j 00:49	6°♏48'57		morning rise	-4405 Jan 29 j 08:23	21°♏21'24	
				retrograde	-4405 Apr 30 j 21:58	23°♏20'17	
conjunction	-4412 Dec 30 j 14:10	7°♏23'57	-0°12'11	opposition	-4405 Jul 20 j 16:16	21°♏55'00	-0°48'29
minimum elong	-4412 Dec 30 j 14:10	7°♏23'57	0°12'22	min. Earth dist.	-4405 Jul 19 j 16:52	21°♏56'37	28.93040 AU
behind sun begin	-4412 Dec 30 j 09:53	7°♏23'33		direct	-4405 Oct 06 j 05:45	20°♏32'06	
behind sun end	-4412 Dec 30 j 18:27	7°♏24'20		evening set	-4405 Dec 31 j 07:49	22°♏24'24	
max. Earth dist.	-4412 Dec 31 j 14:53	7°♏26'17	30.98019 AU				
morning rise	-4411 Jan 15 j 07:11	7°♏59'18		conjunction	-4404 Jan 16 j 00:26	22°♏59'38	-0°47'44
retrograde	-4411 Apr 16 j 14:51	9°♏57'50		minimum elong	-4404 Jan 16 j 00:26	22°♏59'38	0°47'57
opposition	-4411 Jul 06 j 13:46	8°♏32'45	-0°15'50	max. Earth dist.	-4404 Jan 17 j 02:00	23°♏02'03	30.92494 AU
min. Earth dist.	-4411 Jul 05 j 14:14	8°♏34'22	28.97726 AU	morning rise	-4404 Jan 31 j 20:53	23°♏35'15	
direct	-4411 Sep 22 j 13:14	7°♏10'00		retrograde	-4404 May 02 j 10:58	25°♏34'09	
evening set	-4411 Dec 17 j 11:42	9°♏02'11		min. Earth dist.	-4404 Jul 21 j 04:31	24°♏10'28	28.92052 AU
				opposition	-4404 Jul 22 j 04:24	24°♏08'48	-0°53'43
conjunction	-4410 Jan 02 j 01:26	9°♏37'13	-0°17'21	direct	-4404 Oct 07 j 18:41	22°♏45'51	
minimum elong	-4410 Jan 02 j 01:26	9°♏37'13	0°17'33	evening set	-4403 Jan 01 j 19:34	24°♏38'10	
max. Earth dist.	-4410 Jan 03 j 01:52	9°♏39'31	30.97388 AU				
morning rise	-4410 Jan 17 j 19:02	10°♏12'37		conjunction	-4403 Jan 17 j 12:28	25°♏13'26	-0°52'36
retrograde	-4410 Apr 19 j 05:34	12°♏11'14		minimum elong	-4403 Jan 17 j 12:27	25°♏13'26	0°52'49
min. Earth dist.	-4410 Jul 08 j 01:49	10°♏47'49	28.97110 AU	max. Earth dist.	-4403 Jan 18 j 13:08	25°♏15'45	30.91526 AU
opposition	-4410 Jul 09 j 02:13	10°♏46'08	-0°21'22	morning rise	-4403 Feb 02 j 09:30	25°♏49'05	
direct	-4410 Sep 24 j 23:46	9°♏23'24		retrograde	-4403 May 05 j 00:55	27°♏48'00	
evening set	-4410 Dec 19 j 22:38	11°♏15'36		opposition	-4403 Jul 24 j 16:27	26°♏22'35	-0°58'52
				min. Earth dist.	-4403 Jul 23 j 16:37	26°♏24'15	28.91130 AU
conjunction	-4409 Jan 04 j 12:50	11°♏50'40	-0°22'31	direct	-4403 Oct 10 j 05:03	24°♏59'35	
minimum elong	-4409 Jan 04 j 12:50	11°♏50'40	0°22'43	evening set	-4402 Jan 04 j 07:16	26°♏51'56	
max. Earth dist.	-4409 Jan 05 j 13:57	11°♏53'02	30.96757 AU				
morning rise	-4409 Jan 20 j 06:56	12°♏26'07		conjunction	-4402 Jan 20 j 00:42	27°♏27'14	-0°57'23
retrograde	-4409 Apr 21 j 16:50	14°♏24'50		minimum elong	-4402 Jan 20 j 00:42	27°♏27'14	0°57'36
opposition	-4409 Jul 11 j 14:47	12°♏59'43	-0°26'53	max. Earth dist.	-4402 Jan 21 j 02:33	27°♏29'40	30.90637 AU
min. Earth dist.	-4409 Jul 10 j 15:10	13°♏01'21	28.96466 AU	morning rise	-4402 Feb 04 j 22:02	28°♏02'54	
direct	-4409 Sep 27 j 10:23	11°♏36'59			-4402 Apr 26 j 21:45	0°♏	
evening set	-4409 Dec 22 j 09:53	13°♏29'13		retrograde	-4402 May 07 j 13:35	0°♏01'50	
					-4402 May 18 j 04:46	30°♏	
conjunction	-4408 Jan 07 j 00:37	14°♏04'19	-0°27'39	min. Earth dist.	-4402 Jul 26 j 04:39	28°♏38'04	28.90303 AU
minimum elong	-4408 Jan 07 j 00:36	14°♏04'19	0°27'51	opposition	-4402 Jul 27 j 04:31	28°♏36'24	-1°03'57
max. Earth dist.	-4408 Jan 08 j 01:50	14°♏06'42	30.96088 AU	direct	-4402 Oct 12 j 17:45	27°♏13'21	
morning rise	-4408 Jan 22 j 19:11	14°♏39'48		evening set	-4401 Jan 06 j 19:02	29°♏05'45	
retrograde	-4408 Apr 23 j 06:00	16°♏38'34					
min. Earth dist.	-4408 Jul 12 j 02:36	15°♏15'08	28.95756 AU	conjunction	-4401 Jan 22 j 12:51	29°♏41'04	-1°02'05
opposition	-4408 Jul 13 j 03:03	15°♏13'27	-0°32'22	minimum elong	-4401 Jan 22 j 12:51	29°♏41'04	1°02'17
direct	-4408 Sep 28 j 21:22	13°♏50'42		max. Earth dist.	-4401 Jan 23 j 14:15	29°♏43'28	30.89878 AU
evening set	-4408 Dec 23 j 21:22	15°♏42'58			-4401 Jan 30 j 22:01	0°♏	
				morning rise	-4401 Feb 07 j 10:44	0°♏16'46	
conjunction	-4407 Jan 08 j 12:27	16°♏18'06	-0°32'46	retrograde	-4401 May 10 j 04:35	2°♏15'44	
minimum elong	-4407 Jan 08 j 12:27	16°♏18'06	0°32'57	opposition	-4401 Jul 29 j 16:31	0°♏50'17	-1°08'55
max. Earth dist.	-4407 Jan 09 j 13:09	16°♏20'26	30.95316 AU	min. Earth dist.	-4401 Jul 28 j 15:54	0°♏52'00	28.89614 AU
morning rise	-4407 Jan 24 j 07:35	16°♏53'37			-4401 Aug 30 j 21:50	30°♏	
retrograde	-4407 Apr 25 j 18:39	18°♏52'27		direct	-4401 Oct 15 j 04:54	29°♏27'12	
opposition	-4407 Jul 15 j 15:36	17°♏27'17	-0°37'48		-4401 Nov 28 j 01:37	0°♏	
min. Earth dist.	-4407 Jul 14 j 16:17	17°♏28'54	28.94938 AU	evening set	-4400 Jan 09 j 07:03	1°♏19'40	
direct	-4407 Oct 01 j 06:44	16°♏04'30					

Attention, astronomical year style is used: The year -4400 in astronomical counting style is the year 4401 BCE in historical counting style.

conjunction	-4400 Jan 25 j 01:19	1°35'01	-1°06'42
minimum elong	-4400 Jan 25 j 01:18	1°35'01	1°06'54
max. Earth dist.	-4400 Jan 26 j 03:17	1°35'28	30.89237 AU
morning rise	-4400 Feb 09 j 23:35	2°33'45	
retrograde	-4400 May 11 j 15:49	4°32'45	
min. Earth dist.	-4400 Jul 30 j 04:32	3°30'58	28.89044 AU
opposition	-4400 Jul 31 j 04:25	3°30'18	-1°13'48
direct	-4400 Oct 16 j 15:37	1°34'13	
evening set	-4399 Jan 10 j 19:07	3°33'45	

conjunction	-4399 Jan 26 j 13:52	4°30'08	-1°11'12
minimum elong	-4399 Jan 26 j 13:51	4°30'08	1°11'25
max. Earth dist.	-4399 Jan 27 j 15:59	4°31'35	30.88730 AU
morning rise	-4399 Feb 11 j 12:30	4°34'54	
retrograde	-4399 May 14 j 05:14	6°34'56	
opposition	-4399 Aug 02 j 16:18	5°31'30	-1°18'34
min. Earth dist.	-4399 Aug 01 j 15:28	5°32'14	28.88589 AU
direct	-4399 Oct 19 j 02:31	3°35'25	