

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1

Attention, astronomical year style is used: The year -8900 in astronomical counting style is the year 8901 BCE in historical counting style.

evening set	-8900 Mar 02 j 10:04	16° $\text{Z}$ 25'52		conjunction	-8895 Aug 25 j 04:36	28° $\text{II}$ 58'59	1°36'21
				minimum elong	-8895 Aug 25 j 04:37	28° $\text{II}$ 58'59	1°36'55
conjunction	-8900 Mar 16 j 03:30	19° $\text{Z}$ 32'57	-1°25'29		-8895 Aug 29 j 15:46	0° $\text{Z}$	
minimum elong	-8900 Mar 16 j 03:34	19° $\text{Z}$ 33'00	1°26'01	morning rise	-8895 Sep 06 j 13:38	1° $\text{Z}$ 47'47	
max. Earth dist.	-8900 Mar 16 j 23:16	19° $\text{Z}$ 44'13	6.16697 AU	retrograde	-8894 Jan 09 j 11:19	19° $\text{Z}$ 56'15	
morning rise	-8900 Mar 29 j 20:15	22° $\text{Z}$ 39'35		opposition	-8894 Mar 11 j 20:20	15° $\text{Z}$ 02'25	2°12'02
	-8900 May 02 j 13:54	0° $\approx$		min. Earth dist.	-8894 Mar 12 j 10:53	14° $\text{Z}$ 57'48	4.23931 AU
retrograde	-8900 Aug 02 j 07:18	11° $\approx$ 15'17		direct	-8894 May 12 j 05:02	10° $\text{Z}$ 07'32	
opposition	-8900 Sep 30 j 08:41	6° $\approx$ 14'43	-1°42'45	evening set	-8894 Sep 13 j 10:47	28° $\text{Z}$ 23'26	
min. Earth dist.	-8900 Sep 30 j 02:52	6° $\approx$ 16'41	4.20973 AU		-8894 Sep 20 j 10:19	0° $\Omega$	
direct	-8900 Nov 29 j 08:55	1° $\approx$ 11'08		conjunction	-8894 Sep 25 j 23:02	1° $\Omega$ 16'47	1°15'32
	-8899 Mar 15 j 07:43	15° $\approx$		minimum elong	-8894 Sep 25 j 23:07	1° $\Omega$ 16'50	1°16'02
evening set	-8899 Apr 06 j 20:17	19° $\approx$ 54'25		max. Earth dist.	-8894 Sep 25 j 12:17	1° $\Omega$ 10'34	6.19689 AU
conjunction	-8899 Apr 20 j 11:06	22° $\approx$ 57'05	-0°47'36	morning rise	-8894 Oct 08 j 12:32	4° $\Omega$ 10'59	
minimum elong	-8899 Apr 20 j 11:10	22° $\approx$ 57'07	0°48'00		-8894 Nov 28 j 06:33	15° $\Omega$	
max. Earth dist.	-8899 Apr 20 j 09:44	22° $\approx$ 56'19	6.25078 AU	retrograde	-8893 Feb 13 j 12:23	23° $\Omega$ 05'01	
morning rise	-8899 May 03 j 23:33	25° $\approx$ 58'25		opposition	-8893 Apr 15 j 21:15	18° $\Omega$ 07'48	1°21'14
	-8899 May 22 j 09:08	0° $\text{X}$		min. Earth dist.	-8893 Apr 15 j 22:12	18° $\Omega$ 07'30	4.15539 AU
retrograde	-8899 Sep 03 j 09:30	13° $\text{X}$ 47'26			-8893 May 12 j 07:04	15° $\text{R}$ $\Omega$	
opposition	-8899 Nov 01 j 17:29	8° $\text{X}$ 50'41	-0°33'44	direct	-8893 Jun 14 j 23:45	13° $\Omega$ 14'43	
min. Earth dist.	-8899 Nov 02 j 00:14	8° $\text{X}$ 48'26	4.28761 AU		-8893 Jul 18 j 07:21	15° $\Omega$	
direct	-8898 Jan 01 j 23:05	3° $\text{X}$ 46'25			-8893 Oct 08 j 17:21	0° $\text{P}$	
asc. node	-8898 Apr 21 j 20:02	18° $\text{X}$ 05'47		evening set	-8893 Oct 16 j 07:28	1° $\text{P}$ 45'25	
evening set	-8898 May 10 j 16:15	22° $\text{X}$ 10'35		conjunction	-8893 Oct 29 j 03:22	4° $\text{P}$ 45'37	0°29'36
max. Earth dist.	-8898 May 23 j 04:43	24° $\text{X}$ 56'58	6.31746 AU	minimum elong	-8893 Oct 29 j 03:25	4° $\text{P}$ 45'39	0°29'54
conjunction	-8898 May 24 j 00:03	25° $\text{X}$ 07'42	0°04'21	max. Earth dist.	-8893 Oct 29 j 11:13	4° $\text{P}$ 50'13	6.11723 AU
minimum elong	-8898 May 24 j 00:03	25° $\text{X}$ 07'42	0°04'14	morning rise	-8893 Nov 11 j 02:18	7° $\text{P}$ 47'31	
behind sun begin	-8898 May 23 j 16:01	25° $\text{X}$ 03'16		retrograde	-8892 Mar 20 j 16:04	27° $\text{P}$ 23'46	
behind sun end	-8898 May 24 j 08:04	25° $\text{X}$ 12'08		opposition	-8892 May 20 j 15:15	22° $\text{P}$ 22'34	0°00'46
morning rise	-8898 Jun 06 j 04:20	28° $\text{X}$ 03'02		min. Earth dist.	-8892 May 20 j 02:11	22° $\text{P}$ 26'52	4.08606 AU
	-8898 Jun 15 j 01:51	0° $\text{Y}$		desc. node	-8892 May 24 j 02:38	21° $\text{P}$ 55'07	
retrograde	-8898 Oct 04 j 21:44	15° $\text{Y}$ 22'56		direct	-8892 Jul 18 j 13:18	17° $\text{P}$ 29'24	
opposition	-8898 Dec 03 j 17:33	10° $\text{Y}$ 29'26	0°43'27		-8892 Oct 22 j 05:30	0° $\text{Z}$	
min. Earth dist.	-8898 Dec 04 j 11:23	10° $\text{Y}$ 23'38	4.33805 AU	evening set	-8892 Nov 18 j 21:04	6° $\text{Z}$ 17'45	
direct	-8897 Feb 03 j 21:36	5° $\text{Y}$ 26'22		conjunction	-8892 Dec 02 j 02:17	9° $\text{Z}$ 24'19	-0°27'41
evening set	-8897 Jun 12 j 02:14	23° $\text{Y}$ 36'23		minimum elong	-8892 Dec 02 j 02:14	9° $\text{Z}$ 24'17	0°27'42
max. Earth dist.	-8897 Jun 23 j 16:21	26° $\text{Y}$ 10'27	6.34721 AU	max. Earth dist.	-8892 Dec 03 j 05:52	9° $\text{Z}$ 40'34	6.06495 AU
conjunction	-8897 Jun 25 j 00:15	26° $\text{Y}$ 28'10	0°54'01	morning rise	-8892 Dec 15 j 10:52	12° $\text{Z}$ 32'44	
minimum elong	-8897 Jun 25 j 00:10	26° $\text{Y}$ 28'08	0°54'13		-8891 Mar 16 j 08:34	0° $\text{M}$	
morning rise	-8897 Jul 07 j 19:02	29° $\text{Y}$ 18'20		retrograde	-8891 Apr 26 j 04:35	2° $\text{M}$ 32'33	
	-8897 Jul 10 j 22:38	0° $\text{Z}$			-8891 Jun 05 j 19:07	30° $\text{R}$ $\text{Z}$	
	-8897 Oct 04 j 20:09	15° $\text{Z}$		opposition	-8891 Jun 25 j 11:40	27° $\text{Z}$ 28'19	-1°21'46
retrograde	-8897 Nov 05 j 11:47	16° $\text{Z}$ 32'57		min. Earth dist.	-8891 Jun 24 j 13:46	27° $\text{Z}$ 35'42	4.05664 AU
	-8897 Dec 07 j 07:46	15° $\text{R}$ $\text{Z}$		direct	-8891 Aug 22 j 16:28	22° $\text{Z}$ 33'13	
opposition	-8896 Jan 04 j 22:37	11° $\text{Z}$ 41'09	1°47'08		-8891 Nov 01 j 07:21	0° $\text{M}$	
min. Earth dist.	-8896 Jan 05 j 22:20	11° $\text{Z}$ 33'33	4.34636 AU	evening set	-8891 Dec 25 j 01:53	11° $\text{M}$ 36'08	
direct	-8896 Mar 07 j 11:29	6° $\text{Z}$ 40'25		conjunction	-8890 Jan 07 j 14:04	14° $\text{M}$ 45'49	-1°15'33
	-8896 May 26 j 13:41	15° $\text{Z}$		minimum elong	-8890 Jan 07 j 13:59	14° $\text{M}$ 45'46	1°15'54
evening set	-8896 Jul 12 j 14:06	24° $\text{Z}$ 44'37			-8890 Jan 08 j 14:16	15° $\text{M}$	
max. Earth dist.	-8896 Jul 23 j 18:41	27° $\text{Z}$ 14'44	6.33223 AU	max. Earth dist.	-8890 Jan 09 j 01:55	15° $\text{M}$ 06'50	6.05984 AU
conjunction	-8896 Jul 25 j 03:33	27° $\text{Z}$ 33'11	1°27'54	morning rise	-8890 Jan 21 j 05:20	17° $\text{M}$ 57'00	
minimum elong	-8896 Jul 25 j 03:30	27° $\text{Z}$ 33'08	1°28'19		-8890 Mar 18 j 11:30	0° $\text{Z}$	
	-8896 Aug 05 j 01:34	0° $\text{II}$		retrograde	-8890 Jun 01 j 01:54	7° $\text{Z}$ 50'15	
morning rise	-8896 Aug 06 j 14:36	0° $\text{II}$ 20'40		opposition	-8890 Jul 30 j 17:36	2° $\text{Z}$ 45'06	-2°14'18
retrograde	-8896 Dec 06 j 19:30	17° $\text{II}$ 53'01		min. Earth dist.	-8890 Jul 29 j 18:07	2° $\text{Z}$ 53'07	4.07776 AU
opposition	-8895 Feb 05 j 20:46	13° $\text{II}$ 01'10	2°20'15		-8890 Aug 21 j 03:49	30° $\text{R}$ $\text{M}$	
min. Earth dist.	-8895 Feb 06 j 19:19	12° $\text{II}$ 54'01	4.31017 AU	direct	-8890 Sep 26 j 23:14	27° $\text{M}$ 46'41	
direct	-8895 Apr 09 j 02:24	8° $\text{II}$ 03'30			-8890 Nov 02 j 22:10	0° $\text{Z}$	
evening set	-8895 Aug 12 j 19:12	26° $\text{II}$ 10'04		evening set	-8889 Jan 31 j 01:08	16° $\text{Z}$ 53'52	
max. Earth dist.	-8895 Aug 24 j 01:34	28° $\text{II}$ 43'35	6.27681 AU	conjunction	-8889 Feb 13 j 17:31	20° $\text{Z}$ 03'12	-1°35'37

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -8889 in astronomical counting style is the year 8890 BCE in historical counting style.

minimum elong	-8889 Feb 13 j 17:31	20° $\text{𐌶}$ 03'11	1°36'10	morning rise	-8884 Aug 10 j 23:20	4° $\text{𐌹}$ 52'03	
max. Earth dist.	-8889 Feb 15 j 02:21	20° $\text{𐌶}$ 22'10	6.10411 AU	retrograde	-8884 Dec 11 j 12:28	22° $\text{𐌹}$ 29'03	
morning rise	-8889 Feb 27 j 11:00	23° $\text{𐌶}$ 12'59		opposition	-8883 Feb 10 j 14:50	17° $\text{𐌹}$ 37'03	2°21'45
	-8889 Mar 30 j 00:26	0° $\text{𐌶}$		min. Earth dist.	-8883 Feb 11 j 12:42	17° $\text{𐌹}$ 30'06	4.30053 AU
retrograde	-8889 Jul 05 j 18:20	12° $\text{𐌶}$ 30'30		direct	-8883 Apr 13 j 18:06	12° $\text{𐌹}$ 39'48	
opposition	-8889 Sep 02 j 22:16	7° $\text{𐌶}$ 27'02	-2°17'39		-8883 Aug 13 j 17:15	0° $\text{𐌹}$	
min. Earth dist.	-8889 Sep 02 j 06:37	7° $\text{𐌶}$ 32'23	4.14107 AU	evening set	-8883 Aug 17 j 06:06	0° $\text{𐌹}$ 47'54	
direct	-8889 Oct 31 j 22:48	2° $\text{𐌶}$ 25'20					
evening set	-8888 Mar 07 j 13:23	21° $\text{𐌶}$ 23'11		conjunction	-8883 Aug 29 j 15:40	3° $\text{𐌹}$ 37'19	1°35'10
				minimum elong	-8883 Aug 29 j 15:42	3° $\text{𐌹}$ 37'20	1°35'44
conjunction	-8888 Mar 21 j 06:37	24° $\text{𐌶}$ 29'37	-1°21'32	max. Earth dist.	-8883 Aug 28 j 15:50	3° $\text{𐌹}$ 23'42	6.26532 AU
minimum elong	-8888 Mar 21 j 06:42	24° $\text{𐌶}$ 29'39	1°22'04	morning rise	-8883 Sep 11 j 00:49	6° $\text{𐌹}$ 26'42	
max. Earth dist.	-8888 Mar 21 j 23:10	24° $\text{𐌶}$ 39'00	6.18100 AU	retrograde	-8882 Jan 14 j 09:03	24° $\text{𐌹}$ 41'44	
morning rise	-8888 Apr 03 j 23:02	27° $\text{𐌶}$ 35'28		opposition	-8882 Mar 16 j 18:36	19° $\text{𐌹}$ 47'35	2°07'16
	-8888 Apr 14 j 17:53	0° $\text{𐌹}$		min. Earth dist.	-8882 Mar 17 j 07:18	19° $\text{𐌹}$ 43'33	4.22694 AU
	-8888 Jul 12 j 11:46	15° $\text{𐌹}$		direct	-8882 May 16 j 23:06	14° $\text{𐌹}$ 53'09	
retrograde	-8888 Aug 06 j 20:43	16° $\text{𐌹}$ 03'07			-8882 Sep 04 j 01:10	0° $\text{𐌹}$	
	-8888 Sep 01 j 02:13	15° $\text{𐌹}$		evening set	-8882 Sep 18 j 01:20	3° $\text{𐌹}$ 11'08	
opposition	-8888 Oct 04 j 23:54	11° $\text{𐌹}$ 03'02	-1°34'20				
min. Earth dist.	-8888 Oct 04 j 19:20	11° $\text{𐌹}$ 04'35	4.22354 AU	conjunction	-8882 Sep 30 j 14:17	6° $\text{𐌹}$ 05'21	1°10'18
direct	-8888 Dec 04 j 04:02	5° $\text{𐌹}$ 59'12		minimum elong	-8882 Sep 30 j 14:21	6° $\text{𐌹}$ 05'24	1°10'48
	-8887 Feb 24 j 13:10	15° $\text{𐌹}$		max. Earth dist.	-8882 Sep 30 j 05:23	6° $\text{𐌹}$ 00'11	6.18494 AU
evening set	-8887 Apr 11 j 17:32	24° $\text{𐌹}$ 39'02		morning rise	-8882 Oct 13 j 05:01	9° $\text{𐌹}$ 00'36	
					-8882 Nov 08 j 22:41	15° $\text{𐌹}$	
conjunction	-8887 Apr 25 j 07:36	27° $\text{𐌹}$ 40'52	-0°40'43	retrograde	-8881 Feb 18 j 14:40	28° $\text{𐌹}$ 01'07	
minimum elong	-8887 Apr 25 j 07:39	27° $\text{𐌹}$ 40'54	0°41'04	opposition	-8881 Apr 20 j 22:39	23° $\text{𐌹}$ 03'20	1°11'05
max. Earth dist.	-8887 Apr 25 j 03:13	27° $\text{𐌹}$ 38'25	6.26345 AU	min. Earth dist.	-8881 Apr 20 j 21:03	23° $\text{𐌹}$ 03'51	4.14483 AU
	-8887 May 05 j 16:46	0° $\text{𐌹}$		direct	-8881 Jun 19 j 20:37	18° $\text{𐌹}$ 10'22	
morning rise	-8887 May 08 j 19:04	0° $\text{𐌹}$ 41'17			-8881 Sep 21 j 07:53	0° $\text{𐌹}$	
retrograde	-8887 Sep 07 j 21:31	18° $\text{𐌹}$ 24'26		evening set	-8881 Oct 21 j 02:55	6° $\text{𐌹}$ 43'09	
opposition	-8887 Nov 06 j 06:19	13° $\text{𐌹}$ 28'13	-0°22'47				
min. Earth dist.	-8887 Nov 06 j 15:31	13° $\text{𐌹}$ 25'10	4.29801 AU	conjunction	-8881 Nov 03 j 00:15	9° $\text{𐌹}$ 44'19	0°21'44
direct	-8886 Jan 06 j 16:22	8° $\text{𐌹}$ 24'03		minimum elong	-8881 Nov 03 j 00:17	9° $\text{𐌹}$ 44'20	0°21'59
asc. node	-8886 Mar 01 j 01:08	12° $\text{𐌹}$ 25'40		max. Earth dist.	-8881 Nov 03 j 12:42	9° $\text{𐌹}$ 51'37	6.10930 AU
evening set	-8886 May 15 j 07:50	26° $\text{𐌹}$ 45'26		morning rise	-8881 Nov 16 j 00:30	12° $\text{𐌹}$ 47'10	
					-8880 Feb 14 j 09:52	0° $\text{𐌹}$	
conjunction	-8886 May 28 j 14:21	29° $\text{𐌹}$ 41'44	0°11'49	retrograde	-8880 Mar 25 j 20:27	2° $\text{𐌹}$ 27'23	
minimum elong	-8886 May 28 j 14:20	29° $\text{𐌹}$ 41'43	0°11'45	desc. node	-8880 Apr 02 j 21:46	2° $\text{𐌹}$ 21'11	
behind sun begin	-8886 May 28 j 08:39	29° $\text{𐌹}$ 38'35			-8880 May 05 j 06:09	30° $\text{𐌹}$	
behind sun end	-8886 May 28 j 20:02	29° $\text{𐌹}$ 44'52		opposition	-8880 May 25 j 17:35	27° $\text{𐌹}$ 25'43	-0°11'33
max. Earth dist.	-8886 May 27 j 16:03	29° $\text{𐌹}$ 29'22	6.32470 AU	min. Earth dist.	-8880 May 25 j 03:06	27° $\text{𐌹}$ 30'30	4.08159 AU
	-8886 May 29 j 23:17	0° $\text{𐌹}$		direct	-8880 Jul 23 j 12:43	22° $\text{𐌹}$ 32'27	
morning rise	-8886 Jun 10 j 17:22	2° $\text{𐌹}$ 36'14			-8880 Oct 02 j 09:50	0° $\text{𐌹}$	
retrograde	-8886 Oct 09 j 07:35	19° $\text{𐌹}$ 53'53		evening set	-8880 Nov 23 j 21:47	11° $\text{𐌹}$ 22'08	
opposition	-8886 Dec 08 j 05:57	15° $\text{𐌹}$ 00'41	0°53'42				
min. Earth dist.	-8886 Dec 09 j 00:51	14° $\text{𐌹}$ 54'33	4.34193 AU	conjunction	-8880 Dec 07 j 03:54	14° $\text{𐌹}$ 29'09	-0°35'29
direct	-8885 Feb 08 j 11:55	9° $\text{𐌹}$ 57'50		minimum elong	-8880 Dec 07 j 03:51	14° $\text{𐌹}$ 29'07	0°35'33
evening set	-8885 Jun 16 j 14:03	28° $\text{𐌹}$ 06'42		max. Earth dist.	-8880 Dec 08 j 08:21	14° $\text{𐌹}$ 45'54	6.06407 AU
	-8885 Jun 25 j 02:38	0° $\text{𐌹}$		morning rise	-8880 Dec 20 j 13:45	17° $\text{𐌹}$ 38'05	
max. Earth dist.	-8885 Jun 28 j 02:41	0° $\text{𐌹}$ 40'04	6.34738 AU		-8879 Feb 16 j 07:27	0° $\text{𐌹}$	
				retrograde	-8879 May 01 j 05:36	7° $\text{𐌹}$ 37'43	
conjunction	-8885 Jun 29 j 10:45	0° $\text{𐌹}$ 57'54	1°00'02	opposition	-8879 Jun 30 j 11:45	2° $\text{𐌹}$ 33'12	-1°31'32
minimum elong	-8885 Jun 29 j 10:41	0° $\text{𐌹}$ 57'52	1°00'16	min. Earth dist.	-8879 Jun 29 j 12:29	2° $\text{𐌹}$ 41'03	4.05959 AU
morning rise	-8885 Jul 12 j 04:10	3° $\text{𐌹}$ 47'31			-8879 Jul 20 j 10:19	30° $\text{𐌹}$	
	-8885 Sep 05 j 19:06	15° $\text{𐌹}$		direct	-8879 Aug 27 j 15:47	27° $\text{𐌹}$ 37'40	
retrograde	-8885 Nov 09 j 23:50	21° $\text{𐌹}$ 03'31			-8879 Oct 04 j 17:17	0° $\text{𐌹}$	
opposition	-8884 Jan 09 j 12:52	16° $\text{𐌹}$ 11'53	1°54'00		-8879 Dec 22 j 23:20	15° $\text{𐌹}$	
min. Earth dist.	-8884 Jan 10 j 13:14	16° $\text{𐌹}$ 04'06	4.34302 AU	evening set	-8879 Dec 30 j 05:31	16° $\text{𐌹}$ 40'46	
	-8884 Jan 19 j 00:11	15° $\text{𐌹}$					
direct	-8884 Mar 12 j 01:56	11° $\text{𐌹}$ 11'36		conjunction	-8878 Jan 12 j 18:31	19° $\text{𐌹}$ 50'27	-1°20'18
	-8884 May 03 j 04:48	15° $\text{𐌹}$		minimum elong	-8878 Jan 12 j 18:26	19° $\text{𐌹}$ 50'24	1°20'41
evening set	-8884 Jul 17 j 00:18	29° $\text{𐌹}$ 16'07		max. Earth dist.	-8878 Jan 14 j 07:38	20° $\text{𐌹}$ 12'09	6.06615 AU
	-8884 Jul 20 j 06:53	0° $\text{𐌹}$		morning rise	-8878 Jan 26 j 10:05	23° $\text{𐌹}$ 01'26	
max. Earth dist.	-8884 Jul 28 j 02:50	1° $\text{𐌹}$ 45'28	6.32540 AU		-8878 Feb 26 j 11:57	0° $\text{𐌹}$	
				retrograde	-8878 Jun 06 j 00:42	12° $\text{𐌹}$ 50'14	
conjunction	-8884 Jul 29 j 12:46	2° $\text{𐌹}$ 04'32	1°30'47	opposition	-8878 Aug 04 j 13:39	7° $\text{𐌹}$ 45'11	-2°17'49
minimum elong	-8884 Jul 29 j 12:43	2° $\text{𐌹}$ 04'30	1°31'15	min. Earth dist.	-8878 Aug 03 j 15:53	7° $\text{𐌹}$ 52'38	4.08676 AU

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

Attention, astronomical year style is used: The year -8878 in astronomical counting style is the year 8879 BCE in historical counting style.

direct	-8878 Oct 01 j 21:50	2°♌46'17		morning rise	-8872 Aug 15 j 08:57	9°♊27'01	
evening set	-8877 Feb 05 j 04:06	21°♌52'10		retrograde	-8872 Dec 16 j 06:40	27°♊08'32	
				opposition	-8871 Feb 15 j 10:15	22°♊16'21	2°22'20
conjunction	-8877 Feb 18 j 20:43	25°♌01'08	-1°35'38	min. Earth dist.	-8871 Feb 16 j 07:18	22°♊09'40	4.29188 AU
minimum elong	-8877 Feb 18 j 20:44	25°♌01'08	1°36'12	direct	-8871 Apr 18 j 11:34	17°♊19'33	
max. Earth dist.	-8877 Feb 20 j 03:09	25°♌18'39	6.11480 AU		-8871 Jul 27 j 23:17	0°♋	
morning rise	-8877 Mar 04 j 14:19	28°♌10'27		evening set	-8871 Aug 21 j 18:00	5°♋28'21	
	-8877 Mar 12 j 15:09	0°♋		max. Earth dist.	-8871 Sep 02 j 04:41	8°♋05'04	6.25591 AU
retrograde	-8877 Jul 10 j 09:31	17°♋21'06					
opposition	-8877 Sep 07 j 13:51	12°♋18'02	-2°14'06	conjunction	-8871 Sep 03 j 03:32	8°♋18'08	1°33'21
min. Earth dist.	-8877 Sep 06 j 23:07	12°♋23'04	4.15240 AU	minimum elong	-8871 Sep 03 j 03:34	8°♋18'10	1°33'54
direct	-8877 Nov 05 j 16:44	7°♋15'58		morning rise	-8871 Sep 15 j 13:12	11°♋08'06	
evening set	-8876 Mar 12 j 12:31	26°♋11'39		retrograde	-8870 Jan 19 j 06:49	29°♋28'38	
				opposition	-8870 Mar 21 j 17:14	24°♋33'57	2°01'35
conjunction	-8876 Mar 26 j 05:33	29°♋17'34	-1°17'10	min. Earth dist.	-8870 Mar 22 j 03:22	24°♋30'43	4.21726 AU
minimum elong	-8876 Mar 26 j 05:38	29°♋17'37	1°17'42	direct	-8870 May 21 j 17:26	19°♋39'45	
max. Earth dist.	-8876 Mar 26 j 18:16	29°♋24'46	6.19217 AU		-8870 Aug 17 j 09:52	0°♌	
	-8876 Mar 29 j 08:30	0°♌		evening set	-8870 Sep 22 j 15:40	7°♌58'41	
morning rise	-8876 Apr 08 j 21:34	2°♌22'47					
	-8876 Jun 10 j 02:21	15°♌		conjunction	-8870 Oct 05 j 05:41	10°♌53'43	1°04'35
retrograde	-8876 Aug 11 j 10:05	20°♌44'04		minimum elong	-8870 Oct 05 j 05:45	10°♌53'45	1°05'04
opposition	-8876 Oct 09 j 12:39	15°♌44'34	-1°25'34	max. Earth dist.	-8870 Oct 05 j 01:00	10°♌51'00	6.17589 AU
min. Earth dist.	-8876 Oct 09 j 11:08	15°♌45'04	4.23330 AU	morning rise	-8870 Oct 17 j 21:23	13°♌49'50	
	-8876 Oct 15 j 01:18	15°♌			-8870 Oct 22 j 23:28	15°♌	
direct	-8876 Dec 08 j 21:54	10°♌40'35			-8869 Jan 10 j 02:37	0°♍	
	-8875 Feb 01 j 14:33	15°♌		retrograde	-8869 Feb 23 j 16:39	2°♍55'31	
evening set	-8875 Apr 16 j 12:01	29°♌18'24			-8869 Apr 09 j 15:59	30°♍	
	-8875 Apr 19 j 14:58	0°♍		opposition	-8869 Apr 25 j 23:24	27°♍57'10	1°00'26
				min. Earth dist.	-8869 Apr 25 j 20:27	27°♍58'08	4.13687 AU
conjunction	-8875 Apr 30 j 01:25	2°♍19'39	-0°33'45	direct	-8869 Jun 24 j 18:10	23°♍04'17	
minimum elong	-8875 Apr 30 j 01:29	2°♍19'41	0°34'03		-8869 Sep 01 j 11:48	0°♎	
max. Earth dist.	-8875 Apr 29 j 18:23	2°♍15'44	6.27121 AU	evening set	-8869 Oct 25 j 21:55	11°♎38'22	
morning rise	-8875 May 13 j 11:54	5°♍19'22					
retrograde	-8875 Sep 12 j 06:47	22°♍58'39		conjunction	-8869 Nov 07 j 20:17	14°♎40'18	0°13'46
opposition	-8875 Nov 10 j 17:50	18°♍02'55	-0°11'53	minimum elong	-8869 Nov 07 j 20:19	14°♎40'19	0°13'58
min. Earth dist.	-8875 Nov 11 j 04:02	17°♍59'33	4.30330 AU	behind sun begin	-8869 Nov 07 j 16:06	14°♎37'51	
asc. node	-8874 Jan 09 j 07:34	12°♍59'11		behind sun end	-8869 Nov 08 j 00:32	14°♎42'47	
direct	-8874 Jan 11 j 06:16	12°♍58'50		max. Earth dist.	-8869 Nov 08 j 09:53	14°♎48'16	6.10307 AU
	-8874 May 13 j 21:55	0°♎		morning rise	-8869 Nov 20 j 22:04	17°♎44'03	
evening set	-8874 May 19 j 22:33	1°♎19'14			-8868 Jan 17 j 10:47	0°♏	
max. Earth dist.	-8874 Jun 01 j 03:15	4°♎01'18	6.32727 AU	desc. node	-8868 Feb 11 j 17:13	4°♏01'16	
				retrograde	-8868 Mar 30 j 21:29	7°♏27'32	
conjunction	-8874 Jun 02 j 03:45	4°♎14'54	0°19'10	opposition	-8868 May 30 j 18:07	2°♏25'21	-0°23'41
minimum elong	-8874 Jun 02 j 03:43	4°♎14'53	0°19'08	min. Earth dist.	-8868 May 30 j 01:25	2°♏30'53	4.07772 AU
morning rise	-8874 Jun 15 j 05:32	7°♎08'47			-8868 Jun 18 j 22:03	30°♎	
retrograde	-8874 Oct 13 j 19:37	24°♎25'47		direct	-8868 Jul 28 j 10:05	27°♎31'50	
opposition	-8874 Dec 12 j 18:54	19°♎32'58	1°03'36		-8868 Sep 05 j 11:05	0°♐	
min. Earth dist.	-8874 Dec 13 j 15:31	19°♎26'17	4.34174 AU	evening set	-8868 Nov 28 j 21:46	16°♐23'06	
direct	-8873 Feb 13 j 03:20	14°♎30'26					
	-8873 Jun 08 j 22:46	0°♐		conjunction	-8868 Dec 12 j 05:06	19°♐30'38	-0°42'58
evening set	-8873 Jun 21 j 01:59	2°♐39'09		minimum elong	-8868 Dec 12 j 05:02	19°♐30'35	0°43'06
				max. Earth dist.	-8868 Dec 13 j 12:09	19°♐48'54	6.06290 AU
conjunction	-8873 Jul 03 j 21:26	5°♐29'55	1°05'41	morning rise	-8868 Dec 25 j 15:46	22°♐39'59	
minimum elong	-8873 Jul 03 j 21:22	5°♐29'52	1°05'56		-8867 Jan 27 j 05:04	0°♑	
max. Earth dist.	-8873 Jul 02 j 12:34	5°♐11'36	6.34431 AU	retrograde	-8867 May 06 j 08:03	12°♑39'30	
morning rise	-8873 Jul 16 j 13:44	8°♐19'09		opposition	-8867 Jul 05 j 10:30	7°♑34'47	-1°40'36
	-8873 Aug 16 j 20:23	15°♐		min. Earth dist.	-8867 Jul 04 j 12:02	7°♑42'23	4.06138 AU
retrograde	-8873 Nov 14 j 13:13	25°♐37'36		direct	-8867 Sep 01 j 14:56	2°♑38'48	
opposition	-8872 Jan 14 j 04:41	20°♐45'59	2°00'12		-8867 Dec 05 j 13:58	15°♑	
min. Earth dist.	-8872 Jan 15 j 04:16	20°♐38'28	4.33763 AU	evening set	-8866 Jan 04 j 08:49	21°♑42'49	
direct	-8872 Mar 16 j 16:25	15°♐46'06					
	-8872 Jul 03 j 22:18	0°♒		conjunction	-8866 Jan 17 j 22:25	24°♑52'34	-1°24'27
evening set	-8872 Jul 21 j 11:21	3°♒51'09		minimum elong	-8866 Jan 17 j 22:20	24°♑52'31	1°24'52
				max. Earth dist.	-8866 Jan 19 j 10:43	25°♑13'44	6.07049 AU
conjunction	-8872 Aug 02 j 23:05	6°♒39'29	1°33'07	morning rise	-8866 Jan 31 j 14:35	28°♑03'32	
minimum elong	-8872 Aug 02 j 23:03	6°♒39'28	1°33'37		-8866 Feb 09 j 01:00	0°♓	
max. Earth dist.	-8872 Aug 01 j 15:34	6°♒21'44	6.31812 AU	retrograde	-8866 Jun 10 j 21:03	17°♓48'28	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4

Attention, astronomical year style is used: The year -8866 in astronomical counting style is the year 8867 BCE in historical counting style.

min. Earth dist.	-8866 Aug 08 j 11:21	12° $\mathbb{A}$ 51'02	4.09347 AU	conjunction	-8860 Aug 07 j 09:12	11° $\mathbb{H}$ 14'34	1°34'53
opposition	-8866 Aug 09 j 09:05	12° $\mathbb{A}$ 43'36	-2°20'23	minimum elong	-8860 Aug 07 j 09:10	11° $\mathbb{H}$ 14'33	1°35'24
direct	-8866 Oct 06 j 17:52	7° $\mathbb{A}$ 44'13		morning rise	-8860 Aug 19 j 18:38	14° $\mathbb{H}$ 02'04	
evening set	-8865 Feb 10 j 07:13	26° $\mathbb{A}$ 49'45			-8860 Nov 16 j 13:08	0° $\mathbb{B}$	
				retrograde	-8860 Dec 20 j 23:32	1° $\mathbb{B}$ 47'21	
conjunction	-8865 Feb 24 j 00:04	29° $\mathbb{A}$ 58'27	-1°34'59		-8859 Jan 24 j 18:16	30° $\mathbb{R}$ $\mathbb{H}$	
minimum elong	-8865 Feb 24 j 00:05	29° $\mathbb{A}$ 58'28	1°35'32	opposition	-8859 Feb 20 j 05:20	26° $\mathbb{H}$ 54'52	2°21'59
	-8865 Feb 24 j 02:45	0° $\mathbb{B}$		min. Earth dist.	-8859 Feb 21 j 00:09	26° $\mathbb{H}$ 48'54	4.28594 AU
max. Earth dist.	-8865 Feb 25 j 03:38	0° $\mathbb{B}$ 14'18	6.12319 AU	direct	-8859 Apr 23 j 03:05	21° $\mathbb{H}$ 58'29	
morning rise	-8865 Mar 09 j 17:40	3° $\mathbb{B}$ 07'23			-8859 Jul 09 j 06:28	0° $\mathbb{B}$	
retrograde	-8865 Jul 15 j 03:11	22° $\mathbb{B}$ 12'04		evening set	-8859 Aug 26 j 04:47	10° $\mathbb{B}$ 07'07	
opposition	-8865 Sep 12 j 06:03	17° $\mathbb{B}$ 09'26	-2°09'38				
min. Earth dist.	-8865 Sep 11 j 17:58	17° $\mathbb{B}$ 13'34	4.16149 AU	conjunction	-8859 Sep 07 j 14:34	12° $\mathbb{B}$ 57'16	1°30'57
direct	-8865 Nov 10 j 13:43	12° $\mathbb{B}$ 06'59		minimum elong	-8859 Sep 07 j 14:36	12° $\mathbb{B}$ 57'17	1°31'30
	-8864 Mar 12 j 23:00	0° $\mathbb{B}$		max. Earth dist.	-8859 Sep 06 j 18:59	12° $\mathbb{B}$ 46'03	6.24907 AU
evening set	-8864 Mar 17 j 12:27	1° $\mathbb{B}$ 01'16		morning rise	-8859 Sep 20 j 00:32	15° $\mathbb{B}$ 47'41	
					-8859 Nov 30 j 23:53	0° $\mathbb{B}$	
conjunction	-8864 Mar 31 j 05:26	4° $\mathbb{B}$ 06'46	-1°12'14	retrograde	-8858 Jan 24 j 04:28	4° $\mathbb{B}$ 13'01	
minimum elong	-8864 Mar 31 j 05:31	4° $\mathbb{B}$ 06'49	1°12'45		-8858 Mar 21 j 02:17	30° $\mathbb{R}$ $\mathbb{B}$	
max. Earth dist.	-8864 Mar 31 j 16:14	4° $\mathbb{B}$ 12'52	6.20136 AU	opposition	-8858 Mar 26 j 14:43	29° $\mathbb{B}$ 17'54	1°55'07
morning rise	-8864 Apr 13 j 20:52	7° $\mathbb{B}$ 11'23		min. Earth dist.	-8858 Mar 26 j 23:57	29° $\mathbb{B}$ 14'57	4.20971 AU
	-8864 May 20 j 04:23	15° $\mathbb{B}$		direct	-8858 May 26 j 12:08	24° $\mathbb{B}$ 23'59	
retrograde	-8864 Aug 15 j 22:43	25° $\mathbb{B}$ 26'53			-8858 Jul 27 j 14:36	0° $\mathbb{B}$	
opposition	-8864 Oct 14 j 02:18	20° $\mathbb{B}$ 27'57	-1°16'10	evening set	-8858 Sep 27 j 04:53	12° $\mathbb{B}$ 43'21	
min. Earth dist.	-8864 Oct 14 j 01:46	20° $\mathbb{B}$ 28'08	4.24175 AU		-8858 Oct 07 j 00:31	15° $\mathbb{B}$	
direct	-8864 Dec 13 j 14:21	15° $\mathbb{B}$ 23'53					
	-8863 Apr 02 j 22:55	0° $\mathbb{H}$		conjunction	-8858 Oct 09 j 19:43	15° $\mathbb{B}$ 39'05	0°58'31
evening set	-8863 Apr 21 j 07:44	4° $\mathbb{H}$ 00'08		minimum elong	-8858 Oct 09 j 19:47	15° $\mathbb{B}$ 39'08	0°58'57
				max. Earth dist.	-8858 Oct 09 j 16:09	15° $\mathbb{B}$ 37'01	6.16832 AU
conjunction	-8863 May 04 j 20:08	7° $\mathbb{H}$ 00'44	-0°26'27	morning rise	-8858 Oct 22 j 12:46	18° $\mathbb{B}$ 36'06	
minimum elong	-8863 May 04 j 20:11	7° $\mathbb{H}$ 00'46	0°26'44		-8858 Dec 15 j 02:15	0° $\mathbb{H}$	
max. Earth dist.	-8863 May 04 j 09:20	6° $\mathbb{H}$ 54'43	6.27835 AU	retrograde	-8857 Feb 28 j 14:19	7° $\mathbb{H}$ 46'26	
morning rise	-8863 May 18 j 05:45	9° $\mathbb{H}$ 59'48		opposition	-8857 Apr 30 j 21:52	2° $\mathbb{H}$ 47'32	0°49'31
retrograde	-8863 Sep 16 j 19:57	27° $\mathbb{H}$ 35'33		min. Earth dist.	-8857 Apr 30 j 16:19	2° $\mathbb{H}$ 49'20	4.12976 AU
opposition	-8863 Nov 15 j 07:10	22° $\mathbb{H}$ 40'21	-0°00'45		-8857 May 23 j 19:55	30° $\mathbb{R}$ $\mathbb{B}$	
min. Earth dist.	-8863 Nov 15 j 19:46	22° $\mathbb{H}$ 36'12	4.30861 AU	direct	-8857 Jun 29 j 12:16	27° $\mathbb{B}$ 54'38	
asc. node	-8863 Nov 19 j 01:02	22° $\mathbb{H}$ 10'47			-8857 Aug 04 j 17:40	0° $\mathbb{H}$	
direct	-8862 Jan 15 j 23:50	17° $\mathbb{H}$ 36'25		evening set	-8857 Oct 30 j 15:27	16° $\mathbb{H}$ 30'10	
	-8862 Apr 26 j 20:40	0° $\mathbb{Y}$					
evening set	-8862 May 24 j 13:59	5° $\mathbb{Y}$ 55'35		conjunction	-8857 Nov 12 j 15:12	19° $\mathbb{H}$ 32'55	0°05'49
				minimum elong	-8857 Nov 12 j 15:13	19° $\mathbb{H}$ 32'56	0°06'00
conjunction	-8862 Jun 06 j 18:01	8° $\mathbb{Y}$ 50'37	0°26'30	behind sun begin	-8857 Nov 12 j 07:28	19° $\mathbb{H}$ 28'24	
minimum elong	-8862 Jun 06 j 17:58	8° $\mathbb{Y}$ 50'35	0°26'32	behind sun end	-8857 Nov 12 j 22:58	19° $\mathbb{H}$ 37'28	
max. Earth dist.	-8862 Jun 05 j 17:04	8° $\mathbb{Y}$ 36'45	6.33040 AU	max. Earth dist.	-8857 Nov 13 j 07:51	19° $\mathbb{H}$ 42'42	6.09713 AU
morning rise	-8862 Jun 19 j 18:20	11° $\mathbb{Y}$ 43'48		morning rise	-8857 Nov 25 j 18:09	22° $\mathbb{H}$ 37'30	
retrograde	-8862 Oct 18 j 06:53	29° $\mathbb{Y}$ 00'10		desc. node	-8857 Dec 22 j 20:55	28° $\mathbb{H}$ 46'21	
opposition	-8862 Dec 17 j 09:07	24° $\mathbb{Y}$ 07'38	1°13'14		-8857 Dec 28 j 13:49	0° $\mathbb{B}$	
min. Earth dist.	-8862 Dec 18 j 05:19	24° $\mathbb{Y}$ 01'07	4.34287 AU	retrograde	-8856 Apr 04 j 23:29	12° $\mathbb{B}$ 24'12	
direct	-8861 Feb 17 j 17:44	19° $\mathbb{Y}$ 05'30		opposition	-8856 Jun 04 j 16:47	7° $\mathbb{B}$ 21'35	-0°35'28
	-8861 May 22 j 12:42	0° $\mathbb{B}$		min. Earth dist.	-8856 Jun 04 j 00:10	7° $\mathbb{B}$ 27'07	4.07341 AU
evening set	-8861 Jun 25 j 14:41	7° $\mathbb{B}$ 13'31		direct	-8856 Aug 02 j 07:25	2° $\mathbb{B}$ 27'49	
max. Earth dist.	-8861 Jul 06 j 23:55	9° $\mathbb{B}$ 45'25	6.34339 AU	evening set	-8856 Dec 03 j 20:32	21° $\mathbb{B}$ 21'06	
conjunction	-8861 Jul 08 j 08:43	10° $\mathbb{B}$ 03'43	1°10'59	conjunction	-8856 Dec 17 j 04:49	24° $\mathbb{B}$ 29'09	-0°50'02
minimum elong	-8861 Jul 08 j 08:38	10° $\mathbb{B}$ 03'40	1°11'17	minimum elong	-8856 Dec 17 j 04:44	24° $\mathbb{B}$ 29'07	0°50'12
morning rise	-8861 Jul 20 j 23:51	12° $\mathbb{B}$ 52'30		max. Earth dist.	-8856 Dec 18 j 12:11	24° $\mathbb{B}$ 47'36	6.06049 AU
	-8861 Jul 30 j 15:35	15° $\mathbb{B}$		morning rise	-8856 Dec 30 j 16:36	27° $\mathbb{B}$ 39'02	
	-8861 Nov 07 j 13:15	0° $\mathbb{H}$			-8855 Jan 09 j 20:07	0° $\mathbb{H}$	
retrograde	-8861 Nov 19 j 04:35	0° $\mathbb{H}$ 12'46			-8855 Mar 30 j 17:49	15° $\mathbb{H}$	
	-8861 Nov 30 j 19:18	30° $\mathbb{R}$ $\mathbb{B}$		retrograde	-8855 May 11 j 06:46	17° $\mathbb{H}$ 38'51	
opposition	-8860 Jan 18 j 21:12	25° $\mathbb{B}$ 21'14	2°05'41		-8855 Jun 21 j 13:50	15° $\mathbb{R}$ $\mathbb{H}$	
min. Earth dist.	-8860 Jan 19 j 21:13	25° $\mathbb{B}$ 13'35	4.33488 AU	min. Earth dist.	-8855 Jul 09 j 08:22	12° $\mathbb{H}$ 41'51	4.06145 AU
direct	-8860 Mar 21 j 09:14	20° $\mathbb{B}$ 21'49		opposition	-8855 Jul 10 j 07:37	12° $\mathbb{H}$ 33'59	-1°48'47
	-8860 Jun 16 j 01:45	0° $\mathbb{H}$		direct	-8855 Sep 06 j 10:15	7° $\mathbb{H}$ 37'35	
evening set	-8860 Jul 25 j 22:10	8° $\mathbb{H}$ 26'21			-8855 Nov 15 j 19:48	15° $\mathbb{H}$	
max. Earth dist.	-8860 Aug 06 j 02:24	10° $\mathbb{H}$ 57'12	6.31359 AU	evening set	-8854 Jan 09 j 11:27	26° $\mathbb{H}$ 43'22	

Attention, astronomical year style is used: The year -8854 in astronomical counting style is the year 8855 BCE in historical counting style.

conjunction	-8854 Jan 23 j 01:42	29° <b>ℓ</b> 53'15	-1°27'55			-8849 Jul 14 j 16:51	15° <b>♄</b>	
minimum elong	-8854 Jan 23 j 01:38	29° <b>ℓ</b> 53'13	1°28'22	morning rise		-8849 Jul 25 j 08:28	17° <b>♄</b> 22'26	
	-8854 Jan 23 j 13:16	0° <b>♄</b>				-8849 Sep 27 j 12:34	0° <b>♄</b>	
max. Earth dist.	-8854 Jan 24 j 12:46	0° <b>♄</b> 13'42	6.07290 AU	retrograde		-8849 Nov 23 j 16:59	4° <b>♄</b> 44'34	
morning rise	-8854 Feb 05 j 18:19	3° <b>♄</b> 04'16				-8848 Jan 22 j 14:33	30° <b>♄</b>	
retrograde	-8854 Jun 15 j 18:11	22° <b>♄</b> 46'07		opposition		-8848 Jan 23 j 12:44	29° <b>♄</b> 52'57	2°10'24
min. Earth dist.	-8854 Aug 13 j 07:57	17° <b>♄</b> 48'14	4.09802 AU	min. Earth dist.		-8848 Jan 24 j 11:36	29° <b>♄</b> 45'40	4.33153 AU
opposition	-8854 Aug 14 j 03:54	17° <b>♄</b> 41'24	-2°21'54	direct		-8848 Mar 25 j 22:46	24° <b>♄</b> 53'57	
direct	-8854 Oct 11 j 15:32	12° <b>♄</b> 41'32				-8848 May 25 j 18:51	0° <b>♄</b>	
	-8853 Feb 07 j 12:50	0° <b>♄</b>		evening set		-8848 Jul 30 j 07:42	12° <b>♄</b> 58'11	
evening set	-8853 Feb 15 j 10:10	1° <b>♄</b> 47'26						
				conjunction		-8848 Aug 11 j 18:03	15° <b>♄</b> 46'21	1°36'07
conjunction	-8853 Mar 01 j 03:28	4° <b>♄</b> 56'02	-1°33'37	minimum elong		-8848 Aug 11 j 18:02	15° <b>♄</b> 46'20	1°36'37
minimum elong	-8853 Mar 01 j 03:30	4° <b>♄</b> 56'04	1°34'11	max. Earth dist.		-8848 Aug 10 j 12:02	15° <b>♄</b> 29'22	6.30730 AU
max. Earth dist.	-8853 Mar 02 j 06:22	5° <b>♄</b> 11'28	6.12972 AU	morning rise		-8848 Aug 24 j 03:09	18° <b>♄</b> 33'57	
morning rise	-8853 Mar 14 j 21:00	8° <b>♄</b> 04'39				-8848 Oct 18 j 23:53	0° <b>♄</b>	
retrograde	-8853 Jul 19 j 20:19	27° <b>♄</b> 03'49		retrograde		-8848 Dec 25 j 17:54	6° <b>♄</b> 23'49	
opposition	-8853 Sep 16 j 22:20	22° <b>♄</b> 01'40	-2°04'15	opposition		-8847 Feb 24 j 23:56	1° <b>♄</b> 31'04	2°20'49
min. Earth dist.	-8853 Sep 16 j 11:01	22° <b>♄</b> 05'31	4.16939 AU	min. Earth dist.		-8847 Feb 25 j 18:50	1° <b>♄</b> 25'04	4.27694 AU
direct	-8853 Nov 15 j 08:36	16° <b>♄</b> 58'55				-8847 Mar 09 j 03:45	30° <b>♄</b>	
	-8852 Feb 24 j 16:09	0° <b>♄</b>		direct		-8847 Apr 27 j 19:55	26° <b>♄</b> 35'03	
evening set	-8852 Mar 22 j 12:35	5° <b>♄</b> 51'56				-8847 Jun 15 j 05:36	0° <b>♄</b>	
				evening set		-8847 Aug 30 j 15:26	14° <b>♄</b> 44'44	
conjunction	-8852 Apr 05 j 05:08	8° <b>♄</b> 56'57	-1°06'46	max. Earth dist.		-8847 Sep 11 j 07:06	17° <b>♄</b> 24'53	6.23811 AU
minimum elong	-8852 Apr 05 j 05:13	8° <b>♄</b> 57'00	1°07'14					
max. Earth dist.	-8852 Apr 05 j 12:06	9° <b>♄</b> 00'53	6.21015 AU	conjunction		-8847 Sep 12 j 01:35	17° <b>♄</b> 35'29	1°28'00
morning rise	-8852 Apr 18 j 20:14	12° <b>♄</b> 01'02		minimum elong		-8847 Sep 12 j 01:38	17° <b>♄</b> 35'31	1°28'34
	-8852 May 02 j 07:13	15° <b>♄</b>		morning rise		-8847 Sep 24 j 12:16	20° <b>♄</b> 26'40	
	-8852 Aug 10 j 02:38	0° <b>♄</b>				-8847 Nov 08 j 02:02	0° <b>♄</b>	
retrograde	-8852 Aug 20 j 13:12	0° <b>♄</b> 10'55		retrograde		-8846 Jan 29 j 01:12	8° <b>♄</b> 58'20	
	-8852 Aug 30 j 22:35	30° <b>♄</b>		opposition		-8846 Mar 31 j 12:34	4° <b>♄</b> 02'43	1°47'56
opposition	-8852 Oct 18 j 16:48	25° <b>♄</b> 12'27	-1°06'12	min. Earth dist.		-8846 Mar 31 j 19:10	4° <b>♄</b> 00'37	4.19750 AU
min. Earth dist.	-8852 Oct 18 j 18:27	25° <b>♄</b> 11'54	4.25050 AU			-8846 May 07 j 22:07	30° <b>♄</b>	
direct	-8852 Dec 18 j 09:54	20° <b>♄</b> 08'15		direct		-8846 May 31 j 04:51	29° <b>♄</b> 09'03	
	-8851 Mar 15 j 16:40	0° <b>♄</b>				-8846 Jun 23 j 10:22	0° <b>♄</b>	
evening set	-8851 Apr 26 j 03:09	8° <b>♄</b> 42'17				-8846 Sep 20 j 20:34	15° <b>♄</b>	
				evening set		-8846 Oct 01 j 19:31	17° <b>♄</b> 30'46	
conjunction	-8851 May 09 j 14:47	11° <b>♄</b> 42'13	-0°18'57					
minimum elong	-8851 May 09 j 14:49	11° <b>♄</b> 42'14	0°19'12	conjunction		-8846 Oct 14 j 11:32	20° <b>♄</b> 27'33	0°52'00
max. Earth dist.	-8851 May 09 j 03:28	11° <b>♄</b> 35'55	6.28663 AU	minimum elong		-8846 Oct 14 j 11:36	20° <b>♄</b> 27'36	0°52'24
morning rise	-8851 May 22 j 23:06	14° <b>♄</b> 40'27		max. Earth dist.		-8846 Oct 14 j 11:08	20° <b>♄</b> 27'19	6.15602 AU
	-8851 Aug 14 j 19:07	0° <b>♄</b>		morning rise		-8846 Oct 27 j 05:48	23° <b>♄</b> 25'41	
retrograde	-8851 Sep 21 j 06:49	2° <b>♄</b> 12'10				-8846 Nov 25 j 13:27	0° <b>♄</b>	
asc. node	-8851 Sep 28 j 11:02	2° <b>♄</b> 07'06		retrograde		-8845 Mar 05 j 18:02	12° <b>♄</b> 42'36	
	-8851 Oct 28 j 22:43	30° <b>♄</b>		opposition		-8845 May 05 j 22:49	7° <b>♄</b> 43'10	0°38'03
opposition	-8851 Nov 19 j 20:27	27° <b>♄</b> 17'22	0°10'24	min. Earth dist.		-8845 May 05 j 16:27	7° <b>♄</b> 45'14	4.11814 AU
min. Earth dist.	-8851 Nov 20 j 09:21	27° <b>♄</b> 13'08	4.31568 AU	direct		-8845 Jul 04 j 10:12	2° <b>♄</b> 50'16	
direct	-8850 Jan 20 j 15:14	22° <b>♄</b> 13'35		desc. node		-8845 Oct 31 j 15:34	20° <b>♄</b> 34'54	
	-8850 Apr 07 j 15:48	0° <b>♄</b>		evening set		-8845 Nov 04 j 12:26	21° <b>♄</b> 29'02	
evening set	-8850 May 29 j 04:52	10° <b>♄</b> 30'31						
max. Earth dist.	-8850 Jun 10 j 03:57	13° <b>♄</b> 09'29	6.33550 AU	conjunction		-8845 Nov 17 j 13:28	24° <b>♄</b> 32'49	-0°02'29
				minimum elong		-8845 Nov 17 j 13:28	24° <b>♄</b> 32'49	0°02'22
conjunction	-8850 Jun 11 j 07:20	13° <b>♄</b> 24'42	0°33'40	behind sun begin		-8845 Nov 17 j 05:18	24° <b>♄</b> 28'02	
minimum elong	-8850 Jun 11 j 07:17	13° <b>♄</b> 24'40	0°33'44	behind sun end		-8845 Nov 17 j 21:38	24° <b>♄</b> 37'35	
morning rise	-8850 Jun 24 j 06:26	16° <b>♄</b> 17'08		max. Earth dist.		-8845 Nov 18 j 08:02	24° <b>♄</b> 43'43	6.08731 AU
	-8850 Sep 04 j 06:42	0° <b>♄</b>		morning rise		-8845 Nov 30 j 17:57	27° <b>♄</b> 38'29	
retrograde	-8850 Oct 22 j 19:29	3° <b>♄</b> 32'12				-8845 Dec 10 j 22:20	0° <b>♄</b>	
	-8850 Dec 11 j 10:37	30° <b>♄</b>		retrograde		-8844 Apr 10 j 03:36	17° <b>♄</b> 29'38	
opposition	-8850 Dec 21 j 22:58	28° <b>♄</b> 39'51	1°22'23	opposition		-8844 Jun 09 j 18:44	12° <b>♄</b> 26'39	-0°47'22
min. Earth dist.	-8850 Dec 22 j 20:45	28° <b>♄</b> 32'50	4.34554 AU	min. Earth dist.		-8844 Jun 08 j 23:59	12° <b>♄</b> 32'54	4.06660 AU
direct	-8849 Feb 22 j 09:57	23° <b>♄</b> 37'58		direct		-8844 Aug 07 j 05:12	7° <b>♄</b> 32'40	
	-8849 May 02 j 10:58	0° <b>♄</b>		evening set		-8844 Dec 09 j 00:12	26° <b>♄</b> 29'11	
evening set	-8849 Jun 30 j 01:36	11° <b>♄</b> 44'27						
max. Earth dist.	-8849 Jul 11 j 10:14	14° <b>♄</b> 16'06	6.34301 AU	conjunction		-8844 Dec 22 j 09:32	29° <b>♄</b> 37'51	-0°56'58
				minimum elong		-8844 Dec 22 j 09:27	29° <b>♄</b> 37'48	0°57'11
conjunction	-8849 Jul 12 j 18:32	14° <b>♄</b> 34'08	1°15'50			-8844 Dec 23 j 23:12	0° <b>♄</b>	
minimum elong	-8849 Jul 12 j 18:27	14° <b>♄</b> 34'06	1°16'11	max. Earth dist.		-8844 Dec 23 j 18:04	29° <b>♄</b> 56'59	6.05722 AU

Attention, astronomical year style is used: The year -8843 in astronomical counting style is the year 8844 BCE in historical counting style.

morning rise	-8843 Jan 04 j 22:15	2° $\mathbb{M}$ 48'14		minimum elong	-8838 Jun 15 j 15:45	17° $\mathbb{Y}$ 48'09	0°40'25
	-8843 Mar 02 j 18:24	15° $\mathbb{M}$		morning rise	-8838 Jun 28 j 13:20	20° $\mathbb{Y}$ 39'39	
retrograde	-8843 May 16 j 10:19	22° $\mathbb{M}$ 48'21			-8838 Aug 12 j 17:30	0° $\mathbb{B}$	
min. Earth dist.	-8843 Jul 14 j 09:26	17° $\mathbb{M}$ 51'15	4.06235 AU	retrograde	-8838 Oct 27 j 01:14	7° $\mathbb{B}$ 52'56	
opposition	-8843 Jul 15 j 08:35	17° $\mathbb{M}$ 43'23	-1°56'28	opposition	-8838 Dec 26 j 07:58	3° $\mathbb{B}$ 00'48	1°30'38
	-8843 Aug 05 j 15:36	15° $\mathbb{R}$ $\mathbb{M}$		min. Earth dist.	-8838 Dec 27 j 06:19	2° $\mathbb{B}$ 53'37	4.34958 AU
direct	-8843 Sep 11 j 11:39	12° $\mathbb{M}$ 46'35			-8837 Jan 20 j 13:10	30° $\mathbb{R}$ $\mathbb{Y}$	
	-8843 Oct 18 j 07:16	15° $\mathbb{M}$		direct	-8837 Feb 26 j 19:27	27° $\mathbb{Y}$ 59'15	
	-8842 Jan 06 j 12:48	0° $\mathbb{Z}$			-8837 Apr 05 j 04:33	0° $\mathbb{B}$	
evening set	-8842 Jan 14 j 18:35	1° $\mathbb{Z}$ 53'50			-8837 Jun 29 j 11:35	15° $\mathbb{B}$	
				evening set	-8837 Jul 04 j 07:42	16° $\mathbb{B}$ 04'05	
conjunction	-8842 Jan 28 j 09:34	5° $\mathbb{Z}$ 03'47	-1°30'52				
minimum elong	-8842 Jan 28 j 09:31	5° $\mathbb{Z}$ 03'45	1°31'21	conjunction	-8837 Jul 16 j 23:17	18° $\mathbb{B}$ 53'15	1°20'02
max. Earth dist.	-8842 Jan 29 j 22:04	5° $\mathbb{Z}$ 25'01	6.07813 AU	minimum elong	-8837 Jul 16 j 23:13	18° $\mathbb{B}$ 53'12	1°20'25
morning rise	-8842 Feb 11 j 02:28	8° $\mathbb{Z}$ 14'40		max. Earth dist.	-8837 Jul 15 j 12:30	18° $\mathbb{B}$ 33'49	6.34210 AU
retrograde	-8842 Jun 20 j 18:03	27° $\mathbb{Z}$ 51'42		morning rise	-8837 Jul 29 j 12:23	21° $\mathbb{B}$ 41'11	
min. Earth dist.	-8842 Aug 18 j 05:53	22° $\mathbb{Z}$ 54'07	4.10755 AU		-8837 Sep 06 j 22:42	0° $\mathbb{I}$	
opposition	-8842 Aug 19 j 01:49	22° $\mathbb{Z}$ 47'18	-2°22'24	retrograde	-8837 Nov 28 j 03:19	9° $\mathbb{I}$ 05'41	
direct	-8842 Oct 16 j 15:27	17° $\mathbb{Z}$ 47'05		opposition	-8836 Jan 27 j 23:39	4° $\mathbb{I}$ 14'02	2°14'11
	-8841 Jan 20 j 13:57	0° $\mathbb{Z}$		min. Earth dist.	-8836 Jan 29 j 00:01	4° $\mathbb{I}$ 06'17	4.32579 AU
evening set	-8841 Feb 20 j 15:52	6° $\mathbb{Z}$ 51'16			-8836 Mar 08 j 01:55	30° $\mathbb{R}$ $\mathbb{B}$	
				direct	-8836 Mar 30 j 09:37	29° $\mathbb{B}$ 15'19	
conjunction	-8841 Mar 06 j 09:05	9° $\mathbb{Z}$ 59'19	-1°31'35		-8836 Apr 21 j 16:56	0° $\mathbb{I}$	
minimum elong	-8841 Mar 06 j 09:08	9° $\mathbb{Z}$ 59'20	1°32'10	evening set	-8836 Aug 03 j 12:54	17° $\mathbb{I}$ 20'24	
max. Earth dist.	-8841 Mar 07 j 09:15	10° $\mathbb{Z}$ 13'08	6.14282 AU				
morning rise	-8841 Mar 20 j 02:35	13° $\mathbb{Z}$ 07'17		conjunction	-8836 Aug 15 j 23:02	20° $\mathbb{I}$ 08'49	1°36'43
	-8841 Jun 19 j 10:13	0° $\approx$		minimum elong	-8836 Aug 15 j 23:01	20° $\mathbb{I}$ 08'48	1°37'14
retrograde	-8841 Jul 24 j 13:17	1° $\approx$ 58'18		max. Earth dist.	-8836 Aug 14 j 17:32	19° $\mathbb{I}$ 52'06	6.29706 AU
	-8841 Aug 28 j 09:56	30° $\mathbb{R}$ $\mathbb{Z}$		morning rise	-8836 Aug 28 j 07:55	22° $\mathbb{I}$ 56'46	
opposition	-8841 Sep 21 j 15:40	26° $\mathbb{Z}$ 56'35	-1°57'58		-8836 Sep 29 j 21:05	0° $\mathbb{B}$	
min. Earth dist.	-8841 Sep 21 j 05:44	26° $\mathbb{Z}$ 59'58	4.18485 AU	retrograde	-8836 Dec 30 j 07:09	10° $\mathbb{B}$ 52'42	
direct	-8841 Nov 20 j 07:10	21° $\mathbb{Z}$ 53'32		opposition	-8835 Mar 01 j 14:56	5° $\mathbb{B}$ 59'39	2°18'53
	-8840 Feb 05 j 02:37	0° $\approx$		min. Earth dist.	-8835 Mar 02 j 08:24	5° $\mathbb{B}$ 54'07	4.26297 AU
evening set	-8840 Mar 27 j 12:22	10° $\approx$ 42'20		direct	-8835 May 02 j 06:27	1° $\mathbb{B}$ 04'00	
				evening set	-8835 Sep 03 j 23:35	19° $\mathbb{B}$ 16'41	
conjunction	-8840 Apr 10 j 04:32	13° $\approx$ 46'28	-1°00'55				
minimum elong	-8840 Apr 10 j 04:37	13° $\approx$ 46'31	1°01'22	conjunction	-8835 Sep 16 j 10:14	22° $\mathbb{B}$ 08'21	1°24'35
max. Earth dist.	-8840 Apr 10 j 10:39	13° $\approx$ 49'54	6.22703 AU	minimum elong	-8835 Sep 16 j 10:18	22° $\mathbb{B}$ 08'23	1°25'08
	-8840 Apr 15 j 15:16	15° $\approx$		max. Earth dist.	-8835 Sep 15 j 17:11	21° $\mathbb{B}$ 58'31	6.22161 AU
morning rise	-8840 Apr 23 j 18:39	16° $\approx$ 49'28		morning rise	-8835 Sep 28 j 21:46	25° $\mathbb{B}$ 00'35	
	-8840 Jun 29 j 03:03	0° $\mathbb{H}$			-8835 Oct 21 j 04:29	0° $\mathbb{Q}$	
retrograde	-8840 Aug 25 j 00:39	4° $\mathbb{H}$ 50'57		retrograde	-8834 Feb 02 j 23:36	13° $\mathbb{Q}$ 40'43	
	-8840 Oct 22 j 08:45	30° $\mathbb{R}$ $\approx$		opposition	-8834 Apr 05 j 09:01	8° $\mathbb{Q}$ 44'38	1°40'10
opposition	-8840 Oct 23 j 05:32	29° $\approx$ 53'04	-0°56'00	min. Earth dist.	-8834 Apr 05 j 14:56	8° $\mathbb{Q}$ 42'44	4.17946 AU
min. Earth dist.	-8840 Oct 23 j 08:26	29° $\approx$ 52'05	4.26715 AU	direct	-8834 Jun 04 j 21:37	3° $\mathbb{Q}$ 51'07	
direct	-8840 Dec 23 j 02:43	24° $\approx$ 48'50			-8834 Sep 03 j 18:24	15° $\mathbb{Q}$	
	-8839 Feb 21 j 23:52	0° $\mathbb{H}$		evening set	-8834 Oct 06 j 09:56	22° $\mathbb{Q}$ 17'23	
evening set	-8839 Apr 30 j 19:38	13° $\mathbb{H}$ 17'58					
				conjunction	-8834 Oct 19 j 03:16	25° $\mathbb{Q}$ 15'30	0°45'09
conjunction	-8839 May 14 j 05:57	16° $\mathbb{H}$ 16'46	-0°11'35	minimum elong	-8834 Oct 19 j 03:19	25° $\mathbb{Q}$ 15'32	0°45'32
minimum elong	-8839 May 14 j 05:57	16° $\mathbb{H}$ 16'47	0°11'47	max. Earth dist.	-8834 Oct 19 j 05:28	25° $\mathbb{Q}$ 16'47	6.13832 AU
behind sun begin	-8839 May 14 j 00:16	16° $\mathbb{H}$ 13'38		morning rise	-8834 Oct 31 j 23:05	28° $\mathbb{Q}$ 15'04	
behind sun end	-8839 May 14 j 11:39	16° $\mathbb{H}$ 19'55			-8834 Nov 08 j 12:51	0° $\mathbb{P}$	
max. Earth dist.	-8839 May 13 j 14:43	16° $\mathbb{H}$ 08'19	6.30163 AU	retrograde	-8833 Mar 10 j 20:42	17° $\mathbb{P}$ 40'11	
morning rise	-8839 May 27 j 13:08	19° $\mathbb{H}$ 13'53		opposition	-8833 May 10 j 23:39	12° $\mathbb{P}$ 40'13	0°26'17
	-8839 Jul 19 j 11:07	0° $\mathbb{Y}$		min. Earth dist.	-8833 May 10 j 14:30	12° $\mathbb{P}$ 43'13	4.10242 AU
asc. node	-8839 Aug 09 j 01:23	3° $\mathbb{Y}$ 13'10		direct	-8833 Jul 09 j 05:14	7° $\mathbb{P}$ 47'18	
retrograde	-8839 Sep 25 j 14:42	6° $\mathbb{Y}$ 39'52		desc. node	-8833 Sep 09 j 15:24	13° $\mathbb{P}$ 40'18	
opposition	-8839 Nov 24 j 06:20	1° $\mathbb{Y}$ 45'28	0°21'03	evening set	-8833 Nov 09 j 11:04	26° $\mathbb{P}$ 30'54	
min. Earth dist.	-8839 Nov 24 j 21:27	1° $\mathbb{Y}$ 40'30	4.32790 AU				
	-8839 Dec 07 j 23:28	30° $\mathbb{R}$ $\mathbb{H}$		conjunction	-8833 Nov 22 j 13:28	29° $\mathbb{P}$ 35'50	-0°10'42
direct	-8838 Jan 25 j 05:09	26° $\mathbb{H}$ 41'47		minimum elong	-8833 Nov 22 j 13:27	29° $\mathbb{P}$ 35'49	0°10'38
	-8838 Mar 14 j 11:50	0° $\mathbb{Y}$		behind sun begin	-8833 Nov 22 j 07:07	29° $\mathbb{P}$ 32'06	
evening set	-8838 Jun 02 j 14:39	14° $\mathbb{Y}$ 54'56		behind sun end	-8833 Nov 22 j 19:47	29° $\mathbb{P}$ 39'32	
max. Earth dist.	-8838 Jun 14 j 11:47	17° $\mathbb{Y}$ 32'37	6.34386 AU	max. Earth dist.	-8833 Nov 23 j 10:49	29° $\mathbb{P}$ 48'24	6.07500 AU
					-8833 Nov 24 j 06:29	0° $\mathbb{Q}$	
conjunction	-8838 Jun 15 j 15:49	17° $\mathbb{Y}$ 48'11	0°40'19	morning rise	-8833 Dec 05 j 19:24	2° $\mathbb{Q}$ 42'40	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 7

Attention, astronomical year style is used: The year -8832 in astronomical counting style is the year 8833 BCE in historical counting style.

retrograde	-8832 Apr 15 j 09:17	22°♊38'44		retrograde	-8827 Sep 30 j 01:16	11°♏12'36	
opposition	-8832 Jun 14 j 21:46	17°♊35'14	-0°59'01	opposition	-8827 Nov 28 j 18:48	6°♏18'40	0°31'50
min. Earth dist.	-8832 Jun 14 j 01:37	17°♊42'00	4.05891 AU	min. Earth dist.	-8827 Nov 29 j 11:25	6°♏13'15	4.33421 AU
direct	-8832 Aug 12 j 06:13	12°♊40'54		direct	-8826 Jan 29 j 20:07	1°♏15'17	
	-8832 Dec 07 j 00:27	0°♏		evening set	-8826 Jun 07 j 03:42	19°♏26'42	
evening set	-8832 Dec 14 j 05:34	1°♏40'41		max. Earth dist.	-8826 Jun 18 j 20:14	22°♏01'57	6.34638 AU
conjunction	-8832 Dec 27 j 16:03	4°♏49'54	-1°03'31	conjunction	-8826 Jun 20 j 03:21	22°♏19'14	0°46'58
minimum elong	-8832 Dec 27 j 15:57	4°♏49'50	1°03'46	minimum elong	-8826 Jun 20 j 03:17	22°♏19'11	0°47'07
max. Earth dist.	-8832 Dec 29 j 03:57	5°♏11'00	6.05472 AU	morning rise	-8826 Jul 02 j 23:41	25°♏10'05	
morning rise	-8831 Jan 10 j 05:36	8°♏00'43			-8826 Jul 25 j 08:55	0°♏	
	-8831 Feb 10 j 04:47	15°♏		retrograde	-8826 Oct 31 j 13:37	12°♏23'41	
retrograde	-8831 May 21 j 14:41	27°♏59'52		opposition	-8826 Dec 30 j 21:44	7°♏31'45	1°38'44
min. Earth dist.	-8831 Jul 19 j 10:26	23°♏02'50	4.06539 AU	min. Earth dist.	-8826 Dec 31 j 21:17	7°♏24'12	4.34843 AU
opposition	-8831 Jul 20 j 10:13	22°♏54'44	-2°03'15	direct	-8825 Mar 03 j 10:12	2°♏30'34	
direct	-8831 Sep 16 j 13:17	17°♏57'27			-8825 Jun 12 j 20:10	15°♏	
	-8831 Dec 19 j 10:41	0°♏		evening set	-8825 Jul 08 j 18:07	20°♏35'18	
evening set	-8830 Jan 20 j 02:37	7°♏04'57		max. Earth dist.	-8825 Jul 19 j 23:11	23°♏05'24	6.33727 AU
conjunction	-8830 Feb 02 j 17:56	10°♏14'42	-1°33'07	conjunction	-8825 Jul 21 j 08:48	23°♏24'13	1°23'59
minimum elong	-8830 Feb 02 j 17:54	10°♏14'41	1°33'36	minimum elong	-8825 Jul 21 j 08:44	23°♏24'10	1°24'24
max. Earth dist.	-8830 Feb 04 j 04:47	10°♏34'56	6.08576 AU	morning rise	-8825 Aug 02 j 20:50	26°♏11'56	
morning rise	-8830 Feb 16 j 11:15	13°♏25'19			-8825 Aug 20 j 05:14	0°♏	
	-8830 May 13 j 05:48	0°♏		retrograde	-8825 Dec 02 j 17:43	13°♏40'14	
retrograde	-8830 Jun 25 j 15:46	2°♏56'09		opposition	-8824 Feb 01 j 16:36	8°♏48'34	2°17'26
	-8830 Aug 07 j 20:28	30°♏		min. Earth dist.	-8824 Feb 02 j 16:08	8°♏41'06	4.31780 AU
opposition	-8830 Aug 23 j 23:10	27°♏51'55	-2°21'49	direct	-8824 Apr 04 j 00:13	3°♏50'24	
min. Earth dist.	-8830 Aug 23 j 03:54	27°♏58'31	4.11865 AU	evening set	-8824 Aug 07 j 23:36	21°♏56'42	
direct	-8830 Oct 21 j 16:19	22°♏51'09		max. Earth dist.	-8824 Aug 19 j 04:06	24°♏28'47	6.28649 AU
	-8830 Dec 31 j 00:24	0°♏		conjunction	-8824 Aug 20 j 09:16	24°♏45'21	1°36'47
evening set	-8829 Feb 25 j 21:01	11°♏52'59		minimum elong	-8824 Aug 20 j 09:16	24°♏45'21	1°37'20
conjunction	-8829 Mar 11 j 14:26	15°♏00'30	-1°28'54	morning rise	-8824 Sep 01 j 18:15	27°♏33'45	
minimum elong	-8829 Mar 11 j 14:30	15°♏00'32	1°29'27		-8824 Sep 12 j 15:30	0°♏	
max. Earth dist.	-8829 Mar 12 j 13:28	15°♏13'38	6.15632 AU	retrograde	-8823 Jan 04 j 04:29	15°♏35'59	
morning rise	-8829 Mar 25 j 07:30	18°♏07'43		opposition	-8823 Mar 06 j 12:12	10°♏42'39	2°15'59
	-8829 May 21 j 11:57	0°♏		min. Earth dist.	-8823 Mar 07 j 04:44	10°♏37'24	4.25060 AU
retrograde	-8829 Jul 29 j 06:53	6°♏50'34		direct	-8823 May 07 j 01:01	5°♏47'24	
opposition	-8829 Sep 26 j 08:36	1°♏49'23	-1°50'55	evening set	-8823 Sep 08 j 12:55	24°♏02'14	
min. Earth dist.	-8829 Sep 26 j 00:38	1°♏52'05	4.19904 AU	max. Earth dist.	-8823 Sep 20 j 10:43	26°♏46'52	6.20887 AU
	-8829 Oct 10 j 02:46	30°♏		conjunction	-8823 Sep 21 j 00:22	26°♏54'44	1°20'28
direct	-8829 Nov 25 j 04:18	26°♏46'04		minimum elong	-8823 Sep 21 j 00:26	26°♏54'47	1°20'59
	-8828 Jan 10 j 13:47	0°♏		morning rise	-8823 Oct 03 j 12:43	29°♏47'55	
	-8828 Mar 30 j 03:33	15°♏			-8823 Oct 04 j 09:47	0°♏	
evening set	-8828 Apr 01 j 11:48	15°♏31'17			-8823 Dec 20 j 10:02	15°♏	
conjunction	-8828 Apr 15 j 03:19	18°♏34'38	-0°54'40	retrograde	-8822 Feb 08 j 00:39	18°♏34'55	
minimum elong	-8828 Apr 15 j 03:24	18°♏34'41	0°55'05		-8822 Mar 30 j 16:33	15°♏	
max. Earth dist.	-8828 Apr 15 j 05:21	18°♏35'46	6.24069 AU	opposition	-8822 Apr 10 j 10:01	13°♏38'23	1°31'22
morning rise	-8828 Apr 28 j 16:46	21°♏36'46		min. Earth dist.	-8822 Apr 10 j 13:09	13°♏37'23	4.16753 AU
	-8828 Jun 07 j 05:47	0°♏		direct	-8822 Jun 09 j 17:29	8°♏45'09	
retrograde	-8828 Aug 29 j 12:20	9°♏31'32			-8822 Aug 14 j 02:52	15°♏	
opposition	-8828 Oct 27 j 19:12	4°♏34'09	-0°45'25	evening set	-8822 Oct 11 j 04:11	27°♏13'39	
min. Earth dist.	-8828 Oct 27 j 23:55	4°♏32'34	4.27908 AU	conjunction	-8822 Oct 23 j 22:37	0°♏12'44	0°37'49
	-8828 Dec 10 j 00:48	30°♏		minimum elong	-8822 Oct 23 j 22:41	0°♏12'46	0°38'10
direct	-8828 Dec 27 j 20:27	29°♏29'52			-8822 Oct 23 j 00:53	0°♏	
	-8827 Jan 14 j 21:06	0°♏		max. Earth dist.	-8822 Oct 24 j 03:36	0°♏15'39	6.12844 AU
evening set	-8827 May 05 j 13:05	17°♏55'58		morning rise	-8822 Nov 05 j 19:53	3°♏13'23	
conjunction	-8827 May 18 j 22:18	20°♏53'55	-0°04'03	retrograde	-8821 Mar 16 j 01:23	22°♏43'41	
minimum elong	-8827 May 18 j 22:19	20°♏53'56	0°04'11	opposition	-8821 May 16 j 02:33	17°♏43'08	0°14'08
behind sun begin	-8827 May 18 j 14:16	20°♏49'29		min. Earth dist.	-8821 May 15 j 15:19	17°♏46'49	4.09544 AU
behind sun end	-8827 May 19 j 06:22	20°♏58'23		direct	-8821 Jul 14 j 04:47	12°♏50'08	
max. Earth dist.	-8827 May 18 j 05:20	20°♏44'30	6.31108 AU	desc. node	-8821 Jul 19 j 23:52	12°♏53'32	
morning rise	-8827 Jun 01 j 04:07	23°♏50'08			-8821 Nov 07 j 14:56	0°♏	
asc. node	-8827 Jun 17 j 21:57	27°♏28'36		evening set	-8821 Nov 14 j 10:39	1°♏35'24	
	-8827 Jun 29 j 23:45	0°♏					

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -8821 in astronomical counting style is the year 8822 BCE in historical counting style.

conjunction	-8821 Nov 27 j 14:22	4° $\Omega$ 41'01	-0°18'51	morning rise	-8815 Jun 05 j 17:27	28° $\Upsilon$ 23'19	
minimum elong	-8821 Nov 27 j 14:20	4° $\Omega$ 41'00	0°18'50		-8815 Jun 13 j 01:34	0° $\Upsilon$	
max. Earth dist.	-8821 Nov 28 j 15:44	4° $\Omega$ 55'57	6.07163 AU	retrograde	-8815 Oct 04 j 11:20	15° $\Upsilon$ 44'12	
morning rise	-8821 Dec 10 j 21:27	7° $\Omega$ 48'30		opposition	-8815 Dec 03 j 07:02	10° $\Upsilon$ 50'36	0°42'18
retrograde	-8820 Apr 20 j 13:07	27° $\Omega$ 45'44		min. Earth dist.	-8815 Dec 04 j 00:37	10° $\Upsilon$ 44'52	4.33553 AU
opposition	-8820 Jun 19 j 23:24	22° $\Omega$ 41'53	-1°10'03	direct	-8814 Feb 03 j 10:06	5° $\Upsilon$ 47'25	
min. Earth dist.	-8820 Jun 19 j 02:15	22° $\Omega$ 48'58	4.05973 AU	evening set	-8814 Jun 11 j 16:14	23° $\Upsilon$ 58'33	
direct	-8820 Aug 17 j 06:07	17° $\Omega$ 47'14		max. Earth dist.	-8814 Jun 23 j 07:34	26° $\Upsilon$ 33'19	6.34472 AU
	-8820 Nov 19 j 09:11	0° $\mathbb{M}$					
evening set	-8820 Dec 19 j 09:19	6° $\mathbb{M}$ 47'29		conjunction	-8814 Jun 24 j 14:36	26° $\Upsilon$ 50'35	0°53'18
				minimum elong	-8814 Jun 24 j 14:32	26° $\Upsilon$ 50'32	0°53'30
conjunction	-8819 Jan 01 j 20:25	9° $\mathbb{M}$ 56'45	-1°09'26	morning rise	-8814 Jul 07 j 09:35	29° $\Upsilon$ 40'57	
minimum elong	-8819 Jan 01 j 20:19	9° $\mathbb{M}$ 56'42	1°09'45		-8814 Jul 08 j 20:07	0° $\mathcal{B}$	
max. Earth dist.	-8819 Jan 03 j 07:44	10° $\mathbb{M}$ 17'29	6.05919 AU		-8814 Sep 30 j 14:17	15° $\mathcal{B}$	
morning rise	-8819 Jan 15 j 10:46	13° $\mathbb{M}$ 07'38		retrograde	-8814 Nov 05 j 02:19	16° $\mathcal{B}$ 56'14	
	-8819 Jan 23 j 13:04	15° $\mathbb{M}$			-8814 Dec 10 j 22:13	15° $\mathcal{R}\mathcal{B}$	
	-8819 Apr 11 j 22:44	0° $\mathcal{Z}$		opposition	-8813 Jan 04 j 12:34	12° $\mathcal{B}$ 04'29	1°46'15
retrograde	-8819 May 26 j 13:20	3° $\mathcal{Z}$ 03'17		min. Earth dist.	-8813 Jan 05 j 12:28	11° $\mathcal{B}$ 56'50	4.34413 AU
	-8819 Jul 09 j 23:47	30° $\mathcal{R}\mathbb{M}$		direct	-8813 Mar 08 j 01:24	7° $\mathcal{B}$ 03'44	
min. Earth dist.	-8819 Jul 24 j 07:57	28° $\mathbb{M}$ 06'15	4.07318 AU		-8813 May 25 j 00:02	15° $\mathcal{B}$	
opposition	-8819 Jul 25 j 07:54	27° $\mathbb{M}$ 58'05	-2°08'51	evening set	-8813 Jul 13 j 05:29	25° $\mathcal{B}$ 08'59	
direct	-8819 Sep 21 j 12:26	23° $\mathbb{M}$ 00'14		max. Earth dist.	-8813 Jul 24 j 08:52	27° $\mathcal{B}$ 38'31	6.33050 AU
	-8819 Nov 29 j 02:49	0° $\mathcal{Z}$					
evening set	-8818 Jan 25 j 06:26	12° $\mathcal{Z}$ 06'41		conjunction	-8813 Jul 25 j 19:03	27° $\mathcal{B}$ 57'41	1°27'26
				minimum elong	-8813 Jul 25 j 19:00	27° $\mathcal{B}$ 57'39	1°27'51
conjunction	-8818 Feb 07 j 22:19	15° $\mathcal{Z}$ 16'09	-1°34'35		-8813 Aug 03 j 21:14	0° $\mathbb{I}$	
minimum elong	-8818 Feb 07 j 22:17	15° $\mathcal{Z}$ 16'08	1°35'06	morning rise	-8813 Aug 07 j 06:28	0° $\mathbb{I}$ 45'22	
max. Earth dist.	-8818 Feb 09 j 08:47	15° $\mathcal{Z}$ 36'07	6.09604 AU	retrograde	-8813 Dec 07 j 10:45	18° $\mathbb{I}$ 17'54	
morning rise	-8818 Feb 21 j 15:35	18° $\mathcal{Z}$ 26'16		opposition	-8812 Feb 06 j 11:05	13° $\mathbb{I}$ 26'04	2°19'49
	-8818 Apr 17 j 01:14	0° $\mathcal{B}$		min. Earth dist.	-8812 Feb 07 j 09:41	13° $\mathbb{I}$ 18'53	4.30923 AU
retrograde	-8818 Jun 30 j 11:02	7° $\mathcal{B}$ 50'28		direct	-8812 Apr 08 j 16:53	8° $\mathbb{I}$ 28'18	
opposition	-8818 Aug 28 j 16:28	2° $\mathcal{B}$ 46'34	-2°20'15	evening set	-8812 Aug 12 j 11:15	26° $\mathbb{I}$ 35'34	
min. Earth dist.	-8818 Aug 27 j 23:22	2° $\mathcal{B}$ 52'25	4.13026 AU				
	-8818 Sep 19 j 06:25	30° $\mathcal{R}\mathcal{Z}$		conjunction	-8812 Aug 24 j 20:55	29° $\mathbb{I}$ 24'33	1°36'13
direct	-8818 Oct 26 j 13:10	27° $\mathcal{Z}$ 45'21		minimum elong	-8812 Aug 24 j 20:55	29° $\mathbb{I}$ 24'34	1°36'47
	-8818 Dec 03 j 03:35	0° $\mathcal{B}$		max. Earth dist.	-8812 Aug 23 j 19:15	29° $\mathbb{I}$ 09'57	6.27688 AU
evening set	-8817 Mar 02 j 21:38	16° $\mathcal{B}$ 44'52			-8812 Aug 27 j 11:08	0° $\mathcal{B}$	
				morning rise	-8812 Sep 06 j 05:49	2° $\mathcal{B}$ 13'21	
conjunction	-8817 Mar 16 j 14:56	19° $\mathcal{B}$ 51'51	-1°25'41	retrograde	-8811 Jan 09 j 01:27	20° $\mathcal{B}$ 21'09	
minimum elong	-8817 Mar 16 j 15:01	19° $\mathcal{B}$ 51'53	1°26'13	opposition	-8811 Mar 11 j 10:28	15° $\mathcal{B}$ 27'27	2°12'07
max. Earth dist.	-8817 Mar 17 j 10:18	20° $\mathcal{B}$ 02'52	6.16818 AU	min. Earth dist.	-8811 Mar 12 j 01:02	15° $\mathcal{B}$ 22'50	4.24055 AU
morning rise	-8817 Mar 30 j 07:49	22° $\mathcal{B}$ 58'27		direct	-8811 May 11 j 19:37	10° $\mathcal{B}$ 32'35	
	-8817 May 01 j 13:06	0° $\approx$		evening set	-8811 Sep 13 j 02:50	28° $\mathcal{B}$ 48'24	
retrograde	-8817 Aug 02 j 18:55	11° $\approx$ 34'17			-8811 Sep 18 j 07:09	0° $\mathcal{Q}$	
opposition	-8817 Sep 30 j 21:57	6° $\approx$ 33'34	-1°43'23				
min. Earth dist.	-8817 Sep 30 j 15:26	6° $\approx$ 35'47	4.21004 AU	conjunction	-8811 Sep 25 j 14:48	1° $\mathcal{Q}$ 41'35	1°15'48
direct	-8817 Nov 29 j 21:03	1° $\approx$ 29'59		minimum elong	-8811 Sep 25 j 14:52	1° $\mathcal{Q}$ 41'38	1°16'18
	-8816 Mar 13 j 08:12	15° $\approx$		max. Earth dist.	-8811 Sep 25 j 02:54	1° $\mathcal{Q}$ 34'42	6.19913 AU
evening set	-8816 Apr 06 j 07:47	20° $\approx$ 12'56		morning rise	-8811 Oct 08 j 04:15	4° $\mathcal{Q}$ 35'39	
					-8811 Nov 25 j 18:21	15° $\mathcal{Q}$	
conjunction	-8816 Apr 19 j 22:43	23° $\approx$ 15'40	-0°48'14	retrograde	-8810 Feb 13 j 01:47	23° $\mathcal{Q}$ 28'18	
minimum elong	-8816 Apr 19 j 22:48	23° $\approx$ 15'42	0°48'38	opposition	-8810 Apr 15 j 10:53	18° $\mathcal{Q}$ 31'09	1°21'54
max. Earth dist.	-8816 Apr 19 j 21:30	23° $\approx$ 14'59	6.25020 AU	min. Earth dist.	-8810 Apr 15 j 11:42	18° $\mathcal{Q}$ 30'53	4.15852 AU
morning rise	-8816 May 03 j 11:19	26° $\approx$ 17'05			-8810 May 16 j 01:01	15° $\mathcal{R}\mathcal{Q}$	
	-8816 May 20 j 10:04	0° $\mathcal{H}$		direct	-8810 Jun 14 j 14:13	13° $\mathcal{Q}$ 38'02	
retrograde	-8816 Sep 02 j 23:44	14° $\mathcal{H}$ 06'53			-8810 Jul 13 j 21:53	15° $\mathcal{Q}$	
opposition	-8816 Nov 01 j 06:48	9° $\mathcal{H}$ 10'04	-0°34'50		-8810 Oct 06 j 16:55	0° $\mathbb{P}$	
min. Earth dist.	-8816 Nov 01 j 14:07	9° $\mathcal{H}$ 07'37	4.28622 AU	evening set	-8810 Oct 15 j 22:06	2° $\mathbb{P}$ 07'49	
direct	-8815 Jan 01 j 12:12	4° $\mathcal{H}$ 05'49					
asc. node	-8815 Apr 27 j 08:52	19° $\mathcal{H}$ 42'38		conjunction	-8810 Oct 28 j 17:53	5° $\mathbb{P}$ 07'46	0°30'14
evening set	-8815 May 10 j 04:41	22° $\mathcal{H}$ 30'26		minimum elong	-8810 Oct 28 j 17:56	5° $\mathbb{P}$ 07'48	0°30'32
				max. Earth dist.	-8810 Oct 29 j 02:58	5° $\mathbb{P}$ 13'06	6.12109 AU
conjunction	-8815 May 23 j 12:48	25° $\mathcal{H}$ 27'46	0°03'32	morning rise	-8810 Nov 10 j 16:24	8° $\mathbb{P}$ 09'20	
minimum elong	-8815 May 23 j 12:47	25° $\mathcal{H}$ 27'45	0°03'25	retrograde	-8809 Mar 21 j 04:34	27° $\mathbb{P}$ 43'39	
behind sun begin	-8815 May 23 j 04:41	25° $\mathcal{H}$ 23'17		opposition	-8809 May 21 j 03:58	22° $\mathbb{P}$ 42'36	0°01'57
behind sun end	-8815 May 23 j 20:54	25° $\mathcal{H}$ 32'14		min. Earth dist.	-8809 May 20 j 15:29	22° $\mathbb{P}$ 46'43	4.09037 AU
max. Earth dist.	-8815 May 22 j 16:49	25° $\mathcal{H}$ 16'41	6.31531 AU	desc. node	-8809 May 30 j 01:10	21° $\mathbb{P}$ 33'08	



## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 9

Attention, astronomical year style is used: The year -8809 in astronomical counting style is the year 8810 BCE in historical counting style.

direct	-8809 Jul 19 j 03:06	17° $\mathfrak{M}$ 49'32		max. Earth dist.	-8803 May 27 j 05:55	29° $\mathfrak{H}$ 52'30	6.31965 AU
	-8809 Oct 21 j 07:36	0° $\mathfrak{L}$			-8803 May 27 j 19:24	0° $\mathfrak{Y}$	
evening set	-8809 Nov 19 j 09:47	6° $\mathfrak{L}$ 36'16					
				conjunction	-8803 May 28 j 04:03	0° $\mathfrak{Y}$ 04'47	0°11'04
conjunction	-8809 Dec 02 j 14:28	9° $\mathfrak{L}$ 42'27	-0°26'50	minimum elong	-8803 May 28 j 04:02	0° $\mathfrak{Y}$ 04'47	0°10'59
minimum elong	-8809 Dec 02 j 14:26	9° $\mathfrak{L}$ 42'26	0°26'51	behind sun begin	-8803 May 27 j 21:56	0° $\mathfrak{Y}$ 01'24	
max. Earth dist.	-8809 Dec 03 j 16:21	9° $\mathfrak{L}$ 57'42	6.06914 AU	behind sun end	-8803 May 28 j 10:07	0° $\mathfrak{Y}$ 08'09	
morning rise	-8809 Dec 15 j 22:53	12° $\mathfrak{L}$ 50'34		morning rise	-8803 Jun 10 j 07:28	2° $\mathfrak{Y}$ 59'40	
	-8808 Mar 13 j 13:20	0° $\mathfrak{M}$		retrograde	-8803 Oct 09 j 00:03	20° $\mathfrak{Y}$ 19'04	
retrograde	-8808 Apr 25 j 14:06	2° $\mathfrak{M}$ 48'42		opposition	-8803 Dec 07 j 20:45	15° $\mathfrak{Y}$ 25'53	0°52'40
	-8808 Jun 07 j 13:22	30° $\mathfrak{R}$ $\mathfrak{L}$		min. Earth dist.	-8803 Dec 08 j 16:02	15° $\mathfrak{Y}$ 19'38	4.33764 AU
opposition	-8808 Jun 24 j 23:14	27° $\mathfrak{L}$ 44'33	-1°20'29	direct	-8802 Feb 08 j 02:52	10° $\mathfrak{Y}$ 23'02	
min. Earth dist.	-8808 Jun 24 j 00:49	27° $\mathfrak{L}$ 52'05	4.06023 AU	evening set	-8802 Jun 16 j 05:32	28° $\mathfrak{Y}$ 33'24	
direct	-8808 Aug 22 j 04:35	22° $\mathfrak{L}$ 49'31			-8802 Jun 22 j 17:56	0° $\mathfrak{B}$	
	-8808 Oct 30 j 08:57	0° $\mathfrak{M}$		max. Earth dist.	-8802 Jun 27 j 18:48	1° $\mathfrak{B}$ 07'11	6.34440 AU
evening set	-8808 Dec 24 j 12:06	11° $\mathfrak{M}$ 50'50					
	-8807 Jan 06 j 23:39	15° $\mathfrak{M}$		conjunction	-8802 Jun 29 j 02:35	1° $\mathfrak{B}$ 24'52	0°59'23
conjunction	-8807 Jan 07 j 00:09	15° $\mathfrak{M}$ 00'18	-1°14'49	minimum elong	-8802 Jun 29 j 02:31	1° $\mathfrak{B}$ 24'50	0°59'38
minimum elong	-8807 Jan 07 j 00:04	15° $\mathfrak{M}$ 00'15	1°15'10	morning rise	-8802 Jul 11 j 20:20	4° $\mathfrak{B}$ 14'44	
max. Earth dist.	-8807 Jan 08 j 13:01	15° $\mathfrak{M}$ 21'53	6.06258 AU		-8802 Sep 02 j 18:50	15° $\mathfrak{B}$	
morning rise	-8807 Jan 20 j 14:58	18° $\mathfrak{M}$ 11'12		retrograde	-8802 Nov 09 j 15:19	21° $\mathfrak{B}$ 31'20	
	-8807 Mar 16 j 15:14	0° $\mathfrak{J}$		opposition	-8801 Jan 09 j 04:18	16° $\mathfrak{B}$ 39'39	1°53'12
retrograde	-8807 May 31 j 13:32	8° $\mathfrak{J}$ 03'58		min. Earth dist.	-8801 Jan 10 j 03:29	16° $\mathfrak{B}$ 32'14	4.34184 AU
min. Earth dist.	-8807 Jul 29 j 06:22	3° $\mathfrak{J}$ 06'30	4.07921 AU	direct	-8801 Jan 22 j 10:24	15° $\mathfrak{R}$ $\mathfrak{B}$	
opposition	-8807 Jul 30 j 04:49	2° $\mathfrak{J}$ 58'50	-2°13'32		-8801 Mar 12 j 16:25	11° $\mathfrak{B}$ 39'18	
	-8807 Aug 22 j 17:04	30° $\mathfrak{R}$ $\mathfrak{M}$		evening set	-8801 Apr 30 j 09:00	15° $\mathfrak{B}$	
direct	-8807 Sep 26 j 11:10	28° $\mathfrak{M}$ 00'33			-8801 Jul 17 j 16:45	29° $\mathfrak{B}$ 44'12	
	-8807 Oct 31 j 07:57	0° $\mathfrak{J}$		max. Earth dist.	-8801 Jul 18 j 21:06	0° $\mathfrak{II}$	
evening set	-8806 Jan 30 j 10:07	17° $\mathfrak{J}$ 06'48			-8801 Jul 28 j 21:27	2° $\mathfrak{II}$ 14'40	6.32640 AU
				conjunction	-8801 Jul 30 j 05:26	2° $\mathfrak{II}$ 32'39	1°30'21
conjunction	-8806 Feb 13 j 02:18	20° $\mathfrak{J}$ 16'04	-1°35'23	minimum elong	-8801 Jul 30 j 05:23	2° $\mathfrak{II}$ 32'38	1°30'49
minimum elong	-8806 Feb 13 j 02:18	20° $\mathfrak{J}$ 16'03	1°35'55	morning rise	-8801 Aug 11 j 16:00	5° $\mathfrak{II}$ 20'09	
max. Earth dist.	-8806 Feb 14 j 10:35	20° $\mathfrak{J}$ 34'43	6.10402 AU	retrograde	-8801 Dec 12 j 03:47	22° $\mathfrak{II}$ 56'06	
morning rise	-8806 Feb 26 j 19:51	23° $\mathfrak{J}$ 25'53		opposition	-8800 Feb 11 j 05:45	18° $\mathfrak{II}$ 04'07	2°21'18
	-8806 Mar 28 j 08:51	0° $\mathfrak{B}$		min. Earth dist.	-8800 Feb 12 j 03:41	17° $\mathfrak{II}$ 57'10	4.30361 AU
retrograde	-8806 Jul 05 j 04:05	12° $\mathfrak{B}$ 44'17		direct	-8800 Apr 13 j 10:07	13° $\mathfrak{II}$ 06'48	
opposition	-8806 Sep 02 j 09:26	7° $\mathfrak{B}$ 40'45	-2°17'44		-8800 Aug 11 j 11:02	0° $\mathfrak{B}$	
min. Earth dist.	-8806 Sep 01 j 17:01	7° $\mathfrak{B}$ 46'22	4.13949 AU	evening set	-8800 Aug 16 j 22:10	1° $\mathfrak{B}$ 13'51	
direct	-8806 Oct 31 j 08:03	2° $\mathfrak{B}$ 39'09		max. Earth dist.	-8800 Aug 28 j 06:40	3° $\mathfrak{B}$ 48'49	6.27006 AU
evening set	-8805 Mar 07 j 22:45	21° $\mathfrak{B}$ 37'23					
				conjunction	-8800 Aug 29 j 07:35	4° $\mathfrak{B}$ 03'02	1°35'04
conjunction	-8805 Mar 21 j 16:01	24° $\mathfrak{B}$ 43'58	-1°21'52	minimum elong	-8800 Aug 29 j 07:37	4° $\mathfrak{B}$ 03'03	1°35'37
minimum elong	-8805 Mar 21 j 16:06	24° $\mathfrak{B}$ 44'00	1°22'24	morning rise	-8800 Sep 10 j 16:50	6° $\mathfrak{B}$ 52'13	
max. Earth dist.	-8805 Mar 22 j 08:00	24° $\mathfrak{B}$ 53'02	6.17804 AU	retrograde	-8799 Jan 13 j 21:27	25° $\mathfrak{B}$ 04'43	
morning rise	-8805 Apr 04 j 08:35	27° $\mathfrak{B}$ 50'01		opposition	-8799 Mar 16 j 07:37	20° $\mathfrak{B}$ 10'32	2°07'23
	-8805 Apr 14 j 01:02	0° $\mathfrak{B}$		min. Earth dist.	-8799 Mar 16 j 19:54	20° $\mathfrak{B}$ 06'37	4.23288 AU
	-8805 Jul 09 j 18:46	15° $\mathfrak{B}$		direct	-8799 May 16 j 12:54	15° $\mathfrak{B}$ 15'55	
retrograde	-8805 Aug 07 j 10:11	16° $\mathfrak{B}$ 19'40			-8799 Sep 02 j 01:24	0° $\mathfrak{Q}$	
	-8805 Sep 04 j 19:42	15° $\mathfrak{R}$ $\mathfrak{B}$		evening set	-8799 Sep 17 j 15:26	3° $\mathfrak{Q}$ 32'02	
opposition	-8805 Oct 05 j 12:15	11° $\mathfrak{B}$ 19'31	-1°35'09				
min. Earth dist.	-8805 Oct 05 j 08:35	11° $\mathfrak{B}$ 20'45	4.21935 AU	conjunction	-8799 Sep 30 j 04:18	6° $\mathfrak{Q}$ 25'54	1°10'40
direct	-8805 Dec 04 j 16:15	6° $\mathfrak{B}$ 15'45		minimum elong	-8799 Sep 30 j 04:23	6° $\mathfrak{Q}$ 25'56	1°11'10
	-8804 Feb 23 j 11:21	15° $\mathfrak{B}$		max. Earth dist.	-8799 Sep 29 j 20:16	6° $\mathfrak{Q}$ 21'15	6.19141 AU
evening set	-8804 Apr 11 j 04:25	24° $\mathfrak{B}$ 56'55		morning rise	-8799 Oct 12 j 18:35	9° $\mathfrak{Q}$ 20'42	
					-8799 Nov 06 j 23:51	15° $\mathfrak{Q}$	
conjunction	-8804 Apr 24 j 18:50	27° $\mathfrak{B}$ 59'05	-0°41'25	retrograde	-8798 Feb 18 j 01:35	28° $\mathfrak{Q}$ 18'09	
minimum elong	-8804 Apr 24 j 18:54	27° $\mathfrak{B}$ 59'08	0°41'45	opposition	-8798 Apr 20 j 09:44	23° $\mathfrak{Q}$ 20'28	1°11'59
max. Earth dist.	-8804 Apr 24 j 15:10	27° $\mathfrak{B}$ 57'02	6.25837 AU	min. Earth dist.	-8798 Apr 20 j 09:23	23° $\mathfrak{Q}$ 20'35	4.15111 AU
	-8804 May 03 j 19:05	0° $\mathfrak{H}$		direct	-8798 Jun 19 j 09:50	18° $\mathfrak{Q}$ 27'27	
morning rise	-8804 May 08 j 06:33	0° $\mathfrak{H}$ 59'51			-8798 Sep 19 j 14:29	0° $\mathfrak{M}$	
retrograde	-8804 Sep 07 j 10:33	18° $\mathfrak{H}$ 45'19		evening set	-8798 Oct 20 j 14:38	6° $\mathfrak{M}$ 58'13	
opposition	-8804 Nov 05 j 19:47	13° $\mathfrak{H}$ 49'01	-0°23'54				
min. Earth dist.	-8804 Nov 06 j 03:57	13° $\mathfrak{H}$ 46'18	4.29264 AU	conjunction	-8798 Nov 02 j 11:27	9° $\mathfrak{M}$ 58'57	0°22'34
direct	-8803 Jan 06 j 03:42	8° $\mathfrak{H}$ 44'51		minimum elong	-8798 Nov 02 j 11:29	9° $\mathfrak{M}$ 58'58	0°22'49
asc. node	-8803 Mar 06 j 07:07	13° $\mathfrak{H}$ 36'57		max. Earth dist.	-8798 Nov 02 j 21:22	10° $\mathfrak{M}$ 04'46	6.11461 AU
evening set	-8803 May 14 j 21:14	27° $\mathfrak{H}$ 08'09		morning rise	-8798 Nov 15 j 11:29	13° $\mathfrak{M}$ 01'26	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 10

Attention, astronomical year style is used: The year -8797 in astronomical counting style is the year 8798 BCE in historical counting style.

	-8797 Feb 12 j 01:24	0°♌	min. Earth dist.	-8792 Nov 10 j 19:47	18°♋24'23	4.30018 AU
retrograde	-8797 Mar 26 j 03:58	2°♌39'26	direct	-8791 Jan 10 j 22:04	13°♋23'44	
desc. node	-8797 Apr 09 j 21:30	2°♌18'52	asc. node	-8791 Jan 13 j 10:19	13°♋24'19	
	-8797 May 07 j 09:44	30°♏		-8791 May 11 j 13:43	0°♏	
opposition	-8797 May 26 j 03:05	27°♏37'49 -0°10'05	evening set	-8791 May 19 j 13:25	1°♏44'56	
min. Earth dist.	-8797 May 25 j 12:32	27°♏42'38 4.08533 AU				
direct	-8797 Jul 23 j 22:48	22°♏44'31	conjunction	-8791 Jun 01 j 19:04	4°♏40'49 0°18'32	
	-8797 Oct 01 j 19:14	0°♌	minimum elong	-8791 Jun 01 j 19:02	4°♏40'48 0°18'31	
evening set	-8797 Nov 24 j 07:15	11°♌33'01	max. Earth dist.	-8791 May 31 j 20:25	4°♏28'15 6.32558 AU	
			morning rise	-8791 Jun 14 j 21:01	7°♏34'52	
conjunction	-8797 Dec 07 j 13:13	14°♌39'50 -0°34'29	retrograde	-8791 Oct 13 j 10:20	24°♏52'15	
minimum elong	-8797 Dec 07 j 13:10	14°♌39'48 0°34'33	opposition	-8791 Dec 12 j 10:14	19°♏59'20 1°02'42	
max. Earth dist.	-8797 Dec 08 j 17:44	14°♌56'37 6.06599 AU	min. Earth dist.	-8791 Dec 13 j 05:21	19°♏53'09 4.34157 AU	
morning rise	-8797 Dec 20 j 22:33	17°♌48'31	direct	-8790 Feb 12 j 17:12	14°♏56'46	
	-8796 Feb 15 j 17:52	0°♌		-8790 Jun 06 j 13:17	0°♌	
retrograde	-8796 Apr 30 j 15:58	7°♌47'46	evening set	-8790 Jun 20 j 17:44	3°♌05'31	
opposition	-8796 Jun 29 j 21:16	2°♌43'20 -1°30'10	max. Earth dist.	-8790 Jul 02 j 04:50	5°♌38'13 6.34571 AU	
min. Earth dist.	-8796 Jun 28 j 23:35	2°♌50'39 4.05940 AU				
	-8796 Jul 21 j 07:53	30°♏	conjunction	-8790 Jul 03 j 13:18	5°♌56'18 1°05'06	
direct	-8796 Aug 27 j 02:28	27°♌47'53	minimum elong	-8790 Jul 03 j 13:13	5°♌56'15 1°05'22	
	-8796 Oct 02 j 16:12	0°♌	morning rise	-8790 Jul 16 j 05:49	8°♌45'34	
	-8796 Dec 21 j 14:20	15°♌		-8790 Aug 14 j 08:47	15°♌	
evening set	-8796 Dec 29 j 14:06	16°♌50'57	retrograde	-8790 Nov 14 j 05:04	26°♌03'09	
			opposition	-8789 Jan 13 j 19:23	21°♌11'33 1°59'26	
conjunction	-8795 Jan 12 j 02:50	20°♌00'39 -1°19'34	min. Earth dist.	-8789 Jan 14 j 19:36	21°♌03'50 4.34028 AU	
minimum elong	-8795 Jan 12 j 02:45	20°♌00'36 1°19'57	direct	-8789 Mar 17 j 08:22	16°♌11'36	
max. Earth dist.	-8795 Jan 13 j 14:50	20°♌21'42 6.06396 AU		-8789 Jul 02 j 14:56	0°♏	
morning rise	-8795 Jan 25 j 18:23	23°♌11'43	evening set	-8789 Jul 22 j 02:40	4°♏15'52	
	-8795 Feb 25 j 00:28	0°♏	max. Earth dist.	-8789 Aug 02 j 06:27	6°♏46'04 6.32175 AU	
retrograde	-8795 Jun 05 j 10:14	13°♏02'05				
min. Earth dist.	-8795 Aug 03 j 01:42	8°♏04'46 4.08299 AU	conjunction	-8789 Aug 03 j 14:33	7°♏04'08 1°32'45	
opposition	-8795 Aug 04 j 00:16	7°♏57'03 -2°17'10	minimum elong	-8789 Aug 03 j 14:30	7°♏04'07 1°33'14	
direct	-8795 Oct 01 j 06:38	2°♏58'16	morning rise	-8789 Aug 16 j 00:33	9°♏51'34	
evening set	-8794 Feb 04 j 13:24	22°♏05'17	retrograde	-8789 Dec 16 j 19:13	27°♏31'19	
			opposition	-8788 Feb 15 j 23:15	22°♏39'07 2°21'58	
conjunction	-8794 Feb 18 j 06:00	25°♏14'28 -1°35'27	min. Earth dist.	-8788 Feb 16 j 19:37	22°♏32'40 4.29619 AU	
minimum elong	-8794 Feb 18 j 06:00	25°♏14'29 1°36'00	direct	-8788 Apr 18 j 00:15	17°♏42'12	
max. Earth dist.	-8794 Feb 19 j 12:03	25°♏31'49 6.10987 AU		-8788 Jul 25 j 20:06	0°♏	
morning rise	-8794 Mar 03 j 23:41	28°♏24'04	evening set	-8788 Aug 21 j 08:22	5°♏49'59	
	-8794 Mar 11 j 00:17	0°♏				
retrograde	-8794 Jul 09 j 23:04	17°♏37'27	conjunction	-8788 Sep 02 j 17:56	8°♏39'35 1°33'21	
opposition	-8794 Sep 07 j 02:30	12°♏34'18 -2°14'15	minimum elong	-8788 Sep 02 j 17:58	8°♏39'36 1°33'54	
min. Earth dist.	-8794 Sep 06 j 12:27	12°♏39'06 4.14676 AU	max. Earth dist.	-8788 Sep 01 j 19:29	8°♏26'44 6.26047 AU	
direct	-8794 Nov 05 j 05:24	7°♏32'18	morning rise	-8788 Sep 15 j 03:23	11°♏29'17	
evening set	-8793 Mar 12 j 23:45	26°♏29'41	retrograde	-8787 Jan 18 j 19:07	29°♏47'40	
			opposition	-8787 Mar 21 j 04:42	24°♏53'08 2°01'54	
conjunction	-8793 Mar 26 j 17:05	29°♏35'56 -1°17'27	min. Earth dist.	-8787 Mar 21 j 16:25	24°♏49'24 4.22150 AU	
minimum elong	-8793 Mar 26 j 17:10	29°♏35'59 1°17'59	direct	-8787 May 21 j 06:44	19°♏58'51	
max. Earth dist.	-8793 Mar 27 j 07:42	29°♏44'14 6.18637 AU		-8787 Aug 15 j 10:24	0°♏	
	-8793 Mar 28 j 11:32	0°♏	evening set	-8787 Sep 22 j 04:41	8°♏16'51	
morning rise	-8793 Apr 09 j 09:13	2°♏41'29				
	-8793 Jun 08 j 14:50	15°♏	conjunction	-8787 Oct 04 j 18:22	11°♏11'37 1°05'04	
retrograde	-8793 Aug 12 j 00:00	21°♏05'21	minimum elong	-8787 Oct 04 j 18:27	11°♏11'40 1°05'33	
opposition	-8793 Oct 10 j 02:55	16°♏05'44 -1°26'14	max. Earth dist.	-8787 Oct 04 j 11:16	11°♏07'29 6.17929 AU	
min. Earth dist.	-8793 Oct 09 j 23:54	16°♏06'45 4.22801 AU	morning rise	-8787 Oct 17 j 10:00	14°♏07'31	
	-8793 Oct 18 j 07:34	15°♏		-8787 Oct 21 j 05:15	15°♏	
direct	-8793 Dec 09 j 09:47	11°♏01'50		-8786 Jan 07 j 10:22	0°♏	
	-8792 Jan 30 j 15:09	15°♏	retrograde	-8786 Feb 23 j 01:18	3°♏11'35	
evening set	-8792 Apr 16 j 01:31	29°♏41'10		-8786 Apr 11 j 08:44	30°♏	
	-8792 Apr 17 j 11:26	0°♏	opposition	-8786 Apr 25 j 09:46	28°♏13'21 1°01'29	
			min. Earth dist.	-8786 Apr 25 j 06:41	28°♏14'21 4.13906 AU	
conjunction	-8792 Apr 29 j 15:00	2°♏42'41 -0°34'17	direct	-8786 Jun 24 j 04:44	23°♏20'25	
minimum elong	-8792 Apr 29 j 15:04	2°♏42'43 0°34'36		-8786 Aug 30 j 12:02	0°♏	
max. Earth dist.	-8792 Apr 29 j 07:56	2°♏38'44 6.26687 AU	evening set	-8786 Oct 25 j 09:34	11°♏54'12	
morning rise	-8792 May 13 j 01:55	5°♏42'44				
retrograde	-8792 Sep 11 j 23:47	23°♏23'40	conjunction	-8786 Nov 07 j 07:51	14°♏56'02 0°14'36	
opposition	-8792 Nov 10 j 09:18	18°♏27'50 -0°12'45	minimum elong	-8786 Nov 07 j 07:52	14°♏56'02 0°14'49	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11

Attention, astronomical year style is used: The year -8786 in astronomical counting style is the year 8787 BCE in historical counting style.

behind sun begin	-8786 Nov 07 j 04:32	14° $\mathring{M}$ 54'05	min. Earth dist.	-8780 Nov 15 j 07:39	22° $\mathring{H}$ 56'57	4.31451 AU
behind sun end	-8786 Nov 07 j 11:13	14° $\mathring{M}$ 58'00	asc. node	-8780 Nov 24 j 06:55	21° $\mathring{H}$ 46'49	
max. Earth dist.	-8786 Nov 07 j 21:19	15° $\mathring{M}$ 03'56	6.10385 AU	direct	-8779 Jan 15 j 12:18	17° $\mathring{H}$ 56'39
morning rise	-8786 Nov 20 j 09:10	17° $\mathring{M}$ 59'36			-8779 Apr 24 j 20:20	0° $\mathring{Y}$
	-8785 Jan 15 j 11:43	0° $\mathring{L}$		evening set	-8779 May 24 j 01:48	6° $\mathring{Y}$ 13'23
desc. node	-8785 Feb 17 j 09:09	5° $\mathring{L}$ 04'05		max. Earth dist.	-8779 Jun 05 j 03:45	8° $\mathring{Y}$ 53'41
retrograde	-8785 Mar 31 j 09:25	7° $\mathring{L}$ 42'51				6.33690 AU
opposition	-8785 May 31 j 04:52	2° $\mathring{L}$ 40'49	-0°22'19	conjunction	-8779 Jun 06 j 05:49	9° $\mathring{Y}$ 08'09
min. Earth dist.	-8785 May 30 j 13:54	2° $\mathring{L}$ 45'47	4.07677 AU	minimum elong	-8779 Jun 06 j 05:47	9° $\mathring{Y}$ 08'07
	-8785 Jun 21 j 15:57	30° $\mathring{R}$ $\mathring{M}$		morning rise	-8779 Jun 19 j 06:29	12° $\mathring{Y}$ 01'10
direct	-8785 Jul 28 j 22:29	27° $\mathring{M}$ 47'20		retrograde	-8779 Oct 17 j 18:23	29° $\mathring{Y}$ 15'13
	-8785 Sep 03 j 17:52	0° $\mathring{L}$		opposition	-8779 Dec 16 j 19:51	24° $\mathring{Y}$ 22'34
evening set	-8785 Nov 29 j 09:03	16° $\mathring{L}$ 39'12		min. Earth dist.	-8779 Dec 17 j 17:19	24° $\mathring{Y}$ 15'38
				direct	-8778 Feb 17 j 06:06	19° $\mathring{Y}$ 20'12
conjunction	-8785 Dec 12 j 16:06	19° $\mathring{L}$ 46'45	-0°42'05		-8778 May 20 j 19:54	0° $\mathring{B}$
minimum elong	-8785 Dec 12 j 16:02	19° $\mathring{L}$ 46'43	0°42'13	evening set	-8778 Jun 25 j 00:57	7° $\mathring{B}$ 26'15
max. Earth dist.	-8785 Dec 13 j 21:39	20° $\mathring{L}$ 04'09	6.06035 AU	max. Earth dist.	-8778 Jul 06 j 10:11	9° $\mathring{B}$ 57'54
morning rise	-8785 Dec 26 j 02:44	22° $\mathring{L}$ 56'11				6.34863 AU
	-8784 Jan 26 j 09:03	0° $\mathring{M}$		conjunction	-8778 Jul 07 j 19:20	10° $\mathring{B}$ 16'22
retrograde	-8784 May 05 j 19:20	12° $\mathring{M}$ 57'04		minimum elong	-8778 Jul 07 j 19:15	10° $\mathring{B}$ 16'19
opposition	-8784 Jul 04 j 22:37	7° $\mathring{M}$ 52'27	-1°39'31	morning rise	-8778 Jul 20 j 10:33	13° $\mathring{B}$ 04'59
min. Earth dist.	-8784 Jul 03 j 23:24	8° $\mathring{M}$ 00'18	4.05766 AU		-8778 Jul 29 j 03:42	15° $\mathring{B}$
direct	-8784 Sep 01 j 01:22	2° $\mathring{M}$ 56'39			-8778 Nov 02 j 19:18	0° $\mathring{I}$
	-8784 Dec 03 j 15:04	15° $\mathring{M}$		retrograde	-8778 Nov 18 j 12:09	0° $\mathring{I}$ 23'19
evening set	-8783 Jan 03 j 20:37	22° $\mathring{M}$ 01'58			-8778 Dec 04 j 06:44	30° $\mathring{R}$ $\mathring{B}$
				opposition	-8777 Jan 18 j 05:33	25° $\mathring{B}$ 31'44
conjunction	-8783 Jan 17 j 10:07	25° $\mathring{M}$ 11'52	-1°23'53	min. Earth dist.	-8777 Jan 19 j 05:34	25° $\mathring{B}$ 24'05
minimum elong	-8783 Jan 17 j 10:02	25° $\mathring{M}$ 11'49	1°24'18	direct	-8777 Mar 21 j 17:03	20° $\mathring{B}$ 32'07
max. Earth dist.	-8783 Jan 18 j 22:18	25° $\mathring{M}$ 33'01	6.06622 AU		-8777 Jun 15 j 14:30	0° $\mathring{I}$
morning rise	-8783 Jan 31 j 02:12	28° $\mathring{M}$ 23'02		evening set	-8777 Jul 26 j 07:50	8° $\mathring{I}$ 36'04
	-8783 Feb 07 j 02:24	0° $\mathring{J}$		max. Earth dist.	-8777 Aug 06 j 10:22	11° $\mathring{I}$ 05'52
retrograde	-8783 Jun 10 j 11:37	18° $\mathring{J}$ 10'18				6.31535 AU
opposition	-8783 Aug 08 j 23:25	13° $\mathring{J}$ 05'25	-2°19'55	conjunction	-8777 Aug 07 j 18:57	11° $\mathring{I}$ 24'15
min. Earth dist.	-8783 Aug 08 j 01:52	13° $\mathring{J}$ 12'47	4.08933 AU	minimum elong	-8777 Aug 07 j 18:55	11° $\mathring{I}$ 24'14
direct	-8783 Oct 06 j 08:19	8° $\mathring{J}$ 06'13		morning rise	-8777 Aug 20 j 04:32	14° $\mathring{I}$ 11'44
evening set	-8782 Feb 09 j 20:14	27° $\mathring{J}$ 12'45			-8777 Nov 15 j 11:11	0° $\mathring{E}$
	-8782 Feb 21 j 23:35	0° $\mathring{Z}$		retrograde	-8777 Dec 21 j 08:57	1° $\mathring{E}$ 56'13
					-8776 Jan 26 j 14:17	30° $\mathring{R}$ $\mathring{I}$
conjunction	-8782 Feb 23 j 13:14	0° $\mathring{Z}$ 21'39	-1°34'51	opposition	-8776 Feb 20 j 12:53	27° $\mathring{I}$ 03'49
minimum elong	-8782 Feb 23 j 13:15	0° $\mathring{Z}$ 21'40	1°35'24	min. Earth dist.	-8776 Feb 21 j 10:08	26° $\mathring{I}$ 57'05
max. Earth dist.	-8782 Feb 24 j 19:38	0° $\mathring{Z}$ 39'08	6.12012 AU	direct	-8776 Apr 22 j 12:14	22° $\mathring{I}$ 07'13
morning rise	-8782 Mar 09 j 06:49	3° $\mathring{Z}$ 30'45			-8776 Jul 07 j 19:44	0° $\mathring{E}$
retrograde	-8782 Jul 14 j 18:24	22° $\mathring{Z}$ 36'51		evening set	-8776 Aug 25 j 14:51	10° $\mathring{E}$ 17'01
opposition	-8782 Sep 11 j 21:31	17° $\mathring{Z}$ 34'10	-2°09'45	max. Earth dist.	-8776 Sep 06 j 02:33	12° $\mathring{E}$ 54'36
min. Earth dist.	-8782 Sep 11 j 07:42	17° $\mathring{Z}$ 38'52	4.16019 AU			6.24617 AU
direct	-8782 Nov 10 j 03:41	12° $\mathring{Z}$ 31'52		conjunction	-8776 Sep 07 j 00:42	13° $\mathring{E}$ 07'18
	-8781 Mar 11 j 16:39	0° $\mathring{A}$		minimum elong	-8776 Sep 07 j 00:45	13° $\mathring{E}$ 07'20
evening set	-8781 Mar 18 j 02:21	1° $\mathring{A}$ 25'52		morning rise	-8776 Sep 19 j 10:46	15° $\mathring{E}$ 57'51
					-8776 Nov 29 j 04:31	0° $\mathring{O}$
conjunction	-8781 Mar 31 j 19:11	4° $\mathring{A}$ 31'18	-1°12'30	retrograde	-8775 Jan 23 j 12:38	4° $\mathring{O}$ 23'56
minimum elong	-8781 Mar 31 j 19:16	4° $\mathring{A}$ 31'21	1°13'00		-8775 Mar 21 j 21:30	30° $\mathring{R}$ $\mathring{E}$
max. Earth dist.	-8781 Apr 01 j 06:21	4° $\mathring{A}$ 37'37	6.20210 AU	opposition	-8775 Mar 25 j 22:55	29° $\mathring{E}$ 28'56
morning rise	-8781 Apr 14 j 10:53	7° $\mathring{A}$ 35'57		min. Earth dist.	-8775 Mar 26 j 08:23	29° $\mathring{E}$ 25'55
	-8781 May 18 j 18:04	15° $\mathring{A}$		direct	-8775 May 25 j 19:26	24° $\mathring{E}$ 34'55
retrograde	-8781 Aug 16 j 14:03	25° $\mathring{A}$ 51'17			-8775 Jul 25 j 20:04	0° $\mathring{O}$
opposition	-8781 Oct 14 j 17:39	20° $\mathring{A}$ 52'10	-1°16'48	evening set	-8775 Sep 26 j 16:24	12° $\mathring{O}$ 56'57
min. Earth dist.	-8781 Oct 14 j 16:47	20° $\mathring{A}$ 52'27	4.24448 AU		-8775 Oct 05 j 12:21	15° $\mathring{O}$
direct	-8781 Dec 14 j 06:36	15° $\mathring{A}$ 48'05				
	-8780 Mar 31 j 17:16	0° $\mathring{H}$		conjunction	-8775 Oct 09 j 07:14	15° $\mathring{O}$ 52'58
evening set	-8780 Apr 20 j 20:44	4° $\mathring{H}$ 22'34		minimum elong	-8775 Oct 09 j 07:19	15° $\mathring{O}$ 53'01
				max. Earth dist.	-8775 Oct 09 j 03:08	15° $\mathring{O}$ 50'35
conjunction	-8780 May 04 j 09:26	7° $\mathring{H}$ 23'02	-0°27'05	morning rise	-8775 Oct 22 j 00:05	18° $\mathring{O}$ 50'12
minimum elong	-8780 May 04 j 09:28	7° $\mathring{H}$ 23'04	0°27'22		-8775 Dec 13 j 04:25	0° $\mathring{M}$
max. Earth dist.	-8780 May 04 j 01:27	7° $\mathring{H}$ 18'36	6.28295 AU	retrograde	-8774 Feb 28 j 03:43	8° $\mathring{M}$ 02'54
morning rise	-8780 May 17 j 18:59	10° $\mathring{H}$ 21'54		opposition	-8774 Apr 30 j 09:00	3° $\mathring{M}$ 04'09
retrograde	-8780 Sep 16 j 07:59	27° $\mathring{H}$ 56'01		min. Earth dist.	-8774 Apr 30 j 04:59	3° $\mathring{M}$ 05'27
opposition	-8780 Nov 14 j 20:27	23° $\mathring{H}$ 00'38	-0°01'52		-8774 May 25 j 23:21	30° $\mathring{R}$ $\mathring{O}$

Attention, astronomical year style is used: The year -8774 in astronomical counting style is the year 8775 BCE in historical counting style.

direct	-8774 Jun 29 j 00:14	28°♏11'15		evening set	-8768 Apr 25 j 16:06	9°♐04'14	
	-8774 Aug 01 j 14:34	0°♐					
evening set	-8774 Oct 30 j 05:01	16°♐50'00		conjunction	-8768 May 09 j 03:37	12°♐03'49	-0°19'40
				minimum elong	-8768 May 09 j 03:38	12°♐03'51	0°19'54
conjunction	-8774 Nov 12 j 04:41	19°♐53'07	0°06'35	max. Earth dist.	-8768 May 08 j 15:20	11°♐57'00	6.29413 AU
minimum elong	-8774 Nov 12 j 04:40	19°♐53'07	0°06'45	morning rise	-8768 May 22 j 12:10	15°♐01'48	
behind sun begin	-8774 Nov 11 j 21:05	19°♐48'40			-8768 Aug 11 j 12:39	0°♐	
behind sun end	-8774 Nov 12 j 12:16	19°♐57'34		retrograde	-8768 Sep 20 j 19:20	2°♐31'18	
max. Earth dist.	-8774 Nov 12 j 20:34	20°♐02'27	6.08892 AU	asc. node	-8768 Oct 04 j 00:07	2°♐14'04	
morning rise	-8774 Nov 25 j 07:40	22°♐58'03			-8768 Oct 31 j 07:26	30°♐	
	-8774 Dec 26 j 11:06	0°♐		opposition	-8768 Nov 19 j 09:06	27°♐36'24	0°09'10
desc. node	-8774 Dec 27 j 16:52	0°♐15'56		min. Earth dist.	-8768 Nov 19 j 22:36	27°♐31'58	4.32288 AU
retrograde	-8773 Apr 05 j 14:03	12°♐47'46		direct	-8767 Jan 20 j 04:41	22°♐32'31	
opposition	-8773 Jun 05 j 07:12	7°♐45'16	-0°34'26		-8767 Apr 05 j 10:56	0°♐	
min. Earth dist.	-8773 Jun 04 j 13:26	7°♐51'11	4.06569 AU	evening set	-8767 May 28 j 15:54	10°♐47'05	
direct	-8773 Aug 02 j 19:56	2°♐51'36					
evening set	-8773 Dec 04 j 12:19	21°♐47'39		conjunction	-8767 Jun 10 j 18:42	13°♐41'06	0°32'45
				minimum elong	-8767 Jun 10 j 18:39	13°♐41'04	0°32'49
conjunction	-8773 Dec 17 j 20:32	24°♐55'59	-0°49'25	max. Earth dist.	-8767 Jun 09 j 16:01	13°♐26'18	6.34183 AU
minimum elong	-8773 Dec 17 j 20:27	24°♐55'56	0°49'36	morning rise	-8767 Jun 23 j 17:48	16°♐33'20	
max. Earth dist.	-8773 Dec 19 j 04:32	25°♐14'50	6.05393 AU		-8767 Sep 01 j 23:14	0°♐	
morning rise	-8773 Dec 31 j 08:12	28°♐06'08		retrograde	-8767 Oct 22 j 04:46	3°♐46'29	
	-8772 Jan 08 j 12:18	0°♐			-8767 Dec 12 j 18:38	30°♐	
	-8772 Mar 26 j 13:31	15°♐		opposition	-8767 Dec 21 j 08:56	28°♐54'09	1°21'03
retrograde	-8772 May 11 j 00:08	18°♐08'27		min. Earth dist.	-8767 Dec 22 j 06:45	28°♐47'07	4.35047 AU
	-8772 Jun 25 j 08:09	15°♐		direct	-8766 Feb 21 j 19:18	23°♐52'11	
min. Earth dist.	-8772 Jul 09 j 01:14	13°♐11'35	4.05660 AU		-8766 Apr 30 j 12:00	0°♐	
opposition	-8772 Jul 10 j 00:54	13°♐03'33	-1°48'07	evening set	-8766 Jun 29 j 11:56	11°♐57'32	
direct	-8772 Sep 06 j 03:45	8°♐07'16		max. Earth dist.	-8766 Jul 10 j 17:51	14°♐27'37	6.34609 AU
	-8772 Nov 12 j 18:46	15°♐					
evening set	-8771 Jan 09 j 04:16	27°♐14'11		conjunction	-8766 Jul 12 j 04:55	14°♐47'10	1°15'04
	-8771 Jan 21 j 01:05	0°♐		minimum elong	-8766 Jul 12 j 04:50	14°♐47'08	1°15'25
					-8766 Jul 13 j 03:54	15°♐	
conjunction	-8771 Jan 22 j 18:32	0°♐24'11	-1°27'33	morning rise	-8766 Jul 24 j 19:12	17°♐35'28	
minimum elong	-8771 Jan 22 j 18:28	0°♐24'09	1°28'01		-8766 Sep 25 j 15:00	0°♐	
max. Earth dist.	-8771 Jan 24 j 08:39	0°♐46'25	6.07032 AU	retrograde	-8766 Nov 23 j 03:32	4°♐56'36	
morning rise	-8771 Feb 05 j 11:00	3°♐35'17		opposition	-8765 Jan 22 j 21:30	0°♐05'03	2°09'33
retrograde	-8771 Jun 15 j 12:19	23°♐17'56			-8765 Jan 23 j 13:20	30°♐	
opposition	-8771 Aug 13 j 22:19	18°♐13'11	-2°21'34	min. Earth dist.	-8765 Jan 23 j 22:27	29°♐57'06	4.33247 AU
min. Earth dist.	-8771 Aug 13 j 00:44	18°♐20'34	4.09804 AU	direct	-8765 Mar 26 j 08:50	25°♐05'51	
direct	-8771 Oct 11 j 09:03	13°♐13'30			-8765 May 24 j 21:12	0°♐	
	-8770 Feb 04 j 22:09	0°♐		evening set	-8765 Jul 30 j 18:06	13°♐10'38	
evening set	-8770 Feb 15 j 02:51	2°♐18'30		max. Earth dist.	-8765 Aug 10 j 21:36	15°♐41'19	6.30610 AU
conjunction	-8770 Feb 28 j 19:52	5°♐26'54	-1°33'33	conjunction	-8765 Aug 12 j 04:48	15°♐58'57	1°35'47
minimum elong	-8770 Feb 28 j 19:54	5°♐26'55	1°34'06	minimum elong	-8765 Aug 12 j 04:46	15°♐58'56	1°36'18
max. Earth dist.	-8770 Mar 01 j 23:11	5°♐42'34	6.13210 AU	morning rise	-8765 Aug 24 j 13:57	18°♐46'40	
morning rise	-8770 Mar 14 j 13:32	8°♐35'25			-8765 Oct 18 j 04:42	0°♐	
retrograde	-8770 Jul 19 j 12:46	27°♐33'45		retrograde	-8765 Dec 26 j 02:25	6°♐36'45	
opposition	-8770 Sep 16 j 15:57	22°♐31'26	-2°04'21	opposition	-8764 Feb 25 j 08:37	1°♐44'07	2°20'47
min. Earth dist.	-8770 Sep 16 j 03:51	22°♐35'34	4.17381 AU	min. Earth dist.	-8764 Feb 26 j 03:49	1°♐38'01	4.27385 AU
direct	-8770 Nov 15 j 03:02	17°♐28'45			-8764 Mar 10 j 08:15	30°♐	
	-8769 Feb 22 j 01:44	0°♐		direct	-8764 Apr 27 j 03:43	26°♐48'00	
evening set	-8769 Mar 23 j 03:35	6°♐19'24			-8764 Jun 12 j 23:16	0°♐	
				evening set	-8764 Aug 30 j 03:16	14°♐59'45	
conjunction	-8769 Apr 05 j 20:13	9°♐24'08	-1°07'05				
minimum elong	-8769 Apr 05 j 20:18	9°♐24'11	1°07'33	conjunction	-8764 Sep 11 j 13:25	17°♐50'43	1°28'13
max. Earth dist.	-8769 Apr 06 j 05:57	9°♐29'37	6.21628 AU	minimum elong	-8764 Sep 11 j 13:29	17°♐50'45	1°28'47
morning rise	-8769 Apr 19 j 11:05	12°♐27'54		max. Earth dist.	-8764 Sep 10 j 17:29	17°♐39'15	6.23345 AU
	-8769 Apr 30 j 21:35	15°♐		morning rise	-8764 Sep 24 j 00:08	20°♐42'06	
	-8769 Aug 02 j 02:00	0°♐			-8764 Nov 06 j 04:35	0°♐	
retrograde	-8769 Aug 21 j 03:58	0°♐35'48		retrograde	-8763 Jan 28 j 13:53	9°♐15'11	
	-8769 Sep 09 j 02:13	30°♐		opposition	-8763 Mar 30 j 23:09	4°♐19'46	1°48'38
opposition	-8769 Oct 19 j 08:11	25°♐37'17	-1°06'54	min. Earth dist.	-8763 Mar 31 j 07:22	4°♐17'08	4.19173 AU
min. Earth dist.	-8769 Oct 19 j 08:54	25°♐37'02	4.25769 AU		-8763 May 11 j 16:56	30°♐	
direct	-8769 Dec 19 j 00:51	20°♐33'09		direct	-8763 May 30 j 16:35	29°♐26'01	
	-8768 Mar 13 j 05:44	0°♐			-8763 Jun 18 j 13:12	0°♐	

Attention, astronomical year style is used: The year -8763 in astronomical counting style is the year 8764 BCE in historical counting style.

	-8763 Sep 18 j 23:52	15°♌	conjunction	-8757 Apr 10 j 17:09	14°♊07'23	-1°01'23
evening set	-8763 Oct 01 j 09:02	17°♌50'25	minimum elong	-8757 Apr 10 j 17:14	14°♊07'25	1°01'50
			max. Earth dist.	-8757 Apr 10 j 22:17	14°♊10'15	6.22729 AU
conjunction	-8763 Oct 14 j 01:01	20°♌47'27 0°52'35		-8757 Apr 14 j 14:46	15°♊	
minimum elong	-8763 Oct 14 j 01:05	20°♌47'29 0°52'59	morning rise	-8757 Apr 24 j 07:32	17°♊10'27	
max. Earth dist.	-8763 Oct 14 j 00:08	20°♌46'56 6.14998 AU		-8757 Jun 27 j 10:45	0°♋	
morning rise	-8763 Oct 26 j 19:15	23°♌45'48	retrograde	-8757 Aug 25 j 14:17	5°♋12'27	
	-8763 Nov 23 j 12:17	0°♎	opposition	-8757 Oct 23 j 19:52	0°♋14'26	-0°56'54
retrograde	-8762 Mar 05 j 07:09	13°♎04'31	min. Earth dist.	-8757 Oct 23 j 22:37	0°♋13'31	4.26658 AU
opposition	-8762 May 05 j 11:52	8°♎05'13 0°39'05		-8757 Oct 25 j 14:58	30°♋	
min. Earth dist.	-8762 May 05 j 04:40	8°♎07'33 4.11272 AU	direct	-8757 Dec 23 j 16:15	25°♋10'11	
direct	-8762 Jul 03 j 21:59	3°♎12'23		-8756 Feb 20 j 05:06	0°♋	
evening set	-8762 Nov 04 j 03:27	21°♎53'08	evening set	-8756 Apr 30 j 08:39	13°♋39'29	
desc. node	-8762 Nov 05 j 05:43	22°♎08'30				
			conjunction	-8756 May 13 j 19:17	16°♋38'26	-0°12'18
conjunction	-8762 Nov 17 j 04:20	24°♎57'02 -0°01'46	minimum elong	-8756 May 13 j 19:18	16°♋38'27	0°12'29
minimum elong	-8762 Nov 17 j 04:19	24°♎57'02 0°01'39	behind sun begin	-8756 May 13 j 14:04	16°♋35'33	
behind sun begin	-8762 Nov 16 j 20:09	24°♎52'14	behind sun end	-8756 May 14 j 00:32	16°♋41'21	
behind sun end	-8762 Nov 17 j 12:29	25°♎01'49	max. Earth dist.	-8756 May 13 j 04:58	16°♋30'29	6.30042 AU
max. Earth dist.	-8762 Nov 17 j 23:13	25°♎08'09 6.08306 AU	morning rise	-8756 May 27 j 02:38	19°♋35'42	
morning rise	-8762 Nov 30 j 08:38	28°♎02'48		-8756 Jul 16 j 22:41	0°♌	
	-8762 Dec 08 j 18:32	0°♏	asc. node	-8756 Aug 14 j 04:19	4°♌18'36	
retrograde	-8761 Apr 10 j 18:31	17°♏55'10	retrograde	-8756 Sep 25 j 05:38	7°♌02'31	
opposition	-8761 Jun 10 j 09:48	12°♏52'07 -0°46'19	opposition	-8756 Nov 23 j 20:41	2°♌08'06	0°19'57
min. Earth dist.	-8761 Jun 09 j 14:48	12°♏58'28 4.06381 AU	min. Earth dist.	-8756 Nov 24 j 11:45	2°♌03'10	4.32616 AU
direct	-8761 Aug 07 j 21:03	7°♏58'08		-8756 Dec 10 j 16:50	30°♌	
evening set	-8761 Dec 09 j 15:26	26°♏55'07	direct	-8755 Jan 24 j 18:30	27°♌04'27	
	-8761 Dec 22 j 18:19	0°♐		-8755 Mar 11 j 00:51	0°♌	
			evening set	-8755 Jun 02 j 05:02	15°♌18'23	
conjunction	-8761 Dec 23 j 00:42	0°♐03'45 -0°56'19	max. Earth dist.	-8755 Jun 14 j 00:48	17°♌55'24	6.34172 AU
minimum elong	-8761 Dec 23 j 00:36	0°♐03'42 0°56'32				
max. Earth dist.	-8761 Dec 24 j 11:25	0°♐24'11 6.05610 AU	conjunction	-8755 Jun 15 j 06:25	18°♌11'50	0°39'36
morning rise	-8760 Jan 05 j 13:09	3°♐14'06	minimum elong	-8755 Jun 15 j 06:21	18°♌11'48	0°39'42
	-8760 Feb 29 j 01:36	15°♐	morning rise	-8755 Jun 28 j 04:24	21°♌03'34	
retrograde	-8760 May 16 j 01:45	23°♐14'07		-8755 Aug 10 j 04:34	0°♍	
min. Earth dist.	-8760 Jul 14 j 00:24	18°♐17'12 4.06284 AU	retrograde	-8755 Oct 26 j 17:17	8°♍17'37	
opposition	-8760 Jul 15 j 00:21	18°♐09'04 -1°55'39	opposition	-8755 Dec 25 j 22:38	3°♍25'29	1°29'41
	-8760 Aug 09 j 06:29	15°♑	min. Earth dist.	-8755 Dec 26 j 21:27	3°♍18'08	4.34737 AU
direct	-8760 Sep 11 j 03:09	13°♑12'20		-8754 Jan 24 j 08:47	30°♑	
	-8760 Oct 14 j 01:55	15°♑	direct	-8754 Feb 26 j 10:00	28°♑23'51	
	-8759 Jan 04 j 07:48	0°♒		-8754 Mar 31 j 14:30	0°♍	
evening set	-8759 Jan 14 j 08:51	2°♒18'27		-8754 Jun 27 j 04:22	15°♍	
			evening set	-8754 Jul 03 j 23:20	16°♍29'49	
conjunction	-8759 Jan 27 j 23:27	5°♒28'11 -1°30'28	max. Earth dist.	-8754 Jul 15 j 05:49	19°♍00'28	6.34021 AU
minimum elong	-8759 Jan 27 j 23:24	5°♒28'09 1°30'56				
max. Earth dist.	-8759 Jan 29 j 11:18	5°♒49'02 6.07959 AU	conjunction	-8754 Jul 16 j 15:21	19°♍19'12	1°19'30
morning rise	-8759 Feb 10 j 16:22	8°♒38'56	minimum elong	-8754 Jul 16 j 15:16	19°♍19'10	1°19'53
retrograde	-8759 Jun 20 j 07:35	28°♒15'27	morning rise	-8754 Jul 29 j 04:30	22°♍07'17	
opposition	-8759 Aug 18 j 17:04	23°♒10'51 -2°22'05		-8754 Sep 04 j 08:52	0°♎	
min. Earth dist.	-8759 Aug 17 j 20:31	23°♒17'53 4.10935 AU	retrograde	-8754 Nov 27 j 18:09	9°♎32'11	
direct	-8759 Oct 16 j 07:04	18°♒10'36	opposition	-8753 Jan 27 j 14:40	4°♎40'36	2°13'37
	-8758 Jan 18 j 08:17	0°♏	min. Earth dist.	-8753 Jan 28 j 14:31	4°♎33'02	4.32450 AU
evening set	-8758 Feb 20 j 04:47	7°♏13'23		-8753 Mar 16 j 21:10	30°♏	
			direct	-8753 Mar 30 j 23:55	29°♏41'56	
conjunction	-8758 Mar 05 j 22:05	10°♏21'20 -1°31'37		-8753 Apr 14 j 03:37	0°♎	
minimum elong	-8758 Mar 05 j 22:08	10°♏21'22 1°32'11	evening set	-8753 Aug 04 j 05:36	17°♎47'51	
max. Earth dist.	-8758 Mar 06 j 23:49	10°♏36'03 6.14456 AU	max. Earth dist.	-8753 Aug 15 j 09:13	20°♎19'03	6.29654 AU
morning rise	-8758 Mar 19 j 15:23	13°♏29'10				
	-8758 Jun 15 j 17:54	0°♏	conjunction	-8753 Aug 16 j 15:42	20°♎36'19	1°36'28
retrograde	-8758 Jul 24 j 04:11	2°♏20'01	minimum elong	-8753 Aug 16 j 15:41	20°♎36'19	1°37'00
	-8758 Aug 31 j 07:04	30°♏	morning rise	-8753 Aug 29 j 00:50	23°♎24'22	
opposition	-8758 Sep 21 j 06:18	27°♏18'13 -1°58'19		-8753 Sep 28 j 08:06	0°♏	
min. Earth dist.	-8758 Sep 20 j 20:28	27°♏21'34 4.18603 AU	retrograde	-8753 Dec 30 j 23:37	11°♏20'05	
direct	-8758 Nov 19 j 21:18	22°♏15'13	opposition	-8752 Mar 01 j 06:08	6°♏27'08	2°18'47
	-8757 Feb 02 j 17:08	0°♏	min. Earth dist.	-8752 Mar 02 j 00:11	6°♏21'24	4.26331 AU
evening set	-8757 Mar 28 j 01:01	11°♏03'15	direct	-8752 May 01 j 22:57	1°♏31'25	
			evening set	-8752 Sep 03 j 16:22	19°♏44'23	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 14

Attention, astronomical year style is used: The year -8752 in astronomical counting style is the year 8753 BCE in historical counting style.

max. Earth dist.	-8752 Sep 15 j 10:51	22° $\Omega$ 26'39	6.22292 AU	morning rise	-8746 Mar 24 j 17:29	18° $\mathfrak{Z}$ 23'35	
					-8746 May 19 j 09:31	0° $\approx$	
conjunction	-8752 Sep 16 j 03:08	22° $\mathfrak{B}$ 36'02	1°24'42	retrograde	-8746 Jul 28 j 18:09	7° $\approx$ 07'53	
minimum elong	-8752 Sep 16 j 03:12	22° $\mathfrak{B}$ 36'04	1°25'15	opposition	-8746 Sep 25 j 21:04	2° $\approx$ 06'34	-1°51'31
morning rise	-8752 Sep 28 j 14:30	25° $\mathfrak{B}$ 28'10		min. Earth dist.	-8746 Sep 25 j 12:29	2° $\approx$ 09'29	4.19607 AU
	-8752 Oct 18 j 18:46	0° $\Omega$			-8746 Oct 11 j 22:35	30° $\mathfrak{R}$ $\mathfrak{Z}$	
retrograde	-8751 Feb 02 j 13:40	14° $\Omega$ 07'12		direct	-8746 Nov 24 j 15:04	27° $\mathfrak{Z}$ 03'16	
opposition	-8751 Apr 04 j 23:42	9° $\Omega$ 11'17	1°40'37		-8745 Jan 07 j 18:41	0° $\approx$	
min. Earth dist.	-8751 Apr 05 j 05:10	9° $\Omega$ 09'32	4.18188 AU		-8745 Mar 29 j 05:57	15° $\approx$	
direct	-8751 Jun 04 j 12:26	4° $\Omega$ 17'50		evening set	-8745 Apr 01 j 22:48	15° $\approx$ 49'23	
	-8751 Sep 01 j 07:54	15° $\Omega$					
evening set	-8751 Oct 06 j 02:03	22° $\Omega$ 43'31		conjunction	-8745 Apr 15 j 14:30	18° $\approx$ 52'58	-0°55'15
				minimum elong	-8745 Apr 15 j 14:35	18° $\approx$ 53'01	0°55'41
conjunction	-8751 Oct 18 j 19:03	25° $\Omega$ 41'23	0°45'38	max. Earth dist.	-8745 Apr 15 j 16:45	18° $\approx$ 54'13	6.23670 AU
minimum elong	-8751 Oct 18 j 19:07	25° $\Omega$ 41'25	0°46'01	morning rise	-8745 Apr 29 j 04:09	21° $\approx$ 55'22	
max. Earth dist.	-8751 Oct 18 j 20:40	25° $\Omega$ 42'20	6.14158 AU		-8745 Jun 06 j 02:32	0° $\mathfrak{H}$	
morning rise	-8751 Oct 31 j 14:38	28° $\Omega$ 40'42		retrograde	-8745 Aug 30 j 03:12	9° $\mathfrak{H}$ 52'10	
	-8751 Nov 06 j 07:54	0° $\mathfrak{M}$		opposition	-8745 Oct 28 j 08:51	4° $\mathfrak{H}$ 54'42	-0°46'27
retrograde	-8750 Mar 10 j 10:39	18° $\mathfrak{M}$ 04'12		min. Earth dist.	-8745 Oct 28 j 14:03	4° $\mathfrak{H}$ 52'58	4.27437 AU
opposition	-8750 May 10 j 13:43	13° $\mathfrak{M}$ 04'19	0°27'16		-8745 Dec 18 j 08:44	30° $\mathfrak{R}$ $\approx$	
min. Earth dist.	-8750 May 10 j 04:47	13° $\mathfrak{M}$ 07'14	4.10622 AU	direct	-8745 Dec 28 j 09:28	29° $\approx$ 50'28	
direct	-8750 Jul 08 j 20:32	8° $\mathfrak{M}$ 11'25			-8744 Jan 07 j 11:27	0° $\mathfrak{H}$	
desc. node	-8750 Sep 14 j 06:54	14° $\mathfrak{M}$ 57'13		evening set	-8744 May 05 j 02:04	18° $\mathfrak{H}$ 18'05	
evening set	-8750 Nov 09 j 01:14	26° $\mathfrak{M}$ 53'38					
				conjunction	-8744 May 18 j 11:38	21° $\mathfrak{H}$ 16'23	-0°04'47
conjunction	-8750 Nov 22 j 03:27	29° $\mathfrak{M}$ 58'17	-0°09'56	minimum elong	-8744 May 18 j 11:39	21° $\mathfrak{H}$ 16'24	0°04'56
minimum elong	-8750 Nov 22 j 03:26	29° $\mathfrak{M}$ 58'16	0°09'52	behind sun begin	-8744 May 18 j 03:40	21° $\mathfrak{H}$ 11'59	
behind sun begin	-8750 Nov 21 j 20:46	29° $\mathfrak{M}$ 54'22		behind sun end	-8744 May 18 j 19:37	21° $\mathfrak{H}$ 20'48	
behind sun end	-8750 Nov 22 j 10:06	0° $\mathfrak{L}$ 02'10		max. Earth dist.	-8744 May 17 j 18:28	21° $\mathfrak{H}$ 06'52	6.30601 AU
	-8750 Nov 22 j 06:24	0° $\mathfrak{L}$		morning rise	-8744 May 31 j 17:51	24° $\mathfrak{H}$ 12'58	
max. Earth dist.	-8750 Nov 23 j 01:52	0° $\mathfrak{L}$ 11'28	6.07910 AU	asc. node	-8744 Jun 23 j 02:00	29° $\mathfrak{H}$ 02'42	
morning rise	-8750 Dec 05 j 08:59	3° $\mathfrak{L}$ 04'47			-8744 Jun 27 j 16:16	0° $\mathfrak{Y}$	
retrograde	-8749 Apr 15 j 21:46	22° $\mathfrak{L}$ 59'02		retrograde	-8744 Sep 29 j 16:13	11° $\mathfrak{Y}$ 37'22	
opposition	-8749 Jun 15 j 10:49	17° $\mathfrak{L}$ 55'40	-0°57'47	opposition	-8744 Nov 28 j 09:35	6° $\mathfrak{Y}$ 43'19	0°30'46
min. Earth dist.	-8749 Jun 14 j 14:56	18° $\mathfrak{L}$ 02'18	4.06297 AU	min. Earth dist.	-8744 Nov 29 j 01:33	6° $\mathfrak{Y}$ 38'06	4.32941 AU
direct	-8749 Aug 12 j 19:40	13° $\mathfrak{L}$ 01'27		direct	-8743 Jan 29 j 09:36	1° $\mathfrak{Y}$ 39'52	
	-8749 Dec 06 j 03:51	0° $\mathfrak{M}$		evening set	-8743 Jun 06 j 18:58	19° $\mathfrak{Y}$ 52'59	
evening set	-8749 Dec 14 j 17:43	1° $\mathfrak{M}$ 59'30					
				conjunction	-8743 Jun 19 j 19:01	22° $\mathfrak{Y}$ 45'50	0°46'18
conjunction	-8749 Dec 28 j 03:41	5° $\mathfrak{M}$ 08'22	-1°02'45	minimum elong	-8743 Jun 19 j 18:57	22° $\mathfrak{Y}$ 45'48	0°46'27
minimum elong	-8749 Dec 28 j 03:36	5° $\mathfrak{M}$ 08'18	1°03'01	max. Earth dist.	-8743 Jun 18 j 13:22	22° $\mathfrak{Y}$ 29'21	6.34253 AU
max. Earth dist.	-8749 Dec 29 j 13:54	5° $\mathfrak{M}$ 28'27	6.05816 AU	morning rise	-8743 Jul 02 j 15:35	25° $\mathfrak{Y}$ 36'58	
morning rise	-8748 Jan 10 j 17:06	8° $\mathfrak{M}$ 18'56			-8743 Jul 22 j 21:16	0° $\mathfrak{B}$	
	-8748 Feb 09 j 06:58	15° $\mathfrak{M}$		retrograde	-8743 Oct 31 j 05:50	12° $\mathfrak{B}$ 51'35	
retrograde	-8748 May 21 j 01:06	28° $\mathfrak{M}$ 17'02		opposition	-8743 Dec 30 j 13:27	7° $\mathfrak{B}$ 59'40	1°37'53
opposition	-8748 Jul 19 j 22:23	23° $\mathfrak{M}$ 11'54	-2°02'18	min. Earth dist.	-8743 Dec 31 j 12:41	7° $\mathfrak{B}$ 52'13	4.34592 AU
min. Earth dist.	-8748 Jul 18 j 22:12	23° $\mathfrak{M}$ 20'08	4.06781 AU	direct	-8742 Mar 03 j 01:50	2° $\mathfrak{B}$ 58'29	
direct	-8748 Sep 16 j 02:00	18° $\mathfrak{M}$ 14'41			-8742 Jun 10 j 05:11	15° $\mathfrak{B}$	
	-8748 Dec 17 j 14:38	0° $\mathfrak{J}$		evening set	-8742 Jul 08 j 10:57	21° $\mathfrak{B}$ 04'03	
evening set	-8747 Jan 19 j 12:44	7° $\mathfrak{J}$ 20'52		max. Earth dist.	-8742 Jul 19 j 15:36	23° $\mathfrak{B}$ 33'58	6.33651 AU
conjunction	-8747 Feb 02 j 04:01	10° $\mathfrak{J}$ 30'30	-1°32'42	conjunction	-8742 Jul 21 j 01:45	23° $\mathfrak{B}$ 53'05	1°23'30
minimum elong	-8747 Feb 02 j 03:59	10° $\mathfrak{J}$ 30'29	1°33'12	minimum elong	-8742 Jul 21 j 01:41	23° $\mathfrak{B}$ 53'03	1°23'54
max. Earth dist.	-8747 Feb 03 j 15:56	10° $\mathfrak{J}$ 51'21	6.08704 AU	morning rise	-8742 Aug 02 j 14:07	26° $\mathfrak{B}$ 40'56	
morning rise	-8747 Feb 15 j 21:01	13° $\mathfrak{J}$ 40'58			-8742 Aug 17 j 16:31	0° $\mathfrak{I}$	
	-8747 May 10 j 15:26	0° $\mathfrak{Z}$		retrograde	-8742 Dec 02 j 09:59	14° $\mathfrak{I}$ 08'54	
retrograde	-8747 Jun 25 j 04:24	3° $\mathfrak{Z}$ 12'07		opposition	-8741 Feb 01 j 08:27	9° $\mathfrak{I}$ 17'11	2°16'53
	-8747 Aug 09 j 11:11	30° $\mathfrak{R}$ $\mathfrak{J}$		min. Earth dist.	-8741 Feb 02 j 07:28	9° $\mathfrak{I}$ 09'52	4.31900 AU
opposition	-8747 Aug 23 j 11:17	28° $\mathfrak{J}$ 07'50	-2°21'38	direct	-8741 Apr 04 j 16:30	4° $\mathfrak{I}$ 18'54	
min. Earth dist.	-8747 Aug 22 j 16:42	28° $\mathfrak{J}$ 14'12	4.11856 AU	evening set	-8741 Aug 08 j 16:30	22° $\mathfrak{I}$ 24'47	
direct	-8747 Oct 21 j 04:17	23° $\mathfrak{J}$ 07'10		max. Earth dist.	-8741 Aug 19 j 23:08	24° $\mathfrak{I}$ 57'54	6.28976 AU
	-8747 Dec 28 j 23:34	0° $\mathfrak{Z}$					
evening set	-8746 Feb 25 j 06:52	12° $\mathfrak{Z}$ 08'39		conjunction	-8741 Aug 21 j 02:23	25° $\mathfrak{I}$ 13'22	1°36'34
				minimum elong	-8741 Aug 21 j 02:23	25° $\mathfrak{I}$ 13'22	1°37'07
conjunction	-8746 Mar 11 j 00:12	15° $\mathfrak{Z}$ 16'13	-1°29'03	morning rise	-8741 Sep 02 j 11:13	28° $\mathfrak{I}$ 01'36	
minimum elong	-8746 Mar 11 j 00:16	15° $\mathfrak{Z}$ 16'15	1°29'36		-8741 Sep 11 j 06:33	0° $\mathfrak{B}$	
max. Earth dist.	-8746 Mar 11 j 22:30	15° $\mathfrak{Z}$ 28'57	6.15467 AU	retrograde	-8740 Jan 04 j 18:18	16° $\mathfrak{B}$ 01'49	

Attention, astronomical year style is used: The year -8740 in astronomical counting style is the year 8741 BCE in historical counting style.

opposition	-8740 Mar 06 j 02:41	11° $\overline{08}$ '32	2°15'54		-8735 Nov 30 j 03:46	0° $\overline{03}$	
min. Earth dist.	-8740 Mar 06 j 19:00	11° $\overline{03}$ '21	4.25563 AU	evening set	-8734 Mar 02 j 08:42	17° $\overline{02}$ '32	
direct	-8740 May 06 j 16:27	6° $\overline{13}$ '12					
evening set	-8740 Sep 08 j 04:40	24° $\overline{26}$ '24		conjunction	-8734 Mar 16 j 02:07	20° $\overline{09}$ '49	-1°25'51
				minimum elong	-8734 Mar 16 j 02:11	20° $\overline{09}$ '52	1°26'23
conjunction	-8740 Sep 20 j 15:47	27° $\overline{18}$ '34	1°20'40	max. Earth dist.	-8734 Mar 16 j 21:40	20° $\overline{20}$ '57	6.16269 AU
minimum elong	-8740 Sep 20 j 15:51	27° $\overline{18}$ '36	1°21'10	morning rise	-8734 Mar 29 j 19:10	23° $\overline{16}$ '45	
max. Earth dist.	-8740 Sep 20 j 00:47	27° $\overline{09}$ '55	6.21496 AU		-8734 Apr 29 j 12:14	0° $\approx$	
	-8740 Oct 02 j 08:08	0° $\Omega$		retrograde	-8734 Aug 02 j 10:28	11° $\approx$ 55'19	
morning rise	-8740 Oct 03 j 04:04	0° $\Omega$ 11'25		opposition	-8734 Sep 30 j 12:09	6° $\approx$ 54'32	-1°43'56
	-8740 Dec 17 j 10:08	15° $\Omega$		min. Earth dist.	-8734 Sep 30 j 06:07	6° $\approx$ 56'35	4.20454 AU
retrograde	-8739 Feb 07 j 12:28	18° $\Omega$ 55'28		direct	-8734 Nov 29 j 10:56	1° $\approx$ 51'02	
	-8739 Apr 01 j 23:00	15° $\overline{R}$ $\Omega$			-8733 Mar 12 j 02:49	15° $\approx$	
opposition	-8739 Apr 09 j 22:28	13° $\Omega$ 58'56	1°31'59	evening set	-8733 Apr 06 j 20:59	20° $\approx$ 35'39	
min. Earth dist.	-8739 Apr 10 j 01:54	13° $\Omega$ 57'50	4.17393 AU				
direct	-8739 Jun 09 j 07:26	9° $\Omega$ 05'35		conjunction	-8733 Apr 20 j 12:15	23° $\approx$ 38'43	-0°48'43
	-8739 Aug 11 j 18:44	15° $\Omega$		minimum elong	-8733 Apr 20 j 12:19	23° $\approx$ 38'46	0°49'06
evening set	-8739 Oct 10 j 17:21	27° $\Omega$ 32'03		max. Earth dist.	-8733 Apr 20 j 12:26	23° $\approx$ 38'50	6.24519 AU
	-8739 Oct 21 j 07:02	0° $\overline{m}$		morning rise	-8733 May 04 j 01:04	26° $\approx$ 40'28	
					-8733 May 19 j 04:08	0° $\overline{H}$	
conjunction	-8739 Oct 23 j 11:37	0° $\overline{m}$ 30'45	0°38'29	retrograde	-8733 Sep 03 j 14:31	14° $\overline{H}$ 32'18	
minimum elong	-8739 Oct 23 j 11:41	0° $\overline{m}$ 30'47	0°38'49	opposition	-8733 Nov 01 j 22:15	9° $\overline{H}$ 35'21	-0°35'39
max. Earth dist.	-8739 Oct 23 j 16:58	0° $\overline{m}$ 33'53	6.13452 AU	min. Earth dist.	-8733 Nov 02 j 04:05	9° $\overline{H}$ 33'25	4.28223 AU
morning rise	-8739 Nov 05 j 08:24	3° $\overline{m}$ 30'57		direct	-8732 Jan 02 j 01:38	4° $\overline{H}$ 31'08	
retrograde	-8738 Mar 15 j 11:42	22° $\overline{m}$ 58'34		asc. node	-8732 May 01 j 11:30	21° $\overline{H}$ 07'18	
opposition	-8738 May 15 j 13:17	17° $\overline{m}$ 58'10	0°15'25	evening set	-8732 May 09 j 19:42	22° $\overline{H}$ 56'54	
min. Earth dist.	-8738 May 15 j 03:10	18° $\overline{m}$ 01'28	4.10053 AU	max. Earth dist.	-8732 May 22 j 08:44	25° $\overline{H}$ 43'44	6.31273 AU
direct	-8738 Jul 13 j 16:51	13° $\overline{m}$ 05'12					
desc. node	-8738 Jul 25 j 16:12	13° $\overline{m}$ 19'32		conjunction	-8732 May 23 j 04:01	25° $\overline{H}$ 54'27	0°02'56
	-8738 Nov 06 j 02:28	0° $\underline{a}$		minimum elong	-8732 May 23 j 04:00	25° $\overline{H}$ 54'26	0°02'50
evening set	-8738 Nov 13 j 21:36	1° $\underline{a}$ 48'50		behind sun begin	-8732 May 22 j 19:51	25° $\overline{H}$ 49'56	
				behind sun end	-8732 May 23 j 12:08	25° $\overline{H}$ 58'57	
conjunction	-8738 Nov 27 j 00:48	4° $\underline{a}$ 54'07	-0°17'54	morning rise	-8732 Jun 05 j 08:59	28° $\overline{H}$ 50'14	
minimum elong	-8738 Nov 27 j 00:46	4° $\underline{a}$ 54'05	0°17'53		-8732 Jun 10 j 15:52	0° $\overline{Y}$	
max. Earth dist.	-8738 Nov 27 j 23:31	5° $\underline{a}$ 07'29	6.07514 AU	retrograde	-8732 Oct 04 j 04:29	16° $\overline{Y}$ 11'55	
morning rise	-8738 Dec 10 j 07:41	8° $\underline{a}$ 01'19		opposition	-8732 Dec 02 j 22:59	11° $\overline{Y}$ 18'16	0°41'25
retrograde	-8737 Apr 20 j 21:20	27° $\underline{a}$ 57'24		min. Earth dist.	-8732 Dec 03 j 16:45	11° $\overline{Y}$ 12'29	4.33440 AU
opposition	-8737 Jun 20 j 09:14	22° $\underline{a}$ 53'38	-1°08'37	direct	-8731 Feb 03 j 02:41	6° $\overline{Y}$ 15'04	
min. Earth dist.	-8737 Jun 19 j 12:11	23° $\underline{a}$ 00'42	4.06121 AU	evening set	-8731 Jun 11 j 08:12	24° $\overline{Y}$ 26'28	
direct	-8737 Aug 17 j 16:20	17° $\underline{a}$ 59'02		max. Earth dist.	-8731 Jun 23 j 00:10	27° $\overline{Y}$ 01'33	6.34505 AU
	-8737 Nov 18 j 21:33	0° $\overline{m}$					
evening set	-8737 Dec 19 j 18:36	6° $\overline{m}$ 58'51		conjunction	-8731 Jun 24 j 06:52	27° $\overline{Y}$ 18'36	0°52'43
				minimum elong	-8731 Jun 24 j 06:48	27° $\overline{Y}$ 18'33	0°52'55
conjunction	-8736 Jan 02 j 05:38	10° $\overline{m}$ 08'05	-1°08'37		-8731 Jul 06 j 09:42	0° $\overline{B}$	
minimum elong	-8736 Jan 02 j 05:32	10° $\overline{m}$ 08'02	1°08'56	morning rise	-8731 Jul 07 j 02:06	0° $\overline{B}$ 09'04	
max. Earth dist.	-8736 Jan 03 j 17:26	10° $\overline{m}$ 29'06	6.05873 AU		-8731 Sep 26 j 02:16	15° $\overline{B}$	
morning rise	-8736 Jan 15 j 19:36	13° $\overline{m}$ 18'52		retrograde	-8731 Nov 04 j 17:09	17° $\overline{B}$ 23'51	
	-8736 Jan 23 j 02:21	15° $\overline{m}$			-8731 Dec 14 j 21:54	15° $\overline{R}$ $\overline{B}$	
	-8736 Apr 09 j 19:35	0° $\overline{Z}$		opposition	-8730 Jan 04 j 03:49	12° $\overline{B}$ 32'02	1°45'27
retrograde	-8736 May 26 j 01:11	3° $\overline{Z}$ 15'28		min. Earth dist.	-8730 Jan 05 j 02:49	12° $\overline{B}$ 24'40	4.34589 AU
	-8736 Jul 11 j 01:12	30° $\overline{R}$ $\overline{m}$		direct	-8730 Mar 07 j 16:11	7° $\overline{B}$ 31'10	
opposition	-8736 Jul 24 j 18:41	28° $\overline{m}$ 10'21	-2°07'59		-8730 May 22 j 02:51	15° $\overline{B}$	
min. Earth dist.	-8736 Jul 23 j 19:55	28° $\overline{m}$ 18'06	4.07080 AU	evening set	-8730 Jul 12 j 21:29	25° $\overline{B}$ 35'56	
direct	-8736 Sep 20 j 23:27	23° $\overline{m}$ 12'40		max. Earth dist.	-8730 Jul 24 j 02:19	28° $\overline{B}$ 06'08	6.33362 AU
	-8736 Nov 27 j 08:42	0° $\overline{Z}$					
evening set	-8735 Jan 24 j 15:50	12° $\overline{Z}$ 19'49		conjunction	-8730 Jul 25 j 11:14	28° $\overline{B}$ 24'35	1°26'59
				minimum elong	-8730 Jul 25 j 11:11	28° $\overline{B}$ 24'33	1°27'25
conjunction	-8735 Feb 07 j 07:33	15° $\overline{Z}$ 29'26	-1°34'14		-8730 Aug 01 j 13:24	0° $\overline{II}$	
minimum elong	-8735 Feb 07 j 07:31	15° $\overline{Z}$ 29'25	1°34'45	morning rise	-8730 Aug 06 j 22:38	1° $\overline{II}$ 12'10	
max. Earth dist.	-8735 Feb 08 j 17:24	15° $\overline{Z}$ 49'03	6.09203 AU	retrograde	-8730 Dec 07 j 01:05	18° $\overline{II}$ 43'05	
morning rise	-8735 Feb 21 j 00:59	18° $\overline{Z}$ 39'47		opposition	-8729 Feb 06 j 01:08	13° $\overline{II}$ 51'19	2°19'19
	-8735 Apr 15 j 03:52	0° $\overline{B}$		min. Earth dist.	-8729 Feb 07 j 00:14	13° $\overline{II}$ 43'59	4.31333 AU
retrograde	-8735 Jun 29 j 22:23	8° $\overline{B}$ 06'25		direct	-8729 Apr 09 j 08:10	8° $\overline{II}$ 53'27	
min. Earth dist.	-8735 Aug 27 j 10:36	3° $\overline{B}$ 08'40	4.12523 AU	evening set	-8729 Aug 13 j 02:22	26° $\overline{II}$ 59'35	
opposition	-8735 Aug 28 j 04:43	3° $\overline{B}$ 02'28	-2°20'12	max. Earth dist.	-8729 Aug 24 j 08:32	29° $\overline{II}$ 32'48	6.28147 AU
	-8735 Sep 21 j 04:26	30° $\overline{R}$ $\overline{Z}$					
direct	-8735 Oct 25 j 23:10	28° $\overline{Z}$ 01'23		conjunction	-8729 Aug 25 j 11:56	29° $\overline{II}$ 48'23	1°36'06

Attention, astronomical year style is used: The year -8729 in astronomical counting style is the year 8730 BCE in historical counting style.

minimum elong	-8729 Aug 25 j 11:57	29° $\Pi$ 48'23	1°36'40		-8723 Mar 26 j 02:56	0° $\Xi$	
	-8729 Aug 26 j 08:21	0° $\Theta$		retrograde	-8723 Jul 04 j 20:30	13° $\Xi$ 08'59	
morning rise	-8729 Sep 06 j 20:58	2° $\Theta$ 37'01		min. Earth dist.	-8723 Sep 01 j 08:48	8° $\Xi$ 11'00	4.13610 AU
retrograde	-8728 Jan 09 j 13:33	20° $\Theta$ 42'37		opposition	-8723 Sep 02 j 01:13	8° $\Xi$ 05'23	-2°17'43
opposition	-8728 Mar 10 j 22:41	15° $\Theta$ 48'55	2°12'13	direct	-8723 Oct 31 j 00:09	3° $\Xi$ 03'56	
min. Earth dist.	-8728 Mar 11 j 13:17	15° $\Theta$ 44'17	4.24518 AU	evening set	-8722 Mar 07 j 12:57	22° $\Xi$ 02'42	
direct	-8728 May 11 j 08:24	10° $\Theta$ 53'53					
evening set	-8728 Sep 12 j 16:31	29° $\Theta$ 08'35		conjunction	-8722 Mar 21 j 06:25	25° $\Xi$ 09'25	-1°22'01
	-8728 Sep 16 j 09:59	0° $\Omega$		minimum elong	-8722 Mar 21 j 06:29	25° $\Xi$ 09'27	1°22'33
				max. Earth dist.	-8722 Mar 22 j 01:20	25° $\Xi$ 20'10	6.17646 AU
conjunction	-8728 Sep 25 j 04:29	2° $\Omega$ 01'33	1°16'08	morning rise	-8722 Apr 03 j 23:00	28° $\Xi$ 15'34	
minimum elong	-8728 Sep 25 j 04:34	2° $\Omega$ 01'35	1°16'38		-8722 Apr 11 j 17:24	0° $\approx$	
max. Earth dist.	-8728 Sep 24 j 16:56	1° $\Omega$ 54'52	6.20335 AU		-8722 Jul 04 j 21:22	15° $\approx$	
morning rise	-8728 Oct 07 j 17:33	4° $\Omega$ 55'18		retrograde	-8722 Aug 07 j 01:17	16° $\approx$ 45'52	
	-8728 Nov 23 j 15:38	15° $\Omega$			-8722 Sep 09 j 00:33	15° $\approx$	
retrograde	-8727 Feb 12 j 13:04	23° $\Omega$ 45'51		opposition	-8722 Oct 05 j 04:25	11° $\approx$ 45'36	-1°35'36
opposition	-8727 Apr 14 j 21:45	18° $\Omega$ 48'51	1°22'44	min. Earth dist.	-8722 Oct 04 j 22:42	11° $\approx$ 47'32	4.22001 AU
min. Earth dist.	-8727 Apr 15 j 00:05	18° $\Omega$ 48'06	4.16186 AU	direct	-8722 Dec 04 j 06:54	6° $\approx$ 41'56	
	-8727 May 19 j 00:32	15° $\approx$ $\Omega$			-8721 Feb 20 j 18:44	15° $\approx$	
direct	-8727 Jun 14 j 02:42	13° $\Omega$ 55'41		evening set	-8721 Apr 11 j 18:55	25° $\approx$ 22'06	
	-8727 Jul 10 j 00:28	15° $\Omega$					
	-8727 Oct 04 j 23:30	0° $\Pi$		conjunction	-8721 Apr 25 j 09:14	28° $\approx$ 24'08	-0°41'55
evening set	-8727 Oct 15 j 10:25	2° $\Pi$ 24'44		minimum elong	-8721 Apr 25 j 09:18	28° $\approx$ 24'10	0°42'15
				max. Earth dist.	-8721 Apr 25 j 06:09	28° $\approx$ 22'25	6.26133 AU
conjunction	-8727 Oct 28 j 05:46	5° $\Pi$ 24'27	0°31'00		-8721 May 02 j 12:46	0° $\text{H}$	
minimum elong	-8727 Oct 28 j 05:49	5° $\Pi$ 24'28	0°31'18	morning rise	-8721 May 08 j 21:11	1° $\text{H}$ 24'49	
max. Earth dist.	-8727 Oct 28 j 12:07	5° $\Pi$ 28'09	6.12305 AU	retrograde	-8721 Sep 08 j 02:08	19° $\text{H}$ 09'14	
morning rise	-8727 Nov 10 j 04:09	8° $\Pi$ 25'49		opposition	-8721 Nov 06 j 10:58	14° $\text{H}$ 12'46	-0°24'49
retrograde	-8726 Mar 20 j 13:33	27° $\Pi$ 59'13		min. Earth dist.	-8721 Nov 06 j 19:13	14° $\text{H}$ 10'02	4.29753 AU
opposition	-8726 May 20 j 14:30	22° $\Pi$ 58'15	0°03'16	direct	-8720 Jan 06 j 20:18	9° $\text{H}$ 08'34	
min. Earth dist.	-8726 May 20 j 02:02	23° $\Pi$ 02'21	4.09065 AU	asc. node	-8720 Mar 11 j 07:00	14° $\text{H}$ 50'26	
desc. node	-8726 Jun 04 j 14:37	21° $\Pi$ 03'10		evening set	-8720 May 14 j 10:22	27° $\text{H}$ 29'34	
direct	-8726 Jul 18 j 13:54	18° $\Pi$ 05'07			-8720 May 25 j 18:33	0° $\Upsilon$	
	-8726 Oct 19 j 13:57	0° $\underline{\Omega}$					
evening set	-8726 Nov 18 j 21:04	6° $\underline{\Omega}$ 52'03		conjunction	-8720 May 27 j 17:28	0° $\Upsilon$ 26'01	0°10'18
				minimum elong	-8720 May 27 j 17:27	0° $\Upsilon$ 26'00	0°10'13
conjunction	-8726 Dec 02 j 01:43	9° $\underline{\Omega}$ 58'14	-0°25'55	behind sun begin	-8720 May 27 j 11:00	0° $\Upsilon$ 22'27	
minimum elong	-8726 Dec 02 j 01:40	9° $\underline{\Omega}$ 58'12	0°25'56	behind sun end	-8720 May 27 j 23:54	0° $\Upsilon$ 29'34	
max. Earth dist.	-8726 Dec 03 j 03:50	10° $\underline{\Omega}$ 13'37	6.06776 AU	max. Earth dist.	-8720 May 26 j 21:06	0° $\Upsilon$ 14'44	6.32600 AU
morning rise	-8726 Dec 15 j 09:42	13° $\underline{\Omega}$ 06'17		morning rise	-8720 Jun 09 j 20:54	3° $\Upsilon$ 20'39	
	-8725 Mar 11 j 20:31	0° $\mathbb{M}$		retrograde	-8720 Oct 08 j 10:50	20° $\Upsilon$ 37'47	
retrograde	-8725 Apr 26 j 03:17	3° $\mathbb{M}$ 05'15		opposition	-8720 Dec 07 j 09:07	15° $\Upsilon$ 44'27	0°51'25
	-8725 Jun 10 j 07:29	30° $\approx$ $\underline{\Omega}$		min. Earth dist.	-8720 Dec 08 j 03:18	15° $\Upsilon$ 38'33	4.34476 AU
opposition	-8725 Jun 25 j 11:00	28° $\underline{\Omega}$ 01'11	-1°19'16	direct	-8719 Feb 07 j 14:43	10° $\Upsilon$ 41'29	
min. Earth dist.	-8725 Jun 24 j 14:02	28° $\underline{\Omega}$ 08'14	4.05719 AU	evening set	-8719 Jun 15 j 17:09	28° $\Upsilon$ 49'24	
direct	-8725 Aug 22 j 17:12	23° $\underline{\Omega}$ 06'14			-8719 Jun 21 j 00:59	0° $\text{B}$	
	-8725 Oct 29 j 07:30	0° $\mathbb{M}$		max. Earth dist.	-8719 Jun 27 j 05:45	1° $\text{B}$ 22'33	6.35153 AU
evening set	-8725 Dec 24 j 23:47	12° $\mathbb{M}$ 08'39					
	-8724 Jan 06 j 04:29	15° $\mathbb{M}$		conjunction	-8719 Jun 28 j 14:15	1° $\text{B}$ 40'37	0°58'33
				minimum elong	-8719 Jun 28 j 14:11	1° $\text{B}$ 40'35	0°58'48
conjunction	-8724 Jan 07 j 11:36	15° $\mathbb{M}$ 18'15	-1°14'09	morning rise	-8719 Jul 11 j 08:12	4° $\text{B}$ 30'16	
minimum elong	-8724 Jan 07 j 11:30	15° $\mathbb{M}$ 18'11	1°14'30		-8719 Aug 31 j 21:38	15° $\text{B}$	
max. Earth dist.	-8724 Jan 08 j 23:33	15° $\mathbb{M}$ 39'20	6.05825 AU	retrograde	-8719 Nov 09 j 01:49	21° $\text{B}$ 44'19	
morning rise	-8724 Jan 21 j 02:28	18° $\mathbb{M}$ 29'21		opposition	-8718 Jan 08 j 14:00	16° $\text{B}$ 52'39	1°52'04
	-8724 Mar 14 j 10:18	0° $\text{Z}$		min. Earth dist.	-8718 Jan 09 j 14:50	16° $\text{B}$ 44'43	4.34805 AU
retrograde	-8724 May 31 j 02:13	8° $\text{Z}$ 24'18			-8718 Jan 23 j 15:27	15° $\approx$ $\text{B}$	
opposition	-8724 Jul 29 j 18:30	3° $\text{Z}$ 19'13	-2°12'53	direct	-8718 Mar 12 j 04:02	11° $\text{B}$ 52'07	
min. Earth dist.	-8724 Jul 28 j 18:51	3° $\text{Z}$ 27'17	4.07438 AU		-8718 Apr 28 j 04:05	15° $\text{B}$	
	-8724 Aug 25 j 13:07	30° $\approx$ $\mathbb{M}$		evening set	-8718 Jul 17 j 02:51	29° $\text{B}$ 55'26	
direct	-8724 Sep 25 j 22:53	28° $\mathbb{M}$ 21'05			-8718 Jul 17 j 11:04	0° $\Pi$	
	-8724 Oct 27 j 13:56	0° $\text{Z}$		max. Earth dist.	-8718 Jul 28 j 05:36	2° $\Pi$ 24'37	6.33098 AU
evening set	-8723 Jan 29 j 23:03	17° $\text{Z}$ 28'49					
				conjunction	-8718 Jul 29 j 15:44	2° $\Pi$ 43'47	1°29'49
conjunction	-8723 Feb 12 j 15:13	20° $\text{Z}$ 38'18	-1°35'07	minimum elong	-8718 Jul 29 j 15:40	2° $\Pi$ 43'45	1°30'16
minimum elong	-8723 Feb 12 j 15:12	20° $\text{Z}$ 38'17	1°35'40	morning rise	-8718 Aug 11 j 02:27	5° $\Pi$ 31'09	
max. Earth dist.	-8723 Feb 14 j 00:13	20° $\text{Z}$ 57'23	6.09954 AU	retrograde	-8718 Dec 11 j 11:15	23° $\Pi$ 05'23	
morning rise	-8723 Feb 26 j 08:47	23° $\text{Z}$ 48'21		opposition	-8717 Feb 10 j 13:25	18° $\Pi$ 13'26	2°20'51



## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 17

Attention, astronomical year style is used: The year -8717 in astronomical counting style is the year 8718 BCE in historical counting style.

min. Earth dist.	-8717 Feb 11 j 11:47	18° $\Pi$ 06'20	4.30616 AU	conjunction	-8711 Feb 17 j 22:59	25° $\text{X}$ 46'58	-1°35'16
direct	-8717 Apr 13 j 17:27	13° $\Pi$ 15'56		minimum elong	-8711 Feb 17 j 22:59	25° $\text{X}$ 46'58	1°35'49
	-8717 Aug 11 j 04:13	0° $\text{E}$		max. Earth dist.	-8711 Feb 19 j 08:22	26° $\text{X}$ 06'13	6.10914 AU
evening set	-8717 Aug 17 j 07:53	1° $\text{E}$ 23'05		morning rise	-8711 Mar 03 j 16:34	28° $\text{X}$ 56'34	
					-8711 Mar 08 j 07:49	0° $\text{E}$	
conjunction	-8717 Aug 29 j 17:26	4° $\text{E}$ 12'17	1°35'05	retrograde	-8711 Jul 09 j 16:41	18° $\text{E}$ 10'05	
minimum elong	-8717 Aug 29 j 17:28	4° $\text{E}$ 12'18	1°35'38	opposition	-8711 Sep 06 j 21:00	13° $\text{E}$ 06'50	-2°14'12
max. Earth dist.	-8717 Aug 28 j 15:28	3° $\text{E}$ 57'28	6.27035 AU	min. Earth dist.	-8711 Sep 06 j 05:00	13° $\text{E}$ 12'18	4.14862 AU
morning rise	-8717 Sep 11 j 02:33	7° $\text{E}$ 01'26		direct	-8711 Nov 04 j 22:57	8° $\text{E}$ 04'58	
retrograde	-8716 Jan 14 j 06:43	25° $\text{E}$ 13'39		evening set	-8710 Mar 12 j 16:14	27° $\text{E}$ 00'45	
opposition	-8716 Mar 15 j 15:04	20° $\text{E}$ 19'41	2°07'53		-8710 Mar 25 j 21:23	0° $\approx$	
min. Earth dist.	-8716 Mar 16 j 05:43	20° $\text{E}$ 15'01	4.23069 AU				
direct	-8716 May 15 j 21:26	15° $\text{E}$ 24'58		conjunction	-8710 Mar 26 j 09:19	0° $\approx$ 06'46	-1°17'37
	-8716 Aug 31 j 16:37	0° $\Omega$		minimum elong	-8710 Mar 26 j 09:24	0° $\approx$ 06'49	1°18'08
evening set	-8716 Sep 17 j 01:53	3° $\Omega$ 42'54		max. Earth dist.	-8710 Mar 27 j 00:15	0° $\approx$ 15'13	6.19049 AU
				morning rise	-8710 Apr 09 j 01:35	3° $\approx$ 12'09	
conjunction	-8716 Sep 29 j 14:36	6° $\Omega$ 36'55	1°11'15		-8710 Jun 05 j 09:55	15° $\approx$	
minimum elong	-8716 Sep 29 j 14:41	6° $\Omega$ 36'58	1°11'44	retrograde	-8710 Aug 11 j 16:37	21° $\approx$ 34'34	
max. Earth dist.	-8716 Sep 29 j 03:22	6° $\Omega$ 30'24	6.18686 AU	opposition	-8710 Oct 09 j 20:00	16° $\approx$ 34'48	-1°26'42
morning rise	-8716 Oct 12 j 04:58	9° $\Omega$ 31'55		min. Earth dist.	-8710 Oct 09 j 16:50	16° $\approx$ 35'52	4.23387 AU
	-8716 Nov 05 j 12:44	15° $\Omega$			-8710 Oct 21 j 18:05	15° $\text{R}$ $\approx$	
retrograde	-8715 Feb 17 j 10:32	28° $\Omega$ 30'56		direct	-8710 Dec 09 j 04:20	11° $\approx$ 30'53	
opposition	-8715 Apr 19 j 18:51	23° $\Omega$ 33'25	1°13'09		-8709 Jan 26 j 20:01	15° $\approx$	
min. Earth dist.	-8715 Apr 19 j 18:34	23° $\Omega$ 33'30	4.14460 AU	evening set	-8709 Apr 16 j 16:01	0° $\text{H}$ 07'29	
direct	-8715 Jun 18 j 17:59	18° $\Omega$ 40'23			-8709 Apr 16 j 02:29	0° $\text{H}$	
	-8715 Sep 17 j 21:50	0° $\text{M}$					
evening set	-8715 Oct 20 j 02:34	7° $\text{M}$ 14'13		conjunction	-8709 Apr 30 j 05:41	3° $\text{H}$ 08'43	-0°34'50
				minimum elong	-8709 Apr 30 j 05:44	3° $\text{H}$ 08'45	0°35'09
conjunction	-8715 Nov 01 j 23:27	10° $\text{M}$ 15'18	0°23'24	max. Earth dist.	-8709 Apr 30 j 01:02	3° $\text{H}$ 06'07	6.27402 AU
minimum elong	-8715 Nov 01 j 23:29	10° $\text{M}$ 15'19	0°23'39	morning rise	-8709 May 13 j 16:25	6° $\text{H}$ 08'25	
max. Earth dist.	-8715 Nov 02 j 09:38	10° $\text{M}$ 21'17	6.10681 AU	retrograde	-8709 Sep 12 j 12:50	23° $\text{H}$ 47'03	
morning rise	-8715 Nov 14 j 23:12	13° $\text{M}$ 18'03		opposition	-8709 Nov 10 j 23:43	18° $\text{H}$ 51'07	-0°13'47
	-8714 Feb 08 j 23:47	0° $\underline{\text{A}}$		min. Earth dist.	-8709 Nov 11 j 09:02	18° $\text{H}$ 48'02	4.30798 AU
retrograde	-8714 Mar 25 j 18:43	2° $\underline{\text{A}}$ 59'06		direct	-8708 Jan 11 j 11:48	13° $\text{H}$ 47'00	
desc. node	-8714 Apr 15 j 04:20	2° $\underline{\text{A}}$ 19'36		asc. node	-8708 Jan 19 j 16:00	13° $\text{H}$ 53'11	
	-8714 May 09 j 17:24	30° $\text{R}$ $\text{M}$			-8708 May 09 j 12:14	0° $\text{Y}$	
opposition	-8714 May 25 j 15:42	27° $\text{M}$ 57'40	-0°08'51	evening set	-8708 May 19 j 01:56	2° $\text{Y}$ 05'16	
min. Earth dist.	-8714 May 25 j 02:18	28° $\text{M}$ 02'05	4.07688 AU	max. Earth dist.	-8708 May 31 j 07:28	4° $\text{Y}$ 47'30	6.33331 AU
direct	-8714 Jul 23 j 11:59	23° $\text{M}$ 04'27					
	-8714 Sep 29 j 10:43	0° $\underline{\text{A}}$		conjunction	-8708 Jun 01 j 07:32	5° $\text{Y}$ 00'50	0°17'42
evening set	-8714 Nov 23 j 21:38	11° $\underline{\text{A}}$ 56'11		minimum elong	-8708 Jun 01 j 07:30	5° $\text{Y}$ 00'49	0°17'41
				morning rise	-8708 Jun 14 j 09:47	7° $\text{Y}$ 54'40	
conjunction	-8714 Dec 07 j 03:27	15° $\underline{\text{A}}$ 03'22	-0°33'44	retrograde	-8708 Oct 12 j 22:43	25° $\text{Y}$ 09'37	
minimum elong	-8714 Dec 07 j 03:23	15° $\underline{\text{A}}$ 03'19	0°33'49	opposition	-8708 Dec 11 j 21:51	20° $\text{Y}$ 16'38	1°01'22
max. Earth dist.	-8714 Dec 08 j 07:27	15° $\underline{\text{A}}$ 19'52	6.05771 AU	min. Earth dist.	-8708 Dec 12 j 18:20	20° $\text{Y}$ 10'00	4.34855 AU
morning rise	-8714 Dec 20 j 12:53	18° $\underline{\text{A}}$ 12'26		direct	-8707 Feb 12 j 06:19	15° $\text{Y}$ 13'54	
	-8713 Feb 13 j 01:33	0° $\text{M}$			-8707 Jun 04 j 19:33	0° $\text{B}$	
retrograde	-8713 May 01 j 07:34	8° $\text{M}$ 14'51		evening set	-8707 Jun 20 j 04:35	3° $\text{B}$ 20'33	
opposition	-8713 Jun 30 j 13:05	3° $\text{M}$ 10'29	-1°29'19	max. Earth dist.	-8707 Jul 01 j 15:42	5° $\text{B}$ 52'59	6.35134 AU
min. Earth dist.	-8713 Jun 29 j 13:50	3° $\text{M}$ 18'19	4.05222 AU				
	-8713 Jul 26 j 05:22	30° $\text{R}$ $\underline{\text{A}}$		conjunction	-8707 Jul 03 j 00:30	6° $\text{B}$ 11'13	1°04'16
direct	-8713 Aug 27 j 16:17	28° $\underline{\text{A}}$ 15'11		minimum elong	-8707 Jul 03 j 00:26	6° $\text{B}$ 11'11	1°04'32
	-8713 Sep 29 j 03:04	0° $\text{M}$		morning rise	-8707 Jul 15 j 17:05	9° $\text{B}$ 00'20	
	-8713 Dec 20 j 03:29	15° $\text{M}$			-8707 Aug 12 j 16:09	15° $\text{B}$	
evening set	-8713 Dec 30 j 06:25	17° $\text{M}$ 20'31		retrograde	-8707 Nov 13 j 13:29	26° $\text{B}$ 16'00	
				opposition	-8706 Jan 13 j 04:30	21° $\text{B}$ 24'24	1°58'22
conjunction	-8712 Jan 12 j 19:06	20° $\text{M}$ 30'26	-1°19'06	min. Earth dist.	-8706 Jan 14 j 04:45	21° $\text{B}$ 16'40	4.34422 AU
minimum elong	-8712 Jan 12 j 19:00	20° $\text{M}$ 30'23	1°19'29	direct	-8706 Mar 16 j 16:49	16° $\text{B}$ 24'17	
max. Earth dist.	-8712 Jan 14 j 08:20	20° $\text{M}$ 52'16	6.05852 AU		-8706 Jul 01 j 02:16	0° $\text{H}$	
morning rise	-8712 Jan 26 j 10:34	23° $\text{M}$ 41'45		evening set	-8706 Jul 21 j 13:04	4° $\text{H}$ 27'57	
	-8712 Feb 23 j 08:05	0° $\text{X}$		max. Earth dist.	-8706 Aug 01 j 15:03	6° $\text{H}$ 57'05	6.32368 AU
retrograde	-8712 Jun 05 j 04:33	13° $\text{X}$ 34'12					
opposition	-8712 Aug 03 j 18:33	8° $\text{X}$ 29'04	-2°16'44	conjunction	-8706 Aug 03 j 01:01	7° $\text{H}$ 16'11	1°32'16
min. Earth dist.	-8712 Aug 02 j 19:34	8° $\text{X}$ 36'56	4.07974 AU	minimum elong	-8706 Aug 03 j 00:58	7° $\text{H}$ 16'10	1°32'46
direct	-8712 Oct 01 j 01:08	3° $\text{X}$ 30'26		morning rise	-8706 Aug 15 j 11:10	10° $\text{H}$ 03'36	
evening set	-8711 Feb 04 j 06:20	22° $\text{X}$ 37'44		retrograde	-8706 Dec 16 j 05:34	27° $\text{H}$ 42'35	
				opposition	-8705 Feb 15 j 07:44	22° $\text{H}$ 50'30	2°21'40

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 18

Attention, astronomical year style is used: The year -8705 in astronomical counting style is the year 8706 BCE in historical counting style.

min. Earth dist.	-8705 Feb 16 j 06:25	22° $\Pi$ 43'18	4.29592 AU	min. Earth dist.	-8700 Aug 07 j 16:20	13° $\text{X}$ 37'16	4.09034 AU
direct	-8705 Apr 18 j 10:13	17° $\Pi$ 53'24		direct	-8700 Oct 05 j 23:11	8° $\text{X}$ 30'24	
	-8705 Jul 25 j 07:49	0° $\text{E}$		evening set	-8699 Feb 09 j 09:37	27° $\text{X}$ 35'42	
evening set	-8705 Aug 21 j 19:05	6° $\text{E}$ 02'11			-8699 Feb 19 j 21:05	0° $\text{E}$	
max. Earth dist.	-8705 Sep 02 j 04:01	8° $\text{E}$ 37'47	6.25806 AU				
				conjunction	-8699 Feb 23 j 02:20	0° $\text{E}$ 44'26	-1°34'44
conjunction	-8705 Sep 03 j 04:47	8° $\text{E}$ 51'56	1°33'26	minimum elong	-8699 Feb 23 j 02:21	0° $\text{E}$ 44'26	1°35'16
minimum elong	-8705 Sep 03 j 04:49	8° $\text{E}$ 51'57	1°33'59	max. Earth dist.	-8699 Feb 24 j 07:56	1° $\text{E}$ 01'27	6.12155 AU
morning rise	-8705 Sep 15 j 14:21	11° $\text{E}$ 41'47		morning rise	-8699 Mar 08 j 20:02	3° $\text{E}$ 53'27	
	-8704 Jan 16 j 06:32	0° $\Omega$		retrograde	-8699 Jul 14 j 08:24	22° $\text{E}$ 59'26	
retrograde	-8704 Jan 19 j 04:03	0° $\Omega$ 00'47		opposition	-8699 Sep 11 j 12:29	17° $\text{E}$ 56'35	-2°09'53
	-8704 Jan 22 j 01:35	30° $\text{R}$ $\text{E}$		min. Earth dist.	-8699 Sep 10 j 22:37	18° $\text{E}$ 01'19	4.16148 AU
opposition	-8704 Mar 20 j 13:44	25° $\text{E}$ 06'22	2°02'28	direct	-8699 Nov 09 j 19:06	12° $\text{E}$ 54'16	
min. Earth dist.	-8704 Mar 21 j 01:30	25° $\text{E}$ 02'37	4.21740 AU		-8698 Mar 09 j 14:33	0° $\approx$	
direct	-8704 May 20 j 14:52	20° $\text{E}$ 12'01		evening set	-8698 Mar 17 j 14:54	1° $\approx$ 47'20	
	-8704 Aug 13 j 17:05	0° $\Omega$					
evening set	-8704 Sep 21 j 16:50	8° $\Omega$ 32'20		conjunction	-8698 Mar 31 j 07:57	4° $\approx$ 52'46	-1°12'51
				minimum elong	-8698 Mar 31 j 08:03	4° $\approx$ 52'49	1°13'20
conjunction	-8704 Oct 04 j 06:33	11° $\Omega$ 27'20	1°05'38	max. Earth dist.	-8698 Mar 31 j 20:50	5° $\approx$ 00'03	6.20296 AU
minimum elong	-8704 Oct 04 j 06:38	11° $\Omega$ 27'23	1°06'06	morning rise	-8698 Apr 13 j 23:34	7° $\approx$ 57'24	
max. Earth dist.	-8704 Oct 03 j 23:16	11° $\Omega$ 23'06	6.17403 AU		-8698 May 16 j 12:59	15° $\approx$	
morning rise	-8704 Oct 16 j 21:59	14° $\Omega$ 23'23		retrograde	-8698 Aug 16 j 04:41	26° $\approx$ 13'02	
	-8704 Oct 19 j 13:32	15° $\Omega$		opposition	-8698 Oct 14 j 08:03	21° $\approx$ 13'52	-1°17'34
	-8703 Jan 04 j 18:05	0° $\text{M}$		min. Earth dist.	-8698 Oct 14 j 06:47	21° $\approx$ 14'18	4.24467 AU
retrograde	-8703 Feb 22 j 14:51	3° $\text{M}$ 29'11		direct	-8698 Dec 13 j 19:43	16° $\approx$ 09'52	
	-8703 Apr 13 j 06:12	30° $\text{R}$ $\Omega$		evening set	-8697 Mar 30 j 13:13	0° $\text{H}$	
opposition	-8703 Apr 24 j 21:14	28° $\Omega$ 31'07	1°02'35		-8697 Apr 21 j 09:37	4° $\text{H}$ 44'09	
min. Earth dist.	-8703 Apr 24 j 19:28	28° $\Omega$ 31'41	4.13329 AU				
direct	-8703 Jun 23 j 17:15	23° $\Omega$ 38'12		conjunction	-8697 May 04 j 22:20	7° $\text{H}$ 44'42	-0°27'45
	-8703 Aug 28 j 06:50	0° $\text{M}$		minimum elong	-8697 May 04 j 22:22	7° $\text{H}$ 44'44	0°28'02
evening set	-8703 Oct 24 j 23:18	12° $\text{M}$ 14'23		max. Earth dist.	-8697 May 04 j 12:58	7° $\text{H}$ 39'30	6.28232 AU
				morning rise	-8697 May 18 j 08:17	10° $\text{H}$ 43'44	
conjunction	-8703 Nov 06 j 21:24	15° $\text{M}$ 16'23	0°15'23	retrograde	-8697 Sep 16 j 23:11	28° $\text{H}$ 18'37	
minimum elong	-8703 Nov 06 j 21:25	15° $\text{M}$ 16'24	0°15'36	opposition	-8697 Nov 15 j 10:51	23° $\text{H}$ 23'10	-0°02'58
behind sun begin	-8703 Nov 06 j 19:14	15° $\text{M}$ 15'07		min. Earth dist.	-8697 Nov 15 j 22:33	23° $\text{H}$ 19'18	4.31323 AU
behind sun end	-8703 Nov 06 j 23:37	15° $\text{M}$ 17'41		asc. node	-8697 Nov 30 j 09:30	21° $\text{H}$ 28'00	
max. Earth dist.	-8703 Nov 07 j 10:25	15° $\text{M}$ 24'02	6.09834 AU	direct	-8696 Jan 16 j 02:20	18° $\text{H}$ 19'09	
morning rise	-8703 Nov 19 j 22:43	18° $\text{M}$ 20'11			-8696 Apr 22 j 12:32	0° $\text{Y}$	
	-8702 Jan 13 j 02:41	0° $\underline{\Omega}$		evening set	-8696 May 23 j 15:30	6° $\text{Y}$ 36'28	
desc. node	-8702 Feb 22 j 10:29	6° $\underline{\Omega}$ 03'32					
retrograde	-8702 Mar 30 j 22:46	8° $\underline{\Omega}$ 05'09		conjunction	-8696 Jun 05 j 20:00	9° $\text{Y}$ 31'28	0°24'52
opposition	-8702 May 30 j 18:42	3° $\underline{\Omega}$ 03'12	-0°21'08	minimum elong	-8696 Jun 05 j 19:57	9° $\text{Y}$ 31'27	0°24'54
min. Earth dist.	-8702 May 30 j 02:23	3° $\underline{\Omega}$ 08'36	4.07233 AU	max. Earth dist.	-8696 Jun 04 j 19:11	9° $\text{Y}$ 17'43	6.33522 AU
	-8702 Jun 24 j 17:59	30° $\text{R}$ $\text{M}$		morning rise	-8696 Jun 18 j 20:48	12° $\text{Y}$ 24'40	
direct	-8702 Jul 28 j 10:54	28° $\text{M}$ 09'48		retrograde	-8696 Oct 17 j 08:51	29° $\text{Y}$ 39'29	
	-8702 Aug 30 j 22:11	0° $\underline{\Omega}$		opposition	-8696 Dec 16 j 10:09	24° $\text{Y}$ 46'51	1°10'52
evening set	-8702 Nov 28 j 23:45	17° $\underline{\Omega}$ 02'58		min. Earth dist.	-8696 Dec 17 j 06:58	24° $\text{Y}$ 40'08	4.34724 AU
				direct	-8695 Feb 16 j 18:35	19° $\text{Y}$ 44'30	
conjunction	-8702 Dec 12 j 06:40	20° $\underline{\Omega}$ 10'37	-0°41'21		-8695 May 18 j 07:45	0° $\text{B}$	
minimum elong	-8702 Dec 12 j 06:36	20° $\underline{\Omega}$ 10'34	0°41'29	evening set	-8695 Jun 24 j 16:08	7° $\text{B}$ 51'33	
max. Earth dist.	-8702 Dec 13 j 13:03	20° $\underline{\Omega}$ 28'31	6.05734 AU	max. Earth dist.	-8695 Jul 06 j 00:01	10° $\text{B}$ 22'33	6.34678 AU
morning rise	-8702 Dec 25 j 17:05	23° $\underline{\Omega}$ 20'06					
	-8701 Jan 24 j 02:35	0° $\text{M}$		conjunction	-8695 Jul 07 j 10:39	10° $\text{B}$ 41'51	1°09'33
retrograde	-8701 May 06 j 10:22	13° $\text{M}$ 21'53		minimum elong	-8695 Jul 07 j 10:34	10° $\text{B}$ 41'48	1°09'51
opposition	-8701 Jul 05 j 14:02	8° $\text{M}$ 17'10	-1°38'33	morning rise	-8695 Jul 20 j 02:18	13° $\text{B}$ 30'42	
min. Earth dist.	-8701 Jul 04 j 14:40	8° $\text{M}$ 25'05	4.05611 AU		-8695 Jul 26 j 20:21	15° $\text{B}$	
direct	-8701 Sep 01 j 17:42	3° $\text{M}$ 21'25			-8695 Oct 26 j 04:04	0° $\Pi$	
	-8701 Dec 02 j 07:45	15° $\text{M}$		retrograde	-8695 Nov 18 j 05:07	0° $\Pi$ 49'32	
evening set	-8700 Jan 04 j 10:59	22° $\text{M}$ 26'28			-8695 Dec 11 j 05:57	30° $\text{R}$ $\text{B}$	
				opposition	-8694 Jan 17 j 20:23	25° $\text{B}$ 58'00	2°03'58
conjunction	-8700 Jan 18 j 00:24	25° $\text{M}$ 36'18	-1°23'22	min. Earth dist.	-8694 Jan 18 j 21:20	25° $\text{B}$ 50'03	4.33697 AU
minimum elong	-8700 Jan 18 j 00:19	25° $\text{M}$ 36'15	1°23'47	direct	-8694 Mar 21 j 08:30	20° $\text{B}$ 58'19	
max. Earth dist.	-8700 Jan 19 j 14:48	25° $\text{M}$ 58'45	6.06610 AU		-8694 Jun 12 j 22:10	0° $\Pi$	
morning rise	-8700 Jan 31 j 16:16	28° $\text{M}$ 47'23		evening set	-8694 Jul 25 j 23:57	9° $\Pi$ 03'14	
	-8700 Feb 05 j 22:02	0° $\text{X}$		max. Earth dist.	-8694 Aug 06 j 03:24	11° $\Pi$ 33'32	6.31428 AU
retrograde	-8700 Jun 10 j 02:26	18° $\text{X}$ 34'31					
opposition	-8700 Aug 08 j 14:57	13° $\text{X}$ 29'32	-2°19'24	conjunction	-8694 Aug 07 j 11:24	11° $\Pi$ 51'35	1°34'09

Attention, astronomical year style is used: The year -8694 in astronomical counting style is the year 8695 BCE in historical counting style.

minimum elong	-8694 Aug 07 j 11:22	11° $\Pi$ 51'34	1°34'39	conjunction	-8688 Jan 23 j 04:52	0° $\text{Z}$ 40'09	-1°27'00
morning rise	-8694 Aug 19 j 21:02	14° $\Pi$ 39'10		minimum elong	-8688 Jan 23 j 04:48	0° $\text{Z}$ 40'07	1°27'28
	-8694 Nov 10 j 23:02	0° $\text{S}$		max. Earth dist.	-8688 Jan 24 j 17:10	1° $\text{Z}$ 01'19	6.07262 AU
retrograde	-8694 Dec 20 j 23:11	2° $\text{S}$ 23'37		morning rise	-8688 Feb 05 j 21:17	3° $\text{Z}$ 51'05	
	-8693 Jan 30 j 14:34	30° $\text{R}$ $\Pi$		retrograde	-8688 Jun 14 j 22:46	23° $\text{Z}$ 33'25	
opposition	-8693 Feb 20 j 03:48	27° $\Pi$ 31'17	2°21'33	opposition	-8688 Aug 13 j 10:08	18° $\text{Z}$ 28'34	-2°21'06
min. Earth dist.	-8693 Feb 21 j 00:06	27° $\Pi$ 24'51	4.28519 AU	min. Earth dist.	-8688 Aug 12 j 12:28	18° $\text{Z}$ 35'59	4.09904 AU
direct	-8693 Apr 23 j 02:09	22° $\Pi$ 34'43		direct	-8688 Oct 10 j 21:12	13° $\text{Z}$ 28'54	
	-8693 Jul 05 j 23:14	0° $\text{S}$			-8687 Feb 03 j 05:45	0° $\text{Z}$	
evening set	-8693 Aug 26 j 07:41	10° $\text{S}$ 45'00		evening set	-8687 Feb 14 j 12:21	2° $\text{Z}$ 33'05	
conjunction	-8693 Sep 07 j 17:29	13° $\text{S}$ 35'16	1°31'08	conjunction	-8687 Feb 28 j 05:29	5° $\text{Z}$ 41'30	-1°33'32
minimum elong	-8693 Sep 07 j 17:31	13° $\text{S}$ 35'17	1°31'41	minimum elong	-8687 Feb 28 j 05:31	5° $\text{Z}$ 41'31	1°34'06
max. Earth dist.	-8693 Sep 06 j 19:15	13° $\text{S}$ 22'31	6.24691 AU	max. Earth dist.	-8687 Mar 01 j 09:57	5° $\text{Z}$ 57'50	6.13180 AU
morning rise	-8693 Sep 20 j 03:31	16° $\text{S}$ 25'47		morning rise	-8687 Mar 13 j 22:58	8° $\text{Z}$ 50'00	
	-8693 Nov 26 j 20:02	0° $\Omega$		retrograde	-8687 Jul 19 j 01:25	27° $\text{Z}$ 49'16	
retrograde	-8692 Jan 24 j 04:30	4° $\Omega$ 51'03		opposition	-8687 Sep 16 j 04:00	22° $\text{Z}$ 46'53	-2°04'45
opposition	-8692 Mar 25 j 13:43	29° $\text{S}$ 56'11	1°56'06	min. Earth dist.	-8687 Sep 15 j 16:10	22° $\text{Z}$ 50'55	4.17217 AU
	-8692 Mar 25 j 01:45	30° $\text{R}$ $\text{S}$		direct	-8687 Nov 14 j 14:10	17° $\text{Z}$ 44'15	
min. Earth dist.	-8692 Mar 26 j 00:07	29° $\text{S}$ 52'51	4.20639 AU		-8686 Feb 20 j 06:03	0° $\approx$	
direct	-8692 May 25 j 12:14	25° $\text{S}$ 02'07		evening set	-8686 Mar 22 j 13:54	6° $\approx$ 35'13	
	-8692 Jul 22 j 16:42	0° $\Omega$					
evening set	-8692 Sep 26 j 08:43	13° $\Omega$ 23'54		conjunction	-8686 Apr 05 j 06:33	9° $\approx$ 40'07	-1°07'35
	-8692 Oct 03 j 06:25	15° $\Omega$		minimum elong	-8686 Apr 05 j 06:38	9° $\approx$ 40'10	1°08'03
conjunction	-8692 Oct 08 j 23:26	16° $\Omega$ 19'45	0°59'32	max. Earth dist.	-8686 Apr 05 j 15:08	9° $\approx$ 44'57	6.21324 AU
minimum elong	-8692 Oct 08 j 23:30	16° $\Omega$ 19'48	0°59'58	morning rise	-8686 Apr 18 j 21:46	12° $\approx$ 44'07	
max. Earth dist.	-8692 Oct 08 j 19:13	16° $\Omega$ 17'18	6.16424 AU		-8686 Apr 29 j 02:28	15° $\approx$	
morning rise	-8692 Oct 21 j 16:06	19° $\Omega$ 16'47			-8686 Jul 28 j 06:16	0° $\text{H}$	
	-8692 Dec 10 j 12:40	0° $\text{H}$		retrograde	-8686 Aug 20 j 16:19	0° $\text{H}$ 53'47	
retrograde	-8691 Feb 27 j 16:44	8° $\text{H}$ 27'54			-8686 Sep 12 j 23:31	30° $\text{R}$ $\approx$	
opposition	-8691 Apr 29 j 23:07	3° $\text{H}$ 29'17	0°51'30	opposition	-8686 Oct 18 j 20:56	25° $\approx$ 55'06	-1°07'54
min. Earth dist.	-8691 Apr 29 j 18:20	3° $\text{H}$ 30'50	4.12540 AU	min. Earth dist.	-8686 Oct 18 j 21:31	25° $\approx$ 54'54	4.25364 AU
	-8691 May 29 j 23:35	30° $\text{R}$ $\Omega$		direct	-8686 Dec 18 j 12:24	20° $\approx$ 50'55	
direct	-8691 Jun 28 j 14:17	28° $\Omega$ 36'26			-8685 Mar 12 j 02:30	0° $\text{H}$	
	-8691 Jul 27 j 23:51	0° $\text{H}$		evening set	-8685 Apr 26 j 04:03	9° $\text{H}$ 23'23	
evening set	-8691 Oct 29 j 19:53	17° $\text{H}$ 14'01		conjunction	-8685 May 09 j 15:56	12° $\text{H}$ 23'17	-0°20'25
conjunction	-8691 Nov 11 j 19:11	20° $\text{H}$ 16'48	0°07'18	minimum elong	-8685 May 09 j 15:59	12° $\text{H}$ 23'19	0°20'40
minimum elong	-8691 Nov 11 j 19:12	20° $\text{H}$ 16'48	0°07'28	max. Earth dist.	-8685 May 09 j 04:41	12° $\text{H}$ 17'02	6.28952 AU
behind sun begin	-8691 Nov 11 j 11:47	20° $\text{H}$ 12'28		morning rise	-8685 May 23 j 00:42	15° $\text{H}$ 21'34	
behind sun end	-8691 Nov 12 j 02:37	20° $\text{H}$ 21'09			-8685 Aug 09 j 04:58	0° $\text{Y}$	
max. Earth dist.	-8691 Nov 12 j 10:56	20° $\text{H}$ 26'03	6.09290 AU	retrograde	-8685 Sep 21 j 10:07	2° $\text{Y}$ 52'58	
morning rise	-8691 Nov 24 j 21:50	23° $\text{H}$ 21'25		asc. node	-8685 Oct 10 j 08:37	2° $\text{Y}$ 17'49	
	-8691 Dec 24 j 06:29	0° $\Omega$			-8685 Nov 04 j 00:01	30° $\text{R}$ $\text{H}$	
desc. node	-8690 Jan 01 j 11:08	1° $\Omega$ 44'18		opposition	-8685 Nov 19 j 23:02	27° $\text{H}$ 58'01	0°08'01
retrograde	-8690 Apr 05 j 02:45	13° $\Omega$ 09'20		min. Earth dist.	-8685 Nov 20 j 12:19	27° $\text{H}$ 53'39	4.31812 AU
opposition	-8690 Jun 04 j 20:30	8° $\Omega$ 06'51	-0°33'13	direct	-8684 Jan 20 j 17:15	22° $\text{H}$ 54'10	
min. Earth dist.	-8690 Jun 04 j 03:13	8° $\Omega$ 12'36	4.06975 AU		-8684 Apr 02 j 21:03	0° $\text{Y}$	
direct	-8690 Aug 02 j 10:51	3° $\Omega$ 13'12		evening set	-8684 May 28 j 06:04	11° $\text{Y}$ 10'23	
evening set	-8690 Dec 04 j 01:00	22° $\Omega$ 07'31		max. Earth dist.	-8684 Jun 09 j 05:26	13° $\text{Y}$ 49'22	6.33732 AU
conjunction	-8690 Dec 17 j 09:00	25° $\Omega$ 15'34	-0°48'36	conjunction	-8684 Jun 10 j 09:08	14° $\text{Y}$ 04'44	0°32'00
minimum elong	-8690 Dec 17 j 08:55	25° $\Omega$ 15'31	0°48'47	minimum elong	-8684 Jun 10 j 09:05	14° $\text{Y}$ 04'43	0°32'04
max. Earth dist.	-8690 Dec 18 j 17:48	25° $\Omega$ 34'53	6.05779 AU	morning rise	-8684 Jun 23 j 08:46	16° $\text{Y}$ 57'20	
morning rise	-8690 Dec 30 j 20:18	28° $\Omega$ 25'23			-8684 Aug 29 j 17:04	0° $\text{Z}$	
	-8689 Jan 06 j 15:08	0° $\text{H}$		retrograde	-8684 Oct 21 j 21:08	4° $\text{Z}$ 11'56	
	-8689 Mar 24 j 18:26	15° $\text{H}$			-8684 Dec 15 j 18:01	30° $\text{R}$ $\text{Y}$	
retrograde	-8689 May 11 j 11:45	18° $\text{H}$ 26'09		opposition	-8684 Dec 20 j 23:56	29° $\text{Y}$ 19'31	1°20'05
	-8689 Jun 28 j 04:21	15° $\text{R}$ $\text{H}$		min. Earth dist.	-8684 Dec 21 j 21:45	29° $\text{Y}$ 12'29	4.34680 AU
opposition	-8689 Jul 10 j 13:11	13° $\text{H}$ 21'19	-1°47'00	direct	-8683 Feb 21 j 09:58	24° $\text{Y}$ 17'29	
min. Earth dist.	-8689 Jul 09 j 13:30	13° $\text{H}$ 29'20	4.05993 AU		-8683 Apr 27 j 11:11	0° $\text{Z}$	
direct	-8689 Sep 06 j 16:00	8° $\text{H}$ 25'09		evening set	-8683 Jun 29 j 03:56	12° $\text{Z}$ 24'15	
	-8689 Nov 11 j 16:24	15° $\text{H}$			-8683 Jul 10 j 20:02	15° $\text{Z}$	
evening set	-8688 Jan 09 j 15:02	27° $\text{H}$ 30'25		conjunction	-8683 Jul 11 j 21:21	15° $\text{Z}$ 14'08	1°14'30
	-8688 Jan 20 j 08:03	0° $\text{Z}$		minimum elong	-8683 Jul 11 j 21:17	15° $\text{Z}$ 14'06	1°14'51
				max. Earth dist.	-8683 Jul 10 j 12:16	14° $\text{Z}$ 55'40	6.34387 AU

Attention, astronomical year style is used: The year -8683 in astronomical counting style is the year 8684 BCE in historical counting style.

morning rise	-8683 Jul 24 j 11:43	18°♄02'36			-8677 Feb 27 j 11:31	15°♍	
	-8683 Sep 22 j 10:33	0°♈		retrograde	-8677 May 16 j 10:14	23°♍25'01	
retrograde	-8683 Nov 22 j 18:32	5°♈23'58		min. Earth dist.	-8677 Jul 14 j 10:13	18°♍28'10	4.06199 AU
opposition	-8682 Jan 22 j 12:49	0°♈32'27	2°08'52	opposition	-8677 Jul 15 j 10:06	18°♍20'03	-1°54'31
min. Earth dist.	-8682 Jan 23 j 12:48	0°♈24'49	4.33210 AU		-8677 Aug 11 j 12:04	15°♍	
	-8682 Jan 26 j 19:02	30°♄		direct	-8677 Sep 11 j 13:08	13°♍23'25	
direct	-8682 Mar 25 j 23:38	25°♄33'16			-8677 Oct 12 j 16:05	15°♍	
	-8682 May 21 j 11:31	0°♈			-8676 Jan 03 j 20:40	0°♄	
evening set	-8682 Jul 30 j 10:59	13°♈38'18		evening set	-8676 Jan 14 j 17:22	2°♄29'48	
conjunction	-8682 Aug 11 j 21:38	16°♈26'35	1°35'29	conjunction	-8676 Jan 28 j 08:01	5°♄39'39	-1°29'57
minimum elong	-8682 Aug 11 j 21:37	16°♈26'34	1°35'59	minimum elong	-8676 Jan 28 j 07:58	5°♄39'37	1°30'25
max. Earth dist.	-8682 Aug 10 j 14:03	16°♈08'44	6.30774 AU	max. Earth dist.	-8676 Jan 29 j 20:46	6°♄01'03	6.07695 AU
morning rise	-8682 Aug 24 j 07:01	19°♈14'17		morning rise	-8676 Feb 11 j 00:40	8°♄50'29	
	-8682 Oct 15 j 07:43	0°♄		retrograde	-8676 Jun 19 j 20:02	28°♄29'00	
retrograde	-8682 Dec 25 j 18:07	7°♄03'06		min. Earth dist.	-8676 Aug 17 j 08:23	23°♄31'16	4.10525 AU
opposition	-8681 Feb 24 j 23:28	2°♄10'29	2°20'32	opposition	-8676 Aug 18 j 04:20	23°♄24'26	-2°21'47
min. Earth dist.	-8681 Feb 25 j 18:57	2°♄04'18	4.27740 AU	direct	-8676 Oct 15 j 17:40	18°♄24'22	
	-8681 Mar 14 j 17:52	30°♄			-8675 Jan 16 j 14:14	0°♄	
direct	-8681 Apr 27 j 20:19	27°♈14'16		evening set	-8675 Feb 19 j 14:29	7°♄28'25	
	-8681 Jun 10 j 03:52	0°♄					
evening set	-8681 Aug 30 j 19:13	15°♄24'56		conjunction	-8675 Mar 05 j 07:46	10°♄36'37	-1°31'40
max. Earth dist.	-8681 Sep 11 j 10:30	18°♄04'49	6.23861 AU	minimum elong	-8675 Mar 05 j 07:48	10°♄36'38	1°32'13
				max. Earth dist.	-8675 Mar 06 j 09:04	10°♄51'06	6.13938 AU
conjunction	-8681 Sep 12 j 05:27	18°♄15'42	1°28'17	morning rise	-8675 Mar 19 j 01:21	13°♄44'48	
minimum elong	-8681 Sep 12 j 05:30	18°♄15'44	1°28'50		-8675 Jun 12 j 17:41	0°♄	
morning rise	-8681 Sep 24 j 15:57	21°♄06'48		retrograde	-8675 Jul 23 j 16:21	2°♄38'23	
	-8681 Nov 04 j 19:28	0°♈			-8675 Sep 02 j 11:01	30°♄	
retrograde	-8680 Jan 29 j 01:28	9°♈37'10		opposition	-8675 Sep 20 j 19:12	27°♄36'29	-1°58'47
opposition	-8680 Mar 30 j 12:00	4°♈41'50	1°49'02	min. Earth dist.	-8675 Sep 20 j 08:21	27°♄40'11	4.18046 AU
min. Earth dist.	-8680 Mar 30 j 19:55	4°♈39'18	4.19806 AU	direct	-8675 Nov 19 j 07:59	22°♄33'34	
	-8680 May 19 j 01:10	30°♄			-8674 Jan 31 j 10:19	0°♄	
direct	-8680 May 30 j 06:10	29°♄48'04		evening set	-8674 Mar 27 j 12:52	11°♄23'22	
	-8680 Jun 10 j 10:43	0°♈					
	-8680 Sep 17 j 01:45	15°♈		conjunction	-8674 Apr 10 j 05:14	14°♄27'49	-1°01'51
evening set	-8680 Sep 30 j 23:02	18°♈10'30		minimum elong	-8674 Apr 10 j 05:19	14°♄27'52	1°02'17
				max. Earth dist.	-8674 Apr 10 j 11:23	14°♄31'17	6.22195 AU
conjunction	-8680 Oct 13 j 14:38	21°♈07'06	0°53'08		-8674 Apr 12 j 14:23	15°♄	
minimum elong	-8680 Oct 13 j 14:42	21°♈07'09	0°53'31	morning rise	-8674 Apr 23 j 19:48	17°♄31'13	
max. Earth dist.	-8680 Oct 13 j 12:38	21°♈05'56	6.15659 AU		-8674 Jun 24 j 17:29	0°♄	
morning rise	-8680 Oct 26 j 08:34	24°♈05'02		retrograde	-8674 Aug 25 j 06:07	5°♄35'34	
	-8680 Nov 21 j 14:53	0°♄		opposition	-8674 Oct 23 j 10:30	0°♄37'28	-0°57'45
retrograde	-8679 Mar 04 j 17:44	13°♄20'50		min. Earth dist.	-8674 Oct 23 j 13:13	0°♄36'33	4.26186 AU
opposition	-8679 May 04 j 22:46	8°♄21'37	0°40'14		-8674 Oct 28 j 02:42	30°♄	
min. Earth dist.	-8679 May 04 j 16:29	8°♄23'40	4.11875 AU	direct	-8674 Dec 23 j 06:08	25°♄33'17	
direct	-8679 Jul 03 j 10:46	3°♄28'44			-8673 Feb 17 j 03:17	0°♄	
evening set	-8679 Nov 03 j 14:39	22°♄07'36		evening set	-8673 Apr 30 j 22:29	14°♄03'53	
desc. node	-8679 Nov 11 j 03:55	23°♄53'54					
conjunction	-8679 Nov 16 j 15:17	25°♄11'09	-0°00'48	conjunction	-8673 May 14 j 09:24	17°♄03'07	-0°12'56
minimum elong	-8679 Nov 16 j 15:17	25°♄11'09	0°00'41	minimum elong	-8673 May 14 j 09:25	17°♄03'08	0°13'07
behind sun begin	-8679 Nov 16 j 07:07	25°♄06'23		behind sun begin	-8673 May 14 j 04:38	17°♄00'29	
behind sun end	-8679 Nov 16 j 23:26	25°♄15'56		behind sun end	-8673 May 14 j 14:12	17°♄05'47	
max. Earth dist.	-8679 Nov 17 j 10:10	25°♄22'15	6.08798 AU	max. Earth dist.	-8673 May 13 j 19:42	16°♄55'31	6.29669 AU
morning rise	-8679 Nov 29 j 19:09	28°♄16'33		morning rise	-8673 May 27 j 17:05	20°♄00'40	
	-8679 Dec 07 j 05:21	0°♄			-8673 Jul 15 j 04:43	0°♄	
retrograde	-8678 Apr 10 j 03:45	18°♄07'00		asc. node	-8673 Aug 19 j 14:33	5°♄18'20	
opposition	-8678 Jun 09 j 19:29	13°♄04'09	-0°44'49	retrograde	-8673 Sep 25 j 20:39	7°♄28'47	
min. Earth dist.	-8678 Jun 09 j 01:20	13°♄10'12	4.06712 AU	opposition	-8673 Nov 24 j 12:04	2°♄34'12	0°19'00
direct	-8678 Aug 07 j 07:05	8°♄10'17		min. Earth dist.	-8673 Nov 25 j 02:04	2°♄29'37	4.32379 AU
evening set	-8678 Dec 09 j 00:45	27°♄06'13			-8673 Dec 15 j 02:47	30°♄	
	-8678 Dec 21 j 08:41	0°♍		direct	-8672 Jan 25 j 08:50	27°♄30'31	
					-8672 Mar 06 j 22:36	0°♄	
				evening set	-8672 Jun 01 j 20:15	15°♄45'01	
conjunction	-8678 Dec 22 j 09:34	0°♍14'38	-0°55'23	conjunction	-8672 Jun 14 j 21:56	18°♄38'37	0°38'57
minimum elong	-8678 Dec 22 j 09:28	0°♍14'35	0°55'35	minimum elong	-8672 Jun 14 j 21:52	18°♄38'35	0°39'04
max. Earth dist.	-8678 Dec 23 j 17:48	0°♍33'36	6.05742 AU	max. Earth dist.	-8672 Jun 13 j 18:02	18°♄23'09	6.34105 AU
morning rise	-8677 Jan 04 j 21:54	3°♍24'52					

Attention, astronomical year style is used: The year -8672 in astronomical counting style is the year 8673 BCE in historical counting style.

morning rise	-8672 Jun 27 j 20:05	21° $\Upsilon$ 30'28		direct	-8666 Aug 12 j 06:00	13° $\underline{\Delta}$ 14'29	
	-8672 Aug 07 j 11:31	0° $\mathcal{B}$			-8666 Dec 04 j 14:27	0° $\mathcal{M}$	
retrograde	-8672 Oct 26 j 08:25	8° $\mathcal{B}$ 44'24		evening set	-8666 Dec 14 j 04:01	2° $\mathcal{M}$ 13'19	
opposition	-8672 Dec 25 j 13:43	3° $\mathcal{B}$ 52'13	1°28'48				
min. Earth dist.	-8672 Dec 26 j 12:14	3° $\mathcal{B}$ 44'59	4.34825 AU	conjunction	-8666 Dec 27 j 14:00	5° $\mathcal{M}$ 22'19	-1°01'55
	-8671 Jan 29 j 02:53	30° $\mathcal{K}$ $\Upsilon$		minimum elong	-8666 Dec 27 j 13:55	5° $\mathcal{M}$ 22'16	1°02'11
direct	-8671 Feb 26 j 01:34	28° $\Upsilon$ 50'33		max. Earth dist.	-8666 Dec 29 j 00:58	5° $\mathcal{M}$ 42'52	6.05465 AU
	-8671 Mar 26 j 02:57	0° $\mathcal{B}$		morning rise	-8665 Jan 10 j 03:04	8° $\mathcal{M}$ 32'58	
	-8671 Jun 24 j 19:41	15° $\mathcal{B}$			-8665 Feb 07 j 14:16	15° $\mathcal{M}$	
evening set	-8671 Jul 03 j 14:58	16° $\mathcal{B}$ 56'08		retrograde	-8665 May 21 j 14:38	28° $\mathcal{M}$ 32'59	
max. Earth dist.	-8671 Jul 14 j 20:41	19° $\mathcal{B}$ 26'18	6.34249 AU	min. Earth dist.	-8665 Jul 19 j 11:15	23° $\mathcal{M}$ 35'51	4.06303 AU
				opposition	-8665 Jul 20 j 10:29	23° $\mathcal{M}$ 27'57	-2°01'25
conjunction	-8671 Jul 16 j 07:04	19° $\mathcal{B}$ 45'30	1°18'59	direct	-8665 Sep 16 j 14:04	18° $\mathcal{M}$ 30'53	
minimum elong	-8671 Jul 16 j 06:59	19° $\mathcal{B}$ 45'28	1°19'22		-8665 Dec 16 j 17:44	0° $\mathcal{A}$	
morning rise	-8671 Jul 28 j 20:31	22° $\mathcal{B}$ 33'35		evening set	-8664 Jan 20 j 00:14	7° $\mathcal{A}$ 38'39	
	-8671 Sep 01 j 20:07	0° $\mathcal{I}$					
retrograde	-8671 Nov 27 j 08:19	9° $\mathcal{I}$ 57'09		conjunction	-8664 Feb 02 j 15:21	10° $\mathcal{A}$ 48'30	-1°32'19
opposition	-8670 Jan 27 j 04:44	5° $\mathcal{I}$ 05'31	2°12'59	minimum elong	-8664 Feb 02 j 15:19	10° $\mathcal{A}$ 48'29	1°32'48
min. Earth dist.	-8670 Jan 28 j 04:29	4° $\mathcal{I}$ 57'58	4.32796 AU	max. Earth dist.	-8664 Feb 04 j 03:05	11° $\mathcal{A}$ 09'16	6.08161 AU
direct	-8670 Mar 30 j 14:50	0° $\mathcal{I}$ 06'41		morning rise	-8664 Feb 16 j 08:31	13° $\mathcal{A}$ 59'16	
evening set	-8670 Aug 03 j 20:28	18° $\mathcal{I}$ 11'33			-8664 May 07 j 15:58	0° $\mathcal{Z}$	
max. Earth dist.	-8670 Aug 15 j 01:35	20° $\mathcal{I}$ 43'21	6.30097 AU	retrograde	-8664 Jun 24 j 17:45	3° $\mathcal{Z}$ 33'07	
					-8664 Aug 11 j 19:03	30° $\mathcal{R}$ $\mathcal{A}$	
conjunction	-8670 Aug 16 j 06:47	20° $\mathcal{I}$ 59'53	1°36'14	min. Earth dist.	-8664 Aug 22 j 05:26	28° $\mathcal{A}$ 35'43	4.11348 AU
minimum elong	-8670 Aug 16 j 06:46	20° $\mathcal{I}$ 59'53	1°36'46	opposition	-8664 Aug 23 j 01:35	28° $\mathcal{A}$ 28'49	-2°21'28
morning rise	-8670 Aug 28 j 15:44	23° $\mathcal{I}$ 47'43		direct	-8664 Oct 20 j 16:25	23° $\mathcal{A}$ 28'21	
	-8670 Sep 26 j 02:43	0° $\mathcal{E}$			-8664 Dec 26 j 11:10	0° $\mathcal{Z}$	
retrograde	-8670 Dec 30 j 11:12	11° $\mathcal{E}$ 41'13		evening set	-8663 Feb 24 j 20:01	12° $\mathcal{Z}$ 31'15	
opposition	-8669 Mar 01 j 18:28	6° $\mathcal{E}$ 48'19	2°18'42				
min. Earth dist.	-8669 Mar 02 j 12:45	6° $\mathcal{E}$ 42'31	4.26831 AU	conjunction	-8663 Mar 10 j 13:25	15° $\mathcal{Z}$ 39'01	-1°29'07
direct	-8669 May 02 j 12:17	1° $\mathcal{E}$ 52'29		minimum elong	-8663 Mar 10 j 13:28	15° $\mathcal{Z}$ 39'04	1°29'40
evening set	-8669 Sep 04 j 06:09	20° $\mathcal{E}$ 04'05		max. Earth dist.	-8663 Mar 11 j 13:09	15° $\mathcal{Z}$ 52'36	6.15088 AU
				morning rise	-8663 Mar 24 j 06:46	18° $\mathcal{Z}$ 46'36	
conjunction	-8669 Sep 16 j 16:38	22° $\mathcal{E}$ 55'25	1°24'55		-8663 May 16 j 18:31	0° $\approx$	
minimum elong	-8669 Sep 16 j 16:41	22° $\mathcal{E}$ 55'27	1°25'27	retrograde	-8663 Jul 28 j 10:52	7° $\approx$ 32'43	
max. Earth dist.	-8669 Sep 15 j 22:19	22° $\mathcal{E}$ 44'53	6.22786 AU	opposition	-8663 Sep 25 j 12:57	2° $\approx$ 31'19	-1°51'53
morning rise	-8669 Sep 29 j 03:57	25° $\mathcal{E}$ 47'18		min. Earth dist.	-8663 Sep 25 j 04:08	2° $\approx$ 34'19	4.19417 AU
	-8669 Oct 17 j 21:43	0° $\Omega$			-8663 Oct 15 j 00:55	30° $\mathcal{R}$ $\mathcal{Z}$	
retrograde	-8668 Feb 03 j 00:08	14° $\Omega$ 23'57		direct	-8663 Nov 24 j 07:05	27° $\mathcal{Z}$ 28'10	
opposition	-8668 Apr 04 j 10:14	9° $\Omega$ 28'03	1°41'17		-8662 Jan 03 j 23:23	0° $\approx$	
min. Earth dist.	-8668 Apr 04 j 16:28	9° $\Omega$ 26'03	4.18618 AU		-8662 Mar 26 j 23:17	15° $\approx$	
direct	-8668 Jun 04 j 00:20	4° $\Omega$ 34'25		evening set	-8662 Apr 01 j 13:01	16° $\approx$ 14'17	
	-8668 Aug 30 j 13:10	15° $\Omega$					
evening set	-8668 Oct 05 j 13:59	22° $\Omega$ 59'02		conjunction	-8662 Apr 15 j 04:54	19° $\approx$ 17'54	-0°55'40
				minimum elong	-8662 Apr 15 j 04:59	19° $\approx$ 17'57	0°56'06
conjunction	-8668 Oct 18 j 06:52	25° $\Omega$ 56'40	0°46'21	max. Earth dist.	-8662 Apr 15 j 09:34	19° $\approx$ 20'31	6.23708 AU
minimum elong	-8668 Oct 18 j 06:56	25° $\Omega$ 56'42	0°46'43	morning rise	-8662 Apr 28 j 18:37	22° $\approx$ 20'20	
max. Earth dist.	-8668 Oct 18 j 08:22	25° $\Omega$ 57'32	6.14484 AU		-8662 Jun 03 j 15:01	0° $\mathcal{H}$	
morning rise	-8668 Oct 31 j 02:01	28° $\Omega$ 55'41		retrograde	-8662 Aug 29 j 17:03	10° $\mathcal{H}$ 17'00	
	-8668 Nov 04 j 17:19	0° $\mathcal{M}$		opposition	-8662 Oct 28 j 00:18	5° $\mathcal{H}$ 19'24	-0°47'17
retrograde	-8667 Mar 09 j 20:20	18° $\mathcal{M}$ 17'34		min. Earth dist.	-8662 Oct 28 j 03:31	5° $\mathcal{H}$ 18'19	4.27717 AU
opposition	-8667 May 09 j 23:29	13° $\mathcal{M}$ 17'49	0°28'35	direct	-8662 Dec 27 j 23:43	0° $\mathcal{H}$ 15'13	
min. Earth dist.	-8667 May 09 j 15:47	13° $\mathcal{M}$ 20'20	4.10805 AU	evening set	-8661 May 05 j 15:55	18° $\mathcal{H}$ 41'16	
direct	-8667 Jul 08 j 07:19	8° $\mathcal{M}$ 24'54		max. Earth dist.	-8661 May 18 j 09:24	21° $\mathcal{H}$ 30'27	6.31112 AU
desc. node	-8667 Sep 20 j 08:44	16° $\mathcal{M}$ 24'29					
evening set	-8667 Nov 08 j 11:56	27° $\mathcal{M}$ 06'45		conjunction	-8661 May 19 j 01:30	21° $\mathcal{H}$ 39'23	-0°05'30
	-8667 Nov 20 j 18:38	0° $\underline{\Delta}$		minimum elong	-8661 May 19 j 01:30	21° $\mathcal{H}$ 39'23	0°05'39
				behind sun begin	-8661 May 18 j 17:39	21° $\mathcal{H}$ 35'02	
conjunction	-8667 Nov 21 j 13:41	0° $\underline{\Delta}$ 11'13	-0°08'58	behind sun end	-8661 May 19 j 09:20	21° $\mathcal{H}$ 43'43	
minimum elong	-8667 Nov 21 j 13:40	0° $\underline{\Delta}$ 11'12	0°08'55	morning rise	-8661 Jun 01 j 07:51	24° $\mathcal{H}$ 35'47	
behind sun begin	-8667 Nov 21 j 06:39	0° $\underline{\Delta}$ 07'05			-8661 Jun 26 j 10:57	0° $\Upsilon$	
behind sun end	-8667 Nov 21 j 20:41	0° $\underline{\Delta}$ 15'19		asc. node	-8661 Jun 29 j 05:27	0° $\Upsilon$ 34'14	
max. Earth dist.	-8667 Nov 22 j 09:25	0° $\underline{\Delta}$ 22'50	6.07915 AU	retrograde	-8661 Sep 30 j 06:02	11° $\Upsilon$ 58'21	
morning rise	-8667 Dec 04 j 19:04	3° $\underline{\Delta}$ 17'36		opposition	-8661 Nov 28 j 23:09	7° $\Upsilon$ 04'14	0°29'34
retrograde	-8666 Apr 15 j 06:48	23° $\underline{\Delta}$ 12'01		min. Earth dist.	-8661 Nov 29 j 15:21	6° $\Upsilon$ 58'56	4.33617 AU
opposition	-8666 Jun 14 j 21:01	18° $\underline{\Delta}$ 08'41	-0°56'22	direct	-8660 Jan 30 j 00:46	2° $\Upsilon$ 00'44	
min. Earth dist.	-8666 Jun 14 j 01:12	18° $\underline{\Delta}$ 15'19	4.06107 AU	evening set	-8660 Jun 06 j 07:05	20° $\Upsilon$ 11'16	

Attention, astronomical year style is used: The year -8660 in astronomical counting style is the year 8661 BCE in historical counting style.

max. Earth dist.	-8660 Jun 18 j 01:39	22° $\Upsilon$ 47'25	6.35016 AU	opposition	-8654 Jun 19 j 22:27	23° $\Omega$ 14'26	-1°07'26
				min. Earth dist.	-8654 Jun 19 j 02:06	23° $\Omega$ 21'15	4.05268 AU
conjunction	-8660 Jun 19 j 07:20	23° $\Upsilon$ 03'53	0°45'26	direct	-8654 Aug 17 j 05:46	18° $\Omega$ 19'56	
minimum elong	-8660 Jun 19 j 07:16	23° $\Upsilon$ 03'50	0°45'36		-8654 Nov 16 j 16:54	0° $\mathbb{M}$	
morning rise	-8660 Jul 02 j 04:04	25° $\Upsilon$ 54'46		evening set	-8654 Dec 19 j 08:40	7° $\mathbb{M}$ 22'39	
	-8660 Jul 21 j 01:00	0° $\mathcal{B}$					
retrograde	-8660 Oct 30 j 15:07	13° $\mathcal{B}$ 06'41		conjunction	-8653 Jan 01 j 19:34	10° $\mathbb{M}$ 32'14	-1°07'57
opposition	-8660 Dec 29 j 23:52	8° $\mathcal{B}$ 14'40	1°36'37	minimum elong	-8653 Jan 01 j 19:28	10° $\mathbb{M}$ 32'10	1°08'16
min. Earth dist.	-8660 Dec 30 j 22:50	8° $\mathcal{B}$ 07'18	4.35366 AU	max. Earth dist.	-8653 Jan 03 j 07:29	10° $\mathbb{M}$ 53'20	6.05097 AU
direct	-8659 Mar 02 j 12:32	3° $\mathcal{B}$ 13'18		morning rise	-8653 Jan 15 j 09:42	13° $\mathbb{M}$ 43'25	
	-8659 Jun 08 j 13:35	15° $\mathcal{B}$			-8653 Jan 20 j 21:32	15° $\mathbb{M}$	
evening set	-8659 Jul 07 j 21:20	21° $\mathcal{B}$ 16'38			-8653 Apr 07 j 03:48	0° $\mathcal{A}$	
max. Earth dist.	-8659 Jul 19 j 02:04	23° $\mathcal{B}$ 46'18	6.34359 AU	retrograde	-8653 May 26 j 16:29	3° $\mathcal{A}$ 42'58	
					-8653 Jul 15 j 06:51	30° $\mathbb{R}$ $\mathbb{M}$	
conjunction	-8659 Jul 20 j 12:18	24° $\mathcal{B}$ 05'26	1°22'49	min. Earth dist.	-8653 Jul 24 j 10:13	28° $\mathbb{M}$ 46'14	4.06468 AU
minimum elong	-8659 Jul 20 j 12:14	24° $\mathcal{B}$ 05'24	1°23'13	opposition	-8653 Jul 25 j 10:54	28° $\mathbb{M}$ 37'49	-2°07'21
morning rise	-8659 Aug 02 j 00:40	26° $\mathcal{B}$ 53'03		direct	-8653 Sep 21 j 13:41	23° $\mathbb{M}$ 40'15	
	-8659 Aug 16 j 05:19	0° $\mathbb{I}$			-8653 Nov 25 j 08:39	0° $\mathcal{A}$	
retrograde	-8659 Dec 01 j 17:56	14° $\mathbb{I}$ 18'24		evening set	-8652 Jan 25 j 07:32	12° $\mathcal{A}$ 48'55	
opposition	-8658 Jan 31 j 16:09	9° $\mathbb{I}$ 26'48	2°16'08				
min. Earth dist.	-8658 Feb 01 j 16:47	9° $\mathbb{I}$ 18'59	4.32463 AU	conjunction	-8652 Feb 07 j 23:13	15° $\mathcal{A}$ 58'42	-1°33'56
direct	-8658 Apr 04 j 01:53	4° $\mathbb{I}$ 28'22		minimum elong	-8652 Feb 07 j 23:12	15° $\mathcal{A}$ 58'41	1°34'28
evening set	-8658 Aug 08 j 01:36	22° $\mathbb{I}$ 33'10		max. Earth dist.	-8652 Feb 09 j 10:50	16° $\mathcal{A}$ 19'22	6.08815 AU
max. Earth dist.	-8658 Aug 19 j 04:56	25° $\mathbb{I}$ 04'19	6.29328 AU	morning rise	-8652 Feb 21 j 16:37	19° $\mathcal{A}$ 09'13	
					-8652 Apr 12 j 04:00	0° $\mathcal{B}$	
conjunction	-8658 Aug 20 j 11:27	25° $\mathbb{I}$ 21'38	1°36'24	retrograde	-8652 Jun 29 j 16:29	8° $\mathcal{B}$ 37'18	
minimum elong	-8658 Aug 20 j 11:27	25° $\mathbb{I}$ 21'37	1°36'57	opposition	-8652 Aug 27 j 22:41	3° $\mathcal{B}$ 33'11	-2°20'02
morning rise	-8658 Sep 01 j 20:27	28° $\mathbb{I}$ 09'46		min. Earth dist.	-8652 Aug 27 j 04:10	3° $\mathcal{B}$ 39'31	4.12380 AU
	-8658 Sep 10 j 01:10	0° $\mathcal{C}$			-8652 Sep 25 j 23:42	30° $\mathbb{R}$ $\mathcal{A}$	
retrograde	-8657 Jan 04 j 01:08	16° $\mathcal{C}$ 08'35		direct	-8652 Oct 25 j 17:42	28° $\mathcal{A}$ 32'12	
opposition	-8657 Mar 06 j 08:55	11° $\mathcal{C}$ 15'24	2°16'07		-8652 Nov 24 j 18:47	0° $\mathcal{B}$	
min. Earth dist.	-8657 Mar 07 j 02:22	11° $\mathcal{C}$ 09'52	4.25673 AU	evening set	-8651 Mar 02 j 00:39	17° $\mathcal{B}$ 32'48	
direct	-8657 May 06 j 22:59	6° $\mathcal{C}$ 19'52					
evening set	-8657 Sep 08 j 13:26	24° $\mathcal{C}$ 33'49		conjunction	-8651 Mar 15 j 18:10	20° $\mathcal{B}$ 40'03	-1°25'55
max. Earth dist.	-8657 Sep 20 j 08:53	27° $\mathcal{C}$ 16'55	6.21354 AU	minimum elong	-8651 Mar 15 j 18:14	20° $\mathcal{B}$ 40'05	1°26'26
				max. Earth dist.	-8651 Mar 16 j 16:52	20° $\mathcal{B}$ 52'58	6.16383 AU
conjunction	-8657 Sep 21 j 00:41	27° $\mathcal{C}$ 26'03	1°21'09	morning rise	-8651 Mar 29 j 11:11	23° $\mathcal{B}$ 46'55	
minimum elong	-8657 Sep 21 j 00:45	27° $\mathcal{C}$ 26'05	1°21'39		-8651 Apr 26 j 18:59	0° $\approx$	
	-8657 Oct 02 j 03:47	0° $\Omega$		retrograde	-8651 Aug 02 j 02:12	12° $\approx$ 24'55	
morning rise	-8657 Oct 03 j 12:43	0° $\Omega$ 18'53		opposition	-8651 Sep 30 j 05:24	7° $\approx$ 23'58	-1°44'16
	-8657 Dec 16 j 20:30	15° $\Omega$		min. Earth dist.	-8651 Sep 29 j 21:19	7° $\approx$ 26'42	4.20810 AU
retrograde	-8656 Feb 07 j 20:55	19° $\Omega$ 03'18		direct	-8651 Nov 29 j 03:11	2° $\approx$ 20'31	
	-8656 Apr 02 j 07:20	15° $\mathbb{R}$ $\Omega$			-8650 Mar 09 j 12:33	15° $\approx$	
opposition	-8656 Apr 09 j 05:19	14° $\Omega$ 07'02	1°33'08	evening set	-8650 Apr 06 j 12:04	21° $\approx$ 03'02	
min. Earth dist.	-8656 Apr 09 j 10:47	14° $\Omega$ 05'16	4.17004 AU				
direct	-8656 Jun 08 j 14:45	9° $\Omega$ 13'38		conjunction	-8650 Apr 20 j 03:11	24° $\approx$ 05'48	-0°49'10
	-8656 Aug 10 j 06:48	15° $\Omega$		minimum elong	-8650 Apr 20 j 03:15	24° $\approx$ 05'51	0°49'32
evening set	-8656 Oct 10 j 03:11	27° $\Omega$ 42'26		max. Earth dist.	-8650 Apr 20 j 03:43	24° $\approx$ 06'06	6.25079 AU
	-8656 Oct 19 j 22:40	0° $\mathbb{P}$		morning rise	-8650 May 03 j 16:10	27° $\approx$ 07'20	
					-8650 May 16 j 18:04	0° $\mathcal{H}$	
conjunction	-8656 Oct 22 j 21:10	0° $\mathbb{P}$ 41'18	0°39'25	retrograde	-8650 Sep 03 j 06:05	14° $\mathcal{H}$ 57'15	
minimum elong	-8656 Oct 22 j 21:14	0° $\mathbb{P}$ 41'21	0°39'45	opposition	-8650 Nov 01 j 13:42	10° $\mathcal{H}$ 00'10	-0°36'33
max. Earth dist.	-8656 Oct 22 j 23:27	0° $\mathbb{P}$ 42'39	6.12843 AU	min. Earth dist.	-8650 Nov 01 j 19:48	9° $\mathcal{H}$ 58'08	4.28921 AU
morning rise	-8656 Nov 04 j 17:58	3° $\mathbb{P}$ 41'44		direct	-8649 Jan 01 j 18:49	4° $\mathcal{H}$ 55'55	
retrograde	-8655 Mar 14 j 20:40	23° $\mathbb{P}$ 11'42		asc. node	-8649 May 07 j 22:14	22° $\mathcal{H}$ 46'37	
opposition	-8655 May 14 j 22:41	18° $\mathbb{P}$ 11'26	0°16'55	evening set	-8649 May 10 j 08:38	23° $\mathcal{H}$ 18'41	
min. Earth dist.	-8655 May 14 j 12:29	18° $\mathbb{P}$ 14'46	4.09278 AU				
direct	-8655 Jul 13 j 01:27	13° $\mathbb{P}$ 18'29		conjunction	-8649 May 23 j 17:10	26° $\mathcal{H}$ 15'57	0°02'08
desc. node	-8655 Jul 31 j 22:37	13° $\mathbb{P}$ 53'57		minimum elong	-8649 May 23 j 17:10	26° $\mathcal{H}$ 15'57	0°02'02
	-8655 Nov 04 j 09:56	0° $\underline{\Omega}$		behind sun begin	-8649 May 23 j 08:59	26° $\mathcal{H}$ 11'27	
evening set	-8655 Nov 13 j 09:09	2° $\underline{\Omega}$ 05'22		behind sun end	-8649 May 24 j 01:21	26° $\mathcal{H}$ 20'28	
				max. Earth dist.	-8649 May 22 j 23:29	26° $\mathcal{H}$ 06'09	6.32053 AU
conjunction	-8655 Nov 26 j 12:28	5° $\underline{\Omega}$ 11'02	-0°16'57	morning rise	-8649 Jun 05 j 22:09	29° $\mathcal{H}$ 11'26	
minimum elong	-8655 Nov 26 j 12:26	5° $\underline{\Omega}$ 11'01	0°16'55		-8649 Jun 09 j 14:31	0° $\Upsilon$	
max. Earth dist.	-8655 Nov 27 j 12:12	5° $\underline{\Omega}$ 25'02	6.06662 AU	retrograde	-8649 Oct 04 j 15:11	16° $\Upsilon$ 30'35	
morning rise	-8655 Dec 09 j 19:06	8° $\underline{\Omega}$ 18'34		opposition	-8649 Dec 03 j 11:21	11° $\Upsilon$ 36'49	0°40'07
retrograde	-8654 Apr 20 j 12:42	28° $\underline{\Omega}$ 18'05		min. Earth dist.	-8649 Dec 04 j 04:07	11° $\Upsilon$ 31'21	4.34240 AU

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 23

Attention, astronomical year style is used: The year -8648 in astronomical counting style is the year 8649 BCE in historical counting style.

direct	-8648 Feb 03 j 14:28	6° $\Upsilon$ 33'31		minimum elong	-8643 Dec 01 j 14:07	10° $\underline{\Omega}$ 16'53	0°25'01
evening set	-8648 Jun 10 j 19:24	24° $\Upsilon$ 42'12		max. Earth dist.	-8643 Dec 02 j 15:54	10° $\underline{\Omega}$ 32'05	6.06320 AU
max. Earth dist.	-8648 Jun 22 j 10:29	27° $\Upsilon$ 16'31	6.35262 AU	morning rise	-8643 Dec 14 j 22:11	13° $\underline{\Omega}$ 25'09	
					-8642 Mar 08 j 20:06	0° $\mathbb{M}$	
conjunction	-8648 Jun 23 j 18:07	27° $\Upsilon$ 34'04	0°51'49	retrograde	-8642 Apr 25 j 15:48	3° $\mathbb{M}$ 25'40	
minimum elong	-8648 Jun 23 j 18:03	27° $\Upsilon$ 34'02	0°52'01		-8642 Jun 12 j 14:23	30° $\mathbb{R}$ $\underline{\Omega}$	
	-8648 Jul 04 j 17:30	0° $\mathcal{B}$		min. Earth dist.	-8642 Jun 24 j 01:46	28° $\underline{\Omega}$ 29'14	4.05392 AU
morning rise	-8648 Jul 06 j 13:35	0° $\mathcal{B}$ 24'19		opposition	-8642 Jun 25 j 00:22	28° $\underline{\Omega}$ 21'38	-1°18'03
	-8648 Sep 23 j 15:58	15° $\mathcal{B}$		direct	-8642 Aug 22 j 05:13	23° $\underline{\Omega}$ 26'48	
retrograde	-8648 Nov 04 j 03:36	17° $\mathcal{B}$ 36'35			-8642 Oct 26 j 22:41	0° $\mathbb{M}$	
	-8648 Dec 16 j 05:12	15° $\mathbb{R}$ $\mathcal{B}$		evening set	-8642 Dec 24 j 12:59	12° $\mathbb{M}$ 29'53	
opposition	-8647 Jan 03 j 13:23	12° $\mathcal{B}$ 44'46	1°44'12		-8641 Jan 04 j 05:22	15° $\mathbb{M}$	
min. Earth dist.	-8647 Jan 04 j 14:01	12° $\mathcal{B}$ 36'53	4.35234 AU				
direct	-8647 Mar 07 j 03:33	7° $\mathcal{B}$ 43'44		conjunction	-8641 Jan 07 j 00:39	15° $\mathbb{M}$ 39'30	-1°13'27
	-8647 May 20 j 09:49	15° $\mathcal{B}$		minimum elong	-8641 Jan 07 j 00:34	15° $\mathbb{M}$ 39'27	1°13'48
evening set	-8647 Jul 12 j 07:17	25° $\mathcal{B}$ 46'51		max. Earth dist.	-8641 Jan 08 j 13:39	16° $\mathbb{M}$ 01'12	6.05642 AU
max. Earth dist.	-8647 Jul 23 j 10:20	28° $\mathcal{B}$ 15'51	6.33836 AU	morning rise	-8641 Jan 20 j 15:18	18° $\mathbb{M}$ 50'36	
					-8641 Mar 13 j 01:52	0° $\mathcal{A}$	
conjunction	-8647 Jul 24 j 21:17	28° $\mathcal{B}$ 35'25	1°26'21	retrograde	-8641 May 31 j 16:19	8° $\mathcal{A}$ 46'12	
minimum elong	-8647 Jul 24 j 21:13	28° $\mathcal{B}$ 35'23	1°26'46	min. Earth dist.	-8641 Jul 29 j 09:18	3° $\mathcal{A}$ 49'03	4.07381 AU
	-8647 Jul 31 j 04:23	0° $\mathbb{I}$		opposition	-8641 Jul 30 j 08:53	3° $\mathcal{A}$ 41'00	-2°12'09
morning rise	-8647 Aug 06 j 08:52	1° $\mathbb{I}$ 22'52			-8641 Aug 29 j 23:18	30° $\mathbb{R}$ $\mathbb{M}$	
retrograde	-8647 Dec 06 j 08:30	18° $\mathbb{I}$ 52'05		direct	-8641 Sep 26 j 14:03	28° $\mathbb{M}$ 42'57	
opposition	-8646 Feb 05 j 08:44	14° $\mathbb{I}$ 00'20	2°18'42		-8641 Oct 24 j 08:21	0° $\mathcal{A}$	
min. Earth dist.	-8646 Feb 06 j 08:11	13° $\mathbb{I}$ 52'53	4.31611 AU	evening set	-8640 Jan 30 j 11:33	17° $\mathcal{A}$ 49'59	
direct	-8646 Apr 08 j 15:22	9° $\mathbb{I}$ 02'17					
evening set	-8646 Aug 12 j 11:49	27° $\mathbb{I}$ 08'24		conjunction	-8640 Feb 13 j 03:41	20° $\mathcal{A}$ 59'24	-1°34'50
				minimum elong	-8640 Feb 13 j 03:40	20° $\mathcal{A}$ 59'24	1°35'23
conjunction	-8646 Aug 24 j 21:31	29° $\mathbb{I}$ 57'13	1°36'00	max. Earth dist.	-8640 Feb 14 j 14:51	21° $\mathcal{A}$ 19'44	6.09993 AU
minimum elong	-8646 Aug 24 j 21:32	29° $\mathbb{I}$ 57'13	1°36'34	morning rise	-8640 Feb 26 j 21:06	24° $\mathcal{A}$ 09'23	
max. Earth dist.	-8646 Aug 23 j 17:15	29° $\mathbb{I}$ 41'08	6.28217 AU		-8640 Mar 24 j 00:14	0° $\mathcal{B}$	
	-8646 Aug 25 j 02:25	0° $\mathcal{B}$		retrograde	-8640 Jul 04 j 09:35	13° $\mathcal{B}$ 30'02	
morning rise	-8646 Sep 06 j 06:29	2° $\mathcal{B}$ 45'48		opposition	-8640 Sep 01 j 15:20	8° $\mathcal{B}$ 26'19	-2°17'39
retrograde	-8645 Jan 08 j 22:38	20° $\mathcal{B}$ 51'02		min. Earth dist.	-8640 Aug 31 j 21:43	8° $\mathcal{B}$ 32'20	4.13706 AU
opposition	-8645 Mar 11 j 06:06	15° $\mathcal{B}$ 57'33	2°12'34	direct	-8640 Oct 30 j 13:10	3° $\mathcal{B}$ 24'56	
min. Earth dist.	-8645 Mar 11 j 22:51	15° $\mathcal{B}$ 52'14	4.24374 AU	evening set	-8639 Mar 07 j 00:49	22° $\mathcal{B}$ 22'42	
direct	-8645 May 11 j 16:55	11° $\mathcal{B}$ 02'25					
evening set	-8645 Sep 13 j 02:45	29° $\mathcal{B}$ 18'40		conjunction	-8639 Mar 20 j 18:05	25° $\mathcal{B}$ 29'19	-1°22'14
	-8645 Sep 16 j 02:36	0° $\Omega$		minimum elong	-8639 Mar 20 j 18:10	25° $\mathcal{B}$ 29'21	1°22'46
				max. Earth dist.	-8639 Mar 21 j 12:06	25° $\mathcal{B}$ 39'32	6.17735 AU
conjunction	-8645 Sep 25 j 14:35	2° $\Omega$ 11'45	1°16'39	morning rise	-8639 Apr 03 j 10:53	28° $\mathcal{B}$ 35'29	
minimum elong	-8645 Sep 25 j 14:40	2° $\Omega$ 11'47	1°17'08		-8639 Apr 09 j 17:35	0° $\approx$	
max. Earth dist.	-8645 Sep 25 j 00:07	2° $\Omega$ 03'23	6.19998 AU		-8639 Jul 01 j 06:40	15° $\approx$	
morning rise	-8645 Oct 08 j 03:45	5° $\Omega$ 05'39		retrograde	-8639 Aug 06 j 15:05	17° $\approx$ 06'04	
	-8645 Nov 23 j 02:57	15° $\Omega$			-8639 Sep 11 j 18:22	15° $\mathbb{R}$ $\approx$	
retrograde	-8644 Feb 12 j 21:37	23° $\Omega$ 57'17		opposition	-8639 Oct 04 j 18:06	12° $\approx$ 05'39	-1°36'16
opposition	-8644 Apr 14 j 06:23	19° $\Omega$ 00'27	1°23'53	min. Earth dist.	-8639 Oct 04 j 12:57	12° $\approx$ 07'24	4.22044 AU
min. Earth dist.	-8644 Apr 14 j 08:34	18° $\Omega$ 59'45	4.15712 AU	direct	-8639 Dec 03 j 21:20	7° $\approx$ 01'58	
	-8644 May 20 j 22:21	15° $\mathbb{R}$ $\Omega$			-8638 Feb 18 j 11:25	15° $\approx$	
direct	-8644 Jun 13 j 10:31	14° $\Omega$ 07'17		evening set	-8638 Apr 11 j 06:39	25° $\approx$ 41'45	
	-8644 Jul 06 j 21:23	15° $\Omega$					
	-8644 Oct 03 j 10:46	0° $\mathbb{M}$		conjunction	-8638 Apr 24 j 21:17	28° $\approx$ 43'53	-0°42'34
evening set	-8644 Oct 14 j 21:51	2° $\mathbb{M}$ 38'47		minimum elong	-8638 Apr 24 j 21:21	28° $\approx$ 43'55	0°42'54
				max. Earth dist.	-8638 Apr 24 j 19:47	28° $\approx$ 43'03	6.26115 AU
conjunction	-8644 Oct 27 j 17:14	5° $\mathbb{M}$ 38'43	0°31'53		-8638 Apr 30 j 13:25	0° $\mathcal{H}$	
minimum elong	-8644 Oct 27 j 17:17	5° $\mathbb{M}$ 38'45	0°32'10	morning rise	-8638 May 08 j 09:14	1° $\mathcal{H}$ 44'37	
max. Earth dist.	-8644 Oct 28 j 00:13	5° $\mathbb{M}$ 42'49	6.11771 AU	retrograde	-8638 Sep 07 j 15:09	19° $\mathcal{H}$ 29'37	
morning rise	-8644 Nov 09 j 15:17	8° $\mathbb{M}$ 40'13		opposition	-8638 Nov 06 j 00:14	14° $\mathcal{H}$ 33'06	-0°25'57
retrograde	-8643 Mar 20 j 02:41	28° $\mathbb{M}$ 15'33		min. Earth dist.	-8638 Nov 06 j 07:39	14° $\mathcal{H}$ 30'39	4.29677 AU
opposition	-8643 May 20 j 01:53	23° $\mathbb{M}$ 14'45	0°04'40	direct	-8637 Jan 06 j 07:48	9° $\mathcal{H}$ 28'56	
min. Earth dist.	-8643 May 19 j 14:20	23° $\mathbb{M}$ 18'33	4.08539 AU	asc. node	-8637 Mar 17 j 23:47	16° $\mathcal{H}$ 12'04	
desc. node	-8643 Jun 10 j 12:44	20° $\mathbb{M}$ 35'00		evening set	-8637 May 14 j 23:00	27° $\mathcal{H}$ 50'16	
direct	-8643 Jul 18 j 02:06	18° $\mathbb{M}$ 21'44			-8637 May 24 j 17:44	0° $\Upsilon$	
	-8643 Oct 17 j 17:14	0° $\underline{\Omega}$		max. Earth dist.	-8637 May 27 j 08:25	0° $\Upsilon$ 34'47	6.32471 AU
evening set	-8643 Nov 18 j 09:47	7° $\underline{\Omega}$ 10'36					
				conjunction	-8637 May 28 j 06:11	0° $\Upsilon$ 46'51	0°09'28
conjunction	-8643 Dec 01 j 14:10	10° $\underline{\Omega}$ 16'55	-0°25'00	minimum elong	-8637 May 28 j 06:10	0° $\Upsilon$ 46'50	0°09'23

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24

Attention, astronomical year style is used: The year -8637 in astronomical counting style is the year 8638 BCE in historical counting style.

behind sun begin	-8637 May 27 j 23:22	0° $\Upsilon$ 43'05	min. Earth dist.	-8631 May 24 j 13:42	28° $\mathbb{M}$ 22'08	4.08097 AU
behind sun end	-8637 May 28 j 12:57	0° $\Upsilon$ 50'35	direct	-8631 Jul 23 j 00:10	23° $\mathbb{M}$ 24'14	
morning rise	-8637 Jun 10 j 10:05	3° $\Upsilon$ 41'42		-8631 Sep 27 j 05:30	0° $\underline{\mathbf{A}}$	
retrograde	-8637 Oct 09 j 02:08	20° $\Upsilon$ 59'32	evening set	-8631 Nov 23 j 09:58	12° $\underline{\mathbf{A}}$ 14'19	
opposition	-8637 Dec 07 j 22:33	16° $\Upsilon$ 06'11	0°50'13			
min. Earth dist.	-8637 Dec 08 j 17:44	15° $\Upsilon$ 59'56	4.34310 AU	conjunction	-8631 Dec 06 j 15:28	15° $\underline{\mathbf{A}}$ 21'08 -0°32'50
direct	-8636 Feb 08 j 04:22	11° $\Upsilon$ 03'07		minimum elong	-8631 Dec 06 j 15:25	15° $\underline{\mathbf{A}}$ 21'06 0°32'55
evening set	-8636 Jun 15 j 06:46	29° $\Upsilon$ 11'53		max. Earth dist.	-8631 Dec 07 j 19:27	15° $\underline{\mathbf{A}}$ 37'38 6.06195 AU
	-8636 Jun 18 j 21:58	0° $\mathcal{B}$		morning rise	-8631 Dec 20 j 00:30	18° $\underline{\mathbf{A}}$ 29'51
max. Earth dist.	-8636 Jun 26 j 20:29	1° $\mathcal{B}$ 45'38	6.34970 AU		-8630 Feb 11 j 01:39	0° $\mathbb{M}$
				retrograde	-8630 Apr 30 j 18:07	8° $\mathbb{M}$ 30'33
conjunction	-8636 Jun 28 j 04:22	2° $\mathcal{B}$ 03'21	0°57'48	min. Earth dist.	-8630 Jun 29 j 02:03	3° $\mathbb{M}$ 33'47 4.05602 AU
minimum elong	-8636 Jun 28 j 04:18	2° $\mathcal{B}$ 03'19	0°58'02	opposition	-8630 Jun 30 j 00:35	3° $\mathbb{M}$ 26'11 -1°28'01
morning rise	-8636 Jul 10 j 22:29	4° $\mathcal{B}$ 53'11			-8630 Jul 28 j 09:05	30° $\mathcal{R}$ $\underline{\mathbf{A}}$
	-8636 Aug 29 j 07:42	15° $\mathcal{B}$		direct	-8630 Aug 27 j 05:29	28° $\underline{\mathbf{A}}$ 30'55
retrograde	-8636 Nov 08 j 15:11	22° $\mathcal{B}$ 07'43			-8630 Sep 26 j 00:59	0° $\mathbb{M}$
opposition	-8635 Jan 08 j 03:22	17° $\mathcal{B}$ 16'03	1°51'09		-8630 Dec 18 j 13:12	15° $\mathbb{M}$
min. Earth dist.	-8635 Jan 09 j 03:18	17° $\mathcal{B}$ 08'24	4.34637 AU	evening set	-8630 Dec 29 j 16:30	17° $\mathbb{M}$ 34'26
	-8635 Jan 26 j 13:35	15° $\mathcal{R}$ $\mathcal{B}$				
direct	-8635 Mar 11 j 15:35	12° $\mathcal{B}$ 15'29		conjunction	-8629 Jan 12 j 04:58	20° $\mathbb{M}$ 44'06 -1°18'23
	-8635 Apr 24 j 13:05	15° $\mathcal{B}$		minimum elong	-8629 Jan 12 j 04:53	20° $\mathbb{M}$ 44'03 1°18'45
	-8635 Jul 15 j 06:17	0° $\mathbb{I}$		max. Earth dist.	-8629 Jan 13 j 18:55	21° $\mathbb{M}$ 06'19 6.06161 AU
evening set	-8635 Jul 16 j 17:52	0° $\mathbb{I}$ 19'47		morning rise	-8629 Jan 25 j 20:10	23° $\mathbb{M}$ 55'10
max. Earth dist.	-8635 Jul 27 j 20:22	2° $\mathbb{I}$ 48'54	6.32973 AU		-8629 Feb 21 j 17:25	0° $\mathcal{A}$
				retrograde	-8629 Jun 05 j 14:32	13° $\mathcal{A}$ 46'43
conjunction	-8635 Jul 29 j 06:51	3° $\mathbb{I}$ 08'16	1°29'20	min. Earth dist.	-8629 Aug 03 j 05:58	8° $\mathcal{A}$ 49'36 4.08185 AU
minimum elong	-8635 Jul 29 j 06:48	3° $\mathbb{I}$ 08'14	1°29'48	opposition	-8629 Aug 04 j 05:21	8° $\mathcal{A}$ 41'37 -2°15'59
morning rise	-8635 Aug 10 j 17:48	5° $\mathbb{I}$ 55'46		direct	-8629 Oct 01 j 11:22	3° $\mathcal{A}$ 43'05
retrograde	-8635 Dec 11 j 03:03	23° $\mathbb{I}$ 30'01		evening set	-8628 Feb 04 j 14:57	22° $\mathcal{A}$ 49'07
opposition	-8634 Feb 10 j 03:13	18° $\mathbb{I}$ 38'09	2°20'24			
min. Earth dist.	-8634 Feb 11 j 02:40	18° $\mathbb{I}$ 30'43	4.30547 AU	conjunction	-8628 Feb 18 j 07:16	25° $\mathcal{A}$ 58'12 -1°35'05
direct	-8634 Apr 13 j 08:22	13° $\mathbb{I}$ 40'35		minimum elong	-8628 Feb 18 j 07:17	25° $\mathcal{A}$ 58'12 1°35'37
	-8634 Aug 08 j 22:38	0° $\mathcal{E}$		max. Earth dist.	-8628 Feb 19 j 14:59	26° $\mathcal{A}$ 16'29 6.10993 AU
evening set	-8634 Aug 16 j 23:29	1° $\mathcal{E}$ 48'22		morning rise	-8628 Mar 03 j 00:56	29° $\mathcal{A}$ 07'45
max. Earth dist.	-8634 Aug 28 j 06:38	4° $\mathcal{E}$ 22'30	6.27042 AU		-8628 Mar 06 j 20:30	0° $\mathcal{Z}$
				retrograde	-8628 Jul 09 j 02:40	18° $\mathcal{Z}$ 21'50
conjunction	-8634 Aug 29 j 09:09	4° $\mathcal{E}$ 37'37	1°34'59	opposition	-8628 Sep 06 j 07:44	13° $\mathcal{Z}$ 18'28 -2°14'23
minimum elong	-8634 Aug 29 j 09:10	4° $\mathcal{E}$ 37'38	1°35'32	min. Earth dist.	-8628 Sep 05 j 16:03	13° $\mathcal{Z}$ 23'50 4.14799 AU
morning rise	-8634 Sep 10 j 18:22	7° $\mathcal{E}$ 26'48		direct	-8628 Nov 04 j 09:51	8° $\mathcal{Z}$ 16'37
retrograde	-8633 Jan 13 j 19:28	25° $\mathcal{E}$ 38'21		evening set	-8627 Mar 12 j 00:41	27° $\mathcal{Z}$ 12'18
opposition	-8633 Mar 16 j 04:38	20° $\mathcal{E}$ 44'25	2°08'02		-8627 Mar 24 j 09:28	0° $\approx$
min. Earth dist.	-8633 Mar 16 j 18:17	20° $\mathcal{E}$ 40'05	4.23177 AU			
direct	-8633 May 16 j 10:30	15° $\mathcal{E}$ 49'41		conjunction	-8627 Mar 25 j 18:02	0° $\approx$ 18'27 -1°18'02
	-8633 Aug 30 j 11:27	0° $\mathcal{O}$		minimum elong	-8627 Mar 25 j 18:07	0° $\approx$ 18'30 1°18'33
evening set	-8633 Sep 17 j 17:26	4° $\mathcal{O}$ 07'37		max. Earth dist.	-8627 Mar 26 j 10:22	0° $\approx$ 27'43 6.18857 AU
				morning rise	-8627 Apr 08 j 10:16	3° $\approx$ 23'56
conjunction	-8633 Sep 30 j 06:07	7° $\mathcal{O}$ 01'31	1°11'34		-8627 Jun 03 j 14:46	15° $\approx$
minimum elong	-8633 Sep 30 j 06:11	7° $\mathcal{O}$ 01'34	1°12'03	retrograde	-8627 Aug 11 j 04:19	21° $\approx$ 47'52
max. Earth dist.	-8633 Sep 29 j 19:44	6° $\mathcal{O}$ 55'30	6.18893 AU	opposition	-8627 Oct 09 j 07:09	16° $\approx$ 48'02 -1°27'40
morning rise	-8633 Oct 12 j 20:11	9° $\mathcal{O}$ 56'19		min. Earth dist.	-8627 Oct 09 j 03:41	16° $\approx$ 49'12 4.23081 AU
	-8633 Nov 04 j 07:20	15° $\mathcal{O}$			-8627 Oct 22 j 22:59	15° $\mathcal{R}$ $\approx$
retrograde	-8632 Feb 18 j 00:37	28° $\mathcal{O}$ 53'54		direct	-8627 Dec 08 j 13:46	11° $\approx$ 44'11
opposition	-8632 Apr 19 j 08:08	23° $\mathcal{O}$ 56'31	1°13'56		-8626 Jan 24 j 13:08	15° $\approx$
min. Earth dist.	-8632 Apr 19 j 08:53	23° $\mathcal{O}$ 56'16	4.14751 AU		-8626 Apr 14 j 10:42	0° $\mathcal{H}$
direct	-8632 Jun 18 j 09:30	19° $\mathcal{O}$ 03'27		evening set	-8626 Apr 16 j 02:03	0° $\mathcal{H}$ 21'47
	-8632 Sep 15 j 17:39	0° $\mathbb{M}$				
evening set	-8632 Oct 19 j 16:58	7° $\mathbb{M}$ 36'24		conjunction	-8626 Apr 29 j 15:49	3° $\mathcal{H}$ 23'16 -0°35'39
				minimum elong	-8626 Apr 29 j 15:52	3° $\mathcal{H}$ 23'18 0°35'57
conjunction	-8632 Nov 01 j 13:30	10° $\mathbb{M}$ 37'11	0°24'07	max. Earth dist.	-8626 Apr 29 j 09:45	3° $\mathcal{H}$ 19'53 6.26992 AU
minimum elong	-8632 Nov 01 j 13:33	10° $\mathbb{M}$ 37'12	0°24'21	morning rise	-8626 May 13 j 03:02	6° $\mathcal{H}$ 23'18
max. Earth dist.	-8632 Nov 01 j 23:00	10° $\mathbb{M}$ 42'44	6.11038 AU	retrograde	-8626 Sep 12 j 02:12	24° $\mathcal{H}$ 03'55
morning rise	-8632 Nov 14 j 13:05	13° $\mathbb{M}$ 39'39		opposition	-8626 Nov 10 j 12:01	19° $\mathcal{H}$ 07'52 -0°15'05
	-8631 Feb 05 j 22:05	0° $\underline{\mathbf{A}}$		min. Earth dist.	-8626 Nov 10 j 21:43	19° $\mathcal{H}$ 04'40 4.30329 AU
retrograde	-8631 Mar 25 j 05:26	3° $\underline{\mathbf{A}}$ 18'45		direct	-8625 Jan 10 j 23:21	14° $\mathcal{H}$ 03'43
desc. node	-8631 Apr 20 j 07:49	2° $\underline{\mathbf{A}}$ 15'01		asc. node	-8625 Jan 25 j 17:44	14° $\mathcal{H}$ 23'53
	-8631 May 11 j 22:27	30° $\mathcal{R}$ $\mathbb{M}$			-8625 May 08 j 14:22	0° $\Upsilon$
opposition	-8631 May 25 j 04:03	28° $\mathbb{M}$ 17'24	-0°07'35	evening set	-8625 May 19 j 13:51	2° $\Upsilon$ 23'40



## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 25

Attention, astronomical year style is used: The year -8625 in astronomical counting style is the year 8626 BCE in historical counting style.

conjunction	-8625 Jun 01 j 19:58	5°♈19'37	0°16'49	retrograde	-8619 Mar 30 j 07:20	8°♊15'42	
minimum elong	-8625 Jun 01 j 19:57	5°♈19'37	0°16'48	opposition	-8619 May 30 j 03:27	3°♊13'50	-0°19'33
max. Earth dist.	-8625 May 31 j 21:33	5°♈07'11	6.32857 AU	min. Earth dist.	-8619 May 29 j 12:22	3°♊18'50	4.07713 AU
morning rise	-8625 Jun 14 j 22:26	8°♈13'46			-8619 Jun 25 j 21:51	30°♈	
retrograde	-8625 Oct 13 j 12:22	25°♈30'28		direct	-8619 Jul 27 j 21:32	28°♈20'28	
opposition	-8625 Dec 12 j 11:08	20°♈37'28	1°00'11		-8619 Aug 28 j 15:28	0°♊	
min. Earth dist.	-8625 Dec 13 j 06:36	20°♈31'10	4.34426 AU	evening set	-8619 Nov 28 j 08:01	17°♊12'00	
direct	-8624 Feb 12 j 17:25	15°♈34'47					
	-8624 Jun 02 j 15:35	0°♈		conjunction	-8619 Dec 11 j 14:40	20°♊19'22	-0°40'16
evening set	-8624 Jun 19 j 18:51	3°♈43'07		minimum elong	-8619 Dec 11 j 14:36	20°♊19'20	0°40'24
max. Earth dist.	-8624 Jul 01 j 05:13	6°♈15'17	6.34799 AU	max. Earth dist.	-8619 Dec 12 j 20:49	20°♊37'08	6.06038 AU
				morning rise	-8619 Dec 25 j 00:43	23°♊28'35	
conjunction	-8624 Jul 02 j 14:56	6°♈34'03	1°03'33		-8618 Jan 22 j 18:51	0°♋	
minimum elong	-8624 Jul 02 j 14:52	6°♈34'00	1°03'49	retrograde	-8618 May 05 j 18:03	13°♋29'33	
morning rise	-8624 Jul 15 j 08:00	9°♈23'27		opposition	-8618 Jul 04 j 22:14	8°♋25'00	-1°37'08
	-8624 Aug 10 j 09:40	15°♈		min. Earth dist.	-8618 Jul 03 j 23:16	8°♋32'46	4.05715 AU
retrograde	-8624 Nov 13 j 05:47	26°♈39'59		direct	-8618 Sep 01 j 01:20	3°♋29'23	
opposition	-8623 Jan 12 j 18:37	21°♈48'25	1°57'31		-8618 Dec 01 j 00:55	15°♋	
min. Earth dist.	-8623 Jan 13 j 19:19	21°♈40'32	4.34225 AU	evening set	-8617 Jan 03 j 18:08	22°♋34'02	
direct	-8623 Mar 16 j 07:24	16°♈48'16					
	-8623 Jun 28 j 18:39	0°♉		conjunction	-8617 Jan 17 j 07:10	25°♋43'48	-1°22'38
evening set	-8623 Jul 21 j 04:29	4°♉52'50		minimum elong	-8617 Jan 17 j 07:05	25°♋43'45	1°23'04
max. Earth dist.	-8623 Aug 01 j 08:11	7°♉22'53	6.32355 AU	max. Earth dist.	-8617 Jan 18 j 19:19	26°♋04'56	6.06500 AU
				morning rise	-8617 Jan 30 j 23:01	28°♋54'54	
conjunction	-8623 Aug 02 j 16:48	7°♉41'13	1°31'50		-8617 Feb 04 j 15:39	0°♌	
minimum elong	-8623 Aug 02 j 16:45	7°♉41'12	1°32'20	retrograde	-8617 Jun 10 j 10:46	18°♌43'23	
morning rise	-8623 Aug 15 j 02:59	10°♉28'41		min. Earth dist.	-8617 Aug 08 j 01:29	13°♌46'06	4.08729 AU
retrograde	-8623 Dec 15 j 18:35	28°♉07'05		opposition	-8617 Aug 09 j 00:00	13°♌38'23	-2°18'49
opposition	-8622 Feb 14 j 21:38	23°♉15'03	2°21'16	direct	-8617 Oct 06 j 08:13	8°♌39'22	
min. Earth dist.	-8622 Feb 15 j 18:55	23°♉08'18	4.29790 AU	evening set	-8616 Feb 09 j 16:59	27°♌45'32	
direct	-8622 Apr 17 j 23:16	18°♉17'59			-8616 Feb 19 j 11:12	0°♍	
	-8622 Jul 23 j 00:31	0°♍					
evening set	-8622 Aug 21 j 10:30	6°♍26'16		conjunction	-8616 Feb 23 j 09:51	0°♍54'30	-1°34'38
				minimum elong	-8616 Feb 23 j 09:52	0°♍54'30	1°35'10
conjunction	-8622 Sep 02 j 20:05	9°♍15'51	1°33'23	max. Earth dist.	-8616 Feb 24 j 16:54	1°♍12'22	6.11711 AU
minimum elong	-8622 Sep 02 j 20:07	9°♍15'52	1°33'56	morning rise	-8616 Mar 08 j 03:25	4°♍03'43	
max. Earth dist.	-8622 Sep 01 j 19:44	9°♍01'55	6.26204 AU	retrograde	-8616 Jul 13 j 20:21	23°♍12'20	
morning rise	-8622 Sep 15 j 05:36	12°♍05'30		opposition	-8616 Sep 10 j 23:20	18°♍09'26	-2°10'14
	-8621 Jan 03 j 03:44	0°♎		min. Earth dist.	-8616 Sep 10 j 09:24	18°♍14'11	4.15620 AU
retrograde	-8621 Jan 18 j 17:25	0°♎22'22		direct	-8616 Nov 09 j 04:27	13°♍07'16	
	-8621 Feb 03 j 05:55	30°♎			-8615 Mar 07 j 21:57	0°♏	
opposition	-8621 Mar 21 j 02:26	25°♎28'01	2°02'42	evening set	-8615 Mar 17 j 00:19	2°♏01'53	
min. Earth dist.	-8621 Mar 21 j 15:01	25°♎24'01	4.22292 AU				
direct	-8621 May 21 j 06:05	20°♎33'35		conjunction	-8615 Mar 30 j 17:25	5°♏07'38	-1°13'17
	-8621 Aug 12 j 13:36	0°♎		minimum elong	-8615 Mar 30 j 17:31	5°♏07'41	1°13'46
evening set	-8621 Sep 22 j 06:32	8°♎52'12		max. Earth dist.	-8615 Mar 31 j 05:51	5°♏14'40	6.19724 AU
				morning rise	-8615 Apr 13 j 09:26	8°♏12'38	
conjunction	-8621 Oct 04 j 20:03	11°♎46'50	1°06'05		-8615 May 14 j 16:09	15°♏	
minimum elong	-8621 Oct 04 j 20:08	11°♎46'53	1°06'33	retrograde	-8615 Aug 15 j 16:58	26°♏30'55	
max. Earth dist.	-8621 Oct 04 j 12:24	11°♎42'23	6.18048 AU	opposition	-8615 Oct 13 j 20:37	21°♏31'35	-1°18'29
morning rise	-8621 Oct 17 j 11:14	14°♎42'30		min. Earth dist.	-8615 Oct 13 j 18:40	21°♏32'14	4.23919 AU
	-8621 Oct 18 j 17:36	15°♎		direct	-8615 Dec 13 j 06:45	16°♏27'34	
	-8620 Jan 03 j 04:25	0°♏			-8614 Mar 28 j 12:48	0°♐	
retrograde	-8620 Feb 22 j 23:27	3°♏45'08		evening set	-8614 Apr 20 j 21:20	5°♐03'29	
	-8620 Apr 14 j 20:10	30°♏					
opposition	-8620 Apr 24 j 07:32	28°♏47'13	1°03'37	conjunction	-8614 May 04 j 10:24	8°♐04'21	-0°28'28
min. Earth dist.	-8620 Apr 24 j 05:26	28°♏47'54	4.14007 AU	minimum elong	-8614 May 04 j 10:26	8°♐04'22	0°28'45
direct	-8620 Jun 23 j 04:10	23°♏54'17		max. Earth dist.	-8614 May 04 j 02:57	8°♐00'11	6.27769 AU
	-8620 Aug 26 j 07:27	0°♏		morning rise	-8614 May 17 j 20:31	11°♐03'39	
evening set	-8620 Oct 24 j 10:21	12°♏28'20		retrograde	-8614 Sep 16 j 13:29	28°♐40'14	
				opposition	-8614 Nov 15 j 00:36	23°♐44'41	-0°04'03
conjunction	-8620 Nov 06 j 08:02	15°♏29'54	0°16'19	min. Earth dist.	-8614 Nov 15 j 11:34	23°♐41'04	4.30978 AU
minimum elong	-8620 Nov 06 j 08:04	15°♏29'54	0°16'31	asc. node	-8614 Dec 05 j 12:04	21°♐10'28	
max. Earth dist.	-8620 Nov 06 j 20:06	15°♏36'58	6.10454 AU	direct	-8613 Jan 15 j 14:54	18°♐40'41	
morning rise	-8620 Nov 19 j 08:52	18°♏33'12			-8613 Apr 21 j 05:41	0°♑	
	-8619 Jan 11 j 10:51	0°♑		evening set	-8613 May 24 j 04:59	6°♑58'51	
desc. node	-8619 Feb 28 j 20:13	6°♑55'36		max. Earth dist.	-8613 Jun 05 j 08:33	9°♑40'07	6.33319 AU

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 26

Attention, astronomical year style is used: The year -8613 in astronomical counting style is the year 8614 BCE in historical counting style.

conjunction	-8613 Jun 06 j 09:40	9°Υ54'03	0°24'07	minimum elong	-8608 Nov 11 j 04:09	20°Π25'26	0°08'31
minimum elong	-8613 Jun 06 j 09:38	9°Υ54'01	0°24'09	behind sun begin	-8608 Nov 10 j 21:02	20°Π21'16	
morning rise	-8613 Jun 19 j 10:55	12°Υ47'28		behind sun end	-8608 Nov 11 j 11:16	20°Π29'36	
	-8613 Oct 12 j 17:19	0°Ϡ		max. Earth dist.	-8608 Nov 11 j 19:24	20°Π34'23	6.09465 AU
retrograde	-8613 Oct 17 j 23:31	0°Ϡ02'42		morning rise	-8608 Nov 24 j 06:22	23°Π29'48	
	-8613 Oct 23 j 05:21	30°κΥ			-8608 Dec 22 j 23:36	0°Ϡ	
opposition	-8613 Dec 17 j 00:08	25°Υ09'55	1°09'49	desc. node	-8607 Jan 08 j 10:13	3°Ϡ25'32	
min. Earth dist.	-8613 Dec 17 j 20:41	25°Υ03'16	4.34681 AU	retrograde	-8607 Apr 04 j 10:36	13°Ϡ17'01	
direct	-8612 Feb 17 j 08:45	20°Υ07'27		opposition	-8607 Jun 04 j 04:33	8°Ϡ14'42	-0°31'33
	-8612 May 15 j 22:15	0°Ϡ		min. Earth dist.	-8607 Jun 03 j 12:07	8°Ϡ20'10	4.06962 AU
evening set	-8612 Jun 24 j 06:19	8°Ϡ14'30		direct	-8607 Aug 01 j 18:56	3°Ϡ21'08	
max. Earth dist.	-8612 Jul 05 j 16:38	10°Ϡ46'43	6.34808 AU	evening set	-8607 Dec 03 j 09:22	22°Ϡ15'41	
conjunction	-8612 Jul 07 j 01:14	11°Ϡ04'52	1°08'55	conjunction	-8607 Dec 16 j 16:59	25°Ϡ23'42	-0°47'34
minimum elong	-8612 Jul 07 j 01:09	11°Ϡ04'49	1°09'13	minimum elong	-8607 Dec 16 j 16:54	25°Ϡ23'39	0°47'44
morning rise	-8612 Jul 19 j 16:56	13°Ϡ53'43		max. Earth dist.	-8607 Dec 17 j 23:24	25°Ϡ41'37	6.05568 AU
	-8612 Jul 24 j 17:09	15°Ϡ		morning rise	-8607 Dec 30 j 04:13	28°Ϡ33'34	
	-8612 Oct 20 j 23:39	0°Π			-8606 Jan 05 j 08:48	0°Π	
retrograde	-8612 Nov 17 j 17:14	1°Π11'32			-8606 Mar 22 j 23:53	15°Π	
	-8612 Dec 15 j 14:35	30°κϠ		retrograde	-8606 May 10 j 20:12	18°Π35'44	
opposition	-8611 Jan 17 j 09:22	26°Ϡ19'58	2°03'10		-8606 Jun 28 j 19:45	15°κΠ	
min. Earth dist.	-8611 Jan 18 j 09:34	26°Ϡ12'15	4.33981 AU	opposition	-8606 Jul 09 j 22:29	13°Π30'57	-1°45'46
direct	-8611 Mar 20 j 21:32	21°Ϡ20'13		min. Earth dist.	-8606 Jul 08 j 22:50	13°Π38'58	4.05588 AU
	-8611 Jun 10 j 14:21	0°Π		direct	-8606 Sep 06 j 01:13	8°Π34'53	
evening set	-8611 Jul 25 j 14:02	9°Π24'14			-8606 Nov 10 j 02:18	15°Π	
max. Earth dist.	-8611 Aug 05 j 16:24	11°Π53'50	6.31837 AU	evening set	-8605 Jan 08 j 23:48	27°Π41'37	
					-8605 Jan 18 j 21:22	0°Ϡ	
conjunction	-8611 Aug 07 j 01:25	12°Π12'26	1°33'47	conjunction	-8605 Jan 22 j 13:46	0°Ϡ51'38	-1°26'24
minimum elong	-8611 Aug 07 j 01:23	12°Π12'25	1°34'17	minimum elong	-8605 Jan 22 j 13:42	0°Ϡ51'36	1°26'52
morning rise	-8611 Aug 19 j 11:14	14°Π59'54		max. Earth dist.	-8605 Jan 24 j 03:25	1°Ϡ13'38	6.06731 AU
	-8611 Nov 07 j 19:13	0°Ϡ		morning rise	-8605 Feb 05 j 05:59	4°Ϡ02'47	
retrograde	-8611 Dec 20 j 11:23	2°Ϡ42'16		retrograde	-8605 Jun 15 j 12:04	23°Ϡ48'01	
	-8610 Feb 01 j 21:11	30°κΠ		opposition	-8605 Aug 13 j 22:00	18°Ϡ43'15	-2°20'43
opposition	-8610 Feb 19 j 15:21	27°Π49'57	2°21'16	min. Earth dist.	-8605 Aug 13 j 00:32	18°Ϡ50'35	4.09312 AU
min. Earth dist.	-8610 Feb 20 j 12:28	27°Π43'15	4.29012 AU	direct	-8605 Oct 11 j 08:05	13°Ϡ43'49	
direct	-8610 Apr 22 j 15:50	22°Π53'11			-8604 Feb 02 j 10:49	0°Ϡ	
	-8610 Jul 03 j 19:53	0°Ϡ		evening set	-8604 Feb 14 j 23:00	2°Ϡ49'51	
evening set	-8610 Aug 25 j 20:23	11°Ϡ02'04					
max. Earth dist.	-8610 Sep 06 j 08:22	13°Ϡ39'35	6.25230 AU				
conjunction	-8610 Sep 07 j 06:16	13°Ϡ52'07	1°31'14	conjunction	-8604 Feb 28 j 16:03	5°Ϡ58'33	-1°33'29
minimum elong	-8610 Sep 07 j 06:19	13°Ϡ52'08	1°31'47	minimum elong	-8604 Feb 28 j 16:05	5°Ϡ58'34	1°34'03
morning rise	-8610 Sep 19 j 16:06	16°Ϡ42'20		max. Earth dist.	-8604 Feb 29 j 20:53	6°Ϡ15'06	6.12607 AU
	-8610 Nov 24 j 17:08	0°Ϡ		morning rise	-8604 Mar 13 j 09:49	9°Ϡ07'26	
retrograde	-8609 Jan 23 j 12:47	5°Ϡ04'56		retrograde	-8604 Jul 18 j 14:30	28°Ϡ09'29	
opposition	-8609 Mar 25 j 23:11	0°Ϡ10'10	1°56'38	opposition	-8604 Sep 15 j 17:52	23°Ϡ07'02	-2°05'04
min. Earth dist.	-8609 Mar 26 j 09:43	0°Ϡ06'48	4.21180 AU	min. Earth dist.	-8604 Sep 15 j 04:20	23°Ϡ11'39	4.16768 AU
	-8609 Mar 27 j 07:03	30°κϠ		direct	-8604 Nov 14 j 01:52	18°Ϡ04'35	
direct	-8609 May 25 j 22:24	25°Ϡ16'00			-8603 Feb 18 j 01:35	0°≈	
	-8609 Jul 21 j 17:22	0°Ϡ		evening set	-8603 Mar 22 j 02:22	6°≈56'40	
evening set	-8609 Sep 26 j 19:50	13°Ϡ36'22					
	-8609 Oct 02 j 20:13	15°Ϡ		conjunction	-8603 Apr 04 j 19:11	10°≈01'45	-1°07'59
conjunction	-8609 Oct 09 j 10:13	16°Ϡ31'54	1°00'12	minimum elong	-8603 Apr 04 j 19:16	10°≈01'48	1°08'26
minimum elong	-8609 Oct 09 j 10:17	16°Ϡ31'56	1°00'37	max. Earth dist.	-8603 Apr 05 j 06:01	10°≈07'51	6.21086 AU
max. Earth dist.	-8609 Oct 09 j 04:19	16°Ϡ28'28	6.16897 AU	morning rise	-8603 Apr 18 j 10:31	13°≈05'55	
morning rise	-8609 Oct 22 j 02:38	19°Ϡ28'36			-8603 Apr 26 j 23:40	15°≈	
	-8609 Dec 09 j 23:34	0°Π		retrograde	-8603 Jul 23 j 04:32	0°Ϡ	
retrograde	-8608 Feb 28 j 00:58	8°Π37'32			-8603 Aug 20 j 07:42	1°Ϡ16'40	
opposition	-8608 Apr 29 j 07:15	3°Π39'01	0°52'50	opposition	-8603 Sep 17 j 05:41	30°κ≈	
min. Earth dist.	-8608 Apr 29 j 03:47	3°Π40'08	4.12877 AU	min. Earth dist.	-8603 Oct 18 j 11:38	26°≈17'54	-1°08'43
	-8608 May 31 j 04:24	30°κϠ		direct	-8603 Oct 18 j 11:32	26°≈17'56	4.25369 AU
direct	-8608 Jun 28 j 00:15	28°Ϡ46'03			-8603 Dec 18 j 02:48	21°≈13'53	
	-8608 Jul 25 j 14:52	0°Π		evening set	-8602 Mar 09 j 15:20	0°Ϡ	
evening set	-8608 Oct 29 j 05:02	17°Π22'50			-8602 Apr 25 j 17:06	9°Ϡ45'39	
conjunction	-8608 Nov 11 j 04:09	20°Π25'26	0°08'21	conjunction	-8602 May 09 j 05:08	12°Ϡ45'31	-0°21'08
				minimum elong	-8602 May 09 j 05:10	12°Ϡ45'32	0°21'22
				max. Earth dist.	-8602 May 08 j 19:19	12°Ϡ40'04	6.29210 AU

Attention, astronomical year style is used: The year -8602 in astronomical counting style is the year 8603 BCE in historical counting style.

morning rise	-8602 May 22 j 14:06	15° $\text{X}$ 43'46		max. Earth dist.	-8597 Oct 13 j 18:38	21° $\Omega$ 08'45	6.15340 AU
	-8602 Aug 06 j 00:11	0° $\Upsilon$		morning rise	-8597 Oct 26 j 15:18	24° $\Omega$ 08'28	
retrograde	-8602 Sep 20 j 22:25	3° $\Upsilon$ 14'14			-8597 Nov 21 j 14:39	0° $\text{M}$	
asc. node	-8602 Oct 15 j 21:04	2° $\Upsilon$ 14'06		retrograde	-8596 Mar 04 j 00:37	13° $\text{M}$ 25'20	
	-8602 Nov 06 j 11:14	30° $\text{R}$ $\text{X}$		opposition	-8596 May 04 j 04:32	8° $\text{M}$ 26'21	0°41'59
opposition	-8602 Nov 19 j 12:35	28° $\text{X}$ 19'07	0°06'49	min. Earth dist.	-8596 May 03 j 23:42	8° $\text{M}$ 27'55	4.11324 AU
min. Earth dist.	-8602 Nov 20 j 00:27	28° $\text{X}$ 15'12	4.32305 AU	direct	-8596 Jul 02 j 16:28	3° $\text{M}$ 33'28	
direct	-8601 Jan 20 j 06:25	23° $\text{X}$ 15'15		evening set	-8596 Nov 02 j 22:58	22° $\text{M}$ 14'57	
	-8601 Apr 01 j 10:04	0° $\Upsilon$					
evening set	-8601 May 28 j 18:00	11° $\Upsilon$ 29'18		conjunction	-8596 Nov 15 j 23:16	25° $\text{M}$ 18'44	0°00'26
				minimum elong	-8596 Nov 15 j 23:17	25° $\text{M}$ 18'44	0°00'33
conjunction	-8601 Jun 10 j 21:15	14° $\Upsilon$ 23'26	0°31'06	behind sun begin	-8596 Nov 15 j 15:09	25° $\text{M}$ 13'57	
minimum elong	-8601 Jun 10 j 21:12	14° $\Upsilon$ 23'25	0°31'10	behind sun end	-8596 Nov 16 j 07:26	25° $\text{M}$ 23'31	
max. Earth dist.	-8601 Jun 09 j 19:21	14° $\Upsilon$ 09'05	6.34431 AU	max. Earth dist.	-8596 Nov 16 j 15:37	25° $\text{M}$ 28'21	6.08059 AU
morning rise	-8601 Jun 23 j 20:57	17° $\Upsilon$ 15'48		desc. node	-8596 Nov 18 j 21:39	26° $\text{M}$ 00'13	
	-8601 Aug 28 j 07:42	0° $\text{X}$		morning rise	-8596 Nov 29 j 03:08	28° $\text{M}$ 24'25	
retrograde	-8601 Oct 22 j 07:17	4° $\text{X}$ 27'52			-8596 Dec 05 j 23:23	0° $\Omega$	
	-8601 Dec 18 j 06:19	30° $\text{R}$ $\Upsilon$		retrograde	-8595 Apr 09 j 12:34	18° $\Omega$ 17'54	
opposition	-8601 Dec 21 j 10:46	29° $\Upsilon$ 35'24	1°18'42	min. Earth dist.	-8595 Jun 08 j 10:09	13° $\Omega$ 21'14	4.05852 AU
min. Earth dist.	-8601 Dec 22 j 08:32	29° $\Upsilon$ 28'23	4.35496 AU	opposition	-8595 Jun 09 j 04:32	13° $\Omega$ 15'06	-0°43'11
direct	-8600 Feb 21 j 22:07	24° $\Upsilon$ 33'17		direct	-8595 Aug 06 j 15:30	8° $\Omega$ 21'16	
	-8600 Apr 25 j 08:19	0° $\text{X}$		evening set	-8595 Dec 08 j 11:00	27° $\Omega$ 20'21	
evening set	-8600 Jun 28 j 14:05	12° $\text{X}$ 37'17			-8595 Dec 19 j 18:26	0° $\text{M}$	
	-8600 Jul 09 j 07:16	15° $\text{X}$					
max. Earth dist.	-8600 Jul 09 j 20:49	15° $\text{X}$ 07'33	6.35229 AU	conjunction	-8595 Dec 21 j 19:57	0° $\text{M}$ 29'12	-0°54'26
				minimum elong	-8595 Dec 21 j 19:52	0° $\text{M}$ 29'09	0°54'38
conjunction	-8600 Jul 11 j 07:34	15° $\text{X}$ 26'53	1°13'40	max. Earth dist.	-8595 Dec 23 j 05:59	0° $\text{M}$ 49'16	6.04862 AU
minimum elong	-8600 Jul 11 j 07:29	15° $\text{X}$ 26'51	1°14'01	morning rise	-8594 Jan 04 j 08:07	3° $\text{M}$ 39'48	
morning rise	-8600 Jul 23 j 22:13	18° $\text{X}$ 15'06			-8594 Feb 25 j 11:09	15° $\text{M}$	
	-8600 Sep 20 j 18:02	0° $\text{II}$		retrograde	-8594 May 16 j 01:03	23° $\text{M}$ 43'34	
retrograde	-8600 Nov 22 j 01:50	5° $\text{II}$ 33'22		opposition	-8594 Jul 14 j 22:59	18° $\text{M}$ 38'36	-1°53'32
opposition	-8599 Jan 21 j 20:21	0° $\text{II}$ 41'48	2°07'51	min. Earth dist.	-8594 Jul 13 j 23:18	18° $\text{M}$ 46'38	4.05381 AU
min. Earth dist.	-8599 Jan 22 j 21:08	0° $\text{II}$ 33'55	4.33994 AU		-8594 Aug 14 j 07:11	15° $\text{R}$ $\text{M}$	
	-8599 Jan 27 j 08:05	30° $\text{R}$ $\text{X}$		direct	-8594 Sep 11 j 01:35	13° $\text{M}$ 42'05	
direct	-8599 Mar 25 j 08:38	25° $\text{X}$ 42'23			-8594 Oct 08 j 21:05	15° $\text{M}$	
	-8599 May 19 j 20:19	0° $\text{II}$			-8593 Jan 01 j 20:49	0° $\text{X}$	
evening set	-8599 Jul 29 j 19:11	13° $\text{II}$ 45'23		evening set	-8593 Jan 14 j 06:10	2° $\text{X}$ 50'54	
max. Earth dist.	-8599 Aug 09 j 22:17	16° $\text{II}$ 15'32	6.31429 AU				
				conjunction	-8593 Jan 27 j 20:41	6° $\text{X}$ 01'02	-1°29'28
conjunction	-8599 Aug 11 j 06:04	16° $\text{II}$ 33'28	1°35'06	minimum elong	-8593 Jan 27 j 20:37	6° $\text{X}$ 01'00	1°29'56
minimum elong	-8599 Aug 11 j 06:03	16° $\text{II}$ 33'27	1°35'37	max. Earth dist.	-8593 Jan 29 j 10:10	6° $\text{X}$ 22'53	6.07007 AU
morning rise	-8599 Aug 23 j 15:17	19° $\text{II}$ 20'53		morning rise	-8593 Feb 10 j 13:32	9° $\text{X}$ 12'14	
	-8599 Oct 14 j 03:23	0° $\text{X}$		retrograde	-8593 Jun 20 j 10:08	28° $\text{X}$ 53'21	
retrograde	-8599 Dec 24 j 22:38	7° $\text{X}$ 07'08		opposition	-8593 Aug 18 j 19:42	23° $\text{X}$ 48'39	-2°21'29
opposition	-8598 Feb 24 j 04:32	2° $\text{X}$ 14'39	2°20'26	min. Earth dist.	-8593 Aug 17 j 21:41	23° $\text{X}$ 56'11	4.10046 AU
min. Earth dist.	-8598 Feb 25 j 01:18	2° $\text{X}$ 08'05	4.28205 AU	direct	-8593 Oct 16 j 07:13	18° $\text{X}$ 48'41	
	-8598 Mar 14 j 13:37	30° $\text{R}$ $\text{II}$			-8592 Jan 15 j 04:23	0° $\text{X}$	
direct	-8598 Apr 27 j 02:28	27° $\text{II}$ 18'17		evening set	-8592 Feb 20 j 04:37	7° $\text{X}$ 53'32	
	-8598 Jun 08 j 21:49	0° $\text{X}$					
evening set	-8598 Aug 30 j 02:23	15° $\text{X}$ 28'18		conjunction	-8592 Mar 04 j 21:54	11° $\text{X}$ 01'50	-1°31'38
				minimum elong	-8592 Mar 04 j 21:57	11° $\text{X}$ 01'51	1°32'12
conjunction	-8598 Sep 11 j 12:24	18° $\text{X}$ 18'55	1°28'37	max. Earth dist.	-8592 Mar 06 j 01:23	11° $\text{X}$ 17'35	6.13713 AU
minimum elong	-8598 Sep 11 j 12:27	18° $\text{X}$ 18'57	1°29'11	morning rise	-8592 Mar 18 j 15:29	14° $\text{X}$ 10'07	
max. Earth dist.	-8598 Sep 10 j 14:02	18° $\text{X}$ 06'05	6.24082 AU		-8592 Jun 08 j 22:17	0° $\approx$	
morning rise	-8598 Sep 23 j 22:56	21° $\text{X}$ 09'54		retrograde	-8592 Jul 23 j 08:58	3° $\approx$ 04'31	
	-8598 Nov 03 j 20:26	0° $\Omega$			-8592 Sep 05 j 16:11	30° $\text{R}$ $\text{X}$	
retrograde	-8597 Jan 28 j 06:48	9° $\Omega$ 39'20		opposition	-8592 Sep 20 j 11:30	28° $\text{X}$ 02'26	-1°59'03
opposition	-8597 Mar 30 j 16:20	4° $\Omega$ 44'07	1°50'04	min. Earth dist.	-8592 Sep 20 j 00:15	28° $\text{X}$ 06'15	4.18076 AU
min. Earth dist.	-8597 Mar 31 j 01:56	4° $\Omega$ 41'03	4.19751 AU	direct	-8592 Nov 19 j 00:54	22° $\text{X}$ 59'35	
	-8597 May 20 j 07:51	30° $\text{R}$ $\text{X}$			-8591 Jan 28 j 15:17	0° $\approx$	
direct	-8597 May 30 j 11:27	29° $\text{X}$ 50'08		evening set	-8591 Mar 27 j 02:56	11° $\approx$ 48'15	
	-8597 Jun 09 j 14:33	0° $\Omega$					
	-8597 Sep 17 j 03:14	15° $\Omega$		conjunction	-8591 Apr 09 j 19:25	14° $\approx$ 52'36	-1°02'14
evening set	-8597 Oct 01 j 06:04	18° $\Omega$ 13'50		minimum elong	-8591 Apr 09 j 19:30	14° $\approx$ 52'39	1°02'41
				max. Earth dist.	-8591 Apr 10 j 04:00	14° $\approx$ 57'25	6.22470 AU
conjunction	-8597 Oct 13 j 21:41	21° $\Omega$ 10'31	0°54'06		-8591 Apr 10 j 08:34	15° $\approx$	
minimum elong	-8597 Oct 13 j 21:45	21° $\Omega$ 10'34	0°54'30	morning rise	-8591 Apr 23 j 10:02	17° $\approx$ 55'54	

Attention, astronomical year style is used: The year -8591 in astronomical counting style is the year 8592 BCE in historical counting style.

	-8591 Jun 21 j 22:00	0°♈	opposition	-8585 Apr 04 j 15:50	9°♏32'56	1°42'24
retrograde	-8591 Aug 24 j 19:10	5°♈59'11	min. Earth dist.	-8585 Apr 04 j 23:50	9°♏30'23	4.18379 AU
opposition	-8591 Oct 23 j 01:28	1°♈00'54 -0°58'35	direct	-8585 Jun 04 j 06:25	4°♏39'19	
min. Earth dist.	-8591 Oct 23 j 02:22	1°♈00'36 4.26675 AU		-8585 Aug 30 j 09:35	15°♏	
	-8591 Oct 30 j 16:47	30°♈	evening set	-8585 Oct 05 j 22:43	23°♏05'51	
direct	-8591 Dec 22 j 20:16	25°♈56'45				
	-8590 Feb 14 j 01:34	0°♈	conjunction	-8585 Oct 18 j 15:19	26°♏03'35	0°47'19
evening set	-8590 Apr 30 j 11:27	14°♈25'00	minimum elong	-8585 Oct 18 j 15:23	26°♏03'37	0°47'41
			max. Earth dist.	-8585 Oct 18 j 14:03	26°♏02'50	6.14089 AU
conjunction	-8590 May 13 j 22:19	17°♈23'56 -0°13'42	morning rise	-8585 Oct 31 j 10:27	29°♏02'44	
minimum elong	-8590 May 13 j 22:21	17°♈23'57 0°13'53		-8585 Nov 04 j 13:24	0°♐	
behind sun begin	-8590 May 13 j 18:14	17°♈21'41	retrograde	-8584 Mar 09 j 03:22	18°♐26'02	
behind sun end	-8590 May 14 j 02:27	17°♈26'13	opposition	-8584 May 09 j 06:58	13°♐26'29	0°30'15
max. Earth dist.	-8590 May 13 j 09:21	17°♈16'44 6.30335 AU	min. Earth dist.	-8584 May 08 j 23:01	13°♐29'05	4.10317 AU
morning rise	-8590 May 27 j 06:08	20°♈21'14	direct	-8584 Jul 07 j 14:19	8°♐33'39	
	-8590 Jul 12 j 22:56	0°♐	desc. node	-8584 Sep 27 j 16:46	18°♐08'32	
asc. node	-8590 Aug 25 j 11:18	6°♐16'17	evening set	-8584 Nov 07 j 21:31	27°♐17'43	
retrograde	-8590 Sep 25 j 09:28	7°♐47'06		-8584 Nov 19 j 09:20	0°♑	
opposition	-8590 Nov 24 j 00:43	2°♐52'27 0°17'41				
min. Earth dist.	-8590 Nov 24 j 15:07	2°♐47'44 4.33151 AU	conjunction	-8584 Nov 20 j 23:17	0°♑22'23	-0°07'50
	-8590 Dec 17 j 09:59	30°♐	minimum elong	-8584 Nov 20 j 23:16	0°♑22'23	0°07'47
direct	-8589 Jan 24 j 23:10	27°♐48'43	behind sun begin	-8584 Nov 20 j 15:54	0°♑18'03	
	-8589 Mar 04 j 18:42	0°♐	behind sun end	-8584 Nov 21 j 06:38	0°♑26'42	
evening set	-8589 Jun 02 j 07:10	16°♐00'22	max. Earth dist.	-8584 Nov 21 j 20:19	0°♑34'48	6.07419 AU
max. Earth dist.	-8589 Jun 14 j 05:04	18°♐38'12 6.34913 AU	morning rise	-8584 Dec 04 j 04:18	3°♑28'54	
			retrograde	-8583 Apr 14 j 18:24	23°♑25'11	
conjunction	-8589 Jun 15 j 09:04	18°♐53'43 0°38'00	min. Earth dist.	-8583 Jun 13 j 11:57	18°♑28'26	4.05664 AU
minimum elong	-8589 Jun 15 j 09:01	18°♐53'41 0°38'06	opposition	-8583 Jun 14 j 07:13	18°♑22'00	-0°54'47
morning rise	-8589 Jun 28 j 07:24	21°♐45'18	direct	-8583 Aug 11 j 16:58	13°♑27'56	
	-8589 Aug 06 j 17:55	0°♒		-8583 Dec 02 j 23:36	0°♒	
retrograde	-8589 Oct 26 j 16:43	8°♒56'31	evening set	-8583 Dec 13 j 14:36	2°♒28'05	
opposition	-8589 Dec 25 j 23:07	4°♒04'16 1°27'22				
min. Earth dist.	-8589 Dec 26 j 21:24	3°♒57'05 4.35612 AU	conjunction	-8583 Dec 27 j 00:18	5°♒37'10	-1°00'58
	-8588 Feb 01 j 02:25	30°♒	minimum elong	-8583 Dec 27 j 00:13	5°♒37'07	1°01'14
direct	-8588 Feb 26 j 11:03	29°♒02'26	max. Earth dist.	-8583 Dec 28 j 11:03	5°♒57'37	6.05116 AU
	-8588 Mar 22 j 23:51	0°♒	morning rise	-8582 Jan 09 j 13:25	8°♒47'58	
	-8588 Jun 23 j 10:46	15°♒		-8582 Feb 05 j 20:27	15°♒	
evening set	-8588 Jul 03 j 00:13	17°♒05'46	retrograde	-8582 May 21 j 00:51	28°♒49'12	
max. Earth dist.	-8588 Jul 14 j 06:00	19°♒35'41 6.34960 AU	opposition	-8582 Jul 19 j 22:08	23°♒44'07	-2°00'21
			min. Earth dist.	-8582 Jul 18 j 21:14	23°♒52'35	4.06082 AU
conjunction	-8588 Jul 15 j 16:31	19°♒54'57 1°18'10	direct	-8582 Sep 16 j 00:29	18°♒47'08	
minimum elong	-8588 Jul 15 j 16:27	19°♒54'54 1°18'33		-8582 Dec 14 j 21:30	0°♓	
morning rise	-8588 Jul 28 j 06:02	22°♒42'48	evening set	-8581 Jan 19 j 10:46	7°♓54'58	
	-8588 Aug 31 j 12:38	0°♓				
retrograde	-8588 Nov 26 j 15:24	10°♓03'50	conjunction	-8581 Feb 02 j 01:47	11°♓04'48	-1°31'49
opposition	-8587 Jan 26 j 11:26	5°♓12'20 2°12'03	minimum elong	-8581 Feb 02 j 01:45	11°♓04'46	1°32'19
min. Earth dist.	-8587 Jan 27 j 12:45	5°♓04'17 4.33364 AU	max. Earth dist.	-8581 Feb 03 j 14:40	11°♓26'15	6.08065 AU
direct	-8587 Mar 29 j 23:10	0°♓13'22	morning rise	-8581 Feb 15 j 18:46	14°♓15'33	
evening set	-8587 Aug 03 j 04:37	18°♓17'10		-8581 May 06 j 03:06	0°♔	
max. Earth dist.	-8587 Aug 14 j 06:32	20°♓47'05 6.30472 AU	retrograde	-8581 Jun 25 j 06:00	3°♔49'55	
				-8581 Aug 14 j 09:48	30°♔	
conjunction	-8587 Aug 15 j 14:55	21°♓05'24 1°35'57	opposition	-8581 Aug 23 j 13:56	28°♔45'27	-2°21'10
minimum elong	-8587 Aug 15 j 14:54	21°♓05'23 1°36'28	min. Earth dist.	-8581 Aug 22 j 18:04	28°♔52'15	4.11336 AU
morning rise	-8587 Aug 28 j 00:04	23°♓53'08	direct	-8581 Oct 21 j 05:27	23°♔45'01	
	-8587 Sep 25 j 01:12	0°♕		-8581 Dec 25 j 08:17	0°♕	
retrograde	-8587 Dec 29 j 17:03	11°♕45'11	evening set	-8580 Feb 25 j 05:51	12°♕47'02	
opposition	-8586 Feb 28 j 23:43	6°♕52'25 2°18'46				
min. Earth dist.	-8586 Mar 01 j 19:01	6°♕46'17 4.26992 AU	conjunction	-8580 Mar 09 j 23:17	15°♕54'47	-1°29'13
direct	-8586 May 01 j 17:53	1°♕56'25	minimum elong	-8580 Mar 09 j 23:20	15°♕54'49	1°29'45
evening set	-8586 Sep 03 j 14:00	20°♕08'38	max. Earth dist.	-8580 Mar 11 j 00:52	16°♕09'23	6.15116 AU
max. Earth dist.	-8586 Sep 15 j 05:44	22°♕49'09 6.22738 AU	morning rise	-8580 Mar 23 j 16:36	19°♕02'20	
				-8580 May 14 j 18:23	0°♖	
conjunction	-8586 Sep 16 j 00:38	23°♕00'01 1°25'20	retrograde	-8580 Jul 27 j 21:25	7°♖48'43	
minimum elong	-8586 Sep 16 j 00:41	23°♕00'04 1°25'51	opposition	-8580 Sep 25 j 00:50	2°♖47'09	-1°52'27
morning rise	-8586 Sep 28 j 11:42	25°♕51'52	min. Earth dist.	-8580 Sep 24 j 14:44	2°♖50'35	4.19451 AU
	-8586 Oct 16 j 21:06	0°♗		-8580 Oct 16 j 20:08	30°♗	
retrograde	-8585 Feb 02 j 07:12	14°♗28'31	direct	-8580 Nov 23 j 17:31	27°♗44'02	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 29

Attention, astronomical year style is used: The year -8579 in astronomical counting style is the year 8580 BCE in historical counting style.

	-8579 Jan 01 j 03:17	0°♊		morning rise	-8574 Oct 03 j 02:30	0°♏38'42	
	-8579 Mar 25 j 05:25	15°♊			-8574 Dec 14 j 04:59	15°♏	
evening set	-8579 Mar 31 j 22:53	16°♊29'32		retrograde	-8573 Feb 07 j 07:20	19°♏21'54	
					-8573 Apr 05 j 05:42	15°♏	
conjunction	-8579 Apr 14 j 14:43	19°♊33'09	-0°56'19	opposition	-8573 Apr 09 j 16:47	14°♏25'41	1°33'52
minimum elong	-8579 Apr 14 j 14:48	19°♊33'12	0°56'44	min. Earth dist.	-8573 Apr 09 j 21:21	14°♏24'13	4.17247 AU
max. Earth dist.	-8579 Apr 14 j 18:34	19°♊35'19	6.23709 AU	direct	-8573 Jun 09 j 02:22	9°♏32'15	
morning rise	-8579 Apr 28 j 04:44	22°♊35'40			-8573 Aug 08 j 23:30	15°♏	
	-8579 Jun 01 j 18:39	0°♋		evening set	-8573 Oct 10 j 16:12	28°♏00'27	
retrograde	-8579 Aug 29 j 05:44	10°♋32'51			-8573 Oct 19 j 05:08	0°♐	
opposition	-8579 Oct 27 j 11:56	5°♋35'08	-0°48'29				
min. Earth dist.	-8579 Oct 27 j 16:05	5°♋33'45	4.27663 AU	conjunction	-8573 Oct 23 j 10:05	0°♐59'07	0°40'07
direct	-8579 Dec 27 j 12:13	0°♋30'54		minimum elong	-8573 Oct 23 j 10:08	0°♐59'09	0°40'27
evening set	-8578 May 05 j 02:14	18°♋57'01		max. Earth dist.	-8573 Oct 23 j 13:38	1°♐01'11	6.13171 AU
				morning rise	-8573 Nov 05 j 06:23	3°♐59'13	
conjunction	-8578 May 18 j 12:13	21°♋55'18	-0°06'26	retrograde	-8572 Mar 14 j 08:05	23°♐27'21	
minimum elong	-8578 May 18 j 12:14	21°♋55'19	0°06'35	opposition	-8572 May 14 j 09:33	18°♐27'13	0°18'15
behind sun begin	-8578 May 18 j 04:34	21°♋51'05		min. Earth dist.	-8572 May 14 j 00:19	18°♐30'14	4.09671 AU
behind sun end	-8578 May 18 j 19:54	21°♋59'33		direct	-8572 Jul 12 j 14:24	13°♐34'18	
max. Earth dist.	-8578 May 17 j 21:08	21°♋46'57	6.31000 AU	desc. node	-8572 Aug 06 j 22:21	14°♐37'45	
morning rise	-8578 May 31 j 18:46	24°♋51'51			-8572 Nov 02 j 20:04	0°♑	
	-8578 Jun 24 j 14:54	0°♑		evening set	-8572 Nov 12 j 20:18	2°♑19'41	
asc. node	-8578 Jul 05 j 20:47	2°♑17'08					
retrograde	-8578 Sep 29 j 17:01	12°♑15'06		conjunction	-8572 Nov 25 j 23:06	5°♑24'58	-0°15'57
opposition	-8578 Nov 28 j 10:38	7°♑20'52	0°28'10	minimum elong	-8572 Nov 25 j 23:05	5°♑24'57	0°15'55
min. Earth dist.	-8578 Nov 29 j 01:52	7°♑15'54	4.33467 AU	behind sun begin	-8572 Nov 25 j 21:56	5°♑24'17	
direct	-8577 Jan 29 j 10:22	2°♑17'20		behind sun end	-8572 Nov 26 j 00:14	5°♑25'38	
evening set	-8577 Jun 06 j 18:36	20°♑28'30		max. Earth dist.	-8572 Nov 26 j 21:46	5°♑38'19	6.07083 AU
				morning rise	-8572 Dec 09 j 05:32	8°♑32'12	
conjunction	-8577 Jun 19 j 19:04	23°♑21'18	0°44'31	retrograde	-8571 Apr 19 j 20:29	28°♑29'47	
minimum elong	-8577 Jun 19 j 19:01	23°♑21'15	0°44'41	min. Earth dist.	-8571 Jun 18 j 10:53	23°♑33'21	4.05692 AU
max. Earth dist.	-8577 Jun 18 j 12:50	23°♑04'31	6.34849 AU	opposition	-8571 Jun 19 j 08:15	23°♑26'12	-1°05'54
morning rise	-8577 Jul 02 j 16:13	26°♑12'24		direct	-8571 Aug 16 j 15:17	18°♑31'48	
	-8577 Jul 20 j 03:43	0°♒			-8571 Nov 15 j 06:16	0°♒	
retrograde	-8577 Oct 31 j 04:42	13°♒24'49		evening set	-8571 Dec 18 j 17:20	7°♒32'36	
opposition	-8577 Dec 30 j 11:33	8°♒32'49	1°35'26				
min. Earth dist.	-8577 Dec 31 j 11:30	8°♒25'08	4.35195 AU	conjunction	-8570 Jan 01 j 03:57	10°♒41'52	-1°07'02
direct	-8576 Mar 02 j 00:47	3°♒31'21		minimum elong	-8570 Jan 01 j 03:52	10°♒41'49	1°07'21
	-8576 Jun 06 j 13:08	15°♒		max. Earth dist.	-8570 Jan 02 j 15:54	11°♒02'59	6.05484 AU
evening set	-8576 Jul 07 j 10:04	21°♒35'34		morning rise	-8570 Jan 14 j 17:41	13°♒52'43	
max. Earth dist.	-8576 Jul 18 j 14:28	24°♒05'04	6.34201 AU		-8570 Jan 19 j 13:34	15°♒	
					-8570 Apr 05 j 11:39	0°♓	
conjunction	-8576 Jul 20 j 01:22	24°♒24'35	1°22'10	retrograde	-8570 May 26 j 00:59	3°♓51'10	
minimum elong	-8576 Jul 20 j 01:18	24°♒24'33	1°22'34		-8570 Jul 15 j 16:32	30°♓	
morning rise	-8576 Aug 01 j 14:02	27°♒12'22		opposition	-8570 Jul 24 j 20:00	28°♓45'59	-2°06'16
	-8576 Aug 14 j 06:55	0°♐		min. Earth dist.	-8570 Jul 23 j 20:13	28°♓54'06	4.06762 AU
retrograde	-8576 Dec 01 j 05:53	14°♐37'50		direct	-8570 Sep 21 j 00:06	23°♓48'33	
opposition	-8575 Jan 31 j 03:50	9°♐46'13	2°15'28		-8570 Nov 23 j 23:13	0°♓	
min. Earth dist.	-8575 Feb 01 j 03:43	9°♐38'38	4.32354 AU	evening set	-8569 Jan 24 j 14:14	12°♓55'36	
direct	-8575 Apr 03 j 12:24	4°♐47'41					
evening set	-8575 Aug 07 j 15:20	22°♐53'18		conjunction	-8569 Feb 07 j 05:46	16°♓05'14	-1°33'32
max. Earth dist.	-8575 Aug 18 j 19:39	25°♐24'59	6.29295 AU	minimum elong	-8569 Feb 07 j 05:44	16°♓05'13	1°34'03
				max. Earth dist.	-8569 Feb 08 j 18:16	16°♓26'24	6.08991 AU
conjunction	-8575 Aug 20 j 01:21	25°♐41'50	1°36'10	morning rise	-8569 Feb 20 j 22:57	19°♓15'36	
minimum elong	-8575 Aug 20 j 01:21	25°♐41'50	1°36'43		-8569 Apr 11 j 21:26	0°♔	
morning rise	-8575 Sep 01 j 10:19	28°♐29'59		retrograde	-8569 Jun 30 j 00:02	8°♔43'46	
	-8575 Sep 08 j 02:48	0°♕		opposition	-8569 Aug 28 j 07:19	3°♔39'39	-2°19'57
retrograde	-8574 Jan 03 j 14:22	16°♕28'20		min. Earth dist.	-8569 Aug 27 j 12:04	3°♔46'14	4.12433 AU
opposition	-8574 Mar 05 j 20:53	11°♕35'16	2°16'08		-8569 Sep 27 j 12:25	30°♓♓	
min. Earth dist.	-8574 Mar 06 j 15:09	11°♕29'28	4.25728 AU	direct	-8569 Oct 26 j 01:02	28°♓38'49	
direct	-8574 May 06 j 12:03	6°♕39'41			-8569 Nov 23 j 22:08	0°♔	
evening set	-8574 Sep 08 j 03:20	24°♕53'48		evening set	-8568 Mar 01 j 06:50	17°♔38'49	
conjunction	-8574 Sep 20 j 14:25	27°♕45'56	1°21'24	conjunction	-8568 Mar 15 j 00:09	20°♔46'04	-1°26'13
minimum elong	-8574 Sep 20 j 14:29	27°♕45'58	1°21'54	minimum elong	-8568 Mar 15 j 00:13	20°♔46'06	1°26'44
max. Earth dist.	-8574 Sep 19 j 21:18	27°♕36'03	6.21498 AU	max. Earth dist.	-8568 Mar 15 j 21:29	20°♔58'12	6.16294 AU
	-8574 Sep 30 j 07:05	0°♌		morning rise	-8568 Mar 28 j 17:22	23°♔53'02	

Attention, astronomical year style is used: The year -8568 in astronomical counting style is the year 8569 BCE in historical counting style.

	-8568 Apr 25 j 13:24	0°♊		evening set	-8562 Sep 12 j 15:28	29°♊36'16	
retrograde	-8568 Aug 01 j 11:31	12°♊32'25			-8562 Sep 14 j 08:50	0°♊	
opposition	-8568 Sep 29 j 14:25	7°♊31'22	-1°45'10				
min. Earth dist.	-8568 Sep 29 j 07:03	7°♊33'52	4.20586 AU	conjunction	-8562 Sep 25 j 03:11	2°♊29'02	1°17'00
direct	-8568 Nov 28 j 12:23	2°♊27'57		minimum elong	-8562 Sep 25 j 03:15	2°♊29'05	1°17'30
	-8567 Mar 08 j 04:26	15°♊		max. Earth dist.	-8562 Sep 24 j 13:46	2°♊21'17	6.20592 AU
evening set	-8567 Apr 05 j 19:03	21°♊11'06		morning rise	-8562 Oct 07 j 15:59	5°♊22'33	
					-8562 Nov 21 j 06:01	15°♊	
conjunction	-8567 Apr 19 j 10:33	24°♊14'08	-0°50'01	retrograde	-8561 Feb 12 j 07:09	24°♊11'10	
minimum elong	-8567 Apr 19 j 10:38	24°♊14'11	0°50'23	opposition	-8561 Apr 14 j 15:45	19°♊14'27	1°24'49
max. Earth dist.	-8567 Apr 19 j 12:38	24°♊15'18	6.24740 AU	min. Earth dist.	-8561 Apr 14 j 19:10	19°♊13'21	4.16399 AU
morning rise	-8567 May 02 j 23:39	27°♊15'54			-8561 May 24 j 18:20	15°♊♊	
	-8567 May 15 j 09:41	0°♋		direct	-8561 Jun 13 j 22:48	14°♊21'12	
retrograde	-8567 Sep 02 j 15:49	15°♋07'45			-8561 Jul 03 j 23:45	15°♊	
opposition	-8567 Oct 31 j 23:21	10°♋10'37	-0°38'00		-8561 Oct 03 j 00:06	0°♋	
min. Earth dist.	-8567 Nov 01 j 04:36	10°♋08'52	4.28499 AU	evening set	-8561 Oct 15 j 08:06	2°♋50'27	
direct	-8566 Jan 01 j 02:12	5°♋06'26					
evening set	-8566 May 09 j 17:48	23°♋30'45		conjunction	-8561 Oct 28 j 03:02	5°♋49'54	0°32'48
asc. node	-8566 May 15 j 04:56	24°♋43'10		minimum elong	-8561 Oct 28 j 03:05	5°♋49'56	0°33'05
max. Earth dist.	-8566 May 22 j 07:33	26°♋17'49	6.31580 AU	max. Earth dist.	-8561 Oct 28 j 08:36	5°♋53'09	6.12466 AU
				morning rise	-8561 Nov 10 j 00:48	8°♋50'57	
conjunction	-8566 May 23 j 02:32	26°♋28'21	0°01'05	retrograde	-8560 Mar 19 j 07:48	28°♋23'02	
minimum elong	-8566 May 23 j 02:30	26°♋28'20	0°00'58	opposition	-8560 May 19 j 08:59	23°♋22'21	0°06'22
behind sun begin	-8566 May 22 j 18:20	26°♋23'49		min. Earth dist.	-8560 May 18 j 21:05	23°♋26'16	4.09168 AU
behind sun end	-8566 May 23 j 10:41	26°♋32'51		desc. node	-8560 Jun 17 j 16:44	19°♋55'04	
morning rise	-8566 Jun 05 j 08:01	29°♋24'12		direct	-8560 Jul 17 j 09:41	18°♋29'21	
	-8566 Jun 08 j 01:03	0°♌			-8560 Oct 16 j 13:18	0°♌	
retrograde	-8566 Oct 04 j 04:15	16°♌45'19		evening set	-8560 Nov 17 j 16:52	7°♌16'01	
opposition	-8566 Dec 02 j 22:19	11°♌51'31	0°38'39				
min. Earth dist.	-8566 Dec 03 j 15:49	11°♌45'48	4.33760 AU	conjunction	-8560 Nov 30 j 20:53	10°♌21'56	-0°23'47
direct	-8565 Feb 03 j 01:12	6°♌48'12		minimum elong	-8560 Nov 30 j 20:50	10°♌21'54	0°23'48
evening set	-8565 Jun 11 j 06:39	24°♌58'42		max. Earth dist.	-8560 Dec 01 j 21:51	10°♌36'39	6.06815 AU
max. Earth dist.	-8565 Jun 22 j 23:33	27°♌34'06	6.34832 AU	morning rise	-8560 Dec 14 j 04:22	13°♌29'44	
					-8559 Mar 07 j 15:54	0°♍	
conjunction	-8565 Jun 24 j 05:57	27°♌50'58	0°50'54	retrograde	-8559 Apr 24 j 21:17	3°♍28'35	
minimum elong	-8565 Jun 24 j 05:52	27°♌50'56	0°51'06		-8559 Jun 12 j 05:27	30°♍♌	
	-8565 Jul 03 j 22:31	0°♎		min. Earth dist.	-8559 Jun 23 j 09:17	28°♌31'45	4.05681 AU
morning rise	-8565 Jul 07 j 01:40	0°♎41'32		opposition	-8559 Jun 24 j 06:31	28°♌24'36	-1°16'17
	-8565 Sep 21 j 17:20	15°♎		direct	-8559 Aug 21 j 13:02	23°♌29'49	
retrograde	-8565 Nov 04 j 15:26	17°♎55'06			-8559 Oct 25 j 23:05	0°♍	
	-8565 Dec 19 j 09:50	15°♎♎		evening set	-8559 Dec 23 j 17:56	12°♍31'44	
opposition	-8564 Jan 04 j 01:01	13°♎03'18	1°43'05		-8558 Jan 03 j 07:10	15°♍	
min. Earth dist.	-8564 Jan 05 j 00:18	12°♎55'50	4.34909 AU				
direct	-8564 Mar 06 j 12:56	8°♎02'18		conjunction	-8558 Jan 06 j 05:23	15°♍41'12	-1°12'28
	-8564 May 18 j 01:57	15°♎		minimum elong	-8558 Jan 06 j 05:18	15°♍41'09	1°12'49
evening set	-8564 Jul 11 j 20:33	26°♎06'49		max. Earth dist.	-8558 Jan 07 j 18:07	16°♍02'45	6.05715 AU
max. Earth dist.	-8564 Jul 23 j 00:02	28°♎36'08	6.33672 AU	morning rise	-8558 Jan 19 j 19:48	18°♍52'12	
					-8558 Mar 12 j 03:01	0°♏	
conjunction	-8564 Jul 24 j 10:42	28°♎55'34	1°25'45	retrograde	-8558 May 30 j 22:05	8°♏48'11	
minimum elong	-8564 Jul 24 j 10:39	28°♎55'32	1°26'10	opposition	-8558 Jul 29 j 15:14	3°♏43'03	-2°11'10
	-8564 Jul 29 j 05:44	0°♐		min. Earth dist.	-8558 Jul 28 j 15:30	3°♏51'09	4.07244 AU
morning rise	-8564 Aug 05 j 22:34	1°♐43'12			-8558 Aug 29 j 15:24	30°♎♍	
retrograde	-8564 Dec 05 j 22:43	19°♐12'27		direct	-8558 Sep 25 j 19:14	28°♍45'09	
opposition	-8563 Feb 04 j 20:53	14°♐20'48	2°18'06		-8558 Oct 23 j 04:20	0°♏	
min. Earth dist.	-8563 Feb 05 j 20:54	14°♐13'10	4.31630 AU	evening set	-8557 Jan 29 j 16:20	17°♏52'28	
direct	-8563 Apr 08 j 04:35	9°♐22'45					
evening set	-8563 Aug 12 j 01:32	27°♐29'00		conjunction	-8557 Feb 12 j 08:12	21°♏01'57	-1°34'32
max. Earth dist.	-8563 Aug 23 j 07:12	0°♑01'47	6.28438 AU	minimum elong	-8557 Feb 12 j 08:11	21°♏01'57	1°35'04
	-8563 Aug 23 j 04:03	0°♑		max. Earth dist.	-8557 Feb 13 j 17:30	21°♏21'14	6.09660 AU
				morning rise	-8557 Feb 26 j 01:43	24°♏12'07	
conjunction	-8563 Aug 24 j 11:20	0°♑17'47	1°35'50		-8557 Mar 23 j 23:11	0°♒	
minimum elong	-8563 Aug 24 j 11:20	0°♑17'47	1°36'23	retrograde	-8557 Jul 04 j 17:21	13°♒35'05	
morning rise	-8563 Sep 05 j 20:21	3°♑06'18		opposition	-8557 Sep 01 j 23:16	8°♒31'16	-2°17'48
retrograde	-8562 Jan 08 j 08:43	21°♑09'56		min. Earth dist.	-8557 Sep 01 j 05:51	8°♒37'14	4.13224 AU
opposition	-8562 Mar 10 j 17:19	16°♑16'29	2°12'39	direct	-8557 Oct 30 j 20:45	3°♒29'57	
min. Earth dist.	-8562 Mar 11 j 08:43	16°♑11'35	4.24802 AU	evening set	-8556 Mar 06 j 06:47	22°♒29'05	
direct	-8562 May 11 j 03:51	11°♑21'19					
































































































































## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 31

Attention, astronomical year style is used: The year -8556 in astronomical counting style is the year 8557 BCE in historical counting style.

conjunction	-8556 Mar 20 j 00:21	25° $\text{Z}$ 36'03	-1°22'38	max. Earth dist.	-8551 Aug 27 j 17:33	4° $\text{Z}$ 35'30	6.27603 AU
minimum elong	-8556 Mar 20 j 00:26	25° $\text{Z}$ 36'05	1°23'10	morning rise	-8551 Sep 10 j 05:36	7° $\text{Z}$ 39'44	
max. Earth dist.	-8556 Mar 20 j 20:23	25° $\text{Z}$ 47'26	6.17170 AU	retrograde	-8550 Jan 13 j 04:30	25° $\text{Z}$ 48'39	
morning rise	-8556 Apr 02 j 17:11	28° $\text{Z}$ 42'31		opposition	-8550 Mar 15 j 12:47	20° $\text{Z}$ 54'49	2°08'23
	-8556 Apr 08 j 11:09	0° $\approx$		min. Earth dist.	-8550 Mar 16 j 03:52	20° $\text{Z}$ 50'01	4.23776 AU
	-8556 Jun 29 j 05:40	15° $\approx$		direct	-8550 May 15 j 21:20	15° $\text{Z}$ 59'56	
retrograde	-8556 Aug 06 j 01:34	17° $\approx$ 15'57			-8550 Aug 29 j 04:37	0° $\Omega$	
	-8556 Sep 12 j 16:03	15° $\approx$		evening set	-8550 Sep 17 j 02:57	4° $\Omega$ 16'17	
opposition	-8556 Oct 04 j 03:50	12° $\approx$ 15'26	-1°37'14				
min. Earth dist.	-8556 Oct 03 j 21:49	12° $\approx$ 17'28	4.21461 AU	conjunction	-8550 Sep 29 j 15:28	7° $\Omega$ 09'52	1°12'09
direct	-8556 Dec 03 j 04:49	7° $\approx$ 11'50		minimum elong	-8550 Sep 29 j 15:32	7° $\Omega$ 09'55	1°12'39
	-8555 Feb 16 j 20:16	15° $\approx$		max. Earth dist.	-8550 Sep 29 j 03:59	7° $\Omega$ 03'13	6.19472 AU
evening set	-8555 Apr 10 j 15:17	25° $\approx$ 53'20		morning rise	-8550 Oct 12 j 05:19	10° $\Omega$ 04'19	
					-8550 Nov 03 j 02:31	15° $\Omega$	
conjunction	-8555 Apr 24 j 06:02	28° $\approx$ 55'48	-0°43'22	retrograde	-8549 Feb 17 j 05:10	28° $\Omega$ 59'10	
minimum elong	-8555 Apr 24 j 06:06	28° $\approx$ 55'50	0°43'42	opposition	-8549 Apr 19 j 14:10	24° $\Omega$ 01'56	1°15'15
max. Earth dist.	-8555 Apr 24 j 03:59	28° $\approx$ 54'39	6.25558 AU	min. Earth dist.	-8549 Apr 19 j 14:59	24° $\Omega$ 01'40	4.15262 AU
	-8555 Apr 29 j 00:48	0° $\text{X}$		direct	-8549 Jun 18 j 15:59	19° $\Omega$ 08'49	
morning rise	-8555 May 07 j 18:30	1° $\text{X}$ 56'56			-8549 Sep 15 j 16:32	0° $\text{W}$	
retrograde	-8555 Sep 07 j 03:17	19° $\text{X}$ 44'11		evening set	-8549 Oct 20 j 00:27	7° $\text{W}$ 40'30	
opposition	-8555 Nov 05 j 11:28	14° $\text{X}$ 47'29	-0°27'15				
min. Earth dist.	-8555 Nov 05 j 18:42	14° $\text{X}$ 45'05	4.29202 AU	conjunction	-8549 Nov 01 j 20:38	10° $\text{W}$ 40'58	0°25'15
direct	-8554 Jan 05 j 18:16	9° $\text{X}$ 43'16		minimum elong	-8549 Nov 01 j 20:40	10° $\text{W}$ 40'59	0°25'29
asc. node	-8554 Mar 24 j 07:30	17° $\text{X}$ 39'22		max. Earth dist.	-8549 Nov 02 j 04:49	10° $\text{W}$ 45'46	6.11414 AU
evening set	-8554 May 14 j 09:40	28° $\text{X}$ 05'57		morning rise	-8549 Nov 14 j 19:45	13° $\text{W}$ 43'05	
	-8554 May 23 j 00:06	0° $\text{Y}$			-8548 Feb 05 j 20:47	0° $\underline{\Omega}$	
				retrograde	-8548 Mar 24 j 11:13	3° $\underline{\Omega}$ 20'40	
conjunction	-8554 May 27 j 17:21	1° $\text{Y}$ 02'50	0°08'33	desc. node	-8548 Apr 28 j 06:45	1° $\underline{\Omega}$ 29'27	
minimum elong	-8554 May 27 j 17:20	1° $\text{Y}$ 02'50	0°08'29		-8548 May 11 j 09:58	30° $\text{R}$ $\text{W}$	
behind sun begin	-8554 May 27 j 10:13	0° $\text{Y}$ 58'54		opposition	-8548 May 24 j 09:21	28° $\text{W}$ 19'28	-0°05'40
behind sun end	-8554 May 28 j 00:27	1° $\text{Y}$ 06'45		min. Earth dist.	-8548 May 23 j 20:38	28° $\text{W}$ 23'39	4.08276 AU
max. Earth dist.	-8554 May 26 j 22:00	0° $\text{Y}$ 52'06	6.32131 AU	direct	-8548 Jul 22 j 07:19	23° $\text{W}$ 26'17	
morning rise	-8554 Jun 09 j 21:25	3° $\text{Y}$ 57'56			-8548 Sep 26 j 07:32	0° $\underline{\Omega}$	
retrograde	-8554 Oct 08 j 13:51	21° $\text{Y}$ 16'46		evening set	-8548 Nov 22 j 15:39	12° $\underline{\Omega}$ 16'00	
opposition	-8554 Dec 07 j 10:23	16° $\text{Y}$ 23'18	0°48'56				
min. Earth dist.	-8554 Dec 08 j 04:09	16° $\text{Y}$ 17'32	4.34131 AU	conjunction	-8548 Dec 05 j 20:54	15° $\underline{\Omega}$ 22'44	-0°31'33
direct	-8553 Feb 07 j 14:25	11° $\text{Y}$ 20'15		minimum elong	-8548 Dec 05 j 20:51	15° $\underline{\Omega}$ 22'42	0°31'38
evening set	-8553 Jun 15 j 18:51	29° $\text{Y}$ 29'25		max. Earth dist.	-8548 Dec 07 j 00:18	15° $\underline{\Omega}$ 38'53	6.06165 AU
	-8553 Jun 18 j 02:19	0° $\text{Z}$		morning rise	-8548 Dec 19 j 05:37	18° $\underline{\Omega}$ 31'21	
max. Earth dist.	-8553 Jun 27 j 08:11	2° $\text{Z}$ 02'59	6.34968 AU		-8547 Feb 10 j 03:08	0° $\text{M}$	
				retrograde	-8547 Apr 29 j 23:58	8° $\text{M}$ 32'33	
conjunction	-8553 Jun 28 j 16:35	2° $\text{Z}$ 21'00	0°57'00	min. Earth dist.	-8547 Jun 28 j 08:25	3° $\text{M}$ 35'48	4.05362 AU
minimum elong	-8553 Jun 28 j 16:31	2° $\text{Z}$ 20'57	0°57'14	opposition	-8547 Jun 29 j 06:37	3° $\text{M}$ 28'20	-1°26'20
morning rise	-8553 Jul 11 j 11:11	5° $\text{Z}$ 10'58			-8547 Jul 28 j 00:39	30° $\text{R}$ $\underline{\Omega}$	
	-8553 Aug 28 j 05:05	15° $\text{Z}$		direct	-8547 Aug 26 j 10:25	28° $\underline{\Omega}$ 33'13	
retrograde	-8553 Nov 09 j 04:16	22° $\text{Z}$ 25'05			-8547 Sep 24 j 21:06	0° $\text{M}$	
opposition	-8552 Jan 08 j 14:52	17° $\text{Z}$ 33'20	1°50'07		-8547 Dec 17 j 13:22	15° $\text{M}$	
min. Earth dist.	-8552 Jan 09 j 15:14	17° $\text{Z}$ 25'33	4.34803 AU	evening set	-8547 Dec 28 j 22:06	17° $\text{M}$ 37'40	
	-8552 Jan 29 j 14:51	15° $\text{R}$ $\text{Z}$					
direct	-8552 Mar 11 j 04:09	12° $\text{Z}$ 32'38		conjunction	-8546 Jan 11 j 10:17	20° $\text{M}$ 47'28	-1°17'30
	-8552 Apr 21 j 13:40	15° $\text{Z}$		minimum elong	-8546 Jan 11 j 10:12	20° $\text{M}$ 47'25	1°17'52
	-8552 Jul 13 j 12:21	0° $\text{II}$		max. Earth dist.	-8546 Jan 12 j 22:15	21° $\text{M}$ 08'33	6.05725 AU
evening set	-8552 Jul 16 j 06:01	0° $\text{II}$ 36'27		morning rise	-8546 Jan 25 j 01:31	23° $\text{M}$ 58'44	
max. Earth dist.	-8552 Jul 27 j 10:01	3° $\text{II}$ 06'13	6.33298 AU		-8546 Feb 20 j 15:20	0° $\text{X}$	
				retrograde	-8546 Jun 04 j 22:17	13° $\text{X}$ 52'54	
conjunction	-8552 Jul 28 j 19:22	3° $\text{II}$ 24'55	1°28'49	opposition	-8546 Aug 03 j 13:28	8° $\text{X}$ 47'50	-2°15'15
minimum elong	-8552 Jul 28 j 19:18	3° $\text{II}$ 24'53	1°29'17	min. Earth dist.	-8546 Aug 02 j 14:05	8° $\text{X}$ 55'49	4.07590 AU
morning rise	-8552 Aug 10 j 06:19	6° $\text{II}$ 12'20		direct	-8546 Sep 30 j 19:10	3° $\text{X}$ 49'27	
retrograde	-8552 Dec 10 j 11:44	23° $\text{II}$ 44'46		evening set	-8545 Feb 03 j 21:54	22° $\text{X}$ 57'29	
opposition	-8551 Feb 09 j 13:05	18° $\text{II}$ 52'55	2°19'55				
min. Earth dist.	-8551 Feb 10 j 11:34	18° $\text{II}$ 45'47	4.31011 AU	conjunction	-8545 Feb 17 j 14:25	26° $\text{X}$ 06'56	-1°34'53
direct	-8551 Apr 12 j 17:54	13° $\text{II}$ 55'16		minimum elong	-8545 Feb 17 j 14:26	26° $\text{X}$ 06'56	1°35'25
	-8551 Aug 07 j 09:32	0° $\text{Z}$		max. Earth dist.	-8545 Feb 19 j 00:09	26° $\text{X}$ 26'25	6.10332 AU
evening set	-8551 Aug 16 j 10:54	2° $\text{Z}$ 01'49		morning rise	-8545 Mar 03 j 07:59	29° $\text{X}$ 16'49	
					-8545 Mar 06 j 11:32	0° $\text{Z}$	
conjunction	-8551 Aug 28 j 20:27	4° $\text{Z}$ 50'49	1°34'56	retrograde	-8545 Jul 09 j 14:45	18° $\text{Z}$ 34'17	
minimum elong	-8551 Aug 28 j 20:28	4° $\text{Z}$ 50'50	1°35'29	opposition	-8545 Sep 06 j 18:32	13° $\text{Z}$ 30'56	-2°14'36

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 32





























































































































Attention, astronomical year style is used: The year -8545 in astronomical counting style is the year 8546 BCE in historical counting style.

min. Earth dist.	-8545 Sep 06 j 02:14	13°  36'30	4.14165 AU	conjunction	-8539 Sep 02 j 01:38	9°  14'49	1°33'31
direct	-8545 Nov 04 j 18:56	8°  29'20		minimum elong	-8539 Sep 02 j 01:40	9°  14'50	1°34'03
evening set	-8544 Mar 11 j 10:06	27°  26'52		morning rise	-8539 Sep 14 j 10:56	12°  04'10	
	-8544 Mar 22 j 16:45	0° 			-8538 Jan 03 j 14:21	0° 	
				retrograde	-8538 Jan 17 j 18:19	0°  18'37	
conjunction	-8544 Mar 25 j 03:27	0°  33'18	-1°18'24		-8538 Jan 31 j 23:35	30°  R 	
minimum elong	-8544 Mar 25 j 03:32	0°  33'21	1°18'55	opposition	-8538 Mar 20 j 04:16	25°  04'25	2°03'29
max. Earth dist.	-8544 Mar 25 j 20:20	0°  42'52	6.18333 AU	min. Earth dist.	-8538 Mar 20 j 17:55	25°  04'20'05	4.22623 AU
morning rise	-8544 Apr 07 j 20:05	3°  39'10		direct	-8538 May 20 j 08:31	20°  04'29'49	
	-8544 Jun 01 j 12:26	15° 			-8538 Aug 12 j 01:36	0° 	
retrograde	-8544 Aug 10 j 16:24	22°  05'26		evening set	-8538 Sep 21 j 11:10	8°  04'48'21	
opposition	-8544 Oct 08 j 19:38	17°  05'28	-1°28'32				
min. Earth dist.	-8544 Oct 08 j 14:44	17°  07'07	4.22756 AU	conjunction	-8538 Oct 04 j 00:24	11°  04'25'1	1°07'02
	-8544 Oct 24 j 19:39	15° 		minimum elong	-8538 Oct 04 j 00:29	11°  04'25'3	1°07'29
direct	-8544 Dec 08 j 00:45	12°  01'43		max. Earth dist.	-8538 Oct 03 j 13:54	11°  03'45	6.18110 AU
	-8543 Jan 21 j 16:33	15° 		morning rise	-8538 Oct 16 j 15:22	14°  03'38'23	
	-8543 Apr 12 j 12:59	0° 			-8538 Oct 18 j 04:56	15° 	
evening set	-8543 Apr 15 j 13:04	0°  X39'52			-8537 Jan 02 j 20:17	0° 	
				retrograde	-8537 Feb 22 j 02:38	3°  04'40'37	
conjunction	-8543 Apr 29 j 03:07	3°  X41'28	-0°36'24		-8537 Apr 14 j 08:04	30°  R 	
minimum elong	-8543 Apr 29 j 03:11	3°  X41'30	0°36'42	opposition	-8537 Apr 24 j 09:28	28°  04'25'1	1°05'29
max. Earth dist.	-8543 Apr 29 j 00:03	3°  X39'45	6.26937 AU	min. Earth dist.	-8537 Apr 24 j 09:28	28°  04'25'2	4.13775 AU
morning rise	-8543 May 12 j 14:27	6°  X41'36		direct	-8537 Jun 23 j 07:33	23°  04'49'46	
retrograde	-8543 Sep 11 j 14:36	24°  X22'20			-8537 Aug 26 j 20:27	0° 	
opposition	-8543 Nov 10 j 00:28	19°  X26'12	-0°16'21	evening set	-8537 Oct 24 j 14:57	12°  04'25'33	
min. Earth dist.	-8543 Nov 10 j 08:53	19°  X23'25	4.30544 AU				
direct	-8542 Jan 10 j 11:04	14°  X22'08		conjunction	-8537 Nov 06 j 12:32	15°  04'27'14	0°17'43
asc. node	-8542 Feb 01 j 02:02	15°  X04'43		minimum elong	-8537 Nov 06 j 12:34	15°  04'27'15	0°17'56
	-8542 May 06 j 17:24	0° 		max. Earth dist.	-8537 Nov 06 j 23:26	15°  04'33'38	6.09965 AU
evening set	-8542 May 19 j 00:54	2°  Y40'42		morning rise	-8537 Nov 19 j 13:06	18°  04'30'39	
max. Earth dist.	-8542 May 31 j 08:54	5°  Y24'14	6.33329 AU		-8536 Jan 11 j 18:22	0° 	
				desc. node	-8536 Mar 10 j 00:26	7°  04'39'24	
conjunction	-8542 Jun 01 j 07:06	5°  Y36'31	0°15'50	retrograde	-8536 Mar 29 j 12:13	8°  04'15'02	
minimum elong	-8542 Jun 01 j 07:04	5°  Y36'30	0°15'50	opposition	-8536 May 29 j 07:49	3°  04'13'23	-0°17'25
behind sun begin	-8542 Jun 01 j 06:03	5°  Y35'56		min. Earth dist.	-8536 May 28 j 17:29	3°  04'18'07	4.07017 AU
behind sun end	-8542 Jun 01 j 08:05	5°  Y37'04			-8536 Jun 25 j 00:23	30°  R 	
morning rise	-8542 Jun 14 j 09:53	8°  Y30'34		direct	-8536 Jul 27 j 01:08	28°  04'20'05	
retrograde	-8542 Oct 12 j 22:41	25°  Y45'23			-8536 Aug 27 j 20:52	0° 	
opposition	-8542 Dec 11 j 21:40	20°  Y52'13	0°58'41	evening set	-8536 Nov 27 j 14:08	17°  04'14'27	
min. Earth dist.	-8542 Dec 12 j 16:46	20°  Y46'01	4.35107 AU				
direct	-8541 Feb 12 j 04:55	15°  Y49'24		conjunction	-8536 Dec 10 j 20:31	20°  04'22'07	-0°38'58
	-8541 Jun 02 j 01:34	0° 		minimum elong	-8536 Dec 10 j 20:27	20°  04'22'05	0°39'06
evening set	-8541 Jun 20 j 04:18	3°  Y55'07		max. Earth dist.	-8536 Dec 12 j 00:52	20°  04'38'52	6.05200 AU
max. Earth dist.	-8541 Jul 01 j 16:47	6°  Y28'05	6.35638 AU	morning rise	-8536 Dec 24 j 06:34	23°  04'31'42	
					-8535 Jan 21 j 17:23	0° 	
conjunction	-8541 Jul 03 j 00:44	6°  Y45'49	1°02'35	retrograde	-8535 May 05 j 01:56	13°  04'36'19	
minimum elong	-8541 Jul 03 j 00:40	6°  Y45'47	1°02'51	min. Earth dist.	-8535 Jul 03 j 06:55	8°  04'39'40	4.04809 AU
morning rise	-8541 Jul 15 j 17:48	9°  Y34'56		opposition	-8535 Jul 04 j 06:18	8°  04'31'46	-1°35'38
	-8541 Aug 09 j 22:38	15° 		direct	-8535 Aug 31 j 08:55	3°  04'36'14	
retrograde	-8541 Nov 13 j 11:24	26°  Y48'11			-8535 Nov 29 j 16:41	15° 	
opposition	-8540 Jan 13 j 01:42	21°  Y56'33	1°56'13	evening set	-8534 Jan 03 j 02:32	22°  04'43'53	
min. Earth dist.	-8540 Jan 14 j 02:08	21°  Y48'45	4.35127 AU				
direct	-8540 Mar 15 j 15:20	16°  Y56'15		conjunction	-8534 Jan 16 j 15:45	25°  04'54'07	-1°21'52
	-8540 Jun 27 j 14:57	0° 		minimum elong	-8534 Jan 16 j 15:40	25°  04'54'04	1°22'18
evening set	-8540 Jul 20 j 12:01	4°  Y58'04		max. Earth dist.	-8534 Jan 18 j 06:20	26°  04'16'44	6.05634 AU
max. Earth dist.	-8540 Jul 31 j 13:27	7°  Y26'35	6.33225 AU	morning rise	-8534 Jan 30 j 07:27	29°  04'05'37	
					-8534 Feb 03 j 05:20	0° 	
conjunction	-8540 Aug 02 j 00:15	7°  Y46'07	1°31'14	retrograde	-8534 Jun 09 j 23:49	18°  04'57'41	
minimum elong	-8540 Aug 02 j 00:13	7°  Y46'06	1°31'44	opposition	-8534 Aug 08 j 11:38	13°  04'52'39	-2°18'14
morning rise	-8540 Aug 14 j 10:40	10°  Y33'18		min. Earth dist.	-8534 Aug 07 j 12:41	14°  04'50'30	4.07984 AU
retrograde	-8540 Dec 14 j 23:06	28°  Y08'16		direct	-8534 Oct 05 j 18:50	8°  04'53'47	
opposition	-8539 Feb 14 j 01:34	23°  Y16'15	2°20'47	evening set	-8533 Feb 09 j 03:49	28°  04'50'15'56	
min. Earth dist.	-8539 Feb 15 j 00:43	23°  Y08'54	4.30536 AU		-8533 Feb 17 j 17:09	0° 	
direct	-8539 Apr 17 j 05:55	18°  Y18'54					
	-8539 Jul 22 j 06:26	0° 		conjunction	-8533 Feb 22 j 20:33	1°  04'31'08	-1°34'28
evening set	-8539 Aug 20 j 15:56	6°  Y02'57'27		minimum elong	-8533 Feb 22 j 20:34	1°  04'31'08	1°35'01
max. Earth dist.	-8539 Sep 01 j 00:05	9°  Y00'14	6.26764 AU	max. Earth dist.	-8533 Feb 24 j 04:34	1°  04'29'35	6.11143 AU



## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 33

Attention, astronomical year style is used: The year -8533 in astronomical counting style is the year 8534 BCE in historical counting style.

morning rise	-8533 Mar 08 j 14:22	4° 	20'41	min. Earth dist.	-8527 Feb 19 j 17:05	27° 	43'13	4.29489 AU	
retrograde	-8533 Jul 14 j 08:43	23° 	31'31	direct	-8527 Apr 21 j 20:24	22° 	53'24		
opposition	-8533 Sep 11 j 12:55	18° 	28'25	-2°10'25	-8527 Jul 03 j 01:24	0° 			
min. Earth dist.	-8533 Sep 10 j 21:00	18° 	33'51	4.15288 AU	evening set	-8527 Aug 25 j 02:14	11° 	01'44	
direct	-8533 Nov 09 j 16:23	13° 	26'21		max. Earth dist.	-8527 Sep 05 j 10:47	13° 	37'16	6.25502 AU
	-8532 Mar 05 j 22:47	0° 							
evening set	-8532 Mar 16 j 12:06	2° 	21'14		conjunction	-8527 Sep 06 j 11:55	13° 	51'39	1°31'28
					minimum elong	-8527 Sep 06 j 11:57	13° 	51'40	1°32'02
conjunction	-8532 Mar 30 j 05:18	5° 	27'02	-1°13'39	morning rise	-8527 Sep 18 j 21:47	16° 	41'45	
minimum elong	-8532 Mar 30 j 05:23	5° 	27'05	1°14'08		-8527 Nov 24 j 01:12	0° 		
max. Earth dist.	-8532 Mar 30 j 20:20	5° 	35'32	6.19662 AU	retrograde	-8526 Jan 22 j 16:37	5° 	03'14	
morning rise	-8532 Apr 12 j 21:20	8° 	32'05		opposition	-8526 Mar 25 j 01:55	0° 	08'39	1°57'35
	-8532 May 12 j 14:33	15° 			min. Earth dist.	-8526 Mar 25 j 14:01	0° 	04'47	4.21229 AU
retrograde	-8532 Aug 15 j 06:59	26° 	50'39			-8526 Mar 26 j 05:02	30° 		
opposition	-8532 Oct 13 j 10:19	21° 	51'10	-1°19'19	direct	-8526 May 25 j 02:14	25° 	14'22	
min. Earth dist.	-8532 Oct 13 j 07:41	21° 	52'03	4.24108 AU		-8526 Jul 21 j 01:33	0° 		
direct	-8532 Dec 12 j 20:29	16° 	47'15		evening set	-8526 Sep 26 j 01:22	13° 	35'44	
	-8531 Mar 26 j 12:56	0° 				-8526 Oct 02 j 02:47	15° 		
evening set	-8531 Apr 20 j 08:55	5° 	21'42		conjunction	-8526 Oct 08 j 15:45	16° 	31'18	1°01'11
conjunction	-8531 May 03 j 22:04	8° 	22'26	-0°29'15	minimum elong	-8526 Oct 08 j 15:50	16° 	31'21	1°01'36
minimum elong	-8531 May 03 j 22:07	8° 	22'27	0°29'31	max. Earth dist.	-8526 Oct 08 j 09:05	16° 	27'25	6.16744 AU
max. Earth dist.	-8531 May 03 j 15:53	8° 	18'59	6.28180 AU	morning rise	-8526 Oct 21 j 07:51	19° 	27'58	
morning rise	-8531 May 17 j 08:22	11° 	21'38			-8526 Dec 09 j 05:18	0° 		
retrograde	-8531 Sep 15 j 23:59	28° 	56'47		retrograde	-8525 Feb 27 j 05:42	8° 	37'19	
opposition	-8531 Nov 14 j 12:28	24° 	01'05	-0°05'25	opposition	-8525 Apr 29 j 10:55	3° 	39'06	0°54'42
min. Earth dist.	-8531 Nov 14 j 22:17	23° 	57'50	4.31573 AU	min. Earth dist.	-8525 Apr 29 j 08:35	3° 	39'51	4.12567 AU
asc. node	-8531 Dec 12 j 00:48	20° 	42'14			-8525 May 31 j 09:04	30° 		
direct	-8530 Jan 15 j 02:27	18° 	57'04		direct	-8525 Jun 28 j 03:49	28° 	46'14	
	-8530 Apr 19 j 10:13	0° 				-8525 Jul 25 j 18:06	0° 		
evening set	-8530 May 23 j 15:13	7° 	12'50		evening set	-8525 Oct 29 j 11:17	17° 	24'53	
conjunction	-8530 Jun 05 j 20:04	10° 	07'47	0°23'05	conjunction	-8525 Nov 11 j 10:00	20° 	27'32	0°09'42
minimum elong	-8530 Jun 05 j 20:02	10° 	07'46	0°23'06	minimum elong	-8525 Nov 11 j 10:01	20° 	27'33	0°09'52
max. Earth dist.	-8530 Jun 04 j 20:24	9° 	54'42	6.34062 AU	behind sun begin	-8525 Nov 11 j 03:23	20° 	23'40	
morning rise	-8530 Jun 18 j 21:22	13° 	00'58		behind sun end	-8525 Nov 11 j 16:39	20° 	31'26	
	-8530 Oct 05 j 10:09	0° 			max. Earth dist.	-8525 Nov 11 j 23:07	20° 	35'15	6.09045 AU
retrograde	-8530 Oct 17 j 08:12	0° 	13'40		morning rise	-8525 Nov 24 j 12:06	23° 	32'01	
	-8530 Oct 29 j 05:43	30° 				-8525 Dec 23 j 00:18	0° 		
opposition	-8530 Dec 16 j 09:16	25° 	20'52	1°08'14	desc. node	-8524 Jan 18 j 06:31	5° 	19'47	
min. Earth dist.	-8530 Dec 17 j 05:55	25° 	14'12	4.35497 AU	retrograde	-8524 Apr 03 j 15:47	13° 	20'51	
direct	-8529 Feb 16 j 19:01	20° 	18'23		opposition	-8524 Jun 03 j 10:26	8° 	18'41	-0°29'32
	-8529 May 15 j 11:12	0° 			min. Earth dist.	-8524 Jun 02 j 17:39	8° 	24'15	4.06496 AU
evening set	-8529 Jun 24 j 14:41	8° 	22'47		direct	-8524 Aug 01 j 00:44	3° 	25'12	
max. Earth dist.	-8529 Jul 05 j 23:27	10° 	53'52	6.35623 AU	evening set	-8524 Dec 02 j 16:09	22° 	21'25	
conjunction	-8529 Jul 07 j 09:42	11° 	12'54	1°07'56	conjunction	-8524 Dec 15 j 23:45	25° 	29'35	-0°46'19
minimum elong	-8529 Jul 07 j 09:37	11° 	12'52	1°08'14	minimum elong	-8524 Dec 15 j 23:40	25° 	29'32	0°46'29
morning rise	-8529 Jul 20 j 01:43	14° 	01'33		max. Earth dist.	-8524 Dec 17 j 08:08	25° 	48'41	6.05137 AU
	-8529 Jul 24 j 11:51	15° 			morning rise	-8524 Dec 29 j 10:38	28° 	39'33	
	-8529 Oct 20 j 05:59	0° 				-8523 Jan 04 j 04:45	0° 		
retrograde	-8529 Nov 17 j 23:11	1° 	16'31			-8523 Mar 21 j 09:39	15° 		
	-8529 Dec 16 j 20:25	30° 			retrograde	-8523 May 10 j 05:43	18° 	43'24	
opposition	-8528 Jan 17 j 15:21	26° 	24'57	2°01'55		-8523 Jun 29 j 03:22	15° 		
min. Earth dist.	-8528 Jan 18 j 16:20	26° 	16'59	4.34734 AU	min. Earth dist.	-8523 Jul 08 j 07:16	13° 	46'36	4.05237 AU
direct	-8528 Mar 20 j 04:43	21° 	25'01		opposition	-8523 Jul 09 j 06:45	13° 	38'39	-1°44'15
	-8528 Jun 09 j 12:47	0° 			direct	-8523 Sep 05 j 09:48	8° 	42'43	
evening set	-8528 Jul 24 j 20:45	9° 	27'14			-8523 Nov 08 j 15:57	15° 		
max. Earth dist.	-8528 Aug 04 j 23:18	11° 	56'38	6.32475 AU	evening set	-8522 Jan 08 j 07:10	27° 	49'59	
						-8522 Jan 17 j 14:07	0° 		
conjunction	-8528 Aug 06 j 08:24	12° 	15'16	1°33'16	conjunction	-8522 Jan 21 j 20:49	1° 	00'01	-1°25'39
minimum elong	-8528 Aug 06 j 08:22	12° 	15'15	1°33'46	minimum elong	-8522 Jan 21 j 20:45	0° 	59'59	1°26'06
morning rise	-8528 Aug 18 j 18:07	15° 	02'29		max. Earth dist.	-8522 Jan 23 j 10:39	1° 	22'07	6.06475 AU
	-8528 Nov 06 j 22:21	0° 			morning rise	-8522 Feb 04 j 13:07	4° 	11'17	
retrograde	-8528 Dec 19 j 14:27	2° 	42'24		retrograde	-8522 Jun 14 j 19:27	23° 	57'32	
	-8527 Feb 01 j 01:50	30° 			min. Earth dist.	-8522 Aug 12 j 08:12	19° 	00'29	4.09160 AU
opposition	-8527 Feb 18 j 18:50	27° 	50'15	2°20'59					

Attention, astronomical year style is used: The year -8522 in astronomical counting style is the year 8523 BCE in historical counting style.

opposition	-8522 Aug 13 j 07:16	18° $\text{♄}$ 52'36	-2°20'06	direct	-8516 Mar 24 j 18:20	25° $\text{♄}$ 54'51	
direct	-8522 Oct 10 j 16:12	13° $\text{♄}$ 53'13			-8516 May 17 j 18:35	0° $\text{♄}$	
	-8521 Feb 01 j 02:00	0° $\text{♄}$		evening set	-8516 Jul 29 j 06:21	13° $\text{♄}$ 58'47	
evening set	-8521 Feb 14 j 06:05	2° $\text{♄}$ 58'47		max. Earth dist.	-8516 Aug 09 j 07:56	16° $\text{♄}$ 28'09	6.31335 AU
conjunction	-8521 Feb 27 j 23:06	6° $\text{♄}$ 07'28	-1°33'25	conjunction	-8516 Aug 10 j 17:20	16° $\text{♄}$ 46'59	1°34'41
minimum elong	-8521 Feb 27 j 23:08	6° $\text{♄}$ 07'29	1°33'58	minimum elong	-8516 Aug 10 j 17:19	16° $\text{♄}$ 46'58	1°35'12
max. Earth dist.	-8521 Mar 01 j 05:16	6° $\text{♄}$ 24'48	6.12544 AU	morning rise	-8516 Aug 23 j 02:53	19° $\text{♄}$ 34'33	
morning rise	-8521 Mar 13 j 16:44	9° $\text{♄}$ 16'19			-8516 Oct 12 j 08:20	0° $\text{♄}$	
retrograde	-8521 Jul 19 j 00:14	28° $\text{♄}$ 18'58		retrograde	-8516 Dec 24 j 08:44	7° $\text{♄}$ 20'34	
opposition	-8521 Sep 16 j 03:30	23° $\text{♄}$ 16'18	-2°05'29	opposition	-8515 Feb 23 j 13:54	2° $\text{♄}$ 28'08	2°20'14
min. Earth dist.	-8521 Sep 15 j 14:19	23° $\text{♄}$ 20'47	4.16744 AU	min. Earth dist.	-8515 Feb 24 j 10:24	2° $\text{♄}$ 21'38	4.28184 AU
direct	-8521 Nov 14 j 12:02	18° $\text{♄}$ 13'51			-8515 Mar 15 j 23:40	30° $\text{♄}$	
	-8520 Feb 17 j 15:56	0° $\text{♄}$		direct	-8515 Apr 26 j 11:46	27° $\text{♄}$ 31'39	
evening set	-8520 Mar 21 j 09:14	7° $\text{♄}$ 05'09			-8515 Jun 06 j 10:20	0° $\text{♄}$	
conjunction	-8520 Apr 04 j 02:11	10° $\text{♄}$ 10'15	-1°08'35	evening set	-8515 Aug 29 j 13:55	15° $\text{♄}$ 42'15	
minimum elong	-8520 Apr 04 j 02:16	10° $\text{♄}$ 10'18	1°09'02	max. Earth dist.	-8515 Sep 10 j 03:00	18° $\text{♄}$ 20'46	6.24159 AU
max. Earth dist.	-8520 Apr 04 j 14:06	10° $\text{♄}$ 16'58	6.21056 AU	conjunction	-8515 Sep 11 j 00:06	18° $\text{♄}$ 32'52	1°28'46
morning rise	-8520 Apr 17 j 17:38	13° $\text{♄}$ 14'29		minimum elong	-8515 Sep 11 j 00:09	18° $\text{♄}$ 32'54	1°29'19
	-8520 Apr 25 j 15:16	15° $\text{♄}$		morning rise	-8515 Sep 23 j 10:23	21° $\text{♄}$ 23'46	
	-8520 Jul 20 j 20:58	0° $\text{♄}$			-8515 Nov 02 j 04:11	0° $\text{♄}$	
retrograde	-8520 Aug 19 j 15:26	1° $\text{♄}$ 25'48		retrograde	-8514 Jan 27 j 16:37	9° $\text{♄}$ 52'14	
	-8520 Sep 18 j 06:51	30° $\text{♄}$		opposition	-8514 Mar 30 j 01:39	4° $\text{♄}$ 57'12	1°50'43
opposition	-8520 Oct 17 j 20:45	26° $\text{♄}$ 26'50	-1°09'58	min. Earth dist.	-8514 Mar 30 j 11:40	4° $\text{♄}$ 54'00	4.19938 AU
min. Earth dist.	-8520 Oct 17 j 19:35	26° $\text{♄}$ 27'13	4.25313 AU	direct	-8514 May 29 j 21:35	0° $\text{♄}$ 03'15	
direct	-8520 Dec 17 j 10:22	21° $\text{♄}$ 22'45			-8514 Sep 15 j 15:24	15° $\text{♄}$	
	-8519 Mar 08 j 04:03	0° $\text{♄}$		evening set	-8514 Sep 30 j 17:21	18° $\text{♄}$ 26'40	
evening set	-8519 Apr 25 j 00:37	9° $\text{♄}$ 54'25		conjunction	-8514 Oct 13 j 08:35	21° $\text{♄}$ 23'08	0°54'49
conjunction	-8519 May 08 j 12:48	12° $\text{♄}$ 54'23	-0°22'11	minimum elong	-8514 Oct 13 j 08:40	21° $\text{♄}$ 23'10	0°55'12
minimum elong	-8519 May 08 j 12:51	12° $\text{♄}$ 54'24	0°22'24	max. Earth dist.	-8514 Oct 13 j 04:04	21° $\text{♄}$ 20'30	6.15618 AU
max. Earth dist.	-8519 May 08 j 02:46	12° $\text{♄}$ 48'48	6.29116 AU	morning rise	-8514 Oct 26 j 02:06	24° $\text{♄}$ 20'53	
morning rise	-8519 May 21 j 22:06	15° $\text{♄}$ 52'47			-8514 Nov 20 j 02:54	0° $\text{♄}$	
	-8519 Aug 04 j 04:31	0° $\text{♄}$		retrograde	-8513 Mar 04 j 07:46	13° $\text{♄}$ 36'05	
retrograde	-8519 Sep 20 j 08:48	3° $\text{♄}$ 23'56		opposition	-8513 May 04 j 13:05	8° $\text{♄}$ 37'12	0°43'22
asc. node	-8519 Oct 23 j 12:55	1° $\text{♄}$ 39'32		min. Earth dist.	-8513 May 04 j 07:37	8° $\text{♄}$ 38'59	4.11682 AU
	-8519 Nov 07 j 03:21	30° $\text{♄}$		direct	-8513 Jul 03 j 01:43	3° $\text{♄}$ 44'21	
opposition	-8519 Nov 18 j 21:44	28° $\text{♄}$ 28'43	0°05'11	evening set	-8513 Nov 03 j 08:25	22° $\text{♄}$ 24'42	
min. Earth dist.	-8519 Nov 19 j 10:23	28° $\text{♄}$ 24'33	4.32163 AU	conjunction	-8513 Nov 16 j 08:34	25° $\text{♄}$ 28'11	0°01'34
direct	-8518 Jan 19 j 16:04	23° $\text{♄}$ 24'47		minimum elong	-8513 Nov 16 j 08:34	25° $\text{♄}$ 28'11	0°01'40
	-8518 Mar 30 j 19:19	0° $\text{♄}$		behind sun begin	-8513 Nov 16 j 00:24	25° $\text{♄}$ 23'24	
evening set	-8518 May 28 j 02:30	11° $\text{♄}$ 39'17		behind sun end	-8513 Nov 16 j 16:43	25° $\text{♄}$ 32'58	
max. Earth dist.	-8518 Jun 09 j 04:03	14° $\text{♄}$ 19'12	6.34247 AU	max. Earth dist.	-8513 Nov 17 j 02:15	25° $\text{♄}$ 38'36	6.08479 AU
conjunction	-8518 Jun 10 j 06:10	14° $\text{♄}$ 33'39	0°29'59	desc. node	-8513 Nov 27 j 00:26	27° $\text{♄}$ 58'42	
minimum elong	-8518 Jun 10 j 06:07	14° $\text{♄}$ 33'38	0°30'03	morning rise	-8513 Nov 29 j 11:50	28° $\text{♄}$ 33'28	
morning rise	-8518 Jun 23 j 06:14	17° $\text{♄}$ 26'14			-8513 Dec 05 j 16:34	0° $\text{♄}$	
	-8518 Aug 26 j 12:42	0° $\text{♄}$		retrograde	-8512 Apr 08 j 20:31	18° $\text{♄}$ 24'59	
retrograde	-8518 Oct 21 j 16:21	4° $\text{♄}$ 38'58		opposition	-8512 Jun 08 j 12:24	13° $\text{♄}$ 22'21	-0°41'25
	-8518 Dec 19 j 01:44	30° $\text{♄}$		min. Earth dist.	-8512 Jun 07 j 18:49	13° $\text{♄}$ 28'12	4.06301 AU
opposition	-8518 Dec 20 j 19:53	29° $\text{♄}$ 46'24	1°17'13	direct	-8512 Aug 06 j 01:10	8° $\text{♄}$ 28'39	
min. Earth dist.	-8518 Dec 21 j 17:07	29° $\text{♄}$ 39'32	4.35300 AU	evening set	-8512 Dec 07 j 18:02	27° $\text{♄}$ 25'48	
direct	-8517 Feb 21 j 05:56	24° $\text{♄}$ 44'10			-8512 Dec 18 j 16:17	0° $\text{♄}$	
	-8517 Apr 24 j 12:32	0° $\text{♄}$		conjunction	-8512 Dec 21 j 02:27	0° $\text{♄}$ 34'16	-0°53'18
evening set	-8517 Jun 29 j 00:01	12° $\text{♄}$ 49'06		minimum elong	-8512 Dec 21 j 02:22	0° $\text{♄}$ 34'13	0°53'31
	-8517 Jul 08 j 20:00	15° $\text{♄}$		max. Earth dist.	-8512 Dec 22 j 11:12	0° $\text{♄}$ 53'33	6.05292 AU
max. Earth dist.	-8517 Jul 10 j 07:46	15° $\text{♄}$ 19'55	6.35053 AU	morning rise	-8511 Jan 03 j 14:25	3° $\text{♄}$ 44'33	
conjunction	-8517 Jul 11 j 17:53	15° $\text{♄}$ 38'55	1°12'48		-8511 Feb 24 j 08:45	15° $\text{♄}$	
minimum elong	-8517 Jul 11 j 17:48	15° $\text{♄}$ 38'53	1°13'09	retrograde	-8511 May 15 j 05:35	23° $\text{♄}$ 46'49	
morning rise	-8517 Jul 24 j 08:46	18° $\text{♄}$ 27'19		min. Earth dist.	-8511 Jul 13 j 05:04	18° $\text{♄}$ 50'16	4.05759 AU
	-8517 Sep 19 j 22:22	0° $\text{♄}$		opposition	-8511 Jul 14 j 05:45	18° $\text{♄}$ 41'53	-1°52'04
retrograde	-8517 Nov 22 j 12:12	5° $\text{♄}$ 45'50			-8511 Aug 14 j 05:33	15° $\text{♄}$	
opposition	-8516 Jan 22 j 05:34	0° $\text{♄}$ 54'20	2°06'53	direct	-8511 Sep 10 j 08:01	13° $\text{♄}$ 45'31	
min. Earth dist.	-8516 Jan 23 j 06:54	0° $\text{♄}$ 46'17	4.33851 AU		-8511 Oct 07 j 13:21	15° $\text{♄}$	
	-8516 Jan 29 j 09:14	30° $\text{♄}$			-8511 Dec 31 j 22:35	0° $\text{♄}$	

Attention, astronomical year style is used: The year -8510 in astronomical counting style is the year 8511 BCE in historical counting style.

evening set	-8510 Jan 13 j 10:50	2°♌52'29			evening set	-8505 Jun 22 j 21:20	15°♏	
conjunction	-8510 Jan 27 j 01:08	6°♌02'23	-1°28'48		evening set	-8505 Jul 03 j 10:11	17°♏18'35	
minimum elong	-8510 Jan 27 j 01:04	6°♌02'21	1°29'16		max. Earth dist.	-8505 Jul 14 j 16:25	19°♏48'49	6.34638 AU
max. Earth dist.	-8510 Jan 28 j 14:44	6°♌24'19	6.07299 AU		conjunction	-8505 Jul 16 j 02:57	20°♏08'05	1°17'21
morning rise	-8510 Feb 09 j 17:38	9°♌13'21			minimum elong	-8505 Jul 16 j 02:52	20°♏08'02	1°17'43
retrograde	-8510 Jun 19 j 16:21	28°♌54'09			morning rise	-8505 Jul 28 j 16:49	22°♏56'13	
min. Earth dist.	-8510 Aug 17 j 04:56	23°♌56'38	4.10210 AU			-8505 Aug 30 j 20:00	0°♐	
opposition	-8510 Aug 18 j 01:58	23°♌49'26	-2°21'02		retrograde	-8505 Nov 27 j 01:10	10°♐17'52	
direct	-8510 Oct 15 j 14:10	18°♌49'37			opposition	-8504 Jan 26 j 20:46	5°♐26'21	2°11'11
	-8509 Jan 14 j 08:07	0°♑			min. Earth dist.	-8504 Jan 27 j 20:51	5°♐18'42	4.33203 AU
evening set	-8509 Feb 19 j 07:59	7°♑53'23			direct	-8504 Mar 29 j 07:01	0°♐27'20	
					evening set	-8504 Aug 02 j 15:59	18°♐32'00	
conjunction	-8509 Mar 05 j 01:13	11°♑01'39	-1°31'45		max. Earth dist.	-8504 Aug 13 j 19:36	21°♐02'49	6.30516 AU
minimum elong	-8509 Mar 05 j 01:16	11°♑01'40	1°32'19		conjunction	-8504 Aug 15 j 02:30	21°♐20'18	1°35'36
max. Earth dist.	-8509 Mar 06 j 05:34	11°♑17'53	6.13731 AU		minimum elong	-8504 Aug 15 j 02:29	21°♐20'17	1°36'08
morning rise	-8509 Mar 18 j 18:45	14°♑09'55			morning rise	-8504 Aug 27 j 11:38	24°♐08'02	
	-8509 Jun 09 j 01:21	0°♒				-8504 Sep 23 j 08:19	0°♑	
retrograde	-8509 Jul 23 j 13:54	3°♒05'17			retrograde	-8504 Dec 29 j 03:27	11°♑59'06	
	-8509 Sep 06 j 00:57	30°♒			opposition	-8503 Feb 28 j 08:57	7°♑06'26	2°18'39
opposition	-8509 Sep 20 j 17:39	28°♑03'08	-1°59'48		min. Earth dist.	-8503 Mar 01 j 04:38	7°♑00'11	4.27250 AU
min. Earth dist.	-8509 Sep 20 j 05:26	28°♑07'17	4.17965 AU		direct	-8503 May 01 j 04:26	2°♑10'24	
direct	-8509 Nov 19 j 05:04	23°♑00'25			evening set	-8503 Sep 03 j 01:04	20°♑21'54	
	-8508 Jan 28 j 17:37	0°♒						
evening set	-8508 Mar 26 j 06:44	11°♒49'14			conjunction	-8503 Sep 15 j 11:29	23°♑13'03	1°25'34
					minimum elong	-8503 Sep 15 j 11:33	23°♑13'05	1°26'06
conjunction	-8508 Apr 08 j 23:12	14°♒53'42	-1°03'05		max. Earth dist.	-8503 Sep 14 j 15:45	23°♑01'41	6.23192 AU
minimum elong	-8508 Apr 08 j 23:17	14°♒53'45	1°03'32		morning rise	-8503 Sep 27 j 22:34	26°♑04'39	
max. Earth dist.	-8508 Apr 09 j 06:48	14°♒57'59	6.22225 AU			-8503 Oct 15 j 09:05	0°♓	
	-8508 Apr 09 j 10:23	15°♒			retrograde	-8502 Feb 01 j 13:31	14°♓38'42	
morning rise	-8508 Apr 22 j 14:10	17°♒57'14			opposition	-8502 Apr 03 j 23:30	9°♓43'06	1°43'12
	-8508 Jun 20 j 21:48	0°♔			min. Earth dist.	-8502 Apr 04 j 06:32	9°♓40'51	4.19000 AU
retrograde	-8508 Aug 24 j 03:19	6°♔02'23			direct	-8502 Jun 03 j 14:49	4°♓49'22	
opposition	-8508 Oct 22 j 08:17	1°♔04'00	-1°00'10			-8502 Aug 29 j 01:22	15°♓	
min. Earth dist.	-8508 Oct 22 j 10:08	1°♔03'23	4.26317 AU		evening set	-8502 Oct 05 j 07:38	23°♓13'52	
	-8508 Oct 30 j 08:42	30°♔			conjunction	-8502 Oct 18 j 00:04	26°♓11'10	0°48'12
direct	-8508 Dec 22 j 03:17	25°♒59'51			minimum elong	-8502 Oct 18 j 00:08	26°♓11'12	0°48'34
	-8507 Feb 12 j 21:05	0°♔			max. Earth dist.	-8502 Oct 17 j 23:53	26°♓11'04	6.14807 AU
evening set	-8507 Apr 29 j 16:53	14°♔29'19			morning rise	-8502 Oct 30 j 18:38	29°♓09'47	
						-8502 Nov 03 j 09:30	0°♕	
conjunction	-8507 May 13 j 04:16	17°♔28'39	-0°14'54		retrograde	-8501 Mar 09 j 08:56	18°♕29'35	
minimum elong	-8507 May 13 j 04:17	17°♔28'39	0°15'05		opposition	-8501 May 09 j 12:32	13°♕30'09	0°31'59
behind sun begin	-8507 May 13 j 01:40	17°♔27'12			min. Earth dist.	-8501 May 09 j 06:01	13°♕32'16	4.11043 AU
behind sun end	-8507 May 13 j 06:55	17°♔30'06			direct	-8501 Jul 07 j 22:37	8°♕37'16	
max. Earth dist.	-8507 May 12 j 16:23	17°♔22'02	6.29887 AU		desc. node	-8501 Oct 07 j 00:15	20°♕03'39	
morning rise	-8507 May 26 j 12:21	20°♔26'16			evening set	-8501 Nov 08 j 03:20	27°♕18'46	
	-8507 Jul 11 j 17:07	0°♕				-8501 Nov 19 j 13:38	0°♖	
asc. node	-8507 Sep 02 j 23:09	7°♕08'16			conjunction	-8501 Nov 21 j 04:31	0°♖22'55	-0°06'30
retrograde	-8507 Sep 24 j 16:56	7°♕54'08			minimum elong	-8501 Nov 21 j 04:30	0°♖22'54	0°06'26
opposition	-8507 Nov 23 j 08:18	2°♕59'24	0°15'54		behind sun begin	-8501 Nov 20 j 20:49	0°♖18'23	
min. Earth dist.	-8507 Nov 23 j 21:40	2°♕55'01	4.32662 AU		behind sun end	-8501 Nov 21 j 12:11	0°♖27'24	
	-8507 Dec 17 j 19:23	30°♕			max. Earth dist.	-8501 Nov 21 j 23:25	0°♖34'02	6.08060 AU
direct	-8506 Jan 24 j 04:22	27°♕55'40			morning rise	-8501 Dec 04 j 09:14	3°♖28'57	
	-8506 Mar 02 j 22:09	0°♕			retrograde	-8500 Apr 13 j 19:54	23°♖22'31	
evening set	-8506 Jun 01 j 15:06	16°♕09'10			opposition	-8500 Jun 13 j 10:55	18°♖19'26	-0°52'42
					min. Earth dist.	-8500 Jun 12 j 15:17	18°♖25'59	4.06152 AU
conjunction	-8506 Jun 14 j 17:19	19°♕02'52	0°36'50		direct	-8500 Aug 10 j 20:44	13°♖25'25	
minimum elong	-8506 Jun 14 j 17:15	19°♕02'51	0°36'56			-8500 Dec 02 j 09:56	0°♗	
max. Earth dist.	-8506 Jun 13 j 13:00	18°♕47'11	6.34436 AU		evening set	-8500 Dec 12 j 17:22	2°♗23'39	
morning rise	-8506 Jun 27 j 16:08	21°♕54'51			conjunction	-8500 Dec 26 j 02:47	5°♗32'27	-0°59'43
	-8506 Aug 05 j 05:50	0°♘			minimum elong	-8500 Dec 26 j 02:42	5°♗32'24	0°59'59
retrograde	-8506 Oct 26 j 03:49	9°♘07'39			max. Earth dist.	-8500 Dec 27 j 12:56	5°♗52'33	6.05411 AU
opposition	-8506 Dec 25 j 07:58	4°♘15'25	1°25'54		morning rise	-8499 Jan 08 j 15:27	8°♗42'57	
min. Earth dist.	-8506 Dec 26 j 06:54	4°♘08'02	4.35189 AU					
	-8505 Feb 03 j 01:34	30°♘						
direct	-8505 Feb 25 j 20:01	29°♕13'34						
	-8505 Mar 20 j 15:42	0°♘						

Attention, astronomical year style is used: The year -8499 in astronomical counting style is the year 8500 BCE in historical counting style.

	-8499 Feb 05 j 07:55	15° $\mathbb{M}$		min. Earth dist.	-8494 Dec 30 j 19:00	8° $\mathbb{B}$ 37'14	4.35209 AU
retrograde	-8499 May 20 j 04:08	28° $\mathbb{M}$ 43'44		direct	-8493 Mar 02 j 08:09	3° $\mathbb{B}$ 42'55	
min. Earth dist.	-8499 Jul 18 j 02:09	23° $\mathbb{M}$ 46'40	4.06135 AU		-8493 Jun 05 j 23:43	15° $\mathbb{B}$	
opposition	-8499 Jul 19 j 01:40	23° $\mathbb{M}$ 38'40	-1°58'55	evening set	-8493 Jul 07 j 20:05	21° $\mathbb{B}$ 47'09	
direct	-8499 Sep 15 j 05:09	18° $\mathbb{M}$ 41'49		max. Earth dist.	-8493 Jul 19 j 00:50	24° $\mathbb{B}$ 16'47	6.34410 AU
	-8499 Dec 14 j 10:37	0° $\mathbb{A}$					
evening set	-8498 Jan 18 j 12:21	7° $\mathbb{A}$ 49'09		conjunction	-8493 Jul 20 j 11:33	24° $\mathbb{B}$ 36'11	1°21'26
				minimum elong	-8493 Jul 20 j 11:29	24° $\mathbb{B}$ 36'08	1°21'50
conjunction	-8498 Feb 01 j 03:15	10° $\mathbb{A}$ 59'01	-1°31'14	morning rise	-8493 Aug 02 j 00:28	27° $\mathbb{B}$ 23'59	
minimum elong	-8498 Feb 01 j 03:12	10° $\mathbb{A}$ 59'00	1°31'44		-8493 Aug 13 j 20:10	0° $\mathbb{B}$	
max. Earth dist.	-8498 Feb 02 j 16:14	11° $\mathbb{A}$ 20'32	6.07891 AU	retrograde	-8493 Dec 01 j 15:40	14° $\mathbb{B}$ 48'07	
morning rise	-8498 Feb 14 j 20:09	14° $\mathbb{A}$ 09'50		opposition	-8492 Jan 31 j 11:55	9° $\mathbb{B}$ 56'34	2°14'42
	-8498 May 05 j 18:34	0° $\mathbb{B}$		min. Earth dist.	-8492 Feb 01 j 12:36	9° $\mathbb{B}$ 48'43	4.32728 AU
retrograde	-8498 Jun 24 j 09:47	3° $\mathbb{B}$ 45'52		direct	-8492 Apr 02 j 22:07	4° $\mathbb{B}$ 57'56	
	-8498 Aug 13 j 02:11	30° $\mathbb{R}$ $\mathbb{A}$		evening set	-8492 Aug 07 j 00:46	23° $\mathbb{B}$ 02'36	
opposition	-8498 Aug 22 j 18:26	28° $\mathbb{A}$ 41'25	-2°20'59	max. Earth dist.	-8492 Aug 18 j 04:44	25° $\mathbb{B}$ 33'55	6.29802 AU
min. Earth dist.	-8498 Aug 21 j 21:51	28° $\mathbb{A}$ 48'27	4.10975 AU				
direct	-8498 Oct 20 j 08:04	23° $\mathbb{A}$ 41'09		conjunction	-8492 Aug 19 j 10:53	25° $\mathbb{B}$ 50'59	1°35'57
	-8498 Dec 24 j 19:30	0° $\mathbb{B}$		minimum elong	-8492 Aug 19 j 10:53	25° $\mathbb{B}$ 50'59	1°36'30
evening set	-8497 Feb 24 j 08:21	12° $\mathbb{B}$ 44'10		morning rise	-8492 Aug 31 j 19:53	28° $\mathbb{B}$ 38'57	
					-8492 Sep 06 j 20:25	0° $\mathbb{B}$	
conjunction	-8497 Mar 10 j 01:40	15° $\mathbb{B}$ 52'07	-1°29'29	retrograde	-8491 Jan 02 j 19:20	16° $\mathbb{B}$ 34'46	
minimum elong	-8497 Mar 10 j 01:43	15° $\mathbb{B}$ 52'09	1°30'01	opposition	-8491 Mar 05 j 02:58	11° $\mathbb{B}$ 41'45	2°16'15
max. Earth dist.	-8497 Mar 11 j 02:07	16° $\mathbb{B}$ 06'06	6.14607 AU	min. Earth dist.	-8491 Mar 05 j 20:28	11° $\mathbb{B}$ 36'11	4.26338 AU
morning rise	-8497 Mar 23 j 19:15	19° $\mathbb{B}$ 00'00		direct	-8491 May 05 j 18:02	6° $\mathbb{B}$ 46'05	
	-8497 May 15 j 00:07	0° $\mathbb{B}$		evening set	-8491 Sep 07 j 11:10	24° $\mathbb{B}$ 58'37	
retrograde	-8497 Jul 28 j 04:34	7° $\mathbb{B}$ 49'23					
opposition	-8497 Sep 25 j 07:17	2° $\mathbb{B}$ 47'41	-1°53'24	conjunction	-8491 Sep 19 j 22:07	27° $\mathbb{B}$ 50'25	1°21'52
min. Earth dist.	-8497 Sep 24 j 21:35	2° $\mathbb{B}$ 50'59	4.18854 AU	minimum elong	-8491 Sep 19 j 22:11	27° $\mathbb{B}$ 50'27	1°22'23
	-8497 Oct 17 j 04:13	30° $\mathbb{R}$ $\mathbb{B}$		max. Earth dist.	-8491 Sep 19 j 05:19	27° $\mathbb{B}$ 40'44	6.22156 AU
direct	-8497 Nov 23 j 23:32	27° $\mathbb{B}$ 44'38			-8491 Sep 29 j 07:12	0° $\mathbb{B}$	
	-8496 Jan 01 j 04:53	0° $\mathbb{B}$		morning rise	-8491 Oct 02 j 09:50	0° $\mathbb{B}$ 42'46	
	-8496 Mar 24 j 05:59	15° $\mathbb{B}$			-8491 Dec 13 j 05:16	15° $\mathbb{B}$	
evening set	-8496 Mar 31 j 03:31	16° $\mathbb{B}$ 31'56		retrograde	-8490 Feb 06 j 11:57	19° $\mathbb{B}$ 22'57	
					-8490 Apr 04 j 13:26	15° $\mathbb{R}$ $\mathbb{B}$	
conjunction	-8496 Apr 13 j 19:49	19° $\mathbb{B}$ 35'58	-0°57'11	opposition	-8490 Apr 08 j 20:53	14° $\mathbb{B}$ 26'54	1°35'05
minimum elong	-8496 Apr 13 j 19:54	19° $\mathbb{B}$ 36'01	0°57'36	min. Earth dist.	-8490 Apr 09 j 03:13	14° $\mathbb{B}$ 24'52	4.17881 AU
max. Earth dist.	-8496 Apr 14 j 01:57	19° $\mathbb{B}$ 39'25	6.23093 AU	direct	-8490 Jun 08 j 09:19	9° $\mathbb{B}$ 33'23	
morning rise	-8496 Apr 27 j 09:59	22° $\mathbb{B}$ 38'51			-8490 Aug 08 j 03:59	15° $\mathbb{B}$	
	-8496 May 31 j 16:29	0° $\mathbb{H}$		evening set	-8490 Oct 09 j 21:49	27° $\mathbb{B}$ 59'55	
retrograde	-8496 Aug 28 j 13:51	10° $\mathbb{H}$ 38'48			-8490 Oct 18 j 11:48	0° $\mathbb{H}$	
opposition	-8496 Oct 26 j 19:56	5° $\mathbb{H}$ 40'58	-0°50'00				
min. Earth dist.	-8496 Oct 26 j 22:36	5° $\mathbb{H}$ 40'05	4.27093 AU	conjunction	-8490 Oct 22 j 15:16	0° $\mathbb{H}$ 58'10	0°41'18
direct	-8496 Dec 26 j 17:35	0° $\mathbb{H}$ 36'48		minimum elong	-8490 Oct 22 j 15:19	0° $\mathbb{H}$ 58'12	0°41'37
evening set	-8495 May 04 j 09:40	19° $\mathbb{H}$ 04'40		max. Earth dist.	-8490 Oct 22 j 16:37	0° $\mathbb{H}$ 58'58	6.13713 AU
				morning rise	-8490 Nov 04 j 11:18	3° $\mathbb{H}$ 57'54	
conjunction	-8495 May 17 j 19:51	22° $\mathbb{H}$ 03'17	-0°07'32	retrograde	-8489 Mar 14 j 08:39	23° $\mathbb{H}$ 23'30	
minimum elong	-8495 May 17 j 19:52	22° $\mathbb{H}$ 03'18	0°07'40	opposition	-8489 May 14 j 11:51	18° $\mathbb{H}$ 23'33	0°20'21
behind sun begin	-8495 May 17 j 12:29	21° $\mathbb{H}$ 59'12		min. Earth dist.	-8489 May 14 j 02:39	18° $\mathbb{H}$ 26'33	4.10066 AU
behind sun end	-8495 May 18 j 03:16	22° $\mathbb{H}$ 07'23		direct	-8489 Jul 12 j 17:08	13° $\mathbb{H}$ 30'38	
max. Earth dist.	-8495 May 17 j 04:22	21° $\mathbb{H}$ 54'41	6.30525 AU	desc. node	-8489 Aug 17 j 04:50	15° $\mathbb{H}$ 32'25	
morning rise	-8495 May 31 j 02:58	25° $\mathbb{H}$ 00'14			-8489 Nov 03 j 07:24	0° $\mathbb{B}$	
	-8495 Jun 23 j 06:33	0° $\mathbb{Y}$		evening set	-8489 Nov 12 j 23:35	2° $\mathbb{B}$ 15'00	
asc. node	-8495 Jul 13 j 13:30	4° $\mathbb{Y}$ 02'44					
retrograde	-8495 Sep 29 j 04:07	12° $\mathbb{Y}$ 25'11		conjunction	-8489 Nov 26 j 02:04	5° $\mathbb{B}$ 20'02	-0°14'27
opposition	-8495 Nov 27 j 19:56	7° $\mathbb{Y}$ 30'51	0°26'35	minimum elong	-8489 Nov 26 j 02:02	5° $\mathbb{B}$ 20'01	0°14'26
min. Earth dist.	-8495 Nov 28 j 11:20	7° $\mathbb{Y}$ 25'49	4.33123 AU	behind sun begin	-8489 Nov 25 j 22:18	5° $\mathbb{B}$ 17'50	
direct	-8494 Jan 28 j 19:37	2° $\mathbb{Y}$ 27'16		behind sun end	-8489 Nov 26 j 05:46	5° $\mathbb{B}$ 22'13	
evening set	-8494 Jun 06 j 03:40	20° $\mathbb{Y}$ 39'27		max. Earth dist.	-8489 Nov 26 j 23:45	5° $\mathbb{B}$ 32'50	6.07285 AU
max. Earth dist.	-8494 Jun 18 j 00:23	23° $\mathbb{Y}$ 16'48	6.34676 AU	morning rise	-8489 Dec 09 j 07:57	8° $\mathbb{B}$ 26'58	
				retrograde	-8488 Apr 18 j 23:14	28° $\mathbb{B}$ 24'03	
conjunction	-8494 Jun 19 j 04:41	23° $\mathbb{Y}$ 32'30	0°43'30	opposition	-8488 Jun 18 j 10:45	23° $\mathbb{B}$ 20'34	-1°03'46
minimum elong	-8494 Jun 19 j 04:38	23° $\mathbb{Y}$ 32'28	0°43'40	min. Earth dist.	-8488 Jun 17 j 15:00	23° $\mathbb{B}$ 27'11	4.05650 AU
morning rise	-8494 Jul 02 j 02:03	26° $\mathbb{Y}$ 23'48		direct	-8488 Aug 15 j 19:13	18° $\mathbb{B}$ 26'13	
	-8494 Jul 18 j 16:11	0° $\mathbb{B}$			-8488 Nov 14 j 19:06	0° $\mathbb{M}$	
retrograde	-8494 Oct 30 j 13:25	13° $\mathbb{B}$ 36'28		evening set	-8488 Dec 17 j 19:21	7° $\mathbb{M}$ 27'12	
opposition	-8494 Dec 29 j 20:42	8° $\mathbb{B}$ 44'24	1°34'07				

Attention, astronomical year style is used: The year -8487 in astronomical counting style is the year 8488 BCE in historical counting style.

conjunction	-8488 Dec 31 j 05:45	10° $\mathbb{M}$ 36'29	-1°05'49			-8482 Jul 02 j 15:05	0° $\mathcal{B}$	
minimum elong	-8488 Dec 31 j 05:39	10° $\mathbb{M}$ 36'26	1°06'08	morning rise		-8482 Jul 06 j 10:37	0° $\mathcal{B}$ 50'29	
max. Earth dist.	-8487 Jan 01 j 17:10	10° $\mathbb{M}$ 57'19	6.05208 AU			-8482 Sep 20 j 03:41	15° $\mathcal{B}$	
morning rise	-8487 Jan 13 j 19:19	13° $\mathbb{M}$ 47'25		retrograde		-8482 Nov 03 j 22:56	18° $\mathcal{B}$ 01'16	
	-8487 Jan 19 j 00:10	15° $\mathbb{M}$				-8482 Dec 19 j 12:56	15° $\mathcal{R}\mathcal{B}$	
	-8487 Apr 05 j 01:27	0° $\mathcal{A}$		opposition		-8481 Jan 03 j 07:49	13° $\mathcal{B}$ 09'21	1°41'32
retrograde	-8487 May 25 j 04:38	3° $\mathcal{A}$ 47'39		min. Earth dist.		-8481 Jan 04 j 07:41	13° $\mathcal{B}$ 01'41	4.35753 AU
	-8487 Jul 14 j 10:07	30° $\mathcal{R}\mathbb{M}$		direct		-8481 Mar 06 j 21:44	8° $\mathcal{B}$ 08'07	
min. Earth dist.	-8487 Jul 22 j 23:55	28° $\mathbb{M}$ 50'46	4.06282 AU			-8481 May 17 j 21:47	15° $\mathcal{B}$	
opposition	-8487 Jul 24 j 00:01	28° $\mathbb{M}$ 42'34	-2°05'02	evening set		-8481 Jul 12 j 03:03	26° $\mathcal{B}$ 09'47	
direct	-8487 Sep 20 j 02:16	23° $\mathbb{M}$ 45'17		max. Earth dist.		-8481 Jul 23 j 07:25	28° $\mathcal{B}$ 39'12	6.34604 AU
	-8487 Nov 23 j 08:50	0° $\mathcal{A}$						
evening set	-8486 Jan 23 j 17:16	12° $\mathcal{A}$ 53'57		conjunction		-8481 Jul 24 j 17:31	28° $\mathcal{B}$ 58'15	1°24'55
				minimum elong		-8481 Jul 24 j 17:28	28° $\mathcal{B}$ 58'13	1°25'21
conjunction	-8486 Feb 06 j 08:37	16° $\mathcal{A}$ 03'50	-1°33'04			-8481 Jul 29 j 08:01	0° $\mathbb{I}$	
minimum elong	-8486 Feb 06 j 08:35	16° $\mathcal{A}$ 03'49	1°33'36	morning rise		-8481 Aug 06 j 05:22	1° $\mathbb{I}$ 45'33	
max. Earth dist.	-8486 Feb 07 j 19:36	16° $\mathcal{A}$ 24'09	6.08348 AU	retrograde		-8481 Dec 05 j 23:58	19° $\mathbb{I}$ 10'59	
morning rise	-8486 Feb 20 j 01:57	19° $\mathcal{A}$ 14'33		opposition		-8480 Feb 04 j 23:51	14° $\mathbb{I}$ 19'18	2°17'15
	-8486 Apr 11 j 00:09	0° $\mathcal{B}$		min. Earth dist.		-8480 Feb 05 j 23:39	14° $\mathbb{I}$ 11'45	4.32565 AU
retrograde	-8486 Jun 29 j 06:58	8° $\mathcal{B}$ 46'11		direct		-8480 Apr 07 j 08:01	9° $\mathbb{I}$ 21'03	
opposition	-8486 Aug 27 j 14:01	3° $\mathcal{B}$ 42'01	-2°19'57	evening set		-8480 Aug 11 j 05:56	27° $\mathbb{I}$ 24'46	
min. Earth dist.	-8486 Aug 26 j 18:46	3° $\mathcal{B}$ 48'36	4.11699 AU	max. Earth dist.		-8480 Aug 22 j 09:48	29° $\mathbb{I}$ 56'16	6.29283 AU
	-8486 Sep 27 j 05:11	30° $\mathcal{R}\mathcal{A}$				-8480 Aug 22 j 16:23	0° $\mathcal{B}$	
direct	-8486 Oct 25 j 07:12	28° $\mathcal{A}$ 41'18						
	-8486 Nov 22 j 15:35	0° $\mathcal{B}$		conjunction		-8480 Aug 23 j 15:36	0° $\mathcal{B}$ 13'11	1°35'43
evening set	-8485 Mar 01 j 12:04	17° $\mathcal{B}$ 43'36		minimum elong		-8480 Aug 23 j 15:37	0° $\mathcal{B}$ 13'11	1°36'16
				morning rise		-8480 Sep 05 j 00:33	3° $\mathcal{B}$ 01'19	
conjunction	-8485 Mar 15 j 05:41	20° $\mathcal{B}$ 51'16	-1°26'31	retrograde		-8479 Jan 07 j 09:50	21° $\mathcal{B}$ 01'28	
minimum elong	-8485 Mar 15 j 05:45	20° $\mathcal{B}$ 51'18	1°27'03	opposition		-8479 Mar 09 j 17:27	16° $\mathcal{B}$ 08'09	2°13'05
max. Earth dist.	-8485 Mar 16 j 05:44	21° $\mathcal{B}$ 04'59	6.15575 AU	min. Earth dist.		-8479 Mar 10 j 11:24	16° $\mathcal{B}$ 02'27	4.25468 AU
morning rise	-8485 Mar 28 j 22:54	23° $\mathcal{B}$ 58'36		direct		-8479 May 10 j 07:07	11° $\mathcal{B}$ 12'45	
	-8485 Apr 25 j 07:13	0° $\approx$		evening set		-8479 Sep 11 j 17:49	29° $\mathcal{B}$ 26'24	
retrograde	-8485 Aug 01 j 21:31	12° $\approx$ 41'18				-8479 Sep 14 j 04:23	0° $\mathcal{Q}$	
opposition	-8485 Sep 29 j 23:37	7° $\approx$ 40'11	-1°46'05					
min. Earth dist.	-8485 Sep 29 j 14:46	7° $\approx$ 43'11	4.19988 AU	conjunction		-8479 Sep 24 j 05:23	2° $\mathcal{Q}$ 18'56	1°17'48
direct	-8485 Nov 28 j 19:13	2° $\approx$ 36'58		minimum elong		-8479 Sep 24 j 05:27	2° $\mathcal{Q}$ 18'58	1°18'18
	-8484 Mar 06 j 16:43	15° $\approx$		max. Earth dist.		-8479 Sep 23 j 13:25	2° $\mathcal{Q}$ 09'43	6.21023 AU
evening set	-8484 Apr 05 j 02:57	21° $\approx$ 21'37		morning rise		-8479 Oct 06 j 17:59	5° $\mathcal{Q}$ 12'09	
						-8479 Nov 21 j 06:29	15° $\mathcal{Q}$	
conjunction	-8484 Apr 18 j 18:31	24° $\approx$ 24'55	-0°50'49	retrograde		-8478 Feb 11 j 04:50	23° $\mathcal{Q}$ 58'48	
minimum elong	-8484 Apr 18 j 18:35	24° $\approx$ 24'57	0°51'12	opposition		-8478 Apr 13 j 14:22	19° $\mathcal{Q}$ 02'17	1°26'38
max. Earth dist.	-8484 Apr 18 j 21:08	24° $\approx$ 26'23	6.24337 AU	min. Earth dist.		-8478 Apr 13 j 18:39	19° $\mathcal{Q}$ 00'54	4.16564 AU
morning rise	-8484 May 02 j 08:04	27° $\approx$ 26'59				-8478 May 20 j 17:18	15° $\mathcal{R}\mathcal{Q}$	
	-8484 May 13 j 21:26	0° $\mathcal{H}$		direct		-8478 Jun 12 j 21:34	14° $\mathcal{Q}$ 08'55	
retrograde	-8484 Sep 02 j 02:39	15° $\mathcal{H}$ 20'24				-8478 Jul 06 j 00:14	15° $\mathcal{Q}$	
opposition	-8484 Oct 31 j 09:42	10° $\mathcal{H}$ 23'03	-0°39'25			-8478 Oct 02 j 22:18	0° $\mathcal{H}$	
min. Earth dist.	-8484 Oct 31 j 14:05	10° $\mathcal{H}$ 21'36	4.28352 AU	evening set		-8478 Oct 14 j 09:31	2° $\mathcal{H}$ 38'40	
direct	-8484 Dec 31 j 12:02	5° $\mathcal{H}$ 18'52						
evening set	-8483 May 09 j 02:50	23° $\mathcal{H}$ 43'03		conjunction		-8478 Oct 27 j 04:11	5° $\mathcal{H}$ 38'03	0°34'20
				minimum elong		-8478 Oct 27 j 04:14	5° $\mathcal{H}$ 38'05	0°34'37
conjunction	-8483 May 22 j 11:56	26° $\mathcal{H}$ 40'41	-0°00'02	max. Earth dist.		-8478 Oct 27 j 07:43	5° $\mathcal{H}$ 40'07	6.12344 AU
minimum elong	-8483 May 22 j 11:56	26° $\mathcal{H}$ 40'41	0°00'09	morning rise		-8478 Nov 09 j 01:33	8° $\mathcal{H}$ 38'59	
behind sun begin	-8483 May 22 j 03:52	26° $\mathcal{H}$ 36'13		retrograde		-8477 Mar 19 j 09:01	28° $\mathcal{H}$ 11'36	
behind sun end	-8483 May 22 j 20:00	26° $\mathcal{H}$ 45'08		opposition		-8477 May 19 j 08:46	23° $\mathcal{H}$ 11'09	0°08'52
max. Earth dist.	-8483 May 21 j 20:17	26° $\mathcal{H}$ 32'01	6.31731 AU	min. Earth dist.		-8477 May 18 j 23:00	23° $\mathcal{H}$ 14'22	4.08750 AU
asc. node	-8483 May 22 j 17:03	26° $\mathcal{H}$ 43'29		desc. node		-8477 Jun 29 j 08:00	18° $\mathcal{H}$ 50'44	
morning rise	-8483 Jun 04 j 17:31	29° $\mathcal{H}$ 36'33		direct		-8477 Jul 17 j 10:52	18° $\mathcal{H}$ 18'07	
	-8483 Jun 06 j 12:08	0° $\mathcal{Y}$				-8477 Oct 17 j 09:22	0° $\mathcal{U}$	
retrograde	-8483 Oct 03 j 12:41	16° $\mathcal{Y}$ 56'47		evening set		-8477 Nov 17 j 18:34	7° $\mathcal{U}$ 06'55	
opposition	-8483 Dec 02 j 07:38	12° $\mathcal{Y}$ 02'50	0°37'00					
min. Earth dist.	-8483 Dec 02 j 23:21	11° $\mathcal{Y}$ 57'43	4.34190 AU	conjunction		-8477 Nov 30 j 22:23	10° $\mathcal{U}$ 13'03	-0°22'08
direct	-8482 Feb 02 j 09:29	6° $\mathcal{Y}$ 59'31		minimum elong		-8477 Nov 30 j 22:20	10° $\mathcal{U}$ 13'01	0°22'09
evening set	-8482 Jun 10 j 15:12	25° $\mathcal{Y}$ 08'03		max. Earth dist.		-8477 Dec 01 j 22:23	10° $\mathcal{U}$ 27'13	6.06159 AU
max. Earth dist.	-8482 Jun 22 j 07:50	27° $\mathcal{Y}$ 43'05	6.35507 AU	morning rise		-8477 Dec 14 j 05:40	13° $\mathcal{U}$ 21'04	
						-8476 Mar 07 j 12:57	0° $\mathbb{M}$	
conjunction	-8482 Jun 23 j 14:32	28° $\mathcal{Y}$ 00'06	0°49'47	retrograde		-8476 Apr 24 j 00:35	3° $\mathbb{M}$ 22'48	
minimum elong	-8482 Jun 23 j 14:28	28° $\mathcal{Y}$ 00'04	0°49'59			-8476 Jun 10 j 14:39	30° $\mathcal{R}\mathcal{U}$	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 38

Attention, astronomical year style is used: The year -8476 in astronomical counting style is the year 8477 BCE in historical counting style.

opposition	-8476 Jun 23 j 09:24	28°♌19'00	-1°14'11	direct	-8470 Feb 06 j 23:31	11°♏29'17	
min. Earth dist.	-8476 Jun 22 j 12:09	28°♌26'09	4.04859 AU	evening set	-8470 Jun 15 j 01:59	29°♏35'57	
direct	-8476 Aug 20 j 14:13	23°♌24'24			-8470 Jun 16 j 21:43	0°♏	
	-8476 Oct 25 j 12:02	0°♌		max. Earth dist.	-8470 Jun 26 j 17:21	2°♏10'18	6.35765 AU
evening set	-8476 Dec 22 j 21:30	12°♌29'19					
	-8475 Jan 02 j 14:13	15°♌		conjunction	-8470 Jun 28 j 00:05	2°♏27'20	0°55'51
				minimum elong	-8470 Jun 28 j 00:01	2°♏27'18	0°56'05
conjunction	-8475 Jan 05 j 08:46	15°♌39'10	-1°11'20	morning rise	-8470 Jul 10 j 18:42	5°♏17'03	
minimum elong	-8475 Jan 05 j 08:41	15°♌39'07	1°11'40		-8470 Aug 27 j 01:53	15°♏	
max. Earth dist.	-8475 Jan 06 j 20:29	16°♌00'10	6.04808 AU	retrograde	-8470 Nov 08 j 08:20	22°♏28'18	
morning rise	-8475 Jan 18 j 23:15	18°♌50'37		opposition	-8469 Jan 07 j 20:08	17°♏36'34	1°48'34
	-8475 Mar 11 j 06:21	0°♌		min. Earth dist.	-8469 Jan 08 j 20:11	17°♏28'52	4.35640 AU
retrograde	-8475 May 30 j 04:44	8°♌50'44			-8469 Jan 29 j 07:58	15°♏	
opposition	-8475 Jul 28 j 21:57	3°♌45'34	-2°10'08	direct	-8469 Mar 11 j 09:52	12°♏35'47	
min. Earth dist.	-8475 Jul 27 j 21:44	3°♌53'50	4.06329 AU		-8469 Apr 21 j 09:47	15°♏	
	-8475 Aug 29 j 09:18	30°♌			-8469 Jul 13 j 16:29	0°♏	
direct	-8475 Sep 25 j 01:26	28°♌47'48		evening set	-8469 Jul 16 j 11:35	0°♏37'09	
	-8475 Oct 21 j 21:03	0°♌		max. Earth dist.	-8469 Jul 27 j 13:27	3°♏05'30	6.34103 AU
evening set	-8474 Jan 28 j 22:24	17°♌57'57					
				conjunction	-8469 Jul 29 j 00:55	3°♏25'21	1°28'03
conjunction	-8474 Feb 11 j 14:30	21°♌07'53	-1°34'09	minimum elong	-8469 Jul 29 j 00:52	3°♏25'19	1°28'31
minimum elong	-8474 Feb 11 j 14:29	21°♌07'53	1°34'41	morning rise	-8469 Aug 10 j 12:10	6°♏12'33	
max. Earth dist.	-8474 Feb 13 j 02:49	21°♌28'57	6.08844 AU	retrograde	-8469 Dec 10 j 14:47	23°♏41'55	
morning rise	-8474 Feb 25 j 07:58	24°♌18'27		opposition	-8468 Feb 09 j 15:20	18°♏50'08	2°19'13
	-8474 Mar 22 j 16:30	0°♌		min. Earth dist.	-8468 Feb 10 j 15:36	18°♏42'27	4.31716 AU
retrograde	-8474 Jul 04 j 04:17	13°♌44'55		direct	-8468 Apr 11 j 22:36	13°♏52'17	
opposition	-8474 Sep 01 j 09:11	8°♌41'02	-2°17'49		-8468 Aug 06 j 21:16	0°♏	
min. Earth dist.	-8474 Aug 31 j 14:38	8°♌47'22	4.12578 AU	evening set	-8468 Aug 15 j 14:44	1°♏57'19	
direct	-8474 Oct 30 j 05:04	3°♌39'55		max. Earth dist.	-8468 Aug 26 j 20:32	4°♏30'16	6.28156 AU
evening set	-8473 Mar 06 j 15:06	22°♌40'30					
				conjunction	-8468 Aug 28 j 00:27	4°♏46'08	1°34'56
conjunction	-8473 Mar 20 j 08:36	25°♌47'39	-1°22'56	minimum elong	-8468 Aug 28 j 00:28	4°♏46'09	1°35'29
minimum elong	-8473 Mar 20 j 08:40	25°♌47'41	1°23'27	morning rise	-8468 Sep 09 j 09:26	7°♏34'48	
max. Earth dist.	-8473 Mar 21 j 05:34	25°♌59'35	6.16738 AU	retrograde	-8467 Jan 12 j 03:39	25°♏41'22	
morning rise	-8473 Apr 03 j 01:45	28°♌54'25		opposition	-8467 Mar 14 j 13:01	20°♏47'43	2°09'01
	-8473 Apr 07 j 22:18	0°♌		min. Earth dist.	-8467 Mar 15 j 04:51	20°♏42'41	4.24149 AU
	-8473 Jun 27 j 17:54	15°♌		direct	-8467 May 14 j 22:06	15°♏52'44	
retrograde	-8473 Aug 06 j 12:03	17°♌29'39			-8467 Aug 28 j 20:50	0°♏	
	-8473 Sep 15 j 02:31	15°♌		evening set	-8467 Sep 16 j 05:56	4°♏08'53	
opposition	-8473 Oct 04 j 15:01	12°♌28'55	-1°38'05				
min. Earth dist.	-8473 Oct 04 j 07:29	12°♌31'28	4.21279 AU	conjunction	-8467 Sep 28 j 18:10	7°♏02'19	1°13'02
direct	-8473 Dec 03 j 14:53	7°♌25'24		minimum elong	-8467 Sep 28 j 18:15	7°♏02'22	1°13'32
	-8472 Feb 15 j 23:32	15°♌		max. Earth dist.	-8467 Sep 28 j 04:18	6°♏54'17	6.19634 AU
evening set	-8472 Apr 10 j 00:24	26°♌06'41		morning rise	-8467 Oct 11 j 07:49	9°♏56'37	
					-8467 Nov 02 j 19:08	15°♏	
conjunction	-8472 Apr 23 j 15:24	29°♌09'11	-0°44'10	retrograde	-8466 Feb 16 j 06:39	28°♏50'43	
minimum elong	-8472 Apr 23 j 15:28	29°♌09'13	0°44'30	opposition	-8466 Apr 18 j 14:21	23°♏53'41	1°17'08
max. Earth dist.	-8472 Apr 23 j 16:23	29°♌09'44	6.25649 AU	min. Earth dist.	-8466 Apr 18 j 17:03	23°♏52'49	4.15203 AU
	-8472 Apr 27 j 10:13	0°♌		direct	-8466 Jun 17 j 17:52	19°♏00'30	
morning rise	-8472 May 07 j 03:55	2°♌10'19			-8466 Sep 15 j 09:38	0°♏	
retrograde	-8472 Sep 06 j 13:39	19°♌57'17		evening set	-8466 Oct 19 j 03:12	7°♏33'20	
opposition	-8472 Nov 04 j 21:58	15°♌00'29	-0°28'41				
min. Earth dist.	-8472 Nov 05 j 04:03	14°♌58'28	4.29532 AU	conjunction	-8466 Oct 31 j 23:12	10°♏33'48	0°26'45
direct	-8471 Jan 05 j 04:06	9°♌56'20		minimum elong	-8466 Oct 31 j 23:15	10°♏33'50	0°26'59
asc. node	-8471 Mar 31 j 21:09	19°♌22'28		max. Earth dist.	-8466 Nov 01 j 06:27	10°♏38'03	6.11175 AU
evening set	-8471 May 13 j 18:27	28°♌17'18		morning rise	-8466 Nov 13 j 22:00	13°♏35'55	
	-8471 May 21 j 12:34	0°♏			-8465 Feb 05 j 18:23	0°♏	
max. Earth dist.	-8471 May 26 j 06:49	1°♏03'18	6.32665 AU	retrograde	-8465 Mar 24 j 12:58	3°♏14'15	
				desc. node	-8465 May 09 j 10:12	0°♏08'56	
conjunction	-8471 May 27 j 02:12	1°♏14'02	0°07'26		-8465 May 10 j 15:28	30°♏	
minimum elong	-8471 May 27 j 02:11	1°♏14'02	0°07'23	opposition	-8465 May 24 j 10:59	28°♏13'18	-0°03'16
behind sun begin	-8471 May 26 j 18:44	1°♏09'55		min. Earth dist.	-8465 May 23 j 22:37	28°♏17'23	4.07921 AU
behind sun end	-8471 May 27 j 09:38	1°♏18'08		direct	-8465 Jul 22 j 08:26	23°♏20'16	
morning rise	-8471 Jun 09 j 06:37	4°♏09'01			-8465 Sep 26 j 22:40	0°♏	
retrograde	-8471 Oct 07 j 22:11	21°♏26'00		evening set	-8465 Nov 22 j 18:51	12°♏11'32	
opposition	-8471 Dec 06 j 18:51	16°♏32'24	0°47'12				
min. Earth dist.	-8471 Dec 07 j 12:23	16°♏26'42	4.34817 AU	conjunction	-8465 Dec 05 j 23:44	15°♏18'19	-0°29'59

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 39

Attention, astronomical year style is used: The year -8465 in astronomical counting style is the year 8466 BCE in historical counting style.

minimum elong	-8465 Dec 05 j 23:41	15°♌18'17	0°30'04	morning rise	-8459 Jun 13 j 15:47	8°♊33'03	
max. Earth dist.	-8465 Dec 07 j 01:49	15°♌33'42	6.05749 AU	retrograde	-8459 Oct 12 j 05:42	25°♊48'38	
morning rise	-8465 Dec 19 j 08:16	18°♌27'02		opposition	-8459 Dec 11 j 03:52	20°♊55'26	0°56'51
	-8464 Feb 10 j 13:02	0°♍		min. Earth dist.	-8459 Dec 11 j 23:13	20°♊49'10	4.34908 AU
retrograde	-8464 Apr 29 j 03:12	8°♍29'58		direct	-8458 Feb 11 j 10:51	15°♊52'35	
min. Earth dist.	-8464 Jun 27 j 12:00	3°♍33'24	4.04940 AU		-8458 Jun 01 j 00:32	0°♋	
opposition	-8464 Jun 28 j 10:39	3°♍25'46	-1°24'19	evening set	-8458 Jun 19 j 10:58	3°♋59'11	
	-8464 Jul 26 j 18:09	30°♋♌		max. Earth dist.	-8458 Jun 30 j 22:23	6°♋31'38	6.35426 AU
direct	-8464 Aug 25 j 14:46	28°♌30'46					
	-8464 Sep 24 j 10:59	0°♍		conjunction	-8458 Jul 02 j 07:43	6°♋50'08	1°01'28
	-8464 Dec 16 j 19:51	15°♍		minimum elong	-8458 Jul 02 j 07:38	6°♋50'05	1°01'43
evening set	-8464 Dec 28 j 01:32	17°♍36'10		morning rise	-8458 Jul 15 j 01:19	9°♋39'31	
					-8458 Aug 08 j 21:08	15°♋	
conjunction	-8463 Jan 10 j 13:44	20°♍46'06	-1°16'24	retrograde	-8458 Nov 12 j 18:52	26°♋53'18	
minimum elong	-8463 Jan 10 j 13:39	20°♍46'03	1°16'47	opposition	-8457 Jan 12 j 08:02	22°♋01'39	1°54'54
max. Earth dist.	-8463 Jan 12 j 04:14	21°♍08'41	6.05364 AU	min. Earth dist.	-8457 Jan 13 j 08:45	21°♋53'46	4.34929 AU
morning rise	-8463 Jan 24 j 04:41	23°♍57'27		direct	-8457 Mar 15 j 21:24	17°♋01'13	
	-8463 Feb 19 j 20:14	0°♎			-8457 Jun 27 j 11:21	0°♌	
retrograde	-8463 Jun 04 j 04:50	13°♎53'11		evening set	-8457 Jul 20 j 20:01	5°♌04'14	
opposition	-8463 Aug 02 j 19:22	8°♎48'01	-2°14'12	max. Earth dist.	-8457 Jul 31 j 23:00	7°♌33'35	6.33073 AU
min. Earth dist.	-8463 Aug 01 j 19:40	8°♎56'07	4.07318 AU				
direct	-8463 Sep 30 j 00:41	3°♎49'46		conjunction	-8457 Aug 02 j 08:44	7°♌52'31	1°30'36
evening set	-8462 Feb 03 j 01:48	22°♎57'46		minimum elong	-8457 Aug 02 j 08:41	7°♌52'29	1°31'05
				morning rise	-8457 Aug 14 j 19:13	10°♌39'50	
conjunction	-8462 Feb 16 j 18:02	26°♎07'12	-1°34'34	retrograde	-8457 Dec 15 j 05:45	28°♌14'47	
minimum elong	-8462 Feb 16 j 18:02	26°♎07'12	1°35'06	opposition	-8456 Feb 14 j 07:59	23°♌22'54	2°20'19
max. Earth dist.	-8462 Feb 18 j 03:57	26°♎26'48	6.10139 AU	min. Earth dist.	-8456 Feb 15 j 07:04	23°♌15'36	4.30452 AU
morning rise	-8462 Mar 02 j 11:44	29°♎17'11		direct	-8456 Apr 16 j 12:23	18°♌25'33	
	-8462 Mar 05 j 14:35	0°♏			-8456 Jul 21 j 00:57	0°♍	
retrograde	-8462 Jul 08 j 19:26	18°♏35'40		evening set	-8456 Aug 20 j 01:01	6°♍33'01	
min. Earth dist.	-8462 Sep 05 j 07:25	13°♏38'04	4.14044 AU	max. Earth dist.	-8456 Aug 31 j 07:36	9°♍06'58	6.26759 AU
opposition	-8462 Sep 06 j 01:01	13°♏32'03	-2°14'46				
direct	-8462 Nov 04 j 00:19	8°♏30'27		conjunction	-8456 Sep 01 j 10:37	9°♍22'23	1°33'31
evening set	-8461 Mar 11 j 13:49	27°♏27'25		minimum elong	-8456 Sep 01 j 10:38	9°♍22'24	1°34'03
	-8461 Mar 22 j 19:33	0°♐		morning rise	-8456 Sep 13 j 20:04	12°♍11'47	
					-8456 Dec 31 j 10:33	0°♑	
conjunction	-8461 Mar 25 j 07:14	0°♐33'52	-1°18'55	retrograde	-8455 Jan 17 j 01:55	0°♑25'38	
minimum elong	-8461 Mar 25 j 07:19	0°♐33'55	1°19'25		-8455 Feb 02 j 17:27	30°♑♒	
max. Earth dist.	-8461 Mar 26 j 01:43	0°♐44'22	6.18261 AU	opposition	-8455 Mar 19 j 10:51	25°♑31'34	2°03'59
morning rise	-8461 Apr 07 j 23:50	3°♐39'45		min. Earth dist.	-8455 Mar 20 j 00:48	25°♑27'07	4.22710 AU
	-8461 Jun 01 j 14:47	15°♐		direct	-8455 May 19 j 16:12	20°♑36'55	
retrograde	-8461 Aug 10 j 23:20	22°♐06'50			-8455 Aug 10 j 19:29	0°♒	
opposition	-8461 Oct 09 j 02:08	17°♐06'38	-1°29'46	evening set	-8455 Sep 20 j 20:01	8°♒55'41	
min. Earth dist.	-8461 Oct 08 j 21:24	17°♐08'14	4.22689 AU				
	-8461 Oct 25 j 05:30	15°♑		conjunction	-8455 Oct 03 j 09:16	11°♒50'05	1°07'41
direct	-8461 Dec 08 j 06:58	12°♑02'53		minimum elong	-8455 Oct 03 j 09:20	11°♒50'08	1°08'08
	-8460 Jan 21 j 18:04	15°♑		max. Earth dist.	-8455 Oct 02 j 23:38	11°♒44'30	6.18303 AU
	-8460 Apr 11 j 15:38	0°♒		morning rise	-8455 Oct 15 j 23:55	14°♒45'26	
evening set	-8460 Apr 14 j 17:09	0°♒40'40			-8455 Oct 17 j 01:12	15°♒	
					-8454 Jan 01 j 10:03	0°♓	
conjunction	-8460 Apr 28 j 07:24	3°♒42'23	-0°37'30	retrograde	-8454 Feb 21 j 08:48	3°♓46'14	
minimum elong	-8460 Apr 28 j 07:28	3°♒42'25	0°37'49		-8454 Apr 14 j 08:38	30°♓♑	
max. Earth dist.	-8460 Apr 28 j 04:20	3°♒40'40	6.26832 AU	opposition	-8454 Apr 23 j 15:40	28°♓48'42	1°06'53
morning rise	-8460 May 11 j 19:04	6°♒42'41		min. Earth dist.	-8454 Apr 23 j 15:41	28°♓48'42	4.14080 AU
retrograde	-8460 Sep 10 j 20:12	24°♒24'16		direct	-8454 Jun 22 j 14:10	23°♓55'42	
opposition	-8460 Nov 09 j 06:38	19°♒27'55	-0°18'12		-8454 Aug 25 j 15:12	0°♔	
min. Earth dist.	-8460 Nov 09 j 14:36	19°♒25'17	4.30400 AU	evening set	-8454 Oct 23 j 22:45	12°♔30'42	
direct	-8459 Jan 09 j 15:56	14°♒23'46					
asc. node	-8459 Feb 10 j 01:32	15°♒51'53		conjunction	-8454 Nov 05 j 19:51	15°♔32'03	0°18'53
	-8459 May 05 j 18:48	0°♕		minimum elong	-8454 Nov 05 j 19:53	15°♔32'05	0°19'06
evening set	-8459 May 18 j 06:07	2°♕42'45		max. Earth dist.	-8454 Nov 06 j 05:27	15°♔37'42	6.10349 AU
				morning rise	-8454 Nov 18 j 20:08	18°♔35'10	
conjunction	-8459 May 31 j 12:43	5°♕38'48	0°14'32		-8453 Jan 10 j 16:55	0°♖	
minimum elong	-8459 May 31 j 12:41	5°♕38'47	0°14'31	desc. node	-8453 Mar 19 j 01:14	8°♖06'51	
behind sun begin	-8459 May 31 j 09:13	5°♕36'52		retrograde	-8453 Mar 29 j 15:57	8°♖17'37	
behind sun end	-8459 May 31 j 16:10	5°♕40'42		opposition	-8453 May 29 j 13:12	3°♖16'05	-0°15'28
max. Earth dist.	-8459 May 30 j 15:18	5°♕26'56	6.33156 AU	min. Earth dist.	-8453 May 28 j 22:33	3°♖20'55	4.07447 AU

Attention, astronomical year style is used: The year -8453 in astronomical counting style is the year 8454 BCE in historical counting style.

	-8453 Jun 25 j 17:38	30° $\mathbb{R}$ 17	morning rise	-8447 Jun 18 j 02:27	13° $\mathbb{Y}$ 01'37	
direct	-8453 Jul 27 j 07:39	28° $\mathbb{M}$ 22'52		-8447 Oct 03 j 16:57	0° $\mathcal{B}$	
	-8453 Aug 27 j 16:52	0° $\mathcal{L}$	retrograde	-8447 Oct 16 j 13:54	0° $\mathcal{B}$ 16'07	
evening set	-8453 Nov 27 j 19:19	17° $\mathcal{L}$ 15'32		-8447 Oct 29 j 11:57	30° $\mathbb{R}$ $\mathbb{Y}$	
			opposition	-8447 Dec 15 j 14:41	25° $\mathbb{Y}$ 23'13	1°06'23
conjunction	-8453 Dec 11 j 01:27	20° $\mathcal{L}$ 22'51 -0°37'38	min. Earth dist.	-8447 Dec 16 j 10:38	25° $\mathbb{Y}$ 16'45	4.35000 AU
minimum elong	-8453 Dec 11 j 01:24	20° $\mathcal{L}$ 22'49 0°37'47	direct	-8446 Feb 15 j 22:40	20° $\mathbb{Y}$ 20'37	
max. Earth dist.	-8453 Dec 12 j 07:17	20° $\mathcal{L}$ 40'27 6.05656 AU		-8446 May 14 j 09:49	0° $\mathcal{B}$	
morning rise	-8453 Dec 24 j 10:56	23° $\mathcal{L}$ 32'01	evening set	-8446 Jun 23 j 21:09	8° $\mathcal{B}$ 26'57	
	-8452 Jan 21 j 21:42	0° $\mathbb{M}$	max. Earth dist.	-8446 Jul 05 j 07:24	10° $\mathcal{B}$ 58'56	6.35196 AU
retrograde	-8452 May 04 j 06:32	13° $\mathbb{M}$ 34'49				
opposition	-8452 Jul 03 j 10:54	8° $\mathbb{M}$ 30'24 -1°33'48	conjunction	-8446 Jul 06 j 16:39	11° $\mathcal{B}$ 17'26	1°06'50
min. Earth dist.	-8452 Jul 02 j 12:08	8° $\mathbb{M}$ 38'05 4.05249 AU	minimum elong	-8446 Jul 06 j 16:34	11° $\mathcal{B}$ 17'24	1°07'09
direct	-8452 Aug 30 j 14:51	3° $\mathbb{M}$ 35'03	morning rise	-8446 Jul 19 j 09:00	14° $\mathcal{B}$ 06'24	
	-8452 Nov 29 j 01:00	15° $\mathbb{M}$		-8446 Jul 23 j 10:16	15° $\mathcal{B}$	
evening set	-8451 Jan 02 j 05:14	22° $\mathbb{M}$ 40'33		-8446 Oct 18 j 11:17	0° $\mathbb{I}$	
			retrograde	-8446 Nov 17 j 06:55	1° $\mathbb{I}$ 22'24	
conjunction	-8451 Jan 15 j 17:56	25° $\mathbb{M}$ 50'26 -1°20'55		-8446 Dec 17 j 06:40	30° $\mathbb{R}$ $\mathcal{B}$	
minimum elong	-8451 Jan 15 j 17:51	25° $\mathbb{M}$ 50'23 1°21'20	opposition	-8445 Jan 16 j 21:41	26° $\mathcal{B}$ 30'54	2°00'42
max. Earth dist.	-8451 Jan 17 j 07:19	26° $\mathbb{M}$ 12'19 6.06009 AU	min. Earth dist.	-8445 Jan 17 j 22:46	26° $\mathcal{B}$ 22'54	4.34420 AU
morning rise	-8451 Jan 29 j 09:33	29° $\mathbb{M}$ 01'41	direct	-8445 Mar 20 j 11:10	21° $\mathcal{B}$ 30'55	
	-8451 Feb 02 j 14:15	0° $\mathcal{A}$		-8445 Jun 09 j 05:53	0° $\mathbb{I}$	
retrograde	-8451 Jun 09 j 01:11	18° $\mathcal{A}$ 52'51	evening set	-8445 Jul 25 j 05:10	9° $\mathbb{I}$ 34'30	
opposition	-8451 Aug 07 j 15:13	13° $\mathcal{A}$ 47'48 -2°17'21	max. Earth dist.	-8445 Aug 05 j 06:55	12° $\mathbb{I}$ 03'32	6.32316 AU
min. Earth dist.	-8451 Aug 06 j 15:27	13° $\mathcal{A}$ 55'56 4.08258 AU				
direct	-8451 Oct 04 j 21:56	8° $\mathcal{A}$ 49'04	conjunction	-8445 Aug 06 j 17:01	12° $\mathbb{I}$ 22'43	1°32'42
evening set	-8450 Feb 08 j 04:37	27° $\mathcal{A}$ 55'40	minimum elong	-8445 Aug 06 j 16:59	12° $\mathbb{I}$ 22'42	1°33'12
	-8450 Feb 17 j 04:58	0° $\mathcal{B}$	morning rise	-8445 Aug 19 j 03:07	15° $\mathbb{I}$ 10'08	
				-8445 Nov 06 j 06:12	0° $\mathcal{B}$	
conjunction	-8450 Feb 21 j 21:16	1° $\mathcal{B}$ 04'44 -1°34'20	retrograde	-8445 Dec 19 j 21:47	2° $\mathcal{B}$ 49'47	
minimum elong	-8450 Feb 21 j 21:16	1° $\mathcal{B}$ 04'44 1°34'53		-8444 Feb 02 j 10:21	30° $\mathbb{R}$ $\mathbb{I}$	
max. Earth dist.	-8450 Feb 23 j 05:43	1° $\mathcal{B}$ 23'27 6.11300 AU	opposition	-8444 Feb 19 j 01:22	27° $\mathbb{I}$ 57'40	2°20'37
morning rise	-8450 Mar 07 j 14:52	4° $\mathcal{B}$ 14'10	min. Earth dist.	-8444 Feb 19 j 22:57	27° $\mathbb{I}$ 50'49	4.29528 AU
retrograde	-8450 Jul 13 j 12:32	23° $\mathcal{B}$ 25'29	direct	-8444 Apr 21 j 02:54	23° $\mathbb{I}$ 00'41	
opposition	-8450 Sep 10 j 16:26	18° $\mathcal{B}$ 22'18 -2°10'54		-8444 Jul 01 j 16:40	0° $\mathcal{B}$	
min. Earth dist.	-8450 Sep 10 j 01:23	18° $\mathcal{B}$ 27'27 4.15301 AU	evening set	-8444 Aug 24 j 11:05	11° $\mathcal{B}$ 09'13	
direct	-8450 Nov 08 j 20:03	13° $\mathcal{B}$ 20'21				
	-8449 Mar 06 j 11:08	0° $\mathcal{A}$	conjunction	-8444 Sep 05 j 20:56	13° $\mathcal{B}$ 59'03	1°31'34
evening set	-8449 Mar 16 j 12:32	2° $\mathcal{A}$ 14'42	minimum elong	-8444 Sep 05 j 20:58	13° $\mathcal{B}$ 59'04	1°32'07
			max. Earth dist.	-8444 Sep 04 j 21:37	13° $\mathcal{B}$ 45'43	6.25762 AU
conjunction	-8449 Mar 30 j 05:49	5° $\mathcal{A}$ 20'36 -1°14'25	morning rise	-8444 Sep 18 j 06:34	16° $\mathcal{B}$ 48'59	
minimum elong	-8449 Mar 30 j 05:55	5° $\mathcal{A}$ 20'38 1°14'53		-8444 Nov 22 j 17:28	0° $\mathbb{Q}$	
max. Earth dist.	-8449 Mar 30 j 21:17	5° $\mathcal{A}$ 29'20 6.19520 AU	retrograde	-8443 Jan 21 j 22:27	5° $\mathbb{Q}$ 08'28	
morning rise	-8449 Apr 12 j 22:01	8° $\mathcal{A}$ 25'47	opposition	-8443 Mar 24 j 07:44	0° $\mathbb{Q}$ 13'59	1°58'12
	-8449 May 13 j 03:11	15° $\mathcal{A}$	min. Earth dist.	-8443 Mar 24 j 19:51	0° $\mathbb{Q}$ 10'08	4.21707 AU
retrograde	-8449 Aug 15 j 09:25	26° $\mathcal{A}$ 45'53		-8443 Mar 26 j 03:39	30° $\mathbb{R}$ $\mathcal{B}$	
opposition	-8449 Oct 13 j 13:55	21° $\mathcal{A}$ 46'14 -1°20'55	direct	-8443 May 24 j 09:17	25° $\mathcal{B}$ 19'40	
min. Earth dist.	-8449 Oct 13 j 10:25	21° $\mathcal{A}$ 47'24 4.23842 AU		-8443 Jul 19 j 20:16	0° $\mathbb{Q}$	
direct	-8449 Dec 12 j 22:00	16° $\mathcal{A}$ 42'20	evening set	-8443 Sep 25 j 08:58	13° $\mathbb{Q}$ 39'31	
	-8448 Mar 25 j 23:05	0° $\mathcal{H}$		-8443 Oct 01 j 04:01	15° $\mathbb{Q}$	
evening set	-8448 Apr 19 j 10:47	5° $\mathcal{H}$ 17'35				
			conjunction	-8443 Oct 07 j 22:55	16° $\mathbb{Q}$ 34'40	1°01'59
conjunction	-8448 May 03 j 00:11	8° $\mathcal{H}$ 18'34 -0°30'34	minimum elong	-8443 Oct 07 j 22:59	16° $\mathbb{Q}$ 34'42	1°02'24
minimum elong	-8448 May 03 j 00:14	8° $\mathcal{H}$ 18'36 0°30'50	max. Earth dist.	-8443 Oct 07 j 14:59	16° $\mathbb{Q}$ 30'03	6.17382 AU
max. Earth dist.	-8448 May 02 j 17:38	8° $\mathcal{H}$ 14'56 6.27809 AU	morning rise	-8443 Oct 20 j 14:50	19° $\mathbb{Q}$ 30'56	
morning rise	-8448 May 16 j 10:53	11° $\mathcal{H}$ 18'05		-8443 Dec 08 j 08:02	0° $\mathbb{M}$	
retrograde	-8448 Sep 15 j 06:02	28° $\mathcal{H}$ 55'09	retrograde	-8442 Feb 26 j 07:47	8° $\mathbb{M}$ 36'58	
opposition	-8448 Nov 13 j 16:52	23° $\mathcal{H}$ 59'21 -0°07'29	opposition	-8442 Apr 28 j 14:43	3° $\mathbb{M}$ 38'46	0°56'22
min. Earth dist.	-8448 Nov 14 j 03:29	23° $\mathcal{H}$ 55'51 4.31121 AU	min. Earth dist.	-8442 Apr 28 j 12:00	3° $\mathbb{M}$ 39'38	4.13296 AU
asc. node	-8448 Dec 21 j 18:46	19° $\mathcal{H}$ 46'17		-8442 May 30 j 11:52	30° $\mathbb{R}$ $\mathbb{Q}$	
direct	-8447 Jan 14 j 06:52	18° $\mathcal{H}$ 55'17	direct	-8442 Jun 27 j 09:12	28° $\mathbb{Q}$ 45'48	
	-8447 Apr 18 j 15:25	0° $\mathbb{Y}$		-8442 Jul 25 j 02:33	0° $\mathbb{M}$	
evening set	-8447 May 22 j 19:16	7° $\mathbb{Y}$ 12'41	evening set	-8442 Oct 28 j 15:50	17° $\mathbb{M}$ 21'56	
max. Earth dist.	-8447 Jun 04 j 00:50	9° $\mathbb{Y}$ 54'52 6.33559 AU				
			conjunction	-8442 Nov 10 j 14:16	20° $\mathbb{M}$ 24'06	0°11'06
conjunction	-8447 Jun 05 j 00:39	10° $\mathbb{Y}$ 08'03 0°21'40	minimum elong	-8442 Nov 10 j 14:17	20° $\mathbb{M}$ 24'06	0°11'15
minimum elong	-8447 Jun 05 j 00:37	10° $\mathbb{Y}$ 08'02 0°21'43	behind sun begin	-8442 Nov 10 j 08:16	20° $\mathbb{M}$ 20'35	



Attention, astronomical year style is used: The year -8442 in astronomical counting style is the year 8443 BCE in historical counting style.

behind sun end	-8442 Nov 10 j 20:18	20° $\mathbb{M}$ 27'38		retrograde	-8436 Sep 19 j 14:33	3° $\mathbb{Y}$ 26'25	
max. Earth dist.	-8442 Nov 11 j 04:08	20° $\mathbb{M}$ 32'15	6.09780 AU	asc. node	-8436 Nov 01 j 10:03	0° $\mathbb{Y}$ 38'52	
morning rise	-8442 Nov 23 j 15:42	23° $\mathbb{M}$ 27'59			-8436 Nov 06 j 17:31	30° $\mathbb{R}$ $\mathbb{H}$	
	-8442 Dec 22 j 12:23	0° $\mathbb{L}$		opposition	-8436 Nov 18 j 03:45	28° $\mathbb{H}$ 31'05	0°03'17
desc. node	-8441 Jan 27 j 13:42	7° $\mathbb{L}$ 02'55		min. Earth dist.	-8436 Nov 18 j 14:46	28° $\mathbb{H}$ 27'28	4.31672 AU
retrograde	-8441 Apr 03 j 17:18	13° $\mathbb{L}$ 13'28		direct	-8435 Jan 18 j 19:38	23° $\mathbb{H}$ 27'12	
opposition	-8441 Jun 03 j 12:13	8° $\mathbb{L}$ 11'26	-0°27'14		-8435 Mar 29 j 17:15	0° $\mathbb{Y}$	
min. Earth dist.	-8441 Jun 02 j 20:48	8° $\mathbb{L}$ 16'33	4.07147 AU	evening set	-8435 May 27 j 08:34	11° $\mathbb{Y}$ 43'17	
direct	-8441 Aug 01 j 04:41	3° $\mathbb{L}$ 18'01		max. Earth dist.	-8435 Jun 08 j 10:53	14° $\mathbb{Y}$ 23'44	6.33913 AU
evening set	-8441 Dec 02 j 17:20	22° $\mathbb{L}$ 11'46					
				conjunction	-8435 Jun 09 j 12:31	14° $\mathbb{Y}$ 37'56	0°28'44
conjunction	-8441 Dec 16 j 00:18	25° $\mathbb{L}$ 19'28	-0°44'49	minimum elong	-8435 Jun 09 j 12:28	14° $\mathbb{Y}$ 37'55	0°28'48
minimum elong	-8441 Dec 16 j 00:14	25° $\mathbb{L}$ 19'26	0°44'59	morning rise	-8435 Jun 22 j 13:04	17° $\mathbb{Y}$ 30'50	
max. Earth dist.	-8441 Dec 17 j 06:12	25° $\mathbb{L}$ 37'06	6.05622 AU		-8435 Aug 25 j 06:21	0° $\mathbb{B}$	
morning rise	-8441 Dec 29 j 10:55	28° $\mathbb{L}$ 29'04		retrograde	-8435 Oct 21 j 00:54	4° $\mathbb{B}$ 44'30	
	-8440 Jan 04 j 23:11	0° $\mathbb{M}$			-8435 Dec 19 j 01:35	30° $\mathbb{R}$ $\mathbb{Y}$	
	-8440 Mar 21 j 19:19	15° $\mathbb{M}$		opposition	-8435 Dec 20 j 02:38	29° $\mathbb{Y}$ 51'55	1°15'34
retrograde	-8440 May 09 j 04:07	18° $\mathbb{M}$ 31'22		min. Earth dist.	-8435 Dec 21 j 00:04	29° $\mathbb{Y}$ 45'00	4.35138 AU
	-8440 Jun 26 j 15:09	15° $\mathbb{R}$ $\mathbb{M}$		direct	-8434 Feb 20 j 13:12	24° $\mathbb{Y}$ 49'40	
min. Earth dist.	-8440 Jul 07 j 07:32	13° $\mathbb{M}$ 34'47	4.05506 AU		-8434 Apr 23 j 04:20	0° $\mathbb{B}$	
opposition	-8440 Jul 08 j 07:25	13° $\mathbb{M}$ 26'42	-1°42'20	evening set	-8434 Jun 28 j 07:20	12° $\mathbb{B}$ 55'08	
direct	-8440 Sep 04 j 10:13	8° $\mathbb{M}$ 30'53			-8434 Jul 07 j 16:32	15° $\mathbb{B}$	
	-8440 Nov 08 j 19:55	15° $\mathbb{M}$		max. Earth dist.	-8434 Jul 09 j 15:57	15° $\mathbb{B}$ 26'23	6.35084 AU
evening set	-8439 Jan 07 j 05:58	27° $\mathbb{M}$ 36'57					
	-8439 Jan 17 j 11:16	0° $\mathbb{X}$		conjunction	-8434 Jul 11 j 01:36	15° $\mathbb{B}$ 45'07	1°11'51
				minimum elong	-8434 Jul 11 j 01:32	15° $\mathbb{B}$ 45'04	1°12'12
conjunction	-8439 Jan 20 j 19:27	0° $\mathbb{X}$ 46'53	-1°24'44	morning rise	-8434 Jul 23 j 16:48	18° $\mathbb{B}$ 33'39	
minimum elong	-8439 Jan 20 j 19:23	0° $\mathbb{X}$ 46'50	1°25'11		-8434 Sep 18 j 15:43	0° $\mathbb{I}$	
max. Earth dist.	-8439 Jan 22 j 08:59	1° $\mathbb{X}$ 08'50	6.06517 AU	retrograde	-8434 Nov 21 j 18:01	5° $\mathbb{I}$ 51'28	
morning rise	-8439 Feb 03 j 11:24	3° $\mathbb{X}$ 58'02		opposition	-8433 Nov 21 j 11:31	0° $\mathbb{I}$ 59'56	2°05'48
retrograde	-8439 Jun 13 j 21:15	23° $\mathbb{X}$ 45'18		min. Earth dist.	-8433 Jan 22 j 11:38	0° $\mathbb{I}$ 52'16	4.34078 AU
min. Earth dist.	-8439 Aug 11 j 10:46	18° $\mathbb{X}$ 47'50	4.08965 AU		-8433 Jan 29 j 09:01	30° $\mathbb{R}$ $\mathbb{B}$	
opposition	-8439 Aug 12 j 08:35	18° $\mathbb{X}$ 40'23	-2°19'28	direct	-8433 Mar 24 j 23:21	26° $\mathbb{B}$ 00'21	
direct	-8439 Oct 09 j 17:46	13° $\mathbb{X}$ 41'10			-8433 May 17 j 09:53	0° $\mathbb{I}$	
	-8438 Jan 31 j 21:58	0° $\mathbb{B}$		evening set	-8433 Jul 29 j 13:49	14° $\mathbb{I}$ 03'47	
evening set	-8438 Feb 13 j 04:58	2° $\mathbb{B}$ 47'10		max. Earth dist.	-8433 Aug 09 j 16:47	16° $\mathbb{I}$ 33'45	6.31750 AU
conjunction	-8438 Feb 26 j 21:57	5° $\mathbb{B}$ 56'01	-1°33'28	conjunction	-8433 Aug 11 j 01:00	16° $\mathbb{I}$ 51'55	1°34'16
minimum elong	-8438 Feb 26 j 21:59	5° $\mathbb{B}$ 56'02	1°34'01	minimum elong	-8433 Aug 11 j 00:58	16° $\mathbb{I}$ 51'54	1°34'46
max. Earth dist.	-8438 Feb 28 j 04:35	6° $\mathbb{B}$ 13'39	6.12141 AU	morning rise	-8433 Aug 23 j 10:30	19° $\mathbb{I}$ 39'19	
morning rise	-8438 Mar 12 j 15:39	9° $\mathbb{B}$ 05'06			-8433 Oct 12 j 06:55	0° $\mathbb{B}$	
retrograde	-8438 Jul 18 j 02:09	28° $\mathbb{B}$ 10'30		retrograde	-8433 Dec 24 j 14:01	7° $\mathbb{B}$ 23'04	
opposition	-8438 Sep 15 j 06:14	23° $\mathbb{B}$ 07'46	-2°06'16	opposition	-8432 Feb 23 j 18:16	2° $\mathbb{B}$ 30'46	2°20'04
min. Earth dist.	-8438 Sep 14 j 15:57	23° $\mathbb{B}$ 12'39	4.16205 AU	min. Earth dist.	-8432 Feb 24 j 15:33	2° $\mathbb{B}$ 24'01	4.28747 AU
direct	-8438 Nov 13 j 12:11	18° $\mathbb{B}$ 05'30			-8432 Mar 15 j 13:38	30° $\mathbb{R}$ $\mathbb{I}$	
	-8437 Feb 17 j 06:49	0° $\mathbb{B}$		direct	-8432 Apr 25 j 17:55	27° $\mathbb{I}$ 34'13	
evening set	-8437 Mar 21 j 10:05	6° $\mathbb{B}$ 58'29			-8432 Jun 05 j 08:08	0° $\mathbb{B}$	
				evening set	-8432 Aug 28 j 20:11	15° $\mathbb{B}$ 43'20	
conjunction	-8437 Apr 04 j 03:05	10° $\mathbb{B}$ 03'56	-1°09'27	max. Earth dist.	-8432 Sep 09 j 07:21	18° $\mathbb{B}$ 20'34	6.24814 AU
minimum elong	-8437 Apr 04 j 03:10	10° $\mathbb{B}$ 03'58	1°09'55				
max. Earth dist.	-8437 Apr 04 j 14:42	10° $\mathbb{B}$ 10'29	6.20435 AU	conjunction	-8432 Sep 10 j 06:07	18° $\mathbb{B}$ 33'37	1°29'05
morning rise	-8437 Apr 17 j 18:54	13° $\mathbb{B}$ 08'34		minimum elong	-8432 Sep 10 j 06:10	18° $\mathbb{B}$ 33'39	1°29'38
	-8437 Apr 26 j 02:58	15° $\mathbb{B}$		morning rise	-8432 Sep 22 j 16:23	21° $\mathbb{B}$ 24'11	
	-8437 Jul 21 j 14:29	0° $\mathbb{H}$			-8432 Nov 01 j 10:47	0° $\mathbb{Q}$	
retrograde	-8437 Aug 19 j 21:48	1° $\mathbb{H}$ 23'05		retrograde	-8431 Jan 26 j 17:40	9° $\mathbb{Q}$ 49'28	
	-8437 Sep 18 j 00:07	30° $\mathbb{R}$ $\mathbb{B}$		opposition	-8431 Mar 29 j 03:42	4° $\mathbb{Q}$ 54'29	1°51'44
opposition	-8437 Oct 18 j 01:32	26° $\mathbb{B}$ 24'01	-1°11'38	min. Earth dist.	-8431 Mar 29 j 13:27	4° $\mathbb{Q}$ 51'23	4.20637 AU
min. Earth dist.	-8437 Oct 18 j 00:48	26° $\mathbb{B}$ 24'15	4.24676 AU	direct	-8431 May 29 j 00:29	0° $\mathbb{Q}$ 00'26	
direct	-8437 Dec 17 j 14:43	21° $\mathbb{B}$ 20'01			-8431 Sep 15 j 03:16	15° $\mathbb{Q}$	
	-8436 Mar 07 j 10:49	0° $\mathbb{H}$		evening set	-8431 Sep 29 j 21:12	18° $\mathbb{Q}$ 21'56	
evening set	-8436 Apr 24 j 04:03	9° $\mathbb{H}$ 53'39					
				conjunction	-8431 Oct 12 j 12:15	21° $\mathbb{Q}$ 17'59	0°55'55
conjunction	-8436 May 07 j 16:47	12° $\mathbb{H}$ 54'05	-0°23'26	minimum elong	-8431 Oct 12 j 12:20	21° $\mathbb{Q}$ 18'02	0°56'18
minimum elong	-8436 May 07 j 16:49	12° $\mathbb{H}$ 54'06	0°23'40	max. Earth dist.	-8431 Oct 12 j 08:06	21° $\mathbb{Q}$ 15'34	6.16299 AU
max. Earth dist.	-8436 May 07 j 08:43	12° $\mathbb{H}$ 49'36	6.28522 AU	morning rise	-8431 Oct 25 j 05:10	24° $\mathbb{Q}$ 15'13	
morning rise	-8436 May 21 j 02:23	15° $\mathbb{H}$ 52'54			-8431 Nov 19 j 17:15	0° $\mathbb{M}$	
	-8436 Aug 03 j 04:54	0° $\mathbb{Y}$		retrograde	-8430 Mar 03 j 07:59	13° $\mathbb{M}$ 27'13	

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 42

Attention, astronomical year style is used: The year -8430 in astronomical counting style is the year 8431 BCE in historical counting style.

opposition	-8430 May 03 j 13:10	8° $\mathbb{M}$ 28'32	0°45'31		-8425 Oct 31 j 05:05	30° $\mathbb{R}$ $\approx$	
min. Earth dist.	-8430 May 03 j 09:34	8° $\mathbb{M}$ 29'42	4.12268 AU	direct	-8425 Dec 22 j 08:02	26° $\approx$ 04'12	
direct	-8430 Jul 02 j 04:25	3° $\mathbb{M}$ 35'37			-8424 Feb 12 j 13:42	0° $\mathbb{H}$	
evening set	-8430 Nov 02 j 09:42	22° $\mathbb{M}$ 14'17		evening set	-8424 Apr 28 j 23:12	14° $\mathbb{H}$ 34'44	
conjunction	-8430 Nov 15 j 09:14	25° $\mathbb{M}$ 17'21	0°03'14	conjunction	-8424 May 12 j 10:43	17° $\mathbb{H}$ 34'14	-0°16'05
minimum elong	-8430 Nov 15 j 09:14	25° $\mathbb{M}$ 17'20	0°03'20	minimum elong	-8424 May 12 j 10:44	17° $\mathbb{H}$ 34'15	0°16'15
behind sun begin	-8430 Nov 15 j 01:09	25° $\mathbb{M}$ 12'36		max. Earth dist.	-8424 May 11 j 23:29	17° $\mathbb{H}$ 28'00	6.29668 AU
behind sun end	-8430 Nov 15 j 17:20	25° $\mathbb{M}$ 22'05		morning rise	-8424 May 25 j 19:18	20° $\mathbb{H}$ 32'07	
max. Earth dist.	-8430 Nov 16 j 00:07	25° $\mathbb{M}$ 26'05	6.08899 AU		-8424 Jul 10 j 11:07	0° $\mathbb{Y}$	
morning rise	-8430 Nov 28 j 12:12	28° $\mathbb{M}$ 22'15		asc. node	-8424 Sep 11 j 10:18	7° $\mathbb{Y}$ 44'54	
	-8430 Dec 05 j 12:22	0° $\underline{\mathbb{A}}$		retrograde	-8424 Sep 24 j 01:55	8° $\mathbb{Y}$ 00'34	
desc. node	-8430 Dec 07 j 16:17	0° $\underline{\mathbb{A}}$ 29'56		opposition	-8424 Nov 22 j 16:06	3° $\mathbb{Y}$ 05'40	0°14'05
retrograde	-8429 Apr 08 j 17:46	18° $\underline{\mathbb{A}}$ 11'57		min. Earth dist.	-8424 Nov 23 j 05:03	3° $\mathbb{Y}$ 01'25	4.32733 AU
opposition	-8429 Jun 08 j 11:28	13° $\underline{\mathbb{A}}$ 09'28	-0°38'53		-8424 Dec 18 j 03:05	30° $\mathbb{R}$ $\mathbb{H}$	
min. Earth dist.	-8429 Jun 07 j 17:49	13° $\underline{\mathbb{A}}$ 15'20	4.06501 AU	direct	-8423 Jan 23 j 12:37	28° $\mathbb{H}$ 01'53	
direct	-8429 Aug 06 j 00:21	8° $\underline{\mathbb{A}}$ 15'47			-8423 Mar 01 j 05:21	0° $\mathbb{Y}$	
evening set	-8429 Dec 07 j 16:59	27° $\underline{\mathbb{A}}$ 12'14		evening set	-8423 May 31 j 21:53	16° $\mathbb{Y}$ 14'35	
	-8429 Dec 19 j 14:14	0° $\mathbb{M}$		max. Earth dist.	-8423 Jun 12 j 22:48	18° $\mathbb{Y}$ 54'02	6.34808 AU
conjunction	-8429 Dec 21 j 01:09	0° $\mathbb{M}$ 20'35	-0°51'45	conjunction	-8423 Jun 14 j 00:32	19° $\mathbb{Y}$ 08'17	0°35'35
minimum elong	-8429 Dec 21 j 01:04	0° $\mathbb{M}$ 20'32	0°51'58	minimum elong	-8423 Jun 14 j 00:29	19° $\mathbb{Y}$ 08'15	0°35'42
max. Earth dist.	-8429 Dec 22 j 09:19	0° $\mathbb{M}$ 39'32	6.05256 AU	morning rise	-8423 Jun 26 j 23:30	22° $\mathbb{Y}$ 00'11	
morning rise	-8428 Jan 03 j 12:38	3° $\mathbb{M}$ 30'42			-8423 Aug 04 j 03:28	0° $\mathbb{B}$	
	-8428 Feb 25 j 11:16	15° $\mathbb{M}$		retrograde	-8423 Oct 25 j 08:28	9° $\mathbb{B}$ 11'14	
retrograde	-8428 May 14 j 05:53	23° $\mathbb{M}$ 33'46		opposition	-8423 Dec 24 j 13:57	4° $\mathbb{B}$ 18'51	1°24'08
min. Earth dist.	-8428 Jul 12 j 06:42	18° $\mathbb{M}$ 36'45	4.05459 AU	min. Earth dist.	-8423 Dec 25 j 11:01	4° $\mathbb{B}$ 12'04	4.35825 AU
opposition	-8428 Jul 13 j 05:53	18° $\mathbb{M}$ 28'53	-1°50'17		-8422 Feb 03 j 04:31	30° $\mathbb{R}$ $\mathbb{Y}$	
	-8428 Aug 10 j 21:13	15° $\mathbb{R}$ $\mathbb{M}$		direct	-8422 Feb 25 j 01:02	29° $\mathbb{Y}$ 16'54	
direct	-8428 Sep 09 j 08:56	13° $\mathbb{M}$ 32'36			-8422 Mar 19 j 02:22	0° $\mathbb{B}$	
	-8428 Oct 08 j 21:03	15° $\mathbb{M}$			-8422 Jun 22 j 00:39	15° $\mathbb{B}$	
	-8428 Dec 31 j 19:03	0° $\mathbb{Z}$		evening set	-8422 Jul 02 j 15:54	17° $\mathbb{B}$ 19'32	
evening set	-8427 Jan 12 j 09:40	2° $\mathbb{Z}$ 40'24		max. Earth dist.	-8422 Jul 13 j 22:21	19° $\mathbb{B}$ 49'37	6.35487 AU
conjunction	-8427 Jan 25 j 23:50	5° $\mathbb{Z}$ 50'29	-1°28'00	conjunction	-8422 Jul 15 j 08:44	20° $\mathbb{B}$ 08'46	1°16'19
minimum elong	-8427 Jan 25 j 23:46	5° $\mathbb{Z}$ 50'27	1°28'28	minimum elong	-8422 Jul 15 j 08:39	20° $\mathbb{B}$ 08'43	1°16'42
max. Earth dist.	-8427 Jan 27 j 13:16	6° $\mathbb{Z}$ 12'20	6.06773 AU	morning rise	-8422 Jul 27 j 22:50	22° $\mathbb{B}$ 56'38	
morning rise	-8427 Feb 08 j 16:20	9° $\mathbb{Z}$ 01'42			-8422 Aug 30 j 03:07	0° $\mathbb{I}$	
retrograde	-8427 Jun 18 j 18:02	28° $\mathbb{Z}$ 45'29		retrograde	-8422 Nov 26 j 04:51	10° $\mathbb{I}$ 14'47	
min. Earth dist.	-8427 Aug 16 j 06:21	23° $\mathbb{Z}$ 48'15	4.09517 AU	opposition	-8421 Jan 25 j 23:35	5° $\mathbb{I}$ 23'16	2°09'58
opposition	-8427 Aug 17 j 04:17	23° $\mathbb{Z}$ 40'45	-2°20'39	min. Earth dist.	-8421 Jan 27 j 00:48	5° $\mathbb{I}$ 15'15	4.34166 AU
direct	-8427 Oct 14 j 14:13	18° $\mathbb{Z}$ 41'05		direct	-8421 Mar 29 j 12:21	0° $\mathbb{I}$ 24'02	
	-8426 Jan 13 j 22:59	0° $\mathbb{Z}$		evening set	-8421 Aug 02 j 19:24	18° $\mathbb{I}$ 25'49	
evening set	-8426 Feb 18 j 08:54	7° $\mathbb{Z}$ 47'02		max. Earth dist.	-8421 Aug 13 j 21:46	20° $\mathbb{I}$ 55'35	6.31494 AU
conjunction	-8426 Mar 04 j 02:05	10° $\mathbb{Z}$ 55'39	-1°31'54	conjunction	-8421 Aug 15 j 06:00	21° $\mathbb{I}$ 13'46	1°35'12
minimum elong	-8426 Mar 04 j 02:08	10° $\mathbb{Z}$ 55'41	1°32'27	minimum elong	-8421 Aug 15 j 05:58	21° $\mathbb{I}$ 13'45	1°35'44
max. Earth dist.	-8426 Mar 05 j 05:46	11° $\mathbb{Z}$ 11'33	6.12942 AU	morning rise	-8421 Aug 27 j 15:10	24° $\mathbb{I}$ 01'07	
morning rise	-8426 Mar 17 j 19:52	14° $\mathbb{Z}$ 04'23			-8421 Sep 24 j 02:41	0° $\mathbb{E}$	
	-8426 Jun 08 j 12:40	0° $\approx$		retrograde	-8421 Dec 29 j 01:05	11° $\mathbb{E}$ 48'07	
retrograde	-8426 Jul 22 j 20:13	3° $\approx$ 03'42		opposition	-8420 Feb 28 j 07:53	6° $\mathbb{E}$ 55'31	2°18'39
	-8426 Sep 05 j 00:48	30° $\mathbb{R}$ $\mathbb{Z}$		min. Earth dist.	-8420 Feb 29 j 03:43	6° $\mathbb{E}$ 49'14	4.28163 AU
opposition	-8426 Sep 19 j 23:03	28° $\mathbb{Z}$ 01'24	-2°00'39	direct	-8420 Apr 30 j 03:55	1° $\mathbb{E}$ 59'18	
min. Earth dist.	-8426 Sep 19 j 10:49	28° $\mathbb{Z}$ 05'34	4.17171 AU	evening set	-8420 Sep 02 j 02:04	20° $\mathbb{E}$ 08'37	
direct	-8426 Nov 18 j 09:49	22° $\mathbb{Z}$ 58'48					
	-8425 Jan 27 j 22:37	0° $\approx$		conjunction	-8420 Sep 14 j 12:21	22° $\mathbb{E}$ 59'23	1°26'08
evening set	-8425 Mar 26 j 10:24	11° $\approx$ 49'53		minimum elong	-8420 Sep 14 j 12:25	22° $\mathbb{E}$ 59'25	1°26'40
				max. Earth dist.	-8420 Sep 13 j 15:40	22° $\mathbb{E}$ 47'30	6.23957 AU
conjunction	-8425 Apr 09 j 03:18	14° $\approx$ 54'49	-1°03'55	morning rise	-8420 Sep 26 j 23:02	25° $\mathbb{E}$ 50'32	
minimum elong	-8425 Apr 09 j 03:23	14° $\approx$ 54'51	1°04'21		-8420 Oct 15 j 11:58	0° $\mathbb{Q}$	
	-8425 Apr 09 j 12:30	15° $\approx$		retrograde	-8419 Jan 31 j 11:10	14° $\mathbb{Q}$ 21'25	
max. Earth dist.	-8425 Apr 09 j 14:04	15° $\approx$ 00'53	6.21536 AU	opposition	-8419 Apr 02 j 20:10	9° $\mathbb{Q}$ 26'03	1°44'45
morning rise	-8425 Apr 22 j 18:24	17° $\approx$ 58'44		min. Earth dist.	-8419 Apr 03 j 05:55	9° $\mathbb{Q}$ 22'56	4.19538 AU
	-8425 Jun 20 j 19:48	0° $\mathbb{H}$		direct	-8419 Jun 02 j 14:18	4° $\mathbb{Q}$ 32'12	
retrograde	-8425 Aug 24 j 10:34	6° $\mathbb{H}$ 06'45			-8419 Aug 29 j 10:51	15° $\mathbb{Q}$	
opposition	-8425 Oct 22 j 15:39	1° $\mathbb{H}$ 08'14	-1°01'42	evening set	-8419 Oct 04 j 06:39	22° $\mathbb{Q}$ 55'54	
min. Earth dist.	-8425 Oct 22 j 15:18	1° $\mathbb{H}$ 08'21	4.25830 AU				

## Planetary Phenomena of Jupiter from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 43

Attention, astronomical year style is used: The year -8419 in astronomical counting style is the year 8420 BCE in historical counting style.

conjunction	-8419 Oct 16 j 22:39	25° $\Omega$ 52'56	0°49'41	max. Earth dist.	-8413 Apr 14 j 08:45	19° $\approx$ 46'34	6.22812 AU
minimum elong	-8419 Oct 16 j 22:43	25° $\Omega$ 52'59	0°50'04	morning rise	-8413 Apr 27 j 16:26	22° $\approx$ 45'49	
max. Earth dist.	-8419 Oct 16 j 19:05	25° $\Omega$ 50'51	6.15067 AU		-8413 May 31 j 08:47	0° $\mathbb{H}$	
morning rise	-8419 Oct 29 j 17:00	28° $\Omega$ 51'19		retrograde	-8413 Aug 28 j 22:44	10° $\mathbb{H}$ 46'54	
	-8419 Nov 03 j 15:55	0° $\mathbb{H}$		opposition	-8413 Oct 27 j 04:28	5° $\mathbb{H}$ 48'50	-0°51'29
retrograde	-8418 Mar 08 j 03:52	18° $\mathbb{H}$ 10'01		min. Earth dist.	-8413 Oct 27 j 06:19	5° $\mathbb{H}$ 48'13	4.27066 AU
opposition	-8418 May 08 j 08:33	13° $\mathbb{H}$ 10'50	0°34'40	direct	-8413 Dec 27 j 01:47	0° $\mathbb{H}$ 44'39	
min. Earth dist.	-8418 May 08 j 02:38	13° $\mathbb{H}$ 12'45	4.11003 AU	evening set	-8412 May 03 j 16:13	19° $\mathbb{H}$ 11'51	
direct	-8418 Jul 06 j 18:33	8° $\mathbb{H}$ 17'56					
desc. node	-8418 Oct 19 j 05:57	22° $\mathbb{H}$ 40'22		conjunction	-8412 May 17 j 02:49	22° $\mathbb{H}$ 10'29	-0°08'42
evening set	-8418 Nov 07 j 01:31	27° $\mathbb{H}$ 00'28		minimum elong	-8412 May 17 j 02:49	22° $\mathbb{H}$ 10'30	0°08'51
	-8418 Nov 19 j 18:34	0° $\underline{\mathbb{H}}$		behind sun begin	-8412 May 16 j 19:48	22° $\mathbb{H}$ 06'37	
				behind sun end	-8412 May 17 j 09:50	22° $\mathbb{H}$ 14'22	
conjunction	-8418 Nov 20 j 02:28	0° $\underline{\mathbb{H}}$ 04'38	-0°04'36	max. Earth dist.	-8412 May 16 j 14:29	22° $\mathbb{H}$ 03'39	6.30760 AU
minimum elong	-8418 Nov 20 j 02:27	0° $\underline{\mathbb{H}}$ 04'38	0°04'32	morning rise	-8412 May 30 j 09:59	25° $\mathbb{H}$ 07'24	
behind sun begin	-8418 Nov 19 j 18:27	29° $\mathbb{H}$ 59'56			-8412 Jun 22 j 00:24	0° $\mathbb{Y}$	
behind sun end	-8418 Nov 20 j 10:26	0° $\underline{\mathbb{H}}$ 09'19		asc. node	-8412 Jul 22 j 01:51	5° $\mathbb{Y}$ 49'48	
max. Earth dist.	-8418 Nov 20 j 20:13	0° $\underline{\mathbb{H}}$ 15'06	6.07731 AU	retrograde	-8412 Sep 28 j 10:24	12° $\mathbb{Y}$ 31'24	
morning rise	-8418 Dec 03 j 06:40	3° $\underline{\mathbb{H}}$ 10'40		opposition	-8412 Nov 27 j 03:03	7° $\mathbb{Y}$ 36'56	0°24'43
retrograde	-8417 Apr 13 j 19:35	23° $\underline{\mathbb{H}}$ 05'57		min. Earth dist.	-8412 Nov 27 j 16:52	7° $\mathbb{Y}$ 32'24	4.33579 AU
opposition	-8417 Jun 13 j 09:05	18° $\underline{\mathbb{H}}$ 03'04	-0°50'01	direct	-8411 Jan 28 j 01:31	2° $\mathbb{Y}$ 33'21	
min. Earth dist.	-8417 Jun 12 j 15:16	18° $\underline{\mathbb{H}}$ 09'01	4.05546 AU	evening set	-8411 Jun 05 j 09:43	20° $\mathbb{Y}$ 43'33	
direct	-8417 Aug 10 j 19:51	13° $\underline{\mathbb{H}}$ 09'09		max. Earth dist.	-8411 Jun 17 j 05:54	23° $\mathbb{Y}$ 20'26	6.35316 AU
	-8417 Dec 03 j 09:21	0° $\mathbb{M}$					
evening set	-8417 Dec 12 j 16:16	2° $\mathbb{M}$ 09'50		conjunction	-8411 Jun 18 j 10:47	23° $\mathbb{Y}$ 36'25	0°42'13
				minimum elong	-8411 Jun 18 j 10:44	23° $\mathbb{Y}$ 36'23	0°42'23
conjunction	-8417 Dec 26 j 01:30	5° $\mathbb{M}$ 18'56	-0°58'10	morning rise	-8411 Jul 01 j 08:33	26° $\mathbb{Y}$ 27'35	
minimum elong	-8417 Dec 26 j 01:25	5° $\mathbb{M}$ 18'53	0°58'26		-8411 Jul 17 j 16:10	0° $\mathbb{B}$	
max. Earth dist.	-8417 Dec 27 j 11:11	5° $\mathbb{M}$ 38'48	6.04604 AU	retrograde	-8411 Oct 29 j 19:06	13° $\mathbb{B}$ 37'49	
morning rise	-8416 Jan 08 j 14:06	8° $\mathbb{M}$ 29'48		opposition	-8411 Dec 29 j 01:27	8° $\mathbb{B}$ 45'40	1°32'19
	-8416 Feb 06 j 05:08	15° $\mathbb{M}$		min. Earth dist.	-8411 Dec 30 j 00:27	8° $\mathbb{B}$ 38'16	4.35969 AU
retrograde	-8416 May 19 j 05:54	28° $\mathbb{M}$ 34'24		direct	-8410 Mar 01 j 14:34	3° $\mathbb{B}$ 44'00	
min. Earth dist.	-8416 Jul 17 j 03:03	23° $\mathbb{M}$ 37'42	4.05221 AU		-8410 Jun 05 j 05:11	15° $\mathbb{B}$	
opposition	-8416 Jul 18 j 03:24	23° $\mathbb{M}$ 29'25	-1°57'17	evening set	-8410 Jul 07 j 00:26	21° $\mathbb{B}$ 45'44	
direct	-8416 Sep 14 j 04:15	18° $\mathbb{M}$ 32'46		max. Earth dist.	-8410 Jul 18 j 06:12	24° $\mathbb{B}$ 15'35	6.35238 AU
	-8416 Dec 14 j 01:24	0° $\mathbb{X}$					
evening set	-8415 Jan 17 j 13:37	7° $\mathbb{X}$ 43'08		conjunction	-8410 Jul 19 j 16:17	24° $\mathbb{B}$ 34'34	1°20'27
				minimum elong	-8410 Jul 19 j 16:13	24° $\mathbb{B}$ 34'32	1°20'51
conjunction	-8415 Jan 31 j 04:25	10° $\mathbb{X}$ 53'26	-1°30'32	morning rise	-8410 Aug 01 j 05:16	27° $\mathbb{B}$ 22'06	
minimum elong	-8415 Jan 31 j 04:22	10° $\mathbb{X}$ 53'25	1°31'01		-8410 Aug 13 j 05:04	0° $\mathbb{I}$	
max. Earth dist.	-8415 Feb 01 j 17:02	11° $\mathbb{X}$ 14'48	6.06952 AU	retrograde	-8410 Nov 30 j 15:31	14° $\mathbb{I}$ 42'57	
morning rise	-8415 Feb 13 j 21:29	14° $\mathbb{X}$ 04'45		opposition	-8409 Jan 30 j 13:13	9° $\mathbb{I}$ 51'23	2°13'36
	-8415 May 05 j 03:09	0° $\mathbb{Z}$		min. Earth dist.	-8409 Jan 31 j 13:34	9° $\mathbb{I}$ 43'39	4.33559 AU
retrograde	-8415 Jun 23 j 15:35	3° $\mathbb{Z}$ 45'10		direct	-8409 Apr 02 j 23:32	4° $\mathbb{I}$ 52'35	
	-8415 Aug 12 j 05:20	30° $\mathbb{R}$ $\mathbb{X}$		evening set	-8409 Aug 07 j 03:32	22° $\mathbb{I}$ 55'06	
opposition	-8415 Aug 21 j 23:56	28° $\mathbb{X}$ 40'35	-2°20'43	max. Earth dist.	-8409 Aug 18 j 05:57	25° $\mathbb{I}$ 25'17	6.30569 AU
min. Earth dist.	-8415 Aug 21 j 02:54	28° $\mathbb{X}$ 47'47	4.10091 AU				
direct	-8415 Oct 19 j 12:59	23° $\mathbb{X}$ 40'27		conjunction	-8409 Aug 19 j 13:37	25° $\mathbb{I}$ 43'11	1°35'40
	-8415 Dec 23 j 22:58	0° $\mathbb{Z}$		minimum elong	-8409 Aug 19 j 13:36	25° $\mathbb{I}$ 43'11	1°36'13
evening set	-8414 Feb 23 j 12:18	12° $\mathbb{Z}$ 45'55		morning rise	-8409 Aug 31 j 22:38	28° $\mathbb{I}$ 30'51	
					-8409 Sep 07 j 14:03	0° $\mathbb{E}$	
conjunction	-8414 Mar 09 j 05:53	15° $\mathbb{Z}$ 54'17	-1°29'38	retrograde	-8408 Jan 02 j 19:09	16° $\mathbb{E}$ 23'27	
minimum elong	-8414 Mar 09 j 05:56	15° $\mathbb{Z}$ 54'19	1°30'11	opposition	-8408 Mar 04 j 01:40	11° $\mathbb{E}$ 30'35	2°16'28
max. Earth dist.	-8414 Mar 10 j 09:48	16° $\mathbb{Z}$ 10'16	6.13871 AU	min. Earth dist.	-8408 Mar 04 j 21:33	11° $\mathbb{E}$ 24'16	4.26967 AU
morning rise	-8414 Mar 22 j 23:27	19° $\mathbb{Z}$ 02'32		direct	-8408 May 04 j 19:50	6° $\mathbb{E}$ 34'42	
	-8414 May 13 j 20:29	0° $\approx$		evening set	-8408 Sep 06 j 12:14	24° $\mathbb{E}$ 46'05	
retrograde	-8414 Jul 27 j 12:53	7° $\approx$ 55'01					
opposition	-8414 Sep 24 j 15:12	2° $\approx$ 53'11	-1°54'11	conjunction	-8408 Sep 18 j 23:03	27° $\mathbb{E}$ 37'38	1°22'34
min. Earth dist.	-8414 Sep 24 j 03:40	2° $\approx$ 57'06	4.18331 AU	minimum elong	-8408 Sep 18 j 23:07	27° $\mathbb{E}$ 37'40	1°23'04
	-8414 Oct 17 j 07:29	30° $\mathbb{R}$ $\mathbb{Z}$		max. Earth dist.	-8408 Sep 18 j 03:52	27° $\mathbb{E}$ 26'36	6.22602 AU
direct	-8414 Nov 23 j 05:22	27° $\mathbb{Z}$ 50'17			-8408 Sep 29 j 06:41	0° $\Omega$	
	-8414 Dec 30 j 14:24	0° $\approx$		morning rise	-8408 Oct 01 j 10:35	0° $\Omega$ 29'43	
	-8413 Mar 24 j 00:11	15° $\approx$			-8408 Dec 13 j 20:10	15° $\Omega$	
evening set	-8413 Mar 31 j 09:34	16° $\approx$ 38'30		retrograde	-8407 Feb 05 j 08:03	19° $\Omega$ 07'48	
					-8407 Apr 01 j 11:36	15° $\mathbb{R}$ $\Omega$	
conjunction	-8413 Apr 14 j 01:50	19° $\approx$ 42'41	-0°57'59	opposition	-8407 Apr 07 j 18:08	14° $\Omega$ 11'58	1°36'47
minimum elong	-8413 Apr 14 j 01:55	19° $\approx$ 42'44	0°58'24	min. Earth dist.	-8407 Apr 08 j 01:01	14° $\Omega$ 09'46	4.18128 AU

Attention, astronomical year style is used: The year -8407 in astronomical counting style is the year 8408 BCE in historical counting style.

direct	-8407 Jun 07 j 06:48	9°Ω18'22	evening set	-8401 Apr 05 j 03:51	21°≈15'09	
	-8407 Aug 08 j 15:32	15°Ω				
evening set	-8407 Oct 08 j 21:58	27°Ω45'06	conjunction	-8401 Apr 18 j 19:42	24°≈18'33	-0°51'56
	-8407 Oct 18 j 13:18	0°൬	minimum elong	-8401 Apr 18 j 19:47	24°≈18'36	0°52'17
			max. Earth dist.	-8401 Apr 19 j 00:07	24°≈21'02	6.24234 AU
conjunction	-8407 Oct 21 j 15:09	0°൬43'13 0°42'49	morning rise	-8401 May 02 j 09:21	27°≈20'44	
minimum elong	-8407 Oct 21 j 15:13	0°൬43'15 0°43'08		-8401 May 14 j 10:18	0°✠	
max. Earth dist.	-8407 Oct 21 j 15:02	0°൬43'09 6.13753 AU	retrograde	-8401 Sep 02 j 06:31	15°✠15'06	
morning rise	-8407 Nov 03 j 10:45	3°൬42'45	opposition	-8401 Oct 31 j 13:10	10°✠17'36	-0°41'22
retrograde	-8406 Mar 13 j 07:57	23°൬08'06	min. Earth dist.	-8401 Oct 31 j 17:13	10°✠16'15	4.28230 AU
opposition	-8406 May 13 j 09:46	18°൬08'24 0°22'58	direct	-8401 Dec 31 j 14:13	5°✠13'24	
min. Earth dist.	-8406 May 13 j 02:31	18°൬10'46 4.09904 AU	evening set	-8400 May 08 j 04:50	23°✠37'48	
direct	-8406 Jul 11 j 16:50	13°൬15'30				
desc. node	-8406 Aug 28 j 17:08	16°൬52'44	conjunction	-8400 May 21 j 14:12	26°✠35'38	-0°01'33
	-8406 Nov 03 j 07:42	0°Ω	minimum elong	-8400 May 21 j 14:12	26°✠35'38	0°01'39
evening set	-8406 Nov 11 j 23:27	2°Ω01'03	behind sun begin	-8400 May 21 j 06:00	26°✠31'07	
			behind sun end	-8400 May 21 j 22:24	26°✠40'10	
conjunction	-8406 Nov 25 j 01:39	5°Ω06'07 -0°12'38	max. Earth dist.	-8400 May 20 j 21:18	26°✠26'16	6.31562 AU
minimum elong	-8406 Nov 25 j 01:38	5°Ω06'06 0°12'37	asc. node	-8400 Jun 02 j 01:43	29°✠08'16	
behind sun begin	-8406 Nov 24 j 20:23	5°Ω03'01	morning rise	-8400 Jun 03 j 20:20	29°✠31'46	
behind sun end	-8406 Nov 25 j 06:53	5°Ω09'11		-8400 Jun 05 j 23:38	0°Υ	
max. Earth dist.	-8406 Nov 25 j 22:30	5°Ω18'25 6.06979 AU	retrograde	-8400 Oct 02 j 17:06	16°Υ52'55	
morning rise	-8406 Dec 08 j 07:17	8°Ω13'05	opposition	-8400 Dec 01 j 10:58	11°Υ58'50	0°34'50
retrograde	-8405 Apr 18 j 22:43	28°Ω11'21	min. Earth dist.	-8400 Dec 02 j 03:09	11°Υ53'33	4.33982 AU
opposition	-8405 Jun 18 j 10:38	23°Ω08'04 -1°01'15	direct	-8399 Feb 01 j 12:11	6°Υ55'24	
min. Earth dist.	-8405 Jun 17 j 14:30	23°Ω14'48 4.05273 AU	evening set	-8399 Jun 09 j 18:33	25°Υ04'53	
direct	-8405 Aug 15 j 18:02	18°Ω13'54				
	-8405 Nov 15 j 16:59	0°൬	conjunction	-8399 Jun 22 j 18:29	27°Υ57'15	0°48'25
evening set	-8405 Dec 17 j 19:27	7°൬16'02	minimum elong	-8399 Jun 22 j 18:25	27°Υ57'13	0°48'37
			max. Earth dist.	-8399 Jun 21 j 12:57	27°Υ40'53	6.35281 AU
conjunction	-8405 Dec 31 j 05:31	10°൬25'24 -1°04'22		-8399 Jul 02 j 00:03	0°✠	
minimum elong	-8405 Dec 31 j 05:26	10°൬25'21 1°04'41	morning rise	-8399 Jul 05 j 14:49	0°✠47'53	
max. Earth dist.	-8404 Jan 01 j 16:26	10°൬45'58 6.04817 AU		-8399 Sep 19 j 14:44	15°✠	
morning rise	-8404 Jan 13 j 18:57	13°൬36'27	retrograde	-8399 Nov 03 j 02:38	17°✠59'21	
	-8404 Jan 19 j 18:38	15°൬		-8399 Dec 18 j 10:23	15°✠	
	-8404 Apr 05 j 05:12	0°✠	opposition	-8398 Jan 02 j 11:11	13°✠07'26	1°39'50
retrograde	-8404 May 24 j 05:54	3°✠38'34	min. Earth dist.	-8398 Jan 03 j 10:40	12°✠59'54	4.35526 AU
	-8404 Jul 12 j 08:19	30°✠				
min. Earth dist.	-8404 Jul 22 j 01:39	28°൬41'46 4.05914 AU				
opposition	-8404 Jul 23 j 02:08	28°൬33'25 -2°03'29				
direct	-8404 Sep 19 j 04:49	23°൬36'15				
	-8404 Nov 23 j 06:10	0°✠				
evening set	-8403 Jan 22 j 17:38	12°✠45'25				
conjunction	-8403 Feb 05 j 09:03	15°✠55'25 -1°32'26				
minimum elong	-8403 Feb 05 j 09:01	15°✠55'24 1°32'58				
max. Earth dist.	-8403 Feb 06 j 22:50	16°✠17'23 6.08054 AU				
morning rise	-8403 Feb 19 j 02:10	19°✠06'13				
	-8403 Apr 10 j 16:53	0°✠				
retrograde	-8403 Jun 28 j 10:30	8°✠39'21				
opposition	-8403 Aug 26 j 17:24	3°✠35'02 -2°19'45				
min. Earth dist.	-8403 Aug 25 j 21:20	3°✠41'54 4.11489 AU				
	-8403 Sep 25 j 02:26	30°✠				
direct	-8403 Oct 24 j 09:32	28°✠34'28				
	-8403 Nov 22 j 23:55	0°✠				
evening set	-8402 Feb 28 j 12:52	17°✠36'31				
conjunction	-8402 Mar 14 j 06:17	20°✠44'10 -1°26'51				
minimum elong	-8402 Mar 14 j 06:21	20°✠44'12 1°27'22				
max. Earth dist.	-8402 Mar 15 j 06:09	20°✠57'47 6.15422 AU				
morning rise	-8402 Mar 27 j 23:45	23°✠51'38				
	-8402 Apr 24 j 21:07	0°≈				
retrograde	-8402 Aug 01 j 00:15	12°≈35'27				
opposition	-8402 Sep 29 j 03:20	7°≈34'03 -1°47'11				
min. Earth dist.	-8402 Sep 28 j 17:48	7°≈37'17 4.19872 AU				
direct	-8402 Nov 27 j 22:08	2°≈30'48				
	-8401 Mar 07 j 06:09	15°≈				