Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1 Attention, astronomical year style is used: The year -1900 in astronomical counting style is the year 1901 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	e year -1900 i	n astronomical co	unting style is the year	1901 BCE in historical c	ounting style.	0-
	-1900 Jan 04 j 08:50	30° <b>₹</b> 8		minimum elong	-1895 Dec 01 j 22:16	25°M15'54	0°08'01
direct	-1900 Feb 08 j 13:26	28° <b>8</b> 04'26		behind sun begin	-1895 Dec 01 j 15:05	25°M11'42	
	-1900 Mar 15 j 06:33	$\Pi^{\circ}0$		behind sun end	-1895 Dec 02 j 05:27	$25^{\circ}$ M $20'05$	
evening set	-1900 Jun 15 j 00:07	16° <b>Ⅱ</b> 16'57		max. Earth dist.	-1895 Nov 30 j 21:32	25°M01'24	6.13409 AU
				morning rise	-1895 Dec 14 j 16:11	28°M14'55	
conjunction	-1900 Jun 28 j 13:04	19° <b>Ⅱ</b> 15′22	0°23'48		-1895 Dec 22 j 05:33	0° <b>∡</b> 7	
minimum elong	-1900 Jun 28 j 13:02	19° <b>Ⅱ</b> 15′21	0°23'50	desc. node	-1894 Feb 10 j 08:19	10° <b>₹</b> 30'31	
max. Earth dist.	-1900 Jun 28 j 18:37	19° <b>Ⅱ</b> 18′25	6.33568 AU	retrograde	-1894 Apr 22 j 05:41	17° <b>∡</b> ³32'54	
morning rise	-1900 Jul 11 j 23:40	22° <b>Ⅱ</b> 12'28		opposition	-1894 Jun 22 j 01:21	12° <b>х</b> 36′08	-0°22'27
	-1900 Aug 18 j 08:28	$0$ $\circ$ $\odot$		min. Earth dist.	-1894 Jun 22 j 08:56	12° <b>х</b> 33′40	4.07561 AU
retrograde	-1900 Nov 10 j 15:56	9° <b>©</b> 32'35		direct	-1894 Aug 20 j 19:23	7° <b>∡</b> ¹42'23	
opposition	-1899 Jan 09 j 12:14	4° <b>©</b> 35'55	1°01'39	evening set	-1894 Dec 23 j 08:25	26° <b>₹</b> ¹47'30	
min. Earth dist.	-1899 Jan 09 j 16:59	4° <b>5</b> 34'22	4.37835 AU				
	-1899 Feb 22 j 22:12	30° <b>Ŗ</b> Ⅱ		conjunction	-1893 Jan 05 j 06:47	29° <b>₹</b> 52'41	-0°36'35
direct	-1899 Mar 12 j 04:35	29° <b>Ⅲ</b> 32′28		minimum elong	-1893 Jan 05 j 06:44	29° <b>₹</b> 52'39	0°36'38
	-1899 Mar 29 j 13:50	0°ම		max. Earth dist.	-1893 Jan 05 j 10:20	29° <b>∡</b> ⁵54'48	6.02855 AU
evening set	-1899 Jul 17 j 15:38	17° <b>5</b> 23'54			-1893 Jan 05 j 19:01	8°0	
				morning rise	-1893 Jan 18 j 07:32	2° <b>る</b> 59'21	
conjunction	-1899 Jul 30 j 20:05	20° <b>©</b> 15'53	0°58'11	retrograde	-1893 May 29 j 19:30	23° <b>る</b> 10'39	
minimum elong	-1899 Jul 30 j 20:02	20° <b>©</b> 15'52	0°58'13	opposition	-1893 Jul 29 j 03:23	18° <b>る</b> 10'01	-1°23'30
max. Earth dist.	-1899 Jul 30 j 00:47	20° <b>©</b> 05'22	6.40719 AU	min. Earth dist.	-1893 Jul 28 j 15:07	18° <b>る</b> 14'05	3.99674 AU
morning rise	-1899 Aug 12 j 21:19	23°906'15		direct	-1893 Sep 25 j 15:33	13° <b>る</b> 16'46	
	-1899 Sep 15 j 00:14	$0^{\circ}\Omega$			-1892 Jan 16 j 22:01	0°≈	
retrograde	-1899 Dec 11 j 02:47	10° <b>Ω</b> 01′20		evening set	-1892 Jan 28 j 09:36	2° <b>≈</b> 43'07	
opposition	-1898 Feb 09 j 09:32	5° <b>Ω</b> 07'50	1°40'36	Č	J		
min. Earth dist.	-1898 Feb 10 j 05:09	5° <b>Ω</b> 01'29	4.42132 AU	conjunction	-1892 Feb 10 j 15:02	5°≈53'27	-1°08'46
direct	-1898 Apr 12 j 21:13	0° <b>Ω</b> 04'58		minimum elong	-1892 Feb 10 j 15:00	5°≈53'26	
	-1898 Aug 04 j 22:55	15° <b>Ω</b>		max. Earth dist.	-1892 Feb 11 j 21:59		5.98299 AU
evening set	-1898 Aug 18 j 00:34	17° <b>Ω</b> 48'09		morning rise	-1892 Feb 23 j 23:57	9° <b>≈</b> 05'35	
max. Earth dist.	-1898 Aug 29 j 07:31		6.41728 AU		-1892 Mar 20 j 09:59	15° <b>≈</b>	
man zarm ulov.	10901148 29 1 07.51	20 00100.	0.11720110	retrograde	-1892 Jul 05 j 08:34	29° <b>≈</b> 35'44	
conjunction	-1898 Aug 30 j 20:44	20° <b>Ω</b> 36'16	1°15'52	min. Earth dist.	-1892 Sep 02 j 01:53		3.99144 AU
minimum elong	-1898 Aug 30 j 20:43	20° <b>Ω</b> 36'15		opposition	-1892 Sep 03 j 06:22	24° <b>≈</b> 31'41	
morning rise	-1898 Sep 12 j 13:52	23° <b>Ω</b> 23'00	1 1331	direct	-1892 Oct 31 j 03:45	19° <b>≈</b> 36'41	1 33 17
morning rise	-1898 Oct 14 j 03:03	0° m)		ancer	-1891 Jan 24 j 07:15	0° <b>∀</b>	
retrograde	-1897 Jan 11 j 00:01	10° <b>m</b> ) 20'11		evening set	-1891 Mar 05 j 14:48	9° <b>)</b> €04'02	
opposition	-1897 Mar 12 j 16:09	5° Mp 28'26	1°52'00	evening sec	1091 Mar 00 j 11.10	7 7(0102	
min. Earth dist.	-1897 Mar 13 j 22:53		4.39906 AU	conjunction	-1891 Mar 19 j 03:55	12° <b>)</b> 16′11	-1°14'38
direct	-1897 May 14 j 09:37	0° <b>m</b> <sub>27'17</sub>	4.57700710	minimum elong	-1891 Mar 19 j 03:56		
evening set	-1897 Sep 17 j 20:16	18° <b>m</b> ) 15'56		max. Earth dist.	-1891 Mar 21 j 05:07	12° <b>)</b> (45'18	
max. Earth dist.	-1897 Sep 28 j 12:36	20° Mp 38'04	6.36334 AU	morning rise	-1891 Apr 01 j 19:45	15° <b>\(\frac{1}{4}\)</b> 316	0.01/1/ AC
max. Latin dist.	-1077 Sep 20 j 12.30	20 III 300 <del>1</del>	0.3033 <del>4</del> A0	morning risc	-1891 Jun 10 j 10:47	0°Υ	
conjunction	-1897 Sep 30 j 11:06	21° <b>m</b> 03'57	1°12'37	retrograde	-1891 Aug 10 j 15:33	5° <b>Υ</b> 32'06	
minimum elong	-1897 Sep 30 j 11:08	21° my 03'58	1°12'37	min. Earth dist.	-1891 Oct 07 j 21:04	0° <b>Υ</b> 37'35	4.06150 AU
morning rise	-1897 Oct 13 j 00:07	23° <b>m</b> 51'10	1 1237	opposition	-1891 Oct 07 j 21:04	0° <b>Υ</b> 26'49	
morning risc	-1897 Nov 10 j 16:06	ე∘ <u>ი</u>		opposition	-1891 Oct 09 j 04:33	0 1 20 49 30° <b>₹</b>	-1 3909
retrograde	-1896 Feb 12 j 03:25	0 <b>=</b> 11° <b>£</b> 16'41		direct	-1891 Dec 06 j 11:03	25° <b>)</b> 28'42	
opposition	-1896 Apr 13 j 02:09	6° <b>£</b> 24'51	1°32'16	direct	-1890 Jan 29 j 11:26	25 <b>γ</b> (26 42	
min. Earth dist.	-1896 Apr 14 j 11:03	6° <b>£</b> 14'23	4.31666 AU	evening set	-1890 Apr 11 j 16:42	14° <b>Υ</b> 35'54	
direct	-1896 Jun 14 j 08:05	1° <b>£</b> 26′09	4.51000 AU	evening set	-1090 Apr 11 j 10.42	14 1 33 34	
	•	1 <b>=</b> 20 09 19° <b>£</b> 33'06		aaniunation	1900 Apr 25 ; 10:52	17° <b>Ƴ</b> 45'50	0°52!20
evening set	-1896 Oct 17 j 22:54	19 <b>≗</b> 33 00 22° <b>₽</b> 01'41	6.25920 AU	conjunction minimum elong	-1890 Apr 25 j 10:52 -1890 Apr 25 j 10:55	17° <b>Y</b> 45'52	
max. Earth dist.	-1896 Oct 28 j 20:14	22 ==0141	0.23920 AU	max. Earth dist.		17 1 43 32 18° <b>Y</b> 13'28	6.11635 AU
. ,.	1006 0 4 20 : 12 52	220 0 24152	0040110		-1890 Apr 27 j 10:51		0.11033 AU
conjunction	-1896 Oct 30 j 12:52	22° <b>£</b> 24'52	0°48'18	morning rise	-1890 May 09 j 06:04	20° <b>Y</b> 56′04	
minimum elong	-1896 Oct 30 j 12:55	22° <b>£</b> 24'53	0°48'18		-1890 Jun 20 j 01:57	0°8	
morning rise	-1896 Nov 12 j 02:07	25° <b>Ω</b> 16'33		retrograde	-1890 Sep 13 j 18:21	9° <b>8</b> 59'24	4 17044 411
, 1	-1896 Dec 03 j 07:54	0°M		min. Earth dist.	-1890 Nov 11 j 04:47	5° <b>8</b> 04'20	4.17844 AU
retrograde	-1895 Mar 17 j 03:44	13°M32'28	0042120	opposition	-1890 Nov 12 j 05:59	4° <b>8</b> 55'46	-0~50'08
opposition	-1895 May 17 j 04:31	8°M38'54	0°43'38		-1889 Jan 03 j 05:22	30°RƳ	
min. Earth dist.	-1895 May 18 j 05:25	8°M30'56	4.19665 AU	direct	-1889 Jan 10 j 12:05	29° <b>Y</b> 54'41	
direct	-1895 Jul 17 j 08:03	3°M43'01			-1889 Jan 17 j 19:58	0°8	
	-1895 Oct 17 j 13:45	15°M			-1889 May 01 j 12:07	15° <b>8</b>	
evening set	-1895 Nov 19 j 05:37	22°M17'44		evening set	-1889 May 17 j 12:25	18° <b>8</b> 31'10	
conjunction	-1895 Dec 01 j 22:15	25°M15'53	0°08'03	conjunction	-1889 May 31 j 06:07	21° <b>8</b> 35'30	-0°12'57

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2 Attention, astronomical year style is used: The year -1889 in astronomical counting style is the year 1890 BCE in historical counting style.

Attention, astronomic	cal year style is used: Th	e year -1889 i	n astronomical cou	nting style is the year	1890 BCE in historical co	ounting style.	<i>6-</i> –
minimum elong	-1889 May 31 j 06:08	21° <b>8</b> 35'31	0°12'55	min. Earth dist.	-1883 May 23 j 01:53	13°M19'36	4.17477 AU
behind sun begin	-1889 May 31 j 01:12	21° <b>8</b> 32'46		direct	-1883 Jul 22 j 02:04	8°M31'18	
behind sun end	-1889 May 31 j 11:03	21° <b>8</b> 38'15			-1883 Sep 27 j 06:47	15° <b>™</b>	
max. Earth dist.	-1889 Jun 01 j 09:47	21° <b>8</b> 51'00	6.24190 AU	evening set	-1883 Nov 23 j 22:46	27°M11'49	
morning rise	-1889 Jun 13 j 22:58	24° <b>8</b> 39'09			-1883 Dec 05 j 21:17	0° <b>∡</b> ¹	
	-1889 Jul 08 j 15:08	0°II					
asc. node	-1889 Sep 27 j 03:46	12° <b>∏</b> 05'18		conjunction	-1883 Dec 06 j 16:16	0° <b>≯</b> 11'10 −	
retrograde	-1889 Oct 15 j 22:59	12° <b>Ⅲ</b> 39'40		minimum elong	-1883 Dec 06 j 16:16	0° <b>√</b> 11'11	0°01'37
opposition	-1889 Dec 14 j 13:30	7° <b>Ⅱ</b> 39'33		behind sun begin	-1883 Dec 06 j 08:14	0° <b>∡</b> 06′28	
min. Earth dist.	-1889 Dec 14 j 03:49	7° <b>∏</b> 42'48	4.30037 AU	behind sun end	-1883 Dec 07 j 00:19	0° <b>₹</b> 15'53	6 1 1 2 0 5 1 X X
direct	-1888 Feb 13 j 04:34	2° <b>I</b> I36'33		max. Earth dist.	-1883 Dec 05 j 20:46	29°M59'42	6.11395 AU
evening set	-1888 Jun 19 j 13:57	20° <b>Ⅱ</b> 44'21		morning rise	-1883 Dec 19 j 10:57	3°×11'27	
agniumation	1000 1.1 02:01.56	23° <b>∏</b> 41'42	0920115	desc. node	-1883 Dec 20 j 16:16 -1882 Apr 27 j 13:45	3° ₹28'35 22° ₹39'05	
conjunction minimum elong	-1888 Jul 03 j 01:56 -1888 Jul 03 j 01:54	23° <b>II</b> 41'41	0°29'17	retrograde opposition	-1882 Jun 27 j 06:43	22 <b>x</b> · 39 03 17° <b>x</b> <sup>7</sup> 41′52	0°32'04
max. Earth dist.	-1888 Jul 03 j 04:25	23° <b>I</b> I41'41	6.35119 AU	min. Earth dist.	-1882 Jun 27 j 11:37		4.05914 AU
morning rise	-1888 Jul 16 j 11:11	26° <b>I</b> I37'37	0.55117 AU	direct	-1882 Aug 25 j 19:59	12° <b>×</b> <sup>7</sup> 48'23	4.03714 AC
morning rise	-1888 Aug 01 j 03:53	0°95		uncer	-1882 Dec 20 j 01:52	0°る。	
retrograde	-1888 Nov 14 j 19:05	13°952'02		evening set	-1882 Dec 28 j 09:16	0 3 1°る57'54	
opposition	-1887 Jan 13 j 17:55	8°\$55'50	1°08'20	evening sec	1002 200 20 100.10	1 0070.	
min. Earth dist.	-1887 Jan 14 j 00:25	8°\$53'42	4.38948 AU	conjunction	-1881 Jan 10 j 08:26	5° <b>る</b> 03'59	-0°42'19
direct	-1887 Mar 16 j 12:53	3°952'22		minimum elong	-1881 Jan 10 j 08:23	5° <b>ප</b> 03'57	
evening set	-1887 Jul 21 j 23:57	21°5541'28		max. Earth dist.	-1881 Jan 10 j 15:35		6.01714 AU
max. Earth dist.	-1887 Aug 03 j 03:49		6.41290 AU	morning rise	-1881 Jan 23 j 10:29	8° <b>ප</b> 11'41	
	<b>C</b> 3			retrograde	-1881 Jun 04 j 03:22	28° <b>පි</b> 28'12	
conjunction	-1887 Aug 04 j 03:04	24° <b>©</b> 32'41	1°01'43	opposition	-1881 Aug 03 j 10:57	23° <b>පි</b> 26'58	-1°30'09
minimum elong	-1887 Aug 04 j 03:01	24°532'40	1°01'44	min. Earth dist.	-1881 Aug 02 j 18:36	23° <b>る</b> 32'24	3.99186 AU
morning rise	-1887 Aug 17 j 03:06	27° <b>5</b> 22'20		direct	-1881 Sep 30 j 18:55	18° <b>る</b> 33'37	
	-1887 Aug 29 j 09:20	$0^{\circ}\Omega$			-1881 Dec 29 j 17:09	0° <b>≈</b>	
retrograde	-1887 Dec 15 j 08:00	14° <b>Ω</b> 16′11		evening set	-1880 Feb 02 j 15:27	8° <b>≈</b> 00'57	
opposition	-1886 Feb 13 j 15:16	9° <b>Ω</b> 23′03	1°43'54				
min. Earth dist.	-1886 Feb 14 j 13:59	9° <b>Ω</b> 15'44	4.42136 AU	conjunction	-1880 Feb 15 j 22:03	11° <b>≈</b> 11'42	-1°11'23
direct	-1886 Apr 17 j 05:24	4° <b>Ω</b> 20′22		minimum elong	-1880 Feb 15 j 22:01	11° <b>≈</b> 11'40	
	-1886 Jul 19 j 08:25	15° <b>Ω</b>		max. Earth dist.	-1880 Feb 17 j 09:49	11° <b>≈</b> 33′09	5.98479 AU
evening set	-1886 Aug 22 j 06:13	22° <b>Ω</b> 03'57		morning rise	-1880 Feb 29 j 07:52	14° <b>≈</b> 24′08	
max. Earth dist.	-1886 Sep 02 j 09:02	24° <b>Ω</b> 29'45	6.41138 AU		-1880 Mar 02 j 20:18	15° <b>≈</b>	
				_	-1880 May 14 j 10:07	0° <b>∀</b>	
conjunction	-1886 Sep 04 j 01:29			retrograde	-1880 Jul 10 j 15:03	4° <b>₩</b> 52'15	
minimum elong	-1886 Sep 04 j 01:29		1°16'43	· P d P ·	-1880 Sep 06 j 23:00	30°R≈	2 00050 444
morning rise	-1886 Sep 16 j 17:54	27° <b>Ω</b> 38'36		min. Earth dist.	-1880 Sep 07 j 05:51	29°≈57'41	3.99958 AU
. 1	-1886 Sep 27 j 15:31	0°M)		opposition	-1880 Sep 08 j 10:56	29°≈47'49	-1°53′57
retrograde	-1885 Jan 15 j 08:04 -1885 Mar 17 j 01:04	14° Mp 39'04	1°51'09	direct	-1880 Nov 05 j 09:39	24°≈52'25 0° <b>米</b>	
opposition min. Earth dist.	•	9° Mp 47'24 9° Mp 37'19	4.38775 AU	evening set	-1879 Jan 01 j 14:20 -1879 Mar 10 j 21:13	0 <del>X</del> 14° <b>¥</b> 16'56	
direct	-1885 Mar 18 j 08:38 -1885 May 18 j 16:56	4° Mp 46'32	4.36773 AU	evening set	-16/9 Wai 10 j 21.13	14 /(1030	
evening set	-1885 Sep 22 j 02:35	22° m 38'19		conjunction	-1879 Mar 24 j 11:13	17° <b>₩</b> 28'51	-1°13'03
max. Earth dist.	-1885 Oct 02 j 19:34	25° mp 01'20	6.34752 AU	minimum elong	-1879 Mar 24 j 11:15	17° <b>H</b> 28'52	1°13'02
max. Earth dist.	1003 000 02 j 15.51	25 1001 20	0.5 1752 110	max. Earth dist.	-1879 Mar 26 j 14:02	17° <b>)</b> 58'48	6.03059 AU
conjunction	-1885 Oct 04 j 17:14	25° m 26'51	1°10'26	morning rise	-1879 Apr 07 j 03:46	20° <b>)</b> (41'56	
minimum elong	-1885 Oct 04 j 17:16	25° m) 26'52	1°10'26	morning rise	-1879 May 19 j 01:32	0°Υ	
morning rise	-1885 Oct 17 j 05:57	28° Mp 14'38		retrograde	-1879 Aug 15 j 13:13	10° <b>Y</b> 36'15	
	-1885 Oct 25 j 04:48	0∘ <u>v</u>		min. Earth dist.	-1879 Oct 12 j 18:14	5° <b>Ƴ</b> 41'58	4.07871 AU
retrograde	-1884 Feb 16 j 18:37	15° <b>≏</b> 47'24		opposition	-1879 Oct 14 j 02:07	5° <b>Ƴ</b> 31'05	-1°33'53
opposition	-1884 Apr 17 j 17:26	10° <b>≏</b> 55'30	1°27'05	direct	-1879 Dec 11 j 10:17	0° <b>Υ</b> 32'32	
min. Earth dist.	-1884 Apr 19 j 02:18	10° <b>≏</b> 45'03	4.29723 AU	evening set	-1878 Apr 16 j 19:19	19° <b>Ƴ</b> 34'47	
direct	-1884 Jun 18 j 20:10	5° <b>≙</b> 57'16					
evening set	-1884 Oct 22 j 09:17	24° <b>≙</b> 09'15		conjunction	-1878 Apr 30 j 13:36	22° <b>Y</b> 43'56	-0°47'38
max. Earth dist.	-1884 Nov 02 j 07:08	26° <b>≏</b> 38'54	6.23781 AU	minimum elong	-1878 Apr 30 j 13:40	22° <b>Y</b> 43'58	0°47'37
				max. Earth dist.	-1878 May 02 j 10:05	23° <b>Ƴ</b> 09′27	6.13581 AU
conjunction	-1884 Nov 03 j 23:22	27° <b>≏</b> 01'59	0°43'25	morning rise	-1878 May 14 j 08:53	25° <b>Y</b> 53'17	
minimum elong	-1884 Nov 03 j 23:25	27° <b>ჲ</b> 02'00	0°43'25		-1878 Jun 01 j 18:05	0°8	
morning rise	-1884 Nov 16 j 13:19	29° <b>♀</b> 54'50		retrograde	-1878 Sep 18 j 08:23	14° <b>8</b> 46'44	
	-1884 Nov 16 j 22:23	0°M		opposition	-1878 Nov 16 j 20:29	9° <b>8</b> 43'29	
	-1883 Feb 02 j 13:08	15°M		min. Earth dist.	-1878 Nov 15 j 21:48	9° <b>8</b> 51'11	4.19809 AU
retrograde	-1883 Mar 22 j 03:17	18°M20'43		direct	-1877 Jan 15 j 07:47	4° <b>8</b> 42'03	
•,•	-1883 May 09 j 19:08	15°RM	0024150	• .	-1877 Apr 13 j 13:44	15° <b>8</b>	
opposition	-1883 May 22 j 03:28	13° <b>™</b> 26'47	0°34'59	evening set	-1877 May 22 j 08:31	23° <b>8</b> 13'30	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1877 in astronomical counting style is the year 1878 BCE in historical counting style. 26°**8**16'52 -0°06'55 -1877 Jun 05 j 01:51 retrograde -1871 Mar 27 j 04:22 23°M11'19 conjunction 18°ML17'03 0°25'59 -1877 Jun 05 j 01:51 26°816'52 0°06'53 -1871 May 27 j 03:23 minimum elong opposition 18°ML10'24 4.15770 AU behind sun begin -1877 Jun 04 j 18:09 26°812'35 min. Earth dist. -1871 May 28 j 00:06 -1877 Jun 05 j 09:33 -1871 Jun 24 j 04:54 behind sun end 26°**8**21'09 15°RM -1877 Jun 06 j 03:12 26°**8**31'01 -1871 Jul 26 j 22:12 13°M21'57 max. Earth dist. 6.26041 AU direct -1877 Jun 18 j 17:44 morning rise 29°**8**19'20 -1871 Aug 28 j 06:33 15°M -1871 Oct 30 j 08:41 25°M27'55 -1877 Jun 21 j 19:23  $0^{\circ}\Pi$ desc. node 9°**Ⅱ**32'37 asc. node -1877 Aug 07 j 08:16 -1871 Nov 19 j 15:01 0°**∡**7 retrograde -1877 Oct 20 j 06:25 17°**Ⅱ**11'49 evening set -1871 Nov 28 j 16:22 2°**҂**06′22 opposition -1877 Dec 18 j 22:42 12°**Ⅱ**12'16 0°20'58 min. Earth dist. -1877 Dec 18 j 14:41 12°**Ⅱ**14'57 4.31632 AU conjunction -1871 Dec 11 j 10:24 5°**х**¹06'38 -0°04'52 -1871 Dec 11 j 10:24 direct -1876 Feb 17 j 17:23 7°**Ⅲ**09'10 minimum elong 5°**х** 06′38 0°04'54 -1871 Dec 11 j 02:33 evening set -1876 Jun 24 j 04:08 25°**Ⅲ**13'24 behind sun begin 5°**х**¹02'02 behind sun end -1871 Dec 11 j 18:14 5°**х** 11′14 conjunction -1876 Jul 07 j 14:49 28°**Ⅲ**09'46 0°34'33 max. Earth dist. -1871 Dec 10 j 17:36 4°**₰**756'44 6.09925 AU minimum elong -1876 Jul 07 j 14:46 28°**Ⅲ**09'45 0°34'36 morning rise -1871 Dec 24 j 06:09 8°**х**¹07'58 max. Earth dist. -1876 Jul 07 j 11:48 28°**Ⅲ**08′07 6.36336 AU retrograde -1870 May 02 j 17:48 27°**х** 43′02 -1876 Jul 16 j 00:14 0ಂತಾ opposition -1870 Jul 02 j 10:59 22°**∡**′45′12 -0°41′21 morning rise -1876 Jul 20 j 22:57 1°9504'41 min. Earth dist. -1870 Jul 02 j 11:42 22°**∡**¹44'58 4.04836 AU retrograde -1876 Nov 19 j 01:37 18°9514'42 direct -1870 Aug 30 j 19:01 17°**∡**751'51 opposition -1875 Jan 18 j 00:56 13°9519'00 1°14'43 -1870 Dec 02 j 16:32 0°궁 min. Earth dist. -1875 Jan 18 j 10:54 13°9515'44 4.39729 AU evening set -1869 Jan 02 j 08:35 7°る03'44 direct -1875 Mar 21 i 00:23 8°9515'31 evening set -1875 Jul 26 i 09:30 26°903'14 conjunction -1869 Jan 15 i 08:43 10°る10'27 -0°47'37 max. Earth dist. -1875 Aug 07 j 09:50 28°939'50 6.41566 AU minimum elong -1869 Jan 15 i 08:40 10°る10'26 0°47'40 max. Earth dist. -1869 Jan 15 j 21:25 10°**ठ**18′04 6.01120 AU -1875 Aug 08 j 11:35 28°953'52 1°04'58 -1869 Jan 28 j 11:37 13°る18'49 conjunction morning rise -1875 Aug 08 j 11:33 -1869 Apr 21 j 05:36 minimum elong 28°953'51 1°04'59 0°≈≈ -1875 Aug 13 j 12:56 -1869 Jun 09 j 09:45 3°≈38'16 0 $^{\circ}\Omega$ retrograde -1875 Aug 21 j 10:19 1°**Ω**42'55 -1869 Jul 29 j 01:50 30°Rる morning rise -1875 Oct 31 j 05:24 -1869 Aug 08 j 15:30 28°る36'28 -1°35'52 15°€ opposition -1875 Dec 19 j 13:22 -1869 Aug 07 j 21:36 18°**Ω**36′25 min. Earth dist. 28°る42'26 3.99154 AU retrograde -1869 Oct 05 j 22:33 -1874 Feb 07 j 22:43 15°RΩ 23°る42'55 direct -1874 Feb 17 j 22:59 13°**Ω**43'33 1°46'42 -1869 Dec 08 j 19:55 opposition 0°≈ -1874 Feb 18 j 22:40 13°**Ω**35'56 4.41924 AU -1868 Feb 07 j 18:30 min. Earth dist. evening set 13°≈09'49 -1874 Apr 21 j 13:17 -1868 Feb 15 j 11:08 direct 8°**Ω**41′03 15°**≈** -1874 Jun 29 j 16:59 15°**Ω** evening set -1874 Aug 26 j 13:44 26°**Ω**25'29 conjunction -1868 Feb 21 j 02:04 16°≈20'44 -1°13'21 max. Earth dist. -1874 Sep 06 j 14:14 28°**Q**50'21 6.40444 AU minimum elong -1868 Feb 21 j 02:02 16°≈20'44 1°13'23 max. Earth dist. -1868 Feb 22 j 16:54 16°≈43'58 5.98983 AU conjunction -1874 Sep 08 j 08:07 29°Ω13'22 1°17'06 morning rise -1868 Mar 05 j 12:54 19°≈33'21 -1874 Sep 08 j 08:06 29° Ω13'22 1°17'07 -1868 Apr 21 j 07:32 0°) minimum elong 0° M -1874 Sep 11 j 20:55 -1868 Jul 15 j 15:58 9°**)** 57'54 retrograde -1874 Sep 20 j 23:49 2° m 00'01 -1868 Sep 12 j 04:28 5°**)** €03'36 4.00967 AU morning rise min. Earth dist. -1873 Jan 19 j 19:31 19° Mp 04'04 -1868 Sep 13 j 11:00 4°**¥**53'14 -1°53'38 retrograde opposition -1868 Nov 05 i 10:46 opposition -1873 Mar 21 j 12:49 14° m 12'29 1°49'39 30°R≈ min. Earth dist. -1873 Mar 22 j 21:56 14° m 01'56 4.37643 AU direct -1868 Nov 10 j 09:22 29°≈57'27 direct -1873 May 23 j 04:46 9° m 11'57 -1868 Nov 15 i 07:59 0°) evening set -1873 Sep 26 i 10:50 27° m 06'28 evening set -1867 Mar 15 j 23:56 19° ¥ 18'51 max. Earth dist. -1873 Oct 07 j 02:45 29° m 29'26 6.33271 AU -1867 Mar 29 j 14:36 22°\ 30'28 -1°10'57 conjunction -1873 Oct 09 j 01:11 29° m 55'28 1°07'48 -1867 Mar 29 j 14:38 22°\ 30'29 1°10'57 conjunction minimum elong minimum elong -1873 Oct 09 j 01:13 29° m 55'29 1°07'48 -1867 Mar 31 j 16:03 22°**升**59'31 6.04451 AU max. Earth dist. -1873 Oct 09 j 09:16 0∘**⊽** morning rise -1867 Apr 12 j 07:51 25°**)** 43'11 2°**-**43′50 -1867 May 01 j 00:28  $0^{\circ}\Upsilon$ morning rise -1873 Oct 21 j 13:55 15°**Y**29'33 retrograde -1872 Feb 21 j 10:58 20°**₽**23'29 retrograde -1867 Aug 20 j 06:36 -1867 Oct 18 j 19:44 opposition -1872 Apr 22 j 10:55 15°**2**31'22 1°21'15 opposition 10°Y24'29 -1°28'09 -1872 Apr 23 j 18:07 4.28003 AU min. Earth dist. -1867 Oct 17 j 13:13 10°**Y**34'55 4.09478 AU min. Earth dist. 15°**≏**21'26 -1872 Jun 23 j 09:43 5°Y25'30 direct 10°**£**33'32 direct -1867 Dec 16 j 07:30 -1872 Oct 26 j 21:14 28°**£**49'33 -1866 Apr 21 j 17:57 24°Y23'29 evening set evening set -1872 Nov 01 j 00:22  $0^{\circ}$ M max. Earth dist. -1872 Nov 06 j 23:13 1°M22'08 6.21998 AU conjunction -1866 May 05 j 12:36 27°**Y**32'01 -0°42'37 minimum elong -1866 May 05 j 12:39 27°**Y**32′02 0°42'36 conjunction -1872 Nov 08 j 11:43 1°ML43'09 0°38'12 max. Earth dist. -1866 May 07 j 07:54 27°**Υ**56'44 6.15287 AU minimum elong -1872 Nov 08 j 11:45 1°ML43'10 0°38'10 -1866 May 16 j 08:09 0°8 -1872 Nov 21 j 01:59 4°M36'56 -1866 May 19 j 07:37 0°840'32 morning rise morning rise

-1866 Jul 30 j 13:14

15°8

-1871 Jan 08 j 18:41

15°M₁

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4 Attention, astronomical year style is used: The year -1866 in astronomical counting style is the year 1867 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ie year -1866 i	in astronomical co	ounting style is the year	1867 BCE in historical c	counting style.	-
retrograde	-1866 Sep 22 j 19:53	19° <b>8</b> 25'20			-1860 Oct 15 j 21:13	$0^{\circ}$ M	
	-1866 Nov 16 j 17:17	15° <b>₹႘</b>		evening set	-1860 Oct 31 j 08:40	3°M29'35	
min. Earth dist.	-1866 Nov 20 j 11:05		4.21446 AU				
opposition	-1866 Nov 21 j 07:56	14° <b>8</b> 22'38	-0°33'14	conjunction	-1860 Nov 12 j 23:24	6°M23'56	0°32'44
direct	-1865 Jan 19 j 22:44	9° <b>8</b> 20'58		minimum elong	-1860 Nov 12 j 23:26	6°M23'58	0°32'43
	-1865 Mar 23 j 18:34	15° <b>8</b>		max. Earth dist.	-1860 Nov 11 j 12:11	6°M03'37	6.20464 AU
evening set	-1865 May 27 j 02:13	27° <b>8</b> 48'48		morning rise	-1860 Nov 25 j 14:18	9° <b>™</b> 18'38	
	-1865 Jun 05 j 22:38	$\Pi$ °0			-1860 Dec 21 j 00:23	15°M	
				retrograde	-1859 Apr 01 j 02:41	28°M00'41	
conjunction	-1865 Jun 09 j 18:45	0° <b>Ⅱ</b> 51'16		opposition	-1859 Jun 01 j 02:16	23°M05'56	0°16'51
minimum elong	-1865 Jun 09 j 18:46	0° <b>Ⅱ</b> 51'17	0°00'57	min. Earth dist.	-1859 Jun 01 j 19:40	23°M00'19	4.14276 AU
behind sun begin	-1865 Jun 09 j 10:27	0°Ⅱ46'40		direct	-1859 Jul 31 j 15:34	18°M11'07	
behind sun end	-1865 Jun 10 j 03:06	0° <b>Ⅱ</b> 55'53		desc. node	-1859 Sep 09 j 12:00	20°M38'19	
max. Earth dist.	-1865 Jun 10 j 14:44	1° <b>Ⅱ</b> 02'22	6.27483 AU		-1859 Nov 02 j 13:21	0° <b>∡</b> ″	
asc. node	-1865 Jun 18 j 11:15	2° <b>Ⅱ</b> 47'08		evening set	-1859 Dec 03 j 08:58	6° <b>≯</b> 58'55	
morning rise	-1865 Jun 23 j 10:01	3° <b>Ⅱ</b> 52'50					
retrograde	-1865 Oct 24 j 13:33	21° <b>Ⅱ</b> 39′00		conjunction	-1859 Dec 16 j 03:45	10° <b>₹</b> 00'03	-0°11'11
opposition	-1865 Dec 23 j 06:18	16° <b>Ⅱ</b> 40′02	0°29'12	minimum elong	-1859 Dec 16 j 03:44	10° <b>₹</b> 00'02	0°11'13
min. Earth dist.	-1865 Dec 23 j 01:20	16° <b>Ⅱ</b> 41'41	4.32787 AU	behind sun begin	-1859 Dec 15 j 21:43	9° <b>₹</b> 56'29	
direct	-1864 Feb 22 j 05:38	11° <b>Ⅱ</b> 36'48		behind sun end	-1859 Dec 16 j 09:45	10° <b>₹</b> 03'35	
evening set	-1864 Jun 28 j 16:45	29° <b>Ⅱ</b> 39'05		max. Earth dist.	-1859 Dec 15 j 15:18	9° <b>₹</b> 52'41	6.08604 AU
	-1864 Jun 30 j 07:15	$0$ $\circ$ $\mathfrak{s}$		morning rise	-1859 Dec 29 j 00:14	13° <b>∡</b> °02'18	
					-1858 Mar 26 j 07:49	0°ප	
conjunction	-1864 Jul 12 j 02:33	2° <b>5</b> 34'43	0°39'35	retrograde	-1858 May 07 j 22:28	2° <b>る</b> 44'18	
minimum elong	-1864 Jul 12 j 02:30	2° <b>5</b> 34'42	0°39'36		-1858 Jun 19 j 20:08	30°₹ <b>҂</b> 7	
max. Earth dist.	-1864 Jul 11 j 21:17	2° <b>©</b> 31'50	6.37131 AU	opposition	-1858 Jul 07 j 13:33	27° <b>∡</b> ¹45'55	-0°50'16
morning rise	-1864 Jul 25 j 09:18	5°\$28'48		min. Earth dist.	-1858 Jul 07 j 12:39	27° <b>х</b> 46′13	4.03798 AU
retrograde	-1864 Nov 23 j 06:36	22° <b>©</b> 35'56		direct	-1858 Sep 04 j 18:30	22° <b>₹</b> 52'38	
opposition	-1863 Jan 22 j 07:35	17° <b>5</b> 40'47	1°20'37		-1858 Nov 12 j 20:15	0°₹	
min. Earth dist.	-1863 Jan 22 j 18:59	17° <b>©</b> 37'03	4.40142 AU	evening set	-1857 Jan 07 j 07:05	12° <b>る</b> 07'07	
direct	-1863 Mar 25 j 08:52	12° <b>5</b> 37'27					
	-1863 Jul 28 j 20:42	$0^{\circ}\Omega$		conjunction	-1857 Jan 20 j 08:08	15° <b>る</b> 14'33	-0°52'33
evening set	-1863 Jul 30 j 18:45	0° <b>Ω</b> 24'52		minimum elong	-1857 Jan 20 j 08:05	15° <b>る</b> 14'31	0°52'34
				max. Earth dist.	-1857 Jan 21 j 00:09	15° <b>る</b> 24'09	6.00452 AU
conjunction	-1863 Aug 12 j 19:33	3° <b>Ω</b> 15′01	1°07'48	morning rise	-1857 Feb 02 j 12:11	18° <b>る</b> 23'40	
minimum elong	-1863 Aug 12 j 19:30	3° <b>Ω</b> 15′00	1°07'50	-	-1857 Mar 27 j 00:28	0°≈	
max. Earth dist.	-1863 Aug 11 j 14:09	2° <b>Ω</b> 58'59	6.41556 AU	retrograde	-1857 Jun 14 j 13:57	8°≈46'07	
morning rise	-1863 Aug 25 j 17:20	6° <b>Ω</b> 03'40		opposition	-1857 Aug 13 j 18:19	3°≈43'51	-1°40'52
C	-1863 Oct 08 j 13:46			min. Earth dist.	-1857 Aug 12 j 21:49		3.98962 AU
retrograde	-1863 Dec 23 j 21:52	22° <b>Ω</b> 57'50			-1857 Sep 14 j 14:39	30°Rる	
opposition	-1862 Feb 22 j 07:35	18° <b>Ω</b> 05'17	1°48'54	direct	-1857 Oct 10 j 22:18	28° <b>る</b> 50'05	
min. Earth dist.	-1862 Feb 23 j 09:37	17° <b>Ω</b> 56'55	4.41520 AU		-1857 Nov 06 j 05:11	0° <b>≈</b>	
	-1862 Mar 20 j 06:11	15°RΩ			-1856 Jan 29 j 21:09	15° <b>≈</b>	
direct	-1862 Apr 26 j 00:02	13° <b>Ω</b> 03′01		evening set	-1856 Feb 12 j 21:08	18° <b>≈</b> 17'31	
	-1862 Jun 01 j 20:12	15° <b>Ω</b>					
	-1862 Aug 27 j 04:04	0° <b>m</b> )		conjunction	-1856 Feb 26 j 05:40	21° <b>≈</b> 28'46	-1°14'46
evening set	-1862 Aug 30 j 21:26	0° <b>m</b> 48'39		minimum elong	-1856 Feb 26 j 05:39	21° <b>≈</b> 28'45	1°14'47
max. Earth dist.	-1862 Sep 10 j 20:51	3° m 13'14	6.39669 AU	max. Earth dist.	-1856 Feb 27 j 21:50	21° <b>≈</b> 52'46	5.99254 AU
	-			morning rise	-1856 Mar 10 j 17:34	24° <b>≈</b> 41'41	
conjunction	-1862 Sep 12 j 15:10	3° m 36'33	1°17'04		-1856 Apr 02 j 14:38	0° <b>)</b> €	
minimum elong	-1862 Sep 12 j 15:10	3°m/36'33	1°17'04	retrograde	-1856 Jul 20 j 16:25	15° <b>)</b> €03'40	
morning rise	-1862 Sep 25 j 06:08	6° Mp 23′14		min. Earth dist.	-1856 Sep 17 j 03:46	10° <b>)</b> €09'13	4.01664 AU
retrograde	-1861 Jan 24 j 05:25	23° m 31'02		opposition	-1856 Sep 18 j 10:36	9° <b>)</b> 58'43	-1°52'31
opposition	-1861 Mar 26 j 01:04	18° <b>m</b> 39'28	1°47'28	direct	-1856 Nov 15 j 09:58	5° <b>)</b> 02′27	
min. Earth dist.	-1861 Mar 27 j 09:19	18° <b>m</b> 29'12	4.36561 AU	evening set	-1855 Mar 21 j 03:05	24° <b>)</b> 22′01	
direct	-1861 May 27 j 14:42	13° <b>m</b> 39'18		-	·		
	-1861 Sep 23 j 13:48	0∘ <del>⊽</del>		conjunction	-1855 Apr 03 j 18:45	27° <b>)</b> 33′33	-1°08'20
evening set	-1861 Sep 30 j 19:24	1° <b>≏</b> 36'10		minimum elong	-1855 Apr 03 j 18:48	27° <b>)</b> €33'35	1°08'20
max. Earth dist.	-1861 Oct 11 j 12:27	4° <b>≙</b> 00'15	6.31966 AU	max. Earth dist.	-1855 Apr 05 j 21:28	28° <b>)</b> €03'15	6.05521 AU
	ž				-1855 Apr 14 j 05:21	$0^{\circ}\Upsilon$	
conjunction	-1861 Oct 13 j 09:28	4° <b>≏</b> 25'34	1°04'45	morning rise	-1855 Apr 17 j 12:28	0° <b>Ƴ</b> 45'59	
minimum elong	-1861 Oct 13 j 09:30	4° <b>₽</b> 25'36	1°04'45	retrograde	-1855 Aug 25 j 02:10	20° <b>Y</b> 25′23	
morning rise	-1861 Oct 25 j 22:08	7° <b>≏</b> 14'28		min. Earth dist.	-1855 Oct 22 j 08:31	15° <b>Ƴ</b> 30'33	4.10789 AU
retrograde	-1860 Feb 26 j 05:00	25° <b>ჲ</b> 00'19		opposition	-1855 Oct 23 j 13:57	15° <b>Y</b> 20'31	
opposition	-1860 Apr 27 j 04:39	20° <b>ჲ</b> 08'01	1°14'52	direct	-1855 Dec 21 j 04:25	10° <b>Y</b> 21′06	
min. Earth dist.	-1860 Apr 28 j 11:38	19° <b>≙</b> 58'09	4.26524 AU	evening set	-1854 Apr 26 j 18:29	29° <b>Ƴ</b> 15'54	
direct	-1860 Jun 28 j 01:32	15° <b>≙</b> 10'33		-	-1854 Apr 30 j 00:18	$9^{\circ}$ 8	
	-				-		

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1854 in astronomical counting style is the year 1855 BCE in historical counting style. opposition -1854 May 10 j 13:07 2°**8**23'50 -0°37'15 -1848 May 01 j 20:01 24°**♀**38'12 1°08'09 conjunction 2°**8**23'52 0°37'13 -1854 May 10 j 13:10 min. Earth dist. -1848 May 03 j 01:02 24°**£**28'58 4.25488 AU minimum elong -1854 May 12 j 04:42 -1848 Jul 02 j 12:48 19°**£**41′08 max. Earth dist. 2°**8**46'22 6.16727 AU direct -1854 May 24 j 08:10 5°831'41 -1848 Sep 28 j 23:55 o°m. morning rise -1854 Jul 07 j 19:49 -1848 Nov 04 j 17:29 15°8 evening set 8°M01'54 -1854 Sep 27 j 08:17 24°**8**08'38 max. Earth dist. -1848 Nov 15 j 23:29 retrograde  $10^{\circ}$ M $_{3}7'46$ 6.19298 AU opposition -1854 Nov 25 j 21:05 19°**8**06'21 -0°24'27 min. Earth dist. conjunction -1848 Nov 17 j 08:27 -1854 Nov 25 j 01:56 19°**8**12'49 4.22876 AU 10°M56'51 0°27'14 -1848 Nov 17 j 08:28 -1854 Dec 31 j 18:11 15°R minimum elong  $10^{\circ}$ M $_{5}6'52$ 0°27'13 direct -1853 Jan 24 j 16:14 14°**8**04'21 morning rise -1848 Nov 29 j 23:48 13°M52'15 -1853 Feb 17 j 21:44 15°8 -1848 Dec 04 j 21:55 15°M 25°817'46 -1847 Feb 22 j 14:22 asc. node -1853 Apr 28 j 02:06 0°**∡**7 -1847 Apr 05 j 23:30 -1853 May 20 j 13:02  $0^{\circ}\Pi$ retrograde 2°**х** 40′55 evening set -1853 May 31 j 21:49 2°II29'06 -1847 May 18 j 19:54 30°RML opposition -1847 Jun 05 j 21:38 27°M45'46 0°07'51 conjunction -1853 Jun 14 j 13:52 5°**耳**30'47 0°05'11 min. Earth dist. -1847 Jun 06 j 14:16  $27^{\circ}$ M $_{4}0'24$ 4.13039 AU minimum elong -1853 Jun 14 j 13:51 5°**Ⅱ**30'47 0°05'14 desc. node -1847 Jul 22 j 11:10 23°M09'42 behind sun begin -1853 Jun 14 j 05:50 5°**Ⅲ**26'21 direct -1847 Aug 05 j 07:54 22°M51'12 behind sun end -1853 Jun 14 j 21:52 5°**Ⅲ**35′12 -1847 Oct 14 j 15:50 0°×7 max. Earth dist. -1853 Jun 15 j 07:28 5°**Ⅱ**40'33 6.28823 AU evening set -1847 Dec 07 j 22:07 11°**∡**¹41'54 morning rise -1853 Jun 28 j 04:03 8°**Ⅲ**31'22 retrograde -1853 Oct 28 i 23:18 26°**Ⅱ**11'26 conjunction -1847 Dec 20 i 17:36 14°**∡**<sup>1</sup>43′50 -0°17′13 opposition -1853 Dec 27 i 16:20 21°**Ⅱ**13'05 0°37'28 minimum elong -1847 Dec 20 i 17:35 14°**∡**°43'49 0°17'16 min. Earth dist. -1853 Dec 27 j 13:20 21°**Ⅱ**14′05 4.33946 AU max. Earth dist. -1847 Dec 20 i 07:26 14°**х** 37'49 6.07409 AU direct -1852 Feb 26 j 19:33 16°**Ⅱ**09'50 morning rise -1846 Jan 02 j 15:01 17°**∡**¹47′02 -1852 Jun 13 j 18:39 0ಂತಾ -1846 Feb 28 j 03:50 0°궁 -1852 Jul 03 j 07:35 4°909'46 -1846 May 12 j 21:22 7°る35'40 retrograde evening set -1846 Jul 12 j 11:59 2° 836'50 -0°58'33 opposition -1852 Jul 16 j 16:02 7°**©**04'31 0°44'30 -1846 Jul 12 j 08:23 2°る38'01 4.02776 AU conjunction min. Earth dist. -1852 Jul 16 j 16:00 0°44'32 -1846 Aug 02 j 12:23 30°R.✓ minimum elong 7°9504'29 -1852 Jul 16 j 06:39 6.38033 AU direct -1846 Sep 09 j 12:04 27°**х** 43′38 max. Earth dist. 6°**ॐ**59'22 -1852 Jul 29 j 21:40 -1846 Oct 16 j 23:05 9°957'44 0°궁 morning rise -1845 Jan 12 j 02:11 27°9501'32 -1852 Nov 27 j 14:34 evening set 17°**る**01'14 retrograde -1851 Jan 26 j 16:31 22°506'48 1°26'12 opposition -1851 Jan 27 j 06:02 -1845 Jan 25 j 04:07 20°る09'25 -0°56'55 min. Earth dist. 22°502'24 4.40781 AU conjunction -1851 Mar 29 j 21:11 -1845 Jan 25 j 04:04 direct 17°**©**03'34 minimum elong 20°る09'23 0°56'57 -1845 Jan 25 j 22:19 -1851 Jul 12 j 09:12 0 $^{\circ}\Omega$ max. Earth dist. 20°る20'21 5.99681 AU evening set -1851 Aug 04 j 05:19 4°**Ω**49'33 morning rise -1845 Feb 07 j 09:15 23°る19'20 max. Earth dist. -1851 Aug 15 j 23:26 7°**Ω**22'56 6.41899 AU -1845 Mar 08 j 06:04 0°≈ retrograde -1845 Jun 19 j 15:10 13°≈45'39 conjunction -1851 Aug 17 j 05:05 7°**Ω**39'06 1°10'20 opposition -1845 Aug 18 j 17:36 8°≈42'58 -1°44'59 -1851 Aug 17 j 05:03 7°**Ω**39'05 1°10'22 min. Earth dist. -1845 Aug 17 j 19:50 8°≈50'17 3.98538 AU minimum elong -1851 Aug 30 j 01:30 10°**Ω**27'06 direct -1845 Oct 15 j 20:04 3°≈48'57 morning rise -1851 Sep 20 j 11:31 15°**Ω** -1844 Jan 12 j 11:43 15°≈ -1851 Dec 28 j 04:36 27°**Ω**20'39 -1844 Feb 17 j 21:12 23°≈18'18 retrograde evening set opposition -1850 Feb 26 i 17:09 22°**Ω**28'21 1°50'30 -1844 Mar 02 j 07:01 26°≈30'06 -1°15'35 min. Earth dist. -1850 Feb 27 i 19:18 22°Ω19'58 4.41572 AU conjunction direct -1850 Apr 30 i 09:56 17°**Ω**26'23 minimum elong -1844 Mar 02 i 07:01 26°≈30'05 1°15'35 -1850 Aug 10 j 20:06 0° m max. Earth dist. -1844 Mar 04 i 02:26 26°≈56'01 5.99228 AU -1850 Sep 04 j 05:12 -1844 Mar 15 i 19:51 29°≈43'27 evening set 5° m 11'22 morning rise max. Earth dist. 7° Mp 34'54 -1850 Sep 15 j 02:16 -1844 Mar 16 i 23:49 0°\ 6.39417 AU -1844 Jul 25 j 16:12 20°**₩**04'04 retrograde -1850 Sep 16 j 21:57 7° mp 59'00 1°16'37 -1844 Sep 22 j 00:59 15°**)**€09'33 4.02055 AU conjunction min. Earth dist. 7° **m** 59'00 -1844 Sep 23 j 07:49 14°**)** 59'02 -1°50'37 minimum elong -1850 Sep 16 j 21:57 1°16'38 opposition -1850 Sep 29 j 12:22 10° m 45'32 direct -1844 Nov 20 j 07:12 10°¥02'26 morning rise -1849 Jan 28 j 17:03 27° m 55'29 evening set -1843 Mar 26 j 05:03 29°¥21'38 retrograde  $0^{\circ}\Upsilon$ -1849 Mar 30 j 13:13 23°M 03'55 1°44'40 -1843 Mar 28 j 23:00 opposition -1849 Mar 31 j 22:26 22° m 53'21 4.36004 AU min. Earth dist. -1849 Jun 01 j 03:10 18° Mp 04'05 -1843 Apr 08 j 21:24 2°Y33'11 -1°05'14 direct conjunction -1849 Sep 07 j 05:42 0∘**⊽** -1843 Apr 08 j 21:27 2°**Y**33'13 1°05'14 minimum elong 3°**Y**′02′07 evening set -1849 Oct 05 j 02:10 6°**₽**01'20 max. Earth dist. -1843 Apr 10 j 22:56 6.06290 AU max. Earth dist. -1849 Oct 15 j 19:47 8°**£**26'00 6.31150 AU morning rise -1843 Apr 22 j 15:55 5°**Y**45'35

retrograde

opposition

direct

min. Earth dist.

conjunction

morning rise

retrograde

minimum elong

-1849 Oct 17 j 16:05

-1849 Oct 17 j 16:07

-1849 Oct 30 j 04:39

-1848 Mar 01 j 18:20

8°**£**50'58 1°01'23

1°01'22

8°**£**51′00

11°**♀**40'12

29°**£**30'46

-1843 Aug 29 j 19:17

-1843 Oct 27 j 01:51

-1843 Oct 28 j 07:09

-1843 Dec 26 j 00:05

-1842 Apr 13 j 05:32

25°**Y**19'11

15°**Y**14'43

0°8

20°**Y**24'31 4.11852 AU

20°**Y**14'31 -1°14'54

evening set	ical year style is used: Th -1842 May 01 j 18:07	4° <b>8</b> 07'10	Silomicai ce	8 0.3/-1 -2 -2- <b>0</b> / <b>0.1</b>	-1837 Aug 19 j 13:39	0° <b>⊽</b>	
<i>3</i>	., .,,			evening set	-1837 Oct 09 j 10:11	10° <b>≏</b> 30'11	
conjunction	-1842 May 15 j 12:55	7° <b>8</b> 14'36	-0°31'38	max. Earth dist.	-1837 Oct 20 j 03:26	12° <b>≏</b> 55'12	6.29687 AU
minimum elong	-1842 May 15 j 12:58	7° <b>8</b> 14'38	0°31'37				
max. Earth dist.	-1842 May 17 j 03:12	7° <b>8</b> 36'20	6.18026 AU	conjunction	-1837 Oct 21 j 23:52	13° <b>≏</b> 20'21	0°57'37
morning rise	-1842 May 29 j 07:37	10° <b>8</b> 21'45		minimum elong	-1837 Oct 21 j 23:54	13° <b>≏</b> 20'23	0°57'35
_	-1842 Jun 19 j 07:57	15° <b>8</b>		morning rise	-1837 Nov 03 j 12:40	16° <b>≙</b> 10'15	
retrograde	-1842 Oct 01 j 22:27	28° <b>8</b> 51'23	001.510.0		-1836 Jan 13 j 04:48	0°M	
opposition	-1842 Nov 30 j 10:01	23° <b>8</b> 49'34		retrograde	-1836 Mar 06 j 13:53	4°M07'59	
min. Earth dist.	-1842 Nov 29 j 16:57	18° <b>8</b> 47'19	4.24262 AU	::::	-1836 Apr 30 j 16:54	30° <b>₹</b> Ω	1°00'53
direct asc. node	-1841 Jan 29 j 09:57 -1841 Mar 07 j 15:42	20° <b>8</b> 54'24		opposition min. Earth dist.	-1836 May 06 j 14:17 -1836 May 07 j 19:01	29° <b>£</b> 15'07 29° <b>£</b> 05'57	4.23761 AU
asc. node	-1841 May 02 j 23:47	20 <b>O</b> 34 24 0° <b>Ⅱ</b>		direct	-1836 Jul 07 j 04:07	29 <b>=</b> 03 37 24° <b>⊆</b> 18'21	4.23701 AU
evening set	-1841 Jun 05 j 16:51	7° <b>Ⅱ</b> 08'48		direct	-1836 Sep 08 j 10:26	0°M	
evening set	1041 3411 05 3 10.51	7 100 40		evening set	-1836 Nov 09 j 05:29	12°ML43'11	
conjunction	-1841 Jun 19 j 08:03	10° <b>Ⅱ</b> 09'34	0°11'11	evening sec	-1836 Nov 19 j 01:43	15°M	
minimum elong	-1841 Jun 19 j 08:02	10° <b>Ⅱ</b> 09'33	0°11'13		,		
behind sun begin	-1841 Jun 19 j 02:01	10° <b>Ⅱ</b> 06′14		conjunction	-1836 Nov 21 j 21:01	15°M39'07	0°21'22
behind sun end	-1841 Jun 19 j 14:03	10° <b>Ⅱ</b> 12'52		minimum elong	-1836 Nov 21 j 21:03	15°M39'08	0°21'21
max. Earth dist.	-1841 Jun 19 j 22:32	10° <b>Ⅱ</b> 17'34	6.30180 AU	max. Earth dist.	-1836 Nov 20 j 14:31	15°M21'24	6.17472 AU
morning rise	-1841 Jul 02 j 21:18	13° <b>Ⅲ</b> 09′10		morning rise	-1836 Dec 04 j 13:02	18°M35'35	
	-1841 Oct 12 j 04:50	$0$ $\circ$			-1835 Jan 27 j 03:00	0° <b>∡</b> ¹	
retrograde	-1841 Nov 02 j 06:56	0° <b>©</b> 42'58		retrograde	-1835 Apr 10 j 23:49	7° <b>∡</b> ³33′15	
	-1841 Nov 23 j 07:12	30°R∏		desc. node	-1835 Jun 01 j 12:40	3° <b>∡</b> ¹49'37	
opposition	-1840 Jan 01 j 01:41	25° <b>∏</b> 45'02		opposition	-1835 Jun 10 j 21:56	2° <b>∡</b> ³37'38	
min. Earth dist.	-1840 Jan 01 j 00:15		4.35164 AU	min. Earth dist.	-1835 Jun 11 j 11:38		4.11261 AU
direct	-1840 Mar 02 j 08:29	20° <b>Ⅱ</b> 41'37			-1835 Jul 02 j 09:29	30°RM	
	-1840 May 26 j 17:22	0°©		direct	-1835 Aug 10 j 02:12	27°M43'23	
evening set	-1840 Jul 07 j 21:01	8° <b>©</b> 38'43			-1835 Sep 17 j 05:22	0° <b>⊼</b> ¹	
amiumatian	-1840 Jul 21 j 04:18	110@22122	0°49'08	evening set	-1835 Dec 12 j 17:05	16° <b>∡</b> ³38'47	
conjunction minimum elong	-1840 Jul 21 j 04:15	11° <b>©</b> 32'33	0°49'10	conjunction	-1835 Dec 25 j 13:17	19° <b>∡</b> '41'45	0°23'26
max. Earth dist.	-1840 Jul 20 j 16:55	11°9526'21	6.38996 AU	minimum elong	-1835 Dec 25 j 13:17	19° <b>х</b> 41'43	
morning rise	-1840 Aug 03 j 08:28	14°524'49	0.50770710	max. Earth dist.	-1835 Dec 25 j 06:19	19° <b>∡</b> 37'37	6.05839 AU
morning rise	-1840 Nov 01 j 16:45	0°Ω		morning rise	-1834 Jan 07 j 11:45	22° <b>×</b> <sup>7</sup> 46'04	0.03037710
retrograde	-1840 Dec 01 j 21:08	1° <b>Ω</b> 25'06			-1834 Feb 08 j 04:02	0°ප	
S	-1839 Jan 01 j 00:44	30° <b>ℝ</b> ∽		retrograde	-1834 May 18 j 03:58	12° <b>る</b> 42'35	
opposition	-1839 Jan 31 j 00:29	26°530'46	1°31'14	opposition	-1834 Jul 17 j 16:38	7° <b>ට</b> 43'11	-1°06'53
min. Earth dist.	-1839 Jan 31 j 15:54	26° <b>©</b> 25'45	4.41401 AU	min. Earth dist.	-1834 Jul 17 j 10:23	7° <b>る</b> 45'15	4.01576 AU
direct	-1839 Apr 03 j 07:54	21° <b>5</b> 27'37		direct	-1834 Sep 14 j 13:18	2° <b>る</b> 49'59	
	-1839 Jun 24 j 05:42	$0^{\circ}\Omega$		evening set	-1833 Jan 17 j 04:07	22° <b>る</b> 11'09	
evening set	-1839 Aug 08 j 14:12	9° <b>Ω</b> 12′00					
max. Earth dist.	-1839 Aug 20 j 03:23	11° <b>Ω</b> 42'48	6.42079 AU	conjunction	-1833 Jan 30 j 07:16	25° <b>පි</b> 20'09	
		0		minimum elong	-1833 Jan 30 j 07:13	25°る20'07	
conjunction	-1839 Aug 21 j 12:40	12°Ω00'58		max. Earth dist.	-1833 Jan 31 j 06:46		5.98981 AU
minimum elong	-1839 Aug 21 j 12:39	12° <b>Ω</b> 00'57	1°12'29	morning rise	-1833 Feb 12 j 13:27	28° <b>る</b> 30'52	
morning rise	-1839 Sep 03 j 08:10	14° <b>Ω</b> 48'28			-1833 Feb 18 j 19:38	0°≈	
					1922 Mart 04 : 00:20		
	-1839 Sep 04 j 05:27	15° <b>Ω</b> 0° <b>m</b>		retrograde	-1833 May 04 j 09:20	15° <b>≈</b> 18°≈59'49	
ratrograda	-1839 Nov 29 j 03:55	0° <b>m</b>		retrograde	-1833 Jun 24 j 23:02	18° <b>≈</b> 59'49	
retrograde	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58	0° <b>ሙ</b> 1° <b>ሙ</b> 42'12		-	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18	18°≈59'49 15°R≈	-1°48'29
-	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31	0° <b>m</b> 1° <b>m</b> 42'12 30°R <b>Ω</b>	1°51'32	opposition	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43	18°≈59'49 15°R≈ 13°≈56'44	
opposition	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15	0° M 1° M 42'12 30° R Ω 26° Ω 50'02	1°51'32 4.41298 AU	opposition min. Earth dist.	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42	-1°48'29 3.98468 AU
	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31	0° M 1° M 42'12 30° R Ω 26° Ω 50'02	1°51'32 4.41298 AU	opposition	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43	18°≈59'49 15°R≈ 13°≈56'44	
opposition min. Earth dist.	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13	0°M 1°M42'12 30°RN 26°N50'02 26°N41'04		opposition min. Earth dist.	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32	
opposition min. Earth dist.	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00	0° m 1° m 42'12 30° R A 26° A 50'02 26° A 41'04 21° A 48'13		opposition min. Earth dist. direct	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈	
opposition min. Earth dist. direct	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16	0° M 1° M 42'12 30° R A 26° A 50'02 26° A 41'04 21° A 48'13 0° M		opposition min. Earth dist. direct	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04	
opposition min. Earth dist. direct	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59	0° m 1° m 42'12 30° R $\Omega$ 26° $\Omega$ 50'02 26° $\Omega$ 41'04 21° $\Omega$ 48'13 0° m 9° m 33'38	4.41298 AU	opposition min. Earth dist. direct	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04	3.98468 AU
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38	0° m 1° m 42'12 30° R \( \Omega\) 26° \( \Omega\) 50'02 26° \( \Omega\) 41'04 21° \( \Omega\) 48'13 0° m 9° m 33'38 11° m 57'10	4.41298 AU 6.38695 AU 1°15'45	opposition min. Earth dist. direct evening set	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° <del>H</del> 1° <del>H</del> 44'03 1° <del>H</del> 44'03	3.98468 AU -1°15'53 1°15'53
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15	0° m 1° m 42'12 30° R $\Omega$ 26° $\Omega$ 50'02 26° $\Omega$ 41'04 21° $\Omega$ 48'13 0° m 9° m 33'38 11° m 57'10 12° m 21'16 12° m 21'16	4.41298 AU 6.38695 AU	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° <del>X</del> 1° <del>X</del> 44'03 1° <del>X</del> 44'03 2° <del>X</del> 10'46	3.98468 AU -1°15'53
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56	0°m, 1°m,42'12 30°R,0 26°0,50'02 26°0,41'04 21°0,48'13 0°m, 9°m,33'38 11°m,57'10 12°m,21'16 12°m,21'16 15°m,07'51	4.41298 AU 6.38695 AU 1°15'45	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° <del>X</del> 1° <del>X</del> 44'03 1° <del>X</del> 44'03 2° <del>X</del> 10'46 4° <del>X</del> 57'36	3.98468 AU -1°15'53 1°15'53
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56 -1838 Dec 24 j 11:41	0° m 1° m 42'12 30° R Ω 26° Ω 50'02 26° Ω 41'04 21° Ω 48'13 0° m 9° m 33'38 11° m 57'10 12° m 21'16 12° m 21'16 15° m 07'51 0° Ω	4.41298 AU 6.38695 AU 1°15'45	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00 -1832 Jul 30 j 16:42	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° ₩  1° ₩ 44'03 2° ₩ 10'46 4° ₩ 57'36 25° ₩ 13'36	3.98468 AU -1°15'53 1°15'53 5.99784 AU
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56 -1838 Dec 24 j 11:41 -1837 Feb 02 j 03:37	0°m 1°m42'12 30°R\$\Omega\$ 26°\$\Omega\$50'02 26°\$\Omega\$41'04 21°\$\Omega\$48'13 0°m 9°m33'38 11°m\$57'10 12°m\$21'16 12°m\$21'16 15°m\$07'51 0°\$\Omega\$ 2°\$\Omega\$21'37	4.41298 AU 6.38695 AU 1°15'45	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00 -1832 Jul 30 j 16:42 -1832 Sep 27 j 00:12	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° \text{\te\tint{\text{\text{\text{\text{\texit{\text{\texi{\text{\texit{\te	3.98468 AU -1°15'53 1°15'53 5.99784 AU 4.03206 AU
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56 -1838 Dec 24 j 11:41 -1837 Feb 02 j 03:37 -1837 Mar 14 j 08:41	0° m 1° m 42'12 30° R \( \Omega\) 26° \( \Omega\) 50'02 26° \( \Omega\) 41'04 21° \( \Omega\) 48'13 0° m 9° m 33'38 11° m 57'10 12° m 21'16 12° m 21'16 15° m 07'51 0° \( \Omega\) 2° \( \Omega\) 21'37 30° R m	4.41298 AU 6.38695 AU 1°15'45 1°15'46	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00 -1832 Jul 30 j 16:42 -1832 Sep 27 j 00:12 -1832 Sep 28 j 08:37	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° \text{\te\tint{\text{\text{\text{\text{\texit{\text{\texi{\text{\texit{\te	3.98468 AU -1°15'53 1°15'53 5.99784 AU 4.03206 AU
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56 -1838 Dec 24 j 11:41 -1837 Feb 02 j 03:37 -1837 Mar 14 j 08:41 -1837 Apr 04 j 01:40	0° m 1° m/42'12 30° R\Omega 26° \Omega 50'02 26° \Omega 41'04 21° \Omega 48'13 0° m 9° m/33'38 11° m/57'10 12° m/21'16 12° m/21'16 15° m/07'51 0° \Omega 2° \Omega 21'37 30° R m/ 27° m/30'00	4.41298 AU 6.38695 AU 1°15'45 1°15'46	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00 -1832 Jul 30 j 16:42 -1832 Sep 27 j 00:12 -1832 Sep 28 j 08:37 -1832 Nov 25 j 09:01	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° \text{10'46} 4°\text{57'36} 25°\text{13'36} 20°\text{19'30} 20°\text{10'24}	3.98468 AU -1°15'53 1°15'53 5.99784 AU 4.03206 AU
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-1839 Nov 29 j 03:55 -1838 Jan 01 j 12:58 -1838 Feb 04 j 01:31 -1838 Mar 03 j 02:15 -1838 Mar 04 j 06:13 -1838 May 04 j 20:00 -1838 Jul 23 j 16:16 -1838 Sep 08 j 11:59 -1838 Sep 19 j 08:38 -1838 Sep 21 j 04:14 -1838 Sep 21 j 04:15 -1838 Oct 03 j 17:56 -1838 Dec 24 j 11:41 -1837 Feb 02 j 03:37 -1837 Mar 14 j 08:41	0° m 1° m 42'12 30° R \( \Omega\) 26° \( \Omega\) 50'02 26° \( \Omega\) 41'04 21° \( \Omega\) 48'13 0° m 9° m 33'38 11° m 57'10 12° m 21'16 12° m 21'16 15° m 07'51 0° \( \Omega\) 2° \( \Omega\) 21'37 30° R m	4.41298 AU 6.38695 AU 1°15'45 1°15'46	opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-1833 Jun 24 j 23:02 -1833 Aug 16 j 01:18 -1833 Aug 23 j 22:43 -1833 Aug 22 j 23:04 -1833 Oct 20 j 22:52 -1833 Dec 21 j 22:33 -1832 Feb 23 j 03:18 -1832 Feb 29 j 07:20 -1832 Mar 07 j 14:00 -1832 Mar 07 j 14:00 -1832 Mar 09 j 10:52 -1832 Mar 21 j 04:00 -1832 Jul 30 j 16:42 -1832 Sep 27 j 00:12 -1832 Sep 28 j 08:37	18°≈59'49 15°R≈ 13°≈56'44 14°≈04'42 9°≈02'32 15°≈ 28°≈32'04 0° \text{\te\tint{\text{\text{\text{\text{\texit{\text{\texi{\text{\texit{\te	3.98468 AU -1°15'53 1°15'53 5.99784 AU 4.03206 AU

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 7 Attention, astronomical year style is used: The year -1831 in astronomical counting style is the year 1832 BCE in historical counting style.

Attention, astronomic	cal year style is used: Th	e year -1831 i	n astronomical cou	nting style is the year	1832 BCE in historical co	ounting style.	<i>6- '</i>
conjunction	-1831 Apr 14 j 02:56	7° <b>Ƴ</b> 38'06	-1°01'39	max. Earth dist.	-1826 Sep 23 j 10:16	16° m 13'52	6.37441 AU
minimum elong	-1831 Apr 14 j 02:59	7° <b>Ƴ</b> 38′08	1°01'37				
max. Earth dist.	-1831 Apr 16 j 04:54	8° <b>Ƴ</b> 07'10	6.07947 AU	conjunction	-1826 Sep 25 j 08:38	16° <b>™</b> 39'35	1°14'30
morning rise	-1831 Apr 27 j 21:39	10° <b>Ƴ</b> 49'50		minimum elong	-1826 Sep 25 j 08:39	16° <b>m</b> 39'36	1°14'31
	-1831 Aug 22 j 18:15	0°8		morning rise	-1826 Oct 07 j 22:11	19° <b>™</b> 26'35	
retrograde	-1831 Sep 03 j 14:13	0° <b>8</b> 13'54			-1826 Nov 28 j 20:55	0∘ <b>ত</b>	
	-1831 Sep 15 j 07:15	30° <b>₹Ƴ</b>		retrograde	-1825 Feb 06 j 16:42	6° <b>≏</b> 46'21	
min. Earth dist.	-1831 Oct 31 j 21:26	25° <b>Ƴ</b> 18'54	4.13816 AU	opposition	-1825 Apr 08 j 13:56	1° <b>≏</b> 54'40	1°37'29
opposition	-1831 Nov 02 j 01:00	25° <b>Y</b> 09'30	-1°07'29	min. Earth dist.	-1825 Apr 09 j 23:24	1° <b>≏</b> 44'01	4.33149 AU
direct	-1831 Dec 30 j 23:05	20° <b>Ƴ</b> 09'17			-1825 Apr 23 j 23:58	30°R Mp	
	-1830 Mar 25 j 22:46	0°8		direct	-1825 Jun 09 j 22:31	26° m 55'30	
evening set	-1830 May 06 j 17:25	8° <b>8</b> 56'06			-1825 Jul 26 j 04:34	0∘ <b>⊽</b>	
				evening set	-1825 Oct 13 j 17:57	14° <b>≏</b> 59'42	
conjunction	-1830 May 20 j 11:59	12° <b>8</b> 02'32		max. Earth dist.	-1825 Oct 24 j 13:25	17° <b>≏</b> 26'37	6.27651 AU
minimum elong	-1830 May 20 j 12:02	12° <b>8</b> 02'33				_	
max. Earth dist.	-1830 May 22 j 00:04		6.20132 AU	conjunction	-1825 Oct 26 j 07:55	17° <b>≙</b> 50'47	
	-1830 Jun 02 j 14:59	15° <b>8</b>		minimum elong	-1825 Oct 26 j 07:57	17° <b>≙</b> 50'48	0°53'30
morning rise	-1830 Jun 03 j 06:12	15° <b>8</b> 08'32		morning rise	-1825 Nov 07 j 20:53	20° <b>≏</b> 41'37	
_	-1830 Aug 19 j 15:02	0°Ⅱ			-1825 Dec 21 j 14:18	0° <b>M</b> ₊	
retrograde	-1830 Oct 06 j 07:04	3° <b>Ⅱ</b> 28'07		retrograde	-1824 Mar 11 j 09:21	8°M48'41	
	-1830 Nov 23 j 03:18	30° <b>₹</b> 8		opposition	-1824 May 11 j 09:46	3°M55'35	0°53'12
opposition	-1830 Dec 04 j 20:46	28° <b>8</b> 26'47		min. Earth dist.	-1824 May 12 j 12:45	3°M46'58	4.21551 AU
min. Earth dist.	-1830 Dec 04 j 04:56		4.26315 AU		-1824 Jun 16 j 01:53	30° <b>R≏</b>	
asc. node	-1829 Jan 16 j 06:53	23° <b>8</b> 54'52		direct	-1824 Jul 11 j 18:10	28° <b>≙</b> 59'16	
direct	-1829 Feb 03 j 00:39	23° <b>8</b> 24'16			-1824 Aug 06 j 08:45	0°M	
	-1829 Apr 13 j 03:03	0°II			-1824 Nov 02 j 22:11	15°M	
evening set	-1829 Jun 10 j 08:48	11° <b>Ⅱ</b> 40′32		evening set	-1824 Nov 13 j 19:40	17°M30'00	6 1 5000 LVV
	1000 1 00:00 50	1.40 11.00	0016156	max. Earth dist.	-1824 Nov 25 j 07:24	20°11L10'35	6.15283 AU
conjunction	-1829 Jun 23 j 22:59		0°16'56		102431 26:11.20	200 <b>M 25</b> 105	0015110
minimum elong	-1829 Jun 23 j 22:58	14° <b>II</b> 40'06	0°16'58	conjunction	-1824 Nov 26 j 11:39	20°M27'05	
max. Earth dist.	-1829 Jun 24 j 09:12	14° <b>Ⅱ</b> 45'45	6.32016 AU	minimum elong	-1824 Nov 26 j 11:40	20°M27'06	0°15'17
morning rise	-1829 Jul 07 j 11:04	17° <b>Ⅱ</b> 38'27		behind sun begin	-1824 Nov 26 j 08:48	20°M25'26	
	-1829 Sep 08 j 12:08	0°©		behind sun end	-1824 Nov 26 j 14:31	20°M28'45	
retrograde	-1829 Nov 06 j 12:58	5°905'07	0052152	morning rise	-1824 Dec 09 j 04:37	23°M24'53	
opposition	-1828 Jan 05 j 08:02	0°507'46	0°52'52 4.36638 AU	J J.	-1823 Jan 07 j 11:03	0°⊀̄	
min. Earth dist.	-1828 Jan 05 j 09:56	0°90/08 30°R∏	4.30038 AU	desc. node	-1823 Apr 11 j 06:10	12° <b>х</b> 30'38 12° <b>х</b> 32'56	
J:4	-1828 Jan 06 j 07:32 -1828 Mar 06 j 19:43	30°KⅡ 25°Ⅱ04'18		retrograde	-1823 Apr 16 j 04:10	7° <b>₹</b> 36'50	0011112
direct	-1828 May 05 j 14:42	25° <b>щ</b> 0418		opposition min. Earth dist.	-1823 Jun 16 j 00:46 -1823 Jun 16 j 11:34		4.09274 AU
avanina aat		0-ഇ 12°ഇ58'01		direct		2° <b>∡</b> 742'49	4.09274 AU
evening set	-1828 Jul 12 j 06:28	12 303801		evening set	-1823 Aug 15 j 00:34 -1823 Dec 17 j 14:53	2 <b>x</b> 42 49 21° <b>x</b> 43'41	
agniumation	1929 Jul 25 ; 12-21	150650157	0°53'19	evening set	-1823 Dec 1/ j 14.33	21 × 43 41	
conjunction minimum elong	-1828 Jul 25 j 12:31 -1828 Jul 25 j 12:28	15° <b>©</b> 50'57 15° <b>©</b> 50'56	0°53'21	conjunction	-1823 Dec 30 j 12:10	24° <b>х</b> 47'47	0°20'26
max. Earth dist.	-1828 Jul 24 j 20:54	15°930'30'	6.39968 AU	minimum elong	-1823 Dec 30 j 12:10	24° <b>х</b> <sup>4</sup> 7'47'	0°29'37
morning rise	-1828 Aug 07 j 15:25	13 <b>34</b> 227 18° <b>9</b> 42'18	0.39908 AU	max. Earth dist.	-1823 Dec 30 j 12:08	24° <b>х</b> <sup>4</sup> 7′40	6.04251 AU
morning risc	-1828 Oct 04 j 02:12	0°Ω		morning rise	-1822 Jan 12 j 11:38	27° × 53'16	0.04231 AU
retrograde	-1828 Dec 06 j 00:21	5° <b>Ω</b> 39'45		morning risc	-1822 Jan 21 j 10:58	27×3310	
opposition	-1827 Feb 04 j 05:17	0° <b>Ω</b> 45'47	1°35'37	retrograde	-1822 May 23 j 13:53	0 0 17° <b>3</b> 57'14	
min. Earth dist.	-1827 Feb 04 j 22:47	0° <b>Ω</b> 40'06	4.41839 AU	opposition	-1822 Jul 22 j 23:51	17 <b>3</b> 57 14	-1°14'40
iiiii. Lattii dist.	-1827 Feb 10 j 02:56	30° <b>₹</b> 5	4.41037 AU	min. Earth dist.	-1822 Jul 22 j 14:36	13°る00'20	4.00580 AU
direct	-1827 Apr 07 j 14:22	25°9542'42		direct	-1822 Sep 19 j 16:22	8°පි04'06	4.00300 AC
direct	-1827 Jun 02 j 13:14	0°Ω		evening set	-1821 Jan 22 j 08:41	27° <b>る</b> 27'47	
evening set	-1827 Aug 12 j 19:52	13° <b>Ω</b> 26'30		evening set	-1821 Feb 01 j 22:33	0°≈	
evening sec	-1827 Aug 19 j 23:53	15° <b>Ω</b>			1021100 01 1 22.55	0 / 0 /	
max. Earth dist.	-1827 Aug 24 j 06:10		6.41932 AU	conjunction	-1821 Feb 04 j 12:44	0°≈37'22	-1°04'53
man. Darm dist.	1027 11ug 27 J 00.10	10 0600 02	V.71/J2 AU	minimum elong	-1821 Feb 04 j 12:41	0 ≈3722 0°≈37'20	1°04'54
conjunction	-1827 Aug 25 j 17:22	16° <b>Ω</b> 15'06	1°14'09	max. Earth dist.	-1821 Feb 04 j 12.41 -1821 Feb 05 j 15:28	0 ≈3720 0°≈53'26	5.98631 AU
minimum elong	-1827 Aug 25 j 17:21	16° <b>Ω</b> 15'05	1°14'10	morning rise	-1821 Feb 03 j 13.28 -1821 Feb 17 j 20:12	0 ≈33 20 3°≈48'44	3.70031 AU
morning rise	-1827 Sep 07 j 11:46	10° <b>€</b> 1303	1 1710	morning 1150	-1821 Apr 09 j 02:44	3 ≈46 44 15°≈	
morning Hoc	-1827 Nov 01 j 19:37	0°Mp		retrograde	-1821 Jun 30 j 04:38	13 ≈ 24°≈18'18	
retrograde	-1826 Jan 05 j 18:51	5° Mp 57'37		min. Earth dist.	-1821 Aug 28 j 01:57	24 ≈18 18 19°≈23'42	3.98817 AU
opposition	-1826 Mar 07 j 09:05	3 11y3/3/ 1°10y05'41	1°51'59	opposition	-1821 Aug 28 j 01:37	19 ≈23 42 19°≈14'41	
min. Earth dist.	-1826 Mar 08 j 14:47	0°M)56'11	4.40583 AU	оррознин	-1821 Aug 29 j 04.40 -1821 Oct 06 j 11:54	19 ≈1441 15°R≈	1 310/
mm. Darm wist.	-1826 Mar 16 j 00:08	0 11/3011 30°RΩ	1.70303 AU	direct	-1821 Oct 26 j 03:15	13 k∞ 14°≈20'07	
direct	-1826 May 09 j 02:28	26° <b>Ω</b> 04'10		direct	-1821 Nov 14 j 20:39	14 ≈2007 15°≈	
	-1826 Jul 01 j 09:21	0° Mp			-1820 Feb 12 j 03:15	0° <b>∺</b>	
evening set	-1826 Sep 12 j 17:02	13° <b>m</b> p 51'41		evening set	-1820 Feb 28 j 10:17	3° <b>∺</b> 48′09	
	P 12 J 17.02	'W' '1				- /(.00)	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1820 in astronomical counting style is the year 1821 BCE in historical counting style. -1820 Mar 12 j 22:06 7°\00'08 -1°15'33 conjunction -1815 Aug 29 j 23:53 20°**Ω**34'34 1°15'28 conjunction -1820 Mar 12 j 22:06 7°¥00'08 1°15'35 -1815 Aug 29 j 23:52 minimum elong minimum elong 20°**Ω**34'33 1°15'29 -1815 Sep 11 j 17:27 23°**Ω**21'31 max. Earth dist. -1820 Mar 14 j 21:51 7°**¥**28′29 6.00768 AU morning rise -1815 Oct 13 j 09:26 -1820 Mar 26 j 12:47 10°**)** 13'31 0° m morning rise  $0^{\circ}\Upsilon$ -1814 Jan 10 j 03:30 -1820 Jul 20 j 12:28 retrograde 10° Mp 19'14 1°51'50  $0^{\circ}$ Y22'58 -1814 Mar 11 j 18:56 retrograde -1820 Aug 04 j 18:31 opposition 5° m 27'25 -1820 Aug 19 j 20:55 30°**₹** min. Earth dist. -1814 Mar 13 j 01:22 5° m 17'41 4.39730 AU min. Earth dist. -1820 Oct 02 j 01:09 25°**∺**28'30 4.04685 AU direct -1814 May 13 j 11:16 0° m 26'09 25°**)** 17'41 -1°44'08 opposition -1820 Oct 03 j 08:50 evening set -1814 Sep 17 j 00:25 18° m 15'54 direct -1820 Nov 30 j 12:41 20°¥20'09 max. Earth dist. -1814 Sep 27 j 18:13  $20^{\circ}$  Mp 38'496.36183 AU  $0^{\circ}\Upsilon$ -1819 Feb 21 j 01:51 9°**Υ**31'11 -1814 Sep 29 j 15:40 evening set -1819 Apr 05 j 14:15 conjunction  $21^{\circ}$  Mp 04'071°12'48 -1814 Sep 29 j 15:41 minimum elong  $21^{\circ}$  Mp 04'081°12'47 conjunction -1819 Apr 19 j 07:49 12° Y 41'40 -0° 57'36 morning rise -1814 Oct 12 j 04:46 23° m 51'28 minimum elong -1819 Apr 19 j 07:52 12°**Y**41'42 0°57'35 -1814 Nov 09 j 20:01 0∘**⊽** -1819 Apr 21 j 09:20 max. Earth dist. 13°**Y**10′19 6.09774 AU retrograde -1813 Feb 11 j 07:12 11°**£**17'08 morning rise -1819 May 03 j 02:49 15°**Y**52'40 opposition -1813 Apr 13 j 05:00 6°**£**25′25 1°32'56 -1819 Jul 11 j 14:28 0°8 min. Earth dist. -1813 Apr 14 j 14:23 6°**£**14'48 4.31564 AU retrograde -1819 Sep 08 j 05:57 5°**8**06'44 direct -1813 Jun 14 j 11:07 1°**£**26'43 opposition -1819 Nov 06 j 17:46 0°802'39 -0°59'39 evening set -1813 Oct 18 j 04:18 19°**♀**34'44 0°**と**11'52 4.15798 AU min. Earth dist. -1819 Nov 05 j 14:43 max. Earth dist. -1813 Oct 29 j 00:01 22°**♀**02'27 6.25884 AU -1819 Nov 07 i 01:33 30°RY direct -1818 Jan 04 i 18:50 25°Y02'03 conjunction -1813 Oct 30 i 18:13 22°**₽**26'33 0°49'00 -1818 Mar 03 i 16:47 0°8 minimum elong -1813 Oct 30 i 18:16 22°**£**26'34 0°49'00 -1818 May 11 i 15:53 13°**8**43'29 morning rise -1813 Nov 12 j 07:42 25° **2**18'19 evening set -1818 May 17 j 08:26 -1813 Dec 03 j 10:07 15°8 o°m. -1812 Mar 16 j 07:13 retrograde 13°M,33'46 -1818 May 25 j 10:03 16°848'54 -0°20'00 -1812 May 16 j 07:29 opposition 8°M-40'20 0°44'59 conjunction -1818 May 25 j 10:05 -1812 May 17 j 08:12 16°848'55 0°19'58 min. Earth dist. 8°M.32'26 4 19728 AU minimum elong -1818 May 26 j 17:47 -1812 Jul 16 j 11:37 max. Earth dist. 17°**8**06'45 6.22114 AU direct 3°M-44'26 -1812 Oct 16 j 15:33 -1818 Jun 08 j 03:44 15°M 19°**8**53'48 morning rise -1818 Jul 26 j 15:11  $0^{\circ}II$ evening set -1812 Nov 18 j 11:02 22°M19'31 -1818 Oct 10 j 17:48 8°**Ⅱ**04'20 max. Earth dist. -1812 Nov 30 j 04:25 25°ML03'55 6.13602 AU retrograde -1818 Nov 26 j 10:03 asc. node 4°**Ⅱ**45'18 -1818 Dec 09 j 07:36 -1812 Dec 01 j 03:45 opposition 3°**I**103'31 0°02'03 conjunction 25°M17'36 0°09'06 -1818 Dec 08 j 19:04 -1812 Dec 01 j 03:45 min. Earth dist. 3°**I**107'44 4.28120 AU minimum elong 25°M₁17'36 0°09'03 -1817 Jan 02 j 21:57 30°₹**८** behind sun begin -1812 Nov 30 j 20:54 25°M13'36 direct -1817 Feb 07 j 17:04 28°**8**00'47 behind sun end -1812 Dec 01 j 10:37 25°M21'36 -1817 Mar 15 j 22:54  $0^{\circ}II$ morning rise -1812 Dec 13 j 21:20 28°M16'26 -1817 Jun 15 j 00:42 16°**Ⅲ**12'44 -1812 Dec 21 j 08:08 0°**∡**7 evening set desc. node -1811 Feb 19 j 01:07 12°**₹**'08'51 -1817 Jun 28 j 14:01 19°**Ⅱ**11'18 0°22'38 -1811 Apr 21 j 09:03 17°**х** 32′52 conjunction retrograde -1817 Jun 28 j 13:59 19°**Ⅱ**11'17 0°22'40 -1811 Jun 21 j 04:02 12°**∡** 36′19 -0°20′46 minimum elong opposition -1817 Jun 28 j 21:09 19°**Ⅲ**15'13 6.33513 AU min. Earth dist. -1811 Jun 21 j 12:12 12°**∡**33'40 4.07894 AU max. Earth dist. 7°**∡**¹42'37 -1817 Jul 12 j 00:50 22° II 08'31 morning rise direct -1811 Aug 19 j 23:26 -1817 Aug 18 j 17:52 evening set -1811 Dec 22 j 12:41 26°**₹**146'42 retrograde -1817 Nov 10 j 17:48 9°9529'21 opposition -1816 Jan 09 i 15:10 4°532'30 1°00'05 conjunction -1810 Jan 04 i 10:36 29° x 51'32 -0°35'30 min. Earth dist. -1816 Jan 09 i 18:44 4°531'19 4.37750 AU minimum elong -1810 Jan 04 i 10:33 29°**х** 51'31 0°35'32 -1816 Feb 21 j 23:38 30°RⅡ max. Earth dist. -1810 Jan 04 i 12:42 29° ₹ 52'47 6.03290 AU direct -1816 Mar 11 j 05:34 29°**Ⅲ**29'01 -1810 Jan 05 j 00:46 0°궁 0ಂತಾ morning rise -1810 Jan 17 j 11:13 2°る57'54 -1816 Mar 29 j 17:39 17°520'31 -1810 May 28 j 18:51 23°る06'42 evening set -1816 Jul 16 j 17:12 retrograde -1810 Jul 28 j 04:42 opposition 18° ප්06'10 -1°22'00 conjunction -1816 Jul 29 j 21:56 20°9512'40 0°57'17 min. Earth dist. -1810 Jul 27 j 15:41 18°る10'29 4.00161 AU minimum elong -1816 Jul 29 j 21:53 20°9512'39 0°57'18 direct -1810 Sep 24 j 17:16 13°る12'55 -1816 Jul 29 j 02:26 20°902'03 6.40609 AU -1809 Jan 16 j 09:10 0°≈ max. Earth dist. 23°903'16 -1809 Jan 27 j 11:05 morning rise -1816 Aug 11 j 23:37 evening set 2°≈37'20 -1816 Sep 14 j 08:43  $0^{\circ}\Omega$ -1809 Feb 09 j 16:14 retrograde -1816 Dec 10 j 06:57 9°**Ω**58'55 conjunction 5°≈47'18 -1°08'02 opposition -1815 Feb 08 j 12:21 5°**Ω**05'21 1°39'37 minimum elong -1809 Feb 09 j 16:11 5°**≈**47'16 1°08'03 min. Earth dist. -1815 Feb 09 j 08:47 4°**Ω**58'45 4.41988 AU max. Earth dist. -1809 Feb 10 j 23:45 6°**≈**06'13 5.98778 AU direct -1815 Apr 12 j 00:13 0°**Ω**02′26 morning rise -1809 Feb 23 j 00:31 8°≈58'58 -1815 Aug 04 j 05:24 15°€ -1809 Mar 20 j 22:54 15°≈ evening set -1815 Aug 17 j 03:20 17°**Ω**46′13 retrograde -1809 Jul 05 j 08:42 29°≈27'08 max. Earth dist. -1815 Aug 28 j 09:40 20°Ω13'39 6.41557 AU -1809 Sep 02 j 03:31 24°≈32'22 3.99521 AU min. Earth dist.

-1809 Sep 03 j 06:44

24°≈23'10 -1°52'43

opposition

-	nical year style is used: Th		•	` //		, .	150 )
direct	-1809 Oct 31 j 06:05	19° <b>≈</b> 28'16		max. Earth dist.	-1803 Sep 01 j 15:24		6.40993 AU
	-1808 Jan 25 j 01:05	0° <b>∀</b>					
evening set	-1808 Mar 04 j 13:33	8° <b>)</b> 53′52		conjunction	-1803 Sep 03 j 06:52	24° <b>Ω</b> 56′09	1°16'20
				minimum elong	-1803 Sep 03 j 06:51	24° <b>Q</b> 56′09	1°16'22
conjunction	-1808 Mar 18 j 02:14	12° <b>)</b> €05'43		morning rise	-1803 Sep 15 j 23:36	27° <b>Ω</b> 43′00	
minimum elong	-1808 Mar 18 j 02:15	12° <b>)</b> €05'44	1°14'40		-1803 Sep 26 j 13:00	0° <b>™</b>	
max. Earth dist.	-1808 Mar 20 j 03:15	12° <b>)</b> ₹34'43	6.01934 AU	retrograde	-1802 Jan 14 j 13:56	14° <b>m</b> 43'32	
morning rise	-1808 Mar 31 j 17:46	15° <b>¥</b> 18'55		opposition	-1802 Mar 16 j 05:45	9° <b>m</b> ,51'51	1°51'01
	-1808 Jun 10 j 11:31	0° <b>Υ</b>		min. Earth dist.	-1802 Mar 17 j 13:38	9° <b>m</b> )41'41	4.38814 AU
retrograde	-1808 Aug 09 j 14:32	5° <b>Υ</b> 21'18		direct	-1802 May 17 j 22:47	4° <b>m</b> 50'55	
min. Earth dist.	-1808 Oct 06 j 20:24		4.06191 AU	evening set	-1802 Sep 21 j 08:21	22° m/42'42	
opposition	-1808 Oct 08 j 04:34	0°Υ16'05	-1°39'48	max. Earth dist.	-1802 Oct 02 j 01:01	25° m) 05'28	6.34977 AU
t'	-1808 Oct 10 j 03:43	30° <b>₹</b>		. ,.	1002 0 4 02 22 11	0.50m.01110	1010120
direct	-1808 Dec 05 j 09:40	25° <b>升</b> 18′08 0° <b>Ƴ</b>		conjunction	-1802 Oct 03 j 23:11	25° Tp 31'13	1°10'38
	-1807 Jan 29 j 14:09	14° <b>Υ</b> 24'57		minimum elong	-1802 Oct 03 j 23:12	25° Tp 31'14	1°10'38
evening set	-1807 Apr 10 j 14:32	14"   24'3/		morning rise	-1802 Oct 16 j 12:09 -1802 Oct 24 j 03:05	28° Mp 19'00 0° <u>₽</u>	
conjunction	-1807 Apr 24 j 08:23	17° <b>Ƴ</b> 34'50	0052117	retrograde	-1802 Oct 24 j 03:03	0 <b>=</b> 15° <b>£</b> 50'17	
minimum elong	-1807 Apr 24 j 08:25	17° <b>Υ</b> 34'52		opposition	-1801 Pet 13 j 21:31 -1801 Apr 17 j 20:53	13 <b>=</b> 3017 10° <b>⊆</b> 58'20	1°27'46
max. Earth dist.	-1807 Apr 24 j 08:20 -1807 Apr 26 j 06:38		6.11480 AU	min. Earth dist.	-1801 Apr 17 j 20:33	10° <b>⊆</b> 3820	
morning rise	-1807 May 08 j 03:35	20° <b>Υ</b> 45'07	0.11400710	direct	-1801 Jun 18 j 23:52	5° <b>≏</b> 59'58	4.50140710
morning rise	-1807 Jun 19 j 20:45	0°8		evening set	-1801 Oct 22 j 14:29	24° <b>♀</b> 10'53	
retrograde	-1807 Sep 12 j 19:08	9° <b>8</b> 50'18		max. Earth dist.	-1801 Nov 02 j 13:49	26° <b>₽</b> 41'08	6.24362 AU
min. Earth dist.	-1807 Nov 10 j 06:23		4.17515 AU	man. Barur diov.	10011101 02 110.19	20 00	0.21302110
opposition	-1807 Nov 11 j 06:52	4° <b>8</b> 46'35		conjunction	-1801 Nov 04 j 04:40	27° <b>≏</b> 03'23	0°44'10
11	-1807 Dec 28 j 13:04	30° <b>₹</b> Υ		minimum elong	-1801 Nov 04 j 04:42	27° <b>≏</b> 03'24	0°44'09
direct	-1806 Jan 09 j 12:43	29° <b>Y</b> 45'37		morning rise	-1801 Nov 16 j 18:20	29° <b>≙</b> 55'55	
	-1806 Jan 21 j 13:54	0°8		Č	-1801 Nov 17 j 01:31	0° <b>M</b>	
	-1806 May 01 j 02:16	15° <b>8</b>			-1800 Feb 02 j 19:43	15° <b>M</b>	
evening set	-1806 May 16 j 10:58	18° <b>8</b> 22'59		retrograde	-1800 Mar 21 j 04:58	18°M18'43	
					-1800 May 08 j 13:58	15°RM	
conjunction	-1806 May 30 j 04:57	21° <b>8</b> 27'36	-0°14'09	opposition	-1800 May 21 j 04:52	13°M24'55	0°36'27
minimum elong	-1806 May 30 j 04:58	21° <b>8</b> 27'37	0°14'07	min. Earth dist.	-1800 May 22 j 04:18	13°M17'25	4.18190 AU
behind sun begin	-1806 May 30 j 01:10	21° <b>8</b> 25'29		direct	-1800 Jul 21 j 05:51	8°M29'21	
behind sun end	-1806 May 30 j 08:46	21° <b>8</b> 29'44			-1800 Sep 26 j 16:21	15°M	
max. Earth dist.	-1806 May 31 j 10:19	21° <b>8</b> 44'04	6.23728 AU	evening set	-1800 Nov 23 j 01:57	27° <b>M</b> 07'41	
morning rise	-1806 Jun 12 j 21:50	24° <b>8</b> 31'31					
	-1806 Jul 08 j 03:59	0°II		conjunction	-1800 Dec 05 j 19:03	0° <b>∡</b> ¹06'35	
asc. node	-1806 Oct 07 j 14:54	12° <b>Ⅱ</b> 29'11		minimum elong	-1800 Dec 05 j 19:04	0° <b>∡</b> 06'36	0°02'49
retrograde	-1806 Oct 15 j 00:50	12° <b>∏</b> 34'37	0010126	behind sun begin	-1800 Dec 05 j 11:04	0° <b>∡</b> 01'55	
opposition	-1806 Dec 13 j 15:46	7° <b>∏</b> 34'24	0°10'36	behind sun end	-1800 Dec 06 j 03:05	0° <b>∡</b> 11'17	6 10167 ATT
min. Earth dist.	-1806 Dec 13 j 04:52	7° <b>Ⅱ</b> 38'03	4.29505 AU	max. Earth dist.	-1800 Dec 04 j 21:33	29°M53'57	6.12167 AU
direct	-1805 Feb 12 j 04:14	2° <b>∏</b> 31'33			-1800 Dec 05 j 07:49	0° <b>₹</b> ¹ 3° • <b>₹</b> 10€135	
evening set	-1805 Jun 19 j 14:40	20° <b>Ⅱ</b> 40′50		morning rise desc. node	-1800 Dec 18 j 13:37 -1800 Dec 30 j 05:42	3° <b>х</b> 06′25 5° <b>х</b> 48′33	
conjunction	-1805 Jul 03 j 02:51	23° <b>∏</b> 38'32	0°28'04	retrograde	-1799 Apr 26 j 10:28	22° <b>×</b> <sup>7</sup> 30'11	
minimum elong	-1805 Jul 03 j 02:48	23° <b>II</b> 38'31	0°28'07	opposition	-1799 Apr 26 j 10:28	17° <b>×</b> 33'02	-0°30'08
max. Earth dist.	-1805 Jul 03 j 04:34	23° <b>П</b> 39'29	6.34566 AU	min. Earth dist.	-1799 Jun 26 j 10:10		4.06684 AU
morning rise	-1805 Jul 16 j 12:40	26° <b>∏</b> 34'53	0.0 1000 110	direct	-1799 Aug 24 j 19:54	17 × 31 32 12° × 39'27	
morning not	-1805 Aug 01 j 10:02	0.2 20.2		anov	-1799 Dec 19 j 21:01	0°る	
retrograde	-1805 Nov 15 j 00:20	13°951'40		evening set	-1799 Dec 27 j 09:10	1° <b>る</b> 46'26	
opposition	-1804 Jan 13 j 21:43	8°\$55'21	1°06'51		-177 - 17 - 7 , 771-1		
min. Earth dist.	-1804 Jan 14 j 04:38	8°953'04	4.38424 AU	conjunction	-1798 Jan 09 j 08:04	4° <b>る</b> 52'03	-0°41'05
direct	-1804 Mar 15 j 16:24	3° <b>9</b> 51'52		minimum elong	-1798 Jan 09 j 08:01	4° <b>ප</b> 52'01	
evening set	-1804 Jul 21 j 03:00	21° <b>5</b> 42'29		max. Earth dist.	-1798 Jan 09 j 15:10	4° <b>ප</b> 56'18	6.02410 AU
max. Earth dist.	-1804 Aug 02 j 08:59	24° <b>©</b> 22'15	6.40847 AU	morning rise	-1798 Jan 22 j 09:32	7° <b>る</b> 59'12	
				retrograde	-1798 Jun 03 j 00:17	28° <b>る</b> 12'30	
conjunction	-1804 Aug 03 j 06:43	24° <b>©</b> 34'06	1°00'52	opposition	-1798 Aug 02 j 07:52	23° <b>る</b> 11'24	-1°28'32
minimum elong	-1804 Aug 03 j 06:40	24°534'04	1°00'54	min. Earth dist.	-1798 Aug 01 j 17:33	23° <b>ප</b> 16'10	3.99713 AU
morning rise	-1804 Aug 16 j 07:05	27° <b>5</b> 24'06		direct	-1798 Sep 29 j 18:38	18° <b>る</b> 18'01	
	-1804 Aug 28 j 09:51	$0$ $^{\circ}\Omega$			-1798 Dec 29 j 21:48	0° <b>≈</b>	
retrograde	-1804 Dec 14 j 12:02	14° <b>Ω</b> 19'20		evening set	-1797 Feb 01 j 12:21	7° <b>≈</b> 43'30	
opposition	-1803 Feb 12 j 19:42	9° <b>Ω</b> 26′05	1°43'01				
min. Earth dist.	-1803 Feb 13 j 16:55	9° <b>Ω</b> 19'14	4.41820 AU	conjunction	-1797 Feb 14 j 18:28	10° <b>≈</b> 53'54	
direct	-1803 Apr 16 j 07:52	4° <b>Ω</b> 23'22		minimum elong	-1797 Feb 14 j 18:26	10°≈53'52	
	-1803 Jul 18 j 05:20	15° <b>Ω</b>		max. Earth dist.	-1797 Feb 16 j 04:40		5.98779 AU
evening set	-1803 Aug 21 j 11:19	22° <b>Ω</b> 07'59		morning rise	-1797 Feb 28 j 03:55	14° <b>≈</b> 06′01	

•	nical year style is used: Th		-				ige 10
7 ttention, astronom	-1797 Mar 03 j 22:56	15° <b>≈</b>	in astronomical co	min. Earth dist.	-1791 Feb 18 j 04:23	$13^{\circ}\Omega 42'20$	4.41960 AU
	-1797 May 16 j 06:20	0° <b>)</b> €		direct	-1791 Apr 20 j 20:10	8°Ω47'23	1.11700110
retrograde	-1797 Jul 10 j 10:24	4° <b>)</b> 33′12		direct	-1791 Jun 28 j 07:12	15° <b>Ω</b>	
retrograde	-1797 Sep 04 j 11:24	30°R≈		evening set	-1791 Aug 25 j 19:36	26° <b>Ω</b> 31'25	
min. Earth dist.	-1797 Sep 07 j 11:24	29°≈38'44	4.00000 AU	max. Earth dist.	-1791 Sep 05 j 22:36	28° <b>Ω</b> 57'29	6.40826 AU
opposition	-1797 Sep 07 j 02:20 -1797 Sep 08 j 07:21	29°≈28'54		max. Earth dist.	-1791 Sep 05 j 22.30	20 063129	0.40820 AU
direct	-1797 Nov 05 j 05:25	29 ≈28 34 24°≈33'37	-1 33 32	conjunction	-1791 Sep 07 j 14:21	29° <b>Ω</b> 19'18	101650
direct	-1796 Jan 03 j 08:25	0° <b>\</b>		minimum elong	-1791 Sep 07 j 14:21	29° <b>Ω</b> 19'18	1°16'50
evening set	-1796 Mar 09 j 16:39	13° <b>¥</b> 57'56		minimum clong	-1791 Sep 07 j 14:20	0°m)	1 10 30
evening set	-1/90 Wiai 09 J 10.39	13 /(3/30		mamina rias	-1791 Sep 10 j 10:27 -1791 Sep 20 j 06:10	2° Mg 05'53	
agniumation	1706 Mar 22 : 06:12	17° <b>)</b> 09'47	1012112	morning rise	-1791 Sep 20 J 00:10 -1790 Jan 18 j 22:16	19° My 08'05	
conjunction	-1796 Mar 23 j 06:12 -1796 Mar 23 j 06:13	17 <b>X</b> 0947 17° <b>X</b> 09'48		retrograde	3	19 my 08 03 14° my 16'27	1°49'34
minimum elong max. Earth dist.	·		6.02827 AU	opposition min. Earth dist.	-1790 Mar 20 j 17:08	~	4.38363 AU
	-1796 Mar 25 j 06:44		0.02827 AU		-1790 Mar 22 j 00:13	14° Mp 06'33	4.36303 AU
morning rise	-1796 Apr 05 j 22:32	20° <b>\</b> 22'52 0° <b>\</b>		direct	-1790 May 22 j 08:46	9° Mp 15'54	
	-1796 May 19 j 08:42			evening set	-1790 Sep 25 j 15:34	27° Mp 08'00	C 24201 ATT
retrograde	-1796 Aug 14 j 10:39	10° <b>Y</b> 19'17	4.07270 ATT	max. Earth dist.	-1790 Oct 06 j 08:49	29° Mp 31'23	6.34281 AU
min. Earth dist.	-1796 Oct 11 j 17:03		4.07378 AU		1700 0 . 00:05.54	200m 56127	1000107
opposition	-1796 Oct 13 j 00:06	5°Υ14'04	-1°34'49	conjunction	-1790 Oct 08 j 05:54	29° m 56'37	1°08'07
direct	-1796 Dec 10 j 08:13	0°Υ15'38		minimum elong	-1790 Oct 08 j 05:56	29° m 56'38	1°08'06
evening set	-1795 Apr 15 j 15:30	19° <b>Ƴ</b> 19'29			-1790 Oct 08 j 11:58	0∘ <b>⊽</b>	
		00		morning rise	-1790 Oct 20 j 18:35	2° <b>Ω</b> 44'34	
conjunction	-1795 Apr 29 j 09:56	22° <b>Y</b> 28′58		retrograde	-1789 Feb 20 j 11:47	20° <b>♀</b> 19'57	
minimum elong	-1795 Apr 29 j 09:59	22° <b>Y</b> 29'00		opposition	-1789 Apr 22 j 11:40	15° <b>≏</b> 27'54	1°22'07
max. Earth dist.	-1795 May 01 j 07:45	22° <b>Y</b> 55'17	6.12879 AU	min. Earth dist.	-1789 Apr 23 j 19:46	15° <b>≏</b> 17'42	4.29212 AU
morning rise	-1795 May 13 j 05:06	25° <b>Y</b> 38'39		direct	-1789 Jun 23 j 13:43	10° <b>≏</b> 29'56	
	-1795 Jun 01 j 16:23	0°8		evening set	-1789 Oct 26 j 22:49	28° <b>≏</b> 42'10	
retrograde	-1795 Sep 17 j 09:38	14° <b>8</b> 35'52			-1789 Nov 01 j 15:07	$0^{\circ}$ M	
opposition	-1795 Nov 15 j 21:04	9° <b>8</b> 32'35		max. Earth dist.	-1789 Nov 06 j 22:42	1°M13'10	6.23284 AU
min. Earth dist.	-1795 Nov 14 j 21:53	9° <b>8</b> 40'27	4.18971 AU				
direct	-1794 Jan 14 j 05:50	4° <b>8</b> 31'20		conjunction	-1789 Nov 08 j 13:04	1° <b>M</b> 35'10	0°39'11
	-1794 Apr 13 j 07:14	15° <b>8</b>		minimum elong	-1789 Nov 08 j 13:06	1°M35'12	0°39'09
evening set	-1794 May 21 j 07:39	23° <b>8</b> 05'25		morning rise	-1789 Nov 21 j 03:11	4° <b>™</b> 28′20	
					-1788 Jan 09 j 18:26	15° <b>™</b>	
conjunction	-1794 Jun 04 j 01:02	26° <b>8</b> 09'15		retrograde	-1788 Mar 25 j 22:28	22° <b>M</b> 57'13	
minimum elong	-1794 Jun 04 j 01:02	26° <b>8</b> 09'15	0°08'06	opposition	-1788 May 25 j 23:26	18°M03'02	0°27'54
behind sun begin	-1794 Jun 03 j 17:40	26° <b>8</b> 05'09		min. Earth dist.	-1788 May 26 j 20:10	17°M56'23	4.17020 AU
behind sun end	-1794 Jun 04 j 08:24	26° <b>8</b> 13'21			-1788 Jun 20 j 16:03	15°RM	
max. Earth dist.	-1794 Jun 05 j 01:38		6.25127 AU	direct	-1788 Jul 25 j 19:39	13°M07'46	
morning rise	-1794 Jun 17 j 17:26	29° <b>8</b> 12'18			-1788 Aug 29 j 14:18	15° <b>™</b>	
	-1794 Jun 21 j 07:41	$\Pi$ °0		desc. node	-1788 Nov 11 j 02:16	28°M00'53	
asc. node	-1794 Aug 17 j 12:59	11° <b>Ⅱ</b> 23'46			-1788 Nov 19 j 18:57	0° <b>∡</b>	
retrograde	-1794 Oct 19 j 10:47	17° <b>Ⅱ</b> 08'47		evening set	-1788 Nov 27 j 13:45	1° <b>∡</b> ′48′28	
opposition	-1794 Dec 18 j 02:12	12° <b>Ⅱ</b> 09'07	0°19'15				
min. Earth dist.	-1794 Dec 17 j 17:59	12° <b>Ⅱ</b> 11'52	4.30740 AU	conjunction	-1788 Dec 10 j 07:31	4° <b>∡</b> °48'07	-0°03'23
direct	-1793 Feb 16 j 19:32	7° <b>Ⅱ</b> 06'06		minimum elong	-1788 Dec 10 j 07:31	4° <b>∡</b> °48′06	0°03'25
evening set	-1793 Jun 24 j 06:23	25° <b>Ⅱ</b> 13'00		behind sun begin	-1788 Dec 09 j 23:32	4° <b>∡</b> ¹43'26	
				behind sun end	-1788 Dec 10 j 15:29	4° <b>∡</b> 752'47	
conjunction	-1793 Jul 07 j 17:40	28° <b>Ⅱ</b> 09'54		max. Earth dist.	-1788 Dec 09 j 13:39	4° <b>∡</b> °37'36	6.11017 AU
minimum elong	-1793 Jul 07 j 17:38	28° <b>Ⅱ</b> 09'53	0°33'31	morning rise	-1788 Dec 23 j 02:41	7° <b>∡</b> ¹48'45	
max. Earth dist.	-1793 Jul 07 j 17:38	28° <b>Ⅱ</b> 09'53	6.35569 AU	retrograde	-1787 May 01 j 10:40	27° <b>∡</b> 19'11	
	-1793 Jul 16 j 02:27	$0$ $\circ$ $\odot$		opposition	-1787 Jul 01 j 03:37	22° <b>∡</b> *21'34	
morning rise	-1793 Jul 21 j 02:06	1° <b>©</b> 05'19		min. Earth dist.	-1787 Jul 01 j 07:11	22° <b>∡</b> ¹20′24	4.05639 AU
retrograde	-1793 Nov 19 j 07:03	18° <b>©</b> 18'07		direct	-1787 Aug 29 j 14:42	17° <b>∡</b> °28′07	
opposition	-1792 Jan 18 j 06:18	13° <b>©</b> 22'22	1°13'24		-1787 Dec 03 j 08:50	0°ප	
min. Earth dist.	-1792 Jan 18 j 14:20	13° <b>©</b> 19'44	4.39165 AU	evening set	-1786 Jan 01 j 02:26	6° <b>る</b> 37'50	
direct	-1792 Mar 20 j 03:18	8° <b>©</b> 19'02					
evening set	-1792 Jul 25 j 14:38	26° <b>©</b> 08'18		conjunction	-1786 Jan 14 j 02:08	9° <b>ප</b> 44'11	
				minimum elong	-1786 Jan 14 j 02:06	9° <b>⋜</b> 44'09	0°46'15
conjunction	-1792 Aug 07 j 16:57	28° <b>©</b> 59'12	1°04'13	max. Earth dist.	-1786 Jan 14 j 11:25	9° <b>⋜</b> 49'44	6.01560 AU
minimum elong	-1792 Aug 07 j 16:55	28° <b>©</b> 59'11	1°04'15	morning rise	-1786 Jan 27 j 04:43	12° <b>る</b> 52'10	
max. Earth dist.	-1792 Aug 06 j 15:53	28°5945'32	6.41284 AU		-1786 Apr 23 j 08:09	0° <b>≈</b>	
	-1792 Aug 12 j 08:28	$0^{\circ}\Omega$		retrograde	-1786 Jun 08 j 00:22	3° <b>≈</b> 09'56	
morning rise	-1792 Aug 20 j 16:15	1° <b>Ω</b> 48'34			-1786 Jul 24 j 00:02	30°Ŗる	
	-1792 Oct 29 j 17:44	15° <b>Ω</b>		opposition	-1786 Aug 07 j 06:56	28° <b>る</b> 08'26	-1°34'13
retrograde	-1792 Dec 18 j 20:51	18° <b>Ω</b> 42'44		min. Earth dist.	-1786 Aug 06 j 14:08	28° <b>る</b> 14'02	3.99181 AU
	-1791 Feb 08 j 00:51	15°R <b>Ω</b>		direct	-1786 Oct 04 j 13:59	23° <b>る</b> 14'55	
opposition	-1791 Feb 17 j 05:03	13° <b>Ω</b> 49'51	1°45'56		-1786 Dec 10 j 02:29	0° <b>≈</b>	

•	nical year style is used: Th		•				ge 11
evening set	-1785 Feb 06 j 10:53	12°≈42'23	in astronomicai co	conjunction	-1780 Aug 12 j 01:43	$3^{\circ}\Omega$ 21'25	1007'10
evening set	-1785 Feb 16 j 01:06			minimum elong		3° <b>Ω</b> 21'24	1°07'10
	-1/85 Feb 16 J 01:06	15° <b>≈</b>		•	-1780 Aug 12 j 01:40	6°Ω10'04	1-0/-13
	1705 F 1 10 : 10 02	15052110	1012142	morning rise	-1780 Aug 24 j 23:37		
conjunction	-1785 Feb 19 j 18:02	15°≈53'19		. 1	-1780 Oct 07 j 07:06	15° <b>Ω</b>	
minimum elong	-1785 Feb 19 j 18:01	15°≈53'18		retrograde	-1780 Dec 23 j 02:11	23° <b>Ω</b> 03'13	1040115
max. Earth dist.	-1785 Feb 21 j 05:46	16°≈14'43	5.98602 AU	opposition	-1779 Feb 21 j 13:09	18° <b>Ω</b> 10'32	1°48'15
morning rise	-1785 Mar 05 j 04:33	19°≈05'59		min. Earth dist.	-1779 Feb 22 j 13:14	18° <b>Ω</b> 02'48	4.41982 AU
	-1785 Apr 23 j 03:53	0° <b>)</b> €		J:4	-1779 Mar 20 j 08:38	15°RΩ	
retrograde	-1785 Jul 15 j 09:55	9° <b>)</b> (33'06	4.00205.411	direct	-1779 Apr 25 j 04:56	13° <b>Ω</b> 08'15	
min. Earth dist.	-1785 Sep 11 j 23:40		4.00205 AU		-1779 May 31 j 05:43	15° <b>Ω</b>	
opposition	-1785 Sep 13 j 04:55	4° <b>)</b> €28'32	-1°53′30	. ,	-1779 Aug 26 j 02:59	0° Mp	
Γ	-1785 Oct 24 j 23:07	30°R≈		evening set	-1779 Aug 30 j 02:48	0° m/52'03	C 40404 ATT
direct	-1785 Nov 10 j 03:20	29°≈32'51		max. Earth dist.	-1779 Sep 10 j 02:21	3°Mp16'30	6.40404 AU
	-1785 Nov 26 j 07:57	0° <b>)</b> (5711.4			1770 0 11:20 21	207 20141	1017154
evening set	-1784 Mar 14 j 17:35	18° <b>) (</b> 57′14		conjunction	-1779 Sep 11 j 20:31	3° Mp 39'41	1°16'54
	150434 20:00.16	2221/22112	1011116	minimum elong	-1779 Sep 11 j 20:31	3° Tp 39'41	1°16'54
conjunction	-1784 Mar 28 j 08:16	22° <b>₩</b> 09'18		morning rise	-1779 Sep 24 j 11:44	6° TQ 26'09	
minimum elong	-1784 Mar 28 j 08:19	22° <b>)</b> (09'19		retrograde	-1778 Jan 23 j 09:08	23° m/30'57	
max. Earth dist.	-1784 Mar 30 j 10:42	22° <b>)</b> 38'59	6.03414 AU	opposition	-1778 Mar 25 j 04:06	18° <b>m</b> 39'20	1°47'34
morning rise	-1784 Apr 11 j 01:18	25° <b>)</b> €22'27		min. Earth dist.	-1778 Mar 26 j 12:52	18° <b>m</b> 28'54	4.37505 AU
	-1784 May 01 j 05:47	0° <b>Υ</b>		direct	-1778 May 26 j 20:02	13° <b>m</b> 39'02	
retrograde	-1784 Aug 19 j 06:15	15° <b>Y</b> 14′02		_	-1778 Sep 22 j 22:32	0∘ <b>ত</b>	
min. Earth dist.	-1784 Oct 16 j 11:25	10° <b>Y</b> 19′25	4.08284 AU	evening set	-1778 Sep 29 j 22:29	1° <b>≏</b> 32'52	
opposition	-1784 Oct 17 j 18:03	10° <b>Y</b> 08'58	-1°29'16	max. Earth dist.	-1778 Oct 10 j 15:33	3° <b>≏</b> 56'34	6.33044 AU
direct	-1784 Dec 15 j 03:38	5° <b>Y</b> 10′09					
evening set	-1783 Apr 20 j 15:32	24° <b>Y</b> 12'04		conjunction	-1778 Oct 12 j 12:40		1°05'12
				minimum elong	-1778 Oct 12 j 12:43	4° <b>≏</b> 21'54	1°05'12
conjunction	-1783 May 04 j 10:07	27° <b>Y</b> 21′10		morning rise	-1778 Oct 25 j 01:15	7° <b>≏</b> 10'19	
minimum elong	-1783 May 04 j 10:10	27° <b>Y</b> 21'12		retrograde	-1777 Feb 25 j 02:08	24° <b>≏</b> 51'47	
max. Earth dist.	-1783 May 06 j 05:05	27° <b>Y</b> 45'46	6.14031 AU	opposition	-1777 Apr 27 j 03:30	19° <b>ჲ</b> 59'30	1°15'59
	-1783 May 16 j 00:04	0°8		min. Earth dist.	-1777 Apr 28 j 09:58	19° <b>≏</b> 49'48	4.27665 AU
morning rise	-1783 May 18 j 05:32	0° <b>8</b> 30'24		direct	-1777 Jun 28 j 01:01	15° <b>≏</b> 01'53	
	-1783 Jul 30 j 06:37	15° <b>8</b>			-1777 Oct 16 j 18:02	0° <b>M</b>	
retrograde	-1783 Sep 21 j 22:32	19° <b>8</b> 20'32		evening set	-1777 Oct 31 j 08:53	3° <b>™</b> 17'39	
	-1783 Nov 15 j 05:08	15° <b>₹</b> 8		max. Earth dist.	-1777 Nov 11 j 11:21	5° <b>™</b> 50'42	6.21560 AU
opposition	-1783 Nov 20 j 10:30	14° <b>8</b> 17'35					
min. Earth dist.	-1783 Nov 19 j 12:35		4.20253 AU	conjunction	-1777 Nov 12 j 23:24	6°M11'29	0°33'51
direct	-1782 Jan 18 j 23:31	9° <b>8</b> 15'58		minimum elong	-1777 Nov 12 j 23:26	6° <b>™</b> 11'30	0°33'50
	-1782 Mar 23 j 04:51	15° <b>8</b>		morning rise	-1777 Nov 25 j 14:00	9° <b>™</b> 05'35	
evening set	-1782 May 26 j 03:42	27° <b>8</b> 47'11			-1777 Dec 22 j 01:55	15° <b>™</b>	
	-1782 Jun 05 j 02:35	$\Pi$ °0		retrograde	-1776 Mar 30 j 22:29	27°M43'03	
				opposition	-1776 May 30 j 21:26	22°M48'28	0°18'54
conjunction	-1782 Jun 08 j 20:40	0° <b>Ⅱ</b> 50'14		min. Earth dist.	-1776 May 31 j 17:15	22°M42'06	4.15221 AU
minimum elong	-1782 Jun 08 j 20:41	0° <b>Ⅱ</b> 50'15	0°02'03	direct	-1776 Jul 30 j 14:00	17°M53'30	
behind sun begin	-1782 Jun 08 j 12:22	0° <b>Ⅱ</b> 45'38		desc. node	-1776 Sep 21 j 07:03	22°M03'49	
behind sun end	-1782 Jun 09 j 05:01	0° <b>Ⅱ</b> 54'52			-1776 Nov 02 j 22:20	0° <b>∡</b>	
max. Earth dist.	-1782 Jun 09 j 19:42	1° <b>Ⅱ</b> 03'05	6.26464 AU	evening set	-1776 Dec 02 j 05:50	6° <b>∡</b> ³38'51	
morning rise	-1782 Jun 22 j 12:07	3° <b>Ⅱ</b> 52'21		max. Earth dist.	-1776 Dec 14 j 09:07	9° <b>∡</b> ³30'33	6.09312 AU
asc. node	-1782 Jun 27 j 12:24	4° <b>Ⅱ</b> 58'37					
retrograde	-1782 Oct 23 j 20:13	21° <b>∐</b> 42'10		conjunction	-1776 Dec 15 j 00:19	9° <b>∡</b> ³39'32 −	
opposition	-1782 Dec 22 j 11:58	16° <b>Ⅱ</b> 43'00	0°27'43	minimum elong	-1776 Dec 15 j 00:19	9° <b>∡</b> 39'31	0°09'42
min. Earth dist.	-1782 Dec 22 j 05:28	16° <b>Ⅱ</b> 45'10	4.32008 AU	behind sun begin	-1776 Dec 14 j 17:39	9° <b>х</b> 35′36	
direct	-1781 Feb 21 j 09:28	11° <b>Ⅱ</b> 39'50		behind sun end	-1776 Dec 15 j 06:58	9° <b>х</b> 43′26	
evening set	-1781 Jun 28 j 21:14	29° <b>Ⅱ</b> 43'47		morning rise	-1776 Dec 27 j 20:30	12° <b>∡</b> ′41′20	
	-1781 Jun 30 j 03:03	$0$ $\circ$ $\odot$			-1775 Mar 28 j 08:57	0°ಕ	
				retrograde	-1775 May 06 j 14:04	2° <b>る</b> 20'16	
conjunction	-1781 Jul 12 j 07:15	2° <b>©</b> 39'44	0°38'39		-1775 Jun 15 j 00:52	30°Ŗ <b>⋌</b> ¹	
minimum elong	-1781 Jul 12 j 07:12	2°539'43	0°38'40	opposition	-1775 Jul 06 j 06:25	27° <b>₹</b> 22'10	
max. Earth dist.	-1781 Jul 12 j 03:01	2° <b>©</b> 37'25	6.36642 AU	min. Earth dist.	-1775 Jul 06 j 06:29	27° <b>∡</b> °22'09 −	4.04207 AU
morning rise	-1781 Jul 25 j 14:35	5° <b>©</b> 34'12		direct	-1775 Sep 03 j 11:45	22° <b>∡</b> ′28'52	
retrograde	-1781 Nov 23 j 13:54	22°5542'42			-1775 Nov 13 j 18:32	0°る	
opposition	-1780 Jan 22 j 14:17	17°5947'17	1°19'28	evening set	-1774 Jan 06 j 01:45	11° <b>る</b> 42'49	
min. Earth dist.	-1780 Jan 23 j 00:43	17° <b>©</b> 43'52	4.39965 AU				
direct	-1780 Mar 24 j 15:13	12° <b>©</b> 43'53		conjunction	-1774 Jan 19 j 02:26	14° <b>る</b> 50'04	
	-1780 Jul 27 j 14:39	$0^{\circ}\Omega$		minimum elong	-1774 Jan 19 j 02:23	14°る50'02	
evening set	-1780 Jul 30 j 00:27	0° <b>Ω</b> 31'11		max. Earth dist.	-1774 Jan 19 j 15:31	14° <b>ろ</b> 57'55	6.00527 AU
max. Earth dist.	-1780 Aug 10 j 23:40	3° <b>Ω</b> 07'14	6.41712 AU	morning rise	-1774 Feb 01 j 06:08	17° <b>る</b> 59'00	

	nical year style is used: Th						ge 12
Attention, astronom	-1774 Mar 27 j 21:08	0°≈	in astronomicai co	min. Earth dist.	-1768 Jan 27 j 07:51		4.40843 AU
ratra ara da		0 ∞ 8°≈21'39				17° <b>©</b> 00'28	4.40643 AU
retrograde	-1774 Jun 13 j 07:28		1020120	direct	-1768 Mar 28 j 22:56	1/20028 0°Ω	
opposition	-1774 Aug 12 j 11:51	3°≈19'38		. ,	-1768 Jul 11 j 17:18	0°δι 4° <b>Ω</b> 45'55	
min. Earth dist.	-1774 Aug 11 j 16:57		3.98681 AU	evening set	-1768 Aug 03 j 06:41		C 42011 ATT
Γ	-1774 Sep 08 j 22:42	30°Rる		max. Earth dist.	-1768 Aug 14 j 23:51	7° <b>Ω</b> 18'44	6.42011 AU
direct	-1774 Oct 09 j 17:03	28° <b>පි</b> 25'58			1760 4 16:06 40	70 O 2 512 2	1000140
	-1774 Nov 09 j 06:32 -1773 Jan 30 j 06:43	0°≈		conjunction minimum elong	-1768 Aug 16 j 06:40	7° <b>Ω</b> 35'32	1°09'40 1°09'41
. ,	J	15°≈		_	-1768 Aug 16 j 06:38	7° <b>Ω</b> 35'31	1-0941
evening set	-1773 Feb 11 j 15:29	17° <b>≈</b> 55'05		morning rise	-1768 Aug 29 j 03:37	10° <b>Ω</b> 23'39	
	1772 F. L. 04 : 02 52	210 - 06120	101.411.7	. 1	-1768 Sep 19 j 20:38	15° <b>Ω</b>	
conjunction	-1773 Feb 24 j 23:53	21°≈06'30		retrograde	-1768 Dec 27 j 07:15	27°Ω16'43	1040155
minimum elong	-1773 Feb 24 j 23:52	21°≈06'30	1°14'18	opposition	-1767 Feb 25 j 18:33	22° <b>Ω</b> 24'18	1°49'55
max. Earth dist.	-1773 Feb 26 j 16:14	21°≈30'39 24°≈19'35	5.98699 AU	min. Earth dist.	-1767 Feb 26 j 21:10	22°Ω15'45	4.41699 AU
morning rise	-1773 Mar 10 j 11:24	24°≈1935 0° <b>)</b> €		direct	-1767 Apr 29 j 11:28	17° <b>Ω</b> 22'07	
	-1773 Apr 03 j 22:48				-1767 Aug 10 j 06:06	0° m)	
retrograde	-1773 Jul 20 j 14:14	14° <b>)</b> (44'43	4.00022.411	evening set	-1767 Sep 03 j 06:48	5° Mp 06'54	C 20544 ATT
min. Earth dist.	-1773 Sep 17 j 00:51	9° <b>X</b> 50'19	4.00933 AU	max. Earth dist.	-1767 Sep 14 j 05:04	7° Mp 30'56	6.39544 AU
opposition	-1773 Sep 18 j 07:15	9° <b>)</b> (39'59	-1°52′35		17/7 ( 1/100.01	70m 54127	101 (122
direct	-1773 Nov 15 j 05:22	4° <b>)(</b> 44'00		conjunction	-1767 Sep 16 j 00:01	7° m 54'37	
evening set	-1772 Mar 19 j 23:18	24° <b>)</b> €06'12		minimum elong	-1767 Sep 16 j 00:01	7° Mp 54'37	1°16'33
	1772 4 02:14.20	2701/10101	1000145	morning rise	-1767 Sep 28 j 14:31	10° Mp 41'10	
conjunction	-1772 Apr 02 j 14:38	27° <b>)</b> (18'01		retrograde	-1766 Jan 27 j 17:06	27° m 50'23	1045100
minimum elong	-1772 Apr 02 j 14:41	27° <b>)</b> (18'02		opposition	-1766 Mar 29 j 13:29	22° m 58'48	1°45'02
max. Earth dist.	-1772 Apr 04 j 16:47		6.04706 AU	min. Earth dist.	-1766 Mar 30 j 22:22	22° m/48'20	4.36120 AU
	-1772 Apr 14 j 03:27	0° <b>Υ</b>		direct	-1766 May 31 j 02:25	17° <b>m</b> 58'49	
morning rise	-1772 Apr 16 j 08:28	0° <b>Υ</b> 30'52			-1766 Sep 06 j 17:26	0∘ <b>ʊ</b>	
retrograde	-1772 Aug 24 j 01:20	20° <b>Υ</b> 14'17	4 10004 411	evening set	-1766 Oct 04 j 04:23	5° <b>£</b> 56'17	6 2 1 2 2 7 A X X
min. Earth dist.	-1772 Oct 21 j 07:15	15° <b>Y</b> 19'50	4.10004 AU	max. Earth dist.	-1766 Oct 14 j 20:30	8° <b>≏</b> 20'07	6.31237 AU
opposition	-1772 Oct 22 j 14:00	15° <b>Y</b> 09'20	-1°22′57		17660 + 1611010	00.0 45156	1001157
direct	-1772 Dec 20 j 02:45	10°Υ10'06		conjunction	-1766 Oct 16 j 18:19	8° <b>Ω</b> 45'56	1°01'57
evening set	-1771 Apr 25 j 16:54	29° <b>Y</b> 07'02		minimum elong	-1766 Oct 16 j 18:21	8° <b>Ω</b> 45'57	1°01'56
	-1771 Apr 29 j 14:14	0°8		morning rise	-1766 Oct 29 j 07:06	11° <b>Ω</b> 35'10 29° <b>Ω</b> 24'56	
· · · · · · · · · · · · ·	1771 M 00 : 11.42	2° <b>8</b> 15'19	0020115	retrograde	-1765 Mar 01 j 20:14	29 <b>≗</b> 24 36 24° <b>≗</b> 32'27	1900125
conjunction minimum elong	-1771 May 09 j 11:42 -1771 May 09 j 11:45	2° <b>8</b> 15'20		opposition	-1765 May 01 j 19:44	24° <b>£</b> 32′27 24° <b>£</b> 22'42	1°09'25
max. Earth dist.		2° <b>8</b> 39'15	6.16057 AU	min. Earth dist. direct	-1765 May 03 j 02:17 -1765 Jul 02 j 14:00	24 <b>≥</b> 22 42 19° <b>⊆</b> 35'09	4.25533 AU
morning rise	-1771 May 11 j 05:41 -1771 May 23 j 06:44	5° <b>8</b> 23'29	0.1003 / AU	direct	-1765 Sep 29 j 12:53	0°M	
morning rise	-1771 Jul 07 j 09:37	15° <b>8</b>		evening set	-1765 Nov 04 j 19:54	7°M56'34	
retrograde	-1771 Sep 26 j 12:06	24° <b>8</b> 03'24		max. Earth dist.	-1765 Nov 16 j 01:09		6.19303 AU
opposition	-1771 Nov 24 j 23:33	19° <b>8</b> 00'57	0°26'00	max. Earth dist.	-1703 NOV 10 J 01.09	וטוו טוו	0.19303 AU
min. Earth dist.	-1771 Nov 24 j 23:53		4.22359 AU	conjunction	-1765 Nov 17 j 10:59	10°M51'33	0°28'18
iiiii. Lattii dist.	-1771 Dec 29 j 16:26	15°R <b>8</b>	4.22337 AU	minimum elong	-1765 Nov 17 j 10:97	10°M51'34	0°28'17
direct	-1770 Jan 23 j 18:02	13° <b>8</b> 59'04		morning rise	-1765 Nov 30 j 02:15	13°M46'54	0 2017
direct	-1770 Feb 18 j 01:54	15° <b>8</b>		morning risc	-1765 Dec 05 j 09:40	15°M	
asc. node	-1770 May 08 j 06:15	27° <b>8</b> 30'49			-1764 Feb 23 j 11:09	0° <b>∡</b> 7	
use. Hode	-1770 May 19 j 21:40	0°Ⅱ		retrograde	-1764 Apr 04 j 22:37	2° <b>×</b> <sup>7</sup> 34'48	
evening set	-1770 May 30 j 21:57	2° <b>∏</b> 24'36		retrograde	-1764 May 16 j 22:37	30°RM	
evening sec	1770 May 30 j 21.37	2 12130		opposition	-1764 Jun 04 j 21:16	27°M39'47	0°09'40
conjunction	-1770 Jun 13 j 14:06	5° <b>Ⅱ</b> 26'28	0°03'59	min. Earth dist.	-1764 Jun 05 j 13:53	27°M34'26	4.13024 AU
minimum elong	-1770 Jun 13 j 14:06	5° <b>П</b> 26'28	0°04'01	desc. node	-1764 Aug 01 j 07:52	22°M46'01	
behind sun begin	-1770 Jun 13 j 05:54	5° <b>∏</b> 21'57	· · ·	direct	-1764 Aug 04 j 07:08	22°M45'10	
behind sun end	-1770 Jun 13 j 22:17	5° <b>Ⅲ</b> 31′00			-1764 Oct 14 j 06:17	0° <b>⊼</b>	
max. Earth dist.	-1770 Jun 14 j 09:12	5° <b>Ⅲ</b> 37'04	6.28472 AU	evening set	-1764 Dec 07 j 00:36	11° <b>∡</b> ³36'32	
morning rise	-1770 Jun 27 j 04:39	8° <b>Ⅱ</b> 27'19		<i>8</i>			
retrograde	-1770 Oct 28 j 01:35	26° <b>Ⅱ</b> 08'48		conjunction	-1764 Dec 19 j 19:51	14° <b>∡</b> ³38'25	-0°15'59
opposition	-1770 Dec 26 j 19:24	21° <b>Ⅱ</b> 10′08	0°35'45	minimum elong	-1764 Dec 19 j 19:50	14° <b>∡</b> ³38'24	
min. Earth dist.	-1770 Dec 26 j 15:02	21° <b>Ⅱ</b> 11'35	4.33761 AU	behind sun begin	-1764 Dec 19 j 18:29	14° <b>∡</b> ³37'36	
direct	-1769 Feb 25 j 21:13	16° <b>Ⅱ</b> 06'49		behind sun end	-1764 Dec 19 j 21:12	14° <b>₹</b> 39'12	
	-1769 Jun 14 j 01:41	0 ಲ		max. Earth dist.	-1764 Dec 19 j 08:38	14° <b>∡</b> ³31'46	6.07375 AU
evening set	-1769 Jul 03 j 08:26	4°906'32		morning rise	-1763 Jan 01 j 17:06	17° <b>∡</b> ′41'32	
Ç	,			Ç	-1763 Feb 27 j 17:37	0°8	
conjunction	-1769 Jul 16 j 17:17	7° <b>©</b> 01'26	0°43'25	retrograde	-1763 May 11 j 22:01	7° <b>る</b> 29'44	
minimum elong	-1769 Jul 16 j 17:14	7° <b>©</b> 01'24	0°43'26	opposition	-1763 Jul 11 j 12:21	2°₹31′00	-0°56'50
max. Earth dist.	-1769 Jul 16 j 10:03	6° <b>©</b> 57'29	6.38002 AU	min. Earth dist.	-1763 Jul 11 j 09:22	2° <b>ප</b> 31'59	4.02720 AU
morning rise	-1769 Jul 29 j 23:09	9° <b>©</b> 54'47			-1763 Jul 31 j 16:10	30°R. <b>✓</b>	
retrograde	-1769 Nov 27 j 17:10	26° <b>©</b> 58'41		direct	-1763 Sep 08 j 14:03	27° <b>₹</b> 37'45	
opposition	-1768 Jan 26 j 18:53	22° <b>©</b> 03'47	1°24'52		-1763 Oct 16 j 20:21	8°0	
	•				-		

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 13 Attention, astronomical year style is used: The year -1762 in astronomical counting style is the year 1763 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -1762 i	n astronomical cou	inting style is the year	1763 BCE in historical c	ounting style.	8, 10
evening set	-1762 Jan 11 j 04:11	16° <b>ප</b> 55'46		max. Earth dist.	-1757 Jul 20 j 16:50	11° <b>©</b> 19'01	6.38971 AU
				morning rise	-1757 Aug 03 j 08:54	14°9517'42	
conjunction	-1762 Jan 24 j 06:01	20°る03'53	-0°55'58		-1757 Nov 03 j 00:06	$0^{\circ}\Omega$	
minimum elong	-1762 Jan 24 j 05:58	20° <b>る</b> 03'52	0°56'00	retrograde	-1757 Dec 01 j 22:26	1° <b>Ω</b> 18′28	
max. Earth dist.	-1762 Jan 25 j 01:02	20° <b>ට</b> 15'18	5.99630 AU		-1757 Dec 30 j 20:05	30° <b>ℝ</b> ∽	
morning rise	-1762 Feb 06 j 10:46	23° <b>る</b> 13'42		opposition	-1756 Jan 31 j 01:36	26° <b>5</b> 23'59	1°29'57
	-1762 Mar 07 j 17:32	0° <b>≈</b>		min. Earth dist.	-1756 Jan 31 j 16:34	26°9519'07	4.41343 AU
retrograde	-1762 Jun 18 j 16:44	13° <b>≈</b> 39'45		direct	-1756 Apr 02 j 07:35	21° <b>5</b> 20'44	
opposition	-1762 Aug 17 j 18:46	8° <b>≈</b> 37'12	-1°44'00		-1756 Jun 23 j 20:44	$0^{\circ}\Omega$	
min. Earth dist.	-1762 Aug 16 j 21:15	8° <b>≈</b> 44'25	3.98505 AU	evening set	-1756 Aug 07 j 14:52	9° <b>Ω</b> 05'29	
direct	-1762 Oct 14 j 21:20	3° <b>≈</b> 43'18		max. Earth dist.	-1756 Aug 19 j 05:18	11° <b>Ω</b> 36′55	6.41995 AU
	-1761 Jan 12 j 00:03	15° <b>≈</b>					
evening set	-1761 Feb 16 j 22:32	23° <b>≈</b> 12'29		conjunction	-1756 Aug 20 j 13:48	11° <b>Ω</b> 54'39	1°11'51
	·			minimum elong	-1756 Aug 20 j 13:47	11° <b>Ω</b> 54'38	
conjunction	-1761 Mar 02 j 07:49	26° <b>≈</b> 24'06	-1°15'17	morning rise	-1756 Sep 02 j 09:33	14° <b>Ω</b> 42'20	
minimum elong	-1761 Mar 02 j 07:48	26° <b>≈</b> 24'06		Z .	-1756 Sep 03 j 18:11	15° <b>Ω</b>	
max. Earth dist.	-1761 Mar 04 j 01:57		5.99205 AU		-1756 Nov 29 j 05:41	0° m)	
morning rise	-1761 Mar 15 j 20:29	29° <b>≈</b> 37'22		retrograde	-1756 Dec 31 j 14:33	1° m/36'23	
morning rise	-1761 Mar 17 j 10:46	0° <b>∀</b>		renograde	-1755 Feb 02 j 02:22	30°R <b>Ω</b>	
retrograde	-1761 Jul 25 j 16:02	19° <b>¥</b> 58'06		opposition	-1755 Mar 02 j 03:01	26° <b>Ω</b> 44'14	1°51'06
min. Earth dist.	-1761 Sep 22 j 01:40		4.02054 AU	min. Earth dist.	-1755 Mar 03 j 07:13	26°Ω35'13	4.41186 AU
opposition	-1761 Sep 23 j 09:40	14° <b>)</b> 53'04		direct	-1755 May 03 j 20:06	21° <b>Ω</b> 42'23	4.41100710
direct	-1761 Nov 20 j 08:47	9° <b>H</b> 56'34	-1 30 44	uncet	-1755 Jul 23 j 05:20	0° m)	
evening set	-1760 Mar 25 j 05:09	29° <b>H</b> 15'06		evening set	-1755 Sep 07 j 14:00	9° Mp 28'40	
evening set	-1760 Mar 28 j 10:21	29 <b>γ</b> 13 00		max. Earth dist.	-1755 Sep 18 j 08:52	-	6.38557 AU
	-1700 Iviai 20 j 10.21	U I		max. Earth dist.	-1/33 Sep 16 J 06.32	11 11/3110	0.36337 AU
	17(0 4 07:21.20	20002(121	1005142		1755 C 20 : 07-25	120 m 17120	1015146
conjunction	-1760 Apr 07 j 21:20	2° <b>Υ</b> 26'31		conjunction	-1755 Sep 20 j 06:25	12° Mp 16'29	
minimum elong	-1760 Apr 07 j 21:23	2°Υ26'33		minimum elong	-1755 Sep 20 j 06:25	12° Mp 16'29	1°15'47
max. Earth dist.	-1760 Apr 10 j 00:14	2°Υ56'16	6.06317 AU	morning rise	-1755 Oct 02 j 20:35	15° m 03'16	
morning rise	-1760 Apr 21 j 15:27	5° <b>Y</b> 38'46			-1755 Dec 24 j 05:35	0∘ <b>⊽</b>	
retrograde	-1760 Aug 28 j 22:00	25° <b>Y</b> 12'51		retrograde	-1754 Feb 01 j 06:31	2° <b>≏</b> 17'19	
min. Earth dist.	-1760 Oct 26 j 04:29		4.11895 AU		-1754 Mar 12 j 17:44	30°R, Mp	
opposition	-1760 Oct 27 j 09:29	20° <b>Y</b> ′08′06	-1°16'03	opposition	-1754 Apr 03 j 02:30	27° <b>m</b> 25'45	
direct	-1760 Dec 25 j 03:05	15° <b>Y</b> ′08′25		min. Earth dist.	-1754 Apr 04 j 12:05	27° <b>m</b> 15'03	4.34725 AU
	-1759 Apr 12 j 18:14	0° <b>8</b>		direct	-1754 Jun 04 j 13:37	22° <b>m</b> 26'07	
evening set	-1759 Apr 30 j 17:39	3° <b>8</b> 59'56			-1754 Aug 19 j 00:04	0∘ <b>⊽</b>	
				evening set	-1754 Oct 08 j 13:13	10° <b>≏</b> 27'05	
conjunction	-1759 May 14 j 12:20	7° <b>8</b> 07'18		max. Earth dist.	-1754 Oct 19 j 07:26	12° <b>≙</b> 52'37	6.29562 AU
minimum elong	-1759 May 14 j 12:23	7° <b>8</b> 07'20					
max. Earth dist.	-1759 May 16 j 03:48	7° <b>8</b> 29'42	6.18064 AU	conjunction	-1754 Oct 21 j 03:16	13° <b>≏</b> 17'26	0°58'15
morning rise	-1759 May 28 j 07:04	10° <b>8</b> 14'27		minimum elong	-1754 Oct 21 j 03:19	13° <b>≏</b> 17'27	0°58'14
	-1759 Jun 18 j 21:08	15° <b>8</b>		morning rise	-1754 Nov 02 j 16:03	16° <b>≏</b> 07'24	
retrograde	-1759 Sep 30 j 22:42	28° <b>8</b> 44'34			-1753 Jan 12 j 15:35	$0^{\circ}$ M	
opposition	-1759 Nov 29 j 12:00	23° <b>8</b> 42'36		retrograde	-1753 Mar 06 j 15:02	4°M05'02	
min. Earth dist.	-1759 Nov 28 j 17:35	23° <b>8</b> 48'49	4.24302 AU		-1753 Apr 30 j 08:57	30° <b>₹</b> Ω	
direct	-1758 Jan 28 j 10:21	18° <b>8</b> 40'25		opposition	-1753 May 06 j 15:07	29° <b>₽</b> 12'22	1°02'11
asc. node	-1758 Mar 18 j 05:30	22° <b>8</b> 11'45		min. Earth dist.	-1753 May 07 j 19:50	29° <b>ჲ</b> 03'12	4.23700 AU
	-1758 May 02 j 14:05	$\Pi$ $\circ 0$		direct	-1753 Jul 07 j 04:27	24° <b>≙</b> 15'36	
evening set	-1758 Jun 04 j 16:11	7° <b>Ⅱ</b> 01'12			-1753 Sep 08 j 18:51	$0^{\circ}$ M	
				evening set	-1753 Nov 09 j 09:28	12°M41'29	
conjunction	-1758 Jun 18 j 07:29	10° <b>Ⅱ</b> 01'59	0°09'55		-1753 Nov 19 j 08:33	15° <b>M</b> ₊	
minimum elong	-1758 Jun 18 j 07:27	10° <b>耳</b> 01′58	0°09'57	max. Earth dist.	-1753 Nov 20 j 17:19	15° <b>M</b> ₊19'04	6.17488 AU
behind sun begin	-1758 Jun 18 j 00:49	9° <b>Ⅱ</b> 58'19					
behind sun end	-1758 Jun 18 j 14:05	10° <b>Ⅱ</b> 05'38		conjunction	-1753 Nov 22 j 00:50	15°M37'23	0°22'26
max. Earth dist.	-1758 Jun 18 j 22:21	10° <b>Ⅱ</b> 10′13	6.30214 AU	minimum elong	-1753 Nov 22 j 00:51	15°M37'24	0°22'25
morning rise	-1758 Jul 01 j 20:55	13° <b>Ⅱ</b> 01'39		morning rise	-1753 Dec 04 j 16:53	18° <b>M</b> 33'51	
-	-1758 Oct 13 j 01:43	0ಂತಾ		-	-1752 Jan 27 j 10:35	0° <b>∡</b> ¹	
retrograde	-1758 Nov 01 j 09:36	0° <b>©</b> 35'59		retrograde	-1752 Apr 10 j 01:28	7° <b>∡</b> ³30'43	
S	-1758 Nov 20 j 13:14	30°RⅡ		opposition	-1752 Jun 09 j 23:00	2° <b>∡</b> ³35'16	0°00'11
opposition	-1758 Dec 31 j 03:26	25° <b>I</b> I37'56	0°43'40	min. Earth dist.	-1752 Jun 10 j 13:00	2° <b>∡</b> 130'45	4.11378 AU
min. Earth dist.	-1758 Dec 31 j 02:22	25° <b>I</b> 38'17	4.35177 AU	desc. node	-1752 Jun 11 j 00:41	2° <b>×</b> <sup>7</sup> 26'59	
direct	-1757 Mar 02 j 10:08	20° <b>I</b> 34'33			-1752 Jul 01 j 02:19	30°RM₁	
	-1757 May 27 j 08:39	0°9		direct	-1752 Aug 09 j 04:58	27°M40'59	
evening set	-1757 Jul 07 j 20:38	8° <b>©</b> 31'15			-1752 Sep 16 j 15:55	0° <b>⊼</b> ¹	
	1.1.1ai 0/j 20.30	5115		evening set	-1752 Dec 11 j 20:23	16° <b>∡</b> 36′24	
conjunction	-1757 Jul 21 j 04:17	11° <b>©</b> 25'16	0°48'02				
minimum elong	-1757 Jul 21 j 04:14	11°525'14	0°48'04	conjunction	-1752 Dec 24 j 16:32	19° <b>∡</b> ³39'13	-0°22'15
		1		· j			

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1752 in astronomical counting style is the year 1753 BCE in historical counting style. -1752 Dec 24 j 16:31 19°**∡**39'12 0°22'16 behind sun end -1746 Jun 22 j 22:55 14°**Ⅲ**32'37 minimum elong -1752 Dec 24 j 10:46 19°**∡**³35'47 -1746 Jun 23 j 09:40 14°**Ⅲ**38'33 max. Earth dist. 6.06073 AU max Earth dist 6.31512 AU -1751 Jan 06 j 14:38 22°×743'18 -1746 Jul 06 j 10:18 17°**Ⅲ**30'46 morning rise morning rise 0°궁 -1751 Feb 07 j 12:21 -1746 Sep 08 j 04:42 0ಂತಾ -1751 May 17 j 04:58 12°る37'59 -1746 Nov 05 j 14:20 retrograde retrograde 4°959'47 -1751 Jul 16 j 17:20 -1745 Jan 04 j 10:01 opposition 7°る38'46 -1°05'11 opposition 0°902'15 0°51'09 min. Earth dist. -1751 Jul 16 j 11:24 7°**る**40'43 4.01923 AU min. Earth dist. -1745 Jan 04 j 10:31 0°902'05 4.36122 AU direct -1751 Sep 13 j 15:03 2°る45'37 -1745 Jan 04 j 16:49 30°RⅡ 24°**Ⅲ**58'50 evening set -1750 Jan 16 j 05:42 22°**る**05'24 direct -1745 Mar 06 j 19:05 -1745 May 06 j 04:26 0ಂತಾ conjunction -1750 Jan 29 j 08:19 25°る14'01 -1°00'11 evening set -1745 Jul 12 j 07:25 12°953'57 -1750 Jan 29 j 08:16 minimum elong 25°**る**13'59 1°00'13 -1750 Jan 30 j 06:12 -1745 Jul 25 j 13:50 max. Earth dist. 25°る27'09 5.99381 AU conjunction 15°**9**47'15 0°52'18 morning rise -1750 Feb 11 j 14:16 28°る24'24 minimum elong -1745 Jul 25 j 13:47 15°9547'13 0°52'20 -1750 Feb 18 j 07:29 0°**≈** max. Earth dist. -1745 Jul 24 j 22:36 15°538'56 6.39498 AU -1750 May 04 j 07:16 15°≈ morning rise -1745 Aug 07 j 17:15 18°938'59 retrograde -1750 Jun 23 j 20:05 18°≈51'14 -1745 Oct 04 j 10:40  $0^{\circ}\Omega$ -1750 Aug 13 j 22:56 15°R≈ retrograde -1745 Dec 06 j 04:56 5°**Ω**38′06 opposition -1750 Aug 22 j 22:23 13°≈48'11 -1°47'32 opposition -1744 Feb 04 j 08:19 0°**Ω**44'03 1°34'30 min. Earth dist. -1750 Aug 21 j 22:03 13°≈56'22 3.98853 AU min. Earth dist. -1744 Feb 05 j 02:01 0°**Ω**38'18 4.41446 AU direct -1750 Oct 19 j 23:03 8°≈54'01 -1744 Feb 10 j 00:29 30°Rூ -1750 Dec 21 i 19:31 15°≈ direct -1744 Apr 06 i 17:08 25°9540'57 -1749 Feb 22 i 02:03 28°≈21'42 -1744 Jun 01 i 19:22  $0^{\circ}\Omega$ evening set -1749 Feb 28 j 23:40 0°**∀** -1744 Aug 11 i 22:55 13°Ω25'56 evening set -1744 Aug 19 j 03:53  $15^{\circ}\Omega$ -1749 Mar 07 j 12:28 1°**)** 33'22 -1°15'39 -1744 Aug 23 j 09:35 15°**Ω**55'32 6.41655 AU max. Earth dist. conjunction -1749 Mar 07 j 12:28 1° **★**33'22 1°15'39 minimum elong -1749 Mar 09 j 09:46 -1744 Aug 24 j 20:52 16°Ω14'49 1°13'37 max. Earth dist. 2°¥00'21 6.00100 AU conjunction -1744 Aug 24 j 20:50 -1749 Mar 21 j 01:51 4°**)**€46'32 16°**Ω**14'48 1°13'38 morning rise minimum elong -1749 Jul 30 j 16:03 25°**)**(01'42 -1744 Sep 06 j 15:43 19°**Ω**02'15 morning rise retrograde -1749 Sep 27 j 00:38 -1744 Oct 31 j 23:01 20°**₭**07'13 4.03383 AU min. Earth dist. 0° m -1743 Jan 04 j 22:44 -1749 Sep 28 j 07:58 19°**)** ★56'33 -1°48'05 retrograde 5° m 58'14 opposition -1743 Mar 06 j 12:27 -1749 Nov 25 j 09:44 14°**)** 59'38 1° Mp 06'12 1°51'37 direct opposition  $0^{\circ}\Upsilon$ -1743 Mar 07 j 17:13 -1748 Mar 11 j 17:14 min. Earth dist. 0° To 56'59 4.40456 AU 4°Υ14'05 -1743 Mar 15 j 04:55 evening set -1748 Mar 30 j 06:52 30°₽£ 26°**Ω**04'35 direct -1743 May 08 j 04:46  $7^{\circ}$ **Y**25'02 -1°02'16 -1748 Apr 12 j 23:36 conjunction -1743 Jun 30 j 11:01 0° M minimum elong -1748 Apr 12 j 23:39 7°**Υ**25'04 1°02'14 evening set -1743 Sep 11 j 21:23 13° m 52'39 max. Earth dist. -1748 Apr 15 j 01:43 7°**Υ**54'10 6.07949 AU max. Earth dist. -1743 Sep 22 j 16:58 16° Mp 16'02 6.37499 AU -1748 Apr 26 j 18:11 10°**Y**36'42 morning rise -1748 Aug 29 j 08:07  $0^{\circ}$ 8 conjunction -1743 Sep 24 j 13:20 16° Mp 40'39 1°14'33 -1748 Sep 02 j 12:27 0°801'45 -1743 Sep 24 j 13:21 16° Mp 40'40 retrograde minimum elong 1°14'33 -1748 Sep 06 j 16:25 -1743 Oct 07 j 02:56 19° m 27'40 30°R℃ morning rise min. Earth dist. -1748 Oct 30 j 20:01 25°Υ07'00 4.13656 AU -1743 Nov 27 j 23:41 0°Ω -1748 Nov 01 j 00:32 24°Y57'17 -1°08'53 -1742 Feb 05 j 19:45 opposition retrograde 6°**≏**46'38 direct -1748 Dec 29 i 20:42 19°**Y**57′12 opposition -1742 Apr 07 i 16:45 1°**£**55'00 1°37'57 -1747 Mar 25 i 20:42 0°8 min. Earth dist. -1742 Apr 09 i 02:03 1°**2**44'25 4.33399 AU evening set -1747 May 05 j 14:35 8°**8**44'12 -1742 Apr 23 i 03:49 30°R M direct -1742 Jun 09 j 01:59 26° m 55'47 -1747 May 19 j 09:05 11°850'45 -0°27'05 -1742 Jul 25 j 07:37 0∘**⊽** conjunction -1747 May 19 i 09:07 11°**8**50'46 0°27'03 -1742 Oct 12 j 22:31 14°**£**59'27 minimum elong evening set -1747 May 20 j 20:18 12°**8**10'40 6.19820 AU max. Earth dist. -1742 Oct 23 j 16:46 17°**£**25'35 6.28071 AU max. Earth dist. -1747 Jun 02 j 03:27 14°**8**56'57 morning rise -1742 Oct 25 j 12:23 -1747 Jun 02 j 08:54 15°8 conjunction 17°**♀**50'21 0°54'09 -1747 Aug 19 j 19:46  $0^{\circ}II$ minimum elong -1742 Oct 25 j 12:26 17°**♀**50'23 0°54'08 -1747 Oct 05 j 08:49 3°**I**18'44 morning rise -1742 Nov 07 j 01:31 20°**₽**41'04 retrograde -1747 Nov 20 j 22:06 30°R₩ -1742 Dec 20 j 21:17 0°M -1747 Dec 03 j 21:38 28°**8**17'16 -0°08'39 -1741 Mar 11 j 10:30 opposition retrograde 8°M45'48 28°**8**22'22 4.25885 AU -1741 May 11 j 10:56 min. Earth dist. -1747 Dec 03 j 06:31 opposition 3°M52'44 0°54'30 23°**8**18'02 asc. node -1746 Jan 27 j 07:52 min. Earth dist. -1741 May 12 j 13:48 3°M44'09 4.22123 AU 23°**8**14'50 direct -1746 Feb 02 j 01:05 -1741 Jun 15 j 12:22 30°**₹**Ω -1746 Apr 12 j 23:02  $0^{\circ}II$ direct -1741 Jul 11 j 20:46 28°**£**56'17 evening set -1746 Jun 09 j 07:20 11°**Ⅲ**32′08 -1741 Aug 07 j 02:54 0°M -1741 Nov 03 j 08:53 15°M conjunction -1746 Jun 22 j 21:56 14°**Ⅲ**32'04 0°15'38 evening set -1741 Nov 13 j 22:41 17°M25'28 14°**Ⅲ**32′04 0°15'40 max. Earth dist. -1741 Nov 25 j 11:21 20°ML06'18 6.15968 AU minimum elong -1746 Jun 22 j 21:55

-1746 Jun 22 j 20:54

behind sun begin

14°**Ⅲ**31'30

	nical year style is used: Th						ge 13
conjunction	-1741 Nov 26 j 14:40	20°M22'14		morning rise	-1735 Jun 07 j 00:29	19° <b>8</b> 41'01	
minimum elong	-1741 Nov 26 j 14:40	20°M22'15		morning rise	-1735 Jul 26 j 12:58	0°Ⅱ	
Č	3		0°16′24		-1735 Jul 26 j 12:38 -1735 Oct 09 j 18:43		
morning rise	-1741 Dec 09 j 07:13	23°M19'36 0°⊀		retrograde asc. node		7°Ⅲ55'31 3°Ⅲ02'33	
	-1740 Jan 08 j 00:39				-1735 Dec 07 j 08:53	3°Щ02'33 2°Щ54'37	0000100
retrograde	-1740 Apr 15 j 02:53	12° <b>₹</b> 24'07		opposition	-1735 Dec 08 j 08:29		
desc. node	-1740 Apr 21 j 04:22	12°×720'39	0000117	min. Earth dist.	-1735 Dec 07 j 18:36		4.27233 AU
opposition	-1740 Jun 14 j 23:44	7° 🗷 28'12		1: 4	-1735 Dec 31 j 12:59	30°R₩	
min. Earth dist.	-1740 Jun 15 j 11:27	7° 🗷 24'25	4.10026 AU	direct	-1734 Feb 06 j 14:39	27° <b>8</b> 52'03	
direct	-1740 Aug 14 j 01:28	2° <b>х</b> 34'10			-1734 Mar 16 j 05:29	0°II	
evening set	-1740 Dec 16 j 15:14	21° <b>∡</b> ³32'37		evening set	-1734 Jun 14 j 00:23	16° <b>Ⅱ</b> 06'42	
conjunction	-1740 Dec 29 j 11:58	24° <b>∡</b> ³36'12	-0°28'18	conjunction	-1734 Jun 27 j 13:54	19° <b>Ⅱ</b> 05'46	0°21'23
minimum elong	-1740 Dec 29 j 11:56	24° <b>∡</b> ³36'11	0°28'19	minimum elong	-1734 Jun 27 j 13:52	19° <b>Ⅱ</b> 05'45	0°21'25
max. Earth dist.	-1740 Dec 29 j 08:37	24° <b>∡</b> °34'12	6.04988 AU	max. Earth dist.	-1734 Jun 27 j 20:44	19° <b>Ⅱ</b> 09'32	6.32649 AU
morning rise	-1739 Jan 11 j 11:11	27° <b>∡</b> ¹41'12		morning rise	-1734 Jul 11 j 01:18	22° <b>Ⅱ</b> 03'34	
C	-1739 Jan 21 j 07:28	ರ°0		C	-1734 Aug 18 j 02:43	0° <b>©</b>	
retrograde	-1739 May 22 j 08:28	17° <b>る</b> 41'39		retrograde	-1734 Nov 09 j 23:02	9° <b>5</b> 27'51	
opposition	-1739 Jul 21 j 20:30	12° <b>る</b> 41'49	-1°12'58	opposition	-1733 Jan 08 j 18:38	4°930'53	0°58'31
min. Earth dist.	-1739 Jul 21 j 11:15		4.01222 AU	min. Earth dist.	-1733 Jan 08 j 22:14	4°929'42	4.36991 AU
direct	-1739 Sep 18 j 14:09	7° <b>る</b> 48'37			-1733 Feb 20 j 14:32	30°R <b>Ⅱ</b>	
evening set	-1738 Jan 21 j 05:40	27° <b>ප</b> 10'06		direct	-1733 Mar 11 j 08:13	29° <b>Ⅱ</b> 27'29	
* · · · · · · · · · · · · · · · · · · ·	-1738 Feb 02 i 01:18	0° <b>≈</b>			-1733 Mar 30 j 05:15	0ಂಣ	
	17501 <b>0</b> 0 0 <b>2</b> j 01.10			evening set	-1733 Jul 16 j 19:51	17° <b>5</b> 21'11	
conjunction	-1738 Feb 03 j 09:24	0° <b>≈</b> 19'17	-1°03'55	max. Earth dist.	-1733 Jul 29 j 08:07	20°904'29	6.40043 AU
minimum elong	-1738 Feb 03 j 09:22	0°≈19'15		max. Earth dist.	1755 Jul 25 j 00.07	20 00.29	0.10015710
max. Earth dist.	-1738 Feb 04 j 12:05		5.99121 AU	conjunction	-1733 Jul 30 j 01:12	20°913'48	0°56'22
morning rise	-1738 Feb 16 j 16:12	3° <b>≈</b> 30'11	3.77121 AO	minimum elong	-1733 Jul 30 j 01:09	20°9513'46	0°56'24
morning risc	-1738 Apr 09 j 13:41	15° <b>≈</b>		morning rise	-1733 Aug 12 j 03:15	23°904'48	0 30 24
retrograde	-1738 Jun 29 j 00:20	23°≈57'54		morning risc	-1733 Sep 14 j 08:20	0°Ω	
min. Earth dist.	-1738 Aug 26 j 23:24	19°≈02'50	3.99079 AU	retrograde	-1733 Dec 10 j 11:08	10° <b>Ω</b> 02'16	
opposition	-1738 Aug 28 j 00:17	19 <b>≈</b> 02 30 18° <b>≈</b> 54'26		opposition	-1732 Feb 08 j 16:58	5°Ω08'36	1°38'38
opposition	-1738 Sep 30 j 17:54	15°R≈	-1 30 13	min. Earth dist.	-1732 Feb 09 j 11:14	5° <b>Ω</b> 02'41	4.41686 AU
direct	-1738 Oct 25 j 00:44	13°≈59'59		direct	-1732 Apr 11 j 02:30	0° <b>Ω</b> 05'45	4.41080 AC
direct	-1738 Nov 18 j 06:40	15° <b>≈</b>		direct		15° <b>Ω</b>	
	-1737 Feb 12 j 10:43	13 <b>≈</b> 0° <b>∺</b>		avanina aat	-1732 Aug 03 j 02:24 -1732 Aug 16 j 08:12	13 <b>δι</b> 17° <b>Ω</b> 50'18	
avanina aat	,	3° <b>∺</b> 27'00		evening set max. Earth dist.		20°Ω18'55	6 41502 ATT
evening set	-1737 Feb 27 j 04:57	3 <b>X</b> 2700		max. Earth tist.	-1732 Aug 27 j 16:42	20 661633	6.41583 AU
conjunction	-1737 Mar 12 j 16:16	6° <b>)</b> €38'47	-1°15'28	conjunction	-1732 Aug 29 j 05:00	20° <b>Ω</b> 38'46	1°15'01
minimum elong	-1737 Mar 12 j 16:17	6° <b>∺</b> 38'47	1°15'29	minimum elong	-1732 Aug 29 j 04:58	20° <b>Ω</b> 38'45	1°15'03
max. Earth dist.	-1737 Mar 14 j 14:49	7° <b>∺</b> 06′25	6.00768 AU	morning rise	-1732 Sep 10 j 22:52	23° <b>Ω</b> 25′51	
morning rise	-1737 Mar 26 j 06:40	9° <b>¥</b> 52′02			-1732 Oct 12 j 06:27	0° <b>m</b> )	
	-1737 Jul 30 j 16:10	$0^{\circ}$ Y		retrograde	-1731 Jan 09 j 08:38	10° <b>m</b> 22'56	
retrograde	-1737 Aug 04 j 13:43	0° <b>Y</b> ′02'23		opposition	-1731 Mar 10 j 23:14	5° <b>m</b> 31'07	1°51'33
	-1737 Aug 09 j 10:57	30° <b>Ŗ</b> ₩		min. Earth dist.	-1731 Mar 12 j 05:20	5° <b>m</b> 21'30	4.40092 AU
min. Earth dist.	-1737 Oct 01 j 20:50	25° <b>)</b> €08'10	4.04432 AU	direct	-1731 May 12 j 17:01	0° <b>m</b> 29′52	
opposition	-1737 Oct 03 j 05:02	24° <b>¥</b> 57'11	-1°44'43	evening set	-1731 Sep 16 j 05:08	18° <b>m</b> )18'15	
direct	-1737 Nov 30 j 07:22	19° <b>¥</b> 59'50		max. Earth dist.	-1731 Sep 26 j 23:17	20° Mp 41'10	6.36867 AU
	-1736 Feb 22 j 12:27	$0^{\circ}$ Y					
evening set	-1736 Apr 04 j 08:37	9° <b>Ƴ</b> 11'37		conjunction	-1731 Sep 28 j 20:28	21°Mp06'16	1°12'56
				minimum elong	-1731 Sep 28 j 20:29	21°My06'17	1°12'55
conjunction	-1736 Apr 18 j 01:54	12° <b>Y</b> ′22'13		morning rise	-1731 Oct 11 j 09:44	23° <b>m</b> 53'24	
minimum elong	-1736 Apr 18 j 01:58	12° <b>Y</b> ′22'15	0°58'23		-1731 Nov 08 j 22:31	0∘ <b>ত</b>	
max. Earth dist.	-1736 Apr 20 j 01:43	12° <b>Ƴ</b> 49'57	6.09278 AU	retrograde	-1730 Feb 10 j 07:38	11° <b>≏</b> 15'57	
morning rise	-1736 May 01 j 20:52	15° <b>Ƴ</b> 33'26		opposition	-1730 Apr 12 j 06:40	6° <b>£</b> 24'10	1°33'32
	-1736 Jul 12 j 05:43	0°8		min. Earth dist.	-1730 Apr 13 j 14:52	6° <b>£</b> 13'55	4.32536 AU
retrograde	-1736 Sep 07 j 04:44	4° <b>8</b> 50'48		direct	-1730 Jun 13 j 13:44	1° <b>≏</b> 25′18	
	-1736 Nov 04 j 00:54	30° <b>₹Ƴ</b>		evening set	-1730 Oct 17 j 06:44	19° <b>≏</b> 30'11	
opposition	-1736 Nov 05 j 16:09	29° <b>Y</b> '46'37	-1°01'17	max. Earth dist.	-1730 Oct 28 j 03:55	21° <b>≙</b> 58'17	6.27059 AU
min. Earth dist.	-1736 Nov 04 j 13:52	29° <b>Y</b> 55'35	4.15102 AU				
direct	-1735 Jan 03 j 16:39	24° <b>Y</b> '46'09		conjunction	-1730 Oct 29 j 20:42	22° <b>≏</b> 21'30	0°49'48
	-1735 Mar 04 j 04:09	0° <b>႘</b>		minimum elong	-1730 Oct 29 j 20:44	22° <b>≏</b> 21'31	0°49'48
evening set	-1735 May 10 j 12:13	13° <b>8</b> 29'47		morning rise	-1730 Nov 11 j 09:50	25° <b>≏</b> 12'41	
	-1735 May 17 j 04:53	15° <b>8</b>			-1730 Dec 03 j 00:12	0° <b>M</b>	
				retrograde	-1729 Mar 16 j 04:02	13°M22'56	
conjunction	-1735 May 24 j 06:42	16° <b>8</b> 35'40	-0°21'16	opposition	-1729 May 16 j 04:56	8°M29'36	0°46'37
minimum elong	-1735 May 24 j 06:43	16° <b>8</b> 35'41	0°21'13	min. Earth dist.	-1729 May 17 j 06:53	8°ML21'19	4.21002 AU
max. Earth dist.	-1735 May 25 j 16:12	16° <b>8</b> 54'33	6.21280 AU	direct	-1729 Jul 16 j 12:20	3°M33'32	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 16 Attention, astronomical year style is used: The year -1729 in astronomical counting style is the year 1730 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ie year -1729 i	in astronomical co	unting style is the year	1730 BCE in historical c	counting style.	
	-1729 Oct 17 j 16:16	15°M		conjunction	-1723 May 29 j 03:29	21° <b>8</b> 18'34	-0°15'21
evening set	-1729 Nov 18 j 09:45	22°M04'36		minimum elong	-1723 May 29 j 03:30	21° <b>8</b> 18'35	0°15'19
max. Earth dist.	-1729 Nov 29 j 23:45	24°M46'40	6.14833 AU	behind sun begin	-1723 May 29 j 01:33	21° <b>8</b> 17'29	
				behind sun end	-1723 May 29 j 05:26	21° <b>8</b> 19'40	
conjunction	-1729 Dec 01 j 02:00	25°M02'00	0°10'29	max. Earth dist.	-1723 May 30 j 08:51	21° <b>8</b> 35'05	6.22568 AU
minimum elong	-1729 Dec 01 j 02:00	25°M02'00	0°10'27	morning rise	-1723 Jun 11 j 20:55	24° <b>8</b> 23'10	
behind sun begin	-1729 Nov 30 j 19:41	24°M58'19			-1723 Jul 07 j 17:27	$\Pi$ °0	
behind sun end	-1729 Dec 01 j 08:20	25°M05'41		retrograde	-1723 Oct 14 j 04:54	12° <b>Ⅱ</b> 30′50	
morning rise	-1729 Dec 13 j 19:22	28°M00'10		asc. node	-1723 Oct 17 j 16:07	12° <b>Ⅱ</b> 29'38	
	-1729 Dec 22 j 10:56	0° <b>∡</b>		opposition	-1723 Dec 12 j 18:59	7° <b>Ⅱ</b> 30′23	0°08'53
desc. node	-1728 Mar 02 j 22:15	13° <b>∡</b> ⁴45′28		min. Earth dist.	-1723 Dec 12 j 07:27	7° <b>Ⅱ</b> 34'15	4.28493 AU
retrograde	-1728 Apr 20 j 00:07	17° <b>∡</b> 11'07		direct	-1722 Feb 11 j 06:13	2° <b>Ⅱ</b> 27'33	
opposition	-1728 Jun 19 j 21:08	12° <b>∡</b> 14'41	-0°18'25	evening set	-1722 Jun 18 j 16:27	20° <b>Ⅱ</b> 39'26	
min. Earth dist.	-1728 Jun 20 j 05:58	12° <b>∡</b> 11'49	4.08959 AU				
direct	-1728 Aug 18 j 18:25	7° <b>∡</b> ¹20'47		conjunction	-1722 Jul 02 j 05:12	23° <b>∏</b> 37'39	
evening set	-1728 Dec 21 j 07:01	26° <b>х</b> 21′40		minimum elong	-1722 Jul 02 j 05:10	23° <b>∏</b> 37'38	0°27'01
				max. Earth dist.	-1722 Jul 02 j 10:35	23° <b>Ⅱ</b> 40'37	6.33793 AU
conjunction	-1727 Jan 03 j 04:41	29° <b>∡</b> ¹25'59		morning rise	-1722 Jul 15 j 15:17	26° <b>∏</b> 34'28	
minimum elong	-1727 Jan 03 j 04:38	29° <b>₹</b> 25'58	0°33'59		-1722 Jul 31 j 13:02	0	
max. Earth dist.	-1727 Jan 03 j 05:37	29° <b>∡</b> ¹26'33	6.04093 AU	retrograde	-1722 Nov 14 j 05:02	13° <b>©</b> 53'46	
	-1727 Jan 05 j 13:40	0° <b>ろ</b>		opposition	-1721 Jan 13 j 02:44	8° <b>©</b> 57'15	1°05'29
morning rise	-1727 Jan 16 j 04:39	2° <b>る</b> 31'45		min. Earth dist.	-1721 Jan 13 j 07:24	8° <b>9</b> 55'43	4.37932 AU
retrograde	-1727 May 27 j 10:06	22° <b>る</b> 37'11		direct	-1721 Mar 15 j 19:05	3° <b>©</b> 53'51	
opposition	-1727 Jul 26 j 19:38	17° <b>る</b> 36'52		evening set	-1721 Jul 21 j 07:10	21° <b>©</b> 45'22	
min. Earth dist.	-1727 Jul 26 j 09:30		4.00595 AU				
direct	-1727 Sep 23 j 10:52	12° <b>る</b> 43'35		conjunction	-1721 Aug 03 j 11:06	24° <b>©</b> 37'10	1°00'06
	-1726 Jan 17 j 04:32	0° <b>≈</b>		minimum elong	-1721 Aug 03 j 11:03	24° <b>©</b> 37'09	1°00'07
evening set	-1726 Jan 26 j 02:42	2° <b>≈</b> 06'58		max. Earth dist.	-1721 Aug 02 j 14:12	24° <b>©</b> 25'47	6.40673 AU
				morning rise	-1721 Aug 16 j 12:02	27° <b>5</b> 27'25	
conjunction	-1726 Feb 08 j 07:23	5° <b>≈</b> 16'43	-1°07'05		-1721 Aug 28 j 08:26	$0 {\circ} \Omega$	
minimum elong	-1726 Feb 08 j 07:20	5° <b>≈</b> 16'42	1°07'06	retrograde	-1721 Dec 14 j 18:20	14° <b>Ω</b> 22'52	
max. Earth dist.	-1726 Feb 09 j 11:46	5° <b>≈</b> 33'45	5.98806 AU	opposition	-1720 Feb 13 j 00:48	9° <b>Ω</b> 29'29	1°42'10
morning rise	-1726 Feb 21 j 15:24	8° <b>≈</b> 28'14		min. Earth dist.	-1720 Feb 13 j 21:44	9° <b>Ω</b> 22'43	4.41953 AU
	-1726 Mar 21 j 20:40	15° <b>≈</b>		direct	-1720 Apr 15 j 13:55	4° <b>Ω</b> 26'43	
retrograde	-1726 Jul 03 j 23:37	28° <b>≈</b> 56'53			-1720 Jul 17 j 03:48	15° <b>Ω</b>	
opposition	-1726 Sep 01 j 22:17	23° <b>≈</b> 53′07	-1°52'06	evening set	-1720 Aug 20 j 15:50	22° <b>Ω</b> 10′31	
min. Earth dist.	-1726 Aug 31 j 19:31	24° <b>≈</b> 02'09	3.99144 AU	max. Earth dist.	-1720 Aug 31 j 22:12	24° <b>Ω</b> 38′04	6.41426 AU
direct	-1726 Oct 29 j 20:36	18° <b>≈</b> 58'19					
	-1725 Jan 26 j 00:02	0° <b>∀</b>		conjunction	-1720 Sep 02 j 11:47	24° <b>Ω</b> 58'39	1°16'00
evening set	-1725 Mar 04 j 05:06	8° <b>¥</b> 25'39		minimum elong	-1720 Sep 02 j 11:46	24° <b>Ω</b> 58'39	1°16'02
				morning rise	-1720 Sep 15 j 04:41	27° <b>Ω</b> 45′25	
conjunction	-1725 Mar 17 j 17:27	11° <b>)</b> 37′42	-1°14'44		-1720 Sep 25 j 13:53	o° my	
minimum elong	-1725 Mar 17 j 17:29	11° <b>)</b> 37′43	1°14'44	retrograde	-1719 Jan 13 j 15:34	14° <b>m</b> 44'00	
max. Earth dist.	-1725 Mar 19 j 16:12	12° <b>米</b> 05′25	6.01203 AU	opposition	-1719 Mar 15 j 08:52	9° <b>m</b> ,52'13	1°50'53
morning rise	-1725 Mar 31 j 08:47	14° <b>¥</b> 51′09		min. Earth dist.	-1719 Mar 16 j 14:57	9° <b>™</b> 42'37	4.39515 AU
	-1725 Jun 12 j 18:33	$0^{\circ}$ Y		direct	-1719 May 17 j 01:26	4° <b>m</b> 51'14	
retrograde	-1725 Aug 09 j 10:02	4° <b>Y</b> 57'47		evening set	-1719 Sep 20 j 11:42	22° <b>m</b> 40'44	
opposition	-1725 Oct 07 j 23:45	29° <b>)</b> 52′32	-1°40'42	max. Earth dist.	-1719 Oct 01 j 05:25	25° <b>m</b> 03'47	6.35897 AU
min. Earth dist.	-1725 Oct 06 j 16:29	0° <b>Y</b> 03'13	4.05180 AU				
	-1725 Oct 07 j 01:54	30° <b>Ŗ</b> ₩		conjunction	-1719 Oct 03 j 02:32	25° m 28'55	1°10'54
direct	-1725 Dec 05 j 04:17	24° <b>)</b> ₹54'43		minimum elong	-1719 Oct 03 j 02:34	25° m 28'56	1°10'54
	-1724 Jan 31 j 16:57	$0^{\circ}$ Y		morning rise	-1719 Oct 15 j 15:30	28° Mp 16'20	
evening set	-1724 Apr 09 j 08:41	14° <b>Y</b> 05'01			-1719 Oct 23 j 11:46	0∘ <b>ত</b>	
				retrograde	-1718 Feb 14 j 21:40	15° <b>≏</b> 43'54	
conjunction	-1724 Apr 23 j 02:43	17° <b>Y</b> °15′29	-0°54'11	opposition	-1718 Apr 16 j 20:47	10° <b>≏</b> 52'02	1°28'35
minimum elong	-1724 Apr 23 j 02:47	17° <b>Ƴ</b> 15'31	0°54'10	min. Earth dist.	-1718 Apr 18 j 05:41	10° <b>≏</b> 41'35	4.31201 AU
max. Earth dist.	-1724 Apr 25 j 02:49	17° <b>Ƴ</b> 43'16	6.10307 AU	direct	-1718 Jun 18 j 02:35	5° <b>≏</b> 53'33	
morning rise	-1724 May 06 j 21:54	20° <b>Y</b> ′26′20		evening set	-1718 Oct 21 j 15:17	24° <b>≏</b> 01'20	
<b>5</b>	-1724 Jun 20 j 01:52	0°ප		max. Earth dist.	-1718 Nov 01 j 12:27	26° <b>♀</b> 30'02	6.25467 AU
retrograde	-1724 Sep 11 j 19:29	9° <b>8</b> 36'56			,		
min. Earth dist.	-1724 Nov 09 j 04:46	4° <b>8</b> 41'48	4.16302 AU	conjunction	-1718 Nov 03 j 05:18	26° <b>≏</b> 53'21	0°45'08
opposition	-1724 Nov 10 j 06:19	4° <b>8</b> 33'06		minimum elong	-1718 Nov 03 j 05:21	26° <b>£</b> 53'23	0°45'06
	-1724 Dec 22 j 18:11	30° <b>Ŗ</b> ♈		morning rise	-1718 Nov 15 j 18:55	29° <b>Ω</b> 45'23	
direct	-1723 Jan 08 j 09:08	29° <b>Y</b> ′32'18		<i>3</i>	-1718 Nov 16 j 20:40	0°M	
	-1723 Jan 25 j 04:53	0°8			-1717 Feb 03 j 13:05	15° <b>™</b>	
	-1723 Apr 30 j 19:15	15° <b>8</b>		retrograde	-1717 Mar 20 j 23:05	18°M03'32	
evening set	-1723 May 15 j 09:25	18° <b>8</b> 13'22		<b>5</b>	-1717 May 06 j 07:08	15°RM.	
S	J . J				J - J	•	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1717 in astronomical counting style is the year 1718 BCE in historical counting style. -1717 May 21 i 00:34 13°M09'51 0°38'19 direct -1711 Jan 13 j 05:24 4°821'37 opposition -1711 Apr 12 j 23:38 -1717 May 22 j 00:02 15°8 min. Earth dist. 13°ML02'20 4.19254 AU -1717 Jul 21 j 02:44 8°M14'06 -1711 May 20 j 06:03 22°**8**57'02 direct evening set -1717 Sep 28 j 03:03 15°M. -1717 Nov 22 j 23:24 26°801'09 -0°09'24 evening set 26°M49'35 conjunction -1711 Jun 02 j 23:43 -1711 Jun 02 j 23:44 minimum elong 26°**8**01'09 0°09'23 -1711 Jun 02 j 16:50 conjunction -1717 Dec 05 j 16:20 29°M47'59 0°04'19 behind sun begin 25°**8**57'18 -1717 Dec 05 j 16:21 -1711 Jun 03 j 06:38 minimum elong 29°M47'59 0°04'18 behind sun end 26°**8**05'00 6.24649 AU behind sun begin -1717 Dec 05 j 08:28 29°M43'23 max. Earth dist. -1711 Jun 04 j 03:28 26°**8**16'40 behind sun end -1717 Dec 06 j 00:14 29°M52'35 morning rise -1711 Jun 16 j 16:10 29°**8**04'27  $29^{\circ}\text{M}\text{-}34^{\circ}\text{54}$ max. Earth dist. -1717 Dec 04 j 18:02 6.13093 AU -1711 Jun 20 j 20:36  $0^{\circ}\Pi$ -1711 Aug 28 j 11:52 13°**I**107'35 -1717 Dec 06 j 12:50 0°**∡**7 asc. node -1711 Oct 18 j 12:49 morning rise -1717 Dec 18 j 10:23 2°**∡**¹47'14 retrograde 17°**Ⅲ**02'49 desc. node -1716 Jan 12 j 07:50 8°×27'00 opposition -1711 Dec 17 j 04:01 12°**Ⅲ**02'55 0°17'22 retrograde -1716 Apr 25 j 04:04 22°**҂**07'02 min. Earth dist. -1711 Dec 16 j 18:29 12°**Ⅲ**06′06 4.30448 AU opposition -1716 Jun 24 j 22:25 17°**х** 10′09 -0°27′46 direct -1710 Feb 15 j 20:13 6°II59'56 min. Earth dist. -1716 Jun 25 j 05:44 17°**∡**07'46 4.07368 AU evening set -1710 Jun 23 j 06:00 25°**Ⅱ**06'48 direct -1716 Aug 23 j 15:33 12° **₹** 16'28 -1716 Dec 20 j 09:14 0°る conjunction -1710 Jul 06 j 17:25 28°**Ⅲ**03'48 0°32'14 evening set -1716 Dec 26 j 03:37 1°る21'50 minimum elong -1710 Jul 06 j 17:23 28°**Ⅱ**03'47 0°32'16 max. Earth dist. -1710 Jul 06 j 17:41 28°**Ⅱ**03'57 6.35449 AU conjunction -1715 Jan 08 i 02:07 4°る27'07 -0°39'37 -1710 Jul 15 i 13:27 0ಂತಾ minimum elong -1715 Jan 08 i 02:05 4°る27'06 0°39'40 morning rise -1710 Jul 20 i 02:21 0°959'25 max. Earth dist. -1715 Jan 08 i 05:52 4°る29'22 6.02791 AU retrograde -1710 Nov 18 i 08:51 18°9512'36 morning rise -1715 Jan 21 j 03:19 7°る33'59 opposition -1709 Jan 17 j 07:53 13°9516'32 1°11'48 -1715 Jun 01 j 15:06 27°る45'49 -1709 Jan 17 j 15:40 retrograde min. Earth dist. 13°9613'59 4.39185 AU -1715 Jul 31 j 23:55 22°る45'02 -1°26'45 -1709 Mar 20 j 04:57 opposition direct 8°9613'02 -1715 Jul 31 j 10:16 -1709 Jul 25 j 14:30 26°901'37 min. Earth dist. 22°る49'34 3.99754 AU evening set direct -1715 Sep 28 j 10:30 17°**る**51'44 28°952'38 1°03'20 -1709 Aug 07 j 17:22 -1715 Dec 30 j 14:51 conjunction 0°≈ -1709 Aug 07 j 17:19 28°**9**52'37 -1714 Jan 31 j 05:36 7°≈17'49 1°03'22 evening set minimum elong -1709 Aug 06 j 18:23 max. Earth dist. 28°540'07 6.41411 AU -1714 Feb 13 j 11:22 -1709 Aug 12 j 20:59 conjunction 10°≈28'12 -1°09'53  $0^{\circ}\Omega$ -1714 Feb 13 j 11:20 -1709 Aug 20 j 16:52 minimum elong 10°≈28'10 1°09'54 morning rise 1°**Ω**42′03 -1714 Feb 14 j 19:13 -1709 Oct 30 j 14:56 max. Earth dist. 10°≈47'19 5.98495 AU 15°**Ω** -1709 Dec 18 j 20:08 morning rise -1714 Feb 26 j 20:27 13°≈40′20 retrograde 18°**Ω**35'37 -1708 Feb 07 j 01:57 -1714 Mar 04 j 10:54 15°**≈** 15°R€ -1714 May 17 j 16:03 0°**)**€ opposition -1708 Feb 17 j 05:15 13°**Ω**42'32 1°45'02 -1714 Jul 09 j 04:56 4° **)** (09'31 min. Earth dist. -1708 Feb 18 j 03:38 13°**Ω**35′19 4.42141 AU retrograde -1714 Aug 31 j 07:36 30°R≈ direct -1708 Apr 19 j 19:23 8°**Ω**39'55 min. Earth dist. -1714 Sep 05 j 21:42 29°≈14'52 3.99429 AU -1708 Jun 28 j 01:57 15°€ -1714 Sep 07 j 01:31 29°≈05'26 -1°53'10 -1708 Aug 24 j 19:57 26°**Ω**23'23 opposition evening set -1714 Nov 04 j 00:15 24°≈10′20 max. Earth dist. -1708 Sep 04 j 21:48 28°**Ω**48'45 direct 6.41020 AU -1713 Jan 04 j 07:51 0°**)**€ -1713 Mar 09 j 10:42 13°**)** ₹36′58 -1708 Sep 06 j 14:50 29°**Ω**11'16 1°16'33 evening set conjunction -1708 Sep 06 i 14:50 minimum elong 29°Ω11'15 1°16'33 -1708 Sep 10 i 07:39 conjunction -1713 Mar 23 j 00:10 16°**)** 49'06 -1°13'26 0° m minimum elong -1713 Mar 23 j 00:11 16°**)** 49'07 1°13'25 morning rise -1708 Sep 19 i 07:05 1° m 57'53 max. Earth dist. -1713 Mar 25 i 02:07 17°**)** 18'38 6.02082 AU retrograde -1707 Jan 17 j 23:04 18° m 59'08 -1713 Apr 05 j 16:13 20°₩02'28 opposition -1707 Mar 19 j 16:15 14° m 07'27 1°49'40 morning rise -1713 May 20 j 16:20  $0^{\circ}\Upsilon$ min. Earth dist. -1707 Mar 21 j 00:43 13° m 57'06 4.38532 AU -1713 Aug 14 j 09:03 10°**Y**′02'48 direct -1707 May 21 j 09:18 9° m 06'40 retrograde -1707 Sep 24 j 15:59 -1713 Oct 12 j 21:51 4°Υ57'38 -1°35'48 26° m 58'41 opposition evening set min. Earth dist. -1713 Oct 11 j 14:11 5°**Υ**08'27 4.06582 AU max. Earth dist. -1707 Oct 05 j 08:36 29° m 21'37 6.34403 AU -1713 Dec 07 j 21:13 30°**₹** 29°**)** 59'28 29°**m**47'21 direct -1713 Dec 10 j 03:57 conjunction -1707 Oct 07 j 06:39 1°08'32  $0^{\circ}\Upsilon$ 29° Mp 47'22 minimum elong -1707 Oct 07 j 06:40 1°08'32 -1713 Dec 12 j 10:48 -1712 Apr 14 j 11:55 19° **Y** 05'40 -1707 Oct 08 j 05:16 0∘**⊽** evening set -1707 Oct 19 j 19:27 morning rise 2°**£**35'18 -1712 Apr 28 j 06:07 22°Y15'27 -0°49'31 conjunction retrograde -1706 Feb 19 j 09:30 20°**2**09'45 minimum elong -1712 Apr 28 j 06:10 22°**Y**15′29 0°49'30 opposition -1706 Apr 21 j 09:39 15°**♀**17'43 1°23'15 max. Earth dist. -1712 Apr 30 j 03:59 22°**Y**41'50 6.12111 AU min. Earth dist. -1706 Apr 22 j 17:29 15°**♀**07'35 4.29288 AU morning rise -1712 May 12 j 01:32 25°**Y**25'33 direct -1706 Jun 22 j 10:54 10° 2 19'33 -1712 Jun 01 j 11:53 0°8 evening set -1706 Oct 25 j 23:41 28°**£**32'22 retrograde -1712 Sep 16 j 09:29 14°**8**26'18 -1706 Nov 01 j 09:10 0°M -1712 Nov 14 j 21:37 9°**8**22'47 -0°45'06 max. Earth dist. -1706 Nov 05 j 23:04 1°ML03'02 6.23299 AU opposition

min. Earth dist.

-1712 Nov 13 j 21:19

9°831'03 4.18318 AU

•	omena of Jupiter fro		•	* *			ge 18
	ical year style is used: Th	-					6 1 40 <b>20</b> 1 4 4
conjunction	-1706 Nov 07 j 13:59	1°M25'23		max. Earth dist.	-1700 May 05 j 06:28	27° <b>Y</b> 39'38	6.14073 AU
minimum elong	-1706 Nov 07 j 14:02	1°M25'24	0°40'12		-1700 May 15 j 12:09	0°8	
morning rise	-1706 Nov 20 j 04:03	4°MJ18'31		morning rise	-1700 May 17 j 04:38	0° <b>8</b> 23'00	
	-1705 Jan 09 j 16:30	15° <b>M</b> ₁			-1700 Jul 30 j 01:44	15° <b>8</b>	
retrograde	-1705 Mar 25 j 22:29	22°M46'42		retrograde	-1700 Sep 21 j 00:59	19° <b>8</b> 13'40	
opposition	-1705 May 25 j 21:22	17°M52'40	0°29'44		-1700 Nov 13 j 10:11	15°R <b>8</b>	
min. Earth dist.	-1705 May 26 j 20:03	17°M45'23	4.16967 AU	opposition	-1700 Nov 19 j 12:29	14° <b>8</b> 10'39	
	-1705 Jun 18 j 21:10	15°RM.		min. Earth dist.	-1700 Nov 18 j 14:26	_	4.20333 AU
direct	-1705 Jul 25 j 19:26	12°M57'14		direct	-1699 Jan 18 j 01:31	9° <b>8</b> 09'10	
	-1705 Aug 31 j 05:00	15° <b>M</b> ₊			-1699 Mar 22 j 22:26	15° <b>8</b>	
	-1705 Nov 20 j 12:36	0° <b>⊼</b>		evening set	-1699 May 25 j 02:45	27° <b>8</b> 39'24	
desc. node	-1705 Nov 22 j 18:30	0° <b>∡</b> 31'12			-1699 Jun 04 j 15:35	$\Pi^{\circ}0$	
evening set	-1705 Nov 27 j 14:48	1° <b>∡</b> ³38'57					
		=		conjunction	-1699 Jun 07 j 19:42	0° <b>Ⅱ</b> 42'25	
conjunction	-1705 Dec 10 j 08:28	4° <b>⋌</b> ¹38'37		minimum elong	-1699 Jun 07 j 19:43	0° <b>Ⅱ</b> 42'26	0°03'20
minimum elong	-1705 Dec 10 j 08:28	4° <b>⋌</b> ¹38'36	0°02'04	behind sun begin	-1699 Jun 07 j 11:26	0° <b>Ⅱ</b> 37'50	
behind sun begin	-1705 Dec 10 j 00:25	4° <b>∡</b> ³33'53		behind sun end	-1699 Jun 08 j 03:59	0° <b>Ⅱ</b> 47'01	
behind sun end	-1705 Dec 10 j 16:30	4° <b>∡</b> °43′19 −		max. Earth dist.	-1699 Jun 08 j 19:08	0° <b>Ⅱ</b> 55'28	6.26555 AU
max. Earth dist.	-1705 Dec 09 j 12:53	4° <b>∡</b> °27′05	6.10902 AU	morning rise	-1699 Jun 21 j 11:24	3° <b>Ⅱ</b> 44'35	
morning rise	-1705 Dec 23 j 03:34	7° <b>∡</b> ³39'15		asc. node	-1699 Jul 08 j 09:08	7° <b>Ⅱ</b> 25'34	
retrograde	-1704 Apr 30 j 08:28	27° <b>₹</b> 109′23		retrograde	-1699 Oct 22 j 20:36	21° <b>Ⅱ</b> 34'44	
opposition	-1704 Jun 30 j 02:07	22° <b>∡</b> 11'57		opposition	-1699 Dec 21 j 13:24	16° <b>Ⅱ</b> 35'24	
min. Earth dist.	-1704 Jun 30 j 05:21	22° <b>∡</b> 10′54	4.05491 AU	min. Earth dist.	-1699 Dec 21 j 06:09	16° <b>Ⅱ</b> 37'49	4.32105 AU
direct	-1704 Aug 28 j 12:41	17° <b>∡</b> 18′29		direct	-1698 Feb 20 j 09:56	11° <b>Ⅱ</b> 32'15	
	-1704 Dec 03 j 01:52	0°ಕ		evening set	-1698 Jun 27 j 20:03	29° <b>Ⅱ</b> 35'26	
evening set	-1704 Dec 31 j 03:30	6° <b>る</b> 29'14			-1698 Jun 29 j 17:14	0ంత	
conjunction	-1703 Jan 13 j 03:00	9° <b>る</b> 35'35		conjunction	-1698 Jul 11 j 06:25	2° <b>5</b> 31'28	0°37'25
minimum elong	-1703 Jan 13 j 02:57	9° <b>る</b> 35'33	0°45'05	minimum elong	-1698 Jul 11 j 06:23	2° <b>9</b> 31'27	0°37'26
max. Earth dist.	-1703 Jan 13 j 11:43	9° <b>る</b> 40'48	6.01399 AU	max. Earth dist.	-1698 Jul 11 j 03:41	2° <b>5</b> 29'58	6.36741 AU
morning rise	-1703 Jan 26 j 05:18	12° <b>る</b> 43'31		morning rise	-1698 Jul 24 j 13:57	5° <b>5</b> 26'01	
	-1703 Apr 23 j 10:06	0° <b>≈</b>		retrograde	-1698 Nov 22 j 14:46	22° <b>©</b> 34'40	
retrograde	-1703 Jun 07 j 00:24	3° <b>≈</b> 01'34		opposition	-1697 Jan 21 j 14:55	17° <b>©</b> 39'11	1°17'55
	-1703 Jul 21 j 20:36	30°Ŗる		min. Earth dist.	-1697 Jan 22 j 01:05	17° <b>©</b> 35'51	4.40042 AU
opposition	-1703 Aug 06 j 06:51	28° <b>පි</b> 00'10	-1°32'54	direct	-1697 Mar 24 j 15:06	12° <b>©</b> 35'48	
min. Earth dist.	-1703 Aug 05 j 14:36	28° <b>る</b> 05'35	3.99007 AU		-1697 Jul 28 j 05:41	$0^{\circ}\Omega$	
direct	-1703 Oct 03 j 15:20	23° <b>る</b> 06'42		evening set	-1697 Jul 29 j 23:52	0° <b>Ω</b> 22'46	
	-1703 Dec 09 j 20:43	0° <b>≈</b>		max. Earth dist.	-1697 Aug 10 j 21:48	2° <b>Q</b> 58′06	6.41747 AU
evening set	-1702 Feb 05 j 11:37	12° <b>≈</b> 34'46					
	-1702 Feb 15 j 14:24	15° <b>≈</b>		conjunction	-1697 Aug 12 j 01:24	3° <b>Ω</b> 13′09	1°06'21
				minimum elong	-1697 Aug 12 j 01:21	3° <b>£</b> 13′07	1°06'23
conjunction	-1702 Feb 18 j 18:36	15° <b>≈</b> 45'41	-1°12'09	morning rise	-1697 Aug 24 j 23:52	6° <b>Ω</b> 01'58	
minimum elong	-1702 Feb 18 j 18:34	15° <b>≈</b> 45'40	1°12'10		-1697 Oct 08 j 01:15	15° <b>Ω</b>	
max. Earth dist.	-1702 Feb 20 j 07:37	16° <b>≈</b> 07'52	5.98451 AU	retrograde	-1697 Dec 23 j 03:30	22° <b>Ω</b> 55'12	
morning rise	-1702 Mar 04 j 04:44	18° <b>≈</b> 58'17		opposition	-1696 Feb 21 j 13:00	18° <b>Ω</b> 02'27	1°47'29
	-1702 Apr 22 j 18:55	0° <b>∀</b>		min. Earth dist.	-1696 Feb 22 j 13:48	17° <b>Ω</b> 54'28	4.41968 AU
retrograde	-1702 Jul 14 j 11:20	9° <b>∺</b> 25'54			-1696 Mar 17 j 23:41	15°R <b>Ω</b>	
min. Earth dist.	-1702 Sep 11 j 00:32	4° <b>)</b> 31′29	4.00100 AU	direct	-1696 Apr 24 j 04:42	12° <b>Ω</b> 59'59	
opposition	-1702 Sep 12 j 06:07	4° <b>¥</b> 21'27	-1°53'17		-1696 May 31 j 13:21	15° <b>Ω</b>	
	-1702 Oct 22 j 00:45	30° <b>R</b> ≈			-1696 Aug 25 j 17:37	0° <b>m</b> )	
direct	-1702 Nov 09 j 04:03	29° <b>≈</b> 25'58		evening set	-1696 Aug 29 j 03:02	0° <b>m</b> 44'15	
	-1702 Nov 27 j 08:58	0° <b>∀</b>		max. Earth dist.	-1696 Sep 09 j 03:41	3° <b>m</b> 09'13	6.40345 AU
evening set	-1701 Mar 14 j 17:47	18° <b>¥</b> 50′11					
				conjunction	-1696 Sep 10 j 21:17	3° <b>m</b> 32'05	1°16'43
conjunction	-1701 Mar 28 j 07:58	22° <b>)</b> €02'05	-1°11'31	minimum elong	-1696 Sep 10 j 21:17	3° <b>m</b> 32'05	1°16'43
minimum elong	-1701 Mar 28 j 08:00	22° <b>₭</b> 02'07	1°11'31	morning rise	-1696 Sep 23 j 12:39	6° Mp 18′41	
max. Earth dist.	-1701 Mar 30 j 09:48	22° <b>)</b> 31′27	6.03348 AU	retrograde	-1695 Jan 22 j 08:36	23° m 23'32	
morning rise	-1701 Apr 11 j 00:54	25° <b>¥</b> 15′11		opposition	-1695 Mar 24 j 03:30	18° <b>m</b> y 31'58	1°47'48
	-1701 May 01 j 18:07	$0^{\circ}$ Y		min. Earth dist.	-1695 Mar 25 j 11:55	18° <b>m</b> 21'38	4.37410 AU
retrograde	-1701 Aug 19 j 06:14	15° <b>Ƴ</b> 07'28		direct	-1695 May 25 j 18:04	13° <b>m</b> 31'34	
opposition	-1701 Oct 17 j 19:56	10° <b>Y</b> ′02′18	-1°30'09		-1695 Sep 22 j 11:39	0∘ <b>⊽</b>	
min. Earth dist.	-1701 Oct 16 j 12:15	10° <b>Y</b> 13′07	4.08268 AU	evening set	-1695 Sep 28 j 23:58	1° <b>≏</b> 26'26	
direct	-1701 Dec 15 j 05:03	5° <b>Ƴ</b> 03'38		max. Earth dist.	-1695 Oct 09 j 15:46	3° <b>≏</b> 49'29	6.32917 AU
evening set	-1700 Apr 19 j 14:55	24° <b>Y</b> ′04'50					
				conjunction	-1695 Oct 11 j 14:14	4° <b>£</b> 15'34	1°05'42
conjunction	-1700 May 03 j 09:29	27° <b>Y</b> 13′52		minimum elong	-1695 Oct 11 j 14:16	4° <b>≙</b> 15'35	1°05'42
minimum elong	-1700 May 03 j 09:29 -1700 May 03 j 09:32	27° <b>Υ</b> 13'52 27° <b>Υ</b> 13'54		minimum elong morning rise	-1695 Oct 11 j 14:16 -1695 Oct 24 j 03:06	4° <b>요</b> 15'35 7° <b>요</b> 04'09	1°05'42

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1694 in astronomical counting style is the year 1695 BCE in historical counting style. -1694 Feb 24 i 04:18 24°**£**45'41 opposition -1689 Oct 22 j 13:42 14° Y 56'55 -1°24'04 retrograde opposition -1694 Apr 26 j 03:08 19°**♀**53'32 1°17'09 -1689 Dec 20 j 03:04 9°Y57'48 direct -1694 Apr 27 j 11:00 -1688 Apr 24 j 13:47 28°Y54'09 min. Earth dist. 19°**≏**43'23 4.27522 AU evening set -1694 Jun 27 j 01:39 -1688 Apr 29 j 09:39 14° £ 55'46 0°8 direct -1694 Oct 16 j 05:14 0°M -1688 May 08 j 08:24 2°802'26 -0°39'19 evening set -1694 Oct 30 j 11:19 3°M12'53 conjunction -1688 May 08 j 08:27 max. Earth dist. -1694 Nov 10 j 13:21 5°M45'42 6.21429 AU minimum elong 2°**8**02'28 0°39'18 -1688 May 10 j 02:33 max. Earth dist. 2°**8**26'28 6.15894 AU conjunction -1694 Nov 12 j 02:00 6°ML06'50 0°34'53 morning rise -1688 May 22 j 03:31 5°**8**10'42 minimum elong -1694 Nov 12 j 02:02  $6^{\circ}$ M.06'510°34'51 -1688 Jul 07 j 08:28 15°8 morning rise -1694 Nov 24 j 16:35 9°M00'59 retrograde -1688 Sep 25 j 10:52 23°**8**52'14 -1688 Nov 23 j 23:43 -1694 Dec 21 j 12:54 15°M⋅ opposition 18°**8**49'38 -0°27'58 retrograde -1693 Mar 30 j 21:58 27°M38'11 min. Earth dist. -1688 Nov 23 j 03:02 18°**8**56'38 4.22074 AU opposition -1693 May 30 j 21:15 22°M43'47 0°20'40 -1688 Dec 26 j 09:38 15°R₩ min. Earth dist. -1693 May 31 j 16:37 22°M37'34 4.15156 AU direct -1687 Jan 22 j 16:14 13°**8**47'49 direct -1693 Jul 30 j 13:01 17°ML48'48 -1687 Feb 19 j 08:03 15°8 desc. node -1693 Oct 02 j 08:23 23°M44'38 asc. node -1687 May 19 j 09:28 29°856'50 -1693 Nov 03 j 08:27 0°×7 -1687 May 19 j 15:18  $\Pi^{\circ}0$ evening set -1693 Dec 02 j 08:45 6° ₹35'00 evening set -1687 May 29 j 19:46 2°II13'56 max. Earth dist. -1693 Dec 14 j 11:34 9°**х** 26′29 6.09331 AU conjunction -1687 Jun 12 j 12:06 5°**Ⅱ**16′02 0°02'39 conjunction -1693 Dec 15 i 03:02 9° x 35'37 -0°08'25 minimum elong -1687 Jun 12 j 12:05 5°**Ⅱ**16′02 0°02'42 -1693 Dec 15 i 03:01 9°**х** 35′37 0°08'27 behind sun begin -1687 Jun 12 j 03:48 5°**Ⅱ**11'26 minimum elong behind sun begin -1693 Dec 14 i 19:56 9°**х** 31′27 behind sun end -1687 Jun 12 j 20:23 5°**Ⅱ**20'37 behind sun end -1693 Dec 15 j 10:06 9°×739'47 max. Earth dist. -1687 Jun 13 j 07:28 5°**Ⅱ**26'47 6.28093 AU -1693 Dec 27 j 23:01 12°**₹**37'20 -1687 Jun 26 j 02:52 8°**Ⅱ**17'09 morning rise morning rise -1692 Mar 28 j 02:44 -1687 Oct 27 j 04:14 26°**Ⅱ**00'44 0°궁 retrograde -1692 May 05 j 14:41 2°る15'24 -1687 Dec 25 j 20:44 21°II01'58 0°33'54 retrograde opposition -1692 Jun 13 j 07:13 30°R*x*7 min. Earth dist. -1687 Dec 25 j 16:40 21°**Ⅱ**03'19 4 33325 AU -1692 Jul 05 j 06:50 27°**∡**17'24 -0°46'10 -1686 Feb 24 j 21:49 opposition direct 15°**Ⅲ**58'43 -1692 Jul 05 j 07:20 min. Earth dist. 27°**∡**17'14 4.04318 AU -1686 Jun 13 j 15:04 000 -1686 Jul 02 j 08:04 -1692 Sep 02 j 14:15 22°×24'04 3°959'33 direct evening set -1692 Nov 13 j 06:48 0°ಕ -1691 Jan 05 j 03:33 11°**る**37'35 -1686 Jul 15 j 17:19 6°954'48 0°42'16 evening set conjunction -1686 Jul 15 j 17:17 minimum elong 6°954'47 0°42'17 -1691 Jan 18 j 04:04 14°る44'38 -0°50'10 conjunction max. Earth dist. -1686 Jul 15 j 10:21 6°950'59 6.37545 AU -1691 Jan 18 j 04:01 minimum elong 14°る44'36 0°50'11 morning rise -1686 Jul 28 j 23:42 9°9548'32 max. Earth dist. -1691 Jan 18 j 18:10 14°る53'06 6.00735 AU retrograde -1686 Nov 26 j 19:48 26°954'19 morning rise -1691 Jan 31 j 07:21 17°る53'19 -1685 Jan 25 j 21:05 21°959'15 1°23'30 opposition -1691 Mar 27 j 11:04 min. Earth dist. -1685 Jan 26 j 09:13 21°**©**55'17 4.40421 AU 0°≈ retrograde -1691 Jun 12 j 07:23 8°≈14'20 direct -1685 Mar 28 j 23:13 16°955'53 -1691 Aug 11 j 12:01 3°≈12'25 -1°38'13 -1685 Jul 12 j 01:50 opposition 0° $\Omega$ -1691 Aug 10 j 17:06 3°≈18'44 3.98964 AU -1685 Aug 03 j 08:30 4°**Ω**42'40 min. Earth dist. evening set -1691 Sep 06 j 18:05 30°Ŗ⋜ max. Earth dist. -1685 Aug 15 j 03:50 7° **Ω**16'42 6.41677 AU -1691 Oct 08 j 17:42 28°る18'48 direct -1691 Nov 09 j 12:37 0°≈ conjunction -1685 Aug 16 j 09:00 7° **Ω**32'37 1°08'57 -1690 Jan 29 j 21:20 15°≈ minimum elong -1685 Aug 16 j 08:58 7°**Ω**32'36 1°08'59 evening set -1690 Feb 10 j 15:26 17°≈46'22 morning rise -1685 Aug 29 i 06:16 10°Ω21'01 -1685 Sep 20 j 04:10 15°Ω -1690 Feb 23 j 23:14 20°≈57'25 -1°13'48 retrograde -1685 Dec 27 j 10:41 27°Ω15'05 conjunction -1690 Feb 23 i 23:13 20°≈57'24 1°13'49 opposition -1684 Feb 25 j 21:14 22°Ω22'38 1°49'18 minimum elong -1690 Feb 25 i 13:55 21°≈20'34 5.98985 AU min. Earth dist. -1684 Feb 26 j 23:22 22°**Ω**14'15 4.41476 AU max. Earth dist. -1690 Mar 09 j 10:29 24°≈10'11 direct -1684 Apr 28 j 13:15 17°**Ω**20′28 morning rise -1690 Apr 03 j 14:56 0°**∀** -1684 Aug 09 j 11:13 0° m -1684 Sep 02 j 10:26 retrograde -1690 Jul 19 j 11:09 14° # 34'03 evening set 5° Mp 06'09 min. Earth dist. -1690 Sep 15 j 23:46 9°**升**39'48 4.01162 AU max. Earth dist. -1684 Sep 13 j 07:58 7° **m** 29'50 6.39458 AU -1690 Sep 17 j 06:47 9°\ 29'15 -1°52'28 opposition -1690 Nov 14 j 05:22 4° # 33'19 -1684 Sep 15 j 03:50 7° m 54'01 1°16'25 direct conjunction -1689 Mar 19 j 20:52 23°**)** 54'02 -1684 Sep 15 j 03:50 evening set minimum elong 7° **m** 54'01 1°16'25 -1684 Sep 27 j 18:47 morning rise 10° m/40'45 -1689 Apr 02 j 11:58 -1683 Jan 26 j 21:19 conjunction 27°**H**05'38 -1°09'07 retrograde 27° m 49'51 minimum elong -1689 Apr 02 j 12:01 27°**)** 05'39 1°09'07 -1683 Mar 28 j 16:10 22° Mp 58'16 1°45'16 opposition max. Earth dist. -1689 Apr 04 j 14:54 27°**)** 35'31 6.04836 AU min. Earth dist. -1683 Mar 30 j 01:09 22° Mp 47'46 4.36190 AU -1689 Apr 14 j 21:57 0° $\gamma$ direct -1683 May 30 j 05:24 17° **m** 58'12 morning rise -1689 Apr 16 j 05:17 0°**Υ**18'13 -1683 Sep 05 j 22:07 0∘**⊽** -1689 Aug 24 j 01:22 20°Y01'56 -1683 Oct 03 j 08:31 5°**£**55'47 retrograde evening set -1689 Oct 21 j 07:43 15°**Y**07'09 4.09999 AU max. Earth dist. -1683 Oct 14 j 02:26 8°**≏**20'29 6.31478 AU min. Earth dist.

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1683 in astronomical counting style is the year 1684 BCE in historical counting style. morning rise -1683 Oct 15 j 22:47 8°**£**45'27 1°02'25 -1677 Apr 21 j 09:08 5°**Y**18'45 conjunction minimum elong -1683 Oct 15 j 22:49 -1677 Aug 28 j 18:22 24°Y55'05 8°<u>₽</u>45'29 1°02'24 retrograde -1683 Oct 28 j 11:30 -1677 Oct 26 j 00:54 20°Υ00'30 4.11413 AU 11°**Ω**34'36 min. Earth dist. morning rise -1677 Oct 27 j 06:46 19°**Y**50'19 -1°17'28 -1682 Feb 28 j 21:13 29°<u>₽</u>22'48 retrograde opposition -1677 Dec 24 j 22:11 14°Y50'46 opposition -1682 Apr 30 j 21:11 24°**₽**30'25 1°10'30 direct -1682 May 02 j 03:12 0°8 min. Earth dist. 24°**♀**20'52 4.25950 AU -1676 Apr 12 j 19:46 -1682 Jul 01 j 15:29 direct 19°**₽**33'07 evening set -1676 Apr 29 j 12:53 3°**8**43'44 -1682 Sep 28 j 21:09 0°M evening set -1682 Nov 03 j 23:33 7°M53'37 conjunction -1676 May 13 j 07:33 6°**8**51'24 -0°33'53 max. Earth dist. -1682 Nov 15 j 03:49  $10^{\circ}$ ML28'186.19855 AU minimum elong -1676 May 13 j 07:35 6°**8**51'25 0°33'52 max. Earth dist. -1676 May 14 j 22:16 7°**8**13'25 6.17404 AU -1682 Nov 16 j 14:24 -1676 May 27 j 02:26 9°**8**58'53 conjunction 10°M48'19 0°29'18 morning rise -1682 Nov 16 j 14:26 -1676 Jun 18 j 20:38 minimum elong  $10^{\circ}$ MJ48'200°29'17 15°8 morning rise -1682 Nov 29 j 05:37 13°M43'24 retrograde -1676 Sep 29 j 23:47 28°**8**32'37 -1682 Dec 04 j 19:22 15°M₀ opposition -1676 Nov 28 j 11:41 23°830'31 -0°19'14 -1681 Feb 23 j 08:07 0°**√** min. Earth dist. -1676 Nov 27 j 17:58 23°836'30 4.23520 AU retrograde -1681 Apr 04 j 22:33 2°×28'26 direct -1675 Jan 27 j 09:09 18°**8**28'25 -1681 May 15 j 23:18 30°RM asc. node -1675 Mar 29 j 11:58 23°849'10 opposition -1681 Jun 04 j 20:57 27°M33'33 0°11'27 -1675 May 02 j 08:43  $0^{\circ}\Pi$ min. Earth dist. -1681 Jun 05 j 14:14 27°M27'59 4.13668 AU evening set -1675 Jun 03 j 14:01 6°**I**I51'31 direct -1681 Aug 04 j 09:12 22°M38'52 desc. node -1681 Aug 12 j 06:42 22°M44'55 conjunction -1675 Jun 17 i 05:45 9°**Ⅱ**52'50 0°08'36 -1681 Oct 14 j 22:56 0°×7 minimum elong -1675 Jun 17 i 05:44 9°**I**52'50 0°08'38 evening set -1681 Dec 07 j 01:54 11°**∡** 28′22 behind sun begin -1675 Jun 16 j 22:34 9°**Ⅱ**48'53 behind sun end -1675 Jun 17 j 12:53 9°**I**56'47 -1681 Dec 19 j 21:01 14°**₹**29'52 -0°14'42 max. Earth dist. -1675 Jun 17 j 22:12 10°**Ⅱ**01'57 6.29370 AU conjunction -1681 Dec 19 j 21:00 14°**₹**29'51 -1675 Jun 30 j 19:33 12°II53'02 0°14'44 morning rise minimum elong -1681 Dec 19 j 17:29 -1675 Oct 13 j 15:34 behind sun begin 14° ×727'47 0ംഉ -1681 Dec 20 j 00:31 behind sun end 14°**∡**′31′56 retrograde -1675 Oct 31 j 11:24 0°930'54 -1681 Dec 19 j 10:06 6.08065 AU -1675 Nov 18 j 05:55 max. Earth dist. 14°**₹**23'25 30°R II -1680 Jan 01 j 17:48 opposition -1675 Dec 30 j 05:24 17°**∡**³32'30 25°**I**32'41 0°41'54 morning rise -1680 Feb 28 j 16:41 -1675 Dec 30 j 02:43 0°ಕ min. Earth dist. 25°**Ⅲ**33'34 4.34358 AU -1680 May 10 j 19:07 7°**る**17'12 -1674 Mar 01 j 08:50 20°**Ⅲ**29'23 retrograde direct -1680 Jul 10 j 09:55 2°る18'42 -0°54'53 -1674 May 26 j 17:15 opposition 0.00 -1680 Jul 10 j 07:40 -1674 Jul 06 j 21:41 min. Earth dist. 2°る19'26 4.03400 AU evening set 8°9528'28 -1680 Jul 28 j 18:50 30°₽**⋌**7 27°**х** 25′30 -1674 Jul 20 j 05:43 direct -1680 Sep 07 j 13:02 conjunction 11°522'56 0°46'58 -1680 Oct 17 j 13:16 0°ರ minimum elong -1674 Jul 20 j 05:41 11°9522'55 0°47'01 evening set -1679 Jan 10 j 02:32 16°**ප්**41'13 max. Earth dist. -1674 Jul 19 j 19:15 11°**©**17'13 6.38263 AU morning rise -1674 Aug 02 j 10:53 14°9515'53 conjunction -1679 Jan 23 j 03:47 19°る48'52 -0°54'51 -1674 Nov 02 j 02:17  $0^{\circ}\Omega$ -1679 Jan 23 j 03:44 19°る48'50 0°54'53 -1674 Dec 01 j 04:04 1°**Ω**19'08 minimum elong retrograde -1679 Jan 23 j 20:20 19°る58'48 6.00222 AU -1674 Dec 30 j 03:22 30°R.55 max. Earth dist. -1679 Feb 05 j 08:14 22°る58'14 -1673 Jan 30 j 05:29 26°524'34 1°28'45 morning rise opposition -1679 Mar 07 j 19:51 -1673 Jan 30 j 20:08 26°9519'47 0°≈ min. Earth dist. 4.40808 AU retrograde -1679 Jun 17 j 10:33 13°≈21'44 direct -1673 Apr 02 j 10:44 21°5521'22 opposition -1679 Aug 16 j 14:40 8°≈19'19 -1°42'46 -1673 Jun 23 i 20:34  $0^{\circ}\Omega$ min. Earth dist. -1679 Aug 15 j 17:14 8°≈26'30 3.98929 AU evening set -1673 Aug 07 j 18:34 9°**Ω**07'35 direct -1679 Oct 13 i 17:58 3°≈25'28 max. Earth dist. -1673 Aug 19 j 10:18 11°**Ω**39'47 6.41703 AU -1678 Jan 12 j 07:10 15°≈ -1678 Feb 15 j 17:53 22°≈53'07 conjunction -1673 Aug 20 j 17:57 11°Ω57'04 1°11'15 evening set -1673 Aug 20 j 17:55 11°**Ω**57'03 1°11'16 minimum elong -1678 Mar 01 j 02:54 26°≈04'28 -1°14'53 -1673 Sep 02 j 14:11 14°**Ω**45′02 conjunction morning rise minimum elong -1678 Mar 01 j 02:53 26°≈04'27 1°14'53 -1673 Sep 03 j 17:47 15°Ω max. Earth dist. -1678 Mar 02 j 21:02 26°≈29'38 5.99429 AU -1673 Nov 28 j 21:23 0° m -1678 Mar 14 j 14:57 29°≈17'23 retrograde -1673 Dec 31 j 19:07 1°m/39'39 morning rise -1678 Mar 17 j 15:06 0°**)**€ -1672 Feb 02 j 20:22 30°R€ -1678 Jul 24 j 12:24 19°**)** 37'56 -1672 Mar 01 j 07:13 26°**Ω**47'23 1°50'36 retrograde opposition -1678 Sep 20 j 23:07 14°**¥**43′25 4.02035 AU -1672 Mar 02 j 09:54 min. Earth dist. min. Earth dist. 26°**Ω**38'49 4.41188 AU -1678 Sep 22 j 05:42 opposition 14°**)** (33′00 -1°50′53 direct -1672 May 02 j 23:10 21°**Ω**45'29 -1672 Jul 22 j 02:48 direct -1678 Nov 19 j 05:40 9°**X**36'41 0° m evening set -1677 Mar 24 j 23:17 28°**)** 55'03 evening set -1672 Sep 06 j 18:46 9° m 31'37  $0^{\circ}\Upsilon$ -1677 Mar 29 j 14:46 max. Earth dist. -1672 Sep 17 j 16:48 11°**m** 55'49 6.38893 AU conjunction conjunction -1677 Apr 07 j 15:06 2°**Υ**06'26 -1°06'15 -1672 Sep 19 j 11:30 12° m 19'25 1°15'44 -1677 Apr 07 j 15:09 2°Y06'28 1°06'14 -1672 Sep 19 j 11:31 12°M) 19'26 minimum elong minimum elong 1°15'45 max. Earth dist. -1677 Apr 09 j 17:21 -1672 Oct 02 j 01:42 2°**Υ**35'48 6.06045 AU morning rise 15° Mp 06'07

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 21 Attention, astronomical year style is used: The year -1672 in astronomical counting style is the year 1673 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -1672 i	in astronomical co	ounting style is the year	1673 BCE in historical c	ounting style.	
	-1672 Dec 23 j 04:40	0∘ <b>⊽</b>		retrograde	-1666 Jul 29 j 08:50	24° <b>)</b> 34'14	
retrograde	-1671 Jan 31 j 09:05	2° <b>≙</b> 18'16		min. Earth dist.	-1666 Sep 25 j 17:46	19° <b>¥</b> 39′58	4.02668 AU
	-1671 Mar 12 j 00:20	30°R.₩		opposition	-1666 Sep 27 j 01:23	19° <b>¥</b> 29'12	-1°48'35
opposition	-1671 Apr 02 j 05:24	27° Mp 26'40	1°42'09	direct	-1666 Nov 24 j 01:13	14° <b>)</b> 32′27	
min. Earth dist.	-1671 Apr 03 j 14:11	27° Mp 16'15	4.35384 AU		-1665 Mar 13 j 06:34	$0^{\circ}$ Y	
direct	-1671 Jun 03 j 17:35	22° Mp 27'00		evening set	-1665 Mar 29 j 23:31	3° <b>Y</b> 49'37	
	-1671 Aug 18 j 03:50	0∘ <b>⊽</b>					
evening set	-1671 Oct 07 j 16:56	10° <b>≏</b> 25'43		conjunction	-1665 Apr 12 j 16:05	7° <b>Y</b> ′00'56	-1°02'59
max. Earth dist.	-1671 Oct 18 j 10:22	12° <b>≏</b> 50'33	6.30490 AU	minimum elong	-1665 Apr 12 j 16:09	7° <b>Y</b> ′00'58	1°02'58
				max. Earth dist.	-1665 Apr 14 j 16:55	7° <b>Y</b> ′29'25	6.06979 AU
conjunction	-1671 Oct 20 j 06:51	13° <b>≏</b> 15'40	0°58'50	morning rise	-1665 Apr 26 j 10:38	10° <b>Y</b> 13′03	
minimum elong	-1671 Oct 20 j 06:53	13° <b>≏</b> 15'41	0°58'49	retrograde	-1665 Sep 02 j 11:03	29° <b>Y</b> '43'13	
morning rise	-1671 Nov 01 j 19:44	16° <b>≏</b> 05'15		opposition	-1665 Oct 31 j 22:03	24° <b>Y</b> 38'40	-1°10'30
	-1670 Jan 12 j 07:23	0° <b>M</b> ₊		min. Earth dist.	-1665 Oct 30 j 18:09	24° <b>Y</b> 48'11	4.12533 AU
retrograde	-1670 Mar 05 j 13:54	3°M58'41		direct	-1665 Dec 29 j 17:17	19° <b>Y</b> 38'43	
	-1670 Apr 28 j 12:07	30° <b>₹</b> Ω			-1664 Mar 26 j 01:36	$0^{\circ}$ 8	
opposition	-1670 May 05 j 14:41	29° <b>ჲ</b> 05'58	1°03'30	evening set	-1664 May 04 j 10:39	8° <b>8</b> 29'21	
min. Earth dist.	-1670 May 06 j 19:21	28° <b>ჲ</b> 56'49	4.24823 AU				
direct	-1670 Jul 06 j 06:19	24° <b>≙</b> 08'59		conjunction	-1664 May 18 j 05:30	11° <b>8</b> 36'31	-0°28'18
	-1670 Sep 08 j 14:37	$0^{\circ}$ M		minimum elong	-1664 May 18 j 05:32	11° <b>8</b> 36'33	0°28'17
evening set	-1670 Nov 08 j 10:00	12°M31'15		max. Earth dist.	-1664 May 19 j 19:04	11° <b>8</b> 57'49	6.18649 AU
	-1670 Nov 19 j 03:29	15°M		morning rise	-1664 Jun 01 j 00:03	14° <b>8</b> 43'22	
max. Earth dist.	-1670 Nov 19 j 18:16	15°M08'34	6.18699 AU	Č	-1664 Jun 02 j 05:41	15° <b>8</b>	
	,				-1664 Aug 20 j 00:45	$\Pi^{\circ}0$	
conjunction	-1670 Nov 21 j 01:19	15°M26'34	0°23'39	retrograde	-1664 Oct 04 j 10:14	3° <b>Ⅱ</b> 10′08	
minimum elong	-1670 Nov 21 j 01:20	15°M26'35	0°23'38	-	-1664 Nov 18 j 20:07	30°R₩	
morning rise	-1670 Dec 03 j 16:53	18°M22'20		opposition	-1664 Dec 02 j 22:50	28° <b>8</b> 08'31	-0°10'31
C	-1669 Jan 27 j 16:31	0°∡7		min. Earth dist.	-1664 Dec 02 j 05:54		4.24779 AU
retrograde	-1669 Apr 09 j 19:30	7° <b>∡</b> 13'40		direct	-1663 Jan 31 j 22:42	23° <b>8</b> 06'14	
opposition	-1669 Jun 09 j 18:11	2° <b>҂</b> 18′21	0°02'21	asc. node	-1663 Feb 06 j 23:09	23° <b>8</b> 09'43	
min. Earth dist.	-1669 Jun 10 j 09:30	2° <b>҂</b> 13′25	4.12566 AU		-1663 Apr 12 j 15:37	0°II	
desc. node	-1669 Jun 23 j 17:08	0° <b>∡</b> ³32'45		evening set	-1663 Jun 08 j 07:32	11° <b>Ⅱ</b> 26'44	
	-1669 Jun 28 j 09:03	30°RM		C	v		
direct	-1669 Aug 09 j 02:44	27°M23'56		conjunction	-1663 Jun 21 j 22:19	14° <b>Ⅱ</b> 27'11	0°14'26
	-1669 Sep 19 j 00:50	0°∡7		minimum elong	-1663 Jun 21 j 22:18	14° <b>Ⅱ</b> 27'11	
evening set	-1669 Dec 11 j 16:53	16° <b>∡</b> 15'35		behind sun begin	-1663 Jun 21 j 18:52	14° <b>Ⅱ</b> 25'17	
Č	,			behind sun end	-1663 Jun 22 j 01:44	14° <b>Ⅱ</b> 29'04	
conjunction	-1669 Dec 24 j 12:27	19° <b>√</b> 17'43	-0°20'42	max. Earth dist.	-1663 Jun 22 j 10:31		6.30555 AU
	-1669 Dec 24 j 12:25			morning rise	-1663 Jul 05 j 11:15		
max. Earth dist.	-1669 Dec 24 j 03:18		6.07101 AU	Č	-1663 Sep 07 j 12:27	0° <b>©</b>	
morning rise	-1668 Jan 06 j 10:14	22° <b>₹</b> '21'10		retrograde	-1663 Nov 04 j 20:01	4° <b>©</b> 58'59	
-	-1668 Feb 09 j 02:53	ರ°0		opposition	-1662 Jan 03 j 14:03	0° <b>©</b> 01'15	0°49'35
retrograde	-1668 May 15 j 18:51	12° <b>る</b> 11'21		11	-1662 Jan 03 j 17:50	30°RⅡ	
opposition	-1668 Jul 15 j 09:13	7° <b>る</b> 12'16	-1°02'57	min. Earth dist.	-1662 Jan 03 j 14:13	0°901'12	4.35377 AU
min. Earth dist.	-1668 Jul 15 j 04:19	7° <b>る</b> 13'53	4.02670 AU	direct	-1662 Mar 05 j 22:24	24° <b>∏</b> 57'52	
direct	-1668 Sep 12 j 08:43	2° <b>る</b> 19'00			-1662 May 05 j 07:45	0∘ <b>©</b>	
evening set	-1667 Jan 14 j 22:15	21° <b>る</b> 36'35		evening set	-1662 Jul 11 j 10:18	12° <b>©</b> 54'48	
conjunction	-1667 Jan 28 j 00:37	24° <b>る</b> 44'51	-0°59'00	conjunction	-1662 Jul 24 j 17:16	15° <b>©</b> 48'29	0°51'22
minimum elong	-1667 Jan 28 j 00:34	24° <b>ろ</b> 44'49	0°59'02	minimum elong	-1662 Jul 24 j 17:13	15° <b>©</b> 48'28	0°51'24
max. Earth dist.	-1667 Jan 28 j 21:29	24° <b>る</b> 57'22	5.99792 AU	max. Earth dist.	-1662 Jul 24 j 04:54	15° <b>95</b> 41'45	6.39025 AU
morning rise	-1667 Feb 10 j 05:55	27° <b>る</b> 54'49		morning rise	-1662 Aug 06 j 21:01	18° <b>5</b> 340'35	
	-1667 Feb 19 j 01:35	0° <b>≈</b>			-1662 Oct 03 j 09:13	$0^{\circ}\Omega$	
	-1667 May 06 j 14:28	15° <b>≈</b>		retrograde	-1662 Dec 05 j 08:55	5° <b>Ω</b> 41′02	
retrograde	-1667 Jun 22 j 12:03	18° <b>≈</b> 20′24		opposition	-1661 Feb 03 j 13:00	0° <b>Ω</b> 46'48	1°33'27
	-1667 Aug 08 j 14:22	15° <b>R</b> ≈		min. Earth dist.	-1661 Feb 04 j 04:30	0° <b>Ω</b> 41'45	4.41268 AU
opposition	-1667 Aug 21 j 13:43	13° <b>≈</b> 17'34	-1°46'24		-1661 Feb 09 j 13:39	30° <b>₹</b> 5	
min. Earth dist.	-1667 Aug 20 j 15:53	13° <b>≈</b> 24'54	3.98865 AU	direct	-1661 Apr 06 j 19:35	25°5543'42	
direct	-1667 Oct 18 j 15:58	8° <b>≈</b> 23'28			-1661 Jun 01 j 15:05	$0^{\circ}\Omega$	
	-1667 Dec 23 j 07:57	15° <b>≈</b>		evening set	-1661 Aug 12 j 03:20	13° <b>Ω</b> 28′52	
evening set	-1666 Feb 20 j 17:19	27° <b>≈</b> 51'32			-1661 Aug 19 j 03:01	15° <b>Ω</b>	
	-1666 Mar 01 j 17:18	0° <b>)</b> €		max. Earth dist.	-1661 Aug 23 j 16:01	15° <b>Ω</b> 59'31	6.41793 AU
	-				-		
conjunction	-1666 Mar 06 j 03:16	1° <b>∺</b> 03'11	-1°15′24	conjunction	-1661 Aug 25 j 01:32	16° <b>Ω</b> 17'50	1°13'07
minimum elong	-1666 Mar 06 j 03:15	1° <b>∺</b> 03'11	1°15'25	minimum elong	-1661 Aug 25 j 01:30	16° <b>Ω</b> 17'49	1°13'08
max. Earth dist.	-1666 Mar 07 j 22:15		5.99718 AU	morning rise	-1661 Sep 06 j 20:42	19° <b>Ω</b> 05′20	
morning rise	-1666 Mar 19 j 16:28	4° <b>)</b> 16′26			-1661 Oct 31 j 21:37	0° m/	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1660 in astronomical counting style is the year 1661 BCE in historical counting style. -1660 Jan 05 i 03:22 6° 100'22 -1655 Sep 24 j 16:56 15°R≈ retrograde 1°51'15 -1660 Mar 05 j 16:15 1° 1008'19 -1655 Oct 23 j 16:57 13°≈35'10 opposition direct -1660 Mar 06 j 20:54 0° 10 59'08 4.40877 AU -1655 Nov 21 j 16:50 15°≈ min. Earth dist. -1660 Mar 14 j 15:28 -1654 Feb 12 j 21:00 0°**₩** 30°R€ direct -1660 May 07 j 09:58 26°**Ω**06'41 -1654 Feb 25 j 22:33 3°\(\)(03'49 evening set -1660 Jun 29 j 09:32 0° m evening set -1660 Sep 11 j 01:23 13° m 53'16 conjunction -1654 Mar 11 j 09:36 6°**★**15'45 -1°15'22 max. Earth dist. -1660 Sep 21 j 20:54 16° Mp 16'25 6.38166 AU minimum elong -1654 Mar 11 j 09:36 6°**★**15'45 1°15'23 max. Earth dist. -1654 Mar 13 j 06:44 6°**)** 42'37 6.00188 AU conjunction -1660 Sep 23 j 17:28  $16^{\circ}$  Mp 41'051°14'37 morning rise -1654 Mar 24 j 23:42 9°**X**29'11 minimum elong -1660 Sep 23 j 17:29  $16^{\circ}$  Mp 41'061°14'37 retrograde -1654 Aug 03 j 10:40 29°**)** 42'53 -1660 Oct 06 j 07:16 -1654 Sep 30 j 17:56 morning rise 19° m 27'54 min. Earth dist. 24°**)** 48′30 4.03684 AU -1654 Oct 02 j 01:24 -1660 Nov 27 j 06:10 0∘**⊽** opposition 24°\(\dagger)37'45 -1°45'22 retrograde -1659 Feb 04 j 20:06 6°**£**44'01 direct -1654 Nov 29 j 03:38 19°**)** 40'34 opposition -1659 Apr 06 j 17:55 1°**≏**52'20 1°38'29 -1653 Feb 22 j 19:10  $0^{\circ}\Upsilon$ min. Earth dist. -1659 Apr 08 j 02:23 1°**-**42′00 4.34270 AU evening set -1653 Apr 04 j 03:56 8°Y54'47 -1659 Apr 21 j 20:10 30°R M direct -1659 Jun 08 j 03:52 26° m 53'00 conjunction -1653 Apr 17 j 21:15 12°Υ05'45 -0°59'10 -1659 Jul 24 j 20:02 0∘**⊽** minimum elong -1653 Apr 17 j 21:18 12°**Y**05'47 0°59'10 evening set -1659 Oct 12 j 00:35 14°**£**54'05 max. Earth dist. -1653 Apr 19 j 23:28 12°**Y**34'55 6.08484 AU max. Earth dist. -1659 Oct 22 j 20:03 17°**♀**20'30 6.29080 AU morning rise -1653 May 01 j 16:05 15°**Y**17'18 -1653 Jul 13 j 13:51 0°8 conjunction -1659 Oct 24 i 14:33 17°**-**44'35 0°54'53 retrograde -1653 Sep 07 i 04:21 4°**8**38'26 minimum elong -1659 Oct 24 i 14:35 17°**£**44'36 0°54'53 -1653 Nov 02 j 11:49 30°RY morning rise -1659 Nov 06 i 03:24 20°**₽**34'48 min. Earth dist. -1653 Nov 04 j 11:56 29°Υ43'38 4.14376 AU -1659 Dec 20 j 15:18 -1653 Nov 05 j 15:44 29°Y34'10 -1°02'54 o°m. opposition -1658 Mar 10 j 07:35 -1652 Jan 03 j 13:42 24°Y33'53 retrograde 8°M-35'12 direct -1658 May 10 j 08:25 3°ML42'16 0°56'03 -1652 Mar 04 j 07:14 0°8 opposition -1658 May 11 j 12:29 min. Earth dist. 3°M33'19 4.23187 AU -1652 May 09 j 10:04 13°**8**19'14 evening set -1658 Jun 12 j 06:43 -1652 May 16 j 21:12 30°R Ω 15°8 -1658 Jul 10 j 21:04 direct 28°**Ω**45'42 -1658 Aug 08 j 06:45 -1652 May 23 j 04:27 16°825'22 -0°22'31 0°M conjunction -1658 Nov 03 j 07:27 -1652 May 23 j 04:29 15°M⋅ 16°**8**25'23 0°22'28 minimum elong -1658 Nov 12 j 21:52 -1652 May 24 j 14:15 16°**8**44'26 6.20683 AU evening set 17°M11'52 max. Earth dist. -1652 Jun 05 j 22:36 19°**8**31'05 max. Earth dist. -1658 Nov 24 j 07:13 19°**™**50'29 6.16975 AU morning rise -1652 Jul 26 j 06:58  $0^{\circ}\Pi$ -1658 Nov 25 j 13:28 -1652 Oct 08 j 20:13 conjunction 20°M08'05 0°17'47 retrograde 7°**Ⅱ**48'04 minimum elong -1658 Nov 25 j 13:30  $20^{\circ}$  ML 08'060°17'45 opposition -1652 Dec 07 j 09:59 2°II46'52 -0°01'47 -1658 Dec 08 j 05:54 23°M04'55 min. Earth dist. -1652 Dec 06 j 19:33 2°**П**51'44 4.26811 AU morning rise -1657 Jan 08 j 04:35 0°⊀ asc. node -1652 Dec 18 j 15:25 1°**I**17'41 retrograde -1657 Apr 14 j 19:29 12°**х** 04'57 -1652 Dec 29 j 09:54 30°R₩ -1657 May 04 j 04:29 11°**∡**¹29'54 -1651 Feb 05 j 15:58 27°**8**44'17 desc. node direct -1657 Jun 14 j 17:38 7°**₹**09'11 -0°07'00 -1651 Mar 16 j 09:13  $0^{\circ}\Pi$ opposition -1657 Jun 15 j 06:03 -1651 Jun 12 j 23:34 15°**I**I59'21 min. Earth dist. 7°**∡**05'10 4.10880 AU evening set 2°**∡**14'59 direct -1657 Aug 13 j 21:09 evening set -1657 Dec 16 i 10:56 21°×11'10 conjunction -1651 Jun 26 i 13:31 18°**Д**58'38 0°20'05 minimum elong -1651 Jun 26 i 13:30 18°**Ц**58'37 0°20'06 conjunction -1657 Dec 29 i 07:30 24° ₹ 14'21 -0°26'46 max. Earth dist. -1651 Jun 26 i 23:40 19°**Ⅱ**04'13 6.32431 AU minimum elong -1657 Dec 29 i 07:28 24°**х** 14′20 0°26′47 morning rise -1651 Jul 10 j 01:03 21°II56'36 max. Earth dist. -1657 Dec 29 j 03:14 24° **1**1'49 6.05617 AU -1651 Aug 17 j 16:54 0ಂತಾ -1656 Jan 11 j 06:07 27°**₹**18'52 -1651 Nov 08 j 23:35 9°921'35 morning rise retrograde -1656 Jan 22 j 17:15 0°ಕ -1650 Jan 07 j 20:15 4°9524'21 0°56'45 opposition -1656 May 21 j 01:32 17°る16'35 min. Earth dist. -1650 Jan 07 j 22:02 4°923'46 4.36960 AU retrograde opposition -1656 Jul 20 j 12:52 12°る17'01 -1°10'53 -1650 Feb 17 j 20:07 30°RⅡ 29°**Ⅱ**20'55 min. Earth dist. -1656 Jul 20 j 06:16 12°る19'12 4.01544 AU direct -1650 Mar 10 j 08:14 -1656 Sep 17 j 08:37 7°る23'48 -1650 Mar 31 j 02:57 000 direct -1655 Jan 19 j 23:19 26°₹44'46 evening set -1650 Jul 15 j 19:38 17°9513'52 evening set -1650 Jul 28 j 07:57 19°957'09 max. Earth dist. 6.40167 AU -1655 Feb 02 j 02:35 29°る53'47 -1°02'53 conjunction -1655 Feb 02 j 02:33 29°る53'46 1°02'54 -1650 Jul 29 j 01:09 0°55'19 minimum elong conjunction 20°906'32 -1650 Jul 29 j 01:06 -1655 Feb 02 j 12:56 0°≈ minimum elong 20°**©**06'30 0°55'21 max. Earth dist. -1655 Feb 03 j 02:04 0°≈07'53 5.99113 AU morning rise -1650 Aug 11 j 03:44 22°957'38 morning rise -1655 Feb 15 j 09:11 3°≈04'34 -1650 Sep 14 j 00:05 0 $^{\circ}$  $\Omega$ -1655 Apr 10 j 10:51 15°≈ retrograde -1650 Dec 09 j 12:42 9°**£**54'33 retrograde -1655 Jun 27 j 16:42 23°≈32'42 opposition -1649 Feb 07 j 17:35 5°**Ω**00'40 1°37'26 18°≈29'30 -1°49'24 min. Earth dist. -1649 Feb 08 j 12:27 4°**Ω**54'33 4.41903 AU opposition -1655 Aug 26 j 17:23

-1649 Apr 06 j 01:12

30°Rூ

min. Earth dist.

-1655 Aug 25 j 16:38

18°≈37'50 3.98752 AU

Attention actronomi		0 MOOR 1640 i	n actronomical ac	inting style is the year	1650 PCE in historical a	ounting style	
direct	-1649 Apr 11 j 04:22	e year -1649 1 29°©57'37	n astronomicai co	max. Earth dist.	1650 BCE in historical c -1643 Feb 08 j 12:24		5.98505 AU
direct		29 <b>3</b> 3/3/ 0° <b>Ω</b>				3 ≈20 22 8°≈20'52	3.96303 AU
	-1649 Apr 16 j 07:27	15° <b>Ω</b>		morning rise	-1643 Feb 20 j 15:43 -1643 Mar 21 j 09:35	8 ≈2032 15°≈	
ovening set	-1649 Aug 03 j 19:07	13 <b>δι</b> 17° <b>Ω</b> 41'13		rotro arado	-	13 ≈ 28°≈50'43	
evening set	-1649 Aug 16 j 07:55		6.41843 AU	retrograde	-1643 Jul 03 j 00:59		1951120
max. Earth dist.	-1649 Aug 27 j 17:20	20-3610.08	0.41843 AU	opposition	-1643 Aug 31 j 23:30	23°≈47'01	
	1640 4 20:05 12	200 020144	1014121	min. Earth dist.	-1643 Aug 30 j 21:09	23°≈55'56	3.98868 AU
conjunction	-1649 Aug 29 j 05:12	20° <b>Ω</b> 29'44	1°14'31	direct	-1643 Oct 28 j 23:06	18°≈52'21 0° <b>米</b>	
minimum elong	-1649 Aug 29 j 05:10	20° <b>Ω</b> 29'43	1°14'33	. ,	-1642 Jan 25 j 11:44		
morning rise	-1649 Sep 10 j 23:19	23° <b>Ω</b> 16'49		evening set	-1642 Mar 03 j 05:53	8° <b>)</b> (20′19	
	-1649 Oct 13 j 01:54	0°M)			164234 16:10.02	110\/2202	1014142
retrograde	-1648 Jan 09 j 06:33	10° Mp 12'47	1051117	conjunction	-1642 Mar 16 j 18:03	11° <b>)</b> (32'22	
opposition	-1648 Mar 09 j 22:01	5° m 20'50	1°51'17	minimum elong	-1642 Mar 16 j 18:04		1°14'43
min. Earth dist.	-1648 Mar 11 j 03:25	5° Mp 11'25	4.40352 AU	max. Earth dist.	-1642 Mar 18 j 18:59	12° <b>)</b> (01'24	6.00988 AU
direct	-1648 May 11 j 14:56	0° m 19'22		morning rise	-1642 Mar 30 j 09:02	14° <b>)</b> (45'48	
evening set	-1648 Sep 15 j 05:00	18° Mp 07'20	6.25002 AXX		-1642 Jun 12 j 07:00	0°Υ 4° <b>00</b> 53430	
max. Earth dist.	-1648 Sep 25 j 22:59	20° m 30'02	6.37092 AU	retrograde	-1642 Aug 08 j 12:12	4°Υ53'30	
					-1642 Oct 05 j 15:53	30° <b>₹</b>	
conjunction	-1648 Sep 27 j 20:32	20° m 55'20	1°13'08	min. Earth dist.	-1642 Oct 05 j 18:01	29° <b>)</b> 59'17	4.05058 AU
minimum elong	-1648 Sep 27 j 20:33	20° m 55'20	1°13'08	opposition	-1642 Oct 07 j 02:17	29° <b>)</b> 48′16	-1°41'15
morning rise	-1648 Oct 10 j 09:57	23° m/42'26		direct	-1642 Dec 04 j 05:42	24° <b>)</b> € 50'40	
	-1648 Nov 08 j 20:47	0∘ <b>ত</b>			-1641 Jan 31 j 04:42	0° <b>Υ</b>	
retrograde	-1647 Feb 09 j 06:44	11° <b>≏</b> 03'51		evening set	-1641 Apr 09 j 09:13	14° <b>Ƴ</b> 00′38	
opposition	-1647 Apr 11 j 04:23	6° <b>£</b> 12'07	1°34'23				
min. Earth dist.	-1647 Apr 12 j 14:14	6° <b>≏</b> 01'22	4.32692 AU	conjunction	-1641 Apr 23 j 02:50	17° <b>Y</b> 10′58	
direct	-1647 Jun 12 j 13:01	1° <b>≏</b> 13'05		minimum elong	-1641 Apr 23 j 02:53	17° <b>Ƴ</b> 10′59	
evening set	-1647 Oct 16 j 06:39	19° <b>≏</b> 18'13		max. Earth dist.	-1641 Apr 25 j 02:49	17° <b>Ƴ</b> 38'42	6.10265 AU
max. Earth dist.	-1647 Oct 27 j 01:19	21° <b>≏</b> 44'53	6.27118 AU	morning rise	-1641 May 06 j 22:02	20° <b>Y</b> 21'49	
					-1641 Jun 20 j 10:55	$9^{\circ}$ 8	
conjunction	-1647 Oct 28 j 20:40	22° <b>ჲ</b> 09'33	0°50'43	retrograde	-1641 Sep 11 j 20:53	9° <b>8</b> 33'07	
minimum elong	-1647 Oct 28 j 20:43	22° <b>≏</b> 09'35	0°50'43	min. Earth dist.	-1641 Nov 09 j 06:57	4° <b>8</b> 38'05	4.16344 AU
morning rise	-1647 Nov 10 j 10:00	25° <b>≏</b> 00'45		opposition	-1641 Nov 10 j 09:14	4° <b>8</b> 29'08	-0°54'49
	-1647 Dec 02 j 22:38	0°M₊			-1641 Dec 21 j 17:56	30° <b>ŖƳ</b>	
retrograde	-1646 Mar 15 j 01:02	13°M10'18		direct	-1640 Jan 08 j 11:55	29° <b>Y</b> 28′26	
opposition	-1646 May 15 j 01:58	8°M17'03	0°48'22		-1640 Jan 26 j 10:12	$9^{\circ}$ 8	
min. Earth dist.	-1646 May 16 j 03:59	8° <b>M</b> 08'44	4.20966 AU		-1640 Apr 30 j 04:03	15° <b>8</b>	
direct	-1646 Jul 15 j 09:06	3°M20'48		evening set	-1640 May 14 j 09:14	18° <b>8</b> 08'29	
	-1646 Oct 17 j 14:43	15° <b>™</b>					
evening set	-1646 Nov 17 j 09:59	21°M53'01		conjunction	-1640 May 28 j 03:26	21° <b>8</b> 13'39	-0°16'31
max. Earth dist.							
	-1646 Nov 28 j 23:58	24°M35'04	6.14702 AU	minimum elong	-1640 May 28 j 03:27	21° <b>8</b> 13'40	0°16'30
	,	24°M35'04	6.14702 AU	minimum elong max. Earth dist.	-1640 May 28 j 03:27 -1640 May 29 j 11:24	21° <b>8</b> 13'40 21° <b>8</b> 31'36	0°16'30 6.22690 AU
conjunction	,	24°M35'04 24°M50'28	6.14702 AU 0°11'49	-			
conjunction minimum elong	-1646 Nov 28 j 23:58			max. Earth dist.	-1640 May 29 j 11:24	21° <b>8</b> 31'36	
-	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20	24°M50'28	0°11'49	max. Earth dist.	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46	21° <b>8</b> 31'36 24° <b>8</b> 18'11	
minimum elong	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20	24°M50'28 24°M50'29	0°11'49	max. Earth dist. morning rise	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04	21° <b>8</b> 31'36 24° <b>8</b> 18'11 0° <b>П</b>	
minimum elong behind sun begin	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38	24°M50'28 24°M50'29 24°M47'10	0°11'49	max. Earth dist. morning rise retrograde	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51	21° <b>8</b> 31'36 24° <b>8</b> 18'11 0° <b>П</b> 12° <b>П</b> 26'01	
minimum elong behind sun begin behind sun end	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48	0°11'49	max. Earth dist. morning rise retrograde asc. node	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25	21° <b>8</b> 31'36 24° <b>8</b> 18'11 0°П 12°П26'01 12°П03'37	6.22690 AU
minimum elong behind sun begin behind sun end	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37	0°11'49	max. Earth dist. morning rise  retrograde asc. node opposition	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21	21° \(\delta 31'36\) 24° \(\delta 18'11\) 0° \(\pi\) 12° \(\pi 26'01\) 12° \(\pi 03'37\) 7° \(\pi 25'26\)	6.22690 AU 0°07'02
minimum elong behind sun begin behind sun end morning rise	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09	24°M50'28 24°M50'29 24°M47'10 24°M53'48 27°M48'37 0°\$\mathref{7}\$	0°11'49	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist.	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00	21° \(\delta\)31'36 24° \(\delta\)18'11 0° \(\mathbb{\pi}\) 12° \(\mathbb{\pi}\)26'01 12° \(\mathbb{\pi}\)03'37 7° \(\mathbb{\pi}\)25'26 7° \(\mathbb{\pi}\)29'35	6.22690 AU 0°07'02
minimum elong behind sun begin behind sun end morning rise desc. node	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° 🗷 15° 🗷 01'47	0°11'49 0°11'47	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56	21°\delta31'36 24°\delta18'11 0°\Pi 12°\Pi26'01 12°\Pi33'37 7°\Pi25'26 7°\Pi29'35 2°\Pi22'44	6.22690 AU 0°07'02
minimum elong behind sun begin behind sun end morning rise desc. node retrograde	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° 🖈 15° 🖈 01'47 16° 🖈 59'30	0°11'49 0°11'47	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01	21°\delta31'36 24°\delta18'11 0°\Pi 12°\Pi26'01 12°\Pi33'37 7°\Pi25'26 7°\Pi29'35 2°\Pi22'44	6.22690 AU 0°07'02
minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33	24° IL 50'28 24° IL 50'29 24° IL 47'10 24° IL 53'48 27° IL 48'37 0° 🞜 15° 🞜 01'47 16° 🗷 59'30 12° 🗷 03'18	0°11'49 0°11'47	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01	21° 831'36 24° 818'11 0° Π 12° Π26'01 12° Π03'37 7° Π25'26 7° Π29'35 2° Π22'44 20° Π33'20	6.22690 AU 0°07'02 4.28668 AU
minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35	24° IL 50'28 24° IL 50'29 24° IL 47'10 24° IL 53'48 27° IL 48'37 0° 🞜 15° 🗷 01'47 16° 🗷 59'30 12° 🗷 03'18 11° 🗷 59'50	0°11'49 0°11'47	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44	21°\begin{align*} 24°\begin{align*} 24°\begin{align*} 8'18'11 0°\pi 12°\pi26'01 12°\pi25'26 7°\pi22'26' 20°\pi22'44 20°\pi33'20 23°\pi31'31	6.22690 AU 0°07'02 4.28668 AU 0°25'42
minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist.	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33	24° IL 50'28 24° IL 50'29 24° IL 53'48 27° IL 48'37 0° \$\delta\$' 15° \$\delta\$01'47 16° \$\delta\$59'30 12° \$\delta\$03'18 11° \$\delta\$59'50 7° \$\delta\$09'22	0°11'49 0°11'47	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37	21°\begin{align*} 21°\begin{align*} 24°\begin{align*} 818'11 0°\pi 12°\pi26'01 12°\pi25'26 7°\pi25'26 7°\pi29'35 2°\pi22'44 20°\pi33'20  23°\pi31'31 23°\pi31'31 23°\pi31'30 23°\pi34'11	6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° \$\stacksquare\text{37}\text{15}\circ \text{\$\stacksquare\text{37}\text{01'47}\text{16}\circ \text{\$\stacksquare\text{59'30}\text{12}\circ \text{\$\stacksquare\text{303'18}\text{11}\circ \text{\$\stacksquare\text{59'50}\tau\text{\$\stacksquare\text{309'22}\text{26}\circ \text{\$\stacksquare\text{311'45}}	0°11'49 0°11'47 -0°16'21 4.08741 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16	21°\delta31'36 24°\delta18'11 0°\pi 12°\pi26'01 12°\pi25'26 7°\pi25'26 7°\pi29'35 2°\pi22'44 20°\pi33'20 23°\pi31'31 23°\pi31'31	6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction	-1646 Nov 28 j 23:58 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 29 j 20:38 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38 -1644 Jan 03 j 05:03	24° M.50'28 24° M.47'10 24° M.43'48 27° M.48'37 0° \$\stacksquare\text{37}\text{16}\text{°}\text{\$\mathbb{X}\text{9}}\text{30}\text{147}\text{16}\text{°}\text{\$\mathbb{X}\text{59}'30}\text{12}\text{°}\text{\$\mathbb{X}\text{59}'50}\text{7}\text{\$\mathbb{X}\text{59}'50}\text{26}\text{\$\mathbb{X}\text{11}'45}\text{129}\text{\$\mathbb{X}\text{11}'45}\text{16'08}	0°11'49 0°11'47 -0°16'21 4.08741 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42	21°\begin{align*} 21°\begin{align*} 24°\begin{align*} 24°\begin{align*} 24°\begin{align*} 210°\begin{align*} 12°\begin{align*} 12°\begin{align*} 23°\begin{align*} 23°a	6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
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minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition min. Earth dist.	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 May 26 j 08:20 -1644 Jul 25 j 18:53 -1644 Jul 25 j 18:53	24° TL50'28 24° TL50'29 24° TL50'29 24° TL53'48 27° TL48'37 0° \$\frac{1}{2}\$ 15° \$\frac{1}{2}\$01'47 16° \$\frac{1}{2}\$59'30 12° \$\frac{1}{2}\$03'18 11° \$\frac{1}{2}\$59'50 7° \$\frac{1}{2}\$09'22 26° \$\frac{1}{2}\$11'45 29° \$\frac{1}{2}\$16'08 29° \$\frac{1}{2}\$16'06 29° \$\frac{1}{2}\$15'31 0° \$\frac{1}{2}\$2"\$\frac{1}{2}\$28'05 17° \$\frac{1}{2}\$27'58 17° \$\frac{1}{3}\$31'33	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Nov 13 j 06:29 -1638 Jan 12 j 04:10 -1638 Jan 12 j 09:03 -1638 Mar 14 j 20:48 -1638 Jul 20 j 06:27	21°\begin{align*} 21°\begin{align*} 24°\begin{align*} 24°\begin{align*} 21°\ldot\ldot\ldot\ldot\ldot\ldot\ldot\ldot	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 03 j 04:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 May 26 j 08:20 -1644 Jul 25 j 18:53 -1644 Jul 25 j 08:03 -1644 Sep 22 j 09:17	24° IL 50'28 24° IL 50'29 24° IL 50'29 24° IL 53'48 27° IL 48'37 0° 丞 1 15° 丞 01'47 16° 丞 59'30 12° 丞 03'18 11° 丞 59'50 7° 丞 09'22 26° 丞 11'45 29° 丞 16'08 29° 丞 16'08 29° 丞 15'31 0° ঊ 2° ঊ 21'59 22° ঊ 28'05 17° ঊ 27'58	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Nov 13 j 06:29 -1638 Jan 12 j 04:10 -1638 Jan 12 j 09:03 -1638 Mar 14 j 20:48 -1638 Jul 20 j 06:27 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:54	21°\begin{align*} 21°\begin{align*} 24°\begin{align*} 24°\begin{align*} 21°\begin{align*} 12°\begin{align*} 12°\begin{align*} 12°\begin{align*} 12°\begin{align*} 23'\begin{align*} 13'\begin{align*} 23°\begin{align*} 13'\begin{align*} 23°\begin{align*} 13'\begin{align*} 31'\begin{align*} 23°\begin{align*} 13'\begin{align*} 31'\begin{align*} 23°\begin{align*} 13'\begin{align*} 34'\begin{align*} 3°\begin{align*} 43'\begin{align*} 3'\begin{align*} 44'\begin{align*} 22'\begin{align*} 3'\begin{align*} 44'\begin{align*} 22'\begin{align*} 3'\begin{align*} 44'\begin{align*} 22'\begin{align*} 21'\begin{align*} 22'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 23'\begin{align*} 24'\begin{align*} 24	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition min. Earth dist.  direct	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 03 j 04:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 Jan 16 j 04:58 -1644 Jul 25 j 18:53 -1644 Jul 25 j 08:03 -1644 Sep 22 j 09:17 -1643 Jan 16 j 18:13	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° 🛪 15° 🛪 01'47 16° 🛪 59'30 12° 🛪 03'18 11° 🛪 59'50 7° 🛪 09'22 26° 🛪 11'45 29° 🛪 16'08 29° 🛪 16'08 29° 🛪 16'06 29° 🛪 15'31 0° 🛪 2° 🛪 21'59 22° 🛪 28'05 17° 🛪 27'58 17° 🛪 33'33 12° 🛪 34'46	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Nov 13 j 06:29 -1638 Jun 12 j 04:10 -1638 Jun 12 j 09:03 -1638 Jun 12 j 09:03 -1638 Jun 20 j 06:27 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:51 -1638 Aug 01 j 15:38	21°\mathread 31'36 24°\mathread 31'36 24°\mathread 18'11 0°\mathread 12°\mathread 120'\mathread 13'37 7°\mathread 125'26 7°\mathread 129'35 2°\mathread 122'44 20°\mathread 13'20 23°\mathread 13'31 23°\mathread 13'30 23°\ma	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU  0°59'06 0°59'07
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition min. Earth dist.	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 03 j 04:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 May 26 j 08:20 -1644 Jul 25 j 18:53 -1644 Jul 25 j 08:03 -1644 Sep 22 j 09:17	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° ♂ 15° ♂01'47 16° ♂59'30 12° √03'18 11° √359'50 7° √09'22 26° √11'45 29° √16'08 29° √16'08 29° √15'31 0° ♂ 2° ♂21'59 22° ♂28'05 17° ♂31'33 12° ♂34'46 0° ≈	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:44 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Nov 13 j 06:29 -1638 Jan 12 j 04:10 -1638 Jan 12 j 09:03 -1638 Mar 14 j 20:48 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:51 -1638 Aug 01 j 15:38 -1638 Aug 01 j 15:38	21°\mathread 31'36 24°\mathread 31'36 24°\mathread 18'11 0°\mathread 12°\mathread 12'\mathread 12'\mathread 12'\mathread 12'\mathread 12'\mathread 12'\mathread 12'\mathread 13'\mathread 1	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU  0°59'06 0°59'07
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition min. Earth dist. direct	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 03 j 04:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 Jan 16 j 04:58 -1644 Jul 25 j 18:53 -1644 Jul 25 j 08:03 -1644 Sep 22 j 09:17 -1643 Jan 16 j 18:13	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0° ♂ 15° ♂01'47 16° ♂59'30 12° √03'18 11° √359'50 7° √09'22 26° √11'45 29° √16'08 29° √16'08 29° √15'31 0° ♂ 2° ♂21'59 22° ♂28'05 17° ♂31'33 12° ♂34'46 0° ≈	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU -1°18'22 4.00285 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 04:44 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Nov 13 j 06:29 -1638 Jun 12 j 04:10 -1638 Jun 12 j 09:03 -1638 Jun 12 j 09:03 -1638 Jun 20 j 06:27 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:51 -1638 Aug 01 j 15:38	21°\mathread 31'36 24°\mathread 31'36 24°\mathread 18'11 0°\mathread 12°\mathread 120'\mathread 31'37 7°\mathread 120'\mathread 31'20'\mathread 31'30 23°\mathread 31'30 23'\mathread 31'30 23'\mathread 31'30 23'\mathread 31	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU  0°59'06 0°59'07
minimum elong behind sun begin behind sun end morning rise  desc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.  morning rise retrograde opposition min. Earth dist.  direct	-1646 Nov 28 j 23:58  -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 02:20 -1646 Nov 30 j 08:02 -1646 Dec 12 j 19:26 -1646 Dec 22 j 07:09 -1645 Mar 15 j 01:08 -1645 Apr 19 j 23:45 -1645 Jun 19 j 18:53 -1645 Jun 20 j 05:33 -1645 Aug 18 j 17:35 -1645 Dec 21 j 07:38  -1644 Jan 03 j 05:03 -1644 Jan 03 j 05:01 -1644 Jan 03 j 05:01 -1644 Jan 06 j 06:31 -1644 Jan 16 j 04:58 -1644 Jan 16 j 04:58 -1644 Jul 25 j 18:53 -1644 Jul 25 j 08:03 -1644 Jul 25 j 08:03 -1644 Jan 16 j 18:13 -1643 Jan 16 j 18:13 -1643 Jan 25 j 03:34	24° M.50'28 24° M.50'29 24° M.47'10 24° M.53'48 27° M.48'37 0°   15°   30'147 16°  35'9'30 12°  309'22 26°  11'45  29°  16'08 29°  16'08 29°  15'31 0°  2°  32'521'59 22°  328'05 17°  331'33 12°  334'46 0°  1°  1°  \$5'\$  \$09'19	0°11'49 0°11'47 -0°16'21 4.08741 AU -0°32'40 0°32'41 6.03809 AU -1°18'22 4.00285 AU	max. Earth dist. morning rise  retrograde asc. node opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise  retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-1640 May 29 j 11:24 -1640 Jun 10 j 20:46 -1640 Jul 07 j 03:04 -1640 Oct 13 j 06:51 -1640 Oct 28 j 07:25 -1640 Dec 11 j 21:21 -1640 Dec 11 j 09:00 -1639 Feb 10 j 07:56 -1639 Jun 17 j 16:01 -1639 Jul 01 j 04:46 -1639 Jul 01 j 09:37 -1639 Jul 01 j 09:37 -1639 Jul 14 j 15:16 -1639 Jul 31 j 00:42 -1639 Jul 31 j 00:42 -1638 Jul 12 j 04:10 -1638 Jun 12 j 04:10 -1638 Jul 20 j 06:27 -1638 Aug 02 j 10:54 -1638 Aug 02 j 10:51 -1638 Aug 01 j 15:38 -1638 Aug 07 j 22:34	21°\delta 31'36 24°\delta 18'11 0°\pi 12°\pi 26'01 12°\pi 20'33'7 7°\pi 25'26 7°\pi 29'35 2°\pi 22'44 20°\pi 33'20 23°\pi 31'31 23°\pi 31'30 23°\pi 34'11 26°\pi 28'23 0°\text{9} 13°\text{94'732} 8°\text{950'50} 8°\text{949'14} 3°\text{94'742} 21°\text{937'55} 24°\text{929'49} 24°\text{929'48} 24°\text{929'48} 24°\text{919'19} 27°\text{920'07} 0°\text{\$\Oldsymbol{0}} 14°\text{\$\Oldsymbol{0}\$15'11	6.22690 AU  0°07'02 4.28668 AU  0°25'42 0°25'44 6.33987 AU  1°03'46 4.38127 AU  0°59'06 0°59'07

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24 Attention, astronomical year style is used: The year -1637 in astronomical counting style is the year 1638 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	e year -1637 i	n astronomical cou	nting style is the year	1638 BCE in historical co	ounting style.	
min. Earth dist.	-1637 Feb 12 j 21:01	9° <b>Ω</b> 15'11	4.42099 AU	conjunction	-1631 Feb 12 j 12:38	10° <b>≈</b> 22'15	-1°09'10
direct	-1637 Apr 15 j 12:49	4° <b>Ω</b> 18'51		minimum elong	-1631 Feb 12 j 12:36	10° <b>≈</b> 22'14	
	-1637 Jul 17 j 19:57	15° <b>Ω</b>		max. Earth dist.	-1631 Feb 13 j 21:34	10° <b>≈</b> 42′00	5.98636 AU
evening set	-1637 Aug 20 j 15:44	22° <b>Ω</b> 02'20		morning rise	-1631 Feb 25 j 21:20	13° <b>≈</b> 34'09	
max. Earth dist.	-1637 Aug 31 j 20:43	24° <b>Ω</b> 29'07	6.41516 AU		-1631 Mar 03 j 22:14	15° <b>≈</b>	
	1607.0 00:11.50	240 0 50124	101.512.6		-1631 May 17 j 11:11	0° <b>∀</b>	
conjunction	-1637 Sep 02 j 11:52	24° <b>Ω</b> 50'34		retrograde	-1631 Jul 08 j 05:25	4° <b>)</b> €02'16	
minimum elong	-1637 Sep 02 j 11:52	24° <b>Ω</b> 50'33	1°15'37	i matra	-1631 Aug 29 j 10:31	30°R≈	2.00614.444
morning rise	-1637 Sep 15 j 05:15	27° <b>\Omega</b> 37'26		min. Earth dist.	-1631 Sep 04 j 22:19		3.99614 AU
	-1637 Sep 26 j 05:28	0° Mp		opposition	-1631 Sep 06 j 02:30	28°≈58'12	-1°52′39
retrograde opposition	-1636 Jan 13 j 16:41 -1636 Mar 14 j 08:10	14° Mp 35'40 9° Mp 43'53	1°50'47	direct	-1631 Nov 03 j 01:05 -1630 Jan 04 j 02:25	24°≈03'10 0°¥	
min. Earth dist.	-1636 Mar 15 j 15:46	9°My33'48	4.39529 AU	evening set	-1630 Mar 08 j 10:29	0 <del>X</del> 13° <b>¥</b> 28′28	
direct	-1636 May 16 j 01:54	4° M) 42'42	4.39329 AU	evening set	-1030 Mai 08 j 10.29	13 / 2020	
evening set	-1636 Sep 19 j 12:16	22° Mp 32'43		conjunction	-1630 Mar 21 j 23:22	16° <b>¥</b> 40'17	1013120
max. Earth dist.	-1636 Sep 30 j 05:20		6.35832 AU	minimum elong	-1630 Mar 21 j 23:24	16° <b>)</b> (40'18	
max. Latin dist.	-1030 Sep 30 J 03.20	24 III 33 22	0.55652 AC	max. Earth dist.	-1630 Mar 23 j 23:54		6.02238 AU
conjunction	-1636 Oct 02 j 03:29	25° m/21'03	1°11'12	morning rise	-1630 Apr 04 j 15:14	19° <b>¥</b> 53′27	0.02230710
minimum elong	-1636 Oct 02 j 03:31		1°11'11	morning rise	-1630 May 20 j 09:31	0° <b>Υ</b>	
morning rise	-1636 Oct 14 j 16:37	28° m 08'34		retrograde	-1630 Aug 13 j 07:49	9° <b>Υ</b> 53'32	
	-1636 Oct 23 j 03:03	0∘ <b>⊽</b>		opposition	-1630 Oct 11 j 22:40	4° <b>Υ</b> 48'15	-1°36'30
retrograde	-1635 Feb 13 j 20:30	15° <b>≏</b> 36'01		min. Earth dist.	-1630 Oct 10 j 14:37		4.06664 AU
opposition	-1635 Apr 15 j 19:41	10° <b>Ω</b> 44'10	1°29'31		-1630 Nov 29 j 11:02	30° <b>₹</b>	
min. Earth dist.	-1635 Apr 17 j 04:14	10° <b>£</b> 33'49	4.31078 AU	direct	-1630 Dec 09 j 04:52	29° <b>¥</b> 50′08	
direct	-1635 Jun 17 j 00:20	5° <b>≏</b> 45'31			-1630 Dec 19 j 00:13	$0^{\circ}\Upsilon$	
evening set	-1635 Oct 20 j 17:01	23° <b>≏</b> 54'34		evening set	-1629 Apr 14 j 10:06	18° <b>Ƴ</b> 55'23	
max. Earth dist.	-1635 Oct 31 j 14:05	26° <b>£</b> 23'13	6.25301 AU	C	1 0		
	v			conjunction	-1629 Apr 28 j 04:14	22° <b>Y</b> 05′06	-0°50'20
conjunction	-1635 Nov 02 j 07:09	26° <b>£</b> 46'42	0°46'02	minimum elong	-1629 Apr 28 j 04:18	22° <b>Y</b> 05'08	0°50'19
minimum elong	-1635 Nov 02 j 07:12	26° <b>≏</b> 46'43	0°46'01	max. Earth dist.	-1629 Apr 30 j 03:29	22° <b>Ƴ</b> 32'17	6.12097 AU
morning rise	-1635 Nov 14 j 20:46	29° <b>≏</b> 38'47		morning rise	-1629 May 11 j 23:21	25° <b>Υ</b> 15'06	
	-1635 Nov 16 j 10:09	$0^{\circ}$ M			-1629 Jun 02 j 04:49	0°8	
	-1634 Feb 03 j 10:37	15° <b>M</b> ₊		retrograde	-1629 Sep 16 j 11:11	14° <b>8</b> 16'52	
retrograde	-1634 Mar 20 j 00:58	17°M56'58		opposition	-1629 Nov 14 j 22:47	9° <b>8</b> 13'18	-0°46'41
	-1634 May 04 j 08:30	15°RM		min. Earth dist.	-1629 Nov 13 j 22:43	9° <b>8</b> 21'28	4.18196 AU
opposition	-1634 May 20 j 00:00	13°ML03'27	0°40'00	direct	-1628 Jan 13 j 06:13	4° <b>8</b> 12'15	
min. Earth dist.	-1634 May 21 j 01:08	12°M55'24	4.19066 AU		-1628 Apr 12 j 17:23	15° <b>8</b>	
direct	-1634 Jul 20 j 03:35	8°M07'35		evening set	-1628 May 19 j 04:32	22° <b>8</b> 47'37	
	-1634 Sep 27 j 17:53						
evening set	-1634 Nov 22 j 02:00	26°M44'29		conjunction	-1628 Jun 01 j 22:10	25° <b>8</b> 51'51	
				minimum elong	-1628 Jun 01 j 22:11	25° <b>8</b> 51'51	0°10'37
conjunction	-1634 Dec 04 j 18:53	29°M42'57	0°05'34	behind sun begin	-1628 Jun 01 j 15:50	25° <b>8</b> 48'19	
minimum elong	-1634 Dec 04 j 18:54	29°M42'58	0°05'32	behind sun end	-1628 Jun 02 j 04:33	25° <b>8</b> 55'24	
behind sun begin	-1634 Dec 04 j 11:11	29°M38'27		max. Earth dist.	-1628 Jun 03 j 01:34	26° <b>8</b> 07'10	6.24408 AU
behind sun end	-1634 Dec 05 j 02:38	29°M47'28		morning rise	-1628 Jun 15 j 14:57	28° <b>8</b> 55'22	
max. Earth dist.	-1634 Dec 03 j 19:13	29°M29'04	6.12917 AU		-1628 Jun 20 j 11:44	0°II	
	-1634 Dec 05 j 23:56	0° <b>∡</b> 7		asc. node	-1628 Sep 08 j 05:02	14° <b>Ⅱ</b> 30'49	
morning rise	-1634 Dec 17 j 12:56	2° 🖈 42'15		retrograde	-1628 Oct 17 j 13:55	16° <b>I</b> 55'29	0915121
desc. node	-1633 Jan 22 j 13:31	10° × 45'25		opposition	-1628 Dec 16 j 05:39	11° <b>II</b> 55'26	0°15'31
retrograde	-1633 Apr 25 j 03:27	22° <b>×</b> 701'52	0925152	min. Earth dist.	-1628 Dec 15 j 19:41	11° <b>I</b> I58'47	4.30127 AU
opposition min. Earth dist.	-1633 Jun 24 j 22:37 -1633 Jun 25 j 05:07	17° <b>⋌</b> 105'08 17° <b>⋌</b> 103'01	4.07258 AU	direct evening set	-1627 Feb 14 j 20:26 -1627 Jun 22 j 05:43	6° <b>Ⅱ</b> 52'30 25° <b>Ⅱ</b> 00'11	
direct	-1633 Aug 23 j 15:06	17 × 03 01 12° × 11'28	4.07236 AU	evening set	-102/Juli 22 J 03.43	23 1100 11	
direct	-1633 Dec 20 j 19:14	12 <b>メ</b> ・11 28		conjunction	-1627 Jul 05 j 17:34	27° <b>I</b> 57'31	0°31'02
evening set	-1633 Dec 26 j 06:16	0 3 1° <b>3</b> 17'30		minimum elong	-1627 Jul 05 j 17:32	27° <b>I</b> I57'31	0°31'03
evening set	-1033 Dec 20 J 00.10	1 01/30		max. Earth dist.	-1627 Jul 05 j 19:19	27° <b>II</b> 58'28	6.35089 AU
conjunction	-1632 Jan 08 j 04:34	4° <b>ප</b> 22'43	-0°38'26	max. Barui dist.	-1627 Jul 03 j 19.19 -1627 Jul 15 j 00:53	27 H3828 0°9	0.55009 AU
minimum elong	-1632 Jan 08 j 04:31	4°る22'41	0°38'28	morning rise	-1627 Jul 19 j 02:45	0°953'25	
max. Earth dist.	-1632 Jan 08 j 08:42	4°る2241 4°る25'11	6.02771 AU	retrograde	-1627 Nov 17 j 12:01	18°908'23	
morning rise	-1632 Jan 21 j 05:26	7° <b>る</b> 29'26	5.02//1110	opposition	-1626 Jan 16 j 10:23	13°912'15	1°10'17
retrograde	-1632 May 31 j 16:14	7 <b>3</b> 2920 27° <b>3</b> 40'39		min. Earth dist.	-1626 Jan 16 j 17:39	13°909'52	4.38818 AU
min. Earth dist.	-1632 Jul 30 j 11:46		3.99816 AU	direct	-1626 Mar 19 j 06:02	8°908'50	
opposition	-1632 Jul 31 j 00:58	22°る39'54		evening set	-1626 Jul 24 j 16:08	25°958'31	
direct	-1632 Sep 27 j 13:32	17° <b>る</b> 46'36			2.j 10.00		
	-1632 Dec 30 j 02:44	0°≈		conjunction	-1626 Aug 06 j 19:18	28°549'51	1°02'29
evening set	-1631 Jan 30 j 07:07	7° <b>≈</b> 12'04		minimum elong	-1626 Aug 06 j 19:16	28°549'49	1°02'31
-	J						
				max. Earth dist.	-1626 Aug 05 j 19:24	28° <b>©</b> 36'49	6.41068 AU

Attention, astronom		-	n astronomical cou		1627 BCE in historical c	ounting style.	
	-1626 Aug 12 j 04:03	$0^{\circ}\Omega$		retrograde	-1620 Jun 05 j 21:34	2° <b>≈</b> 48'48	
morning rise	-1626 Aug 19 j 19:26	1° <b>Ω</b> 39'37			-1620 Jul 19 j 00:09	30°₽₹	
	-1626 Oct 29 j 22:41	15° <b>Ω</b>		opposition	-1620 Aug 05 j 04:35	27° <b>る</b> 47'35	-1°31'24
retrograde	-1626 Dec 18 j 00:51	18° <b>Ω</b> 34'29		min. Earth dist.	-1620 Aug 04 j 12:49	27°る52'50	3.99526 AU
•	-1625 Feb 06 j 01:16	15°RΩ		direct	-1620 Oct 02 j 13:52	22° <b>る</b> 54'11	
opposition	-1625 Feb 16 j 08:18	13° <b>Ω</b> 41'21	1°44'10		-1620 Dec 10 j 00:10	0° <b>≈</b>	
min. Earth dist.	-1625 Feb 17 j 06:51	13° <b>£</b> 34'04	4.41859 AU	evening set	-1619 Feb 04 j 09:15	12°≈20'18	
	-		4.41839 AU	evening set			
direct	-1625 Apr 19 j 21:56	8° <b>Ω</b> 38'39			-1619 Feb 15 j 12:15	15° <b>≈</b>	
	-1625 Jun 28 j 06:18	15° <b>Ω</b>					
evening set	-1625 Aug 24 j 23:19	26° <b>Ω</b> 23'15		conjunction	-1619 Feb 17 j 15:39	15° <b>≈</b> 30'48	
max. Earth dist.	-1625 Sep 05 j 03:18	28° <b>Ω</b> 49'45	6.40838 AU	minimum elong	-1619 Feb 17 j 15:37	15° <b>≈</b> 30'47	1°11'32
				max. Earth dist.	-1619 Feb 19 j 02:08	15° <b>≈</b> 51'29	5.98824 AU
conjunction	-1625 Sep 06 j 18:46	29° <b>Ω</b> 11'24	1°16'14	morning rise	-1619 Mar 03 j 01:29	18° <b>≈</b> 43'04	
minimum elong	-1625 Sep 06 j 18:46	29° <b>Ω</b> 11′24	1°16'14		-1619 Apr 22 j 23:13	0° <b>∀</b>	
C	-1625 Sep 10 j 11:17	0° <b>m</b> )		retrograde	-1619 Jul 13 j 05:57	9° <b>₩</b> 09'29	
morning rise	-1625 Sep 19 j 11:12	1° Mp 58'13		min. Earth dist.	-1619 Sep 09 j 21:39		4.00270 AU
retrograde	-1624 Jan 18 j 01:56	18° <b>m</b> 59'49		opposition	-1619 Sep 11 j 03:08	4° <b>)</b> (15'04	
-			1040127	opposition			-1 32 36
opposition	-1624 Mar 18 j 19:13	14° mp 08'10	1°49'37		-1619 Oct 16 j 22:35	30°R≈	
min. Earth dist.	-1624 Mar 20 j 02:36	13° <b>m</b> 58'10	4.38480 AU	direct	-1619 Nov 08 j 01:35	29° <b>≈</b> 09'39	
direct	-1624 May 20 j 10:54	9° <b>™</b> 07'23			-1619 Nov 30 j 06:33	0° <b>∀</b>	
evening set	-1624 Sep 23 j 20:41	27° Mp 00'01		evening set	-1618 Mar 13 j 13:19	18° <b>)</b> 33′01	
max. Earth dist.	-1624 Oct 04 j 13:03	29° <b>m</b> 22'48	6.34493 AU				
	·			conjunction	-1618 Mar 27 j 03:17	21° <b>)</b> 44'48	-1°11'45
conjunction	-1624 Oct 06 j 11:24	29° m 48'42	1°08'48	minimum elong	-1618 Mar 27 j 03:19	21° <b>)</b> 44'50	1°11'46
minimum elong	-1624 Oct 06 j 11:25	29° mp 48'43	1°08'49	max. Earth dist.	-1618 Mar 29 j 05:32	22° <b>)</b> 14'25	6.03309 AU
minimum ciong			1 00 47			24° <b>H</b> 57'45	0.03307 AC
	-1624 Oct 07 j 07:35	ე₀ <b>ʊ</b>		morning rise	-1618 Apr 09 j 19:43		
morning rise	-1624 Oct 19 j 00:27	2° <b>£</b> 36'43			-1618 May 01 j 20:05	0° <b>Υ</b>	
retrograde	-1623 Feb 18 j 14:03	20° <b>≏</b> 10′21		retrograde	-1618 Aug 18 j 04:46	14° <b>Y</b> 51′10	
opposition	-1623 Apr 20 j 12:21	15° <b>≏</b> 18′25	1°24'03	min. Earth dist.	-1618 Oct 15 j 11:04	9° <b>Ƴ</b> 56'31	4.08016 AU
min. Earth dist.	-1623 Apr 21 j 20:58	15° <b>≏</b> 08'02	4.29524 AU	opposition	-1618 Oct 16 j 17:50	9° <b>Ƴ</b> 46'01	-1°31'11
direct	-1623 Jun 21 j 14:57	10° <b>≏</b> 20'09		direct	-1618 Dec 14 j 03:12	4° <b>Ƴ</b> 47'29	
evening set	-1623 Oct 25 j 04:08	28° <b>≏</b> 32'41		evening set	-1617 Apr 19 j 10:31	23° <b>Y</b> 49'10	
Ü	-1623 Oct 31 j 13:11	0°M₊		· ·	1 3		
max. Earth dist.	-1623 Nov 05 j 03:37		6.23671 AU	conjunction	-1617 May 03 j 04:54	26° <b>Y</b> 58'21	-0°45'30
max. Earth dist.	1023 1101 03 1 03.37	1 11005 10	0.23071710	minimum elong	-1617 May 03 j 04:57		0°45'28
:				IIIIIIIIIIIIIIIIIIIIIIIIIIIII		20 1 30 23	0 43 28
	1622 N 06:10.22	100 25125	0041103	•		2700022155	C 12C11 ATT
conjunction	-1623 Nov 06 j 18:33		0°41'02	max. Earth dist.	-1617 May 05 j 01:30	27° <b>Y</b> 23'55	6.13611 AU
minimum elong	-1623 Nov 06 j 18:36	1°ML25'37	0°41'02 0°41'01	•	-1617 May 05 j 01:30 -1617 May 16 j 10:37	0°8	6.13611 AU
	·	1°M25'37 4°M18'33		•	-1617 May 05 j 01:30	0° <b>8</b> 0° <b>8</b> 07'43	6.13611 AU
minimum elong	-1623 Nov 06 j 18:36	1°ML25'37		max. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37	0°8	6.13611 AU
minimum elong	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34	1°M25'37 4°M18'33		max. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11	0° <b>8</b> 0° <b>8</b> 07'43	6.13611 AU
minimum elong morning rise retrograde	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33	1°M25'37 4°M18'33 15°M 22°M44'34		max. Earth dist. morning rise	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33	0°8 0°807'43 15°8 19°801'12	6.13611 AU
minimum elong morning rise retrograde opposition	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40	0°41'01 0°31'17	max. Earth dist. morning rise retrograde	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06	0°8 0°807'43 15°8 19°801'12 15°88	
minimum elong morning rise retrograde	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37	0°41'01	max. Earth dist. morning rise retrograde opposition	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57	0°8 0°807'43 15°8 19°801'12 15°R8 13°858'01	-0°38'18
minimum elong morning rise retrograde opposition min. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49	
minimum elong morning rise retrograde opposition	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36	-0°38'18
minimum elong morning rise retrograde opposition min. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8	-0°38'18
minimum elong morning rise retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M 0°   ✓	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35	-0°38'18
minimum elong morning rise  retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M 0° 🗷 1° 🗖 35'40	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8	-0°38'18
minimum elong morning rise retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M 0°   ✓	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35	-0°38'18
minimum elong morning rise  retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M 0° 🗷 1° 🗖 35'40	0°41'01 0°31'17	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35	-0°38'18 4.19720 AU
minimum elong morning rise  retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36	1°M25'37 4°M18'33 15°M 22°M44'34 17°M50'40 17°M43'37 15°RM 12°M55'13 15°M 0° 🗷 1° 🗖 35'40	0°41'01 0°31'17 4.17475 AU	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°用	-0°38'18 4.19720 AU
minimum elong morning rise  retrograde opposition min. Earth dist. direct  evening set desc. node conjunction	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$7 1° \$735'40 2° \$753'53 4° \$734'58	0°41'01 0°31'17 4.17475 AU -0°00'50	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ	-0°38'18 4.19720 AU -0°04'40
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° 🖈 1° 🖈 35'40 2° 🖈 34'58 4° 🖈 34'58	0°41'01 0°31'17 4.17475 AU	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  behind sun begin	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29	-0°38'18 4.19720 AU -0°04'40
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\tilde{x}\$ 1° \$\tilde{x}\$35'40 2° \$\tilde{x}\$34'58 4° \$\tilde{x}\$34'58 4° \$\tilde{x}\$30'16	0°41'01 0°31'17 4.17475 AU -0°00'50	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32	-0°38'18 4.19720 AU -0°04'40 0°04'38
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24 -1622 Dec 09 j 19:27	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\tilde{x}\$ 1° \$\tilde{x}\$35'40 2° \$\tilde{x}\$34'58 4° \$\tilde{x}\$34'58 4° \$\tilde{x}\$30'16 4° \$\tilde{x}\$39'41	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19	-0°38'18 4.19720 AU -0°04'40
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:25 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° X 1° X 35'40 2° X 53'53 4° X 34'58 4° X 34'58 4° X 39'41 4° X 23'18	0°41'01 0°31'17 4.17475 AU -0°00'50	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 07:20 -1616 Jun 20 j 09:27	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35	-0°38'18 4.19720 AU -0°04'40 0°04'38
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° X 1° X 35'40 2° X 53'53 4° X 34'58 4° X 34'58 4° X 39'41 4° X 23'18 7° X 35'14	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42	-0°38'18 4.19720 AU -0°04'40 0°04'38
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\textstyle{\sigma}\$ 1° \$\textstyle{\sigma}\$35'40 2° \$\textstyle{\sigma}\$53'53 4° \$\textstyle{\sigma}\$34'58 4° \$\textstyle{\sigma}\$39'41 4° \$\textstyle{\sigma}\$35'14 27° \$\textstyle{\sigma}\$35'14	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 17:20 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36 -1616 Oct 22 j 00:01	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° X 1° X 35'40 2° X 53'53 4° X 34'58 4° X 34'58 4° X 39'41 4° X 23'18 7° X 35'14	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42	-0°38'18 4.19720 AU -0°04'40 0°04'38
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\textstyle{\sigma}\$ 1° \$\textstyle{\sigma}\$35'40 2° \$\textstyle{\sigma}\$53'53 4° \$\textstyle{\sigma}\$34'58 4° \$\textstyle{\sigma}\$39'41 4° \$\textstyle{\sigma}\$35'14 27° \$\textstyle{\sigma}\$35'14	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 17:20 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36 -1616 Oct 22 j 00:01	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 01:30	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\frac{1}{2}\$ 1° \$\frac{1}{3}\$35'40 2° \$\frac{1}{3}\$35'33 4° \$\frac{1}{3}\$34'58 4° \$\frac{1}{3}\$36'16 4° \$\frac{1}{3}\$36'16 4° \$\frac{1}{3}\$36'16 23' \$\frac{1}{3}\$36'16 23' \$\frac{1}{3}\$36' \$\frac{1}	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde  opposition	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 18 j 13:01 -1616 Jan 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 04 j 08:11 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 15:09	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36  -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\tilde{x}\$ 1° \$\tilde{x}\$35'40 2° \$\tilde{x}\$35'40 2° \$\tilde{x}\$34'58 4° \$\tilde{x}\$34'58 4° \$\tilde{x}\$30'16 4° \$\tilde{x}\$39'41 4° \$\tilde{x}\$23'18 7° \$\tilde{x}\$35'14 22° \$\tilde{x}\$05'02 22° \$\tilde{x}\$03'37 17° \$\tilde{x}\$11'31	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde  opposition  min. Earth dist.  direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jun 20 j 09:27 -1616 Jun 20 j 09:27 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ30'55 11°Ⅲ25'28	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist. direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36  -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 03:24 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1621 Aug 28 j 14:55 -1621 Aug 28 j 14:55 -1621 Dec 03 j 17:41	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\tilde{A}\$ 1° \$\tilde{A}\$35'40 2° \$\tilde{A}\$53'53 4° \$\tilde{A}\$34'58 4° \$\tilde{A}\$34'58 4° \$\tilde{A}\$39'41 4° \$\tilde{A}\$23'18 7° \$\tilde{A}\$05'02 22° \$\tilde{A}\$03'37 17° \$\tilde{A}\$11'31 0° \$\tilde{A}\$	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde  opposition  min. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 15:09 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26 -1615 Jun 26 j 20:27	0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ30'55 11°Ⅲ25'28 29°Ⅲ30'48	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36  -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\tilde{x}\$ 1° \$\tilde{x}\$35'40 2° \$\tilde{x}\$35'40 2° \$\tilde{x}\$34'58 4° \$\tilde{x}\$34'58 4° \$\tilde{x}\$30'16 4° \$\tilde{x}\$39'41 4° \$\tilde{x}\$23'18 7° \$\tilde{x}\$35'14 22° \$\tilde{x}\$05'02 22° \$\tilde{x}\$03'37 17° \$\tilde{x}\$11'31	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09	max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist. direct  evening set  conjunction  minimum elong  behind sun begin  behind sun end  max. Earth dist.  morning rise  asc. node  retrograde  opposition  min. Earth dist.  direct	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jun 20 j 09:27 -1616 Jun 20 j 09:27 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ30'55 11°Ⅲ25'28	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct  evening set	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 09 j 11:26 -1622 Dec 09 j 11:25 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55 -1621 Dec 03 j 17:41 -1621 Dec 31 j 03:56	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0°   1°  335'40 2°  35'35'33  4°  34'58 4°  334'58 4°  330'16 4°  39'41 4°  39'41 4°  35'14 27°  35'14	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09 4.06109 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 Mar 23 j 00:56 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jul 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26 -1615 Jun 26 j 20:27 -1615 Jun 29 j 02:02	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'00 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ45'19 3°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ30'55 11°Ⅲ25'28 29°Ⅲ30'48 0°\$	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU 0°23'58 4.31341 AU
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minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct  evening set  conjunction minimum elong max. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36  -1622 Dec 09 j 11:25 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55 -1621 Dec 03 j 17:41 -1621 Dec 31 j 03:56  -1620 Jan 13 j 03:09 -1620 Jan 13 j 03:07 -1620 Jan 13 j 11:44	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\textstyle{A}\$ 1° \$\textstyle{A}\$35'40 2° \$\textstyle{A}\$34'58 4° \$\textstyle{A}\$34'58 4° \$\textstyle{A}\$39'41 4° \$\textstyle{A}\$35'14 27° \$\textstyle{A}\$02'19 22° \$\textstyle{A}\$03'37 17° \$\textstyle{A}\$11'31 0° \$\textstyle{A}\$6° \$\textstyle{A}\$20'15 9° \$\textstyle{A}\$26'10 9° \$\textstyle{A}\$31'20	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09 4.06109 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 15:09 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26 -1615 Jun 29 j 02:02 -1615 Jun 29 j 02:02 -1615 Jul 10 j 07:14 -1615 Jul 10 j 07:12 -1615 Jul 10 j 07:12	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ25'28 29°Ⅲ30'48 0°9 2°\$27'20 2°\$27'18 2°\$26'05	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU 0°23'58 4.31341 AU
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct  evening set  conjunction minimum elong	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 09 j 07:36  -1622 Dec 09 j 11:25 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1621 Dec 08 j 15:35 -1621 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55 -1621 Dec 31 j 03:56  -1620 Jan 13 j 03:09 -1620 Jan 13 j 03:07 -1620 Jan 13 j 11:44 -1620 Jan 26 j 05:00	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° RM. 12° M.55'13 15° M. 0°   1°   335'40 2°   35'35'33  4°   34'58 4°   34'58 4°   39'41 4°   39'41 4°   23'18 7°   35'14 27°   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   35'   3	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09 4.06109 AU -0°43'53 0°43'54	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct evening set	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 15:09 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26 -1615 Jun 29 j 02:02 -1615 Jun 29 j 02:02 -1615 Jul 10 j 07:14 -1615 Jul 10 j 07:14	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ25'28 29°Ⅲ30'48 0° 2°\$27'18	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU 0°23'58 4.31341 AU 0°36'15 0°36'16
minimum elong morning rise  retrograde opposition min. Earth dist.  direct  evening set desc. node  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct  evening set  conjunction minimum elong max. Earth dist.	-1623 Nov 06 j 18:36 -1623 Nov 19 j 08:34 -1622 Jan 08 j 22:20 -1622 Mar 24 j 22:33 -1622 May 24 j 22:27 -1622 May 25 j 20:25 -1622 Jun 17 j 14:51 -1622 Jul 24 j 20:16 -1622 Aug 30 j 15:35 -1622 Nov 19 j 21:14 -1622 Nov 26 j 18:00 -1622 Dec 02 j 07:36  -1622 Dec 09 j 11:25 -1622 Dec 09 j 11:25 -1622 Dec 09 j 19:27 -1622 Dec 09 j 19:27 -1622 Dec 08 j 15:35 -1622 Dec 22 j 06:14 -1621 Apr 30 j 07:49 -1621 Jun 30 j 07:49 -1621 Jun 30 j 01:30 -1621 Jun 30 j 05:51 -1621 Aug 28 j 14:55 -1621 Dec 03 j 17:41 -1621 Dec 31 j 03:56  -1620 Jan 13 j 03:09 -1620 Jan 13 j 03:07 -1620 Jan 13 j 11:44	1° M.25'37 4° M.18'33 15° M. 22° M.44'34 17° M.50'40 17° M.43'37 15° R.M. 12° M.55'13 15° M. 0° \$\textstyle{A}\$ 1° \$\textstyle{A}\$35'40 2° \$\textstyle{A}\$34'58 4° \$\textstyle{A}\$34'58 4° \$\textstyle{A}\$39'41 4° \$\textstyle{A}\$35'14 27° \$\textstyle{A}\$02'19 22° \$\textstyle{A}\$03'37 17° \$\textstyle{A}\$11'31 0° \$\textstyle{A}\$6° \$\textstyle{A}\$20'15 9° \$\textstyle{A}\$26'10 9° \$\textstyle{A}\$31'20	0°41'01 0°31'17 4.17475 AU -0°00'50 0°00'51 6.11494 AU -0°35'09 4.06109 AU -0°43'53 0°43'54	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-1617 May 05 j 01:30 -1617 May 16 j 10:37 -1617 May 17 j 00:11 -1617 Jul 31 j 11:40 -1617 Sep 20 j 23:33 -1617 Nov 11 j 20:06 -1617 Nov 19 j 11:57 -1617 Nov 18 j 13:01 -1616 Jun 17 j 22:46 -1616 May 24 j 00:16 -1616 Jun 06 j 17:29 -1616 Jun 06 j 17:30 -1616 Jun 06 j 09:22 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 07 j 01:38 -1616 Jun 20 j 09:27 -1616 Jun 19 j 10:36 -1616 Oct 22 j 00:01 -1616 Dec 20 j 15:09 -1616 Dec 20 j 08:04 -1615 Feb 19 j 10:26 -1615 Jun 29 j 02:02 -1615 Jun 29 j 02:02 -1615 Jul 10 j 07:14 -1615 Jul 10 j 07:12 -1615 Jul 10 j 07:12	0°8 0°807'43 15°8 19°801'12 15°88 13°858'01 14°805'49 8°856'36 15°8 27°828'35 0°Ⅲ 0°Ⅲ32'01 0°Ⅲ27'29 0°Ⅲ36'32 0°Ⅲ45'19 3°Ⅲ34'35 9°Ⅲ48'42 21°Ⅲ28'02 16°Ⅲ28'33 16°Ⅲ25'28 29°Ⅲ30'48 0°9 2°\$27'20 2°\$27'18 2°\$26'05	-0°38'18 4.19720 AU -0°04'40 0°04'38 6.25841 AU 0°23'58 4.31341 AU 0°36'15 0°36'16

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1614 in astronomical counting style is the year 1615 BCE in historical counting style. -1614 Jan 20 j 18:30 17°538'11 1°16'32 -1609 Nov 14 j 23:23 0°정 opposition min. Earth dist. -1614 Jan 21 j 03:34 -1608 Jan 04 j 22:58 11°る14'50 17°935'12 4.39375 AU evening set -1614 Mar 23 j 16:23 12°934'46 direct -1614 Jul 27 j 07:14 -1608 Jan 17 j 22:52 14°る21'20 -0°48'51  $0^{\circ}\Omega$ conjunction -1608 Jan 17 j 22:49 -1614 Jul 29 j 03:08 evening set 0°**Ω**23'42 minimum elong 14°**පි**21'18 0°48'52 max. Earth dist. -1614 Aug 10 j 03:54 -1608 Jan 18 j 09:32 3°**Ω**00'40 6.41256 AU max. Earth dist. 14°**る**27'44 6.01432 AU -1608 Jan 31 j 01:47 morning rise 17°**る**29'31 -1614 Aug 11 j 05:12 conjunction 3°**Ω**14'28 1°05'36 -1608 Mar 28 j 10:11 0°≈ minimum elong -1614 Aug 11 j 05:10 3°**Ω**14'27 1°05'38 retrograde -1608 Jun 10 j 22:24 7°≈47'50 morning rise -1614 Aug 24 j 04:01  $6^{\circ}\Omega 03'40$ min. Earth dist. -1608 Aug 09 j 10:44 2°≈52'05 3.99311 AU -1614 Oct 07 j 00:49 15°€ opposition -1608 Aug 10 j 04:36 2°≈46'06 -1°36'42 22°**Ω**58'16 -1608 Sep 01 j 07:01 retrograde -1614 Dec 22 j 08:52 30°Ŗる -1608 Oct 07 j 11:28 27°る52'30 opposition -1613 Feb 20 j 17:34 18°**Ω**05'28 1°46'46 direct min. Earth dist. -1613 Feb 21 j 17:18 17°**Ω**57'50 4.41701 AU -1608 Nov 12 j 07:44 0°≈ -1613 Mar 18 j 15:42 15°R€ -1607 Jan 30 j 12:30 15°**≈** direct -1613 Apr 24 j 08:09 13°**Ω**03'03 evening set -1607 Feb 09 j 08:08 17°≈19'17 -1613 May 31 j 05:03 15°€ -1613 Aug 25 j 15:50 conjunction -1607 Feb 22 j 15:43 20°≈30'12 -1°13'14 20°**≈**30'12 evening set -1613 Aug 29 j 08:17  $0^{\circ}$  Mp 48'04minimum elong -1607 Feb 22 j 15:41 1°13'15 20°**≈**52'56 max. Earth dist. -1613 Sep 09 j 09:04 3° m 13'07 6.40351 AU max. Earth dist. -1607 Feb 24 j 05:41 5.98975 AU morning rise -1607 Mar 08 j 02:22 23°≈42'46 conjunction -1613 Sep 11 i 02:43 3° m 36'01 1°16'29 -1607 Apr 04 i 07:40 0°**)**€ minimum elong -1613 Sep 11 j 02:43 3° m 36'01 1°16'29 retrograde -1607 Jul 18 i 05:45 14° **)** 07'40 -1613 Sep 23 j 18:34 6° m 22'46 min. Earth dist. -1607 Sep 14 j 19:12 9°**升**12'59 4.00788 AU morning rise retrograde -1612 Jan 22 j 14:05 23° m 26'59 opposition -1607 Sep 16 j 00:24 9°\(\)03'04 -1°52'28 -1612 Mar 23 j 07:48 18° m 35'22 1°47'51 -1607 Nov 12 j 23:13 4° # 07'19 opposition direct -1612 Mar 24 j 15:46 -1606 Mar 18 j 13:49 23°¥29'40 min. Earth dist. 18° **m** 25'10 4.37710 AU evening set -1612 May 24 j 22:56 direct 13° m 34'52 -1612 Sep 21 j 12:28 -1606 Apr 01 j 04:33 26°\dagger41'28 -1°09'34 0∘ഹ conjunction -1612 Sep 28 j 05:07 1°**2**28'44 -1606 Apr 01 j 04:36 26°**)**41'29 1°09'35 evening set minimum elong -1612 Oct 08 j 23:19 -1606 Apr 03 j 06:00 max. Earth dist. 3°**£**52'51 6.33518 AU max. Earth dist. 27° **★**10'30 6.04137 AU -1606 Apr 14 j 21:51 29°**)** 54'22 morning rise -1606 Apr 15 j 07:32 -1612 Oct 10 j 19:39  $0^{\circ}$ 4° 217'42 1°06'03 conjunction -1612 Oct 10 j 19:41 -1606 Aug 22 j 21:32 19°**Y**42′07 minimum elong 4°**£**17'43 1°06'03 retrograde 14°**Y**47'41 4.09078 AU -1612 Oct 23 j 08:23 -1606 Oct 20 j 03:28 morning rise 7°**2**06'01 min. Earth dist. 14°**Y**37'08 -1°25'24 -1611 Feb 23 j 04:57 -1606 Oct 21 j 10:20 retrograde 24°**Ω**44'33 opposition 9°Y38'13 opposition -1611 Apr 25 j 05:05 19°**£**52'24 1°18'06 direct -1606 Dec 18 j 21:12 min. Earth dist. -1611 Apr 26 j 11:58 19°**£**42'35 4.28397 AU evening set -1605 Apr 24 j 09:10 28° Y 37'44 direct -1611 Jun 26 j 04:15 14°**£**54'35 -1605 Apr 30 j 09:34  $0^{\circ}$ 8 -1611 Oct 15 j 14:48 0°M evening set -1611 Oct 29 j 14:35  $3^{\circ}$ ML08'54conjunction -1605 May 08 j 03:51 1°846'31 -0°40'26 max. Earth dist. -1611 Nov 09 j 15:46 5°M40'53 -1605 May 08 j 03:54 1°846'32 0°40'25 6.22488 AU minimum elong max. Earth dist. -1605 May 09 j 21:55 2°810'34 6.14841 AU -1611 Nov 11 j 05:00 6°M02'18 0°35'52 -1605 May 21 j 23:06 4°**8**55'20 conjunction morning rise 15°8 -1611 Nov 11 j 05:02 6°M02'19 -1605 Jul 08 j 08:50 minimum elong 0°35'50 -1611 Nov 23 j 19:27 morning rise 8°M55'56 retrograde -1605 Sep 25 i 13:14 23°841'53 -1611 Dec 21 i 02:53 15°M min. Earth dist. -1605 Nov 23 i 03:51 18°**8**46'04 4.20987 AU retrograde -1610 Mar 29 i 19:58 27°ML28'16 opposition -1605 Nov 24 i 00:15 18°**8**39'09 -0°29'49 opposition -1610 May 29 j 19:28 22°M33'56 0°22'31 -1605 Dec 24 i 10:09 15°R₩ min. Earth dist. -1610 May 30 j 15:54 22°M27'22 4.16292 AU direct -1604 Jan 22 j 15:36 13°**8**37'29 direct -1610 Jul 29 j 14:26 17°MJ38'45 -1604 Feb 21 j 04:47 15°8 desc. node -1610 Oct 13 j 10:24 25°M44'14 -1604 May 19 j 04:02  $0^{\circ}II$ -1610 Nov 03 j 07:15 0°**∡**¹ evening set 2°II06'53 -1604 May 28 j 18:55 evening set -1610 Dec 01 j 08:08 6°x721'22 asc. node -1604 May 30 j 02:28 2°**I**I24'21 9°**∡**11'52 6.10431 AU max. Earth dist. -1610 Dec 13 j 10:04 conjunction -1604 Jun 11 j 11:38 5°**I**109'35 0°01'22 -1604 Jun 11 j 11:38 conjunction -1610 Dec 14 j 02:14 9°×21'24 -0°07'01 minimum elong 5°**Ⅲ**09'35 0°01'25 -1610 Dec 14 j 02:13 9°×21'23 0°07'03 -1604 Jun 11 j 03:18 5°**Ⅱ**04'58 minimum elong behind sun begin -1610 Dec 13 j 18:46 9°×17'01 -1604 Jun 11 j 19:58 5°**Ⅱ**14'12 behind sun begin behind sun end 9°**х** 25′45 -1604 Jun 12 j 09:09 5°**Ⅱ**21'33 6.27060 AU behind sun end -1610 Dec 14 j 09:39 max. Earth dist. 12°**х** 22′25 morning rise -1610 Dec 26 j 21:43 morning rise -1604 Jun 25 j 02:47 8°**Ⅱ**11'19 -1609 Mar 30 j 20:39 0°궁 retrograde -1604 Oct 26 j 07:29 25°**I**58'53 retrograde -1609 May 05 j 08:00 1°る55'24 opposition -1604 Dec 25 j 00:04 20°**I**59'56 0°32'12 -1609 Jun 09 j 21:57 30°R.✓ min. Earth dist. -1604 Dec 24 j 18:02 21°**Ⅲ**01'57 4.32435 AU opposition -1609 Jul 05 j 01:17 26° 757'39 -0°43'57 direct -1603 Feb 23 j 21:50 15°**I**I56'46 -1609 Jul 05 j 03:05 26°**渘**57'04 4.05270 AU -1603 Jun 12 j 17:25 0ಂತಾ min. Earth dist.

-1609 Sep 02 j 10:28

direct

22°**х**⁴04'16

-1603 Jul 01 j 10:38

evening set

4°9500'01

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1603 in astronomical counting style is the year 1604 BCE in historical counting style. -1603 Jul 14 j 20:13 6°955'41 0°41'13 retrograde -1597 May 10 j 11:50 6°る56'43 conjunction opposition -1603 Jul 14 j 20:10 6°955'40 -1597 Jul 10 j 03:54 1°る58'22 -0°52'42 minimum elong 0°41'15 max. Earth dist. -1603 Jul 14 j 14:46 6°952'42 min. Earth dist. -1597 Jul 10 j 02:46 1°る58'45 4.03929 AU 6.36874 AU -1603 Jul 28 j 03:02 30°₽**⋌**7 -1597 Jul 25 j 16:13 9°9649'52 morning rise -1603 Nov 26 j 02:32 -1597 Sep 07 j 08:49 27°**₹**'05'02 retrograde 26°957'49 direct -1602 Jan 25 j 02:12 opposition 22°902'36 1°22'16 -1597 Oct 20 j 02:24 0°ಕ -1602 Jan 25 j 13:47 -1596 Jan 09 j 21:49 min. Earth dist. 21°958'49 4.39999 AU evening set 16°**る**19'25 direct -1602 Mar 28 j 03:44 16°959'17 -1602 Jul 10 j 22:05 0° $\Omega$ conjunction -1596 Jan 22 j 22:53 19°る26'49 -0°53'38 evening set -1602 Aug 02 j 12:58 4°**Ω**46'54 minimum elong -1596 Jan 22 j 22:50 19°**る**26'47 0°53'39 -1596 Jan 23 j 14:44 max. Earth dist. -1602 Aug 14 j 09:45 7°**Ω**21'44 6.41529 AU max. Earth dist. 19°**る**36'20 6.00468 AU -1596 Feb 05 j 02:45 22°る35'52 morning rise -1602 Aug 15 j 13:52 conjunction 7°**Ω**37'04 1°08'19 -1596 Mar 08 j 07:22 0°**≈** minimum elong -1602 Aug 15 j 13:50 7°**Ω**37′03 1°08'20 retrograde -1596 Jun 16 j 05:17 12°≈58'32 morning rise -1602 Aug 28 j 11:35 10°**Ω**25'42 opposition -1596 Aug 15 j 08:42 7°≈56'20 -1°41'29 -1602 Sep 19 j 00:28 15°€ min. Earth dist. -1596 Aug 14 j 13:28 8°≈02'47 3.98855 AU retrograde -1602 Dec 26 j 15:43 27°**Ω**19'51 direct -1596 Oct 12 j 13:19 3°≈02'34 opposition -1601 Feb 25 j 02:06 22°**Ω**27'14 1°48'43 -1595 Jan 12 j 19:34 15°≈ min. Earth dist. -1601 Feb 26 j 02:53 22°Ω19'16 4.41608 AU evening set -1595 Feb 14 j 12:21 22°≈30'52 direct -1601 Apr 28 j 17:03 17°**Ω**24'59 -1601 Aug 09 j 08:04 0° m conjunction -1595 Feb 27 j 20:55 25°≈42'13 -1°14'29 evening set -1601 Sep 02 i 15:28  $5^{\circ}$  m 10'02minimum elong -1595 Feb 27 i 20:54 25°≈42'13 1°14'29 max. Earth dist. -1601 Sep 13 j 15:46 7° m 35'03 6.39868 AU max. Earth dist. -1595 Mar 01 i 12:49 26°≈06'04 5.99052 AU morning rise -1595 Mar 13 i 08:51 28°≈55'15 conjunction -1601 Sep 15 i 09:10 7° m 57'51 1°16'18 -1595 Mar 17 j 22:24 0°**)**€ -1601 Sep 15 j 09:10 7° **m** 57'51 -1595 Jul 23 j 07:47 19°**¥** 18′07 minimum elong 1°16'18 retrograde -1601 Sep 28 j 00:09 10° Mp 44'28 -1595 Sep 19 j 18:40 14°**¥**23'56 4.01425 AU morning rise min. Earth dist. retrograde -1600 Jan 27 j 00:11 27° m 51'32 opposition -1595 Sep 21 j 01:51 14° **X** 13'20 -1°51'05 -1600 Mar 27 j 19:13 22° m 59'56 -1595 Nov 18 j 00:13 1°45'29 direct 9°**)** 17'11 opposition -1600 Mar 29 j 03:42 22° m 49'36 -1594 Mar 23 j 18:57 28° **) (**37'47 min. Earth dist. 4.36841 AU evening set -1600 May 29 j 09:25 17° m 59'48 -1594 Mar 29 j 15:46  $0^{\circ}\Upsilon$ direct -1600 Sep 05 j 01:36 0∘ଫ -1594 Apr 06 j 10:34 1° Y 49'27 -1° 06'47 -1600 Oct 02 j 12:30 5°**£**55'21 conjunction evening set -1594 Apr 06 j 10:37 8°₽19'06 -1600 Oct 13 j 05:08 1°Y49'28 1°06'46 max. Earth dist. 6.32307 AU minimum elong -1594 Apr 08 j 12:32 2°Υ18'43 6.05304 AU max. Earth dist. -1600 Oct 15 j 02:37 8°**£**44'40 -1594 Apr 20 j 04:26 5°**Y**02'03 conjunction 1°02'55 morning rise -1600 Oct 15 j 02:39 -1594 Aug 27 j 18:46 24°**Y**42′19 minimum elong 8°**£**44'42 1°02'55 retrograde morning rise -1600 Oct 27 j 15:27 11°**≏**33'30 min. Earth dist. -1594 Oct 25 j 00:47 19°**Y**47'35 4.10647 AU retrograde -1599 Feb 27 j 21:06 29°**₽**18'04 opposition -1594 Oct 26 j 06:27 19°**Y**37'27 -1°18'48 opposition -1599 Apr 29 j 21:18 24°**2**25'40 1°11'41 direct -1594 Dec 23 j 21:27 14° Y 38' 07 min. Earth dist. -1599 May 01 j 03:39 24°**£**16'00 4.26896 AU -1593 Apr 13 j 13:38 0°8 -1599 Jun 30 j 17:35 19°**£**28'09 -1593 Apr 29 j 10:43 3°**8**33'07 direct evening set -1599 Sep 28 j 11:40 0°M -1599 Nov 03 j 00:50 -1593 May 13 j 05:32 6°841'07 -0°35'00 evening set 7°ML45'51 conjunction -1599 Nov 14 j 05:18 6.20834 AU -1593 May 13 j 05:35 6°841'09 0°34'59 max. Earth dist.  $10^{\circ}$ M $_{2}0'14$ minimum elong max. Earth dist. -1593 May 14 j 23:10 7°**8**04'49 6.16716 AU -1599 Nov 15 i 15:43 -1593 May 27 i 00:29 conjunction 10°M40'06 0°30'26 morning rise 9°848'59 minimum elong -1599 Nov 15 i 15:45 10°M40'07 0°30'25 -1593 Jun 19 j 12:26 15°8 morning rise -1599 Nov 28 i 06:33 13°MJ34'38 retrograde -1593 Sep 30 i 00:58 28°**8**25'42 -1599 Dec 04 i 12:01 15°M₀ opposition -1593 Nov 28 j 13:36 23°**8**23'25 -0°21'05 -1598 Feb 24 j 01:28 0°**∡**¹ min. Earth dist. -1593 Nov 27 j 17:43 23°830'08 4.22993 AU -1598 Apr 03 j 17:59 2°×15'11 direct -1592 Jan 27 j 08:18 18°**8**21'28 retrograde -1598 May 12 j 19:29 -1592 Apr 09 j 13:18 25°**8**44'07 30°RM. asc. node opposition -1598 Jun 03 j 17:26 27°M20'28 0°13'29 -1592 May 01 j 21:13  $\Pi^{\circ}0$ min. Earth dist. -1598 Jun 04 j 11:55 27°ML14'31 4.14600 AU evening set -1592 Jun 02 j 13:57 6°Ⅱ45'26 direct -1598 Aug 03 j 07:53 22°M-25'37 23°ML05'46 desc. node -1598 Aug 23 j 19:45 conjunction -1592 Jun 16 j 05:44 9°II46'56 0°07'18 -1592 Jun 16 j 05:43 -1598 Oct 15 j 04:37 0° ×7 9°**Ⅱ**46'56 0°07'19 minimum elong -1598 Dec 06 j 00:12 11°**∡**12'27 -1592 Jun 15 j 22:09 9°**Ⅱ**42'45 evening set behind sun begin -1592 Jun 16 j 13:16 9°**I**51′06 behind sun end -1598 Dec 18 j 18:48 14°**∡**13'25 -0°13'13 conjunction max. Earth dist. -1592 Jun 16 j 22:52 9°**Ⅱ**56'26 6.29045 AU minimum elong -1598 Dec 18 j 18:47 14° **₹**13'25 0°13'15 morning rise -1592 Jun 29 j 19:55 12°**Ⅲ**47′23 behind sun begin -1598 Dec 18 j 13:58 14°**х** 10′35 -1592 Oct 14 j 01:56 0 $\circ$  $\odot$ behind sun end -1598 Dec 18 j 23:36 14°**х** 16′15 retrograde -1592 Oct 30 j 14:59 0°926'33 max. Earth dist. -1598 Dec 18 j 04:41 14°**₹**05'05 6.08841 AU -1592 Nov 16 j 00:27 30°R,Ⅲ -1598 Dec 31 j 15:21 17°**∡**15'34 -1592 Dec 29 j 08:15 25°II28'05 0°40'04 morning rise opposition -1597 Mar 01 j 06:48 0°る min. Earth dist. -1592 Dec 29 j 05:21 25°**II**29'02 4.34232 AU

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1591 in astronomical counting style is the year 1592 BCE in historical counting style. -1591 Feb 28 i 11:57 20°**Ⅲ**24'45 desc. node -1586 Jul 04 j 22:03 28°M59'53 direct -1591 May 26 j 04:20 0ಂತಾ -1586 Aug 08 j 00:31 27°M12'33 direct -1591 Jul 05 j 22:09 -1586 Sep 19 j 11:33 8°923'20 0°×7 evening set -1586 Dec 10 j 17:30 16°**₰**06'00 evening set -1591 Jul 19 j 06:38 conjunction 11°9517'55 0°45'49 minimum elong -1591 Jul 19 j 06:35 -1586 Dec 23 j 13:10 19°**₹**08'18 -0°19'21 11°9517'53 0°45'51 conjunction -1586 Dec 23 j 13:08 max. Earth dist. -1591 Jul 18 j 22:30 11°9513'29 6.38332 AU minimum elong 19°**₰**08'17 0°19'22 morning rise -1591 Aug 01 j 12:01 14°9510'56 max. Earth dist. -1586 Dec 23 j 04:06 19°**х** 02'55 6.06760 AU -1591 Nov 02 j 03:58  $0^{\circ}\Omega$ morning rise -1585 Jan 05 j 10:37 22°**х** 11′48 retrograde -1591 Nov 30 j 04:27 1°**Ω**13'54 -1585 Feb 08 j 19:54 0°궁 -1591 Dec 28 j 04:32 30°Rூ retrograde -1585 May 15 j 19:58 12°**る**02'54 -1585 Jul 15 j 08:29 opposition -1590 Jan 29 j 07:16 26°9519'04 1°27'20 opposition 7°る04'04 -1°01'07 -1585 Jul 15 j 05:04 min. Earth dist. -1590 Jan 29 j 20:19 26°9514'49 4.41031 AU min. Earth dist. 7°る05'12 4.02247 AU direct -1590 Apr 01 j 10:57 21°9515'47 direct -1585 Sep 12 j 08:37 2°る10'52 -1590 Jun 23 j 10:37  $0^{\circ}\Omega$ evening set -1584 Jan 14 j 23:43 21°る30'25 evening set -1590 Aug 06 j 19:05 9°**Ω**00'49 max. Earth dist. -1590 Aug 18 j 11:37 11°**Ω**33'19 6.42038 AU conjunction -1584 Jan 28 j 01:46 24°る38'49 -0°58'01 minimum elong -1584 Jan 28 j 01:43 24°る38'47 0°58'03 conjunction -1590 Aug 19 j 18:43 11°Ω50'16 1°10'33 max. Earth dist. -1584 Jan 28 j 21:00 24°る50'22 5.99326 AU minimum elong -1590 Aug 19 j 18:41 11°**Ω**50'15 1°10'33 morning rise -1584 Feb 10 j 07:02 27°る48'57 morning rise -1590 Sep 01 j 15:17 14°**Ω**38'14 -1584 Feb 19 j 12:18 -1590 Sep 03 i 07:31 15°Ω -1584 May 06 i 05:07 15°≈ -1590 Nov 29 i 07:11 0° m -1584 Jun 21 i 12:39 18°≈16'13 retrograde retrograde -1590 Dec 30 i 19:59 1° m 31'35 -1584 Aug 07 j 03:12 15°R≈ -1589 Jan 31 j 10:01 30°RΩ opposition -1584 Aug 20 j 15:17 13°≈13'30 -1°45'28 -1589 Mar 01 j 07:14 26°**Q**39'14 1°49'59 -1584 Aug 19 j 16:18 opposition min. Earth dist. 13°≈21'13 3.98410 AU -1589 Mar 02 j 10:45 -1584 Oct 17 j 16:25 min. Earth dist. 26°**Ω**30'24 4.41557 AU direct 8°≈19'32 -1589 May 03 j 00:30 -1584 Dec 22 j 17:28 direct 21°**Ω**37′10 15°≈ -1589 Jul 22 j 22:01 -1583 Feb 19 j 19:32  $0^{\circ}$  mb 27°≈49'08 evening set 9°**m**,22′19 -1583 Feb 28 j 23:20 0°**)**€ evening set -1589 Sep 06 j 18:55 6.39232 AU max. Earth dist. -1589 Sep 17 j 15:25 11° Mp 45'32 -1583 Mar 05 j 05:17 1°\(\mathbf{t}\) 00'53 -1°15'07 conjunction -1583 Mar 05 j 05:17 conjunction -1589 Sep 19 j 11:54 12° m 10'05 1°15'41 1° **★**00'52 1°15'07 minimum elong -1589 Sep 19 j 11:54 12° m 10'05 1°15'42 -1583 Mar 07 j 00:50 minimum elong max. Earth dist. 1°**₭**26'53 5.99323 AU -1589 Oct 02 j 02:25 -1583 Mar 18 j 18:10 morning rise 14° m 56'45 morning rise 4°\ 14'12 -1589 Dec 24 j 18:35 -1583 Jul 28 j 13:00 24°**)** 33'43 0∘**⊽** retrograde retrograde -1588 Jan 31 j 07:31 2°**₽**07'31 min. Earth dist. -1583 Sep 24 j 21:38 19°**₭**39'23 4.02359 AU -1588 Mar 09 j 05:48 30°R, My opposition -1583 Sep 26 j 05:06 19°\(\frac{1}{28}\)'39 -1°48'44 opposition -1588 Apr 01 j 03:36 27° m 15'53 1°42'37 direct -1583 Nov 23 j 05:48 14° **)** 32'02 min. Earth dist. -1588 Apr 02 j 12:38  $27^{\circ}$  Mp 05'224.35655 AU -1582 Mar 12 j 09:19  $0^{\circ}\Upsilon$ direct -1588 Jun 02 j 15:46  $22^{\circ}$  My 16'00evening set -1582 Mar 29 j 01:55 3°Y49'35 -1588 Aug 18 j 03:50 0∘**⊽** -1588 Oct 06 j 16:51 10°**♀**14'34 -1582 Apr 11 j 18:20 7°Y'00'55 -1°03'25 evening set conjunction max. Earth dist. -1588 Oct 17 j 10:31 12°**≏**39'24 -1582 Apr 11 j 18:23 7° Y 00'57 1° 03'24 6.30663 AU minimum elong -1582 Apr 13 j 21:53 7°**Υ**31'00 6.06786 AU max. Earth dist. 10°**Y**13′02 conjunction -1588 Oct 19 i 07:01 13°**2**04'31 0°59'32 morning rise -1582 Apr 25 i 12:38 minimum elong -1588 Oct 19 i 07:03 13°**♀**04'33 0°59'30 retrograde -1582 Sep 01 j 14:43 29° Y 44'10 morning rise -1588 Oct 31 i 19:48 15°**£**54'03 min. Earth dist. -1582 Oct 29 j 21:11 24°Υ49'35 4.12481 AU -1587 Jan 12 j 16:24 0°M opposition -1582 Oct 31 j 02:43 24° Y 39'31 -1°11'34 -1587 Mar 04 j 12:00 3°M46'29 direct -1582 Dec 28 j 20:15 19°**Y**39'44 retrograde -1587 Apr 25 j 18:33 30°R**≏** -1581 Mar 26 j 03:05 0°8 -1587 May 04 j 11:56 28°**£**53'55 1°05'00 -1581 May 04 j 12:45 8°**8**29'33 opposition evening set -1587 May 05 j 18:08 28°**£**44'18 4.24877 AU min. Earth dist. -1587 Jul 05 j 04:42 direct 23°**£**56'49 conjunction -1581 May 18 j 07:19 11°836'37 -0°29'17 -1587 Sep 08 j 18:13 0°M minimum elong -1581 May 18 j 07:22 11°**8**36'38 0°29'15 -1587 Nov 07 j 10:16 12°M19'54 max. Earth dist. -1581 May 19 j 20:56 11°**8**57'56 6.18719 AU evening set 15°M -1581 Jun 01 j 02:02 14°**8**43'26 -1587 Nov 18 j 23:07 morning rise -1587 Nov 18 j 15:18 14°ML55'27 6.18610 AU -1581 Jun 02 j 07:33 15°8 max. Earth dist.  $0^{\circ}\Pi$ -1581 Aug 20 j 03:07 -1587 Nov 20 j 01:26 15°M15'15 0°24'54 -1581 Oct 04 j 13:56 conjunction retrograde 3°**Ⅱ**10′24 minimum elong -1587 Nov 20 j 01:28 15°M15'16 0°24'53 -1581 Nov 19 j 00:32 30°₹**८** morning rise -1587 Dec 02 j 17:08 18°M11'04 min. Earth dist. -1581 Dec 02 j 10:11 28°**8**14'19 4.24953 AU -1586 Jan 27 j 17:22 0°⊀ opposition -1581 Dec 03 j 03:16 28°**8**08'33 -0°12'09 retrograde -1586 Apr 08 j 17:11 7°**х** °02′16 direct -1580 Feb 01 j 03:45 23°**8**06'17 opposition -1586 Jun 08 j 15:34 2°**҂**07'07 0°04'24 asc. node -1580 Feb 17 j 21:19 23°**8**33'06

min. Earth dist.

-1586 Jun 09 j 07:24

-1586 Jun 25 j 15:32

2°**尽**02'00 4.12336 AU

evening set

30°RM

-1580 Apr 11 j 19:04

-1580 Jun 07 j 08:53

 $0^{\circ}\Pi$ 

11°**Ⅱ**25′19

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1580 in astronomical counting style is the year 1581 BCE in historical counting style. -1580 Jun 20 j 23:58 14°**I**I25'44 0°13'14 evening set -1575 Nov 12 j 00:28 17°M06'25 conjunction -1580 Jun 20 j 23:57 14°**I**I25'43 0°13'15 max. Earth dist. -1575 Nov 23 j 10:19 minimum elong 19°M45'22 6.16717 AU behind sun begin -1580 Jun 20 j 19:18 14°**Ⅲ**23′10 -1580 Jun 21 j 04:35 14°**Ⅲ**28′17 behind sun end conjunction -1575 Nov 24 j 16:15 20°ML02'48 0°18'56 -1580 Jun 21 j 14:45 6.30814 AU  $20^{\circ}$  ML 02'48 max. Earth dist. 14°**Ⅲ**33'54 minimum elong -1575 Nov 24 j 16:17 0°18'55 -1580 Jul 04 j 12:53 -1575 Dec 07 j 08:30 22°M59'42 morning rise 17°**Ⅲ**24'57 morning rise -1574 Jan 07 j 16:31 -1580 Sep 06 j 19:36 0ಂತಾ 0°**∡** retrograde -1580 Nov 03 j 21:37 4°956'54 retrograde -1574 Apr 13 j 22:03 12°**₹**'00'06 opposition -1579 Jan 02 j 17:11 29°**Ⅲ**59'00 0°47'52 desc. node -1574 May 14 j 06:50 10°**х** 35′29 -1579 Jan 02 j 14:10 30°RⅡ opposition -1574 Jun 13 j 18:12 7°**х**¹04'32 -0°05'08 min. Earth dist. -1579 Jan 02 j 16:02 29°**Ⅲ**59′23 4.35689 AU min. Earth dist. -1574 Jun 14 j 08:05 7°**∡**00'03 4.10606 AU direct -1579 Mar 05 j 00:23 24°**Ⅲ**55'38 direct -1574 Aug 12 j 22:49 2°×10'19 -1574 Dec 15 j 14:26 -1579 May 04 j 16:29 0ಂತಾ evening set 21°**х** 08′06 evening set -1579 Jul 10 j 11:13 12°950'59 conjunction -1574 Dec 28 j 10:47 24°**∡**11'20 -0°25'32 conjunction -1579 Jul 23 j 18:16 15°**©**44'37 0°50'18 minimum elong -1574 Dec 28 j 10:45 24°**∡**11'19 0°25'33 minimum elong -1579 Jul 23 j 18:13 15°5544'35 0°50'19 max. Earth dist. -1574 Dec 28 j 04:58 24°**∡**07'52 6.05366 AU max. Earth dist. -1579 Jul 23 j 05:07 15°937'27 6.39355 AU morning rise -1573 Jan 10 j 09:24 27°**х** 15′55 morning rise -1579 Aug 05 j 22:28 18°936'43 -1573 Jan 22 j 01:17 0°궁 -1579 Oct 02 j 21:52  $0^{\circ}\Omega$ retrograde -1573 May 21 j 02:12 17°る13'54 retrograde -1579 Dec 04 j 11:29 5°**Ω**36'19 opposition -1573 Jul 20 j 14:43 12°る14'28 -1°09'15 opposition -1578 Feb 02 i 14:45 0°**Ω**41'56 1°32'09 min. Earth dist. -1573 Jul 20 i 07:00 12°る17'00 4.01367 AU min. Earth dist. -1578 Feb 03 i 07:11 0°**Ω**36'35 4.41580 AU direct -1573 Sep 17 i 09:53 7°る21'18 -1578 Feb 08 i 00:08 30°R55 evening set -1572 Jan 20 j 02:40 26°る42'55 direct -1578 Apr 05 j 22:40 25°538'42 -1578 Jun 01 j 06:44  $0^{\circ}\Omega$ -1572 Feb 02 j 05:46 29° ප් 51'52 -1°02'00 conjunction -1578 Aug 11 j 03:47 13°**Ω**22'45 -1572 Feb 02 j 05:44 29°**る**51'50 1°02'01 minimum elong evening set -1578 Aug 18 j 14:51 -1572 Feb 02 j 19:19 15°€ 0°≈ max. Earth dist. -1578 Aug 22 j 17:06 -1572 Feb 03 j 06:01 5.99037 AU 15°**Ω**53'34 6.42054 AU max. Earth dist. 0°**≈**06′26 -1572 Feb 15 j 11:59 morning rise 3°≈02'32 -1578 Aug 24 j 02:28 -1572 Apr 09 j 17:28 conjunction 16°**Ω**11'46 1°12'31 15°≈ -1572 Jun 26 j 19:30 -1578 Aug 24 j 02:27 minimum elong 16°**Ω**11'45 1°12'32 retrograde 23°≈30'34 -1572 Aug 25 j 20:18 -1578 Sep 05 j 21:55 18°**Ω**59'18 18°≈27'21 -1°48'33 morning rise opposition -1578 Oct 31 j 14:43 min. Earth dist. -1572 Aug 24 j 19:59 0° m 18°≈35'33 3.98758 AU -1577 Jan 04 j 02:37 -1572 Sep 23 j 11:09 retrograde 5° m 53'30 15°R≈ 1°50'48 -1572 Oct 22 j 21:36 opposition -1577 Mar 05 j 16:19 1°**m**01'19 direct 13°≈33'04 min. Earth dist. -1577 Mar 06 j 20:28 0° Mp 52'18 4.41068 AU -1572 Nov 21 j 05:10 15°≈ -1577 Mar 13 j 17:04 30°R€ -1571 Feb 12 j 04:02 0°**)**€ direct -1577 May 07 j 09:04 25°**Ω**59'28 evening set -1571 Feb 25 j 00:51 3°**)**€01'06 -1577 Jun 30 j 06:50 0° m evening set -1577 Sep 11 j 02:21 13° Mp 45'55 conjunction -1571 Mar 10 j 11:38 6°¥12'52 -1°15'09 max. Earth dist. -1577 Sep 21 j 21:33 16°M)08'49 -1571 Mar 10 j 11:38 6°¥12'53 1°15'10 6.38268 AU minimum elong -1571 Mar 12 j 10:18 6°¥40'38 6.00255 AU max. Earth dist. -1577 Sep 23 j 18:40 16° mp 33'47 1°14'41 -1571 Mar 24 j 01:24 9°**∺**26′08 conjunction morning rise -1577 Sep 23 j 18:41 16°M 33'48 -1571 Aug 02 j 12:55 29°**)** 39'32 minimum elong 1°14'41 retrograde -1577 Oct 06 i 08:40 24°**)**(45'21 4.03777 AU morning rise 19° m 20'39 min. Earth dist. -1571 Sep 29 i 20:12 -1571 Oct 01 i 04:25 24°\(\dagger)34'22 -1°45'36 -1577 Nov 28 i 00:47 opposition retrograde -1576 Feb 04 i 20:52 6°**£**36'10 direct -1571 Nov 28 i 05:56 19° **X** 37'19 opposition -1576 Apr 05 i 17:18 1°**2**44'32 1°39'05 -1570 Feb 22 i 04:23  $0^{\circ}\Upsilon$ min. Earth dist. -1576 Apr 07 j 03:26 1°**2**33'41 4.34265 AU -1570 Apr 03 j 04:55 8°Y50'29 evening set -1576 Apr 19 j 16:46 30°R ₩ direct -1576 Jun 07 j 04:33 26° m 45'00 -1570 Apr 16 j 21:45 12°Υ01'15 -0°59'42 conjunction -1576 Jul 24 j 20:45 0∘**⊽** -1570 Apr 16 j 21:49 12°Υ01'16 0°59'42 minimum elong -1570 Apr 18 j 22:53 12°**Y**29'47 evening set -1576 Oct 11 j 02:14 14°**-**46′53 max. Earth dist. 6.08538 AU -1576 Oct 21 j 19:17 -1570 Apr 30 j 16:32 15°**Y**12'42 max. Earth dist. 17°**₽**12'00 6.28963 AU morning rise -1570 Jul 13 j 02:10 0°8 conjunction -1576 Oct 23 j 16:18 17°**△**37'30 0°55'37 retrograde -1570 Sep 06 j 06:07 4°834'23 17°**≏**37'32 -1576 Oct 23 j 16:20 -1570 Nov 01 j 02:38 30°RY minimum elong 0°55'37 -1576 Nov 05 j 05:24 20°**£**27'50 -1570 Nov 04 j 18:48 29°Y29'58 -1°04'07 morning rise opposition -1570 Nov 03 j 14:59 29°**Υ**39'28 4.14362 AU -1576 Dec 20 j 07:39 0°M min. Earth dist. -1569 Jan 02 j 16:41 24°**Y**29'46 retrograde -1575 Mar 09 j 07:20 8°M28'13 direct -1575 May 09 j 07:50 3°M35'21 0°57'32 -1569 Mar 04 j 19:12 0°8 opposition min. Earth dist. -1575 May 10 j 11:54 3°M26'24 4.22984 AU evening set -1569 May 09 j 10:17 13°**8**14'37 -1575 Jun 09 j 21:08 30°R<u>₽</u> -1569 May 17 j 05:39 15°8 direct -1575 Jul 09 j 19:54 28°**£**38'36 -1575 Aug 08 j 15:07 0°M -1569 May 23 j 04:51 16°820'49 -0°23'34 conjunction -1575 Nov 02 j 19:48 15°M₁ -1569 May 23 j 04:53 16°**8**20'50 0°23'32 minimum elong

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1569 in astronomical counting style is the year 1570 BCE in historical counting style. opposition -1569 May 24 j 16:29 16°**8**40'56 6.20594 AU -1563 May 14 j 05:14 8°M20'06 0°49'36 max. Earth dist. -1569 Jun 05 j 22:53 19°**8**26'35 min. Earth dist. -1563 May 15 j 08:22 8°M11'26 4.21303 AU morning rise -1569 Jul 26 j 16:43  $0^{\circ}II$ -1563 Jul 14 j 14:16 3°M23'46 direct -1569 Oct 08 j 23:26 7°**Ⅱ**44'47 -1563 Oct 16 j 15:04 15°M₁ retrograde -1569 Dec 07 j 13:14 2°II43'33 -0°03'28 -1563 Nov 16 j 15:17 opposition evening set 21°M55'15 min. Earth dist. -1569 Dec 06 j 22:19 max. Earth dist. 2°**I**48'34 4.26646 AU -1563 Nov 28 j 03:57  $24^{\circ}\textrm{ML}36^{\prime}25$ 6.15133 AU asc. node -1569 Dec 29 j 12:21 29°**8**56'49 -1563 Nov 29 j 07:29 -1569 Dec 29 j 00:54 30°**₹**8 conjunction 24°M52'29 0°12'50 27°**8**41'06 0°12'47 direct -1568 Feb 05 j 17:58 minimum elong -1563 Nov 29 j 07:29 24°M52'30  $24^{\circ}$ M 49'31-1568 Mar 15 j 22:29  $0^{\circ}\Pi$ behind sun begin -1563 Nov 29 j 02:22 evening set -1568 Jun 12 j 00:41 15°**Ⅲ**56'25 behind sun end -1563 Nov 29 j 12:36  $24^{\circ}$ M $_{55}$ ' $_{28}$ -1563 Dec 12 j 00:31 27°M50'23 morning rise conjunction -1568 Jun 25 j 14:43 18°**I**55'52 0°18'54 -1563 Dec 21 j 09:15 0°**∡**7 minimum elong -1568 Jun 25 j 14:42 18°**Ⅲ**55'51 0°18'56 desc. node -1562 Mar 23 j 19:44 15°**х** 55′03 max. Earth dist. -1568 Jun 25 j 23:52 19°**Ⅲ**00'54 6.32192 AU retrograde -1562 Apr 18 j 23:53 16°**₹**58'42 morning rise -1568 Jul 09 j 02:45 21°**Ⅲ**54'07 opposition -1562 Jun 18 j 20:29 12°**₹**02'37 -0°14'39 -1568 Aug 16 j 23:12 0ಂತಾ min. Earth dist. -1562 Jun 19 j 06:27 11°**∡**¹59'23 4.09251 AU retrograde -1568 Nov 08 j 04:01 9°9520'37 direct -1562 Aug 17 j 19:12 7°**х** 08′38 opposition -1567 Jan 07 j 00:05 4°**ॐ**23'17 0°55'10 evening set -1562 Dec 20 j 11:01 26°**х** 09'31 min. Earth dist. -1567 Jan 07 j 02:09 4°522'36 4.36676 AU -1567 Feb 16 j 16:25 30°RⅡ conjunction -1561 Jan 02 j 08:09 29°**х** 13'31 -0°31'31 direct -1567 Mar 09 j 11:42 29°**Ⅱ**19'51 minimum elong -1561 Jan 02 i 08:07 29°**х** 13′30 0°31'33 -1567 Mar 30 j 11:35 0ಂಣ max. Earth dist. -1561 Jan 02 i 07:11 29°**х** 12′56 6.04350 AU -1567 Jul 14 j 21:59 17°9513'38 -1561 Jan 05 j 14:02 0°궁 evening set morning rise -1561 Jan 15 j 07:36 2°る18'56 -1567 Jul 28 j 04:04 20°906'36 0°54'23 -1561 May 26 j 08:29 22°る22'15 conjunction retrograde -1567 Jul 28 j 04:01 20°506'34 0°54'24 -1561 Jul 25 j 19:15 17°る22'13 -1°16'46 opposition minimum elong -1567 Jul 27 j 12:43 19°**9**58'14 6.39878 AU -1561 Jul 25 j 09:38 17°る25'24 4.00791 AU max. Earth dist. min. Earth dist. -1567 Aug 10 j 06:53 22°957'58 -1561 Sep 22 j 12:22 direct 12°る29'00 morning rise -1567 Sep 13 j 02:09 -1560 Jan 17 j 07:47 0° $\Omega$ 0°≈ -1567 Dec 08 j 16:24 -1560 Jan 25 j 04:07 9°**£**56′10 1°≈51'48 retrograde evening set -1566 Feb 06 j 21:41 5°**Ω**02'13 1°36'23 opposition 5°≈01'14 -1°05'29 -1566 Feb 07 j 15:22 -1560 Feb 07 j 08:14 min. Earth dist. 4°**Ω**56'29 4.41640 AU conjunction -1566 Apr 07 j 08:01 30°Rூ -1560 Feb 07 j 08:11 minimum elong 5°≈01'13 1°05'30 -1566 Apr 10 j 06:40 29°959'13 -1560 Feb 08 j 12:20 direct max. Earth dist. 5°≈18'06 5.98935 AU -1566 Apr 13 j 05:21  $0^{\circ}\Omega$ -1560 Feb 20 j 15:30 morning rise 8°≈12'24 -1566 Aug 02 j 18:24 15°€ -1560 Mar 21 j 01:14 15°≈ evening set -1566 Aug 15 j 12:08 17°**Ω**43'47 retrograde -1560 Jul 01 j 23:42 28°≈40'20 max. Earth dist. -1566 Aug 26 j 21:00 20°**Ω**12'31 6.41635 AU opposition -1560 Aug 30 j 22:53 23°≈36'44 -1°50'47 min. Earth dist. -1560 Aug 29 j 20:37 23°≈45'36 3.99177 AU conjunction -1566 Aug 28 j 09:38 20°**Ω**32'32 1°14'02 direct -1560 Oct 27 j 22:26 18°≈42'09 -1566 Aug 28 j 09:37 20°**Ω**32'32 1°14'04 -1559 Jan 25 j 07:40 0°) minimum elong -1566 Sep 10 j 04:17 23°**Ω**19'53 -1559 Mar 02 j 04:24 8°**)** 08'44 morning rise evening set -1566 Oct 12 j 00:26 -1565 Jan 08 j 12:45 10° m 16'27 -1559 Mar 15 j 15:59 11°\(\dagger)20'30 -1°14'39 retrograde conjunction -1565 Mar 10 j 02:21 opposition 5° m 24'31 1°50'59 minimum elong -1559 Mar 15 j 16:01 11°\(\dagger)20'30\) 1°14'39 min. Earth dist. -1565 Mar 11 i 08:33 5° m 14'51 4.40218 AU max. Earth dist. -1559 Mar 17 j 14:33 11°**)**(48'07 6.01125 AU direct -1565 May 11 j 20:04 0°m22'59 morning rise -1559 Mar 29 i 06:43 14° **)** 33'42 evening set -1565 Sep 15 i 10:25 18° m 11'45 -1559 Jun 12 j 11:53  $0^{\circ}\Upsilon$ 4°Υ41'29 max. Earth dist. -1565 Sep 26 j 04:52 20° m 34'40 6.37054 AU -1559 Aug 07 i 09:50 retrograde -1559 Oct 03 i 04:00 30°R₩ -1565 Sep 28 j 02:20 20° m 59'54 1°13'12 min. Earth dist. -1559 Oct 04 j 17:37 29°\dagger47'10 4.05001 AU conjunction 1°13'12 -1565 Sep 28 j 02:21 20° m 59'55 -1559 Oct 06 j 01:42 29° ¥ 36'13 -1°41'48 minimum elong opposition -1565 Oct 10 j 15:56 23° m/47'06 morning rise direct -1559 Dec 03 j 05:22 24° ¥ 38'40 -1558 Jan 31 j 09:00  $0^{\circ}\Upsilon$ -1565 Nov 08 j 17:36 0∘**⊽** 13°Y48'27 retrograde -1564 Feb 09 j 10:17 11°**≏**08'12 evening set -1558 Apr 08 j 06:37 -1564 Apr 10 j 08:21 1°34'52 opposition 6°**£**16'31 -1564 Apr 11 j 17:03 -1558 Apr 22 j 00:11 16°Υ58'49 -0°55'37 min. Earth dist. 6°**₽**06'06 4.32778 AU conjunction -1564 Jun 11 j 16:03 1°**♀**17'24 -1558 Apr 22 j 00:14 16°**Y**58'51 0°55'37 direct minimum elong 17°**Ƴ**27'12 -1564 Oct 15 j 12:36 -1558 Apr 24 j 01:14 6.10025 AU evening set 19°**₽**22'44 max. Earth dist. -1558 May 05 j 19:03 20° Y 09'40 max. Earth dist. -1564 Oct 26 j 08:12 21°**₽**49'51 6.27333 AU morning rise 0°8 -1558 Jun 20 j 07:54 conjunction -1564 Oct 28 j 02:41 22°**₽**14'01 0°51'19 retrograde -1558 Sep 10 j 22:17 9°**8**22'55 min. Earth dist. minimum elong -1564 Oct 28 j 02:44 22°**₽**14'03 0°51'18 -1558 Nov 08 j 07:56 4°**8**27'42 4.15944 AU morning rise -1564 Nov 09 j 15:58 25°**£**05'07 opposition -1558 Nov 09 j 09:56 4°**8**18'51 -0°56'20 -1564 Dec 01 j 20:43 -1558 Dec 18 j 00:52 30°RY 0°M

-1563 Mar 14 j 05:58

retrograde

13°M13'13

direct

-1557 Jan 07 j 11:59

29°Y18'16

-	ical year style is used: Th					_	50 31
,	-1557 Jan 28 j 03:32	0°8		retrograde	-1551 Mar 19 j 00:54	17° <b>M</b> .55'37	
	-1557 Apr 30 j 19:43	15° <b>8</b>			-1551 May 03 j 05:45	15°RM₊	
evening set	-1557 May 14 j 07:41	17° <b>8</b> 59'15		opposition	-1551 May 19 j 01:40	13°ML02'09	0°41'26
				min. Earth dist.	-1551 May 20 j 01:55	12°M54'24	4.20046 AU
conjunction	-1557 May 28 j 01:52	21° <b>8</b> 04'40	-0°17'42	direct	-1551 Jul 19 j 05:45	8°ML06'13	
minimum elong	-1557 May 28 j 01:53	21° <b>8</b> 04'41	0°17'41		-1551 Sep 27 j 02:58	15° <b>M</b> ₊	
max. Earth dist.	-1557 May 29 j 09:15		6.22138 AU	evening set	-1551 Nov 21 j 05:02	$26^{\circ}$ M40'03	
morning rise	-1557 Jun 10 j 19:33	24° <b>8</b> 09'34					
	-1557 Jul 07 j 17:37	$\Pi^{\circ}$		conjunction	-1551 Dec 03 j 21:36	29°M37'56	0°06'45
retrograde	-1557 Oct 13 j 08:52	12° <b>Ⅱ</b> 20'14		minimum elong	-1551 Dec 03 j 21:38	29°M37'57	0°06'44
asc. node	-1557 Nov 08 j 17:22	11° <b>Ⅱ</b> 12'27		behind sun begin	-1551 Dec 03 j 14:09	29°M33'35	
opposition	-1557 Dec 11 j 23:38	7° <b>Ⅱ</b> 19'28	0°05'14	behind sun end	-1551 Dec 04 j 05:07	29°M42'19	
min. Earth dist.	-1557 Dec 11 j 10:52	7° <b>Ⅱ</b> 23'45	4.28025 AU	max. Earth dist.	-1551 Dec 02 j 21:35	29°M23'52	6.13972 AU
direct	-1556 Feb 10 j 08:33	2° <b>I</b> 16'44			-1551 Dec 05 j 11:16	0° <b>∡</b> ¹	
evening set	-1556 Jun 16 j 16:45	20° <b>Ⅱ</b> 29'13		morning rise	-1551 Dec 16 j 15:17	2° <b>х</b> 36'38	
. ,.	1556 I 20:05 50	220 <b>T</b> 27150	0024121	desc. node	-1550 Feb 01 j 16:29	12° 🖈 52'05	
conjunction	-1556 Jun 30 j 05:58 -1556 Jun 30 j 05:56	23° <b>Ⅱ</b> 27'50 23° <b>Ⅱ</b> 27'49	0°24'31 0°24'33	retrograde	-1550 Apr 24 j 01:32	21° <b>x</b> <sup>7</sup> 51'26	0922150
minimum elong max. Earth dist.	•	23° <b>II</b> 27'49 23° <b>II</b> 31'23	6.33310 AU	opposition min. Earth dist.	-1550 Jun 23 j 20:44	16° <b>х</b> 54′51 16° <b>х</b> 52′09	4.08263 AU
	-1556 Jun 30 j 12:26	26° <b>I</b> I25'07	0.33310 AU		-1550 Jun 24 j 05:02	10° <b>x</b> '32'09 12° <b>x</b> '01'04	4.08203 AU
morning rise	-1556 Jul 13 j 16:44 -1556 Jul 30 j 07:52	0°9		direct	-1550 Aug 22 j 16:37 -1550 Dec 20 j 17:07	12 x・01 04 0°る	
retrograde	-1556 Nov 12 j 11:27	13°9547'00		evening set	-1550 Dec 25 j 05:14	0 0 1° <b>る</b> 03'55	
opposition	-1555 Jan 11 j 08:12	8°950'13	1°02'16	evening set	-1330 Dec 23 J 03.14	1 003 33	
min. Earth dist.	-1555 Jan 11 j 12:25	8°948'50	4.37465 AU	conjunction	-1549 Jan 07 i 03:10	4° <b>ප</b> 08'35	-0°37'07
direct	-1555 Mar 13 j 23:08	3°946'48	4.57405 AC	minimum elong	-1549 Jan 07 j 03:10	4°る08'33	
evening set	-1555 Jul 19 j 10:01	21° <b>©</b> 39'19		max. Earth dist.	-1549 Jan 07 j 05:50		6.03623 AU
evening set	1555 341 17 1 10.01	21 37 17		morning rise	-1549 Jan 20 j 03:33	7°る14'43	0.03023710
conjunction	-1555 Aug 01 j 14:46	24° <b>©</b> 31'37	0°58'15	retrograde	-1549 May 31 j 10:40	7 <b>3</b> 1113	
minimum elong	-1555 Aug 01 j 14:43	24°531'36	0°58'15	opposition	-1549 Jul 30 j 20:22	22° <b>ට</b> 21'42	-1°23'30
max. Earth dist.	-1555 Jul 31 j 18:59	24°520'50	6.40268 AU	min. Earth dist.	-1549 Jul 30 j 08:12		4.00426 AU
morning rise	-1555 Aug 14 j 16:31	27°522'22		direct	-1549 Sep 27 j 09:48	17° <b>る</b> 28'27	
8	-1555 Aug 26 j 22:22	$0^{\circ}\Omega$			-1549 Dec 31 j 10:13	0° <b>≈</b>	
retrograde	-1555 Dec 13 j 00:41	14° <b>Ω</b> 19'25		evening set	-1548 Jan 30 j 02:48	6° <b>≈</b> 52'07	
opposition	-1554 Feb 11 j 06:19	9° <b>Ω</b> 25'51	1°40'12				
min. Earth dist.	-1554 Feb 12 j 02:18	9° <b>Ω</b> 19'23	4.41648 AU	conjunction	-1548 Feb 12 j 07:45	10° <b>≈</b> 01'56	-1°08'22
direct	-1554 Apr 14 j 17:30	4° <b>Ω</b> 22'58		minimum elong	-1548 Feb 12 j 07:42	10° <b>≈</b> 01'55	1°08'23
	-1554 Jul 16 j 14:44	15° <b>Ω</b>		max. Earth dist.	-1548 Feb 13 j 13:22	10° <b>≈</b> 19'42	5.98936 AU
evening set	-1554 Aug 19 j 21:28	22° <b>Ω</b> 07'55		morning rise	-1548 Feb 25 j 16:06	13° <b>≈</b> 13'32	
max. Earth dist.	-1554 Aug 31 j 05:23	24° <b>Ω</b> 36′17	6.41272 AU		-1548 Mar 04 j 04:03	15° <b>≈</b>	
					-1548 May 18 j 16:41	0° <b>∀</b>	
conjunction	-1554 Sep 01 j 18:10	24° <b>Ω</b> 56′26	1°15'12	retrograde	-1548 Jul 06 j 22:59	3° <b>)</b> 41′09	
minimum elong	-1554 Sep 01 j 18:09		1°15'13		-1548 Aug 25 j 13:43	30° <b>₹</b> ≈	
morning rise	-1554 Sep 14 j 11:44	27° <b>Ω</b> 43'31		opposition	-1548 Sep 04 j 21:34	28° <b>≈</b> 37'13	
	-1554 Sep 25 j 00:34	0° <b>m</b>		min. Earth dist.	-1548 Sep 03 j 18:16	28° <b>≈</b> 46′28	3.99556 AU
retrograde	-1553 Jan 12 j 22:03	14° m/42'10		direct	-1548 Nov 01 j 20:37	23°≈42'17	
opposition	-1553 Mar 14 j 13:49	9° m 50'23	1°50'35		-1547 Jan 04 j 21:01	0° <b>∀</b>	
min. Earth dist.	-1553 Mar 15 j 19:44	9° m/40'50	4.39538 AU	evening set	-1547 Mar 07 j 04:56	13° <b>¥</b> 08′06	
direct	-1553 May 16 j 06:11	4° Mp 49'14			1547 Mar. 20 : 17.42	1601/20101	1012127
evening set max. Earth dist.	-1553 Sep 19 j 19:13	22° Mp 39'21 25° Mp 02'14	6.36119 AU	conjunction minimum elong	-1547 Mar 20 j 17:42 -1547 Mar 20 j 17:43	16° <b>∺</b> 20'01 16° <b>∺</b> 20'01	-1°13'37 1°13'37
max. Earth dist.	-1553 Sep 30 j 12:50	25 1100214	0.30119 AU	2		16° <b>X</b> 20'01	
conjunction	-1553 Oct 02 j 10:27	25° m 27'38	1°11'20	max. Earth dist. morning rise	-1547 Mar 22 j 18:12 -1547 Apr 03 j 09:07	16° <del>X</del> 48'43 19° <del>X</del> 33'13	6.01860 AU
minimum elong	-1553 Oct 02 j 10:27 -1553 Oct 02 j 10:29	25° Mp 27'38	1°11'20	morning rise	-1547 May 20 j 18:22	19 <b>χ</b> 33 13	
Č		28° Mp 15'06	1 11 20	ratrograda	-1547 Aug 12 j 06:20	9° <b>Υ</b> 36'04	
morning rise	-1553 Oct 14 j 23:49 -1553 Oct 22 j 22:27	0° <b>⊡</b>		retrograde opposition	-1547 Aug 12 j 06:20 -1547 Oct 10 j 20:01	4° <b>Υ</b> 30'54	-1°37'25
retrograde	-1552 Feb 14 j 02:26	0 <b>==</b> 15° <b>£</b> 40'51		min. Earth dist.	-1547 Oct 10 j 20:01 -1547 Oct 09 j 12:56	4° <b>Υ</b> 41'31	4.06009 AU
opposition	-1552 Apr 15 j 00:23	13 <b>=</b> 4031 10° <b>£</b> 49'05	1°30'06	mm. Darm dist.	-1547 Nov 21 j 20:22	4 14131 30° <b>₹</b>	1.00007 AU
min. Earth dist.	-1552 Apr 16 j 09:18	10° <b>⊆</b> 4903	4.31635 AU	direct	-1547 Nov 21 j 20.22 -1547 Dec 08 j 01:30	29° <b>∺</b> 33'01	
direct	-1552 Jun 16 j 06:54	5° <b>£</b> 50′22			-1547 Dec 08 j 01:30 -1547 Dec 24 j 08:35	29 <b>γ</b> 3301	
evening set	-1552 Oct 19 j 22:50	23° <b>⊆</b> 57'42		evening set	-1546 Apr 13 j 06:05	18° <b>Y</b> '40'32	
max. Earth dist.	-1552 Oct 30 j 20:21	26° <b>£</b> 26′20	6.26093 AU	· · · · · · · · · · · · · · · · · · ·	-r5 J 00.00		
				conjunction	-1546 Apr 27 j 00:02	21° <b>Y</b> ′50'36	-0°51'16
conjunction	-1552 Nov 01 j 13:00	26° <b>≏</b> 49'31	0°46'45	minimum elong	-1546 Apr 27 j 00:06	21° <b>Υ</b> 50'38	0°51'14
minimum elong	-1552 Nov 01 j 13:03	26° <b>≏</b> 49'32	0°46'44	max. Earth dist.	-1546 Apr 28 j 22:36	22° <b>Ƴ</b> 17'27	6.11224 AU
morning rise	-1552 Nov 14 j 02:29	29° <b>≏</b> 41'14		morning rise	-1546 May 10 j 19:21	25° <b>Ƴ</b> 01'04	
	-1552 Nov 15 j 11:36	0°M			-1546 Jun 02 j 01:25	$9^{\circ}$ 8	
	-1551 Feb 02 j 15:41	15° <b>M</b> ₊		retrograde	-1546 Sep 15 j 11:20	14° <b>8</b> 07'18	

-	ical year style is used: Th					_	.50 32
opposition	-1546 Nov 13 j 23:18	9° <b>8</b> 03'37		max. Earth dist.	-1540 Nov 04 j 06:31		6.24560 AU
min. Earth dist.	-1546 Nov 12 j 22:08		4.17218 AU		J		
direct	-1545 Jan 12 j 04:16	4° <b>8</b> 02'42		conjunction	-1540 Nov 05 j 22:20	1°M23'48	0°41'54
	-1545 Apr 13 j 07:35	15° <b>8</b>		minimum elong	-1540 Nov 05 j 22:22	1°M23'50	0°41'53
evening set	-1545 May 19 j 03:40	22° <b>8</b> 41'06		morning rise	-1540 Nov 18 j 12:16	4°M16'20	
C	, ,	_		C	-1539 Jan 08 j 09:54	15° <b>M</b> ₊	
conjunction	-1545 Jun 01 j 21:37	25° <b>8</b> 45'52	-0°11'51	retrograde	-1539 Mar 23 j 22:28	22°M38'23	
minimum elong	-1545 Jun 01 j 21:38	25° <b>8</b> 45'53		opposition	-1539 May 23 j 22:13	17° <b>M</b> 44'31	0°32'57
behind sun begin	-1545 Jun 01 j 15:57	25° <b>8</b> 42'43		min. Earth dist.	-1539 May 24 j 21:31	17°M37'02	4.18372 AU
behind sun end	-1545 Jun 02 j 03:19	25° <b>8</b> 49'04			-1539 Jun 15 j 15:32	15°RM₊	
max. Earth dist.	-1545 Jun 03 j 02:12	_	6.23419 AU	direct	-1539 Jul 23 j 22:55	12°M48'51	
morning rise	-1545 Jun 15 j 14:38	28° <b>8</b> 49'57			-1539 Aug 30 j 17:22	15° <b>M</b> ₊	
S	-1545 Jun 20 j 21:02	0° <b>I</b> I			-1539 Nov 19 j 13:47	0° <b>∡</b> ¹	
asc. node	-1545 Sep 19 j 12:06	15° <b>Ⅱ</b> 37'36		evening set	-1539 Nov 25 j 19:05	1° <b>∡</b> ¹26'37	
retrograde	-1545 Oct 17 j 19:32	16° <b>Ⅱ</b> 54'13		Č	,		
opposition	-1545 Dec 16 j 09:24	11° <b>∏</b> 54′02	0°13'47	conjunction	-1539 Dec 08 j 12:23	4° <b>∡</b> ¹25'29	0°00'32
min. Earth dist.	-1545 Dec 15 j 23:06	11° <b>∏</b> 57′29	4.29201 AU	minimum elong	-1539 Dec 08 j 12:23	4° <b>∡</b> ¹25'29	0°00'30
direct	-1544 Feb 14 j 22:46	6° <b>Ⅱ</b> 51'10		behind sun begin	-1539 Dec 08 j 04:22	4° <b>∡</b> °20'48	
evening set	-1544 Jun 21 j 08:21	25° <b>Ⅱ</b> 01'24		behind sun end	-1539 Dec 08 j 20:24	4° <b>∡</b> °30'11	
S	,			max. Earth dist.	-1539 Dec 07 j 15:32	4° <b>∡</b> 13'15	6.12318 AU
conjunction	-1544 Jul 04 j 20:33	27° <b>∏</b> 59'13	0°29'56	desc. node	-1539 Dec 13 j 01:05	5° <b>∡</b> ¹29'22	
minimum elong	-1544 Jul 04 j 20:31	27° <b>Ⅱ</b> 59'11	0°29'58	morning rise	-1539 Dec 21 j 06:48	7° <b>∡</b> ¹25'14	
max. Earth dist.	-1544 Jul 04 j 23:23	28° <b>Ⅱ</b> 00'46	6.34295 AU	retrograde	-1538 Apr 29 j 03:26	26° <b>∡</b> ¹48'23	
	-1544 Jul 14 j 00:32	0ಂತಾ		opposition	-1538 Jun 28 j 22:15	21° <b>₹</b> '51'17	-0°33'03
morning rise	-1544 Jul 18 j 06:16	0°955'38		min. Earth dist.	-1538 Jun 29 j 03:41	21° <b>∡</b> ¹49'31	4.06782 AU
retrograde	-1544 Nov 16 j 18:15	18°9513'20		direct	-1538 Aug 27 j 12:58	16° <b>∡</b> 757'41	
opposition	-1543 Jan 15 j 16:09	13°5516'59	1°08'56		-1538 Dec 03 j 19:40	0°ප	
min. Earth dist.	-1543 Jan 15 j 21:58	13°515'04	4.38215 AU	evening set	-1538 Dec 30 j 02:14	6° <b>る</b> 04'33	
direct	-1543 Mar 18 j 09:36	8°513'31		Č	,		
evening set	-1543 Jul 23 j 21:09	26°504'37		conjunction	-1537 Jan 12 j 00:57	9° <b>ට</b> 10'05	-0°42'35
max. Earth dist.	-1543 Aug 05 j 03:36	28°5544'41	6.40717 AU	minimum elong	-1537 Jan 12 j 00:55	9° <b>ට</b> 10'04	0°42'36
				max. Earth dist.	-1537 Jan 12 j 06:26	9° <b>ට</b> 13'22	6.02435 AU
conjunction	-1543 Aug 06 j 00:48	28°956'15	1°01'44	morning rise	-1537 Jan 25 j 02:29	12° <b>る</b> 17'13	
minimum elong	-1543 Aug 06 j 00:45	28°956'13	1°01'46	C	-1537 Apr 26 j 05:33	0° <b>≈</b>	
Č	-1543 Aug 10 j 21:40	$0^{\circ}\Omega$		retrograde	-1537 Jun 05 j 16:20	2° <b>≈</b> 30'32	
morning rise	-1543 Aug 19 j 01:12	1° <b>Ω</b> 46'17		Z .	-1537 Jul 16 j 05:21	30°Ŗる	
S	-1543 Oct 28 j 07:51	15° <b>Ω</b>		min. Earth dist.	-1537 Aug 04 j 09:44	27° <b>ට</b> 34'21	3.99666 AU
retrograde	-1543 Dec 17 i 07:35	18° <b>Ω</b> 41'59		opposition	-1537 Aug 05 j 00:26	27° <b>る</b> 29'28	-1°29'50
, and the second	-1542 Feb 06 j 07:23	15° <b>Ŗ</b> Ω		direct	-1537 Oct 02 j 10:56	22° <b>පි</b> 36'02	
opposition	-1542 Feb 15 j 14:37	13° <b>Ω</b> 48'43	1°43'23		-1537 Dec 11 j 11:57	0° <b>≈</b>	
min. Earth dist.	-1542 Feb 16 j 11:57	13° <b>Ω</b> 41'50	4.41765 AU	evening set	-1536 Feb 04 j 05:37	12° <b>≈</b> 02'04	
direct	-1542 Apr 19 j 03:20	8° <b>Ω</b> 46'00		C	-1536 Feb 16 j 14:56	15° <b>≈</b>	
	-1542 Jun 26 j 18:17	15° <b>Ω</b>			,		
evening set	-1542 Aug 24 j 05:36	26° <b>Ω</b> 30'31		conjunction	-1536 Feb 17 j 11:52	15° <b>≈</b> 12'33	-1°10'50
max. Earth dist.	-1542 Sep 04 j 09:34	28° <b>Ω</b> 56'58	6.41004 AU	minimum elong	-1536 Feb 17 j 11:50	15° <b>≈</b> 12'32	1°10'52
				max. Earth dist.	-1536 Feb 18 j 22:13	15° <b>≈</b> 33'09	5.98674 AU
conjunction	-1542 Sep 06 j 01:12	29° <b>Ω</b> 18'42	1°15'56	morning rise	-1536 Mar 01 j 21:12	18° <b>≈</b> 24'43	
minimum elong	-1542 Sep 06 j 01:11	29° <b>Ω</b> 18'42	1°15'56		-1536 Apr 23 j 07:23	0° <b>∀</b>	
	-1542 Sep 09 j 04:30	0° <b>m</b>		retrograde	-1536 Jul 12 j 04:28	8° <b>)</b> 52′27	
morning rise	-1542 Sep 18 j 18:04	2° Mp 05'35		min. Earth dist.	-1536 Sep 08 j 20:28	3° <b>)</b> 57'44	3.99848 AU
retrograde	-1541 Jan 17 j 08:12	19° Mp 06'02		opposition	-1536 Sep 10 j 00:32	3° <b>)</b> 48′14	-1°52'41
opposition	-1541 Mar 19 j 00:29	14° Mp 14'16	1°49'33		-1536 Oct 12 j 07:36	30° <b>R</b> ≈	
min. Earth dist.	-1541 Mar 20 j 07:43	14°Mp04'18	4.38885 AU	direct	-1536 Nov 06 j 23:00	28° <b>≈</b> 53′00	
direct	-1541 May 20 j 16:49	9° <b>m</b> 13'19			-1536 Dec 02 j 15:08	0° <b>)</b> €	
evening set	-1541 Sep 24 j 02:26	27° Mp 04'34		evening set	-1535 Mar 12 j 10:25	18° <b>¥</b> 18′07	
max. Earth dist.	-1541 Oct 04 j 20:43	29°M 28'09	6.35112 AU				
				conjunction	-1535 Mar 26 j 00:02	21° <b>∺</b> 30′05	-1°11'59
conjunction	-1541 Oct 06 j 17:25	29° M 53'06	1°09'04	minimum elong	-1535 Mar 26 j 00:03	21° <b>¥</b> 30′06	1°12'00
minimum elong	-1541 Oct 06 j 17:27	29° <b>m</b> 53'07	1°09'05	max. Earth dist.	-1535 Mar 28 j 01:02	21° <b>¥</b> 59′00	6.02669 AU
	-1541 Oct 07 j 05:46	0∘ <b>⊽</b>		morning rise	-1535 Apr 08 j 16:27	24° <b>)</b> 43′19	
morning rise	-1541 Oct 19 j 06:22	2° <b>≏</b> 40'50			-1535 May 01 j 17:46	$0^{\circ}$ Y	
retrograde	-1540 Feb 18 j 15:41	20° <b>£</b> 11'35		retrograde	-1535 Aug 17 j 04:13	14° <b>Y</b> 40'15	
opposition	-1540 Apr 19 j 15:09	15° <b>≏</b> 19'37	1°24'50	min. Earth dist.	-1535 Oct 14 j 10:04	9° <b>Y</b> 46'04	4.07276 AU
min. Earth dist.	-1540 Apr 20 j 23:02	15° <b>≏</b> 09'29	4.30317 AU	opposition	-1535 Oct 15 j 18:04	9° <b>Y</b> 35'09	-1°32'09
direct	-1540 Jun 20 j 18:13	10° <b>≏</b> 21'16		direct	-1535 Dec 13 j 01:19	4° <b>Y</b> 36'51	
evening set	-1540 Oct 24 j 08:09	28° <b>≏</b> 31′20		evening set	-1534 Apr 18 j 09:35	23° <b>Y</b> 40'55	
	-1540 Oct 30 j 19:51	$0^{\circ}$ M.					

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1534 in astronomical counting style is the year 1535 BCE in historical counting style. 26°Y'50'25 -0°46'24 minimum elong -1534 May 02 j 03:56 -1529 Oct 10 j 20:40 4°**₽**09'56 1°06'29 conjunction -1534 May 02 j 03:59 26°Y50'27 0°46'23 -1529 Oct 23 j 09:38 6°**£**58'09 minimum elong morning rise -1534 May 04 j 01:30 27°**Y**16'35 -1528 Feb 23 j 04:21 24°**£**35'15 max. Earth dist. 6.12882 AU retrograde -1534 May 15 j 23:13 0°800'08 -1528 Apr 24 j 03:21 19°**£**43′07 1°19'15 morning rise opposition -1534 May 15 j 22:59 0°8 -1528 Apr 25 j 11:35 4.28593 AU min. Earth dist. 19°**£**32'51 -1528 Jun 25 j 03:31 -1534 Jul 31 j 02:30 15°8 direct 14°**£**45′03  $0^{\circ}$ M retrograde -1534 Sep 20 j 04:02 18°**8**57'11 -1528 Oct 15 j 08:08 -1534 Nov 10 j 10:47 15°R evening set -1528 Oct 28 j 15:13 2°M59'40 13°**8**53'53 -0°39'55 opposition -1534 Nov 18 j 15:12 max. Earth dist. -1528 Nov 08 j 15:50 5°M31'15 6.22520 AU min. Earth dist. -1534 Nov 17 j 16:03 14°**8**01'45 4.19098 AU direct -1533 Jan 17 j 01:26 8°**8**52'39 conjunction -1528 Nov 10 j 05:52 5°**M**53′07 0°36'56 -1528 Nov 10 j 05:54 -1533 Mar 23 j 10:32 15°8 minimum elong  $5^{\circ}$ M $_{53}$ '08 0°36'55 evening set -1533 May 24 j 01:21 27°**8**25'59 morning rise -1528 Nov 22 j 20:09 8°M46'42 -1533 Jun 04 j 13:39  $0^{\circ}II$ -1528 Dec 20 j 21:00 15°M retrograde -1527 Mar 28 j 18:08  $27^{\circ}$ ML18'26conjunction -1533 Jun 06 j 18:47 0°П29'41 -0°05'52 opposition -1527 May 28 j 17:19 22°M24'16 0°24'25 minimum elong -1533 Jun 06 j 18:48  $0^{\circ}\Pi 29'42$ 0°05'50 min. Earth dist. -1527 May 29 j 15:00 22°M17'19 4.16157 AU behind sun begin -1533 Jun 06 j 10:51 0°**I**I25'17 direct -1527 Jul 28 j 12:47 17°M28'59 behind sun end -1533 Jun 07 j 02:45 0°**I**I34'07 desc. node -1527 Oct 24 j 09:15 27°M57'35 max. Earth dist. -1533 Jun 07 j 21:18 0°**Ⅱ**44'30 6.25389 AU -1527 Nov 03 j 00:13 0°×7 morning rise -1533 Jun 20 j 10:59 3°**Ⅱ**32'35 evening set -1527 Nov 30 j 09:22 6°**х** 13′06 asc. node -1533 Jul 30 j 18:33 12°**Ⅱ**01'58 max. Earth dist. -1527 Dec 12 i 08:13 9°**х** 01′59 6.10121 AU retrograde -1533 Oct 22 i 03:20 21°**Ⅱ**27'54 opposition -1533 Dec 20 j 19:28 16°**Ⅲ**28'12 0°22'12 conjunction -1527 Dec 13 i 03:16 9°**х** 13'14 -0°05'40 min. Earth dist. -1533 Dec 20 j 10:14 16°**Ⅲ**31'17 4.31105 AU -1527 Dec 13 i 03:15 9°**∡**13'13 0°05'42 minimum elong -1532 Feb 19 j 12:21 11°**Ⅲ**25'11 -1527 Dec 12 j 19:32 9°×708'41 direct behind sun begin 29°II30'30 -1527 Dec 13 j 10:58 9°**х** 17'45 -1532 Jun 25 j 22:46 behind sun end evening set -1532 Jun 28 j 04:57 0ಂತಾ -1527 Dec 25 j 22:47 12°**∡**14'22 morning rise -1526 Mar 31 j 01:22 0°궁 -1532 Jul 09 j 09:44 -1526 May 04 j 07:46 1°る48'10 conjunction 2°527'06 0°35'06 retrograde -1526 Jun 07 j 16:45 -1532 Jul 09 j 09:42 2°527'05 0°35'06 30°R x<sup>7</sup> minimum elong -1532 Jul 09 j 09:01 max. Earth dist. 6.35985 AU -1526 Jul 04 j 00:30 2°**©**26'43 opposition 26°**₹**50'33 -0°42'01 -1532 Jul 22 j 18:06 5°922'17 min. Earth dist. -1526 Jul 04 j 03:02 26°**х** 49'43 4.04798 AU morning rise -1532 Nov 20 j 23:46 -1526 Sep 01 j 10:19 21°**х** 57'04 retrograde 22°933'45 direct -1531 Jan 19 j 22:27 opposition 17°537'55 1°15'00 -1526 Nov 14 j 13:23 0°궁 -1531 Jan 20 j 07:14 -1525 Jan 04 j 00:58 11°る10'02 min. Earth dist. 17°535'02 4.39569 AU evening set direct -1531 Mar 22 j 20:36 12°**©**34'30 -1531 Jul 26 j 12:11  $0^{\circ}\Omega$ conjunction -1525 Jan 17 j 00:57 14°る16'48 -0°47'44 evening set -1531 Jul 28 j 05:14 0°Ω22'09 minimum elong -1525 Jan 17 j 00:54 14°る16'46 0°47'44 6.41603 AU max. Earth dist. -1531 Aug 09 j 06:39 2°**Q**59′19 max. Earth dist. -1525 Jan 17 j 12:08 14°る23'30 6.00862 AU morning rise -1525 Jan 30 j 03:33 17°る25'08 -1531 Aug 10 j 07:36 3°Ω12'54 1°04'45 -1525 Mar 28 j 18:45 conjunction -1531 Aug 10 j 07:33 3°**Ω**12′53 -1525 Jun 11 j 02:00 minimum elong 1°04'47 retrograde 7°≈45'30 -1531 Aug 23 j 06:47  $6^{\circ}\Omega02'06$ -1525 Aug 10 j 06:43 2°≈43'55 -1°35'28 morning rise opposition -1531 Oct 06 j 08:21 15°**Ω** min. Earth dist. -1525 Aug 09 j 13:48 2°≈49'34 3.98696 AU retrograde -1531 Dec 21 i 10:38 22°**Ω**55'27 -1525 Sep 01 i 01:06 30°Rる opposition -1530 Feb 19 i 19:38 18°Ω02'27 1°45'52 direct -1525 Oct 07 i 13:41 27°る50'24 min. Earth dist. -1530 Feb 20 i 18:50 17°**Ω**54'58 4.42143 AU -1525 Nov 12 j 16:54 0°≈ -1530 Mar 17 i 05:33 15°RΩ -1524 Jan 30 j 16:00 15°**≈** direct -1530 Apr 23 j 09:33 12°Ω59'52 -1524 Feb 09 j 11:39 17°≈19'29 evening set -1530 May 30 j 19:42 15°Ω -1530 Aug 25 j 01:43 0°m -1524 Feb 22 j 18:54 20°≈30'35 -1°12'43 conjunction -1530 Aug 28 j 09:45 -1524 Feb 22 j 18:53 evening set 0° Tp 43'26 minimum elong 20° \$\approx 30'34 1° 12' 43 3°Mp09'02 6.40829 AU max. Earth dist. -1530 Sep 08 j 11:58 max. Earth dist. -1524 Feb 24 j 08:07 20°≈52'53 5.98372 AU morning rise -1524 Mar 07 j 05:36 23°≈43'25 -1530 Sep 10 j 04:33 conjunction 3°m/31'19 1°16'12 -1524 Apr 03 j 08:41 0°**)**€ -1530 Sep 10 j 04:33 3°**m**31'19 1°16'12 retrograde -1524 Jul 17 j 09:33 14° **€** 10'36 minimum elong -1530 Sep 22 j 20:29 -1524 Sep 13 j 22:26 9°**升**16'27 4.00264 AU morning rise 6° Mp 17'56 min. Earth dist. -1529 Jan 21 j 13:59 -1524 Sep 15 j 05:10 9°**₭**06'01 -1°52'15 retrograde 23° Mp 20'20 opposition opposition -1529 Mar 23 j 07:33 18° Mp 28'42 1°47'55 direct -1524 Nov 12 j 02:47 4°**₩**10'21 -1523 Mar 17 j 18:22 min. Earth dist. -1529 Mar 24 j 16:06 18° Mp 18'20 4.38153 AU evening set 23°**)** 34'04 direct -1529 May 24 j 23:15 13° m 28'04 -1529 Sep 22 j 03:17 0∘**⊽** conjunction -1523 Mar 31 j 08:59 26°**)** 45'58 -1°09'43 evening set -1529 Sep 28 j 06:06 1°**£**21′03 minimum elong -1523 Mar 31 j 09:01 26°**)** 46′00 1°09'43 max. Earth dist. -1529 Oct 08 j 21:36 3°**£**43'35 6.33858 AU max. Earth dist. -1523 Apr 02 j 11:35 27°**升**15′45 6.03744 AU -1523 Apr 14 j 02:02 29°**)** 58'58 morning rise -1529 Oct 10 j 20:38 4° 209'55 1°06'29 -1523 Apr 14 j 03:49  $0^{\circ}\Upsilon$ conjunction

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1523 in astronomical counting style is the year 1524 BCE in historical counting style. 19°**Y**48′24 -1523 Aug 22 j 04:41 evening set -1517 Oct 02 j 14:49 5°**♀**50'10 retrograde -1523 Oct 19 j 10:10 14°Υ53'51 4.08835 AU max. Earth dist. -1517 Oct 13 j 07:36 8°**♀**13'54 min. Earth dist. 6.32350 AU opposition -1523 Oct 20 j 17:08 14°Y43'16 -1°26'05 9°Y44'25 -1517 Oct 15 j 05:15 1°03'25 direct -1523 Dec 18 j 04:30 8°**₽**39'33 conjunction 28°**Y**43'47 -1522 Apr 23 j 13:52 -1517 Oct 15 j 05:17 8°**£**39'34 1°03'24 evening set minimum elong -1522 Apr 29 j 03:35 -1517 Oct 27 j 18:03 0°8 morning rise 11°**≏**28'22 retrograde -1516 Feb 27 j 22:11 29° £12'30 -1522 May 07 j 08:29 conjunction 1°**8**52'33 -0°41'09 opposition -1516 Apr 28 j 21:27 24°**₽**20'15 1°12'51 -1522 May 07 j 08:32 minimum elong 1°**8**52'35 0°41'08 min. Earth dist. -1516 Apr 30 j 05:10 24°**₽**10′09 4.26803 AU max. Earth dist. -1522 May 09 j 05:23 2°818'13 6.14764 AU direct -1516 Jun 29 j 18:22 19°**£**22'37 morning rise -1522 May 21 j 03:39 5°**8**01'22 -1516 Sep 27 j 23:26 0°M -1522 Jul 07 j 00:49 -1516 Nov 02 j 03:56 15°8 evening set 7°**IL**41'38 23°**8**48'20 -1516 Nov 13 j 05:30 retrograde -1522 Sep 24 j 18:31 max. Earth dist. 10°**M**₁4'29 6.20605 AU min. Earth dist. -1522 Nov 22 j 08:47 18°**8**53'00 4.21082 AU opposition -1522 Nov 23 j 07:12 18°845'24 -0°31'08 conjunction -1516 Nov 14 j 18:45  $10^{\circ}$ M $_{3}6'00$ 0°31'27 -1522 Dec 24 j 21:07 15°R₩ minimum elong -1516 Nov 14 j 18:47 10°M36'01 0°31'26 direct -1521 Jan 21 j 20:43 13°**8**43'49 morning rise -1516 Nov 27 j 09:47 13°M30'41 -1521 Feb 19 j 06:29 15°8 -1516 Dec 03 j 22:05 15°M -1521 May 18 j 22:57  $0^{\circ}\Pi$ -1515 Feb 23 j 16:46 0°×7 evening set -1521 May 28 j 23:16 2°II11'53 retrograde -1515 Apr 02 j 19:31 2°×11'43 asc. node -1521 Jun 08 j 20:55 4°**Ⅲ**37'09 -1515 May 11 j 07:45 30°RM opposition -1515 Jun 02 j 18:19 27°**™**17'09 0°15'13 conjunction -1521 Jun 11 j 15:54 5°**I**14'27 0°00'19 min. Earth dist. -1515 Jun 03 i 13:12 27°ML11'04 4.14264 AU minimum elong -1521 Jun 11 j 15:54 5°**Ⅱ**14'27 0°00'21 direct -1515 Aug 02 j 08:55 22°M22'12 behind sun begin -1521 Jun 11 j 07:36 5°**Ⅱ**09'52 desc. node -1515 Sep 02 j 12:38 23°M53'36 -1521 Jun 12 j 00:12 5°**Ⅱ**19'03 -1515 Oct 14 j 13:00 0°**∡**7 behind sun end -1521 Jun 12 j 13:37 5°**П**26'32 6.27303 AU -1515 Dec 05 j 04:18 11°**√**11'11 max Earth dist evening set -1521 Jun 25 j 07:15 8°**Ⅱ**16′08 morning rise -1521 Oct 26 j 13:41 26°**Ⅱ**03'06 conjunction -1515 Dec 17 j 23:04 retrograde 14° ₹ 12'22 -0°12'02 -1521 Dec 25 j 06:07 21°**I**03'56 0°30'37 -1515 Dec 17 j 23:04 0°12'04 opposition minimum elong 14°**∡**12'21 -1521 Dec 25 j 00:20 -1515 Dec 17 j 17:29 14°**₹**09'04 min. Earth dist. 21°**Ⅲ**05'52 4.32784 AU behind sun begin -1520 Feb 24 j 04:55 -1515 Dec 18 j 04:38 16°**Ⅱ**00'44 behind sun end 14°**∡**15'38 direct -1515 Dec 17 j 09:29 6.08455 AU -1520 Jun 11 j 16:16 0°9 max. Earth dist. 14°**₹**04'19 -1520 Jun 30 j 14:00 4°9502'06 -1515 Dec 30 j 19:21 17°**х** 14'37 evening set morning rise -1514 Feb 28 j 11:04 0°궁 -1520 Jul 13 j 23:55 6°957'42 0°40'10 -1514 May 09 j 16:20 6°₹56'44 conjunction retrograde -1514 Jul 09 j 06:37 minimum elong -1520 Jul 13 j 23:52 6°557'40 0°40'11 opposition 1°る58'39 -0°51'01 max. Earth dist. -1520 Jul 13 j 20:02 6°555'35 6.37294 AU min. Earth dist. -1514 Jul 09 j 06:31 1°る58'41 4.03551 AU morning rise -1520 Jul 27 j 06:53 9°951'47 -1514 Jul 24 j 19:40 30°R.**✓** retrograde -1520 Nov 25 j 04:59 26°958'32 direct -1514 Sep 06 j 12:06 27°**х** 05′23 -1519 Jan 24 j 06:24 22°503'07 1°20'52 -1514 Oct 19 j 04:28 0°ರ opposition min. Earth dist. -1519 Jan 24 j 16:49 21°559'43 4.40450 AU -1513 Jan 09 j 02:54 16°**る**21'31 evening set -1519 Mar 27 j 06:44 16°959'43 direct -1519 Jul 10 j 02:30  $0^{\circ}\Omega$ -1513 Jan 22 j 03:39 19°る28'59 -0°52'39 conjunction -1519 Aug 01 j 15:32 4°**Ω**45'36 -1513 Jan 22 j 03:36 19°る28'57 0°52'41 evening set minimum elong -1513 Jan 22 i 18:10 max. Earth dist. 19°**る**37'42 6.00141 AU conjunction -1519 Aug 14 j 16:38 7° **Ω**35'41 1°07'34 morning rise -1513 Feb 04 i 07:30 22°る38'09 minimum elong -1519 Aug 14 j 16:36 7°**Ω**35'40 1°07'35 -1513 Mar 08 i 07:08 0°≈ max. Earth dist. -1519 Aug 13 j 12:33 7°**Ω**20'23 6.41979 AU retrograde -1513 Jun 16 j 08:20 13°≈01'39 opposition -1519 Aug 27 j 14:39 10°Ω24'15 -1513 Aug 15 j 13:11 7°≈59'32 -1°40'24 morning rise -1519 Sep 18 j 06:58 15°Ω min. Earth dist. -1513 Aug 14 j 16:36 8°≈06'25 3.98624 AU -1519 Dec 25 j 18:44 27°**Ω**17'02 direct -1513 Oct 12 j 17:02 3°≈05'51 retrograde -1518 Feb 24 j 04:25 22°**Ω**24'21 1°47'58 15°**≈** opposition -1512 Jan 12 j 17:54 min. Earth dist. -1518 Feb 25 j 06:13 22°**Ω**16′03 4.42004 AU evening set -1512 Feb 14 j 17:18 22°≈34'42 direct -1518 Apr 27 j 20:40 17°**Ω**21'58 -1512 Feb 28 j 01:41 25°≈46′01 -1°14′03 -1518 Aug 08 j 17:30 0° m conjunction -1512 Feb 28 j 01:40 evening set -1518 Sep 01 j 17:38 5° Mp 06'00 minimum elong 25°**≈**46′00 1°14'03 max. Earth dist. -1518 Sep 12 j 16:12 7° **m** 29'55 -1512 Feb 29 j 18:37 5.98935 AU 6.40165 AU max. Earth dist. 26°≈10'30 -1512 Mar 12 j 13:14 28°≈58'57 morning rise -1518 Sep 14 j 11:37 7° m 53'48 1°16'07 -1512 Mar 16 j 20:31 0°**)**€ conjunction -1518 Sep 14 j 11:37 -1512 Jul 22 j 13:33 19°**)** 22'11 minimum elong 7° **m** 53'48 1°16'07 retrograde morning rise -1518 Sep 27 j 02:57 10° Mp 40'26 min. Earth dist. -1512 Sep 19 j 00:41 14°**¥**27'48 4.01392 AU retrograde -1517 Jan 26 j 01:10 27° m 46'23 opposition -1512 Sep 20 j 07:26 14° **★**17'20 -1°50'56 opposition -1517 Mar 27 j 19:49 22° m 54'45 1°45'41 direct -1512 Nov 17 j 07:20 9°**∺**21'15 min. Earth dist. -1517 Mar 29 j 04:44 22° Mp 44'16 4.37019 AU evening set -1511 Mar 22 j 23:02 28°**)**41'14 -1517 May 29 j 09:53 17° m 54'23 -1511 Mar 28 j 13:54  $0^{\circ}\Upsilon$ direct

-1517 Sep 05 j 13:47

0∘**⊽** 

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1511 in astronomical counting style is the year 1512 BCE in historical counting style. 1°**Y**52'46 -1°07'00 -1511 Apr 05 i 14:26 conjunction -1506 Sep 18 j 18:58 12° m 18'28 1°15'34 conjunction -1511 Apr 05 j 14:29 1°Y52'47 1°07'00 minimum elong -1506 Sep 18 j 18:59 minimum elong 12° Mp 18'28 1°15'35 2°**Y**23'06 15° m 05'16 max. Earth dist. -1511 Apr 07 j 18:14 6.05319 AU -1506 Oct 01 j 09:44 morning rise -1511 Apr 19 j 08:02 5°**Y**05'15 -1506 Dec 22 j 18:48 0∘ଫ morning rise 24°\bar{Y}45'42 -1505 Jan 30 j 14:32 retrograde -1511 Aug 26 j 23:16 retrograde 2°**£**15'58 19°**Υ**51'16 4.10680 AU -1511 Oct 24 j 05:17 min. Earth dist. -1505 Mar 10 j 20:18 30°R M opposition -1511 Oct 25 j 12:03 19°**Y**′40'47 -1°19'36 opposition -1505 Apr 01 j 09:31 27° Mp 24'24 1°42'49 14°**Y**41'33 min. Earth dist. direct -1511 Dec 23 j 01:41 -1505 Apr 02 j 19:19 27° m 13'38 4.35649 AU -1510 Apr 12 j 12:04 0°8 direct -1505 Jun 02 j 22:48 22° m 24'26 evening set -1510 Apr 28 j 13:59 3°**8**35'46 -1505 Aug 17 j 15:26 0∘**⊽** evening set -1505 Oct 07 j 00:29 10°**£**23'25 -1510 May 12 j 08:30 6°843'40 -0°35'47 conjunction max. Earth dist. -1505 Oct 17 j 16:56 12°**₽**47'34 6.30742 AU -1510 May 12 j 08:33 minimum elong 6°**8**43'41 0°35'47 max. Earth dist. -1510 May 14 j 01:14 7°**8**06'51 6.16716 AU conjunction -1505 Oct 19 j 14:43 13°**♀**13'23 0°59'54 morning rise -1510 May 26 j 03:32 9°851'31 minimum elong -1505 Oct 19 j 14:46 13°**♀**13'25 0°59'53 -1510 Jun 18 j 10:41 15°8 morning rise -1505 Nov 01 j 03:43 16°**2**02'56 retrograde -1510 Sep 29 j 06:24 28°**8**29'02 -1504 Jan 11 j 23:54 0°M opposition -1510 Nov 27 j 19:18 23°**8**26'35 -0°22'29 retrograde -1504 Mar 03 j 17:09 3°M54'29 min. Earth dist. -1510 Nov 26 j 23:55 23°**8**33'09 4.22940 AU -1504 Apr 26 j 01:58 direct -1509 Jan 26 j 14:12 18°**8**24'41 opposition -1504 May 03 j 17:22 29°**£**01'56 1°05'53 asc. node -1509 Apr 19 j 05:53 27°**8**32'18 min. Earth dist. -1504 May 04 j 22:49 28°**♀**52'33 4.25060 AU -1509 May 01 j 18:41  $\Pi$ °0 direct -1504 Jul 04 i 10:08 24°**₽**04'42 evening set -1509 Jun 02 j 17:00 6°**Ⅱ**48'21 -1504 Sep 07 i 06:15 0°M evening set -1504 Nov 06 i 17:44 12°M27'36 conjunction -1509 Jun 16 i 09:07 9°**Ⅱ**49'59 0°06'16 -1504 Nov 17 i 17:35 15°M -1509 Jun 16 j 09:06 9°**Ⅱ**49'59 0°06'17 -1504 Nov 18 j 00:07 15°**M**₀03'47 minimum elong max. Earth dist. 6 18898 AU -1509 Jun 16 j 01:16 9°**Ⅱ**45'40 behind sun begin -1509 Jun 16 j 16:55 9°**I**I54'18 -1504 Nov 19 j 09:01 15°ML22'51 behind sun end conjunction 0°25'42 6.28937 AU -1504 Nov 19 j 09:02 max. Earth dist. -1509 Jun 17 j 04:10 10°**Ⅱ**00'33 15°M22'52 0°25'41 minimum elong -1509 Jun 29 j 23:21 morning rise -1504 Dec 02 j 00:27 12°**Ⅲ**50'33 18°M18'28 morning rise -1503 Jan 26 j 09:22 -1509 Oct 13 j 00:48 0°**∡** 0°00 -1503 Apr 07 j 22:48 -1509 Oct 30 j 19:39 0°930'45 retrograde 7°**х** 07′45 retrograde -1503 Jun 07 j 20:06 2°**х** 12'45 0°05'49 -1509 Nov 17 j 13:04 30°R∏ opposition -1509 Dec 29 j 13:52 -1503 Jun 08 j 13:02 opposition 25°**Ⅲ**32'11 0°38'35 min. Earth dist. 2°**∡**07'18 4.12713 AU -1509 Dec 29 j 09:58 -1503 Jun 25 j 15:29 min. Earth dist. 25°**Ⅲ**33'29 4.34077 AU 30°RM -1503 Jul 12 j 17:16 direct -1508 Feb 28 j 15:44 20°**Ⅲ**28'57 desc. node 28°M19'42 27°M18'07 -1508 May 24 j 23:14 0ಂತಾ direct -1503 Aug 07 j 06:50 evening set -1508 Jul 05 j 02:21 8°9527'49 -1503 Sep 18 j 00:21 0°**⊼** evening set -1503 Dec 09 j 23:53 16° **₹**10'32 conjunction -1508 Jul 18 j 10:57 11°9522'35 0°44'52 -1508 Jul 18 j 10:54 11°522'33 0°44'54 conjunction -1503 Dec 22 j 19:12 19°**∡**12'31 -0°18'19 minimum elong -1508 Jul 18 j 01:54 11°9517'38 -1503 Dec 22 j 19:11 19°**∡**12'31 0°18'21 max. Earth dist. 6.38142 AU minimum elong -1508 Jul 31 j 16:50 14°9515'51 -1503 Dec 22 j 08:25 19°**₰**06'08 morning rise max. Earth dist. 6.07188 AU -1508 Oct 31 j 07:17 -1502 Jan 04 j 16:33 22°**х** 15'45  $0^{\circ}\Omega$ morning rise -1508 Nov 29 j 11:49 -1502 Feb 07 j 19:10 retrograde 1°**Ω**19'50 0°궁 -1508 Dec 28 j 14:09 30°R55 retrograde -1502 May 14 j 21:10 12°る04'20 opposition -1507 Jan 28 i 13:17 26°524'55 1°26'11 opposition -1502 Jul 14 i 11:39 7°る05'36 -0°59'35 min. Earth dist. -1507 Jan 29 i 03:07 26°520'25 4.40825 AU min. Earth dist. -1502 Jul 14 i 07:31 7°る06'57 4.02695 AU direct -1507 Mar 31 i 17:31 21°521'37 direct -1502 Sep 11 j 12:08 2°る12'23 -1507 Jun 22 j 02:10  $0^{\circ}\Omega$ -1501 Jan 14 j 03:43 21°る30'19 evening set -1507 Aug 06 j 00:24 9°**Ω**07'17 evening set max. Earth dist. -1507 Aug 17 j 18:13 11°**Ω**40'29 6.41842 AU -1501 Jan 27 j 05:29 24°る38'22 -0°57'08 conjunction -1501 Jan 27 j 05:27 24°**る**38'20 minimum elong 0°57'10 conjunction -1507 Aug 19 j 00:33 11°Ω57'01 1°09'57 max. Earth dist. -1501 Jan 28 j 00:53 24°る50'01 5.99759 AU -1507 Aug 19 j 00:31 11°**Ω**57'00 1°09'57 morning rise -1501 Feb 09 j 10:14 27°る48'05 minimum elong -1507 Aug 31 j 21:25 14°**Ω**45′12 -1501 Feb 18 j 17:14 0°22 morning rise 15°**≈** -1507 Sep 02 j 00:45 15°€ -1501 May 06 j 14:30 -1501 Jun 21 j 14:47 -1507 Nov 27 j 06:20 0° m retrograde 18°≈13'19 -1501 Aug 06 j 19:57 retrograde -1507 Dec 30 j 01:25 1°m/39'12 15°R≈ -1506 Feb 01 j 00:37 30°₽**Ω** opposition -1501 Aug 20 j 17:39 13°≈10'41 -1°44'29 opposition -1506 Feb 28 j 13:09 26°**Ω**46'46 1°49'27 min. Earth dist. -1501 Aug 19 j 19:54 13°**≈**17'59 3.98764 AU min. Earth dist. -1506 Mar 01 j 15:33 26°**Ω**38'18 4.41403 AU direct -1501 Oct 17 j 21:04 8°≈16'45 direct -1506 May 02 j 04:55 21°**Ω**44'39 -1501 Dec 23 j 03:42 15°≈ -1506 Jul 21 j 10:52 0° m evening set -1500 Feb 19 j 21:13 27°≈44'45 evening set -1506 Sep 06 j 01:44 9° m 30'33 -1500 Feb 29 j 08:23 0°**)**€ max. Earth dist. -1506 Sep 16 j 23:02 11° Mp 54'13 6.39147 AU

-1500 Mar 04 j 06:36

conjunction

0°**¥**56'13 -1°14'48

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1500 in astronomical counting style is the year 1501 BCE in historical counting style. minimum elong -1500 Mar 04 i 06:35 0°\\$56'13 1°14'49 -1495 Aug 23 j 09:24 16°**Ω**20'43 1°12'00 minimum elong -1500 Mar 06 j 02:13 1°**¥**22'14 5.99566 AU -1495 Sep 05 j 05:25 19°**Ω**08'36 max. Earth dist. morning rise -1500 Mar 17 j 19:07 4°**₩**09'16 -1495 Oct 29 j 22:40 0° m morning rise -1500 Jul 27 j 14:04 -1494 Jan 03 j 11:59 24° **H** 28'04 6° Mp 03'58 retrograde retrograde -1500 Sep 23 j 23:16 19°**)** 33'52 4.02470 AU -1494 Mar 04 j 23:51 1° m 11'48 min. Earth dist. opposition 1°50'23 opposition -1500 Sep 25 j 07:01 19°**¥**23'04 -1°48'50 min. Earth dist. -1494 Mar 06 j 04:14 1°M)02'43 4.40857 AU direct -1500 Nov 22 j 06:59 14°**)** 26'34 -1494 Mar 14 j 09:54 30°R€  $0^{\circ}\Upsilon$ 26°**Ω**09'59 -1499 Mar 11 j 20:42 direct -1494 May 06 j 17:03 3°Y43'23 evening set -1499 Mar 28 j 02:15 -1494 Jun 28 j 06:40 0° m evening set -1494 Sep 10 j 10:35 13° M 57'16 6°**Υ**'54'33 -1°03'51 conjunction -1499 Apr 10 j 18:13 max. Earth dist. -1494 Sep 21 j 07:09 16° My 20'52 6.38275 AU -1499 Apr 10 j 18:16 minimum elong 6°**Y**54'35 1°03'51 -1494 Sep 23 j 03:17 max. Earth dist. -1499 Apr 12 j 19:56 7°**Υ**23'34 6.06731 AU conjunction 16° Mp 45'17 1°14'37 morning rise -1499 Apr 24 j 12:26 10°**Y**06'37 minimum elong -1494 Sep 23 j 03:18 16° Mp 45'18 1°14'37 retrograde -1499 Aug 31 j 16:22 29° Y 38'54 morning rise -1494 Oct 05 j 17:28 19° m 32'14 min. Earth dist. -1499 Oct 29 j 00:07 24°**Y**44'06 4.12264 AU -1494 Nov 26 j 07:15 0∘**⊽** opposition -1499 Oct 30 j 05:18 24° Y 34'08 -1° 12'41 retrograde -1493 Feb 04 j 03:10 6°**£**47'13 direct -1499 Dec 27 j 22:46 19°**Ƴ**34'27 opposition -1493 Apr 06 j 00:15 1°**£**55'37 1°39'20 -1498 Mar 25 j 14:04 0°8 min. Earth dist. -1493 Apr 07 j 08:42 1°**≏**45'18 4.34529 AU evening set -1498 May 03 j 12:55 8°**8**24'36 -1493 Apr 21 j 13:33 30°R M direct -1493 Jun 07 j 10:44 26° m 56'06 conjunction -1498 May 17 i 07:39 11°831'51 -0°30'15 -1493 Jul 23 i 17:53 0∘**⊽** minimum elong -1498 May 17 j 07:41 11°**8**31'52 0°30'13 evening set -1493 Oct 11 i 10:37 14°**£**57'20 max. Earth dist. -1498 May 18 j 22:56 11°**8**54'07 6.18362 AU max. Earth dist. -1493 Oct 22 j 05:16 17°**≏**23'10 6.29481 AU -1498 May 31 j 02:14 14°**8**38'49 morning rise -1498 Jun 01 j 15:57 15°8 -1493 Oct 24 j 00:42 17°**-**47'45 conjunction 0°56'04 -1498 Aug 19 j 13:59  $0^{\circ}II$ -1493 Oct 24 j 00:45 17°**Ω**47'47 0°56'04 minimum elong -1498 Oct 03 j 17:54 3°**II**08'03 morning rise -1493 Nov 05 j 13:43 20°**£**37'51 retrograde -1493 Dec 19 j 20:24 -1498 Nov 17 j 20:50 30°R₩ o°m. -1498 Dec 02 j 07:04 28°806'08 -0°13'45 -1492 Mar 08 j 13:29 retrograde 8°M 35'38 opposition -1498 Dec 01 j 13:28 -1492 May 08 j 13:11 min. Earth dist. 28°**8**12'04 4.24488 AU 3°M42'53 0°58'33 opposition -1497 Jan 31 j 05:53 -1492 May 09 j 17:58 23°**8**03'59 min. Earth dist. 3°M33'43 4.23724 AU direct 30°ŖΩ -1497 Feb 27 j 08:02 24°**8**12'48 -1492 Jun 10 j 14:16 asc. node -1497 Apr 12 j 01:25 -1492 Jul 09 j 03:37 28°**£**46'05  $0^{\circ}\Pi$ direct -1497 Jun 07 j 10:53 -1492 Aug 06 j 12:04 evening set 11°**Ⅲ**24'16 0°M -1492 Nov 01 j 16:45 15°M -1497 Jun 21 j 02:03 14°**I**I25′00 0°12′07 conjunction evening set -1492 Nov 11 j 06:51 17°M11'31 -1497 Jun 21 j 02:02 14°**Ⅲ**24'59 0°12'08 minimum elong behind sun begin -1497 Jun 20 j 20:33 14°**Ⅲ**21'58 conjunction -1492 Nov 23 j 22:25 20°ML07'27 0°19'53 behind sun end -1497 Jun 21 j 07:30 14°**Ⅲ**28′00 minimum elong -1492 Nov 23 j 22:26 20°ML07'28 0°19'51 max. Earth dist. -1497 Jun 21 j 15:49 14°**Ⅲ**32'36 6.30259 AU max. Earth dist. -1492 Nov 22 j 15:28 19°M49'28 6.17605 AU -1497 Jul 04 j 15:29 17°**Ⅲ**24'38 -1492 Dec 06 j 14:33 23°M03'54 morning rise morning rise -1497 Sep 06 j 20:14 0ಂಣ -1491 Jan 06 j 16:11 0°×7 -1497 Nov 04 j 03:45 4°959'09 -1491 Apr 12 j 22:05 12°**х** 00'04 retrograde retrograde -1496 Jan 02 j 22:26 0°501'07 0°46'22 -1491 May 23 j 05:54 9°**х** 36′07 opposition desc. node min. Earth dist. -1496 Jan 02 j 21:33 0°501'25 4.35093 AU opposition -1491 Jun 12 j 20:10 7°**х**¹04'35 -0°03'26 -1496 Jan 03 i 01:48 30°RⅡ min. Earth dist. -1491 Jun 13 i 09:31 7°**₹**00'17 4.11564 AU direct -1496 Mar 04 i 04:53 24°**I**57'45 direct -1491 Aug 12 j 01:25 2°**х** 10′15 -1496 May 03 j 13:14 0ಂತಾ evening set -1491 Dec 14 j 17:27 21°× 04'57 -1496 Jul 09 j 15:28 12°954'56 evening set -1491 Dec 27 j 13:29 24°**₹**07'38 -0°24'20 conjunction -1496 Jul 22 j 23:06 15°949'00 0°49'23 -1491 Dec 27 j 13:27 24°**₹**'07'36 0°24'21 conjunction minimum elong -1496 Jul 22 j 23:03 -1491 Dec 27 j 07:21 24°**х** 03′59 6.06284 AU minimum elong 15°9548'58 0°49'25 max. Earth dist. max. Earth dist. -1496 Jul 22 j 12:00 15°9542'56 6.38777 AU morning rise -1490 Jan 09 j 11:34 27°**х** 11′35 morning rise -1496 Aug 05 j 03:34 18°9541'29 -1490 Jan 21 j 11:34 0°궁 -1496 Oct 01 j 13:03  $0^{\circ}\Omega$ retrograde -1490 May 20 j 00:55 17°る05'27 -1490 Jul 19 j 13:48 12°る06'10 -1°07'28 retrograde -1496 Dec 03 j 17:55 5°**Ω**43'17 opposition -1495 Feb 01 j 21:21 0°Ω48'50 1°31'07 min. Earth dist. -1490 Jul 19 j 08:06 12°る08'03 4.02123 AU opposition -1495 Feb 02 j 12:20 -1490 Sep 16 j 12:03 7°る12'58 min. Earth dist. 0°**Ω**43'58 4.41070 AU direct

-1495 Feb 08 j 04:15

-1495 Apr 05 j 03:04 -1495 May 30 j 15:23

-1495 Aug 10 j 10:32

-1495 Aug 17 j 05:32

-1495 Aug 21 j 23:52

direct

evening set

conjunction

max. Earth dist.

30°Rூ

0° $\Omega$ 

15°€

-1495 Aug 23 j 09:26 16° **Ω**20'44 1°11'59

25°9545'42

13°**Ω**31'24

16°**Ω**02'24 6.41670 AU

-1489 Jan 19 j 01:59

-1489 Feb 01 j 04:40

-1489 Feb 01 j 04:37

-1489 Feb 02 j 03:16

-1489 Feb 02 j 12:59

-1489 Feb 14 j 10:28

-1489 Apr 10 j 17:49

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

26°る32'05

29°**る**40'35

2°≈50'51

0°≈

29°る40'36 -1°01'04

29°る54'10 5.99557 AU

1°01'04

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1489 in astronomical counting style is the year 1490 BCE in historical counting style. opposition -1489 Jun 26 j 16:40 23°≈16'57 -1483 Feb 06 j 05:35 5°**Ω**12'33 1°35'28 retrograde opposition -1489 Aug 25 j 18:06 18°≈13'57 -1°47'39 min. Earth dist. -1483 Feb 06 j 22:48 5°**Ω**06'58 4.41348 AU -1489 Aug 24 j 18:21 18°≈21'56 3.98990 AU -1483 Apr 09 j 14:04 0°Ω09'27 min. Earth dist. direct -1489 Sep 21 j 02:27 15°R≈ -1483 Aug 01 j 05:34 15°**Ω** -1489 Oct 22 j 19:19 direct 13°≈19'46 evening set -1483 Aug 14 j 19:35 17°**£**54'33 -1489 Nov 23 j 09:41 15°≈ max. Earth dist. -1483 Aug 26 j 07:37 20°**Ω**24'53 6.41591 AU -1488 Feb 13 j 01:25 0°**)** evening set -1488 Feb 24 j 22:10 2°**)**47'10 conjunction -1483 Aug 27 j 17:36 20°**Ω**43′28 1°13'36 1°13'37 minimum elong -1483 Aug 27 j 17:35 20°**Ω**43'27 conjunction -1488 Mar 09 j 08:28 5°**)** 58'47 -1°14'59 morning rise -1483 Sep 09 j 12:24 23°**Ω**30'55 minimum elong -1488 Mar 09 j 08:28 5°**)** 58'47 1°15'00 -1483 Oct 10 j 10:28 0°m -1482 Jan 07 j 19:20 max. Earth dist. -1488 Mar 11 j 04:07 6°**)** €24'46 6.00173 AU retrograde  $10^{\circ}$  Mp 27'08morning rise -1488 Mar 22 j 22:01 9°**₭**11'57 opposition -1482 Mar 09 j 09:38 5° m/35'05 1°50'39 retrograde -1488 Aug 01 j 10:35 29°\ 26'45 min. Earth dist. -1482 Mar 10 j 14:12 5° M 25'56 4.40418 AU min. Earth dist. -1488 Sep 28 j 19:45 24°**)** € 32′23 4.03389 AU direct -1482 May 11 j 02:17 0° m 33'29 opposition -1488 Sep 30 j 03:17 24°\ 21'37 -1°46'03 evening set -1482 Sep 14 j 18:19 18° m/21'29 direct -1488 Nov 27 j 04:42 19°**)** 24'41 max. Earth dist. -1482 Sep 25 j 12:57  $20^{\circ}$  Mp 44'236.37479 AU -1487 Feb 22 j 01:33  $0^{\circ}\Upsilon$ evening set -1487 Apr 02 j 02:30 8°Y39'16 conjunction -1482 Sep 27 j 10:14 21°m/09'30 1°13'15 minimum elong -1482 Sep 27 j 10:16 21°m/09'31 conjunction -1487 Apr 15 j 19:23 11°Y50'16 -1°00'21 morning rise -1482 Oct 10 j 00:05 23° m 56'36 minimum elong -1487 Apr 15 i 19:26 11°**Υ**50'18 1°00'21 -1482 Nov 07 i 07:59 0∘**⊽** max. Earth dist. -1487 Apr 17 j 21:28 12°Υ19'25 6.07906 AU retrograde -1481 Feb 08 i 17:04 11°**£**15'37 morning rise -1487 Apr 29 j 13:53 15°**Y**01'58 opposition -1481 Apr 10 j 14:04 6°**£**23'55 1°35'17 -1487 Jul 12 j 23:17 0°8 min. Earth dist. -1481 Apr 11 j 23:30 6°**₽**13'17 4.33385 AU -1487 Sep 05 j 08:48 4°827'14 -1481 Jun 11 j 23:46 1°**£**24'39 direct retrograde -1487 Oct 30 j 06:58 -1481 Oct 15 j 19:11 19°**£**28′07 30°RY evening set -1487 Nov 03 j 20:24 29°Y22'48 -1°05'31 -1481 Oct 26 j 14:40 21°**♀**54'54 6.28073 AU max. Earth dist. opposition -1487 Nov 02 j 16:41 29°**Y**32'15 4.13565 AU min. Earth dist. -1486 Jan 01 j 17:03 24°\bar{`22'46} -1481 Oct 28 j 09:20 22°**△**19'07 0°51'55 direct conjunction -1486 Mar 04 j 10:36  $0^{\circ}$ 8 -1481 Oct 28 j 09:22 22°**£**19'08 0°51'54 minimum elong -1481 Nov 09 j 22:31 -1486 May 08 j 10:23 13°**8**10'03 25°**♀**09'52 evening set morning rise -1486 May 16 j 13:19 15°8 -1481 Dec 01 j 19:26 0°M -1480 Mar 13 j 07:13 retrograde 13°ML14'34 -1486 May 22 j 04:55 16°**8**16'41 -0°24'38 -1480 May 13 j 08:07 conjunction opposition 8°M21'29 0°50'51 -1486 May 22 j 04:57 -1480 May 14 j 10:40 minimum elong 16°**8**16'42 0°24'37 min. Earth dist. 8°**ጤ**13'00 4.22127 AU -1486 May 23 j 16:15 max. Earth dist. 16°**8**36'40 6.19694 AU direct -1480 Jul 13 j 17:32 3°M25'01 morning rise -1486 Jun 04 j 23:22 19°**8**22'58 -1480 Oct 15 j 20:04 15°M -1486 Jul 25 j 22:06  $0^{\circ}II$ evening set -1480 Nov 15 j 19:39 21°M54'06 retrograde -1486 Oct 08 j 03:59 7°**Ⅱ**45′13 max. Earth dist. -1480 Nov 27 j 07:32 24°M34'30 6.15959 AU -1486 Dec 06 j 17:44 2°II43'45 -0°05'07 opposition min. Earth dist. -1486 Dec 06 j 02:02 2°**Ц**49'03 4.25743 AU -1480 Nov 28 j 11:38 24°ML50'53 0°13'55 conjunction 24°M50'54 -1486 Dec 28 j 05:47 30°R₩ -1480 Nov 28 j 11:38 minimum elong 0°13'53 -1485 Jan 08 j 01:58 28°**8**55'09 -1480 Nov 28 j 07:19 asc. node behind sun begin 24°M48'23 27°**8**41'20 -1480 Nov 28 j 15:58 direct -1485 Feb 04 j 20:38 behind sun end 24°M53'24 -1485 Mar 15 j 22:47  $\mathbb{I}^{\circ 0}$ morning rise -1480 Dec 11 j 04:22 27°M48'19 evening set -1485 Jun 12 j 03:51 15°**Ⅱ**59'11 -1480 Dec 20 j 17:13 0° **₹** desc. node -1479 Apr 02 j 12:39 16°**х** 30′22 18°**耳**59'09 0°17'49 conjunction -1485 Jun 25 i 18:21 retrograde -1479 Apr 18 i 00:33 16°**х** 52′52 -1485 Jun 25 i 18:20 18°**Ⅲ**59'08 0°17'51 opposition -1479 Jun 17 j 20:35 11°**∡** 56′54 -0°12′47 minimum elong -1485 Jun 26 j 05:55 19°**Д**05'32 6.31371 AU min. Earth dist. -1479 Jun 18 j 08:35 11°**×**753'01 4.09980 AU max. Earth dist. -1485 Jul 09 j 06:39 21°**I**I57'52 direct 7°**х** 02'47 morning rise -1479 Aug 16 j 22:19 26°**х**⁴01'36 0ಂತಾ -1479 Dec 19 j 12:29 -1485 Aug 16 j 17:45 evening set retrograde -1485 Nov 08 j 11:37 9°9527'23 -1484 Jan 07 j 06:48 4°529'53 0°53'47 conjunction -1478 Jan 01 j 09:23 29°**х** 05′15 -0°30′16 opposition min. Earth dist. -1484 Jan 07 j 07:44 4°529'35 4.35988 AU minimum elong -1478 Jan 01 j 09:20 29°**х** 05′14 0°30′18 -1484 Feb 18 j 17:23 30°RⅡ max. Earth dist. -1478 Jan 01 j 06:34 29°**✗**03'35 6.04911 AU 29°**Ⅲ**26'30 -1478 Jan 05 j 05:16 0°궁 direct -1484 Mar 08 j 16:43 0ಂತಾ -1478 Jan 14 j 08:30 2°る10'15 -1484 Mar 27 j 20:17 morning rise 17°521'58 -1478 May 25 j 06:02 22°る10'58 evening set -1484 Jul 14 j 04:00 retrograde -1478 Jul 24 j 17:36 opposition 17°る11'11 -1°15'04 conjunction -1484 Jul 27 j 10:20 20°9515'16 0°53'34 min. Earth dist. -1478 Jul 24 j 08:50 17°る14'05 4.01121 AU minimum elong -1484 Jul 27 j 10:17 20°915'15 0°53'34 direct -1478 Sep 21 j 11:03 12°る17'59 max. Earth dist. -1484 Jul 26 j 19:05 20°906'57 6.39372 AU -1477 Jan 17 j 02:52 0°≈ morning rise -1484 Aug 09 j 13:43 23°907'02 evening set -1477 Jan 24 j 03:28 1°≈40'06  $0^{\circ}\Omega$ -1484 Sep 11 j 13:46 -1484 Dec 08 j 01:30 10°**Ω**06'41 -1477 Feb 06 j 07:07 4°≈49'20 -1°04'38 retrograde conjunction

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1477 in astronomical counting style is the year 1478 BCE in historical counting style. opposition -1477 Feb 06 i 07:04 4°≈49'18 1°04'38 -1471 Feb 10 j 11:11 9°**Ω**29'46 1°39'06 minimum elong -1477 Feb 07 j 08:24 5°≈04'31 5.98993 AU min. Earth dist. -1471 Feb 11 j 06:26 9°**Ω**23'32 4.42126 AU max. Earth dist. -1471 Apr 13 j 22:16 -1477 Feb 19 j 14:06 8°≈00'20 4°Ω26'49 direct morning rise -1471 Jul 15 j 13:12 -1477 Mar 21 j 21:30 15°≈ 15°**Ω** -1471 Aug 19 j 01:17 -1477 Jul 01 j 21:54 retrograde 28°≈28'34 evening set 22°**Ω**09'52 opposition -1477 Aug 30 j 21:51 23°**≈**25′08 -1°50'06 max. Earth dist. -1471 Aug 30 j 08:06 24°**Ω**37'27 6.41840 AU min. Earth dist. -1477 Aug 29 j 20:25 23°**≈**33'43 3.98940 AU direct -1477 Oct 27 j 21:53 18°≈30'38 conjunction -1471 Aug 31 j 22:06 24°**Ω**58'13 1°14'44 -1476 Jan 26 j 03:06 0°**)** minimum elong -1471 Aug 31 j 22:05 24°**Ω**58'12 1°14'45 evening set -1476 Mar 01 j 03:20 7°**¥**58′27 morning rise -1471 Sep 13 j 16:04 27°**Ω**45′13 -1471 Sep 24 j 02:04 0°m -1470 Jan 12 j 01:18 conjunction -1476 Mar 14 j 14:53 11° **★** 10'23 -1°14'35 retrograde 14° Mp 41'44 -1470 Mar 13 j 16:16 minimum elong -1476 Mar 14 j 14:54 11°\(\dagger)10'23\) 1°14'35 opposition 9° Mp 49'50 1°50'16 max. Earth dist. -1476 Mar 16 j 13:57 11°**¥**38′21 6.00649 AU min. Earth dist. -1470 Mar 14 j 23:02 9°m/39'59 4.40121 AU morning rise -1476 Mar 28 j 05:15 14°**)** 23'43 direct -1470 May 15 j 09:32 4° m 48'24 -1476 Jun 12 j 08:24  $0^{\circ}\Upsilon$ evening set -1470 Sep 18 j 21:51 22° m/36'55 retrograde -1476 Aug 06 j 12:36 4° Y 34' 24 max. Earth dist. -1470 Sep 29 j 15:52  $24^{\circ}$  **m** 59'456.36643 AU -1476 Oct 01 j 09:01 30°R **₩** min. Earth dist. -1476 Oct 03 j 19:40 29°**)** 40'03 4.04353 AU conjunction -1470 Oct 01 j 13:27 25° m 25'05 1°11'30 opposition -1476 Oct 05 j 03:12 29°\ 29'18 -1°42'21 minimum elong -1470 Oct 01 j 13:28 25° Mp 25'06 direct -1476 Dec 02 j 05:48 24° ¥ 32'01 morning rise -1470 Oct 14 j 02:46 28° m 12'21 -1475 Jan 31 i 00:11  $0^{\circ}\Upsilon$ -1470 Oct 22 i 06:44 0∘**⊽** evening set -1475 Apr 07 j 07:25 13°Y44'08 retrograde -1469 Feb 13 i 01:50 15°**♀**35'57 opposition -1469 Apr 15 i 00:16 10°**£**44'11 1°30'50 conjunction -1475 Apr 21 i 00:45 16°Y54'48 -0°56'16 min. Earth dist. -1469 Apr 16 j 09:34 10°**♀**33'35 4.32048 AU -1475 Apr 21 j 00:48 16°**Y**54'50 0°56'16 -1469 Jun 16 j 06:46 minimum elong direct 5°**£**45'15 -1475 Apr 23 j 01:27 17°**Y**23′01 6.09287 AU -1469 Oct 20 j 00:52 23°**£**52'01 max. Earth dist. evening set -1475 May 04 j 19:47 20°Y06'04 -1469 Oct 30 j 20:00 26°**♀**19'13 max. Earth dist. 6.26334 AU morning rise -1475 Jun 19 j 13:33 0°8 -1475 Sep 10 j 02:05 9°**8**23'00 -1469 Nov 01 j 14:58 conjunction 26°**△**43'43 0°47'35 retrograde min. Earth dist. -1475 Nov 07 j 10:51 4°**8**28'16 4.15244 AU minimum elong -1469 Nov 01 j 15:01 26°**£**43'44 0°47'34 -1475 Nov 08 j 14:22 -1469 Nov 14 j 04:31 29°**♀**35'20 4°**8**18'54 -0°57'40 opposition morning rise -1475 Dec 17 j 06:05 30°**Ŗ**Υ -1469 Nov 16 j 00:06 0°M 29°Υ18'31 -1474 Jan 06 j 14:27 -1468 Feb 03 j 14:34 direct 15°M -1474 Jan 27 j 04:19  $0^{\circ}$ 8 -1468 Mar 18 j 01:30 retrograde 17°**™**48'29 -1474 Apr 29 j 19:08 15°**8** -1468 May 01 j 04:09 15°RM evening set -1474 May 13 j 10:34 18°**8**01'26 opposition -1468 May 18 j 00:41 12°M55'05 0°43'03 min. Earth dist. -1468 May 19 j 03:09 12°M46'37 4.20075 AU conjunction -1474 May 27 j 04:56 21°807'11 -0°18'44 direct -1468 Jul 18 j 06:28 7°M58'54 -1474 May 27 j 04:57 21°807'11 0°18'43 -1468 Sep 26 j 19:31 15°M minimum elong max. Earth dist. -1474 May 28 j 14:27 21°**8**26'04 6.21578 AU evening set -1468 Nov 20 j 06:49 26°M33'36 -1474 Jun 09 j 22:41 24°**8**12'23 morning rise -1474 Jul 06 j 14:31  $0^{\circ}II$ -1468 Dec 02 j 23:31 29°M31'36 0°08'00 conjunction 12°**Ⅲ**25'31 -1474 Oct 12 j 16:29 -1468 Dec 02 j 23:31 retrograde minimum elong 29°M31'36 0°07'59 -1474 Nov 18 j 00:29 10°**Ⅱ**19'41 -1468 Dec 02 j 16:20 asc. node behind sun begin 29°M27'25 opposition -1474 Dec 11 i 06:04 7°**I**I24'38 0°03'39 behind sun end -1468 Dec 03 i 06:42 29°M35'47 min. Earth dist. -1474 Dec 10 j 16:30 7°**П**29'12 4.27661 AU max. Earth dist. -1468 Dec 01 i 21:42 29°M16'29 6.13783 AU direct -1473 Feb 09 i 14:20 2°**Ⅲ**22'04 -1468 Dec 04 i 23:59 0° **₹** evening set -1473 Jun 16 j 21:15 20°**Ⅲ**34'57 morning rise -1468 Dec 15 i 17:04 2°×30'19 desc. node -1467 Feb 12 j 02:49 14°**х** 53′09 -1473 Jun 30 j 10:39 23°II33'43 0°23'26 retrograde -1467 Apr 23 j 01:02 21°×745'21 conjunction -1473 Jun 30 j 10:37 23°II33'42 0°23'28 -1467 Jun 22 j 20:18 16°**∡**<sup>7</sup>48'56 -0°21'54 minimum elong opposition -1473 Jun 30 j 18:35 -1467 Jun 23 j 05:30 23°**II**38'05 6.33172 AU min. Earth dist. 16°**х** 45′58 4.07873 AU max. Earth dist. 11°**х** 55'04 morning rise -1473 Jul 13 j 21:47 26°**Ⅲ**31'12 direct -1467 Aug 21 j 15:58 0ಂಣ -1473 Jul 30 j 01:23 -1467 Dec 20 j 02:21 0°궁 retrograde -1473 Nov 12 j 17:22 13°953'34 -1467 Dec 24 j 08:04 1°る00'12 evening set -1472 Jan 11 j 14:34 1°00'46 opposition 8°956'34 -1472 Jan 11 j 17:21 4.37557 AU -1466 Jan 06 j 05:49 4°る05'03 -0°35'55 min. Earth dist. 8°955'39 conjunction -1466 Jan 06 j 05:46 4°**ට**5'01 direct -1472 Mar 13 j 04:16 3°953'07 minimum elong 0°35'57 -1472 Jul 18 j 14:40 -1466 Jan 06 j 06:13 4°**⋜**05'17 evening set 21°5544'40 max. Earth dist. 6.03056 AU 7°る11'24 morning rise -1466 Jan 19 j 06:09 conjunction -1472 Jul 31 j 19:45 24°936'57 0°57'20 retrograde -1466 May 30 j 13:25 27°る20'55 minimum elong -1472 Jul 31 j 19:42 24°936'55 0°57'21 opposition -1466 Jul 29 j 22:36 22°る20'31 -1°22'03 max. Earth dist. -1472 Jul 31 j 02:19 24°9527'27 6.40585 AU min. Earth dist. -1466 Jul 29 j 11:00 22°**る**24'23 3.99719 AU morning rise -1472 Aug 13 j 21:38 27°9527'38 direct -1466 Sep 26 j 12:28 17°る27'14 -1472 Aug 25 j 17:56  $0^{\circ}\Omega$ -1466 Dec 30 j 12:54 0°≈

-1472 Dec 12 j 05:18

retrograde

14°**Ω**23′29

-1465 Jan 29 j 07:07

6°≈53'49

evening set

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1465 in astronomical counting style is the year 1466 BCE in historical counting style. -1465 Feb 11 j 12:07 10°≈03'59 -1°07'39 -1460 Aug 09 j 16:54  $0^{\circ}\Omega$ conjunction -1465 Feb 11 j 12:05 -1460 Aug 18 j 06:58 1°**Ω**51'53 minimum elong 10°≈03'57 1°07'40 morning rise -1465 Feb 12 j 19:06 -1460 Oct 27 j 00:57 15°**Ω** max. Earth dist. 10°≈22'35 5 98182 AU -1460 Dec 16 j 12:11 -1465 Feb 24 j 20:13 13°≈15'51 18°**Ω**45'54 morning rise retrograde -1459 Feb 06 j 00:49 -1465 Mar 04 j 03:53 15°≈ 15°RΩ -1459 Feb 14 j 19:47 0°**)**€ -1465 May 18 j 08:18 opposition 13°**Ω**52'30 1°42'26 13°**Ω**45'40 retrograde -1465 Jul 07 j 06:09 3°**)** 46′27 min. Earth dist. -1459 Feb 15 j 16:54 4.42322 AU -1465 Aug 26 j 11:46 30°R≈ direct -1459 Apr 18 j 08:01 8°**Ω**49'40 min. Earth dist. -1465 Sep 04 j 00:22 28°≈51'43 3.98833 AU -1459 Jun 25 j 15:15 15°Ω opposition -1465 Sep 05 j 03:27 28°≈42'34 -1°51'37 evening set -1459 Aug 23 j 09:50 26°**Ω**32'29 direct -1465 Nov 02 j 02:00 23°≈47'45 max. Earth dist. -1459 Sep 03 j 14:53 28°**Ω**59'17 6.41515 AU -1464 Jan 04 j 12:55 0°**)**€ -1459 Sep 05 j 05:46 evening set -1464 Mar 06 j 11:17 13°**升** 15′52 conjunction 29°**Q**20'35 1°15'33 minimum elong -1459 Sep 05 j 05:45 29°**Ω**20'35 1°15'33 conjunction -1464 Mar 19 j 23:46 16°¥28'00 -1°13'32 -1459 Sep 08 j 05:42 0° m minimum elong -1464 Mar 19 j 23:47 16°**¥**28'00 1°13'31 morning rise -1459 Sep 17 j 22:42 2°m/07'20 max. Earth dist. -1464 Mar 22 j 00:18 16°**¥**56'46 6.01222 AU retrograde -1458 Jan 16 j 11:08 19° Mp 06'07 morning rise -1464 Apr 02 j 15:16 19° ¥41'30 opposition -1458 Mar 18 j 03:21 14° Mp 14'23 1°49'22 -1464 May 19 j 05:56  $0^{\circ}\Upsilon$ min. Earth dist. -1458 Mar 19 j 11:13 14° mp 04'13 4.39298 AU retrograde -1464 Aug 11 j 13:36 9°Y46'50 direct -1458 May 19 j 20:05 9° m 13'19 min. Earth dist. -1464 Oct 08 j 19:34 4°**Υ**52'47 4.05525 AU evening set -1458 Sep 23 j 06:18 27° m 03'53 opposition -1464 Oct 10 j 04:29 4°Υ41'33 -1°37'44 max. Earth dist. -1458 Oct 03 i 21:46 29° m 25'50 6.35377 AU -1464 Nov 24 j 20:24 30°R**)**€ direct -1464 Dec 07 i 08:45 29°\(\)43'45 conjunction -1458 Oct 05 i 21:19 29° m 52'21 1°09'18 -1464 Dec 19 i 23:28  $0^{\circ}\Upsilon$ -1458 Oct 05 j 21:20 29° m 52'22 1°09'18 minimum elong -1463 Apr 12 j 13:30 18°Y52'11 -1458 Oct 06 j 11:01 0∘**⊽** evening set -1458 Oct 18 j 10:34 morning rise 2° \$\textit{\Omega} 40'05 -1463 Apr 26 j 07:23 22°Υ02'19 -0°51'42 20°**₽**09'49 -1457 Feb 17 j 18:47 conjunction retrograde -1457 Apr 19 j 16:48 -1463 Apr 26 j 07:27 22°Υ02'21 0°51'41 15°**2**17'55 1°25'37 minimum elong opposition -1463 Apr 28 j 07:45 22°**Υ**30'15 6.10938 AU -1457 Apr 21 j 02:08 max. Earth dist. min. Earth dist. 15°**≏**07'18 4.30407 AU -1463 May 10 j 02:31 25°**Y**12'51 -1457 Jun 20 j 20:37 10°**£**19'21 morning rise direct -1463 May 31 j 10:36  $0^{\circ}$ 8 -1457 Oct 24 j 12:02 28°**£**30′09 evening set -1463 Sep 14 j 21:35 14°**8**20'16 -1457 Oct 31 j 01:52 retrograde 0°M 0°M59'28 6.24471 AU -1463 Nov 12 j 07:37 -1457 Nov 04 j 09:52 min. Earth dist. 9°**8**25'05 4.17134 AU max. Earth dist. -1463 Nov 13 j 09:07 opposition 9°**8**16'24 -0°49'19 -1457 Nov 06 j 02:28 direct -1462 Jan 11 j 14:28 4°**8**15'35 conjunction 1°M22'43 0°42'43 -1462 Apr 11 j 14:45 15°**8** minimum elong -1457 Nov 06 j 02:31 1°M22'45 0°42'41 -1462 May 18 j 11:00 22°**8**53'12 morning rise -1457 Nov 18 j 16:17 4°ML15'17 evening set -1456 Jan 08 j 15:50 15°M conjunction -1462 Jun 01 j 04:57 25°857'54 -0°12'39 retrograde -1456 Mar 23 j 00:41 22°M37'22 -1462 Jun 01 j 04:58 25°**8**57'55 0°12'38 -1456 May 22 j 23:57 17°M43'42 0°34'28 minimum elong opposition -1462 May 31 j 23:49 25°**8**55'02 min. Earth dist. -1456 May 24 j 00:11 17°M35'57 4.18125 AU behind sun begin behind sun end -1462 Jun 01 j 10:07 26°800'47 -1456 Jun 14 j 14:04 15°RM -1462 Jun 02 j 11:54 26°815'15 6.23532 AU -1456 Jul 23 j 00:29 max. Earth dist. direct 12°M48'01 -1462 Jun 14 j 22:02 29°**8**01'57 morning rise -1456 Aug 29 j 22:40 15°M -1462 Jun 19 i 06:43  $0^{\circ}\Pi$ -1456 Nov 18 j 16:58 0°×7 asc. node -1462 Sep 26 i 21:27 16°**Ⅲ**26′05 evening set -1456 Nov 25 j 00:07 1°×27'44 retrograde -1462 Oct 17 i 02:48 17°**Ⅱ**05'56 opposition -1462 Dec 15 i 18:28 12°**Ⅱ**05'31 0°12'28 conjunction -1456 Dec 07 i 17:16 4°**х** 26'45 0°01'40 minimum elong min. Earth dist. -1462 Dec 15 j 06:20 12°**Ⅱ**09'35 4.29492 AU -1456 Dec 07 i 17:16 4°**₹**¹26'45 0°01'39 -1461 Feb 14 j 06:21 7°**Ⅱ**02'41 -1456 Dec 07 j 09:14 4°×22'03 direct behind sun begin -1461 Jun 21 j 14:55 25°**Ⅱ**11'08 -1456 Dec 08 j 01:18 4°×31'27 evening set behind sun end 13'04 **ح**°4 6.11931 AU max. Earth dist. -1456 Dec 06 j 18:00 conjunction -1461 Jul 05 j 03:11 28°II08'47 0°28'59 morning rise -1456 Dec 20 j 11:46 7°**х** 26′40 minimum elong -1461 Jul 05 j 03:09 28°**Ⅲ**08'46 0°29'00 desc. node -1456 Dec 22 j 03:58 7°**≯** 50'08 -1461 Jul 05 j 06:58 26°**₹**'51'01 max. Earth dist. 28°**Ⅲ**10′52 6.34737 AU retrograde -1455 Apr 28 j 07:36 -1461 Jul 13 j 13:53 0ಂತಾ opposition -1455 Jun 28 j 01:34 21°**x** 54'07 -0°31'23 -1461 Jul 18 j 13:03 -1455 Jun 28 j 07:34 21°×752'09 morning rise 1°905'05 min. Earth dist. 4.06297 AU -1461 Nov 17 j 02:07 17°**х** 00′29 retrograde 18°9521'29 direct -1455 Aug 26 j 16:53 -1460 Jan 15 j 23:38 0°ಕ opposition 13°**©**25'01 1°07'35 -1455 Dec 02 j 17:13 6°る09'49 min. Earth dist. -1460 Jan 16 j 05:38 13°**©**23'02 4.38744 AU evening set -1455 Dec 29 j 08:23 -1460 Mar 17 j 17:55 8°921'34 evening set -1460 Jul 23 j 02:27 26°9510'28 conjunction -1454 Jan 11 j 07:12 9°る15'36 -0°41'34 max. Earth dist. -1460 Aug 04 j 08:53 28°950'19 6.41283 AU minimum elong -1454 Jan 11 j 07:09 9°**ට**15'35 0°41'36 max. Earth dist. -1454 Jan 11 j 13:33 9°**る**19'25 6.01934 AU -1460 Aug 05 j 06:17 29°9501'58 -1454 Jan 24 j 08:27 12°る22'54 conjunction 1°00'55 morning rise

-1460 Aug 05 j 06:15

minimum elong

29°**©**01'56

-1454 Apr 24 j 11:45

0°**≈** 

•	iical year style is used: Th		•				ge 40
retrograde	-1454 Jun 04 j 23:48	2° <b>≈</b> 37'48	iii astronomicai co	opposition	-1448 Jan 20 j 06:25	17°548'33	1013'51
renograde	-1454 Jul 16 j 12:54	2 ≈3746 30°Rる		min. Earth dist.	-1448 Jan 20 j 14:12	17 9 46 33	4.39449 AU
			1920127		J	17°9946'00 12°9945'07	4.39449 AU
opposition min. Earth dist.	-1454 Aug 04 j 06:18	27° <b>る</b> 36'55		direct	-1448 Mar 22 j 02:42	12°945'07 0°Ω	
	-1454 Aug 03 j 16:08		3.99214 AU	. ,	-1448 Jul 24 j 23:08		
direct	-1454 Oct 01 j 16:46	22°₹43'38		evening set	-1448 Jul 27 j 12:31	0° <b>Ω</b> 33'05	
. ,	-1454 Dec 10 j 01:21	0°≈			1440 4 00:15.07	20 022150	1004107
evening set	-1453 Feb 03 j 12:46	12°≈11'15		conjunction	-1448 Aug 09 j 15:07	3° <b>Ω</b> 23'59	1°04'06 1°04'07
	-1453 Feb 15 j 06:23	15° <b>≈</b>		minimum elong	-1448 Aug 09 j 15:05	3° <b>Ω</b> 23'58	
. ,.	1452 E 1 16:10.20	150 21146	1010114	max. Earth dist.	-1448 Aug 08 j 14:19	3° <b>Ω</b> 10′29	6.41479 AU
conjunction	-1453 Feb 16 j 18:39	15°≈21'46		morning rise	-1448 Aug 22 j 14:38	6° <b>Ω</b> 13'22	
minimum elong	-1453 Feb 16 j 18:37	15°≈21'45		. 1	-1448 Oct 04 j 15:28	15° <b>Ω</b>	
max. Earth dist.	-1453 Feb 18 j 04:19	15°≈41'59	5.98310 AU	retrograde	-1448 Dec 20 j 19:57	23° <b>Ω</b> 07'13	1045110
morning rise	-1453 Mar 02 j 03:58	18° <b>≈</b> 34'03		opposition	-1447 Feb 19 j 03:46	18° <b>Ω</b> 14'11	1°45'10
	-1453 Apr 22 j 17:41	0° <b>)</b> {		min. Earth dist.	-1447 Feb 20 j 03:33	18° <b>Ω</b> 06'31	4.42023 AU
retrograde	-1453 Jul 12 j 10:31	9° <b>)</b> €02'56	2 00 00 0 1 1 1		-1447 Mar 18 j 12:17	15°R€	
min. Earth dist.	-1453 Sep 09 j 02:31		3.99606 AU	direct	-1447 Apr 22 j 18:14	13° <b>Ω</b> 11'33	
opposition	-1453 Sep 10 j 08:08	3° <b>)</b> €58'41	-1°52'14		-1447 May 28 j 04:43	15° <b>Ω</b>	
	-1453 Oct 14 j 19:06	30°R≈			-1447 Aug 23 j 11:32	0° <b>m</b>	
direct	-1453 Nov 07 j 05:51	29° <b>≈</b> 03'31		evening set	-1447 Aug 27 j 18:03	0° <b>m</b> 55'36	
	-1453 Nov 30 j 19:15	0° <b>∀</b>		max. Earth dist.	-1447 Sep 07 j 19:31	3° Mp 20'49	6.40726 AU
evening set	-1452 Mar 11 j 17:29	18° <b>¥</b> 28'52					
				conjunction	-1447 Sep 09 j 13:09	3° Mp 43'40	1°15'56
conjunction	-1452 Mar 25 j 06:56	21° <b>)</b> 40'47		minimum elong	-1447 Sep 09 j 13:09	3° Mp 43'40	1°15'56
minimum elong	-1452 Mar 25 j 06:58	21° <b>)</b> 40'48		morning rise	-1447 Sep 22 j 05:28	6° Mp 30′27	
max. Earth dist.	-1452 Mar 27 j 09:08	22° <b>∺</b> 10′26	6.02552 AU	retrograde	-1446 Jan 20 j 22:27	23° m 33'01	
morning rise	-1452 Apr 07 j 23:01	24° <b>¥</b> 53'55		opposition	-1446 Mar 22 j 15:30	18° <b>m</b> )41'19	1°47'50
	-1452 Apr 30 j 05:02	$0^{\circ}$ Y		min. Earth dist.	-1446 Mar 23 j 23:38	18° <b>m</b> 31'03	4.38093 AU
retrograde	-1452 Aug 16 j 13:01	14° <b>Y</b> 51'20		direct	-1446 May 24 j 06:39	13° <b>m</b> 40'32	
min. Earth dist.	-1452 Oct 13 j 18:49		4.07241 AU		-1446 Sep 20 j 12:43	0∘ <b>⊽</b>	
opposition	-1452 Oct 15 j 02:27	9° <b>Ƴ</b> 46'05	-1°32'31	evening set	-1446 Sep 27 j 15:24	1° <b>≏</b> 34'07	
direct	-1452 Dec 12 j 10:47	4° <b>Y</b> 47'49		max. Earth dist.	-1446 Oct 08 j 08:24	3° <b>≙</b> 57'25	6.33862 AU
evening set	-1451 Apr 17 j 15:55	23° <b>Y</b> 51'08					
				conjunction	-1446 Oct 10 j 06:14	4° <b>≏</b> 23'04	1°06'39
conjunction	-1451 May 01 j 10:08	27° <b>Y</b> ′00'33		minimum elong	-1446 Oct 10 j 06:16	4° <b>≏</b> 23'06	1°06'39
minimum elong	-1451 May 01 j 10:11	27° <b>Y</b> ′00′35	0°46'53	morning rise	-1446 Oct 22 j 19:13	7° <b>≏</b> 11'20	
max. Earth dist.	-1451 May 03 j 09:20	27° <b>Y</b> 27'40	6.12884 AU	retrograde	-1445 Feb 22 j 12:20	24° <b>≏</b> 47'53	
	-1451 May 14 j 11:22	$9^{\circ}$ 8		opposition	-1445 Apr 24 j 10:59		1°19'48
morning rise	-1451 May 15 j 05:17	0° <b>8</b> 10'12		min. Earth dist.	-1445 Apr 25 j 19:32	19° <b>≏</b> 45'30	4.28678 AU
	-1451 Jul 29 j 04:55	15° <b>8</b>		direct	-1445 Jun 25 j 11:46	14° <b>≙</b> 57'45	
retrograde	-1451 Sep 19 j 10:44	19° <b>8</b> 07'34			-1445 Oct 14 j 18:24	0° <b>M</b>	
	-1451 Nov 11 j 01:57	15° <b>₹8</b>		evening set	-1445 Oct 29 j 00:57	3° <b>M</b> ₁2'31	
opposition	-1451 Nov 17 j 23:28	14° <b>8</b> 04'07	-0°40'57	max. Earth dist.	-1445 Nov 08 j 23:55	5° <b>M</b> ₊43'10	6.22679 AU
min. Earth dist.	-1451 Nov 16 j 22:57	14° <b>8</b> 12'26	4.19112 AU				
direct	-1450 Jan 16 j 07:52	9° <b>8</b> 02'56		conjunction	-1445 Nov 10 j 15:26	6°M05′53	0°37'30
	-1450 Mar 21 j 17:11	15° <b>8</b>		minimum elong	-1445 Nov 10 j 15:29	6° <b>™</b> 05'54	0°37'29
evening set	-1450 May 23 j 07:14	27° <b>8</b> 35'33		morning rise	-1445 Nov 23 j 05:53	8° <b>™</b> 59'25	
	-1450 Jun 03 j 02:24	$\Pi$ $\circ 0$			-1445 Dec 20 j 07:03	15° <b>M</b> ₊	
				retrograde	-1444 Mar 28 j 01:13	27° <b>M</b> 29'57	
conjunction	-1450 Jun 06 j 00:35	0° <b>Ⅱ</b> 39'14		opposition	-1444 May 28 j 00:29	22°M35'50	0°25'31
minimum elong	-1450 Jun 06 j 00:35	0° <b>Ⅱ</b> 39'14	0°06'41	min. Earth dist.	-1444 May 28 j 21:57	$22^{\circ}$ M $_28'57$	4.16395 AU
behind sun begin	-1450 Jun 05 j 16:49	0° <b>∏</b> 34'55		direct	-1444 Jul 27 j 20:49	17° <b>M</b> 40'26	
behind sun end	-1450 Jun 06 j 08:20	0°∏43′33		desc. node	-1444 Oct 31 j 02:24	29°M41'43	
max. Earth dist.	-1450 Jun 07 j 02:27	0°Ⅲ53'41	6.25381 AU		-1444 Nov 01 j 12:21	0° <b>∡</b> ¹	
morning rise	-1450 Jun 19 j 16:58	3° <b>Ⅱ</b> 42'10		evening set	-1444 Nov 29 j 18:17	6° <b>≯</b> 24′06	
asc. node	-1450 Aug 07 j 03:05	13° <b>∐</b> 43′22					
retrograde	-1450 Oct 21 j 12:13	21° <b>Ⅲ</b> 38′07		conjunction	-1444 Dec 12 j 12:14	9° <b>∡</b> ¹24'05	-0°04'50
opposition	-1450 Dec 20 j 03:41	16° <b>∏</b> 38'15	0°20'54	minimum elong	-1444 Dec 12 j 12:14	9° <b>х</b> 24'04	0°04'51
min. Earth dist.	-1450 Dec 19 j 19:11	16° <b>Ⅱ</b> 41′06	4.31057 AU	behind sun begin	-1444 Dec 12 j 04:23	9° <b>∡</b> 19'28	
direct	-1449 Feb 18 j 21:02	11° <b>Ⅲ</b> 35′15		behind sun end	-1444 Dec 12 j 20:04	9° <b>×</b> 128'40	
evening set	-1449 Jun 26 j 04:57	29° <b>Ⅱ</b> 40'19		max. Earth dist.	-1444 Dec 11 j 18:18	9° <b>х¹</b> 13'30	6.10430 AU
	-1449 Jun 27 j 17:07	$0$ $\circ$ $\odot$		morning rise	-1444 Dec 25 j 07:25	12° <b>∡</b> °24'59	
					-1443 Mar 28 j 21:37	8°0	
conjunction	-1449 Jul 09 j 16:17	2° <b>©</b> 37'05	0°34'13	retrograde	-1443 May 03 j 14:38	1° <b>る</b> 56'50	
minimum elong	-1449 Jul 09 j 16:14	2° <b>5</b> 37'03	0°34'14		-1443 Jun 08 j 09:38	30°₽ <b>⋌</b>	
max. Earth dist.	-1449 Jul 09 j 16:40	2° <b>5</b> 37'17	6.35893 AU	opposition	-1443 Jul 03 j 06:49	26° <b>₹</b> ′59′23	-0°40'39
morning rise	-1449 Jul 23 j 00:51	5° <b>©</b> 32'24		min. Earth dist.	-1443 Jul 03 j 10:14	26° <b>₹</b> ′58′16	4.05162 AU
retrograde	-1449 Nov 21 j 06:35	22° <b>5</b> 44'33		direct	-1443 Aug 31 j 18:00	22° <b>∡</b> °05'56	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 41 Attention, astronomical year style is used: The year -1443 in astronomical counting style is the year 1444 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -1443 i	in astronomical co	unting style is the year	1444 BCE in historical c	counting style.	
	-1443 Nov 13 j 03:44	5°0		conjunction	-1437 Jul 14 j 05:41	7° <b>©</b> 05'57	0°39'16
evening set	-1442 Jan 03 j 08:28	11° <b>る</b> 17'44		minimum elong	-1437 Jul 14 j 05:39	7° <b>©</b> 05'56	0°39'17
				max. Earth dist.	-1437 Jul 14 j 01:00		6.36797 AU
conjunction	-1442 Jan 16 j 07:59	14° <b>る</b> 24'10		morning rise	-1437 Jul 27 j 13:13	10° <b>©</b> 00'27	
minimum elong	-1442 Jan 16 j 07:56	14° <b>る</b> 24'08		retrograde	-1437 Nov 25 j 14:49	27° <b>©</b> 09'18	
max. Earth dist.	-1442 Jan 16 j 17:16	14° <b>る</b> 29'44	6.01236 AU	opposition	-1436 Jan 24 j 14:33	22° <b>©</b> 13'50	1°19'46
morning rise	-1442 Jan 29 j 10:26	17° <b>る</b> 32'14		min. Earth dist.	-1436 Jan 25 j 01:36	22°5510'13	4.39953 AU
	-1442 Mar 27 j 11:46	0° <b>≈</b>		direct	-1436 Mar 26 j 14:48	17°5510'28	
retrograde	-1442 Jun 10 j 05:05	7°≈50'36	100.400		-1436 Jul 08 j 10:27	0° <b>Ω</b>	
opposition	-1442 Aug 09 j 12:00	2°≈49'08		evening set	-1436 Jul 31 j 23:09	4° <b>Ω</b> 57'55	C 41524 ATT
min. Earth dist.	-1442 Aug 08 j 18:22		3.99048 AU	max. Earth dist.	-1436 Aug 12 j 21:54	/°6 <b>1</b> 33'44	6.41534 AU
direct	-1442 Sep 01 j 02:11	30°Rる		agniumation	1426 Ana 14:00:47	70 0 40122	1906150
direct	-1442 Oct 06 j 19:12	27°る55'40 0°≈		conjunction	-1436 Aug 14 j 00:47	7° <b>Ω</b> 48'23 7° <b>Ω</b> 48'22	1°06'58 1°06'58
	-1442 Nov 11 j 05:06 -1441 Jan 29 j 14:31	0 ≈ 15°≈		minimum elong morning rise	-1436 Aug 14 j 00:45 -1436 Aug 26 j 23:06	10°Ω37'17	1 00 38
evening set	-1441 Feb 08 j 16:49	17°≈23'20		morning rise	-1436 Sep 16 j 13:48	10 <b>δί</b> 3/1/ 15° <b>Ω</b>	
evening set	-1441 PCU 00 J 10.49	17 ~23 20		retrograde	-1436 Dec 25 j 03:27	27° <b>Ω</b> 31'36	
conjunction	-1441 Feb 21 j 23:49	20° <b>≈</b> 34'09	-1°12'14	opposition	-1435 Feb 23 j 13:22		1°47'23
minimum elong	-1441 Feb 21 j 23:48	20°≈34'09		min. Earth dist.	-1435 Feb 24 j 13:39	22° <b>Ω</b> 31'03	4.41667 AU
max. Earth dist.	-1441 Feb 23 j 13:15	20°≈56'36		direct	-1435 Apr 27 j 03:40	17° <b>Ω</b> 36'32	4.41007 710
morning rise	-1441 Mar 07 j 10:00	23° <b>≈</b> 46'39	3.90070110	ancer	-1435 Aug 06 j 20:26	0° m)	
morning not	-1441 Apr 03 j 07:34	0° <b>∀</b>		evening set	-1435 Sep 01 j 03:16	5° Mp 21'47	
retrograde	-1441 Jul 17 j 14:34	14° <b>¥</b> 12'51		max. Earth dist.	-1435 Sep 12 j 03:18	7° m) 46'35	6.39995 AU
min. Earth dist.	-1441 Sep 14 j 04:36		4.00469 AU			, ,,	
opposition	-1441 Sep 15 j 10:10	9° <b>)</b> €08'19		conjunction	-1435 Sep 13 j 21:30	8° <b>m</b> ) 09'48	1°15'54
direct	-1441 Nov 12 j 09:34	4° <b>)</b> € 12'45		minimum elong	-1435 Sep 13 j 21:30	8° <b>m</b> ) 09'48	1°15'54
evening set	-1440 Mar 16 j 21:50	23° <b>)</b> €35′24		morning rise	-1435 Sep 26 j 13:06	10° m 56'37	
•	·			retrograde	-1434 Jan 25 j 11:26	28° m/02'50	
conjunction	-1440 Mar 30 j 12:10	26° <b>)</b> 47′08	-1°09'53	opposition	-1434 Mar 27 j 05:04	23°Mp11'16	1°45'41
minimum elong	-1440 Mar 30 j 12:12	26° <b>)</b> 47′10	1°09'53	min. Earth dist.	-1434 Mar 28 j 14:05	23° Mp 00'44	4.37047 AU
max. Earth dist.	-1440 Apr 01 j 15:22	27° <b>) (</b> 17′15	6.03826 AU	direct	-1434 May 28 j 19:57	18° <b>TD</b> 10'56	
morning rise	-1440 Apr 13 j 04:59	29° <b>¥</b> 59′59			-1434 Sep 03 j 15:30	0∘ <b>ত</b>	
	-1440 Apr 13 j 05:00	$0$ ° $\Upsilon$		evening set	-1434 Oct 02 j 01:15	6° <b>ჲ</b> 06'47	
retrograde	-1440 Aug 21 j 08:46	19° <b>Y</b> 49'46		max. Earth dist.	-1434 Oct 12 j 17:42	8° <b>≏</b> 30'17	6.32596 AU
opposition	-1440 Oct 19 j 22:08	14° <b>Y</b> 44'40	-1°26'47				
min. Earth dist.	-1440 Oct 18 j 14:29	14° <b>Y</b> 55'28	4.08794 AU	conjunction	-1434 Oct 14 j 15:46	8° <b>≏</b> 56'08	1°03'38
direct	-1440 Dec 17 j 08:06	9° <b>Y</b> 45'59		minimum elong	-1434 Oct 14 j 15:48	8° <b>亞</b> 56'09	1°03'37
evening set	-1439 Apr 22 j 16:49	28° <b>Y</b> 45′09		morning rise	-1434 Oct 27 j 04:47	11° <b>≏</b> 44'56	
	-1439 Apr 28 j 04:05	$9^{\circ}$ 8		retrograde	-1433 Feb 27 j 05:48	29° <b>₽</b> 27'32	
				opposition	-1433 Apr 29 j 05:42	24° <b>≏</b> 35'17	
conjunction	-1439 May 06 j 11:11	1° <b>8</b> 53'55		min. Earth dist.	-1433 Apr 30 j 12:13	24° <b>≏</b> 25'34	4.27277 AU
minimum elong	-1439 May 06 j 11:13	1° <b>8</b> 53'56		direct	-1433 Jun 30 j 03:01	19° <b>Ω</b> 37'36	
max. Earth dist.	-1439 May 08 j 06:43	2° <b>8</b> 18'50	6.14585 AU		-1433 Sep 27 j 04:52	0°M	
morning rise	-1439 May 20 j 06:24	5° <b>8</b> 02'49		evening set	-1433 Nov 02 j 13:23	7°M55'07	( 21202 ATT
. 1	-1439 Jul 05 j 23:42	15° <b>8</b> 23° <b>8</b> 51'29		max. Earth dist.	-1433 Nov 13 j 16:47	10°M28'46	6.21282 AU
retrograde	-1439 Sep 24 j 00:35	18° <b>8</b> 48'27	0922127	agniumation	1422 Nov. 15 : 04:14	100 <b>m</b> 4011 <b>2</b>	0922107
opposition min. Earth dist.	-1439 Nov 22 j 13:06 -1439 Nov 21 j 15:22	18° <b>8</b> 55'50		conjunction minimum elong	-1433 Nov 15 j 04:14 -1433 Nov 15 j 04:16	10°M49'12 10°M49'13	0°32'07 0°32'06
iiiii. Eartii dist.	-1439 Dec 24 j 16:43	18 <b>0</b> 33 30	4.20780 AU	morning rise	-1433 Nov 13 j 04:10	13°M43'30	0 32 00
direct	-1438 Jan 21 j 02:26	13° <b>8</b> 46'57		11101111115 1130	-1433 Nov 27 j 18:37 -1433 Dec 03 j 09:00	15°M	
direct	-1438 Feb 17 j 20:11	15°8			-1432 Feb 22 j 11:53	0° <b>∡</b> 7	
	-1438 May 17 j 19:47	0°II		retrograde	-1432 Apr 02 j 01:50	2° <b>҂</b> 21'09	
evening set	-1438 May 28 j 02:48	2° <b>Ⅱ</b> 15'42		renograde	-1432 May 12 j 00:51	30°RM.	
	- 10 0 11-10			opposition	-1432 Jun 02 j 00:20	27°M26'40	0°16'31
conjunction	-1438 Jun 10 j 19:46	5° <b>Ⅱ</b> 18'33	-0°00'42	min. Earth dist.	-1432 Jun 02 j 20:03	27°M20'20	4.15088 AU
minimum elong	-1438 Jun 10 j 19:47	5° <b>Ⅱ</b> 18'34		direct	-1432 Aug 01 j 17:13	22°M31'39	
behind sun begin	-1438 Jun 10 j 11:27	5° <b>Ⅱ</b> 13'57		desc. node	-1432 Sep 10 j 06:27	24°M56'34	
behind sun end	-1438 Jun 11 j 04:06	5° <b>Ⅱ</b> 23'10			-1432 Oct 13 j 02:37	0° <b>∡</b> ¹	
max. Earth dist.	-1438 Jun 11 j 19:19	5° <b>Ⅲ</b> 31'40	6.26904 AU	evening set	-1432 Dec 04 j 11:17	11° <b>∡</b> 17'49	
asc. node	-1438 Jun 17 j 04:17	6° <b>Ⅱ</b> 43'29		-	,		
morning rise	-1438 Jun 24 j 11:13	8° <b>Ⅱ</b> 20′29		conjunction	-1432 Dec 17 j 05:39	14° <b>∡</b> 18′29	-0°11'01
retrograde	-1438 Oct 25 j 19:54	26° <b>Ⅱ</b> 09'38		minimum elong	-1432 Dec 17 j 05:38	14° <b>√</b> 18′28	0°11'03
opposition	-1438 Dec 24 j 12:53	21° <b>II</b> 10'23	0°29'12	behind sun begin	-1432 Dec 16 j 23:32	14° <b>∡</b> °14'53	
min. Earth dist.	-1438 Dec 24 j 06:04	21° <b>Ⅱ</b> 12'39	4.32321 AU	behind sun end	-1432 Dec 17 j 11:43	14° <b>≯</b> °22'03	
direct	-1437 Feb 23 j 09:18	16° <b>Ⅱ</b> 07'17		max. Earth dist.	-1432 Dec 16 j 14:04	14° <b>₰</b> 09'17	6.09325 AU
	-1437 Jun 11 j 07:02	$0$ $\circ$ $\odot$		morning rise	-1432 Dec 30 j 01:46	17° <b>∡</b> ¹20'14	
evening set	-1437 Jun 30 j 19:36	4° <b>©</b> 10'02			-1431 Feb 27 j 08:36	0°₹	

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1431 in astronomical counting style is the year 1432 BCE in historical counting style. -1431 May 08 j 16:55 6°る58'09 direct -1425 Feb 27 j 22:53 20°**Ⅲ**37'50 retrograde -1431 Jul 08 j 09:23 2°る00'06 -0°49'23 -1425 May 24 j 08:45 0ಂತಾ opposition -1431 Jul 08 j 09:05 2°る00'12 4.04369 AU -1425 Jul 05 j 09:26 8°538'43 min. Earth dist. evening set -1431 Jul 24 j 04:04 30°R.✓ -1431 Sep 05 j 15:42 0°44'01 27°**х** 06'44 direct conjunction -1425 Jul 18 j 18:35 11°933'53 -1425 Jul 18 j 18:32 0°44'03 -1431 Oct 18 j 06:09 0°ಕ minimum elong 11°933'52 -1425 Jul 18 j 12:17 evening set -1430 Jan 08 j 06:16 16°**පි**20'06 max. Earth dist. 11°930'27 6.37549 AU morning rise -1425 Aug 01 j 00:41 14°9527'32 conjunction -1430 Jan 21 j 06:45 19°る27'06 -0°51'41 -1425 Oct 29 j 06:25  $0^{\circ}\Omega$ minimum elong -1430 Jan 21 j 06:42 19°る27'04 0°51'42 retrograde -1425 Nov 29 j 20:41 1°**£**33′25 max. Earth dist. -1430 Jan 21 j 20:44 19°**る**35'30 6.00820 AU -1425 Dec 31 j 11:09 30°Rூ -1430 Feb 03 j 10:00 morning rise 22°る35'43 opposition -1424 Jan 28 j 22:31 26°938'22 1°25'11 -1424 Jan 29 j 10:33 -1430 Mar 07 j 15:12 0°≈ min. Earth dist. 26°934'27 4.40408 AU retrograde -1430 Jun 15 j 09:18 12°≈56'22 direct -1424 Mar 31 j 00:52 21°935'05 opposition -1430 Aug 14 j 14:14 7°≈54'23 -1°39'14 -1424 Jun 20 j 03:59  $0^{\circ}\Omega$ min. Earth dist. -1430 Aug 13 j 19:38 8°**≈**00'37 3.99064 AU evening set -1424 Aug 05 j 09:37 9°**Ω**21'46 direct -1430 Oct 11 j 20:33 3°≈00'43 max. Earth dist. -1424 Aug 17 j 03:43  $11^{\circ}\Omega55'13$ 6.41637 AU -1429 Jan 12 j 06:29 15°≈ evening set -1429 Feb 13 j 17:52 22°≈28'01 conjunction -1424 Aug 18 j 09:55 12°**Ω**11'41 1°09'25 minimum elong -1424 Aug 18 j 09:52 12°**Ω**11'40 1°09'25 conjunction -1429 Feb 27 j 01:52 25°≈39'05 -1°13'37 morning rise -1424 Aug 31 j 07:14 15°**Ω**00′05 minimum elong -1429 Feb 27 i 01:51 25°≈39'04 1°13'38 -1424 Aug 31 i 07:04 15°Ω max. Earth dist. -1429 Feb 28 i 17:29 26°≈02'46 5.99100 AU -1424 Nov 24 i 04:09 0° m morning rise -1429 Mar 12 j 13:06 28°≈51'48 retrograde -1424 Dec 29 i 12:25 1° m 54'26 -1429 Mar 17 j 08:29 0°**∀** -1423 Feb 03 j 00:29 30°RΩ -1429 Jul 22 j 14:02 19°**¥**14'59 -1423 Feb 27 j 22:47 27°**Ω**01'56 1°48'56 retrograde opposition min. Earth dist. -1429 Sep 19 j 01:47 14°**¥**20'41 4.01279 AU -1423 Mar 01 j 01:19 4.41415 AU min Earth dist 26°**Ω**53'24 -1429 Sep 20 j 08:29 14°**升**10'15 -1°50'54 -1423 May 01 j 15:20 direct 21°Ω59'44 opposition -1429 Nov 17 j 07:18 -1423 Jul 19 j 10:48 9°**)** 14'17 0° m direct -1428 Mar 21 j 23:11 -1423 Sep 05 j 11:25 28° **H** 34'44 evening set 9° m 45'27 evening set -1428 Mar 28 j 01:00  $0^{\circ}\Upsilon$ 12° Mp 09'44 6.39375 AU max. Earth dist. -1423 Sep 16 j 10:04 -1428 Apr 04 j 14:14 1°**Y**46'18 -1°07'22 -1423 Sep 18 j 05:01 conjunction 12° mg 33'24 1°15'26 conjunction -1428 Apr 04 j 14:16 -1423 Sep 18 j 05:01 12° My 33'24 minimum elong 1°**Y**46'20 1°07'21 minimum elong 1°15'27 2°**Υ**15'19 6.04936 AU -1428 Apr 06 j 15:41 -1423 Sep 30 j 19:55 max. Earth dist. morning rise 15° m 20'11 4°**Y**58'55 -1428 Apr 18 j 07:45 -1423 Dec 20 j 03:45 morning rise 0∘**⊽** -1422 Jan 29 j 21:48 2°**£**29'36 retrograde -1428 Aug 26 j 01:53 24°**Y**41′58 retrograde min. Earth dist. -1428 Oct 23 j 08:51 19°**Y**47'17 4.10078 AU -1422 Mar 12 j 06:34 30°R, M) opposition -1428 Oct 24 j 14:59 19°**Y**36′59 -1°20′37 opposition -1422 Mar 31 j 17:44 27° m 37'58 1°42'55 -1428 Dec 22 j 04:15 14°**Y**37'51 min. Earth dist. -1422 Apr 02 j 02:06 27° m 27'39 4.36081 AU direct -1427 Apr 11 j 17:32  $0^{\circ}$ 8 direct -1422 Jun 02 j 06:28 22° m 37'55 -1427 Apr 27 j 15:29 3°834'01 -1422 Aug 15 j 19:19 evening set 0∘**⊽** evening set -1422 Oct 06 j 09:44 10°**♀**35'40 -1427 May 11 j 10:13 6°842'17 -0°36'41 max. Earth dist. -1422 Oct 17 j 03:15 13°**≏**00'13 conjunction 6.31343 AU -1427 May 11 j 10:16 6°842'19 0°36'40 minimum elong -1427 May 13 i 04:43 max. Earth dist. 7°**と**06'31 6.15970 AU conjunction -1422 Oct 18 i 23:59 13°**≏**25'25 1°00'15 morning rise -1427 May 25 i 05:11 9°**8**50'30 minimum elong -1422 Oct 19 i 00:02 13°**£**25′26 1°00'14 -1427 Jun 17 j 13:14 15°8 morning rise -1422 Oct 31 i 12:55 16°**♀**14'42 retrograde -1427 Sep 28 j 12:30 28°**8**31'37 -1421 Jan 10 i 04:07 0°M -1427 Nov 26 j 04:43 23°**8**35'55 4.22136 AU -1421 Mar 03 j 23:55 4°ML03'29 min. Earth dist. retrograde -1427 Nov 27 j 00:55 23°**8**29'05 -0°23'57 -1421 Apr 27 j 12:53 opposition -1426 Jan 25 j 17:47 18°**8**27'18 -1421 May 03 j 23:28 29° **2**11'03 1°06'44 direct opposition 29°827'18 min. Earth dist. -1421 May 05 j 06:05 asc. node -1426 Apr 27 j 21:44 29°**Ω**01'17 4 25777 AU -1421 Jul 04 j 18:39 -1426 Apr 30 j 14:42  $\mathbb{I}^{\circ 0}$ direct 24° **2**13'43 -1421 Sep 06 j 17:42 -1426 Jun 01 j 21:22 6°**Ⅲ**53′18 0°M evening set -1421 Nov 07 j 01:05 12°M34'33 evening set conjunction -1426 Jun 15 j 13:34 9°**Д**55'21 0°05'15 -1421 Nov 17 j 13:19 15°M -1426 Jun 15 j 13:34 9°**Ⅱ**55'21 0°05'16 -1421 Nov 18 j 05:39 15°M09'27 6.19658 AU minimum elong max. Earth dist. 9°**I**50′55 behind sun begin -1426 Jun 15 j 05:32 9°**Ⅲ**59'47 -1421 Nov 19 j 16:10 behind sun end -1426 Jun 15 j 21:35 conjunction 15°M29'25 0°26'32 max. Earth dist. -1426 Jun 16 j 08:15 10°**Ⅱ**05'44 6.28132 AU minimum elong -1421 Nov 19 j 16:12 15°**™**29'26 0°26'31 morning rise -1426 Jun 29 j 04:21 12°**Ⅲ**56′27 morning rise -1421 Dec 02 j 07:33 18°M24'40 -1426 Oct 09 j 21:45 0 $\circ$  $\odot$ -1420 Jan 26 j 05:35 0°**∡**7 retrograde -1426 Oct 30 j 04:33 0°939'51 retrograde -1420 Apr 07 j 00:30 7°**х** 10′27 -1426 Nov 19 j 08:36 30°R∏ opposition -1420 Jun 06 j 23:20 2°**х** 15′32 0°07'22 -1426 Dec 28 j 21:51 25°II41'06 0°37'12 min. Earth dist. -1420 Jun 07 j 16:03 4.13456 AU opposition 2°×10'09 -1426 Dec 28 j 17:44 25°**I**42'28 4.33345 AU -1420 Jun 25 j 05:02 min. Earth dist. 30°RM

Planetary Phenomena of Jupiter from -1900 through -1398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -1420 in astronomical counting style is the year 1421 BCE in historical counting style. desc. node -1420 Jul 21 j 08:39 27°M45'42 conjunction -1414 Jun 20 j 08:56 14°**Ⅱ**36'31 0°11'09 -1420 Aug 06 j 10:35 -1414 Jun 20 j 08:54 14°**Ⅱ**36'30 direct 27°M20'47 minimum elong 0°11'10 -1420 Sep 16 j 21:39 -1414 Jun 20 j 02:52 14°**Ⅲ**33'10 0°×7 behind sun begin -1420 Dec 09 j 04:35 -1414 Jun 20 j 14:57 16°**∡**11′08 behind sun end 14°**Ⅲ**39'50 evening set -1414 Jun 21 j 01:52 max. Earth dist. 14°**Ⅱ**45'53 6.29972 AU -1414 Jul 03 j 22:27 conjunction -1420 Dec 21 j 23:44 19°**∡**12'45 -0°17'12 morning rise 17°**Ⅲ**36′20 minimum elong -1420 Dec 21 j 23:43 19°**х** 12'44 0°17'13 -1414 Sep 04 j 20:35 0ಂಲ max. Earth dist. -1420 Dec 21 j 12:32 19°**₰**06'07 6.07835 AU retrograde -1414 Nov 03 j 12:48 5°9911'54 morning rise -1419 Jan 03 j 20:39 22°**₹**15'32 opposition -1413 Jan 02 j 07:23 0°9513'43 0°44'58 -1419 Feb 07 j 00:52 0°궁 min. Earth dist. -1413 Jan 02 j 05:00 0°9514'30 4.35052 AU retrograde -1419 May 13 j 22:54 12°**る**01'12 -1413 Jan 04 j 00:47 30°RⅡ 25°**Ⅱ**10′25 opposition -1419 Jul 13 j 12:55 7°る02'39 -0°57'54 direct -1413 Mar 04 j 13:04 min. Earth dist. -1419 Jul 13 j 11:02 7°**る**03'16 4.03154 AU -1413 May 02 j 11:38 0ಂತಾ direct -1419 Sep 10 j 15:59 2°る09'22 evening set -1413 Jul 09 j 22:47 13°906'56 evening set -1418 Jan 13 j 06:02 21°る26'10 conjunction -1413 Jul 23 j 06:30 16°900'58 0°48'29 conjunction -1418 Jan 26 j 07:28 24°る33'58 -0°56'11 minimum elong -1413 Jul 23 j 06:27 16°900'57 0°48'31 minimum elong -1418 Jan 26 j 07:25 24°る33'57 0°56'12 max. Earth dist. -1413 Jul 22 j 19:41 15°955'04 6.38980 AU 18°953'30 max. Earth dist. -1418 Jan 27 j 00:53 24°る44'26 5.99982 AU morning rise -1413 Aug 05 j 11:24 morning rise -1418 Feb 08 j 11:56 27°る43'28 -1413 Sep 30 j 17:05  $0^{\circ}\Omega$ -1418 Feb 18 j 02:46 0°**≈** retrograde -1413 Dec 04 j 02:08 5°**Ω**54'25 -1418 May 06 i 07:19 15°≈ opposition -1412 Feb 02 i 05:20 0°**Ω**59'46 1°29'57 -1418 Jun 20 j 15:15 18°≈07'54 min. Earth dist. -1412 Feb 02 i 19:59 0°**Ω**54'59 4.41481 AU retrograde -1418 Aug 05 i 04:03 15°R≈ -1412 Feb 09 i 22:05 30°R55 opposition -1418 Aug 19 j 18:35 13°≈05'30 -1°43'29 direct -1412 Apr 04 j 11:35 25°956'29 -1418 Aug 18 j 21:14 -1412 May 28 j 16:59 min. Earth dist. 13°≈12'39 3.98726 AU  $0^{\circ}\Omega$ -1418 Oct 16 j 21:36 -1412 Aug 09 j 16:55 direct 8°≈11'39 13°**Ω**40′16 evening set -1418 Dec 22 j 16:14 -1412 Aug 15 j 19:57 15°≈ 15°Ω -1412 Aug 21 j 08:45 -1417 Feb 18 j 22:33 27°≈40'12 max Earth dist 16°**Ω**12'19 6.42254 AU evening set 0°**)**€ -1417 Feb 28 j 17:06 -1412 Aug 22 j 16:12 conjunction 16°**Ω**29'28 1°11'23 0°**¥**51'40 -1°14'29 -1417 Mar 04 j 07:35 -1412 Aug 22 j 16:10 minimum elong 16°**Ω**29'27 conjunction 1°11'24 -1412 Sep 04 j 12:13 -1417 Mar 04 j 07:34 0° **★**51'40 1°14'29 19°**Ω**17'09 minimum elong morning rise -1417 Mar 06 j 00:41 -1412 Oct 28 j 11:43 max. Earth dist. 1° **★**16'13 5.99270 AU 0° m 4°**){**04'47 -1417 Mar 17 j 19:55 -1411 Jan 02 j 16:01 morning rise retrograde 6° m 10'17 retrograde -1417 Jul 27 j 16:19 24°**)** 25'42 opposition -1411 Mar 04 j 05:16 1° m/ 17'58 1°49'47 min. Earth dist. -1417 Sep 24 j 02:42 19°**₭**31'24 4.01940 AU min. Earth dist. -1411 Mar 05 j 08:41 1° Mp 09'10 4.41537 AU -1417 Sep 25 j 09:53 19°**升**20'47 -1°48'58 -1411 Mar 14 j 11:20 30°R€ opposition -1417 Nov 22 j 09:40 14°**)** 24'25 direct -1411 May 05 j 22:09 26°**Ω**15'59 direct -1416 Mar 10 j 23:59  $0^{\circ}\Upsilon$ -1411 Jun 26 j 20:05 0° m -1416 Mar 27 j 04:36 3°Y43'19 evening set -1411 Sep 09 j 15:45 14° m 00'59 evening set max. Earth dist. -1411 Sep 20 j 11:08 16° M 23'43 6.38969 AU -1416 Apr 09 j 20:40 6°Y54'49 -1°04'15 conjunction -1416 Apr 09 j 20:43 6°Υ54'51 1°04'14 -1411 Sep 22 j 08:27 16° m 48'45 1°14'32 minimum elong conjunction -1416 Apr 11 j 23:51 7°**Υ**24'44 6.06058 AU -1411 Sep 22 j 08:28 16° Mp 48'45 max. Earth dist. minimum elong 1°14'32 -1411 Oct 04 i 22:53 morning rise -1416 Apr 23 j 14:39 10°**℃**07'10 morning rise 19° m 35'29 retrograde -1416 Aug 30 j 23:16 29° Y 42' 58 -1411 Nov 25 i 07:50 0∘**⊽** min. Earth dist. -1416 Oct 28 j 05:37 24°Υ48'22 4.11548 AU retrograde -1410 Feb 03 i 06:54 6°**£**47'46 opposition -1416 Oct 29 j 11:11 24° Y 38'17 -1°13'41 opposition -1410 Apr 05 i 02:55 1°**2**56'08 1°39'38 -1416 Dec 27 j 03:10 19°**Y**38′52 min. Earth dist. -1410 Apr 06 i 13:14 1°**2**45'12 4.35147 AU direct 0°8 -1410 Apr 20 j 17:31 -1415 Mar 24 j 07:24 30°R M 26° m 56'18 -1415 May 02 j 17:42 8°**8**31'12 -1410 Jun 06 j 15:33 evening set direct -1410 Jul 22 j 21:32 0∘**⊽** -1410 Oct 10 j 14:18 conjunction -1415 May 16 j 12:18 11°**8**38'45 -0°31'05 evening set 14° 256'02 -1415 May 16 j 12:21 minimum elong 11°**8**38'46 0°31'03 max. Earth dist. -1410 Oct 21 j 07:15 17°**♀**20'42 6.29948 AU max. Earth dist. -1415 May 18 j 03:54 12°**8**01'14 6.17692 AU -1415 May 30 j 07:12 14°**8**46'08 conjunction -1410 Oct 23 j 04:33 17°**£**46′18 0°56'37 morning rise 15°8 -1410 Oct 23 j 04:36 -1415 May 31 j 07:52 minimum elong 17°**≏**46′20 0°56'37  $0^{\circ}\Pi$ -1415 Aug 17 j 15:44 morning rise -1410 Nov 04 j 17:33 20°**₽**36'12 retrograde -1415 Oct 03 j 01:45 3°**Ⅲ**18′21 -1410 Dec 19 j 05:08 0°M -1415 Nov 18 j 13:40 30°₽**८** retrograde -1409 Mar 08 j 13:17 8°M31'56 opposition -1415 Dec 01 j 15:20 28°**8**16'17 -0°15'07 -1409 May 08 j 13:44 3°M39'12 0°59'49 opposition min. Earth dist. -1415 Nov 30 j 20:28 28°**8**22'39 4.23969 AU min. Earth dist. -1409 May 09 j 18:59 3°M29'52 4.23997 AU direct -1414 Jan 30 j 12:59 23°**8**14'15 -1409 Jun 09 j 21:02 30°R<u> </u>Ω asc. node -1414 Mar 07 j 11:50 25°**8**13'15 direct -1409 Jul 09 j 03:58 28°**£**42'09 -1414 Apr 10 j 07:04  $0^{\circ}\Pi$ -1409 Aug 07 j 08:22 0°M 11°**Ⅲ**35'33 -1409 Nov 02 j 02:39 15°M evening set -1414 Jun 06 j 17:26

•	nical vear style is used: Th		_	` //	r 1410 BCE in historical c	, 1	gc ++
evening set	•	17°M07'35	in astronomical c	max. Earth dist.	-1403 May 23 j 04:56		6.19605 AU
max. Earth dist.	-1409 Nov 22 j 16:52		6.17644 AU	morning rise	-1403 Jun 04 j 09:27	19° <b>8</b> 41'52	0.17002710
max. Earth dist.	140) 110V 22 j 10.32	17 11011132	0.17044710	morning rise	-1403 Jul 23 j 15:02	0°Ⅱ	
conjunction	-1409 Nov 24 j 01:26	20°M03'28	0°20'57	retrograde	-1403 Oct 07 j 16:34	8°П04'30	
minimum elong	-1409 Nov 24 j 01:27	20°M03'29	0°20'56	opposition	-1403 Dec 06 j 05:54	3° <b>П</b> 02'55	0°06'06
morning rise	-1409 Nov 24 j 01.27 -1409 Dec 06 j 17:25	20 11603 29 22°M59'50	0 20 30	min. Earth dist.	-1403 Dec 05 j 13:28	3° <b>П</b> 02'33	4.25885 AU
morning rise	3	22°االہ39'30 0° <b>ح</b> ا		min. Earth dist.	3	3°R827	4.23883 AU
. 1	-1408 Jan 07 j 02:46			1	-1403 Dec 30 j 16:15		
retrograde	-1408 Apr 12 j 00:30	11° 🗷 55'34		asc. node	-1402 Jan 14 j 02:13	28° <b>8</b> 44'16	
desc. node	-1408 Jun 02 j 01:44	8° <b>₹</b> 15'10	0001120	direct	-1402 Feb 04 j 08:59	28° <b>8</b> 00'36	
opposition	-1408 Jun 11 j 20:45	7°×700'13			-1402 Mar 12 j 11:45	0°II	
min. Earth dist.	-1408 Jun 12 j 12:39	6° <b>₹</b> 55'04	4.11341 AU	evening set	-1402 Jun 11 j 13:32	16° <b>Ⅱ</b> 17′03	
direct	-1408 Aug 11 j 03:48	2°×705'41			1400 7 05:04.00	100111115	001 5102
evening set	-1408 Dec 13 j 20:54	21° <b>∡</b> *02'07		conjunction	-1402 Jun 25 j 04:03	19° <b>Ⅱ</b> 16'53	0°17'03
		_		minimum elong	-1402 Jun 25 j 04:01	19° <b>Ⅱ</b> 16'52	0°17'05
conjunction	-1408 Dec 26 j 16:55	24° <b>∡</b> ¹04'59		max. Earth dist.	-1402 Jun 25 j 16:46	19° <b>∏</b> 23'54	6.31710 AU
minimum elong	-1408 Dec 26 j 16:53	24° <b>∡</b> *04'58	0°23'09	morning rise	-1402 Jul 08 j 16:33	22° <b>Ⅱ</b> 15'32	
max. Earth dist.	-1408 Dec 26 j 08:31	24° <b>₰</b> 00'00	6.05817 AU		-1402 Aug 14 j 16:07	$0$ $\circ$	
morning rise	-1407 Jan 08 j 14:56	27° <b>∡</b> ¹09'07		retrograde	-1402 Nov 07 j 21:12	9° <b>5</b> 544'01	
	-1407 Jan 20 j 18:47	0° <b>ਠ</b>		opposition	-1401 Jan 06 j 17:30	4° <b>©</b> 46'21	0°52'36
retrograde	-1407 May 19 j 03:38	17° <b>る</b> 04'30		min. Earth dist.	-1401 Jan 06 j 17:20	4° <b>5</b> 346'24	4.36488 AU
opposition	-1407 Jul 18 j 16:10	12° <b>る</b> 05'26	-1°05'53		-1401 Feb 23 j 15:30	30° <b>Ŗ</b> Ⅱ	
min. Earth dist.	-1407 Jul 18 j 10:54	12° <b>る</b> 07'10	4.01457 AU	direct	-1401 Mar 09 j 02:50	29° <b>Ⅱ</b> 42'57	
direct	-1407 Sep 15 j 13:25	7° <b>る</b> 12'13			-1401 Mar 22 j 17:25	$0$ $\circ$ $\odot$	
evening set	-1406 Jan 18 j 07:08	26° <b>る</b> 34'26		evening set	-1401 Jul 14 j 12:28	17° <b>5</b> 36'14	
	-			-	-		
conjunction	-1406 Jan 31 j 09:39	29° <b>ප්</b> 43'17	-1°00'12	conjunction	-1401 Jul 27 j 19:00	20°529'22	0°52'47
minimum elong	-1406 Jan 31 j 09:36	29° <b>る</b> 43'15	1°00'13	minimum elong	-1401 Jul 27 j 18:58	20° <b>©</b> 29'20	0°52'48
max. Earth dist.	-1406 Feb 01 j 06:41	29° <b>ろ</b> 55'56	5.98752 AU	max. Earth dist.	-1401 Jul 27 j 05:32	20°\$\$22'01	6.39998 AU
	-1406 Feb 01 j 13:26	0° <b>≈</b>		morning rise	-1401 Aug 09 j 22:25	23° <b>©</b> 20'55	
morning rise	-1406 Feb 13 j 15:21	2°≈53'52			-1401 Sep 10 j 19:37	$0^{\circ}\Omega$	
morning rise	-1406 Apr 09 j 13:01	15° <b>≈</b>		retrograde	-1401 Dec 08 j 09:23	10° <b>Ω</b> 18'38	
retrograde	-1406 Jun 25 j 23:15	23° <b>≈</b> 23'19		opposition	-1400 Feb 06 j 13:56	5° <b>Ω</b> 24'28	1°34'26
min. Earth dist.	-1406 Aug 24 j 00:38		3.98114 AU	min. Earth dist.	-1400 Feb 07 j 06:48	5° <b>Ω</b> 19'00	4.42030 AU
opposition	-1406 Aug 25 j 00:15	18°≈20'22		direct	-1400 Apr 08 j 22:40	0° <b>Ω</b> 21'22	4.42030710
opposition	-1406 Sep 21 j 10:34	15°R≈	-1 4031	direct	-1400 Apr 08 j 22:40	15° <b>Ω</b>	
direct	-1406 Oct 22 j 01:23	13°≈26'13		evening set	-1400 Jul 30 j 17:42 -1400 Aug 14 j 02:37	13 <b>δ</b> ε 18° <b>Ω</b> 04'08	
unect	-1406 Nov 21 j 13:04	15 ≈20 15 15°≈		max. Earth dist.	-1400 Aug 14 j 02.37		6.42268 AU
	•			max. Earth dist.	-1400 Aug 25 J 15.05	20 8633 20	0.42208 AU
. ,	-1405 Feb 11 j 16:45	0° <b>)</b> (5€150			1400 4 27:00 40	200 0 52151	1012105
evening set	-1405 Feb 24 j 05:23	2° <b>)</b> 56′50		conjunction	-1400 Aug 27 j 00:40	20° <b>Ω</b> 52'51	1°13'05
	1405 M 00:15 46	60 <b>V</b> 00151	1014141	minimum elong	-1400 Aug 27 j 00:38	20°Ω52'50	1°13'06
conjunction	-1405 Mar 09 j 15:46	6° <b>)</b> €08'51		morning rise	-1400 Sep 08 j 19:48	23° <b>Ω</b> 40′09	
minimum elong	-1405 Mar 09 j 15:47	6° <b>)</b> €08'51			-1400 Oct 09 j 00:35	0° my	
max. Earth dist.	-1405 Mar 11 j 13:39	6° <b>)</b> €36'13	5.99333 AU	retrograde	-1399 Jan 07 j 01:53	10° m/34'15	1050111
morning rise	-1405 Mar 23 j 05:07	9° <b>)</b> € 22'22		opposition	-1399 Mar 08 j 15:30	5° m 42'09	1°50'11
retrograde	-1405 Aug 01 j 21:36	29° <b>)</b> (40′38		min. Earth dist.	-1399 Mar 09 j 21:06	5° TQ 32'41	4.41034 AU
min. Earth dist.	-1405 Sep 29 j 05:04	24° <b>)</b> (46′25		direct	-1399 May 10 j 08:59	0° m/40'23	
opposition	-1405 Sep 30 j 13:07	24° <b>)</b> ₹35'30	-1°46'04	evening set	-1399 Sep 13 j 23:59	18° <b>m</b> 26'48	
direct	-1405 Nov 27 j 13:24	19° <b>)</b> €38'43		max. Earth dist.	-1399 Sep 24 j 18:57	20° <b>m</b> 49'38	6.37983 AU
	-1404 Feb 21 j 05:21	0°Υ					
evening set	-1404 Apr 01 j 12:03	8° <b>Y</b> 55′20		conjunction	-1399 Sep 26 j 16:17	21° <b>m</b> 14'44	1°13'14
				minimum elong	-1399 Sep 26 j 16:18	21° <b>m</b> ) 14'45	1°13'14
conjunction	-1404 Apr 15 j 04:40	12° <b>Y</b> ′06'32		morning rise	-1399 Oct 09 j 06:07	24° Mp 01'40	
minimum elong	-1404 Apr 15 j 04:43	12° <b>Y</b> ′06'33			-1399 Nov 06 j 04:56	0∘ <b>ত</b>	
max. Earth dist.	-1404 Apr 17 j 07:18	12° <b>Y</b> 36'01	6.07350 AU				
morning rise	-1404 Apr 28 j 23:19	15° <b>Y</b> 18'30					
	-1404 Jul 10 j 10:18	$0^{\circ}$ 8					
retrograde	-1404 Sep 04 j 19:18	4° <b>8</b> 45'52					
	-1404 Nov 01 j 01:19	30° <b>₹</b> Υ					
min. Earth dist.	-1404 Nov 02 j 02:37	29° <b>Y</b> 51'23	4.13228 AU				
opposition	-1404 Nov 03 j 08:11	29° <b>Ƴ</b> 41'18	-1°06'07				
direct	-1403 Jan 01 j 03:48	24° <b>Y</b> '41'21					
	-1403 Mar 01 j 23:12	0°8					
evening set	-1403 May 07 j 20:34	13° <b>8</b> 28'55					
-	-1403 May 14 j 14:09	15° <b>8</b>					
	<b>,</b> ,	-					
conjunction	-1403 May 21 j 15:08	16° <b>8</b> 35'35	-0°25'12				
minimum elong	-1403 May 21 j 15:10	16° <b>8</b> 35'36					
3	J J						