

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1

Attention, astronomical year style is used: The year -900 in astronomical counting style is the year 901 BCE in historical counting style.

retrograde	-900 Feb 06 j 00:28	12°♄44'59		evening set	-894 Apr 03 j 23:41	14°♃40'04	
opposition	-900 Apr 06 j 20:01	7°♄53'24	1°36'49				
min. Earth dist.	-900 Apr 08 j 06:39	7°♄42'22	4.36119 AU	conjunction	-894 Apr 17 j 16:01	17°♃51'32	-0°58'46
direct	-900 Jun 08 j 09:37	2°♄53'24		minimum elong	-894 Apr 17 j 16:04	17°♃51'34	0°58'46
evening set	-900 Oct 12 j 09:08	20°♄50'53		max. Earth dist.	-894 Apr 19 j 19:25	18°♃21'32	6.06544 AU
max. Earth dist.	-900 Oct 23 j 01:13	23°♄14'42	6.30930 AU	morning rise	-894 May 01 j 10:30	21°♃03'50	
					-894 Jun 11 j 00:16	0°♄	
conjunction	-900 Oct 24 j 23:45	23°♄40'56	0°54'44	retrograde	-894 Sep 07 j 12:13	10°♄35'32	
minimum elong	-900 Oct 24 j 23:47	23°♄40'58	0°54'43	min. Earth dist.	-894 Nov 04 j 18:55	5°♄41'14	4.12366 AU
morning rise	-900 Nov 06 j 12:59	26°♄30'34		opposition	-894 Nov 06 j 01:22	5°♄30'51	-1°03'34
	-900 Nov 22 j 07:36	0°♄		direct	-893 Jan 03 j 19:16	0°♄31'12	
retrograde	-899 Mar 10 j 03:04	14°♄22'05			-893 Apr 20 j 20:09	15°♄	
opposition	-899 May 10 j 02:58	9°♄29'35	0°57'16	evening set	-893 May 10 j 10:09	19°♄20'37	
min. Earth dist.	-899 May 11 j 09:29	9°♄19'52	4.24940 AU				
direct	-899 Jul 10 j 18:52	4°♄32'21		conjunction	-893 May 24 j 04:44	22°♄27'40	-0°23'39
	-899 Oct 07 j 22:23	15°♄		minimum elong	-893 May 24 j 04:46	22°♄27'41	0°23'39
evening set	-899 Nov 13 j 02:59	22°♄56'04		max. Earth dist.	-893 May 25 j 20:26	22°♄50'10	6.18760 AU
max. Earth dist.	-899 Nov 24 j 07:39	25°♄31'23	6.18498 AU	morning rise	-893 Jun 06 j 23:14	25°♄34'26	
					-893 Jun 27 j 00:48	0°♄	
conjunction	-899 Nov 25 j 18:31	25°♄51'37	0°19'34	retrograde	-893 Oct 10 j 12:47	14°♄01'17	
minimum elong	-899 Nov 25 j 18:32	25°♄51'38	0°19'33	min. Earth dist.	-893 Dec 08 j 08:18	9°♄05'27	4.25132 AU
morning rise	-899 Dec 08 j 10:23	28°♄47'36		opposition	-893 Dec 09 j 02:06	8°♄59'26	-0°04'14
	-899 Dec 13 j 16:26	0°♄		asc. node	-892 Jan 05 j 11:55	5°♄38'10	
retrograde	-898 Apr 14 j 11:04	17°♄39'05		direct	-892 Feb 07 j 02:51	3°♄57'20	
desc. node	-898 May 27 j 01:26	14°♄59'31		evening set	-892 Jun 13 j 05:40	22°♄15'04	
opposition	-898 Jun 14 j 06:59	12°♄44'05	-0°02'58				
min. Earth dist.	-898 Jun 15 j 00:37	12°♄38'24	4.12058 AU	conjunction	-892 Jun 26 j 20:28	25°♄15'16	0°17'54
direct	-898 Aug 13 j 16:21	7°♄49'23		minimum elong	-892 Jun 26 j 20:27	25°♄15'15	0°17'55
evening set	-898 Dec 16 j 11:45	26°♄44'52		max. Earth dist.	-892 Jun 27 j 11:54	25°♄23'47	6.31114 AU
				morning rise	-892 Jul 10 j 09:23	28°♄14'20	
conjunction	-898 Dec 29 j 07:25	29°♄47'22	-0°23'31		-892 Jul 18 j 11:18	0°♄	
minimum elong	-898 Dec 29 j 07:24	29°♄47'21	0°23'33	retrograde	-892 Nov 09 j 18:56	15°♄45'40	
max. Earth dist.	-898 Dec 28 j 20:25	29°♄40'50	6.06350 AU	opposition	-891 Jan 08 j 15:12	10°♄47'41	0°53'12
	-898 Dec 30 j 04:41	0°♄		min. Earth dist.	-891 Jan 08 j 13:21	10°♄48'18	4.36094 AU
morning rise	-897 Jan 11 j 04:57	2°♄51'03		direct	-891 Mar 10 j 22:25	5°♄44'24	
retrograde	-897 May 21 j 12:36	22°♄43'25		evening set	-891 Jul 16 j 06:43	23°♄37'58	
opposition	-897 Jul 21 j 01:14	17°♄44'45	-1°05'34				
min. Earth dist.	-897 Jul 20 j 21:47	17°♄45'53	4.01757 AU	conjunction	-891 Jul 29 j 13:44	26°♄31'21	0°52'39
direct	-897 Sep 18 j 00:39	12°♄51'29		minimum elong	-891 Jul 29 j 13:42	26°♄31'19	0°52'40
	-896 Jan 11 j 10:28	0°♄		max. Earth dist.	-891 Jul 29 j 02:35	26°♄25'16	6.39848 AU
evening set	-896 Jan 20 j 19:43	2°♄13'44		morning rise	-891 Aug 11 j 17:45	29°♄23'11	
					-891 Aug 14 j 13:56	0°♄	
conjunction	-896 Feb 02 j 21:39	5°♄22'18	-0°59'29		-891 Nov 10 j 16:50	15°♄	
minimum elong	-896 Feb 02 j 21:36	5°♄22'17	0°59'30	retrograde	-891 Dec 10 j 07:06	16°♄21'45	
max. Earth dist.	-896 Feb 03 j 16:10	5°♄33'27	5.98798 AU		-890 Jan 08 j 20:03	15°♄	
morning rise	-896 Feb 16 j 02:44	8°♄32'36		opposition	-890 Feb 08 j 11:23	11°♄27'19	1°33'30
	-896 Mar 14 j 22:11	15°♄		min. Earth dist.	-890 Feb 09 j 02:52	11°♄22'17	4.42137 AU
retrograde	-896 Jun 27 j 09:00	29°♄01'41		direct	-890 Apr 11 j 18:42	6°♄24'13	
opposition	-896 Aug 26 j 10:30	23°♄59'03	-1°45'06		-890 Jul 03 j 00:38	15°♄	
min. Earth dist.	-896 Aug 25 j 12:01	24°♄06'36	3.97888 AU	evening set	-890 Aug 16 j 21:59	24°♄06'04	
direct	-896 Oct 23 j 12:30	19°♄05'03		max. Earth dist.	-890 Aug 28 j 10:45	26°♄36'25	6.42647 AU
	-895 Jan 18 j 21:35	0°♄					
evening set	-895 Feb 25 j 16:40	8°♄36'46		conjunction	-890 Aug 29 j 20:38	26°♄54'54	1°11'58
				minimum elong	-890 Aug 29 j 20:37	26°♄54'53	1°11'58
conjunction	-895 Mar 11 j 02:31	11°♄48'46	-1°13'11	morning rise	-890 Sep 11 j 16:23	29°♄42'17	
minimum elong	-895 Mar 11 j 02:32	11°♄48'46	1°13'11		-890 Sep 13 j 01:07	0°♄	
max. Earth dist.	-895 Mar 12 j 23:15	12°♄15'29	5.98865 AU	retrograde	-889 Jan 09 j 21:38	16°♄34'57	
morning rise	-895 Mar 24 j 15:21	15°♄02'19		opposition	-889 Mar 11 j 10:51	11°♄42'42	1°47'57
	-895 Jun 04 j 02:53	0°♄		min. Earth dist.	-889 Mar 12 j 15:26	11°♄33'33	4.41667 AU
retrograde	-895 Aug 03 j 10:31	5°♄23'11		direct	-889 May 13 j 04:10	6°♄40'50	
min. Earth dist.	-895 Sep 30 j 18:41	0°♄29'01	4.01997 AU	evening set	-889 Sep 16 j 19:13	24°♄25'13	
opposition	-895 Oct 02 j 02:32	0°♄18'10	-1°43'33	max. Earth dist.	-889 Sep 27 j 15:14	26°♄48'18	6.38854 AU
	-895 Oct 04 j 07:56	30°♄					
direct	-895 Nov 29 j 02:26	25°♄21'40		conjunction	-889 Sep 29 j 12:02	27°♄13'03	1°11'27
	-894 Jan 22 j 12:31	0°♄		minimum elong	-889 Sep 29 j 12:03	27°♄13'04	1°11'27

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Attention, astronomical year style is used: The year -889 in astronomical counting style is the year 890 BCE in historical counting style.

morning rise	-889 Oct 12 j 02:20	29° \mathfrak{M} 59'51		retrograde	-883 Aug 08 j 08:38	10° Υ 26'13	
	-889 Oct 12 j 02:36	0° \mathfrak{A}		min. Earth dist.	-883 Oct 05 j 15:49	5° Υ 32'18	4.03003 AU
retrograde	-888 Feb 10 j 12:14	17° \mathfrak{A} 13'25		opposition	-883 Oct 07 j 00:41	5° Υ 21'05	-1°39'58
opposition	-888 Apr 11 j 09:22	12° \mathfrak{A} 21'46	1°32'51	direct	-883 Dec 04 j 01:31	0° Υ 24'08	
min. Earth dist.	-888 Apr 12 j 19:12	12° \mathfrak{A} 11'01	4.34799 AU	evening set	-882 Apr 09 j 02:06	19° Υ 39'48	
direct	-888 Jun 12 j 19:57	7° \mathfrak{A} 22'10					
evening set	-888 Oct 16 j 18:13	25° \mathfrak{A} 22'29		conjunction	-882 Apr 22 j 19:12	22° Υ 50'59	-0°54'50
max. Earth dist.	-888 Oct 27 j 10:47	27° \mathfrak{A} 47'09	6.29421 AU	minimum elong	-882 Apr 22 j 19:15	22° Υ 51'01	0°54'49
				max. Earth dist.	-882 Apr 24 j 21:52	23° Υ 20'28	6.07879 AU
conjunction	-888 Oct 29 j 08:36	28° \mathfrak{A} 13'05	0°50'39	morning rise	-882 May 06 j 13:59	26° Υ 02'49	
minimum elong	-888 Oct 29 j 08:38	28° \mathfrak{A} 13'06	0°50'38		-882 May 23 j 23:43	0° \mathfrak{B}	
	-888 Nov 06 j 05:35	0° \mathfrak{M}			-882 Aug 26 j 19:18	15° \mathfrak{B}	
morning rise	-888 Nov 10 j 22:04	1° \mathfrak{M} 03'24		retrograde	-882 Sep 12 j 06:18	15° \mathfrak{B} 26'42	
	-887 Jan 21 j 07:42	15° \mathfrak{M}			-882 Sep 28 j 12:44	15° \mathfrak{R} \mathfrak{B}	
retrograde	-887 Mar 14 j 23:16	19° \mathfrak{M} 01'58		opposition	-882 Nov 10 j 17:54	10° \mathfrak{B} 22'18	-0°55'57
	-887 May 08 j 06:00	15° \mathfrak{R} \mathfrak{M}		min. Earth dist.	-882 Nov 09 j 13:36	10° \mathfrak{B} 31'56	4.13859 AU
opposition	-887 May 14 j 22:15	14° \mathfrak{M} 09'09	0°49'44	direct	-881 Jan 08 j 16:07	5° \mathfrak{B} 22'15	
min. Earth dist.	-887 May 16 j 04:00	13° \mathfrak{M} 59'39	4.23309 AU		-881 Apr 02 j 13:27	15° \mathfrak{B}	
direct	-887 Jul 15 j 11:30	9° \mathfrak{M} 12'13		evening set	-881 May 15 j 08:38	24° \mathfrak{B} 08'03	
	-887 Sep 17 j 08:13	15° \mathfrak{M}					
evening set	-887 Nov 17 j 15:59	27° \mathfrak{M} 39'28		conjunction	-881 May 29 j 03:07	27° \mathfrak{B} 14'24	-0°17'54
	-887 Nov 27 j 18:21	0° \mathfrak{J}		minimum elong	-881 May 29 j 03:09	27° \mathfrak{B} 14'25	0°17'53
max. Earth dist.	-887 Nov 29 j 00:13	0° \mathfrak{J} 17'23	6.16887 AU	max. Earth dist.	-881 May 30 j 16:30	27° \mathfrak{B} 35'31	6.20295 AU
					-881 Jun 10 j 08:59	0° \mathfrak{I}	
conjunction	-887 Nov 30 j 08:00	0° \mathfrak{J} 35'52	0°13'44	morning rise	-881 Jun 11 j 21:15	0° \mathfrak{I} 20'20	
minimum elong	-887 Nov 30 j 08:00	0° \mathfrak{J} 35'53	0°13'44	retrograde	-881 Oct 14 j 22:56	18° \mathfrak{I} 39'33	
behind sun begin	-887 Nov 30 j 03:33	0° \mathfrak{J} 33'18		asc. node	-881 Nov 15 j 09:38	17° \mathfrak{I} 03'58	
behind sun end	-887 Nov 30 j 12:27	0° \mathfrak{J} 38'27		opposition	-881 Dec 13 j 13:36	13° \mathfrak{I} 38'13	0°04'21
morning rise	-887 Dec 13 j 00:24	3° \mathfrak{J} 32'46		min. Earth dist.	-881 Dec 12 j 20:55	13° \mathfrak{I} 43'50	4.26578 AU
desc. node	-886 Apr 06 j 03:20	22° \mathfrak{J} 15'26		direct	-880 Feb 11 j 17:15	8° \mathfrak{I} 35'55	
retrograde	-886 Apr 19 j 10:56	22° \mathfrak{J} 32'08		evening set	-880 Jun 17 j 23:12	26° \mathfrak{I} 50'41	
opposition	-886 Jun 19 j 07:21	17° \mathfrak{J} 36'40	-0°12'05				
min. Earth dist.	-886 Jun 19 j 21:56	17° \mathfrak{J} 31'57	4.10589 AU	conjunction	-880 Jul 01 j 13:05	29° \mathfrak{I} 50'00	0°23'26
direct	-886 Aug 18 j 11:28	12° \mathfrak{J} 42'15		minimum elong	-880 Jul 01 j 13:04	29° \mathfrak{I} 49'59	0°23'27
	-886 Dec 14 j 02:28	0° \mathfrak{Z}		max. Earth dist.	-880 Jul 02 j 00:34	29° \mathfrak{I} 56'19	6.32377 AU
evening set	-886 Dec 21 j 06:33	1° \mathfrak{Z} 41'12			-880 Jul 02 j 07:15	0° \mathfrak{G}	
				morning rise	-880 Jul 15 j 00:57	2° \mathfrak{G} 48'06	
conjunction	-885 Jan 03 j 02:49	4° \mathfrak{Z} 44'29	-0°29'19	retrograde	-880 Nov 14 j 03:58	20° \mathfrak{G} 14'12	
minimum elong	-885 Jan 03 j 02:47	4° \mathfrak{Z} 44'28	0°29'19	opposition	-879 Jan 13 j 00:02	15° \mathfrak{G} 16'49	1°00'11
max. Earth dist.	-885 Jan 02 j 19:06	4° \mathfrak{Z} 39'54	6.05138 AU	min. Earth dist.	-879 Jan 13 j 01:01	15° \mathfrak{G} 16'30	4.37105 AU
morning rise	-885 Jan 16 j 01:18	7° \mathfrak{Z} 49'06		direct	-879 Mar 15 j 11:28	10° \mathfrak{G} 13'35	
retrograde	-885 May 26 j 17:36	27° \mathfrak{Z} 47'47		evening set	-879 Jul 20 j 19:35	28° \mathfrak{G} 05'18	
opposition	-885 Jul 26 j 04:48	22° \mathfrak{Z} 48'30	-1°12'57		-879 Jul 29 j 15:02	0° \mathfrak{Q}	
min. Earth dist.	-885 Jul 25 j 22:45	22° \mathfrak{Z} 50'30	4.00917 AU	max. Earth dist.	-879 Aug 02 j 11:15	0° \mathfrak{Q} 50'13	6.40541 AU
direct	-885 Sep 23 j 01:18	17° \mathfrak{Z} 55'12					
	-885 Dec 25 j 03:10	0° \mathfrak{X}		conjunction	-879 Aug 03 j 01:27	0° \mathfrak{Q} 57'56	0°56'27
evening set	-884 Jan 25 j 19:45	7° \mathfrak{X} 19'28		minimum elong	-879 Aug 03 j 01:24	0° \mathfrak{Q} 57'55	0°56'28
				morning rise	-879 Aug 16 j 04:15	3° \mathfrak{Q} 49'01	
conjunction	-884 Feb 07 j 22:50	10° \mathfrak{X} 28'41	-1°02'57		-879 Oct 12 j 00:47	15° \mathfrak{Q}	
minimum elong	-884 Feb 07 j 22:48	10° \mathfrak{X} 28'39	1°02'58	retrograde	-879 Dec 14 j 13:54	20° \mathfrak{Q} 45'20	
max. Earth dist.	-884 Feb 08 j 22:23	10° \mathfrak{X} 42'51	5.98407 AU	opposition	-878 Feb 12 j 19:43	15° \mathfrak{Q} 51'18	1°37'13
morning rise	-884 Feb 21 j 04:52	13° \mathfrak{X} 39'34		min. Earth dist.	-878 Feb 13 j 12:17	15° \mathfrak{Q} 45'55	4.42524 AU
	-884 Feb 26 j 20:08	15° \mathfrak{X}			-878 Feb 19 j 10:43	15° \mathfrak{R} \mathfrak{Q}	
	-884 May 10 j 21:14	0° \mathfrak{H}		direct	-878 Apr 16 j 04:24	10° \mathfrak{Q} 48'23	
retrograde	-884 Jul 02 j 13:59	4° \mathfrak{H} 10'06			-878 Jun 10 j 11:46	15° \mathfrak{Q}	
	-884 Aug 24 j 23:12	30° \mathfrak{R} \mathfrak{X}		evening set	-878 Aug 21 j 07:10	28° \mathfrak{Q} 29'28	
opposition	-884 Aug 31 j 13:20	29° \mathfrak{X} 07'03	-1°47'29		-878 Aug 28 j 06:03	0° \mathfrak{M}	
min. Earth dist.	-884 Aug 30 j 13:31	29° \mathfrak{X} 15'04	3.98012 AU	max. Earth dist.	-878 Sep 01 j 18:34	0° \mathfrak{M} 59'09	6.42716 AU
direct	-884 Oct 28 j 13:34	24° \mathfrak{X} 12'48					
	-884 Dec 28 j 13:31	0° \mathfrak{H}		conjunction	-878 Sep 03 j 04:51	1° \mathfrak{M} 17'51	1°13'08
evening set	-883 Mar 02 j 19:59	13° \mathfrak{H} 43'58		minimum elong	-878 Sep 03 j 04:50	1° \mathfrak{M} 17'51	1°13'08
				morning rise	-878 Sep 15 j 23:29	4° \mathfrak{M} 04'49	
conjunction	-883 Mar 16 j 06:43	16° \mathfrak{H} 56'08	-1°12'48	retrograde	-877 Jan 14 j 06:06	20° \mathfrak{M} 58'03	
minimum elong	-883 Mar 16 j 06:43	16° \mathfrak{H} 56'08	1°12'48	opposition	-877 Mar 15 j 20:52	16° \mathfrak{M} 06'02	1°47'35
max. Earth dist.	-883 Mar 18 j 03:55	17° \mathfrak{H} 23'05	5.99461 AU	min. Earth dist.	-877 Mar 17 j 02:13	15° \mathfrak{M} 56'40	4.41427 AU
morning rise	-883 Mar 29 j 20:41	20° \mathfrak{H} 09'50		direct	-877 May 17 j 14:35	11° \mathfrak{M} 04'33	
	-883 May 12 j 20:08	0° \mathfrak{Y}		evening set	-877 Sep 21 j 02:32	28° \mathfrak{M} 49'00	

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Attention, astronomical year style is used: The year -877 in astronomical counting style is the year 878 BCE in historical counting style.

	-877 Sep 26 j 11:35	0°♌		conjunction	-871 Mar 21 j 08:26	21°♋57'13	-1°11'54
max. Earth dist.	-877 Oct 01 j 20:18	1°♌11'09	6.38315 AU	minimum elong	-871 Mar 21 j 08:27	21°♋57'14	1°11'54
				max. Earth dist.	-871 Mar 23 j 07:35	22°♋25'17	5.99788 AU
conjunction	-877 Oct 03 j 18:35	1°♌36'46	1°09'43	morning rise	-871 Apr 03 j 23:16	25°♋11'10	
minimum elong	-877 Oct 03 j 18:36	1°♌36'47	1°09'42		-871 Apr 24 j 18:12	0°♍	
morning rise	-877 Oct 16 j 08:34	4°♌23'39		retrograde	-871 Aug 13 j 07:06	15°♍24'21	
retrograde	-876 Feb 15 j 00:36	21°♌40'28		opposition	-871 Oct 11 j 20:40	10°♍19'08	-1°35'47
opposition	-876 Apr 15 j 22:25	16°♌48'44	1°28'23	min. Earth dist.	-871 Oct 10 j 12:42	10°♍30'03	4.03697 AU
min. Earth dist.	-876 Apr 17 j 08:14	16°♌37'59	4.33984 AU	direct	-871 Dec 08 j 23:40	5°♍21'45	
direct	-876 Jun 17 j 07:39	11°♌49'29		evening set	-870 Apr 14 j 02:50	24°♍35'54	
evening set	-876 Oct 21 j 01:44	29°♌50'58					
	-876 Oct 21 j 17:48	0°♎		conjunction	-870 Apr 27 j 20:35	27°♍46'56	-0°50'34
max. Earth dist.	-876 Oct 31 j 20:38	2°♎17'16	6.28408 AU	minimum elong	-870 Apr 27 j 20:38	27°♍46'58	0°50'34
				max. Earth dist.	-870 Apr 29 j 23:15	28°♍16'19	6.08894 AU
conjunction	-876 Nov 02 j 16:11	2°♎41'59	0°46'22		-870 May 07 j 10:19	0°♏	
minimum elong	-876 Nov 02 j 16:13	2°♎42'00	0°46'22	morning rise	-870 May 11 j 15:48	0°♏58'29	
morning rise	-876 Nov 15 j 05:35	5°♎32'44			-870 Jul 19 j 08:19	15°♏	
	-876 Dec 29 j 19:51	15°♎		retrograde	-870 Sep 16 j 21:20	20°♏15'38	
retrograde	-875 Mar 19 j 14:46	23°♎36'48		min. Earth dist.	-870 Nov 14 j 04:54	15°♏21'07	4.15093 AU
opposition	-875 May 19 j 15:08	18°♎43'44	0°42'04	opposition	-870 Nov 15 j 09:09	15°♏11'30	-0°48'06
min. Earth dist.	-875 May 20 j 19:19	18°♎34'44	4.22148 AU		-870 Nov 16 j 18:57	15°♏	
	-875 Jun 21 j 19:28	15°♏		direct	-869 Jan 13 j 09:10	10°♏11'05	
direct	-875 Jul 20 j 00:46	13°♏47'12			-869 Mar 11 j 07:03	15°♏	
	-875 Aug 17 j 02:56	15°♏		evening set	-869 May 20 j 06:29	28°♏54'04	
	-875 Nov 12 j 04:06	0°♐			-869 May 25 j 04:02	0°♐	
evening set	-875 Nov 22 j 02:22	2°♐16'40					
				conjunction	-869 Jun 03 j 00:39	1°♐59'43	-0°12'06
conjunction	-875 Dec 04 j 18:34	5°♐13'41	0°08'00	minimum elong	-869 Jun 03 j 00:40	1°♐59'44	0°12'06
minimum elong	-875 Dec 04 j 18:35	5°♐13'41	0°07'59	behind sun begin	-869 Jun 02 j 19:08	1°♐56'38	
behind sun begin	-875 Dec 04 j 11:24	5°♐09'32		behind sun end	-869 Jun 03 j 06:11	2°♐02'49	
behind sun end	-875 Dec 05 j 01:45	5°♐17'51		max. Earth dist.	-869 Jun 04 j 10:29	2°♐18'47	6.21663 AU
max. Earth dist.	-875 Dec 03 j 12:09	4°♐55'56	6.15670 AU	morning rise	-869 Jun 16 j 18:22	5°♐04'50	
morning rise	-875 Dec 17 j 11:40	8°♐11'23		asc. node	-869 Sep 25 j 13:08	22°♐21'48	
desc. node	-874 Feb 15 j 23:49	20°♐52'57		retrograde	-869 Oct 19 j 10:09	23°♐16'52	
retrograde	-874 Apr 24 j 08:27	27°♐17'39		min. Earth dist.	-869 Dec 17 j 10:35	18°♐20'41	4.27947 AU
opposition	-874 Jun 24 j 04:21	22°♐21'41	-0°20'50	opposition	-869 Dec 18 j 00:41	18°♐15'57	0°12'49
min. Earth dist.	-874 Jun 24 j 16:57	22°♐17'36	4.09393 AU	direct	-868 Feb 16 j 09:32	13°♐13'23	
direct	-874 Aug 23 j 05:12	17°♐27'26			-868 Jun 16 j 03:36	0°♑	
	-874 Nov 27 j 16:01	0°♑		evening set	-868 Jun 22 j 15:52	1°♑24'59	
evening set	-874 Dec 25 j 21:37	6°♑29'15					
				conjunction	-868 Jul 06 j 04:57	4°♑23'24	0°28'47
conjunction	-873 Jan 07 j 18:46	9°♑33'20	-0°34'42	minimum elong	-868 Jul 06 j 04:55	4°♑23'23	0°28'48
minimum elong	-873 Jan 07 j 18:44	9°♑33'19	0°34'42	max. Earth dist.	-868 Jul 06 j 14:31	4°♑28'39	6.33639 AU
max. Earth dist.	-873 Jan 07 j 15:12	9°♑31'13	6.04081 AU	morning rise	-868 Jul 19 j 15:34	7°♑20'28	
morning rise	-873 Jan 20 j 18:01	12°♑38'47		retrograde	-868 Nov 18 j 09:41	24°♑41'06	
	-873 Apr 19 j 11:40	0°♒		opposition	-867 Jan 17 j 08:10	19°♑44'07	1°06'44
retrograde	-873 May 31 j 19:27	2°♒43'20		min. Earth dist.	-867 Jan 17 j 10:10	19°♑43'27	4.38165 AU
	-873 Jul 13 j 07:06	30°♒		direct	-867 Mar 19 j 22:17	14°♑40'48	
opposition	-873 Jul 31 j 04:13	27°♒43'35	-1°19'33		-867 Jul 13 j 14:20	0°♓	
min. Earth dist.	-873 Jul 30 j 20:36	27°♒46'06	4.00123 AU	evening set	-867 Jul 25 j 07:01	2°♓30'00	
direct	-873 Sep 27 j 21:03	22°♒50'17					
	-873 Dec 05 j 18:30	0°♓		conjunction	-867 Aug 07 j 11:34	5°♓21'48	0°59'53
evening set	-872 Jan 30 j 16:41	12°♓16'56		minimum elong	-867 Aug 07 j 11:31	5°♓21'46	0°59'53
	-872 Feb 11 j 00:07	15°♓		max. Earth dist.	-867 Aug 06 j 18:08	5°♓12'19	6.41288 AU
				morning rise	-867 Aug 20 j 13:09	8°♓12'03	
conjunction	-872 Feb 12 j 20:36	15°♓26'47	-1°05'51		-867 Sep 22 j 05:44	15°♓	
minimum elong	-872 Feb 12 j 20:34	15°♓26'45	1°05'51	retrograde	-867 Dec 18 j 20:33	25°♓05'54	
max. Earth dist.	-872 Feb 13 j 21:28	15°♓41'45	5.97928 AU	opposition	-866 Feb 17 j 03:14	20°♓12'10	1°40'21
morning rise	-872 Feb 26 j 03:54	18°♓38'24		min. Earth dist.	-866 Feb 17 j 22:30	20°♓05'56	4.42889 AU
	-872 Apr 17 j 04:38	0°♔		direct	-866 Apr 20 j 15:25	15°♓09'20	
retrograde	-872 Jul 07 j 13:18	9°♔10'49			-866 Aug 12 j 10:00	0°♕	
min. Earth dist.	-872 Sep 04 j 10:17	4°♔16'07	3.97928 AU	evening set	-866 Aug 25 j 14:49	2°♕49'25	
opposition	-872 Sep 05 j 12:10	4°♔07'22	-1°49'01	max. Earth dist.	-866 Sep 05 j 22:35	5°♕17'16	6.42626 AU
	-872 Oct 12 j 00:53	30°♕					
direct	-872 Nov 02 j 10:19	29°♕12'49		conjunction	-866 Sep 07 j 11:32	5°♕37'26	1°13'53
	-872 Nov 23 j 21:44	0°♕		minimum elong	-866 Sep 07 j 11:32	5°♕37'25	1°13'53
evening set	-871 Mar 07 j 20:29	18°♕44'40		morning rise	-866 Sep 20 j 05:19	8°♕24'04	

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4

Attention, astronomical year style is used: The year -865 in astronomical counting style is the year 866 BCE in historical counting style.

retrograde	-865 Jan 18 j 13:15	25° \mathbb{M} 18'27	min. Earth dist.	-860 Sep 09 j 13:49	9° \mathbb{H} 30'49	3.98162 AU
opposition	-865 Mar 20 j 05:56	20° \mathbb{M} 26'30 1°46'38	direct	-860 Nov 07 j 15:04	4° \mathbb{H} 26'55	
min. Earth dist.	-865 Mar 21 j 12:04	20° \mathbb{M} 16'52 4.40883 AU	evening set	-859 Mar 13 j 02:45	23° \mathbb{H} 57'59	
direct	-865 May 21 j 23:08	15° \mathbb{M} 25'12				
	-865 Sep 10 j 17:15	0° \mathbb{L}	conjunction	-859 Mar 26 j 15:42	27° \mathbb{H} 10'36 -1°10'25	
evening set	-865 Sep 25 j 09:02	3° \mathbb{L} 10'46	minimum elong	-859 Mar 26 j 15:44	27° \mathbb{H} 10'38 1°10'24	
max. Earth dist.	-865 Oct 06 j 03:00	5° \mathbb{L} 33'22 6.37349 AU	max. Earth dist.	-859 Mar 28 j 17:27	27° \mathbb{H} 40'08 6.00651 AU	
				-859 Apr 07 j 13:47	0° \mathbb{Y}	
conjunction	-865 Oct 08 j 00:42	5° \mathbb{L} 58'44 1°07'35	morning rise	-859 Apr 09 j 07:28	0° \mathbb{Y} 24'33	
minimum elong	-865 Oct 08 j 00:43	5° \mathbb{L} 58'45 1°07'34	retrograde	-859 Aug 18 j 06:33	20° \mathbb{Y} 31'28	
morning rise	-865 Oct 20 j 14:13	8° \mathbb{L} 45'51	min. Earth dist.	-859 Oct 15 j 10:34	15° \mathbb{Y} 37'39 4.05121 AU	
retrograde	-864 Feb 19 j 13:10	26° \mathbb{L} 07'28	opposition	-859 Oct 16 j 19:49	15° \mathbb{Y} 26'18 -1°30'44	
opposition	-864 Apr 20 j 11:49	21° \mathbb{L} 15'40 1°23'24	direct	-859 Dec 13 j 23:46	10° \mathbb{Y} 28'32	
min. Earth dist.	-864 Apr 21 j 21:58	21° \mathbb{L} 04'49 4.32629 AU	evening set	-858 Apr 19 j 06:46	29° \mathbb{Y} 38'24	
direct	-864 Jun 21 j 19:21	16° \mathbb{L} 16'47		-858 Apr 20 j 20:22	0° \mathbb{B}	
	-864 Oct 05 j 17:26	0° \mathbb{M}				
evening set	-864 Oct 25 j 10:14	4° \mathbb{M} 21'21	conjunction	-858 May 03 j 00:48	2° \mathbb{B} 48'45 -0°45'53	
max. Earth dist.	-864 Nov 05 j 04:32	6° \mathbb{M} 47'56 6.26766 AU	minimum elong	-858 May 03 j 00:51	2° \mathbb{B} 48'47 0°45'52	
			max. Earth dist.	-858 May 05 j 01:29	3° \mathbb{B} 16'52 6.10759 AU	
conjunction	-864 Nov 07 j 00:36	7° \mathbb{M} 13'01 0°41'44	morning rise	-858 May 16 j 20:12	5° \mathbb{B} 59'29	
minimum elong	-864 Nov 07 j 00:38	7° \mathbb{M} 13'02 0°41'44		-858 Jun 27 j 06:46	15° \mathbb{B}	
morning rise	-864 Nov 19 j 14:27	10° \mathbb{M} 04'37	retrograde	-858 Sep 21 j 12:44	25° \mathbb{B} 06'33	
	-864 Dec 11 j 19:27	15° \mathbb{M}	min. Earth dist.	-858 Nov 18 j 22:44	20° \mathbb{B} 11'42 4.17186 AU	
retrograde	-863 Mar 24 j 10:16	28° \mathbb{M} 16'41	opposition	-858 Nov 20 j 01:08	20° \mathbb{B} 02'43 -0°39'53	
opposition	-863 May 24 j 10:35	23° \mathbb{M} 23'16 0°33'57	direct	-857 Jan 18 j 06:28	15° \mathbb{B} 01'56	
min. Earth dist.	-863 May 25 j 13:11	23° \mathbb{M} 14'45 4.20309 AU		-857 May 08 j 13:23	0° \mathbb{I}	
direct	-863 Jul 24 j 16:10	18° \mathbb{M} 27'03	evening set	-857 May 25 j 03:46	3° \mathbb{I} 39'04	
	-863 Oct 26 j 06:33	0° \mathbb{X}				
evening set	-863 Nov 26 j 15:57	7° \mathbb{X} 01'12	conjunction	-857 Jun 07 j 21:36	6° \mathbb{I} 43'36 -0°06'18	
max. Earth dist.	-863 Dec 08 j 06:16	9° \mathbb{X} 43'42 6.13812 AU	minimum elong	-857 Jun 07 j 21:37	6° \mathbb{I} 43'36 0°06'17	
			behind sun begin	-857 Jun 07 j 13:46	6° \mathbb{I} 39'13	
conjunction	-863 Dec 09 j 08:51	9° \mathbb{X} 59'16 0°02'00	behind sun end	-857 Jun 08 j 05:29	6° \mathbb{I} 47'59	
minimum elong	-863 Dec 09 j 08:51	9° \mathbb{X} 59'16 0°01'59	max. Earth dist.	-857 Jun 09 j 05:57	7° \mathbb{I} 01'43 6.23824 AU	
behind sun begin	-863 Dec 09 j 00:50	9° \mathbb{X} 54'36	morning rise	-857 Jun 21 j 14:25	9° \mathbb{I} 47'25	
behind sun end	-863 Dec 09 j 16:52	10° \mathbb{X} 03'57	asc. node	-857 Aug 06 j 04:09	19° \mathbb{I} 18'43	
morning rise	-863 Dec 22 j 02:31	12° \mathbb{X} 58'03	retrograde	-857 Oct 23 j 17:34	27° \mathbb{I} 49'49	
desc. node	-863 Dec 27 j 06:00	14° \mathbb{X} 09'40	opposition	-857 Dec 22 j 10:00	22° \mathbb{I} 49'27 0°21'01	
	-862 Mar 22 j 04:09	0° \mathbb{Z}	min. Earth dist.	-857 Dec 21 j 21:21	22° \mathbb{I} 53'41 4.29979 AU	
retrograde	-862 Apr 29 j 11:59	2° \mathbb{Z} 13'31	direct	-856 Feb 20 j 22:51	17° \mathbb{I} 46'43	
	-862 Jun 07 j 01:06	30° \mathbb{R} \mathbb{Z}		-856 May 30 j 10:26	0° \mathbb{D}	
opposition	-862 Jun 29 j 05:46	27° \mathbb{Z} 17'10 -0°29'50	evening set	-856 Jun 27 j 05:52	5° \mathbb{D} 53'11	
min. Earth dist.	-862 Jun 29 j 16:25	27° \mathbb{Z} 13'43 4.07675 AU				
direct	-862 Aug 28 j 01:52	22° \mathbb{Z} 23'11	conjunction	-856 Jul 10 j 17:39	8° \mathbb{D} 50'22 0°33'49	
	-862 Nov 08 j 07:11	0° \mathbb{Z}	minimum elong	-856 Jul 10 j 17:37	8° \mathbb{D} 50'21 0°33'50	
evening set	-862 Dec 30 j 18:33	11° \mathbb{Z} 29'53	max. Earth dist.	-856 Jul 10 j 21:45	8° \mathbb{D} 52'37 6.35369 AU	
			morning rise	-856 Jul 24 j 03:09	11° \mathbb{D} 46'14	
conjunction	-861 Jan 12 j 16:24	14° \mathbb{Z} 34'58 -0°40'06	retrograde	-856 Nov 22 j 14:12	29° \mathbb{D} 00'30	
minimum elong	-861 Jan 12 j 16:22	14° \mathbb{Z} 34'57 0°40'07	opposition	-855 Jan 21 j 13:27	24° \mathbb{D} 04'02 1°12'40	
max. Earth dist.	-861 Jan 12 j 15:16	14° \mathbb{Z} 34'17 6.02651 AU	min. Earth dist.	-855 Jan 21 j 19:06	24° \mathbb{D} 02'10 4.39479 AU	
morning rise	-861 Jan 25 j 16:53	17° \mathbb{Z} 41'33	direct	-855 Mar 24 j 08:57	19° \mathbb{D} 00'38	
	-861 Mar 23 j 01:17	0° \mathbb{A}		-855 Jun 26 j 22:48	0° \mathbb{Q}	
retrograde	-861 Jun 06 j 01:08	7° \mathbb{A} 53'08	evening set	-855 Jul 29 j 14:48	6° \mathbb{Q} 46'52	
opposition	-861 Aug 05 j 09:16	2° \mathbb{A} 52'51 -1°25'56				
min. Earth dist.	-861 Aug 04 j 22:02	2° \mathbb{A} 56'35 3.99156 AU	conjunction	-855 Aug 11 j 18:19	9° \mathbb{Q} 37'54 1°02'52	
	-861 Aug 28 j 15:56	30° \mathbb{R} \mathbb{Z}	minimum elong	-855 Aug 11 j 18:16	9° \mathbb{Q} 37'52 1°02'52	
direct	-861 Oct 02 j 21:28	27° \mathbb{Z} 59'33	max. Earth dist.	-855 Aug 10 j 22:00	9° \mathbb{Q} 26'51 6.42064 AU	
	-861 Nov 06 j 18:59	0° \mathbb{A}	morning rise	-855 Aug 24 j 18:33	12° \mathbb{Q} 27'20	
	-860 Jan 25 j 08:41	15° \mathbb{A}		-855 Sep 05 j 16:02	15° \mathbb{Q}	
evening set	-860 Feb 04 j 19:57	17° \mathbb{A} 29'13	retrograde	-855 Dec 22 j 22:03	29° \mathbb{Q} 19'08	
			opposition	-854 Feb 21 j 07:30	24° \mathbb{Q} 25'43 1°42'51	
conjunction	-860 Feb 18 j 01:09	20° \mathbb{A} 39'46 -1°08'24	min. Earth dist.	-854 Feb 22 j 04:17	24° \mathbb{Q} 19'00 4.43101 AU	
minimum elong	-860 Feb 18 j 01:07	20° \mathbb{A} 39'45 1°08'23	direct	-854 Apr 24 j 20:37	19° \mathbb{Q} 22'59	
max. Earth dist.	-860 Feb 19 j 07:05	20° \mathbb{A} 57'47 5.97524 AU		-854 Jul 26 j 21:05	0° \mathbb{M}	
morning rise	-860 Mar 02 j 09:27	23° \mathbb{A} 52'03	evening set	-854 Aug 29 j 19:22	7° \mathbb{M} 02'54	
	-860 Mar 28 j 18:04	0° \mathbb{H}	max. Earth dist.	-854 Sep 09 j 23:31	9° \mathbb{M} 29'01 6.42235 AU	
retrograde	-860 Jul 12 j 20:39	14° \mathbb{H} 25'29				
opposition	-860 Sep 10 j 16:43	9° \mathbb{H} 21'42 -1°49'45	conjunction	-854 Sep 11 j 15:08	9° \mathbb{M} 50'41 1°14'12	

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 5

Attention, astronomical year style is used: The year -854 in astronomical counting style is the year 855 BCE in historical counting style.

minimum elong	-854 Sep 11 j 15:08	9° \mathbb{M} 50'41	1°14'13	morning rise	-848 Mar 07 j 17:56	29° \approx 11'31
morning rise	-854 Sep 24 j 08:09	12° \mathbb{M} 37'11			-848 Mar 11 j 03:24	0° \mathbb{H}
retrograde	-853 Jan 22 j 20:13	29° \mathbb{M} 34'04		retrograde	-848 Jul 18 j 02:51	19° \mathbb{H} 43'35
opposition	-853 Mar 24 j 13:10	24° \mathbb{M} 42'16	1°45'11	opposition	-848 Sep 15 j 22:07	14° \mathbb{H} 39'23 -1°49'34
min. Earth dist.	-853 Mar 25 j 21:40	24° \mathbb{M} 31'54	4.39907 AU	min. Earth dist.	-848 Sep 14 j 16:34	14° \mathbb{H} 49'24 3.98824 AU
direct	-853 May 26 j 07:10	19° \mathbb{M} 41'12		direct	-848 Nov 12 j 19:18	9° \mathbb{H} 44'12
	-853 Aug 25 j 00:22	0° $\underline{\mathbb{A}}$		evening set	-847 Mar 18 j 10:05	29° \mathbb{H} 12'42
evening set	-853 Sep 29 j 13:41	7° $\underline{\mathbb{A}}$ 29'24			-847 Mar 21 j 18:23	0° \mathbb{Y}
max. Earth dist.	-853 Oct 10 j 05:07	9° $\underline{\mathbb{A}}$ 51'10	6.35844 AU			
				conjunction	-847 Mar 31 j 23:51	2° \mathbb{Y} 25'07 -1°08'21
conjunction	-853 Oct 12 j 05:00	10° $\underline{\mathbb{A}}$ 17'49	1°05'07	minimum elong	-847 Mar 31 j 23:54	2° \mathbb{Y} 25'08 1°08'21
minimum elong	-853 Oct 12 j 05:02	10° $\underline{\mathbb{A}}$ 17'50	1°05'07	max. Earth dist.	-847 Apr 03 j 02:10	2° \mathbb{Y} 54'52 6.01935 AU
morning rise	-853 Oct 24 j 18:28	13° $\underline{\mathbb{A}}$ 05'30		morning rise	-847 Apr 14 j 16:26	5° \mathbb{Y} 38'46
	-852 Feb 04 j 23:12	0° \mathbb{M}		retrograde	-847 Aug 23 j 05:07	25° \mathbb{Y} 37'40
retrograde	-852 Feb 24 j 01:20	0° \mathbb{M} 33'59		min. Earth dist.	-847 Oct 20 j 10:04	20° \mathbb{Y} 43'35 4.06846 AU
	-852 Mar 14 j 05:17	30° \mathbb{R} $\underline{\mathbb{A}}$		opposition	-847 Oct 21 j 18:43	20° \mathbb{Y} 32'25 -1°24'58
opposition	-852 Apr 25 j 00:45	25° $\underline{\mathbb{A}}$ 42'01	1°18'01	direct	-847 Dec 19 j 02:11	15° \mathbb{Y} 34'10
min. Earth dist.	-852 Apr 26 j 10:15	25° $\underline{\mathbb{A}}$ 31'22	4.30689 AU		-846 Apr 03 j 18:03	0° \mathbb{B}
direct	-852 Jun 26 j 04:35	20° $\underline{\mathbb{A}}$ 43'25		evening set	-846 Apr 24 j 09:55	4° \mathbb{B} 38'41
	-852 Sep 18 j 04:49	0° \mathbb{M}				
evening set	-852 Oct 29 j 18:54	8° \mathbb{M} 53'11		conjunction	-846 May 08 j 04:22	7° \mathbb{B} 48'17 -0°40'51
max. Earth dist.	-852 Nov 09 j 15:57	11° \mathbb{M} 22'02	6.24560 AU	minimum elong	-846 May 08 j 04:25	7° \mathbb{B} 48'18 0°40'50
				max. Earth dist.	-846 May 10 j 04:59	8° \mathbb{B} 16'13 6.12776 AU
conjunction	-852 Nov 11 j 09:35	11° \mathbb{M} 45'52	0°36'53	morning rise	-846 May 21 j 23:34	10° \mathbb{B} 58'03
minimum elong	-852 Nov 11 j 09:38	11° \mathbb{M} 45'53	0°36'53		-846 Jun 08 j 23:20	15° \mathbb{B}
morning rise	-852 Nov 23 j 23:43	14° \mathbb{M} 38'32		retrograde	-846 Sep 26 j 03:41	29° \mathbb{B} 54'46
	-852 Nov 25 j 13:30	15° \mathbb{M}		opposition	-846 Nov 24 j 16:27	24° \mathbb{B} 51'23 -0°31'25
	-851 Feb 12 j 07:48	0° \mathbb{A}		min. Earth dist.	-846 Nov 23 j 15:29	24° \mathbb{B} 59'51 4.19277 AU
retrograde	-851 Mar 29 j 08:45	3° \mathbb{A} 00'36		direct	-845 Jan 23 j 01:54	19° \mathbb{B} 50'18
	-851 May 14 j 04:18	30° \mathbb{R} \mathbb{M}			-845 Apr 20 j 13:36	0° \mathbb{II}
opposition	-851 May 29 j 07:22	28° \mathbb{M} 06'54	0°25'34	evening set	-845 May 30 j 00:39	8° \mathbb{II} 21'53
min. Earth dist.	-851 May 30 j 08:55	27° \mathbb{M} 58'43	4.17987 AU			
direct	-851 Jul 29 j 08:36	23° \mathbb{M} 11'02		conjunction	-845 Jun 12 j 17:43	11° \mathbb{II} 25'17 -0°00'22
	-851 Oct 06 j 12:17	0° \mathbb{A}		minimum elong	-845 Jun 12 j 17:43	11° \mathbb{II} 25'17 0°00'22
desc. node	-851 Nov 06 j 10:47	6° \mathbb{A} 12'31		behind sun begin	-845 Jun 12 j 09:25	11° \mathbb{II} 20'40
evening set	-851 Dec 01 j 07:41	11° \mathbb{A} 51'35		behind sun end	-845 Jun 13 j 02:02	11° \mathbb{II} 29'54
max. Earth dist.	-851 Dec 13 j 00:30	14° \mathbb{A} 36'23	6.11579 AU	max. Earth dist.	-845 Jun 13 j 20:58	11° \mathbb{II} 40'29 6.25819 AU
				asc. node	-845 Jun 16 j 01:35	12° \mathbb{II} 09'51
conjunction	-851 Dec 14 j 01:07	14° \mathbb{A} 50'52	-0°04'11	morning rise	-845 Jun 26 j 09:51	14° \mathbb{II} 27'55
minimum elong	-851 Dec 14 j 01:06	14° \mathbb{A} 50'51	0°04'11		-845 Sep 19 j 01:49	0° \mathbb{B}
behind sun begin	-851 Dec 13 j 17:12	14° \mathbb{A} 46'13		retrograde	-845 Oct 28 j 02:00	2° \mathbb{B} 21'45
behind sun end	-851 Dec 14 j 09:01	14° \mathbb{A} 55'29			-845 Dec 05 j 23:38	30° \mathbb{R} \mathbb{II}
morning rise	-851 Dec 26 j 19:51	17° \mathbb{A} 51'02		opposition	-845 Dec 26 j 19:26	27° \mathbb{II} 21'56 0°29'07
	-850 Feb 21 j 14:11	0° \mathbb{B}		min. Earth dist.	-845 Dec 26 j 09:50	27° \mathbb{II} 25'09 4.31727 AU
retrograde	-850 May 04 j 17:03	7° \mathbb{B} 17'03		direct	-844 Feb 25 j 13:47	22° \mathbb{II} 19'01
opposition	-850 Jul 04 j 09:55	2° \mathbb{B} 20'07	-0°38'46		-844 May 11 j 12:24	0° \mathbb{B}
min. Earth dist.	-850 Jul 04 j 16:26	2° \mathbb{B} 18'00	4.05745 AU	evening set	-844 Jul 01 j 19:57	10° \mathbb{B} 21'30
	-850 Jul 23 j 02:47	30° \mathbb{R} \mathbb{A}				
direct	-850 Sep 01 j 23:48	27° \mathbb{A} 26'20		conjunction	-844 Jul 15 j 06:48	13° \mathbb{B} 17'43 0°38'43
	-850 Oct 12 j 03:26	0° \mathbb{B}		minimum elong	-844 Jul 15 j 06:45	13° \mathbb{B} 17'41 0°38'43
evening set	-849 Jan 04 j 18:23	16° \mathbb{B} 38'28		max. Earth dist.	-844 Jul 15 j 08:16	13° \mathbb{B} 18'31 6.36750 AU
				morning rise	-844 Jul 28 j 14:52	16° \mathbb{B} 12'28
conjunction	-849 Jan 17 j 17:20	19° \mathbb{B} 44'37	-0°45'17		-844 Oct 10 j 10:48	0° \mathbb{Q}
minimum elong	-849 Jan 17 j 17:17	19° \mathbb{B} 44'36	0°45'18	retrograde	-844 Nov 26 j 18:45	3° \mathbb{Q} 21'49
max. Earth dist.	-849 Jan 17 j 22:23	19° \mathbb{B} 47'39	6.01209 AU		-843 Jan 13 j 15:26	30° \mathbb{R} \mathbb{B}
morning rise	-849 Jan 30 j 18:45	22° \mathbb{B} 52'17		opposition	-843 Jan 25 j 20:01	28° \mathbb{B} 25'54 1°18'20
	-849 Mar 02 j 16:53	0° \approx		min. Earth dist.	-843 Jan 26 j 03:33	28° \mathbb{B} 23'26 4.40419 AU
retrograde	-849 Jun 11 j 11:39	13° \approx 10'26		direct	-843 Mar 28 j 18:11	23° \mathbb{B} 22'36
opposition	-849 Aug 10 j 17:09	8° \approx 09'33	-1°31'43		-843 Jun 07 j 13:27	0° \mathbb{Q}
min. Earth dist.	-849 Aug 10 j 03:33	8° \approx 14'04	3.98376 AU	evening set	-843 Aug 02 j 24:00	11° \mathbb{Q} 07'03
direct	-849 Oct 08 j 02:57	3° \approx 16'09		max. Earth dist.	-843 Aug 15 j 01:13	13° \mathbb{Q} 43'50 6.42481 AU
	-848 Jan 07 j 06:52	15° \approx				
evening set	-848 Feb 10 j 02:09	22° \approx 47'38		conjunction	-843 Aug 16 j 02:10	13° \mathbb{Q} 57'24 1°05'36
				minimum elong	-843 Aug 16 j 02:08	13° \mathbb{Q} 57'22 1°05'36
conjunction	-848 Feb 23 j 08:24	25° \approx 58'43	-1°10'25		-843 Aug 20 j 21:19	15° \mathbb{Q}
minimum elong	-848 Feb 23 j 08:22	25° \approx 58'42	1°10'25	morning rise	-843 Aug 29 j 01:25	16° \mathbb{Q} 46'15
max. Earth dist.	-848 Feb 24 j 18:38	26° \approx 19'18	5.97451 AU		-843 Nov 07 j 16:16	0° \mathbb{M}


















































































































































































Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 6

Attention, astronomical year style is used: The year -843 in astronomical counting style is the year 844 BCE in historical counting style.

retrograde	-843 Dec 27 j 05:04	3° $\mathring{\text{M}}$ 37'21			-837 Apr 30 j 09:08	15° $\mathring{\text{M}}$	
	-842 Feb 15 j 16:40	30° $\mathring{\text{R}}$ 8		retrograde	-837 Jun 16 j 17:50	18° $\mathring{\text{M}}$ 23'52	
opposition	-842 Feb 25 j 14:41	28° $\mathring{\text{O}}$ 44'18	1°44'54		-837 Aug 03 j 12:56	15° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
min. Earth dist.	-842 Feb 26 j 14:30	28° $\mathring{\text{O}}$ 36'38	4.42990 AU	opposition	-837 Aug 15 j 22:42	13° $\mathring{\text{M}}$ 22'28	-1°36'38
direct	-842 Apr 29 j 06:27	23° $\mathring{\text{O}}$ 41'45		min. Earth dist.	-837 Aug 15 j 05:26	13° $\mathring{\text{M}}$ 28'13	3.98234 AU
	-842 Jul 07 j 08:02	0° $\mathring{\text{M}}$		direct	-837 Oct 13 j 05:13	8° $\mathring{\text{M}}$ 28'57	
evening set	-842 Sep 03 j 02:10	11° $\mathring{\text{M}}$ 22'21			-837 Dec 17 j 09:49	15° $\mathring{\text{M}}$	
max. Earth dist.	-842 Sep 14 j 04:03	13° $\mathring{\text{M}}$ 47'30	6.41594 AU	evening set	-836 Feb 15 j 06:00	28° $\mathring{\text{M}}$ 00'12	
					-836 Feb 23 j 14:08	0° $\mathring{\text{H}}$	
conjunction	-842 Sep 15 j 21:15	14° $\mathring{\text{M}}$ 10'04	1°14'09				
minimum elong	-842 Sep 15 j 21:16	14° $\mathring{\text{M}}$ 10'04	1°14'09	conjunction	-836 Feb 28 j 13:12	1° $\mathring{\text{H}}$ 11'29	-1°11'49
morning rise	-842 Sep 28 j 13:28	16° $\mathring{\text{M}}$ 56'32		minimum elong	-836 Feb 28 j 13:11	1° $\mathring{\text{H}}$ 11'28	1°11'50
	-842 Dec 06 j 05:28	0° $\mathring{\text{O}}$		max. Earth dist.	-836 Mar 01 j 02:06	1° $\mathring{\text{H}}$ 33'38	5.97917 AU
retrograde	-841 Jan 27 j 04:42	3° $\mathring{\text{O}}$ 56'49		morning rise	-836 Mar 12 j 23:45	4° $\mathring{\text{H}}$ 24'29	
	-841 Mar 21 j 18:22	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		retrograde	-836 Jul 23 j 04:36	24° $\mathring{\text{H}}$ 53'16	
opposition	-841 Mar 28 j 23:34	29° $\mathring{\text{M}}$ 05'07	1°43'07	opposition	-836 Sep 20 j 23:39	19° $\mathring{\text{H}}$ 48'42	-1°48'28
min. Earth dist.	-841 Mar 30 j 08:02	28° $\mathring{\text{M}}$ 54'46	4.38792 AU	min. Earth dist.	-836 Sep 19 j 17:15	19° $\mathring{\text{H}}$ 59'02	3.99841 AU
direct	-841 May 30 j 15:23	24° $\mathring{\text{M}}$ 04'24		direct	-836 Nov 17 j 21:57	14° $\mathring{\text{H}}$ 53'06	
	-841 Aug 04 j 23:19	0° $\mathring{\text{O}}$			-835 Mar 04 j 22:26	0° $\mathring{\text{Y}}$	
evening set	-841 Oct 03 j 21:25	11° $\mathring{\text{O}}$ 55'35		evening set	-835 Mar 23 j 13:21	4° $\mathring{\text{Y}}$ 18'03	
max. Earth dist.	-841 Oct 14 j 12:56	14° $\mathring{\text{O}}$ 17'55	6.34347 AU				
				conjunction	-835 Apr 06 j 04:05	7° $\mathring{\text{Y}}$ 30'11	-1°05'50
conjunction	-841 Oct 16 j 12:24	14° $\mathring{\text{O}}$ 44'28	1°02'13	minimum elong	-835 Apr 06 j 04:07	7° $\mathring{\text{Y}}$ 30'12	1°05'49
minimum elong	-841 Oct 16 j 12:26	14° $\mathring{\text{O}}$ 44'29	1°02'13	max. Earth dist.	-835 Apr 08 j 08:22	8° $\mathring{\text{Y}}$ 00'59	6.03405 AU
morning rise	-841 Oct 29 j 01:43	17° $\mathring{\text{O}}$ 32'43		morning rise	-835 Apr 19 j 21:07	10° $\mathring{\text{Y}}$ 43'22	
	-841 Dec 30 j 19:17	0° $\mathring{\text{M}}$			-835 Aug 09 j 11:18	0° $\mathring{\text{B}}$	
retrograde	-840 Feb 28 j 18:49	5° $\mathring{\text{M}}$ 08'10		retrograde	-835 Aug 28 j 00:15	0° $\mathring{\text{B}}$ 33'46	
opposition	-840 Apr 29 j 17:23	0° $\mathring{\text{M}}$ 16'09	1°11'58		-835 Sep 15 j 08:18	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$	
min. Earth dist.	-840 May 01 j 03:10	0° $\mathring{\text{M}}$ 05'24	4.28892 AU	min. Earth dist.	-835 Oct 25 j 05:20	25° $\mathring{\text{O}}$ $\mathring{\text{Y}}$ 39'31	4.08598 AU
	-840 May 01 j 20:09	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		opposition	-835 Oct 26 j 13:08	25° $\mathring{\text{O}}$ $\mathring{\text{Y}}$ 28'40	-1°18'47
direct	-840 Jun 30 j 18:55	25° $\mathring{\text{O}}$ 18'00		direct	-835 Dec 23 j 23:40	20° $\mathring{\text{Y}}$ 30'00	
	-840 Aug 27 j 07:13	0° $\mathring{\text{M}}$			-834 Mar 16 j 10:04	0° $\mathring{\text{B}}$	
evening set	-840 Nov 03 j 06:17	13° $\mathring{\text{M}}$ 32'17		evening set	-834 Apr 29 j 09:12	9° $\mathring{\text{B}}$ 29'30	
	-840 Nov 09 j 15:41	15° $\mathring{\text{M}}$					
max. Earth dist.	-840 Nov 14 j 04:32	16° $\mathring{\text{M}}$ 02'30	6.22633 AU	conjunction	-834 May 13 j 03:38	12° $\mathring{\text{B}}$ 38'18	-0°35'43
				minimum elong	-834 May 13 j 03:41	12° $\mathring{\text{B}}$ 38'20	0°35'42
conjunction	-840 Nov 15 j 21:10	16° $\mathring{\text{M}}$ 25'51	0°31'40	max. Earth dist.	-834 May 15 j 00:34	13° $\mathring{\text{B}}$ 04'00	6.14648 AU
minimum elong	-840 Nov 15 j 21:12	16° $\mathring{\text{M}}$ 25'52	0°31'38		-834 May 23 j 11:48	15° $\mathring{\text{B}}$	
morning rise	-840 Nov 28 j 11:53	19° $\mathring{\text{M}}$ 19'34		morning rise	-834 May 26 j 22:54	15° $\mathring{\text{B}}$ 47'13	
	-839 Jan 17 j 19:51	0° $\mathring{\text{J}}$			-834 Aug 06 j 07:23	0° $\mathring{\text{II}}$	
retrograde	-839 Apr 03 j 08:07	7° $\mathring{\text{J}}$ 50'49		retrograde	-834 Sep 30 j 14:12	4° $\mathring{\text{II}}$ 34'35	
opposition	-839 Jun 03 j 06:50	2° $\mathring{\text{J}}$ 56'47	0°16'47		-834 Nov 25 j 16:02	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
min. Earth dist.	-839 Jun 04 j 04:59	2° $\mathring{\text{J}}$ 49'40	4.16088 AU	min. Earth dist.	-834 Nov 28 j 04:58	29° $\mathring{\text{B}}$ 39'23	4.21088 AU
	-839 Jun 27 j 21:59	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		opposition	-834 Nov 29 j 03:58	29° $\mathring{\text{B}}$ 31'35	-0°23'03
direct	-839 Aug 03 j 01:59	28° $\mathring{\text{M}}$ 01'21		direct	-833 Jan 27 j 17:59	24° $\mathring{\text{B}}$ 30'08	
	-839 Sep 07 j 20:33	0° $\mathring{\text{J}}$			-833 Mar 30 j 13:28	0° $\mathring{\text{II}}$	
desc. node	-839 Sep 16 j 00:14	0° $\mathring{\text{J}}$ 57'26		asc. node	-833 Apr 27 j 03:57	4° $\mathring{\text{II}}$ 59'34	
evening set	-839 Dec 06 j 01:17	16° $\mathring{\text{J}}$ 46'43		evening set	-833 Jun 03 j 17:55	12° $\mathring{\text{II}}$ 57'23	
conjunction	-839 Dec 18 j 19:22	19° $\mathring{\text{J}}$ 46'59	-0°10'18	conjunction	-833 Jun 17 j 10:32	15° $\mathring{\text{II}}$ 59'53	0°05'25
minimum elong	-839 Dec 18 j 19:22	19° $\mathring{\text{J}}$ 46'59	0°10'18	minimum elong	-833 Jun 17 j 10:32	15° $\mathring{\text{II}}$ 59'52	0°05'26
behind sun begin	-839 Dec 18 j 12:57	19° $\mathring{\text{J}}$ 43'13		behind sun begin	-833 Jun 17 j 02:32	15° $\mathring{\text{II}}$ 55'26	
behind sun end	-839 Dec 19 j 01:47	19° $\mathring{\text{J}}$ 50'46		behind sun end	-833 Jun 17 j 18:31	16° $\mathring{\text{II}}$ 04'18	
max. Earth dist.	-839 Dec 17 j 23:56	19° $\mathring{\text{J}}$ 35'31	6.09906 AU	max. Earth dist.	-833 Jun 18 j 10:48	16° $\mathring{\text{II}}$ 13'23	6.27447 AU
morning rise	-839 Dec 31 j 14:48	22° $\mathring{\text{J}}$ 48'13		morning rise	-833 Jul 01 j 01:40	19° $\mathring{\text{II}}$ 01'26	
	-838 Feb 01 j 08:58	0° $\mathring{\text{B}}$			-833 Aug 24 j 02:21	0° $\mathring{\text{B}}$	
retrograde	-838 May 09 j 23:55	12° $\mathring{\text{B}}$ 22'36		retrograde	-833 Nov 01 j 09:11	6° $\mathring{\text{B}}$ 48'17	
opposition	-838 Jul 09 j 14:42	7° $\mathring{\text{B}}$ 25'11	-0°47'29	opposition	-833 Dec 31 j 02:39	1° $\mathring{\text{B}}$ 49'04	0°36'50
min. Earth dist.	-838 Jul 09 j 18:52	7° $\mathring{\text{B}}$ 23'49	4.04463 AU	min. Earth dist.	-833 Dec 30 j 19:37	1° $\mathring{\text{B}}$ 51'25	4.33050 AU
direct	-838 Sep 07 j 00:55	2° $\mathring{\text{B}}$ 31'38			-832 Jan 14 j 02:10	30° $\mathring{\text{R}}$ $\mathring{\text{II}}$	
evening set	-837 Jan 09 j 18:25	21° $\mathring{\text{B}}$ 46'51		direct	-832 Mar 01 j 01:04	26° $\mathring{\text{II}}$ 46'02	
					-832 Apr 17 j 07:36	0° $\mathring{\text{B}}$	
conjunction	-837 Jan 22 j 18:11	24° $\mathring{\text{B}}$ 53'43	-0°50'06	evening set	-832 Jul 06 j 08:03	14° $\mathring{\text{B}}$ 45'55	
minimum elong	-837 Jan 22 j 18:09	24° $\mathring{\text{B}}$ 53'42	0°50'06				
max. Earth dist.	-837 Jan 23 j 03:28	24° $\mathring{\text{B}}$ 59'18	6.00436 AU	conjunction	-832 Jul 19 j 17:41	17° $\mathring{\text{B}}$ 41'17	0°43'17
morning rise	-837 Feb 04 j 20:44	28° $\mathring{\text{B}}$ 02'12		minimum elong	-832 Jul 19 j 17:39	17° $\mathring{\text{B}}$ 41'15	0°43'17
	-837 Feb 13 j 03:30	0° $\mathring{\text{B}}$		max. Earth dist.	-832 Jul 19 j 14:01	17° $\mathring{\text{B}}$ 39'16	6.37658 AU

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 7

Attention, astronomical year style is used: The year -832 in astronomical counting style is the year 833 BCE in historical counting style.

morning rise	-832 Aug 02 j 00:43	20°  35'12			-826 Jan 15 j 04:49	0° 	
	-832 Sep 17 j 09:13	0° 		retrograde	-826 May 15 j 03:01	17°  23'54	
retrograde	-832 Dec 01 j 00:09	7°  41'19		opposition	-826 Jul 14 j 17:44	12°  25'56	-0°55'47
opposition	-831 Jan 30 j 01:54	2°  45'50	1°23'29	min. Earth dist.	-826 Jul 14 j 18:14	12°  25'46	4.03405 AU
min. Earth dist.	-831 Jan 30 j 12:13	2°  42'27	4.40897 AU	direct	-826 Sep 11 j 22:39	7°  32'32	
	-831 Feb 21 j 12:40	30°  R 		evening set	-825 Jan 14 j 17:00	26°  50'19	
direct	-831 Apr 02 j 03:08	27°  34'30					
	-831 May 12 j 01:50	0° 		conjunction	-825 Jan 27 j 17:37	29°  57'51	-0°54'30
	-831 Aug 05 j 07:17	15° 		minimum elong	-825 Jan 27 j 17:34	29°  57'50	0°54'30
evening set	-831 Aug 07 j 08:30	15°  26'31			-825 Jan 27 j 21:11	0° 	
max. Earth dist.	-831 Aug 19 j 07:22	18°  02'04	6.42495 AU	max. Earth dist.	-825 Jan 28 j 06:32	0°  53'38	5.99786 AU
				morning rise	-825 Feb 09 j 21:11	3°  07'03	
conjunction	-831 Aug 20 j 09:46	18°  01'26	1°07'55		-825 Apr 04 j 16:41	15° 	
minimum elong	-831 Aug 20 j 09:44	18°  01'25	1°07'56	retrograde	-825 Jun 21 j 22:50	23°  31'59	
morning rise	-831 Sep 02 j 07:46	21°  04'49		min. Earth dist.	-825 Aug 20 j 07:01	18°  36'28	3.98072 AU
	-831 Oct 16 j 04:50	0° 		opposition	-825 Aug 21 j 02:12	18°  30'02	-1°40'47
retrograde	-831 Dec 31 j 10:39	7°  05'22			-825 Sep 19 j 08:42	15°  R 	
opposition	-830 Mar 01 j 22:03	3°  03'36	1°46'22	direct	-825 Oct 18 j 07:14	13°  36'19	
min. Earth dist.	-830 Mar 02 j 22:38	2°  05'42	4.42573 AU		-825 Nov 16 j 01:59	15° 	
	-830 Mar 27 j 13:35	30°  R 			-824 Feb 07 j 02:16	0° 	
direct	-830 May 03 j 13:38	28°  01'16		evening set	-824 Feb 20 j 08:31	3°  R 	07'48
	-830 Jun 09 j 18:10	0° 					
evening set	-830 Sep 07 j 09:24	15°  04'31		conjunction	-824 Mar 04 j 16:55	6°  R 	19'27 -1°12'41
max. Earth dist.	-830 Sep 18 j 08:12	18°  07'04	6.40767 AU	minimum elong	-824 Mar 04 j 16:54	6°  R 	19'27 1°12'41
				max. Earth dist.	-824 Mar 06 j 09:46	6°  R 	43'55 5.98254 AU
conjunction	-830 Sep 20 j 03:37	18°  03'55	1°13'40	morning rise	-824 Mar 18 j 04:23	9°  R 	32'42
minimum elong	-830 Sep 20 j 03:37	18°  03'56	1°13'40	retrograde	-824 Jul 28 j 06:18	29°  R 	58'38
morning rise	-830 Oct 02 j 19:21	21°  07'29		opposition	-824 Sep 25 j 23:29	24°  R 	53'54 -1°46'38
	-830 Nov 14 j 01:20	0° 		min. Earth dist.	-824 Sep 24 j 16:40	25°  R 	04'23 4.00652 AU
retrograde	-829 Jan 31 j 16:56	8°  02'13		direct	-824 Nov 22 j 21:48	19°  R 	57'57
opposition	-829 Apr 02 j 11:21	3°  02'59	1°40'25		-823 Feb 14 j 16:10	0° 	
min. Earth dist.	-829 Apr 03 j 21:04	3°  01'14	4.37609 AU	evening set	-823 Mar 28 j 16:16	9°  R 	20'34
	-829 May 02 j 23:44	30°  R 					
direct	-829 Jun 04 j 02:48	28°  02'33		conjunction	-823 Apr 11 j 07:40	12°  R 	32'31 -1°02'51
	-829 Jul 06 j 04:55	0° 		minimum elong	-823 Apr 11 j 07:43	12°  R 	32'32 1°02'51
evening set	-829 Oct 08 j 05:28	16°  02'23		max. Earth dist.	-823 Apr 13 j 10:40	13°  R 	02'26 6.04592 AU
max. Earth dist.	-829 Oct 18 j 21:37	18°  02'46	6.32906 AU	morning rise	-823 Apr 25 j 01:33	15°  R 	45'28
					-823 Jul 02 j 22:14	0° 	
conjunction	-829 Oct 20 j 20:20	19°  02'48	0°58'54	retrograde	-823 Sep 01 j 17:49	5°  R 	28'35
minimum elong	-829 Oct 20 j 20:23	19°  02'49	0°58'54	min. Earth dist.	-823 Oct 29 j 23:41	0°  R 	34'23 4.10023 AU
morning rise	-829 Nov 02 j 09:34	22°  01'36		opposition	-823 Oct 31 j 07:08	0°  R 	23'39 -1°12'08
	-829 Dec 09 j 20:27	0° 			-823 Nov 03 j 04:30	30°  R 	
retrograde	-828 Mar 04 j 10:36	9°  04'37		direct	-823 Dec 28 j 20:20	25°  R 	24'33
opposition	-828 May 04 j 10:36	4°  05'12	1°05'24		-822 Feb 21 j 18:06	0° 	
min. Earth dist.	-828 May 05 j 18:12	4°  04'18	4.27284 AU	evening set	-822 May 04 j 08:39	14°  R 	20'28
	-828 Jun 27 j 00:27	30°  R 			-822 May 07 j 06:21	15°  R 	
direct	-828 Jul 05 j 07:28	29°  05'33					
	-828 Jul 13 j 15:09	0° 		conjunction	-822 May 18 j 03:21	17°  R 	28'40 -0°30'19
	-828 Oct 24 j 14:40	15° 		minimum elong	-822 May 18 j 03:23	17°  R 	28'41 0°30'19
evening set	-828 Nov 07 j 17:58	18°  01'11		max. Earth dist.	-822 May 19 j 22:25	17°  R 	53'13 6.16210 AU
max. Earth dist.	-828 Nov 18 j 19:26	20°  01'44	6.20992 AU	morning rise	-822 May 31 j 22:19	20°  R 	36'47
					-822 Jul 14 j 22:06	0° 	
conjunction	-828 Nov 20 j 09:03	21°  05'46	0°26'13	retrograde	-822 Oct 05 j 04:05	9°  R 	16'09
minimum elong	-828 Nov 20 j 09:05	21°  05'47	0°26'12	opposition	-822 Dec 03 j 16:37	4°  R 	13'41 -0°14'29
morning rise	-828 Dec 03 j 00:11	24°  00'22		min. Earth dist.	-822 Dec 02 j 20:08	4°  R 	20'36 4.22616 AU
	-828 Dec 29 j 21:04	0° 			-821 Jan 10 j 05:58	30°  R 	
retrograde	-827 Apr 08 j 08:56	12°  R 		direct	-821 Feb 01 j 11:14	29°  R 	11'58
opposition	-827 Jun 08 j 05:54	7°  R 	0°07'51		-821 Feb 23 j 21:19	0° 	
min. Earth dist.	-827 Jun 09 j 02:41	7°  R 	4.14505 AU	asc. node	-821 Mar 07 j 05:36	0°  R 	58'05
desc. node	-827 Jul 27 j 00:01	3°  R 		evening set	-821 Jun 08 j 12:38	17°  R 	35'54
direct	-827 Aug 07 j 21:47	2°  R 					
evening set	-827 Dec 10 j 18:05	21°  R 		conjunction	-821 Jun 22 j 04:32	20°  R 	37'32 0°11'10
				minimum elong	-821 Jun 22 j 04:31	20°  R 	37'32 0°11'11
conjunction	-827 Dec 23 j 12:49	24°  R 	-0°16'19	behind sun begin	-821 Jun 21 j 22:28	20°  R 	34'11
minimum elong	-827 Dec 23 j 12:47	24°  R 	0°16'20	behind sun end	-821 Jun 22 j 10:34	20°  R 	40'52
max. Earth dist.	-827 Dec 22 j 20:36	24°  R 	6.08515 AU	max. Earth dist.	-821 Jun 23 j 00:55	20°  R 	48'51 6.28823 AU
morning rise	-826 Jan 05 j 09:08	27°  R 		morning rise	-821 Jul 05 j 18:51	23°  R 	38'09























































































































Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -821 in astronomical counting style is the year 822 BCE in historical counting style.

	-821 Aug 04 j 15:34	0°♄		max. Earth dist.	-815 Dec 27 j 13:49	29°♄18'20	6.07431 AU
retrograde	-821 Nov 05 j 16:53	11°♄18'58			-815 Dec 30 j 12:02	0°♄	
opposition	-820 Jan 04 j 11:32	6°♄20'18	0°44'29	morning rise	-814 Jan 10 j 00:28	2°♄29'23	
min. Earth dist.	-820 Jan 04 j 06:22	6°♄22'01	4.34194 AU	retrograde	-814 May 20 j 03:27	22°♄17'03	
direct	-820 Mar 05 j 13:09	1°♄17'10		opposition	-814 Jul 19 j 16:47	17°♄18'32	-1°03'25
evening set	-820 Jul 10 j 21:52	19°♄15'03		min. Earth dist.	-814 Jul 19 j 15:29	17°♄18'58	4.02520 AU
				direct	-814 Sep 16 j 19:16	12°♄25'06	
conjunction	-820 Jul 24 j 06:28	22°♄09'38	0°47'43		-813 Jan 12 j 03:16	0°♄	
minimum elong	-820 Jul 24 j 06:25	22°♄09'36	0°47'43	evening set	-813 Jan 19 j 12:16	1°♄45'13	
max. Earth dist.	-820 Jul 24 j 00:21	22°♄06'17	6.38505 AU				
morning rise	-820 Aug 06 j 12:10	25°♄02'42		conjunction	-813 Feb 01 j 13:56	4°♄53'27	-0°58'22
	-820 Aug 29 j 21:41	0°♄		minimum elong	-813 Feb 01 j 13:53	4°♄53'25	0°58'22
retrograde	-820 Dec 05 j 07:27	12°♄05'46		max. Earth dist.	-813 Feb 02 j 06:55	5°♄03'40	5.99186 AU
opposition	-819 Feb 03 j 09:54	7°♄10'50	1°28'18	morning rise	-813 Feb 14 j 18:26	8°♄03'20	
min. Earth dist.	-819 Feb 03 j 22:05	7°♄06'52	4.41424 AU		-813 Mar 16 j 18:58	15°♄	
direct	-819 Apr 06 j 13:31	2°♄07'42		retrograde	-813 Jun 27 j 00:22	28°♄31'08	
	-819 Jul 19 j 18:42	15°♄		min. Earth dist.	-813 Aug 25 j 05:00	23°♄35'38	3.97853 AU
evening set	-819 Aug 11 j 18:30	19°♄50'49		opposition	-813 Aug 26 j 01:29	23°♄28'46	-1°44'04
				direct	-813 Oct 23 j 03:56	18°♄34'50	
conjunction	-819 Aug 24 j 18:32	22°♄40'13	1°09'56		-812 Jan 20 j 21:12	0°♄	
minimum elong	-819 Aug 24 j 18:31	22°♄40'12	1°09'56	evening set	-812 Feb 25 j 08:00	8°♄07'11	
max. Earth dist.	-819 Aug 23 j 12:46	22°♄24'00	6.42666 AU				
morning rise	-819 Sep 06 j 15:37	25°♄28'08		conjunction	-812 Mar 09 j 17:19	11°♄19'12	-1°13'00
	-819 Sep 28 j 00:46	0°♄		minimum elong	-812 Mar 09 j 17:19	11°♄19'12	1°12'59
retrograde	-818 Jan 04 j 19:33	12°♄19'43		max. Earth dist.	-812 Mar 11 j 10:27	11°♄43'49	5.98412 AU
opposition	-818 Mar 06 j 07:25	7°♄27'13	1°47'18	morning rise	-812 Mar 23 j 06:02	14°♄32'53	
min. Earth dist.	-818 Mar 07 j 09:28	7°♄18'51	4.42417 AU		-812 Jun 05 j 14:58	0°♄	
direct	-818 May 08 j 00:02	2°♄25'08		retrograde	-812 Aug 02 j 03:05	4°♄56'43	
evening set	-818 Sep 11 j 17:10	20°♄07'12			-812 Sep 29 j 19:53	30°♄	
max. Earth dist.	-818 Sep 22 j 16:10	22°♄31'22	6.40312 AU	opposition	-812 Sep 30 j 20:00	29°♄51'47	-1°44'06
				min. Earth dist.	-812 Sep 29 j 12:05	0°♄02'39	4.01184 AU
conjunction	-818 Sep 24 j 10:47	22°♄54'49	1°12'49	direct	-812 Nov 27 j 18:32	24°♄55'24	
minimum elong	-818 Sep 24 j 10:48	22°♄54'50	1°12'48		-811 Jan 23 j 21:24	0°♄	
morning rise	-818 Oct 07 j 01:43	25°♄41'18		evening set	-811 Apr 02 j 16:46	14°♄16'58	
	-818 Oct 27 j 03:42	0°♄					
retrograde	-817 Feb 05 j 02:49	12°♄48'04		conjunction	-811 Apr 16 j 09:08	17°♄28'54	-0°59'30
opposition	-817 Apr 06 j 23:24	7°♄56'26	1°37'10	minimum elong	-811 Apr 16 j 09:11	17°♄28'56	0°59'29
min. Earth dist.	-817 Apr 08 j 08:26	7°♄45'55	4.36885 AU	max. Earth dist.	-811 Apr 18 j 12:22	17°♄58'54	6.05473 AU
direct	-817 Jun 08 j 12:46	2°♄56'24		morning rise	-811 Apr 30 j 03:27	20°♄41'41	
evening set	-817 Oct 12 j 13:15	20°♄51'18			-811 Jun 11 j 09:57	0°♄	
max. Earth dist.	-817 Oct 23 j 05:19	23°♄14'49	6.31972 AU	retrograde	-811 Sep 06 j 12:02	10°♄18'45	
				opposition	-811 Nov 04 j 23:18	5°♄14'01	-1°05'08
conjunction	-817 Oct 25 j 03:42	23°♄40'55	0°55'19	min. Earth dist.	-811 Nov 03 j 17:31	5°♄24'11	4.11144 AU
minimum elong	-817 Oct 25 j 03:44	23°♄40'56	0°55'18	direct	-810 Jan 02 j 16:08	0°♄14'31	
morning rise	-817 Nov 06 j 16:58	26°♄30'06			-810 Apr 20 j 17:46	15°♄	
	-817 Nov 22 j 13:19	0°♄		evening set	-810 May 09 j 07:08	19°♄07'56	
retrograde	-816 Mar 09 j 03:17	14°♄17'04					
opposition	-816 May 09 j 02:50	9°♄24'35	0°58'32	conjunction	-810 May 23 j 01:54	22°♄15'37	-0°24'49
min. Earth dist.	-816 May 10 j 10:12	9°♄14'35	4.26168 AU	minimum elong	-810 May 23 j 01:55	22°♄15'39	0°24'49
direct	-816 Jul 09 j 21:49	4°♄27'09		max. Earth dist.	-810 May 24 j 19:10	22°♄39'05	6.17495 AU
	-816 Oct 07 j 14:19	15°♄		morning rise	-810 Jun 05 j 20:43	25°♄23'05	
evening set	-816 Nov 12 j 03:34	22°♄46'51			-810 Jun 26 j 17:59	0°♄	
max. Earth dist.	-816 Nov 23 j 07:36	25°♄21'20	6.19798 AU	retrograde	-810 Oct 09 j 14:34	13°♄55'11	
				min. Earth dist.	-810 Dec 07 j 08:21	8°♄59'49	4.23953 AU
conjunction	-816 Nov 24 j 18:59	25°♄41'48	0°20'45	opposition	-810 Dec 08 j 04:08	8°♄53'08	-0°05'58
minimum elong	-816 Nov 24 j 19:00	25°♄41'48	0°20'44	asc. node	-809 Jan 15 j 16:46	4°♄35'39	
morning rise	-816 Dec 07 j 10:30	28°♄37'04		direct	-809 Feb 06 j 01:33	3°♄51'08	
	-816 Dec 13 j 11:19	0°♄		evening set	-809 Jun 13 j 06:39	22°♄12'13	
retrograde	-815 Apr 13 j 03:53	17°♄22'46					
desc. node	-815 Jun 07 j 16:32	13°♄09'28		conjunction	-809 Jun 26 j 21:47	25°♄12'58	0°16'47
opposition	-815 Jun 13 j 02:08	12°♄27'52	-0°00'52	minimum elong	-809 Jun 26 j 21:45	25°♄12'58	0°16'48
min. Earth dist.	-815 Jun 13 j 20:16	12°♄22'02	4.13317 AU	max. Earth dist.	-809 Jun 27 j 14:50	25°♄22'25	6.30120 AU
direct	-815 Aug 12 j 13:10	7°♄33'01		morning rise	-809 Jul 10 j 11:08	28°♄12'38	
evening set	-815 Dec 15 j 08:09	26°♄24'33			-809 Jul 18 j 15:52	0°♄	
				retrograde	-809 Nov 10 j 01:36	15°♄47'30	
conjunction	-815 Dec 28 j 03:21	29°♄26'22	-0°22'02	opposition	-808 Jan 08 j 20:11	10°♄49'20	0°51'47
minimum elong	-815 Dec 28 j 03:20	29°♄26'21	0°22'04	min. Earth dist.	-808 Jan 08 j 17:37	10°♄50'11	4.35342 AU

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Attention, astronomical year style is used: The year -808 in astronomical counting style is the year 809 BCE in historical counting style.

direct	-808 Mar 10 j 02:22	5°  46'07		conjunction	-802 Jan 01 j 22:09	4°  22'29	-0°27'50
evening set	-808 Jul 15 j 10:40	23°  41'25		minimum elong	-802 Jan 01 j 22:07	4°  22'28	0°27'50
				max. Earth dist.	-802 Jan 01 j 13:05	4°  17'06	6.05818 AU
conjunction	-808 Jul 28 j 18:06	26°  35'09	0°51'49	morning rise	-802 Jan 14 j 20:08	7°  26'37	
minimum elong	-808 Jul 28 j 18:03	26°  35'08	0°51'50	retrograde	-802 May 25 j 10:07	27°  22'23	
max. Earth dist.	-808 Jul 28 j 08:53	26°  30'08	6.39389 AU	opposition	-802 Jul 24 j 20:42	22°  23'25	-1°10'57
morning rise	-808 Aug 10 j 22:34	29°  27'21		min. Earth dist.	-802 Jul 24 j 16:54	22°  24'40	4.01272 AU
	-808 Aug 13 j 10:58	0°  0		direct	-802 Sep 21 j 18:29	17°  30'06	
	-808 Nov 08 j 23:25	15°  0			-802 Dec 25 j 19:08	0°  0	
retrograde	-808 Dec 09 j 12:48	16°  02'08		evening set	-801 Jan 24 j 13:14	6°  53'56	
	-807 Jan 09 j 01:42	15°  0					
opposition	-807 Feb 07 j 17:05	11°  03'21	1°32'34	conjunction	-801 Feb 06 j 15:47	10°  02'58	-1°01'58
min. Earth dist.	-807 Feb 08 j 06:42	11°  02'05	4.41994 AU	minimum elong	-801 Feb 06 j 15:44	10°  02'56	1°01'59
direct	-807 Apr 10 j 22:44	6°  02'24		max. Earth dist.	-801 Feb 07 j 11:24	10°  14'47	5.98400 AU
	-807 Jul 01 j 18:03	15°  0		morning rise	-801 Feb 19 j 21:36	13°  13'45	
evening set	-807 Aug 16 j 03:09	24°  01'14			-801 Feb 27 j 08:25	15°  0	
max. Earth dist.	-807 Aug 27 j 19:07	26°  04'12	6.42845 AU		-801 May 13 j 12:17	0°  0	
				retrograde	-801 Jul 02 j 05:30	3°  44'51	
conjunction	-807 Aug 29 j 02:09	27°  00'06	1°11'32		-801 Aug 21 j 11:51	30°  0	
minimum elong	-807 Aug 29 j 02:08	27°  00'06	1°11'32	min. Earth dist.	-801 Aug 30 j 06:40	28°  49'55	3.97651 AU
morning rise	-807 Sep 10 j 22:03	29°  04'30		opposition	-801 Aug 31 j 06:06	28°  42'02	-1°46'43
	-807 Sep 11 j 21:10	0°  0		direct	-801 Oct 28 j 05:48	23°  47'55	
retrograde	-806 Jan 09 j 02:17	16°  03'04			-801 Dec 30 j 14:39	0°  0	
opposition	-806 Mar 10 j 15:33	11°  04'46	1°47'38	evening set	-800 Mar 01 j 13:21	13°  42'05	
min. Earth dist.	-806 Mar 11 j 19:06	11°  03'57	4.42175 AU				
direct	-806 May 12 j 09:02	6°  04'45		conjunction	-800 Mar 14 j 23:56	16°  43'20	-1°12'46
evening set	-806 Sep 15 j 23:43	24°  02'27		minimum elong	-800 Mar 14 j 23:57	16°  43'20	1°12'45
max. Earth dist.	-806 Sep 26 j 19:22	26°  05'08	6.39626 AU	max. Earth dist.	-800 Mar 16 j 20:59	17°  00'14	5.98833 AU
				morning rise	-800 Mar 28 j 13:30	19°  47'13	
conjunction	-806 Sep 28 j 16:33	27°  01'53	1°11'33		-800 May 13 j 07:10	0°  0	
minimum elong	-806 Sep 28 j 16:34	27°  01'53	1°11'34	retrograde	-800 Aug 07 j 06:25	10°  07'14	
morning rise	-806 Oct 11 j 07:09	0°  01'38		opposition	-800 Oct 05 j 20:59	5°  02'11	-1°40'40
	-806 Oct 11 j 04:10	0°  0		min. Earth dist.	-800 Oct 04 j 13:05	5°  13'04	4.02199 AU
retrograde	-805 Feb 09 j 14:20	17°  01'25		direct	-800 Dec 02 j 21:46	0°  05'26	
opposition	-805 Apr 11 j 11:09	12°  02'24	1°33'23	evening set	-799 Apr 07 j 21:40	19°  02'51	
min. Earth dist.	-805 Apr 12 j 20:58	12°  09'38	4.35778 AU				
direct	-805 Jun 12 j 23:05	7°  02'40		conjunction	-799 Apr 21 j 14:40	22°  03'25	-0°55'37
evening set	-805 Oct 16 j 20:27	25°  01'18		minimum elong	-799 Apr 21 j 14:43	22°  03'26	0°55'36
max. Earth dist.	-805 Oct 27 j 14:03	27°  04'25	6.30531 AU	max. Earth dist.	-799 Apr 23 j 18:39	23°  05'42	6.07009 AU
				morning rise	-799 May 05 j 09:29	25°  04'40	
conjunction	-805 Oct 29 j 10:58	28°  08'12	0°51'23		-799 May 23 j 21:32	0°  0	
minimum elong	-805 Oct 29 j 11:00	28°  08'14	0°51'22		-799 Aug 29 j 16:41	15°  0	
	-805 Nov 06 j 17:03	0°  0		retrograde	-799 Sep 11 j 05:27	15°  01'53	
morning rise	-805 Nov 11 j 00:10	0°  05'58			-799 Sep 23 j 16:35	15°  01'53	
	-804 Jan 22 j 08:06	15°  0		min. Earth dist.	-799 Nov 08 j 11:24	10°  02'22	4.13045 AU
retrograde	-804 Mar 13 j 19:34	18°  05'51		opposition	-799 Nov 09 j 17:34	10°  01'05	-0°57'33
	-804 May 05 j 19:55	15°  0		direct	-798 Jan 07 j 12:51	5°  01'13	
opposition	-804 May 13 j 19:54	13°  05'59	0°51'15		-798 Apr 02 j 07:39	15°  0	
min. Earth dist.	-804 May 15 j 01:57	13°  04'42	4.24474 AU	evening set	-798 May 14 j 06:46	23°  05'06	
direct	-804 Jul 14 j 10:40	9°  02'15					
	-804 Sep 17 j 10:14	15°  0		conjunction	-798 May 28 j 01:13	27°  05'45	-0°19'07
evening set	-804 Nov 16 j 15:07	27°  06'10		minimum elong	-798 May 28 j 01:14	27°  05'46	0°19'06
	-804 Nov 27 j 16:53	0°  0		max. Earth dist.	-798 May 29 j 15:17	27°  02'17	6.19611 AU
max. Earth dist.	-804 Nov 27 j 20:39	0°  02'11	6.17990 AU		-798 Jun 09 j 22:06	0°  0	
				morning rise	-798 Jun 10 j 19:34	0°  02'12	
conjunction	-804 Nov 29 j 06:45	0°  02'21	0°15'02	retrograde	-798 Oct 14 j 01:31	18°  02'34	
minimum elong	-804 Nov 29 j 06:46	0°  02'22	0°15'02	asc. node	-798 Nov 26 j 07:52	15°  02'40	
behind sun begin	-804 Nov 29 j 03:35	0°  02'20		opposition	-798 Dec 12 j 15:40	13°  02'32	0°02'31
behind sun end	-804 Nov 29 j 09:57	0°  02'23		min. Earth dist.	-798 Dec 11 j 22:38	13°  02'38	4.26068 AU
morning rise	-804 Dec 11 j 22:59	3°  02'18		direct	-797 Feb 10 j 19:02	8°  02'30	
retrograde	-803 Apr 18 j 04:22	22°  02'13		evening set	-797 Jun 17 j 22:51	26°  02'45	
desc. node	-803 Apr 18 j 02:28	22°  02'13					
opposition	-803 Jun 18 j 01:19	17°  02'17	-0°09'53	conjunction	-797 Jul 01 j 13:06	29°  02'45	0°22'13
min. Earth dist.	-803 Jun 18 j 17:33	17°  02'12	4.11520 AU	minimum elong	-797 Jul 01 j 13:05	29°  02'45	0°22'13
direct	-803 Aug 17 j 08:24	12° 02'23		max. Earth dist.	-797 Jul 02 j 03:31	29° 02'53	6.32066 AU
	-803 Dec 14 j 10:42	0° 0			-797 Jul 02 j 16:04	0° 0	
evening set	-803 Dec 20 j 02:01	1° 02'19		morning rise	-797 Jul 15 j 01:11	2° 02'43	

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Attention, astronomical year style is used: The year -797 in astronomical counting style is the year 798 BCE in historical counting style.

retrograde	-797 Nov 14 j 04:53	20°♏10'36		direct	-791 Aug 22 j 04:30	17°♏18'09	
opposition	-796 Jan 13 j 02:19	15°♏12'54	0°58'33		-791 Nov 27 j 08:47	0°♏	
min. Earth dist.	-796 Jan 13 j 01:21	15°♏13'14	4.36980 AU	evening set	-791 Dec 24 j 22:53	6°♏20'54	
direct	-796 Mar 14 j 11:50	10°♏09'35					
evening set	-796 Jul 19 j 20:09	28°♏00'53		conjunction	-790 Jan 06 j 19:43	9°♏24'57	-0°33'30
	-796 Jul 28 j 23:49	0°♏		minimum elong	-790 Jan 06 j 19:41	9°♏24'56	0°33'30
				max. Earth dist.	-790 Jan 06 j 13:44	9°♏21'23	6.03955 AU
conjunction	-796 Aug 02 j 02:15	0°♏53'35	0°55'30	morning rise	-790 Jan 19 j 18:55	12°♏30'24	
minimum elong	-796 Aug 02 j 02:12	0°♏53'34	0°55'31		-790 Apr 19 j 15:14	0°♏	
max. Earth dist.	-796 Aug 01 j 12:42	0°♏46'13	6.40581 AU	retrograde	-790 May 30 j 17:35	2°♏34'54	
morning rise	-796 Aug 15 j 05:27	3°♏44'47			-790 Jul 11 j 01:35	30°♏♏	
	-796 Oct 11 j 13:12	15°♏		opposition	-790 Jul 30 j 03:24	27°♏35'19	-1°18'02
retrograde	-796 Dec 13 j 16:13	20°♏40'48		min. Earth dist.	-790 Jul 29 j 19:26	27°♏37'57	3.99958 AU
opposition	-795 Feb 11 j 21:19	15°♏46'34	1°36'10	direct	-790 Sep 26 j 20:18	22°♏42'02	
min. Earth dist.	-795 Feb 12 j 14:17	15°♏41'04	4.42663 AU		-790 Dec 05 j 12:01	0°♏	
	-795 Feb 17 j 21:25	15°♏♏		evening set	-789 Jan 29 j 17:37	12°♏09'37	
direct	-795 Apr 15 j 06:56	10°♏43'30			-789 Feb 10 j 13:08	15°♏	
	-795 Jun 10 j 02:55	15°♏					
evening set	-795 Aug 20 j 07:51	28°♏23'47		conjunction	-789 Feb 11 j 21:25	15°♏19'27	-1°05'07
	-795 Aug 27 j 17:16	0°♏		minimum elong	-789 Feb 11 j 21:23	15°♏19'26	1°05'08
max. Earth dist.	-795 Aug 31 j 19:08	0°♏53'17	6.42908 AU	max. Earth dist.	-789 Feb 12 j 23:14	15°♏35'00	5.97758 AU
				morning rise	-789 Feb 25 j 04:15	18°♏30'59	
conjunction	-795 Sep 02 j 05:52	1°♏12'12	1°12'42		-789 Apr 17 j 19:08	0°♏	
minimum elong	-795 Sep 02 j 05:51	1°♏12'12	1°12'42	retrograde	-789 Jul 07 j 14:53	9°♏03'58	
morning rise	-795 Sep 15 j 00:52	3°♏59'13		min. Earth dist.	-789 Sep 04 j 11:57	4°♏09'06	3.97763 AU
retrograde	-794 Jan 13 j 06:03	20°♏51'36		opposition	-789 Sep 05 j 12:59	4°♏00'39	-1°48'29
opposition	-794 Mar 14 j 21:05	15°♏59'25	1°47'24		-789 Oct 10 j 13:52	30°♏♏	
min. Earth dist.	-794 Mar 16 j 02:06	15°♏50'07	4.41640 AU	direct	-789 Nov 02 j 12:28	29°♏06'15	
direct	-794 May 16 j 14:19	10°♏57'42			-789 Nov 25 j 09:52	0°♏	
evening set	-794 Sep 20 j 03:20	28°♏41'42		evening set	-788 Mar 06 j 20:58	18°♏38'24	
	-794 Sep 26 j 01:46	0°♏					
max. Earth dist.	-794 Sep 30 j 22:11	1°♏04'18	6.38524 AU	conjunction	-788 Mar 20 j 08:33	21°♏50'52	-1°11'55
				minimum elong	-788 Mar 20 j 08:34	21°♏50'52	1°11'55
conjunction	-794 Oct 02 j 19:44	1°♏29'30	1°09'56	max. Earth dist.	-788 Mar 22 j 08:27	22°♏19'22	5.99645 AU
minimum elong	-794 Oct 02 j 19:45	1°♏29'31	1°09'56	morning rise	-788 Apr 02 j 23:11	25°♏04'47	
morning rise	-794 Oct 15 j 09:47	4°♏16'21			-788 Apr 24 j 05:10	0°♏	
retrograde	-793 Feb 13 j 23:51	21°♏32'03		retrograde	-788 Aug 12 j 07:51	15°♏18'44	
opposition	-793 Apr 15 j 21:16	16°♏40'21	1°29'11	opposition	-788 Oct 10 j 22:27	10°♏13'34	-1°36'23
min. Earth dist.	-793 Apr 17 j 07:56	16°♏29'19	4.34162 AU	min. Earth dist.	-788 Oct 09 j 13:02	10°♏24'58	4.03606 AU
direct	-793 Jun 17 j 07:29	11°♏40'55		direct	-788 Dec 08 j 00:06	5°♏16'22	
evening set	-793 Oct 21 j 02:50	29°♏42'31		evening set	-787 Apr 13 j 02:58	24°♏30'15	
	-793 Oct 22 j 09:54	0°♏					
max. Earth dist.	-793 Oct 31 j 19:07	2°♏07'21	6.28523 AU	conjunction	-787 Apr 26 j 20:22	27°♏41'10	-0°51'17
				minimum elong	-787 Apr 26 j 20:25	27°♏41'12	0°51'17
conjunction	-793 Nov 02 j 17:14	2°♏33'30	0°47'13	max. Earth dist.	-787 Apr 28 j 22:40	28°♏10'21	6.08848 AU
minimum elong	-793 Nov 02 j 17:17	2°♏33'31	0°47'13		-787 May 06 j 20:02	0°♏	
morning rise	-793 Nov 15 j 06:52	5°♏24'16		morning rise	-787 May 10 j 15:28	0°♏52'40	
	-793 Dec 30 j 15:16	15°♏			-787 Jul 18 j 21:58	15°♏	
retrograde	-792 Mar 18 j 13:38	23°♏27'23		retrograde	-787 Sep 15 j 23:04	20°♏10'37	
opposition	-792 May 18 j 13:21	18°♏34'22	0°43'41	min. Earth dist.	-787 Nov 13 j 07:20	15°♏15'58	4.15087 AU
min. Earth dist.	-792 May 19 j 18:14	18°♏25'08	4.22192 AU	opposition	-787 Nov 14 j 11:29	15°♏06'22	-0°49'33
	-792 Jun 18 j 21:21	15°♏♏			-787 Nov 15 j 06:10	15°♏♏	
direct	-792 Jul 18 j 23:51	13°♏37'39		direct	-786 Jan 12 j 11:54	10°♏06'05	
	-792 Aug 17 j 22:04	15°♏			-786 Mar 10 j 21:18	15°♏	
	-792 Nov 11 j 20:50	0°♏		evening set	-786 May 19 j 06:00	28°♏48'21	
evening set	-792 Nov 21 j 03:25	2°♏07'48			-786 May 24 j 13:46	0°♏	
conjunction	-792 Dec 03 j 19:45	5°♏04'51	0°09'14	conjunction	-786 Jun 02 j 00:16	1°♏53'59	-0°13'16
minimum elong	-792 Dec 03 j 19:46	5°♏04'52	0°09'13	minimum elong	-786 Jun 02 j 00:17	1°♏54'00	0°13'15
behind sun begin	-792 Dec 03 j 12:59	5°♏00'55		behind sun begin	-786 Jun 01 j 19:38	1°♏51'23	
behind sun end	-792 Dec 04 j 02:34	5°♏08'49		behind sun end	-786 Jun 02 j 04:57	1°♏56'36	
max. Earth dist.	-792 Dec 02 j 13:22	4°♏47'07	6.15650 AU	max. Earth dist.	-786 Jun 03 j 12:37	2°♏14'27	6.21696 AU
morning rise	-792 Dec 16 j 12:36	8°♏02'29		morning rise	-786 Jun 15 j 17:52	4°♏59'05	
desc. node	-791 Feb 26 j 17:24	22°♏37'56		asc. node	-786 Oct 06 j 02:27	22°♏56'35	
retrograde	-791 Apr 23 j 07:49	27°♏08'09		retrograde	-786 Oct 18 j 11:04	23°♏11'37	
opposition	-791 Jun 23 j 02:48	22°♏12'26	-0°18'55	min. Earth dist.	-786 Dec 16 j 11:15	18°♏15'48	4.28015 AU
min. Earth dist.	-791 Jun 23 j 16:38	22°♏07'57	4.09321 AU	opposition	-786 Dec 17 j 02:45	18°♏10'36	0°11'01

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11

Attention, astronomical year style is used: The year -785 in astronomical counting style is the year 786 BCE in historical counting style.

direct	-785 Feb 15 j 09:43	13° Π 08'09		desc. node	-779 Jan 06 j 06:31	16° X 36'04	
	-785 Jun 16 j 14:07	0° E			-779 Mar 21 j 19:04	0° Z	
evening set	-785 Jun 22 j 15:18	1° E 18'55		retrograde	-779 Apr 28 j 11:46	2° Z 09'38	
					-779 Jun 05 j 11:00	30° R X	
conjunction	-785 Jul 06 j 04:24	4° E 17'21	0°27'34	opposition	-779 Jun 28 j 06:06	27° X 13'24	-0°28'02
minimum elong	-785 Jul 06 j 04:22	4° E 17'20	0°27'35	min. Earth dist.	-779 Jun 28 j 15:58	27° X 10'11	4.07725 AU
max. Earth dist.	-785 Jul 06 j 13:16	4° E 22'13	6.33721 AU	direct	-779 Aug 27 j 02:11	22° X 19'22	
morning rise	-785 Jul 19 j 15:26	7° E 14'32			-779 Nov 07 j 17:17	0° Z	
retrograde	-785 Nov 18 j 11:58	24° E 35'27		evening set	-779 Dec 29 j 21:02	11° Z 26'10	
opposition	-784 Jan 17 j 09:44	19° E 38'19	1°05'08				
min. Earth dist.	-784 Jan 17 j 12:23	19° E 37'27	4.38243 AU	conjunction	-778 Jan 11 j 18:50	14° Z 31'07	-0°38'58
direct	-784 Mar 19 j 00:29	14° E 34'58		minimum elong	-778 Jan 11 j 18:48	14° Z 31'06	0°38'59
	-784 Jul 13 j 01:57	0° Ω		max. Earth dist.	-778 Jan 11 j 18:56	14° Z 31'11	6.02799 AU
evening set	-784 Jul 24 j 06:39	2° Ω 23'40		morning rise	-778 Jan 24 j 18:53	17° Z 37'29	
					-778 Mar 22 j 12:31	0° \approx	
conjunction	-784 Aug 06 j 11:42	5° Ω 15'37	0°58'59	retrograde	-778 Jun 05 j 02:02	7° \approx 47'39	
minimum elong	-784 Aug 06 j 11:39	5° Ω 15'35	0°58'59	opposition	-778 Aug 04 j 09:42	2° \approx 47'29	-1°24'30
max. Earth dist.	-784 Aug 05 j 19:24	5° Ω 06'45	6.41350 AU	min. Earth dist.	-778 Aug 03 j 23:28	2° \approx 50'52	3.99384 AU
morning rise	-784 Aug 19 j 13:32	8° Ω 05'59			-778 Aug 26 j 20:40	30° R Z	
	-784 Sep 21 j 18:49	15° Ω		direct	-778 Oct 01 j 23:57	27° Z 54'10	
retrograde	-784 Dec 17 j 20:05	24° Ω 59'53			-778 Nov 06 j 16:23	0° \approx	
opposition	-783 Feb 16 j 03:49	20° Ω 06'03	1°39'24		-777 Jan 24 j 20:35	15° \approx	
min. Earth dist.	-783 Feb 16 j 22:10	20° Ω 00'06	4.42927 AU	evening set	-777 Feb 03 j 20:52	17° \approx 22'41	
direct	-783 Apr 19 j 14:27	15° Ω 03'09					
	-783 Aug 11 j 21:56	0° Π		conjunction	-777 Feb 17 j 01:36	20° \approx 32'56	-1°07'44
evening set	-783 Aug 24 j 15:18	2° Π 43'17		minimum elong	-777 Feb 17 j 01:34	20° \approx 32'54	1°07'44
max. Earth dist.	-783 Sep 04 j 23:04	5° Π 11'07	6.42638 AU	max. Earth dist.	-777 Feb 18 j 07:04	20° \approx 50'39	5.97794 AU
				morning rise	-777 Mar 02 j 09:38	23° \approx 44'55	
conjunction	-783 Sep 06 j 12:16	5° Π 31'25	1°13'32		-777 Mar 29 j 07:20	0° X	
minimum elong	-783 Sep 06 j 12:15	5° Π 31'25	1°13'32	retrograde	-777 Jul 12 j 18:59	14° X 16'45	
morning rise	-783 Sep 19 j 06:23	8° Π 18'11		opposition	-777 Sep 10 j 16:36	9° X 13'00	-1°49'18
retrograde	-782 Jan 17 j 14:44	25° Π 12'32		min. Earth dist.	-777 Sep 09 j 12:52	9° X 22'22	3.98436 AU
opposition	-782 Mar 19 j 06:06	20° Π 20'35	1°46'36	direct	-777 Nov 07 j 14:42	4° X 18'16	
min. Earth dist.	-782 Mar 20 j 13:21	20° Π 10'36	4.40858 AU	evening set	-776 Mar 12 j 01:24	23° X 47'43	
direct	-782 May 21 j 00:25	15° Π 19'10					
	-782 Sep 10 j 04:42	0° $\underline{\Omega}$		conjunction	-776 Mar 25 j 13:51	27° X 00'01	-1°10'32
evening set	-782 Sep 24 j 10:19	3° $\underline{\Omega}$ 05'19		minimum elong	-776 Mar 25 j 13:53	27° X 00'02	1°10'31
max. Earth dist.	-782 Oct 05 j 02:43	5° $\underline{\Omega}$ 27'04	6.37279 AU	max. Earth dist.	-776 Mar 27 j 14:31	27° X 28'54	6.00862 AU
					-776 Apr 07 j 06:00	0° Υ	
conjunction	-782 Oct 07 j 02:15	5° $\underline{\Omega}$ 53'26	1°07'53	morning rise	-776 Apr 08 j 05:17	0° Υ 13'41	
minimum elong	-782 Oct 07 j 02:17	5° $\underline{\Omega}$ 53'27	1°07'53	retrograde	-776 Aug 17 j 05:01	20° Υ 20'17	
morning rise	-782 Oct 19 j 16:07	8° $\underline{\Omega}$ 40'42		min. Earth dist.	-776 Oct 14 j 10:53	15° Υ 26'09	4.05211 AU
retrograde	-781 Feb 18 j 13:13	26° $\underline{\Omega}$ 02'16		opposition	-776 Oct 15 j 19:31	15° Υ 15'00	-1°31'30
opposition	-781 Apr 20 j 11:34	21° $\underline{\Omega}$ 10'28	1°24'18	direct	-776 Dec 13 j 00:21	10° Υ 17'18	
min. Earth dist.	-781 Apr 21 j 21:33	20° $\underline{\Omega}$ 59'39	4.32536 AU	evening set	-775 Apr 18 j 03:57	29° Υ 26'15	
direct	-781 Jun 21 j 18:38	16° $\underline{\Omega}$ 11'25			-775 Apr 20 j 14:38	0° B	
	-781 Oct 06 j 03:44	0° Π					
evening set	-781 Oct 25 j 12:33	4° Π 17'08		conjunction	-775 May 01 j 21:56	2° B 36'34	-0°46'44
max. Earth dist.	-781 Nov 05 j 07:40	6° Π 44'09	6.26665 AU	minimum elong	-775 May 01 j 21:59	2° B 36'35	0°46'44
				max. Earth dist.	-775 May 04 j 00:09	3° B 05'34	6.10709 AU
conjunction	-781 Nov 07 j 03:10	7° Π 08'55	0°42'37	morning rise	-775 May 15 j 17:03	5° B 47'14	
minimum elong	-781 Nov 07 j 03:12	7° Π 08'56	0°42'37		-775 Jun 27 j 04:02	15° B	
morning rise	-781 Nov 19 j 16:55	10° Π 00'33		retrograde	-775 Sep 20 j 12:40	24° B 55'25	
	-781 Dec 12 j 05:22	15° Π		min. Earth dist.	-775 Nov 17 j 22:29	20° B 00'39	4.17001 AU
retrograde	-780 Mar 23 j 11:37	28° Π 12'22		opposition	-775 Nov 19 j 01:17	19° B 51'33	-0°41'31
opposition	-780 May 23 j 10:35	23° Π 19'09	0°35'32		-774 Jan 07 j 16:42	15° R B	
min. Earth dist.	-780 May 24 j 14:16	23° Π 10'18	4.20234 AU	direct	-774 Jan 17 j 05:14	14° B 50'55	
direct	-780 Jul 23 j 17:16	18° Π 22'53			-774 Jan 26 j 19:40	15° B	
	-780 Oct 25 j 15:45	0° X			-774 May 08 j 07:11	0° Π	
evening set	-780 Nov 25 j 18:57	6° X 58'00		evening set	-774 May 24 j 01:20	3° Π 28'12	
max. Earth dist.	-780 Dec 07 j 07:16	9° X 39'25	6.13781 AU				
				conjunction	-774 Jun 06 j 19:03	6° Π 32'51	-0°07'32
conjunction	-780 Dec 08 j 11:40	9° X 56'03	0°03'12	minimum elong	-774 Jun 06 j 19:04	6° Π 32'52	0°07'32
minimum elong	-780 Dec 08 j 11:40	9° X 56'03	0°03'11	behind sun begin	-774 Jun 06 j 11:31	6° Π 28'39	
behind sun begin	-780 Dec 08 j 03:42	9° X 51'24		behind sun end	-774 Jun 07 j 02:37	6° Π 37'04	
behind sun end	-780 Dec 08 j 19:38	10° X 00'42		max. Earth dist.	-774 Jun 08 j 02:15	6° Π 50'21	6.23506 AU
morning rise	-780 Dec 21 j 05:25	12° X 54'51		morning rise	-774 Jun 20 j 12:12	9° Π 36'56	

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Attention, astronomical year style is used: The year -774 in astronomical counting style is the year 775 BCE in historical counting style.

asc. node	-774 Aug 17 j 03:23	21° Π 18'52	desc. node	-768 Nov 16 j 03:52	8° X 30'03
retrograde	-774 Oct 22 j 18:55	27° Π 41'25	evening set	-768 Nov 30 j 10:09	11° X 46'59
opposition	-774 Dec 21 j 11:11	22° Π 40'54 0°19'11	max. Earth dist.	-768 Dec 12 j 03:46	14° X 31'59 6.12256 AU
min. Earth dist.	-774 Dec 20 j 22:47	22° Π 45'03 4.29574 AU			
direct	-773 Feb 19 j 23:28	17° Π 38'13	conjunction	-768 Dec 13 j 03:29	14° X 45'55 -0°03'00
	-773 May 31 j 00:44	0° E	minimum elong	-768 Dec 13 j 03:28	14° X 45'55 0°03'00
evening set	-773 Jun 27 j 04:47	5° E 45'39	behind sun begin	-768 Dec 12 j 19:28	14° X 41'14
			behind sun end	-768 Dec 13 j 11:27	14° X 50'35
conjunction	-773 Jul 10 j 17:05	8° E 43'12 0°32'38	morning rise	-768 Dec 25 j 21:48	17° X 45'39
minimum elong	-773 Jul 10 j 17:03	8° E 43'11 0°32'39		-767 Feb 21 j 06:37	0° E
max. Earth dist.	-773 Jul 10 j 23:18	8° E 46'36 6.34925 AU	retrograde	-767 May 03 j 16:13	7° E 08'19
morning rise	-773 Jul 24 j 02:49	11° E 39'23	opposition	-767 Jul 03 j 08:36	2° E 11'34 -0°36'54
retrograde	-773 Nov 22 j 16:03	28° E 55'43	min. Earth dist.	-767 Jul 03 j 16:36	2° E 08'58 4.06455 AU
opposition	-772 Jan 21 j 15:30	23° E 59'08 1°11'13		-767 Jul 20 j 19:59	30° R X
min. Earth dist.	-772 Jan 21 j 19:59	23° E 57'40 4.39036 AU	direct	-767 Sep 01 j 01:04	27° X 17'46
direct	-772 Mar 23 j 08:49	18° E 55'49		-767 Oct 12 j 08:37	0° E
	-772 Jun 26 j 07:51	0° Ω	evening set	-766 Jan 03 j 18:08	16° E 27'36
evening set	-772 Jul 28 j 16:06	6° Ω 43'21			
			conjunction	-766 Jan 16 j 16:40	19° E 33'18 -0°44'07
conjunction	-772 Aug 10 j 19:52	9° Ω 34'41 1°02'04	minimum elong	-766 Jan 16 j 16:37	19° E 33'16 0°44'08
minimum elong	-772 Aug 10 j 19:50	9° Ω 34'39 1°02'04	max. Earth dist.	-766 Jan 16 j 20:01	19° E 35'18 6.01882 AU
max. Earth dist.	-772 Aug 09 j 22:55	9° Ω 23'17 6.41667 AU	morning rise	-766 Jan 29 j 17:48	22° E 40'31
morning rise	-772 Aug 23 j 20:44	12° Ω 24'30		-766 Mar 02 j 14:28	0° \approx
	-772 Sep 04 j 23:19	15° Ω	retrograde	-766 Jun 10 j 06:09	12° \approx 55'21
retrograde	-772 Dec 22 j 02:55	29° Ω 17'44	opposition	-766 Aug 09 j 13:33	7° \approx 54'41 -1°30'15
opposition	-771 Feb 20 j 10:31	24° Ω 24'16 1°42'04	min. Earth dist.	-766 Aug 08 j 23:50	7° \approx 59'14 3.98947 AU
min. Earth dist.	-771 Feb 21 j 07:45	24° Ω 17'24 4.42780 AU	direct	-766 Oct 06 j 23:56	3° \approx 01'20
direct	-771 Apr 23 j 23:51	19° Ω 21'31		-765 Jan 07 j 09:33	15° \approx
	-771 Jul 26 j 01:16	0° Π	evening set	-765 Feb 08 j 22:46	22° \approx 30'50
evening set	-771 Aug 28 j 22:22	7° Π 02'30			
max. Earth dist.	-771 Sep 09 j 04:06	9° Π 29'29 6.42033 AU	conjunction	-765 Feb 22 j 04:30	25° \approx 41'30 -1°09'49
			minimum elong	-765 Feb 22 j 04:28	25° \approx 41'29 1°09'49
conjunction	-771 Sep 10 j 18:39	9° Π 50'33 1°13'56	max. Earth dist.	-765 Feb 23 j 12:47	26° \approx 00'55 5.97855 AU
minimum elong	-771 Sep 10 j 18:39	9° Π 50'33 1°13'56	morning rise	-765 Mar 07 j 13:31	28° \approx 53'54
morning rise	-771 Sep 23 j 11:56	12° Π 37'16		-765 Mar 12 j 04:49	0° X
retrograde	-770 Jan 21 j 22:52	29° Π 34'37	retrograde	-765 Jul 17 j 21:32	19° X 24'43
opposition	-770 Mar 23 j 16:10	24° Π 42'46 1°45'12	opposition	-765 Sep 15 j 17:56	14° X 20'36 -1°49'19
min. Earth dist.	-770 Mar 24 j 23:10	24° Π 32'53 4.39857 AU	min. Earth dist.	-765 Sep 14 j 13:28	14° X 30'15 3.98994 AU
direct	-770 May 25 j 08:37	19° Π 41'42	direct	-765 Nov 12 j 16:35	9° X 25'30
	-770 Aug 24 j 02:20	0° $\underline{\Omega}$	evening set	-764 Mar 17 j 04:28	28° X 53'14
evening set	-770 Sep 28 j 17:57	7° $\underline{\Omega}$ 30'21		-764 Mar 21 j 21:43	0° Υ
max. Earth dist.	-770 Oct 09 j 10:33	9° $\underline{\Omega}$ 52'42 6.35967 AU			
			conjunction	-764 Mar 30 j 18:01	2° Υ 05'32 -1°08'39
conjunction	-770 Oct 11 j 09:27	10° $\underline{\Omega}$ 18'49 1°05'25	minimum elong	-764 Mar 30 j 18:03	2° Υ 05'33 1°08'39
minimum elong	-770 Oct 11 j 09:29	10° $\underline{\Omega}$ 18'50 1°05'24	max. Earth dist.	-764 Apr 01 j 20:57	2° Υ 35'40 6.01864 AU
morning rise	-770 Oct 23 j 23:03	13° $\underline{\Omega}$ 06'31	morning rise	-764 Apr 13 j 10:09	5° Υ 19'04
	-769 Feb 04 j 01:11	0° Π	retrograde	-764 Aug 22 j 01:59	25° Υ 19'16
retrograde	-769 Feb 23 j 05:02	0° Π 34'03	min. Earth dist.	-764 Oct 19 j 07:09	20° Υ 25'06 4.06542 AU
	-769 Mar 14 j 08:28	30° R $\underline{\Omega}$	opposition	-764 Oct 20 j 15:27	20° Υ 14'05 -1°26'03
opposition	-769 Apr 25 j 03:06	25° $\underline{\Omega}$ 42'13 1°18'50	direct	-764 Dec 17 j 22:02	15° Υ 16'00
min. Earth dist.	-769 Apr 26 j 13:18	25° $\underline{\Omega}$ 31'20 4.30981 AU		-763 Apr 03 j 20:54	0° X
direct	-769 Jun 26 j 08:30	20° $\underline{\Omega}$ 43'34	evening set	-763 Apr 23 j 04:45	4° X 21'22
	-769 Sep 18 j 08:41	0° Π			
evening set	-769 Oct 29 j 23:02	8° Π 52'49	conjunction	-763 May 06 j 22:54	7° X 31'07 -0°41'54
max. Earth dist.	-769 Nov 09 j 19:03	11° Π 20'57 6.25001 AU	minimum elong	-763 May 06 j 22:57	7° X 31'08 0°41'52
			max. Earth dist.	-763 May 08 j 21:59	7° X 58'12 6.12240 AU
conjunction	-769 Nov 11 j 13:42	11° Π 45'19 0°37'42	morning rise	-763 May 20 j 18:17	10° X 41'10
minimum elong	-769 Nov 11 j 13:44	11° Π 45'20 0°37'42		-763 Jun 09 j 00:08	15° X
morning rise	-769 Nov 24 j 03:54	14° Π 37'49	retrograde	-763 Sep 25 j 01:52	29° X 41'04
	-769 Nov 25 j 18:57	15° Π	opposition	-763 Nov 23 j 15:06	24° X 37'33 -0°33'14
	-768 Feb 12 j 18:19	0° X	min. Earth dist.	-763 Nov 22 j 14:00	24° X 46'04 4.18573 AU
retrograde	-768 Mar 28 j 08:27	2° X 57'31	direct	-762 Jan 21 j 23:21	19° X 36'31
	-768 May 12 j 18:47	30° R Π		-762 Apr 20 j 11:53	0° Π
opposition	-768 May 28 j 08:02	28° Π 03'55 0°27'06	evening set	-762 May 28 j 21:24	8° Π 10'13
min. Earth dist.	-768 May 29 j 08:39	27° Π 56'02 4.18567 AU			
direct	-768 Jul 28 j 09:23	23° Π 08'01	conjunction	-762 Jun 11 j 14:50	11° Π 14'05 -0°01'42
	-768 Oct 05 j 22:40	0° X	minimum elong	-762 Jun 11 j 14:50	11° Π 14'05 0°01'42


































































































































Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 13

Attention, astronomical year style is used: The year -762 in astronomical counting style is the year 763 BCE in historical counting style.

behind sun begin	-762 Jun 11 j 06:29	11° Π 09'26		max. Earth dist.	-757 Nov 14 j 07:10	15° \mathbb{M} 56'40	6.23821 AU
behind sun end	-762 Jun 11 j 23:11	11° Π 18'43					
max. Earth dist.	-762 Jun 12 j 19:43	11° Π 30'14	6.25012 AU	conjunction	-757 Nov 15 j 23:11	16° \mathbb{M} 19'36	0°32'40
morning rise	-762 Jun 25 j 07:05	14° Π 17'10		minimum elong	-757 Nov 15 j 23:13	16° \mathbb{M} 19'37	0°32'39
asc. node	-762 Jun 27 j 08:43	14° Π 44'38		morning rise	-757 Nov 28 j 13:37	19° \mathbb{M} 12'43	
	-762 Sep 19 j 04:53	0° \mathfrak{S}			-756 Jan 18 j 16:34	0° \mathfrak{J}	
retrograde	-762 Oct 27 j 04:30	2° \mathfrak{S} 14'38		retrograde	-756 Apr 02 j 05:24	7° \mathfrak{J} 38'38	
	-762 Dec 03 j 23:43	30° \mathfrak{R} Π		opposition	-756 Jun 02 j 03:51	2° \mathfrak{J} 44'40	0°18'39
opposition	-762 Dec 25 j 20:37	27° Π 14'43	0°27'19	min. Earth dist.	-756 Jun 03 j 03:38	2° \mathfrak{J} 37'02	4.17349 AU
min. Earth dist.	-762 Dec 25 j 10:27	27° Π 18'07	4.30888 AU		-756 Jun 24 j 20:59	30° \mathfrak{R} \mathbb{M}	
direct	-761 Feb 24 j 13:01	22° Π 11'54		direct	-756 Aug 02 j 02:39	27° \mathbb{M} 49'03	
	-761 May 12 j 01:22	0° \mathfrak{S}			-756 Sep 08 j 18:36	0° \mathfrak{J}	
evening set	-761 Jul 01 j 19:53	10° \mathfrak{S} 16'48		desc. node	-756 Sep 27 j 14:18	2° \mathfrak{J} 31'42	
				evening set	-756 Dec 04 j 23:19	16° \mathfrak{J} 30'21	
conjunction	-761 Jul 15 j 07:02	13° \mathfrak{S} 13'30	0°37'36				
minimum elong	-761 Jul 15 j 07:00	13° \mathfrak{S} 13'28	0°37'36	conjunction	-756 Dec 17 j 17:05	19° \mathfrak{J} 29'57	-0°08'52
max. Earth dist.	-761 Jul 15 j 08:23	13° \mathfrak{S} 14'14	6.35939 AU	minimum elong	-756 Dec 17 j 17:04	19° \mathfrak{J} 29'56	0°08'52
morning rise	-761 Jul 28 j 15:46	16° \mathfrak{S} 08'49		behind sun begin	-756 Dec 17 j 10:08	19° \mathfrak{J} 25'52	
	-761 Oct 10 j 17:44	0° Ω		behind sun end	-756 Dec 18 j 00:01	19° \mathfrak{J} 34'01	
retrograde	-761 Nov 26 j 23:25	3° Ω 21'11		max. Earth dist.	-756 Dec 16 j 19:37	19° \mathfrak{J} 17'19	6.11112 AU
	-760 Jan 13 j 16:24	30° \mathfrak{R} \mathfrak{S}		morning rise	-756 Dec 30 j 12:10	22° \mathfrak{J} 30'29	
opposition	-760 Jan 25 j 23:19	28° \mathfrak{S} 25'06	1°17'02		-755 Feb 01 j 17:41	0° \mathfrak{Z}	
min. Earth dist.	-760 Jan 26 j 06:23	28° \mathfrak{S} 22'47	4.39720 AU	retrograde	-755 May 08 j 14:29	11° \mathfrak{Z} 59'23	
direct	-760 Mar 27 j 20:07	23° \mathfrak{S} 21'46		opposition	-755 Jul 08 j 07:25	7° \mathfrak{Z} 02'08	-0°45'15
	-760 Jun 06 j 15:22	0° Ω		min. Earth dist.	-755 Jul 08 j 12:12	7° \mathfrak{Z} 00'34	4.05495 AU
evening set	-760 Aug 02 j 02:54	11° Ω 08'15		direct	-755 Sep 05 j 18:49	2° \mathfrak{Z} 08'28	
max. Earth dist.	-760 Aug 14 j 07:37	13° Ω 47'00	6.41981 AU	evening set	-754 Jan 08 j 12:16	21° \mathfrak{Z} 20'33	
conjunction	-760 Aug 15 j 05:42	13° Ω 59'01	1°04'54	conjunction	-754 Jan 21 j 11:35	24° \mathfrak{Z} 26'53	-0°48'47
minimum elong	-760 Aug 15 j 05:40	13° Ω 59'00	1°04'54	minimum elong	-754 Jan 21 j 11:32	24° \mathfrak{Z} 26'51	0°48'47
	-760 Aug 19 j 21:44	15° Ω		max. Earth dist.	-754 Jan 21 j 18:13	24° \mathfrak{Z} 30'52	6.01183 AU
morning rise	-760 Aug 28 j 05:12	16° Ω 48'13		morning rise	-754 Feb 03 j 13:37	27° \mathfrak{Z} 34'48	
	-760 Nov 06 j 12:14	0° \mathbb{M}			-754 Feb 13 j 19:26	0° \approx	
retrograde	-760 Dec 26 j 09:17	3° \mathbb{M} 40'43			-754 May 02 j 19:27	15° \approx	
	-759 Feb 15 j 07:52	30° \mathfrak{R} Ω		retrograde	-754 Jun 15 j 07:59	17° \approx 53'31	
opposition	-759 Feb 24 j 19:00	28° Ω 47'35	1°44'16		-754 Jul 29 j 01:06	15° \mathfrak{R} \approx	
min. Earth dist.	-759 Feb 25 j 16:49	28° Ω 40'34	4.42751 AU	opposition	-754 Aug 14 j 13:24	12° \approx 52'19	-1°35'09
direct	-759 Apr 28 j 08:50	23° Ω 45'05		min. Earth dist.	-754 Aug 13 j 22:20	12° \approx 57'20	3.98585 AU
	-759 Jul 06 j 03:21	0° \mathbb{M}		direct	-754 Oct 11 j 22:14	7° \approx 58'46	
evening set	-759 Sep 02 j 07:00	11° \mathbb{M} 26'14			-754 Dec 18 j 20:25	15° \approx	
max. Earth dist.	-759 Sep 13 j 09:37	13° \mathbb{M} 51'47	6.41669 AU	evening set	-753 Feb 13 j 21:03	27° \approx 29'18	
					-753 Feb 24 j 08:34	0° \mathfrak{H}	
conjunction	-759 Sep 15 j 02:14	14° \mathbb{M} 14'02	1°13'58	conjunction	-753 Feb 27 j 03:57	0° \mathfrak{H} 40'27	-1°11'19
minimum elong	-759 Sep 15 j 02:14	14° \mathbb{M} 14'02	1°13'58	minimum elong	-753 Feb 27 j 03:56	0° \mathfrak{H} 40'26	1°11'19
morning rise	-759 Sep 27 j 18:51	17° \mathbb{M} 00'35		max. Earth dist.	-753 Feb 28 j 15:40	1° \mathfrak{H} 01'54	5.97865 AU
	-759 Dec 05 j 00:32	0° \mathfrak{L}		morning rise	-753 Mar 12 j 13:59	3° \mathfrak{H} 53'17	
retrograde	-758 Jan 26 j 10:04	4° \mathfrak{L} 00'01		retrograde	-753 Jul 22 j 21:13	24° \mathfrak{H} 23'12	
	-758 Mar 21 j 08:13	30° \mathfrak{R} \mathbb{M}		min. Earth dist.	-753 Sep 19 j 10:24	19° \mathfrak{H} 28'46	3.99397 AU
opposition	-758 Mar 28 j 03:29	29° \mathbb{M} 08'16	1°43'14	opposition	-753 Sep 20 j 15:32	19° \mathfrak{H} 18'53	-1°48'33
min. Earth dist.	-758 Mar 29 j 11:49	28° \mathbb{M} 57'58	4.39195 AU	direct	-753 Nov 17 j 13:01	14° \mathfrak{H} 23'28	
direct	-758 May 29 j 20:32	24° \mathbb{M} 07'28			-752 Mar 05 j 15:26	0° \mathfrak{Y}	
	-758 Aug 03 j 20:59	0° \mathfrak{L}		evening set	-752 Mar 22 j 04:51	3° \mathfrak{Y} 50'23	
evening set	-758 Oct 03 j 01:49	11° \mathfrak{L} 57'12					
max. Earth dist.	-758 Oct 13 j 18:43	14° \mathfrak{L} 20'02	6.35065 AU	conjunction	-752 Apr 04 j 19:11	7° \mathfrak{Y} 02'45	-1°06'21
conjunction	-758 Oct 15 j 17:02	14° \mathfrak{L} 45'52	1°02'36	minimum elong	-752 Apr 04 j 19:13	7° \mathfrak{Y} 02'46	1°06'20
minimum elong	-758 Oct 15 j 17:04	14° \mathfrak{L} 45'54	1°02'37	max. Earth dist.	-752 Apr 06 j 20:53	7° \mathfrak{Y} 32'05	6.02613 AU
morning rise	-758 Oct 28 j 06:22	17° \mathfrak{L} 33'50		morning rise	-752 Apr 18 j 12:16	10° \mathfrak{Y} 16'18	
	-758 Dec 30 j 01:02	0° \mathbb{M}			-752 Aug 16 j 05:34	0° \mathfrak{B}	
retrograde	-757 Feb 27 j 18:18	5° \mathbb{M} 05'53		retrograde	-752 Aug 26 j 19:05	0° \mathfrak{B} 11'12	
opposition	-757 Apr 29 j 18:24	0° \mathbb{M} 13'50	1°12'57		-752 Sep 06 j 08:31	30° \mathfrak{R} \mathfrak{Y}	
min. Earth dist.	-757 May 01 j 02:44	0° \mathbb{M} 03'33	4.29892 AU	min. Earth dist.	-752 Oct 24 j 00:23	25° \mathfrak{Y} 17'04	4.07557 AU
	-757 May 01 j 13:53	30° \mathfrak{R} \mathfrak{L}		opposition	-752 Oct 25 j 08:29	25° \mathfrak{Y} 06'06	-1°20'12
direct	-757 Jun 30 j 20:08	25° \mathfrak{L} 15'33		direct	-752 Dec 22 j 17:10	20° \mathfrak{Y} 07'35	
	-757 Aug 27 j 18:17	0° \mathbb{M}			-751 Mar 16 j 21:36	0° \mathfrak{B}	
evening set	-757 Nov 03 j 08:29	13° \mathbb{M} 26'36		evening set	-751 Apr 28 j 03:37	9° \mathfrak{B} 10'47	
	-757 Nov 10 j 04:15	15° \mathbb{M}					

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 14

Attention, astronomical year style is used: The year -751 in astronomical counting style is the year 752 BCE in historical counting style.

conjunction	-751 May 11 j 22:16	12°  20'11	-0°36'52			-746 Jul 05 j 05:42	0° 	
minimum elong	-751 May 11 j 22:19	12°  20'12	0°36'51	evening set		-746 Oct 07 j 08:36	16°  21'46	
max. Earth dist.	-751 May 13 j 20:22	12°  46'38	6.13472 AU	max. Earth dist.		-746 Oct 18 j 00:24	18°  44'28	6.33856 AU
	-751 May 23 j 13:25	15°  8						
morning rise	-751 May 25 j 17:34	15°  829'41		conjunction		-746 Oct 19 j 23:21	19°  10'46	0°59'27
	-751 Aug 06 j 17:11	0°  II		minimum elong		-746 Oct 19 j 23:23	19°  10'47	0°59'26
retrograde	-751 Sep 29 j 16:00	4°  II22'28		morning rise		-746 Nov 01 j 12:40	21°  15'59'12	
	-751 Nov 23 j 03:33	30°  R  8				-746 Dec 09 j 06:44	0°  M	
min. Earth dist.	-751 Nov 27 j 04:34	29°  827'15	4.19886 AU	retrograde		-745 Mar 04 j 10:32	9°  M37'14	
opposition	-751 Nov 28 j 03:43	29°  819'25	-0°24'55	opposition		-745 May 04 j 09:44	4°  M45'02	1°06'37
direct	-750 Jan 26 j 16:05	24°  818'07		min. Earth dist.		-745 May 05 j 18:29	4°  M34'36	4.28357 AU
	-750 Mar 30 j 14:09	0°  II				-745 Jun 23 j 13:30	30°  R  1	
asc. node	-750 May 08 j 02:53	7°  II17'04		direct		-745 Jul 05 j 09:15	29°  14'05	
evening set	-750 Jun 02 j 16:24	12°  II49'01				-745 Jul 17 j 04:45	0°  M	
						-745 Oct 25 j 07:35	15°  M	
conjunction	-750 Jun 16 j 09:16	15°  II52'07	0°04'10	evening set		-745 Nov 07 j 18:12	18°  M01'44	
minimum elong	-750 Jun 16 j 09:15	15°  II52'07	0°04'11	max. Earth dist.		-745 Nov 18 j 18:44	20°  M33'26	6.22094 AU
behind sun begin	-750 Jun 16 j 01:04	15°  II47'34						
behind sun end	-750 Jun 16 j 17:27	15°  II56'39		conjunction		-745 Nov 20 j 09:14	20°  M55'35	0°27'22
max. Earth dist.	-750 Jun 17 j 10:48	16°  II06'21	6.26312 AU	minimum elong		-745 Nov 20 j 09:15	20°  M55'36	0°27'22
morning rise	-750 Jun 30 j 00:54	18°  II54'21		morning rise		-745 Dec 03 j 00:04	23°  M49'36	
	-750 Aug 23 j 13:56	0°  S				-745 Dec 30 j 18:52	0°  J	
retrograde	-750 Oct 31 j 12:24	6°  S45'36		retrograde		-744 Apr 07 j 02:00	12°  J23'59	
opposition	-750 Dec 30 j 05:41	1°  S46'10	0°35'11	opposition		-744 Jun 07 j 01:00	7°  J29'38	0°09'55
min. Earth dist.	-750 Dec 29 j 21:00	1°  S49'03	4.32082 AU	min. Earth dist.		-744 Jun 07 j 22:10	7°  J22'50	4.15555 AU
	-749 Jan 12 j 19:34	30°  R  II		direct		-744 Aug 06 j 18:03	2°  J34'22	
direct	-749 Mar 01 j 01:30	26°  II43'11		desc. node		-744 Aug 08 j 01:24	2°  J34'32	
	-749 Apr 17 j 15:52	0°  S		evening set		-744 Dec 09 j 14:51	21°  J20'21	
evening set	-749 Jul 06 j 10:01	14°  S45'39						
				conjunction		-744 Dec 22 j 09:12	24°  J20'57	-0°14'49
conjunction	-749 Jul 19 j 20:10	17°  S41'30	0°42'17	minimum elong		-744 Dec 22 j 09:11	24°  J20'56	0°14'50
minimum elong	-749 Jul 19 j 20:07	17°  S41'28	0°42'17	behind sun begin		-744 Dec 22 j 05:47	24°  J18'56	
max. Earth dist.	-749 Jul 19 j 19:21	17°  S41'03	6.36944 AU	behind sun end		-744 Dec 22 j 12:35	24°  J22'56	
morning rise	-749 Aug 02 j 03:32	20°  S35'53		max. Earth dist.		-744 Dec 21 j 14:51	24°  J10'06	6.09404 AU
	-749 Sep 17 j 08:53	0°  Q		morning rise		-743 Jan 04 j 05:08	27°  J22'36	
retrograde	-749 Dec 01 j 05:46	7°  Q44'15				-743 Jan 15 j 11:34	0°  Z	
opposition	-748 Jan 30 j 06:36	2°  Q48'39	1°22'20	retrograde		-743 May 13 j 19:06	17°  Z00'15	
min. Earth dist.	-748 Jan 30 j 15:31	2°  Q45'44	4.40462 AU	opposition		-743 Jul 13 j 10:04	12°  Z02'27	-0°53'35
	-748 Feb 22 j 03:11	30°  R  S		min. Earth dist.		-743 Jul 13 j 12:44	12°  Z01'35	4.04022 AU
direct	-748 Apr 01 j 06:23	27°  S45'23		direct		-743 Sep 10 j 18:11	7°  Z08'54	
	-748 May 10 j 18:19	0°  Q		evening set		-742 Jan 13 j 10:45	26°  Z25'09	
evening set	-748 Aug 04 j 04:30	15°  Q						
	-748 Aug 06 j 12:41	15°  Q30'16		conjunction		-742 Jan 26 j 11:07	29°  Z32'26	-0°53'17
				minimum elong		-742 Jan 26 j 11:05	29°  Z32'24	0°53'17
conjunction	-748 Aug 19 j 14:12	18°  Q20'23	1°07'19	max. Earth dist.		-742 Jan 26 j 22:32	29°  Z39'17	6.00084 AU
minimum elong	-748 Aug 19 j 14:10	18°  Q20'22	1°07'20			-742 Jan 28 j 09:01	0°  Z	
max. Earth dist.	-748 Aug 18 j 12:14	18°  Q06'16	6.42367 AU	morning rise		-742 Feb 08 j 14:12	2°  Z41'18	
morning rise	-748 Sep 01 j 12:43	21°  Q08'59				-742 Apr 05 j 16:12	15°  Z	
	-748 Oct 15 j 00:39	0°  M		retrograde		-742 Jun 20 j 15:02	23°  Z05'06	
retrograde	-748 Dec 30 j 16:25	8°  M00'34		opposition		-742 Aug 19 j 18:04	18°  Z03'26	-1°39'33
opposition	-747 Mar 01 j 02:44	3°  M07'41	1°45'50	min. Earth dist.		-742 Aug 19 j 00:33	18°  Z09'17	3.98020 AU
min. Earth dist.	-747 Mar 02 j 02:35	3°  M00'00	4.42749 AU			-742 Sep 13 j 12:40	15°  R  Z	
	-747 Mar 27 j 10:22	30°  R  Q		direct		-742 Oct 16 j 23:20	13°  Z09'48	
direct	-747 May 02 j 18:10	28°  Q05'18				-742 Nov 19 j 04:09	15°  Z	
	-747 Jun 08 j 06:36	0°  M				-741 Feb 07 j 15:22	0°  J	
evening set	-747 Sep 06 j 13:43	15°  M46'22		evening set		-741 Feb 19 j 01:19	2°  J42'04	
max. Earth dist.	-747 Sep 17 j 15:33	18°  M11'39	6.41247 AU					
				conjunction		-741 Mar 04 j 09:11	5°  J53'41	-1°12'20
conjunction	-747 Sep 19 j 08:19	18°  M34'01	1°13'36	minimum elong		-741 Mar 04 j 09:11	5°  J53'41	1°12'20
minimum elong	-747 Sep 19 j 08:19	18°  M34'01	1°13'35	max. Earth dist.		-741 Mar 05 j 22:46	6°  J16'14	5.97865 AU
morning rise	-747 Oct 02 j 00:04	21°  M20'26		morning rise		-741 Mar 17 j 20:29	9°  J07'02	
	-747 Nov 13 j 01:25	0°  Z		retrograde		-741 Jul 27 j 23:28	29°  J35'26	
retrograde	-746 Jan 30 j 18:27	8°  Z22'25		min. Earth dist.		-741 Sep 24 j 10:44	24°  J41'23	3.99996 AU
opposition	-746 Apr 01 j 13:53	3°  Z30'44	1°40'41	opposition		-741 Sep 25 j 17:47	24°  J30'49	-1°46'55
min. Earth dist.	-746 Apr 02 j 22:13	3°  Z20'26	4.38357 AU	direct		-741 Nov 22 j 15:17	19°  J35'02	
	-746 May 02 j 05:45	30°  R  M				-740 Feb 16 j 04:13	0° Y	
direct	-746 Jun 03 j 05:02	28° M30'17		evening set		-740 Mar 27 j 10:12	9° Y00'07	

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 15

Attention, astronomical year style is used: The year -740 in astronomical counting style is the year 741 BCE in historical counting style.

conjunction	-740 Apr 10 j 01:34	12° Υ 12'23	-1°03'27	morning rise	-735 Oct 06 j 02:13	25° \mathbb{M} 32'03	
minimum elong	-740 Apr 10 j 01:37	12° Υ 12'25	1°03'27		-735 Oct 26 j 22:19	0° $\underline{\mathbf{a}}$	
max. Earth dist.	-740 Apr 12 j 05:24	12° Υ 42'53	6.03787 AU	retrograde	-734 Feb 04 j 02:18	12° $\underline{\mathbf{a}}$ 37'36	
morning rise	-740 Apr 23 j 19:10	15° Υ 25'39		opposition	-734 Apr 05 j 21:42	7° $\underline{\mathbf{a}}$ 45'55	1°37'41
	-740 Jul 03 j 11:49	0° $\mathbf{8}$		min. Earth dist.	-734 Apr 07 j 07:40	7° $\underline{\mathbf{a}}$ 35'06	4.37136 AU
retrograde	-740 Aug 31 j 17:22	5° $\mathbf{8}$ 12'57		direct	-734 Jun 07 j 11:43	2° $\underline{\mathbf{a}}$ 45'40	
min. Earth dist.	-740 Oct 28 j 21:59	0° $\mathbf{8}$ 18'38	4.09180 AU	evening set	-734 Oct 11 j 13:00	20° $\underline{\mathbf{a}}$ 40'23	
opposition	-740 Oct 30 j 05:14	0° $\mathbf{8}$ 07'58	-1°13'34	max. Earth dist.	-734 Oct 22 j 05:20	23° $\underline{\mathbf{a}}$ 03'54	6.32158 AU
	-740 Oct 31 j 04:35	30° \mathbf{K} Υ					
direct	-740 Dec 27 j 17:48	25° Υ 09'03		conjunction	-734 Oct 24 j 03:49	23° $\underline{\mathbf{a}}$ 30'02	0°56'02
	-739 Feb 22 j 05:06	0° $\mathbf{8}$		minimum elong	-734 Oct 24 j 03:51	23° $\underline{\mathbf{a}}$ 30'03	0°56'01
evening set	-739 May 03 j 05:19	14° $\mathbf{8}$ 07'22		morning rise	-734 Nov 05 j 17:02	26° $\underline{\mathbf{a}}$ 19'09	
	-739 May 07 j 01:51	15° $\mathbf{8}$			-734 Nov 22 j 09:57	0° \mathbb{M}	
				retrograde	-733 Mar 09 j 00:19	14° \mathbb{M} 05'01	
conjunction	-739 May 16 j 23:59	17° $\mathbf{8}$ 15'55	-0°31'30	opposition	-733 May 08 j 23:53	9° \mathbb{M} 12'38	1°00'02
minimum elong	-739 May 17 j 00:01	17° $\mathbf{8}$ 15'57	0°31'29	min. Earth dist.	-733 May 10 j 07:46	9° \mathbb{M} 02'29	4.26278 AU
max. Earth dist.	-739 May 18 j 20:49	17° $\mathbf{8}$ 41'31	6.15418 AU	direct	-733 Jul 09 j 18:52	4° \mathbb{M} 15'04	
morning rise	-739 May 30 j 19:09	20° $\mathbf{8}$ 24'27			-733 Oct 08 j 12:43	15° \mathbb{M}	
	-739 Jul 14 j 18:16	0° \mathbb{I}		evening set	-733 Nov 12 j 03:37	22° \mathbb{M} 35'24	
retrograde	-739 Oct 04 j 03:42	9° \mathbb{I} 07'10		max. Earth dist.	-733 Nov 23 j 05:22	25° \mathbb{M} 08'35	6.19806 AU
opposition	-739 Dec 02 j 17:18	4° \mathbb{I} 04'28	-0°16'23				
min. Earth dist.	-739 Dec 01 j 18:42	4° \mathbb{I} 12'07	4.21973 AU	conjunction	-733 Nov 24 j 18:54	25° \mathbb{M} 30'18	0°21'58
	-738 Jan 07 j 04:47	30° \mathbf{K} $\mathbf{8}$		minimum elong	-733 Nov 24 j 18:56	25° \mathbb{M} 30'19	0°21'58
direct	-738 Jan 31 j 09:23	29° $\mathbf{8}$ 02'51		morning rise	-733 Dec 07 j 10:28	28° \mathbb{M} 25'35	
	-738 Feb 24 j 22:20	0° \mathbb{I}			-733 Dec 14 j 07:30	0° \mathbf{x}	
asc. node	-738 Mar 18 j 15:56	2° \mathbb{I} 15'39		retrograde	-732 Apr 12 j 02:08	17° \mathbf{x} 10'46	
evening set	-738 Jun 07 j 11:22	17° \mathbb{I} 28'00		opposition	-732 Jun 11 j 23:16	12° \mathbf{x} 16'01	0°01'08
				min. Earth dist.	-732 Jun 12 j 18:44	12° \mathbf{x} 09'45	4.13215 AU
conjunction	-738 Jun 21 j 03:26	20° \mathbb{I} 29'53	0°09'51	desc. node	-732 Jun 19 j 00:37	11° \mathbf{x} 21'44	
minimum elong	-738 Jun 21 j 03:25	20° \mathbb{I} 29'52	0°09'52	direct	-732 Aug 11 j 11:45	7° \mathbf{x} 21'03	
behind sun begin	-738 Jun 20 j 20:44	20° \mathbb{I} 26'11		evening set	-732 Dec 14 j 08:11	26° \mathbf{x} 13'49	
behind sun end	-738 Jun 21 j 10:05	20° \mathbb{I} 33'34					
max. Earth dist.	-738 Jun 22 j 01:33	20° \mathbb{I} 42'10	6.28382 AU	conjunction	-732 Dec 27 j 03:28	29° \mathbf{x} 15'43	-0°20'43
morning rise	-738 Jul 04 j 17:59	23° \mathbb{I} 30'46		minimum elong	-732 Dec 27 j 03:26	29° \mathbf{x} 15'43	0°20'43
	-738 Aug 04 j 04:46	0° \mathbf{e}		max. Earth dist.	-732 Dec 26 j 13:36	29° \mathbf{x} 07'30	6.07242 AU
retrograde	-738 Nov 04 j 19:36	11° \mathbf{e} 13'14			-732 Dec 30 j 06:03	0° \mathbf{z}	
opposition	-737 Jan 03 j 13:30	6° \mathbf{e} 14'18	0°42'41	morning rise	-731 Jan 09 j 00:20	2° \mathbf{z} 18'45	
min. Earth dist.	-737 Jan 03 j 07:47	6° \mathbf{e} 16'12	4.33958 AU	retrograde	-731 May 19 j 02:41	22° \mathbf{z} 06'37	
direct	-737 Mar 05 j 14:49	1° \mathbf{e} 11'10		opposition	-731 Jul 18 j 14:58	17° \mathbf{z} 08'22	-1°01'38
evening set	-737 Jul 10 j 21:35	19° \mathbf{e} 08'49		min. Earth dist.	-731 Jul 18 j 14:27	17° \mathbf{z} 08'32	4.02271 AU
				direct	-731 Sep 15 j 17:35	12° \mathbf{z} 15'00	
conjunction	-737 Jul 24 j 06:30	22° \mathbf{e} 03'32	0°46'36		-730 Jan 11 j 18:31	0° \approx	
minimum elong	-737 Jul 24 j 06:27	22° \mathbf{e} 03'30	0°46'36	evening set	-730 Jan 18 j 12:45	1° \approx 36'32	
max. Earth dist.	-737 Jul 24 j 01:41	22° \mathbf{e} 00'54	6.38460 AU				
morning rise	-737 Aug 06 j 12:36	24° \mathbf{e} 56'45		conjunction	-730 Jan 31 j 14:03	4° \approx 44'48	-0°57'24
	-737 Aug 30 j 10:00	0° Ω		minimum elong	-730 Jan 31 j 14:01	4° \approx 44'46	0°57'24
retrograde	-737 Dec 05 j 08:07	11° Ω 59'52		max. Earth dist.	-730 Feb 01 j 05:04	4° \approx 53'50	5.98892 AU
opposition	-736 Feb 03 j 11:09	7° Ω 04'37	1°26'58	morning rise	-730 Feb 13 j 18:29	7° \approx 54'46	
min. Earth dist.	-736 Feb 03 j 22:11	7° Ω 01'01	4.41534 AU		-730 Mar 16 j 09:49	15° \approx	
direct	-736 Apr 05 j 13:37	2° Ω 01'20		retrograde	-730 Jun 25 j 23:07	28° \approx 23'32	
	-736 Jul 19 j 08:26	15° Ω		min. Earth dist.	-730 Aug 24 j 04:15	23° \approx 28'22	3.97539 AU
evening set	-736 Aug 10 j 18:30	19° Ω 43'36		opposition	-730 Aug 25 j 01:20	23° \approx 21'18	-1°43'10
				direct	-730 Oct 22 j 03:23	18° \approx 27'29	
conjunction	-736 Aug 23 j 18:56	22° Ω 33'02	1°09'17		-729 Jan 20 j 10:09	0° \mathbf{H}	
minimum elong	-736 Aug 23 j 18:54	22° Ω 33'01	1°09'17	evening set	-729 Feb 24 j 08:25	8° \mathbf{H} 00'55	
max. Earth dist.	-736 Aug 22 j 14:43	22° Ω 17'41	6.42896 AU				
morning rise	-736 Sep 05 j 16:12	25° Ω 20'58		conjunction	-729 Mar 09 j 17:37	11° \mathbf{H} 12'59	-1°12'45
	-736 Sep 27 j 15:49	0° \mathbb{M}		minimum elong	-729 Mar 09 j 17:37	11° \mathbf{H} 12'59	1°12'44
retrograde	-735 Jan 03 j 19:24	12° \mathbb{M} 11'34		max. Earth dist.	-729 Mar 11 j 12:23	11° \mathbf{H} 38'37	5.98131 AU
opposition	-735 Mar 05 j 07:14	7° \mathbb{M} 18'57	1°46'47	morning rise	-729 Mar 23 j 05:51	14° \mathbf{H} 26'38	
min. Earth dist.	-735 Mar 06 j 09:15	7° \mathbb{M} 10'36	4.42702 AU		-729 Jun 06 j 04:40	0° Υ	
direct	-735 May 07 j 00:00	2° \mathbb{M} 16'44		retrograde	-729 Aug 02 j 05:41	4° Υ 51'49	
evening set	-735 Sep 10 j 17:08	19° \mathbb{M} 57'59			-729 Sep 29 j 07:22	30° \mathbf{K} \mathbf{H}	
max. Earth dist.	-735 Sep 21 j 14:28	22° \mathbb{M} 21'09	6.40598 AU	opposition	-729 Sep 30 j 21:47	29° \mathbf{H} 46'55	-1°44'21
				min. Earth dist.	-729 Sep 29 j 14:14	29° \mathbf{H} 57'40	4.00956 AU
conjunction	-735 Sep 23 j 10:52	22° \mathbb{M} 45'34	1°12'49	direct	-729 Nov 27 j 21:02	24° \mathbf{H} 50'43	
minimum elong	-735 Sep 23 j 10:53	22° \mathbb{M} 45'34	1°12'50		-728 Jan 24 j 09:55	0° Υ	

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Attention, astronomical year style is used: The year -728 in astronomical counting style is the year 729 BCE in historical counting style.

evening set	-728 Apr 01 j 17:09	14° Υ 12'28		morning rise	-723 Oct 10 j 07:51	29° η 54'11	
					-723 Oct 10 j 18:28	0° $\underline{\alpha}$	
conjunction	-728 Apr 15 j 09:13	17° Υ 24'21	-1°00'01	retrograde	-722 Feb 08 j 13:56	17° $\underline{\alpha}$ 04'17	
minimum elong	-728 Apr 15 j 09:16	17° Υ 24'23	1°00'00	opposition	-722 Apr 10 j 10:12	12° $\underline{\alpha}$ 12'38	1°34'01
max. Earth dist.	-728 Apr 17 j 13:44	17° Υ 55'07	6.05312 AU	min. Earth dist.	-722 Apr 11 j 20:44	12° $\underline{\alpha}$ 01'39	4.35761 AU
morning rise	-728 Apr 29 j 03:27	20° Υ 37'09		direct	-722 Jun 11 j 22:43	7° $\underline{\alpha}$ 12'45	
	-728 Jun 10 j 18:22	0° \mathcal{B}		evening set	-722 Oct 15 j 21:40	25° $\underline{\alpha}$ 10'51	
retrograde	-728 Sep 05 j 13:10	10° \mathcal{B} 15'14		max. Earth dist.	-722 Oct 26 j 12:50	27° $\underline{\alpha}$ 34'23	6.30447 AU
min. Earth dist.	-728 Nov 02 j 18:15	5° \mathcal{B} 21'11	4.11074 AU				
opposition	-728 Nov 04 j 01:51	5° \mathcal{B} 10'25	-1°06'20	conjunction	-722 Oct 28 j 12:13	28° $\underline{\alpha}$ 01'07	0°52'08
direct	-727 Jan 01 j 16:55	0° \mathcal{B} 11'04		minimum elong	-722 Oct 28 j 12:15	28° $\underline{\alpha}$ 01'09	0°52'07
	-727 Apr 20 j 01:21	15° \mathcal{B}			-722 Nov 06 j 06:57	0° \mathcal{M}	
evening set	-727 May 08 j 07:17	19° \mathcal{B} 03'55		morning rise	-722 Nov 10 j 01:43	0° \mathcal{M} 51'02	
					-721 Jan 22 j 05:09	15° \mathcal{M}	
conjunction	-727 May 22 j 01:51	22° \mathcal{B} 11'32	-0°25'51	retrograde	-721 Mar 13 j 19:31	18° \mathcal{M} 44'50	
minimum elong	-727 May 22 j 01:53	22° \mathcal{B} 11'33	0°25'51		-721 May 04 j 20:11	15° \mathcal{R} \mathcal{M}	
max. Earth dist.	-727 May 23 j 19:23	22° \mathcal{B} 35'08	6.17508 AU	opposition	-721 May 13 j 18:51	13° \mathcal{M} 52'11	0°52'43
morning rise	-727 Jun 04 j 20:41	25° \mathcal{B} 18'58		min. Earth dist.	-721 May 15 j 01:34	13° \mathcal{M} 42'23	4.24339 AU
	-727 Jun 26 j 01:35	0° \mathcal{I}		direct	-721 Jul 14 j 10:17	8° \mathcal{M} 54'58	
retrograde	-727 Oct 08 j 17:18	13° \mathcal{I} 51'37			-721 Sep 18 j 03:01	15° \mathcal{M}	
min. Earth dist.	-727 Dec 06 j 11:15	8° \mathcal{I} 56'02	4.24033 AU	evening set	-721 Nov 16 j 17:03	27° \mathcal{M} 20'12	
opposition	-727 Dec 07 j 06:54	8° \mathcal{I} 49'24	-0°07'42	max. Earth dist.	-721 Nov 27 j 23:07	29° \mathcal{M} 56'31	6.17838 AU
asc. node	-726 Jan 26 j 04:56	3° \mathcal{I} 57'16			-721 Nov 28 j 05:07	0° \mathcal{J}	
direct	-726 Feb 05 j 04:38	3° \mathcal{I} 47'29					
evening set	-726 Jun 12 j 06:09	22° \mathcal{I} 07'25		conjunction	-721 Nov 29 j 08:55	0° \mathcal{J} 16'08	0°16'12
				minimum elong	-721 Nov 29 j 08:55	0° \mathcal{J} 16'09	0°16'11
conjunction	-726 Jun 25 j 21:30	25° \mathcal{I} 08'11	0°15'33	behind sun begin	-721 Nov 29 j 07:59	0° \mathcal{J} 15'36	
minimum elong	-726 Jun 25 j 21:29	25° \mathcal{I} 08'11	0°15'34	behind sun end	-721 Nov 29 j 09:52	0° \mathcal{J} 16'42	
behind sun begin	-726 Jun 25 j 20:07	25° \mathcal{I} 07'25		morning rise	-721 Dec 12 j 00:56	3° \mathcal{J} 12'29	
behind sun end	-726 Jun 25 j 22:51	25° \mathcal{I} 08'56		retrograde	-720 Apr 17 j 04:50	22° \mathcal{J} 07'02	
max. Earth dist.	-726 Jun 26 j 16:36	25° \mathcal{I} 18'45	6.30251 AU	desc. node	-720 Apr 28 j 11:53	21° \mathcal{J} 55'02	
morning rise	-726 Jul 09 j 10:58	28° \mathcal{I} 07'51		opposition	-720 Jun 17 j 01:00	17° \mathcal{J} 11'55	-0°08'01
	-726 Jul 18 j 00:37	0° \mathcal{E}		min. Earth dist.	-720 Jun 17 j 17:52	17° \mathcal{J} 06'29	4.11397 AU
retrograde	-726 Nov 09 j 01:48	15° \mathcal{E} 42'47		direct	-720 Aug 16 j 08:38	12° \mathcal{J} 17'19	
opposition	-725 Jan 07 j 22:01	10° \mathcal{E} 44'25	0°50'03		-720 Dec 13 j 21:28	0° \mathcal{Z}	
min. Earth dist.	-725 Jan 07 j 18:00	10° \mathcal{E} 45'45	4.35511 AU	evening set	-720 Dec 19 j 04:29	1° \mathcal{Z} 14'44	
direct	-725 Mar 10 j 02:19	5° \mathcal{E} 41'13					
evening set	-725 Jul 15 j 10:11	23° \mathcal{E} 35'26		conjunction	-719 Jan 01 j 00:20	4° \mathcal{Z} 17'35	-0°26'37
				minimum elong	-719 Jan 01 j 00:18	4° \mathcal{Z} 17'34	0°26'38
conjunction	-725 Jul 28 j 17:49	26° \mathcal{E} 29'11	0°50'46	max. Earth dist.	-720 Dec 31 j 13:36	4° \mathcal{Z} 11'12	6.05746 AU
minimum elong	-725 Jul 28 j 17:47	26° \mathcal{E} 29'09	0°50'47	morning rise	-719 Jan 13 j 22:18	7° \mathcal{Z} 21'42	
max. Earth dist.	-725 Jul 28 j 08:36	26° \mathcal{E} 24'09	6.39582 AU	retrograde	-719 May 24 j 09:15	27° \mathcal{Z} 16'59	
morning rise	-725 Aug 10 j 22:40	29° \mathcal{E} 21'26		opposition	-719 Jul 23 j 21:04	22° \mathcal{Z} 18'05	-1°09'19
	-725 Aug 13 j 22:06	0° Ω		min. Earth dist.	-719 Jul 23 j 16:35	22° \mathcal{Z} 19'34	4.01272 AU
	-725 Nov 10 j 03:42	15° Ω		direct	-719 Sep 20 j 19:19	17° \mathcal{Z} 24'46	
retrograde	-725 Dec 09 j 14:28	16° Ω 20'54			-719 Dec 25 j 06:34	0° \approx	
	-724 Jan 07 j 22:38	15° \mathcal{R} Ω		evening set	-718 Jan 23 j 15:00	6° \approx 48'35	
opposition	-724 Feb 07 j 17:53	11° Ω 26'09	1°31'20				
min. Earth dist.	-724 Feb 08 j 08:13	11° Ω 21'29	4.42172 AU	conjunction	-718 Feb 05 j 17:25	9° \approx 57'29	-1°01'06
direct	-724 Apr 10 j 00:17	6° Ω 22'58		minimum elong	-718 Feb 05 j 17:23	9° \approx 57'27	1°01'08
	-724 Jul 01 j 08:34	15° Ω		max. Earth dist.	-718 Feb 06 j 14:32	10° \approx 10'11	5.98486 AU
evening set	-724 Aug 15 j 02:50	24° Ω 04'06		morning rise	-718 Feb 18 j 22:44	13° \approx 08'02	
max. Earth dist.	-724 Aug 26 j 18:22	26° Ω 35'45	6.42984 AU		-718 Feb 26 j 19:19	15° \approx	
					-718 May 13 j 06:39	0° \mathcal{H}	
conjunction	-724 Aug 28 j 02:12	26° Ω 53'04	1°10'59	retrograde	-718 Jul 01 j 06:35	3° \mathcal{H} 38'11	
minimum elong	-724 Aug 28 j 02:11	26° Ω 53'04	1°10'58		-718 Aug 19 j 15:41	30° \mathcal{R} \approx	
morning rise	-724 Sep 09 j 22:31	29° Ω 40'34		min. Earth dist.	-718 Aug 29 j 08:14	28° \approx 43'02	3.97796 AU
	-724 Sep 11 j 10:28	0° \mathcal{P}		opposition	-718 Aug 30 j 06:50	28° \approx 35'26	-1°45'55
retrograde	-723 Jan 08 j 01:57	16° \mathcal{P} 31'44		direct	-718 Oct 27 j 08:24	23° \approx 41'22	
opposition	-723 Mar 09 j 15:17	11° \mathcal{P} 39'18	1°47'16		-718 Dec 30 j 07:27	0° \mathcal{H}	
min. Earth dist.	-723 Mar 10 j 18:42	11° \mathcal{P} 30'30	4.42265 AU	evening set	-717 Mar 01 j 13:32	13° \mathcal{H} 13'18	
direct	-723 May 11 j 08:01	6° \mathcal{P} 37'16					
evening set	-723 Sep 14 j 23:55	24° \mathcal{P} 19'51		conjunction	-717 Mar 14 j 23:38	16° \mathcal{H} 25'24	-1°12'36
max. Earth dist.	-723 Sep 25 j 20:36	26° \mathcal{P} 42'59	6.39665 AU	minimum elong	-717 Mar 14 j 23:38	16° \mathcal{H} 25'24	1°12'36
				max. Earth dist.	-717 Mar 16 j 20:37	16° \mathcal{H} 52'15	5.98990 AU
conjunction	-723 Sep 27 j 17:09	27° \mathcal{P} 07'33	1°11'39	morning rise	-717 Mar 28 j 12:56	19° \mathcal{H} 39'03	
minimum elong	-723 Sep 27 j 17:10	27° \mathcal{P} 07'34	1°11'39		-717 May 13 j 23:03	0° \mathcal{Y}	

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Attention, astronomical year style is used: The year -717 in astronomical counting style is the year 718 BCE in historical counting style.

retrograde	-717 Aug 07 j 05:14	9°Υ58'26	direct	-711 May 15 j 17:56	10°Π58'20	
opposition	-717 Oct 05 j 21:32	4°Υ53'22 -1°41'02	evening set	-711 Sep 19 j 07:19	28°Π43'05	
min. Earth dist.	-717 Oct 04 j 12:32	5°Υ04'36 4.02334 AU		-711 Sep 25 j 03:12	0°Ω	
	-717 Nov 27 j 06:30	30°κκ	max. Earth dist.	-711 Sep 30 j 01:42	1°Ω05'27	6.38502 AU
direct	-717 Dec 02 j 21:28	29°κ56'42				
	-717 Dec 08 j 12:41	0°Υ	conjunction	-711 Oct 01 j 23:59	1°Ω31'02	1°10'03
evening set	-716 Apr 06 j 20:11	19°Υ14'00	minimum elong	-711 Oct 02 j 00:00	1°Ω31'02	1°10'03
			morning rise	-711 Oct 14 j 14:23	4°Ω18'00	
conjunction	-716 Apr 20 j 12:48	22°Υ25'22 -0°56'14	retrograde	-710 Feb 13 j 02:44	21°Ω33'23	
minimum elong	-716 Apr 20 j 12:51	22°Υ25'23 0°56'14	opposition	-710 Apr 14 j 23:53	16°Ω41'41	1°29'45
max. Earth dist.	-716 Apr 22 j 15:52	22°Υ55'09 6.07066 AU	min. Earth dist.	-710 Apr 16 j 09:41	16°Ω30'56	4.34290 AU
morning rise	-716 May 04 j 07:25	25°Υ37'29	direct	-710 Jun 16 j 09:44	11°Ω42'11	
	-716 May 23 j 13:42	0°κ	evening set	-710 Oct 20 j 07:15	29°Ω43'52	
	-716 Sep 02 j 11:05	15°κ		-710 Oct 21 j 11:59	0°Π	
retrograde	-716 Sep 10 j 05:53	15°κ06'05	max. Earth dist.	-710 Oct 31 j 01:15	2°Π09'30	6.28804 AU
	-716 Sep 17 j 23:28	15°κκ				
opposition	-716 Nov 08 j 18:21	10°κ01'27 -0°58'55	conjunction	-710 Nov 01 j 21:54	2°Π34'49	0°47'53
min. Earth dist.	-716 Nov 07 j 12:55	10°κ11'30 4.12991 AU	minimum elong	-710 Nov 01 j 21:56	2°Π34'50	0°47'52
direct	-715 Jan 06 j 14:09	5°κ01'40	morning rise	-710 Nov 14 j 11:24	5°Π25'27	
	-715 Apr 02 j 02:09	15°κ		-710 Dec 29 j 18:17	15°Π	
evening set	-715 May 13 j 04:47	23°κ49'15	retrograde	-709 Mar 18 j 15:35	23°Π26'50	
			opposition	-709 May 18 j 14:52	18°Π34'00	0°45'00
conjunction	-715 May 26 j 23:20	26°κ55'59 -0°20'15	min. Earth dist.	-709 May 19 j 20:19	18°Π24'36	4.22620 AU
minimum elong	-715 May 26 j 23:22	26°κ56'00 0°20'14		-709 Jun 18 j 21:32	15°κΠ	
max. Earth dist.	-715 May 28 j 15:04	27°κ18'28 6.19439 AU	direct	-709 Jul 19 j 02:55	13°Π37'15	
morning rise	-715 Jun 09 j 17:37	0°Π02'22		-709 Aug 18 j 02:59	15°Π	
	-715 Jun 09 j 13:25	0°Π		-709 Nov 12 j 02:37	0°κ	
retrograde	-715 Oct 13 j 01:59	18°Π25'58	evening set	-709 Nov 21 j 07:04	2°κ06'25	
asc. node	-715 Dec 07 j 01:17	14°Π01'46				
opposition	-715 Dec 11 j 16:51	13°Π24'17 0°00'43	conjunction	-709 Dec 03 j 23:09	5°κ03'11	0°10'18
min. Earth dist.	-715 Dec 10 j 22:48	13°Π30'22 4.25807 AU	minimum elong	-709 Dec 03 j 23:10	5°κ03'12	0°10'17
direct	-714 Feb 09 j 17:52	8°Π22'09	behind sun begin	-709 Dec 03 j 16:46	4°κ59'29	
evening set	-714 Jun 16 j 21:52	26°Π38'05	behind sun end	-709 Dec 04 j 05:33	5°κ06'54	
			max. Earth dist.	-709 Dec 02 j 15:08	4°κ44'31	6.16186 AU
conjunction	-714 Jun 30 j 12:11	29°Π37'51 0°21'00	morning rise	-709 Dec 16 j 15:59	8°κ00'33	
minimum elong	-714 Jun 30 j 12:10	29°Π37'50 0°20'59	desc. node	-708 Mar 08 j 05:17	24°κ01'22	
max. Earth dist.	-714 Jul 01 j 01:40	29°Π45'17 6.31731 AU	retrograde	-708 Apr 22 j 06:38	27°κ03'21	
	-714 Jul 02 j 04:19	0°Ω	opposition	-708 Jun 22 j 02:32	22°κ07'44	-0°17'08
morning rise	-714 Jul 14 j 00:44	2°Ω36'29	min. Earth dist.	-708 Jun 22 j 15:53	22°κ03'24	4.09931 AU
retrograde	-714 Nov 13 j 08:23	20°Ω05'32	direct	-708 Aug 21 j 05:08	17°κ13'22	
opposition	-713 Jan 12 j 04:26	15°Ω07'44 0°56'57		-708 Nov 26 j 21:12	0°Ω	
min. Earth dist.	-713 Jan 12 j 04:08	15°Ω07'50 4.36607 AU	evening set	-708 Dec 24 j 00:11	6°Ω14'16	
direct	-713 Mar 14 j 13:50	10°Ω04'28				
evening set	-713 Jul 19 j 20:43	27°Ω56'48	conjunction	-707 Jan 05 j 20:54	9°Ω17'57	-0°32'19
	-713 Jul 29 j 07:46	0°Ω	minimum elong	-707 Jan 05 j 20:52	9°Ω17'56	0°32'18
			max. Earth dist.	-707 Jan 05 j 15:40	9°Ω14'50	6.04599 AU
conjunction	-713 Aug 02 j 03:24	0°Ω49'53 0°54'34	morning rise	-707 Jan 18 j 19:36	12°Ω22'56	
minimum elong	-713 Aug 02 j 03:21	0°Ω49'52 0°54'34		-707 Apr 20 j 00:04	0°≈	
max. Earth dist.	-713 Aug 01 j 15:21	0°Ω43'20 6.40208 AU	retrograde	-707 May 29 j 15:44	2°≈24'10	
morning rise	-713 Aug 15 j 06:57	3°Ω41'24		-707 Jul 08 j 09:36	30°κΩ	
	-713 Oct 11 j 21:39	15°Ω	opposition	-707 Jul 29 j 01:23	27°Ω24'45	-1°16'24
retrograde	-713 Dec 13 j 18:15	20°Ω38'59	min. Earth dist.	-707 Jul 28 j 18:59	27°Ω26'52	4.00561 AU
opposition	-712 Feb 11 j 23:54	15°Ω44'39 1°35'09	direct	-707 Sep 25 j 20:31	22°Ω31'28	
min. Earth dist.	-712 Feb 12 j 15:34	15°Ω39'34 4.42330 AU		-707 Dec 05 j 11:33	0°≈	
	-712 Feb 17 j 17:59	15°κΩ	evening set	-706 Jan 28 j 16:04	11°≈56'54	
direct	-712 Apr 14 j 07:12	10°Ω41'37				
	-712 Jun 09 j 09:00	15°Ω	conjunction	-706 Feb 10 j 19:21	15°≈06'18	-1°04'19
evening set	-712 Aug 19 j 10:32	28°Ω23'06	minimum elong	-706 Feb 10 j 19:19	15°≈06'17	1°04'19
	-712 Aug 26 j 21:09	0°Π		-706 Feb 10 j 08:53	15°≈	
max. Earth dist.	-712 Aug 30 j 22:40	0°Π53'08 6.42659 AU	max. Earth dist.	-706 Feb 11 j 19:13	15°≈20'40	5.98253 AU
			morning rise	-706 Feb 24 j 01:53	18°≈17'27	
conjunction	-712 Sep 01 j 08:52	1°Π11'47 1°12'15		-706 Apr 17 j 21:54	0°κ	
minimum elong	-712 Sep 01 j 08:51	1°Π11'46 1°12'15	retrograde	-706 Jul 06 j 09:57	8°κ48'12	
morning rise	-712 Sep 14 j 04:16	3°Π59'03	min. Earth dist.	-706 Sep 03 j 08:19	3°κ53'33	3.98098 AU
retrograde	-711 Jan 12 j 10:33	20°Π52'11	opposition	-706 Sep 04 j 09:37	3°κ45'02	-1°47'48
opposition	-711 Mar 14 j 00:06	16°Π00'02 1°47'09		-706 Oct 06 j 06:31	30°κ≈	
min. Earth dist.	-711 Mar 15 j 05:32	15°Π50'36 4.41494 AU	direct	-706 Nov 01 j 09:09	28°≈50'42	

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 18

Attention, astronomical year style is used: The year -706 in astronomical counting style is the year 707 BCE in historical counting style.

	-706 Nov 27 j 12:14	0°♄	conjunction	-700 Sep 05 j 17:07	5°♄34'34	1°13'11
evening set	-705 Mar 06 j 16:51	18°♄21'28	minimum elong	-700 Sep 05 j 17:06	5°♄34'33	1°13'11
			morning rise	-700 Sep 18 j 11:30	8°♄21'34	
conjunction	-705 Mar 20 j 03:58	21°♄33'39 -1°11'55	retrograde	-699 Jan 16 j 18:39	25°♄16'14	
minimum elong	-705 Mar 20 j 03:59	21°♄33'39 1°11'55	opposition	-699 Mar 18 j 10:31	20°♄24'13	1°46'28
max. Earth dist.	-705 Mar 22 j 02:13	22°♄01'12 5.99782 AU	min. Earth dist.	-699 Mar 19 j 15:39	20°♄14'54	4.40920 AU
morning rise	-705 Apr 02 j 18:09	24°♄47'19	direct	-699 May 20 j 03:21	15°♄22'49	
	-705 Apr 25 j 07:07	0°♄		-699 Sep 09 j 03:13	0°♄	
retrograde	-705 Aug 12 j 04:09	15°♄01'32	evening set	-699 Sep 23 j 15:32	3°♄08'42	
min. Earth dist.	-705 Oct 09 j 11:08	10°♄07'21 4.03512 AU	max. Earth dist.	-699 Oct 04 j 09:57	5°♄31'25	6.37660 AU
opposition	-705 Oct 10 j 19:27	9°♄56'20 -1°37'04				
direct	-705 Dec 07 j 21:53	4°♄59'12	conjunction	-699 Oct 06 j 07:36	5°♄56'44	1°08'05
evening set	-704 Apr 11 j 21:57	24°♄13'05	minimum elong	-699 Oct 06 j 07:37	5°♄56'45	1°08'04
			morning rise	-699 Oct 18 j 21:34	8°♄43'53	
conjunction	-704 Apr 25 j 15:17	27°♄24'05 -0°52'07	retrograde	-698 Feb 17 j 16:54	26°♄03'26	
minimum elong	-704 Apr 25 j 15:20	27°♄24'06 0°52'07	opposition	-698 Apr 19 j 14:36	21°♄11'41	1°24'59
max. Earth dist.	-704 Apr 27 j 18:44	27°♄53'57 6.08538 AU	min. Earth dist.	-698 Apr 21 j 00:42	21°♄00'50	4.33221 AU
	-704 May 06 j 20:19	0°♄	direct	-698 Jun 20 j 23:36	16°♄12'34	
morning rise	-704 May 09 j 10:08	0°♄35'38		-698 Oct 05 j 08:36	0°♄	
	-704 Jul 19 j 09:27	15°♄	evening set	-698 Oct 24 j 16:32	4°♄16'04	
retrograde	-704 Sep 14 j 21:20	19°♄55'49	max. Earth dist.	-698 Nov 04 j 10:57	6°♄42'25	6.27598 AU
min. Earth dist.	-704 Nov 12 j 05:19	15°♄01'13 4.14595 AU				
	-704 Nov 12 j 08:53	15°♄	conjunction	-698 Nov 06 j 07:03	7°♄07'28	0°43'24
opposition	-704 Nov 13 j 09:50	14°♄51'31 -0°51'12	minimum elong	-698 Nov 06 j 07:05	7°♄07'29	0°43'24
direct	-703 Jan 11 j 08:30	9°♄51'21	morning rise	-698 Nov 18 j 20:48	9°♄58'42	
	-703 Mar 11 j 06:42	15°♄		-698 Dec 11 j 13:59	15°♄	
evening set	-703 May 18 j 02:27	28°♄34'58	retrograde	-697 Mar 23 j 09:28	28°♄06'11	
	-703 May 24 j 09:45	0°♄	opposition	-697 May 23 j 10:01	23°♄13'00	0°37'06
			min. Earth dist.	-697 May 24 j 12:51	23°♄04'25	4.21351 AU
conjunction	-703 May 31 j 20:38	1°♄40'53 -0°14'31	direct	-697 Jul 23 j 17:46	18°♄16'35	
minimum elong	-703 May 31 j 20:39	1°♄40'54 0°14'30		-697 Oct 26 j 08:53	0°♄	
behind sun begin	-703 May 31 j 17:18	1°♄39'01	evening set	-697 Nov 25 j 19:36	6°♄48'09	
behind sun end	-703 May 31 j 24:00	1°♄42'46	max. Earth dist.	-697 Dec 07 j 08:20	9°♄29'21	6.14972 AU
max. Earth dist.	-703 Jun 02 j 07:39	2°♄00'38 6.21043 AU				
morning rise	-703 Jun 14 j 14:37	4°♄46'23	conjunction	-697 Dec 08 j 12:08	9°♄45'36	0°04'29
retrograde	-703 Oct 17 j 12:11	23°♄02'12	minimum elong	-697 Dec 08 j 12:08	9°♄45'36	0°04'28
asc. node	-703 Oct 17 j 08:23	23°♄02'12	behind sun begin	-697 Dec 08 j 04:17	9°♄41'02	
opposition	-703 Dec 16 j 03:20	18°♄00'59 0°09'09	behind sun end	-697 Dec 08 j 19:59	9°♄50'10	
min. Earth dist.	-703 Dec 15 j 12:07	18°♄06'06 4.27264 AU	morning rise	-697 Dec 21 j 05:22	12°♄43'41	
direct	-702 Feb 14 j 09:37	12°♄58'33	desc. node	-696 Jan 18 j 09:43	19°♄05'00	
	-702 Jun 16 j 02:58	0°♄		-696 Mar 23 j 02:24	0°♄	
evening set	-702 Jun 21 j 14:03	1°♄11'25	retrograde	-696 Apr 27 j 07:21	1°♄53'07	
				-696 Jun 01 j 14:31	30°♄	
conjunction	-702 Jul 05 j 03:42	4°♄10'21 0°26'22	opposition	-696 Jun 27 j 01:36	26°♄57'02	-0°25'53
minimum elong	-702 Jul 05 j 03:40	4°♄10'20 0°26'23	min. Earth dist.	-696 Jun 27 j 13:32	26°♄53'10	4.08861 AU
max. Earth dist.	-702 Jul 05 j 14:53	4°♄16'30 6.32943 AU	direct	-696 Aug 26 j 01:01	22°♄02'54	
morning rise	-702 Jul 18 j 15:00	7°♄08'00		-696 Nov 08 j 04:23	0°♄	
retrograde	-702 Nov 17 j 14:32	24°♄32'01	evening set	-696 Dec 28 j 17:24	11°♄06'04	
opposition	-701 Jan 16 j 12:17	19°♄34'46 1°03'38				
min. Earth dist.	-701 Jan 16 j 13:31	19°♄34'21 4.37503 AU	conjunction	-695 Jan 10 j 14:42	14°♄10'24	-0°37'36
direct	-701 Mar 19 j 00:29	14°♄31'28	minimum elong	-695 Jan 10 j 14:39	14°♄10'22	0°37'36
	-701 Jul 13 j 06:46	0°♄	max. Earth dist.	-695 Jan 10 j 11:51	14°♄08'42	6.03756 AU
evening set	-701 Jul 24 j 08:41	2°♄22'18	morning rise	-695 Jan 23 j 14:25	17°♄16'09	
				-695 Mar 23 j 09:37	0°♄	
conjunction	-701 Aug 06 j 14:02	5°♄14'39 0°58'08	retrograde	-695 Jun 03 j 16:09	7°♄22'09	
minimum elong	-701 Aug 06 j 13:59	5°♄14'38 0°58'08	opposition	-695 Aug 03 j 01:57	2°♄22'13	-1°22'42
max. Earth dist.	-701 Aug 05 j 21:34	5°♄05'42 6.40717 AU	min. Earth dist.	-695 Aug 02 j 16:18	2°♄25'25	4.00055 AU
morning rise	-701 Aug 19 j 16:31	8°♄05'30		-695 Aug 21 j 19:18	30°♄	
	-701 Sep 21 j 21:48	15°♄	direct	-695 Sep 30 j 16:54	27°♄28'55	
retrograde	-701 Dec 18 j 02:13	25°♄01'29		-695 Nov 09 j 00:53	0°♄	
opposition	-700 Feb 16 j 07:59	20°♄07'33 1°38'33		-694 Jan 25 j 11:17	15°♄	
min. Earth dist.	-700 Feb 17 j 02:23	20°♄01'36 4.42461 AU	evening set	-694 Feb 02 j 13:42	16°♄55'33	
direct	-700 Apr 18 j 18:36	15°♄04'39				
	-700 Aug 10 j 21:02	0°♄	conjunction	-694 Feb 15 j 17:59	20°♄05'27	-1°06'56
evening set	-700 Aug 23 j 19:37	2°♄46'09	minimum elong	-694 Feb 15 j 17:57	20°♄05'25	1°06'56
max. Earth dist.	-700 Sep 04 j 05:46	5°♄15'17 6.42409 AU	max. Earth dist.	-694 Feb 16 j 20:49	20°♄21'35	5.98114 AU
			morning rise	-694 Mar 01 j 01:26	23°♄17'04	

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Attention, astronomical year style is used: The year -694 in astronomical counting style is the year 695 BCE in historical counting style.

	-694 Mar 30 j 01:19	0°♈			-688 Jul 24 j 20:15	0°♏	
retrograde	-694 Jul 11 j 10:41	13°♈48'19		evening set	-688 Aug 28 j 03:13	7°♏07'04	
min. Earth dist.	-694 Sep 08 j 06:48	8°♈53'30	3.98350 AU	max. Earth dist.	-688 Sep 08 j 09:29	9°♏34'17	6.42228 AU
opposition	-694 Sep 09 j 08:36	8°♈44'47	-1°48'51				
direct	-694 Nov 06 j 08:14	3°♈50'08		conjunction	-688 Sep 09 j 23:36	9°♏55'07	1°13'41
evening set	-693 Mar 11 j 16:58	23°♈20'20		minimum elong	-688 Sep 09 j 23:35	9°♏55'07	1°13'41
				morning rise	-688 Sep 22 j 17:16	12°♏41'51	
conjunction	-693 Mar 25 j 05:12	26°♈32'43	-1°10'44	retrograde	-687 Jan 21 j 03:56	29°♏37'59	
minimum elong	-693 Mar 25 j 05:14	26°♈32'44	1°10'44	opposition	-687 Mar 22 j 20:06	24°♏46'05	1°45'11
max. Earth dist.	-693 Mar 27 j 05:36	27°♈01'28	6.00406 AU	min. Earth dist.	-687 Mar 24 j 03:13	24°♏36'09	4.40326 AU
morning rise	-693 Apr 07 j 20:14	29°♈46'29		direct	-687 May 24 j 13:57	19°♏44'53	
	-693 Apr 08 j 19:12	0°♏			-687 Aug 23 j 01:50	0°♏	
retrograde	-693 Aug 17 j 00:12	19°♏56'14		evening set	-687 Sep 27 j 22:04	7°♏31'54	
min. Earth dist.	-693 Oct 14 j 05:46	15°♏02'07	4.04453 AU	max. Earth dist.	-687 Oct 08 j 15:42	9°♏54'32	6.36675 AU
opposition	-693 Oct 15 j 14:05	14°♏51'05	-1°32'34				
direct	-693 Dec 12 j 17:02	9°♏53'38		conjunction	-687 Oct 10 j 13:47	10°♏20'09	1°05'44
evening set	-692 Apr 16 j 21:29	29°♏05'23		minimum elong	-687 Oct 10 j 13:49	10°♏20'10	1°05'44
	-692 Apr 20 j 20:10	0°♏		morning rise	-687 Oct 23 j 03:24	13°♏07'34	
					-686 Feb 03 j 16:46	0°♏	
conjunction	-692 Apr 30 j 15:13	2°♏16'05	-0°47'46	retrograde	-686 Feb 22 j 04:38	0°♏31'56	
minimum elong	-692 Apr 30 j 15:17	2°♏16'07	0°47'46		-686 Mar 12 j 18:41	30°♏	
max. Earth dist.	-692 May 02 j 15:54	2°♏44'16	6.09713 AU	opposition	-686 Apr 24 j 04:05	25°♏40'02	1°19'43
morning rise	-692 May 14 j 10:34	5°♏27'18		min. Earth dist.	-686 Apr 25 j 13:07	25°♏29'32	4.31887 AU
	-692 Jun 27 j 10:41	15°♏		direct	-686 Jun 25 j 09:34	20°♏41'15	
retrograde	-692 Sep 19 j 11:00	24°♏40'33			-686 Sep 17 j 18:38	0°♏	
opposition	-692 Nov 17 j 23:36	19°♏36'34	-0°43'21	evening set	-686 Oct 29 j 01:11	8°♏47'44	
min. Earth dist.	-692 Nov 16 j 20:31	19°♏45'47	4.15882 AU	max. Earth dist.	-686 Nov 08 j 21:27	11°♏15'38	6.26023 AU
	-692 Dec 31 j 15:22	15°♏					
direct	-691 Jan 16 j 01:51	14°♏36'03		conjunction	-686 Nov 10 j 15:45	11°♏39'46	0°38'39
	-691 Jan 31 j 15:30	15°♏		minimum elong	-686 Nov 10 j 15:47	11°♏39'48	0°38'39
	-691 May 08 j 02:03	0°♏		morning rise	-686 Nov 23 j 05:44	14°♏31'46	
evening set	-691 May 22 j 22:23	3°♏16'56			-686 Nov 25 j 07:36	15°♏	
					-685 Feb 13 j 00:16	0°♏	
conjunction	-691 Jun 05 j 16:30	6°♏22'13	-0°08'49	retrograde	-685 Mar 28 j 06:38	2°♏46'57	
minimum elong	-691 Jun 05 j 16:30	6°♏22'14	0°08'49		-685 May 11 j 03:32	30°♏	
behind sun begin	-691 Jun 05 j 09:22	6°♏18'14		opposition	-685 May 28 j 05:31	27°♏53'27	0°28'53
behind sun end	-691 Jun 05 j 23:38	6°♏26'13		min. Earth dist.	-685 May 29 j 07:58	27°♏44'59	4.19609 AU
max. Earth dist.	-691 Jun 07 j 02:06	6°♏41'07	6.22372 AU	direct	-685 Jul 28 j 10:05	22°♏57'20	
morning rise	-691 Jun 19 j 09:47	9°♏26'54			-685 Oct 07 j 00:32	0°♏	
asc. node	-691 Aug 28 j 07:40	23°♏09'22		desc. node	-685 Nov 28 j 21:20	11°♏12'24	
retrograde	-691 Oct 21 j 22:11	27°♏36'05		evening set	-685 Nov 30 j 09:04	11°♏33'10	
opposition	-691 Dec 20 j 13:08	22°♏35'26	0°17'23	max. Earth dist.	-685 Dec 12 j 00:06	14°♏16'19	6.13220 AU
min. Earth dist.	-691 Dec 19 j 23:37	22°♏39'58	4.28522 AU				
direct	-690 Feb 18 j 23:18	17°♏32'53		conjunction	-685 Dec 13 j 02:07	14°♏31'35	-0°01'35
	-690 May 30 j 07:40	0°♏		minimum elong	-685 Dec 13 j 02:05	14°♏31'34	0°01'35
evening set	-690 Jun 26 j 05:39	5°♏43'14		behind sun begin	-685 Dec 12 j 18:04	14°♏26'53	
				behind sun end	-685 Dec 13 j 10:07	14°♏36'15	
conjunction	-690 Jul 09 j 18:12	8°♏41'18	0°31'30	morning rise	-685 Dec 25 j 20:10	17°♏30'45	
minimum elong	-690 Jul 09 j 18:10	8°♏41'17	0°31'31		-684 Feb 22 j 18:11	0°♏	
max. Earth dist.	-690 Jul 10 j 01:02	8°♏45'03	6.34030 AU	retrograde	-684 May 02 j 08:11	6°♏48'57	
morning rise	-690 Jul 23 j 04:33	11°♏38'04		opposition	-684 Jul 02 j 02:39	1°♏52'21	-0°34'41
retrograde	-690 Nov 21 j 21:29	28°♏57'31		min. Earth dist.	-684 Jul 02 j 11:08	1°♏49'35	4.07252 AU
opposition	-689 Jan 20 j 19:49	24°♏00'43	1°09'51		-684 Jul 16 j 21:31	30°♏	
min. Earth dist.	-689 Jan 20 j 23:27	23°♏59'31	4.38361 AU	direct	-684 Aug 30 j 20:01	26°♏58'25	
direct	-689 Mar 23 j 11:59	18°♏57'22			-684 Oct 13 j 18:32	0°♏	
	-689 Jun 26 j 05:33	0°♏		evening set	-683 Jan 02 j 13:46	16°♏05'59	
evening set	-689 Jul 28 j 19:34	6°♏46'31					
				conjunction	-683 Jan 15 j 11:57	19°♏11'16	-0°42'46
conjunction	-689 Aug 10 j 23:55	9°♏38'11	1°01'19	minimum elong	-683 Jan 15 j 11:54	19°♏11'14	0°42'47
minimum elong	-689 Aug 10 j 23:52	9°♏38'10	1°01'19	max. Earth dist.	-683 Jan 15 j 13:17	19°♏12'04	6.02434 AU
max. Earth dist.	-689 Aug 10 j 06:17	9°♏28'35	6.41272 AU	morning rise	-683 Jan 28 j 12:37	22°♏18'02	
morning rise	-689 Aug 24 j 01:01	12°♏28'18			-683 Mar 03 j 03:34	0°♏	
	-689 Sep 04 j 20:23	15°♏		retrograde	-683 Jun 08 j 23:01	12°♏30'33	
retrograde	-689 Dec 22 j 07:15	29°♏22'28		opposition	-683 Aug 08 j 06:16	7°♏30'03	-1°28'38
opposition	-688 Feb 20 j 15:19	24°♏28'52	1°41'19	min. Earth dist.	-683 Aug 07 j 18:46	7°♏33'53	3.99163 AU
min. Earth dist.	-688 Feb 21 j 10:31	24°♏22'40	4.42676 AU	direct	-683 Oct 05 j 19:01	2°♏36'38	
direct	-688 Apr 23 j 03:02	19°♏26'07			-682 Jan 08 j 00:52	15°♏	

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Attention, astronomical year style is used: The year -682 in astronomical counting style is the year 683 BCE in historical counting style.

evening set	-682 Feb 07 j 16:21	22°≈05'55		conjunction	-677 Aug 15 j 06:20	13°Ω53'29	1°04'04
				minimum elong	-677 Aug 15 j 06:18	13°Ω53'28	1°04'05
conjunction	-682 Feb 20 j 21:50	25°≈16'30	-1°09'09		-677 Aug 20 j 08:43	15°Ω	
minimum elong	-682 Feb 20 j 21:48	25°≈16'29	1°09'10	morning rise	-677 Aug 28 j 06:21	16°Ω42'45	
max. Earth dist.	-682 Feb 22 j 05:01	25°≈35'15	5.97736 AU		-677 Nov 07 j 07:14	0°൬	
morning rise	-682 Mar 06 j 06:27	28°≈28'48		retrograde	-677 Dec 26 j 10:42	3°൬34'22	
	-682 Mar 12 j 16:03	0°✕			-676 Feb 14 j 11:38	30°℞Ω	
retrograde	-682 Jul 16 j 16:07	19°✕00'40		opposition	-676 Feb 24 j 19:42	28°Ω41'04	1°43'26
min. Earth dist.	-682 Sep 13 j 08:20	14°✕06'10	3.98567 AU	min. Earth dist.	-676 Feb 25 j 17:43	28°Ω33'58	4.43077 AU
opposition	-682 Sep 14 j 12:00	13°✕56'48	-1°49'07	direct	-676 Apr 27 j 09:48	23°Ω38'22	
direct	-682 Nov 11 j 09:40	9°✕01'53			-676 Jul 05 j 20:37	0°൬	
evening set	-681 Mar 16 j 22:31	28°✕31'27		evening set	-676 Sep 01 j 07:04	11°൬18'25	
	-681 Mar 23 j 04:19	0°℣		max. Earth dist.	-676 Sep 12 j 11:19	13°൬44'37	6.42046 AU
conjunction	-681 Mar 30 j 11:37	1°℣43'56	-1°08'58	conjunction	-676 Sep 14 j 02:45	14°൬06'12	1°13'45
minimum elong	-681 Mar 30 j 11:39	1°℣43'57	1°08'57	minimum elong	-676 Sep 14 j 02:45	14°൬06'12	1°13'45
max. Earth dist.	-681 Apr 01 j 12:21	2°℣12'48	6.01189 AU	morning rise	-676 Sep 26 j 19:27	16°൬52'40	
morning rise	-681 Apr 13 j 03:43	4°℣57'44			-676 Dec 05 j 02:07	0°♠	
retrograde	-681 Aug 21 j 22:31	25°℣01'44		retrograde	-675 Jan 25 j 08:12	3°♠50'39	
min. Earth dist.	-681 Oct 19 j 03:51	20°℣07'48	4.05732 AU		-675 Mar 19 j 01:04	30°℞൬	
opposition	-681 Oct 20 j 12:46	19°℣56'33	-1°27'11	opposition	-675 Mar 27 j 02:16	28°൬58'52	1°43'23
direct	-681 Dec 17 j 18:05	14°℣58'39		min. Earth dist.	-675 Mar 28 j 10:13	28°൬48'41	4.39568 AU
	-680 Apr 03 j 20:44	0°♠		direct	-675 May 28 j 18:41	23°൬57'56	
evening set	-680 Apr 22 j 00:56	4°♠06'39			-675 Aug 03 j 20:22	0°♠	
				evening set	-675 Oct 02 j 01:36	11°♠46'57	
conjunction	-680 May 05 j 19:13	7°♠16'48	-0°42'55	max. Earth dist.	-675 Oct 12 j 16:59	14°♠08'50	6.35380 AU
minimum elong	-680 May 05 j 19:16	7°♠16'49	0°42'54				
max. Earth dist.	-680 May 07 j 20:21	7°♠45'08	6.11422 AU	conjunction	-675 Oct 14 j 16:51	14°♠35'32	1°03'06
morning rise	-680 May 19 j 14:29	10°♠27'13		minimum elong	-675 Oct 14 j 16:53	14°♠35'33	1°03'06
	-680 Jun 08 j 20:53	15°♠		morning rise	-675 Oct 27 j 06:26	17°♠23'27	
retrograde	-680 Sep 24 j 03:45	29°♠30'58			-675 Dec 30 j 05:20	0°℞	
opposition	-680 Nov 22 j 15:41	24°♠27'21	-0°35'02	retrograde	-674 Feb 26 j 17:30	4°℞54'09	
min. Earth dist.	-680 Nov 21 j 13:58	24°♠36'05	4.17844 AU	opposition	-674 Apr 28 j 15:44	0°℞02'10	1°14'10
direct	-679 Jan 20 j 22:50	19°♠26'31			-674 Apr 28 j 22:33	30°℞♠	
	-679 Apr 20 j 04:39	0°℞		min. Earth dist.	-674 Apr 30 j 01:59	29°♠51'16	4.30106 AU
evening set	-679 May 27 j 20:07	8°℞01'55		direct	-674 Jun 29 j 19:00	25°♠03'40	
					-674 Aug 27 j 23:48	0°℞	
conjunction	-679 Jun 10 j 13:36	11°℞06'05	-0°03'01	evening set	-674 Nov 02 j 08:02	13°℞14'56	
minimum elong	-679 Jun 10 j 13:37	11°℞06'05	0°03'00		-674 Nov 10 j 00:16	15°℞	
behind sun begin	-679 Jun 10 j 05:18	11°℞01'27		max. Earth dist.	-674 Nov 13 j 05:13	15°℞44'04	6.23904 AU
behind sun end	-679 Jun 10 j 21:55	11°℞10'43					
max. Earth dist.	-679 Jun 11 j 19:56	11°℞23'03	6.24435 AU	conjunction	-674 Nov 14 j 22:55	16°℞07'57	0°33'46
morning rise	-679 Jun 24 j 06:14	14°℞09'32		minimum elong	-674 Nov 14 j 22:57	16°℞07'58	0°33'45
asc. node	-679 Jul 08 j 17:32	17°℞20'00		morning rise	-674 Nov 27 j 13:19	19°℞01'01	
	-679 Sep 19 j 02:22	0°♠			-673 Jan 18 j 18:10	0°♠	
retrograde	-679 Oct 26 j 06:00	2°♠09'20		retrograde	-673 Apr 02 j 01:37	7°♠26'08	
	-679 Dec 02 j 06:04	30°℞℞		opposition	-673 Jun 02 j 00:23	2°♠32'20	0°20'36
opposition	-679 Dec 24 j 22:52	27°℞09'09	0°25'27	min. Earth dist.	-673 Jun 03 j 00:32	2°♠24'35	4.17305 AU
min. Earth dist.	-679 Dec 24 j 11:00	27°℞13'08	4.30516 AU		-673 Jun 22 j 19:44	30°℞℞	
direct	-678 Feb 23 j 13:35	22°℞06'22		direct	-673 Aug 01 j 22:41	27°℞36'36	
	-678 May 11 j 13:32	0°♠			-673 Sep 10 j 11:56	0°♠	
evening set	-678 Jun 30 j 19:51	10°♠11'33		desc. node	-673 Oct 10 j 03:20	4°♠26'11	
				evening set	-673 Dec 04 j 23:10	16°♠19'05	
conjunction	-678 Jul 14 j 07:22	13°♠08'26	0°36'23	conjunction	-673 Dec 17 j 16:49	19°♠18'44	-0°07'30
minimum elong	-678 Jul 14 j 07:19	13°♠08'24	0°36'24	minimum elong	-673 Dec 17 j 16:48	19°♠18'44	0°07'30
max. Earth dist.	-678 Jul 14 j 11:29	13°♠10'41	6.35804 AU	behind sun begin	-673 Dec 17 j 09:29	19°♠14'26	
morning rise	-678 Jul 27 j 16:18	16°♠03'54		behind sun end	-673 Dec 18 j 00:08	19°♠23'02	
	-678 Oct 10 j 08:54	0°Ω		max. Earth dist.	-673 Dec 16 j 17:54	19°♠05'14	6.10933 AU
retrograde	-678 Nov 26 j 01:38	3°Ω16'45		morning rise	-673 Dec 30 j 11:46	22°♠19'18	
	-677 Jan 12 j 03:46	30°℞♠			-672 Feb 02 j 13:53	0°♠	
opposition	-677 Jan 25 j 01:28	28°♠20'27	1°15'30	retrograde	-672 May 07 j 13:25	11°♠48'31	
min. Earth dist.	-677 Jan 25 j 07:26	28°♠18'30	4.39786 AU	opposition	-672 Jul 07 j 05:06	6°♠51'26	-0°43'17
direct	-677 Mar 27 j 21:33	23°♠17'07		min. Earth dist.	-672 Jul 07 j 11:29	6°♠49'21	4.05184 AU
	-677 Jun 02 j 03:57	0°Ω		direct	-672 Sep 04 j 18:16	1°♠57'43	
evening set	-677 Aug 07 j 03:21	11°Ω02'42		evening set	-671 Jan 07 j 12:28	21°♠11'35	
max. Earth dist.	-677 Aug 14 j 07:49	13°Ω41'14	6.42208 AU				

Planetary Phenomena of Jupiter from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 21

Attention, astronomical year style is used: The year -671 in astronomical counting style is the year 672 BCE in historical counting style.

conjunction	-671 Jan 20 j 11:46	24° ♁ 18'05	-0°47'39	evening set	-666 Jul 05 j 10:45	14° ♁ 42'32	
minimum elong	-671 Jan 20 j 11:44	24° ♁ 18'04	0°47'39				
max. Earth dist.	-671 Jan 20 j 18:11	24° ♁ 21'56	6.00783 AU	conjunction	-666 Jul 18 j 21:06	17° ♁ 38'20	0°41'10
morning rise	-671 Feb 02 j 13:37	27° ♁ 26'07		minimum elong	-666 Jul 18 j 21:04	17° ♁ 38'19	0°41'10
	-671 Feb 13 j 09:56	0° \approx		max. Earth dist.	-666 Jul 18 j 20:53	17° ♁ 38'13	6.37218 AU
	-671 May 02 j 19:21	15° \approx		morning rise	-666 Aug 01 j 04:49	20° ♁ 32'44	
retrograde	-671 Jun 14 j 08:32	17° \approx 46'06			-666 Sep 16 j 18:19	0° Ω	
	-671 Jul 27 j 00:33	15° \approx		retrograde	-666 Nov 30 j 07:05	7° Ω 40'28	
opposition	-671 Aug 13 j 13:05	12° \approx 45'06	-1°33'54	opposition	-665 Jan 29 j 08:42	2° Ω 44'38	1°20'55
min. Earth dist.	-671 Aug 12 j 22:14	12° \approx 50'02	3.98143 AU	min. Earth dist.	-665 Jan 29 j 16:56	2° Ω 41'56	4.40761 AU
direct	-671 Oct 10 j 21:20	7° \approx 51'40			-665 Feb 20 j 14:19	30° ♁	
	-671 Dec 18 j 11:10	15° \approx		direct	-665 Apr 01 j 07:25	27° ♁ 41'16	
evening set	-670 Feb 12 j 22:13	27° \approx 23'58			-665 May 11 j 11:00	0° Ω	
	-670 Feb 23 j 18:11	0° ✕			-665 Aug 04 j 14:52	15° Ω	
				evening set	-665 Aug 06 j 13:06	15° Ω 24'52	
conjunction	-670 Feb 26 j 04:43	0° ✕ 35'12	-1°10'49	conjunction	-665 Aug 19 j 15:00	18° Ω 15'00	1°06'35
minimum elong	-670 Feb 26 j 04:42	0° ✕ 35'12	1°10'49	minimum elong	-665 Aug 19 j 14:58	18° Ω 14'59	1°06'35
max. Earth dist.	-670 Feb 27 j 15:06	0° ✕ 55'52	5.97413 AU	max. Earth dist.	-665 Aug 18 j 14:07	18° Ω 01'28	6.42670 AU
morning rise	-670 Mar 11 j 14:40	3° ✕ 48'11		morning rise	-665 Sep 01 j 13:44	21° Ω 03'35	
retrograde	-670 Jul 21 j 21:43	24° ✕ 19'56			-665 Oct 15 j 14:40	0° ♁	
min. Earth dist.	-670 Sep 18 j 11:24	19° ✕ 25'50	3.98983 AU	retrograde	-665 Dec 30 j 17:04	7° ♁ 54'15	
opposition	-670 Sep 19 j 17:32	19° ✕ 15'37	-1°48'25	opposition	-664 Feb 29 j 03:15	3° ♁ 01'16	1°45'09
direct	-670 Nov 16 j 14:40	14° ✕ 20'18		min. Earth dist.	-664 Mar 01 j 03:19	2° ♁ 53'32	4.43015 AU
	-669 Mar 05 j 21:12	0° Υ			-664 Mar 25 j 08:59	30° ♁	
evening set	-669 Mar 22 j 06:20	3° Υ 48'15		direct	-664 May 01 j 18:44	27° Ω 58'47	
					-664 Jun 08 j 09:01	0° ♁	
conjunction	-669 Apr 04 j 20:35	7° Υ 00'41	-1°06'35	evening set	-664 Sep 05 j 14:16	15° ♁ 39'10	
minimum elong	-669 Apr 04 j 20:37	7° Υ 00'42	1°06'35	max. Earth dist.	-664 Sep 16 j 14:09	18° ♁ 03'20	6.41443 AU
max. Earth dist.	-669 Apr 07 j 00:28	7° Υ 31'20	6.02291 AU				
morning rise	-669 Apr 18 j 13:17	10° Υ 14'15		conjunction	-664 Sep 18 j 09:00	18° ♁ 26'50	1°13'28
	-669 Aug 16 j 14:49	0° ♁		minimum elong	-664 Sep 18 j 09:00	18° ♁ 26'50	1°13'27
retrograde	-669 Aug 26 j 23:38	0° ♁ 10'41		morning rise	-664 Oct 01 j 01:12	21° ♁ 13'19	
	-669 Sep 06 j 06:17	30° ♁			-664 Nov 12 j 18:30	0° Ω	
min. Earth dist.	-669 Oct 24 j 04:02	25° Υ 16'32	4.07349 AU	retrograde	-663 Jan 29 j 19:12	8° Ω 14'32	
opposition	-669 Oct 25 j 12:20	25° Υ 05'30	-1°21'04	opposition	-663 Mar 31 j 13:21	3° Ω 22'48	1°40'59
direct	-669 Dec 22 j 21:15	20° Υ 07'08		min. Earth dist.	-663 Apr 01 j 22:45	3° Ω 12'08	4.38466 AU
	-668 Mar 16 j 00:54	0° ♁			-663 Apr 29 j 17:49	30° ♁	
evening set	-668 Apr 27 j 05:19	9° ♁ 10'07		direct	-663 Jun 02 j 04:58	28° ♁ 22'06	
					-663 Jul 05 j 16:38	0° Ω	
conjunction	-668 May 10 j 23:45	12° ♁ 19'29	-0°37'43	evening set	-663 Oct 06 j 09:26	16° Ω 13'52	
minimum elong	-668 May 10 j 23:48	12° ♁ 19'30	0°37'42	max. Earth dist.	-663 Oct 17 j 01:30	18° Ω 36'37	6.33872 AU
max. Earth dist.	-668 May 12 j 23:16	12° ♁ 46'44	6.13377 AU				
	-668 May 22 j 16:09	15° ♁		conjunction	-663 Oct 19 j 00:35	19° Ω 02'58	0°59'59
morning rise	-668 May 24 j 19:06	15° ♁ 29'01		minimum elong	-663 Oct 19 j 00:38	19° Ω 03'00	0°59'59
	-668 Aug 05 j 20:07	0° ♁		morning rise	-663 Oct 31 j 13:55	21° Ω 51'26	
retrograde	-668 Sep 28 j 18:21	4° ♁ 22'28			-663 Dec 09 j 00:05	0° ♁	
	-668 Nov 22 j 07:10	30° ♁		retrograde	-662 Mar 03 j 09:21	9° ♁ 29'01	
min. Earth dist.	-668 Nov 26 j 06:52	29° ♁ 27'39	4.19915 AU	opposition	-662 May 03 j 08:28	4° ♁ 36'54	1°07'52
opposition	-668 Nov 27 j 07:48	29° ♁ 19'12	-0°26'26	min. Earth dist.	-662 May 04 j 17:33	4° ♁ 26'22	4.28287 AU
direct	-667 Jan 25 j 18:35	24° ♁ 17'59			-662 Jun 19 j 03:47	30° ♁	
	-667 Mar 29 j 17:37	0° ♁		direct	-662 Jul 04 j 07:38	29° Ω 38'49	
asc. node	-667 May 18 j 01:00	9° ♁ 34'38			-662 Jul 19 j 12:31	0° ♁	
evening set	-667 Jun 01 j 17:45	12° ♁ 47'50			-662 Oct 24 j 22:06	15° ♁	
				evening set	-662 Nov 06 j 20:01	17° ♁ 54'41	
conjunction	-667 Jun 15 j 10:38	15° ♁ 50'52	0°03'01	max. Earth dist.	-662 Nov 17 j 18:37	20° ♁ 25'20	6.21937 AU
minimum elong	-667 Jun 15 j 10:38	15° ♁ 50'51	0°03'02				
behind sun begin	-667 Jun 15 j 02:20	15° ♁ 46'15		conjunction	-662 Nov 19 j 11:00	20° ♁ 48'36	0°28'26
behind sun end	-667 Jun 15 j 18:55	15° ♁ 55'27		minimum elong	-662 Nov 19 j 11:02	20° ♁ 48'37	0°28'26
max. Earth dist.	-667 Jun 16 j 13:19	16° ♁ 05'44	6.26454 AU	morning rise	-662 Dec 02 j 01:59	23° ♁ 42'42	
morning rise	-667 Jun 29 j 02:19	18° ♁ 53'03			-662 Dec 30 j 09:27	0° ♁	
	-667 Aug 22 j 19:05	0° ♁		retrograde	-661 Apr 07 j 02:56	12° ♁ 17'11	
retrograde	-667 Oct 30 j 16:15	6° ♁ 44'11		opposition	-661 Jun 07 j 00:25	7° ♁ 22'59	0°11'44
opposition	-667 Dec 29 j 09:16	1° ♁ 44'33	0°33'28	min. Earth dist.	-661 Jun 07 j 22:48	7° ♁ 15'47	4.15329 AU
min. Earth dist.	-667 Dec 29 j 00:32	1° ♁ 47'28	4.32306 AU	direct	-661 Aug 06 j 18:43	2° ♁ 27'37	
	-666 Jan 11 j 17:40	30° ♁		desc. node	-661 Aug 19 j 11:02	2° ♁ 43'05	
direct	-666 Feb 28 j 05:16	26° ♁ 41'36		evening set	-661 Dec 09 j 17:20	21° ♁ 15'14	
	-666 Apr 16 j 23:41	0° ♁					

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Attention, astronomical year style is used: The year -661 in astronomical counting style is the year 662 BCE in historical counting style.

conjunction	-661 Dec 22 j 11:47	24°♌15'57	-0°13'35	conjunction	-655 Jun 20 j 03:48	20°♊25'50	0°08'42
minimum elong	-661 Dec 22 j 11:45	24°♌15'57	0°13'36	minimum elong	-655 Jun 20 j 03:46	20°♊25'49	0°08'43
behind sun begin	-661 Dec 22 j 07:12	24°♌13'16		behind sun begin	-655 Jun 19 j 20:38	20°♊21'52	
behind sun end	-661 Dec 22 j 16:19	24°♌18'38		behind sun end	-655 Jun 20 j 10:55	20°♊29'46	
max. Earth dist.	-661 Dec 21 j 17:21	24°♌05'04	6.09160 AU	max. Earth dist.	-655 Jun 21 j 03:06	20°♊38'47	6.28170 AU
morning rise	-660 Jan 04 j 07:32	27°♌17'40		morning rise	-655 Jul 03 j 18:31	23°♊26'55	
	-660 Jan 15 j 22:20	0°♌			-655 Aug 03 j 12:34	0°♌	
retrograde	-660 May 12 j 20:17	16°♌55'34		retrograde	-655 Nov 03 j 21:42	11°♌10'53	
opposition	-660 Jul 12 j 10:45	11°♌58'01	-0°51'51	opposition	-654 Jan 02 j 16:31	6°♌11'50	0°41'03
min. Earth dist.	-660 Jul 12 j 13:35	11°♌57'05	4.03817 AU	min. Earth dist.	-654 Jan 02 j 09:38	6°♌14'07	4.33695 AU
direct	-660 Sep 09 j 18:49	7°♌04'31		direct	-654 Mar 04 j 15:13	1°♌08'47	
evening set	-659 Jan 12 j 13:45	26°♌21'51		evening set	-654 Jul 09 j 22:56	19°♌07'04	
conjunction	-659 Jan 25 j 13:47	29°♌29'06	-0°52'17	conjunction	-654 Jul 23 j 08:07	22°♌02'02	0°45'36
minimum elong	-659 Jan 25 j 13:44	29°♌29'04	0°52'17	minimum elong	-654 Jul 23 j 08:04	22°♌02'01	0°45'36
max. Earth dist.	-659 Jan 25 j 23:52	29°♌35'09	5.99942 AU	max. Earth dist.	-654 Jul 23 j 03:20	21°♌59'25	6.38177 AU
	-659 Jan 27 j 17:12	0°♌		morning rise	-654 Aug 05 j 14:39	24°♌55'33	
morning rise	-659 Feb 07 j 16:47	2°♌37'58			-654 Aug 29 j 14:04	0°♌	
	-659 Apr 05 j 01:11	15°♌		retrograde	-654 Dec 04 j 13:21	12°♌00'05	
retrograde	-659 Jun 19 j 15:33	23°♌01'46		opposition	-653 Feb 02 j 14:47	7°♌04'47	1°25'47
opposition	-659 Aug 18 j 19:46	18°♌00'10	-1°38'27	min. Earth dist.	-653 Feb 03 j 02:19	7°♌01'01	4.41250 AU
min. Earth dist.	-659 Aug 18 j 01:36	18°♌06'15	3.97949 AU	direct	-653 Apr 05 j 17:09	2°♌01'31	
	-659 Sep 12 j 02:18	15°♌			-653 Jul 19 j 09:27	15°♌	
direct	-659 Oct 16 j 01:25	13°♌06'34		evening set	-653 Aug 10 j 21:33	19°♌44'43	
	-659 Nov 18 j 18:30	15°♌					
	-658 Feb 06 j 23:13	0°♌		conjunction	-653 Aug 23 j 22:24	22°♌34'26	1°08'41
evening set	-658 Feb 18 j 03:31	2°♌38'50		minimum elong	-653 Aug 23 j 22:22	22°♌34'25	1°08'42
conjunction	-658 Mar 03 j 11:14	5°♌50'21	-1°11'55	max. Earth dist.	-653 Aug 22 j 17:57	22°♌18'57	6.42636 AU
minimum elong	-658 Mar 03 j 11:14	5°♌50'21	1°11'55	morning rise	-653 Sep 05 j 20:08	25°♌22'38	
max. Earth dist.	-658 Mar 05 j 02:38	6°♌14'00	5.97877 AU		-653 Sep 27 j 16:20	0°♌	
morning rise	-658 Mar 16 j 22:01	9°♌03'30		retrograde	-652 Jan 03 j 23:40	12°♌14'09	
retrograde	-658 Jul 27 j 02:16	29°♌31'40		opposition	-652 Mar 04 j 11:02	7°♌21'26	1°46'18
opposition	-658 Sep 24 j 20:11	24°♌27'04	-1°46'52	min. Earth dist.	-652 Mar 05 j 12:26	7°♌13'16	4.42502 AU
min. Earth dist.	-658 Sep 23 j 13:40	24°♌37'26	4.00055 AU	direct	-652 May 06 j 02:27	2°♌19'09	
direct	-658 Nov 21 j 18:46	19°♌31'23		evening set	-652 Sep 09 j 21:43	20°♌01'20	
	-657 Feb 15 j 13:47	0°♌		max. Earth dist.	-652 Sep 20 j 21:00	22°♌25'32	6.40494 AU
evening set	-657 Mar 27 j 11:02	8°♌55'34		conjunction	-652 Sep 22 j 15:51	22°♌49'06	1°12'45
conjunction	-657 Apr 10 j 01:58	12°♌07'38	-1°03'47	minimum elong	-652 Sep 22 j 15:52	22°♌49'06	1°12'45
minimum elong	-657 Apr 10 j 02:01	12°♌07'39	1°03'47	morning rise	-652 Oct 05 j 07:19	25°♌35'43	
max. Earth dist.	-657 Apr 12 j 06:02	12°♌38'14	6.03841 AU		-652 Oct 25 j 20:24	0°♌	
morning rise	-657 Apr 23 j 19:25	15°♌20'46		retrograde	-651 Feb 03 j 06:38	12°♌41'17	
	-657 Jul 04 j 00:19	0°♌		opposition	-651 Apr 05 j 01:31	7°♌49'39	1°37'58
retrograde	-657 Aug 31 j 18:01	5°♌08'16		min. Earth dist.	-651 Apr 06 j 11:18	7°♌38'53	4.37149 AU
min. Earth dist.	-657 Oct 28 j 23:04	0°♌14'19	4.09202 AU	direct	-651 Jun 06 j 15:41	2°♌49'22	
opposition	-657 Oct 30 j 07:34	0°♌03'13	-1°14'34	evening set	-651 Oct 10 j 18:27	20°♌44'25	
	-657 Oct 30 j 17:01	30°♌♌		max. Earth dist.	-651 Oct 21 j 09:30	23°♌07'13	6.32289 AU
direct	-657 Dec 27 j 18:53	25°♌04'25		conjunction	-651 Oct 23 j 09:15	23°♌34'04	0°56'29
	-656 Feb 22 j 18:34	0°♌		minimum elong	-651 Oct 23 j 09:18	23°♌34'05	0°56'28
evening set	-656 May 02 j 05:18	14°♌02'05		morning rise	-651 Nov 04 j 22:46	26°♌23'13	
	-656 May 06 j 11:06	15°♌			-651 Nov 21 j 08:14	0°♌	
conjunction	-656 May 15 j 23:48	17°♌10'36	-0°32'26	retrograde	-650 Mar 08 j 04:06	14°♌08'01	
minimum elong	-656 May 15 j 23:50	17°♌10'37	0°32'25	opposition	-650 May 08 j 03:00	9°♌15'40	1°01'03
max. Earth dist.	-656 May 17 j 20:07	17°♌35'55	6.15374 AU	min. Earth dist.	-650 May 09 j 10:55	9°♌05'29	4.26534 AU
morning rise	-656 May 29 j 18:54	20°♌19'07		direct	-650 Jul 08 j 23:03	4°♌17'58	
	-656 Jul 14 j 04:45	0°♌			-650 Oct 07 j 12:14	15°♌	
retrograde	-656 Oct 03 j 06:56	9°♌02'55		evening set	-650 Nov 11 j 08:43	22°♌37'54	
opposition	-656 Dec 01 j 19:59	4°♌00'07	-0°17'59	max. Earth dist.	-650 Nov 22 j 11:32	25°♌11'31	6.20177 AU
min. Earth dist.	-656 Nov 30 j 22:08	4°♌07'31	4.21844 AU	conjunction	-650 Nov 24 j 00:08	25°♌32'41	0°22'52
	-655 Jan 05 j 09:01	30°♌♌		minimum elong	-650 Nov 24 j 00:10	25°♌32'42	0°22'52
direct	-655 Jan 30 j 12:12	28°♌58'36		morning rise	-650 Dec 06 j 15:27	28°♌27'43	
	-655 Feb 24 j 21:44	0°♌			-650 Dec 13 j 08:53	0°♌	
asc. node	-655 Mar 28 j 16:08	3°♌44'22		retrograde	-649 Apr 12 j 03:34	17°♌10'36	
evening set	-655 Jun 06 j 11:30	17°♌23'47		opposition	-649 Jun 12 j 00:59	12°♌16'01	0°02'43
				min. Earth dist.	-649 Jun 12 j 20:46	12°♌09'39	4.13697 AU

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Attention, astronomical year style is used: The year -649 in astronomical counting style is the year 650 BCE in historical counting style.

desc. node	-649 Jun 28 j 22:39	10°♌09'40	conjunction	-643 Jun 24 j 20:49	25°♐01'09	0°14'20
direct	-649 Aug 11 j 14:48	7°♌21'00	minimum elong	-643 Jun 24 j 20:48	25°♐01'09	0°14'20
evening set	-649 Dec 14 j 11:56	26°♌12'24	behind sun begin	-643 Jun 24 j 17:14	24°♐59'11	
			behind sun end	-643 Jun 25 j 00:21	25°♐03'07	
conjunction	-649 Dec 27 j 06:48	29°♌13'57 -0°19'35	max. Earth dist.	-643 Jun 25 j 15:03	25°♐11'16	6.29584 AU
minimum elong	-649 Dec 27 j 06:47	29°♌13'56 0°19'36	morning rise	-643 Jul 08 j 10:45	28°♐01'16	
max. Earth dist.	-649 Dec 26 j 15:12	29°♌04'42 6.07782 AU		-643 Jul 17 j 12:14	0°♑	
	-649 Dec 30 j 12:28	0°♑	retrograde	-643 Nov 08 j 06:22	15°♑39'12	
morning rise	-648 Jan 09 j 03:32	2°♑16'38	opposition	-642 Jan 07 j 01:01	10°♑40'41	0°48'27
retrograde	-648 May 18 j 01:22	22°♑01'34	min. Earth dist.	-642 Jan 06 j 21:34	10°♑41'49	4.34813 AU
opposition	-648 Jul 17 j 15:06	17°♑03'23 -0°59'58	direct	-642 Mar 09 j 04:54	5°♑37'30	
min. Earth dist.	-648 Jul 17 j 14:31	17°♑03'35 4.02819 AU	evening set	-642 Jul 14 j 11:52	23°♑33'43	
direct	-648 Sep 14 j 19:08	12°♑09'56				
	-647 Jan 11 j 07:11	0°♒	conjunction	-642 Jul 27 j 20:06	26°♑27'58	0°49'49
evening set	-647 Jan 17 j 13:44	1°♒29'33	minimum elong	-642 Jul 27 j 20:03	26°♑27'56	0°49'49
			max. Earth dist.	-642 Jul 27 j 12:44	26°♑23'57	6.38914 AU
conjunction	-647 Jan 30 j 14:51	4°♒37'27 -0°56'29	morning rise	-642 Aug 10 j 01:19	29°♑20'40	
minimum elong	-647 Jan 30 j 14:49	4°♒37'25 0°56'29		-642 Aug 13 j 02:04	0°♒	
max. Earth dist.	-647 Jan 31 j 06:31	4°♒46'52 5.99409 AU		-642 Nov 09 j 01:57	15°♒	
morning rise	-647 Feb 12 j 18:42	7°♒46'58	retrograde	-642 Dec 08 j 18:28	16°♒22'35	
	-647 Mar 16 j 01:00	15°♒		-641 Jan 07 j 10:58	15°♒♒	
retrograde	-647 Jun 24 j 22:07	28°♒13'13	opposition	-641 Feb 06 j 22:16	11°♒27'43	1°30'17
min. Earth dist.	-647 Aug 23 j 04:40	23°♒17'40 3.97959 AU	min. Earth dist.	-641 Feb 07 j 10:58	11°♒23'35	4.41598 AU
opposition	-647 Aug 24 j 00:15	23°♒11'06 -1°42'11	direct	-641 Apr 10 j 02:01	6°♒24'34	
direct	-647 Oct 21 j 04:24	18°♒17'19		-641 Jul 01 j 06:39	15°♒	
	-646 Jan 20 j 06:11	0°♓	evening set	-641 Aug 15 j 07:21	24°♒07'33	
evening set	-646 Feb 23 j 06:56	7°♓49'02	max. Earth dist.	-641 Aug 27 j 00:20	26°♒40'06	6.42576 AU
conjunction	-646 Mar 08 j 15:33	11°♓00'44 -1°12'29	conjunction	-641 Aug 28 j 07:04	26°♒56'50	1°10'28
minimum elong	-646 Mar 08 j 15:33	11°♓00'44 1°12'28	minimum elong	-641 Aug 28 j 07:02	26°♒56'49	1°10'28
max. Earth dist.	-646 Mar 10 j 08:45	11°♓25'24 5.98397 AU	morning rise	-641 Sep 10 j 03:47	29°♒44'40	
morning rise	-646 Mar 22 j 03:30	14°♓14'06		-641 Sep 11 j 08:09	0°♓	
	-646 Jun 06 j 11:49	0°♓	retrograde	-640 Jan 08 j 08:49	16°♓37'00	
retrograde	-646 Aug 01 j 02:26	4°♓38'27	opposition	-640 Mar 08 j 20:40	11°♓44'36	1°46'54
	-646 Sep 26 j 14:37	30°♓♓	min. Earth dist.	-640 Mar 09 j 23:55	11°♓35'51	4.42066 AU
opposition	-646 Sep 29 j 20:15	29°♓33'37 -1°44'34	direct	-640 May 10 j 13:41	6°♓42'38	
min. Earth dist.	-646 Sep 28 j 12:08	29°♓44'32 4.01049 AU	evening set	-640 Sep 14 j 06:00	24°♓25'53	
direct	-646 Nov 26 j 18:51	24°♓37'31	max. Earth dist.	-640 Sep 25 j 03:03	26°♓49'14	6.39722 AU
	-645 Jan 24 j 16:41	0°♓				
evening set	-645 Apr 01 j 14:03	13°♓58'36	conjunction	-640 Sep 26 j 23:27	27°♓13'42	1°11'40
			minimum elong	-640 Sep 26 j 23:28	27°♓13'42	1°11'40
conjunction	-645 Apr 15 j 05:45	17°♓10'22 -1°00'34	morning rise	-640 Oct 09 j 14:28	0°♓♓	
minimum elong	-645 Apr 15 j 05:48	17°♓10'24 1°00'33		-640 Oct 09 j 13:42	0°♓	
max. Earth dist.	-645 Apr 17 j 09:07	17°♓40'28 6.05215 AU	retrograde	-639 Feb 07 j 18:51	17°♓09'50	
morning rise	-645 Apr 28 j 23:42	20°♓23'05	opposition	-639 Apr 09 j 15:05	12°♓18'10	1°34'24
	-645 Jun 11 j 18:02	0°♓	min. Earth dist.	-639 Apr 11 j 00:09	12°♓07'38	4.36105 AU
retrograde	-645 Sep 05 j 12:42	10°♓02'35	direct	-639 Jun 11 j 03:20	7°♓18'16	
min. Earth dist.	-645 Nov 02 j 18:46	5°♓08'06 4.10785 AU	evening set	-639 Oct 15 j 03:33	25°♓15'22	
opposition	-645 Nov 04 j 01:19	4°♓57'40 -1°07'40	max. Earth dist.	-639 Oct 25 j 21:09	27°♓40'00	6.31078 AU
	-645 Dec 28 j 17:37	30°♓♓				
direct	-644 Jan 01 j 16:45	29°♓58'23	conjunction	-639 Oct 27 j 18:17	28°♓05'26	0°52'41
	-644 Jan 05 j 16:00	0°♓	minimum elong	-639 Oct 27 j 18:19	28°♓05'28	0°52'40
	-644 Apr 19 j 21:01	15°♓		-639 Nov 05 j 05:33	0°♓	
evening set	-644 May 07 j 04:25	18°♓51'51	morning rise	-639 Nov 09 j 07:37	0°♓55'04	
				-638 Jan 21 j 04:07	15°♓	
conjunction	-644 May 20 j 23:07	21°♓59'41 -0°26'58	retrograde	-638 Mar 12 j 21:41	18°♓45'48	
minimum elong	-644 May 20 j 23:09	21°♓59'42 0°26'58		-638 May 04 j 01:55	15°♓♓	
max. Earth dist.	-644 May 22 j 18:01	22°♓24'06 6.17049 AU	opposition	-638 May 12 j 21:22	13°♓53'16	0°53'55
morning rise	-644 Jun 03 j 17:55	25°♓07'21	min. Earth dist.	-638 May 14 j 04:11	13°♓43'27	4.25220 AU
	-644 Jun 25 j 19:58	0°♐	direct	-638 Jul 13 j 14:41	8°♓56'02	
retrograde	-644 Oct 07 j 17:45	13°♐42'38		-638 Sep 17 j 06:45	15°♓	
min. Earth dist.	-644 Dec 05 j 11:15	8°♐47'15 4.23451 AU	evening set	-638 Nov 15 j 20:52	27°♓18'29	
opposition	-644 Dec 06 j 07:51	8°♐40'18 -0°09'29	max. Earth dist.	-638 Nov 27 j 01:06	29°♓53'27	6.18875 AU
direct	-643 Feb 04 j 03:02	3°♐38'29		-638 Nov 27 j 12:24	0°♐	
asc. node	-643 Feb 05 j 22:23	3°♐38'48				
evening set	-643 Jun 11 j 05:23	22°♐00'03	conjunction	-638 Nov 28 j 12:23	0°♐13'54	0°17'16
			minimum elong	-638 Nov 28 j 12:24	0°♐13'54	0°17'15

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Attention, astronomical year style is used: The year -638 in astronomical counting style is the year 639 BCE in historical counting style.

morning rise	-638 Dec 11 j 04:20	3°♌09'44		asc. node	-632 Dec 17 j 23:10	12°♊20'15	
retrograde	-637 Apr 17 j 02:11	21°♌59'30		direct	-631 Feb 08 j 18:37	8°♊16'00	
desc. node	-637 May 09 j 19:43	21°♌11'34		evening set	-631 Jun 15 j 22:15	26°♊34'55	
opposition	-637 Jun 16 j 23:51	17°♌04'28	-0°06'08				
min. Earth dist.	-637 Jun 17 j 16:36	16°♌59'04	4.12492 AU	conjunction	-631 Jun 29 j 13:07	29°♊35'16	0°19'48
direct	-637 Aug 16 j 09:21	12°♌09'44		minimum elong	-631 Jun 29 j 13:05	29°♊35'15	0°19'48
	-637 Dec 14 j 15:59	0°♊		max. Earth dist.	-631 Jun 30 j 05:37	29°♊44'24	6.30771 AU
evening set	-637 Dec 19 j 04:16	1°♊03'36			-631 Jul 01 j 09:50	0°♊	
				morning rise	-631 Jul 13 j 01:54	2°♊34'27	
conjunction	-637 Dec 31 j 23:54	4°♊05'52	-0°25'18	retrograde	-631 Nov 12 j 12:33	20°♊07'01	
minimum elong	-637 Dec 31 j 23:53	4°♊05'51	0°25'18	opposition	-630 Jan 11 j 08:49	15°♊09'01	0°55'27
max. Earth dist.	-637 Dec 31 j 13:18	3°♊59'35	6.06791 AU	min. Earth dist.	-630 Jan 11 j 06:35	15°♊09'46	4.35805 AU
morning rise	-636 Jan 13 j 21:16	7°♊09'18		direct	-630 Mar 13 j 15:43	10°♊05'48	
retrograde	-636 May 23 j 04:45	26°♊59'56		evening set	-630 Jul 19 j 00:17	28°♊00'08	
opposition	-636 Jul 22 j 16:36	22°♊01'16	-1°07'24		-630 Jul 28 j 04:56	0°♊	
min. Earth dist.	-636 Jul 22 j 14:16	22°♊02'02	4.02141 AU				
direct	-636 Sep 19 j 17:20	17°♊07'55		conjunction	-630 Aug 01 j 07:13	0°♊53'35	0°53'42
	-636 Dec 25 j 12:58	0°♊		minimum elong	-630 Aug 01 j 07:10	0°♊53'33	0°53'42
evening set	-635 Jan 22 j 10:59	6°♊28'58		max. Earth dist.	-630 Jul 31 j 19:40	0°♊47'17	6.39624 AU
				morning rise	-630 Aug 14 j 11:22	3°♊45'32	
conjunction	-635 Feb 04 j 12:50	9°♊37'22	-1°00'07		-630 Oct 10 j 14:17	15°♊	
minimum elong	-635 Feb 04 j 12:48	9°♊37'21	1°00'07	retrograde	-630 Dec 13 j 01:32	20°♊44'50	
max. Earth dist.	-635 Feb 05 j 06:33	9°♊48'01	5.99082 AU	opposition	-629 Feb 11 j 05:41	15°♊50'19	1°34'13
morning rise	-635 Feb 17 j 17:51	12°♊47'29		min. Earth dist.	-629 Feb 11 j 21:06	15°♊45'19	4.41990 AU
	-635 Feb 27 j 01:26	15°♊			-629 Feb 17 j 17:10	15°♊	
	-635 May 14 j 17:59	0°♊		direct	-629 Apr 14 j 13:18	10°♊47'12	
retrograde	-635 Jun 29 j 22:36	3°♊15'24			-629 Jun 08 j 21:24	15°♊	
	-635 Aug 15 j 10:22	30°♊		evening set	-629 Aug 19 j 15:52	28°♊29'18	
min. Earth dist.	-635 Aug 28 j 02:22	28°♊20'20	3.98050 AU		-629 Aug 26 j 15:08	0°♊	
opposition	-635 Aug 29 j 00:34	28°♊12'53	-1°45'00	max. Earth dist.	-629 Aug 31 j 06:32	1°♊00'39	6.42591 AU
direct	-635 Oct 26 j 02:14	23°♊18'54					
	-635 Dec 31 j 04:24	0°♊		conjunction	-629 Sep 01 j 14:41	1°♊18'10	1°11'50
evening set	-634 Feb 28 j 07:11	12°♊50'19		minimum elong	-629 Sep 01 j 14:40	1°♊18'09	1°11'50
				morning rise	-629 Sep 14 j 10:19	4°♊05'34	
conjunction	-634 Mar 13 j 16:53	16°♊02'17	-1°12'29	retrograde	-628 Jan 12 j 14:56	20°♊58'23	
minimum elong	-634 Mar 13 j 16:54	16°♊02'17	1°12'29	opposition	-628 Mar 13 j 05:23	16°♊06'05	1°46'53
max. Earth dist.	-634 Mar 15 j 11:40	16°♊27'50	5.98889 AU	min. Earth dist.	-628 Mar 14 j 08:52	15°♊57'16	4.41700 AU
morning rise	-634 Mar 27 j 05:44	19°♊15'49		direct	-628 May 14 j 22:09	11°♊04'17	
	-634 May 14 j 13:10	0°♊		evening set	-628 Sep 18 j 13:02	28°♊48'10	
retrograde	-634 Aug 06 j 00:43	9°♊36'48			-628 Sep 23 j 23:53	0°♊	
min. Earth dist.	-634 Oct 03 j 09:20	4°♊42'32	4.01883 AU	max. Earth dist.	-628 Sep 29 j 09:03	1°♊11'15	6.38974 AU
opposition	-634 Oct 04 j 16:44	4°♊31'50	-1°41'37				
	-634 Nov 16 j 06:21	30°♊		conjunction	-628 Oct 01 j 05:49	1°♊35'59	1°10'10
direct	-634 Dec 01 j 17:16	29°♊35'19		minimum elong	-628 Oct 01 j 05:50	1°♊36'00	1°10'09
	-634 Dec 17 j 04:12	0°♊		morning rise	-628 Oct 13 j 20:18	4°♊22'48	
evening set	-633 Apr 06 j 14:07	18°♊54'20		retrograde	-627 Feb 12 j 06:41	21°♊35'55	
				opposition	-627 Apr 14 j 03:28	16°♊44'12	1°30'18
conjunction	-633 Apr 20 j 06:41	22°♊06'00	-0°57'01	min. Earth dist.	-627 Apr 15 j 13:41	16°♊33'19	4.34986 AU
minimum elong	-633 Apr 20 j 06:44	22°♊06'01	0°57'00	direct	-627 Jun 15 j 15:16	11°♊44'34	
max. Earth dist.	-633 Apr 22 j 10:36	22°♊36'19	6.06329 AU	evening set	-627 Oct 19 j 11:30	29°♊44'00	
morning rise	-633 May 04 j 01:08	25°♊18'26			-627 Oct 20 j 16:02	0°♊	
	-633 May 24 j 16:55	0°♊		max. Earth dist.	-627 Oct 30 j 04:26	2°♊08'47	6.29657 AU
retrograde	-633 Sep 10 j 04:18	14°♊51'09					
min. Earth dist.	-633 Nov 07 j 10:33	9°♊56'45	4.12069 AU	conjunction	-627 Nov 01 j 02:06	2°♊34'36	0°48'35
opposition	-633 Nov 08 j 16:34	9°♊46'31	-1°00'32	minimum elong	-627 Nov 01 j 02:08	2°♊34'37	0°48'35
direct	-632 Jan 06 j 09:49	4°♊46'55		morning rise	-627 Nov 13 j 15:40	5°♊24'53	
	-632 Apr 02 j 01:10	15°♊			-627 Dec 29 j 02:24	15°♊	
evening set	-632 May 12 j 01:44	23°♊37'31		retrograde	-626 Mar 17 j 14:39	23°♊22'27	
				opposition	-626 May 17 j 15:07	18°♊29'35	0°46'25
conjunction	-632 May 25 j 20:15	26°♊44'43	-0°21'28	min. Earth dist.	-626 May 18 j 20:06	18°♊20'20	4.23572 AU
minimum elong	-632 May 25 j 20:17	26°♊44'44	0°21'27		-626 Jun 17 j 02:01	15°♊	
max. Earth dist.	-632 May 27 j 11:06	27°♊06'45	6.18404 AU	direct	-626 Jul 18 j 04:06	13°♊32'38	
morning rise	-632 Jun 08 j 14:57	29°♊51'43			-626 Aug 18 j 02:13	15°♊	
	-632 Jun 09 j 05:42	0°♊			-626 Nov 11 j 16:52	0°♊	
retrograde	-632 Oct 12 j 04:30	18°♊19'56		evening set	-626 Nov 20 j 08:41	1°♊58'57	
opposition	-632 Dec 10 j 18:35	13°♊18'04	-0°01'07	max. Earth dist.	-626 Dec 01 j 17:02	4°♊36'51	6.17147 AU
min. Earth dist.	-632 Dec 10 j 00:29	13°♊24'10	4.24761 AU				

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Attention, astronomical year style is used: The year -626 in astronomical counting style is the year 627 BCE in historical counting style.

conjunction	-626 Dec 03 j 00:41	4°♌55'15	0°11'31	minimum elong	-620 May 30 j 20:21	1°♊35'01	0°15'42
minimum elong	-626 Dec 03 j 00:42	4°♌55'15	0°11'30	behind sun begin	-620 May 30 j 19:46	1°♊34'41	
behind sun begin	-626 Dec 02 j 18:51	4°♌51'53		behind sun end	-620 May 30 j 20:57	1°♊35'20	
behind sun end	-626 Dec 03 j 06:32	4°♌58'38		max. Earth dist.	-620 Jun 01 j 10:33	1°♊56'35	6.20373 AU
morning rise	-626 Dec 15 j 17:05	7°♌52'03		morning rise	-620 Jun 13 j 14:20	4°♊40'51	
desc. node	-625 Mar 20 j 05:58	25°♌11'18		retrograde	-620 Oct 16 j 15:58	22°♊59'33	
retrograde	-625 Apr 22 j 04:04	26°♌50'27		asc. node	-620 Oct 28 j 03:36	22°♊46'26	
opposition	-625 Jun 21 j 23:30	21°♌54'59	-0°15'05	opposition	-620 Dec 15 j 06:40	17°♊58'14	0°07'21
min. Earth dist.	-625 Jun 22 j 14:59	21°♌49'58	4.10807 AU	min. Earth dist.	-620 Dec 14 j 13:58	18°♊03'51	4.26778 AU
direct	-625 Aug 21 j 05:02	17°♌00'29		direct	-619 Feb 13 j 11:28	12°♊55'59	
	-625 Nov 27 j 22:34	0°♊			-619 Jun 15 j 07:42	0°♊	
evening set	-625 Dec 23 j 22:34	5°♊58'47		evening set	-619 Jun 20 j 15:24	1°♊09'36	
conjunction	-624 Jan 05 j 18:51	9°♊01'59	-0°30'57	conjunction	-619 Jul 04 j 05:07	4°♊08'43	0°25'09
minimum elong	-624 Jan 05 j 18:49	9°♊01'58	0°30'57	minimum elong	-619 Jul 04 j 05:05	4°♊08'42	0°25'10
max. Earth dist.	-624 Jan 05 j 10:34	8°♊57'04	6.05294 AU	max. Earth dist.	-619 Jul 04 j 17:07	4°♊15'20	6.32675 AU
morning rise	-624 Jan 18 j 17:19	12°♊06'31		morning rise	-619 Jul 17 j 16:54	7°♊06'38	
	-624 Apr 21 j 15:14	0°♊		retrograde	-619 Nov 16 j 18:30	24°♊31'42	
retrograde	-624 May 28 j 08:37	2°♊04'35		opposition	-618 Jan 15 j 16:08	19°♊34'12	1°02'01
	-624 Jul 04 j 04:36	30°♊		min. Earth dist.	-618 Jan 15 j 16:34	19°♊34'03	4.37461 AU
opposition	-624 Jul 27 j 20:05	27°♊05'21	-1°14'34	direct	-618 Mar 18 j 04:04	14°♊30'53	
min. Earth dist.	-624 Jul 27 j 14:08	27°♊07'19	4.01001 AU		-618 Jul 12 j 10:43	0°♊	
direct	-624 Sep 24 j 15:37	22°♊12'01		evening set	-618 Jul 23 j 10:23	2°♊21'04	
	-624 Dec 06 j 01:42	0°♊					
evening set	-623 Jan 27 j 11:51	11°♊36'26		conjunction	-618 Aug 05 j 16:12	5°♊13'30	0°57'11
conjunction	-623 Feb 09 j 14:50	14°♊45'37	-1°03'25	minimum elong	-618 Aug 05 j 16:10	5°♊13'29	0°57'11
minimum elong	-623 Feb 09 j 14:48	14°♊45'36	1°03'25	max. Earth dist.	-618 Aug 05 j 02:39	5°♊06'07	6.40898 AU
	-623 Feb 10 j 14:44	15°♊		morning rise	-618 Aug 18 j 18:50	8°♊04'23	
max. Earth dist.	-623 Feb 10 j 12:51	14°♊58'52	5.98396 AU		-618 Sep 21 j 03:09	15°♊	
morning rise	-623 Feb 22 j 20:53	17°♊56'30		retrograde	-618 Dec 17 j 03:30	24°♊59'37	
	-623 Apr 18 j 12:05	0°♊		opposition	-617 Feb 15 j 10:22	20°♊05'31	1°37'28
retrograde	-623 Jul 05 j 05:16	8°♊27'11		min. Earth dist.	-617 Feb 16 j 03:16	20°♊00'03	4.42808 AU
min. Earth dist.	-623 Sep 02 j 05:19	3°♊32'05	3.97904 AU	direct	-617 Apr 18 j 20:03	15°♊02'33	
opposition	-623 Sep 03 j 04:43	3°♊24'12	-1°47'08		-617 Aug 11 j 04:42	0°♊	
	-623 Oct 01 j 06:13	30°♊		evening set	-617 Aug 23 j 21:07	2°♊42'37	
direct	-623 Oct 31 j 05:41	28°♊29'57		max. Earth dist.	-617 Sep 04 j 06:34	5°♊11'13	6.42864 AU
	-623 Nov 30 j 01:46	0°♊		conjunction	-617 Sep 05 j 18:43	5°♊30'56	1°12'44
evening set	-622 Mar 05 j 12:02	18°♊01'51		minimum elong	-617 Sep 05 j 18:42	5°♊30'55	1°12'44
conjunction	-622 Mar 18 j 22:56	21°♊14'09	-1°11'55	morning rise	-617 Sep 18 j 13:31	8°♊17'52	
minimum elong	-622 Mar 18 j 22:57	21°♊14'10	1°11'55	retrograde	-616 Jan 16 j 20:09	25°♊10'50	
max. Earth dist.	-622 Mar 20 j 21:02	21°♊41'38	5.99298 AU	opposition	-616 Mar 17 j 10:58	20°♊18'45	1°46'15
morning rise	-622 Apr 01 j 12:50	24°♊27'57		min. Earth dist.	-616 Mar 18 j 17:17	20°♊09'03	4.41402 AU
	-622 Apr 25 j 11:29	0°♊		direct	-616 May 19 j 05:23	15°♊17'08	
retrograde	-622 Aug 11 j 02:28	14°♊45'08			-616 Sep 08 j 16:34	0°♊	
min. Earth dist.	-622 Oct 08 j 08:40	9°♊51'11	4.02827 AU	evening set	-616 Sep 22 j 16:06	3°♊01'42	
opposition	-622 Oct 09 j 17:11	9°♊40'06	-1°37'47	max. Earth dist.	-616 Oct 03 j 10:04	5°♊23'58	6.38107 AU
direct	-622 Dec 06 j 17:38	4°♊43'15		conjunction	-616 Oct 05 j 08:28	5°♊49'39	1°08'19
evening set	-621 Apr 11 j 18:56	23°♊59'38		minimum elong	-616 Oct 05 j 08:30	5°♊49'40	1°08'18
conjunction	-621 Apr 25 j 12:00	27°♊10'55	-0°52'55	morning rise	-616 Oct 17 j 22:33	8°♊36'41	
minimum elong	-621 Apr 25 j 12:03	27°♊10'57	0°52'55	retrograde	-615 Feb 16 j 14:24	25°♊54'25	
max. Earth dist.	-621 Apr 27 j 14:29	27°♊40'18	6.07739 AU	opposition	-615 Apr 18 j 12:48	21°♊02'39	1°25'49
	-621 May 07 j 15:19	0°♊		min. Earth dist.	-615 Apr 19 j 22:47	20°♊51'50	4.33588 AU
morning rise	-621 May 09 j 07:00	0°♊22'55		direct	-615 Jun 19 j 21:22	16°♊03'19	
	-621 Jul 20 j 09:37	15°♊			-615 Oct 05 j 02:27	0°♊	
retrograde	-621 Sep 14 j 22:06	19°♊47'11		evening set	-615 Oct 23 j 16:41	4°♊06'23	
	-621 Nov 11 j 08:28	15°♊		max. Earth dist.	-615 Nov 03 j 10:21	6°♊32'10	6.27839 AU
min. Earth dist.	-621 Nov 12 j 05:42	14°♊52'46	4.13805 AU	conjunction	-615 Nov 05 j 07:17	6°♊57'42	0°44'18
opposition	-621 Nov 13 j 10:54	14°♊42'49	-0°52'46	minimum elong	-615 Nov 05 j 07:19	6°♊57'43	0°44'18
direct	-620 Jan 11 j 08:17	9°♊42'50		morning rise	-615 Nov 17 j 21:01	9°♊48'50	
	-620 Mar 11 j 01:45	15°♊			-615 Dec 11 j 08:57	15°♊	
evening set	-620 May 17 j 01:51	28°♊28'41		retrograde	-614 Mar 22 j 08:36	27°♊55'02	
	-620 May 23 j 20:07	0°♊		opposition	-614 May 22 j 07:07	23°♊01'59	0°38'50
conjunction	-620 May 30 j 20:20	1°♊35'00	-0°15'43	min. Earth dist.	-614 May 23 j 12:24	22°♊52'37	4.21425 AU
				direct	-614 Jul 22 j 16:41	18°♊05'20	

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Attention, astronomical year style is used: The year -614 in astronomical counting style is the year 615 BCE in historical counting style.

	-614 Oct 26 j 04:54	0°♌					-608 May 06 j 22:29	0°♐	
evening set	-614 Nov 24 j 19:42	6°♌37'41			evening set		-608 May 22 j 02:16	3°♐20'55	
max. Earth dist.	-614 Dec 06 j 05:32	9°♌17'14	6.14862 AU						
					conjunction		-608 Jun 04 j 20:14	6°♐26'08	-0°09'47
conjunction	-614 Dec 07 j 12:13	9°♌35'10	0°05'48		minimum elong		-608 Jun 04 j 20:15	6°♐26'08	0°09'47
minimum elong	-614 Dec 07 j 12:13	9°♌35'10	0°05'47		behind sun begin		-608 Jun 04 j 13:29	6°♐22'22	
behind sun begin	-614 Dec 07 j 04:33	9°♌30'42			behind sun end		-608 Jun 05 j 03:00	6°♐29'55	
behind sun end	-614 Dec 07 j 19:53	9°♌39'37			max. Earth dist.		-608 Jun 06 j 06:44	6°♐45'31	6.22427 AU
morning rise	-614 Dec 20 j 05:29	12°♌33'17			morning rise		-608 Jun 18 j 13:42	9°♐30'49	
desc. node	-613 Jan 29 j 18:18	21°♌30'04			asc. node		-608 Sep 06 j 05:07	24°♐34'35	
	-613 Mar 24 j 18:29	0°♍			retrograde		-608 Oct 21 j 02:34	27°♐39'59	
retrograde	-613 Apr 27 j 04:11	1°♍42'35			opposition		-608 Dec 19 j 18:56	22°♐39'06	0°15'51
	-613 May 30 j 17:46	30°♌♌			min. Earth dist.		-608 Dec 19 j 04:12	22°♐44'03	4.28716 AU
opposition	-613 Jun 26 j 23:03	26°♌46'40	-0°23'52		direct		-607 Feb 18 j 04:22	17°♐36'33	
min. Earth dist.	-613 Jun 27 j 11:13	26°♌42'43	4.08578 AU				-607 May 29 j 06:01	0°♑	
direct	-613 Aug 25 j 21:44	21°♌52'26			evening set		-607 Jun 25 j 08:48	5°♑45'24	
	-613 Nov 09 j 00:27	0°♒							
evening set	-613 Dec 28 j 18:00	10°♒57'28			conjunction		-607 Jul 08 j 21:34	8°♑43'23	0°30'27
					minimum elong		-607 Jul 08 j 21:32	8°♑43'22	0°30'27
conjunction	-612 Jan 10 j 15:15	14°♒01'57	-0°36'21		max. Earth dist.		-607 Jul 09 j 06:25	8°♑48'14	6.34349 AU
minimum elong	-612 Jan 10 j 15:13	14°♒01'55	0°36'22		morning rise		-607 Jul 22 j 07:57	11°♑40'04	
max. Earth dist.	-612 Jan 10 j 11:37	13°♒59'47	6.03329 AU		retrograde		-607 Nov 21 j 01:41	28°♑58'38	
morning rise	-612 Jan 23 j 14:44	17°♒07'49			opposition		-606 Jan 20 j 00:20	24°♑01'42	1°08'24
	-612 Mar 23 j 02:12	0°♓			min. Earth dist.		-606 Jan 20 j 03:20	24°♑00'42	4.38759 AU
retrograde	-612 Jun 02 j 17:19	7°♓15'15			direct		-606 Mar 22 j 16:12	18°♑58'21	
opposition	-612 Aug 02 j 01:43	2°♓15'27	-1°21'12				-606 Jun 25 j 08:36	0°♒	
min. Earth dist.	-612 Aug 01 j 17:29	2°♓18'11	3.99505 AU		evening set		-606 Jul 27 j 21:57	6°♒45'42	
	-612 Aug 19 j 19:43	30°♌♒			max. Earth dist.		-606 Aug 09 j 07:45	9°♒27'08	6.41702 AU
direct	-612 Sep 29 j 18:09	27°♒22'07							
	-612 Nov 08 j 22:27	0°♓			conjunction		-606 Aug 10 j 02:26	9°♒37'17	1°00'29
	-611 Jan 24 j 20:59	15°♓			minimum elong		-606 Aug 10 j 02:23	9°♒37'16	1°00'29
evening set	-611 Feb 01 j 15:31	16°♓51'07			morning rise		-606 Aug 23 j 03:59	12°♒27'22	
							-606 Sep 04 j 01:22	15°♒	
conjunction	-611 Feb 14 j 19:43	20°♓01'15	-1°06'13		retrograde		-606 Dec 21 j 10:29	29°♒20'18	
minimum elong	-611 Feb 14 j 19:41	20°♓01'14	1°06'12		opposition		-605 Feb 19 j 17:59	24°♒26'33	1°40'23
max. Earth dist.	-611 Feb 15 j 22:50	20°♓17'35	5.97509 AU		min. Earth dist.		-605 Feb 20 j 13:45	24°♒20'10	4.43097 AU
morning rise	-611 Feb 28 j 03:01	23°♓13'05			direct		-605 Apr 23 j 06:03	19°♒23'38	
	-611 Mar 29 j 08:52	0°♈					-605 Jul 25 j 04:49	0°♈	
retrograde	-611 Jul 10 j 13:46	13°♈46'33			evening set		-605 Aug 28 j 05:00	7°♈03'18	
min. Earth dist.	-611 Sep 07 j 08:52	8°♈51'59	3.97761 AU		max. Earth dist.		-605 Sep 08 j 12:33	9°♈30'59	6.42608 AU
opposition	-611 Sep 08 j 11:09	8°♈43'07	-1°48'21						
direct	-611 Nov 05 j 09:27	3°♈48'36			conjunction		-605 Sep 10 j 01:50	9°♈51'21	1°13'20
evening set	-610 Mar 10 j 20:10	23°♈20'42			minimum elong		-605 Sep 10 j 01:50	9°♈51'20	1°13'20
					morning rise		-605 Sep 22 j 19:35	12°♈38'00	
conjunction	-610 Mar 24 j 08:02	26°♈33'12	-1°10'43		retrograde		-604 Jan 21 j 04:03	29°♈32'52	
minimum elong	-610 Mar 24 j 08:03	26°♈33'13	1°10'43		opposition		-604 Mar 21 j 20:48	24°♈40'56	1°45'07
max. Earth dist.	-610 Mar 26 j 07:40	27°♈01'33	5.99876 AU		min. Earth dist.		-604 Mar 23 j 03:46	24°♈31'03	4.40631 AU
morning rise	-610 Apr 06 j 23:01	29°♈47'10			direct		-604 May 23 j 14:01	19°♈39'37	
	-610 Apr 07 j 20:48	0°♉					-604 Aug 22 j 14:34	0°♉	
retrograde	-610 Aug 16 j 03:52	19°♉59'05			evening set		-604 Sep 26 j 23:54	7°♉26'13	
min. Earth dist.	-610 Oct 13 j 09:42	15°♉05'14	4.04035 AU		max. Earth dist.		-604 Oct 07 j 15:50	9°♉47'52	6.36872 AU
opposition	-610 Oct 14 j 19:08	14°♉53'49	-1°33'03						
direct	-610 Dec 11 j 21:51	9°♉56'26			conjunction		-604 Oct 09 j 15:40	10°♉14'27	1°06'03
evening set	-609 Apr 17 j 01:10	29°♉08'51			minimum elong		-604 Oct 09 j 15:42	10°♉14'28	1°06'03
	-609 Apr 20 j 17:49	0°♊			morning rise		-604 Oct 22 j 05:34	13°♉01'53	
							-603 Feb 04 j 17:41	0°♊	
conjunction	-609 Apr 30 j 18:55	2°♊19'38	-0°48'21		retrograde		-603 Feb 21 j 06:26	0°♊25'25	
minimum elong	-609 Apr 30 j 18:59	2°♊19'39	0°48'21				-603 Mar 09 j 18:10	30°♌♊	
max. Earth dist.	-609 May 02 j 22:23	2°♊49'27	6.09453 AU		opposition		-603 Apr 23 j 03:55	25°♊33'36	1°20'38
morning rise	-609 May 14 j 13:59	5°♊30'52			min. Earth dist.		-603 Apr 24 j 14:56	25°♊22'28	4.31953 AU
	-609 Jun 27 j 06:23	15°♊			direct		-603 Jun 24 j 10:44	20°♊34'36	
retrograde	-609 Sep 19 j 17:40	24°♊45'17					-603 Sep 17 j 08:56	0°♋	
min. Earth dist.	-609 Nov 17 j 02:01	19°♊50'37	4.15788 AU		evening set		-603 Oct 28 j 03:11	8°♋41'49	
opposition	-609 Nov 18 j 05:52	19°♊41'09	-0°44'32		max. Earth dist.		-603 Nov 07 j 22:00	11°♋08'53	6.25946 AU
	-608 Jan 02 j 10:55	15°♋							
direct	-608 Jan 16 j 08:01	14°♋40'45			conjunction		-603 Nov 09 j 18:00	11°♋33'59	0°39'33
	-608 Jan 30 j 06:45	15°♋			minimum elong		-603 Nov 09 j 18:02	11°♋34'00	0°39'32

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Attention, astronomical year style is used: The year -603 in astronomical counting style is the year 604 BCE in historical counting style.

morning rise	-603 Nov 22 j 08:02	14° \mathbb{M} 26'02		retrograde	-597 Sep 24 j 06:59	29° \mathcal{B} 32'50	
	-603 Nov 24 j 20:00	15° \mathbb{M}		opposition	-597 Nov 22 j 20:26	24° \mathcal{B} 29'05	-0°36'19
	-602 Feb 12 j 20:48	0° \mathcal{A}		min. Earth dist.	-597 Nov 21 j 17:36	24° \mathcal{B} 38'12	4.17810 AU
retrograde	-602 Mar 27 j 06:13	2° \mathcal{A} 41'06		direct	-596 Jan 21 j 02:11	19° \mathcal{B} 28'18	
	-602 May 09 j 07:30	30° $\mathcal{R}\mathbb{M}$			-596 Apr 19 j 04:25	0° \mathbb{I}	
opposition	-602 May 27 j 05:05	27° \mathbb{M} 47'46	0°30'31	evening set	-596 May 26 j 22:28	8° \mathbb{I} 03'16	
min. Earth dist.	-602 May 28 j 07:43	27° \mathbb{M} 39'14	4.19415 AU				
direct	-602 Jul 27 j 08:47	22° \mathbb{M} 51'34		conjunction	-596 Jun 09 j 16:00	11° \mathbb{I} 07'28	-0°04'01
	-602 Oct 06 j 13:34	0° \mathcal{A}		minimum elong	-596 Jun 09 j 16:01	11° \mathbb{I} 07'28	0°04'01
evening set	-602 Nov 29 j 12:04	11° \mathcal{A} 29'12		behind sun begin	-596 Jun 09 j 07:47	11° \mathbb{I} 02'53	
desc. node	-602 Dec 08 j 23:27	13° \mathcal{A} 42'09		behind sun end	-596 Jun 10 j 00:14	11° \mathbb{I} 12'03	
max. Earth dist.	-602 Dec 11 j 02:04	14° \mathcal{A} 11'52	6.12927 AU	max. Earth dist.	-596 Jun 10 j 22:42	11° \mathbb{I} 24'39	6.24357 AU
				morning rise	-596 Jun 23 j 08:41	14° \mathbb{I} 10'59	
conjunction	-602 Dec 12 j 05:04	14° \mathcal{A} 27'43	-0°00'22	asc. node	-596 Jul 17 j 15:35	19° \mathbb{I} 26'53	
minimum elong	-602 Dec 12 j 05:03	14° \mathcal{A} 27'43	0°00'22		-596 Sep 17 j 22:12	0° \mathcal{B}	
behind sun begin	-602 Dec 11 j 21:04	14° \mathcal{A} 23'03		retrograde	-596 Oct 25 j 12:00	2° \mathcal{B} 11'48	
behind sun end	-602 Dec 12 j 13:03	14° \mathcal{A} 32'23			-596 Dec 01 j 20:00	30° $\mathcal{R}\mathbb{I}$	
morning rise	-602 Dec 24 j 23:03	17° \mathcal{A} 27'00		opposition	-596 Dec 24 j 03:57	27° \mathbb{I} 11'30	0°23'56
	-601 Feb 22 j 04:04	0° \mathcal{B}		min. Earth dist.	-596 Dec 23 j 16:28	27° \mathbb{I} 15'21	4.30383 AU
retrograde	-601 May 02 j 10:55	6° \mathcal{B} 45'55		direct	-595 Feb 22 j 18:19	22° \mathbb{I} 08'48	
opposition	-601 Jul 02 j 03:41	1° \mathcal{B} 49'32	-0°32'55		-595 May 10 j 11:15	0° \mathcal{B}	
min. Earth dist.	-601 Jul 02 j 13:35	1° \mathcal{B} 46'19	4.06897 AU	evening set	-595 Jun 29 j 22:43	10° \mathcal{B} 14'00	
	-601 Jul 16 j 13:04	30° $\mathcal{R}\mathcal{A}$					
direct	-601 Aug 30 j 22:28	26° \mathcal{A} 55'36		conjunction	-595 Jul 13 j 10:27	13° \mathcal{B} 11'03	0°35'24
	-601 Oct 14 j 04:14	0° \mathcal{B}		minimum elong	-595 Jul 13 j 10:25	13° \mathcal{B} 11'02	0°35'24
evening set	-600 Jan 02 j 17:31	16° \mathcal{B} 05'07		max. Earth dist.	-595 Jul 13 j 14:40	13° \mathcal{B} 13'22	6.35618 AU
				morning rise	-595 Jul 26 j 19:46	16° \mathcal{B} 06'46	
conjunction	-600 Jan 15 j 15:40	19° \mathcal{B} 10'34	-0°41'42		-595 Oct 09 j 02:36	0° \mathcal{I}	
minimum elong	-600 Jan 15 j 15:37	19° \mathcal{B} 10'32	0°41'42	retrograde	-595 Nov 25 j 06:43	3° \mathcal{I} 20'44	
max. Earth dist.	-600 Jan 15 j 17:00	19° \mathcal{B} 11'22	6.02079 AU		-594 Jan 11 j 21:41	30° $\mathcal{R}\mathcal{B}$	
morning rise	-600 Jan 28 j 16:10	22° \mathcal{B} 17'26		opposition	-594 Jan 24 j 06:41	28° \mathcal{B} 24'17	1°14'15
	-600 Mar 02 j 07:17	0° \approx		min. Earth dist.	-594 Jan 24 j 12:03	28° \mathcal{B} 22'31	4.39576 AU
retrograde	-600 Jun 08 j 02:22	12° \approx 30'50		direct	-594 Mar 27 j 00:52	23° \mathcal{B} 20'55	
opposition	-600 Aug 07 j 09:06	7° \approx 30'32	-1°27'21		-594 Jun 05 j 22:11	0° \mathcal{I}	
min. Earth dist.	-600 Aug 06 j 21:16	7° \approx 34'27	3.98872 AU	evening set	-594 Aug 01 j 07:27	11° \mathcal{I} 07'02	
direct	-600 Oct 04 j 21:20	2° \approx 37'14					
	-599 Jan 07 j 02:36	15° \approx		conjunction	-594 Aug 14 j 10:53	13° \mathcal{I} 58'04	1°03'22
evening set	-599 Feb 06 j 20:37	22° \approx 07'37		minimum elong	-594 Aug 14 j 10:50	13° \mathcal{I} 58'02	1°03'22
				max. Earth dist.	-594 Aug 13 j 13:41	13° \mathcal{I} 46'32	6.42009 AU
conjunction	-599 Feb 20 j 01:43	25° \approx 18'10	-1°08'33		-594 Aug 19 j 04:46	15° \mathcal{I}	
minimum elong	-599 Feb 20 j 01:42	25° \approx 18'09	1°08'33	morning rise	-594 Aug 27 j 11:10	16° \mathcal{I} 47'32	
max. Earth dist.	-599 Feb 21 j 08:03	25° \approx 36'25	5.97527 AU		-594 Nov 05 j 21:09	0° \mathbb{M}	
morning rise	-599 Mar 05 j 10:12	28° \approx 30'29		retrograde	-594 Dec 25 j 16:46	3° \mathbb{M} 39'57	
	-599 Mar 11 j 16:51	0° \mathcal{H}			-593 Feb 14 j 10:51	30° $\mathcal{R}\mathcal{I}$	
retrograde	-599 Jul 15 j 18:44	19° \mathcal{H} 02'55		opposition	-593 Feb 24 j 00:59	28° \mathcal{I} 46'36	1°42'44
min. Earth dist.	-599 Sep 12 j 11:42	14° \mathcal{H} 08'39	3.98441 AU	min. Earth dist.	-593 Feb 24 j 22:46	28° \mathcal{I} 39'34	4.42901 AU
opposition	-599 Sep 13 j 16:09	13° \mathcal{H} 59'01	-1°48'42	direct	-593 Apr 27 j 14:18	23° \mathcal{I} 43'53	
direct	-599 Nov 10 j 13:57	9° \mathcal{H} 04'11			-593 Jul 05 j 11:35	0° \mathbb{M}	
evening set	-598 Mar 16 j 02:00	28° \mathcal{H} 33'37		evening set	-593 Sep 01 j 12:41	11° \mathbb{M} 24'36	
	-598 Mar 22 j 04:09	0° \mathcal{Y}		max. Earth dist.	-593 Sep 12 j 15:51	13° \mathbb{M} 50'17	6.41911 AU
conjunction	-598 Mar 29 j 14:58	1° \mathcal{Y} 46'00	-1°09'01	conjunction	-593 Sep 14 j 08:33	14° \mathbb{M} 12'33	1°13'31
minimum elong	-598 Mar 29 j 15:00	1° \mathcal{Y} 46'01	1°09'00	minimum elong	-593 Sep 14 j 08:33	14° \mathbb{M} 12'33	1°13'30
max. Earth dist.	-598 Mar 31 j 17:45	2° \mathcal{Y} 16'07	6.01148 AU	morning rise	-593 Sep 27 j 01:45	16° \mathbb{M} 59'14	
morning rise	-598 Apr 12 j 06:35	4° \mathcal{Y} 59'39			-593 Dec 04 j 13:17	0° \mathcal{L}	
retrograde	-598 Aug 21 j 03:43	25° \mathcal{Y} 03'56		retrograde	-592 Jan 25 j 15:08	3° \mathcal{L} 57'28	
min. Earth dist.	-598 Oct 18 j 08:50	20° \mathcal{Y} 09'52	4.05737 AU		-592 Mar 19 j 04:15	30° $\mathcal{R}\mathbb{M}$	
opposition	-598 Oct 19 j 17:36	19° \mathcal{Y} 58'42	-1°27'45	opposition	-592 Mar 26 j 07:41	29° \mathbb{M} 05'38	1°43'23
direct	-598 Dec 16 j 23:23	15° \mathcal{Y} 00'55		min. Earth dist.	-592 Mar 27 j 15:58	28° \mathbb{M} 55'19	4.39496 AU
	-597 Apr 03 j 20:43	0° \mathcal{B}		direct	-592 May 28 j 00:06	24° \mathbb{M} 04'34	
evening set	-597 Apr 22 j 03:33	4° \mathcal{B} 08'05			-592 Aug 02 j 09:11	0° \mathcal{L}	
				evening set	-592 Oct 01 j 08:05	11° \mathcal{L} 54'06	
conjunction	-597 May 05 j 21:32	7° \mathcal{B} 18'06	-0°43'35	max. Earth dist.	-592 Oct 12 j 00:56	14° \mathcal{L} 16'44	6.35396 AU
minimum elong	-597 May 05 j 21:35	7° \mathcal{B} 18'08	0°43'34				
max. Earth dist.	-597 May 07 j 22:52	7° \mathcal{B} 46'32	6.11417 AU	conjunction	-592 Oct 13 j 23:43	14° \mathcal{L} 42'49	1°03'21
morning rise	-597 May 19 j 16:49	10° \mathcal{B} 28'30		minimum elong	-592 Oct 13 j 23:44	14° \mathcal{L} 42'50	1°03'21
	-597 Jun 08 j 20:51	15° \mathcal{B}		morning rise	-592 Oct 26 j 13:18	17° \mathcal{L} 30'45	

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Attention, astronomical year style is used: The year -592 in astronomical counting style is the year 593 BCE in historical counting style.

	-592 Dec 28 j 17:53	0°♄			-586 Aug 20 j 10:22	0°♄	
retrograde	-591 Feb 25 j 22:05	5°♄00'52		retrograde	-586 Aug 25 j 23:16	0°♄03'04	
opposition	-591 Apr 27 j 20:39	0°♄08'55	1°14'53		-586 Aug 31 j 12:00	30°♄	
min. Earth dist.	-591 Apr 29 j 06:11	29°♄58'15	4.30235 AU	min. Earth dist.	-586 Oct 23 j 04:32	25°♄09'10	4.07250 AU
	-591 Apr 29 j 00:42	30°♄		opposition	-586 Oct 24 j 13:37	24°♄57'52	-1°21'58
direct	-591 Jun 28 j 23:28	25°♄10'22		direct	-586 Dec 21 j 21:20	19°♄59'37	
	-591 Aug 26 j 12:19	0°♄			-585 Mar 16 j 15:47	0°♄	
evening set	-591 Nov 01 j 15:00	13°♄21'37		evening set	-585 Apr 27 j 04:27	9°♄02'36	
	-591 Nov 08 j 19:38	15°♄					
max. Earth dist.	-591 Nov 12 j 11:24	15°♄50'15	6.24135 AU	conjunction	-585 May 10 j 22:45	12°♄12'00	-0°38'36
				minimum elong	-585 May 10 j 22:48	12°♄12'01	0°38'35
conjunction	-591 Nov 14 j 05:47	16°♄14'32	0°34'29	max. Earth dist.	-585 May 12 j 21:39	12°♄38'56	6.13123 AU
minimum elong	-591 Nov 14 j 05:49	16°♄14'33	0°34'27		-585 May 23 j 04:02	15°♄	
morning rise	-591 Nov 26 j 20:16	19°♄07'30		morning rise	-585 May 24 j 18:00	15°♄21'37	
	-590 Jan 17 j 11:44	0°♄			-585 Aug 06 j 12:37	0°♄	
retrograde	-590 Apr 01 j 06:29	7°♄31'04		retrograde	-585 Sep 28 j 21:45	4°♄17'08	
opposition	-590 Jun 01 j 04:30	2°♄37'19	0°21'54		-585 Nov 21 j 17:29	30°♄	
min. Earth dist.	-590 Jun 02 j 05:24	2°♄29'20	4.17625 AU	min. Earth dist.	-585 Nov 26 j 10:17	29°♄21'56	4.19520 AU
	-590 Jun 22 j 18:22	30°♄		opposition	-585 Nov 27 j 10:18	29°♄13'46	-0°27'59
direct	-590 Aug 01 j 04:46	27°♄41'27		direct	-584 Jan 25 j 21:01	24°♄12'39	
	-590 Sep 09 j 00:43	0°♄			-584 Mar 29 j 06:42	0°♄	
desc. node	-590 Oct 18 j 04:43	6°♄09'11		asc. node	-584 May 27 j 20:46	11°♄51'54	
evening set	-590 Dec 04 j 05:11	16°♄23'13		evening set	-584 May 31 j 18:01	12°♄43'31	
conjunction	-590 Dec 16 j 22:49	19°♄22'40	-0°06'31	conjunction	-584 Jun 14 j 11:07	15°♄46'51	0°01'53
minimum elong	-590 Dec 16 j 22:49	19°♄22'40	0°06'31	minimum elong	-584 Jun 14 j 11:07	15°♄46'50	0°01'54
behind sun begin	-590 Dec 16 j 15:16	19°♄18'14		behind sun begin	-584 Jun 14 j 02:47	15°♄42'12	
behind sun end	-590 Dec 17 j 06:22	19°♄27'05		behind sun end	-584 Jun 14 j 19:27	15°♄51'28	
max. Earth dist.	-590 Dec 16 j 00:00	19°♄09'14	6.11329 AU	max. Earth dist.	-584 Jun 15 j 14:50	16°♄02'18	6.25939 AU
morning rise	-590 Dec 29 j 17:31	22°♄22'57		morning rise	-584 Jun 28 j 03:01	18°♄49'22	
	-589 Feb 01 j 13:28	0°♄			-584 Aug 22 j 02:18	0°♄	
retrograde	-589 May 07 j 15:33	11°♄49'44		retrograde	-584 Oct 29 j 19:23	6°♄43'05	
opposition	-589 Jul 07 j 08:01	6°♄52'49	-0°41'44	opposition	-584 Dec 28 j 13:02	1°♄43'20	0°31'53
min. Earth dist.	-589 Jul 07 j 14:25	6°♄50'44	4.05641 AU	min. Earth dist.	-584 Dec 28 j 03:10	1°♄46'38	4.31724 AU
direct	-589 Sep 04 j 21:57	1°♄59'05			-583 Jan 10 j 17:37	30°♄	
evening set	-588 Jan 07 j 16:41	21°♄11'26		direct	-583 Feb 27 j 06:10	26°♄40'28	
					-583 Apr 16 j 04:24	0°♄	
conjunction	-588 Jan 20 j 15:32	24°♄17'33	-0°46'42	evening set	-583 Jul 04 j 13:13	14°♄43'07	
minimum elong	-588 Jan 20 j 15:29	24°♄17'32	0°46'42				
max. Earth dist.	-588 Jan 20 j 20:16	24°♄20'24	6.01250 AU	conjunction	-583 Jul 17 j 23:51	17°♄39'19	0°40'11
morning rise	-588 Feb 02 j 17:07	27°♄25'14		minimum elong	-583 Jul 17 j 23:49	17°♄39'18	0°40'10
	-588 Feb 13 j 15:09	0°♄		max. Earth dist.	-583 Jul 17 j 23:48	17°♄39'17	6.36619 AU
	-588 May 02 j 06:28	15°♄		morning rise	-583 Jul 31 j 07:59	20°♄34'07	
retrograde	-588 Jun 13 j 08:33	17°♄42'50			-583 Sep 15 j 16:42	0°♄	
	-588 Jul 25 j 14:59	15°♄		retrograde	-583 Nov 29 j 14:25	7°♄44'20	
opposition	-588 Aug 12 j 14:48	12°♄41'54	-1°32'44	opposition	-582 Jan 28 j 14:07	2°♄48'26	1°19'44
min. Earth dist.	-588 Aug 12 j 00:03	12°♄46'49	3.98562 AU	min. Earth dist.	-582 Jan 28 j 22:39	2°♄45'39	4.40187 AU
direct	-588 Oct 10 j 00:27	7°♄48'27			-582 Feb 20 j 09:11	30°♄	
	-588 Dec 17 j 21:54	15°♄		direct	-582 Mar 31 j 12:14	27°♄45'08	
evening set	-587 Feb 11 j 23:54	27°♄19'07			-582 May 09 j 23:55	0°♄	
	-587 Feb 23 j 04:12	0°♄			-582 Aug 03 j 09:17	15°♄	
				evening set	-582 Aug 05 j 17:59	15°♄30'32	
conjunction	-587 Feb 25 j 06:11	0°♄30'03	-1°10'19				
minimum elong	-587 Feb 25 j 06:10	0°♄30'02	1°10'20	conjunction	-582 Aug 18 j 20:19	18°♄21'04	1°05'57
max. Earth dist.	-587 Feb 26 j 17:23	0°♄51'11	5.97756 AU	minimum elong	-582 Aug 18 j 20:17	18°♄21'02	1°05'58
morning rise	-587 Mar 10 j 15:32	3°♄42'38		max. Earth dist.	-582 Aug 17 j 19:44	18°♄07'41	6.42169 AU
retrograde	-587 Jul 20 j 23:08	24°♄13'04		morning rise	-582 Aug 31 j 19:33	21°♄10'03	
opposition	-587 Sep 18 j 18:39	19°♄08'51	-1°48'13		-582 Oct 14 j 05:14	0°♄	
min. Earth dist.	-587 Sep 17 j 13:44	19°♄18'39	3.99202 AU	retrograde	-582 Dec 30 j 00:09	8°♄02'26	
direct	-587 Nov 15 j 17:04	14°♄13'39		opposition	-581 Feb 28 j 09:40	3°♄09'23	1°44'35
	-586 Mar 05 j 10:31	0°♄		min. Earth dist.	-581 Mar 01 j 08:43	3°♄01'58	4.42646 AU
evening set	-586 Mar 21 j 06:10	3°♄40'29			-581 Mar 26 j 23:18	30°♄	
				direct	-581 May 01 j 23:22	28°♄06'54	
conjunction	-586 Apr 03 j 19:54	6°♄52'41	-1°06'50		-581 Jun 07 j 05:41	0°♄	
minimum elong	-586 Apr 03 j 19:57	6°♄52'43	1°06'51	evening set	-581 Sep 05 j 21:17	15°♄48'39	
max. Earth dist.	-586 Apr 05 j 22:45	7°♄22'43	6.02347 AU	max. Earth dist.	-581 Sep 16 j 23:52	18°♄14'17	6.41273 AU
morning rise	-586 Apr 17 j 12:26	10°♄06'08					

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Attention, astronomical year style is used: The year -581 in astronomical counting style is the year 582 BCE in historical counting style.

conjunction	-581 Sep 18 j 16:27	18° \mathbb{M} 36'33	1°13'18	minimum elong	-575 Mar 02 j 07:25	5° \mathbb{H} 33'59	1°11'30
minimum elong	-581 Sep 18 j 16:27	18° \mathbb{M} 36'33	1°13'17	max. Earth dist.	-575 Mar 03 j 19:46	5° \mathbb{H} 55'48	5.98070 AU
morning rise	-581 Oct 01 j 08:47	21° \mathbb{M} 23'12		morning rise	-575 Mar 15 j 17:59	8° \mathbb{H} 46'55	
	-581 Nov 12 j 04:42	0° \mathbb{L}		retrograde	-575 Jul 25 j 21:44	29° \mathbb{H} 14'57	
retrograde	-580 Jan 30 j 02:19	8° \mathbb{L} 24'38		min. Earth dist.	-575 Sep 22 j 10:27	24° \mathbb{H} 20'50	3.99916 AU
opposition	-580 Mar 30 j 19:59	3° \mathbb{L} 32'58	1°41'05	opposition	-575 Sep 23 j 16:56	24° \mathbb{H} 10'30	-1°46'57
min. Earth dist.	-580 Apr 01 j 04:35	3° \mathbb{L} 22'34	4.38534 AU	direct	-575 Nov 20 j 14:50	19° \mathbb{H} 14'55	
	-580 Apr 30 j 21:11	30° \mathbb{R} \mathbb{M}			-574 Feb 15 j 17:13	0° \mathbb{Y}	
direct	-580 Jun 01 j 11:26	28° \mathbb{M} 32'21		evening set	-574 Mar 26 j 06:59	8° \mathbb{Y} 39'45	
	-580 Jul 03 j 02:50	0° \mathbb{L}					
evening set	-580 Oct 05 j 17:18	16° \mathbb{L} 24'03		conjunction	-574 Apr 08 j 21:40	11° \mathbb{Y} 51'54	-1°04'15
max. Earth dist.	-580 Oct 16 j 08:57	18° \mathbb{L} 46'31	6.34195 AU	minimum elong	-574 Apr 08 j 21:43	11° \mathbb{Y} 51'55	1°04'15
				max. Earth dist.	-574 Apr 11 j 00:21	12° \mathbb{Y} 21'45	6.03400 AU
conjunction	-580 Oct 18 j 08:26	19° \mathbb{L} 13'05	1°00'19	morning rise	-574 Apr 22 j 14:50	15° \mathbb{Y} 05'08	
minimum elong	-580 Oct 18 j 08:28	19° \mathbb{L} 13'06	1°00'19		-574 Jul 04 j 07:38	0° \mathbb{B}	
morning rise	-580 Oct 30 j 22:01	22° \mathbb{L} 01'29		retrograde	-574 Aug 30 j 18:07	4° \mathbb{B} 55'41	
	-580 Dec 07 j 12:25	0° \mathbb{M}		min. Earth dist.	-574 Oct 27 j 23:31	0° \mathbb{B} 01'16	4.08510 AU
retrograde	-579 Mar 02 j 15:26	9° \mathbb{M} 37'19			-574 Oct 28 j 03:14	30° \mathbb{R} \mathbb{Y}	
opposition	-579 May 02 j 13:58	4° \mathbb{M} 45'13	1°08'41	opposition	-574 Oct 29 j 06:47	29° \mathbb{Y} 50'36	-1°15'49
min. Earth dist.	-579 May 03 j 22:37	4° \mathbb{M} 34'48	4.28865 AU	direct	-574 Dec 26 j 17:53	24° \mathbb{Y} 51'54	
	-579 Jun 21 j 18:36	30° \mathbb{R} \mathbb{L}			-573 Feb 22 j 22:25	0° \mathbb{B}	
direct	-579 Jul 03 j 14:23	29° \mathbb{L} 47'03		evening set	-573 May 02 j 02:58	13° \mathbb{B} 51'50	
	-579 Jul 15 j 10:27	0° \mathbb{M}			-573 May 07 j 02:29	15° \mathbb{B}	
	-579 Oct 23 j 16:34	15° \mathbb{M}					
evening set	-579 Nov 06 j 02:34	18° \mathbb{M} 01'08		conjunction	-573 May 15 j 21:37	17° \mathbb{B} 00'46	-0°33'29
max. Earth dist.	-579 Nov 17 j 02:42	20° \mathbb{M} 32'21	6.22733 AU	minimum elong	-573 May 15 j 21:39	17° \mathbb{B} 00'48	0°33'29
				max. Earth dist.	-573 May 17 j 19:21	17° \mathbb{B} 26'57	6.14508 AU
conjunction	-579 Nov 18 j 17:40	20° \mathbb{M} 54'44	0°29'15	morning rise	-573 May 29 j 16:48	20° \mathbb{B} 09'45	
minimum elong	-579 Nov 18 j 17:42	20° \mathbb{M} 54'45	0°29'15		-573 Jul 14 j 19:37	0° \mathbb{H}	
morning rise	-579 Dec 01 j 08:22	23° \mathbb{M} 48'26		retrograde	-573 Oct 03 j 08:51	8° \mathbb{H} 57'40	
	-579 Dec 29 j 06:21	0° \mathbb{J}		opposition	-573 Dec 01 j 22:07	3° \mathbb{H} 54'46	-0°19'42
retrograde	-578 Apr 06 j 04:17	12° \mathbb{J} 19'00		min. Earth dist.	-573 Nov 30 j 23:02	4° \mathbb{H} 02'35	4.20906 AU
opposition	-578 Jun 06 j 02:54	7° \mathbb{J} 24'56	0°13'15		-572 Jan 04 j 08:25	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	-578 Jun 07 j 01:23	7° \mathbb{J} 17'44	4.16288 AU	direct	-572 Jan 30 j 11:21	28° \mathbb{B} 53'21	
direct	-578 Aug 05 j 22:56	2° \mathbb{J} 29'30			-572 Feb 25 j 23:40	0° \mathbb{H}	
desc. node	-578 Aug 28 j 17:17	3° \mathbb{J} 18'33		asc. node	-572 Apr 07 j 21:48	5° \mathbb{H} 29'01	
evening set	-578 Dec 08 j 21:04	21° \mathbb{J} 13'58		evening set	-572 Jun 05 j 12:33	17° \mathbb{H} 21'21	
conjunction	-578 Dec 21 j 15:03	24° \mathbb{J} 14'06	-0°12'26	conjunction	-572 Jun 19 j 05:00	20° \mathbb{H} 23'53	0°07'32
minimum elong	-578 Dec 21 j 15:02	24° \mathbb{J} 14'06	0°12'26	minimum elong	-572 Jun 19 j 04:59	20° \mathbb{H} 23'52	0°07'33
behind sun begin	-578 Dec 21 j 09:41	24° \mathbb{J} 10'57		behind sun begin	-572 Jun 18 j 21:28	20° \mathbb{H} 19'42	
behind sun end	-578 Dec 21 j 20:23	24° \mathbb{J} 17'14		behind sun end	-572 Jun 19 j 12:29	20° \mathbb{H} 28'02	
max. Earth dist.	-578 Dec 20 j 18:46	24° \mathbb{J} 02'08	6.10166 AU	max. Earth dist.	-572 Jun 20 j 04:07	20° \mathbb{H} 36'45	6.27237 AU
morning rise	-577 Jan 03 j 10:35	27° \mathbb{J} 15'14		morning rise	-572 Jul 02 j 20:13	23° \mathbb{H} 25'32	
	-577 Jan 15 j 06:09	0° \mathbb{B}			-572 Aug 02 j 15:30	0° \mathbb{B}	
retrograde	-577 May 12 j 18:00	16° \mathbb{B} 48'28		retrograde	-572 Nov 03 j 04:27	11° \mathbb{B} 13'11	
opposition	-577 Jul 12 j 09:48	11° \mathbb{B} 50'59	-0°50'01	opposition	-571 Jan 01 j 21:42	6° \mathbb{B} 13'56	0°39'31
min. Earth dist.	-577 Jul 12 j 13:13	11° \mathbb{B} 49'52	4.04750 AU	min. Earth dist.	-571 Jan 01 j 14:55	6° \mathbb{B} 16'12	4.32840 AU
direct	-577 Sep 09 j 20:09	6° \mathbb{B} 57'22		direct	-571 Mar 03 j 19:57	1° \mathbb{B} 10'54	
evening set	-576 Jan 12 j 13:21	26° \mathbb{B} 11'35		evening set	-571 Jul 09 j 02:53	19° \mathbb{B} 11'25	
conjunction	-576 Jan 25 j 13:10	29° \mathbb{B} 18'19	-0°51'13	conjunction	-571 Jul 22 j 12:37	22° \mathbb{B} 06'51	0°44'39
minimum elong	-576 Jan 25 j 13:07	29° \mathbb{B} 18'17	0°51'12	minimum elong	-571 Jul 22 j 12:34	22° \mathbb{B} 06'50	0°44'40
max. Earth dist.	-576 Jan 25 j 22:58	29° \mathbb{B} 24'12	6.00715 AU	max. Earth dist.	-571 Jul 22 j 10:24	22° \mathbb{B} 05'39	6.37472 AU
	-576 Jan 28 j 10:36	0° \mathbb{A}		morning rise	-571 Aug 04 j 19:29	25° \mathbb{B} 00'49	
morning rise	-576 Feb 07 j 15:32	2° \mathbb{A} 26'36			-571 Aug 28 j 07:57	0° \mathbb{L}	
	-576 Apr 05 j 02:48	15° \mathbb{A}		retrograde	-571 Dec 03 j 19:14	12° \mathbb{L} 07'38	
retrograde	-576 Jun 18 j 12:26	22° \mathbb{A} 47'07		opposition	-570 Feb 01 j 21:29	7° \mathbb{L} 12'06	1°24'43
opposition	-576 Aug 17 j 16:38	17° \mathbb{A} 45'43	-1°37'13	min. Earth dist.	-570 Feb 02 j 06:57	7° \mathbb{L} 09'01	4.40746 AU
min. Earth dist.	-576 Aug 17 j 00:33	17° \mathbb{A} 51'05	3.98462 AU	direct	-570 Apr 04 j 21:29	2° \mathbb{L} 08'50	
	-576 Sep 08 j 17:38	15° \mathbb{R} \mathbb{A}			-570 Jul 17 j 23:27	15° \mathbb{L}	
direct	-576 Oct 15 j 00:03	12° \mathbb{A} 52'09		evening set	-570 Aug 10 j 03:53	19° \mathbb{L} 53'11	
	-576 Nov 19 j 21:26	15° \mathbb{A}		max. Earth dist.	-570 Aug 22 j 02:04	22° \mathbb{L} 28'27	6.42381 AU
	-575 Feb 06 j 23:12	0° \mathbb{H}					
evening set	-575 Feb 17 j 00:16	2° \mathbb{H} 22'47		conjunction	-570 Aug 23 j 05:02	22° \mathbb{L} 43'08	1°08'08
				minimum elong	-570 Aug 23 j 05:00	22° \mathbb{L} 43'07	1°08'08
conjunction	-575 Mar 02 j 07:26	5° \mathbb{H} 34'00	-1°11'31	morning rise	-570 Sep 05 j 03:10	25° \mathbb{L} 31'35	

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Attention, astronomical year style is used: The year -570 in astronomical counting style is the year 571 BCE in historical counting style.

	-570 Sep 26 j 05:47	0°♎		minimum elong	-563 Mar 07 j 12:45	10°♐46'17	1°12'10
retrograde	-569 Jan 03 j 07:41	12°♎23'32		max. Earth dist.	-563 Mar 09 j 04:26	11°♐10'04	5.98140 AU
opposition	-569 Mar 04 j 18:03	7°♎30'44	1°45'49	morning rise	-563 Mar 21 j 00:18	13°♐59'37	
min. Earth dist.	-569 Mar 05 j 19:11	7°♎22'39	4.42493 AU		-563 Jun 06 j 19:33	0°♑	
direct	-569 May 06 j 10:06	2°♎28'25		retrograde	-563 Jul 31 j 02:02	4°♑26'00	
evening set	-569 Sep 10 j 04:52	20°♎10'21			-563 Sep 24 j 01:03	30°♐	
max. Earth dist.	-569 Sep 21 j 04:25	22°♎34'37	6.40730 AU	opposition	-563 Sep 28 j 19:05	29°♐21'19	-1°44'50
				min. Earth dist.	-563 Sep 27 j 12:26	29°♐31'45	4.00521 AU
conjunction	-569 Sep 22 j 23:15	22°♎58'08	1°12'40	direct	-563 Nov 25 j 18:22	24°♐25'23	
minimum elong	-569 Sep 22 j 23:15	22°♎58'08	1°12'40		-562 Jan 24 j 18:46	0°♑	
morning rise	-569 Oct 05 j 15:01	25°♎44'45		evening set	-562 Mar 31 j 12:23	13°♑48'36	
	-569 Oct 25 j 11:13	0°♏					
retrograde	-568 Feb 03 j 12:16	12°♏48'59		conjunction	-562 Apr 14 j 03:59	17°♑00'40	-1°01'05
opposition	-568 Apr 04 j 07:20	7°♏57'14	1°38'11	minimum elong	-562 Apr 14 j 04:02	17°♑00'42	1°01'04
min. Earth dist.	-568 Apr 05 j 15:58	7°♏46'50	4.37616 AU	max. Earth dist.	-562 Apr 16 j 08:27	17°♑31'28	6.04500 AU
direct	-568 Jun 05 j 21:32	2°♏56'51		morning rise	-562 Apr 27 j 21:48	20°♑13'42	
evening set	-568 Oct 10 j 00:50	20°♏50'23			-562 Jun 11 j 08:31	0°♒	
max. Earth dist.	-568 Oct 20 j 17:54	23°♏14'03	6.32957 AU	retrograde	-562 Sep 04 j 14:45	9°♒57'03	
				min. Earth dist.	-562 Nov 01 j 19:38	5°♒02'59	4.10009 AU
conjunction	-568 Oct 22 j 15:50	23°♏39'49	0°56'56	opposition	-562 Nov 03 j 03:17	4°♒52'12	-1°08'54
minimum elong	-568 Oct 22 j 15:52	23°♏39'51	0°56'55		-562 Dec 23 j 12:38	30°♑	
morning rise	-568 Nov 04 j 05:12	26°♏28'41		direct	-562 Dec 31 j 16:07	29°♑53'12	
	-568 Nov 20 j 05:18	0°♒			-561 Jan 08 j 21:09	0°♒	
retrograde	-567 Mar 07 j 06:59	14°♒10'28			-561 Apr 20 j 03:32	15°♒	
opposition	-567 May 07 j 06:20	9°♒18'10	1°02'05	evening set	-561 May 07 j 05:14	18°♒49'07	
min. Earth dist.	-567 May 08 j 14:36	9°♒07'54	4.27353 AU				
direct	-567 Jul 08 j 04:00	4°♒20'23		conjunction	-561 May 20 j 23:48	21°♒57'17	-0°27'59
	-567 Oct 06 j 14:57	15°♒		minimum elong	-561 May 20 j 23:50	21°♒57'18	0°27'58
evening set	-567 Nov 10 j 13:16	22°♒37'52		max. Earth dist.	-561 May 22 j 18:39	22°♒21'43	6.16305 AU
max. Earth dist.	-567 Nov 21 j 13:53	25°♒09'59	6.21062 AU	morning rise	-561 Jun 03 j 18:54	25°♒05'24	
					-561 Jun 25 j 23:34	0°♓	
conjunction	-567 Nov 23 j 04:25	25°♒32'13	0°23'50	retrograde	-561 Oct 07 j 22:46	13°♓44'06	
minimum elong	-567 Nov 23 j 04:27	25°♒32'13	0°23'50	opposition	-561 Dec 06 j 12:35	8°♓41'37	-0°11'06
morning rise	-567 Dec 05 j 19:44	28°♒26'50		min. Earth dist.	-561 Dec 05 j 15:30	8°♓48'45	4.22838 AU
	-567 Dec 12 j 14:59	0°♑		direct	-560 Feb 04 j 07:09	3°♓39'57	
retrograde	-566 Apr 11 j 02:38	17°♑05'43		asc. node	-560 Feb 16 j 18:53	3°♓55'07	
opposition	-566 Jun 11 j 01:00	12°♑11'13	0°04'28	evening set	-560 Jun 10 j 08:16	22°♓02'51	
min. Earth dist.	-566 Jun 11 j 21:05	12°♑04'45	4.14564 AU				
desc. node	-566 Jul 09 j 00:29	8°♑54'19		conjunction	-560 Jun 24 j 00:05	25°♓04'16	0°13'13
direct	-566 Aug 10 j 16:34	7°♑16'01		minimum elong	-560 Jun 24 j 00:04	25°♓04'16	0°13'13
evening set	-566 Dec 13 j 13:23	26°♑04'55		behind sun begin	-560 Jun 23 j 19:23	25°♓01'41	
				behind sun end	-560 Jun 24 j 04:44	25°♓06'50	
conjunction	-566 Dec 26 j 08:10	29°♑06'03	-0°18'20	max. Earth dist.	-560 Jun 24 j 21:56	25°♓16'23	6.29180 AU
minimum elong	-566 Dec 26 j 08:08	29°♑06'02	0°18'21	morning rise	-560 Jul 07 j 14:05	28°♓04'38	
max. Earth dist.	-566 Dec 25 j 16:29	28°♑56'47	6.08554 AU		-560 Jul 16 j 09:16	0°♔	
	-566 Dec 30 j 03:15	0°♕		retrograde	-560 Nov 07 j 10:59	15°♔44'03	
morning rise	-565 Jan 08 j 04:22	2°♕08'13		opposition	-559 Jan 06 j 06:41	10°♔45'22	0°46'53
retrograde	-565 May 17 j 23:27	21°♕49'39		min. Earth dist.	-559 Jan 06 j 01:04	10°♔47'14	4.34648 AU
opposition	-565 Jul 17 j 12:47	16°♕51'41	-0°58'06	direct	-559 Mar 08 j 08:58	5°♔42'18	
min. Earth dist.	-565 Jul 17 j 14:16	16°♕51'12	4.03407 AU	evening set	-559 Jul 13 j 15:49	23°♔38'13	
direct	-565 Sep 14 j 18:51	11°♕58'12					
	-564 Jan 12 j 04:21	0°♖		conjunction	-559 Jul 27 j 00:06	26°♔32'29	0°48'50
evening set	-564 Jan 17 j 12:29	1°♖16'13		minimum elong	-559 Jul 27 j 00:03	26°♔32'27	0°48'50
				max. Earth dist.	-559 Jul 26 j 17:16	26°♔28'45	6.38997 AU
conjunction	-564 Jan 30 j 13:07	4°♖23'47	-0°55'27	morning rise	-559 Aug 09 j 05:45	29°♔25'18	
minimum elong	-564 Jan 30 j 13:04	4°♖23'45	0°55'27		-559 Aug 11 j 21:59	0°♗	
max. Earth dist.	-564 Jan 31 j 01:24	4°♖31'10	5.99743 AU		-559 Nov 07 j 12:02	15°♗	
morning rise	-564 Feb 12 j 16:46	7°♖33'02		retrograde	-559 Dec 08 j 00:05	16°♗26'48	
	-564 Mar 16 j 00:48	15°♖			-558 Jan 07 j 10:21	15°♗	
retrograde	-564 Jun 23 j 17:24	27°♖58'04		opposition	-558 Feb 06 j 03:19	11°♗31'44	1°29'04
opposition	-564 Aug 22 j 21:11	22°♖56'10	-1°41'07	min. Earth dist.	-558 Feb 06 j 15:59	11°♗27'36	4.41893 AU
min. Earth dist.	-564 Aug 22 j 01:48	23°♖02'39	3.97993 AU	direct	-558 Apr 09 j 08:13	6°♗28'29	
direct	-564 Oct 20 j 01:06	18°♖02'28			-558 Jun 30 j 03:22	15°♗	
	-563 Jan 20 j 06:52	0°♘		evening set	-558 Aug 14 j 10:45	24°♗09'54	
evening set	-563 Feb 22 j 04:24	7°♘34'35		max. Earth dist.	-558 Aug 26 j 05:32	26°♗43'11	6.43040 AU
conjunction	-563 Mar 07 j 12:46	10°♘46'17	-1°12'11	conjunction	-558 Aug 27 j 10:52	26°♗59'08	1°09'52

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Attention, astronomical year style is used: The year -558 in astronomical counting style is the year 559 BCE in historical counting style.

minimum elong	-558 Aug 27 j 10:51	26°Ω59'07	1°09'51	opposition	-552 Aug 28 j 03:33	28°≈12'22	-1°44'11
morning rise	-558 Sep 09 j 07:47	29°Ω46'52		direct	-552 Oct 25 j 05:58	23°≈18'25	
	-558 Sep 10 j 08:06	0°Π			-552 Dec 30 j 06:57	0°Π	
retrograde	-557 Jan 07 j 10:07	16°Π37'24		evening set	-551 Feb 27 j 11:25	12°Π52'37	
opposition	-557 Mar 08 j 23:22	11°Π44'48	1°46'22				
min. Earth dist.	-557 Mar 10 j 01:30	11°Π36'25	4.42631 AU	conjunction	-551 Mar 12 j 21:02	16°Π04'53	-1°12'13
direct	-557 May 10 j 15:59	6°Π42'39		minimum elong	-551 Mar 12 j 21:02	16°Π04'53	1°12'13
evening set	-557 Sep 14 j 08:35	24°Π24'03		max. Earth dist.	-551 Mar 14 j 16:59	16°Π31'11	5.98155 AU
max. Earth dist.	-557 Sep 25 j 05:49	26°Π47'16	6.40317 AU	morning rise	-551 Mar 26 j 09:46	19°Π18'43	
					-551 May 13 j 09:04	0°Υ	
conjunction	-557 Sep 27 j 02:10	27°Π11'41	1°11'38	retrograde	-551 Aug 05 j 07:09	9°Υ42'35	
minimum elong	-557 Sep 27 j 02:11	27°Π11'41	1°11'38	opposition	-551 Oct 03 j 22:55	4°Υ37'38	-1°41'45
morning rise	-557 Oct 09 j 17:18	29°Π58'13		min. Earth dist.	-551 Oct 02 j 14:16	4°Υ48'45	4.01247 AU
	-557 Oct 09 j 20:34	0°Ω			-551 Nov 17 j 11:37	30°ΡΠ	
retrograde	-556 Feb 07 j 19:37	17°Ω05'17		direct	-551 Nov 30 j 21:35	29°Π41'17	
opposition	-556 Apr 08 j 15:24	12°Ω13'35	1°34'49		-551 Dec 14 j 09:39	0°Υ	
min. Earth dist.	-556 Apr 10 j 02:03	12°Ω02'34	4.36650 AU	evening set	-550 Apr 05 j 19:59	19°Υ02'00	
direct	-556 Jun 10 j 05:42	7°Ω13'27					
evening set	-556 Oct 14 j 05:02	25°Ω09'15		conjunction	-550 Apr 19 j 12:15	22°Υ13'47	-0°57'21
max. Earth dist.	-556 Oct 24 j 20:05	27°Ω32'19	6.31500 AU	minimum elong	-550 Apr 19 j 12:18	22°Υ13'49	0°57'20
				max. Earth dist.	-550 Apr 21 j 16:10	22°Υ44'09	6.05835 AU
conjunction	-556 Oct 26 j 19:48	27°Ω59'11	0°53'20	morning rise	-550 May 03 j 06:44	25°Υ26'25	
minimum elong	-556 Oct 26 j 19:50	27°Ω59'12	0°53'20		-550 May 23 j 07:26	0°Σ	
	-556 Nov 04 j 18:31	0°Π			-550 Sep 06 j 02:03	15°Σ	
morning rise	-556 Nov 08 j 09:18	0°Π48'40		retrograde	-550 Sep 09 j 11:37	15°Σ01'10	
	-555 Jan 21 j 03:08	15°Π			-550 Sep 12 j 21:12	15°ΡΣ	
retrograde	-555 Mar 11 j 19:52	18°Π37'30		min. Earth dist.	-550 Nov 06 j 17:52	10°Σ06'56	4.11755 AU
	-555 May 01 j 21:35	15°ΡΠ		opposition	-550 Nov 08 j 00:52	9°Σ56'21	-1°01'22
opposition	-555 May 11 j 19:42	13°Π44'58	0°55'19	direct	-549 Jan 05 j 17:56	4°Σ56'50	
min. Earth dist.	-555 May 13 j 03:06	13°Π34'56	4.25479 AU		-549 Apr 01 j 11:53	15°Σ	
direct	-555 Jul 12 j 13:21	8°Π47'25		evening set	-549 May 12 j 08:07	23°Σ47'34	
	-555 Sep 17 j 03:07	15°Π					
evening set	-555 Nov 14 j 21:46	27°Π09'56		conjunction	-549 May 26 j 02:46	26°Σ54'50	-0°22'13
max. Earth dist.	-555 Nov 26 j 01:31	29°Π44'32	6.18936 AU	minimum elong	-549 May 26 j 02:48	26°Σ54'51	0°22'11
				max. Earth dist.	-549 May 27 j 20:57	27°Σ18'46	6.18303 AU
conjunction	-555 Nov 27 j 13:25	0°Σ05'20	0°18'26	morning rise	-549 Jun 08 j 21:17	0°Π01'49	
minimum elong	-555 Nov 27 j 13:27	0°Σ05'21	0°18'26		-549 Jun 08 j 18:03	0°Π	
	-555 Nov 27 j 04:12	0°Σ		retrograde	-549 Oct 12 j 12:44	18°Π30'31	
morning rise	-555 Dec 10 j 05:10	3°Σ01'05		min. Earth dist.	-549 Dec 10 j 07:40	13°Π35'04	4.24857 AU
retrograde	-554 Apr 16 j 02:12	21°Σ50'07		opposition	-549 Dec 11 j 03:09	13°Π28'31	-0°02'22
desc. node	-554 May 20 j 17:04	20°Σ01'41		asc. node	-549 Dec 26 j 13:24	11°Π27'27	
opposition	-554 Jun 15 j 21:53	16°Σ55'16	-0°04'12	direct	-548 Feb 09 j 02:36	8°Π26'33	
min. Earth dist.	-554 Jun 16 j 17:07	16°Σ49'04	4.12332 AU	evening set	-548 Jun 15 j 04:29	26°Π44'14	
direct	-554 Aug 15 j 08:49	12°Σ00'21					
	-554 Dec 14 j 06:45	0°Σ		conjunction	-548 Jun 28 j 19:14	29°Π44'27	0°18'53
evening set	-554 Dec 18 j 05:30	0°Σ55'44		minimum elong	-548 Jun 28 j 19:12	29°Π44'27	0°18'53
max. Earth dist.	-554 Dec 30 j 11:13	3°Σ49'57	6.06415 AU	max. Earth dist.	-548 Jun 29 j 11:57	29°Π53'41	6.31036 AU
					-548 Jun 29 j 23:22	0°Ω	
conjunction	-554 Dec 31 j 00:57	3°Σ58'07	-0°24'02	morning rise	-548 Jul 12 j 08:19	2°Ω43'36	
minimum elong	-554 Dec 31 j 00:55	3°Σ58'06	0°24'01	retrograde	-548 Nov 11 j 19:41	20°Ω15'27	
morning rise	-553 Jan 12 j 22:21	7°Σ01'41		opposition	-547 Jan 10 j 16:24	15°Ω17'17	0°54'06
retrograde	-553 May 23 j 03:50	26°Σ53'23		min. Earth dist.	-547 Jan 10 j 13:48	15°Ω18'08	4.36203 AU
opposition	-553 Jul 22 j 16:13	21°Σ54'51	-1°05'43	direct	-547 Mar 12 j 23:41	10°Ω14'02	
min. Earth dist.	-553 Jul 22 j 13:53	21°Σ55'37	4.01580 AU	evening set	-547 Jul 18 j 05:15	28°Ω06'26	
direct	-553 Sep 19 j 16:05	17°Σ01'27			-547 Jul 26 j 22:42	0°Ω	
	-553 Dec 25 j 23:19	0°≈					
evening set	-552 Jan 22 j 13:21	6°≈25'11		conjunction	-547 Jul 31 j 12:31	0°Ω59'46	0°52'50
				minimum elong	-547 Jul 31 j 12:28	0°Ω59'45	0°52'51
conjunction	-552 Feb 04 j 15:12	9°≈33'52	-0°59'13	max. Earth dist.	-547 Jul 31 j 03:14	0°Ω54'43	6.40128 AU
minimum elong	-552 Feb 04 j 15:09	9°≈33'51	0°59'13	morning rise	-547 Aug 13 j 16:42	3°Ω51'34	
max. Earth dist.	-552 Feb 05 j 08:47	9°≈44'28	5.98405 AU		-547 Oct 09 j 07:05	15°Ω	
morning rise	-552 Feb 17 j 19:57	12°≈44'13		retrograde	-547 Dec 12 j 05:36	20°Ω49'25	
	-552 Feb 27 j 08:47	15°≈		opposition	-546 Feb 10 j 11:06	15°Ω54'48	1°33'08
	-552 May 13 j 24:00	0°Π		min. Earth dist.	-546 Feb 11 j 01:24	15°Ω50'10	4.42546 AU
retrograde	-552 Jun 29 j 02:57	3°Π14'49			-546 Feb 17 j 12:46	15°ΡΩ	
	-552 Aug 14 j 11:30	30°Ρ≈		direct	-546 Apr 13 j 17:59	10°Ω51'41	
min. Earth dist.	-552 Aug 27 j 06:19	28°≈19'30	3.97302 AU		-546 Jun 07 j 14:36	15°Ω	

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Attention, astronomical year style is used: The year -546 in astronomical counting style is the year 547 BCE in historical counting style.

evening set	-546 Aug 18 j 19:58	28°Ω31'51		minimum elong	-540 Feb 09 j 20:18	14°≈51'14	1°02'40
	-546 Aug 25 j 14:43	0°♄			-540 Feb 10 j 10:52	15°≈	
max. Earth dist.	-546 Aug 30 j 09:23	1°♄02'22	6.43149 AU	max. Earth dist.	-540 Feb 10 j 18:53	15°≈04'49	5.97954 AU
				morning rise	-540 Feb 23 j 02:16	18°≈02'18	
conjunction	-546 Aug 31 j 18:50	1°♄20'35	1°11'19		-540 Apr 17 j 03:44	0°♄	
minimum elong	-546 Aug 31 j 18:49	1°♄20'34	1°11'19	retrograde	-540 Jul 04 j 11:20	8°♄34'21	
morning rise	-546 Sep 13 j 14:51	4°♄07'53		min. Earth dist.	-540 Sep 01 j 10:21	3°♄39'37	3.97561 AU
retrograde	-545 Jan 11 j 19:11	20°♄58'59		opposition	-540 Sep 02 j 10:38	3°♄31'27	-1°46'27
opposition	-545 Mar 13 j 08:36	16°♄06'40	1°46'29		-540 Oct 01 j 19:15	30°≈	
min. Earth dist.	-545 Mar 14 j 13:30	15°♄57'24	4.42203 AU	direct	-540 Oct 30 j 10:34	28°≈37'18	
direct	-545 May 15 j 02:54	11°♄04'43			-540 Nov 28 j 00:51	0°♄	
evening set	-545 Sep 18 j 16:13	28°♄47'24		evening set	-539 Mar 04 j 18:17	18°♄10'03	
	-545 Sep 24 j 04:36	0°♄					
max. Earth dist.	-545 Sep 29 j 11:35	1°♄09'56	6.39375 AU	conjunction	-539 Mar 18 j 04:47	21°♄22'18	-1°11'44
				minimum elong	-539 Mar 18 j 04:48	21°♄22'19	1°11'44
conjunction	-545 Oct 01 j 09:19	1°♄35'10	1°10'13	max. Earth dist.	-539 Mar 20 j 02:18	21°♄49'29	5.99060 AU
minimum elong	-545 Oct 01 j 09:21	1°♄35'10	1°10'13	morning rise	-539 Mar 31 j 18:32	24°♄36'07	
morning rise	-545 Oct 13 j 23:56	4°♄21'53			-539 Apr 24 j 02:11	0°♄	
retrograde	-544 Feb 12 j 07:21	21°♄33'37		retrograde	-539 Aug 10 j 07:43	14°♄54'06	
opposition	-544 Apr 13 j 04:46	16°♄41'55	1°30'49	min. Earth dist.	-539 Oct 07 j 15:02	10°♄00'16	4.02689 AU
min. Earth dist.	-544 Apr 14 j 14:57	16°♄31'02	4.35259 AU	opposition	-539 Oct 09 j 00:18	9°♄48'55	-1°37'57
direct	-544 Jun 14 j 15:58	11°♄42'08		direct	-539 Dec 06 j 01:08	4°♄52'06	
evening set	-544 Oct 18 j 14:30	29°♄41'31		evening set	-538 Apr 11 j 00:26	24°♄08'05	
	-544 Oct 19 j 23:29	0°♄					
max. Earth dist.	-544 Oct 29 j 06:43	2°♄05'49	6.29774 AU	conjunction	-538 Apr 24 j 17:27	27°♄19'19	-0°53'18
				minimum elong	-538 Apr 24 j 17:30	27°♄19'20	0°53'19
conjunction	-544 Oct 31 j 05:12	2°♄32'06	0°49'15	max. Earth dist.	-538 Apr 26 j 22:11	27°♄50'01	6.07687 AU
minimum elong	-544 Oct 31 j 05:15	2°♄32'07	0°49'15		-538 May 06 j 06:05	0°♄	
morning rise	-544 Nov 12 j 18:48	5°♄22'22		morning rise	-538 May 08 j 12:04	0°♄31'11	
	-544 Dec 28 j 11:06	15°♄			-538 Jul 18 j 17:26	15°♄	
retrograde	-543 Mar 16 j 17:21	23°♄19'21		retrograde	-538 Sep 14 j 05:48	19°♄55'53	
opposition	-543 May 16 j 15:51	18°♄26'40	0°47'47		-538 Nov 11 j 17:05	15°♄	
min. Earth dist.	-543 May 17 j 23:07	18°♄16'41	4.23514 AU	opposition	-538 Nov 12 j 18:26	14°♄51'23	-0°53'41
	-543 Jun 15 j 13:34	15°♄		min. Earth dist.	-538 Nov 11 j 12:57	15°♄01'25	4.13798 AU
direct	-543 Jul 17 j 06:16	13°♄29'33		direct	-537 Jan 10 j 15:51	9°♄51'28	
	-543 Aug 17 j 16:50	15°♄			-537 Mar 10 j 10:58	15°♄	
	-543 Nov 10 j 23:41	0°♄		evening set	-537 May 17 j 06:53	28°♄36'28	
evening set	-543 Nov 19 j 12:11	1°♄57'09			-537 May 23 j 11:15	0°♄	
max. Earth dist.	-543 Nov 30 j 17:48	4°♄33'34	6.16914 AU				
				conjunction	-537 May 31 j 01:11	1°♄42'44	-0°16'30
conjunction	-543 Dec 02 j 04:12	4°♄53'35	0°12'35	minimum elong	-537 May 31 j 01:12	1°♄42'44	0°16'30
minimum elong	-543 Dec 02 j 04:13	4°♄53'35	0°12'34	max. Earth dist.	-537 Jun 01 j 15:11	2°♄04'11	6.20354 AU
behind sun begin	-543 Dec 01 j 22:58	4°♄50'33		morning rise	-537 Jun 13 j 19:22	4°♄48'37	
behind sun end	-543 Dec 02 j 09:28	4°♄56'38		retrograde	-537 Oct 16 j 22:17	23°♄07'54	
morning rise	-543 Dec 14 j 20:42	7°♄50'30		asc. node	-537 Nov 05 j 18:43	22°♄29'00	
desc. node	-542 Mar 29 j 19:08	26°♄02'25		opposition	-537 Dec 15 j 13:59	18°♄06'22	0°06'04
retrograde	-542 Apr 21 j 05:12	26°♄49'25		min. Earth dist.	-537 Dec 14 j 20:42	18°♄12'11	4.26736 AU
opposition	-542 Jun 21 j 00:50	21°♄54'08	-0°13'23	direct	-536 Feb 13 j 17:54	13°♄04'05	
min. Earth dist.	-542 Jun 21 j 16:20	21°♄49'07	4.10439 AU		-536 Jun 13 j 22:30	0°♄	
direct	-542 Aug 20 j 05:20	16°♄59'36		evening set	-536 Jun 19 j 20:26	1°♄17'20	
	-542 Nov 27 j 01:24	0°♄					
evening set	-542 Dec 23 j 03:09	6°♄00'11		conjunction	-536 Jul 03 j 10:25	4°♄16'32	0°24'15
				minimum elong	-536 Jul 03 j 10:23	4°♄16'31	0°24'16
conjunction	-541 Jan 04 j 23:26	9°♄03'35	-0°29'51	max. Earth dist.	-536 Jul 03 j 23:43	4°♄23'52	6.32607 AU
minimum elong	-541 Jan 04 j 23:24	9°♄03'34	0°29'51	morning rise	-536 Jul 16 j 22:15	7°♄14'32	
max. Earth dist.	-541 Jan 04 j 15:00	8°♄58'34	6.04845 AU	retrograde	-536 Nov 16 j 02:08	24°♄40'17	
morning rise	-541 Jan 17 j 21:40	12°♄08'16		opposition	-535 Jan 14 j 23:25	19°♄42'41	1°00'47
	-541 Apr 21 j 08:26	0°≈		min. Earth dist.	-535 Jan 14 j 23:32	19°♄42'39	4.37364 AU
retrograde	-541 May 28 j 13:49	2°≈07'50		direct	-535 Mar 17 j 10:25	14°♄39'24	
	-541 Jul 04 j 20:54	30°≈			-535 Jul 11 j 00:21	0°♄	
opposition	-541 Jul 27 j 23:51	27°♄08'46	-1°13'10	evening set	-535 Jul 22 j 16:13	2°♄29'36	
min. Earth dist.	-541 Jul 27 j 19:03	27°♄10'21	4.00520 AU				
direct	-541 Sep 24 j 20:49	22°♄15'29		conjunction	-535 Aug 04 j 22:12	5°♄22'11	0°56'27
	-541 Dec 05 j 21:44	0°≈		minimum elong	-535 Aug 04 j 22:09	5°♄22'09	0°56'26
evening set	-540 Jan 27 j 17:28	11°≈41'54		max. Earth dist.	-535 Aug 04 j 07:32	5°♄14'12	6.40775 AU
				morning rise	-535 Aug 18 j 01:20	8°♄13'16	
conjunction	-540 Feb 09 j 20:20	14°≈51'15	-1°02'41		-535 Sep 19 j 15:22	15°♄	

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Attention, astronomical year style is used: The year -535 in astronomical counting style is the year 536 BCE in historical counting style.

retrograde	-535 Dec 16 j 11:57	25°♏09'11		-529 Nov 08 j 13:54	0°♏	
opposition	-534 Feb 14 j 17:41	20°♏14'57	1°36'38	-528 Jan 24 j 20:21	15°♏	
min. Earth dist.	-534 Feb 15 j 10:59	20°♏09'20	4.42677 AU	evening set	-528 Feb 01 j 20:43	16°♏54'26
direct	-534 Apr 18 j 02:52	15°♏11'52				
	-534 Aug 09 j 17:07	0°♏		conjunction	-528 Feb 15 j 00:27	20°♏04'13 -1°05'36
evening set	-534 Aug 23 j 03:57	2°♏52'23		minimum elong	-528 Feb 15 j 00:25	20°♏04'12 1°05'36
max. Earth dist.	-534 Sep 03 j 15:23	5°♏21'59	6.42751 AU	max. Earth dist.	-528 Feb 16 j 01:59	20°♏19'36 5.97863 AU
				morning rise	-528 Feb 28 j 07:28	23°♏15'46
conjunction	-534 Sep 05 j 02:04	5°♏40'54	1°12'22		-528 Mar 28 j 08:57	0°♏
minimum elong	-534 Sep 05 j 02:03	5°♏40'53	1°12'22	retrograde	-528 Jul 09 j 16:06	13°♏47'44
morning rise	-534 Sep 17 j 21:02	8°♏27'59		opposition	-528 Sep 07 j 15:00	8°♏44'22 -1°47'50
retrograde	-533 Jan 16 j 02:58	25°♏21'14		min. Earth dist.	-528 Sep 06 j 12:52	8°♏53'11 3.98032 AU
opposition	-533 Mar 17 j 18:00	20°♏29'07	1°46'01	direct	-528 Nov 04 j 14:13	3°♏49'54
min. Earth dist.	-533 Mar 18 j 23:30	20°♏19'40	4.41324 AU	evening set	-527 Mar 09 j 23:12	23°♏20'51
direct	-533 May 19 j 11:04	15°♏27'27				
	-533 Sep 08 j 04:08	0°♏		conjunction	-527 Mar 23 j 10:53	26°♏33'09 -1°10'42
evening set	-533 Sep 23 j 00:15	3°♏12'34		minimum elong	-527 Mar 23 j 10:54	26°♏33'10 1°10'41
max. Earth dist.	-533 Oct 03 j 17:40	5°♏34'34	6.38080 AU	max. Earth dist.	-527 Mar 25 j 11:34	27°♏02'08 6.00051 AU
				morning rise	-527 Apr 06 j 01:22	29°♏46'51
conjunction	-533 Oct 05 j 16:42	6°♏00'36	1°08'23		-527 Apr 06 j 23:41	0°♏
minimum elong	-533 Oct 05 j 16:43	6°♏00'37	1°08'22	retrograde	-527 Aug 15 j 08:13	19°♏58'38
morning rise	-533 Oct 18 j 07:05	8°♏47'44		opposition	-527 Oct 13 j 23:03	14°♏53'26 -1°33'31
retrograde	-532 Feb 16 j 23:17	26°♏05'15		min. Earth dist.	-527 Oct 12 j 14:18	15°♏04'36 4.04086 AU
opposition	-532 Apr 17 j 19:52	21°♏13'31	1°26'14	direct	-527 Dec 11 j 02:02	9°♏56'13
min. Earth dist.	-532 Apr 19 j 06:53	21°♏02'22	4.33622 AU	evening set	-526 Apr 16 j 03:08	29°♏08'06
direct	-532 Jun 19 j 05:33	16°♏14'05			-526 Apr 19 j 21:01	0°♏
	-532 Oct 03 j 14:18	0°♏				
evening set	-532 Oct 23 j 01:15	4°♏17'26		conjunction	-526 Apr 29 j 20:32	2°♏18'48 -0°48'58
max. Earth dist.	-532 Nov 02 j 18:49	6°♏43'07	6.27946 AU	minimum elong	-526 Apr 29 j 20:35	2°♏18'49 0°48'57
				max. Earth dist.	-526 May 01 j 23:13	2°♏48'09 6.09356 AU
conjunction	-532 Nov 04 j 16:04	7°♏08'48	0°44'48	morning rise	-526 May 13 j 15:37	5°♏30'04
minimum elong	-532 Nov 04 j 16:06	7°♏08'49	0°44'48		-526 Jun 26 j 09:04	15°♏
morning rise	-532 Nov 17 j 05:51	9°♏59'54		retrograde	-526 Sep 18 j 20:46	24°♏45'46
	-532 Dec 09 j 21:18	15°♏		min. Earth dist.	-526 Nov 16 j 05:37	19°♏51'20 4.15566 AU
retrograde	-531 Mar 21 j 14:16	28°♏05'07		opposition	-526 Nov 17 j 10:15	19°♏41'35 -0°45'46
opposition	-531 May 21 j 13:27	23°♏12'08	0°39'49		-525 Jan 01 j 20:01	15°♏
min. Earth dist.	-531 May 22 j 17:53	23°♏03'03	4.21626 AU	direct	-525 Jan 15 j 10:57	14°♏41'17
direct	-531 Jul 21 j 22:27	18°♏15'27			-525 Jan 29 j 04:54	15°♏
	-531 Oct 24 j 18:11	0°♏			-525 May 06 j 23:15	0°♏
evening set	-531 Nov 24 j 04:10	6°♏47'36		evening set	-525 May 22 j 04:32	3°♏21'55
conjunction	-531 Dec 06 j 20:35	9°♏44'56	0°06'36	conjunction	-525 Jun 04 j 22:37	6°♏27'19 -0°10'45
minimum elong	-531 Dec 06 j 20:36	9°♏44'56	0°06'35	minimum elong	-525 Jun 04 j 22:38	6°♏27'19 0°10'45
behind sun begin	-531 Dec 06 j 13:05	9°♏40'34		behind sun begin	-525 Jun 04 j 16:20	6°♏23'47
behind sun end	-531 Dec 07 j 04:06	9°♏49'18		behind sun end	-525 Jun 05 j 04:56	6°♏30'51
max. Earth dist.	-531 Dec 05 j 14:03	9°♏27'05	6.15140 AU	max. Earth dist.	-525 Jun 06 j 09:19	6°♏46'51 6.22096 AU
morning rise	-531 Dec 19 j 13:42	12°♏42'53		morning rise	-525 Jun 18 j 16:08	9°♏32'11
desc. node	-530 Feb 05 j 19:22	23°♏10'38		asc. node	-525 Sep 15 j 22:08	25°♏45'09
	-530 Mar 22 j 16:55	0°♏		retrograde	-525 Oct 21 j 09:31	27°♏43'27
retrograde	-530 Apr 26 j 10:42	1°♏50'28		min. Earth dist.	-525 Dec 19 j 10:13	22°♏47'16 4.28293 AU
	-530 May 31 j 07:33	30°♏♏		opposition	-525 Dec 20 j 00:27	22°♏42'30 0°14'23
opposition	-530 Jun 26 j 04:41	26°♏54'40	-0°22'32	direct	-524 Feb 18 j 09:14	17°♏40'02
min. Earth dist.	-530 Jun 26 j 18:01	26°♏50'21	4.08910 AU		-524 May 28 j 01:24	0°♏
direct	-530 Aug 25 j 05:34	22°♏00'24		evening set	-524 Jun 24 j 12:39	5°♏50'04
	-530 Nov 07 j 15:43	0°♏				
evening set	-530 Dec 28 j 01:06	11°♏04'32		conjunction	-524 Jul 08 j 01:40	8°♏48'22 0°29'29
				minimum elong	-524 Jul 08 j 01:38	8°♏48'21 0°29'30
conjunction	-529 Jan 09 j 22:11	14°♏08'47	-0°35'28	max. Earth dist.	-524 Jul 08 j 10:31	8°♏53'14 6.33854 AU
minimum elong	-529 Jan 09 j 22:08	14°♏08'46	0°35'28	morning rise	-524 Jul 21 j 12:29	11°♏45'25
max. Earth dist.	-529 Jan 09 j 18:11	14°♏06'24	6.03696 AU	retrograde	-524 Nov 20 j 08:37	29°♏06'14
morning rise	-529 Jan 22 j 21:24	17°♏14'22		opposition	-523 Jan 19 j 07:02	24°♏09'10 1°07'11
	-529 Mar 22 j 19:52	0°♏		min. Earth dist.	-523 Jan 19 j 09:24	24°♏08'23 4.38241 AU
retrograde	-529 Jun 02 j 21:11	7°♏19'41		direct	-523 Mar 21 j 20:32	19°♏05'50
opposition	-529 Aug 02 j 06:20	2°♏20'04	-1°19'59		-523 Jun 23 j 20:44	0°♏
min. Earth dist.	-529 Aug 01 j 21:58	2°♏22'50	3.99888 AU	evening set	-523 Jul 27 j 03:48	6°♏54'46
	-529 Aug 20 j 16:33	30°♏♏				
direct	-529 Sep 29 j 23:02	27°♏26'48		conjunction	-523 Aug 09 j 08:45	9°♏46'44 0°59'47

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Attention, astronomical year style is used: The year -523 in astronomical counting style is the year 524 BCE in historical counting style.

minimum elong	-523 Aug 09 j 08:42	9°Ω46'42	0°59'47	max. Earth dist.	-517 Jan 14 j 18:08	19°308'47	6.02928 AU
max. Earth dist.	-523 Aug 08 j 15:40	9°Ω37'26	6.41216 AU	morning rise	-517 Jan 27 j 19:08	22°315'36	
morning rise	-523 Aug 22 j 10:36	12°Ω37'09			-517 Mar 02 j 15:14	0°≈	
	-523 Sep 02 j 13:22	15°Ω		retrograde	-517 Jun 08 j 00:58	12°≈25'09	
retrograde	-523 Dec 20 j 19:24	29°Ω31'53		opposition	-517 Aug 07 j 09:23	7°≈24'55	-1°25'57
opposition	-522 Feb 19 j 01:46	24°Ω38'07	1°39'40	min. Earth dist.	-517 Aug 06 j 22:29	7°≈28'32	3.99539 AU
min. Earth dist.	-522 Feb 19 j 20:59	24°Ω31'53	4.42680 AU	direct	-517 Oct 04 j 23:41	2°≈31'32	
direct	-522 Apr 22 j 12:31	19°Ω35'15			-516 Jan 07 j 16:34	15°≈	
	-522 Jul 23 j 10:36	0°♐		evening set	-516 Feb 06 j 20:48	21°≈59'36	
evening set	-522 Aug 27 j 13:07	7°♐16'20					
max. Earth dist.	-522 Sep 07 j 20:10	9°♐43'53	6.42302 AU	conjunction	-516 Feb 20 j 01:41	25°≈09'48	-1°07'56
				minimum elong	-516 Feb 20 j 01:39	25°≈09'47	1°07'56
conjunction	-522 Sep 09 j 10:10	10°♐04'38	1°13'01	max. Earth dist.	-516 Feb 21 j 07:45	25°≈27'53	5.97958 AU
minimum elong	-522 Sep 09 j 10:10	10°♐04'38	1°13'01	morning rise	-516 Mar 04 j 09:35	28°≈21'42	
morning rise	-522 Sep 22 j 04:27	12°♐51'36			-516 Mar 11 j 07:14	0°♐	
retrograde	-521 Jan 20 j 14:08	29°♐47'17		retrograde	-516 Jul 14 j 18:32	18°♐52'43	
opposition	-521 Mar 22 j 05:10	24°♐55'21	1°44'59	opposition	-516 Sep 12 j 15:36	13°♐48'59	-1°48'20
min. Earth dist.	-521 Mar 23 j 11:59	24°♐45'29	4.40486 AU	min. Earth dist.	-516 Sep 11 j 12:56	13°♐58'00	3.98579 AU
direct	-521 May 23 j 21:59	19°♐53'59		direct	-516 Nov 09 j 14:33	8°♐54'13	
	-521 Aug 21 j 17:01	0°♑		evening set	-515 Mar 15 j 00:46	28°♐23'18	
evening set	-521 Sep 27 j 09:13	7°♑41'15			-515 Mar 21 j 20:11	0°♑	
max. Earth dist.	-521 Oct 08 j 03:24	10°♑04'03	6.36936 AU				
				conjunction	-515 Mar 28 j 13:15	1°♑35'34	-1°09'11
conjunction	-521 Oct 10 j 01:22	10°♑29'35	1°06'10	minimum elong	-515 Mar 28 j 13:16	1°♑35'35	1°09'10
minimum elong	-521 Oct 10 j 01:24	10°♑29'36	1°06'10	max. Earth dist.	-515 Mar 30 j 13:47	2°♑04'21	6.00974 AU
morning rise	-521 Oct 22 j 15:17	13°♑17'02		morning rise	-515 Apr 11 j 04:45	4°♑49'13	
	-520 Jan 31 j 21:25	0°♒		retrograde	-515 Aug 20 j 03:07	24°♑55'09	
retrograde	-520 Feb 21 j 13:50	0°♒39'47		min. Earth dist.	-515 Oct 17 j 09:03	20°♑01'15	4.05294 AU
	-520 Mar 13 j 07:50	30°♒♑		opposition	-515 Oct 18 j 18:10	19°♑49'57	-1°28'35
opposition	-520 Apr 22 j 11:48	25°♑48'00	1°21'07	direct	-515 Dec 15 j 22:36	14°♑52'17	
min. Earth dist.	-520 Apr 23 j 21:25	25°♑37'18	4.32262 AU		-514 Apr 03 j 09:37	0°♒	
direct	-520 Jun 23 j 17:59	20°♑49'01		evening set	-514 Apr 21 j 02:55	4°♒01'00	
	-520 Sep 15 j 12:52	0°♒					
evening set	-520 Oct 27 j 12:26	8°♒55'19		conjunction	-514 May 04 j 20:50	7°♒11'17	-0°44'25
max. Earth dist.	-520 Nov 07 j 07:15	11°♒22'15	6.26486 AU	minimum elong	-514 May 04 j 20:53	7°♒11'19	0°44'24
				max. Earth dist.	-514 May 06 j 21:42	7°♒39'30	6.10764 AU
conjunction	-520 Nov 09 j 03:06	11°♒47'15	0°40'07	morning rise	-514 May 18 j 16:02	10°♒21'58	
minimum elong	-520 Nov 09 j 03:08	11°♒47'16	0°40'06		-514 Jun 08 j 07:08	15°♒	
morning rise	-520 Nov 21 j 17:12	14°♒39'04		retrograde	-514 Sep 23 j 11:48	29°♒29'55	
	-520 Nov 23 j 06:12	15°♒		opposition	-514 Nov 21 j 23:50	24°♒26'04	-0°37'48
	-519 Feb 10 j 16:42	0°♓		min. Earth dist.	-514 Nov 20 j 21:48	24°♒34'55	4.17017 AU
retrograde	-519 Mar 26 j 12:38	2°♓51'24		direct	-513 Jan 20 j 04:58	19°♒25'24	
	-519 May 10 j 01:05	30°♓♒			-513 Apr 19 j 09:12	0°♓	
opposition	-519 May 26 j 11:11	27°♓58'04	0°31'40	evening set	-513 May 27 j 00:19	8°♓02'47	
min. Earth dist.	-519 May 27 j 14:14	27°♓49'24	4.20149 AU				
direct	-519 Jul 26 j 17:14	23°♓01'44		conjunction	-513 Jun 09 j 18:07	11°♓07'28	-0°05'05
	-519 Oct 05 j 00:21	0°♓		minimum elong	-513 Jun 09 j 18:08	11°♓07'28	0°05'05
evening set	-519 Nov 28 j 19:09	11°♓36'54		behind sun begin	-513 Jun 09 j 10:02	11°♓02'57	
max. Earth dist.	-519 Dec 10 j 09:11	14°♓19'16	6.13788 AU	behind sun end	-513 Jun 10 j 02:13	11°♓11'59	
				max. Earth dist.	-513 Jun 11 j 02:10	11°♓25'26	6.23495 AU
conjunction	-519 Dec 11 j 12:04	14°♓35'00	0°00'37	morning rise	-513 Jun 23 j 11:05	14°♓11'30	
minimum elong	-519 Dec 11 j 12:04	14°♓35'00	0°00'37	asc. node	-513 Jul 27 j 23:05	21°♓33'56	
behind sun begin	-519 Dec 11 j 04:04	14°♓30'20			-513 Sep 17 j 14:25	0°♔	
behind sun end	-519 Dec 11 j 20:04	14°♓39'40		retrograde	-513 Oct 25 j 17:26	2°♔15'58	
desc. node	-519 Dec 17 j 00:47	15°♓52'44			-513 Dec 02 j 17:01	30°♒♓	
morning rise	-519 Dec 24 j 05:45	17°♓33'47		opposition	-513 Dec 24 j 09:50	27°♓15'31	0°22'26
	-518 Feb 20 j 23:12	0°♔		min. Earth dist.	-513 Dec 23 j 20:54	27°♓19'51	4.29542 AU
retrograde	-518 May 01 j 12:06	6°♔48'22		direct	-512 Feb 22 j 21:15	22°♓12'52	
opposition	-518 Jul 01 j 06:34	1°♔52'05	-0°31'19		-512 May 09 j 04:14	0°♔	
min. Earth dist.	-518 Jul 01 j 16:33	1°♔48'51	4.07810 AU	evening set	-512 Jun 29 j 03:44	10°♔20'30	
	-518 Jul 16 j 00:53	30°♒♓					
direct	-518 Aug 30 j 02:50	26°♓58'04		conjunction	-512 Jul 12 j 15:45	13°♔17'59	0°34'27
	-518 Oct 13 j 03:22	0°♔		minimum elong	-512 Jul 12 j 15:43	13°♔17'58	0°34'27
evening set	-517 Jan 01 j 21:19	16°♔04'26		max. Earth dist.	-512 Jul 12 j 20:52	13°♔20'47	6.34873 AU
				morning rise	-512 Jul 26 j 01:28	16°♔14'09	
conjunction	-517 Jan 14 j 18:58	19°♔09'17	-0°40'39		-512 Oct 07 j 05:46	0°♒	
minimum elong	-517 Jan 14 j 18:55	19°♔09'16	0°40'40	retrograde	-512 Nov 24 j 16:27	3°♒30'47	

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Attention, astronomical year style is used: The year -511 in astronomical counting style is the year 512 BCE in historical counting style.

	-511 Jan 12 j 13:35	30° \mathbb{R} \mathbb{S}		morning rise	-507 Dec 28 j 21:51	22° \mathbb{X} 23'19	
opposition	-511 Jan 23 j 14:43	28° \mathbb{S} 34'13	1°13'06		-506 Jan 31 j 18:36	0° \mathbb{Z}	
min. Earth dist.	-511 Jan 23 j 19:54	28° \mathbb{S} 32'31	4.38973 AU	retrograde	-506 May 06 j 15:28	11° \mathbb{Z} 46'28	
direct	-511 Mar 26 j 08:26	23° \mathbb{S} 30'54		opposition	-506 Jul 06 j 08:36	6° \mathbb{Z} 49'41	-0°39'59
	-511 Jun 04 j 03:35	0° \mathbb{Q}		min. Earth dist.	-506 Jul 06 j 15:56	6° \mathbb{Z} 47'18	4.06305 AU
evening set	-511 Jul 31 j 14:49	11° \mathbb{Q} 18'32		direct	-506 Sep 04 j 00:42	1° \mathbb{Z} 55'50	
				evening set	-505 Jan 06 j 18:29	21° \mathbb{Z} 06'20	
conjunction	-511 Aug 13 j 18:37	14° \mathbb{Q} 09'53	1°02'43				
minimum elong	-511 Aug 13 j 18:35	14° \mathbb{Q} 09'52	1°02'44	conjunction	-505 Jan 19 j 17:11	24° \mathbb{Z} 12'08	-0°45'38
max. Earth dist.	-511 Aug 12 j 22:27	13° \mathbb{Q} 58'55	6.41593 AU	minimum elong	-505 Jan 19 j 17:08	24° \mathbb{Z} 12'06	0°45'38
	-511 Aug 17 j 14:45	15° \mathbb{Q}		max. Earth dist.	-505 Jan 19 j 21:28	24° \mathbb{Z} 14'41	6.01729 AU
morning rise	-511 Aug 26 j 19:21	16° \mathbb{Q} 59'42		morning rise	-505 Feb 01 j 18:14	27° \mathbb{Z} 19'24	
	-511 Nov 03 j 16:41	0° \mathbb{P}			-505 Feb 13 j 02:32	0° \mathbb{A}	
retrograde	-511 Dec 25 j 01:37	3° \mathbb{P} 53'16			-505 May 03 j 06:46	15° \mathbb{A}	
	-510 Feb 15 j 13:50	30° \mathbb{R} \mathbb{Q}		retrograde	-505 Jun 13 j 08:30	17° \mathbb{A} 34'57	
opposition	-510 Feb 23 j 09:41	28° \mathbb{Q} 59'46	1°42'05		-505 Jul 24 j 11:35	15° \mathbb{R} \mathbb{A}	
min. Earth dist.	-510 Feb 24 j 06:09	28° \mathbb{Q} 53'09	4.42703 AU	opposition	-505 Aug 12 j 14:14	12° \mathbb{A} 34'14	-1°31'26
direct	-510 Apr 26 j 21:35	23° \mathbb{Q} 57'01		min. Earth dist.	-505 Aug 12 j 01:23	12° \mathbb{A} 38'30	3.98789 AU
	-510 Jul 03 j 10:53	0° \mathbb{P}		direct	-505 Oct 10 j 00:53	7° \mathbb{A} 40'50	
evening set	-510 Aug 31 j 21:25	11° \mathbb{P} 38'10			-505 Dec 18 j 15:13	15° \mathbb{A}	
max. Earth dist.	-510 Sep 12 j 03:22	14° \mathbb{P} 05'17	6.41957 AU	evening set	-504 Feb 12 j 00:01	27° \mathbb{A} 11'08	
					-504 Feb 23 j 17:23	0° \mathbb{H}	
conjunction	-510 Sep 13 j 17:40	14° \mathbb{P} 26'15	1°13'15				
minimum elong	-510 Sep 13 j 17:39	14° \mathbb{P} 26'14	1°13'15	conjunction	-504 Feb 25 j 05:49	0° \mathbb{H} 21'55	-1°09'48
morning rise	-510 Sep 26 j 10:58	17° \mathbb{P} 12'59		minimum elong	-504 Feb 25 j 05:48	0° \mathbb{H} 21'54	1°09'48
	-510 Dec 02 j 09:10	0° \mathbb{A}		max. Earth dist.	-504 Feb 26 j 13:50	0° \mathbb{H} 41'09	5.97699 AU
retrograde	-509 Jan 24 j 23:15	4° \mathbb{A} 10'36		morning rise	-504 Mar 09 j 15:02	3° \mathbb{H} 34'26	
	-509 Mar 21 j 06:01	30° \mathbb{R} \mathbb{P}		retrograde	-504 Jul 19 j 22:15	24° \mathbb{H} 05'38	
opposition	-509 Mar 26 j 15:44	29° \mathbb{P} 18'46	1°43'19	opposition	-504 Sep 17 j 18:48	19° \mathbb{H} 01'36	-1°48'02
min. Earth dist.	-509 Mar 27 j 23:18	29° \mathbb{P} 08'42	4.39772 AU	min. Earth dist.	-504 Sep 16 j 13:46	19° \mathbb{H} 11'26	3.98864 AU
direct	-509 May 28 j 08:14	24° \mathbb{P} 17'43		direct	-504 Nov 14 j 16:24	14° \mathbb{H} 06'31	
	-509 Aug 01 j 09:45	0° \mathbb{A}			-503 Mar 04 j 21:06	0° \mathbb{Y}	
evening set	-509 Oct 01 j 16:53	12° \mathbb{A} 06'23		evening set	-503 Mar 20 j 06:24	3° \mathbb{Y} 34'56	
max. Earth dist.	-509 Oct 12 j 08:54	14° \mathbb{A} 28'27	6.35875 AU				
conjunction	-509 Oct 14 j 08:27	14° \mathbb{A} 54'56	1°03'34	conjunction	-503 Apr 02 j 19:59	6° \mathbb{Y} 47'19	-1°07'05
minimum elong	-509 Oct 14 j 08:29	14° \mathbb{A} 54'57	1°03'34	minimum elong	-503 Apr 02 j 20:01	6° \mathbb{Y} 47'21	1°07'05
morning rise	-509 Oct 26 j 22:16	17° \mathbb{A} 42'44		max. Earth dist.	-503 Apr 04 j 22:04	7° \mathbb{Y} 16'58	6.01782 AU
	-509 Dec 27 j 22:57	0° \mathbb{M}		morning rise	-503 Apr 16 j 12:14	10° \mathbb{Y} 00'57	
retrograde	-508 Feb 26 j 05:03	5° \mathbb{M} 10'40			-503 Aug 21 j 17:09	0° \mathbb{B}	
opposition	-508 Apr 27 j 02:58	0° \mathbb{M} 18'43	1°15'32	retrograde	-503 Aug 25 j 03:47	0° \mathbb{B} 01'11	
min. Earth dist.	-508 Apr 28 j 12:31	0° \mathbb{M} 08'02	4.30881 AU		-503 Aug 28 j 13:58	30° \mathbb{R} \mathbb{Y}	
	-508 Apr 29 j 13:44	30° \mathbb{R} \mathbb{A}		min. Earth dist.	-503 Oct 22 j 08:37	25° \mathbb{Y} 07'02	4.06529 AU
direct	-508 Jun 28 j 07:08	25° \mathbb{A} 20'03		opposition	-503 Oct 23 j 16:46	24° \mathbb{Y} 56'03	-1°22'50
	-508 Aug 24 j 19:25	0° \mathbb{M}		direct	-503 Dec 21 j 00:20	19° \mathbb{Y} 58'00	
evening set	-508 Oct 31 j 22:12	13° \mathbb{M} 29'24		evening set	-502 Mar 15 j 18:32	0° \mathbb{B}	
	-508 Nov 07 j 13:33	15° \mathbb{M}			-502 Apr 26 j 06:35	9° \mathbb{B} 03'24	
max. Earth dist.	-508 Nov 11 j 19:36	15° \mathbb{M} 58'18	6.24901 AU	conjunction	-502 May 10 j 00:57	12° \mathbb{B} 13'12	-0°39'23
conjunction	-508 Nov 13 j 13:07	16° \mathbb{M} 22'02	0°35'11	minimum elong	-502 May 10 j 01:00	12° \mathbb{B} 13'13	0°39'22
minimum elong	-508 Nov 13 j 13:09	16° \mathbb{M} 22'03	0°35'10	max. Earth dist.	-502 May 12 j 01:49	12° \mathbb{B} 41'18	6.12348 AU
morning rise	-508 Nov 26 j 03:21	19° \mathbb{M} 14'37			-502 May 22 j 03:35	15° \mathbb{B}	
	-507 Jan 16 j 06:01	0° \mathbb{X}		morning rise	-502 May 23 j 20:14	15° \mathbb{B} 23'12	
retrograde	-507 Mar 31 j 08:49	7° \mathbb{X} 34'39			-502 Aug 05 j 05:35	0° \mathbb{I}	
opposition	-507 May 31 j 07:49	2° \mathbb{X} 41'02	0°23'17	retrograde	-502 Sep 28 j 03:12	4° \mathbb{I} 22'20	
min. Earth dist.	-507 Jun 01 j 09:02	2° \mathbb{X} 32'57	4.18453 AU		-502 Nov 21 j 14:53	30° \mathbb{R} \mathbb{B}	
	-507 Jun 22 j 11:42	30° \mathbb{R} \mathbb{M}		opposition	-502 Nov 26 j 16:19	29° \mathbb{B} 18'55	-0°29'21
direct	-507 Jul 31 j 09:16	27° \mathbb{M} 45'07		min. Earth dist.	-502 Nov 25 j 14:28	29° \mathbb{B} 27'41	4.18817 AU
	-507 Sep 07 j 18:10	0° \mathbb{X}		direct	-501 Jan 25 j 00:13	24° \mathbb{B} 17'59	
desc. node	-507 Oct 27 j 04:40	8° \mathbb{X} 08'36			-501 Mar 28 j 20:36	0° \mathbb{I}	
evening set	-507 Dec 03 j 10:03	16° \mathbb{X} 24'29		evening set	-501 May 31 j 22:48	12° \mathbb{I} 50'42	
max. Earth dist.	-507 Dec 15 j 02:21	19° \mathbb{X} 08'48	6.12122 AU	asc. node	-501 Jun 06 j 13:48	14° \mathbb{I} 05'50	
conjunction	-507 Dec 16 j 03:20	19° \mathbb{X} 23'29	-0°05'26	conjunction	-501 Jun 14 j 15:56	15° \mathbb{I} 54'18	0°00'52
minimum elong	-507 Dec 16 j 03:19	19° \mathbb{X} 23'28	0°05'26	minimum elong	-501 Jun 14 j 15:56	15° \mathbb{I} 54'19	0°00'53
behind sun begin	-507 Dec 15 j 19:34	19° \mathbb{X} 18'57		behind sun begin	-501 Jun 14 j 07:36	15° \mathbb{I} 49'41	
behind sun end	-507 Dec 16 j 11:03	19° \mathbb{X} 28'00		behind sun end	-501 Jun 15 j 00:16	15° \mathbb{I} 58'57	
				max. Earth dist.	-501 Jun 15 j 20:19	16° \mathbb{I} 10'10	6.25398 AU

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Attention, astronomical year style is used: The year -501 in astronomical counting style is the year 502 BCE in historical counting style.

morning rise	-501 Jun 28 j 08:10	18° Π 57'11		morning rise	-496 Nov 30 j 10:39	23° \mathbb{M} 42'52	
	-501 Aug 21 j 11:47	0° \mathfrak{E}			-496 Dec 28 j 19:38	0° \mathfrak{A}	
retrograde	-501 Oct 30 j 04:06	6° \mathfrak{E} 53'01		retrograde	-495 Apr 05 j 03:50	12° \mathfrak{A} 12'01	
opposition	-501 Dec 28 j 20:53	1° \mathfrak{E} 53'06	0°30'27	opposition	-495 Jun 05 j 02:03	7° \mathfrak{A} 18'00	0°14'58
min. Earth dist.	-501 Dec 28 j 10:42	1° \mathfrak{E} 56'30	4.31398 AU	min. Earth dist.	-495 Jun 06 j 01:46	7° \mathfrak{A} 10'23	4.16338 AU
	-500 Jan 12 j 08:27	30° \mathfrak{R} Π		direct	-495 Aug 04 j 23:02	2° \mathfrak{A} 22'18	
direct	-500 Feb 27 j 14:13	26° Π 50'17		desc. node	-495 Sep 07 j 23:15	4° \mathfrak{A} 09'54	
	-500 Apr 14 j 03:49	0° \mathfrak{E}		evening set	-495 Dec 07 j 22:58	21° \mathfrak{A} 07'38	
evening set	-500 Jul 03 j 19:18	14° \mathfrak{E} 53'09					
				conjunction	-495 Dec 20 j 17:05	24° \mathfrak{A} 07'51	-0°11'12
conjunction	-500 Jul 17 j 06:17	17° \mathfrak{E} 49'30	0°39'14	minimum elong	-495 Dec 20 j 17:04	24° \mathfrak{A} 07'51	0°11'13
minimum elong	-500 Jul 17 j 06:15	17° \mathfrak{E} 49'29	0°39'14	behind sun begin	-495 Dec 20 j 11:04	24° \mathfrak{A} 04'19	
max. Earth dist.	-500 Jul 17 j 09:17	17° \mathfrak{E} 51'08	6.36547 AU	behind sun end	-495 Dec 20 j 23:05	24° \mathfrak{A} 11'23	
morning rise	-500 Jul 30 j 14:35	20° \mathfrak{E} 44'25		max. Earth dist.	-495 Dec 19 j 20:01	23° \mathfrak{A} 55'26	6.09963 AU
	-500 Sep 14 j 01:00	0° Ω		morning rise	-494 Jan 02 j 12:20	27° \mathfrak{A} 08'59	
retrograde	-500 Nov 28 j 20:12	7° Ω 54'42			-494 Jan 14 j 18:41	0° \mathfrak{B}	
opposition	-499 Jan 27 j 21:44	2° Ω 58'34	1°18'30	retrograde	-494 May 11 j 19:47	16° \mathfrak{B} 42'41	
min. Earth dist.	-499 Jan 28 j 04:05	2° Ω 56'29	4.40369 AU	opposition	-494 Jul 11 j 09:53	11° \mathfrak{B} 45'26	-0°48'16
	-499 Feb 21 j 06:46	30° \mathfrak{R} \mathfrak{E}		min. Earth dist.	-494 Jul 11 j 15:21	11° \mathfrak{B} 43'39	4.04302 AU
direct	-499 Mar 30 j 18:31	27° \mathfrak{E} 55'15		direct	-494 Sep 08 j 20:48	6° \mathfrak{B} 51'45	
	-499 May 07 j 17:12	0° Ω		evening set	-493 Jan 11 j 16:18	26° \mathfrak{B} 08'26	
	-499 Aug 01 j 22:55	15° Ω					
evening set	-499 Aug 05 j 00:01	15° Ω 39'17		conjunction	-493 Jan 24 j 15:52	29° \mathfrak{B} 15'24	-0°50'12
max. Earth dist.	-499 Aug 17 j 03:12	18° Ω 17'02	6.42589 AU	minimum elong	-493 Jan 24 j 15:50	29° \mathfrak{B} 15'23	0°50'11
				max. Earth dist.	-493 Jan 24 j 22:48	29° \mathfrak{B} 19'34	6.00057 AU
conjunction	-499 Aug 18 j 02:31	18° Ω 29'42	1°05'15		-493 Jan 27 j 18:03	0° \mathfrak{A}	
minimum elong	-499 Aug 18 j 02:29	18° Ω 29'41	1°05'16	morning rise	-493 Feb 06 j 18:19	2° \mathfrak{A} 23'59	
morning rise	-499 Aug 31 j 02:00	21° Ω 18'37			-493 Apr 05 j 08:08	15° \mathfrak{A}	
	-499 Oct 12 j 18:33	0° \mathfrak{M}		retrograde	-493 Jun 18 j 14:56	22° \mathfrak{A} 47'09	
retrograde	-499 Dec 29 j 06:05	8° \mathfrak{M} 09'19		opposition	-493 Aug 17 j 19:40	17° \mathfrak{A} 45'52	-1°36'09
opposition	-498 Feb 27 j 15:33	3° \mathfrak{M} 16'07	1°43'49	min. Earth dist.	-493 Aug 17 j 03:05	17° \mathfrak{A} 51'24	3.97656 AU
min. Earth dist.	-498 Feb 28 j 14:41	3° \mathfrak{M} 08'39	4.43234 AU		-493 Sep 08 j 21:22	15° \mathfrak{R} \mathfrak{A}	
	-498 Mar 27 j 08:17	30° \mathfrak{R} Ω		direct	-493 Oct 15 j 01:49	12° \mathfrak{A} 52'21	
direct	-498 May 01 j 06:45	28° Ω 13'29			-493 Nov 19 j 22:40	15° \mathfrak{A}	
	-498 Jun 05 j 09:54	0° \mathfrak{M}			-492 Feb 06 j 22:36	0° \mathfrak{H}	
evening set	-498 Sep 05 j 02:13	15° \mathfrak{M} 52'59		evening set	-492 Feb 17 j 05:09	2° \mathfrak{H} 26'21	
max. Earth dist.	-498 Sep 16 j 04:01	18° \mathfrak{M} 17'57	6.41951 AU				
				conjunction	-492 Mar 01 j 12:20	5° \mathfrak{H} 37'57	-1°11'03
conjunction	-498 Sep 17 j 21:32	18° \mathfrak{M} 40'40	1°13'04	minimum elong	-492 Mar 01 j 12:19	5° \mathfrak{H} 37'56	1°11'03
minimum elong	-498 Sep 17 j 21:32	18° \mathfrak{M} 40'40	1°13'03	max. Earth dist.	-492 Mar 03 j 01:07	6° \mathfrak{H} 00'04	5.97210 AU
morning rise	-498 Sep 30 j 14:08	21° \mathfrak{M} 27'07		morning rise	-492 Mar 14 j 22:40	8° \mathfrak{H} 51'13	
	-498 Nov 11 j 03:38	0° Ω		retrograde	-492 Jul 25 j 06:02	29° \mathfrak{H} 22'59	
retrograde	-497 Jan 29 j 04:46	8° Ω 25'57		opposition	-492 Sep 22 j 23:58	24° \mathfrak{H} 18'33	-1°46'47
opposition	-497 Mar 30 j 22:56	3° Ω 34'07	1°41'06	min. Earth dist.	-492 Sep 21 j 17:58	24° \mathfrak{H} 28'44	3.99074 AU
min. Earth dist.	-497 Apr 01 j 07:27	3° Ω 23'44	4.39226 AU	direct	-492 Nov 19 j 22:10	19° \mathfrak{H} 23'05	
	-497 May 01 j 04:51	30° \mathfrak{R} \mathfrak{M}			-491 Feb 14 j 05:35	0° \mathfrak{Y}	
direct	-497 Jun 01 j 15:03	28° \mathfrak{M} 33'13		evening set	-491 Mar 25 j 14:13	8° \mathfrak{Y} 50'43	
	-497 Jul 03 j 03:19	0° Ω					
evening set	-497 Oct 05 j 20:43	16° Ω 22'57		conjunction	-491 Apr 08 j 04:51	12° \mathfrak{Y} 03'10	-1°04'21
max. Earth dist.	-497 Oct 16 j 12:48	18° Ω 45'23	6.34825 AU	minimum elong	-491 Apr 08 j 04:53	12° \mathfrak{Y} 03'12	1°04'21
				max. Earth dist.	-491 Apr 10 j 09:46	12° \mathfrak{Y} 34'23	6.02658 AU
conjunction	-497 Oct 18 j 12:03	19° Ω 11'46	1°00'41	morning rise	-491 Apr 21 j 21:57	15° \mathfrak{Y} 16'45	
minimum elong	-497 Oct 18 j 12:05	19° Ω 11'47	1°00'42		-491 Jul 02 j 05:19	0° \mathfrak{B}	
morning rise	-497 Oct 31 j 01:31	21° Ω 59'54		retrograde	-491 Aug 30 j 03:42	5° \mathfrak{B} 10'16	
	-497 Dec 07 j 20:50	0° \mathbb{M}		min. Earth dist.	-491 Oct 27 j 07:34	0° \mathfrak{B} 16'26	4.07952 AU
retrograde	-496 Mar 01 j 15:40	9° \mathbb{M} 33'10		opposition	-491 Oct 28 j 16:43	0° \mathfrak{B} 05'08	-1°16'20
opposition	-496 May 01 j 14:26	4° \mathbb{M} 41'05	1°09'41		-491 Oct 29 j 07:45	30° \mathfrak{R} \mathfrak{Y}	
min. Earth dist.	-496 May 03 j 00:31	4° \mathbb{M} 30'14	4.29364 AU	direct	-491 Dec 26 j 01:46	25° \mathfrak{Y} 06'38	
	-496 Jun 18 j 22:38	30° \mathfrak{R} Ω			-490 Feb 20 j 17:25	0° \mathfrak{B}	
direct	-496 Jul 02 j 16:13	29° Ω 42'42		evening set	-490 May 01 j 11:45	14° \mathfrak{B} 07'44	
	-496 Jul 16 j 09:37	0° \mathbb{M}			-490 May 05 j 07:23	15° \mathfrak{B}	
	-496 Oct 23 j 04:02	15° \mathbb{M}					
evening set	-496 Nov 05 j 04:51	17° \mathbb{M} 55'51		conjunction	-490 May 15 j 06:11	17° \mathfrak{B} 16'46	-0°33'59
max. Earth dist.	-496 Nov 16 j 01:34	20° \mathbb{M} 25'02	6.23029 AU	minimum elong	-490 May 15 j 06:14	17° \mathfrak{B} 16'47	0°33'59
				max. Earth dist.	-490 May 17 j 04:35	17° \mathfrak{B} 43'20	6.14164 AU
conjunction	-496 Nov 17 j 19:49	20° \mathbb{M} 49'17	0°30'13	morning rise	-490 May 29 j 01:31	20° \mathfrak{B} 25'55	
minimum elong	-496 Nov 17 j 19:51	20° \mathbb{M} 49'18	0°30'12		-490 Jul 12 j 17:55	0° Π	

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Attention, astronomical year style is used: The year -490 in astronomical counting style is the year 491 BCE in historical counting style.

retrograde	-490 Oct 02 j 19:40	9° Π 15'15		max. Earth dist.	-484 Nov 20 j 17:59	25° \mathbb{M} 10'48	6.21021 AU
min. Earth dist.	-490 Nov 30 j 09:38	4° Π 20'11	4.20791 AU				
opposition	-490 Dec 01 j 09:21	4° Π 12'09	-0°20'38	conjunction	-484 Nov 22 j 09:00	25° \mathbb{M} 33'18	0°24'45
	-489 Jan 07 j 13:09	30° \mathbb{R} 8		minimum elong	-484 Nov 22 j 09:01	25° \mathbb{M} 33'19	0°24'45
direct	-489 Jan 29 j 22:42	29° \mathbb{R} 10'49		morning rise	-484 Dec 05 j 00:08	28° \mathbb{M} 27'55	
	-489 Feb 21 j 14:07	0° Π			-484 Dec 11 j 17:32	0° \mathbb{J}	
asc. node	-489 Apr 15 j 03:07	6° Π 58'34		retrograde	-483 Apr 10 j 06:52	17° \mathbb{J} 06'40	
evening set	-489 Jun 05 j 21:24	17° Π 38'14		opposition	-483 Jun 10 j 03:11	12° \mathbb{J} 12'22	0°06'01
				min. Earth dist.	-483 Jun 11 j 01:29	12° \mathbb{J} 05'12	4.14320 AU
conjunction	-489 Jun 19 j 14:02	20° Π 40'46	0°06'48	desc. node	-483 Jul 17 j 22:37	8° \mathbb{J} 06'22	
minimum elong	-489 Jun 19 j 14:02	20° Π 40'46	0°06'49	direct	-483 Aug 09 j 19:43	7° \mathbb{J} 17'04	
behind sun begin	-489 Jun 19 j 06:19	20° Π 36'29		evening set	-483 Dec 12 j 18:40	26° \mathbb{J} 07'51	
behind sun end	-489 Jun 19 j 21:45	20° Π 45'02					
max. Earth dist.	-489 Jun 20 j 16:39	20° Π 55'34	6.27356 AU	conjunction	-483 Dec 25 j 13:19	29° \mathbb{J} 09'08	-0°17'16
morning rise	-489 Jul 03 j 05:11	23° Π 42'22		minimum elong	-483 Dec 25 j 13:17	29° \mathbb{J} 09'07	0°17'17
	-489 Aug 01 j 15:41	0° \mathbb{E}		max. Earth dist.	-483 Dec 24 j 18:44	28° \mathbb{J} 58'08	6.08132 AU
retrograde	-489 Nov 03 j 13:19	11° \mathbb{E} 29'42			-483 Dec 29 j 03:08	0° \mathbb{Z}	
opposition	-488 Jan 02 j 08:11	6° \mathbb{E} 30'19	0°38'22	morning rise	-482 Jan 07 j 09:38	2° \mathbb{Z} 11'30	
min. Earth dist.	-488 Jan 01 j 23:32	6° \mathbb{E} 33'12	4.33161 AU	retrograde	-482 May 17 j 03:00	21° \mathbb{Z} 54'15	
direct	-488 Mar 03 j 05:29	1° \mathbb{E} 27'24		opposition	-482 Jul 16 j 16:42	16° \mathbb{Z} 56'27	-0°56'38
evening set	-488 Jul 08 j 11:05	19° \mathbb{E} 26'05		min. Earth dist.	-482 Jul 16 j 17:56	16° \mathbb{Z} 56'03	4.02864 AU
				direct	-482 Sep 13 j 21:42	12° \mathbb{Z} 02'57	
conjunction	-488 Jul 21 j 20:44	22° \mathbb{E} 21'20	0°43'52		-481 Jan 10 j 22:45	0° \mathbb{A}	
minimum elong	-488 Jul 21 j 20:41	22° \mathbb{E} 21'18	0°43'52	evening set	-481 Jan 16 j 19:02	1° \mathbb{A} 23'32	
max. Earth dist.	-488 Jul 21 j 18:29	22° \mathbb{E} 20'06	6.37959 AU				
morning rise	-488 Aug 04 j 03:54	25° \mathbb{E} 15'10		conjunction	-481 Jan 29 j 19:42	4° \mathbb{A} 31'22	-0°54'37
	-488 Aug 26 j 13:04	0° \mathbb{Q}		minimum elong	-481 Jan 29 j 19:39	4° \mathbb{A} 31'20	0°54'37
retrograde	-488 Dec 03 j 04:12	12° \mathbb{Q} 20'33		max. Earth dist.	-481 Jan 30 j 08:38	4° \mathbb{A} 39'09	5.99165 AU
opposition	-487 Feb 01 j 06:17	7° \mathbb{Q} 24'54	1°23'38	morning rise	-481 Feb 11 j 23:05	7° \mathbb{A} 40'47	
min. Earth dist.	-487 Feb 01 j 16:06	7° \mathbb{Q} 21'42	4.41344 AU		-481 Mar 15 j 15:44	15° \mathbb{A}	
direct	-487 Apr 04 j 07:42	2° \mathbb{Q} 21'37		retrograde	-481 Jun 24 j 01:45	28° \mathbb{A} 07'57	
	-487 Jul 16 j 08:31	15° \mathbb{Q}		min. Earth dist.	-481 Aug 22 j 09:27	23° \mathbb{A} 12'22	3.97438 AU
evening set	-487 Aug 09 j 10:29	20° \mathbb{Q} 03'37		opposition	-481 Aug 23 j 04:07	23° \mathbb{A} 06'07	-1°40'15
max. Earth dist.	-487 Aug 21 j 09:59	22° \mathbb{Q} 39'18	6.43040 AU	direct	-481 Oct 20 j 09:06	18° \mathbb{A} 12'26	
					-480 Jan 19 j 18:12	0° \mathbb{H}	
conjunction	-487 Aug 22 j 11:57	22° \mathbb{Q} 53'25	1°07'32	evening set	-480 Feb 22 j 12:20	7° \mathbb{H} 46'24	
minimum elong	-487 Aug 22 j 11:56	22° \mathbb{Q} 53'24	1°07'32				
morning rise	-487 Sep 04 j 10:12	25° \mathbb{Q} 41'41		conjunction	-480 Mar 06 j 20:34	10° \mathbb{H} 58'16	-1°11'49
	-487 Sep 24 j 18:10	0° \mathbb{P}		minimum elong	-480 Mar 06 j 20:33	10° \mathbb{H} 58'16	1°11'48
retrograde	-486 Jan 02 j 12:14	12° \mathbb{P} 31'36		max. Earth dist.	-480 Mar 08 j 13:22	11° \mathbb{H} 22'45	5.97673 AU
opposition	-486 Mar 04 j 00:05	7° \mathbb{P} 38'42	1°45'10	morning rise	-480 Mar 20 j 08:00	14° \mathbb{H} 11'46	
min. Earth dist.	-486 Mar 05 j 00:21	7° \mathbb{P} 30'53	4.43159 AU		-480 Jun 04 j 16:47	0° \mathbb{Y}	
direct	-486 May 05 j 15:42	2° \mathbb{P} 36'17		retrograde	-480 Jul 30 j 10:40	4° \mathbb{Y} 39'38	
evening set	-486 Sep 09 j 10:19	20° \mathbb{P} 16'15			-480 Sep 25 j 02:06	30° \mathbb{R} 8	
max. Earth dist.	-486 Sep 20 j 09:43	22° \mathbb{P} 40'12	6.41350 AU	min. Earth dist.	-480 Sep 26 j 20:01	29° \mathbb{R} 45'47	4.00190 AU
				opposition	-480 Sep 28 j 04:01	29° \mathbb{R} 34'54	-1°44'42
conjunction	-486 Sep 22 j 04:49	23° \mathbb{P} 03'51	1°12'31	direct	-480 Nov 25 j 01:50	24° \mathbb{R} 39'03	
minimum elong	-486 Sep 22 j 04:50	23° \mathbb{P} 03'52	1°12'31		-479 Jan 22 j 18:28	0° \mathbb{Y}	
morning rise	-486 Oct 04 j 20:44	25° \mathbb{P} 50'17		evening set	-479 Mar 30 j 20:49	14° \mathbb{Y} 02'43	
	-486 Oct 24 j 07:00	0° \mathbb{A}					
retrograde	-485 Feb 02 j 16:26	12° \mathbb{A} 52'28		conjunction	-479 Apr 13 j 12:04	17° \mathbb{Y} 14'44	-1°01'13
opposition	-485 Apr 04 j 11:02	8° \mathbb{A} 00'46	1°38'20	minimum elong	-479 Apr 13 j 12:07	17° \mathbb{Y} 14'46	1°01'13
min. Earth dist.	-485 Apr 05 j 21:21	7° \mathbb{A} 49'50	4.38125 AU	max. Earth dist.	-479 Apr 15 j 16:07	17° \mathbb{Y} 45'19	6.04296 AU
direct	-485 Jun 06 j 03:06	3° \mathbb{A} 00'13		morning rise	-479 Apr 27 j 05:49	20° \mathbb{Y} 27'47	
evening set	-485 Oct 10 j 05:23	20° \mathbb{A} 52'42			-479 Jun 09 j 11:57	0° \mathbb{B}	
max. Earth dist.	-485 Oct 20 j 19:51	23° \mathbb{A} 14'48	6.33305 AU	retrograde	-479 Sep 03 j 23:19	10° \mathbb{B} 11'51	
				min. Earth dist.	-479 Nov 01 j 05:05	5° \mathbb{B} 17'44	4.09908 AU
conjunction	-485 Oct 22 j 20:26	23° \mathbb{A} 42'02	0°57'21	opposition	-479 Nov 02 j 13:12	5° \mathbb{B} 06'46	-1°09'27
minimum elong	-485 Oct 22 j 20:29	23° \mathbb{A} 42'03	0°57'20	direct	-479 Dec 31 j 02:30	0° \mathbb{B} 07'45	
morning rise	-485 Nov 04 j 10:00	26° \mathbb{A} 30'48			-478 Apr 18 j 10:01	15° \mathbb{B}	
	-485 Nov 20 j 06:26	0° \mathbb{M}		evening set	-478 May 06 j 13:00	19° \mathbb{B} 03'04	
retrograde	-484 Mar 06 j 09:01	14° \mathbb{M} 11'15					
opposition	-484 May 06 j 08:27	9° \mathbb{M} 19'00	1°03'06	conjunction	-478 May 20 j 07:38	22° \mathbb{B} 11'12	-0°28'32
min. Earth dist.	-484 May 07 j 17:19	9° \mathbb{M} 08'31	4.27512 AU	minimum elong	-478 May 20 j 07:41	22° \mathbb{B} 11'13	0°28'32
direct	-484 Jul 07 j 06:18	4° \mathbb{M} 21'00		max. Earth dist.	-478 May 22 j 04:57	22° \mathbb{B} 37'02	6.16280 AU
	-484 Oct 05 j 17:11	15° \mathbb{M}		morning rise	-478 Jun 03 j 02:31	25° \mathbb{B} 19'15	
evening set	-484 Nov 09 j 17:38	22° \mathbb{M} 38'54			-478 Jun 24 j 05:33	0° \mathbb{I}	

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Attention, astronomical year style is used: The year -478 in astronomical counting style is the year 479 BCE in historical counting style.

retrograde	-478 Oct 07 j 08:19	13° Π 58'17			-472 Sep 15 j 00:18	15° Π	
opposition	-478 Dec 05 j 22:28	8° Π 55'39	-0°12'07	evening set	-472 Nov 14 j 08:10	27° Π 25'29	
min. Earth dist.	-478 Dec 05 j 00:35	9° Π 03'03	4.22849 AU	max. Earth dist.	-472 Nov 25 j 10:29	29° Π 59'14	6.19097 AU
direct	-477 Feb 03 j 16:28	3° Π 54'01			-472 Nov 25 j 11:49	0° Σ	
asc. node	-477 Feb 23 j 03:22	4° Π 30'15					
evening set	-477 Jun 10 j 16:01	22° Π 16'12		conjunction	-472 Nov 26 j 23:48	0° Σ 20'50	0°19'03
				minimum elong	-472 Nov 26 j 23:49	0° Σ 20'51	0°19'02
conjunction	-477 Jun 24 j 07:44	25° Π 17'37	0°12'27	morning rise	-472 Dec 09 j 15:38	3° Σ 16'32	
minimum elong	-477 Jun 24 j 07:42	25° Π 17'36	0°12'27	retrograde	-471 Apr 15 j 09:13	22° Σ 04'25	
behind sun begin	-477 Jun 24 j 02:27	25° Π 14'42		desc. node	-471 May 26 j 18:02	19° Σ 33'35	
behind sun end	-477 Jun 24 j 12:58	25° Π 20'30		opposition	-471 Jun 15 j 05:47	17° Σ 09'40	-0°03'07
max. Earth dist.	-477 Jun 25 j 04:44	25° Π 29'15	6.29181 AU	min. Earth dist.	-471 Jun 16 j 00:15	17° Σ 03'42	4.12559 AU
morning rise	-477 Jul 07 j 22:04	28° Π 18'03		direct	-471 Aug 14 j 16:20	12° Σ 14'43	
	-477 Jul 15 j 16:28	0° Θ			-471 Dec 12 j 16:25	0° Θ	
retrograde	-477 Nov 07 j 20:39	15° Θ 57'53		evening set	-471 Dec 17 j 15:17	1° Θ 09'49	
opposition	-476 Jan 06 j 16:16	10° Θ 59'01	0°45'46				
min. Earth dist.	-476 Jan 06 j 10:54	11° Θ 00'48	4.34629 AU	conjunction	-471 Dec 30 j 10:40	4° Θ 12'02	-0°23'15
direct	-476 Mar 07 j 18:32	5° Θ 55'53		minimum elong	-471 Dec 30 j 10:38	4° Θ 12'01	0°23'15
evening set	-476 Jul 12 j 23:40	23° Θ 51'33		max. Earth dist.	-471 Dec 29 j 21:30	4° Θ 04'13	6.06692 AU
				morning rise	-470 Jan 12 j 07:44	7° Θ 15'22	
conjunction	-476 Jul 26 j 08:22	26° Θ 45'57	0°48'07	retrograde	-470 May 22 j 11:54	27° Θ 05'28	
minimum elong	-476 Jul 26 j 08:19	26° Θ 45'56	0°48'08	opposition	-470 Jul 21 j 23:36	22° Θ 07'06	-1°04'34
max. Earth dist.	-476 Jul 26 j 03:13	26° Θ 43'09	6.38961 AU	min. Earth dist.	-470 Jul 21 j 22:32	22° Θ 07'27	4.01882 AU
morning rise	-476 Aug 08 j 14:06	29° Θ 38'51		direct	-470 Sep 19 j 01:43	17° Θ 13'44	
	-476 Aug 10 j 05:13	0° Ω			-470 Dec 24 j 10:51	0° \approx	
	-476 Nov 04 j 10:42	15° Ω		evening set	-469 Jan 21 j 21:34	6° \approx 36'30	
retrograde	-476 Dec 07 j 08:48	16° Ω 40'48					
	-475 Jan 09 j 07:10	15° κ Ω		conjunction	-469 Feb 03 j 23:08	9° \approx 44'56	-0°58'34
opposition	-475 Feb 05 j 12:36	11° Ω 45'38	1°28'12	minimum elong	-469 Feb 03 j 23:05	9° \approx 44'55	0°58'34
min. Earth dist.	-475 Feb 06 j 00:19	11° Ω 41'49	4.41844 AU	max. Earth dist.	-469 Feb 04 j 16:21	9° \approx 55'18	5.98708 AU
direct	-475 Apr 08 j 15:59	6° Ω 42'24		morning rise	-469 Feb 17 j 03:38	12° \approx 55'02	
	-475 Jun 28 j 04:54	15° Ω			-469 Feb 25 j 22:08	15° \approx	
evening set	-475 Aug 13 j 19:25	24° Ω 23'56			-469 May 13 j 01:53	0° H	
				retrograde	-469 Jun 29 j 08:59	3° H 24'04	
conjunction	-475 Aug 26 j 19:41	27° Ω 13'18	1°09'24		-469 Aug 15 j 23:54	30° R \approx	
minimum elong	-475 Aug 26 j 19:39	27° Ω 13'17	1°09'24	opposition	-469 Aug 28 j 10:16	28° \approx 21'47	-1°43'28
max. Earth dist.	-475 Aug 25 j 13:15	26° Ω 56'45	6.42984 AU	min. Earth dist.	-469 Aug 27 j 12:39	28° \approx 29'01	3.97590 AU
morning rise	-475 Sep 08 j 17:03	0° P 01'12		direct	-469 Oct 25 j 12:31	23° \approx 27'56	
	-475 Sep 08 j 14:50	0° P			-469 Dec 29 j 18:05	0° H	
retrograde	-474 Jan 06 j 20:55	16° P 52'02		evening set	-468 Feb 27 j 17:52	13° H 00'58	
opposition	-474 Mar 08 j 08:32	11° P 59'25	1°45'57				
min. Earth dist.	-474 Mar 09 j 11:40	11° P 50'42	4.42575 AU	conjunction	-468 Mar 12 j 03:03	16° H 12'57	-1°12'00
direct	-474 May 10 j 01:49	6° P 57'11		minimum elong	-468 Mar 12 j 03:03	16° H 12'57	1°12'00
evening set	-474 Sep 13 j 18:05	24° P 39'04		max. Earth dist.	-468 Mar 13 j 21:25	16° H 38'19	5.98386 AU
max. Earth dist.	-474 Sep 24 j 15:42	27° P 02'27	6.40274 AU	morning rise	-468 Mar 25 j 15:32	19° H 26'33	
					-468 May 11 j 23:31	0° Y	
conjunction	-474 Sep 26 j 12:04	27° P 26'51	1°11'33	retrograde	-468 Aug 04 j 11:49	9° Y 49'50	
minimum elong	-474 Sep 26 j 12:05	27° P 26'51	1°11'33	min. Earth dist.	-468 Oct 01 j 20:53	4° Y 55'57	4.01382 AU
	-474 Oct 08 j 02:44	0° $\underline{\Omega}$		opposition	-468 Oct 03 j 05:20	4° Y 44'53	-1°41'51
morning rise	-474 Oct 09 j 03:24	0° $\underline{\Omega}$ 13'29			-468 Nov 19 j 18:23	30° R H	
retrograde	-473 Feb 07 j 03:58	17° $\underline{\Omega}$ 20'32		direct	-468 Nov 30 j 04:41	29° H 48'37	
opposition	-473 Apr 09 j 00:08	12° $\underline{\Omega}$ 28'51	1°34'58		-468 Dec 10 j 16:06	0° Y	
min. Earth dist.	-473 Apr 10 j 09:55	12° $\underline{\Omega}$ 18'05	4.36645 AU	evening set	-467 Apr 05 j 00:51	19° Y 08'33	
direct	-473 Jun 10 j 13:14	7° $\underline{\Omega}$ 28'39					
evening set	-473 Oct 14 j 15:23	25° $\underline{\Omega}$ 25'00		conjunction	-467 Apr 18 j 17:01	22° Y 20'13	-0°57'42
max. Earth dist.	-473 Oct 25 j 07:06	27° $\underline{\Omega}$ 48'25	6.31547 AU	minimum elong	-467 Apr 18 j 17:04	22° Y 20'15	0°57'41
				max. Earth dist.	-467 Apr 20 j 22:13	22° Y 51'20	6.05872 AU
conjunction	-473 Oct 27 j 06:17	28° $\underline{\Omega}$ 14'58	0°53'38	morning rise	-467 May 02 j 11:06	25° Y 32'43	
minimum elong	-473 Oct 27 j 06:19	28° $\underline{\Omega}$ 15'00	0°53'37		-467 May 22 j 00:31	0° B	
	-473 Nov 04 j 00:50	0° M			-467 Aug 30 j 18:49	15° B	
morning rise	-473 Nov 08 j 19:49	1° M 04'29		retrograde	-467 Sep 08 j 18:42	15° B 08'03	
	-472 Jan 19 j 16:40	15° M			-467 Sep 17 j 17:24	15° R B	
retrograde	-472 Mar 11 j 05:59	18° M 52'47		min. Earth dist.	-467 Nov 06 j 00:47	10° B 13'46	4.11688 AU
	-472 May 03 j 07:46	15° R M		opposition	-467 Nov 07 j 07:38	10° B 03'15	-1°02'14
opposition	-472 May 11 j 04:20	14° M 00'23	0°56'00	direct	-466 Jan 05 j 00:23	5° B 03'53	
min. Earth dist.	-472 May 12 j 12:55	13° M 50'00	4.25585 AU		-466 Mar 31 j 03:04	15° B	
direct	-472 Jul 11 j 23:20	9° M 02'48		evening set	-466 May 11 j 12:45	23° B 54'25	

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Attention, astronomical year style is used: The year -466 in astronomical counting style is the year 467 BCE in historical counting style.

conjunction	-466 May 25 j 07:12	27° 8 01'43	-0°22'59	min. Earth dist.	-460 May 17 j 06:37	18° ℓ 33'55	4.24012 AU
minimum elong	-466 May 25 j 07:14	27° 8 01'44	0°22'58		-460 Jun 18 j 03:47	15° ℓ	
max. Earth dist.	-466 May 27 j 00:31	27° 8 25'10	6.18116 AU	direct	-460 Jul 16 j 14:53	13° ℓ 46'17	
	-466 Jun 07 j 10:12	0° ℓ			-460 Aug 14 j 00:10	15° ℓ	
morning rise	-466 Jun 08 j 01:56	0° ℓ 08'51			-460 Nov 09 j 06:55	0° ♊	
retrograde	-466 Oct 11 j 19:26	18° ℓ 39'03		evening set	-460 Nov 18 j 22:29	2° ♊ 12'16	
opposition	-466 Dec 10 j 10:28	13° ℓ 36'55	-0°03'37	max. Earth dist.	-460 Nov 30 j 04:40	4° ♊ 48'46	6.17595 AU
min. Earth dist.	-466 Dec 09 j 14:38	13° ℓ 43'36	4.24575 AU				
asc. node	-465 Jan 03 j 03:42	10° ℓ 38'24		conjunction	-460 Dec 01 j 14:21	5° ♊ 08'21	0°13'18
direct	-465 Feb 08 j 08:51	8° ℓ 34'58		minimum elong	-460 Dec 01 j 14:22	5° ♊ 08'21	0°13'16
evening set	-465 Jun 15 j 09:54	26° ℓ 53'18		behind sun begin	-460 Dec 01 j 09:35	5° ♊ 05'36	
				behind sun end	-460 Dec 01 j 19:09	5° ♊ 11'07	
conjunction	-465 Jun 29 j 00:59	29° ℓ 53'47	0°18'00	morning rise	-460 Dec 14 j 06:38	8° ♊ 04'53	
minimum elong	-465 Jun 29 j 00:58	29° ℓ 53'46	0°18'00	desc. node	-459 Apr 05 j 16:23	26° ♊ 39'43	
	-465 Jun 29 j 12:15	0° ♋		retrograde	-459 Apr 20 j 12:02	27° ♊ 00'20	
max. Earth dist.	-465 Jun 29 j 18:50	0° ♋ 03'39	6.30683 AU	opposition	-459 Jun 20 j 07:27	22° ♊ 05'06	-0°12'05
morning rise	-465 Jul 12 j 14:11	2° ♋ 53'09		min. Earth dist.	-459 Jun 21 j 00:04	21° ♊ 59'43	4.11232 AU
retrograde	-465 Nov 12 j 04:46	20° ♋ 26'47		direct	-459 Aug 19 j 14:50	17° ♊ 10'26	
opposition	-464 Jan 11 j 00:38	15° ♋ 28'32	0°52'55		-459 Nov 25 j 17:00	0° ♋	
min. Earth dist.	-464 Jan 10 j 21:48	15° ♋ 29'28	4.35798 AU	evening set	-459 Dec 22 j 10:39	6° ♋ 08'15	
direct	-464 Mar 12 j 06:39	10° ♋ 25'21					
evening set	-464 Jul 17 j 12:27	28° ♋ 18'51		conjunction	-458 Jan 04 j 06:40	9° ♋ 11'10	-0°28'56
	-464 Jul 25 j 06:50	0° ♌		minimum elong	-458 Jan 04 j 06:38	9° ♋ 11'09	0°28'56
				max. Earth dist.	-458 Jan 03 j 21:16	9° ♋ 05'35	6.05663 AU
conjunction	-464 Jul 30 j 19:55	1° ♌ 12'29	0°52'07	morning rise	-458 Jan 17 j 04:36	12° ♋ 15'19	
minimum elong	-464 Jul 30 j 19:52	1° ♌ 12'28	0°52'07		-458 Apr 19 j 23:22	0° ♌	
max. Earth dist.	-464 Jul 30 j 09:36	1° ♌ 06'52	6.39692 AU	retrograde	-458 May 27 j 15:59	2° ♌ 10'49	
morning rise	-464 Aug 13 j 00:37	4° ♌ 04'39			-458 Jul 04 j 11:45	30° ♌	
	-464 Oct 07 j 06:00	15° ♌		opposition	-458 Jul 27 j 03:36	27° ♌ 11'53	-1°11'47
retrograde	-464 Dec 11 j 16:15	21° ♌ 04'11		min. Earth dist.	-458 Jul 26 j 23:00	27° ♌ 13'24	4.01276 AU
opposition	-463 Feb 09 j 20:23	16° ♌ 09'28	1°32'19	direct	-458 Sep 24 j 01:28	22° ♌ 18'34	
min. Earth dist.	-463 Feb 10 j 10:55	16° ♌ 04'44	4.42122 AU		-458 Dec 04 j 22:46	0° ♌	
	-463 Feb 18 j 19:44	15° ♌		evening set	-457 Jan 26 j 21:33	11° ♌ 42'19	
direct	-463 Apr 13 j 02:19	11° ♌ 06'16					
	-463 Jun 05 j 03:41	15° ♌		conjunction	-457 Feb 08 j 23:55	14° ♌ 51'11	-1°01'57
evening set	-463 Aug 18 j 04:58	28° ♌ 47'47		minimum elong	-457 Feb 08 j 23:53	14° ♌ 51'09	1°01'56
	-463 Aug 23 j 18:22	0° ♍			-457 Feb 09 j 14:34	15° ♌	
max. Earth dist.	-463 Aug 29 j 20:48	1° ♍ 19'38	6.42787 AU	max. Earth dist.	-457 Feb 09 j 20:09	15° ♌ 03'21	5.98550 AU
				morning rise	-457 Feb 22 j 05:27	18° ♌ 01'46	
conjunction	-463 Aug 31 j 04:23	1° ♍ 36'50	1°10'55		-457 Apr 17 j 09:47	0° ♍	
minimum elong	-463 Aug 31 j 04:22	1° ♍ 36'49	1°10'55	retrograde	-457 Jul 04 j 12:05	8° ♍ 31'30	
morning rise	-463 Sep 13 j 00:35	4° ♍ 24'24		opposition	-457 Sep 02 j 12:48	3° ♍ 28'41	-1°45'45
retrograde	-462 Jan 11 j 04:59	21° ♍ 16'34		min. Earth dist.	-457 Sep 01 j 13:32	3° ♍ 36'31	3.97908 AU
opposition	-462 Mar 12 j 18:23	16° ♍ 24'13	1°46'10		-457 Oct 01 j 10:09	30° ♍	
min. Earth dist.	-462 Mar 13 j 22:05	16° ♍ 15'20	4.41946 AU	direct	-457 Oct 30 j 14:13	28° ♍ 34'33	
direct	-462 May 14 j 10:56	11° ♍ 22'17			-457 Nov 28 j 16:01	0° ♍	
evening set	-462 Sep 18 j 03:05	29° ♍ 05'57		evening set	-456 Mar 03 j 19:54	18° ♍ 06'10	
	-462 Sep 22 j 05:40	0° ♎					
max. Earth dist.	-462 Sep 28 j 22:30	1° ♎ 28'35	6.39266 AU	conjunction	-456 Mar 17 j 06:14	21° ♍ 18'17	-1°11'37
				minimum elong	-456 Mar 17 j 06:15	21° ♍ 18'17	1°11'37
conjunction	-462 Sep 30 j 20:17	1° ♎ 53'51	1°10'11	max. Earth dist.	-456 Mar 19 j 03:50	21° ♍ 45'30	5.99144 AU
minimum elong	-462 Sep 30 j 20:18	1° ♎ 53'52	1°10'10	morning rise	-456 Mar 30 j 19:29	24° ♍ 31'53	
morning rise	-462 Oct 13 j 11:15	4° ♎ 40'44			-456 Apr 23 j 10:38	0° ♎	
retrograde	-461 Feb 11 j 19:15	21° ♎ 52'24		retrograde	-456 Aug 09 j 11:05	14° ♎ 50'19	
opposition	-461 Apr 13 j 14:53	17° ♎ 00'45	1°31'02	min. Earth dist.	-456 Oct 06 j 18:46	9° ♎ 56'13	4.02504 AU
min. Earth dist.	-461 Apr 15 j 01:30	16° ♎ 49'43	4.35329 AU	opposition	-456 Oct 08 j 02:52	9° ♎ 45'18	-1°38'21
direct	-461 Jun 15 j 03:03	12° ♎ 00'54		direct	-456 Dec 05 j 03:37	4° ♎ 48'38	
evening set	-461 Oct 19 j 01:46	0° ♏ 00'11		evening set	-455 Apr 10 j 01:59	24° ♎ 05'22	
	-461 Oct 19 j 01:27	0° ♏					
max. Earth dist.	-461 Oct 29 j 18:41	2° ♏ 24'45	6.30050 AU	conjunction	-455 Apr 23 j 18:38	27° ♎ 16'41	-0°53'52
				minimum elong	-455 Apr 23 j 18:42	27° ♎ 16'43	0°53'53
conjunction	-461 Oct 31 j 16:39	2° ♏ 50'43	0°49'35	max. Earth dist.	-455 Apr 25 j 21:46	27° ♎ 46'28	6.07246 AU
minimum elong	-461 Oct 31 j 16:41	2° ♏ 50'45	0°49'35		-455 May 05 j 11:34	0° ♏	
morning rise	-461 Nov 13 j 06:15	5° ♏ 40'53		morning rise	-455 May 07 j 13:20	0° ♏ 28'46	
	-461 Dec 27 j 08:25	15° ♏			-455 Jul 17 j 21:24	15° ♏	
retrograde	-460 Mar 16 j 01:12	23° ♏ 36'07		retrograde	-455 Sep 13 j 09:28	19° ♏ 56'16	
opposition	-460 May 16 j 00:47	18° ♏ 43'26	0°48'34		-455 Nov 10 j 22:39	15° ♏	

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Attention, astronomical year style is used: The year -455 in astronomical counting style is the year 456 BCE in historical counting style.

opposition	-455 Nov 11 j 22:54	14° 8 51'44	-0°54'52	morning rise	-449 Nov 17 j 15:35	10° ℓ 14'17	
min. Earth dist.	-455 Nov 10 j 16:50	15° 8 01'59	4.13177 AU		-449 Dec 09 j 04:57	15° ℓ	
direct	-454 Jan 09 j 18:35	9° 8 51'57		retrograde	-448 Mar 20 j 21:35	28° ℓ 16'37	
	-454 Mar 09 j 11:25	15° 8		opposition	-448 May 20 j 20:06	23° ℓ 23'40	0°40'50
evening set	-454 May 16 j 09:59	28° 8 39'01		min. Earth dist.	-448 May 22 j 01:26	23° ℓ 14'17	4.22362 AU
	-454 May 22 j 09:39	0° ℓ		direct	-448 Jul 21 j 07:19	18° ℓ 26'50	
					-448 Oct 23 j 06:59	0° ♊	
conjunction	-454 May 30 j 04:27	1° ℓ 45'40	-0°17'25	evening set	-448 Nov 23 j 11:46	6° ♊ 56'47	
minimum elong	-454 May 30 j 04:28	1° ℓ 45'40	0°17'25	max. Earth dist.	-448 Dec 04 j 21:05	9° ♊ 35'38	6.15899 AU
max. Earth dist.	-454 May 31 j 19:01	2° ℓ 07'29	6.19624 AU				
morning rise	-454 Jun 12 j 22:43	4° ℓ 51'57		conjunction	-448 Dec 06 j 04:10	9° ♊ 53'46	0°07'28
retrograde	-454 Oct 16 j 07:11	23° ℓ 14'46		minimum elong	-448 Dec 06 j 04:09	9° ♊ 53'46	0°07'28
asc. node	-454 Nov 14 j 03:12	21° ℓ 53'36		behind sun begin	-448 Dec 05 j 20:51	9° ♊ 49'31	
opposition	-454 Dec 14 j 21:06	18° ℓ 13'10	0°04'41	behind sun end	-448 Dec 06 j 11:28	9° ♊ 58'00	
min. Earth dist.	-454 Dec 14 j 04:01	18° ℓ 18'55	4.25966 AU	morning rise	-448 Dec 18 j 21:01	12° ♊ 51'17	
direct	-453 Feb 12 j 23:57	13° ℓ 11'01		desc. node	-447 Feb 13 j 17:47	24° ♊ 53'59	
	-453 Jun 13 j 11:45	0° ♋			-447 Mar 21 j 00:56	0° ♋	
evening set	-453 Jun 20 j 02:25	1° ♋ 26'34		retrograde	-447 Apr 25 j 12:53	1° ♋ 55'15	
					-447 May 31 j 06:22	30° ♋ ♊	
conjunction	-453 Jul 03 j 16:39	4° ♋ 26'13	0°23'20	opposition	-447 Jun 25 j 08:23	26° ♋ 59'35	-0°21'00
minimum elong	-453 Jul 03 j 16:37	4° ♋ 26'12	0°23'21	min. Earth dist.	-447 Jun 25 j 22:01	26° ♋ 55'11	4.09630 AU
max. Earth dist.	-453 Jul 04 j 06:35	4° ♋ 33'54	6.31855 AU	direct	-447 Aug 24 j 10:18	22° ♋ 05'14	
morning rise	-453 Jul 17 j 04:56	7° ♋ 24'43			-447 Nov 06 j 13:06	0° ♋	
retrograde	-453 Nov 16 j 11:26	24° ♋ 53'22		evening set	-447 Dec 27 j 06:09	11° ♋ 07'14	
opposition	-452 Jan 15 j 08:29	19° ♋ 55'38	0°59'38				
min. Earth dist.	-452 Jan 15 j 07:33	19° ♋ 55'57	4.36701 AU	conjunction	-446 Jan 09 j 02:50	14° ♋ 11'04	-0°34'26
direct	-452 Mar 16 j 17:09	14° ♋ 52'23		minimum elong	-446 Jan 09 j 02:47	14° ♋ 11'03	0°34'27
	-452 Jul 09 j 05:02	0° ♌		max. Earth dist.	-446 Jan 08 j 20:34	14° ♋ 07'20	6.04287 AU
evening set	-452 Jul 22 j 00:43	2° ♌ 44'28		morning rise	-446 Jan 22 j 01:46	17° ♋ 16'15	
					-446 Mar 21 j 22:21	0° ♌	
conjunction	-452 Aug 04 j 07:07	5° ♌ 37'25	0°55'46	retrograde	-446 Jun 01 j 22:24	7° ♌ 18'53	
minimum elong	-452 Aug 04 j 07:04	5° ♌ 37'23	0°55'45	opposition	-446 Aug 01 j 08:16	2° ♌ 19'23	-1°18'34
max. Earth dist.	-452 Aug 03 j 18:43	5° ♌ 30'39	6.40268 AU	min. Earth dist.	-446 Aug 01 j 01:07	2° ♌ 21'45	4.00263 AU
morning rise	-452 Aug 17 j 10:30	8° ♌ 28'49			-446 Aug 19 j 16:39	30° ♌ ♋	
	-452 Sep 17 j 16:11	15° ♌		direct	-446 Sep 29 j 02:56	27° ♋ 26'01	
retrograde	-452 Dec 15 j 23:09	25° ♌ 26'22			-446 Nov 07 j 20:07	0° ♌	
opposition	-451 Feb 14 j 04:00	20° ♌ 32'05	1°35'52		-445 Jan 24 j 02:00	15° ♌	
min. Earth dist.	-451 Feb 14 j 20:19	20° ♌ 26'48	4.42353 AU	evening set	-445 Jan 31 j 23:16	16° ♌ 52'39	
direct	-451 Apr 17 j 12:05	15° ♌ 29'04					
	-451 Aug 07 j 16:57	0° ♍		conjunction	-445 Feb 14 j 02:51	20° ♌ 02'15	-1°04'55
evening set	-451 Aug 22 j 14:08	3° ♍ 10'23		minimum elong	-445 Feb 14 j 02:49	20° ♌ 02'14	1°04'54
max. Earth dist.	-451 Sep 03 j 01:33	5° ♍ 40'03	6.42630 AU	max. Earth dist.	-445 Feb 15 j 04:03	20° ♌ 17'25	5.97996 AU
				morning rise	-445 Feb 27 j 09:24	23° ♌ 13'33	
conjunction	-451 Sep 04 j 12:26	5° ♍ 59'04	1°11'59		-445 Mar 28 j 14:50	0° ♍	
minimum elong	-451 Sep 04 j 12:25	5° ♍ 59'03	1°12'00	retrograde	-445 Jul 09 j 18:50	13° ♍ 45'17	
morning rise	-451 Sep 17 j 07:51	8° ♍ 46'21		opposition	-445 Sep 07 j 17:10	8° ♍ 42'04	-1°47'17
retrograde	-450 Jan 15 j 14:29	25° ♍ 39'43		min. Earth dist.	-445 Sep 06 j 16:36	8° ♍ 50'21	3.97896 AU
opposition	-450 Mar 17 j 04:17	20° ♍ 47'31	1°45'45	direct	-445 Nov 04 j 16:50	3° ♍ 47'42	
min. Earth dist.	-450 Mar 18 j 09:29	20° ♍ 38'10	4.41414 AU	evening set	-444 Mar 09 j 01:24	23° ♍ 19'23	
direct	-450 May 18 j 21:18	15° ♍ 45'47					
	-450 Sep 06 j 04:29	0° ♎		conjunction	-444 Mar 22 j 12:40	26° ♍ 31'44	-1°10'41
evening set	-450 Sep 22 j 10:49	3° ♎ 30'37		minimum elong	-444 Mar 22 j 12:42	26° ♍ 31'45	1°10'40
max. Earth dist.	-450 Oct 03 j 06:25	5° ♎ 53'38	6.38380 AU	max. Earth dist.	-444 Mar 24 j 11:06	26° ♍ 59'23	5.99650 AU
				morning rise	-444 Apr 05 j 03:08	29° ♍ 45'34	
conjunction	-450 Oct 05 j 03:37	6° ♎ 18'39	1°08'24		-444 Apr 06 j 03:36	0° ♎	
minimum elong	-450 Oct 05 j 03:38	6° ♎ 18'39	1°08'24	retrograde	-444 Aug 14 j 11:33	19° ♎ 59'45	
morning rise	-450 Oct 17 j 17:58	9° ♎ 05'41		min. Earth dist.	-444 Oct 11 j 17:57	15° ♎ 05'57	4.03478 AU
retrograde	-449 Feb 16 j 07:16	26° ♎ 21'38		opposition	-444 Oct 13 j 03:11	14° ♎ 54'37	-1°34'01
opposition	-449 Apr 18 j 04:38	21° ♎ 29'56	1°26'33	direct	-444 Dec 10 j 04:52	9° ♎ 57'32	
min. Earth dist.	-449 Apr 19 j 14:30	21° ♎ 19'09	4.34118 AU	evening set	-443 Apr 15 j 06:40	29° ♎ 11'36	
direct	-449 Jun 19 j 13:50	16° ♎ 30'28			-443 Apr 18 j 18:23	0° ♏	
	-449 Oct 02 j 19:30	0° ♏					
evening set	-449 Oct 23 j 11:07	4° ♏ 32'23		conjunction	-443 Apr 29 j 00:04	2° ♏ 22'36	-0°49'31
max. Earth dist.	-449 Nov 03 j 04:08	6° ♏ 57'34	6.28590 AU	minimum elong	-443 Apr 29 j 00:07	2° ♏ 22'38	0°49'31
				max. Earth dist.	-443 May 01 j 03:02	2° ♏ 52'13	6.08628 AU
conjunction	-449 Nov 05 j 01:46	7° ♏ 23'27	0°45'16	morning rise	-443 May 12 j 19:02	5° ♏ 34'12	
minimum elong	-449 Nov 05 j 01:48	7° ♏ 23'28	0°45'16		-443 Jun 25 j 01:59	15° ♏	

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Attention, astronomical year style is used: The year -443 in astronomical counting style is the year 444 BCE in historical counting style.

retrograde	-443 Sep 18 j 05:39	24° 8 53'36			-437 Sep 15 j 16:30	0° ℓ	
opposition	-443 Nov 16 j 17:36	19° 8 49'22	-0°46'53	evening set	-437 Oct 27 j 16:22	8° ℓ 54'42	
min. Earth dist.	-443 Nov 15 j 13:20	19° 8 58'59	4.14815 AU	max. Earth dist.	-437 Nov 07 j 10:39	11° ℓ 21'05	6.27034 AU
	-442 Jan 04 j 09:08	15° ℞					
direct	-442 Jan 14 j 17:40	14° 8 49'14		conjunction	-437 Nov 09 j 07:13	11° ℓ 46'26	0°40'50
	-442 Jan 25 j 02:38	15° 8		minimum elong	-437 Nov 09 j 07:16	11° ℓ 46'28	0°40'49
	-442 May 05 j 11:19	0° ℥		morning rise	-437 Nov 21 j 21:07	14° ℓ 37'59	
evening set	-442 May 21 j 10:31	3° ℥ 32'00			-437 Nov 23 j 12:04	15° ℓ	
					-436 Feb 11 j 04:22	0° ♊	
conjunction	-442 Jun 04 j 04:46	6° ℥ 37'46	-0°11'35	retrograde	-436 Mar 25 j 12:58	2° ♊ 48'02	
minimum elong	-442 Jun 04 j 04:46	6° ℥ 37'46	0°11'35		-436 May 08 j 14:48	30° ℞ ℓ	
behind sun begin	-442 Jun 03 j 22:56	6° ℥ 34'30		opposition	-436 May 25 j 11:57	27° ℓ 54'49	0°33'05
behind sun end	-442 Jun 04 j 10:37	6° ℥ 41'03		min. Earth dist.	-436 May 26 j 16:15	27° ℓ 45'46	4.20482 AU
max. Earth dist.	-442 Jun 05 j 17:38	6° ℥ 58'32	6.21424 AU	direct	-436 Jul 25 j 18:26	22° ℓ 58'20	
morning rise	-442 Jun 17 j 22:31	9° ℥ 43'02			-436 Oct 04 j 10:57	0° ♊	
asc. node	-442 Sep 23 j 12:17	26° ℥ 45'45		evening set	-436 Nov 27 j 22:20	11° ♊ 33'21	
retrograde	-442 Oct 20 j 17:56	27° ℥ 57'02		max. Earth dist.	-436 Dec 09 j 08:58	14° ♊ 13'45	6.13852 AU
opposition	-442 Dec 19 j 09:53	22° ℥ 55'55	0°13'07				
min. Earth dist.	-442 Dec 18 j 17:35	23° ℥ 01'24	4.27798 AU	conjunction	-436 Dec 10 j 15:03	14° ♊ 31'22	0°01'45
direct	-441 Feb 17 j 16:09	17° ℥ 53'34		minimum elong	-436 Dec 10 j 15:03	14° ♊ 31'22	0°01'45
	-441 May 27 j 05:29	0° ♋		behind sun begin	-436 Dec 10 j 07:02	14° ♊ 26'42	
evening set	-441 Jun 24 j 20:43	6° ♋ 04'30		behind sun end	-436 Dec 10 j 23:04	14° ♊ 36'03	
				morning rise	-436 Dec 23 j 08:45	17° ♊ 30'06	
conjunction	-441 Jul 08 j 09:54	9° ♋ 03'00	0°28'37	desc. node	-436 Dec 26 j 14:45	18° ♊ 15'25	
minimum elong	-441 Jul 08 j 09:52	9° ♋ 02'59	0°28'38		-435 Feb 20 j 10:29	0° ♋	
max. Earth dist.	-441 Jul 08 j 20:28	9° ♋ 08'48	6.33610 AU	retrograde	-435 Apr 30 j 13:24	6° ♋ 44'17	
morning rise	-441 Jul 21 j 20:59	12° ♋ 00'15		opposition	-435 Jun 30 j 07:04	1° ♋ 48'10	-0°29'35
retrograde	-441 Nov 20 j 19:35	29° ♋ 21'49		min. Earth dist.	-435 Jun 30 j 18:43	1° ♋ 44'23	4.07570 AU
opposition	-440 Jan 19 j 17:15	24° ♋ 24'35	1°06'00		-435 Jul 14 j 12:21	30° ℞ ♊	
min. Earth dist.	-440 Jan 19 j 19:01	24° ♋ 24'00	4.38255 AU	direct	-435 Aug 29 j 04:29	26° ♊ 53'58	
direct	-440 Mar 21 j 07:11	19° ♋ 21'18			-435 Oct 12 j 16:43	0° ♋	
	-440 Jun 21 j 22:44	0° ♌		evening set	-434 Jan 01 j 00:37	16° ♋ 02'17	
evening set	-440 Jul 26 j 12:13	7° ♌ 09'19					
				conjunction	-434 Jan 13 j 22:23	19° ♋ 07'23	-0°39'35
conjunction	-440 Aug 08 j 17:22	10° ♌ 01'15	0°59'03	minimum elong	-434 Jan 13 j 22:21	19° ♋ 07'22	0°39'36
minimum elong	-440 Aug 08 j 17:20	10° ♌ 01'14	0°59'03	max. Earth dist.	-434 Jan 13 j 20:46	19° ♋ 06'25	6.02418 AU
max. Earth dist.	-440 Aug 08 j 01:41	9° ♌ 52'44	6.41490 AU	morning rise	-434 Jan 26 j 22:18	22° ♋ 13'52	
morning rise	-440 Aug 21 j 19:30	12° ♌ 51'40			-434 Mar 01 j 20:17	0° ♌	
	-440 Aug 31 j 19:04	15° ♌		retrograde	-434 Jun 07 j 05:49	12° ♌ 25'29	
retrograde	-440 Dec 20 j 03:11	29° ♌ 45'15		opposition	-434 Aug 06 j 12:21	7° ♌ 25'30	-1°24'41
opposition	-439 Feb 18 j 10:35	24° ♌ 51'14	1°38'47	min. Earth dist.	-434 Aug 06 j 02:57	7° ♌ 28'37	3.98799 AU
min. Earth dist.	-439 Feb 19 j 04:29	24° ♌ 45'26	4.43183 AU	direct	-434 Oct 04 j 02:13	2° ♌ 32'11	
direct	-439 Apr 21 j 20:58	19° ♌ 48'16			-433 Jan 06 j 16:16	15° ♌	
	-439 Jul 21 j 17:52	0° ♍		evening set	-433 Feb 06 j 02:03	22° ♌ 03'39	
evening set	-439 Aug 26 j 20:36	7° ♍ 27'13					
max. Earth dist.	-439 Sep 07 j 05:51	9° ♍ 55'39	6.42994 AU	conjunction	-433 Feb 19 j 06:42	25° ♌ 14'13	-1°07'18
				minimum elong	-433 Feb 19 j 06:40	25° ♌ 14'12	1°07'19
conjunction	-439 Sep 08 j 17:55	10° ♍ 15'19	1°12'38	max. Earth dist.	-433 Feb 20 j 10:29	25° ♌ 30'58	5.97057 AU
minimum elong	-439 Sep 08 j 17:54	10° ♍ 15'19	1°12'37	morning rise	-433 Mar 04 j 14:43	28° ♌ 26'33	
morning rise	-439 Sep 21 j 12:13	13° ♍ 02'03			-433 Mar 11 j 03:42	0° ♍	
retrograde	-438 Jan 19 j 19:24	29° ♍ 55'06		retrograde	-433 Jul 15 j 01:02	19° ♍ 01'31	
opposition	-438 Mar 21 j 11:11	25° ♍ 03'04	1°44'42	opposition	-433 Sep 12 j 22:28	13° ♍ 57'53	-1°47'55
min. Earth dist.	-438 Mar 22 j 17:52	24° ♍ 53'15	4.41278 AU	min. Earth dist.	-433 Sep 11 j 18:49	14° ♍ 07'14	3.97611 AU
direct	-438 May 23 j 04:55	20° ♍ 01'34		direct	-433 Nov 09 j 19:47	9° ♍ 03'13	
	-438 Aug 20 j 10:28	0° ♎		evening set	-432 Mar 14 j 08:46	28° ♍ 35'58	
evening set	-438 Sep 26 j 15:05	7° ♎ 46'17			-432 Mar 20 j 06:33	0° ♎	
max. Earth dist.	-438 Oct 07 j 07:08	10° ♎ 07'41	6.37732 AU				
				conjunction	-432 Mar 27 j 21:18	1° ♎ 48'41	-1°09'06
conjunction	-438 Oct 09 j 07:11	10° ♎ 34'19	1°06'18	minimum elong	-432 Mar 27 j 21:20	1° ♎ 48'42	1°09'05
minimum elong	-438 Oct 09 j 07:13	10° ♎ 34'20	1°06'17	max. Earth dist.	-432 Mar 29 j 22:55	2° ♎ 18'12	6.00045 AU
morning rise	-438 Oct 21 j 21:19	13° ♎ 21'29		morning rise	-432 Apr 10 j 12:39	5° ♎ 02'45	
	-437 Jan 30 j 14:57	0° ♏		retrograde	-432 Aug 19 j 15:33	25° ♎ 12'39	
retrograde	-437 Feb 20 j 17:31	0° ♏ 41'15		min. Earth dist.	-432 Oct 16 j 19:57	20° ♎ 18'41	4.04483 AU
	-437 Mar 13 j 19:31	30° ℞ ♎		opposition	-432 Oct 18 j 05:00	20° ♎ 07'24	-1°28'50
opposition	-437 Apr 22 j 14:51	25° ♎ 49'25	1°21'42	direct	-432 Dec 15 j 09:27	15° ♎ 09'52	
min. Earth dist.	-437 Apr 24 j 01:39	25° ♎ 38'20	4.32969 AU		-431 Apr 01 j 08:51	0° ♏	
direct	-437 Jun 23 j 22:44	20° ♎ 50'10		evening set	-431 Apr 20 j 13:18	4° ♏ 20'55	

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Attention, astronomical year style is used: The year -431 in astronomical counting style is the year 432 BCE in historical counting style.

conjunction	-431 May 04 j 07:14	7° 8 31'30	-0°44'43	max. Earth dist.	-426 Oct 11 j 15:41	14° 2 35'50	6.36476 AU
minimum elong	-431 May 04 j 07:17	7° 8 31'31	0°44'42				
max. Earth dist.	-431 May 06 j 10:55	8° 8 01'23	6.10141 AU	conjunction	-426 Oct 13 j 15:09	15° 2 02'14	1°03'45
morning rise	-431 May 18 j 02:27	10° 8 42'29		minimum elong	-426 Oct 13 j 15:11	15° 2 02'15	1°03'46
	-431 Jun 06 j 03:34	15° 8		morning rise	-426 Oct 26 j 04:53	17° 2 49'48	
retrograde	-431 Sep 22 j 23:44	29° 8 52'44			-426 Dec 26 j 14:35	0° 8	
min. Earth dist.	-431 Nov 20 j 08:31	24° 8 58'23	4.16643 AU	retrograde	-425 Feb 25 j 08:40	5° 8 .15'29	
opposition	-431 Nov 21 j 12:48	24° 8 48'46	-0°38'27	opposition	-425 Apr 27 j 06:53	0° 8 .23'36	1°16'11
direct	-430 Jan 19 j 15:45	19° 8 48'14		min. Earth dist.	-425 Apr 28 j 17:53	0° 8 .12'28	4.31317 AU
	-430 Apr 16 j 22:16	0° 8			-425 Apr 30 j 09:06	30° 8 2	
evening set	-430 May 26 j 11:46	8° 8 26'00		direct	-425 Jun 28 j 12:18	25° 2 24'44	
					-425 Aug 24 j 12:38	0° 8	
conjunction	-430 Jun 09 j 05:30	11° 8 30'43	-0°05'38	evening set	-425 Nov 01 j 03:53	13° 8 .33'25	
minimum elong	-430 Jun 09 j 05:29	11° 8 30'43	0°05'37		-425 Nov 07 j 12:13	15° 8	
behind sun begin	-430 Jun 08 j 21:30	11° 8 26'15		max. Earth dist.	-425 Nov 11 j 21:58	16° 8 .00'23	6.25119 AU
behind sun end	-430 Jun 09 j 13:29	11° 8 35'11					
max. Earth dist.	-430 Jun 10 j 14:34	11° 8 49'17	6.23385 AU	conjunction	-425 Nov 13 j 18:41	16° 8 .25'56	0°35'54
morning rise	-430 Jun 22 j 22:37	14° 8 34'50		minimum elong	-425 Nov 13 j 18:43	16° 8 .25'57	0°35'53
asc. node	-430 Aug 01 j 22:35	23° 8 02'36		morning rise	-425 Nov 26 j 09:06	19° 8 .18'28	
	-430 Sep 13 j 18:07	0° 8			-424 Jan 16 j 03:58	0° 8	
retrograde	-430 Oct 25 j 06:59	2° 8 39'41		retrograde	-424 Mar 30 j 12:28	7° 8 37'31	
	-430 Dec 05 j 16:28	30° 8 8		opposition	-424 May 30 j 10:53	2° 8 43'57	0°24'37
opposition	-430 Dec 23 j 23:09	27° 8 39'03	0°21'32	min. Earth dist.	-424 May 31 j 13:20	2° 8 35'28	4.18430 AU
min. Earth dist.	-430 Dec 23 j 09:54	27° 8 43'29	4.29678 AU		-424 Jun 22 j 01:40	30° 8 . 8	
direct	-429 Feb 22 j 11:14	22° 8 36'27		direct	-424 Jul 30 j 13:14	27° 8 .47'47	
	-429 May 07 j 11:51	0° 8			-424 Sep 06 j 12:20	0° 8	
evening set	-429 Jun 29 j 14:46	10° 8 42'44		desc. node	-424 Nov 04 j 12:46	10° 8 07'07	
				evening set	-424 Dec 02 j 15:43	16° 8 28'15	
conjunction	-429 Jul 13 j 03:00	13° 8 40'07	0°33'47	max. Earth dist.	-424 Dec 14 j 07:38	19° 8 12'22	6.11869 AU
minimum elong	-429 Jul 13 j 02:58	13° 8 40'06	0°33'47				
max. Earth dist.	-429 Jul 13 j 10:51	13° 8 44'25	6.35235 AU	conjunction	-424 Dec 15 j 09:12	19° 8 27'24	-0°04'27
morning rise	-429 Jul 26 j 12:44	16° 8 36'10		minimum elong	-424 Dec 15 j 09:11	19° 8 27'23	0°04'27
	-429 Oct 05 j 04:09	0° 8		behind sun begin	-424 Dec 15 j 01:18	19° 8 22'47	
retrograde	-429 Nov 25 j 01:55	3° 8 51'32		behind sun end	-424 Dec 15 j 17:03	19° 8 32'00	
	-428 Jan 15 j 18:24	30° 8 8		morning rise	-424 Dec 28 j 03:32	22° 8 27'18	
opposition	-428 Jan 24 j 02:23	28° 8 54'47	1°12'06		-423 Jan 30 j 16:07	0° 8	
min. Earth dist.	-428 Jan 24 j 05:46	28° 8 53'41	4.39520 AU	retrograde	-423 May 05 j 21:26	11° 8 51'09	
direct	-428 Mar 25 j 19:16	23° 8 51'29		opposition	-423 Jul 05 j 12:44	6° 8 54'35	-0°38'31
	-428 Jun 01 j 14:06	0° 8		min. Earth dist.	-423 Jul 05 j 21:51	6° 8 51'37	4.05850 AU
evening set	-428 Jul 31 j 00:35	11° 8 36'46		direct	-423 Sep 03 j 05:04	2° 8 00'41	
max. Earth dist.	-428 Aug 12 j 08:53	14° 8 17'15	6.42284 AU	evening set	-422 Jan 06 j 01:33	21° 8 13'40	
conjunction	-428 Aug 13 j 04:26	14° 8 27'52	1°02'07	conjunction	-422 Jan 19 j 00:02	24° 8 19'42	-0°44'45
minimum elong	-428 Aug 13 j 04:23	14° 8 27'51	1°02'07	minimum elong	-422 Jan 18 j 23:59	24° 8 19'40	0°44'44
	-428 Aug 15 j 15:34	15° 8		max. Earth dist.	-422 Jan 19 j 01:49	24° 8 20'46	6.01127 AU
morning rise	-428 Aug 26 j 05:19	17° 8 17'28		morning rise	-422 Feb 01 j 01:12	27° 8 27'15	
	-428 Nov 01 j 04:53	0° 8			-422 Feb 11 j 19:32	0° 8	
retrograde	-428 Dec 24 j 10:50	4° 8 08'48			-422 May 01 j 06:01	15° 8	
	-427 Feb 16 j 23:36	30° 8 8		retrograde	-422 Jun 12 j 14:43	17° 8 45'01	
opposition	-427 Feb 22 j 18:58	29° 8 15'12	1°41'19		-422 Jul 25 j 05:27	15° 8	
min. Earth dist.	-427 Feb 23 j 15:53	29° 8 08'27	4.43468 AU	opposition	-422 Aug 11 j 21:04	12° 8 44'25	-1°30'24
direct	-427 Apr 26 j 08:27	24° 8 12'23		min. Earth dist.	-422 Aug 11 j 07:31	12° 8 48'56	3.98120 AU
	-427 Jul 01 j 07:36	0° 8		direct	-422 Oct 09 j 06:45	7° 8 51'03	
evening set	-427 Aug 31 j 05:20	11° 8 50'54			-422 Dec 16 j 23:07	15° 8	
max. Earth dist.	-427 Sep 11 j 10:17	14° 8 17'13	6.42724 AU	evening set	-421 Feb 11 j 08:42	27° 8 24'02	
					-421 Feb 22 j 04:17	0° 8	
conjunction	-427 Sep 13 j 01:44	14° 8 38'45	1°12'57	conjunction	-421 Feb 24 j 14:33	0° 8 35'06	-1°09'17
minimum elong	-427 Sep 13 j 01:44	14° 8 38'44	1°12'56	minimum elong	-421 Feb 24 j 14:31	0° 8 35'05	1°09'17
morning rise	-427 Sep 25 j 19:17	17° 8 25'16		max. Earth dist.	-421 Feb 25 j 23:44	0° 8 55'06	5.97062 AU
	-427 Nov 30 j 11:57	0° 8		morning rise	-421 Mar 09 j 23:31	3° 8 47'51	
retrograde	-426 Jan 24 j 05:03	4° 8 20'20		retrograde	-421 Jul 20 j 09:20	24° 8 21'31	
	-426 Mar 21 j 18:53	30° 8 8		min. Earth dist.	-421 Sep 17 j 00:09	19° 8 27'10	3.98314 AU
opposition	-426 Mar 25 j 22:02	29° 8 28'23	1°43'09	opposition	-421 Sep 18 j 04:49	19° 8 17'27	-1°47'41
min. Earth dist.	-426 Mar 27 j 05:41	29° 8 18'16	4.40485 AU	direct	-421 Nov 15 j 03:08	14° 8 22'25	
direct	-426 May 27 j 15:07	24° 8 27'07			-420 Mar 03 j 01:11	0° 8	
	-426 Jul 30 j 18:17	0° 8		evening set	-420 Mar 19 j 16:28	3° 8 52'20	
evening set	-426 Sep 30 j 23:21	12° 8 13'52					

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Attention, astronomical year style is used: The year -420 in astronomical counting style is the year 421 BCE in historical counting style.

conjunction	-420 Apr 02 j 05:56	7°Υ04'52	-1°07'02			-415 Jun 01 j 10:30	0°Π	
minimum elong	-420 Apr 02 j 05:58	7°Υ04'53	1°07'02	evening set		-415 Sep 04 j 13:14	16°Π12'15	
max. Earth dist.	-420 Apr 04 j 09:51	7°Υ35'36	6.01364 AU	max. Earth dist.		-415 Sep 15 j 15:26	18°Π37'26	6.41944 AU
morning rise	-420 Apr 15 j 22:07	10°Υ18'38						
	-420 Aug 10 j 06:46	0°Ξ		conjunction		-415 Sep 17 j 08:45	19°Π00'03	1°12'51
retrograde	-420 Aug 24 j 14:35	0°Ξ20'17		minimum elong		-415 Sep 17 j 08:45	19°Π00'03	1°12'51
	-420 Sep 07 j 19:41	30°κΥ		morning rise		-415 Sep 30 j 01:35	21°Π46'36	
min. Earth dist.	-420 Oct 21 j 18:36	25°Υ26'34	4.06268 AU			-415 Nov 08 j 21:40	0°Ω	
opposition	-420 Oct 23 j 04:26	25°Υ15'01	-1°23'06	retrograde		-414 Jan 28 j 16:29	8°Ω45'27	
direct	-420 Dec 20 j 10:29	20°Υ17'02		opposition		-414 Mar 30 j 09:33	3°Ω53'42	1°41'03
	-419 Mar 13 j 15:10	0°Ξ		min. Earth dist.		-414 Mar 31 j 19:02	3°Ω43'01	4.39226 AU
evening set	-419 Apr 25 j 16:57	9°Ξ22'29				-414 May 04 j 12:46	30°κΠ	
				direct		-414 Jun 01 j 02:35	28°Π52'47	
conjunction	-419 May 09 j 11:02	12°Ξ32'13	-0°39'44			-414 Jun 28 j 16:51	0°Ω	
minimum elong	-419 May 09 j 11:05	12°Ξ32'14	0°39'43	evening set		-414 Oct 05 j 08:26	16°Ω42'59	
max. Earth dist.	-419 May 11 j 11:47	13°Ξ00'16	6.12219 AU	max. Earth dist.		-414 Oct 15 j 23:14	19°Ω04'43	6.34835 AU
	-419 May 20 j 04:23	15°Ξ						
morning rise	-419 May 23 j 06:21	15°Ξ42'15		conjunction		-414 Oct 17 j 23:54	19°Ω31'53	1°00'50
	-419 Aug 02 j 12:51	0°Π		minimum elong		-414 Oct 17 j 23:56	19°Ω31'54	1°00'49
retrograde	-419 Sep 27 j 14:48	4°Π41'59		morning rise		-414 Oct 30 j 13:38	22°Ω20'06	
	-419 Nov 23 j 12:40	30°κΞ				-414 Dec 05 j 15:45	0°Π	
min. Earth dist.	-419 Nov 25 j 02:39	29°Ξ47'07	4.18778 AU	retrograde		-413 Mar 02 j 01:59	9°Π53'06	
opposition	-419 Nov 26 j 04:30	29°Ξ38'20	-0°30'05	opposition		-413 May 02 j 00:45	5°Π01'04	1°10'08
direct	-418 Jan 24 j 12:54	24°Ξ37'24		min. Earth dist.		-413 May 03 j 10:24	4°Π50'21	4.29406 AU
	-418 Mar 26 j 07:57	0°Π		direct		-413 Jul 03 j 02:17	0°Π02'38	
evening set	-418 May 31 j 08:40	13°Π09'26				-413 Oct 22 j 03:13	15°Π	
asc. node	-418 Jun 11 j 19:36	15°Π42'40		evening set		-413 Nov 05 j 16:51	18°Π16'11	
				max. Earth dist.		-413 Nov 16 j 14:51	20°Π46'02	6.23116 AU
conjunction	-418 Jun 14 j 02:02	16°Π13'05	0°00'15					
minimum elong	-418 Jun 14 j 02:00	16°Π13'04	0°00'16	conjunction		-413 Nov 18 j 07:59	21°Π09'39	0°30'39
behind sun begin	-418 Jun 13 j 17:43	16°Π08'27		minimum elong		-413 Nov 18 j 08:01	21°Π09'40	0°30'39
behind sun end	-418 Jun 14 j 10:17	16°Π17'40		morning rise		-413 Nov 30 j 22:39	24°Π03'11	
max. Earth dist.	-418 Jun 15 j 08:45	16°Π30'14	6.25416 AU			-413 Dec 27 j 17:27	0°♄	
morning rise	-418 Jun 27 j 18:09	19°Π15'55		retrograde		-412 Apr 04 j 15:00	12°♄31'34	
	-418 Aug 19 j 03:35	0°Ω		opposition		-412 Jun 04 j 12:07	7°♄37'44	0°15'50
retrograde	-418 Oct 29 j 14:37	7°Ω12'01		min. Earth dist.		-412 Jun 05 j 12:51	7°♄29'48	4.16479 AU
opposition	-418 Dec 28 j 08:35	2°Ω11'57	0°29'30	direct		-412 Aug 04 j 10:14	2°♄42'01	
min. Earth dist.	-418 Dec 27 j 21:11	2°Ω15'45	4.31438 AU	desc. node		-412 Sep 13 j 03:58	5°♄07'24	
	-417 Jan 14 j 10:22	30°κΠ		evening set		-412 Dec 07 j 10:55	21°♄27'20	
direct	-417 Feb 27 j 00:40	27°Π09'12		max. Earth dist.		-412 Dec 19 j 05:59	24°♄13'59	6.10143 AU
	-417 Apr 12 j 02:10	0°Ω						
evening set	-417 Jul 04 j 05:20	15°Ω11'32		conjunction		-412 Dec 20 j 04:49	24°♄27'27	-0°10'33
				minimum elong		-412 Dec 20 j 04:47	24°♄27'26	0°10'35
conjunction	-417 Jul 17 j 16:19	18°Ω07'54	0°38'35	behind sun begin		-412 Dec 19 j 22:29	24°♄23'44	
minimum elong	-417 Jul 17 j 16:17	18°Ω07'53	0°38'35	behind sun end		-412 Dec 20 j 11:05	24°♄31'08	
max. Earth dist.	-417 Jul 17 j 18:18	18°Ω08'59	6.36582 AU	morning rise		-411 Jan 02 j 00:06	27°♄28'29	
morning rise	-417 Jul 31 j 01:00	21°Ω02'55				-411 Jan 12 j 20:30	0°♅	
	-417 Sep 12 j 19:09	0°Ω		retrograde		-411 May 11 j 04:00	17°♅00'53	
retrograde	-417 Nov 29 j 08:36	8°Ω13'29		opposition		-411 Jul 10 j 19:15	12°♅03'45	-0°47'14
opposition	-416 Jan 28 j 09:13	3°Ω17'16	1°17'38	min. Earth dist.		-411 Jul 11 j 00:05	12°♅02'10	4.04520 AU
min. Earth dist.	-416 Jan 28 j 16:20	3°Ω14'56	4.40383 AU	direct		-411 Sep 08 j 06:01	7°♅10'03	
	-416 Feb 24 j 19:47	30°κΩ		evening set		-410 Jan 11 j 03:06	26°♅26'15	
direct	-416 Mar 30 j 06:36	28°Ω13'56						
	-416 May 04 j 01:57	0°Ω		conjunction		-410 Jan 24 j 02:34	29°♅33'02	-0°49'34
	-416 Jul 30 j 22:30	15°Ω		minimum elong		-410 Jan 24 j 02:31	29°♅33'00	0°49'34
evening set	-416 Aug 04 j 10:11	15°Ω57'49		max. Earth dist.		-410 Jan 24 j 10:21	29°♅37'43	6.00305 AU
						-410 Jan 25 j 23:24	0°≈	
conjunction	-416 Aug 17 j 13:05	18°Ω48'23	1°04'46	morning rise		-410 Feb 06 j 04:33	2°≈41'21	
minimum elong	-416 Aug 17 j 13:03	18°Ω48'22	1°04'46			-410 Apr 03 j 06:12	15°≈	
max. Earth dist.	-416 Aug 16 j 14:34	18°Ω36'09	6.42584 AU	retrograde		-410 Jun 18 j 00:33	23°≈03'08	
morning rise	-416 Aug 30 j 12:45	21°Ω37'24		opposition		-410 Aug 17 j 04:51	18°≈01'58	-1°35'20
	-416 Oct 10 j 12:53	0°Π		min. Earth dist.		-410 Aug 16 j 13:23	18°≈07'08	3.97903 AU
retrograde	-416 Dec 28 j 16:20	8°Π28'22				-410 Sep 10 j 19:24	15°κ≈	
opposition	-415 Feb 27 j 02:28	3°Π35'06	1°43'17	direct		-410 Oct 14 j 13:07	13°≈08'30	
min. Earth dist.	-415 Feb 28 j 00:38	3°Π27'57	4.43221 AU			-410 Nov 16 j 22:57	15°≈	
	-415 Mar 30 j 04:30	30°κΩ				-409 Feb 05 j 06:02	0°κ	
direct	-415 Apr 30 j 16:11	28°Ω32'29		evening set		-409 Feb 16 j 14:20	2°κ41'27	

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Attention, astronomical year style is used: The year -409 in astronomical counting style is the year 410 BCE in historical counting style.

conjunction	-409 Mar 01 j 21:11	5° H 52'48	-1°10'42	morning rise	-404 Sep 03 j 20:57	26° Ω 00'10	
minimum elong	-409 Mar 01 j 21:10	5° H 52'47	1°10'42		-404 Sep 22 j 16:47	0° H	
max. Earth dist.	-409 Mar 03 j 09:54	6° H 14'52	5.97434 AU	retrograde	-403 Jan 02 j 01:15	12° H 51'16	
morning rise	-409 Mar 15 j 07:17	9° H 05'51		opposition	-403 Mar 03 j 11:19	7° H 58'19	1°44'43
retrograde	-409 Jul 25 j 13:57	29° H 36'38		min. Earth dist.	-403 Mar 04 j 12:19	7° H 50'16	4.42851 AU
min. Earth dist.	-409 Sep 22 j 02:02	24° H 42'41	3.99261 AU	direct	-403 May 05 j 03:13	2° H 55'51	
opposition	-409 Sep 23 j 08:43	24° H 32'17	-1°46'35	evening set	-403 Sep 08 j 21:57	20° H 36'55	
direct	-409 Nov 20 j 06:10	19° H 36'55		max. Earth dist.	-403 Sep 19 j 22:27	23° H 01'29	6.41125 AU
	-408 Feb 13 j 12:29	0° Y					
evening set	-408 Mar 24 j 22:04	9° Y 03'33		conjunction	-403 Sep 21 j 16:53	23° H 24'46	1°12'21
				minimum elong	-403 Sep 21 j 16:53	23° H 24'46	1°12'21
conjunction	-408 Apr 07 j 12:16	12° Y 15'47	-1°04'29	morning rise	-403 Oct 04 j 09:00	26° H 11'23	
minimum elong	-408 Apr 07 j 12:19	12° Y 15'49	1°04'29		-403 Oct 22 j 02:55	0° Ω	
max. Earth dist.	-408 Apr 09 j 15:35	12° Y 46'04	6.02774 AU	retrograde	-402 Feb 02 j 03:30	13° Ω 14'02	
morning rise	-408 Apr 21 j 05:11	15° Y 29'12		opposition	-402 Apr 03 j 22:28	8° Ω 22'20	1°38'20
	-408 Jun 30 j 05:54	0° B		min. Earth dist.	-402 Apr 05 j 07:26	8° Ω 11'49	4.38034 AU
retrograde	-408 Aug 29 j 11:05	5° B 22'45		direct	-402 Jun 05 j 13:05	3° Ω 21'46	
min. Earth dist.	-408 Oct 26 j 16:38	0° B 28'45	4.07978 AU	evening set	-402 Oct 09 j 18:15	21° Ω 14'49	
opposition	-408 Oct 28 j 01:27	0° B 17'32	-1°16'52	max. Earth dist.	-402 Oct 20 j 10:06	23° Ω 37'40	6.33385 AU
	-408 Oct 30 j 04:50	30° K Y					
direct	-408 Dec 25 j 11:07	25° Y 19'05		conjunction	-402 Oct 22 j 09:25	24° Ω 04'11	0°57'32
	-407 Feb 18 j 18:00	0° B		minimum elong	-402 Oct 22 j 09:28	24° Ω 04'12	0°57'31
evening set	-407 Apr 30 j 18:35	14° B 19'39		morning rise	-402 Nov 03 j 23:01	26° Ω 52'57	
	-407 May 03 j 17:20	15° B			-402 Nov 18 j 02:40	0° M	
				retrograde	-401 Mar 06 j 21:24	14° M 32'34	
conjunction	-407 May 14 j 13:03	17° B 28'40	-0°34'33	opposition	-401 May 06 j 19:43	9° M 40'24	1°03'36
minimum elong	-407 May 14 j 13:05	17° B 28'41	0°34'33	min. Earth dist.	-401 May 08 j 05:08	9° M 29'46	4.27785 AU
max. Earth dist.	-407 May 16 j 13:02	17° B 56'10	6.14103 AU	direct	-401 Jul 07 j 19:05	4° M 42'23	
morning rise	-407 May 28 j 08:06	20° B 37'47			-401 Oct 04 j 12:06	15° M	
	-407 Jul 11 j 00:02	0° II		evening set	-401 Nov 10 j 06:11	22° M 59'31	
retrograde	-407 Oct 02 j 04:43	9° II 28'00		max. Earth dist.	-401 Nov 21 j 05:48	25° M 30'53	6.21478 AU
opposition	-407 Nov 30 j 18:29	4° II 24'49	-0°21'39				
min. Earth dist.	-407 Nov 29 j 18:18	4° II 33'00	4.20650 AU	conjunction	-401 Nov 22 j 21:28	25° M 53'44	0°25'15
	-406 Jan 10 j 01:36	30° K B		minimum elong	-401 Nov 22 j 21:29	25° M 53'45	0°25'16
direct	-406 Jan 29 j 07:03	29° B 23'35		morning rise	-401 Dec 05 j 12:39	28° M 48'09	
	-406 Feb 17 j 17:29	0° II			-401 Dec 10 j 18:30	0° X	
asc. node	-406 Apr 21 j 18:08	8° II 32'55		retrograde	-400 Apr 09 j 14:56	17° X 24'24	
evening set	-406 Jun 05 j 04:36	17° II 51'02		opposition	-400 Jun 09 j 12:42	12° X 30'08	0°07'01
				min. Earth dist.	-400 Jun 10 j 09:52	12° X 23'19	4.14950 AU
conjunction	-406 Jun 18 j 21:10	20° II 53'39	0°06'02	desc. node	-400 Jul 23 j 20:14	8° X 00'27	
minimum elong	-406 Jun 18 j 21:10	20° II 53'39	0°06'03	direct	-400 Aug 09 j 05:29	7° X 34'45	
behind sun begin	-406 Jun 18 j 13:17	20° II 49'17		evening set	-400 Dec 12 j 05:16	26° X 23'27	
behind sun end	-406 Jun 19 j 05:03	20° II 58'02					
max. Earth dist.	-406 Jun 19 j 22:37	21° II 07'49	6.27124 AU	conjunction	-400 Dec 24 j 23:47	29° X 24'20	-0°16'30
morning rise	-406 Jul 02 j 12:41	23° II 55'28		minimum elong	-400 Dec 24 j 23:45	29° X 24'20	0°16'30
	-406 Jul 30 j 21:14	0° B		max. Earth dist.	-400 Dec 24 j 06:02	29° X 13'51	6.08870 AU
retrograde	-406 Nov 02 j 23:23	11° B 44'12			-400 Dec 27 j 12:00	0° B	
opposition	-405 Jan 01 j 17:55	6° B 44'39	0°37'15	morning rise	-399 Jan 06 j 19:42	2° B 26'14	
min. Earth dist.	-405 Jan 01 j 09:35	6° B 47'26	4.32860 AU	retrograde	-399 May 16 j 10:20	22° B 05'21	
direct	-405 Mar 03 j 14:53	1° B 41'40		opposition	-399 Jul 15 j 23:50	17° B 07'39	-0°55'22
evening set	-405 Jul 08 j 19:24	19° B 41'06		min. Earth dist.	-399 Jul 16 j 02:36	17° B 06'45	4.03615 AU
				direct	-399 Sep 13 j 07:40	12° B 14'07	
conjunction	-405 Jul 22 j 05:29	22° B 36'37	0°43'09		-398 Jan 09 j 15:42	0° \approx	
minimum elong	-405 Jul 22 j 05:27	22° B 36'36	0°43'10				
max. Earth dist.	-405 Jul 22 j 04:52	22° B 36'17	6.37614 AU				
morning rise	-405 Aug 04 j 12:46	25° B 30'42					
	-405 Aug 25 j 15:33	0° Ω					
retrograde	-405 Dec 03 j 14:20	12° Ω 37'29					
opposition	-404 Feb 01 j 16:38	7° Ω 41'46	1°22'46				
min. Earth dist.	-404 Feb 02 j 01:29	7° Ω 38'52	4.40980 AU				
direct	-404 Apr 03 j 16:16	2° Ω 38'28					
	-404 Jul 14 j 07:33	15° Ω					
evening set	-404 Aug 08 j 20:37	20° Ω 21'35					
conjunction	-404 Aug 21 j 22:14	23° Ω 11'36	1°07'04				
minimum elong	-404 Aug 21 j 22:12	23° Ω 11'35	1°07'03				
max. Earth dist.	-404 Aug 20 j 19:21	22° Ω 56'59	6.42688 AU				