

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 1

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

conjunction	-12898 Jan 30 j 18:26	9° $\mathbb{M}$ 44'55	-1°10'48		-12894 Jul 19 j 22:05	0° $\Upsilon$	
minimum elong	-12898 Jan 30 j 19:32	9° $\mathbb{M}$ 46'40	1°11'20		-12894 Aug 29 j 01:57	0° $\mathcal{B}$	
max. Earth dist.	-12898 Feb 05 j 14:37	13° $\mathbb{M}$ 30'10	2.65680 AU		-12894 Oct 07 j 14:31	0° $\mathbb{I}$	
	-12898 Mar 03 j 08:33	0° $\mathcal{A}$			-12894 Nov 16 j 09:41	0° $\mathcal{E}$	
morning rise	-12898 Mar 19 j 16:20	10° $\mathcal{A}$ 26'27			-12894 Dec 27 j 18:26	0° $\Omega$	
	-12898 Apr 19 j 05:15	0° $\mathcal{B}$			-12893 Feb 11 j 03:54	0° $\mathbb{M}$	
	-12898 Jun 04 j 18:21	0° $\approx$		desc. node	-12893 Feb 15 j 06:22	2° $\mathbb{M}$ 28'45	
asc. node	-12898 Jun 29 j 06:52	15° $\approx$ 53'58			-12893 Apr 14 j 14:29	0° $\underline{\mathcal{A}}$	
	-12898 Jul 21 j 00:12	0° $\mathcal{H}$		retrograde	-12893 May 09 j 04:11	3° $\underline{\mathcal{A}}$ 45'58	
	-12898 Sep 05 j 14:37	0° $\Upsilon$			-12893 Jun 01 j 10:04	30° $\mathcal{R}$ $\mathbb{M}$	
	-12898 Oct 24 j 15:36	0° $\mathcal{B}$		min. Earth dist.	-12893 Jun 11 j 11:55	26° $\mathbb{M}$ 25'36	0.57714 AU
	-12897 Jan 01 j 02:33	0° $\mathbb{I}$		greatest brilliancy	-12893 Jun 16 j 11:49	24° $\mathbb{M}$ 29'06	-1.7m
retrograde	-12897 Jan 17 j 15:25	1° $\mathbb{I}$ 43'16		opposition	-12893 Jun 17 j 13:20	24° $\mathbb{M}$ 04'17	-5°07'00
	-12897 Feb 03 j 07:08	30° $\mathcal{R}$ $\mathcal{B}$		direct	-12893 Jul 24 j 01:02	15° $\mathbb{M}$ 45'48	
opposition	-12897 Feb 17 j 15:45	26° $\mathcal{B}$ 29'27	5°55'01		-12893 Sep 16 j 20:13	0° $\underline{\mathcal{A}}$	
min. Earth dist.	-12897 Feb 17 j 11:13	26° $\mathcal{B}$ 32'31	0.38533 AU		-12893 Nov 14 j 11:31	0° $\mathbb{M}$	
greatest brilliancy	-12897 Feb 17 j 19:43	26° $\mathcal{B}$ 26'47	-2.8m		-12892 Jan 04 j 10:21	0° $\mathcal{A}$	
direct	-12897 Mar 20 j 07:22	21° $\mathcal{B}$ 20'23		asc. node	-12892 Feb 18 j 15:31	28° $\mathcal{A}$ 19'13	
	-12897 Apr 28 j 04:01	0° $\mathbb{I}$			-12892 Feb 21 j 06:08	0° $\mathcal{B}$	
desc. node	-12897 May 13 j 05:04	6° $\mathbb{I}$ 42'34			-12892 Apr 06 j 13:02	0° $\approx$	
	-12897 Jun 24 j 00:42	0° $\mathcal{E}$		evening set	-12892 Apr 12 j 18:49	4° $\approx$ 15'50	
	-12897 Aug 10 j 12:58	0° $\Omega$		max. Earth dist.	-12892 Apr 29 j 14:43	15° $\approx$ 55'52	2.50384 AU
	-12897 Sep 25 j 16:14	0° $\mathbb{M}$			-12892 May 19 j 11:01	0° $\mathcal{H}$	
	-12897 Nov 11 j 01:00	0° $\underline{\mathcal{A}}$					
	-12897 Dec 27 j 22:20	0° $\mathbb{M}$		conjunction	-12892 Jun 04 j 11:56	11° $\mathcal{H}$ 36'51	1°00'33
evening set	-12896 Jan 22 j 02:44	16° $\mathbb{M}$ 02'40		minimum elong	-12892 Jun 04 j 09:47	11° $\mathcal{H}$ 32'55	1°00'16
	-12896 Feb 12 j 23:36	0° $\mathcal{A}$			-12892 Jun 29 j 07:52	0° $\Upsilon$	
max. Earth dist.	-12896 Mar 01 j 13:25	11° $\mathcal{A}$ 15'47	2.65614 AU	morning rise	-12892 Jul 29 j 23:48	23° $\Upsilon$ 16'43	
					-12892 Aug 07 j 17:31	0° $\mathcal{B}$	
conjunction	-12896 Mar 10 j 06:24	16° $\mathcal{A}$ 52'08	-0°39'03		-12892 Sep 15 j 10:04	0° $\mathbb{I}$	
minimum elong	-12896 Mar 10 j 07:48	16° $\mathcal{A}$ 54'23	0°39'52		-12892 Oct 24 j 06:27	0° $\mathcal{E}$	
	-12896 Mar 30 j 13:00	0° $\mathcal{B}$			-12892 Dec 03 j 05:26	0° $\Omega$	
morning rise	-12896 Apr 26 j 11:04	17° $\mathcal{B}$ 39'29		desc. node	-12891 Jan 01 j 22:17	21° $\Omega$ 21'26	
asc. node	-12896 May 15 j 20:45	0° $\approx$ 34'30			-12891 Jan 14 j 08:50	0° $\mathbb{M}$	
	-12896 May 15 j 00:09	0° $\approx$			-12891 Mar 01 j 09:27	0° $\underline{\mathcal{A}}$	
	-12896 Jun 28 j 02:40	0° $\mathcal{H}$			-12891 Apr 26 j 07:03	0° $\mathbb{M}$	
	-12896 Aug 09 j 22:41	0° $\Upsilon$		retrograde	-12891 Jun 14 j 18:25	12° $\mathbb{M}$ 29'51	
	-12896 Sep 20 j 21:59	0° $\mathcal{B}$		min. Earth dist.	-12891 Jul 22 j 10:17	3° $\mathbb{M}$ 32'57	0.64968 AU
	-12896 Nov 01 j 18:47	0° $\mathbb{I}$		opposition	-12891 Jul 24 j 18:19	2° $\mathbb{M}$ 36'39	-5°02'05
	-12896 Dec 15 j 05:19	0° $\mathcal{E}$		greatest brilliancy	-12891 Jul 24 j 09:19	2° $\mathbb{M}$ 45'41	-1.4m
	-12895 Feb 04 j 04:31	0° $\Omega$			-12891 Jul 31 j 09:16	30° $\mathcal{R}$ $\underline{\mathcal{A}}$	
retrograde	-12895 Mar 23 j 21:56	13° $\Omega$ 12'47		direct	-12891 Sep 01 j 19:08	23° $\underline{\mathcal{A}}$ 16'40	
desc. node	-12895 Mar 30 j 09:36	12° $\Omega$ 54'30			-12891 Oct 07 j 16:02	0° $\mathbb{M}$	
min. Earth dist.	-12895 Apr 21 j 09:17	7° $\Omega$ 51'35	0.45970 AU		-12891 Dec 11 j 02:37	0° $\mathcal{A}$	
opposition	-12895 Apr 29 j 06:15	5° $\Omega$ 10'47	-1°56'14	asc. node	-12890 Jan 05 j 21:28	14° $\mathcal{A}$ 46'02	
greatest brilliancy	-12895 Apr 28 j 15:17	5° $\Omega$ 23'34	-2.4m		-12890 Jan 30 j 23:01	0° $\mathcal{B}$	
	-12895 May 17 j 15:38	30° $\mathcal{R}$ $\mathcal{E}$			-12890 Mar 18 j 04:51	0° $\approx$	
direct	-12895 Jun 01 j 00:55	28° $\mathcal{E}$ 36'28			-12890 Apr 30 j 07:07	0° $\mathcal{H}$	
	-12895 Jun 16 j 01:39	0° $\Omega$		evening set	-12890 Jun 03 j 16:16	25° $\mathcal{H}$ 14'34	
	-12895 Aug 27 j 19:35	0° $\mathbb{M}$			-12890 Jun 10 j 00:08	0° $\Upsilon$	
	-12895 Oct 18 j 21:00	0° $\underline{\mathcal{A}}$		max. Earth dist.	-12890 Jul 09 j 18:54	22° $\Upsilon$ 46'08	2.39219 AU
	-12895 Dec 07 j 04:40	0° $\mathbb{M}$			-12890 Jul 19 j 02:45	0° $\mathcal{B}$	
	-12894 Jan 24 j 07:20	0° $\mathcal{A}$					
evening set	-12894 Mar 01 j 18:37	23° $\mathcal{A}$ 17'09		conjunction	-12890 Aug 02 j 02:15	10° $\mathcal{B}$ 54'05	1°07'10
	-12894 Mar 12 j 02:51	0° $\mathcal{B}$		minimum elong	-12890 Aug 02 j 04:37	10° $\mathcal{B}$ 58'43	1°07'43
max. Earth dist.	-12894 Mar 27 j 18:55	10° $\mathcal{B}$ 16'57	2.60311 AU		-12890 Aug 26 j 11:39	0° $\mathbb{I}$	
asc. node	-12894 Apr 02 j 14:58	14° $\mathcal{B}$ 08'47		morning rise	-12890 Oct 04 j 19:42	0° $\mathcal{E}$ 36'50	
					-12890 Oct 04 j 00:35	0° $\mathcal{E}$	
conjunction	-12894 Apr 19 j 19:53	25° $\mathcal{B}$ 39'51	0°10'54		-12890 Nov 12 j 14:29	0° $\Omega$	
minimum elong	-12894 Apr 19 j 19:25	25° $\mathcal{B}$ 39'05	0°10'07	desc. node	-12890 Nov 19 j 13:56	5° $\Omega$ 09'56	
behind sun begin	-12894 Apr 19 j 03:15	25° $\mathcal{B}$ 11'50			-12890 Dec 24 j 00:10	0° $\mathbb{M}$	
behind sun end	-12894 Apr 20 j 11:35	26° $\mathcal{B}$ 06'21			-12889 Feb 05 j 23:41	0° $\underline{\mathcal{A}}$	
	-12894 Apr 26 j 05:35	0° $\approx$			-12889 Mar 25 j 15:11	0° $\mathbb{M}$	
morning rise	-12894 Jun 08 j 01:58	29° $\approx$ 44'10			-12889 May 20 j 02:04	0° $\mathcal{A}$	
	-12894 Jun 08 j 10:54	0° $\mathcal{H}$		retrograde	-12889 Jul 20 j 03:14	17° $\mathcal{A}$ 08'03	

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 2

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

opposition	-12889 Aug 28 j 12:17	7° $\text{♊}$ 40'19	-3°20'16	desc. node	-12884 Jul 11 j 13:34	13° $\text{♊}$ 53'51	
greatest brilliancy	-12889 Aug 28 j 16:58	7° $\text{♊}$ 35'38	-1.4m		-12884 Aug 02 j 05:21	0° $\text{♋}$	
min. Earth dist.	-12889 Aug 29 j 23:32	7° $\text{♊}$ 05'02	0.66120 AU		-12884 Sep 12 j 06:36	0° $\text{♌}$	
	-12889 Sep 19 j 16:59	30° $\text{♍}$			-12884 Oct 24 j 17:51	0° $\text{♎}$	
direct	-12889 Oct 08 j 00:05	27° $\text{♍}$ 48'02		evening set	-12884 Nov 24 j 23:51	21° $\text{♎}$ 20'54	
	-12889 Oct 27 j 11:07	0° $\text{♏}$			-12884 Dec 07 j 21:38	0° $\text{♐}$	
asc. node	-12889 Nov 24 j 05:49	8° $\text{♏}$ 50'46					
	-12888 Jan 06 j 11:24	0° $\text{♑}$		conjunction	-12883 Jan 14 j 19:43	24° $\text{♑}$ 57'38	-1°15'35
	-12888 Feb 25 j 00:08	0° $\text{♒}$		minimum elong	-12883 Jan 14 j 20:03	24° $\text{♑}$ 58'11	1°15'56
	-12888 Apr 09 j 03:09	0° $\text{♓}$			-12883 Jan 22 j 14:00	0° $\text{♒}$	
	-12888 May 20 j 03:52	0° $\text{♑}$		max. Earth dist.	-12883 Jan 26 j 21:17	2° $\text{♒}$ 47'06	2.64245 AU
	-12888 Jun 28 j 08:28	0° $\text{♒}$		morning rise	-12883 Mar 04 j 16:27	26° $\text{♒}$ 24'57	
evening set	-12888 Aug 05 j 02:33	29° $\text{♒}$ 29'33			-12883 Mar 10 j 07:12	0° $\text{♓}$	
	-12888 Aug 05 j 18:06	0° $\text{♊}$			-12883 Apr 26 j 11:08	0° $\text{♑}$	
	-12888 Sep 13 j 08:05	0° $\text{♋}$			-12883 Jun 12 j 19:01	0° $\text{♒}$	
				asc. node	-12883 Jul 16 j 02:40	20° $\text{♒}$ 56'30	
conjunction	-12888 Oct 06 j 00:38	17° $\text{♋}$ 18'48	0°00'15		-12883 Jul 30 j 17:09	0° $\text{♓}$	
minimum elong	-12888 Oct 06 j 00:43	17° $\text{♋}$ 18'56	0°01'03		-12883 Sep 19 j 05:27	0° $\text{♑}$	
behind sun begin	-12888 Oct 04 j 22:49	16° $\text{♋}$ 30'00			-12883 Nov 26 j 02:53	0° $\text{♒}$	
behind sun end	-12888 Oct 07 j 02:37	18° $\text{♋}$ 07'50		retrograde	-12883 Dec 17 j 15:31	2° $\text{♒}$ 42'52	
desc. node	-12888 Oct 06 j 08:30	17° $\text{♋}$ 33'36			-12882 Jan 07 j 21:04	30° $\text{♒}$ 00'00	
	-12888 Oct 22 j 23:01	0° $\text{♌}$		opposition	-12882 Jan 17 j 15:31	27° $\text{♑}$ 24'53	7°14'53
max. Earth dist.	-12888 Nov 18 j 16:16	19° $\text{♌}$ 33'21	2.45610 AU	greatest brilliancy	-12882 Jan 18 j 19:35	27° $\text{♑}$ 05'13	-2.7m
	-12888 Dec 03 j 07:06	0° $\text{♍}$		min. Earth dist.	-12882 Jan 22 j 05:15	26° $\text{♑}$ 08'13	0.40045 AU
morning rise	-12888 Dec 05 j 16:38	1° $\text{♍}$ 41'42		direct	-12882 Feb 19 j 02:11	21° $\text{♑}$ 33'21	
	-12887 Jan 15 j 19:10	0° $\text{♎}$			-12882 Mar 28 j 18:30	0° $\text{♒}$	
	-12887 Mar 02 j 17:24	0° $\text{♍}$			-12882 May 22 j 23:48	0° $\text{♊}$	
	-12887 Apr 20 j 14:16	0° $\text{♓}$		desc. node	-12882 May 29 j 21:01	4° $\text{♊}$ 22'29	
	-12887 Jun 14 j 04:09	0° $\text{♑}$			-12882 Jul 07 j 13:51	0° $\text{♋}$	
retrograde	-12887 Aug 26 j 03:58	22° $\text{♑}$ 33'43			-12882 Aug 20 j 17:15	0° $\text{♌}$	
opposition	-12887 Oct 02 j 21:32	13° $\text{♑}$ 56'38	-0°22'58		-12882 Oct 04 j 04:42	0° $\text{♍}$	
greatest brilliancy	-12887 Oct 02 j 23:35	13° $\text{♑}$ 54'39	-1.6m		-12882 Nov 18 j 15:17	0° $\text{♎}$	
min. Earth dist.	-12887 Oct 08 j 00:18	11° $\text{♑}$ 57'37	0.61165 AU		-12881 Jan 04 j 00:32	0° $\text{♍}$	
asc. node	-12887 Oct 11 j 11:20	10° $\text{♑}$ 39'02		evening set	-12881 Jan 06 j 14:19	1° $\text{♍}$ 39'08	
direct	-12887 Nov 12 j 12:30	4° $\text{♑}$ 03'45			-12881 Feb 19 j 20:58	0° $\text{♓}$	
	-12886 Jan 27 j 15:27	0° $\text{♒}$		max. Earth dist.	-12881 Feb 20 j 21:57	0° $\text{♓}$ 40'01	2.66273 AU
	-12886 Mar 17 j 03:05	0° $\text{♓}$					
	-12886 Apr 28 j 15:15	0° $\text{♑}$		conjunction	-12881 Feb 24 j 00:55	2° $\text{♓}$ 40'06	-0°54'11
	-12886 Jun 07 j 12:53	0° $\text{♒}$		minimum elong	-12881 Feb 24 j 02:29	2° $\text{♓}$ 42'37	0°54'55
	-12886 Jul 16 j 10:06	0° $\text{♊}$			-12881 Apr 07 j 11:38	0° $\text{♑}$	
desc. node	-12886 Aug 24 j 07:24	29° $\text{♊}$ 54'34		morning rise	-12881 Apr 12 j 05:26	3° $\text{♑}$ 04'36	
	-12886 Aug 24 j 10:15	0° $\text{♋}$			-12881 May 23 j 06:26	0° $\text{♒}$	
	-12886 Oct 03 j 10:42	0° $\text{♌}$		asc. node	-12881 Jun 02 j 16:26	6° $\text{♒}$ 55'25	
evening set	-12886 Oct 06 j 07:33	2° $\text{♌}$ 06'30			-12881 Jul 06 j 23:49	0° $\text{♓}$	
	-12886 Nov 14 j 02:27	0° $\text{♍}$			-12881 Aug 19 j 19:20	0° $\text{♑}$	
					-12881 Oct 02 j 05:55	0° $\text{♒}$	
conjunction	-12886 Dec 01 j 08:14	12° $\text{♍}$ 01'25	-1°01'01		-12881 Nov 15 j 12:43	0° $\text{♊}$	
minimum elong	-12886 Dec 01 j 05:58	11° $\text{♍}$ 57'31	1°00'45		-12880 Jan 03 j 23:16	0° $\text{♋}$	
	-12886 Dec 27 j 17:07	0° $\text{♌}$		retrograde	-12880 Mar 01 j 06:43	17° $\text{♋}$ 56'01	
max. Earth dist.	-12886 Dec 30 j 13:08	1° $\text{♌}$ 54'14	2.57049 AU	min. Earth dist.	-12880 Mar 28 j 19:09	13° $\text{♋}$ 09'00	0.41656 AU
morning rise	-12885 Jan 23 j 15:43	17° $\text{♌}$ 53'54		opposition	-12880 Apr 04 j 08:24	11° $\text{♋}$ 08'39	0°51'09
	-12885 Feb 11 j 05:32	0° $\text{♍}$		greatest brilliancy	-12880 Apr 04 j 04:10	11° $\text{♋}$ 11'54	-2.7m
	-12885 Mar 30 j 10:01	0° $\text{♓}$		desc. node	-12880 Apr 16 j 01:55	7° $\text{♋}$ 50'28	
	-12885 May 18 j 06:26	0° $\text{♑}$		direct	-12880 May 05 j 17:05	5° $\text{♋}$ 23'39	
	-12885 Jul 09 j 04:49	0° $\text{♒}$			-12880 Jul 18 j 14:09	0° $\text{♌}$	
asc. node	-12885 Aug 29 j 09:58	24° $\text{♒}$ 37'10			-12880 Sep 08 j 21:21	0° $\text{♍}$	
	-12885 Sep 14 j 07:16	0° $\text{♓}$			-12880 Oct 27 j 17:45	0° $\text{♎}$	
retrograde	-12885 Oct 12 j 11:16	4° $\text{♓}$ 21'28			-12880 Dec 14 j 19:30	0° $\text{♍}$	
	-12885 Nov 07 j 19:19	30° $\text{♓}$			-12879 Jan 31 j 09:26	0° $\text{♓}$	
opposition	-12885 Nov 16 j 05:34	27° $\text{♓}$ 10'16	3°52'30	evening set	-12879 Feb 14 j 05:13	8° $\text{♓}$ 48'41	
greatest brilliancy	-12885 Nov 17 j 05:07	26° $\text{♓}$ 49'26	-2.1m	max. Earth dist.	-12879 Mar 17 j 06:44	28° $\text{♓}$ 51'00	2.62988 AU
min. Earth dist.	-12885 Nov 24 j 01:19	24° $\text{♓}$ 24'30	0.50915 AU		-12879 Mar 19 j 01:05	0° $\text{♑}$	
direct	-12885 Dec 24 j 17:35	18° $\text{♓}$ 22'54					
	-12884 Feb 07 j 23:11	0° $\text{♓}$		conjunction	-12879 Apr 03 j 15:22	10° $\text{♑}$ 13'44	-0°09'50
	-12884 Mar 31 j 07:36	0° $\text{♑}$		minimum elong	-12879 Apr 03 j 15:49	10° $\text{♑}$ 14'29	0°10'40
	-12884 May 13 j 07:50	0° $\text{♒}$		behind sun begin	-12879 Apr 03 j 00:40	9° $\text{♑}$ 49'30	
	-12884 Jun 22 j 22:38	0° $\text{♊}$		behind sun end	-12879 Apr 04 j 06:59	10° $\text{♑}$ 39'29	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

asc. node	-12879 Apr 19 j 08:55	20° $\text{Z}$ 40'16			-12874 Jul 30 j 22:27	30° $\text{R}$ $\text{M}$	
	-12879 May 03 j 05:58	0° $\approx$		opposition	-12874 Aug 15 j 02:35	24° $\text{M}$ 19'52	-4°08'50
morning rise	-12879 May 21 j 16:56	12° $\approx$ 34'58		greatest brilliancy	-12874 Aug 15 j 03:08	24° $\text{M}$ 19'19	-1.4m
	-12879 Jun 15 j 18:00	0° $\text{H}$		min. Earth dist.	-12874 Aug 15 j 02:28	24° $\text{M}$ 20'00	0.66422 AU
	-12879 Jul 27 j 15:21	0° $\text{Y}$		direct	-12874 Sep 24 j 03:51	14° $\text{M}$ 37'05	
	-12879 Sep 06 j 07:48	0° $\text{B}$			-12874 Nov 20 j 21:35	0° $\text{J}$	
	-12879 Oct 16 j 10:59	0° $\text{II}$		asc. node	-12874 Dec 10 j 19:16	9° $\text{J}$ 34'26	
	-12879 Nov 26 j 00:46	0° $\text{E}$			-12873 Jan 16 j 14:55	0° $\text{Z}$	
	-12878 Jan 07 j 19:31	0° $\text{O}$			-12873 Mar 05 j 09:12	0° $\approx$	
	-12878 Feb 26 j 21:32	0° $\text{M}$			-12873 Apr 17 j 23:34	0° $\text{H}$	
desc. node	-12878 Mar 04 j 01:44	2° $\text{M}$ 32'45			-12873 May 28 j 19:58	0° $\text{Y}$	
retrograde	-12878 Apr 22 j 16:50	16° $\text{M}$ 17'07			-12873 Jul 06 j 22:48	0° $\text{B}$	
min. Earth dist.	-12878 May 24 j 01:10	9° $\text{M}$ 43'12	0.53431 AU	evening set	-12873 Jul 11 j 08:31	3° $\text{B}$ 25'46	
greatest brilliancy	-12878 May 30 j 03:55	7° $\text{M}$ 25'29	-2.0m		-12873 Aug 14 j 07:06	0° $\text{II}$	
opposition	-12878 May 31 j 07:40	6° $\text{M}$ 59'21	-4°26'04				
	-12878 Jun 24 j 23:16	30° $\text{R}$ $\text{O}$		conjunction	-12873 Sep 11 j 15:48	22° $\text{II}$ 08'41	0°31'26
direct	-12878 Jul 05 j 11:41	29° $\text{O}$ 15'49		minimum elong	-12873 Sep 11 j 18:28	22° $\text{II}$ 13'53	0°32'14
	-12878 Jul 16 j 09:31	0° $\text{M}$			-12873 Sep 21 j 19:22	0° $\text{E}$	
	-12878 Oct 01 j 13:31	0° $\text{O}$		max. Earth dist.	-12873 Oct 20 j 16:50	22° $\text{E}$ 01'52	2.40932 AU
	-12878 Nov 23 j 15:17	0° $\text{M}$		desc. node	-12873 Oct 24 j 03:53	24° $\text{E}$ 37'50	
	-12877 Jan 12 j 03:05	0° $\text{J}$			-12873 Oct 31 j 08:24	0° $\text{O}$	
	-12877 Feb 28 j 10:39	0° $\text{Z}$		morning rise	-12873 Nov 13 j 23:57	10° $\text{O}$ 04'48	
asc. node	-12877 Mar 07 j 07:01	4° $\text{Z}$ 27'25			-12873 Dec 11 j 15:19	0° $\text{M}$	
evening set	-12877 Mar 27 j 08:10	17° $\text{Z}$ 41'15			-12872 Jan 24 j 04:55	0° $\text{O}$	
	-12877 Apr 14 j 14:40	0° $\approx$			-12872 Mar 10 j 12:47	0° $\text{M}$	
max. Earth dist.	-12877 Apr 15 j 21:23	0° $\approx$ 52'19	2.54722 AU		-12872 Apr 29 j 19:33	0° $\text{J}$	
					-12872 Jun 30 j 17:03	0° $\text{Z}$	
conjunction	-12877 May 17 j 05:37	22° $\approx$ 37'37	0°43'13	retrograde	-12872 Aug 10 j 18:19	8° $\text{Z}$ 35'36	
minimum elong	-12877 May 17 j 03:43	22° $\approx$ 34'17	0°42'41		-12872 Sep 17 j 05:33	30° $\text{R}$ $\text{J}$	
	-12877 May 27 j 14:37	0° $\text{H}$		opposition	-12872 Sep 18 j 06:27	29° $\text{J}$ 35'30	-1°40'43
	-12877 Jul 07 j 15:58	0° $\text{Y}$		greatest brilliancy	-12872 Sep 18 j 12:24	29° $\text{J}$ 29'37	-1.5m
morning rise	-12877 Jul 08 j 16:22	0° $\text{Y}$ 45'29		min. Earth dist.	-12872 Sep 21 j 23:52	28° $\text{J}$ 07'21	0.63812 AU
	-12877 Aug 16 j 07:21	0° $\text{B}$		asc. node	-12872 Oct 28 j 01:37	19° $\text{J}$ 38'16	
	-12877 Sep 24 j 05:57	0° $\text{II}$		direct	-12872 Oct 29 j 00:48	19° $\text{J}$ 37'54	
	-12877 Nov 02 j 08:29	0° $\text{E}$			-12872 Dec 12 j 22:01	0° $\text{Z}$	
	-12877 Dec 12 j 15:30	0° $\text{O}$			-12871 Feb 08 j 11:09	0° $\approx$	
desc. node	-12876 Jan 19 j 19:41	26° $\text{O}$ 51'58			-12871 Mar 26 j 10:33	0° $\text{H}$	
	-12876 Jan 24 j 11:14	0° $\text{M}$			-12871 May 07 j 03:48	0° $\text{Y}$	
	-12876 Mar 12 j 14:44	0° $\text{O}$			-12871 Jun 15 j 16:30	0° $\text{B}$	
retrograde	-12876 May 31 j 17:16	28° $\text{O}$ 24'48			-12871 Jul 24 j 07:37	0° $\text{II}$	
min. Earth dist.	-12876 Jul 06 j 19:46	20° $\text{O}$ 01'46	0.62826 AU		-12871 Sep 01 j 02:13	0° $\text{E}$	
opposition	-12876 Jul 10 j 15:36	18° $\text{O}$ 30'08	-5°18'29	desc. node	-12871 Sep 10 j 01:42	6° $\text{E}$ 51'24	
greatest brilliancy	-12876 Jul 09 j 23:35	18° $\text{O}$ 46'08	-1.5m	evening set	-12871 Sep 13 j 05:59	9° $\text{E}$ 16'21	
direct	-12876 Aug 17 j 19:41	9° $\text{O}$ 30'13			-12871 Oct 10 j 21:19	0° $\text{O}$	
	-12876 Oct 25 j 19:05	0° $\text{M}$					
	-12876 Dec 20 j 14:40	0° $\text{J}$		conjunction	-12871 Nov 10 j 22:14	22° $\text{O}$ 35'14	-0°42'34
asc. node	-12875 Jan 22 j 11:42	19° $\text{J}$ 44'33		minimum elong	-12871 Nov 10 j 19:46	22° $\text{O}$ 30'50	0°42'00
	-12875 Feb 07 j 21:07	0° $\text{Z}$			-12871 Nov 21 j 08:25	0° $\text{M}$	
	-12875 Mar 25 j 15:18	0° $\approx$		max. Earth dist.	-12871 Dec 16 j 23:24	17° $\text{M}$ 51'05	2.52911 AU
	-12875 May 07 j 14:47	0° $\text{H}$			-12870 Jan 03 j 20:06	0° $\text{O}$	
evening set	-12875 May 13 j 00:01	3° $\text{H}$ 52'57		morning rise	-12870 Jan 05 j 21:37	1° $\text{O}$ 23'17	
max. Earth dist.	-12875 Jun 01 j 11:36	18° $\text{H}$ 08'46	2.43087 AU		-12870 Feb 18 j 09:42	0° $\text{M}$	
	-12875 Jun 17 j 08:24	0° $\text{Y}$			-12870 Apr 07 j 00:12	0° $\text{J}$	
					-12870 May 27 j 04:33	0° $\text{Z}$	
conjunction	-12875 Jul 08 j 15:08	16° $\text{Y}$ 11'02	1°13'40		-12870 Jul 23 j 00:52	0° $\approx$	
minimum elong	-12875 Jul 08 j 15:00	16° $\text{Y}$ 10'45	1°13'53	asc. node	-12870 Sep 15 j 03:01	16° $\approx$ 42'05	
	-12875 Jul 26 j 12:46	0° $\text{B}$		retrograde	-12870 Sep 22 j 08:42	17° $\approx$ 01'11	
	-12875 Sep 02 j 23:33	0° $\text{II}$		opposition	-12870 Oct 28 j 11:32	9° $\approx$ 11'11	2°04'46
morning rise	-12875 Sep 07 j 19:04	3° $\text{II}$ 45'42		greatest brilliancy	-12870 Oct 28 j 22:57	9° $\approx$ 00'35	-1.9m
	-12875 Oct 11 j 14:01	0° $\text{E}$		min. Earth dist.	-12870 Nov 04 j 12:27	6° $\approx$ 34'37	0.55410 AU
	-12875 Nov 20 j 05:35	0° $\text{O}$			-12870 Dec 01 j 08:38	30° $\text{R}$ $\text{Z}$	
desc. node	-12875 Dec 06 j 09:55	11° $\text{O}$ 52'51		direct	-12870 Dec 07 j 04:47	29° $\text{Z}$ 46'05	
	-12875 Dec 31 j 19:00	0° $\text{M}$			-12870 Dec 13 j 02:30	0° $\approx$	
	-12874 Feb 14 j 05:30	0° $\text{O}$			-12869 Feb 26 j 09:45	0° $\text{H}$	
	-12874 Apr 04 j 10:33	0° $\text{M}$			-12869 Apr 13 j 01:56	0° $\text{Y}$	
	-12874 Jun 09 j 18:55	0° $\text{J}$			-12869 May 24 j 06:27	0° $\text{B}$	
retrograde	-12874 Jul 06 j 08:47	4° $\text{J}$ 00'36			-12869 Jul 02 j 22:36	0° $\text{II}$	

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 4

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

desc. node	-12869 Jul 29 j 04:21	19° $\Pi$ 55'01			-12864 May 10 j 07:56	0° $\approx$	
	-12869 Aug 11 j 13:19	0° $\ominus$			-12864 Jun 23 j 04:49	0° $\text{H}$	
	-12869 Sep 21 j 01:54	0° $\Omega$			-12864 Aug 04 j 15:38	0° $\Upsilon$	
	-12869 Nov 02 j 03:18	0° $\text{M}$			-12864 Sep 15 j 01:35	0° $\text{B}$	
evening set	-12869 Nov 07 j 12:09	3° $\text{M}$ 44'25			-12864 Oct 26 j 03:14	0° $\Pi$	
	-12869 Dec 16 j 00:02	0° $\underline{\Omega}$			-12864 Dec 07 j 02:44	0° $\ominus$	
					-12863 Jan 22 j 04:08	0° $\Omega$	
conjunction	-12869 Dec 30 j 00:46	9° $\underline{\Omega}$ 21'00	-1°14'59	desc. node	-12863 Mar 20 j 19:21	24° $\Omega$ 54'04	
minimum elong	-12869 Dec 30 j 00:05	9° $\underline{\Omega}$ 19'52	1°15'07	retrograde	-12863 Apr 04 j 09:52	26° $\Omega$ 21'54	
max. Earth dist.	-12868 Jan 17 j 15:22	21° $\underline{\Omega}$ 35'45	2.62010 AU	min. Earth dist.	-12863 May 03 j 19:47	20° $\Omega$ 36'01	0.48668 AU
	-12868 Jan 30 j 13:06	0° $\text{M}$		opposition	-12863 May 11 j 18:38	17° $\Omega$ 46'31	-3°05'38
morning rise	-12868 Feb 18 j 06:48	12° $\text{M}$ 05'19		greatest brilliancy	-12863 May 10 j 19:50	18° $\Omega$ 06'48	-2.2m
	-12868 Mar 17 j 08:18	0° $\text{A}$		direct	-12863 Jun 14 j 10:27	10° $\Omega$ 45'32	
	-12868 May 03 j 23:04	0° $\text{B}$			-12863 Aug 18 j 03:50	0° $\text{M}$	
	-12868 Jun 21 j 10:46	0° $\approx$			-12863 Oct 12 j 15:08	0° $\underline{\Omega}$	
asc. node	-12868 Aug 01 j 21:51	24° $\approx$ 40'34			-12863 Dec 01 j 23:28	0° $\text{M}$	
	-12868 Aug 11 j 06:20	0° $\text{H}$			-12862 Jan 19 j 12:19	0° $\text{A}$	
	-12868 Oct 12 j 11:37	0° $\Upsilon$			-12862 Mar 07 j 11:51	0° $\text{B}$	
retrograde	-12868 Nov 18 j 10:01	7° $\Upsilon$ 16'39		evening set	-12862 Mar 10 j 21:09	2° $\text{B}$ 12'24	
opposition	-12868 Dec 20 j 19:39	1° $\Upsilon$ 17'36	6°34'04	asc. node	-12862 Mar 23 j 23:36	10° $\text{B}$ 48'25	
greatest brilliancy	-12868 Dec 22 j 08:29	0° $\Upsilon$ 48'47	-2.5m	max. Earth dist.	-12862 Apr 03 j 10:50	17° $\text{B}$ 45'16	2.58533 AU
	-12868 Dec 24 j 22:50	30° $\text{R}$ $\text{H}$			-12862 Apr 21 j 15:25	0° $\approx$	
min. Earth dist.	-12868 Dec 28 j 00:55	29° $\text{H}$ 03'03	0.43672 AU				
direct	-12867 Jan 24 j 22:59	24° $\text{H}$ 10'04		conjunction	-12862 Apr 29 j 10:32	5° $\approx$ 19'10	0°22'55
	-12867 Feb 24 j 12:24	0° $\Upsilon$		minimum elong	-12862 Apr 29 j 09:31	5° $\approx$ 17'25	0°22'13
	-12867 Apr 22 j 12:51	0° $\text{B}$			-12862 Jun 03 j 19:11	0° $\text{H}$	
	-12867 Jun 05 j 23:08	0° $\Pi$		morning rise	-12862 Jun 18 j 14:33	10° $\text{H}$ 36'36	
desc. node	-12867 Jun 15 j 11:11	6° $\Pi$ 40'49			-12862 Jul 15 j 03:04	0° $\Upsilon$	
	-12867 Jul 18 j 07:38	0° $\ominus$			-12862 Aug 24 j 02:05	0° $\text{B}$	
	-12867 Aug 29 j 18:07	0° $\Omega$			-12862 Oct 02 j 08:50	0° $\Pi$	
	-12867 Oct 12 j 04:42	0° $\text{M}$			-12862 Nov 10 j 20:12	0° $\ominus$	
	-12867 Nov 25 j 23:50	0° $\underline{\Omega}$			-12862 Dec 21 j 16:04	0° $\Omega$	
evening set	-12867 Dec 21 j 15:23	16° $\underline{\Omega}$ 47'55			-12861 Feb 03 j 17:18	0° $\text{M}$	
	-12866 Jan 11 j 00:30	0° $\text{M}$		desc. node	-12861 Feb 05 j 15:48	1° $\text{M}$ 14'19	
					-12861 Mar 28 j 21:35	0° $\underline{\Omega}$	
conjunction	-12866 Feb 08 j 17:07	18° $\text{M}$ 26'37	-1°05'52	retrograde	-12861 May 18 j 01:57	13° $\underline{\Omega}$ 25'02	
minimum elong	-12866 Feb 08 j 18:30	18° $\text{M}$ 28'50	1°06'29	min. Earth dist.	-12861 Jun 21 j 10:35	5° $\underline{\Omega}$ 40'42	0.59778 AU
max. Earth dist.	-12866 Feb 11 j 06:14	20° $\text{M}$ 04'34	2.66115 AU	opposition	-12861 Jun 26 j 17:23	3° $\underline{\Omega}$ 35'54	-5°17'42
	-12866 Feb 26 j 18:09	0° $\text{A}$		greatest brilliancy	-12861 Jun 25 j 18:46	3° $\underline{\Omega}$ 58'12	-1.6m
morning rise	-12866 Mar 28 j 06:33	18° $\text{A}$ 55'05			-12861 Jul 06 j 07:29	30° $\text{R}$ $\text{M}$	
	-12866 Apr 14 j 12:00	0° $\text{B}$		direct	-12861 Aug 02 j 20:52	25° $\text{M}$ 00'52	
	-12866 May 30 j 17:30	0° $\approx$			-12861 Sep 02 j 00:40	0° $\underline{\Omega}$	
asc. node	-12866 Jun 19 j 12:37	12° $\approx$ 58'51			-12861 Nov 07 j 20:28	0° $\text{M}$	
	-12866 Jul 15 j 07:43	0° $\text{H}$			-12861 Dec 30 j 02:59	0° $\text{A}$	
	-12866 Aug 29 j 15:31	0° $\Upsilon$		asc. node	-12860 Feb 09 j 01:00	25° $\text{A}$ 18'12	
	-12866 Oct 14 j 19:13	0° $\text{B}$			-12860 Feb 16 j 09:42	0° $\text{B}$	
	-12866 Dec 04 j 15:00	0° $\Pi$			-12860 Apr 01 j 20:43	0° $\approx$	
retrograde	-12865 Feb 03 j 11:09	19° $\Pi$ 05'47		evening set	-12860 Apr 23 j 07:25	14° $\approx$ 46'20	
min. Earth dist.	-12865 Mar 04 j 06:46	14° $\Pi$ 19'16	0.38953 AU	max. Earth dist.	-12860 May 09 j 16:10	26° $\approx$ 19'18	2.47817 AU
opposition	-12865 Mar 07 j 06:38	13° $\Pi$ 29'43	4°15'40		-12860 May 14 j 19:38	0° $\text{H}$	
greatest brilliancy	-12865 Mar 07 j 00:23	13° $\Pi$ 34'01	-2.8m				
direct	-12865 Apr 06 j 15:30	8° $\Pi$ 19'35		conjunction	-12860 Jun 16 j 06:04	23° $\text{H}$ 43'01	1°07'52
desc. node	-12865 May 03 j 18:19	12° $\Pi$ 41'28		minimum elong	-12860 Jun 16 j 04:14	23° $\text{H}$ 39'38	1°07'46
	-12865 Jun 12 j 19:30	0° $\ominus$			-12860 Jun 24 j 15:46	0° $\Upsilon$	
	-12865 Aug 03 j 07:48	0° $\Omega$			-12860 Aug 02 j 23:41	0° $\text{B}$	
	-12865 Sep 19 j 21:29	0° $\text{M}$		morning rise	-12860 Aug 12 j 17:07	7° $\text{B}$ 31'49	
	-12865 Nov 05 j 22:24	0° $\underline{\Omega}$			-12860 Sep 10 j 14:08	0° $\Pi$	
	-12865 Dec 23 j 03:56	0° $\text{M}$			-12860 Oct 19 j 07:50	0° $\ominus$	
evening set	-12864 Jan 30 j 21:41	24° $\text{M}$ 35'55			-12860 Nov 28 j 02:50	0° $\Omega$	
	-12864 Feb 08 j 09:04	0° $\text{A}$		desc. node	-12860 Dec 23 j 08:38	18° $\Omega$ 19'34	
max. Earth dist.	-12864 Mar 07 j 06:28	17° $\text{A}$ 53'10	2.64904 AU		-12859 Jan 08 j 22:52	0° $\text{M}$	
					-12859 Feb 23 j 03:52	0° $\underline{\Omega}$	
conjunction	-12864 Mar 19 j 01:09	25° $\text{A}$ 30'25	-0°29'00		-12859 Apr 16 j 08:59	0° $\text{M}$	
minimum elong	-12864 Mar 19 j 02:18	25° $\text{A}$ 32'16	0°29'50	retrograde	-12859 Jun 22 j 17:17	20° $\text{M}$ 44'53	
	-12864 Mar 25 j 23:03	0° $\text{B}$		min. Earth dist.	-12859 Jul 31 j 04:09	11° $\text{M}$ 31'02	0.65744 AU
morning rise	-12864 May 05 j 10:15	26° $\text{B}$ 42'35		opposition	-12859 Aug 01 j 16:01	10° $\text{M}$ 54'56	-4°46'07
asc. node	-12864 May 06 j 03:40	27° $\text{B}$ 11'45		greatest brilliancy	-12859 Aug 01 j 10:45	11° $\text{M}$ 00'14	-1.4m

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 5

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

direct	-12859 Sep 10 j 02:33	1° $\mathbb{M}$ 25'37	conjunction	-12854 Dec 12 j 03:37	22° $\mathbb{M}$ 37'20	-1°08'05	
	-12859 Dec 04 j 03:22	0° $\mathbb{X}$	minimum elong	-12854 Dec 12 j 01:51	22° $\mathbb{M}$ 34'20	1°07'58	
asc. node	-12859 Dec 27 j 07:46	12° $\mathbb{X}$ 42'19		-12854 Dec 23 j 01:29	0° $\mathbb{L}$		
	-12858 Jan 25 j 12:32	0° $\mathbb{Z}$	max. Earth dist.	-12853 Jan 06 j 13:17	9° $\mathbb{L}$ 40'54	2.59014 AU	
	-12858 Mar 13 j 06:01	0° $\approx$	morning rise	-12853 Feb 02 j 05:54	27° $\mathbb{L}$ 12'38		
	-12858 Apr 25 j 12:36	0° $\mathbb{H}$		-12853 Feb 06 j 13:03	0° $\mathbb{M}$		
	-12858 Jun 05 j 06:59	0° $\mathbb{Y}$		-12853 Mar 25 j 12:50	0° $\mathbb{X}$		
evening set	-12858 Jun 16 j 19:39	8° $\mathbb{Y}$ 44'32		-12853 May 12 j 19:55	0° $\mathbb{Z}$		
	-12858 Jul 14 j 09:36	0° $\mathbb{B}$		-12853 Jul 02 j 03:20	0° $\approx$		
			asc. node	-12853 Aug 19 j 17:09	26° $\approx$ 03'17		
conjunction	-12858 Aug 16 j 14:22	25° $\mathbb{B}$ 57'33	0°57'24	-12853 Aug 28 j 03:54	0° $\mathbb{H}$		
minimum elong	-12858 Aug 16 j 17:40	26° $\mathbb{B}$ 04'01	0°58'05	retrograde	-12853 Oct 25 j 06:04	15° $\mathbb{H}$ 41'56	
max. Earth dist.	-12858 Aug 19 j 03:37	27° $\mathbb{B}$ 57'35	2.38378 AU	opposition	-12853 Nov 28 j 03:40	8° $\mathbb{H}$ 55'26	4°55'33
	-12858 Aug 21 j 18:06	0° $\mathbb{II}$		greatest brilliancy	-12853 Nov 29 j 09:59	8° $\mathbb{H}$ 29'31	-2.2m
	-12858 Sep 29 j 06:19	0° $\mathbb{G}$		min. Earth dist.	-12853 Dec 06 j 01:53	6° $\mathbb{H}$ 13'27	0.48261 AU
morning rise	-12858 Oct 19 j 20:29	15° $\mathbb{G}$ 45'37		direct	-12852 Jan 04 j 15:22	0° $\mathbb{H}$ 38'01	
	-12858 Nov 07 j 19:04	0° $\mathbb{O}$			-12852 Mar 22 j 06:37	0° $\mathbb{Y}$	
desc. node	-12858 Nov 09 j 23:40	1° $\mathbb{O}$ 37'45			-12852 May 06 j 09:20	0° $\mathbb{B}$	
	-12858 Dec 19 j 02:38	0° $\mathbb{M}$			-12852 Jun 16 j 21:27	0° $\mathbb{II}$	
	-12857 Jan 31 j 20:30	0° $\mathbb{L}$		desc. node	-12852 Jul 02 j 01:39	11° $\mathbb{II}$ 09'21	
	-12857 Mar 19 j 20:19	0° $\mathbb{M}$			-12852 Jul 27 j 17:18	0° $\mathbb{G}$	
	-12857 May 11 j 14:44	0° $\mathbb{X}$			-12852 Sep 07 j 03:36	0° $\mathbb{O}$	
retrograde	-12857 Jul 28 j 05:53	25° $\mathbb{X}$ 10'12			-12852 Oct 19 j 21:21	0° $\mathbb{M}$	
opposition	-12857 Sep 05 j 08:30	15° $\mathbb{X}$ 51'20	-2°46'51		-12852 Dec 03 j 05:06	0° $\mathbb{L}$	
greatest brilliancy	-12857 Sep 05 j 14:27	15° $\mathbb{X}$ 45'23	-1.4m	evening set	-12852 Dec 04 j 23:28	1° $\mathbb{L}$ 10'24	
min. Earth dist.	-12857 Sep 07 j 15:27	14° $\mathbb{X}$ 56'34	0.65556 AU		-12851 Jan 17 j 23:27	0° $\mathbb{M}$	
direct	-12857 Oct 16 j 00:01	5° $\mathbb{X}$ 55'38					
asc. node	-12857 Nov 14 j 15:29	10° $\mathbb{X}$ 46'13		conjunction	-12851 Jan 24 j 01:15	3° $\mathbb{M}$ 55'45	-1°13'23
	-12857 Dec 29 j 20:56	0° $\mathbb{Z}$		minimum elong	-12851 Jan 24 j 02:04	3° $\mathbb{M}$ 57'04	1°13'52
	-12856 Feb 19 j 06:43	0° $\approx$		max. Earth dist.	-12851 Feb 01 j 16:17	9° $\mathbb{M}$ 29'30	2.65138 AU
	-12856 Apr 03 j 23:09	0° $\mathbb{H}$			-12851 Mar 05 j 15:59	0° $\mathbb{X}$	
	-12856 May 15 j 05:22	0° $\mathbb{Y}$		morning rise	-12851 Mar 13 j 08:03	4° $\mathbb{X}$ 53'58	
	-12856 Jun 23 j 12:30	0° $\mathbb{B}$			-12851 Apr 21 j 15:33	0° $\mathbb{Z}$	
	-12856 Jul 31 j 23:36	0° $\mathbb{II}$			-12851 Jun 07 j 12:31	0° $\approx$	
evening set	-12856 Aug 19 j 12:59	14° $\mathbb{II}$ 28'40		asc. node	-12851 Jul 06 j 09:25	18° $\approx$ 29'47	
	-12856 Sep 08 j 14:24	0° $\mathbb{G}$			-12851 Jul 24 j 09:56	0° $\mathbb{H}$	
desc. node	-12856 Sep 26 j 19:01	13° $\mathbb{G}$ 53'57			-12851 Sep 10 j 08:40	0° $\mathbb{Y}$	
	-12856 Oct 18 j 05:44	0° $\mathbb{O}$			-12851 Nov 02 j 06:33	0° $\mathbb{B}$	
				retrograde	-12850 Jan 04 j 03:25	19° $\mathbb{B}$ 06'56	
conjunction	-12856 Oct 19 j 14:02	0° $\mathbb{O}$ 59'55	-0°16'51	opposition	-12850 Feb 03 j 21:17	13° $\mathbb{B}$ 58'04	6°46'56
minimum elong	-12856 Oct 19 j 12:46	0° $\mathbb{O}$ 57'33	0°16'08	greatest brilliancy	-12850 Feb 04 j 12:46	13° $\mathbb{B}$ 47'34	-2.8m
	-12856 Nov 28 j 13:49	0° $\mathbb{M}$		min. Earth dist.	-12850 Feb 05 j 23:51	13° $\mathbb{B}$ 23'48	0.38858 AU
max. Earth dist.	-12856 Nov 30 j 11:44	1° $\mathbb{M}$ 21'15	2.48288 AU	direct	-12850 Mar 07 j 04:07	8° $\mathbb{B}$ 36'38	
morning rise	-12856 Dec 17 j 13:48	13° $\mathbb{M}$ 18'41			-12850 May 11 j 02:38	0° $\mathbb{II}$	
	-12855 Jan 11 j 00:23	0° $\mathbb{L}$		desc. node	-12850 May 20 j 08:47	5° $\mathbb{II}$ 10'01	
	-12855 Feb 25 j 17:52	0° $\mathbb{M}$			-12850 Jun 29 j 19:30	0° $\mathbb{G}$	
	-12855 Apr 15 j 00:12	0° $\mathbb{X}$			-12850 Aug 14 j 12:16	0° $\mathbb{O}$	
	-12855 Jun 06 j 09:33	0° $\mathbb{Z}$			-12850 Sep 28 j 19:13	0° $\mathbb{M}$	
	-12855 Aug 20 j 01:44	0° $\approx$			-12850 Nov 13 j 16:34	0° $\mathbb{L}$	
retrograde	-12855 Sep 04 j 14:41	1° $\approx$ 25'14			-12850 Dec 30 j 07:51	0° $\mathbb{M}$	
	-12855 Sep 19 j 10:20	30° $\mathbb{R}$ $\mathbb{Z}$		evening set	-12849 Jan 15 j 13:33	10° $\mathbb{M}$ .22'34	
asc. node	-12855 Oct 01 j 19:12	26° $\mathbb{Z}$ 41'43			-12849 Feb 15 j 06:47	0° $\mathbb{X}$	
opposition	-12855 Oct 11 j 19:49	23° $\mathbb{Z}$ 03'22	0°27'40	max. Earth dist.	-12849 Feb 26 j 12:22	7° $\mathbb{X}$ 11'40	2.66020 AU
greatest brilliancy	-12855 Oct 11 j 21:57	23° $\mathbb{Z}$ 01'20	-1.7m				
min. Earth dist.	-12855 Oct 17 j 16:21	20° $\mathbb{Z}$ 48'51	0.59321 AU	conjunction	-12849 Mar 04 j 18:58	11° $\mathbb{X}$ 13'21	-0°45'49
direct	-12855 Nov 21 j 05:39	13° $\mathbb{Z}$ 17'01		minimum elong	-12849 Mar 04 j 20:29	11° $\mathbb{X}$ 15'48	0°46'35
	-12854 Jan 18 j 02:12	0° $\approx$			-12849 Apr 02 j 20:55	0° $\mathbb{Z}$	
	-12854 Mar 10 j 15:06	0° $\mathbb{H}$		morning rise	-12849 Apr 20 j 22:07	11° $\mathbb{Z}$ 46'34	
	-12854 Apr 22 j 23:13	0° $\mathbb{Y}$			-12849 May 18 j 11:58	0° $\approx$	
	-12854 Jun 02 j 05:45	0° $\mathbb{B}$		asc. node	-12849 May 23 j 23:18	3° $\approx$ 39'13	
	-12854 Jul 11 j 08:34	0° $\mathbb{II}$			-12849 Jul 01 j 21:16	0° $\mathbb{H}$	
desc. node	-12854 Aug 14 j 20:19	26° $\mathbb{II}$ 26'21			-12849 Aug 14 j 03:28	0° $\mathbb{Y}$	
	-12854 Aug 19 j 12:44	0° $\mathbb{G}$			-12849 Sep 25 j 16:35	0° $\mathbb{B}$	
	-12854 Sep 28 j 16:07	0° $\mathbb{O}$			-12849 Nov 07 j 09:54	0° $\mathbb{II}$	
evening set	-12854 Oct 18 j 11:20	14° $\mathbb{O}$ 23'34			-12849 Dec 22 j 12:44	0° $\mathbb{G}$	
	-12854 Nov 09 j 10:01	0° $\mathbb{M}$			-12848 Feb 22 j 00:01	0° $\mathbb{O}$	
				retrograde	-12848 Mar 14 j 12:32	3° $\mathbb{O}$ 04'47	

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Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12848 Apr 04 j 18:34	30° $\text{R}\text{S}$				-12843 Mar 20 j 19:31	0° $\approx$	
desc. node	-12848 Apr 06 j 14:19	29° $\text{S}$ 29'28				-12843 May 02 j 21:49	0° $\text{H}$	
min. Earth dist.	-12848 Apr 11 j 10:13	28° $\text{S}$ 01'32	0.43899 AU	evening set		-12843 May 25 j 01:12	16° $\text{H}$ 06'45	
opposition	-12848 Apr 18 j 22:36	25° $\text{S}$ 34'30	-0°51'01			-12843 Jun 12 j 16:15	0° $\text{Y}$	
greatest brilliancy	-12848 Apr 18 j 16:03	25° $\text{S}$ 39'51	-2.6m	max. Earth dist.		-12843 Jun 19 j 14:25	5° $\text{Y}$ 14'01	2.40758 AU
direct	-12848 May 21 j 00:39	19° $\text{S}$ 22'41				-12843 Jul 21 j 20:11	0° $\text{B}$	
	-12848 Jul 04 j 23:20	0° $\Omega$						
	-12848 Sep 01 j 15:47	0° $\text{M}$		conjunction		-12843 Jul 22 j 05:04	0° $\text{B}$ 17'14	1°11'40
	-12848 Oct 22 j 02:07	0° $\text{L}$		minimum elong		-12843 Jul 22 j 06:21	0° $\text{B}$ 19'44	1°12'05
	-12848 Dec 09 j 19:34	0° $\text{M}$				-12843 Aug 29 j 06:01	0° $\text{II}$	
	-12847 Jan 26 j 16:38	0° $\text{A}$		morning rise		-12843 Sep 23 j 00:06	19° $\text{II}$ 19'19	
evening set	-12847 Feb 23 j 02:53	17° $\text{A}$ 29'16				-12843 Oct 06 j 19:09	0° $\text{S}$	
	-12847 Mar 14 j 10:56	0° $\text{S}$				-12843 Nov 15 j 08:37	0° $\Omega$	
max. Earth dist.	-12847 Mar 23 j 09:18	5° $\text{S}$ 50'19	2.61613 AU	desc. node		-12843 Nov 26 j 20:44	8° $\Omega$ 29'46	
asc. node	-12847 Apr 09 j 16:24	17° $\text{S}$ 16'06				-12843 Dec 26 j 18:17	0° $\text{M}$	
						-12842 Feb 08 j 19:57	0° $\text{L}$	
conjunction	-12847 Apr 12 j 19:48	19° $\text{S}$ 21'45	0°02'00			-12842 Mar 28 j 22:28	0° $\text{M}$	
minimum elong	-12847 Apr 12 j 19:47	19° $\text{S}$ 21'43	0°01'12			-12842 May 26 j 00:06	0° $\text{A}$	
behind sun begin	-12847 Apr 11 j 23:36	18° $\text{S}$ 48'04		retrograde		-12842 Jul 14 j 06:56	12° $\text{A}$ 00'01	
behind sun end	-12847 Apr 13 j 15:58	19° $\text{S}$ 55'24		opposition		-12842 Aug 22 j 20:19	2° $\text{A}$ 26'05	-3°41'56
	-12847 Apr 28 j 15:34	0° $\approx$		greatest brilliancy		-12842 Aug 22 j 23:25	2° $\text{A}$ 22'58	-1.4m
morning rise	-12847 May 31 j 11:04	22° $\approx$ 34'35		min. Earth dist.		-12842 Aug 23 j 16:09	2° $\text{A}$ 06'11	0.66372 AU
	-12847 Jun 11 j 00:37	0° $\text{H}$				-12842 Aug 28 j 23:21	30° $\text{R}\text{M}$	
	-12847 Jul 22 j 16:58	0° $\text{Y}$		direct		-12842 Oct 02 j 03:48	22° $\text{M}$ .37'22	
	-12847 Sep 01 j 02:28	0° $\text{B}$				-12842 Nov 08 j 19:22	0° $\text{A}$	
	-12847 Oct 10 j 21:05	0° $\text{II}$		asc. node		-12842 Dec 01 j 05:08	9° $\text{A}$ 08'19	
	-12847 Nov 19 j 22:55	0° $\text{S}$				-12841 Jan 10 j 06:30	0° $\text{S}$	
	-12847 Dec 31 j 18:19	0° $\Omega$				-12841 Feb 28 j 01:03	0° $\text{H}$	
	-12846 Feb 16 j 10:54	0° $\text{M}$				-12841 Apr 12 j 23:36	0° $\text{H}$	
desc. node	-12846 Feb 22 j 12:18	3° $\text{M}$ 27'13				-12841 May 23 j 23:28	0° $\text{Y}$	
retrograde	-12846 May 02 j 08:27	26° $\text{M}$ 54'49				-12841 Jul 02 j 03:46	0° $\text{B}$	
min. Earth dist.	-12846 Jun 03 j 18:52	19° $\text{M}$ 54'41	0.55874 AU	evening set		-12841 Jul 25 j 20:45	18° $\text{B}$ 30'18	
greatest brilliancy	-12846 Jun 09 j 06:48	17° $\text{M}$ 48'14	-1.8m			-12841 Aug 09 j 12:54	0° $\text{II}$	
opposition	-12846 Jun 10 j 09:57	17° $\text{M}$ 22'09	-4°53'47			-12841 Sep 17 j 01:43	0° $\text{S}$	
direct	-12846 Jul 16 j 08:20	9° $\text{M}$ 18'21						
	-12846 Sep 22 j 23:44	0° $\text{L}$		conjunction		-12841 Sep 26 j 04:27	7° $\text{S}$ 00'19	0°13'52
	-12846 Nov 17 j 18:49	0° $\text{M}$		minimum elong		-12841 Sep 26 j 05:44	7° $\text{S}$ 02'46	0°14'42
	-12845 Jan 07 j 01:55	0° $\text{A}$		behind sun begin		-12841 Sep 25 j 18:26	6° $\text{S}$ 41'09	
	-12845 Feb 23 j 17:03	0° $\text{S}$		behind sun end		-12841 Sep 26 j 17:01	7° $\text{S}$ 24'22	
asc. node	-12845 Feb 25 j 15:49	1° $\text{S}$ 15'34		desc. node		-12841 Oct 14 j 13:58	20° $\text{S}$ 59'02	
evening set	-12845 Apr 06 j 04:09	27° $\text{S}$ 24'19				-12841 Oct 26 j 14:50	0° $\Omega$	
	-12845 Apr 09 j 23:57	0° $\approx$		max. Earth dist.		-12841 Nov 08 j 16:16	9° $\Omega$ 39'02	2.43440 AU
max. Earth dist.	-12845 Apr 24 j 00:33	9° $\approx$ 37'05	2.52398 AU	morning rise		-12841 Nov 27 j 04:13	23° $\Omega$ 04'37	
	-12845 May 22 j 23:52	0° $\text{H}$				-12841 Dec 06 j 21:07	0° $\text{M}$	
						-12840 Jan 19 j 08:09	0° $\text{L}$	
conjunction	-12845 May 27 j 23:36	3° $\text{H}$ 34'46	0°53'39			-12840 Mar 05 j 08:29	0° $\text{M}$	
minimum elong	-12845 May 27 j 21:28	3° $\text{H}$ 30'55	0°53'15			-12840 Apr 23 j 15:49	0° $\text{A}$	
	-12845 Jul 02 j 23:40	0° $\text{Y}$				-12840 Jun 19 j 06:49	0° $\text{S}$	
morning rise	-12845 Jul 20 j 23:48	13° $\text{Y}$ 33'42		retrograde		-12840 Aug 19 j 11:06	16° $\text{S}$ 56'40	
	-12845 Aug 11 j 12:11	0° $\text{B}$		opposition		-12840 Sep 26 j 13:35	8° $\text{S}$ 08'47	-0°57'14
	-12845 Sep 19 j 07:20	0° $\text{II}$		greatest brilliancy		-12840 Sep 26 j 17:50	8° $\text{S}$ 04'38	-1.6m
	-12845 Oct 28 j 05:48	0° $\text{S}$		min. Earth dist.		-12840 Oct 01 j 01:57	6° $\text{S}$ 22'49	0.62463 AU
	-12845 Dec 07 j 06:45	0° $\Omega$		asc. node		-12840 Oct 18 j 11:16	0° $\text{S}$ 34'13	
desc. node	-12844 Jan 10 j 04:58	24° $\Omega$ 13'23				-12840 Oct 20 j 21:45	30° $\text{R}\text{A}$	
	-12844 Jan 18 j 14:36	0° $\text{M}$		direct		-12840 Nov 06 j 07:03	28° $\text{A}$ 12'36	
	-12844 Mar 05 j 05:43	0° $\text{L}$				-12840 Nov 23 j 11:17	0° $\text{S}$	
	-12844 May 04 j 09:39	0° $\text{M}$				-12839 Feb 01 j 09:17	0° $\approx$	
retrograde	-12844 Jun 08 j 21:43	7° $\text{M}$ .01'26				-12839 Mar 20 j 16:33	0° $\text{H}$	
	-12844 Jul 11 j 14:41	30° $\text{R}\text{L}$				-12839 May 01 j 20:53	0° $\text{Y}$	
min. Earth dist.	-12844 Jul 15 j 21:25	28° $\text{L}$ 18'47	0.64122 AU			-12839 Jun 10 j 14:40	0° $\text{B}$	
opposition	-12844 Jul 18 j 21:02	27° $\text{L}$ 06'57	-5°10'57			-12839 Jul 19 j 08:55	0° $\text{II}$	
greatest brilliancy	-12844 Jul 18 j 08:59	27° $\text{L}$ 19'02	-1.4m			-12839 Aug 27 j 05:58	0° $\text{S}$	
direct	-12844 Aug 26 j 12:44	17° $\text{L}$ 55'18		desc. node		-12839 Aug 31 j 11:59	3° $\text{S}$ 14'43	
	-12844 Oct 15 j 16:52	0° $\text{M}$		evening set		-12839 Sep 26 j 14:30	22° $\text{S}$ 56'08	
	-12844 Dec 14 j 13:23	0° $\text{A}$				-12839 Oct 06 j 02:54	0° $\Omega$	
asc. node	-12843 Jan 12 j 21:02	17° $\text{A}$ 09'44				-12839 Nov 16 j 15:22	0° $\text{M}$	
	-12843 Feb 02 j 17:26	0° $\text{S}$						

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 7

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

conjunction	-12839 Nov 22 j 19:24	4° $\mathbb{M}$ 20'26	-0°54'03			-12833 Mar 23 j 18:43	30° $\mathbb{R}$ II	
minimum elong	-12839 Nov 22 j 16:56	4° $\mathbb{M}$ 16'07	0°53'39	opposition		-12833 Mar 24 j 03:37	29° $\mathbb{I}$ 53'31	2°19'18
max. Earth dist.	-12839 Dec 25 j 01:18	26° $\mathbb{M}$ 33'52	2.55286 AU	greatest brilliancy		-12833 Mar 23 j 19:30	29° $\mathbb{I}$ 59'26	-2.8m
	-12839 Dec 30 j 03:18	0° $\mathbb{L}$		direct		-12833 Apr 23 j 23:16	24° $\mathbb{I}$ 27'46	
morning rise	-12838 Jan 16 j 05:49	11° $\mathbb{L}$ 25'46		desc. node		-12833 Apr 24 j 06:14	24° $\mathbb{I}$ 27'48	
	-12838 Feb 13 j 14:59	0° $\mathbb{M}$				-12833 May 24 j 20:33	0° $\mathbb{L}$	
	-12838 Apr 01 j 22:18	0° $\mathbb{J}$				-12833 Jul 25 j 22:55	0° $\mathbb{Q}$	
	-12838 May 21 j 05:49	0° $\mathbb{Z}$				-12833 Sep 13 j 17:06	0° $\mathbb{M}$	
	-12838 Jul 13 j 17:39	0° $\approx$				-12833 Oct 31 j 15:44	0° $\mathbb{L}$	
asc. node	-12838 Sep 05 j 10:57	22° $\approx$ 45'14				-12833 Dec 18 j 07:41	0° $\mathbb{M}$	
retrograde	-12838 Oct 03 j 11:26	27° $\approx$ 03'29				-12832 Feb 03 j 17:29	0° $\mathbb{J}$	
opposition	-12838 Nov 07 j 20:34	19° $\approx$ 33'56	3°05'08	evening set		-12832 Feb 08 j 17:25	3° $\mathbb{J}$ 10'59	
greatest brilliancy	-12838 Nov 08 j 14:42	19° $\approx$ 17'29	-2.0m	max. Earth dist.		-12832 Mar 13 j 03:41	24° $\mathbb{J}$ 39'43	2.63946 AU
min. Earth dist.	-12838 Nov 15 j 09:00	16° $\approx$ 50'29	0.52997 AU			-12832 Mar 21 j 08:48	0° $\mathbb{Z}$	
direct	-12838 Dec 16 j 23:19	10° $\approx$ 27'00						
	-12837 Feb 16 j 15:19	0° $\mathbb{H}$		conjunction		-12832 Mar 27 j 23:21	4° $\mathbb{Z}$ 18'48	-0°18'09
	-12837 Apr 06 j 04:56	0° $\mathbb{Y}$		minimum elong		-12832 Mar 28 j 00:08	4° $\mathbb{Z}$ 20'04	0°18'58
	-12837 May 18 j 07:16	0° $\mathbb{B}$		asc. node		-12832 Apr 26 j 10:13	23° $\mathbb{Z}$ 47'28	
	-12837 Jun 27 j 10:36	0° $\mathbb{I}$				-12832 May 05 j 16:13	0° $\approx$	
desc. node	-12837 Jul 19 j 17:19	16° $\mathbb{I}$ 46'39		morning rise		-12832 May 14 j 15:45	6° $\approx$ 04'29	
	-12837 Aug 06 j 08:57	0° $\mathbb{L}$				-12832 Jun 18 j 08:51	0° $\mathbb{H}$	
	-12837 Sep 16 j 03:00	0° $\mathbb{Q}$				-12832 Jul 30 j 12:42	0° $\mathbb{Y}$	
	-12837 Oct 28 j 08:27	0° $\mathbb{M}$				-12832 Sep 09 j 12:46	0° $\mathbb{B}$	
evening set	-12837 Nov 18 j 06:20	14° $\mathbb{M}$ 25'06				-12832 Oct 20 j 00:47	0° $\mathbb{I}$	
	-12837 Dec 11 j 07:42	0° $\mathbb{L}$				-12832 Nov 30 j 02:21	0° $\mathbb{L}$	
						-12831 Jan 12 j 20:17	0° $\mathbb{Q}$	
conjunction	-12836 Jan 08 j 19:07	18° $\mathbb{L}$ 51'00	-1°16'00			-12831 Mar 08 j 17:01	0° $\mathbb{M}$	
minimum elong	-12836 Jan 08 j 19:02	18° $\mathbb{L}$ 50'52	1°16'17	desc. node		-12831 Mar 11 j 06:49	1° $\mathbb{M}$ 01'07	
max. Earth dist.	-12836 Jan 23 j 19:55	28° $\mathbb{L}$ 39'18	2.63349 AU	retrograde		-12831 Apr 15 j 03:33	8° $\mathbb{M}$ 26'36	
	-12836 Jan 25 j 21:39	0° $\mathbb{M}$		min. Earth dist.		-12831 May 15 j 13:53	2° $\mathbb{M}$ 14'36	0.51325 AU
morning rise	-12836 Feb 27 j 05:20	20° $\mathbb{M}$ 48'28				-12831 May 21 j 16:42	30° $\mathbb{R}$ Q	
	-12836 Mar 12 j 14:58	0° $\mathbb{J}$				-12831 May 22 j 03:21	29° $\mathbb{Q}$ 50'11	-2.1m
	-12836 Apr 28 j 23:06	0° $\mathbb{Z}$		greatest brilliancy		-12831 May 23 j 06:11	29° $\mathbb{Q}$ 25'28	-3°57'33
	-12836 Jun 15 j 17:47	0° $\approx$		opposition		-12831 Jun 26 j 19:03	22° $\mathbb{Q}$ 00'03	
asc. node	-12836 Jul 23 j 04:44	23° $\approx$ 04'43		direct		-12831 Jun 26 j 19:03	22° $\mathbb{Q}$ 00'03	
	-12836 Aug 03 j 16:36	0° $\mathbb{H}$				-12831 Aug 04 j 12:57	0° $\mathbb{M}$	
	-12836 Sep 26 j 06:31	0° $\mathbb{Y}$				-12831 Oct 05 j 19:44	0° $\mathbb{L}$	
retrograde	-12836 Dec 04 j 10:43	21° $\mathbb{Y}$ 32'20				-12831 Nov 26 j 13:51	0° $\mathbb{M}$	
opposition	-12835 Jan 05 j 00:15	15° $\mathbb{Y}$ 58'22	7°08'02			-12830 Jan 14 j 15:20	0° $\mathbb{J}$	
greatest brilliancy	-12835 Jan 06 j 10:48	15° $\mathbb{Y}$ 33'01	-2.6m	asc. node		-12830 Mar 02 j 19:59	0° $\mathbb{Z}$	
min. Earth dist.	-12835 Jan 11 j 02:14	14° $\mathbb{Y}$ 11'49	0.41481 AU	evening set		-12830 Mar 14 j 07:18	7° $\mathbb{Z}$ 29'04	
direct	-12835 Feb 07 j 15:32	9° $\mathbb{Y}$ 34'17		max. Earth dist.		-12830 Mar 20 j 05:34	11° $\mathbb{Z}$ 23'03	
	-12835 Apr 10 j 17:56	0° $\mathbb{B}$				-12830 Apr 10 j 12:35	25° $\mathbb{Z}$ 35'35	2.56502 AU
	-12835 May 29 j 02:00	0° $\mathbb{I}$				-12830 Apr 17 j 00:49	0° $\approx$	
desc. node	-12835 Jun 06 j 00:50	5° $\mathbb{I}$ 20'38		conjunction		-12830 May 09 j 11:10	15° $\approx$ 25'58	0°34'47
	-12835 Jul 11 j 21:53	0° $\mathbb{L}$		minimum elong		-12830 May 09 j 09:37	15° $\approx$ 23'17	0°34'10
	-12835 Aug 24 j 03:44	0° $\mathbb{Q}$				-12830 May 30 j 03:22	0° $\mathbb{H}$	
	-12835 Oct 07 j 02:05	0° $\mathbb{M}$		morning rise		-12830 Jun 29 j 18:50	22° $\mathbb{H}$ 11'30	
	-12835 Nov 21 j 04:17	0° $\mathbb{L}$				-12830 Jul 10 j 08:28	0° $\mathbb{Y}$	
evening set	-12835 Dec 30 j 21:25	25° $\mathbb{L}$ 49'35				-12830 Aug 19 j 03:40	0° $\mathbb{B}$	
	-12834 Jan 06 j 08:52	0° $\mathbb{M}$				-12830 Sep 27 j 05:47	0° $\mathbb{I}$	
						-12830 Nov 05 j 11:37	0° $\mathbb{L}$	
conjunction	-12834 Feb 17 j 13:42	27° $\mathbb{M}$ 04'00	-0°59'32			-12830 Dec 15 j 22:28	0° $\mathbb{Q}$	
minimum elong	-12834 Feb 17 j 15:14	27° $\mathbb{M}$ 06'28	1°00'14	desc. node		-12829 Jan 27 j 02:02	29° $\mathbb{Q}$ 18'52	
max. Earth dist.	-12834 Feb 16 j 22:18	26° $\mathbb{M}$ 39'21	2.66307 AU			-12829 Jan 28 j 02:53	0° $\mathbb{M}$	
	-12834 Feb 22 j 03:39	0° $\mathbb{J}$				-12829 Mar 18 j 15:13	0° $\mathbb{L}$	
morning rise	-12834 Apr 05 j 20:59	27° $\mathbb{J}$ 26'43		retrograde		-12829 May 26 j 15:17	22° $\mathbb{L}$ 34'08	
	-12834 Apr 09 j 19:52	0° $\mathbb{Z}$		min. Earth dist.		-12829 Jun 30 j 23:26	14° $\mathbb{L}$ 27'28	0.61569 AU
	-12834 May 25 j 19:39	0° $\approx$		opposition		-12829 Jul 05 j 10:38	12° $\mathbb{L}$ 40'59	-5°20'40
asc. node	-12834 Jun 09 j 18:45	9° $\approx$ 53'23		greatest brilliancy		-12829 Jul 04 j 15:34	12° $\mathbb{L}$ 59'56	-1.6m
	-12834 Jul 09 j 21:57	0° $\mathbb{H}$		direct		-12829 Aug 12 j 03:43	3° $\mathbb{L}$ 51'26	
	-12834 Aug 23 j 08:05	0° $\mathbb{Y}$				-12829 Oct 31 j 11:52	0° $\mathbb{M}$	
	-12834 Oct 06 j 17:54	0° $\mathbb{B}$				-12829 Dec 24 j 15:00	0° $\mathbb{J}$	
	-12834 Nov 21 j 22:29	0° $\mathbb{I}$		asc. node		-12828 Jan 30 j 10:58	22° $\mathbb{J}$ 24'28	
	-12833 Jan 18 j 17:43	0° $\mathbb{L}$				-12828 Feb 11 j 11:42	0° $\mathbb{Z}$	
retrograde	-12833 Feb 19 j 04:48	6° $\mathbb{L}$ 05'56				-12828 Mar 28 j 03:58	0° $\approx$	
min. Earth dist.	-12833 Mar 18 j 22:08	1° $\mathbb{L}$ 24'43	0.40161 AU	evening set		-12828 May 04 j 07:19	25° $\approx$ 48'10	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12828 May 10 j 04:15	0° $\text{𐌸}$				-12823 Apr 09 j 15:42	0° $\text{𐌸}$		
max. Earth dist.	-12828 May 21 j 13:06	8° $\text{𐌸}$ 12'42"	2.45173 AU			-12823 May 30 j 13:43	0° $\text{𐌸}$		
	-12828 Jun 19 j 23:54	0° $\text{𐌹}$				-12823 Jul 30 j 03:23	0° $\approx$		
				retrograde		-12823 Sep 14 j 12:45	10° $\approx$ 35'33"		
conjunction	-12828 Jun 28 j 16:30	6° $\text{𐌹}$ 33'33"	1°12'27"	asc. node		-12823 Sep 22 j 03:36	10° $\approx$ 13'21"		
minimum elong	-12828 Jun 28 j 15:28	6° $\text{𐌹}$ 31'36"	1°12'33"	opposition		-12823 Oct 21 j 03:37	2° $\approx$ 30'31"	1°21'53"	
	-12828 Jul 29 j 06:17	0° $\text{𐌺}$		greatest brilliancy		-12823 Oct 21 j 10:36	2° $\approx$ 23'56"	-1.8m	
morning rise	-12828 Aug 27 j 06:09	22° $\text{𐌺}$ 34'00"				-12823 Oct 27 j 19:18	30° $\text{𐌺}$		
	-12828 Sep 05 j 18:36	0° $\text{𐌻}$		min. Earth dist.		-12823 Oct 27 j 16:23	0° $\approx$ 02'43"	0.57258 AU	
	-12828 Oct 14 j 10:02	0° $\text{𐌼}$		direct		-12823 Nov 30 j 05:38	22° $\text{𐌿}$ 53'57"		
	-12828 Nov 23 j 02:02	0° $\text{𐌾}$				-12822 Jan 04 j 10:47	0° $\approx$		
desc. node	-12828 Dec 13 j 16:38	15° $\text{𐌾}$ 04'38"				-12822 Mar 03 j 10:52	0° $\text{𐌸}$		
	-12827 Jan 03 j 16:30	0° $\text{𐌿}$				-12822 Apr 16 j 23:35	0° $\text{𐌹}$		
	-12827 Feb 17 j 07:51	0° $\text{𐍀}$				-12822 May 27 j 17:56	0° $\text{𐌺}$		
	-12827 Apr 08 j 09:58	0° $\text{𐌾}$				-12822 Jul 06 j 03:29	0° $\text{𐌻}$		
retrograde	-12827 Jun 30 j 14:54	28° $\text{𐌾}$ 50'23"		desc. node		-12822 Aug 05 j 08:33	23° $\text{𐌻}$ 03'14"		
opposition	-12827 Aug 09 j 11:02	19° $\text{𐌾}$ 05'10"	-4°25'53"			-12822 Aug 14 j 12:42	0° $\text{𐌼}$		
greatest brilliancy	-12827 Aug 09 j 09:12	19° $\text{𐌾}$ 07'01"	-1.4m			-12822 Sep 23 j 20:00	0° $\text{𐌾}$		
min. Earth dist.	-12827 Aug 08 j 19:17	19° $\text{𐌾}$ 21'02"	0.66241 AU	evening set		-12822 Oct 30 j 02:11	26° $\text{𐌾}$ 03'29"		
direct	-12827 Sep 18 j 05:49	9° $\text{𐌾}$ 27'50"				-12822 Nov 04 j 16:41	0° $\text{𐌿}$		
	-12827 Nov 26 j 04:48	0° $\text{𐌸}$				-12822 Dec 18 j 09:46	0° $\text{𐍀}$		
asc. node	-12827 Dec 17 j 18:28	11° $\text{𐌸}$ 04'15"							
	-12826 Jan 19 j 20:26	0° $\text{𐌿}$		conjunction		-12822 Dec 22 j 12:59	2° $\text{𐍀}$ 46'25"	-1°12'51"	
	-12826 Mar 08 j 05:01	0° $\approx$		minimum elong		-12822 Dec 22 j 11:49	2° $\text{𐍀}$ 44'28"	1°12'52"	
	-12826 Apr 20 j 17:10	0° $\text{𐌸}$		max. Earth dist.		-12821 Jan 13 j 04:03	17° $\text{𐍀}$ 07'34"	2.60763 AU	
	-12826 May 31 j 13:46	0° $\text{𐌹}$				-12821 Feb 01 j 20:58	0° $\text{𐌾}$		
evening set	-12826 Jun 30 j 11:38	22° $\text{𐌹}$ 50'50"		morning rise		-12821 Feb 11 j 13:40	6° $\text{𐌾}$ 16'21"		
	-12826 Jul 09 j 16:59	0° $\text{𐌺}$				-12821 Mar 20 j 17:08	0° $\text{𐌸}$		
	-12826 Aug 17 j 01:14	0° $\text{𐌻}$				-12821 May 07 j 13:56	0° $\text{𐌿}$		
						-12821 Jun 25 j 17:30	0° $\approx$		
conjunction	-12826 Aug 31 j 07:47	11° $\text{𐌻}$ 10'32"	0°43'48"	asc. node		-12821 Aug 09 j 23:37	25° $\approx$ 59'15"		
minimum elong	-12826 Aug 31 j 11:07	11° $\text{𐌻}$ 17'02"	0°44'33"			-12821 Aug 17 j 11:30	0° $\text{𐌸}$		
	-12826 Sep 24 j 12:53	0° $\text{𐌼}$		retrograde		-12821 Nov 07 j 23:02	27° $\text{𐌸}$ 54'05"		
max. Earth dist.	-12826 Sep 30 j 02:03	4° $\text{𐌼}$ 16'33"	2.39278 AU	opposition		-12821 Dec 11 j 01:19	21° $\text{𐌸}$ 33'22"	5°54'28"	
desc. node	-12826 Oct 31 j 09:39	28° $\text{𐌼}$ 02'26"		greatest brilliancy		-12821 Dec 12 j 12:36	21° $\text{𐌸}$ 04'31"	-2	



Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

desc. node	-12818 May 10 j 22:19	8° $\Pi$ 18'34		conjunction	-12813 Jun 08 j 06:01	15° $\text{X}$ 07'34	1°02'32
	-12818 Jun 20 j 13:48	0° $\text{O}$		minimum elong	-12813 Jun 08 j 03:54	15° $\text{X}$ 03'42	1°02'18
	-12818 Aug 07 j 19:31	0° $\Omega$			-12813 Jun 28 j 07:41	0° $\Upsilon$	
	-12818 Sep 23 j 04:39	0° $\text{P}$		morning rise	-12813 Aug 03 j 01:46	27° $\Upsilon$ 09'37	
	-12818 Nov 08 j 15:37	0° $\text{L}$			-12813 Aug 06 j 18:17	0° $\text{B}$	
	-12818 Dec 25 j 13:58	0° $\text{M}$			-12813 Sep 14 j 10:48	0° $\Pi$	
evening set	-12817 Jan 24 j 09:39	18° $\text{M}$ 59'05			-12813 Oct 23 j 06:02	0° $\text{O}$	
	-12817 Feb 10 j 16:05	0° $\text{X}$			-12813 Dec 02 j 02:26	0° $\Omega$	
max. Earth dist.	-12817 Mar 04 j 04:10	13° $\text{X}$ 46'35	2.65507 AU	desc. node	-12813 Dec 31 j 15:30	21° $\Omega$ 20'09	
					-12812 Jan 13 j 01:06	0° $\text{P}$	
conjunction	-12817 Mar 13 j 12:55	19° $\text{X}$ 48'34	-0°36'25		-12812 Feb 27 j 15:50	0° $\text{L}$	
minimum elong	-12817 Mar 13 j 14:16	19° $\text{X}$ 50'44	0°37'14		-12812 Apr 21 j 21:34	0° $\text{M}$	
	-12817 Mar 29 j 06:32	0° $\text{B}$		retrograde	-12812 Jun 16 j 22:39	15° $\text{M}$ 24'42	
morning rise	-12817 Apr 29 j 18:01	20° $\text{B}$ 39'33		min. Earth dist.	-12812 Jul 24 j 18:12	6° $\text{M}$ 23'58	0.65132 AU
	-12817 May 13 j 18:37	0° $\approx$		opposition	-12812 Jul 26 j 21:44	5° $\text{M}$ 32'06	-4°58'15
asc. node	-12817 May 14 j 05:49	0° $\approx$ 18'45		greatest brilliancy	-12812 Jul 26 j 13:34	5° $\text{M}$ 40'21	-1.4m
	-12817 Jun 26 j 21:24	0° $\text{X}$			-12812 Aug 10 j 20:52	30° $\text{R}$ $\text{L}$	
	-12817 Aug 08 j 16:38	0° $\Upsilon$		direct	-12812 Sep 03 j 23:52	26° $\text{L}$ 10'06	
	-12817 Sep 19 j 13:38	0° $\text{B}$			-12812 Sep 30 j 08:07	0° $\text{M}$	
	-12817 Oct 31 j 05:40	0° $\Pi$			-12812 Dec 08 j 00:58	0° $\text{X}$	
	-12817 Dec 13 j 05:08	0° $\text{O}$		asc. node	-12811 Jan 03 j 07:16	14° $\text{X}$ 50'46	
	-12816 Jan 31 j 06:12	0° $\Omega$			-12811 Jan 28 j 10:41	0° $\text{B}$	
retrograde	-12816 Mar 26 j 18:30	17° $\Omega$ 08'12			-12811 Mar 15 j 22:33	0° $\approx$	
desc. node	-12816 Mar 28 j 00:40	17° $\Omega$ 07'31			-12811 Apr 28 j 04:28	0° $\text{X}$	
min. Earth dist.	-12816 Apr 24 j 09:37	11° $\Omega$ 43'07	0.46492 AU	evening set	-12811 Jun 06 j 16:34	29° $\text{X}$ 01'14	
opposition	-12816 May 02 j 08:47	8° $\Omega$ 59'11	-2°15'14		-12811 Jun 07 j 23:49	0° $\Upsilon$	
greatest brilliancy	-12816 May 01 j 15:27	9° $\Omega$ 14'05	-2.4m	max. Earth dist.	-12811 Jul 17 j 05:10	0° $\text{B}$ 03'00	2.38949 AU
direct	-12816 Jun 04 j 07:34	2° $\Omega$ 19'39			-12811 Jul 17 j 03:37	0° $\text{B}$	
	-12816 Aug 24 j 06:54	0° $\text{P}$					
	-12816 Oct 16 j 03:04	0° $\text{L}$		conjunction	-12811 Aug 05 j 08:45	14° $\text{B}$ 59'17	1°05'16
	-12816 Dec 04 j 16:46	0° $\text{M}$		minimum elong	-12811 Aug 05 j 11:23	15° $\text{B}$ 04'25	1°05'50
	-12815 Jan 21 j 22:31	0° $\text{X}$			-12811 Aug 24 j 12:43	0° $\Pi$	
evening set	-12815 Mar 04 j 02:15	26° $\text{X}$ 15'45			-12811 Oct 02 j 00:53	0° $\text{O}$	
	-12815 Mar 09 j 20:27	0° $\text{B}$		morning rise	-12811 Oct 08 j 06:38	4° $\text{O}$ 48'17	
max. Earth dist.	-12815 Mar 29 j 18:55	13° $\text{B}$ 04'40	2.60016 AU		-12811 Nov 10 j 13:03	0° $\Omega$	
asc. node	-12815 Mar 31 j 00:42	13° $\text{B}$ 53'58		desc. node	-12811 Nov 17 j 06:33	4° $\Omega$ 59'40	
					-12811 Dec 21 j 19:57	0° $\text{P}$	
conjunction	-12815 Apr 22 j 05:00	28° $\text{B}$ 44'49	0°13'59		-12810 Feb 03 j 15:06	0° $\text{L}$	
minimum elong	-12815 Apr 22 j 04:24	28° $\text{B}$ 43'48	0°13'15		-12810 Mar 22 j 22:19	0° $\text{M}$	
behind sun begin	-12815 Apr 21 j 16:40	28° $\text{B}$ 23'58			-12810 May 16 j 04:49	0° $\text{X}$	
behind sun end	-12815 Apr 22 j 16:07	29° $\text{B}$ 03'37		retrograde	-12810 Jul 22 j 07:15	19° $\text{X}$ 59'15	
	-12815 Apr 24 j 01:25	0° $\approx$		opposition	-12810 Aug 30 j 14:52	10° $\text{X}$ 33'17	-3°11'13
	-12815 Jun 06 j 08:32	0° $\text{X}$		greatest brilliancy	-12810 Aug 30 j 19:50	10° $\text{X}$ 28'19	-1.4m
morning rise	-12815 Jun 10 j 14:20	3° $\text{X}$ 00'40		min. Earth dist.	-12810 Sep 01 j 06:22	9° $\text{X}$ 53'45	0.66041 AU
	-12815 Jul 17 j 20:50	0° $\Upsilon$		direct	-12810 Oct 10 j 03:03	0° $\text{X}$ 40'00	
	-12815 Aug 27 j 00:48	0° $\text{B}$		asc. node	-12810 Nov 21 j 14:58	9° $\text{X}$ 51'22	
	-12815 Oct 05 j 12:17	0° $\Pi$			-12809 Jan 03 j 07:32	0° $\text{B}$	
	-12815 Nov 14 j 04:46	0° $\text{O}$			-12809 Feb 22 j 12:36	0° $\approx$	
	-12815 Dec 25 j 07:56	0° $\Omega$			-12809 Apr 07 j 22:19	0° $\text{X}$	
desc. node	-12814 Feb 08 j 03:29	0° $\text{P}$			-12809 May 19 j 02:37	0° $\Upsilon$	
	-12814 Feb 12 j 21:32	2° $\text{P}$ 55'48			-12809 Jun 27 j 09:01	0° $\text{B}$	
	-12814 Apr 07 j 02:09	0° $\text{L}$			-12809 Aug 04 j 19:04	0° $\Pi$	
retrograde	-12814 May 11 j 13:47	6° $\text{L}$ 59'11		evening set	-12809 Aug 09 j 09:21	3° $\Pi$ 35'46	
	-12814 Jun 12 j 22:32	30° $\text{R}$ $\text{P}$			-12809 Sep 12 j 08:23	0° $\text{O}$	
min. Earth dist.	-12814 Jun 14 j 02:09	29° $\text{P}$ 33'34	0.58134 AU	desc. node	-12809 Oct 05 j 00:29	17° $\text{O}$ 19'27	
opposition	-12814 Jun 19 j 23:29	27° $\text{P}$ 15'45	-5°11'05				
greatest brilliancy	-12814 Jun 18 j 22:28	27° $\text{P}$ 40'13	-1.7m	conjunction	-12809 Oct 10 j 05:22	21° $\text{O}$ 15'09	-0°03'57
direct	-12814 Jul 26 j 14:15	18° $\text{P}$ 53'39		minimum elong	-12809 Oct 10 j 05:03	21° $\text{O}$ 14'35	0°03'10
	-12814 Sep 11 j 22:30	0° $\text{L}$		behind sun begin	-12809 Oct 09 j 03:26	20° $\text{O}$ 26'21	
	-12814 Nov 11 j 12:29	0° $\text{M}$		behind sun end	-12809 Oct 11 j 06:40	22° $\text{O}$ 02'45	
	-12813 Jan 01 j 21:26	0° $\text{X}$			-12809 Oct 21 j 21:46	0° $\Omega$	
asc. node	-12813 Feb 16 j 01:14	28° $\text{X}$ 09'29		max. Earth dist.	-12809 Nov 22 j 18:11	23° $\Omega$ 17'32	2.46109 AU
	-12813 Feb 18 j 22:09	0° $\text{B}$			-12809 Dec 02 j 03:39	0° $\text{P}$	
	-12813 Apr 05 j 08:27	0° $\approx$		morning rise	-12809 Dec 09 j 15:13	5° $\text{P}$ 17'13	
evening set	-12813 Apr 16 j 08:26	7° $\approx$ 31'04			-12808 Jan 14 j 12:56	0° $\text{L}$	
max. Earth dist.	-12813 May 03 j 02:56	19° $\approx$ 10'53	2.49922 AU		-12808 Feb 29 j 07:25	0° $\text{M}$	
	-12813 May 18 j 09:01	0° $\text{X}$			-12808 Apr 17 j 21:30	0° $\text{X}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12808 Jun 10 j 14:08	0°☾					-12803 Jul 04 j 19:14	0°☾			
retrograde	-12808 Aug 28 j 13:56	25°☾33'35					-12803 Aug 18 j 05:03	0°♊			
opposition	-12808 Oct 05 j 04:46	16°☾59'34	-0°09'43				-12803 Oct 01 j 19:06	0°♊			
greatest brilliancy	-12808 Oct 05 j 05:45	16°☾58'37	-1.6m				-12803 Nov 16 j 06:40	0°♊			
asc. node	-12808 Oct 08 j 19:16	15°☾35'41					-12802 Jan 01 j 16:18	0°♊			
min. Earth dist.	-12808 Oct 10 j 11:10	14°☾57'12	0.60833 AU		evening set		-12802 Jan 08 j 23:08	4°♊40'15			
direct	-12808 Nov 14 j 18:49	7°☾07'32					-12802 Feb 17 j 13:08	0°♊			
	-12807 Jan 24 j 03:27	0°♊			max. Earth dist.		-12802 Feb 22 j 12:03	3°♊10'24	2.66256 AU		
	-12807 Mar 14 j 13:38	0°♊									
	-12807 Apr 26 j 09:28	0°♊			conjunction		-12802 Feb 26 j 08:11	5°♊37'58	-0°51'59		
	-12807 Jun 05 j 10:41	0°♊			minimum elong		-12802 Feb 26 j 09:46	5°♊40'29	0°52'44		
	-12807 Jul 14 j 09:23	0°♊					-12802 Apr 05 j 04:22	0°☾			
desc. node	-12807 Aug 22 j 00:47	29°♊43'09			morning rise		-12802 Apr 14 j 11:51	6°☾02'46			
	-12807 Aug 22 j 09:37	0°☾					-12802 May 20 j 23:34	0°♊			
	-12807 Oct 01 j 09:02	0°♊			asc. node		-12802 May 31 j 01:29	6°♊41'54			
evening set	-12807 Oct 09 j 05:55	5°♊46'48					-12802 Jul 04 j 16:38	0°♊			
	-12807 Nov 11 j 23:00	0°♊					-12802 Aug 17 j 10:24	0°♊			
							-12802 Sep 29 j 16:45	0°♊			
conjunction	-12807 Dec 04 j 00:45	15°♊23'09	-1°02'58				-12802 Nov 12 j 13:31	0°♊			
minimum elong	-12807 Dec 03 j 22:37	15°♊19'28	1°02'44				-12802 Dec 30 j 11:59	0°☾			
	-12807 Dec 25 j 11:33	0°♊			retrograde		-12801 Mar 05 j 10:21	22°☾10'41			
max. Earth dist.	-12806 Jan 01 j 11:02	4°♊41'20	2.57423 AU		min. Earth dist.		-12801 Apr 02 j 00:47	17°☾21'17	0.42014 AU		
morning rise	-12806 Jan 26 j 03:00	21°♊01'14			opposition		-12801 Apr 08 j 19:07	15°☾15'13	0°25'55		
	-12806 Feb 08 j 21:45	0°♊			greatest brilliancy		-12801 Apr 08 j 16:49	15°☾17'00	-2.7m		
	-12806 Mar 27 j 23:36	0°♊			desc. node		-12801 Apr 14 j 18:30	13°☾27'08			
	-12806 May 15 j 15:18	0°☾			direct		-12801 May 10 j 05:32	9°☾25'37			
	-12806 Jul 06 j 00:22	0°♊					-12801 Jul 15 j 10:34	0°♊			
asc. node	-12806 Aug 26 j 18:16	25°♊46'44					-12801 Sep 06 j 23:13	0°♊			
	-12806 Sep 06 j 16:20	0°♊					-12801 Oct 26 j 03:39	0°♊			
retrograde	-12806 Oct 15 j 11:11	7°♊46'59					-12801 Dec 13 j 08:48	0°♊			
opposition	-12806 Nov 19 j 01:11	0°♊40'21	4°07'48				-12800 Jan 30 j 00:53	0°♊			
greatest brilliancy	-12806 Nov 20 j 02:24	0°♊18'09	-2.1m		evening set		-12800 Feb 17 j 13:41	11°♊48'19			
	-12806 Nov 20 j 22:55	30°♊					-12800 Mar 16 j 18:27	0°☾			
min. Earth dist.	-12806 Nov 26 j 20:53	27°♊55'25	0.50403 AU		max. Earth dist.		-12800 Mar 19 j 02:33	1°☾31'24	2.62760 AU		
direct	-12806 Dec 27 j 07:35	21°♊58'11									
	-12805 Feb 02 j 02:25	0°♊			conjunction		-12800 Apr 06 j 00:14	13°☾16'42	-0°06'44		
	-12805 Mar 29 j 07:10	0°♊			minimum elong		-12800 Apr 06 j 00:34	13°☾17'14	0°07'32		
	-12805 May 11 j 19:55	0°♊			behind sun begin		-12800 Apr 05 j 06:34	12°☾47'32			
	-12805 Jun 21 j 15:34	0°♊			behind sun end		-12800 Apr 06 j 18:33	13°☾46'58			
desc. node	-12805 Jul 10 j 05:51	13°♊50'25			asc. node		-12800 Apr 16 j 17:29	20°☾23'38			
	-12805 Aug 01 j 00:19	0°☾					-12800 May 01 j 01:00	0°♊			
	-12805 Sep 11 j 02:03	0°♊			morning rise		-12800 May 24 j 03:08	15°♊45'15			
	-12805 Oct 23 j 12:46	0°♊					-12800 Jun 13 j 14:17	0°♊			
evening set	-12805 Nov 28 j 13:06	24°♊34'33					-12800 Jul 25 j 12:10	0°♊			
	-12805 Dec 06 j 15:29	0°♊					-12800 Sep 04 j 04:18	0°♊			
							-12800 Oct 14 j 05:57	0°♊			
conjunction	-12804 Jan 18 j 05:09	28°♊00'35	-1°15'07				-12800 Nov 23 j 16:13	0°☾			
minimum elong	-12804 Jan 18 j 05:37	28°♊01'21	1°15'30				-12799 Jan 05 j 02:18	0°♊			
	-12804 Jan 21 j 06:45	0°♊					-12799 Feb 22 j 19:08	0°♊			
max. Earth dist.	-12804 Jan 29 j 17:56	5°♊28'41	2.64437 AU		desc. node		-12799 Mar 01 j 17:59	3°♊36'30			
morning rise	-12804 Mar 06 j 22:57	29°♊21'33			retrograde		-12799 Apr 25 j 06:01	19°♊40'16			
	-12804 Mar 07 j 23:02	0°♊			min. Earth dist.		-12799 May 26 j 18:30	13°♊01'11	0.53895 AU		
	-12804 Apr 24 j 01:57	0°☾			opposition		-12799 Jun 02 j 21:50	10°♊19'39	-4°34'42		
	-12804 Jun 10 j 07:31	0°♊			greatest brilliancy		-12799 Jun 01 j 17:59	10°♊46'01	-1.9m		
asc. node	-12804 Jul 13 j 11:34	20°♊56'26			direct		-12799 Jul 08 j 05:50	2°♊32'01			
	-12804 Jul 27 j 23:35	0°♊					-12799 Sep 28 j 02:45	0°♊			
	-12804 Sep 15 j 17:43	0°♊					-12799 Nov 20 j 21:46	0°♊			
	-12804 Nov 15 j 17:49	0°♊					-12798 Jan 09 j 15:44	0°♊			
retrograde	-12804 Dec 21 j 13:53	7°♊02'55					-12798 Feb 26 j 03:06	0°☾			
opposition	-12803 Jan 21 j 10:58	1°♊47'53	7°11'45		asc. node		-12798 Mar 04 j 15:53	4°☾14'16			
greatest brilliancy	-12803 Jan 22 j 13:14	1°♊29'35	-2.7m		evening set		-12798 Mar 29 j 19:31	20°☾49'43			
min. Earth dist.	-12803 Jan 25 j 14:55	0°♊38'23	0.39738 AU				-12798 Apr 12 j 10:09	0°♊			
	-12803 Jan 27 j 23:13	30°♊			max. Earth dist.		-12798 Apr 18 j 02:38	3°♊52'24	2.54317 AU		
direct	-12803 Feb 22 j 17:05	26°♊03'01									
	-12803 Mar 19 j 16:26	0°♊			conjunction		-12798 May 19 j 20:08	25°♊57'38	0°45'57		
	-12803 May 19 j 11:33	0°♊			minimum elong		-12798 May 19 j 18:11	25°♊54'11	0°45'28		
desc. node	-12803 May 27 j 12:22	4°♊59'24					-12798 May 25 j 12:27	0°♊			

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12798 Jul 05 j 15:22	0°♂		opposition	-12793 Sep 21 j 10:26	2°♂30'34	-1°29'12
morning rise	-12798 Jul 11 j 12:31	4°♂23'27		greatest brilliancy	-12793 Sep 21 j 16:00	2°♂25'06	-1.5m
	-12798 Aug 14 j 07:20	0°♂		min. Earth dist.	-12793 Sep 25 j 07:51	0°♂58'32	0.63579 AU
	-12798 Sep 22 j 05:29	0°♂			-12793 Sep 27 j 19:59	30°♂♂	
	-12798 Oct 31 j 06:25	0°♂		asc. node	-12793 Oct 26 j 10:55	22°♂45'45	
	-12798 Dec 10 j 10:17	0°♂		direct	-12793 Nov 01 j 04:30	22°♂32'45	
desc. node	-12797 Jan 17 j 11:22	26°♂55'44			-12793 Dec 08 j 09:58	0°♂	
	-12797 Jan 21 j 23:49	0°♂			-12792 Feb 06 j 14:56	0°♂	
	-12797 Mar 10 j 10:57	0°♂			-12792 Mar 24 j 02:02	0°♂	
	-12797 May 19 j 23:24	0°♂			-12792 May 05 j 00:09	0°♂	
retrograde	-12797 Jun 03 j 23:19	1°♂24'28			-12792 Jun 13 j 15:08	0°♂	
	-12797 Jun 18 j 05:32	30°♂♂			-12792 Jul 22 j 07:00	0°♂	
min. Earth dist.	-12797 Jul 10 j 05:44	22°♂56'53	0.63091 AU		-12792 Aug 30 j 01:16	0°♂	
opposition	-12797 Jul 13 j 20:54	21°♂29'40	-5°17'10	desc. node	-12792 Sep 07 j 16:43	6°♂36'26	
greatest brilliancy	-12797 Jul 13 j 05:43	21°♂44'52	-1.5m	evening set	-12792 Sep 16 j 11:52	13°♂17'18	
direct	-12797 Aug 21 j 02:24	12°♂27'15			-12792 Oct 08 j 19:15	0°♂	
	-12797 Oct 22 j 19:38	0°♂					
	-12797 Dec 18 j 19:28	0°♂		conjunction	-12792 Nov 13 j 21:39	26°♂14'28	-0°45'39
asc. node	-12796 Jan 20 j 20:21	19°♂40'54		minimum elong	-12792 Nov 13 j 19:08	26°♂09'59	0°45'09
	-12796 Feb 06 j 10:23	0°♂			-12792 Nov 19 j 04:38	0°♂	
	-12796 Mar 23 j 09:21	0°♂		max. Earth dist.	-12792 Dec 19 j 01:55	20°♂48'47	2.53396 AU
	-12796 May 05 j 12:11	0°♂			-12791 Jan 01 j 14:13	0°♂	
evening set	-12796 May 15 j 20:43	7°♂28'13		morning rise	-12791 Jan 08 j 13:32	4°♂41'18	
max. Earth dist.	-12796 Jun 05 j 04:21	22°♂24'11	2.42655 AU		-12791 Feb 16 j 01:19	0°♂	
	-12796 Jun 15 j 08:09	0°♂			-12791 Apr 04 j 12:12	0°♂	
					-12791 May 24 j 08:49	0°♂	
conjunction	-12796 Jul 11 j 17:43	20°♂05'09	1°13'33		-12791 Jul 18 j 22:41	0°♂	
minimum elong	-12796 Jul 11 j 17:54	20°♂05'31	1°13'50	asc. node	-12791 Sep 12 j 11:52	19°♂14'59	
	-12796 Jul 24 j 13:51	0°♂		retrograde	-12791 Sep 25 j 01:06	20°♂10'50	
	-12796 Sep 01 j 00:53	0°♂		opposition	-12791 Oct 30 j 23:53	12°♂24'24	2°19'33
morning rise	-12796 Sep 11 j 05:20	7°♂57'40		greatest brilliancy	-12791 Oct 31 j 12:51	12°♂12'24	-1.9m
	-12796 Oct 09 j 14:27	0°♂		min. Earth dist.	-12791 Nov 07 j 02:19	9°♂46'42	0.54993 AU
	-12796 Nov 18 j 04:00	0°♂		direct	-12791 Dec 09 j 14:10	3°♂01'52	
desc. node	-12796 Dec 04 j 03:09	11°♂45'32			-12790 Feb 23 j 03:19	0°♂	
	-12796 Dec 29 j 14:00	0°♂			-12790 Apr 10 j 14:07	0°♂	
	-12795 Feb 11 j 18:51	0°♂			-12790 May 22 j 00:48	0°♂	
	-12795 Apr 01 j 11:08	0°♂			-12790 Jun 30 j 19:19	0°♂	
	-12795 Jun 02 j 18:22	0°♂		desc. node	-12790 Jul 26 j 21:03	19°♂46'29	
retrograde	-12795 Jul 08 j 12:31	6°♂51'37			-12790 Aug 09 j 10:33	0°♂	
	-12795 Aug 10 j 03:18	30°♂♂			-12790 Sep 18 j 22:29	0°♂	
opposition	-12795 Aug 17 j 05:01	27°♂12'12	-4°01'40		-12790 Oct 30 j 22:34	0°♂	
greatest brilliancy	-12795 Aug 17 j 06:09	27°♂11'04	-1.4m	evening set	-12790 Nov 10 j 06:04	7°♂10'38	
min. Earth dist.	-12795 Aug 17 j 09:12	27°♂08'00	0.66427 AU		-12790 Dec 13 j 17:48	0°♂	
direct	-12795 Sep 26 j 06:55	17°♂27'57					
	-12795 Nov 16 j 10:29	0°♂		conjunction	-12789 Jan 01 j 14:07	12°♂33'12	-1°15'24
asc. node	-12795 Dec 08 j 04:03	10°♂01'42		minimum elong	-12789 Jan 01 j 13:36	12°♂32'20	1°15'34
	-12794 Jan 13 j 19:33	0°♂		max. Earth dist.	-12789 Jan 19 j 12:58	24°♂20'37	2.62302 AU
	-12794 Mar 02 j 23:49	0°♂			-12789 Jan 28 j 05:28	0°♂	
	-12794 Apr 15 j 19:09	0°♂		morning rise	-12789 Feb 20 j 16:02	15°♂07'23	
	-12794 May 26 j 18:30	0°♂			-12789 Mar 15 j 23:21	0°♂	
	-12794 Jul 04 j 22:59	0°♂			-12789 May 02 j 12:09	0°♂	
evening set	-12794 Jul 14 j 17:30	7°♂36'34			-12789 Jun 19 j 19:14	0°♂	
	-12794 Aug 12 j 07:50	0°♂		asc. node	-12789 Jul 31 j 06:45	24°♂55'22	
					-12789 Aug 09 j 01:20	0°♂	
conjunction	-12794 Sep 15 j 01:21	26°♂19'01	0°27'23		-12789 Oct 06 j 21:04	0°♂	
minimum elong	-12794 Sep 15 j 03:45	26°♂23'39	0°28'11	retrograde	-12789 Nov 22 j 22:42	11°♂10'42	
	-12794 Sep 19 j 19:39	0°♂		opposition	-12789 Dec 25 j 04:31	5°♂16'42	6°43'02
desc. node	-12794 Oct 21 j 19:56	24°♂24'25		greatest brilliancy	-12789 Dec 26 j 17:34	4°♂48'08	-2.5m
max. Earth dist.	-12794 Oct 25 j 10:11	27°♂06'07	2.41386 AU	min. Earth dist.	-12788 Jan 01 j 07:04	3°♂06'05	0.43244 AU
	-12794 Oct 29 j 07:17	0°♂			-12788 Jan 13 j 04:11	30°♂♂	
morning rise	-12794 Nov 17 j 03:54	13°♂55'01		direct	-12788 Jan 29 j 01:16	28°♂17'30	
	-12794 Dec 09 j 11:54	0°♂			-12788 Feb 14 j 03:44	0°♂	
	-12793 Jan 21 j 22:20	0°♂			-12788 Apr 19 j 02:55	0°♂	
	-12793 Mar 09 j 01:20	0°♂			-12788 Jun 03 j 07:02	0°♂	
	-12793 Apr 27 j 21:45	0°♂		desc. node	-12788 Jun 13 j 04:38	6°♂54'12	
	-12793 Jun 26 j 12:02	0°♂			-12788 Jul 15 j 21:45	0°♂	
retrograde	-12793 Aug 14 j 00:19	11°♂28'17			-12788 Aug 27 j 10:39	0°♂	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12788 Oct 09 j 21:45	0°♐		-12783 Aug 22 j 00:36	0°♏	
	-12788 Nov 23 j 16:32	0°♑		-12783 Sep 30 j 06:53	0°♐	
evening set	-12788 Dec 24 j 01:57	19°♑53'27		-12783 Nov 08 j 16:32	0°♑	
	-12787 Jan 08 j 16:41	0°♒		-12783 Dec 19 j 08:29	0°♒	
				-12782 Feb 01 j 00:26	0°♐	
conjunction	-12787 Feb 11 j 01:27	21°♒26'36	-1°04'14	desc. node	-12782 Feb 03 j 08:31	1°♐30'49
minimum elong	-12787 Feb 11 j 02:53	21°♒28'53	1°04'53		-12782 Mar 24 j 14:43	0°♑
max. Earth dist.	-12787 Feb 13 j 01:37	22°♒43'44	2.66172 AU	retrograde	-12782 May 20 j 09:02	16°♑29'33
	-12787 Feb 24 j 10:08	0°♓		min. Earth dist.	-12782 Jun 23 j 21:52	8°♑40'19 0.60129 AU
morning rise	-12787 Mar 30 j 13:01	21°♓52'27		greatest brilliancy	-12782 Jun 28 j 02:18	7°♑01'10 -1.6m
	-12787 Apr 12 j 04:03	0°♈		opposition	-12782 Jun 29 j 00:15	6°♑39'28 -5°19'29
	-12787 May 28 j 09:17	0°♉			-12782 Jul 19 j 01:22	30°♒♐
asc. node	-12787 Jun 16 j 21:24	12°♉48'05		direct	-12782 Aug 05 j 05:22	28°♐01'29
	-12787 Jul 12 j 21:53	0°♊			-12782 Aug 23 j 13:42	0°♑
	-12787 Aug 27 j 01:15	0°♋			-12782 Nov 04 j 16:09	0°♒
	-12787 Oct 11 j 18:09	0°♌			-12782 Dec 27 j 12:31	0°♓
	-12787 Nov 30 j 00:53	0°♍		asc. node	-12781 Feb 06 j 10:50	25°♓10'31
retrograde	-12786 Feb 07 j 05:22	23°♍40'11			-12781 Feb 14 j 01:07	0°♈
min. Earth dist.	-12786 Mar 07 j 17:20	18°♍55'43	0.39103 AU		-12781 Mar 31 j 15:53	0°♉
opposition	-12786 Mar 11 j 03:49	17°♍58'29	3°49'50	evening set	-12781 Apr 26 j 23:11	18°♉07'33
greatest brilliancy	-12786 Mar 10 j 20:49	18°♍03'21	-2.8m		-12781 May 13 j 17:28	0°♊
direct	-12786 Apr 10 j 14:52	12°♍46'33		max. Earth dist.	-12781 May 13 j 12:15	29°♉50'41 2.47303 AU
desc. node	-12786 May 01 j 10:33	15°♍25'45				
	-12786 Jun 08 j 02:47	0°♎		conjunction	-12781 Jun 20 j 04:06	27°♊24'22 1°09'15
	-12786 Jul 31 j 06:53	0°♏		minimum elong	-12781 Jun 20 j 02:25	27°♊21'15 1°09'11
	-12786 Sep 17 j 06:39	0°♐			-12781 Jun 23 j 15:16	0°♋
	-12786 Nov 03 j 11:17	0°♑			-12781 Aug 01 j 23:57	0°♌
	-12786 Dec 20 j 18:25	0°♒		morning rise	-12781 Aug 17 j 01:05	11°♌39'40
evening set	-12785 Feb 02 j 05:31	27°♒34'45			-12781 Sep 09 j 14:12	0°♍
	-12785 Feb 06 j 00:43	0°♓			-12781 Oct 18 j 06:48	0°♎
max. Earth dist.	-12785 Mar 09 j 23:22	20°♓28'50	2.64750 AU		-12781 Nov 26 j 23:38	0°♏
				desc. node	-12781 Dec 21 j 23:46	18°♏13'06
conjunction	-12785 Mar 22 j 09:09	28°♓30'56	-0°26'07		-12780 Jan 07 j 15:54	0°♐
minimum elong	-12785 Mar 22 j 10:12	28°♓32'38	0°26'57		-12780 Feb 21 j 13:34	0°♑
	-12785 Mar 24 j 15:57	0°♈			-12780 Apr 12 j 19:54	0°♒
asc. node	-12785 May 04 j 12:10	26°♈55'45		retrograde	-12780 Jun 24 j 21:08	23°♒36'29
morning rise	-12785 May 08 j 18:46	29°♈47'40		min. Earth dist.	-12780 Aug 02 j 10:52	14°♒19'21 0.65863 AU
	-12785 May 09 j 02:07	0°♉		opposition	-12780 Aug 03 j 18:33	13°♒47'26 -4°40'57
	-12785 Jun 21 j 23:58	0°♊		greatest brilliancy	-12780 Aug 03 j 14:01	13°♒52'00 -1.4m
	-12785 Aug 03 j 10:56	0°♋		direct	-12780 Sep 12 j 05:50	4°♒16'29
	-12785 Sep 13 j 19:55	0°♌			-12780 Nov 30 j 19:04	0°♓
	-12785 Oct 24 j 18:46	0°♍		asc. node	-12780 Dec 24 j 17:59	12°♓53'21
	-12785 Dec 05 j 11:38	0°♎			-12779 Jan 22 j 22:38	0°♈
	-12784 Jan 19 j 16:46	0°♏			-12779 Mar 10 j 23:17	0°♉
desc. node	-12784 Mar 18 j 12:06	27°♏28'02			-12779 Apr 23 j 10:04	0°♊
	-12784 Apr 04 j 21:05	0°♐			-12779 Jun 03 j 07:03	0°♋
retrograde	-12784 Apr 07 j 03:45	0°♑02'11		evening set	-12779 Jun 19 j 21:38	12°♑36'00
	-12784 Apr 09 j 10:10	30°♒♏			-12779 Jul 12 j 11:00	0°♌
min. Earth dist.	-12784 May 06 j 16:34	24°♒12'05	0.49157 AU			
opposition	-12784 May 14 j 15:18	21°♒21'51	-3°20'23	conjunction	-12779 Aug 19 j 22:37	0°♍05'53 0°54'33
greatest brilliancy	-12784 May 13 j 15:08	21°♒43'30	-2.2m	minimum elong	-12779 Aug 20 j 02:00	0°♍12'30 0°55'14
direct	-12784 Jun 17 j 11:57	14°♒16'06			-12779 Aug 19 j 19:37	0°♎
	-12784 Aug 13 j 17:58	0°♐		max. Earth dist.	-12779 Aug 28 j 04:57	6°♍34'28 2.38389 AU
	-12784 Oct 09 j 16:37	0°♑			-12779 Sep 27 j 06:52	0°♏
	-12784 Nov 29 j 09:33	0°♒		morning rise	-12779 Oct 23 j 06:45	19°♏53'16
	-12783 Jan 17 j 02:20	0°♓			-12779 Nov 05 j 17:43	0°♏
	-12783 Mar 05 j 04:34	0°♈		desc. node	-12779 Nov 07 j 15:46	1°♏25'48
evening set	-12783 Mar 13 j 06:42	5°♈16'07			-12779 Dec 16 j 22:29	0°♐
asc. node	-12783 Mar 21 j 08:06	10°♈33'29			-12778 Jan 29 j 12:28	0°♑
max. Earth dist.	-12783 Apr 05 j 12:47	20°♈38'27	2.58160 AU		-12778 Mar 17 j 05:46	0°♒
	-12783 Apr 19 j 10:23	0°♉			-12778 May 08 j 06:16	0°♓
				retrograde	-12778 Jul 30 j 10:38	28°♓01'01
conjunction	-12783 May 01 j 22:57	8°♉32'53	0°26'02	opposition	-12778 Sep 07 j 11:28	18°♓44'05 -2°36'52
minimum elong	-12783 May 01 j 21:47	8°♉30'53	0°25'23	greatest brilliancy	-12778 Sep 07 j 17:30	18°♓38'04 -1.4m
	-12783 Jun 01 j 16:00	0°♊		min. Earth dist.	-12778 Sep 09 j 22:19	17°♓45'24 0.65430 AU
morning rise	-12783 Jun 21 j 07:26	14°♊05'26		direct	-12778 Oct 18 j 03:00	8°♓47'40
	-12783 Jul 13 j 01:05	0°♋		asc. node	-12778 Nov 12 j 00:45	12°♓18'19

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12778 Dec 26 j 07:44	0°♁	minimum elong	-12772 Jan 27 j 11:22	6°♌59'12	1°12'57
	-12777 Feb 16 j 16:58	0°♊	max. Earth dist.	-12772 Feb 04 j 12:53	12°♌10'49	2.65276 AU
	-12777 Apr 02 j 17:22	0°♋		-12772 Mar 03 j 07:52	0°♌	
	-12777 May 14 j 03:37	0°♌	morning rise	-12772 Mar 15 j 15:02	7°♌51'39	
	-12777 Jun 22 j 12:54	0°♍		-12772 Apr 19 j 06:37	0°♍	
	-12777 Jul 31 j 00:45	0°♎		-12772 Jun 05 j 01:52	0°♎	
evening set	-12777 Aug 23 j 18:45	18°♎30'52	asc. node	-12772 Jul 03 j 17:19	18°♎24'30	
	-12777 Sep 07 j 15:10	0°♏		-12772 Jul 21 j 19:05	0°♏	
desc. node	-12777 Sep 25 j 12:03	13°♏40'15		-12772 Sep 07 j 07:15	0°♏	
	-12777 Oct 17 j 05:07	0°♐		-12772 Oct 28 j 16:03	0°♐	
			retrograde	-12771 Jan 07 j 23:12	23°♐37'40	
conjunction	-12777 Oct 23 j 16:26	4°♐47'52 -0°20'43	opposition	-12771 Feb 07 j 19:34	18°♐28'19	6°33'42
minimum elong	-12777 Oct 23 j 14:54	4°♐45'02 0°19'59	greatest brilliancy	-12771 Feb 08 j 08:10	18°♐19'48	-2.8m
	-12777 Nov 27 j 11:02	0°♑	min. Earth dist.	-12771 Feb 09 j 08:49	18°♐03'10	0.38752 AU
max. Earth dist.	-12777 Dec 03 j 23:01	4°♑35'57 2.48763 AU	direct	-12771 Mar 10 j 20:56	13°♐10'29	
morning rise	-12777 Dec 21 j 09:55	16°♑46'26		-12771 May 06 j 07:36	0°♑	
	-12776 Jan 09 j 18:51	0°♒	desc. node	-12771 May 18 j 02:01	6°♑13'56	
	-12776 Feb 24 j 08:55	0°♓		-12771 Jun 26 j 18:17	0°♓	
	-12776 Apr 12 j 09:53	0°♈		-12771 Aug 11 j 21:50	0°♓	
	-12776 Jun 03 j 05:25	0°♉		-12771 Sep 26 j 08:43	0°♑	
	-12776 Aug 09 j 13:45	0°♊		-12771 Nov 11 j 07:29	0°♒	
retrograde	-12776 Sep 07 j 02:11	4°♊26'03		-12771 Dec 27 j 23:18	0°♓	
asc. node	-12776 Sep 29 j 03:59	1°♊16'12	evening set	-12770 Jan 17 j 21:01	13°♓21'00	
	-12776 Oct 03 j 08:34	30°♋♁		-12770 Feb 12 j 22:50	0°♈	
opposition	-12776 Oct 14 j 03:59	26°♋07'18 0°41'26	max. Earth dist.	-12770 Feb 28 j 02:52	9°♈42'51	2.65943 AU
greatest brilliancy	-12776 Oct 14 j 07:14	26°♋04'12 -1.7m				
min. Earth dist.	-12776 Oct 20 j 03:16	23°♋50'16 0.58962 AU	conjunction	-12770 Mar 07 j 02:00	14°♈11'07 -0°43'19	
direct	-12776 Nov 23 j 12:09	16°♋22'10	minimum elong	-12770 Mar 07 j 03:29	14°♈13'30 0°44'07	
	-12775 Jan 13 j 18:56	0°♋		-12770 Mar 31 j 13:45	0°♉	
	-12775 Mar 07 j 22:26	0°♌	morning rise	-12770 Apr 23 j 05:13	14°♉46'56	
	-12775 Apr 20 j 16:06	0°♍		-12770 May 16 j 05:27	0°♊	
	-12775 May 31 j 02:37	0°♍	asc. node	-12770 May 21 j 07:37	3°♊23'48	
	-12775 Jul 09 j 07:04	0°♎		-12770 Jun 29 j 14:41	0°♌	
desc. node	-12775 Aug 12 j 13:06	26°♎14'59		-12770 Aug 11 j 19:35	0°♍	
	-12775 Aug 17 j 11:28	0°♏		-12770 Sep 23 j 05:36	0°♍	
	-12775 Sep 26 j 14:07	0°♐		-12770 Nov 04 j 16:27	0°♎	
evening set	-12775 Oct 21 j 07:43	17°♐57'28		-12770 Dec 19 j 02:34	0°♏	
	-12775 Nov 07 j 06:32	0°♑		-12769 Feb 12 j 15:53	0°♐	
			retrograde	-12769 Mar 18 j 12:38	7°♐10'53	
conjunction	-12775 Dec 14 j 18:45	25°♑54'22 -1°09'29	desc. node	-12769 Apr 05 j 05:35	5°♐00'37	
minimum elong	-12775 Dec 14 j 17:08	25°♑51'38 1°09'24	min. Earth dist.	-12769 Apr 15 j 12:38	2°♐04'37 0.44387 AU	
	-12775 Dec 20 j 20:09	0°♒		-12769 Apr 21 j 20:17	30°♑♁	
max. Earth dist.	-12774 Jan 08 j 08:59	12°♒23'05 2.59353 AU	opposition	-12769 Apr 23 j 05:14	29°♑32'48 -1°13'12	
morning rise	-12774 Feb 04 j 16:25	0°♓17'24	greatest brilliancy	-12769 Apr 22 j 19:46	29°♑40'36 -2.5m	
	-12774 Feb 04 j 05:41	0°♓	direct	-12769 May 25 j 10:37	23°♑15'42	
	-12774 Mar 23 j 03:13	0°♈		-12769 Jun 29 j 06:26	0°♐	
	-12774 May 10 j 06:42	0°♉		-12769 Aug 30 j 10:36	0°♑	
	-12774 Jun 29 j 05:20	0°♊		-12769 Oct 20 j 09:53	0°♒	
asc. node	-12774 Aug 17 j 01:09	26°♊44'14		-12769 Dec 08 j 08:00	0°♓	
	-12774 Aug 23 j 17:17	0°♋		-12768 Jan 25 j 07:39	0°♈	
retrograde	-12774 Oct 28 j 06:52	19°♋13'18	evening set	-12768 Feb 26 j 10:36	20°♋28'17	
opposition	-12774 Dec 01 j 02:05	12°♋31'12 5°09'31		-12768 Mar 12 j 04:05	0°♉	
greatest brilliancy	-12774 Dec 02 j 09:42	12°♋04'22 -2.2m	max. Earth dist.	-12768 Mar 25 j 06:49	8°♉34'13 2.61343 AU	
min. Earth dist.	-12774 Dec 09 j 00:18	9°♋50'41 0.47794 AU	asc. node	-12768 Apr 07 j 01:25	17°♉00'39	
direct	-12773 Jan 07 j 07:48	4°♋20'03				
	-12773 Mar 19 j 18:15	0°♌	conjunction	-12768 Apr 15 j 04:44	22°♉26'08 0°05'10	
	-12773 May 04 j 18:08	0°♍	minimum elong	-12768 Apr 15 j 04:30	22°♉25'45 0°04'23	
	-12773 Jun 15 j 12:56	0°♎	behind sun begin	-12768 Apr 14 j 08:45	21°♉52'45	
desc. node	-12773 Jun 30 j 18:52	11°♎10'15	behind sun end	-12768 Apr 16 j 00:16	22°♉58'47	
	-12773 Jul 26 j 11:19	0°♏		-12768 Apr 26 j 10:42	0°♊	
	-12773 Sep 05 j 22:16	0°♐	morning rise	-12768 Jun 02 j 22:18	25°♊48'31	
	-12773 Oct 18 j 15:37	0°♑		-12768 Jun 08 j 21:21	0°♋	
	-12773 Dec 01 j 22:32	0°♒		-12768 Jul 20 j 14:33	0°♌	
evening set	-12773 Dec 08 j 11:25	4°♒20'25		-12768 Aug 29 j 23:55	0°♍	
	-12772 Jan 16 j 16:01	0°♓		-12768 Oct 08 j 17:12	0°♎	
				-12768 Nov 17 j 15:56	0°♏	
conjunction	-12772 Jan 27 j 10:26	6°♓57'43 -1°12'28		-12768 Dec 29 j 04:42	0°♐	

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

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12767 Feb 13 j 02:29	0°♎				-12762 Jan 07 j 06:52	0°♊	
desc. node	-12767 Feb 20 j 03:06	4°♎07'17				-12762 Feb 25 j 14:51	0°♋	
	-12767 Apr 28 j 19:17	0°♌				-12762 Apr 10 j 19:24	0°♈	
retrograde	-12767 May 04 j 20:06	0°♌14'50				-12762 May 21 j 22:34	0°♎	
	-12767 May 10 j 18:06	30°♋♎				-12762 Jun 30 j 04:31	0°♉	
min. Earth dist.	-12767 Jun 06 j 11:22	23°♎09'01	0.56331 AU	evening set		-12762 Jul 29 j 04:28	22°♉38'17	
opposition	-12767 Jun 12 j 22:29	20°♎39'35	-4°59'44			-12762 Aug 07 j 14:00	0°♊	
greatest brilliancy	-12767 Jun 11 j 19:36	21°♎05'34	-1.8m			-12762 Sep 15 j 02:07	0°♋	
direct	-12767 Jul 18 j 23:31	12°♎31'52						
	-12767 Sep 18 j 20:59	0°♌		conjunction		-12762 Sep 29 j 11:29	11°♋03'13	0°09'40
	-12767 Nov 14 j 21:55	0°♍		minimum elong		-12762 Sep 29 j 12:24	11°♋04'58	0°10'28
	-12766 Jan 04 j 13:18	0°♈		behind sun begin		-12762 Sep 28 j 15:53	10°♋25'48	
	-12766 Feb 21 j 08:48	0°♊		behind sun end		-12762 Sep 30 j 08:55	11°♋44'06	
asc. node	-12766 Feb 23 j 01:15	1°♊05'09		desc. node		-12762 Oct 12 j 05:59	20°♋45'07	
	-12766 Apr 07 j 18:52	0°♋				-12762 Oct 24 j 13:40	0°♌	
evening set	-12766 Apr 08 j 16:28	0°♋36'39		max. Earth dist.		-12762 Nov 12 j 09:43	13°♌54'10	2.43930 AU
max. Earth dist.	-12766 Apr 26 j 10:48	12°♋47'59	2.51959 AU	morning rise		-12762 Nov 30 j 05:30	26°♌47'08	
	-12766 May 20 j 21:20	0°♈				-12762 Dec 04 j 17:44	0°♎	
						-12761 Jan 17 j 01:51	0°♌	
conjunction	-12766 May 30 j 15:52	7°♈00'57	0°55'59			-12761 Mar 03 j 22:04	0°♍	
minimum elong	-12766 May 30 j 13:44	6°♈57'05	0°55'39			-12761 Apr 21 j 21:27	0°♈	
	-12766 Jun 30 j 22:56	0°♎				-12761 Jun 16 j 07:15	0°♊	
morning rise	-12766 Jul 23 j 23:17	17°♎20'46		retrograde		-12761 Aug 22 j 20:19	19°♊53'58	
	-12766 Aug 09 j 12:24	0°♉		opposition		-12761 Sep 29 j 19:45	11°♊08'48	-0°44'37
	-12766 Sep 17 j 07:28	0°♊		greatest brilliancy		-12761 Sep 29 j 23:13	11°♊05'25	-1.6m
	-12766 Oct 26 j 04:38	0°♋		min. Earth dist.		-12761 Oct 04 j 11:17	9°♊19'46	0.62172 AU
	-12766 Dec 05 j 02:47	0°♌		asc. node		-12761 Oct 16 j 19:08	4°♊56'56	
desc. node	-12765 Jan 07 j 21:46	24°♌14'40		direct		-12761 Nov 09 j 12:02	1°♊13'06	
	-12765 Jan 16 j 05:21	0°♎				-12760 Jan 30 j 05:18	0°♋	
	-12765 Mar 03 j 08:32	0°♌				-12760 Mar 18 j 05:39	0°♈	
	-12765 Apr 29 j 17:53	0°♍				-12760 Apr 29 j 16:31	0°♎	
retrograde	-12765 Jun 12 j 02:54	9°♍59'30				-12760 Jun 08 j 13:26	0°♉	
min. Earth dist.	-12765 Jul 19 j 06:01	1°♍12'52	0.64335 AU			-12760 Jul 17 j 08:57	0°♊	
opposition	-12765 Jul 22 j 01:25	0°♍05'05	-5°08'01			-12760 Aug 25 j 05:52	0°♋	
greatest brilliancy	-12765 Jul 21 j 14:10	0°♍16'24	-1.4m	desc. node		-12760 Aug 29 j 05:17	3°♋02'16	
	-12765 Jul 22 j 06:28	30°♋♌		evening set		-12760 Sep 29 j 15:05	26°♋42'25	
direct	-12765 Aug 29 j 18:19	20°♌51'16				-12760 Oct 04 j 01:39	0°♌	
	-12765 Oct 11 j 12:11	0°♍				-12760 Nov 14 j 12:17	0°♎	
	-12765 Dec 12 j 14:34	0°♈						
asc. node	-12764 Jan 11 j 06:26	17°♈10'45		conjunction		-12760 Nov 25 j 14:10	7°♎47'31	-0°56'28
	-12764 Feb 01 j 05:43	0°♊		minimum elong		-12760 Nov 25 j 11:44	7°♎43'16	0°56'08
	-12764 Mar 18 j 13:15	0°♋		max. Earth dist.		-12760 Dec 27 j 00:12	29°♎23'07	2.55693 AU
	-12764 Apr 30 j 19:02	0°♈				-12760 Dec 27 j 22:02	0°♌	
evening set	-12764 May 28 j 00:01	19°♈48'43		morning rise		-12759 Jan 18 j 18:51	14°♌36'36	
	-12764 Jun 10 j 15:43	0°♎				-12759 Feb 11 j 07:21	0°♍	
max. Earth dist.	-12764 Jun 24 j 05:31	10°♎16'33	2.40359 AU			-12759 Mar 30 j 11:38	0°♈	
	-12764 Jul 19 j 20:54	0°♉				-12759 May 18 j 13:23	0°♊	
						-12759 Jul 10 j 07:09	0°♋	
conjunction	-12764 Jul 25 j 10:29	4°♉19'27	1°10'32	asc. node		-12759 Sep 02 j 19:19	24°♋23'46	
minimum elong	-12764 Jul 25 j 12:08	4°♉22'38	1°11'00			-12759 Sep 28 j 12:12	0°♈	
	-12764 Aug 27 j 07:00	0°♊		retrograde		-12759 Oct 06 j 08:00	0°♈22'22	
morning rise	-12764 Sep 26 j 12:20	23°♊34'49				-12759 Oct 13 j 22:19	30°♋♋	
	-12764 Oct 04 j 19:25	0°♋		opposition		-12759 Nov 10 j 13:16	22°♋56'53	3°20'27
	-12764 Nov 13 j 07:08	0°♌		greatest brilliancy		-12759 Nov 11 j 09:00	22°♋39'03	-2.0m
desc. node	-12764 Nov 24 j 13:03	8°♌19'36		min. Earth dist.		-12759 Nov 18 j 02:33	20°♋13'21	0.52510 AU
	-12764 Dec 24 j 13:52	0°♎		direct		-12759 Dec 19 j 11:08	13°♋54'15	
	-12763 Feb 06 j 10:42	0°♌				-12758 Feb 12 j 10:05	0°♈	
	-12763 Mar 26 j 03:28	0°♍				-12758 Apr 03 j 10:40	0°♎	
	-12763 May 21 j 12:19	0°♈				-12758 May 15 j 22:15	0°♉	
retrograde	-12763 Jul 16 j 11:15	14°♈51'19				-12758 Jun 25 j 05:26	0°♊	
opposition	-12763 Aug 24 j 22:46	5°♈18'51	-3°33'34	desc. node		-12758 Jul 17 j 09:57	16°♊40'32	
greatest brilliancy	-12763 Aug 25 j 02:15	5°♈15'21	-1.4m			-12758 Aug 04 j 05:19	0°♋	
min. Earth dist.	-12763 Aug 25 j 22:25	4°♈55'05	0.66333 AU			-12758 Sep 13 j 23:28	0°♌	
	-12763 Sep 07 j 23:38	30°♋♍				-12758 Oct 26 j 04:08	0°♎	
direct	-12763 Oct 04 j 06:25	25°♍29'02		evening set		-12758 Nov 20 j 21:00	17°♎42'06	
	-12763 Nov 01 j 23:59	0°♈				-12758 Dec 09 j 02:07	0°♌	
asc. node	-12763 Nov 28 j 13:56	9°♈51'53						

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

conjunction	-12757 Jan 11 j 05:41	21° $\Omega$ 55'59	-1°15'54			-12752 Mar 03 j 03:38	0° $\mathbb{M}$	
minimum elong	-12757 Jan 11 j 05:46	21° $\Omega$ 56'07	1°16'11	desc. node		-12752 Mar 08 j 23:51	2° $\mathbb{M}$ 34'12	
	-12757 Jan 23 j 14:49	0° $\mathbb{M}$		retrograde		-12752 Apr 17 j 18:41	11° $\mathbb{M}$ 56'18	
max. Earth dist.	-12757 Jan 25 j 14:54	1° $\mathbb{M}$ 18'01	2.63584 AU	min. Earth dist.		-12752 May 18 j 09:01	5° $\mathbb{M}$ 38'53	0.51805 AU
morning rise	-12757 Mar 01 j 12:32	23° $\mathbb{M}$ 45'44		opposition		-12752 May 25 j 22:31	2° $\mathbb{M}$ 51'20	-4°08'37
	-12757 Mar 11 j 07:02	0° $\mathbb{A}$		greatest brilliancy		-12752 May 24 j 19:09	3° $\mathbb{M}$ 16'43	-2.1m
	-12757 Apr 27 j 13:45	0° $\mathbb{B}$				-12752 Jun 03 j 00:06	30° $\mathbb{R}$ $\Omega$	
	-12757 Jun 14 j 05:21	0° $\approx$		direct		-12752 Jun 29 j 15:07	25° $\Omega$ 21'27	
asc. node	-12757 Jul 21 j 13:36	23° $\approx$ 09'12				-12752 Jul 28 j 05:59	0° $\mathbb{M}$	
	-12757 Aug 01 j 19:46	0° $\mathbb{H}$				-12752 Oct 02 j 14:53	0° $\Omega$	
	-12757 Sep 23 j 03:51	0° $\mathbb{Y}$				-12752 Nov 23 j 21:47	0° $\mathbb{M}$	
retrograde	-12757 Dec 09 j 07:32	25° $\mathbb{Y}$ 40'57				-12751 Jan 12 j 04:27	0° $\mathbb{A}$	
opposition	-12756 Jan 09 j 15:34	20° $\mathbb{Y}$ 11'36	7°11'24			-12751 Feb 28 j 12:29	0° $\mathbb{B}$	
greatest brilliancy	-12756 Jan 11 j 01:23	19° $\mathbb{Y}$ 47'02	-2.6m	asc. node		-12751 Mar 11 j 16:27	7° $\mathbb{B}$ 15'49	
min. Earth dist.	-12756 Jan 15 j 10:30	18° $\mathbb{Y}$ 31'01	0.41080 AU	evening set		-12751 Mar 22 j 15:33	14° $\mathbb{B}$ 28'24	
direct	-12756 Feb 12 j 01:37	13° $\mathbb{Y}$ 55'33		max. Earth dist.		-12751 Apr 12 j 15:54	28° $\mathbb{B}$ 31'36	2.56129 AU
	-12756 Apr 05 j 22:30	0° $\mathbb{B}$				-12751 Apr 14 j 20:08	0° $\approx$	
	-12756 May 26 j 00:26	0° $\mathbb{H}$						
desc. node	-12756 Jun 03 j 16:08	5° $\mathbb{H}$ 43'57		conjunction		-12751 May 11 j 23:56	18° $\approx$ 41'27	0°37'41
	-12756 Jul 09 j 07:21	0° $\mathbb{B}$		minimum elong		-12751 May 11 j 22:17	18° $\approx$ 38'33	0°37'07
	-12756 Aug 21 j 17:40	0° $\Omega$				-12751 May 28 j 00:53	0° $\mathbb{H}$	
	-12756 Oct 04 j 17:49	0° $\mathbb{M}$		morning rise		-12751 Jul 02 j 12:31	25° $\mathbb{H}$ 43'12	
	-12756 Nov 18 j 20:30	0° $\Omega$				-12751 Jul 08 j 07:24	0° $\mathbb{Y}$	
evening set	-12755 Jan 02 j 06:45	28° $\Omega$ 51'45				-12751 Aug 17 j 03:04	0° $\mathbb{B}$	
	-12755 Jan 04 j 01:08	0° $\mathbb{M}$				-12751 Sep 25 j 04:39	0° $\mathbb{H}$	
						-12751 Nov 03 j 08:47	0° $\mathbb{B}$	
conjunction	-12755 Feb 19 j 20:58	0° $\mathbb{A}$ 01'30	-0°57'35			-12751 Dec 13 j 16:10	0° $\Omega$	
minimum elong	-12755 Feb 19 j 22:31	0° $\mathbb{A}$ 03'59	0°58'17	desc. node		-12750 Jan 24 j 18:04	29° $\Omega$ 27'41	
max. Earth dist.	-12755 Feb 18 j 15:19	29° $\mathbb{M}$ 14'03	2.66325 AU			-12750 Jan 25 j 13:25	0° $\mathbb{M}$	
	-12755 Feb 19 j 20:02	0° $\mathbb{A}$				-12750 Mar 15 j 04:04	0° $\Omega$	
	-12755 Apr 07 j 12:31	0° $\mathbb{B}$		retrograde		-12750 May 28 j 21:27	25° $\Omega$ 36'15	
morning rise	-12755 Apr 08 j 02:43	0° $\mathbb{B}$ 22'56		min. Earth dist.		-12750 Jul 03 j 09:33	17° $\Omega$ 25'00	0.61870 AU
	-12755 May 23 j 12:27	0° $\approx$		opposition		-12750 Jul 07 j 16:23	15° $\Omega$ 42'28	-5°20'35
asc. node	-12755 Jun 07 j 03:58	9° $\approx$ 41'03		greatest brilliancy		-12750 Jul 06 j 22:05	16° $\Omega$ 00'45	-1.5m
	-12755 Jul 07 j 13:59	0° $\mathbb{H}$		direct		-12750 Aug 14 j 10:57	6° $\Omega$ 50'25	
	-12755 Aug 20 j 21:32	0° $\mathbb{Y}$				-12750 Oct 27 j 21:36	0° $\mathbb{M}$	
	-12755 Oct 04 j 01:14	0° $\mathbb{B}$				-12750 Dec 21 j 21:28	0° $\mathbb{A}$	
	-12755 Nov 18 j 13:51	0° $\mathbb{H}$		asc. node		-12749 Jan 27 j 20:12	22° $\mathbb{A}$ 19'34	
	-12754 Jan 11 j 06:47	0° $\mathbb{B}$				-12749 Feb 09 j 01:31	0° $\mathbb{B}$	
retrograde	-12754 Feb 22 j 12:55	10° $\mathbb{B}$ 30'02				-12749 Mar 26 j 22:14	0° $\approx$	
min. Earth dist.	-12754 Mar 22 j 05:51	5° $\mathbb{B}$ 48'15	0.40425 AU	evening set		-12749 May 08 j 01:38	29° $\approx$ 16'55	
opposition	-12754 Mar 27 j 19:00	4° $\mathbb{B}$ 10'02	1°52'30			-12749 May 09 j 01:44	0° $\mathbb{H}$	
greatest brilliancy	-12754 Mar 27 j 11:44	4° $\mathbb{B}$ 15'25	-2.8m	max. Earth dist.		-12749 May 25 j 18:35	12° $\mathbb{H}$ 04'23	2.44717 AU
	-12754 Apr 13 j 08:40	30° $\mathbb{R}$ $\mathbb{H}$				-12749 Jun 18 j 23:37	0° $\mathbb{Y}$	
desc. node	-12754 Apr 21 j 22:38	28° $\mathbb{H}$ 53'38						
direct	-12754 Apr 27 j 16:31	28° $\mathbb{H}$ 40'37		conjunction		-12749 Jul 02 j 16:03	10° $\mathbb{Y}$ 20'06	1°13'03
	-12754 May 12 j 04:17	0° $\mathbb{B}$		minimum elong		-12749 Jul 02 j 15:17	10° $\mathbb{Y}$ 18'38	1°13'10
	-12754 Jul 22 j 10:15	0° $\Omega$				-12749 Jul 28 j 07:11	0° $\mathbb{B}$	
	-12754 Sep 10 j 22:19	0° $\mathbb{M}$		morning rise		-12749 Aug 31 j 13:54	26° $\mathbb{B}$ 41'22	
	-12754 Oct 29 j 02:48	0° $\Omega$				-12749 Sep 04 j 19:37	0° $\mathbb{H}$	
	-12754 Dec 15 j 21:25	0° $\mathbb{M}$				-12749 Oct 13 j 10:03	0° $\mathbb{B}$	
	-12753 Feb 01 j 09:02	0° $\mathbb{A}$				-12749 Nov 21 j 23:52	0° $\Omega$	
evening set	-12753 Feb 11 j 01:05	6° $\mathbb{A}$ 09'21		desc. node		-12749 Dec 12 j 09:49	14° $\Omega$ 59'05	
max. Earth dist.	-12753 Mar 15 j 19:19	27° $\mathbb{A}$ 13'13	2.63759 AU			-12748 Jan 02 j 10:45	0° $\mathbb{M}$	
	-12753 Mar 20 j 01:59	0° $\mathbb{B}$				-12748 Feb 15 j 19:48	0° $\Omega$	
						-12748 Apr 05 j 06:14	0° $\mathbb{M}$	
conjunction	-12753 Mar 31 j 07:13	7° $\mathbb{B}$ 19'27	-0°15'08			-12748 Jun 15 j 21:32	0° $\mathbb{A}$	
minimum elong	-12753 Mar 31 j 07:52	7° $\mathbb{B}$ 20'32	0°15'57	retrograde		-12748 Jul 02 j 18:48	1° $\mathbb{A}$ 42'13	
asc. node	-12753 Apr 24 j 19:15	23° $\mathbb{B}$ 31'50				-12748 Jul 18 j 16:09	30° $\mathbb{R}$ $\mathbb{M}$	
	-12753 May 04 j 10:55	0° $\approx$		opposition		-12748 Aug 11 j 13:30	21° $\mathbb{M}$ 57'56	-4°19'30
morning rise	-12753 May 18 j 00:26	9° $\approx$ 10'58		min. Earth dist.		-12748 Aug 11 j 01:37	22° $\mathbb{M}$ 09'55	0.66289 AU
	-12753 Jun 17 j 04:36	0° $\mathbb{H}$		greatest brilliancy		-12748 Aug 11 j 12:17	21° $\mathbb{M}$ 59'09	-1.4m
	-12753 Jul 29 j 08:48	0° $\mathbb{Y}$		direct		-12748 Sep 20 j 08:54	12° $\mathbb{M}$ 19'11	
	-12753 Sep 08 j 08:18	0° $\mathbb{B}$				-12748 Sep 22 j 07:21	0° $\mathbb{A}$	
	-12753 Oct 18 j 18:26	0° $\mathbb{H}$		asc. node		-12748 Dec 15 j 03:18	11° $\mathbb{A}$ 23'21	
	-12753 Nov 28 j 15:34	0° $\mathbb{B}$				-12747 Jan 17 j 02:58	0° $\mathbb{B}$	
	-12752 Jan 10 j 21:55	0° $\Omega$				-12747 Mar 05 j 20:10	0° $\approx$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12747 Apr 18 j 12:57	0° $\text{H}$		max. Earth dist.	-12742 Jan 14 j 23:19	19° $\text{H}$ 48'39	2.61087 AU
	-12747 May 29 j 12:26	0° $\text{Y}$			-12742 Jan 30 j 13:40	0° $\text{M}$	
evening set	-12747 Jul 03 j 18:15	26° $\text{Y}$ 55'38		morning rise	-12742 Feb 13 j 23:19	9° $\text{M}$ 19'04	
	-12747 Jul 07 j 17:18	0° $\text{B}$			-12742 Mar 18 j 08:13	0° $\text{A}$	
	-12747 Aug 15 j 02:08	0° $\text{II}$			-12742 May 05 j 02:31	0° $\text{Z}$	
					-12742 Jun 23 j 00:07	0° $\approx$	
conjunction	-12747 Sep 03 j 17:01	15° $\text{II}$ 21'19	0°40'10	asc. node	-12742 Aug 07 j 08:31	26° $\approx$ 23'04	
minimum elong	-12747 Sep 03 j 20:11	15° $\text{II}$ 27'29	0°40'56		-12742 Aug 13 j 22:46	0° $\text{H}$	
	-12747 Sep 22 j 13:20	0° $\text{E}$			-12742 Oct 25 j 18:06	0° $\text{Y}$	
max. Earth dist.	-12747 Oct 05 j 17:34	10° $\text{E}$ 08'20	2.39628 AU	retrograde	-12742 Nov 11 j 06:01	1° $\text{Y}$ 36'53	
desc. node	-12747 Oct 29 j 02:16	27° $\text{E}$ 50'16			-12742 Nov 27 j 07:22	30° $\text{R}$ $\text{H}$	
	-12747 Oct 31 j 23:38	0° $\text{Q}$		opposition	-12742 Dec 14 j 05:28	25° $\text{H}$ 21'12	6°06'19
morning rise	-12747 Nov 06 j 14:59	4° $\text{Q}$ 11'58		greatest brilliancy	-12742 Dec 15 j 17:39	24° $\text{H}$ 52'00	-2.4m
	-12747 Dec 12 j 02:53	0° $\text{M}$		min. Earth dist.	-12742 Dec 21 j 22:30	22° $\text{H}$ 52'56	0.45223 AU
	-12746 Jan 24 j 13:03	0° $\text{A}$		direct	-12741 Jan 19 j 06:03	17° $\text{H}$ 47'52	
	-12746 Mar 11 j 19:37	0° $\text{M}$			-12741 Mar 06 j 05:02	0° $\text{Y}$	
	-12746 May 01 j 07:58	0° $\text{A}$			-12741 Apr 26 j 14:50	0° $\text{B}$	
	-12746 Jul 04 j 19:03	0° $\text{Z}$			-12741 Jun 08 j 22:27	0° $\text{II}$	
retrograde	-12746 Aug 07 j 18:08	6° $\text{Z}$ 07'29		desc. node	-12741 Jun 21 j 08:35	8° $\text{II}$ 53'30	
	-12746 Sep 07 j 16:27	30° $\text{R}$ $\text{A}$			-12741 Jul 20 j 15:58	0° $\text{E}$	
opposition	-12746 Sep 15 j 10:45	27° $\text{A}$ 00'39	-1°58'58		-12741 Aug 31 j 15:08	0° $\text{Q}$	
greatest brilliancy	-12746 Sep 15 j 16:52	26° $\text{A}$ 54'35	-1.5m		-12741 Oct 13 j 16:31	0° $\text{M}$	
min. Earth dist.	-12746 Sep 18 j 16:39	25° $\text{A}$ 43'22	0.64522 AU		-12741 Nov 27 j 04:37	0° $\text{A}$	
direct	-12746 Oct 26 j 03:51	17° $\text{A}$ 02'37		evening set	-12741 Dec 18 j 02:52	13° $\text{A}$ 47'17	
asc. node	-12746 Nov 02 j 10:25	17° $\text{A}$ 22'31			-12740 Jan 12 j 00:51	0° $\text{M}$	
	-12746 Dec 16 j 10:50	0° $\text{Z}$					
	-12745 Feb 10 j 11:29	0° $\approx$		conjunction	-12740 Feb 05 j 11:48	15° $\text{M}$ 45'30	-1°08'13
	-12745 Mar 28 j 07:29	0° $\text{H}$		minimum elong	-12740 Feb 05 j 13:04	15° $\text{M}$ 47'32	1°08'47
	-12745 May 09 j 01:12	0° $\text{Y}$		max. Earth dist.	-12740 Feb 10 j 06:23	18° $\text{M}$ 49'19	2.65875 AU
	-12745 Jun 17 j 14:02	0° $\text{B}$			-12740 Feb 27 j 17:03	0° $\text{A}$	
	-12745 Jul 26 j 04:00	0° $\text{II}$		morning rise	-12740 Mar 24 j 05:34	16° $\text{A}$ 20'03	
	-12745 Sep 02 j 20:06	0° $\text{E}$			-12740 Apr 14 j 13:05	0° $\text{Z}$	
evening set	-12745 Sep 06 j 23:40	3° $\text{E}$ 11'04			-12740 May 31 j 00:17	0° $\approx$	
desc. node	-12745 Sep 15 j 21:59	10° $\text{E}$ 00'36		asc. node	-12740 Jun 23 j 23:35	15° $\approx$ 36'10	
	-12745 Oct 12 j 11:22	0° $\text{Q}$			-12740 Jul 16 j 00:32	0° $\text{H}$	
					-12740 Aug 31 j 01:12	0° $\text{Y}$	
conjunction	-12745 Nov 05 j 13:58	17° $\text{Q}$ 41'22	-0°35'47		-12740 Oct 17 j 12:45	0° $\text{B}$	
minimum elong	-12745 Nov 05 j 11:40	17° $\text{Q}$ 37'13	0°35'11		-12740 Dec 11 j 23:57	0° $\text{II}$	
	-12745 Nov 22 j 17:58	0° $\text{M}$		retrograde	-12739 Jan 25 j 09:44	10° $\text{II}$ 53'45	
max. Earth dist.	-12745 Dec 13 j 13:24	14° $\text{M}$ 35'58	2.51387 AU	min. Earth dist.	-12739 Feb 24 j 07:39	5° $\text{II}$ 54'19	0.38587 AU
morning rise	-12744 Jan 01 j 13:44	27° $\text{M}$ 38'16		opposition	-12739 Feb 25 j 14:02	5° $\text{II}$ 33'50	5°13'04
	-12744 Jan 05 j 01:25	0° $\text{A}$		greatest brilliancy	-12739 Feb 25 j 13:34	5° $\text{II}$ 34'09	-2.9m
	-12744 Feb 19 j 12:16	0° $\text{M}$		direct	-12739 Mar 28 j 00:17	0° $\text{II}$ 26'32	
	-12744 Apr 07 j 03:16	0° $\text{A}$		desc. node	-12739 May 08 j 14:38	10° $\text{II}$ 06'42	
	-12744 May 27 j 15:39	0° $\text{Z}$			-12739 Jun 16 j 21:21	0° $\text{E}$	
	-12744 Jul 25 j 05:08	0° $\approx$			-12739 Aug 05 j 00:16	0° $\text{Q}$	
retrograde	-12744 Sep 17 j 02:12	13° $\approx$ 39'52			-12739 Sep 20 j 16:13	0° $\text{M}$	
asc. node	-12744 Sep 19 j 12:38	13° $\approx$ 37'37			-12739 Nov 06 j 05:42	0° $\text{A}$	
opposition	-12744 Oct 23 j 13:28	5° $\approx$ 37'59	1°36'11		-12739 Dec 23 j 05:08	0° $\text{M}$	
greatest brilliancy	-12744 Oct 23 j 21:49	5° $\approx$ 30'08	-1.8m	evening set	-12738 Jan 26 j 17:39	21° $\text{M}$ 57'54	
min. Earth dist.	-12744 Oct 30 j 04:01	3° $\approx$ 08'41	0.56870 AU		-12738 Feb 08 j 08:05	0° $\text{A}$	
	-12744 Nov 08 j 06:44	30° $\text{R}$ $\text{Z}$		max. Earth dist.	-12738 Mar 05 j 20:07	16° $\text{A}$ 20'07	2.65389 AU
direct	-12744 Dec 02 j 12:30	26° $\text{Z}$ 03'23					
	-12744 Dec 28 j 03:03	0° $\approx$		conjunction	-12738 Mar 15 j 20:58	22° $\text{A}$ 48'16	-0°33'40
	-12743 Feb 28 j 12:15	0° $\text{H}$		minimum elong	-12738 Mar 15 j 22:14	22° $\text{A}$ 50'19	0°34'28
	-12743 Apr 14 j 14:33	0° $\text{Y}$			-12738 Mar 26 j 23:34	0° $\text{Z}$	
	-12743 May 25 j 13:52	0° $\text{B}$		morning rise	-12738 May 02 j 02:11	23° $\text{Z}$ 42'33	
	-12743 Jul 04 j 01:19	0° $\text{II}$		asc. node	-12738 May 11 j 13:48	0° $\approx$ 01'45	
desc. node	-12743 Aug 03 j 01:10	22° $\text{II}$ 52'45			-12738 May 11 j 12:45	0° $\approx$	
	-12743 Aug 12 j 10:48	0° $\text{E}$			-12738 Jun 24 j 16:12	0° $\text{H}$	
	-12743 Sep 21 j 17:17	0° $\text{Q}$			-12738 Aug 06 j 11:13	0° $\text{Y}$	
evening set	-12743 Nov 01 j 22:02	29° $\text{Q}$ 34'28			-12738 Sep 17 j 06:35	0° $\text{B}$	
	-12743 Nov 02 j 12:34	0° $\text{M}$			-12738 Oct 28 j 18:47	0° $\text{II}$	
	-12743 Dec 16 j 04:01	0° $\text{A}$			-12738 Dec 10 j 08:55	0° $\text{E}$	
					-12737 Jan 26 j 23:17	0° $\text{Q}$	
conjunction	-12743 Dec 25 j 03:30	6° $\text{A}$ 01'14	-1°13'40	desc. node	-12737 Mar 26 j 17:00	20° $\text{Q}$ 51'43	
minimum elong	-12743 Dec 25 j 02:30	5° $\text{A}$ 59'34	1°13'45	retrograde	-12737 Mar 30 j 15:43	20° $\text{Q}$ 58'15	



## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 17

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

min. Earth dist.	-12737 Apr 28 j 08:47	15°Ω29'24	0.46975 AU	evening set	-12732 Jun 09 j 17:20	2°Υ49'18	
opposition	-12737 May 06 j 09:23	12°Ω43'17	-2°33'05		-12732 Jul 15 j 04:24	0°Ϡ	
greatest brilliancy	-12737 May 05 j 14:02	13°Ω00'02	-2.3m	max. Earth dist.	-12732 Jul 23 j 14:44	6°Ϡ33'35	2.38697 AU
direct	-12737 Jun 08 j 13:14	5°Ω58'41					
	-12737 Aug 21 j 13:11	0°൬		conjunction	-12732 Aug 08 j 17:06	19°Ϡ08'32	1°03'07
	-12737 Oct 14 j 07:33	0°♁		minimum elong	-12732 Aug 08 j 19:59	19°Ϡ14'12	1°03'42
	-12737 Dec 03 j 03:54	0°♌			-12732 Aug 22 j 13:33	0°Π	
	-12736 Jan 20 j 12:52	0°♊			-12732 Sep 30 j 00:45	0°♋	
evening set	-12736 Mar 06 j 11:42	29°♊18'45		morning rise	-12732 Oct 11 j 19:53	9°♋04'56	
	-12736 Mar 07 j 13:07	0°♋			-12732 Nov 08 j 10:59	0°♌	
asc. node	-12736 Mar 28 j 08:40	13°♋38'00		desc. node	-12732 Nov 14 j 21:34	4°♌47'37	
max. Earth dist.	-12736 Mar 31 j 18:17	15°♋53'03	2.59673 AU		-12732 Dec 19 j 15:00	0°൬	
	-12736 Apr 21 j 20:06	0°♌			-12731 Feb 01 j 05:58	0°♁	
					-12731 Mar 20 j 05:43	0°♌	
conjunction	-12736 Apr 24 j 16:42	1°♌56'11	0°17'11		-12731 May 12 j 12:33	0°♊	
minimum elong	-12736 Apr 24 j 15:57	1°♌54'54	0°16'28	retrograde	-12731 Jul 24 j 12:00	22°♊50'46	
	-12736 Jun 04 j 04:53	0°♋		opposition	-12731 Sep 01 j 17:34	13°♊26'25	-3°01'52
morning rise	-12736 Jun 13 j 05:27	6°♋24'45		greatest brilliancy	-12731 Sep 01 j 22:44	13°♊21'15	-1.4m
	-12736 Jul 15 j 18:19	0°Υ		min. Earth dist.	-12731 Sep 03 j 12:28	12°♊43'27	0.65958 AU
	-12736 Aug 24 j 22:40	0°Ϡ		direct	-12731 Oct 12 j 05:45	3°♊32'24	
	-12736 Oct 03 j 09:35	0°Π		asc. node	-12731 Nov 18 j 23:47	10°♊59'15	
	-12736 Nov 12 j 00:07	0°♋			-12731 Dec 31 j 00:36	0°♋	
	-12736 Dec 22 j 22:40	0°♌			-12730 Feb 20 j 00:00	0°♌	
	-12735 Feb 05 j 06:28	0°൬			-12730 Apr 05 j 16:49	0°♋	
desc. node	-12735 Feb 10 j 14:32	3°൬20'51			-12730 May 17 j 00:58	0°Υ	
	-12735 Apr 01 j 08:12	0°♁			-12730 Jun 25 j 09:22	0°Ϡ	
retrograde	-12735 May 13 j 22:20	10°♁08'56			-12730 Aug 02 j 20:03	0°Π	
min. Earth dist.	-12735 Jun 16 j 15:01	2°♁38'18	0.58516 AU	evening set	-12730 Aug 12 j 16:24	7°Π42'08	
greatest brilliancy	-12735 Jun 21 j 07:40	0°♁48'01	-1.7m		-12730 Sep 10 j 08:51	0°♋	
opposition	-12735 Jun 22 j 08:14	0°♁23'53	-5°14'29	desc. node	-12730 Oct 02 j 17:19	17°♋06'28	
	-12735 Jun 23 j 08:40	30°♌൬					
direct	-12735 Jul 29 j 00:38	21°൬58'47		conjunction	-12730 Oct 13 j 10:12	25°♋11'00	-0°08'03
	-12735 Sep 06 j 08:15	0°♁		minimum elong	-12730 Oct 13 j 09:34	25°♋09'50	0°07'18
	-12735 Nov 08 j 11:32	0°♌		behind sun begin	-12730 Oct 12 j 10:09	24°♋25'53	
	-12735 Dec 30 j 07:30	0°♊		behind sun end	-12730 Oct 14 j 08:59	25°♋53'44	
asc. node	-12734 Feb 13 j 10:25	28°♊00'16			-12730 Oct 19 j 20:41	0°♌	
	-12734 Feb 16 j 13:21	0°♋		max. Earth dist.	-12730 Nov 25 j 12:41	26°♌48'05	2.46586 AU
	-12734 Apr 03 j 03:06	0°♌			-12730 Nov 30 j 00:14	0°൬	
evening set	-12734 Apr 18 j 22:58	10°♌49'23		morning rise	-12730 Dec 12 j 13:51	8°൬52'30	
max. Earth dist.	-12734 May 05 j 17:54	22°♌32'20	2.49417 AU		-12729 Jan 12 j 06:37	0°♁	
	-12734 May 16 j 06:08	0°♋			-12729 Feb 26 j 21:23	0°♌	
					-12729 Apr 16 j 05:16	0°♊	
conjunction	-12734 Jun 11 j 02:17	18°♋44'32	1°04'24		-12729 Jun 08 j 03:58	0°♋	
minimum elong	-12734 Jun 11 j 00:16	18°♋40'50	1°04'14	retrograde	-12729 Sep 01 j 00:10	28°♋32'47	
	-12734 Jun 26 j 06:27	0°Υ		asc. node	-12729 Oct 07 j 04:09	20°♋32'02	
	-12734 Aug 04 j 17:47	0°Ϡ		opposition	-12729 Oct 08 j 11:51	20°♋01'30	0°03'34
morning rise	-12734 Aug 06 j 07:29	1°Ϡ12'38		greatest brilliancy	-12728 Mar 20 j 03:48	5°♋26'48	0.6m
	-12734 Sep 12 j 10:09	0°Π		min. Earth dist.	-12729 Oct 13 j 20:48	17°♋56'43	0.60507 AU
	-12734 Oct 21 j 04:19	0°♋		direct	-12729 Nov 18 j 00:06	10°♋10'23	
	-12734 Nov 29 j 22:28	0°♌			-12728 Jan 21 j 11:24	0°♌	
desc. node	-12734 Dec 29 j 06:25	21°♌15'45			-12728 Mar 11 j 23:34	0°♋	
	-12733 Jan 10 j 17:04	0°൬			-12728 Apr 24 j 03:20	0°Υ	
	-12733 Feb 24 j 23:12	0°♁			-12728 Jun 03 j 08:04	0°Ϡ	
	-12733 Apr 18 j 21:07	0°♌			-12728 Jul 12 j 08:13	0°Π	
retrograde	-12733 Jun 20 j 02:50	18°♌18'42		desc. node	-12728 Aug 19 j 17:42	29°Π31'34	
min. Earth dist.	-12733 Jul 28 j 00:54	9°♌14'47	0.65297 AU		-12728 Aug 20 j 08:37	0°♋	
opposition	-12733 Jul 30 j 00:42	8°♌26'35	-4°53'55		-12728 Sep 29 j 07:10	0°♌	
greatest brilliancy	-12733 Jul 29 j 17:16	8°♌34'05	-1.4m	evening set	-12728 Oct 12 j 04:24	9°♌27'03	
	-12733 Aug 26 j 04:01	30°♌♁			-12728 Nov 09 j 19:35	0°൬	
direct	-12733 Sep 07 j 03:54	29°♁02'52					
	-12733 Sep 19 j 19:27	0°♌		conjunction	-12728 Dec 06 j 17:51	18°൬45'26	-1°04'48
	-12733 Dec 05 j 20:55	0°♊		minimum elong	-12728 Dec 06 j 15:48	18°൬41'55	1°04'37
asc. node	-12732 Jan 01 j 17:02	14°♊57'16			-12728 Dec 23 j 06:07	0°♁	
	-12732 Jan 26 j 21:26	0°♋		max. Earth dist.	-12727 Jan 03 j 07:55	7°♁26'31	2.57792 AU
	-12732 Mar 13 j 15:44	0°♌		morning rise	-12727 Jan 28 j 14:53	24°♁09'22	
	-12732 Apr 26 j 01:34	0°♋			-12727 Feb 06 j 14:07	0°♌	
	-12732 Jun 05 j 23:22	0°Υ			-12727 Mar 25 j 13:23	0°♊	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12727 May 13 j 00:47	0°♂				-12722 Sep 04 j 00:08	0°♍		
	-12727 Jul 02 j 22:26	0°♊				-12722 Oct 23 j 13:42	0°♌		
asc. node	-12727 Aug 24 j 02:35	26°♊46'53				-12722 Dec 10 j 22:25	0°♍		
	-12727 Aug 31 j 17:35	0°♋				-12721 Jan 27 j 16:37	0°♌		
retrograde	-12727 Oct 18 j 08:33	11°♋10'42		evening set		-12721 Feb 19 j 20:25	14°♌44'38		
opposition	-12727 Nov 21 j 20:01	4°♋08'07	4°22'21			-12721 Mar 15 j 12:05	0°♌		
greatest brilliancy	-12727 Nov 22 j 22:40	3°♋44'46	-2.1m	max. Earth dist.		-12721 Mar 21 j 19:26	4°♌06'31	2.62528 AU	
min. Earth dist.	-12727 Nov 29 j 17:04	1°♋23'18	0.49942 AU						
	-12727 Dec 03 j 22:29	30°♋		conjunction		-12721 Apr 09 j 08:00	16°♌17'21	-0°03'40	
direct	-12727 Dec 29 j 21:47	25°♋31'12		minimum elong		-12721 Apr 09 j 08:10	16°♌17'37	0°04'27	
	-12726 Jan 25 j 17:32	0°♋		behind sun begin		-12721 Apr 08 j 12:38	15°♌45'18		
	-12726 Mar 26 j 05:44	0°♌		behind sun end		-12721 Apr 10 j 03:42	16°♌49'58		
	-12726 May 09 j 08:23	0°♍		asc. node		-12721 Apr 15 j 02:47	20°♌07'42		
	-12726 Jun 19 j 08:54	0°♎				-12721 Apr 29 j 20:26	0°♊		
desc. node	-12726 Jul 07 j 22:44	13°♎47'32		morning rise		-12721 May 27 j 12:47	18°♊54'05		
	-12726 Jul 29 j 19:29	0°♏				-12721 Jun 12 j 11:04	0°♋		
	-12726 Sep 08 j 21:29	0°♐				-12721 Jul 24 j 09:33	0°♌		
	-12726 Oct 21 j 07:36	0°♑				-12721 Sep 03 j 01:15	0°♍		
evening set	-12726 Dec 01 j 02:25	27°♑47'58				-12721 Oct 13 j 01:12	0°♎		
	-12726 Dec 04 j 09:20	0°♒				-12721 Nov 22 j 07:51	0°♏		
	-12725 Jan 18 j 23:38	0°♓				-12720 Jan 03 j 09:44	0°♐		
						-12720 Feb 19 j 23:11	0°♑		
conjunction	-12725 Jan 20 j 15:30	1°♓04'40	-1°14'31	desc. node		-12720 Feb 28 j 08:59	4°♑33'42		
minimum elong	-12725 Jan 20 j 16:07	1°♓05'40	1°14'56	retrograde		-12720 Apr 27 j 18:48	23°♑04'54		
max. Earth dist.	-12725 Jan 31 j 12:40	8°♓07'00	2.64621 AU	min. Earth dist.		-12720 May 29 j 12:31	16°♑19'48	0.54386 AU	
	-12725 Mar 06 j 15:01	0°♌		greatest brilliancy		-12720 Jun 04 j 08:09	14°♑07'25	-1.9m	
morning rise	-12725 Mar 10 j 06:35	2°♌19'53		opposition		-12720 Jun 05 j 12:07	13°♑40'46	-4°42'44	
	-12725 Apr 22 j 16:50	0°♌		direct		-12720 Jul 10 j 22:38	5°♑48'56		
	-12725 Jun 08 j 20:08	0°♍				-12720 Sep 24 j 12:06	0°♒		
asc. node	-12725 Jul 11 j 19:19	20°♍54'02				-12720 Nov 18 j 03:39	0°♓		
	-12725 Jul 26 j 06:35	0°♋				-12719 Jan 07 j 04:21	0°♌		
	-12725 Sep 13 j 09:16	0°♌				-12719 Feb 23 j 19:34	0°♍		
	-12725 Nov 09 j 14:43	0°♍		asc. node		-12719 Mar 02 j 01:42	4°♍02'47		
retrograde	-12725 Dec 26 j 08:22	11°♍23'33		evening set		-12719 Apr 01 j 06:08	23°♍57'02		
opposition	-12724 Jan 26 j 06:13	6°♍10'16	7°06'18			-12719 Apr 10 j 05:35	0°♊		
greatest brilliancy	-12724 Jan 27 j 06:01	5°♍53'45	-2.7m	max. Earth dist.		-12719 Apr 20 j 08:58	6°♊54'27	2.53913 AU	
min. Earth dist.	-12724 Jan 29 j 22:24	5°♍09'15	0.39509 AU						
direct	-12724 Feb 27 j 05:57	0°♍31'07		conjunction		-12719 May 22 j 10:10	29°♊17'03	0°48'33	
	-12724 May 15 j 19:56	0°♎		minimum elong		-12719 May 22 j 08:09	29°♊13'28	0°48'07	
desc. node	-12724 May 25 j 05:42	5°♎41'09				-12719 May 23 j 10:18	0°♋		
	-12724 Jul 02 j 00:44	0°♏				-12719 Jul 03 j 14:55	0°♌		
	-12724 Aug 15 j 17:34	0°♐		morning rise		-12719 Jul 14 j 08:58	8°♌01'59		
	-12724 Sep 29 j 10:13	0°♑				-12719 Aug 12 j 07:42	0°♍		
	-12724 Nov 13 j 22:33	0°♒				-12719 Sep 20 j 05:35	0°♎		
	-12724 Dec 30 j 08:25	0°♓				-12719 Oct 29 j 05:03	0°♏		
evening set	-12723 Jan 11 j 07:07	7°♓39'19				-12719 Dec 08 j 05:48	0°♐		
	-12723 Feb 15 j 05:35	0°♌		desc. node		-12718 Jan 15 j 04:06	26°♐59'54		
max. Earth dist.	-12723 Feb 24 j 05:23	5°♌45'23	2.66214 AU			-12718 Jan 19 j 13:18	0°♑		
						-12718 Mar 07 j 09:41	0°♒		
conjunction	-12723 Feb 28 j 15:15	8°♌34'58	-0°49'43			-12718 May 09 j 18:31	0°♓		
minimum elong	-12723 Feb 28 j 16:49	8°♌37'28	0°50'27	retrograde		-12718 Jun 06 j 04:26	4°♓24'11		
	-12723 Apr 02 j 21:23	0°♌				-12718 Jul 01 j 12:59	30°♓		
morning rise	-12723 Apr 16 j 18:19	9°♌00'46		min. Earth dist.		-12718 Jul 12 j 14:10	25°♓52'50	0.63348 AU	
	-12723 May 18 j 16:56	0°♍		greatest brilliancy		-12718 Jul 15 j 11:16	24°♓43'30	-1.5m	
asc. node	-12723 May 28 j 09:46	6°♍26'46		opposition		-12718 Jul 16 j 01:44	24°♓28'59	-5°15'24	
	-12723 Jul 02 j 09:32	0°♋		direct		-12718 Aug 23 j 08:49	15°♓24'23		
	-12723 Aug 15 j 01:24	0°♌				-12718 Oct 18 j 12:57	0°♍		
	-12723 Sep 27 j 03:33	0°♍				-12718 Dec 15 j 23:27	0°♌		
	-12723 Nov 09 j 15:14	0°♎		asc. node		-12717 Jan 18 j 06:05	19°♌39'07		
	-12723 Dec 26 j 09:08	0°♏				-12717 Feb 03 j 23:42	0°♍		
retrograde	-12722 Mar 08 j 14:02	26°♏25'55				-12717 Mar 22 j 03:34	0°♊		
min. Earth dist.	-12722 Apr 05 j 05:11	21°♏34'44	0.42442 AU			-12717 May 04 j 09:38	0°♋		
opposition	-12722 Apr 12 j 06:09	19°♏22'11	0°00'47	evening set		-12717 May 19 j 17:05	11°♋03'03		
greatest brilliancy	-12723 Apr 25 j 07:28	14°♏35'41	1.7m	max. Earth dist.		-12717 Jun 09 j 16:46	26°♋32'17	2.42201 AU	
desc. node	-12722 Apr 12 j 10:29	19°♏18'47				-12717 Jun 14 j 07:45	0°♌		
direct	-12722 May 13 j 19:02	13°♏27'36							
	-12722 Jul 10 j 21:48	0°♐		conjunction		-12717 Jul 15 j 20:09	23°♌59'46	1°13'13	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

minimum elong	-12717 Jul 15 j 20:39	24° $\Upsilon$ 00'45	1°13'32	asc. node	-12712 Sep 09 j 20:15	21° $\approx$ 33'22	
	-12717 Jul 23 j 14:39	0° $\mathcal{B}$		retrograde	-12712 Sep 27 j 18:21	23° $\approx$ 24'39	
	-12717 Aug 31 j 01:53	0° $\Pi$		opposition	-12712 Nov 02 j 13:45	15° $\approx$ 41'54	2°34'38
morning rise	-12717 Sep 15 j 15:51	12° $\Pi$ 10'35		greatest brilliancy	-12712 Nov 03 j 04:13	15° $\approx$ 28'32	-1.9m
	-12717 Oct 08 j 14:43	0° $\mathfrak{C}$		min. Earth dist.	-12712 Nov 09 j 17:43	13° $\approx$ 03'23	0.54534 AU
	-12717 Nov 17 j 02:26	0° $\Omega$		direct	-12712 Dec 12 j 00:05	6° $\approx$ 22'57	
desc. node	-12717 Dec 02 j 19:49	11° $\Omega$ 36'56			-12711 Feb 19 j 14:18	0° $\mathcal{H}$	
	-12717 Dec 28 j 09:16	0° $\mathfrak{M}$			-12711 Apr 07 j 23:40	0° $\Upsilon$	
	-12716 Feb 10 j 08:47	0° $\underline{\mathfrak{L}}$			-12711 May 19 j 17:44	0° $\mathcal{B}$	
	-12716 Mar 29 j 13:30	0° $\mathfrak{M}$			-12711 Jun 28 j 15:24	0° $\Pi$	
	-12716 May 28 j 02:27	0° $\mathcal{A}$		desc. node	-12711 Jul 24 j 14:18	19° $\Pi$ 39'22	
retrograde	-12716 Jul 10 j 16:37	9° $\mathcal{A}$ 43'00			-12711 Aug 07 j 07:45	0° $\mathfrak{C}$	
opposition	-12716 Aug 19 j 07:15	0° $\mathcal{A}$ 04'40	-3°54'06		-12711 Sep 16 j 19:31	0° $\Omega$	
greatest brilliancy	-12716 Aug 19 j 08:49	0° $\mathcal{A}$ 03'05	-1.4m		-12711 Oct 28 j 18:30	0° $\mathfrak{M}$	
	-12716 Aug 19 j 11:52	30° $\mathfrak{R}\mathfrak{M}$		evening set	-12711 Nov 12 j 21:50	10° $\mathfrak{M}$ 31'29	
min. Earth dist.	-12716 Aug 19 j 14:37	29° $\mathfrak{M}$ 57'14	0.66432 AU		-12711 Dec 11 j 12:14	0° $\underline{\mathfrak{L}}$	
direct	-12716 Sep 28 j 09:33	20° $\mathfrak{M}$ 19'22					
	-12716 Nov 11 j 10:58	0° $\mathcal{A}$		conjunction	-12710 Jan 04 j 01:18	15° $\underline{\mathfrak{L}}$ 40'32	-1°15'39
asc. node	-12716 Dec 05 j 13:15	10° $\mathcal{A}$ 33'21		minimum elong	-12710 Jan 04 j 00:56	15° $\underline{\mathfrak{L}}$ 39'56	1°15'53
	-12715 Jan 10 j 22:59	0° $\mathfrak{Z}$		max. Earth dist.	-12710 Jan 21 j 05:44	26° $\underline{\mathfrak{L}}$ 56'37	2.62561 AU
	-12715 Feb 28 j 14:27	0° $\approx$			-12710 Jan 25 j 22:23	0° $\mathfrak{M}$	
	-12715 Apr 13 j 15:10	0° $\mathcal{H}$		morning rise	-12710 Feb 22 j 23:24	18° $\mathfrak{M}$ 05'41	
	-12715 May 24 j 17:35	0° $\Upsilon$			-12710 Mar 13 j 14:53	0° $\mathcal{A}$	
	-12715 Jul 02 j 23:37	0° $\mathcal{B}$			-12710 Apr 30 j 01:49	0° $\mathfrak{Z}$	
evening set	-12715 Jul 17 j 23:52	11° $\mathcal{B}$ 41'41			-12710 Jun 17 j 04:46	0° $\approx$	
	-12715 Aug 10 j 08:47	0° $\Pi$		asc. node	-12710 Jul 28 j 15:28	25° $\approx$ 06'54	
	-12715 Sep 17 j 19:54	0° $\mathfrak{C}$			-12710 Aug 05 j 23:11	0° $\mathcal{H}$	
					-12710 Oct 01 j 09:39	0° $\Upsilon$	
conjunction	-12715 Sep 18 j 09:08	0° $\mathfrak{C}$ 25'34	0°23'19	retrograde	-12710 Nov 26 j 15:34	15° $\Upsilon$ 09'05	
minimum elong	-12715 Sep 18 j 11:13	0° $\mathfrak{C}$ 29'36	0°24'07	opposition	-12710 Dec 28 j 15:33	9° $\Upsilon$ 20'31	6°51'14
desc. node	-12715 Oct 19 j 12:07	24° $\mathfrak{C}$ 11'28		greatest brilliancy	-12710 Dec 30 j 04:54	8° $\Upsilon$ 52'06	-2.5m
	-12715 Oct 27 j 06:01	0° $\Omega$		min. Earth dist.	-12709 Jan 04 j 14:07	7° $\Upsilon$ 14'20	0.42777 AU
max. Earth dist.	-12715 Oct 30 j 07:10	2° $\Omega$ 16'24	2.41834 AU	direct	-12709 Feb 01 j 07:07	2° $\Upsilon$ 29'49	
morning rise	-12715 Nov 20 j 07:20	17° $\Omega$ 44'10			-12709 Apr 16 j 09:56	0° $\mathcal{B}$	
	-12715 Dec 07 j 08:20	0° $\mathfrak{M}$			-12709 Jun 01 j 11:55	0° $\Pi$	
	-12714 Jan 19 j 15:41	0° $\underline{\mathfrak{L}}$		desc. node	-12709 Jun 11 j 20:09	7° $\Pi$ 08'35	
	-12714 Mar 06 j 14:05	0° $\mathfrak{M}$			-12709 Jul 14 j 10:05	0° $\mathfrak{C}$	
	-12714 Apr 25 j 00:58	0° $\mathcal{A}$			-12709 Aug 26 j 02:11	0° $\Omega$	
	-12714 Jun 21 j 20:05	0° $\mathfrak{Z}$			-12709 Oct 08 j 14:23	0° $\mathfrak{M}$	
retrograde	-12714 Aug 16 j 08:03	14° $\mathfrak{Z}$ 23'34			-12709 Nov 22 j 09:17	0° $\underline{\mathfrak{L}}$	
opposition	-12714 Sep 23 j 15:06	5° $\mathfrak{Z}$ 28'07	-1°17'16	evening set	-12709 Dec 27 j 11:28	22° $\underline{\mathfrak{L}}$ 56'40	
greatest brilliancy	-12714 Sep 23 j 20:08	5° $\mathfrak{Z}$ 23'09	-1.5m		-12708 Jan 07 j 09:11	0° $\mathfrak{M}$	
min. Earth dist.	-12714 Sep 27 j 15:12	3° $\mathfrak{Z}$ 53'24	0.63341 AU				
	-12714 Oct 08 j 05:29	30° $\mathfrak{R}\mathcal{A}$		conjunction	-12708 Feb 14 j 08:55	24° $\mathfrak{M}$ 24'27	-1°02'32
asc. node	-12714 Oct 23 j 19:01	26° $\mathcal{A}$ 15'10		minimum elong	-12708 Feb 14 j 10:24	24° $\mathfrak{M}$ 26'50	1°03'10
direct	-12714 Nov 03 j 08:05	25° $\mathcal{A}$ 30'30		max. Earth dist.	-12708 Feb 15 j 21:01	25° $\mathfrak{M}$ 22'14	2.66229 AU
	-12714 Dec 01 j 12:53	0° $\mathfrak{Z}$			-12708 Feb 23 j 02:31	0° $\mathcal{A}$	
	-12713 Feb 03 j 15:53	0° $\approx$		morning rise	-12708 Apr 01 j 18:40	24° $\mathcal{A}$ 48'02	
	-12713 Mar 22 j 16:39	0° $\mathcal{H}$			-12708 Apr 09 j 20:30	0° $\mathfrak{Z}$	
	-12713 May 03 j 20:31	0° $\Upsilon$			-12708 May 26 j 01:30	0° $\approx$	
	-12713 Jun 12 j 14:19	0° $\mathcal{B}$		asc. node	-12708 Jun 14 j 06:05	12° $\approx$ 36'16	
	-12713 Jul 21 j 07:13	0° $\Pi$			-12708 Jul 10 j 12:47	0° $\mathcal{H}$	
	-12713 Aug 29 j 01:15	0° $\mathfrak{C}$			-12708 Aug 24 j 12:23	0° $\Upsilon$	
desc. node	-12713 Sep 06 j 10:16	6° $\mathfrak{C}$ 24'34			-12708 Oct 08 j 20:10	0° $\mathcal{B}$	
evening set	-12713 Sep 20 j 14:05	17° $\mathfrak{C}$ 09'17			-12708 Nov 25 j 22:24	0° $\Pi$	
	-12713 Oct 07 j 17:59	0° $\Omega$		retrograde	-12707 Feb 10 j 19:11	28° $\Pi$ 11'28	
				min. Earth dist.	-12707 Mar 11 j 03:15	23° $\Pi$ 28'16	0.39261 AU
conjunction	-12713 Nov 17 j 18:27	29° $\Omega$ 47'38	-0°48'30	opposition	-12707 Mar 14 j 23:16	22° $\Pi$ 23'31	3°23'35
minimum elong	-12713 Nov 17 j 15:56	29° $\Omega$ 43'09	0°48'03	greatest brilliancy	-12707 Mar 14 j 15:46	22° $\Pi$ 28'49	-2.8m
	-12713 Nov 18 j 01:25	0° $\mathfrak{M}$		direct	-12707 Apr 14 j 12:15	17° $\Pi$ 09'18	
max. Earth dist.	-12713 Dec 22 j 04:54	23° $\mathfrak{M}$ 46'26	2.53827 AU	desc. node	-12707 Apr 29 j 02:29	18° $\Pi$ 30'08	
	-12713 Dec 31 j 08:43	0° $\underline{\mathfrak{L}}$			-12707 Jun 02 j 18:07	0° $\mathfrak{C}$	
morning rise	-12712 Jan 12 j 04:14	7° $\underline{\mathfrak{L}}$ 56'37			-12707 Jul 28 j 03:15	0° $\Omega$	
	-12712 Feb 14 j 17:12	0° $\mathfrak{M}$			-12707 Sep 14 j 14:44	0° $\mathfrak{M}$	
	-12712 Apr 02 j 00:34	0° $\mathcal{A}$			-12707 Oct 31 j 23:42	0° $\underline{\mathfrak{L}}$	
	-12712 May 21 j 14:02	0° $\mathfrak{Z}$			-12707 Dec 18 j 08:52	0° $\mathfrak{M}$	
	-12712 Jul 15 j 02:16	0° $\approx$			-12706 Feb 03 j 16:37	0° $\mathcal{A}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

evening set	-12706 Feb 04 j 13:08	0° $\text{♁}$ 32'40		desc. node	-12702 Dec 19 j 15:59	18° $\text{♁}$ 07'18	
max. Earth dist.	-12706 Mar 11 j 13:36	22° $\text{♁}$ 59'29	2.64594 AU		-12701 Jan 05 j 09:35	0° $\text{♁}$	
	-12706 Mar 22 j 09:16	0° $\text{♁}$			-12701 Feb 19 j 00:12	0° $\text{♁}$	
					-12701 Apr 10 j 10:33	0° $\text{♁}$	
conjunction	-12706 Mar 24 j 16:53	1° $\text{♁}$ 30'22	-0°23'13	retrograde	-12701 Jun 28 j 00:58	26° $\text{♁}$ 29'28	
minimum elong	-12706 Mar 24 j 17:50	1° $\text{♁}$ 31'55	0°24'01	opposition	-12701 Aug 06 j 21:19	16° $\text{♁}$ 41'00	-4°35'25
asc. node	-12706 May 01 j 20:53	26° $\text{♁}$ 39'26		min. Earth dist.	-12701 Aug 05 j 17:09	17° $\text{♁}$ 09'27	0.65961 AU
	-12706 May 06 j 20:43	0° $\text{♁}$		greatest brilliancy	-12701 Aug 06 j 17:27	16° $\text{♁}$ 44'54	-1.4m
morning rise	-12706 May 11 j 03:00	2° $\text{♁}$ 51'48		direct	-12701 Sep 15 j 09:40	7° $\text{♁}$ 08'37	
	-12706 Jun 19 j 19:25	0° $\text{♁}$			-12701 Nov 28 j 06:12	0° $\text{♁}$	
	-12706 Aug 01 j 06:29	0° $\text{♁}$		asc. node	-12701 Dec 23 j 02:12	13° $\text{♁}$ 05'02	
	-12706 Sep 11 j 14:34	0° $\text{♁}$			-12700 Jan 21 j 06:51	0° $\text{♁}$	
	-12706 Oct 22 j 10:56	0° $\text{♁}$			-12700 Mar 08 j 15:03	0° $\text{♁}$	
	-12706 Dec 02 j 22:03	0° $\text{♁}$			-12700 Apr 21 j 06:11	0° $\text{♁}$	
	-12705 Jan 16 j 10:26	0° $\text{♁}$			-12700 Jun 01 j 05:59	0° $\text{♁}$	
desc. node	-12705 Mar 17 j 05:09	29° $\text{♁}$ 43'43		evening set	-12700 Jun 23 j 02:42	16° $\text{♁}$ 35'39	
	-12705 Mar 18 j 03:10	0° $\text{♁}$			-12700 Jul 10 j 11:36	0° $\text{♁}$	
retrograde	-12705 Apr 10 j 21:11	3° $\text{♁}$ 39'29			-12700 Aug 17 j 20:46	0° $\text{♁}$	
	-12705 May 03 j 16:32	30° $\text{♁}$					
min. Earth dist.	-12705 May 10 j 14:01	27° $\text{♁}$ 43'54	0.49642 AU	conjunction	-12700 Aug 23 j 08:07	4° $\text{♁}$ 17'24	0°51'28
greatest brilliancy	-12705 May 17 j 09:26	25° $\text{♁}$ 17'04	-2.2m	minimum elong	-12700 Aug 23 j 11:32	4° $\text{♁}$ 24'06	0°52'10
opposition	-12705 May 18 j 10:41	24° $\text{♁}$ 54'13	-3°34'09	max. Earth dist.	-12700 Sep 05 j 21:42	14° $\text{♁}$ 54'25	2.38509 AU
direct	-12705 Jun 21 j 11:20	17° $\text{♁}$ 43'41			-12700 Sep 25 j 07:29	0° $\text{♁}$	
	-12705 Aug 09 j 20:50	0° $\text{♁}$		morning rise	-12700 Oct 26 j 15:25	23° $\text{♁}$ 57'03	
	-12705 Oct 07 j 16:36	0° $\text{♁}$			-12700 Nov 03 j 16:46	0° $\text{♁}$	
	-12705 Nov 27 j 19:13	0° $\text{♁}$		desc. node	-12700 Nov 05 j 08:17	1° $\text{♁}$ 13'48	
	-12704 Jan 15 j 16:19	0° $\text{♁}$			-12700 Dec 14 j 18:57	0° $\text{♁}$	
	-12704 Mar 02 j 21:33	0° $\text{♁}$			-12699 Jan 27 j 05:09	0° $\text{♁}$	
evening set	-12704 Mar 15 j 16:12	8° $\text{♁}$ 19'17			-12699 Mar 14 j 16:14	0° $\text{♁}$	
asc. node	-12704 Mar 18 j 16:56	10° $\text{♁}$ 18'36			-12699 May 05 j 00:53	0° $\text{♁}$	
max. Earth dist.	-12704 Apr 07 j 12:22	23° $\text{♁}$ 26'56	2.57807 AU		-12699 Jul 20 j 14:03	0° $\text{♁}$	
	-12704 Apr 17 j 05:51	0° $\text{♁}$		retrograde	-12699 Aug 01 j 15:55	0° $\text{♁}$ 52'17	
					-12699 Aug 13 j 03:48	30° $\text{♁}$	
conjunction	-12704 May 04 j 10:35	11° $\text{♁}$ 44'33	0°29'05	opposition	-12699 Sep 09 j 14:16	21° $\text{♁}$ 37'02	-2°26'38
minimum elong	-12704 May 04 j 09:18	11° $\text{♁}$ 42'20	0°28'26	greatest brilliancy	-12699 Sep 09 j 20:15	21° $\text{♁}$ 31'04	-1.4m
	-12704 May 30 j 13:26	0° $\text{♁}$		min. Earth dist.	-12699 Sep 12 j 04:11	20° $\text{♁}$ 35'16	0.65279 AU
morning rise	-12704 Jun 23 j 23:10	17° $\text{♁}$ 31'25		direct	-12699 Oct 20 j 05:18	11° $\text{♁}$ 40'10	
	-12704 Jul 10 j 23:44	0° $\text{♁}$		asc. node	-12699 Nov 09 j 09:29	14° $\text{♁}$ 01'33	
	-12704 Aug 19 j 23:37	0° $\text{♁}$			-12699 Dec 22 j 13:03	0° $\text{♁}$	
	-12704 Sep 28 j 05:17	0° $\text{♁}$			-12698 Feb 14 j 01:37	0° $\text{♁}$	
	-12704 Nov 06 j 13:07	0° $\text{♁}$			-12698 Mar 31 j 10:24	0° $\text{♁}$	
	-12704 Dec 17 j 01:19	0° $\text{♁}$			-12698 May 12 j 00:41	0° $\text{♁}$	
	-12703 Jan 29 j 08:46	0° $\text{♁}$			-12698 Jun 20 j 12:01	0° $\text{♁}$	
desc. node	-12703 Feb 01 j 00:25	1° $\text{♁}$ 44'17			-12698 Jul 29 j 00:35	0° $\text{♁}$	
	-12703 Mar 20 j 16:09	0° $\text{♁}$		evening set	-12698 Aug 27 j 03:51	22° $\text{♁}$ 41'43	
retrograde	-12703 May 22 j 15:51	19° $\text{♁}$ 34'51			-12698 Sep 05 j 14:40	0° $\text{♁}$	
min. Earth dist.	-12703 Jun 26 j 08:55	11° $\text{♁}$ 41'08	0.60469 AU	desc. node	-12698 Sep 23 j 03:29	13° $\text{♁}$ 25'42	
greatest brilliancy	-12703 Jun 30 j 10:05	10° $\text{♁}$ 04'50	-1.6m		-12698 Oct 15 j 03:30	0° $\text{♁}$	
opposition	-12703 Jul 01 j 07:27	9° $\text{♁}$ 43'38	-5°20'48				
direct	-12703 Aug 07 j 14:24	1° $\text{♁}$ 03'07		conjunction	-12698 Oct 26 j 20:00	8° $\text{♁}$ 39'21	-0°24'34
	-12703 Nov 01 j 08:33	0° $\text{♁}$		minimum elong	-12698 Oct 26 j 18:13	8° $\text{♁}$ 36'05	0°23'54
	-12703 Dec 24 j 20:42	0° $\text{♁}$			-12698 Nov 25 j 07:34	0° $\text{♁}$	
asc. node	-12702 Feb 03 j 19:44	25° $\text{♁}$ 02'54		max. Earth dist.	-12698 Dec 06 j 09:06	7° $\text{♁}$ 49'30	2.49280 AU
	-12702 Feb 11 j 15:41	0° $\text{♁}$		morning rise	-12698 Dec 24 j 05:19	20° $\text{♁}$ 13'40	
	-12702 Mar 29 j 10:32	0° $\text{♁}$			-12697 Jan 07 j 12:59	0° $\text{♁}$	
evening set	-12702 Apr 29 j 15:30	21° $\text{♁}$ 30'22			-12697 Feb 21 j 23:57	0° $\text{♁}$	
	-12702 May 11 j 15:11	0° $\text{♁}$			-12697 Apr 10 j 20:03	0° $\text{♁}$	
max. Earth dist.	-12702 May 16 j 07:12	3° $\text{♁}$ 20'34	2.46843 AU		-12697 Jun 01 j 03:28	0° $\text{♁}$	
	-12702 Jun 21 j 15:05	0° $\text{♁}$			-12697 Aug 03 j 12:16	0° $\text{♁}$	
				retrograde	-12697 Sep 10 j 13:39	7° $\text{♁}$ 27'50	
conjunction	-12702 Jun 23 j 01:23	1° $\text{♁}$ 04'13	1°10'26	asc. node	-12697 Sep 27 j 13:10	5° $\text{♁}$ 34'30	
minimum elong	-12702 Jun 22 j 23:54	1° $\text{♁}$ 01'27	1°10'26		-12697 Oct 15 j 09:34	30° $\text{♁}$	
	-12702 Jul 31 j 00:52	0° $\text{♁}$		opposition	-12697 Oct 17 j 12:20	29° $\text{♁}$ 11'52	0°55'20
morning rise	-12702 Aug 20 j 06:52	15° $\text{♁}$ 42'16		greatest brilliancy	-12697 Oct 17 j 16:45	29° $\text{♁}$ 07'39	-1.7m
	-12702 Sep 07 j 15:07	0° $\text{♁}$		min. Earth dist.	-12697 Oct 23 j 13:47	26° $\text{♁}$ 52'58	0.58602 AU
	-12702 Oct 16 j 06:35	0° $\text{♁}$		direct	-12697 Nov 26 j 18:01	19° $\text{♁}$ 28'22	
	-12702 Nov 24 j 21:10	0° $\text{♁}$			-12696 Jan 09 j 23:11	0° $\text{♁}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12696 Mar 05 j 04:05	0° $\text{H}$	morning rise	-12691 Apr 25 j 12:22	17° $\text{Z}$ 47'31	
	-12696 Apr 18 j 08:18	0° $\text{Y}$		-12691 May 13 j 23:08	0° $\approx$	
	-12696 May 28 j 22:59	0° $\text{B}$	asc. node	-12691 May 18 j 15:47	3° $\approx$ 07'48	
	-12696 Jul 07 j 04:59	0° $\text{II}$		-12691 Jun 27 j 08:47	0° $\text{H}$	
desc. node	-12696 Aug 10 j 05:13	26° $\text{II}$ 03'42		-12691 Aug 09 j 12:59	0° $\text{Y}$	
	-12696 Aug 15 j 09:27	0° $\text{E}$		-12691 Sep 20 j 20:39	0° $\text{B}$	
	-12696 Sep 24 j 11:13	0° $\Omega$		-12691 Nov 02 j 02:07	0° $\text{II}$	
evening set	-12696 Oct 24 j 05:55	21° $\Omega$ 35'42		-12691 Dec 15 j 22:19	0° $\text{E}$	
	-12696 Nov 05 j 02:10	0° $\text{M}$		-12690 Feb 06 j 03:31	0° $\Omega$	
			retrograde	-12690 Mar 21 j 13:46	11° $\Omega$ 11'57	
conjunction	-12696 Dec 17 j 11:10	29° $\text{M}$ 14'36 -1°10'45	desc. node	-12690 Apr 02 j 21:55	10° $\Omega$ 07'22	
minimum elong	-12696 Dec 17 j 09:41	29° $\text{M}$ 12'06 1°10'43	min. Earth dist.	-12690 Apr 18 j 14:24	6° $\Omega$ 02'32	0.44844 AU
	-12696 Dec 18 j 14:04	0° $\text{E}$	opposition	-12690 Apr 26 j 10:22	3° $\Omega$ 26'51	-1°34'27
max. Earth dist.	-12695 Jan 10 j 05:10	15° $\text{E}$ 07'06 2.59715 AU	greatest brilliancy	-12690 Apr 25 j 22:11	3° $\Omega$ 36'59	-2.5m
	-12695 Feb 01 j 21:52	0° $\text{M}$		-12690 May 07 j 16:20	30° $\text{R}$ $\text{E}$	
morning rise	-12695 Feb 07 j 03:12	3° $\text{M}$ 23'23	direct	-12690 May 28 j 21:03	27° $\text{E}$ 04'36	
	-12695 Mar 20 j 17:30	0° $\text{Z}$		-12690 Jun 19 j 23:45	0° $\Omega$	
	-12695 May 07 j 17:51	0° $\text{Z}$		-12690 Aug 27 j 02:24	0° $\text{M}$	
	-12695 Jun 26 j 08:45	0° $\approx$		-12690 Oct 17 j 16:42	0° $\text{E}$	
asc. node	-12695 Aug 14 j 10:04	27° $\approx$ 21'17		-12690 Dec 05 j 19:59	0° $\text{M}$	
	-12695 Aug 19 j 15:05	0° $\text{H}$		-12689 Jan 22 j 22:21	0° $\text{Z}$	
retrograde	-12695 Oct 31 j 09:12	22° $\text{H}$ 47'19	evening set	-12689 Feb 28 j 19:01	23° $\text{Z}$ 28'54	
opposition	-12695 Dec 04 j 01:48	16° $\text{H}$ 09'56 5°22'54		-12689 Mar 10 j 20:53	0° $\text{Z}$	
greatest brilliancy	-12695 Dec 05 j 10:41	15° $\text{H}$ 42'20 -2.3m	max. Earth dist.	-12689 Mar 28 j 01:45	11° $\text{Z}$ 14'31	2.61048 AU
min. Earth dist.	-12695 Dec 12 j 01:02	13° $\text{H}$ 30'23 0.47330 AU	asc. node	-12689 Apr 05 j 09:53	16° $\text{Z}$ 45'00	
direct	-12694 Jan 10 j 02:57	8° $\text{H}$ 05'31				
	-12694 Mar 15 j 23:06	0° $\text{Y}$	conjunction	-12689 Apr 18 j 14:57	25° $\text{Z}$ 33'27	0°08'20
	-12694 May 02 j 01:10	0° $\text{B}$	minimum elong	-12689 Apr 18 j 14:37	25° $\text{Z}$ 32'53	0°07'36
	-12694 Jun 13 j 03:43	0° $\text{II}$	behind sun begin	-12689 Apr 17 j 20:24	25° $\text{Z}$ 02'22	
desc. node	-12694 Jun 28 j 12:13	11° $\text{II}$ 12'19	behind sun end	-12689 Apr 19 j 08:49	26° $\text{Z}$ 03'24	
	-12694 Jul 24 j 05:02	0° $\text{E}$		-12689 Apr 25 j 05:24	0° $\approx$	
	-12694 Sep 03 j 16:46	0° $\Omega$	morning rise	-12689 Jun 06 j 11:14	29° $\approx$ 06'26	
	-12694 Oct 16 j 09:43	0° $\text{M}$		-12689 Jun 07 j 17:41	0° $\text{H}$	
	-12694 Nov 29 j 15:45	0° $\text{E}$		-12689 Jul 19 j 11:56	0° $\text{Y}$	
evening set	-12694 Dec 10 j 23:58	7° $\text{E}$ 31'33		-12689 Aug 28 j 21:36	0° $\text{B}$	
	-12693 Jan 14 j 08:23	0° $\text{M}$		-12689 Oct 07 j 14:09	0° $\text{II}$	
				-12689 Nov 16 j 10:32	0° $\text{E}$	
conjunction	-12693 Jan 29 j 20:28	10° $\text{M}$ 01'09 -1°11'24		-12689 Dec 27 j 17:47	0° $\Omega$	
minimum elong	-12693 Jan 29 j 21:30	10° $\text{M}$ 02'49 1°11'56		-12688 Feb 10 j 23:58	0° $\text{M}$	
max. Earth dist.	-12693 Feb 06 j 08:16	14° $\text{M}$ 50'27 2.65424 AU	desc. node	-12688 Feb 18 j 20:30	4° $\text{M}$ 43'10	
	-12693 Mar 01 j 23:44	0° $\text{Z}$		-12688 Apr 13 j 16:07	0° $\text{E}$	
morning rise	-12693 Mar 18 j 22:17	10° $\text{Z}$ 49'50	retrograde	-12688 May 07 j 05:11	3° $\text{E}$ 28'31	
	-12693 Apr 17 j 22:01	0° $\text{Z}$		-12688 May 29 j 09:19	30° $\text{R}$ $\text{M}$	
	-12693 Jun 03 j 16:00	0° $\approx$	min. Earth dist.	-12688 Jun 09 j 01:12	26° $\text{M}$ 17'38	0.56743 AU
asc. node	-12693 Jul 02 j 01:38	18° $\approx$ 17'55	greatest brilliancy	-12688 Jun 14 j 05:54	24° $\text{M}$ 16'54	-1.8m
	-12693 Jul 20 j 05:43	0° $\text{H}$	opposition	-12688 Jun 15 j 08:38	23° $\text{M}$ 50'57	-5°04'53
	-12693 Sep 05 j 08:47	0° $\text{Y}$	direct	-12688 Jul 21 j 11:40	15° $\text{M}$ 40'02	
	-12693 Oct 25 j 12:23	0° $\text{B}$		-12688 Sep 14 j 11:33	0° $\text{E}$	
retrograde	-12692 Jan 12 j 22:33	28° $\text{B}$ 09'37		-12688 Nov 12 j 00:25	0° $\text{M}$	
opposition	-12692 Feb 12 j 18:31	22° $\text{B}$ 59'50 6°18'31		-12687 Jan 02 j 00:40	0° $\text{Z}$	
greatest brilliancy	-12692 Feb 13 j 04:28	22° $\text{B}$ 53'10 -2.8m		-12687 Feb 19 j 00:41	0° $\text{Z}$	
min. Earth dist.	-12692 Feb 13 j 19:25	22° $\text{B}$ 43'09 0.38652 AU	asc. node	-12687 Feb 20 j 10:23	0° $\text{Z}$ 54'05	
direct	-12692 Mar 14 j 14:22	17° $\text{B}$ 45'35		-12687 Apr 05 j 13:54	0° $\approx$	
	-12692 Apr 30 j 17:13	0° $\text{II}$	evening set	-12687 Apr 11 j 05:26	3° $\approx$ 50'00	
desc. node	-12692 May 15 j 18:41	7° $\text{II}$ 26'04	max. Earth dist.	-12687 Apr 28 j 19:37	15° $\approx$ 56'26	2.51481 AU
	-12692 Jun 23 j 13:45	0° $\text{E}$		-12687 May 18 j 18:45	0° $\text{H}$	
	-12692 Aug 09 j 06:12	0° $\Omega$				
	-12692 Sep 23 j 21:44	0° $\text{M}$	conjunction	-12687 Jun 02 j 09:54	10° $\text{H}$ 30'55	0°58'16
	-12692 Nov 08 j 22:09	0° $\text{E}$	minimum elong	-12687 Jun 02 j 07:45	10° $\text{H}$ 27'02	0°57'58
	-12692 Dec 25 j 14:36	0° $\text{M}$		-12687 Jun 28 j 21:55	0° $\text{Y}$	
evening set	-12691 Jan 20 j 05:10	16° $\text{M}$ 20'36	morning rise	-12687 Jul 27 j 01:47	21° $\text{Y}$ 14'53	
	-12691 Feb 10 j 14:43	0° $\text{Z}$		-12687 Aug 07 j 12:07	0° $\text{B}$	
max. Earth dist.	-12691 Mar 01 j 21:02	12° $\text{Z}$ 20'01 2.65863 AU		-12687 Sep 15 j 07:03	0° $\text{II}$	
				-12687 Oct 24 j 03:07	0° $\text{E}$	
conjunction	-12691 Mar 09 j 09:38	17° $\text{Z}$ 10'04 -0°40'46		-12687 Dec 02 j 22:55	0° $\Omega$	
minimum elong	-12691 Mar 09 j 11:04	17° $\text{Z}$ 12'22 0°41'32	desc. node	-12686 Jan 05 j 13:15	24° $\Omega$ 12'27	
	-12691 Mar 29 j 06:31	0° $\text{Z}$		-12686 Jan 13 j 20:58	0° $\text{M}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12686 Feb 28 j 13:58	0°♎				-12681 Mar 16 j 18:01	0°♐	
	-12686 Apr 24 j 23:04	0°♌				-12681 Apr 28 j 11:39	0°♑	
retrograde	-12686 Jun 14 j 06:19	12°♌53'40				-12681 Jun 07 j 11:44	0°♒	
min. Earth dist.	-12686 Jul 21 j 12:15	4°♌03'59	0.64541 AU			-12681 Jul 16 j 08:35	0°♓	
opposition	-12686 Jul 24 j 04:26	2°♌59'20	-5°04'45			-12681 Aug 24 j 05:34	0°♈	
greatest brilliancy	-12686 Jul 23 j 17:53	3°♌09'58	-1.4m	desc. node		-12681 Aug 27 j 22:41	2°♈50'22	
	-12686 Jul 31 j 19:37	30°♌		evening set		-12681 Oct 03 j 15:07	0°♏27'12	
direct	-12686 Aug 31 j 23:04	23°♌43'45				-12681 Oct 03 j 00:26	0°♏	
	-12686 Oct 05 j 12:42	0°♌				-12681 Nov 13 j 09:22	0°♐	
	-12686 Dec 09 j 15:01	0°♐						
asc. node	-12685 Jan 08 j 16:26	17°♐12'42		conjunction		-12681 Nov 29 j 08:53	11°♐13'56	-0°58'45
	-12685 Jan 29 j 18:12	0°♑		minimum elong		-12681 Nov 29 j 06:31	11°♐09'49	0°58'27
	-12685 Mar 17 j 07:24	0°♑				-12681 Dec 26 j 16:55	0°♑	
	-12685 Apr 29 j 16:47	0°♐		max. Earth dist.		-12681 Dec 30 j 01:06	2°♑15'26	2.56083 AU
evening set	-12685 May 31 j 22:29	23°♐29'22		morning rise		-12680 Jan 22 j 07:53	17°♑47'15	
	-12685 Jun 09 j 15:41	0°♑				-12680 Feb 09 j 23:47	0°♌	
max. Earth dist.	-12685 Jun 30 j 16:14	15°♑56'33	2.39954 AU			-12680 Mar 28 j 01:05	0°♐	
	-12685 Jul 18 j 21:56	0°♒				-12680 May 15 j 21:30	0°♑	
						-12680 Jul 06 j 23:59	0°♑	
conjunction	-12685 Jul 29 j 16:34	8°♒22'37	1°09'11	asc. node		-12680 Aug 31 j 03:54	25°♑49'48	
minimum elong	-12685 Jul 29 j 18:31	8°♒26'25	1°09'39			-12680 Sep 13 j 11:06	0°♐	
	-12685 Aug 26 j 08:02	0°♓		retrograde		-12680 Oct 09 j 01:51	3°♐39'21	
morning rise	-12685 Oct 01 j 01:42	27°♓52'46				-12680 Nov 02 j 01:39	30°♐	
	-12685 Oct 03 j 19:27	0°♈		opposition		-12680 Nov 13 j 04:53	26°♐17'43	3°35'16
	-12685 Nov 12 j 05:16	0°♏		greatest brilliancy		-12680 Nov 14 j 02:10	25°♐58'34	-2.0m
desc. node	-12685 Nov 23 j 03:55	8°♏07'31		min. Earth dist.		-12680 Nov 20 j 20:19	23°♐33'25	0.52058 AU
	-12685 Dec 23 j 09:08	0°♐		direct		-12680 Dec 21 j 23:12	17°♐19'32	
	-12684 Feb 05 j 01:33	0°♑				-12679 Feb 07 j 19:13	0°♐	
	-12684 Mar 23 j 09:46	0°♌				-12679 Mar 31 j 15:40	0°♑	
	-12684 May 17 j 10:13	0°♐				-12679 May 13 j 13:14	0°♒	
retrograde	-12684 Jul 18 j 15:08	17°♐41'25				-12679 Jun 23 j 00:13	0°♓	
opposition	-12684 Aug 27 j 01:02	8°♐10'15	-3°25'02	desc. node		-12679 Jul 15 j 02:51	16°♓35'16	
greatest brilliancy	-12684 Aug 27 j 04:49	8°♐06'27	-1.4m			-12679 Aug 02 j 01:25	0°♈	
min. Earth dist.	-12684 Aug 28 j 03:39	7°♐43'30	0.66295 AU			-12679 Sep 11 j 19:33	0°♏	
	-12684 Sep 20 j 12:12	30°♌				-12679 Oct 23 j 23:22	0°♐	
direct	-12684 Oct 06 j 09:05	28°♌19'44		evening set		-12679 Nov 23 j 11:07	20°♐58'32	
	-12684 Oct 23 j 07:42	0°♐				-12679 Dec 06 j 20:08	0°♑	
asc. node	-12684 Nov 25 j 23:16	10°♐40'51						
	-12683 Jan 04 j 05:26	0°♑		conjunction		-12678 Jan 13 j 16:22	25°♑01'37	-1°15'39
	-12683 Feb 23 j 04:04	0°♑		minimum elong		-12678 Jan 13 j 16:35	25°♑02'00	1°15'59
	-12683 Apr 08 j 14:58	0°♐				-12678 Jan 21 j 07:34	0°♌	
	-12683 May 19 j 21:40	0°♑		max. Earth dist.		-12678 Jan 27 j 06:50	3°♌52'29	2.63796 AU
	-12683 Jun 28 j 05:30	0°♒		morning rise		-12678 Mar 03 j 20:04	26°♌44'23	
evening set	-12683 Aug 01 j 10:47	26°♒42'40				-12678 Mar 08 j 22:36	0°♐	
	-12683 Aug 05 j 15:33	0°♓				-12678 Apr 25 j 03:48	0°♑	
	-12683 Sep 13 j 03:02	0°♈				-12678 Jun 11 j 16:25	0°♑	
				asc. node		-12678 Jul 18 j 21:16	23°♑11'46	
conjunction	-12683 Oct 02 j 17:38	15°♈03'06	0°05'30			-12678 Jul 29 j 23:21	0°♐	
minimum elong	-12683 Oct 02 j 18:11	15°♈04'09	0°06'17			-12678 Sep 19 j 07:14	0°♑	
behind sun begin	-12683 Oct 01 j 17:32	14°♈17'13		retrograde		-12678 Dec 13 j 00:25	29°♑51'11	
behind sun end	-12683 Oct 03 j 18:50	15°♈51'03		opposition		-12677 Jan 13 j 06:53	24°♑25'14	7°12'42
desc. node	-12683 Oct 09 j 23:10	20°♈32'26		greatest brilliancy		-12677 Jan 14 j 15:19	24°♑01'50	-2.7m
	-12683 Oct 22 j 12:57	0°♏		min. Earth dist.		-12677 Jan 18 j 16:51	22°♑51'46	0.40752 AU
max. Earth dist.	-12683 Nov 15 j 13:16	17°♏42'53	2.44393 AU	direct		-12677 Feb 15 j 10:40	18°♑16'17	
	-12683 Dec 02 j 14:36	0°♐				-12677 Apr 01 j 10:20	0°♒	
morning rise	-12683 Dec 03 j 06:15	0°♐27'51				-12677 May 23 j 21:21	0°♓	
	-12682 Jan 14 j 19:40	0°♑		desc. node		-12677 Jun 02 j 09:34	6°♓11'49	
	-12682 Mar 01 j 11:53	0°♌				-12677 Jul 07 j 16:49	0°♈	
	-12682 Apr 19 j 04:05	0°♐				-12677 Aug 20 j 07:46	0°♏	
	-12682 Jun 12 j 13:53	0°♑				-12677 Oct 03 j 09:33	0°♐	
retrograde	-12682 Aug 25 j 04:25	22°♑49'53				-12677 Nov 17 j 12:31	0°♑	
opposition	-12682 Oct 02 j 01:11	14°♑07'04	-0°32'02			-12676 Jan 02 j 17:07	0°♌	
greatest brilliancy	-12682 Oct 02 j 03:48	14°♑04'30	-1.6m	evening set		-12676 Jan 05 j 15:01	1°♌52'29	
min. Earth dist.	-12682 Oct 06 j 19:14	12°♑15'38	0.61892 AU			-12676 Feb 18 j 12:07	0°♐	
asc. node	-12682 Oct 14 j 04:19	9°♑31'08		max. Earth dist.		-12676 Feb 21 j 10:46	1°♐53'03	2.66321 AU
direct	-12682 Nov 11 j 15:58	4°♑12'04						
	-12681 Jan 26 j 22:40	0°♑		conjunction		-12676 Feb 23 j 04:15	2°♐59'26	-0°55'32

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

minimum elong	-12676 Feb 23 j 05:50	3° $\mathring{\text{A}}$ 01'57	0°56'14		-12671 Mar 11 j 20:19	0° $\Omega$	
	-12676 Apr 05 j 04:53	0° $\mathring{\text{Z}}$		retrograde	-12671 May 31 j 02:57	28° $\mathring{\text{A}}$ 39'44	
morning rise	-12676 Apr 10 j 09:06	3° $\mathring{\text{Z}}$ 20'52		min. Earth dist.	-12671 Jul 05 j 18:47	20° $\mathring{\text{A}}$ 24'50	0.62176 AU
	-12676 May 21 j 04:49	0° $\mathring{\text{A}}$		opposition	-12671 Jul 09 j 22:39	18° $\mathring{\text{A}}$ 45'04	-5°20'00
asc. node	-12676 Jun 04 j 11:44	9° $\mathring{\text{A}}$ 27'04		greatest brilliancy	-12671 Jul 09 j 04:57	19° $\mathring{\text{A}}$ 02'45	-1.5m
	-12676 Jul 05 j 05:24	0° $\mathring{\text{H}}$		direct	-12671 Aug 16 j 19:24	9° $\mathring{\text{A}}$ 50'39	
	-12676 Aug 18 j 10:15	0° $\mathring{\text{Y}}$			-12671 Oct 24 j 02:46	0° $\mathring{\text{M}}$	
	-12676 Oct 01 j 08:09	0° $\mathring{\text{X}}$			-12671 Dec 19 j 03:18	0° $\mathring{\text{A}}$	
	-12676 Nov 15 j 06:57	0° $\mathring{\text{I}}$		asc. node	-12670 Jan 25 j 05:26	22° $\mathring{\text{A}}$ 14'56	
	-12675 Jan 05 j 08:08	0° $\mathring{\text{E}}$			-12670 Feb 06 j 15:18	0° $\mathring{\text{Z}}$	
retrograde	-12675 Feb 25 j 20:31	14° $\mathring{\text{E}}$ 54'46			-12670 Mar 24 j 16:31	0° $\mathring{\text{A}}$	
min. Earth dist.	-12675 Mar 25 j 12:06	10° $\mathring{\text{E}}$ 12'31	0.40774 AU		-12670 May 06 j 23:08	0° $\mathring{\text{H}}$	
opposition	-12675 Mar 31 j 10:04	8° $\mathring{\text{E}}$ 26'33	1°25'33	evening set	-12670 May 10 j 19:51	2° $\mathring{\text{H}}$ 45'48	
greatest brilliancy	-12675 Mar 31 j 03:57	8° $\mathring{\text{E}}$ 31'07	-2.8m	max. Earth dist.	-12670 May 28 j 17:46	15° $\mathring{\text{H}}$ 45'10	2.44245 AU
desc. node	-12675 Apr 19 j 15:06	3° $\mathring{\text{E}}$ 47'11			-12670 Jun 16 j 23:10	0° $\mathring{\text{Y}}$	
direct	-12675 May 01 j 08:35	2° $\mathring{\text{E}}$ 52'45					
	-12675 Jul 18 j 17:18	0° $\mathring{\text{O}}$		conjunction	-12670 Jul 05 j 16:07	14° $\mathring{\text{Y}}$ 08'13	1°13'24
	-12675 Sep 08 j 02:56	0° $\mathring{\text{P}}$		minimum elong	-12670 Jul 05 j 15:38	14° $\mathring{\text{Y}}$ 07'17	1°13'36
	-12675 Oct 26 j 13:56	0° $\mathring{\text{A}}$			-12670 Jul 26 j 07:56	0° $\mathring{\text{X}}$	
	-12675 Dec 13 j 11:14	0° $\mathring{\text{M}}$			-12670 Sep 02 j 20:38	0° $\mathring{\text{I}}$	
	-12674 Jan 30 j 00:35	0° $\mathring{\text{A}}$		morning rise	-12670 Sep 03 j 22:53	0° $\mathring{\text{I}}$ 51'16	
evening set	-12674 Feb 13 j 07:38	9° $\mathring{\text{A}}$ 05'47			-12670 Oct 11 j 10:16	0° $\mathring{\text{E}}$	
max. Earth dist.	-12674 Mar 17 j 10:19	29° $\mathring{\text{A}}$ 45'35	2.63554 AU		-12670 Nov 19 j 22:09	0° $\mathring{\text{O}}$	
	-12674 Mar 17 j 19:12	0° $\mathring{\text{Z}}$		desc. node	-12670 Dec 10 j 02:13	14° $\mathring{\text{O}}$ 51'02	
					-12670 Dec 31 j 05:40	0° $\mathring{\text{P}}$	
conjunction	-12674 Apr 02 j 14:43	10° $\mathring{\text{Z}}$ 19'29	-0°12'08		-12669 Feb 13 j 08:46	0° $\mathring{\text{A}}$	
minimum elong	-12674 Apr 02 j 15:16	10° $\mathring{\text{Z}}$ 20'23	0°12'55		-12669 Apr 03 j 05:08	0° $\mathring{\text{M}}$	
behind sun begin	-12674 Apr 02 j 03:24	10° $\mathring{\text{Z}}$ 00'56			-12669 Jun 07 j 09:00	0° $\mathring{\text{A}}$	
behind sun end	-12674 Apr 03 j 03:07	10° $\mathring{\text{Z}}$ 39'50		retrograde	-12669 Jul 05 j 22:14	4° $\mathring{\text{A}}$ 34'13	
asc. node	-12674 Apr 22 j 04:10	23° $\mathring{\text{Z}}$ 15'52			-12669 Aug 01 j 02:23	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
	-12674 May 02 j 05:43	0° $\mathring{\text{A}}$		opposition	-12669 Aug 14 j 15:49	24° $\mathring{\text{M}}$ 50'42	-4°12'44
morning rise	-12674 May 20 j 09:33	12° $\mathring{\text{A}}$ 18'11		min. Earth dist.	-12669 Aug 14 j 06:48	24° $\mathring{\text{M}}$ 59'48	0.66341 AU
	-12674 Jun 15 j 00:32	0° $\mathring{\text{H}}$		greatest brilliancy	-12669 Aug 14 j 15:06	24° $\mathring{\text{M}}$ 51'25	-1.4m
	-12674 Jul 27 j 05:02	0° $\mathring{\text{Y}}$		direct	-12669 Sep 23 j 12:22	15° $\mathring{\text{M}}$ 10'46	
	-12674 Sep 06 j 03:43	0° $\mathring{\text{X}}$			-12669 Nov 19 j 03:19	0° $\mathring{\text{A}}$	
	-12674 Oct 16 j 11:44	0° $\mathring{\text{I}}$		asc. node	-12669 Dec 13 j 12:11	11° $\mathring{\text{A}}$ 44'55	
	-12674 Nov 26 j 04:23	0° $\mathring{\text{E}}$			-12668 Jan 15 j 08:58	0° $\mathring{\text{Z}}$	
	-12673 Jan 08 j 00:08	0					

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12666 Jun 15 j 13:57	0°♄			-12661 Feb 25 j 09:25	0°♄	
	-12666 Jul 24 j 04:46	0°♅	morning rise		-12661 Mar 27 j 11:32	19°♄15'46	
	-12666 Aug 31 j 20:28	0°♆			-12661 Apr 13 j 05:16	0°♄	
evening set	-12666 Sep 10 j 03:59	7°♆08'45			-12661 May 29 j 15:52	0°♄	
desc. node	-12666 Sep 13 j 15:25	9°♆48'06	asc. node		-12661 Jun 22 j 08:01	15°♄25'50	
	-12666 Oct 10 j 10:20	0°♇			-12661 Jul 14 j 14:00	0°♄	
					-12661 Aug 29 j 09:14	0°♄	
conjunction	-12666 Nov 08 j 13:02	21°♇20'40 -0°39'04			-12661 Oct 15 j 06:37	0°♄	
minimum elong	-12666 Nov 08 j 10:37	21°♇16'19 0°38'33			-12661 Dec 07 j 00:47	0°♅	
	-12666 Nov 20 j 14:57	0°♆	retrograde		-12660 Jan 30 j 05:28	15°♅29'06	
max. Earth dist.	-12666 Dec 15 j 23:26	17°♆46'53 2.51842 AU	min. Earth dist.		-12660 Feb 28 j 18:59	10°♅33'42 0.38614 AU	
	-12665 Jan 02 j 19:59	0°♆	opposition		-12660 Mar 01 j 12:37	10°♅05'26 4°50'07	
morning rise	-12665 Jan 04 j 06:16	0°♆58'03	greatest brilliancy		-12660 Mar 01 j 10:27	10°♅06'54 -2.9m	
	-12665 Feb 17 j 04:03	0°♆	direct		-12660 Mar 31 j 23:39	4°♅58'16	
	-12665 Apr 05 j 15:01	0°♄	desc. node		-12660 May 06 j 06:20	12°♅10'00	
	-12665 May 25 j 18:36	0°♄			-12660 Jun 12 j 21:05	0°♆	
	-12665 Jul 21 j 17:31	0°♄			-12660 Aug 02 j 02:13	0°♇	
asc. node	-12665 Sep 17 j 20:48	16°♄46'18			-12660 Sep 18 j 02:12	0°♆	
retrograde	-12665 Sep 20 j 16:57	16°♄49'20			-12660 Nov 03 j 18:51	0°♆	
opposition	-12665 Oct 27 j 01:31	8°♄50'48 1°50'59			-12660 Dec 20 j 19:46	0°♆	
greatest brilliancy	-12665 Oct 27 j 11:13	8°♄41'41 -1.8m	evening set		-12659 Jan 29 j 01:14	24°♆56'21	
min. Earth dist.	-12665 Nov 02 j 18:10	6°♄20'08 0.56443 AU			-12659 Feb 05 j 23:50	0°♄	
	-12665 Nov 25 j 23:22	30°♄	max. Earth dist.		-12659 Mar 07 j 12:34	18°♄54'37 2.65269 AU	
direct	-12665 Dec 05 j 21:47	29°♄19'14					
	-12665 Dec 16 j 04:10	0°♄	conjunction		-12659 Mar 18 j 04:07	25°♄46'45 -0°30'55	
	-12664 Feb 26 j 08:44	0°♄	minimum elong		-12659 Mar 18 j 05:19	25°♄48'41 0°31'42	
	-12664 Apr 12 j 03:15	0°♄			-12659 Mar 24 j 16:28	0°♄	
	-12664 May 23 j 08:34	0°♄	morning rise		-12659 May 04 j 09:19	26°♄44'14	
	-12664 Jul 01 j 22:40	0°♅	asc. node		-12659 May 08 j 22:46	29°♄46'40	
desc. node	-12664 Jul 31 j 18:26	22°♅43'36			-12659 May 09 j 06:45	0°♄	
	-12664 Aug 10 j 08:56	0°♆			-12659 Jun 22 j 10:51	0°♄	
	-12664 Sep 19 j 14:58	0°♇			-12659 Aug 04 j 05:44	0°♄	
	-12664 Oct 31 j 08:59	0°♆			-12659 Sep 14 j 23:45	0°♄	
evening set	-12664 Nov 04 j 15:37	3°♆00'06			-12659 Oct 26 j 08:38	0°♅	
	-12664 Dec 13 j 22:43	0°♆			-12659 Dec 07 j 14:46	0°♆	
					-12658 Jan 23 j 01:53	0°♇	
conjunction	-12664 Dec 27 j 16:14	9°♆12'05 -1°14'20	desc. node		-12658 Mar 24 j 10:14	24°♇11'32	
minimum elong	-12664 Dec 27 j 15:24	9°♆10'42 1°14'27	retrograde		-12658 Apr 02 j 12:22	24°♇45'47	
max. Earth dist.	-12663 Jan 16 j 17:20	22°♆27'05 2.61375 AU	min. Earth dist.		-12658 May 01 j 08:58	19°♇11'38 0.47452 AU	
	-12663 Jan 28 j 06:41	0°♆	greatest brilliancy		-12658 May 08 j 11:28	16°♇43'16 -2.3m	
morning rise	-12663 Feb 16 j 07:44	12°♆19'22	opposition		-12658 May 09 j 08:38	16°♇24'43 -2°50'01	
	-12663 Mar 15 j 23:34	0°♄	direct		-12658 Jun 11 j 16:38	9°♇35'09	
	-12663 May 02 j 15:29	0°♄			-12658 Aug 17 j 13:07	0°♆	
	-12663 Jun 20 j 07:43	0°♄			-12658 Oct 11 j 10:20	0°♆	
asc. node	-12663 Aug 04 j 16:57	26°♄42'58			-12658 Nov 30 j 14:11	0°♆	
	-12663 Aug 10 j 13:43	0°♄			-12657 Jan 18 j 02:51	0°♄	
	-12663 Oct 14 j 06:32	0°♄			-12657 Mar 06 j 05:48	0°♄	
retrograde	-12663 Nov 14 j 18:22	5°♄24'46	evening set		-12657 Mar 09 j 20:12	2°♄20'08	
	-12663 Dec 15 j 02:23	30°♄	asc. node		-12657 Mar 26 j 17:54	13°♄23'52	
opposition	-12663 Dec 17 j 11:52	29°♄14'45 6°17'38	max. Earth dist.		-12657 Apr 03 j 12:48	18°♄33'04 2.59357 AU	
greatest brilliancy	-12663 Dec 19 j 01:02	28°♄45'07 -2.4m			-12657 Apr 20 j 15:08	0°♄	
min. Earth dist.	-12663 Dec 25 j 03:09	26°♄49'23 0.44723 AU					
direct	-12662 Jan 22 j 07:26	21°♄49'26	conjunction		-12657 Apr 28 j 02:54	5°♄04'36 0°20'16	
	-12662 Feb 27 j 23:50	0°♄	minimum elong		-12657 Apr 28 j 02:01	5°♄03'05 0°19'36	
	-12662 Apr 23 j 10:41	0°♄			-12657 Jun 03 j 01:44	0°♄	
	-12662 Jun 06 j 07:51	0°♅	morning rise		-12657 Jun 16 j 19:01	9°♄45'29	
desc. node	-12662 Jun 19 j 00:02	9°♅00'37			-12657 Jul 14 j 16:17	0°♄	
	-12662 Jul 18 j 06:38	0°♆			-12657 Aug 23 j 20:54	0°♄	
	-12662 Aug 29 j 07:59	0°♇			-12657 Oct 02 j 07:07	0°♅	
	-12662 Oct 11 j 09:57	0°♆			-12657 Nov 10 j 19:41	0°♆	
	-12662 Nov 24 j 21:48	0°♆			-12657 Dec 21 j 13:54	0°♇	
evening set	-12662 Dec 20 j 13:21	16°♆52'59			-12656 Feb 03 j 11:13	0°♆	
	-12661 Jan 09 j 17:33	0°♆	desc. node		-12656 Feb 09 j 06:46	3°♆42'17	
					-12656 Mar 27 j 10:42	0°♆	
conjunction	-12661 Feb 07 j 20:00	18°♆44'45 -1°06'46	retrograde		-12656 May 16 j 05:05	13°♆17'58	
minimum elong	-12661 Feb 07 j 21:20	18°♆46'54 1°07'22	min. Earth dist.		-12656 Jun 19 j 02:23	5°♆43'04 0.58893 AU	
max. Earth dist.	-12661 Feb 12 j 00:31	21°♆25'56 2.65975 AU	opposition		-12656 Jun 24 j 16:25	3°♆31'21 -5°17'15	



Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

greatest brilliancy	-12656 Jun 23 j 16:16	3° $\Omega$ 55'07	-1.7m	conjunction	-12651 Oct 16 j 15:02	29° $\Theta$ 06'31	-0°12'08
	-12656 Jul 04 j 03:04	30° $\mathbb{R}$ $\mathbb{M}$		minimum elong	-12651 Oct 16 j 14:06	29° $\Theta$ 04'46	0°11'24
direct	-12656 Jul 31 j 11:10	25° $\mathbb{M}$ 03'30		behind sun begin	-12651 Oct 15 j 19:38	28° $\Theta$ 30'14	
	-12656 Aug 30 j 12:17	0° $\Omega$		behind sun end	-12651 Oct 17 j 08:34	29° $\Theta$ 39'17	
	-12656 Nov 05 j 08:18	0° $\mathbb{M}$			-12651 Oct 17 j 19:40	0° $\Omega$	
	-12656 Dec 27 j 16:41	0° $\mathbb{J}$			-12651 Nov 27 j 21:19	0° $\mathbb{M}$	
asc. node	-12655 Feb 10 j 19:28	27° $\mathbb{J}$ 51'35		max. Earth dist.	-12651 Nov 28 j 05:35	0° $\mathbb{M}$ 14'44	2.47105 AU
	-12655 Feb 14 j 04:10	0° $\mathbb{Z}$		morning rise	-12651 Dec 15 j 10:39	12° $\mathbb{M}$ 23'24	
	-12655 Mar 31 j 21:48	0° $\approx$			-12650 Jan 10 j 01:10	0° $\Omega$	
evening set	-12655 Apr 21 j 13:16	14° $\approx$ 07'01			-12650 Feb 24 j 12:35	0° $\mathbb{M}$	
max. Earth dist.	-12655 May 08 j 03:48	25° $\approx$ 44'24	2.48970 AU		-12650 Apr 13 j 14:50	0° $\mathbb{J}$	
	-12655 May 14 j 03:46	0° $\mathbb{X}$			-12650 Jun 04 j 22:09	0° $\mathbb{Z}$	
					-12650 Aug 18 j 07:27	0° $\approx$	
conjunction	-12655 Jun 13 j 21:04	22° $\mathbb{X}$ 17'44	1°06'06	retrograde	-12650 Sep 03 j 08:47	1° $\approx$ 30'05	
minimum elong	-12655 Jun 13 j 19:09	22° $\mathbb{X}$ 14'11	1°05'57		-12650 Sep 18 j 11:41	30° $\mathbb{R}$ $\mathbb{Z}$	
	-12655 Jun 24 j 06:07	0° $\mathbb{Y}$		asc. node	-12650 Oct 04 j 13:34	25° $\mathbb{Z}$ 21'05	
	-12655 Aug 02 j 18:26	0° $\mathbb{B}$		opposition	-12650 Oct 10 j 18:05	23° $\mathbb{Z}$ 01'15	0°16'47
morning rise	-12655 Aug 09 j 10:21	5° $\mathbb{B}$ 08'28		greatest brilliancy	-12650 Oct 10 j 19:19	23° $\mathbb{Z}$ 00'04	-1.7m
	-12655 Sep 10 j 10:40	0° $\mathbb{I}$		min. Earth dist.	-12650 Oct 16 j 05:39	20° $\mathbb{Z}$ 54'12	0.60185 AU
	-12655 Oct 19 j 03:38	0° $\Theta$		direct	-12650 Nov 20 j 04:53	13° $\mathbb{Z}$ 11'20	
	-12655 Nov 27 j 19:22	0° $\Omega$			-12649 Jan 17 j 14:08	0° $\approx$	
desc. node	-12655 Dec 26 j 22:32	21° $\Omega$ 12'03			-12649 Mar 10 j 08:56	0° $\mathbb{X}$	
	-12654 Jan 08 j 09:48	0° $\mathbb{M}$			-12649 Apr 22 j 21:11	0° $\mathbb{Y}$	
	-12654 Feb 22 j 07:47	0° $\Omega$			-12649 Jun 02 j 05:27	0° $\mathbb{B}$	
	-12654 Apr 15 j 03:03	0° $\mathbb{M}$			-12649 Jul 11 j 06:57	0° $\mathbb{I}$	
retrograde	-12654 Jun 22 j 05:38	21° $\mathbb{M}$ 12'43		desc. node	-12649 Aug 18 j 09:38	29° $\mathbb{I}$ 18'31	
min. Earth dist.	-12654 Jul 30 j 06:50	12° $\mathbb{M}$ 05'57	0.65442 AU		-12649 Aug 19 j 07:23	0° $\Theta$	
opposition	-12654 Aug 01 j 03:31	11° $\mathbb{M}$ 20'52	-4°49'18		-12649 Sep 28 j 05:04	0° $\Omega$	
greatest brilliancy	-12654 Jul 31 j 20:45	11° $\mathbb{M}$ 27'42	-1.4m	evening set	-12649 Oct 16 j 04:30	13° $\Omega$ 10'06	
direct	-12654 Sep 09 j 08:28	1° $\mathbb{M}$ 55'35			-12649 Nov 08 j 16:02	0° $\mathbb{M}$	
	-12654 Dec 02 j 13:59	0° $\mathbb{J}$					
asc. node	-12654 Dec 30 j 01:28	15° $\mathbb{J}$ 04'06		conjunction	-12649 Dec 10 j 11:45	22° $\mathbb{M}$ 08'45	-1°06'31
	-12653 Jan 24 j 07:02	0° $\mathbb{Z}$		minimum elong	-12649 Dec 10 j 09:51	22° $\mathbb{M}$ 05'29	1°06'24
	-12653 Mar 12 j 08:06	0° $\approx$			-12649 Dec 22 j 00:48	0° $\Omega$	
	-12653 Apr 24 j 22:02	0° $\mathbb{X}$		max. Earth dist.	-12648 Jan 06 j 07:20	10° $\Omega$ 15'32	2.58186 AU
	-12653 Jun 04 j 22:35	0° $\mathbb{Y}$		morning rise	-12648 Feb 01 j 02:26	27° $\Omega$ 16'19	
evening set	-12653 Jun 13 j 19:30	6° $\mathbb{Y}$ 40'59			-12648 Feb 05 j 06:55	0° $\mathbb{M}$	
	-12653 Jul 14 j 05:13	0° $\mathbb{B}$			-12648 Mar 23 j 03:55	0° $\mathbb{J}$	
max. Earth dist.	-12653 Aug 01 j 16:46	14° $\mathbb{B}$ 23'46	2.38539 AU		-12648 May 10 j 11:26	0° $\mathbb{Z}$	
					-12648 Jun 29 j 23:02	0° $\approx$	
conjunction	-12653 Aug 13 j 00:23	23° $\mathbb{B}$ 15'18	1°00'46	asc. node	-12648 Aug 21 j 11:29	27° $\approx$ 39'49	
minimum elong	-12653 Aug 13 j 03:26	23° $\mathbb{B}$ 21'17	1°01'22		-12648 Aug 26 j 15:54	0° $\mathbb{X}$	
	-12653 Aug 21 j 14:53	0° $\mathbb{I}$		retrograde	-12648 Oct 21 j 06:20	14° $\mathbb{X}$ 35'15	
	-12653 Sep 29 j 01:30	0° $\Theta$		opposition	-12648 Nov 24 j 15:39	7° $\mathbb{X}$ 37'07	4°36'40
morning rise	-12653 Oct 16 j 05:09	13° $\Theta$ 11'54		greatest brilliancy	-12648 Nov 25 j 19:52	7° $\mathbb{X}$ 12'37	-2.1m
	-12653 Nov 07 j 10:03	0° $\Omega$		min. Earth dist.	-12648 Dec 02 j 14:39	4° $\mathbb{X}$ 52'10	0.49478 AU
desc. node	-12653 Nov 13 j 14:48	4° $\Omega$ 37'26			-12648 Dec 21 j 04:07	30° $\mathbb{R}$ $\approx$	
	-12653 Dec 18 j 11:23	0° $\mathbb{M}$		direct	-12647 Jan 01 j 13:59	29° $\approx$ 05'49	
	-12652 Jan 30 j 22:19	0° $\Omega$			-12647 Jan 13 j 06:20	0° $\mathbb{X}$	
	-12652 Mar 17 j 15:03	0° $\mathbb{M}$			-12647 Mar 23 j 01:09	0° $\mathbb{Y}$	
	-12652 May 09 j 01:36	0° $\mathbb{J}$			-12647 May 06 j 20:11	0° $\mathbb{B}$	
retrograde	-12652 Jul 26 j 16:02	25° $\mathbb{J}$ 41'16			-12647 Jun 17 j 02:16	0° $\mathbb{I}$	
opposition	-12652 Sep 03 j 19:58	16° $\mathbb{J}$ 18'15	-2°52'23	desc. node	-12647 Jul 05 j 15:58	13° $\mathbb{I}$ 44'58	
greatest brilliancy	-12652 Sep 04 j 01:13	16° $\mathbb{J}$ 12'59	-1.4m		-12647 Jul 27 j 14:56	0° $\Theta$	
min. Earth dist.	-12652 Sep 05 j 17:42	15° $\mathbb{J}$ 32'26	0.65849 AU		-12647 Sep 06 j 17:12	0° $\Omega$	
direct	-12652 Oct 14 j 08:20	6° $\mathbb{J}$ 23'43			-12647 Oct 19 j 02:37	0° $\mathbb{M}$	
asc. node	-12652 Nov 16 j 08:53	12° $\mathbb{J}$ 14'46			-12647 Dec 02 j 03:14	0° $\Omega$	
	-12652 Dec 27 j 14:35	0° $\mathbb{Z}$		evening set	-12647 Dec 03 j 15:40	1° $\Omega$ 00'55	
	-12651 Feb 17 j 10:30	0° $\approx$			-12646 Jan 16 j 16:30	0° $\mathbb{M}$	
	-12651 Apr 03 j 10:37	0° $\mathbb{X}$					
	-12651 May 14 j 22:33	0° $\mathbb{Y}$		conjunction	-12646 Jan 23 j 01:39	4° $\mathbb{M}$ 08'16	-1°13'47
	-12651 Jun 23 j 08:57	0° $\mathbb{B}$		minimum elong	-12646 Jan 23 j 02:23	4° $\mathbb{M}$ 09'27	1°14'14
	-12651 Jul 31 j 20:25	0° $\mathbb{I}$		max. Earth dist.	-12646 Feb 02 j 05:02	10° $\mathbb{M}$ 41'27	2.64803 AU
evening set	-12651 Aug 16 j 01:34	11° $\mathbb{I}$ 53'32			-12646 Mar 04 j 07:08	0° $\mathbb{J}$	
	-12651 Sep 08 j 08:58	0° $\Theta$		morning rise	-12646 Mar 12 j 13:34	5° $\mathbb{J}$ 16'58	
desc. node	-12651 Sep 30 j 09:34	16° $\Theta$ 52'34			-12646 Apr 20 j 08:11	0° $\mathbb{Z}$	
					-12646 Jun 06 j 09:38	0° $\approx$	

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

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

asc. node	-12646 Jul 09 j 03:44	20°≈50'29	direct	-12641 Jul 14 j 13:24	9°≈02'37	
	-12646 Jul 23 j 15:15	0°♂		-12641 Sep 21 j 16:37	0°♂	
	-12646 Sep 10 j 04:40	0°♀		-12641 Nov 16 j 08:11	0°♂	
	-12646 Nov 03 j 20:41	0°♂		-12640 Jan 05 j 16:06	0°♂	
retrograde	-12646 Dec 30 j 05:59	15°♂47'18		-12640 Feb 22 j 11:14	0°♂	
opposition	-12645 Jan 30 j 03:02	10°♂35'55	6°58'38	asc. node	-12640 Feb 28 j 10:21	3°♂50'43
greatest brilliancy	-12645 Jan 31 j 00:19	10°♂21'19	-2.8m	evening set	-12640 Apr 03 j 18:05	27°♂08'05
min. Earth dist.	-12645 Feb 02 j 08:12	9°♂43'09	0.39290 AU		-12640 Apr 08 j 00:07	0°≈
direct	-12645 Mar 02 j 19:13	5°♂02'53		max. Earth dist.	-12640 Apr 22 j 12:24	9°≈53'14 2.53455 AU
	-12645 May 12 j 20:38	0°♂			-12640 May 21 j 07:03	0°♂
desc. node	-12645 May 23 j 22:53	6°♂29'04				
	-12645 Jun 30 j 04:00	0°♂		conjunction	-12640 May 25 j 02:16	2°♂42'27 0°51'08
	-12645 Aug 14 j 05:08	0°♂		minimum elong	-12640 May 25 j 00:13	2°♂38'48 0°50'45
	-12645 Sep 28 j 00:53	0°♂			-12640 Jul 01 j 13:13	0°♀
	-12645 Nov 12 j 14:12	0°♂		morning rise	-12640 Jul 17 j 08:27	11°♀49'10
	-12645 Dec 29 j 00:20	0°♂			-12640 Aug 10 j 06:46	0°♂
evening set	-12644 Jan 14 j 15:20	10°♂38'56			-12640 Sep 18 j 04:32	0°♂
	-12644 Feb 13 j 21:49	0°♂			-12640 Oct 27 j 02:53	0°♂
max. Earth dist.	-12644 Feb 27 j 01:42	8°♂25'25 2.66173 AU			-12640 Dec 06 j 01:05	0°♂
				desc. node	-12639 Jan 12 j 19:52	27°♂01'31
conjunction	-12644 Mar 02 j 22:43	11°♂32'55 -0°47'21			-12639 Jan 17 j 03:26	0°♂
minimum elong	-12644 Mar 03 j 00:15	11°♂35'23 0°48'06			-12639 Mar 04 j 11:10	0°♂
	-12644 Mar 31 j 14:17	0°♂			-12639 May 02 j 23:40	0°♂
morning rise	-12644 Apr 19 j 00:59	11°♂59'20		retrograde	-12639 Jun 08 j 07:43	7°♂21'36
	-12644 May 16 j 10:28	0°≈			-12639 Jul 11 j 19:38	30°♂♂
asc. node	-12644 May 25 j 17:47	6°≈10'48		min. Earth dist.	-12639 Jul 14 j 21:05	28°♂47'14 0.63596 AU
	-12644 Jun 30 j 03:03	0°♂		opposition	-12639 Jul 18 j 05:47	27°♂26'13 -5°13'08
	-12644 Aug 12 j 17:37	0°♀		greatest brilliancy	-12639 Jul 17 j 16:00	27°♂40'04 -1.5m
	-12644 Sep 24 j 16:18	0°♂		direct	-12639 Aug 25 j 15:23	18°♂19'41
	-12644 Nov 06 j 20:11	0°♂			-12639 Oct 13 j 20:54	0°♂
	-12644 Dec 22 j 15:09	0°♂			-12639 Dec 13 j 02:00	0°♂
retrograde	-12643 Mar 02 j 06:03	0°♂		asc. node	-12638 Jan 15 j 15:28	19°♂38'08
	-12643 Mar 11 j 19:16	0°♂37'30			-12638 Feb 01 j 12:18	0°♂
	-12643 Mar 21 j 06:08	30°♂♂			-12638 Mar 19 j 21:20	0°≈
min. Earth dist.	-12643 Apr 08 j 09:03	25°♂44'08 0.42857 AU			-12638 May 02 j 06:46	0°♂
desc. node	-12643 Apr 10 j 02:43	25°♂11'40		evening set	-12638 May 22 j 13:44	14°♂39'12
opposition	-12643 Apr 15 j 15:40	23°♂26'05 -0°23'30			-12638 Jun 12 j 07:02	0°♀
greatest brilliancy	-12643 Apr 15 j 12:47	23°♂28'22 -2.6m		max. Earth dist.	-12638 Jun 13 j 11:01	0°♀52'27 2.41722 AU
direct	-12643 May 17 j 09:08	17°♂26'32				
	-12643 Jul 05 j 18:32	0°♂		conjunction	-12638 Jul 19 j 00:31	27°♀59'13 1°12'38
	-12643 Aug 31 j 22:26	0°♂		minimum elong	-12638 Jul 19 j 01:23	28°♀00'54 1°13'00
	-12643 Oct 20 j 22:28	0°♂			-12638 Jul 21 j 14:58	0°♂
	-12643 Dec 08 j 11:09	0°♂			-12638 Aug 29 j 02:12	0°♂
	-12642 Jan 25 j 07:32	0°♂		morning rise	-12638 Sep 19 j 05:20	16°♂30'50
evening set	-12642 Feb 22 j 04:31	17°♂44'21			-12638 Oct 06 j 14:05	0°♂
	-12642 Mar 13 j 04:51	0°♂			-12638 Nov 14 j 23:55	0°♂
max. Earth dist.	-12642 Mar 23 j 12:17	6°♂42'59 2.62269 AU		desc. node	-12638 Nov 30 j 10:17	11°♂25'54
					-12638 Dec 26 j 03:48	0°♂
conjunction	-12642 Apr 11 j 17:31	19°♂22'27 -0°00'29			-12637 Feb 07 j 22:33	0°♂
minimum elong	-12642 Apr 11 j 17:35	19°♂22'34 0°01'14			-12637 Mar 27 j 17:07	0°♂
behind sun begin	-12642 Apr 10 j 21:32	18°♂49'19			-12637 May 24 j 05:02	0°♂
behind sun end	-12642 Apr 12 j 13:39	19°♂55'51		retrograde	-12637 Jul 13 j 19:17	12°♂33'58
asc. node	-12642 Apr 12 j 11:26	19°♂52'11		opposition	-12637 Aug 22 j 09:20	2°♂56'43 -3°46'16
	-12642 Apr 27 j 14:59	0°≈		greatest brilliancy	-12637 Aug 22 j 11:17	2°♂54'45 -1.4m
morning rise	-12642 May 30 j 00:28	22°≈08'08		min. Earth dist.	-12637 Aug 22 j 19:39	2°♂46'19 0.66440 AU
	-12642 Jun 10 j 07:06	0°♂			-12637 Aug 29 j 20:05	30°♂♂
	-12642 Jul 22 j 06:28	0°♀		direct	-12637 Oct 01 j 12:58	23°♂10'35
	-12642 Aug 31 j 22:14	0°♂			-12637 Nov 06 j 16:50	0°♂
	-12642 Oct 10 j 21:05	0°♂		asc. node	-12637 Dec 03 j 22:24	11°♂09'06
	-12642 Nov 20 j 00:48	0°♂			-12636 Jan 09 j 00:39	0°♂
	-12642 Dec 31 j 19:41	0°♂			-12636 Feb 27 j 04:21	0°≈
	-12641 Feb 16 j 10:48	0°♂			-12636 Apr 11 j 10:50	0°♂
desc. node	-12641 Feb 26 j 02:03	5°♂25'11			-12636 May 22 j 16:37	0°♀
retrograde	-12641 May 01 j 04:58	26°♂25'08			-12636 Jul 01 j 00:28	0°♂
min. Earth dist.	-12641 Jun 02 j 03:56	19°♂35'01 0.54826 AU		evening set	-12636 Jul 21 j 06:15	15°♂46'19
greatest brilliancy	-12641 Jun 07 j 20:25	17°♂24'50 -1.9m			-12636 Aug 08 j 10:06	0°♂
opposition	-12641 Jun 09 j 00:33	16°♂57'54 -4°49'54			-12636 Sep 15 j 20:33	0°♂

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 27

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

conjunction	-12636 Sep 21 j 17:34	4° $\ominus$ 32'22	0°19'11	retrograde	-12631 Nov 30 j 05:51	19° $\Upsilon$ 06'48	
minimum elong	-12636 Sep 21 j 19:20	4° $\ominus$ 35'45	0°19'57	opposition	-12630 Jan 01 j 01:57	13° $\Upsilon$ 22'36	6°57'41
desc. node	-12636 Oct 17 j 04:52	23° $\ominus$ 59'03		greatest brilliancy	-12630 Jan 02 j 14:59	12° $\Upsilon$ 54'35	-2.5m
	-12636 Oct 25 j 04:57	0° $\Omega$		min. Earth dist.	-12630 Jan 07 j 18:12	11° $\Upsilon$ 21'57	0.42379 AU
max. Earth dist.	-12636 Nov 03 j 07:42	6° $\Omega$ 47'36	2.42266 AU	direct	-12630 Feb 04 j 11:28	6° $\Upsilon$ 39'15	
morning rise	-12636 Nov 23 j 11:29	21° $\Omega$ 34'10			-12630 Apr 12 j 12:22	0° $\mathcal{B}$	
	-12636 Dec 05 j 04:44	0° $\mathbb{M}$			-12630 May 29 j 16:40	0° $\Pi$	
	-12635 Jan 17 j 08:52	0° $\underline{\mathbf{a}}$		desc. node	-12630 Jun 09 j 13:11	7° $\Pi$ 25'08	
	-12635 Mar 04 j 02:49	0° $\mathbb{M}$			-12630 Jul 11 j 22:50	0° $\ominus$	
	-12635 Apr 22 j 05:10	0° $\mathcal{A}$			-12630 Aug 23 j 18:02	0° $\Omega$	
	-12635 Jun 17 j 14:10	0° $\mathcal{Z}$			-12630 Oct 06 j 07:11	0° $\mathbb{M}$	
retrograde	-12635 Aug 18 j 14:25	17° $\mathcal{Z}$ 18'36			-12630 Nov 20 j 02:04	0° $\underline{\mathbf{a}}$	
opposition	-12635 Sep 25 j 19:46	8° $\mathcal{Z}$ 25'09	-1°05'16	evening set	-12630 Dec 29 j 20:57	25° $\underline{\mathbf{a}}$ 59'30	
greatest brilliancy	-12635 Sep 26 j 00:12	8° $\mathcal{Z}$ 20'48	-1.5m		-12629 Jan 05 j 01:44	0° $\mathbb{M}$	
min. Earth dist.	-12635 Sep 29 j 22:41	6° $\mathcal{Z}$ 47'48	0.63103 AU				
asc. node	-12635 Oct 21 j 03:58	0° $\mathcal{Z}$ 02'57		conjunction	-12629 Feb 16 j 17:04	27° $\mathbb{M}$ 23'13	-1°00'42
	-12635 Oct 21 j 09:43	30° $\mathcal{R}$ $\mathcal{A}$		minimum elong	-12629 Feb 16 j 18:35	27° $\mathbb{M}$ 25'39	1°01'22
direct	-12635 Nov 05 j 12:10	28° $\mathcal{A}$ 28'01		max. Earth dist.	-12629 Feb 17 j 15:04	27° $\mathbb{M}$ 58'26	2.66269 AU
	-12635 Nov 21 j 11:50	0° $\mathcal{Z}$			-12629 Feb 20 j 19:00	0° $\mathcal{A}$	
	-12634 Jan 31 j 14:50	0° $\approx$		morning rise	-12629 Apr 05 j 01:29	27° $\mathcal{A}$ 45'30	
	-12634 Mar 20 j 06:33	0° $\mathcal{H}$			-12629 Apr 08 j 13:00	0° $\mathcal{Z}$	
	-12634 May 01 j 16:24	0° $\Upsilon$			-12629 May 24 j 17:38	0° $\approx$	
	-12634 Jun 10 j 13:09	0° $\mathcal{B}$		asc. node	-12629 Jun 12 j 13:34	12° $\approx$ 22'44	
	-12634 Jul 19 j 07:14	0° $\Pi$			-12629 Jul 09 j 03:24	0° $\mathcal{H}$	
	-12634 Aug 27 j 01:14	0° $\ominus$			-12629 Aug 22 j 23:18	0° $\Upsilon$	
desc. node	-12634 Sep 04 j 03:43	6° $\ominus$ 12'22			-12629 Oct 06 j 22:50	0° $\mathcal{B}$	
evening set	-12634 Sep 23 j 16:05	21° $\ominus$ 00'09			-12629 Nov 23 j 01:57	0° $\Pi$	
	-12634 Oct 05 j 16:54	0° $\Omega$			-12628 Jan 25 j 19:12	0° $\ominus$	
	-12634 Nov 15 j 22:28	0° $\mathbb{M}$		retrograde	-12628 Feb 15 j 06:38	2° $\ominus$ 42'55	
					-12628 Mar 07 j 00:30	30° $\mathcal{R}$ $\Pi$	
conjunction	-12634 Nov 20 j 15:08	3° $\mathbb{M}$ 19'48	-0°51'14	min. Earth dist.	-12628 Mar 14 j 11:05	28° $\Pi$ 01'20	0.39497 AU
minimum elong	-12634 Nov 20 j 12:35	3° $\mathbb{M}$ 15'17	0°50'50	opposition	-12628 Mar 18 j 18:22	26° $\Pi$ 47'48	2°56'30
max. Earth dist.	-12634 Dec 24 j 11:50	26° $\mathbb{M}$ 50'23	2.54243 AU	greatest brilliancy	-12628 Mar 18 j 10:36	26° $\Pi$ 53'21	-2.8m
	-12634 Dec 29 j 03:26	0° $\underline{\mathbf{a}}$		direct	-12628 Apr 18 j 07:32	21° $\Pi$ 30'30	
morning rise	-12633 Jan 14 j 18:50	11° $\underline{\mathbf{a}}$ 11'25		desc. node	-12628 Apr 26 j 19:31	21° $\Pi$ 58'27	
	-12633 Feb 12 j 09:15	0° $\mathbb{M}$			-12628 May 27 j 08:05	0° $\ominus$	
	-12633 Mar 31 j 13:16	0° $\mathcal{A}$			-12628 Jul 24 j 21:42	0° $\Omega$	
	-12633 May 19 j 20:20	0° $\mathcal{Z}$			-12628 Sep 11 j 22:46	0° $\mathbb{M}$	
	-12633 Jul 12 j 11:29	0° $\approx$			-12628 Oct 29 j 12:22	0° $\underline{\mathbf{a}}$	
asc. node	-12633 Sep 08 j 04:43	23° $\approx$ 34'36			-12628 Dec 15 j 23:30	0° $\mathbb{M}$	
retrograde	-12633 Oct 01 j 09:44	26° $\approx$ 36'58			-12627 Feb 01 j 08:36	0° $\mathcal{A}$	
opposition	-12633 Nov 06 j 03:22	18° $\approx$ 57'47	2°49'26	evening set	-12627 Feb 06 j 19:41	3° $\mathcal{A}$ 28'38	
greatest brilliancy	-12633 Nov 06 j 19:21	18° $\approx$ 43'06	-1.9m	max. Earth dist.	-12627 Mar 13 j 06:22	25° $\mathcal{A}$ 34'01	2.64421 AU
min. Earth dist.	-12633 Nov 13 j 10:09	16° $\approx$ 17'45	0.54097 AU		-12627 Mar 20 j 02:40	0° $\mathcal{Z}$	
direct	-12633 Dec 15 j 11:15	9° $\approx$ 42'31					
	-12632 Feb 16 j 21:12	0° $\mathcal{H}$		conjunction	-12627 Mar 26 j 23:53	4° $\mathcal{Z}$ 28'34	-0°20'18
	-12632 Apr 05 j 08:53	0° $\Upsilon$		minimum elong	-12627 Mar 27 j 00:44	4° $\mathcal{Z}$ 29'57	0°21'05
	-12632 May 17 j 10:38	0° $\mathcal{B}$		asc. node	-12627 Apr 29 j 05:43	26° $\mathcal{Z}$ 23'08	
	-12632 Jun 26 j 11:22	0° $\Pi$			-12627 May 04 j 15:27	0° $\approx$	
desc. node	-12632 Jul 22 j 06:49	19° $\Pi$ 31'18		morning rise	-12627 May 13 j 11:10	5° $\approx$ 55'49	
	-12632 Aug 05 j 04:44	0° $\ominus$			-12627 Jun 17 j 15:02	0° $\mathcal{H}$	
	-12632 Sep 14 j 16:19	0° $\Omega$			-12627 Jul 30 j 02:05	0° $\Upsilon$	
	-12632 Oct 26 j 14:19	0° $\mathbb{M}$			-12627 Sep 09 j 09:02	0° $\mathcal{B}$	
evening set	-12632 Nov 15 j 13:40	13° $\mathbb{M}$ 52'12			-12627 Oct 20 j 02:42	0° $\Pi$	
	-12632 Dec 09 j 06:41	0° $\underline{\mathbf{a}}$			-12627 Nov 30 j 08:12	0° $\ominus$	
					-12626 Jan 13 j 05:49	0° $\Omega$	
conjunction	-12631 Jan 06 j 13:21	18° $\underline{\mathbf{a}}$ 49'01	-1°15'48		-12626 Mar 10 j 00:28	0° $\mathbb{M}$	
minimum elong	-12631 Jan 06 j 13:09	18° $\underline{\mathbf{a}}$ 48'43	1°16'02	desc. node	-12626 Mar 14 j 20:08	1° $\mathbb{M}$ 45'52	
max. Earth dist.	-12631 Jan 22 j 22:46	29° $\underline{\mathbf{a}}$ 33'00	2.62805 AU	retrograde	-12626 Apr 13 j 13:38	7° $\mathbb{M}$ 19'18	
	-12631 Jan 23 j 15:21	0° $\mathbb{M}$		min. Earth dist.	-12626 May 13 j 12:26	1° $\mathbb{M}$ 17'32	0.50173 AU
morning rise	-12631 Feb 25 j 07:49	21° $\mathbb{M}$ 05'42			-12626 May 17 j 02:32	30° $\mathcal{R}$ $\Omega$	
	-12631 Mar 11 j 06:25	0° $\mathcal{A}$		greatest brilliancy	-12626 May 20 j 04:20	28° $\Omega$ 52'27	-2.1m
	-12631 Apr 27 j 15:32	0° $\mathcal{Z}$		opposition	-12626 May 21 j 06:44	28° $\Omega$ 28'21	-3°47'18
	-12631 Jun 14 j 14:42	0° $\approx$		direct	-12626 Jun 24 j 10:01	21° $\Omega$ 12'59	
asc. node	-12631 Jul 25 j 22:51	25° $\approx$ 14'26			-12626 Aug 04 j 04:54	0° $\mathbb{M}$	
	-12631 Aug 02 j 23:02	0° $\mathcal{H}$			-12626 Oct 04 j 14:39	0° $\underline{\mathbf{a}}$	
	-12631 Sep 26 j 15:13	0° $\Upsilon$			-12626 Nov 25 j 04:19	0° $\mathbb{M}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12625 Jan 13 j 06:02	0°♊			-12621 Dec 13 j 15:21	0°♐	
	-12625 Mar 01 j 14:19	0°♊			-12620 Jan 25 j 22:02	0°♐	
asc. node	-12625 Mar 17 j 02:45	10°♊05'43			-12620 Mar 12 j 03:15	0°♐	
evening set	-12625 Mar 19 j 00:42	11°♊21'03			-12620 May 01 j 21:41	0°♊	
max. Earth dist.	-12625 Apr 10 j 08:30	26°♊09'55	2.57461 AU		-12620 Jul 08 j 21:26	0°♊	
	-12625 Apr 16 j 01:11	0°♊		retrograde	-12620 Aug 03 j 20:09	3°♊44'54	
					-12620 Aug 27 j 16:51	30°♊♊	
conjunction	-12625 May 07 j 21:19	14°♊55'00	0°32'01	opposition	-12620 Sep 11 j 17:22	24°♊31'14	-2°16'05
minimum elong	-12625 May 07 j 19:54	14°♊52'34	0°31'26	greatest brilliancy	-12620 Sep 11 j 23:11	24°♊25'25	-1.4m
	-12625 May 29 j 10:57	0°♊		min. Earth dist.	-12620 Sep 14 j 09:53	23°♊26'56	0.65133 AU
morning rise	-12625 Jun 27 j 14:37	20°♊56'56		direct	-12620 Oct 22 j 09:03	14°♊34'16	
	-12625 Jul 09 j 22:41	0°♊		asc. node	-12620 Nov 06 j 18:19	15°♊58'26	
	-12625 Aug 18 j 23:06	0°♊			-12620 Dec 18 j 11:11	0°♊	
	-12625 Sep 27 j 04:11	0°♊			-12619 Feb 11 j 09:07	0°♊	
	-12625 Nov 05 j 10:07	0°♊			-12619 Mar 29 j 03:28	0°♊	
	-12625 Dec 15 j 18:27	0°♊			-12619 May 09 j 22:19	0°♊	
	-12624 Jan 27 j 17:43	0°♊			-12619 Jun 18 j 11:57	0°♊	
desc. node	-12624 Jan 30 j 15:57	1°♊56'22			-12619 Jul 27 j 01:15	0°♊	
	-12624 Mar 16 j 22:56	0°♊		evening set	-12619 Aug 30 j 09:18	26°♊43'49	
retrograde	-12624 May 24 j 21:26	22°♊41'22			-12619 Sep 03 j 14:53	0°♊	
min. Earth dist.	-12624 Jun 28 j 18:45	14°♊44'04	0.60822 AU	desc. node	-12619 Sep 20 j 20:54	13°♊13'45	
opposition	-12624 Jul 03 j 14:44	12°♊48'59	-5°21'31		-12619 Oct 13 j 02:19	0°♊	
greatest brilliancy	-12624 Jul 02 j 17:55	13°♊09'38	-1.6m				
direct	-12624 Aug 10 j 00:44	4°♊05'47		conjunction	-12619 Oct 29 j 20:52	12°♊24'48	-0°28'13
	-12624 Oct 28 j 21:36	0°♊		minimum elong	-12619 Oct 29 j 18:53	12°♊21'10	0°27'36
	-12624 Dec 22 j 04:07	0°♊			-12619 Nov 23 j 04:20	0°♊	
asc. node	-12623 Feb 01 j 04:56	24°♊56'22		max. Earth dist.	-12619 Dec 09 j 02:36	11°♊15'26	2.49758 AU
	-12623 Feb 09 j 05:55	0°♊		morning rise	-12619 Dec 26 j 23:27	23°♊38'17	
	-12623 Mar 27 j 04:54	0°♊			-12618 Jan 05 j 07:18	0°♊	
evening set	-12623 May 02 j 07:41	24°♊53'38			-12618 Feb 19 j 15:16	0°♊	
	-12623 May 09 j 12:34	0°♊			-12618 Apr 08 j 06:47	0°♊	
max. Earth dist.	-12623 May 18 j 22:10	6°♊44'09	2.46374 AU		-12618 May 29 j 03:14	0°♊	
	-12623 Jun 19 j 14:36	0°♊			-12618 Jul 28 j 18:03	0°♊	
				retrograde	-12618 Sep 13 j 01:00	10°♊32'42	
conjunction	-12623 Jun 25 j 22:53	4°♊45'20	1°11'26	asc. node	-12618 Sep 24 j 21:17	9°♊37'46	
minimum elong	-12623 Jun 25 j 21:35	4°♊42'55	1°11'29	opposition	-12618 Oct 19 j 21:47	2°♊19'46	1°09'30
	-12623 Jul 29 j 01:36	0°♊		greatest brilliancy	-12618 Oct 20 j 03:23	2°♊14'26	-1.7m
morning rise	-12623 Aug 23 j 13:13	19°♊46'21		min. Earth dist.	-12618 Oct 26 j 01:56	29°♊58'53	0.58217 AU
	-12623 Sep 05 j 16:02	0°♊			-12618 Oct 26 j 00:45	30°♊♊	
	-12623 Oct 14 j 06:36	0°♊		direct	-12618 Nov 29 j 02:03	22°♊38'36	
	-12623 Nov 22 j 19:05	0°♊			-12617 Jan 04 j 05:20	0°♊	
desc. node	-12623 Dec 17 j 08:54	18°♊01'55			-12617 Mar 03 j 06:32	0°♊	
	-12622 Jan 03 j 03:45	0°♊			-12617 Apr 16 j 23:10	0°♊	
	-12622 Feb 16 j 11:36	0°♊			-12617 May 27 j 18:56	0°♊	
	-12622 Apr 07 j 04:19	0°♊			-12617 Jul 06 j 03:11	0°♊	
retrograde	-12622 Jun 30 j 03:14	29°♊22'22		desc. node	-12617 Aug 08 j 22:45	25°♊53'44	
opposition	-12622 Aug 08 j 23:37	19°♊34'29	-4°29'28		-12617 Aug 14 j 08:13	0°♊	
min. Earth dist.	-12622 Aug 07 j 22:13	20°♊00'07	0.66060 AU		-12617 Sep 23 j 09:23	0°♊	
greatest brilliancy	-12622 Aug 08 j 20:20	19°♊37'48	-1.4m	evening set	-12617 Oct 28 j 01:09	25°♊06'13	
direct	-12622 Sep 17 j 14:12	10°♊00'40			-12617 Nov 03 j 22:52	0°♊	
	-12622 Nov 24 j 13:05	0°♊			-12617 Dec 17 j 08:57	0°♊	
asc. node	-12622 Dec 20 j 11:29	13°♊20'05					
	-12621 Jan 18 j 14:33	0°♊		conjunction	-12617 Dec 21 j 01:12	2°♊28'52	-1°11'49
	-12621 Mar 07 j 07:00	0°♊		minimum elong	-12617 Dec 20 j 23:53	2°♊26'40	1°11'51
	-12621 Apr 20 j 02:38	0°♊		max. Earth dist.	-12616 Jan 13 j 02:55	17°♊52'14	2.60029 AU
	-12621 May 31 j 05:07	0°♊			-12616 Jan 31 j 14:52	0°♊	
evening set	-12621 Jun 27 j 06:15	20°♊32'33		morning rise	-12616 Feb 10 j 12:20	6°♊25'25	
	-12621 Jul 09 j 12:11	0°♊			-12616 Mar 18 j 08:31	0°♊	
	-12621 Aug 16 j 21:43	0°♊			-12616 May 05 j 05:54	0°♊	
					-12616 Jun 23 j 13:48	0°♊	
conjunction	-12621 Aug 27 j 16:17	8°♊26'45	0°48'15	asc. node	-12616 Aug 11 j 18:25	27°♊52'47	
minimum elong	-12621 Aug 27 j 19:40	8°♊33'23	0°48'56		-12616 Aug 15 j 19:30	0°♊	
max. Earth dist.	-12621 Sep 16 j 10:56	23°♊53'22	2.38679 AU	retrograde	-12616 Nov 03 j 16:14	26°♊25'29	
	-12621 Sep 24 j 07:50	0°♊		opposition	-12616 Dec 07 j 03:42	19°♊53'38	5°36'16
morning rise	-12621 Oct 30 j 23:29	27°♊59'44		greatest brilliancy	-12616 Dec 08 j 14:06	19°♊25'05	-2.3m
	-12621 Nov 02 j 15:37	0°♊		min. Earth dist.	-12616 Dec 15 j 02:49	17°♊15'37	0.46812 AU
desc. node	-12621 Nov 04 j 00:49	1°♊02'09		direct	-12615 Jan 13 j 00:52	11°♊56'17	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12615 Mar 11 j 17:19	0°♂	conjunction	-12610 Apr 21 j 00:26	28°♂38'42	0°11'27
	-12615 Apr 29 j 04:45	0°♂	minimum elong	-12610 Apr 20 j 23:57	28°♂37'53	0°10'44
	-12615 Jun 10 j 16:37	0°♂	behind sun begin	-12610 Apr 20 j 08:35	28°♂12'03	
desc. node	-12615 Jun 26 j 04:08	11°♂14'31	behind sun end	-12610 Apr 21 j 15:20	29°♂03'44	
	-12615 Jul 21 j 21:47	0°♂		-12610 Apr 23 j 00:45	0°♂	
	-12615 Sep 01 j 11:02	0°♂		-12610 Jun 05 j 14:40	0°♂	
	-12615 Oct 14 j 04:07	0°♂	morning rise	-12610 Jun 08 j 23:28	2°♂22'19	
	-12615 Nov 27 j 09:34	0°♂		-12610 Jul 17 j 09:50	0°♂	
evening set	-12615 Dec 13 j 10:38	10°♂38'15		-12610 Aug 26 j 19:37	0°♂	
	-12614 Jan 12 j 01:26	0°♂		-12610 Oct 05 j 11:18	0°♂	
				-12610 Nov 14 j 05:25	0°♂	
conjunction	-12614 Feb 01 j 04:22	13°♂00'00		-12610 Dec 25 j 07:36	0°♂	
minimum elong	-12614 Feb 01 j 05:29	13°♂01'49		-12609 Feb 08 j 00:12	0°♂	
max. Earth dist.	-12614 Feb 07 j 23:15	17°♂21'54	2.65556 AU	desc. node	-12609 Feb 16 j 12:48	5°♂13'49
	-12614 Feb 27 j 16:14	0°♂			-12609 Apr 07 j 00:06	0°♂
morning rise	-12614 Mar 21 j 03:46	13°♂44'12		retrograde	-12609 May 10 j 12:38	6°♂41'24
	-12614 Apr 15 j 14:05	0°♂			-12609 Jun 11 j 02:18	30°♂
	-12614 Jun 01 j 07:04	0°♂		min. Earth dist.	-12609 Jun 12 j 13:37	29°♂26'25
asc. node	-12614 Jun 29 j 10:15	18°♂09'52		opposition	-12609 Jun 18 j 18:32	27°♂01'47
	-12614 Jul 17 j 17:48	0°♂		greatest brilliancy	-12609 Jun 17 j 16:02	27°♂27'33
	-12614 Sep 02 j 13:02	0°♂	direct		-12609 Jul 25 j 00:24	18°♂47'50
	-12614 Oct 21 j 17:05	0°♂			-12609 Sep 10 j 14:30	0°♂
	-12614 Dec 26 j 17:53	0°♂			-12609 Nov 10 j 01:10	0°♂
retrograde	-12613 Jan 16 j 23:28	2°♂43'18			-12609 Dec 31 j 11:19	0°♂
	-12613 Feb 07 j 04:16	30°♂			-12608 Feb 17 j 16:13	0°♂
opposition	-12613 Feb 16 j 18:17	27°♂32'45	6°01'25	asc. node	-12608 Feb 18 j 19:14	0°♂43'12
greatest brilliancy	-12613 Feb 17 j 01:53	27°♂27'39	-2.8m		-12608 Apr 03 j 08:56	0°♂
min. Earth dist.	-12613 Feb 17 j 07:54	27°♂23'38	0.38544 AU	evening set	-12608 Apr 13 j 18:15	7°♂03'03
direct	-12613 Mar 19 j 12:19	22°♂21'36		max. Earth dist.	-12608 Apr 30 j 23:36	18°♂56'21
	-12613 Apr 24 j 17:09	0°♂			-12608 May 16 j 16:31	0°♂
desc. node	-12613 May 14 j 10:22	8°♂47'47				
	-12613 Jun 21 j 04:43	0°♂		conjunction	-12608 Jun 05 j 02:29	13°♂57'49
	-12613 Aug 07 j 12:41	0°♂		minimum elong	-12608 Jun 05 j 00:23	13°♂54'00
	-12613 Sep 22 j 09:52	0°♂			-12608 Jun 26 j 21:31	0°♂
	-12613 Nov 07 j 12:37	0°♂		morning rise	-12608 Jul 30 j 01:51	25°♂03'29
	-12613 Dec 24 j 06:08	0°♂			-12608 Aug 05 j 12:36	0°♂
evening set	-12612 Jan 23 j 12:43	19°♂18'25			-12608 Sep 13 j 07:22	0°♂
	-12612 Feb 09 j 07:05	0°♂			-12608 Oct 22 j 02:10	0°♂
max. Earth dist.	-12612 Mar 03 j 16:07	14°♂57'46	2.65782 AU		-12608 Nov 30 j 19:28	0°♂
				desc. node	-12607 Jan 03 j 05:07	24°♂10'12
conjunction	-12612 Mar 11 j 16:24	20°♂06'46	-0°38'11		-12607 Jan 11 j 12:59	0°♂
minimum elong	-12612 Mar 11 j 17:46	20°♂08'58	0°38'57		-12607 Feb 25 j 20:26	0°♂
	-12612 Mar 26 j 23:47	0°♂			-12607 Apr 20 j 15:02	0°♂
morning rise	-12612 Apr 27 j 18:51	20°♂46'24		retrograde	-12607 Jun 16 j 09:05	15°♂49'26
	-12612 May 11 j 17:15	0°♂		min. Earth dist.	-12607 Jul 23 j 18:58	6°♂56'50
asc. node	-12612 May 16 j 00:47	2°♂52'27		opposition	-12607 Jul 26 j 08:08	5°♂55'17
	-12612 Jun 25 j 03:20	0°♂		greatest brilliancy	-12607 Jul 25 j 22:18	6°♂05'10
	-12612 Aug 07 j 07:01	0°♂			-12607 Aug 11 j 15:59	30°♂
	-12612 Sep 18 j 12:43	0°♂		direct	-12607 Sep 03 j 05:20	26°♂37'55
	-12612 Oct 30 j 13:33	0°♂			-12607 Sep 27 j 19:34	0°♂
	-12612 Dec 12 j 22:09	0°♂			-12607 Dec 06 j 12:18	0°♂
	-12611 Jan 31 j 21:21	0°♂		asc. node	-12606 Jan 06 j 00:33	17°♂15'00
retrograde	-12611 Mar 24 j 13:37	15°♂08'30			-12606 Jan 27 j 04:50	0°♂
desc. node	-12611 Mar 31 j 15:01	14°♂46'56			-12606 Mar 15 j 00:08	0°♂
min. Earth dist.	-12611 Apr 21 j 16:44	9°♂54'22	0.45296 AU		-12606 Apr 27 j 13:26	0°♂
opposition	-12611 Apr 29 j 13:25	7°♂16'21	-1°54'32	evening set	-12606 Jun 03 j 22:13	27°♂14'05
greatest brilliancy	-12611 Apr 28 j 22:45	7°♂28'43	-2.4m		-12606 Jun 07 j 15:00	0°♂
direct	-12611 Jun 01 j 04:18	0°♂48'57		max. Earth dist.	-12606 Jul 06 j 03:09	21°♂38'54
	-12611 Aug 23 j 14:45	0°♂			-12606 Jul 16 j 22:49	0°♂
	-12611 Oct 14 j 22:36	0°♂				
	-12611 Dec 03 j 07:43	0°♂		conjunction	-12606 Aug 01 j 22:05	12°♂25'04
	-12610 Jan 20 j 13:11	0°♂		minimum elong	-12606 Aug 02 j 00:21	12°♂29'28
evening set	-12610 Mar 03 j 03:11	26°♂28'21			-12606 Aug 24 j 09:23	0°♂
	-12610 Mar 08 j 14:09	0°♂			-12606 Oct 01 j 20:06	0°♂
max. Earth dist.	-12610 Mar 29 j 18:06	13°♂49'36	2.60761 AU	morning rise	-12606 Oct 04 j 11:57	2°♂03'30
asc. node	-12610 Apr 02 j 19:03	16°♂29'37			-12606 Nov 10 j 04:11	0°♂
				desc. node	-12606 Nov 20 j 21:09	7°♂58'11

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12606 Dec 21 j 05:12	0°♎			-12600 Mar 28 j 18:25	0°♐	
	-12605 Feb 02 j 17:14	0°♏			-12600 May 11 j 03:27	0°♏	
	-12605 Mar 21 j 17:17	0°♎			-12600 Jun 20 j 18:39	0°♐	
	-12605 May 14 j 14:26	0°♏		desc. node	-12600 Jul 12 j 19:29	16°♐29'58	
retrograde	-12605 Jul 21 j 18:02	20°♏32'21			-12600 Jul 30 j 21:16	0°♐	
opposition	-12605 Aug 30 j 03:16	11°♏02'26	-3°16'10		-12600 Sep 09 j 15:21	0°♐	
greatest brilliancy	-12605 Aug 30 j 07:17	10°♏58'24	-1.4m		-12600 Oct 21 j 18:15	0°♎	
min. Earth dist.	-12605 Aug 31 j 08:57	10°♏32'38	0.66231 AU	evening set	-12600 Nov 26 j 02:14	24°♎17'04	
direct	-12605 Oct 09 j 12:44	1°♏11'13			-12600 Dec 04 j 13:44	0°♏	
asc. node	-12605 Nov 24 j 07:55	11°♏36'10					
	-12604 Jan 02 j 00:40	0°♏		conjunction	-12599 Jan 16 j 03:49	28°♏09'01	-1°15'16
	-12604 Feb 21 j 15:32	0°♏		minimum elong	-12599 Jan 16 j 04:13	28°♏09'39	1°15'38
	-12604 Apr 06 j 08:58	0°♏			-12599 Jan 18 j 24:00	0°♎	
	-12604 May 17 j 19:15	0°♐		max. Earth dist.	-12599 Jan 28 j 23:53	6°♎29'18	2.64016 AU
	-12604 Jun 26 j 05:06	0°♏		morning rise	-12599 Mar 06 j 03:57	29°♎43'49	
	-12604 Aug 03 j 15:58	0°♐			-12599 Mar 06 j 14:06	0°♏	
evening set	-12604 Aug 04 j 20:38	0°♐56'08			-12599 Apr 22 j 18:11	0°♏	
	-12604 Sep 11 j 03:11	0°♐			-12599 Jun 09 j 04:20	0°♏	
				asc. node	-12599 Jul 16 j 05:28	23°♏12'54	
conjunction	-12604 Oct 06 j 00:50	19°♐05'40	0°01'15		-12599 Jul 27 j 04:44	0°♏	
minimum elong	-12604 Oct 06 j 01:00	19°♐05'58	0°02'00		-12599 Sep 15 j 16:24	0°♐	
behind sun begin	-12604 Oct 04 j 22:55	18°♐16'28			-12599 Nov 20 j 02:45	0°♏	
behind sun end	-12604 Oct 07 j 03:05	19°♐55'26		retrograde	-12599 Dec 16 j 17:58	4°♏04'33	
desc. node	-12604 Oct 07 j 15:24	20°♐18'47			-12598 Jan 12 j 08:16	30°♏	
	-12604 Oct 20 j 11:55	0°♐		opposition	-12598 Jan 16 j 23:32	28°♐41'59	7°12'09
max. Earth dist.	-12604 Nov 18 j 15:44	21°♐29'26	2.44902 AU	greatest brilliancy	-12598 Jan 18 j 06:06	28°♐20'09	-2.7m
	-12604 Nov 30 j 11:31	0°♎		min. Earth dist.	-12598 Jan 22 j 00:28	27°♐16'04	0.40437 AU
morning rise	-12604 Dec 06 j 05:41	4°♎06'02		direct	-12598 Feb 18 j 18:44	22°♐40'33	
	-12603 Jan 12 j 13:46	0°♏			-12598 Mar 25 j 13:00	0°♏	
	-12603 Feb 27 j 02:11	0°♎			-12598 May 20 j 14:15	0°♐	
	-12603 Apr 16 j 11:43	0°♏		desc. node	-12598 May 31 j 02:45	6°♐43'30	
	-12603 Jun 09 j 01:05	0°♏			-12598 Jul 05 j 00:50	0°♐	
retrograde	-12603 Aug 27 j 11:11	25°♏46'01			-12598 Aug 17 j 21:15	0°♐	
opposition	-12603 Oct 04 j 06:27	17°♏05'26	-0°19'18		-12598 Oct 01 j 01:04	0°♎	
greatest brilliancy	-12603 Oct 04 j 08:07	17°♏03'48	-1.6m		-12598 Nov 15 j 04:30	0°♏	
min. Earth dist.	-12603 Oct 09 j 03:38	15°♏11'16	0.61603 AU		-12598 Dec 31 j 09:05	0°♎	
asc. node	-12603 Oct 11 j 13:23	14°♏16'04		evening set	-12597 Jan 08 j 00:25	4°♎54'49	
direct	-12603 Nov 13 j 21:10	7°♏11'16			-12597 Feb 16 j 04:16	0°♏	
	-12602 Jan 23 j 12:04	0°♏		max. Earth dist.	-12597 Feb 23 j 06:15	4°♏31'58	2.66324 AU
	-12602 Mar 14 j 05:14	0°♏					
	-12602 Apr 26 j 05:59	0°♐		conjunction	-12597 Feb 25 j 12:24	5°♏58'38	-0°53'22
	-12602 Jun 05 j 09:11	0°♏		minimum elong	-12597 Feb 25 j 13:58	6°♏01'09	0°54'04
	-12602 Jul 14 j 07:13	0°♐			-12597 Apr 03 j 21:29	0°♏	
	-12602 Aug 22 j 04:08	0°♐		morning rise	-12597 Apr 13 j 15:59	6°♏19'19	
desc. node	-12602 Aug 25 j 14:09	2°♐36'54			-12597 May 19 j 21:46	0°♏	
	-12602 Sep 30 j 22:04	0°♐		asc. node	-12597 Jun 02 j 19:41	9°♏12'09	
evening set	-12602 Oct 06 j 17:28	4°♐17'47			-12597 Jul 03 j 21:54	0°♏	
	-12602 Nov 11 j 05:29	0°♎			-12597 Aug 17 j 00:41	0°♐	
					-12597 Sep 29 j 17:38	0°♏	
conjunction	-12602 Dec 02 j 04:36	14°♎43'11	-1°00'56		-12597 Nov 13 j 04:39	0°♐	
minimum elong	-12602 Dec 02 j 02:19	14°♎39'13	1°00'42		-12596 Jan 01 j 08:18	0°♐	
	-12602 Dec 24 j 11:10	0°♏		retrograde	-12596 Mar 01 j 06:05	19°♐17'16	
max. Earth dist.	-12601 Jan 01 j 05:30	5°♏14'37	2.56513 AU	min. Earth dist.	-12596 Mar 28 j 17:58	14°♐34'38	0.41115 AU
morning rise	-12601 Jan 24 j 20:45	20°♏58'17		opposition	-12596 Apr 04 j 00:40	12°♐41'21	0°58'45
	-12601 Feb 07 j 15:56	0°♎		greatest brilliancy	-12596 Apr 03 j 20:08	12°♐44'46	-2.7m
	-12601 Mar 26 j 14:36	0°♏		desc. node	-12596 Apr 17 j 07:25	9°♐05'28	
	-12601 May 14 j 06:16	0°♏		direct	-12596 May 05 j 02:28	7°♐03'15	
	-12601 Jul 04 j 19:24	0°♏			-12596 Jul 14 j 17:36	0°♐	
asc. node	-12601 Aug 29 j 12:22	27°♏06'16			-12596 Sep 05 j 05:53	0°♎	
	-12601 Sep 06 j 10:18	0°♏			-12596 Oct 24 j 00:22	0°♏	
retrograde	-12601 Oct 12 j 20:49	6°♏58'30			-12596 Dec 11 j 00:40	0°♎	
opposition	-12601 Nov 16 j 21:46	29°♏41'00	3°49'55		-12595 Jan 27 j 15:48	0°♏	
	-12601 Nov 16 j 00:22	30°♏		evening set	-12595 Feb 15 j 15:33	12°♏04'49	
greatest brilliancy	-12601 Nov 17 j 20:41	29°♏20'33	-2.0m		-12595 Mar 15 j 12:02	0°♏	
min. Earth dist.	-12601 Nov 24 j 16:01	26°♏55'31	0.51604 AU	max. Earth dist.	-12595 Mar 19 j 04:52	2°♏24'12	2.63334 AU
direct	-12601 Dec 25 j 13:51	20°♏47'22					
	-12600 Feb 03 j 10:37	0°♏		conjunction	-12595 Apr 04 j 23:25	13°♏22'11	-0°09'02

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

minimum elong	-12595 Apr 04 j 23:50	13° $\text{♁}$ 22'52	0°09'48			-12590 Mar 31 j 06:22	0° $\text{♁}$	
behind sun begin	-12595 Apr 04 j 07:49	12° $\text{♁}$ 56'33				-12590 May 31 j 18:10	0° $\text{♁}$	
behind sun end	-12595 Apr 05 j 15:51	13° $\text{♁}$ 49'12		retrograde		-12590 Jul 07 j 23:40	7° $\text{♁}$ 24'15	
asc. node	-12595 Apr 19 j 12:33	22° $\text{♁}$ 59'37				-12590 Aug 10 j 23:01	30° $\text{♁}$	
	-12595 Apr 30 j 00:14	0° $\text{♁}$		opposition		-12590 Aug 16 j 17:37	27° $\text{♁}$ 41'44	-4°05'41
morning rise	-12595 May 22 j 19:47	15° $\text{♁}$ 27'56		min. Earth dist.		-12590 Aug 16 j 11:51	27° $\text{♁}$ 47'32	0.66395 AU
	-12595 Jun 12 j 20:26	0° $\text{♁}$		greatest brilliancy		-12590 Aug 16 j 17:26	27° $\text{♁}$ 41'55	-1.4m
	-12595 Jul 25 j 01:41	0° $\text{♁}$		direct		-12590 Sep 25 j 16:35	18° $\text{♁}$ 00'40	
	-12595 Sep 04 j 00:12	0° $\text{♁}$				-12590 Nov 14 j 14:55	0° $\text{♁}$	
	-12595 Oct 14 j 06:45	0° $\text{♁}$		asc. node		-12590 Dec 10 j 21:54	12° $\text{♁}$ 10'10	
	-12595 Nov 23 j 19:41	0° $\text{♁}$				-12589 Jan 12 j 13:56	0° $\text{♁}$	
	-12594 Jan 05 j 06:16	0° $\text{♁}$				-12589 Mar 02 j 02:58	0° $\text{♁}$	
	-12594 Feb 23 j 01:33	0° $\text{♁}$				-12589 Apr 15 j 05:50	0° $\text{♁}$	
desc. node	-12594 Mar 05 j 07:23	5° $\text{♁}$ 11'11				-12589 May 26 j 11:16	0° $\text{♁}$	
retrograde	-12594 Apr 23 j 20:56	18° $\text{♁}$ 55'46				-12589 Jul 04 j 19:14	0° $\text{♁}$	
min. Earth dist.	-12594 May 24 j 22:27	12° $\text{♁}$ 27'22	0.52788 AU	evening set		-12589 Jul 11 j 04:55	4° $\text{♁}$ 58'22	
greatest brilliancy	-12594 May 31 j 02:18	10° $\text{♁}$ 09'00	-2.0m			-12589 Aug 12 j 04:49	0° $\text{♁}$	
opposition	-12594 Jun 01 j 06:50	9° $\text{♁}$ 42'12	-4°28'32					
direct	-12594 Jul 06 j 04:39	2° $\text{♁}$ 03'59		conjunction		-12589 Sep 11 j 11:05	23° $\text{♁}$ 40'22	0°32'32
	-12594 Sep 26 j 21:08	0° $\text{♁}$		minimum elong		-12589 Sep 11 j 13:51	23° $\text{♁}$ 45'45	0°33'16
	-12594 Nov 19 j 11:58	0° $\text{♁}$				-12589 Sep 19 j 14:37	0° $\text{♁}$	
	-12593 Jan 08 j 06:11	0° $\text{♁}$		max. Earth dist.		-12589 Oct 19 j 02:10	22° $\text{♁}$ 36'14	2.40339 AU
	-12593 Feb 24 j 21:04	0° $\text{♁}$		desc. node		-12589 Oct 25 j 10:48	27° $\text{♁}$ 24'23	
asc. node	-12593 Mar 07 j 10:31	6° $\text{♁}$ 49'54				-12589 Oct 28 j 21:39	0° $\text{♁}$	
evening set	-12593 Mar 28 j 12:15	20° $\text{♁}$ 41'06		morning rise		-12589 Nov 14 j 04:17	12° $\text{♁}$ 05'57	
	-12593 Apr 11 j 10:08	0° $\text{♁}$				-12589 Dec 08 j 20:03	0° $\text{♁}$	
max. Earth dist.	-12593 Apr 17 j 16:05	4° $\text{♁}$ 13'53	2.55323 AU			-12588 Jan 20 j 23:34	0° $\text{♁}$	
						-12588 Mar 06 j 20:08	0° $\text{♁}$	
conjunction	-12593 May 18 j 02:47	25° $\text{♁}$ 16'42	0°43'18			-12588 Apr 25 j 10:48	0° $\text{♁}$	
minimum elong	-12593 May 18 j 00:56	25° $\text{♁}$ 13'27	0°42'50			-12588 Jun 23 j 15:44	0° $\text{♁}$	
	-12593 May 24 j 19:17	0° $\text{♁}$		retrograde		-12588 Aug 12 j 05:04	11° $\text{♁}$ 54'00	
	-12593 Jul 05 j 04:55	0° $\text{♁}$		opposition		-12588 Sep 19 j 18:27	2° $\text{♁}$ 50'54	-1°36'21
morning rise	-12593 Jul 09 j 03:11	2° $\text{♁}$ 54'43		greatest brilliancy		-12588 Sep 19 j 23:51	2° $\text{♁}$ 45'33	-1.5m
	-12593 Aug 14 j 02:02	0° $\text{♁}$		min. Earth dist.		-12588 Sep 23 j 06:04	1° $\text{♁}$ 28'10	0.64137 AU
	-12593 Sep 22 j 03:09	0° $\text{♁}$				-12588 Sep 27 j 00:50	30° $\text{♁}$	
	-12593 Oct 31 j 04:26	0° $\text{♁}$		asc. node		-12588 Oct 28 j 03:54	22° $\text{♁}$ 55'15	
	-12593 Dec 10 j 05:35	0° $\text{♁}$		direct		-12588 Oct 30 j 11:44	22° $\text{♁}$ 53'10	
desc. node	-12592 Jan 21 j 02:21	29° $\text{♁}$ 40'09				-12588 Dec 05 j 22:12	0° $\text{♁}$	
	-12592 Jan 21 j 14:01	0° $\text{♁}$				-12587 Feb 04 j 19:47	0° $\text{♁}$	
	-12592 Mar 08 j 17:32	0° $\text{♁}$				-12587 Mar 23 j 15:10	0° $\text{♁}$	
	-12592 May 17 j 03:13	0° $\text{♁}$				-12587 May 04 j 19:18	0° $\text{♁}$	
retrograde	-12592 Jun 02 j 06:08	1° $\text{♁}$ 38'33				-12587 Jun 13 j 13:19	0° $\text{♁}$	
	-12592 Jun 17 j 14:52	30° $\text{♁}$				-12587 Jul 22 j 05:15	0° $\text{♁}$	
min. Earth dist.	-12592 Jul 08 j 02:28	23° $\text{♁}$ 20'25	0.62462 AU			-12587 Aug 29 j 20:48	0° $\text{♁}$	
greatest brilliancy	-12592 Jul 11 j 10:27	22° $\text{♁}$ 00'33	-1.5m	desc. node		-12587 Sep 11 j 08:57	9° $\text{♁}$ 35'39	
opposition	-12592 Jul 12 j 03:26	21° $\text{♁}$ 43'35	-5°18'56	evening set		-12587 Sep 13 j 07:23	11° $\text{♁}$ 04'15	
direct	-12592 Aug 19 j 03:31	12° $\text{♁}$ 46'55				-12587 Oct 08 j 09:29	0° $\text{♁}$	
	-12592 Oct 20 j 03:19	0° $\text{♁}$						
	-12592 Dec 16 j 08:33	0° $\text{♁}$		conjunction		-12587 Nov 11 j 11:27	24° $\text{♁}$ 58'05	-0°42'14
asc. node	-12591 Jan 22 j 14:36	22° $\text{♁}$ 10'28		minimum elong		-12587 Nov 11 j 08:57	24° $\text{♁}$ 53'35	0°41'44
	-12591 Feb 04 j 04:59	0° $\text{♁}$				-12587 Nov 18 j 12:08	0° $\text{♁}$	
	-12591 Mar 22 j 10:51	0° $\text{♁}$		max. Earth dist.		-12587 Dec 18 j 11:57	21° $\text{♁}$ 01'37	2.52286 AU
	-12591 May 04 j 20:36	0° $\text{♁}$				-12587 Dec 31 j 14:41	0° $\text{♁}$	
evening set	-12591 May 13 j 14:51	6° $\text{♁}$ 16'09		morning rise		-12586 Jan 06 j 22:22	4° $\text{♁}$ 16'44	
max. Earth dist.	-12591 May 31 j 19:16	19° $\text{♁}$ 30'32	2.43736 AU			-12586 Feb 14 j 19:56	0° $\text{♁}$	
	-12591 Jun 14 j 22:40	0° $\text{♁}$				-12586 Apr 03 j 03:07	0° $\text{♁}$	
						-12586 May 22 j 22:54	0° $\text{♁}$	
conjunction	-12591 Jul 08 j 18:31	18° $\text{♁}$ 01'25	1°13'35			-12586 Jul 17 j 15:24	0° $\text{♁}$	
minimum elong	-12591 Jul 08 j 18:20	18° $\text{♁}$ 01'03	1°13'48	asc. node		-12586 Sep 15 j 05:28	19° $\text{♁}$ 32'40	
	-12591 Jul 24 j 08:24	0° $\text{♁}$		retrograde		-12586 Sep 23 j 05:20	19° $\text{♁}$ 56'11	
	-12591 Aug 31 j 21:07	0° $\text{♁}$		opposition		-12586 Oct 29 j 12:18	12° $\text{♁}$ 01'01	2°05'23
morning rise	-12591 Sep 07 j 11:10	5° $\text{♁}$ 08'47		greatest brilliancy		-12586 Oct 29 j 23:26	11° $\text{♁}$ 50'37	-1.8m
	-12591 Oct 09 j 09:50	0° $\text{♁}$		min. Earth dist.		-12586 Nov 05 j 08:38	9° $\text{♁}$ 27'52	0.56032 AU
	-12591 Nov 17 j 19:50	0° $\text{♁}$		direct		-12586 Dec 08 j 07:26	2° $\text{♁}$ 32'16	
desc. node	-12591 Dec 07 j 17:05	14° $\text{♁}$ 41'04				-12585 Feb 23 j 02:52	0° $\text{♁}$	
	-12591 Dec 29 j 00:18	0° $\text{♁}$				-12585 Apr 10 j 15:23	0° $\text{♁}$	
	-12590 Feb 10 j 22:08	0° $\text{♁}$				-12585 May 22 j 02:49	0° $\text{♁}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12585 Jun 30 j 19:28	0°♂		asc. node	-12580 May 06 j 07:27	29°♂30'47	
desc. node	-12585 Jul 30 j 11:04	22°♂34'18			-12580 May 07 j 00:58	0°♂	
	-12585 Aug 09 j 06:33	0°♂			-12580 Jun 20 j 05:40	0°♂	
	-12585 Sep 18 j 12:15	0°♂			-12580 Aug 02 j 00:14	0°♂	
	-12585 Oct 30 j 05:10	0°♂			-12580 Sep 12 j 16:40	0°♂	
evening set	-12585 Nov 08 j 09:01	6°♂25'25			-12580 Oct 23 j 22:10	0°♂	
	-12585 Dec 12 j 17:20	0°♂			-12580 Dec 04 j 20:55	0°♂	
					-12579 Jan 19 j 09:38	0°♂	
conjunction	-12585 Dec 31 j 05:17	12°♂23'25	-1°14'51	desc. node	-12579 Mar 22 j 01:36	27°♂10'49	
minimum elong	-12585 Dec 31 j 04:37	12°♂22'20	1°15'01	retrograde	-12579 Apr 05 j 06:30	28°♂33'30	
max. Earth dist.	-12584 Jan 19 j 13:50	25°♂09'43	2.61649 AU	min. Earth dist.	-12579 May 04 j 09:04	22°♂53'32	0.47977 AU
	-12584 Jan 26 j 23:35	0°♂		greatest brilliancy	-12579 May 11 j 08:41	20°♂26'02	-2.3m
morning rise	-12584 Feb 19 j 16:34	15°♂20'35		opposition	-12579 May 12 j 07:34	20°♂05'46	-3°06'03
	-12584 Mar 13 j 14:43	0°♂		direct	-12579 Jun 14 j 18:07	13°♂11'03	
	-12584 Apr 30 j 04:19	0°♂			-12579 Aug 13 j 05:37	0°♂	
	-12584 Jun 17 j 15:45	0°♂			-12579 Oct 08 j 12:21	0°♂	
asc. node	-12584 Aug 02 j 00:38	26°♂58'53			-12579 Nov 28 j 00:36	0°♂	
	-12584 Aug 07 j 07:46	0°♂			-12578 Jan 15 j 17:07	0°♂	
	-12584 Oct 06 j 21:41	0°♂			-12578 Mar 03 j 22:48	0°♂	
retrograde	-12584 Nov 18 j 04:14	9°♂11'07		evening set	-12578 Mar 12 j 04:10	5°♂20'01	
opposition	-12584 Dec 20 j 17:09	3°♂05'53	6°27'43	asc. node	-12578 Mar 24 j 03:32	13°♂09'56	
greatest brilliancy	-12584 Dec 22 j 07:00	2°♂35'56	-2.4m	max. Earth dist.	-12578 Apr 05 j 06:32	21°♂11'09	2.59036 AU
min. Earth dist.	-12584 Dec 28 j 04:44	0°♂44'21	0.44278 AU		-12578 Apr 18 j 10:32	0°♂	
	-12584 Dec 30 j 15:29	30°♂					
direct	-12583 Jan 25 j 07:38	25°♂47'35		conjunction	-12578 Apr 30 j 12:42	8°♂11'53	0°23'19
	-12583 Feb 19 j 21:16	0°♂		minimum elong	-12578 Apr 30 j 11:41	8°♂10'09	0°22'40
	-12583 Apr 20 j 04:47	0°♂			-12578 May 31 j 23:05	0°♂	
	-12583 Jun 03 j 17:14	0°♂		morning rise	-12578 Jun 19 j 08:48	13°♂06'01	
desc. node	-12583 Jun 16 j 17:05	9°♂10'21			-12578 Jul 12 j 14:55	0°♂	
	-12583 Jul 15 j 21:26	0°♂			-12578 Aug 21 j 19:49	0°♂	
	-12583 Aug 27 j 00:48	0°♂			-12578 Sep 30 j 05:16	0°♂	
	-12583 Oct 09 j 03:12	0°♂			-12578 Nov 08 j 15:40	0°♂	
	-12583 Nov 22 j 14:41	0°♂			-12578 Dec 19 j 05:29	0°♂	
evening set	-12583 Dec 22 j 23:05	19°♂57'41			-12577 Jan 31 j 16:59	0°♂	
	-12582 Jan 07 j 09:57	0°♂		desc. node	-12577 Feb 06 j 21:46	4°♂00'26	
					-12577 Mar 24 j 01:02	0°♂	
conjunction	-12582 Feb 10 j 03:52	21°♂43'54	-1°05'13	retrograde	-12577 May 19 j 11:25	16°♂28'05	
minimum elong	-12582 Feb 10 j 05:16	21°♂46'09	1°05'49	min. Earth dist.	-12577 Jun 22 j 13:41	8°♂49'22	0.59289 AU
max. Earth dist.	-12582 Feb 13 j 15:10	23°♂57'26	2.66052 AU	greatest brilliancy	-12577 Jun 27 j 01:35	7°♂03'16	-1.7m
	-12582 Feb 23 j 01:30	0°♂		opposition	-12577 Jun 28 j 01:16	6°♂39'58	-5°19'31
morning rise	-12582 Mar 29 j 17:53	22°♂12'42			-12577 Jul 18 j 08:56	30°♂	
	-12582 Apr 10 j 21:05	0°♂		direct	-12577 Aug 03 j 23:52	28°♂09'03	
	-12582 May 27 j 07:00	0°♂			-12577 Aug 21 j 17:41	0°♂	
asc. node	-12582 Jun 19 j 15:54	15°♂15'19			-12577 Nov 03 j 03:14	0°♂	
	-12582 Jul 12 j 03:02	0°♂			-12577 Dec 26 j 01:45	0°♂	
	-12582 Aug 26 j 17:12	0°♂		asc. node	-12576 Feb 09 j 04:35	27°♂42'56	
	-12582 Oct 12 j 02:22	0°♂			-12576 Feb 12 j 19:04	0°♂	
	-12582 Dec 01 j 22:11	0°♂			-12576 Mar 29 j 16:29	0°♂	
retrograde	-12581 Feb 02 j 20:48	20°♂04'06		evening set	-12576 Apr 24 j 03:35	17°♂24'48	
min. Earth dist.	-12581 Mar 04 j 04:12	15°♂12'27	0.38722 AU	max. Earth dist.	-12576 May 10 j 12:57	28°♂55'27	2.48509 AU
opposition	-12581 Mar 06 j 10:23	14°♂35'15	4°25'42		-12576 May 12 j 01:19	0°♂	
greatest brilliancy	-12581 Mar 06 j 06:31	14°♂37'55	-2.9m				
direct	-12581 Apr 05 j 20:59	9°♂27'00		conjunction	-12576 Jun 16 j 16:01	25°♂51'37	1°07'37
desc. node	-12581 May 04 j 23:58	14°♂29'37		minimum elong	-12576 Jun 16 j 14:13	25°♂48'17	1°07'33
	-12581 Jun 09 j 13:33	0°♂			-12576 Jun 22 j 05:46	0°♂	
	-12581 Jul 31 j 03:27	0°♂			-12576 Jul 31 j 19:15	0°♂	
	-12581 Sep 16 j 12:23	0°♂		morning rise	-12576 Aug 12 j 13:48	9°♂05'20	
	-12581 Nov 02 j 08:19	0°♂			-12576 Sep 08 j 11:40	0°♂	
	-12581 Dec 19 j 10:40	0°♂			-12576 Oct 17 j 03:42	0°♂	
evening set	-12580 Feb 01 j 07:52	27°♂52'48		desc. node	-12576 Nov 25 j 17:09	0°♂	
	-12580 Feb 04 j 15:46	0°♂			-12576 Dec 24 j 15:36	21°♂08'16	
max. Earth dist.	-12580 Mar 09 j 07:47	21°♂33'10	2.65130 AU		-12575 Jan 06 j 03:33	0°♂	
					-12575 Feb 19 j 17:47	0°♂	
conjunction	-12580 Mar 20 j 10:48	28°♂44'15	-0°28'07		-12575 Apr 11 j 14:07	0°♂	
minimum elong	-12580 Mar 20 j 11:55	28°♂46'02	0°28'54	retrograde	-12575 Jun 24 j 07:51	24°♂06'46	
	-12580 Mar 22 j 09:34	0°♂		min. Earth dist.	-12575 Aug 01 j 13:01	14°♂57'20	0.65588 AU
morning rise	-12580 May 06 j 16:54	29°♂46'32		opposition	-12575 Aug 03 j 06:38	14°♂15'25	-4°44'13



Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

greatest brilliancy	-12575 Aug 03 j 00:33	14° $\mathbb{M}$ 21'32	-1.4m	evening set	-12570 Oct 19 j 01:45	16° $\Omega$ 46'32	
direct	-12575 Sep 11 j 14:42	4° $\mathbb{M}$ 48'24			-12570 Nov 06 j 12:52	0° $\mathbb{M}$	
	-12575 Nov 29 j 04:24	0° $\mathbb{A}$					
asc. node	-12575 Dec 27 j 10:31	15° $\mathbb{A}$ 12'48		conjunction	-12570 Dec 13 j 03:34	25° $\mathbb{M}$ 27'48	-1°08'02
	-12574 Jan 21 j 16:28	0° $\mathbb{B}$		minimum elong	-12570 Dec 13 j 01:47	25° $\mathbb{M}$ 24'46	1°07'58
	-12574 Mar 10 j 00:47	0° $\approx$			-12570 Dec 19 j 19:39	0° $\underline{\Omega}$	
	-12574 Apr 22 j 18:51	0° $\mathbb{H}$		max. Earth dist.	-12569 Jan 08 j 10:05	13° $\underline{\Omega}$ 09'54	2.58537 AU
	-12574 Jun 02 j 22:00	0° $\mathbb{Y}$			-12569 Feb 02 j 23:43	0° $\mathbb{M}$	
evening set	-12574 Jun 16 j 21:09	10° $\mathbb{Y}$ 31'43		morning rise	-12569 Feb 03 j 13:07	0° $\mathbb{M}$ 21'49	
	-12574 Jul 12 j 06:03	0° $\mathbb{B}$			-12569 Mar 21 j 18:26	0° $\mathbb{A}$	
max. Earth dist.	-12574 Aug 10 j 15:36	22° $\mathbb{B}$ 55'41	2.38429 AU		-12569 May 08 j 22:17	0° $\mathbb{B}$	
					-12569 Jun 28 j 00:46	0° $\approx$	
conjunction	-12574 Aug 16 j 07:45	27° $\mathbb{B}$ 22'27	0°58'11	asc. node	-12569 Aug 19 j 19:15	28° $\approx$ 26'40	
minimum elong	-12574 Aug 16 j 10:58	27° $\mathbb{B}$ 28'46	0°58'49		-12569 Aug 23 j 01:50	0° $\mathbb{H}$	
	-12574 Aug 19 j 16:08	0° $\mathbb{H}$		retrograde	-12569 Oct 25 j 09:56	18° $\mathbb{H}$ 06'30	
	-12574 Sep 27 j 02:13	0° $\mathbb{B}$		opposition	-12569 Nov 28 j 14:24	11° $\mathbb{H}$ 13'35	4°51'06
morning rise	-12574 Oct 19 j 15:13	17° $\mathbb{B}$ 19'57		greatest brilliancy	-12569 Nov 29 j 20:18	10° $\mathbb{H}$ 47'52	-2.2m
	-12574 Nov 05 j 09:18	0° $\Omega$		min. Earth dist.	-12569 Dec 06 j 14:29	8° $\mathbb{H}$ 28'58	0.48961 AU
desc. node	-12574 Nov 11 j 07:20	4° $\Omega$ 25'30		direct	-12568 Jan 05 j 09:29	2° $\mathbb{H}$ 48'19	
	-12574 Dec 16 j 08:09	0° $\mathbb{M}$			-12568 Mar 19 j 13:26	0° $\mathbb{Y}$	
	-12573 Jan 28 j 15:16	0° $\underline{\Omega}$			-12568 May 04 j 04:37	0° $\mathbb{B}$	
	-12573 Mar 16 j 01:22	0° $\mathbb{M}$			-12568 Jun 14 j 17:31	0° $\mathbb{H}$	
	-12573 May 06 j 18:01	0° $\mathbb{A}$		desc. node	-12568 Jul 03 j 08:06	13° $\mathbb{H}$ 43'34	
retrograde	-12573 Jul 29 j 18:53	28° $\mathbb{A}$ 32'31			-12568 Jul 25 j 09:04	0° $\mathbb{B}$	
opposition	-12573 Sep 06 j 22:34	19° $\mathbb{A}$ 11'01	-2°42'29		-12568 Sep 04 j 12:16	0° $\Omega$	
greatest brilliancy	-12573 Sep 07 j 03:51	19° $\mathbb{A}$ 05'44	-1.4m		-12568 Oct 16 j 21:26	0° $\mathbb{M}$	
min. Earth dist.	-12573 Sep 08 j 23:30	18° $\mathbb{A}$ 22'07	0.65746 AU		-12568 Nov 29 j 21:07	0° $\underline{\Omega}$	
direct	-12573 Oct 17 j 12:50	9° $\mathbb{A}$ 16'03		evening set	-12568 Dec 06 j 03:45	4° $\underline{\Omega}$ 11'37	
asc. node	-12573 Nov 14 j 17:37	13° $\mathbb{A}$ 39'50			-12567 Jan 14 j 09:23	0° $\mathbb{M}$	
	-12573 Dec 25 j 00:18	0° $\mathbb{B}$					
	-12572 Feb 15 j 20:29	0° $\approx$		conjunction	-12567 Jan 25 j 10:32	7° $\mathbb{M}$ 09'45	-1°12'57
	-12572 Apr 01 j 04:46	0° $\mathbb{H}$		minimum elong	-12567 Jan 25 j 11:23	7° $\mathbb{M}$ 11'09	1°13'25
	-12572 May 12 j 20:51	0° $\mathbb{Y}$		max. Earth dist.	-12567 Feb 03 j 20:36	13° $\mathbb{M}$ 14'40	2.64967 AU
	-12572 Jun 21 j 09:20	0° $\mathbb{B}$			-12567 Mar 01 j 23:13	0° $\mathbb{A}$	
	-12572 Jul 29 j 21:28	0° $\mathbb{H}$		morning rise	-12567 Mar 14 j 19:53	8° $\mathbb{A}$ 13'05	
evening set	-12572 Aug 19 j 08:50	15° $\mathbb{H}$ 59'52			-12567 Apr 17 j 23:33	0° $\mathbb{B}$	
	-12572 Sep 06 j 09:32	0° $\mathbb{B}$			-12567 Jun 03 j 23:28	0° $\approx$	
desc. node	-12572 Sep 28 j 02:15	16° $\mathbb{B}$ 38'56		asc. node	-12567 Jul 06 j 12:02	20° $\approx$ 45'37	
	-12572 Oct 15 j 18:49	0° $\Omega$			-12567 Jul 21 j 00:51	0° $\mathbb{H}$	
					-12567 Sep 07 j 02:51	0° $\mathbb{Y}$	
conjunction	-12572 Oct 19 j 18:47	2° $\Omega$ 59'14	-0°16'07		-12567 Oct 29 j 21:43	0° $\mathbb{B}$	
minimum elong	-12572 Oct 19 j 17:33	2° $\Omega$ 56'56	0°15'26	retrograde	-12566 Jan 03 j 07:31	20° $\mathbb{B}$ 15'06	
behind sun begin	-12572 Oct 19 j 10:16	2° $\Omega$ 43'21		opposition	-12566 Feb 03 j 01:13	15° $\mathbb{B}$ 05'41	6°49'04
behind sun end	-12572 Oct 20 j 00:50	3° $\Omega$ 10'31		greatest brilliancy	-12566 Feb 03 j 20:12	14° $\mathbb{B}$ 52'48	-2.8m
	-12572 Nov 25 j 18:25	0° $\mathbb{M}$		min. Earth dist.	-12566 Feb 05 j 20:20	14° $\mathbb{B}$ 20'13	0.39057 AU
max. Earth dist.	-12572 Dec 01 j 07:16	3° $\mathbb{M}$ 56'39	2.47597 AU	direct	-12566 Mar 06 j 11:44	9° $\mathbb{B}$ 38'36	
morning rise	-12572 Dec 18 j 07:25	15° $\mathbb{M}$ 54'03			-12566 May 08 j 09:35	0° $\mathbb{H}$	
	-12571 Jan 07 j 19:39	0° $\underline{\Omega}$		desc. node	-12566 May 21 j 14:11	7° $\mathbb{H}$ 23'34	
	-12571 Feb 22 j 03:45	0° $\mathbb{M}$			-12566 Jun 27 j 03:10	0° $\mathbb{B}$	
	-12571 Apr 11 j 00:38	0° $\mathbb{A}$			-12566 Aug 11 j 14:19	0° $\Omega$	
	-12571 Jun 01 j 18:02	0° $\mathbb{B}$			-12566 Sep 25 j 14:05	0° $\mathbb{M}$	
	-12571 Aug 07 j 22:17	0° $\approx$			-12566 Nov 10 j 05:01	0° $\underline{\Omega}$	
retrograde	-12571 Sep 05 j 18:06	4° $\approx$ 31'43			-12566 Dec 26 j 15:51	0° $\mathbb{M}$	
asc. node	-12571 Oct 01 j 21:10	0° $\approx$ 08'26		evening set	-12565 Jan 16 j 23:52	13° $\mathbb{M}$ 39'19	
	-12571 Oct 02 j 07:34	30° $\mathbb{R}$ $\mathbb{B}$			-12565 Feb 11 j 13:51	0° $\mathbb{A}$	
opposition	-12571 Oct 13 j 02:05	26° $\mathbb{B}$ 05'39	0°30'30	max. Earth dist.	-12565 Feb 28 j 20:27	11° $\mathbb{A}$ 03'13	2.66131 AU
greatest brilliancy	-12571 Oct 13 j 04:19	26° $\mathbb{B}$ 03'30	-1.7m				
min. Earth dist.	-12571 Oct 18 j 17:01	23° $\mathbb{B}$ 55'54	0.59840 AU	conjunction	-12565 Mar 06 j 05:58	14° $\mathbb{A}$ 30'53	-0°44'56
direct	-12571 Nov 22 j 12:44	16° $\mathbb{B}$ 17'24		minimum elong	-12565 Mar 06 j 07:28	14° $\mathbb{A}$ 33'17	0°45'40
	-12570 Jan 13 j 06:03	0° $\approx$			-12565 Mar 30 j 06:58	0° $\mathbb{B}$	
	-12570 Mar 07 j 15:48	0° $\mathbb{H}$		morning rise	-12565 Apr 22 j 07:30	14° $\mathbb{B}$ 58'11	
	-12570 Apr 20 j 14:03	0° $\mathbb{Y}$			-12565 May 15 j 03:46	0° $\approx$	
	-12570 May 31 j 02:37	0° $\mathbb{B}$		asc. node	-12565 May 24 j 02:33	5° $\approx$ 56'28	
	-12570 Jul 09 j 05:58	0° $\mathbb{H}$			-12565 Jun 28 j 20:26	0° $\mathbb{H}$	
desc. node	-12570 Aug 16 j 03:02	29° $\mathbb{H}$ 07'14			-12565 Aug 11 j 10:01	0° $\mathbb{Y}$	
	-12570 Aug 17 j 06:41	0° $\mathbb{B}$			-12565 Sep 23 j 05:49	0° $\mathbb{B}$	
	-12570 Sep 26 j 03:31	0° $\Omega$			-12565 Nov 05 j 03:06	0° $\mathbb{H}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12565 Dec 20 j 03:28	0°☾			-12560 Dec 10 j 02:33	0°♊		
	-12564 Feb 16 j 17:00	0°♋		asc. node	-12559 Jan 12 j 23:45	19°♊37'17		
retrograde	-12564 Mar 14 j 23:19	4°♋46'29			-12559 Jan 29 j 23:57	0°♋		
desc. node	-12564 Apr 07 j 19:30	0°♋57'49			-12559 Mar 17 j 14:34	0°♌		
	-12564 Apr 11 j 00:35	30°♌☾			-12559 Apr 30 j 03:45	0°♍		
min. Earth dist.	-12564 Apr 11 j 14:06	29°♌49'32	0.43262 AU	evening set	-12559 May 25 j 11:16	18°♍17'12		
opposition	-12564 Apr 18 j 23:47	27°♌27'25	-0°46'59		-12559 Jun 10 j 06:37	0°♎		
greatest brilliancy	-12564 Apr 18 j 17:53	27°♌32'10	-2.6m	max. Earth dist.	-12559 Jun 18 j 00:03	5°♎47'56	2.41315 AU	
direct	-12564 May 20 j 21:58	21°♌22'48			-12559 Jul 19 j 16:02	0°♏		
	-12564 Jun 29 j 16:28	0°♏						
	-12564 Aug 28 j 17:36	0°♐		conjunction	-12559 Jul 22 j 04:06	1°♏56'12	1°11'50	
	-12564 Oct 18 j 05:52	0°♑		minimum elong	-12559 Jul 22 j 05:17	1°♏58'30	1°12'14	
	-12564 Dec 05 j 23:08	0°♒			-12559 Aug 27 j 03:37	0°♓		
	-12563 Jan 22 j 22:06	0°♊		morning rise	-12559 Sep 22 j 15:34	20°♓42'27		
evening set	-12563 Feb 24 j 12:28	20°♊43'56			-12559 Oct 04 j 14:44	0°♈		
	-12563 Mar 10 j 21:33	0°♋			-12559 Nov 12 j 22:42	0°♏		
max. Earth dist.	-12563 Mar 25 j 06:16	9°♋21'11	2.62013 AU	desc. node	-12559 Nov 28 j 03:40	11°♏17'49		
asc. node	-12563 Apr 09 j 20:04	19°♋36'41			-12559 Dec 23 j 23:34	0°♐		
					-12558 Feb 05 j 13:34	0°♑		
conjunction	-12563 Apr 14 j 02:16	22°♋26'24	0°02'42		-12558 Mar 24 j 22:41	0°♒		
minimum elong	-12563 Apr 14 j 02:09	22°♋26'12	0°01'58		-12558 May 19 j 19:57	0°♊		
behind sun begin	-12563 Apr 13 j 06:06	21°♋52'53		retrograde	-12558 Jul 15 j 21:12	15°♊24'18		
behind sun end	-12563 Apr 14 j 22:11	22°♋59'33		opposition	-12558 Aug 24 j 11:23	5°♊48'15	-3°38'11	
	-12563 Apr 25 j 09:35	0°♌		greatest brilliancy	-12558 Aug 24 j 13:45	5°♊45'51	-1.4m	
morning rise	-12563 Jun 01 j 11:20	25°♌20'58		min. Earth dist.	-12558 Aug 25 j 01:17	5°♊34'16	0.66421 AU	
	-12563 Jun 08 j 03:11	0°♍			-12558 Sep 09 j 01:36	30°♌♒		
	-12563 Jul 20 j 03:25	0°♎		direct	-12558 Oct 03 j 17:22	26°♌01'03		
	-12563 Aug 29 j 19:11	0°♏			-12558 Oct 30 j 13:50	0°♊		
	-12563 Oct 08 j 17:01	0°♐		asc. node	-12558 Dec 01 j 07:14	11°♊48'52		
	-12563 Nov 17 j 18:05	0°♑			-12557 Jan 06 j 00:23	0°♋		
	-12563 Dec 29 j 06:41	0°♏			-12557 Feb 24 j 17:17	0°♌		
	-12562 Feb 13 j 03:02	0°♐			-12557 Apr 10 j 05:36	0°♍		
desc. node	-12562 Feb 23 j 18:33	6°♐10'31			-12557 May 21 j 14:46	0°♎		
retrograde	-12562 May 03 j 14:06	29°♐44'28			-12557 Jun 30 j 00:34	0°♏		
min. Earth dist.	-12562 Jun 04 j 18:02	22°♐50'24	0.55267 AU	evening set	-12557 Jul 25 j 15:06	19°♏56'55		
greatest brilliancy	-12562 Jun 10 j 08:40	20°♐41'37	-1.9m		-12557 Aug 07 j 11:00	0°♓		
opposition	-12562 Jun 11 j 12:51	20°♐14'37	-4°56'22		-12557 Sep 14 j 21:12	0°♈		
direct	-12562 Jul 17 j 05:10	12°♐15'52						
	-12562 Sep 17 j 14:33	0°♑		conjunction	-12557 Sep 26 j 01:43	8°♑38'06	0°14'59	
	-12562 Nov 13 j 11:13	0°♒		minimum elong	-12557 Sep 26 j 03:06	8°♑40'46	0°15'44	
	-12561 Jan 03 j 03:15	0°♊		behind sun begin	-12557 Sep 25 j 20:42	8°♑28'27		
	-12561 Feb 20 j 02:48	0°♋		behind sun end	-12557 Sep 26 j 09:31	8°♑53'06		
asc. node	-12561 Feb 25 j 19:05	3°♋38'59		desc. node	-12557 Oct 15 j 21:36	23°♑45'45		
	-12561 Apr 06 j 18:58	0°♌			-12557 Oct 24 j 04:23	0°♏		
evening set	-12561 Apr 07 j 05:52	0°♌18'23		max. Earth dist.	-12557 Nov 07 j 19:44	10°♏53'54	2.42751 AU	
max. Earth dist.	-12561 Apr 25 j 11:56	12°♌44'39	2.53033 AU	morning rise	-12557 Nov 27 j 13:06	25°♏17'53		
	-12561 May 20 j 04:27	0°♍			-12557 Dec 04 j 02:05	0°♐		
					-12556 Jan 16 j 03:18	0°♑		
conjunction	-12561 May 28 j 17:18	6°♍05'04	0°53'34		-12556 Mar 01 j 17:06	0°♒		
minimum elong	-12561 May 28 j 15:13	6°♍01'19	0°53'13		-12556 Apr 19 j 11:41	0°♊		
	-12561 Jun 30 j 12:21	0°♎			-12556 Jun 13 j 16:51	0°♋		
morning rise	-12561 Jul 21 j 06:12	15°♎31'58		retrograde	-12556 Aug 20 j 19:33	20°♋11'48		
	-12561 Aug 09 j 06:42	0°♏		opposition	-12556 Sep 28 j 00:03	11°♋20'27	-0°53'10	
	-12561 Sep 17 j 04:16	0°♐		greatest brilliancy	-12556 Sep 28 j 03:49	11°♋16'45	-1.5m	
	-12561 Oct 26 j 01:22	0°♑		min. Earth dist.	-12556 Oct 02 j 06:34	9°♋39'53	0.62851 AU	
	-12561 Dec 04 j 20:56	0°♏		asc. node	-12556 Oct 18 j 13:19	4°♋06'35		
desc. node	-12560 Jan 11 j 11:39	27°♏01'58		direct	-12556 Nov 07 j 17:30	1°♋23'43		
	-12560 Jan 15 j 18:18	0°♐			-12555 Jan 28 j 11:46	0°♌		
	-12560 Mar 01 j 14:33	0°♑			-12555 Mar 17 j 19:55	0°♍		
	-12560 Apr 27 j 11:26	0°♒			-12555 Apr 29 j 11:50	0°♎		
retrograde	-12560 Jun 10 j 10:39	10°♒19'03			-12555 Jun 08 j 11:23	0°♏		
min. Earth dist.	-12560 Jul 17 j 04:39	1°♒41'27	0.63831 AU		-12555 Jul 17 j 06:33	0°♐		
opposition	-12560 Jul 20 j 10:02	0°♒23'51	-5°10'30		-12555 Aug 25 j 00:30	0°♑		
greatest brilliancy	-12560 Jul 19 j 21:04	0°♒36'51	-1.5m	desc. node	-12555 Sep 01 j 19:04	5°♑57'27		
	-12560 Jul 21 j 09:53	30°♒♑		evening set	-12555 Sep 26 j 20:18	24°♑55'46		
direct	-12560 Aug 27 j 22:49	21°♑15'10			-12555 Oct 03 j 15:16	0°♏		
	-12560 Oct 08 j 14:05	0°♒			-12555 Nov 13 j 19:19	0°♐		

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

conjunction	-12555 Nov 23 j 12:28	6° $\mathbb{M}$ 52'59	-0°53'53	opposition	-12549 Mar 23 j 13:05	1° $\mathbb{G}$ 11'10	2°29'06
minimum elong	-12555 Nov 23 j 09:57	6° $\mathbb{M}$ 48'33	0°53'32	greatest brilliancy	-12549 Mar 23 j 05:28	1° $\mathbb{G}$ 16'37	-2.8m
	-12555 Dec 26 j 22:23	0° $\mathbb{L}$			-12549 Mar 27 j 18:06	30° $\mathbb{R}$ II	
max. Earth dist.	-12555 Dec 26 j 19:07	29° $\mathbb{M}$ 54'28	2.54710 AU	direct	-12549 Apr 23 j 02:31	25° $\mathbb{I}$ 50'49	
morning rise	-12554 Jan 17 j 08:54	14° $\mathbb{L}$ 24'32		desc. node	-12549 Apr 25 j 12:16	25° $\mathbb{I}$ 53'03	
	-12554 Feb 10 j 01:57	0° $\mathbb{M}$			-12549 May 19 j 15:00	0° $\mathbb{G}$	
	-12554 Mar 29 j 03:00	0° $\mathbb{X}$			-12549 Jul 22 j 11:59	0° $\mathbb{Q}$	
	-12554 May 17 j 04:21	0° $\mathbb{Z}$			-12549 Sep 10 j 05:14	0° $\mathbb{M}$	
	-12554 Jul 09 j 01:41	0° $\approx$			-12549 Oct 28 j 00:12	0° $\mathbb{L}$	
asc. node	-12554 Sep 05 j 13:20	25° $\approx$ 20'42			-12549 Dec 14 j 13:32	0° $\mathbb{M}$	
retrograde	-12554 Oct 04 j 01:18	29° $\approx$ 48'03			-12548 Jan 30 j 24:00	0° $\mathbb{X}$	
opposition	-12554 Nov 08 j 16:41	22° $\approx$ 12'43	3°04'01	evening set	-12548 Feb 10 j 03:23	6° $\mathbb{X}$ 27'09	
greatest brilliancy	-12554 Nov 09 j 10:18	21° $\approx$ 56'39	-1.9m	max. Earth dist.	-12548 Mar 15 j 03:32	28° $\mathbb{X}$ 16'30	2.64242 AU
min. Earth dist.	-12554 Nov 16 j 03:05	19° $\approx$ 30'26	0.53663 AU		-12548 Mar 17 j 19:28	0° $\mathbb{Z}$	
direct	-12554 Dec 17 j 23:28	13° $\approx$ 00'52					
	-12553 Feb 12 j 21:46	0° $\mathbb{X}$		conjunction	-12548 Mar 29 j 07:49	7° $\mathbb{Z}$ 29'17	-0°17'19
	-12553 Apr 03 j 17:16	0° $\mathbb{Y}$		minimum elong	-12548 Mar 29 j 08:33	7° $\mathbb{Z}$ 30'29	0°18'04
	-12553 May 16 j 03:28	0° $\mathbb{B}$		asc. node	-12548 Apr 26 j 14:04	26° $\mathbb{Z}$ 06'54	
	-12553 Jun 25 j 07:23	0° $\mathbb{I}$			-12548 May 02 j 09:44	0° $\approx$	
desc. node	-12553 Jul 20 j 23:20	19° $\mathbb{I}$ 23'07		morning rise	-12548 May 15 j 20:13	9° $\approx$ 02'13	
	-12553 Aug 04 j 01:46	0° $\mathbb{G}$			-12548 Jun 15 j 10:33	0° $\mathbb{X}$	
	-12553 Sep 13 j 13:03	0° $\mathbb{Q}$			-12548 Jul 27 j 22:06	0° $\mathbb{Y}$	
	-12553 Oct 25 j 10:00	0° $\mathbb{M}$			-12548 Sep 07 j 04:32	0° $\mathbb{B}$	
evening set	-12553 Nov 19 j 06:32	17° $\mathbb{M}$ 14'38			-12548 Oct 17 j 20:10	0° $\mathbb{I}$	
	-12553 Dec 08 j 00:59	0° $\mathbb{L}$			-12548 Nov 27 j 20:52	0° $\mathbb{G}$	
					-12547 Jan 10 j 05:53	0° $\mathbb{Q}$	
conjunction	-12552 Jan 10 j 01:44	21° $\mathbb{L}$ 58'04	-1°15'47		-12547 Mar 04 j 00:16	0° $\mathbb{M}$	
minimum elong	-12552 Jan 10 j 01:42	21° $\mathbb{L}$ 58'01	1°16'05	desc. node	-12547 Mar 12 j 12:45	3° $\mathbb{M}$ 33'11	
	-12552 Jan 22 j 08:20	0° $\mathbb{M}$		retrograde	-12547 Apr 16 j 03:17	10° $\mathbb{M}$ 54'18	
max. Earth dist.	-12552 Jan 25 j 18:52	2° $\mathbb{M}$ 14'20	2.63062 AU	min. Earth dist.	-12547 May 16 j 07:21	4° $\mathbb{M}$ 48'07	0.50651 AU
morning rise	-12552 Feb 28 j 15:58	24° $\mathbb{M}$ 04'59		greatest brilliancy	-12547 May 22 j 21:25	2° $\mathbb{M}$ 23'43	-2.1m
	-12552 Mar 08 j 22:13	0° $\mathbb{X}$		opposition	-12547 May 24 j 00:53	1° $\mathbb{M}$ 58'32	-3°59'24
	-12552 Apr 25 j 05:49	0° $\mathbb{Z}$			-12547 May 29 j 14:20	30° $\mathbb{R}$ Q	
	-12552 Jun 12 j 01:41	0° $\approx$		direct	-12547 Jun 27 j 06:57	24° $\mathbb{Q}$ 39'01	
asc. node	-12552 Jul 23 j 07:29	25° $\approx$ 21'03			-12547 Jul 28 j 06:06	0° $\mathbb{M}$	
	-12552 Jul 31 j 01:10	0° $\mathbb{X}$			-12547 Oct 01 j 10:08	0° $\mathbb{L}$	
	-12552 Sep 22 j 08:04	0° $\mathbb{Y}$			-12547 Nov 22 j 12:20	0° $\mathbb{M}$	
retrograde	-12552 Dec 03 j 18:41	23° $\mathbb{Y}$ 07'06			-12546 Jan 10 j 19:00	0° $\mathbb{X}$	
opposition	-12551 Jan 04 j 13:23	17° $\mathbb{Y}$ 27'03	7°02'49		-12546 Feb 27 j 06:22	0° $\mathbb{Z}$	
greatest brilliancy	-12551 Jan 06 j 01:38	16° $\mathbb{Y}$ 59'53	-2.6m	asc. node	-12546 Mar 14 j 10:56	9° $\mathbb{Z}$ 51'26	
min. Earth dist.	-12551 Jan 10 j 23:15	15° $\mathbb{Y}$ 32'31	0.41993 AU	evening set	-12546 Mar 21 j 11:11	14° $\mathbb{Z}$ 27'12	
direct	-12551 Feb 07 j 14:43	10° $\mathbb{Y}$ 51'39		max. Earth dist.	-12546 Apr 12 j 05:21	28° $\mathbb{Z}$ 55'29	2.57064 AU
	-12551 Apr 08 j 05:17	0° $\mathbb{B}$			-12546 Apr 13 j 19:42	0° $\approx$	
	-12551 May 26 j 19:13	0° $\mathbb{I}$					
desc. node	-12551 Jun 07 j 06:51	7° $\mathbb{I}$ 45'21		conjunction	-12546 May 10 j 10:35	18° $\approx$ 11'39	0°35'00
	-12551 Jul 09 j 10:46	0° $\mathbb{G}$		minimum elong	-12546 May 10 j 09:04	18° $\approx$ 09'01	0°34'27
	-12551 Aug 21 j 09:35	0° $\mathbb{Q}$			-12546 May 27 j 07:28	0° $\mathbb{X}$	
	-12551 Oct 03 j 23:50	0° $\mathbb{M}$		morning rise	-12546 Jun 30 j 08:55	24° $\mathbb{X}$ 29'59	
	-12551 Nov 17 j 18:42	0° $\mathbb{L}$			-12546 Jul 07 j 20:37	0° $\mathbb{Y}$	
evening set	-12550 Jan 01 j 06:28	29° $\mathbb{L}$ 02'30			-12546 Aug 16 j 21:46	0° $\mathbb{B}$	
	-12550 Jan 02 j 18:04	0° $\mathbb{M}$			-12546 Sep 25 j 02:40	0° $\mathbb{I}$	
	-12550 Feb 18 j 11:16	0° $\mathbb{X}$			-12546 Nov 03 j 07:17	0° $\mathbb{G}$	
					-12546 Dec 13 j 12:29	0° $\mathbb{Q}$	
conjunction	-12550 Feb 19 j 00:47	0° $\mathbb{X}$ 21'38	-0°58'47		-12545 Jan 25 j 04:45	0° $\mathbb{M}$	
minimum elong	-12550 Feb 19 j 02:20	0° $\mathbb{X}$ 24'06	0°59'27	desc. node	-12545 Jan 28 j 08:47	2° $\mathbb{M}$ 07'15	
max. Earth dist.	-12550 Feb 19 j 07:02	0° $\mathbb{X}$ 31'38	2.66312 AU		-12545 Mar 14 j 12:25	0° $\mathbb{L}$	
	-12550 Apr 06 j 05:32	0° $\mathbb{Z}$		retrograde	-12545 May 28 j 01:35	25° $\mathbb{L}$ 43'43	
morning rise	-12550 Apr 07 j 07:45	0° $\mathbb{Z}$ 42'14		min. Earth dist.	-12545 Jul 02 j 03:53	17° $\mathbb{L}$ 42'52	0.61142 AU
	-12550 May 22 j 10:11	0° $\approx$		opposition	-12545 Jul 06 j 20:45	15° $\mathbb{L}$ 50'54	-5°21'45
asc. node	-12550 Jun 09 j 22:11	12° $\approx$ 09'59		greatest brilliancy	-12545 Jul 06 j 00:39	16° $\mathbb{L}$ 10'51	-1.6m
	-12550 Jul 06 j 18:59	0° $\mathbb{X}$		direct	-12545 Aug 13 j 10:29	7° $\mathbb{L}$ 05'05	
	-12550 Aug 20 j 11:48	0° $\mathbb{Y}$			-12545 Oct 26 j 07:21	0° $\mathbb{M}$	
	-12550 Oct 04 j 04:10	0° $\mathbb{B}$			-12545 Dec 20 j 10:44	0° $\mathbb{X}$	
	-12550 Nov 19 j 12:13	0° $\mathbb{I}$		asc. node	-12544 Jan 30 j 13:54	24° $\mathbb{X}$ 50'13	
	-12549 Jan 15 j 08:10	0° $\mathbb{G}$			-12544 Feb 07 j 19:44	0° $\mathbb{Z}$	
retrograde	-12549 Feb 18 j 20:18	7° $\mathbb{G}$ 13'14			-12544 Mar 24 j 22:55	0° $\approx$	
min. Earth dist.	-12549 Mar 18 j 18:23	2° $\mathbb{G}$ 33'20	0.39743 AU	evening set	-12544 May 05 j 00:50	28° $\approx$ 19'29	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12544 May 07 j 09:31	0°♄					-12539 Jan 03 j 01:58	0°♄	
max. Earth dist.	-12544 May 21 j 14:34	10°♄11'26	2.45853 AU				-12539 Feb 17 j 06:51	0°♄	
	-12544 Jun 17 j 13:28	0°♄					-12539 Apr 05 j 18:01	0°♄	
							-12539 May 26 j 04:52	0°♄	
conjunction	-12544 Jun 28 j 22:50	8°♄32'41	1°12'15				-12539 Jul 23 j 19:26	0°♄	
minimum elong	-12544 Jun 28 j 21:48	8°♄30'43	1°12'22		retrograde		-12539 Sep 15 j 11:46	13°♄36'05	
	-12544 Jul 27 j 01:29	0°♄			asc. node		-12539 Sep 22 j 05:33	13°♄18'33	
morning rise	-12544 Aug 26 j 23:20	23°♄59'51			opposition		-12539 Oct 22 j 07:04	5°♄26'19	1°23'37
	-12544 Sep 03 j 15:59	0°♄			greatest brilliancy		-12539 Oct 22 j 13:56	5°♄19'48	-1.8m
	-12544 Oct 12 j 05:42	0°♄			min. Earth dist.		-12539 Oct 28 j 15:28	3°♄02'11	0.57835 AU
	-12544 Nov 20 j 16:20	0°♄					-12539 Nov 06 j 07:32	30°♄	
desc. node	-12544 Dec 15 j 00:10	17°♄54'12			direct		-12539 Dec 01 j 11:08	25°♄47'09	
	-12544 Dec 31 j 21:46	0°♄					-12539 Dec 28 j 01:47	0°♄	
	-12543 Feb 13 j 23:43	0°♄					-12538 Feb 28 j 07:38	0°♄	
	-12543 Apr 04 j 01:22	0°♄					-12538 Apr 14 j 13:44	0°♄	
	-12543 Jun 12 j 21:19	0°♄					-12538 May 25 j 14:38	0°♄	
retrograde	-12543 Jul 02 j 04:41	2°♄13'36					-12538 Jul 04 j 01:02	0°♄	
	-12543 Jul 20 j 08:58	30°♄			desc. node		-12538 Aug 06 j 15:28	25°♄42'51	
min. Earth dist.	-12543 Aug 10 j 04:07	22°♄48'30	0.66158 AU				-12538 Aug 12 j 06:39	0°♄	
opposition	-12543 Aug 11 j 01:48	22°♄26'40	-4°23'14				-12538 Sep 21 j 07:20	0°♄	
greatest brilliancy	-12543 Aug 10 j 23:11	22°♄29'19	-1.4m		evening set		-12538 Oct 30 j 20:16	28°♄36'15	
direct	-12543 Sep 19 j 19:11	12°♄51'22					-12538 Nov 01 j 19:33	0°♄	
	-12543 Nov 20 j 14:50	0°♄					-12538 Dec 15 j 03:55	0°♄	
asc. node	-12543 Dec 17 j 21:05	13°♄37'43							
	-12542 Jan 15 j 21:20	0°♄			conjunction		-12538 Dec 23 j 15:42	5°♄43'40	-1°12'46
	-12542 Mar 04 j 22:39	0°♄			minimum elong		-12538 Dec 23 j 14:33	5°♄41'45	1°12'49
	-12542 Apr 17 j 23:03	0°♄			max. Earth dist.		-12537 Jan 15 j 03:42	20°♄42'08	2.60341 AU
	-12542 May 29 j 04:25	0°♄					-12537 Jan 29 j 07:56	0°♄	
evening set	-12542 Jun 30 j 09:54	24°♄29'27			morning rise		-12537 Feb 12 j 22:29	9°♄28'56	
	-12542 Jul 07 j 13:01	0°♄					-12537 Mar 16 j 23:37	0°♄	
	-12542 Aug 14 j 22:51	0°♄					-12537 May 03 j 18:12	0°♄	
							-12537 Jun 21 j 19:56	0°♄	
conjunction	-12542 Aug 31 j 01:42	12°♄38'11	0°44'48		asc. node		-12537 Aug 10 j 01:48	28°♄18'15	
minimum elong	-12542 Aug 31 j 05:03	12°♄44'45	0°45'31				-12537 Aug 13 j 05:26	0°♄	
	-12542 Sep 22 j 08:11	0°♄					-12537 Nov 05 j 05:05	0°♄	
max. Earth dist.	-12542 Sep 23 j 19:03	1°♄07'35	2.38872 AU		retrograde		-12537 Nov 07 j 23:02	0°♄02'48	
	-12542 Oct 31 j 14:18	0°♄					-12537 Nov 10 j 16:21	30°♄	
desc. node	-12542 Nov 01 j 16:36	0°♄49'20			opposition		-12537 Dec 11 j 05:22	23°♄35'44	5°48'35
morning rise	-12542 Nov 03 j 09:25	2°♄05'46			greatest brilliancy		-12537 Dec 12 j 16:58	23°♄06'22	-2.3m
	-12542 Dec 11 j 11:32	0°♄			min. Earth dist.		-12537 Dec 19 j 02:37	21°♄00'09	0.46342 AU
	-12541 Jan 23 j 14:48	0°♄			direct		-12536 Jan 16 j 21:40	15°♄44'43	
	-12541 Mar 10 j 14:40	0°♄					-12536 Mar 07 j 02:10	0°♄	
	-12541 Apr 29 j 20:43	0°♄					-12536 Apr 26 j 07:40	0°♄	
	-12541 Jul 02 j 14:42	0°♄					-12536 Jun 08 j 05:36	0°♄	
retrograde	-12541 Aug 06 j 23:46	6°♄36'45			desc. node		-12536 Jun 23 j 20:56	11°♄18'06	
	-12541 Sep 08 j 05:23	30°♄					-12536 Jul 19 j 14:33	0°♄	
opposition	-12541 Sep 14 j 20:34	27°♄24'55	-2°05'22				-12536 Aug 30 j 05:08	0°♄	
greatest brilliancy	-12541 Sep 15 j 02:15	27°♄19'16	-1.4m				-12536 Oct 11 j 22:14	0°♄	
min. Earth dist.	-12541 Sep 17 j 16:59	26°♄16'58	0.64982 AU				-12536 Nov 25 j 03:06	0°♄	
direct	-12541 Oct 25 j 13:49	17°♄27'46			evening set		-12536 Dec 15 j 21:48	13°♄45'55	
asc. node	-12541 Nov 05 j 03:14	18°♄08'29					-12535 Jan 09 j 18:14	0°♄	
	-12541 Dec 15 j 00:56	0°♄							
	-12540 Feb 09 j 15:24	0°♄			conjunction		-12535 Feb 03 j 13:11	16°♄00'42	-1°09'00
	-12540 Mar 26 j 19:58	0°♄			minimum elong		-12535 Feb 03 j 14:24	16°♄02'39	1°09'33
	-12540 May 07 j 19:41	0°♄			max. Earth dist.		-12535 Feb 09 j 13:54	19°♄53'16	2.65667 AU
	-12540 Jun 16 j 11:52	0°♄					-12535 Feb 25 j 08:29	0°♄	
	-12540 Jul 25 j 02:10	0°♄			morning rise		-12535 Mar 23 j 10:54	16°♄41'48	
	-12540 Sep 01 j 15:33	0°♄					-12535 Apr 13 j 05:48	0°♄	
evening set	-12540 Sep 02 j 14:45	0°♄44'48					-12535 May 29 j 21:39	0°♄	
desc. node	-12540 Sep 18 j 14:01	13°♄00'11			asc. node		-12535 Jun 26 j 17:44	18°♄00'40	
	-12540 Oct 11 j 01:42	0°♄					-12535 Jul 15 j 05:31	0°♄	
							-12535 Aug 30 j 17:45	0°♄	
conjunction	-12540 Nov 01 j 22:02	16°♄09'26	-0°31'47				-12535 Oct 18 j 02:30	0°♄	
minimum elong	-12540 Nov 01 j 19:51	16°♄05'27	0°31'13				-12535 Dec 16 j 02:50	0°♄	
	-12540 Nov 21 j 01:36	0°♄			retrograde		-12534 Jan 20 j 18:07	7°♄16'06	
max. Earth dist.	-12540 Dec 11 j 19:52	14°♄39'57	2.50220 AU		opposition		-12534 Feb 20 j 16:46	2°♄03'10	5°42'28
morning rise	-12540 Dec 29 j 17:53	27°♄02'35			greatest brilliancy		-12534 Feb 20 j 21:53	1°♄59'43	-2.8m

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 37

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

min. Earth dist.	-12534 Feb 20 j 17:40	2° $\Pi$ 02'33	0.38515 AU			-12529 Apr 02 j 03:27	0° $\approx$	
	-12534 Feb 28 j 12:58	30° $\mathbb{R}$ 8		evening set		-12529 Apr 17 j 07:11	10° $\approx$ 17'12	
direct	-12534 Mar 23 j 09:32	26° $\mathbb{B}$ 53'31		max. Earth dist.		-12529 May 04 j 04:12	21° $\approx$ 58'15	2.50596 AU
	-12534 Apr 14 j 17:27	0° $\Pi$				-12529 May 15 j 13:48	0° $\mathbb{H}$	
desc. node	-12534 May 12 j 03:51	10° $\Pi$ 19'42						
	-12534 Jun 17 j 16:49	0° $\mathbb{D}$		conjunction		-12529 Jun 08 j 19:33	17° $\mathbb{H}$ 26'36	1°02'19
	-12534 Aug 04 j 18:51	0° $\Omega$		minimum elong		-12529 Jun 08 j 17:30	17° $\mathbb{H}$ 22'50	1°02'07
	-12534 Sep 19 j 22:05	0° $\mathbb{M}$				-12529 Jun 25 j 20:48	0° $\mathbb{Y}$	
	-12534 Nov 05 j 03:07	0° $\underline{\mathbb{L}}$		morning rise		-12529 Aug 03 j 02:55	28° $\mathbb{Y}$ 54'38	
	-12534 Dec 21 j 21:34	0° $\mathbb{M}$				-12529 Aug 04 j 13:01	0° $\mathbb{B}$	
evening set	-12533 Jan 25 j 20:26	22° $\mathbb{M}$ 16'32				-12529 Sep 12 j 07:53	0° $\Pi$	
	-12533 Feb 06 j 23:16	0° $\mathbb{A}$				-12529 Oct 21 j 01:36	0° $\mathbb{D}$	
max. Earth dist.	-12533 Mar 06 j 11:03	17° $\mathbb{A}$ 35'33	2.65677 AU			-12529 Nov 29 j 16:26	0° $\Omega$	
				desc. node		-12528 Jan 01 j 21:56	24° $\Omega$ 08'51	
conjunction	-12533 Mar 14 j 23:40	23° $\mathbb{A}$ 04'41	-0°35'30			-12528 Jan 10 j 05:27	0° $\mathbb{M}$	
minimum elong	-12533 Mar 15 j 00:58	23° $\mathbb{A}$ 06'48	0°36'16			-12528 Feb 24 j 03:51	0° $\underline{\mathbb{L}}$	
	-12533 Mar 25 j 16:51	0° $\mathbb{B}$				-12528 Apr 16 j 14:43	0° $\mathbb{M}$	
morning rise	-12533 May 01 j 02:27	23° $\mathbb{B}$ 47'45		retrograde		-12528 Jun 18 j 11:50	18° $\mathbb{M}$ 45'41	
	-12533 May 10 j 11:05	0° $\approx$		min. Earth dist.		-12528 Jul 26 j 02:17	9° $\mathbb{M}$ 49'51	0.64925 AU
asc. node	-12533 May 14 j 08:49	2° $\approx$ 36'01		opposition		-12528 Jul 28 j 11:50	8° $\mathbb{M}$ 52'00	-4°56'54
	-12533 Jun 23 j 21:25	0° $\mathbb{H}$		greatest brilliancy		-12528 Jul 28 j 02:48	9° $\mathbb{M}$ 01'05	-1.4m
	-12533 Aug 06 j 00:20	0° $\mathbb{Y}$				-12528 Aug 28 j 02:23	30° $\mathbb{R}$ $\underline{\mathbb{L}}$	
	-12533 Sep 17 j 03:54	0° $\mathbb{B}$		direct		-12528 Sep 05 j 12:23	29° $\underline{\mathbb{L}}$ 32'31	
	-12533 Oct 29 j 00:16	0° $\Pi$				-12528 Sep 14 j 04:24	0° $\mathbb{M}$	
	-12533 Dec 10 j 22:35	0° $\mathbb{D}$				-12528 Dec 03 j 07:21	0° $\mathbb{A}$	
	-12532 Jan 28 j 05:33	0° $\Omega$		asc. node		-12527 Jan 03 j 09:39	17° $\mathbb{A}$ 19'56	
retrograde	-12532 Mar 27 j 10:43	19° $\Omega$ 06'17				-12527 Jan 24 j 15:05	0° $\mathbb{B}$	
desc. node	-12532 Mar 29 j 06:44	19° $\Omega$ 04'49				-12527 Mar 12 j 16:49	0° $\approx$	
min. Earth dist.	-12532 Apr 24 j 19:34	13° $\Omega$ 46'50	0.45803 AU			-12527 Apr 25 j 10:02	0° $\mathbb{H}$	
opposition	-12532 May 02 j 16:34	11° $\Omega$ 06'29	-2°13'57			-12527 Jun 05 j 14:07	0° $\mathbb{Y}$	
greatest brilliancy	-12532 May 01 j 23:30	11° $\Omega$ 21'03	-2.4m	evening set		-12527 Jun 06 j 22:01	0° $\mathbb{Y}$ 59'39	
direct	-12532 Jun 04 j 10:26	4° $\Omega$ 33'44		max. Earth dist.		-12527 Jul 11 j 13:29	27° $\mathbb{Y}$ 21'47	2.39321 AU
	-12532 Aug 19 j 22:42	0° $\mathbb{M}$				-12527 Jul 14 j 23:22	0° $\mathbb{B}$	
	-12532 Oct 12 j 03:35	0° $\underline{\mathbb{L}}$						
	-12532 Nov 30 j 19:04	0° $\mathbb{M}$		conjunction		-12527 Aug 05 j 04:11	16° $\mathbb{B}$ 29'36	1°05'47
	-12531 Jan 18 j 03:41	0° $\mathbb{A}$		minimum elong		-12527 Aug 05 j 06:42	16° $\mathbb{B}$ 34'31	1°06'19
evening set	-12531 Mar 05 j 10:42	29° $\mathbb{A}$ 27'08				-12527 Aug 22 j 10:21	0° $\Pi$	
	-12531 Mar 06 j 07:02	0° $\mathbb{B}$				-12527 Sep 29 j 20:30	0° $\mathbb{D}$	
asc. node	-12531 Mar 31 j 04:04	16° $\mathbb{B}$ 14'36		morning rise		-12527 Oct 07 j 22:57	6° $\mathbb{D}$ 15'56	
max. Earth dist.	-12531 Mar 31 j 12:49	16° $\mathbb{B}$ 29'03	2.60465 AU			-12527 Nov 08 j 03:01	0° $\Omega$	
	-12531 Apr 20 j 19:48	0° $\approx$		desc. node		-12527 Nov 18 j 13:56	7° $\Omega$ 48'05	
						-12527 Dec 19 j 01:22	0° $\mathbb{M}$	
conjunction	-12531 Apr 23 j 09:22	1° $\approx$ 43'39	0°14'32			-12526 Jan 31 j 09:12	0° $\underline{\mathbb{L}}$	
minimum elong	-12531 Apr 23 j 08:45	1° $\approx$ 42'36	0°13'52			-12526 Mar 19 j 01:38	0° $\mathbb{M}$	
behind sun begin	-12531 Apr 22 j 22:23	1° $\approx$ 25'09				-12526 May 10 j 23:33	0° $\mathbb{A}$	
behind sun end	-12531 Apr 23 j 19:06	2° $\approx$ 00'03		retrograde		-12526 Jul 23 j 20:06	23° $\mathbb{A}$ 23'21	
	-12531 Jun 03 j 11:31	0° $\mathbb{H}$		opposition		-12526 Sep 01 j 05:28	13° $\mathbb{A}$ 54'56	-3°07'02
morning rise	-12531 Jun 11 j 11:49	5° $\mathbb{H}$ 39'02		greatest brilliancy		-12526 Sep 01 j 09:44	13° $\mathbb{A}$ 50'39	-1.4m
	-12531 Jul 15 j 07:43	0° $\mathbb{Y}$		min. Earth dist.		-12526 Sep 02 j 15:02	13° $\mathbb{A}$ 21'19	0.66171 AU
	-12531 Aug 24 j 17:36	0° $\mathbb{B}$		direct		-12526 Oct 11 j 17:18	4° $\mathbb{A}$ 02'49	
	-12531 Oct 03 j 08:16	0° $\Pi$		asc. node		-12526 Nov 21 j 17:03	12° $\mathbb{A}$ 38'48	
	-12531 Nov 11 j 23:53	0° $\mathbb{D}$				-12526 Dec 29 j 17:17	0° $\mathbb{B}$	
	-12531 Dec 22 j 20:59	0° $\Omega$				-12525 Feb 19 j 02:54	0° $\approx$	
	-12530 Feb 05 j 01:11	0° $\mathbb{M}$				-12525 Apr 05 j 03:30	0° $\mathbb{H}$	
desc. node	-12530 Feb 14 j 03:21	5° $\mathbb{M}$ 41'00				-12525 May 16 j 17:31	0° $\mathbb{Y}$	
	-12530 Apr 01 j 00:16	0° $\underline{\mathbb{L}}$				-12525 Jun 25 j 05:17	0° $\mathbb{B}$	
retrograde	-12530 May 12 j 20:52	9° $\underline{\mathbb{L}}$ 56'54				-12525 Aug 02 j 16:44	0° $\Pi$	
min. Earth dist.	-12530 Jun 15 j 03:02	2° $\underline{\mathbb{L}}$ 37'41	0.57597 AU	evening set		-12525 Aug 09 j 04:10	5° $\Pi$ 04'19	
greatest brilliancy	-12530 Jun 20 j 03:20	0° $\underline{\mathbb{L}}$ 40'46	-1.7m			-12525 Sep 10 j 03:27	0° $\mathbb{D}$	
opposition	-12530 Jun 21 j 05:28	0° $\underline{\mathbb{L}}$ 15'19	-5°13'16	desc. node		-12525 Oct 06 j 07:51	20° $\mathbb{D}$ 05'33	
	-12530 Jun 21 j 21:16	30° $\mathbb{R}$ $\mathbb{M}$						
direct	-12530 Jul 27 j 15:47	21° $\mathbb{M}$ 57'49		conjunction		-12525 Oct 10 j 06:33	23° $\mathbb{D}$ 05'05	-0°03'01
	-12530 Sep 04 j 22:44	0° $\underline{\mathbb{L}}$		minimum elong		-12525 Oct 10 j 06:19	23° $\mathbb{D}$ 04'37	0°02'17
	-12530 Nov 06 j 23:50	0° $\mathbb{M}$		behind sun begin		-12525 Oct 09 j 04:23	22° $\mathbb{D}$ 15'32	
	-12530 Dec 28 j 21:10	0° $\mathbb{A}$		behind sun end		-12525 Oct 11 j 08:15	23° $\mathbb{D}$ 53'39	
	-12529 Feb 15 j 07:13	0° $\mathbb{B}$				-12525 Oct 19 j 10:50	0° $\Omega$	
asc. node	-12529 Feb 16 j 04:19	0° $\mathbb{B}$ 33'37		max. Earth dist.		-12525 Nov 23 j 03:00	25° $\Omega$ 31'31	2.45403 AU

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12525 Nov 29 j 08:23	0°♎				-12519 Jan 31 j 23:48	30°♎	
morning rise	-12525 Dec 10 j 04:52	7°♎43'31		direct		-12519 Feb 22 j 05:40	27°♎08'58	
	-12524 Jan 11 j 07:59	0°♎				-12519 Mar 15 j 08:51	0°♎	
	-12524 Feb 25 j 16:48	0°♎				-12519 May 17 j 01:19	0°♎	
	-12524 Apr 13 j 20:07	0°♎		desc. node		-12519 May 28 j 18:22	7°♎18'49	
	-12524 Jun 05 j 15:33	0°♎				-12519 Jul 02 j 06:25	0°♎	
retrograde	-12524 Aug 29 j 18:41	28°♎44'33				-12519 Aug 15 j 09:33	0°♎	
opposition	-12524 Oct 06 j 12:54	20°♎06'32	-0°06'15			-12519 Sep 28 j 16:09	0°♎	
greatest brilliancy	-12524 Oct 06 j 13:34	20°♎05'54	-1.6m			-12519 Nov 12 j 20:34	0°♎	
asc. node	-12524 Oct 08 j 21:17	19°♎11'43				-12519 Dec 29 j 01:27	0°♎	
min. Earth dist.	-12524 Oct 11 j 14:02	18°♎09'01	0.61306 AU	evening set		-12518 Jan 10 j 08:42	7°♎54'24	
direct	-12524 Nov 16 j 04:10	10°♎13'18				-12518 Feb 13 j 20:54	0°♎	
	-12523 Jan 19 j 19:38	0°♎		max. Earth dist.		-12518 Feb 24 j 21:32	7°♎03'22	2.66322 AU
	-12523 Mar 11 j 15:12	0°♎						
	-12523 Apr 24 j 00:14	0°♎		conjunction		-12518 Feb 27 j 18:57	8°♎54'31	-0°51'10
	-12523 Jun 03 j 07:12	0°♎		minimum elong		-12518 Feb 27 j 20:31	8°♎57'01	0°51'53
	-12523 Jul 12 j 06:48	0°♎				-12518 Apr 01 j 14:33	0°♎	
	-12523 Aug 20 j 03:46	0°♎		morning rise		-12518 Apr 15 j 21:38	9°♎15'08	
desc. node	-12523 Aug 23 j 07:37	2°♎25'11				-12518 May 17 j 15:14	0°♎	
	-12523 Sep 28 j 20:43	0°♎		asc. node		-12518 May 31 j 04:57	8°♎58'30	
evening set	-12523 Oct 09 j 16:36	8°♎00'05				-12518 Jul 01 j 15:07	0°♎	
	-12523 Nov 09 j 02:26	0°♎				-12518 Aug 14 j 16:14	0°♎	
						-12518 Sep 27 j 05:01	0°♎	
conjunction	-12523 Dec 04 j 22:08	18°♎07'00	-1°02'54			-12518 Nov 10 j 06:09	0°♎	
minimum elong	-12523 Dec 04 j 19:57	18°♎03'15	1°02'43			-12518 Dec 27 j 23:47	0°♎	
	-12523 Dec 22 j 06:04	0°♎		retrograde		-12517 Mar 05 j 14:59	23°♎35'49	
max. Earth dist.	-12522 Jan 03 j 10:09	8°♎13'03	2.56907 AU	min. Earth dist.		-12517 Apr 02 j 01:08	18°♎50'58	0.41455 AU
morning rise	-12522 Jan 27 j 08:51	24°♎06'56		opposition		-12517 Apr 08 j 13:30	16°♎52'03	0°32'44
	-12522 Feb 05 j 08:42	0°♎		greatest brilliancy		-12517 Apr 08 j 10:49	16°♎54'06	-2.7m
	-12522 Mar 24 j 04:52	0°♎		desc. node		-12517 Apr 16 j 00:02	14°♎41'04	
	-12522 May 11 j 16:08	0°♎		direct		-12517 May 09 j 19:49	11°♎09'21	
	-12522 Jul 01 j 17:24	0°♎				-12517 Jul 11 j 09:28	0°♎	
asc. node	-12522 Aug 26 j 20:16	28°♎13'44				-12517 Sep 03 j 06:57	0°♎	
	-12522 Aug 31 j 05:11	0°♎				-12517 Oct 22 j 10:08	0°♎	
retrograde	-12522 Oct 15 j 20:00	10°♎21'11				-12517 Dec 09 j 14:01	0°♎	
opposition	-12522 Nov 19 j 16:26	3°♎08'30	4°04'48			-12516 Jan 26 j 07:17	0°♎	
greatest brilliancy	-12522 Nov 20 j 17:09	2°♎46'37	-2.1m	evening set		-12516 Feb 18 j 23:07	15°♎02'30	
min. Earth dist.	-12522 Nov 27 j 12:29	0°♎22'23	0.51104 AU			-12516 Mar 13 j 05:19	0°♎	
	-12522 Nov 28 j 14:34	30°♎		max. Earth dist.		-12516 Mar 21 j 01:13	5°♎04'56	2.63115 AU
direct	-12522 Dec 28 j 05:50	24°♎19'41						
	-12521 Jan 27 j 16:44	0°♎		conjunction		-12516 Apr 07 j 07:16	16°♎22'52	-0°05'59
	-12521 Mar 26 j 17:08	0°♎		minimum elong		-12516 Apr 07 j 07:33	16°♎23'18	0°06'44
	-12521 May 09 j 15:51	0°♎		behind sun begin		-12516 Apr 06 j 13:08	15°♎53'00	
	-12521 Jun 19 j 12:18	0°♎		behind sun end		-12516 Apr 08 j 01:57	16°♎53'38	
desc. node	-12521 Jul 11 j 12:25	16°♎25'56		asc. node		-12516 Apr 16 j 21:20	22°♎43'22	
	-12521 Jul 29 j 17:05	0°♎				-12516 Apr 27 j 19:10	0°♎	
	-12521 Sep 08 j 11:41	0°♎		morning rise		-12516 May 25 j 05:20	18°♎36'08	
	-12521 Oct 20 j 14:01	0°♎				-12516 Jun 10 j 16:40	0°♎	
evening set	-12521 Nov 29 j 15:34	27°♎30'32				-12516 Jul 22 j 22:36	0°♎	
	-12521 Dec 03 j 08:21	0°♎				-12516 Sep 01 j 20:56	0°♎	
	-12520 Jan 17 j 17:23	0°♎				-12516 Oct 12 j 02:12	0°♎	
						-12516 Nov 21 j 11:51	0°♎	
conjunction	-12520 Jan 19 j 13:14	1°♎11'24	-1°14'46			-12515 Jan 02 j 14:30	0°♎	
minimum elong	-12520 Jan 19 j 13:45	1°♎12'13	1°15'10			-12515 Feb 19 j 05:30	0°♎	
max. Earth dist.	-12520 Jan 31 j 18:44	9°♎07'22	2.64209 AU	desc. node		-12515 Mar 03 j 00:21	6°♎15'52	
	-12520 Mar 04 j 06:28	0°♎		retrograde		-12515 Apr 26 j 07:51	22°♎19'46	
morning rise	-12520 Mar 08 j 10:18	2°♎39'25		min. Earth dist.		-12515 May 27 j 14:04	15°♎47'24	0.53247 AU
	-12520 Apr 20 j 09:30	0°♎		opposition		-12515 Jun 03 j 21:06	13°♎03'04	-4°37'10
	-12520 Jun 06 j 17:28	0°♎		greatest brilliancy		-12515 Jun 02 j 16:13	13°♎30'14	-2.0m
asc. node	-12520 Jul 13 j 14:12	23°♎12'08		direct		-12515 Jul 08 j 22:56	5°♎21'04	
	-12520 Jul 24 j 12:08	0°♎				-12515 Sep 23 j 06:56	0°♎	
	-12520 Sep 12 j 06:45	0°♎				-12515 Nov 16 j 17:40	0°♎	
	-12520 Nov 11 j 05:55	0°♎				-12514 Jan 05 j 18:33	0°♎	
retrograde	-12520 Dec 20 j 16:24	8°♎21'04				-12514 Feb 22 j 13:19	0°♎	
opposition	-12519 Jan 20 j 17:56	3°♎02'25	7°09'58	asc. node		-12514 Mar 04 j 19:16	6°♎36'32	
greatest brilliancy	-12519 Jan 21 j 22:56	2°♎42'02	-2.7m	evening set		-12514 Mar 30 j 23:09	23°♎48'01	
min. Earth dist.	-12519 Jan 25 j 11:21	1°♎43'01	0.40098 AU			-12514 Apr 09 j 05:22	0°♎	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

max. Earth dist.	-12514 Apr 19 j 13:52	7°≈00'40	2.54918 AU			-12509 Jan 18 j 17:29	0°♄		
						-12509 Mar 05 j 09:25	0°♍		
conjunction	-12514 May 20 j 16:23	28°≈34'25	0°45'59			-12509 Apr 23 j 14:43	0°♎		
minimum elong	-12514 May 20 j 14:28	28°≈31'03	0°45'33			-12509 Jun 20 j 02:29	0°♏		
	-12514 May 22 j 16:51	0°♐		retrograde		-12509 Aug 15 j 09:21	14°♑46'46		
	-12514 Jul 03 j 03:59	0°♑		opposition		-12509 Sep 22 j 22:07	5°♒45'47	-1°24'50	
morning rise	-12514 Jul 11 j 22:18	6°♑30'17		greatest brilliancy		-12509 Sep 23 j 03:07	5°♒40'51	-1.5m	
	-12514 Aug 12 j 01:44	0°♒		min. Earth dist.		-12509 Sep 26 j 13:54	4°♓19'12	0.63917 AU	
	-12514 Sep 20 j 02:35	0°♓				-12509 Oct 08 j 10:05	30°♈♎		
	-12514 Oct 29 j 02:31	0°♈		asc. node		-12509 Oct 26 j 12:36	26°♈08'08		
	-12514 Dec 08 j 00:51	0°♏		direct		-12509 Nov 02 j 16:51	25°♈47'59		
desc. node	-12513 Jan 18 j 18:21	29°♏43'57				-12509 Nov 29 j 22:15	0°♓		
	-12513 Jan 19 j 03:43	0°♐				-12508 Feb 02 j 20:44	0°≈		
	-12513 Mar 06 j 17:00	0°♄				-12508 Mar 21 j 05:19	0°♈		
	-12513 May 08 j 10:08	0°♍				-12508 May 02 j 14:53	0°♑		
retrograde	-12513 Jun 05 j 10:24	4°♍37'57				-12508 Jun 11 j 11:32	0°♒		
	-12513 Jul 01 j 12:24	30°♈♄				-12508 Jul 20 j 04:34	0°♓		
min. Earth dist.	-12513 Jul 11 j 11:18	26°♄16'12	0.62735 AU			-12508 Aug 27 j 20:03	0°♈		
opposition	-12513 Jul 15 j 08:35	24°♄43'05	-5°17'24	desc. node		-12508 Sep 09 j 00:09	9°♈20'42		
greatest brilliancy	-12513 Jul 14 j 16:27	24°♄59'12	-1.5m	evening set		-12508 Sep 16 j 13:50	15°♈06'56		
direct	-12513 Aug 22 j 11:53	15°♄43'58				-12508 Oct 06 j 07:47	0°♏		
	-12513 Oct 16 j 19:24	0°♍							
	-12513 Dec 14 j 11:47	0°♎		conjunction		-12508 Nov 14 j 11:00	28°♏38'04	-0°45'20	
asc. node	-12512 Jan 20 j 23:13	22°♎07'14		minimum elong		-12508 Nov 14 j 08:26	28°♏33'28	0°44'53	
	-12512 Feb 02 j 17:29	0°♓				-12508 Nov 16 j 08:49	0°♐		
	-12512 Mar 20 j 04:24	0°≈		max. Earth dist.		-12508 Dec 20 j 20:07	24°♐09'11	2.52774 AU	
	-12512 May 02 j 17:42	0°♈				-12508 Dec 29 j 09:15	0°♄		
evening set	-12512 May 16 j 09:47	9°♈47'12		morning rise		-12507 Jan 09 j 14:02	7°♄34'40		
max. Earth dist.	-12512 Jun 04 j 08:30	23°♈38'05	2.43286 AU			-12507 Feb 12 j 11:58	0°♍		
	-12512 Jun 12 j 22:13	0°♑				-12507 Mar 31 j 15:39	0°♎		
						-12507 May 20 j 04:24	0°♓		
conjunction	-12512 Jul 11 j 19:25	21°♑51'34	1°13'31			-12507 Jul 13 j 19:44	0°≈		
minimum elong	-12512 Jul 11 j 19:32	21°♑51'48	1°13'48	asc. node		-12507 Sep 12 j 13:46	22°≈01'14		
	-12512 Jul 22 j 09:20	0°♒		retrograde		-12507 Sep 25 j 18:47	23°≈03'36		
	-12512 Aug 29 j 22:19	0°♓		opposition		-12507 Oct 31 j 23:33	15°≈12'04	2°19'48	
morning rise	-12512 Sep 10 j 20:18	9°♓18'54		greatest brilliancy		-12507 Nov 01 j 12:11	15°≈00'20	-1.9m	
	-12512 Oct 07 j 10:11	0°♈		min. Earth dist.		-12507 Nov 07 j 23:39	12°≈36'09	0.55618 AU	
	-12512 Nov 15 j 18:13	0°♏		direct		-12507 Dec 10 j 18:00	5°≈45'47		
desc. node	-12512 Dec 05 j 10:17	14°♏34'04				-12506 Feb 19 j 17:15	0°♈		
	-12512 Dec 26 j 19:31	0°♐				-12506 Apr 08 j 02:45	0°♑		
	-12511 Feb 08 j 12:04	0°♄				-12506 May 19 j 20:46	0°♒		
	-12511 Mar 28 j 09:03	0°♍				-12506 Jun 28 j 16:00	0°♓		
	-12511 May 26 j 06:41	0°♎		desc. node		-12506 Jul 28 j 03:18	22°♓24'59		
retrograde	-12511 Jul 10 j 01:55	10°♎15'36				-12506 Aug 07 j 03:44	0°♈		
opposition	-12511 Aug 18 j 19:58	0°♎34'17	-3°58'20			-12506 Sep 16 j 08:56	0°♏		
greatest brilliancy	-12511 Aug 18 j 20:21	0°♎33'54	-1.4m			-12506 Oct 28 j 00:40	0°♐		
min. Earth dist.	-12511 Aug 18 j 18:14	0°♎36'01	0.66421 AU	evening set		-12506 Nov 11 j 03:39	9°♐53'41		
	-12511 Aug 20 j 06:05	30°♈♍				-12506 Dec 10 j 11:21	0°♄		
direct	-12511 Sep 27 j 21:14	20°♍51'48							
	-12511 Nov 09 j 12:14	0°♎		conjunction		-12505 Jan 02 j 19:01	15°♄36'35	-1°15'15	
asc. node	-12511 Dec 08 j 06:15	12°♎38'41		minimum elong		-12505 Jan 02 j 18:31	15°♄35'47	1°15'27	
	-12510 Jan 09 j 16:14	0°♓		max. Earth dist.		-12505 Jan 21 j 13:36	27°♄58'11	2.61951 AU	
	-12510 Feb 27 j 16:25	0°≈				-12505 Jan 24 j 16:11	0°♍		
	-12510 Apr 13 j 00:41	0°♈		morning rise		-12505 Feb 22 j 01:48	18°♍22'41		
	-12510 May 24 j 09:23	0°♑				-12505 Mar 12 j 05:56	0°♎		
	-12510 Jul 02 j 19:17	0°♒				-12505 Apr 28 j 17:33	0°♓		
evening set	-12510 Jul 14 j 12:21	9°♒05'39				-12505 Jun 16 j 00:41	0°≈		
	-12510 Aug 10 j 05:40	0°♓		asc. node		-12505 Jul 31 j 08:54	27°≈12'49		
						-12505 Aug 05 j 04:27	0°♈		
conjunction	-12510 Sep 14 j 20:02	27°♓49'41	0°28'33			-12505 Oct 01 j 23:49	0°♑		
minimum elong	-12510 Sep 14 j 22:32	27°♓54'33	0°29'17	retrograde		-12505 Nov 22 j 14:11	13°♑01'57		
	-12510 Sep 17 j 15:11	0°♈		opposition		-12505 Dec 25 j 00:27	7°♑01'07	6°36'44	
desc. node	-12510 Oct 23 j 03:33	27°♈11'46		greatest brilliancy		-12505 Dec 26 j 14:19	6°♑31'21	-2.5m	
max. Earth dist.	-12510 Oct 23 j 14:42	27°♈32'47	2.40767 AU	min. Earth dist.		-12504 Jan 01 j 07:39	4°♑44'20	0.43849 AU	
	-12510 Oct 26 j 20:56	0°♏				-12504 Jan 24 j 12:24	30°♈♈		
morning rise	-12510 Nov 17 j 08:47	15°♏57'50		direct		-12504 Jan 29 j 07:01	29°♈50'23		
	-12510 Dec 06 j 17:08	0°♐				-12504 Feb 03 j 02:22	0°♑		

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12504 Apr 16 j 18:16	0°♄	conjunction	-12499 May 03 j 00:42	11°♊24'26	0°26'24
	-12504 Jun 01 j 01:20	0°♊	minimum elong	-12499 May 02 j 23:33	11°♊22'27	0°25'49
desc. node	-12504 Jun 14 j 10:39	9°♊22'25		-12499 May 29 j 19:38	0°♋	
	-12504 Jul 13 j 11:50	0°♋	morning rise	-12499 Jun 22 j 00:56	16°♋32'40	
	-12504 Aug 24 j 17:33	0°♌		-12499 Jul 10 j 12:51	0°♍	
	-12504 Oct 06 j 20:27	0°♎		-12499 Aug 19 j 18:23	0°♄	
	-12504 Nov 20 j 07:31	0°♎		-12499 Sep 28 j 03:33	0°♊	
evening set	-12504 Dec 25 j 09:51	23°♎03'54		-12499 Nov 06 j 12:24	0°♋	
	-12503 Jan 05 j 02:16	0°♌		-12499 Dec 16 j 22:35	0°♌	
				-12498 Jan 29 j 01:37	0°♎	
conjunction	-12503 Feb 12 j 12:23	24°♌44'07 -1°03'33	desc. node	-12498 Feb 04 j 14:41	4°♎17'01	
minimum elong	-12503 Feb 12 j 13:50	24°♌46'26 1°04'10		-12498 Mar 20 j 02:33	0°♎	
max. Earth dist.	-12503 Feb 15 j 06:35	26°♌30'12 2.66131 AU	retrograde	-12498 May 21 j 17:46	19°♎34'15	
	-12503 Feb 20 j 17:36	0°♍	min. Earth dist.	-12498 Jun 25 j 00:50	11°♎51'25	0.59655 AU
morning rise	-12503 Apr 01 j 00:45	25°♍10'16	greatest brilliancy	-12498 Jun 29 j 10:04	10°♎07'55	-1.6m
	-12503 Apr 08 j 13:12	0°♄	opposition	-12498 Jun 30 j 09:02	9°♎45'17	-5°21'06
	-12503 May 24 j 22:50	0°♊	direct	-12498 Aug 06 j 11:21	1°♎11'17	
asc. node	-12503 Jun 17 j 00:08	15°♊03'50		-12498 Oct 30 j 19:45	0°♌	
	-12503 Jul 09 j 17:13	0°♋		-12498 Dec 23 j 10:05	0°♍	
	-12503 Aug 24 j 03:01	0°♍	asc. node	-12497 Feb 06 j 13:16	27°♍34'19	
	-12503 Oct 09 j 01:35	0°♄		-12497 Feb 10 j 09:36	0°♄	
	-12503 Nov 27 j 10:05	0°♊		-12497 Mar 28 j 10:50	0°♊	
retrograde	-12502 Feb 06 j 13:50	24°♊39'10	evening set	-12497 Apr 27 j 19:26	20°♊46'05	
min. Earth dist.	-12502 Mar 07 j 12:20	19°♊51'58 0.38847 AU		-12497 May 10 j 22:23	0°♋	
opposition	-12502 Mar 10 j 08:14	19°♊05'11 4°00'04	max. Earth dist.	-12497 May 14 j 00:31	2°♋11'43	2.47990 AU
greatest brilliancy	-12502 Mar 10 j 02:59	19°♊08'47 -2.8m				
direct	-12502 Apr 09 j 16:45	13°♊55'50	conjunction	-12497 Jun 20 j 14:07	29°♋32'56	1°09'01
desc. node	-12502 May 02 j 16:28	17°♊07'53	minimum elong	-12497 Jun 20 j 12:28	29°♋29'52	1°08'59
	-12502 Jun 04 j 17:12	0°♋		-12497 Jun 21 j 04:41	0°♍	
	-12502 Jul 28 j 02:10	0°♌		-12497 Jul 30 j 19:08	0°♄	
	-12502 Sep 13 j 21:43	0°♎	morning rise	-12497 Aug 16 j 21:51	13°♄13'12	
	-12502 Oct 30 j 21:26	0°♎		-12497 Sep 07 j 11:41	0°♊	
	-12502 Dec 17 j 01:24	0°♌		-12497 Oct 16 j 02:54	0°♋	
	-12501 Feb 02 j 07:34	0°♍		-12497 Nov 24 j 14:25	0°♌	
evening set	-12501 Feb 03 j 16:16	0°♍52'01	desc. node	-12497 Dec 23 j 06:57	21°♌01'38	
max. Earth dist.	-12501 Mar 12 j 04:48	24°♍14'48 2.64988 AU		-12496 Jan 04 j 21:22	0°♎	
	-12501 Mar 21 j 02:31	0°♄		-12496 Feb 18 j 04:50	0°♎	
				-12496 Apr 08 j 05:56	0°♌	
conjunction	-12501 Mar 23 j 18:49	1°♄44'11 -0°25'13	retrograde	-12496 Jun 26 j 10:02	26°♌58'27	
minimum elong	-12501 Mar 23 j 19:49	1°♄45'50 0°26'00	min. Earth dist.	-12496 Aug 03 j 19:40	17°♌45'41	0.65727 AU
asc. node	-12501 May 04 j 15:13	29°♄13'25	opposition	-12496 Aug 05 j 09:04	17°♌08'03	-4°38'48
	-12501 May 05 j 19:12	0°♊	greatest brilliancy	-12496 Aug 05 j 03:47	17°♌13'22	-1.4m
morning rise	-12501 May 10 j 01:19	2°♊50'27	direct	-12496 Sep 13 j 19:36	7°♌39'12	
	-12501 Jun 19 j 00:50	0°♋		-12496 Nov 25 j 15:28	0°♍	
	-12501 Jul 31 j 19:35	0°♍	asc. node	-12496 Dec 24 j 20:12	15°♍24'05	
	-12501 Sep 11 j 10:59	0°♄		-12495 Jan 19 j 01:09	0°♄	
	-12501 Oct 22 j 13:44	0°♊		-12495 Mar 07 j 17:12	0°♊	
	-12501 Dec 03 j 06:04	0°♋		-12495 Apr 20 j 15:38	0°♋	
	-12500 Jan 17 j 00:10	0°♌		-12495 May 31 j 21:29	0°♍	
desc. node	-12500 Mar 19 j 17:46	29°♌48'56	evening set	-12495 Jun 19 j 23:27	14°♍23'56	
	-12500 Mar 20 j 12:06	0°♎		-12495 Jul 10 j 06:52	0°♄	
retrograde	-12500 Apr 07 j 23:21	2°♎17'56		-12495 Aug 17 j 17:08	0°♊	
	-12500 Apr 25 j 23:09	30°♎♌				
min. Earth dist.	-12500 May 07 j 06:51	26°♌33'46 0.48465 AU	conjunction	-12495 Aug 19 j 17:03	1°♊33'55	0°55'22
greatest brilliancy	-12500 May 14 j 05:10	24°♌06'15 -2.2m	minimum elong	-12495 Aug 19 j 20:23	1°♊40'27	0°56'00
opposition	-12500 May 15 j 05:46	23°♌44'23 -3°21'16	max. Earth dist.	-12495 Aug 19 j 02:38	1°♊05'40	2.38328 AU
direct	-12500 Jun 17 j 19:25	16°♌45'10		-12495 Sep 25 j 02:24	0°♋	
	-12500 Aug 08 j 11:02	0°♎	morning rise	-12495 Oct 23 j 03:27	21°♋33'05	
	-12500 Oct 05 j 12:33	0°♎		-12495 Nov 03 j 07:44	0°♌	
	-12500 Nov 25 j 10:13	0°♌	desc. node	-12495 Nov 08 j 22:32	4°♌12'37	
	-12499 Jan 13 j 06:47	0°♍		-12495 Dec 14 j 04:03	0°♎	
	-12499 Mar 01 j 15:08	0°♄		-12494 Jan 26 j 07:34	0°♎	
evening set	-12499 Mar 14 j 13:57	8°♄23'49		-12494 Mar 13 j 11:43	0°♌	
asc. node	-12499 Mar 21 j 11:15	12°♄54'03		-12494 May 03 j 13:04	0°♍	
max. Earth dist.	-12499 Apr 07 j 04:43	23°♄57'47 2.58673 AU		-12494 Jul 16 j 16:04	0°♄	
	-12499 Apr 16 j 05:10	0°♊	retrograde	-12494 Jul 31 j 22:00	1°♄23'11	
				-12494 Aug 15 j 10:18	30°♎♍	



Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

opposition	-12494 Sep 09 j 01:15	22°♄03'35	-2°32'27			-12489 Nov 28 j 14:50	0°♊	
greatest brilliancy	-12494 Sep 09 j 06:37	21°♄58'14	-1.4m	evening set		-12489 Dec 09 j 16:01	7°♊22'34	
min. Earth dist.	-12494 Sep 11 j 06:30	21°♄10'31	0.65638 AU			-12488 Jan 13 j 02:08	0°♋	
direct	-12494 Oct 19 j 17:09	12°♄08'01						
asc. node	-12494 Nov 12 j 02:42	15°♄15'20		conjunction		-12488 Jan 28 j 19:42	10°♋11'53	-1°12'00
	-12494 Dec 21 j 04:41	0°♌		minimum elong		-12488 Jan 28 j 20:40	10°♋13'27	1°12'28
	-12493 Feb 13 j 05:09	0°♍		max. Earth dist.		-12488 Feb 06 j 13:59	15°♋50'57	2.65110 AU
	-12493 Mar 30 j 22:11	0°♎				-12488 Feb 28 j 15:08	0°♏	
	-12493 May 11 j 18:41	0°♐		morning rise		-12488 Mar 17 j 02:48	11°♏10'38	
	-12493 Jun 20 j 09:29	0°♑				-12488 Apr 15 j 14:38	0°♒	
	-12493 Jul 28 j 22:28	0°♒				-12488 Jun 01 j 13:01	0°♓	
evening set	-12493 Aug 23 j 15:04	20°♒04'01		asc. node		-12488 Jul 03 j 19:59	20°♓40'15	
	-12493 Sep 05 j 10:10	0°♓				-12488 Jul 18 j 10:35	0°♈	
desc. node	-12493 Sep 26 j 19:15	16°♓25'39				-12488 Sep 04 j 02:49	0°♐	
	-12493 Oct 14 j 18:02	0°♑				-12488 Oct 25 j 11:42	0°♑	
				retrograde		-12487 Jan 07 j 04:52	24°♑40'29	
conjunction	-12493 Oct 23 j 22:13	6°♑50'54	-0°20'01	opposition		-12487 Feb 06 j 21:48	19°♑31'36	6°37'20
minimum elong	-12493 Oct 23 j 20:42	6°♑48'05	0°19'22	greatest brilliancy		-12487 Feb 07 j 14:28	19°♑20'18	-2.8m
	-12493 Nov 24 j 15:27	0°♒		min. Earth dist.		-12487 Feb 09 j 06:01	18°♑53'31	0.38895 AU
max. Earth dist.	-12493 Dec 05 j 06:19	7°♒33'44	2.48076 AU	direct		-12487 Mar 10 j 06:09	14°♒08'40	
morning rise	-12493 Dec 22 j 04:17	19°♒24'54				-12487 May 03 j 12:15	0°♓	
	-12492 Jan 06 j 13:57	0°♊		desc. node		-12487 May 19 j 07:51	8°♓24'39	
	-12492 Feb 20 j 18:47	0°♋				-12487 Jun 24 j 01:43	0°♔	
	-12492 Apr 08 j 10:41	0°♌				-12487 Aug 08 j 23:54	0°♑	
	-12492 May 29 j 16:05	0°♍				-12487 Sep 23 j 03:42	0°♎	
	-12492 Jul 31 j 22:48	0°♎				-12487 Nov 07 j 20:04	0°♏	
retrograde	-12492 Sep 08 j 03:18	7°♎31'58				-12487 Dec 24 j 07:28	0°♐	
asc. node	-12492 Sep 29 j 05:51	4°♎39'03		evening set		-12486 Jan 19 j 07:23	16°♐37'38	
	-12492 Oct 13 j 04:06	30°♎♑				-12486 Feb 09 j 05:58	0°♑	
opposition	-12492 Oct 15 j 09:45	29°♑08'54	0°44'02	max. Earth dist.		-12486 Mar 02 j 11:39	13°♑35'10	2.66068 AU
greatest brilliancy	-12492 Oct 15 j 13:04	29°♑05'44	-1.7m					
min. Earth dist.	-12492 Oct 21 j 05:05	26°♑55'30	0.59498 AU	conjunction		-12486 Mar 08 j 12:39	17°♑27'49	-0°42'27
direct	-12492 Nov 24 j 20:32	19°♑21'56		minimum elong		-12486 Mar 08 j 14:06	17°♑30'09	0°43'12
	-12491 Jan 08 j 10:45	0°♒				-12486 Mar 27 j 23:46	0°♓	
	-12491 Mar 04 j 21:13	0°♈		morning rise		-12486 Apr 24 j 14:15	17°♓57'27	
	-12491 Apr 18 j 06:08	0°♐				-12486 May 12 j 21:08	0°♓	
	-12491 May 28 j 23:07	0°♑		asc. node		-12486 May 21 j 10:48	5°♓41'12	
	-12491 Jul 07 j 04:22	0°♒				-12486 Jun 26 j 13:44	0°♈	
desc. node	-12491 Aug 13 j 20:11	28°♒56'24				-12486 Aug 09 j 02:08	0°♐	
	-12491 Aug 15 j 05:31	0°♔				-12486 Sep 20 j 19:00	0°♑	
	-12491 Sep 24 j 01:39	0°♑				-12486 Nov 02 j 10:16	0°♒	
evening set	-12491 Oct 21 j 22:28	20°♑22'02				-12486 Dec 16 j 19:09	0°♔	
	-12491 Nov 04 j 09:35	0°♒				-12485 Feb 08 j 20:03	0°♑	
				retrograde		-12485 Mar 18 j 23:37	8°♑53'14	
conjunction	-12491 Dec 15 j 19:28	28°♒46'55	-1°09'25	desc. node		-12485 Apr 06 j 11:56	6°♑30'15	
minimum elong	-12491 Dec 15 j 17:51	28°♒44'10	1°09'23	min. Earth dist.		-12485 Apr 15 j 18:58	3°♑51'33	0.43731 AU
	-12491 Dec 17 j 14:28	0°♊		opposition		-12485 Apr 23 j 06:39	1°♑25'39	-1°09'28
max. Earth dist.	-12490 Jan 10 j 11:47	16°♊02'30	2.58889 AU	greatest brilliancy		-12485 Apr 22 j 21:49	1°♑32'51	-2.6m
	-12490 Jan 31 j 16:31	0°♋				-12485 Apr 27 j 18:03	30°♒♔	
morning rise	-12490 Feb 06 j 00:23	3°♋28'15		direct		-12485 May 25 j 07:50	25°♔15'32	
	-12490 Mar 19 j 08:59	0°♌				-12485 Jun 22 j 22:38	0°♑	
	-12490 May 06 j 09:31	0°♍				-12485 Aug 26 j 11:15	0°♎	
	-12490 Jun 25 j 04:06	0°♎				-12485 Oct 16 j 13:33	0°♏	
asc. node	-12490 Aug 17 j 03:16	29°♎06'42				-12485 Dec 04 j 11:41	0°♐	
	-12490 Aug 18 j 22:20	0°♈				-12484 Jan 21 j 13:13	0°♑	
retrograde	-12490 Oct 28 j 11:59	21°♈34'44		evening set		-12484 Feb 27 j 19:21	23°♑40'47	
opposition	-12490 Dec 01 j 11:33	14°♈46'28	5°04'44			-12484 Mar 08 j 14:46	0°♓	
greatest brilliancy	-12490 Dec 02 j 19:04	14°♈19'31	-2.2m	max. Earth dist.		-12484 Mar 27 j 02:57	12°♓02'53	2.61749 AU
min. Earth dist.	-12490 Dec 09 j 11:07	12°♈03'04	0.48483 AU	asc. node		-12484 Apr 07 j 04:51	19°♓20'35	
direct	-12489 Jan 08 j 02:08	6°♈26'34						
	-12489 Mar 16 j 22:20	0°♐		conjunction		-12484 Apr 16 j 10:13	25°♓28'13	0°05'48
	-12489 May 02 j 12:48	0°♑		minimum elong		-12484 Apr 16 j 09:59	25°♓27'49	0°05'05
	-12489 Jun 13 j 08:46	0°♒		behind sun begin		-12484 Apr 15 j 14:35	24°♓55'30	
desc. node	-12489 Jul 02 j 01:10	13°♒43'56		behind sun end		-12484 Apr 17 j 05:23	26°♓00'10	
	-12489 Jul 24 j 03:07	0°♓				-12484 Apr 23 j 04:46	0°♔	
	-12489 Sep 03 j 07:07	0°♑		morning rise		-12484 Jun 03 j 22:11	28°♔33'04	
	-12489 Oct 15 j 16:00	0°♒				-12484 Jun 05 j 23:56	0°♈	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12484 Jul 18 j 01:00	0°♄		min. Earth dist.	-12479 Aug 27 j 07:47	8°♂21'52	0.66406 AU
	-12484 Aug 27 j 16:38	0°♂			-12479 Sep 22 j 16:22	30°♌	
	-12484 Oct 06 j 13:11	0°♌	direct		-12479 Oct 05 j 21:28	28°♌51'38	
	-12484 Nov 15 j 11:25	0°♍			-12479 Oct 19 j 17:13	0°♌	
	-12484 Dec 26 j 18:00	0°♎	asc. node		-12479 Nov 28 j 16:06	12°♌33'43	
desc. node	-12483 Feb 09 j 22:00	0°♏			-12478 Jan 02 j 22:18	0°♍	
	-12483 Feb 21 j 09:17	6°♏49'55			-12478 Feb 22 j 06:11	0°♎	
	-12483 Apr 14 j 03:47	0°♐			-12478 Apr 08 j 00:50	0°♏	
retrograde	-12483 May 06 j 00:04	3°♐03'37			-12478 May 19 j 13:29	0°♐	
	-12483 May 26 j 20:19	30°♏			-12478 Jun 28 j 01:04	0°♑	
min. Earth dist.	-12483 Jun 07 j 08:59	26°♏04'57	0.55744 AU	evening set	-12478 Jul 28 j 22:21	24°♑04'00	
greatest brilliancy	-12483 Jun 12 j 21:20	23°♏58'09	-1.8m		-12478 Aug 05 j 12:03	0°♒	
opposition	-12483 Jun 14 j 01:17	23°♏31'18	-5°02'08		-12478 Sep 12 j 21:49	0°♓	
direct	-12483 Jul 19 j 22:14	15°♏28'35					
	-12483 Sep 13 j 04:50	0°♐	conjunction		-12478 Sep 29 j 09:10	12°♓42'22	0°10'45
	-12483 Nov 10 j 13:41	0°♑	minimum elong		-12478 Sep 29 j 10:10	12°♓44'19	0°11'30
	-12483 Dec 31 j 14:38	0°♑	behind sun begin		-12478 Sep 28 j 15:08	12°♓07'49	
	-12482 Feb 17 j 18:42	0°♒	behind sun end		-12478 Sep 30 j 05:12	13°♓20'47	
asc. node	-12482 Feb 23 j 04:29	3°♒27'51	desc. node		-12478 Oct 13 j 13:37	23°♓31'18	
	-12482 Apr 04 j 14:07	0°♓			-12478 Oct 22 j 03:41	0°♑	
evening set	-12482 Apr 09 j 17:25	3°♓27'42	max. Earth dist.		-12478 Nov 11 j 21:25	15°♑24'56	2.43236 AU
max. Earth dist.	-12482 Apr 27 j 14:11	15°♓40'11	2.52604 AU	morning rise	-12478 Nov 30 j 15:09	29°♑02'14	
	-12482 May 18 j 02:11	0°♔			-12478 Dec 01 j 23:19	0°♒	
					-12477 Jan 13 j 21:44	0°♐	
conjunction	-12482 May 31 j 08:19	9°♔27'12	0°55'52		-12477 Feb 28 j 07:32	0°♑	
minimum elong	-12482 May 31 j 06:14	9°♔23'27	0°55'34		-12477 Apr 17 j 18:45	0°♑	
	-12482 Jun 28 j 11:58	0°♐			-12477 Jun 10 j 23:57	0°♒	
morning rise	-12482 Jul 24 j 03:58	19°♐14'14		retrograde	-12477 Aug 24 j 02:04	23°♒07'50	
	-12482 Aug 07 j 07:17	0°♑		opposition	-12477 Oct 01 j 05:23	14°♒19'01	-0°40'41
	-12482 Sep 15 j 04:46	0°♒		greatest brilliancy	-12477 Oct 01 j 08:24	14°♒16'04	-1.6m
	-12482 Oct 24 j 00:39	0°♓		min. Earth dist.	-12477 Oct 05 j 16:11	12°♒34'35	0.62592 AU
	-12482 Dec 02 j 17:32	0°♑		asc. node	-12477 Oct 16 j 20:53	8°♒31'54	
desc. node	-12481 Jan 09 j 04:17	27°♑02'30		direct	-12477 Nov 10 j 23:27	4°♒22'40	
	-12481 Jan 13 j 09:59	0°♒			-12476 Jan 26 j 04:29	0°♓	
	-12481 Feb 27 j 19:36	0°♐			-12476 Mar 15 j 08:13	0°♔	
	-12481 Apr 23 j 16:32	0°♑			-12476 Apr 27 j 07:15	0°♐	
retrograde	-12481 Jun 13 j 14:50	13°♑16'35			-12476 Jun 06 j 10:08	0°♑	
min. Earth dist.	-12481 Jul 20 j 13:24	4°♑35'04	0.64066 AU		-12476 Jul 15 j 06:37	0°♒	
opposition	-12481 Jul 23 j 14:35	3°♑21'40	-5°07'21		-12476 Aug 23 j 00:29	0°♓	
greatest brilliancy	-12481 Jul 23 j 02:30	3°♑33'48	-1.4m	desc. node	-12476 Aug 30 j 12:21	5°♓44'56	
	-12481 Aug 01 j 06:33	30°♑		evening set	-12476 Sep 29 j 21:49	28°♓44'51	
direct	-12481 Aug 31 j 06:17	24°♐10'34			-12476 Oct 01 j 14:06	0°♑	
	-12481 Oct 03 j 08:31	0°♑			-12476 Nov 11 j 16:18	0°♒	
	-12481 Dec 08 j 02:00	0°♑					
asc. node	-12480 Jan 11 j 09:03	19°♑38'08		conjunction	-12476 Nov 26 j 08:07	10°♒22'41	-0°56'19
	-12480 Jan 28 j 11:40	0°♒		minimum elong	-12476 Nov 26 j 05:38	10°♒18'20	0°56'01
	-12480 Mar 15 j 08:00	0°♓			-12476 Dec 24 j 17:11	0°♐	
	-12480 Apr 28 j 00:48	0°♔		max. Earth dist.	-12476 Dec 28 j 23:27	2°♐53'42	2.55131 AU
evening set	-12480 May 28 j 08:23	21°♔54'46		morning rise	-12475 Jan 19 j 22:32	17°♐37'11	
	-12480 Jun 08 j 06:08	0°♐			-12475 Feb 07 j 18:23	0°♑	
max. Earth dist.	-12480 Jun 22 j 09:51	10°♐38'24	2.40911 AU		-12475 Mar 26 j 16:28	0°♑	
	-12480 Jul 17 j 16:59	0°♑			-12475 May 14 j 12:25	0°♒	
					-12475 Jul 05 j 17:50	0°♓	
conjunction	-12480 Jul 25 j 07:40	5°♑53'42	1°10'47	asc. node	-12475 Sep 02 j 20:51	26°♓57'14	
minimum elong	-12480 Jul 25 j 09:11	5°♑56'38	1°11'14		-12475 Sep 13 j 10:49	0°♔	
	-12480 Aug 25 j 04:59	0°♒		retrograde	-12475 Oct 06 j 21:30	3°♔05'42	
morning rise	-12480 Sep 26 j 02:14	24°♒54'42			-12475 Oct 28 j 21:23	30°♑	
	-12480 Oct 02 j 15:33	0°♓		opposition	-12475 Nov 11 j 08:45	25°♓34'52	3°18'59
	-12480 Nov 10 j 21:53	0°♑		greatest brilliancy	-12475 Nov 12 j 04:06	25°♓17'19	-2.0m
desc. node	-12480 Nov 25 j 20:41	11°♑08'05		min. Earth dist.	-12475 Nov 18 j 21:09	22°♓51'27	0.53182 AU
	-12480 Dec 21 j 19:55	0°♒		direct	-12475 Dec 20 j 13:01	16°♓26'50	
	-12479 Feb 03 j 05:20	0°♐			-12474 Feb 08 j 08:34	0°♔	
	-12479 Mar 22 j 05:39	0°♑			-12474 Mar 31 j 21:52	0°♐	
	-12479 May 15 j 19:14	0°♑			-12474 May 13 j 18:18	0°♑	
retrograde	-12479 Jul 17 j 23:36	18°♑14'43			-12474 Jun 23 j 02:23	0°♒	
opposition	-12479 Aug 26 j 13:34	8°♑40'08	-3°29'42	desc. node	-12474 Jul 18 j 16:43	19°♒17'43	
greatest brilliancy	-12479 Aug 26 j 16:22	8°♑37'19	-1.4m		-12474 Aug 01 j 22:24	0°♓	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12474 Sep 11 j 09:47	0°♈				-12469 Jul 26 j 17:53	0°♐		
	-12474 Oct 23 j 05:51	0°♏				-12469 Sep 05 j 23:55	0°♏		
evening set	-12474 Nov 21 j 21:10	20°♏32'32				-12469 Oct 16 j 13:48	0°♐		
	-12474 Dec 05 j 19:27	0°♐				-12469 Nov 26 j 10:23	0°♐		
						-12468 Jan 08 j 08:38	0°♈		
conjunction	-12473 Jan 12 j 12:14	25°♐03'47	-1°15'38			-12468 Feb 27 j 23:58	0°♏		
minimum elong	-12473 Jan 12 j 12:21	25°♐04'00	1°15'57		desc. node	-12468 Mar 10 j 05:42	5°♏08'28		
	-12473 Jan 20 j 01:21	0°♏			retrograde	-12468 Apr 18 j 17:20	14°♏27'12		
max. Earth dist.	-12473 Jan 27 j 17:12	4°♏59'10	2.63292 AU		min. Earth dist.	-12468 May 19 j 01:36	8°♏17'07	0.51128 AU	
morning rise	-12473 Mar 02 j 23:16	27°♏03'04			opposition	-12468 May 26 j 18:33	5°♏27'29	-4°10'43	
	-12473 Mar 07 j 13:59	0°♏			greatest brilliancy	-12468 May 25 j 14:15	5°♏53'30	-2.1m	
	-12473 Apr 23 j 20:07	0°♏				-12468 Jun 13 j 05:30	30°♏♈		
	-12473 Jun 10 j 12:57	0°♏			direct	-12468 Jun 30 j 04:57	28°♏03'49		
asc. node	-12473 Jul 21 j 15:39	25°♏25'38				-12468 Jul 18 j 03:56	0°♏		
	-12473 Jul 29 j 04:28	0°♏				-12468 Sep 28 j 02:41	0°♐		
	-12473 Sep 19 j 07:53	0°♐				-12468 Nov 19 j 19:24	0°♏		
retrograde	-12473 Dec 08 j 12:58	27°♐15'07				-12467 Jan 08 j 07:36	0°♏		
opposition	-12472 Jan 09 j 04:09	21°♐39'56	7°06'36			-12467 Feb 24 j 22:27	0°♏		
greatest brilliancy	-12472 Jan 10 j 15:32	21°♐13'50	-2.6m		asc. node	-12467 Mar 11 j 19:23	9°♏37'25		
min. Earth dist.	-12472 Jan 15 j 08:40	19°♐51'06	0.41580 AU		evening set	-12467 Mar 23 j 21:06	17°♏32'02		
direct	-12472 Feb 11 j 20:59	15°♐13'24				-12467 Apr 11 j 14:33	0°♏		
	-12472 Apr 03 j 05:05	0°♏			max. Earth dist.	-12467 Apr 14 j 04:06	1°♏43'35	2.56685 AU	
	-12472 May 23 j 16:47	0°♐							
desc. node	-12472 Jun 04 j 22:20	8°♐08'26			conjunction	-12467 May 12 j 22:50	21°♏25'56	0°37'52	
	-12472 Jul 06 j 19:58	0°♐			minimum elong	-12467 May 12 j 21:12	21°♏23'06	0°37'22	
	-12472 Aug 18 j 23:30	0°♈				-12467 May 25 j 04:29	0°♏		
	-12472 Oct 01 j 15:35	0°♏			morning rise	-12467 Jul 03 j 01:55	28°♏00'13		
	-12472 Nov 15 j 10:54	0°♐				-12467 Jul 05 j 19:04	0°♐		
	-12472 Dec 31 j 10:11	0°♏				-12467 Aug 14 j 20:48	0°♏		
evening set	-12471 Jan 03 j 15:30	2°♏04'45				-12467 Sep 23 j 01:21	0°♐		
	-12471 Feb 16 j 03:23	0°♏				-12467 Nov 01 j 04:33	0°♐		
						-12467 Dec 11 j 06:42	0°♈		
conjunction	-12471 Feb 21 j 07:49	3°♏19'11	-0°56'48			-12466 Jan 22 j 16:31	0°♏		
minimum elong	-12471 Feb 21 j 09:22	3°♏21'40	0°57'28		desc. node	-12466 Jan 26 j 00:39	2°♏15'17		
max. Earth dist.	-12471 Feb 20 j 21:26	3°♏02'33	2.66344 AU			-12466 Mar 11 j 05:40	0°♐		
	-12471 Apr 03 j 21:54	0°♏			retrograde	-12466 May 30 j 07:46	28°♐46'29		
morning rise	-12471 Apr 09 j 13:41	3°♏38'51			min. Earth dist.	-12466 Jul 04 j 14:27	20°♐41'14	0.61463 AU	
	-12471 May 20 j 02:41	0°♏			greatest brilliancy	-12466 Jul 08 j 07:54	19°♐12'27	-1.6m	
asc. node	-12471 Jun 07 j 06:46	11°♏57'10			opposition	-12466 Jul 09 j 03:06	18°♐53'22	-5°21'26	
	-12471 Jul 04 j 10:45	0°♏			direct	-12466 Aug 15 j 19:41	10°♐04'41		
	-12471 Aug 18 j 01:00	0°♐				-12466 Oct 22 j 11:58	0°♏		
	-12471 Oct 01 j 11:11	0°♏				-12466 Dec 17 j 16:04	0°♏		
	-12471 Nov 16 j 03:25	0°♐			asc. node	-12465 Jan 27 j 22:38	24°♏44'42		
	-12470 Jan 08 j 06:43	0°♐				-12465 Feb 05 j 09:04	0°♏		
retrograde	-12470 Feb 22 j 10:59	11°♐42'55				-12465 Mar 23 j 16:54	0°♏		
min. Earth dist.	-12470 Mar 22 j 03:20	7°♐03'16	0.39988 AU			-12465 May 06 j 06:51	0°♏		
opposition	-12470 Mar 27 j 07:04	5°♐33'55	2°01'31		evening set	-12465 May 08 j 17:53	1°♏44'46		
greatest brilliancy	-12470 Mar 27 j 00:10	5°♐38'55	-2.8m		max. Earth dist.	-12465 May 25 j 15:35	13°♏53'35	2.45386 AU	
desc. node	-12470 Apr 23 j 03:53	0°♐15'56				-12465 Jun 16 j 13:09	0°♐		
direct	-12470 Apr 27 j 00:18	0°♐10'13							
	-12470 Jul 18 j 20:32	0°♈			conjunction	-12465 Jul 02 j 21:40	12°♐16'39	1°12'53	
	-12470 Sep 07 j 09:33	0°♏			minimum elong	-12465 Jul 02 j 20:53	12°♐15'08	1°13'01	
	-12470 Oct 25 j 10:56	0°♐				-12465 Jul 26 j 02:27	0°♏		
	-12470 Dec 12 j 03:04	0°♏			morning rise	-12465 Aug 31 j 07:21	28°♏07'16		
	-12469 Jan 28 j 15:15	0°♏				-12465 Sep 02 j 17:07	0°♐		
evening set	-12469 Feb 12 j 11:22	9°♏26'03				-12465 Oct 11 j 05:55	0°♐		
	-12469 Mar 16 j 12:15	0°♏				-12465 Nov 19 j 14:31	0°♈		
max. Earth dist.	-12469 Mar 17 j 23:58	0°♏57'49	2.64057 AU		desc. node	-12465 Dec 13 j 16:35	17°♏47'02		
						-12465 Dec 30 j 16:33	0°♏		
conjunction	-12469 Apr 01 j 15:30	10°♏29'45	-0°14'18			-12464 Feb 12 j 12:43	0°♐		
minimum elong	-12469 Apr 01 j 16:07	10°♏30'46	0°15'04			-12464 Apr 01 j 00:44	0°♏		
behind sun begin	-12469 Apr 01 j 09:46	10°♏20'24				-12464 Jun 04 j 04:09	0°♏		
behind sun end	-12469 Apr 01 j 22:28	10°♏41'09			retrograde	-12464 Jul 04 j 07:40	5°♏05'18		
asc. node	-12469 Apr 24 j 22:19	25°♏50'39				-12464 Aug 01 j 01:01	30°♏♏		
	-12469 May 01 j 03:56	0°♏			min. Earth dist.	-12464 Aug 12 j 11:10	25°♏36'51	0.66229 AU	
morning rise	-12469 May 19 j 04:52	12°♏08'30			opposition	-12464 Aug 13 j 04:23	25°♏19'32	-4°16'37	
	-12469 Jun 14 j 05:51	0°♏			greatest brilliancy	-12464 Aug 13 j 02:29	25°♏21'27	-1.4m	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

direct	-12464 Sep 21 j 23:30	15° $\mathbb{M}$ 42'30	evening set	-12459 Nov 02 j 16:39	2° $\mathbb{M}$ 09'13
	-12464 Nov 16 j 08:55	0° $\mathbb{A}$		-12459 Dec 12 j 22:28	0° $\mathbb{A}$
asc. node	-12464 Dec 15 j 05:15	13° $\mathbb{A}$ 56'52			
	-12463 Jan 13 j 02:22	0° $\mathbb{B}$	conjunction	-12459 Dec 26 j 06:42	8° $\mathbb{A}$ 59'42 -1°13'35
	-12463 Mar 02 j 13:15	0° $\approx$	minimum elong	-12459 Dec 26 j 05:44	8° $\mathbb{A}$ 58'04 1°13'41
	-12463 Apr 15 j 18:41	0° $\mathbb{H}$	max. Earth dist.	-12458 Jan 17 j 03:09	23° $\mathbb{A}$ 30'09 2.60689 AU
	-12463 May 27 j 03:14	0° $\mathbb{Y}$		-12458 Jan 27 j 00:56	0° $\mathbb{M}$
evening set	-12463 Jul 03 j 15:41	28° $\mathbb{Y}$ 31'04	morning rise	-12458 Feb 15 j 08:30	12° $\mathbb{M}$ 32'14
	-12463 Jul 05 j 13:43	0° $\mathbb{B}$		-12458 Mar 14 j 15:01	0° $\mathbb{A}$
	-12463 Aug 13 j 00:15	0° $\mathbb{II}$		-12458 May 01 j 07:09	0° $\mathbb{B}$
				-12458 Jun 19 j 03:21	0° $\approx$
conjunction	-12463 Sep 03 j 10:42	16° $\mathbb{II}$ 47'50 0°41'15	asc. node	-12458 Aug 07 j 10:32	28° $\approx$ 41'23
minimum elong	-12463 Sep 03 j 13:55	16° $\mathbb{II}$ 54'08 0°41'57		-12458 Aug 09 j 19:40	0° $\mathbb{H}$
	-12463 Sep 20 j 09:11	0° $\mathbb{B}$		-12458 Oct 16 j 12:09	0° $\mathbb{Y}$
max. Earth dist.	-12463 Oct 01 j 17:48	8° $\mathbb{B}$ 47'11 2.39148 AU	retrograde	-12458 Nov 11 j 04:05	3° $\mathbb{Y}$ 41'41
	-12463 Oct 29 j 13:53	0° $\mathbb{Q}$		-12458 Dec 05 j 15:12	30° $\mathbb{R}$ $\mathbb{H}$
desc. node	-12463 Oct 30 j 09:36	0° $\mathbb{Q}$ 37'04	opposition	-12458 Dec 14 j 07:25	27° $\mathbb{H}$ 19'07 6°00'12
morning rise	-12463 Nov 06 j 16:05	6° $\mathbb{Q}$ 03'43	greatest brilliancy	-12458 Dec 15 j 19:49	26° $\mathbb{H}$ 49'16 -2.3m
	-12463 Dec 09 j 08:44	0° $\mathbb{M}$	min. Earth dist.	-12458 Dec 22 j 02:13	24° $\mathbb{H}$ 46'45 0.45887 AU
	-12462 Jan 21 j 08:39	0° $\mathbb{A}$	direct	-12457 Jan 19 j 16:42	19° $\mathbb{H}$ 34'56
	-12462 Mar 08 j 03:23	0° $\mathbb{M}$		-12457 Mar 02 j 17:28	0° $\mathbb{Y}$
	-12462 Apr 26 j 22:16	0° $\mathbb{A}$		-12457 Apr 24 j 08:14	0° $\mathbb{B}$
	-12462 Jun 26 j 20:14	0° $\mathbb{B}$		-12457 Jun 06 j 17:54	0° $\mathbb{II}$
retrograde	-12462 Aug 09 j 03:47	9° $\mathbb{B}$ 27'47	desc. node	-12457 Jun 22 j 14:39	11° $\mathbb{II}$ 24'05
opposition	-12462 Sep 16 j 23:47	0° $\mathbb{B}$ 18'06 -1°54'27		-12457 Jul 18 j 07:08	0° $\mathbb{B}$
greatest brilliancy	-12462 Sep 17 j 05:18	0° $\mathbb{B}$ 12'37 -1.4m		-12457 Aug 28 j 23:12	0° $\mathbb{Q}$
	-12462 Sep 17 j 18:02	30° $\mathbb{R}$ $\mathbb{A}$		-12457 Oct 10 j 16:16	0° $\mathbb{M}$
min. Earth dist.	-12462 Sep 20 j 00:38	29° $\mathbb{A}$ 05'53 0.64800 AU		-12457 Nov 23 j 20:25	0° $\mathbb{A}$
direct	-12462 Oct 27 j 18:10	20° $\mathbb{A}$ 20'27	evening set	-12457 Dec 19 j 09:32	16° $\mathbb{A}$ 54'34
asc. node	-12462 Nov 02 j 11:53	20° $\mathbb{A}$ 32'51		-12456 Jan 08 j 10:47	0° $\mathbb{M}$
	-12462 Dec 10 j 02:45	0° $\mathbb{B}$			
	-12461 Feb 06 j 20:08	0° $\approx$	conjunction	-12456 Feb 06 j 21:55	19° $\mathbb{M}$ 01'32 -1°07'37
	-12461 Mar 25 j 11:34	0° $\mathbb{H}$	minimum elong	-12456 Feb 06 j 23:13	19° $\mathbb{M}$ 03'37 1°08'10
	-12461 May 06 j 16:06	0° $\mathbb{Y}$	max. Earth dist.	-12456 Feb 12 j 07:56	22° $\mathbb{M}$ 30'17 2.65780 AU
	-12461 Jun 15 j 10:47	0° $\mathbb{B}$		-12456 Feb 24 j 00:35	0° $\mathbb{A}$
	-12461 Jul 24 j 02:07	0° $\mathbb{II}$	morning rise	-12456 Mar 25 j 17:18	19° $\mathbb{A}$ 38'23
	-12461 Aug 31 j 15:27	0° $\mathbb{B}$		-12456 Apr 10 j 21:40	0° $\mathbb{B}$
evening set	-12461 Sep 06 j 22:23	4° $\mathbb{B}$ 50'55		-12456 May 27 j 12:47	0° $\approx$
desc. node	-12461 Sep 17 j 05:40	12° $\mathbb{B}$ 45'00	asc. node	-12456 Jun 24 j 02:22	17° $\approx$ 51'58
	-12461 Oct 10 j 00:41	0° $\mathbb{Q}$		-12456 Jul 12 j 18:16	0° $\mathbb{H}$
				-12456 Aug 28 j 00:23	0° $\mathbb{Y}$
conjunction	-12461 Nov 05 j 23:32	19° $\mathbb{Q}$ 54'30 -0°35'18		-12456 Oct 14 j 16:49	0° $\mathbb{B}$
minimum elong	-12461 Nov 05 j 21:12	19° $\mathbb{Q}$ 50'17 0°34'46		-12456 Dec 08 j 21:54	0° $\mathbb{II}$
	-12461 Nov 19 j 22:54	0° $\mathbb{M}$	retrograde	-12455 Jan 24 j 12:48	11° $\mathbb{II}$ 49'59
max. Earth dist.	-12461 Dec 15 j 05:03	17° $\mathbb{M}$ 49'55 2.50726 AU	opposition	-12455 Feb 24 j 15:23	6° $\mathbb{II}$ 34'23 5°21'38
	-12460 Jan 01 j 21:02	0° $\mathbb{A}$	min. Earth dist.	-12455 Feb 24 j 02:00	6° $\mathbb{II}$ 43'26 0.38504 AU
morning rise	-12460 Jan 02 j 11:18	0° $\mathbb{A}$ 24'18	greatest brilliancy	-12455 Feb 24 j 17:56	6° $\mathbb{II}$ 32'40 -2.9m
	-12460 Feb 15 j 23:07	0° $\mathbb{M}$	direct	-12455 Mar 27 j 04:21	1° $\mathbb{II}$ 26'10
	-12460 Apr 03 j 06:19	0° $\mathbb{A}$	desc. node	-12455 May 09 j 20:48	12° $\mathbb{II}$ 04'06
	-12460 May 23 j 08:36	0° $\mathbb{B}$		-12455 Jun 13 j 22:57	0° $\mathbb{B}$
	-12460 Jul 19 j 09:44	0° $\approx$		-12455 Aug 01 j 23:11	0° $\mathbb{Q}$
retrograde	-12460 Sep 17 j 23:15	16° $\approx$ 38'22		-12455 Sep 17 j 09:26	0° $\mathbb{M}$
asc. node	-12460 Sep 19 j 14:24	16° $\approx$ 37'22		-12455 Nov 02 j 17:04	0° $\mathbb{A}$
opposition	-12460 Oct 24 j 16:10	8° $\approx$ 31'59 1°37'35		-12455 Dec 19 j 12:32	0° $\mathbb{M}$
greatest brilliancy	-12460 Oct 25 j 00:23	8° $\approx$ 24'14 -1.8m	evening set	-12454 Jan 28 j 04:16	25° $\mathbb{M}$ 15'17
min. Earth dist.	-12460 Oct 31 j 04:12	6° $\approx$ 04'50 0.57453 AU		-12454 Feb 04 j 15:01	0° $\mathbb{A}$
	-12460 Nov 21 j 02:45	30° $\mathbb{R}$ $\mathbb{B}$	max. Earth dist.	-12454 Mar 08 j 04:12	20° $\mathbb{A}$ 11'03 2.65581 AU
direct	-12460 Dec 03 j 19:32	28° $\mathbb{B}$ 54'27			
	-12460 Dec 16 j 21:06	0° $\approx$	conjunction	-12454 Mar 17 j 06:49	26° $\mathbb{A}$ 03'01 -0°32'47
	-12459 Feb 25 j 06:41	0° $\mathbb{H}$	minimum elong	-12454 Mar 17 j 08:03	26° $\mathbb{A}$ 05'00 0°33'32
	-12459 Apr 12 j 03:48	0° $\mathbb{Y}$		-12454 Mar 23 j 09:36	0° $\mathbb{B}$
	-12459 May 23 j 10:02	0° $\mathbb{B}$	morning rise	-12454 May 03 j 09:36	26° $\mathbb{B}$ 48'46
	-12459 Jul 01 j 22:31	0° $\mathbb{II}$		-12454 May 08 j 04:56	0° $\approx$
desc. node	-12459 Aug 04 j 07:35	25° $\mathbb{II}$ 31'49	asc. node	-12454 May 11 j 16:56	2° $\approx$ 19'42
	-12459 Aug 10 j 04:33	0° $\mathbb{B}$		-12454 Jun 21 j 15:57	0° $\mathbb{H}$
	-12459 Sep 19 j 04:38	0° $\mathbb{Q}$		-12454 Aug 03 j 18:37	0° $\mathbb{Y}$
	-12459 Oct 30 j 15:36	0° $\mathbb{M}$		-12454 Sep 14 j 20:36	0° $\mathbb{B}$

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12454 Oct 26 j 13:07	0°♐				-12448 Mar 10 j 09:32	0°♏		
	-12454 Dec 08 j 02:30	0°♏				-12448 Apr 23 j 06:49	0°♏		
	-12453 Jan 24 j 02:14	0°♏				-12448 Jun 03 j 13:24	0°♏		
desc. node	-12453 Mar 27 j 23:02	22°♏55'27		evening set		-12448 Jun 09 j 22:01	4°♏45'38		
retrograde	-12453 Mar 31 j 06:23	23°♏00'09				-12448 Jul 12 j 23:59	0°♏		
min. Earth dist.	-12453 Apr 28 j 19:18	17°♏36'54	0.46284 AU	max. Earth dist.		-12448 Jul 18 j 12:58	4°♏17'25	2.38998 AU	
opposition	-12453 May 06 j 18:12	14°♏53'28	-2°32'16						
greatest brilliancy	-12453 May 05 j 22:50	15°♏10'06	-2.4m	conjunction		-12448 Aug 08 j 11:55	20°♏37'39	1°03'41	
direct	-12453 Jun 08 j 14:39	8°♏15'55		minimum elong		-12448 Aug 08 j 14:42	20°♏43'05	1°04'15	
	-12453 Aug 17 j 00:42	0°♏				-12448 Aug 20 j 11:09	0°♏		
	-12453 Oct 10 j 07:00	0°♏				-12448 Sep 27 j 20:30	0°♏		
	-12453 Nov 29 j 05:37	0°♏		morning rise		-12448 Oct 11 j 12:19	10°♏33'24		
	-12452 Jan 16 j 17:33	0°♏				-12448 Nov 06 j 01:22	0°♏		
	-12452 Mar 03 j 23:16	0°♏		desc. node		-12448 Nov 16 j 04:53	7°♏35'23		
evening set	-12452 Mar 07 j 19:31	2°♏28'59				-12448 Dec 16 j 21:09	0°♏		
asc. node	-12452 Mar 28 j 11:55	15°♏58'52				-12447 Jan 29 j 01:13	0°♏		
max. Earth dist.	-12452 Apr 02 j 12:56	19°♏18'26	2.60147 AU			-12447 Mar 16 j 10:56	0°♏		
	-12452 Apr 18 j 14:10	0°♏				-12447 May 07 j 13:20	0°♏		
				retrograde		-12447 Jul 25 j 23:13	26°♏13'10		
conjunction	-12452 Apr 25 j 19:57	4°♏52'40	0°17'41	opposition		-12447 Sep 03 j 07:45	16°♏46'32	-2°57'38	
minimum elong	-12452 Apr 25 j 19:12	4°♏51'23	0°17'01	greatest brilliancy		-12447 Sep 03 j 12:17	16°♏42'01	-1.4m	
	-12452 Jun 01 j 07:45	0°♏		min. Earth dist.		-12447 Sep 04 j 21:46	16°♏08'32	0.66106 AU	
morning rise	-12452 Jun 14 j 01:39	8°♏59'50		direct		-12447 Oct 13 j 20:38	6°♏53'25		
	-12452 Jul 13 j 05:16	0°♏		asc. node		-12447 Nov 19 j 01:51	13°♏48'08		
	-12452 Aug 22 j 15:42	0°♏				-12447 Dec 26 j 06:40	0°♏		
	-12452 Oct 01 j 05:54	0°♏				-12446 Feb 16 j 13:32	0°♏		
	-12452 Nov 09 j 19:38	0°♏				-12446 Apr 02 j 21:50	0°♏		
	-12452 Dec 20 j 12:25	0°♏				-12446 May 14 j 15:54	0°♏		
	-12451 Feb 02 j 05:55	0°♏				-12446 Jun 23 j 05:53	0°♏		
desc. node	-12451 Feb 11 j 20:44	6°♏06'43				-12446 Jul 31 j 18:06	0°♏		
	-12451 Mar 27 j 01:32	0°♏		evening set		-12446 Aug 12 j 10:48	9°♏09'34		
retrograde	-12451 May 15 j 05:01	13°♏07'23				-12446 Sep 08 j 04:23	0°♏		
min. Earth dist.	-12451 Jun 17 j 15:33	5°♏43'40	0.57992 AU	desc. node		-12446 Oct 04 j 00:37	19°♏51'39		
opposition	-12451 Jun 23 j 14:31	3°♏24'26	-5°16'34						
greatest brilliancy	-12451 Jun 22 j 12:59	3°♏49'21	-1.7m	conjunction		-12446 Oct 13 j 12:14	27°♏02'54	-0°07'10	
	-12451 Jul 02 j 18:23	30°♏00'00		minimum elong		-12446 Oct 13 j 11:41	27°♏01'50	0°06'28	
direct	-12451 Jul 30 j 04:18	25°♏03'30		behind sun begin		-12446 Oct 12 j 11:28	26°♏16'10		
	-12451 Aug 29 j 02:34	0°♏		behind sun end		-12446 Oct 14 j 11:53	27°♏47'28		
	-12451 Nov 03 j 20:49	0°♏				-12446 Oct 17 j 10:20	0°♏		
	-12451 Dec 26 j 06:31	0°♏		max. Earth dist.		-12446 Nov 26 j 11:22	29°♏27'07	2.45887 AU	
	-12450 Feb 12 j 21:58	0°♏				-12446 Nov 27 j 05:40	0°♏		
asc. node	-12450 Feb 13 j 13:04	0°♏23'58		morning rise		-12446 Dec 13 j 04:36	11°♏21'03		
	-12450 Mar 30 j 21:40	0°♏				-12445 Jan 09 j 02:27	0°♏		
evening set	-12450 Apr 19 j 21:35	13°♏34'35				-12445 Feb 23 j 07:43	0°♏		
max. Earth dist.	-12450 May 06 j 13:38	25°♏09'23	2.50092 AU			-12445 Apr 12 j 05:20	0°♏		
	-12450 May 13 j 10:36	0°♏				-12445 Jun 03 j 09:27	0°♏		
						-12445 Aug 16 j 01:31	0°♏		
conjunction	-12450 Jun 11 j 15:14	21°♏01'34	1°04'12	retrograde		-12445 Sep 02 j 02:57	1°♏41'53		
minimum elong	-12450 Jun 11 j 13:15	20°♏57'56	1°04'03			-12445 Sep 18 j 07:16	30°♏00'00		
	-12450 Jun 23 j 19:22	0°♏		asc. node		-12445 Oct 07 j 05:41	24°♏06'05		
	-12450 Aug 02 j 12:33	0°♏		opposition		-12445 Oct 09 j 19:23	23°♏06'48	0°06'52	
morning rise	-12450 Aug 06 j 07:14	2°♏53'59		greatest brilliancy		-12445 Oct 09 j 19:53	23°♏06'19	-1.6m	
	-12450 Sep 10 j 07:33	0°♏		min. Earth dist.		-12445 Oct 15 j 00:40	21°♏05'33	0.60994 AU	
	-12450 Oct 19 j 00:26	0°♏		direct		-12445 Nov 19 j 10:39	13°♏14'17		
	-12450 Nov 27 j 13:19	0°♏				-12444 Jan 16 j 21:28	0°♏		
desc. node	-12450 Dec 30 j 13:55	24°♏05'10				-12444 Mar 09 j 00:05	0°♏		
	-12449 Jan 07 j 22:33	0°♏				-12444 Apr 21 j 17:56	0°♏		
	-12449 Feb 21 j 13:11	0°♏				-12444 Jun 01 j 04:51	0°♏		
	-12449 Apr 13 j 22:17	0°♏				-12444 Jul 10 j 06:12	0°♏		
retrograde	-12449 Jun 21 j 15:06	21°♏38'46				-12444 Aug 18 j 03:28	0°♏		
min. Earth dist.	-12449 Jul 29 j 09:42	12°♏39'08	0.65098 AU	desc. node		-12444 Aug 21 j 01:00	2°♏13'09		
opposition	-12449 Jul 31 j 14:43	11°♏45'50	-4°52'25			-12444 Sep 26 j 19:38	0°♏		
greatest brilliancy	-12449 Jul 31 j 06:34	11°♏54'02	-1.4m	evening set		-12444 Oct 12 j 15:19	11°♏40'42		
direct	-12449 Sep 08 j 16:56	2°♏24'17				-12444 Nov 06 j 23:45	0°♏		
	-12449 Dec 01 j 00:28	0°♏							
asc. node	-12448 Jan 01 j 19:23	17°♏26'35		conjunction		-12444 Dec 07 j 15:33	21°♏29'51	-1°04'44	
	-12448 Jan 23 j 01:01	0°♏		minimum elong		-12444 Dec 07 j 13:29	21°♏26'17	1°04'35	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12444 Dec 20 j 01:18	0°♂		opposition	-12438 Apr 12 j 01:12	21°♂00'59	0°07'08
max. Earth dist.	-12443 Jan 05 j 10:32	11°♂03'51	2.57283 AU	greatest brilliancy	-12438 Apr 12 j 00:34	21°♂01'28	-2.7m
morning rise	-12443 Jan 29 j 21:06	27°♂15'27		desc. node	-12438 Apr 13 j 16:26	20°♂30'42	
	-12443 Feb 03 j 01:40	0°♂		direct	-12438 May 13 j 11:04	15°♂13'04	
	-12443 Mar 21 j 19:17	0°♂			-12438 Jul 06 j 14:16	0°♂	
	-12443 May 09 j 02:30	0°♂			-12438 Aug 31 j 06:35	0°♂	
	-12443 Jun 28 j 17:34	0°♂			-12438 Oct 19 j 19:33	0°♂	
asc. node	-12443 Aug 24 j 04:17	29°♂12'02			-12438 Dec 07 j 03:07	0°♂	
	-12443 Aug 26 j 00:19	0°♂			-12437 Jan 23 j 22:26	0°♂	
retrograde	-12443 Oct 18 j 18:50	13°♂42'36		evening set	-12437 Feb 21 j 06:16	17°♂59'54	
opposition	-12443 Nov 22 j 10:40	6°♂34'22	4°19'05		-12437 Mar 11 j 22:14	0°♂	
greatest brilliancy	-12443 Nov 23 j 13:04	6°♂11'06	-2.1m	max. Earth dist.	-12437 Mar 23 j 21:47	7°♂46'33	2.62879 AU
min. Earth dist.	-12443 Nov 30 j 07:10	3°♂48'31	0.50622 AU				
	-12443 Dec 13 j 01:22	30°♂		conjunction	-12437 Apr 10 j 15:01	19°♂24'00	-0°02'54
direct	-12443 Dec 30 j 19:54	27°♂50'07		minimum elong	-12437 Apr 10 j 15:11	19°♂24'15	0°03'38
	-12442 Jan 18 j 01:32	0°♂		behind sun begin	-12437 Apr 09 j 19:30	18°♂51'48	
	-12442 Mar 23 j 13:51	0°♂		behind sun end	-12437 Apr 11 j 10:52	19°♂56'44	
	-12442 May 07 j 03:48	0°♂		asc. node	-12437 Apr 15 j 05:27	22°♂26'37	
	-12442 Jun 17 j 05:37	0°♂			-12437 Apr 26 j 13:46	0°♂	
desc. node	-12442 Jul 09 j 05:22	16°♂22'38		morning rise	-12437 May 28 j 15:11	21°♂45'48	
	-12442 Jul 27 j 12:29	0°♂			-12437 Jun 09 j 12:35	0°♂	
	-12442 Sep 06 j 07:33	0°♂			-12437 Jul 21 j 19:04	0°♂	
	-12442 Oct 18 j 09:22	0°♂			-12437 Aug 31 j 16:59	0°♂	
	-12442 Dec 01 j 02:39	0°♂			-12437 Oct 10 j 20:40	0°♂	
evening set	-12442 Dec 02 j 04:59	0°♂44'18			-12437 Nov 20 j 02:56	0°♂	
	-12441 Jan 15 j 10:31	0°♂			-12437 Dec 31 j 22:11	0°♂	
					-12436 Feb 16 j 13:29	0°♂	
conjunction	-12441 Jan 21 j 23:20	4°♂15'14	-1°14'08	desc. node	-12436 Feb 29 j 15:03	7°♂14'00	
minimum elong	-12441 Jan 21 j 23:59	4°♂16'18	1°14'33	retrograde	-12436 Apr 28 j 20:42	25°♂46'26	
max. Earth dist.	-12441 Feb 02 j 15:20	11°♂48'42	2.64390 AU	min. Earth dist.	-12436 May 30 j 07:33	19°♂09'12	0.53756 AU
	-12441 Mar 02 j 22:33	0°♂		greatest brilliancy	-12436 Jun 05 j 07:22	16°♂53'51	-1.9m
morning rise	-12441 Mar 11 j 17:50	5°♂37'35		opposition	-12436 Jun 06 j 12:19	16°♂26'30	-4°45'11
	-12441 Apr 19 j 00:24	0°♂		direct	-12436 Jul 11 j 18:51	8°♂40'07	
	-12441 Jun 05 j 06:15	0°♂			-12436 Sep 19 j 11:19	0°♂	
asc. node	-12441 Jul 11 j 21:30	23°♂09'05			-12436 Nov 13 j 22:03	0°♂	
	-12441 Jul 22 j 19:47	0°♂			-12435 Jan 03 j 06:11	0°♂	
	-12441 Sep 10 j 00:04	0°♂			-12435 Feb 20 j 04:57	0°♂	
	-12441 Nov 05 j 17:04	0°♂		asc. node	-12435 Mar 02 j 04:33	6°♂25'06	
retrograde	-12441 Dec 25 j 14:01	12°♂37'34		evening set	-12435 Apr 02 j 09:17	26°♂54'35	
opposition	-12440 Jan 25 j 11:52	7°♂21'40	7°05'29		-12435 Apr 07 j 00:02	0°♂	
greatest brilliancy	-12440 Jan 26 j 15:10	7°♂02'38	-2.7m	max. Earth dist.	-12435 Apr 21 j 15:51	9°♂55'26	2.54515 AU
min. Earth dist.	-12440 Jan 29 j 20:46	6°♂08'42	0.39827 AU		-12435 May 20 j 14:01	0°♂	
direct	-12440 Feb 26 j 19:22	1°♂34'33					
	-12440 May 13 j 08:31	0°♂		conjunction	-12435 May 23 j 05:40	1°♂52'27	0°48'34
desc. node	-12440 May 26 j 11:29	7°♂58'38		minimum elong	-12435 May 23 j 03:41	1°♂48'57	0°48'10
	-12440 Jun 29 j 11:26	0°♂			-12435 Jul 01 j 02:56	0°♂	
	-12440 Aug 12 j 21:44	0°♂		morning rise	-12435 Jul 14 j 17:37	10°♂06'48	
	-12440 Sep 26 j 07:01	0°♂			-12435 Aug 10 j 01:31	0°♂	
	-12440 Nov 10 j 12:15	0°♂			-12435 Sep 18 j 02:10	0°♂	
	-12440 Dec 26 j 17:20	0°♂			-12435 Oct 27 j 00:39	0°♂	
evening set	-12439 Jan 12 j 16:58	10°♂54'27			-12435 Dec 05 j 20:03	0°♂	
	-12439 Feb 11 j 13:04	0°♂		desc. node	-12434 Jan 16 j 10:08	29°♂47'32	
max. Earth dist.	-12439 Feb 26 j 11:00	9°♂32'37	2.66293 AU		-12434 Jan 16 j 17:21	0°♂	
					-12434 Mar 03 j 17:34	0°♂	
conjunction	-12439 Mar 02 j 02:13	11°♂52'17	-0°48'52		-12434 May 01 j 15:36	0°♂	
minimum elong	-12439 Mar 02 j 03:46	11°♂54'45	0°49'34	retrograde	-12434 Jun 07 j 16:08	7°♂39'25	
	-12439 Mar 30 j 07:08	0°♂			-12434 Jul 11 j 22:04	30°♂	
morning rise	-12439 Apr 18 j 04:39	12°♂14'14		min. Earth dist.	-12434 Jul 13 j 21:36	29°♂13'01	0.63024 AU
	-12439 May 15 j 08:06	0°♂		opposition	-12434 Jul 17 j 14:13	27°♂44'25	-5°15'23
asc. node	-12439 May 28 j 12:20	8°♂42'50		greatest brilliancy	-12434 Jul 16 j 23:00	27°♂59'38	-1.5m
	-12439 Jun 29 j 07:30	0°♂		direct	-12434 Aug 24 j 19:44	18°♂42'33	
	-12439 Aug 12 j 06:47	0°♂			-12434 Oct 12 j 00:22	0°♂	
	-12439 Sep 24 j 15:33	0°♂			-12434 Dec 11 j 13:34	0°♂	
	-12439 Nov 07 j 07:56	0°♂		asc. node	-12433 Jan 18 j 08:19	22°♂05'43	
	-12439 Dec 23 j 22:55	0°♂			-12433 Jan 31 j 05:31	0°♂	
retrograde	-12438 Mar 08 j 19:32	27°♂53'29			-12433 Mar 18 j 21:38	0°♂	
min. Earth dist.	-12438 Apr 05 j 08:15	23°♂05'21	0.41860 AU		-12433 May 01 j 14:26	0°♂	

## Planetary Phenomena of Mars from -12900 through -12398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 47

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

evening set	-12433 May 20 j 04:54	13° $\text{H}$ 19'33		morning rise	-12428 Jan 13 j 05:28	10° $\text{L}$ 51'34	
max. Earth dist.	-12433 Jun 09 j 04:30	27° $\text{H}$ 59'24	2.42839 AU		-12428 Feb 11 j 04:20	0° $\text{M}$	
	-12433 Jun 11 j 21:22	0° $\text{Y}$			-12428 Mar 29 j 04:41	0° $\text{J}$	
					-12428 May 17 j 10:55	0° $\text{Z}$	
conjunction	-12433 Jul 15 j 20:57	25° $\text{Y}$ 44'00	1°13'14		-12428 Jul 10 j 04:38	0° $\approx$	
minimum elong	-12433 Jul 15 j 21:23	25° $\text{Y}$ 44'50	1°13'33	asc. node	-12428 Sep 09 j 21:38	24° $\approx$ 15'39	
	-12433 Jul 21 j 09:58	0° $\text{B}$		retrograde	-12428 Sep 28 j 12:05	26° $\approx$ 15'09	
	-12433 Aug 28 j 23:24	0° $\text{II}$		opposition	-12428 Nov 03 j 12:45	18° $\approx$ 27'34	2°34'32
morning rise	-12433 Sep 15 j 06:34	13° $\text{II}$ 31'28		greatest brilliancy	-12428 Nov 04 j 02:59	18° $\approx$ 14'24	-1.9m
	-12433 Oct 06 j 10:37	0° $\text{E}$		min. Earth dist.	-12428 Nov 10 j 15:00	15° $\approx$ 50'03	0.55176 AU
	-12433 Nov 14 j 16:53	0° $\text{O}$		direct	-12428 Dec 13 j 04:45	9° $\approx$ 04'05	
desc. node	-12433 Dec 04 j 03:05	14° $\text{O}$ 25'44			-12427 Feb 16 j 00:44	0° $\text{H}$	
	-12433 Dec 25 j 15:05	0° $\text{M}$			-12427 Apr 05 j 12:04	0° $\text{Y}$	
	-12432 Feb 07 j 02:31	0° $\text{L}$			-12427 May 17 j 14:01	0° $\text{B}$	
	-12432 Mar 25 j 13:03	0° $\text{M}$			-12427 Jun 26 j 12:39	0° $\text{II}$	
	-12432 May 21 j 11:26	0° $\text{J}$		desc. node	-12427 Jul 25 j 21:03	22° $\text{II}$ 17'29	
retrograde	-12432 Jul 12 j 04:57	13° $\text{J}$ 07'16			-12427 Aug 05 j 01:34	0° $\text{E}$	
opposition	-12432 Aug 20 j 22:17	3° $\text{J}$ 27'16	-3°50'35		-12427 Sep 14 j 06:35	0° $\text{O}$	
greatest brilliancy	-12432 Aug 20 j 23:15	3° $\text{J}$ 26'18	-1.4m		-12427 Oct 25 j 21:15	0° $\text{M}$	
min. Earth dist.	-12432 Aug 21 j 01:04	3° $\text{J}$ 24'28	0.66449 AU	evening set	-12427 Nov 13 j 19:46	13° $\text{M}$ 15'15	
	-12432 Aug 29 j 17:24	30° $\text{R}$ $\text{M}$			-12427 Dec 08 j 06:24	0° $\text{L}$	
direct	-12432 Sep 30 j 00:45	23° $\text{M}$ 43'13					
	-12432 Nov 03 j 12:54	0° $\text{J}$		conjunction	-12426 Jan 05 j 06:43	18° $\text{L}$ 44'38	-1°15'29
asc. node	-12432 Dec 05 j 15:00	13° $\text{J}$ 11'18		minimum elong	-12426 Jan 05 j 06:23	18° $\text{L}$ 44'05	1°15'43
	-12431 Jan 06 j 17:21	0° $\text{Z}$			-12426 Jan 22 j 09:42	0° $\text{M}$	
	-12431 Feb 25 j 06:01	0° $\approx$		max. Earth dist.	-12426 Jan 23 j 11:38	0° $\text{M}$ 42'21	2.62222 AU
	-12431 Apr 10 j 20:03	0° $\text{H}$		morning rise	-12426 Feb 24 j 09:56	21° $\text{M}$ 21'42	
	-12431 May 22 j 08:01	0° $\text{Y}$			-12426 Mar 09 j 22:00	0° $\text{J}$	
	-12431 Jun 30 j 19:39	0° $\text{B}$			-12426 Apr 26 j 07:46	0° $\text{Z}$	
evening set	-12431 Jul 17 j 19:00	13° $\text{B}$ 11'06			-12426 Jun 13 j 10:59	0° $\approx$	
	-12431 Aug 08 j 06:36	0° $\text{II}$		asc. node	-12426 Jul 28 j 17:14	27° $\approx$ 23'31	
	-12431 Sep 15 j 15:38	0° $\text{E}$			-12426 Aug 02 j 03:55	0° $\text{H}$	
					-12426 Sep 26 j 22:08	0° $\text{Y}$	
conjunction	-12431 Sep 18 j 04:29	1° $\text{E}$ 58'01	0°24'28	retrograde	-12426 Nov 26 j 02:25	16° $\text{Y}$ 57'12	
minimum elong	-12431 Sep 18 j 06:40	2° $\text{E}$ 02'15	0°25'12	opposition	-12426 Dec 28 j 10:00	11° $\text{Y}$ 01'39	6°45'04
desc. node	-12431 Oct 20 j 19:43	26° $\text{E}$ 58'20		greatest brilliancy	-12426 Dec 29 j 23:57	10° $\text{Y}$ 32'14	-2.5m
	-12431 Oct 24 j 20:03	0° $\text{O}$		min. Earth dist.	-12425 Jan 04 j 14:13	8° $\text{Y}$ 49'12	0.43380 AU
max. Earth dist.	-12431 Oct 28 j 05:17	2° $\text{O}$ 32'36	2.41195 AU	direct	-12425 Feb 01 j 08:41	3° $\text{Y}$ 59'49	
morning rise	-12431 Nov 20 j 13:07	19° $\text{O}$ 49'20			-12425 Apr 13 j 23:59	0° $\text{B}$	
	-12431 Dec 04 j 14:07	0° $\text{M}$			-12425 May 30 j 06:27	0° $\text{II}$	
	-12430 Jan 16 j 11:27	0° $\text{L}$		desc. node	-12425 Jun 13 j 02:37	9° $\text{II}$ 35'44	
	-12430 Mar 02 j 22:58	0° $\text{M}$			-12425 Jul 12 j 00:47	0° $\text{E}$	
	-12430 Apr 20 j 19:38	0° $\text{J}$			-12425 Aug 23 j 09:46	0° $\text{O}$	
	-12430 Jun 15 j 21:58	0° $\text{Z}$			-12425 Oct 05 j 13:50	0° $\text{M}$	
retrograde	-12430 Aug 17 j 15:16	17° $\text{Z}$ 41'01			-12425 Nov 19 j 00:53	0° $\text{L}$	
opposition	-12430 Sep 25 j 02:34	8° $\text{Z}$ 42'26	-1°12'57	evening set	-12425 Dec 28 j 19:19	26° $\text{L}$ 06'36	
greatest brilliancy	-12430 Sep 25 j 07:06	8° $\text{Z}$ 37'58	-1.5m		-12424 Jan 03 j 19:14	0° $\text{M}$	
min. Earth dist.	-12430 Sep 28 j 22:35	7° $\text{Z}$ 11'50	0.63698 AU				
	-12430 Oct 22 j 02:52	30° $\text{R}$ $\text{J}$		conjunction	-12424 Feb 15 j 19:17	27° $\text{M}$ 40'39	-1°01'50
asc. node	-12430 Oct 23 j 20:32	29° $\text{J}$ 42'07		minimum elong	-12424 Feb 15 j 20:46	27° $\text{M}$ 43'03	1°02'27
direct	-12430 Nov 04 j 21:35	28° $\text{J}$ 44'30		max. Earth dist.	-12424 Feb 17 j 23:11	29° $\text{M}$ 03'46	2.66196 AU
	-12430 Nov 19 j 06:26	0° $\text{Z}$			-12424 Feb 19 j 10:19	0° $\text{J}$	
	-12429 Jan 30 j 19:29	0° $\approx$		morning rise	-12424 Apr 03 j 05:58	28° $\text{J}$ 04'25	
	-12429 Mar 19 j 19:23	0° $\text{H}$			-12424 Apr 06 j 05:55	0° $\text{Z}$	
	-12429 May 01 j 11:07	0° $\text{Y}$			-12424 May 22 j 15:22	0° $\approx$	
	-12429 Jun 10 j 10:44	0° $\text{B}$		asc. node	-12424 Jun 14 j 08:49	14° $\approx$ 51'39	
	-12429 Jul 19 j 04:55	0° $\text{II}$			-12424 Jul 07 j 08:29	0° $\text{H}$	
	-12429 Aug 26 j 20:12	0° $\text{E}$			-12424 Aug 21 j 14:33	0° $\text{Y}$	
desc. node	-12429 Sep 07 j 17:26	9° $\text{E}$ 08'05			-12424 Oct 06 j 04:04	0° $\text{B}$	
evening set	-12429 Sep 20 j 17:14	19° $\text{E}$ 01'50			-12424 Nov 23 j 08:53	0° $\text{II}$	
	-12429 Oct 05 j 06:46	0° $\text{O}$		retrograde	-12423 Feb 10 j 09:13	29° $\text{II}$ 13'41	
	-12429 Nov 15 j 05:57	0° $\text{M}$		min. Earth dist.	-12423 Mar 10 j 22:20	24° $\text{II}$ 29'38	0.38969 AU
				opposition	-12423 Mar 14 j 05:51	23° $\text{II}$ 34'41	3°33'35
conjunction	-12429 Nov 18 j 08:53	2° $\text{M}$ 13'52	-0°48'14	greatest brilliancy	-12423 Mar 13 j 23:47	23° $\text{II}$ 38'52	-2.8m
minimum elong	-12429 Nov 18 j 06:18	2° $\text{M}$ 09'16	0°47'50	direct	-12423 Apr 13 j 14:37	18° $\text{II}$ 24'09	
max. Earth dist.	-12429 Dec 24 j 00:05	27° $\text{M}$ 08'56	2.53225 AU	desc. node	-12423 Apr 30 j 07:57	20° $\text{II}$ 07'52	
	-12429 Dec 28 j 04:08	0° $\text{L}$			-12423 May 30 j 00:51	0° $\text{E}$	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12423 Jul 24 j 21:17	0°♏					-12418 Jul 28 j 19:45	0°♏			
	-12423 Sep 11 j 05:31	0°♍		morning rise			-12418 Aug 20 j 02:42	17°♏13'53			
	-12423 Oct 28 j 09:54	0°♌					-12418 Sep 05 j 12:23	0°♍			
	-12423 Dec 14 j 15:58	0°♍					-12418 Oct 14 j 02:37	0°♌			
	-12422 Jan 30 j 23:30	0°♎					-12418 Nov 22 j 12:01	0°♏			
evening set	-12422 Feb 05 j 23:31	3°♎49'01		desc. node			-12418 Dec 20 j 23:14	20°♏56'10			
max. Earth dist.	-12422 Mar 13 j 21:34	26°♎49'11	2.64848 AU				-12417 Jan 02 j 15:25	0°♍			
	-12422 Mar 18 j 19:42	0°♏					-12417 Feb 15 j 16:24	0°♌			
							-12417 Apr 06 j 00:28	0°♍			
conjunction	-12422 Mar 26 j 01:36	4°♏41'45	-0°22'22	retrograde			-12417 Jun 29 j 13:48	29°♍51'26			
minimum elong	-12422 Mar 26 j 02:31	4°♏43'14	0°23'06	min. Earth dist.			-12417 Aug 07 j 03:02	20°♍35'07	0.65837 AU		
asc. node	-12422 May 01 j 23:56	28°♏57'17		opposition			-12417 Aug 08 j 11:55	20°♍02'00	-4°33'06		
	-12422 May 03 j 13:38	0°♎		greatest brilliancy			-12417 Aug 08 j 07:25	20°♍06'32	-1.4m		
morning rise	-12422 May 12 j 08:33	5°♎52'22		direct			-12417 Sep 16 j 23:28	10°♍31'22			
	-12422 Jun 16 j 20:11	0°♎					-12417 Nov 22 j 20:45	0°♎			
	-12422 Jul 29 j 15:11	0°♎		asc. node			-12417 Dec 23 j 04:25	15°♎37'05			
	-12422 Sep 09 j 05:49	0°♏					-12416 Jan 17 j 07:41	0°♏			
	-12422 Oct 20 j 06:15	0°♍					-12416 Mar 05 j 08:06	0°♎			
	-12422 Nov 30 j 17:04	0°♌					-12416 Apr 18 j 11:15	0°♎			
	-12421 Jan 13 j 19:43	0°♏					-12416 May 29 j 20:12	0°♎			
	-12421 Mar 11 j 22:32	0°♍		evening set			-12416 Jun 23 j 02:31	18°♎18'47			
desc. node	-12421 Mar 18 j 11:06	2°♍08'03					-12416 Jul 08 j 07:26	0°♏			
retrograde	-12421 Apr 11 j 16:01	5°♍57'55					-12416 Aug 15 j 18:25	0°♍			
min. Earth dist.	-12421 May 11 j 02:49	0°♍10'06	0.48945 AU								
	-12421 May 11 j 14:24	30°♎00		conjunction			-12416 Aug 23 j 00:47	5°♍41'48	0°52'24		
greatest brilliancy	-12421 May 18 j 00:19	27°♏42'41	-2.2m	minimum elong			-12416 Aug 23 j 04:11	5°♍48'28	0°53'03		
opposition	-12421 May 19 j 02:13	27°♏19'32	-3°35'22	max. Earth dist.			-12416 Aug 29 j 06:05	10°♍34'21	2.38354 AU		
direct	-12421 Jun 21 j 20:17	20°♏15'48					-12416 Sep 23 j 03:13	0°♌			
	-12421 Aug 04 j 00:32	0°♍		morning rise			-12416 Oct 26 j 11:38	25°♌36'44			
	-12421 Oct 03 j 10:41	0°♌					-12416 Nov 01 j 07:01	0°♏			
	-12421 Nov 23 j 19:06	0°♍		desc. node			-12416 Nov 06 j 15:53	4°♏02'01			
	-12420 Jan 11 j 20:15	0°♎					-12416 Dec 12 j 00:50	0°♍			
	-12420 Feb 28 j 07:38	0°♏					-12415 Jan 24 j 00:43	0°♌			
evening set	-12420 Mar 16 j 22:46	11°♏25'36					-12415 Mar 10 j 23:06	0°♍			
asc. node	-12420 Mar 18 j 19:55	12°♏39'24					-12415 Apr 30 j 10:42	0°♎			
max. Earth dist.	-12420 Apr 09 j 04:37	26°♏46'38	2.58329 AU				-12415 Jul 06 j 10:33	0°♏			
	-12420 Apr 14 j 00:11	0°♎		retrograde			-12415 Aug 03 j 02:00	4°♏14'09			
							-12415 Aug 28 j 12:53	30°♎00			
conjunction	-12420 May 05 j 11:33	14°♎34'23	0°29'24	opposition			-12415 Sep 11 j 03:57	24°♎56'32	-2°22'11		
minimum elong	-12420 May 05 j 10:16	14°♎32'12	0°28'49	greatest brilliancy			-12415 Sep 11 j 09:22	24°♎51'08	-1.4m		
	-12420 May 27 j 16:39	0°♎		min. Earth dist.			-12415 Sep 13 j 13:36	23°♎59'05	0.65496 AU		
morning rise	-12420 Jun 24 j 15:39	19°♎56'25		direct			-12415 Oct 21 j 20:15	15°♎00'07			
	-12420 Jul 08 j 11:11	0°♎		asc. node			-12415 Nov 09 j 10:56	17°♎02'06			
	-12420 Aug 17 j 17:11	0°♏					-12415 Dec 17 j 01:43	0°♏			
	-12420 Sep 26 j 01:56	0°♍					-12414 Feb 10 j 11:50	0°♎			
	-12420 Nov 04 j 09:13	0°♌					-12414 Mar 28 j 14:09	0°♎			
	-12420 Dec 14 j 15:57	0°♏					-12414 May 09 j 15:09	0°♎			
	-12419 Jan 26 j 11:20	0°♍					-12414 Jun 18 j 08:22	0°♏			
desc. node	-12419 Feb 02 j 07:14	4°♍31'17					-12414 Jul 26 j 22:27	0°♍			
	-12419 Mar 16 j 10:34	0°♌		evening set			-12414 Aug 26 j 23:35	24°♍13'45			
retrograde	-12419 May 24 j 01:08	22°♌39'40					-12414 Sep 03 j 10:10	0°♌			
min. Earth dist.	-12419 Jun 27 j 12:22	14°♌52'00	0.60006 AU	desc. node			-12414 Sep 24 j 11:22	16°♌11'23			
opposition	-12419 Jul 02 j 16:09	12°♌49'55	-5°22'15				-12414 Oct 12 j 17:05	0°♏			
greatest brilliancy	-12419 Jul 01 j 17:56	13°♌11'52	-1.6m								
direct	-12419 Aug 08 j 20:51	4°♌12'53		conjunction			-12414 Oct 27 j 01:46	10°♏42'25	-0°23'53		
	-12419 Oct 27 j 08:36	0°♍		minimum elong			-12414 Oct 26 j 23:59	10°♏39'07	0°23'16		
	-12419 Dec 20 j 17:13	0°♎					-12414 Nov 22 j 12:46	0°♍			
asc. node	-12418 Feb 03 j 22:20	27°♎27'17		max. Earth dist.			-12414 Dec 07 j 17:18	10°♍48'41	2.48591 AU		
	-12418 Feb 07 j 23:34	0°♏		morning rise			-12414 Dec 24 j 23:44	22°♍52'10			
	-12418 Mar 26 j 05:04	0°♎					-12413 Jan 04 j 08:51	0°♌			
evening set	-12418 Apr 30 j 10:36	24°♎06'08					-12413 Feb 18 j 10:35	0°♍			
	-12418 May 08 j 19:43	0°♎					-12413 Apr 06 j 21:49	0°♎			
max. Earth dist.	-12418 May 16 j 18:25	5°♎38'55	2.47519 AU				-12413 May 27 j 16:30	0°♏			
	-12418 Jun 19 j 04:11	0°♎					-12413 Jul 27 j 07:29	0°♎			
				retrograde			-12413 Sep 11 j 13:33	10°♎31'43			
conjunction	-12418 Jun 23 j 10:13	3°♎09'53	1°10'13	asc. node			-12413 Sep 27 j 14:35	8°♎51'41			
minimum elong	-12418 Jun 23 j 08:45	3°♎07'09	1°10'14	opposition			-12413 Oct 18 j 17:18	2°♎11'48	0°57'41		



Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

greatest brilliancy	-12413 Oct 18 j 21:45	2°≈07'33	-1.7m	max. Earth dist.	-12407 Mar 04 j 02:49	16°≈06'58	2.66009 AU
	-12413 Oct 24 j 11:05	30°≈03'					
min. Earth dist.	-12413 Oct 24 j 15:59	29°≈05'52	0.59137 AU	conjunction	-12407 Mar 10 j 20:10	20°≈25'53	-0°39'52
direct	-12413 Nov 28 j 03:00	22°≈03'25'53		minimum elong	-12407 Mar 10 j 21:34	20°≈28'09	0°40'36
	-12412 Jan 03 j 21:42	0°≈			-12407 Mar 25 j 16:44	0°≈	
	-12412 Mar 02 j 00:57	0°≈		morning rise	-12407 Apr 26 j 21:19	20°≈03'57'00	
	-12412 Apr 15 j 21:33	0°≈			-12407 May 10 j 14:58	0°≈	
	-12412 May 26 j 19:03	0°≈		asc. node	-12407 May 18 j 18:21	5°≈23'54	
	-12412 Jul 05 j 02:09	0°≈			-12407 Jun 24 j 07:55	0°≈	
desc. node	-12412 Aug 11 j 11:57	28°≈44'14			-12407 Aug 06 j 19:34	0°≈	
	-12412 Aug 13 j 03:39	0°≈			-12407 Sep 18 j 09:59	0°≈	
	-12412 Sep 21 j 23:07	0°≈			-12407 Oct 30 j 19:51	0°≈	
evening set	-12412 Oct 24 j 20:49	24°≈01'02			-12407 Dec 13 j 15:21	0°≈	
	-12412 Nov 02 j 05:46	0°≈			-12406 Feb 02 j 19:49	0°≈	
	-12412 Dec 15 j 09:01	0°≈		retrograde	-12406 Mar 21 j 23:00	12°≈58'14	
				desc. node	-12406 Apr 04 j 03:47	11°≈44'33	
conjunction	-12412 Dec 18 j 11:35	2°≈06'38	-1°10'41	min. Earth dist.	-12406 Apr 18 j 21:20	7°≈53'38	0.44184 AU
minimum elong	-12412 Dec 18 j 10:07	2°≈04'09	1°10'40	opposition	-12406 Apr 26 j 13:07	5°≈22'48	-1°31'26
max. Earth dist.	-12411 Jan 12 j 08:33	18°≈47'06	2.59268 AU	greatest brilliancy	-12406 Apr 26 j 01:22	5°≈32'28	-2.5m
	-12411 Jan 29 j 09:21	0°≈			-12406 May 17 j 07:02	30°≈07'40	
morning rise	-12411 Feb 08 j 10:53	6°≈33'23		direct	-12406 May 28 j 16:37	29°≈07'40	
	-12411 Mar 16 j 23:52	0°≈			-12406 Jun 09 j 11:57	0°≈	
	-12411 May 03 j 21:23	0°≈			-12406 Aug 23 j 01:02	0°≈	
	-12411 Jun 22 j 08:56	0°≈			-12406 Oct 13 j 19:59	0°≈	
asc. node	-12411 Aug 14 j 11:48	29°≈42'07			-12406 Dec 01 j 23:35	0°≈	
	-12411 Aug 15 j 01:46	0°≈			-12405 Jan 19 j 03:47	0°≈	
retrograde	-12411 Oct 31 j 13:35	25°≈05'25		evening set	-12405 Mar 02 j 04:01	26°≈41'21	
opposition	-12411 Dec 04 j 09:51	18°≈21'31	5°17'52		-12405 Mar 07 j 07:21	0°≈	
greatest brilliancy	-12411 Dec 05 j 18:33	17°≈53'41	-2.2m	max. Earth dist.	-12405 Mar 30 j 02:51	14°≈50'52	2.61469 AU
min. Earth dist.	-12411 Dec 12 j 08:37	15°≈39'55	0.48010 AU	asc. node	-12405 Apr 05 j 12:32	19°≈03'49	
direct	-12410 Jan 10 j 18:23	10°≈07'39					
	-12410 Mar 13 j 00:21	0°≈		conjunction	-12405 Apr 19 j 20:00	28°≈34'12	0°08'57
	-12410 Apr 29 j 19:36	0°≈		minimum elong	-12405 Apr 19 j 19:38	28°≈33'36	0°08'16
	-12410 Jun 10 j 23:39	0°≈		behind sun begin	-12405 Apr 19 j 02:00	28°≈04'10	
desc. node	-12410 Jun 29 j 18:23	13°≈44'54		behind sun end	-12405 Apr 20 j 13:17	29°≈03'04	
	-12410 Jul 21 j 21:05	0°≈			-12405 Apr 21 j 23:18	0°≈	
	-12410 Sep 01 j 01:56	0°≈			-12405 Jun 04 j 20:11	0°≈	
	-12410 Oct 13 j 10:30	0°≈		morning rise	-12405 Jun 07 j 10:14	1°≈48'31	
	-12410 Nov 26 j 08:27	0°≈			-12405 Jul 16 j 22:27	0°≈	
evening set	-12410 Dec 12 j 04:56	10°≈34'22			-12405 Aug 26 j 14:26	0°≈	
	-12409 Jan 10 j 18:52	0°≈			-12405 Oct 05 j 10:16	0°≈	
					-12405 Nov 14 j 06:14	0°≈	
conjunction	-12409 Jan 31 j 05:20	13°≈14'34	-1°10'54		-12405 Dec 25 j 07:32	0°≈	
minimum elong	-12409 Jan 31 j 06:24	13°≈16'17	1°11'25		-12404 Feb 07 j 21:25	0°≈	
max. Earth dist.	-12409 Feb 08 j 11:14	18°≈33'15	2.65266 AU	desc. node	-12404 Feb 20 j 02:25	7°≈26'24	
	-12409 Feb 26 j 07:15	0°≈			-12404 Apr 06 j 00:22	0°≈	
morning rise	-12409 Mar 20 j 09:37	14°≈07'42		retrograde	-12404 May 08 j 11:01	6°≈20'18	
	-12409 Apr 14 j 06:14	0°≈			-12404 Jun 08 j 01:48	30°≈07'18	
	-12409 May 31 j 03:24	0°≈		min. Earth dist.	-12404 Jun 10 j 00:11	29°≈16'34	0.56175 AU
asc. node	-12409 Jul 02 j 03:57	20°≈33'05		greatest brilliancy	-12404 Jun 15 j 09:18	27°≈12'27	-1.8m
	-12409 Jul 16 j 21:37	0°≈		opposition	-12404 Jun 16 j 12:55	26°≈45'48	-5°07'18
	-12409 Sep 02 j 05:11	0°≈		direct	-12404 Jul 22 j 13:09	18°≈39'20	
	-12409 Oct 22 j 10:32	0°≈			-12404 Sep 08 j 07:31	0°≈	
retrograde	-12408 Jan 12 j 00:14	29°≈09'53			-12404 Nov 07 j 14:15	0°≈	
opposition	-12408 Feb 11 j 19:53	24°≈00'46	6°23'20		-12404 Dec 29 j 01:01	0°≈	
greatest brilliancy	-12408 Feb 12 j 09:36	23°≈51'29	-2.8m		-12403 Feb 15 j 09:45	0°≈	
min. Earth dist.	-12408 Feb 13 j 14:27	23°≈31'58	0.38758 AU	asc. node	-12403 Feb 20 j 12:47	3°≈16'23	
direct	-12408 Mar 13 j 23:22	18°≈41'43			-12403 Apr 02 j 08:23	0°≈	
	-12408 Apr 27 j 17:35	0°≈		evening set	-12403 Apr 12 j 06:26	6°≈41'12	
desc. node	-12408 May 17 j 00:43	9°≈33'17		max. Earth dist.	-12403 Apr 29 j 23:16	18°≈49'14	2.52127 AU
	-12408 Jun 20 j 20:59	0°≈			-12403 May 15 j 22:53	0°≈	
	-12408 Aug 06 j 08:25	0°≈					
	-12408 Sep 20 j 16:58	0°≈		conjunction	-12403 Jun 03 j 02:01	12°≈56'23	0°58'08
	-12408 Nov 05 j 11:01	0°≈		minimum elong	-12403 Jun 02 j 23:55	12°≈52'37	0°57'53
	-12408 Dec 21 j 23:02	0°≈			-12403 Jun 26 j 10:26	0°≈	
evening set	-12407 Jan 21 j 15:42	19°≈37'04		morning rise	-12403 Jul 27 j 05:21	23°≈05'51	
	-12407 Feb 06 j 22:05	0°≈			-12403 Aug 05 j 06:43	0°≈	

Attention, astronomical year style is used: The year -12898 in astronomical counting style is the year 12899 BCE in historical counting style.

	-12403 Sep 13 j 04:19	0°♄	
	-12403 Oct 21 j 23:22	0°♅	
	-12403 Nov 30 j 14:07	0°♆	
desc. node	-12402 Jan 06 j 20:22	27°♁01'00	
	-12402 Jan 11 j 02:23	0°♁	
	-12402 Feb 25 j 02:43	0°♂	
	-12402 Apr 19 j 10:22	0°♂	
retrograde	-12402 Jun 15 j 19:14	16°♂11'54	
min. Earth dist.	-12402 Jul 22 j 21:27	7°♂26'21	0.64282 AU
opposition	-12402 Jul 25 j 18:08	6°♂17'22	-5°03'52
greatest brilliancy	-12402 Jul 25 j 06:55	6°♂28'38	-1.4m
	-12402 Aug 12 j 10:09	30°♁	
direct	-12402 Sep 02 j 11:01	27°♂04'03	
	-12402 Sep 25 j 06:10	0°♂	
	-12402 Dec 04 j 23:25	0°♂	
asc. node	-12401 Jan 08 j 18:15	19°♂40'19	
	-12401 Jan 25 j 22:36	0°♂	
	-12401 Mar 14 j 00:58	0°♂	
	-12401 Apr 26 j 21:29	0°♂	
evening set	-12401 Jun 01 j 06:51	25°♂35'53	
	-12401 Jun 07 j 05:13	0°♂	
max. Earth dist.	-12401 Jun 27 j 14:11	15°♂20'17	2.40475 AU
	-12401 Jul 16 j 17:19	0°♂	
conjunction	-12401 Jul 29 j 14:11	9°♂58'28	1°09'30
minimum elong	-12401 Jul 29 j 16:01	10°♂02'03	1°09'57
	-12401 Aug 24 j 05:32	0°♄	
morning rise	-12401 Sep 30 j 16:42	29°♄16'01	
	-12401 Oct 01 j 15:22	0°♅	
	-12401 Nov 09 j 20:02	0°♆	
desc. node	-12401 Nov 24 j 11:13	10°♁55'36	
	-12401 Dec 20 j 15:23	0°♁	
	-12400 Feb 01 j 20:41	0°♂	
	-12400 Mar 19 j 13:12	0°♂	
	-12400 May 12 j 00:42	0°♂	
retrograde	-12400 Jul 20 j 03:04	21°♂04'50	
opposition	-12400 Aug 28 j 15:40	11°♂31'52	-3°21'01
greatest brilliancy	-12400 Aug 28 j 18:52	11°♂28'40	-1.4m
min. Earth dist.	-12400 Aug 29 j 14:05	11°♂09'23	0.66384 AU
direct	-12400 Oct 08 j 00:06	1°♂42'12	
asc. node	-12400 Nov 26 j 00:53	13°♂24'28	
	-12400 Dec 30 j 17:22	0°♂	
	-12399 Feb 19 j 18:06	0°♂	
	-12399 Apr 05 j 19:35	0°♂	
	-12399 May 17 j 12:01	0°♂	
	-12399 Jun 26 j 01:35	0°♂	
evening set	-12399 Aug 01 j 05:15	28°♂10'22	
	-12399 Aug 03 j 13:11	0°♄	
	-12399 Sep 10 j 22:24	0°♅	
conjunction	-12399 Oct 02 j 16:45	16°♅46'52	0°06'31
minimum elong	-12399 Oct 02 j 17:23	16°♅48'06	0°07'14
behind sun begin	-12399 Oct 01 j 17:18	16°♅02'01	
behind sun end	-12399 Oct 03 j 17:29	17°♅34'08	
desc. node	-12399 Oct 11 j 06:10	23°♅18'13	
	-12399 Oct 20 j 02:43	0°♆	
max. Earth dist.	-12399 Nov 15 j 21:50	19°♁53'45	2.43704 AU
	-12399 Nov 29 j 20:02	0°♁	
morning rise	-12399 Dec 03 j 17:33	2°♁47'49	