





























































































































## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 1

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8899 Jul 14 j 04:42	16°  12'02	1°12'20			-8894 Oct 01 j 24:00	0° 	
minimum elong	-8899 Jul 14 j 04:19	16°  11'22	1°12'42	retrograde		-8894 Oct 07 j 06:32	0°  10'18	
	-8899 Aug 02 j 03:47	0° 				-8894 Oct 12 j 10:53	30° 	
morning rise	-8899 Sep 05 j 19:40	25°  55'04		opposition		-8894 Nov 14 j 11:02	21°  23'44	2°30'23
	-8899 Sep 11 j 04:31	0° 		greatest brilliancy		-8894 Nov 14 j 19:18	21°  15'41	-1.5m
	-8899 Oct 20 j 03:54	0° 		min. Earth dist.		-8894 Nov 19 j 01:04	19°  36'37	0.62726 AU
	-8899 Nov 27 j 21:01	0° 		direct		-8894 Dec 25 j 09:42	11°  26'17	
desc. node	-8899 Dec 24 j 14:09	20°  27'45				-8893 Feb 26 j 03:58	0° 	
	-8898 Jan 06 j 05:27	0° 				-8893 Apr 18 j 23:22	0° 	
	-8898 Feb 16 j 06:03	0° 				-8893 Jun 01 j 19:09	0° 	
	-8898 Apr 01 j 09:33	0° 				-8893 Jul 12 j 06:00	0° 	
	-8898 May 22 j 09:58	0° 		desc. node		-8893 Aug 16 j 01:16	26°  48'49	
retrograde	-8898 Jul 28 j 05:00	20°  57'50				-8893 Aug 20 j 03:37	0° 	
min. Earth dist.	-8898 Sep 03 j 08:41	12°  10'44	0.64403 AU			-8893 Sep 27 j 17:39	0° 	
opposition	-8898 Sep 06 j 05:11	11°  30'55	-3°21'39			-8893 Nov 05 j 23:56	0° 	
greatest brilliancy	-8898 Sep 05 j 22:06	11°  30'02	-1.5m	evening set		-8893 Nov 15 j 08:39	7°  00'41	
direct	-8898 Oct 15 j 02:23	1°  34'31				-8893 Dec 16 j 16:54	0° 	
asc. node	-8898 Dec 07 j 07:02	15°  30'40						
	-8897 Jan 08 j 00:09	0° 		conjunction		-8892 Jan 12 j 14:12	19°  05'32	-1°12'07
	-8897 Mar 02 j 07:25	0° 		minimum elong		-8892 Jan 12 j 13:48	19°  04'50	1°12'30
	-8897 Apr 19 j 01:46	0° 				-8892 Jan 28 j 07:46	0° 	
	-8897 Jun 02 j 08:49	0° 		max. Earth dist.		-8892 Feb 13 j 23:23	11°  20'28	2.55645 AU
evening set	-8897 Jul 12 j 07:00	28°  44'44		morning rise		-8892 Mar 07 j 06:11	26°  13'22	
	-8897 Jul 13 j 23:42	0° 				-8892 Mar 12 j 23:47	0° 	
max. Earth dist.	-8897 Aug 06 j 11:26	17°  37'10	2.40540 AU			-8892 Apr 28 j 13:17	0° 	
	-8897 Aug 22 j 15:57	0° 				-8892 Jun 15 j 22:45	0° 	
				asc. node		-8892 Jul 29 j 12:32	25°  14'21	
conjunction	-8897 Sep 08 j 02:49	12°  34'57	0°45'13			-8892 Aug 06 j 03:11	0° 	
minimum elong	-8897 Sep 08 j 05:44	12°  34'38	0°45'44			-8892 Oct 06 j 02:34	0° 	
	-8897 Sep 30 j 05:24	0° 		retrograde		-8892 Nov 20 j 08:05	10°  06'46	
	-8897 Nov 07 j 13:03	0° 		opposition		-8892 Dec 25 j 20:04	2°  39'21	5°27'01
morning rise	-8897 Nov 11 j 03:14	2°  47'48		greatest brilliancy		-8892 Dec 27 j 05:09	2°  09'33	-1.9m
desc. node	-8897 Nov 11 j 07:26	2°  55'57				-8891 Jan 02 j 05:19	30° 	
	-8897 Dec 16 j 12:02	0° 		min. Earth dist.		-8891 Jan 02 j 15:03	29°  51'25	0.53067 AU
	-8896 Jan 25 j 22:23	0° 		direct		-8891 Feb 03 j 00:43	23°  34'16	
	-8896 Mar 08 j 14:58	0° 				-8891 Mar 07 j 20:38	0° 	
	-8896 Apr 23 j 13:44	0° 				-8891 May 04 j 06:27	0° 	
	-8896 Jun 14 j 10:01	0° 				-8891 Jun 17 j 01:58	0° 	
retrograde	-8896 Aug 31 j 06:14	25°  32'54		desc. node		-8891 Jul 03 j 03:33	11°  34'50	
opposition	-8896 Oct 09 j 21:08	15°  35'16	-0°34'00			-8891 Jul 27 j 14:55	0° 	
greatest brilliancy	-8896 Oct 09 j 21:49	15°  35'35	-1.4m			-8891 Sep 05 j 08:09	0° 	
min. Earth dist.	-8896 Oct 10 j 18:28	15°  37'55	0.66639 AU			-8891 Oct 15 j 12:55	0° 	
asc. node	-8896 Oct 24 j 12:01	10°  32'39				-8891 Nov 26 j 01:10	0° 	
direct	-8896 Nov 19 j 11:15	6°  07'37		evening set		-8890 Jan 06 j 21:08	29°  02'10	
	-8895 Feb 02 j 23:43	0° 				-8890 Jan 08 j 07:11	0° 	
	-8895 Mar 27 j 13:09	0° 				-8890 Feb 22 j 07:29	0° 	
	-8895 May 12 j 05:58	0° 						
	-8895 Jun 23 j 06:38	0° 		conjunction		-8890 Feb 27 j 14:51	3°  28'18	-0°55'30
	-8895 Aug 01 j 23:58	0° 		minimum elong		-8890 Feb 27 j 16:30	3°  31'00	0°56'04
	-8895 Sep 09 j 11:52	0° 		max. Earth dist.		-8890 Mar 13 j 19:32	12°  34'04	2.63785 AU
evening set	-8895 Sep 10 j 21:25	1°  05'51				-8890 Apr 09 j 16:46	0° 	
desc. node	-8895 Sep 28 j 02:12	14°  03'24		morning rise		-8890 Apr 17 j 15:19	5°  04'21	
	-8895 Oct 17 j 18:06	0° 				-8890 May 26 j 21:29	0° 	
				asc. node		-8890 Jun 16 j 06:09	12°  11'15	
conjunction	-8895 Nov 13 j 14:05	20°  45'57	-0°33'45			-8890 Jul 13 j 12:37	0° 	
minimum elong	-8895 Nov 13 j 11:20	20°  40'42	0°33'33			-8890 Aug 30 j 20:47	0° 	
	-8895 Nov 25 j 16:39	0° 				-8890 Oct 20 j 17:00	0° 	
max. Earth dist.	-8895 Dec 29 j 20:14	25°  27'02	2.43492 AU			-8890 Dec 24 j 12:41	0° 	
	-8894 Jan 05 j 02:07	0° 		retrograde		-8889 Jan 22 j 23:38	4°  51'10	
morning rise	-8894 Jan 15 j 23:02	7°  50'27				-8889 Feb 21 j 05:51	30° 	
	-8894 Feb 16 j 12:07	0° 		opposition		-8889 Feb 23 j 12:16	29°  20'37	5°35'56
	-8894 Apr 02 j 07:54	0° 		greatest brilliancy		-8889 Feb 24 j 20:56	28°  56'46	-2.7m
	-8894 May 19 j 23:57	0° 		min. Earth dist.		-8889 Mar 01 j 16:36	27°  33'08	0.41006 AU
	-8894 Jul 11 j 07:28	0° 		direct		-8889 Mar 28 j 22:14	23°  01'46	
asc. node	-8894 Sep 11 j 14:43	26°  11'48				-8889 May 01 j 14:41	0°	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 2

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

desc. node	-8889 May 21 j 07:11	8° $\mathfrak{D}$ 53'22		minimum elong	-8884 Jun 25 j 23:02	28° $\Upsilon$ 15'19	1°07'09
	-8889 Jun 26 j 10:52	0° $\mathcal{O}$			-8884 Jun 28 j 11:03	0° $\mathcal{B}$	
	-8889 Aug 10 j 06:18	0° $\mathfrak{M}$			-8884 Aug 09 j 09:55	0° $\mathbb{I}$	
	-8889 Sep 22 j 10:29	0° $\mathfrak{L}$		morning rise	-8884 Aug 15 j 14:54	4° $\mathbb{I}$ 33'10	
	-8889 Nov 04 j 23:38	0° $\mathfrak{M}$			-8884 Sep 18 j 17:01	0° $\mathfrak{D}$	
	-8889 Dec 19 j 15:40	0° $\mathcal{Z}$			-8884 Oct 27 j 23:27	0° $\mathcal{O}$	
	-8888 Feb 03 j 13:32	0° $\mathcal{Z}$			-8884 Dec 05 j 23:44	0° $\mathfrak{M}$	
evening set	-8888 Feb 19 j 10:23	10° $\mathcal{Z}$ 13'28		desc. node	-8883 Jan 10 j 09:24	26° $\mathfrak{M}$ 48'39	
	-8888 Mar 21 j 07:36	0° $\approx$			-8883 Jan 14 j 16:12	0° $\mathfrak{L}$	
					-8883 Feb 25 j 06:16	0° $\mathfrak{M}$	
conjunction	-8888 Apr 07 j 19:47	11° $\approx$ 10'58	-0°14'25		-8883 Apr 11 j 21:35	0° $\mathcal{Z}$	
minimum elong	-8888 Apr 07 j 20:21	11° $\approx$ 11'53	0°14'53		-8883 Jun 10 j 06:06	0° $\mathcal{Z}$	
behind sun begin	-8888 Apr 07 j 13:46	11° $\approx$ 01'23		retrograde	-8883 Jul 14 j 01:48	6° $\mathcal{Z}$ 37'12	
behind sun end	-8888 Apr 08 j 02:56	11° $\approx$ 22'23			-8883 Aug 14 j 12:36	30° $\mathcal{R}$ $\mathcal{Z}$	
max. Earth dist.	-8888 Apr 06 j 12:48	10° $\approx$ 21'30	2.66690 AU	min. Earth dist.	-8883 Aug 18 j 13:46	28° $\mathcal{Z}$ 25'18	0.61855 AU
asc. node	-8888 May 02 j 23:00	27° $\approx$ 15'45		opposition	-8883 Aug 22 j 21:28	26° $\mathcal{Z}$ 41'55	-4°18'15
	-8888 May 07 j 05:24	0° $\mathcal{H}$		greatest brilliancy	-8883 Aug 22 j 07:18	26° $\mathcal{Z}$ 56'02	-1.6m
morning rise	-8888 May 24 j 08:06	11° $\mathcal{H}$ 00'28		direct	-8883 Sep 29 j 18:45	17° $\mathcal{Z}$ 48'42	
	-8888 Jun 22 j 14:54	0° $\Upsilon$			-8883 Nov 19 j 06:03	0° $\mathcal{Z}$	
	-8888 Aug 07 j 03:25	0° $\mathcal{B}$		asc. node	-8883 Dec 23 j 20:24	16° $\mathcal{Z}$ 11'57	
	-8888 Sep 20 j 20:28	0° $\mathbb{I}$			-8882 Jan 18 j 11:56	0° $\approx$	
	-8888 Nov 04 j 04:15	0° $\mathfrak{D}$			-8882 Mar 10 j 10:44	0° $\mathcal{H}$	
	-8888 Dec 19 j 03:51	0° $\mathcal{O}$			-8882 Apr 26 j 12:28	0° $\Upsilon$	
	-8887 Feb 06 j 10:15	0° $\mathfrak{M}$			-8882 Jun 09 j 15:06	0° $\mathcal{B}$	
desc. node	-8887 Apr 07 j 12:27	20° $\mathfrak{M}$ 15'16		evening set	-8882 Jun 21 j 23:10	8° $\mathcal{B}$ 43'09	
retrograde	-8887 Apr 09 j 09:26	20° $\mathfrak{M}$ 16'42		max. Earth dist.	-8882 Jul 08 j 06:12	20° $\mathcal{B}$ 27'20	2.45087 AU
min. Earth dist.	-8887 May 06 j 11:47	15° $\mathfrak{M}$ 44'14	0.39920 AU		-8882 Jul 21 j 06:35	0° $\mathbb{I}$	
opposition	-8887 May 12 j 06:55	14° $\mathfrak{M}$ 02'52	-2°35'08				
greatest brilliancy	-8887 May 11 j 15:46	14° $\mathfrak{M}$ 13'58	-2.8m	conjunction	-8882 Aug 15 j 13:28	18° $\mathbb{I}$ 56'27	1°04'06
direct	-8887 Jun 11 j 20:20	8° $\mathfrak{M}$ 38'16		minimum elong	-8882 Aug 15 j 15:33	19° $\mathbb{I}$ 00'24	1°04'38
	-8887 Aug 17 j 19:51	0° $\mathfrak{L}$			-8882 Aug 30 j 01:15	0° $\mathfrak{D}$	
	-8887 Oct 09 j 08:14	0° $\mathfrak{M}$			-8882 Oct 07 j 17:31	0° $\mathcal{O}$	
	-8887 Nov 26 j 22:59	0° $\mathcal{Z}$		morning rise	-8882 Oct 14 j 14:34	5° $\mathcal{O}$ 22'25	
	-8886 Jan 13 j 22:31	0° $\mathcal{Z}$			-8882 Nov 15 j 03:40	0° $\mathfrak{M}$	
	-8886 Mar 02 j 17:24	0° $\approx$		desc. node	-8882 Nov 28 j 03:21	10° $\mathfrak{M}$ 04'02	
asc. node	-8886 Mar 20 j 17:56	11° $\approx$ 23'28			-8882 Dec 24 j 04:41	0° $\mathfrak{L}$	
evening set	-8886 Mar 29 j 20:12	17° $\approx$ 09'59			-8881 Feb 02 j 17:57	0° $\mathfrak{M}$	
	-8886 Apr 18 j 22:01	0° $\mathcal{H}$			-8881 Mar 17 j 18:16	0° $\mathcal{Z}$	
max. Earth dist.	-8886 May 01 j 02:44	7° $\mathcal{H}$ 51'49	2.64206 AU		-8881 May 03 j 18:10	0° $\mathcal{Z}$	
					-8881 Jun 29 j 14:16	0° $\approx$	
conjunction	-8886 May 16 j 10:03	17° $\mathcal{H}$ 49'13	0°31'58	retrograde	-8881 Aug 18 j 16:15	12° $\approx$ 30'53	
minimum elong	-8886 May 16 j 08:55	17° $\mathcal{H}$ 47'21	0°31'47	opposition	-8881 Sep 27 j 13:58	2° $\approx$ 45'29	-1°41'46
	-8886 Jun 03 j 22:04	0° $\Upsilon$		min. Earth dist.	-8881 Sep 27 j 00:24	2° $\approx$ 59'08	0.66492 AU
morning rise	-8886 Jul 02 j 03:21	18° $\Upsilon$ 55'50		greatest brilliancy	-8881 Sep 27 j 13:39	2° $\approx$ 45'48	-1.4m
	-8886 Jul 18 j 07:55	0° $\mathcal{B}$			-8881 Oct 04 j 13:24	30° $\mathcal{R}$ $\mathcal{Z}$	
	-8886 Aug 30 j 02:53	0° $\mathbb{I}$		direct	-8881 Nov 06 j 15:32	23° $\mathcal{Z}$ 04'52	
	-8886 Oct 10 j 13:24	0° $\mathfrak{D}$		asc. node	-8881 Nov 11 j 02:07	23° $\mathcal{Z}$ 12'09	
	-8886 Nov 20 j 03:59	0° $\mathcal{O}$			-8881 Dec 13 j 06:15	0° $\approx$	
	-8886 Dec 30 j 17:50	0° $\mathfrak{M}$			-8880 Feb 15 j 04:34	0° $\mathcal{H}$	
	-8885 Feb 10 j 17:40	0° $\mathfrak{L}$			-8880 Apr 05 j 02:09	0° $\Upsilon$	
desc. node	-8885 Feb 23 j 13:38	8° $\mathfrak{L}$ 41'57			-8880 May 20 j 01:29	0° $\mathcal{B}$	
	-8885 Mar 29 j 20:05	0° $\mathfrak{M}$			-8880 Jun 30 j 20:54	0° $\mathbb{I}$	
retrograde	-8885 Jun 04 j 01:42	22° $\mathfrak{M}$ 46'57			-8880 Aug 09 j 12:56	0° $\mathfrak{D}$	
min. Earth dist.	-8885 Jul 04 j 11:47	16° $\mathfrak{M}$ 31'17	0.51596 AU	evening set	-8880 Aug 16 j 08:44	5° $\mathfrak{D}$ 16'27	
greatest brilliancy	-8885 Jul 10 j 15:35	14° $\mathfrak{M}$ 14'12	-2.0m		-8880 Sep 17 j 00:36	0° $\mathcal{O}$	
opposition	-8885 Jul 12 j 02:57	13° $\mathfrak{M}$ 41'17	-5°45'45	desc. node	-8880 Oct 14 j 21:54	21° $\mathcal{O}$ 53'59	
direct	-8885 Aug 15 j 14:18	6° $\mathfrak{M}$ 12'49					
	-8885 Oct 29 j 00:39	0° $\mathcal{Z}$		conjunction	-8880 Oct 17 j 22:43	24° $\mathcal{O}$ 16'33	-0°02'21
	-8885 Dec 22 j 18:05	0° $\mathcal{Z}$		minimum elong	-8880 Oct 17 j 22:33	24° $\mathcal{O}$ 16'13	0°01'58
asc. node	-8884 Feb 05 j 16:54	26° $\mathcal{Z}$ 43'25		behind sun begin	-8880 Oct 16 j 19:10	23° $\mathcal{O}$ 22'39	
	-8884 Feb 11 j 02:08	0° $\approx$		behind sun end	-8880 Oct 19 j 01:55	25° $\mathcal{O}$ 09'46	
	-8884 Mar 30 j 06:52	0° $\mathcal{H}$			-8880 Oct 25 j 06:26	0° $\mathfrak{M}$	
evening set	-8884 May 07 j 17:53	24° $\mathcal{H}$ 53'32		max. Earth dist.	-8880 Nov 20 j 09:17	20° $\mathfrak{M}$ 14'24	2.39080 AU
	-8884 May 15 j 10:56	0° $\Upsilon$			-8880 Dec 03 j 03:54	0° $\mathfrak{L}$	
max. Earth dist.	-8884 May 28 j 00:28	8° $\Upsilon$ 25'01	2.56616 AU	morning rise	-8880 Dec 22 j 15:18	14° $\mathfrak{L}$ 38'55	
					-8879 Jan 12 j 12:06	0° $\mathfrak{M}$	
conjunction	-8884 Jun 26 j 00:19	28° $\Upsilon$ 17'33	1°06'57		-8879 Feb 23 j 22:21	0° $\mathcal{Z}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 3

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8879 Apr 09 j 23:52	0°☾		desc. node	-8874 Jun 07 j 00:33	6°☾55'04	
	-8879 May 28 j 14:45	0°♊			-8874 Jul 10 j 14:59	0°♊	
	-8879 Jul 24 j 00:13	0°♋			-8874 Aug 21 j 06:35	0°♋	
retrograde	-8879 Sep 22 j 07:42	16°♋34'20			-8874 Oct 01 j 18:30	0°♌	
asc. node	-8879 Sep 28 j 06:08	16°♋20'44			-8874 Nov 13 j 05:41	0°♍	
opposition	-8879 Oct 31 j 04:59	7°♋26'20	1°17'39		-8874 Dec 27 j 04:27	0°♎	
greatest brilliancy	-8879 Oct 31 j 07:45	7°♋23'37	-1.4m	evening set	-8873 Feb 03 j 07:14	25°♎12'53	
min. Earth dist.	-8879 Nov 03 j 08:46	6°♋11'28	0.64985 AU		-8873 Feb 10 j 15:24	0°☾	
	-8879 Nov 21 j 10:56	30°♋					
direct	-8879 Dec 11 j 05:00	27°♋26'33		conjunction	-8873 Mar 24 j 16:05	27°☾06'41	-0°31'48
	-8878 Jan 01 j 05:37	0°♋		minimum elong	-8873 Mar 24 j 17:16	27°☾08'35	0°32'20
	-8878 Mar 11 j 06:33	0°♌		max. Earth dist.	-8873 Mar 29 j 02:12	29°☾56'36	2.66190 AU
	-8878 Apr 28 j 10:35	0°♍			-8873 Mar 29 j 04:20	0°♊	
	-8878 Jun 10 j 06:55	0°♎		morning rise	-8873 May 10 j 20:10	27°♊15'31	
	-8878 Jul 20 j 08:14	0°☾			-8873 May 15 j 03:05	0°♋	
	-8878 Aug 28 j 00:24	0°♊		asc. node	-8873 May 20 j 16:34	3°♋33'29	
desc. node	-8878 Sep 01 j 18:22	3°♊42'50			-8873 Jun 30 j 20:52	0°♌	
	-8878 Oct 05 j 10:05	0°♋			-8873 Aug 16 j 04:08	0°♍	
evening set	-8878 Oct 21 j 18:54	12°♋40'00			-8873 Oct 01 j 08:01	0°♎	
	-8878 Nov 13 j 12:02	0°♌			-8873 Nov 17 j 08:47	0°☾	
					-8872 Jan 07 j 20:28	0°♊	
conjunction	-8878 Dec 22 j 00:02	28°♌31'50	-1°05'25	retrograde	-8872 Mar 11 j 13:00	20°♊10'06	
minimum elong	-8878 Dec 21 j 21:55	28°♌27'59	1°05'37	min. Earth dist.	-8872 Apr 10 j 11:04	15°♊12'56	0.38089 AU
	-8878 Dec 24 j 00:43	0°♍		opposition	-8872 Apr 11 j 14:38	14°♊54'19	1°00'20
max. Earth dist.	-8877 Jan 30 j 16:51	26°♍40'48	2.51203 AU	greatest brilliancy	-8872 Apr 11 j 15:04	14°♊54'02	-3.0m
	-8877 Feb 04 j 12:10	0°♎		desc. node	-8872 Apr 24 j 04:45	11°♊47'17	
morning rise	-8877 Feb 17 j 21:52	9°♎09'53		direct	-8872 May 11 j 21:50	9°♊49'28	
	-8877 Mar 21 j 03:25	0°☾			-8872 Jul 14 j 05:41	0°♋	
	-8877 May 06 j 23:00	0°♊			-8872 Sep 03 j 05:47	0°♌	
	-8877 Jun 25 j 07:29	0°♋			-8872 Oct 20 j 02:18	0°♍	
asc. node	-8877 Aug 16 j 05:34	28°♋41'12			-8872 Dec 05 j 13:24	0°♎	
	-8877 Aug 18 j 20:21	0°♌			-8871 Jan 21 j 11:37	0°☾	
retrograde	-8877 Nov 02 j 05:47	23°♌37'26			-8871 Mar 09 j 18:05	0°♊	
opposition	-8877 Dec 08 j 23:51	15°♌33'52	4°22'57	evening set	-8871 Mar 14 j 16:54	3°♊08'34	
greatest brilliancy	-8877 Dec 09 j 22:06	15°♌12'59	-1.7m	asc. node	-8871 Apr 06 j 10:35	17°♊36'59	
min. Earth dist.	-8877 Dec 15 j 16:47	13°♌03'07	0.57471 AU	max. Earth dist.	-8871 Apr 21 j 12:35	27°♊16'07	2.65813 AU
direct	-8876 Jan 18 j 05:38	5°♌57'26			-8871 Apr 25 j 18:36	0°♋	
	-8876 Mar 29 j 10:52	0°♍					
	-8876 May 16 j 05:07	0°♎		conjunction	-8871 May 01 j 08:10	3°♋35'00	0°14'22
	-8876 Jun 27 j 00:41	0°☾		minimum elong	-8871 May 01 j 07:38	3°♋34'08	0°14'03
desc. node	-8876 Jul 19 j 19:52	17°☾09'20		behind sun begin	-8871 Apr 30 j 22:27	3°♋19'22	
	-8876 Aug 05 j 15:30	0°♊		behind sun end	-8871 May 01 j 16:48	3°♋48'54	
	-8876 Sep 13 j 18:02	0°♋			-8871 Jun 10 j 20:55	0°♌	
	-8876 Oct 23 j 10:57	0°♌		morning rise	-8871 Jun 16 j 15:27	3°♌48'56	
	-8876 Dec 03 j 13:16	0°♍			-8871 Jul 25 j 14:56	0°♎	
evening set	-8876 Dec 18 j 14:46	10°♍40'53			-8871 Sep 06 j 23:33	0°♏	
	-8875 Jan 15 j 11:31	0°♎			-8871 Oct 19 j 04:55	0°☾	
					-8871 Nov 29 j 19:44	0°♊	
conjunction	-8875 Feb 10 j 12:12	17°♎34'14	-1°06'17		-8870 Jan 10 j 20:03	0°♋	
minimum elong	-8875 Feb 10 j 13:33	17°♎36'29	1°06'48		-8870 Feb 24 j 17:30	0°♌	
	-8875 Mar 01 j 06:53	0°☾		desc. node	-8870 Mar 12 j 06:39	9°♌16'19	
max. Earth dist.	-8875 Mar 03 j 12:52	1°☾28'35	2.61205 AU		-8870 May 01 j 02:07	0°♍	
morning rise	-8875 Apr 02 j 07:09	20°☾47'54		retrograde	-8870 May 15 j 21:11	1°♍31'17	
	-8875 Apr 16 j 15:48	0°♊			-8870 May 30 j 09:39	30°♋	
	-8875 Jun 03 j 03:58	0°♋		min. Earth dist.	-8870 Jun 13 j 06:55	26°♌06'25	0.46661 AU
asc. node	-8875 Jul 03 j 00:25	18°♋32'23		greatest brilliancy	-8870 Jun 19 j 20:18	23°♌50'03	-2.3m
	-8875 Jul 21 j 17:15	0°♌		opposition	-8870 Jun 21 j 09:41	23°♌17'27	-5°27'03
	-8875 Sep 10 j 10:56	0°♍		direct	-8870 Jul 24 j 06:10	16°♌35'28	
	-8875 Nov 09 j 02:41	0°♎			-8870 Sep 13 j 23:55	0°♏	
retrograde	-8875 Dec 26 j 03:51	10°♏57'52			-8870 Nov 10 j 17:52	0°♎	
opposition	-8874 Jan 28 j 05:10	4°♏40'05	6°19'23		-8870 Dec 31 j 14:59	0°☾	
greatest brilliancy	-8874 Jan 30 j 00:03	4°♏05'17	-2.4m		-8869 Feb 18 j 15:51	0°♊	
min. Earth dist.	-8874 Feb 05 j 06:05	2°♏04'31	0.45467 AU	asc. node	-8869 Feb 22 j 08:20	2°♊17'14	
	-8874 Feb 12 j 09:13	30°♏			-8869 Apr 07 j 08:35	0°♋	
direct	-8874 Mar 05 j 11:11	27°♏02'23		evening set	-8869 Apr 22 j 21:40	9°♋59'45	
	-8874 Mar 26 j 18:00	0°♏		max. Earth dist.	-8869 May 17 j 10:36	26°♋02'40	2.60156 AU
	-8874 May 27 j 07:16	0°☾			-8869 May 23 j 09:47	0°♌	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 4

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8869 Jun 10 j 03:51	11° $\Upsilon$ 54'37	0°56'03	asc. node	-8864 Oct 14 j 19:58	25° $\approx$ 06'50	
minimum elong	-8869 Jun 10 j 02:16	11° $\Upsilon$ 51'57	0°56'06	opposition	-8864 Oct 17 j 14:14	24° $\approx$ 01'00	0°06'28
	-8869 Jul 06 j 12:42	0° $\mathcal{B}$		greatest brilliancy	-8864 Oct 17 j 14:25	24° $\approx$ 00'50	-1.4m
morning rise	-8869 Jul 28 j 16:09	15° $\mathcal{B}$ 34'31		min. Earth dist.	-8864 Oct 19 j 07:09	23° $\approx$ 20'12	0.66324 AU
	-8869 Aug 17 j 18:02	0° $\Pi$		direct	-8864 Nov 27 j 09:35	14° $\approx$ 05'05	
	-8869 Sep 27 j 09:52	0° $\mathcal{E}$			-8863 Jan 25 j 02:52	0° $\mathcal{H}$	
	-8869 Nov 06 j 01:49	0° $\Omega$			-8863 Mar 21 j 14:56	0° $\Upsilon$	
	-8869 Dec 15 j 12:10	0° $\mathcal{M}$			-8863 May 07 j 01:11	0° $\mathcal{B}$	
	-8868 Jan 24 j 17:09	0° $\underline{\Omega}$			-8863 Jun 18 j 08:26	0° $\Pi$	
desc. node	-8868 Jan 28 j 05:15	2° $\underline{\Omega}$ 33'21			-8863 Jul 28 j 04:34	0° $\mathcal{E}$	
	-8868 Mar 07 j 06:57	0° $\mathcal{M}$			-8863 Sep 04 j 17:39	0° $\Omega$	
	-8868 Apr 25 j 03:48	0° $\mathcal{A}$		desc. node	-8863 Sep 18 j 13:48	10° $\Omega$ 51'36	
retrograde	-8868 Jun 29 j 04:19	21° $\mathcal{A}$ 09'43		evening set	-8863 Sep 25 j 16:05	16° $\Omega$ 25'40	
min. Earth dist.	-8868 Aug 01 j 19:41	13° $\mathcal{A}$ 38'52	0.58433 AU		-8863 Oct 13 j 00:30	0° $\mathcal{M}$	
opposition	-8868 Aug 07 j 14:00	11° $\mathcal{A}$ 23'15	-5°05'52		-8863 Nov 20 j 23:15	0° $\underline{\Omega}$	
greatest brilliancy	-8868 Aug 06 j 15:17	11° $\mathcal{A}$ 45'33	-1.7m				
direct	-8868 Sep 13 j 07:17	2° $\mathcal{A}$ 57'39		conjunction	-8863 Nov 28 j 01:10	5° $\underline{\Omega}$ 21'08	-0°48'13
	-8868 Dec 04 j 07:01	0° $\mathcal{B}$		minimum elong	-8863 Nov 27 j 22:02	5° $\underline{\Omega}$ 15'13	0°48'09
asc. node	-8867 Jan 09 j 10:11	19° $\mathcal{B}$ 32'19			-8863 Dec 31 j 08:32	0° $\mathcal{M}$	
	-8867 Jan 27 j 14:15	0° $\approx$		max. Earth dist.	-8862 Jan 12 j 17:21	8° $\mathcal{M}$ 54'48	2.46248 AU
	-8867 Mar 18 j 03:09	0° $\mathcal{H}$		morning rise	-8862 Jan 28 j 14:24	20° $\mathcal{M}$ 09'55	
	-8867 May 03 j 17:54	0° $\Upsilon$			-8862 Feb 11 j 17:43	0° $\mathcal{A}$	
evening set	-8867 Jun 03 j 09:20	20° $\Upsilon$ 42'08			-8862 Mar 28 j 10:05	0° $\mathcal{B}$	
	-8867 Jun 16 j 18:26	0° $\mathcal{B}$			-8862 May 14 j 16:01	0° $\approx$	
max. Earth dist.	-8867 Jun 19 j 06:15	1° $\mathcal{B}$ 44'57	2.49878 AU		-8862 Jul 04 j 13:10	0° $\mathcal{H}$	
				asc. node	-8862 Sep 01 j 20:58	28° $\mathcal{H}$ 55'19	
conjunction	-8867 Jul 25 j 08:59	27° $\mathcal{B}$ 42'15	1°12'03		-8862 Sep 04 j 17:48	0° $\Upsilon$	
minimum elong	-8867 Jul 25 j 09:26	27° $\mathcal{B}$ 43'03	1°12'29	retrograde	-8862 Oct 16 j 07:26	8° $\Upsilon$ 42'12	
	-8867 Jul 28 j 11:56	0° $\Pi$		opposition	-8862 Nov 23 j 01:21	0° $\Upsilon$ 09'34	3°12'11
	-8867 Sep 06 j 10:36	0° $\mathcal{E}$			-8862 Nov 23 j 11:17	30° $\mathcal{R}$ $\mathcal{H}$	
morning rise	-8867 Sep 19 j 02:38	9° $\mathcal{E}$ 43'01		greatest brilliancy	-8862 Nov 23 j 14:01	29° $\mathcal{H}$ 57'22	-1.6m
	-8867 Oct 15 j 07:17	0° $\Omega$		min. Earth dist.	-8862 Nov 28 j 10:26	28° $\mathcal{H}$ 05'18	0.61093 AU
	-8867 Nov 22 j 21:36	0° $\mathcal{M}$		direct	-8861 Jan 02 j 20:47	20° $\mathcal{H}$ 16'43	
desc. node	-8867 Dec 14 j 23:06	16° $\mathcal{M}$ 59'05			-8861 Feb 14 j 14:21	0° $\Upsilon$	
	-8866 Jan 01 j 02:35	0° $\underline{\Omega}$			-8861 Apr 12 j 07:03	0° $\mathcal{B}$	
	-8866 Feb 10 j 21:23	0° $\mathcal{M}$			-8861 May 27 j 02:45	0° $\Pi$	
	-8866 Mar 26 j 11:14	0° $\mathcal{A}$			-8861 Jul 06 j 23:09	0° $\mathcal{E}$	
	-8866 May 14 j 09:05	0° $\mathcal{B}$		desc. node	-8861 Aug 06 j 13:08	23° $\mathcal{E}$ 24'05	
retrograde	-8866 Aug 05 j 02:48	29° $\mathcal{B}$ 13'26			-8861 Aug 15 j 01:48	0° $\Omega$	
min. Earth dist.	-8866 Sep 12 j 02:25	20° $\mathcal{B}$ 09'06	0.65408 AU		-8861 Sep 22 j 19:25	0° $\mathcal{M}$	
opposition	-8866 Sep 14 j 03:10	19° $\mathcal{B}$ 20'04	-2°46'14		-8861 Nov 01 j 04:26	0° $\underline{\Omega}$	
greatest brilliancy	-8866 Sep 13 j 23:12	19° $\mathcal{B}$ 24'03	-1.4m	evening set	-8861 Nov 28 j 07:44	20° $\underline{\Omega}$ 05'57	
direct	-8866 Oct 23 j 11:38	9° $\mathcal{B}$ 54'25			-8861 Dec 11 j 23:26	0° $\mathcal{M}$	
asc. node	-8866 Nov 27 j 15:18	16° $\mathcal{B}$ 20'08					
	-8866 Dec 30 j 23:52	0° $\approx$		conjunction	-8860 Jan 23 j 22:23	0° $\mathcal{A}$ 11'34	-1°11'56
	-8865 Feb 24 j 16:06	0° $\mathcal{H}$		minimum elong	-8860 Jan 23 j 22:49	0° $\mathcal{A}$ 12'19	1°12'23
	-8865 Apr 14 j 02:05	0° $\Upsilon$			-8860 Jan 23 j 15:38	0° $\mathcal{A}$	
	-8865 May 28 j 14:44	0° $\mathcal{B}$		max. Earth dist.	-8860 Feb 21 j 05:02	19° $\mathcal{A}$ 19'52	2.57807 AU
	-8865 Jul 09 j 07:24	0° $\Pi$			-8860 Mar 08 j 07:25	0° $\mathcal{B}$	
evening set	-8865 Jul 24 j 16:58	11° $\Pi$ 29'57		morning rise	-8860 Mar 17 j 01:53	5° $\mathcal{B}$ 44'51	
	-8865 Aug 17 j 23:33	0° $\mathcal{E}$			-8860 Apr 23 j 17:51	0° $\approx$	
max. Earth dist.	-8865 Sep 02 j 01:29	11° $\mathcal{E}$ 40'36	2.38623 AU		-8860 Jun 10 j 17:24	0° $\mathcal{H}$	
				asc. node	-8860 Jul 19 j 17:15	23° $\mathcal{H}$ 33'48	
conjunction	-8865 Sep 22 j 11:00	27° $\mathcal{E}$ 36'53	0°29'49		-8860 Jul 30 j 16:29	0° $\Upsilon$	
minimum elong	-8865 Sep 22 j 13:27	27° $\mathcal{E}$ 41'41	0°30'18		-8860 Sep 24 j 00:08	0° $\mathcal{B}$	
	-8865 Sep 25 j 12:00	0° $\Omega$		retrograde	-8860 Dec 02 j 08:43	20° $\mathcal{B}$ 46'56	
desc. node	-8865 Nov 01 j 16:49	29° $\Omega$ 09'58		opposition	-8859 Jan 06 j 00:36	13° $\mathcal{B}$ 42'38	5°55'39
	-8865 Nov 02 j 18:28	0° $\mathcal{M}$		greatest brilliancy	-8859 Jan 07 j 15:15	13° $\mathcal{B}$ 08'51	-2.1m
morning rise	-8865 Nov 26 j 22:27	18° $\mathcal{M}$ 44'11		min. Earth dist.	-8859 Jan 14 j 04:36	10° $\mathcal{B}$ 51'52	0.50409 AU
	-8865 Dec 11 j 16:05	0° $\underline{\Omega}$		direct	-8859 Feb 13 j 09:18	5° $\mathcal{B}$ 02'29	
	-8864 Jan 21 j 00:29	0° $\mathcal{M}$			-8859 Apr 25 j 00:11	0° $\Pi$	
	-8864 Mar 03 j 13:15	0° $\mathcal{A}$			-8859 Jun 10 j 04:21	0° $\mathcal{E}$	
	-8864 Apr 18 j 01:07	0° $\mathcal{B}$		desc. node	-8859 Jun 23 j 15:25	9° $\mathcal{E}$ 33'36	
	-8864 Jun 07 j 06:33	0° $\approx$			-8859 Jul 21 j 13:58	0° $\Omega$	
	-8864 Aug 14 j 12:12	0° $\mathcal{H}$			-8859 Aug 30 j 19:02	0° $\mathcal{M}$	
retrograde	-8864 Sep 08 j 04:19	3° $\mathcal{H}$ 26'23			-8859 Oct 10 j 08:08	0° $\underline{\Omega}$	
	-8864 Oct 01 j 02:03	30° $\mathcal{R}$ $\approx$			-8859 Nov 21 j 02:28	0° $\mathcal{M}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 5

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8858 Jan 03 j 13:01	0°♂			-8854 Aug 25 j 05:14	0°♂	
evening set	-8858 Jan 17 j 04:37	9°♂11'19			-8854 Oct 05 j 08:18	0°♂	
	-8858 Feb 17 j 15:51	0°♂			-8854 Nov 14 j 13:11	0°♂	
					-8854 Dec 24 j 14:32	0°♂	
conjunction	-8858 Mar 08 j 23:13	12°♂33'41	-0°47'33		-8853 Feb 03 j 17:12	0°♂	
minimum elong	-8858 Mar 09 j 00:47	12°♂36'14	0°48'07	desc. node	-8853 Feb 13 j 23:01	7°♂12'08	
max. Earth dist.	-8858 Mar 19 j 14:07	19°♂25'08	2.64861 AU		-8853 Mar 20 j 07:57	0°♂	
	-8858 Apr 05 j 01:30	0°♂			-8853 May 20 j 01:22	0°♂	
morning rise	-8858 Apr 26 j 05:16	13°♂30'48		retrograde	-8853 Jun 14 j 01:20	4°♂00'32	
	-8858 May 22 j 03:09	0°♂			-8853 Jul 07 j 21:33	30°♂	
asc. node	-8858 Jun 06 j 10:58	9°♂44'14		min. Earth dist.	-8853 Jul 15 j 15:41	27°♂16'41	0.54231 AU
	-8858 Jul 08 j 08:59	0°♂		greatest brilliancy	-8853 Jul 21 j 09:49	25°♂05'23	-1.9m
	-8858 Aug 24 j 19:41	0°♂		opposition	-8853 Jul 22 j 17:11	24°♂35'28	-5°38'23
	-8858 Oct 12 j 09:35	0°♂		direct	-8853 Aug 27 j 01:46	16°♂44'16	
	-8858 Dec 04 j 17:57	0°♂			-8853 Oct 18 j 07:51	0°♂	
retrograde	-8857 Feb 09 j 07:09	20°♂29'53			-8853 Dec 16 j 10:39	0°♂	
opposition	-8857 Mar 12 j 02:18	15°♂17'48	4°24'31	asc. node	-8852 Jan 27 j 00:19	24°♂05'20	
greatest brilliancy	-8857 Mar 12 j 22:29	15°♂03'53	-2.8m		-8852 Feb 05 j 21:07	0°♂	
min. Earth dist.	-8857 Mar 16 j 05:52	14°♂09'19	0.39240 AU		-8852 Mar 25 j 12:06	0°♂	
direct	-8857 Apr 13 j 01:41	9°♂37'56			-8852 May 10 j 19:59	0°♂	
desc. node	-8857 May 11 j 20:30	14°♂47'22		evening set	-8852 May 17 j 02:57	4°♂11'28	
	-8857 Jun 14 j 08:16	0°♂		max. Earth dist.	-8852 Jun 04 j 10:24	16°♂34'10	2.54396 AU
	-8857 Aug 02 j 07:37	0°♂			-8852 Jun 23 j 20:48	0°♂	
	-8857 Sep 16 j 01:26	0°♂					
	-8857 Oct 30 j 10:19	0°♂		conjunction	-8852 Jul 06 j 03:53	8°♂39'31	1°10'50
	-8857 Dec 14 j 14:10	0°♂		minimum elong	-8852 Jul 06 j 03:03	8°♂38'03	1°11'07
	-8856 Jan 29 j 18:51	0°♂			-8852 Aug 04 j 18:08	0°♂	
evening set	-8856 Feb 28 j 09:36	18°♂58'11		morning rise	-8852 Aug 27 j 07:20	16°♂42'31	
	-8856 Mar 16 j 16:29	0°♂			-8852 Sep 13 j 22:25	0°♂	
max. Earth dist.	-8856 Apr 12 j 00:10	16°♂47'47	2.66600 AU		-8852 Oct 23 j 00:59	0°♂	
					-8852 Nov 30 j 20:49	0°♂	
conjunction	-8856 Apr 16 j 10:10	19°♂37'16	-0°03'56	desc. node	-8852 Dec 31 j 20:03	23°♂37'39	
minimum elong	-8856 Apr 16 j 10:19	19°♂37'30	0°04'21		-8851 Jan 09 j 07:39	0°♂	
behind sun begin	-8856 Apr 15 j 15:22	19°♂07'13			-8851 Feb 19 j 11:40	0°♂	
behind sun end	-8856 Apr 17 j 05:16	20°♂07'48			-8851 Apr 05 j 01:28	0°♂	
asc. node	-8856 Apr 23 j 03:57	23°♂56'12			-8851 May 28 j 03:30	0°♂	
	-8856 May 02 j 14:50	0°♂		retrograde	-8851 Jul 22 j 07:15	15°♂23'48	
morning rise	-8856 Jun 01 j 18:04	19°♂28'07		min. Earth dist.	-8851 Aug 27 j 18:06	6°♂51'25	0.63383 AU
	-8856 Jun 17 j 21:14	0°♂		opposition	-8851 Aug 31 j 06:01	5°♂27'19	-3°46'17
	-8856 Aug 02 j 02:20	0°♂		greatest brilliancy	-8851 Aug 30 j 20:05	5°♂37'16	-1.5m
	-8856 Sep 15 j 05:46	0°♂			-8851 Sep 15 j 03:49	30°♂	
	-8856 Oct 28 j 15:19	0°♂		direct	-8851 Oct 08 j 17:04	26°♂21'00	
	-8856 Dec 10 j 23:44	0°♂			-8851 Nov 03 j 09:01	0°♂	
	-8855 Jan 25 j 02:49	0°♂		asc. node	-8851 Dec 14 j 04:09	15°♂30'24	
	-8855 Mar 22 j 13:16	0°♂			-8850 Jan 11 j 22:08	0°♂	
desc. node	-8855 Mar 29 j 00:05	2°♂13'21			-8850 Mar 05 j 04:05	0°♂	
retrograde	-8855 Apr 23 j 16:14	6°♂30'30			-8850 Apr 21 j 16:10	0°♂	
min. Earth dist.	-8855 May 20 j 18:06	1°♂46'35	0.41994 AU		-8850 Jun 04 j 22:37	0°♂	
	-8855 May 26 j 10:52	30°♂		evening set	-8850 Jul 03 j 06:13	20°♂12'17	
opposition	-8855 May 27 j 23:01	29°♂31'31	-4°02'52		-8850 Jul 16 j 14:53	0°♂	
greatest brilliancy	-8855 May 26 j 20:03	29°♂52'45	-2.6m	max. Earth dist.	-8850 Jul 22 j 22:07	4°♂40'24	2.42490 AU
direct	-8855 Jun 28 j 07:08	23°♂40'54			-8850 Aug 25 j 09:03	0°♂	
	-8855 Jul 31 j 12:36	0°♂					
	-8855 Oct 01 j 10:20	0°♂		conjunction	-8850 Aug 28 j 13:35	2°♂27'11	0°54'45
	-8855 Nov 21 j 00:22	0°♂		minimum elong	-8850 Aug 28 j 16:21	2°♂32'29	0°55'18
	-8854 Jan 08 j 18:59	0°♂			-8850 Oct 02 j 24:00	0°♂	
	-8854 Feb 25 j 22:54	0°♂		morning rise	-8850 Oct 29 j 22:56	21°♂06'07	
asc. node	-8854 Mar 11 j 00:14	8°♂12'19			-8850 Nov 10 j 08:32	0°♂	
evening set	-8854 Apr 07 j 12:34	25°♂39'19		desc. node	-8850 Nov 18 j 13:56	6°♂23'37	
	-8854 Apr 14 j 07:31	0°♂			-8850 Dec 19 j 07:42	0°♂	
max. Earth dist.	-8854 May 06 j 22:39	14°♂37'28	2.62982 AU		-8849 Jan 28 j 17:49	0°♂	
					-8849 Mar 12 j 11:40	0°♂	
conjunction	-8854 May 25 j 05:26	26°♂37'07	0°41'28		-8849 Apr 27 j 17:07	0°♂	
minimum elong	-8854 May 25 j 04:03	26°♂34'49	0°41'22		-8849 Jun 19 j 23:03	0°♂	
	-8854 May 30 j 07:59	0°♂		retrograde	-8849 Aug 26 j 11:45	20°♂27'15	
morning rise	-8854 Jul 11 j 09:55	28°♂27'33		opposition	-8849 Oct 05 j 06:22	10°♂47'59	-1°02'39
	-8854 Jul 13 j 15:30	0°♂		greatest brilliancy	-8849 Oct 05 j 06:56	10°♂47'24	-1.4m

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 6

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

min. Earth dist.	-8849 Oct 05 j 12:27	10° $\approx$ 41'53	0.66692 AU	conjunction	-8843 Feb 20 j 10:15	27° $\approx$ 13'06	-1°00'33
asc. node	-8849 Nov 01 j 09:26	2° $\approx$ 08'58		minimum elong	-8843 Feb 20 j 11:51	27° $\approx$ 15'43	1°01'06
direct	-8849 Nov 14 j 15:34	1° $\approx$ 00'36			-8843 Feb 24 j 15:45	0° $\approx$	
	-8848 Feb 08 j 07:03	0° $\approx$		max. Earth dist.	-8843 Mar 09 j 17:15	8° $\approx$ 32'15	2.62727 AU
	-8848 Mar 30 j 15:40	0° $\approx$		morning rise	-8843 Apr 11 j 04:23	29° $\approx$ 28'36	
	-8848 May 15 j 02:04	0° $\approx$			-8843 Apr 12 j 00:01	0° $\approx$	
	-8848 Jun 26 j 01:30	0° $\approx$			-8843 May 29 j 07:12	0° $\approx$	
	-8848 Aug 04 j 19:01	0° $\approx$		asc. node	-8843 Jun 23 j 05:29	15° $\approx$ 38'40	
evening set	-8848 Aug 30 j 14:04	20° $\approx$ 02'27			-8843 Jul 16 j 06:42	0° $\approx$	
	-8848 Sep 12 j 06:57	0° $\approx$			-8843 Sep 03 j 11:43	0° $\approx$	
desc. node	-8848 Oct 05 j 08:12	18° $\approx$ 06'23			-8843 Oct 26 j 20:55	0° $\approx$	
	-8848 Oct 20 j 12:43	0° $\approx$		retrograde	-8842 Jan 10 j 07:56	24° $\approx$ 12'31'4	
				opposition	-8842 Feb 11 j 12:58	18° $\approx$ 12'32'34	6°05'34
conjunction	-8848 Nov 02 j 01:44	9° $\approx$ 45'38	-0°20'46	greatest brilliancy	-8842 Feb 13 j 04:18	18° $\approx$ 12'02'26	-2.5m
minimum elong	-8848 Nov 01 j 23:52	9° $\approx$ 42'01	0°20'29	min. Earth dist.	-8842 Feb 18 j 20:22	16° $\approx$ 19'13	0.42854 AU
	-8848 Nov 28 j 10:06	0° $\approx$		direct	-8842 Mar 18 j 05:58	11° $\approx$ 12'38'11	
max. Earth dist.	-8848 Dec 15 j 20:17	13° $\approx$ 07'36	2.41332 AU		-8842 May 15 j 05:49	0° $\approx$	
morning rise	-8847 Jan 05 j 17:37	28° $\approx$ 03'21		desc. node	-8842 May 28 j 11:30	7° $\approx$ 30'09	
	-8847 Jan 07 j 17:46	0° $\approx$			-8842 Jul 02 j 15:20	0° $\approx$	
	-8847 Feb 19 j 02:24	0° $\approx$			-8842 Aug 14 j 17:25	0° $\approx$	
	-8847 Apr 04 j 22:37	0° $\approx$			-8842 Sep 26 j 00:40	0° $\approx$	
	-8847 May 22 j 21:24	0° $\approx$			-8842 Nov 08 j 00:08	0° $\approx$	
	-8847 Jul 15 j 10:35	0° $\approx$			-8842 Dec 22 j 07:00	0° $\approx$	
asc. node	-8847 Sep 18 j 12:33	23° $\approx$ 49'52			-8841 Feb 05 j 22:47	0° $\approx$	
retrograde	-8847 Sep 30 j 18:38	24° $\approx$ 43'43		evening set	-8841 Feb 12 j 15:17	4° $\approx$ 19'51	
opposition	-8847 Nov 08 j 07:27	15° $\approx$ 47'07	1°59'33		-8841 Mar 24 j 14:01	0° $\approx$	
greatest brilliancy	-8847 Nov 08 j 12:59	15° $\approx$ 41'41	-1.5m				
min. Earth dist.	-8847 Nov 12 j 06:38	14° $\approx$ 13'48	0.63860 AU	conjunction	-8841 Apr 02 j 09:45	5° $\approx$ 38'31	-0°21'52
direct	-8847 Dec 19 j 07:59	5° $\approx$ 47'36		minimum elong	-8841 Apr 02 j 10:36	5° $\approx$ 39'52	0°22'22
	-8846 Mar 03 j 12:56	0° $\approx$		max. Earth dist.	-8841 Apr 03 j 14:40	6° $\approx$ 24'43	2.66571 AU
	-8846 Apr 22 j 14:27	0° $\approx$		asc. node	-8841 May 10 j 22:25	0° $\approx$ 16'37	
	-8846 Jun 05 j 00:24	0° $\approx$			-8841 May 10 j 12:02	0° $\approx$	
	-8846 Jul 15 j 07:39	0° $\approx$		morning rise	-8841 May 19 j 03:49	5° $\approx$ 33'02	
desc. node	-8846 Aug 23 j 06:15	0° $\approx$ 06'46			-8841 Jun 26 j 01:15	0° $\approx$	
	-8846 Aug 23 j 02:47	0° $\approx$			-8841 Aug 10 j 21:57	0° $\approx$	
	-8846 Sep 30 j 14:23	0° $\approx$			-8841 Sep 25 j 04:54	0° $\approx$	
evening set	-8846 Nov 04 j 22:01	27° $\approx$ 06'26			-8841 Nov 09 j 12:30	0° $\approx$	
	-8846 Nov 08 j 17:52	0° $\approx$			-8841 Dec 26 j 10:32	0° $\approx$	
	-8846 Dec 19 j 07:36	0° $\approx$			-8840 Feb 21 j 07:32	0° $\approx$	
				retrograde	-8840 Mar 28 j 08:41	7° $\approx$ 43'40	
conjunction	-8845 Jan 03 j 13:00	10° $\approx$ 54'54	-1°10'23	desc. node	-8840 Apr 14 j 16:51	5° $\approx$ 47'19	
minimum elong	-8845 Jan 03 j 11:52	10° $\approx$ 52'53	1°10'42	min. Earth dist.	-8840 Apr 25 j 06:10	3° $\approx$ 08'17	0.38740 AU
	-8845 Jan 30 j 19:37	0° $\approx$		opposition	-8840 Apr 29 j 05:57	2° $\approx$ 01'44	-1°08'20
max. Earth dist.	-8845 Feb 08 j 04:46	5° $\approx$ 44'51	2.53732 AU	greatest brilliancy	-8840 Apr 29 j 00:45	2° $\approx$ 05'20	-2.9m
morning rise	-8845 Feb 28 j 14:36	19° $\approx$ 31'40			-8840 May 06 j 19:26	30° $\approx$ 00'00	
	-8845 Mar 16 j 09:49	0° $\approx$		direct	-8840 May 29 j 09:54	26° $\approx$ 05'15'9	
	-8845 May 02 j 00:33	0° $\approx$			-8840 Jun 21 j 02:18	0° $\approx$	
	-8845 Jun 19 j 17:35	0° $\approx$			-8840 Aug 25 j 03:30	0° $\approx$	
asc. node	-8845 Aug 06 j 11:07	27° $\approx$ 31'53			-8840 Oct 13 j 12:50	0° $\approx$	
	-8845 Aug 11 j 00:15	0° $\approx$			-8840 Nov 30 j 01:22	0° $\approx$	
	-8845 Oct 19 j 17:35	0° $\approx$			-8839 Jan 16 j 12:19	0° $\approx$	
retrograde	-8845 Nov 12 j 20:15	3° $\approx$ 14'08			-8839 Mar 05 j 01:24	0° $\approx$	
	-8845 Dec 05 j 09:36	30° $\approx$ 00'00		evening set	-8839 Mar 23 j 09:51	11° $\approx$ 37'41	
opposition	-8845 Dec 18 j 21:59	25° $\approx$ 09'46	5°00'43	asc. node	-8839 Mar 27 j 16:30	14° $\approx$ 20'46	
greatest brilliancy	-8845 Dec 20 j 02:22	25° $\approx$ 03'41	-1.8m		-8839 Apr 21 j 04:24	0° $\approx$	
min. Earth dist.	-8845 Dec 26 j 06:23	22° $\approx$ 09'54	0.55121 AU	max. Earth dist.	-8839 Apr 27 j 03:20	3° $\approx$ 49'54	2.65035 AU
direct	-8844 Jan 27 j 15:39	16° $\approx$ 08'26					
	-8844 Mar 18 j 12:12	0° $\approx$		conjunction	-8839 May 09 j 22:57	12° $\approx$ 07'22	0°24'40
	-8844 May 09 j 05:00	0° $\approx$		minimum elong	-8839 May 09 j 22:02	12° $\approx$ 05'54	0°24'25
	-8844 Jun 21 j 01:09	0° $\approx$			-8839 Jun 06 j 05:59	0° $\approx$	
desc. node	-8844 Jul 10 j 08:06	14° $\approx$ 17'44		morning rise	-8839 Jun 25 j 10:04	12° $\approx$ 04'46'01	
	-8844 Jul 31 j 03:26	0° $\approx$			-8839 Jul 20 j 20:14	0° $\approx$	
	-8844 Sep 08 j 13:10	0° $\approx$			-8839 Sep 01 j 21:38	0° $\approx$	
	-8844 Oct 18 j 11:32	0° $\approx$			-8839 Oct 13 j 16:36	0° $\approx$	
	-8844 Nov 28 j 17:49	0° $\approx$			-8839 Nov 23 j 16:57	0° $\approx$	
evening set	-8844 Dec 29 j 18:59	21° $\approx$ 00'46'08			-8838 Jan 03 j 19:14	0° $\approx$	
	-8843 Jan 10 j 18:59	0° $\approx$			-8838 Feb 15 j 16:33	0° $\approx$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 7

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

desc. node	-8838 Mar 02 j 18:59	9°♄50'48		-8833 Feb 18 j 15:27	0°♐	
	-8838 Apr 06 j 23:24	0°♍		-8833 Apr 08 j 22:08	0°♑	
retrograde	-8838 May 27 j 02:49	14°♍23'57		-8833 May 23 j 18:17	0°♐	
min. Earth dist.	-8838 Jun 25 j 13:43	8°♍32'02	0.49389 AU	-8833 Jul 04 j 13:40	0°♐	
greatest brilliancy	-8838 Jul 02 j 00:10	6°♍12'46	-2.2m	evening set	-8833 Aug 06 j 19:42	25°♐02'26
opposition	-8838 Jul 03 j 13:33	5°♍38'52	-5°44'06		-8833 Aug 13 j 06:42	0°♐
	-8838 Jul 22 j 11:28	30°♋♄			-8833 Sep 20 j 19:03	0°♏
direct	-8838 Aug 06 j 08:00	28°♄30'26				
	-8838 Aug 21 j 23:09	0°♍		conjunction	-8833 Oct 07 j 06:36	12°♏56'41 0°12'05
	-8838 Nov 03 j 02:42	0°♌		minimum elong	-8833 Oct 07 j 07:46	12°♏58'57 0°12'32
	-8838 Dec 25 j 21:55	0°♐		behind sun begin	-8833 Oct 06 j 13:59	12°♏24'04
asc. node	-8837 Feb 12 j 14:32	29°♐21'15		behind sun end	-8833 Oct 08 j 01:32	13°♏33'50
	-8837 Feb 13 j 15:46	0°♐		max. Earth dist.	-8833 Oct 17 j 16:21	21°♏06'40 2.38087 AU
	-8837 Apr 02 j 15:42	0°♐		desc. node	-8833 Oct 23 j 03:51	25°♏24'15
evening set	-8837 May 01 j 21:58	18°♐52'08			-8833 Oct 29 j 00:54	0°♐
	-8837 May 18 j 19:21	0°♑			-8833 Dec 06 j 21:43	0°♄
max. Earth dist.	-8837 May 24 j 00:37	3°♑28'39	2.58289 AU	morning rise	-8833 Dec 12 j 06:05	4°♄03'23
					-8832 Jan 16 j 04:42	0°♍
conjunction	-8837 Jun 19 j 15:33	21°♑31'04	1°02'52		-8832 Feb 27 j 14:17	0°♌
minimum elong	-8837 Jun 19 j 14:05	21°♑28'32	1°03'00		-8832 Apr 12 j 17:51	0°♐
	-8837 Jul 01 j 21:48	0°♐			-8832 May 31 j 20:19	0°♐
morning rise	-8837 Aug 08 j 04:39	26°♐29'58			-8832 Jul 30 j 01:27	0°♐
	-8837 Aug 13 j 00:19	0°♐		retrograde	-8832 Sep 16 j 05:53	11°♐22'53
	-8837 Sep 22 j 11:54	0°♐		asc. node	-8832 Oct 05 j 03:15	9°♐02'57
	-8837 Oct 31 j 22:39	0°♏		opposition	-8832 Oct 25 j 09:28	2°♐06'45 0°47'35
	-8837 Dec 10 j 02:51	0°♐		greatest brilliancy	-8832 Oct 25 j 10:46	2°♐05'28 -1.4m
desc. node	-8836 Jan 18 j 15:25	29°♐44'57		min. Earth dist.	-8832 Oct 27 j 22:08	1°♐06'32 0.65698 AU
	-8836 Jan 18 j 23:33	0°♄			-8832 Oct 30 j 17:44	30°♋
	-8836 Feb 29 j 20:35	0°♍		direct	-8832 Dec 05 j 08:12	22°♐07'53
	-8836 Apr 16 j 10:07	0°♌			-8831 Jan 13 j 05:39	0°♐
	-8836 Jun 28 j 07:51	0°♐			-8831 Mar 15 j 05:18	0°♑
retrograde	-8836 Jul 07 j 21:09	0°♐36'12			-8831 May 01 j 15:17	0°♐
	-8836 Jul 17 j 04:09	30°♋♌			-8831 Jun 13 j 06:43	0°♐
min. Earth dist.	-8836 Aug 11 j 13:48	22°♌41'37	0.60422 AU		-8831 Jul 23 j 06:32	0°♐
opposition	-8836 Aug 16 j 12:42	20°♌43'46	-4°39'50		-8831 Aug 30 j 21:34	0°♏
greatest brilliancy	-8836 Aug 15 j 18:58	21°♌01'22	-1.6m	desc. node	-8831 Sep 08 j 23:39	7°♏07'14
direct	-8836 Sep 22 j 21:55	12°♌02'06			-8831 Oct 08 j 05:40	0°♐
	-8836 Nov 25 j 12:10	0°♐		evening set	-8831 Oct 10 j 13:12	1°♐48'04
asc. node	-8836 Dec 30 j 17:22	17°♐45'42			-8831 Nov 16 j 05:31	0°♄
	-8835 Jan 21 j 17:53	0°♐				
	-8835 Mar 13 j 02:05	0°♐		conjunction	-8831 Dec 11 j 21:45	19°♄12'33 -0°59'21
	-8835 Apr 29 j 00:06	0°♑		minimum elong	-8831 Dec 11 j 18:59	19°♄07'28 0°59'25
	-8835 Jun 12 j 03:14	0°♐			-8831 Dec 26 j 15:33	0°♍
evening set	-8835 Jun 13 j 18:33	1°♐08'53		max. Earth dist.	-8830 Jan 23 j 12:30	19°♍54'07 2.49031 AU
max. Earth dist.	-8835 Jun 29 j 08:06	12°♐10'47	2.47259 AU		-8830 Feb 07 j 00:34	0°♌
	-8835 Jul 23 j 20:39	0°♐		morning rise	-8830 Feb 09 j 10:19	1°♌39'31
					-8830 Mar 23 j 14:45	0°♐
conjunction	-8835 Aug 06 j 02:21	9°♐49'40	1°08'47		-8830 May 09 j 12:56	0°♐
minimum elong	-8835 Aug 06 j 03:44	9°♐52'13	1°09'17		-8830 Jun 28 j 09:22	0°♐
	-8835 Sep 01 j 17:53	0°♐		asc. node	-8830 Aug 23 j 03:25	29°♐33'20
morning rise	-8835 Oct 03 j 03:47	24°♐16'14			-8830 Aug 24 j 02:31	0°♑
	-8835 Oct 10 j 12:19	0°♏		retrograde	-8830 Oct 25 j 18:40	17°♑30'04
	-8835 Nov 17 j 23:55	0°♐		opposition	-8830 Dec 01 j 23:56	9°♑12'51 3°53'05
desc. node	-8835 Dec 05 j 09:32	13°♐27'13		greatest brilliancy	-8830 Dec 02 j 17:48	8°♑55'52 -1.7m
	-8835 Dec 27 j 01:53	0°♄		min. Earth dist.	-8830 Dec 08 j 03:21	6°♑52'50 0.59195 AU
	-8834 Feb 05 j 16:00	0°♍			-8829 Jan 02 j 12:45	30°♋♐
	-8834 Mar 20 j 19:31	0°♌		direct	-8829 Jan 11 j 13:15	29°♐27'22
	-8834 May 07 j 08:33	0°♐			-8829 Jan 20 j 18:17	0°♑
	-8834 Jul 07 j 03:49	0°♐			-8829 Apr 04 j 19:20	0°♐
retrograde	-8834 Aug 12 j 23:11	7°♐20'51			-8829 May 21 j 02:47	0°♐
	-8834 Sep 15 j 17:23	30°♋♐			-8829 Jul 01 j 11:45	0°♐
opposition	-8834 Sep 21 j 22:29	27°♐31'28	-2°09'10	desc. node	-8829 Jul 28 j 00:02	20°♐06'40
min. Earth dist.	-8834 Sep 20 j 17:39	28°♐00'29	0.66123 AU		-8829 Aug 09 j 20:52	0°♏
greatest brilliancy	-8834 Sep 21 j 20:53	27°♐33'04	-1.4m		-8829 Sep 17 j 18:38	0°♐
direct	-8834 Oct 31 j 16:50	17°♐56'53			-8829 Oct 27 j 07:05	0°♄
asc. node	-8834 Nov 17 j 22:52	19°♐40'18			-8829 Dec 07 j 04:53	0°♍
	-8834 Dec 21 j 01:03	0°♐		evening set	-8829 Dec 10 j 17:06	2°♍30'52

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 8

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8828 Jan 18 j 23:09	0°♈				-8824 Jul 28 j 04:43	0°♏		
						-8824 Sep 09 j 21:42	0°♐		
conjunction	-8828 Feb 03 j 18:06	10°♈44'34	-1°09'23			-8824 Oct 22 j 14:43	0°♑		
minimum elong	-8828 Feb 03 j 19:10	10°♈46'22	1°09'53			-8824 Dec 03 j 21:10	0°♒		
max. Earth dist.	-8828 Feb 27 j 22:33	26°♈53'25	2.59794 AU			-8823 Jan 15 j 21:47	0°♓		
	-8828 Mar 03 j 15:44	0°♑				-8823 Mar 04 j 09:00	0°♈		
morning rise	-8828 Mar 26 j 12:24	14°♑54'45		desc. node	-8823 Mar 19 j 11:35	7°♈58'30			
	-8828 Apr 19 j 00:18	0°♒		retrograde	-8823 May 06 j 16:21	21°♈33'37			
	-8828 Jun 05 j 16:13	0°♓		min. Earth dist.	-8823 Jun 03 j 08:36	16°♈29'46	0.44472 AU		
asc. node	-8828 Jul 09 j 23:07	21°♓05'00		greatest brilliancy	-8823 Jun 09 j 20:40	14°♈20'08	-2.5m		
	-8828 Jul 24 j 17:50	0°♈		opposition	-8823 Jun 11 j 07:33	13°♈50'58	-5°01'02		
	-8828 Sep 14 j 23:44	0°♏		direct	-8823 Jul 13 j 10:23	7°♈32'03			
	-8828 Nov 25 j 12:52	0°♐			-8823 Sep 21 j 19:49	0°♑			
retrograde	-8828 Dec 15 j 08:40	2°♐14'27			-8823 Nov 14 j 14:58	0°♒			
	-8827 Jan 03 j 03:39	30°♐♏			-8822 Jan 03 j 11:22	0°♑			
opposition	-8827 Jan 18 j 03:27	25°♐34'58	6°14'10		-8822 Feb 21 j 02:33	0°♒			
greatest brilliancy	-8827 Jan 19 j 21:38	24°♐59'24	-2.2m	asc. node	-8822 Mar 01 j 06:03	5°♒05'10			
min. Earth dist.	-8827 Jan 26 j 09:15	22°♐49'06	0.47685 AU		-8822 Apr 09 j 15:54	0°♓			
direct	-8827 Feb 24 j 10:02	17°♐26'23		evening set	-8822 Apr 16 j 07:46	4°♓16'13			
	-8827 Apr 12 j 06:03	0°♐		max. Earth dist.	-8822 May 13 j 01:30	21°♓38'08	2.61518 AU		
	-8827 Jun 02 j 08:51	0°♑			-8822 May 25 j 17:36	0°♈			
desc. node	-8827 Jun 14 j 04:31	8°♑01'42							
	-8827 Jul 15 j 03:02	0°♒		conjunction	-8822 Jun 03 j 06:29	5°♈41'26	0°50'15		
	-8827 Aug 25 j 00:25	0°♓		minimum elong	-8822 Jun 03 j 04:56	5°♈38'51	0°50'13		
	-8827 Oct 05 j 00:10	0°♈			-8822 Jul 08 j 23:31	0°♏			
	-8827 Nov 16 j 02:04	0°♑		morning rise	-8822 Jul 21 j 02:10	8°♏26'28			
	-8827 Dec 29 j 17:51	0°♒			-8822 Aug 20 j 09:25	0°♐			
evening set	-8826 Jan 27 j 03:30	18°♒56'18			-8822 Sep 30 j 06:42	0°♑			
	-8826 Feb 13 j 00:04	0°♑			-8822 Nov 09 j 04:25	0°♒			
					-8822 Dec 18 j 20:28	0°♓			
conjunction	-8826 Mar 18 j 02:02	21°♑25'16	-0°38'39		-8821 Jan 28 j 08:44	0°♈			
minimum elong	-8826 Mar 18 j 03:25	21°♑27'29	0°39'12	desc. node	-8821 Feb 04 j 10:44	5°♈06'04			
max. Earth dist.	-8826 Mar 25 j 06:29	26°♑02'08	2.65706 AU		-8821 Mar 12 j 13:07	0°♑			
	-8826 Mar 31 j 10:56	0°♒			-8821 May 02 j 23:58	0°♒			
morning rise	-8826 May 04 j 16:16	21°♒51'36		retrograde	-8821 Jun 23 j 12:01	14°♒28'01			
	-8826 May 17 j 10:34	0°♓		min. Earth dist.	-8821 Jul 26 j 05:44	7°♒17'17	0.56636 AU		
asc. node	-8826 May 27 j 15:42	6°♓30'51		greatest brilliancy	-8821 Jul 31 j 11:42	5°♒15'14	-1.8m		
	-8826 Jul 03 j 09:27	0°♈		opposition	-8821 Aug 01 j 14:16	4°♒49'25	-5°22'17		
	-8826 Aug 19 j 03:44	0°♏			-8821 Aug 15 j 06:50	30°♒♐			
	-8826 Oct 05 j 05:04	0°♐		direct	-8821 Sep 06 j 17:34	26°♒38'11			
	-8826 Nov 23 j 05:14	0°♑			-8821 Sep 30 j 23:00	0°♒			
	-8825 Jan 21 j 22:30	0°♒			-8821 Dec 09 j 12:41	0°♑			
retrograde	-8825 Feb 26 j 22:45	7°♒18'24		asc. node	-8820 Jan 17 j 07:19	21°♑41'33			
opposition	-8825 Mar 29 j 15:59	2°♒11'19	2°38'07		-8820 Jan 31 j 11:20	0°♒			
greatest brilliancy	-8825 Mar 29 j 22:38	2°♒06'50	-2.9m		-8820 Mar 20 j 14:55	0°♓			
min. Earth dist.	-8825 Mar 30 j 23:41	1°♒49'59	0.38231 AU		-8820 May 06 j 03:39	0°♈			
	-8825 Apr 07 j 01:10	30°♒♑		evening set	-8820 May 26 j 20:36	13°♈53'26			
direct	-8825 Apr 29 j 12:35	26°♑57'45		max. Earth dist.	-8820 Jun 12 j 15:04	25°♈24'15	2.51953 AU		
desc. node	-8825 May 02 j 09:10	27°♑01'01			-8820 Jun 19 j 05:28	0°♏			
	-8825 May 21 j 10:03	0°♒							
	-8825 Jul 23 j 16:46	0°♓		conjunction	-8820 Jul 16 j 21:23	19°♏40'14	1°12'30		
	-8825 Sep 09 j 01:55	0°♈		minimum elong	-8820 Jul 16 j 21:13	19°♏39'56	1°12'53		
	-8825 Oct 24 j 15:08	0°♑			-8820 Jul 31 j 01:40	0°♐			
	-8825 Dec 09 j 09:59	0°♒		morning rise	-8820 Sep 08 j 21:32	29°♐48'35			
	-8824 Jan 24 j 23:07	0°♑			-8820 Sep 09 j 03:32	0°♑			
evening set	-8824 Mar 08 j 05:58	27°♑34'56			-8820 Oct 18 j 03:11	0°♒			
	-8824 Mar 12 j 01:11	0°♒			-8820 Nov 25 j 19:40	0°♓			
asc. node	-8824 Apr 13 j 08:56	20°♒36'14		desc. node	-8820 Dec 22 j 05:29	20°♓15'51			
max. Earth dist.	-8824 Apr 17 j 13:25	23°♒17'00	2.66273 AU		-8819 Jan 04 j 02:22	0°♈			
					-8819 Feb 13 j 23:28	0°♑			
conjunction	-8824 Apr 25 j 00:03	28°♒03'19	0°06'46		-8819 Mar 29 j 19:47	0°♒			
minimum elong	-8824 Apr 24 j 23:48	28°♒02'56	0°06'23		-8819 May 18 j 21:36	0°♑			
behind sun begin	-8824 Apr 24 j 05:43	27°♒33'56		retrograde	-8819 Jul 30 j 07:50	23°♑50'57			
behind sun end	-8824 Apr 25 j 17:53	28°♒31'56		min. Earth dist.	-8819 Sep 05 j 15:29	15°♑00'03	0.64615 AU		
	-8824 Apr 28 j 00:43	0°♓		opposition	-8819 Sep 08 j 07:36	13°♑55'34	-3°12'06		
morning rise	-8824 Jun 10 j 06:03	28°♓02'52		greatest brilliancy	-8819 Sep 08 j 01:19	14°♑01'54	-1.4m		
	-8824 Jun 13 j 05:21	0°♈		direct	-8819 Oct 17 j 06:45	4°♑37'55			



## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 9

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

asc. node	-8819 Dec 04 j 12:20	15° $\text{Z}$ 49'56		minimum elong	-8813 Jan 15 j 09:27	22° $\text{M}$ 33'11	1°12'39
	-8818 Jan 04 j 14:19	0° $\approx$			-8813 Jan 26 j 03:23	0° $\text{X}$	
	-8818 Feb 27 j 16:12	0° $\text{H}$		max. Earth dist.	-8813 Feb 15 j 22:04	14° $\text{X}$ 09'09	2.56059 AU
	-8818 Apr 16 j 17:41	0° $\text{Y}$		morning rise	-8813 Mar 10 j 19:04	29° $\text{X}$ 23'39	
	-8818 May 31 j 04:56	0° $\text{B}$			-8813 Mar 11 j 17:08	0° $\text{Z}$	
	-8818 Jul 11 j 22:27	0° $\text{II}$			-8813 Apr 27 j 04:01	0° $\approx$	
evening set	-8818 Jul 15 j 03:57	2° $\text{II}$ 23'28			-8813 Jun 14 j 09:24	0° $\text{H}$	
max. Earth dist.	-8818 Aug 10 j 17:32	22° $\text{II}$ 23'07	2.40098 AU	asc. node	-8813 Jul 27 j 16:04	25° $\text{H}$ 43'26	
	-8818 Aug 20 j 16:08	0° $\text{E}$			-8813 Aug 04 j 03:41	0° $\text{Y}$	
					-8813 Oct 01 j 22:05	0° $\text{B}$	
conjunction	-8818 Sep 11 j 09:03	16° $\text{E}$ 48'47	0°41'49	retrograde	-8813 Nov 24 j 03:43	13° $\text{B}$ 21'23	
minimum elong	-8818 Sep 11 j 11:56	16° $\text{E}$ 54'25	0°42'20	opposition	-8813 Dec 29 j 11:04	5° $\text{B}$ 58'12	5°34'01
	-8818 Sep 28 j 05:56	0° $\Omega$		greatest brilliancy	-8813 Dec 30 j 21:30	5° $\text{B}$ 27'18	-2.0m
	-8818 Nov 05 j 12:58	0° $\text{M}$		min. Earth dist.	-8812 Jan 06 j 07:39	3° $\text{B}$ 09'22	0.52584 AU
desc. node	-8818 Nov 08 j 22:54	2° $\text{M}$ 39'44			-8812 Jan 16 j 05:32	30° $\text{R}$ $\text{Y}$	
morning rise	-8818 Nov 14 j 18:40	7° $\text{M}$ 11'32		direct	-8812 Feb 06 j 12:08	26° $\text{Y}$ 56'56	
	-8818 Dec 14 j 10:29	0° $\underline{\text{A}}$			-8812 Feb 28 j 11:33	0° $\text{B}$	
	-8817 Jan 23 j 18:29	0° $\text{M}$			-8812 May 01 j 04:53	0° $\text{II}$	
	-8817 Mar 07 j 07:32	0° $\text{X}$			-8812 Jun 14 j 14:47	0° $\text{E}$	
	-8817 Apr 22 j 00:03	0° $\text{Z}$		desc. node	-8812 Jun 30 j 19:55	11° $\text{E}$ 45'38	
	-8817 Jun 12 j 02:59	0° $\approx$			-8812 Jul 25 j 08:51	0° $\Omega$	
retrograde	-8817 Sep 03 j 08:18	28° $\approx$ 20'51			-8812 Sep 03 j 04:01	0° $\text{M}$	
opposition	-8817 Oct 12 j 22:33	18° $\approx$ 48'58	-0°22'45		-8812 Oct 13 j 09:10	0° $\underline{\text{A}}$	
greatest brilliancy	-8817 Oct 12 j 23:06	18° $\approx$ 48'25	-1.4m		-8812 Nov 23 j 20:48	0° $\text{M}$	
min. Earth dist.	-8817 Oct 14 j 00:11	18° $\approx$ 23'19	0.66612 AU		-8811 Jan 06 j 01:41	0° $\text{X}$	
asc. node	-8817 Oct 22 j 17:22	15° $\approx$ 00'06		evening set	-8811 Jan 09 j 11:23	2° $\text{X}$ 18'40	
direct	-8817 Nov 22 j 13:56	8° $\approx$ 56'14			-8811 Feb 20 j 00:42	0° $\text{Z}$	
	-8816 Jan 31 j 09:52	0° $\text{H}$		conjunction	-8811 Mar 02 j 00:32	6° $\text{Z}$ 32'05	-0°53'26
	-8816 Mar 24 j 22:43	0° $\text{Y}$		minimum elong	-8811 Mar 02 j 02:11	6° $\text{Z}$ 34'46	0°53'58
	-8816 May 09 j 23:37	0° $\text{B}$		max. Earth dist.	-8811 Mar 15 j 15:14	15° $\text{Z}$ 22'17	2.64005 AU
	-8816 Jun 21 j 04:34	0° $\text{II}$			-8811 Apr 07 j 08:48	0° $\approx$	
	-8816 Jul 31 j 00:16	0° $\text{E}$		morning rise	-8811 Apr 19 j 21:25	8° $\approx$ 00'18	
	-8816 Sep 07 j 13:04	0° $\Omega$			-8811 May 24 j 12:14	0° $\text{H}$	
evening set	-8816 Sep 14 j 04:41	5° $\Omega$ 13'21		asc. node	-8811 Jun 13 j 10:24	12° $\text{H}$ 35'53	
desc. node	-8816 Sep 25 j 19:21	14° $\Omega$ 20'37			-8811 Jul 11 j 01:05	0° $\text{Y}$	
	-8816 Oct 15 j 18:59	0° $\text{M}$			-8811 Aug 28 j 03:44	0° $\text{B}$	
					-8811 Oct 17 j 08:00	0° $\text{II}$	
conjunction	-8816 Nov 16 j 22:45	24° $\text{M}$ 52'20	-0°37'24		-8811 Dec 16 j 09:30	0° $\text{E}$	
minimum elong	-8816 Nov 16 j 19:50	24° $\text{M}$ 46'45	0°37'15	retrograde	-8810 Jan 26 j 18:34	8° $\text{E}$ 58'01	
	-8816 Nov 23 j 16:13	0° $\underline{\text{A}}$		opposition	-8810 Feb 27 j 02:23	3° $\text{E}$ 31'47	5°22'00
	-8815 Jan 02 j 23:34	0° $\text{M}$		greatest brilliancy	-8810 Feb 28 j 09:04	3° $\text{E}$ 09'44	-2.7m
max. Earth dist.	-8815 Jan 02 j 15:22	29° $\underline{\text{A}}$ 45'04	2.43986 AU	min. Earth dist.	-8810 Mar 05 j 00:40	1° $\text{E}$ 49'59	0.40629 AU
morning rise	-8815 Jan 19 j 01:14	11° $\text{M}$ 34'55			-8810 Mar 11 j 22:42	30° $\text{R}$ $\text{II}$	
	-8815 Feb 14 j 06:52	0° $\text{X}$		direct	-8810 Apr 01 j 06:34	27° $\text{II}$ 20'50	
	-8815 Mar 30 j 23:14	0° $\text{Z}$			-8810 Apr 21 j 11:41	0° $\text{E}$	
	-8815 May 17 j 09:52	0° $\approx$		desc. node	-8810 May 19 j 00:45	10° $\text{E}$ 24'57	
	-8815 Jul 08 j 03:14	0° $\text{H}$			-8810 Jun 23 j 00:07	0° $\Omega$	
asc. node	-8815 Sep 08 j 19:08	27° $\text{H}$ 59'40			-8810 Aug 07 j 13:07	0° $\text{M}$	
	-8815 Sep 16 j 03:22	0° $\text{Y}$			-8810 Sep 19 j 23:22	0° $\underline{\text{A}}$	
retrograde	-8815 Oct 09 j 12:50	3° $\text{Y}$ 04'00			-8810 Nov 02 j 14:48	0° $\text{M}$	
	-8815 Oct 31 j 08:16	30° $\text{R}$ $\text{H}$			-8810 Dec 17 j 07:27	0° $\text{X}$	
opposition	-8815 Nov 16 j 15:48	24° $\text{H}$ 20'09	2°41'24		-8809 Feb 01 j 05:21	0° $\text{Z}$	
greatest brilliancy	-8815 Nov 17 j 01:04	24° $\text{H}$ 11'09	-1.5m	evening set	-8809 Feb 21 j 18:07	13° $\text{Z}$ 13'01	
min. Earth dist.	-8815 Nov 21 j 10:07	22° $\text{H}$ 29'04	0.62451 AU		-8809 Mar 19 j 23:32	0° $\approx$	
direct	-8815 Dec 27 j 14:34	14° $\text{H}$ 23'08		max. Earth dist.	-8809 Apr 09 j 01:49	12° $\approx$ 50'03	2.66689 AU
	-8814 Feb 22 j 03:16	0° $\text{Y}$					
	-8814 Apr 16 j 07:43	0° $\text{B}$		conjunction	-8809 Apr 11 j 01:34	14° $\approx$ 06'18	-0°11'32
	-8814 May 30 j 12:36	0° $\text{II}$		minimum elong	-8809 Apr 11 j 02:01	14° $\approx$ 07'02	0°11'59
	-8814 Jul 10 j 03:33	0° $\text{E}$		behind sun begin	-8809 Apr 10 j 13:03	13° $\approx$ 46'20	
desc. node	-8814 Aug 13 j 18:06	26° $\text{E}$ 36'17		behind sun end	-8809 Apr 11 j 14:59	14° $\approx$ 27'44	
	-8814 Aug 18 j 03:02	0° $\Omega$		asc. node	-8809 May 01 j 03:16	26° $\approx$ 56'41	
	-8814 Sep 25 j 17:28	0° $\text{M}$			-8809 May 05 j 21:35	0° $\text{H}$	
	-8814 Nov 03 j 23:05	0° $\underline{\text{A}}$		morning rise	-8809 May 27 j 12:45	13° $\text{H}$ 55'23	
evening set	-8814 Nov 18 j 10:16	10° $\underline{\text{A}}$ 49'13			-8809 Jun 21 j 07:11	0° $\text{Y}$	
	-8814 Dec 14 j 14:33	0° $\text{M}$			-8809 Aug 05 j 19:04	0° $\text{B}$	
conjunction	-8813 Jan 15 j 09:37	22° $\text{M}$ 33'29	-1°12'14		-8809 Sep 19 j 10:01	0° $\text{II}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 10

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8809 Nov 02 j 13:13	0°☾			-8803 Mar 07 j 21:44	0°☿		
	-8809 Dec 17 j 02:43	0°♈			-8803 Apr 24 j 04:52	0°♈		
	-8808 Feb 03 j 00:07	0°♈			-8803 Jun 07 j 11:06	0°♈		
desc. node	-8808 Apr 05 j 05:10	24°♈19'54		evening set	-8803 Jun 24 j 14:52	12°♈07'58		
retrograde	-8808 Apr 12 j 18:23	24°♈43'28		max. Earth dist.	-8803 Jul 11 j 12:56	24°♈22'01	2.44606 AU	
min. Earth dist.	-8808 May 09 j 20:48	20°♈08'41	0.40277 AU		-8803 Jul 19 j 05:06	0°♈		
opposition	-8808 May 15 j 22:11	18°♈21'06	-2°58'27					
greatest brilliancy	-8808 May 15 j 04:16	18°♈34'26	-2.8m	conjunction	-8803 Aug 18 j 11:58	22°♈42'00	1°02'10	
direct	-8808 Jun 15 j 15:55	12°♈51'46		minimum elong	-8803 Aug 18 j 14:13	22°♈46'16	1°02'42	
	-8808 Aug 13 j 06:11	0°♈			-8803 Aug 28 j 01:22	0°☾		
	-8808 Oct 06 j 08:12	0°♈			-8803 Oct 05 j 18:14	0°♈		
	-8808 Nov 24 j 08:12	0°♈		morning rise	-8803 Oct 17 j 23:53	9°♈33'56		
	-8807 Jan 11 j 11:15	0°♈			-8803 Nov 13 j 03:55	0°♈		
	-8807 Feb 28 j 08:05	0°♈		desc. node	-8803 Nov 25 j 20:24	9°♈50'49		
asc. node	-8807 Mar 17 j 22:22	11°♈06'15			-8803 Dec 22 j 03:24	0°♈		
evening set	-8807 Apr 01 j 01:44	20°♈04'38			-8802 Jan 31 j 13:51	0°♈		
	-8807 Apr 16 j 14:23	0°☿			-8802 Mar 15 j 09:25	0°♈		
max. Earth dist.	-8807 May 02 j 20:19	10°☿28'21	2.64003 AU		-8802 Apr 30 j 23:44	0°♈		
					-8802 Jun 25 j 04:49	0°♈		
conjunction	-8807 May 18 j 15:47	20°☿46'25	0°34'35	retrograde	-8802 Aug 20 j 18:49	15°♈21'37		
minimum elong	-8807 May 18 j 14:34	20°☿44'26	0°34'24	opposition	-8802 Sep 29 j 15:40	5°♈37'25	-1°30'46	
	-8807 Jun 01 j 16:04	0°♈		min. Earth dist.	-8802 Sep 29 j 06:26	5°♈46'41	0.66557 AU	
morning rise	-8807 Jul 04 j 10:50	22°♈00'22		greatest brilliancy	-8802 Sep 29 j 15:37	5°♈37'27	-1.4m	
	-8807 Jul 16 j 03:10	0°♈			-8802 Oct 14 j 17:00	30°♈3		
	-8807 Aug 27 j 22:37	0°♈		direct	-8802 Nov 08 j 18:28	25°♈55'05		
	-8807 Oct 08 j 08:40	0°☾		asc. node	-8802 Nov 08 j 06:16	25°♈55'11		
	-8807 Nov 17 j 21:37	0°♈			-8802 Dec 06 j 03:28	0°♈		
	-8807 Dec 28 j 08:07	0°♈			-8801 Feb 12 j 03:37	0°☿		
	-8806 Feb 08 j 00:38	0°♈			-8801 Apr 03 j 14:37	0°♈		
desc. node	-8806 Feb 21 j 04:28	9°♈01'48			-8801 May 18 j 19:59	0°♈		
	-8806 Mar 26 j 03:45	0°♈			-8801 Jun 29 j 18:51	0°♈		
retrograde	-8806 Jun 06 j 15:18	26°♈18'37			-8801 Aug 08 j 12:50	0°☾		
min. Earth dist.	-8806 Jul 07 j 06:09	19°♈57'42	0.52127 AU	evening set	-8801 Aug 20 j 13:49	9°☾18'33		
greatest brilliancy	-8806 Jul 13 j 08:47	17°♈41'14	-2.0m		-8801 Sep 16 j 01:17	0°♈		
opposition	-8806 Jul 14 j 19:20	17°♈08'55	-5°45'26	desc. node	-8801 Oct 13 j 14:01	21°♈37'18		
direct	-8806 Aug 18 j 12:09	9°♈35'37						
	-8806 Oct 25 j 02:38	0°♈		conjunction	-8801 Oct 22 j 09:31	28°♈31'18	-0°06'45	
	-8806 Dec 19 j 21:41	0°♈		minimum elong	-8801 Oct 22 j 08:54	28°♈30'05	0°06'23	
asc. node	-8805 Feb 02 j 21:55	26°♈35'05		behind sun begin	-8801 Oct 21 j 07:13	27°♈39'53		
	-8805 Feb 08 j 13:13	0°♈		behind sun end	-8801 Oct 23 j 10:34	29°♈20'16		
	-8805 Mar 28 j 21:56	0°☿			-8801 Oct 24 j 06:54	0°♈		
evening set	-8805 May 11 j 02:01	27°☿55'50		max. Earth dist.	-8801 Nov 27 j 11:58	26°♈27'54	2.39452 AU	
	-8805 May 14 j 04:58	0°♈			-8801 Dec 02 j 03:14	0°♈		
max. Earth dist.	-8805 May 31 j 00:31	11°♈15'44	2.56226 AU	morning rise	-8801 Dec 26 j 23:29	18°♈40'08		
	-8805 Jun 27 j 07:32	0°♈			-8800 Jan 11 j 09:29	0°♈		
					-8800 Feb 22 j 16:51	0°♈		
conjunction	-8805 Jun 29 j 10:52	1°♈29'34	1°08'06		-8800 Apr 07 j 14:06	0°♈		
minimum elong	-8805 Jun 29 j 09:41	1°♈27'29	1°08'20		-8800 May 25 j 20:49	0°♈		
	-8805 Aug 08 j 08:12	0°♈			-8800 Jul 20 j 00:54	0°☿		
morning rise	-8805 Aug 19 j 07:20	8°♈02'57		retrograde	-8800 Sep 24 j 12:17	19°☿25'59		
	-8805 Sep 17 j 16:13	0°☾		asc. node	-8800 Sep 25 j 09:42	19°☿25'41		
	-8805 Oct 26 j 22:33	0°♈		opposition	-8800 Nov 02 j 08:03	10°☿20'14	1°29'11	
	-8805 Dec 04 j 21:34	0°♈		greatest brilliancy	-8800 Nov 02 j 11:25	10°☿16'55	-1.4m	
desc. node	-8804 Jan 09 j 01:52	26°♈42'57		min. Earth dist.	-8800 Nov 05 j 16:00	9°☿01'21	0.64805 AU	
	-8804 Jan 13 j 11:21	0°♈		direct	-8800 Dec 13 j 08:31	0°☿20'05		
	-8804 Feb 23 j 20:14	0°♈			-8799 Mar 08 j 03:35	0°♈		
	-8804 Apr 08 j 23:33	0°♈			-8799 Apr 25 j 23:55	0°♈		
	-8804 Jun 04 j 09:52	0°♈			-8799 Jun 08 j 02:43	0°♈		
retrograde	-8804 Jul 16 j 07:22	9°♈39'50			-8799 Jul 18 j 07:12	0°☾		
min. Earth dist.	-8804 Aug 20 j 23:58	1°♈23'14	0.62175 AU		-8799 Aug 26 j 00:39	0°♈		
	-8804 Aug 24 j 11:18	30°♈3		desc. node	-8799 Aug 30 j 11:05	3°♈27'59		
opposition	-8804 Aug 25 j 03:11	29°♈44'06	-4°09'52		-8799 Oct 03 j 10:16	0°♈		
greatest brilliancy	-8804 Aug 24 j 14:04	29°♈57'13	-1.5m	evening set	-8799 Oct 25 j 01:56	16°♈44'33		
direct	-8804 Oct 02 j 02:52	20°♈48'00			-8799 Nov 11 j 11:08	0°♈		
	-8804 Nov 14 j 00:03	0°♈			-8799 Dec 21 j 22:03	0°♈		
asc. node	-8804 Dec 21 j 01:14	16°♈32'38						
	-8803 Jan 15 j 11:59	0°♈		conjunction	-8799 Dec 25 j 00:54	2°♈15'28	-1°06'53	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 11

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

minimum elong	-8799 Dec 24 j 23:00	2°♑12'02	1°07'06	desc. node	-8793 Apr 22 j 20:50	17°♊51'07	
max. Earth dist.	-8798 Feb 01 j 20:52	29°♑41'59	2.51689 AU	direct	-8793 May 16 j 17:50	14°♊26'08	
	-8798 Feb 02 j 07:18	0°♊			-8793 Jul 10 j 04:40	0°♑	
morning rise	-8798 Feb 20 j 14:46	12°♊30'44			-8793 Sep 01 j 02:21	0°♊	
	-8798 Mar 18 j 20:03	0°♊			-8793 Oct 18 j 10:14	0°♑	
	-8798 May 04 j 12:17	0°♊			-8793 Dec 04 j 01:39	0°♊	
	-8798 Jun 22 j 14:22	0°♊			-8792 Jan 20 j 01:48	0°♊	
asc. node	-8798 Aug 13 j 09:14	29°♊01'35			-8792 Mar 07 j 09:26	0°♊	
	-8798 Aug 15 j 06:31	0°♑		evening set	-8792 Mar 16 j 23:42	6°♊05'11	
retrograde	-8798 Nov 04 j 20:46	26°♑44'35		asc. node	-8792 Apr 03 j 14:46	17°♊18'09	
opposition	-8798 Dec 11 j 11:01	18°♑44'48	4°32'33	max. Earth dist.	-8792 Apr 23 j 02:49	29°♊46'46	2.65698 AU
greatest brilliancy	-8798 Dec 12 j 10:41	18°♑22'40	-1.8m		-8792 Apr 23 j 11:03	0°♊	
min. Earth dist.	-8798 Dec 18 j 06:55	16°♑11'40	0.57039 AU				
direct	-8797 Jan 20 j 14:43	9°♑10'44		conjunction	-8792 May 03 j 13:39	6°♊30'30	0°17'13
	-8797 Mar 26 j 18:41	0°♊		minimum elong	-8792 May 03 j 13:00	6°♊29'28	0°16'55
	-8797 May 14 j 14:38	0°♑			-8792 Jun 08 j 14:30	0°♑	
	-8797 Jun 25 j 18:09	0°♊		morning rise	-8792 Jun 18 j 20:48	6°♑47'22	
desc. node	-8797 Jul 18 j 12:33	17°♊03'30			-8792 Jul 23 j 09:20	0°♊	
	-8797 Aug 04 j 12:23	0°♊			-8792 Sep 04 j 18:04	0°♑	
	-8797 Sep 12 j 16:07	0°♑			-8792 Oct 16 j 22:28	0°♊	
	-8797 Oct 22 j 08:49	0°♊			-8792 Nov 27 j 10:46	0°♊	
	-8797 Dec 02 j 10:01	0°♑			-8791 Jan 08 j 05:14	0°♑	
evening set	-8797 Dec 22 j 08:50	14°♑08'00			-8791 Feb 21 j 10:12	0°♊	
	-8796 Jan 14 j 06:38	0°♊		desc. node	-8791 Mar 10 j 00:01	10°♊10'57	
					-8791 Apr 19 j 22:21	0°♑	
conjunction	-8796 Feb 14 j 00:29	20°♊44'35	-1°04'51	retrograde	-8791 May 18 j 16:16	5°♑21'10	
minimum elong	-8796 Feb 14 j 01:57	20°♊47'00	1°05'23		-8791 Jun 15 j 20:29	30°♊	
	-8796 Feb 28 j 00:20	0°♊		min. Earth dist.	-8791 Jun 16 j 05:18	29°♊52'32	0.47148 AU
max. Earth dist.	-8796 Mar 05 j 08:31	4°♊09'44	2.61509 AU	greatest brilliancy	-8791 Jun 22 j 19:30	27°♊34'39	-2.3m
morning rise	-8796 Apr 04 j 14:42	23°♊46'46		opposition	-8791 Jun 24 j 09:24	27°♊01'27	-5°33'36
	-8796 Apr 14 j 07:39	0°♊		direct	-8791 Jul 27 j 10:11	20°♊14'41	
	-8796 May 31 j 17:49	0°♊			-8791 Sep 08 j 10:37	0°♑	
asc. node	-8796 Jun 30 j 04:17	18°♊20'10			-8791 Nov 07 j 14:45	0°♊	
	-8796 Jul 19 j 03:01	0°♑			-8791 Dec 28 j 22:55	0°♊	
	-8796 Sep 07 j 09:19	0°♊			-8790 Feb 16 j 04:25	0°♊	
	-8796 Nov 03 j 16:33	0°♑		asc. node	-8790 Feb 19 j 12:07	2°♊03'14	
retrograde	-8796 Dec 29 j 12:22	14°♑45'00			-8790 Apr 05 j 00:09	0°♊	
opposition	-8795 Jan 31 j 10:53	8°♑32'23	6°17'17	evening set	-8790 Apr 25 j 05:04	12°♊59'11	
greatest brilliancy	-8795 Feb 02 j 05:15	7°♑58'22	-2.4m	max. Earth dist.	-8790 May 19 j 09:10	28°♊49'20	2.59831 AU
min. Earth dist.	-8795 Feb 08 j 09:59	6°♑00'14	0.44941 AU		-8790 May 21 j 03:48	0°♑	
direct	-8795 Mar 08 j 08:45	1°♑03'04					
	-8795 May 23 j 18:28	0°♊		conjunction	-8790 Jun 12 j 12:30	15°♑00'29	0°57'58
desc. node	-8795 Jun 04 j 15:49	7°♊28'53		minimum elong	-8790 Jun 12 j 10:57	14°♑57'49	0°58'02
	-8795 Jul 07 j 21:53	0°♊			-8790 Jul 04 j 08:40	0°♊	
	-8795 Aug 18 j 20:19	0°♊		morning rise	-8790 Jul 31 j 04:21	18°♊53'00	
	-8795 Sep 29 j 11:03	0°♊			-8790 Aug 15 j 15:19	0°♑	
	-8795 Nov 10 j 23:09	0°♑			-8790 Sep 25 j 07:40	0°♊	
	-8795 Dec 24 j 21:45	0°♊			-8790 Nov 03 j 23:20	0°♊	
evening set	-8794 Feb 05 j 16:56	28°♊16'57			-8790 Dec 13 j 08:19	0°♑	
	-8794 Feb 08 j 08:12	0°♊		desc. node	-8789 Jan 22 j 10:10	0°♊	
					-8789 Jan 25 j 21:14	2°♊32'10	
conjunction	-8794 Mar 26 j 22:41	0°♊03'05	-0°29'07		-8789 Mar 05 j 16:48	0°♑	
minimum elong	-8794 Mar 26 j 23:47	0°♊04'50	0°29'37		-8789 Apr 22 j 14:06	0°♊	
	-8794 Mar 26 j 20:45	0°♊		retrograde	-8789 Jul 02 j 12:00	24°♊18'19	
max. Earth dist.	-8794 Mar 30 j 19:51	2°♊32'09	2.66289 AU	min. Earth dist.	-8789 Aug 05 j 08:08	16°♊42'12	0.58818 AU
	-8794 May 12 j 19:21	0°♊		opposition	-8789 Aug 10 j 21:48	14°♊30'42	-4°59'43
morning rise	-8794 May 13 j 00:26	0°♊08'08		greatest brilliancy	-8789 Aug 10 j 00:17	14°♊51'55	-1.7m
asc. node	-8794 May 17 j 21:20	3°♊15'06		direct	-8789 Sep 16 j 17:44	6°♊01'49	
	-8794 Jun 28 j 12:46	0°♑			-8789 Dec 01 j 16:33	0°♊	
	-8794 Aug 13 j 18:25	0°♊		asc. node	-8788 Jan 07 j 14:26	19°♊36'18	
	-8794 Sep 28 j 17:59	0°♑			-8788 Jan 25 j 19:54	0°♊	
	-8794 Nov 14 j 08:07	0°♊			-8788 Mar 15 j 15:57	0°♊	
	-8793 Jan 03 j 08:04	0°♊			-8788 May 01 j 11:04	0°♑	
retrograde	-8793 Mar 16 j 11:07	24°♑48'47		evening set	-8788 Jun 05 j 21:41	23°♑56'34	
min. Earth dist.	-8793 Apr 14 j 20:21	19°♑58'21	0.38113 AU		-8788 Jun 14 j 14:49	0°♊	
opposition	-8793 Apr 16 j 14:27	19°♑30'00	0°30'02	max. Earth dist.	-8788 Jun 21 j 16:22	4°♊57'34	2.49410 AU
greatest brilliancy	-8793 Apr 16 j 14:26	19°♑30'01	-3.0m		-8788 Jul 26 j 10:36	0°♑	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 12

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8788 Jul 28 j 02:32	1°II13'27	1°11'31	asc. node	-8783 Aug 30 j 01:42	29°K49'40	
minimum elong	-8788 Jul 28 j 03:13	1°II14'41	1°11'58		-8783 Aug 30 j 11:51	0°Y	
	-8788 Sep 04 j 10:31	0°S		retrograde	-8783 Oct 18 j 15:49	11°Y37'48	
morning rise	-8788 Sep 22 j 06:01	13°S40'30		opposition	-8783 Nov 25 j 06:56	3°Y08'03	3°22'46
	-8788 Oct 13 j 07:26	0°Q		greatest brilliancy	-8783 Nov 25 j 20:48	2°Y54'44	-1.6m
	-8788 Nov 20 j 20:56	0°M		min. Earth dist.	-8783 Nov 30 j 19:54	1°Y00'14	0.60763 AU
desc. node	-8788 Dec 12 j 15:40	16°M47'53			-8783 Dec 03 j 11:52	30°R8	
	-8788 Dec 30 j 00:02	0°A		direct	-8782 Jan 05 j 01:16	23°K15'54	
	-8787 Feb 08 j 15:34	0°M			-8782 Feb 08 j 19:42	0°Y	
	-8787 Mar 23 j 23:24	0°J			-8782 Apr 09 j 10:27	0°B	
	-8787 May 11 j 05:58	0°S			-8782 May 24 j 18:05	0°II	
	-8787 Jul 19 j 13:56	0°≈			-8782 Jul 04 j 19:06	0°S	
retrograde	-8787 Aug 07 j 05:53	2°≈06'12		desc. node	-8782 Aug 04 j 04:32	23°S12'06	
	-8787 Aug 24 j 19:40	30°R3			-8782 Aug 12 j 23:42	0°Q	
min. Earth dist.	-8787 Sep 14 j 09:10	22°S58'10	0.65561 AU		-8782 Sep 20 j 17:44	0°M	
opposition	-8787 Sep 16 j 05:24	22°S13'36	-2°36'02		-8782 Oct 30 j 02:11	0°A	
greatest brilliancy	-8787 Sep 16 j 02:03	22°S16'59	-1.4m	evening set	-8782 Dec 01 j 08:58	23°A52'32	
direct	-8787 Oct 25 j 15:11	12°S46'01			-8782 Dec 09 j 19:59	0°M	
asc. node	-8787 Nov 24 j 19:46	17°S38'45			-8781 Jan 21 j 10:37	0°J	
	-8787 Dec 27 j 00:09	0°≈					
	-8786 Feb 21 j 21:14	0°K		conjunction	-8781 Jan 26 j 16:11	3°J35'24	-1°11'25
	-8786 Apr 11 j 16:06	0°Y		minimum elong	-8781 Jan 26 j 16:48	3°J36'27	1°11'53
	-8786 May 26 j 09:40	0°B		max. Earth dist.	-8781 Feb 22 j 23:46	22°J01'31	2.58227 AU
	-8786 Jul 07 j 05:33	0°II			-8781 Mar 07 j 00:39	0°S	
evening set	-8786 Jul 27 j 17:13	15°II18'19		morning rise	-8781 Mar 20 j 12:37	8°S50'43	
	-8786 Aug 15 j 23:40	0°S			-8781 Apr 22 j 09:05	0°≈	
max. Earth dist.	-8786 Sep 09 j 16:36	19°S09'36	2.38408 AU		-8781 Jun 09 j 05:33	0°K	
	-8786 Sep 23 j 12:56	0°Q		asc. node	-8781 Jul 17 j 22:13	23°K30'25	
					-8781 Jul 28 j 21:32	0°Y	
conjunction	-8786 Sep 25 j 18:31	1°Q45'04	0°25'51		-8781 Sep 21 j 03:23	0°B	
minimum elong	-8786 Sep 25 j 20:44	1°Q49'25	0°26'20	retrograde	-8781 Dec 06 j 07:12	24°B09'13	
desc. node	-8786 Oct 30 j 10:00	28°Q55'20		opposition	-8780 Jan 09 j 19:02	17°B09'05	6°00'13
	-8786 Oct 31 j 19:06	0°M		greatest brilliancy	-8780 Jan 11 j 10:29	16°B34'43	-2.1m
morning rise	-8786 Nov 30 j 09:57	22°M56'58		min. Earth dist.	-8780 Jan 17 j 22:59	14°B19'10	0.49922 AU
	-8786 Dec 09 j 15:23	0°A		direct	-8780 Feb 16 j 22:16	8°B33'58	
	-8785 Jan 18 j 21:28	0°M			-8780 Apr 21 j 07:16	0°II	
	-8785 Mar 02 j 06:49	0°J			-8780 Jun 07 j 12:58	0°S	
	-8785 Apr 16 j 13:13	0°S		desc. node	-8780 Jun 21 j 08:54	9°S43'43	
	-8785 Jun 05 j 06:04	0°≈			-8780 Jul 19 j 05:58	0°Q	
	-8785 Aug 08 j 01:06	0°K			-8780 Aug 28 j 13:46	0°M	
retrograde	-8785 Sep 11 j 07:34	6°K15'37			-8780 Oct 08 j 03:29	0°A	
	-8785 Oct 12 j 14:29	30°R≈			-8780 Nov 18 j 21:20	0°M	
asc. node	-8785 Oct 13 j 00:37	29°≈50'35			-8779 Jan 01 j 06:51	0°J	
opposition	-8785 Oct 20 j 16:05	26°≈52'06	0°17'54	evening set	-8779 Jan 19 j 18:07	12°J25'07	
greatest brilliancy	-8785 Oct 20 j 16:28	26°≈51'43	-1.4m		-8779 Feb 15 j 08:42	0°S	
min. Earth dist.	-8785 Oct 22 j 13:22	26°≈06'57	0.66221 AU				
direct	-8785 Nov 30 j 11:45	16°≈55'16		conjunction	-8779 Mar 11 j 08:18	15°S35'48	-0°45'10
	-8784 Jan 21 j 17:54	0°K		minimum elong	-8779 Mar 11 j 09:51	15°S38'18	0°45'43
	-8784 Mar 18 j 20:21	0°Y		max. Earth dist.	-8779 Mar 21 j 10:12	22°S05'43	2.65058 AU
	-8784 May 04 j 16:26	0°B			-8779 Apr 02 j 17:36	0°≈	
	-8784 Jun 16 j 04:27	0°II		morning rise	-8779 Apr 28 j 10:35	16°≈25'19	
	-8784 Jul 26 j 03:11	0°S			-8779 May 19 j 18:36	0°K	
	-8784 Sep 02 j 17:30	0°Q		asc. node	-8779 Jun 03 j 15:21	9°K27'08	
desc. node	-8784 Sep 16 j 05:17	10°Q34'52			-8779 Jul 05 j 23:04	0°Y	
evening set	-8784 Sep 29 j 02:25	20°Q40'57			-8779 Aug 22 j 06:06	0°B	
	-8784 Oct 11 j 00:29	0°M			-8779 Oct 09 j 10:22	0°II	
	-8784 Nov 18 j 22:24	0°A			-8779 Nov 30 j 09:13	0°S	
				retrograde	-8778 Feb 13 j 04:09	24°S52'26	
conjunction	-8784 Dec 01 j 07:44	9°A21'12	-0°51'09	opposition	-8778 Mar 15 j 22:18	19°S42'16	4°02'35
minimum elong	-8784 Dec 01 j 04:36	9°A15'20	0°51'09	greatest brilliancy	-8778 Mar 16 j 15:33	19°S30'25	-2.8m
	-8784 Dec 29 j 06:04	0°M		min. Earth dist.	-8778 Mar 19 j 13:33	18°S42'24	0.38983 AU
max. Earth dist.	-8783 Jan 15 j 07:03	12°M16'29	2.46787 AU	direct	-8778 Apr 16 j 17:15	14°S08'11	
morning rise	-8783 Jan 31 j 11:40	23°M42'26		desc. node	-8778 May 09 j 13:48	17°S29'00	
	-8783 Feb 09 j 12:54	0°J			-8778 Jun 09 j 11:05	0°Q	
	-8783 Mar 26 j 02:17	0°S			-8778 Jul 30 j 06:13	0°M	
	-8783 May 12 j 03:44	0°≈			-8778 Sep 13 j 11:06	0°A	
	-8783 Jul 01 j 14:48	0°K			-8778 Oct 28 j 00:05	0°M	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 13

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8778 Dec 12 j 05:20	0°♊		minimum elong	-8773 Jul 09 j 17:53	12°♊00'46	1°11'47
	-8777 Jan 27 j 10:26	0°♋			-8773 Aug 03 j 15:54	0°♌	
evening set	-8777 Mar 02 j 17:09	21°♋56'29		morning rise	-8773 Aug 31 j 05:40	20°♌27'07	
	-8777 Mar 15 j 08:25	0°♌			-8773 Sep 12 j 21:15	0°♍	
max. Earth dist.	-8777 Apr 14 j 14:17	19°♌17'46	2.66567 AU		-8773 Oct 22 j 00:06	0°♎	
					-8773 Nov 29 j 19:17	0°♏	
conjunction	-8777 Apr 19 j 16:00	22°♌32'22	-0°00'59	desc. node	-8773 Dec 30 j 11:58	23°♏27'47	
minimum elong	-8777 Apr 19 j 16:04	22°♌32'29	0°01'23		-8772 Jan 08 j 04:14	0°♐	
behind sun begin	-8777 Apr 18 j 20:39	22°♌01'27			-8772 Feb 18 j 04:25	0°♑	
behind sun end	-8777 Apr 20 j 11:29	23°♌03'31			-8772 Apr 02 j 09:40	0°♒	
asc. node	-8777 Apr 21 j 07:52	23°♌36'09			-8772 May 24 j 03:45	0°♓	
	-8777 May 01 j 07:24	0°♈		retrograde	-8772 Jul 24 j 11:27	18°♓19'33	
morning rise	-8777 Jun 04 j 22:45	22°♈23'10		min. Earth dist.	-8772 Aug 30 j 01:44	9°♓43'09	0.63629 AU
	-8777 Jun 16 j 14:31	0°♉		opposition	-8772 Sep 02 j 09:21	8°♓23'11	-3°37'13
	-8777 Jul 31 j 19:48	0°♊		greatest brilliancy	-8772 Sep 02 j 00:18	8°♓32'16	-1.5m
	-8777 Sep 13 j 22:16	0°♋			-8772 Sep 30 j 04:45	30°♒♊	
	-8777 Oct 27 j 05:02	0°♌		direct	-8772 Oct 10 j 21:58	29°♒♊14'35	
	-8777 Dec 09 j 07:26	0°♎			-8772 Oct 22 j 02:56	0°♓	
	-8776 Jan 22 j 19:20	0°♏		asc. node	-8772 Dec 11 j 09:20	16°♓05'14	
	-8776 Mar 15 j 11:49	0°♐			-8771 Jan 08 j 17:10	0°♑	
desc. node	-8776 Mar 26 j 16:37	4°♐35'26			-8771 Mar 02 j 13:49	0°♒	
retrograde	-8776 Apr 26 j 18:15	10°♐45'04			-8771 Apr 19 j 08:11	0°♓	
min. Earth dist.	-8776 May 23 j 23:06	5°♐58'13	0.42424 AU		-8771 Jun 02 j 18:28	0°♈	
greatest brilliancy	-8776 May 30 j 03:23	4°♐00'51	-2.6m	evening set	-8771 Jul 06 j 01:05	23°♈45'33	
opposition	-8776 May 31 j 08:44	3°♐37'28	-4°19'43		-8771 Jul 14 j 13:13	0°♉	
	-8776 Jun 13 j 01:35	30°♒♏		max. Earth dist.	-8771 Jul 26 j 13:58	8°♉56'08	2.41992 AU
direct	-8776 Jul 01 j 18:34	27°♏41'50			-8771 Aug 23 j 08:45	0°♌	
	-8776 Jul 21 j 04:09	0°♍					
	-8776 Sep 28 j 00:28	0°♎		conjunction	-8771 Aug 31 j 17:24	6°♌26'16	0°51'57
	-8776 Nov 18 j 06:33	0°♏		minimum elong	-8771 Aug 31 j 20:14	6°♌31'44	0°52'28
	-8775 Jan 06 j 06:31	0°♐			-8771 Oct 01 j 00:03	0°♑	
	-8775 Feb 23 j 13:01	0°♑		morning rise	-8771 Nov 02 j 13:45	25°♑30'09	
asc. node	-8775 Mar 08 j 04:01	7°♑55'10			-8771 Nov 08 j 08:03	0°♒	
evening set	-8775 Apr 09 j 19:28	28°♑36'36		desc. node	-8771 Nov 16 j 05:04	6°♒07'47	
	-8775 Apr 11 j 23:37	0°♈			-8771 Dec 17 j 05:46	0°♓	
max. Earth dist.	-8775 May 08 j 19:08	17°♈19'21	2.62735 AU		-8770 Jan 26 j 13:32	0°♔	
					-8770 Mar 10 j 03:36	0°♕	
conjunction	-8775 May 27 j 13:02	29°♈38'35	0°43'55		-8770 Apr 25 j 01:52	0°♖	
minimum elong	-8775 May 27 j 11:36	29°♈36'12	0°43'50		-8770 Jun 16 j 09:05	0°♗	
	-8775 May 28 j 01:58	0°♉		retrograde	-8770 Aug 28 j 14:21	23°♗15'53	
	-8775 Jul 11 j 11:08	0°♊		opposition	-8770 Oct 07 j 07:33	13°♗38'08	-0°51'31
morning rise	-8775 Jul 13 j 19:29	1°♊37'20		greatest brilliancy	-8770 Oct 07 j 08:11	13°♗37'30	-1.4m
	-8775 Aug 23 j 02:00	0°♋		min. Earth dist.	-8770 Oct 07 j 17:45	13°♗27'54	0.66709 AU
	-8775 Oct 03 j 05:23	0°♌		asc. node	-8770 Oct 29 j 14:14	5°♗58'36	
	-8775 Nov 12 j 09:33	0°♎		direct	-8770 Nov 16 j 17:24	3°♗49'29	
	-8775 Dec 22 j 08:44	0°♏			-8769 Feb 04 j 23:24	0°♈	
	-8774 Feb 01 j 06:18	0°♐			-8769 Mar 29 j 02:21	0°♉	
desc. node	-8774 Feb 11 j 16:15	7°♐22'57			-8769 May 13 j 19:55	0°♊	
	-8774 Mar 17 j 07:31	0°♑			-8769 Jun 24 j 23:20	0°♋	
	-8774 May 12 j 15:56	0°♒			-8769 Aug 03 j 19:03	0°♌	
retrograde	-8774 Jun 16 j 12:40	7°♒20'56		evening set	-8769 Sep 03 j 20:41	24°♌08'47	
min. Earth dist.	-8774 Jul 18 j 07:41	0°♒31'31	0.54687 AU		-8769 Sep 11 j 07:48	0°♍	
	-8774 Jul 19 j 17:04	30°♒♎		desc. node	-8769 Oct 04 j 00:41	17°♍50'10	
greatest brilliancy	-8774 Jul 23 j 23:12	28°♎22'10	-1.9m		-8769 Oct 19 j 13:13	0°♎	
opposition	-8774 Jul 25 j 05:31	27°♎53'06	-5°35'32				
direct	-8774 Aug 29 j 17:52	19°♎57'45		conjunction	-8769 Nov 06 j 12:38	13°♎59'08	-0°24'53
	-8774 Oct 13 j 03:19	0°♏		minimum elong	-8769 Nov 06 j 10:26	13°♎54'54	0°24'38
	-8774 Dec 13 j 09:59	0°♐			-8769 Nov 27 j 09:13	0°♑	
asc. node	-8773 Jan 24 j 04:45	23°♐59'36		max. Earth dist.	-8769 Dec 21 j 20:22	18°♑23'57	2.41792 AU
	-8773 Feb 03 j 06:46	0°♑			-8768 Jan 06 j 14:43	0°♒	
	-8773 Mar 24 j 02:29	0°♈		morning rise	-8768 Jan 09 j 23:40	2°♒27'15	
	-8773 May 09 j 13:32	0°♉			-8768 Feb 17 j 20:33	0°♊	
evening set	-8773 May 20 j 13:39	7°♉20'04			-8768 Apr 02 j 13:01	0°♋	
max. Earth dist.	-8773 Jun 07 j 16:13	19°♉36'42	2.53930 AU		-8768 May 20 j 05:28	0°♌	
	-8773 Jun 22 j 16:47	0°♊			-8768 Jul 12 j 00:20	0°♍	
				asc. node	-8768 Sep 15 j 16:42	25°♊52'31	
conjunction	-8773 Jul 09 j 18:35	12°♊02'00	1°11'28	retrograde	-8768 Oct 03 j 00:47	27°♊36'50	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 14

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

opposition	-8768 Nov 10 j 11:27	18° $\text{H}$ 42'45	2°10'52	evening set	-8762 Feb 15 j 00:11	7° $\text{Z}$ 22'13	
greatest brilliancy	-8768 Nov 10 j 17:50	18° $\text{H}$ 36'30	-1.5m		-8762 Mar 22 j 05:57	0° $\approx$	
min. Earth dist.	-8768 Nov 14 j 14:29	17° $\text{H}$ 05'43	0.63626 AU				
direct	-8768 Dec 21 j 11:23	8° $\text{H}$ 43'20		conjunction	-8762 Apr 04 j 16:37	8° $\approx$ 35'43	-0°19'01
	-8767 Feb 27 j 23:19	0° $\text{Y}$		minimum elong	-8762 Apr 04 j 17:22	8° $\approx$ 36'54	0°19'29
	-8767 Apr 20 j 00:40	0° $\text{B}$		max. Earth dist.	-8762 Apr 05 j 07:03	8° $\approx$ 58'46	2.66611 AU
	-8767 Jun 02 j 18:30	0° $\text{II}$		asc. node	-8762 May 08 j 02:02	29° $\approx$ 56'47	
	-8767 Jul 13 j 05:30	0° $\text{E}$			-8762 May 08 j 04:02	0° $\text{H}$	
desc. node	-8767 Aug 20 j 22:58	29° $\text{E}$ 53'26		morning rise	-8762 May 21 j 09:02	8° $\text{H}$ 28'27	
	-8767 Aug 21 j 02:20	0° $\text{O}$			-8762 Jun 23 j 17:03	0° $\text{Y}$	
	-8767 Sep 28 j 14:12	0° $\text{M}$			-8762 Aug 08 j 12:40	0° $\text{B}$	
	-8767 Nov 06 j 16:49	0° $\text{E}$			-8762 Sep 22 j 16:42	0° $\text{II}$	
evening set	-8767 Nov 08 j 02:09	1° $\text{E}$ 02'56			-8762 Nov 06 j 17:54	0° $\text{E}$	
	-8767 Dec 17 j 04:52	0° $\text{M}$			-8762 Dec 23 j 00:11	0° $\text{O}$	
					-8761 Feb 14 j 08:07	0° $\text{M}$	
conjunction	-8766 Jan 06 j 10:52	14° $\text{M}$ 30'22	-1°11'03	retrograde	-8761 Apr 01 j 23:41	12° $\text{M}$ 17'18	
minimum elong	-8766 Jan 06 j 09:59	14° $\text{M}$ 28'48	1°11'23	desc. node	-8761 Apr 13 j 09:35	11° $\text{M}$ 24'31	
	-8766 Jan 28 j 14:41	0° $\text{A}$		min. Earth dist.	-8761 Apr 29 j 16:15	7° $\text{M}$ 42'25	0.38980 AU
max. Earth dist.	-8766 Feb 10 j 05:43	8° $\text{A}$ 39'33	2.54169 AU	opposition	-8761 May 04 j 01:29	6° $\text{M}$ 28'26	-1°35'55
morning rise	-8766 Mar 03 j 05:19	22° $\text{A}$ 47'25		greatest brilliancy	-8761 May 03 j 17:45	6° $\text{M}$ 33'54	-2.9m
	-8766 Mar 14 j 02:23	0° $\text{Z}$		direct	-8761 Jun 03 j 09:05	1° $\text{M}$ 15'37	
	-8766 Apr 29 j 14:11	0° $\approx$			-8761 Aug 22 j 11:21	0° $\text{E}$	
	-8766 Jun 17 j 02:23	0° $\text{H}$			-8761 Oct 11 j 17:28	0° $\text{M}$	
asc. node	-8766 Aug 03 j 14:33	27° $\text{H}$ 40'10			-8761 Nov 28 j 12:27	0° $\text{A}$	
	-8766 Aug 07 j 19:51	0° $\text{Y}$			-8760 Jan 15 j 01:58	0° $\text{Z}$	
	-8766 Oct 11 j 11:29	0° $\text{B}$			-8760 Mar 02 j 16:31	0° $\approx$	
retrograde	-8766 Nov 15 j 13:21	6° $\text{B}$ 25'05		asc. node	-8760 Mar 24 j 20:18	14° $\approx$ 01'43	
	-8766 Dec 17 j 23:20	30° $\text{K}$ $\text{Y}$		evening set	-8760 Mar 25 j 15:45	14° $\approx$ 32'36	
opposition	-8766 Dec 21 j 10:58	28° $\text{Y}$ 44'37	5°08'58		-8760 Apr 18 j 20:56	0° $\text{H}$	
greatest brilliancy	-8766 Dec 22 j 16:44	28° $\text{Y}$ 17'19	-1.9m	max. Earth dist.	-8760 Apr 28 j 17:39	6° $\text{H}$ 20'44	2.64861 AU
min. Earth dist.	-8766 Dec 28 j 21:09	26° $\text{Y}$ 01'27	0.54659 AU				
direct	-8765 Jan 30 j 01:01	19° $\text{Y}$ 26'25		conjunction	-8760 May 12 j 04:39	15° $\text{H}$ 03'40	0°27'25
	-8765 Mar 14 j 13:03	0° $\text{B}$		minimum elong	-8760 May 12 j 03:40	15° $\text{H}$ 02'03	0°27'12
	-8765 May 07 j 09:01	0° $\text{II}$			-8760 Jun 03 j 23:53	0° $\text{Y}$	
	-8765 Jun 19 j 15:54	0° $\text{E}$		morning rise	-8760 Jun 27 j 16:46	15° $\text{Y}$ 47'54	
desc. node	-8765 Jul 09 j 00:29	14° $\text{E}$ 16'15			-8760 Jul 18 j 15:06	0° $\text{B}$	
	-8765 Jul 29 j 22:18	0° $\text{O}$			-8760 Aug 30 j 16:43	0° $\text{II}$	
	-8765 Sep 07 j 09:37	0° $\text{M}$			-8760 Oct 11 j 10:54	0° $\text{E}$	
	-8765 Oct 17 j 08:06	0° $\text{E}$			-8760 Nov 21 j 09:13	0° $\text{O}$	
	-8765 Nov 27 j 13:36	0° $\text{M}$			-8759 Jan 01 j 07:25	0° $\text{M}$	
evening set	-8764 Jan 02 j 11:14	25° $\text{M}$ 08'22			-8759 Feb 12 j 19:00	0° $\text{E}$	
	-8764 Jan 09 j 13:28	0° $\text{A}$		desc. node	-8759 Feb 28 j 09:44	10° $\text{E}$ 21'08	
					-8759 Apr 02 j 10:19	0° $\text{M}$	
conjunction	-8764 Feb 23 j 21:38	0° $\text{Z}$ 21'09	-0°58'42	retrograde	-8759 May 29 j 19:44	18° $\text{M}$ 03'32	
minimum elong	-8764 Feb 23 j 23:16	0° $\text{Z}$ 23'50	0°59'15	min. Earth dist.	-8759 Jun 28 j 11:06	12° $\text{M}$ 05'59	0.49935 AU
	-8764 Feb 23 j 08:46	0° $\text{Z}$		greatest brilliancy	-8759 Jul 04 j 20:25	9° $\text{M}$ 47'00	-2.1m
max. Earth dist.	-8764 Mar 11 j 10:57	11° $\text{Z}$ 10'16	2.62985 AU	opposition	-8759 Jul 06 j 09:19	9° $\text{M}$ 13'20	-5°46'15
	-8764 Apr 09 j 15:36	0° $\approx$		direct	-8759 Aug 09 j 09:24	1° $\text{M}$ 59'42	
morning rise	-8764 Apr 13 j 11:34	2° $\approx$ 27'10			-8759 Oct 30 j 15:23	0° $\text{A}$	
	-8764 May 26 j 21:11	0° $\text{H}$			-8759 Dec 23 j 04:07	0° $\text{Z}$	
asc. node	-8764 Jun 20 j 09:09	15° $\text{H}$ 24'25		asc. node	-8758 Feb 09 j 19:26	29° $\text{Z}$ 10'14	
	-8764 Jul 13 j 17:47	0° $\text{Y}$			-8758 Feb 11 j 03:57	0° $\approx$	
	-8764 Aug 31 j 15:30	0° $\text{B}$			-8758 Mar 31 j 07:21	0° $\text{H}$	
	-8764 Oct 23 j 00:11	0° $\text{II}$		evening set	-8758 May 04 j 05:04	21° $\text{H}$ 51'15	
retrograde	-8763 Jan 13 j 21:47	28° $\text{II}$ 18'57			-8758 May 16 j 13:44	0° $\text{Y}$	
opposition	-8763 Feb 14 j 22:22	22° $\text{II}$ 33'14	5°57'18	max. Earth dist.	-8758 May 26 j 00:23	6° $\text{Y}$ 17'25	2.57932 AU
greatest brilliancy	-8763 Feb 16 j 12:35	22° $\text{II}$ 04'22	-2.6m				
min. Earth dist.	-8763 Feb 22 j 02:41	20° $\text{II}$ 24'00	0.42411 AU	conjunction	-8758 Jun 22 j 00:51	24° $\text{Y}$ 38'45	1°04'22
direct	-8763 Mar 21 j 08:59	15° $\text{II}$ 47'04		minimum elong	-8758 Jun 21 j 23:26	24° $\text{Y}$ 36'19	1°04'31
	-8763 May 10 j 08:34	0° $\text{E}$			-8758 Jun 29 j 18:28	0° $\text{B}$	
desc. node	-8763 May 26 j 04:45	8° $\text{E}$ 29'49		morning rise	-8758 Aug 10 j 18:56	29° $\text{B}$ 53'21	
	-8763 Jun 29 j 15:08	0° $\text{O}$			-8758 Aug 10 j 22:36	0° $\text{II}$	
	-8763 Aug 12 j 03:59	0° $\text{M}$			-8758 Sep 20 j 10:54	0° $\text{E}$	
	-8763 Sep 23 j 15:17	0° $\text{E}$			-8758 Oct 29 j 21:21	0° $\text{O}$	
	-8763 Nov 05 j 16:09	0° $\text{M}$			-8758 Dec 08 j 00:10	0° $\text{M}$	
	-8763 Dec 19 j 23:13	0° $\text{A}$		desc. node	-8757 Jan 16 j 07:21	29° $\text{M}$ 40'20	
	-8762 Feb 03 j 14:49	0° $\text{Z}$			-8757 Jan 16 j 17:56	0° $\text{E}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 15

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8757 Feb 27 j 09:06	0°♌		direct	-8753 Dec 08 j 10:20	24°♊59'37	
	-8757 Apr 14 j 07:31	0°♈			-8752 Jan 07 j 17:10	0°♈	
	-8757 Jun 16 j 14:15	0°♊			-8752 Mar 12 j 06:43	0°♈	
retrograde	-8757 Jul 11 j 03:51	3°♊41'35			-8752 Apr 29 j 05:52	0°♈	
	-8757 Aug 03 j 02:48	30°♋♈			-8752 Jun 11 j 03:00	0°♊	
min. Earth dist.	-8757 Aug 15 j 00:57	25°♈42'00	0.60789 AU		-8752 Jul 21 j 05:39	0°♊	
opposition	-8757 Aug 19 j 19:26	23°♈48'08	-4°32'16		-8752 Aug 28 j 21:47	0°♊	
greatest brilliancy	-8757 Aug 19 j 02:47	24°♈04'43	-1.6m	desc. node	-8752 Sep 06 j 16:17	6°♊52'12	
direct	-8757 Sep 26 j 06:46	15°♈03'23			-8752 Oct 06 j 05:46	0°♊	
	-8757 Nov 22 j 05:14	0°♊		evening set	-8752 Oct 13 j 21:28	5°♊57'14	
asc. node	-8757 Dec 28 j 22:19	17°♊57'59			-8752 Nov 14 j 04:32	0°♊	
	-8756 Jan 19 j 21:03	0°♊					
	-8756 Mar 10 j 14:19	0°♈		conjunction	-8752 Dec 15 j 01:06	23°♊03'43	-1°01'26
	-8756 Apr 26 j 17:09	0°♈		minimum elong	-8752 Dec 14 j 22:31	22°♊58'58	1°01'35
	-8756 Jun 09 j 23:40	0°♈			-8752 Dec 24 j 12:47	0°♌	
evening set	-8756 Jun 16 j 08:25	4°♈27'46		max. Earth dist.	-8751 Jan 25 j 20:37	23°♌04'19	2.49540 AU
max. Earth dist.	-8756 Jul 02 j 05:56	15°♈46'11	2.46780 AU		-8751 Feb 04 j 19:33	0°♈	
	-8756 Jul 21 j 19:31	0°♊		morning rise	-8751 Feb 12 j 05:16	5°♈06'02	
					-8751 Mar 21 j 07:02	0°♊	
conjunction	-8756 Aug 08 j 22:25	13°♊27'45	1°07'28		-8751 May 07 j 01:29	0°♊	
minimum elong	-8756 Aug 09 j 00:00	13°♊30'44	1°08'00		-8751 Jun 25 j 14:13	0°♈	
	-8756 Aug 30 j 18:16	0°♊		asc. node	-8751 Aug 20 j 07:46	0°♈06'27	
morning rise	-8756 Oct 06 j 10:46	28°♊21'40			-8751 Aug 20 j 02:24	0°♈	
	-8756 Oct 08 j 13:13	0°♊		retrograde	-8751 Oct 28 j 06:58	20°♈32'45	
	-8756 Nov 16 j 00:17	0°♊		opposition	-8751 Dec 04 j 08:33	12°♈18'50	4°03'14
desc. node	-8756 Dec 03 j 02:38	13°♊14'24		greatest brilliancy	-8751 Dec 05 j 03:42	12°♈00'39	-1.7m
	-8756 Dec 25 j 00:34	0°♊		min. Earth dist.	-8751 Dec 10 j 14:35	9°♈56'29	0.58815 AU
	-8755 Feb 03 j 11:36	0°♌		direct	-8750 Jan 13 j 19:30	2°♈35'02	
	-8755 Mar 18 j 09:54	0°♈			-8750 Apr 01 j 13:13	0°♈	
	-8755 May 04 j 11:34	0°♊			-8750 May 18 j 15:02	0°♊	
	-8755 Jul 01 j 16:28	0°♊			-8750 Jun 29 j 06:34	0°♊	
retrograde	-8755 Aug 15 j 02:18	10°♊12'05		desc. node	-8750 Jul 25 j 17:14	19°♊59'26	
min. Earth dist.	-8755 Sep 22 j 23:22	0°♊48'36	0.66233 AU		-8750 Aug 07 j 18:30	0°♊	
opposition	-8755 Sep 24 j 00:14	0°♊23'32	-1°58'28		-8750 Sep 15 j 17:09	0°♊	
greatest brilliancy	-8755 Sep 23 j 23:02	0°♊24'44	-1.4m		-8750 Oct 25 j 05:10	0°♊	
	-8755 Sep 24 j 23:35	30°♋♊			-8750 Dec 05 j 01:41	0°♌	
direct	-8755 Nov 02 j 19:23	20°♊47'14		evening set	-8750 Dec 13 j 13:20	6°♌04'28	
asc. node	-8755 Nov 15 j 03:14	21°♊41'16			-8749 Jan 16 j 18:13	0°♈	
	-8755 Dec 15 j 22:33	0°♊					
	-8754 Feb 15 j 17:51	0°♈		conjunction	-8749 Feb 06 j 08:12	13°♈59'45	-1°08'18
	-8754 Apr 06 j 11:43	0°♈		minimum elong	-8749 Feb 06 j 09:22	14°♈01'44	1°08'49
	-8754 May 21 j 13:17	0°♈		max. Earth dist.	-8749 Mar 01 j 16:33	29°♈32'56	2.60132 AU
	-8754 Jul 02 j 11:52	0°♊			-8749 Mar 02 j 08:58	0°♊	
evening set	-8754 Aug 09 j 22:32	28°♊58'09		morning rise	-8749 Mar 29 j 21:01	17°♊56'25	
	-8754 Aug 11 j 06:44	0°♊			-8749 Apr 17 j 15:43	0°♊	
	-8754 Sep 18 j 19:48	0°♊			-8749 Jun 04 j 05:09	0°♈	
				asc. node	-8749 Jul 08 j 03:29	20°♈56'42	
conjunction	-8754 Oct 10 j 16:20	17°♊09'51	0°07'46		-8749 Jul 23 j 01:33	0°♈	
minimum elong	-8754 Oct 10 j 17:06	17°♊11'21	0°08'11		-8749 Sep 12 j 15:49	0°♈	
behind sun begin	-8754 Oct 09 j 17:04	16°♊24'10			-8749 Nov 16 j 09:46	0°♊	
behind sun end	-8754 Oct 11 j 17:09	17°♊58'32		retrograde	-8749 Dec 19 j 12:11	5°♊51'41	
desc. node	-8754 Oct 20 j 20:05	25°♊07'51			-8748 Jan 20 j 00:32	30°♋♈	
max. Earth dist.	-8754 Oct 26 j 17:08	29°♊43'49	2.38210 AU	opposition	-8748 Jan 22 j 04:23	29°♈17'08	6°15'33
	-8754 Oct 27 j 01:25	0°♊		greatest brilliancy	-8748 Jan 23 j 22:43	28°♈41'44	-2.3m
	-8754 Dec 04 j 21:06	0°♊		min. Earth dist.	-8748 Jan 30 j 09:48	26°♈33'21	0.47151 AU
morning rise	-8754 Dec 15 j 16:12	8°♊10'54		direct	-8748 Feb 28 j 03:56	21°♈15'57	
	-8753 Jan 14 j 02:03	0°♌			-8748 Apr 06 j 09:20	0°♊	
	-8753 Feb 25 j 08:36	0°♈			-8748 May 30 j 07:01	0°♊	
	-8753 Apr 11 j 07:27	0°♊		desc. node	-8748 Jun 11 j 20:36	8°♊23'48	
	-8753 May 30 j 00:21	0°♊			-8748 Jul 12 j 14:01	0°♊	
	-8753 Jul 26 j 10:51	0°♈			-8748 Aug 22 j 16:19	0°♊	
retrograde	-8753 Sep 19 j 10:18	14°♈13'10			-8748 Oct 02 j 18:01	0°♊	
asc. node	-8753 Oct 03 j 07:11	12°♈57'52			-8748 Nov 13 j 20:15	0°♌	
opposition	-8753 Oct 28 j 11:49	4°♈59'02	0°59'05		-8748 Dec 27 j 11:30	0°♈	
greatest brilliancy	-8753 Oct 28 j 13:33	4°♈57'20	-1.4m	evening set	-8747 Jan 29 j 13:47	22°♈02'46	
min. Earth dist.	-8753 Oct 31 j 04:08	3°♈55'11	0.65561 AU		-8747 Feb 10 j 16:53	0°♊	
	-8753 Nov 10 j 14:12	30°♋♊					

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 16

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8747 Mar 20 j 08:43	24° $\text{♄}$ 22'34	-0°36'06		-8742 Mar 09 j 20:10	0° $\text{♍}$	
minimum elong	-8747 Mar 20 j 10:02	24° $\text{♄}$ 24'41	0°36'38		-8742 Apr 28 j 19:06	0° $\text{♊}$	
max. Earth dist.	-8747 Mar 27 j 01:25	28° $\text{♄}$ 40'21	2.65843 AU	retrograde	-8742 Jun 25 j 20:58	17° $\text{♊}$ 40'34	
	-8747 Mar 29 j 03:08	0° $\approx$		min. Earth dist.	-8742 Jul 28 j 19:28	10° $\text{♊}$ 24'13	0.57047 AU
morning rise	-8747 May 06 j 20:03	24° $\approx$ 43'41		opposition	-8742 Aug 03 j 23:33	8° $\text{♊}$ 00'00	-5°17'22
	-8747 May 15 j 02:22	0° $\text{♋}$		greatest brilliancy	-8742 Aug 02 j 22:05	8° $\text{♊}$ 24'51	-1.8m
asc. node	-8747 May 24 j 20:40	6° $\text{♋}$ 13'43			-8742 Sep 03 j 03:22	30° $\text{♋}$	
	-8747 Jul 01 j 00:29	0° $\text{♌}$		direct	-8742 Sep 09 j 05:16	29° $\text{♋}$ 45'14	
	-8747 Aug 16 j 16:29	0° $\text{♍}$			-8742 Sep 15 j 10:43	0° $\text{♊}$	
	-8747 Oct 02 j 11:46	0° $\text{♎}$			-8742 Dec 06 j 05:24	0° $\text{♄}$	
	-8747 Nov 19 j 19:33	0° $\text{♏}$		asc. node	-8741 Jan 14 j 11:49	21° $\text{♄}$ 40'34	
	-8746 Jan 14 j 16:54	0° $\text{♐}$			-8741 Jan 28 j 19:08	0° $\approx$	
retrograde	-8746 Mar 02 j 21:37	11° $\text{♐}$ 54'07			-8741 Mar 19 j 04:49	0° $\text{♋}$	
opposition	-8746 Apr 02 j 15:58	6° $\text{♐}$ 46'41	2°09'45		-8741 May 04 j 21:27	0° $\text{♌}$	
greatest brilliancy	-8746 Apr 02 j 20:22	6° $\text{♐}$ 43'44	-2.9m	evening set	-8741 May 30 j 07:34	17° $\text{♌}$ 03'12	
min. Earth dist.	-8746 Apr 03 j 08:45	6° $\text{♐}$ 35'27	0.38105 AU	max. Earth dist.	-8741 Jun 15 j 22:56	28° $\text{♌}$ 30'41	2.51495 AU
desc. node	-8746 Apr 30 j 01:02	1° $\text{♐}$ 41'06			-8741 Jun 18 j 02:14	0° $\text{♍}$	
direct	-8746 May 03 j 06:04	1° $\text{♐}$ 36'58					
	-8746 Jul 19 j 20:22	0° $\text{♎}$		conjunction	-8741 Jul 20 j 12:34	23° $\text{♍}$ 04'30	1°12'30
	-8746 Sep 06 j 04:35	0° $\text{♏}$		minimum elong	-8741 Jul 20 j 12:35	23° $\text{♍}$ 04'32	1°12'54
	-8746 Oct 22 j 01:26	0° $\text{♎}$			-8741 Jul 30 j 00:28	0° $\text{♎}$	
	-8746 Dec 06 j 23:22	0° $\text{♊}$			-8741 Sep 08 j 03:27	0° $\text{♏}$	
	-8745 Jan 22 j 13:51	0° $\text{♄}$		morning rise	-8741 Sep 12 j 21:29	3° $\text{♏}$ 37'12	
	-8745 Mar 10 j 16:47	0° $\approx$			-8741 Oct 17 j 03:16	0° $\text{♐}$	
evening set	-8745 Mar 11 j 12:25	0° $\approx$ 31'12			-8741 Nov 24 j 18:56	0° $\text{♎}$	
asc. node	-8745 Apr 11 j 13:38	20° $\approx$ 17'53		desc. node	-8741 Dec 20 j 21:56	20° $\text{♎}$ 05'01	
max. Earth dist.	-8745 Apr 20 j 02:36	25° $\approx$ 45'43	2.66195 AU		-8740 Jan 02 j 23:45	0° $\text{♏}$	
	-8745 Apr 26 j 17:12	0° $\text{♋}$			-8740 Feb 12 j 17:25	0° $\text{♎}$	
					-8740 Mar 27 j 07:00	0° $\text{♊}$	
conjunction	-8745 Apr 28 j 05:08	0° $\text{♋}$ 57'40	0°09'37		-8740 May 15 j 13:15	0° $\text{♄}$	
minimum elong	-8745 Apr 28 j 04:46	0° $\text{♋}$ 57'05	0°09'17	retrograde	-8740 Aug 01 j 11:39	26° $\text{♄}$ 44'53	
behind sun begin	-8745 Apr 27 j 12:43	0° $\text{♋}$ 31'20		min. Earth dist.	-8740 Sep 07 j 22:27	17° $\text{♄}$ 50'20	0.64807 AU
behind sun end	-8745 Apr 28 j 20:49	1° $\text{♋}$ 22'50		opposition	-8740 Sep 10 j 10:26	16° $\text{♄}$ 49'52	-3°02'20
	-8745 Jun 11 j 22:45	0° $\text{♌}$		greatest brilliancy	-8740 Sep 10 j 04:51	16° $\text{♄}$ 55'30	-1.4m
morning rise	-8745 Jun 13 j 10:28	0° $\text{♌}$ 58'42		direct	-8740 Oct 19 j 10:39	7° $\text{♄}$ 30'17	
	-8745 Jul 26 j 22:44	0° $\text{♍}$		asc. node	-8740 Dec 01 j 16:41	16° $\text{♄}$ 45'54	
	-8745 Sep 08 j 15:29	0° $\text{♎}$			-8739 Jan 01 j 00:10	0° $\approx$	
	-8745 Oct 21 j 07:02	0° $\text{♏}$			-8739 Feb 24 j 23:30	0° $\text{♋}$	
	-8745 Dec 02 j 09:56	0° $\text{♐}$			-8739 Apr 14 j 08:42	0° $\text{♌}$	
	-8744 Jan 14 j 02:15	0° $\text{♎}$			-8739 May 29 j 00:32	0° $\text{♍}$	
	-8744 Feb 29 j 09:51	0° $\text{♏}$			-8739 Jul 09 j 21:06	0° $\text{♎}$	
desc. node	-8744 Mar 17 j 05:00	9° $\text{♏}$ 20'16		evening set	-8739 Jul 18 j 01:20	6° $\text{♎}$ 03'22	
retrograde	-8744 May 09 j 15:05	25° $\text{♏}$ 33'15		max. Earth dist.	-8739 Aug 15 j 13:20	27° $\text{♎}$ 35'33	2.39728 AU
min. Earth dist.	-8744 Jun 06 j 09:06	20° $\text{♏}$ 26'15	0.44937 AU		-8739 Aug 18 j 16:41	0° $\text{♏}$	
greatest brilliancy	-8744 Jun 12 j 23:00	18° $\text{♏}$ 14'09	-2.4m				
opposition	-8744 Jun 14 j 11:07	17° $\text{♏}$ 43'45	-5°11'40	conjunction	-8739 Sep 14 j 14:03	20° $\text{♏}$ 50'18	0°38'20
direct	-8744 Jul 16 j 17:41	11° $\text{♏}$ 19'56		minimum elong	-8739 Sep 14 j 16:50	20° $\text{♏}$ 55'45	0°38'50
	-8744 Sep 17 j 14:03	0° $\text{♎}$			-8739 Sep 26 j 07:12	0° $\text{♐}$	
	-8744 Nov 11 j 16:18	0° $\text{♊}$			-8739 Nov 03 j 13:51	0° $\text{♎}$	
	-8744 Dec 31 j 20:56	0° $\text{♄}$		desc. node	-8739 Nov 06 j 16:04	2° $\text{♎}$ 24'50	
	-8743 Feb 18 j 15:55	0° $\approx$		morning rise	-8739 Nov 18 j 06:46	11° $\text{♎}$ 26'40	
asc. node	-8743 Feb 26 j 10:05	4° $\approx$ 49'50			-8739 Dec 12 j 09:59	0° $\text{♏}$	
	-8743 Apr 07 j 07:55	0° $\text{♋}$			-8738 Jan 21 j 15:34	0° $\text{♎}$	
evening set	-8743 Apr 18 j 14:31	7° $\text{♋}$ 13'34			-8738 Mar 05 j 01:01	0° $\text{♊}$	
max. Earth dist.	-8743 May 14 j 21:31	24° $\text{♋}$ 19'31	2.61232 AU		-8738 Apr 19 j 11:26	0° $\text{♄}$	
	-8743 May 23 j 11:49	0° $\text{♌}$			-8738 Jun 08 j 22:51	0° $\approx$	
					-8738 Aug 22 j 12:56	0° $\text{♋}$	
conjunction	-8743 Jun 05 j 14:15	8° $\text{♌}$ 44'03	0°52'23	retrograde	-8738 Sep 05 j 11:51	1° $\text{♋}$ 09'39	
minimum elong	-8743 Jun 05 j 12:42	8° $\text{♌}$ 41'27	0°52'23		-8738 Sep 18 j 18:11	30° $\text{♋}$	
	-8743 Jul 06 j 19:32	0° $\text{♍}$		opposition	-8738 Oct 15 j 00:06	21° $\approx$ 39'22	-0°11'25
morning rise	-8743 Jul 23 j 12:40	11° $\text{♍}$ 39'39		greatest brilliancy	-8738 Oct 15 j 00:27	21° $\approx$ 39'00	-1.4m
	-8743 Aug 18 j 06:36	0° $\text{♎}$		min. Earth dist.	-8738 Oct 16 j 05:40	21° $\approx$ 09'45	0.66554 AU
	-8743 Sep 28 j 04:19	0° $\text{♏}$		asc. node	-8738 Oct 19 j 21:32	19° $\approx$ 42'22	
	-8743 Nov 07 j 01:36	0° $\text{♐}$		direct	-8738 Nov 24 j 15:17	11° $\approx$ 45'37	
	-8743 Dec 16 j 16:04	0° $\text{♎}$			-8737 Jan 27 j 14:17	0° $\text{♋}$	
	-8742 Jan 26 j 00:42	0° $\text{♏}$			-8737 Mar 23 j 06:23	0° $\text{♌}$	
desc. node	-8742 Feb 02 j 03:16	5° $\text{♏}$ 08'52			-8737 May 08 j 15:50	0° $\text{♍}$	



## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 17

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8737 Jun 20 j 01:11	0°♐	morning rise	-8732 Apr 22 j 03:38	10°♊57'14	
	-8737 Jul 29 j 23:26	0°♑		-8732 May 22 j 02:48	0°♋	
	-8737 Sep 06 j 13:28	0°♒	asc. node	-8732 Jun 10 j 14:14	12°♌19'53	
evening set	-8737 Sep 18 j 14:39	9°♒27'34		-8732 Jul 08 j 13:43	0°♍	
desc. node	-8737 Sep 24 j 10:54	14°♒02'53		-8732 Aug 25 j 11:26	0°♎	
	-8737 Oct 14 j 19:30	0°♏		-8732 Oct 14 j 01:48	0°♐	
				-8732 Dec 10 j 02:06	0°♑	
conjunction	-8737 Nov 21 j 07:35	28°♏58'34 -0°40'56	retrograde	-8731 Jan 30 j 14:44	13°♑10'22	
minimum elong	-8737 Nov 21 j 04:31	28°♏52'45 0°40'48	opposition	-8731 Mar 02 j 18:26	7°♑47'44	5°06'05
	-8737 Nov 22 j 15:52	0°♒	greatest brilliancy	-8731 Mar 03 j 22:40	7°♑27'34	-2.7m
	-8736 Jan 01 j 21:27	0°♓	min. Earth dist.	-8731 Mar 08 j 07:27	6°♑13'05	0.40274 AU
max. Earth dist.	-8736 Jan 06 j 14:45	3°♓26'01 2.44514 AU	direct	-8731 Apr 04 j 17:28	1°♑43'56	
morning rise	-8736 Jan 23 j 01:34	15°♓14'43	desc. node	-8731 May 16 j 17:58	12°♑09'50	
	-8736 Feb 13 j 02:14	0°♈		-8731 Jun 19 j 07:17	0°♒	
	-8736 Mar 28 j 15:15	0°♉		-8731 Aug 04 j 18:01	0°♏	
	-8736 May 14 j 20:42	0°♊		-8731 Sep 17 j 11:20	0°♒	
	-8736 Jul 05 j 01:27	0°♋		-8731 Oct 31 j 05:22	0°♓	
asc. node	-8736 Sep 05 j 23:29	29°♋16'45		-8731 Dec 14 j 22:45	0°♈	
	-8736 Sep 08 j 04:24	0°♍		-8730 Jan 29 j 20:42	0°♉	
retrograde	-8736 Oct 11 j 20:37	5°♍58'00	evening set	-8730 Feb 24 j 02:42	16°♉14'27	
	-8736 Nov 11 j 15:03	30°♋		-8730 Mar 17 j 15:02	0°♊	
opposition	-8736 Nov 18 j 20:29	27°♋16'46 2°52'21	max. Earth dist.	-8730 Apr 10 j 19:06	15°♊25'54	2.66694 AU
greatest brilliancy	-8736 Nov 19 j 06:46	27°♋06'47 -1.5m				
min. Earth dist.	-8736 Nov 23 j 18:13	25°♋22'25 0.62155 AU	conjunction	-8730 Apr 13 j 08:21	17°♊03'42 -0°08'36	
direct	-8736 Dec 29 j 17:39	17°♋20'10	minimum elong	-8730 Apr 13 j 08:41	17°♊04'15 0°09'02	
	-8735 Feb 17 j 17:30	0°♍	behind sun begin	-8730 Apr 12 j 16:21	16°♊38'10	
	-8735 Apr 13 j 14:24	0°♎	behind sun end	-8730 Apr 14 j 01:02	17°♊30'20	
	-8735 May 28 j 05:01	0°♐	asc. node	-8730 Apr 28 j 06:26	26°♊36'19	
	-8735 Jul 08 j 00:05	0°♑		-8730 May 03 j 13:32	0°♋	
desc. node	-8735 Aug 11 j 09:07	26°♑22'27	morning rise	-8730 May 29 j 17:47	16°♋51'16	
	-8735 Aug 16 j 01:18	0°♒		-8730 Jun 18 j 23:34	0°♍	
	-8735 Sep 23 j 16:04	0°♏		-8730 Aug 03 j 11:12	0°♎	
	-8735 Nov 01 j 21:04	0°♐		-8730 Sep 17 j 00:29	0°♐	
evening set	-8735 Nov 21 j 13:58	14°♐43'11		-8730 Oct 30 j 23:40	0°♑	
	-8735 Dec 12 j 11:13	0°♓		-8730 Dec 14 j 04:17	0°♒	
				-8729 Jan 29 j 23:18	0°♏	
conjunction	-8734 Jan 18 j 05:19	26°♓02'53 -1°12'13	desc. node	-8729 Apr 03 j 21:03	27°♏58'41	
minimum elong	-8734 Jan 18 j 05:22	26°♓02'59 1°12'37	retrograde	-8729 Apr 17 j 01:25	29°♏10'11	
	-8734 Jan 23 j 22:21	0°♈	min. Earth dist.	-8729 May 14 j 04:09	24°♏34'11	0.40636 AU
max. Earth dist.	-8734 Feb 17 j 18:10	16°♈54'20 2.56504 AU	opposition	-8729 May 20 j 13:10	22°♏39'09	-3°20'33
	-8734 Mar 09 j 10:07	0°♉	greatest brilliancy	-8729 May 19 j 16:21	22°♏54'52	-2.7m
morning rise	-8734 Mar 13 j 07:02	2°♉33'02	direct	-8729 Jun 20 j 08:39	17°♏05'12	
	-8734 Apr 24 j 18:40	0°♊		-8729 Aug 09 j 00:41	0°♒	
	-8734 Jun 11 j 20:18	0°♋		-8729 Oct 04 j 05:21	0°♓	
asc. node	-8734 Jul 24 j 20:52	25°♋44'48		-8729 Nov 22 j 16:13	0°♈	
	-8734 Aug 01 j 05:33	0°♍		-8728 Jan 09 j 23:14	0°♉	
	-8734 Sep 27 j 06:59	0°♎		-8728 Feb 26 j 22:07	0°♊	
retrograde	-8734 Nov 26 j 23:06	16°♎38'18	asc. node	-8728 Mar 15 j 01:53	10°♊48'40	
opposition	-8733 Jan 01 j 02:51	9°♎18'58 5°40'25	evening set	-8728 Apr 03 j 08:34	23°♊02'18	
greatest brilliancy	-8733 Jan 02 j 14:21	8°♎47'12 -2.0m		-8728 Apr 14 j 06:06	0°♋	
min. Earth dist.	-8733 Jan 09 j 00:23	6°♎30'02 0.52109 AU	max. Earth dist.	-8728 May 04 j 13:11	13°♋04'46	2.63793 AU
direct	-8733 Feb 08 j 23:06	0°♎22'00				
	-8733 Apr 28 j 23:58	0°♐	conjunction	-8728 May 20 j 22:50	23°♋46'47	0°37'11
	-8733 Jun 13 j 02:35	0°♑	minimum elong	-8728 May 20 j 21:33	23°♋44'41	0°37'03
desc. node	-8733 Jun 29 j 13:05	11°♑50'15		-8728 May 30 j 09:30	0°♍	
	-8733 Jul 24 j 02:13	0°♒	morning rise	-8728 Jul 06 j 19:02	25°♍07'06	
	-8733 Sep 01 j 23:21	0°♏		-8728 Jul 13 j 22:07	0°♎	
	-8733 Oct 12 j 04:45	0°♐		-8728 Aug 25 j 18:31	0°♐	
	-8733 Nov 22 j 15:39	0°♓		-8728 Oct 06 j 04:38	0°♑	
	-8732 Jan 04 j 19:22	0°♈		-8728 Nov 15 j 16:32	0°♒	
evening set	-8732 Jan 13 j 02:52	5°♈38'14		-8728 Dec 26 j 00:14	0°♏	
	-8732 Feb 18 j 17:13	0°♉		-8727 Feb 05 j 10:16	0°♒	
			desc. node	-8727 Feb 18 j 21:27	9°♒20'25	
conjunction	-8732 Mar 04 j 11:11	9°♉38'18 -0°51'13		-8727 Mar 22 j 17:52	0°♓	
minimum elong	-8732 Mar 04 j 12:49	9°♉40'57 0°51'47	retrograde	-8727 Jun 09 j 05:26	29°♓47'51	
max. Earth dist.	-8732 Mar 17 j 09:18	18°♉00'49 2.64243 AU	min. Earth dist.	-8727 Jul 10 j 01:10	23°♓20'49	0.52614 AU
	-8732 Apr 05 j 00:22	0°♊	greatest brilliancy	-8727 Jul 16 j 01:11	21°♓05'57	-2.0m

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 18

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

opposition	-8727 Jul 17 j 10:53	20° $\mathbb{M}$ 34'11	-5°44'25	desc. node	-8722 Oct 11 j 06:14	21° $\Omega$ 20'19	
direct	-8727 Aug 21 j 07:14	12° $\mathbb{M}$ 56'23			-8722 Oct 22 j 07:32	0° $\mathbb{M}$	
	-8727 Oct 20 j 21:28	0° $\mathbb{X}$					
	-8727 Dec 16 j 23:44	0° $\mathbb{Z}$		conjunction	-8722 Oct 25 j 20:50	2° $\mathbb{M}$ 46'42	-0°11'06
asc. node	-8726 Jan 31 j 02:05	26° $\mathbb{Z}$ 26'50		minimum elong	-8722 Oct 25 j 19:49	2° $\mathbb{M}$ 44'43	0°10'46
	-8726 Feb 05 j 23:31	0° $\approx$		behind sun begin	-8722 Oct 24 j 22:50	2° $\mathbb{M}$ 03'45	
	-8726 Mar 26 j 12:20	0° $\mathbb{H}$		behind sun end	-8722 Oct 26 j 16:48	3° $\mathbb{M}$ 25'40	
	-8726 May 11 j 22:19	0° $\mathbb{Y}$			-8722 Nov 30 j 02:29	0° $\underline{\mathbb{L}}$	
evening set	-8726 May 13 j 11:37	1° $\mathbb{Y}$ 01'46		max. Earth dist.	-8722 Dec 03 j 15:56	2° $\underline{\mathbb{L}}$ 42'34	2.39818 AU
max. Earth dist.	-8726 Jun 02 j 05:11	14° $\mathbb{Y}$ 15'27	2.55799 AU	morning rise	-8722 Dec 30 j 08:27	22° $\underline{\mathbb{L}}$ 42'48	
	-8726 Jun 25 j 03:16	0° $\mathbb{B}$			-8721 Jan 09 j 06:36	0° $\mathbb{M}$	
					-8721 Feb 20 j 11:09	0° $\mathbb{X}$	
conjunction	-8726 Jul 01 j 23:55	4° $\mathbb{B}$ 47'31	1°09'10		-8721 Apr 06 j 04:29	0° $\mathbb{Z}$	
minimum elong	-8726 Jul 01 j 22:51	4° $\mathbb{B}$ 45'39	1°09'25		-8721 May 24 j 04:02	0° $\approx$	
	-8726 Aug 06 j 05:40	0° $\mathbb{I}$			-8721 Jul 17 j 08:00	0° $\mathbb{H}$	
morning rise	-8726 Aug 22 j 02:49	11° $\mathbb{I}$ 40'11		asc. node	-8721 Sep 23 j 14:30	22° $\mathbb{H}$ 10'19	
	-8726 Sep 15 j 14:45	0° $\mathbb{G}$		retrograde	-8721 Sep 27 j 17:51	22° $\mathbb{H}$ 16'38	
	-8726 Oct 24 j 21:20	0° $\Omega$		opposition	-8721 Nov 05 j 11:13	13° $\mathbb{H}$ 13'04	1°40'29
	-8726 Dec 02 j 19:39	0° $\mathbb{M}$		greatest brilliancy	-8721 Nov 05 j 15:13	13° $\mathbb{H}$ 09'07	-1.5m
desc. node	-8725 Jan 06 j 18:04	26° $\mathbb{M}$ 35'10		min. Earth dist.	-8721 Nov 08 j 22:31	11° $\mathbb{H}$ 50'52	0.64618 AU
	-8725 Jan 11 j 07:24	0° $\underline{\mathbb{L}}$		direct	-8721 Dec 16 j 10:39	3° $\mathbb{H}$ 12'51	
	-8725 Feb 21 j 11:56	0° $\mathbb{M}$			-8720 Mar 04 j 22:07	0° $\mathbb{Y}$	
	-8725 Apr 07 j 04:53	0° $\mathbb{X}$			-8720 Apr 23 j 12:33	0° $\mathbb{B}$	
	-8725 May 31 j 12:54	0° $\mathbb{Z}$			-8720 Jun 05 j 22:11	0° $\mathbb{I}$	
retrograde	-8725 Jul 19 j 12:06	12° $\mathbb{Z}$ 38'22			-8720 Jul 16 j 06:04	0° $\mathbb{G}$	
min. Earth dist.	-8725 Aug 24 j 08:05	4° $\mathbb{Z}$ 17'40	0.62460 AU		-8720 Aug 24 j 01:03	0° $\Omega$	
opposition	-8725 Aug 28 j 07:20	2° $\mathbb{Z}$ 42'13	-4°01'25	desc. node	-8720 Aug 28 j 04:14	3° $\Omega$ 13'40	
greatest brilliancy	-8725 Aug 27 j 19:07	2° $\mathbb{Z}$ 54'28	-1.5m		-8720 Oct 01 j 10:47	0° $\mathbb{M}$	
	-8725 Sep 04 j 05:34	30° $\mathbb{R}$ $\mathbb{X}$		evening set	-8720 Oct 28 j 07:47	20° $\mathbb{M}$ 45'44	
direct	-8725 Oct 05 j 08:41	23° $\mathbb{X}$ 43'42			-8720 Nov 09 j 10:42	0° $\underline{\mathbb{L}}$	
	-8725 Nov 08 j 22:25	0° $\mathbb{Z}$			-8720 Dec 19 j 19:49	0° $\mathbb{M}$	
asc. node	-8725 Dec 19 j 06:10	16° $\mathbb{Z}$ 55'53					
	-8724 Jan 13 j 10:58	0° $\approx$		conjunction	-8720 Dec 28 j 01:10	5° $\mathbb{M}$ 56'58	-1°08'08
	-8724 Mar 05 j 08:36	0° $\mathbb{H}$		minimum elong	-8720 Dec 27 j 23:31	5° $\mathbb{M}$ 53'59	1°08'24
	-8724 Apr 21 j 21:19	0° $\mathbb{Y}$			-8719 Jan 31 j 02:44	0° $\mathbb{X}$	
	-8724 Jun 05 j 07:08	0° $\mathbb{B}$		max. Earth dist.	-8719 Feb 04 j 03:04	2° $\mathbb{X}$ 46'19	2.52150 AU
evening set	-8724 Jun 27 j 08:05	15° $\mathbb{B}$ 35'49		morning rise	-8719 Feb 23 j 07:20	15° $\mathbb{X}$ 50'33	
max. Earth dist.	-8724 Jul 14 j 18:52	28° $\mathbb{B}$ 15'57	2.44082 AU		-8719 Mar 16 j 12:53	0° $\mathbb{Z}$	
	-8724 Jul 17 j 03:29	0° $\mathbb{I}$			-8719 May 02 j 01:55	0° $\approx$	
					-8719 Jun 19 j 22:19	0° $\mathbb{H}$	
conjunction	-8724 Aug 21 j 13:32	26° $\mathbb{I}$ 34'28	1°00'00	asc. node	-8719 Aug 10 j 13:27	29° $\mathbb{H}$ 18'06	
minimum elong	-8724 Aug 21 j 15:58	26° $\mathbb{I}$ 39'06	1°00'32		-8719 Aug 11 j 21:11	0° $\mathbb{Y}$	
	-8724 Aug 26 j 01:05	0° $\mathbb{G}$		retrograde	-8719 Nov 07 j 10:35	29° $\mathbb{Y}$ 49'32	
	-8724 Oct 03 j 18:20	0° $\Omega$		opposition	-8719 Dec 13 j 21:13	21° $\mathbb{Y}$ 53'10	4°41'38
morning rise	-8724 Oct 21 j 13:21	13° $\Omega$ 55'01		greatest brilliancy	-8719 Dec 14 j 22:12	21° $\mathbb{Y}$ 29'50	-1.8m
	-8724 Nov 11 j 03:30	0° $\mathbb{M}$		min. Earth dist.	-8719 Dec 20 j 19:07	19° $\mathbb{Y}$ 18'25	0.56619 AU
desc. node	-8724 Nov 23 j 11:11	9° $\mathbb{M}$ 34'29		direct	-8718 Jan 22 j 21:27	12° $\mathbb{Y}$ 21'37	
	-8724 Dec 20 j 01:35	0° $\underline{\mathbb{L}}$			-8718 Mar 22 j 21:15	0° $\mathbb{B}$	
	-8723 Jan 29 j 09:36	0° $\mathbb{M}$			-8718 May 11 j 23:17	0° $\mathbb{I}$	
	-8723 Mar 13 j 01:05	0° $\mathbb{X}$			-8718 Jun 23 j 11:07	0° $\mathbb{G}$	
	-8723 Apr 28 j 07:07	0° $\mathbb{Z}$		desc. node	-8718 Jul 16 j 05:20	16° $\mathbb{G}$ 58'48	
	-8723 Jun 21 j 05:13	0° $\approx$			-8718 Aug 02 j 08:47	0° $\Omega$	
retrograde	-8723 Aug 22 j 21:19	18° $\approx$ 09'50			-8718 Sep 10 j 13:44	0° $\mathbb{M}$	
opposition	-8723 Oct 01 j 16:36	8° $\approx$ 26'43	-1°19'54		-8718 Oct 20 j 06:23	0° $\underline{\mathbb{L}}$	
min. Earth dist.	-8723 Oct 01 j 10:59	8° $\approx$ 32'23	0.66617 AU		-8718 Nov 30 j 06:39	0° $\mathbb{M}$	
greatest brilliancy	-8723 Oct 01 j 16:44	8° $\approx$ 26'35	-1.4m	evening set	-8718 Dec 25 j 02:57	17° $\mathbb{M}$ 34'43	
	-8723 Oct 27 j 20:32	30° $\mathbb{R}$ $\mathbb{Z}$			-8717 Jan 12 j 01:47	0° $\mathbb{X}$	
asc. node	-8723 Nov 05 j 11:11	28° $\mathbb{Z}$ 54'12					
direct	-8723 Nov 10 j 20:00	28° $\mathbb{Z}$ 43'04		conjunction	-8717 Feb 16 j 13:20	23° $\mathbb{X}$ 55'30	-1°03'19
	-8723 Nov 25 j 15:52	0° $\approx$		minimum elong	-8717 Feb 16 j 14:51	23° $\mathbb{X}$ 58'01	1°03'50
	-8722 Feb 09 j 01:23	0° $\mathbb{H}$			-8717 Feb 25 j 17:49	0° $\mathbb{Z}$	
	-8722 Apr 01 j 03:07	0° $\mathbb{Y}$		max. Earth dist.	-8717 Mar 08 j 00:32	6° $\mathbb{Z}$ 44'56	2.61799 AU
	-8722 May 16 j 14:51	0° $\mathbb{B}$		morning rise	-8717 Apr 07 j 22:35	26° $\mathbb{Z}$ 46'16	
	-8722 Jun 27 j 17:20	0° $\mathbb{I}$			-8717 Apr 12 j 23:28	0° $\approx$	
	-8722 Aug 06 j 13:17	0° $\mathbb{G}$			-8717 May 30 j 07:39	0° $\mathbb{H}$	
evening set	-8722 Aug 23 j 18:46	13° $\mathbb{G}$ 19'43		asc. node	-8717 Jun 28 j 08:13	18° $\mathbb{H}$ 07'43	
	-8722 Sep 14 j 02:24	0° $\Omega$			-8717 Jul 17 j 13:11	0° $\mathbb{Y}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 19

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8717 Sep 05 j 09:48	0°♄			-8711 Feb 13 j 17:01	0°♊		
	-8717 Oct 30 j 23:34	0°♈		asc. node	-8711 Feb 16 j 17:18	1°♊51'26		
retrograde	-8716 Jan 02 j 20:19	18°♈28'40			-8711 Apr 02 j 15:45	0°♈		
opposition	-8716 Feb 04 j 15:08	12°♈21'12	6°13'47	evening set	-8711 Apr 27 j 11:20	15°♈56'34		
greatest brilliancy	-8716 Feb 06 j 09:13	11°♈47'51	-2.4m		-8711 May 18 j 21:57	0°♈		
min. Earth dist.	-8716 Feb 12 j 13:24	9°♈51'38	0.44456 AU	max. Earth dist.	-8711 May 21 j 05:36	1°♈32'14	2.59508 AU	
direct	-8716 Mar 11 j 07:19	4°♈59'44						
	-8716 May 20 j 02:02	0°♋		conjunction	-8711 Jun 14 j 20:42	18°♈05'18	0°59'45	
desc. node	-8716 Jun 02 j 09:12	8°♋07'47		minimum elong	-8711 Jun 14 j 19:11	18°♈02'42	0°59'51	
	-8716 Jul 05 j 04:22	0°♌			-8711 Jul 02 j 04:56	0°♄		
	-8716 Aug 16 j 09:55	0°♍		morning rise	-8711 Aug 02 j 16:42	22°♄11'28		
	-8716 Sep 27 j 03:21	0°♎			-8711 Aug 13 j 13:01	0°♈		
	-8716 Nov 08 j 16:12	0°♏			-8711 Sep 23 j 05:52	0°♋		
	-8716 Dec 22 j 14:35	0°♐			-8711 Nov 01 j 21:02	0°♌		
	-8715 Feb 06 j 00:33	0°♑			-8711 Dec 11 j 04:24	0°♍		
evening set	-8715 Feb 08 j 02:14	1°♑20'52			-8710 Jan 20 j 02:56	0°♎		
	-8715 Mar 24 j 12:43	0°♊		desc. node	-8710 Jan 23 j 13:05	2°♎31'11		
					-8710 Mar 03 j 02:44	0°♏		
conjunction	-8715 Mar 29 j 05:30	3°♊00'28	-0°26'21		-8710 Apr 19 j 03:50	0°♐		
minimum elong	-8715 Mar 29 j 06:31	3°♊02'05	0°26'51	retrograde	-8710 Jul 04 j 19:18	27°♐27'53		
max. Earth dist.	-8715 Apr 01 j 13:41	5°♊08'41	2.66369 AU	min. Earth dist.	-8710 Aug 07 j 20:06	19°♐46'31	0.59223 AU	
	-8715 May 10 j 11:04	0°♋		greatest brilliancy	-8710 Aug 12 j 09:13	17°♐58'45	-1.7m	
morning rise	-8715 May 15 j 05:01	3°♋02'18		opposition	-8710 Aug 13 j 05:42	17°♐38'29	-4°53'04	
asc. node	-8715 May 15 j 01:13	2°♋56'13		direct	-8710 Sep 19 j 03:51	9°♐06'20		
	-8715 Jun 26 j 04:00	0°♌			-8710 Nov 27 j 21:56	0°♑		
	-8715 Aug 11 j 08:04	0°♍		asc. node	-8709 Jan 04 j 19:40	19°♑42'58		
	-8715 Sep 26 j 03:42	0°♎			-8709 Jan 23 j 01:03	0°♊		
	-8715 Nov 11 j 08:43	0°♏			-8709 Mar 14 j 04:43	0°♋		
	-8715 Dec 30 j 05:11	0°♐			-8709 Apr 30 j 04:11	0°♌		
retrograde	-8714 Mar 20 j 07:17	29°♐24'18		evening set	-8709 Jun 09 j 09:39	27°♌10'35		
min. Earth dist.	-8714 Apr 18 j 06:38	24°♐37'32	0.38213 AU		-8709 Jun 13 j 11:06	0°♍		
opposition	-8714 Apr 20 j 12:21	24°♐01'11	0°00'21	max. Earth dist.	-8709 Jun 25 j 07:58	8°♍20'07	2.48942 AU	
greatest brilliancy	-8714 Apr 20 j 12:25	24°♐01'09	-3.0m		-8709 Jul 25 j 09:15	0°♎		
desc. node	-8714 Apr 20 j 14:06	24°♐00'00						
direct	-8714 May 20 j 16:18	18°♐56'48		conjunction	-8709 Jul 31 j 19:37	4°♎44'10	1°10'48	
	-8714 Jul 04 j 09:44	0°♏		minimum elong	-8709 Jul 31 j 20:29	4°♎45'47	1°11'16	
	-8714 Aug 28 j 21:25	0°♐			-8709 Sep 03 j 10:37	0°♋		
	-8714 Oct 15 j 18:00	0°♑		morning rise	-8709 Sep 26 j 09:21	17°♋37'48		
	-8714 Dec 01 j 13:51	0°♒			-8709 Oct 12 j 08:00	0°♌		
	-8713 Jan 17 j 15:49	0°♓			-8709 Nov 19 j 20:53	0°♍		
	-8713 Mar 06 j 00:35	0°♊		desc. node	-8709 Dec 11 j 08:58	16°♍36'46		
evening set	-8713 Mar 20 j 05:24	9°♊00'14			-8709 Dec 28 j 22:11	0°♎		
asc. node	-8713 Apr 01 j 18:53	16°♊59'34			-8708 Feb 07 j 10:27	0°♏		
	-8713 Apr 22 j 03:20	0°♋			-8708 Mar 21 j 12:26	0°♌		
max. Earth dist.	-8713 Apr 25 j 15:23	2°♋14'56	2.65557 AU		-8708 May 08 j 05:09	0°♑		
					-8708 Jul 10 j 17:00	0°♒		
conjunction	-8713 May 06 j 19:02	9°♋26'05	0°20'01	retrograde	-8708 Aug 09 j 09:16	4°♒59'24		
minimum elong	-8713 May 06 j 18:18	9°♋24'53	0°19'45		-8708 Sep 05 j 15:35	30°♒3		
	-8713 Jun 07 j 07:55	0°♌		min. Earth dist.	-8708 Sep 16 j 14:49	25°♒48'25	0.65715 AU	
morning rise	-8713 Jun 22 j 02:34	9°♌47'04		opposition	-8708 Sep 18 j 07:42	25°♒07'09	-2°25'39	
	-8713 Jul 22 j 03:26	0°♍		greatest brilliancy	-8708 Sep 18 j 04:51	25°♒10'02	-1.4m	
	-8713 Sep 03 j 12:05	0°♎		direct	-8708 Oct 27 j 18:32	15°♒37'49		
	-8713 Oct 15 j 15:20	0°♏		asc. node	-8708 Nov 22 j 00:12	19°♒07'33		
	-8713 Nov 26 j 01:04	0°♐			-8708 Dec 22 j 17:47	0°♊		
	-8712 Jan 06 j 14:10	0°♑			-8707 Feb 19 j 01:50	0°♋		
	-8712 Feb 19 j 05:18	0°♒			-8707 Apr 09 j 06:16	0°♌		
desc. node	-8712 Mar 07 j 15:17	10°♒58'08			-8707 May 24 j 04:48	0°♍		
	-8712 Apr 12 j 19:17	0°♓			-8707 Jul 05 j 03:47	0°♎		
retrograde	-8712 May 21 j 11:46	9°♓08'59		evening set	-8707 Jul 30 j 17:16	19°♎06'30		
min. Earth dist.	-8712 Jun 19 j 04:28	3°♓34'54	0.47691 AU		-8707 Aug 13 j 23:44	0°♏		
greatest brilliancy	-8712 Jun 25 j 18:07	1°♓16'35	-2.3m	max. Earth dist.	-8707 Sep 17 j 02:15	26°♏29'20	2.38223 AU	
opposition	-8712 Jun 27 j 07:57	0°♓43'07	-5°38'55		-8707 Sep 21 j 13:48	0°♐		
	-8712 Jun 29 j 09:13	30°♓♄						
direct	-8712 Jul 30 j 14:24	23°♄50'52		conjunction	-8707 Sep 29 j 02:25	5°♄54'13	0°21'47	
	-8712 Sep 01 j 17:46	0°♑		minimum elong	-8707 Sep 29 j 04:20	5°♄57'59	0°22'14	
	-8712 Nov 04 j 10:05	0°♒		desc. node	-8707 Oct 28 j 02:17	28°♄38'55		
	-8712 Dec 26 j 06:42	0°♓			-8707 Oct 29 j 19:46	0°♑		

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 20

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

morning rise	-8707 Dec 03 j 21:39	27° $\mathbb{M}$ 09'38		min. Earth dist.	-8701 Jan 20 j 21:51	17° $\mathbb{B}$ 54'17	0.49392 AU
	-8707 Dec 07 j 14:53	0° $\underline{\mathbf{a}}$		direct	-8701 Feb 19 j 14:23	12° $\mathbb{B}$ 14'51	
	-8706 Jan 16 j 18:54	0° $\mathbb{M}$			-8701 Apr 18 j 03:14	0° $\mathbb{I}$	
	-8706 Feb 28 j 01:00	0° $\mathbb{A}$			-8701 Jun 05 j 18:01	0° $\mathbb{B}$	
	-8706 Apr 14 j 02:14	0° $\mathbb{Z}$		desc. node	-8701 Jun 20 j 01:07	9° $\mathbb{B}$ 56'25	
	-8706 Jun 02 j 07:38	0° $\approx$			-8701 Jul 17 j 20:10	0° $\Omega$	
	-8706 Aug 02 j 03:56	0° $\mathbb{H}$			-8701 Aug 27 j 07:41	0° $\mathbb{M}$	
retrograde	-8706 Sep 13 j 11:29	9° $\mathbb{H}$ 05'02			-8701 Oct 06 j 22:42	0° $\underline{\mathbf{a}}$	
asc. node	-8706 Oct 10 j 04:18	4° $\mathbb{H}$ 25'59			-8701 Nov 17 j 16:29	0° $\mathbb{M}$	
opposition	-8706 Oct 22 j 17:48	29° $\approx$ 43'10	0°29'21		-8701 Dec 31 j 01:09	0° $\mathbb{A}$	
	-8706 Oct 22 j 00:54	30° $\mathbb{R}$		evening set	-8700 Jan 23 j 05:50	15° $\mathbb{A}$ 34'51	
greatest brilliancy	-8706 Oct 22 j 18:25	29° $\approx$ 42'32	-1.4m		-8700 Feb 14 j 01:57	0° $\mathbb{Z}$	
min. Earth dist.	-8706 Oct 24 j 18:12	28° $\approx$ 54'50	0.66127 AU				
direct	-8706 Dec 02 j 13:16	19° $\approx$ 45'38		conjunction	-8700 Mar 13 j 16:09	18° $\mathbb{Z}$ 35'13	-0°42'45
	-8705 Jan 16 j 22:01	0° $\mathbb{H}$		minimum elong	-8700 Mar 13 j 17:39	18° $\mathbb{Z}$ 37'38	0°43'17
	-8705 Mar 17 j 01:07	0° $\mathbb{Y}$		max. Earth dist.	-8700 Mar 23 j 03:08	24° $\mathbb{Z}$ 40'44	2.65229 AU
	-8705 May 03 j 08:13	0° $\mathbb{B}$			-8700 Mar 31 j 09:59	0° $\approx$	
	-8705 Jun 15 j 01:21	0° $\mathbb{I}$		morning rise	-8700 Apr 30 j 15:07	19° $\approx$ 18'19	
	-8705 Jul 25 j 02:42	0° $\mathbb{B}$			-8700 May 17 j 10:17	0° $\mathbb{H}$	
	-8705 Sep 01 j 18:06	0° $\Omega$		asc. node	-8700 May 31 j 19:15	9° $\mathbb{H}$ 08'52	
desc. node	-8705 Sep 14 j 21:37	10° $\Omega$ 18'31			-8700 Jul 03 j 13:31	0° $\mathbb{Y}$	
evening set	-8705 Oct 03 j 11:44	24° $\Omega$ 52'50			-8700 Aug 19 j 17:15	0° $\mathbb{B}$	
	-8705 Oct 10 j 00:58	0° $\mathbb{M}$			-8700 Oct 06 j 12:56	0° $\mathbb{I}$	
	-8705 Nov 17 j 21:49	0° $\underline{\mathbf{a}}$			-8700 Nov 26 j 08:23	0° $\mathbb{B}$	
				retrograde	-8699 Feb 17 j 02:07	29° $\mathbb{B}$ 21'40	
conjunction	-8705 Dec 05 j 14:00	13° $\underline{\mathbf{a}}$ 19'47	-0°53'55	opposition	-8699 Mar 19 j 20:42	24° $\mathbb{B}$ 13'28	3°38'36
minimum elong	-8705 Dec 05 j 10:57	13° $\underline{\mathbf{a}}$ 14'05	0°53'56	greatest brilliancy	-8699 Mar 20 j 10:47	24° $\mathbb{B}$ 03'51	-2.9m
	-8705 Dec 28 j 03:43	0° $\mathbb{M}$		min. Earth dist.	-8699 Mar 22 j 22:08	23° $\mathbb{B}$ 23'27	0.38724 AU
max. Earth dist.	-8704 Jan 18 j 22:18	15° $\mathbb{M}$ 40'28	2.47307 AU	direct	-8699 Apr 20 j 07:49	18° $\mathbb{B}$ 45'37	
morning rise	-8704 Feb 04 j 09:26	27° $\mathbb{M}$ 15'18		desc. node	-8699 May 07 j 04:50	20° $\mathbb{B}$ 36'49	
	-8704 Feb 08 j 08:14	0° $\mathbb{A}$			-8699 Jun 03 j 13:29	0° $\Omega$	
	-8704 Mar 23 j 18:42	0° $\mathbb{Z}$			-8699 Jul 26 j 23:30	0° $\mathbb{M}$	
	-8704 May 09 j 15:49	0° $\approx$			-8699 Sep 10 j 18:09	0° $\underline{\mathbf{a}}$	
	-8704 Jun 28 j 17:31	0° $\mathbb{H}$			-8699 Oct 25 j 12:23	0° $\mathbb{M}$	
	-8704 Aug 25 j 18:59	0° $\mathbb{Y}$			-8699 Dec 09 j 19:45	0° $\mathbb{A}$	
asc. node	-8704 Aug 27 j 05:44	0° $\mathbb{Y}$ 37'41			-8698 Jan 25 j 01:43	0° $\mathbb{Z}$	
retrograde	-8704 Oct 21 j 02:11	14° $\mathbb{Y}$ 37'12		evening set	-8698 Mar 05 j 00:19	24° $\mathbb{Z}$ 54'12	
opposition	-8704 Nov 27 j 14:02	6° $\mathbb{Y}$ 10'18	3°33'21		-8698 Mar 13 j 00:13	0° $\approx$	
greatest brilliancy	-8704 Nov 28 j 05:01	5° $\mathbb{Y}$ 55'54	-1.6m	max. Earth dist.	-8698 Apr 16 j 06:23	21° $\approx$ 50'58	2.66524 AU
min. Earth dist.	-8704 Dec 03 j 05:19	4° $\mathbb{Y}$ 00'18	0.60426 AU	asc. node	-8698 Apr 18 j 12:09	23° $\approx$ 16'57	
	-8704 Dec 14 j 17:31	30° $\mathbb{R}$					
direct	-8703 Jan 07 j 06:11	26° $\mathbb{H}$ 19'24		conjunction	-8698 Apr 21 j 21:37	25° $\approx$ 27'16	0°01'59
	-8703 Feb 01 j 07:20	0° $\mathbb{Y}$		minimum elong	-8698 Apr 21 j 21:36	25° $\approx$ 27'13	0°01'37
	-8703 Apr 06 j 11:05	0° $\mathbb{B}$		behind sun begin	-8698 Apr 21 j 02:12	24° $\approx$ 56'13	
	-8703 May 22 j 08:50	0° $\mathbb{I}$		behind sun end	-8698 Apr 22 j 16:59	25° $\approx$ 58'14	
	-8703 Jul 02 j 15:25	0° $\mathbb{B}$			-8698 Apr 28 j 23:51	0° $\mathbb{H}$	
desc. node	-8703 Aug 01 j 21:49	23° $\mathbb{B}$ 02'19		morning rise	-8698 Jun 07 j 03:13	25° $\mathbb{H}$ 18'18	
	-8703 Aug 10 j 22:26	0° $\Omega$			-8698 Jun 14 j 07:39	0° $\mathbb{Y}$	
	-8703 Sep 18 j 17:04	0° $\mathbb{M}$			-8698 Jul 29 j 13:10	0° $\mathbb{B}$	
	-8703 Oct 28 j 00:53	0° $\underline{\mathbf{a}}$			-8698 Sep 11 j 14:55	0° $\mathbb{I}$	
evening set	-8703 Dec 04 j 07:31	27° $\underline{\mathbf{a}}$ 32'16			-8698 Oct 24 j 19:20	0° $\mathbb{B}$	
	-8703 Dec 07 j 17:14	0° $\mathbb{M}$			-8698 Dec 06 j 16:33	0° $\Omega$	
	-8702 Jan 19 j 05:59	0° $\mathbb{A}$			-8697 Jan 19 j 15:39	0° $\mathbb{M}$	
					-8697 Mar 10 j 20:40	0° $\underline{\mathbf{a}}$	
conjunction	-8702 Jan 29 j 08:06	6° $\mathbb{A}$ 55'01	-1°10'44	desc. node	-8697 Mar 25 j 09:20	6° $\underline{\mathbf{a}}$ 40'53	
minimum elong	-8702 Jan 29 j 08:54	6° $\mathbb{A}$ 56'23	1°11'13	retrograde	-8697 Apr 30 j 21:46	14° $\underline{\mathbf{a}}$ 58'00	
max. Earth dist.	-8702 Feb 24 j 19:56	24° $\mathbb{A}$ 45'08	2.58595 AU	min. Earth dist.	-8697 May 28 j 02:22	10° $\underline{\mathbf{a}}$ 09'16	0.42850 AU
	-8702 Mar 04 j 18:04	0° $\mathbb{Z}$		greatest brilliancy	-8697 Jun 03 j 10:23	8° $\underline{\mathbf{a}}$ 07'59	-2.6m
morning rise	-8702 Mar 22 j 22:32	11° $\mathbb{Z}$ 55'02		opposition	-8697 Jun 04 j 17:49	7° $\underline{\mathbf{a}}$ 42'45	-4°35'12
	-8702 Apr 20 j 00:25	0° $\approx$		direct	-8697 Jul 06 j 06:46	1° $\underline{\mathbf{a}}$ 42'16	
	-8702 Jun 06 j 17:56	0° $\mathbb{H}$			-8697 Sep 25 j 09:12	0° $\mathbb{M}$	
asc. node	-8702 Jul 15 j 02:12	23° $\mathbb{H}$ 24'39			-8697 Nov 16 j 10:45	0° $\mathbb{A}$	
	-8702 Jul 26 j 03:21	0° $\mathbb{Y}$			-8696 Jan 04 j 16:58	0° $\mathbb{Z}$	
	-8702 Sep 17 j 10:52	0° $\mathbb{B}$			-8696 Feb 22 j 02:33	0° $\approx$	
retrograde	-8702 Dec 09 j 07:38	27° $\mathbb{B}$ 39'01		asc. node	-8696 Mar 05 j 08:00	7° $\approx$ 39'12	
opposition	-8701 Jan 12 j 16:51	20° $\mathbb{B}$ 43'29	6°04'17		-8696 Apr 09 j 15:22	0° $\mathbb{H}$	
greatest brilliancy	-8701 Jan 14 j 08:56	20° $\mathbb{B}$ 08'50	-2.1m	evening set	-8696 Apr 12 j 01:59	1° $\mathbb{H}$ 33'45	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:22, page 21

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

max. Earth dist.	-8696 May 10 j 11:26	19° $\text{H}$ 54'54	2.62482 AU		-8691 Apr 22 j 11:25	0° $\text{Z}$	
	-8696 May 25 j 19:41	0° $\text{Y}$			-8691 Jun 12 j 22:49	0° $\approx$	
				retrograde	-8691 Aug 30 j 17:29	26° $\approx$ 05'29	
conjunction	-8696 May 29 j 20:04	2° $\text{Y}$ 39'37	0°46'16	opposition	-8691 Oct 09 j 08:53	16° $\approx$ 28'54	-0°40'19
minimum elong	-8696 May 29 j 18:35	2° $\text{Y}$ 37'10	0°46'13	greatest brilliancy	-8691 Oct 09 j 09:29	16° $\approx$ 28'18	-1.4m
	-8696 Jul 09 j 06:27	0° $\text{X}$		min. Earth dist.	-8691 Oct 09 j 22:25	16° $\approx$ 15'19	0.66699 AU
morning rise	-8696 Jul 16 j 04:30	4° $\text{X}$ 47'04		asc. node	-8691 Oct 26 j 18:28	10° $\approx$ 07'27	
	-8696 Aug 20 j 22:22	0° $\text{II}$		direct	-8691 Nov 18 j 18:54	6° $\approx$ 39'13	
	-8696 Oct 01 j 02:02	0° $\text{G}$			-8690 Feb 01 j 11:43	0° $\text{H}$	
	-8696 Nov 10 j 05:36	0° $\text{Q}$			-8690 Mar 26 j 11:29	0° $\text{Y}$	
	-8696 Dec 20 j 02:52	0° $\text{M}$			-8690 May 11 j 12:39	0° $\text{X}$	
	-8695 Jan 29 j 19:56	0° $\text{L}$			-8690 Jun 22 j 20:15	0° $\text{II}$	
desc. node	-8695 Feb 09 j 08:59	7° $\text{L}$ 31'40			-8690 Aug 01 j 18:24	0° $\text{G}$	
	-8695 Mar 14 j 09:22	0° $\text{M}$		evening set	-8690 Sep 07 j 04:51	28° $\text{G}$ 19'06	
	-8695 May 06 j 21:41	0° $\text{X}$			-8690 Sep 09 j 08:19	0° $\text{Q}$	
retrograde	-8695 Jun 18 j 23:25	10° $\text{X}$ 41'03		desc. node	-8690 Oct 01 j 16:50	17° $\text{Q}$ 33'25	
min. Earth dist.	-8695 Jul 20 j 23:34	3° $\text{X}$ 45'52	0.55131 AU		-8690 Oct 17 j 13:48	0° $\text{M}$	
greatest brilliancy	-8695 Jul 26 j 12:05	1° $\text{X}$ 38'36	-1.9m				
opposition	-8695 Jul 27 j 17:25	1° $\text{X}$ 10'18	-5°31'59	conjunction	-8690 Nov 09 j 22:11	18° $\text{M}$ 09'09	-0°28'51
	-8695 Jul 30 j 19:18	30° $\text{K}$ $\text{M}$		minimum elong	-8690 Nov 09 j 19:42	18° $\text{M}$ 04'22	0°28'38
direct	-8695 Sep 01 j 08:00	23° $\text{M}$ 11'14			-8690 Nov 25 j 08:49	0° $\text{L}$	
	-8695 Oct 06 j 23:55	0° $\text{X}$		max. Earth dist.	-8690 Dec 25 j 16:32	22° $\text{L}$ 46'29	2.42289 AU
	-8695 Dec 10 j 06:41	0° $\text{Z}$			-8689 Jan 04 j 12:27	0° $\text{M}$	
asc. node	-8694 Jan 21 j 08:56	23° $\text{Z}$ 55'32		morning rise	-8689 Jan 13 j 02:32	6° $\text{M}$ 14'29	
	-8694 Jan 31 j 15:15	0° $\approx$			-8689 Feb 15 j 15:39	0° $\text{X}$	
	-8694 Mar 21 j 16:16	0° $\text{H}$			-8689 Apr 01 j 04:33	0° $\text{Z}$	
	-8694 May 07 j 06:58	0° $\text{Y}$			-8689 May 18 j 15:07	0° $\approx$	
evening set	-8694 May 22 j 23:27	10° $\text{Y}$ 27'19			-8689 Jul 09 j 18:03	0° $\text{H}$	
max. Earth dist.	-8694 Jun 09 j 20:40	22° $\text{Y}$ 36'48	2.53497 AU	asc. node	-8689 Sep 13 j 21:26	27° $\text{H}$ 40'16	
	-8694 Jun 20 j 12:58	0° $\text{X}$			-8689 Sep 27 j 06:51	0° $\text{Y}$	
				retrograde	-8689 Oct 06 j 07:27	0° $\text{Y}$ 29'14	
conjunction	-8694 Jul 12 j 08:02	15° $\text{X}$ 22'07	1°11'56		-8689 Oct 15 j 00:13	30° $\text{K}$ $\text{H}$	
minimum elong	-8694 Jul 12 j 07:31	15° $\text{X}$ 21'12	1°12'17	opposition	-8689 Nov 13 j 15:16	21° $\text{H}$ 37'21	2°21'58
	-8694 Aug 01 j 14:02	0° $\text{II}$		greatest brilliancy	-8689 Nov 13 j 22:28	21° $\text{H}$ 30'18	-1.5m
morning rise	-8694 Sep 03 j 02:53	24° $\text{II}$ 09'30		min. Earth dist.	-8689 Nov 17 j 21:13	19° $\text{H}$ 57'27	0.63371 AU
	-8694 Sep 10 j 20:23	0° $\text{G}$		direct	-8689 Dec 24 j 13:48	11° $\text{H}$ 38'11	
	-8694 Oct 19 j 23:19	0° $\text{Q}$			-8688 Feb 25 j 05:00	0° $\text{Y}$	
	-8694 Nov 27 j 17:42	0° $\text{M}$			-8688 Apr 17 j 09:51	0° $\text{X}$	
desc. node	-8694 Dec 28 j 03:57	23° $\text{M}$ 18'18			-8688 May 31 j 11:55	0° $\text{II}$	
	-8693 Jan 06 j 00:40	0° $\text{L}$			-8688 Jul 11 j 02:37	0° $\text{G}$	
	-8693 Feb 15 j 21:07	0° $\text{M}$		desc. node	-8688 Aug 18 j 14:17	29° $\text{G}$ 38'56	
	-8693 Mar 31 j 18:29	0° $\text{X}$			-8688 Aug 19 j 01:07	0° $\text{Q}$	
	-8693 May 21 j 09:54	0° $\text{Z}$			-8688 Sep 26 j 13:20	0° $\text{M}$	
retrograde	-8693 Jul 27 j 15:06	21° $\text{Z}$ 16'25			-8688 Nov 04 j 15:20	0° $\text{L}$	
min. Earth dist.	-8693 Sep 02 j 08:44	12° $\text{Z}$ 36'30	0.63866 AU	evening set	-8688 Nov 11 j 07:49	5° $\text{L}$ 02'40	
opposition	-8693 Sep 05 j 12:44	11° $\text{Z}$ 20'01	-3°27'53		-8688 Dec 15 j 02:03	0° $\text{M}$	
greatest brilliancy	-8693 Sep 05 j 04:28	11° $\text{Z}$ 28'20	-1.5m				
direct	-8693 Oct 14 j 02:48	2° $\text{Z}$ 09'26		conjunction	-8687 Jan 09 j 08:28	18° $\text{M}$ 04'48	-1°11'32
asc. node	-8693 Dec 09 j 13:22	16° $\text{Z}$ 45'10		minimum elong	-8687 Jan 09 j 07:50	18° $\text{M}$ 03'40	1°11'55
	-8692 Jan 06 j 08:38	0° $\approx$			-8687 Jan 26 j 10:04	0° $\text{X}$	
	-8692 Feb 28 j 22:05	0° $\text{H}$		max. Earth dist.	-8687 Feb 12 j 06:23	11° $\text{X}$ 32'55	2.54639 AU
	-8692 Apr 16 j 23:23	0° $\text{Y}$		morning rise	-8687 Mar 05 j 18:33	25° $\text{X}$ 59'40	
	-8692 May 31 j 13:59	0° $\text{X}$			-8687 Mar 11 j 19:39	0° $\text{Z}$	
evening set	-8692 Jul 08 j 20:10	27° $\text{X}$ 19'21			-8687 Apr 27 j 04:50	0° $\approx$	
	-8692 Jul 12 j 11:43	0° $\text{II}$			-8687 Jun 14 j 12:41	0° $\text{H}$	
max. Earth dist.	-8692 Jul 30 j 00:54	13° $\text{II}$ 02'47	2.41554 AU	asc. node	-8687 Jul 31 j 19:46	27° $\text{H}$ 46'59	
	-8692 Aug 21 j 09:02	0° $\text{G}$			-8687 Aug 04 j 18:45	0° $\text{Y}$	
					-8687 Oct 05 j 06:17	0° $\text{X}$	
conjunction	-8692 Sep 03 j 20:03	10° $\text{G}$ 22'12	0°49'01	retrograde	-8687 Nov 18 j 04:52	9° $\text{X}$ 34'32	
minimum elong	-8692 Sep 03 j 22:57	10° $\text{G}$ 27'47	0°49'33	opposition	-8687 Dec 23 j 23:16	1° $\text{X}$ 57'29	5°16'36
	-8692 Sep 29 j 00:58	0° $\text{Q}$		greatest brilliancy	-8687 Dec 25 j 06:11	1° $\text{X}$ 29'12	-1.9m
morning rise	-8692 Nov 06 j 01:48	29° $\text{Q}$ 46'58			-8687 Dec 29 j 07:32	30° $\text{K}$ $\text{Y}$	
	-8692 Nov 06 j 08:29	0° $\text{M}$		min. Earth dist.	-8687 Dec 31 j 11:26	29° $\text{Y}$ 13'12	0.54214 AU
desc. node	-8692 Nov 13 j 21:59	5° $\text{M}$ 53'39		direct	-8686 Feb 01 j 09:35	22° $\text{Y}$ 42'42	
	-8692 Dec 15 j 04:40	0° $\text{L}$			-8686 Mar 08 j 18:41	0° $\text{X}$	
	-8691 Jan 24 j 09:52	0° $\text{M}$			-8686 May 04 j 11:57	0° $\text{II}$	
	-8691 Mar 07 j 20:03	0° $\text{X}$			-8686 Jun 17 j 06:42	0° $\text{G}$	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

desc. node	-8686 Jul 06 j 17:23	14°☾15'28			-8681 Jun 02 j 17:42	0°♊	
	-8686 Jul 27 j 17:22	0°♊	morning rise		-8681 Jun 30 j 23:31	18°♊50'00	
	-8686 Sep 05 j 06:10	0°♎			-8681 Jul 17 j 10:14	0°♋	
	-8686 Oct 15 j 04:40	0°♌			-8681 Aug 29 j 12:32	0°♈	
	-8686 Nov 25 j 09:21	0°♍			-8681 Oct 10 j 06:26	0°♎	
evening set	-8685 Jan 05 j 04:36	28°♍32'03			-8681 Nov 20 j 03:12	0°♊	
	-8685 Jan 07 j 08:00	0°♊			-8681 Dec 30 j 21:46	0°♎	
	-8685 Feb 21 j 02:02	0°♋			-8680 Feb 11 j 00:44	0°♌	
			desc. node		-8680 Feb 27 j 02:52	10°♌49'29	
conjunction	-8685 Feb 26 j 09:32	3°♋29'23 -0°56'45			-8680 Mar 29 j 09:03	0°♍	
minimum elong	-8685 Feb 26 j 11:11	3°♋32'05 0°57'18	retrograde		-8680 Jun 01 j 11:35	21°♍39'49	
max. Earth dist.	-8685 Mar 14 j 02:43	13°♋44'35 2.63261 AU	min. Earth dist.		-8680 Jul 01 j 07:59	15°♍36'06	0.50438 AU
	-8685 Apr 08 j 07:44	0°♌	greatest brilliancy		-8680 Jul 07 j 15:04	13°♍18'04	-2.1m
morning rise	-8685 Apr 16 j 18:14	5°♌24'02	opposition		-8680 Jul 09 j 03:26	12°♍44'34	-5°47'41
	-8685 May 25 j 12:00	0°♈	direct		-8680 Aug 12 j 06:59	5°♍26'04	
asc. node	-8685 Jun 18 j 13:25	15°♈09'30			-8680 Oct 26 j 23:36	0°♊	
	-8685 Jul 12 j 06:02	0°♊			-8680 Dec 20 j 08:54	0°♋	
	-8685 Aug 29 j 21:17	0°♋	asc. node		-8679 Feb 06 j 23:48	28°♋59'52	
	-8685 Oct 20 j 09:28	0°♈			-8679 Feb 08 j 15:16	0°♌	
	-8685 Dec 29 j 16:26	0°♎			-8679 Mar 28 j 22:14	0°♈	
retrograde	-8684 Jan 18 j 13:57	2°♎16'57	evening set		-8679 May 06 j 13:41	24°♈54'12	
	-8684 Feb 06 j 19:33	30°♈11			-8679 May 14 j 07:18	0°♊	
opposition	-8684 Feb 19 j 09:01	26°♈35'53 5°47'24	max. Earth dist.		-8679 May 28 j 01:04	9°♊09'10	2.57548 AU
greatest brilliancy	-8684 Feb 20 j 21:47	26°♈08'23 -2.6m					
min. Earth dist.	-8684 Feb 26 j 07:23	24°♈32'02 0.41984 AU	conjunction		-8679 Jun 24 j 12:15	27°♊51'48	1°05'46
direct	-8684 Mar 24 j 14:54	19°♈57'18	minimum elong		-8679 Jun 24 j 10:55	27°♊49'29	1°05'58
	-8684 May 04 j 15:03	0°♎			-8679 Jun 27 j 14:17	0°♋	
desc. node	-8684 May 23 j 22:27	9°♎37'01			-8679 Aug 08 j 20:05	0°♈	
	-8684 Jun 26 j 12:36	0°♊	morning rise		-8679 Aug 13 j 11:35	3°♈22'49	
	-8684 Aug 09 j 14:08	0°♎			-8679 Sep 18 j 09:22	0°♎	
	-8684 Sep 21 j 06:03	0°♌			-8679 Oct 27 j 19:56	0°♊	
	-8684 Nov 03 j 08:27	0°♍			-8679 Dec 05 j 21:52	0°♎	
	-8684 Dec 17 j 15:42	0°♊	desc. node		-8678 Jan 14 j 00:24	29°♎36'01	
	-8683 Feb 01 j 07:03	0°♋			-8678 Jan 14 j 13:17	0°♌	
evening set	-8683 Feb 17 j 08:59	10°♋23'52			-8678 Feb 24 j 23:21	0°♍	
	-8683 Mar 19 j 22:05	0°♌			-8678 Apr 11 j 08:43	0°♊	
					-8678 Jun 09 j 07:18	0°♋	
conjunction	-8683 Apr 06 j 23:08	11°♌31'52 -0°16'09	retrograde		-8678 Jul 13 j 08:29	6°♋43'24	
minimum elong	-8683 Apr 06 j 23:46	11°♌32'53 0°16'36			-8678 Aug 13 j 23:13	30°♋21	
max. Earth dist.	-8683 Apr 07 j 02:19	11°♌36'56 2.66659 AU	min. Earth dist.		-8678 Aug 17 j 09:40	28°♋39'38	0.61108 AU
asc. node	-8683 May 05 j 05:33	29°♌36'13	greatest brilliancy		-8678 Aug 21 j 08:50	27°♋04'43	-1.6m
	-8683 May 05 j 20:25	0°♈	opposition		-8678 Aug 22 j 00:34	26°♋49'01	-4°24'30
morning rise	-8683 May 23 j 13:17	11°♈21'43	direct		-8678 Sep 28 j 13:58	18°♋01'45	
	-8683 Jun 21 j 09:35	0°♊			-8678 Nov 17 j 13:07	0°♋	
	-8683 Aug 06 j 04:30	0°♋	asc. node		-8678 Dec 26 j 03:15	18°♋12'52	
	-8683 Sep 20 j 06:06	0°♈			-8677 Jan 16 j 22:48	0°♌	
	-8683 Nov 04 j 01:36	0°♎			-8677 Mar 09 j 01:50	0°♈	
	-8683 Dec 19 j 18:18	0°♊			-8677 Apr 25 j 09:36	0°♊	
	-8682 Feb 08 j 16:59	0°♎			-8677 Jun 08 j 19:23	0°♋	
retrograde	-8682 Apr 05 j 11:22	16°♎50'41	evening set		-8677 Jun 19 j 23:43	7°♋50'40	
desc. node	-8682 Apr 11 j 01:50	16°♎37'42	max. Earth dist.		-8677 Jul 06 j 02:32	19°♋21'12	2.46253 AU
min. Earth dist.	-8682 May 03 j 01:17	12°♎16'34 0.39232 AU			-8677 Jul 20 j 17:29	0°♈	
opposition	-8682 May 07 j 20:39	10°♎54'09 -2°02'44					
greatest brilliancy	-8682 May 07 j 10:03	11°♎01'45 -2.9m	conjunction		-8677 Aug 12 j 20:51	17°♈12'40	1°05'57
direct	-8682 Jun 07 j 05:57	5°♎37'56	minimum elong		-8677 Aug 12 j 22:39	17°♈16'02	1°06'27
	-8682 Aug 18 j 12:39	0°♌			-8677 Aug 29 j 17:34	0°♎	
	-8682 Oct 08 j 20:27	0°♍			-8677 Oct 07 j 12:55	0°♊	
	-8682 Nov 25 j 22:52	0°♊	morning rise		-8677 Oct 10 j 20:55	2°♊36'00	
	-8681 Jan 12 j 15:17	0°♋			-8677 Nov 14 j 23:33	0°♎	
	-8681 Mar 01 j 07:24	0°♌	desc. node		-8677 Dec 01 j 17:41	12°♎59'30	
asc. node	-8681 Mar 23 j 00:26	13°♌43'39			-8677 Dec 23 j 22:27	0°♌	
evening set	-8681 Mar 28 j 22:06	17°♌28'31			-8676 Feb 02 j 06:57	0°♍	
	-8681 Apr 17 j 13:15	0°♈			-8676 Mar 16 j 00:43	0°♊	
max. Earth dist.	-8681 May 01 j 08:23	8°♈52'27 2.64689 AU			-8676 May 01 j 16:29	0°♋	
					-8676 Jun 26 j 22:55	0°♌	
conjunction	-8681 May 15 j 10:54	18°♈01'03 0°30'08	retrograde		-8676 Aug 17 j 04:16	13°♌01'45	
minimum elong	-8681 May 15 j 09:49	17°♈59'18 0°29'56	min. Earth dist.		-8676 Sep 25 j 03:35	3°♌35'53	0.66332 AU

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

opposition	-8676 Sep 26 j 01:20	3° $\approx$ 13'56	-1°47'48		-8671 Sep 13 j 15:20	0° $\mathfrak{M}$	
greatest brilliancy	-8676 Sep 26 j 00:27	3° $\approx$ 14'49	-1.4m		-8671 Oct 23 j 03:07	0° $\underline{\mathfrak{L}}$	
	-8676 Oct 04 j 06:31	30° $\mathfrak{R}\overline{\mathfrak{Z}}$			-8671 Dec 02 j 22:29	0° $\mathfrak{M}$	
direct	-8676 Nov 04 j 21:40	23° $\overline{\mathfrak{Z}}$ 36'19		evening set	-8671 Dec 16 j 09:18	9° $\mathfrak{M}$ 36'56	
asc. node	-8676 Nov 12 j 08:14	23° $\overline{\mathfrak{Z}}$ 56'22			-8670 Jan 14 j 13:22	0° $\mathfrak{X}$	
	-8676 Dec 10 j 00:38	0° $\approx$					
	-8675 Feb 12 j 18:35	0° $\mathfrak{H}$		conjunction	-8670 Feb 08 j 22:24	17° $\mathfrak{X}$ 14'44	-1°07'05
	-8675 Apr 04 j 00:40	0° $\mathfrak{Y}$		minimum elong	-8670 Feb 08 j 23:43	17° $\mathfrak{X}$ 16'56	1°07'37
	-8675 May 19 j 07:59	0° $\mathfrak{B}$			-8670 Feb 28 j 02:14	0° $\overline{\mathfrak{Z}}$	
	-8675 Jun 30 j 09:59	0° $\mathfrak{H}$		max. Earth dist.	-8670 Mar 03 j 10:38	2° $\overline{\mathfrak{Z}}$ 12'33	2.60451 AU
	-8675 Aug 09 j 06:43	0° $\overline{\mathfrak{D}}$		morning rise	-8670 Apr 01 j 05:49	20° $\overline{\mathfrak{Z}}$ 58'24	
evening set	-8675 Aug 13 j 01:21	2° $\overline{\mathfrak{D}}$ 54'17			-8670 Apr 15 j 07:07	0° $\approx$	
	-8675 Sep 16 j 20:23	0° $\Omega$			-8670 Jun 01 j 18:13	0° $\mathfrak{H}$	
				asc. node	-8670 Jul 05 j 06:53	20° $\mathfrak{H}$ 46'06	
conjunction	-8675 Oct 14 j 03:21	21° $\Omega$ 26'13	0°03'22		-8670 Jul 20 j 10:00	0° $\mathfrak{Y}$	
minimum elong	-8675 Oct 14 j 03:40	21° $\Omega$ 26'51	0°03'45		-8670 Sep 09 j 11:05	0° $\mathfrak{B}$	
behind sun begin	-8675 Oct 13 j 00:45	20° $\Omega$ 34'03			-8670 Nov 09 j 10:40	0° $\mathfrak{H}$	
behind sun end	-8675 Oct 15 j 06:35	22° $\Omega$ 19'38		retrograde	-8670 Dec 22 j 16:20	9° $\mathfrak{H}$ 27'31	
desc. node	-8675 Oct 18 j 11:51	24° $\Omega$ 51'14		opposition	-8669 Jan 25 j 05:14	2° $\mathfrak{H}$ 58'00	6°15'49
	-8675 Oct 25 j 01:32	0° $\mathfrak{M}$		greatest brilliancy	-8669 Jan 26 j 23:56	2° $\mathfrak{H}$ 22'42	-2.3m
max. Earth dist.	-8675 Nov 06 j 17:16	9° $\mathfrak{M}$ 52'22	2.38376 AU	min. Earth dist.	-8669 Feb 02 j 11:45	0° $\mathfrak{H}$ 15'14	0.46640 AU
	-8675 Dec 02 j 19:51	0° $\underline{\mathfrak{L}}$			-8669 Feb 03 j 07:00	30° $\mathfrak{R}\mathfrak{B}$	
morning rise	-8675 Dec 19 j 03:53	12° $\underline{\mathfrak{L}}$ 22'13		direct	-8669 Mar 02 j 23:55	25° $\mathfrak{B}$ 04'02	
	-8674 Jan 11 j 22:41	0° $\mathfrak{M}$			-8669 Mar 30 j 23:52	0° $\mathfrak{H}$	
	-8674 Feb 23 j 02:22	0° $\mathfrak{X}$			-8669 May 28 j 03:15	0° $\overline{\mathfrak{D}}$	
	-8674 Apr 08 j 20:57	0° $\overline{\mathfrak{Z}}$		desc. node	-8669 Jun 10 j 13:18	8° $\overline{\mathfrak{D}}$ 48'17	
	-8674 May 27 j 05:25	0° $\approx$			-8669 Jul 11 j 00:35	0° $\Omega$	
	-8674 Jul 22 j 06:02	0° $\mathfrak{H}$			-8669 Aug 21 j 07:56	0° $\mathfrak{M}$	
retrograde	-8674 Sep 21 j 14:45	17° $\mathfrak{H}$ 03'19			-8669 Oct 01 j 11:33	0° $\underline{\mathfrak{L}}$	
asc. node	-8674 Sep 30 j 11:57	16° $\mathfrak{H}$ 32'33			-8669 Nov 12 j 14:07	0° $\mathfrak{M}$	
opposition	-8674 Oct 30 j 14:03	7° $\mathfrak{H}$ 51'03	1°10'26		-8669 Dec 26 j 04:56	0° $\mathfrak{X}$	
greatest brilliancy	-8674 Oct 30 j 16:14	7° $\mathfrak{H}$ 48'53	-1.4m	evening set	-8668 Feb 02 j 00:21	25° $\mathfrak{X}$ 09'39	
min. Earth dist.	-8674 Nov 02 j 09:20	6° $\mathfrak{H}$ 44'14	0.65418 AU		-8668 Feb 09 j 09:35	0° $\overline{\mathfrak{Z}}$	
	-8674 Nov 22 j 11:59	30° $\mathfrak{R}\approx$					
direct	-8674 Dec 10 j 11:57	27° $\approx$ 51'28		conjunction	-8668 Mar 22 j 16:28	27° $\overline{\mathfrak{Z}}$ 21'39	-0°33'27
	-8674 Dec 29 j 18:04	0° $\mathfrak{H}$		minimum elong	-8668 Mar 22 j 17:43	27° $\overline{\mathfrak{Z}}$ 23'39	0°33'58
	-8673 Mar 10 j 05:46	0° $\mathfrak{Y}$			-8668 Mar 26 j 19:13	0° $\approx$	
	-8673 Apr 27 j 19:31	0° $\mathfrak{B}$		max. Earth dist.	-8668 Mar 28 j 17:35	1° $\approx$ 14'18	2.65961 AU
	-8673 Jun 09 j 22:47	0° $\mathfrak{H}$		morning rise	-8668 May 09 j 01:11	27° $\approx$ 38'21	
	-8673 Jul 20 j 04:38	0° $\overline{\mathfrak{D}}$			-8668 May 12 j 17:58	0° $\mathfrak{H}$	
	-8673 Aug 27 j 22:12	0° $\Omega$		asc. node	-8668 May 21 j 23:50	5° $\mathfrak{H}$ 54'05	
desc. node	-8673 Sep 05 j 09:30	6° $\Omega$ 37'51			-8668 Jun 28 j 15:14	0° $\mathfrak{Y}$	
	-8673 Oct 05 j 06:14	0° $\mathfrak{M}$			-8668 Aug 14 j 05:04	0° $\mathfrak{B}$	
evening set	-8673 Oct 18 j 05:10	10° $\mathfrak{M}$ 04'16			-8668 Sep 29 j 18:58	0° $\mathfrak{H}$	
	-8673 Nov 13 j 03:58	0° $\underline{\mathfrak{L}}$			-8668 Nov 16 j 13:04	0° $\overline{\mathfrak{D}}$	
					-8667 Jan 08 j 22:25	0° $\Omega$	
conjunction	-8673 Dec 19 j 04:19	26° $\underline{\mathfrak{L}}$ 53'41	-1°03'20	retrograde	-8667 Mar 06 j 20:55	16° $\Omega$ 27'04	
minimum elong	-8673 Dec 19 j 01:56	26° $\underline{\mathfrak{L}}$ 49'19	1°03'30	opposition	-8667 Apr 06 j 14:28	11° $\Omega$ 18'19	1°40'50
	-8673 Dec 23 j 10:17	0° $\mathfrak{M}$		greatest brilliancy	-8667 Apr 06 j 17:12	11° $\Omega$ 16'31	-2.9m
max. Earth dist.	-8672 Jan 29 j 10:03	26° $\mathfrak{M}$ 23'21	2.50017 AU	min. Earth dist.	-8667 Apr 06 j 18:49	11° $\Omega$ 15'26	0.38059 AU
	-8672 Feb 03 j 14:37	0° $\mathfrak{X}$		desc. node	-8667 Apr 27 j 18:01	6° $\Omega$ 44'45	
morning rise	-8672 Feb 16 j 00:19	8° $\mathfrak{X}$ 32'29		direct	-8667 May 07 j 00:57	6° $\Omega$ 11'05	
	-8672 Mar 18 j 23:16	0° $\overline{\mathfrak{Z}}$			-8667 Jul 15 j 18:44	0° $\mathfrak{M}$	
	-8672 May 04 j 14:06	0° $\approx$			-8667 Sep 03 j 06:45	0° $\underline{\mathfrak{L}}$	
	-8672 Jun 22 j 19:58	0° $\mathfrak{H}$			-8667 Oct 19 j 11:50	0° $\mathfrak{M}$	
	-8672 Aug 16 j 08:21	0° $\mathfrak{Y}$			-8667 Dec 04 j 12:53	0° $\mathfrak{X}$	
asc. node	-8672 Aug 17 j 11:49	0° $\mathfrak{Y}$ 34'06			-8666 Jan 20 j 04:38	0° $\overline{\mathfrak{Z}}$	
retrograde	-8672 Oct 30 j 18:42	23° $\mathfrak{Y}$ 35'10			-8666 Mar 08 j 08:25	0° $\approx$	
opposition	-8672 Dec 06 j 17:06	15° $\mathfrak{Y}$ 24'14	4°12'59	evening set	-8666 Mar 13 j 18:58	3° $\approx$ 27'23	
greatest brilliancy	-8672 Dec 07 j 13:27	15° $\mathfrak{Y}$ 04'56	-1.7m	asc. node	-8666 Apr 08 j 17:16	19° $\approx$ 57'47	
min. Earth dist.	-8672 Dec 13 j 01:28	12° $\mathfrak{Y}$ 59'56	0.58430 AU	max. Earth dist.	-8666 Apr 21 j 17:29	28° $\approx$ 16'59	2.66087 AU
direct	-8671 Jan 16 j 01:19	5° $\mathfrak{Y}$ 42'30			-8666 Apr 24 j 09:45	0° $\mathfrak{H}$	
	-8671 Mar 29 j 03:34	0° $\mathfrak{B}$					
	-8671 May 16 j 02:16	0° $\mathfrak{H}$		conjunction	-8666 Apr 30 j 11:08	3° $\mathfrak{H}$ 53'22	0°12'31
	-8671 Jun 27 j 00:45	0° $\overline{\mathfrak{D}}$		minimum elong	-8666 Apr 30 j 10:40	3° $\mathfrak{H}$ 52'37	0°12'12
desc. node	-8671 Jul 23 j 09:59	19° $\overline{\mathfrak{D}}$ 52'25		behind sun begin	-8666 Apr 29 j 22:01	3° $\mathfrak{H}$ 32'18	
	-8671 Aug 05 j 15:39	0° $\Omega$		behind sun end	-8666 Apr 30 j 23:19	4° $\mathfrak{H}$ 12'56	

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8666 Jun 09 j 16:08	0°♈		asc. node	-8661 Nov 29 j 20:53	17°♊50'06	
morning rise	-8666 Jun 15 j 16:16	3°♈57'06			-8661 Dec 29 j 05:16	0°♊	
	-8666 Jul 24 j 16:30	0°♉			-8660 Feb 23 j 05:54	0°♉	
	-8666 Sep 06 j 08:45	0°♊			-8660 Apr 11 j 23:21	0°♈	
	-8666 Oct 18 j 22:37	0°♋			-8660 May 26 j 19:49	0°♉	
	-8666 Nov 29 j 22:02	0°♌			-8660 Jul 07 j 19:22	0°♊	
	-8665 Jan 11 j 07:01	0°♍		evening set	-8660 Jul 20 j 23:04	9°♊44'52	
	-8665 Feb 25 j 16:29	0°♎			-8660 Aug 16 j 16:48	0°♋	
desc. node	-8665 Mar 15 j 20:19	10°♎31'28		max. Earth dist.	-8660 Aug 21 j 13:30	3°♋44'09	2.39375 AU
retrograde	-8665 May 13 j 14:23	29°♎31'36					
min. Earth dist.	-8665 Jun 10 j 11:03	24°♎19'41	0.45465 AU	conjunction	-8660 Sep 17 j 19:59	24°♋54'37	0°34'40
greatest brilliancy	-8665 Jun 17 j 01:28	22°♎06'07	-2.4m	minimum elong	-8660 Sep 17 j 22:39	24°♋59'49	0°35'11
opposition	-8665 Jun 18 j 14:12	21°♎34'52	-5°20'49		-8660 Sep 24 j 08:06	0°♌	
direct	-8665 Jul 21 j 02:45	15°♎05'19			-8660 Nov 01 j 14:30	0°♍	
	-8665 Sep 13 j 23:11	0°♏		desc. node	-8660 Nov 04 j 08:22	2°♍08'39	
	-8665 Nov 09 j 16:47	0°♐		morning rise	-8660 Nov 21 j 19:33	15°♍43'24	
	-8665 Dec 30 j 06:30	0°♑			-8660 Dec 10 j 09:23	0°♎	
	-8664 Feb 17 j 05:21	0°♒			-8659 Jan 19 j 12:40	0°♏	
asc. node	-8664 Feb 24 j 15:01	4°♒35'54			-8659 Mar 02 j 18:34	0°♐	
	-8664 Apr 04 j 23:56	0°♓			-8659 Apr 16 j 23:06	0°♑	
evening set	-8664 Apr 20 j 20:24	10°♓09'25			-8659 Jun 05 j 20:31	0°♒	
max. Earth dist.	-8664 May 16 j 13:50	26°♓54'46	2.60937 AU		-8659 Aug 11 j 20:21	0°♓	
	-8664 May 21 j 06:06	0°♈		retrograde	-8659 Sep 07 j 14:40	3°♓59'16	
					-8659 Oct 02 j 04:47	30°♓	
conjunction	-8664 Jun 07 j 21:37	11°♈46'00	0°54'26	opposition	-8659 Oct 17 j 01:25	24°♓30'16	-0°00'00
minimum elong	-8664 Jun 07 j 20:04	11°♈43'22	0°54'28	greatest brilliancy	-8659 Oct 17 j 01:31	24°♓30'10	-1.4m
	-8664 Jul 04 j 15:43	0°♉		asc. node	-8659 Oct 17 j 01:27	24°♓30'14	
morning rise	-8664 Jul 25 j 23:29	14°♉53'28		min. Earth dist.	-8659 Oct 18 j 09:46	23°♓57'50	0.66507 AU
	-8664 Aug 16 j 03:57	0°♊		direct	-8659 Nov 26 j 17:13	14°♓35'45	
	-8664 Sep 26 j 01:59	0°♋			-8658 Jan 23 j 12:19	0°♓	
	-8664 Nov 04 j 22:34	0°♌			-8658 Mar 20 j 13:20	0°♈	
	-8664 Dec 14 j 11:10	0°♍			-8658 May 06 j 08:12	0°♉	
	-8663 Jan 23 j 16:02	0°♎			-8658 Jun 17 j 22:08	0°♊	
desc. node	-8663 Jan 30 j 18:30	5°♎10'29			-8658 Jul 27 j 22:49	0°♋	
	-8663 Mar 07 j 03:09	0°♏			-8658 Sep 04 j 13:50	0°♌	
	-8663 Apr 24 j 20:41	0°♐		evening set	-8658 Sep 21 j 23:27	13°♌39'34	
retrograde	-8663 Jun 28 j 05:17	20°♐55'24		desc. node	-8658 Sep 22 j 03:18	13°♌47'07	
min. Earth dist.	-8663 Jul 31 j 09:08	13°♐33'42	0.57497 AU		-8658 Oct 12 j 19:43	0°♍	
greatest brilliancy	-8663 Aug 05 j 09:10	11°♐36'17	-1.8m		-8658 Nov 20 j 15:02	0°♎	
opposition	-8663 Aug 06 j 09:37	11°♐12'19	-5°11'46				
direct	-8663 Sep 11 j 17:56	2°♐54'05		conjunction	-8658 Nov 24 j 15:38	3°♎03'40	-0°44'17
	-8663 Dec 02 j 18:55	0°♑		minimum elong	-8658 Nov 24 j 12:29	2°♎57'42	0°44'13
asc. node	-8662 Jan 11 j 16:39	21°♑41'42			-8658 Dec 30 j 18:49	0°♏	
	-8662 Jan 26 j 02:07	0°♒		max. Earth dist.	-8657 Jan 09 j 14:51	7°♏08'49	2.45036 AU
	-8662 Mar 16 j 18:16	0°♓		morning rise	-8657 Jan 26 j 01:54	18°♏55'03	
	-8662 May 02 j 14:53	0°♈			-8657 Feb 10 j 21:13	0°♐	
evening set	-8662 Jun 01 j 18:06	20°♈12'50			-8657 Mar 27 j 07:04	0°♑	
	-8662 Jun 15 j 22:42	0°♉			-8657 May 13 j 07:37	0°♒	
max. Earth dist.	-8662 Jun 18 j 07:40	1°♉39'13	2.51049 AU		-8657 Jul 03 j 00:50	0°♓	
					-8657 Sep 02 j 23:29	0°♈	
conjunction	-8662 Jul 23 j 03:31	26°♉28'57	1°12'19	asc. node	-8657 Sep 04 j 03:42	0°♈25'56	
minimum elong	-8662 Jul 23 j 03:44	26°♉29'22	1°12'45	retrograde	-8657 Oct 15 j 04:50	8°♈55'07	
	-8662 Jul 27 j 23:11	0°♊		opposition	-8657 Nov 22 j 02:07	0°♈16'17	3°03'13
	-8662 Sep 06 j 03:32	0°♋			-8657 Nov 22 j 18:53	30°♈	
morning rise	-8662 Sep 15 j 21:54	7°♋26'54		greatest brilliancy	-8657 Nov 22 j 13:22	0°♈05'21	-1.6m
	-8662 Oct 15 j 03:40	0°♌		min. Earth dist.	-8657 Nov 27 j 02:06	28°♈19'48	0.61868 AU
	-8662 Nov 22 j 18:35	0°♍		direct	-8656 Jan 01 j 21:47	20°♈20'39	
desc. node	-8662 Dec 18 j 14:50	19°♍54'21			-8656 Feb 13 j 17:06	0°♈	
	-8662 Dec 31 j 21:28	0°♎			-8656 Apr 10 j 19:09	0°♉	
	-8661 Feb 10 j 11:32	0°♏			-8656 May 25 j 21:06	0°♊	
	-8661 Mar 25 j 18:30	0°♐			-8656 Jul 05 j 21:00	0°♋	
	-8661 May 13 j 07:19	0°♑		desc. node	-8656 Aug 09 j 02:40	26°♋12'13	
retrograde	-8661 Aug 04 j 14:34	29°♑40'09			-8656 Aug 14 j 00:17	0°♌	
min. Earth dist.	-8661 Sep 11 j 04:17	20°♑42'45	0.65010 AU		-8656 Sep 21 j 15:27	0°♍	
opposition	-8661 Sep 13 j 13:20	19°♑45'12	-2°52'14		-8656 Oct 30 j 19:42	0°♎	
greatest brilliancy	-8661 Sep 13 j 08:22	19°♑50'13	-1.4m	evening set	-8656 Nov 24 j 14:50	18°♎30'21	
direct	-8661 Oct 22 j 15:30	10°♑23'46			-8656 Dec 10 j 08:16	0°♏	



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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8655 Jan 20 j 23:17	29° $\mathbb{M}$ 28'37	-1°11'59		-8650 Mar 28 j 02:50	0° $\underline{\mathbf{A}}$	
minimum elong	-8655 Jan 20 j 23:32	29° $\mathbb{M}$ 29'04	1°12'26	desc. node	-8650 Apr 01 j 13:52	1° $\underline{\mathbf{A}}$ 11'22	
	-8655 Jan 21 j 17:26	0° $\mathcal{A}$		retrograde	-8650 Apr 20 j 09:06	3° $\underline{\mathbf{A}}$ 33'53	
max. Earth dist.	-8655 Feb 19 j 19:31	19° $\mathcal{A}$ 48'09	2.56908 AU		-8650 May 13 j 19:04	30° $\mathcal{R}$ $\mathbb{M}$	
	-8655 Mar 07 j 03:07	0° $\mathcal{B}$		min. Earth dist.	-8650 May 17 j 09:38	28° $\mathbb{M}$ 57'35	0.40992 AU
morning rise	-8655 Mar 15 j 18:24	5° $\mathcal{B}$ 41'22		greatest brilliancy	-8650 May 23 j 03:36	27° $\mathbb{M}$ 12'57	-2.7m
	-8655 Apr 22 j 09:24	0° $\approx$		opposition	-8650 May 24 j 03:18	26° $\mathbb{M}$ 54'54	-3°41'21
	-8655 Jun 09 j 07:32	0° $\mathcal{H}$		direct	-8650 Jun 24 j 00:09	21° $\mathbb{M}$ 16'43	
asc. node	-8655 Jul 22 j 01:03	25° $\mathcal{H}$ 43'58			-8650 Aug 02 j 18:47	0° $\underline{\mathbf{A}}$	
	-8655 Jul 29 j 08:31	0° $\mathcal{Y}$			-8650 Sep 30 j 23:29	0° $\mathbb{M}$	
	-8655 Sep 23 j 00:31	0° $\mathcal{B}$			-8650 Nov 19 j 23:19	0° $\mathcal{A}$	
retrograde	-8655 Nov 29 j 19:09	20° $\mathcal{B}$ 00'04			-8649 Jan 07 j 11:08	0° $\mathcal{B}$	
opposition	-8654 Jan 03 j 20:28	12° $\mathcal{B}$ 44'56	5°46'20		-8649 Feb 24 j 12:32	0° $\approx$	
greatest brilliancy	-8654 Jan 05 j 08:53	12° $\mathcal{B}$ 12'34	-2.0m	asc. node	-8649 Mar 13 j 06:37	10° $\approx$ 32'15	
min. Earth dist.	-8654 Jan 11 j 20:13	9° $\mathcal{B}$ 55'27	0.51606 AU	evening set	-8649 Apr 06 j 14:34	25° $\approx$ 57'34	
direct	-8654 Feb 11 j 12:27	3° $\mathcal{B}$ 53'17			-8649 Apr 12 j 22:26	0° $\mathcal{H}$	
	-8654 Apr 25 j 12:55	0° $\mathbb{I}$		max. Earth dist.	-8649 May 07 j 03:16	15° $\mathcal{H}$ 35'30	2.63576 AU
	-8654 Jun 10 j 12:09	0° $\mathcal{E}$					
desc. node	-8654 Jun 27 j 05:40	11° $\mathcal{E}$ 56'42		conjunction	-8649 May 24 j 04:56	26° $\mathcal{H}$ 44'36	0°39'41
	-8654 Jul 21 j 18:39	0° $\mathcal{Q}$		minimum elong	-8649 May 24 j 03:36	26° $\mathcal{H}$ 42'24	0°39'34
	-8654 Aug 30 j 18:35	0° $\mathbb{M}$			-8649 May 29 j 03:33	0° $\mathcal{Y}$	
	-8654 Oct 10 j 00:49	0° $\underline{\mathbf{A}}$		morning rise	-8649 Jul 10 j 02:29	28° $\mathcal{Y}$ 11'49	
	-8654 Nov 20 j 11:19	0° $\mathbb{M}$			-8649 Jul 12 j 17:39	0° $\mathcal{B}$	
	-8653 Jan 02 j 13:57	0° $\mathcal{A}$			-8649 Aug 24 j 14:56	0° $\mathbb{I}$	
evening set	-8653 Jan 15 j 16:03	8° $\mathcal{A}$ 52'05			-8649 Oct 05 j 01:12	0° $\mathcal{E}$	
	-8653 Feb 16 j 10:31	0° $\mathcal{B}$			-8649 Nov 14 j 12:15	0° $\mathcal{Q}$	
					-8649 Dec 24 j 17:33	0° $\mathbb{M}$	
conjunction	-8653 Mar 07 j 20:02	12° $\mathcal{B}$ 40'13	-0°49'00		-8648 Feb 03 j 21:58	0° $\underline{\mathbf{A}}$	
minimum elong	-8653 Mar 07 j 21:39	12° $\mathcal{B}$ 42'51	0°49'32	desc. node	-8648 Feb 17 j 14:52	9° $\underline{\mathbf{A}}$ 35'47	
max. Earth dist.	-8653 Mar 19 j 23:44	20° $\mathcal{B}$ 32'22	2.64446 AU		-8648 Mar 19 j 13:15	0° $\mathbb{M}$	
	-8653 Apr 03 j 16:36	0° $\approx$			-8648 May 20 j 11:11	0° $\mathcal{A}$	
morning rise	-8653 Apr 25 j 08:33	13° $\approx$ 51'05		retrograde	-8648 Jun 11 j 17:04	3° $\mathcal{A}$ 13'11	
	-8653 May 20 j 18:02	0° $\mathcal{H}$			-8648 Jul 02 j 20:45	30° $\mathcal{R}$ $\mathbb{M}$	
asc. node	-8653 Jun 08 j 18:13	12° $\mathcal{H}$ 02'56		min. Earth dist.	-8648 Jul 12 j 18:25	26° $\mathbb{M}$ 40'21	0.53076 AU
	-8653 Jul 07 j 03:12	0° $\mathcal{Y}$		greatest brilliancy	-8648 Jul 18 j 15:47	24° $\mathbb{M}$ 26'59	-2.0m
	-8653 Aug 23 j 20:30	0° $\mathcal{B}$		opposition	-8648 Jul 20 j 00:46	23° $\mathbb{M}$ 55'42	-5°42'45
	-8653 Oct 11 j 22:44	0° $\mathbb{I}$		direct	-8648 Aug 23 j 23:30	16° $\mathbb{M}$ 13'55	
	-8653 Dec 05 j 18:12	0° $\mathcal{E}$			-8648 Oct 16 j 07:38	0° $\mathcal{A}$	
retrograde	-8652 Feb 04 j 10:34	17° $\mathcal{E}$ 28'31			-8648 Dec 14 j 00:39	0° $\mathcal{B}$	
opposition	-8652 Mar 06 j 12:51	12° $\mathcal{E}$ 09'32	4°48'24	asc. node	-8647 Jan 28 j 06:26	26° $\mathcal{B}$ 19'13	
greatest brilliancy	-8652 Mar 07 j 14:08	11° $\mathcal{E}$ 51'37	-2.8m		-8647 Feb 03 j 09:41	0° $\approx$	
min. Earth dist.	-8652 Mar 11 j 14:36	10° $\mathcal{E}$ 43'36	0.39902 AU		-8647 Mar 24 j 03:08	0° $\mathcal{H}$	
direct	-8652 Apr 08 j 04:11	6° $\mathcal{E}$ 13'29			-8647 May 09 j 16:24	0° $\mathcal{Y}$	
desc. node	-8652 May 14 j 09:09	14° $\mathcal{E}$ 10'45		evening set	-8647 May 15 j 20:26	4° $\mathcal{Y}$ 05'13	
	-8652 Jun 15 j 04:57	0° $\mathcal{Q}$		max. Earth dist.	-8647 Jun 04 j 04:33	17° $\mathcal{Y}$ 04'52	2.55395 AU
	-8652 Aug 01 j 19:40	0° $\mathbb{M}$			-8647 Jun 22 j 23:54	0° $\mathcal{B}$	
	-8652 Sep 14 j 21:50	0° $\underline{\mathbf{A}}$					
	-8652 Oct 28 j 19:30	0° $\mathbb{M}$		conjunction	-8647 Jul 04 j 11:42	8° $\mathcal{B}$ 01'58	1°10'03
	-8652 Dec 12 j 14:13	0° $\mathcal{A}$		minimum elong	-8647 Jul 04 j 10:46	8° $\mathcal{B}$ 00'18	1°10'20
	-8651 Jan 27 j 12:32	0° $\mathcal{B}$			-8647 Aug 04 j 04:04	0° $\mathbb{I}$	
evening set	-8651 Feb 26 j 09:40	19° $\mathcal{B}$ 12'13		morning rise	-8647 Aug 24 j 21:08	15° $\mathbb{I}$ 14'09	
	-8651 Mar 15 j 07:07	0° $\approx$			-8647 Sep 13 j 14:03	0° $\mathcal{E}$	
max. Earth dist.	-8651 Apr 12 j 13:09	18° $\approx$ 02'00	2.66693 AU		-8647 Oct 22 j 20:40	0° $\mathcal{Q}$	
					-8647 Nov 30 j 18:04	0° $\mathbb{M}$	
conjunction	-8651 Apr 15 j 13:23	19° $\approx$ 57'21	-0°05'45	desc. node	-8646 Jan 04 j 10:20	26° $\mathbb{M}$ 26'51	
minimum elong	-8651 Apr 15 j 13:37	19° $\approx$ 57'43	0°06'08		-8646 Jan 09 j 03:45	0° $\underline{\mathbf{A}}$	
behind sun begin	-8651 Apr 14 j 19:21	19° $\approx$ 28'33			-8646 Feb 19 j 04:10	0° $\mathbb{M}$	
behind sun end	-8651 Apr 16 j 07:53	20° $\approx$ 26'53			-8646 Apr 04 j 11:47	0° $\mathcal{A}$	
asc. node	-8651 Apr 25 j 11:19	26° $\approx$ 17'49			-8646 May 27 j 04:40	0° $\mathcal{B}$	
	-8651 May 01 j 06:02	0° $\mathcal{H}$		retrograde	-8646 Jul 21 j 15:12	15° $\mathcal{B}$ 36'28	
morning rise	-8651 May 31 j 21:18	19° $\mathcal{H}$ 43'55		min. Earth dist.	-8646 Aug 26 j 15:12	7° $\mathcal{B}$ 12'23	0.62734 AU
	-8651 Jun 16 j 16:34	0° $\mathcal{Y}$		opposition	-8646 Aug 30 j 11:19	5° $\mathcal{B}$ 39'57	-3°52'40
	-8651 Aug 01 j 04:11	0° $\mathcal{B}$		greatest brilliancy	-8646 Aug 29 j 23:58	5° $\mathcal{B}$ 51'21	-1.5m
	-8651 Sep 14 j 16:11	0° $\mathbb{I}$			-8646 Sep 15 j 04:42	30° $\mathcal{R}$ $\mathcal{A}$	
	-8651 Oct 28 j 11:59	0° $\mathcal{E}$		direct	-8646 Oct 07 j 14:50	26° $\mathcal{A}$ 39'20	
	-8651 Dec 11 j 08:57	0° $\mathcal{Q}$			-8646 Nov 01 j 03:49	0° $\mathcal{B}$	
	-8650 Jan 26 j 06:42	0° $\mathbb{M}$		asc. node	-8646 Dec 16 j 10:22	17° $\mathcal{B}$ 22'31	

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8645 Jan 10 j 07:41	0°♊				-8640 Jan 29 j 22:09	0°♊	
	-8645 Mar 03 j 18:39	0°♋		max. Earth dist.		-8640 Feb 07 j 09:16	5°♊50'28	2.52638 AU
	-8645 Apr 20 j 13:26	0°♌		morning rise		-8640 Feb 26 j 22:11	19°♊07'12	
	-8645 Jun 04 j 03:15	0°♍				-8640 Mar 14 j 05:55	0°♋	
evening set	-8645 Jul 01 j 00:39	19°♍02'05				-8640 Apr 29 j 15:54	0°♌	
	-8645 Jul 16 j 02:22	0°♎				-8640 Jun 17 j 07:01	0°♍	
max. Earth dist.	-8645 Jul 18 j 16:20	1°♎53'59	2.43617 AU	asc. node		-8640 Aug 07 j 18:11	29°♍32'09	
						-8640 Aug 08 j 14:52	0°♎	
conjunction	-8645 Aug 25 j 12:58	0°♏21'42	0°57'43			-8640 Oct 18 j 02:10	0°♍	
minimum elong	-8645 Aug 25 j 15:32	0°♏26'36	0°58'14	retrograde		-8640 Nov 09 j 23:28	2°♍55'13	
	-8645 Aug 25 j 01:38	0°♏				-8640 Dec 01 j 07:13	30°♎♊	
	-8645 Oct 02 j 19:25	0°♏		opposition		-8640 Dec 16 j 07:21	25°♎01'59	4°50'18
morning rise	-8645 Oct 25 j 23:22	18°♏07'32		greatest brilliancy		-8640 Dec 17 j 09:31	24°♎37'36	-1.8m
	-8645 Nov 10 j 04:02	0°♏		min. Earth dist.		-8640 Dec 23 j 07:59	22°♎25'22	0.56197 AU
desc. node	-8645 Nov 22 j 04:07	9°♏20'27		direct		-8639 Jan 25 j 05:00	15°♎33'14	
	-8645 Dec 19 j 00:35	0°♏				-8639 Mar 18 j 15:22	0°♍	
	-8644 Jan 28 j 06:00	0°♎				-8639 May 09 j 06:20	0°♎	
	-8644 Mar 10 j 17:19	0°♎				-8639 Jun 21 j 03:14	0°♏	
	-8644 Apr 25 j 15:27	0°♏		desc. node		-8639 Jul 13 j 21:25	16°♏54'19	
	-8644 Jun 17 j 11:19	0°♌				-8639 Jul 31 j 04:24	0°♏	
retrograde	-8644 Aug 24 j 23:37	20°♌59'30				-8639 Sep 08 j 10:28	0°♏	
opposition	-8644 Oct 03 j 17:59	11°♌17'17	-1°08'50			-8639 Oct 18 j 02:57	0°♏	
greatest brilliancy	-8644 Oct 03 j 18:15	11°♌17'01	-1.4m			-8639 Nov 28 j 02:16	0°♎	
min. Earth dist.	-8644 Oct 03 j 15:17	11°♌20'01	0.66652 AU	evening set		-8639 Dec 27 j 22:02	21°♎04'18	
asc. node	-8644 Nov 02 j 15:37	2°♌13'54				-8638 Jan 09 j 20:03	0°♎	
direct	-8644 Nov 12 j 22:25	1°♌32'37						
	-8643 Feb 05 j 19:29	0°♋		conjunction		-8638 Feb 19 j 02:18	27°♎07'32	-1°01'38
	-8643 Mar 29 j 13:40	0°♌		minimum elong		-8638 Feb 19 j 03:54	27°♎10'10	1°02'11
	-8643 May 14 j 08:13	0°♍				-8638 Feb 23 j 10:42	0°♏	
	-8643 Jun 25 j 14:39	0°♎		max. Earth dist.		-8638 Mar 09 j 17:28	9°♏22'30	2.62111 AU
	-8643 Aug 04 j 13:01	0°♏		morning rise		-8638 Apr 10 j 05:55	29°♏45'27	
evening set	-8643 Aug 27 j 00:38	17°♏23'59				-8638 Apr 10 j 15:00	0°♌	
	-8643 Sep 12 j 03:16	0°♏				-8638 May 27 j 21:29	0°♍	
desc. node	-8643 Oct 08 j 22:47	21°♏03'44		asc. node		-8638 Jun 25 j 12:21	17°♍55'11	
	-8643 Oct 20 j 08:24	0°♏				-8638 Jul 14 j 23:44	0°♌	
						-8638 Sep 02 j 11:41	0°♍	
conjunction	-8643 Oct 29 j 06:28	6°♏58'04	-0°15'20			-8638 Oct 26 j 16:12	0°♎	
minimum elong	-8643 Oct 29 j 05:04	6°♏55'20	0°15'02	retrograde		-8637 Jan 06 j 08:23	22°♎17'16	
behind sun begin	-8643 Oct 28 j 18:29	6°♏34'43		opposition		-8637 Feb 07 j 21:36	16°♎14'50	6°08'56
behind sun end	-8643 Oct 29 j 15:38	7°♏15'56		greatest brilliancy		-8637 Feb 09 j 15:12	15°♎42'14	-2.5m
	-8643 Nov 28 j 02:20	0°♏		min. Earth dist.		-8637 Feb 15 j 16:53	13°♎48'52	0.43979 AU
max. Earth dist.	-8643 Dec 09 j 14:38	8°♏44'30	2.40239 AU	direct		-8637 Mar 15 j 09:11	9°♎00'51	
morning rise	-8642 Jan 02 j 13:56	26°♏37'11				-8637 May 17 j 01:37	0°♏	
	-8642 Jan 07 j 04:30	0°♎		desc. node		-8637 Jun 01 j 02:28	8°♏52'11	
	-8642 Feb 18 j 06:16	0°♎				-8637 Jul 03 j 08:50	0°♏	
	-8642 Apr 03 j 19:45	0°♏				-8637 Aug 14 j 22:39	0°♏	
	-8642 May 21 j 12:28	0°♌				-8637 Sep 25 j 19:09	0°♏	
	-8642 Jul 13 j 19:39	0°♍				-8637 Nov 07 j 08:52	0°♎	
asc. node	-8642 Sep 20 j 19:05	24°♍37'28				-8637 Dec 21 j 07:01	0°♎	
retrograde	-8642 Sep 29 j 22:56	25°♍07'45				-8636 Feb 04 j 16:30	0°♏	
opposition	-8642 Nov 07 j 14:04	16°♍06'10	1°51'46	evening set		-8636 Feb 11 j 12:14	4°♏26'17	
greatest brilliancy	-8642 Nov 07 j 18:43	16°♍01'34	-1.5m			-8636 Mar 22 j 04:23	0°♌	
min. Earth dist.	-8642 Nov 11 j 04:07	14°♍41'14	0.64401 AU					
direct	-8642 Dec 18 j 12:56	6°♍06'06		conjunction		-8636 Mar 31 j 12:44	5°♌58'54	-0°23'33
	-8641 Mar 02 j 12:30	0°♌		minimum elong		-8636 Mar 31 j 13:39	6°♌00'21	0°24'01
	-8641 Apr 21 j 23:21	0°♍		max. Earth dist.		-8636 Apr 03 j 07:26	7°♌45'30	2.66460 AU
	-8641 Jun 04 j 16:07	0°♎				-8636 May 08 j 02:43	0°♍	
	-8641 Jul 15 j 03:27	0°♏		asc. node		-8636 May 12 j 04:20	2°♍36'08	
	-8641 Aug 23 j 00:04	0°♏		morning rise		-8636 May 17 j 09:40	5°♍56'44	
desc. node	-8641 Aug 26 j 19:35	2°♏58'31				-8636 Jun 23 j 19:31	0°♌	
	-8641 Sep 30 j 10:10	0°♏				-8636 Aug 08 j 22:22	0°♍	
evening set	-8641 Nov 01 j 15:35	24°♏51'56				-8636 Sep 23 j 14:31	0°♎	
	-8641 Nov 08 j 09:29	0°♏				-8636 Nov 08 j 11:22	0°♏	
	-8641 Dec 18 j 17:13	0°♎				-8636 Dec 26 j 09:07	0°♏	
						-8635 Feb 26 j 09:43	0°♏	
conjunction	-8640 Jan 01 j 01:06	9°♎37'59	-1°09'14	retrograde		-8635 Mar 24 j 00:32	4°♏02'48	
minimum elong	-8641 Dec 31 j 23:42	9°♎35'28	1°09'31	desc. node		-8635 Apr 18 j 06:13	0°♏14'43	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 27

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8635 Apr 19 j 04:33	30° $\mathbb{R}\Omega$			-8630 Apr 27 j 20:55	0° $\Upsilon$	
min. Earth dist.	-8635 Apr 21 j 16:57	29° $\Omega$ 19'19	0.38336 AU	evening set	-8630 Jun 11 j 23:39	0° $\mathcal{B}$ 29'03	
opposition	-8635 Apr 24 j 10:46	28° $\Omega$ 34'16	-0°29'26		-8630 Jun 11 j 06:56	0° $\mathcal{B}$	
greatest brilliancy	-8635 Apr 24 j 09:05	28° $\Omega$ 35'25	-2.9m	max. Earth dist.	-8630 Jun 27 j 20:13	11° $\mathcal{B}$ 37'53	2.48427 AU
direct	-8635 May 24 j 16:21	23° $\Omega$ 28'33			-8630 Jul 23 j 07:16	0° $\Pi$	
	-8635 Jun 27 j 00:14	0° $\mathbb{M}$					
	-8635 Aug 25 j 12:25	0° $\underline{\Omega}$		conjunction	-8630 Aug 03 j 15:47	8° $\Pi$ 22'14	1°09'53
	-8635 Oct 13 j 00:19	0° $\mathbb{M}$		minimum elong	-8630 Aug 03 j 16:54	8° $\Pi$ 24'18	1°10'22
	-8635 Nov 29 j 01:21	0° $\mathcal{A}$			-8630 Sep 01 j 09:57	0° $\mathcal{G}$	
	-8634 Jan 15 j 05:26	0° $\mathcal{Z}$		morning rise	-8630 Sep 29 j 16:40	21° $\mathcal{G}$ 44'44	
	-8634 Mar 03 j 15:26	0° $\approx$			-8630 Oct 10 j 07:50	0° $\Omega$	
evening set	-8634 Mar 22 j 12:22	11° $\approx$ 57'36			-8630 Nov 17 j 20:20	0° $\mathbb{M}$	
asc. node	-8634 Mar 29 j 22:45	16° $\approx$ 41'02		desc. node	-8630 Dec 08 j 23:56	16° $\mathbb{M}$ 21'38	
	-8634 Apr 19 j 19:25	0° $\mathcal{H}$			-8630 Dec 26 j 20:14	0° $\underline{\Omega}$	
max. Earth dist.	-8634 Apr 27 j 08:16	4° $\mathcal{H}$ 50'18	2.65419 AU		-8629 Feb 05 j 05:49	0° $\mathbb{M}$	
					-8629 Mar 20 j 02:43	0° $\mathcal{A}$	
conjunction	-8634 May 09 j 01:27	12° $\mathcal{H}$ 23'36	0°22'51		-8629 May 06 j 07:28	0° $\mathcal{Z}$	
minimum elong	-8634 May 09 j 00:37	12° $\mathcal{H}$ 22'15	0°22'36		-8629 Jul 05 j 08:37	0° $\approx$	
	-8634 Jun 05 j 01:19	0° $\Upsilon$		retrograde	-8629 Aug 12 j 10:27	7° $\approx$ 49'50	
morning rise	-8634 Jun 24 j 08:51	12° $\Upsilon$ 47'40			-8629 Sep 16 j 07:42	30° $\mathcal{R}\mathcal{Z}$	
	-8634 Jul 19 j 21:54	0° $\mathcal{B}$		min. Earth dist.	-8629 Sep 19 j 19:10	28° $\mathcal{Z}$ 36'27	0.65857 AU
	-8634 Sep 01 j 06:53	0° $\Pi$		opposition	-8629 Sep 21 j 09:09	27° $\mathcal{Z}$ 58'07	-2°15'13
	-8634 Oct 13 j 09:24	0° $\mathcal{G}$		greatest brilliancy	-8629 Sep 21 j 06:45	28° $\mathcal{Z}$ 00'32	-1.4m
	-8634 Nov 23 j 16:55	0° $\Omega$		direct	-8629 Oct 30 j 22:14	18° $\mathcal{Z}$ 27'20	
	-8633 Jan 04 j 01:10	0° $\mathbb{M}$		asc. node	-8629 Nov 20 j 04:54	20° $\mathcal{Z}$ 46'27	
	-8633 Feb 16 j 04:06	0° $\underline{\Omega}$			-8629 Dec 19 j 02:53	0° $\approx$	
desc. node	-8633 Mar 06 j 07:49	11° $\underline{\Omega}$ 41'08			-8628 Feb 17 j 05:36	0° $\mathcal{H}$	
	-8633 Apr 08 j 03:47	0° $\mathbb{M}$			-8628 Apr 06 j 20:20	0° $\Upsilon$	
retrograde	-8633 May 25 j 06:49	12° $\mathbb{M}$ 56'22			-8628 May 22 j 00:05	0° $\mathcal{B}$	
min. Earth dist.	-8633 Jun 23 j 04:42	7° $\mathbb{M}$ 16'00	0.48206 AU		-8628 Jul 03 j 02:14	0° $\Pi$	
greatest brilliancy	-8633 Jun 29 j 16:30	4° $\mathbb{M}$ 57'56	-2.2m	evening set	-8628 Aug 02 j 18:23	22° $\Pi$ 56'45	
opposition	-8633 Jul 01 j 06:18	4° $\mathbb{M}$ 24'08	-5°43'17		-8628 Aug 11 j 23:56	0° $\mathcal{G}$	
	-8633 Jul 15 j 03:31	30° $\mathcal{R}\underline{\Omega}$			-8628 Sep 19 j 14:34	0° $\Omega$	
direct	-8633 Aug 03 j 16:36	27° $\underline{\Omega}$ 26'36		max. Earth dist.	-8628 Sep 27 j 11:48	6° $\Omega$ 11'08	2.38058 AU
	-8633 Aug 24 j 06:48	0° $\mathbb{M}$					
	-8633 Nov 02 j 02:10	0° $\mathcal{A}$		conjunction	-8628 Oct 02 j 12:50	10° $\Omega$ 08'50	0°17'31
	-8633 Dec 24 j 13:18	0° $\mathcal{Z}$		minimum elong	-8628 Oct 02 j 14:27	10° $\Omega$ 11'59	0°17'58
	-8632 Feb 12 j 04:53	0° $\approx$		desc. node	-8628 Oct 25 j 17:27	28° $\Omega$ 20'58	
asc. node	-8632 Feb 14 j 21:20	1° $\approx$ 39'03			-8628 Oct 27 j 20:04	0° $\mathbb{M}$	
	-8632 Mar 31 j 06:41	0° $\mathcal{H}$			-8628 Dec 05 j 13:50	0° $\underline{\Omega}$	
evening set	-8632 Apr 29 j 19:20	18° $\mathcal{H}$ 57'53		morning rise	-8628 Dec 07 j 11:51	1° $\underline{\Omega}$ 27'49	
	-8632 May 16 j 15:24	0° $\Upsilon$			-8627 Jan 14 j 15:44	0° $\mathbb{M}$	
max. Earth dist.	-8632 May 23 j 01:54	4° $\Upsilon$ 16'05	2.59161 AU		-8627 Feb 25 j 18:49	0° $\mathcal{A}$	
					-8627 Apr 11 j 15:25	0° $\mathcal{Z}$	
conjunction	-8632 Jun 17 j 06:43	21° $\Upsilon$ 14'37	1°01'29		-8627 May 30 j 10:49	0° $\approx$	
minimum elong	-8632 Jun 17 j 05:14	21° $\Upsilon$ 12'05	1°01'36		-8627 Jul 28 j 03:36	0° $\mathcal{H}$	
	-8632 Jun 30 j 00:31	0° $\mathcal{B}$		retrograde	-8627 Sep 15 j 14:30	11° $\mathcal{H}$ 53'44	
morning rise	-8632 Aug 05 j 07:00	25° $\mathcal{B}$ 34'42		asc. node	-8627 Oct 07 j 09:15	8° $\mathcal{H}$ 45'58	
	-8632 Aug 11 j 10:15	0° $\Pi$		opposition	-8627 Oct 24 j 19:24	2° $\mathcal{H}$ 33'24	0°40'42
	-8632 Sep 21 j 04:00	0° $\mathcal{G}$		greatest brilliancy	-8627 Oct 24 j 20:18	2° $\mathcal{H}$ 32'30	-1.4m
	-8632 Oct 30 j 19:14	0° $\Omega$		min. Earth dist.	-8627 Oct 26 j 22:41	1° $\mathcal{H}$ 42'14	0.66031 AU
	-8632 Dec 09 j 01:30	0° $\mathbb{M}$			-8627 Oct 31 j 06:38	30° $\mathcal{R}\approx$	
	-8631 Jan 17 j 21:17	0° $\underline{\Omega}$		direct	-8627 Dec 04 j 15:17	22° $\approx$ 35'35	
desc. node	-8631 Jan 21 j 06:13	2° $\underline{\Omega}$ 29'34			-8626 Jan 11 j 09:43	0° $\mathcal{H}$	
	-8631 Feb 28 j 14:58	0° $\mathbb{M}$			-8626 Mar 14 j 04:25	0° $\Upsilon$	
	-8631 Apr 15 j 22:50	0° $\mathcal{A}$			-8626 Apr 30 j 23:30	0° $\mathcal{B}$	
	-8631 Jun 27 j 17:46	0° $\mathcal{Z}$			-8626 Jun 12 j 22:05	0° $\Pi$	
retrograde	-8631 Jul 07 j 00:38	0° $\mathcal{Z}$ 34'44			-8626 Jul 23 j 02:18	0° $\mathcal{G}$	
	-8631 Jul 16 j 00:47	30° $\mathcal{R}\mathcal{A}$			-8626 Aug 30 j 18:57	0° $\Omega$	
min. Earth dist.	-8631 Aug 10 j 06:14	22° $\mathcal{A}$ 49'18	0.59588 AU	desc. node	-8626 Sep 12 j 14:54	10° $\Omega$ 03'29	
opposition	-8631 Aug 15 j 12:53	20° $\mathcal{A}$ 43'51	-4°46'05	evening set	-8626 Oct 06 j 20:06	29° $\Omega$ 02'06	
greatest brilliancy	-8631 Aug 14 j 17:21	21° $\mathcal{A}$ 03'13	-1.7m		-8626 Oct 08 j 01:44	0° $\mathbb{M}$	
direct	-8631 Sep 21 j 13:47	12° $\mathcal{A}$ 08'56			-8626 Nov 15 j 21:27	0° $\underline{\Omega}$	
	-8631 Nov 23 j 21:54	0° $\mathcal{Z}$					
asc. node	-8630 Jan 01 j 23:51	19° $\mathcal{Z}$ 50'15		conjunction	-8626 Dec 08 j 19:47	17° $\underline{\Omega}$ 16'53	-0°56'27
	-8630 Jan 20 j 05:07	0° $\approx$		minimum elong	-8626 Dec 08 j 16:50	17° $\underline{\Omega}$ 11'23	0°56'32
	-8630 Mar 11 j 16:58	0° $\mathcal{H}$			-8626 Dec 26 j 01:24	0° $\mathbb{M}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 28

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

max. Earth dist.	-8625 Jan 21 j 20:16	19° $\mathbb{M}$ 16'14	2.47804 AU		-8620 Mar 18 j 15:54	30° $\mathbb{R}$ $\mathfrak{E}$	
	-8625 Feb 06 j 03:25	0° $\mathfrak{A}$		opposition	-8620 Mar 23 j 16:49	28° $\mathfrak{E}$ 39'33	3°13'54
morning rise	-8625 Feb 07 j 07:13	0° $\mathfrak{A}$ 48'18		greatest brilliancy	-8620 Mar 24 j 04:13	28° $\mathfrak{E}$ 31'52	-2.9m
	-8625 Mar 22 j 10:57	0° $\mathfrak{Z}$		min. Earth dist.	-8620 Mar 26 j 06:56	27° $\mathfrak{E}$ 57'43	0.38534 AU
	-8625 May 08 j 04:03	0° $\approx$		direct	-8620 Apr 23 j 21:02	23° $\mathfrak{E}$ 17'00	
	-8625 Jun 26 j 21:31	0° $\mathfrak{H}$		desc. node	-8620 May 04 j 22:18	24° $\mathfrak{E}$ 04'45	
	-8625 Aug 22 j 12:45	0° $\mathfrak{Y}$			-8620 May 27 j 06:47	0° $\mathcal{O}$	
asc. node	-8625 Aug 25 j 09:58	1° $\mathfrak{Y}$ 18'55			-8620 Jul 23 j 14:42	0° $\mathbb{M}$	
retrograde	-8625 Oct 24 j 11:42	17° $\mathfrak{Y}$ 36'04			-8620 Sep 08 j 00:50	0° $\mathfrak{L}$	
opposition	-8625 Nov 30 j 21:03	9° $\mathfrak{Y}$ 11'47	3°43'36		-8620 Oct 23 j 00:30	0° $\mathbb{M}$	
greatest brilliancy	-8625 Dec 01 j 13:06	8° $\mathfrak{Y}$ 56'23	-1.6m		-8620 Dec 07 j 09:52	0° $\mathfrak{A}$	
min. Earth dist.	-8625 Dec 06 j 15:05	6° $\mathfrak{Y}$ 59'30	0.60086 AU		-8619 Jan 22 j 16:36	0° $\mathfrak{Z}$	
	-8625 Dec 31 j 20:34	30° $\mathbb{R}$ $\mathfrak{H}$		evening set	-8619 Mar 07 j 06:47	27° $\mathfrak{Z}$ 51'15	
direct	-8624 Jan 10 j 11:27	29° $\mathfrak{H}$ 22'35			-8619 Mar 10 j 15:38	0° $\approx$	
	-8624 Jan 20 j 10:31	0° $\mathfrak{Y}$		asc. node	-8619 Apr 15 j 16:16	22° $\approx$ 58'05	
	-8624 Apr 03 j 09:08	0° $\mathfrak{B}$		max. Earth dist.	-8619 Apr 17 j 23:36	24° $\approx$ 26'31	2.66459 AU
	-8624 May 19 j 22:30	0° $\mathbb{I}$					
	-8624 Jun 30 j 10:54	0° $\mathfrak{E}$		conjunction	-8619 Apr 24 j 03:09	28° $\approx$ 22'38	0°04'54
desc. node	-8624 Jul 30 j 14:51	22° $\mathfrak{E}$ 53'25		minimum elong	-8619 Apr 24 j 02:58	28° $\approx$ 22'19	0°04'34
	-8624 Aug 08 j 20:32	0° $\mathcal{O}$		behind sun begin	-8619 Apr 23 j 08:07	27° $\approx$ 52'08	
	-8624 Sep 16 j 16:00	0° $\mathbb{M}$		behind sun end	-8619 Apr 24 j 21:49	28° $\approx$ 52'30	
	-8624 Oct 25 j 23:23	0° $\mathfrak{L}$			-8619 Apr 26 j 15:55	0° $\mathfrak{H}$	
	-8624 Dec 05 j 14:28	0° $\mathbb{M}$		morning rise	-8619 Jun 09 j 08:09	28° $\mathfrak{H}$ 15'05	
evening set	-8624 Dec 07 j 05:35	1° $\mathbb{M}$ 10'39			-8619 Jun 12 j 00:21	0° $\mathfrak{Y}$	
	-8623 Jan 17 j 01:21	0° $\mathfrak{A}$			-8619 Jul 27 j 05:59	0° $\mathfrak{B}$	
					-8619 Sep 09 j 06:55	0° $\mathbb{I}$	
conjunction	-8623 Feb 01 j 00:04	10° $\mathfrak{A}$ 14'28	-1°09'55		-8619 Oct 22 j 09:01	0° $\mathfrak{E}$	
minimum elong	-8623 Feb 01 j 01:01	10° $\mathfrak{A}$ 16'05	1°10'25		-8619 Dec 04 j 01:34	0° $\mathcal{O}$	
max. Earth dist.	-8623 Feb 26 j 18:55	27° $\mathfrak{A}$ 33'27	2.58950 AU		-8618 Jan 16 j 13:56	0° $\mathbb{M}$	
	-8623 Mar 02 j 11:25	0° $\mathfrak{Z}$			-8618 Mar 06 j 00:44	0° $\mathfrak{L}$	
morning rise	-8623 Mar 25 j 08:39	14° $\mathfrak{Z}$ 59'46		desc. node	-8618 Mar 23 j 01:40	8° $\mathfrak{L}$ 30'39	
	-8623 Apr 17 j 15:41	0° $\approx$		retrograde	-8618 May 04 j 00:45	19° $\mathfrak{L}$ 06'53	
	-8623 Jun 04 j 06:29	0° $\mathfrak{H}$		min. Earth dist.	-8618 May 31 j 06:20	14° $\mathfrak{L}$ 14'10	0.43337 AU
asc. node	-8623 Jul 12 j 05:38	23° $\mathfrak{H}$ 16'53		greatest brilliancy	-8618 Jun 06 j 16:10	12° $\mathfrak{L}$ 10'17	-2.5m
	-8623 Jul 23 j 10:11	0° $\mathfrak{Y}$		opposition	-8618 Jun 08 j 01:05	11° $\mathfrak{L}$ 43'33	-4°48'56
	-8623 Sep 13 j 23:25	0° $\mathfrak{B}$		direct	-8618 Jul 09 j 19:34	5° $\mathfrak{L}$ 37'28	
	-8623 Nov 28 j 17:47	0° $\mathbb{I}$			-8618 Sep 21 j 14:05	0° $\mathbb{M}$	
retrograde	-8623 Dec 12 j 06:55	1° $\mathbb{I}$ 05'21			-8618 Nov 13 j 14:34	0° $\mathfrak{A}$	
	-8623 Dec 25 j 10:22	30° $\mathbb{R}$ $\mathfrak{B}$			-8617 Jan 02 j 03:32	0° $\mathfrak{Z}$	
opposition	-8622 Jan 15 j 13:10	24° $\mathfrak{B}$ 14'39	6°07'18		-8617 Feb 19 j 16:13	0° $\approx$	
greatest brilliancy	-8622 Jan 17 j 06:06	23° $\mathfrak{B}$ 39'36	-2.2m	asc. node	-8617 Mar 03 j 13:10	7° $\approx$ 24'56	
min. Earth dist.	-8622 Jan 23 j 20:30	21° $\mathfrak{B}$ 25'09	0.48881 AU		-8617 Apr 08 j 07:16	0° $\mathfrak{H}$	
direct	-8622 Feb 22 j 06:50	15° $\mathfrak{B}$ 52'09		evening set	-8617 Apr 15 j 07:27	4° $\mathfrak{H}$ 28'51	
	-8622 Apr 13 j 14:12	0° $\mathbb{I}$		max. Earth dist.	-8617 May 13 j 01:13	22° $\mathfrak{H}$ 25'56	2.62215 AU
	-8622 Jun 02 j 21:49	0° $\mathfrak{E}$			-8617 May 24 j 13:38	0° $\mathfrak{Y}$	
desc. node	-8622 Jun 17 j 17:30	10° $\mathfrak{E}$ 10'42					
	-8622 Jul 15 j 09:42	0° $\mathcal{O}$		conjunction	-8617 Jun 02 j 02:33	5° $\mathfrak{Y}$ 39'30	0°48'31
	-8622 Aug 25 j 00:56	0° $\mathbb{M}$		minimum elong	-8617 Jun 02 j 01:04	5° $\mathfrak{Y}$ 37'01	0°48'30
	-8622 Oct 04 j 17:14	0° $\mathfrak{L}$			-8617 Jul 08 j 02:04	0° $\mathfrak{B}$	
	-8622 Nov 15 j 11:04	0° $\mathbb{M}$		morning rise	-8617 Jul 19 j 13:52	7° $\mathfrak{B}$ 57'09	
	-8622 Dec 28 j 19:00	0° $\mathfrak{A}$			-8617 Aug 19 j 19:00	0° $\mathbb{I}$	
evening set	-8621 Jan 25 j 17:43	18° $\mathfrak{A}$ 45'16			-8617 Sep 29 j 22:47	0° $\mathfrak{E}$	
	-8621 Feb 11 j 18:50	0° $\mathfrak{Z}$			-8617 Nov 09 j 01:30	0° $\mathcal{O}$	
					-8617 Dec 18 j 20:39	0° $\mathbb{M}$	
conjunction	-8621 Mar 17 j 00:40	21° $\mathfrak{Z}$ 36'11	-0°40'15		-8616 Jan 28 j 09:21	0° $\mathfrak{L}$	
minimum elong	-8621 Mar 17 j 02:06	21° $\mathfrak{Z}$ 38'31	0°40'46	desc. node	-8616 Feb 08 j 00:12	7° $\mathfrak{L}$ 38'01	
max. Earth dist.	-8621 Mar 25 j 16:55	27° $\mathfrak{Z}$ 11'19	2.65382 AU		-8616 Mar 11 j 12:17	0° $\mathbb{M}$	
	-8621 Mar 30 j 01:58	0° $\approx$			-8616 May 01 j 23:23	0° $\mathfrak{A}$	
morning rise	-8621 May 03 j 20:24	22° $\approx$ 13'17		retrograde	-8616 Jun 21 j 08:00	14° $\mathfrak{A}$ 00'23	
	-8621 May 16 j 01:28	0° $\mathfrak{H}$		min. Earth dist.	-8616 Jul 23 j 14:10	6° $\mathfrak{A}$ 59'49	0.55608 AU
asc. node	-8621 May 29 j 22:49	8° $\mathfrak{H}$ 50'48		greatest brilliancy	-8616 Jul 29 j 00:24	4° $\mathfrak{A}$ 54'06	-1.8m
	-8621 Jul 02 j 03:29	0° $\mathfrak{Y}$		opposition	-8616 Jul 30 j 04:53	4° $\mathfrak{A}$ 26'33	-5°27'48
	-8621 Aug 18 j 04:18	0° $\mathfrak{B}$			-8616 Aug 11 j 19:03	30° $\mathbb{R}$ $\mathbb{M}$	
	-8621 Oct 04 j 16:40	0° $\mathbb{I}$		direct	-8616 Sep 03 j 22:29	26° $\mathbb{M}$ 23'45	
	-8621 Nov 23 j 14:26	0° $\mathfrak{E}$			-8616 Sep 29 j 03:01	0° $\mathfrak{A}$	
	-8620 Jan 27 j 15:18	0° $\mathcal{O}$			-8616 Dec 07 j 01:50	0° $\mathfrak{Z}$	
retrograde	-8620 Feb 22 j 00:00	3° $\mathcal{O}$ 46'23		asc. node	-8615 Jan 18 j 13:58	23° $\mathfrak{Z}$ 53'06	

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8615 Jan 28 j 23:37	0°♊					-8610 Feb 13 j 11:09	0°♊			
	-8615 Mar 19 j 06:12	0°♋					-8610 Mar 29 j 20:40	0°♋			
	-8615 May 05 j 00:36	0°♌					-8610 May 16 j 01:38	0°♊			
evening set	-8615 May 25 j 08:46	13°♌33'22					-8610 Jul 06 j 14:17	0°♋			
max. Earth dist.	-8615 Jun 11 j 22:43	25°♌32'24	2.53073 AU		asc. node		-8610 Sep 11 j 01:28	29°♋15'40			
	-8615 Jun 18 j 09:27	0°♌					-8610 Sep 13 j 20:04	0°♌			
					retrograde		-8610 Oct 08 j 13:27	3°♌22'59			
conjunction	-8615 Jul 14 j 21:01	18°♌41'00	1°12'15				-8610 Oct 31 j 09:01	30°♌			
minimum elong	-8615 Jul 14 j 20:40	18°♌40'22	1°12'37		opposition		-8610 Nov 15 j 19:23	24°♌33'12	2°33'03		
	-8615 Jul 30 j 12:40	0°♍			greatest brilliancy		-8610 Nov 16 j 03:23	24°♌25'22	-1.5m		
morning rise	-8615 Sep 06 j 00:03	27°♍51'02			min. Earth dist.		-8610 Nov 20 j 03:59	22°♌50'50	0.63125 AU		
	-8615 Sep 08 j 20:13	0°♍			direct		-8610 Dec 26 j 17:27	14°♌34'43			
	-8615 Oct 17 j 23:22	0°♎					-8609 Feb 21 j 03:37	0°♌			
	-8615 Nov 25 j 16:51	0°♏					-8609 Apr 15 j 18:10	0°♌			
desc. node	-8615 Dec 25 j 20:51	23°♏09'17					-8609 May 30 j 05:37	0°♍			
	-8614 Jan 03 j 21:42	0°♎					-8609 Jul 10 j 00:30	0°♍			
	-8614 Feb 13 j 14:18	0°♏			desc. node		-8609 Aug 17 j 07:35	29°♍26'29			
	-8614 Mar 29 j 04:07	0°♊					-8609 Aug 18 j 00:50	0°♎			
	-8614 May 17 j 20:47	0°♋					-8609 Sep 25 j 13:21	0°♏			
retrograde	-8614 Jul 29 j 17:29	24°♋13'14					-8609 Nov 03 j 14:31	0°♎			
min. Earth dist.	-8614 Sep 04 j 14:57	15°♋30'24	0.64113 AU		evening set		-8609 Nov 15 j 11:26	8°♎56'47			
opposition	-8614 Sep 07 j 16:13	14°♋16'40	-3°18'17				-8609 Dec 13 j 23:39	0°♏			
greatest brilliancy	-8614 Sep 07 j 08:40	14°♋24'15	-1.5m								
direct	-8614 Oct 16 j 09:26	5°♋04'01			conjunction		-8608 Jan 13 j 04:54	21°♏36'17	-1°11'50		
asc. node	-8614 Dec 06 j 17:57	17°♋30'49			minimum elong		-8608 Jan 13 j 04:31	21°♏35'35	1°12'14		
	-8613 Jan 02 j 21:41	0°♊					-8608 Jan 25 j 05:38	0°♊			
	-8613 Feb 26 j 06:14	0°♋			max. Earth dist.		-8608 Feb 15 j 12:43	14°♊35'32	2.55075 AU		
	-8613 Apr 15 j 14:42	0°♌			morning rise		-8608 Mar 08 j 07:30	29°♊11'10			
	-8613 May 30 j 09:32	0°♌					-8608 Mar 09 j 13:00	0°♋			
	-8613 Jul 11 j 10:11	0°♍					-8608 Apr 24 j 19:35	0°♊			
evening set	-8613 Jul 12 j 15:09	0°♍53'11					-8608 Jun 11 j 23:15	0°♋			
max. Earth dist.	-8613 Aug 04 j 02:15	17°♍37'06	2.41121 AU		asc. node		-8608 Jul 28 j 23:35	27°♋50'32			
	-8613 Aug 20 j 09:19	0°♍					-8608 Aug 01 j 18:47	0°♌			
							-8608 Sep 29 j 22:05	0°♌			
conjunction	-8613 Sep 07 j 22:52	14°♍18'37	0°45'56		retrograde		-8608 Nov 20 j 21:31	12°♌49'43			
minimum elong	-8613 Sep 08 j 01:45	14°♍24'12	0°46'27		opposition		-8608 Dec 26 j 13:57	5°♌16'32	5°24'01		
	-8613 Sep 28 j 02:04	0°♎			greatest brilliancy		-8608 Dec 27 j 22:02	4°♌47'22	-1.9m		
	-8613 Nov 05 j 09:22	0°♏			min. Earth dist.		-8607 Jan 03 j 05:02	2°♌30'49	0.53738 AU		
morning rise	-8613 Nov 10 j 13:51	4°♏02'53					-8607 Jan 10 j 18:31	30°♌			
desc. node	-8613 Nov 12 j 14:45	5°♏38'09			direct		-8607 Feb 03 j 21:13	26°♌06'06			
	-8613 Dec 14 j 04:16	0°♎					-8607 Mar 01 j 02:27	0°♌			
	-8612 Jan 23 j 07:06	0°♏					-8607 May 01 j 10:35	0°♍			
	-8612 Mar 05 j 13:28	0°♊					-8607 Jun 14 j 19:46	0°♍			
	-8612 Apr 19 j 22:14	0°♋			desc. node		-8607 Jul 04 j 09:57	14°♍16'08			
	-8612 Jun 09 j 16:15	0°♊					-8607 Jul 25 j 11:48	0°♎			
retrograde	-8612 Sep 01 j 19:10	28°♊54'36					-8607 Sep 03 j 02:45	0°♏			
opposition	-8612 Oct 11 j 10:05	19°♊19'02	-0°29'03				-8607 Oct 13 j 01:38	0°♎			
greatest brilliancy	-8612 Oct 11 j 10:36	19°♊18'32	-1.4m				-8607 Nov 23 j 05:37	0°♏			
min. Earth dist.	-8612 Oct 12 j 02:20	19°♊02'43	0.66696 AU				-8606 Jan 05 j 02:56	0°♊			
asc. node	-8612 Oct 23 j 22:50	14°♊31'34			evening set		-8606 Jan 07 j 19:07	1°♊49'44			
direct	-8612 Nov 20 j 21:51	9°♊28'28					-8606 Feb 18 j 19:32	0°♋			
	-8611 Jan 28 j 20:39	0°♋									
	-8611 Mar 23 j 20:34	0°♌			conjunction		-8606 Feb 28 j 19:22	6°♋33'41	-0°54'44		
	-8611 May 09 j 05:51	0°♌			minimum elong		-8606 Feb 28 j 21:02	6°♋36'24	0°55'17		
	-8611 Jun 20 j 17:40	0°♍			max. Earth dist.		-8606 Mar 15 j 18:21	16°♋18'21	2.63498 AU		
	-8611 Jul 30 j 18:07	0°♍					-8606 Apr 05 j 23:57	0°♊			
	-8611 Sep 07 j 09:02	0°♎			morning rise		-8606 Apr 18 j 23:56	8°♊19'16			
evening set	-8611 Sep 10 j 12:32	2°♎28'03					-8606 May 23 j 02:57	0°♋			
desc. node	-8611 Sep 29 j 09:08	17°♎16'47			asc. node		-8606 Jun 15 j 17:08	14°♋53'21			
	-8611 Oct 15 j 14:26	0°♏					-8606 Jul 09 j 18:35	0°♌			
							-8606 Aug 27 j 03:52	0°♌			
conjunction	-8611 Nov 13 j 07:34	22°♏18'15	-0°32'42				-8606 Oct 16 j 22:07	0°♍			
minimum elong	-8611 Nov 13 j 04:51	22°♏13'02	0°32'31				-8606 Dec 18 j 21:03	0°♍			
	-8611 Nov 23 j 08:29	0°♎			retrograde		-8605 Jan 22 j 07:57	6°♍24'57			
max. Earth dist.	-8611 Dec 29 j 03:59	26°♎52'03	2.42798 AU		opposition		-8605 Feb 22 j 23:40	0°♍48'30	5°35'47		
	-8610 Jan 02 j 10:24	0°♏			greatest brilliancy		-8605 Feb 24 j 10:16	0°♍22'49	-2.6m		
morning rise	-8610 Jan 16 j 05:37	10°♏01'18					-8605 Feb 25 j 16:57	30°♏			

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 30

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

min. Earth dist.	-8605 Mar 01 j 13:37	28° $\Pi$ 51'53	0.41529 AU	max. Earth dist.	-8600 May 29 j 20:14	11° $\Upsilon$ 51'47	2.57171 AU
direct	-8605 Mar 28 j 21:46	24° $\Pi$ 18'20			-8600 Jun 25 j 10:06	0° $\mathcal{B}$	
	-8605 Apr 27 j 23:31	0° $\mathcal{B}$					
desc. node	-8605 May 22 j 13:24	10° $\mathcal{B}$ 55'18		conjunction	-8600 Jun 26 j 22:39	1° $\mathcal{B}$ 03'21	1°07'02
	-8605 Jun 24 j 03:29	0° $\mathcal{Q}$		minimum elong	-8600 Jun 26 j 21:25	1° $\mathcal{B}$ 01'12	1°07'15
	-8605 Aug 07 j 21:06	0° $\mathcal{M}$			-8600 Aug 06 j 17:35	0° $\Pi$	
	-8605 Sep 19 j 19:03	0° $\mathcal{L}$		morning rise	-8600 Aug 16 j 03:33	6° $\Pi$ 51'30	
	-8605 Nov 01 j 23:55	0° $\mathcal{M}$			-8600 Sep 16 j 07:44	0° $\mathcal{B}$	
	-8605 Dec 16 j 07:53	0° $\mathcal{A}$			-8600 Oct 25 j 18:20	0° $\mathcal{Q}$	
	-8604 Jan 30 j 23:11	0° $\mathcal{B}$			-8600 Dec 03 j 19:21	0° $\mathcal{M}$	
evening set	-8604 Feb 20 j 16:44	13° $\mathcal{B}$ 23'44		desc. node	-8599 Jan 11 j 16:23	29° $\mathcal{M}$ 29'55	
	-8604 Mar 17 j 14:08	0° $\approx$			-8599 Jan 12 j 08:29	0° $\mathcal{L}$	
					-8599 Feb 22 j 13:49	0° $\mathcal{M}$	
conjunction	-8604 Apr 09 j 04:34	14° $\approx$ 26'26	-0°13'18		-8599 Apr 08 j 11:32	0° $\mathcal{A}$	
minimum elong	-8604 Apr 09 j 05:06	14° $\approx$ 27'16	0°13'44		-8599 Jun 03 j 13:04	0° $\mathcal{B}$	
behind sun begin	-8604 Apr 08 j 19:17	14° $\approx$ 11'37		retrograde	-8599 Jul 15 j 12:18	9° $\mathcal{B}$ 46'11	
behind sun end	-8604 Apr 09 j 14:54	14° $\approx$ 42'56		min. Earth dist.	-8599 Aug 19 j 17:51	1° $\mathcal{B}$ 39'08	0.61429 AU
max. Earth dist.	-8604 Apr 08 j 18:58	14° $\approx$ 11'07	2.66699 AU		-8599 Aug 23 j 21:12	30° $\mathcal{R}$ $\mathcal{A}$	
asc. node	-8604 May 02 j 10:08	29° $\approx$ 17'32		opposition	-8599 Aug 24 j 06:06	29° $\mathcal{A}$ 51'07	-4°16'21
	-8604 May 03 j 12:40	0° $\mathcal{H}$		greatest brilliancy	-8599 Aug 23 j 15:18	0° $\mathcal{B}$ 05'53	-1.6m
morning rise	-8604 May 25 j 17:01	14° $\mathcal{H}$ 14'26		direct	-8599 Sep 30 j 22:39	21° $\mathcal{A}$ 01'25	
	-8604 Jun 19 j 02:03	0° $\Upsilon$			-8599 Nov 12 j 05:35	0° $\mathcal{B}$	
	-8604 Aug 03 j 20:32	0° $\mathcal{B}$		asc. node	-8599 Dec 23 j 06:51	18° $\mathcal{B}$ 30'14	
	-8604 Sep 17 j 20:07	0° $\Pi$			-8598 Jan 13 j 22:15	0° $\approx$	
	-8604 Nov 01 j 10:38	0° $\mathcal{B}$			-8598 Mar 06 j 12:20	0° $\mathcal{H}$	
	-8604 Dec 16 j 15:38	0° $\mathcal{Q}$			-8598 Apr 23 j 01:38	0° $\Upsilon$	
	-8603 Feb 03 j 20:10	0° $\mathcal{M}$			-8598 Jun 06 j 15:12	0° $\mathcal{B}$	
retrograde	-8603 Apr 08 j 23:56	21° $\mathcal{M}$ 25'06		evening set	-8598 Jun 22 j 14:40	11° $\mathcal{B}$ 12'43	
desc. node	-8603 Apr 08 j 18:02	21° $\mathcal{M}$ 25'05		max. Earth dist.	-8598 Jul 08 j 15:45	22° $\mathcal{B}$ 42'33	2.45774 AU
min. Earth dist.	-8603 May 06 j 08:42	16° $\mathcal{M}$ 53'03	0.39485 AU		-8598 Jul 18 j 15:57	0° $\Pi$	
opposition	-8603 May 11 j 15:46	15° $\mathcal{M}$ 21'24	-2°28'38				
greatest brilliancy	-8603 May 11 j 02:06	15° $\mathcal{M}$ 31'16	-2.8m	conjunction	-8598 Aug 15 j 18:02	20° $\mathcal{\Pi}$ 54'19	1°04'16
direct	-8603 Jun 11 j 00:40	10° $\mathcal{M}$ 02'08		minimum elong	-8598 Aug 15 j 20:02	20° $\mathcal{\Pi}$ 58'05	1°04'48
	-8603 Aug 14 j 03:07	0° $\mathcal{L}$			-8598 Aug 27 j 17:36	0° $\mathcal{B}$	
	-8603 Oct 05 j 20:05	0° $\mathcal{M}$			-8598 Oct 05 j 13:26	0° $\mathcal{Q}$	
	-8603 Nov 23 j 07:36	0° $\mathcal{A}$		morning rise	-8598 Oct 14 j 05:15	6° $\mathcal{Q}$ 45'27	
	-8602 Jan 10 j 03:42	0° $\mathcal{B}$			-8598 Nov 12 j 23:32	0° $\mathcal{M}$	
	-8602 Feb 26 j 21:49	0° $\approx$		desc. node	-8598 Nov 29 j 10:03	12° $\mathcal{M}$ 45'51	
asc. node	-8602 Mar 20 j 04:56	13° $\approx$ 26'43			-8598 Dec 21 j 20:53	0° $\mathcal{L}$	
evening set	-8602 Mar 31 j 04:36	20° $\approx$ 25'00			-8597 Jan 31 j 02:39	0° $\mathcal{M}$	
	-8602 Apr 15 j 05:17	0° $\mathcal{H}$			-8597 Mar 14 j 15:54	0° $\mathcal{A}$	
max. Earth dist.	-8602 May 03 j 00:12	11° $\mathcal{H}$ 26'18	2.64504 AU		-8597 Apr 29 j 22:24	0° $\mathcal{B}$	
					-8597 Jun 23 j 15:33	0° $\approx$	
conjunction	-8602 May 17 j 16:57	20° $\mathcal{H}$ 58'43	0°32'46	retrograde	-8597 Aug 20 j 05:53	15° $\approx$ 52'52	
minimum elong	-8602 May 17 j 15:48	20° $\mathcal{H}$ 56'50	0°32'37	min. Earth dist.	-8597 Sep 28 j 08:06	6° $\approx$ 24'53	0.66414 AU
	-8602 May 31 j 11:14	0° $\Upsilon$		opposition	-8597 Sep 29 j 02:58	6° $\approx$ 05'51	-1°36'56
morning rise	-8602 Jul 03 j 06:15	21° $\mathcal{\Upsilon}$ 52'51		greatest brilliancy	-8597 Sep 29 j 02:23	6° $\approx$ 06'27	-1.4m
	-8602 Jul 15 j 04:59	0° $\mathcal{B}$			-8597 Oct 15 j 18:34	30° $\mathcal{R}$ $\mathcal{B}$	
	-8602 Aug 27 j 07:59	0° $\Pi$		direct	-8597 Nov 08 j 01:35	26° $\mathcal{B}$ 27'00	
	-8602 Oct 08 j 01:46	0° $\mathcal{B}$		asc. node	-8597 Nov 10 j 12:16	26° $\mathcal{B}$ 29'13	
	-8602 Nov 17 j 21:17	0° $\mathcal{Q}$			-8597 Dec 03 j 11:59	0° $\approx$	
	-8602 Dec 28 j 12:45	0° $\mathcal{M}$			-8596 Feb 10 j 16:27	0° $\mathcal{H}$	
	-8601 Feb 08 j 08:11	0° $\mathcal{L}$			-8596 Apr 01 j 12:08	0° $\Upsilon$	
desc. node	-8601 Feb 24 j 20:13	11° $\mathcal{L}$ 14'49			-8596 May 17 j 01:43	0° $\mathcal{B}$	
	-8601 Mar 26 j 15:23	0° $\mathcal{M}$			-8596 Jun 28 j 07:32	0° $\Pi$	
retrograde	-8601 Jun 05 j 01:49	25° $\mathcal{M}$ 15'12			-8596 Aug 07 j 06:38	0° $\mathcal{B}$	
min. Earth dist.	-8601 Jul 05 j 04:10	19° $\mathcal{M}$ 05'37	0.50917 AU	evening set	-8596 Aug 16 j 05:13	6° $\mathcal{B}$ 52'53	
greatest brilliancy	-8601 Jul 11 j 08:55	16° $\mathcal{M}$ 48'29	-2.1m		-8596 Sep 14 j 21:23	0° $\mathcal{Q}$	
opposition	-8601 Jul 12 j 20:55	16° $\mathcal{M}$ 15'07	-5°48'12	desc. node	-8596 Oct 16 j 04:36	24° $\mathcal{Q}$ 35'02	
direct	-8601 Aug 16 j 03:02	8° $\mathcal{M}$ 52'21					
	-8601 Oct 24 j 01:38	0° $\mathcal{A}$		conjunction	-8596 Oct 17 j 12:55	25° $\mathcal{Q}$ 38'24	-0°01'02
	-8601 Dec 18 j 11:52	0° $\mathcal{B}$		minimum elong	-8596 Oct 17 j 12:51	25° $\mathcal{Q}$ 38'15	0°00'40
asc. node	-8600 Feb 05 j 03:41	28° $\mathcal{B}$ 50'12		behind sun begin	-8596 Oct 16 j 09:28	24° $\mathcal{Q}$ 44'35	
	-8600 Feb 07 j 01:41	0° $\approx$		behind sun end	-8596 Oct 18 j 16:13	26° $\mathcal{Q}$ 31'54	
	-8600 Mar 26 j 12:41	0° $\mathcal{H}$			-8596 Oct 23 j 02:28	0° $\mathcal{M}$	
evening set	-8600 May 08 j 21:52	27° $\mathcal{H}$ 56'40		max. Earth dist.	-8596 Nov 13 j 21:00	16° $\mathcal{M}$ 57'45	2.38628 AU
	-8600 May 12 j 00:45	0° $\Upsilon$			-8596 Nov 30 j 19:38	0° $\mathcal{L}$	

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

morning rise	-8596 Dec 22 j 12:07	16°♌24'39			-8590 May 24 j 20:31	0°♎		
	-8595 Jan 09 j 20:22	0°♌		desc. node	-8590 Jun 08 j 06:30	9°♎15'45		
	-8595 Feb 20 j 21:06	0°♌			-8590 Jul 08 j 10:32	0°♏		
	-8595 Apr 06 j 11:27	0°♎			-8590 Aug 18 j 23:28	0°♐		
	-8595 May 24 j 11:59	0°♎			-8590 Sep 29 j 05:08	0°♑		
	-8595 Jul 18 j 08:30	0°♏			-8590 Nov 10 j 08:01	0°♒		
retrograde	-8595 Sep 23 j 18:24	19°♏53'39			-8590 Dec 23 j 22:19	0°♌		
asc. node	-8595 Sep 27 j 16:25	19°♏47'44		evening set	-8589 Feb 04 j 11:42	28°♌17'36		
opposition	-8595 Nov 01 j 16:22	10°♏43'05	1°21'47		-8589 Feb 07 j 02:16	0°♎		
greatest brilliancy	-8595 Nov 01 j 19:02	10°♏40'27	-1.4m		-8589 Mar 25 j 11:25	0°♎		
min. Earth dist.	-8595 Nov 04 j 14:38	9°♏33'25	0.65246 AU					
direct	-8595 Dec 12 j 14:58	0°♏43'27		conjunction	-8589 Mar 26 j 00:19	0°♎20'41	-0°30'44	
	-8594 Mar 07 j 02:10	0°♏		minimum elong	-8589 Mar 26 j 01:29	0°♎22'32	0°31'15	
	-8594 Apr 25 j 07:57	0°♏		max. Earth dist.	-8589 Mar 31 j 08:19	3°♎45'46	2.66090 AU	
	-8594 Jun 07 j 17:31	0°♑			-8589 May 11 j 09:55	0°♏		
	-8594 Jul 18 j 02:35	0°♑		morning rise	-8589 May 12 j 05:51	0°♏31'49		
	-8594 Aug 25 j 21:42	0°♏		asc. node	-8589 May 20 j 03:30	5°♏34'34		
desc. node	-8594 Sep 03 j 01:06	6°♏22'04			-8589 Jun 27 j 06:38	0°♏		
	-8594 Oct 03 j 06:07	0°♐			-8589 Aug 12 j 18:39	0°♏		
evening set	-8594 Oct 21 j 14:07	14°♐14'19			-8589 Sep 28 j 03:47	0°♑		
	-8594 Nov 11 j 03:13	0°♑			-8589 Nov 14 j 09:59	0°♑		
	-8594 Dec 21 j 08:06	0°♒			-8588 Jan 04 j 23:16	0°♏		
				retrograde	-8588 Mar 10 j 18:26	21°♏02'10		
conjunction	-8594 Dec 22 j 06:32	0°♒40'56	-1°05'02	opposition	-8588 Apr 10 j 13:27	15°♏51'03	1°11'21	
minimum elong	-8594 Dec 22 j 04:21	0°♒36'58	1°05'15	min. Earth dist.	-8588 Apr 10 j 05:18	15°♏56'30	0.38035 AU	
max. Earth dist.	-8593 Jan 31 j 22:30	29°♒39'20	2.50528 AU	greatest brilliancy	-8588 Apr 10 j 14:51	15°♏50'06	-3.0m	
	-8593 Feb 01 j 10:23	0°♌		desc. node	-8588 Apr 25 j 11:02	12°♏15'51		
morning rise	-8593 Feb 18 j 17:19	11°♌54'01		direct	-8588 May 10 j 23:28	10°♏45'18		
	-8593 Mar 17 j 16:28	0°♎			-8588 Jul 11 j 06:52	0°♐		
	-8593 May 03 j 03:55	0°♎			-8588 Aug 31 j 06:44	0°♑		
	-8593 Jun 21 j 03:33	0°♏			-8588 Oct 16 j 21:25	0°♒		
	-8593 Aug 13 j 19:56	0°♏			-8588 Dec 02 j 01:58	0°♌		
asc. node	-8593 Aug 15 j 16:15	0°♏56'34			-8587 Jan 17 j 19:06	0°♎		
retrograde	-8593 Nov 03 j 04:50	26°♏36'21			-8587 Mar 05 j 23:44	0°♎		
opposition	-8593 Dec 10 j 01:23	18°♏28'15	4°22'24	evening set	-8587 Mar 16 j 01:40	6°♎24'06		
greatest brilliancy	-8593 Dec 10 j 22:55	18°♏07'54	-1.7m	asc. node	-8587 Apr 05 j 21:26	19°♎38'59		
min. Earth dist.	-8593 Dec 16 j 13:03	16°♏01'29	0.58043 AU		-8587 Apr 22 j 02:04	0°♏		
direct	-8592 Jan 19 j 08:11	8°♏48'42		max. Earth dist.	-8587 Apr 23 j 12:47	0°♏55'37	2.65993 AU	
	-8592 Mar 25 j 14:08	0°♏						
	-8592 May 13 j 12:51	0°♑		conjunction	-8587 May 02 j 16:46	6°♏48'53	0°15'22	
	-8592 Jun 24 j 18:33	0°♑		minimum elong	-8587 May 02 j 16:12	6°♏47'58	0°15'06	
desc. node	-8592 Jul 21 j 01:38	19°♑44'07		behind sun begin	-8587 May 02 j 10:13	6°♏38'20		
	-8592 Aug 03 j 12:20	0°♏		behind sun end	-8587 May 02 j 22:11	6°♏57'35		
	-8592 Sep 11 j 12:56	0°♐			-8587 Jun 07 j 09:34	0°♏		
	-8592 Oct 21 j 00:28	0°♑		morning rise	-8587 Jun 17 j 21:29	6°♏54'33		
	-8592 Nov 30 j 18:49	0°♒			-8587 Jul 22 j 10:45	0°♏		
evening set	-8592 Dec 19 j 06:26	13°♒11'43			-8587 Sep 04 j 02:57	0°♑		
	-8591 Jan 12 j 08:19	0°♌			-8587 Oct 16 j 15:34	0°♑		
					-8587 Nov 27 j 11:54	0°♏		
conjunction	-8591 Feb 11 j 12:53	20°♌29'52	-1°05'45		-8586 Jan 08 j 14:15	0°♐		
minimum elong	-8591 Feb 11 j 14:17	20°♌32'13	1°06'17		-8586 Feb 22 j 05:07	0°♑		
	-8591 Feb 25 j 19:42	0°♎		desc. node	-8586 Mar 13 j 13:02	11°♎35'53		
max. Earth dist.	-8591 Mar 05 j 07:44	4°♎56'41	2.60804 AU		-8586 Apr 23 j 14:34	0°♒		
morning rise	-8591 Apr 03 j 14:15	23°♎59'01		retrograde	-8586 May 16 j 12:25	3°♒28'42		
	-8591 Apr 12 j 23:04	0°♎			-8586 Jun 07 j 18:12	30°♒		
	-8591 May 30 j 08:10	0°♏		min. Earth dist.	-8586 Jun 13 j 13:51	28°♎10'41	0.45975 AU	
asc. node	-8591 Jul 02 j 11:17	20°♏35'09		greatest brilliancy	-8586 Jun 20 j 03:01	25°♎56'31	-2.4m	
	-8591 Jul 17 j 19:50	0°♏		opposition	-8586 Jun 21 j 16:21	25°♎24'20	-5°28'52	
	-8591 Sep 06 j 09:28	0°♏		direct	-8586 Jul 24 j 08:59	18°♎49'10		
	-8591 Nov 03 j 19:25	0°♑			-8586 Sep 08 j 16:53	0°♒		
retrograde	-8591 Dec 25 j 22:27	13°♑03'25			-8586 Nov 06 j 14:44	0°♌		
opposition	-8590 Jan 28 j 06:17	6°♑38'58	6°14'54		-8586 Dec 27 j 14:53	0°♎		
greatest brilliancy	-8590 Jan 30 j 01:19	6°♑03'45	-2.3m		-8585 Feb 14 j 17:55	0°♎		
min. Earth dist.	-8590 Feb 05 j 11:57	3°♑58'07	0.46143 AU	asc. node	-8585 Feb 21 j 19:13	4°♎22'13		
	-8590 Feb 20 j 23:02	30°♒			-8585 Apr 03 j 15:09	0°♏		
direct	-8590 Mar 05 j 21:06	28°♒51'37		evening set	-8585 Apr 24 j 03:43	13°♏08'46		
	-8590 Mar 18 j 21:31	0°♑		max. Earth dist.	-8585 May 19 j 07:38	29°♏33'43	2.60628 AU	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8585 May 19 j 23:34	0°♊				-8580 Jun 02 j 20:39	0°♊	
						-8580 Aug 04 j 20:19	0°♋	
conjunction	-8585 Jun 11 j 06:15	14°♊51'34	0°56'25	retrograde		-8580 Sep 09 j 16:25	6°♋47'38	
minimum elong	-8585 Jun 11 j 04:43	14°♊48'58	0°56'29			-8580 Oct 12 j 07:39	30°♋	
	-8585 Jul 03 j 11:13	0°♌		asc. node		-8580 Oct 14 j 06:48	29°♋14'38	
morning rise	-8585 Jul 29 j 11:36	18°♌10'47		opposition		-8580 Oct 19 j 02:30	27°♋19'57	0°11'13
	-8585 Aug 15 j 00:59	0°♍		greatest brilliancy		-8580 Oct 19 j 02:43	27°♋19'45	-1.4m
	-8585 Sep 24 j 23:50	0°♎		min. Earth dist.		-8580 Oct 20 j 13:52	26°♋44'35	0.66457 AU
	-8585 Nov 03 j 20:15	0°♏		direct		-8580 Nov 28 j 19:50	17°♋24'53	
	-8585 Dec 13 j 07:32	0°♐				-8579 Jan 19 j 02:13	0°♋	
	-8584 Jan 22 j 09:08	0°♑				-8579 Mar 17 j 19:03	0°♌	
desc. node	-8584 Jan 29 j 11:54	5°♑12'37				-8579 May 04 j 00:07	0°♌	
	-8584 Mar 04 j 12:47	0°♒				-8579 Jun 15 j 19:00	0°♍	
	-8584 Apr 21 j 06:06	0°♓				-8579 Jul 25 j 22:23	0°♎	
retrograde	-8584 Jun 30 j 11:04	24°♓06'28				-8579 Sep 02 j 14:29	0°♏	
min. Earth dist.	-8584 Aug 02 j 20:06	16°♓40'49	0.57895 AU	desc. node		-8579 Sep 19 j 20:19	13°♏31'56	
opposition	-8584 Aug 08 j 18:10	14°♓21'32	-5°05'49	evening set		-8579 Sep 25 j 07:59	17°♏50'22	
greatest brilliancy	-8584 Aug 07 j 18:38	14°♓44'37	-1.7m			-8579 Oct 10 j 20:14	0°♐	
direct	-8584 Sep 14 j 05:45	6°♓00'15				-8579 Nov 18 j 14:25	0°♑	
	-8584 Nov 29 j 04:34	0°♒						
asc. node	-8583 Jan 08 j 20:52	21°♒44'08		conjunction		-8579 Nov 27 j 23:55	7°♑08'33	-0°47'28
	-8583 Jan 23 j 07:49	0°♓		minimum elong		-8579 Nov 27 j 20:45	7°♑02'33	0°47'26
	-8583 Mar 14 j 06:54	0°♋				-8579 Dec 28 j 16:16	0°♒	
	-8583 Apr 30 j 07:32	0°♌		max. Earth dist.		-8578 Jan 12 j 23:49	11°♒07'02	2.45548 AU
evening set	-8583 Jun 04 j 06:51	23°♌27'48		morning rise		-8578 Jan 29 j 02:45	22°♒36'01	
	-8583 Jun 13 j 18:16	0°♍				-8578 Feb 08 j 16:12	0°♓	
max. Earth dist.	-8583 Jun 20 j 13:36	4°♍44'41	2.50553 AU			-8578 Mar 24 j 23:00	0°♔	
						-8578 May 10 j 19:04	0°♕	
conjunction	-8583 Jul 25 j 21:24	0°♕01'02	1°11'58			-8578 Jun 30 j 02:16	0°♋	
minimum elong	-8583 Jul 25 j 21:49	0°♕01'49	1°12'25			-8578 Aug 28 j 18:29	0°♌	
	-8583 Jul 25 j 20:50	0°♕		asc. node		-8578 Sep 01 j 08:02	1°♌25'32	
	-8583 Sep 04 j 02:29	0°♎		retrograde		-8578 Oct 17 j 12:00	11°♌51'04	
morning rise	-8583 Sep 19 j 01:26	11°♎25'11		opposition		-8578 Nov 24 j 07:29	3°♌14'39	3°13'47
	-8583 Oct 13 j 03:06	0°♏		greatest brilliancy		-8578 Nov 24 j 19:41	3°♌02'50	-1.6m
	-8583 Nov 20 j 17:37	0°♐		min. Earth dist.		-8578 Nov 29 j 10:47	1°♌15'23	0.61567 AU
desc. node	-8583 Dec 16 j 06:26	19°♐41'42				-8578 Dec 02 j 18:39	30°♋	
	-8583 Dec 29 j 19:03	0°♑		direct		-8577 Jan 04 j 02:41	23°♋20'17	
	-8582 Feb 08 j 06:11	0°♒				-8577 Feb 07 j 20:48	0°♌	
	-8582 Mar 23 j 07:25	0°♓				-8577 Apr 08 j 22:07	0°♍	
	-8582 May 10 j 05:20	0°♔				-8577 May 24 j 12:25	0°♎	
	-8582 Jul 17 j 03:03	0°♕				-8577 Jul 04 j 17:27	0°♎	
retrograde	-8582 Aug 06 j 15:22	2°♕32'07		desc. node		-8577 Aug 07 j 19:45	26°♕01'33	
	-8582 Aug 25 j 21:15	30°♕				-8577 Aug 12 j 23:04	0°♏	
min. Earth dist.	-8582 Sep 13 j 09:01	23°♕32'07	0.65188 AU			-8577 Sep 20 j 14:55	0°♐	
opposition	-8582 Sep 15 j 15:07	22°♕37'36	-2°42'13			-8577 Oct 29 j 18:40	0°♑	
greatest brilliancy	-8582 Sep 15 j 10:44	22°♕42'01	-1.4m	evening set		-8577 Nov 28 j 15:31	22°♑15'48	
direct	-8582 Oct 24 j 20:26	13°♕14'29				-8577 Dec 09 j 05:48	0°♒	
asc. node	-8582 Nov 27 j 01:58	19°♕02'25				-8576 Jan 20 j 12:59	0°♓	
	-8582 Dec 25 j 05:18	0°♖						
	-8581 Feb 20 j 11:24	0°♋		conjunction		-8576 Jan 24 j 17:20	2°♓53'23	-1°11'36
	-8581 Apr 10 j 13:36	0°♌		minimum elong		-8576 Jan 24 j 17:49	2°♓54'12	1°12'03
	-8581 May 25 j 14:48	0°♍		max. Earth dist.		-8576 Feb 22 j 23:05	22°♓44'56	2.57294 AU
	-8581 Jul 06 j 17:18	0°♎				-8576 Mar 04 j 20:27	0°♔	
evening set	-8581 Jul 24 j 21:45	13°♎29'16		morning rise		-8576 Mar 18 j 05:48	8°♔49'06	
	-8581 Aug 15 j 16:25	0°♏				-8576 Apr 20 j 00:26	0°♕	
max. Earth dist.	-8581 Aug 28 j 06:30	9°♏41'23	2.39011 AU			-8576 Jun 06 j 19:21	0°♋	
				asc. node		-8576 Jul 19 j 04:19	25°♋39'39	
conjunction	-8581 Sep 22 j 04:21	29°♏05'18	0°30'48			-8576 Jul 26 j 13:10	0°♌	
minimum elong	-8581 Sep 22 j 06:49	29°♏10'08	0°31'16			-8576 Sep 19 j 02:35	0°♍	
	-8581 Sep 23 j 08:17	0°♏		retrograde		-8576 Dec 02 j 14:52	23°♍19'19	
	-8581 Oct 31 j 14:19	0°♐		opposition		-8575 Jan 06 j 13:33	16°♍08'44	5°51'32
desc. node	-8581 Nov 02 j 23:29	1°♐51'47		greatest brilliancy		-8575 Jan 08 j 03:14	15°♍35'32	-2.0m
morning rise	-8581 Nov 26 j 10:51	20°♐06'27		min. Earth dist.		-8575 Jan 14 j 16:31	13°♍17'50	0.51102 AU
	-8581 Dec 09 j 07:58	0°♑		direct		-8575 Feb 14 j 02:52	7°♍22'08	
	-8580 Jan 18 j 09:09	0°♒				-8575 Apr 21 j 21:55	0°♎	
	-8580 Feb 29 j 11:57	0°♓				-8575 Jun 07 j 20:55	0°♏	
	-8580 Apr 14 j 11:19	0°♔		desc. node		-8575 Jun 24 j 21:44	12°♏03'11	



Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8575 Jul 19 j 10:36	0°♂		minimum elong	-8570 May 26 j 10:01	29°♂41'00	0°42'03
	-8575 Aug 28 j 13:21	0°♍			-8570 May 26 j 21:33	0°♑	
	-8575 Oct 07 j 20:28	0°♊			-8570 Jul 10 j 13:02	0°♉	
	-8575 Nov 18 j 06:41	0°♋		morning rise	-8570 Jul 12 j 11:04	1°♉18'56	
	-8575 Dec 31 j 08:24	0°♌			-8570 Aug 22 j 11:01	0°♊	
evening set	-8574 Jan 18 j 05:05	12°♌05'29			-8570 Oct 02 j 21:09	0°♋	
	-8574 Feb 14 j 03:49	0°♍			-8570 Nov 12 j 07:06	0°♌	
					-8570 Dec 22 j 09:55	0°♍	
conjunction	-8574 Mar 10 j 05:16	15°♍42'40	-0°46'40		-8569 Feb 01 j 09:05	0°♊	
minimum elong	-8574 Mar 10 j 06:51	15°♍45'14	0°47'12	desc. node	-8569 Feb 15 j 05:38	9°♊47'15	
max. Earth dist.	-8574 Mar 21 j 14:26	23°♍04'21	2.64635 AU		-8569 Mar 17 j 10:19	0°♋	
	-8574 Apr 01 j 08:50	0°♎			-8569 May 13 j 06:57	0°♌	
morning rise	-8574 Apr 27 j 14:23	16°♎46'32		retrograde	-8569 Jun 15 j 03:23	6°♌39'09	
	-8574 May 18 j 09:14	0°♏		min. Earth dist.	-8569 Jul 16 j 11:06	0°♌01'04	0.53581 AU
asc. node	-8574 Jun 05 j 21:53	11°♏45'29			-8569 Jul 16 j 12:14	30°♋♌	
	-8574 Jul 04 j 16:46	0°♑		greatest brilliancy	-8569 Jul 22 j 06:47	27°♋48'36	-1.9m
	-8574 Aug 21 j 06:12	0°♒		opposition	-8569 Jul 23 j 15:01	27°♋17'56	-5°40'09
	-8574 Oct 08 j 22:12	0°♓		direct	-8569 Aug 27 j 17:02	19°♋32'10	
	-8574 Dec 01 j 02:51	0°♈			-8569 Oct 12 j 04:15	0°♌	
retrograde	-8573 Feb 08 j 05:06	21°♈43'23			-8569 Dec 11 j 23:59	0°♍	
opposition	-8573 Mar 11 j 05:57	16°♈27'32	4°29'16	asc. node	-8568 Jan 26 j 11:04	26°♍13'05	
greatest brilliancy	-8573 Mar 12 j 04:23	16°♈11'49	-2.8m		-8568 Feb 01 j 19:15	0°♎	
min. Earth dist.	-8573 Mar 15 j 22:20	15°♈09'15	0.39593 AU		-8568 Mar 21 j 17:26	0°♏	
direct	-8573 Apr 12 j 12:32	10°♈38'42			-8568 May 07 j 10:03	0°♑	
desc. node	-8573 May 13 j 02:25	16°♈25'34		evening set	-8568 May 18 j 04:48	7°♑08'32	
	-8573 Jun 11 j 19:15	0°♒		max. Earth dist.	-8568 Jun 06 j 01:32	19°♑50'54	2.54993 AU
	-8573 Jul 30 j 20:24	0°♓			-8568 Jun 20 j 20:14	0°♒	
	-8573 Sep 13 j 08:10	0°♈					
	-8573 Oct 27 j 09:28	0°♉		conjunction	-8568 Jul 06 j 23:05	11°♒16'24	1°10'48
	-8573 Dec 11 j 05:28	0°♊		minimum elong	-8568 Jul 06 j 22:17	11°♒15'00	1°11'07
	-8572 Jan 26 j 04:10	0°♋			-8568 Aug 02 j 02:22	0°♌	
evening set	-8572 Feb 29 j 17:00	22°♋10'36		morning rise	-8568 Aug 27 j 15:46	18°♌49'11	
	-8572 Mar 12 j 23:00	0°♍			-8568 Sep 11 j 13:26	0°♍	
max. Earth dist.	-8572 Apr 14 j 05:44	20°♍36'00	2.66669 AU		-8568 Oct 20 j 20:06	0°♎	
					-8568 Nov 28 j 16:28	0°♏	
conjunction	-8572 Apr 17 j 19:15	22°♍52'38	-0°02'49	desc. node	-8567 Jan 02 j 02:24	26°♏18'35	
minimum elong	-8572 Apr 17 j 19:24	22°♍52'52	0°03'13		-8567 Jan 06 j 23:52	0°♊	
behind sun begin	-8572 Apr 17 j 00:10	22°♍22'08			-8567 Feb 16 j 20:01	0°♋	
behind sun end	-8572 Apr 18 j 14:38	23°♍23'36			-8567 Apr 01 j 18:47	0°♌	
asc. node	-8572 Apr 22 j 15:01	25°♍57'47			-8567 May 23 j 03:28	0°♍	
	-8572 Apr 28 j 22:19	0°♏		retrograde	-8567 Jul 23 j 18:20	18°♍36'47	
morning rise	-8572 Jun 03 j 02:26	22°♏39'47		min. Earth dist.	-8567 Aug 28 j 22:56	10°♍09'24	0.63036 AU
	-8572 Jun 14 j 09:13	0°♑		opposition	-8567 Sep 01 j 16:09	8°♍39'56	-3°43'28
	-8572 Jul 29 j 20:40	0°♒		greatest brilliancy	-8567 Sep 01 j 05:39	8°♍50'27	-1.5m
	-8572 Sep 12 j 07:19	0°♓			-8567 Oct 02 j 06:07	30°♋♌	
	-8572 Oct 25 j 23:59	0°♈		direct	-8567 Oct 09 j 23:39	29°♌36'50	
	-8572 Dec 08 j 14:21	0°♉			-8567 Oct 17 j 22:57	0°♍	
	-8571 Jan 22 j 19:02	0°♊		asc. node	-8567 Dec 13 j 14:33	17°♍54'20	
	-8571 Mar 18 j 23:43	0°♋			-8566 Jan 07 j 01:39	0°♎	
desc. node	-8571 Mar 30 j 06:35	3°♋59'06			-8566 Mar 01 j 03:44	0°♏	
retrograde	-8571 Apr 23 j 16:53	7°♋52'36			-8566 Apr 18 j 04:53	0°♑	
min. Earth dist.	-8571 May 20 j 15:09	3°♋14'14	0.41407 AU		-8566 Jun 01 j 22:42	0°♒	
opposition	-8571 May 27 j 15:15	1°♋05'32	-4°00'12	evening set	-8566 Jul 03 j 17:40	22°♒30'33	
greatest brilliancy	-8571 May 26 j 13:16	1°♋25'33	-2.7m		-8566 Jul 14 j 00:36	0°♓	
	-8571 May 31 j 05:44	30°♋♌		max. Earth dist.	-8566 Jul 21 j 20:52	5°♓46'31	2.43149 AU
direct	-8571 Jun 27 j 16:38	25°♓22'20			-8566 Aug 23 j 01:41	0°♈	
	-8571 Jul 25 j 17:45	0°♉					
	-8571 Sep 27 j 15:36	0°♊		conjunction	-8566 Aug 28 j 13:23	4°♈12'02	0°55'12
	-8571 Nov 17 j 06:11	0°♋		minimum elong	-8566 Aug 28 j 16:04	4°♈17'11	0°55'45
	-8570 Jan 04 j 23:01	0°♌			-8566 Sep 30 j 20:17	0°♎	
	-8570 Feb 22 j 02:55	0°♍		morning rise	-8566 Oct 29 j 10:48	22°♎23'02	
asc. node	-8570 Mar 10 j 10:58	10°♍15'23			-8566 Nov 08 j 04:37	0°♏	
evening set	-8570 Apr 08 j 20:38	28°♍52'53		desc. node	-8566 Nov 19 j 20:52	9°♏05'47	
	-8570 Apr 10 j 14:42	0°♏			-8566 Dec 16 j 23:49	0°♊	
max. Earth dist.	-8570 May 08 j 18:34	18°♏08'16	2.63332 AU		-8565 Jan 26 j 02:38	0°♋	
					-8565 Mar 09 j 09:45	0°♌	
conjunction	-8570 May 26 j 11:24	29°♏43'18	0°42'08		-8565 Apr 24 j 00:17	0°♍	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8565 Jun 14 j 21:27	0°♊			-8560 Oct 16 j 00:19	0°♊	
retrograde	-8565 Aug 28 j 00:44	23°♊50'06			-8560 Nov 25 j 22:41	0°♊	
opposition	-8565 Oct 06 j 19:26	14°♊08'52	-0°57'39	evening set	-8560 Dec 30 j 14:26	24°♊27'38	
greatest brilliancy	-8565 Oct 06 j 19:47	14°♊08'31	-1.4m		-8559 Jan 07 j 14:58	0°♊	
min. Earth dist.	-8565 Oct 06 j 19:48	14°♊08'30	0.66695 AU				
asc. node	-8565 Oct 31 j 19:40	5°♊54'19		conjunction	-8559 Feb 21 j 13:41	0°♊15'53	-0°59'52
direct	-8565 Nov 16 j 02:32	4°♊23'02		minimum elong	-8559 Feb 21 j 15:18	0°♊18'34	1°00'25
	-8564 Feb 03 j 10:37	0°♊			-8559 Feb 21 j 04:04	0°♊	
	-8564 Mar 26 j 23:41	0°♊		max. Earth dist.	-8559 Mar 11 j 13:21	12°♊04'02	2.62389 AU
	-8564 May 12 j 01:30	0°♊			-8559 Apr 08 j 06:57	0°♊	
	-8564 Jun 23 j 11:52	0°♊		morning rise	-8559 Apr 12 j 12:55	2°♊43'24	
	-8564 Aug 02 j 12:29	0°♊			-8559 May 25 j 11:51	0°♊	
evening set	-8564 Aug 30 j 07:08	21°♊30'17		asc. node	-8559 Jun 22 j 16:07	17°♊40'57	
	-8564 Sep 10 j 03:43	0°♊			-8559 Jul 12 j 11:05	0°♊	
desc. node	-8564 Oct 06 j 14:54	20°♊47'18			-8559 Aug 30 j 15:12	0°♊	
	-8564 Oct 18 j 08:45	0°♊			-8559 Oct 22 j 16:11	0°♊	
				retrograde	-8558 Jan 09 j 22:28	26°♊12'30	
conjunction	-8564 Nov 01 j 16:58	11°♊11'49	-0°19'33	opposition	-8558 Feb 11 j 06:46	20°♊15'14	6°02'41
minimum elong	-8564 Nov 01 j 15:11	11°♊08'21	0°19'17	greatest brilliancy	-8558 Feb 12 j 23:16	19°♊43'43	-2.5m
	-8564 Nov 26 j 01:42	0°♊		min. Earth dist.	-8558 Feb 18 j 20:24	17°♊54'42	0.43474 AU
max. Earth dist.	-8564 Dec 14 j 08:37	13°♊51'55	2.40692 AU	direct	-8558 Mar 18 j 11:26	13°♊09'20	
morning rise	-8563 Jan 05 j 19:58	0°♊32'51			-8558 May 12 j 12:03	0°♊	
	-8563 Jan 05 j 02:02	0°♊		desc. node	-8558 May 29 j 17:49	9°♊42'52	
	-8563 Feb 16 j 01:09	0°♊			-8558 Jun 30 j 09:35	0°♊	
	-8563 Apr 01 j 10:52	0°♊			-8558 Aug 12 j 09:45	0°♊	
	-8563 May 18 j 21:07	0°♊			-8558 Sep 23 j 10:27	0°♊	
	-8563 Jul 10 j 10:03	0°♊			-8558 Nov 05 j 01:45	0°♊	
asc. node	-8563 Sep 17 j 22:49	26°♊49'26			-8558 Dec 19 j 00:05	0°♊	
retrograde	-8563 Oct 02 j 03:19	28°♊00'35			-8557 Feb 02 j 09:12	0°♊	
opposition	-8563 Nov 09 j 17:18	19°♊00'54	2°02'57	evening set	-8557 Feb 13 j 20:55	7°♊28'07	
greatest brilliancy	-8563 Nov 09 j 22:37	18°♊55'39	-1.5m		-8557 Mar 20 j 20:45	0°♊	
min. Earth dist.	-8563 Nov 13 j 10:36	17°♊33'01	0.64199 AU				
direct	-8563 Dec 20 j 16:52	9°♊01'09		conjunction	-8557 Apr 03 j 18:27	8°♊53'46	-0°20'45
	-8562 Feb 26 j 22:32	0°♊		minimum elong	-8557 Apr 03 j 19:16	8°♊55'04	0°21'14
	-8562 Apr 19 j 09:39	0°♊		max. Earth dist.	-8557 Apr 05 j 21:04	10°♊14'41	2.66532 AU
	-8562 Jun 02 j 10:22	0°♊			-8557 May 06 j 19:02	0°♊	
	-8562 Jul 13 j 01:26	0°♊		asc. node	-8557 May 10 j 09:10	2°♊17'46	
	-8562 Aug 20 j 23:38	0°♊		morning rise	-8557 May 20 j 13:15	8°♊48'28	
desc. node	-8562 Aug 24 j 12:33	2°♊45'30			-8557 Jun 22 j 11:46	0°♊	
	-8562 Sep 28 j 09:53	0°♊			-8557 Aug 07 j 13:42	0°♊	
evening set	-8562 Nov 04 j 21:23	28°♊53'34			-8557 Sep 22 j 02:53	0°♊	
	-8562 Nov 06 j 08:20	0°♊			-8557 Nov 06 j 16:37	0°♊	
	-8562 Dec 16 j 14:27	0°♊			-8557 Dec 23 j 19:32	0°♊	
					-8556 Feb 18 j 03:43	0°♊	
conjunction	-8561 Jan 04 j 00:17	13°♊17'31	-1°10'05	retrograde	-8556 Mar 27 j 16:53	8°♊42'07	
minimum elong	-8561 Jan 03 j 23:07	13°♊15'27	1°10'26	desc. node	-8556 Apr 15 j 22:24	6°♊23'09	
	-8561 Jan 27 j 17:20	0°♊		min. Earth dist.	-8556 Apr 25 j 01:38	4°♊03'21	0.38457 AU
max. Earth dist.	-8561 Feb 09 j 19:33	9°♊01'54	2.53114 AU	opposition	-8556 Apr 28 j 09:24	3°♊08'12	-0°58'57
morning rise	-8561 Mar 01 j 13:26	22°♊24'40		greatest brilliancy	-8556 Apr 28 j 05:28	3°♊10'55	-2.9m
	-8561 Mar 12 j 22:46	0°♊			-8556 May 10 j 20:16	30°♊01'23	
	-8561 Apr 28 j 05:51	0°♊		direct	-8556 May 28 j 13:06	28°♊01'23	
	-8561 Jun 15 j 15:58	0°♊			-8556 Jun 15 j 06:44	0°♊	
asc. node	-8561 Aug 05 j 21:44	29°♊42'46			-8556 Aug 21 j 21:55	0°♊	
	-8561 Aug 06 j 10:18	0°♊			-8556 Oct 10 j 04:49	0°♊	
	-8561 Oct 10 j 12:24	0°♊			-8556 Nov 26 j 12:15	0°♊	
retrograde	-8561 Nov 13 j 13:04	6°♊05'32			-8555 Jan 12 j 19:04	0°♊	
	-8561 Dec 15 j 00:34	30°♊05'32			-8555 Mar 01 j 06:37	0°♊	
opposition	-8561 Dec 19 j 19:29	28°♊15'48	4°58'43	evening set	-8555 Mar 24 j 18:22	14°♊52'36	
greatest brilliancy	-8561 Dec 20 j 22:54	27°♊50'25	-1.8m	asc. node	-8555 Mar 27 j 03:33	16°♊23'24	
min. Earth dist.	-8561 Dec 26 j 23:41	25°♊36'52	0.55763 AU		-8555 Apr 17 j 11:53	0°♊	
direct	-8560 Jan 28 j 15:25	18°♊50'20		max. Earth dist.	-8555 Apr 29 j 02:24	7°♊26'53	2.65277 AU
	-8560 Mar 13 j 18:53	0°♊					
	-8560 May 06 j 10:47	0°♊		conjunction	-8555 May 11 j 06:34	15°♊18'29	0°25'34
	-8560 Jun 18 j 18:35	0°♊		minimum elong	-8555 May 11 j 05:39	15°♊16'59	0°25'21
desc. node	-8560 Jul 11 j 14:16	16°♊51'43			-8555 Jun 02 j 19:07	0°♊	
	-8560 Jul 29 j 00:05	0°♊		morning rise	-8555 Jun 26 j 14:22	15°♊46'32	
	-8560 Sep 06 j 07:46	0°♊			-8555 Jul 17 j 16:46	0°♊	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 35

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8555 Aug 30 j 02:14	0°♐		direct	-8550 Nov 02 j 02:52	21°♐17'48	
	-8555 Oct 11 j 04:17	0°♑		asc. node	-8550 Nov 17 j 09:25	22°♐39'12	
	-8555 Nov 21 j 10:03	0°♒			-8550 Dec 13 j 21:04	0°♑	
	-8554 Jan 01 j 14:09	0°♓			-8549 Feb 14 j 06:55	0°♒	
	-8554 Feb 13 j 06:44	0°♈			-8549 Apr 05 j 08:58	0°♓	
desc. node	-8554 Mar 04 j 01:25	12°♈18'53			-8549 May 20 j 18:23	0°♈	
	-8554 Apr 03 j 09:37	0°♉			-8549 Jul 02 j 00:07	0°♉	
retrograde	-8554 May 27 j 23:08	16°♉39'40		evening set	-8549 Aug 06 j 19:15	26°♉47'24	
min. Earth dist.	-8554 Jun 26 j 03:02	10°♉53'36	0.48696 AU		-8549 Aug 11 j 00:02	0°♑	
greatest brilliancy	-8554 Jul 02 j 13:09	8°♉35'36	-2.2m		-8549 Sep 18 j 15:40	0°♒	
opposition	-8554 Jul 04 j 03:02	8°♉01'27	-5°46'38				
direct	-8554 Aug 06 j 15:45	0°♉59'16		conjunction	-8549 Oct 06 j 20:54	14°♒18'08	0°13'20
	-8554 Oct 29 j 15:01	0°♊		minimum elong	-8549 Oct 06 j 22:09	14°♒20'35	0°13'45
	-8554 Dec 21 j 19:11	0°♋		behind sun begin	-8549 Oct 06 j 07:17	13°♒51'22	
	-8553 Feb 09 j 16:46	0°♌		behind sun end	-8549 Oct 07 j 13:02	14°♒49'47	
asc. node	-8553 Feb 12 j 01:22	1°♌26'39		max. Earth dist.	-8549 Oct 06 j 21:39	14°♒19'35	2.38009 AU
	-8553 Mar 29 j 22:01	0°♍		desc. node	-8549 Oct 24 j 10:41	28°♒05'46	
evening set	-8553 May 03 j 02:46	21°♍57'17			-8549 Oct 26 j 21:00	0°♎	
	-8553 May 15 j 09:24	0°♏			-8549 Dec 04 j 13:34	0°♈	
max. Earth dist.	-8553 May 25 j 18:37	6°♏53'00	2.58812 AU	morning rise	-8549 Dec 11 j 22:03	5°♈36'27	
					-8548 Jan 13 j 13:20	0°♉	
conjunction	-8553 Jun 20 j 15:46	24°♏21'30	1°03'03		-8548 Feb 24 j 13:18	0°♊	
minimum elong	-8553 Jun 20 j 14:20	24°♏19'03	1°03'13		-8548 Apr 09 j 05:16	0°♋	
	-8553 Jun 28 j 20:40	0°♌			-8548 May 27 j 15:22	0°♌	
morning rise	-8553 Aug 08 j 20:44	28°♌56'31			-8548 Jul 23 j 15:37	0°♍	
	-8553 Aug 10 j 07:56	0°♎		retrograde	-8548 Sep 17 j 16:48	14°♍43'14	
	-8553 Sep 20 j 02:29	0°♏		asc. node	-8548 Oct 04 j 14:02	12°♍50'28	
	-8553 Oct 29 j 17:42	0°♐		opposition	-8548 Oct 26 j 21:11	5°♍24'30	0°52'01
	-8553 Dec 07 j 22:55	0°♑		greatest brilliancy	-8548 Oct 26 j 22:25	5°♍23'16	-1.4m
	-8552 Jan 16 j 16:13	0°♒		min. Earth dist.	-8548 Oct 29 j 03:50	4°♍30'06	0.65906 AU
desc. node	-8552 Jan 19 j 22:22	2°♒24'58			-8548 Nov 10 j 06:13	30°♎	
	-8552 Feb 27 j 04:26	0°♓		direct	-8548 Dec 06 j 18:37	25°♎26'20	
	-8552 Apr 12 j 21:26	0°♈			-8547 Jan 04 j 15:18	0°♏	
	-8552 Jun 14 j 22:30	0°♉			-8547 Mar 11 j 04:46	0°♐	
retrograde	-8552 Jul 09 j 05:01	3°♉39'20			-8547 Apr 28 j 12:55	0°♑	
	-8552 Aug 01 j 01:38	30°♊			-8547 Jun 10 j 17:11	0°♒	
min. Earth dist.	-8552 Aug 12 j 15:13	25°♊50'29	0.59942 AU		-8547 Jul 21 j 00:27	0°♓	
opposition	-8552 Aug 17 j 19:18	23°♊47'36	-4°38'43		-8547 Aug 28 j 18:38	0°♈	
greatest brilliancy	-8552 Aug 17 j 00:47	24°♊05'56	-1.6m	desc. node	-8547 Sep 10 j 06:43	9°♈47'37	
direct	-8552 Sep 24 j 00:03	15°♊09'54			-8547 Oct 06 j 01:44	0°♉	
	-8552 Nov 19 j 14:33	0°♋		evening set	-8547 Oct 10 j 05:38	3°♉15'01	
asc. node	-8552 Dec 30 j 03:54	19°♋59'49			-8547 Nov 13 j 20:48	0°♊	
	-8551 Jan 17 j 07:55	0°♌		conjunction	-8547 Dec 12 j 00:18	21°♊11'11	-0°58'48
	-8551 Mar 09 j 04:54	0°♍		minimum elong	-8547 Dec 11 j 21:30	21°♊05'58	0°58'54
	-8551 Apr 25 j 13:48	0°♎			-8547 Dec 23 j 23:17	0°♋	
	-8551 Jun 09 j 03:17	0°♏			-8546 Jan 24 j 15:18	22°♋45'45	2.48332 AU
evening set	-8551 Jun 14 j 13:03	3°♏45'41		max. Earth dist.	-8546 Feb 03 j 23:06	0°♌	
max. Earth dist.	-8551 Jun 30 j 03:08	14°♏45'21	2.47943 AU		-8546 Feb 10 j 02:39	4°♌16'04	
	-8551 Jul 21 j 06:01	0°♐		morning rise	-8546 Mar 20 j 03:53	0°♑	
					-8546 May 05 j 17:08	0°♒	
conjunction	-8551 Aug 06 j 10:35	11°♐56'43	1°08'48		-8546 Jun 24 j 03:03	0°♓	
minimum elong	-8551 Aug 06 j 11:54	11°♐59'10	1°09'18		-8546 Aug 18 j 14:15	0°♈	
	-8551 Aug 30 j 10:04	0°♑			-8546 Aug 22 j 14:21	1°♏54'08	
morning rise	-8551 Oct 02 j 21:47	25°♑46'27		asc. node	-8546 Oct 26 j 19:25	20°♏34'15	
	-8551 Oct 08 j 08:19	0°♒		retrograde	-8546 Dec 03 j 03:33	12°♏12'42	3°53'31
	-8551 Nov 15 j 20:12	0°♓		opposition	-8546 Dec 03 j 20:45	11°♏56'15	-1.6m
desc. node	-8551 Dec 06 j 16:18	16°♓08'36		greatest brilliancy	-8546 Dec 09 j 01:26	9°♏57'19	0.59727 AU
	-8550 Feb 03 j 01:20	0°♈		min. Earth dist.	-8545 Jan 12 j 17:33	2°♏25'08	
	-8550 Mar 17 j 17:19	0°♉		direct	-8545 Apr 01 j 04:08	0°♊	
	-8550 May 03 j 11:12	0°♋			-8545 May 18 j 10:55	0°♌	
	-8550 Jun 30 j 01:28	0°♌			-8545 Jun 29 j 05:20	0°♍	
retrograde	-8550 Aug 14 j 11:41	10°♌40'56		desc. node	-8545 Jul 29 j 06:05	22°♌43'11	
min. Earth dist.	-8550 Sep 22 j 00:10	1°♌25'07	0.65980 AU		-8545 Aug 07 j 17:32	0°♎	
opposition	-8550 Sep 23 j 10:57	0°♌50'05	-2°04'38		-8545 Sep 15 j 13:46	0°♏	
greatest brilliancy	-8550 Sep 23 j 09:00	0°♌52'03	-1.4m		-8545 Oct 24 j 20:50	0°♐	
	-8550 Sep 25 j 12:49	30°♍			-8545 Dec 04 j 10:51	0°♑	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 36

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

evening set	-8545 Dec 11 j 05:07	4°♄52'40		morning rise	-8540 Jun 11 j 13:19	1°♃11'49	
	-8544 Jan 15 j 20:13	0°♂			-8540 Jul 24 j 23:34	0°♂	
					-8540 Sep 07 j 00:02	0°♄	
conjunction	-8544 Feb 04 j 16:04	13°♂34'18	-1°08'57		-8540 Oct 20 j 00:12	0°♄	
minimum elong	-8544 Feb 04 j 17:11	13°♂36'11	1°09'27		-8540 Dec 01 j 12:31	0°♄	
	-8544 Feb 29 j 04:37	0°♂			-8539 Jan 13 j 15:20	0°♄	
max. Earth dist.	-8544 Feb 29 j 19:14	0°♂24'12	2.59337 AU		-8539 Mar 01 j 17:26	0°♄	
morning rise	-8544 Mar 27 j 17:50	18°♂02'58		desc. node	-8539 Mar 20 j 17:56	10°♄07'36	
	-8544 Apr 15 j 07:04	0°♂		retrograde	-8539 May 07 j 02:32	23°♄15'00	
	-8544 Jun 01 j 19:23	0°♂		min. Earth dist.	-8539 Jun 03 j 11:27	18°♄17'13	0.43816 AU
asc. node	-8544 Jul 09 j 10:16	23°♂09'43		greatest brilliancy	-8539 Jun 09 j 21:33	16°♄11'29	-2.5m
	-8544 Jul 20 j 17:55	0°♃		opposition	-8539 Jun 11 j 07:48	15°♄43'13	-5°01'24
	-8544 Sep 10 j 15:29	0°♂		direct	-8539 Jul 13 j 06:55	9°♄31'23	
	-8544 Nov 16 j 11:19	0°♄			-8539 Sep 17 j 11:49	0°♄	
retrograde	-8544 Dec 15 j 08:25	4°♄32'52			-8539 Nov 10 j 16:46	0°♂	
	-8543 Jan 11 j 14:57	30°♂♂			-8539 Dec 30 j 13:26	0°♂	
opposition	-8543 Jan 18 j 10:03	27°♂47'01	6°09'30		-8538 Feb 17 j 05:29	0°♂	
greatest brilliancy	-8543 Jan 20 j 03:56	27°♂11'30	-2.2m	asc. node	-8538 Feb 28 j 16:46	7°♂08'53	
min. Earth dist.	-8543 Jan 26 j 18:19	24°♂57'53	0.48375 AU		-8538 Apr 05 j 22:49	0°♂	
direct	-8543 Feb 25 j 00:44	19°♂30'09		evening set	-8538 Apr 17 j 14:58	7°♂27'40	
	-8543 Apr 08 j 09:47	0°♄		max. Earth dist.	-8538 May 14 j 20:09	25°♂05'53	2.61936 AU
	-8543 May 30 j 23:44	0°♄			-8538 May 22 j 07:15	0°♃	
desc. node	-8543 Jun 15 j 10:31	10°♄27'50					
	-8543 Jul 12 j 22:37	0°♄		conjunction	-8538 Jun 04 j 10:33	8°♃42'34	0°50'44
	-8543 Aug 22 j 17:48	0°♄		minimum elong	-8538 Jun 04 j 09:02	8°♃40'02	0°50'44
	-8543 Oct 02 j 11:21	0°♄			-8538 Jul 05 j 21:31	0°♂	
	-8543 Nov 13 j 05:06	0°♄		morning rise	-8538 Jul 22 j 00:18	11°♂09'38	
	-8543 Dec 26 j 12:17	0°♂			-8538 Aug 17 j 15:49	0°♄	
evening set	-8542 Jan 28 j 06:12	21°♂57'09			-8538 Sep 27 j 20:11	0°♄	
	-8542 Feb 09 j 11:17	0°♂			-8538 Nov 06 j 22:33	0°♄	
					-8538 Dec 16 j 16:02	0°♄	
conjunction	-8542 Mar 19 j 09:10	24°♂37'30	-0°37'40		-8537 Jan 26 j 00:50	0°♄	
minimum elong	-8542 Mar 19 j 10:32	24°♂39'42	0°38'11	desc. node	-8537 Feb 05 j 17:09	7°♄43'28	
max. Earth dist.	-8542 Mar 27 j 07:39	29°♂43'44	2.65551 AU		-8537 Mar 09 j 18:26	0°♄	
	-8542 Mar 27 j 17:47	0°♂			-8537 Apr 28 j 15:35	0°♂	
morning rise	-8542 May 06 j 01:29	25°♂07'56		retrograde	-8537 Jun 24 j 15:54	17°♂17'33	
	-8542 May 13 j 16:49	0°♂		min. Earth dist.	-8537 Jul 27 j 03:16	10°♂13'01	0.56044 AU
asc. node	-8542 May 27 j 02:51	8°♂33'04		opposition	-8537 Aug 02 j 16:05	7°♂41'19	-5°23'03
	-8542 Jun 29 j 17:55	0°♃		greatest brilliancy	-8537 Aug 01 j 12:34	8°♂07'58	-1.8m
	-8542 Aug 15 j 16:09	0°♂			-8537 Aug 30 j 15:34	30°♂♄	
	-8542 Oct 01 j 21:57	0°♄		direct	-8537 Sep 07 j 13:41	29°♄35'02	
	-8542 Nov 20 j 01:21	0°♄			-8537 Sep 15 j 18:18	0°♂	
	-8541 Jan 18 j 04:49	0°♄			-8537 Dec 04 j 18:16	0°♂	
retrograde	-8541 Feb 26 j 00:11	8°♄15'33		asc. node	-8536 Jan 16 j 17:46	23°♂50'31	
opposition	-8541 Mar 28 j 14:39	3°♄09'13	2°47'30		-8536 Jan 27 j 07:02	0°♂	
greatest brilliancy	-8541 Mar 28 j 23:33	3°♄03'14	-2.9m		-8536 Mar 16 j 19:28	0°♂	
min. Earth dist.	-8541 Mar 30 j 17:24	2°♄35'10	0.38376 AU		-8536 May 02 j 17:31	0°♃	
	-8541 Apr 10 j 02:11	30°♂♄		evening set	-8536 May 27 j 20:22	16°♃44'31	
direct	-8541 Apr 28 j 15:27	27°♄50'56		max. Earth dist.	-8536 Jun 14 j 00:17	28°♃28'37	2.52603 AU
desc. node	-8541 May 03 j 15:36	28°♄00'45			-8536 Jun 16 j 05:06	0°♂	
	-8541 May 16 j 23:47	0°♄					
	-8541 Jul 21 j 01:11	0°♄		conjunction	-8536 Jul 17 j 12:50	22°♂06'53	1°12'24
	-8541 Sep 06 j 06:10	0°♄		minimum elong	-8536 Jul 17 j 12:40	22°♂06'35	1°12'49
	-8541 Oct 21 j 12:07	0°♄			-8536 Jul 28 j 10:23	0°♄	
	-8541 Dec 05 j 23:47	0°♂			-8536 Sep 06 j 19:14	0°♄	
	-8540 Jan 21 j 07:21	0°♂		morning rise	-8536 Sep 09 j 00:21	1°♄40'37	
	-8540 Mar 08 j 06:57	0°♂			-8536 Oct 15 j 22:53	0°♄	
evening set	-8540 Mar 09 j 14:07	0°♂49'35			-8536 Nov 23 j 15:57	0°♄	
asc. node	-8540 Apr 12 j 19:50	22°♂38'23		desc. node	-8536 Dec 23 j 12:36	22°♄57'23	
max. Earth dist.	-8540 Apr 19 j 18:17	27°♂04'19	2.66407 AU		-8535 Jan 01 j 19:13	0°♄	
	-8540 Apr 24 j 08:02	0°♂			-8535 Feb 11 j 08:37	0°♄	
					-8535 Mar 26 j 15:48	0°♂	
conjunction	-8540 Apr 26 j 08:59	1°♂18'27	0°07'50		-8535 May 14 j 13:13	0°♂	
minimum elong	-8540 Apr 26 j 08:41	1°♂17'59	0°07'29	retrograde	-8535 Jul 31 j 19:06	27°♂07'16	
behind sun begin	-8540 Apr 25 j 15:17	0°♂50'05		min. Earth dist.	-8535 Sep 06 j 21:08	18°♂21'19	0.64338 AU
behind sun end	-8540 Apr 27 j 02:06	1°♂45'52		opposition	-8535 Sep 09 j 19:03	17°♂11'03	-3°08'29
	-8540 Jun 09 j 17:24	0°♃		greatest brilliancy	-8535 Sep 09 j 12:16	17°♂17'51	-1.5m

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 37

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

direct	-8535 Oct 18 j 15:36	7°♂56'14			-8530 Dec 11 j 21:08	0°♂	
asc. node	-8535 Dec 03 j 22:29	18°♂22'08					
	-8535 Dec 30 j 07:18	0°♂		conjunction	-8529 Jan 16 j 01:38	25°♂08'10	-1°11'57
	-8534 Feb 23 j 13:38	0°♂		minimum elong	-8529 Jan 16 j 01:28	25°♂07'53	1°12'22
	-8534 Apr 13 j 05:43	0°♂			-8529 Jan 23 j 01:01	0°♂	
	-8534 May 28 j 04:51	0°♂		max. Earth dist.	-8529 Feb 17 j 18:34	17°♂37'42	2.55499 AU
	-8534 Jul 09 j 08:16	0°♂			-8529 Mar 08 j 06:03	0°♂	
evening set	-8534 Jul 15 j 12:08	4°♂31'46		morning rise	-8529 Mar 11 j 21:05	2°♂24'04	
max. Earth dist.	-8534 Aug 08 j 22:43	22°♂49'16	2.40654 AU		-8529 Apr 23 j 10:03	0°♂	
	-8534 Aug 18 j 09:00	0°♂			-8529 Jun 10 j 09:54	0°♂	
				asc. node	-8529 Jul 27 j 02:40	27°♂51'13	
conjunction	-8534 Sep 11 j 05:28	18°♂24'03	0°42'33		-8529 Jul 30 j 20:21	0°♂	
minimum elong	-8534 Sep 11 j 08:19	18°♂29'35	0°43'04		-8529 Sep 26 j 05:29	0°♂	
	-8534 Sep 26 j 02:21	0°♂		retrograde	-8529 Nov 24 j 14:39	16°♂03'46	
	-8534 Nov 03 j 09:22	0°♂		opposition	-8529 Dec 30 j 04:24	8°♂34'47	5°30'42
desc. node	-8534 Nov 10 j 05:29	5°♂20'26		greatest brilliancy	-8529 Dec 31 j 13:50	8°♂04'36	-1.9m
morning rise	-8534 Nov 14 j 06:12	8°♂28'55		min. Earth dist.	-8528 Jan 06 j 23:19	5°♂46'45	0.53261 AU
	-8534 Dec 12 j 03:04	0°♂			-8528 Jan 29 j 14:44	30°♂	
	-8533 Jan 21 j 03:49	0°♂		direct	-8528 Feb 07 j 10:06	29°♂28'20	
	-8533 Mar 04 j 06:51	0°♂			-8528 Feb 16 j 08:54	0°♂	
	-8533 Apr 18 j 09:48	0°♂			-8528 Apr 28 j 06:22	0°♂	
	-8533 Jun 07 j 12:49	0°♂			-8528 Jun 12 j 07:39	0°♂	
	-8533 Aug 18 j 20:42	0°♂		desc. node	-8528 Jul 02 j 02:08	14°♂18'00	
retrograde	-8533 Sep 04 j 20:13	1°♂42'39			-8528 Jul 23 j 05:15	0°♂	
	-8533 Sep 20 j 21:12	30°♂			-8528 Aug 31 j 22:26	0°♂	
opposition	-8533 Oct 14 j 11:09	22°♂08'28	-0°17'48		-8528 Oct 10 j 21:48	0°♂	
greatest brilliancy	-8533 Oct 14 j 11:33	22°♂08'04	-1.4m		-8528 Nov 21 j 01:14	0°♂	
min. Earth dist.	-8533 Oct 15 j 06:51	21°♂48'43	0.66690 AU		-8527 Jan 02 j 21:23	0°♂	
asc. node	-8533 Oct 22 j 03:39	19°♂06'49		evening set	-8527 Jan 10 j 09:49	5°♂08'13	
direct	-8533 Nov 24 j 01:04	12°♂17'00			-8527 Feb 16 j 12:38	0°♂	
	-8532 Jan 26 j 00:29	0°♂					
	-8532 Mar 21 j 04:38	0°♂		conjunction	-8527 Mar 03 j 05:54	9°♂39'44	-0°52'37
	-8532 May 06 j 22:43	0°♂		minimum elong	-8527 Mar 03 j 07:34	9°♂42'27	0°53'09
	-8532 Jun 18 j 15:05	0°♂		max. Earth dist.	-8527 Mar 17 j 13:10	18°♂57'56	2.63727 AU
	-8532 Jul 28 j 17:58	0°♂			-8527 Apr 03 j 15:46	0°♂	
	-8532 Sep 05 j 09:51	0°♂		morning rise	-8527 Apr 21 j 06:48	11°♂17'04	
evening set	-8532 Sep 13 j 21:07	6°♂38'40			-8527 May 20 j 17:30	0°♂	
desc. node	-8532 Sep 27 j 01:31	17°♂00'13		asc. node	-8527 Jun 12 j 20:49	14°♂37'33	
	-8532 Oct 13 j 15:01	0°♂			-8527 Jul 07 j 07:01	0°♂	
					-8527 Aug 24 j 11:11	0°♂	
conjunction	-8532 Nov 16 j 18:20	26°♂30'16	-0°36'28		-8527 Oct 13 j 14:45	0°♂	
minimum elong	-8532 Nov 16 j 15:25	26°♂24'40	0°36'20		-8527 Dec 11 j 16:56	0°♂	
	-8532 Nov 21 j 07:48	0°♂		retrograde	-8526 Jan 25 j 22:11	10°♂28'28	
	-8532 Dec 31 j 07:45	0°♂		opposition	-8526 Feb 26 j 12:02	4°♂56'18	5°22'47
max. Earth dist.	-8531 Jan 02 j 04:28	1°♂21'57	2.43294 AU	greatest brilliancy	-8526 Feb 27 j 20:24	4°♂32'33	-2.7m
morning rise	-8531 Jan 19 j 09:46	13°♂50'53		min. Earth dist.	-8526 Mar 04 j 19:02	3°♂06'13	0.41125 AU
	-8531 Feb 11 j 05:57	0°♂			-8526 Mar 17 j 11:49	30°♂	
	-8531 Mar 27 j 12:13	0°♂		direct	-8526 Apr 01 j 01:28	28°♂34'15	
	-8531 May 13 j 12:06	0°♂			-8526 Apr 15 j 16:56	0°♂	
	-8531 Jul 03 j 12:23	0°♂		desc. node	-8526 May 20 j 06:31	12°♂22'58	
	-8531 Sep 06 j 04:05	0°♂			-8526 Jun 20 j 15:24	0°♂	
asc. node	-8531 Sep 08 j 05:39	0°♂39'40			-8526 Aug 05 j 03:21	0°♂	
retrograde	-8531 Oct 10 j 18:54	6°♂17'00			-8526 Sep 17 j 07:35	0°♂	
	-8531 Nov 11 j 09:55	30°♂			-8526 Oct 30 j 14:51	0°♂	
opposition	-8531 Nov 17 j 23:52	27°♂29'35	2°43'53		-8526 Dec 13 j 23:30	0°♂	
greatest brilliancy	-8531 Nov 18 j 08:45	27°♂20'56	-1.5m		-8525 Jan 28 j 14:50	0°♂	
min. Earth dist.	-8531 Nov 22 j 12:18	25°♂43'56	0.62867 AU	evening set	-8525 Feb 23 j 00:58	16°♂24'49	
direct	-8531 Dec 28 j 22:34	17°♂31'56			-8525 Mar 16 j 05:44	0°♂	
	-8530 Feb 16 j 16:45	0°♂		max. Earth dist.	-8525 Apr 11 j 08:37	16°♂41'13	2.66711 AU
	-8530 Apr 13 j 00:40	0°♂					
	-8530 May 27 j 22:18	0°♂		conjunction	-8525 Apr 12 j 10:40	17°♂22'49	-0°10'24
	-8530 Jul 07 j 21:41	0°♂		minimum elong	-8525 Apr 12 j 11:04	17°♂23'29	0°10'50
desc. node	-8530 Aug 15 j 00:38	29°♂14'28		behind sun begin	-8525 Apr 11 j 20:34	17°♂00'19	
	-8530 Aug 16 j 00:05	0°♂		behind sun end	-8525 Apr 13 j 01:35	17°♂46'38	
	-8530 Sep 23 j 13:07	0°♂		asc. node	-8525 Apr 30 j 13:58	28°♂58'30	
	-8530 Nov 01 j 13:35	0°♂			-8525 May 02 j 04:24	0°♂	
evening set	-8530 Nov 18 j 14:34	12°♂49'39		morning rise	-8525 May 28 j 21:52	17°♂10'00	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8525 Jun 17 j 17:52	0°♈			-8520 Nov 06 j 00:07	0°♊	
	-8525 Aug 02 j 11:50	0°♉		asc. node	-8520 Dec 20 j 11:45	18°♊51'29	
	-8525 Sep 16 j 09:32	0°♈			-8519 Jan 10 j 20:48	0°♊	
	-8525 Oct 30 j 19:43	0°♉			-8519 Mar 03 j 22:59	0°♈	
	-8525 Dec 14 j 15:05	0°♊			-8519 Apr 20 j 17:58	0°♈	
	-8524 Jan 31 j 12:31	0°♈			-8519 Jun 04 j 11:14	0°♉	
desc. node	-8524 Apr 06 j 11:22	25°♈37'59		evening set	-8519 Jun 25 j 05:35	14°♉34'26	
retrograde	-8524 Apr 12 j 11:57	25°♈52'42		max. Earth dist.	-8519 Jul 11 j 08:37	26°♉10'21	2.45290 AU
min. Earth dist.	-8524 May 09 j 15:13	21°♈21'03	0.39799 AU		-8519 Jul 16 j 14:40	0°♈	
opposition	-8524 May 15 j 08:03	19°♈41'42	-2°52'39				
greatest brilliancy	-8524 May 14 j 15:33	19°♈53'43	-2.8m	conjunction	-8519 Aug 18 j 15:29	24°♈36'11	1°02'24
direct	-8524 Jun 14 j 19:06	14°♈18'43		minimum elong	-8519 Aug 18 j 17:40	24°♈40'19	1°02'56
	-8524 Aug 09 j 08:12	0°♊			-8519 Aug 25 j 17:59	0°♉	
	-8524 Oct 02 j 18:54	0°♈			-8519 Oct 03 j 14:29	0°♊	
	-8524 Nov 20 j 16:19	0°♈		morning rise	-8519 Oct 17 j 13:49	10°♊54'28	
	-8523 Jan 07 j 16:07	0°♊			-8519 Nov 11 j 00:13	0°♈	
	-8523 Feb 24 j 12:11	0°♊		desc. node	-8519 Nov 27 j 03:17	12°♈32'23	
asc. node	-8523 Mar 17 j 09:04	13°♊09'25			-8519 Dec 19 j 20:05	0°♊	
evening set	-8523 Apr 02 j 10:15	23°♊20'03			-8518 Jan 28 j 23:09	0°♈	
	-8523 Apr 12 j 21:16	0°♈			-8518 Mar 12 j 07:58	0°♈	
max. Earth dist.	-8523 May 04 j 17:52	14°♈03'06	2.64298 AU		-8518 Apr 27 j 05:50	0°♊	
					-8518 Jun 19 j 16:30	0°♊	
conjunction	-8523 May 19 j 22:40	23°♈55'58	0°35'22	retrograde	-8518 Aug 22 j 06:42	18°♊42'58	
minimum elong	-8523 May 19 j 21:27	23°♈53'59	0°35'13	opposition	-8518 Oct 01 j 04:35	8°♊56'56	-1°25'55
	-8523 May 29 j 04:44	0°♈		greatest brilliancy	-8518 Oct 01 j 04:15	8°♊57'16	-1.4m
morning rise	-8523 Jul 05 j 13:40	24°♈57'14		min. Earth dist.	-8518 Sep 30 j 13:20	9°♊12'16	0.66500 AU
	-8523 Jul 12 j 23:41	0°♉			-8518 Oct 30 j 15:22	30°♈	
	-8523 Aug 25 j 03:11	0°♈		asc. node	-8518 Nov 07 j 16:56	29°♊18'59	
	-8523 Oct 05 j 20:34	0°♉		direct	-8518 Nov 10 j 06:01	29°♊16'33	
	-8523 Nov 15 j 14:42	0°♊			-8518 Nov 21 j 06:50	0°♊	
	-8523 Dec 26 j 03:14	0°♈			-8517 Feb 07 j 13:11	0°♈	
	-8522 Feb 05 j 16:03	0°♊			-8517 Mar 30 j 23:54	0°♈	
desc. node	-8522 Feb 22 j 11:08	11°♊34'39			-8517 May 15 j 19:51	0°♉	
	-8522 Mar 23 j 02:54	0°♈			-8517 Jun 27 j 05:21	0°♈	
retrograde	-8522 Jun 07 j 13:34	28°♈47'33			-8517 Aug 06 j 06:34	0°♉	
min. Earth dist.	-8522 Jul 07 j 22:17	22°♈32'50	0.51444 AU	evening set	-8517 Aug 20 j 08:59	10°♉51'29	
greatest brilliancy	-8522 Jul 14 j 01:58	20°♈15'54	-2.1m		-8517 Sep 13 j 22:18	0°♊	
opposition	-8522 Jul 15 j 13:26	19°♈42'53	-5°47'44	desc. node	-8517 Oct 14 j 21:06	24°♊18'24	
direct	-8522 Aug 18 j 23:01	12°♈15'41					
	-8522 Oct 19 j 22:16	0°♈		conjunction	-8517 Oct 21 j 22:51	29°♊51'10	-0°05'25
	-8522 Dec 15 j 14:32	0°♊		minimum elong	-8517 Oct 21 j 22:23	29°♊50'15	0°05'04
asc. node	-8521 Feb 02 j 08:36	28°♊41'46		behind sun begin	-8517 Oct 20 j 19:52	28°♊58'21	
	-8521 Feb 04 j 12:23	0°♊		behind sun end	-8517 Oct 23 j 00:53	0°♈42'07	
	-8521 Mar 25 j 03:29	0°♈			-8517 Oct 22 j 03:22	0°♈	
	-8521 May 10 j 18:36	0°♈		max. Earth dist.	-8517 Nov 23 j 00:53	24°♈47'51	2.38935 AU
evening set	-8521 May 12 j 05:11	0°♈56'57			-8517 Nov 29 j 19:34	0°♊	
max. Earth dist.	-8521 Jun 01 j 14:16	14°♈31'45	2.56790 AU	morning rise	-8517 Dec 26 j 20:31	20°♊26'26	
	-8521 Jun 24 j 06:26	0°♉			-8516 Jan 08 j 18:26	0°♈	
					-8516 Feb 19 j 16:25	0°♈	
conjunction	-8521 Jun 30 j 08:31	4°♈13'20	1°08'09		-8516 Apr 04 j 02:40	0°♊	
minimum elong	-8521 Jun 30 j 07:22	4°♈11'20	1°08'25		-8516 May 21 j 19:49	0°♊	
	-8521 Aug 05 j 15:44	0°♈			-8516 Jul 14 j 16:34	0°♈	
morning rise	-8521 Aug 19 j 19:47	10°♈20'00		asc. node	-8516 Sep 24 j 20:30	22°♈43'16	
	-8521 Sep 15 j 06:48	0°♉		retrograde	-8516 Sep 25 j 21:08	22°♈43'40	
	-8521 Oct 24 j 17:17	0°♊		opposition	-8516 Nov 03 j 18:37	13°♈34'54	1°33'02
	-8521 Dec 02 j 17:10	0°♈		greatest brilliancy	-8516 Nov 03 j 21:50	13°♈31'44	-1.4m
desc. node	-8520 Jan 10 j 07:58	29°♈22'46		min. Earth dist.	-8516 Nov 06 j 20:43	12°♈21'39	0.65092 AU
	-8520 Jan 11 j 03:49	0°♊		direct	-8516 Dec 14 j 18:38	3°♈35'04	
	-8520 Feb 21 j 04:28	0°♈			-8515 Mar 03 j 20:22	0°♈	
	-8520 Apr 05 j 15:38	0°♈			-8515 Apr 22 j 20:33	0°♉	
	-8520 May 29 j 14:39	0°♊			-8515 Jun 05 j 12:58	0°♈	
retrograde	-8520 Jul 17 j 15:57	12°♊48'07			-8515 Jul 16 j 01:19	0°♉	
min. Earth dist.	-8520 Aug 22 j 02:39	4°♊37'12	0.61774 AU		-8515 Aug 23 j 21:49	0°♊	
opposition	-8520 Aug 26 j 11:36	2°♊52'32	-4°07'46	desc. node	-8515 Aug 31 j 17:43	6°♊07'06	
greatest brilliancy	-8520 Aug 25 j 21:50	3°♊06'16	-1.6m		-8515 Oct 01 j 06:21	0°♈	
	-8520 Sep 02 j 22:04	30°♈		evening set	-8515 Oct 24 j 21:36	18°♈20'36	
direct	-8520 Oct 03 j 08:20	23°♈59'56			-8515 Nov 09 j 02:35	0°♊	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8515 Dec 19 j 05:54	0°♌		opposition	-8509 Apr 15 j 14:10	20°♏29'20	0°40'51
				min. Earth dist.	-8509 Apr 14 j 15:08	20°♏44'51	0.38019 AU
conjunction	-8515 Dec 25 j 08:25	4°♌27'04 -1°06'32		greatest brilliancy	-8509 Apr 15 j 14:37	20°♏29'02	-3.0m
minimum elong	-8515 Dec 25 j 06:29	4°♌23'32 1°06'46		desc. node	-8509 Apr 24 j 02:39	18°♏16'54	
	-8514 Jan 30 j 06:10	0°♌		direct	-8509 May 15 j 22:08	15°♏24'54	
max. Earth dist.	-8514 Feb 03 j 10:20	2°♌54'02 2.51036 AU			-8509 Jul 07 j 00:57	0°♐	
morning rise	-8514 Feb 21 j 10:53	15°♌16'08			-8509 Aug 29 j 02:15	0°♑	
	-8514 Mar 15 j 09:46	0°♑			-8509 Oct 15 j 04:57	0°♌	
	-8514 Apr 30 j 17:58	0°♒			-8509 Nov 30 j 14:03	0°♌	
	-8514 Jun 18 j 11:39	0°♒			-8508 Jan 16 j 09:04	0°♑	
	-8514 Aug 10 j 10:20	0°♑			-8508 Mar 03 j 14:47	0°♒	
asc. node	-8514 Aug 12 j 20:03	1°♑15'30		evening set	-8508 Mar 18 j 07:55	9°♒20'14	
retrograde	-8514 Nov 05 j 15:57	29°♑40'56		asc. node	-8508 Apr 03 j 01:50	19°♒20'57	
opposition	-8514 Dec 12 j 11:02	21°♑36'09 4°31'33			-8508 Apr 19 j 18:10	0°♒	
greatest brilliancy	-8514 Dec 13 j 09:51	21°♑14'43 -1.7m		max. Earth dist.	-8508 Apr 25 j 06:38	3°♒32'12 2.65893 AU	
min. Earth dist.	-8514 Dec 19 j 02:47	19°♑06'22 0.57645 AU					
direct	-8513 Jan 21 j 17:10	11°♑59'02		conjunction	-8508 May 04 j 21:49	9°♒43'48 0°18'11	
	-8513 Mar 22 j 17:14	0°♒		minimum elong	-8508 May 04 j 21:09	9°♒42'43 0°17'55	
	-8513 May 11 j 21:47	0°♑			-8508 Jun 05 j 02:47	0°♑	
	-8513 Jun 23 j 12:07	0°♑		morning rise	-8508 Jun 20 j 02:37	9°♑52'22	
desc. node	-8513 Jul 19 j 18:50	19°♑38'23			-8508 Jul 20 j 04:51	0°♒	
	-8513 Aug 02 j 09:26	0°♑			-8508 Sep 01 j 21:14	0°♑	
	-8513 Sep 10 j 11:16	0°♑			-8508 Oct 14 j 08:56	0°♑	
	-8513 Oct 19 j 22:34	0°♑			-8508 Nov 25 j 02:41	0°♑	
	-8513 Nov 29 j 15:45	0°♌			-8507 Jan 05 j 23:17	0°♑	
evening set	-8513 Dec 23 j 01:00	16°♌40'40			-8507 Feb 18 j 22:34	0°♑	
	-8512 Jan 11 j 03:35	0°♌		desc. node	-8507 Mar 11 j 06:09	12°♑33'06	
					-8507 Apr 15 j 00:58	0°♌	
conjunction	-8512 Feb 15 j 01:37	23°♌41'39 -1°04'17		retrograde	-8507 May 19 j 07:42	7°♌23'39	
minimum elong	-8512 Feb 15 j 03:07	23°♌44'08 1°04'50		min. Earth dist.	-8507 Jun 16 j 14:47	2°♌00'36 0.46458 AU	
	-8512 Feb 24 j 13:13	0°♑			-8507 Jun 22 j 10:34	30°♒♑	
max. Earth dist.	-8512 Mar 07 j 06:42	7°♑43'46 2.61117 AU		greatest brilliancy	-8507 Jun 23 j 03:21	29°♑45'21 -2.3m	
morning rise	-8512 Apr 05 j 22:00	26°♑58'38		opposition	-8507 Jun 24 j 17:22	29°♑12'14 -5°35'42	
	-8512 Apr 10 j 14:56	0°♒		direct	-8507 Jul 27 j 12:24	22°♑32'09	
	-8512 May 27 j 22:04	0°♒			-8507 Sep 02 j 09:25	0°♌	
asc. node	-8512 Jun 29 j 15:14	20°♒23'19			-8507 Nov 03 j 09:38	0°♌	
	-8512 Jul 15 j 05:50	0°♑			-8507 Dec 24 j 22:06	0°♑	
	-8512 Sep 03 j 09:02	0°♒			-8506 Feb 12 j 06:03	0°♒	
	-8512 Oct 29 j 19:40	0°♑		asc. node	-8506 Feb 18 j 22:50	4°♒08'16	
retrograde	-8512 Dec 29 j 08:25	16°♑47'50			-8506 Apr 01 j 06:16	0°♒	
opposition	-8511 Jan 31 j 10:42	10°♑28'37 6°13'02		evening set	-8506 Apr 26 j 11:09	16°♒08'12	
greatest brilliancy	-8511 Feb 02 j 05:33	9°♑53'49 -2.3m			-8506 May 17 j 17:03	0°♑	
min. Earth dist.	-8511 Feb 08 j 13:20	7°♑51'21 0.45612 AU		max. Earth dist.	-8506 May 21 j 01:25	2°♑12'34 2.60304 AU	
direct	-8511 Mar 08 j 19:20	2°♑48'42					
	-8511 May 21 j 06:14	0°♑		conjunction	-8506 Jun 13 j 14:28	17°♑56'36 0°58'17	
desc. node	-8511 Jun 05 j 22:26	9°♑48'49		minimum elong	-8506 Jun 13 j 12:57	17°♑54'01 0°58'22	
	-8511 Jul 05 j 17:27	0°♑			-8506 Jul 01 j 06:39	0°♒	
	-8511 Aug 16 j 13:29	0°♑		morning rise	-8506 Jul 31 j 23:23	21°♒28'12	
	-8511 Sep 26 j 22:03	0°♑			-8506 Aug 12 j 21:50	0°♑	
	-8511 Nov 08 j 01:45	0°♌			-8506 Sep 22 j 21:23	0°♑	
	-8511 Dec 21 j 15:48	0°♌			-8506 Nov 01 j 17:43	0°♑	
	-8510 Feb 04 j 19:04	0°♑			-8506 Dec 11 j 03:51	0°♑	
evening set	-8510 Feb 06 j 21:08	1°♑21'52			-8505 Jan 20 j 02:36	0°♑	
	-8510 Mar 23 j 03:40	0°♒		desc. node	-8505 Jan 27 j 04:07	5°♑11'48	
					-8505 Mar 02 j 23:38	0°♌	
conjunction	-8510 Mar 28 j 06:29	3°♒16'53 -0°28'03			-8505 Apr 18 j 20:33	0°♌	
minimum elong	-8510 Mar 28 j 07:33	3°♒18'36 0°28'32		retrograde	-8505 Jul 03 j 17:41	27°♌16'53	
max. Earth dist.	-8510 Apr 01 j 21:29	6°♒14'40 2.66195 AU		min. Earth dist.	-8505 Aug 06 j 07:19	19°♌47'23 0.58284 AU	
	-8510 May 09 j 01:53	0°♒		greatest brilliancy	-8505 Aug 11 j 04:16	17°♌52'42 -1.7m	
morning rise	-8510 May 14 j 09:42	3°♒24'02		opposition	-8505 Aug 12 j 02:41	17°♌30'42 -4°59'24	
asc. node	-8510 May 17 j 08:14	5°♒16'42		direct	-8505 Sep 17 j 18:40	9°♌06'13	
	-8510 Jun 24 j 22:10	0°♑			-8505 Nov 26 j 09:09	0°♑	
	-8510 Aug 10 j 08:37	0°♒		asc. node	-8504 Jan 07 j 00:46	21°♑48'28	
	-8510 Sep 25 j 13:30	0°♑			-8504 Jan 21 j 12:14	0°♒	
	-8510 Nov 11 j 09:11	0°♑			-8504 Mar 11 j 19:03	0°♒	
	-8510 Dec 31 j 11:53	0°♑			-8504 Apr 28 j 00:11	0°♑	
retrograde	-8509 Mar 15 j 14:58	25°♑43'20		evening set	-8504 Jun 06 j 18:49	26°♑40'58	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8504 Jun 11 j 14:10	0°♄			-8499 Feb 06 j 12:01	0°♂	
max. Earth dist.	-8504 Jun 22 j 16:04	7°♄43'31	2.50078 AU		-8499 Mar 22 j 15:49	0°♄	
	-8504 Jul 23 j 19:02	0°♄			-8499 May 08 j 07:36	0°♂	
					-8499 Jun 27 j 05:42	0°♄	
conjunction	-8504 Jul 28 j 14:05	3°♄30'16	1°11'27		-8499 Aug 24 j 04:00	0°♄	
minimum elong	-8504 Jul 28 j 14:44	3°♄31'26	1°11'55	asc. node	-8499 Aug 29 j 11:58	2°♄16'32	
	-8504 Sep 02 j 02:00	0°♄		retrograde	-8499 Oct 19 j 18:31	14°♄46'54	
morning rise	-8504 Sep 22 j 03:43	15°♄20'31		opposition	-8499 Nov 26 j 13:12	6°♄13'10	3°24'13
	-8504 Oct 11 j 02:56	0°♄		greatest brilliancy	-8499 Nov 27 j 02:30	6°♄00'20	-1.6m
	-8504 Nov 18 j 16:52	0°♄		min. Earth dist.	-8499 Dec 01 j 20:54	4°♄10'08	0.61239 AU
desc. node	-8504 Dec 13 j 22:24	19°♄29'29			-8499 Dec 13 j 19:09	30°♄	
	-8504 Dec 27 j 16:43	0°♄		direct	-8498 Jan 06 j 08:45	26°♄19'53	
	-8503 Feb 06 j 00:55	0°♄			-8498 Jan 31 j 10:35	0°♄	
	-8503 Mar 20 j 20:44	0°♄			-8498 Apr 05 j 22:58	0°♄	
	-8503 May 07 j 05:19	0°♄			-8498 May 22 j 02:43	0°♄	
	-8503 Jul 08 j 19:42	0°♄			-8498 Jul 02 j 12:57	0°♄	
retrograde	-8503 Aug 08 j 17:13	5°♄25'20		desc. node	-8498 Aug 05 j 10:41	25°♄48'42	
	-8503 Sep 06 j 05:37	30°♄			-8498 Aug 10 j 20:51	0°♄	
min. Earth dist.	-8503 Sep 15 j 15:17	26°♄22'14	0.65359 AU		-8498 Sep 18 j 13:25	0°♄	
opposition	-8503 Sep 17 j 17:36	25°♄31'37	-2°31'49		-8498 Oct 27 j 16:49	0°♄	
greatest brilliancy	-8503 Sep 17 j 13:51	25°♄35'23	-1.4m	evening set	-8498 Dec 01 j 17:24	26°♄04'01	
direct	-8503 Oct 27 j 01:43	16°♄06'32			-8498 Dec 07 j 02:51	0°♄	
asc. node	-8503 Nov 24 j 05:56	20°♄24'50			-8497 Jan 18 j 08:28	0°♄	
	-8503 Dec 20 j 20:48	0°♄					
	-8502 Feb 17 j 15:00	0°♄		conjunction	-8497 Jan 27 j 11:25	6°♄17'55	-1°11'04
	-8502 Apr 08 j 02:58	0°♄		minimum elong	-8497 Jan 27 j 12:04	6°♄19'02	1°11'33
	-8502 May 23 j 09:26	0°♄		max. Earth dist.	-8497 Feb 24 j 23:29	25°♄36'00	2.57717 AU
	-8502 Jul 04 j 15:22	0°♄			-8497 Mar 03 j 14:05	0°♄	
evening set	-8502 Jul 27 j 20:23	17°♄13'18		morning rise	-8497 Mar 21 j 16:34	11°♄55'08	
	-8502 Aug 13 j 16:38	0°♄			-8497 Apr 18 j 16:00	0°♄	
max. Earth dist.	-8502 Sep 03 j 02:57	15°♄45'04	2.38720 AU		-8497 Jun 05 j 07:56	0°♄	
	-8502 Sep 21 j 09:24	0°♄		asc. node	-8497 Jul 17 j 08:42	25°♄34'58	
					-8497 Jul 24 j 19:19	0°♄	
conjunction	-8502 Sep 25 j 11:05	3°♄11'19	0°26'54		-8497 Sep 16 j 10:35	0°♄	
minimum elong	-8502 Sep 25 j 13:20	3°♄15'43	0°27'23	retrograde	-8497 Dec 06 j 12:51	26°♄39'04	
	-8502 Oct 29 j 15:14	0°♄		opposition	-8496 Jan 10 j 07:04	19°♄33'00	5°55'54
desc. node	-8502 Oct 31 j 16:34	1°♄36'32		greatest brilliancy	-8496 Jan 11 j 21:56	18°♄58'59	-2.1m
morning rise	-8502 Nov 29 j 23:18	24°♄21'36		min. Earth dist.	-8496 Jan 18 j 11:56	16°♄41'20	0.50609 AU
	-8502 Dec 07 j 07:38	0°♄		direct	-8496 Feb 17 j 17:49	10°♄50'56	
	-8501 Jan 16 j 06:34	0°♄			-8496 Apr 18 j 00:58	0°♄	
	-8501 Feb 27 j 06:06	0°♄			-8496 Jun 05 j 04:37	0°♄	
	-8501 Apr 13 j 00:18	0°♄		desc. node	-8496 Jun 22 j 14:26	12°♄11'54	
	-8501 May 31 j 22:30	0°♄			-8496 Jul 17 j 02:08	0°♄	
	-8501 Jul 31 j 04:02	0°♄			-8496 Aug 26 j 07:45	0°♄	
retrograde	-8501 Sep 12 j 18:10	9°♄37'08			-8496 Oct 05 j 15:38	0°♄	
asc. node	-8501 Oct 12 j 10:49	3°♄56'08			-8496 Nov 16 j 01:27	0°♄	
opposition	-8501 Oct 22 j 04:19	0°♄11'05	0°22'40		-8496 Dec 29 j 02:17	0°♄	
greatest brilliancy	-8501 Oct 22 j 04:42	0°♄10'42	-1.4m	evening set	-8495 Jan 20 j 19:14	15°♄21'13	
	-8501 Oct 22 j 15:26	30°♄			-8495 Feb 11 j 20:44	0°♄	
min. Earth dist.	-8501 Oct 23 j 19:38	29°♄31'52	0.66375 AU				
direct	-8501 Dec 01 j 23:36	20°♄15'17		conjunction	-8495 Mar 12 j 14:58	18°♄46'08	-0°44'14
	-8500 Jan 15 j 03:16	0°♄		minimum elong	-8495 Mar 12 j 16:30	18°♄48'37	0°44'46
	-8500 Mar 14 j 22:32	0°♄		max. Earth dist.	-8495 Mar 23 j 08:33	25°♄42'00	2.64847 AU
	-8500 May 01 j 14:42	0°♄			-8495 Mar 30 j 00:59	0°♄	
	-8500 Jun 13 j 14:51	0°♄		morning rise	-8495 Apr 29 j 20:17	19°♄42'00	
	-8500 Jul 23 j 21:11	0°♄			-8495 May 16 j 00:39	0°♄	
	-8500 Aug 31 j 14:45	0°♄		asc. node	-8495 Jun 03 j 01:58	11°♄28'08	
desc. node	-8500 Sep 17 j 12:08	13°♄14'48			-8495 Jul 02 j 06:47	0°♄	
evening set	-8500 Sep 28 j 17:53	22°♄04'06			-8495 Aug 18 j 16:45	0°♄	
	-8500 Oct 08 j 20:47	0°♄			-8495 Oct 05 j 23:38	0°♄	
	-8500 Nov 16 j 14:13	0°♄			-8495 Nov 26 j 21:24	0°♄	
				retrograde	-8494 Feb 12 j 03:41	26°♄01'34	
conjunction	-8500 Dec 01 j 06:40	11°♄09'12	-0°50'27	opposition	-8494 Mar 15 j 00:19	20°♄48'36	4°08'20
minimum elong	-8500 Dec 01 j 03:30	11°♄03'13	0°50'27	greatest brilliancy	-8494 Mar 15 j 20:03	20°♄34'58	-2.8m
	-8500 Dec 26 j 14:25	0°♄		min. Earth dist.	-8494 Mar 19 j 07:37	19°♄37'26	0.39311 AU
max. Earth dist.	-8499 Jan 16 j 03:57	14°♄54'46	2.46073 AU	direct	-8494 Apr 16 j 00:58	15°♄06'26	
morning rise	-8499 Feb 01 j 00:45	26°♄10'14		desc. node	-8494 May 10 j 19:53	18°♄59'27	



## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 41

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8494 Jun 06 j 19:26	0°♏		max. Earth dist.	-8489 Jun 09 j 01:00	22°♑42'46	2.54554 AU
	-8494 Jul 27 j 18:36	0°♎			-8489 Jun 19 j 15:37	0°♎	
	-8494 Sep 10 j 17:36	0°♎					
	-8494 Oct 24 j 23:00	0°♎		conjunction	-8489 Jul 10 j 12:51	14°♎37'01	1°11'25
	-8494 Dec 08 j 20:24	0°♎		minimum elong	-8489 Jul 10 j 12:11	14°♎35'50	1°11'45
	-8493 Jan 23 j 19:27	0°♎			-8489 Jul 31 j 23:44	0°♎	
evening set	-8493 Mar 04 j 01:00	25°♎10'22		morning rise	-8489 Aug 31 j 12:49	22°♎30'47	
	-8493 Mar 11 j 14:33	0°♎			-8489 Sep 10 j 12:06	0°♎	
max. Earth dist.	-8493 Apr 16 j 21:07	23°♎08'30	2.66655 AU		-8489 Oct 19 j 19:13	0°♏	
asc. node	-8493 Apr 20 j 18:38	25°♎38'01			-8489 Nov 27 j 15:03	0°♎	
				desc. node	-8489 Dec 31 j 18:48	26°♎09'37	
conjunction	-8493 Apr 21 j 01:07	25°♎48'21	0°00'09		-8488 Jan 05 j 20:42	0°♎	
minimum elong	-8493 Apr 21 j 01:06	25°♎48'19	0°00'13		-8488 Feb 15 j 13:10	0°♎	
behind sun begin	-8493 Apr 20 j 05:50	25°♎17'32			-8488 Mar 30 j 04:07	0°♎	
behind sun end	-8493 Apr 21 j 20:22	26°♎19'06			-8488 May 19 j 10:36	0°♎	
	-8493 Apr 27 j 14:24	0°♎		retrograde	-8488 Jul 25 j 20:47	21°♎33'14	
morning rise	-8493 Jun 06 j 07:03	25°♎35'00		min. Earth dist.	-8488 Aug 31 j 06:03	13°♎02'14	0.63299 AU
	-8493 Jun 13 j 01:57	0°♑		opposition	-8488 Sep 03 j 19:33	11°♎36'34	-3°34'13
	-8493 Jul 28 j 13:34	0°♎		greatest brilliancy	-8488 Sep 03 j 10:00	11°♎46'08	-1.5m
	-8493 Sep 10 j 23:13	0°♎		direct	-8488 Oct 12 j 06:10	2°♎30'57	
	-8493 Oct 24 j 13:05	0°♎		asc. node	-8488 Dec 10 j 19:34	18°♎31'09	
	-8493 Dec 06 j 21:27	0°♏			-8487 Jan 03 j 17:19	0°♎	
	-8492 Jan 20 j 11:29	0°♎			-8487 Feb 26 j 12:16	0°♎	
	-8492 Mar 12 j 09:13	0°♎			-8487 Apr 15 j 20:04	0°♑	
desc. node	-8492 Mar 27 j 22:48	6°♎27'54			-8487 May 30 j 17:53	0°♎	
retrograde	-8492 Apr 26 j 22:58	12°♎11'46		evening set	-8487 Jul 06 j 12:31	26°♎03'23	
min. Earth dist.	-8492 May 23 j 22:29	7°♎29'47	0.41831 AU		-8487 Jul 11 j 22:23	0°♎	
greatest brilliancy	-8492 May 29 j 22:42	5°♎37'58	-2.6m	max. Earth dist.	-8487 Jul 25 j 15:29	10°♎06'35	2.42630 AU
opposition	-8492 May 31 j 02:52	5°♎15'55	-4°17'52		-8487 Aug 21 j 01:00	0°♎	
	-8492 Jun 22 j 07:08	30°♎					
direct	-8492 Jul 01 j 09:24	29°♎27'20		conjunction	-8487 Aug 31 j 16:57	8°♎10'17	0°52'27
	-8492 Jul 10 j 13:36	0°♎		minimum elong	-8487 Aug 31 j 19:42	8°♎15'35	0°52'58
	-8492 Sep 24 j 03:14	0°♎			-8487 Sep 28 j 20:11	0°♏	
	-8492 Nov 14 j 11:25	0°♎		morning rise	-8487 Nov 02 j 01:22	26°♏46'46	
	-8491 Jan 02 j 09:54	0°♎			-8487 Nov 06 j 04:14	0°♎	
	-8491 Feb 19 j 16:28	0°♎		desc. node	-8487 Nov 17 j 12:03	8°♎49'52	
asc. node	-8491 Mar 07 j 14:39	9°♎58'49			-8487 Dec 14 j 22:17	0°♎	
	-8491 Apr 08 j 06:12	0°♎			-8486 Jan 23 j 22:59	0°♎	
evening set	-8491 Apr 11 j 03:22	1°♎50'19			-8486 Mar 07 j 02:34	0°♎	
max. Earth dist.	-8491 May 10 j 15:19	20°♎50'55	2.63097 AU		-8486 Apr 21 j 10:31	0°♎	
	-8491 May 24 j 14:56	0°♑			-8486 Jun 11 j 12:42	0°♎	
				retrograde	-8486 Aug 30 j 01:25	26°♎38'02	
conjunction	-8491 May 28 j 18:13	2°♑43'39	0°44'32	opposition	-8486 Oct 08 j 20:22	16°♎58'10	-0°46'34
minimum elong	-8491 May 28 j 16:48	2°♑41'18	0°44'29	greatest brilliancy	-8486 Oct 08 j 20:47	16°♎57'46	-1.4m
	-8491 Jul 08 j 08:08	0°♎		min. Earth dist.	-8486 Oct 09 j 00:37	16°♎53'54	0.66728 AU
morning rise	-8491 Jul 14 j 19:44	4°♎27'02		asc. node	-8486 Oct 29 j 00:53	9°♎50'23	
	-8491 Aug 20 j 07:16	0°♎		direct	-8486 Nov 18 j 05:40	7°♎11'04	
	-8491 Sep 30 j 17:45	0°♎			-8485 Jan 30 j 23:00	0°♎	
	-8491 Nov 10 j 03:00	0°♏			-8485 Mar 25 j 09:21	0°♑	
	-8491 Dec 20 j 03:42	0°♎			-8485 May 10 j 18:52	0°♎	
	-8490 Jan 29 j 22:05	0°♎			-8485 Jun 22 j 09:22	0°♎	
desc. node	-8490 Feb 12 j 22:25	9°♎58'41			-8485 Aug 01 j 12:17	0°♎	
	-8490 Mar 14 j 10:55	0°♎		evening set	-8485 Sep 03 j 13:57	25°♎36'51	
	-8490 May 07 j 05:06	0°♎			-8485 Sep 09 j 04:24	0°♏	
retrograde	-8490 Jun 17 j 13:27	10°♎02'47		desc. node	-8485 Oct 05 j 07:06	20°♏30'48	
min. Earth dist.	-8490 Jul 19 j 02:06	3°♎20'24	0.54055 AU		-8485 Oct 17 j 09:09	0°♎	
greatest brilliancy	-8490 Jul 24 j 20:59	1°♎08'23	-1.9m				
opposition	-8490 Jul 26 j 04:21	0°♎38'29	-5°37'01	conjunction	-8485 Nov 06 j 04:51	15°♎28'04	-0°23'44
	-8490 Jul 27 j 21:05	30°♎		minimum elong	-8485 Nov 06 j 02:43	15°♎23'57	0°23'30
direct	-8490 Aug 30 j 11:03	22°♎48'42			-8485 Nov 25 j 00:54	0°♎	
	-8490 Oct 06 j 03:29	0°♎		max. Earth dist.	-8485 Dec 20 j 00:37	18°♎55'10	2.41143 AU
	-8490 Dec 08 j 20:57	0°♎			-8484 Jan 03 j 23:17	0°♎	
asc. node	-8489 Jan 23 j 15:11	26°♎07'59		morning rise	-8484 Jan 10 j 03:02	4°♎30'38	
	-8489 Jan 30 j 03:43	0°♎			-8484 Feb 14 j 19:49	0°♎	
	-8489 Mar 20 j 06:52	0°♎			-8484 Mar 30 j 02:08	0°♎	
	-8489 May 06 j 02:47	0°♑			-8484 May 16 j 06:42	0°♎	
evening set	-8489 May 21 j 15:02	10°♑16'27			-8484 Jul 07 j 04:12	0°♎	

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Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

asc. node	-8484 Sep 15 j 03:36	28° $\text{K}$ 45'21		-8479 Jun 27 j 09:01	0° $\Omega$	
	-8484 Sep 22 j 06:35	0° $\Upsilon$		-8479 Aug 09 j 20:26	0° $\text{M}$	
retrograde	-8484 Oct 04 j 06:59	0° $\Upsilon$ 51'54		-8479 Sep 21 j 01:23	0° $\Omega$	
	-8484 Oct 15 j 20:28	30° $\text{K}$		-8479 Nov 02 j 18:14	0° $\text{M}$	
opposition	-8484 Nov 11 j 20:31	21° $\text{K}$ 54'27	2°13'57	-8479 Dec 16 j 16:50	0° $\text{J}$	
greatest brilliancy	-8484 Nov 12 j 02:36	21° $\text{K}$ 48'30	-1.5m	-8478 Jan 31 j 01:40	0° $\text{Z}$	
min. Earth dist.	-8484 Nov 15 j 18:01	20° $\text{K}$ 22'46	0.63991 AU	-8478 Feb 16 j 05:47	10° $\text{Z}$ 30'13	
direct	-8484 Dec 22 j 21:20	11° $\text{K}$ 54'55		-8478 Mar 18 j 12:57	0° $\approx$	
	-8483 Feb 23 j 03:45	0° $\Upsilon$				
	-8483 Apr 16 j 19:05	0° $\text{B}$		conjunction	-8478 Apr 06 j 00:53	11° $\approx$ 50'04 -0°17'55
	-8483 May 31 j 04:24	0° $\text{II}$		minimum elong	-8478 Apr 06 j 01:35	11° $\approx$ 51'11 0°18'21
	-8483 Jul 10 j 23:31	0° $\text{E}$		max. Earth dist.	-8478 Apr 07 j 09:55	12° $\approx$ 42'51 2.66580 AU
	-8483 Aug 18 j 23:35	0° $\Omega$			-8478 May 04 j 11:06	0° $\text{K}$
desc. node	-8483 Aug 22 j 05:43	2° $\Omega$ 32'09		asc. node	-8478 May 07 j 13:00	1° $\text{K}$ 58'11
	-8483 Sep 26 j 10:12	0° $\text{M}$		morning rise	-8478 May 22 j 18:05	11° $\text{K}$ 42'51
	-8483 Nov 04 j 07:53	0° $\Omega$			-8478 Jun 20 j 03:38	0° $\Upsilon$
evening set	-8483 Nov 08 j 02:36	2° $\Omega$ 52'16			-8478 Aug 05 j 04:37	0° $\text{B}$
	-8483 Dec 14 j 12:22	0° $\text{M}$			-8478 Sep 19 j 15:09	0° $\text{II}$
					-8478 Nov 03 j 22:50	0° $\text{E}$
conjunction	-8482 Jan 06 j 23:40	16° $\text{M}$ 55'53	-1°10'46		-8478 Dec 20 j 10:36	0° $\Omega$
minimum elong	-8482 Jan 06 j 22:47	16° $\text{M}$ 54'17	1°11'07		-8477 Feb 11 j 13:34	0° $\text{M}$
	-8482 Jan 25 j 13:05	0° $\text{J}$		retrograde	-8477 Apr 01 j 08:51	13° $\text{M}$ 14'18
max. Earth dist.	-8482 Feb 12 j 01:19	12° $\text{J}$ 04'36	2.53570 AU	desc. node	-8477 Apr 14 j 15:47	12° $\text{M}$ 05'24
morning rise	-8482 Mar 04 j 05:08	25° $\text{J}$ 41'54		min. Earth dist.	-8477 Apr 29 j 08:42	8° $\text{M}$ 38'47 0.38648 AU
	-8482 Mar 10 j 16:05	0° $\text{Z}$		opposition	-8477 May 03 j 04:58	7° $\text{M}$ 34'46 -1°26'54
	-8482 Apr 25 j 20:21	0° $\approx$		greatest brilliancy	-8477 May 02 j 22:36	7° $\text{M}$ 39'11 -2.9m
	-8482 Jun 13 j 01:59	0° $\text{K}$		direct	-8477 Jun 02 j 07:53	2° $\text{M}$ 26'05
asc. node	-8482 Aug 03 j 01:23	29° $\text{K}$ 49'43			-8477 Aug 19 j 03:55	0° $\Omega$
	-8482 Aug 03 j 08:46	0° $\Upsilon$			-8477 Oct 08 j 08:52	0° $\text{M}$
	-8482 Oct 04 j 04:16	0° $\text{B}$			-8477 Nov 24 j 23:01	0° $\text{J}$
retrograde	-8482 Nov 16 j 03:42	9° $\text{B}$ 13'31			-8476 Jan 11 j 08:30	0° $\text{Z}$
opposition	-8482 Dec 22 j 07:20	1° $\text{B}$ 27'43	5°06'35		-8476 Feb 27 j 21:31	0° $\approx$
greatest brilliancy	-8482 Dec 23 j 12:12	1° $\text{B}$ 01'09	-1.8m	asc. node	-8476 Mar 24 j 07:03	16° $\approx$ 04'10
	-8482 Dec 26 j 06:27	30° $\text{K}$		evening set	-8476 Mar 27 j 00:20	17° $\approx$ 47'45
min. Earth dist.	-8482 Dec 29 j 15:27	28° $\Upsilon$ 46'02	0.55313 AU		-8476 Apr 15 j 04:06	0° $\text{K}$
direct	-8481 Jan 31 j 02:14	22° $\Upsilon$ 05'20		max. Earth dist.	-8476 Apr 30 j 20:10	10° $\text{K}$ 03'14 2.65110 AU
	-8481 Mar 09 j 04:58	0° $\text{B}$				
	-8481 May 04 j 13:47	0° $\text{II}$		conjunction	-8476 May 13 j 12:18	18° $\text{K}$ 14'50 0°28'18
	-8481 Jun 17 j 09:26	0° $\text{E}$		minimum elong	-8476 May 13 j 11:18	18° $\text{K}$ 13'12 0°28'06
desc. node	-8481 Jul 10 j 07:00	16° $\text{E}$ 49'37			-8476 May 31 j 12:37	0° $\Upsilon$
	-8481 Jul 27 j 19:29	0° $\Omega$		morning rise	-8476 Jun 28 j 21:19	18° $\Upsilon$ 48'41
	-8481 Sep 05 j 04:57	0° $\text{M}$			-8476 Jul 15 j 11:12	0° $\text{B}$
	-8481 Oct 14 j 21:45	0° $\Omega$			-8476 Aug 27 j 20:53	0° $\text{II}$
	-8481 Nov 24 j 19:20	0° $\text{M}$			-8476 Oct 08 j 22:14	0° $\text{E}$
evening set	-8480 Jan 03 j 06:45	27° $\text{M}$ 49'51			-8476 Nov 19 j 02:10	0° $\Omega$
	-8480 Jan 06 j 10:13	0° $\text{J}$			-8476 Dec 30 j 02:29	0° $\text{M}$
	-8480 Feb 19 j 21:44	0° $\text{Z}$			-8475 Feb 10 j 10:14	0° $\Omega$
				desc. node	-8475 Mar 01 j 16:30	12° $\Omega$ 50'06
conjunction	-8480 Feb 25 j 01:04	3° $\text{Z}$ 23'38	-0°58'00		-8475 Mar 30 j 03:16	0° $\text{M}$
minimum elong	-8480 Feb 25 j 02:43	3° $\text{Z}$ 26'22	0°58'33	retrograde	-8475 May 30 j 13:26	20° $\text{M}$ 20'02
max. Earth dist.	-8480 Mar 13 j 11:25	14° $\text{Z}$ 48'38	2.62652 AU	min. Earth dist.	-8475 Jun 28 j 23:18	14° $\text{M}$ 29'06 0.49228 AU
	-8480 Apr 05 j 23:08	0° $\approx$		greatest brilliancy	-8475 Jul 05 j 09:01	12° $\text{M}$ 10'33 -2.2m
morning rise	-8480 Apr 14 j 20:05	5° $\approx$ 41'19		opposition	-8475 Jul 06 j 22:44	11° $\text{M}$ 36'24 -5°48'45
	-8480 May 23 j 02:28	0° $\text{K}$		direct	-8475 Aug 09 j 15:19	4° $\text{M}$ 29'27
asc. node	-8480 Jun 19 j 19:54	17° $\text{K}$ 26'04			-8475 Oct 26 j 00:30	0° $\text{J}$
	-8480 Jul 09 j 23:01	0° $\Upsilon$			-8475 Dec 19 j 00:27	0° $\text{Z}$
	-8480 Aug 27 j 20:29	0° $\text{B}$			-8474 Feb 07 j 04:22	0° $\approx$
	-8480 Oct 18 j 23:32	0° $\text{II}$		asc. node	-8474 Feb 09 j 05:57	1° $\approx$ 15'36
	-8479 Jan 10 j 00:57	0° $\text{E}$			-8474 Mar 27 j 13:06	0° $\text{K}$
retrograde	-8479 Jan 13 j 08:29	0° $\text{E}$ 04'07		evening set	-8474 May 05 j 09:50	24° $\text{K}$ 56'23
	-8479 Jan 16 j 15:35	30° $\text{K}$			-8474 May 13 j 03:10	0° $\Upsilon$
opposition	-8479 Feb 14 j 14:33	24° $\text{II}$ 11'37	5°55'11	max. Earth dist.	-8474 May 27 j 13:33	9° $\Upsilon$ 33'53 2.58449 AU
greatest brilliancy	-8479 Feb 16 j 05:41	23° $\text{II}$ 41'27	-2.5m			
min. Earth dist.	-8479 Feb 21 j 23:53	21° $\text{II}$ 56'02	0.43003 AU	conjunction	-8474 Jun 23 j 00:38	27° $\Upsilon$ 28'35 1°04'32
direct	-8479 Mar 21 j 10:50	17° $\text{II}$ 13'56		minimum elong	-8474 Jun 22 j 23:16	27° $\Upsilon$ 26'15 1°04'42
	-8479 May 07 j 09:58	0° $\text{E}$			-8474 Jun 26 j 16:41	0° $\text{B}$
desc. node	-8479 May 27 j 10:51	10° $\text{E}$ 39'36			-8474 Aug 08 j 05:31	0° $\text{II}$

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

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

morning rise	-8474 Aug 11 j 10:48	2° $\Pi$ 19'36		retrograde	-8469 Sep 20 j 19:07	17° $\text{X}$ 33'44	
	-8474 Sep 18 j 00:46	0° $\mathfrak{D}$		asc. node	-8469 Oct 02 j 17:22	16° $\text{X}$ 38'07	
	-8474 Oct 27 j 15:44	0° $\Omega$		opposition	-8469 Oct 29 j 23:15	8° $\text{X}$ 16'50	1°03'25
	-8474 Dec 05 j 19:40	0° $\mathfrak{M}$		greatest brilliancy	-8469 Oct 30 j 00:53	8° $\text{X}$ 15'13	-1.4m
	-8473 Jan 14 j 10:18	0° $\underline{\Omega}$		min. Earth dist.	-8469 Nov 01 j 10:10	7° $\text{X}$ 18'21	0.65791 AU
desc. node	-8473 Jan 17 j 13:28	2° $\underline{\Omega}$ 19'58			-8469 Nov 23 j 18:48	30° $\text{R}$ $\approx$	
	-8473 Feb 24 j 17:13	0° $\mathfrak{M}$		direct	-8469 Dec 09 j 22:20	28° $\approx$ 18'01	
	-8473 Apr 10 j 20:57	0° $\text{X}$			-8469 Dec 26 j 22:51	0° $\text{X}$	
	-8473 Jun 08 j 11:20	0° $\mathfrak{Z}$			-8468 Mar 08 j 03:18	0° $\Upsilon$	
	-8473 Jul 12 j 10:41	6° $\mathfrak{Z}$ 45'44			-8468 Apr 26 j 02:19	0° $\mathfrak{B}$	
retrograde	-8473 Aug 13 j 04:30	30° $\text{R}$ $\text{X}$			-8468 Jun 08 j 12:43	0° $\Pi$	
	-8473 Aug 16 j 02:10	28° $\text{X}$ 52'23	0.60330 AU		-8468 Jul 18 j 23:04	0° $\mathfrak{D}$	
	-8473 Aug 20 j 09:08	27° $\text{X}$ 10'24	-1.6m		-8468 Aug 26 j 18:34	0° $\Omega$	
	-8473 Aug 21 j 02:29	26° $\text{X}$ 53'11	-4°30'54	desc. node	-8468 Sep 07 j 22:44	9° $\Omega$ 31'50	
	-8473 Sep 27 j 11:10	18° $\text{X}$ 12'14			-8468 Oct 04 j 01:44	0° $\mathfrak{M}$	
asc. node	-8473 Nov 15 j 20:26	0° $\mathfrak{Z}$		evening set	-8468 Oct 13 j 14:36	7° $\mathfrak{M}$ 26'32	
	-8473 Dec 28 j 08:46	20° $\mathfrak{Z}$ 13'33			-8468 Nov 11 j 19:54	0° $\underline{\Omega}$	
	-8472 Jan 15 j 09:02	0° $\approx$					
	-8472 Mar 06 j 15:58	0° $\text{X}$		conjunction	-8468 Dec 15 j 04:43	25° $\underline{\Omega}$ 05'24	-1°00'57
	-8472 Apr 23 j 05:58	0° $\Upsilon$		minimum elong	-8468 Dec 15 j 02:04	25° $\underline{\Omega}$ 00'30	1°01'06
evening set	-8472 Jun 06 j 22:59	0° $\mathfrak{B}$			-8468 Dec 21 j 20:47	0° $\mathfrak{M}$	
	-8472 Jun 17 j 02:02	7° $\mathfrak{B}$ 02'48		max. Earth dist.	-8467 Jan 27 j 05:36	26° $\mathfrak{M}$ 07'19	2.48856 AU
	-8472 Jul 02 j 13:15	17° $\mathfrak{B}$ 59'38	2.47465 AU		-8467 Feb 01 j 18:26	0° $\text{X}$	
	-8472 Jul 19 j 04:18	0° $\Pi$		morning rise	-8467 Feb 12 j 22:32	7° $\text{X}$ 44'53	
					-8467 Mar 17 j 20:34	0° $\mathfrak{Z}$	
conjunction	-8472 Aug 09 j 05:28	15° $\Pi$ 32'20	1°07'32		-8467 May 03 j 06:07	0° $\approx$	
	-8472 Aug 09 j 07:00	15° $\Pi$ 35'12	1°08'04		-8467 Jun 21 j 08:56	0° $\text{X}$	
	-8472 Aug 28 j 09:59	0° $\mathfrak{D}$			-8467 Aug 14 j 20:07	0° $\Upsilon$	
	-8472 Oct 06 j 03:35	29° $\mathfrak{D}$ 49'46		asc. node	-8467 Aug 19 j 17:51	2° $\Upsilon$ 24'47	
	-8472 Oct 06 j 08:50	0° $\Omega$		retrograde	-8467 Oct 29 j 05:20	23° $\Upsilon$ 36'12	
desc. node	-8472 Nov 13 j 20:13	0° $\mathfrak{M}$		opposition	-8467 Dec 05 j 11:50	15° $\Upsilon$ 17'49	4°03'23
	-8472 Dec 04 j 09:22	15° $\mathfrak{M}$ 56'32		greatest brilliancy	-8467 Dec 06 j 06:17	15° $\Upsilon$ 00'15	-1.7m
	-8472 Dec 22 j 16:56	0° $\underline{\Omega}$		min. Earth dist.	-8467 Dec 11 j 14:04	12° $\Upsilon$ 58'53	0.59365 AU
	-8471 Jan 31 j 20:51	0° $\mathfrak{M}$		direct	-8466 Jan 15 j 01:51	5° $\Upsilon$ 31'54	
	-8471 Mar 15 j 07:55	0° $\text{X}$			-8466 Mar 28 j 18:41	0° $\mathfrak{B}$	
retrograde	-8471 Apr 30 j 15:37	0° $\mathfrak{Z}$			-8466 May 15 j 22:30	0° $\Pi$	
	-8471 Jun 25 j 08:25	0° $\approx$			-8466 Jun 27 j 00:01	0° $\mathfrak{D}$	
	-8471 Aug 16 j 13:19	13° $\approx$ 33'26		desc. node	-8466 Jul 26 j 23:13	22° $\mathfrak{D}$ 35'23	
	-8471 Sep 24 j 06:35	4° $\approx$ 14'15	0.66115 AU		-8466 Aug 05 j 15:15	0° $\Omega$	
	-8471 Sep 25 j 13:08	3° $\approx$ 43'31	-1°53'48		-8466 Sep 13 j 12:25	0° $\mathfrak{M}$	
greatest brilliancy	-8471 Sep 25 j 11:38	3° $\approx$ 45'01	-1.4m		-8466 Oct 22 j 19:05	0° $\underline{\Omega}$	
	-8471 Oct 05 j 02:49	30° $\text{R}$ $\mathfrak{Z}$			-8466 Dec 02 j 07:50	0° $\mathfrak{M}$	
	-8471 Nov 04 j 07:35	24° $\mathfrak{Z}$ 09'19		evening set	-8466 Dec 14 j 02:11	8° $\mathfrak{M}$ 28'47	
	-8471 Nov 14 j 13:32	24° $\mathfrak{Z}$ 47'08			-8465 Jan 13 j 15:26	0° $\text{X}$	
	-8471 Dec 07 j 16:12	0° $\approx$					
direct	-8470 Feb 11 j 06:30	0° $\text{X}$		conjunction	-8465 Feb 07 j 06:56	16° $\text{X}$ 51'32	-1°07'50
	-8470 Apr 02 j 21:04	0° $\Upsilon$		minimum elong	-8465 Feb 07 j 08:09	16° $\text{X}$ 53'36	1°08'21
	-8470 May 18 j 12:19	0° $\mathfrak{B}$			-8465 Feb 26 j 22:00	0° $\mathfrak{Z}$	
	-8470 Jun 29 j 21:35	0° $\Pi$		max. Earth dist.	-8465 Mar 03 j 18:02	3° $\mathfrak{Z}$ 12'05	2.59691 AU
	-8470 Aug 08 j 23:39	0° $\mathfrak{D}$		morning rise	-8465 Mar 31 j 03:10	21° $\mathfrak{Z}$ 06'09	
evening set	-8470 Aug 09 j 20:54	0° $\mathfrak{D}$ 40'39			-8465 Apr 13 j 22:35	0° $\approx$	
	-8470 Sep 16 j 16:20	0° $\Omega$			-8465 May 31 j 08:31	0° $\text{X}$	
				asc. node	-8465 Jul 07 j 13:50	23° $\text{X}$ 00'11	
	-8470 Oct 10 j 06:15	18° $\Omega$ 30'40	0°09'02		-8465 Jul 19 j 02:14	0° $\Upsilon$	
	-8470 Oct 10 j 07:07	18° $\Omega$ 32'22	0°09'27		-8465 Sep 08 j 09:43	0° $\mathfrak{B}$	
behind sun begin	-8470 Oct 09 j 08:29	17° $\Omega$ 47'55			-8465 Nov 09 j 17:17	0° $\Pi$	
	-8470 Oct 11 j 05:46	19° $\Omega$ 16'49		retrograde	-8465 Dec 19 j 14:09	8° $\Pi$ 08'13	
	-8470 Oct 18 j 03:06	24° $\Omega$ 41'18	2.38031 AU	opposition	-8464 Jan 22 j 10:17	1° $\Pi$ 27'20	6°10'48
	-8470 Oct 22 j 03:06	27° $\Omega$ 49'35		greatest brilliancy	-8464 Jan 24 j 04:34	0° $\Pi$ 51'39	-2.2m
	-8470 Oct 24 j 21:39	0° $\mathfrak{M}$			-8464 Jan 26 j 17:32	30° $\text{R}$ $\mathfrak{B}$	
morning rise	-8470 Dec 02 j 13:12	0° $\underline{\Omega}$		min. Earth dist.	-8464 Jan 30 j 17:06	28° $\mathfrak{B}$ 40'19	0.47847 AU
	-8470 Dec 15 j 09:18	9° $\underline{\Omega}$ 46'52		direct	-8464 Feb 28 j 19:14	23° $\mathfrak{B}$ 16'46	
	-8469 Jan 11 j 10:59	0° $\mathfrak{M}$			-8464 Apr 01 j 21:28	0° $\Pi$	
	-8469 Feb 22 j 07:54	0° $\text{X}$			-8464 May 27 j 21:12	0° $\mathfrak{D}$	
	-8469 Apr 07 j 19:17	0° $\mathfrak{Z}$		desc. node	-8464 Jun 13 j 02:48	10° $\mathfrak{D}$ 48'38	
evening set	-8469 May 25 j 20:38	0° $\approx$			-8464 Jul 10 j 09:51	0° $\Omega$	
	-8469 Jul 20 j 11:47	0° $\text{X}$			-8464 Aug 20 j 10:12	0° $\mathfrak{M}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 44

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8464 Sep 30 j 05:44	0°♎			-8459 Aug 15 j 12:46	0°♊		
	-8464 Nov 10 j 23:48	0°♌			-8459 Sep 25 j 17:41	0°♉		
	-8464 Dec 24 j 06:23	0°♏			-8459 Nov 04 j 19:48	0°♈		
evening set	-8463 Jan 30 j 17:00	25°♏04'31			-8459 Dec 14 j 11:52	0°♐		
	-8463 Feb 07 j 04:31	0°♑			-8458 Jan 23 j 17:16	0°♑		
				desc. node	-8458 Feb 03 j 09:53	7°♑46'37		
conjunction	-8463 Mar 21 j 16:24	27°♑35'32	-0°35'04		-8458 Mar 07 j 02:38	0°♌		
minimum elong	-8463 Mar 21 j 17:42	27°♑37'37	0°35'35		-8458 Apr 24 j 17:35	0°♏		
	-8463 Mar 25 j 10:18	0°♐		retrograde	-8458 Jun 27 j 00:31	20°♏32'16		
max. Earth dist.	-8463 Mar 28 j 23:56	2°♐17'24	2.65694 AU	min. Earth dist.	-8458 Jul 29 j 16:27	13°♏23'15	0.56470 AU	
morning rise	-8463 May 08 j 06:05	28°♐00'50		greatest brilliancy	-8458 Aug 03 j 23:53	11°♏19'52	-1.8m	
	-8463 May 11 j 08:50	0°♐		opposition	-8458 Aug 05 j 02:16	10°♏54'14	-5°17'50	
asc. node	-8463 May 24 j 07:00	8°♐14'23		direct	-8458 Sep 10 j 04:23	2°♏44'18		
	-8463 Jun 27 j 09:09	0°♑			-8458 Dec 01 j 07:31	0°♑		
	-8463 Aug 13 j 05:03	0°♒		asc. node	-8457 Jan 13 j 22:04	23°♑50'09		
	-8463 Sep 29 j 04:53	0°♊			-8457 Jan 24 j 13:39	0°♐		
	-8463 Nov 16 j 16:17	0°♉			-8457 Mar 15 j 08:37	0°♐		
	-8462 Jan 11 j 07:33	0°♈			-8457 May 01 j 10:43	0°♑		
retrograde	-8462 Mar 02 j 00:04	12°♈52'29		evening set	-8457 May 31 j 06:48	19°♑53'01		
opposition	-8462 Apr 01 j 15:27	7°♈46'09	2°19'23		-8457 Jun 15 j 01:17	0°♒		
greatest brilliancy	-8462 Apr 01 j 21:49	7°♈41'52	-2.9m	max. Earth dist.	-8457 Jun 17 j 00:29	1°♒21'39	2.52146 AU	
min. Earth dist.	-8462 Apr 03 j 03:47	7°♈21'44	0.38212 AU					
desc. node	-8462 May 01 j 06:39	2°♈32'37		conjunction	-8457 Jul 21 j 03:26	25°♒29'46	1°12'25	
direct	-8462 May 02 j 13:00	2°♈31'59		minimum elong	-8457 Jul 21 j 03:27	25°♒29'47	1°12'49	
	-8462 Jul 17 j 03:26	0°♐			-8457 Jul 27 j 08:42	0°♊		
	-8462 Sep 03 j 08:46	0°♑			-8457 Sep 05 j 18:44	0°♉		
	-8462 Oct 18 j 22:45	0°♌		morning rise	-8457 Sep 12 j 23:31	5°♉27'37		
	-8462 Dec 03 j 13:35	0°♏			-8457 Oct 14 j 22:40	0°♈		
	-8461 Jan 18 j 22:27	0°♑			-8457 Nov 22 j 15:05	0°♐		
	-8461 Mar 06 j 22:43	0°♐		desc. node	-8457 Dec 22 j 04:41	22°♐46'09		
evening set	-8461 Mar 12 j 20:35	3°♐45'33			-8457 Dec 31 j 16:40	0°♑		
asc. node	-8461 Apr 11 j 00:19	22°♐19'29			-8456 Feb 10 j 02:55	0°♌		
max. Earth dist.	-8461 Apr 22 j 08:49	29°♐34'48	2.66345 AU		-8456 Mar 24 j 03:56	0°♏		
	-8461 Apr 23 j 00:33	0°♐			-8456 May 11 j 08:35	0°♑		
					-8456 Aug 01 j 00:36	0°♐		
conjunction	-8461 Apr 29 j 13:39	4°♐11'44	0°10'40	retrograde	-8456 Aug 02 j 21:38	0°♐01'24		
minimum elong	-8461 Apr 29 j 13:15	4°♐11'06	0°10'22		-8456 Aug 04 j 18:25	30°♒♑		
behind sun begin	-8461 Apr 28 j 22:18	3°♐47'08		min. Earth dist.	-8456 Sep 09 j 04:06	21°♑11'50	0.64550 AU	
behind sun end	-8461 Apr 30 j 04:12	4°♐35'04		opposition	-8456 Sep 11 j 21:46	20°♑05'50	-2°58'35	
	-8461 Jun 08 j 10:51	0°♑		greatest brilliancy	-8456 Sep 11 j 15:47	20°♑11'51	-1.5m	
morning rise	-8461 Jun 14 j 17:34	4°♑06'39		direct	-8456 Oct 20 j 20:48	10°♑48'48		
	-8461 Jul 23 j 17:37	0°♒		asc. node	-8456 Dec 01 j 02:56	19°♑21'29		
	-8461 Sep 05 j 17:54	0°♊			-8456 Dec 26 j 11:26	0°♐		
	-8461 Oct 18 j 16:30	0°♉			-8455 Feb 20 j 19:30	0°♐		
	-8461 Nov 30 j 01:09	0°♈			-8455 Apr 10 j 20:01	0°♑		
	-8460 Jan 11 j 19:39	0°♐			-8455 May 25 j 23:59	0°♒		
	-8460 Feb 26 j 19:39	0°♑			-8455 Jul 07 j 06:36	0°♊		
desc. node	-8460 Mar 18 j 10:39	11°♑33'16		evening set	-8455 Jul 18 j 07:59	8°♊08'06		
retrograde	-8460 May 10 j 01:54	27°♑21'37		max. Earth dist.	-8455 Aug 13 j 06:41	27°♊37'49	2.40252 AU	
min. Earth dist.	-8460 Jun 06 j 15:35	22°♑19'28	0.44277 AU		-8455 Aug 16 j 09:15	0°♉		
greatest brilliancy	-8460 Jun 13 j 02:07	20°♑11'33	-2.5m					
opposition	-8460 Jun 14 j 13:54	19°♑41'42	-5°12'41	conjunction	-8455 Sep 14 j 09:13	22°♉23'04	0°39'09	
direct	-8460 Jul 16 j 15:22	13°♑24'46		minimum elong	-8455 Sep 14 j 11:58	22°♉28'26	0°39'39	
	-8460 Sep 12 j 23:33	0°♌			-8455 Sep 24 j 03:23	0°♈		
	-8460 Nov 07 j 16:52	0°♏			-8455 Nov 01 j 10:03	0°♐		
	-8460 Dec 27 j 22:38	0°♑		desc. node	-8455 Nov 07 j 22:49	5°♐06'25		
	-8459 Feb 14 j 18:39	0°♐		morning rise	-8455 Nov 17 j 18:19	12°♐45'18		
asc. node	-8459 Feb 25 j 20:44	6°♐53'29			-8455 Dec 10 j 02:24	0°♑		
	-8459 Apr 03 j 14:32	0°♐			-8454 Jan 19 j 00:51	0°♌		
evening set	-8459 Apr 19 j 21:29	10°♐24'21			-8454 Mar 02 j 00:27	0°♏		
max. Earth dist.	-8459 May 16 j 15:50	27°♐46'31	2.61654 AU		-8454 Apr 15 j 21:45	0°♑		
	-8459 May 20 j 01:08	0°♑			-8454 Jun 04 j 11:16	0°♐		
					-8454 Aug 09 j 08:25	0°♐		
conjunction	-8459 Jun 06 j 17:32	11°♑43'37	0°52'50	retrograde	-8454 Sep 06 j 21:53	4°♐31'54		
minimum elong	-8459 Jun 06 j 16:00	11°♑41'05	0°52'52		-8454 Oct 03 j 05:36	30°♒♐		
	-8459 Jul 03 j 17:10	0°♒		opposition	-8454 Oct 16 j 12:47	24°♐59'23	-0°06'30	
morning rise	-8459 Jul 24 j 10:05	14°♒21'01		greatest brilliancy	-8454 Oct 16 j 13:00	24°♐59'10	-1.4m	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 45

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

min. Earth dist.	-8454 Oct 17 j 12:49	24° $\approx$ 35'20	0.66652 AU		-8448 Feb 15 j 05:36	0° $\text{Z}$	
asc. node	-8454 Oct 19 j 08:00	23° $\approx$ 52'15					
direct	-8454 Nov 26 j 04:21	15° $\approx$ 06'53		conjunction	-8448 Mar 05 j 16:06	12° $\text{Z}$ 45'09	-0°50'24
	-8453 Jan 21 j 20:22	0° $\text{X}$		minimum elong	-8448 Mar 05 j 17:45	12° $\text{Z}$ 47'50	0°50'57
	-8453 Mar 19 j 10:21	0° $\text{Y}$		max. Earth dist.	-8448 Mar 19 j 09:35	21° $\text{Z}$ 39'58	2.63977 AU
	-8453 May 05 j 13:58	0° $\text{B}$			-8448 Apr 01 j 07:44	0° $\approx$	
	-8453 Jun 17 j 11:14	0° $\text{II}$		morning rise	-8448 Apr 23 j 12:38	14° $\approx$ 12'54	
	-8453 Jul 27 j 16:56	0° $\text{E}$			-8448 May 18 j 08:27	0° $\text{X}$	
	-8453 Sep 04 j 10:16	0° $\text{O}$		asc. node	-8448 Jun 10 j 01:18	14° $\text{X}$ 22'09	
evening set	-8453 Sep 18 j 05:28	10° $\text{O}$ 49'29			-8448 Jul 04 j 20:07	0° $\text{Y}$	
desc. node	-8453 Sep 25 j 17:58	16° $\text{O}$ 44'05			-8448 Aug 21 j 19:43	0° $\text{B}$	
	-8453 Oct 12 j 15:40	0° $\text{P}$			-8448 Oct 10 j 10:34	0° $\text{II}$	
	-8453 Nov 20 j 07:35	0° $\text{L}$			-8448 Dec 05 j 21:58	0° $\text{E}$	
				retrograde	-8447 Jan 29 j 15:32	14° $\text{E}$ 34'33	
conjunction	-8453 Nov 21 j 02:19	0° $\text{L}$ 35'52	-0°39'59	opposition	-8447 Mar 02 j 01:49	9° $\text{E}$ 06'36	5°08'00
minimum elong	-8453 Nov 20 j 23:16	0° $\text{L}$ 30'02	0°39'53	greatest brilliancy	-8447 Mar 03 j 07:58	8° $\text{E}$ 44'48	-2.7m
	-8453 Dec 30 j 05:46	0° $\text{M}$		min. Earth dist.	-8447 Mar 08 j 02:50	7° $\text{E}$ 22'25	0.40745 AU
max. Earth dist.	-8452 Jan 06 j 21:23	5° $\text{M}$ 36'05	2.43799 AU	direct	-8447 Apr 04 j 07:40	2° $\text{E}$ 52'37	
morning rise	-8452 Jan 23 j 10:04	17° $\text{M}$ 32'01		desc. node	-8447 May 18 j 00:13	14° $\text{E}$ 02'23	
	-8452 Feb 10 j 01:27	0° $\text{J}$			-8447 Jun 16 j 22:09	0° $\text{O}$	
	-8452 Mar 25 j 04:30	0° $\text{Z}$			-8447 Aug 02 j 08:28	0° $\text{P}$	
	-8452 May 10 j 23:32	0° $\approx$			-8447 Sep 14 j 19:51	0° $\text{L}$	
	-8452 Jun 30 j 12:43	0° $\text{X}$			-8447 Oct 28 j 05:48	0° $\text{M}$	
	-8452 Aug 31 j 04:26	0° $\text{Y}$			-8447 Dec 11 j 15:11	0° $\text{J}$	
asc. node	-8452 Sep 05 j 10:01	1° $\text{Y}$ 53'16			-8446 Jan 26 j 06:33	0° $\text{Z}$	
retrograde	-8452 Oct 13 j 00:13	9° $\text{Y}$ 10'38		evening set	-8446 Feb 25 j 09:31	19° $\text{Z}$ 25'57	
opposition	-8452 Nov 20 j 04:11	0° $\text{Y}$ 25'50	2°54'34		-8446 Mar 13 j 21:30	0° $\approx$	
greatest brilliancy	-8452 Nov 20 j 14:03	0° $\text{Y}$ 16'14	-1.5m	max. Earth dist.	-8446 Apr 12 j 22:18	19° $\approx$ 10'53	2.66732 AU
	-8452 Nov 21 j 06:44	30° $\text{R}$ $\text{X}$					
min. Earth dist.	-8452 Nov 24 j 21:15	28° $\text{X}$ 35'58	0.62582 AU	conjunction	-8446 Apr 14 j 16:43	20° $\approx$ 18'38	-0°07'30
direct	-8452 Dec 31 j 03:23	20° $\text{X}$ 28'37		minimum elong	-8446 Apr 14 j 17:02	20° $\approx$ 19'07	0°07'54
	-8451 Feb 11 j 16:45	0° $\text{Y}$		behind sun begin	-8446 Apr 13 j 23:49	19° $\approx$ 51'38	
	-8451 Apr 10 j 05:04	0° $\text{B}$		behind sun end	-8446 Apr 15 j 10:15	20° $\approx$ 46'36	
	-8451 May 25 j 13:38	0° $\text{II}$		asc. node	-8446 Apr 27 j 17:22	28° $\approx$ 38'08	
	-8451 Jul 05 j 17:37	0° $\text{E}$			-8446 Apr 29 j 20:33	0° $\text{X}$	
desc. node	-8451 Aug 12 j 15:46	29° $\text{E}$ 01'06		morning rise	-8446 May 31 j 02:15	20° $\text{X}$ 04'07	
	-8451 Aug 13 j 22:09	0° $\text{O}$			-8446 Jun 15 j 10:24	0° $\text{Y}$	
	-8451 Sep 21 j 11:53	0° $\text{P}$			-8446 Jul 31 j 04:08	0° $\text{B}$	
	-8451 Oct 30 j 11:59	0° $\text{L}$			-8446 Sep 14 j 00:15	0° $\text{II}$	
evening set	-8451 Nov 21 j 18:29	16° $\text{L}$ 44'21			-8446 Oct 28 j 06:29	0° $\text{E}$	
	-8451 Dec 09 j 18:25	0° $\text{M}$			-8446 Dec 11 j 17:13	0° $\text{O}$	
					-8445 Jan 27 j 13:36	0° $\text{P}$	
conjunction	-8450 Jan 18 j 21:40	28° $\text{M}$ 38'15	-1°11'55	desc. node	-8445 Apr 05 j 03:31	29° $\text{P}$ 23'55	
minimum elong	-8450 Jan 18 j 21:45	28° $\text{M}$ 38'23	1°12'20		-8445 Apr 09 j 22:24	0° $\text{L}$	
	-8450 Jan 20 j 20:36	0° $\text{J}$		retrograde	-8445 Apr 16 j 23:09	0° $\text{L}$ 20'14	
max. Earth dist.	-8450 Feb 19 j 17:14	20° $\text{J}$ 27'01	2.55947 AU		-8445 Apr 23 j 21:56	30° $\text{R}$ $\text{P}$	
	-8450 Mar 05 j 23:36	0° $\text{Z}$		min. Earth dist.	-8445 May 13 j 23:49	25° $\text{P}$ 47'00	0.40139 AU
morning rise	-8450 Mar 14 j 09:11	5° $\text{Z}$ 33'38		opposition	-8445 May 19 j 23:57	24° $\text{P}$ 01'00	-3°15'29
	-8450 Apr 21 j 01:11	0° $\approx$		greatest brilliancy	-8445 May 19 j 04:48	24° $\text{P}$ 15'11	-2.8m
	-8450 Jun 07 j 21:30	0° $\text{X}$		direct	-8445 Jun 19 j 15:48	18° $\text{P}$ 33'30	
asc. node	-8450 Jul 24 j 07:31	27° $\text{X}$ 51'51			-8445 Aug 04 j 19:52	0° $\text{L}$	
	-8450 Jul 27 j 23:52	0° $\text{Y}$			-8445 Sep 30 j 15:28	0° $\text{M}$	
	-8450 Sep 21 j 23:43	0° $\text{B}$			-8445 Nov 19 j 00:24	0° $\text{J}$	
retrograde	-8450 Nov 27 j 09:00	19° $\text{B}$ 17'08			-8444 Jan 06 j 04:19	0° $\text{Z}$	
opposition	-8449 Jan 01 j 18:40	11° $\text{B}$ 52'21	5°36'50		-8444 Feb 23 j 02:27	0° $\approx$	
greatest brilliancy	-8449 Jan 03 j 05:31	11° $\text{B}$ 21'03	-2.0m	asc. node	-8444 Mar 14 j 12:32	12° $\approx$ 51'10	
min. Earth dist.	-8449 Jan 09 j 15:46	9° $\text{B}$ 02'58	0.52782 AU	evening set	-8444 Apr 04 j 16:55	26° $\approx$ 16'31	
direct	-8449 Feb 09 j 21:43	2° $\text{B}$ 49'28			-8444 Apr 10 j 13:14	0° $\text{X}$	
	-8449 Apr 25 j 23:07	0° $\text{II}$		max. Earth dist.	-8444 May 06 j 14:35	16° $\text{X}$ 44'37	2.64107 AU
	-8449 Jun 10 j 18:51	0° $\text{E}$					
desc. node	-8449 Jun 30 j 18:48	14° $\text{E}$ 21'31		conjunction	-8444 May 22 j 05:08	26° $\text{X}$ 54'15	0°37'55
	-8449 Jul 21 j 22:22	0° $\text{O}$		minimum elong	-8444 May 22 j 03:51	26° $\text{X}$ 52'09	0°37'49
	-8449 Aug 30 j 17:45	0° $\text{P}$			-8444 May 26 j 22:26	0° $\text{Y}$	
	-8449 Oct 09 j 17:31	0° $\text{L}$		morning rise	-8444 Jul 07 j 21:20	28° $\text{Y}$ 01'33	
	-8449 Nov 19 j 20:24	0° $\text{M}$			-8444 Jul 10 j 18:55	0° $\text{B}$	
	-8448 Jan 01 j 15:29	0° $\text{J}$			-8444 Aug 22 j 23:21	0° $\text{II}$	
evening set	-8448 Jan 14 j 01:20	8° $\text{J}$ 28'11			-8444 Oct 03 j 16:45	0° $\text{E}$	

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8444 Nov 13 j 09:46	0°♈		direct	-8439 Nov 12 j 08:55	2°♊04'49	
	-8444 Dec 23 j 19:33	0°♏			-8438 Feb 04 j 07:20	0°♏	
	-8443 Feb 03 j 02:16	0°♊			-8438 Mar 28 j 10:51	0°♏	
desc. node	-8443 Feb 20 j 03:39	11°♊52'54			-8438 May 13 j 13:35	0°♏	
	-8443 Mar 19 j 19:39	0°♏			-8438 Jun 25 j 02:55	0°♏	
	-8443 May 22 j 13:59	0°♏			-8438 Aug 04 j 06:17	0°♏	
retrograde	-8443 Jun 10 j 02:32	2°♏18'19		evening set	-8438 Aug 23 j 14:39	14°♏54'32	
	-8443 Jun 28 j 00:24	30°♏			-8438 Sep 11 j 22:51	0°♈	
min. Earth dist.	-8443 Jul 10 j 15:53	25°♏58'55	0.51944 AU	desc. node	-8438 Oct 12 j 12:26	24°♈00'33	
greatest brilliancy	-8443 Jul 16 j 18:58	23°♏42'05	-2.0m		-8438 Oct 20 j 03:40	0°♏	
opposition	-8443 Jul 18 j 05:43	23°♏09'38	-5°46'32				
direct	-8443 Aug 21 j 20:36	15°♏37'54		conjunction	-8438 Oct 25 j 11:53	4°♏11'03	-0°09'52
	-8443 Oct 15 j 09:45	0°♏		minimum elong	-8438 Oct 25 j 10:58	4°♏09'15	0°09'33
	-8443 Dec 12 j 15:38	0°♏		behind sun begin	-8438 Oct 24 j 12:14	3°♏24'48	
asc. node	-8442 Jan 30 j 12:32	28°♏33'01		behind sun end	-8438 Oct 26 j 09:42	4°♏53'42	
	-8442 Feb 01 j 22:24	0°♊			-8438 Nov 27 j 18:40	0°♊	
	-8442 Mar 22 j 17:42	0°♏		max. Earth dist.	-8438 Nov 30 j 11:29	2°♊04'08	2.39282 AU
	-8442 May 08 j 11:47	0°♏		morning rise	-8438 Dec 30 j 07:16	24°♊33'55	
evening set	-8442 May 14 j 14:42	4°♏01'52			-8437 Jan 06 j 15:36	0°♏	
max. Earth dist.	-8442 Jun 03 j 14:43	17°♏23'36	2.56380 AU		-8437 Feb 17 j 10:55	0°♏	
	-8442 Jun 22 j 02:04	0°♏			-8437 Apr 02 j 17:27	0°♏	
					-8437 May 20 j 03:58	0°♊	
conjunction	-8442 Jul 02 j 20:36	7°♏28'33	1°09'11		-8437 Jul 12 j 04:36	0°♏	
minimum elong	-8442 Jul 02 j 19:35	7°♏26'46	1°09'28	asc. node	-8437 Sep 23 j 00:44	25°♏21'02	
	-8442 Aug 03 j 13:18	0°♏		retrograde	-8437 Sep 29 j 00:29	25°♏34'18	
morning rise	-8442 Aug 22 j 13:42	13°♏52'58		opposition	-8437 Nov 06 j 21:23	16°♏27'48	1°44'11
	-8442 Sep 13 j 05:34	0°♏		greatest brilliancy	-8437 Nov 07 j 01:12	16°♏24'02	-1.4m
	-8442 Oct 22 j 16:27	0°♈		min. Earth dist.	-8437 Nov 10 j 03:48	15°♏10'27	0.64923 AU
	-8442 Nov 30 j 15:42	0°♏		direct	-8437 Dec 17 j 22:30	6°♏27'44	
desc. node	-8441 Jan 08 j 00:51	29°♏15'45			-8436 Feb 29 j 10:23	0°♏	
	-8441 Jan 09 j 00:22	0°♊			-8436 Apr 20 j 07:42	0°♏	
	-8441 Feb 18 j 20:54	0°♏			-8436 Jun 03 j 07:39	0°♏	
	-8441 Apr 03 j 22:36	0°♏			-8436 Jul 13 j 23:41	0°♏	
	-8441 May 26 j 06:33	0°♏			-8436 Aug 21 j 21:51	0°♈	
retrograde	-8441 Jul 20 j 20:30	15°♏47'53		desc. node	-8436 Aug 29 j 10:29	5°♈52'36	
min. Earth dist.	-8441 Aug 25 j 11:42	7°♏32'47	0.62074 AU		-8436 Sep 29 j 06:37	0°♏	
opposition	-8441 Aug 29 j 16:34	5°♏52'07	-3°59'03	evening set	-8436 Oct 28 j 05:03	22°♏26'26	
greatest brilliancy	-8441 Aug 29 j 03:50	6°♏04'50	-1.6m		-8436 Nov 07 j 01:54	0°♊	
	-8441 Sep 15 j 04:19	30°♏			-8436 Dec 17 j 03:26	0°♏	
direct	-8441 Oct 06 j 15:58	26°♏56'43					
	-8441 Oct 29 j 22:14	0°♏		conjunction	-8436 Dec 28 j 10:30	8°♏13'38	-1°07'49
asc. node	-8441 Dec 18 j 16:24	19°♏16'09		minimum elong	-8436 Dec 28 j 08:48	8°♏10'33	1°08'06
	-8440 Jan 08 j 17:11	0°♊			-8435 Jan 28 j 01:25	0°♏	
	-8440 Mar 01 j 08:44	0°♏		max. Earth dist.	-8435 Feb 05 j 17:52	6°♏02'08	2.51518 AU
	-8440 Apr 18 j 09:34	0°♏		morning rise	-8435 Feb 24 j 04:49	18°♏39'43	
	-8440 Jun 02 j 06:31	0°♏			-8435 Mar 13 j 02:26	0°♏	
evening set	-8440 Jun 27 j 22:32	18°♏01'35			-8435 Apr 28 j 07:30	0°♊	
	-8440 Jul 14 j 12:28	0°♏			-8435 Jun 15 j 19:53	0°♏	
max. Earth dist.	-8440 Jul 14 j 13:16	0°♏01'28	2.44761 AU		-8435 Aug 07 j 03:29	0°♏	
				asc. node	-8435 Aug 09 j 23:39	1°♏31'04	
conjunction	-8440 Aug 21 j 16:20	28°♏26'53	1°00'16		-8435 Oct 17 j 00:05	0°♏	
minimum elong	-8440 Aug 21 j 18:41	28°♏31'20	1°00'48	retrograde	-8435 Nov 08 j 05:18	2°♏46'23	
	-8440 Aug 23 j 17:19	0°♏			-8435 Nov 29 j 01:23	30°♏	
	-8440 Oct 01 j 14:28	0°♈		opposition	-8435 Dec 14 j 21:28	24°♏45'20	4°40'25
morning rise	-8440 Oct 21 j 02:12	15°♈13'15		greatest brilliancy	-8435 Dec 15 j 21:42	24°♏22'40	-1.7m
	-8440 Nov 08 j 23:59	0°♏		min. Earth dist.	-8435 Dec 21 j 16:54	22°♏12'38	0.57225 AU
desc. node	-8440 Nov 24 j 18:22	12°♏16'18		direct	-8434 Jan 24 j 02:29	15°♏10'34	
	-8440 Dec 17 j 18:41	0°♊			-8434 Mar 18 j 11:35	0°♏	
	-8439 Jan 26 j 19:33	0°♏			-8434 May 09 j 04:35	0°♏	
	-8439 Mar 10 j 00:32	0°♏			-8434 Jun 21 j 04:18	0°♏	
	-8439 Apr 24 j 14:48	0°♏		desc. node	-8434 Jul 17 j 11:34	19°♏33'59	
	-8439 Jun 16 j 00:14	0°♊			-8434 Jul 31 j 05:29	0°♈	
retrograde	-8439 Aug 24 j 08:05	21°♊31'28			-8434 Sep 08 j 08:49	0°♏	
opposition	-8439 Oct 03 j 05:41	11°♊46'47	-1°14'58		-8434 Oct 17 j 20:08	0°♊	
greatest brilliancy	-8439 Oct 03 j 05:35	11°♊46'53	-1.4m		-8434 Nov 27 j 12:21	0°♏	
min. Earth dist.	-8439 Oct 02 j 18:45	11°♊57'47	0.66572 AU	evening set	-8434 Dec 25 j 19:33	20°♏09'39	
asc. node	-8439 Nov 04 j 21:25	2°♊26'21			-8433 Jan 08 j 22:36	0°♏	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 47

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

conjunction	-8433 Feb 17 j 14:46	26° $\text{♁}$ 54'25	-1°02'42	desc. node	-8428 Mar 08 j 21:45	13° $\text{♁}$ 21'52	
minimum elong	-8433 Feb 17 j 16:19	26° $\text{♁}$ 57'00	1°03'14		-8428 Apr 08 j 18:57	0° $\text{♁}$	
	-8433 Feb 22 j 06:27	0° $\text{♁}$		retrograde	-8428 May 22 j 01:39	11° $\text{♁}$ 14'05	
max. Earth dist.	-8433 Mar 10 j 04:32	10° $\text{♁}$ 29'31	2.61419 AU	min. Earth dist.	-8428 Jun 19 j 13:44	5° $\text{♁}$ 46'28	0.46985 AU
morning rise	-8433 Apr 09 j 06:21	29° $\text{♁}$ 59'50		greatest brilliancy	-8428 Jun 26 j 02:38	3° $\text{♁}$ 29'50	-2.3m
	-8433 Apr 09 j 06:27	0° $\text{♁}$		opposition	-8428 Jun 27 j 17:06	2° $\text{♁}$ 56'09	-5°41'12
	-8433 May 26 j 11:41	0° $\text{♁}$			-8428 Jul 06 j 15:27	30° $\text{♁}$	
asc. node	-8433 Jun 27 j 18:25	20° $\text{♁}$ 10'12		direct	-8428 Jul 30 j 15:50	26° $\text{♁}$ 11'02	
	-8433 Jul 13 j 16:04	0° $\text{♁}$			-8428 Aug 25 j 05:24	0° $\text{♁}$	
	-8433 Sep 01 j 10:24	0° $\text{♁}$			-8428 Oct 31 j 03:03	0° $\text{♁}$	
	-8433 Oct 26 j 09:08	0° $\text{♁}$			-8428 Dec 22 j 05:22	0° $\text{♁}$	
retrograde	-8432 Jan 02 j 14:46	20° $\text{♁}$ 30'36			-8427 Feb 09 j 18:23	0° $\text{♁}$	
opposition	-8432 Feb 04 j 14:11	14° $\text{♁}$ 16'15	6°09'53	asc. node	-8427 Feb 16 j 03:35	3° $\text{♁}$ 55'48	
greatest brilliancy	-8432 Feb 06 j 08:30	13° $\text{♁}$ 42'07	-2.4m		-8427 Mar 29 j 21:40	0° $\text{♁}$	
min. Earth dist.	-8432 Feb 12 j 14:23	11° $\text{♁}$ 42'27	0.45107 AU	evening set	-8427 Apr 28 j 17:22	19° $\text{♁}$ 05'01	
direct	-8432 Mar 11 j 15:02	6° $\text{♁}$ 43'55			-8427 May 15 j 10:54	0° $\text{♁}$	
	-8432 May 17 j 10:39	0° $\text{♁}$		max. Earth dist.	-8427 May 22 j 21:43	4° $\text{♁}$ 54'51	2.59975 AU
desc. node	-8432 Jun 03 j 14:54	10° $\text{♁}$ 26'06					
	-8432 Jul 02 j 22:54	0° $\text{♁}$		conjunction	-8427 Jun 15 j 22:14	21° $\text{♁}$ 00'16	1°00'02
	-8432 Aug 14 j 02:32	0° $\text{♁}$		minimum elong	-8427 Jun 15 j 20:45	20° $\text{♁}$ 57'44	1°00'10
	-8432 Sep 24 j 14:04	0° $\text{♁}$			-8427 Jun 29 j 02:35	0° $\text{♁}$	
	-8432 Nov 05 j 18:43	0° $\text{♁}$		morning rise	-8427 Aug 03 j 11:26	24° $\text{♁}$ 45'39	
	-8432 Dec 19 j 08:40	0° $\text{♁}$			-8427 Aug 10 j 19:08	0° $\text{♁}$	
	-8431 Feb 02 j 11:25	0° $\text{♁}$			-8427 Sep 20 j 19:15	0° $\text{♁}$	
evening set	-8431 Feb 09 j 07:17	4° $\text{♁}$ 27'41			-8427 Oct 30 j 15:10	0° $\text{♁}$	
	-8431 Mar 20 j 19:32	0° $\text{♁}$			-8427 Dec 08 j 23:55	0° $\text{♁}$	
					-8426 Jan 17 j 19:44	0° $\text{♁}$	
conjunction	-8431 Mar 30 j 13:52	6° $\text{♁}$ 15'36	-0°25'16	desc. node	-8426 Jan 24 j 19:09	5° $\text{♁}$ 09'20	
minimum elong	-8431 Mar 30 j 14:50	6° $\text{♁}$ 17'10	0°25'44		-8426 Feb 28 j 10:38	0° $\text{♁}$	
max. Earth dist.	-8431 Apr 03 j 13:30	8° $\text{♁}$ 48'39	2.66282 AU		-8426 Apr 15 j 14:10	0° $\text{♁}$	
	-8431 May 06 j 17:25	0° $\text{♁}$			-8426 Jun 27 j 22:51	0° $\text{♁}$	
asc. node	-8431 May 14 j 11:40	4° $\text{♁}$ 57'27		retrograde	-8426 Jul 06 j 00:50	0° $\text{♁}$ 26'23	
morning rise	-8431 May 16 j 14:57	6° $\text{♁}$ 19'26			-8426 Jul 13 j 22:39	30° $\text{♁}$	
	-8431 Jun 22 j 13:12	0° $\text{♁}$		min. Earth dist.	-8426 Aug 08 j 19:48	22° $\text{♁}$ 51'43	0.58712 AU
	-8431 Aug 07 j 22:14	0° $\text{♁}$		opposition	-8426 Aug 14 j 11:01	20° $\text{♁}$ 38'52	-4°52'29
	-8431 Sep 22 j 23:26	0° $\text{♁}$		greatest brilliancy	-8426 Aug 13 j 13:51	20° $\text{♁}$ 59'42	-1.7m
	-8431 Nov 08 j 10:20	0° $\text{♁}$		direct	-8426 Sep 20 j 06:34	12° $\text{♁}$ 10'44	
	-8431 Dec 27 j 10:42	0° $\text{♁}$			-8426 Nov 22 j 08:56	0° $\text{♁}$	
	-8430 Mar 12 j 13:14	0° $\text{♁}$		asc. node	-8425 Jan 04 j 06:00	21° $\text{♁}$ 55'31	
retrograde	-8430 Mar 19 j 09:15	0° $\text{♁}$ 18'14			-8425 Jan 18 j 16:21	0° $\text{♁}$	
	-8430 Mar 26 j 06:25	30° $\text{♁}$			-8425 Mar 10 j 07:25	0° $\text{♁}$	
min. Earth dist.	-8430 Apr 17 j 22:31	25° $\text{♁}$ 26'19	0.38062 AU		-8425 Apr 26 j 17:08	0° $\text{♁}$	
opposition	-8430 Apr 19 j 12:06	25° $\text{♁}$ 00'58	0°11'07	evening set	-8425 Jun 10 j 05:54	29° $\text{♁}$ 52'08	
greatest brilliancy	-8430 Apr 19 j 12:10	25° $\text{♁}$ 00'55	-3.0m		-8425 Jun 10 j 10:28	0° $\text{♁}$	
desc. node	-8430 Apr 21 j 19:42	24° $\text{♁}$ 23'41		max. Earth dist.	-8425 Jun 25 j 22:42	10° $\text{♁}$ 48'56	2.49616 AU
direct	-8430 May 19 j 15:59	19° $\text{♁}$ 57'11			-8425 Jul 22 j 17:48	0° $\text{♁}$	
	-8430 Jun 30 j 22:33	0° $\text{♁}$					
	-8430 Aug 25 j 20:02	0° $\text{♁}$		conjunction	-8425 Aug 01 j 06:29	6° $\text{♁}$ 58'10	1°10'46
	-8430 Oct 12 j 12:09	0° $\text{♁}$		minimum elong	-8425 Aug 01 j 07:20	6° $\text{♁}$ 59'44	1°11'14
	-8430 Nov 28 j 01:57	0° $\text{♁}$			-8425 Sep 01 j 02:18	0° $\text{♁}$	
	-8429 Jan 13 j 22:53	0° $\text{♁}$		morning rise	-8425 Sep 26 j 06:19	19° $\text{♁}$ 15'14	
	-8429 Mar 02 j 05:40	0° $\text{♁}$			-8425 Oct 10 j 03:41	0° $\text{♁}$	
evening set	-8429 Mar 21 j 14:08	12° $\text{♁}$ 16'19			-8425 Nov 17 j 16:59	0° $\text{♁}$	
asc. node	-8429 Apr 01 j 05:21	19° $\text{♁}$ 01'47		desc. node	-8425 Dec 12 j 15:25	19° $\text{♁}$ 17'47	
	-8429 Apr 18 j 10:08	0° $\text{♁}$			-8425 Dec 26 j 15:05	0° $\text{♁}$	
max. Earth dist.	-8429 Apr 27 j 21:20	6° $\text{♁}$ 03'57	2.65765 AU		-8424 Feb 04 j 20:09	0° $\text{♁}$	
					-8424 Mar 18 j 10:35	0° $\text{♁}$	
conjunction	-8429 May 08 j 03:16	12° $\text{♁}$ 39'39	0°21'00		-8424 May 04 j 07:03	0° $\text{♁}$	
minimum elong	-8429 May 08 j 02:30	12° $\text{♁}$ 38'24	0°20'45		-8424 Jul 02 j 14:39	0° $\text{♁}$	
	-8429 Jun 03 j 19:47	0° $\text{♁}$		retrograde	-8424 Aug 10 j 19:38	8° $\text{♁}$ 18'01	
morning rise	-8429 Jun 23 j 08:36	12° $\text{♁}$ 52'21			-8424 Sep 15 j 21:20	30° $\text{♁}$	
	-8429 Jul 18 j 22:35	0° $\text{♁}$		min. Earth dist.	-8424 Sep 17 j 22:10	29° $\text{♁}$ 11'06	0.65540 AU
	-8429 Aug 31 j 14:57	0° $\text{♁}$		opposition	-8424 Sep 19 j 19:59	28° $\text{♁}$ 25'00	-2°21'18
	-8429 Oct 13 j 01:37	0° $\text{♁}$		greatest brilliancy	-8424 Sep 19 j 16:50	28° $\text{♁}$ 28'09	-1.4m
	-8429 Nov 23 j 16:59	0° $\text{♁}$		direct	-8424 Oct 29 j 06:09	18° $\text{♁}$ 57'42	
	-8428 Jan 04 j 08:36	0° $\text{♁}$		asc. node	-8424 Nov 21 j 10:33	21° $\text{♁}$ 57'47	
	-8428 Feb 16 j 19:01	0° $\text{♁}$			-8424 Dec 16 j 03:00	0° $\text{♁}$	

## Planetary Phenomena of Mars from -8900 through -8398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 48

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8423 Feb 14 j 18:09	0° $\text{H}$	conjunction	-8418 Jan 30 j 04:18	9° $\text{H}$ 40'00	-1°10'22
	-8423 Apr 05 j 16:34	0° $\text{Y}$	minimum elong	-8418 Jan 30 j 05:08	9° $\text{H}$ 41'27	1°10'51
	-8423 May 21 j 04:17	0° $\text{B}$	max. Earth dist.	-8418 Feb 26 j 20:14	28° $\text{H}$ 21'02	2.58105 AU
	-8423 Jul 02 j 13:32	0° $\text{II}$		-8418 Mar 01 j 07:41	0° $\text{B}$	
evening set	-8423 Jul 30 j 18:59	20° $\text{II}$ 57'29	morning rise	-8418 Mar 24 j 03:09	15° $\text{B}$ 00'59	
	-8423 Aug 11 j 16:52	0° $\text{B}$		-8418 Apr 16 j 07:30	0° $\approx$	
max. Earth dist.	-8423 Sep 11 j 00:42	23° $\text{B}$ 25'36		-8418 Jun 02 j 20:32	0° $\text{H}$	
	-8423 Sep 19 j 10:36	0° $\Omega$	asc. node	-8418 Jul 14 j 12:47	25° $\text{H}$ 29'23	
				-8418 Jul 22 j 01:49	0° $\text{Y}$	
conjunction	-8423 Sep 28 j 17:40	7° $\Omega$ 16'59		-8418 Sep 12 j 21:40	0° $\text{B}$	
minimum elong	-8423 Sep 28 j 19:39	7° $\Omega$ 20'52		-8418 Dec 05 j 17:29	0° $\text{II}$	
	-8423 Oct 27 j 16:24	0° $\text{H}$	retrograde	-8418 Dec 09 j 13:42	0° $\text{II}$ 05'24	
desc. node	-8423 Oct 29 j 09:27	1° $\text{H}$ 20'23		-8418 Dec 13 j 08:38	30° $\text{R}$ $\text{B}$	
morning rise	-8423 Dec 03 j 11:14	28° $\text{H}$ 34'38	opposition	-8417 Jan 13 j 03:03	23° $\text{B}$ 03'57	5°59'46
	-8423 Dec 05 j 07:44	0° $\Omega$	greatest brilliancy	-8417 Jan 14 j 18:47	22° $\text{B}$ 29'19	-2.1m
	-8422 Jan 14 j 04:34	0° $\text{H}$	min. Earth dist.	-8417 Jan 21 j 07:34	20° $\text{B}$ 13'19	0.50095 AU
	-8422 Feb 25 j 00:55	0° $\text{H}$	direct	-8417 Feb 20 j 08:32	14° $\text{B}$ 27'09	
	-8422 Apr 10 j 14:08	0° $\text{B}$		-8417 Apr 14 j 16:03	0° $\text{II}$	
	-8422 May 29 j 02:07	0° $\approx$		-8417 Jun 03 j 09:19	0° $\text{B}$	
	-8422 Jul 26 j 06:17	0° $\text{H}$	desc. node	-8417 Jun 21 j 07:29	12° $\text{B}$ 24'39	
retrograde	-8422 Sep 14 j 20:29	12° $\text{H}$ 25'55		-8417 Jul 15 j 16:32	0° $\Omega$	
asc. node	-8422 Oct 09 j 14:36	8° $\text{H}$ 25'50		-8417 Aug 25 j 01:57	0° $\text{H}$	
opposition	-8422 Oct 24 j 06:02	3° $\text{H}$ 01'38		-8417 Oct 04 j 11:08	0° $\Omega$	
greatest brilliancy	-8422 Oct 24 j 06:38	3° $\text{H}$ 01'02		-8417 Nov 14 j 20:46	0° $\text{H}$	
min. Earth dist.	-8422 Oct 26 j 01:41	2° $\text{H}$ 18'08		-8417 Dec 27 j 20:40	0° $\text{H}$	
	-8422 Oct 31 j 22:47	30° $\text{R}$ $\approx$	evening set	-8416 Jan 24 j 06:58	18° $\text{H}$ 31'49	
direct	-8422 Dec 04 j 02:27	23° $\approx$ 04'52		-8416 Feb 10 j 13:56	0° $\text{B}$	
	-8421 Jan 09 j 11:01	0° $\text{H}$				
	-8421 Mar 13 j 01:17	0° $\text{Y}$	conjunction	-8416 Mar 14 j 22:34	21° $\text{B}$ 45'49	-0°41'48
	-8421 Apr 30 j 05:37	0° $\text{B}$	minimum elong	-8416 Mar 15 j 00:03	21° $\text{B}$ 48'12	0°42'19
	-8421 Jun 12 j 11:11	0° $\text{II}$	max. Earth dist.	-8416 Mar 25 j 03:35	28° $\text{B}$ 20'51	2.65024 AU
	-8421 Jul 22 j 20:21	0° $\text{B}$		-8416 Mar 27 j 17:15	0° $\approx$	
	-8421 Aug 30 j 15:10	0° $\Omega$	morning rise	-8416 May 02 j 00:47	22° $\approx$ 35'18	
desc. node	-8421 Sep 16 j 04:22	12° $\Omega$ 58'24		-8416 May 13 j 16:08	0° $\text{H}$	
evening set	-8421 Oct 03 j 02:31	26° $\Omega$ 15'12	asc. node	-8416 May 31 j 06:02	11° $\text{H}$ 10'35	
	-8421 Oct 07 j 21:18	0° $\text{H}$		-8416 Jun 29 j 21:01	0° $\text{Y}$	
	-8421 Nov 15 j 13:53	0° $\Omega$		-8416 Aug 16 j 03:49	0° $\text{B}$	
				-8416 Oct 03 j 02:26	0° $\text{II}$	
conjunction	-8421 Dec 05 j 12:52	15° $\Omega$ 08'32		-8416 Nov 22 j 22:20	0° $\text{B}$	
minimum elong	-8421 Dec 05 j 09:46	15° $\Omega$ 02'42		-8415 Feb 07 j 05:07	0° $\Omega$	
	-8421 Dec 25 j 12:27	0° $\text{H}$	retrograde	-8415 Feb 16 j 04:58	0° $\Omega$ 29'52	
max. Earth dist.	-8420 Jan 19 j 22:56	18° $\text{H}$ 25'52		-8415 Feb 25 j 01:35	30° $\text{R}$ $\text{B}$	
morning rise	-8420 Feb 04 j 22:42	29° $\text{H}$ 44'01	opposition	-8415 Mar 18 j 22:38	25° $\text{B}$ 19'28	3°45'12
	-8420 Feb 05 j 07:50	0° $\text{H}$	greatest brilliancy	-8415 Mar 19 j 15:24	25° $\text{B}$ 07'58	-2.8m
	-8420 Mar 20 j 08:46	0° $\text{B}$	min. Earth dist.	-8415 Mar 22 j 18:02	24° $\text{B}$ 16'48	0.39016 AU
	-8420 May 05 j 20:26	0° $\approx$	direct	-8415 Apr 19 j 18:32	19° $\text{B}$ 43'57	
	-8420 Jun 24 j 10:07	0° $\text{H}$	desc. node	-8415 May 08 j 11:00	22° $\text{B}$ 00'10	
	-8420 Aug 19 j 22:27	0° $\text{Y}$		-8415 May 31 j 16:10	0° $\Omega$	
asc. node	-8420 Aug 26 j 16:00	3° $\text{Y}$ 01'38		-8415 Jul 24 j 11:20	0° $\text{H}$	
retrograde	-8420 Oct 22 j 02:39	17° $\text{Y}$ 44'04		-8415 Sep 08 j 00:39	0° $\Omega$	
opposition	-8420 Nov 28 j 19:17	9° $\text{Y}$ 13'17		-8415 Oct 22 j 11:29	0° $\text{H}$	
greatest brilliancy	-8420 Nov 29 j 09:45	8° $\text{Y}$ 59'23		-8415 Dec 06 j 11:01	0° $\text{H}$	
min. Earth dist.	-8420 Dec 04 j 07:08	7° $\text{Y}$ 06'36		-8414 Jan 21 j 10:45	0° $\text{B}$	
	-8420 Dec 29 j 16:47	30° $\text{R}$ $\text{H}$	evening set	-8414 Mar 06 j 07:39	28° $\text{B}$ 07'29	
direct	-8419 Jan 08 j 14:45	29° $\text{H}$ 20'53		-8414 Mar 09 j 06:13	0° $\approx$	
	-8419 Jan 18 j 18:32	0° $\text{Y}$	asc. node	-8414 Apr 17 j 23:06	25° $\approx$ 19'24	
	-8419 Apr 02 j 21:22	0° $\text{B}$	max. Earth dist.	-8414 Apr 18 j 09:27	25° $\approx$ 35'56	2.66626 AU
	-8419 May 19 j 16:48	0° $\text{II}$				
	-8419 Jun 30 j 08:58	0° $\text{B}$	conjunction	-8414 Apr 23 j 05:47	28° $\approx$ 41'55	0°03'05
desc. node	-8419 Aug 03 j 03:59	25° $\text{B}$ 39'04	minimum elong	-8414 Apr 23 j 05:39	28° $\approx$ 41'41	0°02'44
	-8419 Aug 08 j 19:23	0° $\Omega$	behind sun begin	-8414 Apr 22 j 10:22	28° $\approx$ 10'52	
	-8419 Sep 16 j 12:40	0° $\text{H}$	behind sun end	-8414 Apr 24 j 00:55	29° $\approx$ 12'30	
	-8419 Oct 25 j 15:34	0° $\Omega$		-8414 Apr 25 j 06:36	0° $\text{H}$	
evening set	-8419 Dec 04 j 16:50	29° $\Omega$ 46'33	morning rise	-8414 Jun 08 j 10:47	28° $\text{H}$ 28'48	
	-8419 Dec 05 j 00:14	0° $\text{H}$		-8414 Jun 10 j 18:48	0° $\text{Y}$	
	-8418 Jan 16 j 04:03	0° $\text{H}$		-8414 Jul 26 j 06:47	0° $\text{B}$	
				-8414 Sep 08 j 15:45	0° $\text{II}$	



Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

	-8414 Oct 22 j 03:18	0°☾			-8408 Feb 24 j 19:40	0°☿		
	-8414 Dec 04 j 06:23	0°♈			-8408 Apr 13 j 10:52	0°♈		
	-8413 Jan 17 j 07:49	0°♈			-8408 May 28 j 13:12	0°♈		
	-8413 Mar 07 j 23:24	0°♈	evening set		-8408 Jul 09 j 06:17	29°♈33'40		
desc. node	-8413 Mar 26 j 15:03	8°♈39'32			-8408 Jul 09 j 20:43	0°♈		
retrograde	-8413 May 01 j 02:46	16°♈30'22	max. Earth dist.		-8408 Jul 29 j 09:06	14°♈24'11	2.42173 AU	
min. Earth dist.	-8413 May 28 j 05:01	11°♈45'12	0.42243 AU		-8408 Aug 19 j 01:13	0°☾		
greatest brilliancy	-8413 Jun 03 j 07:17	9°♈50'00	-2.6m					
opposition	-8413 Jun 04 j 13:44	9°♈25'48	-4°34'09	conjunction	-8408 Sep 03 j 18:21	12°☾03'05	0°49'36	
direct	-8413 Jul 05 j 22:25	3°♈32'11		minimum elong	-8408 Sep 03 j 21:09	12°☾08'29	0°50'07	
	-8413 Sep 21 j 08:50	0°♈			-8408 Sep 26 j 21:05	0°♈		
	-8413 Nov 12 j 14:47	0°♈			-8408 Nov 04 j 04:47	0°♈		
	-8413 Dec 31 j 20:02	0°♈	morning rise		-8408 Nov 05 j 12:58	1°♈02'55		
	-8412 Feb 18 j 05:49	0°♈	desc. node		-8408 Nov 15 j 04:39	8°♈34'58		
asc. node	-8412 Mar 04 j 18:46	9°♈43'07			-8408 Dec 12 j 21:31	0°♈		
	-8412 Apr 05 j 21:45	0°☿			-8407 Jan 21 j 19:53	0°♈		
evening set	-8412 Apr 13 j 09:41	4°☿46'47			-8407 Mar 04 j 19:54	0°♈		
max. Earth dist.	-8412 May 12 j 11:06	23°☿31'43	2.62857 AU		-8407 Apr 18 j 21:32	0°♈		
	-8412 May 22 j 08:25	0°♈			-8407 Jun 08 j 06:55	0°♈		
				retrograde	-8407 Sep 01 j 03:49	29°♈27'23		
conjunction	-8412 May 31 j 00:45	5°♈43'26	0°46'50	opposition	-8407 Oct 10 j 21:59	19°♈49'07	-0°35'18	
minimum elong	-8412 May 30 j 23:17	5°♈41'00	0°46'49	greatest brilliancy	-8407 Oct 10 j 22:24	19°♈48'41	-1.4m	
	-8412 Jul 06 j 03:18	0°♈		min. Earth dist.	-8407 Oct 11 j 06:47	19°♈40'17	0.66731 AU	
morning rise	-8412 Jul 17 j 04:14	7°♈35'05		asc. node	-8407 Oct 26 j 04:32	14°♈06'51		
	-8412 Aug 18 j 03:35	0°♈		direct	-8407 Nov 20 j 08:19	10°♈00'41		
	-8412 Sep 28 j 14:31	0°☾			-8406 Jan 27 j 05:57	0°☿		
	-8412 Nov 07 j 23:15	0°♈			-8406 Mar 22 j 17:07	0°♈		
	-8412 Dec 17 j 22:11	0°♈			-8406 May 08 j 11:02	0°♈		
	-8411 Jan 27 j 12:21	0°♈			-8406 Jun 20 j 06:06	0°♈		
desc. node	-8411 Feb 10 j 15:38	10°♈08'17			-8406 Jul 30 j 11:48	0°☾		
	-8411 Mar 11 j 14:22	0°♈	evening set		-8406 Sep 06 j 21:22	29°☾44'26		
	-8411 May 02 j 03:51	0°♈			-8406 Sep 07 j 05:19	0°♈		
retrograde	-8411 Jun 20 j 00:31	13°♈24'29		desc. node	-8406 Oct 02 j 23:29	20°♈13'30		
min. Earth dist.	-8411 Jul 21 j 17:44	6°♈37'04	0.54508 AU		-8406 Oct 15 j 10:16	0°♈		
greatest brilliancy	-8411 Jul 27 j 10:42	4°♈26'30	-1.9m					
opposition	-8411 Jul 28 j 16:58	3°♈57'33	-5°33'17	conjunction	-8406 Nov 09 j 14:35	19°♈38'20	-0°27'44	
	-8411 Aug 08 j 20:15	30°♈		minimum elong	-8406 Nov 09 j 12:10	19°♈33'39	0°27'32	
direct	-8411 Sep 02 j 04:04	26°♈03'39			-8406 Nov 23 j 01:06	0°♈		
	-8411 Sep 28 j 10:55	0°♈		max. Earth dist.	-8406 Dec 24 j 16:42	23°♈55'31	2.41604 AU	
	-8411 Dec 05 j 15:37	0°♈			-8405 Jan 01 j 21:37	0°♈		
asc. node	-8410 Jan 20 j 19:17	26°♈03'57		morning rise	-8405 Jan 13 j 06:41	8°♈19'50		
	-8410 Jan 27 j 11:36	0°♈			-8405 Feb 12 j 15:31	0°♈		
	-8410 Mar 17 j 20:19	0°☿			-8405 Mar 28 j 18:19	0°♈		
	-8410 May 03 j 19:51	0°♈			-8405 May 14 j 17:22	0°♈		
evening set	-8410 May 24 j 00:36	13°♈22'39			-8405 Jul 05 j 01:00	0°☿		
max. Earth dist.	-8410 Jun 11 j 01:46	25°♈36'04	2.54116 AU		-8405 Sep 11 j 12:27	0°♈		
	-8410 Jun 17 j 11:27	0°♈		asc. node	-8405 Sep 13 j 07:24	0°♈27'46		
				retrograde	-8405 Oct 07 j 12:25	3°♈44'09		
conjunction	-8410 Jul 13 j 01:43	17°♈55'25	1°11'52		-8405 Oct 31 j 14:03	30°♈		
minimum elong	-8410 Jul 13 j 01:14	17°♈54'32	1°12'14	opposition	-8405 Nov 15 j 00:21	24°☿49'13	2°24'56	
	-8410 Jul 29 j 21:33	0°♈		greatest brilliancy	-8405 Nov 15 j 07:17	24°☿42'26	-1.5m	
morning rise	-8410 Sep 03 j 08:55	26°♈10'24		min. Earth dist.	-8405 Nov 19 j 02:23	23°☿13'14	0.63739 AU	
	-8410 Sep 08 j 11:06	0°☾		direct	-8405 Dec 26 j 01:09	14°☿49'40		
	-8410 Oct 17 j 18:30	0°♈			-8404 Feb 20 j 01:25	0°♈		
	-8410 Nov 25 j 13:43	0°♈			-8404 Apr 14 j 02:28	0°☿		
desc. node	-8410 Dec 29 j 10:56	25°♈59'52			-8404 May 28 j 20:56	0°♈		
	-8409 Jan 03 j 17:42	0°♈			-8404 Jul 08 j 20:17	0°☾		
	-8409 Feb 13 j 06:45	0°♈			-8404 Aug 16 j 22:21	0°♈		
	-8409 Mar 28 j 14:34	0°♈	desc. node		-8404 Aug 19 j 20:45	2°♈16'54		
	-8409 May 16 j 22:45	0°♈			-8404 Sep 24 j 09:36	0°♈		
retrograde	-8409 Jul 29 j 00:56	24°♈30'11			-8404 Nov 02 j 06:53	0°♈		
min. Earth dist.	-8409 Sep 03 j 14:20	15°♈55'05	0.63548 AU	evening set	-8404 Nov 11 j 08:45	6°♈53'08		
opposition	-8409 Sep 06 j 23:20	14°♈33'47	-3°24'39		-8404 Dec 12 j 10:09	0°♈		
greatest brilliancy	-8409 Sep 06 j 14:41	14°♈42'29	-1.5m					
direct	-8409 Oct 15 j 12:00	5°♈25'46		conjunction	-8403 Jan 09 j 21:45	20°♈31'24	-1°11'15	
asc. node	-8409 Dec 08 j 23:38	19°♈13'05		minimum elong	-8403 Jan 09 j 21:06	20°♈30'16	1°11'39	
	-8408 Jan 01 j 05:13	0°♈			-8403 Jan 23 j 09:02	0°♈		

Attention, astronomical year style is used: The year -8899 in astronomical counting style is the year 8900 BCE in historical counting style.

max. Earth dist.	-8403 Feb 14 j 00:05	14°♄54'49	2.54041 AU
morning rise	-8403 Mar 06 j 18:50	28°♄55'05	
	-8403 Mar 08 j 09:49	0°♄	
	-8403 Apr 23 j 11:25	0°♄	
	-8403 Jun 10 j 12:51	0°♄	
asc. node	-8403 Jul 31 j 05:49	29°♄54'56	
	-8403 Jul 31 j 09:24	0°♄	
	-8403 Sep 28 j 20:42	0°♄	
retrograde	-8403 Nov 18 j 20:07	12°♄22'29	
opposition	-8403 Dec 24 j 19:46	4°♄40'35	5°14'05
greatest brilliancy	-8403 Dec 26 j 02:04	4°♄12'48	-1.9m
min. Earth dist.	-8402 Jan 01 j 06:14	1°♄57'07	0.54850 AU
	-8402 Jan 06 j 21:59	30°♄	
direct	-8402 Feb 02 j 11:44	25°♄21'03	
	-8402 Mar 02 j 05:13	0°♄	
	-8402 May 01 j 14:15	0°♄	
	-8402 Jun 14 j 23:03	0°♄	
desc. node	-8402 Jul 07 j 22:48	16°♄47'50	
	-8402 Jul 25 j 13:50	0°♄	
	-8402 Sep 03 j 01:01	0°♄	
	-8402 Oct 12 j 18:05	0°♄	
	-8402 Nov 22 j 14:59	0°♄	
	-8401 Jan 04 j 04:45	0°♄	
evening set	-8401 Jan 06 j 00:26	1°♄15'13	
	-8401 Feb 17 j 14:59	0°♄	
conjunction	-8401 Feb 27 j 12:43	6°♄32'17	-0°56'02
minimum elong	-8401 Feb 27 j 14:24	6°♄35'02	0°56'34
max. Earth dist.	-8401 Mar 16 j 06:44	17°♄29'11	2.62945 AU
	-8401 Apr 04 j 15:11	0°♄	
morning rise	-8401 Apr 18 j 02:44	8°♄38'40	
	-8401 May 21 j 17:09	0°♄	
asc. node	-8401 Jun 17 j 23:58	17°♄11'15	
	-8401 Jul 08 j 11:17	0°♄	
	-8401 Aug 26 j 02:47	0°♄	
	-8401 Oct 16 j 11:13	0°♄	
	-8401 Dec 22 j 06:37	0°♄	
retrograde	-8400 Jan 17 j 20:35	3°♄58'30	
	-8400 Feb 12 j 19:02	30°♄	
opposition	-8400 Feb 18 j 23:22	28°♄10'50	5°46'00
greatest brilliancy	-8400 Feb 20 j 13:06	27°♄42'09	-2.6m
min. Earth dist.	-8400 Feb 26 j 05:18	25°♄59'43	0.42557 AU
direct	-8400 Mar 24 j 12:04	21°♄21'25	
	-8400 May 01 j 07:23	0°♄	
desc. node	-8400 May 25 j 04:03	11°♄44'03	
	-8400 Jun 24 j 05:20	0°♄	
	-8400 Aug 07 j 05:53	0°♄	
	-8400 Sep 18 j 15:32	0°♄	
	-8400 Oct 31 j 10:03	0°♄	
	-8400 Dec 14 j 08:55	0°♄	
	-8399 Jan 28 j 17:32	0°♄	
evening set	-8399 Feb 18 j 15:38	13°♄34'28	
	-8399 Mar 16 j 04:43	0°♄	
conjunction	-8399 Apr 08 j 07:53	14°♄47'41	-0°15'01
minimum elong	-8399 Apr 08 j 08:28	14°♄48'37	0°15'27
behind sun begin	-8399 Apr 08 j 04:36	14°♄42'27	
behind sun end	-8399 Apr 08 j 12:20	14°♄54'47	
max. Earth dist.	-8399 Apr 09 j 01:47	15°♄16'15	2.66642 AU
	-8399 May 02 j 03:01	0°♄	
asc. node	-8399 May 04 j 16:03	1°♄37'35	
morning rise	-8399 May 24 j 22:43	14°♄37'12	
	-8399 Jun 17 j 19:37	0°♄	
	-8399 Aug 02 j 19:55	0°♄	
	-8399 Sep 17 j 04:01	0°♄	
	-8399 Nov 01 j 06:09	0°♄	
	-8399 Dec 17 j 04:40	0°♄	