

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

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

conjunction	-900 Feb 17 j 05:31	19°33'57	-15°45'02	minimum elong	-892 Feb 26 j 04:15	28°26'57	16°29'37
minimum elong	-900 Feb 17 j 05:26	19°33'57	15°45'01	max. Earth dist.	-892 Feb 28 j 16:18	28°30'39	47.26305 AU
max. Earth dist.	-900 Feb 20 j 00:40	19°38'12	45.95988 AU		-892 May 21 j 01:58	0°	
retrograde	-900 May 30 j 18:36	21°13'35		retrograde	-892 Jun 08 j 12:11	0°03'45	
min. Earth dist.	-900 Aug 19 j 20:29	20°12'42	44.12839 AU		-892 Jun 27 j 03:14	30°	
opposition	-900 Aug 22 j 14:14	20°09'24	-16°31'02	min. Earth dist.	-892 Aug 29 j 03:01	29°03'34	45.42218 AU
direct	-900 Nov 11 j 09:08	19°06'48		opposition	-892 Aug 31 j 11:59	29°00'45	-17°14'45
				direct	-892 Nov 20 j 10:52	27°59'15	
conjunction	-899 Feb 17 j 14:51	20°41'51	-15°51'54				
minimum elong	-899 Feb 17 j 14:47	20°41'50	15°51'55	conjunction	-891 Feb 26 j 12:32	29°31'36	-16°33'36
max. Earth dist.	-899 Feb 20 j 10:23	20°46'06	46.13715 AU	minimum elong	-891 Feb 26 j 12:30	29°31'36	16°33'36
retrograde	-899 Jun 01 j 02:28	22°21'06		max. Earth dist.	-891 Mar 01 j 00:19	29°35'16	47.40694 AU
min. Earth dist.	-899 Aug 21 j 07:26	21°20'20	44.30526 AU		-891 Mar 18 j 02:59	0°	
opposition	-899 Aug 23 j 23:28	21°17'07	-16°37'49	retrograde	-891 Jun 09 j 18:46	1°08'03	
direct	-899 Nov 12 j 19:00	20°14'42		min. Earth dist.	-891 Aug 30 j 11:08	0°07'57	45.56508 AU
				opposition	-891 Sep 01 j 19:41	0°05'10	-17°18'34
conjunction	-898 Feb 19 j 00:03	21°49'25	-15°58'22		-891 Sep 06 j 04:28	30°	
minimum elong	-898 Feb 18 j 23:59	21°49'24	15°58'22	direct	-891 Nov 21 j 20:41	29°03'46	
max. Earth dist.	-898 Feb 21 j 18:15	21°53'34	46.31134 AU		-890 Feb 02 j 19:10	0°	
retrograde	-898 Jun 02 j 09:50	23°28'19					
min. Earth dist.	-898 Aug 22 j 16:25	22°27'44	44.47861 AU	conjunction	-890 Feb 27 j 20:28	0°35'47	-16°37'13
opposition	-898 Aug 25 j 08:32	22°24'31	-16°44'12	minimum elong	-890 Feb 27 j 20:28	0°35'47	16°37'13
direct	-898 Nov 14 j 04:58	21°22'16		max. Earth dist.	-890 Mar 02 j 06:38	0°39'20	47.54773 AU
				retrograde	-890 Jun 11 j 04:40	2°11'55	
conjunction	-897 Feb 20 j 08:57	22°56'39	-16°04'28	min. Earth dist.	-890 Aug 31 j 19:29	1°11'54	45.70514 AU
minimum elong	-897 Feb 20 j 08:54	22°56'39	16°04'29	opposition	-890 Sep 03 j 03:28	1°09'09	-17°22'01
max. Earth dist.	-897 Feb 23 j 02:13	23°00'45	46.48157 AU	direct	-890 Nov 23 j 02:52	0°07'52	
retrograde	-897 Jun 03 j 18:33	24°35'14					
min. Earth dist.	-897 Aug 24 j 03:21	23°34'43	44.64781 AU	conjunction	-889 Mar 01 j 04:14	1°39'35	-16°40'28
opposition	-897 Aug 26 j 17:39	23°31'37	-16°50'11	minimum elong	-889 Mar 01 j 04:13	1°39'35	16°40'28
direct	-897 Nov 15 j 15:14	22°29'32		max. Earth dist.	-889 Mar 03 j 14:46	1°43'09	47.68573 AU
				retrograde	-889 Jun 12 j 12:50	3°15'24	
conjunction	-896 Feb 21 j 18:03	24°03'34	-16°10'11	min. Earth dist.	-889 Sep 02 j 04:24	2°15'27	45.84226 AU
minimum elong	-896 Feb 21 j 18:00	24°03'34	16°10'11	opposition	-889 Sep 04 j 11:06	2°12'46	-17°25'05
max. Earth dist.	-896 Feb 24 j 10:55	24°07'37	46.64749 AU	direct	-889 Nov 24 j 09:46	1°11'36	
retrograde	-896 Jun 04 j 03:17	25°41'49					
min. Earth dist.	-896 Aug 24 j 12:58	24°41'24	44.81217 AU	conjunction	-888 Mar 01 j 11:58	2°43'03	-16°43'22
opposition	-896 Aug 27 j 02:25	24°38'21	-16°55'49	minimum elong	-888 Mar 01 j 11:59	2°43'04	16°43'23
direct	-896 Nov 16 j 01:13	23°36'25		max. Earth dist.	-888 Mar 03 j 21:03	2°46'31	47.82105 AU
				retrograde	-888 Jun 12 j 20:49	4°18'35	
conjunction	-895 Feb 22 j 02:52	25°10'07	-16°15'34	min. Earth dist.	-888 Sep 02 j 11:36	3°18'46	45.97657 AU
minimum elong	-895 Feb 22 j 02:49	25°10'06	16°15'35	opposition	-888 Sep 04 j 18:29	3°16'05	-17°27'48
max. Earth dist.	-895 Feb 24 j 17:28	25°14'00	46.80845 AU	direct	-888 Nov 24 j 16:01	2°15'03	
retrograde	-895 Jun 05 j 15:33	26°47'59					
min. Earth dist.	-895 Aug 25 j 22:33	25°47'41	44.97155 AU	conjunction	-887 Mar 02 j 19:35	3°46'15	-16°45'55
opposition	-895 Aug 28 j 11:09	25°44'40	-17°01'05	minimum elong	-887 Mar 02 j 19:35	3°46'15	16°45'56
direct	-895 Nov 17 j 06:47	24°42'52		max. Earth dist.	-887 Mar 05 j 04:04	3°49'40	47.95330 AU
				retrograde	-887 Jun 14 j 03:04	5°21'31	
conjunction	-894 Feb 23 j 11:38	26°16'13	-16°20'36	min. Earth dist.	-887 Sep 03 j 20:53	4°21'45	46.10763 AU
minimum elong	-894 Feb 23 j 11:36	26°16'13	16°20'36	opposition	-887 Sep 06 j 01:52	4°19'10	-17°30'09
max. Earth dist.	-894 Feb 26 j 02:04	26°20'05	46.96439 AU	direct	-887 Nov 26 j 00:27	3°18'16	
retrograde	-894 Jun 07 j 00:18	27°53'44					
min. Earth dist.	-894 Aug 27 j 08:56	26°53'26	45.12590 AU	conjunction	-886 Mar 04 j 03:13	4°49'13	-16°48'08
opposition	-894 Aug 29 j 19:34	26°50'32	-17°06'00	minimum elong	-886 Mar 04 j 03:15	4°49'13	16°48'09
direct	-894 Nov 18 j 15:03	25°48'50		max. Earth dist.	-886 Mar 06 j 11:15	4°52'36	48.08219 AU
				retrograde	-886 Jun 15 j 08:42	6°24'14	
conjunction	-893 Feb 24 j 20:06	27°21'50	-16°25'17	min. Earth dist.	-886 Sep 05 j 04:20	5°24'36	46.23485 AU
minimum elong	-893 Feb 24 j 20:04	27°21'50	16°25'18	opposition	-886 Sep 07 j 08:53	5°22'02	-17°32'10
max. Earth dist.	-893 Feb 27 j 08:56	27°25'36	47.11578 AU	direct	-886 Nov 27 j 09:50	4°21'16	
retrograde	-893 Jun 08 j 06:12	28°58'59					
min. Earth dist.	-893 Aug 28 j 17:08	27°58'47	45.27592 AU	conjunction	-885 Mar 05 j 10:38	5°52'00	-16°50'02
opposition	-893 Aug 31 j 03:48	27°55'54	-17°10'34	minimum elong	-885 Mar 05 j 10:39	5°52'00	16°50'02
direct	-893 Nov 20 j 00:30	26°54'17		max. Earth dist.	-885 Mar 07 j 16:35	5°55'15	48.20701 AU
				retrograde	-885 Jun 16 j 19:06	7°26'46	
conjunction	-892 Feb 26 j 04:15	28°26'57	-16°29'37	min. Earth dist.	-885 Sep 06 j 12:38	6°27'13	46.35783 AU

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Attention, astronomical year style is used: The year -885 in astronomical counting style is the year 886 BCE in historical counting style.

opposition	-885 Sep 08 j 16:00	6° H 24'43	-17°33'52	conjunction	-876 Mar 14 j 01:27	15° H 04'48	-16°53'49
direct	-885 Nov 28 j 14:51	5° H 24'05		minimum elong	-876 Mar 14 j 01:31	15° H 04'49	16°53'49
				max. Earth dist.	-876 Mar 15 j 22:46	15° H 07'28	49.12807 AU
conjunction	-884 Mar 05 j 18:05	6° H 54'35	-16°51'38	retrograde	-876 Jun 25 j 03:41	16° H 37'22	
minimum elong	-884 Mar 05 j 18:07	6° H 54'35	16°51'38	min. Earth dist.	-876 Sep 15 j 07:23	15° H 38'12	47.26148 AU
max. Earth dist.	-884 Mar 07 j 23:54	6° H 57'49	48.32724 AU	opposition	-876 Sep 17 j 01:36	15° H 36'10	-17°35'33
retrograde	-884 Jun 17 j 03:37	8° H 29'07		direct	-876 Dec 07 j 04:00	14° H 36'17	
min. Earth dist.	-884 Sep 06 j 21:32	7° H 29'36	46.47573 AU				
opposition	-884 Sep 08 j 22:59	7° H 27'12	-17°35'15	conjunction	-875 Mar 15 j 07:53	16° H 04'50	-16°52'43
direct	-884 Nov 28 j 21:00	6° H 26'41		minimum elong	-875 Mar 15 j 07:59	16° H 04'50	16°52'43
				max. Earth dist.	-875 Mar 17 j 03:27	16° H 07'23	49.21349 AU
conjunction	-883 Mar 07 j 01:32	7° H 56'57	-16°52'56	retrograde	-875 Jun 26 j 10:34	17° H 37'12	
minimum elong	-883 Mar 07 j 01:34	7° H 56'58	16°52'55	min. Earth dist.	-875 Sep 16 j 14:28	16° H 38'05	47.34516 AU
max. Earth dist.	-883 Mar 09 j 05:09	8° H 00'03	48.44236 AU	opposition	-875 Sep 18 j 07:23	16° H 36'07	-17°34'10
retrograde	-883 Jun 18 j 10:45	9° H 31'13		direct	-875 Dec 08 j 10:27	15° H 36'19	
min. Earth dist.	-883 Sep 08 j 04:38	8° H 31'48	46.58841 AU				
opposition	-883 Sep 10 j 05:41	8° H 29'25	-17°36'22	conjunction	-874 Mar 16 j 14:24	17° H 04'42	-16°51'20
direct	-883 Nov 30 j 02:50	7° H 29'00		minimum elong	-874 Mar 16 j 14:29	17° H 04'42	16°51'19
				max. Earth dist.	-874 Mar 18 j 10:03	17° H 07'15	49.29568 AU
conjunction	-882 Mar 08 j 08:48	8° H 59'03	-16°53'57	retrograde	-874 Jun 27 j 17:45	18° H 36'53	
minimum elong	-882 Mar 08 j 08:50	8° H 59'03	16°53'58	min. Earth dist.	-874 Sep 17 j 21:34	17° H 37'48	47.42517 AU
max. Earth dist.	-882 Mar 10 j 11:16	9° H 02'04	48.55217 AU	opposition	-874 Sep 19 j 13:08	17° H 35'54	-17°32'30
retrograde	-882 Jun 19 j 15:17	10° H 33'03		direct	-874 Dec 09 j 16:03	16° H 36'13	
min. Earth dist.	-882 Sep 09 j 13:39	9° H 33'37	46.69589 AU				
opposition	-882 Sep 11 j 12:29	9° H 31'20	-17°37'10	conjunction	-873 Mar 17 j 20:37	18° H 04'26	-16°49'39
direct	-882 Dec 01 j 11:49	8° H 31'01		minimum elong	-873 Mar 17 j 20:43	18° H 04'26	16°49'40
				max. Earth dist.	-873 Mar 19 j 14:20	18° H 06'52	49.37407 AU
conjunction	-881 Mar 09 j 15:50	10° H 00'49	-16°54'42	retrograde	-873 Jun 29 j 02:07	19° H 36'26	
minimum elong	-881 Mar 09 j 15:54	10° H 00'49	16°54'41	min. Earth dist.	-873 Sep 19 j 03:43	18° H 37'26	47.50108 AU
max. Earth dist.	-881 Mar 11 j 17:32	10° H 03'47	48.65719 AU	opposition	-873 Sep 20 j 18:50	18° H 35'34	-17°30'33
retrograde	-881 Jun 20 j 19:28	11° H 34'33		direct	-873 Dec 10 j 19:23	17° H 35'57	
min. Earth dist.	-881 Sep 10 j 20:32	10° H 35'11	46.79867 AU				
opposition	-881 Sep 12 j 18:59	10° H 32'56	-17°37'41	conjunction	-872 Mar 18 j 03:03	19° H 04'02	-16°47'43
direct	-881 Dec 02 j 21:17	9° H 32'40		minimum elong	-872 Mar 18 j 03:08	19° H 04'02	16°47'42
				max. Earth dist.	-872 Mar 19 j 19:44	19° H 06'24	49.44787 AU
conjunction	-880 Mar 09 j 22:44	11° H 02'14	-16°55'08	retrograde	-872 Jun 29 j 07:28	20° H 35'51	
minimum elong	-880 Mar 09 j 22:47	11° H 02'15	16°55'09	min. Earth dist.	-872 Sep 19 j 11:40	19° H 36'50	47.57209 AU
max. Earth dist.	-880 Mar 11 j 22:34	11° H 05'05	48.75785 AU	opposition	-872 Sep 21 j 00:29	19° H 35'04	-17°28'20
retrograde	-880 Jun 21 j 03:29	12° H 35'44		direct	-872 Dec 11 j 01:23	18° H 35'32	
min. Earth dist.	-880 Sep 11 j 04:14	11° H 36'22	46.89757 AU				
opposition	-880 Sep 13 j 01:22	11° H 34'11	-17°37'54	conjunction	-871 Mar 19 j 09:33	20° H 03'28	-16°45'31
direct	-880 Dec 03 j 03:21	10° H 34'00		minimum elong	-871 Mar 19 j 09:39	20° H 03'28	16°45'32
				max. Earth dist.	-871 Mar 21 j 01:02	20° H 05'45	49.51671 AU
conjunction	-879 Mar 11 j 05:41	12° H 03'20	-16°55'16	retrograde	-871 Jun 30 j 10:52	21° H 35'06	
minimum elong	-879 Mar 11 j 05:46	12° H 03'20	16°55'16	min. Earth dist.	-871 Sep 20 j 17:46	20° H 36'08	47.63776 AU
max. Earth dist.	-879 Mar 13 j 05:38	12° H 06'10	48.85487 AU	opposition	-871 Sep 22 j 06:00	20° H 34'24	-17°25'52
retrograde	-879 Jun 22 j 11:07	13° H 36'34		direct	-871 Dec 12 j 09:05	19° H 34'55	
min. Earth dist.	-879 Sep 12 j 11:39	12° H 37'14	46.99288 AU				
opposition	-879 Sep 14 j 07:36	12° H 35'06	-17°37'48	conjunction	-870 Mar 20 j 15:44	21° H 02'41	-16°43'05
direct	-879 Dec 04 j 09:19	11° H 34'59		minimum elong	-870 Mar 20 j 15:51	21° H 02'42	16°43'04
				max. Earth dist.	-870 Mar 22 j 04:57	21° H 04'51	49.58014 AU
conjunction	-878 Mar 12 j 12:21	13° H 04'06	-16°55'06	retrograde	-870 Jul 01 j 17:07	22° H 34'09	
minimum elong	-878 Mar 12 j 12:24	13° H 04'06	16°55'06	min. Earth dist.	-870 Sep 22 j 01:01	21° H 35'09	47.69823 AU
max. Earth dist.	-878 Mar 14 j 10:32	13° H 06'49	48.94872 AU	opposition	-870 Sep 23 j 11:28	21° H 33'31	-17°23'09
retrograde	-878 Jun 23 j 19:39	14° H 37'05		direct	-870 Dec 13 j 15:08	20° H 34'04	
min. Earth dist.	-878 Sep 13 j 17:40	13° H 37'50	47.08523 AU				
opposition	-878 Sep 15 j 13:37	13° H 35'43	-17°37'22	conjunction	-869 Mar 21 j 21:59	22° H 01'41	-16°40'24
direct	-878 Dec 05 j 12:42	12° H 35'39		minimum elong	-869 Mar 21 j 22:05	22° H 01'41	16°40'25
				max. Earth dist.	-869 Mar 23 j 10:52	22° H 03'49	49.63860 AU
conjunction	-877 Mar 13 j 18:56	14° H 04'35	-16°54'37	retrograde	-869 Jul 02 j 22:45	23° H 32'58	
minimum elong	-877 Mar 13 j 19:02	14° H 04'35	16°54'37	min. Earth dist.	-869 Sep 23 j 07:40	22° H 33'58	47.75380 AU
max. Earth dist.	-877 Mar 15 j 16:44	14° H 07'16	49.03969 AU	opposition	-869 Sep 24 j 16:47	22° H 32'23	-17°20'10
retrograde	-877 Jun 25 j 01:03	15° H 37'20		direct	-869 Dec 14 j 21:34	21° H 32'59	
min. Earth dist.	-877 Sep 15 j 01:33	14° H 38'05	47.17478 AU				
opposition	-877 Sep 16 j 19:44	14° H 36'03	-17°36'37	conjunction	-868 Mar 22 j 04:00	23° H 00'27	-16°37'28
direct	-877 Dec 06 j 18:37	13° H 36'05		minimum elong	-868 Mar 22 j 04:08	23° H 00'27	16°37'27
				max. Earth dist.	-868 Mar 23 j 14:48	23° H 02'27	49.69261 AU

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Attention, astronomical year style is used: The year -868 in astronomical counting style is the year 869 BCE in historical counting style.

retrograde	-868 Jul 03 j 06:57	24° $\mathbf{\text{X}}$ 31'32	minimum elong	-860 Mar 30 j 02:53	0° $\mathbf{\text{Y}}$ 45'34	16°04'17
opposition	-868 Sep 24 j 22:00	23° $\mathbf{\text{X}}$ 31'01 -17°16'56	max. Earth dist.	-860 Mar 31 j 04:46	0° $\mathbf{\text{Y}}$ 47'03	50.00140 AU
min. Earth dist.	-868 Sep 23 j 13:20	23° $\mathbf{\text{X}}$ 32'34 47.80521 AU	retrograde	-860 Jul 11 j 00:40	2° $\mathbf{\text{Y}}$ 15'43	
direct	-868 Dec 15 j 00:18	22° $\mathbf{\text{X}}$ 31'39	opposition	-860 Oct 02 j 13:31	1° $\mathbf{\text{Y}}$ 15'46	-16°41'04
			min. Earth dist.	-860 Oct 01 j 14:04	1° $\mathbf{\text{Y}}$ 16'53	48.09358 AU
			direct	-860 Dec 22 j 18:57	0° $\mathbf{\text{Y}}$ 16'51	
conjunction	-867 Mar 23 j 10:04	23° $\mathbf{\text{X}}$ 58'59 -16°34'15				
minimum elong	-867 Mar 23 j 10:10	23° $\mathbf{\text{X}}$ 58'59 16°34'15				
max. Earth dist.	-867 Mar 24 j 20:10	24° $\mathbf{\text{X}}$ 00'57 49.74256 AU	conjunction	-859 Mar 31 j 08:45	1° $\mathbf{\text{Y}}$ 43'31	-15°59'00
retrograde	-867 Jul 04 j 12:50	25° $\mathbf{\text{X}}$ 29'54	minimum elong	-859 Mar 31 j 08:54	1° $\mathbf{\text{Y}}$ 43'32	15°58'58
min. Earth dist.	-867 Sep 24 j 20:29	24° $\mathbf{\text{X}}$ 30'53 47.85284 AU	max. Earth dist.	-859 Apr 01 j 10:07	1° $\mathbf{\text{Y}}$ 44'58	50.02191 AU
opposition	-867 Sep 26 j 03:05	24° $\mathbf{\text{X}}$ 29'26 -17°13'25	retrograde	-859 Jul 12 j 05:08	3° $\mathbf{\text{Y}}$ 13'35	
direct	-867 Dec 16 j 04:40	23° $\mathbf{\text{X}}$ 30'06	opposition	-859 Oct 03 j 18:12	2° $\mathbf{\text{Y}}$ 13'41	-16°35'27
			min. Earth dist.	-859 Oct 02 j 20:09	2° $\mathbf{\text{Y}}$ 14'44	48.11035 AU
			direct	-859 Dec 24 j 01:40	1° $\mathbf{\text{Y}}$ 14'48	
conjunction	-866 Mar 24 j 16:04	24° $\mathbf{\text{X}}$ 57'18 -16°30'47				
minimum elong	-866 Mar 24 j 16:12	24° $\mathbf{\text{X}}$ 57'19 16°30'47				
max. Earth dist.	-866 Mar 26 j 01:26	24° $\mathbf{\text{X}}$ 59'14 49.78919 AU	conjunction	-858 Apr 01 j 14:32	2° $\mathbf{\text{Y}}$ 41'24	-15°53'29
retrograde	-866 Jul 05 j 15:11	26° $\mathbf{\text{X}}$ 28'05	minimum elong	-858 Apr 01 j 14:41	2° $\mathbf{\text{Y}}$ 41'24	15°53'29
min. Earth dist.	-866 Sep 26 j 01:24	25° $\mathbf{\text{X}}$ 29'08 47.89722 AU	max. Earth dist.	-858 Apr 02 j 13:24	2° $\mathbf{\text{Y}}$ 42'42	50.03694 AU
opposition	-866 Sep 27 j 08:05	25° $\mathbf{\text{X}}$ 27'40 -17°09'37	retrograde	-858 Jul 13 j 13:40	4° $\mathbf{\text{Y}}$ 11'21	
direct	-866 Dec 17 j 12:25	24° $\mathbf{\text{X}}$ 28'23	opposition	-858 Oct 04 j 22:57	3° $\mathbf{\text{Y}}$ 11'29	-16°29'36
			min. Earth dist.	-858 Oct 04 j 01:50	3° $\mathbf{\text{Y}}$ 12'29	48.12173 AU
			direct	-858 Dec 25 j 03:54	2° $\mathbf{\text{Y}}$ 12'36	
conjunction	-865 Mar 25 j 21:41	25° $\mathbf{\text{X}}$ 55'29 -16°27'02				
minimum elong	-865 Mar 25 j 21:48	25° $\mathbf{\text{X}}$ 55'29 16°27'02				
max. Earth dist.	-865 Mar 27 j 05:20	25° $\mathbf{\text{X}}$ 57'18 49.83269 AU	conjunction	-857 Apr 02 j 20:08	3° $\mathbf{\text{Y}}$ 39'07	-15°47'46
retrograde	-865 Jul 06 j 20:17	27° $\mathbf{\text{X}}$ 26'07	minimum elong	-857 Apr 02 j 20:19	3° $\mathbf{\text{Y}}$ 39'08	15°47'45
min. Earth dist.	-865 Sep 27 j 07:54	26° $\mathbf{\text{X}}$ 27'10 47.93866 AU	max. Earth dist.	-857 Apr 03 j 18:01	3° $\mathbf{\text{Y}}$ 40'22	50.04658 AU
opposition	-865 Sep 28 j 13:12	26° $\mathbf{\text{X}}$ 25'47 -17°05'33	retrograde	-857 Jul 14 j 20:57	5° $\mathbf{\text{Y}}$ 08'58	
direct	-865 Dec 18 j 18:51	25° $\mathbf{\text{X}}$ 26'33	min. Earth dist.	-857 Oct 05 j 08:51	4° $\mathbf{\text{Y}}$ 10'00	48.12790 AU
			opposition	-857 Oct 06 j 03:44	4° $\mathbf{\text{Y}}$ 09'07	-16°23'32
			direct	-857 Dec 26 j 06:55	3° $\mathbf{\text{Y}}$ 10'13	
conjunction	-864 Mar 26 j 03:38	26° $\mathbf{\text{X}}$ 53'33 -16°23'01				
minimum elong	-864 Mar 26 j 03:47	26° $\mathbf{\text{X}}$ 53'33 16°23'01				
max. Earth dist.	-864 Mar 27 j 11:29	26° $\mathbf{\text{X}}$ 55'23 49.87333 AU	conjunction	-856 Apr 03 j 01:54	4° $\mathbf{\text{Y}}$ 36'40	-15°41'49
retrograde	-864 Jul 07 j 02:35	28° $\mathbf{\text{X}}$ 24'05	minimum elong	-856 Apr 03 j 02:03	4° $\mathbf{\text{Y}}$ 36'40	15°41'49
opposition	-864 Sep 28 j 18:05	27° $\mathbf{\text{X}}$ 23'49 -17°01'11	max. Earth dist.	-856 Apr 03 j 22:37	4° $\mathbf{\text{Y}}$ 37'50	50.05148 AU
min. Earth dist.	-864 Sep 27 j 13:47	27° $\mathbf{\text{X}}$ 25'10 47.97704 AU	retrograde	-856 Jul 14 j 23:36	6° $\mathbf{\text{Y}}$ 06'23	
direct	-864 Dec 18 j 23:58	26° $\mathbf{\text{X}}$ 24'39	opposition	-856 Oct 06 j 08:10	5° $\mathbf{\text{Y}}$ 06'32	-16°17'12
			min. Earth dist.	-856 Oct 05 j 13:35	5° $\mathbf{\text{Y}}$ 07'25	48.12952 AU
			direct	-856 Dec 26 j 13:11	4° $\mathbf{\text{Y}}$ 07'37	
conjunction	-863 Mar 27 j 09:25	27° $\mathbf{\text{X}}$ 51'34 -16°18'43				
minimum elong	-863 Mar 27 j 09:33	27° $\mathbf{\text{X}}$ 51'34 16°18'43				
max. Earth dist.	-863 Mar 28 j 15:20	27° $\mathbf{\text{X}}$ 53'17 49.91101 AU	conjunction	-855 Apr 04 j 07:30	5° $\mathbf{\text{Y}}$ 34'00	-15°35'37
retrograde	-863 Jul 08 j 11:07	29° $\mathbf{\text{X}}$ 21'59	minimum elong	-855 Apr 04 j 07:40	5° $\mathbf{\text{Y}}$ 34'01	15°35'37
opposition	-863 Sep 29 j 22:59	28° $\mathbf{\text{X}}$ 21'49 -16°56'32	max. Earth dist.	-855 Apr 05 j 02:11	5° $\mathbf{\text{Y}}$ 35'04	50.05204 AU
min. Earth dist.	-863 Sep 28 j 19:02	28° $\mathbf{\text{X}}$ 23'08 48.01233 AU	retrograde	-855 Jul 16 j 02:38	7° $\mathbf{\text{Y}}$ 03'37	
direct	-863 Dec 20 j 02:04	27° $\mathbf{\text{X}}$ 22'43	opposition	-855 Oct 07 j 12:45	6° $\mathbf{\text{Y}}$ 03'47	-16°10'38
			min. Earth dist.	-855 Oct 06 j 19:55	6° $\mathbf{\text{Y}}$ 04'34	48.12719 AU
			direct	-855 Dec 27 j 20:05	5° $\mathbf{\text{Y}}$ 04'51	
conjunction	-862 Mar 28 j 15:09	28° $\mathbf{\text{X}}$ 49'34 -16°14'09				
minimum elong	-862 Mar 28 j 15:18	28° $\mathbf{\text{X}}$ 49'34 16°14'10				
max. Earth dist.	-862 Mar 29 j 20:23	28° $\mathbf{\text{X}}$ 51'14 49.94522 AU	conjunction	-854 Apr 05 j 13:03	6° $\mathbf{\text{Y}}$ 31'10	-15°29'11
	-862 May 26 j 07:56	0° $\mathbf{\text{Y}}$	minimum elong	-854 Apr 05 j 13:13	6° $\mathbf{\text{Y}}$ 31'10	15°29'10
retrograde	-862 Jul 09 j 16:20	0° $\mathbf{\text{Y}}$ 19'53	max. Earth dist.	-854 Apr 06 j 07:45	6° $\mathbf{\text{Y}}$ 32'14	50.04889 AU
	-862 Aug 23 j 08:26	30° $\mathbf{\text{R}}$ $\mathbf{\text{X}}$	retrograde	-854 Jul 17 j 06:15	8° $\mathbf{\text{Y}}$ 00'42	
min. Earth dist.	-862 Sep 30 j 01:58	29° $\mathbf{\text{X}}$ 21'01 48.04388 AU	opposition	-854 Oct 08 j 17:12	7° $\mathbf{\text{Y}}$ 00'51	-16°03'49
opposition	-862 Oct 01 j 03:53	29° $\mathbf{\text{X}}$ 19'48 -16°51'38	min. Earth dist.	-854 Oct 08 j 01:15	7° $\mathbf{\text{Y}}$ 01'37	48.12126 AU
direct	-862 Dec 21 j 06:29	28° $\mathbf{\text{X}}$ 20'46	direct	-854 Dec 29 j 02:58	6° $\mathbf{\text{Y}}$ 01'55	
conjunction	-861 Mar 29 j 20:59	29° $\mathbf{\text{X}}$ 47'34 -16°09'20	conjunction	-853 Apr 06 j 18:31	7° $\mathbf{\text{Y}}$ 28'11	-15°22'29
minimum elong	-861 Mar 29 j 21:08	29° $\mathbf{\text{X}}$ 47'34 16°09'20	minimum elong	-853 Apr 06 j 18:42	7° $\mathbf{\text{Y}}$ 28'12	15°22'29
max. Earth dist.	-861 Mar 31 j 01:15	29° $\mathbf{\text{X}}$ 49'11 49.97566 AU	max. Earth dist.	-853 Apr 07 j 11:17	7° $\mathbf{\text{Y}}$ 29'08	50.04257 AU
	-861 Apr 07 j 22:54	0° $\mathbf{\text{Y}}$	retrograde	-853 Jul 18 j 13:43	8° $\mathbf{\text{Y}}$ 57'39	
retrograde	-861 Jul 10 j 19:26	1° $\mathbf{\text{Y}}$ 17'48	opposition	-853 Oct 09 j 21:36	7° $\mathbf{\text{Y}}$ 57'49	-15°56'43
min. Earth dist.	-861 Oct 01 j 07:07	0° $\mathbf{\text{Y}}$ 19'00 48.07121 AU	min. Earth dist.	-853 Oct 09 j 06:01	7° $\mathbf{\text{Y}}$ 58'34	48.11237 AU
opposition	-861 Oct 02 j 08:37	0° $\mathbf{\text{Y}}$ 17'47 -16°46'28	direct	-853 Dec 30 j 05:30	6° $\mathbf{\text{Y}}$ 58'53	
	-861 Oct 18 j 05:49	30° $\mathbf{\text{R}}$ $\mathbf{\text{X}}$				
direct	-861 Dec 22 j 12:54	29° $\mathbf{\text{X}}$ 18'49	conjunction	-852 Apr 07 j 00:01	8° $\mathbf{\text{Y}}$ 25'07	-15°15'32
	-860 Feb 24 j 04:49	0° $\mathbf{\text{Y}}$	minimum elong	-852 Apr 07 j 00:10	8° $\mathbf{\text{Y}}$ 25'07	15°15'31
			max. Earth dist.	-852 Apr 07 j 16:08	8° $\mathbf{\text{Y}}$ 26'02	50.03322 AU
conjunction	-860 Mar 30 j 02:44	0° $\mathbf{\text{Y}}$ 45'34 -16°04'16	retrograde	-852 Jul 18 j 19:33	9° $\mathbf{\text{Y}}$ 54'31	

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Attention, astronomical year style is used: The year -852 in astronomical counting style is the year 853 BCE in historical counting style.

opposition	-852 Oct 10 j 02:06	8°♊54'43	-15°49'22	min. Earth dist.	-845 Oct 17 j 03:53	15°♊34'30	47.90400 AU
min. Earth dist.	-852 Oct 09 j 12:19	8°♊55'22	48.10041 AU	direct	-844 Jan 06 j 17:57	14°♊35'20	
direct	-852 Dec 30 j 09:04	7°♊55'47		evening set	-844 Apr 09 j 15:15	15°♊54'38	
conjunction	-851 Apr 08 j 05:37	9°♊22'00	-15°08'19	conjunction	-844 Apr 14 j 21:01	16°♊01'45	-14°11'15
minimum elong	-851 Apr 08 j 05:49	9°♊22'01	15°08'19	minimum elong	-844 Apr 14 j 21:13	16°♊01'46	14°11'14
max. Earth dist.	-851 Apr 08 j 21:00	9°♊22'53	50.02099 AU	max. Earth dist.	-844 Apr 15 j 02:43	16°♊02'05	49.81744 AU
retrograde	-851 Jul 19 j 23:27	10°♊51'21		morning rise	-844 Apr 20 j 03:25	16°♊08'55	
opposition	-851 Oct 11 j 06:20	9°♊51'36	-15°41'44	retrograde	-844 Jul 26 j 09:59	17°♊31'03	
min. Earth dist.	-851 Oct 10 j 16:40	9°♊52'15	48.08536 AU	opposition	-844 Oct 17 j 13:11	16°♊31'25	-14°41'42
direct	-851 Dec 31 j 14:09	8°♊52'41		min. Earth dist.	-844 Oct 17 j 09:14	16°♊31'36	47.85663 AU
conjunction	-850 Apr 09 j 11:05	10°♊18'55	-15°00'51	direct	-843 Jan 07 j 01:30	15°♊32'27	
minimum elong	-850 Apr 09 j 11:15	10°♊18'56	15°00'51	evening set	-843 Apr 10 j 10:03	16°♊51'10	
max. Earth dist.	-850 Apr 10 j 00:30	10°♊19'41	50.00548 AU	conjunction	-843 Apr 16 j 02:37	16°♊58'54	-14°02'11
retrograde	-850 Jul 21 j 04:07	11°♊48'15		minimum elong	-843 Apr 16 j 02:48	16°♊58'54	14°02'11
opposition	-850 Oct 12 j 10:48	10°♊48'32	-15°33'52	max. Earth dist.	-843 Apr 16 j 06:03	16°♊59'05	49.76947 AU
min. Earth dist.	-850 Oct 11 j 22:53	10°♊49'06	48.06695 AU	morning rise	-843 Apr 21 j 19:54	17°♊06'40	
direct	-849 Jan 01 j 19:22	9°♊49'39		retrograde	-843 Jul 27 j 17:30	18°♊28'11	
evening set	-849 Apr 08 j 17:02	11°♊13'13		opposition	-843 Oct 18 j 17:23	17°♊28'32	-14°32'12
conjunction	-849 Apr 10 j 16:36	11°♊15'54	-14°53'08	min. Earth dist.	-843 Oct 18 j 14:10	17°♊28'41	47.80545 AU
minimum elong	-849 Apr 10 j 16:47	11°♊15'55	14°53'09	direct	-842 Jan 08 j 04:02	16°♊29'31	
max. Earth dist.	-849 Apr 11 j 05:53	11°♊16'40	49.98633 AU	evening set	-842 Apr 11 j 05:24	17°♊47'42	
morning rise	-849 Apr 12 j 16:37	11°♊18'38		conjunction	-842 Apr 17 j 08:14	17°♊56'00	-13°52'54
retrograde	-849 Jul 22 j 08:03	12°♊45'15		minimum elong	-842 Apr 17 j 08:27	17°♊56'00	13°52'53
opposition	-849 Oct 13 j 15:13	11°♊45'34	-15°25'44	max. Earth dist.	-842 Apr 17 j 11:00	17°♊56'09	49.71783 AU
min. Earth dist.	-849 Oct 13 j 04:23	11°♊46'05	48.04439 AU	morning rise	-842 Apr 23 j 11:50	18°♊04'21	
direct	-848 Jan 03 j 01:36	10°♊46'42		retrograde	-842 Jul 28 j 23:53	19°♊25'17	
evening set	-848 Apr 08 j 00:23	12°♊09'02		opposition	-842 Oct 19 j 21:47	18°♊25'37	-14°22'26
conjunction	-848 Apr 10 j 22:15	12°♊12'59	-14°45'12	min. Earth dist.	-842 Oct 19 j 20:20	18°♊25'41	47.75085 AU
minimum elong	-848 Apr 10 j 22:26	12°♊13'00	14°45'11	direct	-841 Jan 09 j 07:03	17°♊26'33	
max. Earth dist.	-848 Apr 11 j 09:11	12°♊13'37	49.96280 AU	evening set	-841 Apr 12 j 01:13	18°♊44'13	
morning rise	-848 Apr 13 j 20:34	12°♊16'59		conjunction	-841 Apr 18 j 13:43	18°♊53'05	-13°43'21
retrograde	-848 Jul 22 j 16:08	13°♊42'19		minimum elong	-841 Apr 18 j 13:54	18°♊53'05	13°43'20
opposition	-848 Oct 13 j 19:31	12°♊42'42	-15°17'23	max. Earth dist.	-841 Apr 18 j 15:47	18°♊53'12	49.66319 AU
min. Earth dist.	-848 Oct 13 j 09:45	12°♊43'09	48.01719 AU	morning rise	-841 Apr 25 j 02:56	19°♊01'59	
direct	-847 Jan 03 j 03:51	11°♊43'49		retrograde	-841 Jul 30 j 04:31	20°♊22'23	
evening set	-847 Apr 08 j 13:11	13°♊05'15		opposition	-841 Oct 21 j 02:05	19°♊22'41	-14°12'25
conjunction	-847 Apr 12 j 04:03	13°♊10'10	-14°37'02	min. Earth dist.	-841 Oct 21 j 00:37	19°♊22'45	47.69331 AU
minimum elong	-847 Apr 12 j 04:14	13°♊10'10	14°37'02	direct	-840 Jan 10 j 11:45	18°♊23'35	
max. Earth dist.	-847 Apr 12 j 13:45	13°♊10'42	49.93417 AU	evening set	-840 Apr 11 j 21:36	19°♊40'48	
morning rise	-847 Apr 15 j 19:27	13°♊15'06		conjunction	-840 Apr 18 j 19:19	19°♊50'11	-13°33'33
retrograde	-847 Jul 23 j 23:43	14°♊39'29		minimum elong	-840 Apr 18 j 19:32	19°♊50'12	13°33'33
opposition	-847 Oct 15 j 00:04	13°♊39'53	-15°08'48	max. Earth dist.	-840 Apr 18 j 19:30	19°♊50'12	49.60561 AU
min. Earth dist.	-847 Oct 14 j 16:37	13°♊40'14	47.98465 AU	morning rise	-840 Apr 25 j 17:58	19°♊59'37	
direct	-846 Jan 04 j 06:26	12°♊41'00		retrograde	-840 Jul 30 j 08:26	21°♊19'31	
evening set	-846 Apr 09 j 04:26	14°♊01'38		opposition	-840 Oct 21 j 06:25	20°♊19'48	-14°02'07
conjunction	-846 Apr 13 j 09:41	14°♊07'22	-14°28'40	min. Earth dist.	-840 Oct 21 j 06:37	20°♊19'48	47.63299 AU
minimum elong	-846 Apr 13 j 09:53	14°♊07'23	14°28'39	direct	-839 Jan 10 j 17:13	19°♊20'40	
max. Earth dist.	-846 Apr 13 j 18:00	14°♊07'51	49.90031 AU	evening set	-839 Apr 12 j 18:26	20°♊37'28	
morning rise	-846 Apr 17 j 15:30	14°♊13'08		conjunction	-839 Apr 20 j 01:07	20°♊47'21	-13°23'30
retrograde	-846 Jul 25 j 03:56	15°♊36'41		minimum elong	-839 Apr 20 j 01:19	20°♊47'22	13°23'29
opposition	-846 Oct 16 j 04:25	14°♊37'05	-15°00'00	max. Earth dist.	-839 Apr 20 j 01:17	20°♊47'22	49.54529 AU
min. Earth dist.	-846 Oct 15 j 21:19	14°♊37'25	47.94678 AU	morning rise	-839 Apr 27 j 08:34	20°♊57'17	
direct	-845 Jan 05 j 11:13	13°♊38'11		retrograde	-839 Jul 31 j 11:24	22°♊16'44	
evening set	-845 Apr 09 j 21:14	14°♊58'07		opposition	-839 Oct 22 j 10:50	21°♊17'01	-13°51'34
conjunction	-845 Apr 14 j 15:17	15°♊04'35	-14°20'04	min. Earth dist.	-839 Oct 22 j 11:40	21°♊16'58	47.56971 AU
minimum elong	-845 Apr 14 j 15:28	15°♊04'35	14°20'04	direct	-838 Jan 12 j 00:10	20°♊17'51	
max. Earth dist.	-845 Apr 14 j 21:17	15°♊04'55	49.86122 AU	evening set	-838 Apr 13 j 15:32	21°♊34'16	
morning rise	-845 Apr 19 j 09:59	15°♊11'04		conjunction	-838 Apr 21 j 06:38	21°♊44'37	-13°13'11
retrograde	-845 Jul 26 j 07:05	16°♊33'53		minimum elong	-838 Apr 21 j 06:51	21°♊44'38	13°13'12
opposition	-845 Oct 17 j 08:50	15°♊34'16	-14°50'58	max. Earth dist.	-838 Apr 21 j 04:55	21°♊44'31	49.48200 AU

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Attention, astronomical year style is used: The year -838 in astronomical counting style is the year 839 BCE in historical counting style.

morning rise	-838 Apr 28 j 22:42	21° Υ 55'03	conjunction	-831 Apr 28 j 01:01	28° Υ 29'07	-11°54'33	
retrograde	-838 Aug 01 j 18:11	23° Υ 14'04	minimum elong	-831 Apr 28 j 01:14	28° Υ 29'07	11°54'32	
opposition	-838 Oct 23 j 15:13	22° Υ 14'21	-13°40'46	max. Earth dist.	-831 Apr 27 j 13:27	28° Υ 28'27	48.91398 AU
min. Earth dist.	-838 Oct 23 j 16:50	22° Υ 14'17	47.50331 AU	morning rise	-831 May 07 j 21:53	28° Υ 42'36	
direct	-837 Jan 13 j 03:47	21° Υ 15'10		retrograde	-831 Aug 08 j 11:11	29° Υ 59'05	
evening set	-837 Apr 14 j 12:59	22° Υ 31'12		opposition	-831 Oct 29 j 23:15	28° Υ 59'07	-12°18'26
				min. Earth dist.	-831 Oct 30 j 10:09	28° Υ 58'36	46.90832 AU
conjunction	-837 Apr 22 j 12:27	22° Υ 42'02	-13°02'38	direct	-830 Jan 19 j 11:47	27° Υ 59'28	
minimum elong	-837 Apr 22 j 12:39	22° Υ 42'03	13°02'38	evening set	-830 Apr 19 j 04:28	29° Υ 13'24	
max. Earth dist.	-837 Apr 22 j 09:51	22° Υ 41'54	49.41517 AU				
morning rise	-837 Apr 30 j 12:51	22° Υ 52'57		conjunction	-830 Apr 29 j 07:01	29° Υ 27'13	-11°42'23
retrograde	-837 Aug 03 j 02:06	24° Υ 11'34		minimum elong	-830 Apr 29 j 07:12	29° Υ 27'14	11°42'23
opposition	-837 Oct 24 j 19:41	23° Υ 11'51	-13°29'42	max. Earth dist.	-830 Apr 28 j 17:23	29° Υ 26'27	48.81450 AU
min. Earth dist.	-837 Oct 24 j 23:19	23° Υ 11'40	47.43303 AU	morning rise	-830 May 09 j 10:44	29° Υ 41'06	
direct	-836 Jan 14 j 06:16	22° Υ 12'38			-830 May 23 j 16:58	0° \mathcal{B}	
evening set	-836 Apr 14 j 11:01	23° Υ 28'19		retrograde	-830 Aug 09 j 16:19	0° \mathcal{B} 57'18	
					-830 Oct 28 j 19:07	30° $\mathcal{R}\Upsilon$	
conjunction	-836 Apr 22 j 18:26	23° Υ 39'38	-12°51'51	opposition	-830 Oct 31 j 04:03	29° Υ 57'16	-12°05'42
minimum elong	-836 Apr 22 j 18:38	23° Υ 39'38	12°51'51	min. Earth dist.	-830 Oct 31 j 16:45	29° Υ 56'40	46.80570 AU
max. Earth dist.	-836 Apr 22 j 14:35	23° Υ 39'24	49.34426 AU	direct	-829 Jan 20 j 17:17	28° Υ 57'32	
morning rise	-836 May 01 j 02:44	23° Υ 50'59			-829 Apr 11 j 18:30	0° \mathcal{B}	
retrograde	-836 Aug 03 j 08:58	25° Υ 09'13		evening set	-829 Apr 20 j 04:06	0° \mathcal{B} 11'15	
opposition	-836 Oct 25 j 00:07	24° Υ 09'29	-13°18'24				
min. Earth dist.	-836 Oct 25 j 04:12	24° Υ 09'18	47.35819 AU	conjunction	-829 Apr 30 j 13:19	0° \mathcal{B} 25'27	-11°29'59
direct	-835 Jan 14 j 09:22	23° Υ 10'13		minimum elong	-829 Apr 30 j 13:32	0° \mathcal{B} 25'28	11°29'58
evening set	-835 Apr 15 j 09:19	24° Υ 25'36		max. Earth dist.	-829 Apr 29 j 23:42	0° \mathcal{B} 24'40	48.71179 AU
				morning rise	-829 May 10 j 23:27	0° \mathcal{B} 39'43	
conjunction	-835 Apr 24 j 00:26	24° Υ 37'21	-12°40'50	retrograde	-829 Aug 10 j 19:33	1° \mathcal{B} 55'39	
minimum elong	-835 Apr 24 j 00:38	24° Υ 37'22	12°40'49	opposition	-829 Nov 01 j 08:45	0° \mathcal{B} 55'34	-11°52'42
max. Earth dist.	-835 Apr 23 j 18:09	24° Υ 37'00	49.26831 AU	min. Earth dist.	-829 Nov 01 j 22:01	0° \mathcal{B} 54'55	46.69991 AU
morning rise	-835 May 02 j 16:37	24° Υ 49'10			-828 Jan 02 j 04:39	30° $\mathcal{R}\Upsilon$	
retrograde	-835 Aug 04 j 13:26	26° Υ 07'01		direct	-828 Jan 22 j 00:46	29° Υ 55'44	
opposition	-835 Oct 26 j 04:43	25° Υ 07'16	-13°06'52		-828 Feb 10 j 15:53	0° \mathcal{B}	
min. Earth dist.	-835 Oct 26 j 11:05	25° Υ 06'58	47.27820 AU	evening set	-828 Apr 20 j 04:05	1° \mathcal{B} 09'15	
direct	-834 Jan 15 j 15:14	24° Υ 07'57					
evening set	-834 Apr 16 j 07:54	25° Υ 23'01		conjunction	-828 Apr 30 j 19:34	1° \mathcal{B} 23'50	-11°17'18
				minimum elong	-828 Apr 30 j 19:45	1° \mathcal{B} 23'50	11°17'18
conjunction	-834 Apr 25 j 06:37	25° Υ 35'12	-12°29'36	max. Earth dist.	-828 Apr 30 j 03:56	1° \mathcal{B} 22'56	48.60614 AU
minimum elong	-834 Apr 25 j 06:48	25° Υ 35'12	12°29'36	morning rise	-828 May 11 j 12:13	1° \mathcal{B} 38'29	
max. Earth dist.	-834 Apr 24 j 23:42	25° Υ 34'48	49.18716 AU	retrograde	-828 Aug 11 j 02:14	2° \mathcal{B} 54'10	
morning rise	-834 May 04 j 06:11	25° Υ 47'26		opposition	-828 Nov 01 j 13:36	1° \mathcal{B} 54'02	-11°39'26
retrograde	-834 Aug 05 j 15:43	27° Υ 04'56		min. Earth dist.	-828 Nov 02 j 03:40	1° \mathcal{B} 53'22	46.59132 AU
opposition	-834 Oct 27 j 09:21	26° Υ 05'08	-12°55'07	direct	-827 Jan 22 j 05:06	0° \mathcal{B} 54'08	
min. Earth dist.	-834 Oct 27 j 16:49	26° Υ 04'47	47.19284 AU	evening set	-827 Apr 21 j 04:09	2° \mathcal{B} 07'28	
direct	-833 Jan 16 j 23:19	25° Υ 05'45		max. Earth dist.	-827 May 01 j 09:39	2° \mathcal{B} 21'29	48.49754 AU
evening set	-833 Apr 17 j 06:42	26° Υ 20'30					
				conjunction	-827 May 02 j 01:59	2° \mathcal{B} 22'26	-11°04'23
conjunction	-833 Apr 26 j 12:32	26° Υ 33'06	-12°18'09	minimum elong	-827 May 02 j 02:12	2° \mathcal{B} 22'26	11°04'23
minimum elong	-833 Apr 26 j 12:45	26° Υ 33'07	12°18'08	morning rise	-827 May 13 j 00:52	2° \mathcal{B} 37'28	
max. Earth dist.	-833 Apr 26 j 03:08	26° Υ 32'34	49.10084 AU	retrograde	-827 Aug 12 j 10:02	3° \mathcal{B} 52'56	
morning rise	-833 May 05 j 19:29	26° Υ 45'46		opposition	-827 Nov 02 j 18:33	2° \mathcal{B} 52'46	-11°25'54
retrograde	-833 Aug 06 j 22:34	28° Υ 02'55		min. Earth dist.	-827 Nov 03 j 10:14	2° \mathcal{B} 52'00	46.47974 AU
opposition	-833 Oct 28 j 14:00	27° Υ 03'05	-12°43'08	direct	-826 Jan 23 j 08:23	1° \mathcal{B} 52'48	
min. Earth dist.	-833 Oct 28 j 22:32	27° Υ 02'40	47.10249 AU	evening set	-826 Apr 22 j 04:33	3° \mathcal{B} 05'57	
direct	-832 Jan 18 j 03:16	26° Υ 03'36					
evening set	-832 Apr 17 j 05:43	27° Υ 18'04		conjunction	-826 May 03 j 08:27	3° \mathcal{B} 21'18	-10°51'12
				minimum elong	-826 May 03 j 08:38	3° \mathcal{B} 21'18	10°51'11
conjunction	-832 Apr 26 j 18:47	27° Υ 31'05	-12°06'28	max. Earth dist.	-826 May 02 j 15:12	3° \mathcal{B} 20'18	48.38610 AU
minimum elong	-832 Apr 26 j 18:58	27° Υ 31'05	12°06'28	morning rise	-826 May 14 j 13:22	3° \mathcal{B} 36'43	
max. Earth dist.	-832 Apr 26 j 08:17	27° Υ 30'29	49.00954 AU	retrograde	-826 Aug 13 j 18:53	4° \mathcal{B} 51'58	
morning rise	-832 May 06 j 08:51	27° Υ 44'10		opposition	-826 Nov 03 j 23:28	3° \mathcal{B} 51'46	-11°12'05
retrograde	-832 Aug 07 j 05:15	29° Υ 00'58		min. Earth dist.	-826 Nov 04 j 15:14	3° \mathcal{B} 51'01	46.36508 AU
opposition	-832 Oct 28 j 18:37	28° Υ 01'04	-12°30'54	direct	-825 Jan 24 j 10:47	2° \mathcal{B} 51'44	
min. Earth dist.	-832 Oct 29 j 05:18	28° Υ 00'34	47.00742 AU	evening set	-825 Apr 23 j 05:03	4° \mathcal{B} 04'46	
direct	-831 Jan 18 j 07:09	27° Υ 01'30					
evening set	-831 Apr 18 j 05:09	28° Υ 15'42		conjunction	-825 May 04 j 14:53	4° \mathcal{B} 20'29	-10°37'46
				minimum elong	-825 May 04 j 15:05	4° \mathcal{B} 20'29	10°37'45

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Attention, astronomical year style is used: The year -825 in astronomical counting style is the year 826 BCE in historical counting style.

max. Earth dist.	-825 May 03 j 19:40	4° 8 19'22	48.27117 AU	max. Earth dist.	-818 May 10 j 10:46	11° 8 20'15	47.33564 AU
morning rise	-825 May 16 j 01:56	4° 8 36'16					
retrograde	-825 Aug 15 j 00:57	5° 8 51'21		conjunction	-818 May 11 j 16:27	11° 8 21'59	-8°56'56
opposition	-825 Nov 05 j 04:39	4° 8 51'06	-10°58'01	minimum elong	-818 May 11 j 16:38	11° 8 22'00	8°56'55
min. Earth dist.	-825 Nov 05 j 22:36	4° 8 50'14	46.24669 AU	morning rise	-818 May 24 j 17:05	11° 8 40'11	
direct	-824 Jan 25 j 16:10	3° 8 50'59		retrograde	-818 Aug 21 j 19:32	12° 8 54'11	
evening set	-824 Apr 23 j 06:02	5° 8 03'55		opposition	-818 Nov 11 j 18:41	11° 8 53'16	-9°12'30
				min. Earth dist.	-818 Nov 12 j 21:20	11° 8 51'57	45.28488 AU
conjunction	-824 May 04 j 21:48	5° 8 19'59	-10°24'04	direct	-817 Feb 01 j 12:00	10° 8 52'13	
minimum elong	-824 May 04 j 22:00	5° 8 20'00	10°24'03	evening set	-817 Apr 29 j 19:18	12° 8 04'29	
max. Earth dist.	-824 May 04 j 02:06	5° 8 18'51	48.15214 AU				
morning rise	-824 May 16 j 14:29	5° 8 36'08		conjunction	-817 May 12 j 23:50	12° 8 22'55	-8°41'32
retrograde	-824 Aug 15 j 03:37	6° 8 51'02		minimum elong	-817 May 13 j 00:00	12° 8 22'56	8°41'31
opposition	-824 Nov 05 j 09:44	5° 8 50'45	-10°43'42	max. Earth dist.	-817 May 11 j 17:31	12° 8 21'09	47.18544 AU
min. Earth dist.	-824 Nov 06 j 04:38	5° 8 49'50	46.12375 AU	morning rise	-817 May 26 j 05:13	12° 8 41'27	
direct	-823 Jan 26 j 01:08	4° 8 50'33		retrograde	-817 Aug 23 j 01:44	13° 8 55'22	
evening set	-823 Apr 24 j 07:24	6° 8 03'22		opposition	-817 Nov 13 j 00:34	12° 8 54'18	-8°56'22
max. Earth dist.	-823 May 05 j 06:21	6° 8 18'30	48.02832 AU	min. Earth dist.	-817 Nov 14 j 04:39	12° 8 52'55	45.13184 AU
				direct	-816 Feb 02 j 18:35	11° 8 53'06	
conjunction	-823 May 06 j 04:41	6° 8 19'48	-10°10'09	evening set	-816 Apr 29 j 22:13	13° 8 05'19	
minimum elong	-823 May 06 j 04:52	6° 8 19'48	10°10'09	max. Earth dist.	-816 May 12 j 00:10	13° 8 22'15	47.03262 AU
morning rise	-823 May 18 j 03:09	6° 8 36'18					
retrograde	-823 Aug 16 j 10:17	7° 8 51'03		conjunction	-816 May 13 j 07:25	13° 8 24'05	-8°25'51
opposition	-823 Nov 06 j 15:03	6° 8 50'41	-10°29'08	minimum elong	-816 May 13 j 07:36	13° 8 24'06	8°25'50
min. Earth dist.	-823 Nov 07 j 11:18	6° 8 49'42	45.99587 AU	morning rise	-816 May 26 j 17:29	13° 8 42'56	
direct	-822 Jan 27 j 06:41	5° 8 50'23		retrograde	-816 Aug 23 j 11:10	14° 8 56'46	
evening set	-822 Apr 25 j 08:41	7° 8 03'05		opposition	-816 Nov 13 j 06:20	13° 8 55'35	-8°39'56
				min. Earth dist.	-816 Nov 14 j 10:25	13° 8 54'12	44.97632 AU
conjunction	-822 May 07 j 11:36	7° 8 19'52	-9°56'00	direct	-815 Feb 02 j 22:19	12° 8 54'13	
minimum elong	-822 May 07 j 11:48	7° 8 19'52	9°55'58	evening set	-815 May 01 j 01:21	14° 8 06'27	
max. Earth dist.	-822 May 06 j 12:10	7° 8 18'30	47.89923 AU	max. Earth dist.	-815 May 13 j 06:07	14° 8 23'36	46.87725 AU
morning rise	-822 May 19 j 15:31	7° 8 36'43					
retrograde	-822 Aug 17 j 17:28	8° 8 51'19		conjunction	-815 May 14 j 15:05	14° 8 25'33	-8°09'54
opposition	-822 Nov 07 j 20:35	7° 8 50'52	-10°14'19	minimum elong	-815 May 14 j 15:15	14° 8 25'33	8°09'54
min. Earth dist.	-822 Nov 08 j 18:51	7° 8 49'47	45.86265 AU	morning rise	-815 May 28 j 05:47	14° 8 44'42	
direct	-821 Jan 28 j 11:32	6° 8 50'27			-815 Jun 08 j 12:06	15° 8	
evening set	-821 Apr 26 j 10:27	8° 8 03'02		retrograde	-815 Aug 24 j 19:48	15° 8 58'29	
					-815 Nov 12 j 03:37	15° 8	
conjunction	-821 May 08 j 18:43	8° 8 20'09	-9°41'36	opposition	-815 Nov 14 j 12:31	14° 8 57'12	-8°23'13
minimum elong	-821 May 08 j 18:54	8° 8 20'10	9°41'36	min. Earth dist.	-815 Nov 15 j 18:27	14° 8 55'43	44.81840 AU
max. Earth dist.	-821 May 07 j 17:49	8° 8 18'42	47.76509 AU	direct	-814 Feb 04 j 02:55	13° 8 55'42	
morning rise	-821 May 21 j 03:58	8° 8 37'21			-814 Apr 26 j 09:37	15° 8	
retrograde	-821 Aug 19 j 01:35	9° 8 51'47		evening set	-814 May 02 j 04:31	15° 8 07'57	
opposition	-821 Nov 09 j 01:53	8° 8 51'14	-9°59'16				
min. Earth dist.	-821 Nov 10 j 00:42	8° 8 50'08	45.72448 AU	conjunction	-814 May 15 j 22:50	15° 8 27'21	-7°53'41
direct	-820 Jan 29 j 15:45	7° 8 50'40		minimum elong	-814 May 15 j 23:00	15° 8 27'22	7°53'41
evening set	-820 Apr 26 j 12:24	9° 8 03'09		max. Earth dist.	-814 May 14 j 13:53	15° 8 25'24	46.71947 AU
max. Earth dist.	-820 May 07 j 22:38	9° 8 19'01	47.62603 AU	morning rise	-814 May 29 j 17:47	15° 8 46'50	
				retrograde	-814 Aug 26 j 01:09	17° 8 00'35	
conjunction	-820 May 09 j 01:54	9° 8 20'37	-9°26'57	opposition	-814 Nov 15 j 18:42	15° 8 59'12	-8°06'13
minimum elong	-820 May 09 j 02:05	9° 8 20'37	9°26'57	min. Earth dist.	-814 Nov 17 j 00:54	15° 8 57'42	44.65783 AU
morning rise	-820 May 21 j 16:31	9° 8 38'09			-813 Jan 21 j 18:12	15° 8	
retrograde	-820 Aug 19 j 09:31	10° 8 52'25		direct	-813 Feb 05 j 11:47	14° 8 57'34	
opposition	-820 Nov 09 j 07:29	9° 8 51'45	-9°43'56		-813 Feb 20 j 04:13	15° 8	
min. Earth dist.	-820 Nov 10 j 08:28	9° 8 50'32	45.58173 AU	evening set	-813 May 03 j 08:18	16° 8 09'53	
direct	-819 Jan 29 j 21:03	8° 8 51'02		max. Earth dist.	-813 May 15 j 19:37	16° 8 27'30	46.55887 AU
evening set	-819 Apr 27 j 14:30	10° 8 03'26					
max. Earth dist.	-819 May 09 j 05:41	10° 8 19'37	47.48267 AU	conjunction	-813 May 17 j 06:45	16° 8 29'36	-7°37'12
				minimum elong	-813 May 17 j 06:55	16° 8 29'36	7°37'11
conjunction	-819 May 10 j 09:14	10° 8 21'14	-9°12'04	morning rise	-813 May 31 j 06:09	16° 8 49'23	
minimum elong	-819 May 10 j 09:24	10° 8 21'14	9°12'04	retrograde	-813 Aug 27 j 08:22	18° 8 03'08	
morning rise	-819 May 23 j 04:46	10° 8 39'05		opposition	-813 Nov 17 j 00:56	17° 8 01'40	-7°48'56
retrograde	-819 Aug 20 j 13:31	11° 8 53'13		min. Earth dist.	-813 Nov 18 j 08:26	17° 8 00'06	44.49425 AU
opposition	-819 Nov 10 j 13:01	10° 8 52'25	-9°28'22	direct	-812 Feb 06 j 18:39	15° 8 59'53	
min. Earth dist.	-819 Nov 11 j 14:36	10° 8 51'10	45.43492 AU	evening set	-812 May 03 j 12:19	17° 8 12'17	
direct	-818 Jan 31 j 05:49	9° 8 51'32		max. Earth dist.	-812 May 16 j 03:14	17° 8 30'10	46.39468 AU
evening set	-818 Apr 28 j 16:55	11° 8 03'52					

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Attention, astronomical year style is used: The year -812 in astronomical counting style is the year 813 BCE in historical counting style.

conjunction	-812 May 17 j 15:07	17° 8 32'18	-7°20'26	evening set	-805 May 11 j 01:39	24° 8 41'50	
minimum elong	-812 May 17 j 15:17	17° 8 32'19	7°20'26	max. Earth dist.	-805 May 24 j 07:13	25° 8 01'04	45.12479 AU
morning rise	-812 May 31 j 18:31	17° 8 52'24					
retrograde	-812 Aug 27 j 15:46	19° 8 06'12		conjunction	-805 May 26 j 05:27	25° 8 03'54	-5°15'47
opposition	-812 Nov 17 j 07:31	18° 8 04'37	-7°31'22	minimum elong	-805 May 26 j 05:35	25° 8 03'54	5°15'46
min. Earth dist.	-812 Nov 18 j 16:48	18° 8 02'57	44.32670 AU	morning rise	-805 Jun 10 j 09:35	25° 8 26'00	
direct	-811 Feb 07 j 01:18	17° 8 02'42		retrograde	-805 Sep 05 j 07:07	26° 8 40'17	
evening set	-811 May 04 j 16:47	18° 8 15'11		opposition	-805 Nov 25 j 09:36	25° 8 37'37	-5°20'35
max. Earth dist.	-811 May 17 j 10:04	18° 8 33'16	46.22634 AU	min. Earth dist.	-805 Nov 27 j 03:26	25° 8 35'30	43.03499 AU
				direct	-804 Feb 14 j 23:55	24° 8 34'19	
conjunction	-811 May 18 j 23:31	18° 8 35'31	-7°03'25	evening set	-804 May 11 j 08:18	25° 8 47'47	
minimum elong	-811 May 18 j 23:40	18° 8 35'31	7°03'23	max. Earth dist.	-804 May 24 j 16:47	26° 8 07'16	44.92991 AU
morning rise	-811 Jun 02 j 06:54	18° 8 55'55					
retrograde	-811 Aug 29 j 01:35	20° 8 09'44		conjunction	-804 May 26 j 15:11	26° 8 10'07	-4°56'53
opposition	-811 Nov 18 j 14:07	19° 8 08'03	-7°13'32	minimum elong	-804 May 26 j 15:18	26° 8 10'07	4°56'53
min. Earth dist.	-811 Nov 19 j 23:56	19° 8 06'22	44.15475 AU	morning rise	-804 Jun 10 j 22:07	26° 8 32'29	
direct	-810 Feb 08 j 06:12	18° 8 05'59		retrograde	-804 Sep 05 j 16:02	27° 8 46'54	
evening set	-810 May 05 j 21:31	19° 8 18'34		opposition	-804 Nov 25 j 17:26	26° 8 44'04	-5°00'44
max. Earth dist.	-810 May 18 j 16:23	19° 8 36'49	46.05326 AU	min. Earth dist.	-804 Nov 27 j 11:13	26° 8 41'56	42.83800 AU
				direct	-803 Feb 15 j 09:48	25° 8 40'33	
conjunction	-810 May 20 j 08:06	19° 8 39'12	-6°46'08	evening set	-803 May 12 j 15:22	26° 8 54'15	
minimum elong	-810 May 20 j 08:15	19° 8 39'12	6°46'08	max. Earth dist.	-803 May 26 j 00:27	27° 8 13'51	44.73293 AU
morning rise	-810 Jun 03 j 19:22	19° 8 59'53					
retrograde	-810 Aug 30 j 12:04	21° 8 13'46		conjunction	-803 May 28 j 00:53	27° 8 16'51	-4°37'43
opposition	-810 Nov 19 j 21:04	20° 8 11'56	-6°55'25	minimum elong	-803 May 28 j 01:00	27° 8 16'51	4°37'42
min. Earth dist.	-810 Nov 21 j 09:09	20° 8 10'08	43.97809 AU	morning rise	-803 Jun 12 j 10:40	27° 8 39'29	
direct	-809 Feb 09 j 11:43	19° 8 09'42		retrograde	-803 Sep 07 j 01:29	28° 8 54'03	
evening set	-809 May 07 j 02:26	20° 8 22'23		opposition	-803 Nov 27 j 01:31	27° 8 51'03	-4°40'35
max. Earth dist.	-809 May 20 j 00:41	20° 8 40'54	45.87555 AU	min. Earth dist.	-803 Nov 28 j 20:32	27° 8 48'51	42.63914 AU
				direct	-802 Feb 16 j 18:55	26° 8 47'19	
conjunction	-809 May 21 j 16:54	20° 8 43'19	-6°28'36	evening set	-802 May 13 j 22:42	28° 8 01'16	
minimum elong	-809 May 21 j 17:03	20° 8 43'20	6°28'35	max. Earth dist.	-802 May 27 j 10:31	28° 8 21'08	44.53394 AU
morning rise	-809 Jun 05 j 07:45	21° 8 04'19					
retrograde	-809 Aug 31 j 19:37	22° 8 18'13		conjunction	-802 May 29 j 11:01	28° 8 24'08	-4°18'15
opposition	-809 Nov 21 j 04:05	21° 8 16'15	-6°37'01	minimum elong	-802 May 29 j 11:07	28° 8 24'09	4°18'15
min. Earth dist.	-809 Nov 22 j 16:45	21° 8 14'25	43.79675 AU	morning rise	-802 Jun 13 j 23:12	28° 8 47'02	
direct	-808 Feb 10 j 20:55	20° 8 13'49			-802 Aug 27 j 01:12	0° II	
evening set	-808 May 07 j 07:55	21° 8 26'38		retrograde	-802 Sep 08 j 09:14	0° II 01'49	
max. Earth dist.	-808 May 20 j 07:01	21° 8 45'16	45.69330 AU		-802 Sep 20 j 20:34	30° R8	
				opposition	-802 Nov 28 j 09:51	28° 8 58'38	-4°20'08
conjunction	-808 May 22 j 01:49	21° 8 47'52	-6°10'48	min. Earth dist.	-802 Nov 30 j 05:51	28° 8 56'22	42.43814 AU
minimum elong	-808 May 22 j 01:58	21° 8 47'52	6°10'48	direct	-801 Feb 18 j 05:07	27° 8 54'42	
morning rise	-808 Jun 05 j 20:22	22° 8 09'08		evening set	-801 May 15 j 06:33	29° 8 08'56	
retrograde	-808 Sep 01 j 03:47	23° 8 23'07		max. Earth dist.	-801 May 28 j 19:18	29° 8 28'57	44.33275 AU
opposition	-808 Nov 21 j 11:09	22° 8 20'59	-6°18'21				
min. Earth dist.	-808 Nov 23 j 01:28	22° 8 19'03	43.61127 AU	conjunction	-801 May 30 j 21:15	29° 8 32'04	-3°58'31
direct	-807 Feb 11 j 04:26	21° 8 18'21		minimum elong	-801 May 30 j 21:21	29° 8 32'04	3°58'30
evening set	-807 May 08 j 13:32	22° 8 31'18		morning rise	-801 Jun 15 j 11:59	29° 8 55'13	
max. Earth dist.	-807 May 21 j 15:34	22° 8 50'09	45.50700 AU		-801 Jun 18 j 19:16	0° II	
				retrograde	-801 Sep 09 j 19:23	1° II 10'13	
conjunction	-807 May 23 j 11:01	22° 8 52'48	-5°52'44	opposition	-801 Nov 29 j 18:20	0° II 06'53	-3°59'22
minimum elong	-807 May 23 j 11:10	22° 8 52'48	5°52'43	min. Earth dist.	-801 Dec 01 j 14:50	0° II 04'35	42.23467 AU
morning rise	-807 Jun 07 j 08:47	23° 8 14'22			-801 Dec 05 j 08:05	30° R8	
retrograde	-807 Sep 02 j 09:33	24° 8 28'25		direct	-800 Feb 19 j 12:51	29° 8 02'44	
opposition	-807 Nov 22 j 18:33	23° 8 26'07	-5°59'23		-800 May 03 j 10:26	0° II	
min. Earth dist.	-807 Nov 24 j 10:11	23° 8 24'07	43.42202 AU	evening set	-800 May 15 j 15:00	0° II 17'17	
direct	-806 Feb 12 j 13:55	22° 8 23'16		max. Earth dist.	-800 May 29 j 04:23	0° II 37'26	44.12844 AU
evening set	-806 May 09 j 19:22	23° 8 36'21					
max. Earth dist.	-806 May 22 j 23:20	23° 8 55'24	45.31737 AU	conjunction	-800 May 31 j 07:59	0° II 40'39	-3°38'29
				minimum elong	-800 May 31 j 08:05	0° II 40'40	3°38'28
conjunction	-806 May 24 j 20:03	23° 8 58'08	-5°34'24	morning rise	-800 Jun 16 j 00:51	1° II 04'04	
minimum elong	-806 May 24 j 20:10	23° 8 58'09	5°34'23	retrograde	-800 Sep 10 j 07:12	2° II 19'19	
morning rise	-806 Jun 08 j 21:07	24° 8 19'58		opposition	-800 Nov 30 j 03:09	1° II 15'49	-3°38'19
retrograde	-806 Sep 03 j 19:53	25° 8 34'08		min. Earth dist.	-800 Dec 02 j 01:49	1° II 13'24	42.02786 AU
opposition	-806 Nov 24 j 01:57	24° 8 31'39	-5°40'08	direct	-799 Feb 19 j 19:30	0° II 11'27	
min. Earth dist.	-806 Nov 25 j 17:51	24° 8 29'38	43.22979 AU	evening set	-799 May 16 j 23:52	1° II 26'20	
direct	-805 Feb 13 j 19:26	23° 8 28'35		max. Earth dist.	-799 May 30 j 14:51	1° II 46'40	43.92055 AU

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Attention, astronomical year style is used: The year -799 in astronomical counting style is the year 800 BCE in historical counting style.

conjunction	-799 Jun 01 j 19:02	1°II49'57 -3°18'12	evening set	-792 May 25 j 03:00	9°II48'05	
minimum elong	-799 Jun 01 j 19:07	1°II49'57 3°18'11	max. Earth dist.	-792 Jun 07 j 18:07	10°II09'14	42.35799 AU
morning rise	-799 Jun 17 j 13:51	2°II13'36				
retrograde	-799 Sep 11 j 20:01	3°II29'07	conjunction	-792 Jun 10 j 07:21	10°II13'14	-0°48'31
opposition	-799 Dec 01 j 12:16	2°II25'26 -3°16'57	minimum elong	-792 Jun 10 j 07:23	10°II13'14	0°48'29
min. Earth dist.	-799 Dec 03 j 11:16	2°II22'59 41.81716 AU	morning rise	-792 Jun 26 j 10:36	10°II38'21	
direct	-798 Feb 21 j 03:37	1°II20'49	retrograde	-792 Sep 20 j 06:21	11°II56'18	
evening set	-798 May 18 j 09:09	2°II36'03	opposition	-792 Dec 09 j 11:21	10°II50'55	-0°39'14
max. Earth dist.	-798 May 31 j 23:19	2°II56'27 43.70845 AU	min. Earth dist.	-792 Dec 11 j 18:20	10°II47'59	40.24061 AU
			direct	-791 Mar 01 j 04:55	9°II44'16	
conjunction	-798 Jun 03 j 06:05	2°II59'55 -2°57'38	evening set	-791 May 26 j 15:51	11°II02'37	
minimum elong	-798 Jun 03 j 06:09	2°II59'55 2°57'36	max. Earth dist.	-791 Jun 09 j 05:32	11°II23'48	42.12471 AU
morning rise	-798 Jun 19 j 02:50	3°II23'48				
retrograde	-798 Sep 13 j 08:01	4°II39'36	conjunction	-791 Jun 11 j 20:27	11°II27'57	-0°26'03
opposition	-798 Dec 02 j 21:43	3°II35'42 -2°55'19	minimum elong	-791 Jun 11 j 20:28	11°II27'57	0°26'03
min. Earth dist.	-798 Dec 04 j 22:45	3°II33'09 41.60228 AU	morning rise	-791 Jun 28 j 00:12	11°II53'15	
direct	-797 Feb 22 j 12:24	2°II30'50	retrograde	-791 Sep 21 j 19:15	13°II11'40	
evening set	-797 May 19 j 18:55	3°II46'26	opposition	-791 Dec 10 j 22:43	12°II06'03	-0°15'31
max. Earth dist.	-797 Jun 02 j 10:21	4°II07'01 43.49200 AU	min. Earth dist.	-791 Dec 13 j 06:19	12°II03'03	40.00666 AU
			direct	-790 Mar 02 j 15:57	10°II59'06	
conjunction	-797 Jun 04 j 17:45	4°II10'32 -2°36'47	evening set	-790 May 28 j 04:58	12°II18'02	
minimum elong	-797 Jun 04 j 17:49	4°II10'32 2°36'48	max. Earth dist.	-790 Jun 10 j 18:28	12°II39'20	41.89014 AU
morning rise	-797 Jun 20 j 15:59	4°II34'38				
retrograde	-797 Sep 14 j 16:40	5°II50'44	conjunction	-790 Jun 13 j 09:54	12°II43'32	-0°03'23
opposition	-797 Dec 04 j 07:17	4°II46'36 -2°33'22	minimum elong	-790 Jun 13 j 09:54	12°II43'32	0°03'22
min. Earth dist.	-797 Dec 06 j 09:27	4°II43'59 41.38308 AU	behind sun begin	-790 Jun 13 j 03:24	12°II43'08	
direct	-796 Feb 24 j 01:01	3°II41'28	behind sun end	-790 Jun 13 j 16:23	12°II43'57	
evening set	-796 May 20 j 05:19	4°II57'27	morning rise	-790 Jun 29 j 13:35	13°II09'01	
max. Earth dist.	-796 Jun 02 j 20:05	5°II18'06 43.27149 AU	asc. node	-790 Aug 05 j 08:54	13°II59'15	
			retrograde	-790 Sep 23 j 06:32	14°II27'58	
conjunction	-796 Jun 05 j 05:33	5°II21'46 -2°15'41	opposition	-790 Dec 12 j 10:31	13°II22'06	0°08'29
minimum elong	-796 Jun 05 j 05:37	5°II21'46 2°15'40	min. Earth dist.	-790 Dec 14 j 19:23	13°II19'02	39.77141 AU
morning rise	-796 Jun 21 j 05:23	5°II46'06	direct	-789 Mar 04 j 03:42	12°II14'52	
retrograde	-796 Sep 15 j 03:38	7°II02'30	evening set	-789 May 29 j 18:59	13°II34'26	
opposition	-796 Dec 04 j 17:07	5°II58'08 -2°11'08	max. Earth dist.	-789 Jun 12 j 07:47	13°II55'50	41.65429 AU
min. Earth dist.	-796 Dec 06 j 20:10	5°II55'27 41.16011 AU				
direct	-795 Feb 24 j 11:10	4°II52'42	conjunction	-789 Jun 14 j 23:50	14°II00'06	0°19'43
evening set	-795 May 21 j 15:59	6°II09'05	minimum elong	-789 Jun 14 j 23:49	14°II00'06	0°19'43
max. Earth dist.	-795 Jun 04 j 06:49	6°II29'51 43.04713 AU	morning rise	-789 Jul 01 j 03:27	14°II25'45	
			retrograde	-789 Sep 24 j 21:30	15°II45'16	
conjunction	-795 Jun 06 j 17:36	6°II33'38 -1°54'18	opposition	-789 Dec 13 j 22:23	14°II39'10	0°32'46
minimum elong	-795 Jun 06 j 17:39	6°II33'38 1°54'18	min. Earth dist.	-789 Dec 16 j 07:17	14°II36'04	39.53473 AU
morning rise	-795 Jun 22 j 18:31	6°II58'10	direct	-788 Mar 04 j 13:10	13°II31'38	
retrograde	-795 Sep 16 j 14:54	8°II14'55	evening set	-788 May 30 j 09:46	14°II51'53	
opposition	-795 Dec 06 j 03:20	7°II10'18 -1°48'36	max. Earth dist.	-788 Jun 12 j 20:20	15°II13'17	41.41643 AU
min. Earth dist.	-795 Dec 08 j 08:19	7°II07'30 40.93370 AU				
direct	-794 Feb 25 j 19:56	6°II04'34	conjunction	-788 Jun 15 j 14:14	15°II17'43	0°42'57
evening set	-794 May 23 j 03:08	7°II21'23	minimum elong	-788 Jun 15 j 14:13	15°II17'42	0°42'58
max. Earth dist.	-794 Jun 05 j 18:32	7°II42'18 42.81978 AU	morning rise	-788 Jul 01 j 17:26	15°II43'30	
			retrograde	-788 Sep 25 j 13:40	17°II03'37	
conjunction	-794 Jun 08 j 05:53	7°II46'08 -1°32'38	opposition	-788 Dec 14 j 10:55	15°II57'17	0°57'21
minimum elong	-794 Jun 08 j 05:55	7°II46'08 1°32'37	min. Earth dist.	-788 Dec 16 j 21:54	15°II54'04	39.29594 AU
morning rise	-794 Jun 24 j 07:51	8°II10'53	direct	-787 Mar 05 j 22:36	14°II49'27	
retrograde	-794 Sep 18 j 03:46	9°II28'00	evening set	-787 Jun 01 j 01:03	16°II10'24	
opposition	-794 Dec 07 j 13:37	8°II23'07 -1°25'47	max. Earth dist.	-787 Jun 14 j 10:58	16°II31'55	41.17610 AU
min. Earth dist.	-794 Dec 09 j 18:36	8°II20'19 40.70465 AU				
direct	-793 Feb 27 j 06:03	7°II17'05	conjunction	-787 Jun 17 j 05:01	16°II36'22	1°06'27
evening set	-793 May 24 j 14:49	8°II34'22	minimum elong	-787 Jun 17 j 04:59	16°II36'22	1°06'28
max. Earth dist.	-793 Jun 07 j 04:56	8°II55'19 42.58987 AU	morning rise	-787 Jul 03 j 07:24	17°II02'18	
			retrograde	-787 Sep 27 j 05:16	18°II23'03	
conjunction	-793 Jun 09 j 18:22	8°II59'19 -1°10'43	opposition	-787 Dec 15 j 23:46	17°II16'27	1°22'11
minimum elong	-793 Jun 09 j 18:24	8°II59'19 1°10'42	min. Earth dist.	-787 Dec 18 j 11:05	17°II13'12	39.05443 AU
morning rise	-793 Jun 25 j 21:13	9°II24'15	direct	-786 Mar 07 j 13:06	16°II08'17	
retrograde	-793 Sep 19 j 18:27	10°II41'46	evening set	-786 Jun 02 j 17:14	17°II30'00	
opposition	-793 Dec 09 j 00:22	9°II36'38 -1°02'39	max. Earth dist.	-786 Jun 15 j 23:44	17°II51'27	40.93284 AU
min. Earth dist.	-793 Dec 11 j 07:02	9°II33'44 40.47347 AU				
direct	-792 Feb 28 j 15:47	8°II30'17	conjunction	-786 Jun 18 j 20:09	17°II56'06	1°30'12

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Attention, astronomical year style is used: The year -786 in astronomical counting style is the year 787 BCE in historical counting style.

minimum elong	-786 Jun 18 j 20:06	17°II56'06	1°30'12	max. Earth dist.	-779 Jun 25 j 15:32	27°II37'09	39.16502 AU
morning rise	-786 Jul 04 j 21:43	18°II22'08					
retrograde	-786 Sep 28 j 22:11	19°II43'32		conjunction	-779 Jun 28 j 18:17	27°II42'31	4°22'41
opposition	-786 Dec 17 j 12:59	18°II36'39	1°47'19	minimum elong	-779 Jun 28 j 18:08	27°II42'31	4°22'42
min. Earth dist.	-786 Dec 20 j 01:45	18°II33'18	38.81006 AU	morning rise	-779 Jul 14 j 04:27	28°II08'54	
direct	-785 Mar 09 j 03:00	17°II28'09		retrograde	-779 Oct 08 j 19:55	29°II35'51	
evening set	-785 Jun 04 j 09:57	18°II50'38		opposition	-779 Dec 26 j 21:47	28°II26'35	4°50'02
max. Earth dist.	-785 Jun 17 j 14:54	19°II12'07	40.68642 AU	min. Earth dist.	-779 Dec 29 j 15:44	28°II22'47	37.04335 AU
				direct	-778 Mar 18 j 11:03	27°II15'15	
conjunction	-785 Jun 20 j 11:54	19°II16'51	1°54'11	evening set	-778 Jun 15 j 04:15	28°II44'13	
minimum elong	-785 Jun 20 j 11:51	19°II16'51	1°54'12	max. Earth dist.	-778 Jun 27 j 10:04	29°II05'16	38.90977 AU
morning rise	-785 Jul 06 j 12:04	19°II43'00					
retrograde	-785 Sep 30 j 12:22	21°II05'04		conjunction	-778 Jun 30 j 13:02	29°II10'42	4°48'03
opposition	-785 Dec 19 j 02:46	19°II57'53	2°12'42	minimum elong	-778 Jun 30 j 12:53	29°II10'41	4°48'03
min. Earth dist.	-785 Dec 21 j 16:52	19°II54'26	38.56257 AU	morning rise	-778 Jul 15 j 19:30	29°II37'03	
direct	-784 Mar 09 j 18:07	18°II49'01			-778 Jul 29 j 18:39	0°☾	
evening set	-784 Jun 05 j 03:34	20°II12'17		retrograde	-778 Oct 10 j 12:48	1°☾05'00	
max. Earth dist.	-784 Jun 18 j 05:29	20°II33'43	40.43710 AU		-778 Dec 25 j 06:48	30°☿II	
				opposition	-778 Dec 28 j 14:41	29°II55'23	5°16'58
conjunction	-784 Jun 21 j 03:57	20°II38'36	2°18'25	min. Earth dist.	-778 Dec 31 j 09:43	29°II51'31	36.78971 AU
minimum elong	-784 Jun 21 j 03:52	20°II38'36	2°18'25	direct	-777 Mar 20 j 03:17	28°II43'40	
morning rise	-784 Jul 07 j 02:41	21°II04'50			-777 Jun 08 j 21:59	0°☾	
retrograde	-784 Oct 01 j 02:41	22°II27'37		evening set	-777 Jun 17 j 03:25	0°☾13'48	
opposition	-784 Dec 19 j 16:44	21°II20'06	2°38'20	max. Earth dist.	-777 Jun 29 j 05:10	0°☾34'44	38.65510 AU
min. Earth dist.	-784 Dec 22 j 07:17	21°II16'37	38.31251 AU				
direct	-783 Mar 11 j 08:08	20°II10'51		conjunction	-777 Jul 02 j 08:17	0°☾40'13	5°13'35
evening set	-783 Jun 06 j 21:48	21°II34'57		minimum elong	-777 Jul 02 j 08:07	0°☾40'13	5°13'36
max. Earth dist.	-783 Jun 19 j 20:25	21°II56'19	40.18516 AU	morning rise	-777 Jul 17 j 10:54	1°☾06'31	
				retrograde	-777 Oct 12 j 08:00	2°☾35'32	
conjunction	-783 Jun 22 j 20:27	22°II01'20	2°42'52	opposition	-777 Dec 30 j 08:03	1°☾25'36	5°44'03
minimum elong	-783 Jun 22 j 20:22	22°II01'20	2°42'53	min. Earth dist.	-776 Jan 02 j 02:45	1°☾21'43	36.53654 AU
morning rise	-783 Jul 08 j 17:15	22°II27'38		direct	-776 Mar 20 j 19:33	0°☾13'30	
retrograde	-783 Oct 02 j 18:34	23°II51'10		evening set	-776 Jun 18 j 03:36	1°☾44'51	
opposition	-783 Dec 21 j 07:21	22°II43'19	3°04'14	max. Earth dist.	-776 Jun 29 j 23:32	2°☾05'34	38.40038 AU
min. Earth dist.	-783 Dec 23 j 23:42	22°II39'42	38.06030 AU				
direct	-782 Mar 12 j 20:28	21°II33'39		conjunction	-776 Jul 03 j 04:08	2°☾11'12	5°39'13
evening set	-782 Jun 08 j 16:33	22°II58'36		minimum elong	-776 Jul 03 j 03:56	2°☾11'12	5°39'14
max. Earth dist.	-782 Jun 21 j 13:10	23°II20'00	39.93141 AU	morning rise	-776 Jul 18 j 02:22	2°☾37'25	
				retrograde	-776 Oct 13 j 05:24	4°☾07'34	
conjunction	-782 Jun 24 j 13:11	23°II25'03	3°07'32	opposition	-776 Dec 31 j 02:05	2°☾57'19	6°11'16
minimum elong	-782 Jun 24 j 13:05	23°II25'03	3°07'32	min. Earth dist.	-775 Jan 02 j 22:25	2°☾53'19	36.28332 AU
morning rise	-782 Jul 10 j 07:50	23°II51'24		direct	-775 Mar 22 j 10:04	1°☾44'49	
retrograde	-782 Oct 04 j 11:57	25°II15'43		evening set	-775 Jun 20 j 04:45	3°☾17'29	
opposition	-782 Dec 22 j 22:14	24°II07'31	3°30'22	max. Earth dist.	-775 Jul 01 j 20:24	3°☾38'03	38.14530 AU
min. Earth dist.	-782 Dec 25 j 14:23	24°II03'54	37.80662 AU				
direct	-781 Mar 14 j 10:11	22°II57'26		conjunction	-775 Jul 05 j 00:38	3°☾43'43	6°04'58
evening set	-781 Jun 10 j 12:21	24°II23'19		minimum elong	-775 Jul 05 j 00:26	3°☾43'42	6°05'00
max. Earth dist.	-781 Jun 23 j 04:33	24°II44'34	39.67633 AU	morning rise	-775 Jul 19 j 18:01	4°☾09'50	
				retrograde	-775 Oct 15 j 02:30	5°☾41'10	
conjunction	-781 Jun 26 j 06:26	24°II49'47	3°32'24	opposition	-774 Jan 01 j 20:47	4°☾30'35	6°38'37
minimum elong	-781 Jun 26 j 06:20	24°II49'47	3°32'25	min. Earth dist.	-774 Jan 04 j 16:59	4°☾26'34	36.02955 AU
morning rise	-781 Jul 11 j 22:41	25°II16'11		direct	-774 Mar 24 j 04:26	3°☾17'41	
retrograde	-781 Oct 06 j 06:43	26°II41'19		evening set	-774 Jun 22 j 06:56	4°☾51'42	
opposition	-781 Dec 24 j 13:31	25°II32'44	3°56'43	max. Earth dist.	-774 Jul 03 j 15:28	5°☾11'57	37.88939 AU
min. Earth dist.	-781 Dec 27 j 07:09	25°II29'01	37.55219 AU				
direct	-780 Mar 15 j 00:27	24°II22'14		conjunction	-774 Jul 06 j 21:31	5°☾17'48	6°30'49
evening set	-780 Jun 11 j 08:49	25°II49'05		minimum elong	-774 Jul 06 j 21:18	5°☾17'47	6°30'49
max. Earth dist.	-780 Jun 23 j 22:46	26°II10'21	39.42064 AU	morning rise	-774 Jul 21 j 09:52	5°☾43'46	
				retrograde	-774 Oct 17 j 02:16	7°☾16'21	
conjunction	-780 Jun 27 j 00:17	26°II15'35	3°57'27	opposition	-773 Jan 03 j 16:04	6°☾05'24	7°06'05
minimum elong	-780 Jun 27 j 00:10	26°II15'35	3°57'27	min. Earth dist.	-773 Jan 06 j 13:28	6°☾01'18	35.77498 AU
morning rise	-780 Jul 12 j 13:31	26°II41'59		direct	-773 Mar 25 j 23:00	4°☾52'05	
retrograde	-780 Oct 07 j 00:24	28°II07'59		evening set	-773 Jun 24 j 10:14	6°☾27'31	
opposition	-780 Dec 25 j 05:27	26°II59'04	4°23'17	max. Earth dist.	-773 Jul 05 j 13:17	6°☾47'33	37.63234 AU
min. Earth dist.	-780 Dec 27 j 23:16	26°II55'19	37.29753 AU				
direct	-779 Mar 16 j 18:35	25°II48'09		conjunction	-773 Jul 08 j 19:23	6°☾53'27	6°56'44
evening set	-779 Jun 13 j 06:07	27°II16'02		minimum elong	-773 Jul 08 j 19:09	6°☾53'26	6°56'45

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Attention, astronomical year style is used: The year -773 in astronomical counting style is the year 774 BCE in historical counting style.

morning rise	-773 Jul 23 j 01:54	7° $\overline{0}$ 19'14	conjunction	-766 Jul 20 j 20:39	18° $\overline{0}$ 47'35	9°57'38	
retrograde	-773 Oct 19 j 00:00	8° $\overline{0}$ 53'07	minimum elong	-766 Jul 20 j 20:19	18° $\overline{0}$ 47'34	9°57'38	
opposition	-772 Jan 05 j 11:58	7° $\overline{0}$ 41'48	7°33'38	morning rise	-766 Aug 01 j 21:13	19° $\overline{0}$ 10'51	
min. Earth dist.	-772 Jan 08 j 10:17	7° $\overline{0}$ 37'37	35.51936 AU	retrograde	-766 Oct 31 j 05:44	20° $\overline{0}$ 55'40	
direct	-772 Mar 26 j 20:25	6° $\overline{0}$ 28'03		opposition	-765 Jan 17 j 01:50	19° $\overline{0}$ 41'29	10°46'02
evening set	-772 Jun 25 j 14:50	8° $\overline{0}$ 04'58		min. Earth dist.	-765 Jan 20 j 01:56	19° $\overline{0}$ 36'59	33.74658 AU
max. Earth dist.	-772 Jul 06 j 10:22	8° $\overline{0}$ 24'36	37.37444 AU	direct	-765 Apr 08 j 04:12	18° $\overline{0}$ 24'25	
				evening set	-765 Jul 11 j 06:42	20° $\overline{0}$ 13'38	
conjunction	-772 Jul 09 j 17:42	8° $\overline{0}$ 30'40	7°22'42	max. Earth dist.	-765 Jul 19 j 15:08	20° $\overline{0}$ 29'55	35.58990 AU
minimum elong	-772 Jul 09 j 17:28	8° $\overline{0}$ 30'39	7°22'42				
morning rise	-772 Jul 23 j 18:15	8° $\overline{0}$ 56'14		conjunction	-765 Jul 22 j 23:32	20° $\overline{0}$ 36'29	10°22'54
retrograde	-772 Oct 19 j 23:38	10° $\overline{0}$ 31'27		minimum elong	-765 Jul 22 j 23:10	20° $\overline{0}$ 36'27	10°22'55
opposition	-771 Jan 06 j 08:29	9° $\overline{0}$ 19'46	8°01'15	morning rise	-765 Aug 03 j 14:09	20° $\overline{0}$ 59'11	
min. Earth dist.	-771 Jan 09 j 06:53	9° $\overline{0}$ 15'33	35.26320 AU	retrograde	-765 Nov 02 j 09:58	22° $\overline{0}$ 45'52	
direct	-771 Mar 28 j 16:39	8° $\overline{0}$ 05'34		opposition	-764 Jan 19 j 03:09	21° $\overline{0}$ 31'18	11°12'55
evening set	-771 Jun 27 j 20:12	9° $\overline{0}$ 44'00		min. Earth dist.	-764 Jan 22 j 02:36	21° $\overline{0}$ 26'50	33.50278 AU
max. Earth dist.	-771 Jul 08 j 08:31	10° $\overline{0}$ 03'16	37.11588 AU	direct	-764 Apr 09 j 05:09	20° $\overline{0}$ 13'47	
				evening set	-764 Jul 12 j 21:11	22° $\overline{0}$ 05'08	
conjunction	-771 Jul 11 j 16:35	10° $\overline{0}$ 09'27	7°48'41	max. Earth dist.	-764 Jul 20 j 19:01	22° $\overline{0}$ 20'43	35.34460 AU
minimum elong	-771 Jul 11 j 16:19	10° $\overline{0}$ 09'26	7°48'42				
morning rise	-771 Jul 25 j 10:24	10° $\overline{0}$ 34'45		conjunction	-764 Jul 24 j 03:19	22° $\overline{0}$ 27'21	10°47'55
retrograde	-771 Oct 21 j 20:24	12° $\overline{0}$ 11'24		minimum elong	-764 Jul 24 j 02:58	22° $\overline{0}$ 27'19	10°47'55
opposition	-770 Jan 08 j 05:45	10° $\overline{0}$ 59'18	8°28'53	morning rise	-764 Aug 04 j 07:07	22° $\overline{0}$ 49'23	
min. Earth dist.	-770 Jan 11 j 05:33	10° $\overline{0}$ 54'58	35.00681 AU	retrograde	-764 Nov 03 j 13:22	24° $\overline{0}$ 38'05	
direct	-770 Mar 30 j 12:22	9° $\overline{0}$ 44'38		opposition	-763 Jan 20 j 05:35	23° $\overline{0}$ 23'08	11°39'30
evening set	-770 Jun 30 j 02:54	11° $\overline{0}$ 24'39		min. Earth dist.	-763 Jan 23 j 05:52	23° $\overline{0}$ 18'34	33.26181 AU
max. Earth dist.	-770 Jul 10 j 08:14	11° $\overline{0}$ 43'35	36.85748 AU	direct	-763 Apr 11 j 05:42	22° $\overline{0}$ 05'10	
				evening set	-763 Jul 15 j 13:11	23° $\overline{0}$ 58'45	
conjunction	-770 Jul 13 j 16:07	11° $\overline{0}$ 49'48	8°14'40	max. Earth dist.	-763 Jul 23 j 00:01	24° $\overline{0}$ 13'34	35.10204 AU
minimum elong	-770 Jul 13 j 15:50	11° $\overline{0}$ 49'47	8°14'40				
morning rise	-770 Jul 27 j 02:50	12° $\overline{0}$ 14'48		conjunction	-763 Jul 26 j 07:37	24° $\overline{0}$ 20'13	11°12'36
retrograde	-770 Oct 23 j 19:42	13° $\overline{0}$ 52'55		minimum elong	-763 Jul 26 j 07:15	24° $\overline{0}$ 20'11	11°12'37
opposition	-769 Jan 10 j 03:23	12° $\overline{0}$ 40'25	8°56'31	morning rise	-763 Aug 05 j 23:54	24° $\overline{0}$ 41'32	
min. Earth dist.	-769 Jan 13 j 02:40	12° $\overline{0}$ 36'05	34.75097 AU	retrograde	-763 Nov 05 j 18:46	26° $\overline{0}$ 32'20	
direct	-769 Apr 01 j 08:44	11° $\overline{0}$ 25'15		opposition	-762 Jan 22 j 08:42	25° $\overline{0}$ 17'00	12°05'46
evening set	-769 Jul 02 j 10:45	13° $\overline{0}$ 06'56		min. Earth dist.	-762 Jan 25 j 07:59	25° $\overline{0}$ 12'28	33.02339 AU
max. Earth dist.	-769 Jul 12 j 07:06	13° $\overline{0}$ 25'22	36.59970 AU	direct	-762 Apr 13 j 07:13	23° $\overline{0}$ 58'35	
				evening set	-762 Jul 18 j 06:50	25° $\overline{0}$ 54'29	
conjunction	-769 Jul 15 j 16:18	13° $\overline{0}$ 31'45	8°40'35	max. Earth dist.	-762 Jul 25 j 04:32	26° $\overline{0}$ 08'22	34.86168 AU
minimum elong	-769 Jul 15 j 16:00	13° $\overline{0}$ 31'43	8°40'37				
morning rise	-769 Jul 28 j 19:27	13° $\overline{0}$ 56'23		conjunction	-762 Jul 28 j 12:56	26° $\overline{0}$ 15'09	11°36'57
retrograde	-769 Oct 25 j 20:58	15° $\overline{0}$ 36'04		minimum elong	-762 Jul 28 j 12:34	26° $\overline{0}$ 15'07	11°36'57
opposition	-768 Jan 12 j 01:55	14° $\overline{0}$ 23'08	9°24'05	morning rise	-762 Aug 07 j 17:00	26° $\overline{0}$ 35'39	
min. Earth dist.	-768 Jan 15 j 02:27	14° $\overline{0}$ 18'42	34.49633 AU	retrograde	-762 Nov 08 j 00:20	28° $\overline{0}$ 28'39	
direct	-768 Apr 02 j 03:45	13° $\overline{0}$ 07'28		opposition	-761 Jan 24 j 12:39	27° $\overline{0}$ 12'55	12°31'39
evening set	-768 Jul 03 j 19:46	14° $\overline{0}$ 50'55		min. Earth dist.	-761 Jan 27 j 13:02	27° $\overline{0}$ 08'17	32.78724 AU
max. Earth dist.	-768 Jul 13 j 08:56	15° $\overline{0}$ 08'57	36.34338 AU	direct	-761 Apr 15 j 08:21	25° $\overline{0}$ 54'02	
				evening set	-761 Jul 21 j 02:19	27° $\overline{0}$ 52'22	
conjunction	-768 Jul 16 j 17:08	15° $\overline{0}$ 15'19	9°06'25	max. Earth dist.	-761 Jul 27 j 11:49	28° $\overline{0}$ 05'22	34.62350 AU
minimum elong	-768 Jul 16 j 16:50	15° $\overline{0}$ 15'17	9°06'26				
morning rise	-768 Jul 29 j 11:54	15° $\overline{0}$ 39'33		conjunction	-761 Jul 30 j 19:08	28° $\overline{0}$ 12'07	12°00'53
retrograde	-768 Oct 26 j 22:21	17° $\overline{0}$ 20'51		minimum elong	-761 Jul 30 j 18:45	28° $\overline{0}$ 12'05	12°00'54
opposition	-767 Jan 13 j 01:08	16° $\overline{0}$ 07'30	9°51'34	morning rise	-761 Aug 09 j 09:53	28° $\overline{0}$ 31'43	
min. Earth dist.	-767 Jan 16 j 01:00	16° $\overline{0}$ 03'04	34.24357 AU		-761 Sep 29 j 13:07	0° $\overline{0}$	
direct	-767 Apr 04 j 03:39	14° $\overline{0}$ 51'21		retrograde	-761 Nov 10 j 06:53	0° $\overline{0}$ 27'00	
evening set	-767 Jul 06 j 06:07	16° $\overline{0}$ 36'37			-761 Dec 23 j 02:48	30° $\overline{0}$ R $\overline{0}$	
max. Earth dist.	-767 Jul 15 j 09:19	16° $\overline{0}$ 54'04	36.08931 AU	opposition	-760 Jan 26 j 17:35	29° $\overline{0}$ 10'51	12°57'06
				min. Earth dist.	-760 Jan 29 j 17:17	29° $\overline{0}$ 06'14	32.55318 AU
conjunction	-767 Jul 18 j 18:30	17° $\overline{0}$ 00'34	9°32'07	direct	-760 Apr 16 j 12:59	27° $\overline{0}$ 51'30	
minimum elong	-767 Jul 18 j 18:10	17° $\overline{0}$ 00'32	9°32'08	evening set	-760 Jul 22 j 23:29	29° $\overline{0}$ 52'23	
morning rise	-767 Jul 31 j 04:38	17° $\overline{0}$ 24'21			-760 Jul 26 j 16:41	0° $\overline{0}$	
retrograde	-767 Oct 29 j 03:15	19° $\overline{0}$ 07'21		max. Earth dist.	-760 Jul 28 j 17:38	0° $\overline{0}$ 04'12	34.38751 AU
opposition	-766 Jan 15 j 01:03	17° $\overline{0}$ 53'35	10°18'54				
min. Earth dist.	-766 Jan 18 j 01:03	17° $\overline{0}$ 49'07	33.99361 AU	conjunction	-760 Aug 01 j 01:57	0° $\overline{0}$ 11'06	12°24'22
direct	-766 Apr 06 j 03:14	16° $\overline{0}$ 36'58		minimum elong	-760 Aug 01 j 01:35	0° $\overline{0}$ 11'04	12°24'22
evening set	-766 Jul 08 j 17:33	18° $\overline{0}$ 24'09		morning rise	-760 Aug 10 j 02:39	0° $\overline{0}$ 29'42	
max. Earth dist.	-766 Jul 17 j 12:31	18° $\overline{0}$ 41'06	35.83804 AU	retrograde	-760 Nov 11 j 15:59	2° $\overline{0}$ 27'23	

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Attention, astronomical year style is used: The year -759 in astronomical counting style is the year 760 BCE in historical counting style.

opposition	-759 Jan 27 j 23:21	1°Ω10'48	13°22'03	evening set	-753 Aug 14 j 13:05	14°Ω54'20	
min. Earth dist.	-759 Jan 30 j 23:18	1°Ω06'09	32.32164 AU	max. Earth dist.	-753 Aug 13 j 21:36	14°Ω52'54	32.84948 AU
	-759 Mar 25 j 00:41	30°κϜ					
direct	-759 Apr 18 j 16:53	29°Ϝ50'58		conjunction	-753 Aug 16 j 23:20	14°Ω59'42	14°49'50
	-759 May 13 j 05:57	0°Ω		minimum elong	-753 Aug 16 j 22:57	14°Ω59'40	14°49'50
evening set	-759 Jul 25 j 22:35	1°Ω54'30			-753 Aug 17 j 02:38	15°Ω	
max. Earth dist.	-759 Jul 31 j 02:38	2°Ω05'14	34.15415 AU	morning rise	-753 Aug 19 j 08:46	15°Ω04'59	
				retrograde	-753 Nov 27 j 19:35	17°Ω25'43	
conjunction	-759 Aug 03 j 09:43	2°Ω12'05	12°47'19	opposition	-752 Feb 12 j 15:46	16°Ω06'12	15°55'56
minimum elong	-759 Aug 03 j 09:19	2°Ω12'03	12°47'20	min. Earth dist.	-752 Feb 15 j 10:21	16°Ω01'42	30.82388 AU
morning rise	-759 Aug 11 j 19:00	2°Ω29'33			-752 Mar 30 j 22:06	15°κΩ	
retrograde	-759 Nov 14 j 00:00	4°Ω29'46		direct	-752 May 03 j 01:06	14°Ω43'12	
opposition	-758 Jan 30 j 05:59	3°Ω12'44	13°46'26		-752 Jun 04 j 17:56	15°Ω	
min. Earth dist.	-758 Feb 02 j 05:42	3°Ω08'04	32.09295 AU	max. Earth dist.	-752 Aug 15 j 13:22	17°Ω08'15	32.65480 AU
direct	-758 Apr 20 j 23:13	1°Ω52'25					
evening set	-758 Jul 28 j 23:42	3°Ω58'45		conjunction	-752 Aug 18 j 12:18	17°Ω14'51	15°06'56
max. Earth dist.	-758 Aug 02 j 10:42	4°Ω08'06	33.92408 AU	minimum elong	-752 Aug 18 j 11:57	17°Ω14'49	15°06'56
				retrograde	-752 Nov 29 j 09:03	19°Ω42'15	
conjunction	-758 Aug 05 j 18:00	4°Ω15'03	13°09'41	opposition	-751 Feb 14 j 04:35	18°Ω22'24	16°13'53
minimum elong	-758 Aug 05 j 17:37	4°Ω15'01	13°09'41	min. Earth dist.	-751 Feb 16 j 21:22	18°Ω18'01	30.63551 AU
morning rise	-758 Aug 13 j 10:48	4°Ω31'15		direct	-751 May 05 j 13:33	16°Ω59'03	
retrograde	-758 Nov 16 j 11:17	6°Ω34'07		max. Earth dist.	-751 Aug 18 j 03:31	19°Ω25'34	32.46738 AU
opposition	-757 Feb 01 j 13:22	5°Ω16'39	14°10'10				
min. Earth dist.	-757 Feb 04 j 12:20	5°Ω11'59	31.86787 AU	conjunction	-751 Aug 21 j 01:59	19°Ω32'10	15°22'52
direct	-757 Apr 23 j 06:58	3°Ω55'50		minimum elong	-751 Aug 21 j 01:38	19°Ω32'08	15°22'53
evening set	-757 Aug 01 j 03:11	6°Ω05'08		retrograde	-751 Dec 02 j 01:16	22°Ω00'56	
max. Earth dist.	-757 Aug 04 j 21:02	6°Ω13'04	33.69779 AU	opposition	-750 Feb 16 j 18:10	20°Ω40'46	16°30'33
				min. Earth dist.	-750 Feb 19 j 09:47	20°Ω36'26	30.45428 AU
conjunction	-757 Aug 08 j 03:17	6°Ω19'59	13°31'23	direct	-750 May 08 j 00:57	19°Ω17'04	
minimum elong	-757 Aug 08 j 02:53	6°Ω19'57	13°31'24	max. Earth dist.	-750 Aug 20 j 20:43	21°Ω45'12	32.28696 AU
morning rise	-757 Aug 15 j 01:51	6°Ω34'44					
retrograde	-757 Nov 18 j 20:52	8°Ω40'26		conjunction	-750 Aug 23 j 16:36	21°Ω51'37	15°37'35
opposition	-756 Feb 03 j 21:42	7°Ω22'31	14°33'10	minimum elong	-750 Aug 23 j 16:17	21°Ω51'35	15°37'36
min. Earth dist.	-756 Feb 06 j 20:53	7°Ω17'49	31.64702 AU	retrograde	-750 Dec 04 j 16:36	24°Ω21'43	
direct	-756 Apr 24 j 14:34	6°Ω01'13		opposition	-749 Feb 19 j 08:50	23°Ω01'14	16°45'54
evening set	-756 Aug 03 j 09:33	8°Ω13'42		min. Earth dist.	-749 Feb 21 j 23:23	22°Ω56'57	30.27965 AU
max. Earth dist.	-756 Aug 06 j 07:56	8°Ω19'59	33.47640 AU	direct	-749 May 10 j 14:28	21°Ω37'13	
				max. Earth dist.	-749 Aug 23 j 12:43	24°Ω06'43	32.11341 AU
conjunction	-756 Aug 09 j 13:09	8°Ω26'53	13°52'20				
minimum elong	-756 Aug 09 j 12:47	8°Ω26'51	13°52'21	conjunction	-749 Aug 26 j 07:50	24°Ω13'07	15°51'01
morning rise	-756 Aug 15 j 15:31	8°Ω39'58		minimum elong	-749 Aug 26 j 07:31	24°Ω13'05	15°51'02
retrograde	-756 Nov 20 j 07:45	10°Ω48'43		retrograde	-749 Dec 07 j 11:19	26°Ω44'29	
opposition	-755 Feb 05 j 06:53	9°Ω30'22	14°55'20	opposition	-748 Feb 22 j 00:14	25°Ω23'41	16°59'50
min. Earth dist.	-755 Feb 08 j 04:13	9°Ω25'46	31.43147 AU	min. Earth dist.	-748 Feb 24 j 12:56	25°Ω19'31	30.11175 AU
direct	-755 Apr 26 j 23:28	8°Ω08'36		direct	-748 May 12 j 06:20	23°Ω59'21	
evening set	-755 Aug 06 j 19:10	10°Ω24'32		max. Earth dist.	-748 Aug 25 j 07:11	26°Ω30'20	31.94668 AU
max. Earth dist.	-755 Aug 08 j 19:15	10°Ω28'52	33.26063 AU				
				conjunction	-748 Aug 27 j 23:57	26°Ω36'33	16°03'06
conjunction	-755 Aug 11 j 23:41	10°Ω35'46	14°12'27	minimum elong	-748 Aug 27 j 23:41	26°Ω36'31	16°03'06
minimum elong	-755 Aug 11 j 23:17	10°Ω35'44	14°12'28	retrograde	-748 Dec 09 j 03:40	29°Ω09'08	
morning rise	-755 Aug 17 j 03:01	10°Ω46'54		opposition	-747 Feb 23 j 16:44	27°Ω48'01	17°12'17
retrograde	-755 Nov 22 j 18:18	12°Ω59'00		min. Earth dist.	-747 Feb 26 j 04:45	27°Ω43'52	29.95058 AU
opposition	-754 Feb 07 j 17:03	11°Ω40'14	15°16'35	direct	-747 May 14 j 21:57	26°Ω23'22	
min. Earth dist.	-754 Feb 10 j 14:17	11°Ω35'36	31.22202 AU	max. Earth dist.	-747 Aug 28 j 01:14	28°Ω55'40	31.78722 AU
direct	-754 Apr 29 j 06:55	10°Ω18'01					
evening set	-754 Aug 10 j 10:30	12°Ω37'53		conjunction	-747 Aug 30 j 16:26	29°Ω01'47	16°13'45
max. Earth dist.	-754 Aug 11 j 08:51	12°Ω39'55	33.05152 AU	minimum elong	-747 Aug 30 j 16:10	29°Ω01'45	16°13'45
					-747 Sep 25 j 07:57	0°η	
conjunction	-754 Aug 14 j 11:06	12°Ω46'41	14°31'39	retrograde	-747 Dec 11 j 22:30	1°η35'31	
minimum elong	-754 Aug 14 j 10:44	12°Ω46'39	14°31'39	opposition	-746 Feb 26 j 09:47	0°η14'05	17°23'11
morning rise	-754 Aug 18 j 10:45	12°Ω55'24		min. Earth dist.	-746 Feb 28 j 19:14	0°η10'06	29.79654 AU
	-754 Oct 30 j 08:04	15°Ω			-746 Mar 06 j 21:46	30°κΩ	
retrograde	-754 Nov 25 j 06:28	15°Ω11'18		direct	-746 May 17 j 15:06	28°Ω49'07	
	-754 Dec 21 j 15:23	15°κΩ			-746 Jul 24 j 03:21	0°η	
opposition	-753 Feb 10 j 03:51	13°Ω52'09	15°36'49	max. Earth dist.	-746 Aug 30 j 20:26	1°η22'42	31.63517 AU
min. Earth dist.	-753 Feb 12 j 22:55	13°Ω47'39	31.01934 AU				
direct	-753 May 01 j 16:15	12°Ω29'31		conjunction	-746 Sep 02 j 09:46	1°η28'40	16°22'53

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Attention, astronomical year style is used: The year -746 in astronomical counting style is the year 747 BCE in historical counting style.

minimum elong	-746 Sep 02 j 09:33	1° \mathring{M} 28'39	16°22'53	min. Earth dist.	-737 Mar 23 j 10:36	23° \mathring{M} 02'49	28.82957 AU
retrograde	-746 Dec 14 j 16:41	4° \mathring{M} 03'28		direct	-737 Jun 09 j 20:32	21° \mathring{M} 38'55	
opposition	-745 Mar 01 j 03:35	2° \mathring{M} 41'43	17°32'25	max. Earth dist.	-737 Sep 24 j 04:15	24° \mathring{M} 21'00	30.71338 AU
min. Earth dist.	-745 Mar 03 j 12:20	2° \mathring{M} 37'46	29.65000 AU				
direct	-745 May 20 j 07:31	1° \mathring{M} 16'28		conjunction	-737 Sep 25 j 14:47	24° \mathring{M} 24'30	16°26'09
max. Earth dist.	-745 Sep 02 j 16:45	3° \mathring{M} 51'17	31.49134 AU	minimum elong	-737 Sep 25 j 14:54	24° \mathring{M} 24'31	16°26'09
				retrograde	-736 Jan 07 j 03:35	27° \mathring{M} 05'31	
conjunction	-745 Sep 05 j 03:35	3° \mathring{M} 57'03	16°30'27	opposition	-736 Mar 23 j 22:27	25° \mathring{M} 42'08	17°29'13
minimum elong	-745 Sep 05 j 03:23	3° \mathring{M} 57'02	16°30'27	min. Earth dist.	-736 Mar 25 j 07:22	25° \mathring{M} 39'49	28.77523 AU
retrograde	-745 Dec 17 j 11:43	6° \mathring{M} 32'51		direct	-736 Jun 11 j 18:50	24° \mathring{M} 15'49	
opposition	-744 Mar 02 j 22:07	5° \mathring{M} 10'47	17°39'56	max. Earth dist.	-736 Sep 26 j 03:07	26° \mathring{M} 58'18	30.66583 AU
min. Earth dist.	-744 Mar 05 j 03:52	5° \mathring{M} 07'02	29.51163 AU				
direct	-744 May 22 j 02:18	3° \mathring{M} 45'15		conjunction	-736 Sep 27 j 11:05	27° \mathring{M} 01'33	16°17'01
max. Earth dist.	-744 Sep 04 j 12:48	6° \mathring{M} 21'10	31.35626 AU	minimum elong	-736 Sep 27 j 11:14	27° \mathring{M} 01'33	16°17'01
				retrograde	-735 Jan 09 j 02:01	29° \mathring{M} 42'48	
conjunction	-744 Sep 06 j 21:41	6° \mathring{M} 26'47	16°36'21	opposition	-735 Mar 26 j 21:12	28° \mathring{M} 19'23	17°18'36
minimum elong	-744 Sep 06 j 21:32	6° \mathring{M} 26'46	16°36'21	min. Earth dist.	-735 Mar 28 j 02:09	28° \mathring{M} 17'21	28.73109 AU
retrograde	-744 Dec 19 j 05:31	9° \mathring{M} 03'30		direct	-735 Jun 14 j 17:58	26° \mathring{M} 53'07	
opposition	-743 Mar 05 j 17:24	7° \mathring{M} 41'09	17°45'37	max. Earth dist.	-735 Sep 29 j 03:04	29° \mathring{M} 35'59	30.62858 AU
min. Earth dist.	-743 Mar 07 j 21:47	7° \mathring{M} 37'29	29.38231 AU				
direct	-743 May 24 j 19:40	6° \mathring{M} 15'21		conjunction	-735 Sep 30 j 07:39	29° \mathring{M} 38'53	16°06'00
max. Earth dist.	-743 Sep 07 j 11:04	8° \mathring{M} 52'27	31.23100 AU	minimum elong	-735 Sep 30 j 07:51	29° \mathring{M} 38'54	16°06'01
					-735 Oct 08 j 23:38	0° \mathring{A}	
conjunction	-743 Sep 09 j 16:19	8° \mathring{M} 57'44	16°40'31	retrograde	-734 Jan 11 j 23:08	2° \mathring{A} 20'15	
minimum elong	-743 Sep 09 j 16:12	8° \mathring{M} 57'44	16°40'32	opposition	-734 Mar 29 j 20:05	0° \mathring{A} 56'50	17°05'56
retrograde	-743 Dec 22 j 00:22	11° \mathring{M} 35'17		min. Earth dist.	-734 Mar 30 j 23:15	0° \mathring{A} 54'55	28.69698 AU
opposition	-742 Mar 08 j 13:08	10° \mathring{M} 12'40	17°49'24		-734 May 05 j 12:10	30° \mathring{K} \mathring{M}	
min. Earth dist.	-742 Mar 10 j 14:23	10° \mathring{M} 09'12	29.26280 AU	direct	-734 Jun 17 j 16:11	29° \mathring{M} 30'38	
direct	-742 May 27 j 15:13	8° \mathring{M} 46'39			-734 Jul 29 j 09:13	0° \mathring{A}	
max. Earth dist.	-742 Sep 10 j 07:59	11° \mathring{M} 24'41	31.11627 AU	max. Earth dist.	-734 Oct 02 j 02:30	2° \mathring{A} 13'41	30.60177 AU
conjunction	-742 Sep 12 j 11:16	11° \mathring{M} 29'48	16°42'53	conjunction	-734 Oct 03 j 04:06	2° \mathring{A} 16'17	15°53'07
minimum elong	-742 Sep 12 j 11:11	11° \mathring{M} 29'48	16°42'52	minimum elong	-734 Oct 03 j 04:19	2° \mathring{A} 16'19	15°53'06
retrograde	-742 Dec 24 j 20:24	14° \mathring{M} 08'08		retrograde	-733 Jan 14 j 21:31	4° \mathring{A} 57'40	
opposition	-741 Mar 11 j 09:31	12° \mathring{M} 45'17	17°51'12	opposition	-733 Apr 01 j 19:01	3° \mathring{A} 34'14	16°51'16
min. Earth dist.	-741 Mar 13 j 08:25	12° \mathring{M} 41'59	29.15397 AU	min. Earth dist.	-733 Apr 02 j 18:13	3° \mathring{A} 32'36	28.67284 AU
direct	-741 May 30 j 09:03	11° \mathring{M} 19'05		direct	-733 Jun 20 j 16:50	2° \mathring{A} 08'07	
max. Earth dist.	-741 Sep 13 j 07:33	13° \mathring{M} 58'12	31.01280 AU	max. Earth dist.	-733 Oct 05 j 01:48	4° \mathring{A} 51'15	30.58520 AU
conjunction	-741 Sep 15 j 06:41	14° \mathring{M} 02'55	16°43'23	conjunction	-733 Oct 06 j 00:22	4° \mathring{A} 53'32	15°38'23
minimum elong	-741 Sep 15 j 06:38	14° \mathring{M} 02'55	16°43'23	minimum elong	-733 Oct 06 j 00:38	4° \mathring{A} 53'34	15°38'23
retrograde	-741 Dec 27 j 15:07	16° \mathring{M} 41'57		retrograde	-732 Jan 17 j 17:16	7° \mathring{A} 34'49	
opposition	-740 Mar 13 j 06:29	15° \mathring{M} 18'55	17°50'58	opposition	-732 Apr 03 j 18:04	6° \mathring{A} 11'22	16°34'37
min. Earth dist.	-740 Mar 15 j 02:22	15° \mathring{M} 15'50	29.05614 AU	min. Earth dist.	-732 Apr 04 j 15:08	6° \mathring{A} 09'53	28.65897 AU
direct	-740 Jun 01 j 06:05	13° \mathring{M} 52'37		direct	-732 Jun 22 j 14:51	4° \mathring{A} 45'22	
max. Earth dist.	-740 Sep 15 j 05:16	16° \mathring{M} 32'30	30.92096 AU				
				conjunction	-732 Oct 07 j 20:27	7° \mathring{A} 30'24	15°21'50
conjunction	-740 Sep 17 j 02:18	16° \mathring{M} 37'02	16°41'58	minimum elong	-732 Oct 07 j 20:43	7° \mathring{A} 30'26	15°21'50
minimum elong	-740 Sep 17 j 02:17	16° \mathring{M} 37'02	16°41'57	max. Earth dist.	-732 Oct 07 j 01:40	7° \mathring{A} 28'30	30.57943 AU
retrograde	-740 Dec 29 j 12:35	19° \mathring{M} 16'42		retrograde	-731 Jan 19 j 13:49	10° \mathring{A} 11'26	
opposition	-739 Mar 16 j 03:52	17° \mathring{M} 53'32	17°48'40	opposition	-731 Apr 06 j 16:51	8° \mathring{A} 48'01	16°16'01
min. Earth dist.	-739 Mar 17 j 20:34	17° \mathring{M} 50'40	28.96973 AU	min. Earth dist.	-731 Apr 07 j 10:00	8° \mathring{A} 46'49	28.65567 AU
direct	-739 Jun 04 j 01:55	16° \mathring{M} 27'10		direct	-731 Jun 25 j 15:11	7° \mathring{A} 22'08	
max. Earth dist.	-739 Sep 18 j 05:30	19° \mathring{M} 07'58	30.84066 AU				
				conjunction	-731 Oct 10 j 16:01	10° \mathring{A} 06'40	15°03'31
conjunction	-739 Sep 19 j 22:13	19° \mathring{M} 12'05	16°38'37	minimum elong	-731 Oct 10 j 16:21	10° \mathring{A} 06'42	15°03'31
minimum elong	-739 Sep 19 j 22:15	19° \mathring{M} 12'05	16°38'38	max. Earth dist.	-731 Oct 10 j 00:04	10° \mathring{A} 05'03	30.58468 AU
retrograde	-738 Jan 01 j 08:28	21° \mathring{M} 52'17		retrograde	-730 Jan 22 j 10:18	12° \mathring{A} 47'23	
opposition	-738 Mar 19 j 01:44	20° \mathring{M} 29'02	17°44'16	opposition	-730 Apr 09 j 15:29	11° \mathring{A} 23'59	15°55'31
min. Earth dist.	-738 Mar 20 j 16:07	20° \mathring{M} 26'19	28.89425 AU	min. Earth dist.	-730 Apr 10 j 05:42	11° \mathring{A} 22'59	28.66360 AU
direct	-738 Jun 06 j 22:27	19° \mathring{M} 02'39		direct	-730 Jun 28 j 12:46	9° \mathring{A} 58'14	
max. Earth dist.	-738 Sep 21 j 03:52	21° \mathring{M} 44'03	30.77162 AU	evening set	-730 Oct 10 j 12:13	12° \mathring{A} 34'58	
conjunction	-738 Sep 22 j 18:19	21° \mathring{M} 47'57	16°33'21	conjunction	-730 Oct 13 j 11:24	12° \mathring{A} 42'11	14°43'28
minimum elong	-738 Sep 22 j 18:23	21° \mathring{M} 47'57	16°33'20	minimum elong	-730 Oct 13 j 11:44	12° \mathring{A} 42'13	14°43'27
retrograde	-737 Jan 04 j 06:58	24° \mathring{M} 28'37		max. Earth dist.	-730 Oct 12 j 23:50	12° \mathring{A} 41'00	30.60162 AU
opposition	-737 Mar 21 j 23:46	23° \mathring{M} 05'17	17°37'47	morning rise	-730 Oct 16 j 11:10	12° \mathring{A} 49'27	

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Attention, astronomical year style is used: The year -729 in astronomical counting style is the year 730 BCE in historical counting style.

retrograde	-729 Jan 25 j 03:54	15° <u>♁</u> 22'28		-723 Oct 21 j 06:51	0° <u>♁</u>		
opposition	-729 Apr 12 j 13:48	13° <u>♁</u> 59'07	15°33'11				
min. Earth dist.	-729 Apr 13 j 00:19	13° <u>♁</u> 58'23	28.68311 AU	conjunction	-723 Oct 30 j 13:41	0° <u>♁</u> 21'52	11°40'49
direct	-729 Jul 01 j 12:42	12° <u>♁</u> 33'33		minimum elong	-723 Oct 30 j 14:06	0° <u>♁</u> 21'54	11°40'49
evening set	-729 Oct 11 j 18:40	15° <u>♁</u> 05'56		max. Earth dist.	-723 Oct 31 j 01:43	0° <u>♁</u> 23'03	31.05122 AU
				morning rise	-723 Nov 09 j 06:05	0° <u>♁</u> 44'40	
conjunction	-729 Oct 16 j 06:15	15° <u>♁</u> 16'48	14°21'44	retrograde	-722 Feb 11 j 07:09	2° <u>♁</u> 57'14	
minimum elong	-729 Oct 16 j 06:37	15° <u>♁</u> 16'50	14°21'44	opposition	-722 Apr 30 j 15:44	1° <u>♁</u> 35'10	12°12'21
max. Earth dist.	-729 Oct 15 j 21:24	15° <u>♁</u> 15'55	30.63067 AU	min. Earth dist.	-722 Apr 30 j 02:18	1° <u>♁</u> 36'04	29.14479 AU
morning rise	-729 Oct 20 j 18:25	15° <u>♁</u> 27'43		direct	-722 Jul 19 j 14:52	0° <u>♁</u> 11'43	
retrograde	-728 Jan 27 j 23:02	17° <u>♁</u> 56'35		evening set	-722 Oct 22 j 22:08	2° <u>♁</u> 24'01	
opposition	-728 Apr 14 j 11:56	16° <u>♁</u> 33'20	15°09'03				
min. Earth dist.	-728 Apr 14 j 18:38	16° <u>♁</u> 32'52	28.71490 AU	conjunction	-722 Nov 02 j 05:01	2° <u>♁</u> 48'05	11°09'52
direct	-728 Jul 03 j 09:36	15° <u>♁</u> 07'59		minimum elong	-722 Nov 02 j 05:24	2° <u>♁</u> 48'07	11°09'51
evening set	-728 Oct 12 j 09:13	17° <u>♁</u> 36'50		max. Earth dist.	-722 Nov 02 j 20:04	2° <u>♁</u> 49'33	31.15684 AU
				morning rise	-722 Nov 12 j 12:04	3° <u>♁</u> 12'10	
conjunction	-728 Oct 18 j 00:44	17° <u>♁</u> 50'28	13°58'24	retrograde	-721 Feb 13 j 22:28	5° <u>♁</u> 22'30	
minimum elong	-728 Oct 18 j 01:06	17° <u>♁</u> 50'30	13°58'23	opposition	-721 May 03 j 10:36	4° <u>♁</u> 00'40	11°38'39
max. Earth dist.	-728 Oct 17 j 20:40	17° <u>♁</u> 50'04	30.67216 AU	min. Earth dist.	-721 May 02 j 19:01	4° <u>♁</u> 01'43	29.25105 AU
morning rise	-728 Oct 23 j 16:39	18° <u>♁</u> 04'08		direct	-721 Jul 22 j 09:30	2° <u>♁</u> 37'34	
retrograde	-727 Jan 29 j 16:39	20° <u>♁</u> 29'41		evening set	-721 Oct 24 j 23:24	4° <u>♁</u> 47'29	
opposition	-727 Apr 17 j 09:45	19° <u>♁</u> 06'34	14°43'13				
min. Earth dist.	-727 Apr 17 j 13:18	19° <u>♁</u> 06'20	28.75879 AU	conjunction	-721 Nov 04 j 19:47	5° <u>♁</u> 12'42	10°38'01
direct	-727 Jul 06 j 07:14	17° <u>♁</u> 41'28		minimum elong	-721 Nov 04 j 20:11	5° <u>♁</u> 12'44	10°38'01
evening set	-727 Oct 14 j 03:34	20° <u>♁</u> 07'10		max. Earth dist.	-721 Nov 05 j 13:53	5° <u>♁</u> 14'27	31.27128 AU
				morning rise	-721 Nov 15 j 16:12	5° <u>♁</u> 37'56	
conjunction	-727 Oct 20 j 18:41	20° <u>♁</u> 23'07	13°33'31	retrograde	-720 Feb 16 j 13:07	7° <u>♁</u> 46'05	
minimum elong	-727 Oct 20 j 19:05	20° <u>♁</u> 23'09	13°33'31	min. Earth dist.	-720 May 04 j 09:43	6° <u>♁</u> 25'46	29.36587 AU
max. Earth dist.	-727 Oct 20 j 17:15	20° <u>♁</u> 22'58	30.72587 AU	opposition	-720 May 05 j 04:46	6° <u>♁</u> 24'29	11°04'02
morning rise	-727 Oct 27 j 10:17	20° <u>♁</u> 39'06		direct	-720 Jul 24 j 05:58	5° <u>♁</u> 01'44	
retrograde	-726 Feb 01 j 11:08	23° <u>♁</u> 01'41		evening set	-720 Oct 26 j 00:50	7° <u>♁</u> 09'21	
opposition	-726 Apr 20 j 06:52	21° <u>♁</u> 38'45	14°15'47				
min. Earth dist.	-726 Apr 20 j 06:13	21° <u>♁</u> 38'48	28.81464 AU	conjunction	-720 Nov 06 j 09:38	7° <u>♁</u> 35'35	10°05'22
direct	-726 Jul 09 j 04:12	20° <u>♁</u> 13'56		minimum elong	-720 Nov 06 j 10:00	7° <u>♁</u> 35'37	10°05'22
evening set	-726 Oct 16 j 00:07	22° <u>♁</u> 36'42		max. Earth dist.	-720 Nov 07 j 06:01	7° <u>♁</u> 37'33	31.39408 AU
				morning rise	-720 Nov 17 j 18:40	8° <u>♁</u> 01'50	
conjunction	-726 Oct 23 j 12:20	22° <u>♁</u> 54'40	13°07'14	retrograde	-719 Feb 18 j 04:04	10° <u>♁</u> 07'55	
minimum elong	-726 Oct 23 j 12:43	22° <u>♁</u> 54'42	13°07'13	opposition	-719 May 07 j 22:16	8° <u>♁</u> 46'32	10°28'38
max. Earth dist.	-726 Oct 23 j 15:22	22° <u>♁</u> 54'58	30.79126 AU	min. Earth dist.	-719 May 07 j 00:34	8° <u>♁</u> 48'00	29.48931 AU
morning rise	-726 Oct 31 j 00:46	23° <u>♁</u> 12'40		direct	-719 Jul 27 j 00:02	7° <u>♁</u> 24'08	
retrograde	-725 Feb 04 j 03:26	25° <u>♁</u> 32'32		evening set	-719 Oct 28 j 02:34	9° <u>♁</u> 29'31	
opposition	-725 Apr 23 j 03:55	24° <u>♁</u> 09'48	13°46'52				
min. Earth dist.	-725 Apr 23 j 00:45	24° <u>♁</u> 10'01	28.88175 AU	conjunction	-719 Nov 08 j 22:58	9° <u>♁</u> 56'39	9°32'00
direct	-725 Jul 12 j 01:13	22° <u>♁</u> 45'19		minimum elong	-719 Nov 08 j 23:20	9° <u>♁</u> 56'42	9°32'00
evening set	-725 Oct 17 j 22:14	25° <u>♁</u> 05'18		max. Earth dist.	-719 Nov 09 j 22:54	9° <u>♁</u> 58'57	31.52540 AU
				morning rise	-719 Nov 20 j 19:20	10° <u>♁</u> 23'49	
conjunction	-725 Oct 26 j 05:13	25° <u>♁</u> 25'03	12°39'36	retrograde	-718 Feb 20 j 15:38	12° <u>♁</u> 27'52	
minimum elong	-725 Oct 26 j 05:38	25° <u>♁</u> 25'05	12°39'36	opposition	-718 May 10 j 14:48	11° <u>♁</u> 06'45	9°52'31
max. Earth dist.	-725 Oct 26 j 10:48	25° <u>♁</u> 25'36	30.86775 AU	min. Earth dist.	-718 May 09 j 14:26	11° <u>♁</u> 08'22	29.62129 AU
morning rise	-725 Nov 03 j 12:34	25° <u>♁</u> 44'49		direct	-718 Jul 29 j 18:56	9° <u>♁</u> 44'41	
retrograde	-724 Feb 06 j 21:46	28° <u>♁</u> 02'09		evening set	-718 Oct 30 j 04:32	11° <u>♁</u> 47'55	
opposition	-724 Apr 25 j 00:22	26° <u>♁</u> 39'37	13°16'34				
min. Earth dist.	-724 Apr 24 j 16:53	26° <u>♁</u> 40'08	28.95957 AU	conjunction	-718 Nov 11 j 11:20	12° <u>♁</u> 15'51	8°58'02
direct	-724 Jul 13 j 21:24	25° <u>♁</u> 15'28		minimum elong	-718 Nov 11 j 11:41	12° <u>♁</u> 15'53	8°58'01
evening set	-724 Oct 18 j 21:23	27° <u>♁</u> 32'48		max. Earth dist.	-718 Nov 12 j 13:14	12° <u>♁</u> 18'19	31.66534 AU
				morning rise	-718 Nov 23 j 18:26	12° <u>♁</u> 43'49	
conjunction	-724 Oct 27 j 21:47	27° <u>♁</u> 54'09	12°10'46	retrograde	-717 Feb 23 j 03:46	14° <u>♁</u> 45'56	
minimum elong	-724 Oct 27 j 22:11	27° <u>♁</u> 54'11	12°10'46	min. Earth dist.	-717 May 12 j 02:55	13° <u>♁</u> 26'54	29.76243 AU
max. Earth dist.	-724 Oct 28 j 07:11	27° <u>♁</u> 55'04	30.95456 AU	opposition	-717 May 13 j 06:46	13° <u>♁</u> 25'03	9°15'48
morning rise	-724 Nov 05 j 22:21	28° <u>♁</u> 15'31		direct	-717 Aug 01 j 10:51	12° <u>♁</u> 03'22	
	-724 Dec 28 j 11:28	0° <u>♁</u>		evening set	-717 Nov 01 j 06:22	14° <u>♁</u> 04'31	
retrograde	-723 Feb 08 j 13:55	0° <u>♁</u> 30'25					
	-723 Mar 24 j 15:21	30° <u>♁</u>		conjunction	-717 Nov 13 j 23:00	14° <u>♁</u> 33'09	8°23'31
opposition	-723 Apr 27 j 20:25	29° <u>♁</u> 08'07	12°45'01	minimum elong	-717 Nov 13 j 23:20	14° <u>♁</u> 33'11	8°23'30
min. Earth dist.	-723 Apr 27 j 10:53	29° <u>♁</u> 08'46	29.04749 AU	max. Earth dist.	-717 Nov 15 j 05:01	14° <u>♁</u> 36'00	31.81435 AU
direct	-723 Jul 16 j 17:32	27° <u>♁</u> 44'19					
evening set	-723 Oct 20 j 21:29	29° <u>♁</u> 59'05		morning rise	-717 Nov 26 j 15:37	15° <u>♁</u> 01'48	

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Attention, astronomical year style is used: The year -716 in astronomical counting style is the year 717 BCE in historical counting style.

retrograde	-716 Feb 25 j 13:12	17° <u>M</u> 02'06		direct	-710 Aug 17 j 06:54	27° <u>M</u> 24'19	
opposition	-716 May 14 j 22:04	15° <u>M</u> 41'29	8°38'34	evening set	-710 Nov 13 j 22:10	29° <u>M</u> 13'27	
min. Earth dist.	-716 May 13 j 15:51	15° <u>M</u> 43'29	29.91283 AU				
	-716 Jun 11 j 09:26	15° <u>R</u> <u>M</u>		conjunction	-710 Nov 28 j 12:41	29° <u>M</u> 44'37	4°14'26
direct	-716 Aug 03 j 03:04	14° <u>M</u> 20'11		minimum elong	-710 Nov 28 j 12:52	29° <u>M</u> 44'38	4°14'26
	-716 Sep 22 j 06:06	15° <u>M</u>		max. Earth dist.	-710 Nov 30 j 12:09	29° <u>M</u> 48'52	33.09114 AU
evening set	-716 Nov 02 j 08:34	16° <u>M</u> 19'21			-710 Dec 05 j 16:35	0° <u>♂</u>	
				morning rise	-710 Dec 13 j 03:34	0° <u>♂</u> 15'50	
conjunction	-716 Nov 15 j 09:52	16° <u>M</u> 48'35	7°48'34	retrograde	-709 Mar 12 j 04:44	2° <u>♂</u> 05'31	
minimum elong	-716 Nov 15 j 10:11	16° <u>M</u> 48'37	7°48'34	min. Earth dist.	-709 May 29 j 11:00	0° <u>♂</u> 50'18	31.19839 AU
max. Earth dist.	-716 Nov 16 j 17:49	16° <u>M</u> 51'35	31.97262 AU	opposition	-709 May 31 j 11:06	0° <u>♂</u> 47'16	4°11'42
morning rise	-716 Nov 28 j 11:30	17° <u>M</u> 17'51			-709 Jul 03 j 19:26	30° <u>R</u> <u>M</u>	
retrograde	-715 Feb 27 j 00:49	19° <u>M</u> 16'23		direct	-709 Aug 19 j 18:46	29° <u>M</u> 29'00	
min. Earth dist.	-715 May 16 j 02:04	17° <u>M</u> 58'20	30.07272 AU		-709 Oct 03 j 18:37	0° <u>♂</u>	
opposition	-715 May 17 j 12:19	17° <u>M</u> 56'05	8°00'55	evening set	-709 Nov 16 j 00:33	1° <u>♂</u> 16'42	
direct	-715 Aug 05 j 17:01	16° <u>M</u> 35'11					
evening set	-715 Nov 04 j 10:38	18° <u>M</u> 32'28		conjunction	-709 Nov 30 j 18:40	1° <u>♂</u> 47'56	3°38'46
				minimum elong	-709 Nov 30 j 18:49	1° <u>♂</u> 47'57	3°38'46
conjunction	-715 Nov 17 j 20:07	19° <u>M</u> 02'13	7°13'15	max. Earth dist.	-709 Dec 02 j 19:04	1° <u>♂</u> 52'14	33.29872 AU
minimum elong	-715 Nov 17 j 20:25	19° <u>M</u> 02'15	7°13'15	morning rise	-709 Dec 15 j 13:33	2° <u>♂</u> 19'14	
max. Earth dist.	-715 Nov 19 j 07:48	19° <u>M</u> 05'33	32.13998 AU	retrograde	-708 Mar 13 j 10:58	4° <u>♂</u> 07'40	
morning rise	-715 Dec 01 j 05:45	19° <u>M</u> 32'01		min. Earth dist.	-708 May 30 j 17:48	2° <u>♂</u> 52'55	31.40683 AU
retrograde	-714 Mar 01 j 09:26	21° <u>M</u> 28'53		opposition	-708 Jun 01 j 20:27	2° <u>♂</u> 49'44	3°33'45
min. Earth dist.	-714 May 18 j 13:56	20° <u>M</u> 11'15	30.24164 AU	direct	-708 Aug 21 j 04:44	1° <u>♂</u> 31'52	
opposition	-714 May 20 j 02:01	20° <u>M</u> 08'54	7°22'57	evening set	-708 Nov 17 j 02:51	3° <u>♂</u> 18'12	
direct	-714 Aug 08 j 06:50	18° <u>M</u> 48'26					
evening set	-714 Nov 06 j 12:51	20° <u>M</u> 43'55		conjunction	-708 Dec 02 j 00:17	3° <u>♂</u> 49'28	3°03'18
				minimum elong	-708 Dec 02 j 00:24	3° <u>♂</u> 49'28	3°03'18
conjunction	-714 Nov 20 j 05:31	21° <u>M</u> 14'07	6°37'41	max. Earth dist.	-708 Dec 04 j 03:28	3° <u>♂</u> 53'59	33.51062 AU
minimum elong	-714 Nov 20 j 05:46	21° <u>M</u> 14'08	6°37'40	morning rise	-708 Dec 16 j 22:14	4° <u>♂</u> 20'47	
max. Earth dist.	-714 Nov 21 j 19:11	21° <u>M</u> 17'36	32.31600 AU	retrograde	-707 Mar 15 j 14:08	6° <u>♂</u> 08'00	
morning rise	-714 Dec 03 j 22:27	21° <u>M</u> 44'20		min. Earth dist.	-707 Jun 02 j 01:23	4° <u>♂</u> 53'37	31.61957 AU
retrograde	-713 Mar 03 j 19:44	23° <u>M</u> 39'37		opposition	-707 Jun 04 j 04:53	4° <u>♂</u> 50'23	2°56'03
min. Earth dist.	-713 May 20 j 23:00	22° <u>M</u> 22'34	30.41904 AU	direct	-707 Aug 23 j 15:24	3° <u>♂</u> 32'55	
opposition	-713 May 22 j 14:49	22° <u>M</u> 19'59	6°44'46	evening set	-707 Nov 19 j 05:05	5° <u>♂</u> 17'56	
direct	-713 Aug 10 j 19:30	20° <u>M</u> 59'57					
evening set	-713 Nov 08 j 15:08	22° <u>M</u> 53'44		conjunction	-707 Dec 04 j 04:59	5° <u>♂</u> 49'09	2°28'03
				minimum elong	-707 Dec 04 j 05:05	5° <u>♂</u> 49'09	2°28'03
conjunction	-713 Nov 22 j 14:18	23° <u>M</u> 24'17	6°01'56	max. Earth dist.	-707 Dec 06 j 08:51	5° <u>♂</u> 53'41	33.72660 AU
minimum elong	-713 Nov 22 j 14:33	23° <u>M</u> 24'18	6°01'55	morning rise	-707 Dec 19 j 05:42	6° <u>♂</u> 20'26	
max. Earth dist.	-713 Nov 24 j 06:59	23° <u>M</u> 28'01	32.49987 AU	retrograde	-706 Mar 17 j 18:54	8° <u>♂</u> 06'31	
morning rise	-713 Dec 06 j 13:50	23° <u>M</u> 54'52		min. Earth dist.	-706 Jun 04 j 06:11	6° <u>♂</u> 52'35	31.83663 AU
retrograde	-712 Mar 05 j 04:50	25° <u>M</u> 48'40		opposition	-706 Jun 06 j 12:33	6° <u>♂</u> 49'12	2°18'40
min. Earth dist.	-712 May 22 j 09:33	24° <u>M</u> 32'02	30.60432 AU	direct	-706 Aug 25 j 23:36	5° <u>♂</u> 32'05	
opposition	-712 May 24 j 03:05	24° <u>M</u> 29'22	6°06'28	evening set	-706 Nov 21 j 07:02	7° <u>♂</u> 15'51	
direct	-712 Aug 12 j 06:12	23° <u>M</u> 09'47					
evening set	-712 Nov 09 j 17:20	25° <u>M</u> 01'57		conjunction	-706 Dec 06 j 08:57	7° <u>♂</u> 46'59	1°53'06
				minimum elong	-706 Dec 06 j 09:01	7° <u>♂</u> 46'59	1°53'06
conjunction	-712 Nov 23 j 22:21	25° <u>M</u> 32'46	5°26'05	max. Earth dist.	-706 Dec 08 j 15:24	7° <u>♂</u> 51'42	33.94667 AU
minimum elong	-712 Nov 23 j 22:34	25° <u>M</u> 32'47	5°26'05	morning rise	-706 Dec 21 j 11:39	8° <u>♂</u> 18'11	
max. Earth dist.	-712 Nov 25 j 17:27	25° <u>M</u> 36'41	32.69101 AU	retrograde	-705 Mar 19 j 21:01	10° <u>♂</u> 03'11	
morning rise	-712 Dec 08 j 03:40	26° <u>M</u> 03'37		min. Earth dist.	-705 Jun 06 j 12:26	8° <u>♂</u> 49'34	32.05826 AU
retrograde	-711 Mar 07 j 13:39	27° <u>M</u> 55'59		opposition	-705 Jun 08 j 19:38	8° <u>♂</u> 46'09	1°41'38
min. Earth dist.	-711 May 24 j 18:01	26° <u>M</u> 39'53	30.79646 AU	direct	-705 Aug 28 j 06:55	7° <u>♂</u> 29'25	
opposition	-711 May 26 j 14:27	26° <u>M</u> 37'03	5°28'08	evening set	-705 Nov 23 j 08:55	9° <u>♂</u> 11'59	
direct	-711 Aug 14 j 20:03	25° <u>M</u> 17'55					
evening set	-711 Nov 11 j 19:48	27° <u>M</u> 08'31		conjunction	-705 Dec 08 j 12:16	9° <u>♂</u> 42'59	1°18'29
				minimum elong	-705 Dec 08 j 12:19	9° <u>♂</u> 42'59	1°18'28
conjunction	-711 Nov 26 j 05:47	27° <u>M</u> 39'33	4°50'14	max. Earth dist.	-705 Dec 10 j 20:07	9° <u>♂</u> 47'47	34.17139 AU
minimum elong	-711 Nov 26 j 05:59	27° <u>M</u> 39'34	4°50'13	morning rise	-705 Dec 23 j 16:27	10° <u>♂</u> 14'03	
max. Earth dist.	-711 Nov 28 j 02:37	27° <u>M</u> 43'36	32.88828 AU	retrograde	-704 Mar 21 j 00:30	11° <u>♂</u> 58'02	
morning rise	-711 Dec 10 j 16:21	28° <u>M</u> 10'37		min. Earth dist.	-704 Jun 07 j 15:51	10° <u>♂</u> 44'52	32.28484 AU
	-710 Feb 27 j 18:37	0° <u>♂</u>		opposition	-704 Jun 10 j 01:48	10° <u>♂</u> 41'18	1°05'00
retrograde	-710 Mar 09 j 23:17	0° <u>♂</u> 01'36		direct	-704 Aug 29 j 13:07	9° <u>♂</u> 24'55	
	-710 Mar 20 j 01:29	30° <u>R</u> <u>M</u>		evening set	-704 Nov 24 j 10:40	11° <u>♂</u> 06'24	
min. Earth dist.	-710 May 27 j 02:40	28° <u>M</u> 45'58	30.99480 AU				
opposition	-710 May 29 j 01:04	28° <u>M</u> 43'01	4°49'51	conjunction	-704 Dec 09 j 14:50	11° <u>♂</u> 37'12	0°44'15

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Attention, astronomical year style is used: The year -704 in astronomical counting style is the year 705 BCE in historical counting style.

minimum elong	-704 Dec 09 j 14:52	11°♂37'13	0°44'14	min. Earth dist.	-697 Jun 21 j 06:15	23°♂28'22	33.99069 AU
max. Earth dist.	-704 Dec 12 j 00:41	11°♂42'09	34.40085 AU	opposition	-697 Jun 24 j 02:42	23°♂24'18	-2°56'51
morning rise	-704 Dec 24 j 20:05	12°♂08'07		direct	-697 Sep 12 j 16:14	22°♂10'48	
retrograde	-703 Mar 23 j 03:55	13°♂51'09		evening set	-697 Dec 07 j 20:00	23°♂46'25	
min. Earth dist.	-703 Jun 09 j 19:59	12°♂38'21	32.51659 AU				
opposition	-703 Jun 12 j 07:24	12°♂34'43	0°28'50	conjunction	-697 Dec 22 j 17:17	24°♂15'04	-3°02'10
direct	-703 Aug 31 j 17:17	11°♂18'44		minimum elong	-697 Dec 22 j 17:11	24°♂15'03	3°02'10
evening set	-703 Nov 26 j 12:17	12°♂59'10		max. Earth dist.	-697 Dec 25 j 12:47	24°♂20'31	36.11501 AU
				morning rise	-696 Jan 06 j 16:04	24°♂43'50	
conjunction	-703 Dec 11 j 16:57	13°♂29'46	0°10'27	retrograde	-696 Apr 04 j 06:42	26°♂21'54	
minimum elong	-703 Dec 11 j 16:58	13°♂29'46	0°10'26	min. Earth dist.	-696 Jun 22 j 07:18	25°♂11'58	34.24376 AU
behind sun begin	-703 Dec 11 j 11:55	13°♂29'22		opposition	-696 Jun 25 j 03:56	25°♂07'56	-3°29'00
behind sun end	-703 Dec 11 j 22:00	13°♂30'11		direct	-696 Sep 13 j 16:25	23°♂54'48	
max. Earth dist.	-703 Dec 14 j 04:58	13°♂34'51	34.63526 AU	evening set	-696 Dec 08 j 20:54	25°♂29'47	
morning rise	-703 Dec 26 j 22:30	14°♂00'28					
retrograde	-702 Mar 25 j 05:34	15°♂42'36		conjunction	-696 Dec 23 j 15:44	25°♂58'00	-3°32'19
desc. node	-702 Apr 04 j 13:10	15°♂41'03		minimum elong	-696 Dec 23 j 15:37	25°♂58'00	3°32'20
min. Earth dist.	-702 Jun 11 j 22:43	14°♂30'15	32.75317 AU	max. Earth dist.	-696 Dec 26 j 12:16	26°♂03'30	36.36717 AU
opposition	-702 Jun 14 j 12:02	14°♂26'31	-0°06'51	morning rise	-695 Jan 07 j 11:48	26°♂26'21	
direct	-702 Sep 03 j 00:06	13°♂10'56		retrograde	-695 Apr 06 j 06:02	28°♂03'53	
evening set	-702 Nov 28 j 13:54	14°♂50'26		min. Earth dist.	-695 Jun 24 j 07:00	26°♂54'17	34.49700 AU
				opposition	-695 Jun 27 j 04:27	26°♂50'13	-4°00'31
conjunction	-702 Dec 13 j 18:18	15°♂20'46	-0°23'00	direct	-695 Sep 15 j 17:25	25°♂37'26	
minimum elong	-702 Dec 13 j 18:17	15°♂20'46	0°23'00	evening set	-695 Dec 10 j 21:48	27°♂11'49	
max. Earth dist.	-702 Dec 16 j 07:16	15°♂25'53	34.87420 AU				
morning rise	-702 Dec 28 j 23:59	15°♂51'13		conjunction	-695 Dec 25 j 13:28	27°♂39'36	-4°01'53
retrograde	-701 Mar 27 j 08:40	17°♂32'33		minimum elong	-695 Dec 25 j 13:20	27°♂39'33	4°01'53
min. Earth dist.	-701 Jun 14 j 00:48	16°♂20'38	32.99445 AU	max. Earth dist.	-695 Dec 28 j 09:54	27°♂45'03	36.61926 AU
opposition	-701 Jun 16 j 16:17	16°♂16'48	-0°42'01	morning rise	-694 Jan 09 j 06:44	28°♂07'30	
direct	-701 Sep 05 j 04:12	15°♂01'38		retrograde	-694 Apr 08 j 05:42	29°♂44'31	
evening set	-701 Nov 30 j 15:08	16°♂40'14		min. Earth dist.	-694 Jun 26 j 05:50	28°♂35'15	34.75051 AU
				opposition	-694 Jun 29 j 04:23	28°♂31'08	-4°31'22
conjunction	-701 Dec 15 j 19:08	17°♂10'19	-0°55'53	direct	-694 Sep 17 j 16:24	27°♂18'42	
minimum elong	-701 Dec 15 j 19:06	17°♂10'19	0°55'54	evening set	-694 Dec 12 j 22:19	28°♂52'30	
max. Earth dist.	-701 Dec 18 j 10:43	17°♂15'36	35.11728 AU				
morning rise	-701 Dec 31 j 00:10	17°♂40'29		conjunction	-694 Dec 27 j 10:49	29°♂19'49	-4°30'50
retrograde	-700 Mar 28 j 08:31	19°♂21'03		minimum elong	-694 Dec 27 j 10:40	29°♂19'48	4°30'52
min. Earth dist.	-700 Jun 15 j 03:41	18°♂09'32	33.23957 AU	max. Earth dist.	-694 Dec 30 j 08:58	29°♂25'21	36.87160 AU
opposition	-700 Jun 17 j 19:53	18°♂05'40	-1°16'37	morning rise	-693 Jan 11 j 00:37	29°♂47'15	
direct	-700 Sep 06 j 09:17	16°♂50'56			-693 Jan 18 j 00:30	0°♂	
evening set	-700 Dec 01 j 16:32	18°♂28'43		retrograde	-693 Apr 10 j 00:41	1°♂23'47	
				min. Earth dist.	-693 Jun 28 j 05:20	0°♂14'46	35.00442 AU
conjunction	-700 Dec 16 j 19:25	18°♂58'28	-1°28'16	opposition	-693 Jul 01 j 03:50	0°♂10'41	-5°01'32
minimum elong	-700 Dec 16 j 19:22	18°♂58'28	1°28'17		-693 Jul 08 j 20:22	30°♂	
max. Earth dist.	-700 Dec 19 j 11:24	19°♂03'45	35.36371 AU	direct	-693 Sep 19 j 18:06	28°♂58'33	
morning rise	-700 Dec 31 j 23:38	19°♂28'20			-693 Nov 26 j 19:12	0°♂	
retrograde	-699 Mar 30 j 08:29	21°♂08'12		evening set	-693 Dec 14 j 22:40	0°♂31'48	
min. Earth dist.	-699 Jun 17 j 04:07	19°♂57'10	33.48792 AU				
opposition	-699 Jun 19 j 22:37	19°♂53'11	-1°50'39	conjunction	-693 Dec 29 j 07:24	0°♂58'38	-4°59'11
direct	-699 Sep 08 j 12:19	18°♂38'52		minimum elong	-693 Dec 29 j 07:14	0°♂58'38	4°59'11
evening set	-699 Dec 03 j 17:46	20°♂15'53		max. Earth dist.	-692 Jan 01 j 05:24	1°♂04'08	37.12449 AU
				morning rise	-692 Jan 12 j 17:40	1°♂25'36	
conjunction	-699 Dec 18 j 19:15	20°♂45'17	-2°00'08	retrograde	-692 Apr 10 j 20:07	3°♂01'40	
minimum elong	-699 Dec 18 j 19:11	20°♂45'17	2°00'08	min. Earth dist.	-692 Jun 29 j 02:18	1°♂53'01	35.25931 AU
max. Earth dist.	-699 Dec 21 j 13:22	20°♂50'43	35.61265 AU	opposition	-692 Jul 02 j 02:39	1°♂48'50	-5°31'02
morning rise	-698 Jan 02 j 22:00	21°♂14'49		direct	-692 Sep 20 j 18:45	0°♂37'01	
retrograde	-698 Apr 01 j 07:03	22°♂54'03		evening set	-692 Dec 15 j 22:54	2°♂09'46	
min. Earth dist.	-698 Jun 19 j 06:25	21°♂43'21	33.73857 AU				
opposition	-698 Jun 22 j 01:01	21°♂39'23	-2°24'04	conjunction	-692 Dec 30 j 03:41	2°♂36'07	-5°26'53
direct	-698 Sep 10 j 15:04	20°♂25'29		minimum elong	-692 Dec 30 j 03:31	2°♂36'06	5°26'54
evening set	-698 Dec 05 j 18:51	22°♂01'47		max. Earth dist.	-691 Jan 02 j 03:30	2°♂41'43	37.37834 AU
				morning rise	-691 Jan 13 j 09:56	3°♂02'34	
conjunction	-698 Dec 20 j 18:29	22°♂30'49	-2°31'26	retrograde	-691 Apr 12 j 14:39	4°♂38'14	
minimum elong	-698 Dec 20 j 18:24	22°♂30'49	2°31'27	min. Earth dist.	-691 Jul 01 j 00:40	3°♂29'50	35.51547 AU
max. Earth dist.	-698 Dec 23 j 13:00	22°♂36'15	35.86337 AU	opposition	-691 Jul 04 j 00:49	3°♂25'40	-5°59'50
morning rise	-697 Jan 04 j 19:23	22°♂59'58		direct	-691 Sep 22 j 18:13	2°♂14'11	
retrograde	-697 Apr 03 j 06:42	24°♂38'37		evening set	-691 Dec 17 j 22:58	3°♂46'28	

Planetary Phenomena of Pluto from -900 through -398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 16

Attention, astronomical year style is used: The year -690 in astronomical counting style is the year 691 BCE in historical counting style.

conjunction	-691 Dec 31 j 23:28	4° $\overline{3}$ 12'18	-5°53'58	direct	-684 Oct 03 j 16:42	13° $\overline{3}$ 02'58	
minimum elong	-691 Dec 31 j 23:17	4° $\overline{3}$ 12'17	5°53'57	evening set	-684 Dec 29 j 19:49	14° $\overline{3}$ 33'12	
max. Earth dist.	-690 Jan 03 j 23:40	4° $\overline{3}$ 17'53	37.63356 AU				
morning rise	-690 Jan 15 j 01:21	4° $\overline{3}$ 38'14		conjunction	-683 Jan 11 j 06:24	14° $\overline{3}$ 55'05	-8°45'35
retrograde	-690 Apr 14 j 09:56	6° $\overline{3}$ 13'33		minimum elong	-683 Jan 11 j 06:12	14° $\overline{3}$ 55'04	8°45'36
min. Earth dist.	-690 Jul 02 j 20:31	5° $\overline{3}$ 05'30	35.77298 AU	max. Earth dist.	-683 Jan 14 j 10:01	15° $\overline{3}$ 00'40	39.42938 AU
opposition	-690 Jul 05 j 22:27	5° $\overline{3}$ 01'16	-6°27'56	morning rise	-683 Jan 23 j 18:12	15° $\overline{3}$ 17'05	
direct	-690 Sep 24 j 16:15	3° $\overline{3}$ 50'05		retrograde	-683 Apr 24 j 18:04	16° $\overline{3}$ 50'49	
evening set	-690 Dec 19 j 22:47	5° $\overline{3}$ 21'58		min. Earth dist.	-683 Jul 13 j 13:17	15° $\overline{3}$ 44'47	37.58038 AU
				opposition	-683 Jul 16 j 17:23	15° $\overline{3}$ 40'34	-9°25'19
				direct	-683 Oct 05 j 11:36	14° $\overline{3}$ 31'36	
				evening set	-683 Dec 31 j 19:05	16° $\overline{3}$ 01'39	
conjunction	-689 Jan 02 j 18:34	5° $\overline{3}$ 47'16	-6°20'23				
minimum elong	-689 Jan 02 j 18:24	5° $\overline{3}$ 47'15	6°20'24				
max. Earth dist.	-689 Jan 05 j 19:38	5° $\overline{3}$ 52'53	37.88994 AU				
morning rise	-689 Jan 16 j 15:59	6° $\overline{3}$ 12'41		conjunction	-682 Jan 12 j 23:05	16° $\overline{3}$ 22'57	-9°07'37
retrograde	-689 Apr 16 j 06:54	7° $\overline{3}$ 47'41		minimum elong	-682 Jan 12 j 22:53	16° $\overline{3}$ 22'56	9°07'37
min. Earth dist.	-689 Jul 04 j 17:28	6° $\overline{3}$ 39'55	36.03182 AU	max. Earth dist.	-682 Jan 16 j 02:09	16° $\overline{3}$ 28'27	39.68032 AU
opposition	-689 Jul 07 j 19:49	6° $\overline{3}$ 35'41	-6°55'21	morning rise	-682 Jan 25 j 04:33	16° $\overline{3}$ 44'20	
direct	-689 Sep 26 j 11:49	5° $\overline{3}$ 24'50		retrograde	-682 Apr 26 j 13:17	18° $\overline{3}$ 17'57	
evening set	-689 Dec 21 j 22:28	6° $\overline{3}$ 56'21		min. Earth dist.	-682 Jul 15 j 07:39	17° $\overline{3}$ 12'07	37.83235 AU
				opposition	-682 Jul 18 j 11:35	17° $\overline{3}$ 07'56	-9°47'59
				direct	-682 Oct 07 j 03:29	15° $\overline{3}$ 59'14	
				evening set	-681 Jan 02 j 17:53	17° $\overline{3}$ 29'07	
conjunction	-688 Jan 04 j 13:32	7° $\overline{3}$ 21'07	-6°46'11				
minimum elong	-688 Jan 04 j 13:20	7° $\overline{3}$ 21'06	6°46'10				
max. Earth dist.	-688 Jan 07 j 15:53	7° $\overline{3}$ 26'47	38.14748 AU				
morning rise	-688 Jan 18 j 05:53	7° $\overline{3}$ 45'59		conjunction	-681 Jan 14 j 15:22	17° $\overline{3}$ 49'48	-9°29'03
retrograde	-688 Apr 17 j 02:44	9° $\overline{3}$ 20'41		minimum elong	-681 Jan 14 j 15:09	17° $\overline{3}$ 49'47	9°29'04
min. Earth dist.	-688 Jul 05 j 13:33	8° $\overline{3}$ 13'14	36.29145 AU	max. Earth dist.	-681 Jan 17 j 19:18	17° $\overline{3}$ 55'19	39.92900 AU
opposition	-688 Jul 08 j 16:27	8° $\overline{3}$ 09'00	-7°22'03	morning rise	-681 Jan 26 j 13:58	18° $\overline{3}$ 10'34	
direct	-688 Sep 27 j 07:48	6° $\overline{3}$ 58'29		retrograde	-681 Apr 28 j 05:09	19° $\overline{3}$ 44'04	
evening set	-688 Dec 22 j 22:09	8° $\overline{3}$ 29'41		min. Earth dist.	-681 Jul 17 j 01:51	18° $\overline{3}$ 38'25	38.08207 AU
				opposition	-681 Jul 20 j 05:17	18° $\overline{3}$ 34'16	-10°10'01
				direct	-681 Oct 08 j 21:44	17° $\overline{3}$ 25'50	
				evening set	-680 Jan 04 j 16:50	18° $\overline{3}$ 55'34	
conjunction	-687 Jan 05 j 07:54	8° $\overline{3}$ 53'53	-7°11'19				
minimum elong	-687 Jan 05 j 07:43	8° $\overline{3}$ 53'52	7°11'20				
max. Earth dist.	-687 Jan 08 j 10:04	8° $\overline{3}$ 59'30	38.40545 AU				
morning rise	-687 Jan 18 j 19:16	9° $\overline{3}$ 18'12		conjunction	-680 Jan 16 j 07:14	19° $\overline{3}$ 15'37	-9°49'53
retrograde	-687 Apr 18 j 22:48	10° $\overline{3}$ 52'40		minimum elong	-680 Jan 16 j 07:02	19° $\overline{3}$ 15'36	9°49'53
min. Earth dist.	-687 Jul 07 j 08:44	9° $\overline{3}$ 45'33	36.55144 AU	max. Earth dist.	-680 Jan 19 j 10:19	19° $\overline{3}$ 21'03	40.17575 AU
opposition	-687 Jul 10 j 12:44	9° $\overline{3}$ 41'16	-7°48'03	morning rise	-680 Jan 27 j 22:56	19° $\overline{3}$ 35'46	
direct	-687 Sep 29 j 02:49	8° $\overline{3}$ 31'05		retrograde	-680 Apr 28 j 21:06	21° $\overline{3}$ 09'09	
evening set	-687 Dec 24 j 21:36	10° $\overline{3}$ 02'00		min. Earth dist.	-680 Jul 17 j 18:03	20° $\overline{3}$ 03'46	38.33032 AU
				opposition	-680 Jul 20 j 22:24	19° $\overline{3}$ 59'35	-10°31'24
				direct	-680 Oct 09 j 14:55	18° $\overline{3}$ 51'23	
				evening set	-679 Jan 05 j 15:26	20° $\overline{3}$ 21'01	
conjunction	-686 Jan 07 j 02:02	10° $\overline{3}$ 25'39	-7°35'49				
minimum elong	-686 Jan 07 j 01:50	10° $\overline{3}$ 25'38	7°35'50				
max. Earth dist.	-686 Jan 10 j 05:43	10° $\overline{3}$ 31'20	38.66329 AU				
morning rise	-686 Jan 20 j 07:48	10° $\overline{3}$ 49'24		conjunction	-679 Jan 16 j 22:47	20° $\overline{3}$ 40'27	-10°10'06
retrograde	-686 Apr 20 j 15:02	12° $\overline{3}$ 23'38		minimum elong	-679 Jan 16 j 22:34	20° $\overline{3}$ 40'26	10°10'06
min. Earth dist.	-686 Jul 09 j 05:07	11° $\overline{3}$ 16'46	36.81092 AU	max. Earth dist.	-679 Jan 20 j 03:06	20° $\overline{3}$ 45'56	40.42116 AU
opposition	-686 Jul 12 j 08:32	11° $\overline{3}$ 12'32	-8°13'22	morning rise	-679 Jan 28 j 07:16	20° $\overline{3}$ 59'57	
direct	-686 Oct 01 j 00:53	10° $\overline{3}$ 02'41		retrograde	-679 Apr 30 j 09:57	22° $\overline{3}$ 33'17	
evening set	-686 Dec 26 j 21:08	11° $\overline{3}$ 33'21		min. Earth dist.	-679 Jul 19 j 11:42	21° $\overline{3}$ 28'04	38.57745 AU
				opposition	-679 Jul 22 j 15:13	21° $\overline{3}$ 23'56	-10°52'07
				direct	-679 Oct 11 j 10:23	20° $\overline{3}$ 16'00	
				evening set	-678 Jan 07 j 14:03	21° $\overline{3}$ 45'33	
conjunction	-685 Jan 08 j 19:47	11° $\overline{3}$ 56'25	-7°59'42				
minimum elong	-685 Jan 08 j 19:35	11° $\overline{3}$ 56'24	7°59'43				
max. Earth dist.	-685 Jan 11 j 22:46	12° $\overline{3}$ 02'02	38.92038 AU				
morning rise	-685 Jan 21 j 19:52	12° $\overline{3}$ 19'36		conjunction	-678 Jan 18 j 13:55	22° $\overline{3}$ 04'20	-10°29'42
retrograde	-685 Apr 22 j 08:26	13° $\overline{3}$ 53'39		minimum elong	-678 Jan 18 j 13:43	22° $\overline{3}$ 04'19	10°29'43
min. Earth dist.	-685 Jul 10 j 23:21	12° $\overline{3}$ 47'08	37.06939 AU	max. Earth dist.	-678 Jan 21 j 17:50	22° $\overline{3}$ 09'46	40.66575 AU
opposition	-685 Jul 14 j 03:56	12° $\overline{3}$ 42'51	-8°38'01	morning rise	-678 Jan 29 j 14:51	22° $\overline{3}$ 23'11	
direct	-685 Oct 02 j 21:07	11° $\overline{3}$ 33'19		retrograde	-678 May 01 j 23:53	23° $\overline{3}$ 56'30	
evening set	-685 Dec 28 j 20:27	13° $\overline{3}$ 03'45		min. Earth dist.	-678 Jul 21 j 02:46	22° $\overline{3}$ 51'34	38.82384 AU
				opposition	-678 Jul 24 j 07:30	22° $\overline{3}$ 47'23	-11°12'12
				direct	-678 Oct 13 j 03:49	21° $\overline{3}$ 39'42	
				evening set	-677 Jan 09 j 12:30	23° $\overline{3}$ 09'13	
conjunction	-684 Jan 10 j 13:10	13° $\overline{3}$ 26'14	-8°22'57				
minimum elong	-684 Jan 10 j 12:58	13° $\overline{3}$ 26'13	8°22'57				
max. Earth dist.	-684 Jan 13 j 16:56	13° $\overline{3}$ 31'52	39.17589 AU				
morning rise	-684 Jan 23 j 07:19	13° $\overline{3}$ 48'50		conjunction	-677 Jan 20 j 04:42	23° $\overline{3}$ 27'21	-10°48'42
retrograde	-684 Apr 23 j 01:17	15° $\overline{3}$ 22'43		minimum elong	-677 Jan 20 j 04:29	23° $\overline{3}$ 27'20	10°48'42
min. Earth dist.	-684 Jul 11 j 19:25	14° $\overline{3}$ 16'24	37.32608 AU	max. Earth dist.	-677 Jan 23 j 09:02	23° $\overline{3}$ 32'46	40.90968 AU
opposition	-684 Jul 14 j 23:02	14° $\overline{3}$ 12'12	-9°02'00	morning rise	-677 Jan 30 j 22:04	23° $\overline{3}$ 45'33	

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Attention, astronomical year style is used: The year -677 in astronomical counting style is the year 678 BCE in historical counting style.

retrograde	-677 May 03 j 15:34	25° $\overline{3}$ 18'53		opposition	-671 Aug 02 j 16:38	2° \approx 10'49	-13°15'20
min. Earth dist.	-677 Jul 22 j 19:20	24° $\overline{3}$ 14'09	39.06975 AU	direct	-671 Oct 22 j 13:13	1° \approx 04'55	
opposition	-677 Jul 25 j 23:38	24° $\overline{3}$ 10'01	-11°31'37	evening set	-670 Jan 21 j 01:19	2° \approx 34'55	
direct	-677 Oct 14 j 19:17	23° $\overline{3}$ 02'35					
evening set	-676 Jan 11 j 10:48	24° $\overline{3}$ 32'05		conjunction	-670 Jan 29 j 04:58	2° \approx 48'16	-12°45'32
				minimum elong	-670 Jan 29 j 04:47	2° \approx 48'15	12°45'33
conjunction	-676 Jan 21 j 19:16	24° $\overline{3}$ 49'34	-11°07'05	max. Earth dist.	-670 Feb 01 j 07:50	2° \approx 53'23	42.57405 AU
minimum elong	-676 Jan 21 j 19:04	24° $\overline{3}$ 49'33	11°07'06	morning rise	-670 Feb 06 j 09:17	3° \approx 01'40	
max. Earth dist.	-676 Jan 25 j 00:21	24° $\overline{3}$ 55'01	41.15309 AU	retrograde	-670 May 12 j 17:42	4° \approx 35'41	
morning rise	-676 Feb 01 j 04:34	25° $\overline{3}$ 07'07		min. Earth dist.	-670 Aug 01 j 03:59	3° \approx 32'26	40.74024 AU
retrograde	-676 May 04 j 07:08	26° $\overline{3}$ 40'28		opposition	-670 Aug 04 j 06:30	3° \approx 28'30	-13°30'39
min. Earth dist.	-676 Jul 23 j 10:40	25° $\overline{3}$ 35'59	39.31475 AU	direct	-670 Oct 24 j 01:34	2° \approx 22'50	
opposition	-676 Jul 26 j 15:15	25° $\overline{3}$ 31'52	-11°50'24	evening set	-669 Jan 22 j 23:56	3° \approx 52'57	
direct	-676 Oct 15 j 10:16	24° $\overline{3}$ 24'42					
evening set	-675 Jan 12 j 09:15	25° $\overline{3}$ 54'13		conjunction	-669 Jan 30 j 17:49	4° \approx 05'34	-13°00'05
				minimum elong	-669 Jan 30 j 17:38	4° \approx 05'34	13°00'05
conjunction	-675 Jan 22 j 09:28	26° $\overline{3}$ 11'03	-11°24'54	max. Earth dist.	-669 Feb 02 j 21:11	4° \approx 10'42	42.79971 AU
minimum elong	-675 Jan 22 j 09:15	26° $\overline{3}$ 11'02	11°24'54	morning rise	-669 Feb 07 j 12:06	4° \approx 18'13	
max. Earth dist.	-675 Jan 25 j 13:45	26° $\overline{3}$ 16'24	41.39544 AU	retrograde	-669 May 14 j 06:56	5° \approx 52'25	
morning rise	-675 Feb 01 j 10:44	26° $\overline{3}$ 27'56		min. Earth dist.	-669 Aug 02 j 18:25	4° \approx 49'16	40.96609 AU
retrograde	-675 May 06 j 00:38	28° $\overline{3}$ 01'20		opposition	-669 Aug 05 j 19:58	4° \approx 45'25	-13°45'25
min. Earth dist.	-675 Jul 25 j 01:28	26° $\overline{3}$ 57'07	39.55868 AU	direct	-669 Oct 25 j 14:35	3° \approx 39'55	
opposition	-675 Jul 28 j 06:28	26° $\overline{3}$ 52'59	-12°08'34	evening set	-668 Jan 24 j 22:44	5° \approx 10'13	
direct	-675 Oct 16 j 22:17	25° $\overline{3}$ 46'06					
evening set	-674 Jan 14 j 07:30	27° $\overline{3}$ 15'40		conjunction	-668 Feb 01 j 06:11	5° \approx 22'05	-13°14'08
				minimum elong	-668 Feb 01 j 06:00	5° \approx 22'04	13°14'09
conjunction	-674 Jan 23 j 23:30	27° $\overline{3}$ 31'50	-11°42'07	max. Earth dist.	-668 Feb 04 j 08:09	5° \approx 27'05	43.02208 AU
minimum elong	-674 Jan 23 j 23:19	27° $\overline{3}$ 31'49	11°42'08	morning rise	-668 Feb 08 j 14:05	5° \approx 33'57	
max. Earth dist.	-674 Jan 27 j 04:51	27° $\overline{3}$ 37'14	41.63643 AU	retrograde	-668 May 14 j 20:45	7° \approx 08'21	
morning rise	-674 Feb 02 j 16:18	27° $\overline{3}$ 48'03		min. Earth dist.	-668 Aug 03 j 07:06	6° \approx 05'23	41.18898 AU
retrograde	-674 May 07 j 13:52	29° $\overline{3}$ 21'32		opposition	-668 Aug 06 j 09:06	6° \approx 01'31	-13°59'38
min. Earth dist.	-674 Jul 26 j 17:34	28° $\overline{3}$ 17'30	39.80082 AU	direct	-668 Oct 26 j 02:26	4° \approx 56'12	
opposition	-674 Jul 29 j 21:30	28° $\overline{3}$ 13'27	-12°26'08	evening set	-667 Jan 25 j 21:38	6° \approx 26'43	
direct	-674 Oct 18 j 13:54	27° $\overline{3}$ 06'50					
evening set	-673 Jan 16 j 05:48	28° $\overline{3}$ 36'28		conjunction	-667 Feb 01 j 18:24	6° \approx 37'48	-13°27'40
				minimum elong	-667 Feb 01 j 18:14	6° \approx 37'47	13°27'40
conjunction	-673 Jan 25 j 13:05	28° $\overline{3}$ 51'57	-11°58'46	max. Earth dist.	-667 Feb 04 j 20:51	6° \approx 42'48	43.24166 AU
minimum elong	-673 Jan 25 j 12:53	28° $\overline{3}$ 51'56	11°58'46	morning rise	-667 Feb 08 j 15:32	6° \approx 48'53	
max. Earth dist.	-673 Jan 28 j 17:25	28° $\overline{3}$ 57'15	41.87545 AU	retrograde	-667 May 16 j 05:56	8° \approx 23'30	
morning rise	-673 Feb 03 j 21:09	29° $\overline{3}$ 07'28		min. Earth dist.	-667 Aug 04 j 21:14	7° \approx 20'38	41.40936 AU
	-673 Mar 10 j 15:44	0° \approx		opposition	-667 Aug 07 j 21:49	7° \approx 16'50	-14°13'20
retrograde	-673 May 09 j 01:53	0° \approx 41'05		direct	-667 Oct 27 j 17:24	6° \approx 11'43	
	-673 Jul 09 j 23:44	30° \overline{R} $\overline{3}$		evening set	-666 Jan 27 j 20:56	7° \approx 42'29	
min. Earth dist.	-673 Jul 28 j 07:32	29° $\overline{3}$ 37'19	40.04069 AU				
opposition	-673 Jul 31 j 12:12	29° $\overline{3}$ 33'14	-12°43'06	conjunction	-666 Feb 03 j 06:20	7° \approx 52'45	-13°40'41
direct	-673 Oct 20 j 06:08	28° $\overline{3}$ 26'53		minimum elong	-666 Feb 03 j 06:10	7° \approx 52'44	13°40'41
evening set	-672 Jan 18 j 04:11	29° $\overline{3}$ 56'38		max. Earth dist.	-666 Feb 06 j 08:18	7° \approx 57'43	43.45917 AU
	-672 Jan 20 j 05:19	0° \approx		morning rise	-666 Feb 09 j 15:57	8° \approx 03'02	
				retrograde	-666 May 17 j 15:39	9° \approx 37'55	
conjunction	-672 Jan 27 j 02:38	0° \approx 11'25	-12°14'53	min. Earth dist.	-666 Aug 06 j 09:03	8° \approx 35'16	41.62771 AU
minimum elong	-672 Jan 27 j 02:27	0° \approx 11'24	12°14'54	opposition	-666 Aug 09 j 10:16	8° \approx 31'27	-14°26'28
max. Earth dist.	-672 Jan 30 j 07:14	0° \approx 16'43	42.11172 AU	direct	-666 Oct 29 j 07:54	7° \approx 26'31	
morning rise	-672 Feb 05 j 01:51	0° \approx 26'15		evening set	-665 Jan 29 j 20:21	8° \approx 57'37	
retrograde	-672 May 09 j 14:04	1° \approx 59'58					
min. Earth dist.	-672 Jul 28 j 23:24	0° \approx 56'22	40.27756 AU	conjunction	-665 Feb 04 j 17:48	9° \approx 07'02	-13°53'11
opposition	-672 Aug 01 j 02:36	0° \approx 52'22	-12°59'29	minimum elong	-665 Feb 04 j 17:39	9° \approx 07'01	13°53'11
	-672 Sep 17 j 08:46	30° \overline{R} $\overline{3}$		max. Earth dist.	-665 Feb 07 j 19:26	9° \approx 11'56	43.67475 AU
direct	-672 Oct 20 j 22:07	29° $\overline{3}$ 46'16		morning rise	-665 Feb 10 j 15:31	9° \approx 16'28	
	-672 Nov 22 j 15:22	0° \approx		retrograde	-665 May 19 j 04:41	10° \approx 51'42	
evening set	-671 Jan 19 j 02:47	1° \approx 16'08		min. Earth dist.	-665 Aug 07 j 22:00	9° \approx 49'11	41.84432 AU
				opposition	-665 Aug 10 j 22:36	9° \approx 45'25	-14°39'05
conjunction	-671 Jan 27 j 16:03	1° \approx 30'12	-12°30'28	direct	-665 Oct 30 j 19:25	8° \approx 40'41	
minimum elong	-671 Jan 27 j 15:51	1° \approx 30'11	12°30'28	evening set	-664 Jan 31 j 20:34	10° \approx 12'10	
max. Earth dist.	-671 Jan 30 j 20:02	1° \approx 35'26	42.34481 AU				
morning rise	-671 Feb 05 j 05:52	1° \approx 44'19		conjunction	-664 Feb 06 j 05:20	10° \approx 20'41	-14°05'11
retrograde	-671 May 11 j 02:42	3° \approx 18'12		minimum elong	-664 Feb 06 j 05:10	10° \approx 20'41	14°05'11
min. Earth dist.	-671 Jul 30 j 13:24	2° \approx 14'48	40.51076 AU	max. Earth dist.	-664 Feb 09 j 07:29	10° \approx 25'36	43.88866 AU

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Attention, astronomical year style is used: The year -664 in astronomical counting style is the year 665 BCE in historical counting style.

morning rise	-664 Feb 11 j 14:10	10° \approx 29'14	direct	-658 Nov 07 j 23:30	17° \approx 06'13	
retrograde	-664 May 19 j 15:53	12° \approx 04'53				
min. Earth dist.	-664 Aug 08 j 10:15	11° \approx 02'32	42.05896 AU	conjunction	-657 Feb 14 j 08:22	18° \approx 43'10 -15°16'06
opposition	-664 Aug 11 j 10:25	10° \approx 58'48	-14°51'10	minimum elong	-657 Feb 14 j 08:17	18° \approx 43'09 15°16'06
direct	-664 Oct 31 j 07:30	9° \approx 54'17		max. Earth dist.	-657 Feb 17 j 05:58	18° \approx 47'38 45.30403 AU
evening set	-663 Feb 01 j 21:38	11° \approx 26'14		retrograde	-657 May 28 j 21:40	20° \approx 24'18
				min. Earth dist.	-657 Aug 17 j 21:25	19° \approx 23'00 43.47223 AU
conjunction	-663 Feb 06 j 16:31	11° \approx 33'49	-14°16'41	opposition	-657 Aug 20 j 15:55	19° \approx 19'38 -16°02'17
minimum elong	-663 Feb 06 j 16:23	11° \approx 33'48	14°16'41	direct	-657 Nov 09 j 10:37	18° \approx 16'30
max. Earth dist.	-663 Feb 09 j 17:22	11° \approx 38'37	44.10061 AU			
morning rise	-663 Feb 11 j 11:31	11° \approx 41'24		conjunction	-656 Feb 15 j 18:24	19° \approx 53'01 -15°24'32
retrograde	-663 May 21 j 05:19	13° \approx 17'32		minimum elong	-656 Feb 15 j 18:17	19° \approx 53'00 15°24'31
min. Earth dist.	-663 Aug 09 j 21:45	12° \approx 15'24	42.27153 AU	max. Earth dist.	-656 Feb 18 j 14:22	19° \approx 57'22 45.48969 AU
opposition	-663 Aug 12 j 22:08	12° \approx 11'40	-15°02'43	retrograde	-656 May 29 j 05:41	21° \approx 33'42
direct	-663 Nov 01 j 16:45	11° \approx 07'22		min. Earth dist.	-656 Aug 18 j 07:17	20° \approx 32'33 43.65726 AU
evening set	-662 Feb 03 j 23:45	12° \approx 39'54		opposition	-656 Aug 21 j 01:53	20° \approx 29'11 -16°10'42
				direct	-656 Nov 09 j 21:46	19° \approx 26'11
conjunction	-662 Feb 08 j 03:28	12° \approx 46'27	-14°27'41			
minimum elong	-662 Feb 08 j 03:19	12° \approx 46'27	14°27'42	conjunction	-655 Feb 16 j 04:09	21° \approx 02'17 -15°32'33
max. Earth dist.	-662 Feb 11 j 05:02	12° \approx 51'17	44.31020 AU	minimum elong	-655 Feb 16 j 04:04	21° \approx 02'16 15°32'34
morning rise	-662 Feb 12 j 07:09	12° \approx 53'00		max. Earth dist.	-655 Feb 18 j 23:48	21° \approx 06'36 45.67152 AU
retrograde	-662 May 22 j 15:33	14° \approx 29'44		retrograde	-655 May 30 j 13:25	22° \approx 42'33
min. Earth dist.	-662 Aug 11 j 10:45	13° \approx 27'44	42.48143 AU	min. Earth dist.	-655 Aug 19 j 18:52	21° \approx 41'26 43.83881 AU
opposition	-662 Aug 14 j 09:41	13° \approx 24'05	-15°13'47	opposition	-655 Aug 22 j 11:51	21° \approx 38'09 -16°18'41
direct	-662 Nov 03 j 04:50	12° \approx 20'01		direct	-655 Nov 11 j 09:27	20° \approx 35'18
evening set	-661 Feb 06 j 04:16	13° \approx 53'17				
conjunction	-661 Feb 09 j 14:22	13° \approx 58'40	-14°38'14	conjunction	-654 Feb 17 j 13:39	22° \approx 10'58 -15°40'09
minimum elong	-661 Feb 09 j 14:15	13° \approx 58'39	14°38'15	minimum elong	-654 Feb 17 j 13:34	22° \approx 10'58 15°40'09
morning rise	-661 Feb 13 j 00:24	14° \approx 04'02		max. Earth dist.	-654 Feb 20 j 09:02	22° \approx 15'15 45.85030 AU
max. Earth dist.	-661 Feb 12 j 14:47	14° \approx 03'24	44.51706 AU	retrograde	-654 May 31 j 21:19	23° \approx 50'50
	-661 Mar 23 j 11:52	15° \approx		min. Earth dist.	-654 Aug 21 j 04:25	22° \approx 49'52 44.01732 AU
retrograde	-661 May 24 j 01:17	15° \approx 41'30		opposition	-654 Aug 23 j 21:28	22° \approx 46'35 -16°26'13
	-661 Jul 26 j 23:15	15° \approx		direct	-654 Nov 12 j 21:05	21° \approx 43'52
min. Earth dist.	-661 Aug 12 j 21:37	14° \approx 39'45	42.68820 AU	conjunction	-653 Feb 18 j 22:56	23° \approx 19'08 -15°47'20
opposition	-661 Aug 15 j 20:54	14° \approx 36'05	-15°24'22	minimum elong	-653 Feb 18 j 22:52	23° \approx 19'08 15°47'21
direct	-661 Nov 04 j 16:34	13° \approx 32'14		max. Earth dist.	-653 Feb 21 j 17:01	23° \approx 23'19 46.02631 AU
	-660 Feb 04 j 08:18	15° \approx		retrograde	-653 Jun 02 j 09:03	24° \approx 58'36
evening set	-660 Feb 08 j 12:39	15° \approx 06'31		min. Earth dist.	-653 Aug 22 j 14:31	23° \approx 57'44 44.19335 AU
				opposition	-653 Aug 25 j 06:58	23° \approx 54'29 -16°33'19
conjunction	-660 Feb 11 j 01:04	15° \approx 10'27	-14°48'20	direct	-653 Nov 14 j 05:04	22° \approx 51'55
minimum elong	-660 Feb 11 j 00:55	15° \approx 10'27	14°48'20			
morning rise	-660 Feb 13 j 13:20	15° \approx 14'23		conjunction	-652 Feb 20 j 08:12	24° \approx 26'48 -15°54'06
max. Earth dist.	-660 Feb 14 j 00:47	15° \approx 15'08	44.72035 AU	minimum elong	-652 Feb 20 j 08:08	24° \approx 26'48 15°54'06
retrograde	-660 May 24 j 11:45	16° \approx 52'53		max. Earth dist.	-652 Feb 23 j 02:52	24° \approx 31'00 46.19990 AU
min. Earth dist.	-660 Aug 13 j 10:28	15° \approx 51'14	42.89112 AU	retrograde	-652 Jun 02 j 19:25	26° \approx 05'53
opposition	-660 Aug 16 j 08:03	15° \approx 47'41	-15°34'30	min. Earth dist.	-652 Aug 23 j 00:54	25° \approx 05'06 44.36670 AU
	-660 Sep 29 j 02:30	15° \approx		opposition	-652 Aug 25 j 16:14	25° \approx 01'56 -16°40'00
direct	-660 Nov 05 j 04:56	14° \approx 44'02		direct	-652 Nov 14 j 13:04	23° \approx 59'30
	-660 Dec 11 j 09:51	15° \approx				
evening set	-659 Feb 10 j 10:43	16° \approx 20'12		conjunction	-651 Feb 20 j 17:13	25° \approx 34'02 -16°00'28
				minimum elong	-651 Feb 20 j 17:09	25° \approx 34'02 16°00'28
conjunction	-659 Feb 11 j 11:49	16° \approx 21'50	-14°58'00	max. Earth dist.	-651 Feb 23 j 10:22	25° \approx 38'07 46.37093 AU
minimum elong	-659 Feb 11 j 11:43	16° \approx 21'49	14°58'00	retrograde	-651 Jun 04 j 05:37	27° \approx 12'44
morning rise	-659 Feb 12 j 12:46	16° \approx 23'27		min. Earth dist.	-651 Aug 24 j 09:31	26° \approx 12'07 44.53741 AU
max. Earth dist.	-659 Feb 14 j 11:13	16° \approx 26'28	44.91955 AU	opposition	-651 Aug 27 j 01:10	26° \approx 08'56 -16°46'15
retrograde	-659 May 25 j 22:55	18° \approx 03'50		direct	-651 Nov 15 j 20:11	25° \approx 06'40
min. Earth dist.	-659 Aug 14 j 21:54	17° \approx 02'21	43.08946 AU			
opposition	-659 Aug 17 j 18:45	16° \approx 58'50	-15°44'11	conjunction	-650 Feb 22 j 02:04	26° \approx 40'51 -16°06'25
direct	-659 Nov 06 j 15:54	15° \approx 55'23		minimum elong	-650 Feb 22 j 02:02	26° \approx 40'51 16°06'25
				max. Earth dist.	-650 Feb 24 j 19:04	26° \approx 44'55 46.53916 AU
conjunction	-658 Feb 12 j 22:12	17° \approx 32'45	-15°07'15	retrograde	-650 Jun 05 j 11:46	28° \approx 19'12
minimum elong	-658 Feb 12 j 22:04	17° \approx 32'45	15°07'15	min. Earth dist.	-650 Aug 25 j 20:13	27° \approx 18'39 44.70513 AU
max. Earth dist.	-658 Feb 15 j 19:39	17° \approx 37'14	45.11410 AU	opposition	-650 Aug 28 j 10:09	27° \approx 15'34 -16°52'06
retrograde	-658 May 27 j 12:22	19° \approx 14'20		direct	-650 Nov 17 j 07:09	26° \approx 13'28
min. Earth dist.	-658 Aug 16 j 09:12	18° \approx 12'58	43.28319 AU			
opposition	-658 Aug 19 j 05:28	18° \approx 09'30	-15°53'27	conjunction	-649 Feb 23 j 10:47	27° \approx 47'18 -16°11'59

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

minimum elong	-649 Feb 23 j 10:44	27° \approx 47'18	16°12'00	conjunction	-641 Mar 04 j 04:25	6° \mathbb{H} 25'32	-16°44'02
max. Earth dist.	-649 Feb 26 j 03:16	27° \approx 51'20	46.70433 AU	minimum elong	-641 Mar 04 j 04:25	6° \mathbb{H} 25'32	16°44'01
retrograde	-649 Jun 06 j 18:12	29° \approx 25'19		max. Earth dist.	-641 Mar 06 j 12:25	6° \mathbb{H} 28'56	47.86919 AU
min. Earth dist.	-649 Aug 27 j 05:07	28° \approx 24'55	44.86930 AU	retrograde	-641 Jun 15 j 14:42	8° \mathbb{H} 00'57	
opposition	-649 Aug 29 j 18:50	28° \approx 21'51	-16°57'33	min. Earth dist.	-641 Sep 05 j 04:26	7° \mathbb{H} 01'09	46.02327 AU
direct	-649 Nov 18 j 18:10	27° \approx 19'54		opposition	-641 Sep 07 j 10:29	6° \mathbb{H} 58'30	-17°28'23
				direct	-641 Nov 27 j 07:43	5° \mathbb{H} 57'30	
conjunction	-648 Feb 24 j 19:28	28° \approx 53'25	-16°17'11				
minimum elong	-648 Feb 24 j 19:26	28° \approx 53'25	16°17'11	conjunction	-640 Mar 04 j 12:01	7° \mathbb{H} 28'36	-16°46'30
max. Earth dist.	-648 Feb 27 j 10:20	28° \approx 57'20	46.86561 AU	minimum elong	-640 Mar 04 j 12:02	7° \mathbb{H} 28'36	16°46'30
	-648 Apr 14 j 00:51	0° \mathbb{H}		max. Earth dist.	-640 Mar 06 j 20:00	7° \mathbb{H} 31'58	47.99843 AU
retrograde	-648 Jun 07 j 04:41	0° \mathbb{H} 31'06		retrograde	-640 Jun 15 j 20:10	9° \mathbb{H} 03'44	
	-648 Aug 01 j 17:22	30° \mathbb{R} \approx		min. Earth dist.	-640 Sep 05 j 13:21	8° \mathbb{H} 03'57	46.15162 AU
min. Earth dist.	-648 Aug 27 j 14:55	29° \approx 30'48	45.02941 AU	opposition	-640 Sep 07 j 17:38	8° \mathbb{H} 01'24	-17°30'39
opposition	-648 Aug 30 j 03:19	29° \approx 27'48	-17°02'37	direct	-640 Nov 27 j 15:40	7° \mathbb{H} 00'32	
direct	-648 Nov 19 j 01:47	28° \approx 26'00					
conjunction	-647 Feb 25 j 04:12	29° \approx 59'12	-16°22'02	conjunction	-639 Mar 05 j 19:30	8° \mathbb{H} 31'22	-16°48'36
minimum elong	-647 Feb 25 j 04:09	29° \approx 59'12	16°22'02	minimum elong	-639 Mar 05 j 19:32	8° \mathbb{H} 31'22	16°48'35
	-647 Feb 25 j 17:04	0° \mathbb{H}		max. Earth dist.	-639 Mar 08 j 02:41	8° \mathbb{H} 34'42	48.12516 AU
max. Earth dist.	-647 Feb 27 j 18:52	0° \mathbb{H} 03'05	47.02252 AU	retrograde	-639 Jun 17 j 00:27	10° \mathbb{H} 06'14	
retrograde	-647 Jun 08 j 13:20	1° \mathbb{H} 36'33		min. Earth dist.	-639 Sep 06 j 20:09	9° \mathbb{H} 06'36	46.27724 AU
min. Earth dist.	-647 Aug 29 j 00:50	0° \mathbb{H} 36'19	45.18466 AU	opposition	-639 Sep 09 j 00:39	9° \mathbb{H} 04'03	-17°32'32
opposition	-647 Aug 31 j 11:43	0° \mathbb{H} 33'24	-17°07'21	direct	-639 Nov 29 j 00:59	8° \mathbb{H} 03'18	
	-647 Sep 30 j 02:57	30° \mathbb{R} \approx					
direct	-647 Nov 20 j 10:31	29° \approx 31'45		conjunction	-638 Mar 07 j 02:36	9° \mathbb{H} 33'54	-16°50'22
	-646 Jan 09 j 08:07	0° \mathbb{H}		minimum elong	-638 Mar 07 j 02:37	9° \mathbb{H} 33'54	16°50'23
				max. Earth dist.	-638 Mar 09 j 08:36	9° \mathbb{H} 37'09	48.24901 AU
conjunction	-646 Feb 26 j 12:33	1° \mathbb{H} 04'38	-16°26'32	retrograde	-638 Jun 18 j 07:55	11° \mathbb{H} 08'31	
minimum elong	-646 Feb 26 j 12:32	1° \mathbb{H} 04'38	16°26'33	min. Earth dist.	-638 Sep 08 j 04:37	10° \mathbb{H} 08'58	46.39993 AU
max. Earth dist.	-646 Mar 01 j 01:06	1° \mathbb{H} 08'21	47.17456 AU	opposition	-638 Sep 10 j 07:45	10° \mathbb{H} 06'29	-17°34'05
retrograde	-646 Jun 09 j 23:03	2° \mathbb{H} 41'38		direct	-638 Nov 30 j 08:51	9° \mathbb{H} 05'52	
min. Earth dist.	-646 Aug 30 j 09:29	1° \mathbb{H} 41'30	45.33495 AU				
opposition	-646 Sep 01 j 20:01	1° \mathbb{H} 38'37	-17°11'43	conjunction	-637 Mar 08 j 09:56	10° \mathbb{H} 36'14	-16°51'48
direct	-646 Nov 21 j 16:51	0° \mathbb{H} 37'05		minimum elong	-637 Mar 08 j 09:59	10° \mathbb{H} 36'14	16°51'48
				max. Earth dist.	-637 Mar 10 j 15:59	10° \mathbb{H} 39'29	48.36979 AU
conjunction	-645 Feb 27 j 20:54	2° \mathbb{H} 09'39	-16°30'43	retrograde	-637 Jun 19 j 14:54	12° \mathbb{H} 10'38	
minimum elong	-645 Feb 27 j 20:52	2° \mathbb{H} 09'39	16°30'43	min. Earth dist.	-637 Sep 09 j 12:19	11° \mathbb{H} 11'10	46.51906 AU
max. Earth dist.	-645 Mar 02 j 08:55	2° \mathbb{H} 13'20	47.32158 AU	opposition	-637 Sep 11 j 14:31	11° \mathbb{H} 08'43	-17°35'18
retrograde	-645 Jun 11 j 06:07	3° \mathbb{H} 46'20		direct	-637 Dec 01 j 16:30	10° \mathbb{H} 08'15	
min. Earth dist.	-645 Aug 31 j 19:45	2° \mathbb{H} 46'12	45.48032 AU				
opposition	-645 Sep 03 j 04:09	2° \mathbb{H} 43'25	-17°15'46	conjunction	-636 Mar 08 j 17:08	11° \mathbb{H} 38'24	-16°52'56
direct	-645 Nov 23 j 01:40	1° \mathbb{H} 42'00		minimum elong	-636 Mar 08 j 17:09	11° \mathbb{H} 38'24	16°52'56
				max. Earth dist.	-636 Mar 10 j 21:04	11° \mathbb{H} 41'30	48.48680 AU
conjunction	-644 Feb 29 j 05:08	3° \mathbb{H} 14'15	-16°34'34	retrograde	-636 Jun 20 j 01:23	13° \mathbb{H} 12'33	
minimum elong	-644 Feb 29 j 05:08	3° \mathbb{H} 14'15	16°34'35	min. Earth dist.	-636 Sep 09 j 19:48	12° \mathbb{H} 13'11	46.63412 AU
max. Earth dist.	-644 Mar 02 j 16:04	3° \mathbb{H} 17'51	47.46407 AU	opposition	-636 Sep 11 j 21:16	12° \mathbb{H} 10'47	-17°36'12
retrograde	-644 Jun 11 j 11:38	4° \mathbb{H} 50'35		direct	-636 Dec 01 j 20:10	11° \mathbb{H} 10'25	
min. Earth dist.	-644 Sep 01 j 03:42	3° \mathbb{H} 50'34	45.62121 AU				
opposition	-644 Sep 03 j 11:57	3° \mathbb{H} 47'48	-17°19'27	conjunction	-635 Mar 10 j 00:19	12° \mathbb{H} 40'22	-16°53'45
direct	-644 Nov 23 j 11:45	2° \mathbb{H} 46'28		minimum elong	-635 Mar 10 j 00:23	12° \mathbb{H} 40'22	16°53'45
				max. Earth dist.	-635 Mar 12 j 03:51	12° \mathbb{H} 43'26	48.59926 AU
conjunction	-643 Mar 01 j 13:02	4° \mathbb{H} 18'24	-16°38'04	retrograde	-635 Jun 21 j 09:16	14° \mathbb{H} 14'16	
minimum elong	-643 Mar 01 j 13:01	4° \mathbb{H} 18'24	16°38'04	min. Earth dist.	-635 Sep 11 j 04:36	13° \mathbb{H} 14'55	46.74427 AU
max. Earth dist.	-643 Mar 03 j 22:25	4° \mathbb{H} 21'55	47.60233 AU	opposition	-635 Sep 13 j 03:54	13° \mathbb{H} 12'38	-17°36'49
retrograde	-643 Jun 12 j 19:46	5° \mathbb{H} 54'26		direct	-635 Dec 03 j 01:42	12° \mathbb{H} 12'23	
min. Earth dist.	-643 Sep 02 j 12:44	4° \mathbb{H} 54'27	45.75834 AU				
opposition	-643 Sep 04 j 19:37	4° \mathbb{H} 51'45	-17°22'48	conjunction	-634 Mar 11 j 07:28	13° \mathbb{H} 42'06	-16°54'18
direct	-643 Nov 24 j 20:11	3° \mathbb{H} 50'32		minimum elong	-634 Mar 11 j 07:30	13° \mathbb{H} 42'07	16°54'18
				max. Earth dist.	-634 Mar 13 j 09:19	13° \mathbb{H} 45'04	48.70684 AU
conjunction	-642 Mar 02 j 20:55	5° \mathbb{H} 22'10	-16°41'14	retrograde	-634 Jun 22 j 14:19	15° \mathbb{H} 15'46	
minimum elong	-642 Mar 02 j 20:55	5° \mathbb{H} 22'10	16°41'14	min. Earth dist.	-634 Sep 12 j 11:23	14° \mathbb{H} 16'30	46.84927 AU
max. Earth dist.	-642 Mar 05 j 06:37	5° \mathbb{H} 25'40	47.73722 AU	opposition	-634 Sep 14 j 10:25	14° \mathbb{H} 14'14	-17°37'08
retrograde	-642 Jun 14 j 04:21	6° \mathbb{H} 57'53		direct	-634 Dec 04 j 08:48	13° \mathbb{H} 14'04	
min. Earth dist.	-642 Sep 03 j 21:07	5° \mathbb{H} 57'57	45.89217 AU				
opposition	-642 Sep 06 j 03:07	5° \mathbb{H} 55'18	-17°25'47	conjunction	-633 Mar 12 j 14:21	14° \mathbb{H} 43'33	-16°54'34
direct	-642 Nov 26 j 03:16	4° \mathbb{H} 54'11		minimum elong	-633 Mar 12 j 14:25	14° \mathbb{H} 43'34	16°54'34
				max. Earth dist.	-633 Mar 14 j 14:29	14° \mathbb{H} 46'25	48.80915 AU

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Attention, astronomical year style is used: The year -633 in astronomical counting style is the year 634 BCE in historical counting style.

retrograde	-633 Jun 23 j 19:09	16° H 16'58		direct	-625 Dec 13 j 16:57	22° H 15'35	
min. Earth dist.	-633 Sep 13 j 19:57	15° H 17'41	46.94910 AU				
opposition	-633 Sep 15 j 16:57	15° H 15'31	-17°37'11	conjunction	-624 Mar 21 j 00:45	23° H 43'24	-16°44'01
direct	-633 Dec 05 j 17:50	14° H 15'25		minimum elong	-624 Mar 21 j 00:52	23° H 43'24	16°44'00
				max. Earth dist.	-624 Mar 22 j 16:12	23° H 45'41	49.55621 AU
conjunction	-632 Mar 12 j 21:22	15° H 44'41	-16°54'34	retrograde	-624 Jul 02 j 04:51	25° H 14'57	
minimum elong	-632 Mar 12 j 21:25	15° H 44'41	16°54'33	min. Earth dist.	-624 Sep 22 j 08:25	24° H 16'04	47.67763 AU
max. Earth dist.	-632 Mar 14 j 21:07	15° H 47'30	48.90653 AU	opposition	-624 Sep 23 j 21:08	24° H 14'19	-17°24'11
retrograde	-632 Jun 24 j 00:29	17° H 17'50		direct	-624 Dec 13 j 21:17	23° H 14'54	
min. Earth dist.	-632 Sep 14 j 03:06	16° H 18'35	47.04403 AU				
opposition	-632 Sep 15 j 23:02	16° H 16'27	-17°36'57	conjunction	-623 Mar 22 j 06:59	24° H 42'37	-16°41'26
direct	-632 Dec 06 j 02:25	15° H 16'25		minimum elong	-623 Mar 22 j 07:05	24° H 42'37	16°41'26
				max. Earth dist.	-623 Mar 23 j 20:42	24° H 44'48	49.62102 AU
conjunction	-631 Mar 14 j 04:04	16° H 45'27	-16°54'17	retrograde	-623 Jul 03 j 09:12	26° H 14'01	
minimum elong	-631 Mar 14 j 04:09	16° H 45'27	16°54'17	min. Earth dist.	-623 Sep 23 j 16:16	25° H 15'07	47.73951 AU
max. Earth dist.	-631 Mar 16 j 01:39	16° H 48'08	48.99941 AU	opposition	-623 Sep 25 j 02:41	25° H 13'29	-17°21'19
retrograde	-631 Jun 25 j 09:39	18° H 18'21		direct	-623 Dec 15 j 04:47	24° H 14'10	
min. Earth dist.	-631 Sep 15 j 09:51	17° H 19'07	47.13486 AU				
opposition	-631 Sep 17 j 05:10	17° H 17'02	-17°36'25	conjunction	-622 Mar 23 j 13:10	25° H 41'45	-16°38'36
direct	-631 Dec 07 j 06:26	16° H 17'03		minimum elong	-622 Mar 23 j 13:18	25° H 41'45	16°38'36
				max. Earth dist.	-622 Mar 25 j 02:21	25° H 43'54	49.68072 AU
conjunction	-630 Mar 15 j 10:35	17° H 45'51	-16°53'42	retrograde	-622 Jul 04 j 13:09	27° H 13'01	
minimum elong	-630 Mar 15 j 10:38	17° H 45'51	16°53'42	min. Earth dist.	-622 Sep 24 j 22:38	26° H 14'09	47.79588 AU
max. Earth dist.	-630 Mar 17 j 08:01	17° H 48'31	49.08838 AU	opposition	-622 Sep 26 j 08:06	26° H 12'33	-17°18'12
retrograde	-630 Jun 26 j 16:00	19° H 18'31		direct	-622 Dec 16 j 13:06	25° H 13'18	
min. Earth dist.	-630 Sep 16 j 17:41	18° H 19'16	47.22198 AU				
opposition	-630 Sep 18 j 11:15	18° H 17'16	-17°35'35	conjunction	-621 Mar 24 j 19:19	26° H 40'45	-16°35'32
direct	-630 Dec 08 j 12:17	17° H 17'21		minimum elong	-621 Mar 24 j 19:25	26° H 40'45	16°35'32
				max. Earth dist.	-621 Mar 26 j 05:49	26° H 42'45	49.73495 AU
conjunction	-629 Mar 16 j 17:09	18° H 45'57	-16°52'49	retrograde	-621 Jul 05 j 21:59	28° H 11'51	
minimum elong	-629 Mar 16 j 17:14	18° H 45'57	16°52'50	min. Earth dist.	-621 Sep 26 j 05:08	27° H 13'00	47.84689 AU
max. Earth dist.	-629 Mar 18 j 13:31	18° H 48'33	49.17411 AU	opposition	-621 Sep 27 j 13:22	27° H 11'28	-17°14'50
retrograde	-629 Jun 27 j 20:36	20° H 18'22		direct	-621 Dec 17 j 16:24	26° H 12'15	
min. Earth dist.	-629 Sep 17 j 23:24	19° H 19'12	47.30594 AU				
opposition	-629 Sep 19 j 17:01	19° H 17'12	-17°34'26	conjunction	-620 Mar 25 j 01:30	27° H 39'34	-16°32'14
direct	-629 Dec 09 j 18:45	18° H 17'21		minimum elong	-620 Mar 25 j 01:39	27° H 39'35	16°32'14
				max. Earth dist.	-620 Mar 26 j 11:26	27° H 41'31	49.78386 AU
conjunction	-628 Mar 16 j 23:35	19° H 45'45	-16°51'39	retrograde	-620 Jul 06 j 04:45	29° H 10'31	
minimum elong	-628 Mar 16 j 23:40	19° H 45'46	16°51'38	opposition	-620 Sep 27 j 18:37	28° H 10'11	-17°11'14
max. Earth dist.	-628 Mar 18 j 18:38	19° H 48'17	49.25672 AU	min. Earth dist.	-620 Sep 26 j 12:26	28° H 11'37	47.89268 AU
retrograde	-628 Jun 28 j 01:40	21° H 17'58		direct	-620 Dec 17 j 21:06	27° H 11'00	
min. Earth dist.	-628 Sep 18 j 06:51	20° H 18'49	47.38693 AU				
opposition	-628 Sep 19 j 22:55	20° H 16'53	-17°32'58	conjunction	-619 Mar 26 j 07:26	28° H 38'10	-16°28'41
direct	-628 Dec 10 j 01:47	19° H 17'07		minimum elong	-619 Mar 26 j 07:33	28° H 38'11	16°28'41
				max. Earth dist.	-619 Mar 27 j 15:46	28° H 40'02	49.82802 AU
conjunction	-627 Mar 18 j 05:59	20° H 45'21	-16°50'10		-619 Jun 08 j 00:16	0° Y	
minimum elong	-627 Mar 18 j 06:05	20° H 45'21	16°50'11	retrograde	-619 Jul 07 j 09:22	0° Y 08'56	
max. Earth dist.	-627 Mar 20 j 01:02	20° H 47'52	49.33648 AU		-619 Aug 05 j 20:17	30° R H	
retrograde	-627 Jun 29 j 06:26	22° H 17'23		opposition	-619 Sep 28 j 23:37	29° H 08'39	-17°07'23
min. Earth dist.	-627 Sep 19 j 13:01	21° H 18'18	47.46483 AU	min. Earth dist.	-619 Sep 27 j 17:38	29° H 10'04	47.93399 AU
opposition	-627 Sep 21 j 04:32	21° H 16'24	-17°31'13	direct	-619 Dec 19 j 02:01	28° H 09'29	
direct	-627 Dec 11 j 09:16	20° H 16'42					
				conjunction	-618 Mar 27 j 13:14	29° H 36'32	-16°24'53
conjunction	-626 Mar 19 j 12:12	21° H 44'47	-16°48'24	minimum elong	-618 Mar 27 j 13:22	29° H 36'33	16°24'53
minimum elong	-626 Mar 19 j 12:18	21° H 44'47	16°48'24	max. Earth dist.	-618 Mar 28 j 20:08	29° H 38'19	49.86794 AU
max. Earth dist.	-626 Mar 21 j 05:20	21° H 47'11	49.41325 AU		-618 Apr 13 j 17:57	0° Y	
retrograde	-626 Jun 30 j 15:17	23° H 16'39		retrograde	-618 Jul 08 j 12:48	1° Y 07'09	
min. Earth dist.	-626 Sep 20 j 19:19	22° H 17'38	47.53969 AU	min. Earth dist.	-618 Sep 29 j 00:34	0° Y 08'13	47.97148 AU
opposition	-626 Sep 22 j 10:12	22° H 15'47	-17°29'09	opposition	-618 Sep 30 j 04:39	0° Y 06'53	-17°03'15
direct	-626 Dec 12 j 12:50	21° H 16'11			-618 Oct 06 j 05:56	30° R H	
				direct	-618 Dec 20 j 08:34	29° H 07'44	
conjunction	-625 Mar 20 j 18:26	22° H 44'07	-16°46'21		-617 Mar 02 j 22:05	0° Y	
minimum elong	-625 Mar 20 j 18:31	22° H 44'08	16°46'21				
max. Earth dist.	-625 Mar 22 j 11:27	22° H 46'30	49.48666 AU	conjunction	-617 Mar 28 j 19:04	0° Y 34'41	-16°20'49
retrograde	-625 Jul 01 j 22:47	24° H 15'50		minimum elong	-617 Mar 28 j 19:12	0° Y 34'41	16°20'48
min. Earth dist.	-625 Sep 22 j 02:50	23° H 16'50	47.61080 AU	max. Earth dist.	-617 Mar 30 j 01:47	0° Y 36'26	49.90440 AU
opposition	-625 Sep 23 j 15:50	23° H 15'04	-17°26'48	retrograde	-617 Jul 09 j 15:36	2° Y 05'08	

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Attention, astronomical year style is used: The year -617 in astronomical counting style is the year 618 BCE in historical counting style.

min. Earth dist.	-617 Sep 30 j 05:52	1°♂06'13	48.00548 AU	conjunction	-608 Apr 05 j 22:14	9°♂12'50	-15°32'36
opposition	-617 Oct 01 j 09:32	1°♂04'55	-16°58'51	minimum elong	-608 Apr 05 j 22:23	9°♂12'50	15°32'35
direct	-617 Dec 21 j 16:36	0°♂05'47		max. Earth dist.	-608 Apr 06 j 16:58	9°♂13'54	50.07447 AU
				retrograde	-608 Jul 17 j 18:31	10°♂42'24	
conjunction	-616 Mar 29 j 00:47	1°♂32'37	-16°16'29	min. Earth dist.	-608 Oct 08 j 11:09	9°♂43'23	48.14883 AU
minimum elong	-616 Mar 29 j 00:56	1°♂32'37	16°16'29	opposition	-608 Oct 09 j 03:40	9°♂42'36	-16°07'26
max. Earth dist.	-616 Mar 30 j 05:31	1°♂34'15	49.93762 AU	direct	-608 Dec 29 j 09:58	8°♂43'44	
retrograde	-616 Jul 09 j 22:29	3°♂02'56					
min. Earth dist.	-616 Sep 30 j 11:30	2°♂04'02	48.03651 AU	conjunction	-607 Apr 07 j 03:54	10°♂10'00	-15°26'04
opposition	-616 Oct 01 j 14:17	2°♂02'45	-16°54'11	minimum elong	-607 Apr 07 j 04:05	10°♂10'00	15°26'04
direct	-616 Dec 21 j 20:59	1°♂03'40		max. Earth dist.	-607 Apr 07 j 22:13	10°♂11'02	50.07054 AU
				retrograde	-607 Jul 18 j 20:47	11°♂39'29	
conjunction	-615 Mar 30 j 06:32	2°♂30'23	-16°11'53	opposition	-607 Oct 10 j 08:07	10°♂39'42	-16°00'31
minimum elong	-615 Mar 30 j 06:40	2°♂30'24	16°11'52	min. Earth dist.	-607 Oct 09 j 16:10	10°♂40'27	48.14158 AU
max. Earth dist.	-615 Mar 31 j 11:10	2°♂32'01	49.96790 AU	direct	-607 Dec 30 j 17:28	9°♂40'49	
retrograde	-615 Jul 11 j 05:38	4°♂00'36					
opposition	-615 Oct 02 j 19:08	3°♂00'28	-16°49'14	conjunction	-606 Apr 08 j 09:12	11°♂07'02	-15°19'18
min. Earth dist.	-615 Oct 01 j 17:46	3°♂01'40	48.06453 AU	minimum elong	-606 Apr 08 j 09:22	11°♂07'02	15°19'17
direct	-615 Dec 23 j 00:33	2°♂01'25		max. Earth dist.	-606 Apr 09 j 01:21	11°♂07'57	50.06244 AU
				retrograde	-606 Jul 20 j 02:51	12°♂36'27	
conjunction	-614 Mar 31 j 12:02	3°♂28'03	-16°07'00	opposition	-606 Oct 11 j 12:36	11°♂36'41	-15°53'22
minimum elong	-614 Mar 31 j 12:11	3°♂28'03	16°07'00	min. Earth dist.	-606 Oct 10 j 21:48	11°♂37'23	48.13055 AU
max. Earth dist.	-614 Apr 01 j 15:25	3°♂29'37	49.99538 AU	direct	-606 Dec 31 j 21:44	10°♂37'48	
retrograde	-614 Jul 12 j 12:56	4°♂58'08					
opposition	-614 Oct 03 j 23:52	3°♂58'04	-16°44'00	conjunction	-605 Apr 09 j 14:47	12°♂03'59	-15°12'17
min. Earth dist.	-614 Oct 02 j 22:29	3°♂59'16	48.08957 AU	minimum elong	-605 Apr 09 j 14:58	12°♂03'59	15°12'17
direct	-614 Dec 24 j 02:50	2°♂59'03		max. Earth dist.	-605 Apr 10 j 06:42	12°♂04'53	50.05070 AU
				retrograde	-605 Jul 21 j 09:06	13°♂33'21	
conjunction	-613 Apr 01 j 17:41	4°♂25'38	-16°01'52	opposition	-605 Oct 12 j 16:56	12°♂33'35	-15°45'57
minimum elong	-613 Apr 01 j 17:50	4°♂25'38	16°01'51	min. Earth dist.	-605 Oct 12 j 03:38	12°♂34'13	48.11604 AU
max. Earth dist.	-613 Apr 02 j 19:45	4°♂27'07	50.01961 AU	direct	-604 Jan 02 j 01:39	11°♂34'42	
retrograde	-613 Jul 13 j 16:56	5°♂55'37					
min. Earth dist.	-613 Oct 04 j 05:16	4°♂56'43	48.11121 AU	conjunction	-604 Apr 09 j 20:19	13°♂00'52	-15°05'01
opposition	-613 Oct 05 j 04:35	4°♂55'37	-16°38'30	minimum elong	-604 Apr 09 j 20:29	13°♂00'53	15°05'00
direct	-613 Dec 25 j 08:27	3°♂56'39		max. Earth dist.	-604 Apr 10 j 10:49	13°♂01'41	50.03589 AU
				retrograde	-604 Jul 21 j 16:32	14°♂30'11	
conjunction	-612 Apr 01 j 23:30	5°♂23'10	-15°56'28	opposition	-604 Oct 12 j 21:16	13°♂30'27	-15°38'16
minimum elong	-612 Apr 01 j 23:39	5°♂23'10	15°56'29	min. Earth dist.	-604 Oct 12 j 07:57	13°♂31'05	48.09854 AU
max. Earth dist.	-612 Apr 03 j 01:11	5°♂24'38	50.04024 AU	direct	-603 Jan 02 j 03:25	12°♂31'34	
retrograde	-612 Jul 13 j 18:59	6°♂53'04		evening set	-603 Apr 09 j 20:57	13°♂56'07	
min. Earth dist.	-612 Oct 04 j 10:37	5°♂54'12	48.12873 AU				
opposition	-612 Oct 05 j 09:13	5°♂53'08	-16°32'45	conjunction	-603 Apr 11 j 01:37	13°♂57'44	-14°57'30
direct	-612 Dec 25 j 16:28	4°♂54'12		minimum elong	-603 Apr 11 j 01:48	13°♂57'45	14°57'30
				morning rise	-603 Apr 12 j 06:42	13°♂59'23	
conjunction	-611 Apr 03 j 05:04	6°♂20'40	-15°50'50	max. Earth dist.	-603 Apr 11 j 14:54	13°♂58'29	50.01804 AU
minimum elong	-611 Apr 03 j 05:15	6°♂20'41	15°50'50	retrograde	-603 Jul 22 j 21:04	15°♂27'01	
max. Earth dist.	-611 Apr 04 j 04:17	6°♂22'00	50.05645 AU	opposition	-603 Oct 14 j 01:42	14°♂27'19	-15°30'19
retrograde	-611 Jul 15 j 01:53	7°♂50'30		min. Earth dist.	-603 Oct 13 j 14:15	14°♂27'51	48.07815 AU
opposition	-611 Oct 06 j 13:53	6°♂50'37	-16°26'45	direct	-602 Jan 03 j 07:39	13°♂28'27	
min. Earth dist.	-611 Oct 05 j 16:34	6°♂51'37	48.14162 AU	evening set	-602 Apr 09 j 20:53	14°♂51'20	
direct	-611 Dec 26 j 20:42	5°♂51'43					
				conjunction	-602 Apr 12 j 07:08	14°♂54'38	-14°49'43
conjunction	-610 Apr 04 j 10:52	7°♂18'08	-15°44'59	minimum elong	-602 Apr 12 j 07:19	14°♂54'39	14°49'43
minimum elong	-610 Apr 04 j 11:01	7°♂18'09	15°44'59	max. Earth dist.	-602 Apr 12 j 20:16	14°♂55'23	49.99749 AU
max. Earth dist.	-610 Apr 05 j 09:25	7°♂19'25	50.06768 AU	morning rise	-602 Apr 14 j 17:49	14°♂57'58	
retrograde	-610 Jul 16 j 08:21	8°♂47'54		retrograde	-602 Jul 23 j 22:26	16°♂23'54	
opposition	-610 Oct 07 j 18:34	7°♂48'03	-16°20'32	opposition	-602 Oct 15 j 05:59	15°♂24'14	-15°22'07
min. Earth dist.	-610 Oct 06 j 23:18	7°♂48'58	48.14923 AU	min. Earth dist.	-602 Oct 14 j 18:45	15°♂24'46	48.05480 AU
direct	-610 Dec 28 j 01:04	6°♂49'11		direct	-601 Jan 04 j 15:35	14°♂25'23	
				evening set	-601 Apr 10 j 06:56	15°♂47'12	
conjunction	-609 Apr 05 j 16:34	8°♂15'32	-15°38'54				
minimum elong	-609 Apr 05 j 16:44	8°♂15'33	15°38'53	conjunction	-601 Apr 13 j 12:31	15°♂51'36	-14°41'41
max. Earth dist.	-609 Apr 06 j 13:15	8°♂16'43	50.07374 AU	minimum elong	-601 Apr 13 j 12:42	15°♂51'36	14°41'41
retrograde	-609 Jul 17 j 14:19	9°♂45'12		max. Earth dist.	-601 Apr 13 j 23:28	15°♂52'13	49.97387 AU
opposition	-609 Oct 08 j 23:09	8°♂45'23	-16°14'06	morning rise	-601 Apr 16 j 18:36	15°♂56'02	
min. Earth dist.	-609 Oct 08 j 04:22	8°♂46'16	48.15155 AU	retrograde	-601 Jul 25 j 04:24	17°♂20'52	
direct	-609 Dec 29 j 04:29	7°♂46'31		opposition	-601 Oct 16 j 10:21	16°♂21'15	-15°13'39

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Attention, astronomical year style is used: The year -601 in astronomical counting style is the year 602 BCE in historical counting style.

min. Earth dist.	-601 Oct 16 j 00:20	16° Υ 21'43	48.02822 AU	morning rise	-594 Apr 26 j 21:29	22° Υ 41'18	
direct	-600 Jan 05 j 20:18	15° Υ 22'25		retrograde	-594 Jul 31 j 19:23	24° Υ 01'26	
evening set	-600 Apr 09 j 20:47	16° Υ 43'24		opposition	-594 Oct 22 j 16:56	23° Υ 01'48	-14°07'56
				min. Earth dist.	-594 Oct 22 j 15:59	23° Υ 01'50	47.70894 AU
conjunction	-600 Apr 13 j 18:10	16° Υ 48'40	-14°33'24	direct	-593 Jan 12 j 02:57	22° Υ 02'45	
minimum elong	-600 Apr 13 j 18:22	16° Υ 48'41	14°33'24	evening set	-593 Apr 14 j 08:18	23° Υ 19'42	
max. Earth dist.	-600 Apr 14 j 04:47	16° Υ 49'16	49.94659 AU				
morning rise	-600 Apr 17 j 16:05	16° Υ 54'00		conjunction	-593 Apr 21 j 09:52	23° Υ 29'17	-13°29'14
retrograde	-600 Jul 25 j 11:07	18° Υ 17'58		minimum elong	-593 Apr 21 j 10:04	23° Υ 29'18	13°29'13
opposition	-600 Oct 16 j 14:37	17° Υ 18'23	-15°04'57	max. Earth dist.	-593 Apr 21 j 09:35	23° Υ 29'16	49.62029 AU
min. Earth dist.	-600 Oct 16 j 06:24	17° Υ 18'46	47.99757 AU	morning rise	-593 Apr 28 j 12:19	23° Υ 38'55	
direct	-599 Jan 05 j 23:59	16° Υ 19'33		retrograde	-593 Aug 02 j 01:41	24° Υ 58'34	
evening set	-599 Apr 10 j 12:48	17° Υ 39'49		opposition	-593 Oct 23 j 21:23	23° Υ 58'53	-13°57'36
				min. Earth dist.	-593 Oct 23 j 22:30	23° Υ 58'50	47.64529 AU
conjunction	-599 Apr 14 j 23:47	17° Υ 45'52	-14°24'54	direct	-592 Jan 13 j 06:05	22° Υ 59'46	
minimum elong	-599 Apr 14 j 23:57	17° Υ 45'52	14°24'54	evening set	-592 Apr 14 j 05:25	24° Υ 16'17	
max. Earth dist.	-599 Apr 15 j 08:36	17° Υ 46'22	49.91511 AU				
morning rise	-599 Apr 19 j 11:20	17° Υ 51'57		conjunction	-592 Apr 21 j 15:39	24° Υ 26'22	-13°19'09
retrograde	-599 Jul 26 j 18:20	19° Υ 15'09		minimum elong	-592 Apr 21 j 15:51	24° Υ 26'23	13°19'09
opposition	-599 Oct 17 j 18:58	18° Υ 15'36	-14°56'00	max. Earth dist.	-592 Apr 21 j 15:03	24° Υ 26'20	49.55640 AU
min. Earth dist.	-599 Oct 17 j 11:14	18° Υ 15'58	47.96236 AU	morning rise	-592 Apr 29 j 02:41	24° Υ 36'30	
direct	-598 Jan 07 j 01:56	17° Υ 16'47		retrograde	-592 Aug 02 j 03:35	25° Υ 55'40	
evening set	-598 Apr 11 j 06:00	18° Υ 36'23		opposition	-592 Oct 24 j 01:38	24° Υ 55'57	-13°47'01
				min. Earth dist.	-592 Oct 24 j 02:58	24° Υ 55'54	47.57833 AU
conjunction	-598 Apr 16 j 05:19	18° Υ 43'08	-14°16'10	direct	-591 Jan 13 j 13:34	23° Υ 56'47	
minimum elong	-598 Apr 16 j 05:31	18° Υ 43'09	14°16'09	evening set	-591 Apr 15 j 02:45	25° Υ 12'55	
max. Earth dist.	-598 Apr 16 j 12:14	18° Υ 43'32	49.87859 AU				
morning rise	-598 Apr 21 j 05:19	18° Υ 49'55		conjunction	-591 Apr 22 j 21:16	25° Υ 23'28	-13°08'49
retrograde	-598 Jul 27 j 23:40	20° Υ 12'26		minimum elong	-591 Apr 22 j 21:28	25° Υ 23'29	13°08'47
opposition	-598 Oct 18 j 23:31	19° Υ 12'53	-14°46'50	max. Earth dist.	-591 Apr 22 j 18:33	25° Υ 23'19	49.48942 AU
min. Earth dist.	-598 Oct 18 j 18:09	19° Υ 13'09	47.92190 AU	morning rise	-591 Apr 30 j 16:47	25° Υ 34'05	
direct	-597 Jan 08 j 06:33	18° Υ 14'03		retrograde	-591 Aug 03 j 08:09	26° Υ 52'49	
evening set	-597 Apr 12 j 00:32	19° Υ 33'03		opposition	-591 Oct 25 j 06:06	25° Υ 53'05	-13°36'10
				min. Earth dist.	-591 Oct 25 j 08:31	25° Υ 52'58	47.50850 AU
conjunction	-597 Apr 17 j 11:11	19° Υ 40'27	-14°07'13	direct	-590 Jan 14 j 18:59	24° Υ 53'52	
minimum elong	-597 Apr 17 j 11:22	19° Υ 40'28	14°07'13	evening set	-590 Apr 16 j 00:11	26° Υ 09'38	
max. Earth dist.	-597 Apr 17 j 17:19	19° Υ 40'48	49.83678 AU				
morning rise	-597 Apr 22 j 22:26	19° Υ 47'53		conjunction	-590 Apr 24 j 02:57	26° Υ 20'39	-12°58'13
retrograde	-597 Jul 29 j 01:31	21° Υ 09'44		minimum elong	-590 Apr 24 j 03:09	26° Υ 20'40	12°58'13
opposition	-597 Oct 20 j 03:49	20° Υ 10'11	-14°37'27	max. Earth dist.	-590 Apr 24 j 00:07	26° Υ 20'29	49.41950 AU
min. Earth dist.	-597 Oct 19 j 23:18	20° Υ 10'24	47.87594 AU	morning rise	-590 May 02 j 06:34	26° Υ 31'44	
direct	-596 Jan 09 j 14:08	19° Υ 11'19		retrograde	-590 Aug 04 j 13:51	27° Υ 50'05	
evening set	-596 Apr 11 j 19:48	20° Υ 29'46		opposition	-590 Oct 26 j 10:39	26° Υ 50'19	-13°25'04
				min. Earth dist.	-590 Oct 26 j 14:26	26° Υ 50'08	47.43556 AU
conjunction	-596 Apr 17 j 16:54	20° Υ 37'45	-13°58'04	direct	-589 Jan 15 j 23:42	25° Υ 51'05	
minimum elong	-596 Apr 17 j 17:06	20° Υ 37'46	13°58'04	evening set	-589 Apr 16 j 22:18	27° Υ 06'30	
max. Earth dist.	-596 Apr 17 j 20:22	20° Υ 37'57	49.78959 AU				
morning rise	-596 Apr 23 j 14:48	20° Υ 45'47		conjunction	-589 Apr 25 j 08:47	27° Υ 17'58	-12°47'22
retrograde	-596 Jul 29 j 06:47	22° Υ 07'02		minimum elong	-589 Apr 25 j 08:59	27° Υ 17'59	12°47'22
opposition	-596 Oct 20 j 08:16	21° Υ 07'27	-14°27'51	max. Earth dist.	-589 Apr 25 j 04:27	27° Υ 17'43	49.34658 AU
min. Earth dist.	-596 Oct 20 j 05:20	21° Υ 07'36	47.82484 AU	morning rise	-589 May 03 j 20:14	27° Υ 29'30	
direct	-595 Jan 09 j 19:10	20° Υ 08'32		retrograde	-589 Aug 05 j 21:32	28° Υ 47'29	
evening set	-595 Apr 12 j 15:25	21° Υ 26'27		opposition	-589 Oct 27 j 14:59	27° Υ 47'44	-13°13'42
				min. Earth dist.	-589 Oct 27 j 19:02	27° Υ 47'32	47.35940 AU
conjunction	-595 Apr 18 j 22:33	21° Υ 34'59	-13°48'41	direct	-588 Jan 17 j 01:46	26° Υ 48'27	
minimum elong	-595 Apr 18 j 22:44	21° Υ 35'00	13°48'41	evening set	-588 Apr 16 j 20:33	28° Υ 03'34	
max. Earth dist.	-595 Apr 19 j 01:23	21° Υ 35'09	49.73735 AU				
morning rise	-595 Apr 25 j 06:24	21° Υ 43'35		conjunction	-588 Apr 25 j 14:42	28° Υ 15'29	-12°36'17
retrograde	-595 Jul 30 j 11:39	23° Υ 04'16		minimum elong	-588 Apr 25 j 14:54	28° Υ 15'30	12°36'17
opposition	-595 Oct 21 j 12:41	22° Υ 04'40	-14°18'01	max. Earth dist.	-588 Apr 25 j 08:43	28° Υ 15'09	49.26999 AU
min. Earth dist.	-595 Oct 21 j 11:22	22° Υ 04'43	47.76891 AU	morning rise	-588 May 04 j 09:55	28° Υ 27'28	
direct	-594 Jan 11 j 00:53	21° Υ 05'41		retrograde	-588 Aug 06 j 03:47	29° Υ 45'06	
evening set	-594 Apr 13 j 11:45	22° Υ 23'05		opposition	-588 Oct 27 j 19:37	28° Υ 45'20	-13°02'05
				min. Earth dist.	-588 Oct 28 j 01:53	28° Υ 45'02	47.27935 AU
conjunction	-594 Apr 20 j 04:12	22° Υ 32'10	-13°39'05	direct	-587 Jan 17 j 05:52	27° Υ 46'03	
minimum elong	-594 Apr 20 j 04:25	22° Υ 32'10	13°39'05	evening set	-587 Apr 17 j 19:06	29° Υ 00'53	
max. Earth dist.	-594 Apr 20 j 05:28	22° Υ 32'14	49.68081 AU				

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Attention, astronomical year style is used: The year -587 in astronomical counting style is the year 588 BCE in historical counting style.

conjunction	-587 Apr 26 j 20:39	29° Υ 13'14	-12°24'58	max. Earth dist.	-581 May 02 j 17:24	5° B 02'06	48.60105 AU
minimum elong	-587 Apr 26 j 20:52	29° Υ 13'15	12°24'57	morning rise	-581 May 14 j 05:01	5° B 17'51	
max. Earth dist.	-587 Apr 26 j 14:13	29° Υ 12'52	49.18927 AU	retrograde	-581 Aug 13 j 17:09	6° B 33'25	
morning rise	-587 May 05 j 23:07	29° Υ 25'38		opposition	-581 Nov 04 j 04:30	5° B 33'18	-11°34'09
	-587 Jun 01 j 19:19	0° B		min. Earth dist.	-581 Nov 04 j 19:35	5° B 32'35	46.58366 AU
retrograde	-587 Aug 07 j 06:57	0° B 42'57		direct	-580 Jan 24 j 19:24	4° B 33'26	
	-587 Oct 14 j 02:15	30° K Υ		evening set	-580 Apr 22 j 16:17	5° B 46'37	
opposition	-587 Oct 29 j 00:11	29° Υ 43'11	-12°50'14				
min. Earth dist.	-587 Oct 29 j 07:04	29° Υ 42'51	47.19472 AU	conjunction	-580 May 03 j 16:25	6° B 01'43	-10°59'18
direct	-586 Jan 18 j 12:53	28° Υ 43'50		minimum elong	-580 May 03 j 16:37	6° B 01'43	10°59'17
evening set	-586 Apr 18 j 18:02	29° Υ 58'26		max. Earth dist.	-580 May 02 j 23:40	6° B 00'45	48.48856 AU
	-586 Apr 19 j 21:53	0° B		morning rise	-580 May 14 j 17:33	6° B 16'53	
				retrograde	-580 Aug 13 j 21:46	7° B 32'12	
conjunction	-586 Apr 28 j 02:40	0° B 11'11	-12°13'25	opposition	-580 Nov 04 j 09:27	6° B 32'01	-11°20'35
minimum elong	-586 Apr 28 j 02:52	0° B 11'12	12°13'25	min. Earth dist.	-580 Nov 05 j 01:41	6° B 31'14	46.46818 AU
max. Earth dist.	-586 Apr 27 j 17:31	0° B 10'40	49.10368 AU	direct	-579 Jan 25 j 02:07	5° B 32'02	
morning rise	-586 May 07 j 12:28	0° B 24'01		evening set	-579 Apr 23 j 16:37	6° B 45'02	
retrograde	-586 Aug 08 j 12:50	1° B 41'01					
opposition	-586 Oct 30 j 04:48	0° B 41'14	-12°38'09	conjunction	-579 May 04 j 22:39	7° B 00'29	-10°46'05
min. Earth dist.	-586 Oct 30 j 13:28	0° B 40'49	47.10508 AU	minimum elong	-579 May 04 j 22:51	7° B 00'30	10°46'05
	-586 Dec 08 j 23:38	30° K Υ		max. Earth dist.	-579 May 04 j 04:30	6° B 59'27	48.37333 AU
direct	-585 Jan 19 j 17:54	29° Υ 41'50		morning rise	-579 May 16 j 05:49	7° B 16'01	
	-585 Mar 02 j 02:14	0° B		retrograde	-579 Aug 15 j 05:50	8° B 31'08	
evening set	-585 Apr 19 j 17:11	0° B 56'10		opposition	-579 Nov 05 j 14:23	7° B 30'52	-11°06'45
				min. Earth dist.	-579 Nov 06 j 06:42	7° B 30'05	46.35011 AU
conjunction	-585 Apr 29 j 08:58	1° B 09'20	-12°01'38	direct	-578 Jan 26 j 05:02	6° B 30'47	
minimum elong	-585 Apr 29 j 09:11	1° B 09'21	12°01'38	evening set	-578 Apr 24 j 17:11	7° B 43'37	
max. Earth dist.	-585 Apr 28 j 22:57	1° B 08'46	49.01281 AU	max. Earth dist.	-578 May 05 j 09:41	7° B 58'19	48.25540 AU
morning rise	-585 May 09 j 01:43	1° B 22'35					
retrograde	-585 Aug 09 j 17:51	2° B 39'17		conjunction	-578 May 06 j 05:09	7° B 59'27	-10°32'37
opposition	-585 Oct 31 j 09:35	1° B 39'27	-12°25'50	minimum elong	-578 May 06 j 05:20	7° B 59'27	10°32'36
min. Earth dist.	-585 Oct 31 j 19:57	1° B 38'57	47.00996 AU	morning rise	-578 May 17 j 18:16	8° B 15'21	
direct	-584 Jan 21 j 00:01	0° B 39'59		retrograde	-578 Aug 16 j 13:28	9° B 30'15	
evening set	-584 Apr 19 j 16:44	1° B 54'03		opposition	-578 Nov 06 j 19:27	8° B 29'56	-10°52'38
				min. Earth dist.	-578 Nov 07 j 13:37	8° B 29'03	46.22940 AU
conjunction	-584 Apr 29 j 15:11	2° B 07'37	-11°49'38	direct	-577 Jan 27 j 08:32	7° B 29'45	
minimum elong	-584 Apr 29 j 15:23	2° B 07'38	11°49'38	evening set	-577 Apr 25 j 18:04	8° B 42'27	
max. Earth dist.	-584 Apr 29 j 03:13	2° B 06'56	48.91670 AU				
morning rise	-584 May 09 j 14:44	2° B 21'16		conjunction	-577 May 07 j 11:51	8° B 58'38	-10°18'52
retrograde	-584 Aug 10 j 02:14	3° B 37'40		minimum elong	-577 May 07 j 12:03	8° B 58'38	10°18'53
opposition	-584 Oct 31 j 14:11	2° B 37'47	-12°13'17	max. Earth dist.	-577 May 06 j 16:11	8° B 57'30	48.13490 AU
min. Earth dist.	-584 Nov 01 j 01:14	2° B 37'16	46.90976 AU	morning rise	-577 May 19 j 06:36	9° B 14'53	
direct	-583 Jan 21 j 02:20	1° B 38'14		retrograde	-577 Aug 17 j 19:05	10° B 29'36	
evening set	-583 Apr 20 j 16:17	2° B 52'03		opposition	-577 Nov 08 j 00:32	9° B 29'13	-10°38'15
				min. Earth dist.	-577 Nov 08 j 18:56	9° B 28'20	46.10581 AU
conjunction	-583 Apr 30 j 21:24	3° B 06'01	-11°37'25	direct	-576 Jan 28 j 14:46	8° B 28'57	
minimum elong	-583 Apr 30 j 21:37	3° B 06'02	11°37'25	evening set	-576 Apr 25 j 19:17	9° B 41'33	
max. Earth dist.	-583 Apr 30 j 07:38	3° B 05'14	48.81559 AU				
morning rise	-583 May 11 j 03:41	3° B 20'03		conjunction	-576 May 07 j 18:31	9° B 58'05	-10°04'52
retrograde	-583 Aug 11 j 10:29	4° B 36'10		minimum elong	-576 May 07 j 18:43	9° B 58'06	10°04'51
opposition	-583 Nov 01 j 19:01	3° B 36'13	-12°00'29	max. Earth dist.	-576 May 06 j 20:32	9° B 56'49	48.01123 AU
min. Earth dist.	-583 Nov 02 j 08:18	3° B 35'35	46.80493 AU	morning rise	-576 May 19 j 19:01	10° B 14'42	
direct	-582 Jan 22 j 04:47	2° B 36'33		retrograde	-576 Aug 18 j 01:17	11° B 29'15	
evening set	-582 Apr 21 j 15:59	3° B 50'09		opposition	-576 Nov 08 j 05:43	10° B 28'49	-10°23'36
				min. Earth dist.	-576 Nov 09 j 01:42	10° B 27'51	45.97889 AU
conjunction	-582 May 02 j 03:38	4° B 04'30	-11°24'58	direct	-575 Jan 28 j 20:38	9° B 28'27	
minimum elong	-582 May 02 j 03:50	4° B 04'31	11°24'56	evening set	-575 Apr 26 j 20:37	10° B 40'58	
max. Earth dist.	-582 May 01 j 13:22	4° B 03'41	48.71024 AU	max. Earth dist.	-575 May 08 j 03:02	10° B 56'32	47.88380 AU
morning rise	-582 May 12 j 16:15	4° B 18'55					
retrograde	-582 Aug 12 j 13:28	5° B 34'45		conjunction	-575 May 09 j 01:30	10° B 57'51	-9°50'37
opposition	-582 Nov 02 j 23:45	4° B 34'43	-11°47'27	minimum elong	-575 May 09 j 01:41	10° B 57'51	9°50'37
min. Earth dist.	-582 Nov 03 j 13:21	4° B 34'04	46.69601 AU	morning rise	-575 May 21 j 07:19	11° B 14'48	
direct	-581 Jan 23 j 12:26	3° B 34'57		retrograde	-575 Aug 19 j 05:38	12° B 29'14	
evening set	-581 Apr 22 j 16:05	4° B 48'20		opposition	-575 Nov 09 j 11:05	11° B 28'43	-10°08'41
				min. Earth dist.	-575 Nov 10 j 08:29	11° B 27'41	45.84781 AU
conjunction	-581 May 03 j 09:56	5° B 03'03	-11°12'15	direct	-574 Jan 30 j 03:52	10° B 28'16	
minimum elong	-581 May 03 j 10:08	5° B 03'04	11°12'15	evening set	-574 Apr 27 j 22:21	11° B 40'41	

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Attention, astronomical year style is used: The year -574 in astronomical counting style is the year 575 BCE in historical counting style.

max. Earth dist.	-574 May 09 j 08:07	11° 8 56'29	47.75204 AU	conjunction	-568 May 16 j 05:08	18° 8 03'43	-8°04'00
				minimum elong	-568 May 16 j 05:19	18° 8 03'43	8°04'00
conjunction	-574 May 10 j 08:27	11° 8 57'54	-9°36'08	morning rise	-568 May 29 j 21:20	18° 8 22'58	
minimum elong	-574 May 10 j 08:39	11° 8 57'55	9°36'07	retrograde	-568 Aug 26 j 08:49	19° 8 36'43	
morning rise	-574 May 22 j 19:39	12° 8 15'13		opposition	-568 Nov 16 j 03:22	18° 8 35'26	-8°17'03
retrograde	-574 Aug 20 j 13:49	13° 8 29'31		min. Earth dist.	-568 Nov 17 j 09:44	18° 8 33'57	44.80292 AU
opposition	-574 Nov 10 j 16:32	12° 8 28'56	-9°53'31	direct	-567 Feb 05 j 18:41	17° 8 33'58	
min. Earth dist.	-574 Nov 11 j 14:43	12° 8 27'51	45.71210 AU	evening set	-567 May 03 j 17:16	18° 8 46'09	
direct	-573 Jan 31 j 08:07	11° 8 28'21		max. Earth dist.	-567 May 16 j 03:38	19° 8 03'40	46.70321 AU
evening set	-573 Apr 29 j 00:23	12° 8 40'42					
				conjunction	-567 May 17 j 12:59	19° 8 05'38	-7°47'45
conjunction	-573 May 11 j 15:44	12° 8 58'16	-9°21'24	minimum elong	-567 May 17 j 13:09	19° 8 05'39	7°47'44
minimum elong	-573 May 11 j 15:55	12° 8 58'16	9°21'23	morning rise	-567 May 31 j 09:26	19° 8 25'12	
max. Earth dist.	-573 May 10 j 13:24	12° 8 56'44	47.61520 AU	retrograde	-567 Aug 27 j 16:55	20° 8 38'55	
morning rise	-573 May 24 j 08:09	13° 8 15'54		opposition	-567 Nov 17 j 09:30	19° 8 37'32	-8°00'00
retrograde	-573 Aug 21 j 23:16	14° 8 30'05		min. Earth dist.	-567 Nov 18 j 15:49	19° 8 36'02	44.63986 AU
opposition	-573 Nov 11 j 22:08	13° 8 29'24	-9°38'06	direct	-566 Feb 07 j 01:12	18° 8 35'54	
min. Earth dist.	-573 Nov 12 j 22:43	13° 8 28'12	45.57127 AU	evening set	-566 May 04 j 20:57	19° 8 48'08	
direct	-572 Feb 01 j 11:25	12° 8 28'42		max. Earth dist.	-566 May 17 j 09:19	20° 8 05'50	46.54031 AU
evening set	-572 Apr 29 j 02:41	13° 8 40'59					
				conjunction	-566 May 18 j 20:49	20° 8 07'57	-7°31'12
conjunction	-572 May 11 j 23:09	13° 8 58'52	-9°06'25	minimum elong	-566 May 18 j 20:59	20° 8 07'57	7°31'12
minimum elong	-572 May 11 j 23:21	13° 8 58'53	9°06'25	morning rise	-566 Jun 01 j 21:39	20° 8 27'49	
max. Earth dist.	-572 May 10 j 20:00	13° 8 57'17	47.47342 AU	retrograde	-566 Aug 29 j 00:57	21° 8 41'32	
morning rise	-572 May 24 j 20:29	14° 8 16'51		opposition	-566 Nov 18 j 15:55	20° 8 40'02	-7°42'40
	-572 Jun 28 j 11:39	15° 8		min. Earth dist.	-566 Nov 19 j 23:44	20° 8 38'27	44.47444 AU
retrograde	-572 Aug 22 j 05:25	15° 8 30'54		direct	-565 Feb 08 j 08:01	19° 8 38'16	
	-572 Oct 16 j 11:15	15° 8		evening set	-565 May 06 j 00:58	20° 8 50'35	
opposition	-572 Nov 12 j 03:48	14° 8 30'07	-9°22'25	max. Earth dist.	-565 May 18 j 17:32	21° 8 08'34	46.37490 AU
min. Earth dist.	-572 Nov 13 j 04:48	14° 8 28'54	45.42551 AU				
direct	-571 Feb 01 j 18:08	13° 8 29'16		conjunction	-565 May 20 j 05:08	21° 8 10'41	-7°14'24
evening set	-571 Apr 30 j 05:04	14° 8 41'30		minimum elong	-565 May 20 j 05:18	21° 8 10'42	7°14'23
max. Earth dist.	-571 May 12 j 00:41	14° 8 57'59	47.32684 AU	morning rise	-565 Jun 03 j 09:51	21° 8 30'52	
				retrograde	-565 Aug 30 j 06:20	22° 8 44'36	
conjunction	-571 May 13 j 06:19	14° 8 59'43	-8°51'12	opposition	-565 Nov 19 j 22:23	21° 8 43'01	-7°25'02
minimum elong	-571 May 13 j 06:29	14° 8 59'44	8°51'11	min. Earth dist.	-565 Nov 21 j 07:03	21° 8 41'23	44.30631 AU
	-571 May 13 j 11:10	15° 8		direct	-564 Feb 09 j 16:32	20° 8 41'06	
morning rise	-571 May 26 j 08:43	15° 8 18'01		evening set	-564 May 06 j 05:28	21° 8 53'31	
retrograde	-571 Aug 23 j 11:23	16° 8 31'58		max. Earth dist.	-564 May 19 j 00:10	22° 8 11'41	46.20673 AU
opposition	-571 Nov 13 j 09:36	15° 8 31'04	-9°06'29				
min. Earth dist.	-571 Nov 14 j 12:25	15° 8 29'45	45.27531 AU	conjunction	-564 May 20 j 13:28	22° 8 13'56	-6°57'19
	-571 Dec 11 j 02:48	15° 8		minimum elong	-564 May 20 j 13:37	22° 8 13'56	6°57'19
direct	-570 Feb 03 j 01:10	14° 8 30'04		morning rise	-564 Jun 03 j 22:14	22° 8 34'25	
	-570 Mar 28 j 08:53	15° 8		retrograde	-564 Aug 30 j 14:33	23° 8 48'12	
evening set	-570 May 01 j 07:41	15° 8 42'15		opposition	-564 Nov 20 j 05:02	22° 8 46'30	-7°07'07
max. Earth dist.	-570 May 13 j 07:51	15° 8 59'02	47.17597 AU	min. Earth dist.	-564 Nov 21 j 14:27	22° 8 44'50	44.13523 AU
				direct	-563 Feb 09 j 22:41	21° 8 44'27	
conjunction	-570 May 14 j 13:54	16° 8 00'48	-8°35'44	evening set	-563 May 07 j 10:03	22° 8 56'58	
minimum elong	-570 May 14 j 14:05	16° 8 00'48	8°35'44	max. Earth dist.	-563 May 20 j 07:15	23° 8 15'22	46.03499 AU
morning rise	-570 May 27 j 20:54	16° 8 19'25					
retrograde	-570 Aug 24 j 15:51	17° 8 33'16		conjunction	-563 May 21 j 21:55	23° 8 17'42	-6°39'58
opposition	-570 Nov 14 j 15:23	16° 8 32'15	-8°50'17	minimum elong	-563 May 21 j 22:05	23° 8 17'42	6°39'57
min. Earth dist.	-570 Nov 15 j 19:27	16° 8 30'52	45.12106 AU	morning rise	-563 Jun 05 j 10:25	23° 8 38'29	
direct	-569 Feb 04 j 09:37	15° 8 31'05		retrograde	-563 Sep 01 j 01:11	24° 8 52'20	
evening set	-569 May 02 j 10:43	16° 8 43'15		opposition	-563 Nov 21 j 12:00	23° 8 50'32	-6°48'55
				min. Earth dist.	-563 Nov 22 j 23:32	23° 8 48'45	43.96028 AU
conjunction	-569 May 15 j 21:28	17° 8 02'07	-8°20'00	direct	-562 Feb 11 j 02:50	22° 8 48'20	
minimum elong	-569 May 15 j 21:38	17° 8 02'07	8°19'59	evening set	-562 May 08 j 15:12	24° 8 00'59	
max. Earth dist.	-569 May 14 j 13:38	17° 8 00'14	47.02147 AU	max. Earth dist.	-562 May 21 j 15:13	24° 8 19'36	45.85918 AU
morning rise	-569 May 29 j 09:12	17° 8 21'03					
retrograde	-569 Aug 26 j 00:12	18° 8 34'50		conjunction	-562 May 23 j 06:48	24° 8 21'59	-6°22'20
opposition	-569 Nov 15 j 21:16	17° 8 33'42	-8°33'48	minimum elong	-562 May 23 j 06:56	24° 8 22'00	6°22'20
min. Earth dist.	-569 Nov 17 j 01:47	17° 8 32'17	44.96349 AU	morning rise	-562 Jun 06 j 22:52	24° 8 43'04	
direct	-568 Feb 05 j 14:13	16° 8 32'22		retrograde	-562 Sep 02 j 11:20	25° 8 57'00	
evening set	-568 May 02 j 13:51	17° 8 44'32		opposition	-562 Nov 22 j 18:56	24° 8 55'04	-6°30'27
max. Earth dist.	-568 May 14 j 20:02	18° 8 01'45	46.86364 AU	min. Earth dist.	-562 Nov 24 j 06:53	24° 8 53'16	43.78089 AU
				direct	-561 Feb 12 j 08:20	23° 8 52'41	

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Attention, astronomical year style is used: The year -561 in astronomical counting style is the year 562 BCE in historical counting style.

evening set	-561 May 09 j 20:50	25° 8 05'29		conjunction	-555 May 31 j 01:42	2° II 04'14	-4°11'36
max. Earth dist.	-561 May 22 j 21:36	25° 8 24'14	45.67856 AU	minimum elong	-555 May 31 j 01:49	2° II 04'14	4°11'36
				morning rise	-555 Jun 15 j 14:41	2° II 27'11	
conjunction	-561 May 24 j 15:51	25° 8 26'47	-6°04'28	retrograde	-555 Sep 10 j 02:07	3° II 41'56	
minimum elong	-561 May 24 j 16:00	25° 8 26'48	6°04'27	opposition	-555 Nov 30 j 01:27	2° II 38'40	-4°13'09
morning rise	-561 Jun 08 j 11:32	25° 8 48'09		min. Earth dist.	-555 Dec 01 j 21:50	2° II 36'24	42.40772 AU
retrograde	-561 Sep 03 j 20:33	27° 8 02'09		direct	-554 Feb 19 j 18:59	1° II 34'40	
opposition	-561 Nov 24 j 02:17	26° 8 00'04	-6°11'41	evening set	-554 May 16 j 20:36	2° II 48'50	
min. Earth dist.	-561 Nov 25 j 16:26	25° 8 58'09	43.59668 AU	max. Earth dist.	-554 May 30 j 09:04	3° II 08'50	44.30059 AU
direct	-560 Feb 13 j 16:15	24° 8 57'30					
evening set	-560 May 10 j 02:36	26° 8 10'27		conjunction	-554 Jun 01 j 11:57	3° II 12'01	-3°51'50
max. Earth dist.	-560 May 23 j 06:17	26° 8 29'26	45.49303 AU	minimum elong	-554 Jun 01 j 12:03	3° II 12'01	3°51'49
				morning rise	-554 Jun 17 j 03:26	3° II 35'13	
conjunction	-560 May 25 j 01:09	26° 8 32'02	-5°46'20	retrograde	-554 Sep 11 j 11:08	4° II 50'10	
minimum elong	-560 May 25 j 01:16	26° 8 32'02	5°46'19	opposition	-554 Dec 01 j 09:54	3° II 46'44	-3°52'22
morning rise	-560 Jun 08 j 23:57	26° 8 53'40		min. Earth dist.	-554 Dec 03 j 07:05	3° II 44'24	42.20047 AU
retrograde	-560 Sep 04 j 02:09	28° 8 07'45		direct	-553 Feb 21 j 04:11	2° II 42'29	
opposition	-560 Nov 24 j 09:43	27° 8 05'30	-5°52'39	evening set	-553 May 18 j 04:57	3° II 56'58	
min. Earth dist.	-560 Nov 26 j 00:58	27° 8 03'31	43.40759 AU	max. Earth dist.	-553 May 31 j 19:01	4° II 17'09	44.09308 AU
direct	-559 Feb 14 j 03:28	26° 8 02'43					
evening set	-559 May 11 j 08:49	27° 8 15'49		conjunction	-553 Jun 02 j 22:39	4° II 20'24	-3°31'46
max. Earth dist.	-559 May 24 j 13:20	27° 8 34'56	45.30293 AU	minimum elong	-553 Jun 02 j 22:45	4° II 20'24	3°31'47
				morning rise	-553 Jun 18 j 16:09	4° II 43'51	
conjunction	-559 May 26 j 10:27	27° 8 37'41	-5°27'55	retrograde	-553 Sep 12 j 20:34	5° II 59'03	
minimum elong	-559 May 26 j 10:35	27° 8 37'41	5°27'55	opposition	-553 Dec 02 j 18:49	4° II 55'26	-3°31'15
morning rise	-559 Jun 10 j 12:35	27° 8 59'36		min. Earth dist.	-553 Dec 04 j 17:28	4° II 53'01	41.99117 AU
retrograde	-559 Sep 05 j 10:45	29° 8 13'46		direct	-552 Feb 22 j 12:50	3° II 50'58	
opposition	-559 Nov 25 j 17:13	28° 8 11'20	-5°33'21	evening set	-552 May 18 j 13:45	5° II 05'47	
min. Earth dist.	-559 Nov 27 j 09:26	28° 8 09'18	43.21426 AU	max. Earth dist.	-552 Jun 01 j 05:06	5° II 26'09	43.88352 AU
direct	-558 Feb 15 j 11:25	27° 8 08'19					
evening set	-558 May 12 j 15:12	28° 8 21'34		conjunction	-552 Jun 03 j 09:27	5° II 29'27	-3°11'26
max. Earth dist.	-558 May 25 j 21:36	28° 8 40'52	45.10856 AU	minimum elong	-552 Jun 03 j 09:32	5° II 29'27	3°11'25
				morning rise	-552 Jun 19 j 04:56	5° II 53'09	
conjunction	-558 May 27 j 20:01	28° 8 43'43	-5°09'15	retrograde	-552 Sep 13 j 08:39	7° II 08'39	
minimum elong	-558 May 27 j 20:08	28° 8 43'43	5°09'15	opposition	-552 Dec 03 j 03:47	6° II 04'51	-3°09'51
morning rise	-558 Jun 12 j 01:04	29° 8 05'54		min. Earth dist.	-552 Dec 05 j 02:28	6° II 02'25	41.77962 AU
	-558 Jul 26 j 08:56	0° II		direct	-551 Feb 22 j 19:37	5° II 00'10	
retrograde	-558 Sep 06 j 19:22	0° II 20'11		evening set	-551 May 19 j 23:07	6° II 15'21	
	-558 Oct 19 j 16:26	30° R 8		max. Earth dist.	-551 Jun 02 j 14:15	6° II 35'50	43.67123 AU
opposition	-558 Nov 27 j 01:03	29° 8 17'33	-5°13'44				
min. Earth dist.	-558 Nov 28 j 19:14	29° 8 15'24	43.01694 AU	conjunction	-551 Jun 04 j 20:35	6° II 39'16	-2°50'49
direct	-557 Feb 16 j 18:54	28° 8 14'17		minimum elong	-551 Jun 04 j 20:39	6° II 39'16	2°50'49
evening set	-557 May 13 j 22:04	29° 8 27'44		morning rise	-551 Jun 20 j 17:51	7° II 03'12	
max. Earth dist.	-557 May 27 j 06:41	29° 8 47'14	44.91062 AU	retrograde	-551 Sep 14 j 21:29	8° II 19'01	
				opposition	-551 Dec 04 j 13:08	7° II 15'02	-2°48'09
conjunction	-557 May 29 j 05:49	29° 8 50'08	-4°50'19	min. Earth dist.	-551 Dec 06 j 13:57	7° II 12'30	41.56521 AU
minimum elong	-557 May 29 j 05:56	29° 8 50'08	4°50'19	direct	-550 Feb 24 j 03:27	6° II 10'08	
	-557 Jun 04 j 22:22	0° II		evening set	-550 May 21 j 08:52	7° II 25'44	
morning rise	-557 Jun 13 j 13:43	0° II 12'34		max. Earth dist.	-550 Jun 04 j 01:32	7° II 46'24	43.45568 AU
retrograde	-557 Sep 08 j 06:05	1° II 26'59					
opposition	-557 Nov 28 j 08:50	0° II 24'09	-4°53'51	conjunction	-550 Jun 06 j 08:10	7° II 49'52	-2°29'56
min. Earth dist.	-557 Nov 30 j 03:12	0° II 21'59	42.81638 AU	minimum elong	-550 Jun 06 j 08:14	7° II 49'52	2°29'54
	-557 Dec 18 j 14:22	30° R 8		morning rise	-550 Jun 22 j 06:54	8° II 14'02	
direct	-556 Feb 18 j 01:55	29° 8 20'38		retrograde	-550 Sep 16 j 08:48	9° II 30'10	
	-556 Apr 18 j 13:37	0° II		opposition	-550 Dec 05 j 22:48	8° II 26'00	-2°26'09
evening set	-556 May 14 j 05:19	0° II 34'18		min. Earth dist.	-550 Dec 08 j 00:14	8° II 23'25	41.34714 AU
max. Earth dist.	-556 May 27 j 14:24	0° II 53'55	44.70957 AU	direct	-549 Feb 25 j 15:04	7° II 20'51	
				evening set	-549 May 22 j 19:26	8° II 36'53	
conjunction	-556 May 29 j 15:41	0° II 56'57	-4°31'06	max. Earth dist.	-549 Jun 05 j 10:47	8° II 57'36	43.23624 AU
minimum elong	-556 May 29 j 15:48	0° II 56'58	4°31'05				
morning rise	-556 Jun 14 j 02:20	1° II 19'39		conjunction	-549 Jun 07 j 20:00	9° II 01'15	-2°08'46
retrograde	-556 Sep 08 j 18:05	2° II 34'13		minimum elong	-549 Jun 07 j 20:03	9° II 01'16	2°08'45
opposition	-556 Nov 28 j 17:03	1° II 31'10	-4°33'39	morning rise	-549 Jun 23 j 20:14	9° II 25'38	
min. Earth dist.	-556 Nov 30 j 13:09	1° II 28'55	42.61318 AU	retrograde	-549 Sep 17 j 21:09	10° II 42'07	
direct	-555 Feb 18 j 08:36	0° II 27'25		opposition	-549 Dec 07 j 08:40	9° II 37'45	-2°03'52
evening set	-555 May 15 j 12:36	1° II 41'18		min. Earth dist.	-549 Dec 09 j 11:35	9° II 35'05	41.12522 AU
max. Earth dist.	-555 May 29 j 00:34	2° II 01'11	44.50609 AU	direct	-548 Feb 27 j 01:29	8° II 32'20	

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Attention, astronomical year style is used: The year -548 in astronomical counting style is the year 549 BCE in historical counting style.

evening set	-548 May 23 j 06:18	9°II48'48		minimum elong	-542 Jun 16 j 14:56	17°II41'40	0°26'55
max. Earth dist.	-548 Jun 05 j 22:09	10°II09'39	43.01270 AU	morning rise	-542 Jul 02 j 18:32	18°II07'19	
				retrograde	-542 Sep 26 j 13:26	19°II26'55	
conjunction	-548 Jun 08 j 08:16	10°II13'24	-1°47'20	opposition	-542 Dec 15 j 14:24	18°II20'42	0°40'22
minimum elong	-548 Jun 08 j 08:19	10°II13'24	1°47'19	min. Earth dist.	-542 Dec 17 j 23:33	18°II17'35	39.48846 AU
morning rise	-548 Jun 24 j 09:29	10°II37'59		direct	-541 Mar 07 j 07:35	17°II13'03	
retrograde	-548 Sep 18 j 06:37	11°II54'51		evening set	-541 Jun 02 j 01:01	18°II33'21	
opposition	-548 Dec 07 j 19:02	10°II50'15	-1°41'16	max. Earth dist.	-541 Jun 15 j 11:35	18°II54'47	41.36939 AU
min. Earth dist.	-548 Dec 09 j 23:30	10°II47'29	40.89929 AU				
direct	-547 Feb 27 j 12:50	9°II44'33		conjunction	-541 Jun 18 j 05:20	18°II59'12	0°50'11
evening set	-547 May 24 j 17:33	11°II01'28		minimum elong	-541 Jun 18 j 05:19	18°II59'12	0°50'12
max. Earth dist.	-547 Jun 07 j 09:06	11°II22'25	42.78544 AU	morning rise	-541 Jul 04 j 08:19	19°II25'00	
				retrograde	-541 Sep 28 j 02:48	20°II45'11	
conjunction	-547 Jun 09 j 20:30	11°II26'16	-1°25'38	opposition	-541 Dec 17 j 02:55	19°II38'42	1°04'58
minimum elong	-547 Jun 09 j 20:32	11°II26'16	1°25'37	min. Earth dist.	-541 Dec 19 j 13:38	19°II35'29	39.24869 AU
morning rise	-547 Jun 25 j 22:47	11°II51'04		direct	-540 Mar 07 j 18:17	18°II30'44	
retrograde	-547 Sep 19 j 18:47	13°II08'19		evening set	-540 Jun 02 j 16:24	19°II51'44	
opposition	-547 Dec 09 j 05:28	12°II03'28	-1°18'24	max. Earth dist.	-540 Jun 16 j 02:23	20°II13'16	41.12899 AU
min. Earth dist.	-547 Dec 11 j 10:22	12°II00'40	40.66986 AU				
direct	-546 Feb 28 j 22:16	10°II57'28		conjunction	-540 Jun 18 j 20:05	20°II17'43	1°13'42
evening set	-546 May 26 j 05:29	12°II14'52		minimum elong	-540 Jun 18 j 20:03	20°II17'43	1°13'42
max. Earth dist.	-546 Jun 08 j 19:52	12°II35'52	42.55463 AU	morning rise	-540 Jul 04 j 22:18	20°II43'39	
				retrograde	-540 Sep 28 j 18:56	22°II04'28	
conjunction	-546 Jun 11 j 09:14	12°II39'52	-1°03'39	opposition	-540 Dec 17 j 15:45	20°II57'43	1°29'51
minimum elong	-546 Jun 11 j 09:16	12°II39'52	1°03'39	min. Earth dist.	-540 Dec 20 j 02:18	20°II54'30	39.00796 AU
morning rise	-546 Jun 27 j 12:15	13°II04'51		direct	-539 Mar 09 j 05:40	19°II49'26	
retrograde	-546 Sep 21 j 09:32	14°II22'31		evening set	-539 Jun 04 j 08:25	21°II11'12	
opposition	-546 Dec 10 j 16:12	13°II17'24	-0°55'13	max. Earth dist.	-539 Jun 17 j 15:20	21°II32'41	40.88718 AU
min. Earth dist.	-546 Dec 12 j 23:13	13°II14'28	40.43733 AU				
direct	-545 Mar 02 j 05:48	12°II11'04		conjunction	-539 Jun 20 j 11:03	21°II37'18	1°37'28
evening set	-545 May 27 j 17:52	13°II28'59		minimum elong	-539 Jun 20 j 11:00	21°II37'18	1°37'29
max. Earth dist.	-545 Jun 10 j 08:48	13°II50'09	42.32101 AU	morning rise	-539 Jul 06 j 12:20	22°II03'20	
				retrograde	-539 Sep 30 j 12:59	23°II24'50	
conjunction	-545 Jun 12 j 22:20	13°II54'10	-0°41'25	opposition	-539 Dec 19 j 05:04	22°II17'49	1°54'59
minimum elong	-545 Jun 12 j 22:21	13°II54'10	0°41'25	min. Earth dist.	-539 Dec 21 j 17:20	22°II14'30	38.76569 AU
morning rise	-545 Jun 29 j 01:46	14°II19'20		direct	-538 Mar 10 j 16:36	21°II09'13	
retrograde	-545 Sep 22 j 22:28	15°II37'26		evening set	-538 Jun 06 j 01:15	22°II31'46	
opposition	-545 Dec 12 j 03:15	14°II32'03	-0°31'45	max. Earth dist.	-538 Jun 19 j 07:01	22°II53'20	40.64333 AU
min. Earth dist.	-545 Dec 14 j 10:19	14°II29'06	40.20229 AU				
direct	-544 Mar 02 j 17:17	13°II25'24		conjunction	-538 Jun 22 j 02:49	22°II57'59	2°01'29
evening set	-544 May 28 j 06:49	14°II43'51		minimum elong	-538 Jun 22 j 02:45	22°II57'59	2°01'29
max. Earth dist.	-544 Jun 10 j 19:56	15°II05'02	42.08509 AU	morning rise	-538 Jul 08 j 02:37	23°II24'08	
				retrograde	-538 Oct 02 j 03:53	24°II46'20	
conjunction	-544 Jun 13 j 11:27	15°II09'13	-0°18'55	opposition	-538 Dec 20 j 18:44	23°II39'02	2°20'23
minimum elong	-544 Jun 13 j 11:27	15°II09'13	0°18'55	min. Earth dist.	-538 Dec 23 j 07:42	23°II35'40	38.52112 AU
morning rise	-544 Jun 29 j 15:15	15°II34'33		direct	-537 Mar 12 j 07:31	22°II30'06	
retrograde	-544 Sep 23 j 12:33	16°II53'07		evening set	-537 Jun 07 j 19:05	23°II53'29	
opposition	-544 Dec 12 j 14:38	15°II47'27	-0°08'00	max. Earth dist.	-537 Jun 20 j 21:10	24°II14'57	40.39697 AU
min. Earth dist.	-544 Dec 14 j 23:00	15°II44'25	39.96549 AU				
direct	-543 Mar 04 j 05:12	14°II40'28		conjunction	-537 Jun 23 j 18:56	24°II19'47	2°25'43
asc. node	-543 Apr 14 j 01:17	15°II00'16		minimum elong	-537 Jun 23 j 18:52	24°II19'47	2°25'44
evening set	-543 May 29 j 20:10	15°II59'30		morning rise	-537 Jul 09 j 17:15	24°II46'01	
max. Earth dist.	-543 Jun 12 j 09:34	16°II20'49	41.84753 AU	retrograde	-537 Oct 03 j 20:21	26°II08'57	
				opposition	-537 Dec 22 j 08:56	25°II01'22	2°46'02
conjunction	-543 Jun 15 j 01:06	16°II25'02	0°03'57	min. Earth dist.	-537 Dec 24 j 22:52	24°II57'55	38.27404 AU
minimum elong	-543 Jun 15 j 01:05	16°II25'02	0°03'57	direct	-536 Mar 12 j 22:32	23°II52'04	
behind sun begin	-543 Jun 14 j 18:38	16°II24'38		evening set	-536 Jun 08 j 13:24	25°II16'19	
behind sun end	-543 Jun 15 j 07:32	16°II25'26		max. Earth dist.	-536 Jun 21 j 12:44	25°II37'46	40.14771 AU
morning rise	-543 Jul 01 j 04:44	16°II50'32					
retrograde	-543 Sep 24 j 23:38	18°II09'35		conjunction	-536 Jun 24 j 11:30	25°II42'42	2°50'10
opposition	-543 Dec 14 j 02:22	17°II03'39	0°16'03	minimum elong	-536 Jun 24 j 11:24	25°II42'41	2°50'10
min. Earth dist.	-543 Dec 16 j 11:28	17°II00'33	39.72737 AU	morning rise	-536 Jul 10 j 07:42	26°II08'59	
direct	-542 Mar 05 j 19:44	15°II56'19		retrograde	-536 Oct 04 j 11:25	27°II32'42	
evening set	-542 May 31 j 10:16	17°II15'58		opposition	-536 Dec 22 j 23:42	26°II24'49	3°11'57
max. Earth dist.	-542 Jun 13 j 22:14	17°II37'20	41.60897 AU	min. Earth dist.	-536 Dec 25 j 15:19	26°II21'14	38.02418 AU
				direct	-535 Mar 14 j 13:08	25°II15'08	
conjunction	-542 Jun 16 j 14:57	17°II41'40	0°26'55	evening set	-535 Jun 10 j 08:38	26°II40'16	

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

max. Earth dist.	-535 Jun 23 j 04:52	27° Π 01'40	39.89592 AU	conjunction	-529 Jul 05 j 20:36	5° \mathfrak{D} 55'20	5°46'35
				minimum elong	-529 Jul 05 j 20:24	5° \mathfrak{D} 55'19	5°46'36
conjunction	-535 Jun 26 j 04:31	27° Π 06'42	3°14'51	morning rise	-529 Jul 20 j 17:34	6° \mathfrak{D} 21'30	
minimum elong	-535 Jun 26 j 04:25	27° Π 06'42	3°14'51	retrograde	-529 Oct 15 j 21:48	7° \mathfrak{D} 51'55	
morning rise	-535 Jul 11 j 22:32	27° Π 33'03		opposition	-528 Jan 02 j 19:31	6° \mathfrak{D} 41'35	6°19'04
retrograde	-535 Oct 06 j 04:11	28° Π 57'34		min. Earth dist.	-528 Jan 05 j 15:52	6° \mathfrak{D} 37'35	36.23944 AU
opposition	-535 Dec 24 j 14:38	27° Π 49'21	3°38'05	direct	-528 Mar 24 j 03:58	5° \mathfrak{D} 29'01	
min. Earth dist.	-535 Dec 27 j 06:20	27° Π 45'45	37.77202 AU	evening set	-528 Jun 21 j 22:32	7° \mathfrak{D} 01'56	
direct	-534 Mar 16 j 03:12	26° Π 39'16		max. Earth dist.	-528 Jul 03 j 12:49	7° \mathfrak{D} 22'26	38.10065 AU
evening set	-534 Jun 12 j 04:40	28° Π 05'21					
max. Earth dist.	-534 Jun 24 j 20:26	28° Π 26'37	39.64174 AU	conjunction	-528 Jul 06 j 17:00	7° \mathfrak{D} 28'07	6°12'19
				minimum elong	-528 Jul 06 j 16:48	7° \mathfrak{D} 28'06	6°12'19
conjunction	-534 Jun 27 j 22:01	28° Π 31'49	3°39'43	morning rise	-528 Jul 21 j 09:05	7° \mathfrak{D} 54'10	
minimum elong	-534 Jun 27 j 21:54	28° Π 31'49	3°39'43	retrograde	-528 Oct 16 j 18:44	9° \mathfrak{D} 25'47	
morning rise	-534 Jul 13 j 13:29	28° Π 58'12		opposition	-527 Jan 03 j 14:12	8° \mathfrak{D} 15'07	6°46'24
	-534 Aug 26 j 07:08	0° \mathfrak{D}		min. Earth dist.	-527 Jan 06 j 09:57	8° \mathfrak{D} 11'08	35.98534 AU
retrograde	-534 Oct 07 j 22:39	0° \mathfrak{D} 23'34		direct	-527 Mar 25 j 22:01	7° \mathfrak{D} 02'10	
	-534 Nov 20 j 04:05	30° \mathfrak{K} Π		evening set	-527 Jun 24 j 00:58	8° \mathfrak{D} 36'26	
opposition	-534 Dec 26 j 06:15	29° Π 15'00	4°04'27	max. Earth dist.	-527 Jul 05 j 08:20	8° \mathfrak{D} 56'38	37.84499 AU
min. Earth dist.	-534 Dec 28 j 23:49	29° Π 11'17	37.51787 AU				
direct	-533 Mar 17 j 16:52	28° Π 04'31		conjunction	-527 Jul 08 j 14:06	9° \mathfrak{D} 02'29	6°38'08
evening set	-533 Jun 14 j 01:27	29° Π 31'35		minimum elong	-527 Jul 08 j 13:52	9° \mathfrak{D} 02'28	6°38'09
max. Earth dist.	-533 Jun 26 j 14:39	29° Π 52'50	39.38576 AU	morning rise	-527 Jul 23 j 00:58	9° \mathfrak{D} 28'23	
				retrograde	-527 Oct 18 j 18:43	11° \mathfrak{D} 01'16	
conjunction	-533 Jun 29 j 16:03	29° Π 58'04	4°04'47	opposition	-526 Jan 05 j 09:28	9° \mathfrak{D} 50'16	7°13'49
minimum elong	-533 Jun 29 j 15:55	29° Π 58'04	4°04'48	min. Earth dist.	-526 Jan 08 j 06:39	9° \mathfrak{D} 46'10	35.73168 AU
	-533 Jun 30 j 19:02	0° \mathfrak{D}		direct	-526 Mar 27 j 14:29	8° \mathfrak{D} 36'54	
morning rise	-533 Jul 15 j 04:27	0° \mathfrak{D} 24'27		evening set	-526 Jun 26 j 04:28	10° \mathfrak{D} 12'37	
retrograde	-533 Oct 09 j 17:39	1° \mathfrak{D} 50'43		max. Earth dist.	-526 Jul 07 j 06:44	10° \mathfrak{D} 32'37	37.58934 AU
opposition	-533 Dec 27 j 22:12	0° \mathfrak{D} 41'48	4°31'02				
min. Earth dist.	-533 Dec 30 j 15:52	0° \mathfrak{D} 38'03	37.26229 AU	conjunction	-526 Jul 10 j 12:00	10° \mathfrak{D} 38'29	7°04'00
	-532 Jan 29 j 12:49	30° \mathfrak{K} Π		minimum elong	-526 Jul 10 j 11:47	10° \mathfrak{D} 38'28	7°04'01
direct	-532 Mar 18 j 09:26	29° Π 30'53		morning rise	-526 Jul 24 j 16:58	11° \mathfrak{D} 04'11	
	-532 May 05 j 13:37	0° \mathfrak{D}		retrograde	-526 Oct 20 j 17:35	12° \mathfrak{D} 38'25	
evening set	-532 Jun 14 j 23:10	0° \mathfrak{D} 59'01		opposition	-525 Jan 07 j 05:31	11° \mathfrak{D} 27'03	7°41'19
max. Earth dist.	-532 Jun 27 j 07:08	1° \mathfrak{D} 20'05	39.12864 AU	min. Earth dist.	-525 Jan 10 j 02:55	11° \mathfrak{D} 22'55	35.47777 AU
				direct	-525 Mar 29 j 10:54	10° \mathfrak{D} 13'16	
conjunction	-532 Jun 30 j 10:22	1° \mathfrak{D} 25'29	4°30'01	evening set	-525 Jun 28 j 09:17	11° \mathfrak{D} 50'30	
minimum elong	-532 Jun 30 j 10:14	1° \mathfrak{D} 25'28	4°30'01	max. Earth dist.	-525 Jul 09 j 03:29	12° \mathfrak{D} 10'06	37.33320 AU
morning rise	-532 Jul 15 j 19:38	1° \mathfrak{D} 51'51					
retrograde	-532 Oct 10 j 13:44	3° \mathfrak{D} 19'04		conjunction	-525 Jul 12 j 10:24	12° \mathfrak{D} 16'08	7°29'55
opposition	-532 Dec 28 j 14:42	2° \mathfrak{D} 09'47	4°57'48	minimum elong	-525 Jul 12 j 10:09	12° \mathfrak{D} 16'07	7°29'56
min. Earth dist.	-532 Dec 31 j 09:20	2° \mathfrak{D} 05'57	37.00619 AU	morning rise	-525 Jul 26 j 09:16	12° \mathfrak{D} 41'37	
direct	-531 Mar 20 j 00:55	0° \mathfrak{D} 58'27		retrograde	-525 Oct 22 j 18:04	14° \mathfrak{D} 17'13	
evening set	-531 Jun 16 j 21:25	2° \mathfrak{D} 27'40		opposition	-524 Jan 09 j 02:10	13° \mathfrak{D} 05'30	8°08'52
max. Earth dist.	-531 Jun 29 j 02:08	2° \mathfrak{D} 48'40	38.87102 AU	min. Earth dist.	-524 Jan 12 j 00:21	13° \mathfrak{D} 01'18	35.22347 AU
				direct	-524 Mar 30 j 06:39	11° \mathfrak{D} 51'16	
conjunction	-531 Jul 02 j 05:12	2° \mathfrak{D} 54'07	4°55'25	evening set	-524 Jun 29 j 15:03	13° \mathfrak{D} 30'05	
minimum elong	-531 Jul 02 j 05:02	2° \mathfrak{D} 54'06	4°55'26	max. Earth dist.	-524 Jul 10 j 02:27	13° \mathfrak{D} 49'20	37.07634 AU
morning rise	-531 Jul 17 j 10:38	3° \mathfrak{D} 20'26					
retrograde	-531 Oct 12 j 07:05	4° \mathfrak{D} 48'39		conjunction	-524 Jul 13 j 09:37	13° \mathfrak{D} 55'27	7°55'50
opposition	-531 Dec 30 j 07:49	3° \mathfrak{D} 39'01	5°24'45	minimum elong	-524 Jul 13 j 09:22	13° \mathfrak{D} 55'25	7°55'50
min. Earth dist.	-530 Jan 02 j 03:01	3° \mathfrak{D} 35'08	36.74994 AU	morning rise	-524 Jul 27 j 01:35	14° \mathfrak{D} 20'39	
direct	-530 Mar 21 j 19:28	2° \mathfrak{D} 27'16		retrograde	-524 Oct 23 j 16:36	15° \mathfrak{D} 57'41	
evening set	-530 Jun 18 j 20:55	3° \mathfrak{D} 57'39		opposition	-523 Jan 09 j 23:39	14° \mathfrak{D} 45'35	8°36'26
max. Earth dist.	-530 Jun 30 j 20:44	4° \mathfrak{D} 18'29	38.61364 AU	min. Earth dist.	-523 Jan 12 j 22:51	14° \mathfrak{D} 41'17	34.96857 AU
				direct	-523 Apr 01 j 05:16	13° \mathfrak{D} 30'54	
conjunction	-530 Jul 04 j 00:33	4° \mathfrak{D} 24'02	5°20'57	evening set	-523 Jul 01 j 22:02	15° \mathfrak{D} 11'19	
minimum elong	-530 Jul 04 j 00:23	4° \mathfrak{D} 24'01	5°20'56	max. Earth dist.	-523 Jul 12 j 01:22	15° \mathfrak{D} 30'08	36.81908 AU
morning rise	-530 Jul 19 j 02:04	4° \mathfrak{D} 50'17					
retrograde	-530 Oct 14 j 02:24	6° \mathfrak{D} 19'34		conjunction	-523 Jul 15 j 09:14	15° \mathfrak{D} 36'22	8°21'44
opposition	-529 Jan 01 j 01:14	5° \mathfrak{D} 09'35	5°51'50	minimum elong	-523 Jul 15 j 08:57	15° \mathfrak{D} 36'21	8°21'45
min. Earth dist.	-529 Jan 03 j 20:16	5° \mathfrak{D} 05'41	36.49431 AU	morning rise	-523 Jul 28 j 18:05	16° \mathfrak{D} 01'16	
direct	-529 Mar 23 j 12:46	3° \mathfrak{D} 57'25		retrograde	-523 Oct 25 j 17:33	17° \mathfrak{D} 39'47	
evening set	-529 Jun 20 j 21:17	5° \mathfrak{D} 29'02		opposition	-522 Jan 11 j 21:38	16° \mathfrak{D} 27'16	9°03'59
max. Earth dist.	-529 Jul 02 j 16:03	5° \mathfrak{D} 49'41	38.35673 AU	min. Earth dist.	-522 Jan 14 j 20:37	16° \mathfrak{D} 22'57	34.71346 AU
				direct	-522 Apr 03 j 03:04	15° \mathfrak{D} 12'07	

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Attention, astronomical year style is used: The year -522 in astronomical counting style is the year 523 BCE in historical counting style.

evening set	-522 Jul 04 j 06:15	16° Ω 54'13		retrograde	-516 Nov 07 j 14:50	0° Ω 21'25	
max. Earth dist.	-522 Jul 14 j 00:50	17° Ω 12'31	36.56149 AU		-516 Dec 15 j 15:36	30° \mathbb{R} Ω	
				opposition	-515 Jan 24 j 03:51	29° Ω 05'52	12°12'46
conjunction	-522 Jul 17 j 09:45	17° Ω 18'54	8°47'36	min. Earth dist.	-515 Jan 27 j 02:58	29° Ω 01'20	32.97284 AU
minimum elong	-522 Jul 17 j 09:27	17° Ω 18'53	8°47'36	direct	-515 Apr 15 j 03:19	27° Ω 47'14	
morning rise	-522 Jul 30 j 10:46	17° Ω 43'26		evening set	-515 Jul 20 j 04:37	29° Ω 43'35	
retrograde	-522 Oct 27 j 16:25	19° Ω 23'31		max. Earth dist.	-515 Jul 26 j 23:31	29° Ω 57'15	34.81057 AU
opposition	-521 Jan 13 j 20:19	18° Ω 10'34	9°31'30		-515 Jul 28 j 08:06	0° Ω	
min. Earth dist.	-521 Jan 16 j 20:52	18° Ω 06'08	34.45848 AU				
direct	-521 Apr 04 j 23:32	16° Ω 54'55		conjunction	-515 Jul 30 j 07:23	0° Ω 04'00	11°43'25
evening set	-521 Jul 06 j 15:47	18° Ω 38'46		minimum elong	-515 Jul 30 j 07:00	0° Ω 03'58	11°43'25
max. Earth dist.	-521 Jul 16 j 02:26	18° Ω 56'38	36.30437 AU	morning rise	-515 Aug 09 j 08:04	0° Ω 24'15	
				retrograde	-515 Nov 09 j 19:39	2° Ω 17'43	
conjunction	-521 Jul 19 j 10:51	19° Ω 03'02	9°13'22	opposition	-514 Jan 26 j 07:59	1° Ω 01'46	12°38'29
minimum elong	-521 Jul 19 j 10:32	19° Ω 03'01	9°13'22	min. Earth dist.	-514 Jan 29 j 07:50	0° Ω 57'10	32.73753 AU
morning rise	-521 Aug 01 j 03:27	19° Ω 27'09			-514 Mar 13 j 10:28	30° \mathbb{R} Ω	
retrograde	-521 Oct 29 j 16:59	21° Ω 08'52		direct	-514 Apr 17 j 04:53	29° Ω 42'43	
opposition	-520 Jan 15 j 19:44	19° Ω 55'29	9°58'56		-514 May 21 j 10:50	0° Ω	
min. Earth dist.	-520 Jan 18 j 19:39	19° Ω 51'03	34.20434 AU	evening set	-514 Jul 23 j 00:24	1° Ω 41'32	
direct	-520 Apr 05 j 22:39	18° Ω 39'19		max. Earth dist.	-514 Jul 29 j 06:50	1° Ω 54'18	34.57399 AU
evening set	-520 Jul 08 j 02:21	20° Ω 24'59					
max. Earth dist.	-520 Jul 17 j 02:43	20° Ω 42'14	36.04831 AU	conjunction	-514 Aug 01 j 13:34	2° Ω 01'01	12°07'10
				minimum elong	-514 Aug 01 j 13:12	2° Ω 00'59	12°07'11
conjunction	-520 Jul 20 j 12:23	20° Ω 48'47	9°39'01	morning rise	-514 Aug 11 j 00:47	2° Ω 20'21	
minimum elong	-520 Jul 20 j 12:04	20° Ω 48'46	9°39'01	retrograde	-514 Nov 12 j 02:24	4° Ω 16'09	
morning rise	-520 Aug 01 j 20:08	21° Ω 12'25		opposition	-513 Jan 28 j 12:49	2° Ω 59'50	13°03'43
retrograde	-520 Oct 30 j 20:15	22° Ω 55'52		min. Earth dist.	-513 Jan 31 j 11:34	2° Ω 55'16	32.50567 AU
opposition	-519 Jan 16 j 19:51	21° Ω 42'01	10°26'13	direct	-513 Apr 19 j 08:12	1° Ω 40'21	
min. Earth dist.	-519 Jan 19 j 20:39	21° Ω 37'30	33.95190 AU	evening set	-513 Jul 25 j 21:53	3° Ω 41'46	
direct	-519 Apr 07 j 20:03	20° Ω 25'19		max. Earth dist.	-513 Jul 31 j 13:10	3° Ω 53'22	34.34062 AU
evening set	-519 Jul 10 j 14:18	22° Ω 12'56					
max. Earth dist.	-519 Jul 19 j 06:16	22° Ω 29'40	35.79419 AU	conjunction	-513 Aug 03 j 20:34	4° Ω 00'12	12°30'26
				minimum elong	-513 Aug 03 j 20:10	4° Ω 00'10	12°30'26
conjunction	-519 Jul 22 j 14:47	22° Ω 36'11	10°04'28	morning rise	-513 Aug 12 j 17:28	4° Ω 18'30	
minimum elong	-519 Jul 22 j 14:27	22° Ω 36'10	10°04'28	retrograde	-513 Nov 14 j 10:46	6° Ω 16'46	
morning rise	-519 Aug 03 j 12:48	22° Ω 59'17		opposition	-512 Jan 30 j 18:46	5° Ω 00'04	13°28'25
retrograde	-519 Nov 01 j 22:31	24° Ω 44'31		min. Earth dist.	-512 Feb 02 j 18:11	4° Ω 55'26	32.27710 AU
opposition	-518 Jan 18 j 20:37	23° Ω 30'14	10°53'18	direct	-512 Apr 20 j 10:25	3° Ω 40'08	
min. Earth dist.	-518 Jan 21 j 20:58	23° Ω 25'43	33.70183 AU	evening set	-512 Jul 27 j 21:19	5° Ω 44'17	
direct	-518 Apr 09 j 20:48	22° Ω 13'02		max. Earth dist.	-512 Aug 01 j 22:24	5° Ω 54'46	34.11042 AU
evening set	-518 Jul 13 j 03:45	24° Ω 02'39					
max. Earth dist.	-518 Jul 21 j 08:36	24° Ω 18'40	35.54285 AU	conjunction	-512 Aug 05 j 04:18	6° Ω 01'33	12°53'09
				minimum elong	-512 Aug 05 j 03:56	6° Ω 01'31	12°53'09
conjunction	-518 Jul 24 j 17:48	24° Ω 25'18	10°29'42	morning rise	-512 Aug 13 j 09:32	6° Ω 18'42	
minimum elong	-518 Jul 24 j 17:28	24° Ω 25'17	10°29'42	retrograde	-512 Nov 15 j 19:14	8° Ω 19'33	
morning rise	-518 Aug 05 j 05:44	24° Ω 47'49		opposition	-511 Feb 01 j 01:34	7° Ω 02'27	13°52'32
retrograde	-518 Nov 04 j 04:24	26° Ω 34'56		min. Earth dist.	-511 Feb 04 j 00:10	6° Ω 57'51	32.05160 AU
opposition	-517 Jan 20 j 22:12	25° Ω 20'12	11°20'07	direct	-511 Apr 22 j 17:15	5° Ω 42'05	
min. Earth dist.	-517 Jan 23 j 22:20	25° Ω 15'40	33.45505 AU	evening set	-511 Jul 30 j 22:57	7° Ω 49'05	
direct	-517 Apr 11 j 22:18	24° Ω 02'30		max. Earth dist.	-511 Aug 04 j 06:13	7° Ω 58'08	33.88346 AU
evening set	-517 Jul 15 j 18:28	25° Ω 54'15					
max. Earth dist.	-517 Jul 23 j 13:22	26° Ω 09'36	35.29483 AU	conjunction	-511 Aug 07 j 12:53	8° Ω 05'02	13°15'15
				minimum elong	-511 Aug 07 j 12:28	8° Ω 05'00	13°15'15
conjunction	-517 Jul 26 j 21:38	26° Ω 16'14	10°54'38	morning rise	-511 Aug 15 j 01:19	8° Ω 20'53	
minimum elong	-517 Jul 26 j 21:16	26° Ω 16'13	10°54'38	retrograde	-511 Nov 18 j 06:47	10° Ω 24'28	
morning rise	-517 Aug 06 j 22:26	26° Ω 38'04		opposition	-510 Feb 03 j 09:03	9° Ω 06'57	14°16'00
retrograde	-517 Nov 06 j 08:45	28° Ω 27'12		min. Earth dist.	-510 Feb 06 j 07:32	9° Ω 02'20	31.82954 AU
opposition	-516 Jan 23 j 00:43	27° Ω 12'02	11°46'38	direct	-510 Apr 24 j 23:49	7° Ω 46'07	
min. Earth dist.	-516 Jan 26 j 01:00	27° Ω 07'28	33.21189 AU	evening set	-510 Aug 03 j 03:12	9° Ω 56'10	
direct	-516 Apr 13 j 00:50	25° Ω 53'52		max. Earth dist.	-510 Aug 06 j 17:14	10° Ω 03'47	33.65997 AU
evening set	-516 Jul 17 j 10:53	27° Ω 47'51					
max. Earth dist.	-516 Jul 24 j 18:07	28° Ω 02'25	35.05080 AU	conjunction	-510 Aug 09 j 22:28	10° Ω 10'38	13°36'41
				minimum elong	-510 Aug 09 j 22:05	10° Ω 10'36	13°36'42
conjunction	-516 Jul 28 j 02:06	28° Ω 09'06	11°19'13	morning rise	-510 Aug 16 j 16:16	10° Ω 24'59	
minimum elong	-516 Jul 28 j 01:44	28° Ω 09'04	11°19'14	retrograde	-510 Nov 20 j 16:13	12° Ω 31'28	
morning rise	-516 Aug 07 j 15:18	28° Ω 30'11		opposition	-509 Feb 05 j 17:40	11° Ω 13'32	14°38'43
	-516 Oct 01 j 03:46	0° Ω		min. Earth dist.	-509 Feb 08 j 15:57	11° Ω 08'54	31.61108 AU

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Attention, astronomical year style is used: The year -509 in astronomical counting style is the year 510 BCE in historical counting style.

direct	-509 Apr 27 j 07:48	9°Ω52'14		direct	-502 May 12 j 11:56	25°Ω31'00	
evening set	-509 Aug 06 j 10:15	12°Ω05'32		max. Earth dist.	-502 Aug 25 j 09:52	28°Ω00'42	32.08272 AU
max. Earth dist.	-509 Aug 09 j 03:27	12°Ω11'22	33.44059 AU				
				conjunction	-502 Aug 28 j 04:12	28°Ω07'02	15°53'57
conjunction	-509 Aug 12 j 08:31	12°Ω18'16	13°57'23	minimum elong	-502 Aug 28 j 03:55	28°Ω07'00	15°53'57
minimum elong	-509 Aug 12 j 08:07	12°Ω18'14	13°57'23		-502 Oct 22 j 13:09	0°൬	
morning rise	-509 Aug 18 j 05:34	12°Ω30'54		retrograde	-502 Dec 09 j 06:28	0°൬38'33	
retrograde	-509 Nov 23 j 05:11	14°Ω40'29			-501 Jan 27 j 21:31	30°℞Ω	
opposition	-508 Feb 08 j 03:00	13°Ω22'08	15°00'36	opposition	-501 Feb 23 j 21:10	29°Ω17'37	17°02'47
min. Earth dist.	-508 Feb 11 j 00:07	13°Ω17'33	31.39707 AU	min. Earth dist.	-501 Feb 26 j 09:06	29°Ω13'29	30.08345 AU
direct	-508 Apr 28 j 17:20	12°Ω00'23		direct	-501 May 15 j 01:30	27°Ω53'10	
evening set	-508 Aug 08 j 21:14	14°Ω17'14			-501 Aug 17 j 12:55	0°൬	
max. Earth dist.	-508 Aug 10 j 15:40	14°Ω21'04	33.22590 AU	max. Earth dist.	-501 Aug 28 j 04:55	0°൬24'24	31.92009 AU
conjunction	-508 Aug 13 j 19:31	14°Ω27'55	14°17'14	conjunction	-501 Aug 30 j 20:15	0°൬30'30	16°05'35
minimum elong	-508 Aug 13 j 19:09	14°Ω27'53	14°17'14	minimum elong	-501 Aug 30 j 19:58	0°൬30'28	16°05'35
morning rise	-508 Aug 18 j 16:41	14°Ω38'31		retrograde	-501 Dec 11 j 22:55	3°൬03'14	
	-508 Aug 28 j 16:33	15°Ω		opposition	-500 Feb 26 j 13:42	1°൬42'01	17°14'44
retrograde	-508 Nov 24 j 17:06	16°Ω51'31		min. Earth dist.	-500 Feb 29 j 00:17	1°൬37'58	29.92664 AU
opposition	-507 Feb 09 j 13:17	15°Ω32'44	15°21'35	direct	-500 May 16 j 16:32	0°൬17'17	
min. Earth dist.	-507 Feb 12 j 10:26	15°Ω28'07	31.18816 AU	max. Earth dist.	-500 Aug 29 j 22:45	2°൬49'49	31.76533 AU
	-507 Mar 02 j 12:24	15°℞Ω					
direct	-507 May 01 j 02:52	14°Ω10'31		conjunction	-500 Sep 01 j 12:56	2°൬55'50	16°15'44
	-507 Jun 27 j 11:39	15°Ω		minimum elong	-500 Sep 01 j 12:42	2°൬55'49	16°15'45
evening set	-507 Aug 12 j 14:19	16°Ω31'25		retrograde	-500 Dec 13 j 18:40	5°൬29'44	
max. Earth dist.	-507 Aug 13 j 04:30	16°Ω32'43	33.01695 AU	opposition	-499 Feb 28 j 06:48	4°൬08'14	17°25'05
				min. Earth dist.	-499 Mar 02 j 15:13	4°൬04'19	29.77747 AU
conjunction	-507 Aug 16 j 07:02	16°Ω39'31	14°36'10	direct	-499 May 19 j 09:38	2°൬43'15	
minimum elong	-507 Aug 16 j 06:39	16°Ω39'29	14°36'11	max. Earth dist.	-499 Sep 01 j 18:47	5°൬17'08	31.61824 AU
morning rise	-507 Aug 19 j 22:49	16°Ω47'32					
retrograde	-507 Nov 27 j 05:54	19°Ω04'29		conjunction	-499 Sep 04 j 06:25	5°൬22'57	16°24'23
opposition	-506 Feb 12 j 00:19	17°Ω45'17	15°41'33	minimum elong	-499 Sep 04 j 06:12	5°൬22'55	16°24'23
min. Earth dist.	-506 Feb 14 j 19:22	17°Ω40'46	30.98522 AU	retrograde	-499 Dec 16 j 12:38	7°൬57'56	
direct	-506 May 03 j 13:51	16°Ω22'37		opposition	-498 Mar 03 j 00:56	6°൬36'09	17°33'46
evening set	-506 Aug 16 j 22:56	18°Ω48'59		min. Earth dist.	-498 Mar 05 j 08:29	6°൬32'18	29.63568 AU
max. Earth dist.	-506 Aug 15 j 17:52	18°Ω46'18	32.81433 AU	direct	-498 May 22 j 03:09	5°൬10'56	
				max. Earth dist.	-498 Sep 04 j 14:27	7°൬45'59	31.47905 AU
conjunction	-506 Aug 18 j 19:26	18°Ω53'05	14°54'06	conjunction	-498 Sep 07 j 00:21	7°൬51'40	16°31'26
minimum elong	-506 Aug 18 j 19:04	18°Ω53'03	14°54'06	minimum elong	-498 Sep 07 j 00:11	7°൬51'39	16°31'26
morning rise	-506 Aug 20 j 15:11	18°Ω57'07		retrograde	-498 Dec 19 j 08:47	10°൬27'40	
retrograde	-506 Nov 29 j 17:43	21°Ω19'23		opposition	-497 Mar 05 j 19:37	9°൬05'38	17°40'44
opposition	-505 Feb 14 j 12:23	19°Ω59'47	16°00'24	min. Earth dist.	-497 Mar 08 j 00:19	9°൬01'58	29.50161 AU
min. Earth dist.	-505 Feb 17 j 07:09	19°Ω55'16	30.78910 AU	direct	-497 May 24 j 22:08	7°൬40'10	
direct	-505 May 05 j 23:30	18°Ω36'41		max. Earth dist.	-497 Sep 07 j 11:13	10°൬16'23	31.34793 AU
max. Earth dist.	-505 Aug 18 j 09:31	21°Ω01'58	32.61921 AU				
conjunction	-505 Aug 21 j 08:32	21°Ω08'35	15°10'56	conjunction	-497 Sep 09 j 18:55	10°൬21'53	16°36'50
minimum elong	-505 Aug 21 j 08:10	21°Ω08'33	15°10'56	minimum elong	-497 Sep 09 j 18:45	10°൬21'52	16°36'50
retrograde	-505 Dec 02 j 07:34	23°Ω36'13		retrograde	-497 Dec 22 j 04:01	12°൬58'48	
opposition	-504 Feb 17 j 01:19	22°Ω16'14	16°18'03	opposition	-496 Mar 07 j 15:10	11°൬36'30	17°45'53
min. Earth dist.	-504 Feb 19 j 17:37	22°Ω11'52	30.60059 AU	min. Earth dist.	-496 Mar 09 j 18:51	11°൬32'53	29.37564 AU
direct	-504 May 07 j 11:09	20°Ω52'45		direct	-496 May 26 j 16:08	10°൬10'49	
max. Earth dist.	-504 Aug 20 j 00:07	23°Ω19'29	32.43207 AU	max. Earth dist.	-496 Sep 09 j 08:45	12°൬48'07	31.22558 AU
conjunction	-504 Aug 22 j 22:13	23°Ω26'03	15°26'34	conjunction	-496 Sep 11 j 13:42	12°൬53'23	16°40'31
minimum elong	-504 Aug 22 j 21:53	23°Ω26'02	15°26'34	minimum elong	-496 Sep 11 j 13:36	12°൬53'22	16°40'31
retrograde	-504 Dec 03 j 22:21	25°Ω55'01		retrograde	-496 Dec 24 j 00:51	15°൬31'08	
opposition	-503 Feb 18 j 15:07	24°Ω34'42	16°34'22	opposition	-495 Mar 10 j 11:06	14°൬08'36	17°49'10
min. Earth dist.	-503 Feb 21 j 06:33	24°Ω30'21	30.42020 AU	min. Earth dist.	-495 Mar 12 j 11:37	14°൬05'12	29.25824 AU
direct	-503 May 09 j 21:34	23°Ω10'51		direct	-495 May 29 j 12:33	12°൬42'43	
max. Earth dist.	-503 Aug 22 j 17:46	25°Ω39'11	32.25329 AU	max. Earth dist.	-495 Sep 12 j 06:07	15°൬20'57	31.11235 AU
conjunction	-503 Aug 25 j 12:53	25°Ω45'32	15°40'56	conjunction	-495 Sep 14 j 09:00	15°൬26'02	16°42'26
minimum elong	-503 Aug 25 j 12:33	25°Ω45'30	15°40'55	minimum elong	-495 Sep 14 j 08:55	15°൬26'01	16°42'26
retrograde	-503 Dec 06 j 12:49	28°Ω15'48		retrograde	-495 Dec 26 j 19:40	18°൬04'32	
opposition	-502 Feb 21 j 05:39	26°Ω55'09	16°49'19	opposition	-494 Mar 13 j 07:34	16°൬41'46	17°50'31
min. Earth dist.	-502 Feb 23 j 19:05	26°Ω50'56	30.24782 AU	min. Earth dist.	-494 Mar 15 j 06:39	16°൬38'27	29.15018 AU

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Attention, astronomical year style is used: The year -494 in astronomical counting style is the year 495 BCE in historical counting style.

direct	-494 Jun 01 j 07:16	15° <u>17</u> 15'42		direct	-486 Jun 22 j 11:54	6° <u>20</u> 05'06	
max. Earth dist.	-494 Sep 15 j 05:27	17° <u>17</u> 54'56	31.00924 AU				
conjunction	-494 Sep 17 j 04:36	17° <u>17</u> 59'40	16°42'31	conjunction	-486 Oct 07 j 22:02	8° <u>20</u> 50'24	15°33'52
minimum elong	-494 Sep 17 j 04:35	17° <u>17</u> 59'39	16°42'30	minimum elong	-486 Oct 07 j 22:17	8° <u>20</u> 50'25	15°33'51
retrograde	-494 Dec 29 j 15:26	20° <u>17</u> 38'49		max. Earth dist.	-486 Oct 07 j 00:46	8° <u>20</u> 48'14	30.59598 AU
opposition	-493 Mar 16 j 04:38	19° <u>17</u> 15'52	17°49'51	retrograde	-485 Jan 19 j 13:32	11° <u>20</u> 31'35	
min. Earth dist.	-493 Mar 18 j 00:19	19° <u>17</u> 12'46	29.05219 AU	opposition	-485 Apr 06 j 15:55	10° <u>20</u> 08'13	16°29'31
direct	-493 Jun 04 j 04:42	17° <u>17</u> 49'38		min. Earth dist.	-485 Apr 07 j 12:08	10° <u>20</u> 06'48	28.67087 AU
max. Earth dist.	-493 Sep 18 j 03:18	20° <u>17</u> 29'37	30.91693 AU	direct	-485 Jun 25 j 10:32	8° <u>20</u> 42'19	
conjunction	-493 Sep 20 j 00:15	20° <u>17</u> 34'09	16°40'42	conjunction	-485 Oct 10 j 17:57	11° <u>20</u> 27'14	15°16'51
minimum elong	-493 Sep 20 j 00:14	20° <u>17</u> 34'09	16°40'43	minimum elong	-485 Oct 10 j 18:14	11° <u>20</u> 27'15	15°16'51
retrograde	-492 Jan 01 j 12:20	23° <u>17</u> 13'53		max. Earth dist.	-485 Oct 09 j 23:40	11° <u>20</u> 25'22	30.59392 AU
opposition	-492 Mar 18 j 02:09	21° <u>17</u> 50'45	17°47'07	retrograde	-484 Jan 22 j 11:15	14° <u>20</u> 08'10	
min. Earth dist.	-492 Mar 19 j 19:19	21° <u>17</u> 47'51	28.96522 AU	opposition	-484 Apr 08 j 14:42	12° <u>20</u> 44'50	16°10'25
direct	-492 Jun 05 j 23:33	20° <u>17</u> 24'26		min. Earth dist.	-484 Apr 09 j 06:54	12° <u>20</u> 43'42	28.67093 AU
max. Earth dist.	-492 Sep 20 j 03:41	23° <u>17</u> 05'17	30.83627 AU	direct	-484 Jun 27 j 11:30	11° <u>20</u> 19'04	
conjunction	-492 Sep 21 j 20:18	23° <u>17</u> 09'23	16°36'58	evening set	-484 Oct 11 j 13:35	14° <u>20</u> 01'02	
minimum elong	-492 Sep 21 j 20:22	23° <u>17</u> 09'23	16°36'57	conjunction	-484 Oct 12 j 13:46	14° <u>20</u> 03'29	14°58'05
retrograde	-491 Jan 03 j 07:31	25° <u>17</u> 49'37		minimum elong	-484 Oct 12 j 14:05	14° <u>20</u> 03'31	14°58'05
opposition	-491 Mar 20 j 23:53	24° <u>17</u> 26'22	17°42'17	max. Earth dist.	-484 Oct 11 j 22:38	14° <u>20</u> 01'57	30.60213 AU
min. Earth dist.	-491 Mar 22 j 13:49	24° <u>17</u> 23'41	28.88960 AU	morning rise	-484 Oct 13 j 14:36	14° <u>20</u> 06'00	
direct	-491 Jun 08 j 21:25	23° <u>17</u> 00'00		retrograde	-483 Jan 24 j 06:33	16° <u>20</u> 44'05	
max. Earth dist.	-491 Sep 23 j 02:00	25° <u>17</u> 41'24	30.76756 AU	opposition	-483 Apr 11 j 13:14	15° <u>20</u> 20'47	15°49'29
conjunction	-491 Sep 24 j 16:26	25° <u>17</u> 45'17	16°31'16	min. Earth dist.	-483 Apr 12 j 03:18	15° <u>20</u> 19'48	28.68123 AU
minimum elong	-491 Sep 24 j 16:30	25° <u>17</u> 45'18	16°31'16	direct	-483 Jun 30 j 09:39	13° <u>20</u> 55'09	
retrograde	-490 Jan 06 j 04:48	28° <u>17</u> 25'56		evening set	-483 Oct 11 j 22:35	16° <u>20</u> 30'36	
opposition	-490 Mar 23 j 22:01	27° <u>17</u> 02'36	17°35'20	conjunction	-483 Oct 15 j 09:13	16° <u>20</u> 38'57	14°37'39
min. Earth dist.	-490 Mar 25 j 08:44	27° <u>17</u> 00'09	28.82570 AU	minimum elong	-483 Oct 15 j 09:34	16° <u>20</u> 38'59	14°37'39
direct	-490 Jun 11 j 18:11	25° <u>17</u> 36'14		max. Earth dist.	-483 Oct 14 j 21:40	16° <u>20</u> 37'47	30.62094 AU
max. Earth dist.	-490 Sep 26 j 02:51	28° <u>17</u> 18'20	30.71073 AU	morning rise	-483 Oct 18 j 20:25	16° <u>20</u> 47'22	
conjunction	-490 Sep 27 j 12:45	28° <u>17</u> 21'47	16°23'37	retrograde	-482 Jan 27 j 02:14	19° <u>20</u> 19'05	
minimum elong	-490 Sep 27 j 12:53	28° <u>17</u> 21'47	16°23'36	opposition	-482 Apr 14 j 11:32	17° <u>20</u> 55'51	15°26'45
retrograde	-490 Nov 09 j 19:13	0° <u>20</u> 02'44		min. Earth dist.	-482 Apr 14 j 21:42	17° <u>20</u> 55'08	28.70188 AU
opposition	-489 Jan 09 j 00:52	1° <u>20</u> 02'44		direct	-482 Jul 03 j 09:53	16° <u>20</u> 30'22	
min. Earth dist.	-489 Mar 14 j 13:04	30° <u>17</u> 39'22	17°26'17	evening set	-482 Oct 13 j 08:15	19° <u>20</u> 01'46	
direct	-489 Mar 26 j 20:33	29° <u>17</u> 37'06	28.77313 AU	conjunction	-482 Oct 18 j 04:02	19° <u>20</u> 13'27	14°15'35
max. Earth dist.	-489 Jun 14 j 15:31	28° <u>17</u> 13'03		minimum elong	-482 Oct 18 j 04:23	19° <u>20</u> 13'29	14°15'34
retrograde	-489 Sep 05 j 17:46	0° <u>20</u> 55'30	30.66557 AU	max. Earth dist.	-482 Oct 17 j 19:20	19° <u>20</u> 12'34	30.65046 AU
conjunction	-489 Sep 30 j 09:02	0° <u>20</u> 58'42	16°14'01	morning rise	-482 Oct 23 j 00:19	19° <u>20</u> 25'10	
minimum elong	-489 Sep 30 j 09:11	0° <u>20</u> 58'43	16°14'01	retrograde	-481 Jan 29 j 21:59	21° <u>20</u> 53'02	
retrograde	-488 Jan 11 j 22:59	3° <u>20</u> 39'54		opposition	-481 Apr 17 j 09:38	20° <u>20</u> 29'51	15°02'17
opposition	-488 Mar 28 j 19:11	2° <u>20</u> 16'30	17°15'07	min. Earth dist.	-481 Apr 17 j 16:48	20° <u>20</u> 29'21	28.73355 AU
min. Earth dist.	-488 Mar 29 j 23:32	2° <u>20</u> 14'30	28.73182 AU	direct	-481 Jul 06 j 07:50	19° <u>20</u> 04'33	
direct	-488 Jun 16 j 13:35	0° <u>20</u> 50'15		evening set	-481 Oct 15 j 00:21	21° <u>20</u> 32'32	
max. Earth dist.	-488 Oct 01 j 02:05	3° <u>20</u> 33'08	30.63162 AU	conjunction	-481 Oct 20 j 22:31	21° <u>20</u> 46'48	13°51'56
conjunction	-488 Oct 02 j 05:24	3° <u>20</u> 35'55	16°02'30	minimum elong	-481 Oct 20 j 22:53	21° <u>20</u> 46'51	13°51'57
minimum elong	-488 Oct 02 j 05:36	3° <u>20</u> 35'56	16°02'29	max. Earth dist.	-481 Oct 20 j 18:09	21° <u>20</u> 46'22	30.69144 AU
retrograde	-487 Jan 13 j 19:12	6° <u>20</u> 17'13		morning rise	-481 Oct 26 j 21:03	22° <u>20</u> 01'07	
opposition	-487 Mar 31 j 18:05	4° <u>20</u> 53'49	17°01'55	retrograde	-480 Feb 01 j 14:55	24° <u>20</u> 25'46	
min. Earth dist.	-487 Apr 01 j 20:17	4° <u>20</u> 51'59	28.70115 AU	opposition	-480 Apr 19 j 07:13	23° <u>20</u> 02'41	14°36'09
direct	-487 Jun 19 j 12:47	3° <u>20</u> 27'41		min. Earth dist.	-480 Apr 19 j 10:44	23° <u>20</u> 02'26	28.77663 AU
max. Earth dist.	-487 Oct 04 j 00:48	6° <u>20</u> 10'41	30.60856 AU	direct	-480 Jul 08 j 07:05	21° <u>20</u> 37'36	
conjunction	-487 Oct 05 j 01:42	6° <u>20</u> 13'13	15°49'06	evening set	-480 Oct 15 j 19:21	24° <u>20</u> 02'27	
minimum elong	-487 Oct 05 j 01:55	6° <u>20</u> 13'15	15°49'06	conjunction	-480 Oct 22 j 16:17	24° <u>20</u> 18'56	13°26'49
retrograde	-486 Jan 16 j 17:04	8° <u>20</u> 54'31		minimum elong	-480 Oct 22 j 16:39	24° <u>20</u> 18'59	13°26'48
opposition	-486 Apr 03 j 16:50	7° <u>20</u> 31'08	16°46'42	max. Earth dist.	-480 Oct 22 j 14:36	24° <u>20</u> 18'46	30.74421 AU
min. Earth dist.	-486 Apr 04 j 15:04	7° <u>20</u> 29'34	28.68090 AU	morning rise	-480 Oct 29 j 13:38	24° <u>20</u> 35'28	
				retrograde	-479 Feb 03 j 08:52	26° <u>20</u> 57'13	
				opposition	-479 Apr 22 j 04:22	25° <u>20</u> 34'15	14°08'27
				min. Earth dist.	-479 Apr 22 j 04:07	25° <u>20</u> 34'16	28.83170 AU
				direct	-479 Jul 11 j 03:35	24° <u>20</u> 09'25	

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Attention, astronomical year style is used: The year -479 in astronomical counting style is the year 480 BCE in historical counting style.

evening set	-479 Oct 17 j 16:25	26° <u>♂</u> 31'23		max. Earth dist.	-473 Nov 10 j 03:14	11° <u>♂</u> 28'54	31.42929 AU
				morning rise	-473 Nov 20 j 17:35	11° <u>♂</u> 53'19	
conjunction	-479 Oct 25 j 09:43	26° <u>♂</u> 49'49	13°00'16	retrograde	-472 Feb 20 j 22:31	13° <u>♂</u> 58'53	
minimum elong	-479 Oct 25 j 10:07	26° <u>♂</u> 49'52	13°00'15	opposition	-472 May 09 j 17:36	12° <u>♂</u> 37'38	10°19'29
max. Earth dist.	-479 Oct 25 j 12:43	26° <u>♂</u> 50'07	30.80908 AU	min. Earth dist.	-472 May 08 j 19:21	12° <u>♂</u> 39'08	29.52595 AU
morning rise	-479 Nov 02 j 03:13	27° <u>♂</u> 08'17		direct	-472 Jul 28 j 17:51	11° <u>♂</u> 15'22	
retrograde	-478 Feb 06 j 00:48	29° <u>♂</u> 27'21		evening set	-472 Oct 29 j 19:24	13° <u>♂</u> 20'17	
opposition	-478 Apr 25 j 01:03	28° <u>♂</u> 04'34	13°39'16				
min. Earth dist.	-478 Apr 24 j 21:42	28° <u>♂</u> 04'47	28.89863 AU	conjunction	-472 Nov 10 j 18:38	13° <u>♂</u> 47'40	9°23'23
direct	-478 Jul 14 j 00:41	26° <u>♂</u> 40'02		minimum elong	-472 Nov 10 j 19:00	13° <u>♂</u> 47'42	9°23'23
evening set	-478 Oct 19 j 14:49	28° <u>♂</u> 59'15		max. Earth dist.	-472 Nov 11 j 19:11	13° <u>♂</u> 50'01	31.56513 AU
				morning rise	-472 Nov 22 j 17:52	14° <u>♂</u> 15'03	
conjunction	-478 Oct 28 j 02:27	29° <u>♂</u> 19'25	12°32'23		-472 Dec 13 j 13:34	15° <u>♂</u>	
minimum elong	-478 Oct 28 j 02:51	29° <u>♂</u> 19'27	12°32'22	retrograde	-471 Feb 22 j 11:06	16° <u>♂</u> 18'38	
max. Earth dist.	-478 Oct 28 j 07:59	29° <u>♂</u> 19'58	30.88594 AU		-471 May 10 j 23:15	15° <u>♂</u>	
morning rise	-478 Nov 05 j 14:26	29° <u>♂</u> 39'36		min. Earth dist.	-471 May 11 j 08:35	14° <u>♂</u> 59'23	29.66211 AU
	-478 Nov 14 j 07:49	0° <u>♂</u>		opposition	-471 May 12 j 10:05	14° <u>♂</u> 57'41	9°43'11
retrograde	-477 Feb 08 j 18:25	1° <u>♂</u> 56'09		direct	-471 Jul 31 j 12:21	13° <u>♂</u> 35'48	
opposition	-477 Apr 27 j 21:13	0° <u>♂</u> 33'35	13°08'42		-471 Oct 13 j 23:47	15° <u>♂</u>	
min. Earth dist.	-477 Apr 27 j 13:32	0° <u>♂</u> 34'07	28.97744 AU	evening set	-471 Oct 31 j 21:28	15° <u>♂</u> 38'36	
	-477 May 18 j 20:32	30° <u>♂</u>					
direct	-477 Jul 16 j 20:15	29° <u>♂</u> 09'23		conjunction	-471 Nov 13 j 06:57	16° <u>♂</u> 06'45	8°49'16
	-477 Sep 10 j 16:25	0° <u>♂</u>		minimum elong	-471 Nov 13 j 07:18	16° <u>♂</u> 06'47	8°49'16
evening set	-477 Oct 21 j 13:59	1° <u>♂</u> 25'59		max. Earth dist.	-471 Nov 14 j 09:33	16° <u>♂</u> 09'16	31.70865 AU
				morning rise	-471 Nov 25 j 16:39	16° <u>♂</u> 34'55	
conjunction	-477 Oct 30 j 18:39	1° <u>♂</u> 47'42	12°03'18	retrograde	-470 Feb 25 j 00:31	18° <u>♂</u> 36'36	
minimum elong	-477 Oct 30 j 19:03	1° <u>♂</u> 47'45	12°03'18	min. Earth dist.	-470 May 13 j 21:53	17° <u>♂</u> 17'45	29.80626 AU
max. Earth dist.	-477 Oct 31 j 04:43	1° <u>♂</u> 48'42	30.97432 AU	opposition	-470 May 15 j 01:55	17° <u>♂</u> 15'54	9°06'20
morning rise	-477 Nov 08 j 23:24	2° <u>♂</u> 09'27		direct	-470 Aug 03 j 05:05	15° <u>♂</u> 54'23	
retrograde	-476 Feb 11 j 09:05	4° <u>♂</u> 23'37		evening set	-470 Nov 02 j 23:35	17° <u>♂</u> 55'09	
opposition	-476 Apr 29 j 16:58	3° <u>♂</u> 01'17	12°36'53				
min. Earth dist.	-476 Apr 29 j 06:50	3° <u>♂</u> 01'59	29.06740 AU	conjunction	-470 Nov 15 j 18:39	18° <u>♂</u> 23'58	8°14'39
direct	-476 Jul 18 j 16:12	1° <u>♂</u> 37'28		minimum elong	-470 Nov 15 j 18:58	18° <u>♂</u> 24'00	8°14'38
evening set	-476 Oct 22 j 14:10	3° <u>♂</u> 51'33		max. Earth dist.	-470 Nov 17 j 00:40	18° <u>♂</u> 26'48	31.86003 AU
				morning rise	-470 Nov 28 j 13:40	18° <u>♂</u> 52'48	
conjunction	-476 Nov 01 j 10:15	4° <u>♂</u> 14'40	11°33'05	retrograde	-469 Feb 27 j 11:04	20° <u>♂</u> 52'39	
minimum elong	-476 Nov 01 j 10:39	4° <u>♂</u> 14'42	11°33'05	min. Earth dist.	-469 May 16 j 10:27	19° <u>♂</u> 34'14	29.95832 AU
max. Earth dist.	-476 Nov 01 j 22:39	4° <u>♂</u> 15'53	31.07361 AU	opposition	-469 May 17 j 16:59	19° <u>♂</u> 32'13	8°29'01
morning rise	-476 Nov 11 j 06:34	4° <u>♂</u> 37'48		direct	-469 Aug 05 j 22:47	18° <u>♂</u> 11'05	
retrograde	-475 Feb 13 j 01:44	6° <u>♂</u> 49'41		evening set	-469 Nov 05 j 01:45	20° <u>♂</u> 09'51	
opposition	-475 May 02 j 11:49	5° <u>♂</u> 27'37	12°03'56				
min. Earth dist.	-475 May 01 j 21:29	5° <u>♂</u> 28'35	29.16792 AU	conjunction	-469 Nov 18 j 05:18	20° <u>♂</u> 39'14	7°39'38
direct	-475 Jul 21 j 10:49	4° <u>♂</u> 04'10		minimum elong	-469 Nov 18 j 05:37	20° <u>♂</u> 39'16	7°39'38
evening set	-475 Oct 24 j 14:48	6° <u>♂</u> 15'51		max. Earth dist.	-469 Nov 19 j 13:10	20° <u>♂</u> 42'14	32.01927 AU
				morning rise	-469 Dec 01 j 09:10	21° <u>♂</u> 08'40	
conjunction	-475 Nov 04 j 01:22	6° <u>♂</u> 40'13	11°01'53	retrograde	-468 Feb 29 j 21:30	23° <u>♂</u> 06'45	
minimum elong	-475 Nov 04 j 01:46	6° <u>♂</u> 40'15	11°01'54	min. Earth dist.	-468 May 17 j 21:19	21° <u>♂</u> 48'49	30.11874 AU
max. Earth dist.	-475 Nov 04 j 17:34	6° <u>♂</u> 41'48	31.18295 AU	opposition	-468 May 19 j 07:14	21° <u>♂</u> 46'35	7°51'20
morning rise	-475 Nov 14 j 12:00	7° <u>♂</u> 04'36		direct	-468 Aug 07 j 13:03	20° <u>♂</u> 25'49	
retrograde	-474 Feb 15 j 16:14	9° <u>♂</u> 14'18		evening set	-468 Nov 06 j 03:55	22° <u>♂</u> 22'41	
opposition	-474 May 05 j 06:27	7° <u>♂</u> 52'31	11°29'58				
min. Earth dist.	-474 May 04 j 14:10	7° <u>♂</u> 53'37	29.27827 AU	conjunction	-468 Nov 19 j 15:27	22° <u>♂</u> 52'34	7°04'17
direct	-474 Jul 24 j 04:44	6° <u>♂</u> 29'28		minimum elong	-468 Nov 19 j 15:44	22° <u>♂</u> 52'36	7°04'16
evening set	-474 Oct 26 j 15:59	8° <u>♂</u> 38'49		max. Earth dist.	-468 Nov 21 j 03:07	22° <u>♂</u> 55'54	32.18673 AU
				morning rise	-468 Dec 03 j 03:01	23° <u>♂</u> 22'29	
conjunction	-474 Nov 06 j 15:41	9° <u>♂</u> 04'18	10°29'48	retrograde	-467 Mar 03 j 04:39	25° <u>♂</u> 18'53	
minimum elong	-474 Nov 06 j 16:04	9° <u>♂</u> 04'20	10°29'47	min. Earth dist.	-467 May 20 j 08:41	24° <u>♂</u> 01'21	30.28761 AU
max. Earth dist.	-474 Nov 07 j 10:26	9° <u>♂</u> 06'07	31.30179 AU	opposition	-467 May 21 j 20:35	23° <u>♂</u> 59'00	7°13'21
morning rise	-474 Nov 17 j 15:29	9° <u>♂</u> 29'48		direct	-467 Aug 10 j 04:05	22° <u>♂</u> 38'37	
retrograde	-473 Feb 18 j 08:01	11° <u>♂</u> 37'24		evening set	-467 Nov 08 j 06:18	24° <u>♂</u> 33'41	
min. Earth dist.	-473 May 07 j 04:08	10° <u>♂</u> 17'14	29.39777 AU				
opposition	-473 May 08 j 00:21	10° <u>♂</u> 15'53	10°55'06	conjunction	-467 Nov 22 j 00:43	25° <u>♂</u> 03'59	6°28'42
direct	-473 Jul 27 j 00:49	8° <u>♂</u> 53'14		minimum elong	-467 Nov 22 j 00:59	25° <u>♂</u> 04'00	6°28'42
evening set	-473 Oct 28 j 17:33	11° <u>♂</u> 00'19		max. Earth dist.	-467 Nov 23 j 14:05	25° <u>♂</u> 07'26	32.36263 AU
				morning rise	-467 Dec 05 j 19:29	25° <u>♂</u> 34'18	
conjunction	-473 Nov 09 j 05:30	11° <u>♂</u> 26'49	9°56'56	retrograde	-466 Mar 05 j 14:33	27° <u>♂</u> 29'06	
minimum elong	-473 Nov 09 j 05:53	11° <u>♂</u> 26'51	9°56'56	min. Earth dist.	-466 May 22 j 17:27	26° <u>♂</u> 12'07	30.46519 AU

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

opposition	-466 May 24 j 09:15	26° \mathbb{M} 09'32	6°35'11	conjunction	-460 Dec 05 j 22:37	9° \mathbb{A} 34'34	2°19'19
direct	-466 Aug 12 j 16:35	24° \mathbb{M} 49'33		minimum elong	-460 Dec 05 j 22:42	9° \mathbb{A} 34'35	2°19'18
evening set	-466 Nov 10 j 08:26	26° \mathbb{M} 42'54		max. Earth dist.	-460 Dec 08 j 03:05	9° \mathbb{A} 39'09	33.79158 AU
				morning rise	-460 Dec 20 j 23:53	10° \mathbb{A} 05'51	
conjunction	-466 Nov 24 j 09:15	27° \mathbb{M} 13'31	5°52'58	retrograde	-459 Mar 19 j 13:16	11° \mathbb{A} 51'38	
minimum elong	-466 Nov 24 j 09:29	27° \mathbb{M} 13'32	5°52'57	min. Earth dist.	-459 Jun 05 j 22:40	10° \mathbb{A} 37'55	31.90319 AU
max. Earth dist.	-466 Nov 26 j 02:11	27° \mathbb{M} 17'16	32.54683 AU	opposition	-459 Jun 08 j 05:29	10° \mathbb{A} 34'30	2°09'24
morning rise	-466 Dec 08 j 10:18	27° \mathbb{M} 44'10		direct	-459 Aug 27 j 15:46	9° \mathbb{A} 17'34	
retrograde	-465 Mar 07 j 21:24	29° \mathbb{M} 37'29		evening set	-459 Nov 23 j 00:23	11° \mathbb{A} 01'08	
min. Earth dist.	-465 May 25 j 03:51	28° \mathbb{M} 20'54	30.65115 AU				
opposition	-465 May 26 j 21:20	28° \mathbb{M} 18'13	5°56'54	conjunction	-459 Dec 08 j 02:46	11° \mathbb{A} 32'14	1°44'27
direct	-465 Aug 15 j 04:39	26° \mathbb{M} 58'40		minimum elong	-459 Dec 08 j 02:50	11° \mathbb{A} 32'15	1°44'27
evening set	-465 Nov 12 j 10:46	28° \mathbb{M} 50'23		max. Earth dist.	-459 Dec 10 j 09:46	11° \mathbb{A} 37'00	34.01490 AU
				morning rise	-459 Dec 23 j 05:48	12° \mathbb{A} 03'25	
conjunction	-465 Nov 26 j 17:09	29° \mathbb{M} 21'15	5°17'08	retrograde	-458 Mar 21 j 14:51	13° \mathbb{A} 48'10	
minimum elong	-465 Nov 26 j 17:22	29° \mathbb{M} 21'17	5°17'08	min. Earth dist.	-458 Jun 08 j 05:07	12° \mathbb{A} 34'47	32.12739 AU
max. Earth dist.	-465 Nov 28 j 12:01	29° \mathbb{M} 25'10	32.73906 AU	opposition	-458 Jun 10 j 12:32	12° \mathbb{A} 31'22	1°32'29
morning rise	-465 Dec 10 j 23:53	29° \mathbb{M} 52'10		direct	-458 Aug 30 j 00:28	11° \mathbb{A} 14'49	
	-465 Dec 14 j 16:41	0° \mathbb{A}		evening set	-458 Nov 25 j 02:23	12° \mathbb{A} 57'14	
retrograde	-464 Mar 09 j 05:47	1° \mathbb{A} 44'03					
min. Earth dist.	-464 May 26 j 11:24	0° \mathbb{A} 28'01	30.84493 AU	conjunction	-458 Dec 10 j 05:59	13° \mathbb{A} 28'12	1°09'56
opposition	-464 May 28 j 08:20	0° \mathbb{A} 25'09	5°18'35	minimum elong	-458 Dec 10 j 06:02	13° \mathbb{A} 28'12	1°09'56
	-464 Jun 13 j 23:50	30° \mathbb{R} \mathbb{M}		max. Earth dist.	-458 Dec 12 j 13:32	13° \mathbb{A} 32'59	34.24135 AU
direct	-464 Aug 16 j 15:55	29° \mathbb{M} 06'02		morning rise	-458 Dec 25 j 10:29	13° \mathbb{A} 59'15	
	-464 Oct 15 j 11:55	0° \mathbb{A}		retrograde	-457 Mar 23 j 18:05	15° \mathbb{A} 43'00	
evening set	-464 Nov 13 j 13:02	0° \mathbb{A} 56'12		min. Earth dist.	-457 Jun 10 j 08:42	14° \mathbb{A} 30'04	32.35491 AU
				opposition	-457 Jun 12 j 18:41	14° \mathbb{A} 26'31	0°55'59
conjunction	-464 Nov 28 j 00:19	1° \mathbb{A} 27'16	4°41'18	direct	-457 Sep 01 j 06:48	13° \mathbb{A} 10'21	
minimum elong	-464 Nov 28 j 00:31	1° \mathbb{A} 27'17	4°41'18	evening set	-457 Nov 27 j 04:17	14° \mathbb{A} 51'40	
max. Earth dist.	-464 Nov 29 j 21:51	1° \mathbb{A} 31'22	32.93841 AU				
morning rise	-464 Dec 12 j 12:05	1° \mathbb{A} 58'22		conjunction	-457 Dec 12 j 08:41	15° \mathbb{A} 22'27	0°35'48
retrograde	-463 Mar 11 j 13:44	3° \mathbb{A} 48'54		minimum elong	-457 Dec 12 j 08:42	15° \mathbb{A} 22'27	0°35'49
min. Earth dist.	-463 May 28 j 20:14	2° \mathbb{A} 33'19	31.04582 AU	max. Earth dist.	-457 Dec 14 j 18:22	15° \mathbb{A} 27'22	34.47085 AU
opposition	-463 May 30 j 18:51	2° \mathbb{A} 30'21	4°40'21	morning rise	-457 Dec 27 j 14:01	15° \mathbb{A} 53'19	
direct	-463 Aug 19 j 00:46	1° \mathbb{A} 11'41		retrograde	-456 Mar 24 j 20:01	17° \mathbb{A} 36'08	
evening set	-463 Nov 15 j 15:14	3° \mathbb{A} 00'24		min. Earth dist.	-456 Jun 11 j 13:34	16° \mathbb{A} 23'31	32.58597 AU
				opposition	-456 Jun 14 j 00:06	16° \mathbb{A} 19'56	0°19'56
conjunction	-463 Nov 30 j 06:50	3° \mathbb{A} 31'35	4°05'32	direct	-456 Sep 02 j 12:02	15° \mathbb{A} 04'09	
minimum elong	-463 Nov 30 j 07:00	3° \mathbb{A} 31'36	4°05'32	evening set	-456 Nov 28 j 05:58	16° \mathbb{A} 44'26	
max. Earth dist.	-463 Dec 02 j 06:41	3° \mathbb{A} 35'52	33.14424 AU				
morning rise	-463 Dec 14 j 22:47	4° \mathbb{A} 02'49		conjunction	-456 Dec 13 j 10:42	17° \mathbb{A} 14'59	0°02'09
retrograde	-462 Mar 13 j 20:13	5° \mathbb{A} 52'04		minimum elong	-456 Dec 13 j 10:42	17° \mathbb{A} 14'59	0°02'08
min. Earth dist.	-462 May 31 j 03:24	4° \mathbb{A} 36'59	31.25282 AU	behind sun begin	-456 Dec 13 j 04:20	17° \mathbb{A} 14'29	
opposition	-462 Jun 02 j 04:33	4° \mathbb{A} 33'53	4°02'14	behind sun end	-456 Dec 13 j 17:03	17° \mathbb{A} 15'30	
direct	-462 Aug 21 j 12:28	3° \mathbb{A} 15'40		max. Earth dist.	-456 Dec 15 j 21:45	17° \mathbb{A} 19'59	34.70391 AU
evening set	-462 Nov 17 j 17:38	5° \mathbb{A} 02'59		morning rise	-456 Dec 28 j 16:18	17° \mathbb{A} 45'38	
				desc. node	-455 Jan 05 j 07:04	18° \mathbb{A} 00'25	
conjunction	-462 Dec 02 j 12:40	5° \mathbb{A} 34'14	3°29'55	retrograde	-455 Mar 26 j 22:28	19° \mathbb{A} 27'34	
minimum elong	-462 Dec 02 j 12:48	5° \mathbb{A} 34'15	3°29'54	min. Earth dist.	-455 Jun 13 j 15:55	18° \mathbb{A} 15'23	32.82079 AU
max. Earth dist.	-462 Dec 04 j 13:58	5° \mathbb{A} 38'36	33.35553 AU	opposition	-455 Jun 16 j 04:45	18° \mathbb{A} 11'41	-0°15'37
morning rise	-462 Dec 17 j 08:26	6° \mathbb{A} 05'32		direct	-455 Sep 04 j 17:14	16° \mathbb{A} 56'15	
retrograde	-461 Mar 16 j 04:00	7° \mathbb{A} 53'35		evening set	-455 Nov 30 j 07:31	18° \mathbb{A} 35'36	
min. Earth dist.	-461 Jun 02 j 10:31	6° \mathbb{A} 38'57	31.46537 AU				
opposition	-461 Jun 04 j 13:40	6° \mathbb{A} 35'45	3°24'20	conjunction	-455 Dec 15 j 11:52	19° \mathbb{A} 05'53	-0°31'11
direct	-461 Aug 23 j 21:36	5° \mathbb{A} 17'58		minimum elong	-455 Dec 15 j 11:51	19° \mathbb{A} 05'53	0°31'11
evening set	-461 Nov 19 j 19:48	7° \mathbb{A} 03'59		max. Earth dist.	-455 Dec 18 j 00:24	19° \mathbb{A} 10'57	34.94063 AU
				morning rise	-455 Dec 30 j 17:25	19° \mathbb{A} 36'16	
conjunction	-461 Dec 04 j 18:00	7° \mathbb{A} 35'14	2°54'29	retrograde	-454 Mar 29 j 01:49	21° \mathbb{A} 17'23	
minimum elong	-461 Dec 04 j 18:07	7° \mathbb{A} 35'15	2°54'29	min. Earth dist.	-454 Jun 15 j 18:29	20° \mathbb{A} 05'34	33.05982 AU
max. Earth dist.	-461 Dec 06 j 21:54	7° \mathbb{A} 39'48	33.57163 AU	opposition	-454 Jun 18 j 08:54	20° \mathbb{A} 01'48	-0°50'38
morning rise	-461 Dec 19 j 16:40	8° \mathbb{A} 06'33		direct	-454 Sep 06 j 19:37	18° \mathbb{A} 46'45	
retrograde	-460 Mar 17 j 08:30	9° \mathbb{A} 53'26		evening set	-454 Dec 02 j 08:52	20° \mathbb{A} 25'13	
min. Earth dist.	-460 Jun 03 j 17:37	8° \mathbb{A} 39'14	31.68232 AU				
opposition	-460 Jun 05 j 22:00	8° \mathbb{A} 35'57	2°46'42	conjunction	-454 Dec 17 j 12:41	20° \mathbb{A} 55'12	-1°03'57
direct	-460 Aug 25 j 08:09	7° \mathbb{A} 18'36		minimum elong	-454 Dec 17 j 12:39	20° \mathbb{A} 55'12	1°03'58
evening set	-460 Nov 20 j 22:12	9° \mathbb{A} 03'22		max. Earth dist.	-454 Dec 20 j 03:27	21° \mathbb{A} 00'25	35.18146 AU
				morning rise	-453 Jan 01 j 17:27	21° \mathbb{A} 25'18	

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Attention, astronomical year style is used: The year -453 in astronomical counting style is the year 454 BCE in historical counting style.

retrograde	-453 Mar 31 j 01:23	23° \nearrow 05'40		opposition	-447 Jun 30 j 19:51	2° \searrow 13'35	-4°38'46
min. Earth dist.	-453 Jun 17 j 20:27	21° \nearrow 54'14	33.30288 AU	direct	-447 Sep 19 j 09:05	1° \searrow 01'14	
opposition	-453 Jun 20 j 12:14	21° \nearrow 50'24	-1°25'05	evening set	-447 Dec 14 j 15:26	2° \searrow 34'56	
direct	-453 Sep 09 j 00:39	20° \nearrow 35'45					
evening set	-453 Dec 04 j 10:10	22° \nearrow 13'23		conjunction	-447 Dec 29 j 03:01	3° \searrow 02'08	-4°37'48
				minimum elong	-447 Dec 29 j 02:53	3° \searrow 02'07	4°37'47
conjunction	-453 Dec 19 j 12:44	22° \nearrow 43'03	-1°36'12	max. Earth dist.	-446 Jan 01 j 01:14	3° \searrow 07'40	36.93928 AU
minimum elong	-453 Dec 19 j 12:40	22° \nearrow 43'03	1°36'12	morning rise	-446 Jan 12 j 15:51	3° \searrow 29'27	
max. Earth dist.	-453 Dec 22 j 04:03	22° \nearrow 48'16	35.42603 AU	retrograde	-446 Apr 11 j 15:48	5° \searrow 05'52	
morning rise	-452 Jan 03 j 16:37	23° \nearrow 12'49		min. Earth dist.	-446 Jun 29 j 20:27	3° \searrow 56'59	35.07299 AU
retrograde	-452 Apr 01 j 02:24	24° \nearrow 52'29		opposition	-446 Jul 02 j 19:12	3° \searrow 52'54	-5°08'46
min. Earth dist.	-452 Jun 18 j 21:02	23° \nearrow 41'30	33.54979 AU	direct	-446 Sep 21 j 10:01	2° \searrow 40'52	
opposition	-452 Jun 21 j 14:58	23° \nearrow 37'34	-1°58'57	evening set	-446 Dec 16 j 16:01	4° \searrow 14'03	
direct	-452 Sep 10 j 04:05	22° \nearrow 23'18					
evening set	-452 Dec 05 j 11:16	24° \nearrow 00'10		conjunction	-446 Dec 30 j 23:42	4° \searrow 40'46	-5°05'58
				minimum elong	-446 Dec 30 j 23:33	4° \searrow 40'46	5°05'59
conjunction	-452 Dec 20 j 12:24	24° \nearrow 29'30	-2°07'54	max. Earth dist.	-445 Jan 02 j 21:27	4° \searrow 46'14	37.19291 AU
minimum elong	-452 Dec 20 j 12:19	24° \nearrow 29'29	2°07'55	morning rise	-445 Jan 14 j 08:58	5° \searrow 07'36	
max. Earth dist.	-452 Dec 23 j 06:11	24° \nearrow 34'53	35.67391 AU	retrograde	-445 Apr 13 j 13:55	6° \searrow 43'34	
morning rise	-451 Jan 04 j 14:38	24° \nearrow 58'55		min. Earth dist.	-445 Jul 01 j 17:58	5° \searrow 35'00	35.32803 AU
retrograde	-451 Apr 03 j 00:37	26° \nearrow 37'56		opposition	-445 Jul 04 j 17:55	5° \searrow 30'52	-5°38'05
min. Earth dist.	-451 Jun 20 j 22:44	25° \nearrow 27'18	33.79980 AU	direct	-445 Sep 23 j 08:41	4° \searrow 19'08	
opposition	-451 Jun 23 j 17:03	25° \nearrow 23'21	-2°32'12	evening set	-445 Dec 18 j 16:11	5° \searrow 51'50	
direct	-451 Sep 12 j 08:14	24° \nearrow 09'30					
evening set	-451 Dec 07 j 12:21	25° \nearrow 45'38		conjunction	-444 Jan 01 j 19:57	6° \searrow 18'03	-5°33'31
				minimum elong	-444 Jan 01 j 19:47	6° \searrow 18'02	5°33'31
conjunction	-451 Dec 22 j 11:26	26° \nearrow 14'35	-2°39'03	max. Earth dist.	-444 Jan 04 j 19:18	6° \searrow 23'36	37.44619 AU
minimum elong	-451 Dec 22 j 11:20	26° \nearrow 14'35	2°39'03	morning rise	-444 Jan 16 j 01:04	6° \searrow 44'22	
max. Earth dist.	-451 Dec 25 j 05:33	26° \nearrow 19'58	35.92455 AU	retrograde	-444 Apr 14 j 08:23	8° \searrow 19'55	
morning rise	-450 Jan 06 j 11:51	26° \nearrow 43'39		min. Earth dist.	-444 Jul 02 j 16:38	7° \searrow 11'35	35.58284 AU
retrograde	-450 Apr 04 j 23:27	28° \nearrow 22'03		opposition	-444 Jul 05 j 16:07	7° \searrow 07'28	-6°06'43
min. Earth dist.	-450 Jun 22 j 21:57	27° \nearrow 11'53	34.05241 AU	direct	-444 Sep 24 j 08:34	5° \searrow 56'03	
opposition	-450 Jun 25 j 18:36	27° \nearrow 07'50	-3°04'49	evening set	-444 Dec 19 j 16:17	7° \searrow 28'17	
direct	-450 Sep 14 j 09:59	25° \nearrow 54'22					
evening set	-450 Dec 09 j 13:11	27° \nearrow 29'51		conjunction	-443 Jan 02 j 15:35	7° \searrow 53'58	-6°00'27
				minimum elong	-443 Jan 02 j 15:25	7° \searrow 53'57	6°00'28
conjunction	-450 Dec 24 j 09:56	27° \nearrow 58'23	-3°09'38	max. Earth dist.	-443 Jan 05 j 14:45	7° \searrow 59'28	37.69944 AU
minimum elong	-450 Dec 24 j 09:50	27° \nearrow 58'23	3°09'39	morning rise	-443 Jan 16 j 16:21	8° \searrow 19'46	
max. Earth dist.	-450 Dec 27 j 05:52	28° \nearrow 03'52	36.17710 AU	retrograde	-443 Apr 16 j 02:12	9° \searrow 54'56	
morning rise	-449 Jan 08 j 08:03	28° \nearrow 27'03		min. Earth dist.	-443 Jul 04 j 12:21	8° \searrow 46'56	35.83799 AU
	-449 Mar 19 j 05:54	0° \searrow		opposition	-443 Jul 07 j 13:35	8° \searrow 42'44	-6°34'40
retrograde	-449 Apr 06 j 20:59	0° \searrow 04'55		direct	-443 Sep 26 j 07:42	7° \searrow 31'36	
	-449 Apr 25 j 21:42	30° \nearrow		evening set	-443 Dec 21 j 16:09	9° \searrow 03'24	
min. Earth dist.	-449 Jun 24 j 23:05	28° \nearrow 55'04	34.30679 AU				
opposition	-449 Jun 27 j 19:42	28° \nearrow 51'01	-3°36'48	conjunction	-442 Jan 04 j 10:45	9° \searrow 28'34	-6°26'44
direct	-449 Sep 16 j 11:07	27° \nearrow 37'57		minimum elong	-442 Jan 04 j 10:34	9° \searrow 28'33	6°26'44
evening set	-449 Dec 11 j 14:04	29° \nearrow 12'48		max. Earth dist.	-442 Jan 07 j 11:17	9° \searrow 34'08	37.95315 AU
				morning rise	-442 Jan 18 j 06:51	9° \searrow 53'50	
conjunction	-449 Dec 26 j 08:09	29° \nearrow 40'55	-3°39'37	retrograde	-442 Apr 17 j 20:41	11° \searrow 28'40	
minimum elong	-449 Dec 26 j 08:02	29° \nearrow 40'54	3°39'37	min. Earth dist.	-442 Jul 06 j 09:35	10° \searrow 20'54	36.09406 AU
max. Earth dist.	-449 Dec 29 j 04:37	29° \nearrow 46'24	36.43096 AU	opposition	-442 Jul 09 j 10:47	10° \searrow 16'44	-7°01'55
	-448 Jan 05 j 07:10	0° \searrow		direct	-442 Sep 28 j 05:11	9° \searrow 05'53	
morning rise	-448 Jan 10 j 03:30	0° \searrow 09'09		evening set	-442 Dec 23 j 15:44	10° \searrow 37'19	
retrograde	-448 Apr 07 j 19:38	1° \searrow 46'30					
min. Earth dist.	-448 Jun 25 j 21:57	0° \searrow 37'02	34.56208 AU	conjunction	-441 Jan 06 j 05:28	11° \searrow 01'56	-6°52'23
opposition	-448 Jun 28 j 19:54	0° \searrow 32'56	-4°08'07	minimum elong	-441 Jan 06 j 05:17	11° \searrow 01'55	6°52'24
	-448 Jul 23 j 03:26	30° \nearrow		max. Earth dist.	-441 Jan 09 j 06:45	11° \searrow 07'31	38.20791 AU
direct	-448 Sep 17 j 10:46	29° \nearrow 20'14		morning rise	-441 Jan 19 j 20:31	11° \searrow 26'39	
	-448 Nov 09 j 23:53	0° \searrow		retrograde	-441 Apr 19 j 15:19	13° \searrow 01'12	
evening set	-448 Dec 12 j 14:56	0° \searrow 54'30		min. Earth dist.	-441 Jul 08 j 04:51	11° \searrow 53'45	36.35109 AU
				opposition	-441 Jul 11 j 07:19	11° \searrow 49'32	-7°28'28
conjunction	-448 Dec 27 j 05:49	1° \searrow 22'10	-4°09'01	direct	-441 Sep 30 j 01:38	10° \searrow 39'00	
minimum elong	-448 Dec 27 j 05:41	1° \searrow 22'10	4°09'01	evening set	-441 Dec 25 j 15:23	12° \searrow 10'06	
max. Earth dist.	-448 Dec 30 j 02:46	1° \searrow 27'39	36.68515 AU				
morning rise	-447 Jan 10 j 22:13	1° \searrow 49'57		conjunction	-440 Jan 07 j 23:46	12° \searrow 34'09	-7°17'22
retrograde	-447 Apr 09 j 18:40	3° \searrow 26'50		minimum elong	-440 Jan 07 j 23:34	12° \searrow 34'08	7°17'22
min. Earth dist.	-447 Jun 27 j 21:28	2° \searrow 17'40	34.81771 AU	max. Earth dist.	-440 Jan 11 j 01:20	12° \searrow 39'43	38.46354 AU

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Attention, astronomical year style is used: The year -440 in astronomical counting style is the year 441 BCE in historical counting style.

morning rise	-440 Jan 21 j 09:43	12° $\overline{3}$ 58'19	conjunction	-433 Jan 17 j 21:51	22° $\overline{3}$ 53'41	-9°54'37
retrograde	-440 Apr 20 j 11:24	14° $\overline{3}$ 32'37	minimum elong	-433 Jan 17 j 21:38	22° $\overline{3}$ 53'40	9°54'37
min. Earth dist.	-440 Jul 09 j 00:11	13° $\overline{3}$ 25'28 36.60921 AU	max. Earth dist.	-433 Jan 21 j 01:06	22° $\overline{3}$ 59'08	40.24487 AU
opposition	-440 Jul 12 j 03:18	13° $\overline{3}$ 21'14 -7°54'19	morning rise	-433 Jan 29 j 11:50	23° $\overline{3}$ 13'42	
direct	-440 Sep 30 j 20:11	12° $\overline{3}$ 11'01	retrograde	-433 May 01 j 12:06	24° $\overline{3}$ 47'07	
evening set	-440 Dec 26 j 14:43	13° $\overline{3}$ 41'51	min. Earth dist.	-433 Jul 20 j 07:55	23° $\overline{3}$ 41'53 38.40075 AU	
			opposition	-433 Jul 23 j 12:14	23° $\overline{3}$ 37'44	-10°36'13
conjunction	-439 Jan 08 j 17:45	14° $\overline{3}$ 05'21 -7°41'43	direct	-433 Oct 12 j 04:25	22° $\overline{3}$ 29'41	
minimum elong	-439 Jan 08 j 17:33	14° $\overline{3}$ 05'20 7°41'44	evening set	-432 Jan 08 j 07:55	23° $\overline{3}$ 59'22	
max. Earth dist.	-439 Jan 11 j 20:54	14° $\overline{3}$ 10'59 38.72005 AU				
morning rise	-439 Jan 21 j 22:02	14° $\overline{3}$ 28'57	conjunction	-432 Jan 19 j 13:32	24° $\overline{3}$ 18'40	-10°14'39
retrograde	-439 Apr 22 j 05:20	16° $\overline{3}$ 03'01	minimum elong	-432 Jan 19 j 13:20	24° $\overline{3}$ 18'39	10°14'40
min. Earth dist.	-439 Jul 10 j 19:41	14° $\overline{3}$ 56'10 36.86786 AU	max. Earth dist.	-432 Jan 22 j 17:44	24° $\overline{3}$ 24'08	40.49157 AU
opposition	-439 Jul 13 j 22:56	14° $\overline{3}$ 51'56 -8°19'27	morning rise	-432 Jan 30 j 20:10	24° $\overline{3}$ 38'01	
direct	-439 Oct 02 j 16:18	13° $\overline{3}$ 42'04	retrograde	-432 May 02 j 02:59	26° $\overline{3}$ 11'22	
evening set	-439 Dec 28 j 13:57	15° $\overline{3}$ 12'39	min. Earth dist.	-432 Jul 21 j 01:36	25° $\overline{3}$ 06'18 38.64836 AU	
			opposition	-432 Jul 24 j 04:53	25° $\overline{3}$ 02'13	-10°56'46
conjunction	-438 Jan 10 j 11:05	15° $\overline{3}$ 35'34 -8°05'25	direct	-432 Oct 12 j 22:14	23° $\overline{3}$ 54'24	
minimum elong	-438 Jan 10 j 10:53	15° $\overline{3}$ 35'33 8°05'25	evening set	-431 Jan 09 j 06:37	25° $\overline{3}$ 24'01	
max. Earth dist.	-438 Jan 13 j 13:50	15° $\overline{3}$ 41'08 38.97690 AU				
morning rise	-438 Jan 23 j 09:41	15° $\overline{3}$ 58'35	conjunction	-431 Jan 20 j 04:40	25° $\overline{3}$ 42'39	-10°34'06
retrograde	-438 Apr 24 j 00:33	17° $\overline{3}$ 32'30	minimum elong	-431 Jan 20 j 04:27	25° $\overline{3}$ 42'38	10°34'06
min. Earth dist.	-438 Jul 12 j 13:31	16° $\overline{3}$ 26'00 37.12678 AU	max. Earth dist.	-431 Jan 23 j 07:54	25° $\overline{3}$ 48'02	40.73600 AU
opposition	-438 Jul 15 j 18:11	16° $\overline{3}$ 21'43 -8°43'54	morning rise	-431 Jan 31 j 03:47	26° $\overline{3}$ 01'22	
direct	-438 Oct 04 j 10:39	15° $\overline{3}$ 12'10	retrograde	-431 May 03 j 17:37	27° $\overline{3}$ 34'40	
evening set	-438 Dec 30 j 13:05	16° $\overline{3}$ 42'33	min. Earth dist.	-431 Jul 22 j 16:52	26° $\overline{3}$ 29'52 38.89403 AU	
			opposition	-431 Jul 25 j 21:14	26° $\overline{3}$ 25'43	-11°16'41
conjunction	-437 Jan 12 j 04:18	17° $\overline{3}$ 04'53 -8°28'30	direct	-431 Oct 14 j 14:44	25° $\overline{3}$ 18'09	
minimum elong	-437 Jan 12 j 04:05	17° $\overline{3}$ 04'53 8°28'30	evening set	-430 Jan 11 j 04:55	26° $\overline{3}$ 47'42	
max. Earth dist.	-437 Jan 15 j 08:27	17° $\overline{3}$ 10'32 39.23356 AU				
morning rise	-437 Jan 24 j 20:51	17° $\overline{3}$ 27'20	conjunction	-430 Jan 21 j 19:19	27° $\overline{3}$ 05'41	-10°52'58
retrograde	-437 Apr 25 j 15:33	19° $\overline{3}$ 01'06	minimum elong	-430 Jan 21 j 19:07	27° $\overline{3}$ 05'40	10°52'59
min. Earth dist.	-437 Jul 14 j 09:10	17° $\overline{3}$ 54'51 37.38521 AU	max. Earth dist.	-430 Jan 24 j 23:23	27° $\overline{3}$ 11'05	40.97865 AU
opposition	-437 Jul 17 j 12:59	17° $\overline{3}$ 50'38 -9°07'41	morning rise	-430 Feb 01 j 10:47	27° $\overline{3}$ 23'44	
direct	-437 Oct 06 j 07:03	16° $\overline{3}$ 41'25	retrograde	-430 May 05 j 05:32	28° $\overline{3}$ 57'02	
evening set	-436 Jan 01 j 12:14	18° $\overline{3}$ 11'37	min. Earth dist.	-430 Jul 24 j 09:53	27° $\overline{3}$ 52'22 39.13828 AU	
			opposition	-430 Jul 27 j 13:20	27° $\overline{3}$ 48'17	-11°35'58
conjunction	-436 Jan 13 j 21:11	18° $\overline{3}$ 33'22 -8°50'56	direct	-430 Oct 16 j 09:28	26° $\overline{3}$ 40'57	
minimum elong	-436 Jan 13 j 20:59	18° $\overline{3}$ 33'21 8°50'56	evening set	-429 Jan 13 j 03:21	28° $\overline{3}$ 10'28	
max. Earth dist.	-436 Jan 17 j 00:55	18° $\overline{3}$ 38'57 39.48942 AU				
morning rise	-436 Jan 26 j 07:24	18° $\overline{3}$ 55'12	conjunction	-429 Jan 23 j 09:52	28° $\overline{3}$ 27'47	-11°11'14
retrograde	-436 Apr 26 j 07:29	20° $\overline{3}$ 28'52	minimum elong	-429 Jan 23 j 09:39	28° $\overline{3}$ 27'46	11°11'13
min. Earth dist.	-436 Jul 15 j 02:28	19° $\overline{3}$ 22'57 37.64240 AU	max. Earth dist.	-429 Jan 26 j 13:58	28° $\overline{3}$ 33'10	41.22021 AU
opposition	-436 Jul 18 j 07:16	19° $\overline{3}$ 18'42 -9°30'47	morning rise	-429 Feb 02 j 17:12	28° $\overline{3}$ 45'10	
direct	-436 Oct 07 j 02:33	18° $\overline{3}$ 09'48		-429 Mar 28 j 23:14	0° \approx	
evening set	-435 Jan 02 j 11:17	19° $\overline{3}$ 39'51	retrograde	-429 May 06 j 19:05	0° \approx 18'29	
				-429 Jun 15 j 17:42	30° \overline{R} $\overline{3}$	
conjunction	-435 Jan 14 j 13:40	20° $\overline{3}$ 01'00 -9°12'46	min. Earth dist.	-429 Jul 26 j 00:35	29° $\overline{3}$ 14'04 39.38142 AU	
minimum elong	-435 Jan 14 j 13:27	20° $\overline{3}$ 00'59 9°12'46	opposition	-429 Jul 29 j 04:45	29° $\overline{3}$ 09'57	-11°54'37
max. Earth dist.	-435 Jan 17 j 17:39	20° $\overline{3}$ 06'34 39.74352 AU	direct	-429 Oct 18 j 02:10	28° $\overline{3}$ 02'51	
morning rise	-435 Jan 26 j 17:27	20° $\overline{3}$ 22'14	evening set	-428 Jan 15 j 01:43	29° $\overline{3}$ 32'21	
retrograde	-435 Apr 28 j 01:26	21° $\overline{3}$ 55'49				
min. Earth dist.	-435 Jul 16 j 21:10	20° $\overline{3}$ 50'07 37.89773 AU	conjunction	-428 Jan 24 j 23:58	29° $\overline{3}$ 49'01	-11°28'54
opposition	-435 Jul 20 j 01:20	20° $\overline{3}$ 45'55 -9°53'14	minimum elong	-428 Jan 24 j 23:46	29° $\overline{3}$ 49'00	11°28'55
direct	-435 Oct 08 j 19:16	19° $\overline{3}$ 37'20	max. Earth dist.	-428 Jan 28 j 03:51	29° $\overline{3}$ 54'20	41.46070 AU
evening set	-434 Jan 04 j 10:16	21° $\overline{3}$ 07'15		-428 Jan 31 j 12:42	0° \approx	
			morning rise	-428 Feb 03 j 23:14	0° \approx 05'44	
conjunction	-434 Jan 16 j 06:02	21° $\overline{3}$ 27'47 -9°33'59	retrograde	-428 May 07 j 11:11	1° \approx 39'05	
minimum elong	-434 Jan 16 j 05:50	21° $\overline{3}$ 27'46 9°33'59	min. Earth dist.	-428 Jul 26 j 15:54	0° \approx 34'52 39.62365 AU	
max. Earth dist.	-434 Jan 19 j 10:17	21° $\overline{3}$ 33'20 39.99554 AU	opposition	-428 Jul 29 j 20:02	0° \approx 30'47	-12°12'39
morning rise	-434 Jan 28 j 02:52	21° $\overline{3}$ 48'25		-428 Aug 23 j 15:17	30° \overline{R} $\overline{3}$	
retrograde	-434 Apr 29 j 17:36	23° $\overline{3}$ 21'55	direct	-428 Oct 18 j 15:25	29° $\overline{3}$ 23'55	
min. Earth dist.	-434 Jul 18 j 14:47	22° $\overline{3}$ 16'28 38.15054 AU		-428 Dec 11 j 09:10	0° \approx	
opposition	-434 Jul 21 j 18:56	22° $\overline{3}$ 12'17 -10°15'03	evening set	-427 Jan 15 j 23:52	0° \approx 53'27	
direct	-434 Oct 10 j 13:09	21° $\overline{3}$ 03'59				
evening set	-433 Jan 06 j 09:11	22° $\overline{3}$ 33'47	conjunction	-427 Jan 25 j 13:50	1° \approx 09'27	-11°46'00
			minimum elong	-427 Jan 25 j 13:38	1° \approx 09'26	11°46'00

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Attention, astronomical year style is used: The year -427 in astronomical counting style is the year 428 BCE in historical counting style.

max. Earth dist.	-427 Jan 28 j 18:40	1° \approx 14'48	41.70024 AU	conjunction	-420 Feb 04 j 08:22	10° \approx 13'39	-13°30'24
morning rise	-427 Feb 04 j 04:30	1° \approx 25'30		minimum elong	-420 Feb 04 j 08:11	10° \approx 13'38	13°30'25
retrograde	-427 May 09 j 01:01	2° \approx 58'54		max. Earth dist.	-420 Feb 07 j 10:36	10° \approx 18'38	43.31242 AU
min. Earth dist.	-427 Jul 28 j 07:02	1° \approx 54'54	39.86464 AU	morning rise	-420 Feb 11 j 03:04	10° \approx 24'34	
opposition	-427 Jul 31 j 10:53	1° \approx 50'50	-12°30'04	retrograde	-420 May 17 j 20:27	11° \approx 59'15	
direct	-427 Oct 20 j 06:37	0° \approx 44'14		min. Earth dist.	-420 Aug 06 j 10:48	10° \approx 56'32	41.47991 AU
evening set	-426 Jan 17 j 22:12	2° \approx 13'49		opposition	-420 Aug 09 j 10:55	10° \approx 52'46	-14°16'04
				direct	-420 Oct 29 j 06:02	9° \approx 47'47	
conjunction	-426 Jan 27 j 03:23	2° \approx 29'08	-12°02'31	evening set	-419 Jan 29 j 13:19	11° \approx 18'40	
minimum elong	-426 Jan 27 j 03:11	2° \approx 29'07	12°02'32				
max. Earth dist.	-426 Jan 30 j 07:12	2° \approx 34'23	41.93856 AU	conjunction	-419 Feb 04 j 20:12	11° \approx 28'46	-13°43'19
morning rise	-426 Feb 05 j 09:22	2° \approx 44'29		minimum elong	-419 Feb 04 j 20:03	11° \approx 28'45	13°43'19
retrograde	-426 May 10 j 16:14	4° \approx 18'00		max. Earth dist.	-419 Feb 07 j 21:05	11° \approx 33'39	43.52843 AU
min. Earth dist.	-426 Jul 29 j 20:56	3° \approx 14'15	40.10432 AU	morning rise	-419 Feb 11 j 03:19	11° \approx 38'52	
opposition	-426 Aug 02 j 01:29	3° \approx 10'11	-12°46'52	retrograde	-419 May 19 j 06:48	13° \approx 13'50	
direct	-426 Oct 21 j 19:31	2° \approx 03'49		min. Earth dist.	-419 Aug 07 j 22:48	12° \approx 11'18	41.69607 AU
evening set	-425 Jan 19 j 20:22	3° \approx 33'31		opposition	-419 Aug 10 j 23:24	12° \approx 07'31	-14°29'07
				direct	-419 Oct 30 j 19:42	11° \approx 02'43	
conjunction	-425 Jan 28 j 16:43	3° \approx 48'08	-12°18'28	evening set	-418 Jan 31 j 13:00	12° \approx 33'56	
minimum elong	-425 Jan 28 j 16:31	3° \approx 48'07	12°18'28				
max. Earth dist.	-425 Jan 31 j 21:29	3° \approx 53'26	42.17521 AU	conjunction	-418 Feb 06 j 07:49	12° \approx 43'10	-13°55'44
morning rise	-425 Feb 06 j 13:45	4° \approx 02'47		minimum elong	-418 Feb 06 j 07:39	12° \approx 43'09	13°55'44
retrograde	-425 May 12 j 04:54	5° \approx 36'26		max. Earth dist.	-418 Feb 09 j 08:44	12° \approx 48'01	43.74123 AU
min. Earth dist.	-425 Jul 31 j 12:35	4° \approx 32'50	40.34197 AU	morning rise	-418 Feb 12 j 02:51	12° \approx 52'25	
opposition	-425 Aug 03 j 15:51	4° \approx 28'51	-13°03'06	retrograde	-418 May 20 j 17:24	14° \approx 27'44	
direct	-425 Oct 23 j 10:30	3° \approx 22'45		min. Earth dist.	-418 Aug 09 j 12:27	13° \approx 25'17	41.90945 AU
evening set	-424 Jan 21 j 18:52	4° \approx 52'35		opposition	-418 Aug 12 j 11:43	13° \approx 21'35	-14°41'39
				direct	-418 Nov 01 j 09:14	12° \approx 16'58	
conjunction	-424 Jan 30 j 05:55	5° \approx 06'29	-12°33'53	evening set	-417 Feb 02 j 13:27	13° \approx 48'34	
minimum elong	-424 Jan 30 j 05:44	5° \approx 06'28	12°33'53				
max. Earth dist.	-424 Feb 02 j 09:52	5° \approx 11'42	42.40962 AU	conjunction	-417 Feb 07 j 19:17	13° \approx 56'54	-14°07'39
morning rise	-424 Feb 07 j 17:32	5° \approx 20'26		minimum elong	-417 Feb 07 j 19:08	13° \approx 56'53	14°07'40
retrograde	-424 May 12 j 16:22	6° \approx 54'14		max. Earth dist.	-417 Feb 10 j 20:13	14° \approx 01'44	43.95162 AU
min. Earth dist.	-424 Aug 01 j 01:53	5° \approx 50'54	40.57696 AU	morning rise	-417 Feb 13 j 01:12	14° \approx 05'15	
opposition	-424 Aug 04 j 05:38	5° \approx 46'54	-13°18'45		-417 Mar 22 j 11:36	15° \approx	
direct	-424 Oct 24 j 01:48	4° \approx 41'03		retrograde	-417 May 22 j 03:55	15° \approx 40'58	
evening set	-423 Jan 22 j 17:21	6° \approx 11'03			-417 Jul 24 j 07:17	15° \approx	
				min. Earth dist.	-417 Aug 11 j 00:09	14° \approx 38'42	42.12035 AU
conjunction	-423 Jan 30 j 18:49	6° \approx 24'13	-12°48'46	opposition	-417 Aug 13 j 23:35	14° \approx 35'00	-14°53'39
minimum elong	-423 Jan 30 j 18:38	6° \approx 24'13	12°48'45	direct	-417 Nov 02 j 22:27	13° \approx 30'34	
max. Earth dist.	-423 Feb 02 j 22:16	6° \approx 29'23	42.64099 AU		-416 Feb 02 j 22:29	15° \approx	
morning rise	-423 Feb 07 j 20:55	6° \approx 37'27		evening set	-416 Feb 04 j 14:41	15° \approx 02'39	
retrograde	-423 May 14 j 05:49	8° \approx 11'26					
min. Earth dist.	-423 Aug 02 j 16:53	7° \approx 08'16	40.80873 AU	conjunction	-416 Feb 09 j 06:24	15° \approx 10'00	-14°19'05
opposition	-423 Aug 05 j 19:28	7° \approx 04'20	-13°33'52	minimum elong	-416 Feb 09 j 06:15	15° \approx 10'00	14°19'05
direct	-423 Oct 25 j 15:40	5° \approx 58'44		max. Earth dist.	-416 Feb 12 j 06:12	15° \approx 14'44	44.15971 AU
evening set	-422 Jan 24 j 15:56	7° \approx 28'54		morning rise	-416 Feb 13 j 22:11	15° \approx 17'22	
				retrograde	-416 May 22 j 18:14	16° \approx 53'35	
conjunction	-422 Feb 01 j 07:32	7° \approx 41'21	-13°03'08	min. Earth dist.	-416 Aug 11 j 11:59	15° \approx 51'29	42.32922 AU
minimum elong	-422 Feb 01 j 07:21	7° \approx 41'20	13°03'08	opposition	-416 Aug 14 j 11:10	15° \approx 47'49	-15°05'09
max. Earth dist.	-422 Feb 04 j 11:02	7° \approx 46'29	42.86889 AU		-416 Sep 26 j 21:24	15° \approx	
morning rise	-422 Feb 08 j 23:30	7° \approx 53'50		direct	-416 Nov 03 j 07:17	14° \approx 43'34	
retrograde	-422 May 15 j 19:12	9° \approx 28'02			-416 Dec 09 j 22:48	15° \approx	
min. Earth dist.	-422 Aug 04 j 07:01	8° \approx 25'02	41.03653 AU	evening set	-415 Feb 05 j 17:20	16° \approx 16'15	
opposition	-422 Aug 07 j 08:56	8° \approx 21'09	-13°48'27				
direct	-422 Oct 27 j 04:41	7° \approx 15'46		conjunction	-415 Feb 09 j 17:24	16° \approx 22'32	-14°30'02
evening set	-421 Jan 26 j 14:53	8° \approx 46'09		minimum elong	-415 Feb 09 j 17:17	16° \approx 22'32	14°30'02
				morning rise	-415 Feb 13 j 17:27	16° \approx 28'50	
conjunction	-421 Feb 02 j 20:02	8° \approx 57'50	-13°17'01	max. Earth dist.	-415 Feb 12 j 18:02	16° \approx 27'18	44.36586 AU
minimum elong	-421 Feb 02 j 19:52	8° \approx 57'50	13°17'00	retrograde	-415 May 24 j 06:05	18° \approx 05'40	
max. Earth dist.	-421 Feb 05 j 21:56	9° \approx 02'50	43.09270 AU	min. Earth dist.	-415 Aug 13 j 00:24	17° \approx 03'41	42.53594 AU
morning rise	-421 Feb 10 j 01:39	9° \approx 09'33		opposition	-415 Aug 15 j 22:37	17° \approx 00'05	-15°16'08
retrograde	-421 May 17 j 09:43	10° \approx 43'59		direct	-415 Nov 04 j 17:41	15° \approx 56'02	
min. Earth dist.	-421 Aug 05 j 20:21	9° \approx 41'09	41.26028 AU	evening set	-414 Feb 07 j 22:09	17° \approx 29'28	
opposition	-421 Aug 08 j 22:03	9° \approx 37'19	-14°02'31				
direct	-421 Oct 28 j 15:59	8° \approx 32'08		conjunction	-414 Feb 11 j 03:59	17° \approx 34'33	-14°40'29
evening set	-420 Jan 28 j 13:57	10° \approx 02'45		minimum elong	-414 Feb 11 j 03:50	17° \approx 34'32	14°40'29

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Attention, astronomical year style is used: The year -414 in astronomical counting style is the year 415 BCE in historical counting style.

morning rise	-414 Feb 14 j 09:42	17° \approx 39'37		max. Earth dist.	-406 Feb 23 j 05:25	26° \approx 57'30	46.07881 AU
max. Earth dist.	-414 Feb 14 j 03:24	17° \approx 39'13	44.56997 AU	retrograde	-406 Jun 03 j 20:02	28° \approx 32'40	
retrograde	-414 May 25 j 16:37	19° \approx 17'13		min. Earth dist.	-406 Aug 24 j 03:47	27° \approx 31'47	44.24485 AU
min. Earth dist.	-414 Aug 14 j 10:58	18° \approx 15'28	42.74049 AU	opposition	-406 Aug 26 j 19:18	27° \approx 28'35	-16°34'34
opposition	-414 Aug 17 j 09:48	18° \approx 11'50	-15°26'38	direct	-406 Nov 15 j 18:44	26° \approx 26'02	
direct	-414 Nov 06 j 04:08	17° \approx 08'00					
evening set	-413 Feb 10 j 07:58	18° \approx 42'31		conjunction	-405 Feb 21 j 21:08	28° \approx 00'47	-15°55'19
				minimum elong	-405 Feb 21 j 21:04	28° \approx 00'47	15°55'19
conjunction	-413 Feb 12 j 14:33	18° \approx 46'04	-14°50'29	max. Earth dist.	-405 Feb 24 j 14:58	28° \approx 04'56	46.24999 AU
minimum elong	-413 Feb 12 j 14:25	18° \approx 46'04	14°50'30	retrograde	-405 Jun 05 j 05:01	29° \approx 39'42	
morning rise	-413 Feb 14 j 20:59	18° \approx 49'37		min. Earth dist.	-405 Aug 25 j 13:34	28° \approx 38'54	44.41566 AU
max. Earth dist.	-413 Feb 15 j 14:11	18° \approx 50'44	44.77165 AU	opposition	-405 Aug 28 j 04:19	28° \approx 35'45	-16°41'11
retrograde	-413 May 27 j 00:33	20° \approx 28'19		direct	-405 Nov 17 j 04:16	27° \approx 33'19	
min. Earth dist.	-413 Aug 15 j 23:28	19° \approx 26'40	42.94240 AU				
opposition	-413 Aug 18 j 20:42	19° \approx 23'08	-15°36'38	conjunction	-404 Feb 23 j 06:03	29° \approx 07'42	-16°01'37
direct	-413 Nov 07 j 17:28	18° \approx 19'29		minimum elong	-404 Feb 23 j 06:01	29° \approx 07'42	16°01'36
				max. Earth dist.	-404 Feb 25 j 22:21	29° \approx 11'43	46.41847 AU
conjunction	-412 Feb 14 j 01:00	19° \approx 57'08	-15°00'02		-404 Mar 30 j 22:22	0° \approx	
minimum elong	-412 Feb 14 j 00:53	19° \approx 57'08	15°00'02	retrograde	-404 Jun 05 j 15:55	0° \approx 46'13	
max. Earth dist.	-412 Feb 17 j 00:00	20° \approx 01'45	44.97060 AU		-404 Aug 13 j 16:45	30° \approx	
retrograde	-412 May 27 j 09:13	21° \approx 38'58		min. Earth dist.	-404 Aug 25 j 22:28	29° \approx 45'34	44.58399 AU
min. Earth dist.	-412 Aug 16 j 10:06	20° \approx 37'30	43.14109 AU	opposition	-404 Aug 28 j 13:19	29° \approx 42'25	-16°47'22
opposition	-412 Aug 19 j 07:20	20° \approx 33'59	-15°46'11	direct	-404 Nov 17 j 11:10	28° \approx 40'09	
direct	-412 Nov 08 j 06:04	19° \approx 30'32			-403 Feb 14 j 03:11	0° \approx	
conjunction	-411 Feb 14 j 11:06	21° \approx 07'46	-15°09'08	conjunction	-403 Feb 23 j 14:44	0° \approx 14'10	-16°07'30
minimum elong	-411 Feb 14 j 10:59	21° \approx 07'46	15°09'09	minimum elong	-403 Feb 23 j 14:40	0° \approx 14'09	16°07'30
max. Earth dist.	-411 Feb 17 j 08:56	21° \approx 12'17	45.16599 AU	max. Earth dist.	-403 Feb 26 j 07:26	0° \approx 18'12	46.58449 AU
retrograde	-411 May 28 j 21:03	22° \approx 49'11		retrograde	-403 Jun 06 j 23:34	1° \approx 52'20	
min. Earth dist.	-411 Aug 17 j 21:50	21° \approx 47'51	43.33607 AU	min. Earth dist.	-403 Aug 27 j 08:46	0° \approx 51'44	44.74980 AU
opposition	-411 Aug 20 j 17:56	21° \approx 44'24	-15°55'17	opposition	-403 Aug 29 j 22:13	0° \approx 48'41	-16°53'08
direct	-411 Nov 09 j 15:46	20° \approx 41'08			-403 Oct 15 j 12:11	30° \approx	
conjunction	-410 Feb 15 j 21:20	22° \approx 17'57	-15°17'50	direct	-403 Nov 18 j 20:16	29° \approx 46'33	
minimum elong	-410 Feb 15 j 21:14	22° \approx 17'57	15°17'49		-403 Dec 22 j 16:28	0° \approx	
max. Earth dist.	-410 Feb 18 j 19:14	22° \approx 22'27	45.35742 AU	conjunction	-402 Feb 24 j 23:24	1° \approx 20'14	-16°12'59
retrograde	-410 May 30 j 07:58	23° \approx 58'58		minimum elong	-402 Feb 24 j 23:22	1° \approx 20'14	16°12'59
min. Earth dist.	-410 Aug 19 j 09:20	22° \approx 57'44	43.52662 AU	max. Earth dist.	-402 Feb 27 j 15:09	1° \approx 24'12	46.74824 AU
opposition	-410 Aug 22 j 04:13	22° \approx 54'20	-16°03'58	retrograde	-402 Jun 08 j 06:28	2° \approx 58'04	
direct	-410 Nov 11 j 01:50	21° \approx 51'15		min. Earth dist.	-402 Aug 28 j 16:58	1° \approx 57'39	44.91311 AU
conjunction	-409 Feb 17 j 07:18	23° \approx 27'39	-15°26'07	opposition	-402 Aug 31 j 06:45	1° \approx 54'35	-16°58'29
minimum elong	-409 Feb 17 j 07:12	23° \approx 27'39	15°26'08	direct	-402 Nov 20 j 05:33	0° \approx 52'37	
max. Earth dist.	-409 Feb 20 j 03:07	23° \approx 31'59	45.54436 AU				
retrograde	-409 May 31 j 20:08	25° \approx 08'13		conjunction	-401 Feb 26 j 07:52	2° \approx 26'00	-16°18'05
min. Earth dist.	-409 Aug 20 j 19:44	24° \approx 07'07	43.71254 AU	minimum elong	-401 Feb 26 j 07:49	2° \approx 25'59	16°18'05
opposition	-409 Aug 23 j 14:21	24° \approx 03'46	-16°12'14	max. Earth dist.	-401 Feb 28 j 22:50	2° \approx 29'54	46.90928 AU
direct	-409 Nov 12 j 09:34	23° \approx 00'49		retrograde	-401 Jun 09 j 15:03	4° \approx 03'30	
conjunction	-408 Feb 18 j 17:09	24° \approx 36'49	-15°34'01	min. Earth dist.	-401 Aug 30 j 03:01	3° \approx 03'11	45.07359 AU
minimum elong	-408 Feb 18 j 17:04	24° \approx 36'48	15°34'00	opposition	-401 Sep 01 j 15:20	3° \approx 00'12	-17°03'27
max. Earth dist.	-408 Feb 21 j 12:46	24° \approx 41'07	45.72658 AU	direct	-401 Nov 21 j 14:50	1° \approx 58'25	
retrograde	-408 Jun 01 j 04:47	26° \approx 16'57					
min. Earth dist.	-408 Aug 21 j 07:36	25° \approx 15'53	43.89381 AU	conjunction	-400 Feb 27 j 16:21	3° \approx 31'28	-16°22'48
opposition	-408 Aug 24 j 00:12	25° \approx 12'37	-16°20'05	minimum elong	-400 Feb 27 j 16:20	3° \approx 31'28	16°22'49
direct	-408 Nov 12 j 19:51	24° \approx 09'49		max. Earth dist.	-400 Mar 01 j 07:20	3° \approx 35'22	47.06731 AU
conjunction	-407 Feb 19 j 02:44	25° \approx 45'23	-15°41'31	retrograde	-400 Jun 09 j 23:10	5° \approx 08'41	
minimum elong	-407 Feb 19 j 02:38	25° \approx 45'22	15°41'31	min. Earth dist.	-400 Aug 30 j 11:51	4° \approx 08'31	45.23055 AU
max. Earth dist.	-407 Feb 21 j 21:18	25° \approx 49'36	45.90460 AU	opposition	-400 Sep 01 j 23:29	4° \approx 05'34	-17°08'02
retrograde	-407 Jun 02 j 10:57	27° \approx 25'06		direct	-400 Nov 22 j 00:05	3° \approx 03'57	
min. Earth dist.	-407 Aug 22 j 17:04	26° \approx 24'09	44.07102 AU				
opposition	-407 Aug 25 j 09:47	26° \approx 20'54	-16°27'32	conjunction	-399 Feb 28 j 00:36	4° \approx 36'43	-16°27'10
direct	-407 Nov 14 j 08:15	25° \approx 18'13		minimum elong	-399 Feb 28 j 00:34	4° \approx 36'43	16°27'10
conjunction	-406 Feb 20 j 11:53	26° \approx 53'22	-15°48'37	max. Earth dist.	-399 Mar 02 j 13:34	4° \approx 40'29	47.22166 AU
minimum elong	-406 Feb 20 j 11:49	26° \approx 53'21	15°48'37	retrograde	-399 Jun 11 j 11:09	6° \approx 13'38	
				min. Earth dist.	-399 Aug 31 j 20:41	5° \approx 13'36	45.38362 AU
				opposition	-399 Sep 03 j 07:43	5° \approx 10'41	-17°12'15
				direct	-399 Nov 23 j 04:44	4° \approx 09'14	