Attention, astronomical year style is used: The year -7900 in astronomical counting style is the year 7901 BCE in historical counting style. -7900 Jan 05 j 08:36 3°**х¹**42'41 -7895 Jul 18 i 08:26 0°) evening set -7895 Aug 09 j 07:25 0°\ 27'07 retrograde -7900 Jan 23 j 06:36 6°**₹**06'30 -1°32'06 -7895 Aug 31 j 09:39 30°R≈ conjunction -7900 Jan 23 j 06:32 -7895 Oct 14 j 19:37 6° **₹**06'28 1°32'33 27°≈00'01 -2°36'54 minimum elong opposition max. Earth dist. -7900 Jan 23 j 19:34 -7895 Oct 14 j 00:21 6°**∡**10'51 9.79509 AU min. Earth dist. 27°≈03'58 8.16501 AU -7900 Feb 10 j 08:56 23°≈30'17 morning rise 8°**×**31'43 direct -7895 Dec 21 j 15:02 retrograde -7900 May 28 j 17:08 17°**∡**18'30 -7894 Mar 24 j 11:10 0°**)**€ opposition -7900 Aug 03 j 22:36 13°**х** 45′21 -2°13′33 evening set -7894 Apr 06 j 23:03 1°**)** 38'34 min. Earth dist. -7900 Aug 03 j 10:11 13°**∡**¹47'57 7.77826 AU direct -7900 Oct 08 j 09:45 10°**х** 16′28 conjunction -7894 Apr 24 j 22:51 3°**¥**54'38 -1°56'21 evening set -7899 Jan 20 j 04:25 18°**∡**¹44'28 minimum elong -7894 Apr 24 j 22:55 3°**¥**54'40 1°56'38 -7894 Apr 25 j 22:44 max. Earth dist. 4°**₭**02'13 10.24460 AU -7899 Feb 07 j 05:03 -7894 May 12 j 19:12 conjunction 21°\$\square\$09'20 -1°57'59 morning rise 6°**)**€09'32 minimum elong -7899 Feb 07 j 04:59 21°**х** 09′19 1°58'29 retrograde -7894 Aug 22 j 15:22 13°¥55'58 max. Earth dist. -7899 Feb 07 j 23:30 21°**∡**15'33 9.76999 AU opposition -7894 Oct 28 j 08:25 10°¥30'59 -2°11'00 morning rise -7899 Feb 25 j 09:00 23°**∡**35'15 min. Earth dist. -7894 Oct 27 j 14:48 10°**)** 34'33 8.32795 AU -7899 Apr 22 j 18:48 0°ರ direct -7893 Jan 04 j 21:37 7°**)**€02'15 retrograde -7899 Jun 13 j 04:29 2°る20'58 evening set -7893 Apr 21 j 03:58 14°**¥**59'15 -7899 Aug 04 j 11:33 30°R*x*⁷ opposition -7899 Aug 18 j 23:21 28° × 48'02 -2°41'13 conjunction -7893 May 09 j 01:16 17°**)** 11'59 -1°33'14 min. Earth dist. -7899 Aug 18 j 07:39 28°**₹**'51'21 7.77622 AU minimum elong -7893 May 09 j 01:19 17°**)** 12'01 1°33'24 direct -7899 Oct 23 i 13:20 25°**х** 18′13 max. Earth dist. -7893 May 09 j 22:25 17°**¥**18'35 10.41365 AU -7898 Jan 05 i 07:53 0°정 -7893 May 26 j 18:05 19°\ 23'19 morning rise evening set -7898 Feb 05 j 04:35 3°₹49'17 retrograde -7893 Sep 04 i 10:36 26°**)** 54'46 -7893 Nov 10 j 11:18 23°\(\frac{1}{31'59}\) -1°39'17 opposition -7898 Feb 23 j 06:46 6°る14'06 -2°15'52 -7893 Nov 09 j 20:45 23°**)** 34′53 8.49941 AU conjunction min. Earth dist. -7898 Feb 23 j 06:44 6°**ප**14'05 2°16'24 -7892 Jan 18 j 18:28 20° ¥ 04'26 minimum elong direct -7898 Feb 24 j 05:14 6°る21'38 9.78983 AU evening set -7892 May 03 j 18:53 27°**)** 49'46 max. Earth dist. -7898 Mar 13 j 11:01 8°**る**39'30 morning rise -7898 Jun 28 j 09:20 17°る19'23 -7892 May 21 j 12:55 29°\\$59'04 -1°06'10 conjunction retrograde -7898 Sep 02 j 21:00 29°**升**59'05 1°06'13 -7892 May 21 j 12:58 13°る47'15 -2°57'41 minimum elong opposition -7892 May 21 j 15:57 0° -7898 Sep 02 j 03:10 13°る51'01 7.81842 AU min. Earth dist. -7892 May 22 j 05:37 0°**Υ**04'11 10.58647 AU -7898 Nov 07 j 19:06 max. Earth dist. direct 10°る16'51 -7897 Feb 21 j 03:44 18°**る**47'11 -7892 Jun 08 j 01:55 2°Y06'50 evening set morning rise -7892 Sep 15 j 18:25 9°**Y**24'35 retrograde 21°る10'54 -2°24'29 -7897 Mar 11 j 06:30 -7892 Nov 22 j 04:42 6°**Y**03'52 -1°04'01 conjunction opposition 6°**Υ**05'58 8.67050 AU minimum elong -7897 Mar 11 j 06:29 21°る10'54 2°24'59 min. Earth dist. -7892 Nov 21 j 17:59 max. Earth dist. -7897 Mar 12 j 07:30 21°る19'13 9.85309 AU direct -7891 Jan 31 j 04:58 2°Y37'39 -7897 Mar 29 j 09:55 23°る34'43 -7891 May 16 j 20:18 10°**Y**11'37 morning rise evening set -7897 May 26 j 05:03 0°≈ -7897 Jul 13 j 04:40 2°≈04'38 conjunction -7891 Jun 03 j 10:28 12°Υ17'35 -0°36'53 retrograde -7897 Aug 30 j 21:57 30°Ŗ⋜ -7891 Jun 03 j 10:30 12°Υ17'35 0°36'49 minimum elong -7897 Sep 17 j 13:01 28°る33'48 -3°02'02 -7891 Jun 03 j 21:34 12°**Υ**20'55 10.75440 AU opposition max. Earth dist. -7897 Sep 16 j 17:48 28°る37'50 7.90165 AU -7891 Jun 20 j 19:26 14°**Y**21'56 min. Earth dist. morning rise -7897 Nov 22 j 23:55 25°る03'13 -7891 Sep 27 j 16:27 21°Y27'46 direct retrograde 18°**Y**′08'54 -0°27'15 -7896 Feb 08 i 07:01 0°≈ opposition -7891 Dec 04 i 13:44 evening set 18°**Υ**10'14 8.83297 AU -7896 Mar 07 j 20:46 3°≈29'03 min. Earth dist. -7891 Dec 04 i 06:45 direct -7890 Feb 13 i 05:24 14° Y 44' 05 conjunction -7896 Mar 25 i 23:16 5°≈50'49 -2°23'32 evening set -7890 May 29 i 09:09 22°Y07'31 minimum elong -7896 Mar 25 i 23:18 5°≈50'49 2°24'00 -7896 Mar 27 j 01:22 5°≈59'23 9.95510 AU -7890 Jun 15 i 19:03 24°Υ10'18 -0°06'55 max. Earth dist. conjunction -7896 Apr 13 j 01:00 8°≈12'11 -7890 Jun 15 i 19:03 24°**Y**10′19 0°06'45 morning rise minimum elong -7896 Jun 16 j 05:36 -7890 Jun 15 j 12:25 24°**Y**′08′22 15°≈ behind sun begin 24°**Y**12'15 16°≈29'01 retrograde -7896 Jul 26 j 11:40 behind sun end -7890 Jun 16 j 01:42 -7896 Sep 05 j 05:30 15°R≈ max. Earth dist. -7890 Jun 16 j 00:38 24°Υ11'56 10.90967 AU 26°**Y**11'32 -7896 Sep 30 j 21:04 opposition 12°≈59'55 -2°54'37 morning rise -7890 Jul 02 j 23:43 min. Earth dist. -7896 Sep 30 j 01:21 13°≈04'01 8.01988 AU -7890 Aug 07 j 22:01 0°8 -7896 Dec 06 j 23:24 -7890 Sep 10 j 20:27 2°**8**25'54 direct 9°≈29'33 asc. node -7890 Oct 09 j 06:27 -7895 Feb 28 j 04:14 15°≈ retrograde 3°**8**07'34 -7890 Dec 14 j 11:55 evening set -7895 Mar 23 j 04:06 17°**≈**47'45 30°**Ŗ**♈ 29°**Y**50'14 opposition -7890 Dec 16 j 15:28 0°09'24 conjunction -7895 Apr 10 j 05:39 20°≈06'54 -2°13'42 min. Earth dist. -7890 Dec 16 j 11:55 29°**Y**50′55 8.97949 AU minimum elong -7895 Apr 10 j 05:42 20°≈06'55 2°14'05 direct -7889 Feb 25 j 21:00 26°**Y**26'49 max. Earth dist. -7895 Apr 11 j 07:14 20°≈15'10 10.08857 AU -7889 May 06 j 12:26 0°8

evening set

-7889 Jun 10 j 10:59

3°**8**40'58

22°≈25'12

-7895 Apr 28 j 05:00

morning rise

and the second s			•	* *	AG 18-Feb-2025 14		O -
		-			7890 BCE in historical co		
conjunction	-7889 Jun 27 j 16:32	5° 8 40'54		max. Earth dist.	-7883 Aug 29 j 19:19		11.26473 AU
minimum elong	-7889 Jun 27 j 16:31	5° 8 40'53		morning rise	-7883 Sep 16 j 00:22	12°947'07	
max. Earth dist.	-7889 Jun 27 j 17:37	5° 8 41'13	11.04552 AU	retrograde	-7883 Dec 24 j 21:47	19° © 35'27	
morning rise	-7889 Jul 14 j 16:45	7° 8 39'20		opposition	-7882 Mar 05 j 18:57	16° © 19'21	2°56'48
retrograde	-7889 Oct 20 j 17:02	14° 8 27'50		min. Earth dist.	-7882 Mar 06 j 15:11	16° © 15'40	9.23538 AU
opposition	-7889 Dec 28 j 11:18	11° 8 11'46	0°44'33	direct	-7882 May 16 j 09:14	13° © 00'59	
min. Earth dist.	-7889 Dec 28 j 12:02	11° 8 11'37	9.10392 AU	evening set	-7882 Aug 25 j 07:03	19° © 54'33	
direct	-7888 Mar 09 j 02:32	7° 8 49'38		Ç	S J		
evening set	-7888 Jun 21 j 03:36	14° 8 56'03		conjunction	-7882 Sep 10 j 14:08	21°5947'30	2°27'08
evening set	-7888 Jun 21 j 17:34	15° 8		minimum elong	-7882 Sep 10 j 14:08		2°27'38
	-7666 Juli 21 J 17.54	13 0		_			11.19453 AU
	7000 1 1 00 : 04 20	1.60 4 53133	0050122	max. Earth dist.	-7882 Sep 09 j 14:57		11.19453 AU
conjunction	-7888 Jul 08 j 04:39	16° 8 53'32		morning rise	-7882 Sep 26 j 20:54	23°5540'27	
minimum elong	-7888 Jul 08 j 04:37	16° 8 53'31			-7882 Dec 09 j 10:22	0 $^{\circ}$ Ω	
max. Earth dist.	-7888 Jul 08 j 00:50		11.15658 AU	retrograde	-7881 Jan 05 j 14:39	0° Ω 35'33	
morning rise	-7888 Jul 25 j 00:36	18° 8 49'37			-7881 Feb 02 j 05:39	30° ₹ ∽	
retrograde	-7888 Oct 30 j 21:03	25° 8 32'52		opposition	-7881 Mar 17 j 14:41	27° © 18'14	3°00'03
opposition	-7887 Jan 08 j 02:54	22° 8 17'45	1°17'11	min. Earth dist.	-7881 Mar 18 j 11:17	27° © 14'28	9.15091 AU
min. Earth dist.	-7887 Jan 08 j 08:33	22° 8 16'42	9.20182 AU	direct	-7881 May 27 j 19:30	23°959'45	
direct	-7887 Mar 21 j 00:15	18° 8 56'46			-7881 Aug 28 j 00:17	$0^{\circ}\Omega$	
evening set	-7887 Jul 02 j 12:53	25° 8 57'07		evening set	-7881 Sep 05 j 07:42	0° Ω 56'34	
evening sec	7007 Jul 02 j 12.55	25 057 07		evening sec	7001 Sep 03 j 07.12	0 000001	
agniumation	-7887 Jul 19 j 09:24	27° 8 52'33	1°16'04	aaniumatian	7001 Can 21 : 14:50	2° Ω 50'48	2°26'50
conjunction	•			conjunction	-7881 Sep 21 j 14:59		
minimum elong	-7887 Jul 19 j 09:21	27° 8 52'32	1°16'28	minimum elong	-7881 Sep 21 j 15:00	2° Ω 50'48	2°27'19
max. Earth dist.	-7887 Jul 18 j 23:59		11.23955 AU	max. Earth dist.	-7881 Sep 20 j 15:47		11.09663 AU
morning rise	-7887 Aug 05 j 01:32	29° 8 46'47		morning rise	-7881 Oct 07 j 22:41	4° Ω 45'17	
	-7887 Aug 07 j 00:39	Π $\circ 0$		retrograde	-7880 Jan 17 j 15:11	11° Ω 48'52	
retrograde	-7887 Nov 10 j 23:32	6° Ⅱ 27′01		opposition	-7880 Mar 28 j 15:41	8° £ 30′06	2°56'38
opposition	-7886 Jan 19 j 15:41	3° Ⅱ 12'27	1°46'27	min. Earth dist.	-7880 Mar 29 j 12:10	8° Ω 26′20	9.03994 AU
min. Earth dist.	-7886 Jan 20 j 01:21	3° Ⅱ 10'41	9.27067 AU	direct	-7880 Jun 07 j 07:56	5° Ω 11'18	
	-7886 Mar 20 j 00:39	30° ₹ 8		evening set	-7880 Sep 15 j 13:17	12° Ω 12'56	
direct	-7886 Apr 01 j 18:13	29° 8 52'27		8			
ancer	-7886 Apr 14 j 10:19	0°II		conjunction	-7880 Oct 01 j 21:44	14° Ω 09'03	2°20'53
evening set	-7886 Jul 13 j 16:24	6° Ⅱ 48'20		minimum elong	-7880 Oct 01 j 21:46	14° Ω 09'04	
evening set	-7660 Jul 13 j 10.24	0 д4820		•	_		10.97420 AU
	#006 X 1 20 100 #1	00 T 10 111	1000101	max. Earth dist.	-7880 Sep 30 j 22:00		10.97420 AU
conjunction	-7886 Jul 30 j 08:51		1°38'31		-7880 Oct 09 j 00:52	15° Ω	
minimum elong	-7886 Jul 30 j 08:48		1°39'00	morning rise	-7880 Oct 18 j 07:42	16° Ω 05'44	
max. Earth dist.	-7886 Jul 29 j 19:16	8° Ⅲ 38'18	11.29269 AU	retrograde	-7879 Jan 29 j 01:27	23° Ω 19′26	
	-7880 Jul 29 J 19.10						
morning rise	-7886 Aug 15 j 21:36	10° Ⅱ 35′03		opposition	-7879 Apr 09 j 23:42	19° Ω 59'02	2°46'11
morning rise retrograde		10° Ⅱ 35'03 17° Ⅱ 14'22		=	-7879 Apr 09 j 23:42 -7879 Apr 10 j 20:00		2°46'11 8.90616 AU
retrograde	-7886 Aug 15 j 21:36		2°11'37	opposition	-7879 Apr 10 j 20:00		
retrograde opposition	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04	17° П 14'22 13° П 59'57		opposition min. Earth dist. direct	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58	19° Ω 55'15 16° Ω 39'44	
retrograde opposition min. Earth dist.	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30	17° П 14'22 13° П 59'57 13° П 57'41	2°11'37 9.30893 AU	opposition min. Earth dist.	-7879 Apr 10 j 20:00	19° Ω 55'15	
retrograde opposition min. Earth dist. direct	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52	17°П14'22 13°П59'57 13°П57'41 10°П40'43		opposition min. Earth dist. direct evening set	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34	19° Ω55'15 16° Ω39'44 23° Ω47'36	8.90616 AU
retrograde opposition min. Earth dist.	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30	17° П 14'22 13° П 59'57 13° П 57'41		opposition min. Earth dist. direct evening set conjunction	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13	8.90616 AU 2°09'03
retrograde opposition min. Earth dist. direct evening set	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43	17° П 14'22 13° П 59'57 13° П 57'41 10° П 40'43 17° П 33'40	9.30893 AU	opposition min. Earth dist. direct evening set conjunction minimum elong	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14	8.90616 AU 2°09'03 2°09'24
retrograde opposition min. Earth dist. direct evening set conjunction	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46	17° П 14'22 13° П 59'57 13° П 57'41 10° П 40'43 17° П 33'40 19° П 26'28	9.30893 AU 1°57'20	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11	8.90616 AU 2°09'03
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43	17° П 14'22 13° П 59'57 13° П 57'41 10° П 40'43 17° П 33'40 19° П 26'28 19° П 26'27	9.30893 AU 1°57'20 1°57'51	opposition min. Earth dist. direct evening set conjunction minimum elong	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11 27° Ω45'43	8.90616 AU 2°09'03 2°09'24
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34	17°П14'22 13°П59'57 13°П57'41 10°П40'43 17°П33'40 19°П26'28 19°П26'27 19°П26'50	9.30893 AU 1°57'20	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11 27° Ω45'43 0° M	8.90616 AU 2°09'03 2°09'24
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34 -7885 Aug 26 j 14:38	17° П14'22 13° П59'57 13° П57'41 10° П40'43 17° П33'40 19° П26'28 19° П26'27 19° П21'50 21° П18'29	9.30893 AU 1°57'20 1°57'51	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11 27° Ω45'43 0° m 5° m 11'04	8.90616 AU 2°09'03 2°09'24 10.83139 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06	17°П14'22 13°П59'57 13°П57'41 10°П40'43 17°П33'40 19°П26'28 19°П26'27 19°П26'50	9.30893 AU 1°57'20 1°57'51	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11 27° Ω45'43 0° M	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34 -7885 Aug 26 j 14:38	17° П14'22 13° П59'57 13° П57'41 10° П40'43 17° П33'40 19° П26'28 19° П26'27 19° П21'50 21° П18'29	9.30893 AU 1°57'20 1°57'51	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36	19° Ω55'15 16° Ω39'44 23° Ω47'36 25° Ω46'13 25° Ω46'14 25° Ω39'11 27° Ω45'43 0° m 5° m 11'04	8.90616 AU 2°09'03 2°09'24 10.83139 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06	17° П14'22 13° П59'57 13° П57'41 10° П40'43 17° П33'40 19° П26'28 19° П26'27 19° П21'50 21° П18'29 27° П58'54	9.30893 AU 1°57'20 1°57'51 11.31474 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35	19° \$\Omega 55'15 16° \$\Omega 39'44 23° \$\Omega 46'13 25° \$\Omega 46'14 25° \$\Omega 39'11 27° \$\Omega 45'43 0° \$\Omega 5\$° \$\Omega 11'04 1° \$\Omega 48'51	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Jul 24 j 15:43 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Feb 12 j 05:34	17° П14'22 13° П59'57 13° П57'41 10° П40'43 17° П33'40 19° П26'28 19° П26'27 19° П21'50 21° П18'29 27° П58'54 24° П44'16	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Apr 23 j 10:50 -7878 May 18 j 01:57	19° \$\Omega 55'15 16° \$\Omega 39'44 23° \$\Omega 46'13 25° \$\Omega 46'14 25° \$\Omega 39'11 27° \$\Omega 45'43 0° \$\Omega 50' \$\Omega 11'04 1° \$\Omega 48'51 1° \$\Omega 45'13	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27
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retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 09 j 12:34 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Apr 23 j 17:05 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:02 -7884 Aug 19 j 03:51 -7884 Sep 05 j 06:53 -7884 Dec 13 j 11:38	17° II 14'22 13° II 59'57 13° II 57'41 10° II 40'43 17° II 33'40 19° II 26'28 19° II 26'27 19° II 21'50 21° II 18'29 27° II 58'54 24° II 44'16 24° II 41'31 21° II 25'34 28° II 17'09 0° © 0° © 09'26 0° © 09'25 0° © 09'55 2° © 01'09 8° © 44'33	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05 9.31566 AU 2°12'00 2°12'32 11.30522 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Apr 23 j 10:50 -7878 May 18 j 01:57 -7878 Jul 01 j 00:39 -7878 Oct 08 j 22:42 -7878 Oct 25 j 13:09 -7878 Oct 25 j 13:09 -7878 Oct 24 j 16:24 -7878 Nov 11 j 07:02 -7877 Feb 24 j 02:08	19° \$\Omega 55' 15 16° \$\Omega 39' 44 23° \$\Omega 46' 13 25° \$\Omega 46' 14 25° \$\Omega 39' 11 27° \$\Omega 45' 43 0° \$\mathrm{m}\$ 5° \$\mathrm{m}\$ 11' 04 1° \$\mathrm{m}\$ 48' 51 1° \$\mathrm{m}\$ 48' 51 1° \$\mathrm{m}\$ 45' 13 30° \$\mathrm{n}\$ 28° \$\Omega 28' 51 0° \$\mathrm{m}\$ 5° \$\mathrm{m}\$ 44' 25 7° \$\mathrm{m}\$ 46' 08 7° \$\mathrm{m}\$ 39' 44 9° \$\mathrm{m}\$ 48' 58 17° \$\mathrm{m}\$ 27' 09	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27 8.75434 AU 1°51'19 1°51'35 10.67338 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 26 j 14:38 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Apr 23 j 17:05 -7884 Aug 03 j 12:55 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:02 -7884 Aug 19 j 03:51 -7884 Sep 05 j 06:53 -7884 Dec 13 j 11:38 -7883 Feb 22 j 03:15	17° II 14'22 13° II 59'57 13° II 57'41 10° II 40'43 17° II 33'40 19° II 26'28 19° II 26'27 19° II 21'50 21° II 18'29 27° II 58'54 24° II 44'16 24° II 41'31 21° II 25'34 28° II 17'09 0° II 26'25 0° I	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05 9.31566 AU 2°12'00 2°12'32 11.30522 AU 2°47'19	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Apr 23 j 10:50 -7878 May 18 j 01:57 -7878 Jul 01 j 00:39 -7878 Aug 12 j 12:21 -7878 Oct 08 j 22:42 -7878 Oct 25 j 13:05 -7878 Oct 25 j 13:09 -7878 Oct 24 j 16:24 -7878 Nov 11 j 07:02 -7877 Feb 24 j 02:08 -7877 May 05 j 15:59	19° \$\Omega 55'15 16° \$\Omega 39'44 23° \$\Omega 46'13 25° \$\Omega 46'14 25° \$\Omega 39'11 27° \$\Omega 45'43 0° mp 5° mp 11'04 1° mp 48'51 1° mp 45'13 30° rr \Omega 28' \Omega 28'51 0° mp 5° mp 44'25 7° mp 46'07 7° mp 46'08 7° mp 39'44 9° mp 48'58 17° mp 27'09 14° mp 03'01	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27 8.75434 AU 1°51'19 1°51'35 10.67338 AU 2°03'25
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 26 j 14:38 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Apr 23 j 17:05 -7884 Aug 03 j 12:55 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:02 -7884 Aug 19 j 03:51 -7884 Sep 05 j 06:53 -7884 Dec 13 j 11:38 -7883 Feb 22 j 03:15 -7883 Feb 22 j 21:32	17° II 14'22 13° II 59'57 13° II 57'41 10° II 40'43 17° II 33'40 19° II 26'28 19° II 26'27 19° II 21'50 21° II 18'29 27° II 58'54 24° II 44'16 24° II 41'31 21° II 25'34 28° II 17'09 0° 909'26 0° 909'25 0° 909'25 0° 903'55 2° 901'09 8° 944'33 5° 929'22 5° 926'03	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05 9.31566 AU 2°12'00 2°12'32 11.30522 AU 2°47'19	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Apr 22 j 15:35 -7878 May 18 j 01:57 -7878 Jul 01 j 00:39 -7878 Aug 12 j 12:21 -7878 Oct 08 j 22:42 -7878 Oct 25 j 13:05 -7878 Oct 25 j 13:05 -7878 Oct 24 j 16:24 -7878 Nov 11 j 07:02 -7877 Feb 24 j 02:08 -7877 May 05 j 15:59 -7877 May 06 j 08:37	19° \$\Omega 55'15 16° \$\Omega 39'44 23° \$\Omega 46'13 25° \$\Omega 46'14 25° \$\Omega 39'11 27° \$\Omega 45'43 0° my 5° my 11'04 1° my 48'51 1° my 45'13 30° r \Omega 28' \Omega 28'51 0° my 5° my 44'25 7° my 46'07 7° my 46'08 7° my 39'44 9° my 48'58 17° my 27'09 14° my 03'01 13° my 59'50	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27 8.75434 AU 1°51'19 1°51'35 10.67338 AU 2°03'25
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 10 j 04:43 -7885 Aug 26 j 14:38 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Feb 12 j 05:34 -7884 Aug 03 j 12:55 -7884 Aug 18 j 14:13 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:05 -7884 Aug 19 j 03:51 -7884 Sep 05 j 06:53 -7884 Dec 13 j 11:38 -7883 Feb 22 j 03:15 -7883 Feb 22 j 21:32 -7883 May 05 j 00:03	17° II 14'22 13° II 59'57 13° II 57'41 10° II 40'43 17° II 33'40 19° II 26'28 19° II 26'27 19° II 21'50 21° II 18'29 27° II 58'54 24° II 44'16 24° II 41'31 21° II 25'34 28° II 17'09 0° 909'26 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05 9.31566 AU 2°12'00 2°12'32 11.30522 AU 2°47'19	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Oct 25 j 13:05 -7878 Oct 08 j 22:42 -7878 Oct 25 j 13:05 -7878 Oct 25 j 13:09 -7878 Oct 24 j 16:24 -7878 Nov 11 j 07:02 -7877 Feb 24 j 02:08 -7877 May 05 j 15:59 -7877 May 06 j 08:37 -7877 Jul 13 j 09:18 -7877 Oct 21 j 06:41	19° \$\Omega 55'15 \\ 16° \$\Omega 39'44 \\ 23° \$\Omega 46'13 \\ 25° \$\Omega 46'14 \\ 25° \$\Omega 45'43 \\ 0° \$\mathred{m}\$\\ 5° \$\mathred{m}\$\\ 11'04 \\ 1° \$\mathred{m}\$\\ 48'51 \\ 1° \$\mathred{m}\$\\ 48'51 \\ 0° \$\mathred{m}\$\\ 28° \$\Omega 28'51 \\ 0° \$\mathred{m}\$\\ 5° \$\mathred{m}\$\\ 44'25 \\ 7° \$\mathred{m}\$\\ 46'07 \\ 7° \$\mathred{m}\$\\ 46'07 \\ 7° \$\mathred{m}\$\\ 46'08 \\ 7° \$\mathred{m}\$\\ 46'08 \\ 7° \$\mathred{m}\$\\ 48'58 \\ 17° \$\mathred{m}\$\\ 48'58 \\ 17° \$\mathred{m}\$\\ 48'59'50 \\ 10° \$\mathred{m}\$\\ 42'10 \\ 18° \$\mathred{m}\$\\ 06'44	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27 8.75434 AU 1°51'19 1°51'35 10.67338 AU 2°03'25 8.59041 AU
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retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7886 Aug 15 j 21:36 -7886 Nov 22 j 01:27 -7885 Jan 31 j 03:04 -7885 Jan 31 j 15:30 -7885 Apr 13 j 06:52 -7885 Aug 10 j 04:46 -7885 Aug 10 j 04:43 -7885 Aug 10 j 04:43 -7885 Aug 26 j 14:38 -7885 Aug 26 j 14:38 -7885 Dec 03 j 06:06 -7884 Feb 11 j 14:27 -7884 Feb 12 j 05:34 -7884 Aug 03 j 12:55 -7884 Aug 18 j 14:13 -7884 Aug 19 j 23:05 -7884 Aug 19 j 23:05 -7884 Aug 19 j 03:51 -7884 Sep 05 j 06:53 -7884 Dec 13 j 11:38 -7883 Feb 22 j 03:15 -7883 Feb 22 j 21:32 -7883 May 05 j 00:03	17° II 14'22 13° II 59'57 13° II 57'41 10° II 40'43 17° II 33'40 19° II 26'28 19° II 26'27 19° II 21'50 21° II 18'29 27° II 58'54 24° II 44'16 24° II 41'31 21° II 25'34 28° II 17'09 0° 909'26 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25 0° 909'25	9.30893 AU 1°57'20 1°57'51 11.31474 AU 2°32'05 9.31566 AU 2°12'00 2°12'32 11.30522 AU 2°47'19	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7879 Apr 10 j 20:00 -7879 Jun 19 j 00:58 -7879 Sep 27 j 01:34 -7879 Oct 13 j 12:20 -7879 Oct 13 j 12:23 -7879 Oct 12 j 13:05 -7879 Oct 30 j 01:50 -7879 Nov 18 j 15:53 -7878 Feb 10 j 19:36 -7878 Apr 22 j 15:35 -7878 Oct 25 j 13:05 -7878 Oct 08 j 22:42 -7878 Oct 25 j 13:05 -7878 Oct 25 j 13:09 -7878 Oct 24 j 16:24 -7878 Nov 11 j 07:02 -7877 Feb 24 j 02:08 -7877 May 05 j 15:59 -7877 May 06 j 08:37 -7877 Jul 13 j 09:18 -7877 Oct 21 j 06:41	19° \$\Omega 55'15 \\ 16° \$\Omega 39'44 \\ 23° \$\Omega 46'13 \\ 25° \$\Omega 46'14 \\ 25° \$\Omega 45'43 \\ 0° \$\mathred{m}\$ 5° \$\mathred{m}\$ 11'04 \\ 1° \$\mathred{m}\$ 48'51 \\ 1° \$\mathred{m}\$ 45'13 \\ 30° \$\mathred{n}\$ \\ 28° \$\Omega 28'51 \\ 0° \$\mathred{m}\$ 5° \$\mathred{m}\$ 44'25 \\ 7° \$\mathred{m}\$ 46'07 \\ 7° \$\mathred{m}\$ 46'07 \\ 7° \$\mathred{m}\$ 46'08 \\ 7° \$\mathred{m}\$ 39'44 \\ 9° \$\mathred{m}\$ 48'58 \\ 17° \$\mathred{m}\$ 27'09 \\ 14° \$\mathred{m}\$ 03'01 \\ 13° \$\mathred{m}\$ 27'09 \\ 14° \$\mathred{m}\$ 03'04 \\ 13° \$\mathred{m}\$ 04'21'10 \\ 18° \$\mathred{m}\$ 06'44	8.90616 AU 2°09'03 2°09'24 10.83139 AU 2°28'27 8.75434 AU 1°51'19 1°51'35 10.67338 AU 2°03'25 8.59041 AU 10.50656 AU

Attantion actronomi	ool woon stulo is used. Th	a rraam 7077 ;	m actromomical car	nting strile is the ricen	7878 BCE in historical c	aunting styla	
minimum elong	-7877 Nov 07 j 01:42	20° Mp 12'01		conjunction	-7870 Jan 31 j 05:50	14° × 27'21	1946150
morning rise	-7877 Nov 24 j 00:47	20° m) 18'40	1 28 03	minimum elong	-7870 Jan 31 j 05:36	14 x 27 21 14° x 27'20	
morning rise	-7876 Feb 23 j 13:31	0° ₽		max. Earth dist.	-7870 Jan 31 j 22:11	14 x 27 20 14° x 32'51	9.79271 AU
retrograde	-7876 Mar 08 j 22:19	0° ₽ 10′29		morning rise	-7870 Feb 18 j 09:07	16° x 52'52	9.79271 AU
retrograde	-7876 Mar 23 j 07:57	0 = 10 2 9 30°R Mp		retrograde	-7870 Jun 06 j 11:14	25° ₹ 38'57	
opposition	-7876 May 18 j 01:52	26° Mp 44'25	1°31'27	opposition	-7870 Aug 12 j 11:18	22° x 3637	2020133
min. Earth dist.	-7876 May 18 j 14:35	26° Mp 41'57		min. Earth dist.	-7870 Aug 12 j 11:18	22° × 00'28	7.78876 AU
direct	-7876 Jul 25 j 01:19	23° m/22'38	0.4214/ AU	direct	-7870 Oct 17 j 00:17	18° × ⁷ 37'41	7.76670 AC
uncet	-7876 Oct 25 j 09:15	ე° <u>ი</u>		evening set	-7869 Jan 29 j 04:56	27° × ⁷ 06'59	
evening set	-7876 Nov 02 j 03:14	° - 0° - 57'16		evening sec	7007 5411 27 5 0 1.50	21 7 00 00	
evening set	7070 110V 02 J 05.14	0 = 37 10		conjunction	-7869 Feb 16 j 06:28	29° х 31'43	-2°08'37
conjunction	-7876 Nov 19 j 03:17	ვ° ჲ 06'22	0°59'19	minimum elong	-7869 Feb 16 j 06:25	29° × 731'41	2°09'08
minimum elong	-7876 Nov 19 j 03:20	3° ⊆ 06'23	0°59'21	max. Earth dist.	-7869 Feb 17 j 03:30	29° × ⁷ 38'47	9.79199 AU
max. Earth dist.	-7876 Nov 18 j 14:15		10.33864 AU	max. Earth dist.	-7869 Feb 19 j 18:37	0° 궁	J./7177110
morning rise	-7876 Dec 06 j 08:15	5° £ 17'09	10.55001110	morning rise	-7869 Mar 06 j 10:30	1° る 57'13	
retrograde	-7875 Mar 23 j 05:24	13° ⊆ 22'50		retrograde	-7869 Jun 21 j 18:58	10°る39'43	
opposition	-7875 May 31 j 21:27	9° £ 54'57	0°53'25	opposition	-7869 Aug 27 j 10:26	7° る 07'45	-2°51'22
min. Earth dist.	-7875 Jun 01 j 05:47	9° £ 53'18	8.25595 AU	min. Earth dist.	-7869 Aug 26 j 17:17		7.80938 AU
direct	-7875 Aug 07 j 02:49	6° £ 32'03	0.23373 110	direct	-7869 Nov 01 j 04:43	3°る38'12	7.00750710
evening set	-7875 Nov 15 j 14:03	14° ⊆ 17'36		evening set	-7868 Feb 14 j 04:54	12°る08'41	
evening set	7075 1101 15 1 14.05	14 = 1730		evening set	7000100 14104.54	12 000 41	
conjunction	-7875 Dec 02 j 19:32	16° £ 30'41	0°26'38	conjunction	-7868 Mar 03 j 07:31	14° る 32'51	-2°21'36
minimum elong	-7875 Dec 02 j 19:33	16° ⊆ 30'41	0°26'33	minimum elong	-7868 Mar 03 j 07:29	14°る32'50	
max. Earth dist.	-7875 Dec 02 j 10:59		10.17844 AU	max. Earth dist.	-7868 Mar 04 j 07:41		9.83272 AU
morning rise	-7875 Dec 20 j 06:35	18° ≏ 45'35	10.17011110	morning rise	-7868 Mar 21 j 11:11	16°る57'18	J.03272110
retrograde	-7874 Apr 06 j 22:42	27° ♀ 04'33		retrograde	-7868 Jul 05 j 19:33	25° る 32'00	
opposition	-7874 Jun 15 j 02:14	23° £ 35'00	0°10'53	min. Earth dist.	-7868 Sep 09 j 10:34	23° ろ 05'00	7.87018 AU
min. Earth dist.	-7874 Jun 15 j 06:07	23° ⊆ 34'13	8.10310 AU	opposition	-7868 Sep 10 j 05:18	22°る01'04	
direct	-7874 Aug 20 j 16:27	20° ⊆ 10'55	0.10510 AC	direct	-7868 Nov 15 j 09:04	18°る31'04	-5 0122
desc. node	-7874 Sep 15 j 20:16	20° £ 49′28		evening set	-7867 Mar 01 j 01:26	26°る59'07	
evening set	-7874 Nov 29 j 15:50	28° ⊆ 07'43		evening set	-7007 Wiai 01 J 01.20	20 03707	
evening set	-7874 Dec 14 j 00:01	0°M		conjunction	-7867 Mar 19 j 04:15	29° る 21'49	-2°25'02
	7071 Bec 11 J 00.01	0 110		minimum elong	-7867 Mar 19 j 04:15	29° る 21'49	
conjunction	-7874 Dec 17 j 02:46	0°M24'36	-0°08'41	max. Earth dist.	-7867 Mar 20 j 05:57	29°₹30'18	9.91272 AU
minimum elong	-7874 Dec 17 j 02:45	0°M24'35		max. Earth dist.	-7867 Mar 23 j 23:53	0° ≈	J.J1272 110
behind sun begin	-7874 Dec 16 j 20:33	0°M22'34	0 0031	morning rise	-7867 Apr 06 j 06:41	1° ≈ 44'19	
behind sun end	-7874 Dec 17 j 08:57	0°M26'37		retrograde	-7867 Jul 20 j 10:02	10°≈07'35	
max. Earth dist.	-7874 Dec 16 j 23:44		10.03527 AU	opposition	-7867 Sep 24 j 17:31	6°≈38'04	-2°50'17
morning rise	-7873 Jan 03 j 19:31	2°M43'22	10.03327 110	min. Earth dist.	-7867 Sep 23 j 22:31	6° ≈ 42'03	7.96776 AU
retrograde	-7873 Apr 22 j 01:18	11°M14'02		direct			7.50110 AC
opposition	7073 Apr 22 j 01.10					3°≈607'59	
	-7873 Jun 29 i 15:17	7°III.43'09	-0°33'52		-7867 Nov 30 j 10:25	3°≈07'59 11°≈30'09	
min Earth dist	-7873 Jun 29 j 15:17		-0°33'52	evening set	-7866 Mar 16 j 14:19	3°≈07'59 11°≈30'09	
min. Earth dist.	-7873 Jun 29 j 14:40	7°M43'16	-0°33'52 7.97229 AU	evening set	-7866 Mar 16 j 14:19	11° ≈ 30'09	-2°19'10
direct	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57	7° ጤ 43'16 4° ጤ 17'49		evening set conjunction	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26	11°≈30′09 13°≈50′35	
	-7873 Jun 29 j 14:40	7°M43'16		evening set conjunction minimum elong	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28	11°≈30'09 13°≈50'35 13°≈50'36	2°19'36
direct evening set	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19	7°M43'16 4°M17'49 12°M25'29	7.97229 AU	evening set conjunction	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51	
direct evening set conjunction	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15	7°M43'16 4°M17'49 12°M25'29 14°M45'40	7.97229 AU -0°44'21	evening set conjunction minimum elong max. Earth dist.	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈	2°19'36
direct evening set conjunction minimum elong	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M45'40	7.97229 AU -0°44'21 0°44'41	evening set conjunction minimum elong max. Earth dist. morning rise	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22	2°19'36
direct evening set conjunction	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M45'40 14°M46'51	7.97229 AU -0°44'21	evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39	2°19'36 10.02706 AU
direct evening set conjunction minimum elong max. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M45'40 14°M46'51 15°M	7.97229 AU -0°44'21 0°44'41	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53	2°19'36 10.02706 AU -2°46'06
direct evening set conjunction minimum elong max. Earth dist. morning rise	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41	7.97229 AU -0°44'21 0°44'41	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39	2°19'36 10.02706 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27	7.97229 AU -0°44'21 0°44'41 9.91823 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03	2°19'36 10.02706 AU -2°46'06
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39	2°19'36 10.02706 AU -2°46'06
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43	7.97229 AU -0°44'21 0°44'41 9.91823 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30	2°19'36 10.02706 AU -2°46'06 8.09595 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43 18°M49'00	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Dec 15 j 06:40 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43 18°M49'00	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05
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direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M16'43 18°M49'00 27°M06'18 29°M29'02 29°M29'02	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0°₩09'43	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43 18°M49'00 27°M06'18 29°M29'02 29°M29'02 29°M29'00 29°M32'29	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20 -7865 Aug 17 j 01:51	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43 18°M49'00 27°M06'18 29°M29'02 29°M29'02 29°M32'29 0° 7	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 Aug 17 j 01:51 -7865 Oct 22 j 15:10	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26	7°M.43'16 4°M.17'49 12°M.25'29 14°M.45'40 14°M.46'51 15°M. 17°M.07'41 25°M.47'27 22°M.15'34 22°M.16'43 18°M.49'00 27°M.06'18 29°M.29'02 29°M.29'02 29°M.32'29 0° 7 1° 753'21	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 Aug 17 j 01:51 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'07 27°≈53'07 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26 -7871 May 21 j 23:09	7°M.43'16 4°M.17'49 12°M.25'29 14°M.45'40 14°M.46'51 15°M. 17°M.07'41 25°M.47'27 22°M.15'34 22°M.16'43 18°M.49'00 27°M.06'18 29°M.29'02 29°M.29'02 29°M.32'29 0° 🗷 1° 🗷 53'21 10° 🗷 38'30	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23 9.83549 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Apr 21 j 16:50 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20 -7865 Aug 17 j 01:51 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33 -7865 Dec 29 j 19:36	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'07 27°≈53'07 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19 1° ₩08'42	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26 -7871 May 21 j 23:09 -7871 Jul 28 j 10:26	7°M43'16 4°M17'49 12°M25'29 14°M45'40 14°M46'51 15°M 17°M07'41 25°M47'27 22°M15'34 22°M16'43 18°M49'00 27°M06'18 29°M29'02 29°M29'02 29°M32'29 0° 7 1° 753'21 10° 738'30 7° 706'04	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23 9.83549 AU -1°57'27	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Aug 03 j 12:45 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 Aug 17 j 01:51 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33	11°≈30'09 13°≈50'35 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'07 27°≈53'07 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26 -7871 May 21 j 23:09 -7871 Jul 28 j 10:26 -7871 Jul 28 j 10:26 -7871 Jul 28 j 00:09	7°M.43'16 4°M.17'49 12°M.25'29 14°M.45'40 14°M.46'51 15°M. 17°M.07'41 25°M.47'27 22°M.15'34 22°M.16'43 18°M.49'00 27°M.06'18 29°M.29'02 29°M.29'00 29°M.32'29 0° 🛪 1° 🛪 53'21 10° 🛪 38'30 7° 🛪 06'04 7° 🛪 08'13	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23 9.83549 AU	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Apr 21 j 16:50 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33 -7865 Dec 29 j 19:36 -7864 Apr 14 j 03:50	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19 1° ₩08'42 9° ₩11'32	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU -2°23'42 8.24658 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26 -7871 May 21 j 23:09 -7871 Jul 28 j 10:26 -7871 Jul 28 j 00:09 -7871 Oct 01 j 22:37	7° M.43'16 4° M.17'49 12° M.25'29 14° M.45'40 14° M.46'51 15° M. 17° M.07'41 25° M.47'27 22° M.16'43 18° M.49'00 27° M.06'18 29° M.29'02 29° M.29'02 29° M.32'29 0° \$\textstyle{x}\$ 10° \$\textstyle{x}\$38'30 7° \$\textstyle{x}\$06'04 7° \$\textstyle{x}\$08'13 3° \$\textstyle{x}\$38'19	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23 9.83549 AU -1°57'27	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Apr 21 j 16:50 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7866 Dec 15 j 06:40 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20 -7865 Oct 22 j 15:10 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33 -7864 Apr 14 j 03:50 -7864 May 02 j 02:20	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19 1° ₩08'42 9° ₩11'32	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU -2°23'42 8.24658 AU
direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7873 Jun 29 j 14:40 -7873 Sep 03 j 16:57 -7873 Dec 14 j 08:19 -7872 Jan 01 j 00:15 -7872 Jan 01 j 00:12 -7872 Jan 01 j 03:48 -7872 Jan 02 j 19:16 -7872 Jan 18 j 21:47 -7872 May 06 j 10:29 -7872 Jul 13 j 10:50 -7872 Jul 13 j 05:18 -7872 Sep 17 j 03:18 -7872 Dec 28 j 14:08 -7871 Jan 15 j 10:20 -7871 Jan 15 j 10:16 -7871 Jan 15 j 20:37 -7871 Jan 19 j 06:36 -7871 Feb 02 j 11:26 -7871 May 21 j 23:09 -7871 Jul 28 j 10:26 -7871 Jul 28 j 10:26 -7871 Jul 28 j 00:09	7°M.43'16 4°M.17'49 12°M.25'29 14°M.45'40 14°M.46'51 15°M. 17°M.07'41 25°M.47'27 22°M.15'34 22°M.16'43 18°M.49'00 27°M.06'18 29°M.29'02 29°M.29'00 29°M.32'29 0° 🛪 1° 🛪 53'21 10° 🛪 38'30 7° 🛪 06'04 7° 🛪 08'13	7.97229 AU -0°44'21 0°44'41 9.91823 AU -1°17'47 7.87222 AU -1°17'57 1°18'23 9.83549 AU -1°57'27	evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7866 Mar 16 j 14:19 -7866 Apr 03 j 16:26 -7866 Apr 03 j 16:28 -7866 Apr 04 j 17:50 -7866 Apr 12 j 14:00 -7866 Apr 21 j 16:50 -7866 Apr 21 j 16:50 -7866 Oct 08 j 21:09 -7866 Oct 08 j 02:59 -7865 Mar 31 j 15:52 -7865 Apr 18 j 16:30 -7865 Apr 18 j 16:34 -7865 Apr 19 j 15:59 -7865 May 05 j 07:20 -7865 May 06 j 14:20 -7865 Oct 22 j 15:10 -7865 Oct 21 j 22:33 -7865 Dec 29 j 19:36 -7864 Apr 14 j 03:50	11°≈30'09 13°≈50'36 13°≈50'36 13°≈58'51 15°≈ 16°≈10'22 24°≈19'39 20°≈51'53 20°≈55'39 17°≈22'03 25°≈35'30 27°≈53'07 27°≈53'09 28°≈00'38 0° ₩ 0° ₩09'43 8° ₩03'47 4° ₩37'56 4° ₩41'19 1° ₩08'42 9° ₩11'32 11° ₩25'58 11° ₩25'58	2°19'36 10.02706 AU -2°46'06 8.09595 AU -2°05'05 2°05'25 10.16831 AU -2°23'42 8.24658 AU

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7864 in astronomical counting style is the year 7865 BCE in historical counting style. -7864 May 19 j 21:05 13°**)**€39'07 conjunction -7858 Jul 14 i 19:28 23°**8**12'39 morning rise -7864 Aug 29 j 01:32 21°\ 17'56 -7858 Jul 14 j 19:26 23°**8**12'39 1°05'13 minimum elong retrograde -7864 Nov 03 j 23:02 17°**)** 54′03 -1°54′22 -7858 Jul 14 j 13:51 23°**8**11'02 11.18972 AU max. Earth dist. opposition -7864 Nov 03 j 08:13 -7858 Jul 31 j 13:25 25°807'49 min. Earth dist. 17°**¥**57′01 8.41043 AU morning rise -7858 Sep 19 j 18:32 -7863 Jan 11 j 22:54 direct 14°**)** 25'43 Π $^{\circ}$ 0 22°**)** 17'04 -7858 Nov 06 j 10:21 1°**Ⅱ**49'32 evening set -7863 Apr 28 j 01:46 retrograde -7858 Dec 25 j 19:24 30°R₩ 1°33'42 -7857 Jan 14 j 21:33 conjunction -7863 May 15 j 21:27 24°\(\pm\)28'08 -1°18'54 opposition 28°**8**34'17 minimum elong -7863 May 15 j 21:31 24°**X**28'09 1°19'00 min. Earth dist. -7857 Jan 15 j 03:22 28°**8**33'13 9.22988 AU max. Earth dist. -7863 May 16 j 14:09 24°**₭**33'17 10.49511 AU direct -7857 Mar 27 j 23:21 25°**8**13'28 morning rise -7863 Jun 02 j 12:32 26°**)** 37'43 -7857 Jun 18 j 18:47 $0^{\circ}\Pi$ -7863 Jul 02 j 07:16 $0^{\circ}\Upsilon$ -7857 Jul 09 j 02:38 2°II11'26 evening set 4°Υ02'14 retrograde -7863 Sep 10 j 14:52 opposition -7863 Nov 16 j 21:02 0°Y40'16 -1°20'26 conjunction -7857 Jul 25 j 21:06 4°**Ⅱ**06'03 1°28'47 min. Earth dist. -7863 Nov 16 j 08:42 0°**Υ**42'42 8.57839 AU minimum elong -7857 Jul 25 j 21:03 4°**Ⅱ**06′02 1°29'14 -7863 Nov 25 j 10:26 30°**₹** max. Earth dist. -7857 Jul 25 j 11:48 4°**Д**03'23 11.26213 AU direct -7862 Jan 25 j 14:40 27°¥13'04 morning rise -7857 Aug 11 j 11:17 5°**Ⅲ**59'33 -7862 Mar 26 j 04:42 $0^{\circ}\Upsilon$ retrograde -7857 Nov 17 j 12:00 12°**Ⅲ**39'08 evening set -7862 May 11 j 09:42 4°Υ52'51 opposition -7856 Jan 26 j 09:11 9°**Ⅲ**24'23 2°00'47 min. Earth dist. -7856 Jan 26 j 19:10 9°**Ⅱ**22'34 9.28834 AU conjunction -7862 May 29 j 01:57 7°Y'00'34 -0°50'24 direct -7856 Apr 07 j 11:46 6°**Ⅱ**04'36 minimum elong -7862 May 29 i 01:59 7°**Υ**00'35 0°50'23 evening set -7856 Jul 19 i 03:41 12°**Ⅲ**58'45 max. Earth dist. -7862 May 29 j 14:59 7°**Y**04'31 10.66237 AU -7862 Jun 15 i 12:55 9°Y06'40 conjunction -7856 Aug 04 i 18:12 14°**Ⅱ**52′00 1°49'18 morning rise -7862 Sep 22 j 18:50 16°**Y**18′25 -7856 Aug 04 j 18:09 14°**Ⅱ**51'59 1°49'49 retrograde minimum elong -7862 Nov 29 j 10:17 12°Υ′58'16 -0°44'06 -7856 Aug 04 j 04:21 14°**I**I48′02 11.30497 AU max. Earth dist. opposition -7862 Nov 29 j 01:22 13°Υ00'00 8.74221 AU -7856 Aug 21 j 05:22 16°**∏**44'22 min. Earth dist. morning rise -7861 Feb 07 j 18:50 9°Y32'21 -7856 Nov 27 j 14:08 23°**Ⅲ**23'55 direct retrograde -7861 May 24 j 04:21 17° Y 01'09 -7855 Feb 05 j 20:13 20°II09'20 2°23'25 evening set opposition -7855 Feb 06 j 09:37 20°**П**06'54 9.31640 AU min. Earth dist. 19°**Y**'05'37 -0°20'33 -7861 Jun 10 j 16:33 -7855 Apr 18 j 23:30 16°**Ⅲ**50′21 conjunction direct 23°**II**42'18 -7861 Jun 10 j 16:34 -7855 Jul 30 j 01:28 19° **Y**05'37 0°20'25 minimum elong evening set 19°**Υ**08'12 10.82141 AU -7861 Jun 11 j 01:15 max. Earth dist. -7861 Jun 27 j 23:14 21°Υ08'28 -7855 Aug 15 j 12:45 25°**I**34'42 2°05'53 morning rise conjunction -7861 Oct 04 j 12:28 28°**Y**09′26 -7855 Aug 15 j 12:42 25°**II**34'41 2°06'25 retrograde minimum elong -7861 Dec 11 j 15:35 24°**Υ**50'54 -0°07'09 -7855 Aug 14 j 19:45 25°**Ⅲ**29'50 11.31695 AU opposition max. Earth dist. -7861 Dec 11 j 11:03 24°**Υ**51'46 8.89472 AU -7855 Aug 31 j 21:30 min. Earth dist. morning rise 27°**Ⅲ**26′26 direct -7860 Feb 20 j 14:36 21°**Υ**26'17 -7855 Sep 24 j 21:49 0ಂತಾ -7860 Feb 22 j 23:09 21°Y26'34 retrograde -7855 Dec 08 j 18:35 4°907'59 asc. node -7860 Jun 04 j 11:27 28°Y45'14 -7854 Feb 17 j 08:00 0°953'11 2°41'02 evening set opposition -7860 Jun 15 j 04:23 0° 8 min. Earth dist. -7854 Feb 17 j 23:19 0°950'24 9.31312 AU -7854 Mar 01 j 17:18 30°R∏ -7860 Jun 21 j 19:09 0°846'40 0°09'24 direct -7854 Apr 30 j 08:13 27°**Ⅲ**34'50 conjunction -7860 Jun 21 j 19:09 0°846'40 0°09'37 -7854 Jun 26 j 05:33 0ಂತಾ minimum elong -7860 Jun 21 j 13:17 0°**8**44'58 -7854 Aug 09 j 21:52 4°9526'04 behind sun begin evening set 0°848'22 behind sun end -7860 Jun 22 i 01:01 -7860 Jun 21 j 22:14 0°**႘**47'33 10.96567 AU max. Earth dist. conjunction -7854 Aug 26 i 06:50 6°518'11 2°18'03 -7860 Jul 08 j 21:33 morning rise 2°846'34 minimum elong -7854 Aug 26 i 06:48 6°518'11 2°18'35 retrograde -7860 Oct 14 i 23:56 9°838'53 max. Earth dist. -7854 Aug 25 i 12:18 6°512'52 11.29764 AU -7860 Dec 22 j 14:08 6°**8**21'44 0°28'52 -7854 Sep 11 i 13:53 8°909'54 opposition morning rise min. Earth dist. -7860 Dec 22 j 13:29 6°**8**21'51 9.02989 AU -7854 Dec 20 j 03:48 14°955'19 retrograde -7859 Mar 04 j 00:54 2°858'26 -7853 Feb 28 j 21:52 11°939'58 2°53'07 direct opposition -7859 Jun 16 j 08:25 10°808'53 min. Earth dist. -7853 Mar 01 j 15:01 11°936'51 9.27853 AU evening set direct -7853 May 11 j 15:52 8°9522'00 conjunction -7859 Jul 03 j 11:31 12°807'38 0°38'08 evening set -7853 Aug 20 j 18:35 15°9514'03 minimum elong -7859 Jul 03 j 11:30 12°**8**07'37 0°38'26 max. Earth dist. -7853 Sep 05 j 05:11 17°500'28 11.24755 AU -7859 Jul 03 j 09:31 12°**8**07'03 11.08986 AU max. Earth dist. -7859 Jul 20 j 09:40 14°**8**04'57 -7853 Sep 06 j 02:02 17°**©**06'29 2°25'24 morning rise conjunction -7859 Jul 28 j 13:40 15°8 -7853 Sep 06 j 02:01 2°25'55 minimum elong 17°9506'29 -7859 Oct 26 j 05:25 20°**8**50'51 -7853 Sep 22 j 08:31 retrograde morning rise 18°958'46 -7858 Jan 03 j 07:38 opposition 17°**8**34'48 1°02'49 retrograde -7853 Dec 31 j 17:08 25°549'50 opposition min. Earth dist. -7858 Jan 03 j 10:09 17°**8**34'20 9.14285 AU -7852 Mar 11 j 15:16 22°**©**33'37 2°59'11 -7858 Feb 11 j 24:00 15°R₩ min. Earth dist. -7852 Mar 12 j 10:32 22°930'07 9.21347 AU direct -7858 Mar 16 j 03:21 14°**8**12'47 direct -7852 May 21 j 23:31 19°9515'46 -7858 Apr 16 j 23:26 15°8 evening set -7852 Aug 30 j 17:26 26°9510'11

-7858 Jun 27 j 20:46

evening set

21°**8**16'12

max. Earth dist.

-7852 Sep 15 j 01:19

27°556'48 11.16799 AU

		a 7052 :	n aatronomiaal aa	* *	7052 DCE in historical o		
	ical year style is used: Th	e year -7852 1 28°903'30		max. Earth dist.			10.26914 AU
conjunction	-7852 Sep 16 j 00:16				-7846 Nov 26 j 05:42		10.20914 AU
minimum elong	-7852 Sep 16 j 00:17	28°503'31	2°28'02	morning rise	-7846 Dec 14 j 01:49	12° £ 36′03	
morning rise	-7852 Oct 02 j 07:22	29°956'59		retrograde	-7845 Mar 31 j 06:31	20° £ 47'39	0021120
	-7852 Oct 02 j 17:57	0° Ω		opposition	-7845 Jun 08 j 18:21	17° £ 19'00	0°31'20
retrograde	-7851 Jan 11 j 11:59	6° £ 55'30	20.50140	min. Earth dist.	-7845 Jun 09 j 02:11	17° £ 17'26	8.18677 AU
opposition	-7851 Mar 23 j 13:24	3° Ω 38'04	2°58'48	direct	-7845 Aug 14 j 18:00	13° ≙ 55'30	
min. Earth dist.	-7851 Mar 24 j 10:01	3° Ω 34'18	9.11967 AU	evening set	-7845 Nov 23 j 08:32	21° ≏ 45'58	
direct	-7851 Jun 02 j 11:08	0° Ω 20'04				_	
evening set	-7851 Sep 10 j 20:04	7° Ω 18'20		conjunction	-7845 Dec 10 j 16:54	24° £ 00′50	0°08'17
max. Earth dist.	-7851 Sep 26 j 04:35	9° Ω 06′23	11.06107 AU	minimum elong	-7845 Dec 10 j 16:55	24° ≙ 00'51	0°08'07
				behind sun begin	-7845 Dec 10 j 10:31	23° ≏ 58'47	
conjunction	-7851 Sep 27 j 03:38	9° Ω 13'12		behind sun end	-7845 Dec 10 j 23:19	24° £ 02'55	
minimum elong	-7851 Sep 27 j 03:39	9° Ω 13'12	2°24'38	max. Earth dist.	-7845 Dec 10 j 10:35	23° ≏ 58'48	10.11086 AU
morning rise	-7851 Oct 13 j 12:21	11° Ω 08′29		morning rise	-7845 Dec 28 j 06:44	26° ≙ 17'35	
	-7851 Nov 18 j 22:44	15° Ω			-7844 Jan 28 j 04:02	0° M .	
retrograde	-7850 Jan 23 j 17:16	18° Ω 16′10		desc. node	-7844 Mar 08 j 06:35	3°M31'20	
opposition	-7850 Apr 04 j 17:29	14° Ω 57'12	2°51'35	retrograde	-7844 Apr 14 j 04:40	4° ጤ 41'59	
	-7850 Apr 04 j 02:16	15°R Ω		opposition	-7844 Jun 22 j 02:40	1°ML11'35	-0°12'31
min. Earth dist.	-7850 Apr 05 j 13:45	14° Ω 53′27	8.99958 AU	min. Earth dist.	-7844 Jun 22 j 05:05	1°ML11'06	8.03817 AU
direct	-7850 Jun 14 j 03:05	11° Ω 38'48			-7844 Jul 07 j 03:51	30° ₹ Ω	
	-7850 Aug 18 j 18:02	15° Ω		direct	-7844 Aug 27 j 11:28	27° ≏ 46'42	
evening set	-7850 Sep 22 j 04:20	18° Ω 42'24			-7844 Oct 15 j 19:37	0° M	
C	1 2			evening set	-7844 Dec 06 j 16:57	5°M48'27	
conjunction	-7850 Oct 08 j 13:53	20° Ω 39'27	2°15'04	Ü	J		
minimum elong	-7850 Oct 08 j 13:55	20° £ 39′28		conjunction	-7844 Dec 24 j 06:34	8° M L07'00	-0°27'26
max. Earth dist.	-7850 Oct 07 j 15:25		10.92951 AU	minimum elong	-7844 Dec 24 j 06:32	8°ML06'59	0°27'43
morning rise	-7850 Oct 25 j 01:21	22° Ω 37'12	10.52501110	max. Earth dist.	-7844 Dec 24 j 06:12	8°ML06'52	9.97380 AU
retrograde	-7849 Feb 05 j 07:17	29° £ 55'39		morning rise	-7843 Jan 11 j 01:41	10°ML27'24).) / 300 Me
opposition	-7849 Apr 17 j 04:43	26° Ω 34'56	2°37'15	morning rise	-7843 Feb 18 j 04:17	15°M	
min. Earth dist.	-7849 Apr 17 j 23:58	26° Ω 31'21	8.85651 AU	retrograde	-7843 Apr 29 j 11:13	19°ML02'38	
direct	-7849 Jun 25 j 22:15	23°Ω15'56	0.03031 AC	opposition	-7843 Jul 06 j 18:34	15°M30'50	-0°57'06
direct	-7849 Sep 30 j 03:11	0° m)		min. Earth dist.	-7843 Jul 06 j 15:49		7.91573 AU
evening set	-7849 Oct 03 j 20:33	0° Mp 26'28		mm. Latin dist.	-7843 Jul 13 j 01:05	15°RM	7.71373 AO
•			10.77748 AU	direct	-7843 Sep 10 j 15:17	12°ML04'31	
max. Earth dist.	-7849 Oct 19 j 10:55	1934 لإلا	10.77748 AU	direct			
	7940 0-+ 20:00-01	20 m 20117	2000107		-7843 Nov 06 j 10:22	15°M 20°M16'58	
conjunction	-7849 Oct 20 j 09:01	2° M) 26'17	2°00'06	evening set	-7843 Dec 21 j 15:53	20 11610 38	
minimum elong	-7849 Oct 20 j 09:04	2° Mp 26'18	2°00'23		70.40 L 00:10.07	220M 20122	1000117
morning rise	-7849 Nov 06 j 00:27	4° الله 27′08		conjunction	-7842 Jan 08 j 10:07	22°M38'32	
retrograde	5040 F 1 40 : 00 40	110 3 55145					
·	-7848 Feb 18 j 08:13	11° m 57'47		minimum elong	-7842 Jan 08 j 10:04	22°M38'31	1°02'40
opposition	-7848 Apr 29 j 00:08	8° m 35'11	2°15'39	max. Earth dist.	-7842 Jan 08 j 15:49	22° M 40'27	9.86693 AU
min. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03	8° Mp 35'11 8° Mp 31'48	2°15'39 8.69580 AU	Č	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34	22°M40'27 25°M01'51	
min. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10	8° m/35'11 8° m/31'48 5° m/15'20		max. Earth dist. morning rise	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50	22°M40'27 25°M01'51 0°×7	
min. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03	8° Mp 35'11 8° Mp 31'48		max. Earth dist. morning rise	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06	22°M40'27 25°M01'51 0°×7 3°×744'46	9.86693 AU
min. Earth dist. direct evening set	-7848 Apr 29 j 10:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30	8° m/35'11 8° m/31'48 5° m/15'20 12° m/34'15	8.69580 AU	max. Earth dist. morning rise retrograde opposition	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57	22°M40'27 25°M01'51 0°×' 3°×'44'46 0°×'12'04	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54	8° m/35'11 8° m/31'48 5° m/15'20	8.69580 AU 1°39'20	max. Earth dist. morning rise	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37	22° M.40'27 25° M.01'51 0° 🖈 3° 🖈 44'46 0° 🖈 12'04 0° 🖈 13'35	9.86693 AU
min. Earth dist. direct evening set	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26	8.69580 AU 1°39'20 1°39'31	max. Earth dist. morning rise retrograde opposition	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53	22°M40'27 25°M01'51 0° \$\tilde{X}\$ 3° \$\tilde{X}\$44'46 0° \$\tilde{X}\$12'04 0° \$\tilde{X}\$13'35 30° RM.	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26	8.69580 AU 1°39'20	max. Earth dist. morning rise retrograde opposition	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40	22° M.40'27 25° M.01'51 0° \$\mathref{X}\$ 3° \$\mathref{X}\$44'46 0° \$\mathref{X}\$12'04 0° \$\mathref{X}\$13'35 30° RM. 26° M.44'22	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction minimum elong	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26	8.69580 AU 1°39'20 1°39'31	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53	22°M40'27 25°M01'51 0° \$\tilde{X}\$ 3° \$\tilde{X}\$44'46 0° \$\tilde{X}\$12'04 0° \$\tilde{X}\$13'35 30° RM.	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26 14° my 31'00	8.69580 AU 1°39'20 1°39'31	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40	22° M.40'27 25° M.01'51 0° \$\mathref{X}\$ 3° \$\mathref{X}\$44'46 0° \$\mathref{X}\$12'04 0° \$\mathref{X}\$13'35 30° RM. 26° M.44'22	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'26 14° my 37'26 14° my 31'00 16° my 41'54	8.69580 AU 1°39'20 1°39'31	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34	22°M40'27 25°M01'51 0° \nabla 3° \nabla 44'46 0° \nabla 12'04 0° \nabla 13'35 30° \nabla M 26°M44'22 0° \nabla 4'22	9.86693 AU -1°39'11
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26 14° my 31'00 16° my 41'54 24° my 25'51	8.69580 AU 1°39'20 1°39'31 10.61141 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34	22°M40'27 25°M01'51 0° \nabla 3° \nabla 44'46 0° \nabla 12'04 0° \nabla 13'35 30° \nabla M 26°M44'22 0° \nabla 4'22	9.86693 AU -1°39'11 7.82770 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7848 Apr 29 j 10:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 31'00 16° my 41'54 24° my 25'51 21° my 01'14	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06	22° M.40'27 25° M.01'51 0° \$\mathrightarrow{X}\] 3° \$\mathrightarrow{X}\] 44'46 0° \$\mathrightarrow{X}\] 13'35 30° R.M. 26° M.44'22 0° \$\mathrightarrow{X}\] 5° \$\mathrightarrow{X}\] 05'56	9.86693 AU -1°39'11 7.82770 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7848 Apr 29 j 10:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 May 12 j 04:52	8° my 35'11 8° my 31'48 5° my 15'20 12° my 34'15 14° my 37'25 14° my 37'26 14° my 31'00 16° my 41'54 24° my 25'51 21° my 01'14 20° my 58'11	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06	22° M.40'27 25° M.01'51 0° \$\tilde{x}\$ 3° \$\tilde{x}\$44'46 0° \$\tilde{x}\$12'04 0° \$\tilde{x}\$13'35 30° R.M. 26° M.44'22 0° \$\tilde{x}\$ 5° \$\tilde{x}\$05'56	9.86693 AU -1°39'11 7.82770 AU -1°33'43
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57	22° \textbf{\textbf{L}}\(40'27\) 25° \textbf{\textbf{L}}\(0)' \textbf{\textbf{L}}\) 3° \textbf{\textbf{L}}\(44'46\) 0° \textbf{\textbf{L}}\(12'04\) 0° \textbf{\textbf{L}}\(13'35\) 30° \textbf{\textbf{L}}\textbf{\textbf{L}}\) 26° \textbf{\textbf{L}}\(44'22\) 0° \textbf{\textbf{L}}\\ 5° \textbf{\textbf{L}}\(25'56\) 7° \textbf{\textbf{L}}\(29'40\) 7° \textbf{\textbf{L}}\(29'38\)	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 00:57 -7841 Jan 24 j 12:42	22° M.40'27 25° M.01'51 0° \$\tilde{x}\$ 3° \$\tilde{x}\$44'46 0° \$\tilde{x}\$13'35 30° RM. 26° M.44'22 0° \$\tilde{x}\$ 5° \$\tilde{x}\$05'56 7° \$\tilde{x}\$29'40 7° \$\tilde{x}\$29'38 7° \$\tilde{x}\$33'35	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Oct 27 j 12:00	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28	22° M.40'27 25° M.01'51 0° \$\mathrightarrow{7}\$ 3° \$\mathrightarrow{7}\$44'46 0° \$\mathrightarrow{7}\$13'35 30° RM. 26° M.44'22 0° \$\mathrightarrow{7}\$13'56 7° \$\mathrightarrow{7}\$29'40 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$33'35 9° \$\mathrightarrow{7}\$54'51	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 May 12 j 04:52 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Oct 27 j 12:00 -7847 Nov 13 j 09:18	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09	22° M.40'27 25° M.01'51 0° \$\mathrightarrow{7}\$ 3° \$\mathrightarrow{7}\$44'46 0° \$\mathrightarrow{7}\$13'35 30° RM. 26° M.44'22 0° \$\mathrightarrow{7}\$13'56 7° \$\mathrightarrow{7}\$29'40 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$33'35 9° \$\mathrightarrow{7}\$54'51 18° \$\mathrightarrow{7}\$41'25	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Oct 27 j 12:00 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:21	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 00:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05	22° M.40'27 25° M.01'51 0° \$\mathrightarrow{7}\$ 3° \$\mathrightarrow{7}\$44'46 0° \$\mathrightarrow{7}\$13'35 30° RM. 26° M.44'22 0° \$\mathrightarrow{7}\$ 5° \$\mathrightarrow{7}\$05'56 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$33'35 9° \$\mathrightarrow{7}\$41'25 15° \$\mathrightarrow{7}\$08'21	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Oct 27 j 12:00 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:21 -7847 Nov 12 j 16:13 -7847 Nov 30 j 11:27	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 00:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05 -7841 Oct 10 j 04:35	22° M.40'27 25° M.01'51 0° \$\mathrightarrow{7}\$ 3° \$\mathrightarrow{7}\$44'46 0° \$\mathrightarrow{7}\$13'35 30° RM. 26° M.44'22 0° \$\mathrightarrow{7}\$ 5° \$\mathrightarrow{7}\$05'56 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$29'38 7° \$\mathrightarrow{7}\$3'35 9° \$\mathrightarrow{7}\$41'25 15° \$\mathrightarrow{7}\$08'21 15° \$\mathrightarrow{7}\$10'44	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18
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min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:21 -7847 Nov 12 j 16:13 -7847 Nov 30 j 11:27 -7847 Dec 05 j 07:53 -7846 Mar 16 j 19:39	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24 29°my24'17 0°Ω 7°Ω22'07	1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15 10.43910 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 00:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05 -7841 Oct 10 j 04:35 -7840 Jan 21 j 22:53	22° \mathbb{\mathbb{\capacter} 40'27} 25° \mathbb{\mathbb{\capacter} 0' \mathbb{\sigma}' 3° \mathbb{\sigma}' 44'46 0° \mathbb{\sigma}' 12'04 0° \mathbb{\sigma}' 13'35 30° \mathbb{\mathbb{\mathbb{\capacter} 13'35}} 30° \mathbb{\mathbb{\mathbb{\capacter} 13'5°} \mathbb{\sigma}' 05'56 7° \mathbb{\sigma}' 29'40 7° \mathbb{\sigma}' 29'38 7° \mathbb{\sigma}' 33'35 9° \mathbb{\sigma}' 54'51 18° \mathbb{\sigma}' 41'25 15° \mathbb{\sigma}' 08'21 15° \mathbb{\sigma}' 08'21 15° \mathbb{\sigma}' 10'44 11° \mathbb{\sigma}' 39'28 20° \mathbb{\sigma}' 07'30	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18 7.78031 AU
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min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:18 -7847 Nov 12 j 16:13 -7847 Dec 05 j 07:53 -7846 Mar 16 j 19:39 -7846 May 26 j 07:28 -7846 May 01 j 09:50	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24 29°my24'17 0°Ω 7°Ω22'07 3°Ω55'26 3°Ω53'00 0°Ω33'18	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15 10.43910 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct evening set	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Oct 10 j 04:35 -7840 Feb 08 j 23:26 -7840 Feb 08 j 23:26 -7840 Feb 08 j 23:22 -7840 Feb 09 j 16:35	22° M.40'27 25° M.01'51 0° \$\tilde{x}\$ 3° \$\tilde{x}\$44'46 0° \$\tilde{x}\$13'35 30° RM. 26° M.44'22 0° \$\tilde{x}\$ 5° \$\tilde{x}\$05'56 7° \$\tilde{x}\$29'40 7° \$\tilde{x}\$29'38 7° \$\tilde{x}\$33'35 9° \$\tilde{x}\$54'51 18° \$\tilde{x}\$41'25 15° \$\tilde{x}\$08'21 15° \$\tilde{x}\$10'44 11° \$\tilde{x}\$39'28 20° \$\tilde{x}\$07'30 22° \$\tilde{x}\$32'19 22° \$\tilde{x}\$32'18 22° \$\tilde{x}\$38'06	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18 7.78031 AU -1°59'09
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:18 -7847 Nov 12 j 16:13 -7847 Nov 30 j 11:27 -7846 Mar 16 j 19:39 -7846 May 25 j 19:01 -7846 May 26 j 07:28	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24 29°my24'17 0°Ω 7°Ω22'07 3°Ω55'26 3°Ω53'00	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15 10.43910 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05 -7840 Teb 08 j 23:26 -7840 Feb 08 j 23:26 -7840 Feb 09 j 16:35 -7840 Feb 09 j 16:35 -7840 Feb 09 j 16:35 -7840 Feb 27 j 03:26	22° M.40'27 25° M.01'51 0° \$\tilde{x}\$ 3° \$\tilde{x}\$44'46 0° \$\tilde{x}\$13'35 30° RM. 26° M.44'22 0° \$\tilde{x}\$ 5° \$\tilde{x}\$05'56 7° \$\tilde{x}\$29'40 7° \$\tilde{x}\$29'38 7° \$\tilde{x}\$33'35 9° \$\tilde{x}\$54'51 18° \$\tilde{x}\$41'25 15° \$\tilde{x}\$08'21 15° \$\tilde{x}\$10'44 11° \$\tilde{x}\$39'28 20° \$\tilde{x}\$07'30 22° \$\tilde{x}\$32'19 22° \$\tilde{x}\$32'18 22° \$\tilde{x}\$38'06 24° \$\tilde{x}\$58'12	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18 7.78031 AU -1°59'09 1°59'40
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 31 j 14:57 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:21 -7847 Nov 12 j 16:13 -7847 Nov 12 j 16:13 -7847 Nov 30 j 11:27 -7846 Mar 16 j 19:39 -7846 May 25 j 19:01 -7846 May 26 j 07:28 -7846 Nov 09 j 14:58	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24 29°my24'17 0°Ω 7°Ω22'07 3°Ω55'26 3°Ω53'00 0°Ω33'18 8°Ω12'29	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15 10.43910 AU 1°11'48 8.35219 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct evening set	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05 -7840 Feb 08 j 23:26 -7840 Feb 08 j 23:22 -7840 Feb 09 j 16:35 -7840 Feb 09 j 16:35 -7840 Feb 09 j 00:09	22° M.40'27 25° M.01'51 0° \$\mathref{X}\$ 3° \$\mathref{X}\$ 44'46 0° \$\mathref{X}\$ 12'04 0° \$\mathref{X}\$ 13'35 30° RM. 26° M.44'22 0° \$\mathref{X}\$ 29'40 7° \$\mathref{X}\$ 29'40 7° \$\mathref{X}\$ 29'38 7° \$\mathref{X}\$ 33'35 9° \$\mathref{X}\$ 54'51 18° \$\mathref{X}\$ 41'25 15° \$\mathref{X}\$ 08'21 15° \$\mathref{X}\$ 10'44 11° \$\mathref{X}\$ 39'28 20° \$\mathref{X}\$ 32'18 22° \$\mathref{X}\$ 32'18 22° \$\mathref{X}\$ 32'18 22° \$\mathref{X}\$ 38'06 24° \$\mathref{X}\$ 58'12 0° \$\mathref{S}\$	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18 7.78031 AU -1°59'09 1°59'40
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise	-7848 Apr 29 j 00:08 -7848 Apr 29 j 18:03 -7848 Jul 07 j 01:10 -7848 Oct 14 j 22:30 -7848 Oct 31 j 14:54 -7848 Oct 30 j 18:12 -7848 Nov 17 j 11:22 -7847 Mar 02 j 20:37 -7847 May 12 j 04:52 -7847 Jul 19 j 12:12 -7847 Nov 13 j 09:18 -7847 Nov 13 j 09:18 -7847 Nov 12 j 16:13 -7847 Dec 05 j 07:53 -7846 Mar 16 j 19:39 -7846 May 26 j 07:28 -7846 May 01 j 09:50	8°my35'11 8°my31'48 5°my15'20 12°my34'15 14°my37'25 14°my37'26 14°my31'00 16°my41'54 24°my25'51 21°my01'14 20°my58'11 17°my40'20 25°my08'52 27°my15'47 27°my15'48 27°my10'24 29°my24'17 0°Ω 7°Ω22'07 3°Ω55'26 3°Ω53'00 0°Ω33'18	8.69580 AU 1°39'20 1°39'31 10.61141 AU 1°46'58 8.52489 AU 1°13'10 1°13'15 10.43910 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct evening set	-7842 Jan 08 j 15:49 -7842 Jan 26 j 09:34 -7842 Mar 09 j 01:50 -7842 May 14 j 23:06 -7842 Jul 21 j 15:57 -7842 Jul 21 j 08:37 -7842 Jul 24 j 01:53 -7842 Sep 25 j 05:40 -7842 Nov 24 j 06:34 -7841 Jan 06 j 03:06 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:02 -7841 Jan 24 j 01:57 -7841 Jan 24 j 12:42 -7841 Feb 11 j 03:28 -7841 May 30 j 12:09 -7841 Aug 05 j 16:28 -7841 Aug 05 j 05:05 -7840 Teb 08 j 23:26 -7840 Feb 08 j 23:26 -7840 Feb 09 j 16:35 -7840 Feb 09 j 16:35 -7840 Feb 09 j 16:35 -7840 Feb 27 j 03:26	22° M.40'27 25° M.01'51 0° \$\tilde{x}\$ 3° \$\tilde{x}\$44'46 0° \$\tilde{x}\$13'35 30° RM. 26° M.44'22 0° \$\tilde{x}\$ 5° \$\tilde{x}\$05'56 7° \$\tilde{x}\$29'40 7° \$\tilde{x}\$29'38 7° \$\tilde{x}\$33'35 9° \$\tilde{x}\$54'51 18° \$\tilde{x}\$41'25 15° \$\tilde{x}\$08'21 15° \$\tilde{x}\$10'44 11° \$\tilde{x}\$39'28 20° \$\tilde{x}\$07'30 22° \$\tilde{x}\$32'19 22° \$\tilde{x}\$32'18 22° \$\tilde{x}\$38'06 24° \$\tilde{x}\$58'12	9.86693 AU -1°39'11 7.82770 AU -1°33'43 1°34'10 9.79775 AU -2°15'18 7.78031 AU -1°59'09 1°59'40 9.77141 AU

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7840 in astronomical counting style is the year 7841 BCE in historical counting style. min. Earth dist. -7840 Aug 19 j 02:21 0°る14'02 7.77703 AU max. Earth dist. -7834 May 10 j 16:53 18° **\(42'49 \)** 10.40849 AU -7840 Aug 21 j 20:49 30°R*≯* -7834 May 27 j 13:08 20°**¥**47'48 morning rise -7840 Oct 24 j 08:23 26°**х** 41′05 -7834 Sep 05 j 05:11 28°¥19'27 direct retrograde 0°궁 -7834 Nov 11 j 05:57 24°\\$56'36 -1°36'53 -7840 Dec 24 j 03:53 opposition -7839 Feb 05 j 22:57 -7834 Nov 10 j 16:08 24°**¥**59'21 8.49402 AU evening set 5°る12'14 min. Earth dist. -7833 Jan 19 j 13:15 direct 21°**H**28'57 -7839 Feb 24 j 01:08 29° ¥ 14'39 conjunction 7°る37'03 -2°16'32 evening set -7833 May 05 j 14:12 $0^{\circ}\Upsilon$ minimum elong -7839 Feb 24 j 01:05 7°る37'02 2°17'03 -7833 May 11 j 20:41 max. Earth dist. -7839 Feb 24 j 22:39 7°**る**44'16 9.79000 AU morning rise -7839 Mar 14 j 05:24 10°る02'26 conjunction -7833 May 23 j 08:06 1°**Y**24'02 -1°04'05 $1^{\circ}\mathbf{\Upsilon}24'02 \quad 1^{\circ}04'08$ retrograde -7839 Jun 29 j 02:00 18°**る**42'16 minimum elong -7833 May 23 j 08:09 -7839 Sep 03 j 14:41 15°る10'10 -2°58'10 -7833 May 23 j 23:47 1°**Y**28'49 opposition max. Earth dist. 10.58093 AU -7833 Jun 09 j 21:10 min. Earth dist. -7839 Sep 02 j 21:18 15°る13'50 7.81798 AU morning rise 3°**Y**31'52 direct -7839 Nov 08 j 13:51 11°る39'43 retrograde -7833 Sep 17 j 13:06 10°**Y**49'51 evening set -7838 Feb 21 j 22:07 20°る10'12 opposition -7833 Nov 23 j 23:43 7°Υ29'04 -1°01'21 min. Earth dist. -7833 Nov 23 j 12:56 7°**Υ**31'11 8.66492 AU conjunction -7838 Mar 12 j 00:59 22°る33'58 -2°24'35 direct -7832 Feb 02 j 00:05 4°Y02'47 minimum elong -7838 Mar 12 j 00:58 22°る33'58 2°25'06 evening set -7832 May 17 j 15:40 11°Y37'05 max. Earth dist. -7838 Mar 13 j 01:29 22°る42'07 9.85201 AU morning rise -7838 Mar 30 j 04:24 24°る57'46 conjunction -7832 Jun 04 j 05:47 13°**Y**43'07 -0°34'37 13°**Y**43'08 -7838 May 11 j 20:24 minimum elong -7832 Jun 04 j 05:49 0°34'32 retrograde -7838 Jul 13 j 21:18 3°≈27'42 max. Earth dist. -7832 Jun 04 i 16:36 13°**Y**46′22 10.74889 AU min. Earth dist. -7838 Sep 17 j 11:27 0°≈00'54 7.89992 AU morning rise -7832 Jun 21 i 14:45 15°**Y**47'34 -7838 Sep 17 j 15:46 30°Rる retrograde -7832 Sep 28 i 11:14 22°Y53'41 opposition -7838 Sep 18 j 06:40 29°る56'52 -3°01'50 opposition -7832 Dec 05 j 09:02 19°**Y**34'44 -0°24'24 -7838 Nov 23 j 17:38 26°**පි**26'13 -7832 Dec 05 j 01:17 19°**Y**36'14 8.82756 AU direct min. Earth dist. -7837 Jan 27 j 03:05 -7831 Feb 14 j 01:52 16°**Y**09′53 0°≈≈ direct -7837 Mar 09 j 15:19 evening set -7831 May 30 j 04:46 23°Y33'39 4°≈52'16 evening set -7837 Mar 27 j 17:57 7°≈14'05 -2°23'05 -7831 Jun 16 j 14:42 25°Y36'30 -0°04'35 conjunction conjunction -7831 Jun 16 j 14:42 0°04'24 minimum elong -7837 Mar 27 j 17:59 7°≈14'06 2°23'33 minimum elong 25°**Y**36'30 -7837 Mar 28 j 20:01 -7831 Jun 16 j 07:42 25°**Y**34'27 max. Earth dist. 7°**≈**22'39 9.95274 AU behind sun begin -7831 Jun 16 j 21:41 25°Y38'33 -7837 Apr 14 j 19:36 9°**≈**35′28 behind sun end morning rise -7837 Jun 01 j 03:23 max. Earth dist. -7831 Jun 16 j 21:09 25°**Y**38'23 10.90457 AU 15°**≈** -7837 Jul 28 j 06:03 -7831 Jul 03 j 19:10 27°**Y**37'46 retrograde 17°≈52'24 morning rise -7837 Sep 25 j 05:18 -7831 Jul 25 j 03:41 15°R≪ 0°8 -7837 Oct 02 j 14:50 -7831 Aug 12 j 21:39 opposition 14°≈23'14 -2°53'45 asc. node 1°**8**48'56 min. Earth dist. -7837 Oct 01 j 18:56 14°≈27'22 8.01689 AU retrograde -7831 Oct 10 j 03:28 4°834'06 direct -7837 Dec 08 j 16:39 10°≈52'48 -7831 Dec 17 j 11:07 1°816'44 0°12'17 opposition -7836 Feb 17 j 08:07 15°≈ min. Earth dist. -7831 Dec 17 j 07:17 1°**8**17'28 8.97476 AU evening set -7836 Mar 23 j 22:45 19°≈11'15 -7830 Jan 03 j 19:17 30°RY -7830 Feb 26 j 16:08 27°Y53'18 direct -7836 Apr 11 j 00:24 21°≈30'28 -2°12'44 -7830 Apr 20 j 08:18 0° 8 conjunction -7836 Apr 11 j 00:27 21°≈30'29 2°13'07 -7830 Jun 11 j 06:54 5°807'43 minimum elong evening set -7836 Apr 12 j 02:19 21°≈38'51 10.08507 AU max. Earth dist. -7830 Jun 28 j 12:20 7°**と**07'42 0°24'57 morning rise -7836 Apr 28 i 23:38 23°≈48'50 conjunction -7836 Jun 25 i 17:53 0°**∀** minimum elong -7830 Jun 28 j 12:19 7°807'41 0°25'13 retrograde -7836 Aug 10 j 02:41 1°**)** 50'52 max. Earth dist. -7830 Jun 28 j 14:09 7°**と**08'13 11.04138 AU 9°806'09 -7836 Sep 25 i 05:59 30°R≈ morning rise -7830 Jul 15 j 12:20 -7836 Oct 15 i 13:39 28°≈23'41 -2°35'25 -7830 Sep 18 j 12:01 15°8 opposition min. Earth dist. -7836 Oct 14 i 18:32 28°≈27'37 8.16098 AU -7830 Oct 21 j 12:17 15°**8**54'54 retrograde direct -7836 Dec 22 j 08:57 24°≈53'52 -7830 Nov 24 j 03:10 15°R\ 0°**)**€ -7830 Dec 29 j 07:28 12°838'49 0°47'21 -7835 Mar 13 j 02:25 opposition -7835 Apr 07 j 17:48 3°**¥**02′26 min. Earth dist. -7830 Dec 29 j 08:26 12°**8**38'38 9.10048 AU evening set 9°816'41 direct -7829 Mar 10 j 21:25 -7829 Jun 10 j 10:49 conjunction -7835 Apr 25 j 17:41 5°\;\;\\18'35 -1°54'56 15°8 minimum elong -7835 Apr 25 j 17:45 5°**H**18'36 1°55'13 evening set -7829 Jun 22 j 23:37 16°**8**23'17 -7835 Apr 26 j 17:45 5°**¥**26'14 10.24015 AU max. Earth dist. -7835 May 13 j 13:57 7°**¥**33′33 -7829 Jul 10 j 00:23 18°**8**20'45 0°52'45 morning rise conjunction -7829 Jul 10 j 00:21 18°**8**20'44 0°53'05 retrograde -7835 Aug 23 j 09:50 15°**)** €20'08 minimum elong -7835 Oct 28 j 09:53 11°**米**58'31 8.32310 AU -7829 Jul 09 j 20:22 18°**8**19'35 11.15384 AU min. Earth dist. max. Earth dist. opposition -7835 Oct 29 j 02:44 11°**)** 55'07 -2°09'01 morning rise -7829 Jul 26 j 20:15 20°**8**16'51 direct -7834 Jan 05 j 16:14 8°**)** 26'14 retrograde -7829 Nov 01 j 17:01 27°**8**00'19 evening set -7834 Apr 21 j 23:04 16°**)**€23'36 opposition -7828 Jan 09 j 23:17 23°**8**45'11 1°19'47 min. Earth dist. -7828 Jan 10 j 04:46 23°**8**44'10 9.19982 AU -7834 May 09 j 20:18 18°**升**36'24 -1°31'26 -7828 Mar 21 j 21:18 20°824'13 conjunction direct

-7834 May 09 j 20:22

minimum elong

18°**¥**36′26 1°31′36

evening set

-7828 Jul 03 j 08:55

27°**8**24'41

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7828 in astronomical counting style is the year 7829 BCE in historical counting style. 29°**8**20'05 1°18'04 -7828 Jul 20 i 05:13 -7822 Sep 22 j 10:45 4°**Ω**19'02 2°26'57 conjunction minimum elong -7828 Jul 20 j 05:10 29°820'04 1°18'29 -7822 Oct 08 j 18:31 6°Ω13'30 minimum elong morning rise -7828 Jul 19 j 19:58 29°**8**17'25 11.23813 AU -7821 Jan 18 j 12:21 13°**Ω**17'00 max. Earth dist. retrograde -7828 Jul 26 j 00:08 $0^{\circ}\Pi$ -7821 Mar 30 j 12:26 9°**Ω**58'15 2°55'53 opposition 1°**Ⅱ**14'18 9.04315 AU -7821 Mar 31 j 09:05 morning rise -7828 Aug 05 j 21:15 min. Earth dist. 9°**Ω**54'27 -7828 Nov 11 j 19:17 7°**I**54'43 retrograde direct -7821 Jun 09 j 04:05 6°**Ω**39'31 4°**Ⅱ**40′09 opposition -7827 Jan 20 j 12:03 1°48'44 evening set -7821 Sep 17 j 08:52 13°**Ω**40′50 min. Earth dist. -7827 Jan 20 j 20:46 4°**Ⅲ**38'33 9.26978 AU -7821 Sep 28 j 13:21 15°Ω direct -7827 Apr 02 j 14:33 1°**Ⅲ**20′12 evening set -7827 Jul 14 j 12:26 8°**Ⅱ**16'09 conjunction -7821 Oct 03 j 17:19 15°**Ω**36'55 2°20'03 minimum elong -7821 Oct 03 j 17:21 15°**Ω**36'56 2°20'29 -7827 Jul 31 j 04:47 10°**Ⅲ**09'59 -7821 Oct 02 j 17:22 conjunction 1°40'15 max. Earth dist. 15°**Ω**29'47 10.97769 AU -7827 Jul 31 j 04:44 minimum elong 10°**Ⅲ**09′58 1°40'44 morning rise -7821 Oct 20 j 03:32 17°**Ω**33'36 max. Earth dist. -7827 Jul 30 j 16:21 10°**Ⅱ**06′25 11.29223 AU retrograde -7820 Jan 30 j 19:41 24°**Ω**47'09 morning rise -7827 Aug 16 j 17:17 12°**Ⅲ**02'49 opposition -7820 Apr 10 j 20:09 21°**Ω**26'44 2°44'54 retrograde -7827 Nov 22 j 23:15 18°**Ⅲ**42'18 min. Earth dist. -7820 Apr 11 j 16:43 21°**Ω**22'54 8.90979 AU opposition -7826 Jan 31 j 23:39 15°**Ⅲ**27'55 2°13'31 direct -7820 Jun 19 j 20:41 18°**Ω**07'27 min. Earth dist. -7826 Feb 01 j 11:28 15°**Ⅲ**25'46 9.30889 AU evening set -7820 Sep 27 j 20:53 25°**Ω**15'00 direct -7826 Apr 14 j 03:51 12°**Ⅱ**08'46 max. Earth dist. -7820 Oct 13 j 09:19 27° **Ω**06'46 10.83517 AU evening set -7826 Jul 25 j 11:49 19°**Ⅱ**01'44 max. Earth dist. -7826 Aug 10 j 08:55 20°**Д**50'00 11.31508 AU conjunction -7820 Oct 14 j 07:50 27°Ω13'35 2°07'49 minimum elong -7820 Oct 14 i 07:53 27°**Ω**13'36 2°08'09 conjunction -7826 Aug 11 i 00:40 20°**Ⅱ**54'30 1°58'44 morning rise -7820 Oct 30 j 21:26 29°Ω13'03 -7826 Aug 11 j 00:38 20°**I**54'30 1°59'14 -7820 Nov 06 i 13:32 0° m minimum elong -7826 Aug 27 j 10:20 22°**Ⅱ**46'29 retrograde -7819 Feb 11 j 15:21 6° m 38'11 morning rise -7826 Dec 04 j 02:01 29°**II**27'02 opposition -7819 Apr 23 j 11:38 3° m 15'55 2°26'40 retrograde -7825 Feb 12 j 11:18 26°II12'28 2°33'32 -7819 Apr 24 j 06:26 3° m 12'23 min. Earth dist. 8 75820 AU opposition -7825 Feb 13 j 02:39 26°**Ⅱ**09'41 -7819 Jun 23 j 00:16 min. Earth dist. 9.31645 AU 30°R € -7819 Jul 01 j 22:08 29°**£**55′57 -7825 Apr 25 j 11:57 22°**I**53′52 direct direct -7819 Jul 10 j 17:09 -7825 Aug 05 j 09:02 29°**Ⅱ**45'25 0° m evening set -7825 Aug 07 j 12:51 evening set -7819 Oct 09 j 17:46 7° Mp 11'06 0°00 -7819 Oct 26 j 08:22 9° Mp 12'46 1°49'43 -7825 Aug 21 j 18:57 1°537'40 2°13'00 conjunction conjunction -7825 Aug 21 j 18:55 -7819 Oct 26 j 08:26 9° m 12'47 1°49'57 minimum elong 1°937'39 2°13'31 minimum elong -7825 Aug 20 j 23:22 -7819 Oct 25 j 12:33 9° M 06'40 10.67728 AU max. Earth dist. 1°532'02 11.30643 AU max. Earth dist. -7825 Sep 07 j 02:47 -7819 Nov 12 j 02:21 11° Mp 15'36 morning rise 3°929'22 morning rise -7825 Dec 15 j 07:32 retrograde 10°9512'54 retrograde -7818 Feb 24 j 22:53 18° m 53'30 -7824 Feb 24 j 00:03 6°557'45 2°48'15 opposition -7818 May 06 j 11:44 15° **m** 29'19 2°01'13 opposition min. Earth dist. -7824 Feb 24 j 18:18 6°954'27 9.29245 AU min. Earth dist. -7818 May 07 j 03:29 15° Mp 26'18 8.59432 AU -7824 May 05 j 21:12 3°539'25 direct -7818 Jul 14 j 04:29 12° Mp 08'29 direct -7824 Aug 15 j 05:31 10°931'11 -7818 Oct 22 j 01:31 19° m 32'35 evening set evening set -7824 Aug 31 j 13:30 12°523'27 2°22'38 -7818 Nov 07 j 20:35 21° m 37'48 1°25'59 conjunction conjunction -7824 Aug 31 j 13:28 -7818 Nov 07 j 20:38 21°M 37'49 minimum elong 12°\$23'27 2°23'09 minimum elong 1°26'07 -7824 Aug 30 j 15:57 -7818 Nov 07 j 03:21 21° m/32'24 10.51044 AU max. Earth dist. 12°517'14 11.26667 AU max. Earth dist. morning rise -7824 Sep 16 j 20:16 14°9515'28 morning rise -7818 Nov 24 i 19:55 23° m 44'27 retrograde -7824 Dec 25 i 18:35 21°9503'51 -7817 Jan 25 i 12:05 0°Ω opposition -7823 Mar 06 i 15:39 17°5947'48 2°57'11 retrograde -7817 Mar 10 j 17:35 1°**£**35'55 min. Earth dist. -7823 Mar 07 j 11:02 17°9544'17 9.23761 AU -7817 Apr 24 j 21:21 30°R M direct -7823 May 17 j 06:07 14°9529'33 opposition -7817 May 19 i 21:15 28° m 09'49 1°28'56 -7823 Aug 26 j 02:56 21°922'57 min. Earth dist. -7817 May 20 j 09:44 28° m 07'23 8.42521 AU evening set max. Earth dist. -7823 Sep 10 j 11:54 23°509'26 11.19699 AU direct -7817 Jul 26 j 19:42 24° m 47'59 -7817 Oct 15 j 03:38 0∘**⊽** -7817 Nov 03 j 21:56 conjunction -7823 Sep 11 j 10:04 23°515'53 2°27'14 evening set 2°**₽**22'13 minimum elong -7823 Sep 11 j 10:04 23°9515'53 2°27'44 -7823 Sep 27 j 16:42 25°9508'48 conjunction -7817 Nov 20 j 22:01 4°**2**31'16 0°57'13 morning rise -7823 Nov 15 j 20:28 $0^{\circ}\Omega$ minimum elong -7817 Nov 20 j 22:04 4°**£**31'17 0°57'14 2°**Ω**03'54 -7817 Nov 20 j 08:09 4°**£**26'52 10.34226 AU retrograde -7822 Jan 06 j 11:31 max. Earth dist. -7822 Mar 01 j 07:33 30°Rூ morning rise -7817 Dec 08 j 03:15 6°**£**42'01 opposition -7822 Mar 18 j 11:24 28°546'37 2°59'52 retrograde -7816 Mar 23 j 23:25 14°**₽**47'19 min. Earth dist. -7822 Mar 19 j 07:17 28°**©**42'59 9.15361 AU opposition -7816 Jun 01 j 16:19 11°**≏**19'23 0°50'43 direct -7822 May 28 j 15:46 25°528'14 min. Earth dist. -7816 Jun 02 j 01:12 11°**♀**17'37 8.25928 AU -7822 Aug 15 j 04:10 0° Ω direct -7816 Aug 07 j 22:13 7°**£**56'26 evening set -7822 Sep 06 j 03:29 2°**Ω**24'49 evening set -7816 Nov 16 j 08:26 15°**£**41'37 max. Earth dist. -7822 Sep 21 j 11:27 4°**Ω**12'11 11.09961 AU -7816 Dec 03 j 14:00 17°**£**54'39 conjunction 0°24'26 -7822 Sep 22 j 10:44 4°Ω19'01 2°26'28 -7816 Dec 03 j 14:01 17°**♀**54'39 conjunction minimum elong 0°24'20

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7816 in astronomical counting style is the year 7817 BCE in historical counting style. -7816 Dec 03 i 04:52 17°**£**51'42 10.18155 AU max. Earth dist. -7809 Mar 06 i 01:29 16°**る**02'53 9.83340 AU max. Earth dist. -7816 Dec 21 j 01:15 20°**₽**09'32 -7809 Mar 23 i 05:30 18°る19'25 morning rise morning rise -7815 Apr 07 j 16:41 28°**₽**28'08 -7809 Jul 07 j 13:56 26°る53'56 retrograde retrograde -7815 Jun 15 j 20:44 0°08'08 -7809 Sep 11 j 22:52 23°る23'02 -3°01'27 24°**♀**58'33 opposition opposition 7.87086 AU -7815 Jun 16 j 01:23 -7809 Sep 11 j 04:54 23°**る**26'49 min. Earth dist. 24°**£**57'37 8.10580 AU min. Earth dist. -7815 Aug 21 j 11:10 21°**♀**34'23 -7809 Nov 17 j 02:03 direct direct 19°る53'00 desc. node -7808 Mar 01 j 19:40 -7815 Aug 24 j 05:16 21°**△**34'49 evening set 28°**පි**21'06 -7808 Mar 14 j 09:44 evening set -7815 Nov 30 j 09:55 29°**♀**30'53 0°≈ -7815 Dec 04 j 04:03 $0^{\circ}M$ conjunction -7808 Mar 19 j 22:21 0°≈43'47 -2°24'50 conjunction -7815 Dec 17 j 21:00 1°ML47'43 -0°10'51 minimum elong -7808 Mar 19 j 22:22 0°≈43'48 2°25'18 -7815 Dec 17 j 20:59 -7808 Mar 20 j 22:57 minimum elong 1°ML47'43 0°11'04 max. Earth dist. 0°≈51'55 9.91320 AU -7815 Dec 17 j 15:36 -7808 Apr 07 j 00:51 behind sun begin 1°M45'58 morning rise 3°≈06'17 behind sun end -7815 Dec 18 j 02:23 1°M49'28 retrograde -7808 Jul 21 j 04:29 11°≈29'26 opposition max. Earth dist. -7815 Dec 17 j 18:05 1°M46'46 10.03760 AU -7808 Sep 25 j 11:05 8°≈00'00 -2°58'41 morning rise -7814 Jan 04 j 13:51 4°ML06'28 min. Earth dist. -7808 Sep 24 j 16:56 8°**≈**03'47 7.96793 AU retrograde -7814 Apr 22 j 19:07 12°M36'52 direct -7808 Dec 01 j 04:23 4°≈29'53 opposition -7814 Jun 30 j 09:24 9°M05'55 -0°36'30 evening set -7807 Mar 17 j 08:27 12°≈52'11 min. Earth dist. -7814 Jun 30 j 09:08 9°ML05'58 7.97416 AU -7807 Apr 02 j 19:43 direct -7814 Sep 04 j 11:20 5°M40'31 evening set -7814 Dec 15 j 02:22 13°M48'01 conjunction -7807 Apr 04 j 10:32 15°≈12'38 -2°18'26 -7814 Dec 24 i 05:22 15°M minimum elong -7807 Apr 04 i 10:34 15°≈12'39 2°18'51 max. Earth dist. -7807 Apr 05 i 10:40 15°**≈**20'30 10.02681 AU conjunction -7813 Jan 01 j 18:30 16°ML08'11 -0°46'22 morning rise -7807 Apr 22 j 11:04 17°≈32'28 -7813 Jan 01 i 18:27 16°ML08'10 0°46'42 retrograde -7807 Aug 04 j 06:06 25°≈41'44 minimum elong -7813 Jan 01 j 22:26 16°ML09'29 9.91961 AU -7807 Oct 09 j 14:44 22°≈14'03 -2°44'53 max. Earth dist. opposition -7813 Jan 19 j 16:00 18°MJ30'09 -7807 Oct 08 j 21:00 22°≈17'42 8.09522 AU morning rise min. Earth dist. -7813 May 08 j 04:13 27°ML09'43 -7807 Dec 16 j 01:47 18°≈44'13 retrograde direct -7813 Jul 15 j 04:31 -7806 Apr 01 j 10:06 26°≈57'54 23°M37'48 -1°20'09 evening set opposition -7813 Jul 14 j 22:52 min. Earth dist. 23°M38'58 7.87314 AU -7813 Sep 18 j 21:46 29°**≈**15'33 -2°03'52 -7806 Apr 19 j 10:47 20°M11'11 conjunction direct -7813 Dec 30 j 08:14 -7806 Apr 19 j 10:51 28°M28'28 minimum elong 29°≈15'35 2°04'11 evening set -7806 Apr 20 j 09:21 -7812 Jan 10 j 19:54 max. Earth dist. 29°≈22'47 10.16707 AU 0° **₹** -7806 Apr 25 j 05:39 0°**)**€ -7812 Jan 17 j 04:33 0°**х** 51'11 -1°19'42 -7806 May 07 j 08:41 conjunction morning rise 1°**X**32'13 -7812 Jan 17 j 04:29 -7806 Aug 17 j 18:38 9°**∺**26'23 minimum elong 0°**∡**51'10 1°20'08 retrograde -7812 Jan 17 j 15:16 -7806 Oct 23 j 08:56 6°¥00'36 -2°21'55 max. Earth dist. 0°**尽**54'47 9.83592 AU opposition morning rise -7812 Feb 04 j 05:33 3°**х¹**15′29 min. Earth dist. -7806 Oct 22 j 16:06 6°**升**04'01 8.24478 AU retrograde -7812 May 22 j 16:50 12°**х** 00′33 direct -7806 Dec 30 j 14:14 2°**₭**31'25 opposition -7812 Jul 29 j 04:00 8°**₹**28'06 -1°59'25 evening set -7805 Apr 15 j 22:13 10° **X** 34'31 min. Earth dist. -7812 Jul 28 j 17:19 8°**₰**30'20 7.80993 AU -7812 Oct 02 j 16:36 5°**х** 00′21 -7805 May 03 j 20:48 12°\(\dagger49'01\) -1°42'45 direct conjunction -7811 Jan 14 j 00:30 13°**∡**¹25′11 -7805 May 03 j 20:52 12°\(\dagger49'02\) 1°42'58 evening set minimum elong max. Earth dist. -7805 May 04 j 17:02 12°**升**55′23 10.32523 AU -7811 Jan 31 j 23:59 15°**∡**¹49'28 -1°48'12 -7805 May 21 j 15:29 15°**)**€02'12 conjunction morning rise -7811 Jan 31 i 23:55 -7805 Aug 30 j 20:23 22°**)** 41'15 minimum elong 15°**∡**¹49'26 1°48'42 retrograde -7805 Nov 05 i 17:07 19°**升**17'24 -1°52'08 max. Earth dist. -7811 Feb 01 i 16:43 15°**₹**55'06 9.79260 AU opposition 19°**)** € 20'27 8.40767 AU morning rise -7811 Feb 19 i 03:10 18°**∡**14'57 min. Earth dist. -7805 Nov 05 i 01:59 retrograde -7811 Jun 07 i 04:56 27°**₹**'01'03 direct -7804 Jan 13 j 16:18 15°**)**(49'09 -7811 Aug 13 j 04:52 23°x 28'35 -2°30'58 evening set -7804 Apr 28 j 20:22 23°\ 40'47 opposition min. Earth dist. -7811 Aug 12 j 14:16 23°**✗**31'39 7.78870 AU -7811 Oct 17 j 17:14 19°**∡** 59'47 -7804 May 16 j 16:08 25°\ 51'56 -1°16'56 direct conjunction 25°**)** 51'57 1°17'02 -7810 Jan 29 j 23:15 28°×729'12 -7804 May 16 j 16:12 evening set minimum elong -7810 Feb 10 j 08:10 0°궁 -7804 May 17 j 09:27 max. Earth dist. 25° **)** 57'17 10.49204 AU -7804 Jun 03 j 07:05 morning rise 28°**₩**01'35 -7804 Jun 20 j 03:15 $0^{\circ}\Upsilon$ conjunction -7810 Feb 17 j 00:46 0°る53'56 -2°09'30 minimum elong -7810 Feb 17 j 00:43 0°중53'55 2°10'01 retrograde -7804 Sep 11 j 10:37 5°Y26'20 -7810 Feb 17 j 21:54 1°る01'02 9.79214 AU -7804 Nov 17 j 15:30 2°Y04'26 -1°17'53 max. Earth dist. opposition -7810 Mar 07 j 04:46 3°る19'25 -7804 Nov 17 j 03:30 2°Υ06'48 8.57493 AU morning rise min. Earth dist. -7810 Jun 22 j 13:05 12°る01'50 -7804 Dec 15 j 22:10 retrograde 30°**₹** 8°る33'27 7.80985 AU 28°**升**37'16 min. Earth dist. -7810 Aug 27 j 11:00 direct -7803 Jan 26 j 07:42 $0^{\circ}\Upsilon$ opposition -7810 Aug 28 j 03:58 8°る29'53 -2°52'09 -7803 Mar 08 j 12:03 direct -7810 Nov 01 j 21:27 5°る00'17 evening set -7803 May 12 j 04:38 6°**Y**17′25 evening set -7809 Feb 14 j 23:17 13°る30'50 conjunction -7803 May 29 j 20:51 8°**Y**25'11 -0°48'13 -7809 Mar 05 j 01:50 15°る54'59 -2°21'57 minimum elong -7803 May 29 j 20:53 8°Y25'12 0°48'12 conjunction

-7809 Mar 05 j 01:48

minimum elong

15°る54'58 2°22'28

max. Earth dist.

-7803 May 30 j 09:56

8°Υ29'09 10.65865 AU

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7803 in astronomical counting style is the year 7804 BCE in historical counting style. 10°**Y**31′22 -7803 Jun 16 i 07:43 max. Earth dist. -7797 Aug 06 i 00:18 16°**I**16′09 11.30090 AU morning rise -7803 Sep 23 j 13:21 17°**Y**43′23 -7797 Aug 23 j 01:06 18°**Ⅲ**12'27 retrograde morning rise -7803 Nov 30 j 05:07 14°**Υ**23'18 -0°41'19 -7797 Nov 29 j 10:15 24°**Ⅲ**52'17 retrograde opposition -7803 Nov 29 j 21:01 14°**Υ**24'52 8.73827 AU -7796 Feb 07 j 16:53 21°II37'35 2°25'07 min. Earth dist. opposition 21°**II**35'18 9.31252 AU -7802 Feb 08 j 14:04 10°**Y**57′22 -7796 Feb 08 j 05:25 direct min. Earth dist. 18°**Y**26'34 evening set -7802 May 24 j 23:43 direct -7796 Apr 19 j 20:07 18°**Ⅱ**18'33 -7796 Jul 30 j 21:29 evening set 25°**Ⅱ**10'34 -7802 Jun 11 j 11:43 20°Υ31'04 -0°18'14 conjunction 20° Y31'04 0° 18'06 -7802 Jun 11 j 11:44 2°07'05 minimum elong conjunction -7796 Aug 16 j 08:44 27°**Ⅲ**02'59 20°**Υ**33'24 10.81725 AU max. Earth dist. -7802 Jun 11 j 19:35 minimum elong -7796 Aug 16 j 08:41 27°**Ⅱ**02'58 2°07'36 26°**Д**58'25 11.31320 AU morning rise -7802 Jun 28 j 18:21 22°Y33'59 max. Earth dist. -7796 Aug 15 j 16:48 -7802 Oct 05 j 07:50 29° Y 35'14 -7796 Sep 01 j 17:17 retrograde morning rise 28°**Ⅲ**54'44 -7796 Sep 11 j 13:54 opposition -7802 Dec 12 j 10:49 26°**Y**16'44 -0°04'17 0ಂತಾ min. Earth dist. -7802 Dec 12 j 06:29 26°**Y**17'34 8.89047 AU retrograde -7796 Dec 09 j 15:41 5°936'31 asc. node -7801 Jan 25 j 05:05 23°**Y**27'25 opposition -7795 Feb 18 j 04:45 2°9521'36 2°42'15 direct -7801 Feb 21 j 09:49 22°Y52'08 min. Earth dist. -7795 Feb 18 j 19:25 2°9518'57 9.30957 AU -7801 Jun 04 j 15:14 0°8 -7795 Mar 26 j 12:36 30°RⅡ evening set -7801 Jun 06 j 06:59 0°811'25 direct -7795 May 01 j 04:58 29°**I**103'13 -7795 Jun 05 j 03:50 0ಂತಾ conjunction -7801 Jun 23 j 14:31 2°812'54 0°11'44 evening set -7795 Aug 10 j 17:58 5°954'30 minimum elong -7801 Jun 23 j 14:30 2°812'54 0°11'58 max. Earth dist. -7795 Aug 26 j 08:28 7°541'22 11.29430 AU behind sun begin -7801 Jun 23 i 09:37 2°811'28 behind sun end -7801 Jun 23 j 19:24 2°814'19 conjunction -7795 Aug 27 i 02:49 7°5946'38 2°18'50 max. Earth dist. -7801 Jun 23 j 17:08 2°813'39 10.96132 AU minimum elong -7795 Aug 27 i 02:47 7°9546'38 2°19'21 morning rise -7801 Jul 10 j 16:51 4°812'50 morning rise -7795 Sep 12 i 09:47 9°938'21 -7801 Oct 16 j 18:34 11°805'28 -7795 Dec 21 j 00:37 16°923'58 retrograde retrograde opposition -7801 Dec 24 j 09:42 7°**8**48'18 0°31'43 -7794 Mar 01 j 18:55 13°908'32 2°53'48 opposition -7801 Dec 24 j 08:26 7°**と**48'32 9.02548 AU -7794 Mar 02 j 12:15 9.27548 AU min. Earth dist. min. Earth dist. 13°905'23 -7800 Mar 04 j 20:44 4°**8**25'00 -7794 May 12 j 11:58 9°950'32 direct direct -7800 Jun 17 j 04:03 11°**8**35'44 evening set -7794 Aug 21 j 14:42 16°5942'36 evening set -7800 Jul 04 j 07:07 13°**8**34'30 0°40'24 -7794 Sep 06 j 21:58 conjunction conjunction 18°935'02 2°25'44 -7800 Jul 04 j 07:05 -7794 Sep 06 j 21:57 13°**8**34'30 0°40'43 18°935'02 2°26'14 minimum elong minimum elong -7800 Jul 04 j 05:49 13°**8**34'08 11.08540 AU -7794 Sep 06 j 00:53 max. Earth dist. max. Earth dist. 18°928'56 11.24484 AU -7800 Jul 16 j 13:46 -7794 Sep 23 j 04:34 15°**8** morning rise 20°9527'21 -7800 Jul 21 j 05:03 15°**8**31'52 -7793 Jan 01 j 12:47 morning rise retrograde 27°9518'38 -7800 Oct 27 j 02:56 22°**8**18'04 -7793 Mar 13 j 12:26 retrograde opposition 24°502'19 2°59'18 opposition -7799 Jan 04 j 03:31 19°**8**01'58 1°05'30 min. Earth dist. -7793 Mar 14 j 07:42 23°**9**58'49 9.21113 AU min. Earth dist. -7799 Jan 04 j 05:42 19°**8**01'34 9.13835 AU direct -7793 May 23 j 20:31 20°5544'26 -7799 Mar 16 j 23:48 15°**8**39'57 evening set -7793 Sep 01 j 13:31 27°538'51 direct -7799 Jun 28 j 16:40 22°**8**43'35 evening set -7793 Sep 17 j 20:25 29°532'12 2°27'24 conjunction -7799 Jul 15 j 15:13 24°840'04 1°06'58 -7793 Sep 17 j 20:26 29°532'12 2°27'53 conjunction minimum elong -7799 Jul 15 j 15:11 24°840'04 1°07'21 max. Earth dist. -7793 Sep 16 j 22:16 29°525'44 11.16608 AU minimum elong -7799 Jul 15 j 10:06 24°**8**38'36 11.18520 AU -7793 Sep 21 j 19:35 max. Earth dist. 0° Ω -7799 Aug 01 i 08:56 -7793 Oct 04 i 03:34 morning rise 26°**8**35'15 morning rise 1°**Ω**25'42 -7799 Sep 03 i 01:22 $0^{\circ}\Pi$ retrograde -7792 Jan 13 i 09:31 8°**Ω**24'23 -7799 Nov 07 i 05:55 retrograde 3°**Ⅱ**17'13 opposition -7792 Mar 24 i 10:25 5°Ω06'53 2°58'20 opposition -7798 Jan 15 i 17:45 0°**I**01'55 1°36'09 min. Earth dist. -7792 Mar 25 i 06:07 5°**Ω**03'17 9.11821 AU min. Earth dist. -7798 Jan 16 i 00:05 0°П00'45 9.22544 AU direct -7792 Jun 03 i 08:45 1°Ω48'53 -7798 Jan 16 i 04:12 30°R8 -7792 Sep 11 j 16:09 8°**Ω**47'06 evening set -7798 Mar 28 j 17:49 26°841'03 direct -7798 Jun 04 j 11:22 $0^{\circ}II$ -7792 Sep 27 j 23:53 10°**Ω**42'00 2°23'34 conjunction -7798 Jul 09 j 22:42 -7792 Sep 27 j 23:55 evening set 3°**Ⅱ**39'13 minimum elong 10°Ω42'00 2°24'00 -7792 Sep 27 j 02:00 max. Earth dist. 10°**Ω**35'31 11.06013 AU conjunction -7798 Jul 26 j 16:52 5°II33'50 1°30'39 morning rise -7792 Oct 14 j 08:37 12°**Ω**37'19 minimum elong -7798 Jul 26 j 16:50 5°**Ⅲ**33'50 1°31'07 -7792 Nov 04 j 18:59 15°Ω 19°**Ω**45′06 -7798 Jul 26 j 07:00 5°**Ⅲ**31'00 11.25774 AU -7791 Jan 24 j 14:09 max. Earth dist. retrograde -7798 Aug 12 j 06:59 7°**Ⅲ**27′22 -7791 Apr 05 j 14:33 16°Ω26'05 2°50'32 morning rise opposition -7798 Nov 18 j 07:39 14°**Ⅲ**07'14 -7791 Apr 06 j 09:46 16°**Ω**22'33 8.99927 AU retrograde min. Earth dist. 10°**I**52'24 2°02'54 -7791 Apr 25 j 17:02 15°RΩ opposition -7797 Jan 27 j 05:45 min. Earth dist. -7797 Jan 27 j 15:48 10°**I**I50'34 9.28416 AU direct -7791 Jun 14 j 22:58 13°**Ω**07'45 direct -7797 Apr 09 j 09:04 7°**Ⅲ**32'32 -7791 Aug 02 j 03:14 15°€ evening set -7797 Jul 20 j 23:40 14°**Ⅲ**26′50 evening set -7791 Sep 23 j 00:28 20°**Ω**11'14 max. Earth dist. -7791 Oct 08 j 11:48 22°**Ω**01'37 10.92998 AU -7797 Aug 06 j 14:01 16°**Ⅲ**20'05 1°50'52 conjunction

-7797 Aug 06 j 13:58

minimum elong

16°**Ⅲ**20'04 1°51'22

conjunction

-7791 Oct 09 j 10:03 22°Ω08'17 2°13'59

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 10 Attention, astronomical year style is used: The year -7791 in astronomical counting style is the year 7792 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	e year -7791 i	n astronomical cou	nting style is the year	7792 BCE in historical co	ounting style.	6, 1,
minimum elong	-7791 Oct 09 j 10:06	22° Ω 08′18	2°14'21	conjunction	-7785 Dec 26 j 02:20	9°M33'54	-0°29'44
morning rise	-7791 Oct 25 j 21:41	24° Ω 06′04		minimum elong	-7785 Dec 26 j 02:18	9°M33'53	
	-7791 Dec 26 j 01:48	0° m		max. Earth dist.	-7785 Dec 26 j 01:01	9°M33'28	9.97822 AU
retrograde	-7790 Feb 06 j 04:49	1°Mp24'31		morning rise	-7784 Jan 12 j 21:37	11°M54'15	
	-7790 Mar 21 j 08:22	30°R Ω			-7784 Feb 06 j 22:29	15° ™	
opposition	-7790 Apr 18 j 01:49	28° Ω 03'48		retrograde	-7784 Apr 30 j 07:13	20°M29'09	
min. Earth dist.	-7790 Apr 18 j 20:49		8.85775 AU	opposition	-7784 Jul 07 j 14:03	16°M57'28	
direct	-7790 Jun 26 j 18:57	24° Ω 44'50		min. Earth dist.	-7784 Jul 07 j 11:55		7.92008 AU
	-7790 Sep 18 j 01:18	0° m/y			-7784 Aug 01 j 22:18	15°RM	
evening set	-7790 Oct 04 j 16:38	1° Mp 55'08	10.77050 ATT	direct	-7784 Sep 11 j 11:18	13°M31'12	
max. Earth dist.	-7790 Oct 20 j 06:59	3*110/48/13	10.77958 AU		-7784 Oct 21 j 03:08	15°M	
conjunction	-7790 Oct 21 j 05:10	3° m 54'58	1°58'35	evening set	-7784 Dec 22 j 11:30	21° M .43'27	
minimum elong	-7790 Oct 21 j 05:13	3° m ₂ 54'59		conjunction	-7783 Jan 09 j 05:42	24° M L04'57	-1°04'21
morning rise	-7790 Nov 06 j 20:55	5° m 55'51	1 3032	minimum elong	-7783 Jan 09 j 05:39	24°ML04'56	
retrograde	-7789 Feb 19 j 04:37	13° m) 26'23		max. Earth dist.	-7783 Jan 09 j 10:37	24°ML06'36	
opposition	-7789 Apr 30 j 21:04	10° m 03'48	2°13'33	morning rise	-7783 Jan 27 j 05:15	26°M28'12	y.071 2 0110
min. Earth dist.	-7789 May 01 j 15:16	10° mp 00'21			-7783 Feb 24 j 16:43	0° ∡ ¹	
direct	-7789 Jul 08 j 21:12	6° m 43'59		retrograde	-7783 May 15 j 17:40	5° ∡ 10'47	
evening set	-7789 Oct 16 j 18:28	14° m 02'39		opposition	-7783 Jul 22 j 11:09	1° ∡ ³38'11	-1°41'33
•	·			min. Earth dist.	-7783 Jul 22 j 04:35	1° ∡ ³39'33	7.83186 AU
conjunction	-7789 Nov 02 j 11:05	16° m 05'48	1°37'28		-7783 Aug 11 j 22:31	30°RM₊	
minimum elong	-7789 Nov 02 j 11:08	16°M/05'49	1°37'38	direct	-7783 Sep 26 j 01:53	28°ML10'31	
max. Earth dist.	-7789 Nov 01 j 15:04	15° m 59'36	10.61466 AU		-7783 Nov 09 j 03:18	0° ∡ ¹	
morning rise	-7789 Nov 19 j 07:46	18° My $10^{\circ}17$		evening set	-7782 Jan 06 j 22:32	6° ∡ ³31'52	
retrograde	-7788 Mar 03 j 15:45	25° m 54'05					
opposition	-7788 May 13 j 01:26	22° m 29'30		conjunction	-7782 Jan 24 j 20:30	8° ∡ 755'33	-1°35'24
min. Earth dist.	-7788 May 13 j 17:14	22° Mp 26'27	8.52850 AU	minimum elong	-7782 Jan 24 j 20:26	8° ∡ 755'31	
direct	-7788 Jul 20 j 09:24	19° m 08'39		max. Earth dist.	-7782 Jan 25 j 07:43	8° ∡ 759'19	9.80173 AU
evening set	-7788 Oct 28 j 07:49	26° Mp 36'56		morning rise	-7782 Feb 11 j 22:59	11° ∡ ¹20'39	
				retrograde	-7782 May 31 j 05:40	20° ∡ ¹06'52	
conjunction	-7788 Nov 14 j 05:24	28° m/43'51		opposition	-7782 Aug 06 j 11:19	16° ∡ ³33'53	
minimum elong	-7788 Nov 14 j 05:27	28° m/43'52		min. Earth dist.	-7782 Aug 06 j 00:27	16° ∡ 36'11	7.78409 AU
max. Earth dist.	-7788 Nov 13 j 13:19	•	10.44298 AU	direct	-7782 Oct 10 j 23:45	13° х 05'01	
	-7788 Nov 24 j 07:25	0° ⊽		evening set	-7781 Jan 22 j 18:16	21° ∡ ³32'53	
morning rise	-7788 Dec 01 j 07:38	0° ჲ 52'19 8° ჲ 49'59		amiumatian	7701 Eak 00 : 10.52	23° ∡ 757'39	2000122
retrograde opposition	-7787 Mar 17 j 15:48 -7787 May 26 j 15:19	5° £ 23'21	1000'50	conjunction minimum elong	-7781 Feb 09 j 18:53 -7781 Feb 09 j 18:49		
min. Earth dist.	-7787 May 20 j 13.19 -7787 May 27 j 03:03		8.35630 AU	max. Earth dist.	-7781 Feb 10 j 11:52		9.77487 AU
direct	-7787 May 27 j 03:03	2° ₽ 01'19	8.33030 AC	morning rise	-7781 Feb 10 j 11:32 -7781 Feb 27 j 22:49	26° × 23'26	9.77487 AU
evening set	-7787 Nov 10 j 10:45	9° £ 40'12		morning rise	-7781 Mar 28 j 20:50	0°중	
evening sec	77071107 10 j 10.15) — 10 12		retrograde	-7781 Jun 15 j 15:51	5°る08'40	
conjunction	-7787 Nov 27 j 13:44	11° £ 51'05	0°40'03	opposition	-7781 Aug 21 j 11:33	1°る35'52	-2°43'32
minimum elong	-7787 Nov 27 j 13:46	11° ≏ 51'06	0°40'00	min. Earth dist.	-7781 Aug 20 j 20:53		7.78017 AU
max. Earth dist.	-7787 Nov 27 j 02:07		10.27339 AU		-7781 Sep 10 j 03:27	30°R ✓	
morning rise	-7787 Dec 14 j 21:53	14° ≏ 03'44		direct	-7781 Oct 26 j 03:00	28° ₹ ¹06'02	
retrograde	-7786 Apr 01 j 04:19	22° £ 15′07			-7781 Dec 10 j 07:08	ರ°0	
opposition	-7786 Jun 09 j 14:26	18° ≏ 46'32	0°28'22	evening set	-7780 Feb 07 j 18:08	6° る 37'02	
min. Earth dist.	-7786 Jun 09 j 21:36	18° ≏ 45'06	8.19115 AU				
direct	-7786 Aug 15 j 12:30	15° ≏ 23'09		conjunction	-7780 Feb 25 j 20:23	9° ට 01'48	-2°17'12
evening set	-7786 Nov 24 j 04:19	23° ₽ 13'19		minimum elong	-7780 Feb 25 j 20:21	9° ට 01'47	
				max. Earth dist.	-7780 Feb 26 j 18:07	9°₹09'06	9.79273 AU
conjunction	-7786 Dec 11 j 12:46	25° ≏ 28'10	0°05'54	morning rise	-7780 Mar 15 j 00:31	11° ට 27'06	
minimum elong	-7786 Dec 11 j 12:46	25° £ 28'10	0°05'44	retrograde	-7780 Jun 29 j 20:26	20° ろ 06'38	
behind sun begin	-7786 Dec 11 j 05:52	25° £ 25'56		opposition	-7780 Sep 04 j 08:54	16°る34'33	
behind sun end	-7786 Dec 11 j 19:41	25° £ 30'23	10 11520 ATT	min. Earth dist.	-7780 Sep 03 j 15:13		7.82031 AU
max. Earth dist.	-7786 Dec 11 j 05:59		10.11530 AU	direct	-7780 Nov 09 j 08:08	13°る04'05	
morning rise	-7786 Dec 29 j 02:47	27° £ 44'53		evening set	-7779 Feb 22 j 17:01	21° る 34'26	
desc. node	-7785 Jan 16 j 07:21 -7785 Feb 12 j 15:16	0°ጤ 2°ጤ57'12		conjunction	-7779 Mar 12 j 19:58	23° る 58'09	-2°24'41
retrograde	-7785 Apr 16 j 01:54	6°ML09'00		minimum elong	-7779 Mar 12 j 19:58	23°る58'09	
opposition	-7785 Jun 23 j 22:27	2°M38'42	-0°15'28	max. Earth dist.	-7779 Mar 12 j 19.58	23 3 3809 24° る 06'27	9.85386 AU
min. Earth dist.	-7785 Jun 24 j 00:53		8.04262 AU	morning rise	-7779 Mar 30 j 23:15	24 80027 26° る 21'55	7.02200 AU
Zarur diot.	-7785 Jul 31 j 07:59	2 11 0 36 12	5.0.202710		-7779 Apr 29 j 13:06	0°≈	
direct	-7785 Aug 29 j 06:21	29° ₽ 13'52		retrograde	-7779 Jul 14 j 16:09	4°≈51'35	
	-7785 Sep 26 j 19:32	0° M		min. Earth dist.	-7779 Sep 18 j 05:22	1°≈24'48	7.90123 AU
evening set	-7785 Dec 08 j 12:44	7°M15'26		opposition	-7779 Sep 19 j 00:42	1° ≈ 20'44	
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,	-7779 Oct 05 j 11:36	•		opposition	-7773 Dec 07 j 03:48	20° Υ ′58'50	-0°21'37
direct	-7779 Nov 24 j 11:54	27°る50'02		min. Earth dist.	-7773 Dec 06 j 20:00	21° Y ′00'20	8.82243 AU
	-7778 Jan 12 j 18:15	0°≈		direct	-7772 Feb 15 j 19:23	17° Y 33'57	
evening set	-7778 Mar 10 j 10:10	6°≈16′01		evening set	-7772 May 30 j 23:40	24° Y ′58′01	
conjunction	-7778 Mar 28 j 12:53	8° ≈ 37'49	-2°22'37	conjunction	-7772 Jun 17 j 09:34	27° Υ '00'56	-0°02'17
minimum elong	-7778 Mar 28 j 12:54	8° ≈ 37'50	2°23'04	minimum elong	-7772 Jun 17 j 09:34	27° Y ′00'56	0°02'06
max. Earth dist.	-7778 Mar 29 j 15:07	8° ≈ 46′26	9.95350 AU	behind sun begin	-7772 Jun 17 j 02:26	26° Y 58'51	
morning rise	-7778 Apr 15 j 14:25	10° ≈ 59'11		behind sun end	-7772 Jun 17 j 16:41	27° Y °03'01	
	-7778 May 19 j 02:24	15° ≈		max. Earth dist.	-7772 Jun 17 j 16:28		10.89928 AU
retrograde	-7778 Jul 29 j 00:36	19° ≈ 15'52		morning rise	-7772 Jul 04 j 13:52	29° Y ′02'16	
opposition	-7778 Oct 03 j 08:46	15° ≈ 46'42			-7772 Jul 12 j 23:56	0° 8	
min. Earth dist.	-7778 Oct 02 j 13:22		8.01702 AU	asc. node	-7772 Jul 15 j 14:01	0° 8 17'22	
	-7778 Oct 12 j 19:08	15°R ≈		retrograde	-7772 Oct 10 j 22:13	5° 8 58'55	
direct	-7778 Dec 09 j 11:06	12°≈16'11		opposition	-7772 Dec 18 j 06:14	2° 8 41'32	
	-7777 Feb 03 j 21:22	15° ≈		min. Earth dist.	-7772 Dec 18 j 03:01	2° 8 42'09	8.96941 AU
evening set	-7777 Mar 25 j 17:31	20° ≈ 34'38		T'	-7771 Jan 28 j 13:27	30°₹ Υ	
	7777 1 12:10:00	220 52151	2011146	direct	-7771 Feb 27 j 10:19	29° Y 18′05	
conjunction	-7777 Apr 12 j 19:09	22°≈53'51			-7771 Mar 29 j 04:16	0° と 6° と 32'52	
minimum elong max. Earth dist.	-7777 Apr 12 j 19:13 -7777 Apr 13 j 20:43	22°≈53'52	10.08460 AU	evening set	-7771 Jun 12 j 02:09	0.032.32	
morning rise	-7777 Apr 30 j 18:20	25°≈12'12	10.06400 AU	conjunction	-7771 Jun 29 j 07:22	8° 8 32'53	0027114
morning rise	-7777 Jun 11 j 16:11	23 ≈ 12 12 0° H		minimum elong	-7771 Jun 29 j 07:20	8° 6 32'53	0°27'30
retrograde	-7777 Aug 11 j 20:36	3°) 14′06		max. Earth dist.	-7771 Jun 29 j 08:40	_	11.03609 AU
retrograde	-7777 Oct 14 j 16:00	30°R≈		morning rise	-7771 Jul 16 j 07:19	10° 8 31'24	11.03007710
opposition	-7777 Oct 17 j 07:43	29°≈46'54	-2°33'55	morning rise	-7771 Aug 29 j 12:25	15° 8	
min. Earth dist.	-7777 Oct 16 j 13:32	29°≈50'39		retrograde	-7771 Oct 22 j 07:37	17° 8 20'31	
direct	-7777 Dec 24 j 02:49	26°≈16'59			-7771 Dec 17 j 13:09	15°R ႘	
	-7776 Feb 29 j 18:05	0°) €		opposition	-7771 Dec 30 j 02:57	14° 8 04'25	0°50'05
evening set	-7776 Apr 08 j 12:22	4°) €25'36		min. Earth dist.	-7771 Dec 30 j 04:02	14° 8 04'13	9.09545 AU
-				direct	-7770 Mar 11 j 17:37	10° 8 42'17	
conjunction	-7776 Apr 26 j 12:10	6°) (41'46	-1°53'31		-7770 May 28 j 11:30	15° 8	
minimum elong	-7776 Apr 26 j 12:14	6°) 41′47	1°53'46	evening set	-7770 Jun 23 j 19:06	17° 8 49'13	
max. Earth dist.	-7776 Apr 27 j 11:17	6°) 49′06	10.23846 AU				
morning rise	-7776 May 14 j 08:29	8° ¥ 56'45		conjunction	-7770 Jul 10 j 19:38	19° 8 46'43	
retrograde	-7776 Aug 24 j 04:11	16°) 43′17		minimum elong	-7770 Jul 10 j 19:36	19° 8 46'42	0°55'15
opposition	-7776 Oct 29 j 20:50	13° ¥ 18'14		max. Earth dist.	-7770 Jul 10 j 15:27		11.14911 AU
min. Earth dist.	-7776 Oct 29 j 04:49		8.32084 AU	morning rise	-7770 Jul 27 j 15:25	21° 8 42'51	
direct	-7775 Jan 06 j 10:18	9°) (49'15		retrograde	-7770 Nov 02 j 12:04	28° 8 26'41	
evening set	-7775 Apr 22 j 17:37	17°) (46′44		opposition	-7769 Jan 10 j 19:05	25° 8 11'31	1°22'20
	7775) (10 : 14 47	1001/50125	1020120	min. Earth dist.	-7769 Jan 10 j 23:45	25° 8 10'39	9.19545 AU
conjunction	-7775 May 10 j 14:47	19° ¥ 59'35		direct	-7769 Mar 23 j 16:50	21° 8 50'35	
minimum elong max. Earth dist.	-7775 May 10 j 14:51	19° ¥ 59'36	1°29'47 10.40565 AU	evening set	-7769 Jul 05 j 04:30	28° 8 51′18 0° Ⅱ	
morning rise	-7775 May 11 j 10:02 -7775 May 28 j 07:44	20 H 03 33 22° H 11'02	10.40363 AU		-7769 Jul 15 j 06:10	υщ	
retrograde	-7775 Sep 05 j 22:44	29° H 42'43		conjunction	-7769 Jul 22 j 00:43	0° ∏ 46'44	1°20'02
min. Earth dist.	-7775 Nov 11 j 10:20	26°\(\frac{1}{2}2'33\)	8.49063 AU	minimum elong	-7769 Jul 22 j 00:40	0° П 46'43	1°20'28
opposition	-7775 Nov 12 j 00:04	26° X 19'49		max. Earth dist.	-7769 Jul 21 j 16:29		11.23409 AU
direct	-7774 Jan 20 j 08:19	22°) 52'04	-	morning rise	-7769 Aug 07 j 16:31	2° I I40'58	
	-7774 May 01 j 00:58	$0^{\circ}\Upsilon$		retrograde	-7769 Nov 13 j 16:19	9° Ⅱ 21'45	
evening set	-7774 May 06 j 08:49	0° Ƴ 37'59		opposition	-7768 Jan 22 j 08:08	6° Ⅱ 07'10	1°50'59
-				min. Earth dist.	-7768 Jan 22 j 16:15	6° Ⅱ 05'41	9.26601 AU
conjunction	-7774 May 24 j 02:44	2° Ƴ 47'24	-1°02'02	direct	-7768 Apr 03 j 10:57	2° Ⅱ 47'15	
minimum elong	-7774 May 24 j 02:46	2° Y 47'25	1°02'04	evening set	-7768 Jul 15 j 08:13	9° Ⅱ 43′26	
max. Earth dist.	-7774 May 24 j 17:49		10.57704 AU				
morning rise	-7774 Jun 10 j 15:48	4° Y 55'18		conjunction	-7768 Aug 01 j 00:26	11° Ⅱ 37'17	1°41'57
retrograde	-7774 Sep 18 j 06:44	12° Y 13′28		minimum elong	-7768 Aug 01 j 00:23	11° Ⅱ 37'16	
opposition	-7774 Nov 24 j 18:07	8° Y 52'37		max. Earth dist.	-7768 Jul 31 j 12:32		11.28865 AU
min. Earth dist.	-7774 Nov 24 j 06:54	8° Y 54'49	8.66050 AU	morning rise	-7768 Aug 17 j 12:43	13° Ⅲ 30′08	
direct	-7773 Feb 02 j 19:56	5° Υ 26'17		retrograde	-7768 Nov 23 j 19:19	20° Ⅱ 09'57	201 :
evening set	-7773 May 19 j 10:18	13° Y 00′50		opposition	-7767 Feb 01 j 20:03	16° Ⅱ 55'35	2°15'24
	7772 X	1.50000	0022124	min. Earth dist.	-7767 Feb 02 j 08:12	16° Ⅱ 53'23	9.30556 AU
conjunction	-7773 Jun 06 j 00:28	15° Υ 06'56		direct	-7767 Apr 14 j 22:22	13° Ⅱ 36'30	
minimum elong	-7773 Jun 06 j 00:30	15° Υ 06'56	0°32'19 10.74412 AU	evening set	-7767 Jul 26 j 07:52	20° Ⅱ 29'41	
max. Earth dist.	-7773 Jun 06 j 11:47 -7773 Jun 23 j 09:17	15° γ 10'19 17° Υ 11'24	10.74412 AU	conjunction	7767 Aug 11: 20:20	22° ∏ 22'28	2°00'05
morning rise retrograde	-7773 Sep 30 j 07:22	$1/^{\circ}$ \gamma 11.24 24° \gamma 17'49		conjunction minimum elong	-7767 Aug 11 j 20:26 -7767 Aug 11 j 20:23	22° H 22'28 22° H 22'27	
renograde	1113 SCP 30 J 01.22	47 I 1/49		mammum ciong	1101 Aug 11 J 20.23	22 11 2221	2 00 30

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max. Earth dist.	-7767 Aug 11 j 04:14		11.31192 AU	minimum elong	-7761 Oct 16 j 04:39	28° Ω 43'56	2°06'46
morning rise	-7767 Aug 28 j 06:03	24° ∏ 14′29		C	-7761 Oct 26 j 16:42	0° m)	
C	-7767 Nov 01 j 00:23	0∘ ©		morning rise	-7761 Nov 01 j 18:16	0° m/43'25	
retrograde	-7767 Dec 04 j 22:09	0° © 55'23		retrograde	-7760 Feb 13 j 13:28	8° m) 08'31	
	-7766 Jan 08 j 15:10	30°RⅡ		opposition	-7760 Apr 24 j 08:58	4° m/46'12	2°24'44
opposition	-7766 Feb 13 j 07:59	27° Ⅱ 40′50	2°34'58	min. Earth dist.	-7760 Apr 25 j 02:48	4° m/42'51	8.75900 AU
min. Earth dist.	-7766 Feb 13 j 23:29	27° Ⅲ 38′01	9.31356 AU	direct	-7760 Jul 02 j 18:22	1° m/26'15	
direct	-7766 Apr 26 j 08:59	24° Ⅲ 22'16		evening set	-7760 Oct 10 j 14:19	8° Mp41'10	
	-7766 Jul 26 j 00:02	0 \circ \mathfrak{S}		max. Earth dist.	-7760 Oct 26 j 09:18	10° Mp 36'46	10.67848 AU
evening set	-7766 Aug 06 j 05:09	1° © 14'03					
				conjunction	-7760 Oct 27 j 05:03	10° m 42'50	1°47'57
conjunction	-7766 Aug 22 j 14:56	3° 5 06'19	2°13'58	minimum elong	-7760 Oct 27 j 05:06	10° m 42'51	1°48'10
minimum elong	-7766 Aug 22 j 14:54	3° 5 06'18	2°14'29	morning rise	-7760 Nov 12 j 23:14	12° m 45'41	
max. Earth dist.	-7766 Aug 21 j 19:42	3° 5 00'47	11.30373 AU	retrograde	-7759 Feb 25 j 19:46	20° m 23'27	
morning rise	-7766 Sep 07 j 22:42	4°958'03		opposition	-7759 May 07 j 09:00	16° m 59'13	1°58'49
retrograde	-7766 Dec 16 j 04:50	11° 9 341'55		min. Earth dist.	-7759 May 08 j 00:22	16° m 56'16	8.59587 AU
opposition	-7765 Feb 24 j 21:02	8°926'47	2°49'11	direct	-7759 Jul 15 j 01:04	13° m 38'22	
min. Earth dist.	-7765 Feb 25 j 14:24	8° 5 23'38	9.29002 AU	evening set	-7759 Oct 22 j 21:56	21° m)02'11	
direct	-7765 May 07 j 18:15	5° © 08'32		<i>8</i>	, ,	•	
evening set	-7765 Aug 17 j 01:41	12° © 00'25		conjunction	-7759 Nov 08 j 17:04	23°m 07'23	1°23'54
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			minimum elong	-7759 Nov 08 j 17:08	23° m) 07'24	
conjunction	-7765 Sep 02 j 09:43	13° © 52'43	2°23'09	max. Earth dist.	-7759 Nov 07 j 23:25		10.51246 AU
minimum elong	-7765 Sep 02 j 09:42	13°952'43	2°23'40	morning rise	-7759 Nov 25 j 16:43	25° m) 14'03	10.51210110
max. Earth dist.	-7765 Sep 02 j 03:42		11.26444 AU	morning rise	-7758 Jan 08 j 00:40	0° ⊽	
morning rise	-7765 Sep 18 j 16:22	15°5944'46	11.20 111 A0	retrograde	-7758 Mar 11 j 14:05	ა <u>~</u> 3° ჲ 05'18	
retrograde	-7765 Dec 27 j 16:00	22° © 33'29		retrograde	-7758 May 16 j 06:47	30°R.M)	
opposition	-7764 Mar 07 j 12:51	19° © 17'25	2°57'33	opposition	-7758 May 10 j 00:47	29° m/39'08	1°26'11
min. Earth dist.		19°9514'02	9.23563 AU	min. Earth dist.		29° m) 36'39	8.42754 AU
	-7764 Mar 08 j 07:27	19 9 14 02 15° 9 59' 15	9.23303 AU		-7758 May 21 j 07:07 -7758 Jul 27 j 16:59	29 lly 30 39 26° lly 17'16	6.42/34 AU
direct	-7764 May 18 j 02:23			direct		20 m/1/10 0° ⊡	
evening set	-7764 Aug 26 j 23:20	22°552'44	11 10527 ATT		-7758 Oct 02 j 07:06		
max. Earth dist.	-7764 Sep 11 j 08:23	24-939-16	11.19527 AU	evening set	-7758 Nov 04 j 18:15	3° ჲ 51'09	
agniumation	7764 San 12:06:26	2496545141	2027110	aaniumatian	7750 Nov. 21: 10:22	69 0 00112	0°54'54
conjunction	-7764 Sep 12 j 06:26	24°5945'41	2°27'18	conjunction	-7758 Nov 21 j 18:32	6° Ω 00'12	
minimum elong	-7764 Sep 12 j 06:26	24°5945'41	2°27'48	minimum elong	-7758 Nov 21 j 18:34	6° 2 00'13	
morning rise	-7764 Sep 28 j 13:06	26°538'39		max. Earth dist.	-7758 Nov 21 j 04:41		10.34499 AU
. 1	-7764 Oct 30 j 05:56	0° Ω		morning rise	-7758 Dec 09 j 00:02	8° 2 10'57	
retrograde	-7763 Jan 07 j 09:24	3° Ω 33'58	20.50120	retrograde	-7757 Mar 25 j 19:53	16° Ω 15'55	00.451.45
opposition	-7763 Mar 19 j 08:49	0° Ω 16'42		opposition	-7757 Jun 03 j 12:54	12° Ω 47'55	
min. Earth dist.	-7763 Mar 20 j 04:48		9.15218 AU	min. Earth dist.	-7757 Jun 03 j 22:10	12° ≏ 46'06	8.26223 AU
	-7763 Mar 23 j 04:17	30°დ		direct	-7757 Aug 09 j 18:38	9° ≏ 24'55	
direct	-7763 May 29 j 12:06	26° © 58'22		evening set	-7757 Nov 18 j 04:34	17° ≏ 09'46	
_	-7763 Jul 31 j 11:56	$0^{\circ}\Omega$					
evening set	-7763 Sep 07 j 00:00	3° Ω 54'59		conjunction	-7757 Dec 05 j 10:23	19° ≏ 22'46	0°22'01
max. Earth dist.	-7763 Sep 22 j 07:36	5° {\2 42'16	11.09857 AU	minimum elong	-7757 Dec 05 j 10:24	19° ≏ 22'46	0°21'54
				max. Earth dist.	-7757 Dec 05 j 01:56		10.18471 AU
conjunction	-7763 Sep 23 j 07:11	5° Ω 49'12		morning rise	-7757 Dec 22 j 21:45	21° ≏ 37'36	
minimum elong	-7763 Sep 23 j 07:12	5° Ω 49'12	2°26'31	retrograde	-7756 Apr 08 j 11:58	29° ≏ 55'50	
morning rise	-7763 Oct 09 j 15:09	7° Ω 43'43		opposition	-7756 Jun 16 j 16:51	26° ≙ 26'12	0°05'07
retrograde	-7762 Jan 19 j 08:04	14° Ω 47'23		min. Earth dist.	-7756 Jun 16 j 21:22	26° ≏ 25'17	8.10910 AU
opposition	-7762 Mar 31 j 10:04	11° Ω 28'38	2°55'05	desc. node	-7756 Jul 30 j 07:59	23° ≏ 31'11	
min. Earth dist.	-7762 Apr 01 j 06:52	11° Ω 24'48	9.04243 AU	direct	-7756 Aug 22 j 08:14	23° ഫ 01'59	
direct	-7762 Jun 10 j 00:45	8° Ω 09'55			-7756 Nov 23 j 14:52	0°M	
	-7762 Sep 16 j 14:49	15° Ω		evening set	-7756 Dec 01 j 05:46	0°M58'09	
evening set	-7762 Sep 18 j 05:19	15° Ω 11'11					
				conjunction	-7756 Dec 18 j 17:04	3° M 14'56	-0°13'13
conjunction	-7762 Oct 04 j 13:54	17° Ω 07'17		minimum elong	-7756 Dec 18 j 17:03	3° ™ 14'56	0°13'27
minimum elong	-7762 Oct 04 j 13:56	17° Ω 07'18	2°19'33	behind sun begin	-7756 Dec 18 j 13:01	3° ™ 13'37	
max. Earth dist.	-7762 Oct 03 j 14:50	17° Ω 00′25	10.97738 AU	behind sun end	-7756 Dec 18 j 21:06	3°M16'15	
morning rise	-7762 Oct 21 j 00:15	19° Ω 04'00		max. Earth dist.	-7756 Dec 18 j 14:58	3°M14'16	10.04092 AU
retrograde	-7761 Jan 31 j 17:29	26° Ω 17'40		morning rise	-7755 Jan 05 j 09:54	5°M33'37	
opposition	-7761 Apr 12 j 17:43	22° Ω 57'11	2°43'30	retrograde	-7755 Apr 23 j 14:01	14° M 03'39	
min. Earth dist.	-7761 Apr 13 j 13:36	22° Ω 53′29	8.90984 AU	opposition	-7755 Jul 01 j 05:03	10°M32'38	-0°39'23
direct	-7761 Jun 21 j 19:43	19° Ω 37'56		min. Earth dist.	-7755 Jul 01 j 04:12	10°M32'49	7.97753 AU
evening set	-7761 Sep 29 j 17:24	26° Ω 45′18		direct	-7755 Sep 05 j 07:45	7°ML07'13	
max. Earth dist.	-7761 Oct 15 j 07:08		10.83560 AU		-7755 Dec 14 j 01:47	15° ™	
	·			evening set	-7755 Dec 15 j 22:05	15°M14'23	
conjunction	-7761 Oct 16 j 04:36	28° Ω 43'55	2°06'27	-	ž		
-	ž						

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7754 in astronomical counting style is the year 7755 BCE in historical counting style. -7754 Jan 02 j 14:19 17°M34'30 -0°48'34 morning rise -7748 Apr 23 j 05:21 18°≈55'05 conjunction -7754 Jan 02 j 14:17 17°ML34'30 -7748 Aug 04 j 22:40 27°≈04'07 minimum elong 0°48'54 retrograde -7754 Jan 02 j 18:35 17°M35'55 9.92289 AU -7748 Oct 10 j 08:15 max. Earth dist. opposition 23°≈36'30 -2°43'37 -7754 Jan 20 j 11:50 -7748 Oct 09 j 14:20 19°M56'25 min. Earth dist. 23°≈40'11 8.09728 AU morning rise -7754 May 08 j 23:16 -7748 Dec 16 j 19:12 retrograde 28°M35'37 direct 20°≈06'43 28°**≈**20'19 -7754 Jul 15 j 23:44 opposition 25°M03'39 -1°22'44 evening set -7747 Apr 02 j 04:08 -7754 Jul 15 j 17:39 min. Earth dist. 25°M04'55 7.87635 AU -7747 Apr 15 j 06:18 0°**∀** direct -7754 Sep 19 j 16:39 21°M37'01 -7747 Apr 20 j 04:58 0°\ 38'00 -2°02'38 evening set -7754 Dec 31 j 03:51 29°M54'04 conjunction -7754 Dec 31 j 21:55 0°×7 minimum elong -7747 Apr 20 j 05:01 0°\mathfrak{H}38'01 2°02'56 max. Earth dist. -7747 Apr 21 j 03:33 0°**¥**45'14 10.16839 AU -7753 Jan 18 j 00:10 2°**∡**16'44 -1°21'36 -7747 May 08 j 02:47 conjunction morning rise 2°**)** 54'38 -7747 Aug 18 j 13:31 minimum elong -7753 Jan 18 j 00:06 2°**х** 16'42 1°22'01 retrograde 10°**)**48'43 max. Earth dist. -7753 Jan 18 j 10:32 2°**∡**¹20'12 9.83895 AU min. Earth dist. -7747 Oct 23 j 09:37 7°**)**€26'25 8.24521 AU morning rise -7753 Feb 05 j 01:10 4°**х** 40′57 opposition -7747 Oct 24 j 02:25 7°**¥**22'59 -2°20'08 retrograde -7753 May 24 j 12:16 13°**∡**25'41 direct -7747 Dec 31 j 06:53 3°¥53'51 opposition -7753 Jul 30 j 22:53 9°**х** 53'15 -2°01'31 evening set -7746 Apr 16 j 16:24 11° ¥ 57'03 min. Earth dist. -7753 Jul 30 j 12:18 9°**×**⁷55'28 7.81281 AU direct -7753 Oct 04 j 10:11 6°**∡**¹25'28 conjunction -7746 May 04 j 15:03 14° **X** 11'35 -1°41'07 evening set -7752 Jan 15 j 19:55 14°**≯**50'11 minimum elong -7746 May 04 j 15:07 14°**₩**11'37 1°41'19 max. Earth dist. -7746 May 05 j 11:28 14°**)** 18′01 10.32483 AU conjunction -7752 Feb 02 i 19:17 17°**∡**14'23 -1°49'39 morning rise -7746 May 22 i 09:36 16° **)** 24'47 minimum elong -7752 Feb 02 i 19:13 17°**∡**14'22 1°50'08 retrograde -7746 Aug 31 i 14:53 24° ¥ 03'52 max. Earth dist. -7752 Feb 03 i 11:17 17°**₹**19'46 9.79535 AU opposition -7746 Nov 06 j 10:51 20°\(\)40'06 -1°49'54 morning rise -7752 Feb 20 j 22:29 19°**∡**39'49 min. Earth dist. -7746 Nov 05 i 20:24 20°**)** 43′00 8.40640 AU -7752 Jun 08 j 00:58 28°×725'38 -7745 Jan 14 i 09:45 17° ¥ 11'53 retrograde direct opposition -7752 Aug 13 j 23:30 24°**∡**153'13 -2°32'27 -7745 Apr 30 j 14:41 25°**)** 03'44 evening set -7752 Aug 13 j 09:24 min. Earth dist. 24°**₹**56'10 7.79147 AU -7752 Oct 18 j 11:30 -7745 May 18 j 10:24 21°×724'24 conjunction 27° **X** 14'56 -1°14'59 direct -7751 Jan 30 j 18:26 29°**х** 53'45 -7745 May 18 j 10:28 minimum elong 27°**)** 14'57 1°15'04 evening set -7751 Jan 31 j 13:25 -7745 May 19 j 03:22 0°ಕ max. Earth dist. 27°**∺**20'10 10.48996 AU -7745 Jun 05 j 01:16 29°**)** 24'37 morning rise -7751 Feb 17 j 19:51 -7745 Jun 09 j 23:17 $0^{\circ}\Upsilon$ conjunction 2°**ට**18'24 -2°10'26 -7745 Sep 13 j 04:25 6°Y49'33 -7751 Feb 17 j 19:47 2°る18'23 2°10'57 minimum elong retrograde -7751 Feb 18 j 16:07 2°る25'13 9.79505 AU -7745 Nov 19 j 09:37 3°**Y**27'43 -1°15'19 max. Earth dist. opposition -7751 Mar 07 j 23:54 -7745 Nov 18 j 22:36 3°**Y**29'53 8.57215 AU morning rise 4°る43'51 min. Earth dist. -7751 Jun 23 j 08:37 0°**Y**00'34 retrograde 13°**る**25'56 direct -7744 Jan 28 j 02:14 opposition -7751 Aug 28 j 22:22 9°る54'04 -2°52'56 evening set -7744 May 12 j 23:07 7°Υ41'01 min. Earth dist. -7751 Aug 28 j 06:05 9°る57'30 7.81306 AU 9°**Y**48'51 -0°46'03 direct -7751 Nov 02 j 16:42 6°る24'28 conjunction -7744 May 30 j 15:11 -7750 Feb 15 j 18:18 14°る54'53 minimum elong -7744 May 30 j 15:13 9° Y 48'51 0° 46'00 evening set max. Earth dist. -7744 May 31 j 03:09 9°Υ52'28 10.65514 AU -7750 Mar 05 j 20:45 17°る18'57 -2°22'19 -7744 Jun 17 j 02:07 11°**Y**55'05 conjunction morning rise -7750 Mar 05 j 20:44 17°る18'57 2°22'49 -7744 Sep 24 j 08:13 19° **Y**07'23 minimum elong retrograde -7750 Mar 06 j 19:27 17°る26'32 9.83693 AU -7744 Nov 30 j 23:33 15°**Y**47'19 -0°38'33 max. Earth dist. opposition -7750 Mar 24 i 00:30 15°**Υ**48'49 8.73415 AU morning rise 19°る43'19 min. Earth dist. -7744 Nov 30 i 15:51 -7750 Jul 08 i 07:51 12°Y21'25 retrograde 28°る17'24 direct -7743 Feb 09 i 08:01 19°**Y**50′59 opposition -7750 Sep 12 i 16:55 24° **ප්**46'35 -3°01'31 evening set -7743 May 25 j 18:31 min. Earth dist. -7750 Sep 11 j 23:33 24°る50'14 7.87458 AU direct -7750 Nov 17 i 21:52 21°る16'32 -7743 Jun 12 j 06:25 21°Y55'33 -0°15'56 conjunction -7749 Mar 03 j 14:20 29°る44'27 -7743 Jun 12 i 06:25 21°**Y**55'33 0°15'47 evening set minimum elong -7749 Mar 05 j 14:19 behind sun begin -7743 Jun 12 j 05:19 21°Y55'14 0°≈≈ behind sun end -7743 Jun 12 j 07:32 21°Y55'53 21°Υ57'38 10.81251 AU conjunction -7749 Mar 21 j 16:59 2°≈07'03 -2°24'37 max. Earth dist. -7743 Jun 12 j 13:24 23°Y58'32 minimum elong -7749 Mar 21 j 17:00 2°≈07'03 2°25'05 morning rise -7743 Jun 29 j 13:04 max. Earth dist. -7749 Mar 22 j 16:42 2°≈14'52 9.91682 AU -7743 Sep 01 j 23:24 0°8 -7749 Apr 08 j 19:29 4°≈29'27 retrograde -7743 Oct 06 j 01:51 1°800'09 morning rise -7749 Jul 22 j 20:56 -7743 Nov 09 j 20:11 30°RY retrograde 12°≈52'13 -7749 Sep 26 j 10:48 -7743 Dec 13 j 05:36 27°\bar{Y}41'38 -0°01'26 min. Earth dist. 9°≈26'37 7.97122 AU opposition -7749 Sep 27 j 04:49 27°**Y**42'33 opposition 9°≈22'52 -2°58'03 min. Earth dist. -7743 Dec 13 j 00:51 8.88515 AU 26°Y36'04 direct -7749 Dec 02 j 23:46 5°≈52'47 asc. node -7743 Dec 27 j 19:09 24° Y 17'02 evening set -7748 Mar 18 j 02:43 14°≈14'54 direct -7742 Feb 22 j 05:19 -7748 Mar 23 j 23:19 15°**≈** -7742 May 23 j 18:01 0°8 evening set -7742 Jun 07 j 02:06 1°**8**36'44 conjunction -7748 Apr 05 j 04:50 16°≈35'19 -2°17'41 minimum elong -7748 Apr 05 j 04:53 16°≈35'20 2°18'05 -7742 Jun 24 j 09:37 3°838'16 0°14'04 conjunction max. Earth dist. -7748 Apr 06 j 04:33 -7742 Jun 24 j 09:36 3°**8**38'16 0°14'18 16°≈43'02 10.02957 AU minimum elong

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		-	n astronomical coi		7743 BCE in historical c		11 20725 ATT
behind sun begin	-7742 Jun 24 j 06:17	3° 8 37'18		max. Earth dist.	-7736 Aug 27 j 04:47		11.28725 AU
behind sun end	-7742 Jun 24 j 12:55	3° 8 39'14	10.05540.411	morning rise	-7736 Sep 13 j 06:36	11°508'40	
max. Earth dist.	-7742 Jun 24 j 12:34		10.95549 AU	retrograde	-7736 Dec 21 j 20:52	17°954'43	205.412.0
morning rise	-7742 Jul 11 j 11:47	5° 8 38'17		opposition	-7735 Mar 02 j 16:47	14°939'11	2°54'30
retrograde	-7742 Oct 17 j 15:07	12° 8 31'21		min. Earth dist.	-7735 Mar 03 j 10:14	14°536'01	9.26877 AU
opposition	-7742 Dec 25 j 05:07	9° 8 14'08	0°34'33	direct	-7735 May 13 j 09:14	11°521'06	
min. Earth dist.	-7742 Dec 25 j 03:39	9° 8 14'25	9.01917 AU	evening set	-7735 Aug 22 j 11:44	18° © 13'28	
direct	-7741 Mar 06 j 16:27	5° 8 50'50					
evening set	-7741 Jun 18 j 23:25	13° 8 01'56		conjunction	-7735 Sep 07 j 18:59	20°505'58	2°26'02
	-7741 Jul 05 j 23:41	15° 8		minimum elong	-7735 Sep 07 j 18:58	20° © 05'58	2°26'33
		. ==1		max. Earth dist.	-7735 Sep 06 j 22:30		11.23851 AU
conjunction	-7741 Jul 06 j 02:25	15° 8 00'48	0°42'41	morning rise	-7735 Sep 24 j 01:35	21°958'21	
minimum elong	-7741 Jul 06 j 02:23	15° 8 00'47	0°43'00	retrograde	-7734 Jan 02 j 11:29	28°950'04	
max. Earth dist.	-7741 Jul 06 j 01:37		11.07869 AU	opposition	-7734 Mar 14 j 10:34	25° © 33'39	2°59'24
morning rise	-7741 Jul 23 j 00:08	16° 8 58'12		min. Earth dist.	-7734 Mar 15 j 04:57	25° © 30'19	9.20525 AU
retrograde	-7741 Oct 28 j 22:37	23° 8 44'52		direct	-7734 May 24 j 19:24	22°©15'45	
opposition	-7740 Jan 05 j 23:30	20° 8 28'43	1°08'13	evening set	-7734 Sep 02 j 10:40	29° © 10'21	
min. Earth dist.	-7740 Jan 06 j 02:13	20° 8 28'13	9.13136 AU		-7734 Sep 09 j 14:58	0 $^{\circ}\Omega$	
direct	-7740 Mar 17 j 17:38	17° 8 06'39					
evening set	-7740 Jun 29 j 12:31	24° 8 10'41		conjunction	-7734 Sep 18 j 17:43	1° Ω 03'47	
				minimum elong	-7734 Sep 18 j 17:44		2°27'42
conjunction	-7740 Jul 16 j 10:49	26° 8 07'14	1°09'05	max. Earth dist.	-7734 Sep 17 j 20:53		11.16071 AU
minimum elong	-7740 Jul 16 j 10:47	26° 8 07'13	1°09'29	morning rise	-7734 Oct 05 j 00:50	2° Ω 57'22	
max. Earth dist.	-7740 Jul 16 j 05:08		11.17790 AU	retrograde	-7733 Jan 14 j 07:59	9° Ω 56'28	
morning rise	-7740 Aug 02 j 04:27	28° 8 02'29		opposition	-7733 Mar 26 j 08:49	6° Ω 38'51	
	-7740 Aug 20 j 02:55	$0^{\circ}\Pi$		min. Earth dist.	-7733 Mar 27 j 03:25	6° Ω 35'27	9.11344 AU
retrograde	-7740 Nov 08 j 01:42	4° Ⅱ 44'55		direct	-7733 Jun 05 j 05:57	3° Ω 20'53	
opposition	-7739 Jan 16 j 14:06	1° Ⅱ 29'33	1°38'38	evening set	-7733 Sep 13 j 13:32	10° Ω 19'14	
min. Earth dist.	-7739 Jan 16 j 20:49	1° Ⅱ 28'19	9.21803 AU				
	-7739 Feb 06 j 14:22	30° ₹ 8		conjunction	-7733 Sep 29 j 21:21		2°22'52
direct	-7739 Mar 29 j 14:45	28° 8 08'35		minimum elong	-7733 Sep 29 j 21:23	12° Ω 14'13	2°23'18
	-7739 May 18 j 07:36	$0^{\circ}\Pi$		max. Earth dist.	-7733 Sep 28 j 23:48		11.05607 AU
evening set	-7739 Jul 10 j 18:51	5° Ⅱ 07'10		morning rise	-7733 Oct 16 j 06:14	14° Ω 09'37	
					-7733 Oct 23 j 14:18	15° Ω	
conjunction	-7739 Jul 27 j 12:48		1°32'33	retrograde	-7732 Jan 26 j 13:25	21° Ω 17'43	
minimum elong	-7739 Jul 27 j 12:45	7° Ⅱ 01'49		opposition	-7732 Apr 06 j 13:08	17° Ω 58'40	2°49'23
max. Earth dist.	-7739 Jul 27 j 02:37		11.25014 AU	min. Earth dist.	-7732 Apr 07 j 08:04	17° Ω 55'10	8.99601 AU
morning rise	-7739 Aug 13 j 02:50	8° I I55'25			-7732 May 26 j 18:44	15°RΩ	
retrograde	-7739 Nov 19 j 04:16	15° Ⅱ 35'47		direct	-7732 Jun 15 j 20:52	14° Ω 40′20	
opposition	-7738 Jan 28 j 02:32	12° Ⅱ 20'50	2°05'03		-7732 Jul 05 j 17:13	15° Ω	
min. Earth dist.	-7738 Jan 28 j 11:55	12° Ⅱ 19'07	9.27650 AU	evening set	-7732 Sep 23 j 22:02	21° Ω 43'53	
direct	-7738 Apr 10 j 06:04	9° Ⅱ 00'54		max. Earth dist.	-7732 Oct 09 j 09:28	23° &l 34'22	10.92772 AU
evening set	-7738 Jul 21 j 20:01	15° Ⅱ 55'33					
						0	
conjunction		150 110151	1050105	conjunction	-7732 Oct 10 j 07:39	23°Ω41'00	2°12'48
	-7738 Aug 07 j 10:17	17° Ⅱ 48'51	1°52'27	minimum elong	-7732 Oct 10 j 07:41	23° Ω 41′01	2°12'48 2°13'09
minimum elong	-7738 Aug 07 j 10:14	17° Ⅱ 48'50	1°52'57		-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34	23° Ω 41'01 25° Ω 38'53	
max. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31	17° Ⅱ 48'50 17° Ⅱ 45'12		minimum elong morning rise	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42	23° Ω 41'01 25° Ω 38'53 0° M	
max. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08	17° Ⅱ 48'50 17° Ⅱ 45'12 19° Ⅱ 41'17	1°52'57	minimum elong	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31	23°Ω41'01 25°Ω38'53 0°M 2°M57'31	
max. Earth dist. morning rise retrograde	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06	17°Щ48'50 17°Щ45'12 19°Щ41'17 26°Щ21'37	1°52'57 11.29319 AU	minimum elong morning rise retrograde	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50	$23^{\circ}\Omega 41'01$ $25^{\circ}\Omega 38'53$ 0° m $2^{\circ}\text{ m}57'31$ $30^{\circ}\text{R}\Omega$	2°13'09
max. Earth dist. morning rise retrograde opposition	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08	17°П48'50 17°П45'12 19°П41'17 26°П21'37 23°П06'47	1°52'57 11.29319 AU 2°26'51	minimum elong morning rise retrograde opposition	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32	23° N41'01 25° N38'53 0° M 2° M57'31 30° RN 29° N36'47	2°13'09 2°33'53
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58	17°Щ48'50 17°Щ45'12 19°Щ41'17 26°Щ21'37 23°Щ06'47 23°Щ04'38	1°52'57 11.29319 AU	minimum elong morning rise retrograde opposition min. Earth dist.	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27	23° \$\Omega 41'01\\ 25° \$\Omega 38'53\\ 0° \$\mathrm{m}\\ 2° \$\mathrm{m} 57'31\\ 30° \$\Ranklet \Omega \\ 29° \$\Omega 36'47\\ 29° \$\Omega 33'15\\	2°13'09
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17	17°Щ48'50 17°Щ45'12 19°Щ41'17 26°Щ21'37 23°Щ06'47 23°Щ04'38 19°Щ47'42	1°52'57 11.29319 AU 2°26'51	minimum elong morning rise retrograde opposition	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15	23° \(\Omega 41'01\) 25° \(\Omega 38'53\) 0° \(\Omega \) 2° \(\Omega 57'31\) 30° \(\Omega \) 29° \(\Omega 36'47\) 29° \(\Omega 33'15\) 26° \(\Omega 17'50\)	2°13'09 2°33'53
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58	17°Щ48'50 17°Щ45'12 19°Щ41'17 26°Щ21'37 23°Щ06'47 23°Щ04'38	1°52'57 11.29319 AU 2°26'51	minimum elong morning rise retrograde opposition min. Earth dist. direct	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27	23° \$\Omega 41'01\ 25° \$\Omega 38'53\ 0° m\ 2° m\ 57'31\ 30° r. \Omega 29° \$\Omega 36'47\ 29° \$\Omega 33'15\ 26° \$\Omega 17'50\ 0° m\ \end{align*}	2°13'09 2°33'53
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09	17°Щ48'50 17°Щ45'12 19°Щ41'17 26°Щ21'37 23°Щ06'47 23°Щ04'38 19°Щ47'42 26°Щ40'02	1°52'57 11.29319 AU 2°26'51 9.30487 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11	23° \(\Omega 41'01\) 25° \(\Omega 38'53\) 0° \(\mathref{m} \) 2° \(\mathref{m} 57'31\) 30° \(\mathref{R} \Omega \) 29° \(\Omega 33'15\) 26° \(\Omega 17'50\) 0° \(\mathref{m} \) 3° \(\mathref{m} 28'06\)	2°13'09 2°33'53 8.85653 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17	minimum elong morning rise retrograde opposition min. Earth dist. direct	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27	23° \(\Omega 41'01\) 25° \(\Omega 38'53\) 0° \(\mathref{m} \) 2° \(\mathref{m} 57'31\) 30° \(\mathref{R} \Omega \) 29° \(\Omega 33'15\) 26° \(\Omega 17'50\) 0° \(\mathref{m} \) 3° \(\mathref{m} 28'06\)	2°13'09 2°33'53
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02 28° Щ32'30 28° Щ32'29	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47	23° \(\Omega 41'01 \) 25° \(\Omega 38'53 \) 0° \(\mathref{m} \) 2° \(\mathref{m} 57'31 \) 30° \(\mathref{R} \Omega \) 29° \(\Omega 36'47 \) 29° \(\Omega 33'15 \) 26° \(\Omega 17'50 \) 0° \(\mathref{m} \) 3° \(\mathref{m} 28'06 \) 5° \(\mathref{m} 21'32 \)	2°13'09 2°33'53 8.85653 AU 10.77952 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 17 j 13:50	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02 28° Щ32'30 28° Щ32'29 28° Щ32'04	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47	23° \$\alpha 41'01\ 25° \$\alpha 38'53\ 0° m\ 2° m>57'31\ 30° R\alpha\ 29° \$\alpha 36'47\ 29° \$\alpha 33'15\ 26° \$\alpha 17'50\ 0° m\ 3° m\ 28'06\ 5° m\ 21'32\ 5° m\ 27'58\ \lefter{8}	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02 28° Щ32'30 28° Щ32'29 28° Щ32'04 0° \$\mathref{G}\$	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:55 -7731 Oct 22 j 02:58	23° \(\Omega 41'01 \) 25° \(\Omega 38'53 \) 0° \(\mathref{m} \) 2° \(\mathref{m} 57'31 \) 30° \(\mathref{k} \) 29° \(\Omega 36'47 \) 29° \(\Omega 33'15 \) 26° \(\Omega 17'50 \) 0° \(\mathref{m} \) 3° \(\mathref{m} 28'06 \) 5° \(\mathref{m} 21'32 \) 5° \(\mathref{m} 27'58 \) 5° \(\mathref{m} 27'59 \)	2°13'09 2°33'53 8.85653 AU 10.77952 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02 28° Щ32'30 28° Щ32'29 28° Щ28'04 0° \$\mathref{G}\$ 0° \$\mathref{G}\$24'19	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:55 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53	23° \$\Pi^41'01\ 25° \$\Pi^33'53\ 0° \$\pi\$\ 2° \$\pi^57'31\ 30° \$\Rightarrow \Omega 30'47\ 29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \$\pi\$\ 3° \$\pi^22'58\ 5° \$\pi^27'59\ 7° \$\pi^28'53\ \end{array}	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15	17° Щ48'50 17° Щ45'12 19° Щ41'17 26° Щ21'37 23° Щ06'47 23° Щ04'38 19° Щ47'42 26° Щ40'02 28° Щ32'30 28° Щ32'29 28° Щ28'04 0° 90 0° 9024'19 7° 906'33	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03	23° \$\Pi^41'01\ 25° \$\Pi^33'53\ 0° \$\Pi^6\ 2° \$\Pi^57'31\ 30° \Rad{29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \$\Pi^6\ 3° \$\Pi^22'58\ 5° \$\Pi^27'59\ 7° \$\Pi^28'53\ 14° \$\Pi^59'30\ \end{align*}	2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19	17° П48'50 17° П45'12 19° П41'17 26° П21'37 23° П06'47 23° П04'38 19° П47'42 26° П40'02 28° П32'30 28° П32'29 28° П28'04 0° Ф 0° Ф24'19 7° Ф06'33 3° Ф51'33	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44	23° \$\Pi^41'01\ 25° \$\Pi^38'53\ 0° \$\Pi^6\ 20° \$\Pi^57'31\ 30° \Rad{29° \$\Pi^36'47\ 29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \$\Pi^6\ 5° \$\Pi^21'32\ 5° \$\Pi^27'58\ 5° \$\Pi^27'59\ 7° \$\Pi^28'53\ 14° \$\Pi^59'30\ 11° \$\Pi^36'52\ \end{align*}	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12 2°11'14
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19 -7736 Feb 20 j 17:11	17° II 48'50 17° II 45'12 19° II 41'17 26° II 21'37 23° II 06'47 23° II 04'38 19° II 47'42 26° II 40'02 28° II 32'30 28° II 32'29 28° II 28'04 0° 9 0° 924'19 7° 906'33 3° 951'33 3° 948'51	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44 -7730 May 02 j 13:20	23° \(\Omega 41'01 \) 25° \(\Omega 38'53 \) 0° \(\mathref{m} \) 2° \(\mathref{m} \) 57'31 \) 30° \(\alpha \) 29° \(\Omega 36'47 \) 29° \(\Omega 33'15 \) 26° \(\Omega 17'50 \) 0° \(\mathref{m} \) 3° \(\mathref{m} \) 28'06 \) 5° \(\mathref{m} \) 22'58 \) 5° \(\mathref{m} \) 27'58 \) 5° \(\mathref{m} \) 27'59 \) 7° \(\mathref{m} \) 28'53 \) 14° \(\mathref{m} \) 36'52 \) 11° \(\mathref{m} \) 33'32	2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19 -7736 Feb 20 j 17:11 -7736 May 02 j 01:03	17° II 48'50 17° II 45'12 19° II 41'17 26° II 21'37 23° II 06'47 23° II 04'38 19° II 47'42 26° II 40'02 28° II 32'30 28° II 32'29 28° II 28'04 0° © 0° © 24'19 7° © 06'33 3° © 51'33 3° © 48'51 0° © 33'05	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44 -7730 May 02 j 13:20 -7730 Jul 09 j 20:41	23° \$\Pi^41'01\ 25° \$\Pi^33'53\ 0° \$\pi\ 2° \$\Pi^57'31\ 30° \Rank \Omega 29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \$\pi\ 3° \$\Pi^22'58\ 5° \$\Pi^27'59\ 7° \$\Pi^28'53\ 14° \$\Pi^59'30\ 11° \$\Pi^33'32\ 8° \$\Pi^17'05\ \Omega 17'05\ \Omega	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12 2°11'14
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19 -7736 Feb 20 j 17:11	17° II 48'50 17° II 45'12 19° II 41'17 26° II 21'37 23° II 06'47 23° II 04'38 19° II 47'42 26° II 40'02 28° II 32'30 28° II 32'29 28° II 28'04 0° 9 0° 924'19 7° 906'33 3° 951'33 3° 948'51	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44 -7730 May 02 j 13:20	23° \(\Omega 41'01 \) 25° \(\Omega 38'53 \) 0° \(\mathref{m} \) 2° \(\mathref{m} \) 57'31 \) 30° \(\alpha \) 29° \(\Omega 36'47 \) 29° \(\Omega 33'15 \) 26° \(\Omega 17'50 \) 0° \(\mathref{m} \) 3° \(\mathref{m} \) 28'06 \) 5° \(\mathref{m} \) 22'58 \) 5° \(\mathref{m} \) 27'58 \) 5° \(\mathref{m} \) 27'59 \) 7° \(\mathref{m} \) 28'53 \) 14° \(\mathref{m} \) 36'52 \) 11° \(\mathref{m} \) 33'32	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12 2°11'14
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19 -7736 Feb 20 j 17:11 -7736 May 02 j 01:03 -7736 Aug 11 j 14:55	17° II 48'50 17° II 45'12 19° II 41'17 26° II 21'37 23° II 06'47 23° II 04'38 19° II 47'42 26° II 40'02 28° II 32'30 28° II 32'29 28° II 28'04 0° © 0° © 24'19 7° © 06'33 3° © 51'33 3° © 548'51 0° © 33'05 7° © 24'40	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU 2°43'30 9.30227 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:55 -7731 Oct 22 j 02:55 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44 -7730 May 02 j 13:20 -7730 Jul 09 j 20:41 -7730 Oct 17 j 15:59	23° \$\Pi^41'01\ 25° \$\Pi^338'53\ 0° \$\pi^57'31\ 30° \Rad{29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \pi^3 \text{32}\ 5° \pi^227'58\ 5° \pi^227'59\ 7° \pi^228'53\ 14° \pi^59'30\ 11° \pi^33'32\ 8° \pi^17'05\ 15° \pi^35'33\ \text{33}\ \text{33}\ \text{34}\ \text{35}\ \pi^3 \pi^35'33\ \text{35}\ \pi^35'33\ \text{35}\ \pi^3 \pi^35'33\ \text{35}\ \pi^35'33\ \pi^35'33\ \text{35}\ \pi^35'33\ \text{35}\ \pi^35'33\ \pi	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12 2°11'14 8.69951 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7738 Aug 07 j 10:14 -7738 Aug 06 j 21:31 -7738 Aug 23 j 21:08 -7738 Nov 30 j 08:06 -7737 Feb 08 j 14:08 -7737 Feb 09 j 01:58 -7737 Apr 21 j 17:17 -7737 Aug 01 j 18:09 -7737 Aug 18 j 05:17 -7737 Aug 18 j 05:15 -7737 Aug 17 j 13:50 -7737 Aug 30 j 23:28 -7737 Sep 03 j 13:42 -7737 Dec 11 j 13:15 -7736 Feb 20 j 02:19 -7736 Feb 20 j 17:11 -7736 May 02 j 01:03	17° II 48'50 17° II 45'12 19° II 41'17 26° II 21'37 23° II 06'47 23° II 04'38 19° II 47'42 26° II 40'02 28° II 32'30 28° II 32'29 28° II 28'04 0° © 0° © 24'19 7° © 06'33 3° © 51'33 3° © 48'51 0° © 33'05	1°52'57 11.29319 AU 2°26'51 9.30487 AU 2°08'17 2°08'48 11.30566 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-7732 Oct 10 j 07:41 -7732 Oct 26 j 19:34 -7732 Dec 06 j 23:42 -7731 Feb 07 j 02:31 -7731 Apr 13 j 19:50 -7731 Apr 19 j 00:32 -7731 Apr 19 j 19:27 -7731 Jun 27 j 16:15 -7731 Sep 04 j 05:27 -7731 Oct 05 j 14:11 -7731 Oct 21 j 05:47 -7731 Oct 22 j 02:58 -7731 Nov 07 j 18:53 -7730 Feb 20 j 02:03 -7730 May 01 j 19:44 -7730 May 02 j 13:20 -7730 Jul 09 j 20:41	23° \$\Pi^41'01\ 25° \$\Pi^33'53\ 0° \$\pi\ 2° \$\Pi^57'31\ 30° \Rank \Omega 29° \$\Pi^33'15\ 26° \$\Pi^17'50\ 0° \$\pi\ 3° \$\Pi^22'58\ 5° \$\Pi^27'59\ 7° \$\Pi^28'53\ 14° \$\Pi^59'30\ 11° \$\Pi^33'32\ 8° \$\Pi^17'05\ \Omega 17'05\ \Omega	2°13'09 2°33'53 8.85653 AU 10.77952 AU 1°56'56 1°57'12 2°11'14

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7730 in astronomical counting style is the year 7731 BCE in historical counting style. -7730 Nov 02 j 14:21 17° m 33'00 10.61661 AU conjunction -7723 Jan 25 j 17:25 10°**₹**24'32 -1°37'12 max. Earth dist. 19° m 43'15 -7730 Nov 20 j 05:44 -7723 Jan 25 j 17:20 10°**∡**⁷24'30 1°37'40 morning rise minimum elong -7729 Mar 05 j 14:51 27° m 26'58 -7723 Jan 26 j 05:06 10°**∡**28'27 9.80777 AU max. Earth dist. retrograde 12°**х**⁴49'30 -7729 May 14 j 23:49 -7723 Feb 12 j 19:46 24° m 02'22 1°41'42 opposition morning rise -7729 May 15 j 14:29 -7723 Jun 01 j 01:49 21°×35'11 min. Earth dist. 23° m 59'33 8.53129 AU retrograde -7729 Jul 22 j 07:49 18°**₹**02'15 -2°19'03 direct 20° m 41'36 opposition -7723 Aug 07 j 07:14 7.78999 AU 28° m 09'35 min. Earth dist. evening set -7729 Oct 30 j 05:26 -7723 Aug 06 j 20:06 18°**х** 04′36 0∘**⊽** -7729 Nov 13 j 22:51 direct -7723 Oct 11 j 20:23 14°**х** 33′25 -7722 Jan 23 j 14:53 23°**х** 00′56 max. Earth dist. -7729 Nov 15 j 11:36 0°**2**11'35 10.44641 AU evening set conjunction -7729 Nov 16 j 03:12 0°**ჲ**16'30 1°08'39 conjunction -7722 Feb 10 j 15:36 25°**∡**125'36 -2°01'39 -7729 Nov 16 j 03:15 -7722 Feb 10 j 15:32 minimum elong 0°**ჲ**16'31 1°08'42 minimum elong 25°**х** 25'34 2°02'09 -7729 Dec 03 j 05:35 -7722 Feb 11 j 08:57 9.78048 AU morning rise 2°**£**24'59 max. Earth dist. 25°**∡**³31′26 retrograde -7728 Mar 18 j 15:18 10°**£**22'25 morning rise -7722 Feb 28 j 19:22 27°**х** 51'15 opposition -7728 May 27 j 13:20 6°**£**55'49 1°05'54 -7722 Mar 17 j 12:51 0°정 min. Earth dist. -7728 May 28 j 00:19 6°**£**53'40 8.36034 AU retrograde -7722 Jun 16 j 11:48 6°**る**35'55 direct -7728 Aug 03 j 03:05 3°**£**33'52 opposition -7722 Aug 22 j 06:57 3°る03'10 -2°44'45 evening set -7728 Nov 11 j 08:20 11°**♀**12'27 min. Earth dist. -7722 Aug 21 j 16:03 3°る06'19 7.78546 AU -7722 Oct 05 j 11:17 30°R ×7 conjunction -7728 Nov 28 j 11:22 13°**2**23'18 0°37'30 direct -7722 Oct 26 j 23:08 29°**х** 33′21 minimum elong -7728 Nov 28 j 11:24 13°**≏**23'18 0°37'26 -7722 Nov 17 j 08:46 0°궁 max. Earth dist. -7728 Nov 27 j 23:23 13°**♀**19'27 10.27797 AU evening set -7721 Feb 08 i 14:28 8°る04'03 morning rise -7728 Dec 15 i 19:45 15°**♀**35'55 retrograde -7727 Apr 02 j 02:02 23°**₽**47'00 conjunction -7721 Feb 26 i 16:45 10°る28'43 -2°17'53 opposition -7727 Jun 10 j 12:14 20°**♀**18′28 0°25'08 minimum elong -7721 Feb 26 i 16:42 10°る28'42 2°18'24 -7727 Jun 10 j 19:22 20°**₽**17'03 8.19616 AU max. Earth dist. -7721 Feb 27 j 14:35 10°る36'02 9.79756 AU min. Earth dist. -7727 Aug 16 j 10:11 -7721 Mar 16 j 20:42 12°る53'53 16° £ 55'09 morning rise direct -7727 Nov 25 j 01:44 24°**£**45'00 -7721 Jul 01 j 15:49 21°る32'54 evening set retrograde 18°**る**04'34 7.82463 AU -7721 Sep 05 j 10:28 min. Earth dist. 0°03'19 -7727 Dec 12 j 10:14 26°**♀**59'47 -7721 Sep 06 j 04:00 18°る00'52 -2°59'06 conjunction opposition 14°る30'24 -7721 Nov 11 j 03:29 -7727 Dec 12 j 10:14 26°**♀**59'47 0°03'08 direct minimum elong -7720 Feb 24 j 12:53 -7727 Dec 12 j 03:04 26°**£**57'28 23°る00'28 behind sun begin evening set -7727 Dec 12 j 17:25 27°**₽**02'06 behind sun end 25°る24'07 -2°24'46 -7727 Dec 12 j 02:53 26°**♀**57'25 10.12074 AU -7720 Mar 13 j 15:48 max. Earth dist. conjunction -7727 Dec 30 j 00:30 -7720 Mar 13 j 15:47 25°る24'07 2°25'14 morning rise 29°**₽**16'27 minimum elong -7726 Jan 04 j 18:03 -7720 Mar 14 j 16:27 25°る32'19 9.85761 AU 0°M max. Earth dist. -7726 Jan 16 j 16:12 -7720 Mar 31 j 18:59 desc. node 1°M27'39 morning rise 27°**る**47'46 retrograde -7726 Apr 16 j 22:35 7° ML40'10-7720 Apr 18 j 05:21 0°≈ opposition -7726 Jun 24 j 19:53 4°ML09'57 -0°18'40 retrograde -7720 Jul 15 j 11:10 6°≈17'01 min. Earth dist. -7726 Jun 24 j 22:52 4°**ጤ**09'21 8.04833 AU opposition -7720 Sep 19 j 19:32 2°≈46'12 -3°01'17 direct -7726 Aug 30 j 04:17 0°ML45'11 min. Earth dist. -7720 Sep 19 j 00:57 2°≈50'07 7.90437 AU -7726 Dec 09 j 10:07 8° ML46'23-7720 Oct 28 j 00:02 30°Ŗる evening set direct -7720 Nov 25 j 06:37 29°る15'28 -7726 Dec 26 j 23:48 11°ML04'47 -0°32'13 -7720 Dec 23 j 13:22 conjunction 0°≈ -7726 Dec 26 j 23:46 11°ML04'46 0°32'31 -7719 Mar 11 j 05:43 minimum elong evening set 7°≈41'15 -7726 Dec 26 j 22:17 max. Earth dist. 11°ML04'17 9.98418 AU -7719 Mar 29 i 08:22 10°≈03'00 -2°22'07 morning rise -7725 Jan 13 j 19:13 13°M25'03 conjunction -7719 Mar 29 i 08:24 -7725 Jan 26 i 06:19 15°M minimum elong 10°≈03'01 2°22'32 retrograde -7725 May 02 i 03:24 21°M59'27 max. Earth dist. -7719 Mar 30 i 09:40 10°**≈**11'19 9.95597 AU -7725 Jul 09 i 10:56 18°M27'52 -1°02'48 -7719 Apr 16 i 09:56 12°≈24'18 opposition morning rise min. Earth dist. -7725 Jul 09 j 09:21 18°ML28'12 7.92618 AU -7719 May 07 i 09:01 15°**≈** -7725 Sep 13 j 08:38 15°ML01'39 -7719 Jul 29 j 19:31 20°≈40'38 direct retrograde -7725 Dec 24 j 08:39 23°M13'32 -7719 Oct 03 j 09:05 17°≈15'18 8.01877 AU evening set min. Earth dist. opposition -7719 Oct 04 j 03:22 17°≈11'30 -2°51'50 conjunction -7724 Jan 11 j 02:59 25°M34'57 -1°06'34 -7719 Nov 01 j 16:04 15°R≈ minimum elong -7724 Jan 11 j 02:55 25°M₂34'56 1°06'57 direct -7719 Dec 10 j 05:28 13°≈40'55 -7724 Jan 11 j 08:08 max. Earth dist. 25°M36'40 9.87734 AU -7718 Jan 17 j 16:39 15°≈ -7724 Jan 29 j 02:30 27°M58'04 -7718 Mar 26 j 12:52 21°**≈**59'16 morning rise evening set -7724 Feb 14 j 01:01 0°**∡**¹ -7724 May 16 j 13:38 -7718 Apr 13 j 14:26 retrograde 6°**х** 40′08 conjunction 24°≈18′28 -2°10′43 -7718 Apr 13 j 14:29 opposition -7724 Jul 23 j 07:33 3°**∡**07'37 -1°44'04 minimum elong 24°≈18'29 2°11'03 min. Earth dist. -7724 Jul 23 j 01:04 3°**≯**08'58 7.83803 AU max. Earth dist. -7718 Apr 14 j 14:33 24°≈26′16 10.08556 AU -7724 Sep 08 j 08:17 30°RM morning rise -7718 May 01 j 13:41 26°≈36'48 direct -7724 Sep 26 j 22:31 29° M 40'00-7718 May 29 j 21:55 0°**)**€

retrograde

opposition

min. Earth dist.

-7718 Aug 12 j 15:35

-7718 Oct 17 j 08:55

-7718 Oct 18 j 02:16

4°**)** 38'27

1°**)** 14′50 8.16006 AU

1°¥11'16 -2°32'19

-7724 Oct 15 j 09:46

-7723 Jan 07 j 19:20

evening set

0°**∡**

8°**₹**'00'58

•			•	/ *	7719 BCE in historical c	, ,	50 10
,	-7718 Nov 01 j 20:19	30°R≈		retrograde	-7712 Oct 23 j 02:54	18° 8 47'43	
direct	-7718 Dec 24 j 22:09	27° ≈ 41'16		opposition	-7712 Dec 30 j 22:48	15° 8 31'35	0°52'55
	-7717 Feb 15 j 05:42	0° ∀		min. Earth dist.	-7712 Dec 30 j 23:20	15° 8 31'29	9.08875 AU
evening set	-7717 Apr 10 j 07:26	5°) 49′53			-7711 Jan 07 j 00:41	15° ₹ 8	
-				direct	-7711 Mar 12 j 13:15	12° 8 09'26	
conjunction	-7717 Apr 28 j 07:11	8° ₩ 06'03	-1°52'01		-7711 May 13 j 13:50	15° 8	
minimum elong	-7717 Apr 28 j 07:15	8° ₩ 06'05	1°52'15	evening set	-7711 Jun 24 j 15:03	19° 8 16'49	
max. Earth dist.	-7717 Apr 29 j 04:58	8° ¥ 12'59	10.23779 AU	_			
morning rise	-7717 May 16 j 03:35	10°) 21′04		conjunction	-7711 Jul 11 j 15:30	21° 8 14'22	0°57'09
retrograde	-7717 Aug 25 j 21:31	18° ₩ 07'31		minimum elong	-7711 Jul 11 j 15:28	21° 8 14'22	0°57'31
opposition	-7717 Oct 31 j 15:22	14°) 42′26	-2°04'55	max. Earth dist.	-7711 Jul 11 j 12:00	21° 8 13'21	11.14246 AU
min. Earth dist.	-7717 Oct 30 j 23:26	14° ¥ 45'39	8.31938 AU	morning rise	-7711 Jul 28 j 11:05	23° 8 10'35	
direct	-7716 Jan 08 j 06:29	11° ∺ 13'23		retrograde	-7711 Nov 03 j 09:44	29° 8 54'54	
evening set	-7716 Apr 23 j 12:31	19° ₩ 10'57		opposition	-7710 Jan 11 j 15:27	26° 8 39'41	1°24'58
•				min. Earth dist.	-7710 Jan 11 j 19:30	26° 8 38'56	9.18895 AU
conjunction	-7716 May 11 j 09:45	21° ∺ 23'50	-1°27'47	direct	-7710 Mar 24 j 13:57	23° 8 18'44	
minimum elong	-7716 May 11 j 09:49	21° ∺ 23'51	1°27'55		-7710 Jul 03 j 02:00	$\Pi^{\circ}0$	
max. Earth dist.	-7716 May 12 j 04:23	21°) € 29'39	10.40342 AU	evening set	-7710 Jul 06 j 00:45	0° Ⅱ 19'50	
morning rise	-7716 May 29 j 02:42	23°) ₹35'19		8			
Ü	-7716 Aug 02 j 08:39	$0^{\circ}\Upsilon$		conjunction	-7710 Jul 22 j 20:50	2° Ⅱ 15'19	1°22'05
retrograde	-7716 Sep 06 j 16:57	1° Y 07'05		minimum elong	-7710 Jul 22 j 20:48	2° Ⅱ 15'19	1°22'31
, and the second	-7716 Oct 12 j 13:49	30° ₹		max. Earth dist.	-7710 Jul 22 j 13:23	2° Ⅱ 13'11	11.22779 AU
opposition	-7716 Nov 12 j 18:35	27°) 44'08	-1°32'03	morning rise	-7710 Aug 08 j 12:23	4° Ⅱ 09'36	
min. Earth dist.	-7716 Nov 12 j 04:34		8.48757 AU	retrograde	-7710 Nov 14 j 13:20	10° Ⅱ 50'50	
direct	-7715 Jan 21 j 03:35	24° ₭ 16'20		opposition	-7709 Jan 23 j 05:07	7° Ⅱ 36'13	1°53'20
	-7715 Apr 19 j 14:42	0°Υ		min. Earth dist.	-7709 Jan 23 j 13:28	7° Ⅱ 34'41	9.25997 AU
evening set	-7715 May 07 j 03:45	2° Υ 02'25		direct	-7709 Apr 05 j 05:55	4° Ⅱ 16'19	y. 2 0/
e renning see	,, 10 1.1 u y 0, 1 05.10	- 1 02 20		evening set	-7709 Jul 17 j 04:43	11° I I12'48	
conjunction	-7715 May 24 j 21:47	4° Υ 11'55	-0°59'54		7,70,700 27,900		
minimum elong	-7715 May 24 j 21:49	4°Υ11'56		conjunction	-7709 Aug 02 j 20:40	13° Ⅱ 06'42	1°43'43
max. Earth dist.	-7715 May 25 j 13:10		10.57328 AU	minimum elong	-7709 Aug 02 j 20:37	13° I 106'41	1°44'12
morning rise	-7715 Jun 11 j 10:43	6° Υ 19'51	10.57520110	max. Earth dist.	-7709 Aug 02 j 08:23		11.28274 AU
retrograde	-7715 Sep 19 j 02:58	13° Y 38'12		morning rise	-7709 Aug 19 j 08:54	14° II 59'37	11.20271110
opposition	-7715 Nov 25 j 12:53	10° Υ 17'18	-0°55'59	retrograde	-7709 Nov 25 j 15:25	21° II 39'55	
min. Earth dist.	-7715 Nov 25 j 01:57		8.65596 AU	opposition	-7708 Feb 03 j 17:24	18° Ⅱ 25'30	2°17'21
direct	-7714 Feb 03 j 13:25	6°Υ50'55	0.03370710	min. Earth dist.	-7708 Feb 04 j 05:46	18° II 23'15	9.29986 AU
evening set	-7714 May 20 j 05:30	14° Υ 25'46		direct	-7708 Apr 15 j 19:25	15° I 106'23	7.27700 He
evening sec	7711 May 20 J 03.50	11 125 10		evening set	-7708 Jul 27 j 04:38	21° I I59'56	
conjunction	-7714 Jun 06 j 19:37	16° Ƴ 31'56	-0°30'06	evening set	7700 Jul 27 J 04.50	21 113730	
minimum elong	-7714 Jun 06 j 19:39	16° Υ 31'56		conjunction	-7708 Aug 12 j 17:01	23° Ⅱ 52'45	2°01'30
max. Earth dist.	-7714 Jun 07 j 07:05		10.73896 AU	minimum elong	-7708 Aug 12 j 16:58	23° I I52'44	2°02'00
morning rise	-7714 Jun 24 j 04:15	18° Y 36'28	10.75070110	max. Earth dist.	-7708 Aug 12 j 00:49		11.30626 AU
retrograde	-7714 Oct 01 j 02:05	25° Y 43'11		morning rise	-7708 Aug 29 j 02:35	25° I I44'49	11.50020110
opposition	-7714 Dec 07 j 23:00	22° Υ 24'10	-0°18'45	moning mo	-7708 Oct 10 j 17:02	0ಂಣ	
min. Earth dist.	-7714 Dec 07 j 16:01	22° Υ 25'30	8.81673 AU	retrograde	-7708 Dec 05 j 19:54	2°526'12	
direct	-7713 Feb 16 j 14:20	18° Y 59'14			-7707 Feb 02 j 23:44	30°R Ⅱ	
evening set	-7713 Jun 01 j 19:06	26° Y 23'41		opposition	-7707 Feb 14 j 05:37	29° Ⅱ 11'36	2°36'28
asc. node	-7713 Jun 17 j 05:42	28° Ƴ 12'43		min. Earth dist.	-7707 Feb 14 j 20:26	29° Ⅱ 08'55	9.30800 AU
	, , , , , , , , , , , , , , , , , , ,			direct	-7707 Apr 27 j 06:48	25° Ⅱ 53'04	
conjunction	-7713 Jun 19 j 04:48	28° Y 26'40	0°00'10		-7707 Jul 12 j 04:00	0ංම	
minimum elong	-7713 Jun 19 j 04:47	28° Υ 26'40	0°00'21	evening set	-7707 Aug 07 j 02:09	2°545'09	
behind sun begin	-7713 Jun 18 j 21:41	28° Y '24'35			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
behind sun end	-7713 Jun 19 j 11:52	28° Υ 28'45		conjunction	-7707 Aug 23 j 11:54	4°537'28	2°14'58
max. Earth dist.	-7713 Jun 19 j 11:02		10.89313 AU	minimum elong	-7707 Aug 23 j 11:52	4°937'27	2°15'29
man zarin dibi.	-7713 Jul 02 j 08:45	0°8	10.07515110	max. Earth dist.	-7707 Aug 22 j 17:43		11.29820 AU
morning rise	-7713 Jul 06 j 09:03	0° 8 28'04		morning rise	-7707 Sep 08 j 19:29	6°529'15	11.29020710
retrograde	-7713 Oct 12 j 17:45	7° 8 25'08		retrograde	-7707 Dec 17 j 03:04	13° © 13'38	
opposition	-7713 Dec 20 j 01:46	4° 8 07'44	0°18'00	opposition	-7706 Feb 25 j 19:13	9° 9 58'27	2°50'09
min. Earth dist.	-7713 Dec 19 j 22:58	4° 8 08'16	8.96301 AU	min. Earth dist.	-7706 Feb 26 j 11:43	9° 9 55'27	9.28457 AU
direct	-7712 Feb 29 j 06:04	0° 8 44'14		direct	-7706 May 08 j 15:37	6°940'14	
evening set	-7712 Jun 12 j 21:48	7° 8 59'28		evening set	-7706 Aug 17 j 22:57	13°932'22	
	,,120mi 12 j 21.40	, 00,20		max. Earth dist.	-7706 Sep 02 j 10:51		11.25907 AU
conjunction	-7712 Jun 30 j 02:49	9° 8 59'33	0°29'35	max. Darm dist.	7,00 Sep 02 j 10.31	15 -105/	11.20701 AU
minimum elong	-7712 Jun 30 j 02:48	9° 8 59'33	0°29'52	conjunction	-7706 Sep 03 j 06:56	15° © 24'45	2°23'42
max. Earth dist.	-7712 Jun 30 j 03:30		11.02945 AU	minimum elong	-7706 Sep 03 j 06:55	15° © 24'44	
morning rise	-7712 Jul 17 j 02:46	11° 8 58'09		morning rise	-7706 Sep 19 j 13:31	17°916'51	· · -
	-7712 Aug 14 j 06:54	15° 8		retrograde	-7706 Dec 28 j 15:31	24°506'02	
	17,00.04				200 201 10.01		

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7705 in astronomical counting style is the year 7706 BCE in historical counting style. -7705 Mar 09 j 11:30 20°549'57 2°57'56 retrograde -7699 Mar 12 j 13:07 4°**£**40'53 opposition opposition -7705 Mar 10 j 06:08 20°946'33 9.23040 AU -7699 May 21 j 17:54 1°**£**14'38 1°23'06 min. Earth dist. -7705 May 20 j 00:17 17°931'48 min. Earth dist. -7699 May 22 j 06:47 1°**£**12'08 8.42593 AU direct -7699 Jun 07 j 02:49 -7705 Aug 28 j 21:00 24°9525'30 30°R M evening set -7705 Sep 13 j 05:34 27° m 52'42 max. Earth dist. direct -7699 Jul 28 j 16:20 26°512'00 11.19021 AU -7699 Sep 16 j 00:55 0∘ಹ -7705 Sep 14 j 03:59 conjunction 26°9518'32 2°27'20 evening set -7699 Nov 05 j 17:04 5°**£**26'34 -7705 Sep 14 j 03:59 minimum elong 26°9518'32 2°27'50 -7705 Sep 30 j 10:48 morning rise 28°911'35 conjunction -7699 Nov 22 j 17:42 7°**£**35'41 0°52'18 0°52'17 -7705 Oct 16 j 18:43 $0^{\circ}\Omega$ minimum elong -7699 Nov 22 j 17:44 7°**£**35'42 retrograde -7704 Jan 09 j 06:34 5°**Ω**07′20 max. Earth dist. -7699 Nov 22 j 04:56 7°**£**31'37 10.34387 AU -7699 Dec 09 j 23:24 opposition -7704 Mar 20 j 07:41 1°**Ω**50′01 2°59'24 morning rise 9°**£**46'29 min. Earth dist. -7704 Mar 21 j 03:54 1°**Ω**46′20 9.14728 AU retrograde -7698 Mar 26 j 18:13 17°**£**51'29 -7704 Apr 15 j 21:57 30°Rூ opposition -7698 Jun 04 j 12:20 14°**£**23'24 0°44'24 direct -7704 May 30 j 09:36 28°931'42 min. Earth dist. -7698 Jun 04 j 21:02 14°**≙**21'41 8.26161 AU -7704 Jul 12 j 12:58 $0^{\circ}\Omega$ direct -7698 Aug 10 j 19:05 11°**♀**00'21 evening set -7704 Sep 07 j 21:52 5°**Ω**28'31 evening set -7698 Nov 19 j 03:35 18°**£**45'07 max. Earth dist. -7704 Sep 23 j 06:06 7°**Ω**16'02 11.09387 AU conjunction -7698 Dec 06 j 09:42 20°**♀**58'11 0°19'17 conjunction -7704 Sep 24 j 05:07 7°**Ω**22'49 2°25'34 minimum elong -7698 Dec 06 j 09:43 20°**♀**58'11 0°19'09 minimum elong -7704 Sep 24 j 05:08 7°**Ω**22'49 2°26'01 max. Earth dist. -7698 Dec 06 j 02:06 20° **2**55'44 10.18449 AU morning rise -7704 Oct 10 j 13:12 9°**Ω**17'25 morning rise -7698 Dec 23 j 21:11 23°**₽**13'03 -7697 Feb 27 j 03:35 -7704 Dec 09 i 20:53 15°Ω 0°M retrograde -7703 Jan 20 i 07:33 16°Ω21'30 retrograde -7697 Apr 10 j 11:19 1°MJ31'13 -7703 Mar 03 j 22:31 15°RΩ -7697 May 23 j 11:26 30°R<u>Ω</u> -7703 Apr 01 j 09:12 13°**Ω**02'40 2°54'11 -7697 Jun 18 j 16:00 28°**₽**01'29 0°01'40 opposition opposition -7703 Apr 02 j 05:23 9.03790 AU min. Earth dist. -7697 Jun 18 j 19:46 28°**♀**00'44 8.10935 AU min. Earth dist. 12°**Ω**58'57 -7703 Jun 11 j 00:44 desc. node -7697 Jul 02 j 22:48 direct 9°**Ω**43'58 26° £ 53'54 -7703 Sep 03 j 15:14 -7697 Aug 24 j 07:02 15°Ω direct 24°**£**37'15 -7703 Sep 19 j 03:20 16°**Ω**45'21 -7697 Nov 12 j 13:06 0°M evening set -7697 Dec 03 j 04:55 evening set 2°M33'18 -7703 Oct 05 j 12:09 18°**Ω**41'33 2°18'09 conjunction -7703 Oct 05 j 12:11 -7697 Dec 20 j 16:20 4°M50'07 -0°15'56 18°**Ω**41'34 2°18'32 conjunction minimum elong -7703 Oct 04 j 14:14 18°**Ω**35'01 10.97309 AU -7697 Dec 20 j 16:19 4°ML50'07 0°16'11 max. Earth dist. minimum elong -7703 Oct 21 j 22:33 20°**£**38′21 -7697 Dec 20 j 14:24 morning rise max. Earth dist. 4°ML49'29 10.04151 AU -7702 Feb 01 j 17:33 27°**£**52′22 -7696 Jan 07 j 09:17 7°ML08'48 retrograde morning rise -7702 Apr 13 j 17:07 -7696 Mar 28 j 13:20 opposition 24°**Ω**31'49 2°41'58 15°M min. Earth dist. -7702 Apr 14 j 11:57 24°**Ω**28'18 8.90580 AU retrograde -7696 Apr 24 j 14:16 15°M38'41 direct -7702 Jun 22 j 17:59 21°Ω12'34 -7696 May 21 j 17:08 15°RM -7702 Sep 30 j 15:47 28° **Q**20'00 opposition -7696 Jul 02 j 03:57 12°ML07'38 -0°42'42 evening set -7702 Oct 14 j 13:16 0° m min. Earth dist. -7696 Jul 02 j 02:38 12°M07'54 7.97855 AU max. Earth dist. -7702 Oct 16 j 05:53 0° Np 12'17 10.83191 AU direct -7696 Sep 06 j 05:24 8°M42'09 -7696 Dec 02 j 13:26 15°M -7702 Oct 17 j 03:08 0° mp 18'42 2°04'57 -7696 Dec 16 j 21:12 16°M49'14 conjunction evening set -7702 Oct 17 j 03:11 0° m 18'43 2°05'15 minimum elong -7702 Nov 02 j 17:03 -7695 Jan 03 i 13:27 19°M09'19 -0°51'06 morning rise 2° m 18'18conjunction -7701 Feb 14 i 12:58 -7695 Jan 03 i 13:24 retrograde 9° m 43'40 minimum elong 19°ML09'18 0°51'27 opposition -7701 Apr 26 j 08:30 6° m 21'16 2°22'36 max. Earth dist. -7695 Jan 03 i 17:13 19°M10'34 9.92426 AU min. Earth dist. -7701 Apr 27 j 02:00 6° m 17'58 8.75563 AU morning rise -7695 Jan 21 i 11:06 21°M31'13 direct -7701 Jul 04 i 17:04 3°m01'17 -7695 Apr 26 j 07:10 0°**∡**7 -7701 Oct 12 j 12:58 10° m 16'15 -7695 May 09 j 23:25 0°**х** 10′12 evening set retrograde max. Earth dist. -7701 Oct 28 j 07:40 12° Mp 11'49 10.67557 AU -7695 May 23 j 14:18 30°RML 26°M38'13 -1°25'42 -7695 Jul 16 j 22:24 opposition -7695 Jul 16 j 16:29 conjunction -7701 Oct 29 j 03:49 12° m/18'01 1°46'00 min. Earth dist. 26°M39'27 7.87809 AU -7701 Oct 29 j 03:52 -7695 Sep 20 j 14:42 minimum elong 12° Mp 18'02 1°46'12 direct 23°M11'31 morning rise -7701 Nov 14 j 22:22 14° m 20'58 -7695 Dec 20 j 16:27 0°×7 retrograde -7700 Feb 27 j 19:37 21° m 58'54 evening set -7694 Jan 01 j 02:56 1°**х** 28′29 -7700 May 08 j 08:37 18°M)34'35 1°56'10 opposition -7700 May 09 j 00:19 18°Mp31'35 8.59331 AU -7694 Jan 18 j 23:13 3°**₹**51'06 -1°23'46 min. Earth dist. conjunction -7700 Jul 15 j 23:59 -7694 Jan 18 j 23:09 3°**₹**51'05 1°24'12 direct 15° m 13'41 minimum elong -7700 Oct 23 j 20:40 22° m 37'31 3°**≯**54'18 9.84102 AU evening set max. Earth dist. -7694 Jan 19 j 08:45 morning rise -7694 Feb 06 j 00:23 6°**х** 15′18 conjunction -7700 Nov 09 j 16:01 24° mp 42'47 1°21'34 retrograde -7694 May 25 j 11:43 14°**₹** 59'43 minimum elong -7700 Nov 09 j 16:05 24° Mp 42'481°21'40 opposition -7694 Jul 31 j 21:13 11° 27'18 -2°03'57 max. Earth dist. -7700 Nov 08 j 22:45 24° Mp 37'22 10.51041 AUmin. Earth dist. -7694 Jul 31 j 11:17 11°**х** 29′23 7.81520 AU -7700 Nov 26 j 15:58 26° m 49'32 -7694 Oct 05 j 09:25 7°**х** 59′28 morning rise direct -7700 Dec 24 j 01:21 0∘**⊽** -7693 Jan 16 j 19:00 16°**₹**¹24'08 evening set

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7693 in astronomical counting style is the year 7694 BCE in historical counting style. -7693 Feb 03 i 18:19 18°**∡**¹48'16 -1°51'20 morning rise -7687 May 23 j 06:06 17° **)** 53'01 conjunction -7693 Feb 03 i 18:15 18°**∡**¹48'15 1°51'49 -7687 Sep 01 j 10:39 25°\ 31'45 minimum elong retrograde -7693 Feb 04 j 09:29 18°**₹**′53'23 9.79801 AU -7687 Nov 07 j 06:42 22°\tag{08'06} -1°47'25 max. Earth dist. opposition -7693 Feb 21 j 21:34 -7687 Nov 06 j 17:23 21° × 13'38 min. Earth dist. 22°\mathbf{1}0'46 8.40955 AU morning rise -7693 Jun 09 j 22:57 29°×759'05 -7686 Jan 15 j 05:48 retrograde direct 18°**¥**39′52 -7693 Aug 15 j 21:29 26°**₹**26'44 -2°34'10 -7686 May 01 j 11:09 opposition evening set 26°**X**31'37 -7693 Aug 15 j 08:00 min. Earth dist. 26°**≯**29'34 7.79449 AU -7693 Oct 20 j 10:53 28°\(\frac{1}{42'47}\) -1°12'50 direct 22°**х** 57'55 conjunction -7686 May 19 j 06:42 -7686 May 19 j 06:45 -7692 Jan 21 j 11:46 0°ಕ minimum elong 28° **X** 42'48 1°12'54 evening set -7692 Feb 01 j 17:17 1°る27'11 max. Earth dist. -7686 May 19 j 22:12 28°**¥**47'34 10.49221 AU -7686 May 29 j 17:24 $0^{\circ}\Upsilon$ -7692 Feb 19 j 18:40 3°る51'46 -2°11'30 -7686 Jun 05 j 21:35 0°Υ52'25 conjunction morning rise -7692 Feb 19 j 18:37 -7686 Sep 14 j 00:17 8°Υ17'11 minimum elong 3°る51'45 2°12'01 retrograde max. Earth dist. -7692 Feb 20 j 14:30 3°₹58'26 9.79849 AU opposition -7686 Nov 20 j 05:32 4°Υ55'25 -1°12'32 morning rise -7692 Mar 08 j 22:44 6°る17'08 min. Earth dist. -7686 Nov 19 j 18:59 4°Υ57'30 8.57351 AU retrograde -7692 Jun 24 j 05:03 14°る58'48 direct -7685 Jan 28 j 22:19 1°Y28'19 opposition -7692 Aug 29 j 20:02 11°る27'01 -2°53'51 evening set -7685 May 14 j 19:19 9°Y08'44 min. Earth dist. -7692 Aug 29 j 03:52 11°る30'26 7.81710 AU direct -7692 Nov 03 j 15:11 7°る57'26 conjunction -7685 Jun 01 j 11:16 11°**Y**16'33 -0°43'41 evening set -7691 Feb 16 j 16:48 16°る27'39 minimum elong -7685 Jun 01 j 11:19 11°**Υ**16'34 0°43'38 max. Earth dist. -7685 Jun 01 j 22:11 11°Υ19'52 10.65556 AU conjunction -7691 Mar 06 j 19:19 18°る51'39 -2°22'43 morning rise -7685 Jun 18 j 22:11 13°**Y**22'47 minimum elong -7691 Mar 06 j 19:18 18°る51'38 2°23'13 retrograde -7685 Sep 26 i 02:58 20°Y35'07 max. Earth dist. -7691 Mar 07 j 18:08 18°る59'16 9.84165 AU opposition -7685 Dec 02 j 19:32 17°**Y**15′05 -0°35′34 morning rise -7691 Mar 24 j 23:01 21°る15'54 min. Earth dist. -7685 Dec 02 j 11:39 17°**Y**16′37 8.73363 AU -7691 Jul 09 j 04:05 29°る49'26 -7684 Feb 11 j 05:22 13°Y49'12 retrograde direct opposition -7691 Sep 13 j 14:09 26°る18'41 -3°01'35 -7684 May 26 j 14:44 21°Y18'52 evening set -7691 Sep 12 j 20:21 26°る22'25 7.88001 AU min. Earth dist. -7691 Nov 18 j 19:33 22°る48'39 -7684 Jun 13 j 02:38 23°Y23'27 -0°13'28 direct conjunction -7684 Jun 13 j 02:38 -7690 Feb 22 j 13:31 0°≈ 23°**Y**23'27 0°13'19 minimum elong -7690 Mar 04 j 12:31 -7684 Jun 12 j 22:33 23°Y22'15 1°≈16'10 behind sun begin evening set -7684 Jun 13 j 06:43 23°Y24'39 behind sun end 3°≈38'40 -2°24'22 -7690 Mar 22 j 15:15 -7684 Jun 13 j 09:36 23°Υ25'31 10.81106 AU conjunction max. Earth dist. -7690 Mar 22 j 15:16 3°≈38'40 2°24'49 -7684 Jun 30 j 09:08 25°**Y**26′26 minimum elong morning rise -7690 Mar 23 j 15:22 -7684 Aug 13 j 07:04 max. Earth dist. 3°≈46'38 9.92281 AU 0°8 -7690 Apr 09 j 17:36 6°≈00'56 -7684 Oct 06 j 23:20 2°**8**28'13 morning rise retrograde -7690 Jul 23 j 17:35 -7684 Nov 27 j 16:44 0°**8**23'05 retrograde 14°≈23'01 asc. node min. Earth dist. -7690 Sep 27 j 07:02 10°≈57'32 7.97743 AU -7684 Dec 02 j 23:58 30°RƳ opposition -7690 Sep 28 j 01:29 10°≈53'42 -2°57'19 opposition -7684 Dec 14 j 01:46 29°**Y**09'44 0°01'37 direct -7690 Dec 03 j 20:29 7°≈23'38 min. Earth dist. -7684 Dec 13 j 21:04 29°**Y**10′38 8.88272 AU -7689 Mar 14 j 01:01 15°≈ direct -7683 Feb 23 j 01:31 25°**Y**45′09 -7689 Mar 20 j 00:18 15°≈45'18 -7683 May 10 j 13:08 0°8 evening set -7683 Jun 07 j 22:32 3°**8**05'02 evening set -7689 Apr 07 j 02:29 18°≈05'36 -2°16'49 conjunction -7689 Apr 07 j 02:31 18°≈05'37 2°17'12 -7683 Jun 25 j 05:59 5°806'37 0°16'32 minimum elong conjunction -7689 Apr 08 j 02:38 max. Earth dist. 18°≈13'28 10.03578 AU minimum elong -7683 Jun 25 i 05:58 5°**8**06'37 0°16'47 -7689 Apr 25 i 02:47 morning rise 20°≈25'14 max. Earth dist. -7683 Jun 25 i 09:09 5°807'32 10.95215 AU retrograde -7689 Aug 06 j 19:59 28°≈33'38 morning rise -7683 Jul 12 i 07:55 7°806'38 min. Earth dist. -7689 Oct 11 j 10:44 25°≈09'45 8.10315 AU retrograde -7683 Oct 18 i 11:59 13°**8**59'58 -7689 Oct 12 i 04:34 25°≈06'04 -2°42'10 opposition -7683 Dec 26 j 01:46 10°842'47 0°37'33 opposition -7689 Dec 18 i 15:40 21°≈36'20 min. Earth dist. -7683 Dec 26 j 01:07 10°**8**42'54 9.01495 AU direct -7688 Apr 03 j 01:04 29°≈49'32 -7682 Mar 07 j 11:34 7°**8**19'28 evening set direct -7688 Apr 04 j 10:24 0°₩ -7682 Jun 19 j 20:07 14°830'52 evening set -7682 Jun 24 j 01:47 15°8 conjunction -7688 Apr 21 j 01:55 2°\(\)07'07 -2°01'14 minimum elong -7688 Apr 21 j 01:58 2°\mathbf{H}07'08 2°01'31 conjunction -7682 Jul 06 j 22:51 16°**8**29'45 0°45'04 max. Earth dist. -7688 Apr 22 j 00:36 2°**升**14'23 10.17380 AU minimum elong -7682 Jul 06 j 22:49 16°**8**29'45 0°45'24 -7688 May 08 j 23:35 4° #23'39 -7682 Jul 06 j 21:19 16°**8**29'18 11.07359 AU morning rise max. Earth dist. -7688 Aug 19 j 09:27 12°**)** 17'14 -7682 Jul 23 j 20:27 18°**8**27'13 retrograde morning rise -7688 Oct 24 j 22:26 8°**¥**51'36 -2°18'06 -7682 Oct 29 j 18:54 25°**8**14'16 opposition retrograde 8°**¥**54'52 8.24995 AU -7681 Jan 06 j 20:37 21°**8**58'06 min. Earth dist. -7688 Oct 24 j 06:24 opposition 1°11'03 direct -7687 Jan 01 j 03:32 5°**∺**22'29 min. Earth dist. -7681 Jan 06 j 24:00 21°**8**57'28 9.12555 AU evening set -7687 Apr 17 j 13:02 13°**¥**25′25 direct -7681 Mar 19 j 15:15 18°**8**35'59 evening set -7681 Jul 01 j 09:26 25°**8**40'24 conjunction -7687 May 05 j 11:37 15°**★**39'53 -1°39'17 minimum elong -7687 May 05 j 11:41 15°**)** 39'54 1°39'28 -7681 Jul 18 j 07:30 27°**8**36'59 1°11'19 conjunction max. Earth dist. -7687 May 06 j 07:20 15°**¥**46′05 10.32881 AU -7681 Jul 18 j 07:27 27°**8**36'58 minimum elong 1°11'43

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 19 Attention, astronomical year style is used: The year -7681 in astronomical counting style is the year 7682 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -7681 i	n astronomical cou	inting style is the year	7682 BCE in historical c	ounting style.	6 , -,
max. Earth dist.	-7681 Jul 18 j 01:02	27° 8 35'07	11.17130 AU	max. Earth dist.	-7675 Sep 18 j 20:20	2° Ω 34'21	11.15023 AU
morning rise	-7681 Aug 04 j 01:06	29° 8 32'18		morning rise	-7675 Oct 05 j 23:58	4° Ω 34'04	
	-7681 Aug 08 j 03:36	Π °0		retrograde	-7674 Jan 15 j 09:42	11° Ω 33'53	
retrograde	-7681 Nov 09 j 22:49	6° Ⅱ 15'13		opposition	-7674 Mar 27 j 09:31	8° Ω 16′11	2°57'13
opposition	-7680 Jan 18 j 11:31	2° Ⅱ 59'46	1°41'13	min. Earth dist.	-7674 Mar 28 j 03:52	8° Ω 12'49	9.10324 AU
min. Earth dist.	-7680 Jan 18 j 17:58	2° Ⅱ 58'34	9.21077 AU	direct	-7674 Jun 06 j 05:36	4° Ω 58'09	
	-7680 Mar 09 j 01:52	30° ₹ 8		evening set	-7674 Sep 14 j 12:59	11° Ω 56′57	
direct	-7680 Mar 30 j 11:59	29° 8 38'46					
	-7680 Apr 20 j 18:47	Π $^{\circ}$ 0		conjunction	-7674 Sep 30 j 20:50	13° Ω 52′05	
evening set	-7680 Jul 11 j 16:00	6° Ⅱ 37'46		minimum elong	-7674 Sep 30 j 20:51	13° Ω 52′05	
		_		max. Earth dist.	-7674 Sep 29 j 23:05		11.04635 AU
conjunction	-7680 Jul 28 j 09:52	8° Ⅲ 32'30			-7674 Oct 10 j 10:50	15° Ω	
minimum elong	-7680 Jul 28 j 09:49	8° Ⅱ 32′29		morning rise	-7674 Oct 17 j 06:01	15° Ω 47'41	
max. Earth dist.	-7680 Jul 28 j 00:07		11.24216 AU	retrograde	-7673 Jan 27 j 13:42	22°Ω56'28	
morning rise	-7680 Aug 13 j 23:43	10° Ⅱ 26'09		opposition	-7673 Apr 08 j 14:19	19° Ω 37'19	
retrograde	-7680 Nov 20 j 02:30	17° Ⅱ 07'05	2007117	min. Earth dist.	-7673 Apr 09 j 09:21	19° Ω 33'48	8.98683 AU
opposition	-7679 Jan 29 j 00:24	13° II 52'01		direct	-7673 Jun 17 j 20:11	16° Ω 18'57	
min. Earth dist.	-7679 Jan 29 j 09:22	13° Ⅱ 50′23 10° Ⅱ 32′02	9.26790 AU	evening set	-7673 Sep 25 j 21:55	23° Ω 22'56	10.01021 ATT
direct	-7679 Apr 11 j 03:57	10° Ⅲ 32'02 17° Ⅲ 27'09		max. Earth dist.	-7673 Oct 11 j 10:27	23 8613 49	10.91931 AU
evening set	-7679 Jul 22 j 17:32	1/ 11/2/09		conjunction	-7673 Oct 12 j 07:44	25° Ω 20'12	2011/26
conjunction	-7679 Aug 08 j 07:41	19° Ⅱ 20'32	1054106	minimum elong	-7673 Oct 12 j 07:47	$25^{\circ}\Omega 20'12$	
minimum elong	-7679 Aug 08 j 07:38	19 Ⅱ 20 32 19° Ⅱ 20'31		morning rise	-7673 Oct 28 j 19:56	23 δ(2013	2 11 40
max. Earth dist.	-7679 Aug 08 j 07.38		11.28400 AU	morning risc	-7673 Nov 21 j 22:08	0°m)	
morning rise	-7679 Aug 24 j 18:19	21° I I13'02	11.20400 AC	retrograde	-7672 Feb 09 j 03:10	ران 4° الله 37'32	
retrograde	-7679 Dec 01 j 07:08	27° I 53'59		opposition	-7672 Apr 20 j 01:58	1° Mg 16'41	2°31'54
opposition	-7678 Feb 09 j 12:40	24° II 39'03	2°28'39	min. Earth dist.	-7672 Apr 20 j 20:11	1°M)13'17	
min. Earth dist.	-7678 Feb 10 j 00:52	24° I I36'50		mm. Earth dist.	-7672 May 07 j 15:01	30°RΩ	0.01700710
direct	-7678 Apr 22 j 14:38	21° Ⅱ 19'54		direct	-7672 Jun 28 j 18:11	27° Ω 57'43	
evening set	-7678 Aug 02 j 16:04	28° Ⅱ 12'42			-7672 Aug 17 j 12:39	0° m)	
max. Earth dist.	-7678 Aug 18 j 11:00		11.29567 AU	evening set	-7672 Oct 06 j 14:29	5° m) 08'18	
	-7678 Aug 18 j 08:39	0ං ම		max. Earth dist.	-7672 Oct 22 j 07:59		10.77307 AU
					, and the second	•	
conjunction	-7678 Aug 19 j 02:59	0°905'16	2°09'33	conjunction	-7672 Oct 23 j 03:32	7° mg 08'20	1°55'03
minimum elong	-7678 Aug 19 j 02:56	0° © 05'15	2°10'03	minimum elong	-7672 Oct 23 j 03:36	7° m)08'21	1°55'17
morning rise	-7678 Sep 04 j 11:24	1° 9 57'12		morning rise	-7672 Nov 08 j 19:41	9° ™ 09'24	
retrograde	-7678 Dec 12 j 11:13	8°540'06		retrograde	-7671 Feb 21 j 05:24	16°Mp40'31	
opposition	-7677 Feb 21 j 01:24	5° 5 24'58	2°44'47	opposition	-7671 May 02 j 21:31	13° m 17'47	2°08'37
min. Earth dist.	-7677 Feb 21 j 16:40	5°522'12	9.29207 AU	min. Earth dist.	-7671 May 03 j 13:43	13° m 14'43	8.69426 AU
direct	-7677 May 03 j 23:15	2° © 06'25		direct	-7671 Jul 10 j 21:37	9° ™ 58'02	
evening set	-7677 Aug 13 j 13:07	8° 9 58'31		evening set	-7671 Oct 18 j 16:40	17° m 16'37	
conjunction	-7677 Aug 29 j 21:41	10°950'49	2°20'25	conjunction	-7671 Nov 04 j 09:51	19° TD 19'56	1°33'03
minimum elong	-7677 Aug 29 j 21:39	10° © 50'49	2°20'56	minimum elong	-7671 Nov 04 j 09:54	19° m) 19'57	1°33'12
max. Earth dist.	-7677 Aug 29 j 02:57		11.27682 AU	max. Earth dist.	-7671 Nov 03 j 16:11		10.61257 AU
morning rise	-7677 Sep 15 j 04:46	12°9542'45		morning rise	-7671 Nov 21 j 06:56	21° Tp 24'34	
retrograde	-7677 Dec 23 j 20:54	19°529'31	0055110	retrograde	-7670 Mar 06 j 17:30	29° Mp 08'36	1020122
opposition	-7676 Mar 03 j 16:15	16°9513'50	2°55'13	opposition	-7670 May 16 j 01:48	25° m 43'55	1°38'32
min. Earth dist.	-7676 Mar 04 j 09:08	16°9510'47	9.25822 AU	min. Earth dist.	-7670 May 16 j 15:26	25° TQ 41'18	8.52841 AU
direct	-7676 May 14 j 09:08	12°955'42		direct	-7670 Jul 23 j 08:02	22° Tp 23'10	
evening set	-7676 Aug 23 j 10:18	19° © 48'33		evening set	-7670 Oct 31 j 06:36	29° ™ 51'13 0° ₽	
conjunction	-7676 Sep 08 j 17:38	21°941'11	2°26'21		-7670 Nov 01 j 11:03	0 ==	
minimum elong			2°26'51	conjunction	7670 Nov. 17: 04:22	10 0 50112	1905155
max. Earth dist.	-7676 Sep 08 j 17:37 -7676 Sep 07 j 22:12	21°535'33	11.22786 AU	minimum elong	-7670 Nov 17 j 04:32 -7670 Nov 17 j 04:35	1° £ 58'13 1° £ 58'14	1°05'55 1°05'57
morning rise	-7676 Sep 25 j 00:10	23°933'42	11.22760 AC	max. Earth dist.	-7670 Nov 16 j 12:52		10.44465 AU
morning 1150	-7676 Dec 11 j 04:14	23 3 33 42		morning rise	-7670 Dec 04 j 07:18	1 = 3317 4° Ω 06'48	10.7770 <i>J I</i> IU
retrograde	-7675 Jan 03 j 11:25	0° Ω 26'10		retrograde	-7669 Mar 20 j 16:54	12° ≏ 04'22	
- Unogrado	-7675 Jan 27 j 02:25	30°RS		opposition	-7669 May 29 j 15:17	8° 2 37'44	1°02'20
opposition	-7675 Mar 15 j 10:34	27°909'36	2°59'29	min. Earth dist.	-7669 May 30 j 02:07	8° ⊆ 35'37	8.35958 AU
min. Earth dist.	-7675 Mar 16 j 04:03	27°906'25	9.19462 AU	direct	-7669 Aug 05 j 04:49	5° ≏ 15'48	
direct	-7675 May 25 j 17:57	23°951'40		evening set	-7669 Nov 13 j 09:46	12° £ 54'23	
	-7675 Aug 27 j 12:29	0° Ω		-0			
evening set	-7675 Sep 03 j 09:41	0° Ω 46'45		conjunction	-7669 Nov 30 j 12:59	15° ≏ 05'18	0°34'31
Č	. ,			minimum elong	-7669 Nov 30 j 13:01	15° ≏ 05'18	0°34'27
conjunction	-7675 Sep 19 j 16:46	2° Ω 40′20	2°26'59	max. Earth dist.	-7669 Nov 30 j 01:01	15° ≏ 01'28	10.27824 AU
minimum elong	-7675 Sep 19 j 16:47	2° Ω 40′20	2°27'28	morning rise	-7669 Dec 17 j 21:42	17° ≏ 17'59	

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7668 in astronomical counting style is the year 7669 BCE in historical counting style. -7668 Apr 03 i 03:44 25° \alpha 29'02 retrograde -7662 Jul 02 i 15:41 23°る09'09 retrograde 19°る40'45 7.83272 AU -7668 Jun 11 j 14:10 22°**₽**00'32 0°21'21 min. Earth dist. -7662 Sep 06 j 10:26 opposition 8.19736 AU min. Earth dist. -7668 Jun 11 j 21:28 21°**♀**59'05 opposition -7662 Sep 07 j 03:07 19°る37'14 -2°59'37 -7662 Nov 12 j 02:41 16°**පි**06'46 -7668 Aug 17 j 11:52 18°**♀**37'14 direct direct -7668 Nov 26 j 03:16 -7661 Feb 25 j 13:03 24°る36'19 evening set 26°**₽**27'00 evening set 26°**る**59'47 -2°24'51 conjunction -7668 Dec 13 j 12:00 28°**≙**41'47 0°00'12 conjunction -7661 Mar 15 j 15:48 26°**る**59'47 2°25'19 -7668 Dec 13 j 12:00 -7661 Mar 15 j 15:48 minimum elong 28°**£**41'47 0°00'01 minimum elong -7661 Mar 16 j 15:13 behind sun begin -7668 Dec 13 j 10:33 28°**£**41′23 max. Earth dist. 27°**る**07'34 9.86556 AU behind sun end -7668 Dec 13 j 13:27 28°**₽**42'12 morning rise -7661 Apr 02 j 18:57 29°る23'16 max. Earth dist. -7668 Dec 13 j 05:18 28°**≏**39'38 10.12288 AU -7661 Apr 07 j 12:43 0°**≈** -7668 Dec 15 j 15:29 -7661 Jul 17 j 10:16 desc. node 28°**♀**58'34 retrograde 7°≈51'39 -7661 Sep 21 j 18:04 -7668 Dec 23 j 12:33 0°M opposition 4°≈20'58 -3°00'55 morning rise -7668 Dec 31 j 02:28 0° M $_{5}8'29$ min. Earth dist. -7661 Sep 21 j 00:31 4°**≈**24'39 7.91205 AU retrograde -7667 Apr 18 j 00:37 9° M-22'02 direct -7661 Nov 27 j 06:13 0°≈50'13 opposition -7667 Jun 25 j 21:38 5°M51'51 -0°22'26 evening set -7660 Mar 12 j 05:07 9°≈15'30 min. Earth dist. -7667 Jun 26 j 00:31 5°M51'16 8.05139 AU direct -7667 Aug 31 j 05:48 2°M27'07 conjunction -7660 Mar 30 j 07:39 11°≈37'05 -2°21'30 evening set -7667 Dec 10 j 11:49 10°M28'09 minimum elong -7660 Mar 30 j 07:41 11°**≈**37'06 2°21'55 max. Earth dist. -7660 Mar 31 j 07:31 11°**≈**44'55 9.96324 AU conjunction -7667 Dec 28 j 01:47 12°M46'31 -0°35'10 morning rise -7660 Apr 17 j 09:13 13°≈58'15 minimum elong -7667 Dec 28 i 01:45 12°M46'31 0°35'28 -7660 Apr 25 i 11:59 15°**≈** max. Earth dist. -7667 Dec 28 i 01:19 12°M46'22 9.98807 AU retrograde -7660 Jul 30 i 17:02 22°≈13'48 morning rise -7666 Jan 14 j 21:16 15°ML06'45 min. Earth dist. -7660 Oct 04 i 07:38 18°**≈**48′26 8.02550 AU -7666 Jan 14 j 00:25 15°M opposition -7660 Oct 05 j 01:17 18°**≈**44'45 -2°50'40 -7666 May 03 j 04:51 23°M40'48 -7660 Dec 11 j 05:29 15°≈14'10 retrograde direct opposition -7666 Jul 10 j 12:14 20°ML09'17 -1°06'19 -7659 Mar 27 j 11:35 23°≈32'05 evening set -7666 Jul 10 j 10:11 20°M09'42 7.93094 AU min. Earth dist. -7659 Apr 14 j 13:07 -7666 Sep 14 j 10:32 16°M43'06 conjunction 25°≈51'09 -2°09'30 direct 24°M54'44 -7666 Dec 25 j 10:26 -7659 Apr 14 j 13:11 minimum elong 25°≈51'10 2°09'50 evening set -7659 Apr 15 j 12:04 max. Earth dist. 25°≈58'34 10.09161 AU -7665 Jan 12 j 04:56 morning rise -7659 May 02 j 12:23 conjunction 27°M16'04 -1°09'12 28°≈09'22 -7665 Jan 12 j 04:53 -7659 May 17 j 11:21 27°M16'03 1°09'36 0°**)** minimum elong -7659 Aug 13 j 11:23 -7665 Jan 12 j 11:02 6°¥10′23 max. Earth dist. 27°M18'06 9.88276 AU retrograde -7665 Jan 30 j 04:24 -7659 Oct 18 j 23:39 2°\day{43'16 -2°30'29 morning rise 29°M39'05 opposition -7665 Feb 01 j 20:40 -7659 Oct 18 j 06:28 2°\d6'48 8.16528 AU 0° **₹** min. Earth dist. -7665 May 18 j 14:32 8°**х** 20′37 -7659 Nov 26 j 03:42 retrograde 30°R≈ opposition -7665 Jul 25 j 08:25 4°**∡**148'10 -1°47'04 direct -7659 Dec 25 j 21:34 29°≈13'16 min. Earth dist. -7665 Jul 25 j 01:12 4°**≯**49'40 7.84418 AU -7658 Jan 24 j 13:36 0°**)**€ direct -7665 Sep 29 j 00:08 1°×20'37 evening set -7658 Apr 11 j 05:38 7°\ 21'31 -7664 Jan 09 j 20:54 9°**х** 41′13 evening set -7658 Apr 29 j 05:24 9°**)** 37'37 -1°50'18 conjunction -7664 Jan 27 j 19:00 12°**∡**104'39 -1°39'22 -7658 Apr 29 j 05:28 9°**升**37'38 1°50'32 conjunction minimum elong -7664 Jan 27 j 18:56 12°**∡**04'38 1°39'49 max. Earth dist. -7658 Apr 30 j 02:39 9°¥44'21 10.24212 AU minimum elong -7664 Jan 28 j 07:13 12°**₹**08'45 9.81445 AU -7658 May 17 j 01:41 11°**¥**52'30 max. Earth dist. morning rise 19°**)** 38'32 morning rise -7664 Feb 14 i 21:14 14°**∡**°29′28 retrograde -7658 Aug 26 j 18:42 -7664 Jun 02 i 02:05 retrograde 23°**х** 14'30 opposition -7658 Nov 01 j 12:25 16°**)** 13'28 -2°02'33 opposition -7664 Aug 08 i 07:34 19°**∡**'41'39 -2°21'20 min. Earth dist. -7658 Oct 31 i 20:28 16°**)** 16'41 8.32266 AU min. Earth dist. -7664 Aug 07 j 20:01 19°**х** 44′04 7.79725 AU direct -7657 Jan 09 j 03:34 12°\ 44'26 direct -7664 Oct 12 j 20:48 16°**х** 12′52 evening set -7657 Apr 25 j 10:12 20°**¥**41'44 -7663 Jan 24 j 16:07 24°×39'55 evening set -7657 May 13 j 07:28 22° ¥ 54'35 -1°25'42 conjunction -7663 Feb 11 j 16:46 27°×704'25 -2°03'11 -7657 May 13 j 07:32 conjunction minimum elong 22°\ 54'36 1°25'50 minimum elong -7663 Feb 11 j 16:42 27°**х** 04′24 2°03′41 max. Earth dist. -7657 May 14 j 02:11 23°¥00'25 10.40571 AU max. Earth dist. -7663 Feb 12 j 10:05 27°**х** 10′15 9.78813 AU morning rise -7657 May 31 j 00:14 25°**₩**05'59 -7657 Jul 15 j 05:46 $0^{\circ}\Upsilon$ morning rise -7663 Mar 01 j 20:27 29°×29'53 2° Y 37'30 -7663 Mar 05 j 16:26 0°ರ retrograde -7657 Sep 08 j 14:50 -7663 Jun 17 j 11:36 8°る13'47 -7657 Nov 05 j 01:20 retrograde 30°R₩ 4°る41'07 -2°46'11 -7657 Nov 14 j 15:31 29°\(\pi\)14'33 -1°29'17 opposition -7663 Aug 23 j 06:41 opposition -7663 Aug 22 j 16:00 4°る44'13 7.79341 AU min. Earth dist. -7657 Nov 14 j 02:02 29°**升**17'14 8.48878 AU min. Earth dist. -7663 Oct 27 j 22:14 1°**る**11'19 -7656 Jan 22 j 23:56 25°**)** 46'43 direct direct $0^{\circ}\Upsilon$ evening set -7662 Feb 09 j 15:16 9°**ප්**41'31 -7656 Apr 06 j 10:41 evening set -7656 May 08 j 01:07 3°**Y**32'43 conjunction -7662 Feb 27 j 17:25 12°る06'01 -2°18'42 minimum elong -7662 Feb 27 j 17:23 12°る06'00 2°19'12 conjunction -7656 May 25 j 19:06 5°**Y**42'12 -0°57'33 -7662 Feb 28 j 14:34 12°る13'06 9.80565 AU minimum elong -7656 May 25 j 19:09 5°Υ42'13 0°57'34 max. Earth dist.

-7662 Mar 17 j 21:20

morning rise

14°る31'00

max. Earth dist.

-7656 May 26 j 10:17

5°Υ46'51 10.57342 AU

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 21 Attention, astronomical year style is used: The year -7656 in astronomical counting style is the year 7657 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -7656 i	in astronomical cou	inting style is the year	7657 BCE in historical c	ounting style.	
morning rise	-7656 Jun 12 j 07:53	7° Y ′50'07		conjunction	-7650 Aug 03 j 18:39	14° Ⅱ 40'37	1°45'36
retrograde	-7656 Sep 19 j 23:21	15° Ƴ 08'23		minimum elong	-7650 Aug 03 j 18:36	14° Ⅱ 40'36	1°46'05
opposition	-7656 Nov 26 j 09:47	11° Y 47'30	-0°52'58	max. Earth dist.	-7650 Aug 03 j 06:01	14° Ⅱ 36'59	11.27493 AU
min. Earth dist.	-7656 Nov 25 j 23:57	11° Y 49'25	8.65506 AU	morning rise	-7650 Aug 20 j 06:50	16° Ⅱ 33'36	
direct	-7655 Feb 04 j 10:48	8° Y 21'03		retrograde	-7650 Nov 26 j 14:53	23° Ⅱ 14′29	
evening set	-7655 May 21 j 02:50	15° Ƴ 56'00		opposition	-7649 Feb 04 j 16:38	19° Ⅱ 59'59	2°19'27
· ·	, ,			min. Earth dist.	-7649 Feb 05 i 04:30	19° Ⅱ 57'50	9.29189 AU
conjunction	-7655 Jun 07 j 16:46	18° Y ′02'09	-0°27'35	direct	-7649 Apr 17 j 19:07	16° Ⅱ 40'51	
minimum elong	-7655 Jun 07 j 16:47	18° Ƴ 02'10	0°27'29	evening set	-7649 Jul 29 j 03:12	23° Ⅱ 34'49	
max. Earth dist.	-7655 Jun 08 j 03:05	18° Y ′05'15	10.73695 AU	C	J		
morning rise	-7655 Jun 25 j 01:20	20° Ƴ 06'42		conjunction	-7649 Aug 14 j 15:31	25° Ⅱ 27'43	2°03'00
retrograde	-7655 Oct 01 j 23:14	27° Y °13'30		minimum elong	-7649 Aug 14 j 15:29	25° Ⅱ 27'42	
opposition	-7655 Dec 08 j 20:00	23° Y ′54'29	-0°15'36	max. Earth dist.	-7649 Aug 14 j 00:06	25° Ⅲ 23'17	11.29800 AU
min. Earth dist.	-7655 Dec 08 j 13:47	23° Y ′55'41	8.81378 AU	morning rise	-7649 Aug 31 j 00:55	27° Ⅱ 19'52	
direct	-7654 Feb 17 j 11:42	20° Y ′29'31			-7649 Sep 25 j 02:42	0ංම	
asc. node	-7654 May 16 j 13:03	25° Y ′58'25		retrograde	-7649 Dec 07 j 19:40	4°901'53	
evening set	-7654 Jun 02 j 16:25	27° Y ′54'11		opposition	-7648 Feb 16 j 05:16	0°947'11	2°38'04
e vennig see	700 . Van 02 j 10.20	27 10111		min. Earth dist.	-7648 Feb 16 j 19:24	0°544'37	9.29951 AU
conjunction	-7654 Jun 20 j 01:55	29° Y ′57′12	0°02'48	mm. Dartii dist.	-7648 Feb 27 j 04:04	30°RⅡ	7.27751710
minimum elong	-7654 Jun 20 j 01:53	29° Y '57'12	0°03'00	direct	-7648 Apr 28 j 05:34	27° II 28'39	
behind sun begin	-7654 Jun 19 j 18:48	29° Y ′55'07	0 05 00	4.1.001	-7648 Jun 25 j 10:25	0ಂಣ	
behind sun end	-7654 Jun 20 j 08:59	29° Υ 59'16		evening set	-7648 Aug 08 j 01:10	4°921'11	
max. Earth dist.	-7654 Jun 20 j 07:00		10.88918 AU	evening set	7040 Mug 00 J 01.10	7 321 11	
max. Earth dist.	-7654 Jun 20 j 11:25	0°8	10.00710710	conjunction	-7648 Aug 24 j 10:51	6°913'35	2°16'01
morning rise	-7654 Jul 07 j 06:07	1° 8 58'38		minimum elong	-7648 Aug 24 j 10:49		2°16'32
retrograde	-7654 Oct 13 j 14:09	8° 8 55'58		max. Earth dist.	-7648 Aug 23 j 17:09		11.28944 AU
opposition	-7654 Dec 20 j 23:05	5° 8 38'31	0°21'09	morning rise	-7648 Sep 09 j 18:18	8°905'28	11.20) 110
min. Earth dist.	-7654 Dec 20 j 20:03	5° 8 39'05	8.95822 AU	retrograde	-7648 Dec 18 j 04:19	14°950'31	
direct	-7653 Mar 02 j 03:30	2° 8 14'59		opposition	-7647 Feb 26 j 19:35	11° © 35'17	2°51'10
evening set	-7653 Jun 14 j 19:05	9° 8 30'32		min. Earth dist.	-7647 Feb 27 j 12:10	11°932'16	9.27564 AU
	,	, 0.,		direct	-7647 May 09 j 14:53	8°917'04	
conjunction	-7653 Jul 02 j 00:02	11° 8 30'40	0°32'07	evening set	-7647 Aug 18 j 22:29	15°909'39	
minimum elong	-7653 Jul 02 j 00:01	11° 8 30'40	0°32'25	max. Earth dist.	-7647 Sep 03 j 09:43		11.25003 AU
max. Earth dist.	-7653 Jul 02 j 00:48		11.02386 AU				
morning rise	-7653 Jul 18 j 23:49	13° 8 29'19		conjunction	-7647 Sep 04 j 06:16	17°502'08	2°24'15
Č	-7653 Aug 01 j 11:47	15° 8		minimum elong	-7647 Sep 04 j 06:15	17° © 02'08	2°24'46
retrograde	-7653 Oct 25 j 01:03	20° 8 19'20		morning rise	-7647 Sep 20 j 12:57	18°954'23	
opposition	-7652 Jan 01 j 20:28	17° 8 03'08	0°55'57	retrograde	-7647 Dec 29 j 14:55	25° © 44'16	
min. Earth dist.	-7652 Jan 01 j 20:41	17° 8 03'06	9.08248 AU	opposition	-7646 Mar 10 j 12:35	22°528'06	2°58'19
	-7652 Jan 31 j 11:01	15° Ŗ ႘		min. Earth dist.	-7646 Mar 11 j 07:32	22°524'39	9.22132 AU
direct	-7652 Mar 13 j 11:39	13° 8 40'58		direct	-7646 May 20 j 23:34	19° 5 09'57	
	-7652 Apr 23 j 19:50	15° ∀		evening set	-7646 Aug 29 j 20:58	26° © 04'08	
evening set	-7652 Jun 25 j 12:40	20° 8 48'45		max. Earth dist.	-7646 Sep 14 j 05:54	27° © 50'51	11.18117 AU
•	v						
conjunction	-7652 Jul 12 j 13:01	22° 8 46'22	0°59'34	conjunction	-7646 Sep 15 j 03:58	27°957'17	2°27'21
minimum elong	-7652 Jul 12 j 12:59	22° 8 46'21	0°59'56	minimum elong	-7646 Sep 15 j 03:58	27° 9 57'17	2°27'50
max. Earth dist.	-7652 Jul 12 j 10:05	22° 8 45'31	11.13563 AU	morning rise	-7646 Oct 01 j 10:56	29° © 50'29	
morning rise	-7652 Jul 29 j 08:21	24° 8 42'37			-7646 Oct 02 j 20:22	$0^{\circ}\Omega$	
	-7652 Sep 23 j 02:18	Π $^{\circ}0$		retrograde	-7645 Jan 10 j 08:52	6° Ω 46'58	
retrograde	-7652 Nov 04 j 08:22	1° Ⅲ 27′25		opposition	-7645 Mar 22 j 09:15	3° £ 29′33	2°59'06
	-7652 Dec 17 j 18:54	30° ₹ 8		min. Earth dist.	-7645 Mar 23 j 04:56	3° Ω 25'57	9.13827 AU
opposition	-7651 Jan 12 j 13:36	28° 8 12'10	1°27'48	direct	-7645 Jun 01 j 11:53	0° £ 11′13	
min. Earth dist.	-7651 Jan 12 j 18:04	28° 8 11'20	9.18178 AU	evening set	-7645 Sep 09 j 22:16	7° Ω 08'29	
direct	-7651 Mar 25 j 10:11	24° 8 51'12		max. Earth dist.	-7645 Sep 25 j 07:52	8° £ 56′29	11.08496 AU
	-7651 Jun 19 j 17:30	Π $^{\circ}0$					
evening set	-7651 Jul 06 j 22:47	1° Ⅱ 52'43		conjunction	-7645 Sep 26 j 05:45	9° Ω 02'56	2°25'00
				minimum elong	-7645 Sep 26 j 05:46	9° Ω 02'56	2°25'27
conjunction	-7651 Jul 23 j 18:36	3° Ⅱ 48'16	1°24'16	morning rise	-7645 Oct 12 j 13:55	10° Ω 57'42	
minimum elong	-7651 Jul 23 j 18:33	3° Ⅱ 48′15	1°24'43		-7645 Nov 20 j 03:44	15° Ω	
max. Earth dist.	-7651 Jul 23 j 10:45	3° Ⅱ 46′00	11.22032 AU	retrograde	-7644 Jan 22 j 10:15	18° Ω 02'29	
morning rise	-7651 Aug 09 j 10:01	5° Ⅱ 42'37			-7644 Mar 29 j 17:58	15°R Ω	
retrograde	-7651 Nov 15 j 11:04	12° Ⅲ 24′23		opposition	-7644 Apr 02 j 11:18	14° Ω 43'33	2°53'10
opposition	-7650 Jan 24 j 03:55	9°Ⅱ09'42	1°55'51	min. Earth dist.	-7644 Apr 03 j 06:27	14° Ω 40′02	9.02911 AU
min. Earth dist.	-7650 Jan 24 j 12:42	9° Ⅱ 08'05	9.25239 AU	direct	-7644 Jun 12 j 01:19	11° Ω 24'52	
direct	-7650 Apr 06 j 04:32	5° Ⅱ 49'44			-7644 Aug 19 j 08:03	15° Ω	
evening set	-7650 Jul 18 j 02:58	12° Ⅱ 46'40		evening set	-7644 Sep 20 j 04:18	18° Ω 26'39	

-	ical year style is used: Th					_	80 22
conjunction	-7644 Oct 06 j 13:16	-			-7638 Oct 28 j 17:27	0° m	
minimum elong	-7644 Oct 06 j 13:19	20° Ω 23'01	2°17'23	evening set	-7638 Dec 04 j 08:21	4° ™ 19'13	
max. Earth dist.	-7644 Oct 05 j 15:45	20° Ω 16'35	10.96456 AU	C	J		
morning rise	-7644 Oct 22 j 23:52	22° Ω 19'58		conjunction	-7638 Dec 21 j 19:52	6°M36'03	-0°19'07
retrograde	-7643 Feb 02 j 20:31	29° Ω 34'40		minimum elong	-7638 Dec 21 j 19:51	6°M36'03	0°19'22
opposition	-7643 Apr 14 j 19:52	26° Ω 14'01	2°40'13	max. Earth dist.	-7638 Dec 21 j 17:29	6°M35'17	10.04130 AU
min. Earth dist.	-7643 Apr 15 j 14:15	26° Ω 10'35	8.89756 AU	morning rise	-7637 Jan 08 j 13:06	8°M54'47	
direct	-7643 Jun 23 j 19:25	22° Ω 54'45			-7637 Mar 04 j 07:35	15°M	
evening set	-7643 Oct 01 j 17:15	0°m/02'33		retrograde	-7637 Apr 26 j 17:59	17°M24'32	
	-7643 Oct 01 j 08:40	0° m)			-7637 Jun 20 j 11:08	15°RM₊	
max. Earth dist.	-7643 Oct 17 j 07:23	1° m 54'57	10.82419 AU	opposition	-7637 Jul 04 j 07:09	13°M53'26	-0°46'34
				min. Earth dist.	-7637 Jul 04 j 05:58	13°M53'40	7.97920 AU
conjunction	-7643 Oct 18 j 04:44	2° mp 01'24	2°03'14	direct	-7637 Sep 08 j 08:53	10°M27'52	
minimum elong	-7643 Oct 18 j 04:47	2°m/01'25	2°03'31		-7637 Nov 19 j 18:49	15°M	
morning rise	-7643 Nov 03 j 19:03	4° m/01'12		evening set	-7637 Dec 19 j 00:41	18° M 34'55	
retrograde	-7642 Feb 15 j 16:45	11° m 27'09		•	·		
opposition	-7642 Apr 27 j 11:45	8° m) 04'40	2°20'09	conjunction	-7636 Jan 05 j 16:59	20°M55'00	-0°54'03
min. Earth dist.	-7642 Apr 28 j 05:20	8° mp 01'21	8.74838 AU	minimum elong	-7636 Jan 05 j 16:56	20°M54'59	0°54'25
direct	-7642 Jul 05 j 18:58	4° m) 44'39		max. Earth dist.	-7636 Jan 05 j 20:17	20°M56'06	9.92571 AU
evening set	-7642 Oct 13 j 14:52	11° m 59'55		morning rise	-7636 Jan 23 j 14:50	23°M16'52	
max. Earth dist.	-7642 Oct 29 j 10:26	•	10.66899 AU		-7636 Mar 25 j 00:15	0° ⊼	
	, , , = , , , , , , , , , , , , , , , ,			retrograde	-7636 May 11 j 01:47	1° х 55'33	
conjunction	-7642 Oct 30 j 06:00	14° m 01'50	1°43'45	retrograde	-7636 Jun 27 j 20:24	30°RM.	
minimum elong	-7642 Oct 30 j 06:04	14° mp 01'51	1°43'56	opposition	-7636 Jul 18 j 01:17	28°M23'34	-1°29'10
morning rise	-7642 Nov 16 j 00:58	16° mp 04'58	1 1330	min. Earth dist.	-7636 Jul 17 j 19:50		7.88035 AU
retrograde	-7641 Feb 28 j 22:01	23° m/ 43'24		direct	-7636 Sep 21 j 18:31	24°M56'47	7.00033710
opposition	-7641 May 10 j 12:04	20° m) 18'59	1°53'05	direct	-7636 Dec 07 j 09:55	0° x ⁷	
min. Earth dist.	-7641 May 10 j 12:04	20° m/16'01	8.58735 AU	evening set	-7635 Jan 02 j 06:14	3° ∡ 13'37	
direct	-7641 Jul 18 j 02:58	16° m 58'03	6.56755 AU	evening set	-7033 Jan 02 j 00.14	3 🗶 1337	
		24° M) 22'07		agniumation	7625 Ion 20;02:27	5° ∡ ³36'11	1026/10
evening set	-7641 Oct 25 j 22:59	24 IIJ 22 07		conjunction minimum elong	-7635 Jan 20 j 02:37 -7635 Jan 20 j 02:33	5° ₹ 36'10	
agniumation	7641 Nov. 11: 10:44	260 m 27122	1°18'52	max. Earth dist.	•	5° x 30 10	9.84397 AU
conjunction	-7641 Nov 11 j 18:44	26° m/27'33 26° m/27'34			-7635 Jan 20 j 12:03	8° ₹ '00'18	9.84397 AU
minimum elong	-7641 Nov 11 j 18:48			morning rise	-7635 Feb 07 j 03:52		
max. Earth dist.	-7641 Nov 11 j 02:48		10.50514 AU	retrograde	-7635 May 26 j 13:02	16° ∡ 744'18	2006145
morning rise	-7641 Nov 28 j 18:56	28° m/34'27		opposition	-7635 Aug 01 j 23:37	13°×711'54	
. 1	-7641 Dec 10 j 15:29	0∘ ⊽		min. Earth dist.	-7635 Aug 01 j 13:58		7.81885 AU
retrograde	-7640 Mar 13 j 16:17	6° Ω 26'12	1010122	direct	-7635 Oct 06 j 12:41	9° х 43'59	
opposition	-7640 May 22 j 21:25	2° £ 59'50		evening set	-7634 Jan 17 j 22:13	18° ∡ 08'27	
min. Earth dist.	-7640 May 23 j 09:24		8.42144 AU		T(24 E 1 04 : 21 20	200 32001	1050116
	-7640 Jul 09 j 09:19	30°R, M)		conjunction	-7634 Feb 04 j 21:39	20° √ 32'31	
direct	-7640 Jul 29 j 20:17	29° m 37'53		minimum elong	-7634 Feb 04 j 21:35	20° ∡ 32'30	1°53'46
	-7640 Aug 18 j 23:17	0∘ ⊽		max. Earth dist.	-7634 Feb 05 j 12:59	20° ∡ ³37'40	9.80221 AU
evening set	-7640 Nov 06 j 19:48	7° ≏ 11'53		morning rise	-7634 Feb 23 j 00:52	22° ∡ 57'46	
					-7634 Apr 28 j 09:48	0°ප	
conjunction	-7640 Nov 23 j 20:45	9° ≏ 21'08	0°49'16	retrograde	-7634 Jun 10 j 23:43	1° る 42'38	
minimum elong	-7640 Nov 23 j 20:47	9° ≙ 21'09	0°49'15		-7634 Jul 25 j 01:56	30°₽,∡7	
max. Earth dist.	-7640 Nov 23 j 09:00		10.34016 AU	opposition	-7634 Aug 16 j 23:14	28° ₹ 10′20	
morning rise	-7640 Dec 11 j 02:40	11° ≏ 32'04		min. Earth dist.	-7634 Aug 16 j 09:40	28° √ 13'11	7.79928 AU
retrograde	-7639 Mar 27 j 23:02	19° ♀ 37'20		direct	-7634 Oct 21 j 12:55	24° ∡ ⁷ 41′29	
opposition	-7639 Jun 05 j 15:56	16° ≏ 09'08	0°40'29		-7633 Jan 08 j 13:19	0°る	
min. Earth dist.	-7639 Jun 05 j 23:31	16° ≏ 07'38	8.25880 AU	evening set	-7633 Feb 02 j 20:12	3° る 10'29	
direct	-7639 Aug 11 j 21:30	12° ≏ 46′03				_	
evening set	-7639 Nov 20 j 06:40	20° ≏ 30'53		conjunction	-7633 Feb 20 j 21:41	5° る 34'58	
				minimum elong	-7633 Feb 20 j 21:38	5° る 34'57	
conjunction	-7639 Dec 07 j 13:00	22° ≏ 44'01	0°16'05	max. Earth dist.	-7633 Feb 21 j 17:59	5° る 41'47	9.80376 AU
minimum elong	-7639 Dec 07 j 13:01	22° ₽ 44'02	0°15'57	morning rise	-7633 Mar 11 j 01:35	8° පි 00'11	
behind sun begin	-7639 Dec 07 j 12:09	22° ≏ 43'45		retrograde	-7633 Jun 26 j 06:26	16° ⋜ 41'14	
behind sun end	-7639 Dec 07 j 13:52	22° ≏ 44'18		opposition	-7633 Aug 31 j 21:18	13° る 09'30	-2°54'51
max. Earth dist.	-7639 Dec 07 j 05:36	22° ≏ 41'39	10.18253 AU	min. Earth dist.	-7633 Aug 31 j 04:38	13° る 13'00	7.82296 AU
morning rise	-7639 Dec 25 j 00:46	24° ≏ 59'00		direct	-7633 Nov 05 j 16:53	9° る 39'56	
	-7638 Feb 07 j 00:48	0° M		evening set	-7632 Feb 18 j 19:10	18° る 09'46	
retrograde	-7638 Apr 11 j 16:35	3° M ₁7'15					
desc. node	-7638 May 30 j 19:05	1°M20'30		conjunction	-7632 Mar 07 j 21:45	20° る 33'39	-2°23'09
	-7638 Jun 17 j 04:59	30° ₽ Ω		minimum elong	-7632 Mar 07 j 21:44	20° る 33'38	2°23'39
opposition	-7638 Jun 19 j 19:30	29° ≏ 47'26	-0°02'20	max. Earth dist.	-7632 Mar 08 j 21:23	20° ප් 41'31	9.84815 AU
min. Earth dist.	-7638 Jun 19 j 22:43	29° ≏ 46'47	8.10830 AU	morning rise	-7632 Mar 26 j 01:16	22° る 57'45	
direct	-7638 Aug 25 j 09:00	26° ≏ 23'07			-7632 May 30 j 15:16	0° ≈	
	-				-		

•	inel year etyle is used: Th		•	* *			ge 23
	ical year style is used: Th -7632 Jul 10 j 05:33	e year -7632 i 1°≈30'33	n astronomicai cot	max. Earth dist.	-7626 Jun 02 j 20:49		10.65866 AU
retrograde	-						10.03800 AU
••	-7632 Aug 20 j 04:47	30°Rる	2001127	morning rise	-7626 Jun 19 j 20:46	14° Y 56′22	
opposition	-7632 Sep 14 j 14:52	27°る59'51		retrograde	-7626 Sep 27 j 02:11	22°°°08'34	0022115
min. Earth dist.	-7632 Sep 13 j 20:31		7.88722 AU	opposition	-7626 Dec 03 j 17:57	18° Y 48'36	
direct	-7632 Nov 19 j 21:02	24° る 29'51		min. Earth dist.	-7626 Dec 03 j 10:14		8.73554 AU
	-7631 Feb 09 j 19:14	0° ≈		direct	-7625 Feb 12 j 03:56	15° Y ′22'48	
evening set	-7631 Mar 05 j 14:24	2° ≈ 56'51		evening set	-7625 May 28 j 13:26	22° Y 52'24	
conjunction	-7631 Mar 23 j 17:10	5° ≈ 19'12	-2°24'03	conjunction	-7625 Jun 15 j 01:15	24° Ƴ 56'57	-0°10'44
minimum elong	-7631 Mar 23 j 17:11	5° ≈ 19'12	2°24'29	minimum elong	-7625 Jun 15 j 01:15	24° Ƴ 56'58	0°10'35
max. Earth dist.	-7631 Mar 24 j 18:00	5° ≈ 27'23	9.93082 AU	behind sun begin	-7625 Jun 14 j 19:44	24° Y 55'20	
morning rise	-7631 Apr 10 j 19:20	7° ≈ 41'17		behind sun end	-7625 Jun 15 j 06:47	24° Y 58'36	
	-7631 Jun 21 j 05:45	15° ≈		max. Earth dist.	-7625 Jun 15 j 08:19	24° Y 59'03	10.81183 AU
retrograde	-7631 Jul 24 j 18:00	16° ≈ 02'26		morning rise	-7625 Jul 02 j 07:29	26° Ƴ 59'54	
•	-7631 Aug 27 j 10:55	15°R≈		•	-7625 Jul 29 j 12:55	0° ႘	
min. Earth dist.	-7631 Sep 28 j 07:13	12° ≈ 37'02	7.98597 AU	retrograde	-7625 Oct 08 j 21:55	4° 8 01'42	
opposition	-7631 Sep 29 j 01:35	12° ≈ 33'12		asc. node	-7625 Oct 26 j 12:58	3° 8 45'33	
direct	-7631 Dec 04 j 21:37	9° ≈ 03'08		opposition	-7625 Dec 16 j 00:20	0° 8 43'17	0°04'59
uncet	-7630 Mar 01 j 13:40	15° ≈		min. Earth dist.	-7625 Dec 15 j 20:33	0°844'00	8.88236 AU
evening set	-7630 Mar 21 j 01:30	17°≈24'10		mm. Larm dist.	-7625 Dec 25 j 12:39	30°RΥ	0.00230 AC
evening set	-7030 Wai 21 j 01.30	17 ~24 10		direct	-7624 Feb 24 j 22:46	27° Υ 18'45	
	7(20 4 00:02.27	1000044117	2015140	direct	·		
conjunction	-7630 Apr 08 j 03:37	19° ≈ 44'17			-7624 Apr 24 j 14:03	0°8	
minimum elong	-7630 Apr 08 j 03:40	19° ≈ 44'18		evening set	-7624 Jun 08 j 21:19	4° 8 38'45	
max. Earth dist.	-7630 Apr 09 j 03:44		10.04465 AU				
morning rise	-7630 Apr 26 j 03:46	22° ≈ 03'43		conjunction	-7624 Jun 26 j 04:32	6° 8 40'20	0°19'16
	-7630 Jul 24 j 18:20	0°)		minimum elong	-7624 Jun 26 j 04:31	6° 8 40'19	
retrograde	-7630 Aug 07 j 19:09	0° ₩ 11'10		max. Earth dist.	-7624 Jun 26 j 06:50	_	10.95058 AU
	-7630 Aug 21 j 20:02	30° R ≈		morning rise	-7624 Jul 13 j 06:19	8° 8 40'22	
min. Earth dist.	-7630 Oct 12 j 11:06	26° ≈ 47'14	8.11194 AU		-7624 Sep 23 j 17:46	15° 8	
opposition	-7630 Oct 13 j 04:09	26° ≈ 43'43	-2°40'29	retrograde	-7624 Oct 19 j 10:10	15° 8 33'53	
direct	-7630 Dec 19 j 16:09	23° ≈ 13'59			-7624 Nov 14 j 10:29	15° ₹႘	
	-7629 Mar 24 j 08:05	0° ∀		opposition	-7624 Dec 27 j 00:33	12° 8 16'45	0°40'50
evening set	-7629 Apr 05 j 01:26	1° ¥ 26′32		min. Earth dist.	-7624 Dec 27 j 00:53	12° 8 16'41	9.01231 AU
				direct	-7623 Mar 08 j 10:53	8° 8 53'27	
conjunction	-7629 Apr 23 j 02:06	3°) 43′57	-1°59'38		-7623 Jun 11 j 03:04	15° 8	
minimum elong	-7629 Apr 23 j 02:10	3°) 43′58	1°59'54	evening set	-7623 Jun 20 j 19:04	16° 8 05'07	
max. Earth dist.	-7629 Apr 23 j 23:53		10.18227 AU	8.11	, , , , , , , , , , , , , , , , , , ,		
morning rise	-7629 May 10 j 23:42	6° ₩ 00'17		conjunction	-7623 Jul 07 j 21:29	18° 8 04'01	0°47'42
retrograde	-7629 Aug 21 j 08:21	13° ¥ 53′05		minimum elong	-7623 Jul 07 j 21:27	18° 8 04'00	0°48'02
opposition	-7629 Oct 26 j 21:31	10° ¥ 27'34	-2°15'46	max. Earth dist.	-7623 Jul 07 j 18:43		11.06976 AU
min. Earth dist.	-7629 Oct 26 j 06:28		8.25787 AU	morning rise	-7623 Jul 24 j 19:00	20° 8 01'30	11.00770710
	-7628 Jan 03 i 02:51	6° ¥ 58'29	6.23767 AU	-	-7623 Oct 30 j 17:48	26° 8 48'55	
direct	,	0 X 38 29 15° X 00'53		retrograde	•		1°14'10
evening set	-7628 Apr 18 j 12:42	13 70033		opposition	-7622 Jan 07 j 19:44	23° 8 32'44	
	7/20 3/ 0/:11 00	1701/15110	1027112	min. Earth dist.	-7622 Jan 07 j 23:09	23° 8 32'06	9.12067 AU
conjunction	-7628 May 06 j 11:08	17° ¥ 15'12		direct	-7622 Mar 20 j 14:34	20° 8 10'39	
minimum elong	-7628 May 06 j 11:12	17° ₩ 15'14		evening set	-7622 Jul 02 j 08:29	27° 8 15'25	
max. Earth dist.	-7628 May 07 j 05:23		10.33600 AU				
morning rise	-7628 May 24 j 05:37	19° ¥ 28′12		conjunction	-7622 Jul 19 j 06:23	29° 8 12'02	1°13'44
retrograde	-7628 Sep 02 j 08:47	27° ∺ 06′19		minimum elong	-7622 Jul 19 j 06:21	29° 8 12'01	1°14'09
opposition	-7628 Nov 08 j 05:17	23°) 42'46		max. Earth dist.	-7622 Jul 18 j 23:58		11.16531 AU
min. Earth dist.	-7628 Nov 07 j 16:31	23°) 45′20	8.41588 AU		-7622 Jul 26 j 04:12	$0^{\circ}\Pi$	
direct	-7627 Jan 16 j 05:35	20°) 14′36		morning rise	-7622 Aug 04 j 23:46	1° Ⅱ 07'24	
evening set	-7627 May 02 j 10:20	28° ∺ 05'59		retrograde	-7622 Nov 10 j 22:55	7° Ⅱ 50'51	
	-7627 May 17 j 22:37	0 ° Υ		opposition	-7621 Jan 19 j 11:08	4° Ⅱ 35′20	1°44'02
				min. Earth dist.	-7621 Jan 19 j 17:18	4° Ⅲ 34'12	9.20378 AU
conjunction	-7627 May 20 j 05:48	0° Υ 17'02	-1°10'25	direct	-7621 Apr 01 j 11:55	1° Ⅱ 14′20	
minimum elong	-7627 May 20 j 05:51	0° Υ 17'03	1°10'28	evening set	-7621 Jul 13 j 15:16	8° Ⅱ 13'45	
max. Earth dist.	-7627 May 20 j 20:07		10.49754 AU	Č	,		
morning rise	-7627 Jun 06 j 20:38	2° Υ 26'36		conjunction	-7621 Jul 30 j 09:02	10° Ⅱ 08'33	1°36'40
retrograde	-7627 Sep 14 j 21:30	9° Υ '50'58		minimum elong	-7621 Jul 30 j 08:59		1°37'08
opposition	-7627 Nov 21 j 03:55	6° Υ 29'18	-1°09'24	max. Earth dist.	-7621 Jul 29 j 23:39		11.23413 AU
11					=		11.23413 AU
min. Earth dist.	-7627 Nov 20 j 17:18	6° Υ 31'23 3° Υ 02'15	8.57773 AU	morning rise	-7621 Aug 15 j 22:37	12° Ⅱ 02'16	
direct	-7626 Jan 29 j 22:29			retrograde	-7621 Nov 22 j 03:29	18° Ⅱ 43'48	2000142
evening set	-7626 May 15 j 18:11	10° Ƴ 42′28		opposition	-7620 Jan 31 j 00:33	15° Ⅱ 28'41	2°09'43
	#/0/ X	10000	0044127	min. Earth dist.	-7620 Jan 31 j 10:00	15° Ⅱ 26'57	9.25900 AU
conjunction	-7626 Jun 02 j 10:05	12° Υ 50'13		direct	-7620 Apr 12 j 02:46	12° Ⅱ 08'40	
minimum elong	-7626 Jun 02 j 10:07	12° Y 50'14	0~41'00	evening set	-7620 Jul 23 j 17:16	19° Ⅱ 04'15	

•	omena or Saturi III		•	* *			ge 24
	ical year style is used: Th	e year -7620 i 20° ∏ 57'44		max. Earth dist.			10.90625 AU
conjunction	-7620 Aug 09 j 07:08				-7614 Oct 12 j 14:48		10.90023 AU
minimum elong	-7620 Aug 09 j 07:05		1°56'23	morning rise	-7614 Oct 29 j 23:11	29° Ω 04'58	
max. Earth dist.	-7620 Aug 08 j 18:04		11.27416 AU		-7614 Nov 06 j 20:38	0° m	
morning rise	-7620 Aug 25 j 17:42	22° I I50'20		retrograde	-7613 Feb 10 j 09:30	6° Mp 25'11	
retrograde	-7620 Dec 02 j 06:18	29° Ⅱ 31'59		opposition	-7613 Apr 22 j 06:34	3° mp 04'09	2°29'41
opposition	-7619 Feb 10 j 13:23	26° Ⅱ 16'57		min. Earth dist.	-7613 Apr 22 j 23:32	3° m 00'59	8.83649 AU
min. Earth dist.	-7619 Feb 11 j 02:16	26° Ⅱ 14'36	9.28474 AU		-7613 Jun 13 j 15:57	30°R Ω	
direct	-7619 Apr 23 j 14:02	22° Ⅱ 57'43		direct	-7613 Jun 30 j 21:58	29° Ω 45′08	
evening set	-7619 Aug 03 j 16:09	29° Ⅱ 51′06			-7613 Jul 17 j 21:53	0° m	
	-7619 Aug 04 j 23:47	0 . \odot		evening set	-7613 Oct 08 j 17:54	6° Mp 56′17	
max. Earth dist.	-7619 Aug 19 j 10:25	1° 5 39'02	11.28439 AU				
				conjunction	-7613 Oct 25 j 07:17	8° m 56'33	1°52'55
conjunction	-7619 Aug 20 j 02:51	1° 5 43'45	2°10'54	minimum elong	-7613 Oct 25 j 07:21	8° M 56'34	1°53'08
minimum elong	-7619 Aug 20 j 02:48	1° 5 643'44	2°11'24	max. Earth dist.	-7613 Oct 24 j 12:35	8° m 50'51	10.76134 AU
morning rise	-7619 Sep 05 j 11:15	3° © 35'49		morning rise	-7613 Nov 10 j 23:45	10° m 57'53	
retrograde	-7619 Dec 13 j 13:02	10° © 19'31		retrograde	-7612 Feb 23 j 10:57	18° m) 29'48	
opposition	-7618 Feb 22 j 02:47	7°504'14	2°46'11	opposition	-7612 May 04 j 02:48	15° m/06'55	2°05'40
min. Earth dist.	-7618 Feb 22 j 17:44	7° © 01'31	9.28021 AU	min. Earth dist.	-7612 May 04 j 17:57	15° Mp 04'03	8.68351 AU
direct	-7618 May 05 j 01:12	3°945'36	7.20021 AC	direct	-7612 Jul 12 j 00:41	11° m y 047'07	0.00551710
evening set	-7618 Aug 14 j 13:26	10°938'16		evening set	-7612 Oct 19 j 20:49	11 my 47 07 19° my 06'12	
evening set	-/016 Aug 14 J 15.20	10 303610		evening set	-7012 Oct 19 J 20.49	19 1100 12	
. ,.	7610 4 20:22.02	120520142	2021117		7(12 N 05 : 14 14	2107-00142	1920122
conjunction	-7618 Aug 30 j 22:02	12°530'43	2°21'17	conjunction	-7612 Nov 05 j 14:14	21° m 09'43	1°30'23
minimum elong	-7618 Aug 30 j 22:01	12°530'42		minimum elong	-7612 Nov 05 j 14:17	21° Mp 09'44	1°30'30
max. Earth dist.	-7618 Aug 30 j 04:07		11.26438 AU	max. Earth dist.	-7612 Nov 04 j 20:44	-	10.60304 AU
morning rise	-7618 Sep 16 j 05:02	14°9522'47		morning rise	-7612 Nov 22 j 11:48	23° m) 14'36	
retrograde	-7618 Dec 24 j 22:48	21°9510'26			-7611 Feb 01 j 07:20	0∘ ट	
opposition	-7617 Mar 05 j 18:13	17° © 54'33	2°55'58	retrograde	-7611 Mar 07 j 23:30	0° £ 59'17	
min. Earth dist.	-7617 Mar 06 j 10:17	17° © 51'38	9.24531 AU		-7611 Apr 12 j 03:25	30°R, Mp	
direct	-7617 May 16 j 09:46	14° © 36'21		opposition	-7611 May 17 j 07:39	27° m 34'29	1°34'57
evening set	-7617 Aug 25 j 11:11	21° © 29'48		min. Earth dist.	-7611 May 17 j 20:58	27° m 31'55	8.52006 AU
				direct	-7611 Jul 24 j 13:02	24° m 13'39	
conjunction	-7617 Sep 10 j 18:34	23°522'36	2°26'39		-7611 Oct 18 j 07:50	0∘ ত	
minimum elong	-7617 Sep 10 j 18:33	23° © 22'35	2°27'09	evening set	-7611 Nov 01 j 11:23	1° - 42′05	
max. Earth dist.	-7617 Sep 09 j 23:28	23°\$17'03	11.21454 AU	Ü	,		
morning rise	-7617 Sep 27 j 01:07	25°©15'17		conjunction	-7611 Nov 18 j 09:39	3° ≏ 49'16	1°02'49
morning rise	-7617 Nov 13 j 22:44	0°Ω		minimum elong	-7611 Nov 18 j 09:42	3° ⊆ 49'17	1°02'50
retrograde	-7616 Jan 05 j 15:13	2° Ω 08'38		max. Earth dist.	-7611 Nov 17 j 18:25		10.43759 AU
retrograde	-7616 Feb 29 j 15:20	30°RS			-7611 Dec 05 j 12:55	5° £ 58'04	10.43739 AO
	,	•	2050122	morning rise	3		
opposition	-7616 Mar 16 j 13:09	28°951'55	2°59'33	retrograde	-7610 Mar 21 j 23:27	13° £ 56′08	0050116
min. Earth dist.	-7616 Mar 17 j 06:36	28°548'44	9.18102 AU	opposition	-7610 May 30 j 21:26	10° £ 29'25	0°58'16
direct	-7616 May 26 j 19:45	25°933'52		min. Earth dist.	-7610 May 31 j 08:17	10° £ 27'18	8.35366 AU
	-7616 Aug 12 j 15:20	0 \circ Ω		direct	-7610 Aug 06 j 10:03	7° Ω 07'25	
evening set	-7616 Sep 04 j 11:10	2° Ω 29'34		evening set	-7610 Nov 14 j 15:11	14° ≏ 46'20	
conjunction	-7616 Sep 20 j 18:13	4° Ω 23'20	2°26'42	conjunction	-7610 Dec 01 j 18:50	16° ≏ 57'24	0°31'07
minimum elong	-7616 Sep 20 j 18:14	4° Ω 23′21	2°27'10	minimum elong	-7610 Dec 01 j 18:51	16° ≙ 57'24	0°31'02
max. Earth dist.	-7616 Sep 19 j 21:22	4° Ω 17'14	11.13650 AU	max. Earth dist.	-7610 Dec 01 j 07:55	16° ≙ 53'54	10.27344 AU
morning rise	-7616 Oct 07 j 01:40	6° Ω 17'18		morning rise	-7610 Dec 19 j 03:55	19° ≏ 10′16	
retrograde	-7615 Jan 16 j 11:55	13° Ω 18′02					
opposition		13 001002		retrograde	-7609 Apr 05 j 10:15	27° ≏ 21'40	
opposition	-7615 Mar 28 j 12:54	10° Ω 00'09	2°56'32	retrograde opposition	-7609 Apr 05 j 10:15 -7609 Jun 13 j 20:27	27° £ 21'40 23° £ 53'07	0°17'00
	-7615 Mar 28 j 12:54			opposition	-7609 Jun 13 j 20:27	23° ჲ 53'07	
min. Earth dist.	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30	10° Ω 00'09 9° Ω 56'44	2°56'32 9.08943 AU	opposition min. Earth dist.	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20	23° £ 53'07 23° £ 51'45	0°17'00 8.19370 AU
min. Earth dist. direct	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39	10° Ω 00'09 9° Ω 56'44 6° Ω 42'01		opposition min. Earth dist. direct	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49	23° £ 53'07 23° £ 51'45 20° £ 29'48	
min. Earth dist.	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56	10°Ω00'09 9°Ω56'44 6°Ω42'01 13°Ω41'27		opposition min. Earth dist. direct desc. node	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51	23° £ 53'07 23° £ 51'45 20° £ 29'48 26° £ 00'32	
min. Earth dist. direct	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39	10° Ω 00'09 9° Ω 56'44 6° Ω 42'01		opposition min. Earth dist. direct	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14	23°£53'07 23°£51'45 20°£29'48 26°£00'32 28°£19'49	
min. Earth dist. direct evening set	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46	10° N00'09 9° N56'44 6° N42'01 13° N41'27 15° N	9.08943 AU	opposition min. Earth dist. direct desc. node	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51	23° £ 53'07 23° £ 51'45 20° £ 29'48 26° £ 00'32	
min. Earth dist. direct evening set	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56	10° Ω00'09 9° Ω56'44 6° Ω42'01 13° Ω41'27 15° Ω	9.08943 AU 2°21'10	opposition min. Earth dist. direct desc. node evening set	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43	23° \$\infty\$53'07 23° \$\infty\$51'45 20° \$\infty\$29'48 26° \$\infty\$000'32 28° \$\infty\$19'49 0° \$\mathbb{M}\$.	8.19370 AU
min. Earth dist. direct evening set conjunction minimum elong	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Oct 01 j 22:56 -7615 Oct 01 j 22:58	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \)	9.08943 AU 2°21'10 2°21'35	opposition min. Earth dist. direct desc. node evening set conjunction	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43	23°\$\overline{\Omega}53'07 23°\$\overline{\Omega}51'45 20°\$\overline{\Omega}29'48 26°\$\overline{\Omega}00'32 28°\$\overline{\Omega}19'49 0°\$\overline{\Omega}.34'44	8.19370 AU -0°03'24
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \)	9.08943 AU 2°21'10 2°21'35	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 18:21	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega \text{M}\$.34'44 0° \$\Omega 34'44	8.19370 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \)	9.08943 AU 2°21'10 2°21'35	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13	23° \$\infty\$53'07 23° \$\infty\$51'45 20° \$\infty\$29'48 26° \$\infty\$00'32 28° \$\infty\$19'49 0° \$\infty\$1.34'44 0° \$\infty\$1.34'44 0° \$\infty\$1.32'26	8.19370 AU -0°03'24
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 16 j 01:30	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega .34'44 0° \$\Omega 34'44 0° \$\Omega 34'44 0° \$\Omega 34'26 0° \$\Omega 37'02	8.19370 AU -0°03'24 0°03'36
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 16 j 01:30 -7609 Dec 15 j 13:00	23° № 53'07 23° № 51'45 20° № 29'48 26° № 00'32 28° № 19'49 0° М. 34'44 0° М. 34'44 0° М. 32'26 0° М. 37'02 0° М. 33'01	8.19370 AU -0°03'24
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23 -7614 Apr 10 j 12:56	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \) 21° \(\O 19'36 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 15 j 11:13 -7609 Dec 15 j 13:00 -7609 Jun 12 j 09:01	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega .34'44 0° \$\Omega 34'44 0° \$\Omega 34'26 0° \$\Omega 37'02 0° \$\Omega 33'01 2° \$\Omega 51'31\$	8.19370 AU -0°03'24 0°03'36
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 16 j 01:30 -7609 Dec 15 j 13:00	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega .34'44 0° \$\Omega 34'44 0° \$\Omega 34'02 0° \$\Omega 33'01 2° \$\Omega 51'31 11° \$\Omega 15'19	8.19370 AU -0°03'24 0°03'36 10.12027 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23 -7614 Apr 10 j 12:56	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \) 21° \(\O 19'36 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 15 j 11:13 -7609 Dec 15 j 13:00 -7609 Jun 12 j 09:01	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega .34'44 0° \$\Omega 34'44 0° \$\Omega 34'26 0° \$\Omega 37'02 0° \$\Omega 33'01 2° \$\Omega 51'31\$	8.19370 AU -0°03'24 0°03'36 10.12027 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23 -7614 Apr 10 j 12:56 -7614 Jun 19 j 00:22	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \) 21° \(\O 19'36 \) 18° \(\O 04'34 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 15 j 11:13 -7609 Dec 15 j 13:00 -7609 Jun 02 j 09:01 -7608 Apr 19 j 06:42	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega .34'44 0° \$\Omega 34'44 0° \$\Omega 34'02 0° \$\Omega 33'01 2° \$\Omega 51'31 11° \$\Omega 15'19	8.19370 AU -0°03'24 0°03'36 10.12027 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23 -7614 Apr 10 j 12:56 -7614 Jun 19 j 00:22	10° \(\O 00'09 \) 9° \(\O 56'44 \) 6° \(\O 42'01 \) 13° \(\O 41'27 \) 15° \(\O 36'47 \) 15° \(\O 36'47 \) 15° \(\O 30'28 \) 17° \(\O 32'36 \) 24° \(\O 42'22 \) 21° \(\O 23'01 \) 21° \(\O 19'36 \) 18° \(\O 04'34 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 15 j 13:00 -7609 Dec 15 j 13:00 -7608 Jan 02 j 09:01 -7608 Jun 27 j 03:59	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega 34'44 0° \$\Omega 34'44 0° \$\Omega 34'02 0° \$\Omega 33'01 2° \$\Omega 51'31 11° \$\Omega 15'19 7° \$\Omega 45'06	8.19370 AU -0°03'24 0°03'36 10.12027 AU -0°26'49
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7615 Mar 28 j 12:54 -7615 Mar 29 j 07:30 -7615 Jun 07 j 06:39 -7615 Sep 15 j 14:56 -7615 Sep 26 j 18:46 -7615 Oct 01 j 22:56 -7615 Oct 01 j 22:58 -7615 Oct 01 j 01:39 -7615 Oct 18 j 08:24 -7614 Jan 28 j 17:20 -7614 Apr 09 j 18:23 -7614 Apr 10 j 12:56 -7614 Jun 19 j 00:22 -7614 Sep 27 j 00:34	10° \(\Omega 00'09 \) 9° \(\Omega 56'44 \) 6° \(\Omega 42'01 \) 13° \(\Omega 36'47 \) 15° \(\Omega 36'47 \) 15° \(\Omega 36'47 \) 15° \(\Omega 30'28 \) 17° \(\Omega 32'36 \) 24° \(\Omega 42'22 \) 21° \(\Omega 23'01 \) 21° \(\Omega 19'36 \) 18° \(\Omega 00'10 \)	9.08943 AU 2°21'10 2°21'35 11.03269 AU 2°46'38 8.97335 AU	opposition min. Earth dist. direct desc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7609 Jun 13 j 20:27 -7609 Jun 14 j 03:20 -7609 Aug 19 j 17:49 -7609 Nov 09 j 12:51 -7609 Nov 28 j 09:14 -7609 Dec 11 j 07:43 -7609 Dec 15 j 18:21 -7609 Dec 15 j 11:13 -7609 Dec 15 j 13:00 -7609 Dec 15 j 13:00 -7608 Jan 02 j 09:01 -7608 Apr 19 j 06:42 -7608 Jun 27 j 03:59 -7608 Jun 27 j 05:57	23° \$\Omega 53'07 23° \$\Omega 51'45 20° \$\Omega 29'48 26° \$\Omega 00'32 28° \$\Omega 19'49 0° \$\Omega 34'44 0° \$\Omega 34'44 0° \$\Omega 34'02 0° \$\Omega 33'01 2° \$\Omega 51'31 11° \$\Omega 15'13 7° \$\Omega 44'42	8.19370 AU -0°03'24 0°03'36 10.12027 AU -0°26'49

•	nical year style is used: Th		•	/ /			.ge 23
conjunction	-7608 Dec 29 j 08:34	14°M40'02		unting style is the year	-7601 Apr 13 j 16:22	ounting style. 15°≈	
		14 1140 02 14° 1140 01		marning rise		15 ∞ 15°≈45'41	
minimum elong max. Earth dist.	-7608 Dec 29 j 08:32 -7608 Dec 29 j 09:09	14 1164001 14°M40'14	9.98779 AU	morning rise retrograde	-7601 Apr 19 j 14:04 -7601 Aug 01 j 18:46	13 ≈43 41 24°≈00'12	
max. Earm dist.	-7608 Dec 31 j 21:01	15°M	9.96//9 AU	min. Earth dist.	-7601 Oct 06 j 10:24	24 ≈00 12 20°≈35'00	8.03559 AU
morning rise	-7607 Jan 16 j 04:10	17°M 00'18		opposition	-7601 Oct 00 j 10:24	20°≈31'17	
retrograde	-7607 May 04 j 11:28	25°M34'23		direct	-7601 Dec 13 j 09:39	20 ≈31 17 17°≈00'45	-2 49 13
opposition	-7607 Jul 11 j 18:34	22°M02'52	-1°10'25	evening set	-7600 Mar 28 j 15:33	25°≈17'55	
min. Earth dist.	-7607 Jul 11 j 15:33	22°M03'29	7.93195 AU	evening set	-7000 Mar 20 J 15.55	25 ~1755	
direct	-7607 Sep 15 j 16:14	18°M36'43	1.93193 AO	conjunction	-7600 Apr 15 j 17:07	27° ≈ 36'49	-2°08'02
evening set	-7607 Dec 26 j 17:24	26°M48'24		minimum elong	-7600 Apr 15 j 17:11	27°≈36'50	
evening set	7007 Bec 20 j 17.24	20 110-10 2-1		max. Earth dist.	-7600 Apr 16 j 16:04	27°≈44'13	
conjunction	-7606 Jan 13 j 12:02	29°M09'45	-1°12'17	morning rise	-7600 May 03 j 16:12	29°≈54'48	10.10154710
minimum elong	-7606 Jan 13 j 11:59	29°M09'44		morning rise	-7600 May 04 j 08:41	0° ∀	
max. Earth dist.	-7606 Jan 13 j 18:31	29°M11'55	9.88489 AU	retrograde	-7600 Aug 14 j 13:46	7°) 54'52	
max. Earth dist.	-7606 Jan 19 j 18:45	0° ₹	2.00 102 110	min. Earth dist.	-7600 Oct 19 j 08:36		8.17474 AU
morning rise	-7606 Jan 31 j 11:36	1° ∡ 32'45		opposition	-7600 Oct 20 j 01:51	4°) €27'49	
retrograde	-7606 May 19 j 21:40	10° ₹ 14'03		direct	-7600 Dec 26 j 23:53	0°) 57′52	2 2011
opposition	-7606 Jul 26 j 14:32	6° × ⁷ 41'40	-1°50'36	evening set	-7599 Apr 12 j 08:49	9° ∺ 05'25	
min. Earth dist.	-7606 Jul 26 j 06:53		7.84756 AU	evening set	-7577 Apr 12 J 00.47	7 7(03.23	
direct	-7606 Sep 30 j 05:12	3°×14'08	7.04730 AO	conjunction	-7599 Apr 30 j 08:35	11°) 21'21	-1°48'15
evening set	-7605 Jan 11 j 04:06	11°×734'40		minimum elong	-7599 Apr 30 j 08:40	11° X 21'23	
evening set	-7003 Jan 11 j 04.00	11 🗡 34 40		max. Earth dist.	-7599 May 01 j 05:55		10.25107 AU
conjunction	-7605 Jan 29 j 02:10	13° ∡ 58′02	10/11/52	morning rise	-7599 May 18 j 04:37	13° X 36'03	10.23107 AU
minimum elong	-7605 Jan 29 j 02:10	13° x 58'02		retrograde	-7599 Aug 27 j 20:53	21° X 21'12	
max. Earth dist.	-7605 Jan 29 j 14:08	14° × 02'03	9.81891 AU	opposition	-7599 Nov 02 j 14:01	17° X 56'13	1050142
	-7605 Feb 16 j 04:26	14 x 02 03 16° x 22'46	9.01091 AU	min. Earth dist.	-7599 Nov 02 j 14.01 -7599 Nov 01 j 22:40		8.33085 AU
morning rise	-7605 Jun 04 j 09:07	16 x · 22 46 25° x 07'18			-7598 Jan 10 j 05:47	17 X 39 20 14° X 27'12	6.55065 AU
retrograde	3	25° x '0/'18 21° x '34'33	2024/02	direct	•	22° H 23'55	
opposition	-7605 Aug 10 j 13:20		7.80288 AU	evening set	-7598 Apr 26 j 12:39	22 7(23 33	
min. Earth dist.	-7605 Aug 10 j 01:57		7.80288 AU	:	7500 M 14:00.47	240 1/20120	1922114
direct	-7605 Oct 15 j 02:04	18° х 05'47 26° х 32'37		conjunction minimum elong	-7598 May 14 j 09:47 -7598 May 14 j 09:50	24°) 36'36 24°) 36'38	
evening set	-7604 Jan 26 j 23:06	20 X ·3237		_			
:	7(04 E-L 12: 22:20	200.75(150	2004150	max. Earth dist.	-7598 May 15 j 04:05	24° X 42'18 26° X 47'51	10.41309 AU
conjunction	-7604 Feb 13 j 23:39	28° 🗷 56'59		morning rise	-7598 Jun 01 j 02:17	20 π 4/31 0° Υ	
minimum elong	-7604 Feb 13 j 23:35		2°05'28	. 1	-7598 Jun 28 j 22:53		
max. Earth dist.	-7604 Feb 14 j 16:22	29°♂02'36 0°る	9.79477 AU	retrograde	-7598 Sep 09 j 15:15	4°Υ18'40 0°Υ55'48	1927/01
	-7604 Feb 21 j 19:30			opposition	-7598 Nov 15 j 16:46		
morning rise	-7604 Mar 03 j 03:21	1°る22'19		min. Earth dist.	-7598 Nov 15 j 04:25		8.49523 AU
retrograde	-7604 Jun 18 j 18:05	10°る05'28	2047152	1	-7598 Nov 27 j 12:56	30° ₹	
opposition	-7604 Aug 24 j 11:56	6° る 32'57		direct	-7597 Jan 24 j 02:17	27°) €27'57 0° °	
min. Earth dist.	-7604 Aug 23 j 21:48	6° る 35'56	7.80105 AU	. ,	-7597 Mar 21 j 11:44		
direct	-7604 Oct 29 j 04:29	3° そ 03'10		evening set	-7597 May 10 j 02:47	5° Ƴ 13'28	
evening set	-7603 Feb 10 j 21:47	11° る 32'58			7507.14 27:20.21	700000140	0054140
	7(02 F.1, 20:22.52	120757117	2010120	conjunction	-7597 May 27 j 20:31	7° Υ 22'49	
conjunction	-7603 Feb 28 j 23:52	13° ろ 57'17		minimum elong	-7597 May 27 j 20:33	7° Υ 22'50	
minimum elong	-7603 Feb 28 j 23:49	13°る57'16		max. Earth dist.	-7597 May 28 j 10:29		10.57882 AU
max. Earth dist.	-7603 Mar 01 j 20:11	14°る04'05	9.81411 AU	morning rise	-7597 Jun 14 j 09:11	9° Υ 30'36	
morning rise	-7603 Mar 19 j 03:47	16°る22'05		retrograde	-7597 Sep 21 j 23:43	16° Y 48'23	0040120
retrograde	-7603 Jul 03 j 20:31	24°る59'18	2000112	opposition	-7597 Nov 28 j 10:39	13° Y 27'32 13° Y 29'18	
opposition	-7603 Sep 08 j 07:41	21° る 27'32		min. Earth dist.	-7597 Nov 28 j 01:38		8.65943 AU
min. Earth dist.	-7603 Sep 07 j 15:35	21° る 30'56	7.84187 AU	direct	-7596 Feb 06 j 12:24	10° Υ 01'04	
direct	-7603 Nov 13 j 09:16	17°る57'06		evening set	-7596 May 22 j 04:00	17° Ƴ 35'42	
evening set	-7602 Feb 26 j 19:00	26° る 26'07			7506 X 00:17 41	1000041145	0024141
	760036 16:01.40	200740102	202.455	conjunction	-7596 Jun 08 j 17:41	19° Y 41'45	
conjunction	-7602 Mar 16 j 21:40	28° る 49'23		minimum elong	-7596 Jun 08 j 17:42	19° Y 41'46	
minimum elong	-7602 Mar 16 j 21:40	28°る49'23		max. Earth dist.	-7596 Jun 09 j 02:33		10.74014 AU
max. Earth dist.	-7602 Mar 17 j 20:15		9.87520 AU	morning rise	-7596 Jun 26 j 02:10	21° Υ 46'13	
	-7602 Mar 25 j 18:56	0° ≈		retrograde	-7596 Oct 02 j 22:26	28° Y 52'44	0010100
morning rise	-7602 Apr 04 j 00:45	1°≈12'39		opposition	-7596 Dec 09 j 20:30	25° Y 33'43	
retrograde	-7602 Jul 18 j 12:44	9° ≈ 39'59	2000/25	min. Earth dist.	-7596 Dec 09 j 14:23	25° Υ 34'53	8.81578 AU
opposition	-7602 Sep 22 j 21:49	6°≈09'27		direct	-7595 Feb 18 j 13:07	22°Υ08'43	
min. Earth dist.	-7602 Sep 22 j 04:30	6°≈13'05	7.92201 AU	asc. node	-7595 Apr 10 j 13:11	24°Υ09'49	
direct	-7602 Nov 28 j 11:59	2°≈38'45		evening set	-7595 Jun 03 j 17:12	29° Ƴ 33'15	
evening set	-7601 Mar 14 j 10:08	11° ≈ 03′22			-7595 Jun 07 j 13:02	0°8	
	7601 4 01:12.00	1202445	2020145		7505 1 21:02:03	1040000	0005142
conjunction	-7601 Apr 01 j 12:38	13°≈24'46		conjunction	-7595 Jun 21 j 02:33	1° 8 36'11	0°05'43
minimum elong	-7601 Apr 01 j 12:40	13°≈24'46		minimum elong	-7595 Jun 21 j 02:32	1° 8 36'11	0°05'56
max. Earth dist.	-7601 Apr 02 j 12:01	13~≈32'25	9.97338 AU	behind sun begin	-7595 Jun 20 j 19:45	1° 8 34'12	

-	nical year style is used: Th		_			_	50 20
behind sun end	-7595 Jun 21 j 09:19	1° 8 38'10		minimum elong	-7589 Aug 26 j 12:14	7° © 55'51	2°17'40
max. Earth dist.	-7595 Jun 21 j 07:15	_	10.88995 AU	max. Earth dist.	-7589 Aug 25 j 17:56		11.27974 AU
morning rise	-7595 Jul 08 j 06:32	3° 8 37'34		morning rise	-7589 Sep 11 j 19:42	9° © 47'53	
retrograde	-7595 Oct 14 j 14:59	10° 8 34'51		retrograde	-7589 Dec 20 j 06:05	16° © 33'39	
opposition	-7595 Dec 21 j 23:40	7° 8 17'23	0°24'42	opposition	-7588 Feb 28 j 22:38	13° © 18'20	2°52'16
min. Earth dist.	-7595 Dec 21 j 20:34	7° 8 17'58	8.95775 AU	min. Earth dist.	-7588 Feb 29 j 15:52	13° © 15'13	9.26529 AU
direct	-7594 Mar 03 j 05:26	3° 8 53'51		direct	-7588 May 10 j 15:58	10°900'06	
evening set	-7594 Jun 15 j 19:38	11° 8 09'22		evening set	-7588 Aug 20 j 00:34	16° © 53'17	
				max. Earth dist.	-7588 Sep 04 j 11:26	18° © 39'51	11.23900 AU
conjunction	-7594 Jul 03 j 00:25	13° 8 09'29	0°34'58				
minimum elong	-7594 Jul 03 j 00:24	13° 8 09'28	0°35'16	conjunction	-7588 Sep 05 j 08:15	18° © 45'53	2°24'50
max. Earth dist.	-7594 Jul 03 j 01:28	13° 8 09'47	11.02219 AU	minimum elong	-7588 Sep 05 j 08:14	18° © 45'53	2°25'20
	-7594 Jul 18 j 19:41	15° 8		morning rise	-7588 Sep 21 j 15:00	20° © 38'16	
morning rise	-7594 Jul 19 j 23:51	15° 8 08'05		retrograde	-7588 Dec 30 j 18:58	27° 5 29'03	
retrograde	-7594 Oct 26 j 02:25	21° 8 58'14		opposition	-7587 Mar 11 j 16:20	24° 5 12'48	2°58'42
opposition	-7593 Jan 02 j 21:17	18° 8 42'01	0°59'21	min. Earth dist.	-7587 Mar 12 j 11:04	24° © 09'23	9.20969 AU
min. Earth dist.	-7593 Jan 02 j 22:09	18° 8 41'52	9.07973 AU	direct	-7587 May 22 j 03:35	20° © 54'38	
direct	-7593 Mar 15 j 11:10	15° 8 19'51		evening set	-7587 Aug 30 j 23:33	27° 5 49'26	
evening set	-7593 Jun 27 j 13:16	22° 8 27'45		max. Earth dist.	-7587 Sep 15 j 09:30	29° © 36'35	11.16899 AU
. ,.	7502 1 1 14:12.20	240 42 5122	1000114		7507.0 16:06.42	200512116	2027110
conjunction	-7593 Jul 14 j 13:20	24° 8 25'22		conjunction	-7587 Sep 16 j 06:42	29°5542'46	
minimum elong	-7593 Jul 14 j 13:18	24° 8 25'21	1°02'37	minimum elong	-7587 Sep 16 j 06:42	29°5542'46	2°27'48
max. Earth dist.	-7593 Jul 14 j 09:48		11.13183 AU		-7587 Sep 18 j 17:41	0°N	
morning rise	-7593 Jul 31 j 08:29	26° 8 21'38		morning rise	-7587 Oct 02 j 13:40	1° Ω 36′09	
_	-7593 Sep 04 j 06:36	0°Щ		retrograde	-7586 Jan 11 j 14:01	8° Ω 33'37	
retrograde	-7593 Nov 06 j 07:50	3°Ⅱ06'44		opposition	-7586 Mar 23 j 13:50	5° Ω 16'06	
	-7592 Jan 12 j 16:17	30° ₹ 8		min. Earth dist.	-7586 Mar 24 j 08:41	5° Ω 12'40	9.12562 AU
opposition	-7592 Jan 14 j 14:38	29° 8 51'26		direct	-7586 Jun 02 j 14:55	1° Ω 57'47	
min. Earth dist.	-7592 Jan 14 j 19:54	29° 8 50'28	9.17717 AU	evening set	-7586 Sep 11 j 01:32	8° Ω 55'42	
direct	-7592 Mar 26 j 10:59	26° 8 30'26		max. Earth dist.	-7586 Sep 26 j 11:44	10° {\2 44'02	11.07195 AU
_	-7592 Jun 03 j 23:57	0°II					
evening set	-7592 Jul 07 j 23:32	3° Ⅱ 32'14		conjunction	-7586 Sep 27 j 09:12	10° Ω 50′22	
				minimum elong	-7586 Sep 27 j 09:13	10° Ω 50′22	2°24'47
conjunction	-7592 Jul 24 j 19:01	5° Ⅲ 27'47		morning rise	-7586 Oct 13 j 17:32	12° Ω 45′22	
minimum elong	-7592 Jul 24 j 18:58	5° Ⅱ 27'46			-7586 Nov 02 j 22:17	15° Ω	
max. Earth dist.	-7592 Jul 24 j 10:20		11.21486 AU	retrograde	-7585 Jan 23 j 16:43	19° Ω 51'11	
morning rise	-7592 Aug 10 j 10:20	7° Ⅱ 22'10		opposition	-7585 Apr 04 j 16:43	16° Ω 32'09	
retrograde	-7592 Nov 16 j 12:20	14° Ⅱ 04'22		min. Earth dist.	-7585 Apr 05 j 11:33		9.01580 AU
opposition	-7591 Jan 25 j 05:16	10° Ⅱ 49'36	1°58'36		-7585 Apr 26 j 08:04	15°R Ω	
min. Earth dist.	-7591 Jan 25 j 13:57	10° Ⅱ 48'01	9.24629 AU	direct	-7585 Jun 14 j 05:13	13° Ω 13′27	
direct	-7591 Apr 07 j 06:26	7° Ⅱ 29'37			-7585 Jul 31 j 04:50	15° Ω	
evening set	-7591 Jul 19 j 03:51	14° Ⅱ 26'51		evening set	-7585 Sep 22 j 08:25	20° Ω 15'56	
conjunction	-7591 Aug 04 j 19:21	16° Ⅲ 20'50	1°47'39	conjunction	-7585 Oct 08 j 17:31	22°Ω12'33	2°15'40
minimum elong	-7591 Aug 04 j 19:18	16° Ⅱ 20'49	1°48'08	minimum elong	-7585 Oct 08 j 17:33	22°Ω12'33	2°16'02
max. Earth dist.	-7591 Aug 04 j 07:05		11.26811 AU	max. Earth dist.	-7585 Oct 07 j 19:34		10.95115 AU
morning rise	-7591 Aug 21 j 07:17	18° Ⅱ 13'52	11.20011110	morning rise	-7585 Oct 25 j 04:30	24° Ω 09'47	10.55115116
retrograde	-7591 Nov 27 j 16:22	24° I 55'18		0	-7585 Dec 24 j 18:24	0° m)	
opposition	-7590 Feb 05 j 18:30	21° I I40'41	2°21'44	retrograde	-7584 Feb 05 j 03:16	1° m/25'30	
min. Earth dist.	-7590 Feb 06 j 05:46	21° I I38'38	9.28439 AU	8	-7584 Mar 19 j 14:23	30°RΩ	
direct	-7590 Apr 18 j 20:30	18° Ⅲ 21'32	7.20 137 110	opposition	-7584 Apr 16 j 02:06	28° Ω 04'46	2°38'13
evening set	-7590 Jul 30 j 04:21	25° Ⅱ 15'52		min. Earth dist.	-7584 Apr 16 j 20:47		8.88407 AU
evening sec	7570 Jul 50 j 0 1.21	23 113 32		direct	-7584 Jun 24 j 23:37	24° Ω 45'28	0.00107710
conjunction	-7590 Aug 15 j 16:33	27° Ⅱ 08'49	2°04'38	direct	-7584 Sep 16 j 09:21	0°m)	
minimum elong	-7590 Aug 15 j 16:31	27° I 108'49	2°05'08	evening set	-7584 Oct 02 j 22:07	1° Mp 53'59	
max. Earth dist.	-7590 Aug 15 j 01:39		2 03 08 11.28975 AU	evening set	1307 OCL 02 J 22.01	צנ כניקוו ז	
morning rise	-7590 Sep 01 j 01:44	29° I I01'03	11.207/3 AU	conjunction	-7584 Oct 19 j 09:52	3° m 53'06	2°01'15
morning rise	-7590 Sep 01 j 01:44 -7590 Sep 09 j 22:32	0°95		minimum elong	-7584 Oct 19 j 09:55	3°My 53'07	2°01'31
retrograde	-7590 Sep 09 j 22.32 -7590 Dec 08 j 23:13	5°9543'42		max. Earth dist.	-7584 Oct 19 j 09.55		10.81090 AU
opposition	-7589 Feb 17 j 07:43	2°\$28'56	2°39'47	morning rise	-7584 Nov 05 j 00:36	5° Mp 53'11	10.01090 AU
min. Earth dist.	-7589 Feb 17 j 07:43 -7589 Feb 17 j 22:05	2°\$28'36	9.29057 AU	retrograde	-7583 Feb 16 j 22:44	13°My20'12	
mm. Darui dist.			7.2703 / AU	_	•		2017121
diract	-7589 Mar 28 j 01:44	30°Ŗ Ⅱ 20°Ⅲ10'22		opposition	-7583 Apr 28 j 18:50	9° Mp 57'35	
direct	-7589 Apr 30 j 07:24	29° Ⅱ 10′22 0° ©		min. Earth dist.	-7583 Apr 29 j 12:12	9° Mp 54'18	8.73529 AU
ovening set	-7589 Jun 01 j 22:54			direct	-7583 Jul 07 j 00:54	6° Mp 37'30	
evening set	-7589 Aug 10 j 02:47	6° © 03'22		evening set	-7583 Oct 14 j 20:28	13° m 53'28	
conjunction	-7589 Aug 26 j 12:15	7° © 55'52	2°17'10	conjunction	-7583 Oct 31 j 12:05	15° m 55'41	1°41'09

•	omena of Saturn IIC		-				ge 27
	nical year style is used: Th	-		unting style is the year			
minimum elong	-7583 Oct 31 j 12:09	15° Mp 55'42		T' 4	-7577 Jul 25 j 07:17	30°RM	
max. Earth dist.	-7583 Oct 30 j 17:48		10.65633 AU	direct	-7577 Sep 24 j 03:23	26°M57'18	
morning rise	-7583 Nov 17 j 07:25	17° Mp 59'07		. ,	-7577 Nov 21 j 02:23	0° 🗷	
retrograde	-7582 Mar 02 j 06:43	25° m 38'34	1040122	evening set	-7576 Jan 04 j 15:51	5° ∡ 14'12	
opposition	-7582 May 11 j 19:49	22° m 13'59			7576 X 20:10.00	70 70(14)	1020120
min. Earth dist.	-7582 May 12 j 10:20	22° Tp 11'12	8.57521 AU	conjunction	-7576 Jan 22 j 12:29	7° ∡ ³36'46	
direct	-7582 Jul 19 j 10:32	18° m 53'00		minimum elong	-7576 Jan 22 j 12:25	7° ₹ 36'45	
evening set	-7582 Oct 27 j 05:37	26° m 17'43	10.40266.477	max. Earth dist.	-7576 Jan 22 j 22:59	7° × ⁷ 40'17	9.84492 AU
max. Earth dist.	-7582 Nov 12 j 10:54	28° III) 18'45	10.49366 AU	morning rise	-7576 Feb 09 j 13:44	10° ∡ 00'51	
				retrograde	-7576 May 27 j 21:53	18° ≯ 44'31	
conjunction	-7582 Nov 13 j 01:50	28° Tp 23'26	1°15'44	opposition	-7576 Aug 03 j 08:05	15° ₹ 12'04	
minimum elong	-7582 Nov 13 j 01:54	28° Tp 23'27	1°15'48	min. Earth dist.	-7576 Aug 02 j 21:47	15° ₹ 14'13	7.82128 AU
	-7582 Nov 25 j 23:06	0∘ ⊽		direct	-7576 Oct 07 j 21:36	11° ₹ 44'04	
morning rise	-7582 Nov 30 j 02:25	0° Ω 30'37		evening set	-7575 Jan 19 j 07:50	20° ∡ 08'24	
retrograde	-7581 Mar 16 j 02:34	8° Ω 23'15					
opposition	-7581 May 25 j 05:38	4° Ω 56'45	1°15'23	conjunction	-7575 Feb 06 j 07:28	22° х 32'23	
min. Earth dist.	-7581 May 25 j 16:29	4° ≏ 54'38	8.41077 AU	minimum elong	-7575 Feb 06 j 07:24	22° ∡ 32′22	
direct	-7581 Aug 01 j 02:21	1° ≏ 34'44		max. Earth dist.	-7575 Feb 06 j 23:52		9.80593 AU
evening set	-7581 Nov 09 j 03:20	9° ഫ 09'20		morning rise	-7575 Feb 24 j 10:36	24° ₹ 57'32	
					-7575 Apr 07 j 13:49	0°る	
conjunction	-7581 Nov 26 j 04:37	11° ≏ 18'49	0°45'44	retrograde	-7575 Jun 12 j 08:14	3° る 41'47	
minimum elong	-7581 Nov 26 j 04:40	11° ≏ 18'50	0°45'41	opposition	-7575 Aug 18 j 07:07	0° る 09'28	
max. Earth dist.	-7581 Nov 25 j 17:05		10.33044 AU	min. Earth dist.	-7575 Aug 17 j 16:49		7.80433 AU
morning rise	-7581 Dec 13 j 11:00	13° ≏ 30′01			-7575 Aug 20 j 04:10	30°₹ ⋌ ¹	
retrograde	-7580 Mar 29 j 09:02	21° ≏ 36′00		direct	-7575 Oct 22 j 21:47	26° х 40′33	
opposition	-7580 Jun 07 j 00:43	18° ≏ 07'40	0°35'55		-7575 Dec 22 j 19:52	0°る	
min. Earth dist.	-7580 Jun 07 j 07:41	18° ≏ 06'17	8.25016 AU	evening set	-7574 Feb 04 j 05:37	5° る 09'15	
direct	-7580 Aug 13 j 04:37	14° ≏ 44'30					
evening set	-7580 Nov 21 j 14:56	22° ≏ 29'51		conjunction	-7574 Feb 22 j 07:10	7° る 33'36	
				minimum elong	-7574 Feb 22 j 07:08	7° る 33'35	2°14'40
conjunction	-7580 Dec 08 j 21:33	24° ≏ 43'11	0°12'20	max. Earth dist.	-7574 Feb 23 j 04:15	7° る 40'40	9.80998 AU
minimum elong	-7580 Dec 08 j 21:33	24° ≏ 43'12	0°12'10	morning rise	-7574 Mar 12 j 10:56	9° る 58'39	
behind sun begin	-7580 Dec 08 j 16:43	24° ≏ 41'38		retrograde	-7574 Jun 27 j 14:11	18° る 38'49	
behind sun end	-7580 Dec 09 j 02:24	24° ≏ 44'45		min. Earth dist.	-7574 Sep 01 j 11:31		7.83034 AU
max. Earth dist.	-7580 Dec 08 j 14:09	24° ≏ 40'49	10.17511 AU	opposition	-7574 Sep 02 j 04:34	15° る 07'08	-2°56'02
morning rise	-7580 Dec 26 j 09:49	26° ≏ 58'23		direct	-7574 Nov 07 j 01:03	11° る 37'33	
	-7579 Jan 20 j 10:24	0° M		evening set	-7573 Feb 20 j 04:00	20° る 06'54	
retrograde	-7579 Apr 13 j 01:36	5° ™ 17′08					
desc. node	-7579 Apr 21 j 13:17	5°M13'21		conjunction	-7573 Mar 10 j 06:32	22° る 30'35	-2°23'39
opposition	-7579 Jun 21 j 04:36	1°M47'12		minimum elong	-7573 Mar 10 j 06:31	22° る 30'35	2°24'08
min. Earth dist.	-7579 Jun 21 j 07:45	1°M46'34	8.10219 AU	max. Earth dist.	-7573 Mar 11 j 06:37	22° る 38'36	9.85666 AU
	-7579 Jul 14 j 13:17	30°Ŗ Ω		morning rise	-7573 Mar 28 j 09:52	24° る 54'28	
direct	-7579 Aug 26 j 18:06	28° ≏ 22'47			-7573 May 10 j 14:10	0° ≈	
	-7579 Oct 07 j 17:54	0° M		retrograde	-7573 Jul 12 j 12:01	3° ≈ 26'14	
evening set	-7579 Dec 05 j 17:21	6° ™ 19'17		opposition	-7573 Sep 16 j 21:29	29° る 55'39	
				min. Earth dist.	-7573 Sep 16 j 03:10	29° る 59'29	7.89688 AU
conjunction	-7579 Dec 23 j 05:11	8°M36'16	-0°22'53		-7573 Sep 16 j 00:43	30°Ŗる	
minimum elong	-7579 Dec 23 j 05:10	8°M36'16	0°23'09	direct	-7573 Nov 22 j 03:55	26° る 25'39	
max. Earth dist.	-7579 Dec 23 j 03:03	8°M35'34	10.03657 AU		-7572 Jan 25 j 13:27	0° ≈	
morning rise	-7578 Jan 09 j 22:48	10°M55'09		evening set	-7572 Mar 06 j 22:25	4° ≈ 51'57	
	-7578 Feb 13 j 00:16	15°M					
retrograde	-7578 Apr 28 j 02:49	19°M25'07		conjunction	-7572 Mar 25 j 01:04	7° ≈ 14'05	-2°23'37
opposition	-7578 Jul 05 j 16:12	15°M53'55	-0°51'10	minimum elong	-7572 Mar 25 j 01:05	7° ≈ 14'05	2°24'02
min. Earth dist.	-7578 Jul 05 j 15:06	15° M 54'09	7.97592 AU	max. Earth dist.	-7572 Mar 26 j 01:56	7° ≈ 22'16	9.94171 AU
	-7578 Jul 16 j 19:02	15°RM		morning rise	-7572 Apr 12 j 03:07	9° ≈ 35'54	
direct	-7578 Sep 09 j 17:44	12°M28'14			-7572 May 29 j 05:11	15° ≈	
	-7578 Nov 01 j 10:23	15° ™		retrograde	-7572 Jul 25 j 23:47	17° ≈ 55'50	
evening set	-7578 Dec 20 j 10:11	20° M $35'33$			-7572 Sep 23 j 14:57	15°R ≈	
				opposition	-7572 Sep 30 j 07:22	14° ≈ 26′44	-2°55'18
conjunction	-7577 Jan 07 j 02:47	22°M55'43	-0°57'35	min. Earth dist.	-7572 Sep 29 j 13:32	14° ≈ 30′27	7.99799 AU
minimum elong	-7577 Jan 07 j 02:44	22°M55'42	0°57'57	direct	-7572 Dec 06 j 03:56	10° ≈ 56'40	
max. Earth dist.	-7577 Jan 07 j 06:47	22° M $_{57}$ ' 02	9.92381 AU		-7571 Feb 14 j 00:26	15° ≈	
morning rise	-7577 Jan 25 j 00:49	25°M17'38		evening set	-7571 Mar 22 j 08:32	19° ≈ 16'46	
	-7577 Mar 05 j 11:23	0° ≯					
retrograde	-7577 May 13 j 10:53	3° х 56′16		conjunction	-7571 Apr 09 j 10:29	21° ≈ 36'38	-2°14'33
opposition	-7577 Jul 20 j 10:10	0° ≯ 24'12	-1°33'18	minimum elong	-7571 Apr 09 j 10:32	21° ≈ 36′39	2°14'54
min. Earth dist.	-7577 Jul 20 j 04:27	0° х 25′23	7.87996 AU	max. Earth dist.	-7571 Apr 10 j 09:52	21° ≈ 44'13	10.05765 AU

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7571 in astronomical counting style is the year 7572 BCE in historical counting style. -7571 Apr 27 i 10:33 23°≈55'46 conjunction -7565 Jun 28 j 06:22 8°**8**22'27 0°22'20 morning rise -7571 Jun 22 j 07:55 0°₩ -7565 Jun 28 j 06:20 8°822'26 0°22'36 minimum elong -7571 Aug 08 j 23:47 2°\mathcal{H}01'50 -7565 Jun 28 j 07:10 8°**8**22'41 10.95329 AU max. Earth dist. retrograde -7571 Sep 26 j 12:55 -7565 Jul 15 j 08:00 30°R≈ 10°**8**22'24 morning rise -7571 Oct 14 j 08:59 opposition 28°≈34'31 -2°38'26 -7565 Aug 29 j 21:22 15°8 -7571 Oct 13 j 16:38 -7565 Oct 21 j 11:39 17°**8**15'56 min. Earth dist. 28°**≈**37'54 8.12549 AU retrograde 25°≈04'49 direct -7571 Dec 20 j 22:18 -7565 Dec 15 j 08:31 15°R₩ 0°**)**€ -7570 Mar 09 j 17:25 opposition -7565 Dec 29 j 02:38 13°**8**58'53 0°44'31 evening set -7570 Apr 06 j 07:16 3°**)** 16′21 min. Earth dist. -7565 Dec 29 j 03:20 13°**8**58'45 9.01349 AU direct -7564 Mar 09 j 13:03 10°**8**35'39 conjunction -7570 Apr 24 j 07:43 5°\(\mathbf{3}3'28\) -1°57'42 -7564 May 27 j 02:19 15°8 -7570 Apr 24 j 07:47 -7564 Jun 21 j 21:09 17°**8**47'23 minimum elong 5°**∺**33'29 1°57'57 evening set -7570 Apr 25 j 04:17 max. Earth dist. 5°**¥**40′02 10.19602 AU morning rise -7570 May 12 j 05:13 7°**)** 49'33 conjunction -7564 Jul 08 j 23:19 19°**8**46'15 0°50'37 retrograde -7570 Aug 22 j 11:05 15°**)** 41′02 minimum elong -7564 Jul 08 j 23:17 19°**8**46'14 0°50'58 min. Earth dist. -7570 Oct 27 j 10:39 12°**升**18'40 8.27139 AU max. Earth dist. -7564 Jul 08 j 19:57 19°**8**45'16 11.06924 AU opposition -7570 Oct 28 j 01:25 12°**升**15'40 -2°12'59 morning rise -7564 Jul 25 j 20:34 21°843'42 direct -7569 Jan 04 j 09:17 8°\ 46'39 retrograde -7564 Oct 31 j 19:43 28°831'22 evening set -7569 Apr 20 j 17:17 16°**)** 48′05 opposition -7563 Jan 08 j 21:59 25°**8**15'13 1°17'36 min. Earth dist. -7563 Jan 09 j 01:21 25°**8**14'35 9.11853 AU conjunction -7569 May 08 j 15:34 19°\(\mathbf{1}\)02'09 -1°34'46 direct -7563 Mar 21 j 17:28 21°853'10 minimum elong -7569 May 08 j 15:38 19°**)**€02'10 1°34'55 evening set -7563 Jul 03 i 10:37 28°858'10 max. Earth dist. -7569 May 09 i 08:58 19°**)**€07'37 10.34904 AU -7563 Jul 12 j 10:54 $0^{\circ}II$ morning rise -7569 May 26 i 09:54 21° ¥ 14'54 retrograde -7569 Sep 04 i 10:14 28°\ 51'58 conjunction -7563 Jul 20 j 08:20 0°**Д**54'47 1°16'25 opposition -7569 Nov 10 j 08:20 25°**)** 28'34 -1°41'19 -7563 Jul 20 j 08:17 0°II54'47 1°16'51 minimum elong -7569 Nov 09 j 19:30 25°**)** 31'08 8.42809 AU -7563 Jul 20 j 02:01 0°**П**52'58 11.16149 AU min. Earth dist. max Earth dist -7568 Jan 18 j 10:41 22°\ 00'30 -7563 Aug 06 j 01:21 2°**I**150′09 morning rise direct 29°**)** 51'04 -7563 Nov 12 j 02:50 9°**Ⅲ**34′02 -7568 May 03 j 13:55 retrograde evening set $0^{\circ}\Upsilon$ 1°47'07 -7568 May 04 j 19:29 opposition -7562 Jan 20 j 13:56 6°**Ⅱ**18'31 -7562 Jan 20 j 20:43 6°**I**17'16 9.19843 AU min. Earth dist. -7568 May 21 j 09:18 2°Y01'55 -1°07'37 2°II57'33 conjunction -7562 Apr 02 j 13:56 direct -7568 May 21 j 09:21 2°\bar{Y}01'56 1°07'39 -7562 Jul 14 j 17:32 9°**Ⅲ**57'17 minimum elong evening set -7568 May 21 j 23:23 2°**Y**06'15 10.50878 AU max. Earth dist. -7562 Jul 31 j 10:59 -7568 Jun 07 j 23:51 4°Υ11'15 11°**I**52'08 1°39'01 morning rise conjunction -7568 Sep 16 j 00:33 11°Y34'51 -7562 Jul 31 j 10:56 11°**I**52′07 1°39′29 retrograde minimum elong 8° **Y**13'19 -1°05'46 -7568 Nov 22 j 06:23 -7562 Jul 31 j 00:53 11°**Ⅲ**49'13 11.22717 AU opposition max. Earth dist. min. Earth dist. -7568 Nov 21 j 20:06 8°Υ15'21 8.58773 AU morning rise -7562 Aug 17 j 00:22 13°**Ⅱ**45'55 -7567 Jan 31 j 01:00 4° Y46'24retrograde -7562 Nov 23 j 05:25 20°**Ⅲ**28′02 direct -7567 May 16 j 21:10 12°Y26'01 opposition -7561 Feb 01 j 03:50 17°**Ⅱ**12'52 2°12'22 evening set min. Earth dist. -7561 Feb 01 j 14:18 17°**耳**10′57 9.25067 AU -7567 Jun 03 j 12:55 14° Y 33'37 -0°38'02 -7561 Apr 14 j 04:42 13°**Ⅱ**52'48 conjunction direct -7567 Jun 03 j 12:56 14°**Υ**33'37 0°37'58 -7561 Jul 25 j 19:51 20°**Ⅱ**48'54 minimum elong evening set -7567 Jun 03 j 23:31 14°**Y**36′50 10.66736 AU max. Earth dist. -7567 Jun 20 j 23:14 16°**Ƴ**39'35 -7561 Aug 11 j 09:26 22°II42'26 1°57'49 morning rise conjunction 23°Y51'15 retrograde -7567 Sep 28 i 04:19 minimum elong -7561 Aug 11 i 09:23 22°**II**42'25 1°58'19 opposition -7567 Dec 04 i 20:11 20°Y31'27 -0°28'28 max. Earth dist. -7561 Aug 10 j 19:20 22°**II**38'22 11.26436 AU min. Earth dist. -7567 Dec 04 i 13:33 20°**Y**32'44 8.74283 AU morning rise -7561 Aug 27 i 19:55 24°**I**35′08 17°**Y**05'46 direct -7566 Feb 13 i 05:49 -7561 Oct 25 i 06:09 0ಂತಾ -7566 May 29 j 15:59 24°Y35'00 -7561 Dec 04 i 10:18 1°9517'32 evening set retrograde -7560 Jan 14 i 19:09 30°RⅡ -7566 Jun 16 j 03:28 26°Y39'26 -0°07'39 -7560 Feb 12 j 17:04 28°**II**02'23 2°32'43 conjunction opposition -7566 Jun 16 j 03:28 26°Y39'26 0°07'29 min. Earth dist. -7560 Feb 13 j 06:08 28°**Ⅱ**00'01 9.27365 AU minimum elong 26°**Ƴ**37'31 24°**II**43'04 behind sun begin -7566 Jun 15 j 20:58 direct -7560 Apr 24 j 18:30 26°**Y**41'21 -7560 Jul 21 j 00:48 behind sun end -7566 Jun 16 j 09:58 000 26°**Υ**41'13 10.81759 AU 1°537'02 max. Earth dist. -7566 Jun 16 j 09:30 evening set -7560 Aug 04 j 19:03 28°**Y**42'16 morning rise -7566 Jul 03 j 09:26 -7566 Jul 14 j 16:41 0°8 -7560 Aug 21 j 05:40 3°529'50 2°12'21 conjunction -7566 Sep 19 j 02:51 5°**8**21'03 -7560 Aug 21 j 05:37 2°12'51 asc. node minimum elong 3°9529'49 -7566 Oct 09 j 23:19 5°**8**43'50 -7560 Aug 20 j 13:28 3°525'10 11.27198 AU retrograde max. Earth dist. -7566 Dec 17 j 02:29 0°08'47 opposition 2°**8**25'32 morning rise -7560 Sep 06 j 13:55 5°9522'01 min. Earth dist. -7566 Dec 16 j 23:49 2°**8**26'03 8.88671 AU retrograde -7560 Dec 14 j 17:08 12°906'37

opposition

evening set max. Earth dist.

direct

min. Earth dist.

-7559 Feb 23 j 07:12

-7559 Feb 23 j 21:40

-7559 May 06 j 04:19

-7559 Aug 15 j 16:49

-7559 Aug 31 j 07:50

8°951'09

8°9548'31

5°932'27

12°925'45

2°47'41

14°5613'17 11.24970 AU

9.26663 AU

-7565 Jan 21 j 14:35

-7565 Feb 26 j 01:59

-7565 Apr 02 j 07:16

-7565 Jun 10 j 23:30

direct

evening set

30°**₹**Υ

0°8

29°**Y**′01′05

6°820'57

Attention astronom	nical year style is used: Th		n actronomical ac	unting style is the year			ge 29
conjunction	-7559 Sep 01 j 01:23	14°©18'22		minimum elong	-7553 Nov 07 j 23:13	23° m 10'41	102723
minimum elong	-7559 Sep 01 j 01:21	14 \$318 22 14°\$318'21		max. Earth dist.			1 2 / 23 10.58810 AU
2	1 3		2-22-41		-7553 Nov 07 j 06:17		10.58810 AU
morning rise	-7559 Sep 17 j 08:16	16°5510'36		morning rise	-7553 Nov 24 j 21:19	25° m 15'54	
retrograde	-7559 Dec 26 j 05:14	22°559'16	2056146	. 1	-7552 Jan 07 j 07:48	3₀ ひ 01130	
opposition	-7558 Mar 06 j 23:31	19°543'13	2°56'46	retrograde	-7552 Mar 09 j 10:46	3° ₾ 01'39	
min. Earth dist.	-7558 Mar 07 j 15:36	19°540'17	9.22970 AU		-7552 May 13 j 16:58	30°RM)	1020140
direct	-7558 May 17 j 14:14	16°524'53		opposition	-7552 May 18 j 18:20	29° My 36'40	1°30'48
evening set	-7558 Aug 26 j 15:16	23° © 19'03		min. Earth dist.	-7552 May 19 j 07:17	29° Mp 34'10	8.50655 AU
	7550 0 11:00 25	250612104	2026157	direct	-7552 Jul 25 j 21:59	26° Mp 15'44	
conjunction	-7558 Sep 11 j 22:35	25°9512'04	2°26'57		-7552 Oct 01 j 02:28	0∘ ত	
minimum elong	-7558 Sep 11 j 22:34	25°5512'04	2°27'26	evening set	-7552 Nov 02 j 20:54	3° ≏ 44'53	
max. Earth dist.	-7558 Sep 11 j 02:52		11.19814 AU		######################################	50 0 50101	0050110
morning rise	-7558 Sep 28 j 05:18	27° © 04'59		conjunction	-7552 Nov 19 j 19:40	5° £ 52'21	0°59'12
	-7558 Oct 25 j 09:27	0°N		minimum elong	-7552 Nov 19 j 19:43	5° Ω 52'22	
retrograde	-7557 Jan 06 j 20:31	3° Ω 59'24	2050124	max. Earth dist.	-7552 Nov 19 j 05:59		10.42568 AU
opposition	-7557 Mar 18 j 19:13	0° Ω 42'28	2°59'34	morning rise	-7552 Dec 06 j 23:25	8° ≏ 01'27	
min. Earth dist.	-7557 Mar 19 j 13:13	0° Ω 39'11	9.16394 AU	retrograde	-7551 Mar 23 j 10:31	16° ≙ 00'25	
	-7557 Mar 28 j 13:38	30° ₹ 5		opposition	-7551 Jun 01 j 08:45	12° ≙ 33'32	
direct	-7557 May 28 j 23:36	27° 5 24'17		min. Earth dist.	-7551 Jun 01 j 18:43	12° ≙ 31'35	8.34337 AU
	-7557 Jul 26 j 03:05	0 $^{\circ}\Omega$		direct	-7551 Aug 07 j 20:53	9° ≙ 11'27	
evening set	-7557 Sep 06 j 15:55	4° Ω 20'49		evening set	-7551 Nov 16 j 01:41	16° ≏ 50'59	
		_					
conjunction	-7557 Sep 22 j 23:03	6° Ω 14'48		conjunction	-7551 Dec 03 j 05:53		0°27'09
minimum elong	-7557 Sep 22 j 23:04	6° Ω 14'49	2°26'47	minimum elong	-7551 Dec 03 j 05:54	19° ≏ 02'19	0°27'03
max. Earth dist.	-7557 Sep 22 j 02:07		11.11891 AU	max. Earth dist.	-7551 Dec 02 j 20:38		10.26468 AU
morning rise	-7557 Oct 09 j 06:45	8° Ω 09'02		morning rise	-7551 Dec 20 j 15:21	21° ≏ 15'25	
	-7556 Jan 03 j 18:42	15° Ω		retrograde	-7550 Apr 06 j 22:07	29° £ 27'31	
retrograde	-7556 Jan 18 j 18:34	15° Ω 10′57		opposition	-7550 Jun 15 j 08:09	25° ≏ 58'51	0°11'57
	-7556 Feb 02 j 22:53	15° Ŗ €		min. Earth dist.	-7550 Jun 15 j 13:45	25° £ 57'44	8.18660 AU
opposition	-7556 Mar 29 j 19:49	11° Ω 52'49	2°55'44	direct	-7550 Aug 21 j 05:14	22° ≏ 35'31	
min. Earth dist.	-7556 Mar 30 j 14:14	11° Ω 49'26	9.07139 AU	desc. node	-7550 Sep 27 j 12:02	23° ♀ 52'09	
direct	-7556 Jun 08 j 13:25	8° Ω 34'33			-7550 Nov 26 j 10:47	0°M₊	
	-7556 Sep 11 j 19:27	15° Ω		evening set	-7550 Nov 29 j 20:49	0°M26'02	
evening set	-7556 Sep 16 j 20:24	15° Ω 34'50					
max. Earth dist.	-7556 Oct 02 j 08:28	17° Ω 24'27	11.01444 AU	conjunction	-7550 Dec 17 j 06:20	2°M41'10	-0°07'28
				minimum elong	-7550 Dec 17 j 06:19	2°M41'09	0°07'41
conjunction	-7556 Oct 03 j 04:42	17° Ω 30′28	2°20'06	behind sun begin	-7550 Dec 16 j 23:48	2°M39'03	
minimum elong	-7556 Oct 03 j 04:44	17° Ω 30′28	2°20'30	behind sun end	-7550 Dec 17 j 12:50	2°M43'16	
morning rise	-7556 Oct 19 j 14:22	19° Ω 26'35		max. Earth dist.	-7550 Dec 17 j 01:59	2°M39'46	10.11468 AU
retrograde	-7555 Jan 30 j 02:36	26° Ω 37'36		morning rise	-7549 Jan 03 j 21:17	4°M58'08	
opposition	-7555 Apr 11 j 02:16	23° Ω 18′00	2°44'57	retrograde	-7549 Apr 21 j 20:02	13°M22'22	
min. Earth dist.	-7555 Apr 11 j 19:45	23° Ω 14'46	8.95499 AU	opposition	-7549 Jun 29 j 15:55	9°M52'07	-0°31'53
direct	-7555 Jun 20 j 06:58	19° Ω 59'26		min. Earth dist.	-7549 Jun 29 j 16:46	9° M 51'57	8.04618 AU
evening set	-7555 Sep 28 j 06:59	27° Ω 04'53		direct	-7549 Sep 03 j 22:43	6° M 27′24	
				evening set	-7549 Dec 14 j 06:40	14°M29'00	
conjunction	-7555 Oct 14 j 17:32	29° Ω 02'43	2°08'08		-7549 Dec 18 j 06:09	15° M ₊	
minimum elong	-7555 Oct 14 j 17:35	29° Ω 02'44	2°08'26				
max. Earth dist.	-7555 Oct 13 j 22:23	28° Ω 56'57	10.88807 AU	conjunction	-7549 Dec 31 j 21:08	16°M47'33	-0°42'33
	-7555 Oct 22 j 16:03	0° m y		minimum elong	-7549 Dec 31 j 21:05	16°M47'32	0°42'52
morning rise	-7555 Oct 31 j 06:18	1°Mp01'21		max. Earth dist.	-7549 Dec 31 i 22:05	16°M47'52	9.98557 AU
retrograde					, c ., g		
remograde	-7554 Feb 11 j 18:51	8° m 22'49		morning rise	-7548 Jan 18 j 17:01	19° M 07'56	
opposition	-7554 Feb 11 j 18:51 -7554 Apr 23 j 15:27		2°27'07	morning rise retrograde	,		
•	•	8° m 22'49	2°27'07 8.81866 AU	-	-7548 Jan 18 j 17:01	19° M 07'56	-1°15'10
opposition	-7554 Apr 23 j 15:27	8° m/22'49 5° m/01'33		retrograde	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50	19° ጤ 07'56 27° ጤ 42'11 24° ጤ 10'41	-1°15'10 7.93158 AU
opposition min. Earth dist.	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33	8° m 22'49 5° m 01'33 4° m 58'32		retrograde opposition	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39	19° ጤ 07'56 27° ጤ 42'11 24° ጤ 10'41	
opposition min. Earth dist. direct	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23	8° m, 22'49 5° m, 01'33 4° m, 58'32 1° m, 42'26		retrograde opposition min. Earth dist.	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03	19°M07'56 27°M42'11 24°M10'41 24°M11'26	
opposition min. Earth dist. direct	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23	8° m, 22'49 5° m, 01'33 4° m, 58'32 1° m, 42'26		retrograde opposition min. Earth dist. direct	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50	19°M07'56 27°M42'11 24°M10'41 24°M11'26 20°M44'32	
opposition min. Earth dist. direct evening set	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25	8° m/22'49 5° m/01'33 4° m/58'32 1° m/42'26 8° m/54'28	8.81866 AU	retrograde opposition min. Earth dist. direct	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16	19° M 07'56 27° M 42'11 24° M 10'41 24° M 11'26 20° M 44'32 28° M 56'28	
opposition min. Earth dist. direct evening set conjunction	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07	8° m/22'49 5° m/01'33 4° m/58'32 1° m/42'26 8° m/54'28 10° m/55'04	8.81866 AU 1°50'27	retrograde opposition min. Earth dist. direct	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16	19° M 07'56 27° M 42'11 24° M 10'41 24° M 11'26 20° M 44'32 28° M 56'28	7.93158 AU
opposition min. Earth dist. direct evening set conjunction minimum elong	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10	8° m 22'49 5° m 01'33 4° m 58'32 1° m 42'26 8° m 54'28 10° m 55'04 10° m 55'05	8.81866 AU 1°50'27 1°50'39	retrograde opposition min. Earth dist. direct evening set	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13	19°M07'56 27°M42'11 24°M10'41 24°M11'26 20°M44'32 28°M56'28 0° 🗷	7.93158 AU -1°15'51
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32	8° m 22'49 5° m 01'33 4° m 58'32 1° m 42'26 8° m 54'28 10° m 55'04 10° m 55'05 10° m 49'23	8.81866 AU 1°50'27 1°50'39	retrograde opposition min. Earth dist. direct evening set	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🗷 1° 🖈 17'50	7.93158 AU -1°15'51
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09	8° my 22'49 5° my 01'33 4° my 58'32 1° my 42'26 8° my 54'28 10° my 55'04 10° my 49'23 12° my 56'45	8.81866 AU 1°50'27 1°50'39	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 00:58	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49	7.93158 AU -1°15'51 1°16'16
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09 -7553 Feb 24 j 21:34	8° m 22'49 5° m 01'33 4° m 58'32 1° m 42'26 8° m 54'28 10° m 55'04 10° m 49'23 12° m 56'45 20° m 29'54	8.81866 AU 1°50'27 1°50'39 10.74424 AU	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 00:58 -7547 Jan 15 j 07:23	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49 1° 🖈 19'57	7.93158 AU -1°15'51 1°16'16
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09 -7553 Feb 24 j 21:34 -7553 May 06 j 12:38	8° my 22'49 5° my 01'33 4° my 58'32 1° my 42'26 8° my 54'28 10° my 55'05 10° my 49'23 12° my 56'45 20° my 29'54 17° my 06'49	8.81866 AU 1°50'27 1°50'39 10.74424 AU 2°02'16	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 00:58 -7547 Jan 15 j 07:23 -7547 Feb 02 j 00:50	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49 1° 🖈 19'57 3° 🔻 40'52	7.93158 AU -1°15'51 1°16'16 9.88624 AU
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09 -7553 Feb 24 j 21:34 -7553 May 06 j 12:38 -7553 May 07 j 03:29	8° m 22'49 5° m 01'33 4° m 58'32 1° m 42'26 8° m 54'28 10° m 55'04 10° m 55'05 10° m 49'23 12° m 56'45 20° m 29'54 17° m 06'49 17° m 03'59	8.81866 AU 1°50'27 1°50'39 10.74424 AU 2°02'16	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 00:58 -7547 Jan 15 j 07:23 -7547 Feb 02 j 00:50 -7547 May 21 j 11:17	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49 1° 🖈 19'57 3° 🕶 40'52 12° 🐱 21'58 8° 🕶 49'40	7.93158 AU -1°15'51 1°16'16 9.88624 AU
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09 -7553 Feb 24 j 21:34 -7553 May 06 j 12:38 -7553 May 07 j 03:29 -7553 Jul 14 j 09:18	8° m 22'49 5° m 01'33 4° m 58'32 1° m 42'26 8° m 54'28 10° m 55'04 10° m 55'05 10° m 49'23 12° m 56'45 20° m 29'54 17° m 06'49 17° m 03'59 13° m 46'54	8.81866 AU 1°50'27 1°50'39 10.74424 AU 2°02'16	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 00:58 -7547 Jan 15 j 07:23 -7547 Feb 02 j 00:50 -7547 May 21 j 11:17 -7547 Jul 28 j 02:28	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49 1° 🖈 19'57 3° 🕶 40'52 12° 🐱 21'58 8° 🕶 49'40	7.93158 AU -1°15'51 1°16'16 9.88624 AU -1°54'40
opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7554 Apr 23 j 15:27 -7554 Apr 24 j 07:33 -7554 Jul 02 j 04:23 -7554 Oct 10 j 01:25 -7554 Oct 26 j 15:07 -7554 Oct 26 j 15:10 -7554 Oct 25 j 20:32 -7554 Nov 12 j 08:09 -7553 Feb 24 j 21:34 -7553 May 06 j 12:38 -7553 May 07 j 03:29 -7553 Jul 14 j 09:18	8° my 22'49 5° my 01'33 4° my 58'32 1° my 42'26 8° my 54'28 10° my 55'04 10° my 55'05 10° my 49'23 12° my 56'45 20° my 29'54 17° my 06'49 17° my 03'59 13° my 46'54 21° my 06'49	8.81866 AU 1°50'27 1°50'39 10.74424 AU 2°02'16	retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7548 Jan 18 j 17:01 -7548 May 06 j 01:50 -7548 Jul 13 j 06:39 -7548 Jul 13 j 03:03 -7548 Sep 17 j 02:50 -7548 Dec 28 j 06:16 -7547 Jan 05 j 07:13 -7547 Jan 15 j 01:02 -7547 Jan 15 j 07:23 -7547 Feb 02 j 00:50 -7547 May 21 j 11:17 -7547 Jul 28 j 02:28 -7547 Jul 27 j 18:51	19° M.07'56 27° M.42'11 24° M.10'41 24° M.11'26 20° M.44'32 28° M.56'28 0° 🖈 1° 🖈 17'50 1° 🖈 17'49 1° 🖈 19'57 3° 🛪 40'52 12° 🛣 21'58 8° 🛪 49'40 8° 🕏 51'15	7.93158 AU -1°15'51 1°16'16 9.88624 AU -1°54'40

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7546 in astronomical counting style is the year 7547 BCE in historical counting style. morning rise -7546 Jan 30 j 15:26 16°**₹**06'01 -1°44'47 -7540 May 19 j 12:09 15°**¥**30′58 conjunction -7546 Jan 30 j 15:21 16°**₹**'06'00 1°45'16 -7540 Aug 29 j 01:48 23°¥ 14'53 minimum elong retrograde max. Earth dist. -7546 Jan 31 j 03:03 16°**х** 09'55 -7540 Nov 03 j 20:00 19°¥50'03 -1°56'22 9.82376 AU opposition -7546 Feb 17 j 17:49 18°**∡**°30'40 -7540 Nov 03 j 05:48 min. Earth dist. 19°**¥**52'55 8.34362 AU morning rise -7546 Jun 05 j 21:09 27° **₹**14'36 -7539 Jan 11 j 13:20 retrograde direct 16°**∺**21′02 -7546 Aug 12 j 00:45 -7539 Apr 27 j 19:29 opposition 23°×42'01 -2°27'07 evening set 24°**)** 16'50 min. Earth dist. -7546 Aug 11 j 13:43 23°×744'20 7.80945 AU -7539 May 15 j 16:20 26°**)** 29'16 -1°20'22 direct -7546 Oct 16 j 14:54 20°**х** 13′16 conjunction -7539 May 15 j 16:23 evening set -7545 Jan 28 j 12:07 28°×39'53 minimum elong 26°**¥**29'17 1°20'27 -7545 Feb 07 j 13:32 0°궁 max. Earth dist. -7539 May 16 j 09:15 26°**₭**34'32 10.42502 AU morning rise -7539 Jun 02 j 08:41 28°**)** 40′16 -7545 Feb 15 j 12:41 1°る04'06 -2°06'59 -7539 Jun 13 j 11:43 $0^{\circ}\Upsilon$ conjunction -7545 Feb 15 j 12:37 -7539 Sep 10 j 20:10 6°**Y**10′02 minimum elong 1°る04'05 2°07'30 retrograde max. Earth dist. -7545 Feb 16 j 05:11 1°**る**09'38 9.80286 AU opposition -7539 Nov 16 j 22:04 2°Y47'16 -1°22'15 morning rise -7545 Mar 05 j 16:22 3°**る**29'15 min. Earth dist. -7539 Nov 16 j 10:35 2°Υ49'33 8.50618 AU retrograde -7545 Jun 21 j 04:11 12°る11'29 -7539 Dec 27 j 23:03 30°**₹**₩ opposition -7545 Aug 26 j 22:42 8°る39'08 -2°49'44 direct -7538 Jan 25 j 08:29 29° ¥ 19'26 min. Earth dist. -7545 Aug 26 j 08:42 8°**る**42'06 7.81065 AU -7538 Feb 22 j 18:20 $0^{\circ}\Upsilon$ direct -7545 Oct 31 j 16:58 5°る09'25 evening set -7538 May 11 j 08:30 7°Υ04'08 evening set -7544 Feb 13 j 10:06 13°る38'41 conjunction -7538 May 29 j 01:56 9°Y13'16 -0°51'38 conjunction -7544 Mar 02 j 12:12 16°る02'48 -2°20'40 minimum elong -7538 May 29 j 01:58 9°Υ13'17 0°51'37 minimum elong -7544 Mar 02 j 12:11 16°る02'47 2°21'10 max. Earth dist. -7538 May 29 j 14:26 9°Υ17'06 10.58863 AU max. Earth dist. -7544 Mar 03 j 08:34 16°る09'36 9.82498 AU morning rise -7538 Jun 15 i 14:26 11°Y20'51 morning rise -7544 Mar 20 j 16:02 18°る27'21 retrograde -7538 Sep 23 j 02:43 18°Y37'51 -7544 Jul 05 j 04:55 27°る03'23 -7538 Nov 29 j 15:18 15°**Y**17'02 -0°45'27 retrograde opposition opposition -7544 Sep 09 j 17:31 23°る31'49 -3°00'47 -7538 Nov 29 j 06:25 15°**℃**18'47 8.66801 AU min. Earth dist. -7544 Sep 09 j 01:13 23°る35'15 7.85386 AU -7537 Feb 07 j 18:52 11°Y50'35 min. Earth dist. direct -7544 Nov 14 j 20:05 20°る01'27 -7537 May 24 j 08:49 19° Y 24'34 evening set direct 28°**る**29'41 -7543 Feb 28 j 06:31 evening set -7543 Mar 11 j 18:02 -7537 Jun 10 j 22:19 21° Y 30'27 -0°21'24 conjunction 0°≈ -7537 Jun 10 j 22:20 21°Υ30'27 0°21'16 minimum elong -7537 Jun 11 j 06:36 -7543 Mar 18 j 09:14 0°≈52'43 -2°24'55 21°Υ32'56 10.74740 AU max. Earth dist. conjunction -7543 Mar 18 j 09:15 0°≈52'43 2°25'22 -7537 Jun 28 j 06:31 23°**Y**34'44 minimum elong morning rise 1°≈00'15 9.88810 AU -7543 Mar 19 j 07:59 -7537 Sep 07 j 05:17 max. Earth dist. 0° 8 -7543 Apr 05 j 12:08 -7537 Oct 05 j 01:52 0°**8**40'45 morning rise 3°≈15'41 retrograde -7543 Jul 19 j 21:17 -7537 Nov 02 j 07:42 retrograde 11°**≈**41'39 30°**Ŗ**♈ opposition -7543 Sep 24 j 06:35 8°≈11'19 -2°59'45 opposition -7537 Dec 12 j 00:39 27°**Y**21'43 -0°07'57 min. Earth dist. -7543 Sep 23 j 12:56 8°≈15'00 7.93553 AU min. Earth dist. -7537 Dec 11 j 18:37 27°**Υ**22'53 8.82161 AU -7543 Nov 29 j 21:33 4°≈40'41 direct -7536 Feb 20 j 19:11 23°Y56'43 direct -7542 Mar 15 j 20:35 13°≈04'21 asc. node -7536 Mar 01 j 05:42 24°**Y**′01′07 evening set -7542 Mar 30 j 17:10 -7536 May 24 j 01:24 0°8 15°≈ -7536 Jun 04 j 21:27 1°820'48 evening set -7542 Apr 02 j 23:05 15°≈25'30 -2°19'48 conjunction -7542 Apr 02 j 23:08 -7536 Jun 22 j 06:35 3°**8**23'37 0°09'00 minimum elong 15°≈25'30 2°20'11 conjunction -7542 Apr 03 j 22:47 max. Earth dist. 15°≈33'15 9.98739 AU minimum elong -7536 Jun 22 i 06:34 3°**8**23'37 0°09'13 morning rise -7542 Apr 21 i 00:15 17°≈46'06 behind sun begin -7536 Jun 22 i 00:34 3°**8**21'51 retrograde -7542 Aug 03 i 03:10 25°≈59'13 behind sun end -7536 Jun 22 j 12:34 3°**8**25'23 opposition -7542 Oct 08 j 12:06 22°≈30'28 -2°47'26 max. Earth dist. -7536 Jun 22 j 11:19 3°825'00 10.89430 AU min. Earth dist. -7542 Oct 07 i 18:11 22°≈34'10 8.04972 AU morning rise -7536 Jul 09 i 10:12 5°824'51 direct -7542 Dec 14 j 18:27 19°≈00'00 retrograde -7536 Oct 15 j 19:22 12°821'51 -7541 Mar 31 j 00:39 27°≈16'07 -7536 Dec 23 j 03:40 9°**8**04'23 0°28'41 evening set opposition min. Earth dist. -7536 Dec 23 j 01:24 9°**8**04'49 8.96061 AU conjunction -7541 Apr 18 j 02:10 29°≈34'45 -2°06'16 direct -7535 Mar 04 j 08:26 5°840'51 minimum elong -7541 Apr 18 j 02:13 29°≈34'46 2°06'34 evening set -7535 Jun 16 j 23:36 12°856'09 29°≈42'12 10.11571 AU max. Earth dist. -7541 Apr 19 j 01:18 -7541 Apr 21 j 08:34 0°**)**€ conjunction -7535 Jul 04 j 04:02 14°856'10 0°38'09 -7535 Jul 04 j 04:00 -7541 May 06 j 00:57 1°**¥**52'27 14°**8**56'09 0°38'28 morning rise minimum elong -7541 Aug 16 j 20:38 9°\£51'08 -7535 Jul 04 j 04:25 14°**8**56'16 11.02351 AU retrograde max. Earth dist. -7541 Oct 22 j 08:46 6°**)** 24'15 -2°25'34 -7535 Jul 04 j 17:09 15°8 opposition 8.18860 AU -7535 Jul 21 j 03:08 16°**8**54'41 min. Earth dist. -7541 Oct 21 j 16:09 6°**)**€27'40 morning rise 23°**8**44'48 direct -7541 Dec 29 j 08:19 2°**H** 54'21 retrograde -7535 Oct 27 j 04:56 evening set -7540 Apr 13 j 16:44 11°**米**00'53 opposition -7534 Jan 04 j 01:23 20°**8**28'35 1°03'07 min. Earth dist. -7534 Jan 04 j 03:21 20°**8**28'13 9.07969 AU conjunction -7540 May 01 j 16:20 13°**升**16'33 -1°45'51 direct -7534 Mar 16 j 15:29 17°**8**06'22 minimum elong -7540 May 01 j 16:24 13°\(\mathbf{1}6'34\) 1°46'02 -7534 Jun 28 j 17:03 24°**8**14'16 evening set

max. Earth dist.

-7540 May 02 j 13:07

13°**¥**23'07 10.26453 AU

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		-			r 7535 BCE in historical c		11 15407 ATT
conjunction	-7534 Jul 15 j 16:42	26° 8 11'49		max. Earth dist.	-7528 Sep 16 j 15:29		11.15497 AU
minimum elong	-7534 Jul 15 j 16:39	26° 8 11'48		morning rise	-7528 Oct 03 j 19:17	3° Ω 29'26	
max. Earth dist.	-7534 Jul 15 j 11:55		11.13032 AU	retrograde	-7527 Jan 12 j 22:37	10° Ω 28'03	
morning rise	-7534 Aug 01 j 11:39	28° 8 08'03		opposition	-7527 Mar 24 j 21:41	7°Ω10'26	
	-7534 Aug 18 j 10:31	0°Щ		min. Earth dist.	-7527 Mar 25 j 16:17	7° Ω 07'02	9.11078 AU
retrograde	-7534 Nov 07 j 11:40	4° Ⅱ 53'21		direct	-7527 Jun 03 j 21:05	3° Ω 52'07	
opposition	-7533 Jan 15 j 18:49	1° Ⅱ 38'01		evening set	-7527 Sep 12 j 07:50	10° Ω 50′50	
min. Earth dist.	-7533 Jan 16 j 00:18		9.17445 AU				
	-7533 Feb 07 j 21:45	30° ₹ 8		conjunction	-7527 Sep 28 j 15:33	12° Ω 45'45	
direct	-7533 Mar 28 j 16:09	28° 8 17'00		minimum elong	-7527 Sep 28 j 15:35	• • • •	2°23'59
	-7533 May 15 j 06:51	0°Щ		max. Earth dist.	-7527 Sep 27 j 17:38		11.05648 AU
evening set	-7533 Jul 10 j 03:14	5° Ⅱ 18'57		morning rise	-7527 Oct 15 j 00:12	14° Ω 41'02	
		_			-7527 Oct 17 j 18:00	15° Ω	
conjunction	-7533 Jul 26 j 22:27	7° ∐ 14'29	1°29'20	retrograde	-7526 Jan 25 j 02:06	21° Ω 48′04	
minimum elong	-7533 Jul 26 j 22:24	7° Ⅱ 14'28	1°29'47	opposition	-7526 Apr 06 j 01:34	18° Ω 28'57	
max. Earth dist.	-7533 Jul 26 j 13:38		11.21086 AU	min. Earth dist.	-7526 Apr 06 j 20:45	18° Ω 25'24	8.99971 AU
morning rise	-7533 Aug 12 j 13:32	9° Ⅱ 08'52		direct	-7526 Jun 15 j 11:36	15° Ω 10′13	
retrograde	-7533 Nov 18 j 16:14	15° Ⅱ 51'27		evening set	-7526 Sep 23 j 15:40	22° Ω 13'34	
opposition	-7532 Jan 27 j 09:41	12° Ⅲ 36'38	2°01'37	max. Earth dist.	-7526 Oct 09 j 02:59	24° Ω 03'53	10.93471 AU
min. Earth dist.	-7532 Jan 27 j 18:00	12° Ⅲ 35′06	9.24120 AU				
direct	-7532 Apr 08 j 10:38	9° Ⅱ 16'38		conjunction	-7526 Oct 10 j 00:59	24° Ω 10′28	2°14'10
evening set	-7532 Jul 20 j 07:41	16° Ⅱ 14'09		minimum elong	-7526 Oct 10 j 01:01	24° Ω 10′29	2°14'30
				morning rise	-7526 Oct 26 j 12:24	26° Ω 08'02	
conjunction	-7532 Aug 05 j 23:00	18° Ⅱ 08'09	1°49'54		-7526 Dec 01 j 10:42	0° m y	
minimum elong	-7532 Aug 05 j 22:57	18° Ⅱ 08'08	1°50'24	retrograde	-7525 Feb 06 j 12:13	3° Mg 25'03	
max. Earth dist.	-7532 Aug 05 j 11:14	18° Ⅱ 04'46	11.26193 AU	opposition	-7525 Apr 18 j 11:46	0° ™ 04'10	2°35'58
morning rise	-7532 Aug 22 j 10:37	20° Ⅲ 01′12		min. Earth dist.	-7525 Apr 19 j 06:30	0° Mp 00'40	8.86723 AU
retrograde	-7532 Nov 28 j 22:11	26° Ⅱ 43'10			-7525 Apr 19 j 10:05	30° R Ω	
opposition	-7531 Feb 06 j 23:27	23° Ⅲ 28'30	2°24'13	direct	-7525 Jun 27 j 08:04	26° Ω 44'49	
min. Earth dist.	-7531 Feb 07 j 10:55	23° Ⅲ 26′25	9.27727 AU		-7525 Aug 30 j 07:17	o° m y	
direct	-7531 Apr 20 j 00:58	20° Ⅱ 09'20		evening set	-7525 Oct 05 j 06:17	3° m 54'17	
evening set	-7531 Jul 31 j 08:30	27° Ⅲ 04'01					
				conjunction	-7525 Oct 21 j 18:30	5° m 53'44	1°59'00
conjunction	-7531 Aug 16 j 20:24	28° Ⅲ 57′02	2°06'24	minimum elong	-7525 Oct 21 j 18:33	5° m 53'45	1°59'15
minimum elong	-7531 Aug 16 j 20:22	28° Ⅲ 57′01	2°06'54	max. Earth dist.	-7525 Oct 20 j 22:32	5° m 47'40	10.79394 AU
max. Earth dist.	-7531 Aug 16 j 05:02	28° Ⅲ 52'37	11.28159 AU	morning rise	-7525 Nov 07 j 09:36	7° m 54'10	
	-7531 Aug 25 j 23:44	0 \circ \odot		retrograde	-7524 Feb 19 j 10:36	15° m 22'31	
morning rise	-7531 Sep 02 j 05:26	0° ട്ട 49'20		opposition	-7524 Apr 30 j 05:30	11° m 59'43	2°14'12
retrograde	-7531 Dec 10 j 03:23	7° © 32'39		min. Earth dist.	-7524 Apr 30 j 22:00	11° m 56'36	8.71826 AU
opposition	-7530 Feb 18 j 13:20	4° © 17'48	2°41'39	direct	-7524 Jul 08 j 11:13	8° m 39'36	
min. Earth dist.	-7530 Feb 19 j 04:25	4° © 15'04	9.28151 AU	evening set	-7524 Oct 16 j 05:44	15° m 56'29	
direct	-7530 May 01 j 11:01	0° © 59'13					
evening set	-7530 Aug 11 j 07:11	7° 9 52'43		conjunction	-7524 Nov 01 j 21:50	17° m 59'03	1°38'13
				minimum elong	-7524 Nov 01 j 21:54	17° m 59'04	1°38'22
conjunction	-7530 Aug 27 j 16:26	9° 5 45'18	2°18'23	max. Earth dist.	-7524 Nov 01 j 04:29	17° m 53'41	10.63949 AU
minimum elong	-7530 Aug 27 j 16:24	9° 5 945'17	2°18'53	morning rise	-7524 Nov 18 j 17:35	20° Mg 02'52	
max. Earth dist.	-7530 Aug 26 j 21:31	9° 5 39'50	11.26963 AU	retrograde	-7523 Mar 03 j 20:30	27° m 43'38	
morning rise	-7530 Sep 12 j 23:54	11° © 37'26		opposition	-7523 May 13 j 07:28	24° m 18'52	1°45'35
retrograde	-7530 Dec 21 j 12:28	18° 5 24'04		min. Earth dist.	-7523 May 13 j 20:58	24° Mp 16'16	8.55867 AU
opposition	-7529 Mar 02 j 04:46	15° 5 08'40	2°53'25	direct	-7523 Jul 20 j 19:24	20° m 57'48	
min. Earth dist.	-7529 Mar 02 j 22:05	15° 5 05'31	9.25419 AU	evening set	-7523 Oct 28 j 16:12	28° m 23'26	
direct	-7529 May 12 j 22:26	11° 9 50'24			-7523 Nov 10 j 14:45	0∘ ত	
evening set	-7529 Aug 22 j 05:25	18° 5 644'12			-		
				conjunction	-7523 Nov 14 j 12:51	0° ჲ 29'31	1°12'12
conjunction	-7529 Sep 07 j 13:07	20°936'57	2°25'26	minimum elong	-7523 Nov 14 j 12:54	0° ہ 29'32	1°12'15
•			2°25'56	max. Earth dist.	-	00.00.4150	10.47772 AU
minimum elong	-7529 Sep 07 j 13:06	20° © 36'57	2 23 30	max. Earm dist.	-7523 Nov 13 j 22:02	0° 11 24'52	
minimum elong max. Earth dist.			11.22686 AU	morning rise	-7523 Nov 13 j 22:02 -7523 Dec 01 j 14:01	0° <u>11</u> 24'52 2° <u>11</u> 37'05	
-	-7529 Sep 07 j 13:06						
max. Earth dist.	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48	20°531'04		morning rise	-7523 Dec 01 j 14:01	2° ≏ 37'05	1°10'43
max. Earth dist. morning rise	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50	20°\$31'04 22°\$29'31		morning rise retrograde	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49	2° £ 37'05 10° £ 30'55	
max. Earth dist. morning rise retrograde	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10	20°531'04 22°529'31 29°521'17	11.22686 AU	morning rise retrograde opposition	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08	2° £ 37'05 10° £ 30'55 7° £ 04'14	1°10'43
max. Earth dist. morning rise retrograde opposition	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08	20°931'04 22°929'31 29°921'17 26°904'56	11.22686 AU 2°59'05	morning rise retrograde opposition min. Earth dist.	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30	2° Ω 37'05 10° Ω 30'55 7° Ω 04'14 7° Ω 02'12	1°10'43
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08 -7528 Mar 13 j 17:11	20°\$31'04 22°\$29'31 29°\$21'17 26°\$04'56 26°\$01'39	11.22686 AU 2°59'05	morning rise retrograde opposition min. Earth dist. direct	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30 -7522 Aug 02 j 13:07	2°•37'05 10°•30'55 7°•04'14 7°•02'12 3°•42'05	1°10'43
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08 -7528 Mar 13 j 17:11 -7528 May 23 j 08:56	20°\$31'04 22°\$29'31 29°\$21'17 26°\$04'56 26°\$01'39 22°\$46'47	11.22686 AU 2°59'05	morning rise retrograde opposition min. Earth dist. direct	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30 -7522 Aug 02 j 13:07	2°•37'05 10°•30'55 7°•04'14 7°•02'12 3°•42'05	1°10'43
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08 -7528 Mar 13 j 17:11 -7528 May 23 j 08:56 -7528 Sep 01 j 05:04	20°\$31'04 22°\$29'31 29°\$21'17 26°\$04'56 26°\$01'39 22°\$46'47 29°\$42'18	11.22686 AU 2°59'05	morning rise retrograde opposition min. Earth dist. direct evening set	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30 -7522 Aug 02 j 13:07 -7522 Nov 10 j 15:09	2° Ω 37'05 10° Ω 30'55 7° Ω 04'14 7° Ω 02'12 3° Ω 42'05 11° Ω 17'38	1°10'43 8.39551 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08 -7528 Mar 13 j 17:11 -7528 May 23 j 08:56 -7528 Sep 01 j 05:04	20°\$31'04 22°\$29'31 29°\$21'17 26°\$04'56 26°\$01'39 22°\$46'47 29°\$42'18	11.22686 AU 2°59'05 9.19657 AU	morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30 -7522 Aug 02 j 13:07 -7522 Nov 10 j 15:09	2° \Omega 37'05 10° \Omega 30'55 7° \Omega 04'14 7° \Omega 02'12 3° \Omega 42'05 11° \Omega 17'38 13° \Omega 27'28 13° \Omega 27'29	1°10'43 8.39551 AU 0°41'44
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7529 Sep 07 j 13:06 -7529 Sep 06 j 16:48 -7529 Sep 23 j 19:50 -7528 Jan 02 j 02:10 -7528 Mar 12 j 23:08 -7528 Mar 13 j 17:11 -7528 May 23 j 08:56 -7528 Sep 01 j 05:04 -7528 Sep 03 j 18:46	20°\$31'04 22°\$29'31 29°\$21'17 26°\$04'56 26°\$01'39 22°\$46'47 29°\$42'18 0°\$\Omega\$	11.22686 AU 2°59'05 9.19657 AU 2°27'15	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7523 Dec 01 j 14:01 -7522 Mar 17 j 15:49 -7522 May 26 j 18:08 -7522 May 27 j 04:30 -7522 Aug 02 j 13:07 -7522 Nov 10 j 15:09 -7522 Nov 27 j 16:51 -7522 Nov 27 j 16:53	2° \Omega 37'05 10° \Omega 30'55 7° \Omega 04'14 7° \Omega 02'12 3° \Omega 42'05 11° \Omega 17'38 13° \Omega 27'28 13° \Omega 27'29	1°10'43 8.39551 AU 0°41'44 0°41'41

	ical vear ctule ic iiced. I h	a vear 7521 i		inting ctula ic tha year	7522 BCE in historical c	ounting style	
retrograde	-7521 Mar 31 j 22:42	23° £ 46'03	ii astronomicai coi	evening set	-7515 Feb 05 j 21:15	7° る 22'35	
-	-7521 Jun 09 j 13:59	23 = 40 03 20° £ 17'33	0°30'46	evening set	-/313 Feb 03 j 21.13	1 02233	
opposition	•				7515 E-L 22 : 22.40	00=16150	2015145
min. Earth dist.	-7521 Jun 09 j 20:58	20° £ 16'10	8.23689 AU	conjunction	-7515 Feb 23 j 22:49	9°る46'50 9°る46'49	
direct	-7521 Aug 15 j 17:05	16° £ 54'13		minimum elong	-7515 Feb 23 j 22:47		
evening set	-7521 Nov 24 j 03:50	24° ≏ 40'27		max. Earth dist.	-7515 Feb 24 j 20:00	9° る 53'56	9.81515 AU
	7521 D 11:10.54	260 2 5 410 5	000010.5	morning rise	-7515 Mar 14 j 02:33	12°る11'44	
conjunction	-7521 Dec 11 j 10:54	26° £ 54'05	0°08'05	retrograde	-7515 Jun 29 j 03:43	20°る51'01	2057110
minimum elong	-7521 Dec 11 j 10:55	26° ♀ 54'05	0°07'55	opposition	-7515 Sep 03 j 17:43	17° ろ 19'24	
behind sun begin	-7521 Dec 11 j 04:28	26° £ 52'01		min. Earth dist.	-7515 Sep 03 j 00:52		7.83718 AU
behind sun end	-7521 Dec 11 j 17:21	26° ♀ 56'09	10.16211.411	direct	-7515 Nov 08 j 14:10	13° る 49'43	
max. Earth dist.	-7521 Dec 11 j 04:07		10.16311 AU	evening set	-7514 Feb 21 j 19:11	22° る 18'40	
morning rise	-7521 Dec 28 j 23:42	29° Ω 09'36			751434 11:01:07	240742010	2024100
1 1	-7520 Jan 04 j 16:00	0°M		conjunction	-7514 Mar 11 j 21:37	24°る42'10	
desc. node	-7520 Mar 08 j 01:47	6°M16'35		minimum elong max. Earth dist.	-7514 Mar 11 j 21:36	24°₹42'10	
retrograde	-7520 Apr 14 j 16:03	7°M29'12	0012126		-7514 Mar 12 j 21:18	24°る50'03	9.86507 AU
opposition	-7520 Jun 22 j 18:28	3°M59'06		morning rise	-7514 Mar 30 j 00:53	27° る 05'51	
min. Earth dist.	-7520 Jun 22 j 21:28	3°M58'30	8.09162 AU	. 1	-7514 Apr 22 j 06:56	0° ≈	
direct	-7520 Aug 28 j 07:03	0°M34'31		retrograde	-7514 Jul 14 j 01:05	5°≈36'27	2001120
evening set	-7520 Dec 07 j 07:17	8°M31'46		opposition	-7514 Sep 18 j 09:53	2°≈06'00	
	7520 D 24:10.20	100 W 40100	0027100	min. Earth dist.	-7514 Sep 17 j 16:02	2°≈09'44	7.90683 AU
conjunction	-7520 Dec 24 j 19:38	10°M49'00			-7514 Oct 15 j 08:11	30°Rる	
minimum elong	-7520 Dec 24 j 19:37	10°M48'59	0°27'25	direct	-7514 Nov 23 j 17:18	28° る 35'59	
max. Earth dist.	-7520 Dec 24 j 18:43		10.02751 AU		-7513 Jan 01 j 21:23	0° ≈	
morning rise	-7519 Jan 11 j 13:38	13°ML08'07		evening set	-7513 Mar 09 j 12:41	7° ≈ 01'38	
	-7519 Jan 26 j 09:33	15°M			5510.) (00 22121	2022102
retrograde	-7519 Apr 29 j 18:02	21°MJ38'40		conjunction	-7513 Mar 27 j 15:11	9° ≈ 23'31	
opposition	-7519 Jul 07 j 06:23	18°ML07'18		minimum elong	-7513 Mar 27 j 15:13	9° ≈ 23'31	
min. Earth dist.	-7519 Jul 07 j 04:41	18°ML07'39	7.96860 AU	max. Earth dist.	-7513 Mar 28 j 15:30	9° ≈ 31'30	9.95322 AU
	-7519 Aug 24 j 06:26	15°RM.		morning rise	-7513 Apr 14 j 17:10	11°≈45'06	
direct	-7519 Sep 11 j 07:36	14°M41'27			-7513 May 11 j 06:42	15° ≈	
	-7519 Sep 29 j 05:10	15°M		retrograde	-7513 Jul 28 j 11:22	20°≈03'39	2052154
evening set	-7519 Dec 22 j 01:05	22°M49'22		opposition	-7513 Oct 02 j 18:53	16°≈34'43	
				min. Earth dist.	-7513 Oct 02 j 01:15	16°≈38'23	8.01102 AU
conjunction	-7518 Jan 08 j 18:08	25°ML09'41			-7513 Oct 22 j 12:01	15°R ≈	
minimum elong	-7518 Jan 08 j 18:05	25°M09'40	1°01'56	direct	-7513 Dec 08 j 17:43	13°≈04'42	
max. Earth dist.	-7518 Jan 08 j 23:30	25°M11'28	0 01911 ATT				
			9.91811 AU		-7512 Jan 24 j 10:44	15° ≈	
morning rise	-7518 Jan 26 j 16:22	27°MJ31'45	9.91611 AU	evening set	-7512 Jan 24 j 10:44 -7512 Mar 23 j 21:36	15°≈ 21°≈23'51	
	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17	27° M 31'45 0° √	9.91811 AU	-	-7512 Mar 23 j 21:36	21° ≈ 23'51	
retrograde	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52	27° M 31'45 0° ₹ 6° ₹ 10'36		conjunction	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25	21°≈23'51 23°≈43'26	
retrograde opposition	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25	27° M31'45 0° ⊀ 6° ⊀ 10'36 2° ⊀ 38'24	-1°37'59	conjunction minimum elong	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29	21°≈23'51 23°≈43'26 23°≈43'27	2°13'20
retrograde	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47	27° M31'45 0° ⊀ 6° ⊀10'36 2° ⊀38'24 2° ⊀39'47		conjunction minimum elong max. Earth dist.	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51	
retrograde opposition min. Earth dist.	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29	27° M⋅31'45 0° 🖈 6° 🖈 10'36 2° 🖈 38'24 2° 🖈 39'47 30° RM⋅	-1°37'59	conjunction minimum elong	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17	2°13'20
retrograde opposition	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07	27° M31'45 0° ♂ 6° ♂ 10'36 2° ♂ 38'24 2° ♂ 39'47 30° R M 29° M11'22	-1°37'59	conjunction minimum elong max. Earth dist. morning rise	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0°¥	2°13'20
retrograde opposition min. Earth dist. direct	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42	27° M.31'45 0° \$\times^1\) 6° \$\times^1\)10'36 2° \$\times^3\)38'24 2° \$\times^3\)39'47 30° RM. 29° M.11'22 0° \$\times^1\)	-1°37'59	conjunction minimum elong max. Earth dist. morning rise retrograde	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48	2°13'20 10.07222 AU
retrograde opposition min. Earth dist.	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07	27° M31'45 0° ♂ 6° ♂ 10'36 2° ♂ 38'24 2° ♂ 39'47 30° R M 29° M11'22	-1°37'59	conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ★ 4° ₭06'48 0° ₭39'40	2°13'20 10.07222 AU -2°35'56
retrograde opposition min. Earth dist. direct evening set	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24	27° \$\mathbb{R}\$.31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$10'36 2° \$\mathbb{A}\$38'24 2° \$\mathbb{A}\$39'47 30° \$\mathbb{R}\$\$\$\mathbb{M}\$\$.29° \$\$\$\$\$\$\$\$\$111'22 0° \$\mathbb{A}\$\$\$7° \$\mathbb{A}\$28'38\$	-1°37'59 7.87617 AU	conjunction minimum elong max. Earth dist. morning rise retrograde	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04	2°13'20 10.07222 AU
retrograde opposition min. Earth dist. direct evening set conjunction	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24	27° \$\mathbb{R}\$.31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 38'24 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$ \$\mathbb{M}\$. 29° \$\mathbb{M}\$.11'22 0° \$\mathbb{A}\$ 7° \$\mathbb{A}\$ 28'38	-1°37'59 7.87617 AU -1°32'45	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49 -7512 Oct 23 j 21:27	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30°R≈	2°13'20 10.07222 AU -2°35'56
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13	27° \$\mathbb{R}\$.31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$\$\$\$\mathbb{L}\$ 29° \$\mathbb{R}\$\$\$\$11'122 0° \$\mathbb{A}\$\$\$\$70 \$\mathbb{A}\$\$\$28'38 9° \$\mathbb{A}\$\$51'16 9° \$\mathbb{A}\$\$51'15	-1°37'59 7.87617 AU -1°32'45 1°33'12	conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30°R≈ 27°≈10'02	2°13'20 10.07222 AU -2°35'56
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13	27° \$\mathbb{R}\$.31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$ \$\mathbb{L}\$ 29° \$\mathbb{R}\$ 111'22 0° \$\mathbb{A}\$ 7° \$\mathbb{A}\$ 28'38 9° \$\mathbb{A}\$ 51'16 9° \$\mathbb{A}\$ 51'15 9° \$\mathbb{A}\$ 55'10	-1°37'59 7.87617 AU -1°32'45	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Feb 18 j 15:02	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩ 06'48 0° ₩ 39'40 0° ₩ 43'04 30° №≈ 27°≈10'02 0° ₩	2°13'20 10.07222 AU -2°35'56
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:13 -7517 Jan 24 j 15:57 -7517 Feb 11 j 05:35	27° \$\mathbb{R}\$ 31'45 0° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 38'24 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$ \$\mathbb{L}\$ 29° \$\mathbb{R}\$ 11'22 0° \$\mathbb{A}\$ 7° \$\mathbb{A}\$ 28'38 9° \$\mathbb{A}\$ 51'15 9° \$\mathbb{A}\$ 55'10 12° \$\mathbb{A}\$ 15'22	-1°37'59 7.87617 AU -1°32'45 1°33'12	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:25 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30°R≈ 27°≈10'02	2°13'20 10.07222 AU -2°35'56
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26	27° \$\mathbb{R}\$ 31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$ \$\mathbb{L}\$ 29° \$\mathbb{R}\$ 111'22 0° \$\mathbb{A}\$ 7° \$\mathbb{A}\$ 28'38 9° \$\mathbb{A}\$ 51'15 9° \$\mathbb{A}\$ 55'10 12° \$\mathbb{A}\$ 15'22 20° \$\mathbb{A}\$ 58'54	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Feb 18 j 15:02 -7511 Apr 07 j 19:03	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22	2°13'20 10.07222 AU -2°35'56 8.14125 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12	27° \$\mathbb{R}\$ 31'45 0° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$ \$\mathbb{L}\$ 29° \$\mathbb{R}\$ 11'22 0° \$\mathbb{A}\$ 7° \$\mathbb{A}\$ 28'38 9° \$\mathbb{A}\$ 51'16 9° \$\mathbb{A}\$ 51'15 20° \$\mathbb{A}\$ 55'54 17° \$\mathbb{A}\$ 26'21	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Feb 18 j 15:02 -7511 Apr 07 j 19:03	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10	2°13'20 10.07222 AU -2°35'56 8.14125 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 10:59	27° M31'45 0° \$\frac{1}{2}\$ o	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Feb 18 j 15:02 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:27	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 10:59 -7517 Oct 10 j 12:01	27° M31'45 0° \$\frac{1}{2}\cdot 0' \$\frac{1}{2}\cdot 0' \frac{1}{2}\cdot 0' \frac\cdot 0' \frac{1}{2}\cdot 0' \frac{1}{2}\cdot 0' \frac{1}{2}\cdo	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Feb 18 j 15:02 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:27 -7511 Apr 26 j 15:43	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11 7° ₩43'39	2°13'20 10.07222 AU -2°35'56 8.14125 AU
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retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Jan 24 j 05:35 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 10:59 -7516 Jan 21 j 23:35 -7516 Feb 08 j 23:16 -7516 Feb 09 j 16:27 -7516 Feb 27 j 02:27 -7516 Mar 20 j 06:46	27° \$\mathbb{R}\$.31'45 0° \$\mathbb{A}\$ 6° \$\mathbb{A}\$ 10'36 2° \$\mathbb{A}\$ 38'24 2° \$\mathbb{A}\$ 39'47 30° \$\mathbb{R}\$9° \$\mathbb{A}\$\$\$\$51'15 9° \$\mathbb{A}\$\$\$\$51'15 9° \$\mathbb{A}\$\$\$51'15 9° \$\mathbb{A}\$\$55'10 12° \$\mathbb{A}\$\$\$15'22 20° \$\mathbb{A}\$\$\$55'10 12° \$\mathbb{A}\$\$\$15'22 20° \$\mathbb{A}\$\$\$26'21 17° \$\mathbb{A}\$\$28'41 13° \$\mathbb{A}\$\$58'13 22° \$\mathbb{A}\$\$22'40 24° \$\mathbb{A}\$\$46'37 24° \$\mathbb{A}\$\$46'37 24° \$\mathbb{A}\$\$52'23 27° \$\mathbb{A}\$\$11'42 0° \$\mathbb{B}\$\$	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55 7.82114 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:27 -7511 Apr 26 j 15:43 -7511 Aug 23 j 18:45 -7511 Oct 28 j 19:32 -7510 Jan 05 j 20:38 -7510 Apr 22 j 03:35	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11 7° ₩43'39 9° ₩52'53 17° ₩42'49 14° ₩17'37 14° ₩20'41 10° ₩48'44 18° ₩48'55	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36 10.21275 AU -2°09'39 8.28848 AU
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retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Jan 24 j 15:57 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 10:59 -7517 Oct 10 j 12:01 -7516 Feb 08 j 23:20 -7516 Feb 09 j 16:27 -7516 Feb 09 j 16:27 -7516 Mar 20 j 06:46 -7516 Jun 13 j 22:22 -7516 Aug 19 j 20:52	27° \$\mathbb{\text{N}} 31'45 0° \$\mathbb{\text{N}} 6° \$\mathbb{\text{N}} 10'36 2° \$\mathbb{\text{N}} 38'24 2° \$\mathbb{\text{N}} 39'47 30° \$\mathbb{\text{R}} \text{L} 29° \$\mathbb{\text{M}} 11'22 0° \$\mathbb{\text{N}} 7° \$\mathbb{\text{N}} 28'38 9° \$\mathbb{\text{N}} 51'16 9° \$\mathbb{\text{N}} 51'15 20° \$\mathbb{\text{N}} 55'10 12° \$\mathbb{\text{N}} 15'22 20° \$\mathbb{\text{N}} 58'54 17° \$\mathbb{\text{N}} 28'41 13° \$\mathbb{\text{N}} 58'13 22° \$\mathbb{\text{N}} 22'40 24° \$\mathbb{\text{N}} 46'38 24° \$\mathbb{\text{N}} 46'37 24° \$\mathbb{\text{N}} 52'23 27° \$\mathbb{\text{N}} 11'42 0° \$\mathbb{\text{S}} 555'26 2° \$\mathbb{\text{S}} 23'05	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55 7.82114 AU -1°58'10 1°58'40 9.80754 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:23 -7511 Apr 26 j 15:43 -7511 Apr 26 j 15:43 -7511 Aug 23 j 18:45 -7511 Oct 29 j 10:38 -7510 Jan 05 j 20:38 -7510 Apr 22 j 03:35 -7510 May 10 j 01:44 -7510 May 10 j 01:44	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° Ж 4° Ж06'48 0° Ж39'40 0° Ж43'04 30° R≈ 27°≈10'02 0° Ж 5° Ж20'22 7° Ж37'10 7° Ж37'11 7° Ж43'39 9° Ж52'53 17° Ж42'49 14° Ж17'37 14° Ж20'41 10° Ж48'44 18° Ж48'55 21° Ж02'40 21° Ж02'40	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36 10.21275 AU -2°09'39 8.28848 AU -1°31'51 1°31'59
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 22:12 -7517 Aug 05 j 22:12 -7516 Feb 08 j 23:35 -7516 Feb 08 j 23:20 -7516 Feb 08 j 23:20 -7516 Feb 09 j 16:27 -7516 Feb 09 j 16:27 -7516 Mar 20 j 06:46 -7516 Jun 13 j 22:22 -7516 Aug 19 j 20:52 -7516 Aug 19 j 06:10	27° \$\mathbb{\text{N}} 31'45 0° \$\mathbb{\text{N}} 6° \$\mathbb{\text{N}} 10'36 2° \$\mathbb{\text{N}} 38'24 2° \$\mathbb{\text{N}} 39'47 30° \$\mathbb{\text{R}} \text{L} 29° \$\mathbb{\text{M}} 11'22 0° \$\mathbb{\text{N}} 7° \$\mathbb{\text{N}} 28'38 9° \$\mathbb{\text{N}} 51'16 9° \$\mathbb{\text{N}} 51'15 9° \$\mathbb{\text{N}} 55'10 12° \$\mathbb{\text{N}} 15'22 20° \$\mathbb{\text{N}} 58'54 17° \$\mathbb{\text{N}} 28'41 13° \$\mathbb{\text{N}} 58'13 22° \$\mathbb{\text{N}} 22'40 24° \$\mathbb{\text{N}} 46'38 24° \$\mathbb{\text{N}} 46'37 24° \$\mathbb{\text{N}} 52'23 27° \$\mathbb{\text{N}} 11'42 0° \$\mathbb{\text{S}} 5° \$\mathbb{\text{S}} 55'26 2° \$\mathbb{\text{Z}} 23'05 2° \$\mathbb{\text{Z}} 26'10	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55 7.82114 AU -1°58'10 1°58'40 9.80754 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:23 -7511 Apr 26 j 15:43 -7511 Apr 26 j 15:43 -7511 Aug 23 j 18:45 -7511 Oct 28 j 19:32 -7510 Jan 05 j 20:38 -7510 Apr 22 j 03:35 -7510 May 10 j 01:44 -7510 May 10 j 01:44 -7510 May 10 j 01:48 -7510 May 10 j 19:16	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11 7° ₩43'39 9° ₩52'53 17° ₩42'49 14° ₩17'37 14° ₩20'41 10° ₩48'44 18° ₩48'55 21° ₩02'40 21° ₩02'40 21° ₩02'41 21° ₩08'09	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36 10.21275 AU -2°09'39 8.28848 AU
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Jan 24 j 15:57 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 22:12 -7517 Oct 10 j 12:01 -7516 Jan 21 j 23:35 -7516 Feb 08 j 23:20 -7516 Feb 08 j 23:20 -7516 Feb 09 j 16:27 -7516 Feb 27 j 02:27 -7516 Mar 20 j 06:46 -7516 Jun 13 j 22:22 -7516 Aug 19 j 20:52 -7516 Aug 19 j 06:10 -7516 Sep 20 j 04:10	27° \$\mathbb{\text{T.31'45}} 0° \$\mathbb{\text{N}}\$ 6° \$\mathbb{\text{N}}\$ 10'36 2° \$\mathbb{\text{N}}\$ 38'24 2° \$\mathbb{\text{N}}\$ 39'47 30° \$\mathbb{\text{R}}\$ 11'22 0° \$\mathbb{\text{N}}\$ 7° \$\mathbb{\text{N}}\$ 28'38 9° \$\mathbb{\text{N}}\$ 51'16 9° \$\mathbb{\text{N}}\$ 51'15 9° \$\mathbb{\text{N}}\$ 55'10 12° \$\mathbb{\text{N}}\$ 15'22 20° \$\mathbb{\text{N}}\$ 58'54 17° \$\mathbb{\text{N}}\$ 26'21 17° \$\mathbb{\text{N}}\$ 28'41 13° \$\mathbb{\text{N}}\$ 58'13 22° \$\mathbb{\text{N}}\$ 22'40 24° \$\mathbb{\text{N}}\$ 46'37 24° \$\mathbb{\text{N}}\$ 46'37 24° \$\mathbb{\text{N}}\$ 52'23 27° \$\mathbb{\text{N}}\$ 11'42 0° \$\mathbb{\text{S}}\$ 55'26 2° \$\mathbb{\text{Z}}\$ 23'05 2° \$\mathbb{\text{Z}}\$ 26'10 30° \$\mathbb{\text{R}}\$ \$\mathbb{\text{N}}\$	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55 7.82114 AU -1°58'10 1°58'40 9.80754 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:23 -7511 Apr 26 j 15:43 -7511 Apr 26 j 15:43 -7511 Aug 23 j 18:45 -7511 Oct 29 j 10:38 -7510 Jan 05 j 20:38 -7510 Apr 22 j 03:35 -7510 May 10 j 01:44 -7510 May 10 j 01:44 -7510 May 10 j 01:44 -7510 May 10 j 19:16 -7510 May 27 j 19:41	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° №≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11 7° ₩43'39 9° ₩52'53 17° ₩42'49 14° ₩17'37 14° ₩20'41 10° ₩48'44 18° ₩48'55 21° ₩02'40 21° ₩02'40 21° ₩02'41 21° ₩08'09 23° ₩15'03	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36 10.21275 AU -2°09'39 8.28848 AU -1°31'51 1°31'59
retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7518 Jan 26 j 16:22 -7518 Feb 15 j 07:17 -7518 May 15 j 01:52 -7518 Jul 22 j 00:25 -7518 Jul 21 j 17:47 -7518 Aug 27 j 08:29 -7518 Sep 25 j 18:07 -7518 Oct 24 j 18:42 -7517 Jan 06 j 07:24 -7517 Jan 24 j 04:17 -7517 Jan 24 j 04:13 -7517 Jan 24 j 04:13 -7517 Feb 11 j 05:35 -7517 May 30 j 12:26 -7517 Aug 05 j 22:12 -7517 Aug 05 j 22:12 -7517 Aug 05 j 22:12 -7516 Feb 08 j 23:35 -7516 Feb 08 j 23:20 -7516 Feb 08 j 23:20 -7516 Feb 09 j 16:27 -7516 Feb 09 j 16:27 -7516 Mar 20 j 06:46 -7516 Jun 13 j 22:22 -7516 Aug 19 j 20:52 -7516 Aug 19 j 06:10	27° \$\mathbb{\text{N}} 31'45 0° \$\mathbb{\text{N}} 6° \$\mathbb{\text{N}} 10'36 2° \$\mathbb{\text{N}} 38'24 2° \$\mathbb{\text{N}} 39'47 30° \$\mathbb{\text{R}} \text{L} 29° \$\mathbb{\text{M}} 11'22 0° \$\mathbb{\text{N}} 7° \$\mathbb{\text{N}} 28'38 9° \$\mathbb{\text{N}} 51'16 9° \$\mathbb{\text{N}} 51'15 9° \$\mathbb{\text{N}} 55'10 12° \$\mathbb{\text{N}} 15'22 20° \$\mathbb{\text{N}} 58'54 17° \$\mathbb{\text{N}} 28'41 13° \$\mathbb{\text{N}} 58'13 22° \$\mathbb{\text{N}} 22'40 24° \$\mathbb{\text{N}} 46'38 24° \$\mathbb{\text{N}} 46'37 24° \$\mathbb{\text{N}} 52'23 27° \$\mathbb{\text{N}} 11'42 0° \$\mathbb{\text{S}} 5° \$\mathbb{\text{S}} 55'26 2° \$\mathbb{\text{Z}} 23'05 2° \$\mathbb{\text{Z}} 26'10	-1°37'59 7.87617 AU -1°32'45 1°33'12 9.84283 AU -2°13'55 7.82114 AU -1°58'10 1°58'40 9.80754 AU	conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-7512 Mar 23 j 21:36 -7512 Apr 10 j 23:29 -7512 Apr 11 j 22:21 -7512 Apr 28 j 23:24 -7512 Jun 01 j 13:20 -7512 Aug 10 j 08:39 -7512 Oct 15 j 19:23 -7512 Oct 15 j 02:49 -7512 Oct 23 j 21:27 -7512 Dec 22 j 11:38 -7511 Apr 07 j 19:03 -7511 Apr 25 j 19:23 -7511 Apr 25 j 19:23 -7511 Apr 26 j 15:43 -7511 Apr 26 j 15:43 -7511 Aug 23 j 18:45 -7511 Oct 28 j 19:32 -7510 Jan 05 j 20:38 -7510 Apr 22 j 03:35 -7510 May 10 j 01:44 -7510 May 10 j 01:44 -7510 May 10 j 01:48 -7510 May 10 j 19:16	21°≈23'51 23°≈43'26 23°≈43'27 23°≈50'51 26°≈02'17 0° ₩ 4° ₩06'48 0° ₩39'40 0° ₩43'04 30° R≈ 27°≈10'02 0° ₩ 5° ₩20'22 7° ₩37'10 7° ₩37'11 7° ₩43'39 9° ₩52'53 17° ₩42'49 14° ₩17'37 14° ₩20'41 10° ₩48'44 18° ₩48'55 21° ₩02'40 21° ₩02'41 21° ₩08'09	2°13'20 10.07222 AU -2°35'56 8.14125 AU -1°55'22 1°55'36 10.21275 AU -2°09'39 8.28848 AU -1°31'51 1°31'59

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 33 Attention, astronomical year style is used: The year -7510 in astronomical counting style is the year 7511 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -7510 i	n astronomical co	unting style is the year	7511 BCE in historical c	ounting style.	C
	-7510 Oct 06 j 15:51	30° ₹		conjunction	-7504 Jul 21 j 13:27	2° Ⅱ 46′11	1°19'22
opposition	-7510 Nov 11 j 16:36	27°) €27'30	-1°37'24	minimum elong	-7504 Jul 21 j 13:25	2° Ⅱ 46′10	1°19'48
min. Earth dist.	-7510 Nov 11 j 03:53	27° ¥ 30′02	8.44492 AU	max. Earth dist.	-7504 Jul 21 j 06:24	2° Ⅱ 44′08	11.16236 AU
direct	-7509 Jan 19 j 19:09	23°) € 59'36		morning rise	-7504 Aug 07 j 06:09	4° Ⅱ 41'29	
	-7509 Apr 20 j 11:32	0° Y		retrograde	-7504 Nov 13 j 07:14	11° Ⅲ 25'31	
evening set	-7509 May 05 j 22:46	1° Y 48'59		opposition	-7503 Jan 21 j 20:07	8° Ⅱ 10′02	
				min. Earth dist.	-7503 Jan 22 j 04:07	8° Ⅱ 08'34	9.19744 AU
conjunction	-7509 May 23 j 17:58	3° Y 59'33		direct	-7503 Apr 03 j 18:47	4° Ⅱ 49'06	
minimum elong	-7509 May 23 j 18:01	3° Y 59'34		evening set	-7503 Jul 15 j 23:00	11° Ⅱ 48'56	
max. Earth dist.	-7509 May 24 j 08:03		10.52504 AU		7502 4 01:15 50	120 11 42144	1041124
morning rise	-7509 Jun 10 j 08:08	6° Υ 08'34 13° Υ 30'59		conjunction	-7503 Aug 01 j 15:59	13° Ⅱ 43'44	
retrograde opposition	-7509 Sep 18 j 07:16 -7509 Nov 24 j 13:48	13° γ 30'39 10° γ ′09'40	1001/22	minimum elong max. Earth dist.	-7503 Aug 01 j 15:56 -7503 Aug 01 j 04:35	13° ∏ 43'43	1°42'03 11.22417 AU
min. Earth dist.	-7509 Nov 24 j 13:48		8.60309 AU	morning rise	-7503 Aug 01 j 04:33	15° Ⅱ 37'30	11.22417 AU
direct	-7508 Feb 02 j 09:18	6° Υ 42'54	6.00307 AC	retrograde	-7503 Nov 24 j 11:45	22° II 20'03	
evening set	-7508 May 18 j 05:01	14° Υ 21'35		opposition	-7502 Feb 02 j 10:21	19° Ⅱ 04'49	2°15'13
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			min. Earth dist.	-7502 Feb 02 j 21:21	19° Ⅱ 02'49	
conjunction	-7508 Jun 04 j 20:24	16° Y ′28'54	-0°34'32	direct	-7502 Apr 15 j 12:13	15° Ⅱ 44'44	
minimum elong	-7508 Jun 04 j 20:26	16° Y ′28′54	0°34'27	evening set	-7502 Jul 27 j 01:20	22° II 41'05	
max. Earth dist.	-7508 Jun 05 j 06:05	16° Ƴ 31'49	10.68160 AU	-	·		
morning rise	-7508 Jun 22 j 06:25	18° Y ′34'36		conjunction	-7502 Aug 12 j 14:41	24° Ⅲ 34'39	1°59'55
retrograde	-7508 Sep 29 j 09:52	25° Y 45'21		minimum elong	-7502 Aug 12 j 14:38	24° Ⅲ 34'38	2°00'24
opposition	-7508 Dec 06 j 02:53	22° Y °25'46	-0°24'06	max. Earth dist.	-7502 Aug 12 j 00:16	24° Ⅱ 30'30	11.25756 AU
min. Earth dist.	-7508 Dec 05 j 21:25	22° Y 26'50	8.75586 AU	morning rise	-7502 Aug 29 j 00:58	26° Ⅲ 27′23	
direct	-7507 Feb 14 j 14:00	19° Y ′00′13			-7502 Oct 02 j 05:43	0 \circ \odot	
evening set	-7507 May 30 j 22:58	26° Y ′28'45		retrograde	-7502 Dec 05 j 16:36	3°9510'24	
					-7501 Feb 12 j 21:03	30°RⅡ	
conjunction	-7507 Jun 17 j 10:00	28° Y 32'56		opposition	-7501 Feb 13 j 23:52	29° Ⅱ 55'07	
minimum elong	-7507 Jun 17 j 10:00	28° Y 32'56 28° Y 30'52	0°03′56	min. Earth dist.	-7501 Feb 14 j 12:43	29° Ⅱ 52'47	9.26503 AU
behind sun begin behind sun end	-7507 Jun 17 j 02:57 -7507 Jun 17 j 17:03	28° Y 35'01		direct	-7501 Apr 27 j 00:33 -7501 Jul 04 j 07:55	26°∏35'46 0° ©	
max. Earth dist.	-7507 Jun 17 j 14:24		10.82913 AU	evening set	-7501 Jul 04 j 07:33	3°930'08	
max. Latur dist.	-7507 Jun 29 j 14:42	0° 8	10.02)13 AC	evening set	-7301 Aug 07 J 00.40	3 3000	
morning rise	-7507 Jul 04 j 15:43	0° 8 35'32		conjunction	-7501 Aug 23 j 11:18	5°523'00	2°13'54
asc. node	-7507 Aug 07 j 04:33	4° 8 12'37		minimum elong	-7501 Aug 23 j 11:16	5° 5 22'59	
retrograde	-7507 Oct 11 j 04:45	7° 8 36'31		max. Earth dist.	-7501 Aug 22 j 19:19	5°918'23	11.26146 AU
opposition	-7507 Dec 18 j 08:48	4° 8 18'23	0°13'05	morning rise	-7501 Sep 08 j 19:19	7° © 15'17	
min. Earth dist.	-7507 Dec 18 j 06:33		8.89675 AU	retrograde	-7501 Dec 17 j 01:26	14° © 00'41	
direct	-7506 Feb 27 j 08:52	0° 8 54'05		opposition	-7500 Feb 25 j 14:36	10° 5 45'04	2°49'14
evening set	-7506 Jun 12 j 05:38	8° 8 13'25		min. Earth dist.	-7500 Feb 26 j 05:23	10°5642'22	9.25438 AU
				direct	-7500 May 07 j 11:16	7° 5 26'15	
conjunction	-7506 Jun 29 j 12:08	10° 8 14'43	0°25'47	evening set	-7500 Aug 16 j 23:03	14° © 20'07	
minimum elong	-7506 Jun 29 j 12:07	10° 8 14'43	0°26'04		7500 G 02:07.05	1.00010150	2022107
max. Earth dist.	-7506 Jun 29 j 12:10		10.96162 AU	conjunction	-7500 Sep 02 j 07:25	16°5512'52	
morning rise	-7506 Jul 16 j 13:27	12° 8 14'31		minimum elong	-7500 Sep 02 j 07:24	16°512'52	
retrograde	-7506 Aug 10 j 19:05 -7506 Oct 22 j 16:47	15° と 19° と 07'45		max. Earth dist. morning rise	-7500 Sep 01 j 13:08 -7500 Sep 18 j 14:17	18°907'34 18°905'17	11.23577 AU
opposition	-7506 Dec 30 j 08:40	15° 8 50'48	0°48'38	retrograde	-7500 Dec 27 j 12:37	24°954'53	
min. Earth dist.	-7506 Dec 30 j 09:21	15° 8 50'40	9.02010 AU	opposition	-7499 Mar 08 j 07:45	21°938'39	2°57'33
	-7505 Jan 10 j 17:50	15°R₩		min. Earth dist.	-7499 Mar 09 j 00:40	21° © 35'34	9.21426 AU
direct	-7505 Mar 11 j 20:31	12° 8 27'43		direct	-7499 May 18 j 20:06	18°©20'11	
	-7505 May 09 j 00:05	15° 8		evening set	-7499 Aug 27 j 22:03	25° © 15'03	
evening set	-7505 Jun 24 j 02:49	19° 8 39'07		max. Earth dist.	-7499 Sep 12 j 08:56	27° © 02'19	11.18131 AU
conjunction	-7505 Jul 11 j 04:45	21° 8 37'51	0°53'52	conjunction	-7499 Sep 13 j 05:16	27° © 08'15	2°27'12
minimum elong	-7505 Jul 11 j 04:43	21° 8 37'50	0°54'14	minimum elong	-7499 Sep 13 j 05:17	27° © 08'15	2°27'41
max. Earth dist.	-7505 Jul 11 j 01:21		11.07396 AU	morning rise	-7499 Sep 29 j 12:10	29° © 01'25	
morning rise	-7505 Jul 28 j 01:34	23° 8 35'10			-7499 Oct 08 j 04:21	0° Ω	
	-7505 Oct 12 j 21:14	0°Π 0°Π2214€		retrograde	-7498 Jan 08 j 04:46	5° Ω 57'00	2050120
retrograde	-7505 Nov 03 j 02:32	0° Ⅱ 22'46		opposition	-7498 Mar 20 j 04:16	2° Ω 39'48	2°59'30
onnosition	-7505 Nov 24 j 11:33	30°R と 27° と 06'43	1°21'24	min. Earth dist.	-7498 Mar 20 j 22:31	2° € 36′28 30° ₹ ©	9.14581 AU
opposition min. Earth dist.	-7504 Jan 11 j 03:55 -7504 Jan 11 j 07:59	27° 8 05'57	9.12139 AU	direct	-7498 May 01 j 13:59 -7498 May 30 j 08:09	30°k≌ 29°©21'26	
direct	-7504 Jan 11 j 07.39 -7504 Mar 22 j 23:10	27 8 03 37 23° 8 44'46	7.12137 AU	ance	-7498 Jun 27 j 14:19	29 3 21 26	
311001	-7504 Jun 27 j 06:46	0°II		evening set	-7498 Sep 07 j 23:20	6° Ω 18'50	
						. 55-550	
evening set	-7504 Jul 04 j 16:07	0° Ⅱ 49'38		max. Earth dist.	-7498 Sep 23 j 10:16	8° Ω 07'05	11.09962 AU

Attention astronom	nical year style is used: Th	10 Mar 7409 i	n actronomical ac	unting style is the year	7400 DCE in historical a	ounting style	
conjunction	-7498 Sep 24 j 06:40	$8^{\circ}\Omega$ 13'06		minimum elong	-7492 Dec 04 j 21:33	21° £ 18'52	0°22'35
minimum elong	-7498 Sep 24 j 06:40			max. Earth dist.	-7492 Dec 04 j 21:33		10.24931 AU
morning rise	-7498 Oct 10 j 14:33	10°Ω07'36	2 20 19	morning rise	-7492 Dec 04 j 13.23 -7492 Dec 22 j 07:31	23° £ 32'22	10.24931 AU
morning rise	-7498 Nov 28 j 05:09	10 δ <i>t</i> 0 / 30		morning rise	-7492 Dec 22 j 07.31 -7491 Feb 21 j 19:34	0°M	
retrograde	-7497 Jan 20 j 05:51	13 δ ε 17° Ω 10'51		retrograde	-7491 Peo 21 j 19:34 -7491 Apr 08 j 17:12	1°ML45'42	
retrograde	-7497 Mar 16 j 14:31	17 δ 210 51 15°R Ω		retrograde	1 3	1 11643 42 30°R <u>Ω</u>	
annagition	3	13° Ω 52'26	2°54'46	annagition	-7491 May 25 j 11:13 -7491 Jun 17 j 00:47	30 K== 28° £ 16'53	0°06'16
opposition min. Earth dist.	-7497 Apr 01 j 05:42 -7497 Apr 01 j 23:33	$13^{\circ} \Omega 49'09$	9.05102 AU	opposition min. Earth dist.	-7491 Jun 17 j 05:09	28° 2 16'01	8.17308 AU
direct	-7497 Apr 01 j 23:33	$10^{\circ} \Omega 34'00$	9.03102 AU	desc. node	-7491 Juli 17 J 03:09	25° 2 02'01	6.17306 AU
direct	-7497 Aug 26 j 20:11	10° Ω 34'00		direct	-7491 Aug 22 j 19:18	24° £ 53'27	
evening set	-7497 Sep 19 i 04:45	13° Ω 35'15		direct	-7491 Nov 09 j 01:38	24 <u>=</u> 33 27 0°M	
evening set	-7497 Sep 19 J 04.43	17 0633 13		evening set	-7491 Nov 09 j 01:38	2°M45'01	
conjunction	-7497 Oct 05 j 13:20	19° Ω 31'12	2°18'53	evening set	-7491 Dec 01 j 15.51	2 11643 01	
minimum elong	-7497 Oct 05 j 13:20	19°Ω31'13		conjunction	-7491 Dec 18 j 23:26	5° M L00'27	-0°12'04
max. Earth dist.	-7497 Oct 04 j 17:37		10.99320 AU	minimum elong	-7491 Dec 18 j 23:25	5°ML00'27	
morning rise	-7497 Oct 21 j 23:15	21° Ω 27'41	10.77320710	behind sun begin	-7491 Dec 18 j 18:38	4°M58'54	0 12 10
retrograde	-7496 Feb 01 j 14:08	28°Ω40'09		behind sun end	-7491 Dec 19 j 04:12	5°ML01'59	
opposition	-7496 Apr 12 j 13:17	$25^{\circ}\Omega 20'16$	2°43'03	max. Earth dist.	-7491 Dec 18 j 19:27		10.10298 AU
min. Earth dist.	-7496 Apr 13 j 06:13	$25^{\circ}\Omega 17'08$	8.93302 AU	morning rise	-7490 Jan 05 j 14:56	7° IL 17'45	10.10276 AC
direct	-7496 Jun 21 j 15:34	22°Ω01'32	0.75502 AC	morning risc	-7490 Mar 26 j 00:35	15°M	
evening set	-7496 Sep 29 j 16:27	29° Ω 08'05		retrograde	-7490 Apr 23 j 15:40	15°M42'55	
evening set	-7496 Oct 06 j 22:59	0° m		retrograde	-7490 May 22 j 08:40	15°RML	
max. Earth dist.	-7496 Oct 15 j 07:51	•	10.86574 AU	opposition	-7490 Jul 01 j 09:09	12°ML12'36	0°37'37
max. Lattii dist.	-7470 Oct 13 j 07.31	1 1100027	10.00374 AC	min. Earth dist.	-7490 Jul 01 j 09:27		8.03652 AU
conjunction	-7496 Oct 16 j 03:16	1° m)06'18	2°06'08	direct	-7490 Sep 05 j 14:22	8°M47'49	6.03032 AC
minimum elong	-7496 Oct 16 j 03:19	1° Mg 06'19	2°06'26	ancet	-7490 Dec 01 j 11:00	15°M	
morning rise	-7496 Nov 01 j 16:32	3° m) 05'21	2 00 20	evening set	-7490 Dec 16 j 00:40	16°M50'21	
retrograde	-7495 Feb 13 j 08:12	10° m) 28'23		evening set	7470 DCC 10 J 00.40	10 1103021	
opposition	-7495 Apr 25 j 03:49	7° Mp 06'52	2°24'15	conjunction	-7489 Jan 02 j 15:26	19° M 09'08	-0°47'01
min. Earth dist.	-7495 Apr 25 j 19:55	7° m) 03'50	8.79607 AU	minimum elong	-7489 Jan 02 j 15:23	19°ML09'07	0°47'22
direct	-7495 Jul 03 j 14:46	3° m) 47'34	0.77007110	max. Earth dist.	-7489 Jan 02 j 16:32	19°ML09'30	9.97795 AU
evening set	-7495 Oct 11 j 12:06	11° m) 00'47		morning rise	-7489 Jan 20 j 11:46	21°M29'45	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
max. Earth dist.	-7495 Oct 27 j 07:46		10.72186 AU		-7489 Apr 29 j 16:07	0° ∡ 7	
	,	•		retrograde	-7489 May 08 j 20:50	0° х ¹04'34	
conjunction	-7495 Oct 28 j 02:12	13° m)01'48	1°47'41		-7489 May 18 j 00:32	30°RM₊	
minimum elong	-7495 Oct 28 j 02:16	13° m 01'49	1°47'53	opposition	-7489 Jul 16 j 00:24	26°M33'06	-1°20'33
morning rise	-7495 Nov 13 j 19:54	15° m) 03'58		min. Earth dist.	-7489 Jul 15 j 20:38		7.92624 AU
retrograde	-7494 Feb 26 j 11:43	22° m) 38'44		direct	-7489 Sep 19 j 20:34	23°ML06'54	
opposition	-7494 May 08 j 02:13	19° m) 15'25	1°58'28		-7489 Dec 20 j 17:41	0° ∡ ¹	
min. Earth dist.	-7494 May 08 j 16:59	19° m) 12'36	8.64523 AU	evening set	-7489 Dec 31 j 01:11	1° ∡ 19'32	
direct	-7494 Jul 15 j 20:36	15° Mp 55'20			,		
evening set	-7494 Oct 23 j 17:30						
	-/494 Oct 23 j 17.30	23° Mp 16'32		conjunction	-7488 Jan 17 j 20:12	3° ∡ ′41′03	-1°19'52
	-7494 Oct 25 j 17.30	23° m 16'32		conjunction minimum elong	-7488 Jan 17 j 20:12 -7488 Jan 17 j 20:08	3° х 41′03 3° х 41′01	-1°19'52 1°20'18
conjunction	-7494 Nov 09 j 11:53	23° m/16'32 25° m/20'49	1°23'49	•			
minimum elong	J	•	1°23'49 1°23'54	minimum elong	-7488 Jan 17 j 20:08	3° ∡ ′41′01	1°20'18
	-7494 Nov 09 j 11:53	25° m/20'49 25° m/20'50		minimum elong max. Earth dist.	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57	3° х 41′01 3° х 43′18	1°20'18
minimum elong	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57	25° m/20'49 25° m/20'50	1°23'54	minimum elong max. Earth dist. morning rise	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18	3° х ⁴41'01 3° х ⁴43'18 6° х ⁴04'10	1°20'18 9.88312 AU
minimum elong max. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16	25° m/20'49 25° m/20'50 25° m/15'57	1°23'54	minimum elong max. Earth dist. morning rise retrograde	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22	3° 🖈 41'01 3° 🖈 43'18 6° 🖈 04'10 14° 🖈 45'26	1°20'18 9.88312 AU
minimum elong max. Earth dist.	-7494 Nov 09 j 11:57 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18	25° m/20'49 25° m/20'50 25° m/15'57 27° m/26'30	1°23'54	minimum elong max. Earth dist. morning rise retrograde opposition	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22	3° \$\times^441'01 3° \$\times^443'18 6° \$\times^04'10 14° \$\times^445'26 11° \$\times^113'12	1°20'18 9.88312 AU -1°59'16
minimum elong max. Earth dist. morning rise	-7494 Nov 09 j 11:57 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42	25° m/20'49 25° m/20'50 25° m/15'57 27° m/26'30 0° Ω	1°23'54	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38	3° 🗷 41'01 3° 🗷 43'18 6° 🗷 04'10 14° 🗷 45'26 11° 🗷 13'12 11° 🗷 14'49	1°20'18 9.88312 AU -1°59'16
minimum elong max. Earth dist. morning rise	-7494 Nov 09 j 11:57 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18	25° m 20'49 25° m 20'50 25° m 15'57 27° m 26'30 0° <u>a</u> 5° <u>a</u> 13'53	1°23'54 10.56687 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28	3° 🗷 41'01 3° 🗷 43'18 6° 🗷 04'10 14° 🗷 45'26 11° 🗷 13'12 11° 🗷 14'49 7° 🗷 45'39	1°20'18 9.88312 AU -1°59'16
minimum elong max. Earth dist. morning rise retrograde opposition	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59	25° m 20'49 25° m 20'50 25° m 15'57 27° m 26'30 0° Ω 5° Ω 13'53 1° Ω 48'39	1°23'54 10.56687 AU 1°26'10	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28	3° 🗷 41'01 3° 🗷 43'18 6° 🗷 04'10 14° 🗷 45'26 11° 🗷 13'12 11° 🗷 14'49 7° 🗷 45'39	1°20'18 9.88312 AU -1°59'16 7.85009 AU
minimum elong max. Earth dist. morning rise retrograde opposition	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56	25° m 20'49 25° m 20'50 25° m 15'57 27° m 26'30 0° Ω 5° Ω 13'53 1° Ω 48'39 1° Ω 46'19	1°23'54 10.56687 AU 1°26'10	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56	3° \(\frac{7}{4}\) 1'01 3° \(\frac{7}{4}\) 3'18 6° \(\frac{7}{0}\) 0'10 14° \(\frac{7}{4}\) 1'26 11° \(\frac{7}{1}\) 1'12 11° \(\frac{7}{1}\) 14'49 7° \(\frac{7}{4}\) 4'39 16° \(\frac{7}{0}\) 06'39	1°20'18 9.88312 AU -1°59'16 7.85009 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35	25° m 20'49 25° m 20'50 25° m 15'57 27° m 26'30 0° Ω 5° Ω 13'53 1° Ω 48'39 1° Ω 46'19 30° R m 28° m 27'36 0° Ω	1°23'54 10.56687 AU 1°26'10	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 01 j 23:34	3° \(\frac{7}{4}\) 1'01 3° \(\frac{7}{4}\) 3'18 6° \(\frac{7}{4}\) 04'10 14° \(\frac{7}{4}\) 4'5'26 11° \(\frac{7}{1}\) 13'12 11° \(\frac{7}{1}\) 14'49 7° \(\frac{7}{4}\) 4'5'39 16° \(\frac{7}{2}\) 06'39 18° \(\frac{7}{2}\) 29'58 18° \(\frac{7}{2}\) 29'57 18° \(\frac{7}{3}\) 34'05	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56	25° m 20'49 25° m 20'50 25° m 15'57 27° m 26'30 0° <u>a</u> 5° <u>a</u> 13'53 1° <u>a</u> 48'39 1° <u>a</u> 46'19 30° R m 28° m 27'36	1°23'54 10.56687 AU 1°26'10	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49	3° \(\frac{7}{4}\) 1'01 3° \(\frac{7}{4}\) 3'18 6° \(\frac{7}{4}\) 04'10 14° \(\frac{7}{4}\) 5'26 11° \(\frac{7}{1}\) 13'12 11° \(\frac{7}{4}\) 14'49 7° \(\frac{7}{4}\) 5'39 16° \(\frac{7}{4}\) 06'39 18° \(\frac{7}{2}\) 29'57 18° \(\frac{7}{3}\) 34'05 20° \(\frac{7}{5}\) 54'36	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32	25° M 20'49 25° M 20'50 25° M 15'57 27° M 26'30 0° Ω 5° Ω 13'53 1° Ω 48'39 1° Ω 46'19 30° R M 28° M 27'36 0° Ω 5° Ω 57'58	1°23'54 10.56687 AU 1°26'10 8.48641 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41	3° \(\frac{7}{4}\) 1'01 3° \(\frac{7}{4}\) 3'18 6° \(\frac{7}{2}\) 04'10 14° \(\frac{7}{4}\) 5'26 11° \(\frac{7}{1}\) 13'12 11° \(\frac{7}{1}\) 14'49 7° \(\frac{7}{4}\) 5'39 16° \(\frac{7}{2}\) 06'39 18° \(\frac{7}{2}\) 29'58 18° \(\frac{7}{2}\) 29'57 18° \(\frac{7}{3}\) 34'05 20° \(\frac{7}{2}\) 54'36 29° \(\frac{7}{3}\) 38'10	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32	25° M 20'49 25° M 20'50 25° M 15'57 27° M 26'30 0° Ω 5° Ω 13'53 1° Ω 48'39 1° Ω 46'19 30° R M 28° M 27'36 0° Ω 5° Ω 57'58	1°23'54 10.56687 AU 1°26'10 8.48641 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22	3° \(\frac{7}{4}\) 1'01 3° \(\frac{7}{4}\) 3'18 6° \(\frac{7}{4}\) 04'10 14° \(\frac{7}{4}\) 5'26 11° \(\frac{7}{1}\) 13'12 11° \(\frac{7}{1}\) 14'49 7° \(\frac{7}{4}\) 5'39 16° \(\frac{7}{2}\) 06'39 18° \(\frac{7}{2}\) 29'57 18° \(\frac{7}{3}\) 3'05 20° \(\frac{7}{5}\) 5'436 29° \(\frac{7}{3}\) 3'10 26° \(\frac{7}{2}\) 05'43	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59	25° Mp 20'49 25° Mp 20'50 25° Mp 15'57 27° Mp 26'30 0° \Omega 5° \Omega 13'53 1° \Omega 48'39 1° \Omega 46'19 30° R Mp 28° Mp 27'36 0° \Omega 5° \Omega 57'58 8° \Omega 05'53 8° \Omega 05'53	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'57 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 08'06	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58	25° Mp 20'49 25° Mp 20'50 25° Mp 15'57 27° Mp 26'30 0° \Omega 5° \Omega 13'53 1° \Omega 48'39 1° \Omega 46'19 30° R Mp 28° Mp 27'36 0° \Omega 5° \Omega 57'58 8° \Omega 05'53 8° \Omega 02'05	1°23'54 10.56687 AU 1°26'10 8.48641 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'57 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 08'06 22° \$\times 36'58	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7494 Nov 09 j 11:53 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10	25° M 20'49 25° M 20'50 25° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 5'53 8° \(\Omega\) 05'53 8° \(\Omega\) 02'05 10° \(\Omega\) 15'24	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02	3° ₹41'01 3° ₹43'18 6° ₹04'10 14° ₹45'26 11° ₹13'12 11° ₹14'49 7° ₹45'39 16° ₹06'39 18° ₹29'58 18° ₹29'57 18° ₹34'05 20° ₹34'36 29° ₹38'10 26° ₹05'43 26° ₹08'06 22° ₹36'58 0° ₹	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41	25° M 20'49 25° M 20'50 25° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 5'53 8° \(\Omega\) 05'53 8° \(\Omega\) 02'05 10° \(\Omega\) 15'24 18° \(\Omega\) 15'50	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'57 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 08'06 22° \$\times 36'58	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41 -7492 Jun 03 j 00:30	25° My 20'49 25° My 20'50 25° My 20'50 25° My 26'30 0° \Omega 5° \Omega 13'53 1° \Omega 46'19 30° R My 28° My 27'36 0° \Omega 5° \Omega 557'58 8° \Omega 05'53 8° \Omega 05'53 8° \Omega 02'05 10° \Omega 15'24 18° \Omega 15'50 14° \Omega 48'44	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02 -7486 Jan 30 j 07:56	3° ズ41'01 3° ズ43'18 6° ズ04'10 14° ズ45'26 11° ズ13'12 11° ズ14'49 7° ズ45'39 16° ズ06'39 18° ズ29'58 18° ズ29'57 18° ズ34'05 20° ズ34'05 20° ズ38'10 26° ズ08'06 22° ズ36'58 0° 云	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU -2°30'35 7.81359 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41 -7492 Jun 03 j 00:30 -7492 Jun 03 j 08:58	25° M 20'49 25° M 20'50 25° M 20'50 25° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 48'39 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 5'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 10° \(\Omega\) 15'50 14° \(\Omega\) 48'44 14° \(\Omega\) 47'04	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 19 j 13:49 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02 -7486 Feb 17 j 08:41	3° ズ41'01 3° ズ43'18 6° ズ04'10 14° ズ45'26 11° ズ13'12 11° ズ14'49 7° ズ45'39 16° ズ06'39 18° ズ29'58 18° ズ29'57 18° ズ34'05 20° ズ34'05 20° ズ38'10 26° ズ08'06 22° ズ36'58 0° 云 1° 云03'36	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU -2°30'35 7.81359 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41 -7492 Jun 03 j 00:30 -7492 Jun 03 j 08:58 -7492 Aug 09 j 11:10	25° M 20'49 25° M 20'50 25° M 15'57 27° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 48'39 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 557'58 8° \(\Omega\) 05'53 10° \(\Omega\) 15'50 14° \(\Omega\) 48'44 14° \(\Omega\) 47'04 11° \(\Omega\) 26'33	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02 -7486 Feb 17 j 08:41 -7486 Feb 17 j 08:41 -7486 Feb 17 j 08:41	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'58 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 05'43 26° \$\times 05'43 26° \$\times 05'36 1° \$\times 03'36 3° \$\times 27'44 3° \$\times 27'44	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU -2°30'35 7.81359 AU -2°09'14 2°09'44
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 08:59 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41 -7492 Jun 03 j 00:30 -7492 Jun 03 j 08:58	25° M 20'49 25° M 20'50 25° M 20'50 25° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 48'39 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 5'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 8° \(\Omega\) 05'53 10° \(\Omega\) 15'50 14° \(\Omega\) 48'44 14° \(\Omega\) 47'04	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7488 Oct 03 j 11:28 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02 -7486 Feb 17 j 08:41 -7486 Feb 17 j 08:37 -7486 Feb 18 j 02:02	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'58 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 08'06 22° \$\times 36'58 0° \$\times 503'36 3° \$\times 27'44 3° \$\times 27'44 3° \$\times 27'44 3° \$\times 33'33	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU -2°30'35 7.81359 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7494 Nov 09 j 11:53 -7494 Nov 09 j 11:57 -7494 Nov 08 j 20:16 -7494 Nov 26 j 10:37 -7494 Dec 18 j 07:42 -7493 Mar 12 j 01:18 -7493 May 21 j 21:02 -7493 Jun 15 j 03:05 -7493 Jul 28 j 11:56 -7493 Sep 08 j 09:35 -7493 Nov 05 j 10:32 -7493 Nov 22 j 09:56 -7493 Nov 22 j 09:59 -7493 Nov 21 j 21:58 -7493 Dec 09 j 14:10 -7492 Mar 25 j 03:41 -7492 Jun 03 j 00:30 -7492 Jun 03 j 08:58 -7492 Aug 09 j 11:10	25° M 20'49 25° M 20'50 25° M 15'57 27° M 26'30 0° \(\Omega\) 5° \(\Omega\) 13'53 1° \(\Omega\) 48'39 1° \(\Omega\) 46'19 30° R M 28° M 27'36 0° \(\Omega\) 5° \(\Omega\) 557'58 8° \(\Omega\) 05'53 10° \(\Omega\) 15'50 14° \(\Omega\) 48'44 14° \(\Omega\) 47'04 11° \(\Omega\) 26'33	1°23'54 10.56687 AU 1°26'10 8.48641 AU 0°55'09 0°55'08 10.40695 AU 0°48'16 8.32631 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct	-7488 Jan 17 j 20:08 -7488 Jan 18 j 02:57 -7488 Feb 04 j 20:18 -7488 May 23 j 05:22 -7488 Jul 29 j 20:22 -7488 Jul 29 j 12:38 -7487 Jan 14 j 12:56 -7487 Feb 01 j 11:18 -7487 Feb 01 j 11:14 -7487 Feb 01 j 23:34 -7487 Feb 19 j 13:49 -7487 Jun 07 j 14:41 -7487 Aug 13 j 18:22 -7487 Aug 13 j 06:59 -7487 Oct 18 j 08:58 -7486 Jan 22 j 04:02 -7486 Feb 17 j 08:41 -7486 Feb 17 j 08:41 -7486 Feb 17 j 08:41	3° \$\times 41'01 3° \$\times 43'18 6° \$\times 04'10 14° \$\times 45'26 11° \$\times 13'12 11° \$\times 14'49 7° \$\times 45'39 16° \$\times 06'39 18° \$\times 29'58 18° \$\times 29'57 18° \$\times 34'05 20° \$\times 54'36 29° \$\times 38'10 26° \$\times 05'43 26° \$\times 05'43 26° \$\times 05'43 26° \$\times 05'36 1° \$\times 03'36 3° \$\times 27'44 3° \$\times 27'44	1°20'18 9.88312 AU -1°59'16 7.85009 AU -1°48'03 1°48'31 9.82543 AU -2°30'35 7.81359 AU -2°09'14 2°09'44

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opposition	-7486 Aug 28 j 15:48	11° る 01'56		evening set	-7479 May 12 j 19:23	9° Ƴ 07'00	
min. Earth dist.	-7486 Aug 28 j 01:06	11° る 05'02	7.81933 AU				
direct	-7486 Nov 02 j 10:37	7° る 32'15		conjunction	-7479 May 30 j 12:32	11° Y 15'48	-0°48'00
evening set	-7485 Feb 15 j 05:25	16° ප 01'05		minimum elong	-7479 May 30 j 12:34	11° Y 15'48	0°47'57
				max. Earth dist.	-7479 May 31 j 00:20	11° Y 19'24	10.60483 AU
conjunction	-7485 Mar 05 j 07:38	18° る 25'00	-2°21'45	morning rise	-7479 Jun 17 j 00:39	13° Y 23'02	
minimum elong	-7485 Mar 05 j 07:36	18° る 25'00	2°22'14	retrograde	-7479 Sep 24 j 11:05	20° Ƴ 38'49	
max. Earth dist.	-7485 Mar 06 j 04:59	18° る 32'08	9.83573 AU	opposition	-7479 Dec 01 j 00:36	17° Ƴ 18′05	
morning rise	-7485 Mar 23 j 11:15	20° る 49'19		min. Earth dist.	-7479 Nov 30 j 15:50	17° Ƴ 19'48	8.68292 AU
retrograde	-7485 Jul 07 j 21:42	29° る 24'05		direct	-7478 Feb 09 j 06:15	13° Y 51'42	
opposition	-7485 Sep 12 j 09:45	25° ප 52'41		evening set	-7478 May 25 j 18:23	21° Y 24'35	
min. Earth dist.	-7485 Sep 11 j 16:45		7.86653 AU	. ,.	7470 X 12:07.25	2200020111	0017120
direct	-7485 Nov 17 j 13:20	22° る 22'23		conjunction	-7478 Jun 12 j 07:35	23° Υ 30'11	
	-7484 Feb 24 j 13:53	0°≈ 0°≈ •40!47		minimum elong	-7478 Jun 12 j 07:36	23°Y30'11	
evening set	-7484 Mar 02 j 00:56	0° ≈ 49'47		max. Earth dist.	-7478 Jun 12 j 15:50		10.76091 AU
conjunction	-7484 Mar 20 j 03:42	3°≈12'33	2924140	morning rise	-7478 Jun 29 j 15:19 -7478 Aug 10 j 18:12	25° Ƴ 34'09 0° ႘	
minimum elong	-7484 Mar 20 j 03:42	3°≈12'33		retrograde	-7478 Oct 06 j 10:30	2° 8 39'13	
max. Earth dist.	-7484 Mar 21 j 03:16	3°≈20'21	9.90254 AU	renograde	-7478 Dec 04 j 17:04	2 O 39 13	
morning rise	-7484 Apr 07 j 06:21	5°≈35'13	7.70254 AU	opposition	-7478 Dec 04 j 17:04 -7478 Dec 13 j 09:14	29° Υ 20'16	-0°03'21
retrograde	-7484 Jul 21 j 13:08	13°≈59'34		min. Earth dist.	-7478 Dec 13 j 04:03		8.83359 AU
opposition	-7484 Sep 25 j 21:43	10°≈29'25	-2°58'51	asc. node	-7477 Jan 16 j 01:41	26° Y 59'57	0.03337710
min. Earth dist.	-7484 Sep 25 j 03:50	10° ≈ 33'09	7.95137 AU	direct	-7477 Feb 22 j 03:43	25°Υ55'20	
direct	-7484 Dec 01 j 14:21	6°≈58'52	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-7477 May 07 j 18:12	0°8	
	-7483 Mar 14 j 18:35	15° ≈		evening set	-7477 Jun 07 j 05:58	3° 8 18'33	
evening set	-7483 Mar 17 j 13:47	15° ≈ 21'25		C	J		
	·			conjunction	-7477 Jun 24 j 14:43	5° 8 21'07	0°12'41
conjunction	-7483 Apr 04 j 16:14	17° ≈ 42'13	-2°18'36	minimum elong	-7477 Jun 24 j 14:43	5° 8 21'07	0°12'56
minimum elong	-7483 Apr 04 j 16:17	17° ≈ 42'14	2°18'58	behind sun begin	-7477 Jun 24 j 10:22	5° 8 19'51	
max. Earth dist.	-7483 Apr 05 j 16:13	17° ≈ 50'03	10.00448 AU	behind sun end	-7477 Jun 24 j 19:03	5° 8 22'23	
morning rise	-7483 Apr 22 j 17:07	20° ≈ 02′28		max. Earth dist.	-7477 Jun 24 j 18:42	5° 8 22'17	10.90456 AU
retrograde	-7483 Aug 04 j 16:42	28° ≈ 13'46		morning rise	-7477 Jul 11 j 17:56	7° 8 22'07	
min. Earth dist.	-7483 Oct 09 j 08:38	24° ≈ 48'51	8.06761 AU	retrograde	-7477 Oct 18 j 01:32	14° 8 18'29	
opposition	-7483 Oct 10 j 02:04	24° ≈ 45'14	-2°45'15	opposition	-7477 Dec 25 j 11:42	11° 8 01'05	0°33'07
direct	-7483 Dec 16 j 10:08	21° ≈ 14'51		min. Earth dist.	-7477 Dec 25 j 10:42	11° 8 01'16	8.96920 AU
evening set	-7482 Apr 01 j 16:18	29° ≈ 29'39		direct	-7476 Mar 05 j 17:24	7° 8 37'33	
	-7482 Apr 05 j 16:20	0° ∀		evening set	-7476 Jun 18 j 07:28	14° 8 52'18	
	7402 A 10: 17:25	101/47154	2004100		-7476 Jun 19 j 10:20	15° 8	
conjunction minimum elong	-7482 Apr 19 j 17:35 -7482 Apr 19 j 17:39	1°) 47'54 1°) 47'55		conjunction	-7476 Jul 05 j 11:23	16° 8 52'06	0°41'41
max. Earth dist.	-7482 Apr 20 j 16:17		10.13427 AU	minimum elong	-7476 Jul 05 j 11:21	16° 8 52'06	0°42'00
morning rise	-7482 May 07 j 16:06	4°) €05'12	10.13427 AO	max. Earth dist.	-7476 Jul 05 j 10:13	_	11.03017 AU
retrograde	-7482 Aug 18 j 08:34	12° H 02'05		morning rise	-7476 Jul 22 j 10:13	18° 8 50'27	11.03017710
opposition	-7482 Oct 23 j 21:31	8° ₩ 35'25	-2°22'22	retrograde	-7476 Oct 28 j 11:45	25° 8 40'15	
min. Earth dist.	-7482 Oct 23 j 05:50	8°) (38'38		opposition	-7475 Jan 05 j 09:04	22° 8 24'03	1°07'16
direct	-7482 Dec 30 j 22:39	5°) €05'35		min. Earth dist.	-7475 Jan 05 j 11:42	22° 8 23'34	9.08459 AU
evening set	-7481 Apr 16 j 06:41	13°) 10′42		direct	-7475 Mar 18 j 00:16	19° 8 01'53	
-				evening set	-7475 Jun 30 j 00:19	26° 8 09'28	
conjunction	-7481 May 04 j 05:59	15° ¥ 25'58	-1°42'59				
minimum elong	-7481 May 04 j 06:03	15° ¥ 26′00	1°43'10	conjunction	-7475 Jul 16 j 23:34	28° 8 06'53	1°08'27
max. Earth dist.	-7481 May 05 j 01:33		10.28342 AU	minimum elong	-7475 Jul 16 j 23:31	28° 8 06'52	1°08'51
morning rise	-7481 May 22 j 01:36	17°) (40′01		max. Earth dist.	-7475 Jul 16 j 17:58		11.13326 AU
retrograde	-7481 Aug 31 j 12:29	25° ∺ 22'12		morning rise	-7475 Aug 02 j 18:12	0°Ⅱ03′00	
opposition	-7481 Nov 06 j 07:26	21° ¥ 57'32			-7475 Aug 02 j 07:39	$\Pi^{\circ 0}$	
min. Earth dist.	-7481 Nov 05 j 17:58	22° ₭ 00'15	8.36223 AU	retrograde	-7475 Nov 08 j 18:15	6° ∏ 48'19	
direct	-7480 Jan 14 j 02:27	18°) €28'36		opposition	-7474 Jan 17 j 02:30	3° П 32'58	
evening set	-7480 Apr 29 j 07:48	26°) €23'00		min. Earth dist.	-7474 Jan 17 j 07:52	3° ∏ 31'58	9.17560 AU
	7400 14 17:0401	2001/25/05	1017/00	direct	-7474 Mar 30 j 00:06	0° Ⅱ 12'00	
conjunction	-7480 May 17 j 04:21	28° ¥ 35'05		evening set	-7474 Jul 11 j 10:05	7° Ⅱ 13'51	
minimum elong	-7480 May 17 j 04:24	28°\(\frac{1}{35}\)'06		conjunction	7474 Jul 20:05:04	0°П00110	1022112
max. Earth dist.	-7480 May 17 j 19:54	28° Υ 39'54 0° Υ	10.44310 AU	conjunction	-7474 Jul 28 j 05:04	9° Ⅱ 09'19 9° Ⅱ 09'18	1°32'12
morning rise	-7480 May 28 j 14:54 -7480 Jun 03 j 20:29	0°Υ45'43		minimum elong max. Earth dist.	-7474 Jul 28 j 05:01 -7474 Jul 27 j 20:28		1°32'40 11.21014 AU
retrograde	-7480 Jun 03 j 20:29 -7480 Sep 12 j 04:13	8° Υ 13'58		max. Earth dist.	-7474 Aug 13 j 19:45	9° Д 0630	11.21014 AU
opposition	-7480 Sep 12 j 04.13 -7480 Nov 18 j 08:18	4° Υ 51'19	-1°17'52	retrograde	-7474 Nov 20 j 01:02	17° Ⅱ 46'31	
min. Earth dist.	-7480 Nov 17 j 21:03			opposition	-7473 Jan 28 j 17:34	17 ∏ 4031 14° ∏ 31'41	2°04'51
	-/40U NOV 1/1/1US						
direct	-7479 Jan 26 j 21:46	1° Υ 23'34	0.525 10 110	min. Earth dist.	-7473 Jan 29 j 02:11		9.23882 AU

Attention, astronom	ncal year style is used: Th	e year -7473 ı	n astronomical co	unting style is the year	7474 BCE in historical c	ounting style.	
direct	-7473 Apr 10 j 18:40			conjunction	-7467 Oct 11 j 11:49	26° Ω 17'06	2°12'25
evening set	-7473 Jul 22 j 14:38	18° Ⅲ 09'21		minimum elong	-7467 Oct 11 j 11:52	26° Ω 17'07	2°12'44
	·			max. Earth dist.	-7467 Oct 10 j 14:32	26° Ω 10'43	10.91504 AU
conjunction	-7473 Aug 08 j 05:37	20° Ⅱ 03'21	1°52'19	morning rise	-7467 Oct 27 j 23:37	28° Ω 15′03	
minimum elong	-7473 Aug 08 j 05:34	20° II 03'20	1°52'48		-7467 Nov 12 j 06:36	0° m)	
max. Earth dist.	-7473 Aug 07 j 17:24	19° Ⅱ 59'50	11.25787 AU	retrograde	-7466 Feb 08 j 03:12	5° m 33'38	
morning rise	-7473 Aug 24 j 16:57	21° Ⅱ 56′24		opposition	-7466 Apr 20 j 01:08	2° Mp 12'34	2°33'23
retrograde	-7473 Dec 01 j 05:08	28° Ⅲ 38'50		min. Earth dist.	-7466 Apr 20 j 19:13	2° m 09'11	8.84687 AU
opposition	-7472 Feb 09 j 07:39	25° Ⅱ 24'08	2°26'51		-7466 May 22 j 08:27	30°R Ω	
min. Earth dist.	-7472 Feb 09 j 20:03	25° I I21'53	9.27181 AU	direct	-7466 Jun 28 j 20:42	28° Ω 53'09	
direct	-7472 Apr 21 j 07:07	22° Ⅱ 04'59			-7466 Aug 04 j 06:50	0° m)	
evening set	-7472 Aug 01 j 15:36	28° Ⅱ 59'58		evening set	-7466 Oct 06 j 18:00	6° Mp 03'43	10 == 210 144
70 d ft :	-7472 Aug 10 j 10:43	0°©	05460 477	max. Earth dist.	-7466 Oct 22 j 11:32	/° II) 57'46	10.77318 AU
max. Earth dist.	-7472 Aug 17 j 10:45	48′18فو°0	11.27463 AU		74660 + 22:0642	00 m. 0212 (1057120
· · · · · · · · · · · ·	7472 4 10:02.00	00052101	2000117	conjunction	-7466 Oct 23 j 06:43	8° M) 03'36	1°56'28
conjunction minimum elong	-7472 Aug 18 j 03:08 -7472 Aug 18 j 03:06	0° © 53'01	2°08'16 2°08'46	minimum elong morning rise	-7466 Oct 23 j 06:47 -7466 Nov 08 j 22:16	8° Mp 03'37 10° Mp 04'28	1°56'41
morning rise	-7472 Aug 18 j 03:00 -7472 Sep 03 j 12:05	2° © 45'22	2 08 40	retrograde	-7465 Feb 21 j 03:01	10 my 04 28 17° my 34'26	
retrograde	-7472 Dec 11 j 11:32	9° 5 29'24		opposition	-7465 May 02 j 20:03	17 m/34 20 14° m/11'26	2°10'39
opposition	-7471 Feb 19 j 22:06	6°9514'28	2°43'35	min. Earth dist.	-7465 May 03 j 11:40	14° M) 08'28	8.69719 AU
min. Earth dist.	-7471 Feb 20 j 13:32	6°9511'40	9.27314 AU	direct	-7465 Jul 10 j 22:53	10° m) 51'13	0.07/17/10
direct	-7471 May 02 j 20:01	2°955'53	7.27514710	evening set	-7465 Oct 18 j 18:52	18° m)09'18	
evening set	-7471 Aug 12 j 14:27	9°549'49		evening set	7403 Oct 10 j 10.32	10 11000110	
e venning see	, , , , , , , , , , , , , , , , , , ,	,		conjunction	-7465 Nov 04 j 11:25	20° m) 12'17	1°34'55
conjunction	-7471 Aug 28 j 23:34	11°5542'30	2°19'38	minimum elong	-7465 Nov 04 j 11:29	20° m) 12'18	1°35'03
minimum elong	-7471 Aug 28 j 23:32	11° 5 642'29	2°20'07	max. Earth dist.	-7465 Nov 03 j 18:08	20° m/06'57	10.61851 AU
max. Earth dist.	-7471 Aug 28 j 04:47	11° 9 37'04	11.25973 AU	morning rise	-7465 Nov 21 j 07:47	22° m) 16'34	
morning rise	-7471 Sep 14 j 06:56	13° © 34'44		retrograde	-7464 Mar 05 j 12:57	29° m 58'58	
retrograde	-7471 Dec 22 j 21:53	20°522'17		opposition	-7464 May 14 j 23:22	26° m 33'58	1°41'07
opposition	-7470 Mar 03 j 14:09	17° 5 06'46	2°54'34	min. Earth dist.	-7464 May 15 j 12:27	26° Mp 31'27	8.53788 AU
min. Earth dist.	-7470 Mar 04 j 07:02	17° 5 03'42	9.24282 AU	direct	-7464 Jul 22 j 09:07	23° m 12'47	
direct	-7470 May 14 j 06:47	13°5548'32			-7464 Oct 24 j 20:47	0∘ ⊽	
evening set	-7470 Aug 23 j 13:13	20°5642'55		evening set	-7464 Oct 30 j 06:50	0° 亞 39'39	
conjunction	-7470 Sep 08 j 20:56	22° © 35'50	2°26'01	conjunction	-7464 Nov 16 j 03:57	2° ≏ 46'10	1°08'15
minimum elong	-7470 Sep 08 j 20:56	22°535'50	2°26'30	minimum elong	-7464 Nov 16 j 04:01	2° £ 46'11	1°08'16
max. Earth dist.	-7470 Sep 08 j 01:00		11.21397 AU	max. Earth dist.	-7464 Nov 15 j 13:13		10.45757 AU
morning rise	-7470 Sep 25 j 03:34	24° © 28'35		morning rise	-7464 Dec 03 j 05:53	4° £ 54'14	
C	-7470 Nov 23 j 01:47	$0^{\circ}\Omega$		retrograde	-7463 Mar 19 j 10:10	12° ≏ 49'37	
retrograde				•	-		1005120
	-7469 Jan 03 j 13:09	1° Ω 21'26		opposition	-7463 May 28 j 11:16	9° ₽ 22'42	1°05'29
	-7469 Feb 15 j 05:38	1° 3ℓ 21′26 30° ₹©		opposition min. Earth dist.	-7463 May 28 j 11:16 -7463 May 28 j 21:34	9° £ 22'42 9° £ 20'41	8.37610 AU
opposition	·		2°59'23		, ,		
opposition min. Earth dist.	-7469 Feb 15 j 05:38	30° ₹ ©	2°59'23 9.18226 AU	min. Earth dist.	-7463 May 28 j 21:34	9° ≏ 20'41	
**	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13	30°RS 28°S04'59		min. Earth dist. direct	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33	9° £ 20'41 6° £ 00'23	
min. Earth dist.	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11	30°RS 28°S04'59 28°S01'43 24°S46'50 0°Ω		min. Earth dist. direct	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33	9° £ 20'41 6° £ 00'23	
min. Earth dist.	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39	30°RS 28°S04'59 28°S01'43 24°S46'50		min. Earth dist. direct evening set conjunction minimum elong	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41	9° Ω 20'41 6° Ω 00'23 13° Ω 37'09 15° Ω 47'25 15° Ω 47'26	8.37610 AU 0°37'16 0°37'11
min. Earth dist. direct evening set	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08	9.18226 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49	9° № 20'41 6° № 00'23 13° № 37'09 15° № 47'25 15° № 47'26 15° № 43'58	8.37610 AU 0°37'16
min. Earth dist. direct evening set conjunction	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54	9.18226 AU 2°27'06	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22	9° № 20'41 6° № 00'23 13° № 37'09 15° № 47'25 15° № 47'26 15° № 43'58 17° № 59'26	8.37610 AU 0°37'16 0°37'11
min. Earth dist. direct evening set conjunction minimum elong	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N36'54	9.18226 AU 2°27'06 2°27'33	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07	9° № 20'41 6° № 00'23 13° № 37'09 15° № 47'25 15° № 44'26 15° № 43'58 17° № 59'26 26° № 07'52	8.37610 AU 0°37'16 0°37'11 10.29782 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N36'54 3°N30'38	9.18226 AU 2°27'06	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 39'08\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N36'54 3°N30'38 5°N30'45	9.18226 AU 2°27'06 2°27'33	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 39'08\) 22° \(\Omega 37'49\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N36'54 3°N30'38 5°N30'45 12°N30'37	9.18226 AU 2°27'06 2°27'33 11.13932 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46 -7462 Aug 17 j 09:35	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 37'49\) 19° \(\Omega 15'37\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N36'54 3°N30'38 5°N30'45 12°N30'37 9°N12'54	9.18226 AU 2°27'06 2°27'33 11.13932 AU 2°57'39	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 39'08\) 22° \(\Omega 37'49\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51 -7468 Mar 27 j 04:00	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N30'38 5°N30'45 12°N30'37 9°N12'54 9°N09'24	9.18226 AU 2°27'06 2°27'33 11.13932 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Aug 17 j 09:35 -7462 Nov 25 j 21:34	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 37'49\) 19° \(\Omega 15'37\) 27° \(\Omega 03'00\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59 8.21985 AU
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min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51 -7468 Mar 27 j 04:00 -7468 Jun 05 j 06:02 -7468 Sep 13 j 17:16 -7468 Sep 29 j 02:44 -7468 Sep 30 j 01:04 -7468 Oct 01 j 12:51 -7468 Oct 16 j 10:04	30°RS 28°S04'59 28°S01'43 24°S46'50 0°N 1°N43'08 3°N36'54 3°N30'38 5°N30'45 12°N30'37 9°N12'54 9°N09'24 5°N54'35 12°N54'12 14°N42'47 14°N49'24 15°N 16°N45'01	9.18226 AU 2°27'06 2°27'33 11.13932 AU 2°57'39 9.09387 AU 11.03855 AU 2°22'37	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46 -7462 Aug 17 j 09:35 -7462 Nov 25 j 21:34 -7462 Dec 13 j 05:17 -7462 Dec 13 j 05:17 -7462 Dec 12 j 22:07 -7462 Dec 12 j 23:58 -7462 Dec 18 j 17:35 -7462 Dec 30 j 18:34	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 26° \(\Omega 07'52\) 22° \(\Omega 37'49\) 19° \(\Omega 15'37\) 27° \(\Omega 03'00\) 29° \(\Omega 17'02\) 29° \(\Omega 17'02\) 29° \(\Omega 17'02\) 29° \(\Omega 14'44\) 29° \(\Omega 15'20\) 0° \(\Omega 1.6\) 1° \(\Omega 1.6\) 1° \(\Omega 1.6\) 3° \(8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59 8.21985 AU 0°03'21 0°03'10 10.14753 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51 -7468 Mar 27 j 04:00 -7468 Jun 05 j 06:02 -7468 Sep 13 j 17:16 -7468 Sep 29 j 02:44 -7468 Sep 30 j 01:04 -7468 Oct 01 j 12:51 -7468 Oct 16 j 10:04 -7467 Jan 26 j 13:14	30°RS 28°S04'59 28°S01'43 24°S46'50 0°R 1°R43'08 3°R36'54 3°R36'54 3°R30'38 5°R30'45 12°R30'37 9°R12'54 9°R09'24 5°R54'35 12°R54'35 12°R54'12 14°R42'47 14°R49'24 15°R 16°R45'01 23°R53'30	9.18226 AU 2°27'06 2°27'33 11.13932 AU 2°57'39 9.09387 AU 11.03855 AU 2°22'37 2°23'01	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46 -7462 Aug 17 j 09:35 -7462 Nov 25 j 21:34 -7462 Dec 13 j 05:17 -7462 Dec 13 j 05:17 -7462 Dec 12 j 22:07 -7462 Dec 12 j 23:58 -7462 Dec 18 j 17:35 -7462 Dec 30 j 18:34 -7461 Jan 18 j 01:03 -7461 Apr 17 j 11:48	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'26\) 26° \(\Omega 07'52\) 22° \(\Omega 37'49\) 19° \(\Omega 15'37\) 27° \(\Omega 03'00\) 29° \(\Omega 17'02\) 29° \(\Omega 17'02\) 29° \(\Omega 17'02\) 29° \(\Omega 14'44\) 29° \(\Omega 19'20\) 29° \(\Omega 15'20\) 0° \(\Omega 1.4'03\) 1° \(\Omega 32'55\) 3° \(\Omega 48'03\) 9° \(\Omega 53'41\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59 8.21985 AU 0°03'21 0°03'10 10.14753 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51 -7468 Mar 27 j 04:00 -7468 Jun 05 j 06:02 -7468 Sep 13 j 17:16 -7468 Sep 29 j 02:44 -7468 Sep 30 j 01:05 -7468 Oct 01 j 12:51 -7468 Oct 16 j 10:04 -7467 Jan 26 j 13:14 -7467 Apr 07 j 13:52	30°RS 28°S04'59 28°S01'43 24°S46'50 0°R 1°R43'08 3°R36'54 3°R36'54 3°R36'54 3°R30'38 5°R30'45 12°R30'37 9°R12'54 9°R09'24 5°R54'35 12°R54'12 14°R42'47 14°R49'24 15°R 16°R45'01 23°R53'30 20°R34'13	9.18226 AU 2°27'06 2°27'33 11.13932 AU 2°57'39 9.09387 AU 11.03855 AU 2°22'37 2°23'01	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46 -7462 Aug 17 j 09:35 -7462 Nov 25 j 21:34 -7462 Dec 13 j 05:17 -7462 Dec 13 j 05:17 -7462 Dec 12 j 22:07 -7462 Dec 12 j 22:07 -7462 Dec 13 j 12:26 -7462 Dec 12 j 23:58 -7462 Dec 18 j 17:35 -7462 Dec 30 j 18:34 -7461 Jan 18 j 01:03 -7461 Apr 17 j 11:48 -7461 Jun 25 j 13:19	9° \(\Omega \) 20'41 6° \(\Omega \) 00'23 13° \(\Omega \) 47'25 15° \(\Omega \) 47'26 15° \(\Omega \) 43'58 17° \(\Omega \) 59'26 26° \(\Omega \) 07'52 22° \(\Omega \) 37'49 19° \(\Omega \) 15'37 27° \(\Omega \) 03'00 29° \(\Omega \) 17'02 29° \(\Omega \) 17'03 29° \(\Omega \) 17'04 29° \(\Omega \) 17'05 30° \(\Omega \) 18'30 9° \(\Omega \) 15'30 9° \(\Omega \) 15'31	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59 8.21985 AU 0°03'21 0°03'10 10.14753 AU -0°18'26
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7469 Feb 15 j 05:38 -7469 Mar 15 j 09:13 -7469 Mar 16 j 03:11 -7469 May 25 j 17:39 -7469 Aug 19 j 02:55 -7469 Sep 03 j 13:39 -7469 Sep 19 j 20:52 -7469 Sep 19 j 20:52 -7469 Sep 18 j 23:27 -7469 Oct 06 j 04:02 -7468 Jan 15 j 10:28 -7468 Mar 26 j 08:51 -7468 Mar 27 j 04:00 -7468 Jun 05 j 06:02 -7468 Sep 13 j 17:16 -7468 Sep 29 j 02:44 -7468 Sep 30 j 01:04 -7468 Oct 01 j 12:51 -7468 Oct 16 j 10:04 -7467 Jan 26 j 13:14 -7467 Apr 07 j 13:52 -7467 Apr 08 j 09:17	30°RS 28°S04'59 28°S01'43 24°S46'50 0°R 1°R43'08 3°R36'54 3°R36'54 3°R36'54 3°R30'38 5°R30'45 12°R30'37 9°R12'54 9°R09'24 5°R54'35 12°R54'12 14°R42'47 14°R49'24 15°R 16°R45'01 23°R53'30 20°R34'13 20°R30'38	9.18226 AU 2°27'06 2°27'33 11.13932 AU 2°57'39 9.09387 AU 11.03855 AU 2°22'37 2°23'01	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist.	-7463 May 28 j 21:34 -7463 Aug 04 j 04:33 -7463 Nov 12 j 07:20 -7463 Nov 29 j 09:39 -7463 Nov 29 j 09:41 -7463 Nov 28 j 22:49 -7463 Dec 16 j 17:22 -7462 Apr 02 j 18:07 -7462 Jun 11 j 08:05 -7462 Jun 11 j 14:46 -7462 Aug 17 j 09:35 -7462 Nov 25 j 21:34 -7462 Dec 13 j 05:17 -7462 Dec 13 j 05:17 -7462 Dec 12 j 22:07 -7462 Dec 12 j 22:07 -7462 Dec 13 j 12:26 -7462 Dec 12 j 23:58 -7462 Dec 18 j 17:35 -7462 Dec 18 j 17:35 -7461 Jun 18 j 01:03 -7461 Jun 25 j 13:19 -7461 Jun 25 j 15:25	9° \(\Omega 20'41\) 6° \(\Omega 00'23\) 13° \(\Omega 47'25\) 15° \(\Omega 47'26\) 15° \(\Omega 43'58\) 17° \(\Omega 59'26\) 22° \(\Omega 37'49\) 19° \(\Omega 15'37\) 27° \(\Omega 03'00\) 29° \(\Omega 17'02\) 29° \(\Omega 15'20\) 0° \(\Omega 16'320\) 1° \(\Omega 32'55\) 3° \(\Omega 48'03\) 9° \(\Omega 53'41\) 6° \(\Omega 22'57\)	8.37610 AU 0°37'16 0°37'11 10.29782 AU 0°24'59 8.21985 AU 0°03'21 0°03'10 10.14753 AU -0°18'26

•	nical year style is used: Th		•				.ge 37
conjunction	-7461 Dec 27 j 15:20	13°M14'25		morning rise	-7454 Apr 16 j 12:37	14° ≈ 06'49	
•	-7461 Dec 27 j 15:18	13°M14'24		morning rise			
minimum elong	,				-7454 Apr 23 j 11:57	15°≈ 22°≈ •22145	
max. Earth dist.	-7461 Dec 27 j 16:01		10.01557 AU	retrograde	-7454 Jul 30 j 01:56	22°≈23'45	2052110
	-7460 Jan 10 j 01:13	15°M		opposition	-7454 Oct 04 j 11:07	18°≈55'02	
morning rise	-7460 Jan 14 j 09:40	15°M33'48		min. Earth dist.	-7454 Oct 03 j 17:08	18°≈58'46	8.02668 AU
retrograde	-7460 May 01 j 14:03	24°M05'11	1000110	direct	-7454 Dec 10 j 12:11	15°≈25'07	
opposition	-7460 Jul 09 j 01:48	20°M33'38		evening set	-7453 Mar 26 j 15:44	23° ≈ 43'08	
min. Earth dist.	-7460 Jul 08 j 22:50	20°M34'14	7.95891 AU	. ,.	7452 4 12:17.21	26002124	2011110
direct	-7460 Sep 13 j 02:53	17°M07'36		conjunction	-7453 Apr 13 j 17:31	26°≈02'24	
evening set	-7460 Dec 23 j 21:29	25°M16'18		minimum elong	-7453 Apr 13 j 17:34	26°≈02'25	
. ,.	7450 1 10:14.55	270 M 27151	1007100	max. Earth dist.	-7453 Apr 14 j 16:43		10.08947 AU
conjunction	-7459 Jan 10 j 14:55	27°M36'51		morning rise	-7453 May 01 j 17:15	28°≈20'52	
minimum elong	-7459 Jan 10 j 14:52	27°M36'50	1°06'23		-7453 May 15 j 01:34	0°) {	
max. Earth dist.	-7459 Jan 10 j 21:28	27°M39'02	9.91054 AU	retrograde	-7453 Aug 12 j 22:56	6°) €23'40	2022101
morning rise	-7459 Jan 28 j 13:24	29°M59'05		opposition	-7453 Oct 18 j 10:23	2° H 56'45	
	-7459 Jan 28 j 16:12	0° √		min. Earth dist.	-7453 Oct 17 j 17:10		8.15978 AU
retrograde	-7459 May 16 j 22:17	8° ∡ 38'19 −			-7453 Nov 30 j 10:15	30°R ≈	
opposition	-7459 Jul 23 j 20:03	5° ∡ 05'58		direct	-7453 Dec 25 j 04:00	29° ≈ 27'15	
min. Earth dist.	-7459 Jul 23 j 12:23		7.87106 AU		-7452 Jan 18 j 21:34	0° ∀	
direct	-7459 Sep 27 j 12:47	1° ∡ ³38'45		evening set	-7452 Apr 09 j 11:39	7° ∺ 36′12	
evening set	-7458 Jan 08 j 04:46	9° ∡ 56'33					
				conjunction	-7452 Apr 27 j 11:55	9° ∺ 52'39	
conjunction	-7458 Jan 26 j 01:50	12° ∡ 19'17	-1°36'31	minimum elong	-7452 Apr 27 j 11:59	9° ∺ 52'40	
minimum elong	-7458 Jan 26 j 01:46	12° ∡ 19'15	1°36'59	max. Earth dist.	-7452 Apr 28 j 08:52		10.23259 AU
max. Earth dist.	-7458 Jan 26 j 14:03	12° ₹ 23'22	9.83997 AU	morning rise	-7452 May 15 j 08:49	12° ∺ 07'57	
morning rise	-7458 Feb 13 j 03:16	14° ∡ °43′26		retrograde	-7452 Aug 25 j 08:37	19° ¥ 56′03	
retrograde	-7458 Jun 01 j 09:22	23° ∡ ¹26'48		min. Earth dist.	-7452 Oct 30 j 09:10	16°) 34′08	8.30900 AU
opposition	-7458 Aug 07 j 17:41	19° ∡ 754'11	-2°18'04	opposition	-7452 Oct 31 j 00:19	16°) ₹31′04	-2°05'50
min. Earth dist.	-7458 Aug 07 j 05:59	19° ∡ 56′38	7.82081 AU	direct	-7451 Jan 07 j 11:20	13°) €02'20	
direct	-7458 Oct 12 j 06:42	16° ₹ 25'53		evening set	-7451 Apr 23 j 18:31	21° ∺ 01′01	
evening set	-7457 Jan 23 j 21:14	24° ₹ ′50′31					
				conjunction	-7451 May 11 j 16:27	23°) 1 4′22	-1°28'33
conjunction	-7457 Feb 10 j 21:00	27° ∡ 14′27	-2°00'59	minimum elong	-7451 May 11 j 16:31	23°) 14′23	1°28'39
minimum elong	-7457 Feb 10 j 20:56	27° ∡ 14′26	2°01'29	max. Earth dist.	-7451 May 12 j 10:12	23° ∺ 19'55	10.38723 AU
max. Earth dist.	-7457 Feb 11 j 14:09	27° ∡ ¹20′13	9.80951 AU	morning rise	-7451 May 29 j 10:00	25° ¥ 26′21	
morning rise	-7457 Mar 01 j 00:11	29° ₹ 39'28			-7451 Jul 09 j 18:05	$0^{\circ}\mathbf{Y}$	
	-7457 Mar 03 j 14:56	ರ°0		retrograde	-7451 Sep 07 j 06:30	3° Y 00'16	
retrograde	-7457 Jun 16 j 18:57	8° る 22'32			-7451 Nov 08 j 11:11	30°₽ ℋ	
opposition	-7457 Aug 22 j 15:57	4° ප 50'11	-2°43'54	opposition	-7451 Nov 13 j 05:08	29°) 37′18	-1°33'00
min. Earth dist.	-7457 Aug 22 j 01:19	4° る 53'16	7.81219 AU	min. Earth dist.	-7451 Nov 12 j 17:11	29°) 39'41	8.46576 AU
direct	-7457 Oct 27 j 06:57	1° る 21'01		direct	-7450 Jan 21 j 09:35	26°) €09'34	
evening set	-7456 Feb 08 j 18:36	9° る 49'23			-7450 Apr 01 j 21:37	$0^{\circ}\mathbf{Y}$	
	v			evening set	-7450 May 07 j 11:59	3° Y 57'32	
conjunction	-7456 Feb 26 j 20:09	12° る 13'29	-2°17'24				
minimum elong	-7456 Feb 26 j 20:07	12° る 13'29	2°17'54	conjunction	-7450 May 25 j 06:46	6° Y 07'41	-1°00'37
max. Earth dist.	-7456 Feb 27 j 16:58	12° る 20'27	9.82173 AU	minimum elong	-7450 May 25 j 06:49	6° Ƴ 07'41	1°00'37
morning rise	-7456 Mar 15 j 23:54	14° る 38'14		max. Earth dist.	-7450 May 25 j 20:07	6° Ƴ 11'46	10.54546 AU
retrograde	-7456 Jun 30 j 22:59	23° る 16'25		morning rise	-7450 Jun 11 j 20:34	8° Y 16'19	
opposition	-7456 Sep 05 j 12:03	19° る 44'52	-2°58'34	retrograde	-7450 Sep 19 j 17:30	15° Ƴ 37'15	
min. Earth dist.	-7456 Sep 04 i 19:33	19° ප් 48'21	7.84589 AU	opposition	-7450 Nov 26 j 01:14	12° Υ 16'12	-0°56'48
direct	-7456 Nov 10 j 10:18	16° ප 15'07		min. Earth dist.	-7450 Nov 25 j 16:54	12° Υ 17'50	
evening set	-7455 Feb 23 j 15:57	24° る 43'33		direct	-7449 Feb 03 j 22:23	8° Ƴ 49'36	
* · · · · · · · · · · · · · · · · · · ·	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			evening set	-7449 May 20 j 16:46	16° Y 27'00	
conjunction	-7455 Mar 13 j 18:20	27° る 06'50	-2°24'34		,		
minimum elong	-7455 Mar 13 j 18:20	27° る 06'50		conjunction	-7449 Jun 07 j 07:42	18° Ƴ 33'58	-0°30'39
max. Earth dist.	-7455 Mar 14 j 17:28	27° る 14'31	9.87574 AU	minimum elong	-7449 Jun 07 j 07:43	18° Y 33'58	
morning rise	-7455 Mar 31 j 21:33	29° ට 30'16	7.07571710	max. Earth dist.	-7449 Jun 07 j 15:52		10.70022 AU
	v	0°≈		morning rise	-7449 Jun 24 j 17:25	20° Υ 39'19	20., 3022 110
	-7455 Anr (M i 17-22			-	·		
retroorade	-7455 Apr 04 j 17:33				-/449 (Act (II + IU A)	27014148152	
retrograde	-7455 Jul 15 j 18:09	7° ≈ 59'25	7 91927 ATT	retrograde	-7449 Oct 01 j 19:04	27° Y 48'53	-0°10'17
min. Earth dist.	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30	7°≈59'25 4°≈32'50	7.91927 AU	opposition	-7449 Dec 08 j 13:15	24° Y 29'31	
min. Earth dist.	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10	7°≈59'25 4°≈32'50 4°≈29'07		opposition min. Earth dist.	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19	24° Y 29'31 24° Y 30'28	-0°19'17 8.77325 AU
min. Earth dist. opposition direct	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10 -7455 Nov 25 j 13:27	7°≈59'25 4°≈32'50 4°≈29'07 0°≈59'07		opposition min. Earth dist. direct	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19 -7448 Feb 17 j 01:35	24° Y 29'31 24° Y 30'28 21° Y 04'09	
min. Earth dist.	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10	7°≈59'25 4°≈32'50 4°≈29'07		opposition min. Earth dist.	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19 -7448 Feb 17 j 01:35 -7448 Jun 01 j 09:30	24°Y29'31 24°Y30'28 21°Y04'09 28°Y31'38	
min. Earth dist. opposition direct evening set	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10 -7455 Nov 25 j 13:27 -7454 Mar 11 j 08:21	7°≈59'25 4°≈32'50 4°≈29'07 0°≈59'07 9°≈23'57	-3°01'11	opposition min. Earth dist. direct	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19 -7448 Feb 17 j 01:35	24° Y 29'31 24° Y 30'28 21° Y 04'09	
min. Earth dist. opposition direct evening set conjunction	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10 -7455 Nov 25 j 13:27 -7454 Mar 11 j 08:21 -7454 Mar 29 j 10:47	7°≈59'25 4°≈32'50 4°≈29'07 0°≈59'07 9°≈23'57 11°≈45'33	-3°01'11 -2°22'15	opposition min. Earth dist. direct evening set	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19 -7448 Feb 17 j 01:35 -7448 Jun 01 j 09:30 -7448 Jun 13 j 20:58	24°Y29'31 24°Y30'28 21°Y04'09 28°Y31'38 0°B	8.77325 AU
min. Earth dist. opposition direct evening set	-7455 Jul 15 j 18:09 -7455 Sep 19 j 09:30 -7455 Sep 20 j 03:10 -7455 Nov 25 j 13:27 -7454 Mar 11 j 08:21	7°≈59'25 4°≈32'50 4°≈29'07 0°≈59'07 9°≈23'57 11°≈45'33 11°≈45'34	-3°01'11 -2°22'15	opposition min. Earth dist. direct	-7449 Dec 08 j 13:15 -7449 Dec 08 j 08:19 -7448 Feb 17 j 01:35 -7448 Jun 01 j 09:30	24°Y29'31 24°Y30'28 21°Y04'09 28°Y31'38	8.77325 AU -0°00'08

Attention, astronom	nical year style is used: Th	e year -7448 i	n astronomical co	unting style is the year	7449 BCE in historical c	ounting style.	
behind sun begin	-7448 Jun 18 j 13:38	0° ප 33'37		8 - 9 9	-7442 Jun 10 j 10:28	0.ತ	
behind sun end	-7448 Jun 19 j 02:36	0° 8 37'25		evening set	-7442 Aug 08 j 09:02	5° 5 29'25	
max. Earth dist.	-7448 Jun 18 j 23:29	0° 8 36'28	10.84501 AU				
asc. node	-7448 Jun 20 j 16:20	0° 8 48'42		conjunction	-7442 Aug 24 j 19:19	7° 5 22'21	2°15'28
morning rise	-7448 Jul 06 j 01:28	2° 8 37'49		minimum elong	-7442 Aug 24 j 19:17	7° 5 22'20	2°15'58
retrograde	-7448 Oct 12 j 12:40	9° 8 37'55		max. Earth dist.	-7442 Aug 24 j 02:41	7°517'33	11.25297 AU
opposition	-7448 Dec 19 j 18:29	6° 8 19'59	0°17'49	morning rise	-7442 Sep 10 j 03:13	9° 5 014'42	
min. Earth dist.	-7448 Dec 19 j 16:19	6° 8 20'24	8.91098 AU	retrograde	-7442 Dec 18 j 11:11	16° © 00'48	
direct	-7447 Feb 28 j 20:35	2° 8 55'53		opposition	-7441 Feb 27 j 00:44	12°9545'02	
evening set	-7447 Jun 13 j 15:11	10° 8 14'23		min. Earth dist.	-7441 Feb 27 j 16:31	12° © 42'10	9.24393 AU
				direct	-7441 May 09 j 19:47	9°526'09	
conjunction	-7447 Jun 30 j 21:20	12° 8 15'25		evening set	-7441 Aug 19 j 07:41	16° © 20'29	
minimum elong	-7447 Jun 30 j 21:19	12° 8 15'25			7441.0 04:15.51	100612120	202401
max. Earth dist.	-7447 Jun 30 j 21:13		10.97403 AU	conjunction	-7441 Sep 04 j 15:51	18°913'20	2°24'01
morning rise	-7447 Jul 17 j 22:08	14° 8 14'57 15° 8		minimum elong max. Earth dist.	-7441 Sep 04 j 15:50 -7441 Sep 03 j 20:29		2°24'31 11.22333 AU
retrograde	-7447 Jul 24 j 12:10 -7447 Oct 24 j 02:55	21° 8 07'39		morning rise	-7441 Sep 03 j 20.29 -7441 Sep 20 j 22:47	20°905'54	11.22333 AU
opposition	-7447 Oct 24 j 02:33	17° 8 50'51	0°53'06	retrograde	-7441 Sep 20 j 22:47	26°956'27	
min. Earth dist.	-7447 Dec 31 j 18:00	17° 8 50'37	9.03064 AU	opposition	-7441 Dec 29 j 22:20	23°940'00	2°58'16
mm. Lattii dist.	-7446 Feb 15 j 01:50	15°R 8	7.03004710	min. Earth dist.	-7440 Mar 10 j 12:04	23°936'48	9.19999 AU
direct	-7446 Mar 13 j 06:17	14° 8 27'57		direct	-7440 May 20 j 06:16	20°521'24	7.177777110
	-7446 Apr 08 j 06:12	15° 8		evening set	-7440 Aug 29 j 07:06	27°916'56	
evening set	-7446 Jun 25 j 11:43	21° 8 38'44		0.00000	,	_,	
<i>8</i>		-		conjunction	-7440 Sep 14 j 14:22	29°510'20	2°27'23
conjunction	-7446 Jul 12 j 13:14	23° 8 37'16	0°57'23	minimum elong	-7440 Sep 14 j 14:22	29° © 10'20	2°27'52
minimum elong	-7446 Jul 12 j 13:12	23° 8 37'16	0°57'46	max. Earth dist.	-7440 Sep 13 j 18:05	29° 5 04'24	11.16528 AU
max. Earth dist.	-7446 Jul 12 j 09:17	23° 8 36'07	11.08249 AU		-7440 Sep 21 j 16:40	$0^{\circ}\Omega$	
morning rise	-7446 Jul 29 j 09:37	25° 8 34'24		morning rise	-7440 Sep 30 j 21:20	1° Ω 03'42	
	-7446 Sep 11 j 04:48	$\Pi^{\circ}0$		retrograde	-7439 Jan 09 j 17:09	8° Ω 00′28	
retrograde	-7446 Nov 04 j 10:04	2° Ⅱ 21'42		opposition	-7439 Mar 21 j 15:56	4° £ 43′01	2°59'20
	-7446 Dec 31 j 05:05	30° ₹ 8		min. Earth dist.	-7439 Mar 22 j 09:47	4° Ω 39'45	9.12812 AU
opposition	-7445 Jan 12 j 13:00	29° 8 05'45	1°25'29	direct	-7439 May 31 j 19:09	1° Ω 24'32	
min. Earth dist.	-7445 Jan 12 j 18:23	29° 8 04'45	9.12799 AU	evening set	-7439 Sep 09 j 09:02	8° Ω 22'41	
direct	-7445 Mar 25 j 07:18	25° 8 43'55					
	-7445 Jun 10 j 19:32	0°II		conjunction	-7439 Sep 25 j 16:36	10° Ω 17'14	
evening set	-7445 Jul 07 j 00:36	2° Ⅱ 48'27		minimum elong	-7439 Sep 25 j 16:37	10° Ω 17'15	
	#44# X 1 00 101 0#	40114.4151	1000100	max. Earth dist.	-7439 Sep 24 j 20:40		11.08042 AU
conjunction	-7445 Jul 23 j 21:27	4° Ⅱ 44'51		morning rise	-7439 Oct 12 j 00:37	12° Ω 12'03	
minimum elong	-7445 Jul 23 j 21:24	4° Ⅱ 44′50	1°22′58 11.16676 AU	ratra ara da	-7439 Nov 06 j 14:53	15° Ω 19° Ω 16'40	
max. Earth dist. morning rise	-7445 Jul 23 j 12:51 -7445 Aug 09 j 13:52	4 ∏ 42 22 6° ∏ 40'02	11.100/0 AU	retrograde opposition	-7438 Jan 21 j 18:39 -7438 Apr 02 j 18:21	19 8€ 16 40	2°53'38
retrograde	-7445 Nov 15 j 15:18	13° Ⅱ 24'03		min. Earth dist.	-7438 Apr 02 j 18.21	15° Ω 54'45	9.03041 AU
opposition	-7444 Jan 24 j 05:07	10° I 08'37	1°54'06	iiiii. Laitii uist.			
min. Earth dist.		10 110037			1 3		7.03041 710
direct	-7444 lan 24 i 13:58	10°∏07'00		direct	-7438 Apr 16 j 01:43	15° RΩ	7.03041 110
	-7444 Jan 24 j 13:58 -7444 Apr 05 i 05:05	10° Ⅱ 07'00 6° Ⅱ 47'44	9.19981 AU	direct	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00	15°R Ω 12° Ω 39'23	7.03041710
	-7444 Apr 05 j 05:05	6° Ⅱ 47'44			-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17	15°R Ω 12° Ω 39'23 15° Ω	7.03041 NC
evening set				direct evening set max. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00	15°RΩ 12°Ω39'23 15°Ω 19°Ω41'37	10.97144 AU
	-7444 Apr 05 j 05:05	6° Ⅱ 47'44	9.19981 AU	evening set	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30	15°RΩ 12°Ω39'23 15°Ω 19°Ω41'37	
evening set	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13	6° Ⅱ 47'44 13° Ⅱ 47'28	9.19981 AU	evening set	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30	15°RΩ 12°Ω39'23 15°Ω 19°Ω41'37	10.97144 AU
evening set conjunction	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49	6°П47'44 13°П47'28 15°П42'10 15°П42'09	9.19981 AU 1°44'17	evening set max. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09	15°RΩ 12°Ω39'23 15°Ω 19°Ω41'37 21°Ω31'54	10.97144 AU 2°17'30
evening set conjunction minimum elong	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45	6°П47'44 13°П47'28 15°П42'10 15°П42'09	9.19981 AU 1°44'17 1°44'46	evening set max. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18	15°RΩ 12°Ω39'23 15°Ω 19°Ω41'37 21°Ω31'54 21°Ω37'55	10.97144 AU 2°17'30
evening set conjunction minimum elong max. Earth dist.	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38	6°Щ47'44 13°Щ47'28 15°Щ42'10 15°Щ42'09 15°Щ38'39	9.19981 AU 1°44'17 1°44'46	evening set max. Earth dist. conjunction minimum elong	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55	10.97144 AU 2°17'30
evening set conjunction minimum elong max. Earth dist. morning rise	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45	6°Щ47'44 13°Щ47'28 15°Щ42'10 15°Щ42'09 15°Щ38'39 17°Щ35'52 24°Щ18'40 21°Щ03'25	9.19981 AU 1°44'17 1°44'46	evening set max. Earth dist. conjunction minimum elong	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46	10.97144 AU 2°17'30
evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33	6°Щ47'44 13°Щ47'28 15°Щ42'10 15°Щ42'09 15°Щ38'39 17°Щ35'52 24°Щ18'40 21°Щ03'25 21°Щ01'23	9.19981 AU 1°44'17 1°44'46 11.22428 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN	10.97144 AU 2°17'30 2°17'51
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06	6°Щ47'44 13°Щ47'28 15°Щ42'10 15°Щ42'09 15°Щ38'39 17°Щ35'52 24°Щ18'40 21°Щ03'25 21°Щ01'23 17°Щ43'22	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37	10.97144 AU 2°17'30 2°17'51 2°40'55
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33	6°Щ47'44 13°Щ47'28 15°Щ42'10 15°Щ42'09 15°Щ38'39 17°Щ35'52 24°Щ18'40 21°Щ03'25 21°Щ01'23	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:12	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25	10.97144 AU 2°17'30 2°17'51
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26	6° \(\Pi\)47'44 13° \(\Pi\)47'28 15° \(\Pi\)42'10 15° \(\Pi\)42'09 15° \(\Pi\)38'39 17° \(\Pi\)35'52 24° \(\Pi\)18'40 21° \(\Pi\)03'25 21° \(\Pi\)01'23 17° \(\Pi\)43'22 24° \(\Pi\)39'45	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:02 -7437 Jun 24 j 03:28	15°RN 12°N39'23 15°N 19°N41'37 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42	10.97144 AU 2°17'30 2°17'51 2°40'55
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26	6° Щ47'44 13° Щ47'28 15° Щ42'10 15° Щ42'09 15° Щ38'39 17° Щ35'52 24° Щ18'40 21° Щ03'25 21° Щ01'23 17° Щ43'22 24° Щ39'45	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Sep 21 j 01:20	15°RN 12°N39'23 15°N 19°N41'37 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42 0°M	10.97144 AU 2°17'30 2°17'51 2°40'55
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31	6°П47'44 13°П47'28 15°П42'10 15°П42'09 15°П38'39 17°П35'52 24°П18'40 21°П03'25 21°П01'23 17°П43'22 24°П39'45 26°П33'18 26°П33'18	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:02 -7437 Jun 24 j 03:28	15°RN 12°N39'23 15°N 19°N41'37 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42	10.97144 AU 2°17'30 2°17'51 2°40'55
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31 -7443 Aug 13 j 08:17	6° Щ47'44 13° Щ47'28 15° Щ42'10 15° Щ42'09 15° Щ38'39 17° Щ35'52 24° Щ18'40 21° Щ03'25 21° Щ01'23 17° Щ43'22 24° Щ39'45 26° Щ33'18 26° Щ33'18 26° Щ29'12	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Sep 21 j 01:20 -7437 Oct 02 j 04:20	15°RN 12°N39'23 15°N 19°N41'37 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42 0°M 1°M17'24	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31	6° П47'44 13° П42'10 15° П42'09 15° П38'39 17° П35'52 24° П18'40 21° П03'25 21° П01'23 17° П43'22 24° П39'45 26° П33'18 26° П33'18 26° П29'12 28° П26'03	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Sep 21 j 01:20 -7437 Oct 02 j 04:20 -7437 Oct 18 j 15:27	15°RN 12°N39'23 15°N 19°N41'37 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'02	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31 -7443 Sep 13 j 14:25	6°	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Sep 21 j 01:20 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:30	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'02 3°M16'03	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56 2°04'12
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31 -7443 Sep 13 j 14:25 -7443 Dec 07 j 02:37	6°	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35 11.25330 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:30 -7437 Oct 17 j 19:40	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'02 3°M16'03 3°M10'03	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31 -7443 Sep 13 j 14:25 -7443 Dec 07 j 02:37 -7442 Feb 15 j 09:28	6° \(\Pi \) 47'44 13° \(\Pi \) 47'28 15° \(\Pi \) 42'10 15° \(\Pi \) 42'09 15° \(\Pi \) 38'39 17° \(\Pi \) 35'52 24° \(\Pi \) 18'40 21° \(\Pi \) 03'25 21° \(\Pi \) 01'23 17° \(\Pi \) 43'22 24° \(\Pi \) 39'45 26° \(\Pi \) 33'18 26° \(\Pi \) 29'12 28° \(\Pi \) 26'03 0° \(\Pi \) 5° \(\Pi \) 09'34 1° \(\Pi \) 54'11	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35 11.25330 AU 2°37'18	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:30 -7437 Oct 17 j 19:40 -7437 Nov 04 j 05:18	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'02 3°M16'03 3°M16'03 5°M15'32	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56 2°04'12
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31 -7443 Sep 13 j 14:25 -7443 Dec 07 j 02:37 -7442 Feb 15 j 09:28 -7442 Feb 15 j 22:36	6° \(\Pi \) 47'44 13° \(\Pi \) 47'28 15° \(\Pi \) 42'10 15° \(\Pi \) 42'09 15° \(\Pi \) 38'39 17° \(\Pi \) 35'52 24° \(\Pi \) 18'40 21° \(\Pi \) 03'25 21° \(\Pi \) 01'23 17° \(\Pi \) 43'22 24° \(\Pi \) 33'18 26° \(\Pi \) 33'18 26° \(\Pi \) 23'18 26° \(\Pi \) 29'12 28° \(\Pi \) 26'03 0° \(\Pi \) 5° \(\Pi \) 09'34 1° \(\Pi \) 51'48	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35 11.25330 AU	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:28 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:30 -7437 Oct 17 j 19:40 -7437 Nov 04 j 05:18 -7436 Feb 15 j 23:13	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N28'37 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'03 3°M16'03 3°M16'03 5°M15'32 12°M40'16	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56 2°04'12 10.84223 AU
evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7444 Apr 05 j 05:05 -7444 Jul 17 j 07:13 -7444 Aug 02 j 23:49 -7444 Aug 02 j 23:46 -7444 Aug 02 j 11:38 -7444 Aug 19 j 12:45 -7444 Nov 25 j 20:04 -7443 Feb 03 j 19:31 -7443 Feb 04 j 06:33 -7443 Apr 16 j 21:06 -7443 Jul 28 j 09:26 -7443 Aug 13 j 22:33 -7443 Aug 13 j 22:31 -7443 Aug 13 j 08:17 -7443 Aug 30 j 08:31 -7443 Sep 13 j 14:25 -7443 Dec 07 j 02:37 -7442 Feb 15 j 09:28	6° \(\Pi \) 47'44 13° \(\Pi \) 47'28 15° \(\Pi \) 42'10 15° \(\Pi \) 42'09 15° \(\Pi \) 38'39 17° \(\Pi \) 35'52 24° \(\Pi \) 18'40 21° \(\Pi \) 03'25 21° \(\Pi \) 01'23 17° \(\Pi \) 43'22 24° \(\Pi \) 39'45 26° \(\Pi \) 33'18 26° \(\Pi \) 29'12 28° \(\Pi \) 26'03 0° \(\Pi \) 5° \(\Pi \) 09'34 1° \(\Pi \) 54'11	9.19981 AU 1°44'17 1°44'46 11.22428 AU 2°18'13 9.24382 AU 2°02'05 2°02'35 11.25330 AU 2°37'18	evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7438 Apr 16 j 01:43 -7438 Jun 12 j 09:00 -7438 Aug 05 j 19:17 -7438 Sep 20 j 15:30 -7438 Oct 06 j 04:09 -7438 Oct 07 j 00:18 -7438 Oct 07 j 00:20 -7438 Oct 23 j 10:37 -7437 Jan 02 j 09:37 -7437 Feb 03 j 05:05 -7437 Mar 07 j 12:10 -7437 Apr 15 j 03:00 -7437 Apr 15 j 03:00 -7437 Apr 15 j 20:12 -7437 Jun 24 j 03:28 -7437 Oct 18 j 15:27 -7437 Oct 18 j 15:30 -7437 Oct 17 j 19:40 -7437 Nov 04 j 05:18	15°RN 12°N39'23 15°N 19°N41'37 21°N31'54 21°N37'55 21°N37'55 23°N34'46 0°M 0°M48'46 30°RN 27°N25'25 24°N09'42 0°M 1°M17'24 3°M16'02 3°M16'03 3°M16'03 5°M15'32	10.97144 AU 2°17'30 2°17'51 2°40'55 8.91018 AU 2°03'56 2°04'12

Planetary Phenomena of Saturn from -7900 through -7398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 39 Attention, astronomical year style is used: The year -7436 in astronomical counting style is the year 7437 BCE in historical counting style.

Attention, astronomi	cal year style is used: Th	e year -7436 i	n astronomical cou	inting style is the year	7437 BCE in historical c	ounting style.	6 >
direct	-7436 Jul 05 j 03:16	5° m 59'00			-7430 Jul 06 j 14:57	30°RML	
evening set	-7436 Oct 13 j 01:13	13° Mp 13'32		opposition	-7430 Jul 17 j 21:45	29°M04'55	-1°26'14
				min. Earth dist.	-7430 Jul 17 j 17:42		7.91798 AU
conjunction	-7436 Oct 29 j 15:52	15° m 15'01		direct	-7430 Sep 21 j 17:15	25°M38'38	
minimum elong	-7436 Oct 29 j 15:55	15° m 15'02			-7430 Dec 01 j 08:34	0° ∡ ¹	
max. Earth dist.	-7436 Oct 28 j 22:14		10.69754 AU	evening set	-7429 Jan 01 j 23:56	3° ∡ ¹52'13	
morning rise	-7436 Nov 15 j 10:07	17° m) 17'40					
retrograde	-7435 Feb 28 j 03:56	24° m/54'17	105400	conjunction	-7429 Jan 19 j 19:21	6° ₹ 13'55	
opposition	-7435 May 09 j 18:31	21° Mp 30'40		minimum elong	-7429 Jan 19 j 19:17	6° ₹ 13'54	
min. Earth dist.	-7435 May 10 j 08:40	21° Mp 27'58 18° Mp 10'27	8.62087 AU	max. Earth dist.	-7429 Jan 20 j 03:16	8° х ¹ 37'13	9.87714 AU
direct evening set	-7435 Jul 17 j 11:51 -7435 Oct 25 j 08:16	25° Mp 33'03		morning rise retrograde	-7429 Feb 06 j 19:41 -7429 May 26 j 04:01	17° х 18'51	
evening set	-7433 Oct 23 j 00.10	23 HJ 33 03		opposition	-7429 Aug 01 j 18:02	13° х 46'39	-2°04'06
conjunction	-7435 Nov 11 j 03:21	27° mp 37'51	1°20'05	min. Earth dist.	-7429 Aug 01 j 09:37	13° х 1039 13° х 48′24	7.84672 AU
minimum elong	-7435 Nov 11 j 03:24		1°20'09	direct	-7429 Oct 06 j 08:37	10°×719'03	7.01072110
max. Earth dist.	-7435 Nov 10 j 13:02		10.54291 AU	evening set	-7428 Jan 17 j 12:34	18° ∡ ¹40'39	
morning rise	-7435 Nov 28 j 02:38	29° m 44'04		C	,		
	-7435 Nov 30 j 07:00	0∘ ⊽		conjunction	-7428 Feb 04 j 11:15	21° ₹ 04'04	-1°51'26
retrograde	-7434 Mar 13 j 20:56	7° ≙ 33'17		minimum elong	-7428 Feb 04 j 11:11	21° х ¹04′03	1°51'55
opposition	-7434 May 23 j 02:28	4° ≙ 07'48	1°21'10	max. Earth dist.	-7428 Feb 05 j 00:58	21° ₹ ¹08'40	9.82451 AU
min. Earth dist.	-7434 May 23 j 13:15	4° £ 05'43	8.46320 AU	morning rise	-7428 Feb 22 j 13:49	23° ∡ ¹28'44	
direct	-7434 Jul 30 j 03:37	0° ≏ 46'38			-7428 Apr 20 j 16:26	0°ರ	
evening set	-7434 Nov 07 j 03:06	8° ≏ 18'26		retrograde	-7428 Jun 09 j 13:43	2° る 12'09	
					-7428 Jul 30 j 07:38	30°R ✓	
conjunction	-7434 Nov 24 j 03:06	10° £ 26'51	0°50'48	opposition	-7428 Aug 15 j 15:59	28° ∡ ³39'46 −	
minimum elong	-7434 Nov 24 j 03:09	10° £ 26'52		min. Earth dist.	-7428 Aug 15 j 03:38	28° ∡ ¹42'21	7.81536 AU
max. Earth dist.	-7434 Nov 23 j 16:06		10.38490 AU	direct	-7428 Oct 20 j 06:57	25° х 11′00	
morning rise	-7434 Dec 11 j 07:58	12° £ 36'54		. ,	-7427 Jan 03 j 01:29	0°る	
retrograde	-7433 Mar 28 j 01:16	20° £ 39'02	00.4212.5	evening set	-7427 Feb 01 j 08:03	3° る 37'51	
opposition	-7433 Jun 05 j 19:17	17° ♀ 11'43 17° ♀ 10'18	0°42'35	agniumation	7427 Eab 10 : 00:00	6° る 01'57	2011121
min. Earth dist. direct	-7433 Jun 06 j 02:30 -7433 Aug 12 j 02:46	17 ≗ 10 18 13° ≗ 49'24	8.30580 AU	conjunction minimum elong	-7427 Feb 19 j 09:00 -7427 Feb 19 j 08:57	6°る01'55	
evening set	-7433 Nov 20 j 11:05	21° £ 31'23		max. Earth dist.	-7427 Feb 20 j 03:40		9.81352 AU
evening set	7455 110V 20 J 11.05	21 - 31 23		morning rise	-7427 Mar 09 j 12:32	8°පි26'51	7.01332 AC
conjunction	-7433 Dec 07 j 16:18	23° ≏ 43'32	0°17'57	retrograde	-7427 Jun 24 j 19:45	17°る07'31	
minimum elong	-7433 Dec 07 j 16:19	23° Ω 43'32		opposition	-7427 Aug 30 j 13:03	13° ට 35'27	-2°53'50
max. Earth dist.	-7433 Dec 07 j 08:36		10.23057 AU	min. Earth dist.	-7427 Aug 29 j 21:30		7.82613 AU
morning rise	-7433 Dec 25 j 02:59	25° ≙ 57'30		direct	-7427 Nov 04 j 08:52	10° ට 05'47	
	-7432 Jan 28 j 15:13	0° M ₊		evening set	-7426 Feb 17 j 05:25	18° る 34'24	
retrograde	-7432 Apr 10 j 14:42	4°ML12'18					
opposition	-7432 Jun 18 j 20:42	0°ML43'18	0°00'11	conjunction	-7426 Mar 07 j 07:40	20° ප 58'09	-2°22'46
min. Earth dist.	-7432 Jun 19 j 00:26	0°ML42'33	8.15628 AU	minimum elong	-7426 Mar 07 j 07:38	20° ප 58'09	2°23'15
desc. node	-7432 Jun 20 j 12:17	0°M35'23		max. Earth dist.	-7426 Mar 08 j 05:58	21° る 05'35	9.84492 AU
	-7432 Jun 27 j 22:54	30° ₹ Ω		morning rise	-7426 Mar 25 j 11:04	23° පි 22'14	
direct	-7432 Aug 24 j 13:33	27° ≏ 19'44			-7426 May 24 j 14:04	0° ≈	
	-7432 Oct 18 j 08:55	0° M ₊		retrograde	-7426 Jul 09 j 18:52	1°≈55'47	
evening set	-7432 Dec 03 j 09:29	5°M12'35		•.•	-7426 Aug 25 j 15:00	30°Rる	2001112
	7422 D 20:10.52	70 m 20124	001750	opposition	-7426 Sep 14 j 06:20	28°る24'34	
conjunction	-7432 Dec 20 j 19:53	7°M28'24		min. Earth dist.	-7426 Sep 13 j 12:58 -7426 Nov 19 j 11:21		7.87799 AU
minimum elong max. Earth dist.	-7432 Dec 20 j 19:52 -7432 Dec 20 j 16:15	7°M28'24	10.08816 AU	direct	-7426 Nov 19 j 11:21 -7425 Feb 05 j 18:06	24°る54'18 0°≈	
morning rise	-7432 Dec 20 j 10:13	9°M46'06	10.06610 AU	evening set	-7425 Mar 05 j 00:07	0 ≈ 3°≈21'02	
morning risc	-7431 Feb 22 j 03:24	15°M		evening set	-7425 Wai 05 J 00.07	J ~21 02	
retrograde	-7431 Apr 25 j 13:12	18°ML12'25		conjunction	-7425 Mar 23 j 02:48	5° ≈ 43'31	-2°24'32
retrograde	-7431 Jun 29 j 13:15	15°RML		minimum elong	-7425 Mar 23 j 02:49	5°≈43'32	
opposition	-7431 Jul 03 j 05:54	14°ML42'00	-0°43'43	max. Earth dist.	-7425 Mar 24 j 02:46	5°≈51'26	9.91615 AU
min. Earth dist.	-7431 Jul 03 j 06:03		8.02382 AU	morning rise	-7425 Apr 10 j 05:14	8° ≈ 05'52	
direct	-7431 Sep 07 j 10:34	11°ML17'05		-	-7425 Jun 14 j 04:27	15° ≈	
	-7431 Nov 11 j 10:31	15° M ₊		retrograde	-7425 Jul 24 j 08:26	16° ≈ 28'37	
evening set	-7431 Dec 17 j 22:12	19°M20'48			-7425 Sep 02 j 21:28	15° R ≈	
				opposition	-7425 Sep 28 j 17:19	12° ≈ 58'41	-2°57'39
conjunction	-7430 Jan 04 j 13:26	21°M39'54		min. Earth dist.	-7425 Sep 27 j 23:43	13° ≈ 02′22	7.96682 AU
minimum elong	-7430 Jan 04 j 13:23	21°M39'53	0°52'07	direct	-7425 Dec 04 j 11:06	9° ≈ 28'11	
max. Earth dist.	-7430 Jan 04 j 15:15	21°M40'30	9.96733 AU		-7424 Feb 25 j 09:49	15° ≈	
morning rise	-7430 Jan 22 j 10:14	24°M00'48		evening set	-7424 Mar 19 j 11:47	17° ≈ 49'40	
	-7430 Mar 16 j 09:58	0°⊀ ⁷ 2°∗₹2.6'2.5			7424 4 06:14.02	2001000	2017107
retrograde	-7430 May 10 j 18:36	2° ∡ ³36′25		conjunction	-7424 Apr 06 j 14:03	20° ≈ 10′09	-2 1/0/

3	ical year style is used: Th		•	//		, 1	50 10
minimum elong	-7424 Apr 06 j 14:06	20°≈10'10		evening set	-7418 Jun 08 j 18:19	5° 8 25'31	
max. Earth dist.	-7424 Apr 07 j 13:40	20°≈17'50	10.02165 AU	C	· ·		
morning rise	-7424 Apr 24 j 14:45	22° ≈ 30'01		conjunction	-7418 Jun 26 j 02:31	7° 8 27'46	0°16'45
	-7424 Jul 10 j 21:20	0° ∀		minimum elong	-7418 Jun 26 j 02:30	7° 8 27'46	0°17'00
retrograde	-7424 Aug 06 j 11:00	0°) 39′27		max. Earth dist.	-7418 Jun 26 j 05:05	7° 8 28'31	10.91935 AU
	-7424 Sep 02 j 02:00	30° R ≈		morning rise	-7418 Jul 13 j 05:21	9° 8 28'27	
opposition	-7424 Oct 11 j 20:30	27° ≈ 11'10	-2°42'40		-7418 Sep 08 j 16:49	15° 8	
min. Earth dist.	-7424 Oct 11 j 03:45	27° ≈ 14'38	8.08605 AU	retrograde	-7418 Oct 19 j 11:54	16° 8 23'57	
direct	-7424 Dec 18 j 06:00	23° ≈ 40′51			-7418 Nov 30 j 07:54	15° ₹ 8	
	-7423 Mar 18 j 23:25	0°) €		opposition	-7418 Dec 26 j 23:23	13° 8 06'37	0°37'58
evening set	-7423 Apr 03 j 12:51	1° ¥ 54'19		min. Earth dist.	-7418 Dec 26 j 23:04	13° 8 06'41	8.98250 AU
				direct	-7417 Mar 08 j 06:50	9° 8 43'11	
conjunction	-7423 Apr 21 j 13:52	4°) (12′11			-7417 Jun 03 j 04:05	15° 8	
minimum elong	-7423 Apr 21 j 13:55	4° ₩ 12'12		evening set	-7417 Jun 20 j 18:43	16° 8 57'04	
max. Earth dist.	-7423 Apr 22 j 11:34		10.15383 AU				
morning rise	-7423 May 09 j 12:09	6° ¥ 29'04		conjunction	-7417 Jul 07 j 22:08	18° 8 56'36	
retrograde	-7423 Aug 20 j 01:02	14° ¥ 23'59		minimum elong	-7417 Jul 07 j 22:07	18° 8 56'35	
opposition	-7423 Oct 25 j 14:38	10°) 57'34		max. Earth dist.	-7417 Jul 07 j 19:53		11.04167 AU
min. Earth dist.	-7423 Oct 24 j 23:25		8.22767 AU	morning rise	-7417 Jul 24 j 20:36	20° 8 54'42	
direct	-7422 Jan 01 j 18:20	7° ∺ 27'49		retrograde	-7417 Oct 30 j 21:01	27° 8 43'55	1011115
evening set	-7422 Apr 18 j 01:26	15° ∺ 31′27		opposition	-7416 Jan 07 j 20:02	24° 8 27'47	
	7422 14 06:00 26	170 1/4 (110	1020142	min. Earth dist.	-7416 Jan 07 j 22:43	24° 8 27'17	9.09431 AU
conjunction	-7422 May 06 j 00:26	17°) 46'19		direct	-7416 Mar 19 j 12:10	21° 8 05'41	
minimum elong	-7422 May 06 j 00:30	17° ¥ 46′21		evening set	-7416 Jul 01 j 10:42	28° 8 12'40	
max. Earth dist.	-7422 May 06 j 19:01		10.30420 AU		-7416 Jul 16 j 23:34	Π °0	
morning rise	-7422 May 23 j 19:46	19° ¥ 59'56		. ,.	7416 1 1 10:00 25	00.Д0012.2	1011157
retrograde	-7422 Sep 02 j 02:14	27°) 40'14	1947150	conjunction	-7416 Jul 18 j 09:35	0°П09'53 0°П09'52	1°11'56
opposition	-7422 Nov 07 j 23:13 -7422 Nov 07 j 09:42	24° ¥ 15'47	8.38310 AU	minimum elong max. Earth dist.	-7416 Jul 18 j 09:32		1°12'21 11.14102 AU
min. Earth dist.	-7421 Jan 15 j 21:39	24 K 18 31 20° K 46'57	6.36310 AU		-7416 Jul 18 j 03:55 -7416 Aug 04 j 03:44	0 Д08 14 2°Д05'48	11.14102 AU
direct evening set	-7421 Jan 13 j 21.39	28°\(\frac{4}{3}9'50\)		morning rise retrograde	-7416 Aug 04 j 05:44 -7416 Nov 10 j 05:09	2 П 03 48 8° П 50'51	
evening set	-7421 May 02 j 00.39	28 γ 3930		opposition	-7415 Jan 18 j 13:18	5° П 35'33	1°42'06
	-7421 May 12 J 22.31	U I		min. Earth dist.	-7415 Jan 18 j 18:59	5° П 34'30	9.18144 AU
conjunction	-7421 May 19 j 20:57	0° Υ 51'29	-1°13'12	direct	-7415 Mar 31 j 11:41	2° Ⅱ 14'40	<i>y.</i> 10111110
minimum elong	-7421 May 19 j 21:01	0° Υ 51'31		evening set	-7415 Jul 12 j 19:53	9° I 16'08	
max. Earth dist.	-7421 May 20 j 12:06		10.46390 AU	evening sec	7 .10 vai 12 j 17.03	, 2.000	
morning rise	-7421 Jun 06 j 12:42	3° Υ 01'42		conjunction	-7415 Jul 29 j 14:26	11° I I11'28	1°35'14
retrograde	-7421 Sep 14 j 17:26	10° Y 28'16		minimum elong	-7415 Jul 29 j 14:23	11° Ⅱ 11'27	
opposition	-7421 Nov 20 j 22:45	7° Ƴ 05'47	-1°12'57	max. Earth dist.	-7415 Jul 29 j 05:31	11° Ⅱ 08'53	11.21398 AU
min. Earth dist.	-7421 Nov 20 j 11:28	7° Υ 08'01	8.54370 AU	morning rise	-7415 Aug 15 j 04:42	13° Ⅱ 05'39	
direct	-7420 Jan 29 j 14:33	3° Y 38'09		retrograde	-7415 Nov 21 j 10:37	19° Ⅱ 48'33	
evening set	-7420 May 14 j 10:38	11° Y 20'07		opposition	-7414 Jan 30 j 04:21	16° Ⅲ 33'44	2°08'15
				min. Earth dist.	-7414 Jan 30 j 13:57	16° Ⅲ 31'58	9.24087 AU
conjunction	-7420 Jun 01 j 03:29	13° Y 28'32	-0°43'55	direct	-7414 Apr 12 j 03:55	13° Ⅱ 13'52	
minimum elong	-7420 Jun 01 j 03:31	13° Y 28'32	0°43'51	evening set	-7414 Jul 24 j 00:11	20° Ⅱ 11′20	
max. Earth dist.	-7420 Jun 01 j 15:16	13° Y 32'07	10.62447 AU				
morning rise	-7420 Jun 18 j 15:05	15° Ƴ 35'21		conjunction	-7414 Aug 09 j 14:42	22° Ⅱ 05'14	1°54'50
retrograde	-7420 Sep 26 j 00:18	22° Ƴ 49'38		minimum elong	-7414 Aug 09 j 14:39	22° Ⅱ 05'13	1°55'19
opposition	-7420 Dec 02 j 13:57	19° Ƴ 29'05	-0°35'45	max. Earth dist.	-7414 Aug 09 j 01:21		11.25804 AU
min. Earth dist.	-7420 Dec 02 j 05:51	19° Ƴ 30'39	8.70160 AU	morning rise	-7414 Aug 26 j 01:51	23° Ⅱ 58'15	
direct	-7419 Feb 10 j 20:06	16° Y 02'48			-7414 Nov 03 j 16:09	0 \circ	
evening set	-7419 May 27 j 08:09	23° Y 34'22		retrograde	-7414 Dec 02 j 14:59	0° © 40'57	
					-7413 Jan 01 j 03:12	30°Ŗ Ⅱ	
conjunction	-7419 Jun 13 j 20:55	25° Y 39'36		opposition	-7413 Feb 10 j 18:24	27° Ⅱ 26'14	2°29'34
minimum elong	-7419 Jun 13 j 20:55	25° Y 39'36	0°13'20	min. Earth dist.	-7413 Feb 11 j 07:28	27° Ⅲ 23'52	9.27033 AU
behind sun begin	-7419 Jun 13 j 16:52	25° Y 38′24		direct	-7413 Apr 23 j 18:26	24° Ⅱ 07'07	
behind sun end	-7419 Jun 14 j 00:59	25° Y 40'48	10.77015 : **		-7413 Jul 25 j 16:38	0.20 0.20	
max. Earth dist.	-7419 Jun 14 j 04:38		10.77845 AU	evening set	-7413 Aug 04 j 00:59	1° © 02'10	
morning rise	-7419 Jul 01 j 04:07	27° Y 43'13			7412 4 20:12:1	20005511	2010!11
	-7419 Jul 21 j 09:19	0°8		conjunction	-7413 Aug 20 j 12:14	2°955'11	2°10'11
retrograde	-7419 Oct 07 j 21:07	4° 8 47'05		minimum elong	-7413 Aug 20 j 12:11	2°555'10	
asc. node	-7419 Nov 27 j 12:02	2° 8 46'11	0001144	max. Earth dist.	-7413 Aug 19 j 19:30		11.27142 AU
opposition	-7419 Dec 14 j 21:46	1° 8 28'16 1° 8 29'02	0°01'44 8.84991 AU	morning rise	-7413 Sep 05 j 21:00	4° © 47'32 11° © 32'02	
min. Earth dist.	-7419 Dec 14 j 17:45 -7418 Jan 03 j 18:29	1° O 29′02 30° R Υ	0.04771 AU	retrograde opposition	-7413 Dec 13 j 22:14 -7412 Feb 22 j 09:04	8°932'02	2°45'32
direct	-7418 Feb 23 j 17:40	28° Y 03′24		min. Earth dist.	-7412 Feb 22 j 09:04 -7412 Feb 23 j 00:15	8°917'03	9.26829 AU
ancei	-7418 Feb 23 j 17:40 -7418 Apr 14 j 20:09	0° 8		direct	-7412 Feb 23 J 00:15	4°958'30	7.20027 AU
	/ +10 / 1pi 1+ j 20.09	⁰ O		ancei	7712 way 07 J 00.42	¬ ••••••	

Attention, astronom	ncal vear style is used: Th	e vear -7412 i	n astronomical co	ounting style is the year	7413 BCE in historical c	ounting style.	
evening set	-7412 Aug 13 j 23:51	-	ii uoti ononneur eo	conjunction	-7406 Nov 06 j 02:46	22° m) 29'48	1°31'25
e venning see	,	11 00200		minimum elong	-7406 Nov 06 j 02:50	22° m/29'49	1°31'32
conjunction	-7412 Aug 30 j 08:51	13°945'20	2°20'52	morning rise	-7406 Nov 22 j 23:52	24° m) 34'34	1 3132
minimum elong	-7412 Aug 30 j 08:50	13°945'20	2°21'22	morning risc	-7405 Jan 13 j 12:08	ე∘ 亞	
max. Earth dist.	-7412 Aug 29 j 14:31		11.25314 AU	ratra ara da	-7405 Mar 08 j 08:03	0 == 2° ⊆ 18'44	
	U 3		11.23314 AU	retrograde	3		
morning rise	-7412 Sep 15 j 16:00	15°937'39		•,•	-7405 May 03 j 01:34	30°RM)	1026122
retrograde	-7412 Dec 24 j 09:18	22°525'53		opposition	-7405 May 17 j 17:15		1°36'23
opposition	-7411 Mar 05 j 01:39	19° © 10'16	2°55'41	min. Earth dist.	-7405 May 18 j 06:34	28° m 50'57	8.51503 AU
min. Earth dist.	-7411 Mar 05 j 18:27	19° © 07'13	9.23449 AU	direct	-7405 Jul 25 j 01:04	25° m 32'11	
direct	-7411 May 15 j 17:06	15° © 52'04			-7405 Oct 07 j 05:14	0∘ ⊽	
evening set	-7411 Aug 24 j 22:59	22° © 46'49		evening set	-7405 Nov 01 j 23:20	3° ഫ 00'26	
max. Earth dist.	-7411 Sep 09 j 10:12	24° © 33'55	11.20390 AU				
				conjunction	-7405 Nov 18 j 21:04	5° ≏ 07'27	1°04'03
conjunction	-7411 Sep 10 j 06:36	24° © 39'51	2°26'32	minimum elong	-7405 Nov 18 j 21:07	5° ≏ 07'28	1°04'04
minimum elong	-7411 Sep 10 j 06:36	24°539'51	2°27'00	max. Earth dist.	-7405 Nov 18 j 06:49	5° ≏ 02'57	10.43491 AU
morning rise	-7411 Sep 26 j 13:16	26°532'44		morning rise	-7405 Dec 05 j 23:42	7° £ 16'02	
8	-7411 Oct 29 j 08:05	$0^{\circ}\Omega$		retrograde	-7404 Mar 21 j 06:31	15° ≙ 13'13	
retrograde	-7410 Jan 05 j 01:46	3° £ 26′29		opposition	-7404 May 30 j 06:32	11° Ω 46'03	0°59'57
opposition	-7410 Mar 16 j 21:23	0° Ω 09'57	2050126	min. Earth dist.	-7404 May 30 j 06:32	11° ⊆ 44'04	8.35377 AU
	·				• •		8.33377 AU
min. Earth dist.	-7410 Mar 17 j 16:04		9.17045 AU	direct	-7404 Aug 05 j 21:39	8° £ 23'34	
	-7410 Mar 19 j 03:55	30° ₹ 5		evening set	-7404 Nov 14 j 01:34	16° ≙ 01'47	
direct	-7410 May 27 j 03:54	26°951'47					
	-7410 Jul 30 j 13:47	$0^{\circ}\Omega$		conjunction	-7404 Dec 01 j 04:37	18° ≏ 12'33	0°32'34
evening set	-7410 Sep 04 j 23:58	3° Ω 48'40		minimum elong	-7404 Dec 01 j 04:39	18° ≏ 12'33	0°32'28
max. Earth dist.	-7410 Sep 20 j 08:50	5° Ω 36′04	11.12586 AU	max. Earth dist.	-7404 Nov 30 j 19:07	18° ഫ 09'30	10.27619 AU
				morning rise	-7404 Dec 18 j 12:57	20° £ 25′04	
conjunction	-7410 Sep 21 j 07:09	5° Ω 42'37	2°26'50	retrograde	-7403 Apr 04 j 15:11	28° £ 35'14	
minimum elong	-7410 Sep 21 j 07:10	5° Ω 42'37		opposition	-7403 Jun 13 j 04:33	25° £ 06'15	0°18'55
morning rise	-7410 Oct 07 j 14:36	7° Ω 36'43	2 2, 1,	min. Earth dist.	-7403 Jun 13 j 10:23	25° 2 05'06	8.19922 AU
-	-7409 Jan 16 j 22:06	14° Ω 37'42		direct	-7403 Aug 19 j 05:13	23° 2 42'33	0.17722 AU
retrograde	·		2056154		• •		
opposition	-7409 Mar 28 j 21:48	11° Ω 19'51	2°56'54	desc. node	-7403 Nov 26 j 08:42	29° £ 20'52	
min. Earth dist.	-7409 Mar 29 j 17:37	11° Ω 16'13	9.07872 AU	evening set	-7403 Nov 27 j 17:51	29° ≙ 31'24	
direct	-7409 Jun 07 j 17:08	8° Ω 01′29			-7403 Dec 01 j 11:18	0° M	
	-7409 Sep 15 j 21:39	15° Ω					
evening set	-7409 Sep 16 j 04:18	15° Ω 01'56		conjunction	-7403 Dec 15 j 02:15	1° M 45'55	-0°01'46
				minimum elong	-7403 Dec 15 j 02:13	1° M 45'55	0°01'59
conjunction	-7409 Oct 02 j 12:20	16° Ω 57'24	2°21'33	behind sun begin	-7403 Dec 14 j 19:01	1° M 43'36	
minimum elong	-7409 Oct 02 j 12:22	16° Ω 57'24	2°21'57	behind sun end	-7403 Dec 15 i 09:25	1° M 48'14	
max. Earth dist.	-7409 Oct 01 j 14:12	16°Ω50'//9	11.02191 AU	max. Earth dist.	-7403 Dec 14 j 22:12	1°M 1/130	10.12808 AU
morning rise				max. Earm dist.	-/403 DCC 14 1 ZZ.1Z		
			11.02191 AO		-		
•	-7409 Oct 18 j 21:37	18° Ω 53'18	11.02191 AO	morning rise	-7402 Jan 01 j 16:01	4°ML02'15	
retrograde	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18	18°№53'18 26°№03'10		morning rise retrograde	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34	4°Ml02'15 12°Ml24'33	0°24'43
retrograde opposition	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50	18° № 53'18 26° № 03'10 22° № 43'43	2°47'17	morning rise retrograde opposition	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46	4°M02'15 12°M24'33 8°M54'00	
retrograde opposition min. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58	18°Ω53'18 26°Ω03'10 22°Ω43'43 22°Ω40'10		morning rise retrograde opposition min. Earth dist.	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38	4°M02'15 12°M24'33 8°M54'00 8°M53'49	-0°24'43 8.06004 AU
retrograde opposition min. Earth dist. direct	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48	18° Ω53'18 26° Ω03'10 22° Ω43'43 22° Ω40'10 19° Ω24'53	2°47'17	morning rise retrograde opposition min. Earth dist. direct	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33	4°M02'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03	
retrograde opposition min. Earth dist. direct evening set	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09	18° Ω53'18 26° Ω03'10 22° Ω43'43 22° Ω40'10 19° Ω24'53 26° Ω30'15	2°47'17 8.96261 AU	morning rise retrograde opposition min. Earth dist.	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34	4°M22'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03 13°M28'42	
retrograde opposition min. Earth dist. direct	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48	18° Ω53'18 26° Ω03'10 22° Ω43'43 22° Ω40'10 19° Ω24'53 26° Ω30'15	2°47'17	morning rise retrograde opposition min. Earth dist. direct	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33	4°M02'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03	
retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35	18° \$\Omega 53' 18 26° \$\Omega 03' 10 22° \$\Omega 43' 43 22° \$\Omega 40' 10 19° \$\Omega 24' 53 26° \$\Omega 30' 15 28° \$\Omega 21' 38	2°47'17 8.96261 AU 10.89566 AU	morning rise retrograde opposition min. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21	4°M02'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03 13°M28'42 15°M	8.06004 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35	18° Ω53'18 26° Ω03'10 22° Ω43'43 22° Ω40'10 19° Ω24'53 26° Ω30'15 28° Ω21'38 28° Ω27'52	2°47'17 8.96261 AU 10.89566 AU 2°10'31	morning rise retrograde opposition min. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34	4°M22'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03 13°M28'42	8.06004 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35	18° \$\Omega 53' 18 26° \$\Omega 03' 10 22° \$\Omega 43' 43 22° \$\Omega 40' 10 19° \$\Omega 24' 53 26° \$\Omega 30' 15 28° \$\Omega 21' 38	2°47'17 8.96261 AU 10.89566 AU 2°10'31	morning rise retrograde opposition min. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21	4°M02'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03 13°M28'42 15°M	8.06004 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35	18° Ω53'18 26° Ω03'10 22° Ω43'43 22° Ω40'10 19° Ω24'53 26° Ω30'15 28° Ω21'38 28° Ω27'52	2°47'17 8.96261 AU 10.89566 AU 2°10'31	morning rise retrograde opposition min. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56	4°ML02'15 12°ML24'33 8°ML54'00 8°ML53'49 5°ML29'03 13°ML28'42 15°ML	8.06004 AU -0°36'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 13 j 00:19	18° \$\Omega 53'18\\ 26° \$\Omega 03'10\\ 22° \$\Omega 43'43\\ 22° \$\Omega 40'10\\ 19° \$\Omega 24'53\\ 26° \$\Omega 30'15\\ 28° \$\Omega 27'52\\ 28° \$\Omega 27'52\\ 28° \$\Omega 27'53\\ \end{align*}	2°47'17 8.96261 AU 10.89566 AU 2°10'31	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54	4°M02'15 12°M24'33 8°M54'00 8°M53'49 5°M29'03 13°M28'42 15°M	8.06004 AU -0°36'53 0°37'12
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:19 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24	18° \$\Omega 53'18\ 26° \$\Omega 03'10\ 22° \$\Omega 43'43\ 22° \$\Omega 40'10\ 19° \$\Omega 24'53\ 26° \$\Omega 30'15\ 28° \$\Omega 27'52\ 28° \$\Omega 27'53\ 0° \$\Omega 0\$ \$\Omega 6'12\ \end{array}	2°47'17 8.96261 AU 10.89566 AU 2°10'31	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26	8.06004 AU -0°36'53 0°37'12
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:19 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50	18° \$\Omega 53'18 \\ 26° \$\Omega 03'10 \\ 22° \$\Omega 43'43 \\ 22° \$\Omega 40'10 \\ 19° \$\Omega 24'53 \\ 26° \$\Omega 21'38 \\ 28° \$\Omega 27'53 \\ 0° \$\Omega 0\$ \\ 0° \$\Omega 26'12 \\ 7° \$\Omega 46'19 \end{align*}	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26 26°M.39'00	8.06004 AU -0°36'53 0°37'12 9.99947 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 21'38 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 0\$ 0° \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26 26°M.39'00 23°M.07'15	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 21'38 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 00' \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26 26°M.39'00 23°M.07'15 23°M.08'05	8.06004 AU -0°36'53 0°37'12 9.99947 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Jun 30 j 08:57	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 21'38 \end{align*} 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 6'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47 1° \$\Omega 05'35\$	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Sep 15 j 23:12	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26 26°M.39'00 23°M.07'15 23°M.08'05 19°M.41'02	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 21'38 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 00' \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 Jun 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Sep 15 j 23:12 -7401 Dec 26 j 21:07	4°M.02'15 12°M.24'33 8°M.54'00 8°M.53'49 5°M.29'03 13°M.28'42 15°M. 15°M.46'39 15°M.46'38 15°M.47'09 18°M.06'26 26°M.39'00 23°M.07'15 23°M.08'05 19°M.41'02 27°M.50'57	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17
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retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48 -7407 Jun 30 j 08:57 -7407 Oct 24 j 20:31 -7407 Oct 24 j 20:34 -7407 Oct 24 j 01:10 -7407 Nov 10 j 12:39	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 27'53 0° \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47 1° \$\Omega 05'35 8° \$\Omega 17'33 10° \$\Omega 17'34 10° \$\Omega 17'39 12° \$\Omega 18'52\$	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36 8.82631 AU 1°53'44 1°53'57	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Jul 11 j 20:12 -7401 Jul 12 j 03:31 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:54	4° M.02'15 12° M.24'33 8° M.54'00 8° M.53'49 5° M.29'03 13° M.28'42 15° M. 15° M.46'39 15° M.46'38 15° M.47'09 18° M.06'26 26° M.39'00 23° M.07'15 23° M.08'05 19° M.41'02 27° M.50'57 0° 🖈 11'47 0° 🖈 11'47 0° 🖈 11'46	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17 7.94502 AU -1°10'38 1°11'01
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 13 j 00:19 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48 -7407 Jun 30 j 08:57 -7407 Oct 08 j 07:22 -7407 Oct 24 j 20:31 -7407 Oct 24 j 20:34 -7407 Nov 10 j 12:39 -7406 Feb 22 j 20:22 -7406 May 04 j 12:35	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 20'15 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47 1° \$\Omega 05'35 8° \$\Omega 17'16 \$\Omega 05'35 8° \$\Omega 17'16 \$\Omega 05'35 8° \$\Omega 17'34 10° \$\Omega 17'34 10° \$\Omega 17'34 10° \$\Omega 17'35 12° \$\Omega 18'52 19° \$\Omega 50'31\$	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36 8.82631 AU 1°53'44 1°53'57 10.75178 AU	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Jul 11 j 20:12 -7401 Dec 26 j 21:07 -7400 Jan 12 j 03:31 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:54 -7400 Jan 31 j 13:46 -7400 May 18 j 23:44	4° M.02'15 12° M.24'33 8° M.54'00 8° M.53'49 5° M.29'03 13° M.28'42 15° M. 15° M.46'39 15° M.46'38 15° M.47'09 18° M.06'26 26° M.39'00 23° M.07'15 23° M.08'05 19° M.41'02 27° M.50'57 0° 🖈 11'47 0° 🖈 11'46 0° 🖈 14'07 2° 🔻 34'19	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17 7.94502 AU -1°10'38 1°11'01 9.89885 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 13 j 00:19 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48 -7407 Oct 08 j 07:22 -7407 Oct 08 j 07:22 -7407 Oct 24 j 20:31 -7407 Oct 24 j 01:10 -7407 Nov 10 j 12:39 -7406 Feb 22 j 20:22 -7406 May 04 j 12:35 -7406 May 05 j 04:04	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 30'15 28° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47 1° \$\Omega 05'35 8° \$\Omega 17'16 10° \$\Omega 17'33 10° \$\Omega 17'34 10° \$\Omega 11'39 12° \$\Omega 18'52 19° \$\Omega 50'31 16° \$\Omega 27'18 16° \$\Omega 24'22	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36 8.82631 AU 1°53'44 1°53'57 10.75178 AU 2°06'51	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Jul 11 j 20:12 -7401 Jul 12 j 03:31 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:50 -7400 Jan 13 j 13:46 -7400 May 18 j 23:44 -7400 Jul 25 j 19:02	4° M.02'15 12° M.24'33 8° M.54'00 8° M.53'49 5° M.29'03 13° M.28'42 15° M. 15° M.46'39 15° M.46'38 15° M.47'09 18° M.06'26 26° M.39'00 23° M.07'15 23° M.08'05 19° M.41'02 27° M.50'57 0° 🖈 11'47 0° 🖈 11'46 0° 🖈 14'07 2° 🔻 34'19 11° 🛣 14'16 7° 🛣 44'47	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17 7.94502 AU -1°10'38 1°11'01 9.89885 AU -1°48'36
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. morning rise retrograde opposition min. Earth dist. morning rise	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48 -7407 Jun 30 j 08:57 -7407 Oct 08 j 07:22 -7407 Oct 24 j 20:31 -7407 Oct 24 j 01:10 -7407 Nov 10 j 12:39 -7406 Feb 22 j 20:22 -7406 May 04 j 12:35 -7406 May 05 j 04:04 -7406 Jul 12 j 13:02	18° \$\Omega 53'18 26° \$\Omega 03'10 22° \$\Omega 43'43 22° \$\Omega 40'10 19° \$\Omega 24'53 26° \$\Omega 27'52 28° \$\Omega 27'53 0° \$\Omega 26'12 7° \$\Omega 46'19 4° \$\Omega 25'03 4° \$\Omega 21'47 1° \$\Omega 05'35 8° \$\Omega 17'34 10° \$\Omega 17'34	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36 8.82631 AU 1°53'44 1°53'57 10.75178 AU 2°06'51	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 Jul 12 j 00:12 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Jul 11 j 20:12 -7401 Jul 12 j 03:31 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:54 -7400 Jan 13 j 13:46 -7400 May 18 j 23:44 -7400 Jul 25 j 19:02 -7400 Jul 25 j 19:02 -7400 Jul 25 j 10:52	4° M.02'15 12° M.24'33 8° M.54'00 8° M.53'49 5° M.29'03 13° M.28'42 15° M. 15° M.46'39 15° M.46'38 15° M.47'09 18° M.06'26 26° M.39'00 23° M.07'15 23° M.08'05 19° M.41'02 27° M.50'57 0° 🖈 11'47 0° 🖈 11'47 0° 🛣 11'47 7° 🛣 14'16 7° 🛣 14'17	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17 7.94502 AU -1°10'38 1°11'01 9.89885 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-7409 Oct 18 j 21:37 -7408 Jan 29 j 04:18 -7408 Apr 09 j 03:50 -7408 Apr 09 j 03:50 -7408 Apr 09 j 22:58 -7408 Jun 18 j 11:48 -7408 Sep 26 j 14:09 -7408 Oct 12 j 03:35 -7408 Oct 13 j 00:16 -7408 Oct 13 j 00:19 -7408 Oct 25 j 19:50 -7408 Oct 29 j 12:24 -7407 Feb 09 j 19:50 -7407 Apr 21 j 16:21 -7407 Apr 22 j 09:48 -7407 Oct 08 j 07:22 -7407 Oct 08 j 07:22 -7407 Oct 24 j 20:31 -7407 Oct 24 j 01:10 -7407 Nov 10 j 12:39 -7406 Feb 22 j 20:22 -7406 May 04 j 12:35 -7406 May 05 j 04:04	18° \$\alpha 53'18 26° \$\alpha 03'10 22° \$\alpha 43'43 22° \$\alpha 40'10 19° \$\alpha 24'53 26° \$\alpha 30'15 28° \$\alpha 27'52 28° \$\alpha 27'53 0° \$\mathref{m} 25'03 4° \$\mathref{m} 25'03 4° \$\mathref{m} 21'47 1° \$\mathref{m} 05'35 8° \$\mathref{m} 17'33 10° \$\mathref{m} 17'34 10° \$\mathref{m} 11'39 12° \$\mathref{m} 15'2 19° \$\mathref{m} 50'31 16° \$\mathref{m} 24'22 13° \$\mathref{m} 06'59 20° \$\mathref{m} 26'20	2°47'17 8.96261 AU 10.89566 AU 2°10'31 2°10'50 2°30'36 8.82631 AU 1°53'44 1°53'57 10.75178 AU 2°06'51	morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-7402 Jan 01 j 16:01 -7402 Apr 19 j 10:34 -7402 Jun 27 j 10:46 -7402 Jun 27 j 11:38 -7402 Sep 01 j 21:33 -7402 Dec 12 j 00:34 -7402 Dec 23 j 16:21 -7402 Dec 29 j 13:56 -7402 Dec 29 j 13:54 -7402 Dec 29 j 15:28 -7401 Jan 16 j 08:43 -7401 May 04 j 14:27 -7401 Jul 12 j 00:12 -7401 Jul 11 j 20:12 -7401 Jul 11 j 20:12 -7401 Jul 12 j 03:31 -7400 Jan 13 j 14:54 -7400 Jan 13 j 14:50 -7400 Jan 13 j 13:46 -7400 May 18 j 23:44 -7400 Jul 25 j 19:02	4° M.02'15 12° M.24'33 8° M.54'00 8° M.53'49 5° M.29'03 13° M.28'42 15° M. 15° M.46'39 15° M.46'38 15° M.47'09 18° M.06'26 26° M.39'00 23° M.07'15 23° M.08'05 19° M.41'02 27° M.50'57 0° 🖈 11'47 0° 🖈 11'46 0° 🖈 14'07 2° 🔻 34'19 11° 🛣 14'16 7° 🛣 44'47	8.06004 AU -0°36'53 0°37'12 9.99947 AU -1°08'17 7.94502 AU -1°10'38 1°11'01 9.89885 AU -1°48'36

Attention, astronomical year style is used: The year -7399 in astronomical counting style is the year 7400 BCE in historical counting style.

 conjunction
 -7399 Jan
 28 j 03:00
 14° ₹756′01
 -1°40′26

 minimum elong
 -7399 Jan
 28 j 02:56
 14° ₹755′59
 1°40′53

 max. Earth dist.
 -7399 Jan
 28 j 15:19
 15° ₹700′08
 9.83341 AU

 morning rise
 -7399 Feb
 15 j 04:43
 17° ₹20′20

retrograde -7399 Jun 03 j 10:35 26° ₹03'50

opposition -7399 Aug 09 j 16:47 22° 31'10 -2°22'22 min. Earth dist. -7399 Aug 09 j 05:03 22° 33'38 7.81704 AU

direct -7399 Oct 14 j 06:22 19° ₹ 02'40