Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3900 in astronomical counting style is the year 3901 BCE in historical counting style. -3900 Mar 08 j 01:03 6°M22'01 opposition -3894 Jun 09 i 03:57 15°M29'31 -4°17'49 retrograde -3900 May 25 j 23:58 5°ML10'38 33.28862 AU -3894 Jun 30 j 19:41 min. Earth dist. 15°RM 5°ML06'29 -1°02'39 -3900 May 28 j 20:41 -3894 Aug 28 j 09:02 14°M17'15 direct opposition -3894 Oct 23 j 01:21 direct -3900 Aug 17 j 01:16 3°M52'08 15°M₀ -3900 Nov 10 j 21:15 -3894 Nov 22 j 00:53 evening set 5°M29'18 evening set 15°M50'14 -3900 Nov 26 j 00:42 conjunction 5°M59'02 -1°15'02 conjunction -3894 Dec 06 j 15:32 16°M17'38 -4°18'01 -3900 Nov 26 j 00:39 16° ML17'38 4° 18'09 minimum elong 5°M59'02 1°15'08 minimum elong -3894 Dec 06 j 15:24 -3894 Dec 09 j 18:32 6°MJ04'41 35.41155 AU 16°M23'33 36.90150 AU max. Earth dist. -3900 Nov 28 j 21:07 max. Earth dist. morning rise -3900 Dec 11 j 06:12 6° M28'56 morning rise -3894 Dec 21 j 08:07 16°M45'12 retrograde -3899 Mar 10 j 02:20 8°M-09'08retrograde -3893 Mar 20 j 15:33 18°M21'48 -3893 Jun 07 j 23:48 min. Earth dist. -3899 May 28 j 00:52 6°M58'11 33.53459 AU min. Earth dist. 17°M12'44 35.03429 AU opposition -3899 May 30 j 23:31 6° ML53'57 -1° 36'42 opposition -3893 Jun 11 j 02:50 17°ML08'22 -4°48'05 direct -3899 Aug 19 j 03:17 5°M40'00 direct -3893 Aug 30 j 10:19 15°M56'27 evening set -3899 Nov 12 j 22:19 7°M16'21 evening set -3893 Nov 24 j 01:00 17°M28'54 conjunction -3899 Nov 28 j 00:41 7°M45'46 -1°46'56 conjunction -3893 Dec 08 j 12:04 17°M55'50 -4°46'27 minimum elong -3899 Nov 28 j 00:37 7°ML45'45 1°47'01 minimum elong -3893 Dec 08 j 11:55 17°ML55'49 4°46'33 max. Earth dist. -3899 Nov 30 j 22:54 7°M51'31 35.65747 AU max. Earth dist. -3893 Dec 11 j 15:04 18°ML01'42 37.15511 AU morning rise -3899 Dec 13 j 04:58 8°M15'20 morning rise -3893 Dec 23 j 01:20 18°M22'56 retrograde -3898 Mar 12 j 01:27 9°M54'52 retrograde -3892 Mar 21 j 11:49 19°M59'05 min. Earth dist. -3898 May 30 j 03:18 8°M44'11 33.78155 AU min. Earth dist. -3892 Jun 08 i 20:20 18°M50'25 35.29027 AU -3898 Jun 02 j 01:40 8°M40'00 -2°10'10 -3892 Jun 12 i 01:20 18°ML45'57 -5°17'41 opposition opposition direct -3898 Aug 21 j 05:32 7°M26'24 direct -3892 Aug 31 i 08:29 17°M34'22 -3898 Nov 14 j 23:13 9°M02'00 -3892 Nov 25 j 00:43 19°MJ06'21 evening set evening set -3898 Nov 30 j 00:01 9°ML31'03 -2°18'17 -3892 Dec 09 j 08:07 19°MJ32'47 -5°14'15 conjunction conjunction -3898 Nov 29 j 23:56 -3892 Dec 09 j 07:57 9°M-31'03 2°18'23 minimum elong 19°M,32'46 5°14'23 minimum elong -3898 Dec 02 j 22:17 -3892 Dec 12 j 13:03 max. Earth dist. 9°M36'46 35.90418 AU max. Earth dist. 19°M38'46 37.41039 AU -3898 Dec 15 j 02:47 morning rise -3892 Dec 23 j 17:34 10°ML00'17 19°M 59'24 morning rise -3897 Mar 14 j 02:21 -3891 Mar 23 j 07:17 11°ML39'08 21°ML35'11 retrograde retrograde -3897 Jun 01 j 02:59 10°M28'51 34.02929 AU min. Earth dist. -3891 Jun 10 j 18:37 20°M26'46 35.54783 AU min. Earth dist. -3897 Jun 04 j 03:06 10°M24'34 -2°43'02 -3891 Jun 13 j 23:25 20°M22'21 -5°46'36 opposition opposition -3891 Sep 02 j 06:30 direct -3897 Aug 23 j 06:13 9°M11'20 direct 19°ML11'07 -3891 Nov 27 j 00:31 evening set -3897 Nov 16 j 23:54 10°M46'13 evening set 20°M42'39 11°M14'53 -2°49'05 -3897 Dec 01 j 22:38 -3891 Dec 11 j 03:52 21°ML08'36 -5°41'26 conjunction conjunction -3897 Dec 01 j 22:32 11°M14'52 2°49'11 minimum elong -3891 Dec 11 j 03:42 21°ML08'35 5°41'32 minimum elong max. Earth dist. -3897 Dec 04 j 22:07 11°M20'38 36.15144 AU max. Earth dist. -3891 Dec 14 j 08:57 21°M14'32 37.66700 AU -3897 Dec 16 j 23:30 11°M43'43 morning rise -3891 Dec 25 j 09:12 21°M34'43 morning rise -3896 Mar 15 j 02:16 13°M21'57 retrograde retrograde -3896 Jun 02 j 03:48 12°M11'56 34.27807 AU -3890 Jun 12 j 14:21 22°M02'05 35.80642 AU min. Earth dist. min. Earth dist. -3896 Jun 05 j 04:04 12°ML07'41 -3°15'16 -3890 Jun 15 j 20:41 21°M57'36 -6°14'50 opposition opposition 10°M54'46 -3890 Sep 04 j 02:14 20°M46'43 direct -3896 Aug 24 j 05:41 direct -3896 Nov 18 j 00:21 -3890 Nov 29 j 00:15 evening set 12°M28'58 evening set 22°M17'51 -3896 Dec 02 i 20:50 -3890 Dec 12 j 23:08 conjunction 12°M57'14 -3°19'20 conjunction 22°ML43'18 -6°07'59 minimum elong -3896 Dec 02 j 20:44 12°M57'13 3°19'27 minimum elong -3890 Dec 12 j 22:57 22°ML43'17 6°08'07 max. Earth dist. -3896 Dec 05 j 21:31 13°ML03'02 36.39990 AU max. Earth dist. -3890 Dec 16 j 04:58 22°M49'15 37.92413 AU -3896 Dec 17 i 19:14 13°M25'40 -3890 Dec 27 i 00:11 23°ML08'54 morning rise morning rise -3895 Mar 01 j 12:08 15°M₀ -3889 Mar 27 j 00:58 24°M43'59 retrograde 23°M36'14 36.06545 AU -3895 Mar 16 j 23:06 15°ML03'18 -3889 Jun 14 j 11:36 retrograde min. Earth dist. -3895 Apr 01 j 12:57 -3889 Jun 17 j 17:43 23°ML31'47 -6°42'22 15°RM. opposition 22°M21'14 min. Earth dist. -3895 Jun 04 j 02:40 13°M53'37 34.52823 AU direct -3889 Sep 05 j 22:06 13°M49'18 -3°46'52 -3889 Nov 30 j 23:43 -3895 Jun 07 j 04:15 evening set 23°M52'01 opposition direct -3895 Aug 26 j 08:26 12°M36'43 -3889 Dec 14 j 18:02 -3895 Nov 20 j 00:44 14°ML10'18 conjunction 24°M16'56 -6°33'55 evening set -3889 Dec 14 j 17:51 minimum elong 24°M16'55 6°34'03 -3895 Dec 04 j 18:19 14°M38'08 -3°48'58 -3889 Dec 18 j 00:48 conjunction max. Earth dist. 24°M22'55 38.18127 AU -3895 Dec 04 j 18:11 -3889 Dec 28 j 14:12 minimum elong 14°M38'07 3°49'05 morning rise 24°M42'01 -3888 Mar 27 j 19:36 max. Earth dist. -3895 Dec 07 j 19:22 14°M43'55 36.64977 AU retrograde 26°**™**16'48 -3895 Dec 16 j 07:17 15°M⋅ min. Earth dist. -3888 Jun 15 j 07:33 25°MJ09'21 36.32402 AU morning rise -3895 Dec 19 j 14:10 15°M06'08 opposition -3888 Jun 18 j 14:10 25°M04'54 -7°09'15 retrograde -3894 Mar 18 j 20:40 16°M43'14 direct -3888 Sep 06 j 20:11 23°M54'41

15°M33'52 34.78033 AU

evening set

-3888 Dec 01 j 23:22

25°M25'08

-3894 Jun 06 j 01:14

min. Earth dist.

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3888 in astronomical counting style is the year 3889 BCE in historical counting style. -3888 Dec 15 i 12:33 25°M49'32 -6°59'14 max. Earth dist. -3882 Dec 28 i 04:05 4° ₹ 48'30 39.94301 AU conjunction 25°M49'31 6°59'22 -3888 Dec 15 j 12:21 -3881 Jan 05 j 23:28 5°**х** 03'44 minimum elong morning rise max. Earth dist. -3888 Dec 18 j 18:45 25°M55'26 38.43755 AU -3881 Apr 07 j 18:48 6°**х** 37′06 retrograde -3888 Dec 29 j 03:52 -3881 Jun 26 j 17:32 26°M14'04 min. Earth dist. 5°**∡**31'22 38.09564 AU morning rise -3887 Mar 29 j 14:58 27°M48'35 -3881 Jun 30 j 00:35 5°**₹**27'00 -9°58'46 retrograde opposition -3887 Jun 17 j 03:07 4°×18'43 min. Earth dist. 26°M41'26 36.58169 AU direct -3881 Sep 18 j 09:50 -3881 Dec 14 j 16:27 opposition -3887 Jun 20 j 10:15 26°M36'58 -7°35'27 evening set 5°**х** 47′39 direct -3887 Sep 08 j 16:20 25°M27'04 -3887 Dec 03 j 22:45 evening set 26°M57'14 conjunction -3881 Dec 26 j 11:35 6°**х**¹07'58 -9°39'14 minimum elong -3881 Dec 26 j 11:22 6°**х**107'57 9°39'23 conjunction -3887 Dec 17 j 06:52 27°M21'04 -7°23'56 max. Earth dist. -3881 Dec 29 j 19:05 6°**≯**13'42 40.19072 AU -3887 Dec 17 j 06:40 -3880 Jan 07 j 08:24 minimum elong 27° ML21'03 7° 24'03 morning rise 6°**х** 28′24 -3887 Dec 20 j 14:09 -3880 Apr 08 j 11:00 max. Earth dist. 27°M27'01 38.69247 AU retrograde 8°×701'42 -3880 Jun 27 j 09:23 morning rise -3887 Dec 30 j 16:48 27°M45'03 min. Earth dist. 6°**≯**56'15 38.34540 AU retrograde -3886 Mar 31 j 06:59 29°M19'19 opposition -3880 Jun 30 j 17:30 6°**∡**151'51 -10°20'20 min. Earth dist. -3886 Jun 18 j 23:34 28°M12'24 36.83762 AU direct -3880 Sep 19 j 02:40 5°**х** 43′51 opposition -3886 Jun 22 j 05:52 28°ML08'00 -8°00'59 evening set -3880 Dec 15 j 14:52 7°**х** 12′42 direct -3886 Sep 10 j 13:50 26°M58'23 evening set -3886 Dec 05 j 22:12 28°M28'16 conjunction -3880 Dec 27 j 03:09 7°**∡**32'24 -9°59'38 minimum elong -3880 Dec 27 j 02:55 7°**∡**32'23 9°59'46 conjunction -3886 Dec 19 j 00:43 28°ML51'33 -7°48'01 max. Earth dist. -3880 Dec 30 j 11:56 7°**∡**38'12 40.43811 AU minimum elong -3886 Dec 19 i 00:30 28°M51'32 7°48'09 morning rise -3879 Jan 07 i 16:54 7°**х** 52′13 max. Earth dist. -3886 Dec 22 i 07:00 28°M57'23 38.94552 AU retrograde -3879 Apr 10 j 00:15 9°**х** 25′28 morning rise -3885 Jan 01 i 05:08 29°M14'58 min. Earth dist. -3879 Jun 29 i 02:48 8° ₹20'14 38.59470 AU -3885 Jan 28 j 22:48 0°×7 -3879 Jul 02 i 10:02 8°**₹**15'54 -10°41'15 opposition -3885 Apr 02 j 00:03 0°**∡**¹49'00 -3879 Sep 20 j 20:52 7°**₹**08'11 retrograde direct -3885 Jun 07 j 08:21 30°RML -3879 Dec 17 j 13:21 8°×736'58 evening set -3885 Jun 20 j 17:34 29°M42'22 37.09169 AU min. Earth dist. -3885 Jun 24 j 00:50 29°M37'56 -8°25'52 -3879 Dec 28 j 18:23 8°**₹**56'03 -10°19'25 conjunction opposition -3885 Sep 12 j 09:21 -3879 Dec 28 j 18:10 8°**₹**56'02 10°19'34 direct 28°M-28'36 minimum elong -3885 Dec 07 j 21:21 -3878 Jan 01 j 02:37 9°**尽**01'47 40.68499 AU 29°M58'14 max. Earth dist. evening set 9°**∡**15′14 -3885 Dec 08 j 21:43 -3878 Jan 09 j 00:47 0°**∡**¹ morning rise -3878 Apr 11 j 16:20 10°**∡**¹48'29 retrograde -3885 Dec 20 j 18:07 0° ₹20'56 -8°11'29 -3878 Jun 30 j 17:53 9°**х** 43'34 38.84317 AU conjunction min. Earth dist. -3885 Dec 20 j 17:55 -3878 Jul 04 j 02:07 9°**∡**39'11 -11°01'31 minimum elong 0° ₹20'55 8°11'37 opposition 8°**∡**³31'45 -3885 Dec 24 j 01:15 -3878 Sep 22 j 12:20 max. Earth dist. 0°**х** 26'47 39.19664 AU direct -3884 Jan 02 j 16:46 -3878 Dec 19 j 11:45 morning rise 0°**∡**'43'47 evening set 10°**₹**00'31 retrograde -3884 Apr 02 j 17:41 2°×17'37 min. Earth dist. -3884 Jun 21 j 13:14 1°**≯**11'09 37.34409 AU conjunction -3878 Dec 30 j 09:16 10°**∡**18'59 -10°38'36 -3884 Jun 24 j 19:35 1°**∡**06'47 -8°50'05 minimum elong -3878 Dec 30 j 09:02 10°**≯**18'58 10°38'46 opposition -3884 Aug 31 j 02:35 30°RM max. Earth dist. -3877 Jan 02 j 17:50 10°**✗**24'41 40.93062 AU -3884 Sep 13 j 03:36 29°M57'43 -3877 Jan 10 j 08:14 10°**х** 37′32 direct morning rise -3884 Sep 26 j 01:27 0°×7 -3877 Apr 13 j 09:55 12°**∡**10'47 retrograde -3884 Dec 08 j 20:14 1°×27'06 -3877 Jul 02 j 10:34 11°**✗**06'04 39.09027 AU evening set min. Earth dist. -3877 Jul 05 j 17:55 11°**₹**01'46 -11°21'09 opposition 1°**∡**749'14 -8°34'21 conjunction -3884 Dec 21 j 11:03 direct -3877 Sep 24 i 01:16 9°×754'38 minimum elong -3884 Dec 21 i 10:50 1°**х** 49'13 8°34'30 evening set -3877 Dec 21 j 10:07 11°**х** 23′24 max. Earth dist. -3884 Dec 24 i 18:08 1°**х** 55'02 39.44635 AU -3876 Jan 01 i 00:01 morning rise -3883 Jan 03 i 03:32 2°**х** 11′29 conjunction 11°**х** 41'13 -10°57'13 retrograde -3883 Apr 04 i 11:03 3°**х** 45′08 minimum elong -3877 Dec 31 i 23:49 11°×741'12 10°57'23 -3883 Jun 23 j 06:29 2° ₹ 38'56 37.59521 AU max. Earth dist. -3876 Jan 04 j 08:48 11°**₹**46'54 41.17469 AU min. Earth dist. -3883 Jun 26 j 13:42 2°**x** 34'33 -9°13'38 -3876 Jan 11 j 15:04 11°**₹**′59′08 opposition morning rise -3883 Sep 14 j 21:12 1°×25'44 -3876 Apr 14 j 00:19 13°**₹**32'24 direct retrograde -3883 Dec 10 j 19:11 -3876 Jul 03 j 01:57 12°**₹**27'57 39.33528 AU evening set 2°**x7**54'56 min. Earth dist. opposition -3876 Jul 06 j 09:20 12°**₹**'23'41 -11°40'11 -3876 Sep 24 j 17:10 conjunction -3883 Dec 23 j 03:36 3°**х** 16'27 -8°56'36 direct 11°**х** 16'48 minimum elong -3883 Dec 23 j 03:24 3°**х** 16'27 8°56'44 evening set -3876 Dec 22 j 08:30 12°**х** 45'37 -3883 Dec 26 j 10:39 3°**尽**22'13 39.69492 AU max. Earth dist. -3882 Jan 04 j 13:54 3°**х** 38′07 -3875 Jan 01 j 14:19 13°**₹**02'47 -11°15'16 morning rise conjunction -3882 Apr 06 j 04:27 5°**х** 11'37 -3875 Jan 01 j 14:06 13°**∡**02'46 11°15'25 retrograde minimum elong -3882 Jun 25 j 00:19 -3875 Jan 04 j 22:00 13°**✗**08'22 41.41628 AU min. Earth dist. 4°**✗**05'38 37.84569 AU max. Earth dist. opposition -3882 Jun 28 j 07:21 4°**₹**'01'16 -9°36'32 morning rise -3875 Jan 11 j 21:27 13°**х** 20′02 direct -3882 Sep 16 j 14:32 2°**х** 52′42 retrograde -3875 Apr 15 j 15:48 14°**₹** 53′22 evening set -3882 Dec 12 j 17:51 4°**х** 21′45 min. Earth dist. -3875 Jul 04 j 17:30 13°**✗**′49'08 39.57766 AU opposition -3875 Jul 08 j 00:35 13°**∡**′44′53 -11°58′38 -3882 Dec 24 j 19:55 4°**₹**42'41 -9°18'14 -3875 Sep 26 j 07:54 12°**∡**38'17 conjunction direct

-3882 Dec 24 j 19:42

minimum elong

4°**₹**42'40 9°18'22

evening set

-3875 Dec 24 j 06:56

14°**х** 07′09

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3874 in astronomical counting style is the year 3875 BCE in historical counting style. -3874 Jan 03 i 04:42 14°**₹**23'39 -11°32'46 direct -3868 Oct 05 i 13:03 21°× 46'31 conjunction -3874 Jan 03 i 04:30 14°**₹**23'38 11°32'55 evening set -3867 Jan 04 j 20:29 23°**х** 16′18 minimum elong -3874 Jan 06 j 12:59 14°**₹**29'14 41.65483 AU max. Earth dist. -3874 Jan 13 j 03:29 -3867 Jan 12 j 00:05 23°**₹**27'47 -13°20'23 14°**∡** 40′13 conjunction morning rise 16°**∡**13'37 -3874 Apr 17 j 03:38 -3867 Jan 11 j 23:54 23°**∡**¹27'47 13°20'32 retrograde minimum elong -3874 Jul 06 j 09:37 -3867 Jan 15 j 05:43 min. Earth dist. 15°**✗**09'33 39.81657 AU max. Earth dist. 23°**✗**33′00 43.23810 AU -3867 Jan 19 j 04:08 23°×39'19 opposition -3874 Jul 09 j 15:19 15°**∡** 05'23 -12°16'29 morning rise -3867 Apr 25 j 19:05 direct -3874 Sep 28 j 01:16 13°**₹**′59′01 retrograde 25° **₹**13'42 -3867 Jul 15 j 11:09 evening set -3874 Dec 26 j 05:31 15°**∡**¹27'57 min. Earth dist. 24° ₹ 10'45 41.40508 AU opposition -3867 Jul 18 j 13:51 24°**∡**106′50 -14°05′52 conjunction -3873 Jan 04 j 18:41 15° **х** 43'47 -11°49'43 direct -3867 Oct 07 j 03:15 23°×701'51 -3873 Jan 04 j 18:28 -3866 Jan 06 j 19:43 minimum elong 15°**∡**°43'46 11°49'52 evening set 24°**₹**31'55 -3873 Jan 08 j 01:21 max. Earth dist. 15°**∡**′49'14 41.88986 AU morning rise -3873 Jan 14 j 08:52 15°**₹**59'40 conjunction -3866 Jan 13 j 12:12 24°**∡**¹42'37 -13°33'39 retrograde -3873 Apr 18 j 16:46 17°**х** 33′09 minimum elong -3866 Jan 13 j 12:02 24°**∡**°42'36 13°33'49 min. Earth dist. -3873 Jul 07 j 23:40 16°**∡**′29'18 40.05186 AU max. Earth dist. -3866 Jan 16 j 17:04 24°**∡**'47'45 43.45578 AU morning rise opposition -3873 Jul 11 j 05:49 16°**∡**°25′08 -12°33'48 -3866 Jan 20 j 05:02 24°**х** 53′21 direct -3873 Sep 29 j 16:16 15°**х** 18'59 retrograde -3866 Apr 27 j 07:03 26°**х** 28′01 evening set -3873 Dec 28 j 03:45 16°**∡**¹47'59 min. Earth dist. -3866 Jul 16 j 22:43 25°**✗**25′19 41.62351 AU opposition -3866 Jul 20 j 01:57 25°**х** 21'23 -14°19'17 conjunction -3872 Jan 06 j 08:12 17°**∡**103'07 -12°06'10 direct -3866 Oct 08 j 15:36 24°×16'36 minimum elong -3872 Jan 06 i 08:01 17° **1**03'06 12°06'19 evening set -3865 Jan 08 j 19:08 25°**₹**47'01 max. Earth dist. -3872 Jan 09 i 15:01 17°**₹**08'33 42.12117 AU morning rise -3872 Jan 15 i 13:38 17°**∡**18'20 conjunction -3865 Jan 14 i 23:58 25° 🗷 56'53 -13°46'25 retrograde -3872 Apr 19 j 05:24 18°**х** 51′53 -3865 Jan 14 j 23:49 25° x 56'53 13°46'34 minimum elong -3872 Jul 08 j 15:34 17°**∡**′48'09 40.28359 AU max. Earth dist. -3865 Jan 18 j 04:18 26°**✗**01'58 43.67119 AU min. Earth dist. -3872 Jul 11 j 20:06 17°**∡**°44′04 -12°50′32 -3865 Jan 21 j 05:11 26°**х** 06'48 morning rise opposition -3872 Sep 30 j 07:44 16°**∡** 38′07 -3865 Apr 28 j 21:07 retrograde 27° ×741'49 direct -3872 Dec 29 j 02:14 18°**∡**07'12 -3865 Jul 18 j 12:00 26°**✗**39'16 41.83957 AU min. Earth dist. evening set -3865 Jul 21 j 14:06 26°**∡**135'24 -14°32'10 opposition -3871 Jan 06 j 21:38 18°**∡**121'38 -12°22'04 -3865 Oct 10 j 01:45 conjunction 25°**х** 30′51 direct -3864 Jan 10 j 19:02 27°**∡**'01'39 -3871 Jan 06 j 21:26 18°**≯**21'38 12°22'13 minimum elong evening set max. Earth dist. -3871 Jan 10 j 03:53 18°**尽**27'00 42.34929 AU -3871 Jan 15 j 17:45 -3864 Jan 16 j 11:33 27°**₹**10'40 -13°58'41 morning rise 18°**∡**³36′09 conjunction 20°**х** 09′48 -3871 Apr 20 j 19:46 -3864 Jan 16 j 11:23 retrograde minimum elong 27°**✓**10'40 13°58'51 -3871 Jul 10 j 05:04 19°**✗**06'15 40.51220 AU -3864 Jan 19 j 16:06 min. Earth dist. max. Earth dist. 27°**∡**15'44 43.88404 AU -3871 Jul 13 j 09:48 19°**∡**02'10 -13°06'43 -3864 Jan 22 j 04:13 opposition morning rise 27°**∡** 19'42 direct -3871 Oct 01 j 20:45 17°**х** 56′24 retrograde -3864 Apr 29 j 09:12 28°**∡** 55′07 -3871 Dec 31 j 00:40 19°**х** 25′36 min. Earth dist. -3864 Jul 19 j 00:27 27°**₹**'52'45 42.05254 AU evening set opposition -3864 Jul 22 j 01:54 27°**∡**¹48'57 -14°44'33 conjunction -3870 Jan 08 j 10:37 19°**∡**39'20 -12°37'26 direct -3864 Oct 10 j 12:56 26°**х** 44′36 -3870 Jan 08 j 10:25 19°**∡**³39'19 12°37'37 -3863 Jan 11 j 19:53 28°**х¹**15′53 minimum elong evening set -3870 Jan 11 j 16:09 19°**✗¹**44'37 42.57451 AU max. Earth dist. -3870 Jan 16 j 21:23 19°**∡**753′07 -3863 Jan 16 j 23:00 28°**x**¹23'59 -14°10'30 morning rise conjunction -3870 Apr 22 j 10:25 21°**₹**26'54 -3863 Jan 16 j 22:52 28°**₹**'23'59 14°10'39 retrograde minimum elong -3870 Jul 11 i 19:15 20°**х** 23′28 40.73836 AU -3863 Jan 20 i 01:55 28°**₹**28'55 44.09356 AU min. Earth dist. max. Earth dist. -3870 Jul 14 j 23:20 28°**х** 32′06 opposition 20° **₹**19'27 -13°22'21 morning rise -3863 Jan 22 i 02:19 -3870 Oct 03 i 08:17 direct 19°**х** 13′52 -3863 Apr 04 i 13:51 0°정 evening set -3869 Jan 01 j 23:09 20°**х** 43′13 retrograde -3863 Apr 30 j 21:37 0°る07'59 -3863 May 27 j 08:05 30°R*X* -3869 Jan 09 j 23:26 20°**₹**'56'13 -12°52'17 min. Earth dist. -3863 Jul 20 j 12:24 29° \$705'48 42.26200 AU conjunction -3869 Jan 09 i 23:15 20° **7** 56'12 12° 52'26 -3863 Jul 23 j 13:28 29° **2**02'02 -14° 56'27 minimum elong opposition -3869 Jan 13 j 05:35 21°**✗**01'31 42.79751 AU direct -3863 Oct 11 j 23:38 27°×757'53 max. Earth dist. -3862 Jan 13 j 21:50 morning rise -3869 Jan 18 j 00:16 21°×709'16 evening set 29°×29'43 retrograde -3869 Apr 23 j 21:05 22°**∡**¹43'12 21°**⋌**39'55 40.96232 AU min. Earth dist. -3869 Jul 13 j 08:49 conjunction -3862 Jan 18 j 10:28 29° 🗷 36'50 -14°21'51 -3869 Jul 16 j 12:21 21°**∡** 35′57 -13°37′25 minimum elong -3862 Jan 18 j 10:18 29°**х** 36′50 14°22'00 opposition -3869 Oct 04 j 23:26 20°**х** 30′33 -3862 Jan 22 j 23:06 29°**х** 43′58 direct morning rise -3868 Jan 03 j 21:51 22°**₹**'00'05 -3862 Jan 21 j 13:27 29°**х** 41'46 44.29915 AU evening set max. Earth dist. -3862 Feb 02 j 06:27 0°궁 -3868 Jan 11 j 11:53 22°**∡**12'21 -13°06'36 -3862 May 02 j 05:35 1°る20'23 conjunction retrograde -3862 Jul 22 j 01:40 minimum elong -3868 Jan 11 j 11:42 22°**₹**12'20 13°06'46 min. Earth dist. 0°る18'18 42.46710 AU max. Earth dist. -3868 Jan 14 j 16:44 22°**≯**17'32 43.01866 AU opposition -3862 Jul 25 j 00:52 0°る14'38 -15°07'54 morning rise -3868 Jan 19 j 02:30 22°×24'38 -3862 Aug 05 j 22:46 30°R.**✓** retrograde -3868 Apr 24 j 08:32 23°×758'46 direct -3862 Oct 13 j 14:07 29°**х** 10′42 -3868 Jul 13 j 21:11 22°**✗**55'42 41.18462 AU -3862 Dec 18 j 01:43 0°る min. Earth dist.

-3861 Jan 16 j 01:36

evening set

0°**ප**43'11

-3868 Jul 17 j 01:13 22° ₹ 51'43 -13°51'55

opposition

3		e year -3861 in astronomica	· //		, 1 6
conjunction	-3861 Jan 19 j 21:37	0°る49'12 -14°32'45	direct	-3854 Oct 23 j 02:50	8° る 32'51
minimum elong	-3861 Jan 19 j 21:30	0°る49'11 14°32'55		J	
morning rise	-3861 Jan 23 j 17:38	0° る 55'13	conjunction	-3853 Jan 29 j 06:50	10°る08'05 -15°44'24
max. Earth dist.	-3861 Jan 22 j 22:52	0°る53'59 44.50035 AU	J minimum elong	-3853 Jan 29 j 06:45	10°る08'05 15°44'34
retrograde	-3861 May 03 j 15:48	2° る 32'17	max. Earth dist.	-3853 Feb 01 j 02:44	10°る12'22 45.98271 AU
min. Earth dist.	-3861 Jul 23 j 12:43	1°る30'23 42.66762 AU	J retrograde	-3853 May 13 j 01:22	11° る 47'45
opposition	-3861 Jul 26 j 11:54	1°る26'44 -15°18'53	min. Earth dist.	-3853 Aug 02 j 02:51	10°る46'46 44.14933 AU
direct	-3861 Oct 15 j 02:23	0° る 22'58	opposition	-3853 Aug 04 j 19:58	10°る43'29 -16°30'26
evening set	-3860 Jan 18 j 08:06	1° る 56'19	direct	-3853 Oct 24 j 09:51	9° る 40'55
conjunction	-3860 Jan 21 j 08:32	2° ට 01'02 -14°43'14	conjunction	-3852 Jan 30 j 16:16	11°る15'48 -15°51'25
minimum elong	-3860 Jan 21 j 08:23	2° ට 01'01 14°43'23	minimum elong	-3852 Jan 30 j 16:13	11°る15'48 15°51'35
morning rise	-3860 Jan 24 j 08:52	2° る 05'44	max. Earth dist.	-3852 Feb 02 j 12:30	11°る20'05 46.15608 AU
max. Earth dist.	-3860 Jan 24 j 09:03	2°る05'44 44.69696 AU	J retrograde	-3852 May 13 j 09:34	12° る 55'06
retrograde	-3860 May 04 j 03:48	3° る 43'40	min. Earth dist.	-3852 Aug 02 j 13:08	11°る54'14 44.32214 AU
min. Earth dist.	-3860 Jul 24 j 01:32	2°る41'50 42.86373 AU	J opposition	-3852 Aug 05 j 05:01	11°る51'01 -16°37'23
opposition	-3860 Jul 26 j 22:53	2° る 38'16 -15°29'25	direct	-3852 Oct 24 j 19:47	10° る 48'37
direct	-3860 Oct 15 j 12:40	1° る 34'40			
evening set	-3859 Jan 19 j 21:34	3° る 09'19	conjunction	-3851 Jan 31 j 01:32	12° る 23'10 -15°58'03
			minimum elong	-3851 Jan 31 j 01:27	12° る 23'10 15°58'13
conjunction	-3859 Jan 21 j 19:16	3°る12'17 -14°53'17	max. Earth dist.	-3851 Feb 02 j 19:49	12°る27'20 46.32604 AU
minimum elong	-3859 Jan 21 j 19:09	3°る12'16 14°53'27	retrograde	-3851 May 14 j 17:52	14° る 02'07
morning rise	-3859 Jan 23 j 16:48	3° る 15'13	min. Earth dist.	-3851 Aug 03 j 22:19	13°る01'23 44.49119 AU
max. Earth dist.	-3859 Jan 24 j 19:25	3°る16'57 44.88946 AU	**	-3851 Aug 06 j 13:56	12°る58'12 -16°43'56
retrograde	-3859 May 05 j 14:26	4° る 54'27	direct	-3851 Oct 26 j 05:27	11° る 55'57
min. Earth dist.	-3859 Jul 25 j 12:29	3°る52'45 43.05571 AU	J		
opposition	-3859 Jul 28 j 09:26	3° る 49'13 -15°39'30	conjunction	-3850 Feb 01 j 10:50	13° る 30'11 -16°04'18
direct	-3859 Oct 16 j 23:21	2° る 45'45	minimum elong	-3850 Feb 01 j 10:47	13° る 30'11 16°04'27
			max. Earth dist.	-3850 Feb 04 j 04:38	13°る34'18 46.49178 AU
conjunction	-3858 Jan 23 j 05:42	4° පි 22'56 -15°02'54	retrograde	-3850 May 16 j 01:23	15° る 08'47
minimum elong	-3858 Jan 23 j 05:35	4° る 22'55 15°03'03	min. Earth dist.	-3850 Aug 05 j 09:17	14°る08'06 44.65572 AU
max. Earth dist.	-3858 Jan 26 j 04:09	4°る27'28 45.07817 AU	**	-3850 Aug 07 j 22:39	14° පි 05'02 -16°50'07
retrograde	-3858 May 07 j 02:24	6° る 04'38	direct	-3850 Oct 27 j 15:49	13° る 02'55
min. Earth dist.	-3858 Jul 26 j 23:23	5° る 03'02 43.24439 AU			_
opposition	-3858 Jul 29 j 19:40	4° る 59'33 -15°49'08	conjunction	-3849 Feb 02 j 20:01	14°る36'49 -16°10'12
direct	-3858 Oct 18 j 07:45	3° る 56'13	minimum elong	-3849 Feb 02 j 19:58	14° 궁 36'49 16°10'21
		_	max. Earth dist.	-3849 Feb 05 j 12:34	14°る40'51 46.65296 AU
conjunction	-3857 Jan 24 j 16:00	5° る 33'00 -15°12'04	retrograde	-3849 May 17 j 09:46	16° る 15'04
minimum elong	-3857 Jan 24 j 15:54	5°る32'59 15°12'15	min. Earth dist.	-3849 Aug 06 j 18:11	15°る14'31 44.81534 AU
max. Earth dist.	-3857 Jan 27 j 15:00	5°る37'33 45.26385 AU	**	-3849 Aug 09 j 07:14	15°පි11'28 -16°55'55
retrograde	-3857 May 08 j 10:45	7° 궁 14'15	direct	-3849 Oct 29 j 01:25	14° る 09'29
min. Earth dist.	-3857 Jul 28 j 10:47	6° 전 12'44 43.43014 AU			
opposition	-3857 Jul 31 j 05:46	6° る 09'19 -15°58'18	conjunction	-3848 Feb 04 j 04:46	15° 3 43'03 -16°15'45
direct	-3857 Oct 19 j 19:25	5° る 06'08	minimum elong	-3848 Feb 04 j 04:45	15° 3 43'03 16°15'54
	2076 7 26:01.72	60 7 40100 15000140	max. Earth dist.	-3848 Feb 06 j 19:31	15°₹46'57 46.80916 AU
conjunction	-3856 Jan 26 j 01:52	6°る42'29 -15°20'48	retrograde	-3848 May 17 j 21:04	17°る20'56
minimum elong	-3856 Jan 26 j 01:45	6° る 42'29 15°20'57	min. Earth dist.	-3848 Aug 07 j 04:19	16°る20'26 44.97012 AU
max. Earth dist.	-3856 Jan 28 j 23:31	6°る46'56 45.44702 AU 8°る23'20	**	-3848 Aug 09 j 15:48	16°る17'28 -17°01'22
retrograde	-3856 May 08 j 18:22	· ·	direct	-3848 Oct 29 j 07:58	15° る 15'36
min. Earth dist. opposition	-3856 Jul 28 j 20:08	7°る21'59 43.61353 AU 7°る18'33 -16°07'01		2947 Eab 04: 12:41	16° ප් 48'51 -16°20'56
	-3856 Jul 31 j 15:38		conjunction	-3847 Feb 04 j 13:41	
direct	-3856 Oct 20 j 06:44	6° ප 15'30	minimum elong	-3847 Feb 04 j 13:38	16° 3 48'51 16°21'05
agniumation	2055 Inn 26: 11.42	7°る51'28 -15°29'06	max. Earth dist.	-3847 Feb 07 j 04:17	16°る52'43 46.96072 AU 18°る26'22
conjunction	-3855 Jan 26 j 11:42		retrograde	-3847 May 19 j 05:23	
minimum elong max. Earth dist.	-3855 Jan 26 j 11:36	7°る51'27 15°29'16 7°る55'54 45.62786 AU	min. Earth dist.	-3847 Aug 08 j 13:50	17°る25'54 45.12027 AU 17°る23'01 -17°06'27
max. Earth dist.	-3855 Jan 29 j 09:16 -3855 May 10 j 03:08	/°も55'54 45.62/86 AC 9°も31'54	J opposition direct	-3847 Aug 10 j 23:56 -3847 Oct 30 j 16:19	1/62301 -1/9062/ 16°る21'15
min. Earth dist.	• •	9°る31'34 8°る30'38 43.79463 AU		-304/ Oct 30 J 10.19	10 02113
opposition	-3855 Jul 30 j 07:21 -3855 Aug 02 j 01:17	8°る30'38 43.79463 At 8°る27'17 -16°15'16	conjunction	-3846 Feb 05 j 22:16	17° ප 54'11 -16°25'47
direct	-3855 Oct 21 j 18:11	8°62/17 -16°1316 7°624'24	minimum elong	-3846 Feb 05 j 22:15	17°る5411 -16°25'47 17°る54'10 16°25'56
ullect	-3033 Oct 21 J 18:11	1 02424	minimum eiong max. Earth dist.	-3846 Feb 05 j 22:15 -3846 Feb 08 j 10:53	17°る5410 16°25'56 17°る57'54 47.10807 AU
conjunction	3854 Ion 27: 21:20	8° ප 59'59 -15°36'58		-3846 May 20 j 13:20	19°る31'20
conjunction	-3854 Jan 27 j 21:28 -3854 Jan 27 j 21:23	8°る59'59 -15°36'58 8°る59'59 15°37'06	retrograde min. Earth dist.	, ,	19°る31'20 18°る30'59 45.26654 AU
minimum elong max. Earth dist.	-3854 Jan 27 j 21:23	8°る3939 13°3706 9°る04'22 45.80658 AU		-3846 Aug 09 j 22:08 -3846 Aug 12 j 07:58	18°る30'39 43.26634 AU 18°る28'07 -17°11'10
retrograde	-3854 Jan 30 J 18:39	9°る0422 45.80638 AC 10°る40'02	direct	-3846 Nov 01 j 00:20	17° る 26'27
min. Earth dist.	-3854 May 11 j 14:01	9°る38'55 43.97329 AU		-5040 INOV 01 J 00.20	1/ 0202/
opposition	-3854 Jul 31 j 10:41	9°る35'35 -16°23'04	conjunction	-3845 Feb 07 j 06:37	18° ට 59'03 -16°30'16
оррозини	-2024 Aug 02 J 10.41	/ 00000 -10 20 04	conjunction	-3043 FEU U/J U0.3/	10 03703 -10 30 10

-	omena of Pluto from		•	· · ·		, ,	e 5
	nical year style is used: Th	-					
minimum elong	-3845 Feb 07 j 06:35	18° る 59'03		min. Earth dist.	-3837 Aug 20 j 01:21		46.43720 AU
max. Earth dist.	-3845 Feb 09 j 19:03		47.25170 AU	opposition	-3837 Aug 22 j 01:39	28° る 00'13	-17°37'10
retrograde	-3845 May 21 j 18:21	20° る 35'53		direct	-3837 Nov 10 j 20:36	26° る 59'37	
min. Earth dist.	-3845 Aug 11 j 07:48	19° る 35'34	45.40936 AU				
opposition	-3845 Aug 13 j 15:52	19° る 32'47	-17°15'31	conjunction	-3836 Feb 17 j 05:26	28° る 30'03	-16°54'49
direct	-3845 Nov 02 j 11:24	18° る 31'13		minimum elong	-3836 Feb 17 j 05:27	28° る 30'04	16°54'57
				max. Earth dist.	-3836 Feb 19 j 07:49	28° る 33'04	48.40141 AU
conjunction	-3844 Feb 08 j 14:55	20° る 03'32	-16°34'23		-3836 May 10 j 09:08	0° ≈	
minimum elong	-3844 Feb 08 j 14:55	20°る03'32	16°34'32	retrograde	-3836 May 30 j 19:05	0°≈04'26	
max. Earth dist.	-3844 Feb 11 j 02:27	20° ප 07'11	47.39240 AU	•	-3836 Jun 20 j 01:07	30°Ŗる	
retrograde	-3844 May 22 j 01:56	21° る 40'03		min. Earth dist.	-3836 Aug 20 j 09:04		46.54579 AU
min. Earth dist.	-3844 Aug 11 j 15:18		45.54927 AU	opposition	-3836 Aug 22 j 08:22	29° る 02'35	
opposition	-3844 Aug 13 j 23:28	20° ප 37'05		direct	-3836 Nov 11 j 01:52	28° る 02'03	1, 3020
direct	-3844 Nov 02 j 20:07	19° ප 35'38	17 17 20	direct	3030 NOV 11 J 01.32	20 302 03	
direct	-3644 NOV 02 J 20.07	19 03338		conjunction	-3835 Feb 17 j 12:55	29° る 32'16	16055!50
:	2042 E-L 00 : 22.50	210-207140	1,020100	3	-		
conjunction	-3843 Feb 08 j 22:58	21°る07'40		minimum elong	-3835 Feb 17 j 12:59	29° る 32'16	
minimum elong	-3843 Feb 08 j 22:57	21°る07'40		max. Earth dist.	-3835 Feb 19 j 14:47		48.50717 AU
max. Earth dist.	-3843 Feb 11 j 09:19		47.53026 AU		-3835 Mar 09 j 05:23	0° ≈	
retrograde	-3843 May 23 j 11:58	22° る 43'53		retrograde	-3835 May 31 j 22:47	1° ≈ 06'22	
min. Earth dist.	-3843 Aug 13 j 00:16		45.68650 AU	min. Earth dist.	-3835 Aug 21 j 17:48		46.64924 AU
opposition	-3843 Aug 15 j 07:07	21° る 41'03	-17°23'03	opposition	-3835 Aug 23 j 14:59	0° ≈ 04'35	-17°39'24
direct	-3843 Nov 04 j 01:50	20° る 39'44			-3835 Aug 27 j 13:19	30°Ŗる	
				direct	-3835 Nov 12 j 11:24	29° る 04'08	
conjunction	-3842 Feb 10 j 07:07	22° る 11'31	-16°41'31		-3834 Jan 25 j 08:15	0° ≈	
minimum elong	-3842 Feb 10 j 07:07	22° る 11'31	16°41'40				
max. Earth dist.	-3842 Feb 12 j 17:35	22° る 15'04	47.66552 AU	conjunction	-3834 Feb 18 j 20:18	0° ≈ 34'06	-16°56'51
retrograde	-3842 May 24 j 19:56	23° る 47'26		minimum elong	-3834 Feb 18 j 20:21	0° ≈ 34'06	16°56'59
min. Earth dist.	-3842 Aug 14 j 08:17	22°る47'25	45.82085 AU	max. Earth dist.	-3834 Feb 20 j 20:28	0°≈36'58	48.60823 AU
opposition	-3842 Aug 16 j 14:22	22° る 44'45		retrograde	-3834 Jun 02 j 02:58	2°≈07'55	
direct	-3842 Nov 05 j 09:01	21° ට 43'33	1, 2010	min. Earth dist.	-3834 Aug 23 j 00:19		46.74821 AU
direct	3042 110V 03 J 07.01	21 04333		opposition	-3834 Aug 24 j 21:13		-17°40'04
conjunction	-3841 Feb 11 j 14:57	23° ප 15'06	16044122	direct	-3834 Nov 13 j 20:22	0°≈05'49	-17 40 04
minimum elong		23° ප 15'06		direct	-3634 NOV 13 J 20.22	0 ~0349	
C	-3841 Feb 11 j 14:58				2022 F. L. 20 : 02 25	1025122	1.6957126
max. Earth dist.	-3841 Feb 13 j 23:29		47.79801 AU	conjunction	-3833 Feb 20 j 03:25		-16°57'26
retrograde	-3841 May 26 j 04:18	24° る 50'45		minimum elong	-3833 Feb 20 j 03:29		16°57'34
min. Earth dist.	-3841 Aug 15 j 15:53		45.95235 AU	max. Earth dist.	-3833 Feb 22 j 02:18		48.70508 AU
opposition	-3841 Aug 17 j 21:41	23° ප් 48'14	-17°29'06	retrograde	-3833 Jun 03 j 10:10	3° ≈ 09'07	
direct	-3841 Nov 06 j 15:06	22° る 47'10		min. Earth dist.	-3833 Aug 24 j 08:30		46.84338 AU
				opposition	-3833 Aug 26 j 03:35	2° ≈ 07'30	-17°40'25
conjunction	-3840 Feb 12 j 22:39	24°る18'29		direct	-3833 Nov 15 j 03:16	1° ≈ 07'08	
minimum elong	-3840 Feb 12 j 22:40	24° る 18'30	16°47'23				
max. Earth dist.	-3840 Feb 15 j 07:13	24° る 21'54	47.92733 AU	conjunction	-3832 Feb 21 j 10:26	2° ≈ 36'39	-16°57'42
retrograde	-3840 May 26 j 10:07	25° る 53'53		minimum elong	-3832 Feb 21 j 10:29	2° ≈ 36'39	16°57'49
min. Earth dist.	-3840 Aug 16 j 01:09	24°る54'03	46.08034 AU	max. Earth dist.	-3832 Feb 23 j 09:07	2°≈39'25	48.79847 AU
opposition	-3840 Aug 18 j 04:55	24° る 51'31	-17°31'36	retrograde	-3832 Jun 03 j 16:47	4°≈09'58	
direct	-3840 Nov 06 j 23:44	23° る 50'35		min. Earth dist.	-3832 Aug 24 j 15:10		46.93509 AU
				opposition	-3832 Aug 26 j 09:42		-17°40'26
conjunction	-3839 Feb 13 j 06:30	25° ට 21'41	-16°49'34	direct	-3832 Nov 15 j 09:56	2°≈08'07	– v
minimum elong	-3839 Feb 13 j 06:32	25° ට 21'42			20021101 12 9 09.20	2 10 100 07	
max. Earth dist.	-3839 Feb 15 j 13:41		48.05304 AU	conjunction	-3831 Feb 21 j 17:21	3° ≈ 37'26	-16°57'30
	-3839 May 27 j 15:59	25 3 2501 26° 3 56'50	46.03304 AU	minimum elong		3°≈37'26	16°57'47
retrograde			46 20425 ATT	•	-3831 Feb 21 j 17:26		
min. Earth dist.	-3839 Aug 17 j 08:15		46.20425 AU	max. Earth dist.	-3831 Feb 23 j 14:02		48.88869 AU
opposition	-3839 Aug 19 j 11:48	25° ⋜ 54'37	-17°33'46	retrograde	-3831 Jun 05 j 01:44	5°≈10'30	
direct	-3839 Nov 08 j 08:48	24° る 53'49		min. Earth dist.	-3831 Aug 25 j 21:51		47.02384 AU
				opposition	-3831 Aug 27 j 15:41		-17°40'09
conjunction	-3838 Feb 14 j 14:14	26° る 24'43		direct	-3831 Nov 16 j 13:28	3° ≈ 08'48	
minimum elong	-3838 Feb 14 j 14:15	26° る 24'43	16°51'46				
max. Earth dist.	-3838 Feb 16 j 19:39	26° る 27'55	48.17423 AU	conjunction	-3830 Feb 23 j 00:19	4° ≈ 37'56	-16°57'17
retrograde	-3838 May 29 j 01:23	27° る 59'37		minimum elong	-3830 Feb 23 j 00:23	4° ≈ 37'57	16°57'25
min. Earth dist.	-3838 Aug 18 j 17:21	26° る 59'57	46.32341 AU	max. Earth dist.	-3830 Feb 24 j 20:59	4° ≈ 40'34	48.97596 AU
opposition	-3838 Aug 20 j 18:50	26° る 57'32		retrograde	-3830 Jun 06 j 07:28	6°≈10'47	
direct	-3838 Nov 09 j 15:13	25° ප 56'51		min. Earth dist.	-3830 Aug 27 j 05:30		47.10954 AU
******				opposition	-3830 Aug 28 j 21:41		-17°39'32
conjunction	-3837 Feb 15 j 21:54	27° ට 27'31	-16°53'21	direct	-3830 Nov 17 j 20:09	4°≈09'16	1, 3, 32
minimum elong	-3837 Feb 15 j 21:57	27° る 27'31		ancei	3030 110V 1/J 20.09	¬ ~ 07 10	
_			48.29047 AU	aonium ation	2020 Eab 24:06:50	500020112	16056127
max. Earth dist.	-3837 Feb 18 j 02:49		40.2904 / AU	conjunction	-3829 Feb 24 j 06:58		-16°56'37
retrograde	-3837 May 30 j 10:15	29° る 02'10		minimum elong	-3829 Feb 24 j 07:03	s ≈38°14	16°56'46

	nical year style is used: Th						
max. Earth dist.	-3829 Feb 26 j 02:17	•	49.06036 AU	unting style is the year	-3821 Jul 11 j 08:43	ounting style. 15°R≈	
retrograde	-3829 Jun 07 j 11:47	7°≈10'52	47.00030 AC	opposition	-3821 Sep 06 j 23:25	14°≈06'22	-17°21'07
min. Earth dist.	-3829 Aug 28 j 11:13		47.19219 AU	min. Earth dist.	-3821 Sep 05 j 17:50		47.69436 AU
opposition	-3829 Aug 30 j 03:30		-17°38'36	direct	-3821 Nov 27 j 00:38	13°≈06'45	47.05450710
direct	-3829 Nov 19 j 03:31	5°≈09'32	1, 3030	411000	30211.01 27 1 00.30	15 15 15 15	
	2027110117103.51	0 10 10 7 5 2		conjunction	-3820 Mar 04 j 17:47	14° ≈ 34'31	-16°38'14
conjunction	-3828 Feb 25 j 13:38	6° ≈ 38'21	-16°55'39	minimum elong	-3820 Mar 04 j 17:56	14° ≈ 34'31	
minimum elong	-3828 Feb 25 j 13:44	6° ≈ 38'21		max. Earth dist.	-3820 Mar 06 j 01:51		49.62876 AU
max. Earth dist.	-3828 Feb 27 j 07:40		49.14152 AU		-3820 Mar 23 j 09:08	15° ≈	
retrograde	-3828 Jun 07 j 18:07	8° ≈ 10'49		retrograde	-3820 Jun 15 j 21:05	16° ≈ 05'37	
min. Earth dist.	-3828 Aug 28 j 18:59	7° ≈ 11'31	47.27145 AU	min. Earth dist.	-3820 Sep 06 j 00:29	15°≈06'25	47.73749 AU
opposition	-3828 Aug 30 j 09:19	7° ≈ 09'40	-17°37'22	opposition	-3820 Sep 07 j 04:28	15° ≈ 05'05	-17°17'43
direct	-3828 Nov 19 j 10:20	6° ≈ 09'41			-3820 Sep 11 j 14:45	15°R ≈	
				direct	-3820 Nov 27 j 05:45	14° ≈ 05'30	
conjunction	-3827 Feb 25 j 20:27	7° ≈ 38′22	-16°54'23		-3819 Feb 09 j 10:33	15° ≈	
minimum elong	-3827 Feb 25 j 20:32	7° ≈ 38′22	16°54'32				
max. Earth dist.	-3827 Feb 27 j 14:08	7° ≈ 40'48	49.21911 AU	conjunction	-3819 Mar 05 j 23:59	15° ≈ 33'10	-16°34'51
retrograde	-3827 Jun 09 j 01:44	9° ≈ 10'40		minimum elong	-3819 Mar 06 j 00:07	15° ≈ 33'10	16°34'58
min. Earth dist.	-3827 Aug 30 j 01:32	8° ≈ 11'26	47.34659 AU	max. Earth dist.	-3819 Mar 07 j 06:25	15° ≈ 34'55	49.67104 AU
opposition	-3827 Aug 31 j 14:58	8° ≈ 09'38	-17°35'50	retrograde	-3819 Jun 17 j 01:05	17° ≈ 04'06	
direct	-3827 Nov 20 j 15:22	7° ≈ 09'44		min. Earth dist.	-3819 Sep 07 j 05:24	16° ≈ 04'58	47.77766 AU
				opposition	-3819 Sep 08 j 09:26	16° ≈ 03'38	-17°14'01
conjunction	-3826 Feb 27 j 03:07	8° ≈ 38'17	-16°52'51	direct	-3819 Nov 28 j 11:38	15° ≈ 04'05	
minimum elong	-3826 Feb 27 j 03:13		16°52'58				
max. Earth dist.	-3826 Feb 28 j 18:20		49.29228 AU	conjunction	-3818 Mar 07 j 06:04	16° ≈ 31'38	
retrograde	-3826 Jun 10 j 10:43	10° ≈ 10′25		minimum elong	-3818 Mar 07 j 06:13	16° ≈ 31'39	
min. Earth dist.	-3826 Aug 31 j 08:19		47.41713 AU	max. Earth dist.	-3818 Mar 08 j 11:21		49.71031 AU
opposition	-3826 Sep 01 j 20:32		-17°34'02	retrograde	-3818 Jun 18 j 04:20	18° ≈ 02'27	
direct	-3826 Nov 21 j 18:26	8° ≈ 09'42		opposition	-3818 Sep 09 j 14:24	17°≈02'02	
				min. Earth dist.	-3818 Sep 08 j 12:14		47.81493 AU
conjunction	-3825 Feb 28 j 09:51		-16°51'03	direct	-3818 Nov 29 j 19:33	16° ≈ 02'32	
minimum elong	-3825 Feb 28 j 09:56	9° ≈ 38'08			201734 00:12.12	170 - 20100	1.600.711.5
max. Earth dist.	-3825 Mar 02 j 00:25		49.36052 AU	conjunction	-3817 Mar 08 j 12:12	17°≈30'00	
retrograde	-3825 Jun 11 j 15:17	11°≈10'05	47 49242 ATT	minimum elong	-3817 Mar 08 j 12:20	17°≈30'00	
min. Earth dist.	-3825 Sep 01 j 16:01 -3825 Sep 03 j 02:10		47.48242 AU	max. Earth dist.	-3817 Mar 09 j 17:15 -3817 Jun 19 j 10:01		49.74690 AU
opposition	1 3	10°≈09'15 9°≈09'31	-1/-31/38	retrograde opposition	-3817 Jun 19 j 10:01 -3817 Sep 10 j 19:16	19°≈00'41 18°≈00'21	17905145
direct	-3825 Nov 23 j 01:28	9 20931			1 7		-17 03 43 47.84925 AU
conjunction	2024 Eab 20 : 16:21	1000027140	16940!00	min. Earth dist.	-3817 Sep 09 j 17:25 -3817 Dec 01 j 01:24	18°≈01'33 17°≈00'54	47.84925 AU
minimum elong	-3824 Feb 29 j 16:21 -3824 Feb 29 j 16:29	10°≈37'48 10°≈37'49	16°49'07	direct	-381/ Dec 01 J 01.24	1/ ≈00 34	
max. Earth dist.	-3824 Mar 02 j 04:58		49.42362 AU	conjunction	-3816 Mar 08 j 18:03	18° ≈ 28'17	16°23'01
retrograde	-3824 Jun 11 j 19:10	10 ≈3930 12°≈09'36	49.42302 AU	minimum elong	-3816 Mar 08 j 18:13	18°≈28'17	
min. Earth dist.	-3824 Sep 01 j 22:00		47.54243 AU	max. Earth dist.	-3816 Mar 09 j 21:01		49.78044 AU
opposition	-3824 Sep 03 j 07:39	11°≈08'51		retrograde	-3816 Jun 19 j 18:55	19°≈58'52	4)./6044 AC
direct	-3824 Nov 23 j 09:17	10° ≈ 09'09	-17 2737	min. Earth dist.	-3816 Sep 09 j 23:30		47.88038 AU
direct	3024 110V 25 J 07.17	10 /0/0/0/		opposition	-3816 Sep 11 j 00:11	18°≈58'37	
conjunction	-3823 Mar 01 j 22:53	11° ≈ 37'19	-16°46'42	direct	-3816 Dec 01 j 03:11	17°≈59'12	17 0111
minimum elong	-3823 Mar 01 j 23:00	11° ≈ 37'19	16°46'50		2010 200 01 J 00.11	-, J/12	
max. Earth dist.	-3823 Mar 03 j 09:50		49.48143 AU	conjunction	-3815 Mar 10 j 00:15	19° ≈ 26'32	-16°18'32
retrograde	-3823 Jun 13 j 00:46	13° ≈ 08'56	-	minimum elong	-3815 Mar 10 j 00:25	19° ≈ 26'32	
min. Earth dist.	-3823 Sep 03 j 05:42		47.59740 AU	max. Earth dist.	-3815 Mar 11 j 02:53		49.81042 AU
opposition	-3823 Sep 04 j 13:00	12° ≈ 08'15		retrograde	-3815 Jun 21 j 00:36	20°≈57'00	
direct	-3823 Nov 24 j 16:08	11° ≈ 08'35		min. Earth dist.	-3815 Sep 11 j 06:02	19° ≈ 57'55	47.90751 AU
	, i			opposition	-3815 Sep 12 j 04:56	19° ≈ 56'49	
conjunction	-3822 Mar 03 j 05:26	12° ≈ 36'36	-16°44'09	direct	-3815 Dec 02 j 08:09	18° ≈ 57'28	
minimum elong	-3822 Mar 03 j 05:34	12° ≈ 36'37	16°44'16		·		
max. Earth dist.	-3822 Mar 04 j 15:43	12° ≈ 38'35	49.53456 AU	conjunction	-3814 Mar 11 j 06:23	20° ≈ 24'44	-16°13'48
retrograde	-3822 Jun 14 j 06:21	14° ≈ 08′03		minimum elong	-3814 Mar 11 j 06:32	20° ≈ 24'45	16°13'54
min. Earth dist.	-3822 Sep 04 j 11:33	13° ≈ 08'53	47.64778 AU	max. Earth dist.	-3814 Mar 12 j 07:05	20° ≈ 26′09	49.83625 AU
opposition	-3822 Sep 05 j 18:13	13° ≈ 07′25	-17°24'14	retrograde	-3814 Jun 22 j 05:06	21° ≈ 55′06	
direct	-3822 Nov 25 j 22:19	12° ≈ 07'47		min. Earth dist.	-3814 Sep 12 j 11:24	20° ≈ 56′04	47.93013 AU
				opposition	-3814 Sep 13 j 09:42	20° ≈ 55'00	-16°51'17
conjunction	-3821 Mar 04 j 11:31	13° ≈ 35'40	-16°41'20	direct	-3814 Dec 03 j 13:58	19° ≈ 55'41	
minimum elong	-3821 Mar 04 j 11:37	13° ≈ 35'40	16°41'27				
max. Earth dist.	-3821 Mar 05 j 19:35	13° ≈ 37'31	49.58345 AU	conjunction	-3813 Mar 12 j 12:20	21° ≈ 22'54	-16°08'49
	-3821 May 20 j 20:43	15° ≈		minimum elong	-3813 Mar 12 j 12:31	21° ≈ 22'55	16°08'55
retrograde	-3821 Jun 15 j 15:17	15° ≈ 06'56		max. Earth dist.	-3813 Mar 13 j 11:23	21° ≈ 24'13	49.85710 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3813 in astronomical counting style is the year 3814 BCE in historical counting style. opposition -3813 Jun 23 j 09:13 22°≈53'10 -3805 Sep 22 i 03:15 29°≈34'05 -15°54'33 retrograde 29°≈34'35 47.92476 AU -3813 Sep 14 j 14:39 21°≈53'07 -16°45'58 min. Earth dist. -3805 Sep 21 j 16:39 opposition min. Earth dist. -3813 Sep 13 j 18:41 21°≈54'04 47.94757 AU -3805 Dec 12 j 10:06 28°≈34'48 direct -3813 Dec 04 j 20:36 -3804 Mar 19 j 11:08 0°**₩** direct 20°≈53'49 -3812 Mar 12 j 18:32 22°≈20'59 -16°03'37 -3804 Mar 20 j 17:34 0°¥01'44 -15°13'10 conjunction conjunction 16°03'43 -3812 Mar 12 j 18:42 -3804 Mar 20 j 17:46 0°**米**01'44 15°13'14 minimum elong 22°**≈**20'59 minimum elong -3804 Mar 21 j 05:00 0°**)** 02′23 49.84300 AU -3812 Mar 13 j 16:35 max. Earth dist. 22°≈22'15 49.87280 AU max. Earth dist. -3804 Jul 01 j 11:05 retrograde -3812 Jun 23 j 13:39 23°≈51'09 retrograde 1°**)**31'20 0°**¥**31'34 -15°46'56 opposition -3812 Sep 14 j 19:18 22°≈51'08 -16°40'26 opposition -3804 Sep 22 j 07:35 -3804 Sep 21 j 21:21 min. Earth dist. -3812 Sep 14 j 00:10 22°≈52'03 47.95960 AU min. Earth dist. 0°**)** 32'04 47.90639 AU -3812 Dec 05 j 03:05 -3804 Oct 21 j 10:12 direct 21°≈51'51 30°R≈ -3804 Dec 12 j 15:04 29°≈32'19 direct conjunction -3811 Mar 14 j 00:35 23°≈18'57 -15°58'10 -3803 Feb 02 j 06:45 0°**)**€ minimum elong -3811 Mar 14 j 00:46 23°≈18'57 15°58'17 max. Earth dist. -3811 Mar 14 j 20:00 23°≈20'03 49.88315 AU conjunction -3803 Mar 21 j 23:30 0°¥59'18 -15°05'42 retrograde -3811 Jun 24 j 21:44 24°≈49'01 minimum elong -3803 Mar 21 j 23:41 0°¥59'18 15°05'48 min. Earth dist. -3811 Sep 15 j 06:33 23°≈49'52 47.96649 AU max. Earth dist. -3803 Mar 22 j 09:26 0°**)** 59'52 49.82386 AU opposition -3811 Sep 16 j 00:04 23°≈49'02 -16°34'39 retrograde -3803 Jul 02 j 14:45 2°\ 28'54 direct -3811 Dec 06 j 06:05 22°≈49'44 opposition -3803 Sep 23 j 12:08 1°¥29'11 -15°39'04 min. Earth dist. -3803 Sep 23 j 04:11 1°**升**29'33 47.88403 AU conjunction -3810 Mar 15 i 06:39 24°≈16'46 -15°52'30 direct -3803 Dec 13 j 21:38 0°**¥**29'57 minimum elong -3810 Mar 15 i 06:48 24°≈16'47 15°52'36 evening set -3802 Mar 22 j 04:11 1°****55'31 max. Earth dist. -3810 Mar 16 j 01:33 24°≈17'51 49.88847 AU retrograde -3810 Jun 26 j 03:35 25°≈46'44 conjunction -3802 Mar 23 j 05:30 1°\ 56'57 -14°58'00 -3810 Sep 17 j 04:40 24°≈46'46 -16°28'37 minimum elong -3802 Mar 23 i 05:42 1°\ 56'58 14°58'04 opposition -3810 Sep 16 j 12:56 24°≈47'31 47.96851 AU -3802 Mar 24 j 07:15 1°**H** 58'25 min Earth dist morning rise -3810 Dec 07 j 10:32 23°≈47'28 -3802 Mar 23 j 14:39 1°**)** 57′29 49.80051 AU direct max. Earth dist. -3802 Jul 03 j 18:45 retrograde 3°\ 26'34 -3802 Sep 24 j 16:31 -3809 Mar 16 j 12:32 25°≈14'27 -15°46'35 2°\ 26'53 -15°30'57 conjunction opposition -3809 Mar 16 j 12:43 -3802 Sep 24 j 09:11 2°**升**27'14 47.85698 AU 25°≈14'27 15°46'42 min. Earth dist. minimum elong -3809 Mar 17 j 05:34 -3802 Dec 15 j 04:07 1°**)** 27'40 max. Earth dist. 25°≈15'25 49.88946 AU direct -3809 Jun 27 j 08:50 26°≈44'18 -3801 Mar 22 j 02:04 2°**H**51'27 retrograde evening set -3809 Sep 18 j 09:11 25°≈44'21 -16°22'20 opposition -3809 Sep 17 j 17:42 25°≈45'05 47.96649 AU -3801 Mar 24 j 11:25 2°**¥**54'42 -14°50'04 min. Earth dist. conjunction -3809 Dec 08 j 14:59 24°≈45'03 -3801 Mar 24 j 11:36 2°**)** 54'43 14°50'09 direct minimum elong -3801 Mar 24 j 17:54 2°**¥**55'04 49.77219 AU max. Earth dist. conjunction -3808 Mar 16 j 18:18 26°≈11'59 -15°40'26 morning rise -3801 Mar 26 j 21:13 2°****57'59 minimum elong -3808 Mar 16 j 18:28 26°≈12'00 15°40'31 retrograde -3801 Jul 05 j 02:39 4° **X** 24'19 max. Earth dist. -3808 Mar 17 j 10:01 26°≈12'53 49.88651 AU opposition -3801 Sep 25 j 21:03 3°¥24'40 -15°22'36 retrograde -3808 Jun 27 j 11:44 27°≈41'46 min. Earth dist. -3801 Sep 25 j 15:35 3°**升**24'55 47.82484 AU -3808 Sep 18 j 13:48 26°≈41'50 -16°15'48 -3801 Dec 16 j 06:55 2°\ 25'26 opposition direct min. Earth dist. -3808 Sep 18 j 00:24 26°≈42'29 47.96080 AU -3800 Mar 21 j 12:01 3°**)**(48'07 evening set -3808 Dec 08 j 22:16 25°**≈**42'32 direct conjunction -3800 Mar 24 j 17:29 3°**¥**52'30 -14°41'55 -3807 Mar 18 i 00:16 27°≈09'26 -15°34'00 -3800 Mar 24 j 17:42 conjunction minimum elong 3°**)** 52'31 14°41'59 -3807 Mar 18 j 00:28 -3800 Mar 24 i 23:15 3°**¥**52'50 49.73851 AU minimum elong 27°≈09'27 15°34'06 max. Earth dist. -3800 Mar 27 j 23:28 max. Earth dist. -3807 Mar 18 j 15:37 27°≈10'19 49.88024 AU morning rise 3°\ 56'56 -3800 Jul 05 i 09:45 retrograde -3807 Jun 28 i 15:55 28°≈39'09 retrograde 5°**)**€22'06 opposition -3807 Sep 19 i 18:10 27°≈39'15 -16°08'59 opposition -3800 Sep 26 j 01:38 4°¥22'27 -15°14'02 min. Earth dist. -3807 Sep 19 i 05:06 27°≈39'53 47.95181 AU min. Earth dist. -3800 Sep 25 j 21:59 4°¥22'37 47.78706 AU direct -3807 Dec 10 j 04:35 26°≈39'57 direct -3800 Dec 16 j 10:18 3°¥23'11 -3799 Mar 22 j 02:00 4°)(44'59 evening set conjunction -3806 Mar 19 j 06:02 28°≈06'51 -15°27'19 minimum elong -3806 Mar 19 j 06:12 28°≈06'51 15°27'24 conjunction -3799 Mar 25 j 23:33 4°**)** 50'18 -14°33'32 max. Earth dist. -3806 Mar 19 j 19:09 28°≈07'35 49.87083 AU minimum elong -3799 Mar 25 j 23:44 4°**)** 50'18 14°33'37 retrograde -3806 Jun 30 j 00:32 29°≈36'31 max. Earth dist. -3799 Mar 26 j 02:57 4°**升**50'29 49.69942 AU -3806 Sep 20 j 22:42 -3799 Mar 29 j 21:36 4°**)** 55'38 opposition 28°≈36'39 -16°01'54 morning rise -3806 Sep 20 j 10:45 -3799 Jul 06 j 16:50 6°**¥**19'51 min. Earth dist. 28°≈37'13 47.93987 AU retrograde -3806 Dec 11 j 05:54 -3799 Sep 27 j 05:59 5°**¥**20'11 -15°05'15 direct 27°≈37'21 opposition -3799 Sep 27 j 03:03 5°**升**20'20 47.74400 AU min. Earth dist. conjunction -3805 Mar 20 j 11:45 29°≈04'15 -15°20'22 direct -3799 Dec 17 j 13:43 4°**∺**20'53 minimum elong -3805 Mar 20 j 11:56 29°≈04'16 15°20'28 evening set -3798 Mar 22 j 18:04 5°**)**41'55 max. Earth dist. -3805 Mar 21 j 00:49 29°≈05'00 49.85844 AU -3805 May 03 j 12:27 0°**)**€ conjunction -3798 Mar 27 j 05:34 5°**¥**48'01 -14°24'56 retrograde -3805 Jul 01 j 06:22 0°\ 33'54 minimum elong -3798 Mar 27 j 05:47 5°\(\pm\)48'02 14°25'01 -3805 Aug 29 j 15:09 30°R≈ max. Earth dist. -3798 Mar 27 j 07:21 5°¥48'07 49.65510 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3798 in astronomical counting style is the year 3799 BCE in historical counting style. -3798 Mar 31 i 17:42 5°**)** 54'09 conjunction -3791 Apr 02 j 23:15 12°**)** 30'52 -13°17'47 morning rise -3798 Jul 07 i 19:15 7°**₩**17'33 -3791 Apr 02 j 23:28 12°**¥**30′53 13°17′49 retrograde minimum elong opposition -3798 Sep 28 j 10:33 6°\;\;17'52 -14°56'13 -3791 Apr 02 j 16:19 12°¥30'28 49.24302 AU max. Earth dist. -3791 Apr 10 j 12:25 -3798 Sep 28 j 09:57 6°**)** 17'53 47.69602 AU min. Earth dist. 12°**)**41'10 morning rise -3791 Jul 14 j 07:08 -3798 Dec 18 j 20:51 14° ¥ 00'33 direct 5°**升**18'30 retrograde 13°**)** € 00'44 -13°45'42 -3791 Oct 04 j 17:36 evening set -3797 Mar 23 j 11:23 6°**¥**38′50 opposition -3791 Oct 05 j 00:08 13°**₭**00'26 47.26241 AU min. Earth dist. 6°\dagger45'39 -14°16'06 conjunction -3797 Mar 28 j 11:26 direct -3791 Dec 25 j 08:14 12°**H**01'03 -3790 Mar 27 j 08:35 minimum elong -3797 Mar 28 j 11:38 6°**)**45'40 14°16'10 evening set 13°**)** 18′02 max. Earth dist. -3797 Mar 28 j 12:34 6°**¥**45'43 49.60631 AU morning rise -3797 Apr 02 j 12:03 6°¥52'30 conjunction -3790 Apr 04 j 05:32 13°**¥**28'46 -13°07'10 -3797 Jul 08 j 21:13 8°**¥**15′09 -3790 Apr 04 j 05:44 retrograde minimum elong 13°**¥**28'47 13°07'14 -3790 Apr 03 j 22:08 13°**¥**28′21 49.17096 AU opposition -3797 Sep 29 j 14:56 7°**¥**15'26 -14°46'56 max. Earth dist. -3790 Apr 12 j 03:12 min. Earth dist. -3797 Sep 29 j 14:46 7°**升**15'27 47.64376 AU morning rise 13°**)** 39'34 direct -3797 Dec 20 j 04:56 6°¥16'01 retrograde -3790 Jul 15 j 14:07 14° ¥ 58'33 evening set -3796 Mar 23 j 05:47 7°**)** ₹35'44 opposition -3790 Oct 05 j 22:15 13°¥58'44 -13°34'34 min. Earth dist. -3790 Oct 06 j 06:19 13°**)** 58'21 47.18664 AU conjunction -3796 Mar 28 j 17:19 7°**¥**43'12 -14°07'02 direct -3790 Dec 26 j 11:54 12°\ 59'01 minimum elong -3796 Mar 28 j 17:32 7°\dagger43'12 14°07'06 evening set -3789 Mar 28 j 06:32 14° **)** 15'39 max. Earth dist. -3796 Mar 28 j 16:07 7°**)** 43'07 49.55351 AU morning rise -3796 Apr 03 j 05:34 7°**¥**50'42 conjunction -3789 Apr 05 j 11:37 14°\(\frac{1}{26}\)'52 -12°56'19 retrograde -3796 Jul 09 i 04:26 9°**)** 12'42 minimum elong -3789 Apr 05 i 11:50 14°\ 26'53 12°56'21 opposition -3796 Sep 29 i 19:18 8°\(\)12'56 -14°37'24 max. Earth dist. -3789 Apr 05 i 02:06 14°\(\frac{1}{26}\)'19 49.09442 AU min. Earth dist. -3796 Sep 29 i 20:35 8°**升**12'53 47.58789 AU morning rise -3789 Apr 13 i 17:33 14° **)** 38'08 direct -3796 Dec 20 j 08:08 7°**)** 13'27 retrograde -3789 Jul 16 j 22:15 15°**)** 56'44 evening set -3795 Mar 24 j 00:59 8° ¥ 32'36 -3789 Oct 07 j 02:53 14°**¥**56'54 -13°23'13 opposition -3789 Oct 07 j 11:39 14°**¥**56'29 47.10609 AU min. Earth dist. -3795 Mar 29 j 23:24 8°¥40'40 -13°57'42 -3789 Dec 27 j 14:57 13°¥ 57'08 conjunction direct -3795 Mar 29 j 23:36 8°¥40'41 13°57'45 -3788 Mar 28 j 04:52 15°**¥** 13'28 evening set minimum elong -3795 Mar 29 j 21:58 8°**升**40'35 49.49728 AU max. Earth dist. -3795 Apr 04 j 22:25 8° **) (**48'47 -3788 Apr 05 j 18:01 15°**¥**25'09 -12°45'14 morning rise conjunction 10°**)** 10′10 -3795 Jul 10 j 10:18 -3788 Apr 05 j 18:13 retrograde minimum elong 15°**¥**25'09 12°45'17 -3795 Sep 30 j 23:46 -3788 Apr 05 j 06:44 9° **★**10'23 -14°27'36 max. Earth dist. 15°**¥**24'30 49.01269 AU opposition -3795 Oct 01 j 02:19 9°**¥**10'16 47.52868 AU -3788 Apr 14 j 08:01 15°**)** ₹36′52 min. Earth dist. morning rise -3795 Dec 21 j 12:27 8°**升**10′50 -3788 Jul 17 j 02:48 16°**¥**55′06 direct retrograde -3794 Mar 24 j 20:48 9°**∺**29′28 -3788 Oct 07 j 07:36 15°**¥**55'15 -13°11'37 evening set opposition -3788 Oct 07 j 18:55 15°**¥**54'42 47.02028 AU min. Earth dist. conjunction -3794 Mar 31 j 05:15 9°\ 38'07 -13°48'07 direct -3788 Dec 27 j 20:54 14°**¥**55′25 minimum elong -3794 Mar 31 j 05:28 9°\;\;38'08 13°48'11 evening set -3787 Mar 29 j 03:43 16°**₩**11'26 max. Earth dist. -3794 Mar 31 j 02:14 9°**升**37'57 49.43806 AU morning rise -3794 Apr 06 j 14:27 9°**)** 46′49 conjunction -3787 Apr 07 j 00:34 16°**¥**23'34 -12°33'55 retrograde -3794 Jul 11 j 16:28 11°**)**€07'38 -3787 Apr 07 j 00:48 16°**¥**23'35 12°33'58 minimum elong -3794 Oct 02 j 04:08 10°**)** 67′50 -14°17′31 max. Earth dist. -3787 Apr 06 j 12:15 16°**¥**22'52 48.92585 AU opposition min. Earth dist. -3794 Oct 02 j 06:54 10°**)** 67'42 47.46664 AU -3787 Apr 15 j 22:10 16°**)** 35'45 morning rise -3794 Dec 22 j 16:05 9°**₩**08'14 -3787 Jul 18 j 05:24 17°**¥**53'36 direct retrograde 10°**)**€26'23 -3787 Oct 08 j 12:18 16°**¥**53'43 -12°59'46 evening set -3793 Mar 25 i 16:59 opposition 16°**¥**53'09 46.92929 AU min. Earth dist. -3787 Oct 09 i 00:12 10°**¥**35'36 -13°38'16 conjunction -3793 Apr 01 j 11:11 direct -3787 Dec 29 i 05:09 15°**)** 53'49 minimum elong -3793 Apr 01 j 11:23 10°**)** 35'37 13°38'19 evening set -3786 Mar 30 j 02:36 17°**)** 09'32 max. Earth dist. -3793 Apr 01 j 06:55 10°**)** 35'21 49.37598 AU -3793 Apr 08 j 06:09 10°**¥**44'51 -3786 Apr 08 i 06:52 17°**升**22′05 -12°22′23 morning rise conjunction -3793 Jul 12 j 20:38 12°\ 05'09 minimum elong -3786 Apr 08 i 07:04 17°**¥**22'06 12°22'25 retrograde -3793 Oct 03 j 08:41 11°**)** 05'19 -14°07'11 max. Earth dist. -3786 Apr 07 j 15:52 17°**)**€21'14 48.83395 AU opposition 11°**升**05'06 47.40179 AU -3786 Apr 17 j 12:05 17°**)** 34'43 min. Earth dist. -3793 Oct 03 j 13:17 morning rise -3786 Jul 19 j 12:21 direct -3793 Dec 23 j 22:05 10°**₩**05'41 retrograde 18° **)** 52'13 evening set -3792 Mar 25 j 13:45 11°**¥**23′25 opposition -3786 Oct 09 j 17:04 17°**¥**52'17 -12°47'41 min. Earth dist. -3786 Oct 10 j 06:45 17°**₭**51'37 46.83360 AU -3792 Apr 01 j 17:12 11°**)** 33′10 -13°28′09 direct -3786 Dec 30 j 09:13 16°**¥**52′18 conjunction -3792 Apr 01 j 17:25 -3785 Mar 31 j 01:43 18°**)** 07'43 minimum elong 11°**X**33'10 13°28'13 evening set -3792 Apr 01 j 12:33 11°**¥**32'54 49.31117 AU max. Earth dist. -3792 Apr 08 j 21:21 -3785 Apr 09 j 13:23 18°**¥**20'42 -12°10'36 morning rise 11°**)**(42'56 conjunction retrograde -3792 Jul 13 j 00:02 13°**)**€02'46 minimum elong -3785 Apr 09 j 13:37 18°**¥**20'43 12°10'38 opposition -3792 Oct 03 j 13:08 12°**₭**02'57 -13°56'34 max. Earth dist. -3785 Apr 08 j 22:02 18°**¥**19'49 48.73759 AU min. Earth dist. -3792 Oct 03 j 17:59 12°**₭**02'43 47.33384 AU morning rise -3785 Apr 19 j 01:48 18°**)** 33'45 direct -3792 Dec 24 j 04:54 11°**)** 03'17 retrograde -3785 Jul 20 j 18:53 19°**¥**50′56 -3791 Mar 26 j 10:58 12°**)**€20'38 -3785 Oct 10 j 21:49 18°¥50'56 -12°35'21 evening set opposition

min. Earth dist.

-3785 Oct 11 j 12:51

18°**¥**50′12 46.73366 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3784 in astronomical counting style is the year 3785 BCE in historical counting style. direct -3785 Dec 31 i 13:14 17° ¥ 50'51 retrograde -3778 Jul 27 i 16:52 26°**)** € 46′08 -3784 Mar 31 j 01:08 19°**)** 05'59 -3778 Oct 17 j 08:58 25°\dagger45'45 -11°01'20 evening set opposition min. Earth dist. -3778 Oct 18 j 07:53 25°\ 44'38 45.94631 AU -3784 Apr 09 j 19:47 19°**)** 19'24 -11°58'34 24°**)**(45'04 -3777 Jan 06 j 23:58 conjunction direct -3784 Apr 09 j 19:59 19°**升**19'25 11°58'35 -3777 Apr 06 j 03:36 25°**¥**58'55 minimum elong evening set -3784 Apr 09 j 02:33 max. Earth dist. 19°**光**18′25 48.63742 AU 26°**升**15′04 -10°26′58 -3784 Apr 19 j 15:19 morning rise 19°**)** 32′52 conjunction -3777 Apr 17 j 19:15 -3784 Jul 21 j 02:31 -3777 Apr 17 j 19:27 retrograde 20°**)** 49'43 minimum elong 26°**¥**15'05 10°26'59 -3777 Apr 16 j 17:54 opposition -3784 Oct 11 j 02:34 19°**)** 49'39 -12°22'45 max. Earth dist. 26°**¥**13'36 47.84934 AU min. Earth dist. -3784 Oct 11 j 18:07 19°**¥**48′54 46.63017 AU morning rise -3777 Apr 29 j 11:34 26°**)** 31′16 -3777 Jul 28 j 20:33 27°**)** 46′28 direct -3784 Dec 31 j 16:41 18°**)** 49′28 retrograde -3777 Oct 18 j 14:16 evening set -3783 Apr 01 j 00:44 20°**)**€04'22 opposition 26°\dagger46'02 -10°46'50 -3777 Oct 19 j 13:43 max. Earth dist. -3783 Apr 10 j 07:48 20°**升**17'08 48.53372 AU min. Earth dist. 26°**¥**44′53 45.81928 AU direct -3776 Jan 08 j 08:39 25°**)** 45'14 conjunction -3783 Apr 11 j 02:21 20°\dagger18'12 -11°46'16 evening set -3776 Apr 06 j 05:07 26°\ 58'58 minimum elong -3783 Apr 11 j 02:35 20°¥18'13 11°46'18 max. Earth dist. -3776 Apr 16 j 22:22 27°**₭**13'51 47.72131 AU morning rise -3783 Apr 21 j 04:51 20°**)** 32′05 retrograde -3783 Jul 22 j 07:20 21°**)**(48'37 conjunction -3776 Apr 18 j 02:29 27°\ 15'29 -10°12'51 opposition -3783 Oct 12 j 07:26 20°\(\frac{12}{48}\)'29 -12°09'52 minimum elong -3776 Apr 18 j 02:42 27°**)** 15′30 10°12'51 min. Earth dist. -3783 Oct 13 j 00:54 20°**)**47'39 46.52346 AU morning rise -3776 Apr 30 j 00:44 27°**)**€32'04 direct -3782 Jan 01 j 23:28 19°**)** 48'13 retrograde -3776 Jul 29 j 02:30 28°**)** 47'05 evening set -3782 Apr 02 i 00:37 21°\(\mathbf{0}2'53\) opposition -3776 Oct 18 j 19:52 27°**)**(46'34 -10°32'03 min. Earth dist. -3776 Oct 19 i 21:23 27°**)**(45'19 45.68712 AU conjunction -3782 Apr 12 j 08:58 21°¥17'07 -11°33'43 direct -3775 Jan 08 j 15:09 26° **)** 45'39 -3782 Apr 12 j 09:11 21°**)** 17'08 11°33'44 -3775 Apr 07 j 06:51 27°**)** 59'16 minimum elong evening set -3782 Apr 11 j 14:01 21°**)** 16'02 48.42719 AU max. Earth dist. -3775 Apr 18 j 05:14 28°**)** 14'28 47.58802 AU max. Earth dist. -3782 Apr 22 j 18:03 21°**)** 31'23 morning rise -3782 Jul 23 j 10:20 22°**)** 47'39 -3775 Apr 19 j 10:02 28°¥16'09 -9°58'30 retrograde conjunction -3782 Oct 13 j 12:21 -3775 Apr 19 j 10:14 21°**)**47'28 -11°56'43 minimum elong 28°**¥**16′09 9°58'30 opposition -3782 Oct 14 j 05:48 21°**)** 46'38 46.41398 AU -3775 May 01 j 13:44 min. Earth dist. morning rise 28°\ 33'04 -3781 Jan 03 j 07:28 29°**)** 47′56 -3775 Jul 30 j 08:46 20°**)** 47′06 retrograde direct 28°**升**47′19 -10°17′02 -3781 Apr 03 j 00:32 -3775 Oct 20 j 01:28 22°**)** 01'35 evening set opposition -3775 Oct 21 j 04:27 28° **\(**45'59 45.54967 AU min. Earth dist. -3781 Apr 13 j 15:22 22°**)** 16'12 -11°20'54 -3774 Jan 09 j 21:09 27°**)**(46'16 conjunction direct -3781 Apr 13 j 15:35 -3774 Apr 08 j 08:56 28°**)** 59'46 minimum elong 22°**升**16'12 11°20'56 evening set -3781 Apr 12 j 18:23 22° **★** 14'59 48.31795 AU -3774 Apr 19 j 10:22 29°**₭**15'11 47.44975 AU max. Earth dist. max. Earth dist. -3781 Apr 24 j 07:11 22° **★** 30'52 morning rise retrograde -3781 Jul 24 j 16:52 23°**)**(46'54 conjunction -3774 Apr 20 j 17:27 29°**升**17'00 -9°43'53 -3781 Oct 14 j 17:26 22°**)** 46'39 -11°43'17 minimum elong -3774 Apr 20 j 17:39 29°\dagger17'01 9°43'54 opposition min. Earth dist. -3781 Oct 15 j 12:23 22°**)** 45'44 46.30191 AU morning rise -3774 May 03 j 02:43 29°**)** 34'17 -3780 Jan 04 j 12:13 21°**)** 46'12 -3774 May 22 j 13:12 $0^{\circ}\Upsilon$ direct -3780 Apr 03 j 00:50 23°**₭**00′29 -3774 Jul 31 j 17:49 0°Y48'59 evening set retrograde -3774 Oct 11 j 06:07 30°**₹** -3780 Apr 13 j 22:14 23°¥15'29 -11°07'48 -3774 Oct 21 j 07:07 29°**)**48'15 -10°01'45 conjunction opposition -3780 Apr 13 j 22:27 -3774 Oct 22 j 10:58 29°**)** 46'53 45.40751 AU minimum elong 23°**)** 15'30 11°07'49 min. Earth dist. -3780 Apr 13 j 01:06 28°**)**(47'04 max. Earth dist. 23°\dagger 14'16 48.20601 AU direct -3773 Jan 11 j 00:56 -3780 Apr 24 j 20:19 0°Y00'28 morning rise 23°**)**(30'34 evening set -3773 Apr 09 i 10:54 -3780 Jul 24 i 23:32 retrograde 24°**)**(46'21 -3773 Apr 09 i 02:48 $0^{\circ}\Upsilon$ -3780 Oct 14 j 22:28 23°\(\)46'04 -11°29'35 opposition max. Earth dist. -3773 Apr 20 j 16:20 0°Υ16'09 47.30679 AU min. Earth dist. -3780 Oct 15 i 18:27 23°\dagger45'06 46.18691 AU direct -3779 Jan 04 j 17:05 22°\ 45'33 -3773 Apr 22 j 00:53 0°Υ18'03 -9°29'02 conjunction -3779 Apr 04 j 01:35 23°¥59'39 -3773 Apr 22 j 01:04 0°Υ18'04 9°29'02 evening set minimum elong -3779 Apr 14 j 06:05 24°**)** 13'43 48.09109 AU -3773 May 04 j 15:28 0°Y35'41 max. Earth dist. morning rise 1°Y50'14 retrograde -3773 Aug 02 j 01:01 -3773 Oct 22 j 12:59 conjunction -3779 Apr 15 j 05:07 24°\dagger15'03 -10°54'27 opposition 0°Υ49'23 -9°46'12 -3773 Oct 23 j 18:57 minimum elong -3779 Apr 15 j 05:19 24°**)** 15'04 10°54'29 min. Earth dist. 0°**Υ**47'55 45.26093 AU -3779 Apr 26 j 09:31 24°**)** 30'31 -3773 Dec 10 j 04:19 30°**₹**₩ morning rise -3779 Jul 26 j 09:27 25°\ 46'05 -3772 Jan 12 j 07:29 29°**)**(48'02 retrograde direct $0^{\circ}\Upsilon$ -3779 Oct 16 j 03:36 24°**H**45'46 -11°15'35 -3772 Feb 14 j 10:07 opposition -3779 Oct 17 j 00:14 24°**₭**44'45 46.06866 AU -3772 Apr 09 j 13:23 1°Y01'22 min. Earth dist. evening set 1°Υ17'21 47.15983 AU direct -3778 Jan 05 j 19:19 23°**)**(45'09 max. Earth dist. -3772 Apr 20 j 23:19 -3778 Apr 05 j 02:22 24°**)** 59'08 evening set max. Earth dist. -3778 Apr 15 j 11:43 25°**₭**13'30 47.97236 AU conjunction -3772 Apr 22 j 08:36 1°**Y**19'18 -9°13'55 minimum elong -3772 Apr 22 j 08:48 1°**Y**19'19 9°13'55 conjunction -3778 Apr 16 j 12:04 25°**升**14'55 -10°40'50 morning rise -3772 May 05 j 04:18 1°**Y**37'16 -3778 Apr 16 j 12:16 25°**¥**14'55 10°40'51 -3772 Aug 02 j 06:20 2°Y51'41 minimum elong retrograde

-3772 Oct 22 j 18:40

opposition

1°Y'50'43 -9°30'22

-3778 Apr 27 j 22:32 25°**)** € 30'45

morning rise

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3772 in astronomical counting style is the year 3773 BCE in historical counting style. 1°**Υ**49'13 45.11059 AU min. Earth dist. -3772 Oct 24 i 00:54 morning rise -3765 May 14 j 21:32 8°Y57'25 -3771 Jan 12 j 15:51 0°Y49'13 -3765 Aug 10 j 11:04 10°**Y**11'35 direct retrograde 2°Y02'30 opposition -3765 Oct 30 j 15:26 9°Υ09'53 -7°31'21 -3771 Apr 10 j 16:10 evening set max. Earth dist. -3771 Apr 22 j 04:47 2°Υ18'40 47.00928 AU 9°Υ07'58 43.97523 AU min. Earth dist. -3765 Nov 01 j 05:46 -3764 Jan 20 j 14:02 8°Υ07'24 direct -3764 Apr 16 j 18:49 2°Y20'46 -8°58'32 9°Y20'57 conjunction -3771 Apr 23 j 16:20 evening set -3771 Apr 23 j 16:31 2°Y20'47 8°58'31 9°**Υ**38'49 45.87220 AU minimum elong max. Earth dist. -3764 Apr 29 j 06:18 -3771 May 06 j 17:12 2°Y39'05 morning rise 9°**Y**41'30 -7°03'03 3°Y53'23 retrograde -3771 Aug 03 j 13:11 conjunction -3764 May 01 j 02:35 opposition -3771 Oct 24 j 00:43 2°**Y**52'18 -9°14'14 minimum elong -3764 May 01 j 02:45 9°**Υ**41'30 7°03'02 min. Earth dist. -3771 Oct 25 j 08:43 2°**Y**50'43 44.95708 AU morning rise -3764 May 15 j 10:36 10°**Y**02'05 1°Y50'39 -3764 Aug 10 j 21:23 11°**Y**16'17 direct -3770 Jan 13 j 22:14 retrograde 3°Y03'54 -3764 Oct 30 j 22:21 10°**Y**14'28 -7°13'11 evening set -3770 Apr 11 j 18:55 opposition max. Earth dist. -3770 Apr 23 j 12:32 3°**Υ**20'23 46.85571 AU min. Earth dist. -3764 Nov 01 j 13:57 10°**Υ**12'28 43.79811 AU direct -3763 Jan 20 j 18:52 9°Υ11'47 conjunction -3770 Apr 25 j 00:10 3°Y22'29 -8°42'52 evening set -3763 Apr 18 j 00:01 10°**Y**25'26 minimum elong -3770 Apr 25 j 00:22 3° Y22'30 8°42'52 max. Earth dist. -3763 Apr 30 j 14:06 10°**Y**43'32 45.69386 AU morning rise -3770 May 08 j 05:44 3°Y41'09 retrograde -3770 Aug 04 j 19:09 4°Υ55'23 conjunction -3763 May 02 j 11:49 10°**Y**46'17 -6°45'28 opposition -3770 Oct 25 j 06:50 3°Y54'11 -8°57'50 minimum elong -3763 May 02 j 11:59 10°**Y**46′18 6°45'26 min. Earth dist. -3770 Oct 26 j 15:29 3°Υ52'33 44.80068 AU morning rise -3763 May 16 j 23:34 11°Y07'11 direct -3769 Jan 15 i 05:19 2°Y52'23 retrograde -3763 Aug 12 i 07:27 12°Y21'26 evening set -3769 Apr 12 j 22:09 4°Υ05'37 opposition -3763 Nov 01 i 05:42 11°Υ19'26 -6°54'44 max. Earth dist. -3769 Apr 24 j 18:36 4°Υ22'20 46.69958 AU min. Earth dist. -3763 Nov 02 j 23:22 11°Υ17'20 43.61612 AU direct -3762 Jan 22 j 01:18 10°**Y**16'34 -3769 Apr 26 j 08:02 4°Υ24'33 -8°26'56 -3762 Apr 19 j 05:25 11°Y30'19 conjunction evening set -3769 Apr 26 j 08:13 4°**Υ**24'33 8°26'55 max. Earth dist. -3762 May 01 j 22:07 11°**Υ**48'38 45.51095 AU minimum elong -3769 May 09 j 18:29 4°Y43'31 morning rise -3769 Aug 06 j 05:39 5°**Y**57'42 -3762 May 03 j 20:57 11°Υ51'29 -6°27'36 conjunction retrograde -3769 Oct 26 j 12:57 4°Υ56'24 -8°41'07 -3762 May 03 j 21:06 11°**Υ**51'29 minimum elong 6°27'35 opposition 4°**Υ**54'45 44.64188 AU -3769 Oct 27 j 22:09 morning rise -3762 May 18 j 12:24 12°Y12'40 min. Earth dist. -3768 Jan 16 j 08:28 3°Y54'28 -3762 Aug 13 j 17:19 13°Y26'57 direct retrograde 5°**℃**07'43 -3762 Nov 02 j 13:00 -3768 Apr 13 j 01:32 12°**Y**24'47 -6°36'00 evening set opposition -3768 Apr 25 j 01:51 5°**Υ**24'43 46.54083 AU -3762 Nov 04 j 07:02 12°**Y**22'40 43.42972 AU max. Earth dist. min. Earth dist. -3761 Jan 23 j 09:42 11°**Υ**21'42 direct -3768 Apr 26 j 16:14 5°**Υ**26'59 -8°10'42 -3761 Apr 20 j 11:13 12°**Y**35'35 conjunction evening set 5°**Υ**27'00 8°10'43 -3761 May 03 j 05:09 minimum elong -3768 Apr 26 j 16:25 max. Earth dist. 12°**Y**54'03 45.32371 AU morning rise -3768 May 10 j 07:14 5°**Y**46'18 retrograde -3768 Aug 06 j 15:27 7°**Υ**00'27 conjunction -3761 May 05 j 06:18 12°**Y**57′02 -6°09′28 -3768 Oct 26 j 19:25 5°Υ59'03 -8°24'07 minimum elong -3761 May 05 j 06:28 12°**Υ**'57'03 6°09'27 opposition min. Earth dist. -3768 Oct 28 j 06:29 5°**Υ**57'18 44.48035 AU morning rise -3761 May 20 j 01:23 13°**Y**18′30 -3767 Jan 16 j 13:09 4°Υ56'59 -3761 Aug 15 j 01:32 14°**Ƴ**32'51 direct retrograde -3767 Apr 14 j 05:23 6°Y10'17 -3761 Nov 03 j 20:27 13°**Y**30'30 -6°16'58 evening set opposition -3767 Apr 26 j 09:26 6°Υ27'33 46.37936 AU min. Earth dist. -3761 Nov 05 j 16:40 13°**Υ**28'15 43.23943 AU max. Earth dist. -3760 Jan 24 j 18:18 12°Y27'11 direct 6°**Y**29'53 -7°54'12 conjunction -3767 Apr 28 i 00:34 evening set -3760 Apr 20 i 17:14 13°Y41'12 -3767 Apr 28 i 00:45 minimum elong 6°Υ29'53 7°54'11 max. Earth dist. -3760 May 03 j 14:31 13°**Y**59'55 45.13282 AU morning rise -3767 May 11 j 19:59 6°**Y**49'31 -3760 May 05 i 15:57 14°Υ02'56 -5°51'03 retrograde -3767 Aug 07 j 21:42 8°Y03'39 conjunction minimum elong -3767 Oct 28 j 01:47 7°Υ02'10 -8°06'49 -3760 May 05 i 16:06 14°Υ02'57 5°51'02 opposition min. Earth dist. -3767 Oct 29 j 13:00 7°**Y**00'24 44.31582 AU -3760 May 20 j 14:17 14°Y24'42 morning rise -3766 Jan 17 j 21:57 5°**Y**59'58 -3760 Aug 15 j 07:01 15°**Y**39′06 direct retrograde 7°**Y**13′21 -3760 Nov 04 j 04:07 14°Y36'34 -5°57'38 evening set -3766 Apr 15 j 09:33 opposition 14°**Υ**34'17 43.04568 AU max. Earth dist. -3766 Apr 27 j 15:35 7°**Υ**30'47 46.21447 AU min. Earth dist. -3760 Nov 06 j 00:53 13°**Y**33'01 -3759 Jan 25 j 04:48 direct conjunction -3766 Apr 29 j 09:01 7°**Y**33'16 -7°37'26 evening set -3759 Apr 21 j 23:44 14° **Y**47'10 -3766 Apr 29 j 09:11 7°**Y**33'16 7°37'25 max. Earth dist. -3759 May 04 j 22:04 15°**Y**06'02 44.93879 AU minimum elong -3766 May 13 j 08:52 7°Υ53'13 morning rise -3766 Aug 09 j 04:25 9°Υ07'22 -3759 May 07 j 01:34 15°**Y**′09'12 -5°32'22 retrograde conjunction -3766 Oct 29 j 08:31 8°**Y**05'47 -7°49'13 -3759 May 07 j 01:43 15°**Υ**09'13 5°32'19 opposition minimum elong 8°**Y**03'55 44.14772 AU 15°**Y**31'15 min. Earth dist. -3766 Oct 30 j 21:46 morning rise -3759 May 22 j 03:15 -3765 Jan 19 j 06:03 7°**Y**03′26 retrograde -3759 Aug 16 j 16:39 16°**Y**45'45 direct evening set -3765 Apr 16 j 13:50 8°**Y**16′54 opposition -3759 Nov 05 j 11:53 15°**Y**43'01 -5°37'59 max. Earth dist. -3765 Apr 28 j 23:56 8°**Y**34'38 46.04562 AU min. Earth dist. -3759 Nov 07 j 09:34 15°**Y**40'41 42.84926 AU direct -3758 Jan 26 j 11:30 14°**Y**39'14 -3765 Apr 30 j 17:41 8°Y37'09 -7°20'22 -3758 Apr 23 j 06:24 15°Y53'33 conjunction evening set -3765 Apr 30 j 17:51 8°**Y**'37'09 7°20'20 max. Earth dist. -3758 May 06 j 07:27 16°**Y**12'40 44.74217 AU minimum elong

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3758 in astronomical counting style is the year 3759 BCE in historical counting style. 16°**Y**′15′52 -5°13′23 -3758 May 08 j 11:29 evening set -3751 Apr 30 j 17:42 23°Y54'55 conjunction max. Earth dist. -3758 May 08 j 11:37 16°Υ15'53 5°13'20 -3751 May 14 j 02:39 24°Υ15'11 43.29870 AU minimum elong -3758 May 23 j 16:04 16°**Y**38'11 morning rise -3758 Aug 18 j 02:58 17°**Y**52'49 -3751 May 16 j 15:39 24°Υ19'04 -2°52'20 conjunction retrograde -3758 Nov 06 j 20:03 16°**Y**49'53 -5°18'02 -3751 May 16 j 15:43 24°**Y**19'04 2°52'17 opposition minimum elong 24°**Y**43'11 -3758 Nov 08 j 19:08 16°**Y**47'28 42.65054 AU -3751 Jun 01 j 12:32 min. Earth dist. morning rise 25°**Y**59′29 15°**Y**45'52 direct -3757 Jan 27 j 17:44 retrograde -3751 Aug 26 j 08:46 24°**Y**55'17 -2°49'39 17°**Y**00′24 evening set -3757 Apr 24 j 13:23 opposition -3751 Nov 14 j 11:09 17°**Y**19'43 44.54361 AU max. Earth dist. -3757 May 07 j 16:34 min. Earth dist. -3751 Nov 16 j 18:02 24°**Y**52'24 41.19067 AU 23°**Y**49'41 direct -3750 Feb 04 j 07:42 17°**Y**22'59 -4°54'06 25° Y06'31conjunction -3757 May 09 j 21:24 evening set -3750 May 02 j 04:03 -3757 May 09 j 21:32 -3750 May 15 j 14:14 25°**Υ**26'57 43.07851 AU minimum elong 17°**Υ**23'00 4°54'03 max. Earth dist. -3757 May 25 j 04:57 morning rise 17°**Y**45'35 retrograde -3757 Aug 19 j 13:47 19°**Y**00′21 conjunction -3750 May 18 j 03:44 25°**Y**'30'54 -2°31'02 opposition -3757 Nov 08 j 04:15 17°**Y**57'15 -4°57'47 minimum elong -3750 May 18 j 03:48 25°**Y**30′55 2°30'58 min. Earth dist. -3757 Nov 10 j 03:13 17°**Y**54'50 42.44997 AU morning rise -3750 Jun 03 j 02:06 25°Y55'16 direct -3756 Jan 29 j 01:44 16°**Y**53′00 retrograde -3750 Aug 27 j 18:15 27°Y11'52 evening set -3756 Apr 24 j 20:58 18°**Y**07'47 opposition -3750 Nov 15 j 21:13 26°**Y**'07'27 -2°27'13 max. Earth dist. -3756 May 08 j 01:08 18°**Y**27'15 44.34303 AU min. Earth dist. -3750 Nov 18 j 04:25 26°**Y**04'32 40.96796 AU direct -3749 Feb 05 j 20:30 25°Y01'34 conjunction -3756 May 10 j 07:44 18°**Y**30'38 -4°34'32 evening set -3749 May 03 j 14:52 26°**Y**18'49 minimum elong -3756 May 10 j 07:51 18°**Υ**30'39 4°34'29 max. Earth dist. -3749 May 16 i 23:57 26°**Υ**39'18 42.85463 AU morning rise -3756 May 25 j 18:00 18°Y53'30 retrograde -3756 Aug 19 j 23:59 20°**℃**08'27 conjunction -3749 May 19 i 15:52 26°Y43'26 -2°09'27 opposition -3756 Nov 08 j 12:44 19°**Υ**05'10 -4°37'12 minimum elong -3749 May 19 i 15:56 26°**Y**43′26 2°09'24 -3756 Nov 10 j 13:30 19°**Υ**02'39 42.24748 AU -3749 Jun 04 j 15:45 27°Y08'01 min. Earth dist. morning rise -3755 Jan 29 j 11:08 18°Y00'43 -3749 Aug 29 j 05:08 28°**Y**24'57 retrograde direct -3755 Apr 26 j 04:56 19°**Y**15'46 -3749 Nov 17 j 07:35 27°**Y**'20'18 -2°04'29 opposition evening set -3755 May 09 j 11:56 19°**Y**35'30 44.14045 AU -3749 Nov 19 j 16:24 27°Υ17'17 40.74193 AU max. Earth dist. min. Earth dist. -3748 Feb 07 j 07:25 26°**Y**14′08 direct -3755 May 11 j 18:26 19°**Y**38'54 -4°14'40 -3748 May 04 j 02:10 27°**Y**31'48 conjunction evening set -3755 May 11 j 18:33 19°**Y**38'55 4°14'38 -3748 May 17 j 12:21 27°**Υ**52'28 42.62749 AU max. Earth dist. minimum elong -3755 May 27 j 07:06 20°**Y**02'02 morning rise 27°Y56'39 -1°47'36 -3755 Aug 21 j 08:05 21°**Υ**17'12 -3748 May 20 j 04:35 retrograde conjunction 20°**Υ**13'45 -4°16'18 27°**Υ**56'39 1°47'31 -3755 Nov 09 j 21:30 -3748 May 20 j 04:38 opposition minimum elong -3755 Nov 11 j 22:36 -3748 Jun 05 j 05:25 28°**Y**21′27 min. Earth dist. 20°**Y**11'12 42.04275 AU morning rise 19°**Y**09′05 -3748 Aug 29 j 15:46 29°**Y**38'45 direct -3754 Jan 30 j 22:17 retrograde -3754 Apr 27 j 13:21 20°**Y**24'27 opposition -3748 Nov 17 j 18:12 28°**Y**33'51 -1°41'26 evening set max. Earth dist. -3754 May 10 j 20:26 20°Υ 44'17 43.93534 AU min. Earth dist. -3748 Nov 20 j 04:12 28°**Υ**30'45 40.51296 AU direct -3747 Feb 07 j 17:55 27°**Y**27′22 conjunction -3754 May 13 j 05:05 20°**Y**47′51 -3°54′30 evening set -3747 May 05 j 14:07 28°Y45'30 -3754 May 13 j 05:11 20°**Y**'47'51 3°54'27 max. Earth dist. -3747 May 18 j 23:41 29°Υ06'16 42.39783 AU minimum elong -3754 May 28 j 20:14 21°Υ11'14 morning rise -3754 Aug 22 j 19:22 22°**Y**26'39 -3747 May 21 j 17:24 29°**Y**10'33 -1°25'28 retrograde conjunction -3754 Nov 11 j 06:28 21°Y23'02 -3°55'06 -3747 May 21 j 17:26 29°Y10'34 1°25'24 opposition minimum elong 29°Y35'34 min. Earth dist. -3754 Nov 13 i 08:53 21°**Υ**20'25 41.83535 AU morning rise -3747 Jun 06 i 19:16 direct -3753 Feb 01 i 05:57 20°**Y**18′10 -3747 Jun 23 j 12:01 0°8 evening set -3753 Apr 28 j 22:13 21°**Y**33'52 retrograde -3747 Aug 31 i 05:49 0°853'16 max. Earth dist. -3753 May 12 i 06:59 21°**Υ**53'54 43.72699 AU -3747 Nov 09 j 21:34 30°RY -3747 Nov 19 i 05:07 29°Y48'06 -1°18'05 opposition -3753 May 14 i 16:21 21°Y57'31 -3°34'04 min. Earth dist. -3747 Nov 21 i 15:24 29°**Y**44′59 40.28192 AU conjunction -3753 May 14 i 16:27 21°Y57'31 3°34'01 direct -3746 Feb 09 j 02:44 28°**Y**41'19 minimum elong -3753 May 30 j 09:28 22°**Y**21'10 -3746 May 07 j 02:18 29°**Y**59'57 morning rise evening set 23°**Y**36'52 retrograde -3753 Aug 24 j 06:03 -3746 May 07 j 03:08 0°X opposition -3753 Nov 12 j 15:43 22°**Y**33'04 -3°33'35 max. Earth dist. -3746 May 20 j 11:34 0°820'49 42.16607 AU -3753 Nov 14 j 19:45 min. Earth dist. 22°Υ30'21 41.62440 AU -3752 Feb 02 j 14:21 21°Y27'58 conjunction -3746 May 23 j 06:23 0°825'12 -1°03'02 direct 22° Y 44'01 -3746 May 23 j 06:25 0°**8**25'12 1°02'58 evening set -3752 Apr 29 j 07:44 minimum elong -3752 May 12 j 16:55 23°**Y**04'11 43.51497 AU -3746 Jun 08 j 08:50 0°**8**50'24 max. Earth dist. morning rise retrograde -3746 Sep 01 j 20:15 2°**8**08'32 -3752 May 15 j 03:51 $23^{\circ}\Upsilon'07'56 - 3^{\circ}13'20$ conjunction opposition -3746 Nov 20 j 16:30 1°**8**03'06 -0°54'25 minimum elong -3752 May 15 j 03:56 23°**Y**07′56 3°13′16 min. Earth dist. -3746 Nov 23 j 04:22 0°**8**59'53 40.04920 AU morning rise -3752 May 30 j 23:02 23°**Y**31'49 -3745 Jan 23 j 11:02 30°**₹**Υ 29°Y56'01 retrograde -3752 Aug 24 j 19:52 24°**Y**47'48 direct -3745 Feb 10 j 13:20 opposition -3752 Nov 13 j 01:15 23°**Y**43'49 -3°11'46 -3745 Feb 28 j 17:37 0°8 -3752 Nov 15 j 05:49 23°Υ41'04 41.40958 AU -3745 May 08 j 15:10 1°815'11 min. Earth dist. evening set -3751 Feb 02 j 22:26 22°**Y**38'29 max. Earth dist. -3745 May 22 j 01:00 1°836'13 41.93296 AU direct

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3745 in astronomical counting style is the year 3746 BCE in historical counting style. 1°840'38 -0°40'20 opposition -3745 May 24 j 19:49 -3739 Nov 29 i 09:51 10°814'22 1°59'31 conjunction min. Earth dist. -3745 May 24 j 19:51 1°840'38 0°40'16 -3739 Dec 02 j 04:14 10°**8**10'41 38.37605 AU minimum elong -3745 Jun 09 j 22:42 2°806'00 -3738 Feb 19 j 05:11 9°**8**05'04 direct morning rise -3745 Sep 03 j 10:51 3°**8**24'36 10°**8**29'05 -3738 May 18 j 03:59 retrograde evening set -3745 Nov 22 j 03:57 2°**8**18'55 -0°30'27 -3738 May 31 j 02:41 10°**8**50'25 40.25097 AU opposition max. Earth dist. -3745 Nov 24 j 15:36 min. Earth dist. 2°815'42 39.81531 AU -3738 Jun 03 j 04:58 10°855'34 2°06'04 direct -3744 Feb 12 j 02:19 1°**8**11'31 conjunction -3738 Jun 03 j 04:54 10°**8**55'34 evening set -3744 May 09 j 04:46 2°**8**31'17 minimum elong 2°06'09 -3738 Jun 19 j 03:24 max. Earth dist. -3744 May 22 j 12:51 2°**8**52'20 41.69863 AU morning rise 11°**8**21'55 -3738 Sep 12 j 19:22 retrograde 12°**8**44'49 conjunction -3744 May 25 j 09:37 2°**8**56'55 -0°17'23 opposition -3738 Dec 01 j 00:20 11°**8**37'13 2°25'30 -3744 May 25 j 09:37 2°856'55 0°17'18 -3738 Dec 03 j 19:06 minimum elong min. Earth dist. 11°**8**33'29 38.12682 AU -3744 Jun 10 j 12:45 3°**B**22'28 -3737 Feb 20 j 21:59 morning rise direct 10°**8**27'32 retrograde -3744 Sep 04 j 00:35 4°**8**41'34 evening set -3737 May 19 j 22:30 11°**8**52'23 opposition -3744 Nov 22 j 15:57 3°**8**35'38 -0°06'11 max. Earth dist. -3737 Jun 01 j 17:12 12°**8**13'35 39.99993 AU min. Earth dist. -3744 Nov 25 j 05:05 3°**8**32'19 39.58038 AU direct -3743 Feb 12 j 14:04 2°**8**27'56 conjunction -3737 Jun 04 j 21:38 12°818'56 2°30'50 asc. node -3743 Feb 23 j 08:19 2°**8**29'22 minimum elong -3737 Jun 04 j 21:34 12°**8**18'56 2°30'56 evening set -3743 May 10 j 18:48 3°848'19 morning rise -3737 Jun 20 j 18:28 12°**8**45'22 max. Earth dist. -3743 May 24 j 03:14 4°**8**09'31 41.46306 AU retrograde -3737 Sep 14 j 11:39 14°809'00 opposition -3737 Dec 02 j 15:03 13°**8**01'04 2°51'44 conjunction -3743 May 26 j 23:49 4°814'07 0°05'58 min. Earth dist. -3737 Dec 05 i 11:07 12°**8**57'14 37.87531 AU minimum elong -3743 May 26 j 23:49 4°814'07 0°06'02 direct -3736 Feb 22 i 12:11 11°**8**50'59 behind sun begin -3743 May 26 j 17:37 4°813'44 evening set -3736 May 20 j 17:40 13°**8**16'42 behind sun end -3743 May 27 j 06:01 4°814'30 max. Earth dist. -3736 Jun 02 j 10:06 13°**8**37'55 39.74658 AU -3743 Jun 12 j 02:44 4°839'50 morning rise -3743 Sep 05 j 11:29 5°859'29 -3736 Jun 05 j 14:57 13°**8**43'20 2°55'50 retrograde conjunction -3743 Nov 24 j 04:19 -3736 Jun 05 j 14:51 13°**8**43'20 4°**8**53'19 0°18'23 minimum elong 2°55'55 opposition -3743 Nov 26 j 17:56 4°**8**49'57 39.34406 AU -3736 Jun 21 j 09:29 14°809'50 min. Earth dist. morning rise 15°8 -3742 Feb 14 j 04:12 3°**8**45'20 -3736 Jul 25 j 07:41 direct -3742 May 12 j 09:40 5°806'21 -3736 Sep 15 j 02:30 15°**8**34'14 evening set retrograde -3742 May 25 j 16:03 -3736 Nov 07 j 00:20 max. Earth dist. 5°**8**27'35 41.22597 AU 15°R₩ 14°**8**25'58 3°18'14 opposition -3736 Dec 03 j 06:26 -3736 Dec 06 j 03:39 -3742 May 28 j 14:17 5°**8**32'20 0°29'26 14°**8**22'02 37.62186 AU conjunction min. Earth dist. -3742 May 28 j 14:16 5°**8**32'19 0°29'30 -3735 Feb 23 j 03:27 13°**8**15'28 minimum elong direct -3742 Jun 13 j 17:02 5°**8**58'12 -3735 May 22 j 13:37 14°**8**42'06 morning rise evening set -3742 Sep 07 j 02:21 7°**8**18'26 -3735 Jun 02 j 04:55 retrograde 15°**8** opposition -3742 Nov 25 j 16:57 6°812'01 0°43'14 max. Earth dist. -3735 Jun 04 j 02:37 15°**8**03'15 39.49171 AU min. Earth dist. -3742 Nov 28 j 07:14 6°**8**08'36 39.10614 AU -3735 Jun 07 j 08:23 15°**8**08'47 3°21'03 direct -3741 Feb 15 j 14:50 5°803'43 conjunction -3741 May 14 j 01:02 6°825'27 minimum elong -3735 Jun 07 j 08:16 15°**8**08'46 3°21'10 evening set max. Earth dist. -3741 May 27 j 06:11 6°846'44 40.98662 AU -3735 Jun 23 j 00:36 15°**8**35'19 morning rise -3735 Sep 16 j 20:54 17°**8**00'33 retrograde -3741 May 30 j 05:17 6°**8**51'34 0°53'12 -3735 Dec 04 j 22:07 15°**8**51'55 3°44'58 conjunction opposition -3741 May 30 j 05:15 6°851'34 0°53'18 min. Earth dist. -3735 Dec 07 j 19:15 15°**8**47'59 37.36740 AU minimum elong -3741 Jun 15 i 07:18 7°**8**17'36 -3734 Jan 16 j 14:36 morning rise 15°R₩ -3741 Sep 08 i 17:30 8°**8**38'27 -3734 Feb 24 i 17:16 retrograde direct 14°**8**41'01 -3741 Nov 27 j 06:13 opposition 7°**8**31'46 1°08'23 -3734 Apr 04 j 12:38 15°8 7°**と**28'14 38.86568 AU min. Earth dist. -3741 Nov 29 j 22:22 evening set -3734 May 24 j 10:17 16°808'37 direct -3740 Feb 17 i 01:19 6°823'09 max. Earth dist. -3734 Jun 05 j 19:36 16°**8**29'41 39.23589 AU -3740 May 14 j 17:23 7°**8**45'37 evening set max. Earth dist. -3740 May 27 j 20:46 8°**8**06'56 40.74453 AU -3734 Jun 09 i 02:22 16°**8**35'19 3°46'28 conjunction -3734 Jun 09 j 02:15 16°835'18 3°46'34 minimum elong -3734 Jun 24 j 15:44 17°**8**01'52 conjunction -3740 May 30 j 20:47 8°811'52 1°17'14 morning rise minimum elong -3740 May 30 j 20:44 8°811'52 1°17'20 retrograde -3734 Sep 18 j 15:39 18°**8**28'01 morning rise -3740 Jun 15 j 21:59 8°838'01 opposition -3734 Dec 06 j 14:24 17°**8**19'01 4°11'55 retrograde -3740 Sep 09 j 10:24 9°**8**59'32 min. Earth dist. -3734 Dec 09 j 13:03 17°**8**14'58 37.11256 AU -3740 Nov 27 j 19:41 8°**8**52'33 1°33'49 direct -3733 Feb 26 j 07:35 16°807'42 opposition -3740 Nov 30 j 12:04 8°**8**49'00 38.62237 AU -3733 May 26 j 07:43 17°**8**36'20 min. Earth dist. evening set -3739 Feb 17 j 15:12 7°**8**43'36 -3733 Jun 07 j 14:22 17°**8**57'22 38.98000 AU direct max. Earth dist. 9°**8**06'50 evening set -3739 May 16 j 10:28 18°803'02 4°12'04 max. Earth dist. -3739 May 29 j 10:29 9°**8**28'06 40.49926 AU conjunction -3733 Jun 10 j 20:47 18°**8**03'02 minimum elong -3733 Jun 10 j 20:38 4°12'11 conjunction -3739 Jun 01 j 12:43 9°**8**33'12 1°41'32 morning rise -3733 Jun 26 j 07:00 18°**8**29'35 minimum elong -3739 Jun 01 j 12:40 9°**8**33'12 1°41'38 retrograde -3733 Sep 20 j 10:56 19°**8**56'40 -3739 Jun 17 j 12:44 9°859'28 -3733 Dec 08 j 07:09 18°847'19 4°39'04 morning rise opposition

-3739 Sep 11 j 04:11

retrograde

11°**8**21'39

min. Earth dist.

-3733 Dec 11 j 05:17

18°**8**43'17 36.85790 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3732 in astronomical counting style is the year 3733 BCE in historical counting style. 17°**8**35'36 -3732 Feb 28 j 02:10 -3726 Jul 27 i 10:10 $0^{\circ}II$ direct -3732 May 27 j 06:15 19°**8**05'21 -3726 Oct 01 j 16:32 0°**I**I58'27 evening set retrograde max. Earth dist. -3732 Jun 08 j 07:42 19°**8**26'12 38.72434 AU -3726 Dec 09 j 13:41 30°R₩ -3726 Dec 18 j 20:50 29°**8**46'40 7°53'22 opposition 29°842'13 35.08004 AU 19°**8**32'02 4°37'50 -3726 Dec 21 j 23:04 conjunction -3732 Jun 11 j 15:43 min. Earth dist. -3732 Jun 11 j 15:34 19°**8**32'01 -3725 Mar 10 j 10:47 minimum elong 4°37'56 direct 28°**8**32'05 -3732 Jun 26 j 22:30 19°**8**58'33 morning rise -3725 Jun 03 j 17:03 $0^{\circ}\Pi$ -3732 Sep 21 j 07:30 21°**8**26'38 0°II11'18 retrograde evening set -3725 Jun 09 j 23:32 0°**Д**30'28 36.93353 AU opposition -3732 Dec 09 j 00:24 20°**8**16'57 5°06'25 max. Earth dist. -3725 Jun 20 j 08:38 min. Earth dist. -3732 Dec 11 j 23:35 20°**8**12'50 36.60387 AU direct -3731 Feb 28 j 19:24 19°**8**04'50 conjunction -3725 Jun 23 j 20:40 0°**I**I36′59 7°41'22 20°**8**35'46 -3725 Jun 23 j 20:24 evening set -3731 May 29 j 05:34 minimum elong 0°**Ⅲ**36′58 7°41'30 -3731 Jun 10 j 03:59 20°**8**56'34 38.46923 AU -3725 Jul 07 j 15:01 max. Earth dist. morning rise 1°**Ⅱ**02'29 retrograde -3725 Oct 03 j 17:24 2°**Ⅲ**39'17 conjunction -3731 Jun 13 j 11:19 21°802'24 5°03'44 opposition -3725 Dec 20 j 18:27 1°**Ⅲ**27'05 8°21'29 minimum elong -3731 Jun 13 j 11:09 21°**8**02'23 5°03'52 min. Earth dist. -3725 Dec 23 j 21:41 1°**П**22'33 34.82460 AU morning rise -3731 Jun 28 j 14:02 21°**8**28'53 direct -3724 Mar 11 j 08:05 0°**I**12′01 retrograde -3731 Sep 23 j 01:52 22°858'01 evening set -3724 Jun 11 j 06:23 1°**I**52'50 opposition -3731 Dec 10 j 18:21 21°**8**48'01 5°33'55 max. Earth dist. -3724 Jun 21 j 09:00 2°**Д**11'40 36.67584 AU min. Earth dist. -3731 Dec 13 j 17:41 21°843'52 36.35038 AU direct -3730 Mar 02 j 13:56 20°835'32 conjunction -3724 Jun 24 j 20:32 2°II18'13 8°07'47 evening set -3730 May 31 i 05:50 22°807'40 minimum elong -3724 Jun 24 j 20:15 2°**Ⅱ**18'11 8°07'55 max. Earth dist. -3730 Jun 11 j 22:42 22°**8**28'16 38.21456 AU morning rise -3724 Jul 08 i 07:34 2°**Ⅱ**43'25 retrograde -3724 Oct 04 i 15:12 4°**Ⅱ**21'41 conjunction -3730 Jun 15 i 07:09 22°**8**34'14 5°29'47 opposition -3724 Dec 21 j 16:48 3°**I**09'03 8°49'35 -3730 Jun 15 j 06:57 22°**8**34'14 5°29'53 -3724 Dec 24 j 20:23 3°**П**04'27 34.56943 AU minimum elong min. Earth dist. -3730 Jun 30 j 05:43 23°**8**00'39 -3723 Mar 13 j 07:08 1°**I**I53'30 morning rise direct -3730 Sep 24 j 21:48 24°**8**30'56 -3723 Jun 13 j 14:33 3°**Ⅲ**35'57 retrograde evening set -3730 Dec 12 j 12:43 23°**8**20'36 6°01'34 -3723 Jun 23 j 08:32 3°**Д**54'18 36.41888 AU max. Earth dist. opposition -3730 Dec 15 j 12:22 23°**8**16'24 36.09732 AU min. Earth dist. -3729 Mar 04 j 06:35 22°**8**07'44 -3723 Jun 26 j 20:50 4°**I**100'59 8°34'10 conjunction direct -3729 Jun 02 j 07:08 -3723 Jun 26 j 20:31 4°**Ⅱ**00'58 23°**8**41'10 minimum elong 8°34'18 evening set max. Earth dist. -3729 Jun 13 j 19:06 -3723 Jul 10 j 00:22 4°**I**125′50 24°**8**01'35 37.95971 AU morning rise -3723 Oct 06 j 15:31 6°**Ⅱ**05'38 retrograde -3729 Jun 17 j 03:54 24°**8**07'38 5°55'57 -3723 Dec 23 j 15:46 4°**П**52'35 9°17'39 conjunction opposition -3729 Jun 17 j 03:41 24°**8**07'37 -3723 Dec 26 j 19:05 4°**П**47'58 34.31557 AU minimum elong 5°56'04 min. Earth dist. -3729 Jul 01 j 21:36 24°**8**33'56 -3722 Mar 15 j 05:01 3°**Ⅲ**36'31 morning rise direct retrograde -3729 Sep 26 j 17:57 26°**8**05'25 evening set -3722 Jun 15 j 23:33 5°**Ⅲ**20'42 opposition -3729 Dec 14 j 07:45 24°**8**54'45 6°29'22 max. Earth dist. -3722 Jun 25 j 09:38 5°**Д**38'37 36.16325 AU min. Earth dist. -3729 Dec 17 j 08:47 24°**8**50'27 35.84396 AU direct -3728 Mar 04 j 23:01 23°**8**41'29 conjunction -3722 Jun 28 j 21:43 5°II45'20 9°00'27 -3728 Jun 03 j 09:42 25°**8**16'17 -3722 Jun 28 j 21:24 5°**Ⅱ**45'19 9°00'35 evening set minimum elong -3728 Jun 14 j 15:57 25°**8**36'28 37.70440 AU -3722 Jul 11 j 16:56 6°**Ⅱ**09'46 max. Earth dist. morning rise -3722 Oct 08 j 15:45 7°**I**51'13 retrograde -3728 Jun 18 j 01:12 25°**8**42'37 6°22'12 -3722 Dec 25 j 15:34 6°**耳**37'42 9°45'38 conjunction opposition -3728 Jun 18 j 00:59 25°**8**42'36 6°22'19 -3722 Dec 28 i 19:43 6°**Д**33'00 34.06358 AU minimum elong min. Earth dist. -3728 Jul 02 j 13:49 26°**8**08'46 morning rise direct -3721 Mar 17 j 02:04 5°**Ⅱ**21'09 27°**8**41'30 retrograde -3728 Sep 27 i 16:46 evening set -3721 Jun 18 j 10:08 7°**Ⅱ**07'09 -3728 Dec 15 i 03:26 26°**8**30'30 6°57'17 opposition max. Earth dist. -3721 Jun 27 j 11:43 7°**П**24'34 35.90996 AU min. Earth dist. -3728 Dec 18 j 04:10 26°826'11 35.59004 AU direct -3727 Mar 06 j 16:27 25°**8**16'48 -3721 Jun 30 i 23:18 7°II31'19 9°26'37 conjunction -3727 Jun 05 j 13:10 26°**8**53'01 -3721 Jun 30 i 22:58 7°**Ⅲ**31'17 9°26'45 evening set minimum elong -3727 Jun 16 j 12:22 27°8 12'52 37.44811 AU -3721 Jul 13 j 09:45 7°**I**55'17 max. Earth dist. morning rise -3721 Oct 10 j 18:07 9°**Ⅱ**38'26 retrograde conjunction -3727 Jun 19 j 23:03 27°**8**19'10 6°48'33 opposition -3721 Dec 27 j 15:50 8°II24'30 10°13'27 6°48'40 8°**Д**19'50 33.81433 AU minimum elong -3727 Jun 19 j 22:49 27°**8**19'09 min. Earth dist. -3721 Dec 30 j 18:51 7°II07'27 -3727 Jul 04 j 06:00 27°**8**45'09 direct -3720 Mar 18 j 01:52 morning rise -3727 Sep 29 j 16:21 29°819'12 -3720 Jun 19 j 21:57 8°II55'22 retrograde evening set -3727 Dec 16 j 23:53 28°**8**07'48 7°25'17 -3720 Jun 28 j 13:36 9°**Ⅱ**12'10 35.65950 AU opposition max. Earth dist. -3727 Dec 20 j 02:17 28°**8**03'22 35.33534 AU min. Earth dist. 26°**8**53'41 -3720 Jul 02 j 01:40 9°II19'01 9°52'35 direct -3726 Mar 08 j 11:51 conjunction -3726 Jun 07 j 17:46 28°**8**31'21 minimum elong -3720 Jul 02 j 01:20 9°**Ⅱ**18'59 9°52'43 evening set max. Earth dist. -3726 Jun 18 j 11:20 28°**8**50'59 37.19109 AU morning rise -3720 Jul 14 j 02:41 9°**Ⅱ**42'28 retrograde -3720 Oct 11 j 22:17 11°**Ⅲ**27′26 conjunction -3726 Jun 21 j 21:36 28°**8**57'18 7°14'56 opposition -3720 Dec 28 j 17:10 10°**耳**13'03 10°41'05 -3726 Jun 21 j 21:21 28°**8**57'17 7°15'03 min. Earth dist. -3720 Dec 31 j 20:49 10°**Д**08'20 33.56839 AU minimum elong

-3719 Mar 20 j 01:14

direct

8°II55'33

-3726 Jul 05 j 22:22 29°**8**23'04

morning rise

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3719 in astronomical counting style is the year 3720 BCE in historical counting style. -3719 Jun 22 i 11:06 10°**Ⅱ**45'29 opposition -3712 Jan 12 j 01:23 23°**II**49'50 13°44'44 evening set max. Earth dist. -3719 Jun 30 j 18:06 11°**Д**01'45 35.41250 AU min. Earth dist. -3712 Jan 15 j 03:33 23°**Д**45'00 31.93584 AU -3712 Apr 01 j 23:55 22°**Ⅲ**29'13 direct -3719 Jul 04 j 04:38 11°**II**08'32 10°18'20 24°**Ⅲ**36′24 -3712 Jul 10 j 05:33 conjunction evening set -3719 Jul 04 j 04:16 11°**Ⅱ**08'31 -3712 Jul 14 j 16:12 24°**П**45'48 33.76896 AU minimum elong 10°18'28 max. Earth dist. -3719 Jul 15 j 19:27 11°**Ⅲ**31'25 morning rise 13°**Ⅱ**18'17 -3719 Oct 14 j 02:45 24°**I**52'51 retrograde conjunction -3712 Jul 17 j 23:59 13°08'06 11°08'28 -3712 Jul 17 j 23:36 24°**Ⅲ**52'49 opposition -3719 Dec 30 j 19:12 12°**Ⅲ**03'31 minimum elong 13°08'14 11°**Ц**58'50 33.32597 AU -3712 Jul 25 j 16:42 min. Earth dist. -3718 Jan 02 j 21:44 morning rise 25°**Ⅲ**09′10 -3712 Oct 28 j 05:29 direct -3718 Mar 22 j 03:46 10°**Ⅱ**45'33 retrograde 27°**Ⅲ**12'25 25°**Ⅱ**54'51 evening set -3718 Jun 25 j 01:45 12°**Ⅲ**37'37 opposition -3711 Jan 13 j 09:32 14°08'54 -3718 Jul 02 j 21:12 -3711 Jan 16 j 10:13 max. Earth dist. 12°**Д**53'07 35.16899 AU min. Earth dist. 25°**Ⅲ**50'05 31.71478 AU -3711 Apr 04 j 07:48 direct 24°**Ⅲ**33'47 conjunction -3718 Jul 06 j 08:21 13°**Ⅲ**00′01 10°43'48 evening set -3711 Jul 13 j 09:06 26°**Ⅱ**43'57 minimum elong -3718 Jul 06 j 07:59 13°**Ⅲ**00′00 10°43'56 max. Earth dist. -3711 Jul 17 j 01:12 26°**Д**51'47 33.54676 AU morning rise -3718 Jul 17 j 12:33 13°**Ⅲ**22'15 retrograde -3718 Oct 16 j 08:37 15°**Ⅱ**11'08 conjunction -3711 Jul 20 j 09:08 26°**耳**58'55 13°30'11 opposition -3717 Jan 01 j 21:54 13°**Ц**55'58 11°35'33 minimum elong -3711 Jul 20 j 08:43 26°**Ⅲ**58'53 13°30'20 min. Earth dist. -3717 Jan 05 j 00:43 13°**Д**51'14 33.08716 AU morning rise -3711 Jul 27 j 07:40 27°**Ⅱ**13'47 direct -3717 Mar 24 j 04:30 12°**Ⅲ**37'34 retrograde -3711 Oct 30 j 17:28 29°**Ⅱ**19'54 evening set -3717 Jun 27 j 17:56 14°**Ⅲ**31'53 opposition -3710 Jan 15 j 18:36 28°**I**101'54 14°32'19 max. Earth dist. -3717 Jul 05 i 03:11 14°**I**I46'41 34.92872 AU min. Earth dist. -3710 Jan 18 i 19:15 27°**Д**57'06 31.49810 AU direct -3710 Apr 06 i 15:36 26°II40'21 conjunction -3717 Jul 08 i 13:01 14°**Д**53'33 11°08'56 evening set -3710 Jul 16 j 15:42 28°II53'43 -3717 Jul 08 j 12:38 14°**Ⅱ**53'31 11°09'05 max. Earth dist. -3710 Jul 19 j 13:34 29°П00'00 33.32932 AU minimum elong -3717 Jul 19 j 05:32 15°**Ⅱ**15'03 morning rise -3717 Oct 18 j 13:35 17°**Ⅱ**06′02 -3710 Jul 22 j 19:12 29°**Ⅱ**06'59 retrograde conjunction 13°51'31 opposition -3716 Jan 04 j 01:40 15°**耳**50'30 12°02'17 -3710 Jul 22 j 18:49 13°51'40 minimum elong 29°**Ⅱ**06'57 -3716 Jan 07 j 04:17 15°**Д**45'45 32.85133 AU -3710 Jul 28 j 21:18 29°**Ⅲ**20′10 min. Earth dist. morning rise -3716 Mar 25 j 08:36 14°**Ⅲ**31'41 -3710 Aug 16 j 20:05 direct 000 -3710 Nov 02 j 04:46 -3716 Jun 29 j 11:53 16°**Ⅲ**28'20 retrograde 1°9529'22 evening set -3716 Jul 06 j 08:04 16°**耳**42'13 34.69133 AU -3709 Jan 18 j 04:25 max. Earth dist. 0°910'56 14°54'54 opposition -3709 Jan 21 j 03:49 0°906'11 31.28647 AU min. Earth dist. -3716 Jul 09 j 18:19 16°**Ⅲ**49'12 11°33'42 -3709 Jan 25 j 01:27 30°R∏ conjunction -3716 Jul 09 j 17:57 16°**Ⅲ**49'10 11°33'51 -3709 Apr 09 j 02:25 28°**Ⅱ**48'55 minimum elong direct -3716 Jul 19 j 22:37 17°**Ⅲ**09'52 -3709 Jun 18 j 02:03 morning rise 0.00 19°**Ⅱ**03'05 -3716 Oct 19 j 21:30 -3709 Jul 20 j 01:47 retrograde evening set 1°905'46 opposition -3715 Jan 05 j 06:11 17°**耳**47'10 12°28'38 max. Earth dist. -3709 Jul 22 j 00:30 1°5010'01 33.11750 AU min. Earth dist. -3715 Jan 08 j 08:14 17°**Ц**42'26 32.61838 AU direct -3715 Mar 27 j 11:32 16°**Ⅲ**27'55 conjunction -3709 Jul 25 j 05:53 1°517'03 14°12'01 -3715 Jul 02 j 07:24 18°**Ⅲ**27'01 -3709 Jul 25 j 05:29 1°9517'01 14°12'10 evening set minimum elong max. Earth dist. -3715 Jul 08 j 15:03 18°**Д**39'58 34.45649 AU -3709 Jul 30 j 08:49 1°528'14 morning rise -3709 Nov 04 j 17:39 3°5540'49 retrograde -3715 Jul 12 j 00:38 18°**耳**46′57 11°58′04 -3708 Jan 20 j 15:12 2°521'58 15°16'32 conjunction opposition -3715 Jul 12 j 00:14 18°**Ⅲ**46'55 11°58'13 min. Earth dist. -3708 Jan 23 j 13:24 2°517'17 31.08092 AU minimum elong -3715 Jul 21 i 15:36 19°**耳**06'43 morning rise direct -3708 Apr 10 j 11:38 0°959'31 -3715 Oct 22 i 03:08 21°**II**02'16 retrograde evening set -3708 Jul 22 j 17:31 3°520'19 19°**Ⅱ**45'58 12°54'32 opposition -3714 Jan 07 j 11:50 max. Earth dist. -3708 Jul 23 j 14:31 3°522'14 32.91207 AU 19°**Д**41'09 32.38803 AU min. Earth dist. -3714 Jan 10 j 14:26 direct -3714 Mar 29 j 14:40 18°**Ⅲ**26′16 -3708 Jul 26 j 17:26 3°529'07 14°31'34 conjunction -3714 Jul 05 j 04:45 20°**I**I27'56 -3708 Jul 26 j 17:04 3°929'05 14°31'43 evening set minimum elong max. Earth dist. -3714 Jul 10 j 22:25 20°**Д**39'48 34.22440 AU -3708 Jul 30 j 16:22 3°937'50 morning rise -3708 Nov 06 j 05:44 5°954'16 retrograde -3707 Jan 22 j 03:02 conjunction -3714 Jul 14 j 07:29 20°II46'50 12°21'58 opposition 4°ഇ35'01 15°37'09 20°**II**46'48 12°22'06 minimum elong -3714 Jul 14 j 07:06 min. Earth dist. -3707 Jan 25 j 00:09 4°930'22 30.88202 AU -3707 Apr 12 j 23:07 -3714 Jul 23 j 08:16 21°**Ⅱ**05'35 direct 3°9512'10 morning rise -3714 Oct 24 j 11:05 23°**Ⅱ**03'34 evening set -3707 Jul 26 j 20:56 5°937'58 retrograde -3713 Jan 09 j 18:09 21°**II**46'51 13°19'55 max. Earth dist. -3707 Jul 26 j 03:50 5°536'23 32.71395 AU opposition -3713 Jan 12 j 19:36 21°**Д**42'06 32.16043 AU min. Earth dist. 20°**Ⅲ**26'42 -3707 Jul 29 j 05:38 5°5643'13 14°50'06 direct -3713 Mar 31 j 19:59 conjunction 22°**Ⅲ**31′04 -3707 Jul 29 j 05:14 14°50'15 evening set -3713 Jul 08 j 04:00 minimum elong 5°9543'11 max. Earth dist. -3713 Jul 13 j 06:09 22°**Ⅱ**41'42 33.99500 AU morning rise -3707 Jul 31 j 13:30 5°9548'24 retrograde -3707 Nov 08 j 21:14 8°909'45 conjunction -3713 Jul 16 j 15:22 22°**Ⅱ**48'49 12°45'20 opposition -3706 Jan 24 j 15:37 6°950'08 15°56'39 minimum elong -3713 Jul 16 j 14:57 22°**Ⅱ**48'47 12°45'28 min. Earth dist. -3706 Jan 27 j 10:25 6°545'37 30.69059 AU -3713 Jul 25 j 00:49 23°**II**06'25 -3706 Apr 15 j 10:20 5°926'53 morning rise direct -3713 Oct 26 j 19:41 25°**Ⅲ**06'58 max. Earth dist. -3706 Jul 28 j 19:01 7°552'42 32.52333 AU retrograde

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3706 in astronomical counting style is the year 3707 BCE in historical counting style. opposition -3706 Jul 31 j 18:39 7°559'24 15°07'32 -3697 Feb 16 i 00:23 28°933'06 17°48'25 conjunction 28°529'34 29.29476 AU -3706 Jul 31 j 18:18 15°07'40 -3697 Feb 18 j 03:05 minimum elong 7°959'22 min. Earth dist. -3706 Nov 11 j 09:56 -3697 May 07 j 07:10 10°927'19 direct 27°907'14 retrograde opposition -3705 Jan 27 j 05:13 9°507'20 16°14'55 max. Earth dist. -3697 Aug 20 j 19:02 29°544'58 31.14534 AU -3705 Jan 29 j 23:27 min. Earth dist. 9°902'51 30.50653 AU -3705 Apr 17 j 21:15 direct 7°9543'45 conjunction -3697 Aug 22 j 22:46 29°950'08 16°43'02 max. Earth dist. -3705 Jul 31 j 10:45 10°511'06 32.34035 AU minimum elong -3697 Aug 22 j 22:39 29°950'07 16°43'10 -3697 Aug 27 j 01:39 0° Ω conjunction -3705 Aug 03 j 08:25 10°9517'41 15°23'46 retrograde -3697 Dec 04 j 03:26 2°**Ω**28′13 minimum elong -3705 Aug 03 j 08:03 10°9517'39 15°23'55 opposition -3696 Feb 18 j 21:01 1°**Ω**05'30 17°52'20 retrograde -3705 Nov 14 j 01:01 12°546'56 min. Earth dist. -3696 Feb 20 j 21:51 1°**Ω**02'05 29.17999 AU -3704 Jan 29 j 19:31 opposition 11°**5**26'38 16°31'54 -3696 Apr 03 j 02:28 30°Rூ min. Earth dist. -3704 Feb 01 j 11:14 11°**5**22'18 30.32981 AU direct -3696 May 09 j 02:53 29°939'25 direct -3704 Apr 19 j 10:37 10°902'44 -3696 Jun 13 j 03:18 $0^{\circ}\Omega$ max. Earth dist. -3704 Aug 02 j 02:51 12°931'32 32.16463 AU max. Earth dist. -3696 Aug 22 j 16:34 2°Ω18'07 31.03533 AU conjunction -3704 Aug 04 j 23:02 12°538'02 15°38'46 conjunction -3696 Aug 24 j 17:39 2°**£**23′02 16°45'31 minimum elong -3704 Aug 04 j 22:44 12°538'00 15°38'55 minimum elong -3696 Aug 24 j 17:35 2°**Ω**23′02 16°45'38 retrograde -3704 Nov 15 j 16:55 15°908'37 retrograde -3696 Dec 06 j 01:11 5°**Ω**01'53 opposition -3703 Jan 31 j 11:01 13°9548'00 16°47'32 opposition -3695 Feb 20 j 18:10 3°**£**38′57 17°54'15 min. Earth dist. -3703 Feb 03 j 02:12 13°9543'41 30.16022 AU min. Earth dist. -3695 Feb 22 j 15:06 3°**Ω**35'48 29.07575 AU direct -3703 Apr 21 j 22:05 12°9523'47 direct -3695 May 11 j 23:42 2°Ω12'43 max. Earth dist. -3703 Aug 04 j 20:39 14°554'06 31.99621 AU max. Earth dist. -3695 Aug 25 j 15:24 4°Ω52'23 30.93638 AU -3703 Aug 07 j 14:13 15°500'24 15°52'27 -3695 Aug 27 j 12:49 4°**Ω**56'58 16°46'07 conjunction conjunction -3703 Aug 07 j 13:54 15°900'22 -3695 Aug 27 j 12:46 4°**Ω**56'57 15°52'36 minimum elong 16°46'15 minimum elong -3703 Nov 18 j 09:28 -3695 Dec 08 j 21:11 7°Ω36'31 17°932'16 retrograde retrograde -3702 Feb 03 j 03:19 -3694 Feb 23 j 15:55 6°Ω13'23 17°54'07 16°9911'20 17°01'43 opposition opposition -3702 Feb 05 j 15:55 -3694 Feb 25 j 10:47 6°**Ω**10'22 28.98255 AU 16°507'10 29.99754 AU min. Earth dist. min. Earth dist. 4°Ω47'03 -3702 Apr 24 j 13:54 14°9546'49 direct -3694 May 14 j 19:06 direct max. Earth dist. -3702 Aug 07 j 13:39 17°5518'26 31.83484 AU max. Earth dist. -3694 Aug 28 j 14:18 7°**Ω**27'34 30.84916 AU 16°04'46 -3694 Aug 30 j 08:19 -3702 Aug 10 j 06:13 17°9524'41 7°**Ω**31'50 16°44'48 conjunction conjunction 7°**Ω**31'50 16°44'54 -3702 Aug 10 j 05:57 -3694 Aug 30 j 08:20 minimum elong 17°9524'40 16°04'54 minimum elong -3702 Nov 21 j 03:19 -3694 Dec 11 j 17:48 10°**Ω**11'59 retrograde 19°957'46 retrograde -3701 Feb 05 j 20:20 -3693 Feb 26 j 13:47 8°**Ω**48'44 17°51'53 opposition 18°936'31 17°14'24 opposition min. Earth dist. -3701 Feb 08 j 08:01 18°932'25 29.84187 AU min. Earth dist. -3693 Feb 28 j 04:26 8°**Ω**46'00 28.90069 AU -3701 Apr 27 j 04:51 17°9511'42 -3693 May 17 j 17:07 7°**Ω**22′20 direct direct max. Earth dist. -3701 Aug 10 j 09:28 19°5544'46 31.68076 AU max. Earth dist. -3693 Aug 31 j 13:15 10°**Ω**03'37 30.77353 AU -3701 Aug 12 j 23:00 19°950'46 16°15'37 -3693 Sep 02 j 04:08 10°**Ω**07'34 16°41'32 conjunction conjunction -3701 Aug 12 j 22:44 19°950'45 -3693 Sep 02 j 04:11 10°**Ω**07'34 16°41'39 minimum elong 16°15'45 minimum elong -3701 Nov 23 j 21:00 22°9525'00 -3693 Dec 14 j 14:42 12°**Ω**48'15 retrograde retrograde -3700 Feb 08 j 14:20 21°903'27 17°25'30 -3692 Feb 29 j 12:22 11°**Ω**24'54 17°47'33 opposition opposition -3700 Feb 10 j 23:49 20°559'28 29.69320 AU -3692 Mar 02 j 00:47 11°**Ω**22'20 28.83014 AU min. Earth dist. min. Earth dist. direct -3700 Apr 28 i 22:50 19°538'20 direct -3692 May 19 j 12:41 9°**£**58'30 max. Earth dist. -3700 Aug 12 j 03:46 22°512'34 31.53416 AU max. Earth dist. -3692 Sep 02 j 13:08 12°**Ω**40′29 30.70953 AU conjunction -3700 Aug 14 i 16:09 22°5518'30 16°24'56 conjunction -3692 Sep 04 i 00:01 12°**Ω**44'03 16°36'18 minimum elong -3700 Aug 14 j 15:57 22°9518'28 -3692 Sep 04 i 00:06 12°Ω44'03 16°36'24 16°25'04 minimum elong -3700 Nov 25 j 16:47 24°953'49 -3692 Nov 09 j 00:41 15°Ω retrograde -3699 Feb 10 j 09:03 23°931'57 17°34'55 -3692 Dec 16 j 12:02 15°**Ω**25'11 opposition retrograde -3699 Feb 12 j 16:40 23°\$28'05 29.55212 AU -3691 Jan 24 j 08:54 15°RΩ min. Earth dist. direct -3699 May 01 j 15:39 22°506'34 opposition -3691 Mar 03 j 11:15 14°**Ω**01'45 17°41'05 24°5642'06 31.39560 AU max. Earth dist. -3699 Aug 15 j 01:03 min. Earth dist. -3691 Mar 04 j 19:37 13°Ω59'28 28.77056 AU direct -3691 May 22 j 10:43 12°**Ω**35′23 -3699 Aug 17 j 10:02 24°5947'44 16°32'40 -3691 Aug 29 j 04:20 15°**Ω** conjunction -3699 Aug 17 j 09:50 24°9547'43 -3691 Sep 05 j 11:54 15°**Ω**17'51 30.65663 AU minimum elong 16°32'49 max. Earth dist. -3699 Nov 28 j 11:48 retrograde 27°9524'03 -3691 Sep 06 j 20:06 15°**Ω**21'08 16°29'07 opposition -3698 Feb 13 j 04:28 26°**©**01'53 17°42'35 conjunction 15°**Ω**21′09 min. Earth dist. -3698 Feb 15 j 10:07 25°**©**58'09 29.41902 AU minimum elong -3691 Sep 06 j 20:13 16°29'14 -3698 May 04 j 11:37 24°936'15 retrograde -3691 Dec 19 j 09:01 18°**Ω**02'37 direct max. Earth dist. -3698 Aug 17 j 20:47 27°512'49 31.26579 AU opposition -3690 Mar 06 j 10:21 16°**Ω**39'08 17°32'31 min. Earth dist. -3690 Mar 07 j 16:16 16° **Ω**37'01 28.72179 AU conjunction -3698 Aug 20 j 04:07 27°5518'19 16°38'43 direct -3690 May 25 j 07:56 15°**Ω**12'49 -3698 Aug 20 j 03:58 27°9518'18 minimum elong 16°38'51 -3698 Dec 01 j 08:36 29°955'34 -3690 Sep 09 j 16:19 $17^{\circ}\Omega$ 58'39 $16^{\circ}20'00$ retrograde conjunction

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3690 in astronomical counting style is the year 3691 BCE in historical counting style. -3690 Sep 09 i 16:29 17°**Ω**58'40 16°20'06 min. Earth dist. -3682 Mar 28 j 05:25 7° m 30'59 28.70666 AU minimum elong -3690 Sep 08 i 12:23 17° Ω55'47 30.61469 AU -3682 Jun 16 j 01:23 6° m 05'50 max Earth dist direct -3690 Dec 22 j 05:38 20°Ω40'20 evening set -3682 Sep 24 j 15:34 8° m 34'35 retrograde -3689 Mar 09 j 09:42 19°**Ω**16'49 17°21'53 opposition -3689 Mar 10 j 12:09 19°**Ω**14'58 28.68327 AU -3682 Sep 30 j 03:18 min. Earth dist. conjunction 8° **m** 47'52 14°01'10 -3682 Sep 30 j 03:41 14°01'13 direct -3689 May 28 j 07:07 17°**Ω**50'35 minimum elong 8° **m** 47'54 20°**Ω**33'44 30.58322 AU max. Earth dist. -3682 Sep 30 j 03:15 -3689 Sep 11 j 10:49 max. Earth dist. 8° Mp 47'51 30.66612 AU -3682 Oct 05 j 15:35 morning rise 9° m 01'11 -3681 Jan 12 j 00:43 16°08'58 conjunction -3689 Sep 12 j 12:27 20°**£**36′22 retrograde 11° m 27'18 -3689 Sep 12 j 12:39 10°M 03'59 minimum elong 20°**Ω**36′23 16°09'05 opposition -3681 Mar 31 j 01:27 14°46'09 10° m/04'03 28.75581 AU retrograde -3689 Dec 25 j 03:49 23°**Ω**18′10 min. Earth dist. -3681 Mar 31 j 00:37 -3688 Mar 11 j 09:09 opposition 21°**Ω**54'37 17°09'11 direct -3681 Jun 18 j 22:46 8° m 38'58 -3681 Sep 26 j 09:07 min. Earth dist. -3688 Mar 12 j 08:31 21°**Ω**52'59 28.65500 AU evening set 11° Mp 04'27 direct -3688 May 30 j 04:21 20°**Ω**28'27 max. Earth dist. -3688 Sep 13 j 11:27 23°**Ω**11'53 30.56224 AU conjunction -3681 Oct 02 j 20:53 11° Mp 20'05 13°36'17 minimum elong -3681 Oct 02 j 21:18 11° Mp 20'0713°36'21 conjunction -3688 Sep 14 j 08:42 23°Ω14'04 15°56'03 max. Earth dist. -3681 Oct 03 j 00:41 11° Mp 20'28 30.72511 AU minimum elong -3688 Sep 14 j 08:56 23°**Ω**14′05 15°56'08 morning rise -3681 Oct 09 j 09:12 11° m) 35'46 retrograde -3688 Dec 27 j 00:09 25°**Ω**55'50 retrograde -3680 Jan 14 j 19:35 13° m 58'52 opposition -3687 Mar 14 j 08:45 24°**Ω**32'17 16°54'27 opposition -3680 Apr 01 j 22:57 12° m 35'43 14°18'42 min. Earth dist. -3687 Mar 15 j 05:03 24°**Ω**30'51 28.63677 AU min. Earth dist. -3680 Apr 01 j 17:33 12° m 36'05 28.81691 AU direct -3687 Jun 02 i 04:47 23°**Ω**06′13 direct -3680 Jun 20 j 21:18 11° m 11'00 max. Earth dist. -3687 Sep 16 i 09:32 25°Ω49'34 30.55171 AU evening set -3680 Sep 27 j 04:53 13° m 33'28 conjunction -3687 Sep 17 i 04:31 25°**Ω**51'30 15°41'17 conjunction -3680 Oct 04 i 13:59 13° m 51'09 13°09'59 -3687 Sep 17 j 04:47 25°Ω51'32 15°41'23 -3680 Oct 04 j 14:23 13° m 51'12 13°10'02 minimum elong minimum elong -3687 Dec 29 j 22:16 28°**£**33′09 max. Earth dist. -3680 Oct 04 j 21:09 13° m 51'52 30.79594 AU retrograde opposition -3686 Mar 17 j 08:07 27°**Ω**09'35 16°37'45 -3680 Oct 11 j 23:36 14° m 08'53 morning rise -3686 Mar 18 j 00:40 27°**Ω**08'25 28.62884 AU -3679 Jan 16 j 12:38 16° m 29'14 min. Earth dist. retrograde -3686 Jun 05 j 04:07 25°**Ω**43'37 -3679 Apr 04 j 20:07 15° m 06'17 13°49'45 direct opposition max. Earth dist. -3686 Sep 19 j 09:46 -3679 Apr 04 j 11:41 15° Mp 06'52 28.88970 AU 28°**Ω**26'59 30.55172 AU min. Earth dist. -3679 Jun 23 j 16:53 13° m/41'55 direct -3686 Sep 20 j 00:22 28°Ω28'28 15°24'43 -3679 Sep 29 j 02:19 conjunction 16° Mp 01'32 evening set -3686 Sep 20 j 00:39 minimum elong 28°**\Omega**28'30 15°24'47 -3679 Oct 07 j 06:35 -3686 Oct 29 j 17:09 16° Mp 21'02 12° 42'21 0° M conjunction -3685 Jan 01 j 17:29 -3679 Oct 07 j 07:00 16° Mp 21'05 12° 42'24 retrograde 1°Mp09'51 minimum elong -3685 Mar 12 j 02:27 -3679 Oct 07 j 17:57 16° Mp 22'10 30.87820 AU 30°Ŗ**Ω** max. Earth dist. opposition -3685 Mar 20 j 07:18 29°**Ω**46'17 16°19'06 morning rise -3679 Oct 15 j 11:14 16° Mp 40'34 min. Earth dist. -3685 Mar 20 j 21:18 29° **Ω**45'18 28.63127 AU retrograde -3678 Jan 19 j 04:50 18° **m** 58'19 direct -3685 Jun 08 j 02:56 28°**Ω**20'27 opposition -3678 Apr 07 j 16:40 17° mg 35'37 13°19'26 -3685 Aug 26 j 13:40 0° m min. Earth dist. -3678 Apr 07 j 04:30 17° m/36'27 28.97329 AU -3678 Jun 26 j 14:03 16° Mp 11'36 direct -3685 Sep 22 j 19:42 1° mp 04'44 15° 06'21 -3678 Oct 01 j 00:54 18° m 28'32 conjunction evening set -3685 Sep 22 j 20:02 1° Mp 04'46 15° 06'26 minimum elong -3685 Sep 22 j 07:48 1°Mp03'31 30.56270 AU -3678 Oct 09 j 22:35 18° mp 49'38 12°13'31 max. Earth dist. conjunction -3684 Jan 04 i 15:20 3° m 45'46 -3678 Oct 09 i 22:59 18° m 49'41 12°13'32 retrograde minimum elong -3684 Mar 22 j 06:18 18° m 51'01 30.97091 AU opposition 2°m 22'12 15°58'34 max. Earth dist. -3678 Oct 10 j 12:27 min. Earth dist. -3684 Mar 22 j 15:54 2° Mp 21'32 28.64472 AU morning rise -3678 Oct 18 i 20:48 19° m 10'47 direct -3684 Jun 10 j 03:14 0° m 56'30 retrograde -3677 Jan 21 i 22:09 21° m 26'05 evening set -3684 Sep 21 j 22:18 3° m 33'36 opposition -3677 Apr 10 i 12:37 20° m 03'38 12°47'52 min. Earth dist. -3677 Apr 09 j 21:08 20° m 04'41 29.06717 AU -3684 Sep 24 j 14:38 3° m 40'08 14°46'17 direct -3677 Jun 29 j 07:57 18° m 40'00 conjunction -3684 Sep 24 j 14:59 3° Mp 40'10 14°46'20 -3677 Oct 03 j 00:25 20° m 54'21 minimum elong evening set -3684 Sep 24 j 07:16 max. Earth dist. 3° m/39'23 30.58506 AU morning rise -3684 Sep 27 j 07:36 3° m 46'43 conjunction -3677 Oct 12 j 14:12 21° Mp 16'53 11°43'34 retrograde -3683 Jan 06 j 10:23 6° m 20'43 minimum elong -3677 Oct 12 j 14:37 21° m 16'56 11°43'36 opposition -3683 Mar 25 j 05:12 4° m 57'11 15°36'11 max. Earth dist. -3677 Oct 13 j 08:12 21° m/18'40 31.07353 AU -3683 Mar 25 j 12:04 4° Mp 56'42 28.66968 AU -3677 Oct 22 j 04:18 21°M 39'29 min. Earth dist. morning rise 3° Tp 31'40 -3676 Jan 24 j 12:49 23° m 52'27 direct -3683 Jun 13 j 02:18 retrograde -3683 Sep 23 j 02:14 6° Mp 04'07-3676 Apr 12 j 08:11 22° m/30'14 12°15'11 evening set opposition -3676 Apr 11 j 13:54 22° m/31'29 29.17050 AU min. Earth dist. conjunction -3683 Sep 27 j 09:10 6° m 14'32 14°24'31 direct -3676 Jul 01 j 04:23 21° m 07'00 minimum elong -3683 Sep 27 j 09:32 6° Mp 14'34 14°24'36 evening set -3676 Oct 04 j 00:33 23° m 18'51 max. Earth dist. -3683 Sep 27 j 05:09 6° Mp 14'07 30.61948 AU morning rise -3683 Oct 01 j 16:43 6° Mp 25'00 conjunction -3676 Oct 14 j 04:58 23° m/42'41 11°12'38 -3682 Jan 09 j 06:12 8° m 54'34 -3676 Oct 14 j 05:22 23° Mp 42'43 11°12'39 retrograde minimum elong

-3682 Mar 28 j 03:23

opposition

7° mg 31'08 15°12'01

max. Earth dist.

-3676 Oct 15 j 00:56

23° m/44'38 31.18532 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3676 in astronomical counting style is the year 3677 BCE in historical counting style. -3676 Oct 24 i 09:57 24° m 06'34 direct -3669 Jul 19 i 05:16 7°**-**27'47 morning rise -3675 Jan 26 j 05:17 26° m 17'18 evening set -3669 Oct 17 j 09:56 9°**£**24'24 retrograde -3675 Apr 14 j 05:07 24° m 56'49 29.28289 AU min. Earth dist. -3675 Apr 15 j 03:04 -3669 Oct 30 j 17:36 24° m 55'20 11°41'30 conjunction 9°**£**53'58 7°16'29 opposition -3675 Jul 03 j 22:14 -3669 Oct 30 j 17:54 7°16'28 direct 23° m 32'29 minimum elong 9°**£**54'00 25° m/41'55 -3675 Oct 06 j 01:13 -3669 Nov 01 j 09:55 evening set max. Earth dist. 9°**♀**57'43 32.20257 AU morning rise -3669 Nov 13 j 02:10 10°**£**23'35 -3675 Oct 16 j 19:24 10°40'48 -3668 Feb 11 j 19:59 conjunction 26° Mp 06'54 retrograde 12°**£**20'43 minimum elong -3675 Oct 16 j 19:49 26° Mp 06'57 10°40'49 min. Earth dist. -3668 Apr 29 j 23:53 11°**2**03'20 30.30641 AU max. Earth dist. -3675 Oct 17 j 19:19 26° Mp 09'14 31.30572 AU opposition -3668 May 01 j 18:07 11°**≏**00'35 7°26'19 morning rise -3675 Oct 27 j 13:56 26° m 31'57 direct -3668 Jul 20 j 18:14 9°**£**40′26 -3674 Jan 28 j 18:37 -3668 Oct 18 j 11:33 retrograde 28° Mp 40'30evening set 11°**£**35'13 opposition -3674 Apr 17 j 21:11 27° Mp 18'4811°06'54 min. Earth dist. -3674 Apr 16 j 21:16 27° Mp 20'24 29.40366 AU conjunction -3668 Nov 01 j 02:45 12°**♀**05'12 6°41'02 direct -3674 Jul 06 j 15:58 25° m 56'19 minimum elong -3668 Nov 01 j 03:01 12°**♀**05'14 6°41'00 evening set -3674 Oct 08 j 02:24 28° Mp 03'25 max. Earth dist. -3668 Nov 02 j 22:37 12°**೨**09'16 32.38206 AU morning rise -3668 Nov 14 j 18:36 12°**2**35'17 conjunction -3674 Oct 19 j 09:00 28° Mp 29'2610°08'11 retrograde -3667 Feb 13 j 02:58 14°**♀**30'48 28° m 29'28 minimum elong -3674 Oct 19 j 09:23 10°08'12 min. Earth dist. -3667 May 02 j 10:06 13°**2**13'54 30.48720 AU max. Earth dist. -3674 Oct 20 j 10:44 28° m/31'55 31.43438 AU opposition -3667 May 04 j 06:52 13°**♀**11'00 6°48'16 morning rise -3674 Oct 30 j 16:11 28° m 55'31 direct -3667 Jul 23 j 08:20 11°**£**51'17 -3674 Nov 30 i 04:58 0°Ω evening set -3667 Oct 20 i 13:30 13°**£**44'19 retrograde -3673 Jan 31 j 10:00 1°**2**01'58 -3673 Apr 08 j 08:10 30°R ™ conjunction -3667 Nov 03 j 11:09 14°**£**14'40 6°05'24 min. Earth dist. -3673 Apr 19 j 10:44 29° m/42'22 29.53268 AU minimum elong -3667 Nov 03 i 11:24 14°**£**14'41 6°05'22 opposition -3673 Apr 20 j 14:34 29° m 40'31 10°31'32 max. Earth dist. -3667 Nov 05 j 08:35 14° **2**18'50 32.56932 AU -3673 Jul 09 j 10:04 28° m 18'24 -3667 Nov 17 j 09:52 14°**£**45'06 direct morning rise -3673 Sep 29 j 16:44 0∘**⊽** -3666 Feb 15 j 11:46 16°**♀**39'05 retrograde -3673 Oct 10 j 03:32 0°**£**23'14 -3666 May 04 j 18:50 min. Earth dist. 15°**£**22'43 30.67577 AU evening set -3666 May 06 j 18:41 opposition 15°**-**219'38 6°10'05 -3666 Jul 25 j 18:53 -3673 Oct 21 j 21:50 0°**2**50'10 9°34'53 conjunction 14°**£**00′21 direct -3666 Oct 22 j 15:20 minimum elong -3673 Oct 21 j 22:13 0°**2**50'12 9°34'54 15°**£**51'45 evening set max. Earth dist. -3673 Oct 23 j 03:13 0°**♀**52'59 31.57103 AU -3673 Nov 02 j 16:36 -3666 Nov 05 j 19:01 16°**2**22'23 5°29'41 morning rise 1°**♀**17'10 conjunction -3672 Feb 02 j 23:13 3°**2**21'36 -3666 Nov 05 j 19:15 retrograde minimum elong 16°**£**22'24 5°29'39 -3672 Apr 21 j 01:40 -3666 Nov 07 j 19:51 min. Earth dist. 2°**♀**02'21 29.66992 AU max. Earth dist. 16°**£**26'49 32.76363 AU -3666 Nov 19 j 23:34 opposition -3672 Apr 22 j 07:24 2°**£**00'22 9°55'29 morning rise 16°**£**53'06 direct -3672 Jul 11 j 04:00 0°**£**38'38 retrograde -3665 Feb 17 j 18:30 18°**≏**45'38 -3672 Oct 11 j 05:02 2°**£**41'16 min. Earth dist. -3665 May 07 j 04:42 17°**2**29'41 30.87111 AU evening set opposition -3665 May 09 j 05:58 17°**≏**26'32 5°31'54 conjunction -3672 Oct 23 j 09:55 3°**2**09'01 9°00'58 direct -3665 Jul 28 j 06:11 16°**♀**07'43 -3672 Oct 23 j 10:16 3°**2**09'03 9°00'58 -3665 Oct 24 j 17:13 17°**♀**57'32 minimum elong evening set -3672 Oct 24 j 17:38 3°**2**12'02 31.71601 AU max. Earth dist. -3672 Nov 04 j 15:22 3°**△**36'48 -3665 Nov 08 j 01:59 18°**2**28'21 4°53'57 morning rise conjunction -3671 Feb 04 j 12:20 5°**£**39'17 -3665 Nov 08 j 02:11 retrograde minimum elong 18°**2**28'23 4°53'55 opposition -3671 Apr 24 i 23:11 4° **2**18'18 9°18'50 max. Earth dist. -3665 Nov 10 i 04:06 18°**£**32'53 32.96415 AU min. Earth dist. -3671 Apr 23 j 13:30 4°**2**20'32 29.81570 AU morning rise -3665 Nov 22 i 11:54 18°**♀**59'17 direct -3671 Jul 13 j 21:08 2°**£**56'56 retrograde -3664 Feb 20 i 02:58 20°**♀**50'28 evening set -3671 Oct 13 j 06:29 4°**£**57'28 min. Earth dist. -3664 May 08 j 11:58 19°**£**35'03 31.07252 AU -3664 May 10 i 16:28 19°**2**31'42 4°53'45 opposition -3671 Oct 25 j 21:11 5°**£**25'55 8°26'33 -3664 Jul 29 j 16:15 18°**♀**13'20 conjunction direct -3671 Oct 25 j 21:32 5°**£**25'57 8°26'32 evening set -3664 Oct 25 j 19:12 20°**£**01'39 minimum elong -3671 Oct 27 j 08:01 5°**2**29'12 31.86941 AU max. Earth dist. morning rise -3671 Nov 07 j 12:33 5°**£**54'25 conjunction -3664 Nov 09 j 08:33 20°**△**32'37 4°18'17 retrograde -3670 Feb 06 j 23:08 7°**£**55'01 minimum elong -3664 Nov 09 j 08:43 20°**₽**32'38 4°18'14 min. Earth dist. -3670 Apr 26 j 02:30 6°**2**36'40 29.97036 AU max. Earth dist. -3664 Nov 11 j 13:28 20°**£**37'21 33.16996 AU -3670 Apr 27 j 14:21 6°**₽**34'18 8°41'42 morning rise -3664 Nov 23 j 23:02 21°**₽**03'42 opposition -3670 Jul 16 j 12:29 5°**£**13'19 -3663 Feb 21 j 09:59 22°**£**53'34 direct retrograde -3670 Oct 15 j 08:08 -3663 May 10 j 20:51 21°**≙**38'31 31.27915 AU evening set 7°**£**11'51 min. Earth dist. -3663 May 13 j 02:15 opposition 21°**♀**35'09 4°15'44 -3670 Oct 28 j 07:47 conjunction 7°**£**40'53 7°51'41 direct -3663 Aug 01 j 01:38 20°**₽**17'12 minimum elong -3670 Oct 28 j 08:06 7°**£**40'55 7°51'40 evening set -3663 Oct 27 j 21:08 22°**₽**04'06 max. Earth dist. -3670 Oct 29 j 21:42 7°**♀**44'26 32.03164 AU morning rise -3670 Nov 10 j 08:01 8°**₽**09'59 conjunction -3663 Nov 11 j 14:24 22°**₽**35'09 3°42'45 retrograde -3669 Feb 09 j 09:42 10°**£**08'48 minimum elong -3663 Nov 11 j 14:33 22°**₽**35'10 3°42'42 -3669 Apr 28 j 13:08 8°**⊆**50'57 30.13388 AU max. Earth dist. -3663 Nov 13 j 20:32 22°**♀**39'57 33.38046 AU min. Earth dist. -3669 Apr 30 j 04:30 8°**△**48'22 8°04'09 -3663 Nov 26 j 08:52 23°**♀**06'19 opposition morning rise

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3662 in astronomical counting style is the year 3663 BCE in historical counting style. -3662 Feb 23 i 16:49 24°**£**54'55 min. Earth dist. -3656 May 24 j 07:53 5°M13'44 32.84167 AU retrograde -3662 May 13 j 03:04 23°**♀**40'22 31.49016 AU -3656 May 27 j 01:22 5°ML09'45 -0°01'53 min. Earth dist. opposition opposition -3662 May 15 j 11:09 23°**£**36′50 3°37'55 -3656 Aug 15 j 04:49 3°M54'32 direct -3662 Aug 03 j 11:04 22°**₽**19'18 -3656 Nov 09 j 07:49 5°M33'14 direct evening set 24°**₽**04'50 -3662 Oct 29 j 23:06 evening set -3656 Nov 24 j 12:21 6°ML03'28 -0°18'11 conjunction -3662 Nov 13 j 19:33 3°07'24 -3656 Nov 24 j 12:20 conjunction 24°**£**35'55 minimum elong 6°ML03′28 0°18'16 -3656 Nov 27 j 06:15 -3662 Nov 13 j 19:40 minimum elong 24°**£**35'56 3°07'20 max. Earth dist. 6°ML08'59 34.96220 AU -3662 Nov 16 j 03:22 max. Earth dist. 24°**₽**40'49 33.59473 AU morning rise -3656 Dec 09 j 18:39 6°M33'52 morning rise -3662 Nov 28 j 17:26 25°**♀**07'07 retrograde -3655 Mar 08 j 12:21 8°M15'20 retrograde -3661 Feb 25 j 22:01 26°**♀**54'31 min. Earth dist. -3655 May 26 j 08:50 7°M03'34 33.08245 AU min. Earth dist. -3661 May 15 j 10:21 25°**≏**40'19 31.70518 AU opposition -3655 May 29 j 05:02 6°M59'26 -0°36'56 opposition -3661 May 17 j 19:28 25°**♀**36'45 3°00'22 direct -3655 Aug 17 j 08:22 5°M44'37 direct -3661 Aug 05 j 19:58 24°**♀**19'38 evening set -3655 Nov 11 j 08:51 7°M22'26 evening set -3661 Nov 01 j 00:53 26° 203'51 conjunction -3655 Nov 26 j 12:56 7°M52'24 -0°50'58 conjunction -3661 Nov 16 j 00:09 26°**2**34'54 2°32'17 minimum elong -3655 Nov 26 j 12:54 7°M52'24 0°51'02 minimum elong -3661 Nov 16 j 00:16 26°**♀**34'55 2°32'14 max. Earth dist. -3655 Nov 29 j 08:43 7°M58'01 35.20476 AU max. Earth dist. -3661 Nov 18 j 09:56 26°**♀**39'57 33.81275 AU morning rise -3655 Dec 11 j 18:56 8°M22'31 morning rise -3661 Dec 01 j 00:41 27°**♀**06'05 retrograde -3654 Mar 10 j 14:50 10°ML03'13 retrograde -3660 Feb 28 j 01:43 28°**♀**52'20 min. Earth dist. -3654 May 28 j 11:21 8°M51'49 33.32719 AU min. Earth dist. -3660 May 16 i 15:55 27°**△**38'33 31.92392 AU opposition -3654 May 31 i 08:16 8°ML47'40 -1°11'25 opposition -3660 May 19 j 02:57 27°**♀**34'52 2°23'07 direct -3654 Aug 19 j 10:52 7°M33'17 -3654 Nov 13 j 09:40 direct -3660 Aug 07 i 06:11 26° **₽**18'08 evening set 9°M10'16 evening set -3660 Nov 02 j 02:34 28°**₽**01'06 -3654 Nov 28 j 12:58 9°ML39'55 -1°23'16 conjunction -3660 Nov 17 j 03:49 28°**£**32'05 1°57'27 minimum elong -3654 Nov 28 j 12:55 9°ML39'55 1°23'21 conjunction -3660 Nov 17 j 03:53 -3654 Dec 01 j 10:16 minimum elong 28°**£**32'06 1°57'23 max. Earth dist. 9°M45'37 35.45083 AU -3660 Nov 19 j 14:37 28°**△**37'10 34.03429 AU -3654 Dec 13 j 18:02 max. Earth dist. morning rise 10°M,09'44 -3660 Dec 02 j 06:44 29°**₽**03'12 -3653 Mar 12 j 15:25 11°M49'43 morning rise retrograde 10°M38'45 33.57508 AU -3659 Jan 02 j 06:18 -3653 May 30 j 12:07 0°M min. Earth dist. -3659 Mar 01 j 05:54 -3653 Jun 02 j 10:44 0°M48'21 10°M34'32 -1°45'20 retrograde opposition -3659 May 01 j 12:46 30°**₹**Ω -3653 Aug 21 j 14:22 9°M20'33 direct 29°**♀**34'57 32.14672 AU -3659 May 18 j 20:47 -3653 Nov 15 j 10:35 10°M56'46 min. Earth dist. evening set -3659 May 21 j 09:45 opposition 29°**£**31'11 1°46'13 -3659 Aug 09 j 12:57 -3653 Nov 30 j 12:26 11°M26'06 -1°55'02 direct 28°**♀**14'49 conjunction -3659 Nov 04 j 04:03 -3653 Nov 30 j 12:22 evening set 29°**£**56'37 minimum elong 11°M26'05 1°55'07 -3659 Nov 05 j 20:27 0° M max. Earth dist. -3653 Dec 03 j 10:28 11°M31'49 35.69953 AU morning rise -3653 Dec 15 j 16:24 11°M55'35 conjunction -3659 Nov 19 j 07:02 0°M27'28 1°22'58 retrograde -3652 Mar 13 j 15:05 13°M34'55 minimum elong -3659 Nov 19 j 07:06 0°M27'28 1°22'54 min. Earth dist. -3652 May 31 j 12:57 12°M24'20 33.82566 AU max. Earth dist. -3659 Nov 21 j 20:28 0°M32'44 34.25975 AU -3652 Jun 03 j 12:46 12°M20'04 -2°18'40 opposition -3659 Dec 04 j 11:26 0°M58'27 -3652 Aug 22 j 16:07 11°M06'30 morning rise direct -3658 Mar 03 j 06:09 2°M42'35 -3652 Nov 16 j 11:14 12°M41'59 retrograde evening set -3658 May 21 j 01:29 1°M29'32 32.37369 AU min. Earth dist. -3652 Dec 01 i 11:34 opposition -3658 May 23 j 15:32 1°M25'43 1°09'44 conjunction 13°M10'57 -2°26'15 direct -3658 Aug 11 j 20:41 0°M09'43 minimum elong -3652 Dec 01 i 11:29 13°M10'57 2°26'21 evening set -3658 Nov 06 i 05:32 1°M50'25 max. Earth dist. -3652 Dec 04 i 11:35 13°M16'48 35.95027 AU morning rise -3652 Dec 16 i 13:43 13°M40'05 -3658 Nov 21 i 09:24 2°M21'06 0°48'50 -3651 Feb 06 j 19:05 15°M conjunction -3658 Nov 21 i 09:26 2°M21'06 0°48'45 -3651 Mar 15 j 11:35 15°**M** 18'47 minimum elong retrograde -3658 Nov 23 j 23:30 2°M26'23 34.48943 AU -3651 Apr 22 j 07:41 15°RML max. Earth dist. -3658 Dec 06 j 15:03 2°M51'56 min. Earth dist. -3651 Jun 02 j 13:54 14°ML08'34 34.07782 AU morning rise retrograde -3657 Mar 05 j 08:50 4°M35'06 opposition -3651 Jun 05 j 14:07 14°M04'17 -2°51'22 -3651 Aug 24 j 20:18 min. Earth dist. -3657 May 23 j 03:59 3°M22'30 32.60535 AU direct 12°M51'07 -3657 May 25 j 20:44 3°M18'33 0°33'41 evening set -3651 Nov 18 j 12:06 14°M25'55 opposition -3657 Aug 14 j 00:56 2°M02'56 direct -3657 Nov 08 j 06:40 -3651 Dec 03 j 10:10 14°M54'30 -2°56'55 evening set 3°M42'35 conjunction -3651 Dec 03 j 10:04 14° ML54'29 $2^{\circ}57'00$ minimum elong 4°ML13'04 0°15'09 -3657 Nov 23 j 11:08 -3651 Dec 06 j 09:53 15°ML00'17 36.20206 AU conjunction max. Earth dist. minimum elong -3657 Nov 23 j 11:09 4°M13'04 0°15'04 -3651 Dec 06 j 06:27 15°M behind sun begin -3657 Nov 23 j 08:40 4°M12'52 morning rise -3651 Dec 18 j 10:21 15°M23'15 behind sun end -3657 Nov 23 j 13:38 4°M13'16 retrograde -3650 Mar 17 j 10:37 17°M01'22 max. Earth dist. -3657 Nov 26 j 04:04 4°**ጤ**18'33 34.72357 AU min. Earth dist. -3650 Jun 04 j 12:55 15°M51'33 34.33096 AU morning rise -3657 Dec 08 j 17:17 4°M43'42 opposition -3650 Jun 07 j 14:43 15°M47'12 -3°23'27 -3656 Mar 06 j 09:50 6°M26'00 -3650 Jul 13 j 21:04 15°RM retrograde -3656 May 07 j 11:51 5°M37'40 direct -3650 Aug 26 j 20:49 14°M34'24 desc. node

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 19 Attention, astronomical year style is used: The year -3650 in astronomical counting style is the year 3651 BCE in historical counting style.

Attention, astronom		-	mical counting style is the year		
	-3650 Oct 08 j 04:29	15° ™	retrograde	-3643 Mar 28 j 08:59	28°M21'53
evening set	-3650 Nov 20 j 12:43	16°M08'33	min. Earth dist.	-3643 Jun 15 j 21:21	27°M14'09 36.11549 AU
			opposition	-3643 Jun 19 j 03:58	27°M09'40 -6°49'32
conjunction	-3650 Dec 05 j 08:23	16°M36'43 -3°27'00		-3643 Sep 07 j 12:39	25°M59'06
minimum elong	-3650 Dec 05 j 08:16	16°M36'43 3°27'07	- C	-3643 Dec 02 j 12:16	27° M 29'47
max. Earth dist.	-3650 Dec 08 j 09:44	16°M42'35 36.45430			
morning rise	-3650 Dec 20 j 06:01	17°M05'04	conjunction	-3643 Dec 16 j 05:09	27°M54'33 -6°40'40
retrograde	-3649 Mar 19 j 07:18	18°M.42'38	minimum elong	-3643 Dec 16 j 04:58	27°ML54'33 6°40'47
min. Earth dist.	-3649 Jun 06 j 13:40	17°M.33'05 34.58440		-3643 Dec 19 j 11:39	28°M.00'31 38.23066 AU
opposition	-3649 Jun 09 j 15:01	17°M28'47 -3°54'53	morning rise	-3643 Dec 29 j 24:00	28°M.19'30
direct	-3649 Aug 28 j 21:43	16°M16'20	retrograde	-3642 Mar 30 j 02:50	29°M.54'08
evening set	-3649 Nov 22 j 13:07	17° ™ 49'52	min. Earth dist. opposition	-3642 Jun 17 j 18:05	28°M46'40 36.37419 AU 28°M42'14 -7°16'14
agniumation	-3649 Dec 07 j 05:57	18°M17'36 -3°56'30		-3642 Jun 21 j 00:15 -3642 Sep 09 j 09:15	27°M231'59
conjunction minimum elong	-3649 Dec 07 j 05:49	18°ML17'35 3°56'36		-3642 Dec 04 j 11:39	29°M02'22
max. Earth dist.	-3649 Dec 10 j 07:12	18°M23'25 36.7066	- C	-3042 DCC 04 J 11.39	29 1100222
morning rise	-3649 Dec 22 j 00:46	18°M45'30	conjunction	-3642 Dec 17 j 23:31	29°M26'36 -7°05'49
retrograde	-3648 Mar 20 j 05:52	20°M22'33	minimum elong	-3642 Dec 17 j 23:19	29°M26'35 7°05'56
min. Earth dist.	-3648 Jun 07 j 11:39	19°M 13'21 34.83792	C	-3642 Dec 21 j 06:06	29°M-32'31 38.48788 AU
opposition	-3648 Jun 10 j 14:36	19°M08'59 -4°25'41	morning rise	-3642 Dec 31 j 13:14	29°M50'59
direct	-3648 Aug 29 j 20:36	17°M.56'51	morning rise	-3641 Jan 05 j 16:35	0° ⊼ ¹
evening set	-3648 Nov 23 j 13:27	19° M 29'48	retrograde	-3641 Mar 31 j 22:47	1° ₹ 125′23
e venning sec	30.01.01.25 13.27	19 110-29 10	min. Earth dist.	-3641 Jun 19 j 12:34	0° ⊀ 18'17 36.63336 AU
conjunction	-3648 Dec 08 j 03:03	19°M57'05 -4°25'25		-3641 Jun 22 j 20:06	0° ∡ 13'47 -7°42'15
minimum elong	-3648 Dec 08 j 02:54	19°M57'05 4°25'31	of bosons	-3641 Jul 03 j 02:00	30°RM
max. Earth dist.	-3648 Dec 11 j 05:18	20°M02'56 36.95880	6 AU direct	-3641 Sep 11 j 03:42	29°M03'53
morning rise	-3648 Dec 22 j 18:47	20°M24'32		-3641 Nov 16 j 02:16	0° ∡ 7
retrograde	-3647 Mar 22 j 04:40	22°ML01'05	evening set	-3641 Dec 06 j 10:52	0° ∡ ³33'59
min. Earth dist.	-3647 Jun 09 j 10:49	20°M52'07 35.0916	•	,	
opposition	-3647 Jun 12 j 13:35	20°M47'47 -4°55'49	conjunction	-3641 Dec 19 j 17:20	0° ∡ 57'41 -7°30'20
direct	-3647 Aug 31 j 17:48	19° M 35'57	minimum elong	-3641 Dec 19 j 17:08	0° ∡ 57'40 7°30'27
evening set	-3647 Nov 25 j 13:30	21°ML08'22	max. Earth dist.	-3641 Dec 23 j 00:32	1° ∡ 03'36 38.74512 AU
			morning rise	-3640 Jan 02 j 01:51	1° ⊀ 21'31
conjunction	-3647 Dec 09 j 23:43	21°M35'11 -4°53'43	retrograde	-3640 Apr 01 j 18:38	2° ₹ 55'42
minimum elong	-3647 Dec 09 j 23:34	21°M35'10 4°53'49	min. Earth dist.	-3640 Jun 20 j 08:22	1° ⊀ 48'52 36.89246 AU
max. Earth dist.	-3647 Dec 13 j 02:49	21°M41'02 37.2114	1 AU opposition	-3640 Jun 23 j 15:41	1° ₹ '44'26 -8°07'35
morning rise	-3647 Dec 24 j 11:48	22°M02'09	direct	-3640 Sep 11 j 21:04	0° ∡ 34'52
retrograde	-3646 Mar 24 j 00:08	23°M38'14	evening set	-3640 Dec 07 j 10:03	2° ∡ 104'44
min. Earth dist.	-3646 Jun 11 j 08:07	22°M29'34 35.3458	8 AU		
opposition	-3646 Jun 14 j 11:55	22°M25'11 -5°25'16	•	-3640 Dec 20 j 11:07	2° 尽 27'52 -7°54'13
direct	-3646 Sep 02 j 17:49	21°M13'39	minimum elong	-3640 Dec 20 j 10:54	2° 尽 27'51 7°54'21
evening set	-3646 Nov 27 j 13:26	22°M45'34	max. Earth dist.	-3640 Dec 23 j 19:06	2° ≯ 33'48 39.00187 AU
			morning rise	-3639 Jan 02 j 13:51	2° ≯ 51'08
conjunction	-3646 Dec 11 j 19:35	23°M11'54 -5°21'24	Č	-3639 Apr 03 j 11:25	4° ₹ 25'08
minimum elong	-3646 Dec 11 j 19:25	23°M11'53 5°21'32		-3639 Jun 22 j 03:06	3° ₹ 18'36 37.15057 AU
max. Earth dist.	-3646 Dec 14 j 22:52	23°M17'44 37.46449	11	-3639 Jun 25 j 10:31	3° ✓ 14'10 -8°32'15
morning rise	-3646 Dec 26 j 03:58	23°M38'23	direct	-3639 Sep 13 j 17:47	2° ₹ 04'56
retrograde	-3645 Mar 25 j 20:22	25°M.14'01	evening set	-3639 Dec 09 j 09:21	3° ₹ '34'36
min. Earth dist.	-3645 Jun 13 j 05:07	24°M.05'39 35.60118		2620 D 22:04.24	20 7 57110 0017120
opposition	-3645 Jun 16 j 09:50	24°M.01'15 -5°54'03	conjunction	-3639 Dec 22 j 04:24	3° \$\sigma 57'10 -8°17'30
direct	-3645 Sep 04 j 16:16	22°M50'01	minimum elong max. Earth dist.	-3639 Dec 22 j 04:12	3° 尽 57'09 8°17'37 4° 尽 03'00 39.25720 AU
evening set	-3645 Nov 29 j 13:08	24°M21'29	morning rise	-3639 Dec 25 j 11:31 -3638 Jan 04 j 01:24	4 × 03 00 39.23720 AU 4° × 19'52
agniumation	2645 Dec. 12 : 15:17	240 m 47110 5040127		·	5° ₹ 53'42
conjunction	-3645 Dec 13 j 15:17	24° M .47'18 -5°48'27	· ·	-3638 Apr 05 j 04:55	4° ₹ 47′28 37.40713 AU
minimum elong max. Earth dist.	-3645 Dec 13 j 15:06 -3645 Dec 16 j 20:25	24°M47'17 5°48'34 24°M53'14 37.7187:		-3638 Jun 23 j 21:22 -3638 Jun 27 j 05:09	4° ₹'47'28 37.40713 AU 4° ₹'43'02 -8°56'16
morning rise	-3645 Dec 27 j 19:19	24 IL33 14 37.7187. 25°Ml3'17	direct	-3638 Sep 15 j 12:49	3° ₹34'07
retrograde	-3644 Mar 26 j 13:37	26°M48'33	evening set	-3638 Dec 11 j 08:18	5° ₹ 03'36
min. Earth dist.	-3644 Jun 14 j 02:16	25°M40'27 35.8576	_	5050 Dec 11 J 00.10	J A 03 30
opposition	-3644 Jun 17 j 07:10	25°M36'03 -6°22'08	conjunction	-3638 Dec 23 j 21:24	5° ₹ 25'35 -8°40'10
direct	-3644 Sep 05 j 16:07	24°M25'08	minimum elong	-3638 Dec 23 j 21:11	5° \$\frac{7}{25}'34 \ 8°40'18
evening set	-3644 Nov 30 j 12:47	25°M56'11	max. Earth dist.	-3638 Dec 27 j 05:31	5° ₹31'28 39.51053 AU
2. cg oct	551101 50 j 12.47	_0 NW0011	morning rise	-3637 Jan 05 j 12:09	5° ₹ 47'41
conjunction	-3644 Dec 14 j 10:22	26°M21'29 -6°14'53	_	-3637 Apr 06 j 20:03	7° ⋌ 121′24
minimum elong	-3644 Dec 14 j 10:11	26°M21'29 6°15'00	-	-3637 Jun 25 j 16:41	6° ₹ 15'23 37.66134 AU
max. Earth dist.	-3644 Dec 17 j 15:18	26°M27'22 37.9742		-3637 Jun 28 j 23:26	6° ≯ 11'01 -9°19'37
morning rise	-3644 Dec 28 j 10:02	26°M46'57	direct	-3637 Sep 17 j 08:58	5° ∡ 02'23
morning risc				1	

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 20 Attention, astronomical year style is used: The year -3637 in astronomical counting style is the year 3638 BCE in historical counting style.

Attention, astronomi	cal year style is used: The	e year -3637 i	n astronomical cou	nting style is the year	3638 BCE in historic	al counting style.	
evening set	-3637 Dec 13 j 07:25	6° х ³31'43		min. Earth dist.	-3630 Jul 05 j 12:	44 16° 尽 04'30	39.38559 AU
				opposition	-3630 Jul 08 j 18:	57 16° ₰ 00'16	-11°45'19
conjunction	-3637 Dec 25 j 14:06	6° ₹ 753'06	-9°02'15	direct	-3630 Sep 27 j 06:	58 14° ₹ 53'22	
minimum elong	-3637 Dec 25 j 13:54	6° ≯ 753'05	9°02'22	evening set	-3630 Dec 24 j 21:	02 16° ₹ 22'10	
max. Earth dist.	-3637 Dec 28 j 21:09	6° ₹ 158'52	39.76144 AU				
morning rise	-3636 Jan 06 j 22:28	7° ∡ 14'36		conjunction	-3629 Jan 04 j 00:		
retrograde	-3636 Apr 07 j 12:21	8° ∡ ¹48'12		minimum elong	-3629 Jan 04 j 00:		
min. Earth dist.	-3636 Jun 26 j 09:35		37.91305 AU	max. Earth dist.	-3629 Jan 07 j 08:		41.46533 AU
opposition	-3636 Jun 29 j 17:11	7° ∡ ³38'04	-9°42'21	morning rise	-3629 Jan 14 j 05:		
direct	-3636 Sep 18 j 02:58	6° ≯ 29'43		retrograde	-3629 Apr 17 j 20:		
evening set	-3636 Dec 14 j 06:16	7° ∡ 758'53		min. Earth dist.	-3629 Jul 07 j 02:		39.62692 AU
	26267 2610624	00 710140	0000111	opposition	-3629 Jul 10 j 09:		-12°03'37
conjunction	-3636 Dec 26 j 06:24	8° √ 19'40		direct	-3629 Sep 28 j 21:		
minimum elong	-3636 Dec 26 j 06:11	8°×19'39		evening set	-3629 Dec 26 j 19:	17 17° ∡ 743'10	
max. Earth dist.	-3636 Dec 29 j 13:52		40.00968 AU	. ,.	2620 1 05:14	22 170 7 5020	1102720
morning rise	-3635 Jan 07 j 08:13	8°× 7 40'34		conjunction	-3628 Jan 05 j 14:		
retrograde	-3635 Apr 09 j 05:21	10° × 14'02	20 1/225 ATT	minimum elong	-3628 Jan 05 j 14:		
min. Earth dist.	-3635 Jun 28 j 04:12		38.16225 AU	max. Earth dist.	-3628 Jan 08 j 22:		41.70374 AU
opposition direct	-3635 Jul 01 j 10:37	9° х 04′09 7° х 56′03	-10-04-26	morning rise	-3628 Jan 15 j 10: -3628 Apr 18 j 13:		
evening set	-3635 Sep 19 j 19:46 -3635 Dec 16 j 05:01	9° ₹ 25'04		retrograde min. Earth dist.	-3628 Jul 07 j 18:		39.86665 AU
evening set	-3033 Dec 10 J 03.01	9 X 23 04			-3628 Jul 11 j 00:		
agniumation	-3635 Dec 27 j 22:23	9° ∡ 745'15	0044127	opposition direct	-3628 Sep 29 j 10:		-12 21 18
conjunction minimum elong	-3635 Dec 27 j 22:11	9° × ⁷ 45'14		evening set	-3628 Dec 27 j 17:		
max. Earth dist.	-3635 Dec 27 j 22.11 -3635 Dec 31 j 05:39		40.25565 AU	evening set	-3026 Dec 27 j 17.	33 19 X 03 30	
morning rise	-3634 Jan 08 j 17:09	10° ₹ 05'32	40.23303 AU	conjunction	-3627 Jan 06 j 04:	24 19° √ 19'09	11051116
retrograde	-3634 Apr 10 j 22:28	10 × 03 32 11° × 38'54		minimum elong	-3627 Jan 06 j 04:		
min. Earth dist.	-3634 Jun 29 j 20:28		38.40928 AU	max. Earth dist.	-3627 Jan 09 j 12:		41.94028 AU
opposition	-3634 Jul 03 j 03:21	10 × 33 33 10° × 29'15		morning rise	-3627 Jan 15 j 16:		41.94028 AU
direct	-3634 Sep 21 j 11:15	9° × 21'22	-10 23 33	retrograde	-3627 Apr 20 j 03:		
evening set	-3634 Dec 18 j 03:40	10° x 50'17		min. Earth dist.	-3627 Jul 09 j 09:		40.10392 AU
evening set	-3034 Dec 10 j 03.40	10 × 30 17		opposition	-3627 Jul 12 j 15:		
conjunction	-3634 Dec 29 j 13:50	11° ₹ '09'51	-10°04'55	direct	-3627 Oct 01 j 00:		12 30 23
minimum elong	-3634 Dec 29 j 13:36		10°05'03	evening set	-3627 Dec 29 j 16:		
max. Earth dist.	-3633 Jan 01 j 20:44		40.49970 AU	evening sec	3027 Bee 27 j 10.	02 20 7 23 11	
morning rise	-3633 Jan 10 j 01:36	11° × ⁷ 29'30	.0.1,5,7,0110	conjunction	-3626 Jan 07 j 17:	52 20° ∡ ³38′08	-12°10'31
retrograde	-3633 Apr 12 j 14:38	13° × 102'47		minimum elong	-3626 Jan 07 j 17:		
min. Earth dist.	-3633 Jul 01 j 13:10		38.65493 AU	max. Earth dist.	-3626 Jan 11 j 00:		42.17405 AU
opposition	-3633 Jul 04 j 19:56	11° ≯ 53′21		morning rise	-3626 Jan 16 j 20:		
direct	-3633 Sep 23 j 03:11	10° ∡ ¹45'43		retrograde	-3626 Apr 21 j 17:		
evening set	-3633 Dec 20 j 01:59	12° ∡ 14'33		min. Earth dist.	-3626 Jul 10 j 23:		40.33829 AU
Ü	,			opposition	-3626 Jul 14 j 05:		
conjunction	-3633 Dec 31 j 05:00	12° ∡ ³33'28	-10°24'37	direct	-3626 Oct 02 j 14:		
minimum elong	-3633 Dec 31 j 04:47	12° ∡ ³33'28	10°24'45	evening set	-3626 Dec 31 j 14:	27 21° ⋌ '42'12	
max. Earth dist.	-3632 Jan 03 j 13:01	12° ∡ ³39′10	40.74257 AU	•	· ·		
morning rise	-3632 Jan 11 j 09:16	12° ∡ 52'30		conjunction	-3625 Jan 09 j 07:	17 21° ⋌ 56'28	-12°26'15
retrograde	-3632 Apr 13 j 03:33	14° ∡ ¹25'44		minimum elong	-3625 Jan 09 j 07:	05 21° ₹ 56′27	12°26'22
min. Earth dist.	-3632 Jul 02 j 05:33	13° ∡ ¹20'47	38.89938 AU	max. Earth dist.	-3625 Jan 12 j 14:	21 22° 尽 01'53	42.40459 AU
opposition	-3632 Jul 05 j 12:01	13° ∡ 16'31	-11°06'52	morning rise	-3625 Jan 18 j 00:	51 22° √ 10'46	
direct	-3632 Sep 23 j 21:45	12° ₹ ¹09'07		retrograde	-3625 Apr 23 j 03:	51 23° ∡ ′44′29	
evening set	-3632 Dec 21 j 00:33	13° ∡ ³37'55		min. Earth dist.	-3625 Jul 12 j 14:	40 22° ∡ ′40′59	40.56905 AU
				opposition	-3625 Jul 15 j 18:	57 22° ∡ ³36'56	-13°10'57
conjunction	-3632 Dec 31 j 19:52	13° ∡ ¹56′12	-10°43'43	direct	-3625 Oct 04 j 06:	55 21° ⋌ ³31'15	
minimum elong	-3632 Dec 31 j 19:39	13° ∡ ¹56′11	10°43'50	evening set	-3624 Jan 02 j 13:	03 23° 尽 00'34	
max. Earth dist.	-3631 Jan 04 j 02:53	14° ∡ *01'47	40.98444 AU				
morning rise	-3631 Jan 11 j 16:35	14° ∡ 14'34		conjunction	-3624 Jan 10 j 20:	20 23° х 14′06	-12°41'27
retrograde	-3631 Apr 14 j 17:49	15° ∡ 747'47		minimum elong	-3624 Jan 10 j 20:		
min. Earth dist.	-3631 Jul 03 j 20:15	14° ∡ °43′06	39.14300 AU	max. Earth dist.	-3624 Jan 14 j 01:		42.63145 AU
opposition	-3631 Jul 07 j 03:34	14° ≯ 38'48	-11°26'25	morning rise	-3624 Jan 19 j 04:		
direct	-3631 Sep 25 j 14:11	13° ∡ ³31'38		retrograde	-3624 Apr 23 j 16:		
evening set	-3631 Dec 22 j 22:48	15° ∡ 00′26		min. Earth dist.	-3624 Jul 13 j 03:		40.79593 AU
_		=		opposition	-3624 Jul 16 j 08:		-13°26'25
conjunction	-3630 Jan 02 j 10:27	15° ∡ 18′04		direct	-3624 Oct 04 j 21:		
minimum elong	-3630 Jan 02 j 10:15	15° ∡ 18′03	11°02'21	evening set	-3623 Jan 03 j 11:	44 24° ⋌ 18'14	
max. Earth dist.	-3630 Jan 05 j 18:31		41.22538 AU		2.02		1005 *** *
morning rise	-3630 Jan 12 j 23:19	15° 🗷 35'47		conjunction	-3623 Jan 11 j 09:		
retrograde	-3630 Apr 16 j 06:27	17° ∡ 709'01		minimum elong	-3623 Jan 11 j 09:	02 24° ⋌ 31'01	12°56'17

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3623 in astronomical counting style is the year 3624 BCE in historical counting style. 24°**₹**36'16 42.85431 AU -3623 Jan 14 j 14:26 retrograde -3617 May 03 j 02:18 3°₹41'47 max. Earth dist. -3623 Jan 19 j 07:23 24°×743'53 min. Earth dist. -3617 Jul 22 j 21:02 2°る39'35 42.30230 AU morning rise -3623 Apr 25 j 05:15 26°**х** 17′56 opposition -3617 Jul 25 j 22:11 2°る35'48 -14°59'50 retrograde -3623 Jul 14 j 18:45 25°**✗**14'44 41.01897 AU -3617 Oct 14 j 12:53 1°る31'38 min. Earth dist. direct -3623 Jul 17 j 21:36 25°**∡**10'47 -13°41'21 -3616 Jan 16 j 11:18 3°**る**03'37 opposition evening set -3623 Oct 06 j 10:25 24°× 05'29 direct -3622 Jan 05 j 10:35 25°**х** 35′10 -3616 Jan 20 j 19:19 3°る10'26 -14°25'01 evening set conjunction 3°る10'25 14°25'09 -3616 Jan 20 j 19:10 minimum elong -3616 Jan 23 j 21:41 3°る15'18 44.33952 AU conjunction -3622 Jan 12 j 21:50 25°**х** 47′14 -13°10′22 max. Earth dist. -3616 Jan 25 j 03:24 minimum elong -3622 Jan 12 j 21:39 25° **7**47'13 13°10'31 morning rise 3°る17'14 -3616 May 03 j 15:43 max. Earth dist. -3622 Jan 16 j 02:43 25°**✗**52'24 43.07365 AU retrograde 4°る53'48 -3622 Jan 20 j 09:32 25°**х** 59′20 -3616 Jul 23 j 09:18 3°る51'46 42.50891 AU morning rise min. Earth dist. 27°**х** 33′34 -3616 Jul 26 j 09:29 retrograde -3622 Apr 26 j 18:16 opposition 3°る48'03 -15°11'05 min. Earth dist. -3622 Jul 16 j 07:36 26°**✗**30'32 41.23852 AU direct -3616 Oct 14 j 21:59 2°る44'05 opposition -3622 Jul 19 j 10:23 26° **₹** 26'37 -13°55'46 evening set -3615 Jan 17 j 15:27 4°る16'48 direct -3622 Oct 07 j 22:50 25°**х** 21′29 evening set -3621 Jan 07 j 09:24 26°**х** 51′24 conjunction -3615 Jan 21 j 06:23 4°る22'28 -14°35'45 minimum elong -3615 Jan 21 j 06:15 4°る22'27 14°35'54 conjunction -3621 Jan 14 j 09:51 27°**∡**102'41 -13°24'04 morning rise -3615 Jan 24 j 21:16 4°る28'07 minimum elong -3621 Jan 14 j 09:41 27°**∡**02'40 13°24'12 max. Earth dist. -3615 Jan 24 j 09:10 4°る27'20 44.54312 AU max. Earth dist. -3621 Jan 17 j 13:38 27°**₹**07'46 43.28980 AU retrograde -3615 May 05 j 02:29 6°る05'23 morning rise -3621 Jan 21 i 10:50 27°**х** 13′59 min. Earth dist. -3615 Jul 24 i 21:04 5°る03'30 42.71254 AU retrograde -3621 Apr 28 j 08:24 28°**х** 48′28 opposition -3615 Jul 27 i 20:17 4°る59'51 -15°21'52 min. Earth dist. -3621 Jul 17 j 20:36 27° ₹ 45'35 41.45539 AU direct -3615 Oct 16 i 08:40 3°る56'06 opposition -3621 Jul 20 j 23:01 27° 🖍 41'42 -14°09'38 evening set -3614 Jan 19 j 23:00 5°る29'46 -3621 Oct 09 j 09:25 26°**х** 36'45 direct -3620 Jan 09 j 08:36 28°**х** 06′57 -3614 Jan 22 j 17:08 5°る34'04 -14°46'02 evening set conjunction -3614 Jan 22 j 17:00 5°る34'04 14°46'10 minimum elong -3620 Jan 15 j 21:54 28°**∡**17'26 -13°37'16 -3614 Jan 25 j 11:08 5°**ප**38'21 conjunction morning rise -3620 Jan 15 j 21:43 28° 🖈 17'25 13°37'25 -3614 Jan 25 j 18:05 5°る38'48 44.74354 AU minimum elong max. Earth dist. -3620 Jan 19 j 02:23 28°**✗**22'32 43.50357 AU -3614 May 06 j 14:08 7°る16'34 max. Earth dist. retrograde 28°**∡**¹27'55 -3620 Jan 22 j 11:31 -3614 Jul 26 j 07:57 6°る14'52 42.91275 AU morning rise min. Earth dist. -3620 Apr 13 j 15:26 -3614 Jul 29 j 07:03 6°る11'14 -15°32'11 0°ಕ opposition -3614 Oct 17 j 18:44 -3620 Apr 28 j 18:11 0°る02'41 5°る07'41 retrograde direct -3620 May 13 j 21:55 30°R.✓ -3613 Jan 22 j 16:01 6°**る**42'56 evening set -3620 Jul 18 j 09:45 28°**₹**'59'56 41.66994 AU min. Earth dist. -3620 Jul 21 j 11:10 28°**₹** 56'06 -14°22'59 -3613 Jan 24 j 03:41 6°**る**45'14 -14°55'52 opposition conjunction direct -3620 Oct 09 j 23:23 27°**х** 51′20 minimum elong -3613 Jan 24 j 03:34 6°る45'14 14°56'01 evening set -3619 Jan 10 j 08:19 29°**х** 21′52 morning rise -3613 Jan 25 j 15:12 6°る47'32 max. Earth dist. -3613 Jan 27 j 04:41 6°る49'57 44.94012 AU conjunction -3619 Jan 16 j 09:37 29°**∡**31'31 -13°49'57 retrograde -3613 May 07 j 21:25 8°る27'19 -3619 Jan 16 j 09:28 29°**∡**¹31'30 13°50'06 min. Earth dist. -3613 Jul 27 j 20:39 7°る25'43 43.10875 AU minimum elong max. Earth dist. -3619 Jan 19 j 12:50 29°**✗**36'31 43.71535 AU opposition -3613 Jul 30 j 17:44 7°る22'11 -15°42'03 -3619 Jan 22 j 11:15 29°**∡**'41'10 direct -3613 Oct 19 j 08:02 6°る18'48 morning rise -3619 Feb 03 j 11:59 0°궁 -3619 Apr 30 i 03:54 -3612 Jan 25 j 14:18 7°る55'57 -15°05'18 retrograde 1°**궁**16'16 conjunction -3619 Jul 19 j 21:06 -3612 Jan 25 j 14:11 min. Earth dist. 0°る13'44 41.88263 AU minimum elong 7°る55'56 15°05'25 -3619 Jul 22 i 23:06 opposition 0°る09'53 -14°35'47 max. Earth dist. -3612 Jan 28 i 13:52 8°る00'34 45.13245 AU -3619 Jul 30 i 21:40 30°R*x* retrograde -3612 May 08 j 06:50 9°る37'36 direct -3619 Oct 11 i 12:58 29°**х** 05′18 min. Earth dist. -3612 Jul 28 i 07:03 8°る36'09 43.30018 AU -3619 Dec 19 j 11:41 0°궁 opposition -3612 Jul 31 j 03:59 8°る32'38 -15°51'30 -3618 Jan 12 j 08:19 0°**궁**36'14 direct -3612 Oct 19 j 19:59 7°る29'25 evening set conjunction -3618 Jan 17 j 21:04 0°る45'00 -14°02'08 conjunction -3611 Jan 26 j 00:38 9°**ට**06'08 -15°14'19 minimum elong -3618 Jan 17 j 20:53 0°る44'59 14°02'17 minimum elong -3611 Jan 26 j 00:32 9°る06'08 15°14'28 max. Earth dist. -3618 Jan 21 j 00:44 0°る50'00 43.92523 AU max. Earth dist. -3611 Jan 28 j 22:58 9°る10'39 45.32006 AU morning rise -3618 Jan 23 j 10:00 0°る53'47 retrograde -3611 May 09 j 19:28 10°る47'22 -3611 Jul 29 j 18:59 9°**る**45'58 43.48700 AU -3618 May 01 j 14:25 2°る29'17 min. Earth dist. retrograde 1°る26'52 42.09344 AU -3618 Jul 21 j 10:06 -3611 Aug 01 j 14:14 9°る42'33 -16°00'31 min. Earth dist. opposition -3618 Jul 24 j 10:48 1°る23'05 -14°48'04 direct -3611 Oct 21 j 04:31 8°**る**39'28 opposition 0°る18'43 direct -3618 Oct 13 j 02:00 -3617 Jan 14 j 09:20 evening set 1°る50'08 conjunction -3610 Jan 27 j 10:46 10°る15'46 -15°22'56 minimum elong -3610 Jan 27 j 10:40 10°る15'46 15°23'04 conjunction -3617 Jan 19 j 08:22 1°る57'57 -14°13'49 max. Earth dist. -3610 Jan 30 j 08:50 10°る20'15 45.50327 AU minimum elong -3617 Jan 19 j 08:14 1°る57'57 14°13'58 retrograde -3610 May 11 j 04:40 11°**る**56'33 max. Earth dist. -3617 Jan 22 j 11:34 2°る02'54 44.13345 AU min. Earth dist. -3610 Jul 31 j 05:36 10°る55'15 43.66942 AU -3617 Jan 24 j 07:31 2°る05'48 -3610 Aug 03 j 00:03 10°る51'53 -16°09'07 morning rise opposition

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 22 Attention, astronomical year style is used: The year -3610 in astronomical counting style is the year 3611 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	e year -3610 i	in astronomical cou	nting style is the year	3611 BCE in historical c	ounting style.	
direct	-3610 Oct 22 j 14:59	9° ප 48'56		minimum elong	-3601 Feb 06 j 21:37	20° පි 20'27	16°22'14
				max. Earth dist.	-3601 Feb 09 j 12:25	20° පි 24'20	47.01176 AU
conjunction	-3609 Jan 28 j 20:35	11° る 24'49		retrograde	-3601 May 21 j 11:32	21° る 57'56	
minimum elong	-3609 Jan 28 j 20:29	11° る 24'49		min. Earth dist.	-3601 Aug 10 j 21:34	20°る57'38	45.17299 AU
max. Earth dist.	-3609 Jan 31 j 16:51	11° පි 29'09	45.68253 AU	opposition	-3601 Aug 13 j 08:08	20°る54'43	-17°07'32
retrograde	-3609 May 12 j 15:01	13° る 05'09		direct	-3601 Nov 02 j 02:31	19° る 53'05	
min. Earth dist.	-3609 Aug 01 j 15:44		43.84832 AU				
opposition	-3609 Aug 04 j 09:45	12° る 00'37	-16°17'18	conjunction	-3600 Feb 08 j 06:25	21° පි 26'00	
direct	-3609 Oct 23 j 23:47	10° る 57'47		minimum elong	-3600 Feb 08 j 06:24	21° ට 26'00	
		_		max. Earth dist.	-3600 Feb 10 j 20:16		47.16165 AU
conjunction	-3608 Jan 30 j 06:16	12° る 33'17		retrograde	-3600 May 21 j 20:16	23° る 03'10	
minimum elong	-3608 Jan 30 j 06:11	12° ට 33'16		min. Earth dist.	-3600 Aug 11 j 06:22		45.32096 AU
max. Earth dist.	-3608 Feb 02 j 02:55		45.85846 AU	opposition	-3600 Aug 13 j 16:13	22° ろ 00'06	-17°12'06
retrograde	-3608 May 12 j 21:56	14° ට 13'11		direct	-3600 Nov 02 j 10:33	20° る 58'35	
min. Earth dist.	-3608 Aug 02 j 02:46		44.02400 AU				
opposition	-3608 Aug 04 j 19:14	13°る08'47	-16°25'02	conjunction	-3599 Feb 08 j 14:58	22°る31'13	
direct	-3608 Oct 24 j 11:39	12° ろ 06'05		minimum elong	-3599 Feb 08 j 14:57	22° る 31'13	
. ,.	2607 1 20:15 50	120741111	15046110	max. Earth dist.	-3599 Feb 11 j 02:30		47.30626 AU
conjunction	-3607 Jan 30 j 15:50	13° る 41'11		retrograde	-3599 May 23 j 06:59	24°る08'04	45 46270 ATT
minimum elong	-3607 Jan 30 j 15:45	13° る 41'11		min. Earth dist.	-3599 Aug 12 j 15:38		45.46379 AU
max. Earth dist.	-3607 Feb 02 j 11:10		46.03159 AU	opposition	-3599 Aug 15 j 00:06	23° ろ 05'08	-1/*16.19
retrograde	-3607 May 14 j 05:44	15°る20'41	44 10607 ATT	direct	-3599 Nov 03 j 16:19	22° る 03'44	
min. Earth dist.	-3607 Aug 03 j 11:28	14°る19'42 14°る16'26	44.19697 AU		2500 E-1 00 : 22-25	23° る 36'04	16925110
opposition	-3607 Aug 06 j 04:16		-10-32-20	conjunction	-3598 Feb 09 j 23:25		
direct	-3607 Oct 25 j 21:57	13° る 13'52		minimum elong	-3598 Feb 09 j 23:24	23° る 36'04	
agnismation	2606 Eab 01 : 01:06	14° る 48'36	15052!15	max. Earth dist.	-3598 Feb 12 j 10:50	25° る 12'35	47.44586 AU
conjunction	-3606 Feb 01 j 01:06	14 848 36 14° 8 48'36		retrograde min. Earth dist.	-3598 May 24 j 13:44		45.60163 AU
minimum elong max. Earth dist.	-3606 Feb 01 j 01:03 -3606 Feb 03 j 19:52		46.20209 AU	opposition	-3598 Aug 14 j 01:08 -3598 Aug 16 j 07:53	24 312 28 24° る 09'46	
		14 03248 16°る27'44	40.20209 AU		-3598 Nov 05 j 01:04	24 00940 23°る08'28	-1/ 2013
retrograde min. Earth dist.	-3606 May 15 j 15:25 -3606 Aug 04 j 22:02		44.36745 AU	direct	-3398 NOV 03 J 01.04	23 008 28	
opposition	-3606 Aug 07 j 13:25	15° る 20'30		conjunction	-3597 Feb 11 j 07:27	24° る 40'30	16038152
direct	-3606 Oct 27 j 07:14	13 3 23 38	-10 39 13	minimum elong	-3597 Feb 11 j 07:27	24°る40'30	
uncet	3000 Oct 27 j 07.14	14 021 13		max. Earth dist.	-3597 Feb 13 j 16:55		47.58094 AU
conjunction	-3605 Feb 02 j 10:12	15° る 55'36	-15°50'48	retrograde	-3597 May 25 j 20:30	26°る16'41	47.30074 AC
minimum elong	-3605 Feb 02 j 10:07	15° る 55'36		min. Earth dist.	-3597 Aug 15 j 08:48		45.73525 AU
max. Earth dist.	-3605 Feb 05 j 05:02		46.37025 AU	opposition	-3597 Aug 17 j 15:26	25° ට 13'59	
retrograde	-3605 May 17 j 01:25	17° る 34'22	10.57025 110	direct	-3597 Nov 06 j 09:12	24° る 12'45	17 23 10
min. Earth dist.	-3605 Aug 06 j 07:11		44.53529 AU		55771.07 00 j 07.12	2. 0.2.0	
opposition	-3605 Aug 08 j 22:17	16° පි 30'27		conjunction	-3596 Feb 12 j 15:31	25° ප් 44'31	-16°42'14
direct	-3605 Oct 28 j 15:18	15° පි 28'10		minimum elong	-3596 Feb 12 j 15:31	25° ප් 44'31	16°42'22
	J			max. Earth dist.	-3596 Feb 15 i 00:21		47.71199 AU
conjunction	-3604 Feb 03 j 19:11	17° ට 02'15	-16°05'57	retrograde	-3596 May 26 j 01:50	27° ට 20'23	
minimum elong	-3604 Feb 03 j 19:08	17° ට 02'14	16°06'04	min. Earth dist.	-3596 Aug 15 j 18:13		45.86516 AU
max. Earth dist.	-3604 Feb 06 j 12:22	17° ට 06'18	46.53575 AU	opposition	-3596 Aug 17 j 22:49	26° ප 17'46	-17°26'58
retrograde	-3604 May 17 j 12:49	18° පි 40'40		direct	-3596 Nov 06 j 19:33	25° පි 16'38	
min. Earth dist.	-3604 Aug 06 j 16:24	17° る 40'02	44.70041 AU		-		
opposition	-3604 Aug 09 j 06:57	17° ට 36'55	-16°51'42	conjunction	-3595 Feb 12 j 23:32	26° පි 48'06	-16°45'15
direct	-3604 Oct 28 j 21:25	16° ට 34'48		minimum elong	-3595 Feb 12 j 23:33	26° පි 48'06	16°45'22
				max. Earth dist.	-3595 Feb 15 j 07:49	26° ප 51'31	47.83976 AU
conjunction	-3603 Feb 04 j 04:12	18° る 08'35	-16°11'42	retrograde	-3595 May 27 j 09:21	28° る 23'40	
minimum elong	-3603 Feb 04 j 04:08	18° පි 08'34	16°11'50	min. Earth dist.	-3595 Aug 17 j 01:29	27° る 23'45	45.99181 AU
max. Earth dist.	-3603 Feb 06 j 21:33	18° る 12'38	46.69824 AU	opposition	-3595 Aug 19 j 05:58	27° ට 21'10	-17°29'48
retrograde	-3603 May 18 j 19:38	19° පි 46'40		direct	-3595 Nov 08 j 03:50	26° පි 20'07	
min. Earth dist.	-3603 Aug 08 j 02:39	18° පි 46'08	44.86207 AU				
opposition	-3603 Aug 10 j 15:29	18° පි 43'06	-16°57'21	conjunction	-3594 Feb 14 j 07:06	27° る 51'19	-16°47'55
direct	-3603 Oct 30 j 07:29	17° ප් 41'10		minimum elong	-3594 Feb 14 j 07:07	27° ප් 51'19	16°48'03
				max. Earth dist.	-3594 Feb 16 j 13:45	27° る 54'37	47.96446 AU
conjunction	-3602 Feb 05 j 12:57	19° る 14'38	-16°17'04	retrograde	-3594 May 28 j 20:09	29° る 26'35	
minimum elong	-3602 Feb 05 j 12:55	19° る 14'38	16°17'13	min. Earth dist.	-3594 Aug 18 j 09:35	28° පි 26'44	46.11565 AU
max. Earth dist.	-3602 Feb 08 j 04:39	19° る 18'35	46.85716 AU	opposition	-3594 Aug 20 j 13:08	28° පි 24'12	-17°32'16
retrograde	-3602 May 20 j 02:25	20°る52'25		direct	-3594 Nov 09 j 07:40	27° පි 23'15	
min. Earth dist.	-3602 Aug 09 j 11:07		45.01981 AU				
opposition	-3602 Aug 11 j 23:49	19° る 49'02	-17°02'37	conjunction	-3593 Feb 15 j 14:48	28° ප 54'12	
direct	-3602 Oct 31 j 17:42	18° る 47'15		minimum elong	-3593 Feb 15 j 14:51	28° る 54'12	16°50'21
				max. Earth dist.	-3593 Feb 17 j 21:42		48.08650 AU
conjunction	-3601 Feb 06 j 21:40	20° る 20'27	-16°22'06		-3593 Apr 06 j 23:03	0° ≈	

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3593 in astronomical counting style is the year 3594 BCE in historical counting style. retrograde -3593 May 30 i 02:58 0°≈29'11 max. Earth dist. -3585 Feb 25 i 22:10 7°≈10'52 48.92765 AU -3593 Jul 23 j 02:32 30°RZ -3585 Jun 07 j 05:55 8°≈41'13 retrograde -3593 Aug 19 j 17:40 29°る29'23 46.23664 AU -3585 Aug 28 j 06:14 7°≈41'50 47.06149 AU min. Earth dist. min. Earth dist. -3593 Aug 21 j 20:04 29°る26'55 -17°34'23 -3585 Aug 29 j 23:39 7°≈39'50 -17°39'50 opposition opposition -3593 Nov 10 j 15:12 -3585 Nov 19 j 00:49 direct 28°る26'04 direct 6°≈39'40 29°る56'47 -16°52'12 -3584 Feb 25 j 07:55 conjunction -3592 Feb 16 j 22:18 conjunction 8°≈08'44 -16°57'01 -3592 Feb 16 j 22:19 -3584 Feb 25 j 08:00 minimum elong 29°る56'47 16°52'20 minimum elong 8°≈08'45 16°57'07 -3584 Feb 27 j 03:04 max. Earth dist. -3592 Feb 19 j 03:28 29°る59'58 48.20582 AU max. Earth dist. 8°≈11'17 49.01233 AU -3592 Feb 19 j 03:56 0°≈ retrograde -3584 Jun 07 j 15:08 9°≈41'32 retrograde -3592 May 30 j 08:58 1°≈31'29 min. Earth dist. -3584 Aug 28 j 13:41 8°≈42'09 47.14431 AU -3592 Aug 20 j 00:38 min. Earth dist. 0°≈31'49 46.35476 AU opposition -3584 Aug 30 j 05:37 8°≈40'13 -17°39'11 -3584 Nov 19 j 04:50 opposition -3592 Aug 22 j 02:54 0°≈29'21 -17°36'09 direct 7°≈40'07 -3592 Sep 17 j 04:18 30°Rる direct -3592 Nov 10 j 22:33 29°る28'36 conjunction -3583 Feb 25 j 14:46 9°≈09'00 -16°56'19 -3591 Jan 03 j 12:38 0°≈ minimum elong -3583 Feb 25 j 14:51 9°≈09'00 16°56'26 max. Earth dist. -3583 Feb 27 j 09:55 9°≈11'32 49.09350 AU conjunction -3591 Feb 17 j 05:47 0°≈59'06 -16°53'51 retrograde -3583 Jun 08 j 21:25 10°≈41'35 minimum elong -3591 Feb 17 j 05:50 0°≈59'07 16°53'58 min. Earth dist. -3583 Aug 29 j 20:26 9°≈42'13 47.22368 AU max. Earth dist. -3591 Feb 19 j 10:28 1°≈02'16 48.32196 AU opposition -3583 Aug 31 j 11:16 9°≈40'21 -17°38'14 retrograde -3591 May 31 j 14:07 2°≈33'34 direct -3583 Nov 20 j 10:42 8°≈40'18 min. Earth dist. -3591 Aug 21 j 09:18 1°≈33'55 46.46948 AU -3591 Aug 23 i 09:36 1°≈31'33 -17°37'35 conjunction -3582 Feb 26 i 21:22 10°≈09'01 -16°55'19 opposition direct -3591 Nov 12 j 07:23 0°≈30'55 minimum elong -3582 Feb 26 i 21:28 10°≈09'02 16°55'24 max. Earth dist. -3582 Feb 28 i 14:39 10°≈11'26 49.17164 AU -3590 Feb 18 j 13:13 2°≈01'12 -16°55'10 -3582 Jun 10 j 03:47 11°≈41'23 retrograde conjunction -3590 Feb 18 j 13:15 -3582 Aug 31 j 02:20 10°≈42'07 47.30022 AU 2°≈01'13 16°55'17 min. Earth dist. minimum elong -3590 Feb 20 j 16:58 -3582 Sep 01 j 16:58 10°≈40'15 -17°36'58 max. Earth dist. 2°≈04'18 48 43468 AU opposition -3590 Jun 01 j 20:28 -3582 Nov 21 j 15:35 9°≈40'16 retrograde 3°≈35'26 direct -3590 Aug 22 j 16:10 2°≈35'53 46.58032 AU min. Earth dist. -3590 Aug 24 j 16:09 -3581 Feb 28 j 03:49 2°≈33'33 -17°38'42 conjunction 11°≈08'51 -16°54'00 opposition -3590 Nov 13 j 15:17 -3581 Feb 28 j 03:54 1°≈33'01 minimum elong 11°≈08'51 16°54'07 direct max. Earth dist. -3581 Mar 01 j 20:47 11°≈11'14 49.24693 AU 3°≈03'06 -16°56'11 -3589 Feb 19 j 20:23 -3581 Jun 11 j 07:30 conjunction retrograde 12°≈41'02 -3589 Feb 19 j 20:27 -3581 Sep 01 j 09:50 minimum elong 3°≈03'06 16°56'18 min. Earth dist. 11°≈41'46 47.37387 AU -3589 Feb 21 j 22:13 max. Earth dist. 3°≈06'04 48.54315 AU opposition -3581 Sep 02 j 22:41 11°**≈**39'59 -17°35'22 -3581 Nov 22 j 23:40 retrograde -3589 Jun 03 j 05:54 4°≈37'06 direct 10°≈40'05 min. Earth dist. -3589 Aug 24 j 00:31 3°≈37'35 46.68669 AU opposition -3589 Aug 25 j 22:47 3°≈35'20 -17°39'30 conjunction -3580 Feb 29 j 10:25 12°≈08'32 -16°52'24 direct -3589 Nov 14 j 20:19 2°≈34'55 minimum elong -3580 Feb 29 j 10:32 12°≈08'32 16°52'29 max. Earth dist. -3580 Mar 02 j 02:28 12°≈10'52 49.31952 AU -3588 Feb 21 j 03:51 4°≈04'47 -16°56'54 -3580 Jun 11 j 12:07 13°≈40'32 conjunction retrograde -3588 Feb 21 j 03:54 4°≈04'47 16°57'01 -3580 Sep 01 j 15:13 12°≈41'23 47.44457 AU minimum elong min. Earth dist. -3588 Feb 23 j 05:18 4°≈07'43 48.64686 AU -3580 Sep 03 j 04:03 12°≈39'36 -17°33'29 max. Earth dist. opposition -3588 Jun 03 j 13:27 5°≈38'32 -3580 Nov 23 j 07:04 11°≈39'47 retrograde direct min. Earth dist. -3588 Aug 24 i 08:29 4°≈39'03 46.78788 AU -3579 Mar 01 i 16:52 opposition -3588 Aug 26 i 05:07 4°≈36'53 -17°40'01 conjunction 13°≈08'06 -16°50'29 direct -3588 Nov 15 j 02:14 3°≈36'32 minimum elong -3579 Mar 01 i 16:57 13°≈08'06 16°50'36 max. Earth dist. -3579 Mar 03 i 07:12 13°≈10'20 49.38897 AU -3587 Feb 21 j 11:07 5°≈06'13 -16°57'21 retrograde -3579 Jun 12 i 20:10 14°≈39'58 conjunction -3587 Feb 21 i 11:11 5°≈06'14 16°57'28 -3579 Sep 02 j 22:29 13°≈40'50 47.51203 AU minimum elong min. Earth dist. 5°≈09'00 48.74543 AU -3587 Feb 23 j 10:04 -3579 Sep 04 j 09:37 13°≈39'09 -17°31'17 max. Earth dist. opposition -3587 Jun 04 j 21:13 6°≈39'43 direct -3579 Nov 24 j 11:37 retrograde 12°239'26 min. Earth dist. -3587 Aug 25 j 15:26 5°≈40'18 46.88390 AU opposition -3587 Aug 27 j 11:27 5°≈38'10 -17°40'14 conjunction -3578 Mar 02 j 23:16 14°≈07'37 -16°48'18 direct -3587 Nov 16 j 07:44 4°≈37'53 minimum elong -3578 Mar 02 j 23:23 14°≈07'37 16°48'25 max. Earth dist. -3578 Mar 04 j 13:34 14°≈09'50 49.45494 AU -3586 Feb 22 j 18:06 6°≈07'22 -16°57'31 -3578 Apr 11 j 22:23 conjunction 15°≈ -3586 Feb 22 j 18:09 -3578 Jun 14 j 03:56 15°≈39'20 minimum elong 6°≈07'22 16°57'38 retrograde -3578 Aug 17 j 15:01 max. Earth dist. -3586 Feb 24 j 16:11 6°≈10'05 48.83881 AU 15°R≈ min. Earth dist. retrograde -3586 Jun 06 j 01:02 7°≈40'37 -3578 Sep 04 j 05:01 14°≈40'15 47.57552 AU min. Earth dist. -3586 Aug 26 j 23:58 6°≈41'11 46.97490 AU opposition -3578 Sep 05 j 15:01 14°≈38'38 -17°28'49 opposition -3586 Aug 28 j 17:43 6°≈39'09 -17°40'11 direct -3578 Nov 25 j 15:44 13°≈38'59 direct -3586 Nov 17 j 16:32 5°≈38'56 -3577 Feb 27 j 03:43 15°≈ -3585 Feb 24 j 01:07 7°≈08'12 -16°57'25 -3577 Mar 04 j 05:40 15°≈07'04 -16°45'51

conjunction

minimum elong

-3577 Mar 04 j 05:46

15°≈07'05 16°45'57

conjunction

minimum elong

-3585 Feb 24 j 01:12

7°≈08'12 16°57'32

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3577 in astronomical counting style is the year 3578 BCE in historical counting style. -3577 Mar 05 i 17:33 15°≈09'09 49.51677 AU retrograde -3569 Jun 23 i 04:27 24°≈26'56 max. Earth dist. opposition -3577 Jun 15 j 12:46 -3569 Sep 14 j 12:39 23°≈26'43 -16°54'55 retrograde 16°≈38'38 min. Earth dist. -3577 Sep 05 j 11:09 -3569 Sep 13 j 14:00 min. Earth dist. 15°≈39'37 47.63458 AU 23°≈27'48 47.93466 AU -3569 Dec 04 j 18:55 -3577 Sep 06 j 20:18 15°≈38'02 -17°26'04 direct 22°≈27'20 opposition -3577 Oct 12 j 15:10 15°R≈ -3577 Nov 26 j 18:34 -3568 Mar 12 j 13:26 direct 14°≈38'27 conjunction 23°≈54'27 -16°12'24 -3568 Mar 12 j 13:34 -3576 Jan 10 j 12:40 15°≈ minimum elong 23°≈54'27 16°12'30 -3568 Mar 13 j 14:33 max. Earth dist. 23°≈55'53 49.86259 AU conjunction -3576 Mar 04 j 12:13 16°≈06'27 -16°43'08 retrograde -3568 Jun 23 j 10:34 25°≈24'41 minimum elong -3576 Mar 04 j 12:21 16°≈06'27 16°43'14 opposition -3568 Sep 14 j 17:24 24°≈24'33 -16°49'47 max. Earth dist. -3576 Mar 05 j 23:10 16°≈08'28 49.57369 AU min. Earth dist. -3568 Sep 13 j 19:32 24°≈25'35 47.95570 AU -3568 Dec 04 j 23:46 retrograde -3576 Jun 15 j 16:44 17°≈37'51 direct 23°≈25'12 min. Earth dist. -3576 Sep 05 j 19:00 16°≈38'48 47.68839 AU opposition -3576 Sep 07 j 01:43 16°≈37'20 -17°23'04 conjunction -3567 Mar 13 j 19:18 24°≈52'16 -16°07'22 direct -3576 Nov 27 j 01:27 15°≈37'49 minimum elong -3567 Mar 13 j 19:29 24°≈52'17 16°07'27 max. Earth dist. -3567 Mar 14 j 18:15 24°≈53'35 49.88291 AU conjunction -3575 Mar 05 j 18:43 17°≈05'41 -16°40'11 retrograde -3567 Jun 24 j 18:56 26°≈22'25 minimum elong -3575 Mar 05 j 18:50 17°≈05'41 16°40'16 opposition -3567 Sep 15 j 22:02 25°≈22'21 -16°44'24 max. Earth dist. -3575 Mar 07 j 04:04 17°≈07'37 49.62538 AU min. Earth dist. -3567 Sep 15 j 00:52 25°≈23'21 47.97342 AU retrograde -3575 Jun 16 j 19:14 18°≈36'56 direct -3567 Dec 06 j 01:40 24°≈23'03 min. Earth dist. -3575 Sep 07 j 00:39 17°≈37'55 47.73677 AU opposition -3575 Sep 08 i 06:51 17°≈36'28 -17°19'50 conjunction -3566 Mar 15 j 01:16 25°≈50'06 -16°02'04 direct -3575 Nov 28 j 10:19 16°≈37'00 minimum elong -3566 Mar 15 i 01:25 25°≈50'06 16°02'09 max. Earth dist. -3566 Mar 15 i 23:37 25°≈51'22 49.89960 AU conjunction -3574 Mar 07 i 00:59 18°≈04'44 -16°36'59 retrograde -3566 Jun 26 j 00:07 27°≈20'10 -3574 Mar 07 j 01:07 18°≈04'45 16°37'06 -3566 Sep 16 j 07:45 26°≈21'05 47.98719 AU minimum elong min. Earth dist. -3574 Mar 08 j 08:06 18°≈06'32 49.67167 AU -3566 Sep 17 j 02:47 26°≈20'10 -16°38'44 max Earth dist opposition -3574 Jun 18 j 02:08 19°≈35'50 -3566 Dec 07 j 06:28 retrograde direct 25°≈20'56 -3574 Sep 08 j 07:55 min. Earth dist. 18°≈36'46 47.77999 AU -3574 Sep 09 j 12:06 -3565 Mar 16 j 07:12 18°≈35'25 -17°16'21 conjunction 26°≈47'57 -15°56'31 opposition -3574 Nov 29 j 15:46 -3565 Mar 16 j 07:23 direct 17°≈35'57 minimum elong 26°≈47'58 15°56'36 -3565 Mar 17 j 04:12 max. Earth dist. 26°≈49'09 49.91219 AU -3573 Mar 08 j 07:13 -3565 Jun 27 j 02:55 conjunction 19°≈03'34 -16°33'33 retrograde 28°≈17'58 -3573 Mar 08 j 07:21 -3565 Sep 18 j 07:24 minimum elong 19°≈03'34 16°33'38 opposition 27°≈18'02 -16°32'50 -3573 Mar 09 j 13:58 -3565 Sep 17 j 12:49 max. Earth dist. 19°≈05'20 49.71307 AU min. Earth dist. 27°≈18'55 47.99637 AU -3573 Jun 19 j 08:05 -3565 Dec 08 j 13:59 retrograde 20°≈34'29 direct 26°≈18'50 opposition -3573 Sep 10 j 17:10 19°≈34'07 -17°12'36 min. Earth dist. -3573 Sep 09 j 14:09 19°≈35'24 47.81836 AU conjunction -3564 Mar 16 j 13:15 27°≈45'50 -15°50'44 direct -3573 Nov 30 j 21:03 18°≈34'40 minimum elong -3564 Mar 16 j 13:24 27°≈45'51 15°50'48 max. Earth dist. -3564 Mar 17 j 07:52 27°≈46'54 49.91974 AU conjunction -3572 Mar 08 j 13:24 20°≈02'09 -16°29'51 retrograde -3564 Jun 27 j 08:50 29°≈15'48 -3572 Mar 08 j 13:32 20°≈02'09 16°29'57 -3564 Sep 18 j 12:03 28°≈15'55 -16°26'42 minimum elong opposition max. Earth dist. -3572 Mar 09 j 17:53 20°≈03'47 49.74999 AU min. Earth dist. -3564 Sep 17 j 19:46 28°≈16'42 48.00037 AU -3572 Jun 19 j 15:30 -3564 Dec 08 j 19:23 27°≈16'45 retrograde 21°≈32'54 direct -3572 Sep 10 j 22:02 20°≈32'34 -17°08'36 opposition -3563 Mar 17 i 19:25 min. Earth dist. -3572 Sep 09 i 19:51 20°≈33'49 47.85262 AU conjunction 28°≈43'43 -15°44'44 direct -3572 Dec 01 i 00:20 19°≈33'07 minimum elong -3563 Mar 17 i 19:36 28°≈43'44 15°44'48 max. Earth dist. -3563 Mar 18 i 13:24 28°≈44'45 49.92200 AU conjunction -3571 Mar 09 j 19:33 21°≈00'29 -16°25'54 -3563 May 23 i 06:20 0°) -3571 Mar 09 i 19:41 21°≈00'30 16°25'59 -3563 Jun 28 j 15:06 0°\ 13'37 minimum elong retrograde max. Earth dist. -3571 Mar 10 j 23:26 21°≈02'05 49.78295 AU -3563 Aug 04 j 05:12 30°R≈ -3571 Jun 20 j 19:21 22°≈31'05 -3563 Sep 19 j 16:43 29°≈13'47 -16°20'20 retrograde opposition -3571 Sep 11 j 02:41 21°≈31'56 47.88314 AU min. Earth dist. -3563 Sep 19 j 01:40 29°≈14'30 47.99880 AU min. Earth dist. opposition -3571 Sep 12 j 03:01 21°≈30'47 -17°04'19 direct -3563 Dec 09 j 23:37 28°≈14'37 direct -3571 Dec 02 j 06:53 20°≈31'21 conjunction -3562 Mar 19 j 01:10 29°≈41'34 -15°38'30 conjunction -3570 Mar 11 j 01:26 21°≈58'37 -16°21'41 minimum elong -3562 Mar 19 j 01:21 29°≈41'34 15°38'34 -3570 Mar 11 j 01:35 max. Earth dist. -3562 Mar 19 j 16:34 29°≈42'26 49.91885 AU minimum elong 21°≈58'38 16°21'46 -3570 Mar 12 j 04:18 -3562 Apr 01 j 15:16 0°**)**€ max. Earth dist. 22°≈00'10 49.81259 AU -3570 Jun 21 j 22:26 -3562 Jun 29 j 22:53 retrograde 23°≈29'04 retrograde 1°**H**11'23 min. Earth dist. -3570 Sep 12 j 07:29 22°≈29'58 47.91040 AU opposition -3562 Sep 20 j 21:21 0°**★**11'35 -16°13'45 opposition -3570 Sep 13 j 07:50 22°≈28'49 -16°59'45 min. Earth dist. -3562 Sep 20 j 07:26 0° **€** 12'14 47.99201 AU direct -3570 Dec 03 j 13:49 21°≈29'24 -3562 Oct 01 j 02:03 30°R≈ direct -3562 Dec 11 j 02:12 29°≈12'24 conjunction -3569 Mar 12 j 07:21 22°≈56'35 -16°17'11 -3561 Feb 18 j 11:01 0°**)**€ minimum elong -3569 Mar 12 j 07:31 22°≈56'36 16°17'15 max. Earth dist. -3569 Mar 13 j 08:35 -3561 Mar 20 j 07:10 0°**¥**39'19 -15°32'02 22°≈58'02 49.83906 AU conjunction

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3561 in astronomical counting style is the year 3562 BCE in historical counting style. -3561 Mar 20 j 07:21 0°**)** 39'19 15°32'07 direct -3554 Dec 18 j 20:00 6°¥51'35 minimum elong max. Earth dist. -3561 Mar 20 j 21:38 0°¥40'08 49.91056 AU evening set -3553 Mar 24 j 04:09 8°¥13'01 -3561 Jul 01 j 02:52 2°\ 09'03 retrograde 1°**¥**09'15 -16°06'55 -3553 Mar 28 j 05:33 8°\(\dagger)18'33 -14°31'18 -3561 Sep 22 j 01:52 conjunction opposition -3561 Sep 21 j 14:05 1°**¥**09'49 47.98030 AU -3553 Mar 28 j 05:44 8°**)** 18'33 14°31'22 min. Earth dist. minimum elong -3561 Dec 12 j 08:12 -3553 Mar 28 j 10:54 8°**升**18'51 49.71499 AU direct 0°\ 10'03 max. Earth dist. -3553 Apr 01 j 07:27 morning rise 8°\ 24'06 -3560 Mar 20 j 13:07 1°¥36'57 -15°25'20 -3553 Jul 08 j 17:47 9°\ 48'01 conjunction retrograde minimum elong -3560 Mar 20 j 13:18 1°**¥**36'57 15°25'24 opposition -3553 Sep 29 j 13:03 8°**)** 48'20 -15°02'50 max. Earth dist. -3560 Mar 21 j 02:11 1°**¥**37'41 49.89785 AU min. Earth dist. -3553 Sep 29 j 09:33 8°**¥**48'30 47.76107 AU retrograde -3560 Jul 01 j 05:30 3°\ 06'36 direct -3553 Dec 20 j 01:15 7°**)**€49'02 2°**₭**06'48 -15°59'50 -3552 Mar 23 j 20:36 9°**₩**09'46 opposition -3560 Sep 22 j 06:17 evening set -3560 Sep 21 j 18:45 2°**)** €07'21 47.96435 AU min. Earth dist. direct -3560 Dec 12 j 15:12 1°**₩**07'35 conjunction -3552 Mar 28 j 11:31 9°¥16'03 -14°22'35 minimum elong -3552 Mar 28 j 11:44 9°¥16'04 14°22'38 conjunction -3559 Mar 21 j 18:51 2°\dagger34'27 -15°18'24 max. Earth dist. -3552 Mar 28 j 14:15 9°**升**16'13 49.67441 AU minimum elong -3559 Mar 21 j 19:03 2°\dagger34'27 15°18'29 morning rise -3552 Apr 02 j 03:05 9°**¥**22'23 max. Earth dist. -3559 Mar 22 j 06:06 2°**)** 35′05 49.88103 AU retrograde -3552 Jul 09 j 01:52 10°**)** 45′32 retrograde -3559 Jul 02 j 10:08 4°**)**€04'03 opposition -3552 Sep 29 j 17:31 9°\(\frac{14}{5}'52\) -14°53'41 opposition -3559 Sep 23 j 10:44 3°¥04'15 -15°52'29 min. Earth dist. -3552 Sep 29 j 15:19 9°**)** 45'58 47.71666 AU min. Earth dist. -3559 Sep 23 j 01:09 3°**)**€04'42 47.94473 AU direct -3552 Dec 20 j 03:31 8°\ 46'33 direct -3559 Dec 13 j 21:01 2°\ 05'00 evening set -3551 Mar 24 i 14:15 10°¥06'38 conjunction -3558 Mar 23 j 00:42 3°**¥**31'51 -15°11'12 conjunction -3551 Mar 29 i 17:33 10°\(\mathbf{H}\) 13'37 -14°13'39 minimum elong -3558 Mar 23 i 00:53 3°\(\frac{1}{3}\)31'51 15°11'15 minimum elong -3551 Mar 29 i 17:44 10°\(\)13'38 14°13'41 -3558 Mar 23 i 11:49 3°¥32'29 49.86093 AU max. Earth dist. -3551 Mar 29 j 19:09 10°**)** 13'43 49.62860 AU max. Earth dist. -3558 Jul 03 j 15:01 5° ¥ 01'24 -3551 Apr 03 j 21:27 10°¥20'39 retrograde morning rise -3558 Sep 24 j 15:06 4°¥01'36 -15°44'53 -3551 Jul 10 j 07:26 11°**¥**43'07 opposition retrograde -3558 Sep 24 j 06:02 4°**)**€02'02 47.92188 AU -3551 Sep 30 j 22:02 10°\(\pm\)43'26 -14°44'18 min. Earth dist. opposition -3558 Dec 15 j 02:29 3°**)**€02'20 -3551 Sep 30 j 21:58 10°**)** 43′26 47.66685 AU direct min. Earth dist. -3551 Dec 21 j 08:10 9° \ 44'05 direct -3557 Mar 24 j 06:19 4°**¥**29'10 -15°03'44 -3550 Mar 25 j 09:03 11°\(\mathbf{H}\) 03'35 conjunction evening set -3557 Mar 24 j 06:30 4°**¥**29'11 15°03'48 minimum elong -3557 Mar 24 j 15:20 4°**₭**29'41 49.83787 AU -3550 Mar 30 j 23:34 11°**升**11'13 -14°04'28 max. Earth dist. conjunction -3557 Jul 04 j 23:50 5°**)** 58'40 -3550 Mar 30 j 23:48 11°**升**11'14 14°04'32 retrograde minimum elong -3557 Sep 25 j 19:31 4°¥58'54 -15°37'00 -3550 Mar 30 j 23:34 11°**₭**11'13 49.57765 AU opposition max. Earth dist. 4°**¥**59'18 47.89621 AU -3550 Apr 05 j 14:46 11°**米** 18'53 min. Earth dist. -3557 Sep 25 j 11:10 morning rise direct -3557 Dec 16 j 03:34 3°**¥**59'37 retrograde -3550 Jul 11 j 11:33 12°**)** 40′42 evening set -3556 Mar 22 j 23:56 5°¥24'25 opposition -3550 Oct 02 j 02:25 11°**)**(41'00 -14°34'41 min. Earth dist. -3550 Oct 02 j 02:53 11°**)** 40′59 47.61190 AU conjunction -3556 Mar 24 j 12:11 5°\ 26'28 -14°56'01 direct -3550 Dec 22 j 14:15 10°**)** 41′36 -3556 Mar 24 j 12:23 5°\ 26'29 14°56'04 -3549 Mar 26 j 04:20 12°\(\mathbf{H}\) 00'33 minimum elong evening set max. Earth dist. -3556 Mar 24 j 20:48 5°**¥**26'57 49.81189 AU -3556 Mar 26 j 00:51 5°**¥**28'33 -3549 Apr 01 j 05:30 12°**)** €08'47 -13°55'05 morning rise conjunction -3556 Jul 05 j 06:13 6°**¥**55'56 -3549 Apr 01 j 05:42 12°**)** 08'48 13°55'07 retrograde minimum elong -3556 Sep 25 i 23:53 5°\ 56'11 -15°28'51 -3549 Apr 01 i 03:18 12°**)** €08'40 49.52160 AU opposition max. Earth dist. 5°**)** 56'29 47.86756 AU -3549 Apr 07 i 07:24 min. Earth dist. -3556 Sep 25 i 17:17 morning rise 12°**)** 17'04 -3549 Jul 12 i 16:02 direct -3556 Dec 16 i 07:01 4° **)** 56'53 retrograde 13°**)** 38'17 evening set -3555 Mar 23 j 02:58 6°¥20'11 opposition -3549 Oct 03 i 06:58 12°**)** 38'34 -14°24'50 min. Earth dist. -3549 Oct 03 i 09:41 12° **€** 38'26 47.55212 AU -3555 Mar 25 i 17:59 6°\ 23'46 -14°48'02 direct -3549 Dec 23 j 20:10 11°**H**39'06 conjunction evening set -3555 Mar 25 i 18:10 6°¥23'47 14°48'05 -3548 Mar 26 j 00:29 12°**)** 57'33 minimum elong max. Earth dist. -3555 Mar 26 j 01:27 6°**)** €24'12 49.78311 AU morning rise -3555 Mar 28 j 09:26 6°**)**€27'22 conjunction -3548 Apr 01 j 11:40 13°**)**€06'21 -13°45'27 13°**₭**06'22 13°45'30 retrograde -3555 Jul 06 j 08:48 7° **)** 53'13 minimum elong -3548 Apr 01 j 11:53 6°**¥**53′29 -15°20′26 opposition -3555 Sep 27 j 04:14 max. Earth dist. -3548 Apr 01 j 08:58 13°**₭**06'12 49.46100 AU min. Earth dist. -3555 Sep 26 j 21:42 6°**¥**53'48 47.83588 AU morning rise -3548 Apr 07 j 23:30 13°**¥**15′12 -3555 Dec 17 j 13:38 5°**)** 54'12 -3548 Jul 12 j 20:04 14°**)** € 35'52 direct retrograde -3554 Mar 23 j 13:44 7°**¥**16′28 -3548 Oct 03 j 11:16 13°**)** 36′07 -14°14′44 evening set opposition 13°**)** 35'57 47.48795 AU -3548 Oct 03 j 14:47 min. Earth dist. -3554 Mar 26 j 23:34 7°**∺**21'07 -14°39'47 12°**)** 36'35 conjunction direct -3548 Dec 24 j 02:20 minimum elong -3554 Mar 26 j 23:46 7°**¥**21'08 14°39'51 evening set -3547 Mar 26 j 21:01 13°**)** 54'34 max. Earth dist. -3554 Mar 27 j 05:16 7°**米**21′26 49.75096 AU morning rise -3554 Mar 30 j 09:58 7°**¥**25'48 conjunction -3547 Apr 02 j 17:36 14°**¥**03'54 -13°35'35 retrograde -3554 Jul 07 j 12:37 8°**¥**50'34 minimum elong -3547 Apr 02 j 17:49 14°**₭**03'55 13°35'37 -3554 Sep 28 j 08:44 7°**¥**50′52 -15°11′46 -3547 Apr 02 j 12:37 14°**¥**03'37 49.39640 AU opposition max. Earth dist. min. Earth dist. -3554 Sep 28 j 04:10 7°**)** 51'05 47.80064 AU -3547 Apr 09 j 15:01 14°**)** 13′18 morning rise

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3547 in astronomical counting style is the year 3548 BCE in historical counting style. -3547 Jul 14 i 04:25 15°**)**€33'26 minimum elong -3540 Apr 09 i 12:56 20°**)**(49'57 12°19'22 retrograde 20°**)** 49'11 48.85448 AU -3547 Oct 04 j 15:44 14°**)** 33'40 -14°04'23 -3540 Apr 08 j 23:38 opposition max. Earth dist. -3547 Oct 04 j 20:12 14°**)** € 33'27 47.42019 AU -3540 Apr 18 j 19:43 21°\ 02'40 min. Earth dist. morning rise -3540 Jul 20 j 21:05 22°\ 20'05 -3547 Dec 25 j 04:09 13°**)** ₹34'05 direct retrograde -3546 Mar 27 j 17:41 -3540 Oct 10 j 23:52 21°\(\dagger20'13\) -12°44'27 evening set 14°**)** 51'37 opposition -3540 Oct 11 j 12:09 min. Earth dist. 21°**升**19'38 46.85526 AU 15°**₭**01'29 -13°25'28 conjunction -3546 Apr 03 j 23:30 direct -3540 Dec 31 j 13:31 20°**)** €20′20 -3546 Apr 03 j 23:42 minimum elong 15°**₭**01'30 13°25'31 evening set -3539 Apr 01 j 05:53 21°**X**35'39 -3546 Apr 03 j 18:04 15°**₭**01'11 49.32830 AU max. Earth dist. morning rise -3546 Apr 11 j 06:02 15°**₩**11'24 conjunction -3539 Apr 10 j 19:16 21°**)**48'46 -12°07'28 -3539 Apr 10 j 19:29 retrograde -3546 Jul 15 j 11:13 16°**)** 31'04 minimum elong 21°\dagger48'46 12°07'29 -3539 Apr 10 j 03:49 opposition -3546 Oct 05 j 20:18 15°**升**31'15 -13°53'46 max. Earth dist. 21°**¥**47'52 48.76091 AU -3539 Apr 20 j 09:36 min. Earth dist. -3546 Oct 06 j 02:27 15°**¥**30'58 47.34909 AU morning rise 22°**米**01'54 -3539 Jul 22 j 01:43 direct -3546 Dec 26 j 07:45 14°**)** 31'38 retrograde 23°¥19'00 evening set -3545 Mar 28 j 15:05 15°**)** 48'46 opposition -3539 Oct 12 j 04:51 22°\dagger19'06 -12°32'02 min. Earth dist. -3539 Oct 12 j 19:33 22°\dagger 18'24 46.75754 AU conjunction -3545 Apr 05 j 05:32 15°¥59'08 -13°15'05 direct -3538 Jan 01 j 20:05 21°**)** 19'09 minimum elong -3545 Apr 05 j 05:46 15°****59'09 13°15'07 evening set -3538 Apr 02 j 05:17 22°\ 34'13 max. Earth dist. -3545 Apr 04 j 22:57 15°**)** 58'45 49.25727 AU max. Earth dist. -3538 Apr 11 j 09:37 22°\delta46'47 48.66206 AU morning rise -3545 Apr 12 j 20:47 16°**)**€09'32 retrograde -3545 Jul 16 j 15:15 17°**¥**28'46 conjunction -3538 Apr 12 j 01:47 22°\(\pm\)47'43 -11°55'22 opposition -3545 Oct 07 i 00:39 16°**)** €28'56 -13°42'52 minimum elong -3538 Apr 12 i 01:59 22°**)**(47'44 11°55'22 min. Earth dist. -3545 Oct 07 i 06:47 16°**)** €28'39 47.27513 AU morning rise -3538 Apr 21 j 23:00 23°**)**€01'17 direct -3545 Dec 27 i 13:23 15°**¥**29'15 retrograde -3538 Jul 23 i 05:19 24°**)** 18'05 evening set -3544 Mar 28 j 12:42 16°**)** 46′02 opposition -3538 Oct 13 j 09:48 23°**)** 18'07 -12°19'22 -3538 Oct 14 j 01:19 23°**)** 17′22 46.65440 AU min. Earth dist. -3544 Apr 05 j 11:38 16°**¥** 56'53 -13°04'27 direct -3537 Jan 03 j 03:32 conjunction 22°\ 18'04 -3544 Apr 05 j 11:50 16°**¥**56′54 13°04′30 evening set -3537 Apr 03 j 05:10 23°**)** 32'52 minimum elong -3544 Apr 05 j 03:16 max. Earth dist. 16°**¥**56′25 49.18331 AU -3544 Apr 13 j 11:28 17°**)** 07'47 -3537 Apr 13 j 08:23 23°\(\)46'46 -11°43'01 morning rise conjunction 18°**¥**26'36 -3544 Jul 16 j 18:51 -3537 Apr 13 j 08:36 23°\\\46'47 11°43'03 retrograde minimum elong -3537 Apr 12 j 13:34 -3544 Oct 07 j 05:19 17°**¥**26'46 -13°31'43 max. Earth dist. 23°\(\pm\)45'42 48.55799 AU opposition min. Earth dist. -3544 Oct 07 j 13:18 17°**¥**26'23 47.19833 AU -3537 Apr 23 j 12:36 24°**₩**00'45 morning rise -3544 Dec 27 j 20:16 16°**)**€27'03 -3537 Jul 24 j 13:08 25°**₩**17'15 direct retrograde 24°**升**17'12 -12°06'27 -3543 Mar 29 j 10:38 17°**)** 43'30 -3537 Oct 14 j 14:38 evening set opposition -3537 Oct 15 j 07:42 24°**₭**16'23 46.54634 AU min. Earth dist. -3543 Apr 06 j 17:46 17°**)** 54'49 −12°53'33 conjunction direct -3536 Jan 04 j 07:03 23°**∺** 17′03 minimum elong -3543 Apr 06 j 18:00 17°**¥**54'49 12°53'35 evening set -3536 Apr 03 j 05:09 24°**)** 31'36 max. Earth dist. -3543 Apr 06 j 09:23 17°**)** 54′20 49.10653 AU morning rise -3543 Apr 15 j 01:39 18°**₩**06'11 conjunction -3536 Apr 13 j 15:11 24°**)** 45'55 -11°30'27 retrograde -3543 Jul 17 j 23:37 19°**¥**24'37 minimum elong -3536 Apr 13 j 15:24 24°**)** 45'55 11°30'27 -3543 Oct 08 j 09:51 18°**)** € 24'47 -13°20'17 max. Earth dist. -3536 Apr 12 j 19:31 24°**)** 44'47 48.44906 AU opposition -3543 Oct 08 j 18:23 18°**升**24'22 47.11843 AU -3536 Apr 24 j 01:59 25°**)**€00'17 min. Earth dist. morning rise -3543 Dec 29 j 02:07 17°**¥**25′02 -3536 Jul 24 j 20:56 26°**¥**16′29 direct retrograde -3542 Mar 30 j 08:55 18°**)** 41′10 -3536 Oct 14 j 19:41 25°¥16′21 -11°53′18 evening set opposition min. Earth dist. -3536 Oct 15 i 14:36 25° ¥ 15'26 46.43366 AU -3542 Apr 07 j 23:53 conjunction 18°**)** €52'57 -12°42'24 direct -3535 Jan 04 i 10:50 24°**)** 16'04 minimum elong -3542 Apr 08 i 00:05 18°**¥**52'57 12°42'26 evening set -3535 Apr 04 j 05:23 25°**)** 30'24 -3542 Apr 07 j 13:12 max. Earth dist. 18°**)** 52′20 49.02659 AU -3542 Apr 16 i 15:46 19°**)** 04'47 -3535 Apr 14 j 21:48 25°\dagger45'06 -11°17'37 morning rise conjunction -3542 Jul 19 j 08:14 20°¥22'52 -3535 Apr 14 i 22:01 25°\dagger45'07 11°17'38 retrograde minimum elong -3542 Oct 09 j 14:26 19°**¥**23'02 -13°08'35 -3535 Apr 14 j 00:40 25°**)** 43'53 48.33599 AU opposition max. Earth dist. -3542 Oct 10 j 00:07 19°**)** €22'34 47.03521 AU -3535 Apr 25 j 15:04 25°**)** 59'52 min. Earth dist. morning rise -3535 Jul 26 j 03:38 direct -3542 Dec 30 j 03:42 18°**¥**23'15 retrograde 27°**)** 15'47 evening set -3541 Mar 31 j 07:28 19°**)**39'06 opposition -3535 Oct 16 j 00:37 26°**)** 15'34 -11°39'52 -3535 Oct 16 j 19:45 min. Earth dist. 26°**)** 14'38 46.31713 AU conjunction -3541 Apr 09 j 06:14 19°¥51'19 -12°30'59 direct -3534 Jan 05 j 15:31 25°¥15'09 -3541 Apr 09 j 06:28 19°¥51'20 12°31'01 -3534 Apr 05 j 05:44 26°\ 29'16 minimum elong evening set -3541 Apr 08 j 18:48 19°**¥**50'40 48.94279 AU -3534 Apr 15 j 05:36 26°¥43'03 48.21921 AU max. Earth dist. max. Earth dist. -3541 Apr 18 j 05:50 morning rise 20°**)**€03'37 -3541 Jul 20 j 15:16 -3534 Apr 16 j 04:30 26°**)** 44′22 -11°04′32 retrograde 21°**X**21'22 conjunction opposition -3541 Oct 10 j 19:12 20°**升**21'31 -12°56'39 minimum elong -3534 Apr 16 j 04:43 26°**)**44'23 11°04'32 min. Earth dist. -3541 Oct 11 j 06:51 20°**₭**20'58 46.94766 AU morning rise -3534 Apr 27 j 04:11 26°**)**59'31 direct -3541 Dec 31 j 07:40 19°**)** 21'42 retrograde -3534 Jul 27 j 07:41 28° ¥ 15'10 opposition evening set -3540 Mar 31 j 06:36 20°**)** ₹37'16 -3534 Oct 17 j 05:43 27° **★** 14'51 -11°26'10 min. Earth dist. -3534 Oct 18 j 02:49 27°**升**13'50 46.19728 AU -3540 Apr 09 j 12:44 20° **★** 49'56 -12°19'21 -3533 Jan 06 j 22:57 26°**)** 14′20 conjunction direct

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 27 Attention, astronomical year style is used: The year -3533 in astronomical counting style is the year 3534 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ie year -3533 i	in astronomical co	unting style is the year	r 3534 BCE in historical c	ounting style.	
evening set	-3533 Apr 06 j 06:20	27°) €28'16		conjunction	-3527 Apr 23 j 06:39	3° Y 45'20	-9°25'31
				minimum elong	-3527 Apr 23 j 06:50	3° Y 45'21	9°25'31
conjunction	-3533 Apr 17 j 11:24	27°) €43'44	-10°51'11	morning rise	-3527 May 05 j 22:27	4° Y 03'03	
minimum elong	-3533 Apr 17 j 11:36	27°) €43'45	10°51'12	retrograde	-3527 Aug 03 j 05:41	5° Ƴ 17'34	
max. Earth dist.	-3533 Apr 16 j 12:21	27°) 42′24	48.09940 AU	opposition	-3527 Oct 23 j 19:53	4° Υ 16'47	-9°42'29
morning rise	-3533 Apr 28 j 17:08	27° ¥ 59'15		min. Earth dist.	-3527 Oct 25 j 00:49	4° Υ 15'21	45.26896 AU
retrograde	-3533 Jul 28 j 11:05	29° ¥ 14'41		direct	-3526 Jan 13 j 15:25	3° Y 15'32	
opposition	-3533 Oct 18 j 10:51	28° ¥ 14'17	-11°12'12	evening set	-3526 Apr 11 j 18:06	4° Υ 28'48	
min. Earth dist.	-3533 Oct 19 j 08:20		46.07441 AU	max. Earth dist.	-3526 Apr 23 j 05:27	4° Ƴ 44'52	47.16854 AU
direct	-3532 Jan 08 j 07:04	27° ¥ 13'38			1 3		
evening set	-3532 Apr 06 j 07:19	28° ¥ 27'25		conjunction	-3526 Apr 24 j 14:27	4° Ƴ 46'48	-9°10'21
		_ , , , _ ,		minimum elong	-3526 Apr 24 j 14:39	4° Υ 46'49	
conjunction	-3532 Apr 17 j 18:15	28°) 43′15	-10°37'35	morning rise	-3526 May 07 j 11:16	5° Y ′04'51	
minimum elong	-3532 Apr 17 j 18:28	28°) 43'16		retrograde	-3526 Aug 04 j 14:16	6° Y 19'16	
max. Earth dist.	-3532 Apr 16 j 16:59		47.97672 AU	opposition	-3526 Oct 25 j 01:49	5°Υ18'23	-9°26'36
morning rise	-3532 Apr 29 j 06:09	28° ¥ 59'09	17.57072110	min. Earth dist.	-3526 Oct 26 j 08:32		45.11912 AU
morning 1130	-3532 Jun 22 j 02:16	0° Υ		direct	-3525 Jan 14 j 19:55	4° Υ 16'59	43.11712710
retrograde	-3532 Jul 28 j 19:03	0° Υ 14'22		evening set	-3525 Apr 12 j 20:57	5° Υ 30'13	
retrograde	-3532 Sup 03 j 16:11	30°R ₩		max. Earth dist.	-3525 Apr 12 j 20:37		47.01791 AU
opposition	-3532 Sep 03 j 10:11 -3532 Oct 18 j 16:02	29°) 13′54	10057156	max. Earm dist.	-3323 Apr 24 j 11.22	3 1 40 30	47.01791 AU
min. Earth dist.	-3532 Oct 18 j 10:02		45.94888 AU	agniumation	2525 Amr 25: 22:15	5° Ƴ 48'33	0051155
	·	29 X 1248 28° X 13'10	43.94000 AU	conjunction	-3525 Apr 25 j 22:15	5° Υ 48'34	
direct	-3531 Jan 08 j 10:34	28° X 13°10 29° X 26'48		minimum elong	-3525 Apr 25 j 22:26		8-34-34
evening set	-3531 Apr 07 j 08:21		47.05120 AXI	morning rise	-3525 May 09 j 00:08	6° Y 06'56	
max. Earth dist.	-3531 Apr 17 j 23:39	29° 大 41'31	47.85130 AU	retrograde	-3525 Aug 06 j 00:04	7° Υ 21'15	001010
				opposition	-3525 Oct 26 j 07:45	6° Y 20'15	
conjunction	-3531 Apr 19 j 01:21	29°) 43′00		min. Earth dist.	-3525 Oct 27 j 15:01		44.96463 AU
minimum elong	-3531 Apr 19 j 01:32	29°) 43′01	10°23'42	direct	-3524 Jan 16 j 00:08	5° Y 18'42	
morning rise	-3531 Apr 30 j 19:01	29° ¥ 59'16		evening set	-3524 Apr 12 j 23:59	6° Y 31'54	
	-3531 May 01 j 07:43	0° Υ		max. Earth dist.	-3524 Apr 24 j 17:22	6°'Y'48'24	46.86262 AU
retrograde	-3531 Jul 30 j 02:24	1° Y 14'19					
opposition	-3531 Oct 19 j 21:28	0° Υ 13'47		conjunction	-3524 Apr 26 j 06:12	6° Y 50'34	
min. Earth dist.	-3531 Oct 20 j 21:23		45.82048 AU	minimum elong	-3524 Apr 26 j 06:23	6° Y 50′35	8°39'13
	-3531 Oct 31 j 18:08	30° ₹ ₩		morning rise	-3524 May 09 j 12:58	7° Ƴ 09'18	
direct	-3530 Jan 09 j 15:09	29° ∺ 12'57		retrograde	-3524 Aug 06 j 05:52	8° Y 23'31	
	-3530 Mar 19 j 04:57	0° Y		opposition	-3524 Oct 26 j 13:52	7° Y °22'23	-8°54'00
evening set	-3530 Apr 08 j 09:38	0° Y 26′28		min. Earth dist.	-3524 Oct 27 j 23:24		44.80588 AU
max. Earth dist.	-3530 Apr 19 j 05:25	0° Y 41′29	47.72306 AU	direct	-3523 Jan 16 j 08:17	6° Y 20'40	
				evening set	-3523 Apr 14 j 03:13	7° Ƴ 33'51	
conjunction	-3530 Apr 20 j 08:18	0° Y 43'03	-10°09'32	max. Earth dist.	-3523 Apr 26 j 01:05	7° Y 50'39	46.70348 AU
minimum elong	-3530 Apr 20 j 08:31	0° Y 43'04	10°09'32				
morning rise	-3530 May 02 j 07:43	0° Y 59'41		conjunction	-3523 Apr 27 j 14:15	7° Y ′52'51	-8°23'16
retrograde	-3530 Jul 31 j 10:18	2° Y 14'34		minimum elong	-3523 Apr 27 j 14:26	7° Y ′52'52	8°23'15
opposition	-3530 Oct 21 j 02:50	1° Y 13'59	-10°28'34	morning rise	-3523 May 11 j 01:36	8° Ƴ 11'54	
min. Earth dist.	-3530 Oct 22 j 03:05	1° Y 12'48	45.68898 AU	retrograde	-3523 Aug 07 j 09:49	9° Y ′26′02	
direct	-3529 Jan 10 j 20:14	0° Y 13′03		opposition	-3523 Oct 27 j 20:03	8° Y 24'46	-8°37'18
evening set	-3529 Apr 09 j 11:19	1° Y 26'30		min. Earth dist.	-3523 Oct 29 j 05:53	8° Y 23'05	44.64353 AU
max. Earth dist.	-3529 Apr 20 j 10:47	1° Y 41'46	47.59120 AU	direct	-3522 Jan 17 j 18:18	7° Ƴ 22'53	
				evening set	-3522 Apr 15 j 06:36	8° Y 36'03	
conjunction	-3529 Apr 21 j 15:37	1° Y 43'27	-9°55'07	max. Earth dist.	-3522 Apr 27 j 06:40	8° Y ′53'02	46.54100 AU
minimum elong	-3529 Apr 21 j 15:48	1° Y '43'28	9°55'07				
morning rise	-3529 May 03 j 20:42	2° Y ′00'27		conjunction	-3522 Apr 28 j 22:07	8° Y ′55'23	-8°07'03
retrograde	-3529 Aug 01 j 16:54	3° Y °15'12		minimum elong	-3522 Apr 28 j 22:18	8° Y ′55'24	
opposition	-3529 Oct 22 j 08:22	2° Y 14'33	-10°13'28	morning rise	-3522 May 12 j 14:13	9° Υ 14'45	
min. Earth dist.	-3529 Oct 23 j 10:56		45.55364 AU	retrograde	-3522 Aug 08 j 17:30	10° Y ′28'51	
direct	-3528 Jan 12 j 02:39	1° Υ 13'32		opposition	-3522 Oct 29 j 02:22	9° Y ′27′26	-8°20'17
evening set	-3528 Apr 09 j 13:22	2° Y ′26'55		min. Earth dist.	-3522 Oct 30 j 13:33		44.47822 AU
				direct	-3521 Jan 19 j 00:14	8° Y ′25'22	
conjunction	-3528 Apr 21 j 23:13	2° Y '44'13	-9°40'27	evening set	-3521 Apr 16 j 10:18	9° Υ 38'33	
minimum elong	-3528 Apr 21 j 23:15	2° Υ 44'14		max. Earth dist.	-3521 Apr 10 j 10:10		46.37565 AU
max. Earth dist.	-3528 Apr 20 j 17:47		47.45521 AU	max. Durin dist.	3321 11pt 20 J 14.40	, 13330	.0.57505 AU
morning rise	-3528 Apr 20 j 17.47 -3528 May 04 j 09:36	3° Υ 01'34	11.73321 AU	conjunction	-3521 Apr 30 j 06:28	9° Υ ′58'12	-7°50'32
retrograde	-3528 Aug 01 j 21:43	4° Υ 16'12		minimum elong	-3521 Apr 30 j 06:39	9° γ 58'12	
opposition	-3528 Aug 01 j 21.43 -3528 Oct 22 j 14:03	3°Υ15'29	-0°58'07	morning rise	-3521 Apr 30 J 00:39	9 1 38 12 10° Υ 17'53	, 50 50
min. Earth dist.	-3528 Oct 22 j 14:03 -3528 Oct 23 j 17:17		45.41373 AU	retrograde	-3521 May 14 J 02:49 -3521 Aug 10 j 00:56	10° γ 1/53	
direct		2° Υ 14'22	TJ. 713/3 AU	-	-3521 Aug 10 j 00:36 -3521 Oct 30 j 08:49	11° γ 31'37 10° γ 30'24	8002150
	-3527 Jan 12 j 10:39	3° Υ 27'42		opposition			-8°02′59 44.31021 AU
evening set	-3527 Apr 10 j 15:39 -3527 Apr 21 j 22:33		47.31439 AU	min. Earth dist.	-3521 Oct 31 j 21:06 -3520 Jan 20 j 06:40	9° Υ 28'35	44.31021 AU
max. Earth dist.	-5521 Apr 21 J 22.33	J 1434/	71.31437 AU	direct	-5520 Jan 20 J 00.40	2 T 48 10	

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3520 in astronomical counting style is the year 3521 BCE in historical counting style. 10°**Y**41′23 opposition -3520 Apr 16 i 14:29 -3514 Nov 06 j 11:00 18°**Y**′03'30 -5°53'27 evening set -3520 Apr 28 j 21:49 10°**Y**58'54 46.20795 AU -3514 Nov 08 j 07:40 18°Υ01'14 43.05361 AU max. Earth dist. min. Earth dist. -3513 Jan 27 j 06:20 17°**Y**′00′02 direct -3513 Apr 24 j 04:35 11°**Y**'01'21 -7°33'45 18°**Y**14′09 -3520 Apr 30 j 14:51 conjunction evening set -3513 May 07 j 05:05 -3520 Apr 30 j 15:01 11°**Υ**01'21 7°33'44 18°**Ƴ**33'09 44.94753 AU minimum elong max. Earth dist. -3520 May 14 j 15:33 11°**Υ**21'21 morning rise -3513 May 09 j 07:10 18°**Y**'36'13 -5°28'21 -3520 Aug 10 j 11:27 12°**Y**35'24 retrograde conjunction -3520 Oct 30 j 15:25 18°**Ƴ**36'14 5°28'19 11°**Y**'33'43 -7°45'22 -3513 May 09 j 07:19 opposition minimum elong 18°Y58'18 min. Earth dist. -3520 Nov 01 j 03:54 11°**Υ**31'53 44.14002 AU morning rise -3513 May 24 j 09:24 10°**Y**31′19 direct -3519 Jan 20 j 11:13 retrograde -3513 Aug 19 j 00:55 20°**Y**12'49 evening set -3519 Apr 17 j 18:42 11°**Y**44'36 opposition -3513 Nov 07 j 18:47 19°**Y**10′09 -5°33′46 12°**Y**02'20 46.03787 AU -3513 Nov 09 j 15:57 max. Earth dist. -3519 Apr 30 j 04:52 min. Earth dist. 19°**Y**07'51 42.85784 AU direct -3512 Jan 28 j 17:00 18°**Y**′06′28 conjunction -3519 May 01 j 23:16 12°Υ04'53 -7°16'41 evening set -3512 Apr 24 j 11:39 19°**Y**20'46 minimum elong -3519 May 01 j 23:26 12°Υ04'53 7°16'39 max. Earth dist. -3512 May 07 j 12:30 19°**Y**39'52 44.75080 AU morning rise -3519 May 16 j 04:04 12°Υ25'11 retrograde -3519 Aug 11 j 21:19 13°**Y**39'15 conjunction -3512 May 09 j 17:13 19°Y43'07 -5°09'20 opposition -3519 Oct 31 j 22:17 12°**Y**37'26 -7°27'28 minimum elong -3512 May 09 j 17:20 19°**Ƴ**43'08 5°09'17 min. Earth dist. -3519 Nov 02 j 12:34 12°**Y**35'31 43.96750 AU morning rise -3512 May 24 j 22:33 20°**℃**05'29 direct -3518 Jan 21 j 17:35 11°Y34'53 retrograde -3512 Aug 19 j 09:53 21°Y20'07 evening set -3518 Apr 18 j 23:20 12°Y48'16 opposition -3512 Nov 08 j 02:58 20°**Y**17'15 -5°13'47 max. Earth dist. -3518 May 01 j 13:24 13°Υ06'18 45.86550 AU min. Earth dist. -3512 Nov 10 i 02:00 20°Υ14'51 42.65817 AU direct -3511 Jan 29 i 01:55 19° Y 13'20 conjunction -3518 May 03 j 08:02 13°Υ08'52 -6°59'19 evening set -3511 Apr 25 i 18:44 20°Y27'50 -3518 May 03 j 08:11 13°**Y**′08′52 6°59'18 max. Earth dist. -3511 May 08 j 22:27 20°Υ47'11 44.55033 AU minimum elong -3518 May 17 j 16:44 13°**Y**29′29 morning rise -3518 Aug 13 j 03:45 14°Y43'34 -3511 May 11 j 03:22 20°Υ50'28 -4°50'02 retrograde conjunction -3518 Nov 02 j 05:06 13°**Y**'41'38 -7°09'15 -3511 May 11 j 03:30 20°**Y**50′29 4°50'00 minimum elong opposition -3518 Nov 03 j 19:32 13°**Υ**39'43 43.79238 AU -3511 May 26 j 11:23 21°Y13'06 min. Earth dist. morning rise -3517 Jan 23 j 02:50 12°**Y**38'55 -3511 Aug 20 j 17:40 22°**Y**27′54 direct retrograde -3517 Apr 20 j 04:30 -3511 Nov 09 j 11:19 21°**Y**24'50 -4°53'31 13° Y 52'26 opposition evening set -3517 May 02 j 20:02 14°Υ10'36 45.69016 AU -3511 Nov 11 j 11:15 21°**Υ**22'22 42.45501 AU max. Earth dist. min. Earth dist. -3510 Jan 30 j 11:32 20°**Y**20'40 direct 14°**Υ**13'19 -6°41'41 -3517 May 04 j 16:57 -3510 Apr 27 j 02:26 21°**Y**35'24 conjunction evening set 21°**Υ**54'54 44.34677 AU -3517 May 04 j 17:07 14°**Υ**13'20 6°41'39 -3510 May 10 j 07:00 minimum elong max. Earth dist. -3517 May 19 j 05:38 14°**Y**34'15 morning rise -3510 May 12 j 13:40 21°Y58'18 -4°30'27 retrograde -3517 Aug 14 j 11:23 15°**Y**48′24 conjunction -3517 Nov 03 j 12:15 14°**Υ**46'21 -6°50'44 minimum elong -3510 May 12 j 13:47 21°Y58'18 4°30'24 opposition min. Earth dist. -3517 Nov 05 j 04:28 14°**Υ**44'19 43.61406 AU morning rise -3510 May 28 j 00:31 22°**Y**21'12 -3516 Jan 24 j 10:17 13°**Y**43′28 retrograde -3510 Aug 22 j 05:10 23°**Y**36'10 direct -3516 Apr 20 j 09:56 14°Y57'06 opposition -3510 Nov 10 j 19:40 22°**Υ**'32'54 -4°32'55 evening set max. Earth dist. -3516 May 03 j 04:49 15°**Υ**15'33 45.51108 AU min. Earth dist. -3510 Nov 12 j 20:16 22°Υ30'24 42.24918 AU -3509 Jan 31 j 17:57 21°Y28'30 direct -3516 May 05 j 02:16 15°Υ18'18 -6°23'45 -3509 Apr 28 j 10:25 22°Y43'30 conjunction evening set -3516 May 05 j 02:25 15°Υ18'19 6°23'43 max. Earth dist. -3509 May 11 j 16:33 23°**Υ**03'10 44.14051 AU minimum elong -3516 May 19 j 18:25 15°**Y**39'32 morning rise -3509 May 14 i 00:21 23°Y'06'39 -4°10'34 retrograde -3516 Aug 14 j 19:10 16°**Y**53'46 conjunction opposition -3516 Nov 03 i 19:36 15°Υ51'35 -6°31'56 minimum elong -3509 May 14 i 00:28 23°Υ06'40 4°10'32 23°**Y**29'49 min. Earth dist. -3516 Nov 05 j 13:14 15°**Υ**49'28 43.43167 AU morning rise -3509 May 29 i 13:35 direct -3515 Jan 24 j 17:58 14°**Y**48'31 retrograde -3509 Aug 23 j 17:21 24°**Y**44'59 -3515 Apr 21 j 15:53 16°**Y**′02′18 opposition -3509 Nov 12 j 04:31 23°Y41'32 -4°12'01 evening set max. Earth dist. -3515 May 04 j 12:08 16°**Υ**20'54 45.32784 AU min. Earth dist. -3509 Nov 14 j 06:48 23°**Υ**38'55 42.04093 AU direct -3508 Feb 02 j 01:18 22°Y36'53 23°**Y**52'11 -3515 May 06 j 11:39 conjunction 16°Y23'48 -6°05'34 evening set -3508 Apr 28 j 18:52 minimum elong -3515 May 06 j 11:48 16°**Υ**23'48 6°05'31 max. Earth dist. -3508 May 12 j 02:57 24°Υ12'04 43.93215 AU morning rise -3515 May 21 j 07:26 16°**Y**45′19 -3515 Aug 16 j 06:35 17°**Y**59'38 conjunction -3508 May 14 j 11:10 24°Y15'36 -3°50'25 retrograde -3515 Nov 05 j 03:07 16°**Y**57'18 -6°12'50 -3508 May 14 j 11:16 24°Υ15'36 3°50'21 opposition minimum elong -3515 Nov 06 j 21:28 16°**Y**55'09 43.24498 AU -3508 May 30 j 02:41 24° Y 39'00 min. Earth dist. morning rise -3514 Jan 25 j 22:50 15°**Y**54′03 -3508 Aug 24 j 04:29 25°Y54'25 direct retrograde 17°**Y**07'59 -3508 Nov 12 j 13:26 24°**Y**'50'46 -3°50'48 evening set -3514 Apr 22 j 21:58 opposition max. Earth dist. -3514 May 05 j 19:58 17°**Y**26'46 45.13993 AU min. Earth dist. -3508 Nov 14 j 15:31 24°Υ48'09 41.83075 AU direct -3507 Feb 02 j 11:01 23°**Y**45'53 conjunction -3514 May 07 j 21:14 17°**Y**29'46 -5°47'06 evening set -3507 Apr 30 j 03:46 25°**Y**01'31 minimum elong -3514 May 07 j 21:22 17°**Y**29'47 5°47'03 max. Earth dist. -3507 May 13 j 12:03 25°**Y**21'31 43.72184 AU -3514 May 22 j 20:19 17°Y51'35 morning rise -3514 Aug 17 j 16:33 19°**Y**06'00 -3507 May 15 j 22:11 25° Υ 25'11 -3° 29'57 retrograde conjunction

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3507 in astronomical counting style is the year 3508 BCE in historical counting style. $-3507 \text{ May } 15 \text{ j } 22:16 \quad 25^{\circ} \Upsilon^{\circ} 25'12 \quad 3^{\circ} 29'55$ retrograde -3501 Sep 02 j 14:43 4°821'50 minimum elong opposition -3507 May 31 j 15:52 25°**Y**48'51 -3501 Nov 21 j 12:24 3°**8**16'44 -1°13'35 morning rise -3507 Aug 25 j 14:26 27°Y04'31 min. Earth dist. -3501 Nov 23 j 22:45 3°**8**13'36 40.28484 AU retrograde -3507 Nov 13 j 22:44 26°Y00'41 -3°29'16 -3500 Feb 11 j 11:11 2°810'03 direct opposition -3500 May 08 j 08:24 -3507 Nov 16 j 02:27 25°Υ57'59 41.61881 AU 3°**8**28'43 min. Earth dist. evening set -3506 Feb 03 j 20:48 24°Y55'35 direct max. Earth dist. -3500 May 21 j 17:18 3°**8**49'34 42.16828 AU evening set -3506 May 01 j 12:54 26°**Y**11'34 26°Υ31'49 43.50963 AU 3°**8**54'00 -0°58'45 max. Earth dist. -3506 May 14 j 23:30 conjunction -3500 May 24 j 12:30 minimum elong -3500 May 24 j 12:32 3°**8**54'00 0°58'41 4°819'13 conjunction -3506 May 17 j 09:30 26°**Y**35'30 -3°09'13 morning rise -3500 Jun 09 j 15:11 $26^{\circ} \Upsilon 35'30$ minimum elong -3506 May 17 j 09:36 3°09'09 retrograde -3500 Sep 03 j 02:16 5°**8**37'25 -3506 Jun 02 j 05:00 26°**Y**59'25 -3500 Nov 21 j 23:42 4°832'03 -0°49'54 morning rise opposition 28°**Y**15′23 retrograde -3506 Aug 26 j 22:42 min. Earth dist. -3500 Nov 24 j 11:25 4°**8**28'50 40.04999 AU opposition -3506 Nov 15 j 08:18 27° Y 11'22 -3° 07'26 direct -3499 Feb 11 j 22:42 3°**8**25'02 min. Earth dist. -3506 Nov 17 j 12:36 27°**Y**08'37 41.40467 AU evening set -3499 May 09 j 21:24 4°844'13 direct -3505 Feb 05 j 08:28 26°**Y**′06′02 max. Earth dist. -3499 May 23 j 06:22 5°805'12 41.93208 AU evening set -3505 May 02 j 22:53 27°**Y**22'25 max. Earth dist. -3505 May 16 j 09:05 27°**Υ**42'45 43.29502 AU conjunction -3499 May 26 j 02:09 5°809'41 -0°36'02 minimum elong -3499 May 26 j 02:10 5°809'41 0°35'58 conjunction -3505 May 18 j 21:09 27° Y 46'36 -2° 48'10 morning rise -3499 Jun 11 j 05:04 5°835'05 minimum elong -3505 May 18 j 21:13 27°**Y**46'36 2°48'07 retrograde -3499 Sep 04 j 14:07 6°**8**53'45 morning rise -3505 Jun 03 j 18:32 28°Y10'45 opposition -3499 Nov 23 i 11:24 5°848'04 -0°25'55 retrograde -3505 Aug 28 i 11:14 29°**Y**27'02 min. Earth dist. -3499 Nov 26 i 00:30 5°844'46 39.81234 AU opposition -3505 Nov 16 i 17:57 28°Y22'51 -2°45'16 direct -3498 Feb 13 i 09:48 4°840'43 min. Earth dist. -3505 Nov 18 j 23:13 28°Υ20'03 41.18800 AU evening set -3498 May 11 j 10:57 6°**と**00'27 -3504 Feb 06 j 15:49 27°**℃**17'17 max. Earth dist. -3498 May 24 j 19:00 6°**8**21'30 41.69351 AU direct -3504 May 03 j 09:19 28°Y34'05 evening set -3504 May 16 j 20:15 28°**Υ**'54'35 43.07725 AU -3498 May 27 j 15:53 6°826'05 -0°13'04 max. Earth dist. conjunction -3498 May 27 j 15:54 6°826'05 0°12'59 minimum elong 28°**Y**58'30 -2°26'51 -3498 May 27 j 12:04 -3504 May 19 j 09:17 6°825'51 conjunction behind sun begin -3504 May 19 j 09:21 28°**Y**58'31 2°26'47 -3498 May 27 j 19:43 behind sun end 6°**8**26'20 minimum elong -3504 Jun 04 j 08:00 29°Y22'54 -3498 Jun 12 j 19:07 morning rise 6°**8**51'40 morning rise -3504 Jul 01 j 01:36 -3498 Sep 06 j 05:01 0°8 8°**8**10'48 retrograde -3504 Aug 28 j 23:45 0°**8**39'33 -3498 Nov 24 j 23:18 7°**8**04'50 -0°01'38 retrograde opposition -3504 Oct 28 j 00:32 -3498 Nov 27 j 12:26 7°**8**01'31 39.57267 AU 30°RΥ min. Earth dist. -3504 Nov 17 j 04:12 29°**Y**35'09 -2°22'49 -3498 Dec 19 j 11:33 6°**8**34'03 opposition asc. node 29°**Υ**32'15 40.96794 AU -3504 Nov 19 j 11:22 5°**8**57'07 min. Earth dist. direct -3497 Feb 14 j 19:44 direct -3503 Feb 07 j 00:05 28°Y29'21 evening set -3497 May 13 j 01:13 7°**8**17'27 -3503 May 04 j 20:10 29°\bar{Y}46'35 max. Earth dist. -3497 May 26 j 07:48 7°**8**38'33 41.45292 AU evening set -3503 May 13 j 15:17 0° 8 max. Earth dist. -3503 May 18 j 07:25 0°**8**07'13 42.85594 AU conjunction -3497 May 29 j 06:09 7°**8**43'15 0°10'16 -3497 May 29 j 06:08 7°**8**43'15 0°10'22 minimum elong -3503 May 20 j 21:29 0°811'14 -2°05'15 -3497 May 29 j 01:02 7°**8**42'56 conjunction behind sun begin -3503 May 20 j 21:33 0°811'14 2°05'11 -3497 May 29 j 11:13 7°**8**43'34 minimum elong behind sun end -3503 Jun 05 j 21:34 0°**8**35'50 -3497 Jun 14 j 09:11 8°**8**08'59 morning rise morning rise retrograde -3503 Aug 30 j 13:57 1°852'52 retrograde -3497 Sep 07 i 19:58 9°**8**28'38 0°848'15 -2°00'02 opposition -3503 Nov 18 j 14:37 opposition -3497 Nov 26 i 11:38 8°**8**22'22 0°22'57 -3503 Nov 20 j 22:09 min. Earth dist. 0°**8**45'19 40.74416 AU min. Earth dist. -3497 Nov 29 i 02:32 8°818'56 39.33150 AU -3503 Dec 31 i 04:07 30°R℃ direct -3496 Feb 16 i 07:47 7°**8**14'18 29°**Y**'42'11 evening set direct -3502 Feb 08 i 10:40 -3496 May 13 j 16:02 8°835'16 -3502 Mar 19 j 13:14 0°8 max. Earth dist. -3496 May 26 j 22:38 8°856'30 41.21115 AU -3502 May 06 j 07:43 0°859'53 evening set -3502 May 19 j 17:42 1°**8**20'34 42.63058 AU -3496 May 29 j 20:44 9°**8**01'14 0°33'46 max. Earth dist. conjunction minimum elong -3496 May 29 j 20:43 9°**8**01'14 0°33'51 conjunction -3502 May 22 j 10:10 1°**8**24'45 -1°43'22 morning rise -3496 Jun 14 j 23:21 9°**8**27'06 1°**8**24'45 1°43'18 -3496 Sep 08 j 10:29 minimum elong -3502 May 22 j 10:13 retrograde 10°847'19 -3502 Jun 07 j 11:20 1°849'34 opposition -3496 Nov 27 j 00:23 9°**8**40'45 0°47'49 morning rise -3502 Sep 01 j 04:16 3°**8**06'58 -3496 Nov 29 j 15:02 9°**8**37'19 39.08940 AU retrograde min. Earth dist. -3502 Nov 20 j 01:20 2°**8**02'07 -1°36'58 -3495 Feb 16 j 22:40 8°**8**32'21 opposition direct 1°**8**59'03 40.51644 AU 9°854'00 min. Earth dist. -3502 Nov 22 j 11:08 evening set -3495 May 15 j 07:25 0°**8**55'45 10°**8**15'13 40.96853 AU direct -3501 Feb 09 j 21:39 max. Earth dist. -3495 May 28 j 11:30 evening set -3501 May 07 j 19:44 2°**8**13'56 max. Earth dist. -3501 May 21 j 06:24 2°**8**34'46 42.40128 AU conjunction -3495 May 31 j 11:25 10°**8**20'06 0°57'33 minimum elong -3495 May 31 j 11:24 10°**8**20'06 0°57'38 conjunction -3501 May 23 j 23:18 2°**8**39'01 -1°21'12 morning rise -3495 Jun 16 j 13:31 10°**8**46'07 -3501 May 23 j 23:20 2°839'01 1°21'08 -3495 Sep 10 j 01:52 12°**8**06'56 minimum elong retrograde -3501 Jun 09 j 01:14 3°**8**04'02 -3495 Nov 28 j 13:30 11°800'05 1°12'58 morning rise opposition

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3495 in astronomical counting style is the year 3496 BCE in historical counting style. -3495 Dec 01 i 05:15 10°**8**56'34 38.84676 AU conjunction -3488 Jun 10 j 08:30 20°**8**03'44 3°50'46 min. Earth dist. -3494 Feb 18 j 11:36 9°851'21 -3488 Jun 10 j 08:23 20°**8**03'43 3°50'51 direct minimum elong -3494 May 16 j 23:28 -3488 Jun 25 j 21:35 20°830'17 11°**8**13'44 evening set morning rise max. Earth dist. -3494 May 30 j 03:07 11°**8**35'04 40.72518 AU -3488 Sep 19 j 23:55 21°**8**56'34 retrograde -3488 Dec 07 j 21:42 20°**8**47'39 opposition 4°16'27 -3494 Jun 02 j 02:50 11°839'58 1°21'36 -3488 Dec 10 j 19:34 conjunction min. Earth dist. 20°**8**43'39 37.10558 AU -3494 Jun 02 j 02:47 -3487 Feb 27 j 17:16 minimum elong 11°**8**39'58 1°21'40 direct 19°**8**36'25 12°**8**06'07 -3487 May 27 j 14:26 morning rise -3494 Jun 18 j 03:51 evening set 21°**8**05'12 retrograde -3494 Sep 11 j 14:52 13°**8**27'35 max. Earth dist. -3487 Jun 08 j 20:04 21°**8**26'11 38.97224 AU opposition -3494 Nov 30 j 02:56 12°**8**20'28 1°38'24 min. Earth dist. -3494 Dec 02 j 19:22 12°**8**16'54 38.60330 AU conjunction -3487 Jun 12 j 03:02 21°**8**31'53 4°16'21 11°**8**11'25 -3487 Jun 12 j 02:53 21°**8**31'53 direct -3493 Feb 20 j 01:40 minimum elong 4°16'28 12°834'34 -3487 Jun 27 j 12:45 21°**8**58'26 evening set -3493 May 18 j 16:29 morning rise max. Earth dist. -3493 May 31 j 17:34 12°**8**55'54 40.48093 AU retrograde -3487 Sep 21 j 16:08 23°**8**25'41 opposition -3487 Dec 09 j 14:36 22°**8**16'23 4°43'36 conjunction -3493 Jun 03 j 18:35 13°**8**00'56 1°45'53 min. Earth dist. -3487 Dec 12 j 13:40 22°812'17 36.84937 AU minimum elong -3493 Jun 03 j 18:31 13°**8**00'56 1°45'58 direct -3486 Mar 01 j 09:17 21°804'44 morning rise -3493 Jun 19 j 18:32 13°**8**27'12 evening set -3486 May 29 j 13:05 22°834'35 retrograde -3493 Sep 13 j 07:19 14°**8**49'22 max. Earth dist. -3486 Jun 10 j 14:30 22°855'27 38.71450 AU opposition -3493 Dec 01 j 16:48 13°**8**41'59 2°04'06 min. Earth dist. -3493 Dec 04 j 09:38 13°**8**38'23 38.35883 AU conjunction -3486 Jun 13 j 22:03 23°**8**01'15 4°42'07 direct -3492 Feb 21 i 13:30 12°**8**32'36 minimum elong -3486 Jun 13 i 21:54 23°**8**01'15 4°42'13 -3492 May 19 j 10:06 13°**8**56'36 morning rise -3486 Jun 29 i 04:20 23°**8**27'46 evening set max. Earth dist. -3492 Jun 01 i 08:47 14°**8**17'56 40.23501 AU retrograde -3486 Sep 23 i 12:13 24°**8**56'00 opposition -3486 Dec 11 i 07:43 23°**8**46'20 5°10'57 -3492 Jun 04 j 10:49 14°**8**23'04 2°10'24 -3486 Dec 14 j 06:37 23°842'14 36.59267 AU conjunction min. Earth dist. -3492 Jun 04 j 10:45 14°823'04 2°10'29 -3485 Mar 03 j 00:44 22°834'14 direct minimum elong -3492 Jun 20 j 09:06 14°**8**49'25 evening set 24°805'14 -3485 May 31 j 12:36 morning rise -3492 Jun 26 j 23:33 -3485 Jun 12 j 08:59 24°**8**25'56 38.45627 AU 15°8 max. Earth dist. -3492 Sep 14 j 00:41 16°**8**12'22 retrograde -3492 Dec 02 j 07:18 -3485 Jun 15 j 17:41 24°**8**31'51 5°08'03 15°**8**04'42 2°30'04 conjunction opposition -3492 Dec 05 j 01:57 minimum elong min. Earth dist. 15°**8**00'58 38.11258 AU -3485 Jun 15 j 17:30 24°**8**31'51 5°08'09 -3485 Jun 30 j 19:56 -3492 Dec 05 j 19:20 15°R₩ 24°**8**58'19 morning rise -3491 Feb 22 j 01:12 13°**8**54'59 -3485 Sep 25 j 09:11 26°**8**27'36 direct retrograde -3491 May 08 j 15:28 -3485 Dec 13 j 01:41 25°**8**17'33 5°38'28 15°**8** opposition -3491 May 21 j 04:33 15°**8**19'52 -3485 Dec 16 j 02:04 25°**8**13'20 36.33605 AU evening set min. Earth dist. -3491 Jun 03 j 01:00 15°**8**41'12 39.98716 AU 24°**8**05'01 max. Earth dist. direct -3484 Mar 03 j 15:58 evening set -3484 Jun 01 j 12:55 25°**8**37'13 conjunction -3491 Jun 06 j 03:30 15°846'25 2°35'10 max. Earth dist. -3484 Jun 13 j 05:36 25°857'49 38.19844 AU minimum elong -3491 Jun 06 j 03:25 15°**8**46'25 2°35'16 morning rise -3491 Jun 21 j 24:00 16°**8**12'51 conjunction -3484 Jun 16 j 13:40 26°**8**03'45 5°34'05 -3491 Sep 15 j 18:29 17°**8**36'35 -3484 Jun 16 j 13:29 26°803'44 5°34'11 retrograde minimum elong -3491 Dec 03 j 22:07 16°**8**28'38 2°56'18 -3484 Jul 01 j 11:29 26°830'07 opposition morning rise min. Earth dist. -3491 Dec 06 j 16:44 16°**8**24'53 37.86424 AU -3484 Sep 26 j 05:38 28°**8**00'30 retrograde -3490 Feb 23 j 16:05 15°**8**18'34 -3484 Dec 13 j 20:07 26°850'04 6°06'07 direct opposition evening set -3490 May 22 j 23:48 16°**8**44'22 min. Earth dist. -3484 Dec 16 i 19:49 26°845'52 36.08019 AU max. Earth dist. -3490 Jun 04 i 15:59 17°**8**05'35 39.73683 AU direct -3483 Mar 05 j 12:03 25°837'07 evening set -3483 Jun 03 i 14:19 27°810'36 -3490 Jun 07 i 20:37 conjunction 17°**8**10'59 3°00'09 max. Earth dist. -3483 Jun 15 j 00:44 27° 830'55 37.94153 AU -3490 Jun 07 i 20:31 17°**8**10'59 3°00'15 minimum elong -3490 Jun 23 j 15:01 17°**8**37'29 -3483 Jun 18 i 10:12 27°**8**37'01 6°00'14 morning rise conjunction -3490 Sep 17 j 12:58 19°802'02 -3483 Jun 18 j 09:59 27°**8**37'00 6°00'21 retrograde minimum elong -3490 Dec 05 j 13:32 17°**8**53'46 3°22'47 -3483 Jul 03 j 03:20 28°**8**03'16 opposition morning rise 17°**8**49'54 37.61350 AU 29°**8**34'49 min. Earth dist. -3490 Dec 08 j 10:01 retrograde -3483 Sep 28 j 04:14 direct -3489 Feb 25 j 07:36 16°**8**43'20 opposition -3483 Dec 15 j 15:05 28°**8**24'01 6°33'54 -3483 Dec 18 j 15:34 evening set -3489 May 24 j 19:53 18°**8**10'06 min. Earth dist. 28°819'45 35.82569 AU max. Earth dist. -3489 Jun 06 j 09:45 18°**8**31'19 39.48400 AU direct -3482 Mar 07 j 07:12 27°**8**10'38 -3482 Jun 05 j 16:36 28°845'28 evening set -3489 Jun 09 j 14:24 18°**8**36'46 3°25'21 -3482 Jun 16 j 22:49 29°**8**05'39 37.68586 AU conjunction max. Earth dist. -3489 Jun 09 j 14:18 18°**8**36'45 3°25'28 minimum elong -3489 Jun 25 j 06:10 19°**8**03'17 -3482 Jun 20 j 07:27 29°**8**11'44 6°26'28 morning rise conjunction retrograde -3489 Sep 19 j 05:11 20°**8**28'41 minimum elong -3482 Jun 20 j 07:14 29°**8**11'43 6°26'34 opposition -3489 Dec 07 j 05:22 19°**8**20'07 3°49'30 morning rise -3482 Jul 04 j 19:13 29°**8**37'51 min. Earth dist. -3489 Dec 10 j 02:24 19°**8**16'11 37.36040 AU -3482 Jul 17 j 15:17 Π $^{\circ}$ 0 direct -3488 Feb 27 j 01:52 18°**8**09'17 retrograde -3482 Sep 30 j 00:52 1°**Ⅱ**10′38 -3488 May 25 j 16:56 19°837'02 -3482 Dec 17 j 10:48 29°859'29 7°01'46 evening set opposition -3488 Jun 07 j 01:53 19°**8**58'05 39.22901 AU -3482 Dec 17 j 02:08 30°R₩ max. Earth dist.

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3482 in astronomical counting style is the year 3483 BCE in historical counting style. minimum elong -3482 Dec 20 i 11:27 29°855'10 35.57240 AU -3475 Jul 02 i 06:03 11°**I**I01'13 9°30'28 min. Earth dist. -3481 Mar 09 j 03:45 28°**8**45'41 -3475 Jul 14 j 15:33 11°**Ⅲ**25′09 direct morning rise -3481 May 26 j 05:18 $0^{\circ}\Pi$ -3475 Oct 12 j 04:23 13°**Ⅱ**08'33 retrograde -3475 Dec 28 j 23:45 -3481 Jun 07 j 20:14 0°**I**I21′56 11°**Ⅱ**54'41 10°17'24 evening set opposition 0°**Д**41'48 37.43135 AU max. Earth dist. -3481 Jun 18 j 19:37 -3474 Jan 01 j 03:31 11°**Д**49'59 33.81389 AU min. Earth dist. -3474 Mar 20 j 10:20 direct 10°**Ⅲ**37'44 conjunction -3481 Jun 22 j 05:14 0°**II**48'02 6°52'45 evening set -3474 Jun 22 j 06:30 12°**Ⅲ**25'53 -3481 Jun 22 j 04:59 12°**Д**42'34 35.65776 AU minimum elong 0°**I**I48'01 6°52'52 max. Earth dist. -3474 Jun 30 j 20:39 -3481 Jul 06 j 11:28 morning rise 1°**Ⅱ**13'57 retrograde -3481 Oct 01 j 22:52 2°**Ⅱ**48'03 conjunction -3474 Jul 04 j 08:50 12°**Ⅱ**49'27 9°56'18 opposition -3481 Dec 19 j 06:58 1°**I**I36'34 7°29'43 minimum elong -3474 Jul 04 j 08:30 12°**Ⅱ**49'25 9°56'25 -3474 Jul 16 j 08:39 13°**I**I12'49 min. Earth dist. -3481 Dec 22 j 07:42 1°**Д**32'13 35.32030 AU morning rise -3474 Oct 14 j 07:23 14°**I**I58′01 direct -3480 Mar 09 j 22:36 $0^{\circ}\Pi 22'21$ retrograde evening set -3480 Jun 09 j 00:50 2°**II**00'05 opposition -3474 Dec 31 j 01:02 13°**Ⅱ**43'43 10°45'00 max. Earth dist. -3480 Jun 19 j 18:01 2°**Ⅱ**19'40 37.17750 AU min. Earth dist. -3473 Jan 03 j 04:30 13°**Ⅲ**39′00 33.56554 AU direct -3473 Mar 22 j 10:36 12°**Ⅲ**26′16 conjunction -3480 Jun 23 j 03:49 2°II25'58 7°19'05 evening set -3473 Jun 24 j 19:55 14°**Ⅲ**16′26 minimum elong -3480 Jun 23 j 03:34 2°**Ⅲ**25'57 7°19'11 max. Earth dist. -3473 Jul 03 j 00:16 14°**Д**32'30 35.40754 AU morning rise -3480 Jul 07 j 03:44 2°**I**51'41 retrograde -3480 Oct 02 j 20:21 4°**Ⅲ**27′10 conjunction -3473 Jul 06 j 12:06 14°**Ⅲ**39'24 10°22'01 opposition -3480 Dec 20 j 04:06 3°**I**15'19 7°57'42 minimum elong -3473 Jul 06 j 11:45 14°**Ⅲ**39′22 10°22'09 min. Earth dist. -3480 Dec 23 i 05:58 3°**Ц**10'52 35.06878 AU morning rise -3473 Jul 18 i 01:35 15°**Ⅱ**02'11 direct -3479 Mar 11 j 17:22 2°**Ⅱ**00'42 retrograde -3473 Oct 16 i 09:52 16°**Ⅱ**49'17 -3479 Jun 11 i 06:35 3°**Ⅱ**39'59 opposition -3472 Jan 02 i 03:13 15°**Ⅲ**34'32 11°12'23 evening set max. Earth dist. -3479 Jun 21 j 16:54 3°**Д**59'14 36.92405 AU min. Earth dist. -3472 Jan 05 j 07:22 15°**П**29'45 33.31952 AU -3472 Mar 23 j 10:20 14°**Ⅱ**16'36 direct -3479 Jun 25 j 02:47 4°**II**05'36 7°45'25 -3472 Jun 26 j 10:53 16°**Ⅱ**08'53 conjunction evening set -3479 Jun 25 j 02:31 4°**I**05'35 7°45'32 -3472 Jul 04 j 04:45 16°**Ⅲ**24'14 35.16021 AU max. Earth dist. minimum elong -3479 Jul 08 j 20:09 4°**Ⅲ**31′03 morning rise -3479 Oct 04 j 20:45 6°**Ⅱ**07'59 -3472 Jul 07 j 15:56 16°**Ⅲ**31'10 10°47'29 conjunction retrograde 4°**I**55'46 8°25'43 -3479 Dec 22 j 01:45 -3472 Jul 07 j 15:35 minimum elong 16°**Ⅲ**31′08 10°47'36 opposition -3479 Dec 25 j 03:10 -3472 Jul 18 j 18:33 min. Earth dist. 4°**П**51'20 34.81751 AU 16°**Ⅲ**53'16 morning rise -3478 Mar 13 j 13:04 3°**Ⅱ**40'42 -3472 Oct 17 j 14:45 18°**∏**42'22 direct retrograde 5°**Ⅲ**21'38 -3471 Jan 03 j 06:08 17°**Ⅲ**27'12 11°39'27 evening set -3478 Jun 13 j 13:39 opposition -3478 Jun 23 j 15:32 -3471 Jan 06 j 08:51 17°**Ⅲ**22'28 33.07686 AU max. Earth dist. 5°**I**40′26 36.67040 AU min. Earth dist. -3471 Mar 25 j 11:39 16°**Ⅱ**08'46 direct -3478 Jun 27 j 02:42 -3471 Jun 29 j 03:02 conjunction 5°**I**I46'57 8°11'45 evening set 18°**Ⅱ**03'16 -3478 Jun 27 j 02:25 5°II46'55 8°11'52 max. Earth dist. -3471 Jul 06 j 09:08 18°**耳**17'48 34.91636 AU minimum elong morning rise -3478 Jul 10 j 12:53 6°**Ⅱ**12′05 -3471 Jul 09 j 20:25 retrograde -3478 Oct 06 j 22:04 7°**I**I50'33 conjunction 18°**Ⅲ**24'48 11°12'36 -3478 Dec 24 j 00:08 6°**Ц**37'56 8°53'44 -3471 Jul 09 j 20:02 18°**Ⅲ**24'46 11°12'43 opposition minimum elong -3478 Dec 27 j 03:10 6°**Ⅲ**33'22 34.56619 AU -3471 Jul 20 j 11:25 18°**Ⅱ**46'11 min. Earth dist. morning rise -3477 Mar 15 j 09:22 5°**Ⅱ**22'25 -3471 Oct 19 j 20:43 20°**Ⅲ**37′24 direct retrograde -3477 Jun 15 j 22:02 7°**Ⅲ**05′02 -3470 Jan 05 j 09:56 19°**Ⅲ**21'47 12°06'10 evening set opposition -3477 Jun 25 j 16:40 7°**Ц**23'27 36.41666 AU -3470 Jan 08 j 13:09 19°**Ⅲ**17'00 32.83813 AU max. Earth dist. min. Earth dist. 18°**Ⅱ**02'54 direct -3470 Mar 27 i 13:29 -3477 Jun 29 i 03:21 19°**∏**59'44 conjunction 7°**II**30'00 8°38'02 evening set -3470 Jul 01 i 21:05 20°**Ц**13'30 34.67671 AU minimum elong -3477 Jun 29 i 03:03 7°**Ⅱ**29'59 8°38'09 max. Earth dist. -3470 Jul 08 j 16:13 morning rise 7°**I**54'47 -3477 Jul 12 i 05:43 -3477 Oct 08 i 23:59 9°**Ⅲ**34'49 -3470 Jul 12 j 01:50 20°**Ⅲ**20′26 11°37′19 retrograde conjunction -3477 Dec 25 j 23:20 8°II21'48 9°21'43 -3470 Jul 12 i 01:27 20°**Ⅲ**20'24 11°37'27 opposition minimum elong min. Earth dist. -3477 Dec 29 j 02:04 8°**Ⅱ**17'14 34.31483 AU -3470 Jul 22 j 04:16 20°**Ⅱ**40′59 morning rise 7°**I**05'50 -3470 Oct 22 j 04:04 22°**I**I34'25 direct -3476 Mar 16 j 10:02 retrograde -3469 Jan 07 j 14:24 21°**I**18'24 12°32'27 evening set -3476 Jun 17 j 07:34 8°II50'13 opposition max. Earth dist. -3476 Jun 26 j 16:13 9°**耳**08'02 36.16294 AU min. Earth dist. -3469 Jan 10 j 16:19 21°**П**13'40 32.60367 AU 19°**Ⅲ**59'04 direct -3469 Mar 29 j 18:19 -3469 Jul 04 j 16:45 -3476 Jun 30 j 04:26 9°II14'46 9°04'15 21°**Ⅲ**58'23 conjunction evening set -3476 Jun 30 j 04:08 9°II14'45 9°04'22 -3469 Jul 10 j 21:58 22°**Ⅱ**11'07 34.44137 AU minimum elong max. Earth dist. -3476 Jul 12 j 22:39 9°Ⅱ39'08 morning rise -3476 Oct 10 j 03:33 11°**Ⅲ**20'49 -3469 Jul 14 j 07:59 22°**Ⅱ**18'09 12°01'36 retrograde conjunction -3469 Jul 14 j 07:35 22°**Ⅲ**18′07 12°01'43 opposition -3476 Dec 26 j 23:12 10°**I**07'23 9°49'37 minimum elong min. Earth dist. -3476 Dec 30 j 02:43 10°**I**02'44 34.06393 AU morning rise -3469 Jul 23 j 21:11 22°**Ⅲ**37'46 direct -3475 Mar 18 j 09:28 8°**Ⅱ**50'55 retrograde -3469 Oct 24 j 12:27 24°**Ⅲ**33'33 evening set -3475 Jun 19 j 18:19 10°**Ⅲ**37′09 opposition -3468 Jan 09 j 19:52 23°**Ⅱ**17'09 12°58'14 max. Earth dist. -3475 Jun 28 j 18:53 10°**I**54'30 35.90973 AU min. Earth dist. -3468 Jan 12 j 21:50 23°**Ⅲ**12'23 32.37369 AU -3468 Mar 30 j 21:32 21°II57'23 direct -3475 Jul 02 j 06:23 11°**Д**01'15 9°30'21 -3468 Jul 06 j 14:07 23°**Ⅲ**59'17 conjunction evening set

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3468 in astronomical counting style is the year 3469 BCE in historical counting style. morning rise max. Earth dist. -3468 Jul 12 j 06:43 24°**П**11'04 34.21028 AU -3462 Aug 01 j 20:34 7°9510'43 -3462 Nov 08 j 13:32 9°927'40 retrograde 24° II 18'01 12°25'22 -3461 Jan 24 j 11:38 8°908'27 -3468 Jul 15 j 14:55 15°39'46 conjunction opposition -3468 Jul 15 j 14:32 24°II17'59 12°25'30 -3461 Jan 27 j 09:24 min. Earth dist. 8°503'46 30.87569 AU minimum elong -3461 Apr 15 j 03:54 -3468 Jul 24 j 13:37 24°**Ⅲ**36'37 morning rise direct 6°9345'36 -3468 Oct 25 j 20:35 retrograde 26°**Ⅲ**34'51 evening set -3461 Jul 29 j 12:54 9°9512'12 9°509'57 32.70576 AU opposition -3467 Jan 11 j 02:18 25°**Ⅱ**18'05 13°23'29 max. Earth dist. -3461 Jul 28 j 12:32 min. Earth dist. -3467 Jan 14 j 03:36 25°**Ⅱ**13'20 32.14776 AU 9°**©**16'48 direct -3467 Apr 02 j 04:17 23°**∏**57'54 conjunction -3461 Jul 31 j 14:16 14°52'30 evening set -3467 Jul 09 j 13:33 26°**Ⅲ**02'31 minimum elong -3461 Jul 31 j 13:53 9°**9**6'45 14°52'38 max. Earth dist. -3467 Jul 14 j 14:10 26°**Ⅱ**13'03 33.98322 AU morning rise -3461 Aug 02 j 14:50 9°9521'18 -3461 Nov 11 j 03:04 retrograde 11°5643'27 -3460 Jan 27 j 00:23 conjunction -3467 Jul 17 j 22:37 26°**Ⅲ**20′06 12°48'35 opposition 10°9523'48 15°59'11 minimum elong -3467 Jul 17 j 22:12 26°**Ⅲ**20′03 12°48'42 min. Earth dist. -3460 Jan 29 j 20:14 10°5519'13 30.68097 AU morning rise -3467 Jul 26 j 05:56 26°**Ⅲ**37'31 direct -3460 Apr 16 j 17:03 9°900'31 retrograde -3467 Oct 28 j 07:31 28°**Ⅲ**38'22 max. Earth dist. -3460 Jul 30 j 02:10 11°526'15 32.51161 AU opposition -3466 Jan 13 j 09:24 27°**Ⅲ**21'12 13°48'07 min. Earth dist. -3466 Jan 16 j 10:00 27°**П**16'28 31.92584 AU conjunction -3460 Aug 02 j 03:11 11°933'05 15°09'52 direct -3466 Apr 04 j 10:31 26°**I**I00′36 minimum elong -3460 Aug 02 j 02:50 11°533'03 15°10'00 evening set -3466 Jul 12 j 15:11 28°**Ⅱ**08'06 retrograde -3460 Nov 12 j 18:17 14°901'05 max. Earth dist. -3466 Jul 17 j 00:10 28°**Ⅲ**17'21 33.75983 AU opposition -3459 Jan 28 j 13:57 12°9541'00 16°17'23 min. Earth dist. -3459 Jan 31 i 08:34 12°936'29 30.49336 AU conjunction -3466 Jul 20 i 07:22 28°**Ⅲ**24'22 13°11'10 direct -3459 Apr 19 i 04:37 11°9517'18 -3466 Jul 20 i 06:59 28°**Ⅱ**24'19 13°11'19 max. Earth dist. -3459 Aug 01 j 19:05 13°544'39 32.32505 AU minimum elong -3466 Jul 27 i 21:48 28°**Ⅱ**40'28 morning rise -3466 Sep 07 j 15:22 0ಂತಾ -3459 Aug 04 j 17:04 13°951'15 15°26'02 conjunction -3466 Oct 30 j 16:08 0°9544'04 -3459 Aug 04 j 16:43 13°951'13 15°26'09 retrograde minimum elong -3459 Nov 15 j 09:15 -3466 Dec 24 j 17:58 30°R ∏ 16°920'32 retrograde -3458 Jan 31 j 04:19 -3465 Jan 15 j 17:44 29°**Ⅲ**26'31 14°12'05 15°**ഇ**00'05 16°34'18 opposition opposition -3465 Jan 18 j 18:33 -3458 Feb 02 j 21:10 min. Earth dist. 29°**Ⅲ**21'45 31.70747 AU min. Earth dist. 14°955'39 30.31350 AU -3465 Apr 06 j 17:11 28°**Ⅲ**05′29 direct -3458 Apr 21 j 19:15 13°936'00 direct -3465 Jul 08 j 05:34 max. Earth dist. -3458 Aug 04 j 10:43 16°504'44 32.14691 AU 0°00 -3465 Jul 15 j 19:19 evening set 0°9516'00 -3465 Jul 19 j 10:03 -3458 Aug 07 j 07:31 max. Earth dist. 0°523'44 33.54020 AU conjunction 16°9511'17 15°40'56 -3458 Aug 07 j 07:12 minimum elong 16°9511'15 15°41'03 -3465 Jul 22 j 16:45 -3458 Nov 18 j 03:04 conjunction 0°930'47 13°33'06 retrograde 18°9541'51 minimum elong -3465 Jul 22 j 16:20 0°930'44 13°33'13 opposition -3457 Feb 02 j 19:33 17°**©**21'02 16°49'47 -3465 Jul 29 j 12:43 0°9545'24 min. Earth dist. -3457 Feb 05 j 10:03 17°516'45 30.14217 AU morning rise -3465 Nov 02 j 02:15 2°951'55 -3457 Apr 24 j 09:48 15°956'37 retrograde direct -3464 Jan 18 j 02:50 1°533'58 14°35'19 max. Earth dist. -3457 Aug 07 j 04:59 18°526'54 31.97753 AU opposition -3464 Jan 21 j 02:14 1°529'15 31.49290 AU min. Earth dist. -3464 Apr 08 j 01:13 0°9512'29 -3457 Aug 09 j 22:45 18°933'12 15°54'27 direct conjunction -3464 Jul 18 j 02:19 2°526'15 -3457 Aug 09 j 22:26 18°**©**33'11 evening set minimum elong 15°54'35 -3464 Jul 20 j 20:58 2°532'15 33.32439 AU -3457 Nov 20 j 18:37 21°9505'02 max. Earth dist. retrograde opposition -3456 Feb 05 j 11:51 19°5643'55 17°03'47 conjunction -3464 Jul 24 i 03:04 2°539'18 13°54'16 min. Earth dist. -3456 Feb 08 i 01:00 19°539'42 29.97949 AU -3464 Jul 24 i 02:41 2°939'16 13°54'24 direct -3456 Apr 26 i 00:31 18°9519'12 minimum elong morning rise -3464 Jul 30 i 02:28 2°952'13 max. Earth dist. -3456 Aug 08 i 22:49 20°950'53 31.81725 AU retrograde -3464 Nov 03 j 12:45 5°901'51 -3463 Jan 19 i 13:00 3°543'29 14°57'44 -3456 Aug 11 j 14:33 20°957'03 16°06'33 opposition conjunction -3463 Jan 22 j 12:43 3°538'43 31.28240 AU -3456 Aug 11 j 14:17 20°957'02 min. Earth dist. minimum elong 16°06'40 -3463 Apr 10 j 07:55 -3456 Nov 22 j 12:58 23°930'06 direct 2°9621'33 retrograde -3463 Jul 21 j 13:10 4°938'50 -3455 Feb 07 j 04:45 evening set opposition 22°908'42 17°16'12 22°504'41 29.82565 AU max. Earth dist. -3463 Jul 23 j 09:24 4°5542'52 33.11304 AU min. Earth dist. -3455 Feb 09 j 14:59 -3455 Apr 28 j 16:18 20°5943'44 direct -3463 Jul 26 j 13:59 4°549'51 14°14'37 max. Earth dist. -3455 Aug 11 j 17:49 23°516'50 31.66574 AU conjunction -3463 Jul 26 j 13:34 4°9549'48 14°14'44 minimum elong -3463 Jul 31 j 13:38 morning rise 5°900'44 conjunction -3455 Aug 14 j 07:04 23°9522'48 16°17'08 -3455 Aug 14 j 06:48 retrograde -3463 Nov 06 j 00:43 7°9513'47 minimum elong 23°9522'47 16°17'15 -3455 Nov 25 j 06:53 opposition -3462 Jan 21 j 23:53 5°**©**55'00 15°19'15 retrograde 25°957'02 min. Earth dist. -3462 Jan 24 j 21:43 5°950'20 31.07642 AU opposition -3454 Feb 09 j 22:40 24°**©**35'23 17°26'59 -3462 Apr 12 j 17:51 4°932'36 min. Earth dist. -3454 Feb 12 j 07:54 24°531'24 29.68022 AU evening set -3462 Jul 25 j 05:58 6°953'55 direct -3454 May 01 j 07:06 23°9510'10 max. Earth dist. -3462 Jul 25 j 21:28 6°955'21 32.90651 AU max. Earth dist. -3454 Aug 14 j 13:31 25°5644'36 31.52291 AU -3462 Jul 29 j 01:45 7°502'22 14°34'03 -3454 Aug 17 j 00:13 25°950'22 16°26'09 conjunction conjunction -3462 Jul 29 j 01:22 7°≌02'20 -3454 Aug 17 j 00:01 25°950'21 16°26'16 minimum elong 14°34'11 minimum elong

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3454 in astronomical counting style is the year 3455 BCE in historical counting style. conjunction -3454 Nov 28 i 01:34 28°\$25'43 -3446 Sep 06 i 09:03 16°**Ω**18′09 16°35'35 retrograde opposition -3453 Feb 12 j 17:12 17°36'04 -3446 Sep 06 j 09:09 16°**Ω**18′09 27°903'49 minimum elong 16°35'40 -3453 Feb 14 j 23:20 -3446 Dec 18 j 20:18 18°**Ω**59'14 min. Earth dist. 27°500'03 29.54305 AU retrograde -3445 Mar 05 j 19:48 -3453 May 04 j 00:46 25°538'24 17°**Ω**35'43 17°40'14 direct opposition max. Earth dist. -3445 Mar 07 j 05:21 17°**Ω**33'21 28.76723 AU -3453 Aug 17 j 09:12 28°514'02 31.38847 AU min. Earth dist. direct -3445 May 24 j 20:27 16°**Ω**09'15 conjunction -3453 Aug 19 j 18:02 28°519'40 16°33'34 max. Earth dist. -3445 Sep 07 j 20:49 18°**Ω**51'39 30.65324 AU minimum elong -3453 Aug 19 j 17:50 28°9519'38 16°33'41 -3453 Oct 04 j 12:30 0° Ω conjunction -3445 Sep 09 j 05:01 18°**Ω**54'56 16°28'13 retrograde -3453 Nov 30 j 20:04 0°**Ω**56′04 minimum elong -3445 Sep 09 j 05:08 18°**Ω**54'56 16°28'18 -3452 Jan 30 j 15:49 30°Rூ retrograde -3445 Dec 21 j 18:55 21°**Ω**36'17 -3444 Mar 07 j 18:47 opposition -3452 Feb 15 j 12:44 29°533'55 17°43'23 opposition 20°**Ω**12'42 17°31'27 min. Earth dist. -3452 Feb 17 j 17:39 29°530'14 29.41413 AU min. Earth dist. -3444 Mar 08 j 23:50 20°Ω10'40 28.71832 AU direct -3452 May 05 j 17:39 28°908'19 direct -3444 May 26 j 19:12 18°**Ω**46'17 -3452 Jul 30 j 23:07 $0^{\circ}\Omega$ max. Earth dist. -3444 Sep 09 j 21:02 21°**Ω**29'09 30.61192 AU max. Earth dist. -3452 Aug 19 j 06:43 0°**Ω**45'11 31.26265 AU conjunction -3444 Sep 11 j 01:03 21°**Ω**32'00 16°18'52 conjunction -3452 Aug 21 j 12:15 0°**Q**50'30 16°39'18 minimum elong -3444 Sep 11 j 01:13 21°**Q**32'01 16°18'56 minimum elong -3452 Aug 21 j 12:07 0°**£**50′30 16°39'24 retrograde -3444 Dec 23 j 16:10 24°**Ω**13'34 retrograde -3452 Dec 02 j 15:33 3°**Ω**27'52 opposition -3443 Mar 10 j 18:02 22°**Ω**49'56 17°20'32 opposition -3451 Feb 17 j 08:50 2°Ω05'30 17°48'52 min. Earth dist. -3443 Mar 11 j 20:37 22°**Ω**48'04 28.68128 AU min. Earth dist. -3451 Feb 19 i 10:44 2°Ω02'01 29.29341 AU direct -3443 May 29 j 17:21 21°Ω23'36 direct -3451 May 08 j 12:55 0°**Ω**39'42 max. Earth dist. -3451 Aug 22 j 03:07 3°Ω17'33 31.14542 AU conjunction -3443 Sep 13 j 21:04 24°**Ω**09'16 16°07'33 -3443 Sep 13 j 21:16 24°**Ω**09'17 16°07'38 minimum elong -3451 Aug 24 j 07:01 3°Ω22'45 16°43'18 -3443 Sep 12 j 20:25 24° **Ω**06'45 30.58279 AU max. Earth dist. conjunction -3451 Aug 24 j 06:54 3°**£**22'44 -3443 Dec 26 j 14:09 16°43'24 retrograde 26°**Ω**50′54 minimum elong -3451 Dec 05 j 11:54 6°Ω00'59 -3442 Mar 13 j 17:06 retrograde opposition 25°**Ω**27'18 17°07'31 -3450 Feb 20 j 05:24 opposition 4°Ω38'23 17°52'29 min. Earth dist. -3442 Mar 14 j 15:17 25°**Ω**25'44 28.65579 AU -3450 Feb 22 j 05:36 4°**Ω**35'00 29.18128 AU -3442 Jun 01 j 16:52 24°**Ω**01'04 min. Earth dist. direct -3450 May 11 j 06:54 3°**Ω**12'25 direct -3442 Sep 16 j 17:07 max. Earth dist. conjunction 26°**Ω**46'34 15°54'20 -3450 Aug 25 j 02:10 5°**Ω**51'21 31.03726 AU -3442 Sep 16 j 17:21 26°**Ω**46'36 15°54'24 minimum elong 5°**Ω**56'11 16°45'31 -3450 Aug 27 j 02:18 -3442 Sep 15 j 19:59 26° **Ω**44'25 30.56522 AU conjunction max. Earth dist. -3450 Aug 27 j 02:14 5°**Ω**56'11 16°45'37 -3442 Dec 29 j 10:16 29°**Ω**28′12 minimum elong retrograde 8°**Ω**35'11 -3450 Dec 08 j 07:47 -3441 Mar 16 j 16:37 28°**Ω**04'37 16°52'27 retrograde opposition 28°**Ω**03'14 28.64149 AU opposition -3449 Feb 23 j 02:41 7°**Ω**12'22 17°54'08 min. Earth dist. -3441 Mar 17 j 12:24 min. Earth dist. -3449 Feb 25 j 00:04 7°**Ω**09'11 29.07793 AU direct -3441 Jun 04 j 14:24 26°**Ω**38'33 -3449 May 14 j 05:00 5°**Ω**46'15 direct max. Earth dist. -3449 Aug 27 j 23:18 8°**Ω**25'57 30.93857 AU conjunction -3441 Sep 19 j 12:55 29°**Ω**23'45 15°39'15 minimum elong -3441 Sep 19 j 13:12 29°**Ω**23'46 15°39'20 -3449 Aug 29 j 21:36 8° Ω30'37 16°45'54 max. Earth dist. -3441 Sep 18 j 19:40 29°**Ω**21'59 30.55895 AU conjunction -3449 Aug 29 j 21:34 8° Ω30'37 16°46'01 -3441 Oct 04 j 10:54 minimum elong -3449 Dec 11 j 05:22 11°**Ω**10′18 -3440 Jan 01 j 07:32 2° m 05'16 retrograde retrograde -3448 Feb 26 j 00:26 9°**Ω**47'16 17°53'47 -3440 Mar 18 j 16:00 0° Mp 41'44 $16^{\circ}35'24$ opposition opposition 9°**Ω**44'16 28.98421 AU 0° m 40'38 28.63786 AU min. Earth dist. -3448 Feb 27 i 19:00 min. Earth dist. -3440 Mar 19 i 07:43 direct -3448 May 16 j 01:37 8°**Ω**21'00 -3440 Apr 13 i 13:20 30°RΩ max. Earth dist. -3448 Aug 29 i 23:18 11°**Ω**01'37 30.85011 AU direct -3440 Jun 06 i 13:58 29° Ω 15'49 -3440 Jul 27 j 21:23 0° m -3448 Aug 31 j 17:21 11°Ω05'52 16°44'24 conjunction conjunction -3448 Aug 31 j 17:22 11°Ω05'52 16°44'30 -3440 Sep 21 j 08:39 2° m 00'37 15°22'22 minimum elong -3448 Dec 13 j 01:24 13°**Ω**46′06 minimum elong -3440 Sep 21 j 08:57 2° m 00'39 15°22'25 retrograde opposition -3447 Feb 27 j 22:34 12°**Ω**22'53 17°51'23 max. Earth dist. -3440 Sep 20 j 18:16 1° m 59'09 30.56338 AU -3439 Jan 03 j 03:58 min. Earth dist. -3447 Mar 01 j 14:27 12°**Ω**20'05 28.90066 AU retrograde 4° m 41'56 -3447 May 18 j 23:06 10°**£**56'31 opposition -3439 Mar 21 j 15:14 3° Mp 18'27 16°16'25 direct 13°**Ω**37'44 30.77266 AU max. Earth dist. -3447 Sep 01 j 21:21 min. Earth dist. -3439 Mar 22 j 04:17 3° Mp 17'32 28.64470 AU direct -3439 Jun 09 j 11:01 1° m 52'43 -3447 Sep 03 j 13:02 13°**Ω**41'45 16°40'58 conjunction -3447 Sep 03 j 13:04 13°**Ω**41'46 -3439 Sep 24 j 04:13 4° Mp 36'59 15°03'43 minimum elong 16°41'05 conjunction -3447 Oct 07 j 00:20 15°€ -3439 Sep 24 j 04:33 minimum elong 4° **m** 37'01 15°03'47 retrograde -3447 Dec 16 j 00:24 16°**£**22′28 max. Earth dist. -3439 Sep 23 j 17:53 4° Mp 35'56 30.57835 AU -3446 Mar 02 j 20:58 14°**Ω**59'04 17°46'53 retrograde -3438 Jan 05 j 22:58 7° m 17'58 opposition -3446 Mar 02 j 07:48 15°RΩ opposition -3438 Mar 24 j 14:20 5° m 54'33 15°55'34 min. Earth dist. -3446 Mar 04 j 09:06 14°**Ω**56'32 28.82819 AU min. Earth dist. -3438 Mar 24 j 23:49 5° m 53'54 28.66148 AU direct -3446 May 21 j 22:04 13°**Ω**32'38 direct -3438 Jun 12 j 11:08 4° m 29'01 15°**Ω** -3438 Sep 24 j 00:27 7° m 05'27 -3446 Aug 03 j 23:59 evening set

max. Earth dist.

-3446 Sep 04 j 21:51

16°**Ω**14'34 30.70680 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -3438 in astronomical counting style is the year 3439 BCE in historical counting style. -3438 Sep 26 i 23:17 7° m 12'39 14°43'23 direct -3431 Jun 30 j 18:29 22° m 12'44 conjunction 7° m) 12'41 -3438 Sep 26 j 23:38 evening set -3431 Oct 04 j 07:16 24° m 26'47 minimum elong 14°43'26 -3438 Sep 26 j 15:18 7° Mp 11'50 30.60343 AU max. Earth dist. -3438 Sep 29 j 22:46 -3431 Oct 13 j 22:57 24° m/y 49'30 11°39'55 7° m 19'54 conjunction morning rise 24° m/49'32 -3437 Jan 08 j 19:10 9° m 53'12 -3431 Oct 13 j 23:22 11°39'56 retrograde minimum elong -3431 Oct 14 j 16:12 8° m/29'52 15°32'56 opposition -3437 Mar 27 j 13:12 max. Earth dist. 24° m 51'11 31.08003 AU -3431 Oct 23 j 15:04 min. Earth dist. -3437 Mar 27 j 19:21 8°M29'26 28.68832 AU morning rise 25° m 12'15 direct -3437 Jun 15 j 08:17 7° Mp 04'31 retrograde -3430 Jan 25 j 22:54 27° m 24'52 12°11'13 evening set -3437 Sep 25 j 06:50 9° m 36'33 opposition -3430 Apr 14 j 15:55 26° Mp 02'37 min. Earth dist. -3430 Apr 13 j 21:56 26° M 03'50 29.17679 AU conjunction -3437 Sep 29 j 18:10 9° mp 47'24 14°21'26 direct -3430 Jul 03 j 12:58 24° m 39'19 -3437 Sep 29 j 18:32 -3430 Oct 06 j 07:20 minimum elong 9° **m** 47'27 14°21'30 evening set 26° My 50'52-3437 Sep 29 j 14:32 max. Earth dist. 9° Mp 47'02 30.63878 AU morning rise -3437 Oct 04 j 06:03 9° m 58'20 conjunction -3430 Oct 16 j 13:36 27° Mp 14'52 11°08'51 retrograde -3436 Jan 11 j 13:22 12° Mp 27'26 minimum elong -3430 Oct 16 j 14:00 27° Mp 14'54 11°08'51 opposition -3436 Mar 29 j 11:45 11°M)04'12 15°08'36 max. Earth dist. -3430 Oct 17 j 10:17 27° m 16'53 31.19259 AU morning rise min. Earth dist. -3436 Mar 29 j 14:54 11° m 03'58 28.72519 AU -3430 Oct 26 j 20:13 27° m/38'54 direct -3436 Jun 17 j 06:57 9° m 39'04 retrograde -3429 Jan 28 j 14:17 29° m 49'17 evening set -3436 Sep 25 j 21:06 12° m 07'28 opposition -3429 Apr 17 j 10:33 28° m/27'18 11°37'22 min. Earth dist. -3429 Apr 16 j 12:30 28° m 28'47 29.29043 AU conjunction -3436 Oct 01 j 12:16 12° m) 21'05 13°57'56 direct -3429 Jul 06 j 09:16 27° My 04'25minimum elong -3436 Oct 01 j 12:39 12° m 21'08 13°57'58 evening set -3429 Oct 08 i 07:55 29° m 13'35 max. Earth dist. -3436 Oct 01 j 11:01 12° m 20'58 30.68449 AU morning rise -3436 Oct 07 i 04:01 12° m 34'46 conjunction -3429 Oct 19 i 03:39 29° m 38'43 10°36'53 retrograde -3435 Jan 13 i 09:07 15° m 00'31 -3429 Oct 19 i 04:04 29° m 38'46 10°36'54 minimum elong -3435 Apr 01 j 09:44 13° m 37'21 max. Earth dist. -3429 Oct 20 j 03:12 29° mp 41'00 31.31494 AU opposition 14°42'37 -3435 Apr 01 j 08:55 13° m/ 37'24 28.77253 AU -3429 Oct 28 j 07:26 0∘**⊽** min. Earth dist. -3435 Jun 20 j 04:58 -3429 Oct 29 j 23:55 0°**£**03'54 12° m 12'27 morning rise direct -3435 Sep 27 j 15:12 -3428 Jan 31 j 05:31 14° m 37'37 2° 12'08 evening set retrograde -3428 Apr 18 j 03:50 min. Earth dist. 0°**2**52'06 29.41382 AU -3435 Oct 04 j 06:03 14° m 53'32 13°32'58 -3428 Apr 19 j 04:36 conjunction 0°**2**50'26 11°02'38 opposition -3435 Oct 04 j 06:27 -3428 May 22 j 20:16 14° m 53'35 13°33'00 30°R, Mp minimum elong 29° m 27'58 -3435 Oct 04 j 09:24 14° m 53'53 30.74086 AU max. Earth dist. -3428 Jul 08 j 02:21 direct -3435 Oct 10 j 21:21 15°Mp09'31 -3428 Aug 21 j 08:08 morning rise 0∘⊽ -3434 Jan 16 j 02:09 17° m 32'16 -3428 Oct 09 j 08:50 retrograde evening set 1°**2**34'50 -3434 Apr 04 j 07:15 16° Mp 09'13 14°15'05 opposition 16° Mp 09'27 28.83060 AU -3428 Oct 20 j 17:07 2°**2**00'59 10°04'07 min. Earth dist. -3434 Apr 04 j 03:45 conjunction direct -3434 Jun 23 j 03:06 14° m 44'34 minimum elong -3428 Oct 20 j 17:30 2°**2**01'01 10°04'07 -3434 Sep 29 j 11:30 17° Mp 06'44 max. Earth dist. -3428 Oct 21 j 20:14 2°**2**03'36 31.44653 AU evening set morning rise -3428 Nov 01 j 01:44 2°**£**27'11 conjunction -3434 Oct 06 j 23:07 17° m/24'39 13°06'35 retrograde -3427 Feb 01 j 17:30 4°**£**33'22 -3434 Oct 06 j 23:31 17° m) 24'41 -3427 Apr 21 j 21:52 3°**2**11'57 10°27'06 minimum elong 13°06'36 opposition -3434 Oct 07 j 05:11 17° m/25'15 30.80845 AU min. Earth dist. -3427 Apr 20 j 18:05 3°**2**13'49 29.54592 AU max. Earth dist. -3434 Oct 14 j 11:16 17° Mp 42'38 -3427 Jul 10 j 21:06 1°**-**49'53 morning rise direct -3433 Jan 18 j 20:55 20° m 02'37 -3427 Oct 11 j 10:15 3°**£**54'32 retrograde evening set 18° m 39'42 13°46'04 opposition -3433 Apr 07 j 04:17 -3427 Oct 23 i 05:52 min. Earth dist. -3433 Apr 06 j 20:03 18° m 40'16 28.90005 AU conjunction 4°**£**21'35 9°30'40 direct -3433 Jun 25 i 23:55 17° m 15'21 minimum elong -3427 Oct 23 i 06:15 4°**£**21'37 9°30'40 evening set -3433 Oct 01 j 09:02 19° m 34'40 max. Earth dist. -3427 Oct 24 i 10:50 4°**2**24'22 31.58634 AU -3427 Nov 04 i 02:09 4°**£**48'41 morning rise -3433 Oct 09 i 15:37 19° m 54'22 12°38'54 retrograde -3426 Feb 04 i 06:17 6°**£**52'53 conjunction -3433 Oct 09 i 16:03 19° m 54'24 12°38'55 -3426 Apr 23 j 07:39 5°**2**33'48 29.68626 AU minimum elong min. Earth dist. -3433 Oct 10 j 02:09 19° m 55'24 30.88749 AU -3426 Apr 24 j 14:25 5°**2**31'45 9°50'54 max. Earth dist. opposition 4°**₽**10'06 -3426 Jul 13 j 12:27 morning rise -3433 Oct 17 j 22:37 20° m 14'07 direct retrograde -3432 Jan 21 j 13:52 22° m 31'31 evening set -3426 Oct 13 j 11:48 6°**£**12'35 21° m 08'47 13°15'41 opposition -3432 Apr 09 j 00:55 min. Earth dist. -3432 Apr 08 j 14:01 21° m 09'32 28.98101 AU conjunction -3426 Oct 25 j 18:08 6°**£**40'26 8°56'39 -3432 Jun 27 j 21:20 19° m 44'45 -3426 Oct 25 j 18:29 direct minimum elong 6°**£**40'28 8°56'37 -3432 Oct 02 j 07:51 22°Mp01'21 -3426 Oct 27 j 02:43 evening set max. Earth dist. 6°**₽**43'32 31.73393 AU morning rise -3426 Nov 07 j 00:49 7°**♀**08'20 -3432 Oct 11 j 07:35 conjunction 22°m/22'39 12°09'58 retrograde -3425 Feb 06 j 17:09 9°**£**10'37 minimum elong -3432 Oct 11 j 07:59 22° m 22'41 12°09'59 min. Earth dist. -3425 Apr 25 j 21:31 7°**♀**51'56 29.83410 AU max. Earth dist. -3432 Oct 11 j 21:06 22° m 23'59 30.97820 AU opposition -3425 Apr 27 j 06:24 7°**£**49'46 9°14'09 morning rise -3432 Oct 20 j 07:46 22° m 43'59 direct -3425 Jul 16 j 04:41 6°**£**28'30 retrograde -3431 Jan 23 j 07:55 24° m 58'55 evening set -3425 Oct 15 j 13:35 8°**£**28'54 -3431 Apr 11 j 20:34 23° M 36'25 opposition 12°44'01

-3431 Apr 11 j 05:04

min. Earth dist.

23°M 37'28 29.07341 AU

conjunction

-3425 Oct 28 j 05:25

8°**2**57'26 8°22'08

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 35 Attention, astronomical year style is used: The year -3425 in astronomical counting style is the year 3426 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ie year -3425 i	n astronomical co	unting style is the year	3426 BCE in historical c	ounting style.	
minimum elong	-3425 Oct 28 j 05:46	8° ≏ 57'28	8°22'07	evening set	-3418 Oct 28 j 02:21	23° ≏ 30'51	
max. Earth dist.	-3425 Oct 29 j 15:34	9° ჲ 00'40	31.88874 AU				
morning rise	-3425 Nov 09 j 21:59	9° ჲ 26'02		conjunction	-3418 Nov 11 j 16:10	24° ≏ 01'51	4°13'47
retrograde	-3424 Feb 09 j 05:24	11° ≏ 26′28		minimum elong	-3418 Nov 11 j 16:20	24° ≏ 01'52	4°13'44
min. Earth dist.	-3424 Apr 27 j 09:10		29.98926 AU	max. Earth dist.	-3418 Nov 13 j 20:03	24° ≏ 06′29	33.17538 AU
opposition	-3424 Apr 28 j 21:32		8°36'56	morning rise	-3418 Nov 26 j 07:17	24° ≏ 32'57	
direct	-3424 Jul 17 j 19:36	8° ≏ 44'59		retrograde	-3417 Feb 23 j 15:50	26° ₽ 22'33	
evening set	-3424 Oct 16 j 15:23	10° ≏ 43'23		min. Earth dist.	-3417 May 13 j 02:17		31.28500 AU
				opposition	-3417 May 15 j 08:38	25° ≏ 04'03	4°10'57
conjunction	-3424 Oct 29 j 16:13	11° ≏ 12'31		direct	-3417 Aug 03 j 11:14	23° ≏ 46′00	
minimum elong	-3424 Oct 29 j 16:32	11° ≏ 12'33		evening set	-3417 Oct 30 j 03:57	25° ≏ 32'43	
max. Earth dist.	-3424 Oct 31 j 05:50		32.05049 AU				
morning rise	-3424 Nov 11 j 17:36	11° ≏ 41'42		conjunction	-3417 Nov 13 j 21:46	26° ≏ 03'48	
retrograde	-3423 Feb 10 j 15:08	13° ≏ 40'21		minimum elong	-3417 Nov 13 j 21:55	26° ჲ 03'49	
min. Earth dist.	-3423 Apr 29 j 21:51		30.15151 AU	max. Earth dist.	-3417 Nov 16 j 04:54		33.38764 AU
opposition	-3423 May 01 j 11:45		7°59'22	morning rise	-3417 Nov 28 j 16:38	26° ≏ 34'59	
direct	-3423 Jul 20 j 10:25	10° ჲ 59'30		retrograde	-3416 Feb 25 j 20:08	28° ≏ 23'22	
evening set	-3423 Oct 18 j 17:19	12° ≏ 55'58		min. Earth dist.	-3416 May 14 j 09:50		31.49863 AU
				opposition	-3416 May 16 j 17:31	27° ≏ 05'14	3°33'07
conjunction	-3423 Nov 01 j 02:05	13° ≏ 25'36		direct	-3416 Aug 04 j 20:34	25° ≏ 47'40	
minimum elong	-3423 Nov 01 j 02:23	13° ≏ 25'37		evening set	-3416 Oct 31 j 05:50	27° ≏ 33'03	
max. Earth dist.	-3423 Nov 02 j 17:23		32.21931 AU				
morning rise	-3423 Nov 14 j 11:37	13° ≏ 55'18		conjunction	-3416 Nov 15 j 02:43	28° ≏ 04'09	3°02'52
retrograde	-3422 Feb 13 j 02:00	15° ≏ 52'13		minimum elong	-3416 Nov 15 j 02:50	28° ≏ 04'09	3°02'48
min. Earth dist.	-3422 May 02 j 07:36		30.32111 AU	max. Earth dist.	-3416 Nov 17 j 10:46		33.60532 AU
opposition	-3422 May 04 j 01:10		7°21'31	morning rise	-3416 Nov 30 j 00:59	28° △ 35'22	
direct	-3422 Jul 22 j 23:58	13° № 12'00		_	-3415 Jan 19 j 09:14	0° ™	
evening set	-3422 Oct 20 j 19:03	15° ≏ 06'37		retrograde	-3415 Feb 27 j 02:09	0°M22'36	
					-3415 Apr 08 j 05:41	30° ₹ Ω	
conjunction	-3422 Nov 03 j 11:06	15° ≏ 36'40	6°36'31	min. Earth dist.	-3415 May 16 j 14:52		31.71756 AU
minimum elong	-3422 Nov 03 j 11:22	15° 2 36'41		opposition	-3415 May 19 j 01:24	29° Ω 04'50	2°55'33
max. Earth dist.	-3422 Nov 05 j 05:34		32.39532 AU	direct	-3415 Aug 07 j 03:40	27° Ω 47'42	
morning rise	-3422 Nov 17 j 03:57	16° 2 06'47		evening set	-3415 Nov 02 j 07:36	29° £ 31'51	
retrograde	-3421 Feb 15 j 10:51	18° ₾ 02'05	20 10012 177		-3415 Nov 15 j 21:38	0°M₊	
min. Earth dist.	-3421 May 04 j 18:41		30.49843 AU		241531 17:07.00	0000 00155	2027145
opposition	-3421 May 06 j 13:59	16° £ 42'16	6°43'28	conjunction	-3415 Nov 17 j 07:09	0°M02'55	
direct	-3421 Jul 25 j 13:14	15° £ 22'30		minimum elong	-3415 Nov 17 j 07:15	0°M02'56	
evening set	-3421 Oct 22 j 20:54	17° ≙ 15′21		max. Earth dist.	-3415 Nov 19 j 17:53		33.82752 AU
. ,.	242131 05:10.20	170 0 45144	600015.4	morning rise	-3415 Dec 02 j 08:00	0°M34'06	
conjunction	-3421 Nov 05 j 19:29	17° Ω 45'44		retrograde	-3414 Mar 01 j 06:44	2°M20'16	21.04006.411
minimum elong	-3421 Nov 05 j 19:45	17° Ω 45'46	6°00'52	min. Earth dist.	-3414 May 18 j 21:43		31.94086 AU
max. Earth dist.	-3421 Nov 07 j 16:28		32.57909 AU	opposition	-3414 May 21 j 08:55	1°M02'52	2°18'18
morning rise	-3421 Nov 19 j 18:52	18° ♀ 16'12 20° ♀ 09'57		3:4	-3414 Jul 09 j 14:56	30° ₹죠 29° 죠 46'11	
retrograde	-3420 Feb 17 j 19:55		20 69267 ATT	direct	-3414 Aug 09 j 10:32		
min. Earth dist.	-3420 May 06 j 02:57		30.68367 AU		-3414 Sep 08 j 12:04	0°M	
opposition	-3420 May 08 j 01:44	18° ♀ 50'25	0-05-18	evening set	-3414 Nov 04 j 09:17	1°M29'08	
direct	-3420 Jul 27 j 03:19	17° £ 31'03		amiumatian	2414 Nov. 10 ; 10:50	20M 00107	1953156
evening set	-3420 Oct 23 j 22:45	19° £ 22'15		conjunction minimum elong	-3414 Nov 19 j 10:50 -3414 Nov 19 j 10:54	2°M00'07 2°M00'07	1°52'56 1°52'52
agniumation	2420 Nov. 07 : 02:02	100 0 52154	5025!11	max. Earth dist.			
conjunction minimum elong	-3420 Nov 07 j 03:03 -3420 Nov 07 j 03:17	19° £ 52'54 19° £ 52'55			-3414 Nov 21 j 22:27	2°M31'14	34.05356 AU
max. Earth dist.	-3420 Nov 07 j 03.17 -3420 Nov 09 j 02:26		3 23 08 32.77049 AU	morning rise retrograde	-3414 Dec 04 j 13:48 -3413 Mar 03 j 12:13	4°M16'21	
morning rise		19 ≥ 37 12 20° ₽ 23'39	32.77049 AU	min. Earth dist.			32.16777 AU
-					2412 May 21 i 01.52		32.10/// AU
retrograde	-3420 Nov 21 j 08:26				-3413 May 21 j 01:52		1041125
min Forth dist	-3419 Feb 19 j 04:17	22° ≙ 15'55	20 97695 ATT	opposition	-3413 May 23 j 15:36	2° ™ 59'18	1°41'25
min. Earth dist.	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46	22° £ 15'55 20° £ 59'51	30.87685 AU	opposition direct	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26	2°M59'18 1°M43'02	1°41'25
opposition	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50	22° £ 15'55 20° £ 59'51 20° £ 56'43	30.87685 AU 5°27'07	opposition	-3413 May 23 j 15:36	2° ™ 59'18	1°41'25
opposition direct	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23	22° Ω 15'55 20° Ω 59'51 20° Ω 56'43 19° Ω 37'46		opposition direct evening set	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03	2°M59'18 1°M43'02 3°M24'52	
opposition	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50	22° £ 15'55 20° £ 59'51 20° £ 56'43		opposition direct evening set	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02	2°M.59'18 1°M.43'02 3°M.24'52 3°M.55'44	1°18'27
opposition direct evening set	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28	22° Ω 15'55 20° Ω 59'51 20° Ω 56'43 19° Ω 37'46 21° Ω 27'23	5°27'07	opposition direct evening set conjunction minimum elong	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44	1°18'27 1°18'24
opposition direct evening set	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01	22° \Omega 15'55 20° \Omega 59'51 20° \Omega 56'43 19° \Omega 37'46 21° \Omega 27'23 21° \Omega 58'14	5°27'07 4°49'27	opposition direct evening set conjunction minimum elong max. Earth dist.	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58	1°18'27
opposition direct evening set conjunction minimum elong	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13	22° \$\Omega\$15'55 20° \$\Omega\$59'51 20° \$\Omega\$56'43 19° \$\Omega\$37'46 21° \$\Omega\$27'23 21° \$\Omega\$58'14 21° \$\Omega\$58'16	5°27'07 4°49'27 4°49'25	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58 4°M26'43	1°18'27 1°18'24
opposition direct evening set conjunction minimum elong max. Earth dist.	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13 -3419 Nov 11 j 12:24	22° \overline{\Omega}15'55 20° \overline{\Omega}59'51 20° \overline{\Omega}56'43 19° \overline{\Omega}37'46 21° \overline{\Omega}27'23 21° \overline{\Omega}58'14 21° \overline{\Omega}58'16 22° \overline{\Omega}02'47	5°27'07 4°49'27	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38 -3412 Mar 04 j 15:38	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58 4°M26'43 6°M10'51	1°18'27 1°18'24 34.28257 AU
opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13 -3419 Nov 11 j 12:24 -3419 Nov 23 j 20:25	22° \Omega 15'55 20° \Omega 59'51 20° \Omega 56'43 19° \Omega 37'46 21° \Omega 27'23 21° \Omega 58'14 21° \Omega 58'16 22° \Omega 02'47 22° \Omega 29'12	5°27'07 4°49'27 4°49'25	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38 -3412 Mar 04 j 15:38 -3412 May 22 j 07:17	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58 4°M26'43 6°M10'51 4°M57'57	1°18'27 1°18'24 34.28257 AU 32.39779 AU
opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13 -3419 Nov 11 j 12:24 -3419 Nov 23 j 20:25 -3418 Feb 21 j 09:25	22° \Omega 15'55 20° \Omega 59'51 20° \Omega 56'43 19° \Omega 37'46 21° \Omega 27'23 21° \Omega 58'14 21° \Omega 58'16 22° \Omega 02'47 22° \Omega 29'12 24° \Omega 20'05	5°27'07 4°49'27 4°49'25 32.96946 AU	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38 -3412 Mar 04 j 15:38 -3412 May 22 j 07:17 -3412 May 24 j 21:37	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58 4°M26'43 6°M10'51 4°M57'57	1°18'27 1°18'24 34.28257 AU
opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13 -3419 Nov 11 j 12:24 -3419 Nov 23 j 20:25 -3418 Feb 21 j 09:25 -3418 May 10 j 19:25	22° \Omega 15'55 20° \Omega 59'51 20° \Omega 56'43 19° \Omega 37'46 21° \Omega 27'23 21° \Omega 58'14 21° \Omega 58'16 22° \Omega 02'47 22° \Omega 29'12 24° \Omega 20'05 23° \Omega 04'31	5°27'07 4°49'27 4°49'25 32.96946 AU 31.07739 AU	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38 -3412 Mar 04 j 15:38 -3412 May 22 j 07:17 -3412 May 24 j 21:37 -3412 Aug 12 j 22:31	2°M.59'18 1°M.43'02 3°M.24'52 3°M.55'44 3°M.55'44 4°M.00'58 4°M.26'43 6°M.10'51 4°M.57'57 4°M.54'08 3°M.38'16	1°18'27 1°18'24 34.28257 AU 32.39779 AU
opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3419 Feb 19 j 04:17 -3419 May 08 j 11:46 -3419 May 10 j 12:50 -3419 Jul 29 j 14:23 -3419 Oct 26 j 00:28 -3419 Nov 09 j 10:01 -3419 Nov 09 j 10:13 -3419 Nov 11 j 12:24 -3419 Nov 23 j 20:25 -3418 Feb 21 j 09:25	22° \Omega 15'55 20° \Omega 59'51 20° \Omega 56'43 19° \Omega 37'46 21° \Omega 27'23 21° \Omega 58'14 21° \Omega 58'16 22° \Omega 02'47 22° \Omega 29'12 24° \Omega 20'05	5°27'07 4°49'27 4°49'25 32.96946 AU	opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3413 May 23 j 15:36 -3413 Aug 11 j 16:26 -3413 Nov 06 j 11:03 -3413 Nov 21 j 14:02 -3413 Nov 21 j 14:05 -3413 Nov 24 j 03:19 -3413 Dec 06 j 18:38 -3412 Mar 04 j 15:38 -3412 May 22 j 07:17 -3412 May 24 j 21:37	2°M59'18 1°M43'02 3°M24'52 3°M55'44 3°M55'44 4°M00'58 4°M26'43 6°M10'51 4°M57'57	1°18'27 1°18'24 34.28257 AU 32.39779 AU

Planetary Phenomena of Pluto from -3900 through -3398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 36

Attention, astronomical year style is used: The year -3412 in astronomical counting style is the year 3413 BCE in historical counting style.

conjunction -3412 Nov 22 j 16:41 5°M.49'42 0°44'21 conjunction -3406 Dec 03 j 18:35 16°M.39'16 -2°30'31 minimum elong -3412 Nov 22 j 16:43 5°M.49'42 0°44'17 minimum elong -3406 Dec 03 j 18:30 16°M.39'16 2°30'36

Attention, astronom	ical year style is used: Th	e year -3412 i	n astronomical co	unting style is the year	r 3413 BCE in historical c	ounting style.	
conjunction	-3412 Nov 22 j 16:41	5°M49′42	0°44'21	conjunction	-3406 Dec 03 j 18:35	16°M39'16	-2°30'31
minimum elong	-3412 Nov 22 j 16:43	5° M 49'42	0°44'17	minimum elong	-3406 Dec 03 j 18:30	16° M ₊39'16	2°30'36
max. Earth dist.	-3412 Nov 25 j 07:27	5°M55'02	34.51433 AU	max. Earth dist.	-3406 Dec 06 j 17:46	16°ML45'02	35.96567 AU
morning rise	-3412 Dec 07 j 22:14	6°M20'32		morning rise	-3406 Dec 18 j 20:29	17° M 08'21	
retrograde	-3411 Mar 06 j 18:02	8°M03'42		retrograde	-3405 Mar 17 j 18:13	18° M 46'56	
min. Earth dist.	-3411 May 24 j 10:44	6°M51'13	32.63040 AU	min. Earth dist.	-3405 Jun 04 j 19:46	17° M 36'39	34.09357 AU
opposition	-3411 May 27 j 02:47	6° M 47′18		opposition	-3405 Jun 07 j 19:56	17°M32'23	
direct	-3411 Aug 15 j 06:29	5° M ₊31'49		direct	-3405 Aug 27 j 00:48	16°M19'08	
evening set	-3411 Nov 09 j 14:01	7°M11'32		evening set	-3405 Nov 20 j 19:15	17°M53'50	
	v				·		
conjunction	-3411 Nov 24 j 18:25	7°M42'01	0°10'41	conjunction	-3405 Dec 05 j 17:06	18°M22'22	-3°01'07
minimum elong	-3411 Nov 24 j 18:25	7° M .42'01	0°10'37	minimum elong	-3405 Dec 05 j 17:00	18° M 22'22	3°01'11
behind sun begin	-3411 Nov 24 j 13:26	7° M 41'37		max. Earth dist.	-3405 Dec 08 j 17:33	18° M 28'12	36.21827 AU
behind sun end	-3411 Nov 24 j 23:24	7° M 42'25		morning rise	-3405 Dec 20 j 16:47	18° M 51'04	
max. Earth dist.	-3411 Nov 27 j 09:57	7° M 47'22	34.74845 AU	retrograde	-3404 Mar 18 j 17:43	20°M29'03	
morning rise	-3411 Dec 10 j 00:38	8°M12'38		min. Earth dist.	-3404 Jun 05 j 18:52	19° M ₊19'10	34.34811 AU
retrograde	-3410 Mar 08 j 20:32	9°M54'53		opposition	-3404 Jun 08 j 20:26	19° M .14'51	
desc. node	-3410 Mar 21 j 18:52	9° M 52′28		direct	-3404 Aug 28 j 01:45	18° M .01'58	
min. Earth dist.	-3410 May 26 j 13:47		32.86589 AU	evening set	-3404 Nov 21 j 19:49	19°M36'04	
opposition	-3410 May 29 j 07:20	8°M38'48		evening sec	5.0.11.0. 21 j 15.1.5	19 110000.	
direct	-3410 Aug 17 j 11:38	7°M23'41	0 00 50	conjunction	-3404 Dec 06 j 14:59	20°MJ04'11	-3°31'08
evening set	-3410 Nov 11 j 15:12	9°M02'25		minimum elong	-3404 Dec 06 j 14:52	20°ML04'10	
evening sec	3 110 110 1 11 j 13.12	y 11002 23		max. Earth dist.	-3404 Dec 09 j 15:55		36.47266 AU
conjunction	-3410 Nov 26 j 19:44	9° ™ 32'38	-0°22'37	morning rise	-3404 Dec 21 j 12:19	20°M32'28	30.47200710
minimum elong	-3410 Nov 26 j 19:43	9°M32'38		retrograde	-3403 Mar 20 j 16:24	20°M09'55	
max. Earth dist.	-3410 Nov 29 j 13:35		34.98542 AU	min. Earth dist.	-3403 Jun 07 j 18:04		34.60440 AU
morning rise	-3410 Dec 12 j 01:51	10°M03'01	34.96342 AU	opposition	-3403 Jun 10 j 20:35	20°M56'03	
retrograde	-3409 Mar 10 j 19:02	11°M44'25		direct	-3403 Aug 30 j 01:16	19°M43'34	-3 39 13
min. Earth dist.	-3409 May 28 j 16:44		33.10447 AU	evening set	-3403 Nov 23 j 20:05	21°M17'05	
	-3409 May 31 j 11:12	10°M28'37		evening set	-3403 NOV 23 J 20.03	21 1161/03	
opposition direct	, ,	9°M13'52	-0 41 30	conjunction	-3403 Dec 08 j 12:30	21° M .44'46	4900!24
	-3409 Aug 19 j 17:26	10°M51'40		3	•	21°M44'45	4°00'39
evening set	-3409 Nov 13 j 16:18	10 11631 40		minimum elong	-3403 Dec 08 j 12:22		
	2400 N	110 M 21126	0055122	max. Earth dist.	-3403 Dec 11 j 15:11		36.72820 AU
conjunction	-3409 Nov 28 j 20:13	11°M21'36		morning rise	-3403 Dec 23 j 06:44	22°M12'37	
minimum elong	-3409 Nov 28 j 20:11	11°M21'36		retrograde	-3402 Mar 22 j 11:34	23°M49'35	24.06142.411
max. Earth dist.	-3409 Dec 01 j 14:31		35.22549 AU	min. Earth dist.	-3402 Jun 09 j 17:27		34.86143 AU
morning rise	-3409 Dec 14 j 02:04	11°M51'42		opposition	-3402 Jun 12 j 20:09	22°M36'03	-4°29'55
retrograde	-3408 Mar 11 j 18:49	13°M32'18	22 24660 444	direct	-3402 Sep 01 j 03:27	21°M23'56	
min. Earth dist.	-3408 May 29 j 17:32		33.34660 AU	evening set	-3402 Nov 25 j 20:32	22°11656'55	
opposition	-3408 Jun 01 j 14:19	12°M16'48	-1°16'03		2402 D 10:00 22	220M 24100	402012.4
direct	-3408 Aug 20 j 20:44	11°M02'25		conjunction	-3402 Dec 10 j 09:33	23°M24'09	
evening set	-3408 Nov 14 j 17:15	12°M39'21		minimum elong	-3402 Dec 10 j 09:24	23°M24'08	4°29'30
	240031 20:20.20	1207 00170	1005105	max. Earth dist.	-3402 Dec 13 j 11:46		36.98408 AU
conjunction	-3408 Nov 29 j 20:20	13°M08'59		morning rise	-3402 Dec 25 j 00:41	23°M51'33	
minimum elong	-3408 Nov 29 j 20:17	13°M08'58		retrograde	-3401 Mar 24 j 08:50	25°M28'03	
max. Earth dist.	-3408 Dec 02 j 17:07		35.46890 AU	min. Earth dist.	-3401 Jun 11 j 15:08		35.11870 AU
morning rise	-3408 Dec 15 j 01:12	13°M38'46		opposition	-3401 Jun 14 j 19:12	24°M14'51	-4°59'5'/
	-3407 Feb 05 j 12:47	15°M		direct	-3401 Sep 03 j 02:33	23°M03'06	
retrograde	-3407 Mar 13 j 17:30	15°M18'38		evening set	-3401 Nov 27 j 20:45	24°M35'34	
	-3407 Apr 20 j 03:54	15°RM					
min. Earth dist.	-3407 May 31 j 19:31		33.59225 AU	conjunction	-3401 Dec 12 j 06:16	25°M02'20	
opposition	-3407 Jun 03 j 16:43	14°M03'26	-1°49'56	minimum elong	-3401 Dec 12 j 06:07	25°M02'19	
direct	-3407 Aug 22 j 23:12	12°M49'25		max. Earth dist.	-3401 Dec 15 j 09:54		37.23960 AU
evening set	-3407 Nov 16 j 18:06	14°M25'33		morning rise	-3401 Dec 26 j 17:46	25°M29'15	
				retrograde	-3400 Mar 25 j 04:26	27°M05'22	
conjunction	-3407 Dec 01 j 19:48	14°M54'50	-1°59'21	min. Earth dist.	-3400 Jun 12 j 14:28	25°M56'48	35.37535 AU
minimum elong	-3407 Dec 01 j 19:44	14°M54'50	1°59'25	opposition	-3400 Jun 15 j 17:48	25°M52'27	-5°29'20
	-3407 Dec 04 j 10:59	15° M ₊		direct	-3400 Sep 04 j 01:45	24°M41'03	
max. Earth dist.	-3407 Dec 04 j 17:14	15°M00'31	35.71577 AU	evening set	-3400 Nov 28 j 20:57	26°M13'02	
morning rise	-3407 Dec 16 j 23:22	15°M24'17					
retrograde	-3406 Mar 15 j 17:51	17°M03'28		conjunction	-3400 Dec 13 j 02:34	26°M39'19	-5°25'14
min. Earth dist.	-3406 Jun 02 j 18:49	15°M52'52	33.84136 AU	minimum elong	-3400 Dec 13 j 02:24	26°M39'18	5°25'21
opposition	-3406 Jun 05 j 18:31	15°M48'36	-2°23'12	max. Earth dist.	-3400 Dec 16 j 05:50		37.49427 AU
	-3406 Jul 12 j 20:07	15°RM		morning rise	-3400 Dec 27 j 10:08	27°M05'45	
direct	-3406 Aug 25 j 00:22	14°M34'58		retrograde	-3399 Mar 27 j 01:19	28° M 41'27	
	-3406 Oct 05 j 15:56	15° ™		min. Earth dist.	-3399 Jun 14 j 10:59	27°M33'14	35.63105 AU
evening set	-3406 Nov 18 i 18:42	16°M 10'21		opposition	-3300 Jun 17 i 15:36	27°M 28'50	5058103

opposition

-3399 Jun 17 j 15:36 27°M28'50 -5°58'03

evening set

-3406 Nov 18 j 18:42 16°M10'21

Attention, astronomical year style is used: The year -3399 in astronomical counting style is the year 3400 BCE in historical counting style.

direct $-3399 \text{ Sep } 05 \text{ j } 23:11 \quad 26^{\circ}\text{IL}17'44$ evening set $-3399 \text{ Nov } 30 \text{ j } 20:58 \quad 27^{\circ}\text{IL}49'18$

 conjunction
 -3399 Dec 14 j 22:17
 28° M 15'04
 -5°52'15

 minimum elong
 -3399 Dec 14 j 22:07
 28° M 15'03
 5°52'20

 max. Earth dist.
 -3399 Dec 18 j 02:09
 28° M 20'54
 37.74785 AU

morning rise -3399 Dec 29 j 01:43 28° ML41'00