Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10900 in astronomical counting style is the year 10901 BCE in historical counting style. -10900 Mar 06 j 21:36 11°**⋜**00'02 morning rise -10894 Apr 14 i 05:13 18°₹41'58 evening set max. Earth dist. -10894 Jul 08 j 02:13 19°る57'43 retrograde -10894 Sep 25 j 20:57 18°₹54'11 -3°36'53 opposition -10900 Mar 21 j 22:09 11°る22'13 -5°35'10 -10894 Sep 28 j 13:36 18°중50'48 41.28812 AU min. Earth dist. conjunction -10900 Mar 21 j 22:18 11°る22'13 5°35'46 -10894 Dec 17 j 16:45 17°정48'18 minimum elong direct -10900 Apr 05 j 21:00 11°₹44'18 -10893 Mar 15 j 09:02 19°る06'02 morning rise evening set -10900 Jun 30 j 09:39 12°₹58'40 max. Earth dist. -10893 Mar 28 j 03:47 19°**궁**25'33 43.17290 AU retrograde -10900 Sep 18 j 13:23 11°₹56'14 -5°41'11 opposition -10893 Mar 31 j 03:18 19°₹30'09 -3°16'16 min. Earth dist. -10900 Sep 20 j 23:29 11°중53'15 42.57754 AU conjunction direct -10900 Dec 10 j 10:28 10°₹51'43 minimum elong -10893 Mar 31 j 03:24 19°₹30'09 3°16'50 evening set -10899 Mar 08 j 04:49 12°**⋜**07'31 morning rise -10893 Apr 15 j 18:59 19°る54'08 -10899 Mar 20 j 14:01 12°₹25'50 44.46435 AU -10893 Jul 09 j 15:12 21°**궁**10'13 max. Earth dist. retrograde -10893 Sep 27 j 07:18 20° ₹ 06'28 -3°15'01 opposition conjunction -10899 Mar 23 j 08:24 12°₹29'58 -5°16'14 min. Earth dist. -10893 Sep 30 j 00:22 20°중03'03 41.06322 AU minimum elong -10899 Mar 23 j 08:32 12°₹29'59 5°16'50 direct -10893 Dec 19j01:30 19°る00'20 morning rise -10899 Apr 07 j 10:12 12°**궁**52'21 evening set -10892 Mar 15 j 19:24 20° **경**18'29 retrograde -10899 Jul 01 j 21:06 14°**⋜**06'53 max. Earth dist. -10892 Mar 28 j 13:19 20°중38'04 42.94676 AU opposition -10899 Sep 19 j 21:58 13° ₹ 04'14 -5°21'17 min. Earth dist. -10899 Sep 22 j 09:53 13°る01'09 42.36799 AU conjunction -10892 Mar 31 j 15:17 20° ₹42'51 -2°55'12 direct -10899 Dec 11 j 16:20 11°る59'29 minimum elong -10892 Mar 31 j 15:22 20°₹42'51 2°55'47 evening set -10898 Mar 09 j 12:23 13°る15'31 morning rise -10892 Apr 16 j 08:44 21°る07'05 max. Earth dist. -10898 Mar 22 j 00:38 13°る34'07 44.25477 AU retrograde -10892 Jul 10 j 05:48 22°る23'30 opposition -10892 Sep 27 j 17:57 21°중19'32 -2°52'50 conjunction -10898 Mar 24 j 18:58 13°₹38'16 -4°57'00 min. Earth dist. -10892 Sep 30 j 12:36 21°る16'01 40.83449 AU -10892 Dec 19j09:24 20°る13'07 minimum elong -10898 Mar 24 j 19:06 13°る38'16 4°57'37 direct -10898 Apr 08 j 23:28 14°る00'55 -10891 Mar 17 j 06:14 21°る31'42 morning rise evening set -10898 Jul 03 j 07:12 15°る15'38 max. Earth dist. -10891 Mar 30 j 01:27 21° 정51'28 42.71664 AU retrograde opposition -10898 Sep 21 j 06:52 14° ₹ 12'48 -5°01'04 -10898 Sep 23 j 18:54 14°중09'43 42.15632 AU -10891 Apr 02 j 03:51 21°₹56'18 -2°33'51 min. Earth dist. conjunction -10898 Dec 13 j 01:31 13°る07'49 -10891 Apr 02 j 03:56 21°る56'18 2°34'26 minimum elong direct -10891 Apr 17 j 22:37 22°**궁**20'46 -10897 Mar 10 j 20:29 14°₹24'09 evening set morning rise -10897 Mar 23 j 09:22 14°정42'53 44.04319 AU -10891 Jul 11 j 17:06 23°♂37'32 max. Earth dist. retrograde -10891 Sep 29 j 04:47 22°**궁**33'19 -2°30'19 opposition -10897 Mar 26 j 05:36 14°₹47'10 -4°37'28 -10891 Oct 02 j 00:46 22°**궁**29'43 40.60184 AU conjunction min. Earth dist. -10897 Mar 26 j 05:43 14°₹47'11 4°38'04 -10891 Dec 20 j 22:05 21°₹26'36 minimum elong direct -10897 Apr 10 j 12:49 15°**⋜**10'06 -10890 Mar 18 j 17:45 22°**⋜**45'38 morning rise evening set -10897 Jul 04 j 19:26 16°る25'02 -10890 Mar 31 j 12:28 23°중05'29 42.48288 AU retrograde max. Earth dist. opposition -10897 Sep 22 j 15:58 15° ₹ 22'01 -4°40'31 -10890 Apr 03 j 16:36 23°♂10'28 -2°12'11 min. Earth dist. -10897 Sep 25 j 04:56 15°중18'52 41.94287 AU conjunction direct -10897 Dec 14 j 10:03 14°**♂**16'49 minimum elong -10890 Apr 03 j 16:40 23°쥥10'28 2°12'46 evening set -10896 Mar 11 j 04:50 15°₹33'27 morning rise -10890 Apr 19 j 12:47 23°₹35'09 max. Earth dist. -10896 Mar 23 j 20:17 15° ₹52'26 43.82962 AU retrograde -10890 Jul 13 j 04:40 24°**⋜**52'16 -10890 Sep 30 j 15:56 23°₹47'48 -2°07'29 opposition -10896 Mar 26 j 16:40 15° ₹ 56'46 -4°17'37 min. Earth dist. -10890 Oct 03 j 12:25 23°₹44'09 40.36583 AU conjunction -10896 Mar 26 j 16:46 15° ₹ 56'46 4°18'14 -10890 Dec 22 j 11:46 22°**♂**40'46 minimum elong direct -10896 Apr 11 j 02:08 16°る19'58 -10889 Mar 20 j 05:36 24°る00'15 morning rise evening set -10896 Jul 05 j 04:56 17°る35'08 retrograde max. Earth dist. -10889 Apr 02 j 00:20 24°る20'13 42.24572 AU -10896 Sep 23 j 01:25 16° ₹31'57 -4°19'38 opposition -10896 Sep 25 j 15:43 16° ₹28'43 41.72732 AU -10889 Apr 05 j 05:40 24°る25'19 -1°50'14 min. Earth dist. conjunction minimum elong direct -10896 Dec 14 i 21:32 15° ₹26'32 -10889 Apr 05 i 05:43 24°₹25'19 1°50'48 -10895 Mar 12 j 13:40 16° ₹ 43'31 -10889 Apr 21 j 02:45 24°る50'13 evening set morning rise max. Earth dist. -10895 Mar 25 j 06:10 17°る02'40 43.61389 AU -10889 Jul 14 j 15:51 26°る07'44 retrograde -10889 Oct 02 j 03:31 25°る02'59 -1°44'19 opposition -10895 Mar 28 j 03:44 17°**⋜**07'06 -3°57'28 conjunction min. Earth dist. -10889 Oct 05 j 01:56 24°る59'13 40.12691 AU minimum elong -10895 Mar 28 j 03:50 17°る07'06 3°58'04 direct -10889 Dec 24 j 00:05 23°る55'37 -10895 Apr 12 j 15:37 17°る30'34 -10888 Mar 20 j 17:58 25°**⋜**15'35 morning rise evening set retrograde -10895 Jul 06 j 15:10 18°₹46'01 max. Earth dist. -10888 Apr 02 j 13:23 25°る35'43 42.00610 AU -10895 Sep 24 j 10:59 17°₹42'40 -3°58'25 opposition -10895 Sep 27 j 01:26 17°중39'25 41.50931 AU -10888 Apr 05 j 18:56 25° ₹ 40'51 -1°27'58 min. Earth dist. conjunction -10895 Dec 16 j 07:56 16°♂37'01 -10888 Apr 05 j 18:59 25°₹40'52 1°28'32 direct minimum elong -10894 Mar 13 j 23:06 17°る54'23 -10888 Apr 21 j 16:53 26°**궁**05'58 evening set morning rise -10888 Jul 15 j 03:54 27°₹23'54 max. Earth dist. -10894 Mar 26 j 16:09 18°중13'40 43.39511 AU retrograde opposition -10888 Oct 02 j 15:17 26°る18'52 -1°20'49 conjunction -10894 Mar 29 j 15:21 18°♂18'14 -3°37'01 min. Earth dist. -10888 Oct 05 j 13:27 26°る15'05 39.88589 AU

direct

-10888 Dec 24 j 12:07 25°중11'10

-10894 Mar 29 j 15:27 18°중18'14 3°37'37

minimum elong

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2 Attention, astronomical year style is used: The year -10887 in astronomical counting style is the year 10888 BCE in historical counting style.

Attention, astronomi	ical year style is used: The	e year -10887	in astronomical co	unting style is the year	r 10888 BCE in historical	counting sty	le.
evening set	-10887 Mar 22 j 06:48			max. Earth dist.	-10881 Apr 12 j 15:30	4° ≈ 48'04	40.29195 AU
max. Earth dist.	-10887 Apr 04 j 01:05	26° る 51'49	41.76452 AU				
				conjunction	-10881 Apr 16 j 01:36	4° ≈ 53'47	
conjunction	-10887 Apr 07 j 08:23			minimum elong	-10881 Apr 16 j 01:34	4° ≈ 53'47	1°15'25
minimum elong	-10887 Apr 07 j 08:25		1°05'58	morning rise	-10881 May 01 j 22:17	5° ≈ 20'06	
morning rise	-10887 Apr 23 j 07:00			retrograde	-10881 Jul 25 j 13:03	6° ≈ 42'04	
retrograde	-10887 Jul 16 j 19:11			opposition	-10881 Oct 12 j 12:54	5°≈35'05	1°32'30
opposition	-10887 Oct 04 j 03:28			min. Earth dist.	-10881 Oct 15 j 16:05		38.16727 AU
min. Earth dist.	-10887 Oct 07 j 03:01		39.64338 AU	direct	-10880 Jan 03 j 05:02	4°≈25'08	
direct	-10887 Dec 25 j 21:41			evening set	-10880 Mar 31 j 18:55	5°≈50'26	40.04065 AU
evening set max. Earth dist.	-10886 Mar 23 j 20:13 -10886 Apr 05 j 15:33		41 52158 ATT	max. Earth dist.	-10880 Apr 13 j 05:50	0 ~1110	40.04003 AU
max. Lattii dist.	-10000 Apr 03 j 13.33	20 000 32	41.32136 AC	conjunction	-10880 Apr 16 j 17:56	6° ≈ 17'04	1°40'28
conjunction	-10886 Apr 08 j 22:22	28°云14'09	-0°42'34	minimum elong	-10880 Apr 16 j 17:52	6°≈17'04	1°39'58
minimum elong	-10886 Apr 08 j 22:23			morning rise	-10880 May 02 j 13:29	6°≈43'29	1 37 30
morning rise	-10886 Apr 24 j 21:11			retrograde	-10880 Jul 26 j 08:33	8°≈06'12	
retrograde	-10886 Jul 18 j 09:47			opposition	-10880 Oct 13 j 04:01	6°≈58'55	1°58'28
opposition	-10886 Oct 05 j 16:00		-0°32'52	min. Earth dist.	-10880 Oct 16 j 08:14	6°≈54'40	37.91523 AU
min. Earth dist.	-10886 Oct 08 j 15:56	28° る 49'00	39.39976 AU	direct	-10879 Jan 03 j 18:11	5° ≈ 48'37	
direct	-10886 Dec 27 j 10:02	27° る 44'32		evening set	-10879 Apr 02 j 13:06	7° ≈ 14'46	
evening set	-10885 Mar 25 j 10:24	29° පි 06'11		max. Earth dist.	-10879 Apr 14 j 22:34	7° ≈ 35'33	39.78679 AU
max. Earth dist.	-10885 Apr 07 j 04:21	29° る 26'37	41.27781 AU				
				conjunction	-10879 Apr 18 j 10:49	7° ≈ 41'31	
conjunction	-10885 Apr 10 j 12:34			minimum elong	-10879 Apr 18 j 10:45	7° ≈ 41'30	2°04'44
minimum elong	-10885 Apr 10 j 12:35		0°20'00	morning rise	-10879 May 04 j 04:41	8° ≈ 08'02	
morning rise	-10885 Apr 26 j 11:38			retrograde	-10879 Jul 28 j 01:59	9° ≈ 31'31	
	-10885 Apr 27 j 22:15			opposition	-10879 Oct 14 j 19:45	8° ≈ 23'54	
retrograde	-10885 Jul 20 j 01:39	1°≈17'08	0000104	min. Earth dist.	-10879 Oct 18 j 01:16		37.66067 AU
opposition	-10885 Oct 07 j 04:55	0°≈11'13		direct	-10878 Jan 05 j 10:26	7°≈13'14	
min. Earth dist.	-10885 Oct 10 j 05:00		39.15558 AU	evening set	-10878 Apr 04 j 08:18	8°≈40'17	20.52062.411
direct	-10885 Oct 15 j 19:53 -10885 Dec 28 j 21:57			max. Earth dist.	-10878 Apr 16 j 14:40	9°≈01'01	39.53063 AU
direct asc. node	-10883 Dec 28 j 21.37 -10884 Feb 08 j 18:11			conjunction	-10878 Apr 20 j 04:03	9° ≈ 07'07	2°30'17
asc. nouc	-10884 Mar 09 j 17:17	0°≈		minimum elong	-10878 Apr 20 j 03:58	9°≈07'06	
evening set	-10884 Mar 26 j 00:53			morning rise	-10878 May 05 j 20:11	9°≈33'43	2 2941
max. Earth dist.	-10884 Apr 07 j 18:40		41.03323 AU	retrograde	-10878 Jul 29 j 19:03		
				opposition	-10878 Oct 16 j 11:44	9° ≈ 50'04	2°51'16
conjunction	-10884 Apr 11 j 03:08	0°≈50'52	0°04'05	min. Earth dist.	-10878 Oct 19 j 17:16		37.40412 AU
minimum elong	-10884 Apr 11 j 03:07			direct	-10877 Jan 07 j 03:20	8° ≈ 39'00	
behind sun begin	-10884 Apr 10 j 20:40	0° ≈ 50'27		evening set	-10877 Apr 06 j 04:10	10° ≈ 06'58	
behind sun end	-10884 Apr 11 j 09:34	0° ≈ 51'17		max. Earth dist.	-10877 Apr 18 j 07:22	10° ≈ 27'39	39.27246 AU
morning rise	-10884 Apr 27 j 01:53	1° ≈ 16'43					
retrograde	-10884 Jul 20 j 14:27	2° ≈ 36'42		conjunction	-10877 Apr 21 j 21:50	10° ≈ 33'52	2°55'33
opposition	-10884 Oct 07 j 18:20	1° ≈ 30'32		minimum elong	-10877 Apr 21 j 21:44		2°55'02
min. Earth dist.	-10884 Oct 10 j 19:42		38.91062 AU	morning rise	-10877 May 07 j 11:40		
direct	-10884 Dec 29 j 12:54	0° ≈ 21'32		retrograde	-10877 Jul 31 j 11:17		
evening set	-10883 Mar 27 j 16:17	1°≈44'30		opposition	-10877 Oct 18 j 04:29		3°18'04
max. Earth dist.	-10883 Apr 09 j 09:25	2°≈05'11	40.78782 AU	min. Earth dist.	-10877 Oct 21 j 11:34		37.14608 AU
. ,.	10002 4 12:10.07	2010142	0007144	direct	-10876 Jan 08 j 19:54		
conjunction	-10883 Apr 12 j 18:07	2°≈10'43	0°27'44	evening set	-10876 Apr 07 j 00:36		20.01211 417
minimum elong morning rise	-10883 Apr 12 j 18:06 -10883 Apr 28 j 16:35	2°≈10'43 2°≈36'44	0°27'11	max. Earth dist.	-10876 Apr 19 j 01:45	11 ≈33'33	39.01311 AU
retrograde	-10883 Jul 22 j 04:31	2 ≈30 44 3°≈57'20		conjunction	-10876 Apr 22 j 15:47	120001147	3°21'02
opposition	-10883 Jul 22 j 04:51 -10883 Oct 09 j 07:52	2°≈50'54	0°41'26	minimum elong	-10876 Apr 22 j 15:40		
min. Earth dist.	-10883 Oct 07 j 07:32 -10883 Oct 12 j 09:03		38.66464 AU	morning rise	-10876 May 08 j 03:09		3 20 33
direct	-10883 Dec 31 j 03:08	1°≈41'36	30.00404710	retrograde	-10876 Aug 01 j 04:28		
evening set	-10882 Mar 29 j 08:27	3°≈05'19		opposition	-10876 Oct 18 j 21:34		3°45'06
max. Earth dist.	-10882 Apr 10 j 23:21		40.54087 AU	min. Earth dist.	-10876 Oct 22 j 04:12		
	r J			direct	-10875 Jan 09 j 12:10		
conjunction	-10882 Apr 14 j 09:40	3° ≈ 31'41	0°51'42	evening set	-10875 Apr 08 j 22:03		
minimum elong	-10882 Apr 14 j 09:38	3° ≈ 31'41	0°51'11	max. Earth dist.	-10875 Apr 20 j 18:53		38.75310 AU
morning rise	-10882 Apr 30 j 07:25	3° ≈ 57'51			- •		
retrograde	-10882 Jul 23 j 20:54	5° ≈ 19′07		conjunction	-10875 Apr 24 j 10:19	13° ≈ 30′54	3°46'43
opposition	-10882 Oct 10 j 22:09	4°≈12'25	1°06'49	minimum elong	-10875 Apr 24 j 10:11	13° ≈ 30′53	3°46'15
min. Earth dist.	-10882 Oct 14 j 01:09	4° ≈ 08'16	38.41706 AU	morning rise	-10875 May 09 j 18:52	13° ≈ 57'38	
direct	-10881 Jan 01 j 14:27	3° ≈ 02'48			-10875 Jun 21 j 09:08		
evening set	-10881 Mar 31 j 01:14	4° ≈ 27'17		retrograde	-10875 Aug 03 j 00:35	15° ≈ 24'36	

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

5	nical year style is used: The		C	· //		, 1	le.
,	-10875 Sep 15 j 14:06	-		evening set	-10868 Apr 21 j 06:21		
opposition	-10875 Oct 20 j 15:05	14° ≈ 15'34	4°12'22	max. Earth dist.	-10868 May 01 j 19:10	24° ≈ 27'22	36.94812 AU
min. Earth dist.	-10875 Oct 23 j 22:47	14° ≈ 11′00	36.62831 AU				
direct	-10874 Jan 11 j 02:47	13° ≈ 03′18		conjunction	-10868 May 05 j 11:28	24° ≈ 34'15	6°50'46
evening set	-10874 Apr 10 j 20:19	14° ≈ 34'18		minimum elong	-10868 May 05 j 11:12	24° ≈ 34'13	6°50'22
max. Earth dist.	-10874 Apr 22 j 14:52	14° ≈ 54'53	38.49316 AU	morning rise	-10868 May 19 j 13:01	25° ≈ 00′22	
	-10874 Apr 25 j 12:22	15° ≈		retrograde	-10868 Aug 14 j 09:09		
				opposition	-10868 Oct 31 j 11:54		
conjunction	-10874 Apr 26 j 05:29			min. Earth dist.	-10868 Nov 03 j 21:00		34.83588 AU
minimum elong	-10874 Apr 26 j 05:20		4°12'09	direct	-10867 Jan 21 j 16:31		
morning rise	-10874 May 11 j 10:40			evening set	-10867 Apr 23 j 11:49		26 60001 AII
retrograde opposition	-10874 Aug 04 j 20:42 -10874 Oct 22 j 09:23		1°30'51	max. Earth dist.	-10867 May 03 j 19:14	20 ≈08 30	30.09091 AU
min. Earth dist.	-10874 Oct 22 j 07:23			conjunction	-10867 May 07 j 10:51	26°≈15'23	7°17'25
mm. Larm dist.	-10874 Nov 27 j 19:43		30.30700710	minimum elong	-10867 May 07 j 10:35		
direct	-10873 Jan 12 j 20:43			morning rise	-10867 May 21 j 06:03		, 1, 02
	-10873 Feb 27 j 03:55			retrograde	-10867 Aug 16 j 09:34		
evening set	-10873 Apr 12 j 19:31			opposition	-10867 Nov 02 j 10:43		7°56'22
max. Earth dist.	-10873 Apr 24 j 09:25	16° ≈ 26′27	38.23392 AU	min. Earth dist.	-10867 Nov 05 j 20:13	27° ≈ 01'06	34.58059 AU
				direct	-10866 Jan 23 j 14:24	25° ≈ 50′29	
conjunction	-10873 Apr 28 j 00:54	16° ≈ 32'57	4°38'39	evening set	-10866 Apr 25 j 18:37	27° ≈ 32′18	
minimum elong	-10873 Apr 28 j 00:44	16° ≈ 32'57	4°38'12	max. Earth dist.	-10866 May 05 j 18:12	27° ≈ 51′09	36.43357 AU
morning rise	-10873 May 13 j 02:36	16° ≈ 59'39					
retrograde	-10873 Aug 06 j 19:41			conjunction	-10866 May 09 j 10:44		
opposition	-10873 Oct 24 j 04:10			minimum elong	-10866 May 09 j 10:26		7°43'43
min. Earth dist.	-10873 Oct 27 j 11:31		36.11237 AU	morning rise	-10866 May 22 j 23:26		
direct	-10872 Jan 14 j 14:29			. 1	-10866 Aug 06 j 23:35		
evening set	-10872 Apr 13 j 19:33		27.07550 AII	retrograde	-10866 Aug 18 j 12:18		
max. Earth dist.	-10872 Apr 25 j 05:59	1/2 3932	37.97338 AU	annacition	-10866 Aug 30 j 00:22 -10866 Nov 04 j 10:15		0024146
conjunction	-10872 Apr 28 j 21:06	18°~06'04	5°04'51	opposition min. Earth dist.	-10866 Nov 04 j 10.13		
minimum elong	-10872 Apr 28 j 20:54			direct	-10865 Jan 25 j 12:31		34.32332 AO
morning rise	-10872 May 13 j 18:40		3 0424	evening set	-10865 Apr 28 j 02:15		
retrograde	-10872 Aug 07 j 16:21			max. Earth dist.	-10865 May 07 j 18:57		36.17637 AU
opposition	-10872 Oct 24 j 23:35		5°35'21				
min. Earth dist.	-10872 Oct 28 j 07:50			conjunction	-10865 May 11 j 11:16	29° ≈ 42'35	8°10'45
direct	-10871 Jan 15 j 09:16	17° ≈ 39'17		minimum elong	-10865 May 11 j 10:58	29° ≈ 42'34	8°10'24
evening set	-10871 Apr 15 j 20:39	19° ≈ 13'53			-10865 May 20 j 12:48	0° ∀	
max. Earth dist.	-10871 Apr 27 j 02:45	19° ≈ 34'06	37.71833 AU	morning rise	-10865 May 24 j 16:38	0°) €07'54	
				retrograde	-10865 Aug 20 j 13:22	1° ¥ 47'38	
conjunction	-10871 Apr 30 j 17:42			opposition	-10865 Nov 06 j 10:39	0°) 34'47	
minimum elong	-10871 Apr 30 j 17:31		5°30'45	min. Earth dist.	-10865 Nov 09 j 20:42		34.07107 AU
morning rise	-10871 May 15 j 11:01			1.	-10865 Dec 01 j 02:03		
retrograde opposition	-10871 Aug 09 j 12:56		6902120	direct	-10864 Jan 27 j 12:40	29° ≈ 18·19 0° ∺	
min. Earth dist.	-10871 Oct 26 j 19:32 -10871 Oct 30 j 03:02			evening set	-10864 Mar 23 j 05:21 -10864 Apr 29 j 11:17	0 X 1° ¥ 03'27	
direct	-10870 Jan 17 j 06:10		33.00002 AC	max. Earth dist.	-10864 May 08 j 20:36		35.92022 AU
evening set	-10870 Apr 17 j 22:49			mas. Durin dist.	1000 : 111ay 00 j 20.30	1 /(21 32	33.72022 AU
max. Earth dist.	-10870 Apr 28 j 23:13		37.46152 AU	conjunction	-10864 May 12 j 12:22	1°) 28′39	8°37'21
	1 3			minimum elong	-10864 May 12 j 12:02	1° ¥ 28'37	
conjunction	-10870 May 02 j 15:03	21° ≈ 16'54	5°57'37	morning rise	-10864 May 25 j 10:06	1°) 53′36	
minimum elong	-10870 May 02 j 14:49	21° ≈ 16′53	5°57'13	retrograde	-10864 Aug 21 j 15:43	3°) 34′56	
morning rise	-10870 May 17 j 03:29	21° ≈ 43′22		opposition	-10864 Nov 07 j 11:29	2°) €21'38	
retrograde	-10870 Aug 11 j 10:29			min. Earth dist.	-10864 Nov 10 j 20:27		33.81811 AU
opposition	-10870 Oct 28 j 16:17			direct	-10863 Jan 28 j 14:25	1°) 04'42	
min. Earth dist.	-10870 Nov 01 j 01:03		35.34571 AU	evening set	-10863 May 01 j 21:19	2° ₩ 51'36	A. ((-1.0) :=:
direct	-10869 Jan 19 j 01:02			max. Earth dist.	-10863 May 10 j 21:59	3° ∺ 09'10	35.66568 AU
evening set	-10869 Apr 20 j 02:05		27 20404 433		100/234 14:14:27	201/1/20	0002150
max. Earth dist.	-10869 Apr 30 j 22:03	∠∠~≈48'02	37.20494 AU	conjunction	-10863 May 14 j 14:07	3° ¥ 16′22	9°03'50
conjugation	10860 May 04 : 12:02	2200054145	6°24'00	minimum elong	-10863 May 14 j 13:46	3° 光 16′21 3° 光 40′54	9°03'31
conjunction minimum elong	-10869 May 04 j 13:03 -10869 May 04 j 12:49			morning rise retrograde	-10863 May 27 j 03:36 -10863 Aug 23 j 18:27	5° ∺ 23'57	
morning rise	-10869 May 04 j 12:49		0 2343	opposition	-10863 Aug 23 j 18:27 -10863 Nov 09 j 13:17	4° Η 10'12	9°49'41
retrograde	-10869 Aug 13 j 08:27			min. Earth dist.	-10863 Nov 03 j 13:17		33.56737 AU
opposition	-10869 Oct 30 j 13:47		6°59'41	direct	-10862 Jan 30 j 13:59	2°) 52'47	
min. Earth dist.	-10869 Nov 02 j 22:02			evening set	-10862 May 04 j 08:43	4°) (41'33	
direct	-10868 Jan 20 j 21:19		-	max. Earth dist.	-10862 May 13 j 02:01		35.41370 AU
	-				- •		

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10862 in astronomical counting style is the year 10863 BCE in historical counting style. -10862 May 16 j 16:30 5° \(\) \(05'50 \) 9°30'10 evening set -10855 May 21 j 08:34 18° + 28'48 conjunction -10862 May 16 j 16:08 5°**升**05'48 9°29'52 max. Earth dist. -10855 May 26 j 22:06 18°¥40'36 33.75687 AU minimum elong -10862 May 28 j 21:01 morning rise 5°**)**€29'53 -10862 Aug 25 j 20:28 7° **∺** 14'44 -10855 May 30 j 05:49 18° \(\frac{1}{4}\)7'40 12°25'29 conjunction retrograde -10862 Nov 11 j 15:51 6° ★ 00'31 10°17'43 -10855 May 30 j 05:23 18°**)** 47'38 12°25'19 opposition minimum elong -10862 Nov 15 j 00:05 5°**米**55'32 33.31961 AU -10855 Jun 08 j 00:54 19° **₭** 06'22 min. Earth dist. morning rise -10861 Feb 01 j 16:11 4° **∺**42'39 -10855 Sep 09 j 01:38 21°**米**06'38 direct retrograde -10855 Nov 25 j 10:02 19° **★**49'31 13°24'11 evening set -10861 May 06 j 21:24 6°**)** 33′21 opposition max. Earth dist. min. Earth dist. -10861 May 15 j 04:45 6° **★**49'51 35.16503 AU -10855 Nov 28 j 12:46 19° **★** 44'40 31.69729 AU direct -10854 Feb 14 j 21:58 18° **★** 28'44 conjunction -10861 May 18 j 19:31 6° **★** 57'06 9°56'17 evening set -10854 May 24 j 08:22 20° ★ 35'53 -10861 May 18 j 19:09 -10854 May 29 j 06:35 20° **€** 46'27 33.53522 AU minimum elong 6°**¥**57'04 9°56'00 max. Earth dist. -10861 May 30 j 14:41 morning rise 7°**∺**20'37 retrograde -10861 Aug 28 j 01:39 9°**₩**07'21 conjunction -10854 Jun 01 j 14:17 20° **★**53'35 12°48'36 opposition -10861 Nov 13 j 19:15 7°**¥**52'42 10°45'30 minimum elong -10854 Jun 01 j 13:50 20° **∺**53'33 12°48'27 min. Earth dist. -10861 Nov 17 j 03:08 7°**)** 47'42 33.07574 AU morning rise -10854 Jun 09 j 18:17 21° **∺** 11'06 direct -10860 Feb 03 j 15:43 6°**)** 34′23 retrograde -10854 Sep 11 j 12:34 23° **∺** 14'00 evening set -10860 May 08 j 11:15 8°**)**€27'08 opposition -10854 Nov 27 j 19:47 21° **∺** 56'27 max. Earth dist. -10860 May 16 j 10:32 8° \(\dag{4}\) 43'07 34.92031 AU min. Earth dist. -10854 Nov 30 j 22:13 21°\ft 51'35 31.48084 AU direct -10853 Feb 17 j 04:09 20° **★** 35'14 conjunction -10860 May 19 j 23:15 8° ¥ 50'16 10°22'07 evening set -10853 May 27 j 10:20 22° \(\mathbf{H}\)45'10 minimum elong -10860 May 19 j 22:51 8°\\$50'14 10°21'51 max. Earth dist. -10853 May 31 j 18:18 22° **€** 54'32 33.31772 AU morning rise -10860 May 31 j 08:10 9° **★** 13'11 retrograde -10860 Aug 29 j 06:18 11°**米**01'56 conjunction -10853 Jun 03 j 23:39 23° **H** 01'33 13°11'03 -10853 Jun 03 j 23:13 23°**米**01'30 opposition -10860 Nov 14 j 23:32 9° **∺** 46'51 11°13'01 minimum elong -10860 Nov 18 j 06:37 9°\(\mathbf{H}\)41'52 32.83593 AU -10853 Jun 11 j 11:07 23° **€** 17'45 min. Earth dist. morning rise -10859 Feb 04 j 17:40 8° **¥** 28'06 -10853 Sep 13 j 22:07 25° **∺** 23'24 direct retrograde -10859 May 11 j 02:47 10° **★** 23'00 -10853 Nov 30 j 06:27 24° \(\) 05'24 14°12'32 evening set opposition -10859 May 18 j 15:13 10° **€** 38'16 34.67983 AU -10853 Dec 03 j 07:20 24° **光** 00'37 31.26870 AU max Earth dist min. Earth dist. -10852 Feb 19 j 13:48 22° ¥ 43'46 direct -10859 May 22 j 03:43 10° ****45'27 10°47'38 -10852 May 29 j 14:19 24° **∺** 56'36 conjunction evening set -10859 May 22 j 03:19 10° **X** 45'25 10° 47'24 -10852 Jun 02 j 04:36 25° **€** 04'28 33.10498 AU minimum elong max. Earth dist. -10859 Jun 02 j 01:59 11°**米** 07'42 morning rise -10859 Aug 31 j 14:23 12° **∺**58'33 -10852 Jun 05 j 09:29 25°**米**11'30 13°32'45 retrograde conjunction -10859 Nov 17 j 04:24 11° **€** 43'04 11°40'10 -10852 Jun 05 j 09:01 25° **∺** 11'27 13°32'39 opposition minimum elong -10859 Nov 20 j 10:20 11° ¥ 38'08 32.60049 AU -10852 Jun 12 j 03:06 25° ¥ 26'14 min. Earth dist. morning rise -10858 Feb 06 j 20:09 10°**米**23'54 -10852 Sep 15 j 10:22 27° **∺** 34'48 direct retrograde evening set -10858 May 13 j 19:44 12° **€**21'03 opposition -10852 Dec 01 j 17:53 26° ★ 16'20 14°35'31 max. Earth dist. -10858 May 20 j 22:00 12° **★** 35'37 34.44340 AU min. Earth dist. -10852 Dec 04 j 17:25 26° ₩ 11'36 31.06171 AU direct -10851 Feb 20 j 22:03 24° **∺**54'15 -10858 May 24 j 09:08 12°\ 42'45 11°12'47 conjunction evening set -10851 Jun 01 j 21:07 27° **∺** 10'13 -10858 May 24 j 08:43 12° **X** 42'43 11°12'33 max. Earth dist. -10851 Jun 04 j 18:00 27° **∺** 16'33 32.89763 AU minimum elong -10858 Jun 03 j 19:47 13°**米**04'16 morning rise -10858 Sep 02 j 22:18 14° **∺** 57'18 -10851 Jun 07 j 20:16 27° **€** 23'24 13°53'37 retrograde conjunction -10858 Nov 19 j 10:32 13° **€**41'25 12°06'54 -10851 Jun 07 j 19:50 27°**米**23'21 13°53'33 opposition minimum elong -10858 Nov 22 j 16:25 13°\cdot\(36'28\) 32.36908 AU -10851 Jun 13 j 17:58 27° ¥ 36'27 min. Earth dist. morning rise -10857 Feb 09 i 01:34 12° \(\frac{1}{2}\)21'52 -10851 Sep 17 j 21:53 29° \ 48'06 direct retrograde -10851 Dec 04 i 06:17 28° \(\)29'11 14°57'34 evening set -10857 May 16 j 14:18 14° + 21'22 opposition max. Earth dist. -10857 May 23 j 05:03 14° ¥ 35'06 34.21098 AU min. Earth dist. -10851 Dec 07 i 04:42 28° \tag{24'30} 30.86048 AU direct -10850 Feb 23 i 07:57 27° \(\) \(06'41 \) evening set -10857 May 26 i 15:05 14° \ 42'13 11°37'31 -10850 Jun 05 j 07:16 29° **★**26'00 conjunction -10857 May 26 i 14:40 14° \(\frac{14}{2}\) 11 11°37'18 max. Earth dist. -10850 Jun 07 j 06:46 29° ¥ 30'25 32.69676 AU minimum elong -10857 Jun 05 j 13:29 15°**米**02'53 morning rise -10857 Sep 05 j 08:22 16° **★**58'15 retrograde conjunction -10850 Jun 10 j 07:36 29° **★** 37'12 14°13'33 opposition -10857 Nov 21 j 17:26 15° **★**41'57 12°33'12 minimum elong -10850 Jun 10 j 07:09 29°**)** 37'09 14°13'29 morning rise min. Earth dist. -10857 Nov 24 j 21:34 15° **€** 37'05 32.14156 AU -10850 Jun 15 j 06:42 29° **₭** 48'17 -10856 Feb 11 j 08:12 14°**光**22'00 direct -10850 Jun 20 j 13:28 $0^{\circ}\Upsilon$ -10856 May 18 j 10:27 16°**∺**23'57 -10850 Sep 20 j 12:43 2°Y03'19 evening set retrograde -10856 May 24 j 12:33 16° **★** 36'43 33.98210 AU -10850 Dec 06 j 19:35 0°**Υ**43'57 15°18'35 max. Earth dist. opposition -10850 Dec 09 j 15:21 0°**Υ**39'25 30.66617 AU min. Earth dist. -10856 May 27 j 22:03 16° **X** 43'52 12°01'46 conjunction -10849 Jan 04 j 16:25 30°R₩ minimum elong -10856 May 27 j 21:37 16° ★43'50 12°01'34 direct -10849 Feb 25 j 19:19 29°\color 21'02 morning rise -10856 Jun 06 j 07:19 17°**₭**03'36 -10849 Apr 17 j 02:03 $0^{\circ}\Upsilon$ retrograde -10856 Sep 06 j 16:29 19°**米**01'22 evening set -10849 Jun 08 j 22:27 1°**Y**44'10 opposition -10856 Nov 23 j 01:15 17° **★** 44'40 12°58'59 max. Earth dist. -10849 Jun 09 j 21:21 1°**Υ**46'19 32.50313 AU min. Earth dist. -10856 Nov 26 j 05:43 17° **€** 39'44 31.91766 AU -10855 Feb 12 j 13:29 16°**)** 24'18 -10849 Jun 12 j 19:39 1°Υ52'54 14°32'27 direct conjunction

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10849 in astronomical counting style is the year 10850 BCE in historical counting style. 1°**Υ**'52'52 14°32'25 -10849 Jun 12 j 19:14 minimum elong -10841 Jul 01 j 20:57 21° Υ 07'49 16°17'11 minimum elong -10849 Jun 16 j 15:46 2°Υ01'34 $-10841 \text{ Oct } 13 \text{ j } 03:07 \ 23^{\circ} \Upsilon 45'22$ morning rise retrograde -10849 Sep 23 j 03:09 4°**Y**20′26 opposition -10841 Dec 29 i 10:43 22° \begin{pmatrix} 23'02 & 17\circ{2}6'19 \end{pmatrix} retrograde 3°**Υ**'00'37 15°38'28 -10849 Dec 09 j 09:55 -10841 Dec 31 j 08:43 22°**Υ**19'51 29.28879 AU min. Earth dist. opposition -10849 Dec 12 j 04:26 2°Υ56'09 30.47946 AU -10840 Mar 18 j 16:01 20°**Υ**57'53 min. Earth dist. direct -10848 Feb 28 j 08:17 1°Y37'21 max. Earth dist. -10840 Jul 01 j 17:30 23°**Y**°35'17 31.14494 AU direct 4°Υ05'15 evening set -10848 Jun 12 j 00:33 4°**Υ**04'08 32.31778 AU -10848 Jun 11 j 12:40 -10840 Jul 03 j 15:13 23°**Υ**'39'52 16°23'14 max. Earth dist. conjunction -10840 Jul $\,$ 03 j 14:59 $\,$ 23° $\boldsymbol{\gamma}^{\circ}39'51$ minimum elong 16°23'25 4°Υ10'33 14°50'14 conjunction -10848 Jun 14 j 08:25 retrograde -10840 Oct 14 j 22:04 26°**Y**18'20 minimum elong -10848 Jun 14 j 07:59 4°**Υ**10'30 14°50'13 opposition $-10840 \,\mathrm{Dec} \,31\,\mathrm{j}\,08:09 \,\,24^{\circ}\Upsilon 55'44 \,\,17^{\circ}32'18$ -10848 Jun 16 j 15:21 4°Υ15'45 -10839 Jan 02 j 04:04 24°**Y** 52'41 29.17753 AU morning rise min. Earth dist. -10839 Mar 21 j 11:22 23°**Y**'30'25 retrograde -10848 Sep 24 j 19:30 6°**Y**39'26 direct opposition -10848 Dec 11 j 00:47 5°**Ƴ**19'14 15°57'07 max. Earth dist. -10839 Jul 04 j 14:25 26°**Υ**′08'45 31.03756 AU min. Earth dist. -10848 Dec 13 j 15:58 5°**Y**14'58 30.30111 AU direct -10847 Mar 01 j 22:36 3°Y55'37 conjunction -10839 Jul 06 j 09:28 26°**Y**13'06 16°27'43 max. Earth dist. -10847 Jun 14 j 04:23 6°**Υ**23'52 32.14099 AU minimum elong -10839 Jul 06 j 09:18 26°**Y**13'05 16°27'56 retrograde -10839 Oct 17 j 19:45 28° Υ 52'25 conjunction -10847 Jun 16 j 22:00 6°**Ƴ**30′08 15°06'49 opposition -10838 Jan 03 j 06:08 27°**Y**29'33 17°36'24 minimum elong -10847 Jun 16 j 21:37 6°Y30'06 15°06'50 min. Earth dist. -10838 Jan 04 j 22:00 27°**Υ**26'47 29.07564 AU retrograde -10847 Sep 27 j 11:28 9°Y00'24 direct -10838 Mar 24 j 07:13 26°**Y**04'05 opposition -10847 Dec 13 i 16:50 7°**Ƴ**39'50 16°14'26 max. Earth dist. -10838 Jul 07 j 12:36 28° γ 43'21 30.94005 AU min. Earth dist. -10847 Dec 16 i 06:44 7°**Υ**35'38 30.13138 AU direct -10846 Mar 04 i 11:34 6°Y15'56 conjunction -10838 Jul 09 i 04:01 28°**Υ**47'21 16°30'25 max. Earth dist. -10846 Jun 16 j 21:59 8°**Υ**45'44 31.97314 AU minimum elong -10838 Jul 09 i 03:51 28°**γ**'47'20 16°30'40 -10838 Aug 09 j 03:35 0°8 -10846 Jun 19 j 12:10 8°**Υ**'51'43 15°22'06 -10838 Oct 20 j 16:08 1°**8**27'26 retrograde conjunction -10846 Jun 19 j 11:46 8°**Υ**51'41 opposition -10837 Jan 06 j 04:50 0°804'18 17°38'30 15°22'08 minimum elong -10846 Sep 30 j 04:59 11°**Υ**23'19 -10837 Jan 07 j 18:22 0°**8**01'42 28.98377 AU min. Earth dist. retrograde -10837 Jan 08 j 18:43 30°R**Y** opposition -10846 Dec 18 j 20:15 9° Υ 58'26 29.97027 AU -10837 Mar 27 j 04:03 28°**Y**38'44 min. Earth dist. direct -10845 Mar 07 j 04:02 8° **Y**38'16 -10837 Jun 06 j 10:35 0°**8** direct -10845 Jun 19 j 14:40 11°**Υ**09'25 31.81398 AU -10837 Jul 10 j 11:11 max. Earth dist. max. Earth dist. 1°**8**18'50 30.85344 AU -10845 Jun 22 j 03:05 11°**Υ**15'17 15°36'03 -10837 Jul 11 j 22:50 1°**8**22'27 16°31'14 conjunction conjunction -10845 Jun 22 j 02:44 11°**Υ**15'15 15°36'07 -10837 Jul 11 j 22:45 1°**8**22'27 16°31'30 minimum elong minimum elong -10845 Oct 02 j 23:31 13°**Υ**48'12 -10837 Oct 23 j 14:22 4°803'11 retrograde retrograde -10845 Dec 19 j 03:29 12° Υ 26'59 16° 44'46 -10836 Jan 09 j 03:38 2°**8**39'51 17°38'35 opposition opposition min. Earth dist. -10845 Dec 21 j 12:20 12°**Υ**23'06 29.81774 AU min. Earth dist. -10836 Jan 10 j 12:36 2°**8**37'33 28.90278 AU -10844 Mar 08 j 18:23 11°**Y**02'36 direct -10836 Mar 29 j 02:51 1°**8**14'11 direct max. Earth dist. -10844 Jun 21 j 09:57 13°**Υ**35'14 31.66343 AU max. Earth dist. -10836 Jul 12 j 09:42 3°**8**55'01 30.77824 AU -10844 Jun 23 j 18:41 13°**Υ**40'47 15°48'34 -10836 Jul 13 j 17:53 3°**8**58'17 16°30'10 conjunction conjunction -10844 Jun 23 j 18:20 13°**Y**'40'45 15°48'40 -10836 Jul 13 j 17:49 3°**8**58'17 minimum elong minimum elong 16°30'27 -10844 Oct 04 j 16:34 16°**Υ**14'57 -10836 Oct 25 j 11:35 6°\(\arrow\) 39'36 retrograde retrograde -10844 Dec 20 j 22:06 14° Υ 53'27 16° 57'39 opposition opposition -10835 Jan 11 j 03:00 5°**8**16'04 17°36'35 -10844 Dec 23 j 04:03 14° Υ 49'45 29.67329 AU min. Earth dist. min. Earth dist. -10835 Jan 12 j 09:13 5°**8**13'58 28.83327 AU $-10843 \text{ Mar } 11 \text{ j } 11:49 \quad 13^{\circ} \Upsilon 28'52$ direct direct -10835 Mar 31 j 23:24 3°850'22 max. Earth dist. -10843 Jun 24 j 03:44 16°**Υ**02'42 31.52115 AU max. Earth dist. -10835 Jul 15 j 09:28 6°\(\mathbf{2}\)31'55 30.71518 AU -10843 Jun 26 i 10:53 16° Υ 08'08 15° 59'37 -10835 Jul 16 i 13:08 6°834'44 16°27'08 conjunction conjunction minimum elong -10843 Jun 26 i 10:35 16° Υ 08'07 15° 59'44 -10835 Jul 16 i 13:08 6°**8**34'44 16°27'27 minimum elong -10843 Oct 07 j 12:00 18° Υ 43'30 -10835 Oct 28 j 09:51 9°**8**16'31 retrograde retrograde -10843 Dec 23 j 17:29 17°**Υ**21'43 17°08'55 -10834 Jan 14 j 02:32 opposition opposition 7°**8**52'52 17°32'28 -10843 Dec 25 j 21:06 17°**Υ**′18'10 29.53698 AU min. Earth dist. min. Earth dist. -10834 Jan 15 j 04:01 7°**と**51'05 28.77553 AU -10842 Mar 14 j 03:41 15° Υ 56'56 direct -10834 Apr 03 j 23:00 6°**8**27'10 direct max. Earth dist. -10842 Jun 27 j 00:33 18°**Υ**32'07 31.38717 AU max. Earth dist. -10834 Jul 18 j 08:00 9°**8**09'12 30.66435 AU -10842 Jun 29 j 03:55 18°**Y**37'13 16°09'07 -10834 Jul 19 j 08:32 9°**8**11'42 16°22'10 conjunction conjunction -10842 Jun 29 j 03:37 18°**°**737'11 -10834 Jul 19 j 08:33 9°**8**11'42 minimum elong 16°09'15 minimum elong 16°22'31 $-10842 \text{ Oct } 10 \text{ j } 06:37 \ 21^{\circ} \Upsilon 13'42$ -10834 Oct 31 j 09:16 11°**8**53'52 retrograde retrograde $-10842 \text{ Dec } 26 \text{ j } 13:51 \text{ } 19^{\circ} \Upsilon 51'38 \text{ } 17^{\circ} 18'30$ opposition -10833 Jan 17 j 02:29 10°\(230'07\) 17°26'14 opposition min. Earth dist. $-10842 \,\mathrm{Dec}\, 28\,\mathrm{j}\, 15:04 \,19^{\circ}\Upsilon 48'14 \,29.40868 \,\mathrm{AU}$ min. Earth dist. -10833 Jan 18 j 00:41 10°**8**28'34 28.72985 AU direct -10841 Mar 16 j 21:25 18°**Υ**26'40 direct -10833 Apr 06 j 20:58 9°**8**04'29 max. Earth dist. -10841 Jun 29 j 19:50 21°**Υ**02'55 31.26171 AU max. Earth dist. -10833 Jul 21 j 08:23 11°**8**47'03 30.62577 AU -10841 Jul 01 j 21:11 21°**Υ**07'51 16°17'01 -10833 Jul 22 j 04:01 11°**8**49'04 16°15'14 conjunction conjunction

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10833 in astronomical counting style is the year 10834 BCE in historical counting style. -10833 Jul 22 i 04:06 11°849'04 16°15'36 retrograde -10826 Nov 21 i 08:29 2°**Ⅱ**48'27 minimum elong opposition -10833 Nov 03 j 06:09 14°**8**31'30 -10825 Feb 08 j 01:22 1°**Д**24'46 15°24'07 retrograde opposition -10832 Jan 20 j 02:31 13°807'42 17°17'54 min. Earth dist. -10825 Feb 07 j 17:41 1°**I**I25'18 28.75516 AU min. Earth dist. -10832 Jan 20 j 20:32 13°**8**06'27 28.69572 AU -10825 Apr 28 j 11:08 0°**Ц**00'22 direct -10832 Apr 08 j 20:29 11°**8**42'10 -10825 Aug 06 j 16:28 2°**Ⅲ**29'27 direct evening set -10832 Jul 23 j 23:32 14°**8**26'41 2°**II**41'10 14°13'46 conjunction 16°06'23 conjunction -10825 Aug 11 j 12:20 -10832 Jul 23 j 23:38 14°**8**26'42 -10825 Aug 11 j 12:40 2°**Ⅱ**41'12 14°14'17 minimum elong 16°06'46 minimum elong -10832 Jul 23 j 06:41 14°**8**24'58 30.59891 AU max. Earth dist. max. Earth dist. -10825 Aug 11 j 21:45 2°**Ⅱ**42'07 30.71345 AU -10832 Aug 06 j 14:24 15°**8** morning rise -10825 Aug 16 j 08:50 2°**I**I52'57 retrograde -10832 Nov 05 j 05:09 17°**8**09'18 retrograde -10825 Nov 24 j 03:02 5°**Ⅲ**21'51 -10831 Jan 22 j 02:30 15°**8**45'29 -10824 Feb 11 j 00:05 3°Д58'14 15°00'36 opposition 17°07'30 opposition -10831 Jan 22 j 17:01 15°**8**44'28 28.67295 AU -10824 Feb 10 j 13:36 3°**Ц**58'57 28.80565 AU min. Earth dist. min. Earth dist. -10831 Feb 19 j 17:14 15°R8 direct -10824 Apr 30 j 07:31 2°**Ⅲ**34′03 direct -10831 Apr 11 j 18:20 14°\begin{array}{c} 14°\begin{array}{c} 20'03 \end{array} evening set -10824 Aug 07 j 09:11 4°**Ⅲ**59'45 -10831 May 30 j 06:15 15°**8** conjunction -10824 Aug 13 j 05:50 5°**I**I13'54 13°51'05 conjunction -10831 Jul 26 j 19:12 17°**8**04'25 15°55'38 minimum elong -10824 Aug 13 j 06:11 5°**Ⅱ**13'57 13°51'36 minimum elong -10831 Jul 26 j 19:21 17°**8**04'26 15°56'01 max. Earth dist. -10824 Aug 13 j 19:12 5°**耳**15'15 30.77305 AU max. Earth dist. -10831 Jul 26 j 07:13 17°**8**03'11 30.58341 AU morning rise -10824 Aug 19 j 03:09 5°**Ⅱ**28'09 retrograde -10831 Nov 08 j 02:22 19°**8**47'04 retrograde -10824 Nov 25 j 21:56 7°**Ⅱ**53'54 opposition opposition -10823 Feb 12 i 21:59 6°**Ⅱ**30′25 14°35'27 min. Earth dist. -10830 Jan 25 j 13:52 18°\(\begin{aligned} \begin{aligned} 22'29 & 28.66088 AU \end{aligned} \] min. Earth dist. -10823 Feb 12 i 06:45 6°**Д**31'28 28.86749 AU direct -10830 Apr 14 j 18:05 16°857'59 direct -10823 May 03 j 06:22 5°**Ⅱ**06'28 evening set -10823 Aug 09 j 04:22 7°**Ⅱ**29'05 -10830 Jul 29 j 14:33 19°842'01 15°43'01 conjunction -10830 Jul 29 j 14:43 19°842'02 15°43'27 -10823 Aug 15 j 22:46 7°**II**45'21 13°26'56 minimum elong conjunction -10830 Jul 29 j 05:15 19°**8**41'04 30.57883 AU -10823 Aug 15 j 23:08 7°**II**45'23 13°27'27 max. Earth dist. minimum elong -10830 Nov 11 j 00:29 22°**8**24'38 max. Earth dist. -10823 Aug 16 j 15:34 7°**П**47'02 30.84430 AU retrograde -10823 Aug 22 j 17:57 8°**Д**01'41 -10829 Jan 28 j 02:59 21°800'49 16°40'38 opposition morning rise -10829 Jan 28 j 09:58 21°**8**00'20 28.65938 AU -10823 Nov 28 j 17:02 10°**Ⅲ**24'37 min. Earth dist. retrograde -10829 Apr 17 j 16:33 19°**8**35'42 -10822 Feb 15 j 19:40 9°**I**01'16 14°08'46 direct opposition -10822 Feb 15 j 01:05 9°**Д**02'32 28.94115 AU min. Earth dist. -10829 Aug 01 j 10:02 22°**8**19'19 15°28'35 -10822 May 06 j 02:43 7°**Д**37'37 conjunction direct -10829 Aug 01 j 10:16 22°819'21 15°29'01 -10822 Aug 11 j 01:14 9°**Ⅱ**57'19 minimum elong evening set -10829 Aug 01 j 05:18 22°**8**18'50 30.58481 AU max. Earth dist. -10829 Nov 13 j 19:53 25°**8**01'46 -10822 Aug 18 j 15:11 10°**I**I15'26 13°01'24 retrograde conjunction opposition -10828 Jan 31 j 02:59 23°**8**37'58 16°24'16 minimum elong -10822 Aug 18 j 15:33 10°**I**I15'28 13°01'57 min. Earth dist. -10828 Jan 31 j 07:06 23°837'41 28.66801 AU max. Earth dist. -10822 Aug 19 j 12:30 10°**I**I17'34 30.92751 AU direct -10828 Apr 19 j 15:29 22°**8**13'00 morning rise -10822 Aug 26 j 05:50 10°**Д**33'38 retrograde -10822 Dec 01 j 10:26 12°**Д**53'54 -10828 Aug 03 j 05:09 24°**8**56'05 15°12'24 -10821 Feb 18 j 16:38 11°Д30'44 13°40'40 conjunction opposition -10828 Aug 03 j 05:24 24°**8**56'07 15°12'52 min. Earth dist. -10821 Feb 17 j 17:51 11°**Д**32'18 29.02642 AU minimum elong -10828 Aug 03 j 03:03 24°**8**55'52 30.60124 AU -10821 May 09 j 00:20 10°**Д**07'26 max. Earth dist. direct -10828 Nov 15 j 17:59 27°838'14 -10821 Aug 12 j 23:16 12°**Д**24'22 retrograde evening set -10827 Feb 02 i 02:43 26°8 14'28 16°06'01 opposition -10827 Feb 02 j 02:21 26°8 14'30 28.68677 AU -10821 Aug 21 i 07:01 12°**II**44'09 12°34'36 min. Earth dist. conjunction -10821 Aug 21 i 07:24 12°**II**44'11 12°35'08 direct -10827 Apr 22 j 13:51 24°849'41 minimum elong -10821 Aug 22 j 07:14 12°**Д**46'33 31.02226 AU evening set -10827 Aug 04 j 09:13 27°**8**28'09 max. Earth dist. morning rise -10821 Aug 29 j 15:43 13°**Ⅲ**04'01 retrograde -10821 Dec 04 j 04:34 15°**Ⅲ**21'46 conjunction min. Earth dist. -10820 Feb 20 j 10:30 14°Д00'37 29.12314 AU minimum elong max. Earth dist. opposition -10820 Feb 21 j 12:52 13°**Д**58'49 13°11'14 -10827 Aug 07 j 15:20 27°**8**36'07 morning rise direct -10820 May 10 j 19:00 12°**Д**35'53 -10827 Oct 21 j 10:47 0°**Ⅱ** evening set -10820 Aug 13 j 22:08 14°**Д**50'10 retrograde -10827 Nov 18 j 12:23 0°**I**I13'52 -10827 Dec 17 j 11:31 30°R8 conjunction -10820 Aug 22 j 22:25 15°**I**I1'27 12°06'37 minimum elong -10820 Aug 22 j 22:48 15°**Ⅱ**11'29 12°07'12 opposition min. Earth dist. -10826 Feb 04 j 23:22 28° 850'21 28.71566 AU -10820 Aug 24 j 03:12 15°**Д**14'17 31.12814 AU max. Earth dist. -10826 Apr 25 j 12:05 27°**8**25'32 -10820 Aug 31 j 23:31 15°**Ⅲ**32'48 direct morning rise -10826 Aug 05 j 05:01 29°**8**58'31 -10820 Dec 05 j 21:11 17°**Ц**48'09 evening set retrograde -10826 Aug 05 j 19:39 0°**Ⅱ** min. Earth dist. -10819 Feb 22 j 02:58 16°**Д**27'28 29.23044 AU opposition -10819 Feb 23 j 08:33 16°**Д**25'28 12°40'36 conjunction -10826 Aug 08 j 18:25 0°**I**07'11 14°34'56 direct -10819 May 13 j 16:15 15°**Ⅲ**02'55 minimum elong -10826 Aug 08 j 18:43 0°**I**107'13 14°35'26 evening set -10819 Aug 15 j 21:36 17°**Ⅲ**14'40 max. Earth dist. -10826 Aug 08 j 23:51 0°**Д**07'45 30.66527 AU morning rise -10826 Aug 12 j 08:24 0°**Ⅱ**15'56 -10819 Aug 25 j 12:57 17°**Д**37'16 11°37'35 conjunction

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Earth dist. -10812 Sep 12 j 04:50 3°554'28 32.29403 AU morning rise -10812 Sep 23 j 02:50 4°9518'38 conjunction -10818 Aug 28 j 03:12 20°**Ⅲ**01'34 11°07'35 retrograde -10812 Dec 24 j 03:27 6°9517'27 minimum elong -10818 Aug 28 j 03:35 20°**I**I01'36 11°08'10 min. Earth dist. -10811 Mar 12 j 14:32 5°500'21 30.40200 AU -10818 Aug 29 j 14:33 20°**Д**05'00 31.37009 AU max. Earth dist. opposition -10811 Mar 14 j 19:05 4°956'56 8°05'56 -10818 Sep 07 j 09:51 20°**Д**25'29 morning rise direct -10811 Jun 02 j 00:51 3°937'24 -10818 Dec 11 j 03:33 22° **II** 36'18 retrograde evening set -10811 Aug 30 j 04:07 5°931'38 min. Earth dist. -10817 Feb 27 j 10:11 21°**Д**16'34 29.47448 AU opposition -10817 Feb 28 j 21:59 21°**II**14'10 11°36'12 conjunction -10811 Sep 12 j 11:11 6°9500'50 7°19'09 direct -10817 May 19 j 05:10 19°**I** 52'24 minimum elong -10811 Sep 12 j 11:28 6°9500'52 7°19'44 evening set -10817 Aug 19 j 22:06 21°**Ⅲ**59'19 max. Earth dist. -10811 Sep 14 j 17:39 6°505'52 32.47487 AU morning rise -10811 Sep 25 j 20:02 6°530'13 conjunction -10817 Aug 30 j 16:41 22° II 24'14 10°36'44 retrograde -10811 Dec 26 j 12:56 8°927'17 minimum elong -10817 Aug 30 j 17:03 22°**Ⅲ**24'16 10°37'18 min. Earth dist. -10810 Mar 15 j 00:31 7°510'39 30.58409 AU max. Earth dist. -10817 Sep 01 j 06:02 22° II 27'50 31.50476 AU opposition -10810 Mar 17 j 07:41 7°9507'05 7°29'25 morning rise -10817 Sep 10 j 12:35 22° II 49'14 direct -10810 Jun 04 j 14:51 5°9547'56 retrograde -10817 Dec 13 j 18:45 24° **II** 57'53 evening set -10810 Sep 01 j 05:22 7°5540'21 min. Earth dist. -10816 Feb 29 j 23:49 23°ДЗ8'41 29.60970 AU opposition -10816 Mar 02 j 15:30 23° **II** 36'02 11°02'40 -10810 Sep 14 j 19:37 8°909'57 6°44'56 conjunction -10816 May 20 j 22:38 22°**Ⅲ**14'40 -10810 Sep 14 j 19:54 8°909'59 6°45'32 direct minimum elong -10816 Aug 20 j 22:48 24°**Д**19'18 max. Earth dist. -10810 Sep 17 j 03:47 8°515'05 32.66372 AU evening set -10810 Sep 28 j 12:07 morning rise 8°939'46 -10816 Sep 01 j 05:38 24°Д45'10 10°05'08 -10810 Dec 28 j 22:47 10°535'10 conjunction retrograde 9°919'01 30.77450 AU -10816 Sep 01 j 06:01 24° II 45'12 10°05'43 -10809 Mar 17 j 09:01 minimum elong min. Earth dist. -10816 Sep 02 j 22:30 24°**Д**49'05 31.64747 AU -10809 Mar 19 j 19:23 9°515'16 6°52'42 max. Earth dist. opposition -10816 Sep 12 j 13:48 25°**Ⅱ**11'09 -10809 Jun 07 j 01:35 7°956'32 morning rise direct -10816 Dec 15 j 06:55 27°**Ⅲ**17'43 -10809 Sep 03 j 06:24 9°9547'13 retrograde evening set -10815 Mar 03 j 14:58 25°**I** 58'52 29.75284 AU min. Earth dist. -10809 Sep 17 j 03:29 10°5017'11 6°10'33 -10815 Mar 05 j 08:18 25°**I** 56'08 10°28'24 opposition conjunction -10815 May 23 j 14:58 24°**Ⅲ**35'09 -10809 Sep 17 j 03:44 10°517'12 6°11'09 direct minimum elong evening set -10815 Aug 22 j 23:51 26°**Д**37'33 max. Earth dist. -10809 Sep 19 j 15:12 10°522'35 32.86045 AU morning rise -10809 Oct 01 j 02:40 10°547'20 conjunction -10815 Sep 03 j 17:54 27°**I**I04'16 9°32'53 retrograde -10809 Dec 31 j 05:52 12°541'09 minimum elong -10815 Sep 03 j 18:15 27°**Д**04'18 9°33'28 min. Earth dist. -10808 Mar 18 j 18:17 11°\$25'27 30.97262 AU max. Earth dist. -10815 Sep 05 j 13:01 27°**Д**08'23 31.79797 AU -10808 Mar 21 j 06:19 11°521'36 6°15'54 opposition morning rise -10815 Sep 15 j 13:21 27°**Д**31'08 -10808 Jun 08 j 14:14 10°503'18 direct -10815 Dec 17 j 18:46 29°**Д**35'39 -10808 Sep 04 j 07:32 11°552'21 retrograde evening set -10814 Mar 06 j 03:08 28°**Д**17'19 29.90364 AU min. Earth dist. -10814 Mar 08 j 00:16 28° II 14'21 9°53'30 -10808 Sep 18 j 10:30 12°522'35 5°36'06 opposition conjunction -10808 Sep 18 j 10:44 12°522'36 5°36'42 direct -10814 May 26 j 07:27 26° **П**53'43 minimum elong -10814 Aug 25 j 00:49 28°**Д**53'57 -10808 Sep 20 j 23:36 12°528'04 33.06452 AU evening set max. Earth dist. morning rise -10808 Oct 02 j 15:51 12°553'00 conjunction -10814 Sep 06 i 05:17 29° II 21'26 9° 00'05 retrograde -10807 Jan 01 i 14:19 14°5645'19 -10814 Sep 06 i 05:38 29° II 21'28 9° 00'41 min. Earth dist. -10807 Mar 21 j 01:01 13°530'11 31.17801 AU minimum elong max. Earth dist. -10814 Sep 08 j 03:11 29°Д25'47 31.95580 AU opposition -10807 Mar 23 j 16:20 13°526'09 5°39'04 -10814 Sep 18 j 11:24 29°Д49'04 direct -10807 Jun 11 j 00:55 12°508'18 morning rise -10814 Sep 23 j 09:56 000 evening set -10807 Sep 06 j 08:36 13°555'48 retrograde -10814 Dec 20 j 05:52 1°951'38 min. Earth dist. -10813 Mar 08 j 16:37 0°533'40 30.06202 AU conjunction -10807 Sep 20 j 16:57 14°\$26'14 5°01'39 opposition -10813 Mar 10 j 15:33 0°530'35 9°18'03 minimum elong -10807 Sep 20 j 17:09 14°526'15 5°02'14 -10813 Mar 30 j 12:50 30°RⅡ -10807 Sep 23 j 09:03 14°531'57 33.27520 AU max. Earth dist. -10813 May 28 j 21:03 29°**Ⅲ**10′20 -10807 Oct 05 j 03:45 14°556'53 direct morning rise -10813 Jul 23 j 17:52 -10806 Jan 03 j 19:53 16°547'48 0ಂತಾ retrograde -10813 Aug 27 j 01:59 -10806 Mar 23 j 09:28 15°533'05 31.38988 AU evening set 1°9508'28 min. Earth dist. opposition -10806 Mar 26 j 01:48 15°529'00 5°02'18 conjunction -10813 Sep 08 j 16:08 1°536'37 8°26'48 direct -10806 Jun 13 j 10:22 14°511'37

minimum elong

max. Earth dist.

morning rise

retrograde

-10813 Sep 08 j 16:27

-10813 Sep 10 j 16:51

-10813 Sep 21 j 07:51

-10813 Dec 22 j 16:23

1°**©**36'39

2°9504'55

4°9505'33

8°27'23

1°541'11 32.12116 AU

evening set

conjunction

minimum elong

-10806 Sep 08 j 09:37 15°557'38

-10806 Sep 22 j 22:44 16°528'13 4°27'15

-10806 Sep 22 j 22:55 16°\$28'14 4°27'51

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Earth dist. morning rise -10799 Oct 21 j 07:25 0°**Ω**25'29 conjunction -10805 Sep 25 j 03:57 18°\$28'32 3°52'58 retrograde -10798 Jan 19 j 00:09 2°**Ω**07′10 minimum elong -10805 Sep 25 j 04:06 18°\$28'33 3°53'32 min. Earth dist. -10798 Apr 07 j 20:37 0°**Ω**55'50 33.23246 AU max. Earth dist. -10805 Sep 27 j 23:24 18°534'26 33.71310 AU opposition -10798 Apr 11 j 01:03 0°Ω51'12 0°17'14 -10805 Oct 09 j 23:52 18°559'25 morning rise -10798 May 19 j 19:42 30°Rூ retrograde -10804 Jan 08 j 06:18 20°547'43 direct -10798 Jun 29 j 12:47 29°537'00 min. Earth dist. -10804 Mar 26 j 22:05 19°533'57 31.82942 AU -10798 Aug 07 j 18:42 $0^{\circ}\Omega$ opposition -10804 Mar 29 j 18:05 19°529'42 3°49'11 evening set -10798 Sep 22 j 15:48 1°Ω13'31 direct -10804 Jun 17 j 01:16 18°513'12 evening set -10804 Sep 11 j 11:52 19°556'30 conjunction -10798 Oct 07 j 22:36 1°**Ω**43'30 0°00'35 minimum elong -10798 Oct 07 j 22:38 1°**Ω**43'30 0°01'07 conjunction -10804 Sep 26 j 08:39 20°527'12 3°18'52 behind sun begin -10798 Oct 07 j 16:15 1°**Ω**43'00 minimum elong -10804 Sep 26 j 08:47 20°527'13 behind sun end -10798 Oct 08 j 05:01 1°**Ω**43'59 max. Earth dist. -10804 Sep 29 j 06:00 20°533'13 33.93856 AU max. Earth dist. -10798 Oct 11 j 03:50 1° Ω 49'51 35.35491 AU morning rise -10804 Oct 11 j 08:02 20°\$58'08 desc. node -10798 Oct 14 i 03:52 $1^{\circ}\Omega$ 55'46 retrograde -10803 Jan 09 i 10:31 22°545'12 morning rise -10798 Oct 23 j 08:44 2°**Ω**13'43 min. Earth dist. -10803 Mar 29 i 03:24 21°531'54 32.05533 AU retrograde -10797 Jan 20 j 23:43 3°**£**54'30 opposition -10803 Apr 01 i 01:06 21°527'34 3°12'58 min. Earth dist. -10797 Apr 09 j 22:48 2°**Ω**43'29 33.47828 AU -10803 Jun 19 j 08:33 20°511'30 -10797 Apr 13 j 03:42 $2^{\circ}\Omega$ 38'51 -0°16'35 direct opposition -10803 Sep 13 j 12:52 21°553'31 -10797 Jul 01 j 15:24 evening set direct 1°Ω25'02 evening set -10797 Sep 24 j 15:55 3°**Ω**00′38 -10803 Sep 28 j 12:28 22°524'12 2°45'00 conjunction -10797 Oct 09 j 22:55 -10803 Sep 28 j 12:34 22°524'13 2°45'34 3°**Ω**30'21 -0°31'09 minimum elong conjunction -10803 Oct 01 j 10:28 22°530'13 34.16728 AU -10797 Oct 09 j 22:54 max. Earth dist. minimum elong 3°**Ω**30′21 0°30′38 -10803 Oct 13 j 15:05 22°555'08 -10797 Oct 13 j 05:36 3° Ω 36'47 35.60249 AU max. Earth dist. morning rise -10802 Jan 11 j 16:15 24°541'02 morning rise -10797 Oct 25 j 08:57 4°Ω00'20 retrograde -10802 Mar 31 j 08:25 23°528'09 32.28465 AU -10796 Jan 22 j 22:11 $5^{\circ}\Omega 40'16$ min. Earth dist. retrograde -10802 Apr 03 j 07:34 23°523'45 2°37'04 -10796 Apr 10 j 22:45 4° **Ω**29'41 33.72764 AU opposition min. Earth dist. -10796 Apr 14 j 05:21 4° Ω24'58 -0°49'53 direct -10802 Jun 21 j 14:06 22°508'05 opposition -10802 Sep 15 j 13:45 23°548'53 -10796 Jul 02 j 18:05 3°**Ω**11'31 evening set direct evening set -10796 Sep 25 j 16:01 4°**Ω**46'17 conjunction -10802 Sep 30 j 15:57 24°519'31 2°11'24 minimum elong -10802 Sep 30 j 16:02 24°\$19'31 2°11'59 conjunction -10796 Oct 10 j 22:28 5° Ω 15'43 -1°02'20 max. Earth dist. -10802 Oct 03 j 16:16 24°\$25'41 34.39895 AU minimum elong -10796 Oct 10 j 22:25 5° Ω 15'43 1°01'49 -10802 Oct 15 j 20:56 24°550'23 max. Earth dist. -10796 Oct 14 j 05:42 5° Ω 22'08 35.85330 AU morning rise -10801 Jan 13 j 19:54 26°535'09 -10796 Oct 26 j 08:17 5°**Ω**45'25 retrograde morning rise -10801 Apr 02 j 13:15 25°\$22'37 32.51684 AU -10795 Jan 23 j 23:13 7°**Ω**24'34 min. Earth dist. retrograde -10801 Apr 05 j 13:03 25°5518'13 2°01'29 -10795 Apr 12 j 22:57 6° **Ω**14'22 33.98040 AU opposition min. Earth dist. direct -10801 Jun 23 j 21:01 24°\$02'55 opposition -10795 Apr 16 j 06:41 $6^{\circ}\Omega$ 09'37 -1°22'38 evening set -10801 Sep 17 j 14:34 25°542'35 direct -10795 Jul 04 j 17:01 4°**Ω**56'34 evening set -10795 Sep 27 j 15:42 6° **Ω**30'31 -10801 Oct 02 j 18:36 26°\$13'06 1°38'08 conjunction -10801 Oct 02 i 18:40 26°\$13'06 1°38'41 conjunction -10795 Oct 12 j 21:30 $6^{\circ}\Omega$ 59'40 -1°33'02 minimum elong max. Earth dist. minimum elong -10801 Oct 05 j 19:06 26°519'13 34.63333 AU -10795 Oct 12 j 21:27 6°Ω59'40 1°32'32 -10801 Oct 18 j 01:44 26°543'52 -10795 Oct 16 j 06:51 7°**Ω**06'12 36.10704 AU morning rise max. Earth dist. -10800 Jan 15 j 23:54 28°527'33 -10795 Oct 28 j 06:23 7°**\O2**9'03 retrograde morning rise min. Earth dist. -10800 Apr 03 j 15:54 27°515'27 32.75205 AU retrograde -10794 Jan 25 j 21:51 9°**Ω**07'29 -10800 Apr 06 j 17:49 27°510'56 1°26'18 min. Earth dist. -10794 Apr 14 j 23:14 7°**Ω**57'38 34.23573 AU opposition direct -10800 Jun 25 j 01:21 25°556'01 opposition -10794 Apr 18 j 07:21 7° **Ω**52'54 -1°54'50 evening set -10800 Sep 18 j 15:05 27°534'34 direct -10794 Jul 06 j 17:38 6°**Ω**40'13 -10794 Sep 29 j 15:35 8°**Ω**13'27 evening set -10800 Oct 03 j 20:34 28°504'56 1°05'12 conjunction -10800 Oct 03 j 20:36 28°504'56 1°05'46 -10794 Oct 14 j 20:06 8°Ω42'16 -2°03'14 minimum elong conjunction -10800 Oct 06 j 23:20 28°511'12 34.87049 AU max. Earth dist. minimum elong -10794 Oct 14 j 20:01 8°**Ω**42'15 2°02'43 morning rise -10800 Oct 19 j 05:04 28°535'33 max. Earth dist. -10794 Oct 18 j 05:20 8°**Ω**48'44 36.36288 AU -10800 Dec 12 j 04:37 0 $^{\circ}\Omega$ morning rise -10794 Oct 30 j 03:56 9°**Ω**11′20 retrograde -10799 Jan 16 j 23:37 0°**£**18′13 retrograde -10793 Jan 27 j 22:19 10°**Ω**49'04 -10799 Feb 22 j 16:09 30°Rூ min. Earth dist. -10793 Apr 16 j 21:39 9°**Ω**39'39 34.49306 AU min. Earth dist. -10799 Apr 05 j 19:43 29°506'26 32.99044 AU -10793 Apr 20 j 07:17 9°**Ω**34'50 -2°26'27 opposition -10799 Apr 08 j 21:50 29°501'55 0°51'32 -10793 Jul 08 j 17:00 8°**Ω**22'33 opposition direct

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evening set	-10793 Oct 01 j 15:19			conjunction	-10787 Oct 25 j 21:20		
8-11	, , , , , , , , , , , , , , , , , , ,			minimum elong	-10787 Oct 25 j 21:09		
conjunction	-10793 Oct 16 j 18:18	10°Ω23'33	-2°32'54	max. Earth dist.	-10787 Oct 29 j 09:12		
minimum elong	-10793 Oct 16 j 18:13			morning rise	-10787 Nov 09 j 10:44		
max. Earth dist.	-10793 Oct 20 j 05:14			retrograde	-10786 Feb 07 j 20:27		
morning rise	-10793 Nov 01 j 00:30			min. Earth dist.	-10786 Apr 28 j 04:13		36.29640 AU
retrograde	-10792 Jan 29 j 20:00			opposition	-10786 May 01 j 15:35		
min. Earth dist.	-10792 Apr 17 j 21:41		34 75140 AU	direct	-10786 Jul 20 j 05:18		2 2023
opposition	-10792 Apr 21 j 06:47			evening set	-10786 Oct 13 j 09:41		
direct	-10792 Jul 09 j 18:14		2 0 , 2 ,	evening sec	10,000 000 15 1 05.11	21 0011 00	
evening set	-10792 Oct 02 j 14:54			conjunction	-10786 Oct 27 j 16:13	21°Ω36'30	-5°45'07
e vennig see	10772 000 02 1 1	11 0000 20		minimum elong	-10786 Oct 27 j 16:03		
conjunction	-10792 Oct 17 j 15:56	12°Ω03'34	-3°02'02	max. Earth dist.	-10786 Oct 31 j 05:29		
minimum elong	-10792 Oct 17 j 15:50			morning rise	-10786 Nov 11 j 01:43		30.11.11.110
max. Earth dist.	-10792 Oct 21 j 02:37			retrograde	-10785 Feb 09 j 14:41		
morning rise	-10792 Nov 01 j 20:07		30.07772710	min. Earth dist.	-10785 Apr 30 j 00:24		36 55374 AU
retrograde	-10791 Jan 30 j 17:54			opposition	-10785 May 03 j 11:03		
min. Earth dist.	-10791 Apr 19 j 19:11		35.01003.ATI	direct	-10785 Jul 22 j 02:09		0 17 33
opposition	-10791 Apr 23 j 05:36			evening set	-10785 Oct 15 j 08:12		
direct	-10791 Jul 11 j 18:18		3 27 33	evening set	10703 001 13 3 00.12	22 00-12 33	
evening set	-10791 Oct 04 j 14:32			conjunction	-10785 Oct 29 j 10:41	23°Ω07'36	-6°10'15
evening set	-10/71 Oct 04 j 14.32	15 661450		minimum elong	-10785 Oct 29 j 10:41		
conjunction	-10791 Oct 19 j 13:11	130 0 12 11 8	3°30'37	max. Earth dist.	-10785 Nov 01 j 23:52		
minimum elong	-10791 Oct 19 j 13:11 -10791 Oct 19 j 13:03			morning rise	-10785 Nov 12 j 15:54		38.07020 AU
max. Earth dist.	-10791 Oct 19 j 13:03 -10791 Oct 23 j 00:26			retrograde	-10784 Feb 11 j 07:22		
morning rise	-10791 Oct 23 j 00:20 -10791 Nov 03 j 15:09		37.13320 AU	min. Earth dist.	-10784 Apr 30 j 18:02		26 01177 AII
morning rise	-10791 Nov 03 j 13:09 -10791 Dec 03 j 13:51				-10784 May 04 j 06:00		
	3			opposition			-0-43/38
retrograde	-10790 Feb 01 j 13:16			direct	-10784 Jul 22 j 22:42		
: E 4 E 4	-10790 Apr 05 j 06:49		25.26042.411	evening set	-10784 Oct 16 j 06:30	24 3 (13 00	
min. Earth dist.	-10790 Apr 21 j 18:15				10704 0 + 20 : 04 27	240 027126	6924140
opposition	-10790 Apr 25 j 04:02		-3°5/44	conjunction	-10784 Oct 30 j 04:27		
direct	-10790 Jul 13 j 17:10			minimum elong	-10784 Oct 30 j 04:15		
evening set	-10790 Oct 06 j 13:52			max. Earth dist.	-10784 Nov 02 j 18:00		38.92691 AU
	-10790 Oct 10 j 17:26	15°81		morning rise	-10784 Nov 13 j 05:20		
	10500 0 . 01 . 10 05	1.50 0 10144	2050120	retrograde	-10783 Feb 11 j 23:34		27 070 10 1 11
conjunction	-10790 Oct 21 j 10:05			min. Earth dist.	-10783 May 02 j 12:56		
minimum elong	-10790 Oct 21 j 09:57			opposition	-10783 May 06 j 00:40		-/°09'02
max. Earth dist.	-10790 Oct 24 j 21:52		37.39215 AU	direct	-10783 Jul 24 j 17:47		
morning rise	-10790 Nov 05 j 09:16			evening set	-10783 Oct 18 j 04:39	25° 8 l 42'37	
retrograde	-10789 Feb 03 j 08:02						
min. Earth dist.	-10789 Apr 23 j 15:27			conjunction	-10783 Oct 31 j 22:07		
opposition	-10789 Apr 27 j 01:46		-4°26'58	minimum elong	-10783 Oct 31 j 21:54		
	-10789 Jul 06 j 13:17			max. Earth dist.	-10783 Nov 04 j 12:39		39.18413 AU
direct	-10789 Jul 15 j 16:18			morning rise	-10783 Nov 14 j 18:06		
	-10789 Jul 24 j 15:17			retrograde	-10782 Feb 13 j 15:55		
evening set	-10789 Oct 08 j 13:14	16° &¿ 29'01		min. Earth dist.	-10782 May 04 j 06:45		
		_		opposition	-10782 May 07 j 18:39		-7°33'48
conjunction	-10789 Oct 23 j 06:21			direct	-10782 Jul 26 j 12:10		
minimum elong	-10789 Oct 23 j 06:12			evening set	-10782 Oct 20 j 02:50	27° 81 11'13	
max. Earth dist.	-10789 Oct 26 j 17:33		37.64811 AU			_	
morning rise	-10789 Nov 07 j 02:43			conjunction	-10782 Nov 02 j 15:16		
retrograde	-10788 Feb 05 j 05:14			minimum elong	-10782 Nov 02 j 15:03		
min. Earth dist.	-10788 Apr 24 j 12:20			max. Earth dist.	-10782 Nov 06 j 05:05		39.44128 AU
opposition	-10788 Apr 27 j 22:53		-4°55'34	morning rise	-10782 Nov 16 j 06:26		
direct	-10788 Jul 16 j 11:36			retrograde	-10781 Feb 15 j 10:47		
evening set	-10788 Oct 09 j 12:12	18° Ω 04'17		min. Earth dist.	-10781 May 05 j 23:56		
				opposition	-10781 May 09 j 12:20		-7°57'56
conjunction	-10788 Oct 24 j 02:12			direct	-10781 Jul 28 j 03:36		
minimum elong	-10788 Oct 24 j 02:02			evening set	-10781 Oct 22 j 00:52	28° Ω 38'56	
max. Earth dist.	-10788 Oct 27 j 14:40		37.90350 AU				
morning rise	-10788 Nov 07 j 19:07	18° Ω 57'20		conjunction	-10781 Nov 04 j 08:15		
retrograde	-10787 Feb 05 j 23:48	20° Ω 31'44		minimum elong	-10781 Nov 04 j 08:02	29° Ω 01′54	7°44'34
min. Earth dist.	-10787 Apr 26 j 09:21	19° Ω 24'05	36.03959 AU	max. Earth dist.	-10781 Nov 07 j 23:06	29° Ω 08′12	39.69772 AU
opposition	-10787 Apr 29 j 19:30		-5°23'33	morning rise	-10781 Nov 17 j 18:05	29° Ω 25′05	
direct	-10787 Jul 18 j 09:19	18° Ω 09'04			-10781 Dec 09 j 09:19	0° m	
evening set	-10787 Oct 11 j 10:58	19° Ω 38'16		retrograde	-10780 Feb 17 j 03:49	0° m ,57'11	
					-10780 Apr 30 j 08:40	30°R Ω	

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10780 in astronomical counting style is the year 10781 BCE in historical counting style. -10780 May 06 j 18:10 29°**Ω**51'33 37.84590 AU minimum elong -10774 Nov 13 j 21:19 8° mp 47'06 10°08'33 min. Earth dist. -10780 May 10 j 05:29 29° Ω 46'56 -8°21'26 max. Earth dist. -10774 Nov 17 j 10:00 8° m 52'58 41.43302 AU opposition direct -10780 Jul 28 j 21:10 28°**Ω**38'45 -10774 Nov 25 j 12:23 morning rise 9° m 06'21 0° M -10780 Oct 19 j 12:05 retrograde -10773 Feb 26 j 12:59 10° M 37'20 -10780 Oct 22 j 22:53 evening set 0° Mp 05'48 min. Earth dist. -10773 May 17 j 10:56 9° m 33'10 39.58737 AU opposition -10773 May 20 j 19:09 9° m 28'50 -10°49'19 -10780 Nov 05 j 00:50 conjunction 0° m $28'15 - 8^{\circ}07'08$ direct -10773 Aug 08 j 15:01 8° Mp 22'20 minimum elong -10780 Nov 05 j 00:38 0° m/28'15 8°06'48 evening set -10773 Nov 04 j 05:45 9° m/48'27 max. Earth dist. -10780 Nov 08 j 14:36 0°Mp34'26 39.95286 AU morning rise -10780 Nov 18 j 05:11 0° m 50'53 conjunction -10773 Nov 15 j 11:51 10° m 06'58 -10°27'09 retrograde -10779 Feb 17 j 21:55 2° m 22'47 minimum elong -10773 Nov 15 j 11:36 10° m 06'57 10°26'53 -10773 Nov 18 j 23:37 10° m 12'45 41.67294 AU min. Earth dist. -10779 May 08 j 10:20 1°Mp17'28 38.10201 AU max. Earth dist. opposition -10779 May 11 j 22:17 1° To 12'50 -8°44'20 morning rise -10773 Nov 26 j 19:29 10° m 25'36 direct -10779 Jul 30 j 14:07 0° Mp 04'56 retrograde -10772 Feb 28 j 02:25 11° m 56'31 evening set -10779 Oct 24 j 20:44 1°m/31'49 min. Earth dist. -10772 May 18 j 00:13 10° **m** 52'36 39.82871 AU opposition -10772 May 21 j 09:06 10° **m** 48'15 -11°08'05 conjunction -10779 Nov 06 j 17:04 1° m 53'44 -8°28'47 direct -10772 Aug 09 j 06:25 9° Mp 41'58 minimum elong -10779 Nov 06 j 16:50 1° m 53'43 8°28'27 evening set -10772 Nov 05 j 02:49 11° Mp 08'04 max. Earth dist. -10779 Nov 10 j 07:05 1° m 59'53 40.20589 AU morning rise -10779 Nov 19 j 15:48 2° m 15'49 conjunction -10772 Nov 16 j 01:43 11° m 26'00 -10°44'57 retrograde -10778 Feb 19 j 13:47 3° m 47'32 minimum elong -10772 Nov 16 j 01:28 11° m 25'59 10°44'43 min. Earth dist. -10778 May 10 j 04:22 2°m/42'24 38.35582 AU max. Earth dist. -10772 Nov 19 j 13:17 11° m 31'44 41.91177 AU opposition -10778 May 13 j 14:53 2° m 37'51 -9°06'38 morning rise -10772 Nov 27 j 02:16 11° mp 44'02 direct -10778 Aug 01 i 07:26 1° m 30'14 retrograde -10771 Feb 28 i 14:58 13° mp 14'56 evening set -10778 Oct 26 j 18:37 2° m 56'57 min. Earth dist. -10771 May 19 j 14:53 12° Mp 11'11 40.06914 AU opposition -10771 May 22 j 22:59 12° m 06'53 -11°26'16 -10778 Nov 08 i 09:14 3°m18'19 -8°49'53 -10771 Aug 10 j 20:57 11° Mp 00'51 conjunction direct -10778 Nov 08 j 09:00 3° m 18'18 8°49'34 evening set -10771 Nov 06 j 23:41 12° m/26'57 minimum elong -10778 Nov 11 j 22:47 3° m 24'24 40.45644 AU max. Earth dist. -10778 Nov 21 j 01:53 3° m 39'50 -10771 Nov 17 j 15:24 12° m/44'17 -11°02'12 morning rise conjunction retrograde -10777 Feb 21 j 02:19 5° Mp 11'23 -10771 Nov 17 j 15:10 12° mp 44'16 11°01'57 minimum elong -10777 May 11 j 20:13 4° My 06'30 38.60683 AU -10771 Nov 21 j 03:29 12° m 50'01 42.14966 AU min. Earth dist. max. Earth dist. 4° mg 01'58 -9°28'20 -10777 May 15 j 06:47 -10771 Nov 28 j 08:24 13° Mp 01'43 opposition morning rise -10777 Aug 03 j 02:09 2° m 54'36 -10770 Mar 02 j 01:59 14° m 32'37 direct retrograde -10777 Oct 28 j 16:27 -10770 May 21 j 04:34 13° m 29'06 40.30822 AU evening set 4° m/21'09 min. Earth dist. -10770 May 24 j 12:27 13° m 24'50 -11°43'53 opposition -10777 Nov 10 j 00:51 4° m 41'58 -9°10'26 conjunction direct -10770 Aug 12 j 12:20 12° m 19'03 minimum elong -10777 Nov 10 j 00:37 4° mg 41'57 9°10'07 evening set -10770 Nov 08 j 20:46 13° Mp 45'10 max. Earth dist. -10777 Nov 13 j 13:15 4° Mp 47'56 40.70407 AU -10770 Nov 19 j 04:48 14° Mp 01'55 -11°18'55 morning rise -10777 Nov 22 j 11:31 5° Mp 02'56 conjunction retrograde -10776 Feb 22 j 16:51 6° Mp 34'18 minimum elong -10770 Nov 19 j 04:34 14° m 01'54 11°18'42 -10776 May 12 j 12:38 5° m/29'37 38.85515 AU max. Earth dist. -10770 Nov 22 j 15:29 14° m 07'31 42.38606 AU min. Earth dist. -10776 May 15 j 22:33 5° m 25'08 -9°49'28 -10770 Nov 29 j 14:16 14° Mp 18'45 opposition morning rise -10776 Aug 03 j 18:07 -10769 Mar 03 j 17:05 15° **m** 49'39 direct 4° m 18'00 retrograde -10776 Oct 29 j 13:47 -10769 May 22 j 17:41 14° m 46'23 40.54575 AU evening set 5° m 44'24 min. Earth dist. opposition -10769 May 26 j 01:31 14° mp 42'08 -12°00'56 -10776 Nov 10 i 16:04 6° m 04'39 -9°30'26 conjunction direct -10769 Aug 13 j 23:25 13° m 36'36 -10769 Nov 10 j 17:41 15° **m** 02'48 -10776 Nov 10 j 15:50 minimum elong 6° m 04'38 9°30'09 evening set max. Earth dist. -10776 Nov 14 j 05:07 6° 10'37 40.94909 AU -10776 Nov 22 i 20:13 6° m 25'02 -10769 Nov 20 j 18:05 15° m 18'56 -11°35'07 morning rise conjunction -10775 Feb 23 j 06:42 7° m 56'16 minimum elong -10769 Nov 20 j 17:51 15° m 18'55 11°34'54 retrograde min. Earth dist. -10775 May 14 j 04:49 6° Mp 51'44 39.10092 AU -10769 Nov 24 j 05:23 15° m 24'32 42.62052 AU max. Earth dist. -10775 May 17 j 13:50 -10769 Nov 30 j 19:39 15° **m** 35'09 6° mp 47'19 -10°10'00 opposition morning rise direct -10775 Aug 05 j 09:56 5° m 40'24 retrograde -10768 Mar 04 j 06:31 17° Mp 06'07 -10768 May 23 j 08:10 16° Mp 03'01 40.78094 AU evening set -10775 Oct 31 j 11:17 7° Mp 06'41 min. Earth dist. -10768 May 26 j 14:26 15° Mp 58'52 $-12^{\circ}17'27$ opposition conjunction -10775 Nov 12 j 06:56 7° m/26'21 -9°49'54 -10768 Aug 14 j 11:35 14° **m** 53'35 direct -10775 Nov 12 j 06:42 7° m/26'20 9°49'36 -10768 Nov 11 j 14:36 16° Mp 19'52 minimum elong evening set -10775 Nov 15 j 18:41 7° Mp 32'12 41.19191 AU max. Earth dist. -10775 Nov 24 j 04:32 -10768 Nov 21 j 06:56 16° m 35'23 -11°50'49 morning rise 7° Mp 46'10 conjunction -10768 Nov 21 j 06:41 16° m 35'22 11°50'38 retrograde -10774 Feb 24 j 22:50 9° Mp 17'16 minimum elong min. Earth dist. -10774 May 15 j 19:06 8° Mp 12'58 39.34489 AU max. Earth dist. -10768 Nov 24 j 16:53 16° Mp 40'53 42.85245 AU opposition -10774 May 19 j 04:37 8° m 08'33 -10°29'57 morning rise -10768 Dec 01 j 00:18 16° m 50'59 retrograde direct -10774 Aug 06 j 23:39 7° m 01'50 -10767 Mar 05 j 19:59 18° Mp 22'01 evening set -10774 Nov 02 j 08:32 8° m 28'01 min. Earth dist. -10767 May 24 j 20:29 17° **m** 19'11 41.01323 AU

opposition

direct

-10774 Nov 13 j 21:33 8° Mp 47'07 -10°08'48

conjunction

-10767 May 28 j 03:00 17° m 15'02 -12°33'27

-10767 Aug 16 j 00:14 16° Mp 09'59

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11

•	nical year style is used: The		•				age 11
evening set	-10767 Nov 13 j 11:38	•	in astronomical co	min. Earth dist.	-10760 Jun 02 j 11:11		
evening set	-10/0/ NOV 13 J 11.38	17 111/3023			-10760 Jun 02 j 11:11		
:	107(7 N 22 : 10.44	170 m, 51117	12007/02	opposition	,		-14 1141
conjunction	-10767 Nov 22 j 19:44			direct	-10760 Aug 24 j 14:31		
minimum elong max. Earth dist.	-10767 Nov 22 j 19:30	-		evening set	-10760 Nov 24 j 16:41	20 111/14 30	
	-10767 Nov 26 j 05:08		43.08104 AU		107(0 D 01 : 0(-20	2(0m, 2510(12920125
morning rise	-10767 Dec 02 j 04:55			conjunction	-10760 Dec 01 j 06:39		
retrograde	-10766 Mar 07 j 07:38		41 24100 ATT	minimum elong	-10760 Dec 01 j 06:26		
min. Earth dist.	-10766 May 26 j 10:39			max. Earth dist.	-10760 Dec 04 j 10:01		44.37887 AU
opposition	-10766 May 29 j 15:22		-12-48-30	morning rise	-10760 Dec 07 j 20:59		
direct	-10766 Aug 17 j 14:11			retrograde	-10759 Mar 15 j 10:55		42 74120 ATT
evening set	-10766 Nov 15 j 08:48	18°11052'22		min. Earth dist.	-10759 Jun 03 j 22:28		
	1076631 24:00.20	100 7 0 (120	12020147	opposition	-10759 Jun 06 j 21:48		-14°23'47
conjunction	-10766 Nov 24 j 08:30	-		direct	-10759 Aug 26 j 02:28		
minimum elong	-10766 Nov 24 j 08:16			evening set	-10759 Nov 26 j 14:41	2/*110/26/35	
max. Earth dist.	-10766 Nov 27 j 17:10		43.30592 AU		10750 D 02:17.40	270m 2 (100	12051106
morning rise	-10766 Dec 03 j 08:58			conjunction	-10759 Dec 02 j 17:40		
retrograde	-10765 Mar 08 j 17:17		41 46650 477	minimum elong	-10759 Dec 02 j 17:28		
min. Earth dist.	-10765 May 27 j 23:17	•		max. Earth dist.	-10759 Dec 05 j 21:25	~	44.78206 AU
opposition	-10765 May 31 j 03:23	~	-13°03'56	morning rise	-10759 Dec 08 j 20:48		
direct	-10765 Aug 19 j 05:02			retrograde	-10758 Mar 16 j 19:39		
evening set	-10765 Nov 17 j 05:59	20° m) 07'45		min. Earth dist.	-10758 Jun 05 j 09:40		
				opposition	-10758 Jun 08 j 07:53		-14°35'24
conjunction	-10765 Nov 25 j 20:47	-		direct	-10758 Aug 27 j 14:16	-•	
minimum elong	-10765 Nov 25 j 20:34			evening set	-10758 Nov 28 j 13:14	28° m) 37'46	
max. Earth dist.	-10765 Nov 29 j 03:40		43.52653 AU				
morning rise	-10765 Dec 04 j 12:28			conjunction	-10758 Dec 04 j 04:23		
retrograde	-10764 Mar 09 j 05:17			minimum elong	-10758 Dec 04 j 04:11		
min. Earth dist.	-10764 May 28 j 11:58			max. Earth dist.	-10758 Dec 07 j 06:24		44.98297 AU
opposition	-10764 May 31 j 15:10		-13°18'27	morning rise	-10758 Dec 09 j 19:41		
direct	-10764 Aug 19 j 16:38				-10757 Jan 26 j 22:23		
evening set	-10764 Nov 18 j 03:04	21°M)22'29		retrograde	-10757 Mar 18 j 07:56		
					-10757 May 08 j 15:39		
conjunction	-10764 Nov 26 j 08:57			min. Earth dist.	-10757 Jun 06 j 19:35		
minimum elong	-10764 Nov 26 j 08:43	~		opposition	-10757 Jun 09 j 17:51		-14°46'33
max. Earth dist.	-10764 Nov 29 j 15:58		43.74318 AU	direct	-10757 Aug 28 j 22:38		
morning rise	-10764 Dec 04 j 15:27			evening set	-10757 Nov 30 j 12:13	29° m 48'31	
retrograde	-10763 Mar 10 j 16:40						
min. Earth dist.	-10763 May 30 j 00:59	-		conjunction	-10757 Dec 05 j 14:53	29° m 56'19	-14°12'48
opposition	-10763 Jun 02 j 02:39		-13°32'30	minimum elong	-10757 Dec 05 j 14:41	-	14°12'46
direct	-10763 Aug 21 j 04:28				-10757 Dec 08 j 00:58		
evening set	-10763 Nov 20 j 00:19	22° M 36'33		max. Earth dist.	-10757 Dec 08 j 16:57		45.18112 AU
				morning rise	-10757 Dec 10 j 17:36		
conjunction	-10763 Nov 27 j 20:43	-		retrograde	-10756 Mar 18 j 19:29		
minimum elong	-10763 Nov 27 j 20:30			min. Earth dist.	-10756 Jun 07 j 07:14		43.34434 AU
max. Earth dist.	-10763 Dec 01 j 01:56	-	43.95626 AU	opposition	-10756 Jun 10 j 03:37	0° ≏ 32'37	-14°57'15
morning rise	-10763 Dec 05 j 17:42	~			-10756 Jul 08 j 00:16		
retrograde	-10762 Mar 12 j 06:49			direct	-10756 Aug 29 j 07:27		
min. Earth dist.	-10762 May 31 j 12:04	-			-10756 Oct 19 j 12:52		
opposition	-10762 Jun 03 j 13:49	-	-13°46'03	evening set	-10756 Dec 01 j 12:20	0° £ 58'54	
direct	-10762 Aug 22 j 13:34	~					
evening set	-10762 Nov 21 j 21:38	23° m 49'58		conjunction	-10756 Dec 06 j 01:20		
				minimum elong	-10756 Dec 06 j 01:08		
conjunction	-10762 Nov 29 j 08:22	-		max. Earth dist.	-10756 Dec 09 j 02:07		45.37618 AU
minimum elong	-10762 Nov 29 j 08:08			morning rise	-10756 Dec 10 j 14:16		
max. Earth dist.	-10762 Dec 02 j 13:27		44.16617 AU	retrograde	-10755 Mar 20 j 06:07		
morning rise	-10762 Dec 06 j 19:36			min. Earth dist.	-10755 Jun 08 j 16:52		43.53900 AU
retrograde	-10761 Mar 13 j 17:47	-		opposition	-10755 Jun 11 j 13:04		-15°07'32
min. Earth dist.	-10761 Jun 02 j 00:44			direct	-10755 Aug 30 j 17:04		
opposition	-10761 Jun 05 j 00:41		-13°59'07	evening set	-10755 Dec 03 j 13:44	2° ≏ 08'57	
direct	-10761 Aug 24 j 00:26						
evening set	-10761 Nov 23 j 19:12	25° m 02'45		conjunction	-10755 Dec 07 j 11:32		
				minimum elong	-10755 Dec 07 j 11:20		
conjunction	-10761 Nov 30 j 19:47			max. Earth dist.	-10755 Dec 10 j 10:54		45.56732 AU
minimum elong	-10761 Nov 30 j 19:35			morning rise	-10755 Dec 11 j 09:14		
max. Earth dist.	-10761 Dec 04 j 00:19		44.37366 AU	retrograde	-10754 Mar 21 j 14:38		
morning rise	-10761 Dec 07 j 20:41			min. Earth dist.	-10754 Jun 10 j 04:07		43.72955 AU
retrograde	-10760 Mar 14 j 01:47	26° My 56'34		opposition	-10754 Jun 12 j 22:33	2° ≏ 50'42	-15°17'23

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10754 in astronomical counting style is the year 10755 BCE in historical counting style. direct -10754 Sep 01 i 03:53 1°**2**48'00 opposition -10746 Jun 21 j 17:59 11° **2**44'01 -16°22'04 evening set -10754 Dec 05 j 17:43 3°**△**18'42 direct -10746 Sep 10 j 06:00 10° **△**42'20 -10754 Dec 08 j 21:53 3°**2**23'29 -14°42'15 -10746 Dec 18 i 00:15 12° **2**15'05 -15° 43'56 conjunction conjunction -10754 Dec 08 j 21:42 3°**2**23'28 14°42'14 -10746 Dec 18 j 00:07 12° **2**15'04 15° 44'01 minimum elong minimum elong -10754 Dec 12 j 01:50 -10746 Dec 20 j 14:25 12°**2**18'52 47.10718 AU morning rise 3°**£**28'15 max. Earth dist. max. Earth dist. -10754 Dec 11 j 20:47 3°**£**27'56 45.75410 AU retrograde -10745 Mar 31 j 20:43 13°**♀**51'51 -10745 Jun 20 j 15:27 12°**⊆**51'44 45.26478 AU retrograde -10753 Mar 22 j 21:00 5°**₽**03'19 min. Earth dist. 4°**£**02'24 43.91532 AU min. Earth dist. -10753 Jun 11 j 14:28 opposition -10745 Jun 23 j 01:26 12°**-**248'50 -16°28'21 opposition -10753 Jun 14 j 07:36 3°**£**59'05 -15°26'52 direct -10745 Sep 11 j 11:10 11°**△**47'18 direct -10753 Sep 02 j 16:13 2°**£**56'31 -10753 Dec 08 j 02:16 -10745 Dec 19 j 08:49 13°**2**19'47 -15°49'56 evening set 4°**£**28'17 conjunction -10745 Dec 19 j 08:40 13°**2**19'47 15°50'00 minimum elong conjunction -10753 Dec 10 j 07:49 4°**2**31'38 -14°51'18 max. Earth dist. -10745 Dec 21 j 22:05 13°**2**23'30 47.26339 AU minimum elong -10753 Dec 10 j 07:37 4°**£**31'37 14°51'18 retrograde -10744 Apr 01 j 04:31 14°**♀**56'14 morning rise -10753 Dec 12 j 13:05 4°**£**34'58 min. Earth dist. -10744 Jun 21 j 00:52 13°**⊆**56'11 45.42046 AU max. Earth dist. -10753 Dec 13 j 04:16 4°**Ω**35'55 45.93613 AU opposition -10744 Jun 23 j 09:00 13°**⊆**53'24 -16°34'16 retrograde -10752 Mar 23 j 07:38 6°**£**11′03 direct -10744 Sep 11 j 18:54 12° **2**52'01 5°**≙**10'15 44.09642 AU min. Earth dist. -10752 Jun 12 j 00:07 opposition -10752 Jun 14 j 16:37 5°**2**06'59 -15°35'56 conjunction -10744 Dec 19 i 17:16 14° \(\Omega\) 24'14 -15°55'34 direct -10752 Sep 03 j 00:16 4°**△**04'33 minimum elong -10744 Dec 19 i 17:08 14° \(\Omega\) 24'13 15°55'40 max. Earth dist. -10744 Dec 22 j 06:08 14° \(\Omega\) 27'55 47.41644 AU conjunction -10752 Dec 10 j 17:29 5°**2**39'16 -14°59'58 retrograde -10743 Apr 02 j 09:02 16° \(\Omega\) 00'23 minimum elong -10752 Dec 10 j 17:19 5°**△**39'16 14°59'58 min. Earth dist. -10743 Jun 22 j 08:57 15° \(\Omega\) 00'28 45.57242 AU max. Earth dist. -10752 Dec 13 j 13:42 5° **2**43'31 46.11351 AU opposition -10743 Jun 24 i 16:18 14° \$\oldsymbol{\Omega}\$57'43 -16°39'49 retrograde -10751 Mar 24 j 17:07 7°**♀**18'17 direct -10743 Sep 13 j 06:00 13° **2**56'28 -10751 Jun 13 j 11:07 6°**2**17'30 44.27292 AU min. Earth dist. opposition -10751 Jun 16 j 01:28 6°**2**14'21 -15°44'38 -10743 Dec 21 j 01:42 15° \(\Omega\) 28'26 -16°00'52 conjunction -10751 Sep 04 j 08:59 5°**£**12'03 -10743 Dec 21 j 01:35 15° **2**28'26 16° 00'57 direct minimum elong -10743 Dec 23 j 12:12 15° **2**31'59 47.56549 AU max. Earth dist. -10751 Dec 12 j 03:07 6° **2**46'24 -15° 08'16 -10742 Apr 03 j 16:24 17°**♀**04'17 conjunction retrograde -10751 Dec 12 j 02:56 6° **2**46'23 15°08'17 -10742 Jun 23 j 17:14 16°**2**04'28 45.72020 AU minimum elong min. Earth dist. -10742 Jun 25 j 23:27 16°**£**01'47 -16°45'02 -10751 Dec 14 j 21:45 6°**£**50'32 46.28674 AU max. Earth dist. opposition -10750 Mar 26 j 02:14 8°**♀**24'59 -10742 Sep 14 j 14:15 15°**♀**00'40 retrograde direct -10750 Jun 14 j 19:37 7°**-**24'20 44.44546 AU min. Earth dist. -10750 Jun 17 j 09:49 7°**2**21'12 -15°52'55 -10742 Dec 22 j 10:14 16°**2**32'23 -16°05'50 opposition conjunction -10750 Sep 05 j 18:00 6°**△**19'00 -10742 Dec 22 j 10:06 16°**2**32'22 16°05'57 direct minimum elong max. Earth dist. -10742 Dec 24 j 20:18 16°**£**35'53 47.70999 AU conjunction -10750 Dec 13 j 12:28 7°**2**53'00 -15°16'11 retrograde -10741 Apr 04 j 23:36 18°**♀**07'56 minimum elong -10750 Dec 13 j 12:19 7°**⊆**53'00 15°16'13 min. Earth dist. -10741 Jun 25 j 02:35 17°**♀**08'09 45.86303 AU max. Earth dist. -10750 Dec 16 j 05:56 7°**⊆**57'03 46.45621 AU opposition -10741 Jun 27 j 06:37 17°**♀**05'35 -16°49'55 retrograde -10749 Mar 27 j 10:12 9°**♀**31'11 direct -10741 Sep 15 j 22:25 16°**♀**04'35 -10749 Jun 16 j 05:37 8°**2**30'35 44.61466 AU min. Earth dist. -10749 Jun 18 j 18:12 8°**-**27'32 -16°00'49 -10741 Dec 23 j 18:24 17°**2**36'01 -16°10'30 opposition conjunction direct -10749 Sep 07 j 03:42 7°**♀**25'27 -10741 Dec 23 j 18:18 17°**2**36'01 16°10'37 minimum elong -10741 Dec 26 j 02:17 17° \(\Omega\) 39'22 47.84957 AU max. Earth dist. -10749 Dec 14 j 21:40 8° **2**59'07 -15°23'42 conjunction retrograde -10740 Apr 05 j 09:10 19° **2**11'16 -10749 Dec 14 i 21:30 8° **2**59'07 15°23'45 minimum elong min. Earth dist. -10740 Jun 25 j 09:52 18° **2**11'35 46.00083 AU max. Earth dist. -10749 Dec 17 j 14:58 9° **2**03'09 46.62270 AU opposition -10740 Jun 27 i 13:32 18° **2**09'02 -16° 54'29 retrograde -10748 Mar 27 i 15:43 10° \alpha 36'55 direct -10740 Sep 16 j 03:52 17° **2**08'07 min. Earth dist. -10748 Jun 16 i 14:17 9° \alpha 36'26 44.78090 AU -10748 Jun 19 j 02:13 9°**£**33'25 -16°08'18 -10740 Dec 24 i 02:29 18° **2**39'18 -16°14'51 opposition conjunction direct -10748 Sep 07 j 14:56 8°**△**31'28 -10740 Dec 24 j 02:22 18° **2**39'18 16°14'59 minimum elong max. Earth dist. -10740 Dec 26 j 09:00 18° **2**42'34 47.98412 AU -10748 Dec 15 j 06:34 10°**£**04'48 -15°30'50 conjunction retrograde -10739 Apr 06 j 18:07 20° **△**14'13 minimum elong -10748 Dec 15 j 06:26 10° **2**04'47 15°30'53 min. Earth dist. -10739 Jun 26 j 18:59 19° **2** 14'32 46.13377 AU max. Earth dist. -10748 Dec 17 j 22:07 10°**♀**08'42 46.78659 AU opposition -10739 Jun 28 j 20:24 19°**2**12'06 -16°58'44 -10747 Mar 29 j 00:25 11°**♀**42'15 retrograde direct -10739 Sep 17 j 10:09 18°**♀**11'16 -10747 Jun 17 j 22:37 10°**•**41'53 44.94478 AU min. Earth dist. -10747 Jun 20 j 10:09 10°**2**38'54 -16°15'23 -10739 Dec 25 j 10:33 19°**2**42'11 -16°18'53 opposition conjunction -10747 Sep 08 j 22:42 9°**△**37'04 -10739 Dec 25 j 10:28 19°**2**42'11 16°19'02 direct minimum elong max. Earth dist. -10739 Dec 27 j 16:11 19°**△**45'23 48.11415 AU -10747 Dec 16 j 15:28 11°**£**10'06 -15°37'35 conjunction retrograde -10738 Apr 07 j 23:16 21°**△**16'46 minimum elong -10747 Dec 16 j 15:19 11°**2**10'05 15°37'38 min. Earth dist. -10738 Jun 28 j 02:19 20°**2**17'09 46.26219 AU max. Earth dist. -10747 Dec 19 j 07:12 11°**2**14'00 46.94810 AU opposition -10738 Jun 30 j 02:59 20°**2**14'45 -17°02'39 -10746 Mar 30 j 09:38 12°**2**47'12 -10738 Sep 18 j 19:22 19° **2**13'59 retrograde direct

min. Earth dist.

-10746 Jun 19 j 08:02 11°**2**46'55 45.10610 AU

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Earth dist. opposition -10737 Jul 01 j 09:24 21° **2**17'00 -17°06'15 direct -10729 Sep 28 j 05:51 28° **2**25'19 opposition -10737 Sep 20 j 03:17 20°**△**16'18 direct -10728 Jan 05 j 12:19 29°**2**54'14 -16°41'48 conjunction -10737 Dec 28 j 02:03 21° **2**46'42 -16° 26'01 -10728 Jan 05 j 12:16 29°**♀**54'14 16°42'03 conjunction minimum elong -10737 Dec 28 j 01:59 21°**-**246'41 16°26'11 minimum elong max. Earth dist. -10728 Jan 07 j 05:27 29°**⊆**56'38 49.22495 AU max. Earth dist. -10737 Dec 30 j 05:34 21°**•**49'45 48.36231 AU -10728 Jan 09 j 15:25 0°M -10736 Apr 09 j 09:42 23° **2**20'41 -10728 Apr 17 j 17:14 retrograde retrograde 1°M26'22 -10736 Jun 29 j 17:44 22°**2**21'07 46.50818 AU -10728 Jul 08 j 01:50 0°M27'19 47.35769 AU min. Earth dist. min. Earth dist. opposition -10736 Jul 01 j 15:47 22° **2**18'51 -17°09'30 opposition -10728 Jul 09 j 14:41 0°ML25'33 -17°23'55 direct -10736 Sep 20 j 12:11 21°**△**18'14 -10728 Aug 01 j 07:52 30°R **≏** direct -10728 Sep 28 j 12:25 29°**£**25'40 conjunction -10736 Dec 28 j 09:25 22° **2**48'23 -16°29'05 -10728 Nov 24 j 19:54 0°M minimum elong -10736 Dec 28 j 09:19 22° **△**48'23 16°29'15 max. Earth dist. -10736 Dec 30 j 11:05 22° **2**51'19 48.48171 AU conjunction -10727 Jan 05 j 19:08 0°M54'26 -16°42'30 retrograde -10735 Apr 10 j 18:38 24° **2**22'05 minimum elong -10727 Jan 05 j 19:07 0°M54'26 16°42'45 min. Earth dist. -10735 Jun 30 j 23:56 23° **2**22'37 46.62666 AU max. Earth dist. -10727 Jan 07 j 09:50 0°M56'41 49.31269 AU opposition -10735 Jul 02 j 21:58 23° \(\Omega\) 20'22 -17°12'25 retrograde -10727 Apr 18 j 22:34 2°M26'20 -10735 Sep 21 j 16:47 22°**♀**19'50 direct min. Earth dist. -10727 Jul 09 i 09:06 1°ML27'18 47.44297 AU opposition -10727 Jul 10 j 20:15 1°M25'36 -17°24'26 conjunction -10735 Dec 29 i 16:52 23° \(\Omega\)49'46 -16°31'49 direct -10727 Sep 29 j 19:21 0°M25'47 minimum elong -10735 Dec 29 j 16:48 23° **2**49'46 16°32'00 max. Earth dist. -10735 Dec 31 j 17:52 23° 252'39 48.59826 AU -10726 Jan 07 i 02:11 1°ML54'22 -16°42'56 conjunction retrograde -10734 Apr 12 j 02:37 25°**£**23'12 minimum elong -10726 Jan 07 j 02:09 1°M54'22 16°43'13 min. Earth dist. -10734 Jul 02 j 08:01 24°**2**23'45 46.74233 AU max. Earth dist. -10726 Jan 08 j 16:20 1°M 56'35 49.39537 AU -10734 Jul 04 j 04:04 24°**2**21'36 -17°14'59 -10726 Apr 20 j 01:01 retrograde 3°M26'04 opposition -10734 Sep 22 j 21:39 23° **2**21'10 2°M27'01 47.52327 AU min. Earth dist. -10726 Jul 10 j 16:09 direct -10726 Jul 12 j 01:30 2°ML25'24 -17°24'41 opposition -10734 Dec 31 j 00:21 24° **2**50'54 -16°34'13 -10726 Oct 01 j 04:36 conjunction direct 1°M25'38 -10734 Dec 31 j 00:16 24°**£**50'53 16°34'24 minimum elong -10725 Jan 08 j 08:59 -10733 Jan 02 j 00:40 24°**♀**53'44 48.71215 AU 2°M54'03 -16°43'07 max. Earth dist. conjunction -10733 Apr 13 j 07:33 26°**£**24'05 -10725 Jan 08 j 08:58 2°ML54'03 16°43'23 retrograde minimum elong -10733 Jul 03 j 14:17 25°**-**24'45 46.85502 AU -10725 Jan 09 j 20:48 2°M 56'07 49.47353 AU min. Earth dist. max. Earth dist. opposition -10733 Jul 05 j 10:01 25° **2**22'37 -17°17'13 retrograde -10725 Apr 21 j 08:32 4°M25'31 direct -10733 Sep 24 j 06:03 24° **2**2'16 min. Earth dist. -10725 Jul 11 j 21:48 3°M26'31 47.59940 AU opposition -10725 Jul 13 j 06:42 3°M24'56 -17°24'39 conjunction -10732 Jan 01 j 07:24 25° **2**51'50 -16°36'19 direct -10725 Oct 02 j 09:05 2°M25'11 minimum elong -10732 Jan 01 j 07:21 25°**2**51'49 16°36'32 max. Earth dist. -10732 Jan 03 j 05:44 25°**2**54'33 48.82292 AU conjunction -10724 Jan 09 j 15:30 3°M 53'26 -16°43'00 retrograde -10732 Apr 13 j 13:11 27°**♀**24'47 minimum elong -10724 Jan 09 j 15:28 3°M 53'26 16°43'17 min. Earth dist. -10732 Jul 03 j 21:25 26°**2**25'32 46.96452 AU max. Earth dist. -10724 Jan 11 j 02:32 3°ML55'27 49.54769 AU -10732 Jul 05 j 15:57 26° 23'28 -17°19'08 -10724 Apr 21 i 16:29 5°M24'42 opposition retrograde -10732 Sep 24 j 13:19 25° **2**23'14 -10724 Jul 12 j 05:07 4°M 25'40 47.67185 AU direct min. Earth dist. opposition -10724 Jul 13 j 11:56 4° M24'11 -17°24'19 -10731 Jan 01 i 14:42 26° **2**52'37 -16°38'06 -10724 Oct 02 j 12:13 3°M24'28 conjunction direct minimum elong -10731 Jan 01 i 14:38 26° \(\Omega\) 52'37 16°38'19 max. Earth dist. -10731 Jan 03 j 12:53 26° **2**55'19 48.93026 AU conjunction -10723 Jan 09 j 22:06 4°ML52'35 -16°42'36 retrograde -10731 Apr 14 j 18:16 28° **2**25'22 minimum elong -10723 Jan 09 i 22:07 4°ML52'35 16°42'54 min. Earth dist. -10731 Jul 05 j 04:59 27°**2**26'10 47.07011 AU max. Earth dist. -10723 Jan 11 j 08:19 4°M.54'33 49.61865 AU -10731 Jul 06 j 21:43 27° **2**24'11 -17°20'45 -10723 Apr 22 j 21:20 opposition retrograde 6°M23'38 -10723 Jul 13 j 10:13 direct -10731 Sep 25 j 21:00 26° **△**24'04 min. Earth dist. 5°M24'39 47.74112 AU opposition -10723 Jul 14 j 16:50 5°M23'11 -17°23'41 conjunction -10730 Jan 02 j 21:55 27° **2**53'17 -16°39'36 direct -10723 Oct 03 j 18:46 4°M23'31 minimum elong -10730 Jan 02 j 21:52 27°**2**53'17 16°39'51 -10730 Jan 04 j 17:49 27°**♀**55'51 49.03350 AU conjunction -10722 Jan 11 j 04:32 5°ML51'29 -16°41'55 max. Earth dist. -10730 Apr 16 j 02:44 29°**£**25'50 -10722 Jan 11 j 04:31 retrograde minimum elong 5°M51'29 16°42'13 -10730 Jul 06 j 11:18 28°**-**26'44 47.17123 AU -10722 Jan 12 j 12:42 min. Earth dist. max. Earth dist. 5°M 53'20 49.68656 AU opposition -10730 Jul 08 j 03:25 28° **2**24'47 -17°22'05 retrograde -10722 Apr 24 j 02:02 7°M22'21 direct -10730 Sep 27 j 01:28 27°**△**24'46 opposition -10722 Jul 15 j 21:53 6°M21'58 -17°22'46 min. Earth dist. -10722 Jul 14 j 16:35 6°ML23'23 47.80750 AU conjunction -10729 Jan 04 j 05:08 28°**2**53'50 -16°40'50 direct -10722 Oct 05 j 01:16 5°M22'21 minimum elong -10729 Jan 04 j 05:05 28° **2**53'50 16°41'04 max. Earth dist. -10729 Jan 05 j 23:39 28°**♀**56'19 49.13179 AU -10721 Jan 12 j 11:03 6°M 50'13 -16°40'56 conjunction

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Earth dist. -10713 Jul 23 j 22:19 15°M 06'20 48.22455 AU opposition 7°M20'36 -17°21'32 -10721 Oct 06 j 09:28 -10713 Jul 29 j 11:17 15°RML direct 6°M21'03 direct -10713 Oct 14 j 01:21 14°ML06'12 -10720 Jan 13 j 17:19 7°ML48'47 -16°39'40 -10713 Dec 27 j 18:10 15°ML conjunction -10720 Jan 13 j 17:19 minimum elong 7°**M**.48'47 16°39'59 max. Earth dist. -10720 Jan 14 j 23:26 7°M50'31 49.81370 AU conjunction -10712 Jan 21 j 19:11 15°M233'13 -16°20'25 retrograde -10720 Apr 25 j 10:58 9°**™**19'20 minimum elong -10712 Jan 21 j 19:15 15°M233'13 16°20'48 -10720 Jul 16 j 03:52 -10712 Jan 22 j 12:56 15°M 34'13 50.15268 AU min. Earth dist. 8°ML20'27 47.93103 AU max. Earth dist. -10720 Jul 17 j 07:32 opposition 8°M19'08 -17°20'01 retrograde -10712 May 03 j 07:19 17° ML02'36 direct -10720 Oct 06 j 14:12 7°**ጤ**19'38 opposition -10712 Jul 24 j 20:14 16°ML02'54 -16°58'42 min. Earth dist. -10712 Jul 24 j 04:18 16°M 03'39 48.24849 AU conjunction -10719 Jan 13 j 23:33 8°ML47'16 -16°38'07 direct -10712 Oct 14 j 06:41 15°Ml03'36 minimum elong -10719 Jan 13 j 23:34 8°M47'16 16°38'28 max. Earth dist. -10719 Jan 15 j 04:49 8°ML48'56 49.87236 AU conjunction -10711 Jan 22 j 01:08 16°M 30'33 -16°16'53 retrograde -10719 Apr 26 j 18:25 10°ML17'40 minimum elong -10711 Jan 22 j 01:11 16°M 30'33 16°17'16 min. Earth dist. -10719 Jul 17 j 11:00 9°M18'46 47.98750 AU max. Earth dist. -10711 Jan 22 j 18:49 16°M 31'33 50.17555 AU opposition -10719 Jul 18 j 12:24 9°ML17'33 -17°18'14 retrograde -10711 May 04 j 09:16 17° ML59'50 direct -10719 Oct 07 j 17:55 8°ML18'07 min. Earth dist. -10711 Jul 25 j 09:51 17° ML00'52 48.26915 AU opposition -10711 Jul 26 i 00:35 17° ML00'09 -16°54'52 conjunction -10718 Jan 15 i 06:00 9°ML45'39 -16°36'19 direct -10711 Oct 15 j 14:45 16° ML00'52 minimum elong -10718 Jan 15 i 06:01 9°ML45'39 16°36'39 max. Earth dist. -10718 Jan 16 j 10:02 9°M 47'15 49.92711 AU -10710 Jan 23 j 07:03 17° ML27'47 -16°13'05 conjunction retrograde -10718 Apr 28 j 01:33 11°ML15'54 -10710 Jan 23 j 07:07 17° ML27'47 16°13'28 minimum elong -10718 Jul 19 j 16:58 10°ML15'53 -17°16'11 max. Earth dist. -10710 Jan 23 j 22:39 17°M28'40 50.19545 AU opposition -10718 Jul 18 j 16:14 10°ML17'04 48.03959 AU -10710 May 05 j 14:35 18° M 56'57 min. Earth dist. retrograde -10718 Oct 08 j 21:48 9°ML16'30 -10710 Jul 27 j 04:45 17°**M**.57'21 -16°50'45 direct opposition -10710 Jul 26 j 14:21 17°ML58'02 48.28698 AU min. Earth dist. -10710 Oct 16 j 19:19 16°M58'05 -10717 Jan 16 j 12:19 10°M 43'58 -16°34'16 conjunction direct -10717 Jan 16 j 12:21 10°M 43'58 16°34'37 minimum elong -10717 Jan 17 j 13:55 10°M 45'26 49.97712 AU -10709 Jan 24 j 12:59 18°M24'57 -16°09'00 max. Earth dist. conjunction -10709 Jan 24 j 13:02 18°M24'57 16°09'24 -10717 Apr 29 j 07:21 12° 114'04 retrograde minimum elong -10709 Jan 25 j 03:48 18°M25'47 50.21248 AU -10717 Jul 20 j 21:45 11°ML14'08 -17°13'53 opposition max. Earth dist. -10717 Jul 19 j 22:58 11°M 15'13 48.08680 AU -10709 May 06 j 21:07 19° M 54'03 min. Earth dist. retrograde direct -10717 Oct 10 j 02:56 10°ML14'47 opposition -10709 Jul 28 j 09:08 18°M 54'30 -16°46'22 min. Earth dist. -10709 Jul 27 j 20:39 18°M 55'06 48.30191 AU conjunction -10716 Jan 17 j 18:36 11°ML42'09 -16°31'59 direct -10709 Oct 17 j 22:48 17°ML55'17 minimum elong -10716 Jan 17 j 18:39 11°ML42'09 16°32'19 max. Earth dist. -10716 Jan 18 j 19:33 11°M 43'35 50.02205 AU -10708 Jan 25 j 18:43 19°M22'07 -16°04'40 conjunction retrograde -10716 Apr 29 j 09:01 13°ML12'07 -10708 Jan 25 j 18:48 19°M22'07 16°05'05 minimum elong min. Earth dist. -10716 Jul 20 j 05:17 12°ML13'15 48.12861 AU max. Earth dist. -10708 Jan 26 j 08:45 19°M22'55 50.22674 AU -10716 Jul 21 j 02:27 12°M 12'14 -17°11'21 -10708 May 07 j 04:20 20° \$\mathbb{N}_51'09\$ opposition retrograde -10716 Oct 10 j 11:32 11°ML12'55 -10708 Jul 28 j 13:18 19° ML51'40 -16°41'43 direct opposition -10708 Jul 28 j 01:05 19° ML52'15 48.31377 AU min. Earth dist. -10708 Oct 18 j 01:26 18° M.52'29 -10715 Jan 18 i 00:50 12°ML40'12 -16°29'27 conjunction direct -10715 Jan 18 i 00:51 12° ML40'12 16°29'49 minimum elong max. Earth dist. -10715 Jan 18 j 23:06 12°M41'28 50.06177 AU -10707 Jan 26 i 00:32 20° ML19'20 -16°00'04 conjunction retrograde -10715 Apr 30 j 14:29 14°ML10'01 minimum elong -10707 Jan 26 i 00:36 20° ML19'20 16°00'29 min. Earth dist. -10715 Jul 21 j 10:39 13°M 11'09 48.16530 AU max. Earth dist. -10707 Jan 26 j 12:27 20°M20'00 50.23768 AU -10715 Jul 22 j 06:56 13°ML10'11 -17°08'34 retrograde -10707 May 08 j 10:43 21° 11.48'18 opposition -10707 Jul 29 j 17:28 20°**M** 48'54 -16°36'48 -10715 Oct 11 j 16:50 12°ML10'52 direct opposition min. Earth dist. -10707 Jul 29 j 07:01 20°M 49'23 48.32216 AU conjunction -10714 Jan 19 j 07:07 13°M 38'03 -16°26'41 direct -10707 Oct 19 j 05:01 19° ML49'44 minimum elong -10714 Jan 19 j 07:10 13°ML38'04 16°27'03 max. Earth dist. -10714 Jan 20 j 04:13 13°M 39'15 50.09639 AU -10706 Jan 27 j 06:36 21°M 16'36 -15°55'14 conjunction -10714 Apr 04 j 17:06 15°M -10706 Jan 27 j 06:41 21°M 16'36 15°55'40 minimum elong -10714 May 01 j 21:28 15° 11.07'44 -10706 Jan 27 j 18:03 21°ML17'14 50.24482 AU retrograde max. Earth dist. -10714 May 29 j 01:41 15°RM -10706 May 09 j 12:26 22°M45'31 retrograde opposition -10714 Jul 23 j 11:32 14°ML07'56 -17°05'32 opposition -10706 Jul 30 j 21:41 21°M 46'10 -16°31'38 min. Earth dist. -10714 Jul 22 j 17:38 14°ML08'48 48.19707 AU min. Earth dist. -10706 Jul 30 j 12:45 21°M 46'36 48.32621 AU direct -10714 Oct 12 j 20:24 13°ML08'38 direct -10706 Oct 20 j 12:47 20°ML47'03 -10713 Jan 20 j 13:15 14°M 35'44 -16°23'41 -10705 Jan 28 j 12:29 22°ML13'54 -15°50'09 conjunction conjunction -10713 Jan 20 j 13:17 14°M 35'44 16°24'04 -10705 Jan 28 j 12:34 22°M 13'55 15°50'35 minimum elong minimum elong

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Earth dist. -10705 Oct 21 j 18:43 21°ML44'23 -10697 Aug 25 j 20:50 30°R**M**ե direct -10697 Oct 29 j 06:19 29°M20'10 direct -10704 Jan 29 j 18:28 23°ML11'14 -15°44'51 0°**∡**¹ conjunction -10697 Dec 31 j 21:50 -10704 Jan 29 j 18:33 23°M 11'15 15°45'18 -10696 Feb 04 j 21:46 0°**х** 44'39 minimum elong evening set -10704 Jan $30\,\mathrm{j}\,02:03$ $23^\circ\text{ML}11'40$ $50.24480~\mathrm{AU}$ max. Earth dist. retrograde -10704 May 10 j 23:25 24° ML40'04 conjunction -10696 Feb 06 j 17:16 0°**∡**¹47′06 -14°53′57 opposition -10704 Aug 01 j 06:10 23°ML40'49 -16°20'37 minimum elong -10696 Feb 06 j 17:22 0°**х** 47′06 14°54′26 -10704 Aug 01 j 00:38 23°M41'05 48.31937 AU -10696 Feb 06 j 13:57 0°**₹**46'54 50.06261 AU min. Earth dist. max. Earth dist. -10704 Oct 21 j 22:06 22°M41'42 direct morning rise -10696 Feb 08 j 13:00 0°**х** 49′33 retrograde -10696 May 18 j 13:51 2° **₹**15'31 conjunction -10703 Jan 30 j 00:23 24°ML08'33 -15°39'19 opposition -10696 Aug 08 j 14:59 1°**∡**16'20 -15°26'50 minimum elong -10703 Jan 30 j 00:29 24°ML08'33 15°39'45 min. Earth dist. -10696 Aug 08 j 18:56 1°**≯**16′09 48.11336 AU max. Earth dist. -10703 Jan 30 j 06:24 24°ML08'53 50.23703 AU direct -10696 Oct 29 j 13:03 0°**х** 16′59 retrograde -10703 May 12 j 05:32 25°M37'18 evening set -10695 Feb 04 j 04:33 1°**∡**°40′14 opposition -10703 Aug 02 j 10:19 24°M 38'04 -16°14'46 min. Earth dist. -10703 Aug 02 j 05:21 24°M 38'18 48.30790 AU conjunction -10695 Feb 06 j 23:00 1°**∡**¹43'59 -14°46'28 direct -10703 Oct 23 j 01:27 23°M 38'56 minimum elong -10695 Feb 06 j 23:08 1°**∡**′43'59 14°46'58 max. Earth dist. -10695 Feb 06 i 17:31 1° **₹**'43'40 50.02445 AU conjunction -10702 Jan 31 i 06:19 25°ML05'46 -15°33'34 morning rise -10695 Feb 09 i 17:46 1°×747'45 minimum elong -10702 Jan 31 i 06:24 25° ML05'46 15°34'02 retrograde -10695 May 19 j 17:49 3°**∡**12'26 max. Earth dist. -10702 Jan 31 j 09:46 25° ML05'58 50.22392 AU opposition -10695 Aug 09 j 19:03 2°**∡**13'17 -15°18'57 retrograde -10702 May 13 j 11:17 26° ML34'26 min. Earth dist. -10695 Aug 09 j 23:51 2° ₹13'03 48.07212 AU opposition -10702 Aug 03 j 14:27 25°MJ35'13 -16°08'41 -10695 Oct 30 j 18:46 1°**х** 13′56 direct min. Earth dist. -10702 Aug 03 j 11:37 25°M 35'21 48.29143 AU -10694 Feb 04 j 17:13 2°**х** 36′17 evening set -10702 Oct 24 j 06:02 24°M 36'03 direct -10694 Feb 08 j 05:02 2° ₹ 41'00 -14°38'44 conjunction -10694 Feb 08 j 05:09 2°**х** 41'01 14°39'14 -10701 Feb 01 j 12:20 26°ML02'53 -15°27'35 conjunction minimum elong -10701 Feb 01 j 12:27 26°ML02'53 15°28'03 -10694 Feb 07 j 22:27 max. Earth dist. 2°**√**40'38 49.98226 AU minimum elong -10694 Feb 11 j 17:09 2° **₹** 45'45 max. Earth dist. morning rise -10701 May 14 j 12:51 27°M31'28 -10694 May 20 j 23:46 4°**尽**09'29 retrograde retrograde -10701 Aug 04 j 18:36 26°M32'15 -16°02'21 -10694 Aug 10 j 23:13 3° ₹ 10'22 -15°10'49 opposition opposition -10701 Aug 04 j 17:06 26°M32'19 48.27036 AU -10694 Aug 11 j 06:19 3° ₹ 10'02 48.02656 AU min. Earth dist. min. Earth dist. -10701 Oct 25 j 14:06 25°M33'02 -10694 Oct 31 j 22:50 direct direct 2°**҂**11′00 evening set -10693 Feb 05 j 08:48 3°**∡**32'38 conjunction -10700 Feb 02 j 17:56 26°M 59'51 -15°21'22 minimum elong -10700 Feb 02 j 18:01 26°ML59'52 15°21'50 conjunction -10693 Feb 09 j 11:05 3° ₹38'10 -14°30'46 max. Earth dist. -10700 Feb 02 j 18:39 26°ML59'54 50.18405 AU minimum elong -10693 Feb 09 j 11:13 3°**尽**38'11 14°31'17 retrograde -10700 May 14 j 17:01 28°M28'23 max. Earth dist. -10693 Feb 09 j 03:02 3°**₹**37'43 49.93561 AU -10700 Aug 04 j 22:39 27°M29'09 -15°55'46 morning rise -10693 Feb 13 j 13:41 3° **₹**43'44 opposition min. Earth dist. -10700 Aug 04 j 21:44 27°M29'12 48.24547 AU retrograde -10693 May 22 j 06:43 5°**尽** 06'41 direct -10700 Oct 25 j 19:28 26°M29'54 -10693 Aug 12 j 03:23 4°₹07'35 -15°02'27 opposition -10693 Aug 12 j 11:04 4° ₹ 07'14 47.97614 AU min. Earth dist. -10699 Feb 02 i 23:47 27° ML 56'43 -15° 14'54 -10693 Nov 02 i 01:19 conjunction direct 3°**х** 08′13 -10699 Feb 02 i 23:55 27° ML 56'44 15°15'22 -10692 Feb 06 i 01:42 4° ₹29'12 minimum elong evening set -10699 Feb 02 j 23:41 27° ML 56'43 50.15832 AU max. Earth dist. retrograde -10699 May 15 i 21:44 29° ML 25'13 conjunction -10692 Feb 10 i 16:55 4° \$\mathref{7}\$ 35'28 -14\circ 22'34 opposition -10699 Aug 06 i 02:43 28°ML25'59 -15°48'56 minimum elong -10692 Feb 10 i 17:03 4° **7**35'29 14°23'04 min. Earth dist. -10699 Aug 06 j 03:52 28°M25'55 48.21708 AU max. Earth dist. -10692 Feb 10 i 06:22 4° ₹34'53 49.88378 AU direct -10699 Oct 27 j 00:27 27° ML 26'41 -10692 Feb 15 i 08:29 4° ₹ 41'45 morning rise retrograde -10692 May 22 j 13:05 6° ₹04'01 -10698 Feb 04 j 05:41 28°M 53'31 -15°08'10 5°**∡**104'55 -14°53'51 conjunction opposition -10692 Aug 12 j 07:44 minimum elong -10698 Feb 04 j 05:47 28°ML53'31 15°08'39 min. Earth dist. -10692 Aug 12 j 17:36 5°**∡**04'27 47.92045 AU max. Earth dist. -10698 Feb 04 j 04:34 28°M 53'27 50.12948 AU direct -10692 Nov 02 j 05:24 4°×705'31 -10698 Mar 31 j 17:07 0°**₰** -10691 Feb 05 j 20:10 5°**х** 25′56 evening set -10698 May 17 j 04:19 0° **₹**21'58 retrograde -10698 Jul 02 j 21:02 30°RM -10691 Feb 10 j 23:07 5°**₹**32'52 -14°14'10 conjunction -10698 Aug 07 j 06:46 29°M22'44 -15°41'50 -10691 Feb 10 j 23:15 opposition minimum elong 5°**х** 32′52 14°14′41 min. Earth dist. -10698 Aug 07 j 08:06 29°M22'41 48.18556 AU max. Earth dist. -10691 Feb 10 j 11:50 5°**✗**32'14 49.82661 AU direct -10698 Oct 28 j 03:36 28°M23'25 morning rise -10691 Feb 16 j 02:20 5°**∡**³39'48 retrograde -10691 May 23 j 15:26 7°**∡**'01'26 conjunction -10697 Feb 05 j 11:23 29°M 50'17 -15°01'12 opposition -10691 Aug 13 j 11:54 6°**₹**02'20 -14°45'02 minimum elong -10697 Feb 05 j 11:30 29°M 50'18 15°01'41 min. Earth dist. -10691 Aug 13 j 23:17 6°**尽**01'47 47.85926 AU

direct

-10691 Nov 03 j 13:15

5°**х** 02'51

max. Earth dist.

-10697 Feb 05 j 08:16 29°M 50'07 50.09751 AU

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 16 Attention, astronomical year style is used: The year -10690 in astronomical counting style is the year 10691 BCE in historical counting style.

Attention, astronom	ical year style is used: The	e year -10690	in astronomical co	ounting style is the year	r 10691 BCE in historical	counting sty	le.
evening set	-10690 Feb 06 j 15:29	6° ₹ 22'45		opposition	-10684 Aug 19 j 17:59	12° ∡ ⁴45′02	-13°36'13
				min. Earth dist.	-10684 Aug 20 j 13:50	12° ∡¹ 44′05	47.31794 AU
conjunction	-10690 Feb 12 j 05:12	6° ∡ ³30′18	-14°05'31	direct	-10684 Nov 10 j 01:18	11° ∡¹ 45′05	
minimum elong	-10690 Feb 12 j 05:21	6° ∡ ³30′19	14°06'03	evening set	-10683 Feb 10 j 19:11	13° ≯ 02'11	
max. Earth dist.	-10690 Feb 11 j 15:11	6° ∡ ¹29'31	49.76420 AU				
morning rise	-10690 Feb 17 j 19:19	6° х 37′52		conjunction	-10683 Feb 18 j 23:41		
retrograde	-10690 May 24 j 19:48	7° ∡ 758'53		minimum elong	-10683 Feb 18 j 23:50		
opposition	-10690 Aug 14 j 16:07	6° ₹ 759'46	-14°35'59	max. Earth dist.	-10683 Feb 18 j 01:27		49.22046 AU
min. Earth dist.	-10690 Aug 15 j 04:27		47.79306 AU	morning rise	-10683 Feb 27 j 04:27		
direct	-10690 Nov 04 j 19:10	6° ₹ 100'14		retrograde	-10683 May 31 j 09:15		
evening set	-10689 Feb 07 j 11:15	7° ∡ 19'38		opposition	-10683 Aug 20 j 22:15		
		_		min. Earth dist.	-10683 Aug 21 j 18:21		47.22806 AU
conjunction	-10689 Feb 13 j 11:15			direct	-10683 Nov 11 j 04:06		
minimum elong	-10689 Feb 13 j 11:23	7° ∡ 127'46		evening set	-10682 Feb 11 j 17:47		
max. Earth dist.	-10689 Feb 12 j 20:07		49.69684 AU	max. Earth dist.	-10682 Feb 19 j 05:38	14° х' 09'59	49.13016 AU
morning rise	-10689 Feb 19 j 11:35	7° ∡ 35'54			10.000 F.1. 00:00.00		10045100
retrograde	-10689 May 26 j 00:19	8° 🖈 56'23	14007441	conjunction	-10682 Feb 20 j 06:03		
opposition	-10689 Aug 15 j 20:26	7° 🖈 57'13		minimum elong	-10682 Feb 20 j 06:13		12°48'03
min. Earth dist.	-10689 Aug 16 j 11:01		47.72223 AU	morning rise	-10682 Feb 28 j 18:42		
direct	-10689 Nov 06 j 00:41	6° 🖈 57'37		retrograde	-10682 Jun 01 j 16:47		12014110
evening set	-10688 Feb 08 j 07:41	8° ≯ 16'33		opposition	-10682 Aug 22 j 02:52		
. ,.	10000 F 1 14:17 10	00 705110	12047122	min. Earth dist.	-10682 Aug 23 j 01:06		4/.13438 AU
conjunction	-10688 Feb 14 j 17:16			direct	-10682 Nov 12 j 07:08		
minimum elong	-10688 Feb 14 j 17:26	8° × 25'13	49.62540 AU	evening set	-10681 Feb 12 j 16:39		40.02560 ATT
max. Earth dist.	-10688 Feb 14 j 01:03		49.02340 AU	max. Earth dist.	-10681 Feb 20 j 11:38	13-×108-13	49.03369 AU
morning rise	-10688 Feb 21 j 03:11	8° ₹ 33'55 9° ₹ 53'52		aaniumatian	10691 Eab 21 : 12:20	150.700120	12026125
retrograde	-10688 May 26 j 06:59	9° × ′53′52′ 8° × ′54′40	14017100	conjunction minimum elong	-10681 Feb 21 j 12:30		
opposition min. Earth dist.	-10688 Aug 16 j 00:31 -10688 Aug 16 j 15:23		47.64753 AU	morning rise	-10681 Feb 21 j 12:40 -10681 Mar 02 j 08:30		12 3/08
direct	-10688 Nov 06 j 03:54	7° ∡ 754'59	47.04733 AU	retrograde	-10681 Jun 02 j 21:18		
evening set	-10687 Feb 08 j 04:21	9°×13'29		opposition	-10681 Aug 23 j 07:29		13°02'45
evening set	-1006/ Feb 06 J 04.21	9 X-13 29		min. Earth dist.	-10681 Aug 24 j 06:54		
conjunction	-10687 Feb 14 j 23:13	9° ∡ 22'41	-13°38'11	direct	-10681 Nov 13 j 13:57		47.03009 AU
minimum elong	-10687 Feb 14 j 23:21	9° × 22'42		evening set	-10680 Feb 13 j 15:54		
max. Earth dist.	-10687 Feb 14 j 04:50		49.55027 AU	evening set	-10000100 15 15.54	13 🗡 33 37	
morning rise	-10687 Feb 21 j 18:28	9° × ⁷ 31'55	49.55027 110	conjunction	-10680 Feb 22 j 18:57	16° √ 08'06	-12°25'26
retrograde	-10687 May 27 j 15:07			minimum elong	-10680 Feb 22 j 19:07		
opposition	-10687 Aug 17 j 04:52		-14°07'18	max. Earth dist.	-10680 Feb 21 j 15:23		
min. Earth dist.	-10687 Aug 17 j 21:28			morning rise	-10680 Mar 02 j 22:21		
direct	-10687 Nov 07 j 05:59			retrograde	-10680 Jun 03 j 02:24		
evening set	-10686 Feb 09 j 01:38			opposition	-10680 Aug 23 j 12:06		-12°51'05
max. Earth dist.	-10686 Feb 15 j 10:54		49.47200 AU	min. Earth dist.	-10680 Aug 24 j 12:39		
	,			direct	-10680 Nov 13 j 20:11		
conjunction	-10686 Feb 16 j 05:24	10° ∡ °20′12	-13°28'34	evening set	-10679 Feb 13 j 15:19		
minimum elong	-10686 Feb 16 j 05:34	10° ∡ °20′12	13°29'06	max. Earth dist.	-10679 Feb 21 j 20:50		48.83214 AU
morning rise	-10686 Feb 23 j 09:25	10° ∡ ¹29'55					
retrograde	-10686 May 28 j 18:34	11° ∡ ¹48'56		conjunction	-10679 Feb 23 j 01:39	17° ∡ ¹06'43	-12°14'03
opposition	-10686 Aug 18 j 09:07	10° ∡ ¹49'40	-13°57'13	minimum elong	-10679 Feb 23 j 01:49	17° ∡ ¹06'44	12°14'36
min. Earth dist.	-10686 Aug 19 j 02:35	10° ∡ 148′50	47.48837 AU	morning rise	-10679 Mar 04 j 12:08	17° ∡ 19'37	
direct	-10686 Nov 08 j 12:38	9° √ 49'49		retrograde	-10679 Jun 04 j 06:42	18° ∡ ³36′10	
evening set	-10685 Feb 09 j 23:12	11° ₹ 07'34		opposition	-10679 Aug 24 j 17:00	17° ∡ ³36'41	-12°39'11
				min. Earth dist.	-10679 Aug 25 j 19:53	17° ∡ ³35′23	46.82451 AU
conjunction	-10685 Feb 17 j 11:25	11° ∡ 17'46	-13°18'41	direct	-10679 Nov 15 j 02:49	16° ∡ ³36′21	
minimum elong	-10685 Feb 17 j 11:33	11° √ 17'47	13°19'13	evening set	-10678 Feb 14 j 15:12	17° ∡ 752′10	
max. Earth dist.	-10685 Feb 16 j 14:53	11° ∡ 16'36	49.39097 AU	max. Earth dist.	-10678 Feb 23 j 02:02	18° ∡ 03'43	48.72276 AU
morning rise	-10685 Feb 24 j 23:59	11° ∡ 27'59					
retrograde	-10685 May 29 j 21:36	12° ∡ ⁴46'34		conjunction	-10678 Feb 24 j 08:23		
opposition	-10685 Aug 19 j 13:29			minimum elong	-10678 Feb 24 j 08:33	18° ≯ 05'28	12°03'00
min. Earth dist.	-10685 Aug 20 j 07:30		47.40461 AU	morning rise	-10678 Mar 06 j 01:41		
direct	-10685 Nov 09 j 19:13	10° ∡ 747'22		retrograde	-10678 Jun 05 j 12:57	19° ∡ ³35′02	
evening set	-10684 Feb 10 j 20:52	12° ∡ 04'47		opposition	-10678 Aug 25 j 21:42		
				min. Earth dist.	-10678 Aug 27 j 01:07	18° ∡ ³34′09	46.71115 AU
conjunction	-10684 Feb 18 j 17:27			direct	-10678 Nov 16 j 07:42		
minimum elong	-10684 Feb 18 j 17:37			evening set	-10677 Feb 15 j 15:09		
max. Earth dist.	-10684 Feb 17 j 20:16		49.30715 AU	max. Earth dist.	-10677 Feb 24 j 06:23	19° ∡ 02'27	48.60858 AU
morning rise	-10684 Feb 26 j 14:19						
retrograde	-10684 May 30 j 01:58	13° ∡ ⁴44'22		conjunction	-10677 Feb 25 j 15:05	19° ∡ 04'19	-11°50'34

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10677 in astronomical counting style is the year 10678 BCE in historical counting style. -10677 Feb 25 j 15:15 19° ₹04'20 11°51'08 minimum elong max. Earth dist. -10670 Mar 02 j 22:38 25°**х** 59'12 47.71658 AU -10677 Mar 07 i 15:15 19° ₹ 18'03 morning rise

morning rise	-10677 Mar 07 j 15:15	19° ∡ 18′03					
retrograde	-10677 Jun 06 j 21:35	20° ∡ ³34′00		conjunction	-10670 Mar 04 j 15:41	26° ₹ '01'36	-10°20'07
opposition	-10677 Aug 27 j 02:39	19° ∡ ³34'23	-12°14'37	minimum elong	-10670 Mar 04 j 15:52	26° ∡ ¹01'36	10°20'42
min. Earth dist.	-10677 Aug 28 j 08:04	19° ∡ ³32'58	46.59341 AU	morning rise	-10670 Mar 16 j 10:35	26° ∡ 18′00	
direct	-10677 Nov 17 j 10:28	18° ∡ ³33'48		retrograde	-10670 Jun 13 j 16:25	27° ∡ ³32'33	
evening set	-10676 Feb 16 j 15:07			opposition	-10670 Sep 02 j 14:53	26° ∡ ³32'29	-10°39'55
				min. Earth dist.	-10670 Sep 04 j 03:23	26° ₹ 30'42	45.67989 AU
conjunction	-10676 Feb 26 j 21:44	20° ₹ 03'18	-11°38'27	direct	-10670 Nov 24 j 03:23	25° ∡ ³31'10	
minimum elong	-10676 Feb 26 j 21:54	20° ₹ 03'19	11°39'02	evening set	-10669 Feb 21 j 22:34	26° ∡ ¹45'44	
max. Earth dist.	-10676 Feb 25 j 12:48	20° ₹ '01'24	48.49032 AU	max. Earth dist.	-10669 Mar 04 j 05:20	27° ∡ °00'03	47.57626 AU
morning rise	-10676 Mar 08 j 04:19	20° х 17′26					
retrograde	-10676 Jun 07 j 02:38	21° ∡ ³33′07		conjunction	-10669 Mar 05 j 23:16	27° ∡ ¹02'30	-10°06'07
opposition	-10676 Aug 27 j 07:34	20° х 33′24	-12°01'56	minimum elong	-10669 Mar 05 j 23:26	27° ∡ °02'31	10°06'43
min. Earth dist.	-10676 Aug 28 j 13:55	20° х ³31'56	46.47172 AU	morning rise	-10669 Mar 17 j 23:35	27° ∡ 19'16	
direct	-10676 Nov 17 j 17:07	19° ∡ ³32'42		retrograde	-10669 Jun 14 j 21:28		
evening set	-10675 Feb 16 j 15:33	20° ∡ ¹47'54		opposition	-10669 Sep 03 j 20:42	27° ∡ ³33'34	-10°25'16
max. Earth dist.	-10675 Feb 25 j 17:22	21° х 00′23	48.36849 AU	min. Earth dist.	-10669 Sep 05 j 11:19	27° ∡ ³31'41	45.53586 AU
				direct	-10669 Nov 25 j 10:59	26° ₹ 32'09	
conjunction	-10675 Feb 27 j 04:28	21° ₹ 02'24	-11°26'05	evening set	-10668 Feb 23 j 00:41	27° ∡ ¹46'40	
minimum elong	-10675 Feb 27 j 04:39	21° ∡ *02'25	11°26'39	max. Earth dist.	-10668 Mar 04 j 11:17		47.43142 AU
morning rise	-10675 Mar 09 j 17:35				·		
retrograde	-10675 Jun 08 j 07:33			conjunction	-10668 Mar 06 j 06:44	28° ∡ ¹03'47	-9°51'51
opposition	-10675 Aug 28 j 12:26		-11°48'59	minimum elong	-10668 Mar 06 j 06:55		
min. Earth dist.	-10675 Aug 29 j 19:37			morning rise	-10668 Mar 18 j 12:28		
direct	-10675 Nov 18 j 23:23			retrograde	-10668 Jun 15 j 04:13		
evening set	-10674 Feb 17 j 16:05			opposition	-10668 Sep 04 j 02:28		-10°10'20
max. Earth dist.	-10674 Feb 26 j 23:36		48.24352 AU	min. Earth dist.	-10668 Sep 05 j 17:37		
				direct	-10668 Nov 25 j 17:11		
conjunction	-10674 Feb 28 j 11:27	22° ҳ7 01'41	-11°13'26	evening set	-10667 Feb 23 j 03:12		
minimum elong	-10674 Feb 28 j 11:36			max. Earth dist.	-10667 Mar 05 j 16:36		47.28139 AU
morning rise	-10674 Mar 11 j 06:44						
retrograde	-10674 Jun 09 j 11:36			conjunction	-10667 Mar 07 j 14:34	29° ₹ 05'25	-9°37'20
opposition	-10674 Aug 29 j 17:39		-11°35'45	minimum elong	-10667 Mar 07 j 14:44		
min. Earth dist.	-10674 Aug 31 j 02:31			morning rise	-10667 Mar 20 j 01:37		, 3, 66
direct	-10674 Nov 20 j 06:58		10.21902110	morning rise	-10667 Apr 17 j 21:39		
evening set	-10673 Feb 18 j 16:51			retrograde	-10667 Jun 16 j 14:15		
max. Earth dist.	-10673 Feb 28 j 05:31		48 11595 AII	retrograde	-10667 Aug 16 j 02:47		
max. Larm dist.	10075160 20 05.51	22 7 37 03	40.113/3/10	opposition	-10667 Sep 05 j 08:25		-9°55'08
conjunction	-10673 Mar 01 j 18:14	230 🗷 01'11	-11°00'31	min. Earth dist.	-10667 Sep 07 j 01:57		
minimum elong	3			direct	-10667 Nov 26 j 20:33		
morning rise	-10673 Mar 12 j 19:35		11 01 00	evening set	-10666 Feb 24 i 06:00		
retrograde	-10673 Jun 10 j 19:04			evening set	-10666 Mar 03 j 17:41	0°る	
opposition	-10673 Juli 10 j 19:04 -10673 Aug 30 j 22:46		11022112	max. Earth dist.	-10666 Mar 07 j 00:04		47.12630 AU
min. Earth dist.	-10673 Sep 01 j 07:35			max. Earth dist.	-10000 Mai 07 J 00.04	0 00430	47.12030 AU
			40.08802 AU	aaniumatian	10666 Mar 09 : 22:27	0° る 07'21	0022122
direct	-10673 Nov 21 j 10:57 -10672 Feb 19 j 17:48			conjunction minimum elong	-10666 Mar 08 j 22:37	0 30721 0° る 07'21	9°23'08
evening set	•		47.00574 ATT	-	-10666 Mar 08 j 22:48		9 23 08
max. Earth dist.	-10672 Feb 29 j 10:41	23° X '38'43	47.98574 AU	morning rise	-10666 Mar 21 j 14:37	0°る25'10	
aonium -t:	10672 M 02 : 01 12	240.700157	10047110	retrograde	-10666 Jun 17 j 22:19	1° る 39'17 0° る 38'50	0920140
conjunction	-10672 Mar 02 j 01:13			opposition	-10666 Sep 06 j 14:32		
minimum elong	-10672 Mar 02 j 01:23		10°4/'54	min. Earth dist.	-10666 Sep 08 j 09:02		45.07380 AU
morning rise	-10672 Mar 13 j 08:37			T' .	-10666 Oct 12 j 03:36		
retrograde	-10672 Jun 11 j 03:37		11000101	direct	-10666 Nov 28 j 02:39	29° ∡ ³36′58	
opposition	-10672 Aug 31 j 04:03				-10665 Jan 13 j 20:39	0°る	
min. Earth dist.	-10672 Sep 01 j 14:43		45.95564 AU	evening set	-10665 Feb 25 j 08:57	0°る51'21	16.06620.177
direct	-10672 Nov 21 j 13:37			max. Earth dist.	-10665 Mar 08 j 05:22	1° 5 06'38	46.96639 AU
evening set	-10671 Feb 19 j 19:03						
max. Earth dist.	-10671 Mar 01 j 17:45	24° × ′58'50	47.85283 AU	conjunction	-10665 Mar 10 j 06:27	1°る09'32	
				minimum elong	-10665 Mar 10 j 06:37	1°る09'32	9°08'07
conjunction	-10671 Mar 03 j 08:26			morning rise	-10665 Mar 23 j 03:33	1° る 27'42	
minimum elong	-10671 Mar 03 j 08:37		10°34'27	retrograde	-10665 Jun 19 j 05:49	2° る 41'42	
morning rise	-10671 Mar 14 j 21:32			opposition	-10665 Sep 07 j 20:41	1° る 41'07	
retrograde	-10671 Jun 12 j 10:00			min. Earth dist.	-10665 Sep 09 j 16:28		44.91027 AU
opposition	-10671 Sep 01 j 09:27	25° ∡ ³31'47	-10°54'18	direct	-10665 Nov 29 j 09:16	0° る 39'04	
min. Earth dist.	-10671 Sep 02 j 20:51	25° х 30′04	45.81954 AU	evening set	-10664 Feb 26 j 12:03	1° る 53'26	
direct	-10671 Nov 22 j 20:30	24° ₹ 30'34		max. Earth dist.	-10664 Mar 08 j 12:44	2° る 08'59	46.80217 AU
evening set	-10670 Feb 20 j 20:44	25° ₹ 45'11					

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10664 in astronomical counting style is the year 10665 BCE in historical counting style. -10664 Mar 10 j 14:37 2°쥥11'57 -8°52'11 evening set -10657 Mar 04 i 18:06 9°る17'05 conjunction -10664 Mar 10 j 14:47 2°る11'57 8°52'47 max. Earth dist. -10657 Mar 16 j 16:31 9°る34'20 45.56952 AU minimum elong -10664 Mar 23 j 16:24 2°る30'27 morning rise -10664 Jun 19 j 09:28 3°る44'21 -10657 Mar 19 j 02:58 9°る37'53 -6°56'57 retrograde conjunction -10664 Sep 08 j 02:56 2°정43'38 -9°07'53 -10657 Mar 19 j 03:07 9°る37'54 6°57'32 opposition minimum elong -10664 Sep 10 j 00:30 2°중41'22 44.74271 AU 9°**る**58'39 -10657 Apr 02 j 10:38 min. Earth dist. morning rise -10664 Nov 29 j 19:35 -10657 Jun 27 j 18:55 11°쥥12'35 direct 1°**る**41'23 retrograde -10657 Sep 16 j 03:22 10°♂10'56 -7°07'02 evening set -10663 Feb 26 j 15:34 2°**る**55'44 opposition -10657 Sep 18 j 08:16 10°중08'16 43.49019 AU max. Earth dist. -10663 Mar 09 j 19:38 3°**궁**11'33 46.63441 AU min. Earth dist. direct -10657 Dec 07 j 20:35 9°る07'28 conjunction -10663 Mar 11 j 22:47 3°る14'35 -8°36'36 evening set -10656 Mar 04 j 23:43 10°る22'25 -10663 Mar 11 j 22:57 3°る14'36 8°37'12 -10656 Mar 17 j 01:30 10° ₹39'56 45.38070 AU minimum elong max. Earth dist. -10663 Mar 25 j 05:21 3°₹33'25 morning rise -10656 Mar 19 j 12:26 10°₹43'32 -6°39'20 retrograde -10663 Jun 20 j 15:57 4°₹47'15 conjunction opposition -10663 Sep 09 j 09:17 3°**る**46'23 -8°51'33 minimum elong -10656 Mar 19 j 12:35 10°₹43'32 min. Earth dist. -10663 Sep 11 j 07:02 3°る44'07 44.57185 AU morning rise -10656 Apr 02 j 23:41 11°**궁**04'35 direct -10663 Dec 01 j 03:14 2°る43'57 retrograde -10656 Jun 28 j 05:22 12°**궁**18'37 evening set -10662 Feb 27 j 19:16 3°**る**58'18 opposition -10656 Sep 16 j 10:57 11° ₹ 16'50 -6°48'32 max. Earth dist. -10662 Mar 11 j 02:15 4°る14'20 46.46339 AU min. Earth dist. -10656 Sep 18 j 16:32 11°る14'07 43.29785 AU direct -10656 Dec 08 j 02:54 10°**ට**13'11 conjunction -10662 Mar 13 j 07:06 4°る17'29 -8°20'43 evening set -10655 Mar 06 j 05:52 11°る28'18 -10655 Mar 18 j 08:27 11°중45'57 45.18734 AU minimum elong -10662 Mar 13 i 07:17 4°る17'30 8°21'19 max. Earth dist. morning rise -10662 Mar 26 j 18:13 4°**궁**36'39 retrograde -10662 Jun 22 j 00:59 5°る50'26 conjunction -10655 Mar 20 j 22:04 11° ₹49'43 -6°21'25 opposition -10662 Sep 10 j 15:55 4°₹49'25 -8°34'54 minimum elong -10655 Mar 20 j 22:13 11°₹49'44 6°22'00 -10662 Sep 12 j 15:35 4°정47'03 44.39815 AU -10655 Apr 04 j 12:59 12°る11'05 min. Earth dist. morning rise -10662 Dec 02 j 07:54 3°る46'48 -10655 Jun 29 j 16:21 13°₹25'13 direct retrograde -10661 Feb 28 j 23:11 5°る01'11 -10655 Sep 17 j 18:53 12°₹23'16 -6°29'44 evening set opposition -10661 Mar 12 j 10:41 5°**궁**17'31 46.28985 AU -10655 Sep 20 j 02:08 12°중20'28 43.10098 AU max. Earth dist. min. Earth dist. -10655 Dec 09 j 09:35 11°る19'25 direct -10661 Mar 14 j 15:36 5°**♂**20'41 -8°04'33 -10654 Mar 07 j 12:13 12°₹34'43 conjunction evening set -10654 Mar 19 j 17:41 12°정52'36 44.98931 AU -10661 Mar 14 j 15:46 5° ₹20'42 8°05'09 minimum elong max. Earth dist. -10661 Mar 28 j 06:59 5°**⋜**40'10 morning rise -10661 Jun 23 j 09:15 6°₹53'57 -10654 Mar 22 j 08:01 12°₹56'26 -6°03'13 retrograde conjunction -10661 Sep 11 j 22:39 5° ₹52'47 -8°17'57 -10654 Mar 22 j 08:10 12°중56'27 6°03'49 opposition minimum elong -10661 Sep 13 j 22:30 5° 중50'24 44.22199 AU -10654 Apr 06 j 02:06 13°정18'06 min. Earth dist. morning rise -10661 Dec 03 j 15:04 4°**정**49'59 -10654 Jun 30 j 23:25 14°₹32'20 direct retrograde evening set -10660 Mar 01 j 03:21 6°**⋜**04'26 opposition -10654 Sep 19 j 03:03 13°₹30'13 -6°10'38 max. Earth dist. -10660 Mar 12 j 17:01 6°**궁**20'58 46.11396 AU min. Earth dist. -10654 Sep 21 j 11:53 13°**정**27'19 42.89952 AU direct -10654 Dec 10 j 21:01 12°**♂**26'08 conjunction -10660 Mar 14 j 23:59 6°ਰੋ24'16 -7°48'06 evening set -10653 Mar 08 j 19:01 13°₹41'38 -10660 Mar 15 j 00:09 6°**♂**24'17 7°48'41 max. Earth dist. -10653 Mar 21 j 01:57 13°₹59'41 44.78706 AU minimum elong -10660 Mar 28 j 19:49 6°₹44'04 morning rise -10660 Jun 23 j 18:51 7°₹57'50 -10653 Mar 23 j 18:00 14°₹03'39 -5°44'44 retrograde conjunction -10660 Sep 12 j 05:32 6° 중56'33 -8°00'41 -10653 Mar 23 j 18:08 14°₹03'40 5°45'19 opposition minimum elong -10660 Sep 14 j 06:22 6°る54'07 44.04355 AU -10653 Apr 07 i 15:25 14° ₹25'36 min. Earth dist. morning rise -10660 Dec 03 j 21:28 -10653 Jul 02 j 07:31 15°る39'56 direct 5°る53'35 retrograde -10653 Sep 20 j 11:16 14°る37'39 -5°51'13 evening set -10659 Mar 02 i 07:53 7°る08'07 opposition -10653 Sep 22 j 20:33 14°중34'43 42.69416 AU max. Earth dist. -10659 Mar 14 j 01:36 7°る24'57 45.93553 AU min. Earth dist. direct -10653 Dec 12 i 07:13 13°₹33'19 evening set conjunction -10659 Mar 16 i 08:53 7°₹28'17 -7°31'20 -10652 Mar 09 j 01:55 14° ₹ 49'01 -10659 Mar 16 i 09:03 7°る28'18 7°31'56 max. Earth dist. -10652 Mar 21 j 10:34 15° ₹ 07'16 44.58092 AU minimum elong -10659 Mar 30 j 08:41 7°る48'25 morning rise retrograde -10659 Jun 25 j 01:50 9°**る**02'12 conjunction -10652 Mar 24 j 04:08 15°る11'20 -5°25'57 8°る00'48 -7°43'07 opposition -10659 Sep 13 j 12:34 minimum elong -10652 Mar 24 j 04:15 15°**⋜**11'21 5°26'32 min. Earth dist. -10659 Sep 15 j 14:59 7°る58'16 43.86239 AU morning rise -10652 Apr 08 j 04:33 15°₹33'34 direct -10659 Dec 05 j 06:22 6°る57'40 retrograde -10652 Jul 02 j 16:45 16°₹48'04 -10658 Mar 03 j 12:55 8°る12'20 -10652 Sep 20 j 19:49 15°₹45'34 -5°31'29 evening set opposition -10658 Mar 15 j 09:14 8°る29'23 45.75433 AU -10652 Sep 23 j 07:14 15° ₹ 42'31 42.48528 AU max. Earth dist. min. Earth dist. -10652 Dec 12 j 15:14 14°₹40'59 direct -10658 Mar 17 j 17:53 8°**ප**32'49 -7°14'17 conjunction evening set -10651 Mar 10 j 09:21 15°る56'54 minimum elong -10658 Mar 17 j 18:02 8°る32'49 7°14'54 max. Earth dist. -10651 Mar 22 j 20:41 16°중15'23 44.37164 AU morning rise -10658 Mar 31 j 21:44 8°**る**53'15 retrograde -10658 Jun 26 j 09:11 10°**궁**07'06 conjunction -10651 Mar 25 j 14:33 16°る19'30 -5°06'52 opposition -10658 Sep 14 j 19:47 9°**ට**05'35 -7°25'14 minimum elong -10651 Mar 25 j 14:41 16°**♂**19'30 5°07'26 min. Earth dist. -10658 Sep 16 j 22:30 9°る03'02 43.67818 AU -10651 Apr 09 j 17:49 16° ₹42'01 morning rise

-10658 Dec 06 j 14:33

direct

8°る02'17

retrograde

-10651 Jul 04 j 02:47 17° ₹56'40

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10651 in astronomical counting style is the year 10652 BCE in historical counting style. -10651 Sep 22 j 04:24 16°중53'57 -5°11'25 minimum elong -10644 Apr 02 j 21:58 24° **정**33'42 2°45'18 opposition -10651 Sep 24 j 15:55 16°る50'53 42.27352 AU -10644 Apr 18 j 16:07 24°る58'02 min. Earth dist. morning rise -10651 Dec 13 j 23:55 15°る49'08 -10644 Jul 12 j 10:54 26°る14'34 direct retrograde -10650 Mar 11 j 17:14 17°**⋜**05'17 -10644 Sep 30 j 00:50 25° ₹ 10'27 -2°41'48 evening set opposition -10650 Mar 24 j 05:10 17°**궁**23'54 44.15972 AU -10644 Oct 02 j 19:02 25°**궁**06'57 40.73494 AU max. Earth dist. min. Earth dist. -10644 Dec 21 j 18:07 24°중03'53 direct -10650 Mar 27 j 01:07 17°る28'10 -4°47'29 -10643 Mar 19 j 12:10 25°₹22'35 conjunction evening set -10650 Mar 27 j 01:14 17°중28'10 4°48'04 minimum elong max. Earth dist. -10643 Apr 01 j 07:46 25°정42'26 42.61823 AU -10650 Apr 11 j 07:10 17° ₹50'57 morning rise retrograde -10650 Jul 05 j 16:11 19°**궁**05'47 conjunction -10643 Apr 04 j 10:27 25°₹47'18 -2°23'14 opposition -10650 Sep 23 j 13:24 18°♂02'52 -4°51'02 minimum elong -10643 Apr 04 j 10:31 25°₹47'18 2°23'48 -10650 Sep 26 j 02:11 17°る59'44 42.05962 AU -10643 Apr 20 j 06:11 26°**♂**11'52 min. Earth dist. morning rise -10650 Dec 15 j 06:16 16°**⋜**57'47 -10643 Jul 14 j 00:49 27°₹328'45 direct retrograde evening set -10649 Mar 13 j 01:10 18°정14'13 opposition -10643 Oct 01 j 11:44 26°₹24'24 -2°19'07 max. Earth dist. -10649 Mar 25 j 16:09 18° 중33'07 43.94575 AU min. Earth dist. -10643 Oct 04 j 06:50 26°**궁**20'51 40.50392 AU direct -10643 Dec 23 j 05:34 25°**궁**17'33 conjunction -10649 Mar 28 j 11:50 18°♂37'23 -4°27'47 evening set -10642 Mar 20 j 23:51 26°**궁**36'43 minimum elong -10649 Mar 28 j 11:57 18°₹37'23 4°28'22 max. Earth dist. morning rise -10649 Apr 12 j 20:13 19°る00'26 retrograde -10649 Jul 07 j 02:43 20°る15'29 conjunction -10642 Apr 05 j 23:30 27°る01'40 -2°01'25 opposition -10649 Sep 24 j 22:41 19°정12'21 -4°30'19 minimum elong -10642 Apr 05 j 23:34 27°る01'40 2°01'58 min. Earth dist. -10649 Sep 27 j 12:15 19°중09'10 41.84384 AU morning rise -10642 Apr 21 j 20:13 27°る26'27 direct -10649 Dec 16 j 16:32 18°る07'01 retrograde -10642 Jul 15 j 12:28 28°정43'44 evening set -10648 Mar 13 j 09:49 19°る23'46 opposition -10642 Oct 02 j 23:15 27°る39'07 -1°56'07 max. Earth dist. -10648 Mar 26 j 01:41 19°정42'49 43.73018 AU min. Earth dist. -10642 Oct 05 j 20:17 27°**궁**35'27 40.26917 AU -10642 Dec 24 j 18:07 26°る31'58 direct -10648 Mar 28 j 22:46 19°**5**47'12 -4°07'47 -10641 Mar 22 j 11:54 27°る51'37 conjunction evening set minimum elong -10648 Mar 28 j 22:52 19°₹47'12 4°08'22 max. Earth dist. -10641 Apr 04 j 08:02 28°정11'43 42.14986 AU -10648 Apr 13 j 09:41 20° ₹ 10'31 morning rise -10648 Jul 07 j 12:36 21° ₹25'47 retrograde conjunction opposition -10648 Sep 25 j 07:56 20°₹22'28 -4°09'17 minimum elong morning rise -10641 Apr 23 j 10:17 28°정41'47 min. Earth dist. -10648 Dec 17 j 02:51 19°**♂**16'54 -10641 Jul 16 j 23:31 29°**궁**59'28 direct retrograde -10641 Oct 04 j 10:51 28°₹54'36 -1°32'47 -10647 Mar 14 j 18:51 20°る33'59 evening set opposition -10647 Mar 27 j 12:07 20°중53'13 43.51286 AU -10641 Oct 07 j 07:58 28°중50'54 40.03117 AU max. Earth dist. min. Earth dist. -10641 Dec 26 j 06:52 27°₹47'07 direct -10647 Mar 30 j 10:11 20°₹57'41 -3°47'29 -10640 Mar 23 j 00:36 29°**⋜**07'16 conjunction evening set minimum elong -10647 Mar 30 j 10:17 20°る57'41 3°48'04 max. Earth dist. -10640 Apr 04 j 19:34 29°**정**27'26 41.91070 AU morning rise -10647 Apr 14 j 23:08 21°**♂**21'16 retrograde -10647 Jul 08 j 21:21 22°♂36'49 conjunction -10640 Apr 08 j 02:01 29°♂32'39 -1°16'54 opposition -10647 Sep 26 j 17:46 21°₹33'18 -3°47'54 minimum elong -10640 Apr 08 j 02:03 29°**궁**32'39 1°17'27 min. Earth dist. -10647 Sep 29 j 09:14 21°중29'59 41.40753 AU -10640 Apr 24j 00:29 29°る57'51 morning rise -10647 Dec 18 j 14:08 20°₹27'30 -10640 Apr 25 j 09:42 0°≈ direct -10646 Mar 16 j 04:23 21°**⋜**44'56 -10640 Jul 17 j 13:28 1°≈15'59 evening set retrograde max. Earth dist. -10646 Mar 28 j 23:28 22°중04'24 43.29362 AU -10640 Oct 04 j 22:45 0°≈10'50 -1°09'08 opposition -10640 Oct 07 j 21:44 0°≈07'01 39.79040 AU min. Earth dist. -10646 Mar 31 j 21:45 22°る08'54 -3°26'53 -10640 Oct 13 j 08:42 30°R♂ conjunction -10646 Mar 31 j 21:51 22°る08'55 3°27'27 minimum elong direct -10640 Dec 26 j 16:45 29°る03'02 morning rise -10646 Apr 16 j 12:42 22°る32'45 -10639 Mar 08 i 17:29 0°≈ retrograde -10646 Jul 10 i 08:24 23° ₹ 48'36 evening set -10639 Mar 24 i 13:47 0°≈23'43 -10646 Sep 28 j 03:44 22°₹44'54 -3°26'12 max. Earth dist. -10639 Apr 06 j 09:39 0°≈44'03 41.66901 AU opposition min. Earth dist. -10646 Sep 30 j 19:13 22°る41'34 41.18628 AU direct -10646 Dec 19 j 23:30 21° ₹38'51 -10639 Apr 09 j 15:54 0°≈49'17 -0°54'12 conjunction evening set -10645 Mar 17 j 14:30 22° ₹ 56'41 minimum elong -10639 Apr 09 j 15:56 0°≈49'17 0°54'45 max. Earth dist. -10645 Mar 30 j 09:18 23°중16'14 43.07178 AU morning rise -10639 Apr 25 j 14:46 1°≈14'42 retrograde -10639 Jul 19 j 03:25 2°≈33'17 conjunction -10645 Apr 02 j 09:39 23°₹20'54 -3°05'58 opposition -10639 Oct 06 j 11:07 1°≈27'51 -0°45'09 -10645 Apr 02 j 09:44 23°る20'55 3°06'33 min. Earth dist. -10639 Oct 09 j 10:23 1°≈24′00 39.54738 AU minimum elong -10645 Apr 18 j 02:24 23°₹45'00 morning rise direct -10639 Dec 28 j 04:21 0°≈19'43 -10645 Jul 11 j 22:10 25°**⋜**01'11 retrograde evening set -10638 Mar 26 j 03:37 1°≈40'59 -10645 Sep 29 j 14:05 23°₹57'16 -3°04'10 -10638 Apr 07 j 21:54 opposition max. Earth dist. 2°≈01'22 41.42535 AU min. Earth dist. -10645 Oct 02 j 07:24 23°₹53'50 40.96235 AU direct -10645 Dec 21 j 06:48 22°る50'59 conjunction -10638 Apr 11 j 05:51 2°≈06'44 -0°31'13 evening set -10644 Mar 18 j 00:54 24°**⋜**09'14 minimum elong -10638 Apr 11 j 05:52 2°≈06'45 0°31'44 max. Earth dist. -10644 Mar 30 j 21:23 24°중29'00 42.84682 AU morning rise -10638 Apr 27 j 05:05 2°≈32'20 -10638 Jul 20 j 19:13 retrograde 3°≈51'26 -10644 Apr 02 j 21:54 24°₹33'42 -2°44'45 -10638 Oct 07 j 23:49 2°≈45'43 -0°20'51 conjunction opposition

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10638 in astronomical counting style is the year 10639 BCE in historical counting style. min. Earth dist. -10638 Oct 10 j 23:48 2°≈41'48 39.30293 AU evening set -10631 Apr 04 j 22:44 11°≈10'59 -10638 Dec 29 j 15:41 -10631 Apr 17 j 07:05 11°≈31'46 39.68761 AU direct 1°≈37'14 max Earth dist -10637 Mar 27 j 17:54 evening set 2°≈59'08 -10637 Apr 09 j 12:24 3°≈19'40 41.18031 AU -10631 Apr 20 j 19:34 11°≈37'45 2°17'30 max. Earth dist. conjunction -10631 Apr 20 j 19:30 11°≈37'45 minimum elong 2°17'01 -10631 May 06 j 12:54 12°**≈**04'19 -10637 Apr 12 j 20:21 conjunction 3°≈25'05 -0°07'58 morning rise -10637 Apr 12 j 20:22 -10631 Jul 30 j 12:20 13°≈28'11 minimum elong 3°**≈**25′05 0°08'30 retrograde -10637 Apr 12 j 14:42 behind sun begin 3°≈24'43 opposition -10631 Oct 17 j 04:46 12°≈20'30 2°37'43 behind sun end -10637 Apr 13 j 02:02 3°≈25'26 min. Earth dist. -10631 Oct 20 j 09:27 12°≈16'11 37.56210 AU morning rise -10637 Apr 28 j 19:23 3°≈50'50 direct -10630 Jan 07 j 17:42 11°≈09'44 retrograde -10637 Jul 22 j 08:42 5°≈10'29 evening set -10630 Apr 06 j 18:10 12°≈37'12 -10637 Aug 14 j 22:58 asc. node 5°**≈**03'23 max. Earth dist. -10630 Apr 18 j 23:43 12°≈57'57 39.43188 AU opposition -10637 Oct 09 j 12:58 4°**≈**04'29 0°03'45 min. Earth dist. -10637 Oct 12 j 13:56 4°≈00'30 39.05745 AU conjunction -10630 Apr 22 j 13:08 13°≈04'04 2°42'39 direct -10637 Dec 31 j 06:50 2°≈55'41 minimum elong -10630 Apr 22 j 13:02 13°≈04'03 2°42'10 evening set -10636 Mar 28 j 08:50 4°≈18'15 morning rise -10630 May 08 j 04:16 13°≈30'41 max. Earth dist. -10636 Apr 10 j 02:25 4°≈38'51 40.93453 AU retrograde -10630 Aug 01 j 05:10 14°≈55'23 opposition -10630 Oct 18 j 21:16 13°≈47'22 3°04'22 conjunction -10636 Apr 13 j 11:01 4°≈44'22 0°15'40 min. Earth dist. -10630 Oct 22 j 03:39 13°≈42'56 37.30594 AU minimum elong -10636 Apr 13 j 11:00 4°≈44'22 0°15'10 direct -10629 Jan 09 j 11:30 12°≈36'13 behind sun begin -10636 Apr 13 j 09:06 4°≈44'14 evening set -10629 Apr 08 j 14:30 14°≈04'37 behind sun end -10636 Apr 13 j 12:55 4°≈44'29 max. Earth dist. -10629 Apr 20 j 17:23 14°≈25'21 39.17396 AU morning rise -10636 Apr 29 i 09:56 5°≈10'17 retrograde -10636 Jul 22 j 23:19 6°≈30'32 conjunction -10629 Apr 24 i 07:06 14°≈31'32 3°08'01 opposition -10636 Oct 10 j 02:24 5°≈24'15 0°28'40 minimum elong -10629 Apr 24 i 07:00 14°≈31'32 3°07'33 -10636 Oct 13 j 03:00 5°≈20'16 38.81131 AU -10629 May 09 j 19:58 14°≈58'13 min. Earth dist. morning rise -10636 Dec 31 j 21:21 4°≈15'08 -10629 May 10 j 21:20 15°≈ direct -10635 Mar 30 j 00:33 -10629 Aug 02 j 22:12 16°≈23'46 5°≈38'24 retrograde evening set -10635 Apr 11 j 16:39 5°≈59'04 40.68786 AU -10629 Oct 20 j 14:02 15°≈15'24 3°31'17 max. Earth dist. opposition min. Earth dist. -10629 Oct 23 j 20:08 15°≈10'57 37.04784 AU -10629 Oct 31 j 22:44 15°R≈ -10635 Apr 15 j 02:17 6°≈04'41 0°39'30 conjunction minimum elong -10635 Apr 15 j 02:16 6°≈04'41 -10628 Jan 11 j 05:05 14°≈03'51 0°38'59 direct -10635 May 01 j 00:34 6°≈30'47 -10628 Mar 19 j 19:04 15°≈ morning rise -10635 Jul 24 j 13:52 7°≈51'40 -10628 Apr 09 j 11:33 15°≈33'14 retrograde evening set -10635 Oct 11 j 16:20 6°≈45'07 0°53'53 -10628 Apr 21 j 10:10 15°≈53'49 38.91410 AU opposition max. Earth dist. -10635 Oct 14 j 18:36 6°≈41'01 38.56445 AU min. Earth dist. -10628 Apr 25 j 01:29 16°≈00'11 3°33'37 direct -10634 Jan 02 j 09:55 5°≈35'42 conjunction -10634 Mar 31 j 16:56 6°≈59'43 minimum elong -10628 Apr 25 j 01:22 16°≈00'10 3°33'09 evening set max. Earth dist. -10634 Apr 13 j 08:40 7°≈20'30 40.44038 AU morning rise -10628 May 10 j 11:42 16°≈26'54 retrograde -10628 Aug 03 j 16:30 17°≈53'21 conjunction -10634 Apr 16 j 17:58 7°≈26'09 1°03'36 -10628 Oct 21 j 07:24 16°≈44'36 3°58'27 opposition -10634 Apr 16 j 17:56 7°≈26'08 min. Earth dist. -10628 Oct 24 j 15:06 16°≈40'02 36.78828 AU minimum elong 1°03'06 -10634 May 02 j 15:25 7°≈52'22 -10627 Jan 11 j 20:26 15°≈32'37 morning rise direct -10634 Jul 26 j 05:17 9°≈13'57 -10627 Apr 11 j 09:26 17°≈03'01 retrograde evening set -10634 Oct 13 j 06:45 8°≈07'08 1°19'25 max. Earth dist. -10627 Apr 23 j 05:43 17°≈23'37 38.65297 AU opposition -10634 Oct 16 j 08:48 8°≈03'02 38.31659 AU min. Earth dist. -10627 Apr 26 j 20:27 17°≈29'59 3°59'25 direct -10633 Jan 03 i 23:32 6°≈57'24 conjunction evening set -10633 Apr 02 j 10:00 8°≈22'13 minimum elong -10627 Apr 26 j 20:18 17°≈29'58 3°58'59 max. Earth dist. -10633 Apr 14 j 22;45 8°≈42'59 40.19151 AU morning rise -10627 May 12 j 03:30 17°≈56'42 retrograde -10627 Aug 05 i 11:13 19°≈24'06 -10633 Apr 18 i 09:51 8°≈48'47 1°27'58 opposition -10627 Oct 23 j 01:17 18°≈14'58 4°25'51 conjunction -10633 Apr 18 j 09:49 8°≈48'47 1°27'28 min. Earth dist. -10627 Oct 26 j 08:57 18°≈10'22 36.52786 AU minimum elong -10626 Jan 13 j 13:27 17°≈02'33 -10633 May 04 j 06:18 9°≈15'09 direct morning rise -10633 Jul 28 j 00:44 10°≈37'27 retrograde evening set -10626 Apr 13 j 08:16 18°≈34'01 opposition -10633 Oct 14 j 21:36 9°≈30'22 1°45'13 max. Earth dist. -10626 Apr 24 j 23:38 18°≈54'27 38.39134 AU -10633 Oct 18 j 00:53 min. Earth dist. 9°≈26'11 38.06729 AU -10626 Apr 28 j 15:42 19°**≈**00'58 4°25'24 -10632 Jan 05 j 10:30 8°≈20'19 conjunction direct -10626 Apr 28 j 15:33 19°≈00'57 4°24'58 evening set -10632 Apr 03 j 03:51 9°≈45'59 minimum elong -10632 Apr 15 j 15:34 10°≈06'49 39.94071 AU -10626 May 13 j 19:30 19°≈27'40 max. Earth dist. morning rise -10626 Aug 07 j 09:07 20°≈56'05 retrograde -10632 Apr 19 j 02:31 10°≈12'40 1°52'37 conjunction opposition -10626 Oct 24 j 19:43 19°≈46'32 4°53'26 minimum elong -10632 Apr 19 j 02:27 10°≈12'39 1°52'08 min. Earth dist. -10626 Oct 28 j 03:39 19°≈41'55 36.26758 AU morning rise -10632 May 04 j 21:25 10°≈39'08 direct -10625 Jan 15 j 05:14 18°≈33'41 retrograde -10632 Jul 28 j 17:42 12°≈02'12 evening set -10625 Apr 15 j 07:38 20°≈06'18 opposition -10632 Oct 15 j 12:54 10°≈54'49 2°11'20 max. Earth dist. -10625 Apr 26 j 20:00 20°≈26'41 38.12990 AU min. Earth dist. -10632 Oct 18 j 17:11 10°≈50'34 37.81583 AU -10631 Jan 06 j 01:03 9°≈44'26 -10625 Apr 30 j 11:27 20°≈33'12 4°51'33 direct conjunction

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10625 in astronomical counting style is the year 10626 BCE in historical counting style. -10625 Apr 30 j 11:17 20°≈33'11 4°51'08 min. Earth dist. -10619 Nov 08 i 07:18 1°**)** €03'58 34.47492 AU minimum elong -10625 May 15 j 11:17 20°≈59'52 -10618 Jan 03 j 14:24 30°R≈ morning rise -10625 Aug 09 j 05:11 22°≈29'20 -10618 Jan 26 j 00:00 29°≈53'07 retrograde direct -10625 Oct 26 j 14:51 21°≈19'23 5°21'13 -10618 Feb 17 j 09:34 0°**∀** opposition -10625 Oct 29 j 23:19 21°≈14'42 36.00790 AU -10618 Apr 28 j 09:47 min. Earth dist. evening set 1°**)** 35'38 -10624 Jan 17 j 00:07 20°≈06'07 -10618 May 08 j 06:58 direct max. Earth dist. 1°**米**54′21 36.32757 AU -10624 Apr 16 j 08:15 21°≈39'55 evening set -10624 Apr 27 j 16:07 22°≈00'10 37.86942 AU conjunction max. Earth dist. -10618 May 11 j 22:43 2°**米**01'21 7°57'13 minimum elong -10618 May 11 j 22:24 2°**米**01'19 7°56'53 2°**)**€26'49 conjunction -10624 May 01 j 07:43 22°≈06'45 5°17'50 morning rise -10618 May 25 j 07:57 minimum elong -10624 May 01 j 07:31 22°≈06'44 5°17'25 retrograde -10618 Aug 21 j 00:36 4°**)**(05'41 -10624 May 16 j 03:30 22°≈33'21 morning rise opposition -10618 Nov 06 j 22:31 2°**¥**53'05 8°38'44 retrograde -10624 Aug 10 j 02:52 24°≈03'56 min. Earth dist. -10618 Nov 10 j 07:59 2°**¥**48′08 34.22161 AU opposition -10624 Oct 27 j 10:15 22°≈53'37 5°49'09 direct -10617 Jan 28 j 00:06 1°**¥**36'56 min. Earth dist. -10624 Oct 30 j 18:01 22°≈48'56 35.74952 AU evening set -10617 Apr 30 j 18:04 3°**¥**21′07 direct -10623 Jan 17 j 20:48 21°≈39'54 max. Earth dist. -10617 May 10 j 07:35 3°**)** 39'26 36.07228 AU evening set -10623 Apr 18 j 09:47 23°≈15'00 max. Earth dist. -10623 Apr 29 j 12:45 23°≈35'04 37.61009 AU conjunction -10617 May 13 j 23:20 3°**)** 46′30 8°23'50 minimum elong -10617 May 13 j 23:01 3°**)** 46′28 8°23'32 conjunction -10623 May 03 j 04:43 23°≈41'44 5°44'14 morning rise -10617 May 27 j 01:15 4° **)** 11'38 minimum elong -10623 May 03 j 04:31 23°≈41'43 retrograde -10617 Aug 23 j 04:08 5°**)** €52'06 morning rise -10623 May 17 j 19:48 24°≈08'14 opposition -10617 Nov 08 j 23:00 4°**¥**39'05 9°07'05 retrograde -10623 Aug 12 j 00:29 25°≈40'02 min. Earth dist. -10617 Nov 12 j 07:41 4°**)**(34'09 33.96898 AU opposition -10623 Oct 29 i 06:38 24°≈29'20 6°17'13 direct -10616 Jan 30 i 01:22 3°**)**€22'28 min. Earth dist. -10623 Nov 01 j 15:26 24°≈24'34 35.49255 AU evening set -10616 May 02 j 03:34 5°**₩**08'25 -10622 Jan 19 j 16:17 23°≈15'13 max. Earth dist. -10616 May 11 j 08:45 5°**)** €26'14 35.81760 AU direct -10622 Apr 20 j 12:17 24°≈51'39 evening set -10622 May 01 j 11:04 25°≈11'35 37.35219 AU -10616 May 15 j 00:52 5° \(\frac{1}{3}3'24 \) 8°50'23 max. Earth dist. conjunction -10616 May 15 j 00:31 5°\circ\tag{33'22} 8°50'04 minimum elong -10622 May 05 j 02:08 25°≈18'16 6°10'44 -10616 May 27 j 18:45 5° **∺** 58'09 conjunction morning rise -10622 May 05 j 01:54 25°≈18'15 6°10'20 -10616 Aug 24 j 06:07 7°**)** 40′17 retrograde minimum elong -10622 May 19 j 12:12 25°≈44'38 opposition -10616 Nov 10 j 00:15 6° \(26'50 \) 9°35'20 morning rise -10622 Aug 13 j 21:31 27°≈17'42 -10616 Nov 13 j 09:59 min. Earth dist. 6°**★**21'48 33.71747 AU retrograde -10622 Oct 31 j 03:33 26°≈06'38 6°45'24 -10615 Jan 31 j 01:20 5° **★** 09'44 opposition direct -10622 Nov 03 j 11:23 26°≈01'54 35.23696 AU -10615 May 04 j 14:26 6°**¥**57'31 min. Earth dist. evening set -10621 Jan 21 j 12:54 24°≈52'08 -10615 May 13 j 12:01 7° **★** 14'54 35.56439 AU direct max. Earth dist. evening set -10621 Apr 22 j 15:56 26°≈29'59 max. Earth dist. -10621 May 03 j 08:08 26°≈49'37 37.09534 AU conjunction -10615 May 17 j 03:00 7°**米**22'03 9°16'48 minimum elong -10615 May 17 j 02:39 7° **★** 22'01 9°16'31 conjunction -10621 May 07 j 00:13 26°≈56'26 6°37'18 morning rise -10615 May 29 j 12:18 7° **★** 46'21 -10621 May 06 j 23:59 26°≈56'25 retrograde -10615 Aug 26 j 07:32 9°**米**30'14 minimum elong 6°36'56 -10621 May 21 j 04:53 27°≈22'38 -10615 Nov 12 j 02:21 8° **米** 16'20 10°03'29 morning rise opposition -10621 Aug 15 j 21:01 28°≈57'04 min. Earth dist. -10615 Nov 15 j 10:53 8°**光** 11'20 33.46781 AU retrograde -10621 Nov 02 j 01:05 27°≈45'38 7°13'39 -10614 Feb 02 j 03:24 6° **★** 58'46 opposition direct -10621 Nov 05 j 09:49 27°≈40'49 34.98250 AU -10614 May 07 j 02:21 8° **∺**48'25 min. Earth dist. evening set -10614 May 15 j 14:08 9° ★ 05'11 35.31329 AU direct -10620 Jan 23 i 07:04 26°≈30'44 max. Earth dist. evening set -10620 Apr 23 j 20:38 28°≈10'04 -10614 May 19 i 05:36 9° **H** 12'27 9°43'03 max. Earth dist. -10620 May 04 j 08:02 28°≈29'31 36.83919 AU conjunction minimum elong -10614 May 19 i 05:14 9° ** 12'25 9°42'46 conjunction morning rise -10620 May 07 i 23:04 28°≈36'19 7°03'55 -10614 May 31 j 05:48 9° **\(\)** 36'14 -10620 May 07 i 22:48 28°≈36'18 7°03'34 retrograde -10614 Aug 28 j 11:17 11°\cong 21'58 minimum elong -10620 May 21 j 21:40 29°≈02'19 -10614 Nov 14 j 05:15 10° **★** 07'36 10°31'25 morning rise opposition -10620 Jun 25 j 20:30 0°**米** min. Earth dist. -10614 Nov 17 j 13:55 10°**米**02'34 33.22095 AU retrograde -10620 Aug 16 j 20:43 0° **★** 38'10 direct -10613 Feb 04 j 02:43 8° **¥**49'33 -10620 Oct 09 j 16:07 30°R≈ evening set -10613 May 09 j 15:38 10°**)** 41'11 opposition -10620 Nov 02 j 23:29 29°≈26'21 7°41'59 max. Earth dist. -10613 May 17 j 19:30 10° **★** 57'28 35.06525 AU min. Earth dist. -10620 Nov 06 j 08:13 29°≈21'30 34.72850 AU -10619 Jan 24 j 03:41 28°≈11'03 -10613 May 21 j 09:02 11°**米** 04'38 10°09'04 direct conjunction -10619 Apr 26 j 02:41 29°≈51'57 -10613 May 21 j 08:39 11°**米**04'36 10°08'49 evening set minimum elong -10619 Apr 30 j 10:19 -10613 Jun 01 j 23:18 11° **∺**27'51 0°**₩** morning rise -10619 May 06 j 06:21 0° **₭** 11'00 36.58332 AU max. Earth dist. retrograde -10613 Aug 30 j 14:55 13°**米** 15'30 opposition -10613 Nov 16 j 08:52 12° **★** 00'41 10°59'06 conjunction -10619 May 09 j 22:27 0°**)** 17'57 7°30'34 min. Earth dist. -10613 Nov 19 j 16:35 11° **★** 55'40 32.97756 AU minimum elong -10619 May 09 j 22:10 0°**)** 17′55 7°30'15 direct -10612 Feb 06 j 04:27 10° **★**42'10 morning rise -10619 May 23 j 14:47 0°**)** 43′42 evening set -10612 May 11 j 06:22 12° **★** 35'53 -10619 Aug 18 j 23:02 2°**)** 21'02 max. Earth dist. -10612 May 18 j 23:33 12° **€** 51'26 34.82108 AU retrograde

-10619 Nov 04 j 22:31 1°₩08'50 8°10'21

opposition

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10612 in astronomical counting style is the year 10613 BCE in historical counting style. -10612 May 22 j 13:03 12° + 58'40 10°34'47 evening set -10605 May 30 j 10:36 26° + 59'12 conjunction -10612 May 22 j 12:39 12° X 58'38 10°34'32 max. Earth dist. -10605 Jun 03 j 09:55 27°**米**07'50 33.23898 AU minimum elong -10612 Jun 02 j 17:01 13° **€**21'15 morning rise -10612 Aug 31 j 21:59 15° ¥ 10'56 -10605 Jun 06 j 15:18 27° **X** 14'51 13°21'47 conjunction retrograde -10612 Nov 17 j 13:19 13°**)** 55'39 11°26'28 -10605 Jun 06 j 14:51 27°**)** 14'49 opposition minimum elong 13°21'42 -10612 Nov 20 j 20:03 13° \bigstar 50'41 32.73852 AU -10605 Jun 13 j 18:23 27° ₩ 30'22 min. Earth dist. morning rise -10611 Feb 07 j 06:25 12°**米** 36'42 -10605 Sep 16 j 15:43 29°**米** 37'18 direct retrograde 14°23'50 evening set -10611 May 13 j 22:24 14° **★** 32'34 opposition -10605 Dec 02 j 22:28 28°**米** 19'07 min. Earth dist. max. Earth dist. -10611 May 21 j 06:10 14° **€**47'29 34.58128 AU -10605 Dec 05 j 22:33 28° **X** 14'22 31.19372 AU direct -10604 Feb 22 j 03:35 26° **★** 57'20 conjunction -10611 May 24 j 17:55 14° **X** 54'39 11°00'09 evening set -10604 Jun 01 j 16:05 29°**₭** 11'35 -10604 Jun 04 j 22:50 29° **∺** 18'47 33.03043 AU minimum elong max. Earth dist. -10611 Jun 04 j 10:35 15°**)** 16'31 morning rise retrograde -10611 Sep 03 j 04:47 17°**米** 08'19 conjunction -10604 Jun 08 j 01:50 29°**)** €25'39 13°43'04 opposition -10611 Nov 19 j 18:48 15° **★** 52'36 11°53'27 minimum elong -10604 Jun 08 j 01:23 29° **★**25'37 13°42'59 min. Earth dist. -10611 Nov 23 j 01:06 15°**米**47'38 32.50409 AU morning rise -10604 Jun 14 j 10:00 29° **∺** 39'36 direct -10610 Feb 09 j 10:36 14°**米**33'13 -10604 Jun 23 j 19:31 $0^{\circ}\Upsilon$ evening set retrograde -10604 Sep 18 j 03:01 1°Y49'32 max. Earth dist. -10610 May 23 j 12:37 16° \(\frac{4}{4}5'30 \) 34.34641 AU opposition -10604 Dec 04 j 10:29 0°**Υ**30'56 14°46'22 min. Earth dist. -10604 Dec 07 j 09:27 0°**Υ**26'14 30.99064 AU conjunction -10610 May 26 j 23:27 16° \(\frac{1}{2} \) 52'39 11°25'06 -10604 Dec 24 j 09:00 30°R € minimum elong -10610 May 26 j 23:02 16° X 52'37 11°24'54 direct -10603 Feb 23 j 13:13 29° \(\) 08'44 morning rise -10610 Jun 06 i 04:17 17°**¥** 13'44 -10603 Apr 22 i 23:38 $0^{\circ}\Upsilon$ retrograde -10610 Sep 05 i 13:48 19°\cdot\07'46 evening set -10603 Jun 05 i 00:24 1°Y26'13 opposition -10610 Nov 22 j 01:00 17° ¥51'38 12°19'59 max. Earth dist. -10603 Jun 07 j 10:41 1°**Υ**31'36 32.82697 AU -10610 Nov 25 j 05:22 17°\ 46'45 32.27468 AU min. Earth dist. -10609 Feb 11 j 15:17 16° **★** 31'50 -10603 Jun 10 j 12:50 1°**Y**38'27 14°03'29 direct conjunction -10609 May 19 j 11:10 18° ¥ 32'23 -10603 Jun 10 j 12:23 1°Y38'25 14°03'27 minimum elong evening set -10609 May 25 j 19:57 18°**)** 45'38 34.11625 AU -10603 Jun 15 j 23:56 1°Y50'35 max Farth dist morning rise -10603 Sep 20 j 17:13 4°**Υ**03'46 retrograde 2°**Y**44'43 15°07'56 -10609 May 29 j 05:45 18° \(\frac{1}{2} \) 52'46 11°49'36 -10603 Dec 06 j 23:17 conjunction opposition -10609 May 29 j 05:19 18° **X** 52'43 11°49'26 -10603 Dec 09 j 20:19 2°**Υ**40'08 30.79301 AU minimum elong min. Earth dist. -10609 Jun 07 j 21:52 19°**升** 12'58 -10602 Feb 26 j 00:03 1°**Υ**22'07 morning rise direct -10609 Sep 07 j 22:07 21°**米**09'20 -10602 Jun 08 j 12:56 3°**Y**43′10 retrograde evening set -10609 Nov 24 j 08:14 19° **** 52'48 12°46'01 -10602 Jun 10 j 00:59 3°**Y**46'32 32.62926 AU opposition max. Earth dist. -10609 Nov 27 j 12:44 19° **€** 47'53 32.04994 AU min. Earth dist. -10602 Jun 13 j 00:44 3°**Υ**53'14 14°22'58 -10608 Feb 13 j 20:44 18° ¥ 32'37 direct conjunction evening set -10608 May 21 j 08:14 20°\\$35'39 minimum elong $-10602 \text{ Jun } 13 \text{ j } 00:18 \quad 3^{\circ} \Upsilon 53'11 \quad 14^{\circ} 22'56$ max. Earth dist. -10608 May 27 j 04:55 20° **€** 48'00 33.89068 AU morning rise -10602 Jun 17 j 11:22 4°**Υ**03'11 retrograde -10602 Sep 23 j 06:49 6°**Υ**19'57 conjunction -10608 May 30 j 12:55 20° **★** 55'03 12°13'34 opposition -10602 Dec 09 j 13:06 5° \(\gamma 00'27 \) 15\(^{\circ}28'28 \) -10608 May 30 j 12:29 20° **₭** 55'00 12°13'25 min. Earth dist. -10602 Dec 12 j 09:08 4°**Υ**55'54 30.60152 AU minimum elong -10601 Feb 28 j 12:08 3°**Υ**37'28 morning rise direct -10608 Sep 09 j 08:12 23° **∺** 13'05 -10601 Jun 12 j 08:20 6°**Υ**'02'41 retrograde evening set -10608 Nov 25 j 16:15 21° **€** 56'09 13°11'28 max. Earth dist. -10601 Jun 12 j 15:17 6°**Y**03'21 32.43838 AU opposition -10608 Nov 28 j 18:52 21° **X** 51'19 31.82958 AU min. Earth dist. -10607 Feb 15 i 04:59 20° ★ 35'34 -10601 Jun 15 j 13:05 6°**Y**′09'55 14°41'23 direct conjunction -10601 Jun 15 j 12:39 6°**Y**09'53 evening set -10607 May 24 i 06:58 22° + 41'13 minimum elong 14°41'25 6°**Y**17′04 max. Earth dist. -10607 May 29 j 13:11 22°\color 52'25 33.66927 AU morning rise -10601 Jun 18 i 16:51 retrograde -10601 Sep 25 j 22:35 8° Υ38'01 -10607 Jun 01 i 20:57 22° \times 59'30 12°36'58 opposition -10601 Dec 12 i 03:36 7° Y 18'06 15°47'50 conjunction -10607 Jun 01 i 20:30 22° ¥ 59'28 12°36'51 min. Earth dist. -10601 Dec 14 j 20:40 7° Υ 13'44 30.41711 AU minimum elong -10607 Jun 10 j 08:53 23°**¥** 17'37 direct -10600 Mar 02 j 01:34 5° Υ 54'45 morning rise 8°**Y**22'06 32.25493 AU -10607 Sep 11 j 18:36 25°**)** € 19'01 retrograde max. Earth dist. -10600 Jun 14 j 06:40 8°Y26'34 opposition -10607 Nov 28 j 01:27 24°\mathcal{H}01'41 13°36'19 evening set -10600 Jun 16 j 05:40 min. Earth dist. -10607 Dec 01 j 04:04 23°¥56'50 31.61346 AU 8°**Υ**28'31 14°58'41 -10606 Feb 17 j 11:06 22° ¥ 40'42 conjunction -10600 Jun 17 j 02:17 direct -10606 May 27 j 07:42 24° ¥ 49'04 -10600 Jun 17 j 01:52 8°**Y**28'29 14°58'42 evening set minimum elong -10606 Jun 01 j 00:13 24° ¥ 59'09 33.45203 AU -10600 Jun 17 j 22:05 8°**Ƴ**30'24 max. Earth dist. evening rise -10600 Sep 27 j 14:07 10°**Y** 57'59 retrograde -10606 Jun 04 j 05:43 25° **★** 06'07 12°59'43 -10600 Dec 13 j 19:06 9°**Υ**37'40 16°05'57 conjunction opposition minimum elong -10606 Jun 04 j 05:16 25° X 06'05 12°59'36 min. Earth dist. -10600 Dec 16 j 10:58 9°**Υ**33'21 30.24054 AU morning rise -10606 Jun 12 j 01:46 25° **★**23'00 direct -10599 Mar 04 j 14:47 8°**Y**13′58 -10599 Jun 16 j 23:42 10°**Υ**42'51 32.08004 AU retrograde -10606 Sep 14 j 03:47 27°**∺**27'06 max. Earth dist. opposition -10606 Nov 30 j 11:37 26° **★** 09'21 14°00'28 min. Earth dist. -10606 Dec 03 j 12:31 26° **★**04'35 31.40138 AU -10599 Jun 19 j 16:09 10°**Υ**′49'02 15°14'44 conjunction -10605 Feb 19 j 20:20 24° **ਮ** 47'59 -10599 Jun 19 j 15:46 10°**Υ**′49'00 15°14'48 direct minimum elong

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10599 in astronomical counting style is the year 10600 BCE in historical counting style. retrograde -10599 Sep 30 j 07:50 13°**Υ**19'50 retrograde -10591 Oct 20 j 16:00 3°817'31 -10599 Dec 16 j 11:30 11° Υ 59'09 16° 22'42 -10590 Jan 06 j 03:04 1°\(\cup 54'37 \) 17°38'28 opposition opposition min. Earth dist. -10599 Dec 18 j 23:54 11° Υ' 55'03 30.07259 AU min. Earth dist. -10590 Jan 07 j 18:54 1°**8**51'51 29.04578 AU -10598 Mar 07 j 07:08 10°**Υ**35'10 -10590 Mar 27 j 03:29 0°**8**29'09 direct direct -10598 Jun 19 j 16:09 13° $\mathbf{\gamma}$ '05'26 31.91410 AU -10590 Jul 10 j 09:49 3°808'46 30.91179 AU max. Earth dist. max. Earth dist. -10598 Jun 22 j 06:36 13°**Υ**11'28 15°29'28 -10590 Jul 12 j 00:19 3°**8**12'41 16°31'52 conjunction conjunction -10598 Jun 22 j 06:13 13°**Y**11'26 minimum elong -10590 Jul 12 j 00:11 3°**8**12'40 minimum elong 15°29'32 16°32'09 -10590 Oct 23 j 13:50 retrograde -10598 Oct 03 j 01:07 15°**Y**43'36 retrograde 5°**8**53'01 opposition -10598 Dec 19 j 04:47 14° Υ 22'35 16°37'59 opposition -10589 Jan 09 j 01:44 4°**8**29'52 17°39'42 min. Earth dist. -10598 Dec 21 j 15:29 14° Υ 18'35 29.91368 AU min. Earth dist. -10589 Jan 10 j 13:19 4°**8**27'24 28.95737 AU -10597 Mar 09 j 21:19 12°**Y**58'20 -10589 Mar 30 j 01:23 3°**8**04'17 direct direct -10597 Jun 22 j 11:11 15°**Υ**'30'07 31.75748 AU -10589 Jul 13 j 08:18 5°**8**44'39 30.82834 AU max. Earth dist. max. Earth dist. conjunction -10597 Jun 24 j 21:53 15°**Y**°35'50 15°42'48 conjunction -10589 Jul 14 j 19:24 5°848'14 16°31'53 minimum elong -10597 Jun 24 j 21:32 15°**Y**35'48 15°42'55 minimum elong -10589 Jul 14 j 19:20 5°**8**48'13 16°32'12 retrograde -10597 Oct 05 j 18:09 18°**Y**09'14 retrograde -10589 Oct 26 j 10:38 8°**8**29'10 opposition -10597 Dec 21 j 22:40 16° **Y** 47'55 16° 51'45 opposition -10588 Jan 12 j 00:46 7°**8**05'48 17°38'55 min. Earth dist. -10597 Dec 24 j 06:13 16°**Υ**44'07 29.76372 AU min. Earth dist. -10588 Jan 13 j 10:06 7°**と**03'28 28.87918 AU direct -10596 Mar 11 j 14:12 15°**Υ**23'27 direct -10588 Mar 31 j 21:52 5°**8**40'06 max. Earth dist. -10596 Jun 24 j 04:44 17°**Υ**56'31 31.60999 AU max. Earth dist. -10588 Jul 15 j 07:38 8°821'11 30.75594 AU conjunction -10596 Jun 26 i 13:43 18°**Y**02'06 15°54'40 conjunction -10588 Jul 16 j 14:37 8°**8**24'21 16°30'00 minimum elong -10596 Jun 26 i 13:23 18°**Υ**'02'04 15°54'47 minimum elong -10588 Jul 16 j 14:34 8°**8**24'20 16°30'19 -10596 Oct 07 j 13:48 20°**Y**36'44 retrograde retrograde -10588 Oct 28 j 08:52 11°**8**05'47 -10596 Dec 23 j 17:34 19° Υ 15'08 17° 03'54 -10587 Jan 14 j 00:11 9°842'13 17°36'03 opposition opposition -10596 Dec 25 j 22:50 19°**Υ**11'29 29.62269 AU -10587 Jan 15 j 04:51 9°840'13 28.81196 AU min Earth dist min. Earth dist. -10595 Mar 14 j 05:29 17°**Y**50'28 -10587 Apr 03 j 21:59 8°**8**16'28 direct direct max. Earth dist. -10595 Jun 27 j 01:12 20°**Υ**24'57 31.47145 AU max. Earth dist. -10587 Jul 18 j 06:11 10°**8**58'04 30.69513 AU -10595 Jun 29 j 06:14 20° Υ 30'12 16° 05'01 -10587 Jul 19 j 09:50 11°**8**00'54 16°26'11 conjunction conjunction -10587 Jul 19 j 09:51 11°**8**00'54 16°26'32 -10595 Jun 29 j 05:56 20°**Y**30'10 16°05'11 minimum elong minimum elong -10587 Oct 31 j 07:00 13°**8**42'45 -10595 Oct 10 j 07:54 23°**Y**06'00 retrograde retrograde -10595 Dec 26 j 13:23 21°**Υ**'44'08 17°14'24 -10586 Jan 16 j 23:59 12°**8**19'01 17°31'04 opposition opposition -10595 Dec 28 j 16:03 21°**Υ**'40'39 29.49017 AU -10586 Jan 18 j 01:34 12°**8**17'13 28.75648 AU min. Earth dist. min. Earth dist. -10594 Mar 16 j 23:21 20° **Y**19'18 -10586 Apr 06 j 19:49 10°**8**53'15 direct direct -10594 Jun 29 j 20:08 22°**Υ**'54'54 31.34174 AU -10586 Jul 21 j 06:27 13°**8**35'26 30.64671 AU max. Earth dist. max. Earth dist. conjunction -10594 Jul 01 j 23:15 22°**γ**59'59 16°13'47 conjunction minimum elong -10594 Jul 01 j 22:59 22°**γ**59'58 16°13'57 minimum elong -10586 Jul 22 j 05:22 13°**8**37'47 16°20'45 retrograde -10594 Oct 13 j 03:49 25°**Y**36'54 -10586 Aug 26 j 06:12 15°**8** -10594 Dec 29 j 09:45 24°**Υ**'14'46 17°23'10 -10586 Nov 03 j 04:12 16°**8**19'56 opposition retrograde min. Earth dist. -10594 Dec 31 j 09:29 24°**Υ**'11'28 29.36628 AU -10585 Jan 17 j 15:47 15°R ₩ -10593 Mar 19 j 16:52 22°**Y**49'45 -10585 Jan 19 j 23:44 14°**8**56'05 17°23'58 direct opposition max. Earth dist. -10593 Jul 02 j 17:36 25°**Y**26'35 31.22071 AU min. Earth dist. -10585 Jan 20 j 20:44 14°**8**54'37 28.71306 AU -10585 Apr 09 j 19:16 13°\(\delta\)30'22 direct -10593 Jul 04 i 16:59 25° **Y**31'20 16°20'54 -10585 Jun 23 j 09:08 15°8 conjunction minimum elong -10593 Jul 04 i 16:45 25°**γ**'31'19 16°21'07 -10585 Jul 24 j 04:54 16°**8**12'51 30.61078 AU max. Earth dist. $-10593 \text{ Oct } 15 \text{ j } 22:45 \ 28^{\circ} \Upsilon 09'15$ retrograde $-10592 \text{ Jan } 01 \text{ j } 06:58 \ 26^{\circ} \Upsilon 46'51 \ 17^{\circ} 30'08$ conjunction -10585 Jul 25 i 00:44 16°814'53 16°12'39 opposition min. Earth dist. -10592 Jan 03 j 04:36 26°**Y**43'42 29.25069 AU minimum elong -10585 Jul 25 j 00:50 16°8 14'54 16°13'02 direct -10592 Mar 21 j 11:18 25°**Υ**21'41 retrograde -10585 Nov 06 j 03:20 18°857'16 max. Earth dist. -10592 Jul 04 j 13:52 27°**Υ**'59'29 31.10850 AU -10584 Jan 22 j 23:43 17°**8**33'21 17°14'44 opposition min. Earth dist. -10592 Jul 06 j 11:01 28°**Y**′04'01 16°26'20 conjunction direct -10584 Apr 11 j 17:19 16°**8**07'43 minimum elong -10592 Jul 06 j 10:48 28°**Y**04'00 16°26'33 -10592 Aug 29 j 04:56 0°**8** conjunction -10592 Oct 17 j 20:17 0°842'51 -10584 Jul 26 j 20:19 18°**8**52'09 16°03'22 retrograde minimum elong -10592 Dec 09 j 06:28 30°R℃ -10584 Jul 26 j 05:27 18°**8**50'37 30.58728 AU max. Earth dist. -10591 Jan 03 j 04:36 29°**Y**'20'12 17°35'16 -10584 Nov 08 j 00:19 21°**8**34'39 opposition retrograde -10591 Jan 04 j 22:31 29°**Υ**17'18 29.14375 AU -10583 Jan 24 j 23:49 20°**8**10'43 17°03'25 min. Earth dist. opposition -10583 Jan 25 j 13:17 20°809'47 28.66252 AU direct -10591 Mar 24 j 06:34 27° Υ 54'53 min. Earth dist. -10591 Jun 23 j 10:48 0°8 direct -10583 Apr 14 j 17:06 18°**8**45'14 max. Earth dist. -10591 Jul 07 j 11:59 0°**8**33'40 31.00530 AU conjunction -10583 Jul 29 j 15:33 21°**8**29'25 15°51'21 -10591 Jul 09 j 05:37 0°\begin{align*} 337'53 16°30'00 \end{align*} -10583 Jul 29 j 15:44 21°**8**29'26 15°51'47 conjunction minimum elong -10591 Jul 09 j 05:28 0°**8**37'52 16°30'16 max. Earth dist. -10583 Jul 29 j 03:46 21°**8**28'12 30.57586 AU minimum elong

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10583 in astronomical counting style is the year 10584 BCE in historical counting style. -10583 Nov 10 j 22:39 24°**8**11'57 retrograde retrograde -10576 Nov 28 j 17:11 12°**Д**16'14 -10582 Jan 27 j 23:55 22°848'03 16°50'03 opposition -10575 Feb 15 j 17:55 10°**I** 52'51 14°24'33 opposition min. Earth dist. -10582 Jan 28 j 09:17 22°847'24 28.65490 AU min. Earth dist. -10575 Feb 15 j 02:23 10°**Д**53'55 28.89735 AU -10582 Apr 17 j 15:02 21°822'43 -10575 May 06 j 01:12 9°**Д**29'03 direct direct -10575 Aug 11 j 15:11 11°**Д**50'31 evening set -10582 Aug 01 j 10:54 24°806'35 15°37'53 conjunction -10582 Aug 01 j 11:06 24°**8**06'36 15°38'20 conjunction -10575 Aug 18 j 17:55 12°**Д**07'34 13°16'28 minimum elong -10575 Aug 18 j 18:18 12°Д07'36 13°17'00 -10582 Aug 01 j 03:59 24°**8**05'52 30.57607 AU max. Earth dist. minimum elong -10582 Nov 13 j 18:46 26°**8**49'02 -10575 Aug 19 j 12:18 12°**Д**09'24 30.87757 AU retrograde max. Earth dist. opposition -10581 Jan 30 j 23:59 25°**8**25'11 16°34'42 morning rise -10575 Aug 25 j 21:21 12°**Ⅲ**24'42 min. Earth dist. -10581 Jan 31 j 06:12 25°**8**24'45 28.65825 AU retrograde -10575 Dec 01 j 10:48 14°**II**46'29 -10581 Apr 20 j 14:01 24°**8**00'02 -10574 Feb 18 j 15:09 13°**Д**23'15 13°57'13 direct opposition -10574 Feb 17 j 19:11 13°**Д**24'36 28.97458 AU min. Earth dist. conjunction -10581 Aug 04 j 06:03 26°**8**43'27 15°22'36 direct -10574 May 08 j 22:52 11°**Ц**59'43 minimum elong -10581 Aug 04 j 06:18 26°843'29 15°23'04 evening set -10574 Aug 13 j 12:26 14°**Ⅱ**18'18 max. Earth dist. -10581 Aug 04 j 01:52 26°**8**43'01 30.58742 AU retrograde -10581 Nov 16 j 17:18 29°**8**25'43 conjunction -10574 Aug 21 j 09:59 14°**II**37'07 12°50'21 opposition -10580 Feb 02 j 23:39 28°**8**01'55 16°17'25 minimum elong -10574 Aug 21 j 10:21 14°ДЗ7'10 12°50'54 min. Earth dist. -10580 Feb 03 j 01:27 28°**8**01'48 28.67234 AU max. Earth dist. -10574 Aug 22 j 07:26 14°**Д**39'15 30.96422 AU direct -10580 Apr 22 j 12:04 26°836'59 morning rise -10574 Aug 29 j 08:26 14°**Д**56'03 retrograde -10574 Dec 04 j 05:18 17° **I**I 15'12 conjunction -10580 Aug 06 i 01:08 29°819'51 15°05'35 opposition -10573 Feb 21 j 11:53 15°**I**52'07 13°28'30 minimum elong -10580 Aug 06 i 01:23 29°819'52 15°06'03 min. Earth dist. -10573 Feb 20 j 12:25 15°**Ц**53'43 29.06339 AU max. Earth dist. -10580 Aug 06 j 01:17 29°8 19'52 30.60944 AU direct -10573 May 11 j 18:46 14°**Д**28'55 -10580 Aug 22 j 14:20 0°**Ⅱ** evening set -10573 Aug 15 j 10:49 16°**Ⅲ**44'45 retrograde -10580 Nov 18 j 11:56 2°**Д**01'49 opposition -10579 Feb 04 j 23:26 0°**II**38'05 15°58'17 -10573 Aug 24 j 01:41 17°**I**I05'10 12°22'59 conjunction min. Earth dist. -10579 Feb 04 j 22:34 0°**Д**38'09 28.69672 AU minimum elong -10573 Aug 24 j 02:05 17°**I**I05'13 12°23'32 -10579 Feb 28 j 17:02 30°R♂ max. Earth dist. -10573 Aug 25 j 03:46 17°**Д**07'45 31.06248 AU -10579 Apr 25 j 10:36 29°**8**13'22 -10573 Sep 01 j 17:20 17°**Ⅲ**25'41 direct morning rise -10573 Dec 06 j 22:03 19°**Ⅲ**42'20 -10579 Jun 17 j 00:50 0°**Ⅱ** retrograde min. Earth dist. -10579 Aug 06 j 06:16 1°**II**49'17 -10572 Feb 23 j 04:37 18°**Д**21'19 29.16351 AU evening set -10572 Feb 24 j 07:46 18°**Д**19'28 12°58'29 opposition -10579 Aug 08 j 19:42 1°**II**55'33 14°46'51 -10572 May 13 j 16:15 16°**Д**56'36 conjunction direct -10579 Aug 08 j 20:00 1°Д55'35 14°47'20 -10572 Aug 16 j 09:55 19°**Ⅲ**09'49 minimum elong evening set -10579 Aug 08 j 22:54 1°**Д**55'53 30.64204 AU max. Earth dist. -10579 Aug 11 j 09:46 2°**Ⅲ**01'52 -10572 Aug 25 j 16:37 19°**II**31'40 11°54'30 morning rise conjunction retrograde -10579 Nov 21 j 08:42 4°**Д**37'06 minimum elong -10572 Aug 25 j 17:00 19°**耳**31'43 11°55'04 opposition -10578 Feb 07 j 22:44 3°**Д**13'27 15°37'21 max. Earth dist. -10572 Aug 26 j 21:20 19°**Ⅲ**34'30 31.17205 AU min. Earth dist. -10578 Feb 07 j 17:15 3°**Д**13'50 28.73132 AU morning rise -10572 Sep 04 j 00:23 19°**Д**53'37 direct -10578 Apr 28 j 09:01 1°**Ц**48'56 retrograde -10572 Dec 08 j 14:50 22°**I**07'53 -10578 Aug 07 j 11:19 4°**Ⅲ**20'21 min. Earth dist. -10571 Feb 24 j 20:00 20°П47'22 29.27488 AU evening set opposition -10571 Feb 26 j 03:11 20° **I** 45'16 12°27'19 -10578 Aug 11 j 14:06 4°**II**30'22 14°26'31 direct -10571 May 16 j 10:05 19°**Д**22'47 conjunction -10578 Aug 11 j 14:24 4°Д30'23 14°27'02 -10571 Aug 18 j 09:24 21°**Д**33'29 minimum elong evening set -10578 Aug 11 j 21:12 4°ДЗ1'05 30.68489 AU max. Earth dist. -10578 Aug 15 j 17:28 4°**II**40'26 -10571 Aug 28 i 07:01 21°**II**56'37 11°24'58 morning rise conjunction -10578 Nov 24 i 03:26 7°**II**11'24 -10571 Aug 28 i 07:25 21°**II**56'39 11°25'32 retrograde minimum elong -10577 Feb 10 j 21:36 5° **II**47'49 15°14'42 -10571 Aug 29 j 16:19 21°**Д**59'52 31.29246 AU opposition max. Earth dist. min. Earth dist. -10577 Feb 10 i 13:40 5° II 48'22 28.77614 AU morning rise -10571 Sep 07 i 05:34 22° II 19'51 direct -10577 May 01 j 05:17 4°**Д**23'32 retrograde -10571 Dec 11 j 05:28 24° **II** 31'50 evening set -10577 Aug 09 j 01:27 6°**Д**51'18 min. Earth dist. -10570 Feb 27 j 11:58 23° II 11'46 29.39665 AU opposition -10570 Feb 28 j 21:57 23° **I**I 09'29 11°55'06 -10577 Aug 14 j 07:56 7°**Д**04'04 14°04'37 conjunction direct -10570 May 19 j 05:57 21°**Ⅲ**47'24 minimum elong -10577 Aug 14 j 08:17 7°**I**04'06 14°05'09 evening set -10570 Aug 20 j 09:36 23°**Д**55'40 max. Earth dist. -10577 Aug 14 j 18:34 7°**П**05'09 30.73831 AU -10570 Aug 30 j 20:47 24°**Д**19'58 10°54'31 morning rise -10577 Aug 19 j 15:04 7°**Ⅱ**16'55 conjunction -10570 Aug 30 j 21:10 24°**Д**20'00 10°55'07 retrograde -10577 Nov 26 j 22:39 9°**Ⅱ**44'29 minimum elong -10576 Feb 13 j 19:54 8°II21'00 14°50'24 -10570 Sep 01 j 08:18 24°**Д**23'25 31.42293 AU opposition max. Earth dist. -10576 Feb 13 j 07:20 8°**Ц**21'52 28.83131 AU -10570 Sep 10 j 09:13 24°**II**44'22 min. Earth dist. morning rise 6°**I**I56'57 -10570 Dec 13 j 21:48 26° **I** 54'08 direct -10576 May 03 j 04:54 retrograde evening set -10576 Aug 09 j 19:07 9°**Ⅲ**21'27 min. Earth dist. -10569 Mar 02 j 01:45 25°**耳**34'37 29.52820 AU opposition -10569 Mar 03 j 15:43 25°**Ⅲ**32'05 11°21'57 conjunction -10576 Aug 16 j 01:07 9°**Ⅲ**36'31 13°41'15 direct -10569 May 21 j 23:40 24°**Ⅲ**10'24 minimum elong -10576 Aug 16 j 01:28 9°**Ⅲ**36'33 13°41'48 evening set -10569 Aug 22 j 10:01 26°**Ⅱ**16'21 max. Earth dist. -10576 Aug 16 j 15:14 9°**Д**37'56 30.80231 AU

-10576 Aug 22 j 07:50

morning rise

9°**I**51'40

conjunction

-10569 Sep 02 j 10:03 26°Д41'40 10°23'15

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•			•	` //	10570 DCE in historical counting style	
minimum elong	-10569 Sep 02 j 10:26			min. Earth dist.	10570 BCE in historical counting style. -10562 Mar 17 j 15:46 11°\$23'27 30.66705 A	T T
max. Earth dist.	-10569 Sep 04 j 01:27				-10562 Mar 19 j 23:44 11°5019'51 7°13'13	·U
morning rise	-10569 Sep 04 j 01.27 -10569 Sep 13 j 11:17		31.30230 AU	opposition direct	-10562 Jun 07 j 05:33 10°500'56	
retrograde	-10569 Dec 16 j 10:02			evening set	-10562 Sep 03 j 17:55 11°552'40	
min. Earth dist.	-10568 Mar 03 j 17:10		20 66850 ATT	evening set	-10302 Sep 03 j 17.33 11 3 32 40	
opposition	-10568 Mar 05 j 09:02		10°48'00	conjunction	-10562 Sep 17 j 11:19 12°522'27 6°29'45	
direct	-10568 May 23 j 16:43		10 48 00	minimum elong	-10562 Sep 17 j 11:34 12°522'29 6°30'20	
evening set	-10568 Aug 23 j 10:48			max. Earth dist.	-10562 Sep 19 j 20:48 12°527'41 32.74838 A	П
evening set	-10300 Aug 23 j 10.40	20 1133 20		morning rise	-10562 Oct 01 j 06:40 12°552'25	U
conjunction	-10568 Sep 03 j 22:31	29°π01'41	9°51'17	retrograde	-10562 Dec 31 j 13:19 14°547'08	
minimum elong	-10568 Sep 03 j 22:52			min. Earth dist.	-10561 Mar 20 j 01:13 13°531'11 30.85850 A	П
max. Earth dist.	-10568 Sep 05 j 16:10			opposition	-10561 Mar 22 j 11:01 13°\$27'28 6°36'26	0
morning rise	-10568 Sep 15 j 11:36		31.71000710	direct	-10561 Jun 09 j 19:12 12°508'57	
morning rise	-10568 Sep 30 j 00:27	0°9		evening set	-10561 Sep 05 j 19:12 13°559'00	
retrograde	-10568 Dec 17 j 23:00	1°933'40		evening sec	10501 Sep 05 j 15.12 15 35 00	
min. Earth dist.	-10567 Mar 06 j 05:48		29.81713 AU	conjunction	-10561 Sep 19 j 18:49 14°\$29'06 5°55'18	
opposition	-10567 Mar 08 j 01:31	0°912'13		minimum elong	-10561 Sep 19 j 19:03 14°\$29'07 5°55'52	
оррозиюн	-10567 Mar 15 j 18:58		10 1321	max. Earth dist.	-10561 Sep 22 j 05:39 14°534'24 32.94593 A	Ħ
direct	-10567 May 26 j 09:14			morning rise	-10561 Oct 03 j 20:45 14°\$59'22	O
direct	-10567 Jul 31 j 09:26	0°95		retrograde	-10560 Jan 02 j 22:53 16°552'32	
evening set	-10567 Aug 25 j 11:51	0°952'51		min. Earth dist.	-10560 Mar 21 j 08:24 15°537'06 31.05749 A	Ħ
evening set	-10307 Aug 23 j 11.31	0 33231		opposition	-10560 Mar 23 j 21:35 15°\$33'12 5°59'34	U
conjunction	-10567 Sep 06 j 10:29	1°©19'56	0°18'42	direct	-10560 Jun 11 j 06:11 14°\$15'06	
minimum elong	-10567 Sep 06 j 10:51	1°919'58		evening set	-10560 Sep 06 j 20:09 16°503'33	
max. Earth dist.	-10567 Sep 08 j 07:09		31.86633 AU	evening set	-10300 Sep 00 j 20.09 10 3 03 33	
morning rise	-10567 Sep 18 j 10:40	1°947'08	31.80033 AU	conjunction	-10560 Sep 21 j 01:33 16°533'53 5°20'48	
=	-10567 Dec 20 j 10:43	3°950'46		minimum elong	-10560 Sep 21 j 01:35 16 \$35353 5 2048 -10560 Sep 21 j 01:46 16° \$33'54 5°21'23	
retrograde min. Earth dist.	•		29.97321 AU	max. Earth dist.	1 3	T T
	-10566 Mar 08 j 19:55	2 \$32 30 2°\$29'37			-10560 Sep 23 j 15:43 16°539'26 33.15061 A	·U
opposition	-10566 Mar 10 j 17:19	1°509'09	9 3807	morning rise	-10560 Oct 05 j 09:15 17°504'25	
direct	-10566 May 28 j 23:23			retrograde	-10559 Jan 04 j 04:03 18°\$56'07	T T
evening set	-10566 Aug 27 j 13:02	3° © 08'33		min. Earth dist.	-10559 Mar 23 j 17:04 17°541'06 31.26364 A	·U
	105((0 00 : 21.40	20627120	00.4512.6	opposition	-10559 Mar 26 j 07:31 17°\$37'08 5°22'43	
conjunction	-10566 Sep 08 j 21:48	3°936'20	8°45'36	direct	-10559 Jun 13 j 16:37 16°5019'28	
minimum elong	-10566 Sep 08 j 22:08	3°936'22	8°46'12	evening set	-10559 Sep 08 j 21:16 18°\$06'23	
max. Earth dist.	-10566 Sep 10 j 20:55		32.02923 AU	:	10550 S 22 : 07:44 109622454 404410	
morning rise	-10566 Sep 21 j 08:05	4°904'16		conjunction	-10559 Sep 23 j 07:44 18°536'54 4°46'19	
retrograde	-10566 Dec 22 j 22:05	6°905'58	20 12/22 411	minimum elong	-10559 Sep 23 j 07:56 18°\$36'55 4°46'53	* *
min. Earth dist.	-10565 Mar 11 j 07:27		30.13623 AU	max. Earth dist.	-10559 Sep 25 j 23:30 18°542'34 33.36215 A	·U
opposition	-10565 Mar 13 j 08:08	4°945'07	9°02'24	morning rise	-10559 Oct 07 j 20:38 19°507'37	
direct	-10565 May 31 j 15:02	3°525'03		retrograde	-10558 Jan 06 j 09:39 20°557'56	T T
evening set	-10565 Aug 29 j 14:19	5° © 22'25		min. Earth dist.	-10558 Mar 25 j 22:49 19°543'28 31.47648 A	·U
	105650 11:0015	50050140	0010105	opposition	-10558 Mar 28 j 16:24 19°\$39'20 4°45'56	
conjunction	-10565 Sep 11 j 08:15	5°950'49	8°12'05	direct	-10558 Jun 16 j 02:16 18°\$22'06	
minimum elong	-10565 Sep 11 j 08:35	5°950'51	8°12'40	evening set	-10558 Sep 10 j 22:20 20°507'34	
max. Earth dist.	-10565 Sep 13 j 09:24		32.19871 AU		10550 0 05 : 10 10 000 00010 1011151	
morning rise	-10565 Sep 24 j 04:03	6°519'24		conjunction	-10558 Sep 25 j 13:13 20°538'12 4°11'54	
retrograde	-10565 Dec 25 j 09:18	8°519'15	20.20(14.41)	minimum elong	-10558 Sep 25 j 13:23 20°538'13 4°12'30	* *
min. Earth dist.	-10564 Mar 12 j 19:34		30.30614 AU	max. Earth dist.	-10558 Sep 28 j 07:21 20°544'02 33.57964 A	U
opposition	-10564 Mar 14 j 22:11	6°958'41	8°26'17	morning rise	-10558 Oct 10 j 06:45 21°509'04	
direct	-10564 Jun 02 j 04:05	5°939'00		retrograde	-10557 Jan 08 j 14:39 22°\$58'03	* *
evening set	-10564 Aug 30 j 15:31	7° 9 34'24		min. Earth dist.	-10557 Mar 28 j 06:06 21°544'01 31.69521 A	·U
	105616 10:10.06	0000000	5 00010	opposition	-10557 Mar 31 j 00:44 21°539'50 4°09'18	
conjunction	-10564 Sep 12 j 18:06	8°903'21	7°38'13	direct	-10557 Jun 18 j 09:23 20°523'04	
minimum elong	-10564 Sep 12 j 18:24	8°903'23	7°38'49	evening set	-10557 Sep 12 j 23:16 22°507'09	
max. Earth dist.	-10564 Sep 14 j 22:23		32.37501 AU			
morning rise	-10564 Sep 25 j 22:22	8°532'28		conjunction	-10557 Sep 27 j 18:05 22°537'51 3°37'39	
retrograde	-10564 Dec 26 j 19:09	10°930'32	20.40522 :==	minimum elong	-10557 Sep 27 j 18:14 22°\$37'52 3°38'13	
min. Earth dist.	-10563 Mar 15 j 06:12		30.48293 AU	max. Earth dist.	-10557 Sep 30 j 14:09 22°543'48 33.80243 A	U
opposition	-10563 Mar 17 j 11:22	9°5010'16	7°49'52	morning rise	-10557 Oct 12 j 15:26 23°508'46	
direct	-10563 Jun 04 j 18:11	7°950'58		retrograde	-10556 Jan 10 j 18:59 24°\$56'32	
evening set	-10563 Sep 01 j 16:45	9° 5 44'29		min. Earth dist.	-10556 Mar 29 j 11:13 23°543'00 31.91885 A	U
				opposition	-10556 Apr 01 j 08:07 23°\$38'41 3°32'53	
conjunction	-10563 Sep 15 j 02:56		7°04'05	direct	-10556 Jun 19 j 17:30 22°\$22'21	
minimum elong	-10563 Sep 15 j 03:14			evening set	-10556 Sep 14 j 00:23 24°505'09	
max. Earth dist.	-10563 Sep 17 j 08:54		32.55812 AU			
morning rise	-10563 Sep 28 j 15:16			conjunction	-10556 Sep 28 j 22:18 24°\$35'51 3°03'36	
retrograde	-10563 Dec 29 j 05:21	12°539'50		minimum elong	-10556 Sep 28 j 22:25 24°\$35'52 3°04'10	

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10556 in astronomical counting style is the year 10557 BCE in historical counting style. -10556 Oct 01 j 19:26 24°541'50 34.02949 AU morning rise -10550 Oct 25 j 21:08 6°**Ω**18'32 max. Earth dist. -10556 Oct 13 j 23:10 25°506'48 -10549 Jan 23 j 10:33 7°Ω58'56 morning rise retrograde -10555 Jan 12 j 00:34 26°553'22 -10549 Apr 12 j 10:39 6°**Ω**48'03 33.57362 AU retrograde min. Earth dist. -10555 Mar 31 j 16:49 25°\$40'15 32.14682 AU -10549 Apr 15 j 15:50 min. Earth dist. 6°Ω43'24 -0°32'04 opposition -10549 Jul 04 j 05:08 -10555 Apr 03 j 14:59 25°535'54 2°56'44 opposition direct 5°**Ω**29'40 -10549 Sep 27 j 04:25 direct -10555 Jun 21 j 22:30 24°519'59 evening set 7°**Ω**04'56 -10555 Sep 16 j 01:14 26°501'33 evening set -10549 Oct 12 j 10:58 7°**Ω**34'31 -0°45'41 conjunction -10549 Oct 12 j 10:56 conjunction -10555 Oct 01 j 02:04 26°532'13 2°29'47 minimum elong 7°**Ω**34'31 0°45'11 minimum elong -10555 Oct 01 j 02:10 26°532'14 2°30'19 max. Earth dist. -10549 Oct 15 j 16:52 7°**Ω**40'52 35.69705 AU max. Earth dist. -10555 Oct 04 j 01:29 26°538'21 34.26020 AU morning rise -10549 Oct 27 j 20:52 8°**Ω**04'22 -10555 Oct 16 j 05:35 27°503'08 morning rise retrograde -10548 Jan 25 j 10:20 9°**Ω**43'57 retrograde -10554 Jan 14 j 04:26 28°548'33 min. Earth dist. -10548 Apr 13 j 11:23 8°**Ω**33'24 33.82174 AU min. Earth dist. -10554 Apr 02 j 21:53 27°\$35'50 32.37802 AU opposition -10548 Apr 16 j 17:33 8°Ω28'44 -1°05'11 opposition -10554 Apr 05 j 21:01 27°531'27 2°20'55 direct -10548 Jul 05 j 05:24 7°Ω15'21 direct -10554 Jun 24 j 04:44 26°515'56 evening set -10548 Sep 28 j 04:17 8°**Ω**49'46 evening set -10554 Sep 18 j 02:17 27°556'19 conjunction -10548 Oct 13 j 10:25 9°**Ω**19'05 -1°16'43 conjunction -10554 Oct 03 j 05:10 28°\$26'55 1°56'16 minimum elong -10548 Oct 13 j 10:22 9°Ω19'04 1°16'14 minimum elong -10554 Oct 03 j 05:15 28°\$26'55 max. Earth dist. -10548 Oct 16 j 18:17 9°**Ω**25'32 35.94653 AU max. Earth dist. -10554 Oct 06 j 04:46 28°533'00 34.49363 AU morning rise -10548 Oct 28 j 19:34 $9^{\circ}\Omega 48'38$ morning rise -10554 Oct 18 j 11:06 28°\$57'44 retrograde $-10547 \text{ Jan } 26 \text{ j } 08:38 \ 11^{\circ} \Omega 27'27$ $-10554 \text{ Nov } 22 \text{ i } 16:09 \quad 0^{\circ} \Omega$ min. Earth dist. -10547 Apr 15 j 11:19 $10^{\circ}\Omega$ 17'16 34.07317 AU retrograde -10553 Jan 16 j 08:47 $0^{\circ}\Omega$ 42'04 opposition $-10547 \text{ Apr } 18 \text{ j } 18:28 \quad 10^{\circ} \Omega 12'33 \quad -1^{\circ} 37'46$ -10553 Mar 14 j 15:03 30°RS direct -10547 Jul 07 j 07:01 $8^{\circ}\Omega$ 59'33 min. Earth dist. -10553 Apr 05 j 01:15 29°529'46 32.61206 AU -10547 Sep 30 j 04:07 10° **Ω**33'11 evening set opposition -10553 Apr 08 j 02:10 29°525'18 1°45'27 -10553 Jun 26 j 09:06 28°510'11 $-10547 \text{ Oct } 15 \text{ j } 09:09 \ 11^{\circ} \Omega 02'11 \ -1^{\circ} 47'16$ direct conjunction -10553 Sep 20 j 03:03 29°549'26 -10547 Oct 15 j 09:05 11° Ω 02'10 1°46'47 minimum elong evening set -10553 Sep 25 j 10:49 0°Ω -10547 Oct 18 j 17:12 11° Ω 08'35 36.19909 AU max. Earth dist. -10547 Oct 30 j 17:30 11° **Ω**31'25 morning rise -10553 Oct 05 j 07:43 $0^{\circ}\Omega$ 19'54 1° 23'05 -10546 Jan 28 j 09:33 13°**Ω**09'31 conjunction retrograde -10553 Oct 05 j 07:47 0° Ω 19'54 1°23'37 -10546 Apr 17 j 10:05 11° Ω 59'44 34.32775 AU min. Earth dist. minimum elong -10553 Oct 08 j 09:28 0° Ω 26'07 34.72941 AU -10546 Apr 20 j 18:50 11°Ω54'58 -2°09'46 max. Earth dist. opposition -10546 Jul 09 j 06:05 10°**Ω**42'20 -10553 Oct 20 j 15:18 $0^{\circ} \Omega 50'36$ morning rise direct -10552 Jan 18 j 10:33 2°**Ω**33'53 -10546 Oct 02 j 03:49 12° Ω 15'16 retrograde evening set -10552 Apr 06 j 05:41 1°**Ω**21'54 32.84843 AU min. Earth dist. -10546 Oct 17 j 07:33 12° Ω 43'56 -2°17'16 opposition -10552 Apr 09 j 06:47 $1^{\circ}\Omega$ 17'26 1° 10'23 conjunction direct -10552 Jun 27 j 16:07 0°**Ω**02'41 minimum elong -10546 Oct 17 j 07:28 12° Ω 43'55 2°16'48 -10552 Sep 21 j 03:34 1°**Ω**40'51 max. Earth dist. -10546 Oct 20 j 17:43 12° Ω 50'27 36.45426 AU evening set morning rise -10546 Nov 01 j 14:23 13° Ω 12'49 -10552 Oct 06 j 09:25 $2^{\circ}\Omega$ 11'09 0° 50'16 retrograde -10545 Jan 30 j 07:54 14°**Ω**50'15 conjunction -10552 Oct 06 j 09:27 $2^{\circ}\Omega$ 11'09 0° 50'48 -10545 Apr 19 j 09:47 13° **Ω** 40'49 34.58474 AU minimum elong min. Earth dist. -10552 Oct 09 j 11:25 $2^{\circ}\Omega$ 17'20 34.96746 AU -10545 Apr 22 j 18:27 13°Ω36'04 -2°41'11 max. Earth dist. opposition -10552 Oct 21 j 18:18 2° **Ω**41'42 -10545 Jul 11 j 06:40 12°**Q**23'50 morning rise direct $-10545 \text{ Oct } 04 \text{ j } 03:23 \quad 13^{\circ} \Omega 56'06$ retrograde -10551 Jan 19 j 13:13 $4^{\circ}\Omega$ 23'57 evening set -10551 Apr 08 j 07:22 $3^{\circ}\Omega$ 12'23 33.08730 AU min. Earth dist. $-10545 \text{ Oct } 19 \text{ j } 05:19 \quad 14^{\circ} \Omega 24'24 \quad -2^{\circ} 46'45$ opposition -10551 Apr 11 j 10:35 $3^{\circ}\Omega$ 07'49 $0^{\circ}35'45$ conjunction direct -10551 Jun 29 j 21:23 1°**Ω**53′24 minimum elong -10545 Oct 19 i 05:13 $14^{\circ}\Omega$ 24'24 $2^{\circ}46'17$ -10551 Sep 23 j 04:04 $3^{\circ}\Omega 30'32$ max. Earth dist. -10545 Oct 22 j 15:27 $14^{\circ}\Omega$ 30'53 36.71151 AU evening set morning rise -10545 Nov 03 j 10:26 14° **Ω**52'57 -10551 Oct 08 j 10:36 $4^{\circ}\Omega$ 00'39 0° 17'52 -10545 Nov 07 j 07:12 15° Ω conjunction -10551 Oct 08 j 10:37 $4^{\circ}\Omega$ 00'39 0° 18'23 retrograde -10544 Feb 01 j 06:49 $16^{\circ}\Omega$ 29'46 minimum elong -10544 Apr 20 j 07:07 15° Ω 20'46 34.84359 AU max. Earth dist. -10551 Oct 11 j 14:24 4° Ω06'55 35.20778 AU min. Earth dist. morning rise -10551 Oct 23 j 20:19 $4^{\circ}\Omega$ 31'00 opposition -10544 Apr 23 j 17:33 15° Ω 15'57 -3°11'59 retrograde -10550 Jan 21 j 12:15 $6^{\circ}\Omega$ 12'18 -10544 May 05 j 03:59 15°R**Ω** min. Earth dist. -10550 Apr 10 j 10:22 5°**Ω**01'00 33.32895 AU direct -10544 Jul 12 j 05:45 14°**Ω**04'05 -10550 Apr 13 j 13:37 4°Ω56'28 0°01'36 -10544 Sep 14 j 09:58 15°**Ω** opposition -10550 Apr 30 j 18:58 4°**Ω**31'56 -10544 Oct 05 j 02:49 15° Ω 35'45 desc. node evening set -10550 Jul 02 j 01:18 direct 3°**£**42′23 -10550 Sep 25 j 04:17 $5^{\circ}\Omega$ 18'33 -10544 Oct 20 j 02:35 $16^{\circ}\Omega$ 03'41 -3°15'40 evening set conjunction minimum elong $-10544 \text{ Oct } 20 \text{ j } 02:29 \quad 16^{\circ} \Omega 03'40 \quad 3^{\circ} 15'13$ conjunction -10550 Oct 10 j 11:13 5° **Q**48'25 -0°14'11 max. Earth dist. -10544 Oct 23 j 13:58 $16^{\circ}\Omega$ 10'12 36.96997 AU minimum elong -10550 Oct 10 j 11:12 5°**Ω**48'25 0°13'40 morning rise -10544 Nov 04 j 05:38 16°**Ω**31'50 behind sun begin -10550 Oct 10 j 07:39 5°**Ω**48′08 retrograde -10543 Feb 02 j 02:08 18°**Ω**08'06 behind sun end -10550 Oct 10 j 14:45 5°**Ω**48'41 -10543 Apr 22 j 06:24 $16^{\circ}\Omega$ 59'25 35.10349 AU min. Earth dist.

opposition

-10543 Apr 25 j 16:17 16° **Ω**54'38 -3°42'11

max. Earth dist.

-10550 Oct 13 j 16:09 $5^{\circ}\Omega$ 54'44 35.45095 AU

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10543 in astronomical counting style is the year 10544 BCE in historical counting style. -10543 Jul 14 i 05:44 15° Ω 43'10 direct retrograde -10536 Feb 13 j 15:58 $29^{\circ}\Omega 03'23$ evening set -10543 Oct 07 j 02:15 17° Ω 14'16 min. Earth dist. -10536 May 03 j 04:14 $27^{\circ}\Omega$ 56'43 36.91177 AU -10536 May 06 j 15:20 $27^{\circ}\Omega 52'02$ $-6^{\circ}56'11$ opposition conjunction $-10543 \text{ Oct } 21 \text{ j } 23:41 \quad 17^{\circ} \Omega 41'47 \quad -3^{\circ} 44'03$ -10536 Jul 25 j 08:08 26°**Ω**42'43 direct -10536 Oct 18 j 18:09 $28^{\circ}\Omega$ 10'43 -10543 Oct 21 j 23:33 17° Ω 41'46 3°43'36 minimum elong evening set -10543 Oct 25 j 11:27 17° Ω 48'18 37.22902 AU max. Earth dist. -10543 Nov 06 j 00:08 $18^{\circ}\Omega$ 09'33 -10536 Nov 01 j 13:51 28° Ω35'00 -6°46'40 morning rise conjunction -10542 Feb 03 j 21:16 19° Ω 45'16 -10536 Nov 01 j 13:39 28° **Ω**34'59 6°46'19 retrograde minimum elong min. Earth dist. -10542 Apr 24 j 03:26 18° **Q**36'58 35.36356 AU max. Earth dist. -10536 Nov 05 j 03:40 28° **Q**41'20 39.02570 AU opposition -10542 Apr 27 j 14:09 18° **Ω**32'10 -4°11'47 morning rise -10536 Nov 15 j 12:05 28° **Ω**59'28 direct -10542 Jul 16 j 05:11 17° **Ω**21'03 -10536 Dec 25 j 10:10 0° m -10542 Oct 09 j 01:43 18° **Ω**51'37 -10535 Feb 14 j 07:14 evening set retrograde 0° m/32'16 -10535 Apr 07 j 22:12 30°RΩ conjunction -10542 Oct 23 j 20:14 19° Ω 18'44 -4°11'51 min. Earth dist. -10535 May 04 j 21:58 $29^{\circ}\Omega$ 25'54 37.16960 AU minimum elong -10542 Oct 23 j 20:05 19° Ω 18'43 4°11'26 opposition -10535 May 08 j 09:41 29° Ω 21'11 -7°21'21 max. Earth dist. -10542 Oct 27 j 07:50 19° Ω 25'11 37.48770 AU direct -10535 Jul 27 j 04:28 28°**Ω**12'10 morning rise -10542 Nov 07 j 18:00 19°**Ω**46'04 evening set -10535 Oct 20 j 16:30 29° **Ω**39'51 retrograde -10541 Feb 05 j 18:14 21° Ω 21'18 -10535 Nov 01 j 05:43 min. Earth dist. -10541 Apr 26 j 01:05 20° Ω13'18 35.62326 AU opposition $-10541 \text{ Apr } 29 \text{ j } 11:46 \ 20^{\circ} \Omega 08'32 \ -4^{\circ} 40'45$ conjunction -10535 Nov 03 j 07:15 0° m $03'38 - 7^{\circ}10'24$ direct -10541 Jul 18 j 01:14 18° Ω 57'46 minimum elong -10535 Nov 03 j 07:03 0° mp 03'37 7°10'02 -10541 Oct 11 j 00:47 $20^{\circ}\Omega$ 27'50 evening set max. Earth dist. -10535 Nov 06 i 20:42 0° m 09'53 39.28197 AU morning rise -10535 Nov 17 j 00:48 0° m 27'35 conjunction $-10541 \text{ Oct } 25 \text{ i } 16:20 \ 20^{\circ} \Omega 54'30 \ -4^{\circ} 39'06$ retrograde -10534 Feb 16 i 01:13 2° 100'06 minimum elong -10541 Oct 25 i 16:11 $20^{\circ}\Omega$ 54'29 $4^{\circ}38'41$ min. Earth dist. -10534 May 06 j 15:31 0° Mp 54'01 37.42789 AU max. Earth dist. -10541 Oct 29 j 04:56 21° Ω 00'58 37.74564 AU -10534 May 10 j 03:35 0°m49'18 -7°45'52 opposition -10541 Nov 09 j 10:47 21° Ω 21'23 -10534 Jun 19 j 23:13 30°R**Ω** morning rise -10540 Feb 07 j 13:22 $22^{\circ}\Omega$ 56'10 -10534 Jul 28 j 21:12 29° Ω 40'35 retrograde direct -10540 Apr 26 j 22:16 21° Ω 48'26 35.88198 AU -10534 Sep 04 j 19:01 min. Earth dist. 0° m -10540 Apr 30 j 08:46 21° Ω 43'42 -5°09'06 -10534 Oct 22 j 14:32 1° m 08'00 opposition evening set -10540 Jul 18 j 23:19 20°**Ω**33'15 direct -10540 Oct 11 j 23:54 22°**Ω**02'50 conjunction -10534 Nov 05 j 00:25 1° mg 31'16 -7°33'32 evening set -10534 Nov 05 j 00:12 1° mg 31'15 7°33'12 minimum elong -10540 Oct 26 j 11:56 22° Ω 29'03 -5°05'47 max. Earth dist. -10534 Nov 08 j 15:09 1° Mp 37'34 39.53847 AU conjunction -10540 Oct 26 j 11:47 22° Ω 29'02 5°05'22 -10534 Nov 18 j 12:43 1° m 54'42 minimum elong morning rise -10540 Oct 29 j 23:36 22° Ω 35'24 38.00257 AU -10533 Feb 17 j 18:03 3° m 26'57 max. Earth dist. retrograde -10540 Nov 10 j 03:04 22° **Ω**55'29 -10533 May 08 j 09:31 2° Mp 21'07 37.68609 AU morning rise min. Earth dist. retrograde -10539 Feb 08 j 11:27 $24^{\circ}\Omega$ 29'48 opposition -10533 May 11 j 21:05 2° m 16'28 -8°09'45 min. Earth dist. -10539 Apr 28 j 17:59 23° Ω22'23 36.13994 AU direct -10533 Jul 30 j 14:39 1° m 08'02 opposition -10539 May 02 j 05:14 23° Ω 17'38 -5°36'50 evening set -10533 Oct 24 j 12:28 2° m/35'14 direct -10539 Jul 20 j 18:02 22° Ω 07'28 -10539 Oct 13 j 22:43 23°**Ω**36'37 conjunction -10533 Nov 06 j 16:57 2° m 57'57 -7°56'05 evening set -10533 Nov 06 j 16:44 2° m 57'56 7°55'45 minimum elong -10539 Oct 28 j 07:09 24° Ω 02'22 -5°31'53 max. Earth dist. -10533 Nov 10 j 06:45 3° Mp 04'09 39.79469 AU conjunction -10539 Oct 28 j 06:58 24° Ω 02'21 5°31'29 -10533 Nov 19 j 23:56 3° m 20'51 minimum elong morning rise -10539 Oct 31 j 20:04 24° Ω 08'46 38.25863 AU -10532 Feb 19 i 13:15 4° m 52'53 max. Earth dist. retrograde -10539 Nov 11 j 18:29 $24^{\circ}\Omega 28'20$ -10532 May 09 j 01:43 3° m 47'23 37.94385 AU morning rise min. Earth dist. -10538 Feb 10 i 06:40 $26^{\circ}\Omega$ 02'13 retrograde opposition -10532 May 12 j 14:12 3° m 42'42 -8°33'00 -10538 Apr 30 j 14:51 $24^{\circ}\Omega$ 55'00 36.39722 AU min. Earth dist. direct -10532 Jul 31 i 05:56 2° m 34'35 $-10538 \text{ May } 04 \text{ j } 01:10 \quad 24^{\circ} \Omega 50'19 \quad -6^{\circ} 03'55$ evening set -10532 Oct 25 j 10:21 4° m 01'35 opposition direct -10538 Jul 22 j 14:17 23° Ω 40'26 -10538 Oct 15 j 21:26 25° **Ω**09'10 conjunction -10532 Nov 07 j 09:22 4° m 23'47 -8°18'04 evening set minimum elong -10532 Nov 07 j 09:09 4° m 23'46 8°17'45 conjunction -10538 Oct 30 j 01:51 25° Ω 34'26 -5°57'24 max. Earth dist. -10532 Nov 11 j 00:01 4° m 29'59 40.04999 AU -10538 Oct 30 j 01:41 25° Ω 34'26 5°57'02 minimum elong morning rise -10532 Nov 20 j 10:48 4° m 46'08 -10538 Nov 02 j 14:21 25° Ω 40'45 38.51421 AU max. Earth dist. retrograde -10531 Feb 20 j 05:21 6° m 17'59 -10538 Nov 13 j 09:06 25°**Ω**59'55 morning rise min. Earth dist. -10531 May 10 j 19:50 5° m 12'40 38.20044 AU retrograde -10537 Feb 12 j 00:04 27°**Ω**33'23 opposition -10531 May 14 j 06:56 5° m 08'06 -8°55'38 -10537 May 02 j 08:46 $26^{\circ}\Omega 26'30$ 36.65432 AU 4° 100'16 min. Earth dist. direct -10531 Aug 01 j 22:42 -10537 May 05 j 20:21 $26^{\circ}\Omega$ 21'46 $-6^{\circ}30'23$ -10531 Oct 27 j 08:15 5° m 27'06 opposition evening set -10537 Jul 24 j 11:13 25° Ω 12'10 direct -10537 Oct 17 j 19:58 26°**Ω**40'31 evening set conjunction -10531 Nov 09 j 01:35 5° **m** $48'45 - 8^{\circ}39'28$ minimum elong -10531 Nov 09 j 01:22 5° m 48'44 8°39'10 conjunction -10537 Oct 31 j 20:02 27° **Ω**05'18 -6°22'20 max. Earth dist. -10531 Nov 12 j 15:40 5° Mp 54'53 40.30381 AU minimum elong -10537 Oct 31 j 19:50 27° **Ω**05'17 6°21'58 morning rise -10531 Nov 21 j 21:04 6° Mp 10'33 max. Earth dist. -10537 Nov 04 j 09:09 $27^{\circ}\Omega$ 11'37 38.76972 AU retrograde -10530 Feb 21 j 19:36 7° mp 42'14 -10537 Nov 14 j 23:01 27° **Ω**30'17 min. Earth dist. -10530 May 12 j 11:38 6° Mp 37'14 38.45504 AU morning rise

	omena of Pluto from						age 28
Attention, astronom	nical year style is used: The	e year -10530	in astronomical co	ounting style is the year	r 10531 BCE in historica	counting sty	le.
opposition	-10530 May 15 j 23:11	6° Mp 32′38	-9°17'39	morning rise	-10524 Nov 29 j 06:08	15° m 37'17	
direct	-10530 Aug 03 j 17:30	5° Mp 25'06		retrograde	-10523 Mar 02 j 20:41	17° Mp 08'18	
evening set	-10530 Oct 29 j 06:09	6° m 51'47		min. Earth dist.	-10523 May 21 j 23:10	16° m 04'40	40.16156 AU
8	,			opposition	-10523 May 25 j 06:48		
conjunction	-10530 Nov 10 j 17:23	7° m) 12'53	-9°00'19	direct	-10523 Aug 13 j 06:41		11 30 10
minimum elong	-10530 Nov 10 j 17:29		9°00'03	evening set	-10523 Nov 09 j 11:55		
_	•	~		evening set	-10323 NOV 09 J 11.33	10 11/2042	
max. Earth dist.	-10530 Nov 14 j 06:46		40.55513 AU		10522 N 10:22 20	1.60 m. 2.714.4	11011100
morning rise	-10530 Nov 23 j 06:57	7° m/34'08		conjunction	-10523 Nov 19 j 23:20		
retrograde	-10529 Feb 23 j 10:11	9° m 05'40		minimum elong	-10523 Nov 19 j 23:06		
min. Earth dist.	-10529 May 14 j 04:36		38.70709 AU	max. Earth dist.	-10523 Nov 23 j 09:42	-	42.23945 AU
opposition	-10529 May 17 j 15:08	7° m 56'21	-9°39'06	morning rise	-10523 Nov 30 j 12:16	-	
direct	-10529 Aug 05 j 10:14	6° m 49'05		retrograde	-10522 Mar 04 j 10:37	18° My 25'53	
evening set	-10529 Oct 31 j 03:51	8° m 15'39		min. Earth dist.	-10522 May 23 j 12:44	17° Mp 22'28	40.39762 AU
				opposition	-10522 May 26 j 20:15	17° m) 18'13	-11°53'06
conjunction	-10529 Nov 12 j 09:04	8° m 36'11	-9°20'37	direct	-10522 Aug 14 j 19:10	16° Mp 12′32	
minimum elong	-10529 Nov 12 j 08:50	8° m 36'10	9°20'20	evening set	-10522 Nov 11 j 08:50	17° m 38'48	
max. Earth dist.	-10529 Nov 15 j 22:35	8° Mp 42'13	40.80371 AU				
morning rise	-10529 Nov 24 j 16:10	8° m 56'52		conjunction	-10522 Nov 21 j 12:42	17° m 55'14	-11°27'41
retrograde	-10528 Feb 24 j 23:46	-•		minimum elong	-10522 Nov 21 j 12:27		
min. Earth dist.	-10528 May 14 j 20:53		38.95602 AU	max. Earth dist.	-10522 Nov 24 j 23:47		
opposition	-10528 May 18 j 06:42	9° m) 19'13		morning rise	-10522 Dec 01 j 17:44		42.47270710
11	• •		-9 39 36	Č			
direct	-10528 Aug 06 j 03:10	8° Mp 12'12		retrograde	-10521 Mar 05 j 22:59		40 (2200 ATT
evening set	-10528 Nov 01 j 01:29	9° m 38'39		min. Earth dist.	-10521 May 25 j 02:48		
				opposition	-10521 May 28 j 09:15		-12°09'57
conjunction	-10528 Nov 13 j 00:10	9° m ,58'37		direct	-10521 Aug 16 j 08:43	-	
minimum elong	-10528 Nov 12 j 23:56	9° ™ 58'36	9°40'08	evening set	-10521 Nov 13 j 05:52	18° Mp 56'16	
max. Earth dist.	-10528 Nov 16 j 12:08	10°M/04'30	41.04912 AU				
morning rise	-10528 Nov 25 j 00:54	10° m 18'44		conjunction	-10521 Nov 23 j 01:43	19° m 12'05	-11°43'42
retrograde	-10527 Feb 25 j 16:13	11° m 50'01		minimum elong	-10521 Nov 23 j 01:29	19° m 12'04	11°43'32
min. Earth dist.	-10527 May 16 j 12:15	10° m 45'39	39.20191 AU	max. Earth dist.	-10521 Nov 26 j 11:30	19° m 17'35	42.70454 AU
opposition	-10527 May 19 j 21:59			morning rise	-10521 Dec 02 j 22:43		
direct	-10527 Aug 07 j 17:08	9° m/34'25		retrograde	-10520 Mar 06 j 14:19		
evening set	-10527 Nov 02 j 23:00			min. Earth dist.	-10520 May 25 j 15:05	-	40.86485 AU
e venning see	10027 1101 02 j 25.00	11 19 00 10		opposition	-10520 May 28 j 22:00	-	
conjunction	-10527 Nov 14 j 15:11	11° m 20'10	0°50'37	direct	-10520 May 26 j 22:00 -10520 Aug 16 j 19:28		-12 20 10
minimum elong	•						
Č	-10527 Nov 14 j 14:57			evening set	-10520 Nov 14 j 02:43	20 11/13 08	
max. Earth dist.	-10527 Nov 18 j 03:42	-•	41.29145 AU		1050031 00:1100	200 *** 20120	11050110
morning rise	-10527 Nov 26 j 09:10			conjunction	-10520 Nov 23 j 14:29		
retrograde	-10526 Feb 27 j 07:10			minimum elong	-10520 Nov 23 j 14:14		
min. Earth dist.	-10526 May 18 j 04:30			max. Earth dist.	-10520 Nov 27 j 00:30		42.93423 AU
opposition	-10526 May 21 j 12:42	12° m 02'18	-10°39'58	morning rise	-10520 Dec 03 j 03:20	20° Mp 43'36	
direct	-10526 Aug 09 j 08:00	10° m 55'44		retrograde	-10519 Mar 08 j 04:10	22° m 14'48	
evening set	-10526 Nov 04 j 20:27	12°M 22'00		min. Earth dist.	-10519 May 27 j 05:19	21° m)11'57	41.09526 AU
				opposition	-10519 May 30 j 10:35	21°M)07'52	-12°42'03
conjunction	-10526 Nov 16 j 05:46	12°M/40'50	-10°18'19	direct	-10519 Aug 18 j 07:53	20° Mp 02'54	
minimum elong	-10526 Nov 16 j 05:31	12° Mp 40'49	10°18'05	evening set	-10519 Nov 15 j 23:53	21° m 29'27	
max. Earth dist.	-10526 Nov 19 j 17:01			-	,	•	
morning rise	-10526 Nov 27 j 16:43			conjunction	-10519 Nov 25 j 03:17	21° m/ 44'01	-12°14'12
retrograde	-10525 Feb 28 j 22:34			minimum elong	-10519 Nov 25 j 03:03	-	
min. Earth dist.	-10525 May 19 j 18:19		39 68543 AU	max. Earth dist.	-10519 Nov 28 j 12:28		
opposition	-10525 May 23 j 03:03			morning rise	-10519 Nov 28 j 12:28 -10519 Dec 04 j 07:30		15.15157 AU
**			-10 3907	•			
direct	-10525 Aug 10 j 22:14	-		retrograde	-10518 Mar 09 j 14:53	-	41 222/2 ATT
evening set	-10525 Nov 06 j 17:35	13°11/42'23		min. Earth dist.	-10518 May 28 j 17:29	-	
	1050533	1.40*** 0	1000 000	opposition	-10518 May 31 j 22:36		-12~57/19
conjunction	-10525 Nov 17 j 19:46	-		direct	-10518 Aug 19 j 21:52	-	
minimum elong	-10525 Nov 17 j 19:32			evening set	-10518 Nov 17 j 21:04	22° m/45'13	
max. Earth dist.	-10525 Nov 21 j 07:05	-	41.76872 AU				
morning rise	-10525 Nov 28 j 23:41	14° m 18'56		conjunction	-10518 Nov 26 j 15:43	22° m 59'08	-12°28'44
retrograde	-10524 Mar 01 j 10:19	15° m 49'59		minimum elong	-10518 Nov 26 j 15:28	22° m 59'07	12°28'36
min. Earth dist.	-10524 May 20 j 09:41	14° m 46'07	39.92425 AU	max. Earth dist.	-10518 Nov 29 j 23:30	23°M 04'25	43.38506 AU
opposition	-10524 May 23 j 17:14			morning rise	-10518 Dec 05 j 11:17		
direct	-10524 Aug 11 j 14:04	-		retrograde	-10517 Mar 11 j 01:18		
evening set	-10524 Nov 07 j 14:44			min. Earth dist.	-10517 May 30 j 06:47		41.54648 AU
		w 0100		opposition	-10517 Jun 02 j 10:39		
conjunction	-10524 Nov 18 j 09:46	15° m 10'22	-10°54'04	direct	-10517 Aug 21 j 11:11	-	15 12 05
minimum elong	-10524 Nov 18 j 09:31	-		evening set	-10517 Aug 21 j 11.11 -10517 Nov 19 j 18:07		
max. Earth dist.	-10524 Nov 21 j 21:12	-		evening set	-1031/ NOV 19 J 18:0/	∠ + 110/00/23	
max. Earni aist.	-10324 NOV 21 J 21:12	13 JUL 25 16	44.004/9 AU				

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10517 in astronomical counting style is the year 10518 BCE in historical counting style. -10517 Nov 28 i 03:56 24° m 13'38 -12° 42' 48 max. Earth dist. -10511 Dec 08 i 02:22 1°**2**31'21 44.84884 AU conjunction minimum elong -10517 Nov 28 i 03:42 24° m 13'37 12°42'42 -10511 Dec 10 j 20:26 1°**£**35'35 morning rise -10517 Dec 01 j 11:49 24° mp 18'55 43.60501 AU -10510 Mar 19 j 03:00 3°**₽**08'23 max. Earth dist. retrograde -10517 Dec 06 j 14:23 24° m/26'58 -10510 Jun 07 j 16:07 2°**2**06'48 43.01147 AU min. Earth dist. morning rise retrograde -10516 Mar 11 j 11:06 25° m 58'31 -10510 Jun 10 j 14:30 2°**2**03'11 -14°42'08 opposition -10516 May 30 j 19:48 24° m 56'10 41.76618 AU -10510 Aug 29 j 20:22 0°**£**59'46 min. Earth dist. direct -10516 Jun 02 j 22:24 24° m 52'15 -13°26'23 -10510 Dec 01 j 03:16 opposition evening set 2°**£**28'27 direct -10516 Aug 22 j 00:52 23° Mp 47'54 -10516 Nov 20 j 15:32 25° m 14'55 evening set conjunction -10510 Dec 06 j 11:01 2°**£**36'35 -14°08'35 minimum elong -10510 Dec 06 j 10:49 2°**2**36'34 14°08'33 conjunction -10516 Nov 28 j 15:57 25° m 27'31 -12°56'25 max. Earth dist. -10510 Dec 09 j 13:31 2°**2**41'20 45.04732 AU -10516 Nov 28 j 15:44 25° m 27'30 12°56'18 -10510 Dec 11 j 18:49 2°**£**44'44 minimum elong morning rise -10516 Dec 01 j 21:42 25° mg 32'37 43.82083 AU -10509 Mar 20 j 14:07 max. Earth dist. retrograde 4°**£**17'55 morning rise -10516 Dec 06 j 17:03 25° m 40'10 min. Earth dist. -10509 Jun 09 j 03:30 3°**2**16'26 43.21048 AU retrograde -10515 Mar 13 j 00:23 27° m 11'51 opposition -10509 Jun 12 j 00:26 3°**£**12'54 -14°53'05 min. Earth dist. -10515 Jun 01 j 07:24 26° m 09'40 41.98179 AU direct -10509 Aug 31 j 05:25 2°**2**09'40 opposition -10515 Jun 04 j 09:46 26° M 05'47 -13° 40'12 evening set -10509 Dec 03 j 02:49 3°**£**38'50 direct -10515 Aug 23 j 10:38 25° m 01'36 evening set -10515 Nov 22 j 12:53 26° m 28'48 conjunction -10509 Dec 07 j 21:17 3°**2**46'06 -14°19'02 minimum elong -10509 Dec 07 j 21:04 3°**2**46'05 14°19'00 conjunction -10515 Nov 30 i 03:49 26° m 40'43 -13° 09'35 max. Earth dist. -10509 Dec 10 j 22:30 3°**2**50'45 45.24375 AU minimum elong -10515 Nov 30 i 03:35 26° m 40'42 13°09'30 morning rise -10509 Dec 12 j 15:41 3°**₽**53'21 max. Earth dist. -10515 Dec 03 j 09:26 26° m 45'47 44.03257 AU retrograde -10508 Mar 21 i 01:39 5°**£**27'00 morning rise -10515 Dec 07 i 19:16 26° m 52'40 min. Earth dist. -10508 Jun 09 j 12:49 4°**£**25'44 43.40719 AU retrograde -10514 Mar 14 j 11:57 28° m 24'31 opposition -10508 Jun 12 j 10:03 4°**£**22'12 -15°03'35 -10514 Jun 02 j 20:38 27° m 22'23 42.19341 AU direct -10508 Aug 31 j 13:41 3°**₽**19'09 min. Earth dist. -10514 Jun 05 j 20:58 27° m 18'37 -13°53'32 -10508 Dec 04 j 03:37 4°**£**48'53 opposition evening set -10514 Aug 24 j 21:59 26° m 14'35 direct -10514 Nov 24 j 10:28 27° m 42'00 conjunction -10508 Dec 08 i 07:32 4°**2**55'12 -14°29'02 evening set -10508 Dec 08 j 07:21 minimum elong 4°**2**55'12 14°29'01 -10514 Dec 01 j 15:19 27° m 53'12 -13°22'18 max. Earth dist. -10508 Dec 11 j 08:04 4° **2**59'47 45.43761 AU conjunction -10514 Dec 01 j 15:06 27° m 53'11 13°22'13 -10508 Dec 12 j 11:24 5°**♀**01'31 minimum elong morning rise -10514 Dec 04 j 19:43 27° m 58'10 44.24070 AU -10507 Mar 22 j 10:36 6°**♀**35'42 max. Earth dist. retrograde -10514 Dec 08 j 20:32 28° Mp 04'26 -10507 Jun 11 j 00:02 5°**2**34'33 43.60116 AU min. Earth dist. morning rise -10513 Mar 15 j 22:41 29° m 36'27 -10507 Jun 13 j 19:31 5°**2**31'07 -15°13'39 retrograde opposition -10513 Jun 04 j 07:14 28° Mp 34'29 42.40163 AU -10507 Sep 02 j 00:31 4°**£**28'15 min. Earth dist. direct -10513 Jun 07 j 07:39 28° m 30'44 -14° 06'25 -10507 Dec 06 j 06:28 opposition evening set 5°**£**58'42 direct -10513 Aug 26 j 10:01 27° Mp 26'50 evening set -10513 Nov 26 j 08:04 28° m 54'30 conjunction -10507 Dec 09 j 17:50 6°**2**03'57 -14°38'38 minimum elong -10507 Dec 09 j 17:38 6°**2**03'57 14°38'38 -10513 Dec 03 j 02:28 29° m 04'59 -13°34'34 conjunction morning rise -10507 Dec 13 j 04:58 6°**♀**09'12 -10513 Dec 03 j 02:15 29° m 04'58 13°34'30 max. Earth dist. -10507 Dec 12 j 17:57 6°**△**08'30 45.62851 AU minimum elong max. Earth dist. -10513 Dec 06 j 06:01 29° Mp 09'52 44.44571 AU retrograde -10506 Mar 23 j 17:21 7°**♀**44'04 -10513 Dec 09 j 21:16 29° m 15'29 min. Earth dist. -10506 Jun 12 j 10:00 6°**2**43'05 43.79161 AU morning rise -10512 Jan 09 j 12:55 0°₽ -10506 Jun 15 j 04:43 6°**2**39'41 -15°23'16 opposition -10512 Mar 16 j 08:32 0°**2**47'44 -10506 Sep 03 j 12:53 retrograde direct 5°**₽**37'01 -10512 May 24 i 04:58 30°R MD -10506 Dec 08 j 12:40 evening set 7°**₽**08'25 -10512 Jun 04 j 19:06 29° m 45'51 42.60718 AU min. Earth dist. -10512 Jun 07 i 18:16 29° m 42'10 -14°18'48 -10506 Dec 11 i 03:43 opposition conjunction 7°**£**12'22 -14°47'50 direct -10512 Aug 26 i 21:48 28° m 38'25 minimum elong -10506 Dec 11 i 03:33 7°**2**12'21 14°47'51 -10512 Nov 23 j 02:06 0∘ଫ -10506 Dec 13 i 18:35 7°**₽**16'19 morning rise -10512 Nov 27 j 06:02 0°**△**06'22 max. Earth dist. -10506 Dec 14 j 01:48 7°**2**16'46 45.81557 AU evening set retrograde -10505 Mar 25 j 03:22 8° **△**52'06 conjunction -10512 Dec 03 j 13:33 0°**2**16'06 -13°46'22 min. Earth dist. -10505 Jun 13 j 19:58 7°**£**51'15 43.97807 AU minimum elong -10512 Dec 03 j 13:21 0°**2**16'05 13°46'18 opposition -10505 Jun 16 j 13:48 7°**£**47'55 -15°32'30 max. Earth dist. -10512 Dec 06 j 17:13 0°**2**20'58 44.64837 AU direct -10505 Sep 04 j 21:48 6°**£**45'25 0°**£**25'51 8°**₽**18'21 morning rise -10512 Dec 09 j 21:16 evening set -10505 Dec 11 j 04:25 -10511 Mar 17 j 16:11 1°**≏**58'21 retrograde -10511 Jun 06 j 05:57 0°**£**56'36 42.81031 AU conjunction -10505 Dec 12 j 13:42 8°**2**20'26 -14°56'39 min. Earth dist. -10511 Jun 09 j 04:32 0°**2**52'57 -14°30'42 -10505 Dec 12 j 13:30 8°**♀**20'25 opposition minimum elong 14°56'40 -10511 Jul 29 j 13:29 30°R Mp 8°**₽**22'29 morning rise -10505 Dec 13 j 22:38 direct -10511 Aug 28 j 10:48 29° Mp 49'22 max. Earth dist. -10505 Dec 15 j 11:30 8°**2**24'48 45.99837 AU -10511 Sep 26 j 21:07 0∘**⊽** retrograde -10504 Mar 25 j 12:30 9°**£**59'47 evening set -10511 Nov 29 j 04:26 1°**£**17'40 min. Earth dist. -10504 Jun 14 j 06:55 8°**♀**59'01 44.15990 AU opposition -10504 Jun 16 j 22:44 8°**£**55'47 -15°41'20 -10511 Dec 05 j 00:22 1°**2**26'36 -13°57'42 -10504 Sep 05 j 07:22 7°**£**53'27 conjunction direct

-10511 Dec 05 j 00:08

minimum elong

1°**2**26'36 13°57'40

Planetary Pheno	omena of Pluto from	n -10900 th	nrough -10398	(UT), Astrodienst	: AG 18-Feb-2025 1	4:23, p	page 30
	nical year style is used: The						le.
conjunction	-10504 Dec 12 j 23:27	-		retrograde	-10495 Apr 04 j 15:32		
minimum elong	-10504 Dec 12 j 23:17		15°05'08	min. Earth dist.	-10495 Jun 24 j 15:11		45.62308 AU
max. Earth dist.	-10504 Dec 15 j 19:10		46.17657 AU	opposition	-10495 Jun 26 j 22:19		
retrograde	-10503 Mar 27 j 00:08			direct	-10495 Sep 15 j 11:44		
min. Earth dist.	-10503 Jun 15 j 16:00		44.33694 AU				
opposition	-10503 Jun 18 j 07:28			conjunction	-10495 Dec 23 j 07:29	19° Ω 17'11	-16°04'23
direct	-10503 Sep 06 j 14:21	9° ₽ 01'02	10 1,7 1.0	minimum elong	-10495 Dec 23 j 07:23		
	10000 5 c p 00 j 121	, _0: 02		max. Earth dist.	-10495 Dec 25 j 18:52		
conjunction	-10503 Dec 14 j 09:04	10° Ω 35'21	-15°13'10	retrograde	-10494 Apr 05 j 20:55		17.01 101 110
minimum elong	-10503 Dec 14 j 08:54			min. Earth dist.	-10494 Jun 25 j 23:54		45 76051 ATT
max. Earth dist.	-10503 Dec 17 j 03:43			opposition	-10494 Jun 28 j 05:23		
retrograde	-10502 Mar 28 j 10:38		40.34990 AU	direct	-10494 Sep 16 j 21:13		-10 46 33
min. Earth dist.			44 50022 ATT	direct	-10494 Sep 10 J 21.13	10 ==4919	
	-10502 Jun 17 j 02:38			:	10404 D 24: 15:47	200 0 2015 4	1.6900!10
opposition	-10502 Jun 19 j 15:58		-15°5/55	conjunction	-10494 Dec 24 j 15:47		
direct	-10502 Sep 07 j 22:15	10,7708,08		minimum elong	-10494 Dec 24 j 15:39		
				max. Earth dist.	-10494 Dec 27 j 00:50		47.75839 AU
conjunction	-10502 Dec 15 j 18:31			retrograde	-10493 Apr 07 j 06:06		
minimum elong	-10502 Dec 15 j 18:22			min. Earth dist.	-10493 Jun 27 j 07:30		
max. Earth dist.	-10502 Dec 18 j 12:20		46.51898 AU	opposition	-10493 Jun 29 j 12:26		-16°53'15
retrograde	-10501 Mar 29 j 16:26	13° ≏ 20'15		direct	-10493 Sep 18 j 03:21	19° ≏ 53'01	
min. Earth dist.	-10501 Jun 18 j 11:26	12° ≏ 19'46	44.67754 AU				
opposition	-10501 Jun 21 j 00:14	12° ≏ 16'43	-16°05'34	conjunction	-10493 Dec 25 j 23:54	21° ≏ 24'21	-16°13'39
direct	-10501 Sep 09 j 09:31	11° ≏ 14'45		minimum elong	-10493 Dec 25 j 23:49	21° ≏ 24'21	16°13'49
				max. Earth dist.	-10493 Dec 28 j 08:08		
conjunction	-10501 Dec 17 j 03:27	12° ≏ 48'22	-15°28'13	retrograde	-10492 Apr 07 j 15:52		
minimum elong	-10501 Dec 17 j 03:18			min. Earth dist.	-10492 Jun 27 j 16:59		46 04865 AU
max. Earth dist.	-10501 Dec 19 j 19:26			opposition	-10492 Jun 29 j 19:31		
retrograde	-10500 Mar 29 j 22:58		40.00417 AC	direct	-10492 Sep 18 j 08:56		-10 37 36
min. Earth dist.	-10500 Jun 18 j 20:36		44 94220 ATT	uncet	-10472 Sep 10 J 00.50	20 - 30 20	
	·			:	10402 D 26: 00:11	220 0 27121	16917140
opposition	-10500 Jun 21 j 08:24		-16°12′52	conjunction	-10492 Dec 26 j 08:11		
direct	-10500 Sep 09 j 19:39	12° 22 20'52		minimum elong	-10492 Dec 26 j 08:04		
				max. Earth dist.	-10492 Dec 28 j 14:47		48.03097 AU
conjunction	-10500 Dec 17 j 12:34			retrograde	-10491 Apr 08 j 22:52		
minimum elong	-10500 Dec 17 j 12:24			min. Earth dist.	-10491 Jun 29 j 00:19		
max. Earth dist.	-10500 Dec 20 j 04:47		46.84621 AU	opposition	-10491 Jul 01 j 02:12		-17°01'42
retrograde	-10499 Mar 31 j 05:55	15° ≏ 31'32		direct	-10491 Sep 19 j 16:31	21° ≏ 59'29	
min. Earth dist.	-10499 Jun 20 j 05:57	14° ≏ 31'11	45.00394 AU				
opposition	-10499 Jun 22 j 16:15	14° ≏ 28'16	-16°19'47	conjunction	-10491 Dec 27 j 16:12	23° △ 30′20	-16°21'42
direct	-10499 Sep 11 j 05:20	13° ≏ 26'31		minimum elong	-10491 Dec 27 j 16:06	23° △ 30′20	16°21'53
				max. Earth dist.	-10491 Dec 29 j 20:34	23° ≏ 33'28	48.15942 AU
conjunction	-10499 Dec 18 j 21:25	14° ≙ 59'28	-15°41'46	retrograde	-10490 Apr 10 j 04:49	25° ♀ 04'53	
minimum elong	-10499 Dec 18 j 21:17	14° ≏ 59'28	15°41'51	min. Earth dist.	-10490 Jun 30 j 08:56	24° Ω 05'16	46.30701 AU
max. Earth dist.	-10499 Dec 21 j 11:47			opposition	-10490 Jul 02 j 08:58		
retrograde	-10498 Apr 01 j 16:12			direct	-10490 Sep 21 j 01:08		
min. Earth dist.	-10498 Jun 21 j 13:30		45.16291 AU		1 3		
opposition	-10498 Jun 23 j 23:58			conjunction	-10490 Dec 29 j 00:01	24° Ω 32'48	-16°25'16
direct	-10498 Sep 12 j 11:18			minimum elong	-10490 Dec 28 j 23:55		
direct	10190 бер 12 ј 11.10	11 -51 15		max. Earth dist.	-10490 Dec 31 j 04:04		
conjunction	-10498 Dec 20 j 05:59	16° Ω 04'24	-15°47'58	retrograde	-10490 Dec 31 j 04:04 -10489 Apr 11 j 08:44		10.20301 AU
minimum elong	-10498 Dec 20 j 05:50			min. Earth dist.	-10489 Jul 01 j 16:52		16 12888 ATT
C	•				-		
max. Earth dist.	-10498 Dec 22 j 19:56		47.10201 AU	opposition	-10489 Jul 03 j 15:27		-1/ 08/34
retrograde	-10497 Apr 03 j 01:05		45.21021.437	direct	-10489 Sep 22 j 11:10	24°==04'33	
min. Earth dist.	-10497 Jun 22 j 23:01						
opposition	-10497 Jun 25 j 07:37		-16°32'25	conjunction	-10489 Dec 30 j 07:39		
direct	-10497 Sep 13 j 18:19	15° ≏ 36'36		minimum elong	-10489 Dec 30 j 07:34		
				max. Earth dist.	-10488 Jan 01 j 09:25		48.40234 AU
conjunction	-10497 Dec 21 j 14:35	17° ≏ 08'58	-15°53'48	retrograde	-10488 Apr 11 j 16:42	27° ≏ 08'51	
minimum elong	-10497 Dec 21 j 14:28	17° ≏ 08'57	15°53'54	min. Earth dist.	-10488 Jul 01 j 23:34	26° ჲ 09'20	46.54686 AU
max. Earth dist.	-10497 Dec 24 j 03:54	17° £ 12'41	47.31609 AU	opposition	-10488 Jul 03 j 21:42	26° ≏ 07'04	-17°12'01
retrograde	-10496 Apr 03 j 08:10	18° ≏ 45'19		direct	-10488 Sep 22 j 16:55	25° ≏ 06'31	
min. Earth dist.	-10496 Jun 23 j 06:34		45.47272 AU		-		
opposition	-10496 Jun 25 j 14:57			conjunction	-10488 Dec 30 j 15:14	26° ≏ 36'37	-16°31'28
direct	-10496 Sep 14 j 03:18			minimum elong	-10488 Dec 30 j 15:10		
	r J ******	,		max. Earth dist.	-10487 Jan 01 j 16:30		
conjunction	-10496 Dec 21 j 22:58	18° 0 13'13	-15°59'16	retrograde	-10487 Apr 13 j 00:31		
minimum elong	-10496 Dec 21 j 22:49			min. Earth dist.	-10487 Jul 03 j 07:53		46 66133 ATT
max. Earth dist.	-10496 Dec 24 j 10:30			opposition	-10487 Jul 05 j 03:59		
max. Luitii dist.	10170 Dec 24 j 10.30	10 -10 -7	.,	эррозион	10 10 / Jul 00 J 00.09	2, —0000	1, 177/

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 31

-		_	nomical counting style is the year		, ,
direct	-10487 Sep 23 j 22:35	•	min. Earth dist.	-10479 Jul 11 j 14:54	
direct	-10467 Sep 23 J 22.33	20 = 08 09	opposition	-10479 Jul 11 j 14:34	
amiumation	10497 Dec. 21 : 22:45	279 6 20102 16024		-10479 Oct 02 j 02:57	
conjunction minimum elong	-10487 Dec 31 j 22:45 -10487 Dec 31 j 22:40			-104/9 Oct 02 J 02.37	4 1161342
C	,			10470 1 00:07.10	50 M 42115 16042150
max. Earth dist.	-10486 Jan 02 j 22:58		•	-10478 Jan 09 j 07:18	
retrograde	-10486 Apr 14 j 07:38		minimum elong	-10478 Jan 09 j 07:16	
min. Earth dist.	-10486 Jul 04 j 13:57			-10478 Jan 10 j 20:15	
opposition	-10486 Jul 06 j 09:55		· ·	-10478 Apr 22 j 07:01	
direct	-10486 Sep 25 j 04:49	2/*************************************	min. Earth dist.	-10478 Jul 12 j 21:05	
	10405 1 02:05 50	200 0 2011 1 1020	opposition	-10478 Jul 14 j 07:03	
conjunction	-10485 Jan 02 j 05:58			-10478 Oct 03 j 09:24	5°M13'29
minimum elong	-10485 Jan 02 j 05:54			10477 1 10:14.07	60 M 4115 2 16042150
max. Earth dist.	-10485 Jan 04 j 04:34		•	-10477 Jan 10 j 14:07	
	-10485 Mar 12 j 09:31		minimum elong	-10477 Jan 10 j 14:07	
retrograde	-10485 Apr 15 j 13:57		max. Earth dist.	-10477 Jan 12 j 02:19	
	-10485 May 19 j 21:00		retrograde	-10477 Apr 23 j 12:59	
min. Earth dist.	-10485 Jul 05 j 21:17			-10477 Jul 14 j 04:40	
opposition	-10485 Jul 07 j 15:58			-10477 Jul 15 j 12:21	
direct	-10485 Sep 26 j 11:32	28° <u>₽</u> 10'35	direct	-10477 Oct 04 j 15:22	6° ™ 12'59
	-10484 Jan 03 j 13:07	209 0 40106 169291	21	10476 I 11: 20:42	70 m 41110 17042142
conjunction	J		J	-10476 Jan 11 j 20:42	
minimum elong	-10484 Jan 03 j 13:03			-10476 Jan 11 j 20:41	
max. Earth dist.	-10484 Jan 05 j 11:44			-10476 Jan 13 j 07:26	
	-10484 Jan 17 j 18:37		retrograde	-10476 Apr 23 j 20:05	
retrograde	-10484 Apr 15 j 17:39		min. Earth dist.	-10476 Jul 14 j 10:01	
min. Earth dist.	-10484 Jul 06 j 04:16		**	-10476 Jul 15 j 17:24	
opposition	-10484 Jul 07 j 21:51	0°M11'43 -17°21'	direct	-10476 Oct 04 j 19:49	7°M12'09
11	-10484 Jul 18 j 00:09		• ,•	10475 1 10:02 16	00% 40111 16042100
direct	-10484 Sep 26 j 20:20		conjunction	-10475 Jan 12 j 03:16	
	-10484 Dec 04 j 16:20	0° M	minimum elong	-10475 Jan 12 j 03:15	
	10102 7 02:2011	00.000 10.000 10.010	max. Earth dist.	-10475 Jan 13 j 12:13	
conjunction	-10483 Jan 03 j 20:14	0°M40'50 -16°40'	0	-10475 Apr 25 j 02:59	
minimum elong	-10483 Jan 03 j 20:12	0°M40'50 16°40'	11	-10475 Jul 16 j 22:24	
max. Earth dist.	-10483 Jan 05 j 16:45	0°M.43'27 48.951		-10475 Jul 15 j 16:49	
retrograde	-10483 Apr 17 j 00:15	2°M13'34	direct	-10475 Oct 06 j 00:20	8°M11'02
min. Earth dist.	-10483 Jul 07 j 10:26				
opposition	-10483 Jul 09 j 03:30	1°M12'23 -17°22'	•	-10474 Jan 13 j 09:52	
direct	-10483 Sep 28 j 02:28	0°M₁2′16	minimum elong	-10474 Jan 13 j 09:52	
			max. Earth dist.	-	9°ML40'49 49.69376 AU
conjunction	-10482 Jan 05 j 03:23	1°M41'26 -16°41'	· ·	-10474 Apr 26 j 05:58	
minimum elong	-10482 Jan 05 j 03:20	1°M41'26 16°41'		-	10°ML10'42 47.81345 AU
max. Earth dist.	-10482 Jan 06 j 23:24	1°M44'00 49.051		3	10°M09'20 -17°23'06
retrograde	-10482 Apr 18 j 08:49	3° M 13′58	direct	-10474 Oct 07 j 08:19	9° ™ 09'41
min. Earth dist.	-10482 Jul 08 j 18:22	2° M .14'47 47.188			
opposition	-10482 Jul 10 j 09:15	2°M12'54 -17°23'	,	3	10°ML37'27 -16°41'11
direct	-10482 Sep 29 j 06:47	1°M12'53	minimum elong	,	10°M37'27 16°41'31
	10101 -	-am	max. Earth dist.	-	10°M 39'13 49.75635 AU
conjunction	-10481 Jan 06 j 10:21	2°M41'54 -16°42'	· ·	-10473 Apr 27 j 10:26	
minimum elong	-10481 Jan 06 j 10:19	2°M41'54 16°42'			11°ML09'06 47.87447 AU
max. Earth dist.	-10481 Jan 08 j 04:52	2°M44'23 49.148	**	-	11°ML07'45 -17°21'43
retrograde	-10481 Apr 19 j 17:09	4°M14'13	direct	-10473 Oct 08 j 14:25	10°11L08'09
min. Earth dist.	-10481 Jul 10 j 00:17	3°M15'09 47.283			
opposition	-10481 Jul 11 j 14:46		•		11°M35'49 -16°39'46
direct	-10481 Sep 30 j 10:27	2°M13'21	minimum elong	-	11°M35'49 16°40'06
			max. Earth dist.	•	11°M37'33 49.81615 AU
conjunction	-10480 Jan 07 j 17:18	3°M42'13 -16°43'	· ·	-10472 Apr 27 j 16:21	
minimum elong	-10480 Jan 07 j 17:15	3°M42'13 16°43'			12°ML07'19 47.93258 AU
max. Earth dist.	-10480 Jan 09 j 09:44	3°M44'34 49.240		-	12°M06'03 -17°20'03
retrograde	-10480 Apr 19 j 23:00	5°M14′20	direct	-10472 Oct 08 j 19:37	11°M06'31
min. Earth dist.	-10480 Jul 10 j 07:58	4°M15'15 47.373			
opposition	-10480 Jul 11 j 20:19	4°M13'30 -17°25'	•	•	12°M34'05 -16°38'04
direct	-10480 Sep 30 j 17:12	3°M13'38	minimum elong	-	12°ML34'05 16°38'26
			max. Earth dist.	-	12°M35'44 49.87316 AU
conjunction	-10479 Jan 08 j 00:27	4°M42'21 -16°43'	· ·	-10471 Apr 29 j 00:21	
minimum elong	-10479 Jan 08 j 00:26	4°M42'21 16°44'	opposition	-10471 Jul 20 j 17:45	13°ML04'16 -17°18'05
max. Earth dist.	-10479 Jan 09 j 16:12	4°M44'40 49.327	97 AU min. Earth dist.	3	13°ML05'32 47.98757 AU
retrograde	-10479 Apr 21 j 01:20	6°M14'14	direct	-10471 Oct 09 j 22:18	12°M04'48

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10470 in astronomical counting style is the year 10471 BCE in historical counting style. -10470 Jan 17 i 10:57 13°M 32'18 -16°36'06 opposition -10463 Jul 28 j 06:11 20° ML 48'08 -16°53'18 conjunction minimum elong -10470 Jan 17 j 11:00 13°MJ32'18 16°36'27 min. Earth dist. -10463 Jul 27 j 15:33 20°M 48:50 48.26236 AU max. Earth dist. -10470 Jan 18 j 14:15 13°M 33'51 49.92670 AU direct -10463 Oct 17 j 18:17 19°ML48'54 -10470 Apr 14 j 19:30 15°**M**ե -10470 Apr 30 j 06:31 15°ML02'31 -10462 Jan 25 j 12:20 21°M 15'52 -16°11'31 retrograde conjunction -10470 May 15 j 14:07 15°RML -10462 Jan 25 j 12:24 21°M 15'52 16°11'57 minimum elong opposition -10470 Jul 21 j 22:29 14°ML02'28 -17°15'51 -10462 Jan 26 j 03:53 21°ML16'45 50.18719 AU max. Earth dist. min. Earth dist. -10462 May 07 j 20:15 22° ML45'07 -10470 Jul 20 j 22:18 14°ML03'38 48.03895 AU retrograde -10470 Oct 11 j 02:43 13°ML03'04 -10462 Jul 29 j 10:32 21°M 45'32 -16°49'04 direct opposition min. Earth dist. -10462 Jul 28 j 21:44 21°ML46'09 48.27675 AU conjunction -10469 Jan 18 j 17:19 14°M 30'30 -16°33'51 direct -10462 Oct 19 j 01:00 20°ML46'18 -10469 Jan 18 j 17:20 14° M 30'31 16°34'14 minimum elong max. Earth dist. -10469 Jan 19 j 20:06 14°M 32'02 49.97643 AU -10461 Jan 26 j 18:14 22°M 13'12 -16°07'19 conjunction -10469 Feb 09 j 15:34 15°M minimum elong -10461 Jan 26 j 18:18 22°ML13'13 16°07'44 retrograde -10469 May 01 j 09:12 16°ML00'37 max. Earth dist. -10461 Jan 27 j 08:21 22°ML14'00 50.20082 AU min. Earth dist. -10469 Jul 22 j 04:08 15°ML01'46 48.08600 AU retrograde -10461 May 09 j 03:50 23°M42'21 opposition -10469 Jul 23 j 03:07 15°M 00'40 -17°13'22 opposition -10461 Jul 30 j 14:44 22°M42'49 -16°44'34 -10469 Jul 23 j 17:01 15°RML min. Earth dist. -10461 Jul 30 j 01:59 22°M 43'25 48.28811 AU direct -10469 Oct 12 j 10:44 14° ML01'20 direct -10461 Oct 20 j 03:21 21°ML43'35 -10469 Dec 29 j 14:11 15°M conjunction -10460 Jan 28 j 00:00 23°ML10'27 -16°02'52 conjunction -10468 Jan 19 i 23:27 15° ML 28'43 -16° 31'23 minimum elong -10460 Jan 28 i 00:04 23°ML10'27 16°03'18 minimum elong -10468 Jan 19 i 23:30 15° ML 28'43 16°31'45 max. Earth dist. -10460 Jan 28 j 12:34 23°ML11'09 50.21138 AU max. Earth dist. -10468 Jan 20 j 23:32 15°M 30'05 50.02157 AU retrograde -10460 May 09 j 10:37 24° M 39'30 retrograde -10468 May 01 j 14:18 16° ML58'42 opposition -10460 Jul 30 j 19:06 23°M-40'00 -16°39'47 min. Earth dist. -10468 Jul 22 j 09:55 15°M 59'54 48.12819 AU min. Earth dist. -10460 Jul 30 j 08:16 23°M 40'31 48.29644 AU -10468 Jul 23 j 07:48 15°ML58'51 -17°10'37 direct -10460 Oct 20 j 05:52 22°ML40'48 opposition -10468 Oct 06 j 08:30 15°RML -10468 Oct 12 j 16:41 14°M59'34 -10459 Jan 28 j 06:02 24°M 07'38 -15°58'08 direct conjunction -10468 Oct 18 j 21:11 15°ML -10459 Jan 28 j 06:08 24°M 07'39 15°58'34 minimum elong $-10459 \; Jan \;\; 28 \; j \; 18:16 \;\; 24^{\circ} \text{ML} 08'20 \;\; 50.21894 \; AU$ max. Earth dist. -10467 Jan 20 j 05:52 16°M26'53 -16°28'40 -10459 May 10 j 13:40 25°M36'36 conjunction retrograde -10467 Jan 20 j 05:53 16° ML26'53 16°29'02 -10459 Jul 31 j 23:13 24°M 37'10 -16°34'44 minimum elong opposition -10467 Jan 21 j 04:56 16°M28'12 50.06149 AU $-10459 \ Jul \quad 31 \ j \ 13:09 \quad 24^{\circ} \ \text{ML} \ 37'38 \quad 48.30144 \ AU$ max. Earth dist. min. Earth dist. -10467 May 02 j 19:39 17°M56'46 -10459 Oct 21 j 12:56 23°M37'58 direct retrograde -10467 Jul 24 j 12:26 16°M 56'59 -17°07'39 opposition min. Earth dist. -10467 Jul 23 j 17:02 16°M 57'54 48.16492 AU -10458 Jan 29 j 11:53 25°ML04'48 -15°53'10 conjunction -10458 Jan 29 j 11:57 25°**M**.04'49 15°53'37 direct -10467 Oct 13 j 22:16 15°ML57'44 minimum elong -10458 Jan 29 j 21:40 25° ML05'22 50.22309 AU max. Earth dist. conjunction -10466 Jan 21 j 12:09 17° ML 24'58 -16° 25' 43 retrograde -10458 May 11 j 17:32 26° M33'43 minimum elong -10466 Jan 21 j 12:13 17°ML24'58 16°26'06 opposition -10458 Aug 02 j 03:27 25°M34'19 -16°29'26 max. Earth dist. -10466 Jan 22 j 09:19 17°M26'10 50.09611 AU min. Earth dist. -10458 Aug 01 j 18:25 25°M234'45 48.30291 AU retrograde -10466 May 04 j 02:46 18°M54'43 direct -10458 Oct 22 j 18:58 24°M35'09 opposition -10466 Jul 25 j 16:58 17°M 55'00 -17°04'26 min. Earth dist. -10466 Jul 24 j 22:08 17°ML55'54 48.19628 AU conjunction -10457 Jan 30 j 17:42 26°M 01'59 -15°47'56 -10466 Oct 15 j 01:37 16° ML55'47 -10457 Jan 30 j 17:49 26° ML01'59 15°48'23 direct minimum elong -10457 Jan 31 j 02:58 26° ML02'30 50.22329 AU max. Earth dist. -10465 Jan 22 j 18:07 18°ML22'57 -16°22'32 -10457 May 12 j 21:30 27° M30'51 conjunction retrograde -10465 Jan 22 j 18:09 18°M22'57 16°22'56 minimum elong opposition -10457 Aug 03 i 07:44 26° M231'30 -16°23'53 -10465 Jan 23 i 13:08 18°M24'01 50.12541 AU max. Earth dist. min. Earth dist. -10457 Aug 03 j 00:53 26°M 31'50 48.30002 AU retrograde -10465 May 05 i 10:10 19° ML52'34 direct -10457 Oct 24 j 00:57 25°M32'21 opposition -10465 Jul 26 j 21:32 18°ML52'53 -17°00'59 min. Earth dist. -10465 Jul 26 j 04:51 18°M 53'41 48.22264 AU conjunction -10456 Jan 31 j 23:41 26° ML59'11 -15° 42'29 -10465 Oct 16 j 04:53 17°ML53'40 -10456 Jan 31 j 23:46 26°M 59'11 15°42'56 direct minimum elong -10456 Feb 01 j 07:02 26°M 59'36 50.21901 AU max. Earth dist. -10464 Jan 24 j 00:19 19°M20'46 -16°19'07 conjunction retrograde -10456 May 13 j 03:51 28°M27'59 -10464 Jan 24 j 00:23 19°M20'46 16°19'32 minimum elong opposition -10456 Aug 03 j 11:48 27° ML 28'42 -16°18'05 max. Earth dist. -10464 Jan 24 j 18:48 19°M21'48 50.15005 AU min. Earth dist. -10456 Aug 03 j 05:33 27°M29'00 48.29228 AU retrograde -10464 May 05 j 13:07 20°M50'14 direct -10456 Oct 24 j 04:32 26°M29'32 min. Earth dist. -10464 Jul 26 j 10:17 19°M 51'20 48.24442 AU -10464 Jul 27 j 01:50 19°M 50'35 -16°57'16 conjunction -10455 Feb 01 j 05:43 27°M 56'23 -15°36'47 opposition -10464 Oct 16 j 12:11 18°M51'22 -10455 Feb 01 j 05:50 27° ML56'23 15°37'16 direct minimum elong max. Earth dist. -10455 Feb 01 j 10:45 27° ML 56'40 50.20949 AU conjunction -10463 Jan 24 j 06:19 20°M 18'24 -16°15'26 retrograde -10455 May 14 j 11:27 29° M25'08 minimum elong -10463 Jan 24 j 06:23 20°ML18'24 16°15'51 opposition -10455 Aug 04 j 16:09 28°M25'52 -16°12'04 max. Earth dist. -10463 Jan 24 j 22:22 20°M 19'18 50.17048 AU min. Earth dist. -10455 Aug 04 j 12:17 28°M26'03 48.27919 AU

direct

-10455 Oct 25 j 07:18 27°M26'42

retrograde

-10463 May 06 j 16:38 21°M47'45

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10454 in astronomical counting style is the year 10455 BCE in historical counting style. -10454 Feb 02 j 11:45 28°M 53'33 -15°30'53 minimum elong -10447 Feb 09 i 04:40 5°**х** 32′05 14°43′21

conjunction minimum elong -10454 Feb 02 j 11:50 28°ML53'33 15°31'21 max. Earth dist. -10447 Feb 08 j 23:08 5°**х** 31'47 49.97246 AU max. Earth dist. -10454 Feb 02 j 15:57 28°M 53'47 50.19464 AU -10447 Feb 12 j 07:57 5°**х** 36′20 morning rise -10454 Mar 29 j 19:30 7°**∡**¹00'36 0°**∡**¹ -10447 May 21 j 22:18 retrograde 6°**₹**'01'24 -15°15'08 -10454 May 15 j 15:13 -10447 Aug 12 j 01:02 retrograde 0°**₹**22'14 opposition -10454 Jul 01 j 16:45 30°RML min. Earth dist. -10447 Aug 12 j 07:03 6°**✗**'01'06 48.01833 AU -10454 Aug 05 j 20:19 29°M22'59 -16°05'50 5°**х¹**02'00 opposition direct -10447 Nov 02 j 01:45 6°**х** 24′00 min. Earth dist. -10454 Aug 05 j 17:37 29°M23'07 48.26061 AU evening set -10446 Feb 06 j 15:24 -10454 Oct 26 j 13:35 28°M23'47 direct 6°**х**¹29'08 -14°34'56 conjunction -10446 Feb 10 j 10:19 6°**₹**29'08 14°35'27 conjunction -10453 Feb 03 j 17:36 29°M 50'38 -15°24'45 minimum elong -10446 Feb 10 j 10:28 -10453 Feb 03 j 17:43 29°M 50'39 15°25'15 -10446 Feb 10 j 03:27 minimum elong max. Earth dist. 6°**≯**28'44 49.92808 AU -10453 Feb 03 j 19:06 29°M 50'43 50.17457 AU max. Earth dist. morning rise -10446 Feb 14 j 05:35 6°**х** 34′17 -10453 Feb 10 j 16:07 0°**∡**¹ retrograde -10446 May 23 j 04:34 7°**х** 757'41 retrograde -10453 May 16 j 19:37 1°×19'16 opposition -10446 Aug 13 j 05:03 6°**∡**158'31 -15°06'50 opposition -10453 Aug 07 j 00:26 0°**₹**20'01 -15°59'21 min. Earth dist. -10446 Aug 13 j 11:15 6°**≯**58'13 47.97095 AU min. Earth dist. -10453 Aug 06 j 23:01 0°**∡**′20′05 48.23713 AU direct -10446 Nov 03 j 05:10 5°**х** 59′06 -10453 Aug 24 j 22:11 30°RML evening set -10445 Feb 07 j 07:28 7°**∡**¹20'26 direct -10453 Oct 27 j 18:46 29°M20'47 -10453 Dec 29 j 16:51 conjunction -10445 Feb 11 j 16:13 7°**₹**26'20 -14°26'48 minimum elong -10445 Feb 11 j 16:20 7°**₹**26'20 14°27'20 conjunction -10452 Feb 04 i 23:30 0°**∡**¹47'39 -15°18'24 max. Earth dist. -10445 Feb 11 i 07:27 7°**∡** 25'50 49.88002 AU minimum elong -10452 Feb 04 i 23:36 0°**∡**¹47'39 15°18'53 morning rise -10445 Feb 16 i 01:17 7°**∡**32'15 max. Earth dist. -10452 Feb 05 i 00:11 0°**х** 47'41 50.14972 AU retrograde -10445 May 24 j 12:38 8°**∡** 54'55 retrograde -10452 May 16 j 22:19 2°**х** 16′14 opposition -10445 Aug 14 j 09:14 7°**₹**55'47 -14°58'17 -10452 Aug 07 j 04:38 1°**₹**16'59 -15°52'38 min. Earth dist. -10445 Aug 14 j 17:41 7°**₹**55'22 47.91970 AU opposition min. Earth dist. -10452 Aug 07 j 05:12 1°**х** 16′57 48.20903 AU -10445 Nov 04 j 07:00 6°**х** 56′21 direct -10452 Oct 28 j 01:55 0° ₹ 17'43 -10444 Feb 08 j 01:10 8°**҂**17′05 direct evening set -10451 Feb 05 j 05:23 1° ₹ 44'34 -15°11'47 -10444 Feb 12 j 22:16 8°**₹**'23'41 -14°18'26 conjunction conjunction -10451 Feb 05 j 05:30 -10444 Feb 12 j 22:26 minimum elong 1°**₹**44'34 15°12'17 minimum elong 8° ₹23'42 14°18'57 -10451 Feb 05 j 04:28 1° ₹ 44'31 50.12073 AU -10444 Feb 12 j 12:56 8°**√**23'09 49.82779 AU max. Earth dist. max. Earth dist. -10444 Feb 17 j 19:42 8°**尽** 30'18 -10451 May 18 j 04:51 3°**尽** 13'07 morning rise retrograde -10451 Aug 08 j 08:33 2° ₹ 13'52 -15°45'40 -10444 May 24 j 18:05 9°**尽** 52'18 opposition retrograde -10451 Aug 08 j 09:29 2° ₹ 13'49 48.17705 AU -10444 Aug 14 j 13:26 8° ₹ 53'11 -14°49'30 min. Earth dist. opposition -10451 Oct 29 j 05:03 1° ₹ 14'33 -10444 Aug 14 j 22:57 8° ₹ 52'43 47.86371 AU direct min. Earth dist. -10444 Nov 04 j 11:54 7°**尽** 53'43 direct conjunction -10450 Feb 06 j 11:10 2° ₹ 41'26 -15°04'56 evening set -10443 Feb 07 j 19:54 9° ₹ 13'55 minimum elong -10450 Feb 06 j 11:17 2°**х** 41′26 15°05′25 max. Earth dist. -10450 Feb 06 j 08:34 2°**₹**'41'17 50.08804 AU conjunction -10443 Feb 13 j 04:21 9° ₹21'10 -14°09'50 retrograde -10450 May 19 j 12:12 4°**尽** 09'57 minimum elong -10443 Feb 13 j 04:29 9°**₹**21'10 14°10'21 -10450 Aug 09 j 12:46 3° ₹ 10'42 -15°38'26 max. Earth dist. -10443 Feb 12 j 16:07 9° ₹20'28 49.77059 AU opposition min. Earth dist. -10450 Aug 09 j 15:35 3°**₹**10'34 48.14176 AU -10443 Feb 18 j 13:10 9° ₹28'25 morning rise -10450 Oct 30 j 06:38 2° ₹ 11'21 -10443 May 25 j 23:36 10° **₹** 49'49 direct retrograde -10449 Feb 06 j 17:06 3° **₹** 36'56 -10443 Aug 15 j 17:39 9° ₹ 50'41 -14°40'28 evening set opposition min. Earth dist. -10443 Aug 16 i 04:36 9° ₹ 50'10 47.80267 AU -10449 Feb 07 i 16:52 3°₹38'17 -14°57'50 conjunction direct -10443 Nov 05 i 16:49 8° ₹ 51'11 -10449 Feb 07 i 16:59 -10442 Feb 08 i 15:30 10° ₹ 10'52 minimum elong 3°**∡**38'17 14°58'20 evening set morning rise -10449 Feb 08 i 16:54 3° ₹ 39'38 max. Earth dist. -10449 Feb 07 j 14:03 3° ₹38'07 50.05234 AU conjunction -10442 Feb 14 i 10:34 10° ₹ 18'43 -14°01'00 retrograde -10449 May 20 i 15:19 5° ₹ 06'46 minimum elong -10442 Feb 14 i 10:44 10° ₹ 18'43 14°01'32 -10449 Aug 10 j 16:50 4°**₹**07'32 -15°30'56 max. Earth dist. -10442 Feb 13 j 21:21 10° ₹ 17'58 49.70815 AU opposition 4°**₹**07'22 48.10343 AU min. Earth dist. -10449 Aug 10 j 20:10 morning rise -10442 Feb 20 i 06:00 10° ₹26'35 direct -10449 Oct 31 j 13:21 3°**х** 08′10 retrograde -10442 May 27 j 01:06 11° ₹ 47'24 -10442 Aug 16 j 22:04 10° **7**48'15 -14° 31'13 evening set -10448 Feb 06 j 15:10 4°**∡**32'01 opposition min. Earth dist. -10442 Aug 17 j 11:06 10° ₹ 47'37 47.73629 AU conjunction -10448 Feb 08 j 22:34 4°**₹**35'09 -14°50'28 direct -10442 Nov 07 j 00:56 9° ₹ 48'41 -10448 Feb 08 j 22:42 4°**∡**°35′09 14°50′57 -10441 Feb 09 j 11:33 11°**又** 07'53 minimum elong evening set -10448 Feb 08 j 17:33 4°**∡**°34′52 50.01382 AU max. Earth dist. 4°**∡**38'17 -10441 Feb 15 j 16:31 11° ₹ 16'17 -13°51'57 morning rise -10448 Feb 11 j 06:18 conjunction 6°**₹**03'38 -10441 Feb 15 j 16:40 11° ₹ 16'18 13°52'29 retrograde -10448 May 20 j 18:45 minimum elong opposition -10448 Aug 10 j 20:49 5°**х** 04'25 -15°23'10 max. Earth dist. -10441 Feb 15 j 01:28 11° ₹ 15'26 49.64066 AU min. Earth dist. -10448 Aug 11 j 01:02 5°**∡**04'13 48.06240 AU morning rise -10441 Feb 21 j 21:51 11° ₹ 24'44 direct -10448 Oct 31 j 19:25 4°×705'01 retrograde -10441 May 28 j 06:37 12°**х** 45'01 evening set -10447 Feb 06 j 01:24 5°**∡**¹27'51 opposition -10441 Aug 18 j 02:18 11° ₹ 45'49 -14°21'44

min. Earth dist.

direct

-10447 Feb 09 j 04:32 5° ₹32'05 -14°42'50

conjunction

-10441 Aug 18 j 15:54 11°**х** 45'10 47.66496 AU

-10441 Nov 08 j 05:45 10° **₹** 46'11

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34 Attention, astronomical year style is used: The year -10440 in astronomical counting style is the year 10441 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	e year -10440	in astronomical co	unting style is the year	r 10441 BCE in historical	counting sty	le.
evening set	-10440 Feb 10 j 08:09	12° ∡ °04'55		opposition	-10434 Aug 24 j 09:08		
				min. Earth dist.	-10434 Aug 25 j 06:59		47.06366 AU
conjunction	-10440 Feb 16 j 22:40			direct	-10434 Nov 14 j 14:35		
minimum elong	-10440 Feb 16 j 22:50			evening set	-10433 Feb 14 j 18:21	18° ≯ 46′02	
max. Earth dist.	-10440 Feb 16 j 05:36		49.56829 AU			_	
morning rise	-10440 Feb 23 j 13:36			conjunction	-10433 Feb 23 j 18:06		
retrograde	-10440 May 28 j 14:43			minimum elong	-10433 Feb 23 j 18:17		
opposition	-10440 Aug 18 j 06:34			max. Earth dist.	-10433 Feb 22 j 16:06		48.96537 AU
min. Earth dist.	-10440 Aug 18 j 22:30		47.58910 AU	morning rise	-10433 Mar 04 j 18:15		
direct	-10440 Nov 08 j 07:24			retrograde	-10433 Jun 05 j 04:41		
evening set	-10439 Feb 10 j 05:21		10 10156 177	opposition	-10433 Aug 25 j 13:46		
max. Earth dist.	-10439 Feb 16 j 11:18	13°×10'26	49.49176 AU	min. Earth dist.	-10433 Aug 26 j 12:58		46.96464 AU
	1012071 17:01.56	100 711106	12022100	direct	-10433 Nov 15 j 19:12		
conjunction	-10439 Feb 17 j 04:56			evening set	-10432 Feb 15 j 17:39		40.06551 ATT
minimum elong	-10439 Feb 17 j 05:05		13°33'41	max. Earth dist.	-10432 Feb 23 j 21:58	19° X '55'20	48.86551 AU
morning rise retrograde	-10439 Feb 24 j 04:48 -10439 May 29 j 19:01			agniumation	10422 Eab 25 : 00:47	100.75650	12010/14
•			1.4902!01	conjunction minimum elong	-10432 Feb 25 j 00:47 -10432 Feb 25 j 00:57		
opposition min. Earth dist.	-10439 Aug 19 j 10:52 -10439 Aug 20 j 03:25			morning rise	-10432 Feb 23 j 00.37 -10432 Mar 05 j 08:05		12 1946
direct	-10439 Nov 09 j 13:30		47.30922 AU	retrograde	-10432 Jun 05 j 07:41		
evening set	-10438 Feb 11 j 02:41			opposition	-10432 Aug 25 j 18:30		12011/25
evening set	-104381700 11 1 02.41	13 🗡 39 00		min. Earth dist.	-10432 Aug 26 j 19:45		
conjunction	-10438 Feb 18 j 10:54	1./° 7 08'50	-13°23'22	direct	-10432 Nov 16 j 02:43		40.80091 AU
minimum elong	-10438 Feb 18 j 11:03			evening set	-10431 Feb 15 j 17:28		
max. Earth dist.	-10438 Feb 17 j 14:59			max. Earth dist.	-10431 Feb 24 j 02:45		48 76082 ATT
morning rise	-10438 Feb 25 j 19:33		47.41132710	max. Earth dist.	10-31100 2-1 023	20 7 34 03	40.70002710
retrograde	-10438 May 30 j 23:37			conjunction	-10431 Feb 25 j 07:32	20° √ 55'42	-12°07'40
opposition	-10438 Aug 20 j 15:12		-13°51'46	minimum elong	-10431 Feb 25 j 07:43		
min. Earth dist.	-10438 Aug 21 j 08:51			morning rise	-10431 Mar 06 j 21:50		12 00 1 1
direct	-10438 Nov 10 j 19:09		.,,,=,,,,	retrograde	-10431 Jun 06 j 13:33		
evening set	-10437 Feb 12 j 00:21			opposition	-10431 Aug 26 j 23:19		-12°32'29
<i>8</i>	,			min. Earth dist.	-10431 Aug 28 j 01:18		
conjunction	-10437 Feb 19 j 17:06	15° ∡ ¹06'34	-13°13'20	direct	-10431 Nov 17 j 08:17		
minimum elong	-10437 Feb 19 j 17:15	15° ∡ ¹06'35	13°13'52	evening set	-10430 Feb 16 j 17:16		
max. Earth dist.	-10437 Feb 18 j 20:51	15° ∡ ¹05'25	49.32811 AU	max. Earth dist.	-10430 Feb 25 j 07:14		48.65071 AU
morning rise	-10437 Feb 27 j 10:06				v		
retrograde	-10437 Jun 01 j 02:29	16° ∡ ³35′26		conjunction	-10430 Feb 26 j 14:14	21° х 54′46	-11°55'52
opposition	-10437 Aug 21 j 19:37	15° ∡ ³36′04	-13°41'14	minimum elong	-10430 Feb 26 j 14:24	21° ≯ ′54'46	11°56'26
min. Earth dist.	-10437 Aug 22 j 14:50	15° ∡ ³35′08	47.33981 AU	morning rise	-10430 Mar 08 j 11:26	22° ₹ 108'19	
direct	-10437 Nov 12 j 02:28	14° ∡ ³36′05		retrograde	-10430 Jun 07 j 22:32	23° х 24'31	
evening set	-10436 Feb 12 j 22:27	15° ∡ ′53′18		opposition	-10430 Aug 28 j 04:21	22° ≯ 24'58	-12°20'09
				min. Earth dist.	-10430 Aug 29 j 08:45	22° х ⁴23'36	46.63787 AU
conjunction	-10436 Feb 20 j 23:13	16° ∡ °04′13	-13°03'02	direct	-10430 Nov 18 j 10:24	21° ≯ ¹24'32	
minimum elong	-10436 Feb 20 j 23:23	16° ∡ °04'14	13°03'35	evening set	-10429 Feb 17 j 17:27	22° ҂ ¹40′05	
max. Earth dist.	-10436 Feb 20 j 01:31		49.24199 AU				
morning rise	-10436 Feb 29 j 00:19			conjunction	-10429 Feb 27 j 21:08		
retrograde	-10436 Jun 01 j 08:01			minimum elong	-10429 Feb 27 j 21:19		
opposition	-10436 Aug 22 j 00:01			max. Earth dist.	-10429 Feb 26 j 13:18		48.53544 AU
min. Earth dist.	-10436 Aug 22 j 19:17		47.25081 AU	morning rise	-10429 Mar 10 j 00:50		
direct	-10436 Nov 12 j 07:12			retrograde	-10429 Jun 09 j 04:28		
evening set	-10435 Feb 12 j 20:47			opposition	-10429 Aug 29 j 09:14		
max. Earth dist.	-10435 Feb 20 j 06:11	17° × ′00′42	49.15293 AU	min. Earth dist.	-10429 Aug 30 j 14:27		46.51848 AU
	10425 5 1 21 : 05 20	150 30001	10050100	direct	-10429 Nov 19 j 15:50		
conjunction	-10435 Feb 21 j 05:30			evening set	-10428 Feb 18 j 17:50		10 11 501 1 77
minimum elong	-10435 Feb 21 j 05:40		12~53'01	max. Earth dist.	-10428 Feb 27 j 17:28	25° × ′51′28	48.41521 AU
morning rise	-10435 Mar 01 j 14:35				10420 F 1 20 : 02 57	220 7 52125	11021122
retrograde	-10435 Jun 02 j 15:29		12010122	conjunction	-10428 Feb 29 j 03:57		
opposition	-10435 Aug 23 j 04:34			minimum elong	-10428 Feb 29 j 04:08		11~32'0/
min. Earth dist.	-10435 Aug 24 j 01:48		47.13688 AU	morning rise	-10428 Mar 10 j 14:19		
direct	-10435 Nov 13 j 10:05			retrograde	-10428 Jun 09 j 10:46		1105442
evening set	-10434 Feb 13 j 19:30	1/ X *4812		opposition	-10428 Aug 29 j 14:16		
conjugation	10/3/ Eab 22: 11:5/	180.70000	120/11/20	min. Earth dist.	-10428 Aug 30 j 21:02		40.39448 AU
conjunction	-10434 Feb 22 j 11:54			direct	-10428 Nov 19 j 21:54		
minimum elong max. Earth dist.	-10434 Feb 22 j 12:04 -10434 Feb 21 j 12:19			evening set max. Earth dist.	-10427 Feb 18 j 18:23 -10427 Feb 27 j 23:54		48 20047 ATT
morning rise	-10434 Feb 21 j 12.19 -10434 Mar 03 j 04:29		77.00073 AU	man. Lai iii üist.	1072/1700 2/J25.34	∠¬ ∧ JUJ9	40.2704/AU
retrograde	-10434 Mar 03 j 04.29 -10434 Jun 03 j 21:52			conjunction	-10427 Mar 01 j 11:01	24° √ 153'∩1	-11°19'00
1011051440	101513un 05 j 21.32	17 7 27 13		-onjunetion	1012, with 01 J 11.01	2. 7 33 01	11 1700

Planetary Phenomena of Pluto from -10900 through -10398 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10427 in astronomical counting style is the year 10428 BCE in historical counting style. -10427 Mar 01 j 11:12 24° ₹ 53'02 11°19'36 retrograde -10421 Jun 17 j 04:15 2°る25'37 minimum elong -10427 Mar 12 j 03:34 25° ₹07'46 -10421 Sep 06 j 03:44 1°**ට**25'20 -10°16'53 morning rise opposition -10427 Jun 10 j 13:32 26° ₹23'10 min. Earth dist. -10421 Sep 07 j 17:44 1°る23'29 45.43352 AU retrograde -10421 Nov 27 j 18:01 0°る23'46 -10427 Aug 30 j 19:22 25°**尽**23'23 -11°41'35 direct opposition -10427 Sep 01 j 03:52 25° \cancel{x} 21'49 46.26625 AU -10420 Feb 25 j 04:29 min. Earth dist. evening set 1°る38'12 -10427 Nov 21 j 07:03 24°**尽**22'34 direct max. Earth dist. -10420 Mar 06 j 17:20 1°る52'56 47.32903 AU -10426 Feb 19 j 19:15 25° ₹37'36 evening set -10420 Mar 08 j 13:38 1°る55'32 -9°43'40 max. Earth dist. -10426 Mar 01 j 05:12 25°**尽** 50'35 48.16205 AU conjunction minimum elong -10420 Mar 08 j 13:49 1°**る**55'33 9°44'15 conjunction -10426 Mar 02 j 17:56 25° ₹ 52'42 -11°06'12 morning rise -10420 Mar 20 j 22:28 2°る12'52 minimum elong -10426 Mar 02 j 18:07 25° ₹ 52'43 11°06'47 retrograde -10420 Jun 17 j 12:21 3°る27'07 -10426 Mar 13 j 16:42 26° ₹07'50 2°**ට**26'45 -10°01'45 morning rise opposition -10420 Sep 06 j 09:41 -10426 Jun 11 j 18:49 27° **₹** 23'01 retrograde min. Earth dist. -10420 Sep 08 j 02:01 2°る24'46 45.28305 AU opposition -10426 Sep 01 j 00:29 26° ₹23'09 -11°28'11 direct -10420 Nov 27 j 22:57 1°る25'04 min. Earth dist. -10426 Sep 02 j 09:08 26°**尽** 21'34 46.13464 AU evening set -10419 Feb 25 j 07:06 2°る39'27 direct -10426 Nov 22 j 13:24 25°**尽**22'12 max. Earth dist. -10419 Mar 08 j 00:24 2°る54'29 47.17775 AU evening set -10425 Feb 20 j 19:58 26° ₹37'03 max. Earth dist. -10425 Mar 02 j 10:36 26°**₹** 50'20 48.03031 AU conjunction -10419 Mar 09 j 21:30 2°る57'08 -9°28'57 minimum elong -10419 Mar 09 j 21:40 2°る57'09 9°29'32 3°**る**14'49 conjunction -10425 Mar 04 i 00:49 26° ₹ 52'33 -10°53'08 morning rise -10419 Mar 22 j 11:24 minimum elong -10425 Mar 04 j 00:59 26° ₹ 52'33 retrograde -10419 Jun 18 j 20:09 4°**ප**28'58 morning rise -10425 Mar 15 i 05:40 27° ₹08'03 opposition -10419 Sep 07 i 15:38 3°る28'31 -9°46'22 retrograde -10425 Jun 13 j 02:14 28° ₹ 23'03 min. Earth dist. -10419 Sep 09 i 08:37 3°る26'30 45.12782 AU opposition -10425 Sep 02 i 05:50 27° ₹23'04 -11°14'30 direct -10419 Nov 29 i 04:16 2°る26'41 min. Earth dist. -10425 Sep 03 j 16:28 27° ₹21'23 46.00002 AU evening set -10418 Feb 26 i 10:01 3°**ප්**41'03 -10425 Nov 23 j 17:37 26° ₹21'59 max. Earth dist. -10418 Mar 09 j 05:38 3°る56'15 47.02157 AU direct -10424 Feb 21 j 21:12 27° ₹36'42 evening set -10424 Mar 02 j 17:35 27°**х** 50'21 47.89585 AU -10418 Mar 11 j 05:24 3°る59'04 -9°13'59 max. Earth dist. conjunction -10418 Mar 11 j 05:35 3°る59'05 9°14'35 minimum elong -10424 Mar 04 j 08:00 27° ₹ 52'34 -10°39'48 -10418 Mar 24 j 00:29 4°**궁**17'06 conjunction morning rise -10424 Mar 04 j 08:11 27° ₹ 52'35 10°40'22 -10418 Jun 20 j 05:15 5°₹31'10 retrograde minimum elong -10424 Mar 15 j 18:36 28°**⊀** 08'27 opposition -10418 Sep 08 j 21:51 4°쥥30'35 -9°30'41 morning rise -10418 Sep 10 j 16:36 4°중28'29 44.96777 AU -10424 Jun 13 j 10:11 29° ₹23'15 min. Earth dist. retrograde -10424 Sep 02 j 11:04 28° ₹23'12 -11°00'32 -10418 Nov 30 j 09:42 3°**궁**28'36 opposition direct -10424 Sep 03 j 21:59 28° ₹21'30 45.86265 AU -10417 Feb 27 j 12:55 4°₹42'57 min. Earth dist. evening set -10424 Nov 23 j 22:05 27°**尽** 21'59 -10417 Mar 10 j 13:01 4°중58'27 46.86049 AU direct max. Earth dist. -10423 Feb 21 j 22:43 28° ₹36'36 evening set max. Earth dist. -10423 Mar 03 j 22:30 28°**₹** 50'29 47.75873 AU conjunction -10417 Mar 12 j 13:28 5°**⋜**01'19 -8°58'45 minimum elong -10417 Mar 12 j 13:38 5°**궁**01'20 8°59'20 conjunction -10423 Mar 05 j 15:12 28° ₹ 52'51 -10°26'11 morning rise -10417 Mar 25 j 13:17 5°**궁**19'41 -10423 Mar 05 j 15:23 28°**尽** 52'51 retrograde -10417 Jun 21 j 10:38 6°₹33'40 minimum elong 10°26'46 -10423 Mar 17 j 07:42 29° ₹09'06 -10417 Sep 10 j 04:10 5°₹32'58 -9°14'44 morning rise opposition -10423 Apr 28 j 10:41 0°ਰ min. Earth dist. -10417 Sep 12 j 00:34 5° ₹30'46 44.80280 AU -10423 Jun 14 j 18:57 0°♂23'43 -10417 Dec 01 j 19:03 4°₹30'48 retrograde direct -10423 Aug 01 j 06:10 30°R ✓ -10416 Feb 28 j 16:24 5°₹45'08 evening set -10423 Sep 03 i 16:34 29° ₹23'35 -10°46'16 -10416 Mar 10 j 19:10 6°る00'51 46.69484 AU opposition max. Earth dist. min. Earth dist. -10423 Sep 05 i 04:39 29° ₹21'49 45.72274 AU 6°**ප**03'51 -8°43'15 direct -10423 Nov 25 j 02:26 28° ₹ 22'15 conjunction -10416 Mar 12 j 21:39 evening set -10422 Feb 23 i 00:14 29° ₹36'48 minimum elong -10416 Mar 12 j 21:49 6°る03'52 8°43'50 max. Earth dist. -10422 Mar 05 j 05:38 29° ₹ 51'01 47.61883 AU morning rise -10416 Mar 26 j 02:20 6°**ට**22'33 retrograde -10416 Jun 21 j 17:10 7°る36'27 -10422 Mar 06 j 22:31 29° ₹ 53'24 -10°12'17 -10416 Sep 10 j 10:22 6°る35'37 -8°58'30 conjunction opposition -10422 Mar 06 j 22:43 29° ₹ 53'25 10°12'52 min. Earth dist. -10416 Sep 12 j 07:22 6°る33'23 44.63353 AU minimum elong -10422 Mar 11 j 15:44 0°る direct -10416 Dec 02 j 02:55 5°る33'15 morning rise -10422 Mar 18 j 20:28 0°る10'01 evening set -10415 Feb 28 j 20:03 6°る47'37 7°る03'33 46.52494 AU retrograde -10422 Jun 15 j 23:20 1°る24'30 max. Earth dist. -10415 Mar 12 j 02:01 opposition -10422 Sep 04 j 22:13 0°る24'17 -10°31'43 -10422 Sep 06 j 11:42 0°る22'27 45.57980 AU -10415 Mar 14 j 06:03 7°る06'40 -8°27'28 min. Earth dist. conjunction -10422 Sep 26 j 04:32 30°R ✓ 7°る06'40 8°28'03 minimum elong -10415 Mar 14 j 06:13 -10422 Nov 26 j 10:16 29° ₹22'51 7°る25'41 direct morning rise -10415 Mar 27 j 15:19 -10421 Jan 25 j 20:55 0°궁 8°**る**39'32 retrograde -10415 Jun 23 j 00:22 evening set -10421 Feb 24 j 02:15 0°**る**37'19 opposition -10415 Sep 11 j 16:59 7°る38'34 -8°41'58 max. Earth dist. -10421 Mar 06 j 11:26 0°る51'48 47.47589 AU min. Earth dist. -10415 Sep 13 j 16:09 7°る36'13 44.46043 AU direct -10415 Dec 03 j 09:36 6°**ප**36'01 conjunction -10421 Mar 08 j 05:56 0°る54'18 -9°58'06 evening set -10414 Mar 01 j 23:47 7°**る**50'23 -10421 Mar 08 j 06:06 0°る54'18 max. Earth dist. -10414 Mar 13 j 09:59 8°る06'38 46.35162 AU minimum elong 9°58'42

-10421 Mar 20 j 09:25

morning rise

1°**る**11'16

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Earth dist. 8°る39'27 44.28415 AU morning rise -10414 Dec 04 j 15:48 -10407 Jul 01 j 23:48 17°**궁**19'37 direct 7°**る**39'05 retrograde -10407 Sep 20 j 03:07 16°♂17'34 -6°18'32 evening set -10413 Mar 03 j 03:57 8°**る**53'29 opposition max. Earth dist. -10407 Sep 22 j 10:12 16°중14'47 42.97865 AU -10413 Mar 14 j 16:14 9°중09'55 46.17536 AU min. Earth dist. -10407 Dec 11 j 18:44 15° ₹13'37 direct conjunction -10413 Mar 16 j 22:48 9°♂13'12 -7°55'04 evening set -10406 Mar 09 j 18:05 16°る29'02 -10413 Mar 16 j 22:58 9°**궁**13'12 7°55'38 -10406 Mar 22 j 01:12 16°**5**47'05 44.86820 AU minimum elong max. Earth dist. -10413 Mar 30 j 16:56 9°**⋜**32'52 morning rise -10406 Mar 24 j 15:47 16°ਰ50'57 -5°52'21 retrograde -10413 Jun 25 j 19:41 10°る46'40 conjunction opposition -10413 Sep 14 j 06:17 9°정45'24 -8°07'59 minimum elong -10406 Mar 24 j 15:55 16°ਰ50'57 5°52'56 min. Earth dist. -10413 Sep 16 j 06:58 9°정42'59 44.10534 AU morning rise -10406 Apr 08 j 12:03 17°쥥12'47 direct -10413 Dec 05 j 20:21 8°**る**42'29 retrograde -10406 Jul 03 j 10:04 18°₹27'08 evening set -10412 Mar 03 j 08:17 9°る56'59 opposition -10406 Sep 21 j 11:19 17°₹24'56 -5°59'12 max. Earth dist. -10412 Mar 15 j 01:01 10°る13'44 45.99666 AU min. Earth dist. -10406 Sep 23 j 19:14 17°る22'05 42.77810 AU direct -10406 Dec 13 j 04:03 16°る20'45 conjunction -10412 Mar 17 j 07:36 10°る17'01 -7°38'25 evening set -10405 Mar 11 j 01:01 17°る36'23 -10405 Mar 23 j 10:09 17°중54'37 44.66646 AU minimum elong -10412 Mar 17 j 07:46 10°る17'02 7°39'01 max. Earth dist. morning rise -10412 Mar 31 i 05:46 10°♂37'01 retrograde -10412 Jun 26 j 02:51 11°る50'49 conjunction -10405 Mar 26 j 02:03 17°る58'35 -5°33'40 -10412 Sep 14 j 13:20 10°중49'25 -7°50'32 opposition minimum elong -10405 Mar 26 j 02:12 17°₹58'36 5°34'14 min. Earth dist. -10412 Sep 16 j 14:58 10°₹46'56 43.92414 AU morning rise -10405 Apr 10 j 01:19 18°る20'43 -10412 Dec 06 j 04:48 9°**3**46'20 -10405 Jul 04 j 17:11 19°る35'12 direct retrograde -10411 Mar 04 j 13:06 11°る00'56 -10405 Sep 22 j 19:46 18° ₹32'49 -5°39'34 evening set opposition max. Earth dist. min. Earth dist. -10405 Sep 25 j 05:56 18°중29'50 42.57308 AU -10405 Dec 14 j 14:13 17°る28'23 direct -10404 Mar 11 j 08:26 18°₹44'14 -10411 Mar 18 j 16:23 11°중21'17 -7°21'29 conjunction evening set -10404 Mar 23 j 19:37 19°**궁**02'40 44.46052 AU -10411 Mar 18 j 16:33 11°중21'17 7°22'03 max. Earth dist. minimum elong -10411 Apr 01 j 18:42 11°₹41'36 morning rise -10411 Jun 27 j 09:17 12°**⋜**55'26 -10404 Mar 26 j 12:30 19°**⋜**06'43 -5°14'40 retrograde conjunction -10411 Sep 15 j 20:24 11°₹53'55 -7°32'46 -10404 Mar 26 j 12:37 19°**⋜**06'44 5°15'15 opposition minimum elong -10404 Apr 10 j 14:46 19°**♂**29'08 -10411 Sep 17 j 22:18 11°중51'24 43.74088 AU min. Earth dist. morning rise -10404 Jul 05 j 01:46 20°₹43'45 -10411 Dec 07 j 14:03 10°**궁**50'39 direct retrograde evening set -10410 Mar 05 j 18:06 12°**⋜**05'22 opposition -10404 Sep 23 j 04:22 19°₹41'10 -5°19'37 max. Earth dist. -10410 Mar 17 j 16:16 12°중22'34 45.63268 AU min. Earth dist. -10404 Sep 25 j 14:51 19°**궁**38'10 42.36397 AU direct -10404 Dec 14 j 23:50 18°₹36'30 -10410 Mar 20 j 01:28 12°₹26'03 -7°04'14 conjunction evening set -10403 Mar 12 j 16:11 19°₹52'33 -10410 Mar 20 j 01:37 12°**⋜**26'04 7°04'50 max. Earth dist. -10403 Mar 25 j 03:53 20° ₹ 11'08 44.25056 AU minimum elong -10410 Apr 03 j 07:37 12°**⋜**46'41 morning rise -10410 Jun 28 j 16:58 14°**⋜**00'35 -10403 Mar 27 j 23:03 20° ₹ 15'20 -4°55'23 retrograde conjunction -10410 Sep 17 j 03:49 12°₹58'57 -7°14'40 -10403 Mar 27 j 23:10 20° ₹ 15'21 4°55'58 opposition minimum elong -10410 Sep 19 i 07:33 12°る56'20 43.55529 AU -10403 Apr 12 i 04:07 20°る38'01 min. Earth dist. morning rise -10410 Dec 08 j 21:50 11°る55'31 -10403 Jul 06 i 14:16 21°る52'49 direct retrograde -10409 Mar 06 j 23:22 13°る10'23 -10403 Sep 24 j 13:16 20°る50'00 -4°59'20 evening set opposition -10403 Sep 27 j 01:38 20° 정46'54 42.15133 AU max. Earth dist. -10409 Mar 19 j 00:59 13°る27'52 45.44710 AU min. Earth dist. direct -10403 Dec 16 i 05:46 19° ₹45'04 -10409 Mar 21 i 10:36 13°₹31'23 -6°46'42 evening set conjunction -10402 Mar 14 j 00:10 21°る01'22 -10409 Mar 21 i 10:46 13° ₹31'23 6°47'17 max. Earth dist. -10402 Mar 26 j 14:44 21°る20'12 44.03733 AU minimum elong -10409 Apr 04 j 20:30 13°る52'19 morning rise -10409 Jun 30 j 02:33 15°**⋜**06'19 -10402 Mar 29 j 09:52 21°**3**24'25 -4°35'48 retrograde conjunction -10409 Sep 18 j 11:17 14°**⋜**04'34 -6°56'16 -10402 Mar 29 j 09:59 21°る24'26 4°36'22 opposition minimum elong -10409 Sep 20 j 15:11 14°중01'56 43.36681 AU min. Earth dist. morning rise -10402 Apr 13 j 17:25 21°₹47'23 direct -10409 Dec 10 j 03:50 13°₹00'58 retrograde -10402 Jul 08 j 00:25 23°**궁**02'21 -10408 Mar 07 j 05:17 14°정16'00 -10402 Sep 25 j 22:24 21° 중59'19 -4°38'45 evening set opposition -10408 Mar 19 j 08:11 14°₹33'38 45.25817 AU min. Earth dist. -10402 Sep 28 j 11:22 21° 중56'10 41.93570 AU max. Earth dist. direct -10402 Dec 17 j 15:04 20° **공**54'07 -10408 Mar 21 j 20:06 14°♂37'18 -6°28'53 -10401 Mar 15 j 08:34 22°쥥10'42 conjunction evening set minimum elong -10408 Mar 21 j 20:15 14°♂37'19 6°29'28 max. Earth dist. -10401 Mar 27 j 23:43 22°중29'40 43.82146 AU morning rise -10408 Apr 05 j 09:42 14°♂58'33 retrograde -10408 Jun 30 j 14:05 16°♂12'40 conjunction -10401 Mar 30 j 20:39 22°♂34'01 -4°15'55 opposition -10408 Sep 18 j 18:59 15°る10'46 -6°37'33 minimum elong -10401 Mar 30 j 20:46 22°♂34'02 4°16'29 min. Earth dist. -10408 Sep 21 j 00:52 15° ₹ 08'03 43.17484 AU -10401 Apr 15 j 06:49 22°**⋜**57'15 morning rise

retrograde

-10401 Jul 09 j 11:58 24°쥥12'25

-10408 Dec 10 j 09:28 14°♂07'00

direct

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Attention, astronomical year style is used: The year -10401 in astronomical counting style is the year 10402 BCE in historical counting style.

opposition -10401 Sep 27 j 07:42 23°る09'10 -4°17'49 min. Earth dist. -10401 Sep 29 j 21:22 23°る05'58 41.71779 AU

direct -10401 Dec 19 j 00:50 22° ₹ 03'41 evening set -10400 Mar 15 j 17:25 23° ₹ 20'35

max. Earth dist. -10400 Mar 28 j 10:27 23°₹39'45 43.60327 AU

conjunction -10400 Mar 31 j 07:59 23°₹44'10 -3°55'44 minimum elong -10400 Mar 31 j 08:05 23°₹44'11 3°56'16

morning rise -10400 Apr 15 j 20:13 24°る07'39 retrograde -10400 Jul 09 j 20:57 25°る23'04

opposition -10400 Sep 27 j 17:21 24°♂19'36 -3°56'34

min. Earth dist. -10400 Sep 30 j 08:30 24° ₹ 16'18 41.49785 AU

direct -10400 Dec 19 j 12:50 23°♂13'51 evening set -10399 Mar 17 j 02:48 24°♂31'05

max. Earth dist. -10399 Mar 29 j 21:19 24°る50'27 43.38338 AU

conjunction -10399 Apr 01 j 19:27 24°る54'56 -3°35'14 minimum elong -10399 Apr 01 j 19:33 24°る54'57 3°35'48

opposition -10399 Sep 29 j 03:16 25°♂30'41 -3°34'59 min. Earth dist. -10399 Oct 01 j 18:08 25°♂32'24 41.27628 AU

direct -10399 Dec 20 j 23:29 24° ₹ 24'42