Attention, astronomical year style is used: The year -10400 in astronomical counting style is the year 10401 BCE in historical counting style. -10400 Mar 15 j 17:25 23°る20'35 evening set -10394 Mar 23 j 09:11 0°≈35'37 evening set max. Earth dist. -10400 Mar 28 j 10:27 23°중39'45 43.60327 AU -10394 Apr 05 j 05:56 max. Earth dist. 0°≈55'43 42.24945 AU -10400 Mar 31 j 07:59 23°₹44'10 -3°55'44 -10394 Apr 08 j 09:30 conjunction 1°≈00'42 -1°48'12 conjunction minimum elong -10400 Mar 31 j 08:05 23°₹344'11 3°56'16 -10394 Apr 08 j 09:33 minimum elong 1°≈00'42 1°48'43 -10400 Apr 15 j 20:13 24°る07'39 -10394 Apr 24 j 07:05 morning rise morning rise 1°≈25'37 -10400 Jul 09 j 20:57 25°**궁**23'04 -10394 Jul 17 j 22:38 retrograde retrograde 2°≈43'11 -10400 Sep 27 j 17:21 24°**정**19'36 -3°56'34 1°**≈**38'27 -1°42'09 opposition opposition -10394 Oct 05 j 09:32 min. Earth dist. min. Earth dist. -10400 Sep 30 j 08:30 24°중16'18 41.49785 AU -10394 Oct 08 j 05:42 1°≈34'49 40.13225 AU direct -10400 Dec 19 j 12:50 23°♂13'51 direct -10394 Dec 27 j 04:02 0°≈31'10 evening set -10399 Mar 17 j 02:48 24°**⋜**31'05 evening set -10393 Mar 24 j 21:38 1°≈51'08 -10399 Mar 29 j 21:19 24°중50'27 43.38338 AU max. Earth dist. max. Earth dist. -10393 Apr 06 j 17:28 2°≈11'18 42.01268 AU conjunction -10399 Apr 01 j 19:27 24°정54'56 -3°35'14 conjunction -10393 Apr 09 j 22:55 2°≈16'27 -1°25'53 minimum elong -10399 Apr 01 j 19:33 24°₹54'57 3°35'48 minimum elong -10393 Apr 09 j 22:57 2°≈16′27 1°26'25 morning rise -10399 Apr 17 j 09:49 25° ₹ 18'41 morning rise -10393 Apr 25 j 21:16 2°≈41'35 retrograde -10399 Jul 11 j 07:05 26° ₹34'22 retrograde -10393 Jul 19 j 11:15 3°≈59'35 opposition -10399 Sep 29 j 03:16 25° ₹30'41 -3°34'59 opposition -10393 Oct 06 j 21:30 2°≈54'36 -1°18'36 min. Earth dist. -10399 Oct 01 j 18:08 25°る27'24 41.27628 AU min. Earth dist. -10393 Oct 09 j 19:49 2°≈50'50 39.89332 AU direct -10399 Dec 20 j 23:29 24°る24'42 direct -10393 Dec 28 j 15:01 1°≈47'01 evening set -10398 Mar 18 j 12:30 25°る42'18 evening set -10392 Mar 25 j 10:45 3°≈07'31 max. Earth dist. -10398 Mar 31 j 07:24 26° **중**01'48 43.16167 AU max. Earth dist. -10392 Apr 07 j 07:00 3°≈27'50 41.77236 AU conjunction -10398 Apr 03 j 07:04 26°る06'25 -3°14'26 conjunction -10392 Apr 10 j 12:45 3°≈33'02 -1°03'17 -10398 Apr 03 j 07:09 26°る06'25 3°14'59 minimum elong -10392 Apr 10 j 12:47 3°≈33'02 1°03'48 minimum elong -10398 Apr 18 j 23:17 26°る30'24 -10392 Apr 26 j 11:38 3°≈58'22 morning rise morning rise -10398 Jul 12 j 19:25 27°₹46'25 -10392 Jul 20 j 00:24 retrograde retrograde 5°≈16'51 opposition -10398 Sep 30 j 13:32 26°₹42'32 -3°13'05 -10392 Oct 07 j 09:38 opposition 4°≈11'35 -0°54'44 -10398 Oct 03 j 06:08 26°중39'08 41.05296 AU -10392 Oct 10 j 08:12 4°≈07'47 39.65101 AU min. Earth dist. min. Earth dist. -10398 Dec 22 j 07:40 25°る36'18 -10392 Dec 29 j 02:35 3°≈03'40 direct direct -10397 Mar 19 j 22:45 26°る54'19 -10391 Mar 27 j 00:31 evening set evening set 4°≈24'44 4°≈45′04 41.52886 AU -10397 Apr 01 j 19:41 27°중14'03 42.93802 AU -10391 Apr 08 j 18:57 max. Earth dist. max. Earth dist. -10397 Apr 04 j 19:12 27°♂18'41 -2°53'20 -10391 Apr 12 j 02:48 4°≈50'26 -0°40'23 conjunction conjunction -10397 Apr 04 j 19:17 27°♂18'41 2°53'53 -10391 Apr 12 j 02:49 minimum elong minimum elong 4°≈50'26 0°40'54 -10397 Apr 20 j 13:00 27°정42'55 -10391 Apr 28 j 02:07 morning rise morning rise 5°≈15'58 -10397 Jul 14 j 08:15 28°**궁**59'16 -10391 Jul 21 j 16:41 6°≈34'56 retrograde retrograde opposition -10397 Oct 01 j 23:54 27°る55'12 -2°50'50 opposition -10391 Oct 08 j 22:15 5°≈29'23 -0°30'32 min. Earth dist. -10397 Oct 04 j 16:57 27°**궁**51'46 40.82742 AU min. Earth dist. -10391 Oct 11 j 22:13 5°≈25'29 39.40606 AU direct -10397 Dec 23 j 17:20 26°₹48'43 direct -10391 Dec 30 j 13:09 4°≈21'08 evening set -10396 Mar 20 j 09:45 28°**궁**07'11 -10390 Mar 28 j 14:28 5°≈42'47 evening set max. Earth dist. -10396 Apr 02 j 05:53 28°중27'00 42.71184 AU max. Earth dist. -10390 Apr 10 j 09:22 6°≈03'17 41.28282 AU -10396 Apr 05 j 07:36 28° ₹31'48 -2°31'55 -10390 Apr 13 j 17:06 6°≈08'40 -0°17'13 conjunction conjunction -10396 Apr 05 j 07:41 28°**궁**31'48 2°32'27 -10390 Apr 13 j 17:07 6°≈08'40 0°17'43 minimum elong minimum elong -10396 Apr 21 j 03:00 28°る56'16 -10390 Apr 29 i 16:21 morning rise morning rise 6°≈34'23 -10390 Jul 23 i 07:32 7°≈53'52 -10396 Jun 12 i 08:05 0°≈ retrograde retrograde -10396 Jul 14 j 23:28 0°≈13'00 opposition -10390 Oct 10 j 11:14 6°≈48'00 -0°06'02 -10396 Aug 16 i 16:53 30°R♂ min. Earth dist. -10390 Oct 13 i 12:05 6°≈44'02 39.15894 AU -10396 Oct 02 i 10:44 29° ₹08'44 -2°28'16 direct -10389 Jan 01 i 03:08 5°≈39'24 opposition min. Earth dist. -10396 Oct 05 j 04:55 29°る05'14 40.59918 AU -10389 Jan 07 j 15:45 5°≈39'55 asc node direct -10396 Dec 24 j 02:32 28°る02'00 -10389 Mar 30 j 05:17 evening set 7°≈01'41 7°≈22'14 41.03501 AU -10395 Mar 21 j 21:07 29°る20'57 max. Earth dist. -10389 Apr 11 j 22:42 evening set max. Earth dist. -10395 Apr 03 j 18:13 29°る40'57 42.48239 AU conjunction -10389 Apr 15 j 07:42 7°≈27'45 0°06'21 conjunction -10395 Apr 06 j 20:26 29°₹45'48 -2°10'12 minimum elong -10389 Apr 15 j 07:41 7°≈27'45 0°05'51 -10395 Apr 06 j 20:30 29°₹45'48 2°10'45 behind sun begin -10389 Apr 15 j 01:28 7°≈27'21 minimum elong -10395 Apr 15 j 21:42 -10389 Apr 15 j 13:54 0°**≈** behind sun end 7°≈28'08 -10395 Apr 22 j 16:52 -10389 May 01 j 06:57 morning rise 0°≈10'30 morning rise 7°≈53'37 -10395 Jul 16 j 11:13 -10389 Jul 24 j 23:38 retrograde 1°≈27'39 retrograde 9°≈13'39 opposition -10395 Oct 03 j 22:03 0°≈23'09 -2°05'22 opposition -10389 Oct 12 j 00:19 8°**≈**07'29 0°18'47 min. Earth dist. -10395 Oct 06 j 17:53 0°≈19'33 40.36748 AU min. Earth dist. -10389 Oct 15 j 01:13 8°≈03'30 38.91052 AU -10395 Oct 22 j 10:07 30°R♂ direct -10388 Jan 02 j 16:47 6°≈58'31 direct -10395 Dec 25 j 14:43 29°**궁**16'10 evening set -10388 Mar 30 j 20:41 8°≈21'29

max. Earth dist.

-10388 Apr 12 j 13:08

8°≈42'07 40.78590 AU

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23,

-10394 Feb 26 j 10:16

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10388 in astronomical counting style is the year 10389 BCE in historical counting style. opposition -10388 Apr 15 j 22:49 8°≈47'42 0°30'03 -10382 Oct 21 j 10:10 17°≈53'35 3°20'43 conjunction min. Earth dist. -10388 Apr 15 j 22:48 8°≈47'42 0°29'33 -10382 Oct 24 j 15:14 17°≈49'12 37.15119 AU minimum elong -10388 May 01 j 21:31 9°≈13'44 -10381 Jan 11 j 24:00 16°≈42'09 direct morning rise -10388 Jul 25 j 12:03 10°≈34'22 -10381 Apr 11 j 04:50 18°≈11'05 retrograde evening set -10388 Oct 12 j 14:10 9°≈27'54 0°43'55 -10381 Apr 23 j 05:45 18°≈31'46 39.01918 AU opposition max. Earth dist. -10388 Oct 15 j 16:31 9°≈23'48 38.66121 AU min. Earth dist. -10381 Apr 26 j 20:03 18°≈38'01 3°23'33 direct -10387 Jan 03 j 07:33 8°≈18'34 conjunction evening set -10387 Apr 01 j 12:40 9°≈42'15 minimum elong -10381 Apr 26 j 19:56 18°≈38'00 3°23'08 -10381 May 12 j 07:31 19°**≈**04'43 -10387 Apr 14 j 04:41 10°≈02'59 40.53621 AU max. Earth dist. morning rise retrograde -10381 Aug 05 j 12:08 20°≈30'47 conjunction -10387 Apr 17 j 14:08 10°≈08'37 0°54'04 opposition -10381 Oct 23 j 03:15 19°≈22'09 3°47'47 -10387 Apr 17 j 14:07 10°≈08'37 -10381 Oct 26 j 10:08 19°≈17'38 36.89423 AU minimum elong 0°53'35 min. Earth dist. -10387 May 03 j 12:09 10°≈34'47 morning rise direct -10380 Jan 13 j 16:09 18°≈10'19 retrograde -10387 Jul 27 j 01:37 11°≈56'03 evening set -10380 Apr 12 j 02:30 19°≈40'16 opposition -10387 Oct 14 j 04:17 10°≈49'17 1°09'20 max. Earth dist. -10380 Apr 24 j 00:53 20°≈00'56 38.76037 AU min. Earth dist. -10387 Oct 17 j 06:06 10°≈45'12 38.41150 AU direct -10386 Jan 04 j 22:20 9°≈39'37 conjunction -10380 Apr 27 j 14:53 20°≈07'14 3°49'17 evening set -10386 Apr 03 j 05:26 11°≈04'02 minimum elong -10380 Apr 27 j 14:45 20°≈07'13 3°48'51 max. Earth dist. -10386 Apr 15 j 18:57 11°≈24'46 40.28606 AU morning rise -10380 May 12 j 23:24 20°≈33'57 retrograde -10380 Aug 06 j 06:05 22°≈00'58 conjunction -10386 Apr 19 j 05:55 11°≈30'33 1°18'22 opposition -10380 Oct 23 j 20:57 20°≈51'57 4°15'06 minimum elong -10386 Apr 19 i 05:52 11°≈30'33 1°17'52 min. Earth dist. -10380 Oct 27 j 03:46 20°≈47'25 36.63558 AU morning rise -10386 May 05 i 02:59 11°≈56'51 direct -10379 Jan 14 i 09:16 19°≈39'43 retrograde -10386 Jul 28 j 18:48 13°≈18'49 evening set -10379 Apr 14 j 01:00 21°≈10'44 opposition -10386 Oct 15 j 18:50 12°≈11'45 1°35'03 max. Earth dist. -10379 Apr 25 j 18:17 21°≈31'13 38.50000 AU -10386 Oct 18 j 21:53 12°≈07'34 38.16159 AU min. Earth dist. -10385 Jan 06 j 09:07 11°≈01'44 -10379 Apr 29 j 09:59 21°≈37'41 4°15'12 direct conjunction -10385 Apr 04 j 22:45 12°≈26'58 -10379 Apr 29 j 09:50 21°≈37'40 4°14'48 minimum elong evening set -10385 Apr 17 j 11:48 12°≈47'49 40.03548 AU -10379 May 14 j 15:20 22°≈04'24 max. Earth dist. morning rise -10379 Aug 08 j 03:04 23°≈32'25 retrograde -10385 Apr 20 j 22:11 12°≈53'36 1°42'55 -10379 Oct 25 j 15:10 22°≈23'01 4°42'37 conjunction opposition minimum elong -10385 Apr 20 j 22:08 12°≈53'36 1°42'27 -10379 Oct 28 j 22:57 22°≈18'25 36.37593 AU min. Earth dist. -10385 May 06 j 17:53 13°≈20'01 -10378 Jan 16 j 00:24 21°≈10'21 morning rise direct -10385 Jul 30 j 11:11 14°≈42'44 -10378 Apr 16 j 00:14 22°≈42'29 retrograde evening set -10385 Oct 17 j 09:54 13°≈35'22 2°01'03 -10378 Apr 27 j 14:33 23°≈02'56 38.23873 AU opposition max. Earth dist. -10385 Oct 20 j 13:09 13°≈31'09 37.91099 AU min. Earth dist. -10384 Jan 07 j 23:44 12°≈25'01 -10378 May 01 j 05:45 23°≈09'24 4°41'18 direct conjunction evening set -10384 Apr 05 j 17:08 13°≈51'06 minimum elong -10378 May 01 j 05:35 23°≈09'24 4°40'53 max. Earth dist. -10384 Apr 18 j 03:00 14°≈11'55 39.78397 AU morning rise -10378 May 16 j 07:18 23°≈36'06 retrograde -10378 Aug 09 j 23:14 25°≈05'09 conjunction -10384 Apr 21 j 14:51 14°≈17'50 2°07'43 opposition -10378 Oct 27 j 09:54 23°≈55'22 5°10'21 -10384 Apr 21 j 14:47 14°≈17'50 2°07'15 min. Earth dist. -10378 Oct 30 j 18:07 23°≈50'42 36.11581 AU minimum elong -10384 May 07 j 09:07 14°≈44'22 -10377 Jan 17 j 19:13 22°≈42'16 morning rise direct -10384 May 17 j 01:08 15°≈ -10377 Apr 18 j 00:29 24°≈15'34 evening set -10384 Jul 31 j 07:01 16°≈07'51 max. Earth dist. -10377 Apr 29 j 09:50 24°≈35'51 37.97738 AU retrograde -10384 Oct 18 j 01:20 15°≈00'11 2°27'20 opposition -10384 Oct 18 j 04:37 15°R≈ -10377 May 03 j 01:49 24°≈42'26 5°07'33 conjunction min. Earth dist. -10384 Oct 21 j 05:12 14°≈55'56 37.65942 AU minimum elong -10377 May 03 j 01:38 24°≈42'26 5°07'11 direct -10383 Jan 08 j 13:57 13°≈49'30 morning rise -10377 May 17 j 23:30 25°≈09'04 -10383 Mar 28 j 08:27 15°≈ retrograde -10377 Aug 11 j 22:00 26°≈39'13 -10383 Apr 07 j 12:12 15°≈16'30 opposition -10377 Oct 29 j 05:09 25°≈29'02 5°38'15 evening set max. Earth dist. -10383 Apr 19 j 20:06 15°≈37'20 39.53092 AU min. Earth dist. -10377 Nov 01 j 13:04 25°≈24'22 35.85609 AU direct -10376 Jan 19 j 14:47 24°≈15'30 conjunction -10383 Apr 23 j 08:12 15°≈43'19 2°32'46 evening set -10376 Apr 19 j 01:35 25°≈50'04 minimum elong -10383 Apr 23 j 08:07 15°≈43'19 2°32'19 max. Earth dist. -10376 Apr 30 j 06:37 26°≈10'12 37.71642 AU morning rise -10383 May 09 j 00:23 16°≈09'55 -10383 Aug 02 j 01:16 17°≈34'14 retrograde conjunction -10376 May 03 j 22:34 26°≈16'51 5°33'57 -10383 Oct 19 j 17:35 16°≈26'15 2°53'54 -10376 May 03 j 22:21 26°≈16'50 5°33'34 opposition minimum elong -10383 Oct 22 j 22:52 16°≈21'54 37.40622 AU -10376 May 18 j 15:39 26°≈43'23 min. Earth dist. morning rise -10382 Jan 10 j 06:37 15°≈15'13 -10376 Aug 12 j 19:25 28°≈14'42 direct retrograde evening set -10382 Apr 09 j 08:03 16°≈43'09 opposition -10376 Oct 30 j 01:11 27°≈04'08 6°06'17 max. Earth dist. -10382 Apr 21 j 12:58 17°≈03'57 39.27614 AU min. Earth dist. -10376 Nov 02 j 10:05 26°≈59'22 35.59732 AU direct -10375 Jan 20 j 10:36 25°≈50'10 conjunction -10382 Apr 25 j 01:45 17°≈10'02 2°58'03 evening set -10375 Apr 21 j 03:46 27°≈26'02

minimum elong

morning rise

retrograde

-10382 Apr 25 j 01:39 17°≈10'02

-10382 May 10 j 15:50 17°≈36'42

-10382 Aug 03 j 18:59 19°≈01'52

2°57'36

max. Earth dist.

conjunction

-10375 May 02 j 04:24 27°≈46'02 37.45681 AU

-10375 May 05 j 19:47 27°≈52'42 6°00'26

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10375 in astronomical counting style is the year 10376 BCE in historical counting style. -10375 May 05 j 19:34 27°≈52'41 6°00'04 min. Earth dist. -10369 Nov 15 j 01:33 8°**)** €51'37 33.82866 AU minimum elong -10375 May 20 j 08:04 28°≈19'07 direct -10368 Feb 01 j 15:31 7°**¥**39'46 morning rise -10375 Aug 14 j 15:53 29°≈51'40 -10368 May 05 j 02:19 9°\ 26'49 retrograde evening set -10375 Oct 31 j 21:47 28°≈40'43 6°34'27 -10368 May 14 j 03:42 9° **€** 44'27 35.67717 AU max. Earth dist. opposition -10375 Nov 04 j 05:32 28°≈36'00 35.34021 AU min. Earth dist. -10368 May 17 j 18:28 9° **∺** 51'32 -10374 Jan 22 j 07:30 27°≈26'21 direct conjunction 9°06'30 -10368 May 17 j 18:07 evening set -10374 Apr 23 j 06:47 29°≈03'36 minimum elong 9°**)**51'31 9°06'14 -10374 May 04 j 01:23 29°≈23'19 37.19879 AU -10368 May 30 j 07:20 10° **∺** 16'02 max. Earth dist. morning rise retrograde -10368 Aug 27 j 00:53 11°**米** 59'15 conjunction -10374 May 07 j 17:28 29°≈30'07 6°26'59 opposition -10368 Nov 12 j 18:10 10° ★45'35 9°52'29 minimum elong -10374 May 07 j 17:14 29°≈30'06 6°26'38 min. Earth dist. -10368 Nov 16 j 02:20 10° ¥ 40'38 33.57988 AU -10374 May 22 j 00:28 29°≈56'23 -10367 Feb 02 j 18:16 9°**∺**28'18 morning rise direct -10374 May 24 j 00:38 -10367 May 07 j 13:57 11°**米** 17'13 0°**)**€ evening set retrograde -10374 Aug 16 j 13:57 1°**¥**30′15 max. Earth dist. -10367 May 16 j 05:33 11° **★** 34'13 35.42635 AU opposition -10374 Nov 02 j 19:04 0°¥18'55 7°02'41 min. Earth dist. -10374 Nov 06 j 03:36 0° **∺**14'07 35.08500 AU conjunction -10367 May 19 j 21:05 11°**光**41'27 9°32'49 -10374 Nov 16 j 03:52 30°R≈ minimum elong -10367 May 19 j 20:43 11°**光**41'25 9°32'35 direct -10373 Jan 24 j 02:03 29°≈04'09 morning rise -10367 Jun 01 j 01:04 12° **米** 05′27 -10373 Mar 31 j 08:31 0°**)**€ retrograde -10367 Aug 29 j 04:45 13°\\$50'28 evening set -10373 Apr 25 j 11:00 0°**)**(42'51 opposition -10367 Nov 14 j 20:49 12°**)** € 36'21 max. Earth dist. -10373 May 06 j 01:10 1°**升**02′25 36.94258 AU min. Earth dist. -10367 Nov 18 j 05:43 12°\dagger31'19 33.33256 AU direct -10366 Feb 04 i 18:32 11° **\(18**'35 conjunction -10373 May 09 j 15:59 1°**¥**09'11 6°53'36 evening set -10366 May 10 j 02:47 13° ¥ 09'26 minimum elong -10373 May 09 j 15:43 1°**¥**09'10 6°53'16 max. Earth dist. -10366 May 18 j 10:16 13° ¥25'57 35.17720 AU morning rise -10373 May 23 j 17:09 1°**)** 35'16 -10373 Aug 18 j 12:28 3°**米** 10'31 -10366 May 22 j 00:17 13° **★** 33'07 retrograde conjunction 9°58'57 opposition -10373 Nov 04 j 16:54 1° **X** 58'50 7°31'00 -10366 May 21 j 23:55 13°**)** € 33'05 minimum elong 9°58'43 -10373 Nov 08 j 00:53 1°**)** 54′02 34.83149 AU -10366 Jun 02 j 18:37 13°**米**56'35 min. Earth dist. morning rise -10372 Jan 25 j 21:52 0°**)** 43'40 -10366 Aug 31 j 07:32 15°**)** 43′28 retrograde direct evening set -10372 Apr 26 j 16:31 2°**)** 23'54 -10366 Nov 17 j 00:12 14° **★**28'54 10°48'21 opposition -10366 Nov 20 j 08:08 14°**光**23'53 33.08720 AU -10372 May 06 j 23:21 2° **★** 43'06 36.68787 AU max. Earth dist. min. Earth dist. -10365 Feb 06 j 21:31 13°**米** 10'39 direct -10372 May 10 j 15:04 2° ₩ 50'00 7°20'14 evening set conjunction -10365 May 12 j 17:06 15°**米**03'31 -10365 May 20 j 13:40 15° **米** 19'17 34.93037 AU -10372 May 10 j 14:48 2° **X** 49'59 7°19'54 max. Earth dist. minimum elong -10372 May 24 j 10:09 3°**米** 15'52 morning rise -10365 May 24 j 04:09 15°**米**26'34 10°24'50 -10372 Aug 19 j 14:26 4°**米** 52'35 retrograde conjunction -10372 Nov 05 j 15:34 3° **★**40'32 7°59'20 -10365 May 24 j 03:45 15° **★** 26'32 10°24'38 opposition minimum elong min. Earth dist. -10372 Nov 08 j 23:50 3°**米**35'42 34.57954 AU morning rise -10365 Jun 04 j 12:25 15°**米**49'25 direct -10371 Jan 26 j 17:18 2°**∺**24'58 retrograde -10365 Sep 02 j 13:01 17° **∺** 38'16 -10371 Apr 28 j 22:56 4°**₭**06'48 opposition -10365 Nov 19 j 04:14 16°**∺**23'13 11°15'54 evening set max. Earth dist. -10371 May 09 j 00:01 4°**米**25'45 36.43419 AU min. Earth dist. -10365 Nov 22 j 11:57 16° **€** 18'12 32.84480 AU -10364 Feb 08 j 22:35 15°**米**04'29 direct -10371 May 12 j 14:51 4° **★** 32'38 7°46'52 -10364 May 14 j 08:46 16° **∺** 59'28 conjunction evening set -10371 May 12 j 14:33 4° **∺** 32'37 7°46'34 max. Earth dist. -10364 May 21 j 20:13 17° **X** 14'38 34.68669 AU minimum elong -10371 May 26 j 03:02 4° **₭** 58'14 morning rise -10364 May 25 j 08:53 17° \times 21'50 10°50'24 retrograde -10371 Aug 21 j 16:11 6° \(\frac{1}{36}\)'29 conjunction -10364 May 25 j 08:29 17° **\(\)**21'48 opposition -10371 Nov 07 j 15:11 5° \(\frac{1}{24}\)'03 8°27'42 minimum elong 10°50'13 -10364 Jun 05 i 06:03 17°¥43'59 min. Earth dist. -10371 Nov 10 j 23:49 5° ★ 19'10 34.32851 AU morning rise direct -10370 Jan 28 j 16:09 4°**)**€08'06 retrograde -10364 Sep 03 j 18:17 19° + 34'54 evening set -10370 May 01 i 06:52 5°**¥**51'36 opposition -10364 Nov 20 j 09:26 18° *\frac{1}{19}'23 11°43'07 max. Earth dist. -10370 May 11 j 00:01 6°**升**10′08 36.18134 AU min. Earth dist. -10364 Nov 23 j 16:36 18° ¥ 14'21 32.60603 AU direct -10363 Feb 10 j 01:47 17° **₭** 00'10 -10370 May 14 j 15:17 6°**升**17'07 8°13'29 -10363 May 17 j 01:51 18° ¥ 57'22 conjunction evening set -10363 May 24 j 01:51 19°\mathbf{11'43} 34.44715 AU minimum elong -10370 May 14 i 14:58 6°**¥**17'06 8°13'11 max. Earth dist. morning rise -10370 May 27 j 20:22 6°**)** 42′23 8°**)** 22′14 retrograde -10370 Aug 23 j 20:20 conjunction -10363 May 27 j 14:00 19°**米** 18'57 11°15'36 -10370 Nov 09 j 15:15 opposition 7°**¥**09'25 8°56'02 minimum elong -10363 May 27 j 13:34 19° **X** 18'54 11°15'26 min. Earth dist. -10370 Nov 12 j 23:18 7°**₭**04'32 34.07832 AU morning rise -10363 Jun 06 j 23:38 19° **∺**40'20 -10369 Jan 30 j 15:27 5°**)** 53'01 -10363 Sep 06 j 02:37 21° **∺** 33'26 direct retrograde -10369 May 03 j 15:52 -10363 Nov 22 j 15:18 20° **X** 17'26 12°09'55 evening set 7°**)** 38'17 opposition -10369 May 13 j 01:10 -10363 Nov 25 j 20:49 20° **€** 12'30 32.37188 AU max. Earth dist. 7°**¥**56'21 35.92891 AU min. Earth dist. direct -10362 Feb 12 j 05:32 18° ¥ 57'46 conjunction -10369 May 16 j 16:34 8°**H**03'25 8°40'02 evening set -10362 May 19 j 20:27 20°**米**57'17 minimum elong -10369 May 16 j 16:14 8°**H**03'24 8°39'46 max. Earth dist. -10362 May 26 j 09:23 21° **₭** 10'50 34.21232 AU morning rise -10369 May 29 j 13:47 8°****28'20 -10369 Aug 25 j 22:14 10°**米**09'50 -10362 May 29 j 20:08 21° **∺** 18'01 11°40'21 retrograde conjunction

-10362 May 29 j 19:43 21° **∺** 17'59 11°40'12

minimum elong

-10369 Nov 11 j 16:23 8° **€** 56'36 9°24'18

opposition

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10362 in astronomical counting style is the year 10363 BCE in historical counting style. -10362 Jun 08 j 17:16 21° + 38'33 direct -10355 Feb 26 i 11:34 3°**Y**41′10 morning rise -10362 Sep 08 j 10:43 23° ¥ 33'56 -10355 Jun 08 j 15:18 6°Y00'54 retrograde evening set -10362 Nov 24 j 22:02 22°\(\mathbf{H}\) 17'30 12°36'13 max. Earth dist. -10355 Jun 10 j 12:11 6°**Υ**05'04 32.71052 AU opposition -10362 Nov 28 j 03:21 22° **€** 12'32 32.14276 AU min. Earth dist. 6°Υ11'49 14°15'56 -10361 Feb 14 j 11:22 20° **★** 57'24 -10355 Jun 13 j 12:43 direct conjunction -10361 May 22 j 16:51 22° **∺** 59'22 -10355 Jun 13 j 12:16 6°**Y**11'46 14°15'56 evening set minimum elong -10355 Jun 18 j 08:51 max. Earth dist. -10361 May 28 j 17:44 23°**米** 12'01 33.98281 AU 6°**Y**22'37 morning rise 8°**Y**38'02 -10355 Sep 23 j 17:28 retrograde -10361 Jun 01 j 02:56 23° ¥ 19'08 12°04'36 7°**Υ**18'46 conjunction opposition -10355 Dec 09 j 23:55 15°21'04 -10361 Jun 01 j 02:30 23°**米** 19'06 minimum elong 12°04'28 min. Earth dist. -10355 Dec 12 j 20:44 7°**Υ**14'11 30.68028 AU -10361 Jun 10 j 10:47 23°**)** 38'44 morning rise direct -10354 Feb 28 j 22:32 5°**Y**56′00 -10361 Sep 10 j 21:06 25° ₩ 36'30 -10354 Jun 12 j 07:51 8°Y19'38 retrograde evening set -10361 Nov 27 j 05:39 24° **€** 19'40 13°01'58 -10354 Jun 13 j 01:47 8°**Υ**21'19 32.51647 AU opposition max. Earth dist. min. Earth dist. -10361 Nov 30 j 08:50 24°**米**14'48 31.91893 AU direct -10360 Feb 16 j 18:57 22° ₩ 59'09 conjunction -10354 Jun 16 j 00:59 8°Y28'00 14°34'49 evening set -10360 May 24 j 14:48 25°**₭**03'42 minimum elong -10354 Jun 16 j 00:34 8°**Y**27'58 14°34'50 max. Earth dist. -10360 May 30 j 02:08 25°**米** 15'17 33.75842 AU morning rise -10354 Jun 19 j 17:07 8°Y36'17 retrograde -10354 Sep 26 j 09:07 10°**Υ**55'37 conjunction -10360 Jun 02 j 10:33 25° ★ 22'24 12°28'16 opposition -10354 Dec 12 j 13:56 9° Υ 35'57 15°40'58 minimum elong -10360 Jun 02 j 10:07 25° **★**22'22 12°28'10 min. Earth dist. -10354 Dec 15 j 08:19 9°**Υ**31'30 30.49217 AU morning rise -10360 Jun 11 j 04:11 25° ¥ 40'56 direct -10353 Mar 03 j 10:32 8°**Y**12'47 retrograde -10360 Sep 12 i 06:29 27°\day{41'15 evening set -10353 Jun 16 j 13:36 10°**γ**'41'32 opposition -10360 Nov 28 i 14:21 26° ★24'01 13°27'06 max. Earth dist. -10353 Jun 15 j 16:57 10°**Υ**39'35 32.32866 AU min. Earth dist. -10360 Dec 01 j 17:28 26° \(\) 19'08 31.70032 AU direct -10359 Feb 18 i 00:53 25° \(\)03'08 conjunction -10353 Jun 18 i 14:05 10°**Y**46'08 14°52'38 -10359 May 27 j 14:49 27° **H** 10'22 $-10353 \text{ Jun } 18 \text{ i } 13:39 \ 10^{\circ}\text{Υ46'05}$ 14°52'41 evening set minimum elong -10359 Jun 01 j 12:53 27° **€** 20'53 33.53922 AU -10353 Jun 20 j 13:41 10° Υ 50'38 max Farth dist morning rise -10353 Sep 29 j 00:28 13° Υ 15'07 retrograde -10359 Jun 04 j 19:00 27° + 27'53 12°51'19 -10353 Dec 15 j 05:09 11°**Υ**'55'01 15°59'40 conjunction opposition -10359 Jun 04 j 18:33 27° **★**27'51 12°51'14 -10353 Dec 17 j 22:37 11°**Υ**'50'36 30.31064 AU min. Earth dist. minimum elong -10359 Jun 12 j 21:11 27° **€** 45'15 -10352 Mar 05 j 00:34 10°**Y**31'29 morning rise direct -10352 Jun 17 j 09:08 12°**Υ**'59'46 32.14816 AU -10359 Sep 14 j 16:14 29° **∺**48'13 max. Earth dist. retrograde -10359 Nov 30 j 23:56 28° **X** 30'36 13°51'33 opposition -10359 Dec 04 j 01:05 28° **€**25'49 31.48670 AU -10352 Jun 20 j 03:37 13°**Y**′06′06 15°09′16 min. Earth dist. conjunction -10358 Feb 20 j 09:38 27°**₭**09'20 -10352 Jun 20 j 03:14 13°**Υ**06'04 direct minimum elong 15°09'20 -10358 May 30 j 16:43 29° **∺** 19'24 -10352 Sep 30 j 17:43 15°**Υ**36'26 evening set retrograde -10358 Jun 03 j 22:16 29° **∺** 28'34 33.32485 AU $-10352 \text{ Dec } 16 \text{ j } 21:09 \quad 14^{\circ} \Upsilon 15'54 \quad 16^{\circ} 17'04$ max. Earth dist. opposition min. Earth dist. -10352 Dec 19 j 11:19 14° **Y** 11'41 30.13667 AU conjunction -10358 Jun 07 j 04:08 29° ★35'36 13°13'40 direct -10351 Mar 07 j 16:39 12°**Υ**52'01 minimum elong -10358 Jun 07 j 03:42 29° ★35'34 13°13'36 max. Earth dist. -10351 Jun 20 j 01:31 15°**Υ**21'41 31.97573 AU morning rise -10358 Jun 14 j 13:51 29° **∺**51'38 -10358 Jun 18 j 11:09 0°**Υ** -10351 Jun 22 j 17:55 15°**Y**27'53 15°24'38 conjunction -10358 Sep 17 j 04:11 1°**Υ**57'26 -10351 Jun 22 j 17:31 15°**Υ**27'51 retrograde minimum elong -10358 Dec 03 j 10:27 0° Υ 39'25 14°15'15 -10351 Oct 03 j 10:03 17°**Υ**59'30 opposition retrograde min. Earth dist. -10358 Dec 06 j 11:03 0°**Υ**'34'38 31.27789 AU -10351 Dec 19 j 14:01 16° **Y** 38'35 16° 33'03 opposition -10358 Dec 29 i 12:03 30°R ★ -10351 Dec 22 j 02:46 16° Υ 34'27 29.97124 AU min. Earth dist. -10357 Feb 22 j 16:16 29°\ 17'46 $-10350 \text{ Mar } 10 \text{ j } 06:38 \text{ } 15^{\circ}\text{Y} 14'22$ direct direct -10350 Jun 22 j 20:03 17°**Y**'45'32 31.81247 AU -10357 Apr 16 i 17:54 0°**℃** max. Earth dist. evening set -10357 Jun 02 j 21:12 1°Y30'51 max. Earth dist. -10357 Jun 06 j 10:49 1°**Υ**38'38 33.11517 AU $-10350 \text{ Jun } 25 \text{ i } 08:47 \text{ } 17^{\circ}\text{Y}^{\circ}51'25 \text{ } 15^{\circ}38'37$ conjunction minimum elong $-10350 \text{ Jun } 25 \text{ i } 08:26 17^{\circ} \text{ Y} 51'23$ 15°38'44 -10357 Jun 09 i 14:16 1°Y45'32 13°35'16 retrograde -10350 Oct 06 j 03:48 20°\bar{2}24'18 conjunction -10357 Jun 09 j 13:49 1°Y45'29 13°35'14 -10350 Dec 22 j 07:37 19°**Υ**'03'01 16°47'32 minimum elong opposition -10357 Jun 16 j 05:41 2°Y00'04 -10350 Dec 24 j 16:50 18°**Υ**'59'06 29.81489 AU morning rise min. Earth dist. -10349 Mar 13 j 00:10 17° **Y** 38'31 4°Υ08'51 retrograde -10357 Sep 19 j 15:06 direct -10349 Jun 25 j 13:27 20° Υ 10'57 31.65877 AU 2°**Υ**'50'25 14°38'07 opposition -10357 Dec 05 j 21:56 max. Earth dist. min. Earth dist. -10357 Dec 08 j 21:10 2°**Υ**45'43 31.07363 AU -10356 Feb 25 j 02:01 1°Y28'25 -10349 Jun 28 j 00:18 20°**Y**16'42 15°51'10 direct conjunction -10356 Jun 05 j 04:28 3°Y44'40 -10349 Jun 27 j 23:57 20°**Υ**16'40 evening set minimum elong 15°51'19 -10349 Oct $08 \text{ j } 23:01 \ 22^{\circ} \Upsilon 50'48$ -10356 Jun 07 j 22:11 3°**Υ**'50'43 32.91032 AU max. Earth dist. retrograde -10349 Dec 25 j 02:02 21°**Υ**29'11 17°00'25 opposition 3°**Υ**57'37 13°56'03 conjunction -10356 Jun 11 j 01:07 min. Earth dist. $-10349 \,\mathrm{Dec}\ 27\,\mathrm{j}\ 09:04\ 21^{\circ}\Upsilon 25'25\ 29.66824\,\mathrm{AU}$ minimum elong -10356 Jun 11 j 00:41 3°**Y**57'35 13°56'01 direct -10348 Mar 14 j 15:52 20°**Y**04'27 morning rise -10356 Jun 16 j 20:25 4°**Υ**10′27 max. Earth dist. -10348 Jun 27 j 09:51 22°**Υ**38'20 31.51510 AU retrograde -10356 Sep 21 j 04:45 6°**Y**22'24 -10356 Dec 07 j 10:25 5°Υ03'34 15°00'06 -10348 Jun 29 j 16:33 22°**Υ**43'44 16°02'11 opposition conjunction

-10348 Jun 29 j 16:15 22°**Υ**43'42 16°02'21

minimum elong

min. Earth dist.

-10356 Dec 10 j 08:10 4°**Υ**'58'56 30.87437 AU

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10348 in astronomical counting style is the year 10349 BCE in historical counting style. -10348 Oct 10 j 16:17 25° Υ 19'00 retrograde -10340 Sep 07 i 00:26 15°8 -10348 Dec 26 j 21:22 23° Υ 57'06 17°11'38 -10340 Oct 31 j 14:14 15°851'46 opposition retrograde min. Earth dist. -10348 Dec 29 j 01:10 23° Υ 53'32 29.53126 AU -10340 Dec 28 j 18:29 15°R8 -10347 Mar 17 j 09:57 22°**Y**32'10 -10339 Jan 17 j 06:06 14°**8**28'08 17°34'20 opposition direct -10347 Jun 30 j 04:29 25°**Υ**'07'13 31.38141 AU min. Earth dist. -10339 Jan 18 j 09:56 14°**8**26'11 28.77342 AU max. Earth dist. -10339 Apr 07 j 01:56 13°**8**02'22 direct -10347 Jul 02 j 09:07 25°**Y**12'26 16°11'36 -10339 Jul 03 j 04:28 15°**8** conjunction -10347 Jul 02 j 08:50 25°**Y**12'24 minimum elong 16°11'48 -10347 Oct 13 j 12:14 27°**Y**48'50 -10339 Jul 22 j 14:36 15°**8**47'01 16°23'54 retrograde conjunction -10339 Jul 22 j 14:38 15°**8**47'01 16°24'18 opposition -10347 Dec 29 j 17:22 26° \bigcap 26'40 17° 21'06 minimum elong -10339 Jul 21 j 13:22 15°**8**44'26 30.65999 AU min. Earth dist. -10347 Dec 31 j 18:21 26° **Y** 23'17 29.40401 AU max. Earth dist. -10346 Mar 20 j 02:41 25°**Y**01'33 -10339 Nov 03 j 12:11 18°**8**29'07 direct retrograde -10346 Jul 03 j 02:04 27°**Υ**'37'56 31.25743 AU -10338 Jan 20 j 05:54 17°**8**05'20 17°28'07 max. Earth dist. opposition min. Earth dist. -10338 Jan 21 j 05:11 17°**8**03'43 28.72369 AU conjunction -10346 Jul 05 j 02:34 27°**Y**42'46 16°19'22 direct -10338 Apr 10 j 01:49 15°**8**39'35 minimum elong -10346 Jul 05 j 02:20 27°**Y**42'44 16°19'35 max. Earth dist. -10338 Jul 24 j 11:56 18°**8**21'59 30.61729 AU -10346 Sep 12 j 11:55 0°8 retrograde -10346 Oct 16 j 07:13 0°**8**20'12 conjunction -10338 Jul 25 j 10:05 18°**8**24'15 16°16'59 -10346 Nov 20 j 05:53 30°RΥ minimum elong -10338 Jul 25 j 10:09 18°**8**24'15 opposition -10345 Jan 01 j 14:02 28°**Y**57'48 17°28'46 retrograde -10338 Nov 06 j 11:15 21°**8**06'36 min. Earth dist. -10345 Jan 03 j 12:35 28°**Υ**54'34 29.28600 AU opposition -10337 Jan 23 j 05:44 19°**8**42'43 17°19'47 direct -10345 Mar 22 i 20:52 27°**Y**32'33 min. Earth dist. -10337 Jan 24 j 01:39 19°841'19 28.68583 AU -10345 Jul 01 i 18:52 0°8 direct -10337 Apr 13 j 00:13 18°**8**17'00 max. Earth dist. -10345 Jul 05 j 22:03 0°**8**09'56 31.14300 AU conjunction -10337 Jul 28 i 05:40 21°801'36 16°08'06 -10345 Jul 07 j 20:22 0°814'35 16°25'27 minimum elong -10337 Jul 28 j 05:48 21°**8**01'37 16°08'32 conjunction -10345 Jul 07 j 20:09 0°**ප**14'33 max. Earth dist. -10337 Jul 27 j 12:30 20°**8**59'50 30.58705 AU minimum elong 16°25'42 -10345 Oct 19 j 04:15 2°**8**52'59 retrograde -10337 Nov 09 j 07:57 23°**8**44'06 retrograde -10344 Jan 04 j 11:25 1°**8**30'21 17°34'35 -10336 Jan 26 j 05:50 22°\begin{align*} 220'10 17°09'21 \end{align*} opposition opposition min. Earth dist. -10344 Jan 06 j 06:30 1°**8**27'22 29.17722 AU min. Earth dist. -10336 Jan 26 j 21:26 22°819'04 28.66010 AU -10344 Mar 24 j 15:53 0°**8**04'58 -10336 Apr 15 j 00:11 20°**8**54'33 direct direct -10336 Jul 29 j 10:56 23°**8**37'31 30.56944 AU -10344 Jul 07 j 20:13 2°**8**43'27 31.03789 AU max. Earth dist. max. Earth dist. -10344 Jul 09 j 14:43 2°**8**47'44 16°29'47 -10336 Jul 30 j 00:58 23°**8**38'57 15°57'17 conjunction conjunction -10344 Jul 09 j 14:33 2°**8**47'43 16°30'02 -10336 Jul 30 j 01:07 23°**8**38'58 15°57'43 minimum elong minimum elong -10344 Oct 20 j 23:38 5°**8**27'02 -10336 Nov 11 j 06:34 26°**8**21'31 retrograde retrograde -10343 Jan 06 j 09:38 4°804'10 17°38'31 -10335 Jan 28 j 05:57 24°**8**57'34 16°56'49 opposition opposition min. Earth dist. -10343 Jan 08 j 02:30 4°801'20 29.07742 AU min. Earth dist. -10335 Jan 28 j 17:29 24°**8**56'46 28.64681 AU direct -10343 Mar 27 j 11:47 2°838'41 direct -10335 Apr 17 j 22:02 23°\begin{align*} 23°\begi max. Earth dist. -10343 Jul 10 j 17:35 5°**8**18'01 30.94230 AU conjunction -10335 Aug 01 j 20:26 26°**8**16'13 15°44'34 -10343 Jul 12 j 09:26 5°**8**22'04 16°32'20 minimum elong -10335 Aug 01 j 20:38 26°816'15 15°45'01 conjunction -10343 Jul 12 j 09:18 5°**8**22'03 16°32'38 max. Earth dist. -10335 Aug 01 j 11:33 26°**8**15'19 30.56439 AU minimum elong -10343 Oct 23 j 21:49 8°**8**02'07 -10335 Nov 14 j 03:36 28°858'44 retrograde retrograde -10342 Jan 09 j 08:03 6°**8**39'03 17°40'30 -10334 Jan 31 j 05:54 27° \(\mathre{\matri{\mathre{\mathre{\e opposition opposition -10342 Jan 10 j 20:54 6° \(\begin{aligned}
 6° \(\begin{aligned}
 6° \(\begin{aligned}
 36'29 28.98687 \) AU -10334 Jan 31 j 13:52 27° \(\begin{aligned} \ min. Earth dist. min. Earth dist. -10342 Mar 30 j 08:18 5°**8**13'28 -10334 Apr 20 j 21:35 26°**8**09'32 direct direct -10342 Jul 13 j 16:05 7°**8**53'38 30.85620 AU max. Earth dist. -10334 Aug 04 i 15:34 28°\(\delta 53'16 \) 15°29'59 conjunction conjunction -10342 Jul 15 i 04:32 7°857'21 16°33'04 minimum elong -10334 Aug 04 i 15:47 28°853'17 15°30'26 -10342 Jul 15 j 04:27 7°**8**57'20 16°33'22 max. Earth dist. -10334 Aug 04 j 09:34 28°852'39 30.57150 AU minimum elong retrograde -10342 Oct 26 j 18:25 10°\begin{array}{c} 1038'05 \end{array} -10334 Sep 01 j 14:42 0°**Ⅱ** -10341 Jan 12 j 07:06 9°**8**14'49 17°40'29 retrograde -10334 Nov 17 j 01:43 1°**Д**35'39 opposition -10333 Feb 03 j 05:44 0°**I**I1'48 16°25'41 min. Earth dist. -10341 Jan 13 j 17:52 9°**8**12'23 28.90565 AU opposition direct -10341 Apr 02 j 05:04 7°**8**49'09 min. Earth dist. -10333 Feb 03 j 09:16 0°**Д**11'33 28.65591 AU -10333 Feb 10 j 08:02 30°**₹**8 conjunction direct -10333 Apr 23 j 19:46 28°**8**46'43 -10333 Jun 29 j 12:51 0°**Ⅱ** minimum elong -10341 Jul 16 j 14:49 10°**8**30'02 30.78011 AU max. Earth dist. -10341 Oct 29 j 16:43 13°**8**14'41 -10333 Aug 07 j 10:36 1°**II**29'57 15°13'36 retrograde conjunction -10340 Jan 15 j 06:21 11°**8**51'14 17°38'27 -10333 Aug 07 j 10:52 opposition minimum elong 1°**II**29'58 15°14'06 min. Earth dist. -10340 Jan 16 j 12:49 11°**8**49'06 28.83426 AU max. Earth dist. -10333 Aug 07 j 09:23 1°**Ⅲ**29'49 30.59015 AU direct -10340 Apr 04 j 04:37 10°**8**25'30 retrograde -10333 Nov 19 j 20:42 4°**Ⅱ**12'04 opposition -10332 Feb 06 j 05:36 2°**I**48'19 16°07'13 -10340 Jul 19 j 19:11 13°**8**10'01 16°28'53 conjunction min. Earth dist. -10332 Feb 06 j 06:10 2°**Ⅱ**48'16 28.67730 AU minimum elong -10340 Jul 19 j 19:11 13°**8**10'01 16°29'14 -10332 Apr 25 j 18:27 1°**Ⅲ**23'28 direct

-10332 Aug 07 j 18:46

evening set

4°**Ⅱ**02'33

max. Earth dist.

-10340 Jul 18 j 13:32 13°**8**06'59 30.71441 AU

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10332 in astronomical counting style is the year 10333 BCE in historical counting style. -10332 Aug 09 i 05:22 4°**I**I06'05 14°55'29 direct -10325 May 15 j 01:00 19° **II** 12'10 conjunction minimum elong -10332 Aug 09 i 05:39 4°**I**106'07 14°55'59 evening set -10325 Aug 18 j 04:37 21°**Д**26'33 max. Earth dist. -10332 Aug 09 j 07:01 4°**Д**06'15 30.61995 AU -10332 Aug 10 j 16:34 4°**Ⅱ**09'40 -10325 Aug 27 j 04:41 21°**II**47'49 12°06'46 conjunction morning rise -10332 Nov 21 j 18:43 -10325 Aug 27 j 05:05 21°**Д**47'51 12°07'20 6°**Ⅱ**47'51 retrograde minimum elong -10325 Aug 28 j 06:56 21° $\rm I\!I$ 50'24 31.11524 AU -10331 Feb 08 j 05:03 5°**Ⅱ**24'11 opposition 15°46'55 max. Earth dist. 5°**Ⅲ**24′28 28.70940 AU -10331 Feb 08 j 01:01 -10325 Sep 05 j 05:47 22°**Ⅲ**09'11 min. Earth dist. morning rise -10325 Dec 10 j 00:46 24° **II** 24'26 direct -10331 Apr 28 j 16:22 3°**Ⅲ**59'35 retrograde -10324 Feb 26 j 07:38 23°**Д**03'36 29.21590 AU evening set -10331 Aug 08 j 11:51 6°**Ⅲ**32'56 min. Earth dist. opposition -10324 Feb 27 j 12:03 23°**Ⅱ**01'41 12°40'44 conjunction -10331 Aug 11 j 23:55 6°**Ⅱ**41'28 14°35'43 direct -10324 May 16 j 19:30 21°**Ⅲ**38'57 -10331 Aug 12 j 00:14 6°**Ⅱ**41'30 -10324 Aug 19 j 04:03 23°**∏**50'46 minimum elong 14°36'14 evening set -10331 Aug 12 j 05:45 max. Earth dist. 6°**П**42'04 30.66025 AU morning rise -10331 Aug 15 j 12:36 6°**Ⅱ**50'05 conjunction -10324 Aug 28 j 19:31 24°**I**I3'23 11°37'38 retrograde -10331 Nov 24 j 13:09 9°**Ⅲ**22'47 minimum elong -10324 Aug 28 j 19:54 24°**I**I3'25 11°38'12 opposition -10330 Feb 11 j 04:19 7°**I**59'14 15°24'52 max. Earth dist. -10324 Aug 30 j 02:22 24°**П**16'24 31.22819 AU min. Earth dist. -10330 Feb 10 j 21:52 7°**Д**59'40 28.75161 AU morning rise -10324 Sep 07 j 11:51 24°**Д**36'05 6°**Ⅲ**34'52 retrograde direct -10330 May 01 j 13:53 -10324 Dec 11 j 16:09 26°**Ц**48'59 evening set -10330 Aug 09 j 23:02 9°**Ⅱ**04'16 min. Earth dist. -10323 Feb 27 j 23:21 25°**Д**28'36 29.33053 AU opposition -10323 Mar 01 j 07:02 25° **II** 26'28 12°08'55 conjunction -10330 Aug 14 j 18:05 9°**Ⅱ**15'55 14°14'22 direct -10323 May 19 j 16:05 24°**II**04'07 -10323 Aug 21 j 03:59 26°**Д**13'27 minimum elong -10330 Aug 14 j 18:24 9°**Ⅱ**15'57 14°14'53 evening set max. Earth dist. -10330 Aug 15 j 03:00 9°**II**16'50 30.71080 AU morning rise -10330 Aug 19 j 13:45 9°**Ⅲ**27'38 conjunction -10323 Aug 31 i 09:28 26°**I**I37'16 11°07'32 retrograde -10330 Nov 27 j 08:29 11°**Д**56'40 minimum elong -10323 Aug 31 j 09:52 26° **I** 37'18 11°08'07 -10329 Feb 14 i 02:52 10° **II** 33'13 15°01'10 max. Earth dist. -10323 Sep 01 j 18:44 26°**Д**40'30 31.35198 AU opposition min. Earth dist. -10329 Feb 13 j 15:55 10°**Д**33'58 28.80367 AU morning rise -10323 Sep 10 j 16:11 27°**Д**01'12 -10329 May 04 j 12:46 9°**Д**09'05 retrograde -10323 Dec 14 j 08:38 29° II 11'51 direct -10329 Aug 11 j 15:34 11°**Д**35'07 -10322 Mar 02 j 13:24 27°**Д**52'00 29.45586 AU evening set min. Earth dist. -10322 Mar 04 j 01:14 27°**Д**49'36 11°36'07 opposition -10329 Aug 17 j 11:49 11°**II**49'14 13°51'32 -10322 May 22 j 09:49 26°**Д**27'38 conjunction direct -10329 Aug 17 j 12:11 11°**II**49'16 13°52'04 -10322 Aug 23 j 04:09 28°**Д**34'36 minimum elong evening set -10329 Aug 18 j 00:17 11°**Д**50'30 30.77120 AU max. Earth dist. -10329 Aug 23 j 08:47 12°**Д**03'26 -10322 Sep 02 j 22:56 28°**Д**59'31 10°36'33 morning rise conjunction -10329 Nov 30 j 02:49 14°**Д**29'19 -10322 Sep 02 j 23:19 28°**Д**59'33 10°37'07 retrograde minimum elong -10322 Sep 04 j 12:26 29°П03'08 31.48600 AU -10328 Feb 16 j 11:48 13°**Д**06'54 28.86557 AU max. Earth dist. min. Earth dist. -10328 Feb 17 j 01:17 13°**Д**05'58 14°35'53 -10322 Sep 13 j 18:48 29°**Ⅲ**24'32 opposition morning rise direct -10328 May 06 j 08:45 11°**Ц**42'06 -10322 Sep 29 j 18:02 0°5 evening set -10328 Aug 12 j 10:51 14°**Д**04'59 retrograde -10322 Dec 16 j 21:09 1°533'03 min. Earth dist. -10321 Mar 05 j 04:35 0°\$13'39 29.59113 AU conjunction -10328 Aug 19 j 04:57 14°**II**21'13 13°27'16 opposition -10321 Mar 06 j 18:44 0°511'06 11°02'26 -10328 Aug 19 j 05:18 14°**Д**21'15 13°27'49 -10321 Mar 13 j 17:36 30°R **Ⅱ** minimum elong max. Earth dist. -10328 Aug 19 j 21:04 14°**П**22'50 30.84169 AU -10321 May 25 j 03:36 28°**Ⅲ**49'33 direct -10328 Aug 25 j 23:42 14°**Д**37'32 -10321 Jul 30 j 19:36 morning rise retrograde -10328 Dec 01 j 21:06 17°**Ⅲ**00'31 -10321 Aug 25 j 04:49 0°954'14 evening set -10327 Feb 18 j 22:57 15° **I**I37'18 14°09'07 opposition -10327 Feb 18 j 05:05 15° ДЗ8'32 28.93736 AU -10321 Sep 05 i 11:40 1°\$20'07 10°04'47 min. Earth dist. conjunction -10321 Sep 05 i 12:03 direct -10327 May 09 i 07:23 14° **I**I 13'41 minimum elong 1°9520'09 10°05'23 -10321 Sep 07 i 03:28 evening set -10327 Aug 14 j 07:47 16° **I**I33'36 max. Earth dist. 1°523'56 31.62968 AU morning rise -10321 Sep 16 i 19:51 1°9546'07 -10327 Aug 21 i 21:31 16° II 51'42 13° 01'40 conjunction retrograde -10321 Dec 19 i 11:17 3°952'33 minimum elong -10327 Aug 21 j 21:54 16° II 51'44 13°02'14 min. Earth dist. -10320 Mar 06 j 17:17 2°533'44 29.73578 AU max. Earth dist. -10327 Aug 22 j 16:41 16°**Д**53'37 30.92223 AU opposition -10320 Mar 08 j 11:31 2°930'56 10°27'59 -10327 Aug 29 j 12:06 17°**Д**09'54 morning rise direct -10320 May 26 j 20:11 1°9509'49 -10327 Dec 04 j 15:11 19°**Ⅲ**30'10 retrograde evening set -10320 Aug 26 j 05:31 3°512'18 -10326 Feb 21 j 19:56 18°Д07'05 13°40'56 opposition -10326 Feb 20 j 23:11 18°**Ц**08'30 29.01950 AU 3°539'03 9°32'22 min. Earth dist. conjunction -10320 Sep 06 j 23:45 -10326 May 12 j 03:32 16°**Ⅲ**43'44 minimum elong -10320 Sep 07 j 00:06 3°\$39'05 9°32'57 direct -10326 Aug 16 j 05:52 19°**Д**00'50 -10320 Sep 08 j 19:09 3°543'11 31.78207 AU evening set max. Earth dist. -10320 Sep 18 j 19:22 morning rise 4°905'56 -10326 Aug 24 j 13:33 19°**I**I20'36 12°34'48 conjunction retrograde -10320 Dec 20 j 23:22 6°9510'23 minimum elong -10326 Aug 24 j 13:56 19°**Ⅱ**20'38 12°35'22 min. Earth dist. -10319 Mar 09 j 07:43 4°551'59 29.88892 AU max. Earth dist. -10326 Aug 25 j 12:59 19°**Ⅲ**22'55 31.01336 AU opposition -10319 Mar 11 j 03:41 4°**9**549'05 9°52'53 morning rise -10326 Sep 01 j 21:58 19°**Ⅲ**40'27 direct -10319 May 29 j 11:14 3°9528'24 retrograde -10326 Dec 07 j 07:42 21°**I**58'09 evening set -10319 Aug 28 j 06:41 5°928'46 -10325 Feb 24 j 16:16 20° **I**I35'13 13°11'27 opposition

conjunction

-10319 Sep 09 j 11:19 5°556'17 8°59'23

min. Earth dist.

-10325 Feb 23 j 15:36 20°**Д**36'54 29.11217 AU

•	nical year style is used: The		•	* *			ige /
minimum elong	-10319 Sep 09 j 11:41	5° © 56'19		evening set		15:19 20°533'38	
=				evening set	-10312 Sep 09 j	13.19 20 33336	
max. Earth dist.	-10319 Sep 11 j 09:05		31.94249 AU	· · · · · · · · · · · ·	10212 8 22 :	22.42 21950404	500004
morning rise	-10319 Sep 21 j 17:26	6°523'56		conjunction		23:43 21° © 04'06	
retrograde	-10319 Dec 23 j 10:52	8°526'28	20.04071 ATT	minimum elong		23:55 21° © 04'07	
min. Earth dist.	-10318 Mar 11 j 19:10		30.04971 AU	max. Earth dist.	1 3	13:33 21° © 09'37	
opposition	-10318 Mar 13 j 18:41	7°505'30	9°17'15	morning rise	3	10:33 21° © 34'46	
direct	-10318 Jun 01 j 02:51	5°5045'13		retrograde	-	01:57 23° © 25'39	
evening set	-10318 Aug 30 j 07:57	7° © 43'34		min. Earth dist.		14:08 22° © 10'51	
	10210 0 11:22 00	00611145	0005156	opposition		06:06 22° © 06'48	
conjunction	-10318 Sep 11 j 22:09	8°5511'45		direct	,	16:29 20°549'16	
minimum elong	-10318 Sep 11 j 22:28	8°5511'46		evening set	-10311 Sep 11 j	16:24 22° © 35'22	
max. Earth dist.	-10318 Sep 13 j 22:19		32.10995 AU		10211 0 26:	05.21. 220505150	400 510 4
morning rise	-10318 Sep 24 j 14:06	8°540'05		conjunction		05:31 23° © 05'59	
retrograde	-10318 Dec 25 j 21:52		20.21555.444	minimum elong	1 3	05:42 23° © 06'00	
min. Earth dist.	-10317 Mar 14 j 08:00		30.21757 AU	max. Earth dist.		22:13 23°©11'42	
opposition	-10317 Mar 16 j 09:15	9° 5 20'06	8°41'11	morning rise	-	21:09 23° © 36'48	
direct	-10317 Jun 03 j 15:32	8° © 00'15		retrograde		06:51 25° © 26'19	
evening set	-10317 Sep 01 j 09:09	9° © 56'37		min. Earth dist.	3	21:28 24°©11'55	
		_		opposition	3	14:34 24° © 07'49	
conjunction	-10317 Sep 14 j 08:16		7°52'07	direct	,	01:14 22° © 50'41	
minimum elong	-10317 Sep 14 j 08:36		7°52'42	evening set	-10310 Sep 13 j	17:21 24° © 35'23	
max. Earth dist.	-10317 Sep 16 j 11:11		32.28411 AU				
morning rise	-10317 Sep 27 j 09:01			conjunction	1 3	10:37 25° © 06'04	
retrograde	-10317 Dec 28 j 07:57			minimum elong		10:46 25° © 06'05	
min. Earth dist.	-10316 Mar 15 j 18:50	11° 9 36'14	30.39185 AU	max. Earth dist.	-10310 Oct 01 j	05:11 25° © 11'55	33.68097 AU
opposition	-10316 Mar 17 j 22:54	11° © 32'51	8°04'48	morning rise	-10310 Oct 13 j	06:21 25° © 36'59	
direct	-10316 Jun 05 j 05:16	10° © 13'23		retrograde	-10309 Jan 11 j	10:35 27° © 25'12	
evening set	-10316 Sep 02 j 10:36	12° © 07'51		min. Earth dist.	-10309 Mar 31 j	02:14 26° © 11'19	31.79664 AU
				opposition	-10309 Apr 02 j	22:15 26° © 07'04	3°47'14
conjunction	-10316 Sep 15 j 17:40	12° 5 37'06	7°18'00	direct	-10309 Jun 21 j	09:38 24° © 50'22	
minimum elong	-10316 Sep 15 j 17:57	12° 5 37'08	7°18'35	evening set	-10309 Sep 15 j	18:13 26° © 33'43	
max. Earth dist.	-10316 Sep 17 j 22:10	12° © 41'57	32.46438 AU				
morning rise	-10316 Sep 29 j 02:47	13° © 06'32		conjunction	-10309 Sep 30 j	14:51 27° 5 04'26	3°16'57
retrograde	-10316 Dec 29 j 18:44	15° © 03'41		minimum elong	-10309 Sep 30 j	15:00 27° 5 04'27	3°17'30
min. Earth dist.	-10315 Mar 18 j 05:28	13° 5 47'08	30.57259 AU	max. Earth dist.	-10309 Oct 03 j	11:15 27° © 10'23	33.90591 AU
opposition	-10315 Mar 20 j 11:42	13° © 43'38	7°28'08	morning rise	-10309 Oct 15 j	14:20 27°535'23	
direct	-10315 Jun 07 j 17:32	12° © 24'33		retrograde	-10308 Jan 13 j	15:02 29° © 22'24	
evening set	-10315 Sep 04 j 11:49	14°9517'11		min. Earth dist.	-10308 Apr 01 j	08:03 28° © 08'57	32.02308 AU
				opposition	-10308 Apr 04 j	05:25 28° © 04'38	3°10'53
conjunction	-10315 Sep 18 j 02:25	14°9546'51	6°43'40	direct	-10308 Jun 22 j	15:03 26° © 48'23	
minimum elong	-10315 Sep 18 j 02:42	14°9546'53	6°44'15	evening set	-10308 Sep 16 j	19:02 28° © 30'27	
max. Earth dist.	-10315 Sep 20 j 10:09	14° © 51'57	32.65085 AU				
morning rise	-10315 Oct 01 j 18:52	15°9516'42		conjunction	-10308 Oct 01 j	18:47 29° 5 01'10	2°42'57
retrograde	-10314 Jan 01 j 03:52	17° © 12'11		minimum elong		18:53 29° 5 01'10	
min. Earth dist.	-10314 Mar 20 j 15:23		30.75955 AU	max. Earth dist.	-	17:29 29° © 07'15	
opposition	-10314 Mar 22 j 23:34	15° © 52'25	6°51'19	morning rise	-10308 Oct 16 j	21:08 29° © 32'06	
direct	-10314 Jun 10 j 07:15			C	-10308 Oct 31 j		
evening set	-10314 Sep 06 j 13:06			retrograde	-10307 Jan 14 j		
Č	1 7			min. Earth dist.	-10307 Apr 03 j	12:37 0° Ω 04'57	32.25419 AU
conjunction	-10314 Sep 20 j 10:11	16°954'36	6°09'11	opposition	-10307 Apr 06 j		2°34'50
minimum elong	-10314 Sep 20 j 10:25		6°09'46	Tr	-10307 Apr 06 j		
max. Earth dist.	-10314 Sep 22 j 19:10			direct		21:16 28° © 44'44	
morning rise	-10314 Oct 04 j 09:31				-10307 Sep 05 j		
retrograde	-10313 Jan 03 j 13:05			evening set	-10307 Sep 18 j		
min. Earth dist.	-10313 Mar 22 j 23:19		30 95322 AU			.,,	
opposition	-10313 Mar 25 j 10:33			conjunction	-10307 Oct 03 j	21:59 0° Ω 56'16	2°09'14
direct	-10313 Jun 12 j 17:48		0 1121	minimum elong	-10307 Oct 03 j		
evening set	-10313 Sep 08 j 14:13			max. Earth dist.	-10307 Oct 06 j		
	10010 бер бој 14.13	5004		morning rise	-10307 Oct 10 j		
conjunction	-10313 Sep 22 j 17:22	19∘ฐกกวก	5°34'38	retrograde	-10307 Oct 19 j		
minimum elong	-10313 Sep 22 j 17:36			min. Earth dist.	-10306 Apr 05 j		32.48928 AU
max. Earth dist.	-10313 Sep 22 j 17.30 -10313 Sep 25 j 05:45			opposition	-10306 Apr 08 j		
max. Larm uist.	10515 Sep 25 J 05.45		55.07210 AU	direct	-10306 Apr 08 j		
morning rise	-10313 Oct 06 i 22:41	19°5530'47					
morning rise	-10313 Oct 06 j 22:41						
retrograde	-10312 Jan 05 j 18:54	21°523'08	31 15380 AIT	evening set	-10306 Sep 20 j		
retrograde min. Earth dist.	-10312 Jan 05 j 18:54 -10312 Mar 24 j 08:09	21°S23'08 20°S07'49		evening set	-10306 Sep 20 j	20:41 2° Ω 19'16	
retrograde	-10312 Jan 05 j 18:54	21°S23'08 20°S07'49 20°S03'57				20:41 2°Ω19'16 00:40 2°Ω49'48	1°35'51

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10306 in astronomical counting style is the year 10307 BCE in historical counting style. -10306 Oct 09 j 02:24 $2^{\circ}\Omega$ 56'02 34.60726 AU -10299 Mar 31 j 08:31 15°RΩ max. Earth dist. min. Earth dist. -10306 Oct 21 j 07:26 $3^{\circ}\Omega$ 20'34 -10299 Apr 18 j 04:44 14° Ω 35'25 34.20193 AU morning rise -10305 Jan 19 j 02:17 $5^{\circ}\Omega$ 04'17 $-10299 \text{ Apr } 21 \text{ j } 12:21 \quad 14^{\circ} \Omega 30'42 \quad -1^{\circ} 58'00$ retrograde opposition -10305 Apr 07 j 20:55 3°Ω52'07 32.72729 AU direct -10299 Jul 10 j 00:05 13° Ω 17'54 min. Earth dist. -10305 Apr 10 j 22:00 $3^{\circ}\Omega47'39$ $1^{\circ}23'49$ -10299 Oct 02 j 22:44 14° **Ω**51'14 opposition evening set -10305 Jun 29 j 07:50 $2^{\circ}\Omega$ 32'40 -10299 Oct 07 j 14:44 15°**Ω** direct -10305 Sep 22 j 21:30 4°Ω11'21 evening set -10299 Oct 18 j 02:55 15° Ω 20'03 -2°06'17 conjunction -10305 Oct 08 j 02:46 $4^{\circ}\Omega$ 41'45 1° 02'48 -10299 Oct 18 j 02:50 15° Ω 20'03 2°05'49 conjunction minimum elong -10299 Oct 21 j 12:06 15° Ω 26'31 36.32744 AU minimum elong -10305 Oct 08 j 02:48 4° Ω41'45 1°03'19 max. Earth dist. max. Earth dist. -10305 Oct 11 j 04:33 4° Ω47'56 34.84706 AU morning rise -10299 Nov 02 j 10:07 $15^{\circ}\Omega$ 49'06 -10305 Oct 23 j 11:05 5° **Ω**12'22 -10298 Jan 31 j 02:22 17°**\O**26'53 morning rise retrograde -10304 Jan 21 j 06:17 6° **Ω**55'06 retrograde min. Earth dist. -10298 Apr 20 j 04:29 16° **Ω**17'16 34.45651 AU min. Earth dist. -10304 Apr 08 j 23:03 5°**Ω**43'23 32.96781 AU opposition -10298 Apr 23 j 12:23 16°Ω12'33 -2°29'44 opposition -10304 Apr 12 j 02:10 5°**Ω**38'49 0°48'56 direct -10298 Jul 12 j 00:03 15°**Ω**00'07 direct -10304 Jun 30 j 11:52 4°**Ω**24'13 evening set -10298 Oct 04 j 22:21 16°**Ω**32'46 evening set -10304 Sep 23 j 22:07 6°**Ω**01'53 conjunction -10298 Oct 20 j 00:47 17° Ω 01'13 -2°36'02 conjunction -10304 Oct 09 j 04:19 $6^{\circ}\Omega$ 32'06 0°30'10 minimum elong -10298 Oct 20 j 00:42 17° Ω 01'13 2°35'36 minimum elong -10304 Oct 09 j 04:20 $6^{\circ}\Omega$ 32'06 0°30'40 max. Earth dist. -10298 Oct 23 j 10:02 17° Ω 07'39 36.58262 AU max. Earth dist. -10304 Oct 12 j 07:55 $6^{\circ}\Omega$ 38'23 35.08879 AU morning rise -10298 Nov 04 j 06:27 $17^{\circ}\Omega$ 29'55 morning rise -10304 Oct 24 j 13:34 7°**Ω**02'33 retrograde -10297 Feb 02 i 01:42 19° Ω 07'04 retrograde -10303 Jan 22 i 05:56 $8^{\circ}\Omega$ 44'19 min. Earth dist. -10297 Apr 22 j 01:57 17° **Ω**57'53 34.71369 AU min. Earth dist. -10303 Apr 11 i 02:48 7°**Ω**32'55 33.21025 AU opposition -10297 Apr 25 j 11:49 17° Ω 53'05 -3°00'50 opposition -10303 Apr 14 j 05:44 7° Ω28'23 0°14'31 direct -10297 Jul 13 j 22:44 16° **Ω**41'01 direct -10303 Jul 02 j 16:46 $6^{\circ}\Omega$ 14'10 -10297 Oct 06 j 21:52 18°**Ω**13'02 evening set -10303 Sep 17 j 07:04 7°**Ω**34'31 desc. node -10303 Sep 25 j 22:37 7°**Ω**50'51 -10297 Oct 21 j 22:21 18° Ω 41'07 -3°05'14 evening set conjunction -10297 Oct 21 j 22:14 18° Ω 41'06 3°04'47 minimum elong -10303 Oct 11 j 05:20 $8^{\circ}\Omega$ 20'50 -0°02'08 -10297 Oct 25 j 09:21 18° Ω 47'38 36.83997 AU max. Earth dist. conjunction -10303 Oct 11 j 05:19 $8^{\circ}\Omega$ 20'50 $0^{\circ}01'38$ -10297 Nov 06 j 01:59 19° Ω 09'26 minimum elong morning rise -10303 Oct 10 j 22:56 8°**\O**20'20 -10296 Feb $03 \text{ j } 22:07 \ 20^{\circ} \Omega 46'00$ behind sun begin retrograde -10303 Oct 11 j 11:42 8°**\O2**1'20 -10296 Apr 23 j 01:11 19° Ω 37'07 34.97294 AU behind sun end min. Earth dist. -10303 Oct 14 j 09:22 8° Ω 27'07 35.33227 AU -10296 Apr 26 j 10:46 19° Ω 32'21 -3°31'21 max. Earth dist. opposition -10303 Oct 26 j 15:00 8° **Ω**51'04 -10296 Jul 14 j 23:47 18° **Ω**20'40 morning rise direct -10302 Jan 24 j 05:22 $10^{\circ}\Omega$ 31'56 -10296 Oct 07 j 21:15 19° Ω52'06 retrograde evening set -10302 Apr 13 j 03:32 9° **Ω**20'56 33.45454 AU min. Earth dist. opposition -10302 Apr 16 j 08:16 9° Ω 16'19 -0°19'25 conjunction -10296 Oct 22 j 19:28 20° Ω 19'47 -3°33'53 direct -10302 Jul 04 j 21:15 8°**Ω**02'28 minimum elong -10296 Oct 22 j 19:20 $20^{\circ}\Omega$ 19'47 $3^{\circ}33'28$ evening set -10302 Sep 27 j 22:58 9°**Ω**38'14 max. Earth dist. -10296 Oct 26 j 06:44 20° Ω 26'17 37.09903 AU morning rise -10296 Nov 06 j 20:42 20° **Q**47'43 -10302 Oct 13 j 05:32 10° Ω 07'58 -0°33'53 retrograde -10295 Feb 04 j 18:41 22°**\O**23'43 conjunction -10302 Oct 13 j 05:31 10° Ω 07'58 0°33'24 min. Earth dist. -10295 Apr 24 j 22:04 21° Ω15'15 35.23351 AU minimum elong -10302 Oct 16 j 10:43 10° Ω 14'17 35.57746 AU -10295 Apr 28 j 09:00 21° Ω 10'26 -4°01'14 max. Earth dist. opposition -10302 Oct 28 j 15:22 $10^{\circ}\Omega$ 37'57 -10295 Jul 16 j 23:47 19°**Ω**59'07 morning rise direct -10301 Jan 26 i 04:43 $12^{\circ}\Omega$ 17'58 -10295 Oct 09 j 20:43 $21^{\circ}\Omega$ 30'00 retrograde evening set -10301 Apr 15 j 05:19 11° Ω 07'17 33.70108 AU min. Earth dist. -10301 Apr 18 j 10:24 11° Ω 02'40 -0°52'50 $-10295 \text{ Oct } 24 \text{ i } 16:06 \ 21^{\circ}\Omega57'17 \ -4^{\circ}01'58$ opposition conjunction -10295 Oct 24 i 15:58 $21^{\circ}\Omega$ 57'17 $4^{\circ}01'33$ direct -10301 Jul 06 j 22:51 $9^{\circ}\Omega 49'09$ minimum elong evening set -10301 Sep 29 j 22:53 $11^{\circ}\Omega$ 24'03 max. Earth dist. -10295 Oct 28 j 03:53 22° Ω 03'46 37.35877 AU morning rise -10295 Nov 08 j 14:44 22° Ω 24'48 -10301 Oct 15 j 05:10 11° Ω 53'30 -1°05'11 retrograde -10294 Feb 06 j 14:22 24° Ω 00'18 conjunction -10301 Oct 15 j 05:08 11° Ω 53'30 1°04'42 min. Earth dist. -10294 Apr 26 j 20:05 $22^{\circ}\Omega$ 52'09 35.49472 AU minimum elong -10301 Oct 18 j 11:55 11° Ω 59'54 35.82492 AU -10294 Apr 30 j 06:45 $22^{\circ}\Omega47'22$ -4°30'29 max. Earth dist. opposition -10294 Jul 18 j 21:23 21° Ω 36'25 -10301 Oct 30 j 14:26 12° Ω23'12 morning rise direct retrograde -10300 Jan 28 j 02:58 14° Ω 02'25 evening set -10294 Oct 11 j 19:56 23° **Ω**06'47 -10300 Apr 16 j 05:21 12° Ω 52'06 33.95004 AU min. Earth dist. -10300 Apr 19 j 11:43 12° Ω 47'26 -1°25'42 -10294 Oct 26 j 12:28 23°**\Omega**33'38 -4°29'28 opposition conjunction -10300 Jul 08 j 01:27 11°**Ω**34'17 -10294 Oct 26 j 12:19 23° Ω33'38 4°29'06 direct minimum elong -10300 Sep 30 j 22:58 13°**Ω**08'22 -10294 Oct 30 j 01:10 23° Ω 40'09 37.61869 AU evening set max. Earth dist. morning rise -10294 Nov 10 j 07:52 24° Ω00'43 conjunction retrograde -10293 Feb 08 j 08:47 25° Ω 35'45 minimum elong -10300 Oct 16 j 04:11 13° Ω 37'30 1°35'32 min. Earth dist. -10293 Apr 28 j 17:00 24° Ω27'56 35.75565 AU max. Earth dist. -10300 Oct 19 j 11:18 13° **Ω**43'52 36.07481 AU opposition -10293 May 02 j 03:58 24°**\O**23'09 -4°59'08 morning rise -10300 Oct 31 j 12:51 14° € 006'53 direct -10293 Jul 20 j 19:36 23°**Ω**12'33 -10300 Dec 01 j 17:09 15°**Ω** -10293 Oct 13 j 19:06 24° **Ω** 42'27 evening set

retrograde

-10299 Jan 29 j 03:46 15°**Ω**45'22

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10293 in astronomical counting style is the year 10294 BCE in historical counting style. -10293 Oct 28 j 08:10 25° Ω 08'51 -4°56'25 max. Earth dist. -10287 Nov 09 j 12:10 4° m 21'11 39.40804 AU conjunction -10293 Oct 28 j 08:01 25° Ω 08'50 4°56'01 -10287 Nov 19 j 12:13 4° m 38'32 minimum elong morning rise 6° m 10'58 -10293 Oct 31 j 20:07 25° Ω 15'15 37.87789 AU -10286 Feb 18 j 14:51 max. Earth dist. retrograde -10293 Nov 12 j 00:23 25° Ω 35'28 -10286 May 09 j 07:31 min. Earth dist. 5° Mp 04'55 37.55358 AU morning rise -10292 Feb 10 j 06:30 27° Ω 10'04 -10286 May 12 j 18:27 5° Mp 00'17 -8°02'00 retrograde opposition -10292 Apr 29 j 13:25 26° Ω02'33 36.01580 AU -10286 Jul 31 j 13:22 min. Earth dist. direct 3° m 51'39 -10292 May 03 j 00:49 $25^{\circ}\Omega57'47$ -5°27'08 -10286 Oct 25 j 09:11 opposition evening set 5° m 19'01 -10292 Jul 21 j 14:03 24° Ω 47'30 direct -10292 Oct 14 j 18:13 $26^{\circ}\Omega$ 16'57 evening set conjunction -10286 Nov 07 j 15:13 5° Mp 41'56 -7°48'47 5° mp 41'55 7°48'30 minimum elong -10286 Nov 07 j 14:59 conjunction -10292 Oct 29 j 03:49 $26^{\circ}\Omega$ 42'53 -5°22'47 max. Earth dist. -10286 Nov 11 j 04:09 5° Mp 48'05 39.66141 AU -10292 Oct 29 j 03:38 26° Ω 42'53 5°22'25 minimum elong morning rise -10286 Nov 20 j 23:49 6° Mp 05'01 -10292 Nov 01 j 16:49 $26^{\circ}\Omega$ 49'19 38.13586 AU max. Earth dist. retrograde -10285 Feb 20 j 09:31 7° mp 37'13 morning rise -10292 Nov 12 j 16:15 27°**Ω**09'03 min. Earth dist. -10285 May 10 j 23:54 6° Mg 31'28 37.80888 AU retrograde -10291 Feb 11 j 01:09 28°**Ω**43'13 opposition -10285 May 14 j 11:47 6° To $26'48 - 8^{\circ}25'34$ min. Earth dist. -10291 May 01 j 10:36 $27^{\circ}\Omega$ 35'55 36.27450~AUdirect -10285 Aug 02 j 04:24 5° m 18'28 opposition -10291 May 04 j 20:59 $27^{\circ}\Omega$ 31'13 $-5^{\circ}54'32$ evening set -10285 Oct 27 j 06:59 6° m 45'37 direct -10291 Jul 23 j 10:36 26°**\O**21'14 evening set -10291 Oct 16 j 17:13 $27^{\circ}\Omega 50'16$ conjunction -10285 Nov 09 j 07:41 7° mp 08'00 -8°11'03 minimum elong -10285 Nov 09 j 07:27 7° mp 07'59 8°10'46 conjunction -10291 Oct 30 j 22:52 $28^{\circ}\Omega$ 15'43 -5°48'35 max. Earth dist. -10285 Nov 12 j 21:50 7° Mp 14'12 39.91472 AU minimum elong -10291 Oct 30 j 22:41 28° Ω 15'43 5°48'12 morning rise -10285 Nov 22 i 10:43 7° m 30'33 -10291 Nov 03 j 10:52 $28^{\circ}\Omega$ 22'02 38.39232 AU max. Earth dist. retrograde -10284 Feb 22 i 01:44 9° m 02'32 morning rise $-10291 \text{ Nov } 14 \text{ j } 07:23 \quad 28^{\circ} \Omega 41'24$ min. Earth dist. -10284 May 11 i 17:52 7° m 57'00 38.06393 AU -10290 Jan 09 i 13:39 0° m opposition -10284 May 15 j 04:45 7° m $52'25 - 8^{\circ}48'30$ -10290 Feb 12 j 21:10 0° m 15'09 -10284 Aug 02 j 21:40 6° m 44'23 retrograde direct -10290 Mar 19 j 17:59 30°RΩ evening set -10284 Oct 28 j 04:55 8° m 11'21 -10290 May 03 j 05:20 29° Ω 08'09 36.53178 AU min. Earth dist. -10290 May 06 j 16:41 29° Ω 03'26 -6°21'18 -10284 Nov 09 j 23:56 8° m 33'12 -8°32'44 opposition conjunction -10290 Jul 25 j 06:47 27° **Ω**53'44 minimum elong -10284 Nov 09 j 23:42 8°m/33'11 8°32'27 direct -10290 Oct 18 j 15:51 29° Ω 22'21 -10284 Nov 13 j 13:27 8° Mg 39'19 40.16765 AU evening set max. Earth dist. morning rise -10284 Nov 22 j 21:09 8° m 55'12 -10290 Nov 01 j 17:17 29° Ω 47'20 -6°13'48 -10283 Feb 22 j 17:56 10° m/27'01 conjunction retrograde -10290 Nov 01 j 17:05 29° Ω 47'19 6°13'28 min. Earth dist. -10283 May 13 j 09:21 9° m 21'49 38.31833 AU minimum elong -10283 May 16 j 21:03 9° **m** 17'12 -9°10'49 -10290 Nov 05 j 06:04 29° Ω 53'38 38.64725 AU max. Earth dist. opposition -10290 Nov 08 j 19:40 0° Mp -10283 Aug 04 j 15:13 8° Mp 09'27 direct -10290 Nov 15 j 21:35 0° m 12'30 -10283 Oct 30 j 02:45 morning rise evening set 9° m 36'18 retrograde -10289 Feb 14 j 14:46 1° m 45'52 min. Earth dist. -10289 May 05 j 01:37 0° m 39'04 36.78786 AU conjunction -10283 Nov 11 j 15:47 9° m 57'35 -8°53'50 opposition -10289 May 08 j 12:00 0° M 34'24 -6°47'26 minimum elong -10283 Nov 11 j 15:33 9° m 57'34 8°53'34 -10289 Jun 03 j 23:39 30°R**Ω** max. Earth dist. -10283 Nov 15 j 05:29 10° m 03'41 40.41948 AU direct -10289 Jul 27 j 03:45 29°**\2**24'58 morning rise -10283 Nov 24 j 07:07 10° m 19'02 -10289 Sep 16 j 08:42 0° Mp retrograde -10282 Feb 24 j 09:01 11° m 50'43 -10289 Oct 20 j 14:22 0° m 53'13 min. Earth dist. -10282 May 15 j 02:34 10° m 45'44 38.57150 AU evening set -10282 May 18 j 13:14 10° mp 41'12 -9°32'31 opposition -10289 Nov 03 j 11:27 1° m 17'42 -6°38'26 -10282 Aug 06 i 08:15 9° m 33'45 conjunction direct -10289 Nov 03 j 11:15 1° m 17'41 6°38'05 minimum elong evening set -10282 Nov 01 i 00:18 11° m 00'28 max. Earth dist. -10289 Nov 07 i 00:12 1° m 23'58 38.90129 AU -10282 Nov 13 i 07:19 11° m 21'13 -9°14'22 morning rise -10289 Nov 17 i 11:07 1° m 42'22 conjunction retrograde -10288 Feb 16 i 06:47 3° mb 15'23 minimum elong -10282 Nov 13 i 07:05 11° m 21'11 9°14'07 min. Earth dist. -10288 May 05 j 19:24 2° mp 08'51 37.04325 AU max. Earth dist. -10282 Nov 16 j 21:08 11° m 27'17 40.66977 AU -10288 May 09 j 06:35 2° m 04'10 -7°12'56 -10282 Nov 25 j 16:14 11° mp 42'05 opposition morning rise direct -10288 Jul 28 j 00:34 0° m 54'59 retrograde -10281 Feb 25 j 22:13 13° mp 13'40 -10288 Oct 21 j 12:50 evening set 2° m/22'54 min. Earth dist. -10281 May 16 j 18:21 12° m 08'58 38.82262 AU -10281 May 20 j 04:57 12° Mp 04'27 -9°53'37 opposition conjunction -10288 Nov 04 j 05:04 2° m 46'52 -7°02'29 direct -10281 Aug 08 j 01:51 10° Mp 57'17 minimum elong -10288 Nov 04 j 04:51 2° m 46'51 7°02'10 evening set -10281 Nov 02 j 22:06 12° m 23'55 -10288 Nov 07 j 17:41 2° m 53'05 39.15471 AU max. Earth dist. -10288 Nov 18 j 00:06 conjunction -10281 Nov 14 j 22:36 12° m 44'05 -9°34'21 morning rise 3° m 11'01 -10287 Feb 16 j 23:11 -10281 Nov 14 j 22:23 12° m 44'04 9°34'07 retrograde 4° m/43'43 minimum elong -10281 Nov 18 j 11:10 12° m 50'01 40.91768 AU min. Earth dist. -10287 May 07 j 13:53 3°My37'25 37.29847 AU max. Earth dist. opposition -10287 May 11 j 00:52 3° **m** $32'46 - 7^{\circ}37'47$ morning rise -10281 Nov 27 j 01:13 13° m 04'23 direct -10287 Jul 29 j 18:57 2° m 23'52 retrograde -10280 Feb 27 j 13:56 14° Mp 35'53 evening set -10287 Oct 23 j 11:02 3° My 51'29 min. Earth dist. -10280 May 17 j 10:12 13° m 31'24 39.07129 AU opposition -10280 May 20 j 20:21 13° Mp 26'56 -10°14'08

direct

evening set

-10280 Aug 08 j 16:15 12° Mp 20'02

-10280 Nov 03 j 19:43 13° Mp 46'35

-10287 Nov 05 j 22:25 4° m 14'55 -7°25'56

-10287 Nov 05 j 22:13 4° m/14'54 7°25'38

conjunction

minimum elong

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Attention, astronomical year style is used: The year -10280 in astronomical counting style is the year 10281 BCE in historical counting style.
                    -10280 Nov 15 j 13:48 14° m 06'11 -9°53'48
                                                                           direct
                                                                                               -10273 Aug 18 j 21:00 21° m 35'35
conjunction
                    -10280 Nov 15 j 13:33 14° m 06'10 9°53'34
                                                                           evening set
                                                                                               -10273 Nov 16 j 00:16 23° Mp 02'04
 minimum elong
                    -10280 Nov 19 j 02:51 14° Mp 12'07 41.16277 AU
max. Earth dist.
                    -10280 Nov 27 j 09:39 14° m 25'55
                                                                                               -10273 Nov 25 j 14:10 23° m 17'27 -11°55'02
                                                                           conjunction
morning rise
                    -10279 Feb 28 j 05:09 15° mp 57'19
                                                                                               -10273 Nov 25 j 13:55 23° m 17'26 11°54'54
retrograde
                                                                            minimum elong
                    -10279 May 19 j 02:37 14° m 53'00 39.31675 AU
                                                                                               -10273 Nov 29 j 00:24 23° m/22'57 42.80618 AU
min. Earth dist.
                                                                           max. Earth dist.
                                                                                               -10273 Dec 05 \text{ j } 05:07 \quad 23^{\circ} \text{ Mp} 32'54
opposition
                    -10279 May 22 j 11:25 14° m 48'38 -10°34'05
                                                                           morning rise
direct
                    -10279 Aug 10 j 06:43 13° Mp41'58
                                                                           retrograde
                                                                                               -10272 Mar 09 j 01:59 25° m 04'10
                    -10279 Nov 05 j 17:20 15° m 08'27
evening set
                                                                           min. Earth dist.
                                                                                               -10272 May 28 j 04:51 24° M 01'06 40.96709 AU
                                                                           opposition
                                                                                               -10272 May 31 j 10:20 23° m 57'00 -12°37'54
conjunction
                    -10279 Nov 17 j 04:31 15° m 27'29 -10°12'43
                                                                           direct
                                                                                               -10272 Aug 19 j 08:24 22° m 51'49
                    -10279 Nov 17 j 04:17 15° m 27'28 10°12'30
                                                                                               -10272 Nov 16 j 21:24 24° m 18'24
 minimum elong
                                                                           evening set
                    -10279 Nov 20 j 15:56 15° Mp 33'16 41.40463 AU
max. Earth dist.
                                                                                               -10272 Nov 26 j 02:54 24° m 33'09 -12°10'14
morning rise
                    -10279 Nov 28 j 17:26 15° Mp 46'37
                                                                           conjunction
retrograde
                    -10278 Mar 01 j 21:21 17° m 17'57
                                                                            minimum elong
                                                                                               -10272 Nov 26 j 02:40 24° m 33'08 12°10'06
min. Earth dist.
                    -10278 May 20 j 16:49 16° Mp 13'52 39.55904 AU
                                                                           max. Earth dist.
                                                                                               -10272 Nov 29 j 12:14 24° m/38'35 43.03436 AU
opposition
                    -10278 May 24 j 01:58 16° m 09'29 -10°53'28
                                                                           morning rise
                                                                                               -10272 Dec 05 j 09:18 24° Mp 47'57
                                                                           retrograde
direct
                    -10278 Aug 11 j 19:43 15° Mp 03'03
                                                                                               -10271 Mar 10 j 14:14 26° m 19'18
evening set
                    -10278 Nov 07 j 14:41 16° m 29'29
                                                                           min. Earth dist.
                                                                                               -10271 May 29 j 16:36 25° Mp 16'30 41.19616 AU
                                                                           opposition
                                                                                               -10271 Jun 01 j 22:36 25° m 12'23 -12°53'21
conjunction
                    -10278 Nov 18 j 18:53 16° mp 47'55 -10°31'06
                                                                           direct
                                                                                               -10271 Aug 20 j 21:13 24° Mp 07'25
                                                                                               -10271 Nov 18 j 18:25 25° Mp 34'09
 minimum elong
                    -10278 Nov 18 i 18:38 16° m 47'54 10°30'54
                                                                           evening set
max. Earth dist.
                    -10278 Nov 22 j 06:22 16° m 53'40 41.64334 AU
morning rise
                    -10278 Nov 30 j 00:46 17° m 06'28
                                                                           conjunction
                                                                                               -10271 Nov 27 j 15:15 25° mp 48'15 -12°24'56
                                                                                               -10271 Nov 27 j 15:01 25° mp 48'14 12°24'50
retrograde
                    -10277 Mar 03 j 10:31 18° m 37'43
                                                                            minimum elong
                    -10277 May 22 j 08:47 17° mp 33'45 39.79842 AU
                                                                           max. Earth dist.
                                                                                               -10271 Nov 30 j 23:58 25° m 53'37 43.26039 AU
min. Earth dist.
opposition
                    -10277 May 25 i 16:19 17° m 29'29 -11°12'17
                                                                                               -10271 Dec 06 j 13:03 26° Mp 02'24
                                                                           morning rise
                    -10277 Aug 13 j 11:48 16° m 23'15
                                                                                               -10270 Mar 12 j 01:13 27° m 33'53
direct
                                                                           retrograde
                    -10277 Nov 09 j 11:56 17° m 49'39
                                                                                               -10270 May 31 j 06:02 26° Mp 31'14 41.42297 AU
evening set
                                                                           min. Earth dist.
                                                                                               -10270 Jun 03 j 10:41 26° m 27'12 -13°08'17
                                                                           opposition
                    -10277 Nov 20 j 08:58 18° Mp 07'29 -10°48'57
                                                                                               -10270 Aug 22 j 10:49 25° M 22'28
conjunction
                                                                           direct
                    -10277 Nov 20 j 08:43 18° Mp 07'28 10°48'47
                                                                                               -10270 Nov 20 j 15:33 26° m/49'21
 minimum elong
                                                                           evening set
                    -10277 Nov 23 j 19:57 18° Mp 13'11 41.87948 AU
max. Earth dist.
                    -10277 Dec 01 j 07:22 18° m 25'25
                                                                                               -10270 Nov 29 j 03:36 27° m 02'48 -12°39'09
morning rise
                                                                           conjunction
                                                                                               -10270 Nov 29 j 03:23 27° m 02'47 12°39'03
                    -10276 Mar 03 j 22:10 19° m 56'37
retrograde
                                                                            minimum elong
                                                                                               -10270 Dec 02 j 12:20 27° Mg 08'09 43.48398 AU
                    -10276 May 22 j 22:26 18° m 52'52 40.03532 AU
min. Earth dist.
                                                                           max. Earth dist.
                    -10276 May 26 j 06:09 18° Mp 48'35 -11°30'32
                                                                                               -10270 Dec 07 j 16:18 27° m 16'18
opposition
                                                                           morning rise
direct
                    -10276 Aug 14 j 04:31 17° mp 42'33
                                                                           retrograde
                                                                                               -10269 Mar 13 j 10:35 28° m 47'55
                                                                                               \hbox{-}10269 \ Jun \quad 01 \ j \ 18:30 \quad 27^{\circ} \hbox{\it M} \hskip -2pt 45'27 \quad 41.64680 \ AU
evening set
                    -10276 Nov 10 j 09:14 19° Mp 08'56
                                                                           min. Earth dist.
                                                                           opposition
                                                                                               -10269 Jun 04 j 22:25 27° m 41'28 -13°22'43
                    -10276 Nov 20 j 22:41 19° Mp 26'10 -11°06'16
conjunction
                                                                           direct
                                                                                               -10269 Aug 24 j 01:06 26° Mp 36'58
                    -10276 Nov 20 j 22:26 19° m 26'09 11°06'06
                                                                                               -10269 Nov 22 j 12:52 28° M 04'02
 minimum elong
                                                                           evening set
max. Earth dist.
                    -10276 Nov 24 j 08:53 19° Mp 31'47 42.11334 AU
                    -10276 Dec 01 j 13:41 19° m 43'29
                                                                                               -10269 Nov 30 j 15:37 28° m 16'49 -12°52'54
morning rise
                                                                           conjunction
                    -10275 Mar 05 j 10:35 21° m 14'40
                                                                                               -10269 Nov 30 j 15:22 28° m 16'48 12°52'50
retrograde
                                                                            minimum elong
                    -10275 May 24 j 12:34 20° m 11'04 40.27042 AU
                                                                                               -10269 Dec 03 j 22:33 28° m 22'01 43.70427 AU
min. Earth dist.
                                                                           max. Earth dist.
                    -10275 May 27 i 19:37 20° m 06'50 -11°48'13
                                                                                               -10269 Dec 08 i 19:05 28° m 29'39
opposition
                                                                           morning rise
                                                                                               -10268 Mar 02 j 23:26 0°♀
direct
                    -10275 Aug 15 j 18:59 19° m 01'01
evening set
                    -10275 Nov 12 j 06:20 20° m 27'24
                                                                           retrograde
                                                                                               -10268 Mar 13 j 23:20 0°£01'26
                                                                                               -10268 Mar 25 j 02:40 30°R Mp
conjunction
                    -10275 Nov 22 i 12:15 20° m 44'01 -11°23'03
                                                                           min. Earth dist.
                                                                                               -10268 Jun 02 j 06:40 28° Mp 59'09 41.86713 AU
                    -10275 Nov 22 j 12:01 20° m 44'00 11°22'54
                                                                           opposition
                                                                                               -10268 Jun 05 j 10:03 28° m 55'13 -13°36'40
 minimum elong
max. Earth dist.
                    -10275 Nov 25 j 23:04 20° m 49'38 42.34563 AU
                                                                           direct
                                                                                               -10268 Aug 24 j 11:53 27° m 50'55
                    -10275 Dec 02 j 19:21 21° m 00'43
morning rise
                                                                           evening set
                                                                                               -10268 Nov 23 j 10:21 29° m 18'12
retrograde
                    -10274 Mar 06 j 21:17 22° m 31'54
                    \hbox{-}10274~May~26~j~02:20}\quad \hbox{21°} \hbox{\it Th} 28'29\quad 40.50393~AU
min. Earth dist.
                                                                           conjunction
                                                                                               -10268 Dec 01 j 03:42 29° m 30'18 -13°06'11
                                                                                               -10268 Dec 01 j 03:29 29° m 30'17 13°06'07
                    -10274 May 29 j 08:47 21° Mp 24'17 -12°05'20
                                                                            minimum elong
opposition
                    -10274 Aug 17 j 10:00 20° m 18'40
                                                                           max. Earth dist.
                                                                                               -10268 Dec 04 j 10:36 29° m 35'28 43.92067 AU
direct
                    -10274 Nov 14 j 03:19 21° m 45'05
                                                                                               -10268 Dec 08 j 21:34 29° Mp 42'27
evening set
                                                                           morning rise
                                                                                               -10268 Dec 20 j 07:33 0°♀
                    -10274 Nov 24 j 01:12 22° m 01'05 -11°39'18
conjunction
                                                                           retrograde
                                                                                               -10267 Mar 15 j 10:58
                                                                                                                       1°-214′25
 minimum elong
                    -10274 Nov 24 j 00:58 22° m 01'04 11°39'09
                                                                           min. Earth dist.
                                                                                               -10267 Jun 03 j 19:52
                                                                                                                       0°£12'14 42.08321 AU
max. Earth dist.
                    -10274 Nov 27 j 10:43 22° m 06'35 42.57656 AU
                                                                           opposition
                                                                                               -10267 Jun 06 j 21:18
                                                                                                                       0°208'25 -13°50'09
morning rise
                    -10274 Dec 04 j 00:19 22° m 17'10
                                                                                               -10267 Jun 13 j 15:02 30°R M
retrograde
                    -10273 Mar 08 j 12:05 23° Mp 48'23
                                                                           direct
                                                                                               -10267 Aug 25 j 23:18 29° Mp 04'18
                    -10273 May 27 j 14:49 22° m 45'11 40.73624 AU
                                                                                               -10267 Nov 04 j 01:49
                                                                                                                        0∘⊽
min. Earth dist.
                    -10273 May 30 j 21:44 22° m 40'59 -12°21'53
                                                                                               -10267 Nov 25 j 08:06
                                                                                                                        0°£31'49
opposition
                                                                           evening set
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Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10267 in astronomical counting style is the year 10268 BCE in historical counting style. -10267 Dec 02 j 15:28 0° **2**43'14 -13°19'02 direct -10260 Sep 03 i 01:39 7°**£**21'27 conjunction 8°**£**51'53 -10267 Dec 02 j 15:14 0°**2**43'13 13°18'59 evening set -10260 Dec 07 j 04:03 minimum elong -10267 Dec 05 j 20:27 max. Earth dist. 0°**£**48'14 44.13287 AU -10260 Dec 10 j 18:56 -10267 Dec 09 j 23:13 0°**£**54'40 conjunction 8°**2**57'23 -14°36'40 morning rise -10266 Mar 17 j 00:11 -10260 Dec 10 j 18:45 8°**£**57'22 14°36'42 retrograde 2°**₽**26'49 minimum elong 1°**2**24'50 42.29498 AU -10260 Dec 14 j 09:39 min. Earth dist. -10266 Jun 05 j 07:01 morning rise 9°**£**02'51 opposition -10266 Jun 08 j 08:22 1°**2**21'02 -14°03'10 max. Earth dist. -10260 Dec 13 j 19:04 9°**2**01'56 45.52299 AU direct -10266 Aug 27 j 09:21 0°**£**17′06 retrograde -10259 Mar 24 j 21:04 10°**♀**37'45 -10266 Nov 27 j 05:43 evening set 1°**£**44'52 min. Earth dist. -10259 Jun 13 j 11:08 9°**2**36'40 43.68623 AU opposition -10259 Jun 16 j 06:34 9°**2**33'14 -15°21'24 conjunction -10266 Dec 04 j 02:45 1°**2**55'33 -13°31'27 direct -10259 Sep 04 j 12:42 8°**△**30'27 -10266 Dec 04 j 02:33 -10259 Dec 09 j 09:22 10° **2**01'47 minimum elong 1°**2**55'33 13°31'24 evening set -10266 Dec 07 j 07:06 max. Earth dist. 2°**2**00'30 44.34073 AU morning rise -10266 Dec 11 j 00:12 2°**2**06'16 conjunction -10259 Dec 12 j 04:53 10°**2**06'02 -14°46'01 retrograde -10265 Mar 18 j 11:17 3°**£**38'39 minimum elong -10259 Dec 12 j 04:42 10°**Ω**06'01 14°46'03 min. Earth dist. -10265 Jun 06 j 19:50 2°**2**36'44 42.50263 AU morning rise -10259 Dec 15 j 00:11 10°**2**10'16 opposition -10265 Jun 09 j 19:18 2°**2**33'03 -14°15'44 max. Earth dist. -10259 Dec 15 j 03:33 10°**£**10'29 45.71116 AU retrograde direct -10265 Aug 28 j 20:27 1°**2**29'17 -10258 Mar 26 j 06:10 11°**Ω**46'00 evening set -10265 Nov 29 j 03:52 2°**£**57'20 min. Earth dist. -10258 Jun 14 j 21:26 10° **2**45'04 43.87437 AU opposition -10258 Jun 17 j 15:49 10° **2**41'41 -15° 30'47 conjunction -10265 Dec 05 j 14:06 3°**2**07'16 -13°43'26 direct -10258 Sep 05 j 22:37 9°**△**39'05 minimum elong -10265 Dec 05 j 13:53 3°**2**07'15 13°43'23 evening set -10258 Dec 11 i 22:10 11° **2**11'45 max. Earth dist. -10265 Dec 08 j 17:53 3°**2**12'10 44.54481 AU morning rise -10265 Dec 12 i 00:30 3°**₽**17'13 conjunction -10258 Dec 13 j 14:44 11° **2** 14'18 -14° 54'58 retrograde -10264 Mar 18 j 18:35 4°**₽**49'52 minimum elong -10258 Dec 13 i 14:34 11°**△**14'17 14°55'01 -10264 Jun 07 j 06:40 3°**2**48'06 42.70655 AU -10258 Dec 15 i 07:00 11° **2**16'49 min. Earth dist. morning rise opposition -10264 Jun 10 j 05:41 3°<u>₽44'26</u> -14°27'50 max. Earth dist. -10258 Dec 16 j 13:31 11° **2**18'44 45.89620 AU -10264 Aug 29 j 10:21 2°**₽**40'49 -10257 Mar 27 j 12:56 12° **2**53'54 direct retrograde -10264 Nov 30 j 02:21 4°**£**09'13 -10257 Jun 16 j 07:56 11°**2**53'04 44.05886 AU evening set min. Earth dist. -10257 Jun 19 j 00:51 11° **2**49'47 -15°39'44 opposition -10264 Dec 06 j 01:03 4°**2**18'22 -13°54'58 -10257 Sep 07 j 10:08 10°**♀**47'21 conjunction direct -10264 Dec 06 j 00:51 4°**2**18'21 13°54'57 minimum elong -10264 Dec 09 j 03:08 4°**£**23'08 44.74545 AU -10257 Dec 15 j 00:34 12° \(\Omega\) 22'13 -15°03'31 max. Earth dist. conjunction -10257 Dec 15 j 00:24 12°**2**22'12 15°03'34 -10264 Dec 11 j 23:59 4°**£**27'33 morning rise minimum elong -10263 Mar 20 j 04:14 6°**♀**00'29 -10257 Dec 17 j 21:06 12°**2**26'30 46.07740 AU retrograde max. Earth dist. -10263 Jun 08 j 17:42 4°**⊆**58'51 42.90747 AU -10256 Mar 28 j 00:27 14°**♀**01'26 min. Earth dist. retrograde -10256 Jun 16 j 17:08 13°**♀**00'45 44.23925 AU opposition -10263 Jun 11 j 15:59 4°**£**55'13 -14°39'29 min. Earth dist. direct -10263 Aug 30 j 21:36 3°**♀**51'46 opposition -10256 Jun 19 j 09:34 12°**2**57'30 -15°48'18 evening set -10263 Dec 02 j 01:11 5°**♀**20'33 direct -10256 Sep 07 j 17:14 11°**♀**55'13 conjunction -10263 Dec 07 j 11:49 5° **2**28'53 -14°06'03 conjunction -10256 Dec 15 j 10:22 13°**2**29'45 -15°11'42 -10263 Dec 07 j 11:36 5° **2**28'52 14°06'03 minimum elong -10256 Dec 15 j 10:11 13° **2**29'44 15°11'47 minimum elong max. Earth dist. -10263 Dec 10 j 14:19 5°**2**33'39 44.94329 AU max. Earth dist. -10256 Dec 18 j 06:16 13°**2**33'58 46.25407 AU -10263 Dec 12 j 22:27 5°**2**37'14 -10255 Mar 29 j 11:32 15°**♀**08'35 morning rise retrograde -10262 Mar 21 j 13:45 7°**♀**10'33 -10255 Jun 18 j 04:17 14°**2**07'56 44.41483 AU retrograde min. Earth dist. -10262 Jun 10 j 05:02 6° **2**09'00 43.10564 AU min. Earth dist. opposition -10255 Jun 20 i 18:21 14° \(\Omega\)04'49 -15°56'29 opposition -10262 Jun 13 j 01:58 6° **2**05'27 -14°50'39 direct -10255 Sep 09 i 00:16 13° \(\Omega\) 02'41 direct -10262 Sep 01 i 08:11 5°**₽**02'10 -10255 Dec 16 j 19:54 14° \(\Omega\) 36'52 -15°19'32 evening set -10262 Dec 04 j 00:53 6°**₽**31'23 conjunction minimum elong -10255 Dec 16 i 19:45 14° \(\Omega\)36'51 15°19'36 conjunction -10262 Dec 08 i 22:18 6° \(\Omega\) 38'51 -14°16'42 max. Earth dist. -10255 Dec 19 j 14:19 14° \$\oldsymbol{\Omega}\$40'58 46.42595 AU -10262 Dec 08 i 22:07 6°**2**38'50 14°16'42 retrograde -10254 Mar 30 j 19:29 16° **2**15'17 minimum elong max. Earth dist. -10262 Dec 11 j 23:17 6°**£**43'30 45.13880 AU -10254 Jun 19 j 13:05 15° **2** 14'46 44.58537 AU min. Earth dist. morning rise -10262 Dec 13 j 19:44 6°**≏**46'20 opposition -10254 Jun 22 j 02:46 15°**2**11'40 -16°04'19 -10254 Sep 10 j 10:24 14°**£**09'39 retrograde -10261 Mar 23 j 01:48 8°**£**20'04 direct min. Earth dist. -10261 Jun 11 j 14:24 7°**2**18'43 43.30161 AU -10261 Jun 14 j 11:42 7°**£**15'10 -15°01'21 conjunction -10254 Dec 18 j 05:11 15°**-**43'29 -15°27'00 opposition -10261 Sep 02 j 16:10 6°**₽**12'02 -10254 Dec 18 j 05:01 15°**2**43'29 15°27'06 direct minimum elong -10261 Dec 06 j 01:27 -10254 Dec 20 j 21:41 15°**2**47'28 46.59287 AU evening set 7°**£**41'48 max. Earth dist. -10253 Apr 01 j 02:59 17° **2**21'31 retrograde -10261 Dec 10 j 08:36 7°**≏**48'20 -14°26'54 -10253 Jun 20 j 23:09 16°**£**21'02 44.75122 AU conjunction min. Earth dist. minimum elong -10261 Dec 10 j 08:24 7°**2**48'19 14°26'54 opposition -10253 Jun 23 j 11:07 16° **2**18'02 -16° 11'46 max. Earth dist. -10261 Dec 13 j 09:23 7°**♀**52'57 45.33203 AU direct -10253 Sep 11 j 20:30 15°**£**16'07 morning rise -10261 Dec 14 j 15:41 7°**£**54'52 retrograde -10260 Mar 23 j 12:33 9°**₽**29'07 conjunction -10253 Dec 19 j 14:27 16°**2**49'36 -15°34'07 -10260 Jun 12 j 01:44 8°**2**27'52 43.49522 AU minimum elong -10253 Dec 19 j 14:19 16° **2**49'36 15°34'14 min. Earth dist.

max. Earth dist.

-10253 Dec 22 j 06:44 16°**2**53'34 46.75533 AU

-10260 Jun 14 j 21:22 8°**2**24'25 -15°11'36

opposition

,	nical year style is used: The		•	//		, 1	ge 12
retrograde	-10252 Apr 01 j 08:22	-	in astronomical co	direct	-10244 Sep 20 j 19:15		ie.
min. Earth dist.	-10252 Apr 01 j 08:22 -10252 Jun 21 j 08:35		44 91261 ATT	direct	-10244 Sep 20 j 17.13	24 —33 23	
opposition	-10252 Jun 23 j 19:11			conjunction	-10244 Dec 28 j 18:05	26°₽26'24	-16°21'45
direct	-10252 Sep 12 j 08:02		10 1000	minimum elong	-10244 Dec 28 j 17:59		
	j j			max. Earth dist.	-10244 Dec 31 j 00:05		
conjunction	-10252 Dec 19 j 23:25	17° £ 55'12	-15°40'52	retrograde	-10243 Apr 11 j 08:45		
minimum elong	-10252 Dec 19 j 23:16			min. Earth dist.	-10243 Jul 01 j 11:05		46.22389 AU
max. Earth dist.	-10252 Dec 22 j 13:32	17° ≙ 59'00	46.91375 AU	opposition	-10243 Jul 03 j 12:16	26° ≙ 59'08	-17°05'37
retrograde	-10251 Apr 02 j 17:04			direct	-10243 Sep 22 j 02:38		
min. Earth dist.	-10251 Jun 22 j 16:42	18° ≏ 32'07	45.07038 AU				
opposition	-10251 Jun 25 j 02:56	18° ≏ 29'12	-16°25'32	conjunction	-10243 Dec 30 j 02:09	27° ≏ 29'12	-16°25'22
direct	-10251 Sep 13 j 15:48	17° ≏ 27'28		minimum elong	-10243 Dec 30 j 02:03	27° ≏ 29'12	16°25'35
				max. Earth dist.	-10242 Jan 01 j 07:27	27° ≏ 32'23	48.20203 AU
conjunction	-10251 Dec 21 j 08:14	19° ≏ 00'17	-15°47'15	retrograde	-10242 Apr 12 j 12:46	29° ჲ 03'43	
minimum elong	-10251 Dec 21 j 08:06	19° ≏ 00'17	15°47'23	min. Earth dist.	-10242 Jul 02 j 18:57	28° ഫ 04'09	46.34993 AU
max. Earth dist.	-10251 Dec 23 j 22:13		47.06878 AU	opposition	-10242 Jul 04 j 18:53		-17°09'06
retrograde	-10250 Apr 04 j 01:51			direct	-10242 Sep 23 j 12:49	27° ≏ 01'09	
min. Earth dist.	-10250 Jun 24 j 02:16						
opposition	-10250 Jun 26 j 10:42		-16°31'51	conjunction	-10242 Dec 31 j 09:47		
direct	-10250 Sep 14 j 23:15	18° ≏ 32'25		minimum elong	-10242 Dec 31 j 09:43		
				max. Earth dist.	-10241 Jan 02 j 12:34		48.32504 AU
conjunction	-10250 Dec 22 j 16:45			_	-10241 Mar 21 j 10:16		
minimum elong	-10250 Dec 22 j 16:36			retrograde	-10241 Apr 13 j 19:40		
max. Earth dist.	-10250 Dec 25 j 05:37		47.22110 AU		-10241 May 07 j 10:19		
retrograde	-10249 Apr 05 j 11:04			min. Earth dist.	-10241 Jul 04 j 02:26		
min. Earth dist.	-10249 Jun 25 j 09:41			opposition	-10241 Jul 06 j 01:25		-17°12'17
opposition	-10249 Jun 27 j 18:11		-16°3'/46	direct	-10241 Sep 24 j 20:03	28° 22 03'34	
direct	-10249 Sep 16 j 06:10	19°2236'3/			10240 I 01 : 17.25	200 0 22152	1.6921142
	10240 D 24 : 01.12	219 0 00110	15050152	conjunction	-10240 Jan 01 j 17:35		
conjunction minimum elong	-10249 Dec 24 j 01:12 -10249 Dec 24 j 01:05			minimum elong max. Earth dist.	-10240 Jan 01 j 17:30 -10240 Jan 03 j 19:50		
max. Earth dist.	-10249 Dec 26 j 12:55			max. Earm dist.	-10240 Jan 20 j 07:44		46.44320 AU
retrograde	-10248 Apr 05 j 18:51		47.57070 AO	retrograde	-10240 Apr 14 j 02:00		
min. Earth dist.	-10248 Jun 25 j 18:31		45 52630 ATT	min. Earth dist.	-10240 Jul 04 j 10:53		46.58744 AU
opposition	-10248 Jun 28 j 01:33			opposition	-10240 Jul 06 j 07:41	0°ML06'07	
direct	-10248 Sep 16 j 13:53		10 43 10	оррозион	-10240 Jul 11 j 12:46		17 13 10
	102.00 Sep 10 j 15.05	20 — 0,		direct	-10240 Sep 25 j 03:42	•	
conjunction	-10248 Dec 24 i 09:41	22° ₽ 13'04	-16°04'09		-10240 Dec 07 j 04:19		
minimum elong	-10248 Dec 24 j 09:34				,		
max. Earth dist.	-10248 Dec 26 j 21:19			conjunction	-10239 Jan 02 j 01:12	0°M35'42	-16°34'25
retrograde	-10247 Apr 06 j 23:15			minimum elong	-10239 Jan 02 j 01:09		16°34'39
min. Earth dist.	-10247 Jun 27 j 02:30	22° ≏ 48'58	45.67291 AU	max. Earth dist.	-10239 Jan 04 j 01:40	0°MJ38'34	48.55715 AU
opposition	-10247 Jun 29 j 08:45	22° ≏ 46'16	-16°48'28	retrograde	-10239 Apr 15 j 11:19	2°M09'22	
direct	-10247 Sep 18 j 00:24	21° ≏ 45′01		min. Earth dist.	-10239 Jul 05 j 17:14	1°ML09'55	46.69986 AU
				opposition	-10239 Jul 07 j 13:48	1°ML07'45	-17°17'44
conjunction	-10247 Dec 25 j 17:44	23° ≏ 16'43	-16°09'03	direct	-10239 Sep 26 j 08:04	0°ML07'19	
minimum elong	-10247 Dec 25 j 17:38						
max. Earth dist.	-10247 Dec 28 j 03:21		47.66238 AU	conjunction	-10238 Jan 03 j 08:26	1°ML37'10	-16°36'49
retrograde	-10246 Apr 08 j 07:22			minimum elong	-10238 Jan 03 j 08:21		16°37'05
min. Earth dist.	-10246 Jun 28 j 10:04			max. Earth dist.	-10238 Jan 05 j 07:42		48.66730 AU
opposition	-10246 Jun 30 j 15:49		-16°53'16	retrograde	-10238 Apr 16 j 19:35		
direct	-10246 Sep 19 j 07:28	22° ≏ 48'41		min. Earth dist.	-10238 Jul 07 j 01:10		46.80887 AU
				opposition	-10238 Jul 08 j 19:55		-17°19'58
conjunction	-10246 Dec 27 j 01:54			direct	-10238 Sep 27 j 12:37	1°ML08'39	
minimum elong	-10246 Dec 27 j 01:47						
max. Earth dist.	-10246 Dec 29 j 11:23		47.80358 AU	conjunction	-10237 Jan 04 j 15:47		
retrograde	-10245 Apr 09 j 16:12		45 05/75 ATT	minimum elong	-10237 Jan 04 j 15:44		16°39'10
min. Earth dist.	-10245 Jun 29 j 19:06			max. Earth dist.	-10237 Jan 06 j 14:45		48.77445 AU
opposition	-10245 Jul 01 j 22:46		-10-5/42	retrograde	-10237 Apr 17 j 22:45		46 01 402 ATT
direct	-10245 Sep 20 j 13:29	∠3 ≟ 32'08		min. Earth dist.	-10237 Jul 08 j 07:33		46.91483 AU
aaming-ti	10245 D 20 : 10 02	250 0 22122	16017150	opposition	-10237 Jul 10 j 01:44		-1/2132
conjunction minimum elong	-10245 Dec 28 j 10:03			direct	-10237 Sep 28 j 22:09	2° M 09'40	
minimum elong max. Earth dist.	-10245 Dec 28 j 09:57 -10245 Dec 30 j 17:51			conjunction	-10236 Jan 05 j 22:55	30M 3010€	-16°40'39
retrograde	-10243 Dec 30 j 17:51 -10244 Apr 10 j 01:03		71.24100 AU	minimum elong	-10236 Jan 05 j 22:51	3°M39'06	
min. Earth dist.	-10244 Apr 10 j 01:03 -10244 Jun 30 j 02:13		46.09270 ATT	max. Earth dist.	-10236 Jan 03 j 22:31 -10236 Jan 07 j 19:45		48.87875 AU
mm. Darm UISt.	10477 Jun 30 104.13	∠J == J040	TU.U./4/U/10/10	maa, dalul uist.			
opposition	-10244 Jul 02 j 05:32			retrograde	-10236 Apr 18 j 03:29	5°M11'58	10.07075710

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10236 in astronomical counting style is the year 10237 BCE in historical counting style. -10236 Jul 08 j 14:09 4° ML 12'39 47.01808 AU min. Earth dist. conjunction -10227 Jan 14 j 13:00 12° M 38'05 -16° 43'26 minimum elong -10236 Jul 10 i 07:36 4°M10'38 -17°23'26 -10227 Jan 14 j 13:00 12°M 38'05 16°43'48 opposition direct -10236 Sep 29 j 06:03 3°**™**10'24 max. Earth dist. -10227 Jan 15 j 22:06 12°M 40'00 49.64801 AU -10227 Apr 27 j 11:47 14° ML09'07 retrograde -10227 Jul 18 j 02:53 13°ML10'06 47.76785 AU -10235 Jan 06 j 06:05 4°M39'39 -16°42'06 min. Earth dist. conjunction -10235 Jan 06 j 06:03 4°M39'39 16°42'23 -10227 Jul 19 j 08:10 13°ML08'42 -17°24'22 minimum elong opposition -10227 Oct 08 j 10:40 12°**11**.09'04 -10235 Jan 08 j 02:57 4°ጤ42'17 48.98026 AU max. Earth dist. direct -10235 Apr 19 j 09:01 retrograde 6°M₁2'17 -10235 Jul 09 j 21:36 -10226 Jan 15 j 19:25 13°M 37'00 -16°42'25 min. Earth dist. 5°M13'00 47.11836 AU conjunction -10235 Jul 11 j 13:18 -10226 Jan 15 j 19:26 13°M 37'00 16°42'46 opposition 5°M11'04 -17°24'41 minimum elong -10235 Sep 30 j 13:13 -10226 Jan 17 j 02:14 13°M 38'46 49.71025 AU direct 4°**ጤ**10'56 max. Earth dist. -10226 Apr 01 j 10:15 15°M -10234 Jan 07 j 13:04 5°M40'00 -16°43'14 -10226 Apr 28 j 15:41 15°ML07'50 conjunction retrograde -10234 Jan 07 j 13:01 -10226 May 26 j 00:20 15°RM minimum elong 5°M40'00 16°43'31 -10234 Jan 09 j 08:15 max. Earth dist. 5°M42'32 49.07898 AU min. Earth dist. -10226 Jul 19 j 09:00 14°M 08'50 47.82813 AU -10234 Apr 20 j 17:07 retrograde 7°M12'25 opposition -10226 Jul 20 j 13:08 14°ML07'28 -17°23'06 -10226 Oct 09 j 17:45 13°ML07'53 min. Earth dist. -10234 Jul 11 j 03:12 6°ML13'15 47.21561 AU direct opposition -10234 Jul 12 j 18:53 6°M11'20 -17°25'36 direct -10234 Oct 01 j 17:26 5°**™**11'17 conjunction -10225 Jan 17 j 01:49 14° ML35'41 -16°41'07 -10225 Jan 17 j 01:49 14° ML 35'41 16° 41'29 minimum elong conjunction -10233 Jan 08 j 19:53 6°ML40'12 -16°44'04 max. Earth dist. -10225 Jan 18 j 08:30 14°M 37'27 49.76896 AU minimum elong -10233 Jan 08 j 19:52 6°M40'12 16°44'22 -10225 Feb 03 i 22:27 15°M max. Earth dist. -10233 Jan 10 j 13:49 6°M42'38 49.17431 AU retrograde -10225 Apr 29 j 19:24 16° ML06'21 retrograde -10233 Apr 22 j 01:05 8°M12'25 opposition -10225 Jul 21 j 18:05 15°ML06'04 -17°21'33 min. Earth dist. -10233 Jul 12 j 11:00 7°ML13'15 47.30923 AU min. Earth dist. -10225 Jul 20 j 15:36 15°ML07'20 47.88493 AU -10225 Jul 27 j 00:35 15°RML opposition -10233 Jul 14 j 00:33 7°M11'26 -17°26'14 direct -10233 Oct 02 j 22:03 6°M₁11'29 -10225 Oct 11 j 01:19 14°ML06'31 direct -10225 Dec 23 j 19:09 15°M -10232 Jan 10 j 03:00 7° ML40'16 -16°44'36 conjunction -10232 Jan 10 j 02:58 7°ML40'15 16°44'54 -10224 Jan 18 j 08:12 15°ML34'12 -16°39'32 minimum elong conjunction -10232 Jan 11 j 20:13 7°M42'39 49.26579 AU -10224 Jan 18 j 08:14 15°M 34'12 16°39'54 max. Earth dist. minimum elong -10224 Jan 19 j 13:04 15°M 35'51 49.82455 AU -10232 Apr 22 j 05:55 9°ML12'16 max. Earth dist. retrograde -10232 Jul 12 j 17:22 8°ML13'11 47.39845 AU -10224 Apr 30 j 02:32 17°M04'43 min. Earth dist. retrograde -10232 Jul 14 j 05:54 8°M 11'25 -17°26'35 -10224 Jul 21 j 22:45 16°M 04'30 -17°19'43 opposition opposition -10232 Oct 03 j 05:27 7°ML11'33 -10224 Jul 20 j 20:22 16°ML05'46 47.93869 AU direct min. Earth dist. -10224 Oct 11 j 05:08 15°ML05'00 direct -10231 Jan 10 j 09:55 8°M-40'11 -16°44'53 conjunction -10223 Jan 18 j 14:31 16°M 32'35 -16°37'41 minimum elong -10231 Jan 10 j 09:53 8°ML40'11 16°45'12 conjunction -10231 Jan 12 j 00:31 8°ML42'26 49.35258 AU max. Earth dist. minimum elong -10223 Jan 18 j 14:31 16°M 32'35 16°38'03 retrograde -10231 Apr 23 j 12:05 10°ML12'00 max. Earth dist. -10223 Jan 19 j 18:11 16°M34'09 49.87709 AU min. Earth dist. -10231 Jul 14 j 00:14 9°ML12'58 47.48282 AU retrograde -10223 May 01 j 09:57 18°M02'57 opposition -10231 Jul 15 j 11:23 9°M 11'16 -17°26'39 min. Earth dist. -10223 Jul 22 j 03:12 17°M 03'59 47.98945 AU direct -10231 Oct 04 j 11:41 8°ML11'28 opposition -10223 Jul 23 j 03:38 17°M 02'49 -17°17'36 direct -10223 Oct 12 j 08:22 16°ML03'22 conjunction -10230 Jan 11 j 16:44 9°M 39'58 -16°44'54 -10230 Jan 11 j 16:44 9°M 39'58 16°45'13 -10222 Jan 19 i 20:40 17°ML30'52 -16°35'32 minimum elong conjunction -10230 Jan 13 j 06:39 9°ML42'09 49.43421 AU -10222 Jan 19 i 20:42 17°ML30'52 16°35'55 max. Earth dist. minimum elong -10230 Apr 24 j 16:08 11°ML11'36 -10222 Jan 20 j 23:56 17° M 32'25 49.92671 AU retrograde max. Earth dist. -10230 Jul 15 j 07:47 10°ML12'33 47.56171 AU -10222 May 02 j 15:09 19° ML01'05 min. Earth dist. retrograde opposition -10230 Jul 16 i 16:50 10°ML10'57 -17°26'29 min. Earth dist. -10222 Jul 23 i 08:23 18°ML02'11 48.03696 AU direct -10230 Oct 05 j 19:31 9°ML11'13 opposition -10222 Jul 24 i 08:18 18°ML01'03 -17°15'11 direct -10222 Oct 13 j 13:51 17° ML01'39 conjunction -10229 Jan 12 j 23:33 10°M 39'33 -16°44'40 -10229 Jan 12 j 23:32 10°M 39'33 16°45'00 minimum elong conjunction -10221 Jan 21 j 02:48 18°M29'05 -16°33'07 -10229 Jan 14 j 11:10 10°M41'37 49.51056 AU -10221 Jan 21 j 02:50 18°M29'06 16°33'30 max. Earth dist. minimum elong -10229 Apr 25 j 23:53 12°M 10'59 retrograde max. Earth dist. -10221 Jan 22 j 03:45 18°M 30'31 49.97296 AU opposition -10229 Jul 17 j 21:59 11°M 10'26 -17°26'02 retrograde -10221 May 03 j 20:34 19° M 59'11 min. Earth dist. -10229 Jul 16 j 13:37 11°ML11'59 47.63531 AU opposition -10221 Jul 25 j 12:53 18°M 59'14 -17°12'30 direct -10229 Oct 06 j 23:41 10°M 10'45 min. Earth dist. -10221 Jul 24 j 14:15 19°M-00'19 48.08097 AU direct -10221 Oct 14 j 19:24 17°M59'54 -10228 Jan 14 j 06:18 11°M 38'56 -16°44'11 conjunction -10228 Jan 14 j 06:18 11°M 38'56 16°44'31 -10220 Jan 22 j 09:10 19°M27'16 -16°30'27 minimum elong conjunction -10228 Jan $15\,\mathrm{j}\,16:17$ $11^\circ\text{ML}40'54$ $49.58163~\mathrm{AU}$ max. Earth dist. minimum elong -10220 Jan 22 j 09:13 19°M27'16 16°30'52 retrograde -10228 Apr 26 j 08:17 13°ML10'10 max. Earth dist. -10220 Jan 23 j 09:40 19°M28'40 50.01533 AU min. Earth dist. -10228 Jul 16 j 21:12 12°ML11'08 47.70385 AU retrograde -10220 May 03 j 23:04 20° \$\mathbb{N}_57'16\$ -10228 Jul 18 j 03:14 12°M 09'41 -17°25'20 opposition -10220 Jul 25 j 17:32 19°M 57'24 -17°09'33 opposition

min. Earth dist.

-10220 Jul 24 j 20:53 19°M 58'23 48.12061 AU

-10228 Oct 07 j 02:57 11°ML10'02

direct

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 14 Attention, astronomical year style is used: The year -10220 in astronomical counting style is the year 10221 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -10220	in astronomical co	ounting style is the year	r 10221 BCE in historical	counting sty	le.
direct	-10220 Oct 15 j 03:03	-		minimum elong	-10211 Jan 30 j 15:31		
	,			max. Earth dist.	-10211 Jan 31 j 01:46		
conjunction	-10219 Jan 22 j 15:23	20°M25'24	-16°27'31	retrograde	-10211 May 12 j 22:49		
minimum elong	-10219 Jan 22 j 15:26			opposition	-10211 Aug 03 j 08:51		-16°31'54
max. Earth dist.	-10219 Jan 23 j 13:37			min. Earth dist.	-10211 Aug 02 j 23:21		
retrograde	-10219 May 05 j 05:23			direct	-10211 Oct 23 j 23:12		
opposition	-10219 Jul 26 j 22:01		-17°06'22				
min. Earth dist.	-10219 Jul 26 j 02:01			conjunction	-10210 Jan 31 j 21:18	29°ML02'17	-15°50'19
direct	-10219 Oct 16 j 07:42			minimum elong	-10210 Jan 31 j 21:23		
	10217 000 10 10 10 72	17 1100011		max. Earth dist.	-10210 Feb 01 j 07:30		
conjunction	-10218 Jan 23 j 21:36	21°M.23'28	-16°24'22	max. Dartii dist.	-10210 Mar 19 j 03:06		20.100 10 110
minimum elong	-10218 Jan 23 j 21:39			retrograde	-10210 May 14 j 01:25		
max. Earth dist.	-10218 Jan 24 j 18:08			retrograde	-10210 Jul 09 j 16:01		
retrograde	-10218 May 06 j 14:05		50.00507 110	opposition	-10210 Aug 04 j 13:02		-16°26'24
min. Earth dist.	-10218 Jul 27 j 09:09		48 18501 AII	min. Earth dist.	-10210 Aug 04 j 05:01		
opposition	-10218 Jul 28 j 02:41			direct	-10210 Aug 04 j 05:01 -10210 Oct 25 j 05:55		40.20003 AC
direct	-10218 Oct 17 j 09:42		17 02 30	direct	10210 001 25 1 05.55	20 1103227	
direct	10210 Oct 17 j 07.42	20 1103413		conjunction	-10209 Feb 02 j 03:03	20°M 50'16	-15°14'53
conjunction	-10217 Jan 25 j 03:48	22°M 21'25	16°20'50	minimum elong	-10209 Feb 02 j 03:09		
minimum elong	-10217 Jan 25 j 03:51			max. Earth dist.	-10209 Feb 02 j 03:09 -10209 Feb 02 j 11:26		
max. Earth dist.	-10217 Jan 25 j 23:10			max. Lartii dist.	-10209 Feb 02 j 16:08		30.18003 AU
retrograde	-10217 May 07 j 18:47		30.11340 AU	retrograde	-10209 May 15 j 06:54		
-	-10217 Jul 29 j 07:10		16950116	opposition	, ,		16020120
opposition	-10217 Jul 29 j 07:10 -10217 Jul 28 j 14:28			11	-10209 Aug 05 j 17:09		48.26209 AU
min. Earth dist.	•		48.2091 / AU	min. Earth dist.	-10209 Aug 05 j 09:35		48.20209 AU
direct	-10217 Oct 18 j 15:14	21 11632 00		Ji	-10209 Aug 31 j 23:18		
	10216 I 26:00-54	220M 10112	1.691.712.2	direct	-10209 Oct 26 j 10:26	29°11629°29 0° √ 7	
conjunction	-10216 Jan 26 j 09:54				-10209 Dec 20 j 04:15	0°X'	
minimum elong	-10216 Jan 26 j 09:57				10200 E 1 02:00 00	00 75(120	1.502.011.2
max. Earth dist.	-10216 Jan 27 j 02:35		30.13303 AU	conjunction	-10208 Feb 03 j 09:00	0° 🖈 56'20	
retrograde	-10216 May 07 j 22:57		1.6055100	minimum elong	-10208 Feb 03 j 09:06	0° ₹ 56'20	
opposition	-10216 Jul 29 j 11:33			max. Earth dist.	-10208 Feb 03 j 15:55		50.18102 AU
min. Earth dist.	-10216 Jul 28 j 20:33		48.22838 AU	retrograde	-10208 May 15 j 15:00	2°× 7 25'10	1.601.412.6
direct	-10216 Oct 18 j 21:26	22°11L49'45		opposition	-10208 Aug 05 j 21:20	1° ₹ 25'49	
	10015 7 00:1004	0.40 W 1.614.6	1.601.010.0	min. Earth dist.	-10208 Aug 05 j 16:04		48.25349 AU
conjunction	-10215 Jan 26 j 16:04			direct	-10208 Oct 26 j 12:21	0° ∡ ¹26'37	
minimum elong	-10215 Jan 26 j 16:09				1020771 02:15.02	10 750100	1.502.211.0
max. Earth dist.	-10215 Jan 27 j 08:20		50.15316 AU	conjunction	-10207 Feb 03 j 15:02		
retrograde	-10215 May 09 j 00:42			minimum elong	-10207 Feb 03 j 15:08		
opposition	-10215 Jul 30 j 15:59			max. Earth dist.	-10207 Feb 03 j 20:56		50.17115 AU
min. Earth dist.	-10215 Jul 30 j 02:41		48.24304 AU	retrograde	-10207 May 16 j 21:03	3° ₹ ′22'18	
direct	-10215 Oct 20 j 05:48	23°11L47'11		opposition	-10207 Aug 07 j 01:31	2° ≯ 23'01	
				min. Earth dist.	-10207 Aug 06 j 21:01		48.24016 AU
conjunction	-10214 Jan 27 j 21:49			direct	-10207 Oct 27 j 15:51	1° ∡ ¹23'50	
minimum elong	-10214 Jan 27 j 21:52		16°09'50				
max. Earth dist.	-10214 Jan 28 j 12:04		50.16661 AU	conjunction	-10206 Feb 04 j 20:46	2° ∡ ¹50'45	
retrograde	-10214 May 10 j 05:59			minimum elong	-10206 Feb 04 j 20:53	2° ∡ 50'45	
opposition	-10214 Jul 31 j 20:12			max. Earth dist.	-10206 Feb 05 j 00:02		50.15629 AU
min. Earth dist.	-10214 Jul 31 j 07:12		48.25394 AU	retrograde	-10206 May 18 j 01:57	4° ≯ 19'31	
direct	-10214 Oct 21 j 10:29	24°11L44'26		opposition	-10206 Aug 08 j 05:48	3° ₹ ′20′16	
				min. Earth dist.	-10206 Aug 08 j 03:04		48.22175 AU
conjunction	-10213 Jan 29 j 03:42			direct	-10206 Oct 28 j 21:06	2° ≯ 21'05	
minimum elong	-10213 Jan 29 j 03:48						
max. Earth dist.	-10213 Jan 29 j 16:48		50.17646 AU	conjunction	-10205 Feb 06 j 02:51	3° ∡ ¹48′02	
retrograde	-10213 May 11 j 12:22			minimum elong	-10205 Feb 06 j 02:58	3° ∡ ¹48′02	
opposition	-10213 Aug 02 j 00:28			max. Earth dist.	-10205 Feb 06 j 05:22		50.13618 AU
min. Earth dist.	-10213 Aug 01 j 13:31		48.26152 AU	retrograde	-10205 May 19 j 03:16	5° ∡ 16'46	
direct	-10213 Oct 22 j 13:50	25°M41'32		opposition	-10205 Aug 09 j 09:57	4° ∡ 17'32	
				min. Earth dist.	-10205 Aug 09 j 09:10		48.19791 AU
conjunction	-10212 Jan 30 j 09:42			direct	-10205 Oct 30 j 05:41	3° ∡ 18′20	
minimum elong	-10212 Jan 30 j 09:46						
max. Earth dist.	-10212 Jan 30 j 22:13	27°M09'04	50.18334 AU	conjunction	-10204 Feb 07 j 08:51	4° ∡ ¹45'18	-15°14'12
retrograde	-10212 May 11 j 17:41			minimum elong	-10204 Feb 07 j 08:59	4° ≯ 45'18	
opposition	-10212 Aug 02 j 04:39			max. Earth dist.	-10204 Feb 07 j 08:54		50.11092 AU
min. Earth dist.	-10212 Aug 01 j 18:02		48.26608 AU	retrograde	-10204 May 19 j 08:20	6° х 13′59	
direct	-10212 Oct 22 j 18:29	26°M38'31		opposition	-10204 Aug 09 j 14:05	5° ⊀ 14'46	
				min. Earth dist.	-10204 Aug 09 j 13:57		48.16903 AU
conjunction	-10211 Jan 30 j 15:24	28°ML05'20	-15°55'29	direct	-10204 Oct 30 j 10:45	4° ∡ 15'32	

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10203 in astronomical counting style is the year 10204 BCE in historical counting style. -10203 Feb 07 i 14:44 5° ₹ 42'30 -15°07'23 conjunction -10196 Feb 15 i 07:52 12° ₹ 22'15 -14°12'40 conjunction minimum elong minimum elong -10203 Feb 07 i 14:51 5°**∡**¹42'30 15°07'54 -10196 Feb 15 i 08:01 12° ₹22'15 14°13'13 max. Earth dist. -10203 Feb 07 j 13:17 5°**∡**′42'25 50.08067 AU max. Earth dist. -10196 Feb 14 j 21:03 12° ₹21'38 49.77049 AU 7°**∡**11'10 -10203 May 20 j 14:45 -10196 Feb 20 j 13:05 12°**尽**29'18 retrograde morning rise -10203 Aug 10 j 18:17 6°**∡**11'57 -15°41'01 -10196 May 27 j 04:17 13° ₹ 50'54 opposition retrograde -10203 Aug 10 j 20:31 6°**х** 11'50 48.13553 AU -10196 Aug 16 j 23:17 12°**尽** 51'42 -14°43'26 min. Earth dist. opposition -10203 Oct 31 j 13:57 5°**∡**12'40 min. Earth dist. -10196 Aug 17 j 09:12 12°**₹**'51'14 47.80485 AU direct direct -10196 Nov 06 j 20:55 11°**尽** 52'10 6°**∡**39'39 -15°00'20 -10202 Feb 08 j 20:39 -10195 Feb 09 j 22:14 13° ₹ 11'59 conjunction evening set minimum elong -10202 Feb 08 j 20:48 6°**∡**39'39 15°00'50 6°**≯**39'31 50.04628 AU max. Earth dist. -10202 Feb 08 j 18:27 conjunction -10195 Feb 15 j 13:59 13° ₹ 19'39 -14°03'51 -10202 May 21 j 20:39 8°**х**708′16 -10195 Feb 15 j 14:08 13° ₹ 19'39 14°04'23 retrograde minimum elong -10202 Aug 11 j 22:18 7°**₹**09'02 -15°33'34 -10195 Feb 15 j 02:35 13°**х** 19'00 49.71190 AU opposition max. Earth dist. min. Earth dist. -10202 Aug 12 j 00:58 7°**∡**108'55 48.09804 AU morning rise -10195 Feb 21 j 06:03 13° ₹27'20 direct -10202 Nov 01 j 17:57 6°**х** 09′42 retrograde -10195 May 28 j 06:32 14°**х** 48'21 evening set -10201 Feb 08 j 03:32 7°**х** 34′05 opposition -10195 Aug 18 j 03:36 13°**尽** 49'09 -14°34'11 min. Earth dist. -10195 Aug 18 j 15:12 13°**₹** 48'36 47.74249 AU conjunction -10201 Feb 10 j 02:23 7°**∡**³36'44 -14°53'01 direct -10195 Nov 08 j 04:48 12° ₹ 49'36 minimum elong -10201 Feb 10 j 02:30 7°**∡**³36'44 14°53'33 evening set -10194 Feb 10 j 18:13 14° ₹08'56 max. Earth dist. -10201 Feb 09 j 21:48 7°**∡**736'28 50.00814 AU 7°**х** 39′23 morning rise -10201 Feb 12 j 01:30 conjunction -10194 Feb 16 j 20:05 14° ₹ 17'11 -13°54'49 retrograde -10201 May 23 j 02:28 9°**∡**'05'18 minimum elong -10194 Feb 16 i 20:14 14° ₹ 17'11 13°55'22 opposition -10201 Aug 13 i 02:27 8°**∡**¹06'04 -15°25'53 max. Earth dist. -10194 Feb 16 j 06:13 14° ₹ 16'24 49.64840 AU min. Earth dist. -10201 Aug 13 j 06:31 8°**∡**105'53 48.05713 AU morning rise -10194 Feb 22 j 22:22 14° **x** 25'26 direct -10201 Nov 02 j 22:04 7°**х** 06'41 retrograde -10194 May 29 j 11:16 15° ₹ 45'55 -10200 Feb 08 j 11:27 8°×729'52 opposition -10194 Aug 19 i 07:51 14° ₹ 46'44 -14°24'42 evening set min. Earth dist. -10194 Aug 19 j 20:18 14° ₹ 46'08 47.67500 AU -10200 Feb 11 i 08:23 8°**∡**33'46 -14°45'28 direct -10194 Nov 09 j 10:21 13° ₹ 47'07 conjunction -10200 Feb 11 j 08:32 8°**₹**33'46 14°45'59 -10193 Feb 11 j 14:41 15° ₹06'01 minimum elong evening set -10200 Feb 11 j 03:37 -10193 Feb 17 j 10:43 15° ₹ 13'55 49.57945 AU max. Earth dist. 8°**∡**33'30 49.96672 AU max. Earth dist. -10200 Feb 14 j 05:38 8° ₹37'40 morning rise -10193 Feb 18 j 02:20 15° ₹ 14'48 -13°45'33 -10200 May 23 j 04:55 10°**尽** 02'19 retrograde conjunction -10200 Aug 13 j 06:34 9°**尽**03'05 -15°17'55 -10193 Feb 18 j 02:29 15°**х** 14'49 13°46'05 opposition minimum elong -10193 Feb 24 j 14:23 15° ₹23'38 min. Earth dist. -10200 Aug 13 j 12:00 9°**尽**02'49 48.01297 AU morning rise -10200 Nov 03 j 05:05 8°**₹**03'40 -10193 May 30 j 17:34 16° ₹ 43'37 direct retrograde -10199 Feb 08 j 00:20 9° ₹25'56 -10193 Aug 20 j 12:21 15° ₹ 44'23 -14°15'00 evening set opposition min. Earth dist. -10193 Aug 21 j 03:22 15°**х** 43'40 47.60199 AU conjunction -10199 Feb 11 j 14:11 9° ₹30'47 -14°37'39 direct -10193 Nov 10 j 14:22 14°**又**44'43 minimum elong -10199 Feb 11 j 14:18 9° ₹30'47 14°38'10 evening set -10192 Feb 12 j 11:51 16° ₹ 03'11 max. Earth dist. -10199 Feb 11 j 07:36 9°**₹**30'24 49.92239 AU -10192 Feb 19 j 08:41 16° ₹ 12'30 -13°36'03 morning rise -10199 Feb 15 j 04:20 9°**尽**35'38 conjunction retrograde -10199 May 24 j 08:27 10°**√** 59'21 minimum elong -10192 Feb 19 j 08:50 16° ₹ 12'31 13°36'36 -10199 Aug 14 j 10:42 10° ₹ 00'06 -15°09'41 max. Earth dist. -10192 Feb 18 j 15:51 16° **₹** 11'33 49.50518 AU opposition min. Earth dist. -10199 Aug 14 j 16:21 9°**₹** 59'50 47.96598 AU morning rise -10192 Feb 26 j 05:49 16° **₹**21'51 -10199 Nov 04 j 10:58 9°**✗**00'39 retrograde -10192 May 30 j 23:30 17°**⊀** 41'21 direct -10198 Feb 08 i 15:38 10° ₹22'11 -10192 Aug 20 i 16:38 16° ₹ 42'06 -14°05'04 evening set opposition -10192 Aug 21 j 08:21 16° ₹ 41'21 47.52369 AU min. Earth dist. -10198 Feb 12 i 19:53 10° ₹27'50 -14°29'34 conjunction direct -10192 Nov 10 j 18:57 15° **X** 42'20 -10191 Feb 12 j 09:15 17° ₹ 00'25 -10198 Feb 12 j 20:03 10° ₹27'50 14°30'06 minimum elong evening set max. Earth dist. -10198 Feb 12 i 12:11 10° ₹27'24 49.87506 AU -10191 Feb 19 i 14:52 17° ₹ 10'15 -13°26'20 morning rise -10198 Feb 17 j 00:31 10° ₹33'31 conjunction retrograde -10198 May 25 j 15:04 11° ₹ 56'26 minimum elong -10191 Feb 19 i 15:02 17° × 10'15 13°26'53 -10198 Aug 15 j 14:59 10° ₹757'12 -15°01'11 max. Earth dist. -10191 Feb 18 j 19:23 17° ₹ 09'09 49.42586 AU opposition -10198 Aug 15 j 22:37 10°**₹** 56′50 47.91590 AU -10191 Feb 26 j 20:57 17° ₹20'06 min. Earth dist. morning rise -10191 Jun 01 j 06:14 18° ₹ 39'08 direct -10198 Nov 05 j 14:24 9° ₹ 57'43 retrograde -10197 Feb 09 j 08:47 11° ₹ 18'36 evening set opposition -10191 Aug 21 j 21:05 17°**尽** 39'50 -13°54'52 min. Earth dist. -10191 Aug 22 j 14:31 17°**х** 39'00 47.44075 AU -10197 Feb 14 j 01:52 11° ₹24'59 -14°21'15 direct -10191 Nov 11 j 22:50 16° ₹ 40'00 conjunction -10197 Feb 14 i 02:00 11° ₹24'59 14°21'46 evening set -10190 Feb 13 j 06:48 17° ₹ 57'42 minimum elong -10197 Feb 13 j 17:28 11°**₹**24'30 49.82466 AU max. Earth dist. -10197 Feb 18 j 19:16 11° ₹31'23 conjunction -10190 Feb 20 j 21:02 18° ₹ 08'01 -13°16'22 morning rise retrograde -10197 May 26 j 22:01 12° ₹ 53'36 minimum elong -10190 Feb 20 j 21:11 18° ₹ 08'02 13°16'55 -10197 Aug 16 j 19:01 11° ₹ 54'23 -14°52'26 opposition max. Earth dist. -10190 Feb 20 j 01:13 18°**尽**06'54 49.34212 AU min. Earth dist. -10197 Aug 17 j 03:07 11°**尽** 54'00 47.86236 AU morning rise -10190 Feb 28 j 11:32 18° ₹ 18'22 direct -10197 Nov 06 j 16:59 10°**尽** 54'53 retrograde -10190 Jun 02 j 09:23 19°**х** 36'58 -10196 Feb 10 j 03:04 12° ₹ 15'12 opposition -10190 Aug 23 j 01:32 18° ₹37'37 -13°44'26 evening set

min. Earth dist.

-10190 Aug 23 j 20:27 18°**х** 36'43 47.35357 AU

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10190 in astronomical counting style is the year 10191 BCE in historical counting style. -10190 Nov 13 i 06:16 17° ₹37'42 direct retrograde -10183 Jun 08 j 23:57 26° ₹25'38 opposition -10189 Feb 14 j 04:55 18° ₹ 55'03 -10183 Aug 29 i 09:48 25° ₹26'04 -12°23'46 evening set max. Earth dist. -10189 Feb 21 j 05:27 19° ₹ 04'36 49.25460 AU min. Earth dist. -10183 Aug 30 j 12:59 25° ₹24'45 46.65440 AU -10183 Nov 19 j 18:20 24° ₹25'38 direct -10189 Feb 22 j 03:14 19° ₹05'51 -13°06'09 -10182 Feb 18 j 22:42 25° ₹ 41'14 conjunction evening set -10189 Feb 22 j 03:24 19°**尽** 05'51 13°06'42 max. Earth dist. -10182 Feb 27 j 18:07 25°**尽** 53'19 48.55362 AU minimum elong -10189 Mar 02 j 01:57 19° ₹ 16'39 morning rise -10189 Jun 03 j 13:17 20° **₹** 34'51 -10182 Mar 01 j 00:28 25° ₹ 55'03 -11°47'20 retrograde conjunction -10182 Mar 01 j 00:38 25°**₹**'55'04 11°47'53 opposition -10189 Aug 24 j 05:48 19°**尽** 35'28 -13°33'44 minimum elong min. Earth dist. -10189 Aug 25 j 01:11 19°**尽** 34'32 47.26293 AU morning rise -10182 Mar 11 j 02:19 26° ₹ 08'55 direct -10189 Nov 14 j 12:17 18° ₹35'27 retrograde -10182 Jun 10 j 06:51 27° ₹24'57 -10188 Feb 15 j 03:11 19° ₹ 52'29 evening set opposition -10182 Aug 30 j 14:42 26° ₹25'20 -12°11'12 -10188 Feb 22 j 10:31 20°**х** 02'25 49.16369 AU -10182 Aug 31 j 18:25 26°**х** 23'59 46.53913 AU max. Earth dist. min. Earth dist. direct -10182 Nov 20 j 22:50 25°**尽**24'48 conjunction -10188 Feb 23 j 09:35 20° ₹03'44 -12°55'40 evening set -10181 Feb 19 j 23:00 26° ₹ 40'12 minimum elong -10188 Feb 23 j 09:44 20° ₹03'45 12°56'14 max. Earth dist. -10181 Feb 28 j 22:11 26°**尽** 52'32 48.43729 AU morning rise -10188 Mar 02 j 16:18 20° ₹ 15'01 retrograde -10188 Jun 03 j 19:19 21° ₹32'50 conjunction -10181 Mar 02 j 07:19 26° ₹ 54'26 -11°35'04 opposition -10188 Aug 24 i 10:25 20° ₹33'24 -13°22'45 minimum elong -10181 Mar 02 j 07:29 26° ₹ 54'27 11°35'38 min. Earth dist. -10188 Aug 25 j 07:44 20° ₹32'23 47.16915 AU morning rise -10181 Mar 12 j 15:54 27° ₹08'42 direct -10188 Nov 14 j 16:53 19° ₹33'19 retrograde -10181 Jun 11 j 15:50 28° ₹24'28 evening set -10187 Feb 15 i 01:45 20° ₹ 50'03 opposition -10181 Aug 31 j 19:42 27° ₹24'47 -11°58'22 min. Earth dist. -10181 Sep 02 i 01:30 27° ₹23'21 46.41877 AU conjunction -10187 Feb 23 i 15:48 21° ₹01'45 -12°44'56 direct -10181 Nov 22 j 01:56 26° ₹24'08 minimum elong -10187 Feb 23 i 16:00 21° ₹ 01'46 12° 45'30 evening set -10180 Feb 20 j 23:35 27° ₹39'22 max. Earth dist. -10187 Feb 22 j 16:18 21° ₹ 00'25 49.06996 AU max. Earth dist. -10180 Mar 01 j 04:43 27° ₹ 52'03 48.31587 AU -10187 Mar 04 j 06:07 21° ₹ 13'29 morning rise -10187 Jun 05 j 03:07 22° ₹30'57 -10180 Mar 02 j 14:26 27° ₹ 54'00 -11°22'33 retrograde conjunction -10187 Aug 25 j 14:55 21°₹31'29 -13°11'30 -10180 Mar 02 j 14:38 27° ₹ 54'00 11°23'07 opposition minimum elong -10180 Mar 13 j 05:15 28° ₹ 08'38 -10187 Aug 26 j 12:20 21°**₹** 30'27 47.07255 AU min. Earth dist. morning rise -10187 Nov 15 j 19:21 20° ₹31'19 -10180 Jun 11 j 20:53 29° ₹24'10 direct retrograde -10186 Feb 16 j 00:32 21°**х** 47'47 -10180 Sep 01 j 00:53 28°**尽** 24'23 -11°45'16 evening set opposition -10180 Sep 02 j 08:11 28°**尽** 22'52 46.29331 AU min. Earth dist. -10186 Feb 24 j 22:04 21° ₹ 59'56 -12°33'56 -10180 Nov 22 j 09:28 27°**尽** 23'36 conjunction direct -10186 Feb 24 j 22:14 21° ₹ 59'57 12°34'30 -10179 Feb 21 j 00:18 28° ₹38'39 minimum elong evening set -10179 Mar 02 j 09:15 28° ₹ 51'35 48.18968 AU -10186 Feb 23 j 20:25 21° ₹ 58'28 48.97348 AU max. Earth dist. max. Earth dist. -10186 Mar 05 j 20:00 22° ₹ 12'07 morning rise -10179 Mar 03 j 21:16 28° ₹ 53'40 -11°09'47 retrograde -10186 Jun 06 j 10:26 23° ₹ 29'15 conjunction opposition -10186 Aug 26 j 19:29 22°**尽** 29'45 -12°59'58 minimum elong -10179 Mar 03 j 21:27 28°**尽** 53'41 11°10'23 min. Earth dist. -10186 Aug 27 j 18:24 22°**₹**28'39 46.97329 AU morning rise -10179 Mar 14 j 18:24 29°**х** 08'42 direct -10186 Nov 16 j 22:26 21°**尽** 29'31 -10179 Apr 26 j 08:02 0°♂ -10185 Feb 16 j 23:37 22° ₹ 45'45 retrograde -10179 Jun 13 j 01:41 0°**♂**23'59 evening set max. Earth dist. -10185 Feb 25 j 02:44 22°**₹** 56'51 48.87416 AU -10179 Jul 31 j 03:46 30° R 🗷 -10179 Sep 02 j 05:58 29° ₹24'06 -11°31'55 opposition -10185 Feb 26 j 04:36 22° ₹ 58'20 -12°22'40 min. Earth dist. -10179 Sep 03 j 14:01 29° ₹22'33 46.16339 AU conjunction -10185 Feb 26 i 04:47 22° ₹ 58'21 12°23'15 -10179 Nov 23 i 16:07 28° ₹23'11 minimum elong direct -10185 Mar 07 i 09:45 23° ₹ 10'56 -10178 Feb 22 i 01:09 29° ₹38'04 morning rise evening set -10185 Jun 07 i 13:26 24° ₹27'46 retrograde max. Earth dist. -10178 Mar 03 j 15:02 29° ₹ 51'18 48.05914 AU -10185 Aug 28 i 00:12 23°₹28'15 -12°48'10 opposition min. Earth dist. -10185 Aug 29 j 00:19 23° ₹27'06 46.87081 AU conjunction -10178 Mar 05 i 04:22 29° ₹ 53'28 -10°56'46 direct -10185 Nov 18 i 06:33 22° ₹ 27'58 minimum elong -10178 Mar 05 j 04:33 29° ₹753'28 10°57'21 -10184 Feb 17 j 23:09 23° ₹ 43'58 -10178 Mar 09 j 21:20 0°る evening set max. Earth dist. -10184 Feb 26 j 07:12 23°**₹** 55'23 48.77153 AU morning rise -10178 Mar 16 j 07:34 0°る08'52 retrograde -10178 Jun 14 j 05:59 1°₹23'56 conjunction -10184 Feb 27 j 11:06 23° ₹ 56'59 -12°11'08 opposition -10178 Sep 03 j 11:11 0°**ට**23'57 -11°18'18 minimum elong -10184 Feb 27 j 11:16 23° ₹ 57'00 12°11'42 min. Earth dist. -10178 Sep 04 j 21:20 0°**정**22'17 46.02948 AU morning rise -10184 Mar 07 j 23:23 24° ₹ 10'00 -10178 Sep 24 j 12:41 30°R ⊀ -10178 Nov 24 j 23:26 29°**₹** 22'53 retrograde -10184 Jun 07 j 17:46 25° ₹726'34 direct -10184 Aug 28 j 04:49 24° ₹27'01 -12°36'06 -10177 Jan 24 j 12:05 0°궁 opposition -10184 Aug 29 j 05:37 24° ₹25'50 46.76477 AU -10177 Feb 23 j 02:20 0°る37'37 min. Earth dist. evening set -10184 Nov 18 j 13:25 23°**尽** 26'40 -10177 Mar 04 j 21:27 direct max. Earth dist. 0°**궁**51'10 47.92504 AU -10183 Feb 17 j 22:48 24° ₹ 42'28 evening set conjunction -10177 Mar 06 j 11:31 0°₹53'22 -10°43'29 conjunction -10183 Feb 27 j 17:49 24° ₹ 55'54 -11°59'21 minimum elong -10177 Mar 06 j 11:41 0°る53'23 10°44'04 minimum elong -10183 Feb 27 j 18:00 24° ₹ 55'54 11°59'56 morning rise -10177 Mar 17 j 20:35 1°**る**09'09 max. Earth dist. -10183 Feb 26 j 12:33 24°**₹**54'13 48.66482 AU retrograde -10177 Jun 15 j 13:15 2°る24'00

-10177 Sep 04 j 16:27

opposition

1°**ට**23'55 -11°04'24

-10183 Mar 09 j 13:03 25° ₹ 09'20

morning rise

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Earth dist. 9°る00'05 46.74404 AU -10176 Mar 18 j 09:39 morning rise 2°る09'35 9°**ට**03'00 -8°47'17 retrograde -10176 Jun 15 j 21:55 3°**る**24'15 conjunction -10169 Mar 15 j 00:35 opposition -10176 Sep 04 j 21:51 2°る24'04 -10°50'12 minimum elong -10169 Mar 15 j 00:46 9°る03'01 8°47'52 min. Earth dist. -10176 Sep 06 j 09:50 2°る22'19 45.75201 AU morning rise -10169 Mar 28 j 04:09 9°る21'37 -10176 Nov 26 j 07:25 direct 1°る22'43 retrograde -10169 Jun 24 j 00:42 10°♂35'36 -10175 Feb 24 j 05:15 evening set 2°**る**37'12 opposition -10169 Sep 12 j 15:19 9°♂34'52 -9°02'42 max. Earth dist. -10175 Mar 06 j 09:46 2°る51'22 47.64771 AU min. Earth dist. -10169 Sep 14 j 11:07 9° 중32'42 44.68533 AU direct -10169 Dec 04 j 04:00 8°る32'39 conjunction -10175 Mar 08 j 02:02 2°る53'43 -10°16'06 evening set -10168 Mar 02 j 00:10 9°る47'03 minimum elong -10175 Mar 08 j 02:12 2°る53'43 10°16'41 max. Earth dist. -10168 Mar 13 j 06:33 10°정03'00 46.57820 AU morning rise -10175 Mar 19 j 22:29 3°**る**10'13 retrograde -10175 Jun 17 j 03:13 4°る24'43 conjunction -10168 Mar 15 j 09:02 10°る06'01 -8°31'33 opposition -10175 Sep 06 j 03:26 3°**ට**24'27 -10°35'43 minimum elong -10168 Mar 15 j 09:13 10°る06'02 8°32'08 min. Earth dist. -10175 Sep 07 j 16:09 3°る22'39 45.60926 AU morning rise -10168 Mar 28 j 17:10 10°る24'58 direct -10175 Nov 27 i 15:05 2°る22'58 retrograde -10168 Jun 24 i 05:11 11°る38'55 evening set -10174 Feb 25 i 07:00 3°る37'23 opposition -10168 Sep 12 j 21:56 10° ₹38'03 -8°46'13 max. Earth dist. -10174 Mar 07 j 15:11 3°중51'48 47.50533 AU min. Earth dist. -10168 Sep 14 j 19:58 10° ₹35'46 44.51564 AU direct -10168 Dec 04 i 13:27 9°る35'40 -10174 Mar 09 j 09:12 3°る54'15 -10°01'59 -10167 Mar 03 j 04:06 10°る50'05 conjunction evening set -10174 Mar 09 j 09:23 3°る54'16 10°02'34 max. Earth dist. -10167 Mar 14 j 13:54 11°**ठ**06'18 46.40772 AU minimum elong -10174 Mar 21 j 11:19 4°**궁**11'08 morning rise -10174 Jun 18 j 08:56 5°**♂**25'29 -10167 Mar 16 j 17:31 11°**⋜**09'23 -8°15'32 retrograde conjunction -10174 Sep 07 j 09:01 4°**궁**25'08 -10°20'56 minimum elong -10167 Mar 16 j 17:41 11°**궁**09'24 8°16'06 opposition -10167 Mar 30 j 06:09 11° ₹28'40 -10174 Sep 08 j 22:12 4°중23'19 45.46411 AU min. Earth dist. morning rise -10174 Nov 28 j 22:22 3°る23'32 -10167 Jun 25 j 12:49 12°₹42'34 retrograde direct -10173 Feb 26 j 09:03 4°**궁**37'55 -10167 Sep 14 j 04:31 11°₹41'34 -8°29'26 opposition evening set -10173 Mar 08 j 21:52 4°중52'37 47.36029 AU -10167 Sep 16 j 02:57 11° ₹39'16 44.34148 AU max. Earth dist. min. Earth dist. -10167 Dec 05 j 20:17 10°중39'00 direct -10173 Mar 10 j 16:49 4°**궁**55'09 -9°47'36 -10166 Mar 04 j 08:06 11°る53'26 conjunction evening set -10173 Mar 10 j 16:59 4°₹55'09 9°48'11 -10166 Mar 15 j 20:03 12°**궁**09'50 46.23286 AU minimum elong max. Earth dist. morning rise -10173 Mar 23 j 00:14 5°**♂**12'22 retrograde -10173 Jun 19 j 14:59 6°る26'37 conjunction -10166 Mar 18 j 01:57 12°3 13'04 -7°59'14 opposition -10173 Sep 08 j 14:46 5°♂26'12 -10°05'52 minimum elong -10166 Mar 18 j 02:07 12°쥥13'05 7°59'49 min. Earth dist. -10173 Sep 10 j 05:57 5°중24'17 45.31616 AU morning rise -10166 Mar 31 j 19:05 12°₹32'41 -10173 Nov 30 j 04:57 4°**♂**24'30 retrograde -10166 Jun 26 j 23:27 13°₹46'34 direct -10172 Feb 27 j 11:33 5°**⋜**38'51 -10166 Sep 15 j 11:21 12°₹45'25 -8°12'21 evening set opposition max. Earth dist. -10172 Mar 09 j 04:48 5°る53'51 47.21236 AU min. Earth dist. -10166 Sep 17 j 11:50 12° ₹43'00 44.16333 AU -10166 Dec 06 j 23:41 11°₹42'38 direct -10172 Mar 11 j 00:34 5°る56'26 -9°32'56 -10165 Mar 05 j 12:29 12°る57'08 conjunction evening set -10165 Mar 17 j 04:38 13°る13'50 46.05426 AU minimum elong -10172 Mar 11 i 00:45 5°る56'27 9°33'31 max. Earth dist. morning rise -10172 Mar 23 j 13:11 6°**ප**14'01 -10165 Mar 19 j 10:47 13°る17'05 -7°42'40 retrograde -10172 Jun 19 j 22:40 7°る28'11 conjunction minimum elong -10172 Sep 08 j 20:38 6°る27'43 -9°50'30 -10165 Mar 19 i 10:57 13° ₹ 17'06 7° 43'14 opposition min. Earth dist. -10172 Sep 10 j 12:03 6°る25'46 45.16495 AU morning rise -10165 Apr 02 j 07:59 13°る37'00 direct -10172 Nov 30 j 10:18 5°る25'54 -10165 Jun 28 j 07:10 14°る50'53 retrograde -10171 Feb 27 j 14:10 6°₹40'14 -10165 Sep 16 j 18:13 13°₹49'34 -7°54'59 evening set opposition -10171 Mar 10 j 10:12 6°る55'27 47.06070 AU -10165 Sep 18 j 19:25 13°**5**47'06 43.98165 AU max. Earth dist. min. Earth dist. direct -10165 Dec 08 j 08:03 12°정46'35 -10164 Mar 05 j 17:17 14°**ਰ**01'09 conjunction -10171 Mar 12 j 08:16 6°る58'10 -9°17'59 evening set -10171 Mar 12 j 08:26 6°る58'11 9°18'34 max. Earth dist. -10164 Mar 17 j 11:25 14°정18'02 45.87251 AU minimum elong -10171 Mar 25 j 02:04 7°る16'06 morning rise -10171 Jun 21 j 08:59 8°**る**30'13 -10164 Mar 19 j 19:35 14°**⋜**21'26 -7°25'48 retrograde conjunction -10171 Sep 10 j 02:46 7°**る**29'40 -9°34'51 -10164 Mar 19 j 19:44 14°♂21'26 7°26'23 opposition minimum elong -10171 Sep 11 j 20:11 7°る27'37 45.00981 AU -10164 Apr 02 j 21:02 14°정41'40 min. Earth dist. morning rise -10171 Dec 01 j 13:50 6°る27'44 retrograde -10164 Jun 28 j 15:43 15°**궁**55'32 direct evening set -10170 Feb 28 j 17:08 7°る42'05 opposition -10164 Sep 17 j 01:20 14° ₹54'04 -7°37'17 max. Earth dist. -10170 Mar 11 j 17:54 7°る57'37 46.90476 AU min. Earth dist. -10164 Sep 19 j 03:17 14°중51'33 43.79723 AU direct -10164 Dec 08 j 16:21 13°**궁**50'53 -10170 Mar 13 j 16:24 8°る00'22 -9°02'46 -10163 Mar 06 j 22:04 15°**⋜**05'33 conjunction evening set -10170 Mar 13 j 16:35 8°る00'23 9°03'22 max. Earth dist. -10163 Mar 18 j 19:50 15° ₹ 22'42 45.68801 AU minimum elong

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Earth dist. morning rise -10163 Dec 10 j 02:06 14°₹55'34 -10156 Jul 07 j 16:49 24°**⋜**50'38 direct retrograde -10156 Sep 25 j 17:41 23°₹47'54 -5°04'25 evening set -10162 Mar 08 j 03:23 16°♂10'21 opposition max. Earth dist. -10162 Mar 20 j 04:07 16°**궁**27'45 45.50132 AU -10156 Sep 28 j 05:27 23°중44'49 42.21826 AU min. Earth dist. -10156 Dec 17 j 10:17 22°₹43'04 direct -10162 Mar 22 j 13:39 16°♂31'15 -6°51'11 conjunction evening set -10155 Mar 15 j 03:16 23°**궁**59'16 -10162 Mar 22 j 13:48 16°**⋜**31'16 6°51'46 -10155 Mar 27 j 17:53 24°정18'04 44.10461 AU minimum elong max. Earth dist. -10162 Apr 05 j 22:44 16° ₹52'07 morning rise -10162 Jul 01 j 05:27 18°る06'03 -10155 Mar 30 j 12:23 24°**♂**22'15 -4°40'42 retrograde conjunction opposition -10162 Sep 19 j 16:02 17°♂04'17 -7°00'58 minimum elong -10155 Mar 30 j 12:30 24°**궁**22'16 4°41'17 min. Earth dist. -10162 Sep 21 j 19:28 17°**궁**01'41 43.42114 AU morning rise -10155 Apr 14 j 19:27 24°정45'09 direct -10162 Dec 11 j 10:31 16°**⋜**00'43 retrograde -10155 Jul 09 j 02:58 26°**⋜**00'05 evening set -10161 Mar 09 j 09:05 17°る15'37 opposition max. Earth dist. -10161 Mar 21 j 11:42 17°る33'12 45.31224 AU min. Earth dist. -10155 Sep 29 j 14:59 24°る54'01 42.00343 AU direct -10155 Dec 18 j 19:45 23°る52'02 conjunction -10161 Mar 23 j 23:04 17°る36'50 -6°33'26 evening set -10154 Mar 16 j 11:46 25° ₹ 08'31 -10154 Mar 29 j 02:30 25°중27'26 43.88898 AU minimum elong -10161 Mar 23 j 23:14 17°る36'51 6°34'01 max. Earth dist. morning rise -10161 Apr 07 j 11:51 17°る58'00 retrograde -10161 Jul 02 j 15:50 19°る12'02 conjunction -10154 Mar 31 j 23:19 25°**⋜**31'46 -4°20'53 -10161 Sep 20 j 23:47 18°정10'07 -6°42'20 opposition minimum elong -10154 Mar 31 j 23:26 25° ₹31'47 4°21'26 min. Earth dist. -10161 Sep 23 j 05:05 18°중07'25 43.22959 AU morning rise -10154 Apr 16 j 09:00 25°る54'56 -10161 Dec 12 j 16:17 17°₹06'22 retrograde -10154 Jul 10 j 15:53 27°る10'04 direct -10160 Mar 09 j 15:04 18°**♂**21'26 -10154 Sep 28 j 11:52 26° ₹ 06'54 -4°23'03 evening set opposition max. Earth dist. -10160 Mar 21 j 21:24 18° 중39'19 45.12054 AU min. Earth dist. -10154 Oct 01 j 01:30 26° ₹ 03'42 41.78523 AU -10154 Dec 20 j 03:43 25°る01'32 direct -10160 Mar 24 j 08:44 18°₹42'58 -6°15'23 -10153 Mar 17 j 20:32 26°정18'20 conjunction evening set -10160 Mar 24 j 08:53 18°₹42'58 6°15'57 -10153 Mar 30 j 13:30 26°중37'28 43.67004 AU max. Earth dist. minimum elong -10160 Apr 08 j 00:51 19°**⋜**04'25 morning rise -10160 Jul 03 j 02:28 20°₹18'34 -10153 Apr 02 j 10:40 26° ₹41'51 -4°00'46 retrograde conjunction -10160 Sep 21 j 07:40 19°₹16'30 -6°23'22 -10153 Apr 02 j 10:46 26° ₹41'52 4°01'20 opposition minimum elong -10160 Sep 23 j 13:35 19°중13'46 43.03511 AU -10153 Apr 17 j 22:29 27°る05'16 min. Earth dist. morning rise -10160 Dec 12 j 23:11 18°정12'33 -10153 Jul 12 j 02:07 28°중20'38 direct retrograde evening set -10159 Mar 10 j 21:36 19°**♂**27'50 opposition -10153 Sep 29 j 21:29 27°쥥17'14 -4°01'52 max. Earth dist. -10159 Mar 23 j 04:53 19°**정**45'52 44.92568 AU min. Earth dist. -10153 Oct 02 j 12:29 27°중13'57 41.56403 AU direct -10153 Dec 21 j 15:19 26°**궁**11'36 -10159 Mar 25 j 18:31 19°**⋜**49'40 -5°57'02 conjunction evening set -10152 Mar 18 j 05:46 27°**♂**28'43 -10159 Mar 25 j 18:40 19°₹49'40 5°57'37 max. Earth dist. -10152 Mar 30 j 23:35 27° ₹ 48'01 43.44856 AU minimum elong morning rise -10159 Apr 09 j 14:07 20°**♂**11'25 retrograde -10159 Jul 04 j 14:07 21°₹25'41 -10152 Apr 02 j 21:57 27°₹52'30 -3°40'21 conjunction -10159 Sep 22 j 15:44 20°₹23'29 -6°04'06 -10152 Apr 02 j 22:04 27°る52'31 3°40'53 opposition minimum elong -10159 Sep 24 j 22:50 20°る20'41 42.83733 AU -10152 Apr 18 j 12:00 28°る16'11 min. Earth dist. morning rise -10159 Dec 14 j 05:50 19°る19'20 -10152 Jul 12 j 12:13 29°る31'48 direct retrograde -10152 Sep 30 j 07:11 28°る28'11 -3°40'22 evening set -10158 Mar 12 j 04:16 20°る34'50 opposition max. Earth dist. -10158 Mar 24 j 14:10 20° 353'05 44.72695 AU min. Earth dist. -10152 Oct 02 j 22:10 28°る24'53 41.34068 AU direct -10152 Dec 22 j 02:21 27°る22'16 -10158 Mar 27 i 04:37 20° ₹56'57 -5°38'23 evening set conjunction -10151 Mar 19 j 15:22 28°る39'44 -10158 Mar 27 i 04:45 20° ₹ 56'58 5°38'57 max. Earth dist. -10151 Apr 01 j 10:01 28°る59'11 43.22498 AU minimum elong -10158 Apr 11 j 03:14 21°る19'00 morning rise -10158 Jul 05 j 21:41 22°る33'25 -10151 Apr 04 j 09:36 29°る03'47 -3°19'37 retrograde conjunction -10158 Sep 24 j 00:13 21°♂31'03 -5°44'31 opposition minimum elong -10151 Apr 04 j 09:42 29°る03'47 3°20'10 -10158 Sep 26 j 09:11 21°중28'08 42.63535 AU morning rise min. Earth dist. -10151 Apr 20 j 01:29 29°る27'43 direct -10158 Dec 15 j 16:43 20°₹26'42 -10151 May 13 j 00:19 0°≈ -10157 Mar 13 j 11:39 21°**♂**42'25 -10151 Jul 13 j 22:01 0°≈43'37 evening set retrograde -10157 Mar 25 j 23:02 22°중00'51 44.52397 AU -10151 Sep 15 j 09:24 30°R ₹ max. Earth dist. -10151 Oct 01 j 17:20 29°♂39'47 -3°18'32 opposition -10157 Mar 28 j 15:00 22°♂04'50 -5°19'27 min. Earth dist. -10151 Oct 04 j 09:58 29°중36'23 41.11566 AU conjunction minimum elong -10157 Mar 28 j 15:08 22°る04'50 5°20'01 direct -10151 Dec 23 j 12:27 28° **중**33'36 morning rise -10157 Apr 12 j 16:41 22°♂27'10 evening set -10150 Mar 21 j 01:18 29°**궁**51'27 retrograde -10157 Jul 07 j 06:05 23°♂41'44 -10150 Mar 26 j 16:28 0°≈ opposition -10157 Sep 25 j 08:42 22°♂39'12 -5°24'37 max. Earth dist. -10150 Apr 02 j 22:02 0°≈11'08 42.99996 AU min. Earth dist. -10157 Sep 27 j 18:13 22°중36'14 42.42899 AU

conjunction

-10150 Apr 05 j 21:26 0°≈15'45 -2°58'36

-10157 Dec 17 j 03:04 21°₹34'36

direct

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Earth dist. conjunction -10143 Apr 14 j 18:17 9°≈03'21 -0°22'59 -10150 Nov 19 j 11:39 30°R♂ -10143 Apr 14 j 18:17 minimum elong 9°≈03'21 0°23'28 direct -10150 Dec 24 j 21:37 29°₹45'39 morning rise -10143 Apr 30 j 17:41 9°≈29'00 -10149 Jan 29 j 01:10 -10143 Jul 24 j 08:32 10°≈48'21 0°≈ retrograde evening set -10149 Mar 22 j 12:00 1°≈03'56 opposition -10143 Oct 11 j 13:48 9°≈42'36 -0°12'08 max. Earth dist. -10149 Apr 04 j 08:16 1°≈23'43 42.77343 AU min. Earth dist. -10143 Oct 14 j 13:35 9°≈38'42 39.24083 AU direct -10142 Jan 02 j 04:31 8°**≈**34'08 -10149 Apr 07 j 09:36 conjunction 1°≈28'28 -2°37'15 evening set -10142 Mar 31 j 06:15 9°≈56'12 -10149 Apr 07 j 09:41 minimum elong 1°≈28′29 2°37'47 asc. node -10142 Apr 09 j 11:19 10°≈10'59 -10149 Apr 23 j 04:48 morning rise 1°≈52'53 max. Earth dist. -10142 Apr 13 j 00:15 10°≈16'44 41.11779 AU retrograde -10149 Jul 17 j 00:33 3°≈09'30 opposition -10149 Oct 04 j 14:15 2°≈05'13 -2°33'53 conjunction -10142 Apr 16 j 08:49 10°≈22'12 0°00'26 min. Earth dist. -10149 Oct 07 j 08:00 2°≈01'44 40.66132 AU minimum elong -10142 Apr 16 j 08:49 10°≈22'12 0°00'04 direct -10149 Dec 26 j 04:42 0°≈58'31 behind sun begin -10142 Apr 16 j 02:56 10°≈21'50 evening set -10148 Mar 22 j 23:05 2°≈17'16 behind sun end -10142 Apr 16 j 14:42 10°≈22'34 max. Earth dist. -10148 Apr 04 j 21:03 2°≈37'16 42.54527 AU morning rise -10142 May 02 j 08:19 10°≈48'02 retrograde -10142 Jul 26 j 00:51 12°≈07'55 conjunction -10148 Apr 07 j 22:15 2°≈42'02 -2°15'37 opposition -10142 Oct 13 i 02:54 11°≈01'51 0°12'37 minimum elong -10148 Apr 07 j 22:20 2°≈42'03 2°16'09 min. Earth dist. -10142 Oct 16 i 03:25 10°≈57'54 38.99384 AU morning rise -10148 Apr 23 j 18:35 3°≈06'41 direct -10141 Jan 03 i 16:25 9°≈53'01 retrograde -10148 Jul 17 j 13:10 4°≈23'41 evening set -10141 Apr 01 j 21:30 11°≈15'45 -10148 Oct 05 j 01:21 3°≈19'12 -2°11'04 max. Earth dist. -10141 Apr 14 j 14:49 11°≈36'23 40.86957 AU opposition -10148 Oct 07 j 19:56 min. Earth dist. 3°≈15'40 40.43164 AU -10148 Dec 26 j 16:31 -10141 Apr 17 j 23:55 11°≈41'55 direct 2°≈12'15 conjunction 0°24'09 -10147 Mar 24 j 10:43 3°≈31'30 -10141 Apr 17 j 23:55 11°≈41'55 minimum elong 0°23'41 evening set -10141 May 03 j 22:53 12°≈07'54 -10147 Apr 06 j 08:17 3°≈51'36 42.31510 AU max. Earth dist. morning rise -10141 Jul 27 j 14:34 13°≈28'21 retrograde -10147 Apr 09 j 10:54 -10141 Oct 14 j 16:31 12°≈21'58 0°37'40 conjunction 3°≈56'30 -1°53'41 opposition -10147 Apr 09 j 10:58 -10141 Oct 17 j 18:28 12°≈17'55 38.74481 AU 3°≈56'30 1°54'12 min. Earth dist. minimum elong -10147 Apr 25 j 08:29 -10140 Jan 05 j 08:16 11°≈12'46 morning rise 4°≈21'22 direct -10147 Jul 19 j 02:32 5°≈38'47 -10140 Apr 02 j 13:28 12°≈36'11 retrograde evening set -10147 Oct 06 j 12:38 4°≈34'05 -1°47'56 -10140 Apr 15 j 05:44 12°≈56'53 40.61977 AU opposition max. Earth dist. -10147 Oct 09 j 07:39 4°≈30'30 40.19977 AU min. Earth dist. direct -10147 Dec 28 j 05:20 3°≈26'52 conjunction -10140 Apr 18 j 15:14 13°≈02'30 0°48'06 -10146 Mar 25 j 23:00 4°**≈**46'39 minimum elong -10140 Apr 18 j 15:13 13°≈02'30 0°47'37 evening set max. Earth dist. -10146 Apr 07 j 20:29 5°≈06'52 42.08212 AU morning rise -10140 May 04 j 13:41 13°≈28'38 retrograde -10140 Jul 28 j 04:57 14°≈49'41 -10146 Apr 11 j 00:14 5°≈11'53 -1°31'27 -10140 Oct 15 j 06:30 13°≈42'59 1°03'01 conjunction opposition -10146 Apr 11 j 00:17 5°≈11'53 1°31'57 min. Earth dist. -10140 Oct 18 j 08:05 13°≈38'55 38.49461 AU minimum elong -10146 Apr 26 j 22:33 5°≈36'58 -10139 Jan 05 j 23:52 12°≈33'25 morning rise direct -10146 Jul 20 j 14:43 6°≈54'50 -10139 Apr 04 j 05:53 13°≈57'33 retrograde evening set -10146 Oct 08 i 00:20 opposition 5°≈49'54 -1°24'27 max. Earth dist. -10139 Apr 16 j 20:05 14°≈18'16 40.36883 AU min. Earth dist. -10146 Oct 10 i 21:27 5°≈46'11 39.96493 AU -10139 Apr 20 j 06:48 14°≈24'01 1°12'19 direct -10146 Dec 29 i 17:55 4°≈42'24 conjunction -10139 Apr 20 j 06:45 14°≈24'01 evening set -10145 Mar 27 i 11:59 6°≈02'43 minimum elong 1°11'52 max. Earth dist. -10145 Apr 09 j 09:29 6°≈23'04 41.84603 AU morning rise -10139 May 06 i 04:17 14°≈50'16 -10139 May 12 i 06:12 15°≈ -10145 Apr 12 j 13:56 6°≈28'10 -1°08'55 retrograde -10139 Jul 29 j 20:16 16°≈11'59 conjunction -10145 Apr 12 j 13:58 6°≈28'10 1°09'25 -10139 Oct 16 j 20:59 15°≈04'58 1°28'39 minimum elong opposition -10145 Apr 28 j 12:55 morning rise 6°≈53'27 min. Earth dist. -10139 Oct 20 j 00:03 15°≈00'48 38.24378 AU -10145 Jul 22 j 02:40 retrograde 8°≈11'47 -10139 Oct 20 j 14:26 15°R≈ opposition -10145 Oct 09 j 12:26 7°≈06'36 -1°00'40 direct -10138 Jan 07 j 12:44 13°≈55'02 min. Earth dist. -10145 Oct 12 j 09:39 7°≈02'52 39.72679 AU -10138 Mar 24 j 08:20 15°≈ -10145 Dec 31 j 06:41 -10138 Apr 05 j 23:05 15°≈19'57 direct 5°≈58'48 evening set -10138 Apr 18 j 12:48 15°≈40'47 40.11744 AU evening set -10144 Mar 28 j 01:32 7°≈19'41 max. Earth dist. -10144 Apr 09 j 21:13 max. Earth dist. 7°≈40'03 41.60640 AU conjunction -10138 Apr 21 j 22:57 15°≈46'32 1°36'48 conjunction -10144 Apr 13 j 03:52 7°≈45'19 -0°46'05 minimum elong -10138 Apr 21 j 22:54 15°≈46'31 1°36'21 minimum elong -10144 Apr 13 j 03:53 7°≈45'20 0°46'36 morning rise -10138 May 07 j 19:12 16°≈12'54 morning rise -10144 Apr 29 j 03:15 8°≈10'48 retrograde -10138 Jul 31 j 11:41 17°≈35'20 opposition retrograde -10144 Jul 22 j 17:36 9°≈29'38 -10138 Oct 18 j 11:44 16°≈28'00 1°54'35 -10144 Oct 10 j 00:58 8°≈24'11 -0°36'33 min. Earth dist. -10138 Oct 21 j 14:31 16°≈23'50 37.99263 AU opposition

-10137 Jan 09 j 03:25 15°≈17'43

min. Earth dist.

-10144 Oct 13 j 00:01

8°≈20′20 39.48535 AU

direct

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10137 in astronomical counting style is the year 10138 BCE in historical counting style. opposition -10137 Apr 07 j 17:13 16°≈43'28 -10131 Oct 28 j 10:39 26°≈45'27 5°03'19 evening set max. Earth dist. -10137 Apr 20 j 03:47 17°≈04'15 39.86579 AU min. Earth dist. -10131 Oct 31 j 18:10 26°≈40'50 36.21254 AU -10130 Jan 18 j 19:10 25°≈32'37 direct -10137 Apr 23 j 15:30 17°≈10'09 2°01'32 -10130 Apr 18 j 22:53 27°≈05'37 conjunction evening set -10137 Apr 23 j 15:26 17°≈10'09 2°01'06 -10130 Apr 30 j 09:25 27°≈25'55 38.07465 AU minimum elong max. Earth dist. -10137 May 09 j 10:21 17°≈36'38 morning rise -10130 May 04 j 01:26 27°**≈**32'30 5°00'55 retrograde -10137 Aug 02 j 07:12 18°≈59'49 conjunction -10137 Oct 20 j 03:05 17°≈52'12 2°20'47 -10130 May 04 j 01:15 27°**≈**32'29 opposition minimum elong 5°00'32 min. Earth dist. -10137 Oct 23 j 06:32 17°≈47'58 37.74146 AU morning rise -10130 May 19 j 00:21 27°≈59'08 direct -10136 Jan 10 j 15:43 16°≈41'34 retrograde -10130 Aug 12 j 22:39 29°≈29'02 evening set -10136 Apr 08 j 11:53 18°≈08'13 opposition -10130 Oct 30 j 05:40 28°≈19'05 5°31'10 -10136 Apr 20 j 21:19 18°≈29'05 39.61380 AU -10130 Nov 02 j 13:36 28°≈14'26 35.95280 AU max. Earth dist. min. Earth dist. direct -10129 Jan 20 j 12:25 27°≈05'49 conjunction -10136 Apr 24 j 08:33 18°≈35'00 2°26'31 evening set -10129 Apr 20 j 23:53 28°≈40'03 minimum elong -10136 Apr 24 j 08:28 18°≈34'59 2°26'04 max. Earth dist. -10129 May 02 j 06:18 29°**≈**00'13 37.81302 AU morning rise -10136 May 10 j 01:24 19°≈01'33 retrograde -10136 Aug 03 j 01:06 20°≈25'35 conjunction -10129 May 05 j 22:14 29°≈06'51 5°27'16 opposition -10136 Oct 20 j 19:02 19°≈17'39 2°47'15 minimum elong -10129 May 05 j 22:02 29°≈06'50 min. Earth dist. -10136 Oct 23 j 23:18 19°≈13'21 37.48985 AU morning rise -10129 May 20 j 16:39 29°≈33'25 direct -10135 Jan 11 j 06:56 18°≈06'42 -10129 Jun 05 j 06:38 0°**∀** evening set -10135 Apr 10 j 07:32 19°≈34'17 retrograde -10129 Aug 14 j 19:41 1°**)** 04'27 max. Earth dist. -10135 Apr 22 j 13:51 19°≈55'07 39.36126 AU -10129 Oct 27 j 20:56 30°R≈ opposition -10129 Nov 01 i 01:36 29°≈54'06 5°59'12 conjunction -10135 Apr 26 j 01:58 20°≈01'08 2°51'43 min. Earth dist. -10129 Nov 04 j 10:34 29°≈49'21 35.69256 AU minimum elong -10135 Apr 26 j 01:52 20°≈01'08 2°51'18 direct -10128 Jan 22 j 07:43 28°≈40'23 -10135 May 11 j 16:51 20°≈27'47 -10128 Apr 12 j 23:51 0°**₩** morning rise -10135 Aug 04 j 19:54 21°≈52'40 -10128 Apr 22 j 01:50 0°¥15'53 retrograde evening set -10135 Oct 22 j 11:15 20°≈44'27 3°13'59 max. Earth dist. -10128 May 03 j 03:16 0°**)** 35′52 37.55134 AU opposition -10135 Oct 25 j 15:28 20°≈40'08 37.23760 AU min. Earth dist. -10134 Jan 12 j 23:18 19°≈33'09 -10128 May 06 j 19:15 0° \(\mathbf{H}\)42'34 5°53'45 direct conjunction evening set -10134 Apr 12 j 03:55 21°≈01'44 -10128 May 06 j 19:03 0° \(\mathbf{H}\)42'33 5°53'25 minimum elong -10134 Apr 24 j 06:57 21°≈22'31 39.10743 AU -10128 May 21 j 09:01 1°**米**09'01 max. Earth dist. morning rise -10128 Aug 15 j 17:30 2° **∺**41'15 retrograde -10128 Nov 01 j 21:58 1° **∺** 30'29 6°27'21 -10134 Apr 27 j 20:01 21°≈28'39 3°17'09 conjunction opposition -10134 Apr 27 j 19:54 21°≈28'39 3°16'44 -10128 Nov 05 j 06:13 1° **★**25'44 35.43278 AU minimum elong min. Earth dist. -10134 May 13 j 08:20 21°≈55'20 -10127 Jan 23 j 05:54 0° **★** 16'19 morning rise direct -10134 Aug 06 j 13:23 23°≈21'09 -10127 Apr 24 j 04:43 1°**米** 53'09 retrograde evening set opposition -10134 Oct 24 j 04:18 22°≈12'38 3°40'58 max. Earth dist. -10127 May 05 j 00:23 2° ¥ 12'53 37.29020 AU min. Earth dist. -10134 Oct 27 j 10:12 22°≈08'11 36.98391 AU direct -10133 Jan 14 j 16:35 21°≈00'59 conjunction -10127 May 08 j 16:58 2° **∺** 19'42 6°20'20 evening set -10133 Apr 14 j 01:20 22°≈30'37 minimum elong -10127 May 08 j 16:44 2° **∺** 19'41 6°20'00 max. Earth dist. -10133 Apr 26 j 01:31 22°≈51'21 38.85197 AU -10127 May 23 j 01:29 2° **∺**46'00 morning rise -10127 Aug 17 j 15:30 4°**米** 19'29 retrograde -10133 Apr 29 j 14:36 22°≈57'34 3°42'48 -10127 Nov 03 j 18:59 3°**米**08'18 6°55'36 conjunction opposition -10133 Apr 29 j 14:28 22°≈57'33 3°42'25 min. Earth dist. -10127 Nov 07 j 04:16 3°**米** 03'28 35.17419 AU minimum elong -10133 May 15 i 00:07 23°≈24'16 -10126 Jan 25 i 02:23 1° **★**53'41 morning rise direct -10133 Aug 08 i 07:12 24°≈51'02 -10126 Apr 26 j 08:39 retrograde evening set 3°**)**€31'55 opposition -10133 Oct 25 j 21:46 23°≈42'12 4°08'12 max. Earth dist. -10126 May 06 j 23:43 3° + 51'29 37.03053 AU -10133 Oct 29 i 03:29 23°≈37'44 36.72847 AU min. Earth dist. direct -10132 Jan 16 i 10:00 22°≈30'10 conjunction -10126 May 10 i 15:14 3° \(\frac{1}{2}\)58'17 6°46'58 minimum elong -10132 Apr 14 j 23:42 24°≈00'53 -10126 May 10 i 14:59 3°**¥**58'16 6°46'39 evening set max. Earth dist. -10132 Apr 26 j 18:52 24°≈21'27 38.59453 AU morning rise -10126 May 24 j 18:05 4° **H** 24'24 retrograde -10126 Aug 19 j 13:03 5° **X** 59'13 conjunction -10132 Apr 30 j 09:44 24°≈27'51 4°08'39 opposition -10126 Nov 05 j 16:42 4°**)**(47'37 7°23'56 minimum elong -10132 Apr 30 j 09:35 24°≈27'50 4°08'16 min. Earth dist. -10126 Nov 09 j 00:55 4°**)** 42'49 34.91729 AU -10125 Jan 27 j 00:01 morning rise -10132 May 15 j 16:05 24°≈54'34 direct 3°**)**€32'34 retrograde -10132 Aug 09 j 03:27 26°≈22'20 evening set -10125 Apr 28 j 13:45 5°**光**12′16 -10132 Oct 26 j 15:57 25°≈13'09 4°35'39 max. Earth dist. -10125 May 08 j 21:44 5°**₭**31'30 36.77267 AU opposition -10132 Oct 29 j 23:10 25°≈08'34 36.47133 AU min. Earth dist. -10131 Jan 17 j 01:19 24°≈00'44 -10125 May 12 j 14:04 5°**¥**38′25 7°13′37 direct conjunction -10131 Apr 16 j 22:41 25°≈32'33 5°**¥**38'24 7°13'19 evening set minimum elong -10125 May 12 j 13:47 max. Earth dist. -10131 Apr 28 j 14:50 25°≈53'05 38.33530 AU morning rise -10125 May 26 j 10:53 6°****04'19 retrograde -10125 Aug 21 j 12:52 7°**)** 40'33 conjunction -10131 May 02 j 05:19 25°≈59'29 4°34'42 opposition -10125 Nov 07 j 15:05 6°**¥**28'33 7°52'18 minimum elong -10131 May 02 j 05:09 25°≈59'29 4°34'19 min. Earth dist. -10125 Nov 10 j 23:44 6°**¥**23'42 34.66263 AU -10131 May 17 j 08:01 26°≈26'11 -10124 Jan 28 j 19:22 5° **)** 13'04 morning rise direct retrograde -10131 Aug 10 j 23:26 27°≈55'00 -10124 Apr 29 j 19:53 6°**)** 54′20 evening set

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 21 Attention, astronomical year style is used: The year -10124 in astronomical counting style is the year 10125 BCE in historical counting style.

Attention, astronom	nical year style is used: The	e year -10124	in astronomical co	ounting style is the year	r 10125 BCE in historical	counting sty	le.
max. Earth dist.	-10124 May 09 j 22:45	7°) 13′20	36.51695 AU	min. Earth dist.	-10118 Nov 23 j 09:34	19°) € 00'45	32.92913 AU
				direct	-10117 Feb 09 j 20:05	17°) 47′14	
conjunction	-10124 May 13 j 13:41	7°) €20'13	7°40'17	evening set	-10117 May 16 j 02:57		
minimum elong	-10124 May 13 j 13:24	7° ∺ 20'11	7°39'59	max. Earth dist.	-10117 May 23 j 16:58		34.77107 AU
morning rise	-10124 May 27 j 03:45	7°) 45′51					
retrograde	-10124 Aug 22 j 13:04	9° ∺ 23'35		conjunction	-10117 May 27 j 06:00	20°) 04′08	10°44'02
opposition	-10124 Nov 08 j 14:19	8° ₩ 11'11	8°20'40	minimum elong	-10117 May 27 j 05:36		
min. Earth dist.	-10124 Nov 11 j 22:41		34.41014 AU	morning rise	-10117 Jun 07 j 06:06		
direct	-10123 Jan 29 j 16:30	6° ¥ 55'17		retrograde	-10117 Sep 05 j 15:12		
evening set	-10123 May 02 j 03:13	8° ¥ 38'11		opposition	-10117 Nov 22 j 06:25		11°36'20
max. Earth dist.	-10123 May 11 j 22:13		36.26333 AU	min. Earth dist.	-10117 Nov 25 j 13:45		
	, ,			direct	-10116 Feb 11 j 23:04		
conjunction	-10123 May 15 j 13:41	9°) €03'45	8°06'54	evening set	-10116 May 17 j 19:47		
minimum elong	-10123 May 15 j 13:22	9°) €03'44		max. Earth dist.	-10116 May 24 j 22:00		34.52930 AU
morning rise	-10123 May 28 j 20:49	9° ¥ 29'06			, , , , , , , , , , , , , , , , , , ,	,,,,,	
retrograde	-10123 Aug 24 j 16:10			conjunction	-10116 May 28 j 11:05	22° ₩ 00'45	11°09'22
opposition	-10123 Nov 10 j 14:06		8°49'00	minimum elong	-10116 May 28 j 10:41		11°09'14
min. Earth dist.	-10123 Nov 13 j 22:01		34.15974 AU	morning rise	-10116 Jun 07 j 23:51		
direct	-10122 Jan 31 j 13:26	8°) (30'13	31.13771110	retrograde	-10116 Sep 06 j 23:07		
evening set	-10122 May 04 j 11:47			opposition	-10116 Nov 23 j 11:57		12°03'17
max. Earth dist.	-10122 May 13 j 23:45		36.01126.AU	min. Earth dist.	-10116 Nov 26 j 18:22		
max. Lattii dist.	10122 May 13 j 23.43	10 /(42 00	30.01120710	direct	-10115 Feb 13 j 02:10		32.43170710
conjunction	-10122 May 17 j 14:41	10° ¥ 40'08	8°33'27	evening set	-10115 May 20 j 13:52		
minimum elong	-10122 May 17 j 14:41 -10122 May 17 j 14:22			max. Earth dist.	-10115 May 20 j 15:32 -10115 May 27 j 05:26		34 20126 AII
morning rise	-10122 May 17 j 14:22 -10122 May 30 j 14:02		8 33 13	max. Earth dist.	-10113 May 27 J 03.20	23 /(32 04	34.29120 AU
=	-10122 May 30 j 14:02 -10122 Aug 26 j 18:36			conjugation	10115 May 20 i 16:52	22°¥ 50'17	11024117
retrograde	-10122 Aug 20 j 18.30 -10122 Nov 12 j 14:45		0017116	conjunction minimum elong	-10115 May 30 j 16:53 -10115 May 30 j 16:27		
opposition				morning rise			11-34-10
min. Earth dist.	-10122 Nov 15 j 23:27		33.91083 AU	-	-10115 Jun 09 j 17:16		
direct	-10121 Feb 02 j 13:33			retrograde	-10115 Sep 09 j 06:38		12020146
evening set	-10121 May 06 j 21:53		25 76050 ATT	opposition	-10115 Nov 25 j 18:29		
max. Earth dist.	-10121 May 16 j 01:42	12° X 29°20	35./6059 AU	min. Earth dist.	-10115 Nov 29 j 00:33		32.21902 AU
	1012134 10:1620	100\/0<100	0050155	direct	-10114 Feb 15 j 07:48		
conjunction	-10121 May 19 j 16:20			evening set	-10114 May 23 j 09:48		2405502 444
minimum elong	-10121 May 19 j 15:59		8°59'41	max. Earth dist.	-10114 May 29 j 12:59	25° H 52'33	34.05/93 AU
morning rise	-10121 Jun 01 j 07:33					>/	
retrograde	-10121 Aug 28 j 23:05		0045105	conjunction	-10114 Jun 01 j 23:23		
opposition	-10121 Nov 14 j 16:14			minimum elong	-10114 Jun 01 j 22:57		11°58'37
min. Earth dist.	-10121 Nov 17 j 23:59		33.66327 AU	morning rise	-10114 Jun 11 j 10:42		
direct	-10120 Feb 04 j 15:39			retrograde	-10114 Sep 11 j 16:25		
evening set	-10120 May 08 j 09:00			opposition	-10114 Nov 28 j 01:39		
max. Earth dist.	-10120 May 17 j 03:37	14° ★ 18'22	35.51094 AU	min. Earth dist.	-10114 Dec 01 j 05:40		31.99143 AU
				direct	-10113 Feb 17 j 14:15		
conjunction	-10120 May 20 j 18:37			evening set	-10113 May 26 j 07:18		
minimum elong	-10120 May 20 j 18:16		9°26'03	max. Earth dist.	-10113 May 31 j 21:35	27° ★ 55'05	33.82993 AU
morning rise	-10120 Jun 02 j 01:01						
retrograde	-10120 Aug 30 j 02:56			conjunction	-10113 Jun 04 j 06:46		
opposition	-10120 Nov 15 j 18:40		10°13'30	minimum elong	-10113 Jun 04 j 06:19		12°22'30
min. Earth dist.	-10120 Nov 19 j 03:23		33.41695 AU	morning rise	-10113 Jun 13 j 04:01		
direct	-10119 Feb 05 j 16:23				-10113 Aug 09 j 07:14		
evening set	-10119 May 10 j 21:39			retrograde	-10113 Sep 14 j 01:25		
max. Earth dist.	-10119 May 19 j 07:49	16° ∺ 09'23	35.26260 AU		-10113 Oct 20 j 16:30		
				opposition	-10113 Nov 30 j 10:02		
conjunction	-10119 May 22 j 21:44	16° ¥ 16'31	9°52'26	min. Earth dist.	-10113 Dec 03 j 13:45	28° ¥ 58'31	31.76957 AU
minimum elong	-10119 May 22 j 21:21		9°52'13	direct	-10112 Feb 19 j 20:27		
morning rise	-10119 Jun 03 j 18:40			evening set	-10112 May 28 j 06:38		
retrograde	-10119 Sep 01 j 05:39			max. Earth dist.	-10112 Jun 02 j 07:52		33.60799 AU
opposition	-10119 Nov 17 j 21:40				-10112 Jun 02 j 10:10	$\mathbf{\gamma}_{0}$	
min. Earth dist.	-10119 Nov 21 j 05:20		33.17207 AU				
direct	-10118 Feb 07 j 19:20			conjunction	-10112 Jun 05 j 14:44		12°45'50
evening set	-10118 May 13 j 11:37			minimum elong	-10112 Jun 05 j 14:18	0° Y 06'47	12°45'46
max. Earth dist.	-10118 May 21 j 10:46	18° ₩ 02'07	35.01579 AU	morning rise	-10112 Jun 13 j 20:51	0° Υ 24'28	
				retrograde	-10112 Sep 15 j 12:14	2° Y 26'39	
conjunction	-10118 May 25 j 01:30		10°18'22	opposition	-10112 Dec 01 j 19:11	1° Y 09'04	13°45'44
minimum elong	-10118 May 25 j 01:07	18° ₩ 09'22	10°18'11	min. Earth dist.	-10112 Dec 04 j 20:32	1° Ƴ 04'17	31.55378 AU
morning rise	-10118 Jun 05 j 12:31				-10111 Jan 23 j 12:15		
retrograde	-10118 Sep 03 j 10:39	20°) € 20'41		direct	-10111 Feb 21 j 05:45		
opposition	-10118 Nov 20 j 01:34	19°) €05'47	11°09'00		-10111 Mar 21 j 08:40	0° Y	

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10111 in astronomical counting style is the year 10112 BCE in historical counting style. -10111 May 31 j 07:55 1°**Υ**'57'05 evening set direct -10104 Mar 08 j 08:03 15°**Υ**25'39 max. Earth dist -10111 Jun 04 i 17:25 2°**Υ**06'33 33.39209 AU max. Earth dist. -10104 Jun 20 i 18:36 17°**Υ**54'53 32.04363 AU c 0 d e c d e

max. Earth dist.	-10111 Jun 04 j 17:25	2° Y 06′33	33.39209 AU	max. Earth dist.	-10104 Jun 20 j 18:36	17° Ƴ 54'53	32.04363 AU
conjunction	-10111 Jun 07 j 23:37	2° Y 13'36	13°08'23	conjunction	-10104 Jun 23 j 11:51	18° Ƴ 01'09	15°21'00
minimum elong	-10111 Jun 07 j 23:09	2° Y 13'33	13°08'20	minimum elong	-10104 Jun 23 j 11:29		15°21'08
morning rise	-10111 Jun 15 j 13:31	2° Y ′29'57		retrograde	-10104 Oct 04 j 02:19		
retrograde	-10111 Sep 17 j 23:58	4° Ƴ 34'54		opposition	-10104 Dec 20 j 06:32		16°29'16
opposition	-10111 Dec 04 j 05:08	3° Y 16'56	14°09'37	min. Earth dist.	-10104 Dec 22 j 20:19	19° Ƴ 07'25	30.03707 AU
min. Earth dist.	-10111 Dec 07 j 06:01	3° Y 12′09	31.34412 AU	direct	-10103 Mar 10 j 22:29	17° Y 47'33	
direct	-10110 Feb 23 j 12:43	1° Y 55'21		max. Earth dist.	-10103 Jun 23 j 12:26	20° Ƴ 18′13	31.87714 AU
evening set	-10110 Jun 03 j 11:41	4° Υ ′07'32					
max. Earth dist.	-10110 Jun 07 j 05:49	4° Y 15'43	33.18220 AU	conjunction	-10103 Jun 26 j 02:40	20° Y 24'14	15°35'25
				minimum elong	-10103 Jun 26 j 02:17		15°35'33
conjunction	-10110 Jun 10 j 09:22	4° Y ′22'35	13°30'10	retrograde	-10103 Oct 06 j 20:29	22° Y 56'40	
minimum elong	-10110 Jun 10 j 08:56	4° Y °22'33	13°30'09	opposition	-10103 Dec 22 j 23:43		16°44'14
morning rise	-10110 Jun 17 j 05:24	4° Ƴ 37'29		min. Earth dist.	-10103 Dec 25 j 10:12		29.87698 AU
retrograde	-10110 Sep 20 j 10:11	6° Y 45′23		direct	-10102 Mar 13 j 16:14		
opposition	-10110 Dec 06 j 16:13		14°32'41	max. Earth dist.	-10102 Jun 26 j 05:51	22° Y 43'07	31.71910 AU
min. Earth dist.	-10110 Dec 09 j 15:11		31.14015 AU				
direct	-10109 Feb 25 j 22:45	4°Υ°05'05		conjunction	-10102 Jun 28 j 18:05		15°48'25
evening set	-10109 Jun 06 j 17:55	6° Y ′20′25		minimum elong	-10102 Jun 28 j 17:45		15°48'36
max. Earth dist.	-10109 Jun 09 j 16:45	6°'Y'26'55	32.97799 AU	retrograde	-10102 Oct 09 j 14:34		
		ca 0.0 a a a		opposition	-10102 Dec 25 j 18:00		16°57'38
conjunction	-10109 Jun 12 j 19:46	6° Y 33'48	13°51'07	min. Earth dist.	-10102 Dec 28 j 02:46		29.72573 AU
minimum elong	-10109 Jun 12 j 19:19	6° Y 33'46	13°51'08	direct	-10101 Mar 16 j 08:05		
morning rise	-10109 Jun 18 j 20:13	6° Y 47'03		max. Earth dist.	-10101 Jun 29 j 01:44	25°° y ′09'50	31.57054 AU
retrograde	-10109 Sep 22 j 23:04	8°Υ58'04	1.405.4150	• ,•	10101 7 1 01 10 02	2500015122	15050156
opposition	-10109 Dec 09 j 04:17	7° Y 39′21	14°54'50	conjunction	-10101 Jul 01 j 10:03		15°59'56
min. Earth dist.	-10109 Dec 12 j 02:04		30.94186 AU	minimum elong	-10101 Jul 01 j 09:43		16°00'07
direct	-10108 Feb 28 j 06:58	6°Υ17'03		retrograde	-10101 Oct 12 j 08:20		17000122
evening set	-10108 Jun 09 j 03:47	8° Y 35'47	22 77022 ATT	opposition	-10101 Dec 28 j 13:03		17°09'23
max. Earth dist.	-10108 Jun 11 j 06:51	8 1 40 30	32.77932 AU	min. Earth dist.	-10101 Dec 30 j 18:11 -10100 Mar 18 j 02:28		29.38394 AU
aaniumatian	10100 Jun 14:07:11	8° Y 47'13	14°11'11	direct max. Earth dist.	-10100 Mai 18 j 02.28 -10100 Jun 30 j 20:21		21 42206 ATT
conjunction minimum elong	-10108 Jun 14 j 07:11 -10108 Jun 14 j 06:46	8° Υ 47'11	14°11'13	max. Earth dist.	-10100 Juli 30 j 20.21	2/ 13600	31.43200 AU
morning rise	-10108 Jun 19 j 09:18	8° Υ 58'32	14 11 13	conjunction	-10100 Jul 03 j 02:34	27° ℃ 43'22	16°09'52
retrograde	-10108 Sep 24 j 11:40			minimum elong	-10100 Jul 03 j 02:18		16°10'04
opposition	-10108 Sep 24 j 11:40	9° Υ 53'50	15°16'01	minimum clong	-10100 Sur 03 j 02:18		10 10 04
min. Earth dist.	-10108 Dec 10 j 17:25		30.74897 AU	retrograde	-10100 Sep 11 j 00:35 -10100 Oct 14 j 04:30		
direct	-10107 Mar 01 j 17:03	8° Υ 31'11	30.71097110	retrograde	-10100 Nov 17 j 06:59		
evening set	-10107 Jun 12 j 18:27			opposition	-10100 Dec 30 j 08:43		17°19'24
max. Earth dist.	-10107 Jun 13 j 19:44		32 58631 AU	min. Earth dist.	-10099 Jan 01 j 11:13		
man. Darvir diov.	10107 0411 15 5 15	10 10000	32.00031110				
				direct			2).43234 AU
conjunction	-10107 Jun 16 i 19:10	11° Y ′02'45	14°30'18	direct	-10099 Mar 20 j 19:11	27° Y '32'05	27.43234 AO
conjunction minimum elong	-10107 Jun 16 j 19:10 -10107 Jun 16 j 18:43				-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35	27° Y 32'05 0° と	
minimum elong	-10107 Jun 16 j 18:43	11° Y ′02'42		max. Earth dist.	-10099 Mar 20 j 19:11	27° Y 32'05 0° と	31.30407 AU
minimum elong morning rise	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48	11° Υ 02'42 11° Υ 11'42		max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49	27° Y 32'05 0° 엉 0° 엉 07'58	31.30407 AU
minimum elong morning rise retrograde	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48	11° Υ 02'42 11° Υ 11'42 13° Υ 29'54		max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44	27° Y 32'05 0° と 0° と 07'58 0° と 12'56	31.30407 AU
minimum elong morning rise	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48	11°Y02'42 11°Y11'42 13°Y29'54 12°Y10'23	14°30'20 15°36'09	max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49	27° Y 32'05 0° と 0° と 07'58 0° と 12'56	31.30407 AU 16°18'08
minimum elong morning rise retrograde opposition	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48 -10107 Dec 13 j 07:15	11°Y02'42 11°Y11'42 13°Y29'54 12°Y10'23 12°Y05'56	14°30'20 15°36'09	max. Earth dist. conjunction minimum elong	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44 -10099 Jul 05 j 19:28	27°Y32'05 0°8 0°807'58 0°812'56 0°812'55 2°849'56	31.30407 AU 16°18'08 16°18'23
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minimum elong morning rise retrograde opposition min. Earth dist. direct	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48 -10107 Dec 13 j 07:15 -10107 Dec 16 j 01:47 -10106 Mar 04 j 04:35	11°Y02'42 11°Y11'42 13°Y29'54 12°Y10'23 12°Y05'56 10°Y47'23 13°Y14'34	14°30'20 15°36'09 30.56169 AU	max. Earth dist. conjunction minimum elong retrograde opposition	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44 -10099 Jul 05 j 19:28 -10099 Oct 16 j 23:11 -10098 Jan 02 j 05:10	27°Y32'05 0°8 0°807'58 0°812'56 0°812'55 2°849'56 1°827'35	31.30407 AU 16°18'08 16°18'23 17°27'37
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minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct max. Earth dist.	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48 -10107 Dec 13 j 07:15 -10107 Dec 16 j 01:47 -10106 Mar 04 j 04:35 -10106 Jun 16 j 19:21 -10106 Jun 19 j 08:08 -10106 Jun 19 j 07:44 -10106 Jun 21 j 20:02 -10106 Sep 29 j 17:06 -10106 Dec 15 j 22:08 -10106 Dec 18 j 15:50 -10105 Mar 06 j 17:43 -10105 Jun 19 j 02:18 -10105 Jun 21 j 21:41 -10105 Jun 21 j 21:41	11°Y02'42 11°Y11'42 13°Y29'54 12°Y05'56 10°Y47'23 13°Y14'34 13°Y20'19 13°Y20'17 13°Y20'17 13°Y25'59 15°Y48'52 14°Y24'31 13°Y05'34 15°Y39'49 15°Y39'47 18°Y09'42	14°30'20 15°36'09 30.56169 AU 32.39893 AU 14°48'21 14°48'26 15°55'08 30.38014 AU 32.21789 AU 15°05'17	max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction min. Earth dist. direct max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44 -10099 Jul 05 j 19:28 -10099 Oct 16 j 23:11 -10098 Jan 02 j 05:10 -10098 Jan 04 j 04:36 -10098 Jul 06 j 13:38 -10098 Jul 08 j 13:15 -10098 Jul 08 j 13:02 -10098 Oct 19 j 19:48 -10097 Jan 05 j 02:13 -10097 Jan 06 j 22:24 -10097 Jul 09 j 12:04 -10097 Jul 11 j 07:28 -10097 Jul 11 j 07:16	27°Y32'05 0°8 0°807'58 0°812'56 0°812'55 2°849'56 1°827'35 1°824'18 0°802'20 2°839'17 2°844'03 2°844'02 5°822'04 3°859'30 3°856'26 2°834'08 5°812'17 5°816'39 5°816'38 7°855'35	31.30407 AU 16°18'08 16°18'23 17°27'37 29.33078 AU 31.18647 AU 16°24'43 16°24'59 17°33'58 29.21936 AU 31.07908 AU 16°29'32 16°29'50
minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct max. Earth dist. conjunction minimum elong retrograde	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48 -10107 Dec 13 j 07:15 -10107 Dec 16 j 01:47 -10106 Mar 04 j 04:35 -10106 Jun 16 j 19:21 -10106 Jun 19 j 08:08 -10106 Jun 19 j 07:44 -10106 Jun 21 j 20:02 -10106 Sep 29 j 17:06 -10106 Dec 15 j 22:08 -10106 Dec 18 j 15:50 -10105 Mar 06 j 17:43 -10105 Jun 19 j 02:18 -10105 Jun 21 j 21:41 -10105 Jun 21 j 21:41 -10105 Oct 02 j 09:52	11°Y02'42 11°Y11'42 13°Y29'54 12°Y05'56 10°Y47'23 13°Y14'34 13°Y20'19 13°Y20'17 13°Y20'17 13°Y25'59 15°Y48'52 14°Y24'31 13°Y05'34 15°Y39'49 15°Y39'47 18°Y09'42 16°Y49'23	14°30'20 15°36'09 30.56169 AU 32.39893 AU 14°48'21 14°48'26 15°55'08 30.38014 AU 32.21789 AU 15°05'17 15°05'23 16°12'52	max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction min. Earth dist. direct max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44 -10099 Jul 05 j 19:28 -10099 Oct 16 j 23:11 -10098 Jan 02 j 05:10 -10098 Jan 04 j 04:36 -10098 Jul 06 j 13:38 -10098 Jul 08 j 13:15 -10098 Jul 08 j 13:02 -10098 Oct 19 j 19:48 -10097 Jan 05 j 02:13 -10097 Jan 06 j 22:24 -10097 Jul 09 j 12:04 -10097 Jul 11 j 07:28 -10097 Jul 11 j 07:16 -10097 Oct 22 j 15:16	27°Y32'05 0°8 0°807'58 0°807'58 0°812'56 0°812'55 2°849'56 1°827'35 1°824'18 0°802'20 2°839'17 2°844'02 5°822'04 3°859'30 3°856'26 2°834'08 5°812'17 5°816'38 7°855'35 6°832'49	31.30407 AU 16°18'08 16°18'23 17°27'37 29.33078 AU 31.18647 AU 16°24'43 16°24'59 17°33'58 29.21936 AU 31.07908 AU 16°29'32 16°29'50
minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct max. Earth dist. conjunction minimum elong retrograde opposition minimum elong retrograde opposition	-10107 Jun 16 j 18:43 -10107 Jun 20 j 18:48 -10107 Sep 27 j 02:48 -10107 Dec 13 j 07:15 -10107 Dec 16 j 01:47 -10106 Mar 04 j 04:35 -10106 Jun 16 j 19:21 -10106 Jun 19 j 08:08 -10106 Jun 19 j 07:44 -10106 Jun 21 j 20:02 -10106 Sep 29 j 17:06 -10106 Dec 15 j 22:08 -10106 Dec 18 j 15:50 -10105 Mar 06 j 17:43 -10105 Jun 21 j 21:41 -10105 Jun 21 j 21:41 -10105 Jun 21 j 21:41 -10105 Oct 02 j 09:52 -10105 Dec 18 j 13:52	11°Y02'42 11°Y11'42 13°Y29'54 12°Y05'56 10°Y47'23 13°Y14'34 13°Y20'19 13°Y20'17 13°Y20'17 13°Y25'59 15°Y48'52 14°Y24'31 13°Y05'34 15°Y39'49 15°Y39'47 18°Y09'42 16°Y49'23	14°30'20 15°36'09 30.56169 AU 32.39893 AU 14°48'21 14°48'26 15°55'08 30.38014 AU 32.21789 AU 15°05'17 15°05'23 16°12'52	max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction minimum elong retrograde opposition min. Earth dist. direct max. Earth dist. conjunction min. Earth dist. direct max. Earth dist.	-10099 Mar 20 j 19:11 -10099 Jun 30 j 09:35 -10099 Jul 03 j 17:49 -10099 Jul 05 j 19:44 -10099 Jul 05 j 19:28 -10099 Oct 16 j 23:11 -10098 Jan 02 j 05:10 -10098 Jan 04 j 04:36 -10098 Jul 06 j 13:38 -10098 Jul 08 j 13:15 -10098 Jul 08 j 13:02 -10098 Oct 19 j 19:48 -10097 Jan 05 j 02:13 -10097 Jan 06 j 22:24 -10097 Jul 09 j 12:04 -10097 Jul 11 j 07:28 -10097 Jul 11 j 07:16 -10097 Oct 22 j 15:16 -10096 Jan 08 j 00:09	27°Y32'05 0°8 0°807'58 0°807'58 0°812'56 0°812'55 2°849'56 1°827'35 1°824'18 0°802'20 2°839'17 2°844'02 5°822'04 3°859'30 3°856'26 2°834'08 5°812'17 5°816'38 7°855'35 6°832'49	31.30407 AU 16°18'08 16°18'23 17°27'37 29.33078 AU 31.18647 AU 16°24'43 16°24'59 17°33'58 29.21936 AU 31.07908 AU 16°29'32 16°29'50 17°38'25

•	nical year style is used: The		•	/ /		, .	g c 23 le.
direct	-10096 Mar 28 j 03:23	5° 8 07'23		direct	-10088 Apr 18 j 12:21	26° 8 01'31	
max. Earth dist.	-10096 Jul 11 j 09:01	7° 8 46'26	30.98174 AU				
				conjunction	-10088 Aug 02 j 13:24		
conjunction	-10096 Jul 13 j 01:52		16°32'34	minimum elong	-10088 Aug 02 j 13:35		15°49'50
minimum elong	-10096 Jul 13 j 01:44	7° 8 50'33	16°32'53	max. Earth dist.	-10088 Aug 02 j 02:07		30.56852 AU
retrograde	-10096 Oct 24 j 13:42		. =		-10088 Sep 02 j 21:03	0°II	
opposition	-10095 Jan 09 j 22:27	9° 8 07'24		retrograde	-10088 Nov 14 j 18:41	1° Ⅱ 28'11	1.60.451.40
min. Earth dist.	-10095 Jan 11 j 12:15		29.02560 AU	opposition	-10087 Jan 31 j 20:06	0° Ⅱ 04'14	
direct	-10095 Mar 30 j 22:52	7° 8 41'54	20.00404 ATT	min. Earth dist.	-10087 Feb 01 j 06:07		28.64701 AU
max. Earth dist.	-10095 Jul 14 j 07:43	10°021'53	30.89404 AU	direct	-10087 Feb 03 j 08:54 -10087 Apr 21 j 12:53		
conjunction	-10095 Jul 15 j 20:56	100825140	16022147	direct	-10087 Apr 21 j 12:33 -10087 Jul 01 j 01:30	0° Ⅱ	
minimum elong	-10095 Jul 15 j 20:49				-1008/Jul 01 J 01.30	υщ	
retrograde	-10095 Oct 27 j 09:38		10 34 00	conjunction	-10087 Aug 05 j 08:35	1° Ⅲ 22'38	15°35'2/
opposition	-10094 Jan 12 j 21:16		17°41'26	minimum elong	-10087 Aug 05 j 08:47	1° II 22'39	
min. Earth dist.	-10094 Jan 14 j 08:59			max. Earth dist.	-10087 Aug 05 j 00:18		30.56874 AU
direct	-10094 Apr 02 j 19:52		20.9 .202 .110	retrograde	-10087 Nov 17 j 16:13	4° Ⅱ 04'56	30.0007.110
max. Earth dist.	-10094 Jul 17 j 06:00		30.81613 AU	opposition	-10086 Feb 03 j 19:48	2° ∏ 41'00	16°31'47
		0		min. Earth dist.	-10086 Feb 04 j 01:37		28.65107 AU
conjunction	-10094 Jul 18 j 16:12	13° 8 01'43	16°33'09	direct	-10086 Apr 24 j 10:40	1° Ⅱ 15'44	
minimum elong	-10094 Jul 18 j 16:10	13° 8 01'42	16°33'29		1 7		
-	-10094 Sep 10 j 21:44	15° 8		conjunction	-10086 Aug 08 j 03:41	3° Ⅱ 59'05	15°19'35
retrograde	-10094 Oct 30 j 08:04	15° 8 42'51		minimum elong	-10086 Aug 08 j 03:57	3° Ⅱ 59'06	15°20'03
	-10094 Dec 21 j 15:39	15°R₩		max. Earth dist.	-10086 Aug 08 j 00:33	3° Ⅱ 58'46	30.58154 AU
opposition	-10093 Jan 15 j 20:31	14° 8 19'34	17°39'57	retrograde	-10086 Nov 20 j 12:10	6° Ⅱ 41′08	
min. Earth dist.	-10093 Jan 17 j 04:02	14° 8 17'22	28.86943 AU	opposition	-10085 Feb 06 j 19:34	5° Ⅱ 17'16	16°13'54
direct	-10093 Apr 05 j 17:59			min. Earth dist.	-10085 Feb 06 j 21:49		28.66720 AU
	-10093 Jul 05 j 14:58			direct	-10085 Apr 27 j 10:12	3° Ⅱ 52'13	
max. Earth dist.	-10093 Jul 20 j 04:50	15° 8 35'21	30.74789 AU				
				conjunction	-10085 Aug 10 j 22:16	6° ∏ 34'58	15°01'58
conjunction	-10093 Jul 21 j 11:40		16°30'38	minimum elong	-10085 Aug 10 j 22:33		15°02'29
minimum elong	-10093 Jul 21 j 11:38		16°31'00	max. Earth dist.	-10085 Aug 10 j 22:07		30.60661 AU
retrograde	-10093 Nov 02 j 05:17			retrograde	-10085 Nov 23 j 10:13	9° Ⅱ 16'42	
opposition	-10092 Jan 18 j 20:17			opposition	-10084 Feb 09 j 19:03	7° I 52'55	
min. Earth dist.	-10092 Jan 20 j 01:36		28.80561 AU	min. Earth dist.	-10084 Feb 09 j 16:39		28.69518 AU
direct	-10092 Apr 07 j 14:40 -10092 Jul 22 j 04:16		20 60002 ATT	direct	-10084 Apr 29 j 08:19 -10084 Aug 09 j 17:59	6°П28'06 9°П02'58	
max. Earth dist.	-10092 Jul 22 J 04.16	18 01301	30.08983 AU	evening set	-10084 Aug 09 J 17.39	9 щ02 38	
conjunction	-10092 Jul 23 j 07:20	180×15147	16°26'14	conjunction	-10084 Aug 12 j 16:51	9° Ⅱ 10'10	14°42'39
minimum elong	-10092 Jul 23 j 07:22		16°26'36	minimum elong	-10084 Aug 12 j 17:10	9° Ⅱ 10'10	14°43'10
retrograde	-10092 Nov 04 j 03:46		10 20 30	max. Earth dist.	-10084 Aug 12 j 21:22		30.64329 AU
opposition	-10091 Jan 20 j 19:58		17°30'51	morning rise	-10084 Aug 15 j 16:20	9° I 17'26	30.01327110
min. Earth dist.	-10091 Jan 21 j 20:55			retrograde	-10084 Nov 25 j 04:21		
direct	-10091 Apr 10 j 15:12			opposition	-10083 Feb 11 j 18:09		15°32'33
max. Earth dist.	-10091 Jul 25 j 02:56		30.64217 AU	min. Earth dist.	-10083 Feb 11 j 13:01		
	·			direct	-10083 May 02 j 06:20	9° Ⅱ 03'16	
conjunction	-10091 Jul 26 j 02:58	20° 8 53'21	16°19'54	evening set	-10083 Aug 11 j 01:30	11° Ⅱ 33'52	
minimum elong	-10091 Jul 26 j 03:01		16°20'20		-		
retrograde	-10091 Nov 07 j 01:56	23° 8 35'39		conjunction	-10083 Aug 15 j 10:58		
opposition	-10090 Jan 23 j 19:58	22° 8 11'56	17°23'11	minimum elong	-10083 Aug 15 j 11:18		
min. Earth dist.	-10090 Jan 24 j 18:12	22° 8 10'23	28.70829 AU	max. Earth dist.	-10083 Aug 15 j 18:27	11° ∏ 45′19	30.69112 AU
direct	-10090 Apr 13 j 13:33	20° 8 46'16		morning rise	-10083 Aug 19 j 21:05		
				retrograde	-10083 Nov 28 j 00:34		
conjunction	-10090 Jul 28 j 22:32		16°11'39	opposition	-10082 Feb 14 j 16:53		15°09'16
minimum elong	-10090 Jul 28 j 22:39		16°12'05	min. Earth dist.	-10082 Feb 14 j 07:11		28.78401 AU
max. Earth dist.	-10090 Jul 28 j 03:03		30.60567 AU	direct	-10082 May 05 j 04:09		
retrograde	-10090 Nov 09 j 23:01		17012127	evening set	-10082 Aug 12 j 16:20	14~Щ04'38	
opposition	-10089 Jan 26 j 20:01		17°13'27	. ,.	10002 4 10:04 42	1.40TT 1.7150	12050115
min. Earth dist.	-10089 Jan 27 j 13:45		28.0/388 AU	conjunction	-10082 Aug 18 j 04:43		13°59'15
direct	-10089 Apr 16 j 13:36	23 023 38		minimum elong	-10082 Aug 18 j 05:04		13°59'47
agniumation	10000 11 21:10.00	260 200120	16001120	max. Earth dist.	-10082 Aug 18 j 16:13		30.74934 AU
conjunction minimum elong	-10089 Jul 31 j 18:00 -10089 Jul 31 j 18:08		16°01'29 16°01'56	morning rise retrograde	-10082 Aug 23 j 17:45 -10082 Nov 30 j 18:50		
max. Earth dist.	-10089 Jul 31 j 18:08 -10089 Jul 31 j 01:35			opposition	-10082 Nov 30 j 18:30 -10081 Feb 17 j 15:25		14°44'22
retrograde	-10089 Nov 12 j 21:55		50.50000 AU	min. Earth dist.	-10081 Feb 17 j 13:23 -10081 Feb 17 j 03:14		
opposition	-10089 Nov 12 j 21:33 -10088 Jan 29 j 20:07		17°01'37	direct	-10081 Pcb 17 j 03:14 -10081 May 08 j 00:20		20.0 130 / AU
min. Earth dist.	-10088 Jan 30 j 10:16			evening set	-10081 Aug 14 j 10:53		
		. 0_000		-0			

	omena of Pluto from						ge 24
	nical year style is used: The						le.
conjunction	-10081 Aug 20 j 22:06			retrograde	-10075 Dec 17 j 14:34	4°≌06'06	
minimum elong	-10081 Aug 20 j 22:28			min. Earth dist.	-10074 Mar 05 j 21:58		29.53948 AU
max. Earth dist.	-10081 Aug 21 j 12:53		30.81776 AU	opposition	-10074 Mar 07 j 10:27	2°5544'02	11°13'08
morning rise	-10081 Aug 27 j 10:00			direct	-10074 May 25 j 19:53	1° 5 22'16	
retrograde	-10081 Dec 03 j 13:26			evening set	-10074 Aug 26 j 03:10	3° © 27'42	
opposition	-10080 Feb 20 j 13:14						
min. Earth dist.	-10080 Feb 19 j 20:36		28.91353 AU	conjunction	-10074 Sep 06 j 06:14	3° © 53'18	10°14'51
direct	-10080 May 09 j 22:48			minimum elong	-10074 Sep 06 j 06:36	3° © 53'20	10°15'25
evening set	-10080 Aug 15 j 07:15	19° ∏ 03'44		max. Earth dist.	-10074 Sep 07 j 20:20	3° © 56'58	31.57474 AU
				morning rise	-10074 Sep 17 j 10:38	4° © 19'00	
conjunction	-10080 Aug 22 j 14:53			retrograde	-10074 Dec 20 j 05:55	6°526′02	
minimum elong	-10080 Aug 22 j 15:16			min. Earth dist.	-10073 Mar 08 j 10:37		29.68013 AU
max. Earth dist.	-10080 Aug 23 j 08:52		30.89586 AU	opposition	-10073 Mar 10 j 03:25	5° ॐ 04'15	10°38'52
morning rise	-10080 Aug 29 j 23:18			direct	-10073 May 28 j 13:06	3° © 42'53	
retrograde	-10080 Dec 05 j 07:11			evening set	-10073 Aug 28 j 03:43	5°5946'06	
opposition	-10079 Feb 22 j 10:37		13°50'08				
min. Earth dist.	-10079 Feb 21 j 15:24		28.99281 AU	conjunction	-10073 Sep 08 j 18:31	6° © 12'35	9°42'34
direct	-10079 May 12 j 18:26			minimum elong	-10073 Sep 08 j 18:54	6° © 12'37	
evening set	-10079 Aug 17 j 05:06	21° Ⅱ 31'32		max. Earth dist.	-10073 Sep 10 j 12:45	6° © 16'37	31.72383 AU
				morning rise	-10073 Sep 20 j 10:37	6° © 39'12	
conjunction	-10079 Aug 25 j 07:11			retrograde	-10073 Dec 22 j 17:28	8° 5 44'13	
minimum elong	-10079 Aug 25 j 07:35			min. Earth dist.	-10072 Mar 10 j 00:48	7° © 25'35	29.83055 AU
max. Earth dist.	-10079 Aug 26 j 04:51		30.98368 AU	opposition	-10072 Mar 11 j 19:37	7° © 22'45	10°03'54
morning rise	-10079 Sep 02 j 10:01	22° Ⅱ 10′08		direct	-10072 May 30 j 05:12	6° © 01'49	
retrograde	-10079 Dec 08 j 00:02	24° Ⅱ 28'39		evening set	-10072 Aug 29 j 04:38	8° © 02'53	
min. Earth dist.	-10078 Feb 24 j 07:56		29.08162 AU				
opposition	-10078 Feb 25 j 07:06	23° Ⅱ 05'44	13°20'59	conjunction	-10072 Sep 10 j 06:05	8°930'10	9°09'41
direct	-10078 May 15 j 15:28	21° Ⅱ 42'36		minimum elong	-10072 Sep 10 j 06:26	8°930'12	9°10'16
evening set	-10078 Aug 19 j 03:43	23° Ⅱ 57'56		max. Earth dist.	-10072 Sep 12 j 02:39	8° 9 34'24	31.88228 AU
				morning rise	-10072 Sep 22 j 08:59	8° 9 57'35	
conjunction	-10078 Aug 27 j 22:43	24° Ⅱ 18'45	12°15'48	retrograde	-10072 Dec 24 j 05:07	11° © 00'39	
minimum elong	-10078 Aug 27 j 23:06			min. Earth dist.	-10071 Mar 12 j 12:07	9° © 42'36	29.98994 AU
max. Earth dist.	-10078 Aug 28 j 23:08		31.08120 AU	opposition	-10071 Mar 14 j 10:56	9° © 39'31	9°28'21
morning rise	-10078 Sep 05 j 18:41			direct	-10071 Jun 01 j 20:37	8°9519'02	
retrograde	-10078 Dec 10 j 17:25			evening set	-10071 Aug 31 j 05:36	10°5518'01	
min. Earth dist.	-10077 Feb 27 j 00:52						
opposition	-10077 Feb 28 j 03:10	25° Ⅱ 32'55	12°50'37	conjunction	-10071 Sep 12 j 16:56	10°9546'01	8°36'18
direct	-10077 May 18 j 10:39	24° Ⅱ 10′06		minimum elong	-10071 Sep 12 j 17:17	10°5946'03	8°36'53
evening set	-10077 Aug 21 j 02:53	26° Ⅱ 22'48		max. Earth dist.	-10071 Sep 14 j 16:40	10°950'30	32.04897 AU
				morning rise	-10071 Sep 25 j 05:53	11° © 14'09	
conjunction	-10077 Aug 30 j 13:38			retrograde	-10071 Dec 26 j 15:42	13° © 15'20	
minimum elong	-10077 Aug 30 j 14:01			min. Earth dist.	-10070 Mar 15 j 01:04	11° © 57'44	30.15746 AU
max. Earth dist.	-10077 Aug 31 j 18:29	26° Ⅱ 47'50	31.18890 AU	opposition	-10070 Mar 17 j 01:35	11° © 54'33	8°52'19
morning rise	-10077 Sep 09 j 01:12			direct	-10070 Jun 04 j 09:49		
retrograde	-10077 Dec 13 j 09:25	29° Ⅱ 20'56		evening set	-10070 Sep 02 j 06:50	12° © 31'31	
opposition	-10076 Mar 01 j 22:25	27° Ⅱ 58'23	12°19'07				
min. Earth dist.	-10076 Feb 29 j 16:38		29.28953 AU	conjunction	-10070 Sep 15 j 03:16	13° © 00'07	8°02'30
direct	-10076 May 20 j 07:38			minimum elong	-10070 Sep 15 j 03:35		
evening set	-10076 Aug 22 j 02:42	28° Ⅱ 46′04		max. Earth dist.	-10070 Sep 17 j 05:31		32.22336 AU
				morning rise	-10070 Sep 28 j 01:18	13° © 28'51	
conjunction	-10076 Sep 01 j 03:50			retrograde	-10070 Dec 29 j 02:10		
minimum elong	-10076 Sep 01 j 04:13			min. Earth dist.	-10069 Mar 17 j 11:37	14°©11'11	30.33227 AU
max. Earth dist.	-10076 Sep 02 j 11:09	29° Ⅱ 12'34	31.30696 AU	opposition	-10069 Mar 19 j 15:25	14° © 07'49	8°15'56
morning rise	-10076 Sep 11 j 06:07	29° Ⅱ 33'05		direct	-10069 Jun 06 j 24:00	12° © 48'12	
	-10076 Sep 23 j 02:41	0 \circ		evening set	-10069 Sep 04 j 08:08	14° © 43'18	
retrograde	-10076 Dec 15 j 01:06	1° © 44'25					
min. Earth dist.	-10075 Mar 03 j 07:04		29.40926 AU	conjunction	-10069 Sep 17 j 12:48		
opposition	-10075 Mar 04 j 16:43	0°922'05	11°46'35	minimum elong	-10069 Sep 17 j 13:06		
	-10075 Mar 18 j 13:30			max. Earth dist.	-10069 Sep 19 j 17:02		32.40436 AU
direct	-10075 May 23 j 00:51			morning rise	-10069 Sep 30 j 19:25		
	-10075 Jul 23 j 02:07	0		retrograde	-10069 Dec 31 j 12:28		
evening set	-10075 Aug 24 j 02:46	1° 5 07'42		min. Earth dist.	-10068 Mar 18 j 23:01		
				opposition	-10068 Mar 21 j 04:36		7°39'15
conjunction	-10075 Sep 03 j 17:30	1° 9 32'17		direct	-10068 Jun 08 j 11:54		
minimum elong	-10075 Sep 03 j 17:54	1° © 32'19		evening set	-10068 Sep 05 j 09:32	16° © 53'18	
max. Earth dist.	-10075 Sep 05 j 05:17		31.43562 AU				
morning rise	-10075 Sep 14 j 09:15	1° © 56'58		conjunction	-10068 Sep 18 j 21:55	17° © 22'51	6°54'02

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10068 in astronomical counting style is the year 10069 BCE in historical counting style. -10068 Sep 18 j 22:12 17°522'53 6°54'35 min. Earth dist. -10061 Apr 03 j 04:48 0°Ω49'22 31.94646 AU minimum elong -10068 Sep 21 j 04:57 17°527'55 32.59147 AU -10061 Apr 06 j 00:45 0°**Ω**45'08 3°21'29 max. Earth dist. opposition -10068 Oct 02 j 12:04 17°552'35 -10061 May 08 j 05:19 30°R 5 morning rise -10067 Jan 01 j 21:25 19°5548'34 -10061 Jun 24 j 11:39 29°528'42 direct retrograde -10067 Mar 21 j 08:57 18°532'22 30.70096 AU min. Earth dist. -10061 Aug 08 j 17:57 0 $^{\circ}\Omega$ -10067 Mar 23 j 16:41 18°\$28'47 opposition 7°02'24 evening set -10061 Sep 18 j 17:26 1°**Ω**11'11 direct -10067 Jun 11 j 00:32 17°509'59 1°**Ω**41'55 2°52'50 -10061 Oct 03 j 16:18 evening set -10067 Sep 07 j 11:03 19°501'29 conjunction minimum elong -10061 Oct 03 j 16:25 1°**Ω**41'55 2°53'22 conjunction -10067 Sep 21 j 06:07 19°531'23 6°19'31 max. Earth dist. -10061 Oct 06 j 13:40 1°**Ω**47'54 34.05750 AU minimum elong -10067 Sep 21 j 06:23 19°531'25 6°20'06 morning rise -10061 Oct 18 j 17:42 2°Ω12'51 -10067 Sep 23 j 14:20 19°536'30 32.78404 AU max. Earth dist. retrograde -10060 Jan 16 j 14:54 3°**£**59′02 -10067 Oct 05 j 03:25 20°501'29 morning rise min. Earth dist. -10060 Apr 04 j 08:58 2°**Ω**45'52 32.17476 AU retrograde -10066 Jan 04 j 06:56 21°555'52 opposition -10060 Apr 07 j 07:14 2°**Ω**41'31 2°45'17 min. Earth dist. -10066 Mar 23 j 18:00 20°5540'05 30.89393 AU direct -10060 Jun 25 j 18:39 1°**£**25'30 opposition -10066 Mar 26 j 04:09 20°536'22 6°25'26 evening set -10060 Sep 19 j 18:23 3°**Ω**06'48 direct -10066 Jun 13 j 10:54 19°517'58 evening set -10066 Sep 09 j 12:11 21°507'46 conjunction -10060 Oct 04 j 19:38 3°**Ω**37'28 2°18'59 minimum elong -10060 Oct 04 j 19:44 3°**£**37′28 2°19'29 conjunction -10066 Sep 23 j 13:36 21°537'58 5°44'55 max. Earth dist. -10060 Oct 07 j 18:07 3°**Ω**43'30 34.28931 AU minimum elong -10066 Sep 23 j 13:50 21°537'59 5°45'29 morning rise -10060 Oct 19 j 23:50 $4^{\circ}\Omega$ 08'22 max. Earth dist. -10066 Sep 26 j 00:57 21°543'19 32.98200 AU retrograde -10059 Jan 17 j 19:32 5°**Ω**53'26 morning rise -10066 Oct 07 j 17:03 22°508'21 min. Earth dist. -10059 Apr 06 j 13:12 4°Ω40'43 32.40811 AU retrograde -10065 Jan 06 j 14:10 24°501'10 opposition -10059 Apr 09 j 12:58 4°Ω36'18 2°09'26 min. Earth dist. -10065 Mar 26 j 03:13 22°545'47 31.09238 AU direct -10059 Jun 27 j 22:44 3°**Ω**20'44 -10065 Mar 28 j 14:49 22°541'59 5°48'27 evening set -10059 Sep 21 j 19:04 5°**Ω**00'53 opposition -10065 Jun 15 j 23:43 21°523'57 direct -10065 Sep 11 j 13:30 23°512'08 -10059 Oct 06 j 22:29 5°Ω31'28 1°45'26 conjunction evening set -10059 Oct 06 j 22:34 $5^{\circ}\Omega 31'28$ $1^{\circ}45'58$ minimum elong -10059 Oct 09 j 23:31 5° Ω 37'40 34.52556 AU -10065 Sep 25 j 20:20 23°542'33 5°10'18 conjunction max. Earth dist. -10065 Sep 25 j 20:32 23°542'34 5°10'53 -10059 Oct 22 j 04:37 6°**Ω**02'16 morning rise minimum elong -10065 Sep 28 j 08:43 23°547'57 33.18543 AU -10058 Jan 19 j 22:52 7°**Ω**46'18 max. Earth dist. retrograde -10065 Oct 10 j 05:32 24°513'10 -10058 Apr 08 j 17:15 6° **Ω**34'01 32.64552 AU min. Earth dist. morning rise -10064 Jan 08 j 22:40 26°504'29 -10058 Apr 11 j 18:03 6° Ω29'34 1°33'57 retrograde opposition -10064 Mar 27 j 09:53 24°549'34 31.29675 AU -10058 Jun 30 j 03:48 $5^{\circ}\Omega$ 14'26 min. Earth dist. direct -10064 Mar 30 j 00:26 24°545'36 5°11'29 -10058 Sep 23 j 19:44 6° **Ω**53'31 opposition evening set -10064 Jun 17 j 10:08 23°527'57 direct evening set -10064 Sep 12 j 14:37 25°514'35 conjunction -10058 Oct 09 j 00:32 $7^{\circ}\Omega$ 23'57 $1^{\circ}12'14$ minimum elong -10058 Oct 09 j 00:34 7° Ω23'58 1°12'44 conjunction -10064 Sep 27 j 02:24 25°545'10 4°35'44 max. Earth dist. -10058 Oct 12 j 01:57 $7^{\circ}\Omega$ 30'08 34.76529 AU -10064 Sep 27 j 02:35 25°545'11 4°36'17 morning rise -10058 Oct 24 j 08:23 7°**Ω**54'38 minimum elong max. Earth dist. -10064 Sep 29 j 17:47 25°950'46 33.39454 AU -10057 Jan 22 j 02:55 9°**Ω**37'42 retrograde -10064 Oct 11 j 16:33 26°515'56 -10057 Apr 10 j 19:42 8° **Ω**25'53 32.88634 AU morning rise min. Earth dist. -10063 Jan 10 j 03:13 28°€05'51 -10057 Apr 13 j 22:31 $8^{\circ}\Omega$ 21'20 $0^{\circ}58'52$ retrograde opposition -10063 Mar 29 j 17:49 26°951'17 31.50713 AU -10057 Jul 02 j 06:42 7°**Ω**06'37 min. Earth dist. direct opposition -10063 Apr 01 i 09:22 26°547'17 4°34'38 evening set -10057 Sep 25 j 20:26 8° **Ω**44'42 direct -10063 Jun 19 i 19:53 25°530'01 -10057 Oct 11 j 02:20 9° Ω 14'58 0°39'26 evening set -10063 Sep 14 j 15:39 27°515'11 conjunction minimum elong -10057 Oct 11 j 02:21 $9^{\circ}\Omega$ 14'58 $0^{\circ}39'55$ -10063 Sep 29 i 07:39 27°545'51 4°01'16 max. Earth dist. -10057 Oct 14 j 05:53 9° Ω 21'16 35.00767 AU conjunction -10063 Sep 29 i 07:49 27°545'52 4°01'48 -10057 Oct 26 j 11:10 $9^{\circ}\Omega 45'29$ minimum elong morning rise -10063 Oct 02 j 00:36 27°551'34 33.60964 AU retrograde -10056 Jan 24 j 04:01 $11^{\circ}\Omega$ 27'36 max. Earth dist. -10063 Oct 14 j 02:08 28°516'45 -10056 Apr 11 j 23:26 10° **Ω**16'08 33.12957 AU morning rise min. Earth dist. -10063 Dec 24 j 11:29 $0^{\circ}\Omega$ opposition -10056 Apr 15 j 02:10 $10^{\circ}\Omega$ 11'36 0° 24'15 retrograde -10062 Jan 12 j 07:35 $0^{\circ}\Omega$ 05'20 direct -10056 Jul 03 j 12:21 8°**Ω**57'19 -10062 Jan 31 j 10:26 30°Rூ evening set -10056 Sep 26 j 21:04 10° **Ω** 34'25 min. Earth dist. -10062 Mar 31 j 22:39 28°551'16 31.72369 AU -10062 Apr 03 j 17:21 28°547'05 3°57'57 -10056 Oct 12 j 03:31 11° Ω 04'29 0°07'04 opposition conjunction -10062 Jun 22 j 05:06 27°530'14 -10056 Oct 12 j 03:31 11° Ω 04'29 0°07'32 direct minimum elong -10062 Sep 16 j 16:40 29°514'01 -10056 Oct 11 j 21:42 11° **Ω**04'02 evening set behind sun begin behind sun end -10056 Oct 12 j 09:20 11° Ω 04'57 conjunction -10062 Oct 01 j 12:16 29°544'45 3°26'57 max. Earth dist. -10056 Oct 15 j 07:06 11° Ω 10'44 35.25200 AU minimum elong -10062 Oct 01 j 12:25 29°544'45 3°27'28 morning rise -10056 Oct 27 j 12:59 11°**Ω**34'47 max. Earth dist. -10062 Oct 04 j 07:31 29°550'36 33.83065 AU desc. node -10056 Dec 31 j 08:48 $13^{\circ}\Omega07'17$ -10062 Oct 08 j 19:48 $0^{\circ}\Omega$ retrograde -10055 Jan 25 j 05:56 13°**Ω**16'01 -10062 Oct 16 j 10:35 0°Ω15'41 -10055 Apr 14 j 00:34 12° Ω 04'59 33.37454 AU morning rise min. Earth dist.

opposition

-10055 Apr 17 j 05:07 12° Ω 00'22 -0°09'53

-10061 Jan 14 j 11:30 2°Ω03'01

retrograde

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10055 in astronomical counting style is the year 10056 BCE in historical counting style. -10055 Jul 05 j 16:57 $10^{\circ}\Omega$ 46'28 direct conjunction $-10049 \text{ Oct } 24 \text{ j } 19:22 \quad 23^{\circ} \Omega 07'54 \quad -3^{\circ} 26'18$ minimum elong evening set -10055 Sep 28 j 21:33 12°**Q**22'39 -10049 Oct 24 j 19:15 $23^{\circ}\Omega$ 07'54 $3^{\circ}25'53$ -10049 Oct 28 j 05:23 23° Ω 14'19 37.00116 AU max. Earth dist. $-10055 \text{ Oct } 14 \text{ j } 04:01 \quad 12^{\circ} \Omega 52'29 \quad -0^{\circ} 24'59$ -10049 Nov 08 j 21:07 23°**Ω**35'56 conjunction morning rise -10055 Oct 14 j 04:00 12° Ω 52'29 0°24'30 -10048 Feb 06 j 19:05 $25^{\circ}\Omega$ 12'05 minimum elong retrograde -10055 Oct 17 j 08:56 12° Ω 58'47 35.49750 AU -10048 Apr 25 j 21:18 24° Ω 03'23 35.13402 AU max. Earth dist. min. Earth dist. -10055 Oct 29 j 13:39 $13^{\circ}\Omega$ 22'33 -10048 Apr 29 j 07:35 23°**Ω**58'36 -3°53'22 morning rise opposition -10054 Jan 12 j 19:40 15°**Ω** -10048 Jul 17 j 21:28 22° Ω 47'02 direct -10054 Jan 27 j 05:09 15° Ω 02'55 -10048 Oct 10 j 20:04 24° Ω18'05 retrograde evening set -10054 Feb 10 j 16:45 15°RΩ min. Earth dist. -10054 Apr 16 j 03:11 13° **Ω**52'11 33.62083 AU conjunction -10048 Oct 25 j 16:05 $24^{\circ}\Omega 45'29 - 3^{\circ}54'36$ -10054 Apr 19 j 07:36 13° Ω 47'37 -0°43'30 -10048 Oct 25 j 15:57 24° Ω 45'28 3°54'13 opposition minimum elong -10054 Jul 07 j 20:04 12°**Q**34'04 -10048 Oct 29 j 03:16 $24^{\circ}\Omega$ 51'56 37.25853 AU direct max. Earth dist. evening set -10054 Sep 30 j 21:48 14°**Ω**09'22 morning rise -10048 Nov 09 j 15:17 25° Ω 13'06 retrograde -10047 Feb $\,$ 07 j 13:47 $\,$ 26° Ω 48'43 conjunction -10054 Oct 16 j 04:06 14° Ω 38'55 -0°56'29 min. Earth dist. -10047 Apr 27 j 19:34 $25^{\circ}\Omega$ 40'18 35.39342 AU minimum elong -10054 Oct 16 j 04:03 14° Ω 38'55 0°56'01 opposition -10047 May 01 j 05:35 25° Ω 35'33 -4°22'52 max. Earth dist. -10054 Oct 19 j 09:51 14° Ω 45'15 35.74421 AU direct -10047 Jul 19 j 20:27 24°**\O**24'22 -10054 Oct 27 j 00:09 15°Ω evening set -10047 Oct 12 j 19:06 $25^{\circ}\Omega 54'52$ morning rise -10054 Oct 31 j 13:20 15° Ω 08'43 retrograde -10053 Jan 29 j 02:38 $16^{\circ}\Omega$ 48'16 conjunction $-10047 \text{ Oct } 27 \text{ j } 12:18 \ 26^{\circ} \Omega 21'50 \ -4^{\circ} 22'20$ min. Earth dist. -10053 Apr 18 j 03:25 15° Ω 37'55 33.86831 AU minimum elong $-10047 \text{ Oct } 27 \text{ j } 12:10 \ 26^{\circ}\Omega 21'49 \ 4^{\circ}21'57$ -10053 Apr 21 j 09:12 15°**Ω**33'16 -1°16'36 opposition max. Earth dist. -10047 Oct 31 j 00:23 $26^{\circ}\Omega$ 28'19 37.51738 AU -10047 Nov 11 j 08:23 26°**Ω**49'02 -10053 May 15 j 11:13 15°R Ω morning rise -10046 Feb $09 \text{ j } 07:51 \ 28^{\circ} \Omega 24'10$ direct -10053 Jul 09 j 23:17 14° **Ω**20'04 retrograde -10053 Aug 31 j 17:34 $15^{\circ}\Omega$ -10046 Apr 29 j 15:53 27° Ω16'08 35.65392 AU min. Earth dist. -10053 Oct 02 j 21:59 15° **Ω**54'32 $-10046 \text{ May } 03 \text{ j } 02:56 \quad 27^{\circ} \Omega 11'20 \quad -4^{\circ}51'44$ evening set opposition -10046 Jul 21 j 19:36 $26^{\circ}\Omega$ 00'30 direct -10053 Oct 18 j 03:24 16° Ω 23'46 -1°27'30 -10046 Oct 14 j 18:17 27°**Ω**30'32 conjunction evening set -10053 Oct 18 j 03:21 16° Ω 23'46 1°27'02 minimum elong -10053 Oct 21 j 09:30 16° Ω 30'05 35.99195 AU -10046 Oct 29 j 08:06 $27^{\circ}\Omega57'03$ -4°49'28 max. Earth dist. conjunction -10053 Nov 02 j 12:07 16°**Ω**53'16 -10046 Oct 29 j 07:56 27° Ω 57'02 4°49'07 morning rise minimum elong -10052 Jan 31 j 01:55 18°**Ω**32'03 -10046 Nov 01 j 20:07 28° Ω 03'29 37.77689 AU max. Earth dist. retrograde -10052 Apr 19 j 03:54 17° Ω 22'00 34.11731 AU -10046 Nov 13 j 01:04 28°**\O**23'48 min. Earth dist. morning rise -10052 Apr 22 j 10:17 17° Ω 17'21 -1°49'09 -10045 Feb 11 j 04:25 29°**Ω**58'30 opposition retrograde -10052 Jul 10 j 23:03 $16^{\circ}\Omega$ 04'28 -10045 May 01 j 12:30 28° **Ω** 50'47 35.91506 AU direct min. Earth dist. -10052 Oct 03 j 21:53 $17^{\circ}\Omega$ 38'08 -10045 May 04 j 23:52 $28^{\circ}\Omega$ 46'00 -5°19'58 evening set opposition direct -10045 Jul 23 j 14:54 27°**Ω**35'31 conjunction -10052 Oct 19 j 02:19 $18^{\circ}\Omega$ 07'03 -1°58'00 evening set -10045 Oct 16 j 17:16 29° **Ω**05'07 minimum elong -10052 Oct 19 j 02:15 18° Ω 07'03 1°57'35 max. Earth dist. -10052 Oct 22 j 10:09 18° Ω 13'27 36.24119 AU conjunction -10045 Oct 31 j 03:41 29° Ω 31'11 -5°16'02 -10052 Nov 03 j 09:42 18°**Ω**36'12 -10045 Oct 31 j 03:31 29° Ω 31'10 5°15'41 morning rise minimum elong retrograde -10051 Jan 31 j 23:14 20° **Ω**14'16 max. Earth dist. -10045 Nov 03 j 16:55 29° Ω 37'38 38.03648 AU -10051 Apr 21 j 03:36 19° Ω 04'30 34.36803 AU -10045 Nov 14 j 16:55 29°**Ω**57'28 min. Earth dist. morning rise -10051 Apr 24 j 10:25 $18^{\circ}\Omega$ 59'51 $-2^{\circ}21'06$ -10045 Nov 16 j 03:17 0° Mp opposition -10051 Jul 12 j 23:51 $17^{\circ}\Omega47'17$ -10044 Feb 12 j 23:04 1° m 31'46 direct retrograde -10051 Oct 05 j 21:44 19° Ω 20'13 -10044 May 02 j 09:18 0° m 24'20 36.17578 AU evening set min. Earth dist. -10044 May 05 j 20:14 0° m 19'36 -5°47'34 opposition -10051 Oct 21 j 00:28 19° Ω 48'47 -2°27'59 -10044 May 20 j 07:35 30°RΩ conjunction -10051 Oct 21 i 00:23 19° Ω 48'46 2°27'34 minimum elong direct -10044 Jul 24 i 12:07 29° Ω 09'27 max. Earth dist. -10051 Oct 24 j 08:18 19° Ω 55'07 36.49230 AU -10044 Sep 24 j 07:35 -10051 Nov 05 j 06:28 $20^{\circ}\Omega$ 17'35 -10044 Oct 17 j 16:20 0°m/38'38 morning rise evening set -10050 Feb 02 j 23:09 $21^{\circ}\Omega$ 54'57 retrograde -10050 Apr 23 j 01:36 $20^{\circ}\Omega$ 45'34 34.62109 AU min. Earth dist. conjunction -10044 Oct 31 j 22:47 1° Mp 04'14 -5°42'01 -10050 Apr 26 j 10:07 $20^{\circ}\Omega 40'50$ -2°52'29 opposition minimum elong -10044 Oct 31 j 22:36 1° Mp 04'13 5°41'42 direct -10050 Jul 14 j 22:37 $19^{\circ}\Omega 28'36$ max. Earth dist. -10044 Nov 04 j 11:00 1° m 10'34 38.29524 AU -10050 Oct 07 j 21:11 21° Ω 00'51 evening set morning rise -10044 Nov 15 j 08:11 1° Mp 30'02 -10043 Feb 13 j 20:19 3° m 03'58 retrograde -10050 Oct 22 j 22:07 21° Ω 29'02 -2°57'25 -10043 May 04 j 04:20 1° M 56'52 36.43556 AU conjunction min. Earth dist. -10050 Oct 22 j 22:01 21° Ω 29'02 2°57'01 -10043 May 07 j 16:01 minimum elong opposition 1° m 52'07 -6°14'32 -10050 Oct 26 j 08:03 21° **Ω**35'29 36.74560 AU -10043 Jul 26 j 06:30 max. Earth dist. direct 0° m/42'17 -10050 Nov 07 j 02:07 21° Ω 57'28 morning rise evening set -10043 Oct 19 j 15:11 2° Mp 11'06 -10049 Feb 04 j 20:54 23° Ω 34'12 retrograde min. Earth dist. -10049 Apr 25 j 00:49 22°**Q**25'05 34.87644 AU conjunction -10043 Nov 02 j 17:33 2° My $36'13 - 6^{\circ}07'26$ opposition -10049 Apr 28 j 09:17 22°**\Omega**20'23 -3°23'14 minimum elong -10043 Nov 02 j 17:21 2° m/36'12 6°07'06

max. Earth dist.

morning rise

-10043 Nov 06 j 06:45

-10043 Nov 16 j 22:43

2° m/42'35 38.55265 AU

3°m/01'32

-10049 Jul 16 j 22:45 21°**Ω**08'29

-10049 Oct 09 j 20:41 22° **Ω**40'06

direct

evening set

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10042 in astronomical counting style is the year 10043 BCE in historical counting style. -10042 Feb 15 j 15:24 4° mp 35'06 minimum elong -10036 Nov 12 j 16:41 12° mp 49'54 8°48'41 retrograde -10042 May 06 j 00:57 3° m/28'13 36.69386 AU max. Earth dist. -10036 Nov 16 j 06:39 12° m 56'01 40.32269 AU min. Earth dist. -10042 May 09 j 11:33 3° m $23'33 -6^{\circ}40'52$ -10036 Nov 25 j 09:28 13° m 11'30 opposition morning rise -10042 Jul 28 j 02:21 -10035 Feb 25 j 11:47 14° **m** 43'18 direct 2° m/ 14'02 retrograde -10042 Oct 21 j 13:47 -10035 May 16 j 03:23 13° My 38'11 38.47444 AU evening set 3° m/42'30 min. Earth dist. -10035 May 19 j 14:01 13° **m** 33'39 -9°27'31 opposition -10042 Nov 04 j 11:48 4° m 07'07 -6°32'16 -10035 Aug 07 j 07:07 12° Mp 26'03 conjunction direct -10042 Nov 04 j 11:36 minimum elong 4° 1007'06 6°31'57 evening set -10035 Nov 02 j 00:18 13° M 52'53 max. Earth dist. -10042 Nov 08 j 00:22 4° Mp 13'23 38.80850 AU morning rise -10042 Nov 18 j 12:28 4° m 31'56 conjunction -10035 Nov 14 j 08:35 14° m 13'45 -9°09'38 retrograde -10041 Feb 17 j 08:40 6° 105'09 minimum elong -10035 Nov 14 j 08:21 14° m 13'44 9°09'25 -10041 May 07 j 19:00 -10035 Nov 17 j 22:17 14° **m** 19'50 40.57370 AU min. Earth dist. 4° m 58'35 36.95052 AU max. Earth dist. opposition -10041 May 11 j 06:27 4° m 53'53 -7°06'35 morning rise -10035 Nov 26 j 18:48 14° m 34'46 direct -10041 Jul 29 j 22:39 3° m 44'39 retrograde -10034 Feb 27 j 00:31 16° Mp 06'27 evening set -10041 Oct 23 j 12:24 5° m 12'47 min. Earth dist. -10034 May 17 j 18:33 15° **m** 01'38 38.72689 AU opposition -10034 May 21 j 05:48 14° **m** 57'04 -9°48'48 conjunction -10041 Nov 06 j 05:41 5° m 36'53 -6°56'31 direct -10034 Aug 09 j 01:36 13° Mp 49'46 minimum elong -10041 Nov 06 j 05:28 5° Mp 36'52 6°56'13 evening set -10034 Nov 03 j 21:55 15° Mp 16'29 max. Earth dist. -10041 Nov 09 j 18:14 5° Mp 43'08 39.06262 AU morning rise -10041 Nov 20 j 01:45 6° m 01'12 conjunction -10034 Nov 15 j 23:45 15° m 36'48 -9°29'47 retrograde -10040 Feb 19 j 00:15 7° m 34'06 minimum elong -10034 Nov 15 j 23:31 15° m 36'47 9°29'34 min. Earth dist. -10040 May 08 j 14:15 6° m 27'44 37.20582 AU max. Earth dist. -10034 Nov 19 j 12:52 15° m 42'48 40.82355 AU opposition -10040 May 12 j 00:50 6° m 23'06 -7° 31'40 morning rise -10034 Nov 28 i 03:44 15° m 57'15 direct -10040 Jul 30 i 18:42 5° m 14'08 retrograde -10033 Feb 28 i 14:35 17° m 28'50 -10040 Oct 24 j 10:44 evening set 6° m 41'58 min. Earth dist. -10033 May 19 j 10:43 16° m 24'15 38.97806 AU -10033 May 22 j 21:24 16° mp 19'44 -10°09'29 opposition -10040 Nov 06 j 23:14 7° mp 05'33 -7°20'11 -10033 Aug 10 j 17:54 15° m 12'43 conjunction direct -10040 Nov 06 j 23:01 7° m 05'32 7°19'53 evening set -10033 Nov 05 j 19:31 16° m/39'21 minimum elong -10040 Nov 10 j 12:20 7° Mp 11'48 39.31557 AU max. Earth dist. -10033 Nov 17 j 14:59 16° m 59'06 -9°49'22 -10040 Nov 20 j 14:08 7° m 29'20 morning rise conjunction retrograde -10039 Feb 19 j 15:04 9° m 01'57 -10033 Nov 17 j 14:45 16° m 59'05 9°49'11 minimum elong -10039 May 10 j 07:58 7° m 55'50 37.46006 AU -10033 Nov 21 j 04:42 17° m 05'06 41.07171 AU min. Earth dist. max. Earth dist. -10039 May 13 j 18:41 7° **m** 51'13 -7°56'07 -10033 Nov 29 j 12:12 17° m 18'58 morning rise opposition -10039 Aug 01 j 14:24 6° Mp 42'31 -10032 Mar 01 j 04:02 18° m 50'29 direct retrograde -10039 Oct 26 j 08:52 8° Mp 10'04 -10032 May 20 j 02:40 17° mp 46'07 39.22700 AU evening set min. Earth dist. -10032 May 23 j 12:23 17° m 41'40 -10°29'34 opposition -10039 Nov 08 j 16:01 8° m 33'08 -7°43'15 -10032 Aug 11 j 09:54 16° m 34'55 conjunction direct minimum elong -10039 Nov 08 j 15:48 8° m 33'07 7°42'59 evening set -10032 Nov 06 j 17:14 18° Mp01'30 max. Earth dist. -10039 Nov 12 j 04:31 8° M 39'17 39.56767 AU -10032 Nov 18 j 05:48 18° m 20'39 -10°08'25 morning rise -10039 Nov 22 j 01:47 8° M 56'22 conjunction retrograde -10038 Feb 21 j 08:43 10° Mp 28'45 minimum elong -10032 Nov 18 j 05:34 18° m 20'38 10°08'14 -10038 May 12 j 00:59 9° m 22'54 37.71395 AU max. Earth dist. -10032 Nov 21 j 17:57 18° m 26'31 41.31735 AU min. Earth dist. -10038 May 15 j 12:13 9° mp 18'16 -8°19'55 -10032 Nov 29 j 20:12 18° m/39'57 opposition morning rise -10038 Aug 03 j 06:35 8° m 09'50 -10031 Mar 02 j 20:26 20° m 11'23 direct retrograde -10038 Oct 28 j 06:52 9° Mg 37'09 -10031 May 21 j 17:19 19° m 07'16 39.47326 AU evening set min. Earth dist. -10031 May 25 i 03:13 19° m 02'51 -10°49'06 opposition -10038 Nov 10 j 08:44 9° m 59'40 -8°05'44 conjunction direct -10031 Aug 12 i 23:13 17° m 56'21 -10038 Nov 10 j 08:31 9° m 59'39 8°05'28 -10031 Nov 08 j 14:35 19° m 22'53 minimum elong evening set -10038 Nov 13 j 22:30 10° m 05'52 39.81951 AU max. Earth dist. -10038 Nov 23 j 12:55 10° m 22'22 -10031 Nov 19 j 20:17 19° mp 41'27 -10°26'56 morning rise conjunction -10037 Feb 23 j 01:12 11° mp 54'32 minimum elong -10031 Nov 19 j 20:02 19° m 41'26 10°26'46 retrograde min. Earth dist. -10037 May 13 j 18:38 10° Mp 48'53 37.96762 AU max. Earth dist. -10031 Nov 23 j 08:48 19° mp 47'18 41.55988 AU -10037 May 17 j 05:13 10° mp 44'18 -8°43'05 -10031 Dec 01 j 03:37 20° m 00'09 opposition morning rise direct -10037 Aug 04 j 23:44 9° M 36'08 retrograde -10030 Mar 04 j 11:30 21° m 31'32 -10030 May 23 j 09:38 $\,$ 20° m 27'33 $\,$ 39.71615 AU evening set -10037 Oct 30 j 04:51 11° mp 03'16 min. Earth dist. opposition -10030 May 26 j 17:50 20° \mathfrak{m} 23'14 -11°08'03 conjunction -10037 Nov 12 j 01:02 11° m 25'15 -8°27'37 -10030 Aug 14 j 13:32 19° Mp 16'58 direct -10037 Nov 12 j 00:48 11° m 25'14 8°27'23 -10030 Nov 10 j 12:10 20° m 43'29 minimum elong evening set -10037 Nov 15 j 13:58 11° m 31'20 40.07127 AU max. Earth dist. -10037 Nov 24 j 23:29 11° m 47'24 -10030 Nov 21 j 10:39 21° m 01'28 -10°44'56 morning rise conjunction -10036 Feb 24 j 19:43 13° Mp 19'21 retrograde minimum elong -10030 Nov 21 j 10:24 21° m 01'27 10°44'45 min. Earth dist. -10036 May 14 j 10:10 12° Mp 14'01 38.22121 AU max. Earth dist. -10030 Nov 24 j 21:50 21° m 07'11 41.79907 AU opposition -10036 May 17 j 21:47 12° mp 09'24 -9°05'37 morning rise -10030 Dec 02 j 10:36 21° Mp 19'33 direct -10036 Aug 05 j 15:07 11° Mp 01'31 retrograde -10029 Mar 06 j 02:32 22° m 50'53 evening set -10036 Oct 31 j 02:39 12° M 28'29 min. Earth dist. -10029 May 24 j 23:31 21° m 47'07 39.95554 AU -10029 May 28 j 07:53 21° m 42'49 -11°26'28 opposition

direct

-10029 Aug 16 j 03:56 20° Mp 36'45

-10036 Nov 12 j 16:56 12° m/49'55 -8°48'55

conjunction

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 28 Attention, astronomical year style is used: The year -10029 in astronomical counting style is the year 10030 BCE in historical counting style.

even gene 4 (1002 No. 12) (1002 12) 2 (1002 No. 12) (1	Attention, astronom	ical year style is used: The	e year -10029	in astronomical co	ounting style is the yea	r 10030 BCE in historical	counting sty	le.
10029 Nov 21 jol 21 22 22 22 22 22 22 22 22 22 22 22 22	evening set	-10029 Nov 12 j 09:35	22° Mp $03'15$		max. Earth dist.	-10023 Dec 03 j 14:38	0° ჲ 04'23	43.39837 AU
miniminations 0.0029 Nov 2 5 10022 22°P2076 2.00680 AU min. Earth dist. 0.0029 Nov 2 5 10122 22°P2076 2.00680 AU common com					morning rise	-10023 Dec 08 j 20:31	0° £ 12'41	
max Earth dist - 10029 Nov 26 j.1109 22°P2616 40,384 Not 19 j.149 24°P2617 22°P38 Not 19 j.249 30°P38 30°P38 31°200 Not 19 j.249 30°P38 31°200 Not 19 j.249 30°P38 32°P38 Not 29 j.249 30°P38 Not 29 j.149	conjunction				retrograde	-10022 Mar 14 j 14:18	1° ≏ 44'22	
	minimum elong	-10029 Nov 23 j 00:23	22° m 20'37	11°02'16	min. Earth dist.	-10022 Jun 02 j 21:02	0° ≏ 41'49	41.56081 AU
Internation 1002 May 51 155 239 239 119 120 2002	max. Earth dist.	-10029 Nov 26 j 11:09	22°M/26'16	42.03468 AU	opposition	-10022 Jun 06 j 01:25	0° ჲ 37'48	-13°20'03
min Famile and opposition of proposition of programmed of progr	morning rise	-10029 Dec 03 j 17:12	22°M/38'06			-10022 Jul 08 j 01:19	30°₽,₩	
opposition -1002X May R8 J21-66 23*P801973 -11*P420 companies -1002X Dec 10 100 21*P4520** companies -1002X Dec 10 100 21*P4520** companies -1002X Dec 01 118.15 12*P4171* -12*P4507 coriginacion -1002X Nov 13 1620 23*P8385* 11*P124 max. Farth dist -1002X Dec 01 118.15 12*P124* 13*P124* 12*P124* 13*P124*	retrograde	-10028 Mar 06 j 14:47	24°M/09'25		direct		29° m 33'12	
Display Compute	min. Earth dist.					-10022 Oct 11 j 00:11	0∘ ⊽	
	opposition	-10028 May 28 j 21:46	23° m 01'33	-11°44'20	evening set	-10022 Nov 23 j 13:52	1° 2 00'19	
1002 No. 23 j.14.02 23 m. 3878 11922 1922	direct							
conjunction -1002S Nov 23 14-20 23*ph 38*ps 11*Pl 32 max. Earth dist. -10022 Dec 05 01-28 04-285 01-2	evening set	-10028 Nov 13 j 06:51	23° m 22'11		•	v	1° ≏ 13'14	-12°50'21
minimum clong -1002N Nov 23 j 14 nb 23* m 8* s8* 11* 915 morning rise -10022 Nov 29 j 22:59 23* m 8* s8* s1 -1002 m 10					minimum elong	-10022 Dec 01 j 18:02		
max Earth dist. -0.002 Nov 27 (90.55 25° 19-45° 25° 10 min Earth dist. -0.002 Im 0 (7) 0.07 min Earth dist.	conjunction	-10028 Nov 23 j 14:20	23° My 38'56	-11°19'23	max. Earth dist.	-10022 Dec 05 j 01:28	1° ≏ 18'27	43.61888 AU
moming rise .0025 Roc 6) 2295 239 539 539 539 539 539 539 539 539 539 5	minimum elong	-10028 Nov 23 j 14:06	23°M/38'55	11°19'15	morning rise	-10022 Dec 09 j 23:24	1° ≏ 26'12	
Page	max. Earth dist.	-		42.26720 AU	retrograde	-		
min. Earth disk -10027 May 3/1 Jol 32 24* By 237 40,426 AU Morely reference opposition -10021 Nov 25 j 11:17 2°A-1721 2** opposition -10027 Nov 15 j 0407 24* By 1027 3** -10021 Nov 25 j 11:17 2*** 2*** -10021 Nov 25 j 0407 2*** -13*** -10021 Nov 25 j 03:00** 24*** -10020 Nov 25 j 03:00** -10020 N	morning rise	-10028 Dec 03 j 22:59	23° m 55'47			-10021 Jun 04 j 09:27	1° ≏ 55'41	41.78197 AU
opposition direct -10027 May 30 j 11-04 24°By1926 - 12°0140 conjunction -10021 Nov 25 j 13:13 25°B 13'46 evening set -10027 Nov 15 j 040 24°By1627 conjunction -10021 Nov 25 j 03:19 24°By5625 11°35'50 max. Farth dist. -10021 Nov 26 j 03:10 24°By5621 11°35'40 max. Farth dist. -10021 Nov 26 j 03:10 24°By5621 11°35'40 max. Farth dist. -10021 Nov 26 j 03:20 24°By5621 11°35'40 max. Farth dist. -10021 Nov 26 j 03:20 24°By5621 11°35'40 max. Farth dist. -10020 Nov 26 j 03:20 24°By5621 11°35'40 max. Farth dist. -10020 Nov 26 j 03:20 24°By512 24°By512 11°35'40 minimum elong -10020 Nov 26 j 03:20 24°By512 11°35'40 minimum elong -10020 Nov 26 j 03:20 34°By512 24°By512 11°35'40 minimum elong -10020 Nov 26 j 03:30 34°By513 34°	retrograde	-10027 Mar 08 j 00:32	25° m 27'05		opposition	-10021 Jun 07 j 13:03	1° ≏ 51'44	-13°34'09
direct -10027 Aug IS 11-33 2° Pay 15 60.000 3 60.000	min. Earth dist.	-10027 May 27 j 04:32	24° Mp 23'37	40.42466 AU	direct	-10021 Aug 26 j 15:12	0° ჲ 47'21	
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Conjunction 10027 Nov 25 j 03.14 24"h5625 11"35'01 minimum clong 10027 Nov 25 j 03.14 24"h5625 11"35'03 max. Earth dist. 10021 Dec 15 j 13.04 24"h3624 11"35'03 max. Earth dist. 10021 Dec 15 j 13.04 24"h3624 11"35'03 max. Earth dist. 10021 Nov 28 j 12"4 25"h0154 24.9710 AU retrograde 10020 Mar 16 j 12.30 24"h0154 11"35'03 11"35	direct	-10027 Aug 18 j 11:33	23° My $13'46$					
conjunction -10027 Nov 25 jū 3.4 24"m5622 1"3550 max Earth dist. -10021 Nov 25 jū 3.1 24"m5622 1"3550 morning rise -10027 Nov 25 jū 3.1 24"m562 1"3540 morning rise -10027 Nov 25 jū 3.1 24"m562 1"3540 morning rise -10020 Nov 25 jū 3.1 25"m0154 42.49710 AU retrograde -10020 Nor 16 jū 2.0 25"m1528 retrograde -10020 Nor 16 jū 2.0 25"m1528 retrograde -10020 Nor 16 jū 2.0 25"m1528 24"m570 AU retrograde -10020 Nor 16 jū 2.0 25"m1528 retrograde -10020 Nor 16 jū 2.0 25"m1528 24"m1512 retrograde -10020 Nor 26 jū 2.0 25"m1573 retrograde -10020 Nor 26 jū 2.0 25"m1574 25"m1573 retrograde -10020 Nor 26 jū 2.0 25"m1574 vening set -10020 Nor 26 jū 2.0 25"m1574 25"m1574 retrograde -10020 Nor 26 jū 2.0 25"m1574 25"m1574 retrograde -10020 Nor 26 jū 2.0 25"m1574 retrograde -10020 Nor 26 jū 2.0 25"m1574 25"m1574 retrograde -10020 Nor 26 jū 2.0 25"m1574 25"m1574 retrograde -100020 Nor 26 jū 2.0 25"m1574 25"m1574 retr	evening set	-10027 Nov 15 j 04:07	24° Mp 40'17		conjunction	-10021 Dec 03 j 06:19	2° ≏ 26'56	-13°03'46
minimum elong Indio27 Nov 25 jo 19 4"% 6"% 1 1"3543 morning rise -10027 Nov 126 jo 124 2"8 pl 124 2 4-90104 retrograde -10027 Nov 28 jo 124 2 5" 6"0154 2 4-90104 retrograde -10026 Nar 16 jo 123 3" 40071 4" 119993 AU nertograde -10026 Nar 09 jo 1402 25" 6"0439 40 65556 AU quong sition -10020 Nov 26 jo 8:3 2"40101 opposition -10026 Nar 09 jo 1509 25" 85040 40 65556 AU quong set -10020 Nov 26 jo 8:3 2"40101 opposition -10026 Nov 19 jo 1509 25" 85735 - conjunction -10020 Dec 03 jo 18:00 3" 40079 -13" 16'44 conjunction -10026 Nov 26 jo 16:8 26" 81305 115'1545 minimum elong -10026 Nov 30 jo 230 26" 81305 115'1545 minimum elong -10026 Nov 30 jo 230 3" 44'114 40'1114 amax. Earth dist. -10026 Nov 30 jo 230 26" 81356 115'1545 minimum elong -10026 Nor 30 jo 230 3" 45'134 40'1114 40'1114 40'1114 40'1114 40'1114 40'1114 40'1114 40'1114 40'1114 <					minimum elong	-10021 Dec 03 j 06:04	2° ≏ 26'55	13°03'43
max. Earth dist. 0.10027 Nov 28 j1241 25*Bj1238 erlorgande ominie and retrogrande ominie and retrogrande omine and settle of the control of th	conjunction	-10027 Nov 25 j 03:34	24° M $56'25$	-11°35'50	max. Earth dist.	-10021 Dec 06 j 13:49	2° ₽ 32'09	43.83671 AU
morning rise c10027 Dec 05 jol 20 25° pl 278 min Earth dist. -10020 Jun 04 jol 22:15 3° 20031 -139993 AU retrograde -10026 Mar 09 jol 1400 25° pl 47437 opposition -10020 Nov 26 jol 8:3 3° 20511 -3° 44610 opposition -10020 May 28 jol 7:4 25° pl 4700 d-0.6556 AU drect -10020 Nov 26 jol 8:3 2° 20101 evening set -10026 Nov 17 jol 10:9 25° pl 4700 12° 18'26 conjunction -10020 Dec 08 jol 18:00 3° 24'000 13° 16'04 conjunction -10026 Nov 26 jol 6:8 26° bj 130 -11'81'45 max Earth dist. -10020 Dec 08 jol 3:3 3° 24'14 4'05'11'14 max Earth dist. -10026 Nov 26 jol 6:4 26° bj 130 11'81'19 morning rise -10020 Dec 08 jol 3:3 3° 24'14 4'05'11'14 minimar Linding inse -10026 Nov 26 jol 6:0 26° bj 13'0 11'81'19 minimar Linding inse -10020 Dec 06 jol 9:10 26° bj 23'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 4'05'13'1 <t< td=""><td>minimum elong</td><td>-10027 Nov 25 j 03:19</td><td>24° M $_{2}$ $56'$ 24</td><td>11°35'43</td><td>morning rise</td><td>-10021 Dec 11 j 01:49</td><td>2°₽39'13</td><td></td></t<>	minimum elong	-10027 Nov 25 j 03:19	24° M $_{2}$ $56'$ 24	11°35'43	morning rise	-10021 Dec 11 j 01:49	2° ₽ 39'13	
retrograde 10026 Mar 0g j 1400 26"m457 30"m407 40.65556 AU direct 10020 Aug 27 j 30 and 2 30"m51 31"4746 30"m6 position 10026 Aug 19 j 235 22"m310 22"m527 22"m5	max. Earth dist.	-10027 Nov 28 j 12:41	25°Mp01'54	42.49710 AU	retrograde	-10020 Mar 16 j 12:30	4° £ 11'16	
min. Earth dist. 10026 May 28 j 17-45 25° Bay049 40-6556 AU direct -10020 Aug 27 j 03-30 2° 40-101 evening set -10026 Aug 19 j 23-39 24° By3101 evening set -10026 Nov 17 j 01-09 25° By5735 conjunction -10020 Dec 03 j 18-00 3° 40-09 13° 16'44 conjunction -10026 Nov 26 j 16-32 26° By1306 11° 51'45 max. Earth dist. -10020 Dec 05 j 18-30 3° 44-11 11' 14' 14' minimum clong -10020 Nov 26 j 16-22 26° By1306 11° 51'45 max. Earth dist. -10020 Dec 1 j 10-33 3° 45'11 4' 15' 11' 14' 14' minimum clong -10020 Nov 26 j 16-22 26° By1306 42' 72498 AU ertograde -10019 Mur 18' 14' 14' 14' 14' 14' 14' 14' 14' 14' 14	morning rise	-10027 Dec 05 j 04:20	25° Mp 12'38		min. Earth dist.	-10020 Jun 04 j 22:15	3° ჲ 09'03	41.99993 AU
opposition -10026 Jun ol j olol 1 25° B3629 -128°26 evening set -10020 Nov 26 j 08.58 3° 28°36 -1002 Nov 17 j 01.09 25° B3735 conjunction -10020 Dec 03 j 18.00 3° 24009 -13° 16'44 conjunction -10020 Nov 26 j 16.32 26° B1306 -15° 1515 max. Earth dist. -10020 Nov 26 j 16.24 26° B1306 -15° 1515 morning rise -10020 Nov 26 j 16.24 26° B1306 427498 AU retrograde -10019 Jun 09 j 01.03 3° 24'00 -10020 Nov 26 j 06.24 26° B1306 427498 AU retrograde -10019 Jun 09 j 01.03 3° 24'00 -10020 Nov 26 j 06.24 26° B1306 427498 AU retrograde -10019 Jun 09 j 01.03 4° 21'12 V 21'12	retrograde	-10026 Mar 09 j 14:00	26° Mp 43'57		opposition	-10020 Jun 08 j 00:27	3° ჲ 05'11	-13°47'46
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evening set -10026 Nov 17 j 0.09 25° 87373* eonjunction -10020 Dec 03 j 18:00 3°4609 3°19'1644 conjunction -10026 Nov 26 j 16:38 26° 813'06* -11°51'45 max. Earth dist. -10020 Dec 06 j 23:33 3°44'51 4.011'1 AU max. Earth dist. -10026 Nov 26 j 16:24 26° 81'83 11°51'39 morning rise -10020 Dec 11 j 03:30 3°42'14 Verbograde -10020 Dec 06 j 09:10 26° 18'83 4.27249 NU retrograde -10019 Jun 06 j 09:27 4°42'09 42.2142 AU retrograde -10025 May 30 j 07:51 28° 80'08 3.088448 AU opposition -10019 Jun 06 j 09:20 4°42'09 42.2142 AU retrograde -10025 Nov 30 j 02:15 26° 85'52'47 123'43'99 evening set -10019 Nov 28 j 06:4 4°42'09' 42.2142 AU retrograde -10025 Nov 18 j 22:2 26° 85'247 123'43'99 evening set -10019 Nov 28 j 05:4 4°42'23' 12'20'10 4°42'10' 4°42'10' 4°42'10' 4°42'10' 4°42'10' 4'42'10' 4'42'10' 4'42'10' 4'42'10' 4'42'10' 4'42'10' 4'42'10' 4'42'10'	direct	-10026 Aug 19 j 23:59	24° Mp 31'01					
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retrograde .10025 Mar 1 j 02:15 28° M0003 opposition .10019 Mug 28 j 12:30 4° 4180 -14°005 May 20 j 07:51 26° M5655 40.8848 AU direct .10019 Mug 28 j 12:00 3° 41*11 -10025 Mug 20 j 12:59 26° M5652 M - 12° 34'39 evening set .10019 Mug 28 j 12:00 4° 44'03 -10025 Mug 20 j 12:00 26° M52'47 -12° 34'39 evening set .10019 Mug 28 j 12:00 4° 44'02'52 13° 29'14 evening set .10025 Nov 18 j 22:20 27° Mp 471 monimum elong .10019 Dec 05 j 10:23 4° 45'252 13° 29'14 conjunction .10025 Nov 28 j 05:20 27° Mp 29'02 12°07'10 max. Earth dist. .10019 Dec 05 j 10:24 4° 45'252 13° 29'14 minimum elong .10025 Nov 28 j 05:14 27° Mp 29'02 12°07'05 morning rise .10019 Dec 05 j 10:24 4° 42'52'53 42'25'31 AU max. Earth dist .10024 Mug 30'11 27° M94'04 retrograde .10018 Mug 19 j 12'3 5° 43'12'3 42'42431 AU ettorgrade .10024 Mug 30 j 10:33 28° Mg 12'30 41.1114 AU direct .10018 Nug 30 j 05:5 5° 40'30'3 -14'13'34	morning rise	-			=	-	4° Ω 22'00	42.21422 AU
min. Earth dist. -10025 May 30 j 07:51 26° 85'65' 40.848 AU direct -10019 Nov 28 j 06:45 4° 42'0' -1002 for opposition -10025 Jun 20 j 13:03 25° 64'73' -1002 for opposition -10025 Nov 18 j 22:26 26° 82'47' -12° 34'39 evening set -10019 Dec 05 j 05:35 4° 42'05' -12° 10'05'	retrograde	-			opposition		4° Ω 18'09	-14°00'54
opposition direct -10025 Aug 2 j j 13:03 25° m 57° J m 14" -10025 Aug 2 j j 13:03 25° m 57° J m 14" -10025 Aug 2 j j 13:03 25° m 47° J m 14" -10025 Aug 2 j j 13:03 25° m 47° J m 14" -10025 Aug 2 j j 13:03 25° m 47° J m 14" -10025 Aug 2 j j 13:03 25° m 14" -10025 Aug 2 j j 13:03 25° m 14" -10025 Nov 28 j 05:23 27° m 14" -10025 Mor 28 j 05:29 27° m 29° J m 14" -10025 Mor 28 j 05:29 27° m 29° J m 14" -10025 Mor 28 j 05:29 27° m 29° J m 12" -10025 Mor 28 j 05:29 27° m 29° J m 12" -10025 Mor 28 j 05:29 27° m 29° J m 12" -10025 Mor 28 j 05:29 27° m 34° J m 29° J m 14" -10018 Mor 20 j 01:40 4° 42.575 42.6153 AU -10024 Mor 20 j 01:40 -10025 Mor 28 j 05:40 -10025 Mor 28 j 05:40 -10028 Mor 20 j 01:40 -10028 Mor 20 j 01:40 -10025 Mor 20 j 01:40 -10028 Mo	•	-		40.88448 AU			3° ≏ 14'11	
direct -10025 Nov 18 j 22:26 2° to 141 conjunction -10019 Dec 05 j 05:35 4° A525 s 1-3° 29' 15 conjunction -10025 Nov 28 j 05:29 2° to 142' 15 conjunction -10019 Dec 05 j 05:25 4° A525 s 1-3° 29' 14 conjunction -10025 Nov 28 j 05:29 2° to 10' 20' 20' 21' 20' 710 max. Earth dist. -10019 Dec 08 j 10:46 4° A575 s 42' 21' 20' 14 minimum clong -10025 Nov 28 j 05:14 2° to 10' 20' 20' 12' 20' 10' 20' 20' 10' 20' 20' 10' 20' 20' 10' 20' 20' 20' 20' 20' 20' 20' 20' 20' 2								
evening set		-			C	3		
conjunction -10025 Nov 28 j 05:29 27 m 29'03 -12°07'10 max. Earth dist. -10019 Dec 05 j 05:22 4° 25'25 41° 26'15'3 44 26153 AU minimum elong -10025 Nov 28 j 05:14 27° m 29'03 12°07'10 morning rise -10019 Dec 12 j 04:48 5° 203'43 **** 4626153 AU *** 4626153 AU *** 4626153 AU *** 4626153 AU *** 4242431 AU *** 4626153 AU *** 4242431 AU *** 426265 *** 4242431 AU *** 4262750 *** 4242431 AU *** 42624	evening set	• •	-		conjunction	-10019 Dec 05 i 05:35	4° £ 52'53	-13°29'15
conjunction -10025 Nov 28 j 05:29 27° Ry 29'03 -12°07'10 max. Earth dist. -10019 Dec 08 j 10:46 4° 25.753 44.26153 AU max. Earth dist. -10025 Nov 28 j 05:14 27° Ry 29'02 12°07'05 morning rise -10018 Dec 12 j 04:48 5° 203'43 -10024 moming rise -10025 Dec 01 j 14:07 27° Ry 34'20 42.95114 AU retrograde -10018 Mur 19 j 14:33 6° 23'616 moming rise -10024 Mar 11 j 16:02 29° Ry 15'25 opposition -10018 Jun 10 j 22:34 5° 23'03 -14° 13'34 min. Earth dist. -10024 May 30 j 19:33 28° Ry 12'30 41.11174 AU direct -10018 Nov 30 j 05:01 5° 24'59 -14° 13'34 opposition -10024 May 20 j 19:32 28° Ry 30'30 -12° 50'19 evening set -10018 Nov 30 j 05:01 5° 24'59 -13° 4'121 evening set -10024 Nov 19 j 19:32 28° Ry 49'20 12° 22'03 max. Earth dist. -10018 Dec 06 j 17:02 6° 20'50 -13° 4'121 evening set -10024 Nov 28 j 17:59 28° Ry 49'21 12° 21'58 morning rise -10018 Dec 06 j 17:02 6° 20	· ·	,	•		minimum elong		4° ♀ 52'52	13°29'14
minimum elong -10025 Nov 28 j 05:14 27% p2902 12°0705 moming rise -10019 Dec 12 j 04:48 5° 203'43 -10025 Dec 01 j 14:07 27% p3427 42.95114 AU retrograde -10018 Mar 19 j 14:33 6° 236'16 42.2431 AU moming rise -10025 Dec 07 j 13:29 27% p44'0 min. Earth dist. -10018 Jun 10 j 22:34 5° 234'20 42.2431 AU retrograde -10024 Mar 1 j 16:02 29% p1525 opposition -10018 Jun 10 j 22:34 5° 230'37 -14°13'34 min. Earth dist. -10024 Jun 0 j 01:16 28% p0824 -12° 50'19 evening set -10018 Nov 30 j 05:01 5° 26'55'5 -14° 13'34 direct -10024 Nov 19 j 19:32 28% p030'2 -10018 Dec 06 j 17:02 6° 205'04 -13° 41'21 evening set -10024 Nov 19 j 19:32 28% p030'2 -10018 Dec 06 j 17:02 6° 205'04 -13° 41'21 conjunction -10024 Nov 28 j 17:59 28% p44'21 -12° 22'03 max. Earth dist. -10018 Dec 06 j 16:50 6° 205'03 13° 41'21 max. Earth dist. -10024 Dec 07 j 17:24 28% p44'21 12° 22'15'8 morning rise	conjunction	-10025 Nov 28 i 05:29	27° m 29'03	-12°07'10		•		
max. Earth dist. -10025 Dec 01 j 14:07 20° \ 034'27 42.95114 AU retrograde -10018 Mar 1 j 16:03 6° \ 236'16 42.42431 AU retrograde -10024 Mar 1 j 16:02 20° \ 044'00 opposition -10018 Jun 10 j 22:34 5° \ 236'20 42.42431 AU min. Earth dist. -10024 May 30 j 19:33 28° \ 025'0 19:35 41.11174 AU direct -10018 Nov 30 j 05:01 5° \ 236'59 -14° 13'34 opposition -10024 May 30 j 19:33 28° \ 08'24 -12° 50'19 evening set -10018 Nov 30 j 05:01 5° \ 254'59 -10'12'40'21'40'40'40'40'40'40'40'40'40'40'40'40'40'	•		-		morning rise			
momning rise -10025 Dec 07 j 13:29 27° ψ 44'0 min. Earth dist. -10018 Jun 07 j 22:37 5° Δ3'20 42.42431 AU retrograde -10024 Mar 11 j 16:02 29° ψ 15'25 opposition -10018 Jun 10 j 22:34 5° Δ3'037 -14°13'34 min. Earth dist. -10024 May 30 j 19:33 28° ψ 18'29 41.11174 AU direct -10018 Aug 29 j 22:16 4° Δ26'50 -10024 Aug 22 j 00:32 27° ψ 03'20 evening set -10018 Nov 30 j 05:05 5° Δ5'45'9 -10024 Aug 22 j 00:32 27° ψ 03'20 evening set -10018 Nov 30 j 05:05 5° Δ5'45'9 -10024 Aug 22 j 00:32 27° ψ 03'20 evening set -10018 Dec 06 j 17:02 6° Δ0'504 -13°41'21 conjunction -10024 Nov 28 j 17:59 28° ψ 30'06 - conjunction -10018 Dec 06 j 16:05 6° Δ0'503 13°41'21 conjunction -10024 Nov 28 j 17:59 28° ψ 34'20 12°22'03 max. Earth dist. -10018 Dec 06 j 16:05 6° Δ0'503 13°41'21 max. Earth dist. -10024 Nov 28 j 17:45 28° ψ 34'20 12°22'03 max. Earth dist. -10018 Dec 06 j 16:05 6° Δ0'503 13°41'12 max.	C	-			•	•		
retrograde -10024 Mar 11 j 16:02 29° \ 15'25' opposition -10018 Jun 10 j 22:34 5° \ 2037 -14'13'34 min. Earth dist. -10024 May 30 j 19:33 28° \ 12'30 41.11174 AU direct -10018 Aug 29 j 22:16 4° \ 26'50 -10024 Jun 03 j 01:16 28° \ 10'80'22 -12° 50'19 evening set -10018 Nov 30 j 05:01 5° \ 25'59 -10024 Nov 19 j 19:32 28° \ 10'03'20 conjunction -10018 Doc 06 j 17:02 6° \ 205'04 -13° 41'21 evening set -10024 Nov 28 j 17:59 28° \ 10'421 -12° 22'03 max. Earth dist. -10018 Doc 06 j 17:02 6° \ 205'03 13° 41'21 conjunction -10024 Nov 28 j 17:54 28° \ 10'44'21 -12° 22'03 max. Earth dist. -10018 Doc 06 j 17:02 6° \ 205'03 13° 41'21 max. Earth dist. -10024 Nov 28 j 17:45 28° \ 10'44'20 12° 21'58 morning rise -10017 Mor 2 j 10:03 6° \ 205'03 13° 41'21 max. Earth dist. -10024 Doc 07 j 17:24 28° \ 10'58'38 min. Earth dist. -10017 Jun 10'9 j 09:36 6° \ 20'51 4' 26'298'8 AU retrograde -10023 Mar 13 j 04:24 0°		-			•	•	5° £ 34'20	42.42431 AU
min. Earth dist.	-	-						
opposition -10024 Jun 03 j 01:16 28° mo8'24 -12°50'19 evening set -10018 Nov 30 j 05:01 5° £54'59 -10024 Aug 21 j 00:32 27° m 03'20 evening set -10024 Nov 19 j 19:32 28° m 30'06 conjunction -10018 Dec 06 j 17:02 6° £05'04 -13°41'21 conjunction -10024 Nov 28 j 17:59 28° m 44'21 -12°22'03 max. Earth dist. -10018 Dec 06 j 16:50 6° £05'03 13°41'21 conjunction -10024 Nov 28 j 17:45 28° m 44'21 -12°22'03 max. Earth dist. -10018 Dec 06 j 16:50 6° £05'03 13°41'21 max. Earth dist. -10024 Nov 28 j 17:45 28° m 44'21 12°22'158 morning rise -10018 Dec 06 j 16:50 6° £05'03 14'46772 AU max. Earth dist. -10024 Dec 02 j 02:38 28° m 44'20 12°21'58 morning rise -10017 Jun 09 j 09:36 6° £04'12 42.62988 AU retrograde -10024 Dec 07 j 17:24 28° m 58'38 min. Earth dist. -10017 Jun 12 j 09:14 6° £04'12 42.62988 AU retrograde -10023 Mar 13 j 04:24 0° £030'11 direct -10017 Jun 12 j 09:14 7° £01'12 </td <td>-</td> <td>,</td> <td></td> <td>41.11174 AU</td> <td></td> <td>-</td> <td></td> <td></td>	-	,		41.11174 AU		-		
direct -10024 Aug 22 j 00:32 27 m 03:20 evening set -10024 Nov 19 j 19:32 28 m 30'06 conjunction -10018 Dec 06 j 17:02 6° 205'04 -13° 41'21 conjunction -10024 Nov 28 j 17:59 28 m 44'21 -12° 22'03 max. Earth dist. -10018 Dec 06 j 16:50 6° 20'05'0 44.46772 AU minimum elong -10024 Nov 28 j 17:45 28° m 44'21 -12° 22'03 max. Earth dist. -10018 Dec 09 j 21:03 6° 20'05'0 44.46772 AU max. Earth dist. -10024 Nov 28 j 17:45 28° m 44'20 12° 21'58 morning rise -10018 Dec 09 j 21:03 6° 20'5'03 44.46772 AU max. Earth dist. -10024 Dec 02 j 02:38 28° m 44'20 12° 21'58 morning rise -10017 Mar 21 j 00:07 7° 24'758 morning rise -10024 Dec 07 j 17:24 28° m 58'38 min. Earth dist. -10017 Jun 09 j 09:36 6° 24'03 -14° 25'48 retrograde -10023 Jun 20 j 13:14 0° 20'02 30° m 10' direct -10017 Aug 31 j 11:37 5° 20'35'3 7° 20'72 42'5'48 min. Earth dist. -10023 Jun 20 j 13:34 29° m 27'2						• •		
evening set -10024 Nov 19 j 19:32 28° \$\partit{0}30'06 \ Each Signature Sig	**	-			C	•		
minimum elong		C 3			conjunction	-10018 Dec 06 i 17:02	6° Ω 05'04	-13°41'21
conjunction -10024 Nov 28 j 17:59 28° №44'21 -12°22'03 max. Earth dist. -10018 Dec 09 j 21:03 6° №09'59 44.46772 AU minimum elong -10024 Nov 28 j 17:45 28° №44'20 12°21'58 morning rise -10018 Dec 13 j 05:17 6° №15'10 -10024 Dec 02 j 02:38 28° №49'43 43.17559 AU retrograde -10017 Mar 21 j 00:07 7° №47'58 -10023 Mar 21 j 00:07 7° №47'58 -10023 Mar 21 j 00:07 42.62988 AU retrograde -10023 Jan 20 j 13:14 0° № opposition -10017 Jun 12 j 09:14 6° №42'30 -14°25'48 retrograde -10023 Mar 13 j 04:24 0° № 30'11 direct -10017 Aug 31 j 11:37 5° № 38'53 -14°25'48 min. Earth dist. -10023 May 04 j 20:22 30° № № evening set -10017 Dec 02 j 03:35 7° № 16'41 -13°53'01 opposition -10023 Jun 04 j 13:32 29° № 27'24 41.33730 AU -10017 Dec 08 j 04:12 7° № 16'41 -13°53'01 direct -10023 Aug 23 j 13:16 28° № 18'32 -13°05'27 conjunction -10017 Dec 08 j 03:59 7° № 16'41 -13°53'01					·			
minimum elong	conjunction	-10024 Nov 28 i 17:59	28° m 44'21	-12°22'03	_			
max. Earth dist.	•	-						
morning rise -10024 Dec 07 j 17:24 28° μ 58'38 min. Earth dist. min. Earth dist. -10017 Jun 09 j 09:36 6° Δ46'12 42.62988 AU 6° Δ42'30 -14°25'48 retrograde -10023 Mar 13 j 04:24 0° Δ30'11 close 10023 May 04 j 20:22 30° μ 10023 May 04 j 20:22 1000 M	· ·	,			-			
etrograde -10023 Jan 20 j 13:14 0° \(\Omega\) opposition -10017 Jun 12 j 09:14 6° \(\Omega\)42'30 -14°25'48 retrograde -10023 Mar 13 j 04:24 0° \(\Omega\)30'11 direct -10017 Aug 31 j 11:37 5° \(\Omega\)38'53 7° \(\Omega\)70'22 min. Earth dist10023 May 04 j 20:22 30° \(\Omega\)70'22 41.33730 AU opposition -10023 Jun 04 j 13:32 29° \(\Omega\)23'22 -13°05'27 conjunction -10017 Dec 08 j 04:12 7° \(\Omega\)16'41 -13°53'01 direct -10023 Aug 23 j 13:16 28° \(\Omega\)18'32 minimum elong -10017 Dec 08 j 03:59 7° \(\Omega\)16'40 13°53'01 evening set -10023 Nov 21 j 16:34 29° \(\Omega\)18'32 max. Earth dist10017 Dec 14 j 05:04 7° \(\Omega\)21'28 44.66938 AU morning rise -10017 Dec 14 j 05:04 7° \(\Omega\)26'00 conjunction -10023 Nov 30 j 06:13 29° \(\Omega\)59'03 -12°36'27 retrograde -10016 Mar 21 j 09:12 8° \(\Omega\)59'05 7° \(\Omega\)59'05 42.83119 AU		-		43.17337110	•			42 62988 ATT
retrograde	morning rise	•	-			v		
Figure 10023 May 04 j 20:22 30°R N evening set -10017 Dec 02 j 03:35 7°全07'22 evening Earth dist. -10023 Jun 01 j 09:07 29°Np27'24 41.33730 AU	retrograde	•			• •			11 23 70
min. Earth dist.	ronograde	,						
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direct -10023 Aug 23 j 13:16 28° 10 18'32 minimum elong -10017 Dec 08 j 03:59 7° £16'40 13°53'01 evening set -10023 Nov 21 j 16:34 29° 10 45'28 max. Earth dist10017 Dec 11 j 06:32 7° £21'28 44.66938 AU morning rise -10017 Dec 14 j 05:04 7° £26'00 conjunction -10023 Nov 30 j 06:13 29° 10 59'03 -12°36'27 retrograde -10016 Mar 21 j 09:12 8° £59'05 minimum elong -10023 Nov 30 j 05:58 29° 10 59'02 12°36'22 min. Earth dist10016 Jun 09 j 21:25 7° £57'24 42.83119 AU		-			conjunction	-10017 Dec 09:04:12	70 .0 .161/11	_13°53'01
evening set		•	-	-13 03 27	•	·		
morning rise -10017 Dec 14 j 05:04 7° ♀26'00 conjunction -10023 Nov 30 j 06:13 29° № 59'03 -12°36'27 retrograde -10016 Mar 21 j 09:12 8° ♀59'05 minimum elong -10023 Nov 30 j 05:58 29° № 59'02 12°36'22 min. Earth dist10016 Jun 09 j 21:25 7° ♀57'24 42.83119 AU					Č	3		
conjunction -10023 Nov 30 j 06:13 29° 10 59'03 -12°36'27 retrograde -10016 Mar 21 j 09:12 8° 259'05 retrograde -10016 Jun 09 j 21:25 7° 257'24 42.83119 AU	evening set	-10023 NOV 21 J 10:34	29 IIJ45728			·		44.00938 AU
minimum elong -10023 Nov 30 j 05:58 29° m 59'02 12°36'22 min. Earth dist10016 Jun 09 j 21:25 7° ♣57'24 42.83119 AU	aaniumatian	10022 Nov. 20 : 06.12	200 m 50102	12026127	•	•		
					•	•		42 02110 417
-10025 NOV 30 J 20.27 0 === opposition -10016 Jun 12 J 19:38 /==53'4/ -14"3/"35	iiiiiiinum eiong	-		12 30 22				
		-10025 NOV 30 J 20:2/	0 24		opposition	-10010 Jun 12 J 19:38	/ == 35'4/	-14 3/33

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -10016 in astronomical counting style is the year 10017 BCE in historical counting style. direct -10016 Aug 31 j 23:55 6° **2** 50'19 opposition -10009 Jun 21 j 13:53 15° **2**56'27 -15° 47'28 evening set -10016 Dec 03 j 02:39 direct -10009 Sep 09 j 22:59 14° **2**54'01 8° 19'11 -10016 Dec 08 j 15:13 8° **2**27'40 -14°04'15 -10009 Dec 17 j 13:37 16° \(\Omega\) 28'36 -15°10'51 conjunction conjunction -10016 Dec 08 j 15:00 8°**2**27'39 14°04'17 -10009 Dec 17 j 13:28 16° \(\Omega\) 28'36 15°10'58 minimum elong minimum elong -10016 Dec 11 j 17:30 8°**£**32'26 44.86706 AU -10009 Dec 20 j 10:38 16° **2**32'54 46.17389 AU max. Earth dist. max. Earth dist. -10016 Dec 14 j 03:49 morning rise 8°**£**36′10 retrograde -10008 Mar 30 j 11:24 18°**♀**07'32 -10015 Mar 22 j 16:54 10°**♀**09'35 retrograde min. Earth dist. -10008 Jun 19 j 07:19 17°**△**06'47 44.33616 AU min. Earth dist. -10015 Jun 11 j 08:47 9°**♀**08'00 43.02859 AU opposition -10008 Jun 21 j 22:28 17°**2**03'36 -15°55'42 opposition -10015 Jun 14 j 05:47 9°**£**04'27 -14°48'56 direct -10008 Sep 10 j 07:46 16°**♀**01'20 direct -10015 Sep 02 j 12:45 8°**£**01'07 -10015 Dec 05 j 02:13 -10008 Dec 17 j 23:10 17°**2**35'36 -15°18'44 evening set 9°**₽**30'24 conjunction -10008 Dec 17 j 22:59 17°**2**35'36 15°18'50 minimum elong -10015 Dec 10 j 01:40 9° **△**38'00 -14°15'04 conjunction max. Earth dist. -10008 Dec 20 j 18:31 17°**2**39'47 46.34942 AU minimum elong -10015 Dec 10 j 01:28 9°**2**38'00 14°15'05 retrograde -10007 Mar 31 j 21:56 19°**2**14'10 max. Earth dist. -10015 Dec 13 j 02:10 9° **△**42'38 45.06125 AU min. Earth dist. -10007 Jun 20 j 15:58 18°**♀**13'35 44.51085 AU morning rise -10015 Dec 15 j 01:08 9°**△**45'38 opposition -10007 Jun 23 j 06:56 18°**♀**10'25 -16°03'34 retrograde -10014 Mar 24 j 03:45 11°**♀**19'27 direct -10007 Sep 11 j 15:12 17° **2**08'19 min. Earth dist. -10014 Jun 12 j 18:48 10° **2**18'00 43.22290 AU opposition -10014 Jun 15 j 15:43 10° **2** 14'28 -14° 59'49 conjunction -10007 Dec 19 j 08:23 18° **2**42'16 -15° 26'14 direct -10014 Sep 03 j 22:12 9°**△**11'16 minimum elong -10007 Dec 19 j 08:14 18° **2**42'16 15°26'21 evening set -10014 Dec 07 i 02:55 10° **△**41'03 max. Earth dist. -10007 Dec 22 j 02:28 18° **2**46'21 46.52063 AU retrograde -10006 Apr 02 i 07:36 20° \alpha 20'29 conjunction -10014 Dec 11 i 12:09 10° **2**47'43 -14°25'26 min. Earth dist. -10006 Jun 22 j 02;29 19°**2**19'58 44.68102 AU minimum elong -10014 Dec 11 j 11:57 10° **2**47'43 14°25'29 opposition -10006 Jun 24 i 15:26 19° **2**16'54 -16°11'02 -10014 Dec 15 j 21:19 10° **2**54'24 -10006 Sep 12 j 23:37 18° **△**14'56 morning rise direct max. Earth dist. -10014 Dec 14 j 12:52 10° -52'20 45.25254 AU -10013 Mar 25 j 14:58 12°**£**28'42 -10006 Dec 20 j 17:50 19° **2**48'35 -15°33'23 retrograde conjunction -10013 Jun 14 j 06:09 11°**£**27'18 43.41451 AU -10006 Dec 20 j 17:40 19°**2**48'34 15°33'30 min. Earth dist. minimum elong -10013 Jun 17 j 01:21 11°**2**23'52 -15°10'14 max. Earth dist. -10006 Dec 23 j 11:06 19° **2**52'36 46.68724 AU opposition -10005 Apr 03 j 13:46 21°**£**26'26 -10013 Sep 05 j 06:58 10°**£**20'49 direct retrograde -10013 Dec 09 j 05:22 11°**♀**51'13 evening set -10005 Jun 23 j 11:40 20°**£**26'01 44.84622 AU min. Earth dist. -10005 Jun 25 j 23:31 20°**£**23'01 -16°18'10 opposition -10005 Sep 14 j 10:43 19°**£**21'11 -10013 Dec 12 j 22:29 11°**2**56'51 -14°35'22 conjunction direct -10013 Dec 12 j 22:18 11°**2**56'51 14°35'25 minimum elong -10013 Dec 16 j 15:28 12°**£**02'29 -10005 Dec 22 j 02:57 20°**2**54'30 -15°40'11 morning rise conjunction -10013 Dec 15 j 22:04 12°**2**01'23 45.44151 AU -10005 Dec 22 j 02:49 20°**2**54'30 15°40'20 max. Earth dist. minimum elong retrograde -10012 Mar 26 j 02:08 13°**♀**37'23 max. Earth dist. -10005 Dec 24 j 17:52 20°**£**58'22 46.84894 AU min. Earth dist. -10012 Jun 14 j 15:14 12° **△**36'09 43.60378 AU retrograde -10004 Apr 03 j 21:36 22°**2**32'00 opposition -10012 Jun 17 j 10:44 12°**△**32'43 -15°20'13 min. Earth dist. -10004 Jun 23 j 20:47 21°**2**31'40 45.00668 AU direct -10012 Sep 05 j 15:23 11°**2**29'47 opposition -10004 Jun 26 j 07:36 21°**2**28'43 -16°24'55 -10012 Dec 10 j 10:18 13°**೨**01'02 direct -10004 Sep 14 j 19:36 20°**2**27'00 evening set -10012 Dec 13 j 08:22 13°**2**05'27 -14°44'52 -10004 Dec 22 j 11:51 22°**2**00'00 -15°46'38 conjunction conjunction -10012 Dec 13 j 08:10 13°**2**05'26 14°44'57 -10004 Dec 22 j 11:42 22°**2**00'00 15°46'48 minimum elong minimum elong -10012 Dec 16 i 06:13 13° \(\Omega\)09'51 -10004 Dec 25 j 02:34 22° \(\Omega\)03'51 47.00600 AU morning rise max. Earth dist. max. Earth dist. -10012 Dec 16 j 07:05 13° \(\Omega\) 09'54 45.62816 AU retrograde -10003 Apr 05 j 05:26 23° **△**37'09 retrograde -10011 Mar 27 j 10:24 14° **2**45'33 min. Earth dist. -10003 Jun 25 i 06:30 22° **2**36'51 45.16264 AU -10011 Jun 16 j 01:50 13° **2**44'25 43.79087 AU min. Earth dist. opposition -10003 Jun 27 j 15:26 22° **2**34'00 -16°31'20 -10011 Jun 18 i 20:02 13° \(\Omega\)41'03 -15°29'44 direct -10003 Sep 16 j 04:21 21° **△**32'24 opposition direct -10011 Sep 07 j 01:56 12°**△**38'17 -10011 Dec 12 j 21:54 14°**2**10'47 -10003 Dec 23 j 20:35 23° **2**05'05 -15° 52'44 evening set conjunction -10003 Dec 23 j 20:28 23° **2**05'04 15°52'55 minimum elong conjunction -10011 Dec 14 j 18:18 14° **2** 13'34 -14° 53' 57 max. Earth dist. -10003 Dec 26 j 09:29 23°**2**08'48 47.15910 AU minimum elong -10011 Dec 14 j 18:08 14° **2** 13'33 14° 54'01 retrograde -10002 Apr 06 j 16:05 24° **2**41'51 morning rise -10011 Dec 16 j 14:26 14°**2**16'20 min. Earth dist. -10002 Jun 26 j 14:08 23° **2**41'40 45.31489 AU -10002 Jun 28 j 22:57 23°**2**38'51 -16°37'21 max. Earth dist. -10011 Dec 17 j 17:11 14°**2**18'01 45.81275 AU opposition retrograde -10010 Mar 28 j 16:18 15°**⊆**53'15 direct -10002 Sep 17 j 09:46 22°**△**37'20 -10010 Jun 17 j 11:27 14°**♀**52'16 43.97555 AU min. Earth dist. -10010 Jun 20 j 05:01 14° **2**48'56 -15° 38'49 -10002 Dec 25 j 05:09 24°**2**09'44 -15°58'29 opposition conjunction -10010 Sep 08 j 14:20 13°**△**46'20 -10002 Dec 25 j 05:01 24°**2**09'43 15°58'39 direct minimum elong max. Earth dist. -10002 Dec 27 j 17:10 24°**△**13'22 47.30866 AU -10010 Dec 16 j 03:55 15° \(\Omega\)21'16 -15° 02'36 conjunction retrograde -10001 Apr 08 j 00:15 25° **△**46'09

min. Earth dist.

opposition

direct

-10001 Jun 27 j 23:32 24°**-**246'00 45.46390 AU

-10001 Jun 30 j 06:30 24°**2**43'17 -16°43'00

-10001 Sep 18 j 17:10 23°**♀**41'53

minimum elong

max. Earth dist.

min. Earth dist.

retrograde

-10010 Dec 16 j 03:44 15° **2**21'15 15°02'42

-10009 Mar 30 j 02:09 17°**♀**00'34

-10010 Dec 19 j 00:55 15°**2**25'35 45.99484 AU

-10009 Jun 18 j 20:41 15°**2**59'45 44.15757 AU

Attention astronom	nical year style is used: Th	o woor 10001	in astronomical a	* *				ge 30
conjunction	-10001 Dec 26 j 13:43			direct		27 j 08:50	2° 11 .07'46	ie.
minimum elong	-10001 Dec 26 j 13:35			direct	-9993 Sep	27 J 08.30	2 1160 / 40	
C	,				0002 1	04:05.20	20M 27150	1.602.412.2
max. Earth dist.	-10001 Dec 29 j 01:21		47.45531 AU	conjunction		04 j 05:30 04 j 05:24	3°M37'58	
retrograde	-10000 Apr 08 j 05:14		45 (0007 ATT	minimum elong		04 j 05.24 06 j 06:25	3°M37'58	48.51082 AU
min. Earth dist.	-10000 Jun 28 j 07:06			max. Earth dist.				48.51082 AU
opposition	-10000 Jun 30 j 13:39		-16°48'1/	retrograde		16 j 14:48	5°M11'48	46 65425 ATT
direct	-10000 Sep 19 j 03:40	24° == 40°02		min. Earth dist.		06 j 22:16		46.65435 AU
. ,.	10000 D 26:21.55	260 0 17152	1,000,0153	opposition		08 j 19:31	4°M10'10	-1/*1/5/
conjunction	-10000 Dec 26 j 21:55			direct	-9992 Sep	27 j 14:33	3°M09'45	
minimum elong	-10000 Dec 26 j 21:48				0001.1	04:12.02	40 m 20142	1.6027101
max. Earth dist.	-10000 Dec 29 j 07:39		47.59925 AU	conjunction		04 j 13:02	4°M39'43	
retrograde	-9999 Apr 09 j 11:47	27° £ 53'39	45 75250 ATT	minimum elong		04 j 12:59	4°M39'43	
min. Earth dist.	-9999 Jun 29 j 14:57		45.75350 AU	max. Earth dist.		06 j 12:53	6°Ml13'17	48.62209 AU
opposition	-9999 Jul 01 j 20:52	26° £ 51'03	-10-33-11	retrograde		17 j 22:49		46.76260 AII
direct	-9999 Sep 20 j 12:21	25° ≏ 49'53		min. Earth dist.		08 j 06:55		46.76369 AU
· · · · · · · · · · · ·	0000 D 20 : 06-01	279 0 21129	17013131	opposition		10 j 01:47	5°M11'44	-1/2016
conjunction	-9999 Dec 28 j 06:01	27° £ 21'28		direct	-9991 Sep	28 j 19:47	4° ጤ 11'22	
minimum elong	-9999 Dec 28 j 05:54	27° £ 21'28			0000 1	05:20.26	50 M 41106	1.602.011.2
max. Earth dist.	-9999 Dec 30 j 15:58		47.74063 AU	conjunction		05 j 20:26	5°M41'06	
retrograde	-9998 Apr 10 j 17:57	28° £ 56'58	45 00410 ATT	minimum elong		05 j 20:22	5°M41'06	
min. Earth dist.	-9998 Jun 30 j 23:39		45.89419 AU	max. Earth dist.		07 j 19:17		48.72890 AU
opposition	-9998 Jul 03 j 03:57	27° £ 54'30	-16°5/'42	retrograde		19 j 04:40	7°M14'22	16.06066 111
direct	-9998 Sep 21 j 21:07	26° £ 53′28		min. Earth dist.		09 j 13:23		46.86866 AU
. ,.	0000 D 20:14.07	200 0 24140	1.601.714.0	opposition		11 j 07:46	6°M12'54	-1/22/16
conjunction	-9998 Dec 29 j 14:07	28° £ 24'48		direct	-9990 Sep	30 j 03:28	5° M 12'35	
minimum elong	-9998 Dec 29 j 14:01	28° £ 24'48			0000 1	07:02.42	60 M 42107	1.6041104
max. Earth dist.	-9998 Dec 31 j 22:19		47.87922 AU	conjunction		07 j 03:42	6°M42'07	
	-9997 Apr 11 j 09:47	0°M		minimum elong		07 j 03:40	6°M42'07	
retrograde	-9997 Apr 12 j 03:33	0°M00'00		max. Earth dist.		09 j 00:27		48.83161 AU
i matri	-9997 Apr 12 j 21:58	30° ₹ Ω	46.02106.441	retrograde	-	20 j 10:18	8°M15'07	46.06000 441
min. Earth dist.	-9997 Jul 02 j 06:31		46.03186 AU	min. Earth dist.		10 j 20:37		46.96998 AU
opposition	-9997 Jul 04 j 10:42	28° ♀ 57'43	-1/*01'53	opposition		12 j 13:37	7°M13'44	-1/*23*58
direct	-9997 Sep 23 j 02:23	27° £ 56'48		direct	-9989 Oct	01 j 10:44	6°M13′28	
conjunction	-9997 Dec 30 j 22:08	29° ≙ 27'54	16021147	conjunction	0000 Ion	08 j 11:01	7° M 42'48	16042120
minimum elong	-9997 Dec 30 j 22:01	29° £ 27'54		minimum elong		08 j 11:01 08 j 10:59		16°42'55
max. Earth dist.	-9997 Dec 30 j 22.01 -9996 Jan 02 j 05:25		48.01443 AU	max. Earth dist.		10 j 07:42		48.93094 AU
max. Earth dist.	-9996 Jan 22 j 16:52	0°M	46.01443 AU	retrograde		20 j 14:12	9°ML15'33	46.93094 AU
retrograde	-9996 Apr 12 j 13:47	1°ML02'50		min. Earth dist.	1	11 j 03:49		47.06795 AU
min. Earth dist.	-9996 Apr 12 j 15:47 -9996 Jul 02 j 15:30		46.16591 AU	opposition		12 j 19:27	8°M14'15	
opposition	-9996 Jul 04 j 17:35	0°ML00'42		direct		01 j 19:23	7°M14'03	-17 23 21
оррозион	-9996 Jul 05 j 07:47	30°R <u>₽</u>	-17 03 43	direct	-5700 000	01 j 17.23	/ 1101703	
direct	-9996 Sep 23 j 07:11	28° £ 59'55		conjunction	-0087 Ian	08 j 17:54	8° M L43'11	-16°43'53
direct	-9996 Dec 09 j 07:56	0° ™		minimum elong		08 j 17:52	8°M43'11	16°44'12
	7770 Dec 07 j 07.50	O IIO		max. Earth dist.		10 j 12:43		49.02727 AU
conjunction	-9996 Dec 31 j 06:01	00M 20148	1.602.512.5		JJO / Juli	10 1 12.43	0 110-13-11	47.02/2/110
minimum elong			-16°75'75	retrograde	-9987 Apr	21 i 21·10	10°M.15'43	
mmmam trong			-16°25'25 16°25'40	retrograde min Earth dist	_	21 j 21:10 12 i 09:36	10°M15'43	47 16305 AU
max Farth dist	-9996 Dec 31 j 05:57	0°M30'48	16°25'40	min. Earth dist.	-9987 Jul	12 j 09:36	9°M16'26	47.16305 AU -17°26'24
max. Earth dist. retrograde	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26	0°M30'48 0°M34'03		min. Earth dist.	-9987 Jul -9987 Jul	12 j 09:36 14 j 01:07	9° ጤ 16'26 9° ጤ 14'31	
retrograde	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34	0°M30'48 0°M34'03 2°M05'27	16°25'40 48.14583 AU	min. Earth dist.	-9987 Jul -9987 Jul	12 j 09:36	9°M16'26	
retrograde min. Earth dist.	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49	0°M30'48 0°M34'03 2°M05'27 1°M05'53	16°25'40 48.14583 AU 46.29562 AU	min. Earth dist. opposition direct	-9987 Jul -9987 Jul -9987 Oct	12 j 09:36 14 j 01:07 03 j 00:55	9°M16'26 9°M14'31 8°M14'24	-17°26'24
retrograde min. Earth dist. opposition	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28	16°25'40 48.14583 AU 46.29562 AU	min. Earth dist. opposition direct conjunction	-9987 Jul -9987 Jul -9987 Oct -9986 Jan	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52	9°M16'26 9°M14'31 8°M14'24 9°M43'22	-17°26'24 -16°44'49
retrograde min. Earth dist.	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49	0°M30'48 0°M34'03 2°M05'27 1°M05'53	16°25'40 48.14583 AU 46.29562 AU	min. Earth dist. opposition direct conjunction minimum elong	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50	9°M16'26 9°M14'31 8°M14'24 9°M43'22 9°M43'21	-17°26'24 -16°44'49 16°45'08
retrograde min. Earth dist. opposition direct	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48	16°25'40 48.14583 AU 46.29562 AU -17°09'13	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01	9°M16'26 9°M14'31 8°M14'24 9°M43'22 9°M43'21 9°M45'49	-17°26'24 -16°44'49
retrograde min. Earth dist. opposition direct conjunction	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Apr	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.15'41	-17°26'24 -16°44'49 16°45'08 49.12072 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48 1°M33'28 1°M33'27	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Apr -9986 Jul	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.15'41 10°M.16'25	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU
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retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48 1°M33'27 1°M36'34 3°M07'51 2°M08'20 2°M06'00 1°M05'26	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Apr -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:52 11 j 07:50 13 j 01:07	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.15'41 10°M.16'25 10°M.14'33 9°M.14'33	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45 -9993 Jan 02 j 21:46	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48 1°M33'27 1°M36'34 3°M07'51 2°M06'00 1°M05'26	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Apr -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan -9985 Apr	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:50 13 j 01:07 24 j 12:44	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.15'41 10°M.16'25 10°M.14'33 9°M.14'33	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07 -16°45'27 16°45'47 49.21138 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45 -9993 Jan 02 j 21:46 -9993 Jan 02 j 21:43	0°M30'48 0°M34'03 2°M05'27 1°M05'53 1°M03'28 0°M02'48 1°M33'27 1°M36'34 3°M07'51 2°M08'20 2°M06'00 1°M05'26	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25 -16°31'48 16°32'03	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Apr -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan -9985 Apr -9985 Jul	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:50 13 j 01:07 24 j 12:44 14 j 22:56	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.16'25 10°M.14'33 9°M.14'33 10°M.43'22 10°M.43'22 10°M.45'46 12°M.15'29 11°M.16'19	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07 -16°45'27 16°45'47 49.21138 AU 47.34428 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Apr 15 j 02:36 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45 -9993 Jan 02 j 21:46 -9993 Jan 02 j 21:43 -9993 Jan 05 j 01:18	0°MJ30'48 0°MJ34'03 2°MJ05'27 1°MJ05'53 1°MJ32'28 0°MJ02'48 1°MJ33'28 1°MJ36'34 3°MJ07'51 2°MJ06'00 1°MJ05'26 2°MJ35'52 2°MJ35'52 2°MJ35'52	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan -9985 Jul -9985 Jul -9985 Jul	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:50 13 j 01:07 24 j 12:44 14 j 22:56 16 j 12:12	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.16'25 10°M.14'33 10°M.43'22 10°M.43'22 10°M.45'46 12°M.15'29 11°M.16'19 11°M.14'31	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07 -16°45'27 16°45'47 49.21138 AU 47.34428 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Apr 15 j 02:36 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45 -9993 Jan 02 j 21:46 -9993 Jan 02 j 21:43 -9993 Jan 05 j 01:18 -9993 Apr 16 j 06:36	0°MJ30'48 0°MJ34'03 2°MJ05'27 1°MJ05'53 1°MJ03'28 0°MJ02'48 1°MJ33'27 1°MJ36'34 3°MJ07'51 2°MJ08'20 2°MJ06'00 1°MJ05'26 2°MJ35'52 2°MJ35'52 2°MJ35'54	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25 -16°31'48 16°32'03 48.39438 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan -9985 Jul -9985 Jul -9985 Jul	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:50 13 j 01:07 24 j 12:44 14 j 22:56	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.16'25 10°M.14'33 9°M.14'33 10°M.43'22 10°M.43'22 10°M.45'46 12°M.15'29 11°M.16'19	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07 -16°45'27 16°45'47 49.21138 AU 47.34428 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-9996 Dec 31 j 05:57 -9995 Jan 02 j 12:26 -9995 Apr 13 j 20:34 -9995 Jul 03 j 22:49 -9995 Jul 06 j 00:12 -9995 Sep 24 j 14:45 -9994 Jan 01 j 13:50 -9994 Jan 01 j 13:44 -9994 Jan 03 j 17:53 -9994 Apr 15 j 02:36 -9994 Jul 05 j 06:58 -9994 Jul 07 j 06:46 -9994 Sep 25 j 22:45 -9993 Jan 02 j 21:46 -9993 Jan 02 j 21:43 -9993 Jan 05 j 01:18	0°MJ30'48 0°MJ34'03 2°MJ05'27 1°MJ05'53 1°MJ03'28 0°MJ02'48 1°MJ33'27 1°MJ36'34 3°MJ07'51 2°MJ08'20 2°MJ06'00 1°MJ05'26 2°MJ35'52 2°MJ35'52 2°MJ35'54	16°25'40 48.14583 AU 46.29562 AU -17°09'13 -16°28'45 16°29'00 48.27263 AU 46.42058 AU -17°12'25 -16°31'48 16°32'03 48.39438 AU 46.54010 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition	-9987 Jul -9987 Jul -9987 Oct -9986 Jan -9986 Jan -9986 Jul -9986 Oct -9985 Jan -9985 Jan -9985 Jan -9985 Jul -9985 Jul -9985 Jul	12 j 09:36 14 j 01:07 03 j 00:55 10 j 00:52 10 j 00:50 11 j 19:01 23 j 05:28 13 j 17:07 15 j 06:44 04 j 05:02 11 j 07:50 13 j 01:07 24 j 12:44 14 j 22:56 16 j 12:12	9°M.16'26 9°M.14'31 8°M.14'24 9°M.43'22 9°M.43'21 9°M.45'49 11°M.16'25 10°M.14'33 10°M.43'22 10°M.43'22 10°M.45'46 12°M.15'29 11°M.16'19 11°M.14'31	-17°26'24 -16°44'49 16°45'08 49.12072 AU 47.25525 AU -17°27'07 -16°45'27 16°45'47 49.21138 AU 47.34428 AU -17°27'32

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		-	omical counting style is the year			
minimum elong	-9984 Jan 12 j 14:39	11°ML43'16 16°46	•	-9976 Jan 20 j 19:35	19°M37'17 -16°38'52	
max. Earth dist.	-9984 Jan 14 j 05:57	11°M45'33 49.298	•	-9976 Jan 20 j 19:37	19°M37'17 16°39'17	
retrograde	-9984 Apr 24 j 18:36	13°M15'12	max. Earth dist.	-9976 Jan 21 j 23:43	19°M38'54 49.83352 AU	U
min. Earth dist.	-9984 Jul 15 j 05:53	12°M16'05 47.429	81 AU retrograde	-9976 May 02 j 13:31	21°M07'45	
opposition	-9984 Jul 16 j 17:36	12°M14'22 -17°27	39 min. Earth dist.	-9976 Jul 23 j 09:45	20°M08'42 47.94557 AU	U
direct	-9984 Oct 05 j 16:01	11°M14'30	opposition	-9976 Jul 24 j 10:12	20°ML07'32 -17°18'55	
			direct	-9976 Oct 13 j 17:10	19° M .08'01	
conjunction	-9983 Jan 12 j 21:33	12°M43'04 -16°45	50			
minimum elong	-9983 Jan 12 j 21:32	12°M43'04 16°46	11 conjunction	-9975 Jan 21 j 01:51	20°M35'32 -16°36'48	
max. Earth dist.	-9983 Jan 14 j 12:33	12°M45'20 49.382	16 AU minimum elong	-9975 Jan 21 j 01:53	20°M35'33 16°37'12	
retrograde	-9983 Apr 25 j 21:06	14°MJ4'50	max. Earth dist.	-9975 Jan 22 j 05:03	20°ML37'06 49.88214 AU	U
opposition	-9983 Jul 17 j 22:57	13°ML14'07 -17°27		-9975 May 03 j 21:10	22°M05'50	
min. Earth dist.	-9983 Jul 16 j 12:49	13°M15'46 47.511	Č	-9975 Jul 25 j 14:50	21°M05'41 -17°16'34	
direct	-9983 Oct 07 j 01:11	12°M14'21	min. Earth dist.	-9975 Jul 24 j 14:27	21°ML06'51 47.99233 AU	Ħ
direct	-7703 Oct 07 J 01.11	12 101721	direct	-9975 Oct 14 j 20:05	20°M06'11	O
conjunction	-9982 Jan 14 j 04:14	13°M42'48 -16°45		-9975 Oct 14 j 20.05	20 1160011	
minimum elong	3	13°M42'48 16°45		0074 Ion 22:07:52	21°ML33'37 -16°34'27	
Č	-9982 Jan 14 j 04:15			-9974 Jan 22 j 07:53		
max. Earth dist.	-9982 Jan 15 j 16:45	13°M44'55 49.461	0	-9974 Jan 22 j 07:55	21°M33'37 16°34'52	* *
	-9982 Mar 21 j 02:38	15°M	max. Earth dist.	-9974 Jan 23 j 09:18	21°M.35'04 49.92791 AU	U
retrograde	-9982 Apr 27 j 04:06	15°M14'23	retrograde	-9974 May 05 j 03:18	23°M.03'46	
	-9982 Jun 03 j 13:39	15°RML	opposition	-9974 Jul 26 j 19:34	22°M03'41 -17°13'56	
min. Earth dist.	-9982 Jul 17 j 18:51	14°M15'24 47.587		-9974 Jul 25 j 20:43	22°M04'46 48.03632 AU	U
opposition	-9982 Jul 19 j 04:14	14°ML13'47 -17°27	03 direct	-9974 Oct 16 j 00:21	21°M04'14	
direct	-9982 Oct 08 j 06:29	13°M14'05				
			conjunction	-9973 Jan 23 j 14:12	22°M31'35 -16°31'49	
conjunction	-9981 Jan 15 j 11:07	14°M42'24 -16°45	08 minimum elong	-9973 Jan 23 j 14:15	22°M31'35 16°32'13	
minimum elong	-9981 Jan 15 j 11:06	14°M42'24 16°45	29 max. Earth dist.	-9973 Jan 24 j 15:28	22°M33'01 49.97087 AU	U
max. Earth dist.	-9981 Jan 16 j 22:24	14°M44'27 49.535	30 AU retrograde	-9973 May 06 j 05:12	24°ML01'35	
	-9981 Jan 28 j 05:25	15° ™	min. Earth dist.	-9973 Jul 27 j 02:21	23°ML02'37 48.07719 AU	U
retrograde	-9981 Apr 28 j 11:57	16°M13'49	opposition	-9973 Jul 28 j 00:05	23°ML01'35 -17°11'01	
min. Earth dist.	-9981 Jul 19 j 02:41	15°M14'48 47.659		-9973 Oct 17 j 08:37	22°M02'10	
opposition	-9981 Jul 20 j 09:29	15°Ml3'19 -17°26		, , , , , , , , , , , , , , , , , , ,		
of the second	-9981 Aug 01 j 00:12	15°RM	conjunction	-9972 Jan 24 j 20:19	23°M29'27 -16°28'54	
direct	-9981 Oct 09 j 10:24	14°M 13'41	minimum elong	-9972 Jan 24 j 20:21	23°M29'27 16°29'20	
direct	-9981 Dec 16 j 06:13	15°M	max. Earth dist.	-9972 Jan 25 j 19:21	23°M30'46 50.01071 AU	Ħ
	-7701 DCC 10 J 00.13	13 110	retrograde	-9972 May 06 j 10:02	24°M.59'21	O
conjunction	-9980 Jan 16 j 17:56	15°M41'52 -16°44	•	-9972 Jul 27 j 07:32	24°M00'26 48.11474 AU	T T
,	,			-9972 Jul 28 i 04:39		U
minimum elong	-9980 Jan 16 j 17:57	15°M41'52 16°44	11		23°M.59'25 -17°07'50	
max. Earth dist.	-9980 Jan 18 j 03:45	15°M43'49 49.604	17 AU direct	-9972 Oct 17 j 14:25	23°M.00'04	
retrograde	-9980 Apr 28 j 18:17	17°ML13'05				
min. Earth dist.	-9980 Jul 19 j 08:26	16°M14'06 47.725		-9971 Jan 25 j 02:20	24°M27'18 -16°25'44	
opposition	-9980 Jul 20 j 14:37	16°M12'39 -17°25	_	-9971 Jan 25 j 02:25	24°M27'18 16°26'10	
direct	-9980 Oct 09 j 15:51	15°M13'03	max. Earth dist.	-9971 Jan 26 j 00:38	24°M28'34 50.04678 AU	U
			retrograde	-9971 May 07 j 16:24	25°M57'06	
conjunction	-9979 Jan 17 j 00:19	16°M41'06 -16°43	25 opposition	-9971 Jul 29 j 09:17	24°M57'15 -17°04'22	
minimum elong	-9979 Jan 17 j 00:18	16°M41'06 16°43	47 min. Earth dist.	-9971 Jul 28 j 14:27	24°M58'09 48.14819 AU	U
max. Earth dist.	-9979 Jan 18 j 07:44	16°M42'55 49.667	84 AU direct	-9971 Oct 18 j 18:41	23°M57'57	
retrograde	-9979 Apr 30 j 00:05	18°M12'07				
opposition	-9979 Jul 21 j 19:44	17°M11'45 -17°24	12 conjunction	-9970 Jan 26 j 08:34	25°M25'07 -16°22'19	
min. Earth dist.	-9979 Jul 20 j 15:19	17°ML13'07 47.786	23 AU minimum elong	-9970 Jan 26 j 08:37	25°M25'07 16°22'46	
direct	-9979 Oct 10 j 21:33	16°M12'11	max. Earth dist.	-9970 Jan 27 j 05:23	25°M26'18 50.07862 AU	U
	·		retrograde	-9970 May 08 j 22:45	26°M54'49	
conjunction	-9978 Jan 18 j 06:54	17°ML40'06 -16°42	-	-9970 Jul 30 j 13:39	25°M55'04 -17°00'40	
minimum elong	-9978 Jan 18 j 06:56	17° M 40'06 16°42	1.1	-9970 Jul 29 j 19:26	25°M55'56 48.17695 AU	U
max. Earth dist.	-9978 Jan 19 j 14:01	17°ML41'53 49.726		-9970 Oct 19 j 22:35	24°M55'47	_
retrograde	-9978 May 01 j 02:33	19°M10'55	os rio))//0 Oct 1) j 22.33	21 11033 17	
min. Earth dist.	-9978 Jul 21 j 21:43	18°M 11'53 47.842	93 AU conjunction	-9969 Jan 27 j 14:46	26°M22'56 -16°18'40	
opposition	-9978 Jul 23 j 00:36	18°M10'36 -17°22	•	-9969 Jan 27 j 14:51	26°M22'56 16°19'07	
		17°ML11'02	max. Earth dist.	·	26°M23'58 50.10540 AU	ŢΤ
direct	-9978 Oct 12 j 06:10	1/ 1161102		-9969 Jan 28 j 09:04		U
	0077 1 10:12:17	100 M 20140 16040	retrograde	-9969 May 10 j 05:29	27°M52'31	
conjunction	-9977 Jan 19 j 13:17	18°M38'49 -16°40	**	-9969 Jul 31 j 18:16	26°M52'49 -16°56'44	
minimum elong	-9977 Jan 19 j 13:18	18°M38'49 16°41		-9969 Jul 31 j 02:09	26°M.53'35 48.20051 AU	U
max. Earth dist.	-9977 Jan 20 j 18:09	18° M .40'28 49.782	03 AU direct	-9969 Oct 21 j 02:46	25°M53'35	
	0077 Mary 02 : 07:15	20° ™ 09'27				
retrograde	-9977 May 02 j 07:15					
min. Earth dist.	-9977 Jul 23 j 02:59	19° M 10'27 47.895	v	-9968 Jan 28 j 21:01	27°ML20'41 -16°14'48	
•	-9977 Jul 23 j 02:59 -9977 Jul 24 j 05:24	19° M .10'27 47.895 19° M .09'11 -17°20	58 minimum elong	-9968 Jan 28 j 21:04	27°M20'41 16°15'15	
min. Earth dist.	-9977 Jul 23 j 02:59	19° M 10'27 47.895	v			U

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -9968 in astronomical counting style is the year 9969 BCE in historical counting style. -9968 May 10 j 08:04 28°M50'09 minimum elong -9960 Feb 05 i 20:31 4°**∡** 59'20 15°35'26 retrograde opposition -9968 Jul 31 j 22:43 27°M50'31 -16°52'34 max. Earth dist. -9960 Feb 06 j 02:54 4° ₹ 59'42 50.14658 AU min. Earth dist. -9968 Jul 31 j 08:12 27°M51'12 48.21857 AU -9960 May 18 j 01:11 6°**х** 28′13 retrograde 5°**∡**128'52 -16°10'04 -9968 Oct 21 j 10:37 direct 26°M51'17 -9960 Aug 08 j 08:46 opposition -9960 Aug 08 j 03:13 5° ₹ 29'08 48.21660 AU min. Earth dist. -9967 Jan 29 j 03:03 -9960 Oct 29 j 00:37 4°×29'40 conjunction 28°M18'20 -16°10'41 direct -9967 Jan 29 j 03:08 minimum elong 28°M18'20 16°11'09 -9967 Jan 29 j 18:03 5°**₹**56'35 -15°28'48 -9959 Feb 06 j 02:13 max. Earth dist. 28°M19'11 50.14315 AU conjunction 29° M47'42-9959 Feb 06 j 02:19 retrograde -9967 May 11 j 12:45 minimum elong 5°**х** 56'36 15°29'19 opposition -9967 Aug 02 j 03:04 28°M48'06 -16°48'10 max. Earth dist. -9959 Feb 06 j 06:32 5° ₹ 56'50 50.13350 AU min. Earth dist. -9967 Aug 01 j 13:26 28°M48'45 48.23165 AU retrograde -9959 May 19 j 08:39 7°**х** 25′26 -9967 Oct 22 j 15:59 -9959 Aug 09 j 12:58 direct 27°M48'52 opposition 6°**∡**¹26′09 -16°03′35 min. Earth dist. -9959 Aug 09 j 09:30 6°**≯**26'19 48.20050 AU conjunction -9966 Jan 30 j 09:04 29°M15'52 -16°06'20 direct -9959 Oct 30 j 03:20 5°**х** 26′57 minimum elong -9966 Jan 30 j 09:08 29°M15'52 16°06'48 max. Earth dist. -9966 Jan 30 j 22:57 29°M16'39 50.15452 AU conjunction -9958 Feb 07 j 08:15 6° ₹ 53'55 -15°22'26 -9966 Mar 05 j 06:50 0°**√** minimum elong -9958 Feb 07 j 08:23 6° ₹ 53'55 15°22'56 retrograde -9966 May 12 j 17:59 0°**∡**¹45′09 max. Earth dist. -9958 Feb 07 j 12:06 6° ₹ 54'08 50.11609 AU -9966 Jul 21 j 13:07 30°RM retrograde -9958 May 20 j 11:55 8°**х** 22′44 opposition -9966 Aug 03 j 07:30 29°M45'34 -16°43'31 opposition -9958 Aug 10 j 17:13 7°**∡**123'28 -15°56'52 min. Earth dist. -9966 Aug 02 j 20:08 29°M46'07 48.24001 AU min. Earth dist. -9958 Aug 10 j 15:11 7°**∡**123'34 48.17950 AU direct -9966 Oct 23 j 21:14 28°M46'20 direct -9958 Oct 31 i 10:15 6°**х** 24′16 -9965 Jan 21 j 19:33 0°×7 conjunction -9957 Feb 08 i 14:16 7°**∡**751'16 -15°15'50 conjunction -9965 Jan 31 i 15:09 0° ₹13'17 -16°01'45 -9957 Feb 08 i 14:23 7°**₹**51'16 15°16'21 minimum elong -9965 Jan 31 j 15:15 0°**х** 13′17 16°02′14 max. Earth dist. -9957 Feb 08 j 15:16 7°**₹**151'20 50.09361 AU minimum elong -9965 Feb 01 j 03:48 0° **₹**14'00 50.16162 AU -9957 May 21 j 16:33 9°×20'03 max Earth dist retrograde -9965 May 14 j 01:18 -9957 Aug 11 j 21:22 8°**₹**20'49 -15°49'54 retrograde 1° x 42'27 opposition -9965 Aug 04 j 11:38 0°**х** 42'55 -16°38'37 -9957 Aug 11 j 20:27 8°**≯**20'52 48.15330 AU opposition min. Earth dist. 0°**∡**¹43'26 48.24430 AU -9965 Aug 04 j 00:41 -9957 Nov 01 j 15:38 7°**х** 21'35 min. Earth dist. direct -9965 Sep 15 j 11:46 30°R ML -9965 Oct 24 j 23:57 -9956 Feb 09 j 20:23 8°**∡**148'37 -15°09'01 direct 29°M43'40 conjunction -9965 Dec 03 j 09:04 -9956 Feb 09 j 20:32 0°**∡** 8° **₹** 48'37 15°09'32 minimum elong -9956 Feb 09 j 20:05 8° ₹ 48'36 50.06568 AU max. Earth dist. -9964 Feb 01 j 21:02 1° ₹ 10'35 -15°56'54 -9956 May 21 j 20:02 conjunction retrograde 10°**₹**17'22 -9964 Feb 01 j 21:07 -9956 Aug 12 j 01:45 9°**∡**18′08 -15°42′44 minimum elong 1°**∡**10'35 15°57'22 opposition 9°**≯**18'04 48.12157 AU -9964 Feb 02 j 07:39 max. Earth dist. 1°**≯**11'11 50.16486 AU min. Earth dist. -9956 Aug 12 j 03:14 retrograde -9964 May 14 j 08:07 2°**×**39'40 direct -9956 Nov 01 j 22:11 8°**х** 18′53 -9964 Aug 04 j 15:59 1°**∡**′40′10 -16°33′26 opposition -9955 Feb 10 j 02:15 9°**∡**¹45'54 -15°01'59 min. Earth dist. -9964 Aug 04 j 06:42 1°**х** 40'36 48.24512 AU conjunction direct -9964 Oct 25 j 02:46 0°**х** 40′55 minimum elong -9955 Feb 10 j 02:22 9°**х** 45′55 15°02′30 max. Earth dist. -9955 Feb 10 j 00:26 9° ₹ 45'48 50.03250 AU -9963 Feb 02 j 02:50 2°**₹**07'48 -15°51'48 -9955 May 23 j 02:27 11°**х** 14′37 conjunction retrograde -9963 Feb 02 j 02:56 2°**₹**07'49 15°52'18 -9955 Aug 13 j 05:54 10°**х** 15′23 -15°35′19 minimum elong opposition -9963 Feb 02 j 13:20 2°**尽**08'24 50.16487 AU min. Earth dist. -9955 Aug 13 j 07:59 10° **₹**15'17 48.08462 AU max. Earth dist. retrograde -9963 May 15 i 09:51 3°×736'49 direct -9955 Nov 03 i 01:54 9°**х** 16′04 opposition -9963 Aug 05 j 20:15 2°**∡**37'20 -16°28'00 evening set -9954 Feb 09 i 16:03 10°**х** 40′51 min. Earth dist. -9963 Aug 05 j 11:54 2°**х** 37'44 48.24268 AU -9954 Feb 11 i 08:13 10°**х** 43′07 -14°54′43 direct -9963 Oct 26 j 10:35 1°**х** 38′05 conjunction minimum elong -9954 Feb 11 i 08:21 10°**∡**′43'08 14°55'15 -9962 Feb 03 i 08:37 3°**∡**04'58 -15°46'26 max. Earth dist. -9954 Feb 11 j 04:01 10° ₹ 42'53 49.99424 AU conjunction -9962 Feb 03 i 08:43 3°**∡**04'59 15°46'55 -9954 Feb 13 j 00:42 10°**∡**¹45'24 minimum elong morning rise max. Earth dist. -9962 Feb 03 j 16:58 3°**尽**05'27 50.16189 AU -9954 May 24 j 10:05 12°**҂**11'47 retrograde 4°**∡**³33'56 11°**₹**12'32 -15°27'40 retrograde -9962 May 16 j 13:08 opposition -9954 Aug 14 j 10:02 3°**₹**34'29 -16°22'17 opposition -9962 Aug 07 j 00:21 min. Earth dist. -9954 Aug 14 j 14:15 11°**✗**12'20 48.04298 AU 3°**∡**°34'51 48.23731 AU 10°**∡**13′09 min. Earth dist. -9962 Aug 06 j 16:34 direct -9954 Nov 04 j 03:58 direct -9962 Oct 27 j 17:05 2°**х¹**35′15 -9953 Feb 09 j 21:50 11°**∡** 36'36 evening set -9961 Feb 04 j 14:34 4° ₹02'08 -15°40'49 -9953 Feb 12 j 14:19 11°**∡**′40′14 -14°47′13 conjunction conjunction -9961 Feb 04 j 14:40 4° ₹02'09 15°41'19 -9953 Feb 12 j 14:27 minimum elong minimum elong 11°**х** 40'14 14°47'44 4°**✗**02'34 50.15583 AU -9953 Feb 12 j 09:38 max. Earth dist. -9961 Feb 04 j 22:13 max. Earth dist. 11°**尽**39'58 49.95160 AU retrograde -9961 May 17 j 18:42 5°**х** 31′03 morning rise -9953 Feb 15 j 07:06 11°**х** 43′53 opposition -9961 Aug 08 j 04:41 4°**₹**31'39 -16°16'19 retrograde -9953 May 25 j 12:59 13°**х** 08′52 min. Earth dist. -9961 Aug 07 j 22:55 4°**✗**31'56 48.22872 AU opposition -9953 Aug 15 j 14:12 12°**∡**′09'35 -15°19'47 direct -9961 Oct 28 j 21:46 3°**х** 32′26 min. Earth dist. -9953 Aug 15 j 19:27 12°**✗**09'20 47.99710 AU -9953 Nov 05 j 10:58 11°**х** 10′08 direct

-9960 Feb 05 j 20:24

conjunction

4°**₹**59'20 -15°34'56

evening set

-9952 Feb 10 j 09:56

12°**∡**³32'37

•	nical year style is used: Th		•	* ·			ge 33
conjunction	-9952 Feb 13 j 20:05	12° ₹ 37'16		direct	-9946 Nov 11 j 22:37	17° ₹ 50'21	
minimum elong	-9952 Feb 13 j 20:03	12 x 37 10 12° x 37 16			-9945 Feb 13 j 19:14	17 × 3021 19° × 08'58	
_	,			evening set	-9943 Feb 13 J 19.14	19 8.0838	
max. Earth dist.	-9952 Feb 13 j 13:12		49.90512 AU	· · · · · · · · · · · ·	-9945 Feb 20 j 14:08	100.710111	12020102
morning rise	-9952 Feb 17 j 06:35	12° ₹ 41'55		conjunction	,	19° ∡ 18'11 19° ∡ 18'11	
retrograde	-9952 May 25 j 16:08	14° ₹ 05'52	15011127	minimum elong	-9945 Feb 20 j 14:19		
opposition	-9952 Aug 15 j 18:18	13° ∡ 706'34		max. Earth dist.	-9945 Feb 19 j 22:38		49.49084 AU
min. Earth dist.	-9952 Aug 16 j 00:18	13° x '0017 12° x '07'04	47.94777 AU	morning rise	-9945 Feb 27 j 09:25	19° 🖈 27'26	
direct	-9952 Nov 05 j 17:20			retrograde	-9945 Jun 02 j 05:22	20° 🖈 47'07	1.4907107
evening set	-9951 Feb 10 j 00:53	13° ∡ 28'46		opposition min. Earth dist.	-9945 Aug 23 j 00:02 -9945 Aug 23 j 14:26	19° × 47'52	
conjunction	-9951 Feb 14 i 01:59	13° ∡ ³34'14	1.402.112.0		-9945 Aug 23 j 14:26 -9945 Nov 13 j 02:22	19° × '47'10	47.51153 AU
minimum elong	,	13° x '34'14		direct		20° ₹ 06'22	
max. Earth dist.	-9951 Feb 14 j 02:08		49.85534 AU	evening set	-9944 Feb 14 j 16:23	20 × 06 22	
	-9951 Feb 13 j 18:27	13° x '33'49' 13° x' 39'44	49.83334 AU	· · · · · · · · · · · ·	0044 E-k 21 : 20-16	200.71.000	12020110
morning rise	-9951 Feb 18 j 03:25			conjunction	-9944 Feb 21 j 20:16	20° 🗷 16'06	
retrograde	-9951 May 26 j 20:18	15° ₹ 02'51	15002112	minimum elong	-9944 Feb 21 j 20:25	20°×716'06	
opposition	-9951 Aug 16 j 22:30	14° ∡ °03'32		max. Earth dist.	-9944 Feb 21 j 02:13	20° x ' 13 04 20° x ' 25'52	49.41508 AU
min. Earth dist.	-9951 Aug 17 j 06:19		47.89533 AU	morning rise	-9944 Feb 29 j 00:36		
direct	-9951 Nov 06 j 23:01	13°×704'00		retrograde	-9944 Jun 02 j 14:32	21° 🖈 45'06	12056155
evening set	-9950 Feb 10 j 17:42	14° ₹ 25'01		opposition	-9944 Aug 23 j 04:33	20° 🖈 45'49	
. ,.	0050 F 1 15 : 07 52	140 701114	1.4022112	min. Earth dist.	-9944 Aug 23 j 21:10		47.43184 AU
conjunction	-9950 Feb 15 j 07:52	14° ∡ ³31'14		direct	-9944 Nov 13 j 03:35	19° ∡ 746′02	
minimum elong	-9950 Feb 15 j 08:01	14° √ 31'14		evening set	-9943 Feb 14 j 14:07	21° 🗷 03'54	40.22.422.434
max. Earth dist.	-9950 Feb 14 j 23:14		49.80280 AU	max. Earth dist.	-9943 Feb 21 j 07:57	21° × °13'04	49.33422 AU
morning rise	-9950 Feb 19 j 22:23	14° ∡ ³37'28		. ,.	0042 E 1 22 : 02 20	210 71407	12010110
retrograde	-9950 May 28 j 02:32	15° ₹ 59'52	1.405.412.0	conjunction	-9943 Feb 22 j 02:39	21° 🖈 14'07	
opposition	-9950 Aug 18 j 02:38	15° ₹ 00'33		minimum elong	-9943 Feb 22 j 02:50	21° 🖈 14'08	13°18'53
min. Earth dist.	-9950 Aug 18 j 10:29		47.84003 AU	morning rise	-9943 Mar 01 j 15:30	21° 🖈 24'23	
direct	-9950 Nov 08 j 02:18	14° ₹ 00'58		retrograde	-9943 Jun 03 j 18:54	22° х 43'11	12046120
evening set	-9949 Feb 11 j 11:37	15° ∡ ¹21'24		opposition	-9943 Aug 24 j 08:57	21° 🖈 43'52	
. ,.	0040 F 1 16:12 47	150 700117	1.401.414.0	min. Earth dist.	-9943 Aug 25 j 02:45		47.34701 AU
conjunction	-9949 Feb 16 j 13:47	15° ₹ 28'17		direct	-9943 Nov 14 j 09:46	20° ₹ 44'00	
minimum elong	-9949 Feb 16 j 13:57	15° ₹ 28'18		evening set	-9942 Feb 15 j 12:08	22°\$\square\$01'30	40 24952 ATT
max. Earth dist.	-9949 Feb 16 j 03:16		49.74732 AU	max. Earth dist.	-9942 Feb 22 j 11:37	22° X '11'00	49.24852 AU
morning rise	-9949 Feb 21 j 16:24	15° ₹ 35'12		· · · · · · · · · ·	0042 E-L 22:00.54	220.712012	12000107
retrograde	-9949 May 29 j 09:40 -9949 Aug 19 j 06:51	16° 尽 56'57 15° 尽 57'39	1.4945122	conjunction minimum elong	-9942 Feb 23 j 08:54 -9942 Feb 23 j 09:03	22° х 12′13 22° х 12′13	13°08'40
opposition min. Earth dist.	-9949 Aug 19 j 16:29		47.78188 AU	morning rise	-9942 Feb 23 j 09:03 -9942 Mar 03 j 06:06	22° x '1213	13 06 40
direct	-9949 Nov 09 j 05:05	13 x 3/11 14° x 58'03	47.70100 AU		-9942 Jun 04 j 22:25	22 x 22 37 23° x 41'20	
evening set	-9948 Feb 12 j 06:33	14 x 38 03 16° x 17'57		retrograde opposition	-9942 Juli 04 j 22.23 -9942 Aug 25 j 13:24	23 x ⁴ 41 20 22° x ⁷ 41'58	12025147
evening set	-9946 Feb 12 J 00.33	10 × 1/3/		min. Earth dist.	-9942 Aug 25 j 13.24 -9942 Aug 26 j 08:20		47.25760 AU
conjunction	-9948 Feb 17 j 19:52	16° ∡ ¹25'29	14005'53	direct	-9942 Nov 15 j 16:43	21° х 41'03	47.23700 AU
minimum elong	-9948 Feb 17 j 20:00	16° ₹ 25′29		evening set	-9941 Feb 16 j 10:26	22° × 59'10	
max. Earth dist.	-9948 Feb 17 j 09:12		49.68895 AU	evening set	-9941 FC0 10 j 10.20	22 🗴 39 10	
morning rise	-9948 Feb 23 j 09:29	16° ₹ 33'02	47.00073 AU	conjunction	-9941 Feb 24 j 15:20	23° ₹ 10′20	-12°57'39
retrograde	-9948 May 29 j 13:37	17° ₹ 54'12		minimum elong	-9941 Feb 24 j 15:31	23° 🖈 10'21	
opposition	-9948 Aug 19 j 11:07	16° ₹ 54'54	-14°36'19	max. Earth dist.	-9941 Feb 23 j 17:07		49.15831 AU
min. Earth dist.	-9948 Aug 19 j 21:41		47.72050 AU	morning rise	-9941 Mar 04 j 20:34	23° × ⁷ 21'32	47.13031 710
direct	-9948 Nov 09 j 11:11	15° ₹ 55'17	.,.,2000110	retrograde	-9941 Jun 06 j 01:19	24°×39'31	
evening set	-9947 Feb 12 j 02:00	17° √ 14'44		opposition	-9941 Aug 26 j 17:55	23° х 40'06	-13°24'50
e venning see	>> ., 1 co 12 j c2.00	1, ,, 1,		min. Earth dist.	-9941 Aug 27 j 14:53		47.16400 AU
conjunction	-9947 Feb 18 j 01:38	17° ∡ ¹22'51	-13°56'50	direct	-9941 Nov 17 j 00:28	22° х 40'02	
minimum elong	-9947 Feb 18 j 01:49	17° ₹ 22'52		evening set	-9940 Feb 17 j 09:05	23°× 56'53	
max. Earth dist.	-9947 Feb 17 j 12:42		49.62721 AU	evening sec	>> .01 0 0 17 j 0>.00	23 7. 0003	
morning rise	-9947 Feb 24 i 01:44	17° х 30′59	19.02721110	conjunction	-9940 Feb 25 j 21:41	24° ≯ ′08'30	-12°46'57
retrograde	-9947 May 30 j 18:45	18° ∡ 751'38		minimum elong	-9940 Feb 25 j 21:51	24° ₹ '08'30	12°47'30
opposition	-9947 Aug 20 j 15:21	17° ₹ 52'22	-14°26'49	max. Earth dist.	-9940 Feb 24 j 22:14		49.06444 AU
min. Earth dist.	-9947 Aug 21 j 02:47		47.65550 AU	morning rise	-9940 Mar 05 j 10:36	24° ≯ 20'09	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	• •	16° ₹ 52'43		retrograde	-9940 Jun 06 j 07:21	25° ₹ 37'46	
direct	-9947 Nov 10 i 16:24			opposition	-		12012127
	-9947 Nov 10 j 16:24 -9946 Feb 12 j 22:13			opposition	-9940 Aug 26 1 22:25	24° x ′38'16	-13-13-37
direct evening set	-9947 Nov 10 j 16:24 -9946 Feb 12 j 22:13	18° ≯ 11'44			-9940 Aug 26 j 22:25 -9940 Aug 27 j 19:26	24° ₹38'16 24° ₹37'16	
evening set	-9946 Feb 12 j 22:13		-13°47'33	min. Earth dist.	-9940 Aug 27 j 19:26		47.06698 AU
		18° ₰ 11'44		min. Earth dist. direct		24° ₹ 37'16	
evening set	-9946 Feb 12 j 22:13 -9946 Feb 19 j 07:51 -9946 Feb 19 j 08:00	18° ₹ 11'44 18° ₹ 20'25 18° ₹ 20'26		min. Earth dist.	-9940 Aug 27 j 19:26 -9940 Nov 17 j 04:53 -9939 Feb 17 j 07:39	24° ₹37'16 23° ₹38'06 24° ₹54'39	
evening set conjunction minimum elong max. Earth dist.	-9946 Feb 12 j 22:13 -9946 Feb 19 j 07:51 -9946 Feb 19 j 08:00 -9946 Feb 18 j 17:52	18° ₹ 11'44 18° ₹ 20'25 18° ₹ 20'26	13°48'07	min. Earth dist. direct evening set	-9940 Aug 27 j 19:26 -9940 Nov 17 j 04:53	24° ₹37'16 23° ₹38'06 24° ₹54'39	47.06698 AU
evening set conjunction minimum elong	-9946 Feb 12 j 22:13 -9946 Feb 19 j 07:51 -9946 Feb 19 j 08:00 -9946 Feb 18 j 17:52 -9946 Feb 25 j 17:50	18° 🗷 11'44 18° 🗷 20'25 18° 🗷 20'26 18° 🗷 19'38	13°48'07	min. Earth dist. direct evening set max. Earth dist.	-9940 Aug 27 j 19:26 -9940 Nov 17 j 04:53 -9939 Feb 17 j 07:39 -9939 Feb 25 j 02:35	24° ₹37'16 23° ₹38'06 24° ₹54'39	47.06698 AU 48.96726 AU
conjunction minimum elong max. Earth dist. morning rise retrograde	-9946 Feb 12 j 22:13 -9946 Feb 19 j 07:51 -9946 Feb 19 j 08:00 -9946 Feb 18 j 17:52 -9946 Feb 25 j 17:50 -9946 May 31 j 22:34	18° ₹ 11'44 18° ₹ 20'25 18° ₹ 20'26 18° ₹ 19'38 18° ₹ 29'08	13°48'07 49.56133 AU	min. Earth dist. direct evening set max. Earth dist. conjunction	-9940 Aug 27 j 19:26 -9940 Nov 17 j 04:53 -9939 Feb 17 j 07:39	24° ₹37'16 23° ₹38'06 24° ₹54'39 25° ₹05'16	47.06698 AU 48.96726 AU
evening set conjunction minimum elong max. Earth dist. morning rise	-9946 Feb 12 j 22:13 -9946 Feb 19 j 07:51 -9946 Feb 19 j 08:00 -9946 Feb 18 j 17:52 -9946 Feb 25 j 17:50	18° ₹ 11'44 18° ₹ 20'25 18° ₹ 20'26 18° ₹ 19'38 18° ₹ 29'08 19° ₹ 49'17 18° ₹ 50'02	13°48'07 49.56133 AU	min. Earth dist. direct evening set max. Earth dist.	-9940 Aug 27 j 19:26 -9940 Nov 17 j 04:53 -9939 Feb 17 j 07:39 -9939 Feb 25 j 02:35 -9939 Feb 26 j 03:51	24° ₹37'16 23° ₹38'06 24° ₹54'39 25° ₹05'16	47.06698 AU 48.96726 AU -12°35'59

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -9939 in astronomical counting style is the year 9940 BCE in historical counting style. -9939 Jun 07 j 14:53 26°**х** 36′04 min. Earth dist. -9933 Sep 04 i 14:02 1°る28'34 46.30044 AU retrograde -9939 Aug 28 j 03:05 25° x 36'31 -13°02'08 direct -9933 Nov 24 j 14:58 0°**궁**29'16 opposition -9939 Aug 29 j 01:59 25°**✗**35'25 46.96695 AU -9932 Feb 23 j 07:02 1°る44'22 min. Earth dist. evening set -9939 Nov 18 j 07:46 -9932 Mar 03 j 16:07 1°る57'19 48.19840 AU 24°×736'16 max. Earth dist. direct -9938 Feb 18 j 06:45 25°**₹**52'31 evening set 1°る59'19 -11°11'51 max. Earth dist. -9938 Feb 26 j 09:02 -9932 Mar 05 j 03:00 26°**✗**03'34 48.86730 AU conjunction -9932 Mar 05 j 03:12 minimum elong 1°**る**59'20 11°12'26 -9938 Feb 27 j 10:23 26°**₹**05'01 -12°24'45 -9932 Mar 15 j 23:12 conjunction morning rise 2°る14'18 -9938 Feb 27 j 10:33 minimum elong 26°**₹**'05'02 12°25'18 retrograde -9932 Jun 14 j 10:05 3°**る**29'41 morning rise -9938 Mar 08 j 14:11 26°**х¹**17'33 opposition -9932 Sep 03 j 13:29 2°**る**29'50 -11°34'03 2°る28'20 46.17403 AU retrograde -9938 Jun 08 j 20:37 27°**∡**³34'28 min. Earth dist. -9932 Sep 04 j 20:39 -9932 Nov 24 j 20:54 1°る28'59 opposition -9938 Aug 29 j 07:40 26°**∡**134'52 -12°50'22 direct 2°る43'56 min. Earth dist. -9938 Aug 30 j 07:11 26°**✗**33'44 46.86410 AU evening set -9931 Feb 23 j 07:48 direct -9938 Nov 19 j 13:12 25°**х** 34'31 max. Earth dist. -9931 Mar 04 j 22:04 2°る57'12 48.07081 AU evening set -9937 Feb 19 j 06:11 26°**х** 50′32 conjunction -9931 Mar 06 j 10:06 2°る59'17 -10°58'50 conjunction -9937 Feb 28 j 16:51 27°**∡**03'28 -12°13'15 minimum elong -9931 Mar 06 j 10:17 2°る59'17 10°59'24 minimum elong -9937 Feb 28 j 17:02 27°**х** 03'29 12°13'50 morning rise -9931 Mar 17 j 12:22 3°る14'38 max. Earth dist. -9937 Feb 27 j 13:17 27°**✗**01'53 48.76466 AU retrograde -9931 Jun 15 j 13:44 4°る29'49 morning rise -9937 Mar 10 j 03:55 27°**х** 16′25 opposition -9931 Sep 04 j 18:54 3°る29'53 -11°20'26 28°**х**³33′01 retrograde -9937 Jun 10 j 02:41 min. Earth dist. -9931 Sep 06 j 04:12 3°る28'16 46.04233 AU opposition -9937 Aug 30 j 12:24 27°×33'23 -12°38'19 direct -9931 Nov 26 i 05:33 2°る28'54 min. Earth dist. -9937 Aug 31 i 12:39 27°**₹**32'13 46.75862 AU evening set -9930 Feb 24 i 09:08 3°₹43'43 direct -9937 Nov 20 j 18:42 26°**х** 32'57 max. Earth dist. -9930 Mar 06 i 03:41 3°る57'15 47.93828 AU evening set -9936 Feb 20 j 05:36 27°×748'45 -9930 Mar 07 j 17:21 3°**ප**59'26 -10°45'33 conjunction -9936 Feb 29 j 23:24 28° \$\square\$02'06 -12°01'29 -9930 Mar 07 j 17:33 3°る59'27 10°46'08 conjunction minimum elong -9936 Feb 29 j 23:35 28° × 02'07 12°02'03 -9930 Mar 19 j 01:35 4°₹15'10 minimum elong morning rise -9936 Feb 28 j 19:18 -9930 Jun 16 j 19:55 5°る30'09 max. Earth dist. 28°**₹**00'30 48.65914 AU retrograde -9936 Mar 10 j 17:23 -9930 Sep 06 j 00:05 4°る30'08 -11°06'33 morning rise 28°**₹**15′28 opposition -9936 Jun 10 j 06:13 -9930 Sep 07 j 09:54 4°る28'29 45.90585 AU 29°**х**³31'48 min. Earth dist. retrograde -9936 Aug 30 j 17:18 -9930 Nov 27 j 11:24 3°る29'01 28°**尽**32'08 -12°25'59 direct opposition -9929 Feb 25 j 10:35 min. Earth dist. -9936 Aug 31 j 19:22 28°**✗**30'53 46.65007 AU 4°る43'42 evening set 4°る57'29 47.80106 AU -9929 Mar 07 j 08:53 -9936 Nov 21 j 01:38 direct 27°**∡**°31'38 max. Earth dist. -9935 Feb 20 j 05:31 evening set 28°**∡**¹47'14 -9935 Mar 01 j 00:46 28°**尽**59'18 48.55052 AU -9929 Mar 09 j 00:41 4°る59'48 -10°32'01 max. Earth dist. conjunction -9929 Mar 09 j 00:52 4°**る**59'48 10°32'36 minimum elong conjunction -9935 Mar 02 j 06:04 29°**∡**100'59 -11°49'27 morning rise -9929 Mar 20 j 14:50 5°る15'54 -9935 Mar 02 j 06:14 29°**∡**'01'00 11°50'02 retrograde -9929 Jun 18 j 04:08 6°る30'42 minimum elong -9935 Mar 12 j 06:48 29°**х¹**14'46 opposition -9929 Sep 07 j 05:39 5°る30'35 -10°52'23 morning rise -9935 Apr 17 j 18:36 0°궁 min. Earth dist. -9929 Sep 08 j 17:40 5°る28'49 45.76512 AU -9935 Jun 11 j 11:57 0°る30'51 -9929 Nov 28 j 15:07 4°る29'19 retrograde direct -9935 Aug 05 j 21:55 30°R.**✓** -9928 Feb 26 j 12:05 5°る43'53 evening set -9935 Aug 31 j 22:01 29°**₹**31'09 -12°13'24 max. Earth dist. -9928 Mar 07 j 15:56 5°る58'01 47.65992 AU opposition -9935 Sep 02 j 00:29 29°**✗**29'52 46.53804 AU min. Earth dist. -9935 Nov 22 i 07:03 -9928 Mar 09 i 07:59 6°පි00'21 -10°18'14 direct 28°**х** 30′34 conjunction -9934 Feb 21 i 05:40 -9928 Mar 09 i 08:11 evening set 29°×745'59 minimum elong 6°る00'21 10°18'49 -9934 Mar 02 i 05:21 -9928 Mar 21 i 03:38 max. Earth dist. 29° ₹ 58'20 48.43792 AU morning rise 6°**ප**16'49 retrograde -9928 Jun 18 i 11:15 7°る31'26 -9934 Mar 03 i 12:53 0°る00'09 -11°37'10 opposition -9928 Sep 07 j 11:10 6°**ප**31'13 -10°37'57 conjunction -9934 Mar 03 i 13:05 0°**ප**00'10 11°37'45 min. Earth dist. -9928 Sep 08 j 23:46 6°る29'26 45.62067 AU minimum elong -9934 Mar 03 j 10:16 0°궁 direct -9928 Nov 28 j 21:14 5°る29'49 -9934 Mar 13 j 20:23 0°る14'21 -9927 Feb 26 j 13:57 6°₹44'17 morning rise evening set retrograde -9934 Jun 12 j 21:16 1°る30'11 max. Earth dist. -9927 Mar 08 j 20:58 6°る58'39 47.51543 AU opposition -9934 Sep 02 j 03:07 0°る30'26 -12°00'32 min. Earth dist. -9934 Sep 03 j 07:48 0°る29'03 46.42175 AU conjunction -9927 Mar 10 j 15:18 7°る01'07 -10°04'10 -9934 Sep 29 j 14:01 30°R*X* minimum elong -9927 Mar 10 j 15:29 7°る01'08 10°04'44 -9934 Nov 23 j 09:25 29°**∡**¹29'47 -9927 Mar 22 j 16:39 7°る17'57 direct morning rise -9933 Jan 16 j 18:51 0°る -9927 Jun 19 j 18:46 8°る32'24 retrograde -9933 Feb 22 j 06:12 0°る45'02 -9927 Sep 08 j 16:42 7°る32'05 -10°23'13 evening set opposition -9933 Mar 03 j 11:47 0°**궁**57'45 48.32071 AU max. Earth dist. min. Earth dist. -9927 Sep 10 j 06:14 7°る30'15 45.47326 AU direct -9927 Nov 30 j 03:17 6°**る**30'32 conjunction -9933 Mar 04 j 19:59 0°る59'36 -11°24'38 evening set -9926 Feb 27 j 15:57 7°る44'57 minimum elong -9933 Mar 04 j 20:09 0°る59'37 11°25'12 max. Earth dist. -9926 Mar 10 j 04:09 7°る59'38 47.36801 AU morning rise -9933 Mar 15 j 09:46 1°る14'12 -9933 Jun 14 j 03:41 2°る29'48 -9926 Mar 11 j 22:57 8°る02'09 -9°49'49 retrograde conjunction -9933 Sep 03 j 08:13 1°る30'01 -11°47'26 -9926 Mar 11 j 23:08 8°る02'09 9°50'25 opposition minimum elong

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -9926 in astronomical counting style is the year 9927 BCE in historical counting style. -9926 Mar 24 i 05:35 8°る19'20 conjunction -9919 Mar 19 i 07:48 15°る19'39 -8°01'34 morning rise -9926 Jun 20 j 23:33 9°**云**33'40 -9919 Mar 19 i 07:59 15°る19'40 8°02'09 retrograde minimum elong 8°**ට**33'14 -10°08'12 -9926 Sep 09 j 22:34 -9919 Apr 02 j 00:20 15°**ප**39'13 opposition morning rise 8°る31'19 45.32299 AU -9919 Jun 28 j 04:00 16°る53'09 min. Earth dist. -9926 Sep 11 j 13:42 retrograde 15°る52'00 -8°14'47 -9926 Dec 01 j 11:19 -9919 Sep 16 j 18:52 direct 7°云31'33 opposition -9919 Sep 18 j 18:52 evening set -9925 Feb 28 j 18:23 8°**る**45'56 min. Earth dist. 15°る49'36 44.17757 AU max. Earth dist. -9925 Mar 11 j 10:39 9°る00'52 47.21802 AU direct -9919 Dec 08 j 09:34 14°**る**49'15 evening set -9918 Mar 06 j 18:59 16°る03'45 conjunction -9925 Mar 13 j 06:34 9°る03'28 -9°35'12 max. Earth dist. -9918 Mar 18 j 11:05 16°る20'26 46.06870 AU 9°**る**03'28 9°35'46 minimum elong -9925 Mar 13 j 06:45 morning rise -9925 Mar 25 j 18:29 9°る21'00 conjunction -9918 Mar 20 j 16:42 16°る23'40 -7°45'01 -9925 Jun 22 j 04:54 10°る35'13 -9918 Mar 20 j 16:52 retrograde minimum elong 16°る23'40 7°45'35 -9918 Apr 03 j 13:25 opposition -9925 Sep 11 j 04:22 9°る34'43 -9°52'53 morning rise 16°**ප්**43'33 min. Earth dist. -9925 Sep 12 j 19:32 9°る32'47 45.17018 AU retrograde -9918 Jun 29 j 12:34 17°る57'28 direct -9925 Dec 02 j 18:45 8°**る**32'54 opposition -9918 Sep 18 j 01:48 16°る56'09 -7°57'26 evening set -9924 Feb 29 j 20:57 9°**る**47'14 min. Earth dist. -9918 Sep 20 j 02:24 16°る53'43 43.99635 AU max. Earth dist. -9924 Mar 11 j 16:40 10°る02'26 47.06533 AU direct -9918 Dec 09 j 16:46 15°る53'12 evening set -9917 Mar 07 j 23:46 17°る07'45 conjunction -9924 Mar 13 j 14:21 10°る05'08 -9°20'17 max. Earth dist. -9917 Mar 19 j 17:25 17°る24'36 45.88684 AU minimum elong -9924 Mar 13 j 14:32 10°る05'08 9°20'53 morning rise -9924 Mar 26 j 07:27 10°る23'01 conjunction -9917 Mar 22 j 01:32 17°る27'59 -7°28'10 retrograde -9924 Jun 22 j 14:17 11°る37'10 minimum elong -9917 Mar 22 i 01:43 17°る27'59 7°28'45 opposition -9924 Sep 11 i 10:28 10°る36'35 -9°37'15 morning rise -9917 Apr 05 i 02:31 17°る48'11 min. Earth dist. -9924 Sep 13 i 03:31 10°る34'33 45.01467 AU retrograde -9917 Jun 30 j 23:21 19°る02'05 direct -9924 Dec 02 j 22:29 9°**ට**34'38 opposition -9917 Sep 19 i 08:51 18°る00'36 -7°39'46 -9923 Mar 01 j 23:40 10°**ප්**48'57 -9917 Sep 21 j 10:53 17°る58'05 43.81130 AU evening set min. Earth dist. -9923 Mar 13 j 00:25 11°る04'30 46.90980 AU -9917 Dec 10 j 22:20 16°る57'25 max. Earth dist. direct -9916 Mar 08 j 04:40 18°**る**12'03 evening set -9923 Mar 14 j 22:13 11°る07'12 -9°05'06 -9916 Mar 20 j 02:12 18°る29'11 45.70134 AU conjunction max. Earth dist. 11°る07'13 9°05'40 -9923 Mar 14 j 22:24 minimum elong -9923 Mar 27 j 20:11 -9916 Mar 22 j 10:39 18°る32'36 -7°11'02 11°**る**25'26 conjunction morning rise -9923 Jun 23 j 23:08 minimum elong -9916 Mar 22 j 10:48 12°**る**39'31 18°る32'37 7°11'36 retrograde -9916 Apr 05 j 15:26 -9923 Sep 12 j 16:36 11°る38'51 -9°21'20 18°**る**53'07 opposition morning rise -9923 Sep 14 j 10:15 11°る36'47 44.85588 AU -9916 Jul 01 j 06:58 20°**る**07'01 min. Earth dist. retrograde -9923 Dec 04 j 03:07 10°**る**36'46 -9916 Sep 19 j 16:10 19°る05'22 -7°21'48 direct opposition -9922 Mar 03 j 03:00 11°**る**51'07 -9916 Sep 21 j 19:34 19°る02'47 43.62293 AU evening set min. Earth dist. -9922 Mar 14 j 06:04 12°る06'51 46.75067 AU -9916 Dec 11 j 07:11 max. Earth dist. direct 18°**る**01'59 evening set -9915 Mar 09 j 09:50 19°る16'42 conjunction -9922 Mar 16 j 06:19 12°る09'42 -8°49'37 max. Earth dist. -9915 Mar 21 j 09:49 19°る34'03 45.51294 AU -9922 Mar 16 j 06:30 12°る09'43 8°50'12 minimum elong morning rise -9922 Mar 29 j 09:18 12°**る**28'17 conjunction -9915 Mar 23 j 19:37 19°る37'34 -6°53'37 -9922 Jun 25 j 08:13 13°**る**42'19 -9915 Mar 23 j 19:47 19°**ට**37'34 6°54'11 retrograde minimum elong -9922 Sep 13 j 22:49 12°る41'33 -9°05'08 -9915 Apr 07 j 04:22 19°**る**58'23 opposition morning rise min. Earth dist. -9922 Sep 15 j 17:59 12°る39'25 44.69331 AU -9915 Jul 02 j 13:35 21°る12'19 retrograde -9922 Dec 05 j 08:44 11°**る**39'19 -9915 Sep 20 j 23:30 20°**ට**10'30 -7°03'31 direct opposition evening set -9921 Mar 04 i 06:33 12°る53'43 min. Earth dist. -9915 Sep 23 i 03:04 20°る07'53 43.43194 AU max. Earth dist. -9921 Mar 15 i 13:42 13°る09'43 46.58726 AU direct -9915 Dec 12 i 16:34 19°**る**06'53 evening set -9914 Mar 10 i 15:23 20°る21'44 conjunction -9921 Mar 17 j 14:48 13°る12'38 -8°33'53 max. Earth dist. -9914 Mar 22 i 17:46 20°る39'17 45.32193 AU -9921 Mar 17 i 14:59 13°る12'39 8°34'27 minimum elong -9921 Mar 30 j 22:18 13°る31'33 -9914 Mar 25 i 04:59 20° 842'55 -6°35'54 morning rise conjunction -9921 Jun 26 j 13:25 14°る45'32 -9914 Mar 25 i 05:08 20°₹42'55 6°36'26 retrograde minimum elong -9921 Sep 15 j 05:27 13°る44'40 -8°48'38 -9914 Apr 08 j 17:21 21°る04'02 opposition morning rise -9914 Jul 03 j 21:38 13°る42'25 44.52616 AU min. Earth dist. -9921 Sep 17 j 02:28 retrograde 22°る18'02 direct -9921 Dec 06 j 18:51 12°る42'17 opposition -9914 Sep 22 j 07:09 21°**ට**16'03 -6°44'55 -9914 Sep 24 j 12:29 evening set -9920 Mar 04 j 10:23 13°**る**56'42 min. Earth dist. 21°る13'21 43.23866 AU -9914 Dec 14 j 00:25 max. Earth dist. -9920 Mar 15 j 20:16 14°る12'56 46.41924 AU direct 20°る12'14 -9913 Mar 11 j 21:18 21°る27'14 evening set -9920 Mar 17 j 23:08 14°る15'58 -8°17'52 -9913 Mar 24 j 03:18 21°る45'04 45.12890 AU conjunction max. Earth dist. -9920 Mar 17 j 23:18 14°**る**15'59 minimum elong 8°18'26 14°**る**35'13 -9913 Mar 26 j 14:33 21°₹48'43 -6°17'52 morning rise -9920 Mar 31 j 11:15 conjunction retrograde -9920 Jun 26 j 19:46 15°**る**49'10 minimum elong -9913 Mar 26 j 14:42 21°る48'43 6°18'26 opposition -9920 Sep 15 j 12:05 14°**ප්**48'10 -8°31'52 morning rise -9913 Apr 10 j 06:21 22°る10'08 min. Earth dist. -9920 Sep 17 j 09:37 14°る45'53 44.35426 AU retrograde -9913 Jul 05 j 07:24 23°**る**24'14 direct -9920 Dec 07 j 03:25 13°**る**45'36 opposition -9913 Sep 23 j 14:59 22°る22'06 -6°25'59 -9919 Mar 05 j 14:31 15°る00'04 min. Earth dist. -9913 Sep 25 j 20:18 22°る19'23 43.04336 AU evening set

max. Earth dist.

-9919 Mar 17 j 02:52

15°る16'29 46.24626 AU

direct

-9913 Dec 15 j 06:59

21°る18'05

Planetary Phenomena of Pluto from -10400 through -9898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -9912 in astronomical counting style is the year 9913 BCE in historical counting style. -9912 Mar 12 i 03:29 22°る33'16 -9906 Apr 12 j 07:11 0°≈ evening set 22°る51'17 44.93383 AU -9912 Mar 24 j 10:51 -9906 Apr 19 j 03:36 0°≈10'16 max. Earth dist. morning rise -9906 Jul 13 j 09:49 1°≈25'42 retrograde -9912 Mar 27 j 00:02 22°る55'03 -5°59'33 -9906 Oct 01 j 04:22 0°≈22'23 -4°04'33 conjunction opposition -9912 Mar 27 j 00:11 -9906 Oct 03 j 18:21 0°≈19'09 41.59225 AU minimum elong 22°る55'03 6°00'06 min. Earth dist. -9912 Apr 10 j 19:19 -9906 Oct 19 j 10:50 morning rise 23°**る**16'46 30°Rる -9912 Jul 05 j 18:50 29°る16'51 retrograde 24°**る**31'00 direct -9906 Dec 22 j 18:31 opposition -9912 Sep 23 j 23:02 23°**る**28'42 -6°06'44 -9905 Feb 23 j 23:45 0°≈ 23°る25'56 42.84609 AU min. Earth dist. -9912 Sep 26 j 05:38 evening set -9905 Mar 20 j 11:24 0°≈33'59 direct -9912 Dec 15 j 12:49 22°る24'31 max. Earth dist. -9905 Apr 02 j 05:22 0°≈53'17 43.47741 AU evening set -9911 Mar 13 j 10:03 23°る39'55 -9905 Apr 05 j 03:24 max. Earth dist. -9911 Mar 25 j 20:47 23°る58'12 44.73648 AU conjunction 0°≈57'44 -3°42'56 -9905 Apr 05 j 03:30 minimum elong 0°≈57'45 3°43'28 -9905 Apr 20 j 17:21 conjunction -9911 Mar 28 j 10:05 24°る02'00 -5°40'56 morning rise 1°≈21'24 -9905 Jul 14 j 21:16 minimum elong -9911 Mar 28 j 10:13 24°る02'00 5°41'30 retrograde 2°≈37'04 morning rise -9911 Apr 12 j 08:23 24°る24'01 opposition -9905 Oct 02 j 14:08 1°≈33'32 -3°43'05 retrograde -9911 Jul 07 j 03:58 25°る38'24 min. Earth dist. -9905 Oct 05 j 04:47 1°**≈**30'15 41.37000 AU 24°る35'58 -5°47'10 opposition -9911 Sep 25 j 07:12 -9905 Dec 24 j 05:05 0°≈27'43 min. Earth dist. -9911 Sep 27 j 15:00 24°る33'07 42.64626 AU evening set -9904 Mar 20 j 20:52 1°≈45'11 direct -9911 Dec 16 j 22:45 23°る31'35 max. Earth dist. -9904 Apr 02 j 16:01 2°≈04'39 43.25433 AU evening set -9910 Mar 14 j 17:17 24°る47'15 max. Earth dist. -9910 Mar 27 i 05:17 25°る05'42 44.53640 AU conjunction -9904 Apr 05 i 15:01 2°≈09'13 -3°22'14 -9904 Apr 05 i 15:07 2°≈09'13 3°22'45 minimum elong conjunction -9910 Mar 29 i 20:17 25°**ට**09'37 -5°22'00 morning rise -9904 Apr 21 i 06:47 2°≈33'07 -9910 Mar 29 j 20:26 25°る09'38 5°22'33 retrograde -9904 Jul 15 i 05:57 3°≈49'04 minimum elong -9910 Apr 13 j 21:47 25°**る**31'55 -9904 Oct 03 j 00:16 2°≈45'16 -3°21'16 morning rise opposition -9910 Jul 08 j 13:45 26°**る**46'29 -9904 Oct 05 j 16:41 2°≈41'53 41.14484 AU retrograde min. Earth dist. 25°**ප්**43'55 -5°27'17 -9910 Sep 26 j 15:39 -9904 Dec 24 j 18:02 1°≈39'11 direct opposition -9910 Sep 28 j 23:58 -9903 Mar 22 j 06:58 min. Earth dist. 25°る41'01 42.44342 AU 2°≈57'00 evening set 24°る39'20 -9910 Dec 18 j 08:39 -9903 Apr 04 j 03:30 3°≈16'40 43.02876 AU direct max. Earth dist. -9909 Mar 16 j 00:49 25°**る**55'16 evening set -9909 Mar 28 j 14:24 -9903 Apr 07 j 02:56 max. Earth dist. 26°る13'55 44.33268 AU conjunction 3°≈21'17 -3°01'13 -9903 Apr 07 j 03:01 3°≈21'17 3°01'44 minimum elong -9903 Apr 22 j 20:31 -9909 Mar 31 j 06:50 26°る17'56 -5°02'47 conjunction morning rise 3°≈45'25 -9909 Mar 31 j 06:57 26°る17'57 5°03'20 -9903 Jul 16 j 15:50 minimum elong retrograde 5°≈01'40 -9909 Apr 15 j 11:03 26°**る**40'32 -9903 Oct 04 j 10:24 morning rise opposition 3°≈57'38 -2°59'08 -9909 Jul 09 j 22:42 27°る55'17 -9903 Oct 07 j 02:42 retrograde min. Earth dist. 3°≈54'14 40.91748 AU -9909 Sep 28 j 00:32 26°る52'34 -5°07'05 direct -9903 Dec 26 j 05:23 2°≈51'14 opposition min. Earth dist. -9909 Sep 30 j 11:07 26°る49'32 42.23678 AU -9902 Mar 23 j 17:37 4°≈09'27 evening set -9909 Dec 19 j 17:54 25°る47'47 max. Earth dist. -9902 Apr 05 j 13:57 4°≈29'13 42.80107 AU direct -9908 Mar 16 j 08:49 27°る03'59 evening set -9908 Mar 29 j 00:27 27°중22'50 44.12509 AU -9902 Apr 08 j 15:11 4°≈33'58 -2°39'54 max. Earth dist. conjunction -9902 Apr 08 j 15:16 4°≈33'59 2°40'26 minimum elong -9908 Mar 31 j 17:37 27°**ට**26'56 -4°43'16 -9902 Apr 24 j 10:20 4°≈58'22 conjunction morning rise -9908 Mar 31 j 17:45 27°る26'56 4°43'48 -9902 Jul 18 j 04:47 6°≈14'56 minimum elong retrograde -9908 Apr 16 j 00:30 27°**る**49'48 morning rise opposition -9902 Oct 05 j 21:06 5°≈10'39 -2°36'40 -9908 Jul 10 j 08:38 retrograde 29°**る**04'47 min. Earth dist. -9902 Oct 08 i 15:01 5°≈07'10 40.68842 AU opposition -9908 Sep 28 i 09:32 28°る01'53 -4°46'33 direct -9902 Dec 27 i 13:51 4°≈03'58 min. Earth dist. -9908 Sep 30 i 20:27 27°る58'50 42.02606 AU evening set -9901 Mar 25 i 04:36 5°≈22'37 direct -9908 Dec 20 i 02:55 26°**る**56'52 max. Earth dist. -9901 Apr 07 j 02:46 5°≈42'36 42.57178 AU -9907 Mar 17 j 17:12 28°**♂**13'21 evening set max. Earth dist. -9907 Mar 30 j 08:48 28°る32'19 43.91323 AU -9901 Apr 10 i 03:42 5°≈47'22 -2°18'18 conjunction -9901 Apr 10 j 03:46 5°≈47'22 2°18'48 minimum elong -9901 Apr 26 j 00:02 conjunction -9907 Apr 02 j 04:32 28°る36'35 -4°23'27 morning rise 6°≈11'59 -9907 Apr 02 j 04:39 28°**る**36'36 4°23'59 -9901 Jul 19 j 17:42 minimum elong retrograde 7°≈28'55 -9907 Apr 17 j 14:02 28°る59'44 opposition -9901 Oct 07 j 08:06 6°≈24'24 -2°13'53 morning rise -9907 Jun 06 j 09:48 0°≈ min. Earth dist. -9901 Oct 10 j 02:14 6°≈20'53 40.45787 AU -9907 Jul 11 j 22:28 0°≈14'56 -9901 Dec 29 j 00:25 retrograde direct 5°≈17'26 -9907 Aug 16 j 15:44 30°R₹ -9900 Mar 25 j 16:15 evening set 6°≈36'33 -9907 Sep 29 j 18:51 29°る11'49 -4°25'43 -9900 Apr 07 j 13:47 opposition max. Earth dist. 6°≈56'38 42.34116 AU -9907 Oct 02 j 07:39 min. Earth dist. 29°る08'40 41.81119 AU direct -9907 Dec 21 j 08:54 28°**る**06'34 conjunction -9900 Apr 10 j 16:24 7°≈01'31 -1°56'23 evening set -9906 Mar 19 j 02:01 29°る23'22 minimum elong -9900 Apr 10 j 16:28 7°≈01'32 1°56'54 max. Earth dist. -9906 Mar 31 j 19:52 29°る42'33 43.69718 AU morning rise -9900 Apr 26 j 14:01 7°≈26'21

retrograde

opposition

min. Earth dist.

-9906 Apr 03 j 15:56

-9906 Apr 03 j 16:03 29°₹46'52 4°03'52

conjunction

minimum elong

29°る46'52 -4°03'20

-9900 Jul 20 j 09:12

-9900 Oct 07 j 19:17

-9900 Oct 10 j 13:57

8°≈43'42

7°≈38'57 -1°50'46

7°≈35'23 40.22612 AU

Attention, astronomical year style is used: The year -9899 in astronomical counting style is the year 9900 BCE in historical counting style.

direct	-9900 Dec 29 j 10:10	6° ≈ 31'42
evening set	-9899 Mar 27 j 04:15	7° ≈ 51'20

max. Earth dist. -9899 Apr 09 j 02:39 8°≈11'35 42.10895 AU

conjunction	-9899 Apr 12 j 05:34	8°≈16'32 -1°34'10
minimum elong	-9899 Apr 12 j 05:37	8°≈16'32 1°34'39
morning rise	-9899 Apr 28 j 03:57	8° ≈ 41'35

retrograde -9899 Jul 21 j 22:02 9°≈59'21 opposition -9899 Oct 09 j 06:59 8°≈54'22 -1°27'19 min. Earth dist. -9899 Oct 12 j 03:11 8°≈50'43 39.99257 AU

direct -9899 Dec 30 j 22:16 7°≈46'52