Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5400 in astronomical counting style is the year 5401 BCE in historical counting style. -5400 Jan 04 j 12:31 $22^{\circ}\Omega$ 06'54 min. Earth dist. -5394 Apr 06 j 18:09 5° m 24'50 29.46862 AU retrograde opposition -5400 Mar 23 j 01:19 20°Ω43'48 14°10'25 -5394 Jun 26 j 17:03 4° m 00'43 direct -5400 Mar 22 j 16:35 20°**Ω**44'24 28.85136 AU -5394 Sep 27 j 12:38 6° Mp 06'42 min. Earth dist. evening set -5400 Jun 10 j 18:19 19°**Ω**19′23 direct -5400 Sep 16 j 15:01 21°**Ω**40'41 -5394 Oct 08 j 21:57 evening set conjunction 6° Mg 32'54 9°59'31 -5394 Oct 08 j 22:21 9°59'40 minimum elong 6° m 32'57 13°02'11 -5394 Oct 10 j 04:23 conjunction -5400 Sep 24 j 05:11 21°**Ω**58'51 max. Earth dist. 6° 10 35'50 31.50265 AU -5400 Sep 24 j 05:36 minimum elong 21°**Ω**58'54 13°02'25 morning rise -5394 Oct 20 j 07:55 6° m 59'11 max. Earth dist. -5400 Sep 24 j 15:59 21°**Ω**59'56 30.83414 AU retrograde -5393 Jan 21 j 04:01 9° m 05'08 morning rise -5400 Oct 01 j 20:01 22°**Ω**17'06 min. Earth dist. -5393 Apr 09 j 07:47 7° Mp 45'46 29.60245 AU retrograde -5399 Jan 06 j 08:03 24°**Ω**36'53 opposition -5393 Apr 10 j 15:30 7° Mp 43'39 10°22'08 -5393 Jun 29 j 11:40 opposition -5399 Mar 25 j 22:10 23°**Ω**13'58 13°41'12 direct 6° m 21'47 -5393 Sep 29 j 13:43 min. Earth dist. -5399 Mar 25 j 09:12 23°**Ω**14'52 28.92938 AU evening set 8°m/25'31 direct -5399 Jun 13 j 15:09 21° **Q**49'54 evening set -5399 Sep 18 j 12:40 24°\$\O8'23 conjunction -5393 Oct 11 j 10:17 8° m 52'35 9°26'10 minimum elong -5393 Oct 11 j 10:40 8° M 52'38 9°26'18 conjunction -5399 Sep 26 j 21:30 24°Ω28'18 12°34'20 max. Earth dist. -5393 Oct 12 j 19:04 8° m 55'44 31.64410 AU minimum elong -5399 Sep 26 j 21:56 24°**Ω**28′21 12°34'32 morning rise -5393 Oct 23 j 07:46 9° m 19'44 max. Earth dist. -5399 Sep 27 j 12:54 24°**Ω**29'50 30.92149 AU retrograde -5392 Jan 23 j 16:44 11° m) 23'41 morning rise -5399 Oct 05 j 06:51 24°**Ω**48'17 min. Earth dist. -5392 Apr 10 j 21:34 10° Mp 04'43 29.74457 AU retrograde -5398 Jan 09 j 00:46 27°**Ω**05'31 opposition -5392 Apr 12 j 07:58 10° M 02'26 9°46'03 opposition -5398 Mar 28 i 18:41 25°**Ω**42'49 13°10'39 direct -5392 Jul 01 i 02:47 8° m 40'56 min. Earth dist. -5398 Mar 28 i 03:04 25°Ω43'53 29.01813 AU evening set -5392 Sep 30 j 14:58 10° m 42'29 direct -5398 Jun 16 j 12:11 24°**Ω**19'06 evening set -5398 Sep 20 j 11:24 26°**Ω**34'54 conjunction -5392 Oct 12 j 22:05 11° Mp 10'20 8°52'16 -5392 Oct 12 i 22:27 11° m 10'22 8°52'24 minimum elong -5398 Sep 29 j 13:04 26°**Ω**56'22 12°05'17 -5392 Oct 14 j 10:29 11° mp 13'47 31.79375 AU max Earth dist conjunction -5398 Sep 29 j 13:29 26° Ω56'25 12°05'30 -5392 Oct 25 j 05:55 11° mb 38'15 morning rise minimum elong -5398 Sep 30 j 06:59 26°**Ω**58'09 31.01937 AU -5391 Jan 25 j 03:01 13° m/40'16 max. Earth dist. retrograde -5398 Oct 08 j 15:24 27°**Ω**17'54 -5391 Apr 13 j 10:11 12° m/21'43 29.89500 AU min. Earth dist. morning rise -5391 Apr 14 j 23:22 -5397 Jan 11 j 18:25 29°**Ω**32'42 12° m/19'16 9°09'26 retrograde opposition -5397 Mar 31 j 14:32 28°**Ω**10'14 12°38'53 -5391 Jul 03 j 19:43 10° m 58'08 opposition direct min. Earth dist. -5397 Mar 30 j 18:32 28°**Ω**11'36 29.11708 AU -5391 Oct 02 j 16:24 12° m 57'36 evening set -5397 Jun 19 j 07:52 direct 26°**Ω**46'53 29°**Ω**00'06 -5397 Sep 22 j 10:52 -5391 Oct 15 j 08:55 13° m/26'07 8°17'52 evening set conjunction 13°Mp26'08 8°17'59 -5391 Oct 15 j 09:16 minimum elong -5397 Oct 02 j 04:15 29°**Ω**22'58 11°35'11 13° Mp 29'43 31.95173 AU conjunction max. Earth dist. -5391 Oct 16 j 23:13 -5397 Oct 02 j 04:41 29°**Ω**23'01 11°35'21 morning rise -5391 Oct 28 j 02:32 13° Mp 54'43 minimum elong max. Earth dist. -5397 Oct 03 j 02:05 29°**Ω**25'07 31.12699 AU retrograde -5390 Jan 27 j 14:49 15° m 54'52 -5397 Oct 11 j 22:13 29°**Ω**45'54 min. Earth dist. -5390 Apr 15 j 21:29 14° m/36'48 30.05423 AU morning rise -5397 Oct 18 j 00:30 0° M opposition -5390 Apr 17 j 14:05 14° m/34'08 8°32'21 -5396 Jan 14 j 10:01 1° m 58'22 -5390 Jul 06 j 09:08 13° m 13'23 retrograde direct -5396 Apr 01 j 11:47 0° m/37'38 29.22555 AU -5390 Oct 04 j 17:42 15° m 10'52 min. Earth dist. evening set -5396 Apr 02 j 09:56 0° My 36'08 $12^{\circ}06'02$ opposition -5396 Apr 25 j 10:34 30°R€ -5390 Oct 17 j 19:05 15° m/39'57 7°43'05 conjunction 29°**Ω**13'10 -5390 Oct 17 i 19:25 direct -5396 Jun 21 i 03:44 minimum elong 15° m 39'59 7°43'11 -5396 Aug 13 j 17:19 0° m max. Earth dist. -5390 Oct 19 i 13:25 15° m 43'55 32.11836 AU evening set -5396 Sep 23 j 11:01 1° m 23'53 morning rise -5390 Oct 30 j 21:21 16° m 09'08 retrograde -5389 Jan 30 i 00:08 18° m 07'32 -5396 Oct 03 j 18:43 1° m 48'00 11° 04'07 min. Earth dist. -5389 Apr 18 i 09:13 16° m 49'53 30.22224 AU conjunction -5396 Oct 03 i 19:08 1° Mp 48'02 11° 04'17 -5389 Apr 20 j 04:05 16° m 47'05 7°54'54 minimum elong opposition 15° m 26'45 -5396 Oct 04 j 19:08 1° m 50'23 31.24385 AU -5389 Jul 08 j 23:05 max. Earth dist. direct -5396 Oct 14 j 03:05 2° m/12'10 -5389 Oct 06 j 19:18 17° m/22'21 morning rise evening set retrograde -5395 Jan 16 j 02:31 4° m 22'23 min. Earth dist. -5395 Apr 04 j 02:20 3°My02'10 29.34288 AU conjunction -5389 Oct 20 j 04:29 17° m 51'55 7°07'58 -5395 Apr 05 j 04:29 3° mg 00'24 11°32'13 minimum elong -5389 Oct 20 j 04:47 17° m 51'57 7°08'03 opposition -5389 Oct 22 j 00:41 -5395 Jun 23 j 23:48 1° m 37'48 17° m 56'01 32.29373 AU direct max. Earth dist. -5395 Sep 25 j 11:38 3° Mp 46'07 -5389 Nov 02 j 14:53 18° Mp 21'36 evening set morning rise -5388 Feb 01 j 11:24 20° m 18'20 retrograde -5395 Oct 06 j 08:40 -5388 Apr 19 j 18:19 conjunction 4° m 11'21 10°32'12 min. Earth dist. 19° Mp 01'15 30.39916 AU -5395 Oct 06 j 09:04 7°17'10 minimum elong 4° Mp 11'23 10°32'20 opposition -5388 Apr 21 j 17:08 18° **m** 58'12 max. Earth dist. -5395 Oct 07 j 12:03 4° Mp 14'00 31.36912 AU direct -5388 Jul 10 j 11:23 17° m 38'18 morning rise -5395 Oct 17 j 06:25 4° m 36'37 evening set -5388 Oct 07 j 20:44 19° m 32'06 retrograde -5394 Jan 18 j 15:32 6° Mp 44'41 opposition -5394 Apr 07 j 22:21 5° m 22'57 10°57'33 conjunction -5388 Oct 21 j 13:14 20° m 02'06 6°32'38

•	nical year style is used: Th		•	· / /		, ,	C 2
minimum elong	-5388 Oct 21 j 13:31	20° Mg 02'07		min. Earth dist.	-5381 May 05 j 02:00		31.82714 AU
e	-5388 Oct 21 j 13:31		32.47746 AU			3° 2 28′08	
max. Earth dist.	•		32.47740 AU	opposition	-5381 May 07 j 15:35		2°32'43
morning rise	-5388 Nov 04 j 06:53	20° Mp 32'12		direct	-5381 Jul 26 j 12:34	2° ₽ 11'21	
retrograde	-5387 Feb 02 j 20:46	22° Tp 27'21	20.50425 ATT	evening set	-5381 Oct 21 j 08:21	3° ≏ 54'47	
min. Earth dist.	-5387 Apr 22 j 05:02		30.58435 AU	:	5201 N 05 : 00-07	40 0 25145	2025110
opposition	-5387 Apr 24 j 05:32	21° Mp 07'33	6°39'16	conjunction	-5381 Nov 05 j 08:07	4° £ 25'45 4° £ 25'46	
direct	-5387 Jul 13 j 00:47	19° Mp 48'06		minimum elong	-5381 Nov 05 j 08:13		33.93659 AU
evening set	-5387 Oct 09 j 22:22	21°Mp40'12		max. Earth dist.	-5381 Nov 07 j 22:00	4° 2 56'52	33.93039 AU
. ,.	5207.0 / 22 : 21 16	220m-10/22	5057100	morning rise	-5381 Nov 20 j 09:36		
conjunction	-5387 Oct 23 j 21:16	22° m 10'32	5°57'09	retrograde	-5380 Feb 17 j 14:52	6° £ 42'52	22 04050 411
minimum elong	-5387 Oct 23 j 21:31	22° m 10'34		min. Earth dist.	-5380 May 06 j 08:30		32.04958 AU
max. Earth dist.	-5387 Oct 25 j 22:58		32.66902 AU	opposition	-5380 May 08 j 22:41	5° £ 25'30 4° £ 09'07	2°15'47
morning rise	-5387 Nov 06 j 21:27	22° m 40'59		direct	-5380 Jul 27 j 19:18		
retrograde	-5386 Feb 05 j 06:56	24° Mp 34'37	20 77712 AII	evening set	-5380 Oct 22 j 09:48	5° ≏ 51'19	
min. Earth dist.	-5386 Apr 24 j 12:53	-	30.77713 AU	:	5200 N 0(: 11.25	(0 0 2211 1	1950146
opposition	-5386 Apr 26 j 16:54	23° m 15'11	6°01'17	conjunction	-5380 Nov 06 j 11:35	6° £ 22'11	1°50'46
direct	-5386 Jul 15 j 13:03	21° m 56'12		minimum elong	-5380 Nov 06 j 11:39	6° £ 22'11	1°50'46
evening set	-5386 Oct 12 j 00:01	23° Mp 46'42		max. Earth dist.	-5380 Nov 09 j 02:06		34.16167 AU
	5206.0 + 26:04.20	0.40 m. 1.711.7	5001107	morning rise	-5380 Nov 21 j 15:18	6° £ 53'13	
conjunction	-5386 Oct 26 j 04:38			retrograde	-5379 Feb 18 j 19:35	8° ₾ 38'08	22 27560 444
minimum elong	-5386 Oct 26 j 04:52	24° m 17'18	5°21'40	min. Earth dist.	-5379 May 08 j 12:03		32.27569 AU
max. Earth dist.	-5386 Oct 28 j 09:01		32.86751 AU	opposition	-5379 May 11 j 04:54	7° £ 21'04	1°39'11
morning rise	-5386 Nov 09 j 10:43	24° m/48'00		direct	-5379 Jul 30 j 01:19	6° Ω 05'02	
retrograde	-5385 Feb 07 j 13:50	26° m 40'13	20.05605.433	evening set	-5379 Oct 24 j 11:05	7° ≏ 46'04	
min. Earth dist.	-5385 Apr 26 j 22:22		30.97685 AU		505031 00:1101	00.01.6140	101 (100
opposition	-5385 Apr 29 j 03:52	25° Tp 21'09	5°23'17	conjunction	-5379 Nov 08 j 14:21	8° ≏ 16'48	1°16'33
direct	-5385 Jul 17 j 23:34	24° m 02'38		minimum elong	-5379 Nov 08 j 14:24	8° ≏ 16'48	
evening set	-5385 Oct 14 j 01:35	25° m 51'35		max. Earth dist.	-5379 Nov 11 j 07:09		34.39019 AU
				morning rise	-5379 Nov 23 j 19:37	8° Ω 47'42	
conjunction	-5385 Oct 28 j 11:22	26° m 22'22	4°46'04	retrograde	-5378 Feb 20 j 22:43	10° 2 31'35	22 50555 133
minimum elong	-5385 Oct 28 j 11:35	26° m 22'23	4°46'06	min. Earth dist.	-5378 May 10 j 16:58		32.50576 AU
max. Earth dist.	-5385 Oct 30 j 18:07		33.07229 AU	opposition	-5378 May 13 j 10:27	9° £ 14'49	1°03'00
morning rise	-5385 Nov 11 j 22:30	26° m 53'17		direct	-5378 Aug 01 j 07:49	7° £ 59'09	
retrograde	-5384 Feb 09 j 19:55	28° m/44'08		evening set	-5378 Oct 26 j 12:14	9° ჲ 39'05	
min. Earth dist.	-5384 Apr 28 j 05:46		31.18244 AU		5050 N	100 0 00100	004040
opposition	-5384 Apr 30 j 13:53	27° m/25'26	4°45'22	conjunction	-5378 Nov 10 j 16:32	10° ₽ 09'39	0°42'42
direct	-5384 Jul 19 j 11:37	26° m 07'23		minimum elong	-5378 Nov 10 j 16:34	10° 2 09'39	0°42'41
evening set	-5384 Oct 15 j 03:25	27° m 54'51		max. Earth dist.	-5378 Nov 13 j 10:44		34.62279 AU
	5004.0	2007 25145	101.012.6	morning rise	-5378 Nov 25 j 22:48	10° Ω 40'22	
conjunction	-5384 Oct 29 j 17:28	28° m 25'47	4°10'36	retrograde	-5377 Feb 23 j 01:46	12° £ 23'17	22 74012 444
minimum elong	-5384 Oct 29 j 17:39	28° m 25'48	4°10'39	min. Earth dist.	-5377 May 12 j 19:16		32.74012 AU
max. Earth dist.	-5384 Nov 01 j 01:39		33.28222 AU	opposition	-5377 May 15 j 15:13	11° ≏ 06'48	0°2'/'1'/
morning rise	-5384 Nov 13 j 09:16	28° m 56'50		direct	-5377 Aug 03 j 13:58	9° 2 51'31	
	-5384 Dec 17 j 03:38	0° ⊽		evening set	-5377 Oct 28 j 13:16	11° ≏ 30′26	
retrograde	-5383 Feb 11 j 02:30	0° ჲ 46'23			5277 N 12:17 57	100 0 00146	0000110
	-5383 Apr 11 j 05:32	30°R, Mp	21 20221 177	conjunction	-5377 Nov 12 j 17:57	12° 2 00'46	0°09'19
min. Earth dist.	-5383 Apr 30 j 13:14	~	31.39324 AU	minimum elong	-5377 Nov 12 j 17:57	12° 2 00'46	0°09'16
opposition	-5383 May 02 j 23:06	29° m 28'03	4°07'35	behind sun begin	-5377 Nov 12 j 12:33	12° 2 00′21	
direct	-5383 Jul 21 j 20:10	28° m 10'26		behind sun end	-5377 Nov 12 j 23:21	12° 2 01'12	24.05046.441
evening set	-5383 Oct 17 j 05:06	29° m 56'31		max. Earth dist.	-5377 Nov 15 j 13:42		34.85946 AU
	-5383 Oct 18 j 21:25	0∘ ⊽		morning rise	-5377 Nov 28 j 00:54	12° 2 31'18	
	5202 0 + 21 : 22 07	00 0 27120	2025110	desc. node	-5376 Feb 23 j 11:50	14° £ 13'17	
conjunction	-5383 Oct 31 j 23:07			retrograde	-5376 Feb 25 j 02:44	14° £ 13'19	22 07002 444
minimum elong	-5383 Oct 31 j 23:16	0° £ 27'31	3°35'18	min. Earth dist.	-5376 May 13 j 22:13		32.97893 AU
max. Earth dist.	-5383 Nov 03 j 09:45		33.49670 AU	opposition	-5376 May 16 j 19:26	12° ♀ 57'09	-0°0/58
morning rise	-5383 Nov 15 j 18:37	0° ჲ 58'38		direct	-5376 Aug 04 j 18:03	11° £ 42'14	
retrograde	-5382 Feb 13 j 06:15	2° £ 46'57	21 (0024 111	evening set	-5376 Oct 29 j 14:10	13° ≏ 20'12	
min. Earth dist.	-5382 May 02 j 20:24		31.60824 AU		527(N) 12:10.02	120 0 50115	0922144
opposition	-5382 May 05 j 07:40	1° £ 28'58	3°30'02	conjunction	-5376 Nov 13 j 19:02	13° ♀ 50'17	
direct	-5382 Jul 24 j 06:07	0° Ω 11'47		minimum elong	-5376 Nov 13 j 19:01	13° 2 50'17	
evening set	-5382 Oct 19 j 06:48	1° ≏ 56'31		max. Earth dist.	-5376 Nov 16 j 16:57		35.10031 AU
aaming-ti	5200 NI 02 102 40	20 0 27120	2000111	morning rise	-5376 Nov 29 j 01:54	14° £ 20'34	
conjunction	-5382 Nov 03 j 03:49	2° Ω 27'30	3°00'11	retrograde	-5375 Feb 26 j 01:18	16° 2 01'45	22 22174 433
minimum elong max. Earth dist.	-5382 Nov 03 j 03:57 -5382 Nov 05 j 15:04	2° £ 27'31	3°00'12 33.71491 AU	min. Earth dist. opposition	-5375 May 15 j 23:57 -5375 May 18 j 22:38	14° £ 50'11 14° £ 45'55	33.22174 AU
CHAY HATER (HCT	- 120/ NOV U2 1 12:04	∠ == 3∠4∠	33.71491 AU	ODDOSILION	- 11/1 VIAV X 1 / / 3X	14 ==47.77	-U 4/41
							0 .2 .1
morning rise retrograde	-5382 Nov 18 j 02:44 -5381 Feb 15 j 11:35	2° £ 58'40 4° £ 45'48		direct evening set	-5375 Aug 06 j 23:41 -5375 Oct 31 j 15:04	13° £ 31'24 15° £ 08'29	V .2 .1

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5375 in astronomical counting style is the year 5376 BCE in historical counting style. -5375 Nov 15 j 19:20 15°**△**38'18 -0°56'13 direct -5368 Aug 19 i 07:47 25°**♀**37'33 conjunction -5375 Nov 15 j 19:18 27°**♀**09'54 15°**△**38'18 0°56'17 evening set -5368 Nov 12 j 18:14 minimum elong max. Earth dist. -5375 Nov 18 j 17:47 15°**2**44'07 35.34481 AU -5375 Dec 01 j 01:58 -5368 Nov 27 j 08:02 27°**£**37'03 -4°28'38 16°**Ω**08'18 conjunction morning rise -5368 Nov 27 j 07:53 17°**-**48′43 27°**△**37'03 4°28'45 retrograde -5374 Feb 28 j 02:06 minimum elong 16°**♀**37'35 33.46832 AU -5368 Nov 30 j 12:12 min. Earth dist. -5374 May 18 j 00:49 max. Earth dist. 27°**♀**43'01 37.10395 AU opposition -5374 May 21 j 01:26 16°**△**33'13 -1°16'51 morning rise -5368 Dec 12 j 00:19 28°**£**04'24 -5367 Mar 11 j 14:49 direct -5374 Aug 09 j 01:34 15°**2**19'08 retrograde 29°**£**40'43 28°**೨**32'01 35.23682 AU evening set -5374 Nov 02 j 15:36 16°**♀**55'22 min. Earth dist. -5367 May 29 j 22:24 opposition -5367 Jun 02 j 03:59 28°**£**27'31 -4°59'02 conjunction -5374 Nov 17 j 19:06 17°**2**24'53 -1°28'13 direct -5367 Aug 21 j 06:09 27° £ 16'00 -5374 Nov 17 j 19:03 -5367 Nov 14 j 18:04 minimum elong 17°**2**24'53 1°28'16 evening set 28°**-**47'49 -5374 Nov 20 j 19:58 max. Earth dist. 17°**♀**30'51 35.59250 AU morning rise -5374 Dec 03 j 00:46 17°**£**54'35 conjunction -5367 Nov 29 j 04:29 29° **2**14'30 -4°56'41 retrograde -5373 Mar 02 j 00:46 19°**£**34'18 minimum elong -5367 Nov 29 j 04:19 29° 214'29 4°56'49 min. Earth dist. -5373 May 20 j 02:44 18°**2**3'31 33.71779 AU max. Earth dist. -5367 Dec 02 j 10:17 29°**♀**20'33 37.35586 AU opposition -5373 May 23 j 03:40 18°**≏**19'09 -1°50'26 morning rise -5367 Dec 13 j 17:08 29°**£**41'23 direct -5373 Aug 11 j 04:21 17°**♀**05'28 -5367 Dec 24 j 04:38 0°M evening set -5373 Nov 04 j 16:18 18°**-**40′57 retrograde -5366 Mar 13 j 09:01 1°ML17'15 min. Earth dist. -5366 May 31 j 20:49 0°M08'46 35.49033 AU 0°ML04'18 -5°28'13 conjunction -5373 Nov 19 j 18:25 19° **2** 10'07 -1°59'41 opposition -5366 Jun 04 j 02:03 minimum elong -5373 Nov 19 j 18:21 19°**♀**10'07 1°59'45 -5366 Jun 07 i 04:37 max. Earth dist. -5373 Nov 22 j 19:27 19°**£**16'04 35.84263 AU direct -5366 Aug 23 i 05:24 28°**£**53'06 morning rise -5373 Dec 04 i 22:55 19°**₽**39'30 -5366 Nov 02 j 18:02 0°M retrograde -5372 Mar 03 j 01:53 21°**₽**18'33 evening set -5366 Nov 16 j 17:42 0°M24'25 -5372 May 21 j 02:10 20°**△**08'13 33.96955 AU min. Earth dist. -5372 May 24 j 05:06 20°**£**03'46 -2°23'26 -5366 Dec 01 j 00:13 0°ML50'37 -5°24'06 conjunction opposition 18°**♀**50'29 -5366 Dec 01 j 00:03 -5372 Aug 12 j 04:22 minimum elong 0°M,50'36 5°24'14 direct -5372 Nov 05 j 16:52 20°**£**25'15 -5366 Dec 04 j 05:50 max. Earth dist. 0°M56'37 37.60820 AU evening set -5366 Dec 15 j 09:04 1°M17'00 morning rise -5372 Nov 20 j 17:18 20°**£**54'04 -2°30'36 -5365 Mar 15 j 06:19 conjunction retrograde 2°M 52'28 -5372 Nov 20 j 17:12 -5365 Jun 02 j 16:36 20°**2**54'04 2°30'41 min. Earth dist. 1°M44'19 35.74463 AU minimum elong 1°M39'48 -5°56'43 max. Earth dist. -5372 Nov 23 j 20:02 21°**⊆**00'06 36.09432 AU -5365 Jun 05 j 23:31 opposition -5372 Dec 05 j 20:06 21°**2**23'05 -5365 Aug 25 j 01:22 0°M28'53 morning rise direct -5371 Mar 05 j 02:10 23°**♀**01'32 -5365 Nov 18 j 17:19 retrograde evening set 1°M59'46 -5371 May 23 j 03:24 21°**⊆**51'30 34.22266 AU min. Earth dist. -5365 Dec 02 j 19:40 2° M25'28 -5° 50'55 opposition -5371 May 26 j 06:07 21°**2**47'05 -2°55'49 conjunction direct -5371 Aug 14 j 04:15 20°**-**34'12 minimum elong -5365 Dec 02 j 19:29 2°M25'27 5°51'03 -5371 Nov 07 j 17:19 22°**₽**08'19 max. Earth dist. -5365 Dec 06 j 02:41 2°M31'31 37.86129 AU evening set morning rise -5365 Dec 17 j 00:23 2°M51'21 conjunction -5371 Nov 22 j 15:41 22°**2**36'45 -3°00'58 retrograde -5364 Mar 16 j 02:56 4°M26'26 -5371 Nov 22 j 15:35 22°**2**36'44 3°01'05 min. Earth dist. -5364 Jun 03 j 13:50 3°M18'31 36.00002 AU minimum elong -5371 Nov 25 j 18:46 22°**△**42'45 36.34688 AU -5364 Jun 06 j 20:26 3°M14'02 -6°24'32 max. Earth dist. opposition -5371 Dec 07 j 16:18 23°**♀**05'22 -5364 Aug 25 j 20:21 2°M03'25 morning rise direct -5370 Mar 07 j 00:57 24°**₽**43'14 -5364 Nov 19 j 16:41 3°M33'55 retrograde evening set min. Earth dist. -5370 May 25 i 02:15 23°**♀**33'37 34.47629 AU -5364 Dec 03 i 14:43 3°M59'07 -6°17'05 opposition -5370 May 28 i 06:23 23°**♀**29'09 -3°27'35 conjunction -5364 Dec 03 j 14:32 direct -5370 Aug 16 i 04:59 22°**♀**16'38 minimum elong 3°ML59'06 6°17'14 evening set -5370 Nov 09 i 17:50 23°**♀**50'08 max. Earth dist. -5364 Dec 06 i 22:20 4°ML05'09 38.11554 AU morning rise -5364 Dec 17 i 14:52 4°M24'29 -5370 Nov 24 i 13:36 24°**£**18'09 -3°30'47 retrograde -5363 Mar 17 j 21:24 5°M59'13 conjunction -5370 Nov 24 i 13:28 24°**№**18'09 3°30'53 min. Earth dist. -5363 Jun 05 j 08:48 4°ML51'39 36.25642 AU minimum elong -5370 Nov 27 j 17:04 24°**2**24'09 36.59950 AU -5363 Jun 08 j 16:45 4°ML47'06 -6°51'41 max. Earth dist. opposition morning rise -5370 Dec 09 j 11:52 24°**₽**46'23 direct -5363 Aug 27 j 18:15 3°M36'48 retrograde -5369 Mar 08 j 22:43 26°**£**23'42 evening set -5363 Nov 21 j 15:58 5°M06'57 25°**△**14'23 34.73009 AU min. Earth dist. -5369 May 27 j 02:05 -5369 May 30 j 06:19 25°**2**09'55 -3°58'43 conjunction -5363 Dec 05 j 09:06 5° ML31'37 -6° 42'38 opposition 23°**£**57'46 -5363 Dec 05 j 08:54 5°M231'36 6°42'48 direct -5369 Aug 18 j 05:38 minimum elong -5369 Nov 11 j 17:58 25°**♀**30'40 -5363 Dec 08 j 16:58 5°ML37'38 38.37061 AU evening set max. Earth dist. morning rise -5363 Dec 19 j 04:37 5°M56'28 -5369 Nov 26 j 11:06 -5362 Mar 19 j 16:21 conjunction 25°**£**58'16 -4°00'00 retrograde 7°M30'54 minimum elong -5369 Nov 26 j 10:58 25°**£**58'15 4°00'07 min. Earth dist. -5362 Jun 07 j 04:24 6°M23'37 36.51380 AU max. Earth dist. -5369 Nov 29 j 15:43 26°**♀**04'19 36.85197 AU opposition -5362 Jun 10 j 12:45 6°M19'04 -7°18'08 morning rise -5369 Dec 11 j 06:25 26°**£**26'04 direct -5362 Aug 29 j 14:35 5°M09'06 retrograde -5368 Mar 09 j 17:41 28°**♀**02'52 evening set -5362 Nov 23 j 15:01 6°M38'56 -5368 May 28 j 00:57 26°**♀**53'51 34.98349 AU min. Earth dist. -5368 May 31 j 05:30 26°**-**49'23 -4°29'12 -5362 Dec 07 j 03:20 7°ML03'04 -7°07'33 opposition conjunction

•	nical year style is used: Th		•				E 4
minimum elong	-5362 Dec 07 j 03:08	7°M03'03		min. Earth dist.	-5355 Jun 17 j 11:50		38.29352 AU
max. Earth dist.	-5362 Dec 10 j 12:38		38.62646 AU	opposition	-5355 Jun 20 j 20:08	16°M35'47	
morning rise	-5362 Dec 10 j 12:38	7°M27'22	36.02040 AU	direct	-5355 Sep 09 j 00:28	15°M27'50	-10 0447
retrograde	-5361 Mar 21 j 08:30	9°M01'33		evening set	-5355 Dec 05 j 06:52	16°M56'18	
min. Earth dist.	-5361 Jun 08 j 23:48		36.77160 AU	evening set	-5555 Dec 05 j 00.52	10 11630 16	
opposition	-5361 Jun 12 j 08:13	7°M50'01		conjunction	-5355 Dec 17 j 00:57	17° M .16'24	0°14'57
direct	-5361 Aug 31 j 12:21	6°M40'22	-7 43 34	minimum elong	-5355 Dec 17 j 00:37	17°M16'23	
evening set	-5361 Nov 25 j 14:07	8°M09'56		max. Earth dist.	-5355 Dec 20 j 10:25		40.38620 AU
evening set	-5501 NOV 25 J 14.07	0 1160930		morning rise	-5355 Dec 28 j 20:35	17°M36'37	40.38020 AU
conjunction	-5361 Dec 08 j 21:02	8°M33'31	7031151	retrograde	-5354 Mar 31 j 03:39	19°M09'42	
minimum elong	-5361 Dec 08 j 20:49	8°M33'30		min. Earth dist.	-5354 Jun 19 j 05:14		38.53956 AU
max. Earth dist.	-5361 Dec 08 j 20:49		38.88242 AU	opposition	-5354 Jun 22 j 12:39	18°M00'01	
morning rise	-5361 Dec 22 j 06:10	8°M57'16	30.00242 AU	direct	-5354 Sep 10 j 19:12	16°M52'19	-10 2003
retrograde	-5360 Mar 22 j 02:12	10°M31'14		evening set	-5354 Dec 07 j 05:20	18°M20'40	
min. Earth dist.	-5360 Jun 09 j 17:50		37.02937 AU	evening set	-5554 Dec 07 J 05.20	16 1162040	
opposition	-5360 Jun 13 j 03:16	9°M20'00		conjunction	-5354 Dec 18 j 16:17	18° M 40'09	10005'04
direct	•	8°M10'40	-8 09 00	·			
	-5360 Sep 01 j 07:02			minimum elong	-5354 Dec 18 j 16:04		
evening set	-5360 Nov 26 j 13:07	9° ™ 39'59		max. Earth dist.	-5354 Dec 22 j 00:50 -5354 Dec 30 j 04:51		40.62936 AU
	52(0 D 00 : 14.25	10°ML03'01	7055122	morning rise	,	18°M59'45 20°M32'45	
conjunction	-5360 Dec 09 j 14:35			retrograde	-5353 Apr 01 j 18:45		20 70420 411
minimum elong	-5360 Dec 09 j 14:22	10°M03'00	7°55'43	min. Earth dist.	-5353 Jun 20 j 20:24		38.78420 AU
max. Earth dist.	-5360 Dec 13 j 00:35		39.13779 AU	opposition	-5353 Jun 24 j 04:43	19°M23'18	-10°46'41
morning rise	-5360 Dec 22 j 18:04	10°M26'13		direct	-5353 Sep 12 j 11:19	18°M15'50	
retrograde	-5359 Mar 23 j 18:32	11°M59'59	27.20/21 ATT	evening set	-5353 Dec 09 j 03:35	19° M 44'07	
min. Earth dist.	-5359 Jun 11 j 13:21		37.28621 AU		5252 D 20:07.20	2007 02150	10024126
opposition	-5359 Jun 14 j 21:47	10°M49'03	-8°33'27	conjunction	-5353 Dec 20 j 07:20	20°M02'59	
direct	-5359 Sep 03 j 02:14	9°M₁40′02		minimum elong	-5353 Dec 20 j 07:06	20°M02'58	
evening set	-5359 Nov 28 j 12:06	11° M 09'07		max. Earth dist.	-5353 Dec 23 j 16:42		40.87120 AU
	5250 5 11:05 15	110W 01105	0010126	morning rise	-5353 Dec 31 j 12:37	20°M21'57	
conjunction	-5359 Dec 11 j 07:45	11°M31'35		retrograde	-5352 Apr 02 j 10:39	21°M54'55	20.02772.444
minimum elong	-5359 Dec 11 j 07:32	11°M31'34		min. Earth dist.	-5352 Jun 21 j 13:08		39.02772 AU
max. Earth dist.	-5359 Dec 14 j 17:01		39.39198 AU	opposition	-5352 Jun 24 j 20:29	20°M45'41	-11°06'41
morning rise	-5359 Dec 24 j 05:19	11°M.54'13		direct	-5352 Sep 13 j 02:09	19°M38'28	
retrograde	-5358 Mar 25 j 13:21	13°M27'49		evening set	-5352 Dec 10 j 01:50	21°M06'42	
min. Earth dist.	-5358 Jun 13 j 06:36		37.54152 AU				
opposition	-5358 Jun 16 j 15:56	12° M ₁7'10	-8°57'14	conjunction	-5352 Dec 20 j 22:07	21°M24'57	
direct	-5358 Sep 04 j 18:49	11°ML08'26		minimum elong	-5352 Dec 20 j 21:53	21°M24'56	
evening set	-5358 Nov 30 j 10:55	12°M37'21		max. Earth dist.	-5352 Dec 24 j 07:17		41.11216 AU
				morning rise	-5352 Dec 31 j 19:41	21°M43'17	
conjunction	-5358 Dec 13 j 00:28	12° ™ 59'14		retrograde	-5351 Apr 04 j 02:13	23°M16'13	
minimum elong	-5358 Dec 13 j 00:15	12° ™ 59'13		min. Earth dist.	-5351 Jun 23 j 03:31		39.27031 AU
max. Earth dist.	-5358 Dec 16 j 09:57		39.64415 AU	opposition	-5351 Jun 26 j 11:36	22°M07'15	-11°26'03
morning rise	-5358 Dec 25 j 16:03	13° M 21'17		direct	-5351 Sep 14 j 16:06	21°M00'16	
retrograde	-5357 Mar 27 j 07:04	14°M54'44		evening set	-5351 Dec 12 j 00:00	22°M28'31	
min. Earth dist.	-5357 Jun 15 j 01:35		37.79472 AU				
opposition	-5357 Jun 18 j 09:54	13°M44'20	-9°20'23	conjunction	-5351 Dec 22 j 12:28	22°M46'07	
direct	-5357 Sep 06 j 11:40	12°M35'54		minimum elong	-5351 Dec 22 j 12:15	22°M46'06	11°02'07
evening set	-5357 Dec 02 j 09:44	14° ™ 04'38		max. Earth dist.	-5351 Dec 25 j 21:21		41.35220 AU
				morning rise	-5350 Jan 02 j 02:21	23°M03'49	
conjunction	-5357 Dec 14 j 17:08	14°M25′56		retrograde	-5350 Apr 05 j 17:02	24°M36'47	
minimum elong	-5357 Dec 14 j 16:54	14° ™ 25'55		min. Earth dist.	-5350 Jun 24 j 18:57		39.51212 AU
max. Earth dist.	-5357 Dec 18 j 02:43		39.89403 AU	opposition	-5350 Jun 28 j 02:43	23°M28'04	-11°44'48
morning rise	-5357 Dec 27 j 02:11	14° M 47'23		direct	-5350 Sep 16 j 06:58	22°M21'20	
	-5356 Jan 03 j 13:36	15° ™		evening set	-5350 Dec 13 j 21:55	23°M49'38	
retrograde	-5356 Mar 27 j 22:38	16° M 20'41					
min. Earth dist.	-5356 Jun 15 j 18:46		38.04531 AU	conjunction	-5350 Dec 24 j 02:34	24°M06'35	
opposition	-5356 Jun 19 j 03:07	15°M₁0'33	-9°42'54	minimum elong	-5350 Dec 24 j 02:20	24°M06'34	
	-5356 Jun 27 j 02:53	15°RM		max. Earth dist.	-5350 Dec 27 j 12:24		41.59137 AU
direct	-5356 Sep 07 j 06:51	14°M02'22		morning rise	-5349 Jan 03 j 08:18	24°M23'37	
	-5356 Nov 14 j 07:50	15° ™		retrograde	-5349 Apr 07 j 04:36	25°M56'38	
evening set	-5356 Dec 03 j 08:31	15°M30'57		min. Earth dist.	-5349 Jun 26 j 09:58		39.75267 AU
				opposition	-5349 Jun 29 j 17:23	24°M48'11	-12°02'57
conjunction	-5356 Dec 15 j 09:14	15°M51'40		direct	-5349 Sep 18 j 00:10	23°M41'44	
minimum elong	-5356 Dec 15 j 09:01	15°M51'39	9°24'27	evening set	-5349 Dec 15 j 20:08	25°M10'06	
max. Earth dist.	-5356 Dec 18 j 17:47		40.14126 AU				
morning rise	-5356 Dec 27 j 11:52	16°M12'30		conjunction	-5349 Dec 25 j 16:26	25°M26'23	
retrograde	-5355 Mar 29 j 14:33	17° M 45'41		minimum elong	-5349 Dec 25 j 16:13	25°M26'23	11°37'06

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5349 in astronomical counting style is the year 5350 BCE in historical counting style. -5349 Dec 29 i 01:04 25°M 31'59 41.82912 AU opposition -5342 Jul 08 i 15:41 3°**₹**51'27 -13°54'16 max. Earth dist. -5348 Jan 04 j 13:56 -5342 Sep 27 j 01:21 2°×746'33 morning rise 25°M42'46 direct 4°**∡**16′01 -5348 Apr 07 j 18:31 27°M15'52 -5342 Dec 27 j 09:08 retrograde evening set -5348 Jun 26 j 23:48 min. Earth dist. 26°M11'57 39.99166 AU -5348 Jun 30 j 07:38 4°**∡**127'21 -13°22'41 opposition 26°M07'40 -12°20'30 conjunction -5341 Jan 03 j 11:16 4°**∡**¹27'20 13°22'57 -5341 Jan 03 j 11:04 direct -5348 Sep 18 j 14:42 25°M01'29 minimum elong -5341 Jan 06 j 16:03 4°**≯**32'29 43.40944 AU evening set -5348 Dec 16 j 18:13 26°M29'57 max. Earth dist. 4°**∡**³38'44 -5341 Jan 10 j 13:51 morning rise -5341 Apr 17 j 10:02 conjunction -5348 Dec 26 j 06:09 26°M45'35 -11°53'31 retrograde 6°**х** 12'57 -5341 Jul 07 j 00:54 5°**х** 10′11 41.57409 AU minimum elong -5348 Dec 26 j 05:56 26°M45'34 11°53'46 min. Earth dist. max. Earth dist. -5348 Dec 29 j 15:27 26°M51'11 42.06491 AU opposition -5341 Jul 10 j 03:57 5°**∡**106'15 -14°08'03 -5347 Jan 04 j 19:06 -5341 Sep 28 j 14:11 morning rise 27° ML 01'18direct 4°×701'31 -5341 Dec 29 j 08:13 retrograde -5347 Apr 09 j 06:49 28°M34'31 evening set 5°**∡**31'15 min. Earth dist. -5347 Jun 28 j 15:27 27°M30'45 40.22831 AU opposition -5347 Jul 01 j 21:43 27°M26'35 -12°37'28 conjunction -5340 Jan 04 j 23:15 5° ₹41'48 -13°35'49 direct -5347 Sep 20 j 05:55 26°M20'39 minimum elong -5340 Jan 04 j 23:05 5°**∡**141'47 13°36'06 evening set -5347 Dec 18 j 16:24 27°M49'14 max. Earth dist. -5340 Jan 08 j 04:00 5° ₹ 46'53 43.62156 AU morning rise -5340 Jan 11 j 14:44 5°**х** 52′22 conjunction -5347 Dec 27 j 19:30 28°MJ04'11 -12°09'39 retrograde -5340 Apr 17 j 22:19 7°**х** 26′51 minimum elong -5347 Dec 27 j 19:18 28°ML04'10 12°09'54 min. Earth dist. -5340 Jul 07 j 14:23 6°**尽**24'10 41.78695 AU max. Earth dist. -5347 Dec 31 j 03:48 28°M09'41 42.29814 AU opposition -5340 Jul 10 j 15:52 6°**∡**120'20 -14°21'20 morning rise -5346 Jan 05 i 23:29 28°M19'13 direct -5340 Sep 29 i 01:55 5° **₹**15'45 retrograde -5346 Apr 10 j 21:37 29°M52'34 evening set -5340 Dec 30 i 07:44 6°**х** 45'48 min. Earth dist. -5346 Jun 30 i 04:48 28°M49'04 40.46199 AU opposition -5346 Jul 03 j 11:27 28°M44'53 -12°53'53 conjunction -5339 Jan 05 j 11:03 6° ₹ 55'32 -13°48'27 -5346 Sep 21 j 18:32 27°MJ39'12 -5339 Jan 05 j 10:52 6°**₹**55'31 13°48'42 direct minimum elong -5346 Dec 20 j 14:42 29°M07'55 max. Earth dist. -5339 Jan 08 j 15:34 7°**∡**00'35 43.83148 AU evening set -5339 Jan 11 j 14:34 7°**х** 05′16 morning rise -5346 Dec 29 j 08:44 29°M22'11 -12°25'15 -5339 Apr 19 j 10:49 8°**х** 40′04 conjunction retrograde -5339 Jul 09 j 01:50 7°**∡**³37'33 41.99754 AU -5346 Dec 29 j 08:31 minimum elong 29°M22'10 12°25'30 min. Earth dist. -5345 Jan 01 j 16:30 -5339 Jul 12 j 03:29 7°**х** 33'43 -14°34'05 max. Earth dist. 29°M27'37 42.52801 AU opposition -5345 Jan 07 j 03:42 -5339 Sep 30 j 12:46 6°**х** 29′19 29°M36'32 direct morning rise -5345 Jan 21 j 23:34 -5338 Jan 01 j 07:32 7°**х** 59'45 0° **₹** evening set -5345 Apr 12 j 14:00 1°**₰**10'01 retrograde -5345 Jul 01 j 19:51 -5338 Jan 06 j 22:17 8°**≯**08'37 -14°00'35 min. Earth dist. 0°**∡**06'39 40.69217 AU conjunction -5345 Jul 05 j 01:02 -5338 Jan 06 j 22:07 8°**₹**08'36 14°00'52 opposition 0°**х** 02'34 -13°09'45 minimum elong 8°**х** 13'35 44.03926 AU -5345 Jul 07 j 01:30 -5338 Jan 10 j 01:49 30°R,ML max. Earth dist. direct -5345 Sep 23 j 05:05 28°M57'06 morning rise -5338 Jan 12 j 13:18 8°**х¹**17'29 -5345 Dec 05 j 23:21 0°⊀ retrograde -5338 Apr 20 j 23:36 9°**х** 52′39 evening set -5345 Dec 22 j 13:11 0°×25'59 min. Earth dist. -5338 Jul 10 j 13:49 8°**≯**50'18 42.20618 AU opposition -5338 Jul 13 j 15:03 8°**х** 46'30 -14°46'19 -5345 Dec 30 j 21:54 0°**∡**39'34 -12°40'21 -5338 Oct 01 j 22:49 7°**∡**¹42'17 conjunction direct -5345 Dec 30 j 21:43 0°**х** 39'33 12°40'36 -5337 Jan 03 j 08:14 9°**х** 13′11 minimum elong evening set max. Earth dist. -5344 Jan 03 j 05:21 0°**∡**¹44'56 42.75419 AU -5344 Jan 08 j 07:17 0°**∡**′53′11 -5337 Jan 08 j 09:38 9°**∡**121'07 -14°12'14 morning rise conjunction retrograde -5344 Apr 13 j 01:48 2°×26'49 minimum elong -5337 Jan 08 i 09:28 9°**尽**21'07 14°12'29 min. Earth dist. -5344 Jul 02 i 09:37 1° ₹23'38 40.91820 AU max. Earth dist. -5337 Jan 11 j 13:43 9°**х** 26'06 44.24511 AU 9°**∡**129'04 opposition -5344 Jul 05 i 14:12 1°**х** 19'36 -13°25'06 morning rise -5337 Jan 13 j 11:07 direct -5344 Sep 23 i 19:29 0°**х** 14′20 retrograde -5337 Apr 22 j 07:59 11°**х** 04'41 -5344 Dec 23 j 11:46 1°**х** 43′23 min. Earth dist. -5337 Jul 12 j 01:57 10° **₹**02'28 42.41258 AU evening set opposition -5337 Jul 15 j 02:11 9°**x** 58'44 -14°58'03 -5344 Dec 31 j 10:38 1°**∡**756'14 -12°54'57 direct -5337 Oct 03 j 12:17 8°×754'43 conjunction -5344 Dec 31 j 10:26 1°**х** 56′13 12°55′13 -5336 Jan 05 j 10:08 10°**≯**26′10 minimum elong evening set max. Earth dist. -5343 Jan 03 j 16:20 2°**尽**01'28 42.97622 AU morning rise -5343 Jan 08 j 10:13 2°×109'07 conjunction -5336 Jan 09 j 20:41 10°**х** 33′06 -14°23′24 retrograde -5343 Apr 14 j 13:29 3°**х** 42′56 minimum elong -5336 Jan 09 j 20:31 10°**х** 33′06 14°23′41 2°**₹**39'53 41.14030 AU min. Earth dist. -5343 Jul 03 j 23:01 max. Earth dist. -5336 Jan 12 j 23:16 10°**✗**37'58 44.44872 AU -5343 Jul 07 j 03:04 2°**₹**35'54 -13°39'56 -5336 Jan 14 j 07:16 10°**х** 40′04 opposition morning rise 1°**х** 30′49 -5336 Apr 22 j 17:51 12°**х** 16′13 direct -5343 Sep 25 j 09:26 retrograde -5343 Dec 25 j 10:21 3°**₹**00'04 -5336 Jul 12 j 12:43 11°**∡**14'13 42.61653 AU evening set min. Earth dist. -5336 Jul 15 j 13:07 11°**х** 10′29 -15°09′17 opposition conjunction -5342 Jan 01 j 23:10 3°**х** 12′10 -13°09′04 direct -5336 Oct 04 j 00:25 10°**х** 06′39 minimum elong -5342 Jan 01 j 23:00 3°**х** 12′10 13°09′20 evening set -5335 Jan 06 j 13:41 11°**х** 38′48 max. Earth dist. -5342 Jan 05 j 05:22 3°**≯**17'25 43.19447 AU morning rise -5342 Jan 09 j 12:32 3°**х** 24′19 conjunction -5335 Jan 10 j 07:35 11°**х** 44'38 -14°34'06 -5342 Apr 15 j 22:27 4°**₹**'58'19 minimum elong -5335 Jan 10 j 07:27 11°**х** 44'38 14°34'23 retrograde -5342 Jul 05 j 13:06 3°**₹**55'22 41.35870 AU max. Earth dist. -5335 Jan 13 j 10:16 11°**尽**49'29 44.64951 AU min. Earth dist.

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5335 in astronomical counting style is the year 5336 BCE in historical counting style. -5335 Jan 14 j 01:28 11°**∡**′50′28 minimum elong -5327 Jan 19 i 16:53 21°**尽** 00'35 15°45'00 morning rise 21°**₹**04'50 46.11354 AU -5335 Apr 24 j 04:50 13°**∡** 27'19 max. Earth dist. -5327 Jan 22 j 12:38 retrograde -5335 Jul 14 j 01:13 12°**₹**25'26 42.81742 AU -5327 May 03 j 12:30 22°**×**39'57 min. Earth dist. retrograde -5327 Jul 23 j 14:30 21°**✗**38'57 44.27712 AU -5335 Jul 16 j 23:51 12°**₹**21'48 -15°20'03 min. Earth dist. opposition -5327 Jul 26 j 05:54 direct -5335 Oct 05 j 11:22 11°**₹**18'10 opposition 21°**х** 35′45 -16°30′36 -5334 Jan 08 j 20:32 12°**х** 51′14 -5327 Oct 14 j 18:28 evening set direct 20°**х** 33′18 -5326 Jan 21 j 02:10 22°**₹**07'50 -15°51'40 conjunction -5334 Jan 11 j 18:24 12°**∡** 55'45 -14°44'22 conjunction -5326 Jan 21 j 02:04 minimum elong -5334 Jan 11 j 18:15 12°**₹**55'44 14°44'40 minimum elong 22°**∡**'07'50 15°51'58 13°**∡**¹00′15 morning rise -5334 Jan 14 j 16:07 max. Earth dist. -5326 Jan 23 j 20:08 22°**✗**11'58 46.28097 AU max. Earth dist. -5334 Jan 14 j 20:08 13°**✗**00'31 44.84717 AU retrograde -5326 May 04 j 20:30 23°×746'49 -5334 Apr 25 j 16:15 -5326 Jul 24 j 23:32 retrograde 14°**∡**°38′01 min. Earth dist. 22°**х** 45'57 44.44457 AU -5326 Jul 27 j 14:44 min. Earth dist. -5334 Jul 15 j 11:46 13°**∡**36'19 43.01470 AU opposition 22°**х** 42'47 -16°37'30 opposition -5334 Jul 18 j 10:18 13°**∡**32'42 -15°30'21 direct -5326 Oct 16 j 03:52 21°×740'28 direct -5334 Oct 06 j 20:56 12°**₹**29'16 evening set -5333 Jan 11 j 10:50 14°**∡**03'45 conjunction -5325 Jan 22 j 11:17 23°**∡**14'40 -15°58'14 minimum elong -5325 Jan 22 j 11:13 23°**∡**14'40 15°58'33 conjunction -5333 Jan 13 j 04:55 14°**₹**06'27 -14°54'12 max. Earth dist. -5325 Jan 25 j 05:42 23°**х** 18'49 46.44607 AU 14°**∡**¹06′27 minimum elong -5333 Jan 13 j 04:48 14°54'29 retrograde -5325 May 06 j 02:46 24°**х** 53′17 morning rise -5333 Jan 14 j 22:50 14°**₹**09'09 min. Earth dist. -5325 Jul 26 j 09:49 23° 🗷 52'30 44.60948 AU max. Earth dist. -5333 Jan 16 j 05:13 14°**✗**11'06 45.04084 AU opposition -5325 Jul 28 j 23:27 23°**х** 49'24 -16°43'59 retrograde -5333 Apr 27 j 04:36 15°**∡**¹48'18 direct -5325 Oct 17 i 15:16 22°×747'14 min. Earth dist. -5333 Jul 16 j 23:43 14°**⊀**⁷46'43 43.20781 AU -5333 Jul 19 i 20:45 14°**∡**′43'11 -15°40'13 -5324 Jan 23 j 20:22 24° **2**1'07 -16°04'24 opposition conjunction direct -5333 Oct 08 j 05:56 13°**∡** 39'56 -5324 Jan 23 j 20:17 24° \$\sqrt{21'06} 16°04'41 minimum elong max. Earth dist. -5324 Jan 26 j 13:26 24° ₹25'10 46.60874 AU -5332 Jan 14 j 15:36 15°**∡**16'44 -15°03'38 -5324 May 06 j 11:09 conjunction retrograde 25° × 59'23 -5332 Jan 14 j 15:28 15° **₹**16'44 15°03'55 -5324 Jul 26 j 17:51 24°**✗**58'47 44.77171 AU minimum elong min. Earth dist. -5332 Jan 17 j 15:43 -5324 Jul 29 j 07:43 max. Earth dist. 15°**✗**21'21 45.23013 AU 24° ₹ 55'41 -16°50'03 opposition 16°**∡** 58′09 -5332 Apr 27 j 13:04 -5324 Oct 18 j 00:23 23°**₹**53'39 retrograde direct -5332 Jul 17 j 11:06 min. Earth dist. 15°**✗**56'40 43.39614 AU -5323 Jan 24 j 05:12 25°**∡**127'14 -16°10'11 -5332 Jul 20 j 06:45 conjunction 15°**∡**'53'14 -15°49'40 opposition -5332 Oct 08 j 17:46 -5323 Jan 24 j 05:09 14°**х** 50′07 25°**≯**27'13 16°10'30 direct minimum elong -5323 Jan 26 j 21:23 25° ₹31'12 46.76846 AU max. Earth dist. -5331 Jan 15 j 01:54 16°**∡**¹26'33 -15°12'39 -5323 May 07 j 21:43 27°**₹**05'11 conjunction retrograde -5331 Jan 15 j 01:47 -5323 Jul 28 j 04:02 minimum elong 16°**∡** 26'32 15°12'56 min. Earth dist. 26°**✗**04'38 44.93082 AU -5331 Jan 17 j 23:49 max. Earth dist. 16°**尽**31'01 45.41473 AU opposition -5323 Jul 30 j 16:08 26°**尽**01'38 -16°55'43 retrograde -5331 Apr 28 j 22:52 18°**∡**07'33 direct -5323 Oct 19 j 07:31 24°**₹**59'46 min. Earth dist. -5331 Jul 18 j 21:22 17°**∡**06'12 43.57986 AU opposition -5331 Jul 21 j 16:41 17°**₹**02'47 -15°58'42 conjunction -5322 Jan 25 j 13:55 26°**∡**133'02 -16°15'35 direct -5331 Oct 10 j 04:03 15°**х** 59'49 minimum elong -5322 Jan 25 j 13:53 26°**∡**133'02 16°15'53 max. Earth dist. -5322 Jan 28 j 05:54 26°**✗**36'59 46.92488 AU -5330 Jan 16 j 11:52 17°**∡**35'51 -15°21'16 -5322 May 09 j 07:30 28°**х** 10′40 conjunction retrograde -5330 Jan 16 j 11:44 17°**∡**35'50 15°21'34 -5322 Jul 29 j 12:54 27°**✗**10'15 45.08610 AU minimum elong min. Earth dist. -5330 Jan 19 j 09:38 17°**∡**′40'17 45.59478 AU -5322 Aug 01 j 00:15 27°**₹**07'17 -17°01'01 max. Earth dist. opposition retrograde -5330 Apr 30 i 06:06 19°**х** 16′26 direct -5322 Oct 20 j 14:30 26°**₹**'05'34 min. Earth dist. -5330 Jul 20 i 09:08 18°**✗**15′08 43.75921 AU opposition -5330 Jul 23 i 02:27 18°**∡**11'49 -16°07'19 conjunction -5321 Jan 26 j 22:37 27°**х** 38'33 -16°20'38 direct -5330 Oct 11 j 16:32 17°**х** 09′00 minimum elong -5321 Jan 26 i 22:34 27°**₹**'38'33 16°20'57 max. Earth dist. -5321 Jan 29 j 12:25 27°**∡**142'21 47.07721 AU -5329 Jan 17 j 21:47 18°**∡**′44'37 -15°29'29 retrograde -5321 May 10 i 17:33 29°**₹**15'51 conjunction minimum elong -5329 Jan 17 i 21:42 18°**₹**44'37 15°29'47 min. Earth dist. -5321 Jul 30 j 21:55 28° 🖈 15'32 45.23709 AU 18°**∡**¹48'58 45.77096 AU max. Earth dist. -5329 Jan 20 j 18:23 28°**∡**12'38 -17°05'57 opposition -5321 Aug 02 j 08:15 retrograde -5329 May 01 j 16:25 20°×724'47 direct -5321 Oct 21 j 21:16 27°**∡**11′02 min. Earth dist. -5329 Jul 21 j 18:25 19°**∡**23'37 43.93485 AU opposition -5329 Jul 24 j 11:44 19°**∡**20'19 -16°15'31 conjunction -5320 Jan 28 j 07:24 28°**х** 43′45 -16°25′20 direct -5329 Oct 13 j 01:52 18°**∡**17'36 minimum elong -5320 Jan 28 j 07:23 28°**∡**′43'44 16°25'38 -5320 Jan 30 j 20:50 28°**✗**′47'30 47.22489 AU max. Earth dist. -5328 Jan 19 j 07:26 19°**∡**′52′51 -15°37′18 -5320 Mar 27 j 23:22 0°궁 conjunction -5328 Jan 19 j 07:19 -5320 May 10 j 22:33 0°る20'43 minimum elong 19°**∡** 52'51 15°37'36 retrograde 19°**∡**57'07 45.94364 AU -5320 Jun 24 j 13:32 max. Earth dist. -5328 Jan 22 j 03:00 30°R **✓** retrograde -5328 May 02 j 04:48 21°×32'37 min. Earth dist. -5320 Jul 31 j 07:53 29°**✗**20'26 45.38302 AU min. Earth dist. -5328 Jul 22 j 05:05 20°**✗**31'31 44.10739 AU opposition -5320 Aug 02 j 16:11 29°**∡**17'38 -17°10'33 opposition -5328 Jul 24 j 21:01 20°**∡**'28'17 -16°23'16 direct -5320 Oct 22 j 08:05 28°**х** 16′09 direct -5328 Oct 13 j 08:05 19°**х** 25′42 -5319 Jan 28 j 15:53 29°**х** 48'34 -16°29'43 conjunction

-5319 Jan 28 j 15:51

minimum elong

29°**∡**¹48'34 16°30'02

-5327 Jan 19 j 16:57 21° ₹ 00'35 -15°44'41

conjunction

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 7 Attention, astronomical year style is used: The year -5319 in astronomical counting style is the year 5320 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -5319 i	in astronomical co	unting style is the year	5320 BCE in historical co	ounting style.	
max. Earth dist.	-5319 Jan 31 j 03:17	29° ∡ 52'12	47.36759 AU	max. Earth dist.	-5311 Feb 08 j 09:58	8° る 17'08	48.36940 AU
	-5319 Feb 05 j 11:12	0°ಕ		retrograde	-5311 May 20 j 20:43	9° ප 48'27	
retrograde	-5319 May 12 j 05:05	1° る 25'13		min. Earth dist.	-5311 Aug 10 j 08:22	8° පි 48'50	46.51579 AU
min. Earth dist.	-5319 Aug 01 j 15:54	0° る 25'02	45.52391 AU	opposition	-5311 Aug 12 j 08:02	8° ප 46'31	-17°36'20
opposition	-5319 Aug 03 j 23:50	0° ಕ 22'16	-17°14'48	direct	-5311 Nov 01 j 00:29	7° る 45'56	
	-5319 Aug 23 j 03:34	30°₽ ⋌ ¹					
direct	-5319 Oct 23 j 17:45	29° ∡ ¹20'53		conjunction	-5310 Feb 07 j 14:21	9° ට 16'11	-16°54'01
	-5319 Dec 22 j 10:48	0°ರ		minimum elong	-5310 Feb 07 j 14:24	9° ට 16'11	16°54'20
	·			max. Earth dist.	-5310 Feb 09 j 17:23	9° ට 19'13	48.48019 AU
conjunction	-5318 Jan 30 j 00:14	0° ჳ 53'01	-16°33'46	retrograde	-5310 May 22 j 01:47	10° ප 50'19	
minimum elong	-5318 Jan 30 j 00:13		16°34'05	min. Earth dist.	-5310 Aug 11 j 16:34		46.62469 AU
max. Earth dist.	-5318 Feb 01 j 10:28		47.50533 AU	opposition	-5310 Aug 13 j 14:31	9° ට 48'31	
retrograde	-5318 May 13 j 14:23	2° る 29'20		direct	-5310 Nov 02 j 08:48	8° පි 48'04	
min. Earth dist.	-5318 Aug 03 j 01:38		45.66006 AU				
opposition	-5318 Aug 05 j 07:28	1°る26'30		conjunction	-5309 Feb 08 j 21:46	10° ප 18'08	-16°55'05
direct	-5318 Oct 25 j 00:55	0°る25'12	17 10 15	minimum elong	-5309 Feb 08 j 21:48	10°පි18'08	
direct	-5516 Oct 25 j 00.55	0 023 12		max. Earth dist.	-5309 Feb 10 j 22:38		48.58674 AU
conjunction	-5317 Jan 31 j 08:29	10=357102	-16°37'30	retrograde	-5309 May 23 j 06:28	10 3 21 02	40.30074 AC
•	,	1°る57'02		min. Earth dist.	, ,		46.72897 AU
minimum elong	-5317 Jan 31 j 08:27				-5309 Aug 12 j 23:31		
max. Earth dist.	-5317 Feb 02 j 18:04		47.63869 AU	opposition	-5309 Aug 14 j 20:54	10°る50'23	-1/38/21
retrograde	-5317 May 14 j 21:56	3°る33'02	45 50100 444	direct	-5309 Nov 03 j 17:42	9° る 50'01	
min. Earth dist.	-5317 Aug 04 j 09:33		45.79188 AU				
opposition	-5317 Aug 06 j 14:47	2° ろ 30'18	-17°22'18	conjunction	-5308 Feb 10 j 05:13	11° ठ 19'55	
direct	-5317 Oct 26 j 08:33	1° る 29'06		minimum elong	-5308 Feb 10 j 05:16	11° る 19'55	
				max. Earth dist.	-5308 Feb 12 j 04:51		48.68821 AU
conjunction	-5316 Feb 01 j 16:32	3° ろ 00'39	-16°40'53	retrograde	-5308 May 23 j 13:03	12° る 53'36	
minimum elong	-5316 Feb 01 j 16:32	3° る 00'39	16°41'11	min. Earth dist.	-5308 Aug 13 j 08:19	11° る 54'09	46.82796 AU
max. Earth dist.	-5316 Feb 04 j 00:07	3° る 04'01	47.76804 AU	opposition	-5308 Aug 15 j 03:13	11° ප 52'04	-17°38'55
retrograde	-5316 May 15 j 06:42	4° ප 36'19		direct	-5308 Nov 04 j 01:29	10° ප 51'47	
min. Earth dist.	-5316 Aug 04 j 17:42	3° ට 36'17	45.92011 AU				
opposition	-5316 Aug 06 j 21:56	3° ⋜ 33'43	-17°25'31	conjunction	-5307 Feb 10 j 12:36	12° る 21'29	-16°56'21
direct	-5316 Oct 26 j 14:42	2° る 32'35		minimum elong	-5307 Feb 10 j 12:40	12° る 21'29	16°56'39
				max. Earth dist.	-5307 Feb 12 j 10:57	12° る 24'14	48.78447 AU
conjunction	-5315 Feb 02 j 00:31	4° る 03'54	-16°43'55	retrograde	-5307 May 24 j 20:13	13° る 54'57	
minimum elong	-5315 Feb 02 j 00:30	4°₹03'54		min. Earth dist.	-5307 Aug 14 j 15:06	12°₹55'33	46.92148 AU
max. Earth dist.	-5315 Feb 04 j 08:16	4° ਰ 07'16	47.89404 AU	opposition	-5307 Aug 16 j 09:24	12°る53'30	
retrograde	-5315 May 16 j 11:38	5° ರ 39'16		direct	-5307 Nov 05 j 07:45	11° ප 53'17	
min. Earth dist.	-5315 Aug 06 j 02:15		46.04508 AU		2307 1.07 02 j 07.12	11 000 17	
opposition	-5315 Aug 08 j 05:01	4°る36'46		conjunction	-5306 Feb 11 j 19:35	130至221/17	-16°56'35
direct	-5315 Oct 28 j 00:14	3°る35'44	17 2024	minimum elong	-5306 Feb 11 j 19:38	13° る 22'47	
uncet	-5515 Oct 26 j 00.14	3 033 44		max. Earth dist.	-5306 Feb 13 j 15:37		48.87534 AU
conjunction	-5314 Feb 03 j 08:07	5° る 06'48	16046127	retrograde	-5306 May 26 j 05:24	13 3 25222	46.67334 AU
minimum elong	-5314 Feb 03 j 08:09		16°46'55	Č	-5306 May 20 j 03.24 -5306 Aug 15 j 23:01		47.00987 AU
max. Earth dist.			48.01717 AU	min. Earth dist.	-5306 Aug 13 j 25:01 -5306 Aug 17 j 15:37	13°る54'38	
	-5314 Feb 05 j 14:18		46.01/1/ AU	opposition	• •		-1/ 39 13
retrograde	-5314 May 17 j 17:55	6° る 41'54	46 16722 444	direct	-5306 Nov 06 j 11:58	12° る 54'28	
min. Earth dist.	-5314 Aug 07 j 09:00		46.16723 AU		5205 F. 1. 12:02 46	14070046	1.005.012.2
opposition	-5314 Aug 09 j 11:57	5° る 39'32	-1/°30′54	conjunction	-5305 Feb 13 j 02:46	14°る23'46	
direct	-5314 Oct 29 j 08:06	4° る 38'36		minimum elong	-5305 Feb 13 j 02:51	14°る23'46	
				max. Earth dist.	-5305 Feb 14 j 22:33		48.96129 AU
conjunction	-5313 Feb 04 j 15:48		-16°48'58	retrograde	-5305 May 27 j 10:45	15° ප 56'43	
minimum elong	-5313 Feb 04 j 15:48		16°49'16	min. Earth dist.	-5305 Aug 17 j 06:29		47.09346 AU
max. Earth dist.	-5313 Feb 06 j 21:16		48.13746 AU	opposition	-5305 Aug 18 j 21:27	14° る 55'25	-17°38'57
retrograde	-5313 May 19 j 01:33	7° る 44'16		direct	-5305 Nov 07 j 19:01	13° る 55'17	
min. Earth dist.	-5313 Aug 08 j 17:41	6° る 44'27	46.28656 AU				
opposition	-5313 Aug 10 j 18:47	6° る 42'02	-17°33'03	conjunction	-5304 Feb 14 j 09:43	15° る 24'24	-16°56'12
direct	-5313 Oct 30 j 15:37	5° る 41'14		minimum elong	-5304 Feb 14 j 09:46	15° る 24'24	16°56'31
				max. Earth dist.	-5304 Feb 16 j 03:18	15° පි 26'50	49.04291 AU
conjunction	-5312 Feb 05 j 23:30	7° る 11'51	-16°50'59	retrograde	-5304 May 27 j 16:19	16° ප 57'06	
minimum elong	-5312 Feb 05 j 23:32	7° る 11'51	16°51'17	min. Earth dist.	-5304 Aug 17 j 12:36	15° ට 57'44	47.17303 AU
max. Earth dist.	-5312 Feb 08 j 04:33	7° る 15'01	48.25504 AU	opposition	-5304 Aug 19 j 03:13	15° ප 55'52	-17°38'23
retrograde	-5312 May 19 j 10:36	8° පි 46'26		direct	-5304 Nov 08 j 01:35	14° ප 55'46	
min. Earth dist.	-5312 Aug 09 j 00:40	7° る 46'44	46.40284 AU		-		
opposition	-5312 Aug 11 j 01:25	7°₹44'21		conjunction	-5303 Feb 14 j 16:28	16° පි 24'41	-16°55'35
direct	-5312 Oct 30 j 20:57	6° ප 43'39		minimum elong	-5303 Feb 14 j 16:33	16° පි 24'41	
	,			max. Earth dist.	-5303 Feb 16 j 09:21		49.12066 AU
conjunction	-5311 Feb 06 j 06:50	8° 궁 14'05	-16°52'39	retrograde	-5303 May 28 j 19:59	17° ප 57'10	-
				-			47.04000 411
minimum elong	-5311 Feb 06 j 06:52	8° る 14'05	16°52'5/	min. Earth dist.	-5303 Aug 18 j 20:21	16°657'46	47.24902 AU

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5303 in astronomical counting style is the year 5304 BCE in historical counting style. 16°**ප**56'00 -17°37'30 -5303 Aug 20 j 09:00 conjunction -5294 Feb 24 i 03:25 25°る19'03 -16°36'58 opposition minimum elong direct -5303 Nov 09 j 10:13 15°**る**55'57 -5294 Feb 24 i 03:33 25°る19'03 16°37'14 -5294 Feb 25 j 08:27 25°る20'43 49.66630 AU max. Earth dist. -5302 Feb 15 j 23:14 17°る24'40 -16°54'40 -5294 Jun 07 j 04:56 26°る50'02 conjunction retrograde -5302 Feb 15 j 23:19 17°る24'41 16°54'57 -5294 Aug 28 j 06:10 25°る50'55 47.77287 AU minimum elong min. Earth dist. -5302 Feb 17 j 15:27 -5294 Aug 29 j 08:50 max. Earth dist. 17°る27'01 49.19531 AU opposition 25°る49'38 -17°16'22 -5294 Nov 18 j 10:54 retrograde -5302 May 30 j 02:04 18°**る**56'57 direct 24°る50'05 min. Earth dist. -5302 Aug 20 j 01:59 17°る57'36 47.32192 AU 17°る55'51 -17°36'19 -5293 Feb 25 j 09:47 opposition -5302 Aug 21 j 14:30 conjunction 26°る17'49 -16°33'36 -5293 Feb 25 j 09:54 direct -5302 Nov 10 j 16:43 16°る55'50 minimum elong 26°る17'49 16°33'53 -5293 Feb 26 j 13:46 max. Earth dist. 26°る19'25 49.70425 AU -5301 Feb 17 j 05:50 18°る24'24 -16°53'26 -5293 Jun 08 j 07:49 27°る48'39 conjunction retrograde -5301 Feb 17 j 05:56 -5293 Aug 30 j 13:54 minimum elong 18°る24'25 16°53'44 opposition 26°る48'19 -17°12'42 max. Earth dist. -5301 Feb 18 j 20:12 18°る26'39 49.26697 AU min. Earth dist. -5293 Aug 29 j 13:35 26°る49'28 47.80794 AU retrograde -5301 May 31 j 11:28 19°る56'29 direct -5293 Nov 19 j 18:49 25°る48'47 min. Earth dist. -5301 Aug 21 j 08:52 18°る57'10 47.39195 AU opposition -5301 Aug 22 j 20:06 18°る55'28 -17°34'49 conjunction -5292 Feb 26 j 16:06 27°る16'23 -16°29'58 direct -5301 Nov 11 j 19:22 17°る55'31 minimum elong -5292 Feb 26 j 16:15 27°る16'24 16°30'15 max. Earth dist. -5292 Feb 27 j 19:02 27°る17'56 49.73788 AU conjunction -5300 Feb 18 j 12:33 19°る23'57 -16°51'54 retrograde -5292 Jun 08 j 12:20 28°る47'05 minimum elong -5300 Feb 18 j 12:38 19°る23'57 16°52'11 opposition -5292 Aug 30 j 18:37 27°る46'47 -17°08'46 max. Earth dist. -5300 Feb 20 i 02:53 19°る26'10 49.33575 AU min. Earth dist. -5292 Aug 29 i 18:36 27°る47'56 47.83887 AU retrograde -5300 May 31 i 16:50 20°る55'49 direct -5292 Nov 20 j 01:39 26°₹47'16 min. Earth dist. -5300 Aug 21 j 15:25 19°る56'32 47.45886 AU opposition -5300 Aug 23 j 01:27 19°る54'54 -17°33'00 conjunction -5291 Feb 26 i 22:10 28°る14'47 -16°26'05 -5300 Nov 12 j 01:39 18°る55'01 minimum elong -5291 Feb 26 i 22:17 28°る14'48 16°26'22 direct max. Earth dist. -5291 Feb 27 j 23:03 28°る16'13 49.76765 AU -5299 Feb 18 j 19:02 20°る23'20 -16°50'05 retrograde -5291 Jun 09 j 21:28 29°る45'21 conjunction -5299 Feb 18 j 19:09 20°る23'20 16°50'23 -5291 Aug 31 j 23:31 28°る45'06 -17°04'34 opposition minimum elong -5299 Feb 20 j 07:29 20°る25'27 49.40152 AU min. Earth dist. -5291 Aug 31 j 01:02 28°る46'10 47.86635 AU max. Earth dist. -5299 Jun 01 j 21:45 21°る55'02 -5291 Nov 21 j 03:32 retrograde direct 27°る45'36 -5299 Aug 22 j 21:09 min. Earth dist. 20°る55'50 47.52260 AU -5290 Feb 28 j 04:11 29°る13'01 -16°21'55 -5299 Aug 24 j 06:49 20°る54'13 -17°30'54 conjunction opposition -5290 Feb 28 j 04:21 -5299 Nov 13 j 07:51 19°**る**54'25 29°**ට**13'02 16°22'11 direct minimum elong -5290 Mar 01 j 05:09 max. Earth dist. 29°る14'27 49.79421 AU -5298 Feb 20 j 01:25 21°**ප්**22'37 -16°47'58 -5290 Apr 05 j 01:13 conjunction 0°≈ -5298 Feb 20 j 01:32 21°**る**22'37 16°48'15 -5290 Jun 11 j 03:11 minimum elong retrograde 0°≈43'27 max. Earth dist. -5298 Feb 21 j 13:06 21°る24'41 49.46374 AU -5290 Aug 18 j 08:45 30°Ŗる retrograde -5298 Jun 03 j 02:25 22°る54'12 min. Earth dist. -5290 Sep 01 j 06:48 29°る44'16 47.89060 AU min. Earth dist. -5298 Aug 24 j 04:44 21°る54'59 47.58246 AU opposition -5290 Sep 02 j 04:17 29°る43'15 -17°00'04 opposition -5298 Aug 25 j 12:14 21°**ප**53'28 -17°28'31 direct -5290 Nov 22 j 08:12 28°る43'46 -5298 Nov 14 j 15:14 20°る53'45 -5289 Feb 21 j 07:38 direct 0°≈ -5297 Feb 21 j 08:03 22°**ට**21'51 -16°45'36 conjunction -5289 Mar 01 j 10:13 0°≈11'07 -16°17'29 conjunction -5297 Feb 21 j 08:10 22°**ට**21'51 16°45'53 -5289 Mar 01 j 10:21 0°≈11'08 16°17'44 minimum elong minimum elong -5297 Feb 22 i 18:33 -5289 Mar 02 j 09:11 max. Earth dist. 22°る23'51 49.52193 AU max. Earth dist. 0°≈12'26 49.81785 AU -5289 Jun 12 j 08:05 retrograde -5297 Jun 04 i 08:35 23°る53'17 retrograde 1°≈41'26 0°≈42'17 47.91205 AU min. Earth dist. -5297 Aug 25 i 10:24 22°る54'09 47.63781 AU min. Earth dist. -5289 Sep 02 i 11:50 0°≈41'16 -16°55'17 opposition -5297 Aug 26 i 17:19 22°る52'40 -17°25'51 opposition -5289 Sep 03 i 08:54 direct -5297 Nov 15 j 20:57 21°る53'00 -5289 Oct 13 i 01:39 30°Rる direct -5289 Nov 23 j 13:12 29°る41'49 -5296 Feb 22 j 14:35 23°る21'01 -16°42'58 -5288 Jan 03 j 19:28 0°**≈** conjunction -5296 Feb 22 j 14:42 23°**පි**21'01 16°43'14 minimum elong max. Earth dist. -5296 Feb 23 j 22:41 23°る22'52 49.57524 AU conjunction -5288 Mar 01 j 16:18 1°≈09'07 -16°12'46 -5288 Mar 01 j 16:28 retrograde -5296 Jun 04 j 17:07 24°る52'19 minimum elong 1°≈09'08 16°13'02 opposition -5296 Aug 26 j 22:39 23°る51'47 -17°22'57 max. Earth dist. -5288 Mar 02 j 14:38 1°≈10'24 49.83858 AU min. Earth dist. -5296 Aug 25 j 17:42 23°る53'11 47.68814 AU retrograde -5288 Jun 12 j 10:42 2°≈39'20 -5296 Nov 16 j 00:17 22°る52'11 -5288 Sep 03 j 13:41 1°≈39'14 -16°50'13 direct opposition -5288 Sep 02 j 18:28 1°≈40'09 47.93051 AU min. Earth dist. -5295 Feb 22 j 21:03 24°**ට**20'06 -16°40'05 direct -5288 Nov 23 j 21:02 0°**≈**39'48 conjunction 24°る20'06 16°40'23 minimum elong -5295 Feb 22 j 21:10 max. Earth dist. -5295 Feb 24 j 04:39 24°る21'55 49.62336 AU conjunction -5287 Mar 02 j 22:11 2°≈07'04 -16°07'46 retrograde -5295 Jun 05 j 23:00 25°**る**51'14 minimum elong -5287 Mar 02 j 22:20 2°≈07'05 16°08'02 min. Earth dist. -5295 Aug 27 j 00:26 24°る52'06 47.73302 AU max. Earth dist. -5287 Mar 03 j 19:37 2°≈08'18 49.85643 AU opposition -5295 Aug 28 j 03:50 24°る50'47 -17°19'47 retrograde -5287 Jun 13 j 14:59 3°≈37'12

-5287 Sep 04 j 18:16

-5287 Sep 03 j 23:09

opposition min. Earth dist. 2°≈37'10 -16°44'53

2°≈38'04 47.94579 AU

-5295 Nov 17 j 05:36

direct

23°**る**51'13

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 9 Attention, astronomical year style is used: The year -5287 in astronomical counting style is the year 5288 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -5287 i	in astronomical co	unting style is the year	5288 BCE in historical c	ounting style.	
direct	-5287 Nov 25 j 03:25	1° ≈ 37'47		minimum elong	-5278 Mar 12 j 04:40	10° ≈ 46'49	15°12'12
				max. Earth dist.	-5278 Mar 12 j 12:29	10° ≈ 47'16 4	49.81621 AU
conjunction	-5286 Mar 04 j 04:09	3° ≈ 05′00	-16°02'31	retrograde	-5278 Jun 22 j 16:51	12° ≈ 16′17	
minimum elong	-5286 Mar 04 j 04:19	3° ≈ 05'01	16°02'48	opposition	-5278 Sep 13 j 11:05	11° ≈ 16'31 -	-15°45'44
max. Earth dist.	-5286 Mar 04 j 23:38	3° ≈ 06'07	49.87084 AU	min. Earth dist.	-5278 Sep 13 j 05:03	11° ≈ 16'48 4	47.87611 AU
retrograde	-5286 Jun 14 j 22:38	4° ≈ 35'04		direct	-5278 Dec 03 j 22:52	10° ≈ 17'05	
opposition	-5286 Sep 05 j 22:53	3° ≈ 35′06	-16°39'16				
min. Earth dist.	-5286 Sep 05 j 05:44	3° ≈ 35'55	47.95744 AU	conjunction	-5277 Mar 13 j 10:28	11° ≈ 44'10 -	-15°04'32
direct	-5286 Nov 26 j 06:31	2° ≈ 35'45		minimum elong	-5277 Mar 13 j 10:40	11° ≈ 44'11	15°04'46
				max. Earth dist.	-5277 Mar 13 j 17:31	11° ≈ 44'35 4	49.79067 AU
conjunction	-5285 Mar 05 j 10:21	4° ≈ 02'57	-15°57'01	retrograde	-5277 Jun 23 j 20:34	13° ≈ 13'38	
minimum elong	-5285 Mar 05 j 10:31	4° ≈ 02'57	15°57'17	opposition	-5277 Sep 14 j 15:27	12° ≈ 13'53 -	-15°37'54
max. Earth dist.	-5285 Mar 06 j 05:25	4° ≈ 04'02	49.88126 AU	min. Earth dist.	-5277 Sep 14 j 09:29	12° ≈ 14'10 4	47.84778 AU
retrograde	-5285 Jun 16 j 05:31	5° ≈ 32'56		direct	-5277 Dec 05 j 05:21	11° ≈ 14'27	
min. Earth dist.	-5285 Sep 06 j 11:41	4° ≈ 33'47	47.96455 AU	evening set	-5276 Mar 12 j 09:00	12° ≈ 39'47	
opposition	-5285 Sep 07 j 03:30	4° ≈ 33'01	-16°33'25				
direct	-5285 Nov 27 j 10:25	3° ≈ 33'42		conjunction	-5276 Mar 13 j 16:19	12° ≈ 41'34 -	-14°56'51
				minimum elong	-5276 Mar 13 j 16:30	12° ≈ 41'34	14°57'04
conjunction	-5284 Mar 05 j 16:26	5° ≈ 00'53	-15°51'17	max. Earth dist.	-5276 Mar 13 j 21:26	12° ≈ 41'51 4	49.76199 AU
minimum elong	-5284 Mar 05 j 16:37	5° ≈ 00'54	15°51'32	morning rise	-5276 Mar 15 j 00:02	12° ≈ 43'22	
max. Earth dist.	-5284 Mar 06 j 08:52	5° ≈ 01'49	49.88691 AU	retrograde	-5276 Jun 24 j 03:33	14°≈11'01	
retrograde	-5284 Jun 16 j 12:36	6° ≈ 30'47		opposition	-5276 Sep 14 j 19:54	13° ≈ 11'18 -	-15°29'48
opposition	-5284 Sep 07 j 08:02	5° ≈ 30'56	-16°27'19	min. Earth dist.	-5276 Sep 14 j 15:41	13° ≈ 11'30 4	47.81642 AU
min. Earth dist.	-5284 Sep 06 j 17:14	5° ≈ 31'38	47.96667 AU	direct	-5276 Dec 05 j 08:29	12° ≈ 11'52	
direct	-5284 Nov 27 j 14:01	4° ≈ 31'37		evening set	-5275 Mar 12 j 09:57	13° ≈ 35'36	
conjunction	-5283 Mar 06 j 22:35	5° ≈ 58'47	-15°45'18	conjunction	-5275 Mar 14 j 22:17	13° ≈ 39'01 -	-14°48'54
minimum elong	-5283 Mar 06 j 22:46	5° ≈ 58'48	15°45'33	minimum elong	-5275 Mar 14 j 22:30	13° ≈ 39′02	14°49'09
max. Earth dist.	-5283 Mar 07 j 13:48	5° ≈ 59'39	49.88728 AU	max. Earth dist.	-5275 Mar 15 j 03:18	13° ≈ 39'18 4	49.73030 AU
retrograde	-5283 Jun 17 j 16:01	7° ≈ 28'37		morning rise	-5275 Mar 17 j 11:07	13° ≈ 42′28	
opposition	-5283 Sep 08 j 12:45	6° ≈ 28'47	-16°21'00		-5275 May 27 j 22:16	15° ≈	
min. Earth dist.	-5283 Sep 08 j 00:20	6° ≈ 29′23	47.96336 AU	retrograde	-5275 Jun 25 j 10:08	15° ≈ 08′29	
direct	-5283 Nov 28 j 20:31	5° ≈ 29′28			-5275 Jul 23 j 23:09	15°R ≈	
				opposition	-5275 Sep 16 j 00:17	14° ≈ 08'48 -	-15°21'25
conjunction	-5282 Mar 08 j 04:37	6° ≈ 56'36	-15°39'06	min. Earth dist.	-5275 Sep 15 j 20:56	14° ≈ 08'58 4	47.78176 AU
minimum elong	-5282 Mar 08 j 04:47	6° ≈ 56'37	15°39'22	direct	-5275 Dec 06 j 12:07	13° ≈ 09'22	
max. Earth dist.	-5282 Mar 08 j 18:23	6° ≈ 57'23	49.88240 AU	evening set	-5274 Mar 12 j 20:15	14° ≈ 32′04	
retrograde	-5282 Jun 18 j 19:04	8° ≈ 26′21					
opposition	-5282 Sep 09 j 17:16	7° ≈ 26'33	-16°14'26	conjunction	-5274 Mar 16 j 04:05	14° ≈ 36'36 -	-14°40'42
min. Earth dist.	-5282 Sep 09 j 05:27	7° ≈ 27'07	47.95471 AU	minimum elong	-5274 Mar 16 j 04:17	14° ≈ 36'37	14°40'55
direct	-5282 Nov 30 j 03:57	6° ≈ 27'13		max. Earth dist.	-5274 Mar 16 j 06:51	14° ≈ 36'45 4	49.69524 AU
				morning rise	-5274 Mar 19 j 12:26	14° ≈ 41′09	
conjunction	-5281 Mar 09 j 10:39	7° ≈ 54'19	-15°32'41		-5274 Apr 02 j 12:54	15° ≈	
minimum elong	-5281 Mar 09 j 10:51	7° ≈ 54'20	15°32'56	retrograde	-5274 Jun 26 j 17:49	16° ≈ 06′04	
max. Earth dist.	-5281 Mar 09 j 21:59	7° ≈ 54'58	49.87228 AU	opposition	-5274 Sep 17 j 04:42	15° ≈ 06'26 -	-15°12'47
retrograde	-5281 Jun 20 j 02:20	9° ≈ 23'59		min. Earth dist.	-5274 Sep 17 j 02:12	15° ≈ 06'33 4	47.74346 AU
opposition	-5281 Sep 10 j 21:45	8° ≈ 24'12	-16°07'39		-5274 Sep 22 j 19:47	15°R ≈	
min. Earth dist.	-5281 Sep 10 j 11:58	8° ≈ 24'40	47.94116 AU	direct	-5274 Dec 07 j 14:50	14° ≈ 07'00	
direct	-5281 Dec 01 j 07:28	7° ≈ 24'50			-5273 Feb 19 j 13:55	15° ≈	
				evening set	-5273 Mar 13 j 10:28	15° ≈ 28'53	
conjunction	-5280 Mar 09 j 16:48	8° ≈ 51'55	-15°26'01				
minimum elong	-5280 Mar 09 j 16:58	8° ≈ 51'55	15°26'17	conjunction	-5273 Mar 17 j 10:13	15° ≈ 34'19 -	-14°32'15
max. Earth dist.	-5280 Mar 10 j 03:44	8° ≈ 52'32	49.85752 AU	minimum elong	-5273 Mar 17 j 10:26	15° ≈ 34'20	14°32'29
retrograde	-5280 Jun 20 j 08:10	10° ≈ 21'30		max. Earth dist.	-5273 Mar 17 j 12:01	15° ≈ 34'25 4	49.65601 AU
opposition	-5280 Sep 11 j 02:14	9° ≈ 21'43	-16°00'36	morning rise	-5273 Mar 21 j 10:32	15° ≈ 39'47	
min. Earth dist.	-5280 Sep 10 j 17:39	9° ≈ 22'08	47.92311 AU	retrograde	-5273 Jun 27 j 22:15	17° ≈ 03'48	
direct	-5280 Dec 01 j 11:39	8° ≈ 22'20		opposition	-5273 Sep 18 j 09:07	16° ≈ 04'12 -	-15°03'55
				min. Earth dist.	-5273 Sep 18 j 09:00	16° ≈ 04'12 -	47.70065 AU
conjunction	-5279 Mar 10 j 22:32	9° ≈ 49'24	-15°19'07	direct	-5273 Dec 08 j 20:25	15° ≈ 04'46	
minimum elong	-5279 Mar 10 j 22:44	9° ≈ 49'24	15°19'21	evening set	-5272 Mar 13 j 02:51	16° ≈ 25'56	
max. Earth dist.	-5279 Mar 11 j 07:21	9° ≈ 49'54	49.83867 AU				
retrograde	-5279 Jun 21 j 14:13	11° ≈ 18'56		conjunction	-5272 Mar 17 j 16:24	16° ≈ 32'09 -	-14°23'34
opposition	-5279 Sep 12 j 06:40	10° ≈ 19′09	-15°53'18	minimum elong	-5272 Mar 17 j 16:36	16° ≈ 32'10	14°23'47
min. Earth dist.	-5279 Sep 11 j 22:44	10° ≈ 19′32	47.90133 AU	max. Earth dist.	-5272 Mar 17 j 16:42	16° ≈ 32'10 4	49.61216 AU
direct	-5279 Dec 02 j 15:30	9° ≈ 19'44		morning rise	-5272 Mar 22 j 06:30	16° ≈ 38′25	
				retrograde	-5272 Jun 28 j 00:50	18° ≈ 01'40	
conjunction	-5278 Mar 12 j 04:29	10° ≈ 46'48	-15°11'57	opposition	-5272 Sep 18 j 13:34	17° ≈ 02'05 -	-14°54'48

Planetary Phen	omena of Pluto fron	n -5400 thro	ough -4898 (I	IT) Astrodienst A	AG 18-Feb-2025 14:	23 nao	e 10
•	nical year style is used: Th		•	* *			C 10
min. Earth dist.	-5272 Sep 18 j 13:57	-	47.65283 AU	morning rise	-5265 Apr 02 j 01:56	23°≈27'52	
direct	-5272 Dec 09 j 04:02	16° ≈ 02'38		retrograde	-5265 Jul 05 j 14:27	24°≈47'07	
evening set	-5271 Mar 13 j 20:22	17° ≈ 23'09		opposition	-5265 Sep 25 j 20:59	23° ≈ 47'18	-13°44'15
C	J			min. Earth dist.	-5265 Sep 26 j 06:45	23°≈46'50	47.18483 AU
conjunction	-5271 Mar 18 j 22:22	17° ≈ 30′05	-14°14'40	direct	-5265 Dec 16 j 15:32	22° ≈ 47'22	
minimum elong	-5271 Mar 18 j 22:34	17° ≈ 30′06	14°14'54	evening set	-5264 Mar 17 j 19:23	24° ≈ 04'31	
max. Earth dist.	-5271 Mar 18 j 20:08	17° ≈ 29'57	49.56296 AU				
morning rise	-5271 Mar 24 j 01:00	17° ≈ 37′03		conjunction	-5264 Mar 25 j 17:36	24° ≈ 15′21	-13°05'42
retrograde	-5271 Jun 29 j 07:19	18° ≈ 59'38		minimum elong	-5264 Mar 25 j 17:50	24° ≈ 15′22	13°05'54
opposition	-5271 Sep 19 j 18:12	18° ≈ 00′02	-14°45'27	max. Earth dist.	-5264 Mar 25 j 05:49	24° ≈ 14'40	49.09092 AU
min. Earth dist.	-5271 Sep 19 j 20:49	17° ≈ 59'55	47.59965 AU	morning rise	-5264 Apr 02 j 16:40	24° ≈ 26′13	
direct	-5271 Dec 10 j 08:28	17° ≈ 00′33		retrograde	-5264 Jul 05 j 22:55	25° ≈ 45'03	
evening set	-5270 Mar 14 j 15:10	18° ≈ 20′29		opposition	-5264 Sep 26 j 01:35	24° ≈ 45'12	-13°33'07
				min. Earth dist.	-5264 Sep 26 j 12:01		47.10418 AU
conjunction	-5270 Mar 20 j 04:39	18° ≈ 28′04		direct	-5264 Dec 16 j 17:36	23° ≈ 45'13	
minimum elong	-5270 Mar 20 j 04:52		14°05'45	evening set	-5263 Mar 18 j 17:09	25°≈02'01	
max. Earth dist.	-5270 Mar 20 j 01:49		49.50845 AU				
morning rise	-5270 Mar 25 j 18:43	18° ≈ 35'41		conjunction	-5263 Mar 26 j 23:44	25° ≈ 13′20	
retrograde	-5270 Jun 30 j 14:05	19° ≈ 57'37		minimum elong	-5263 Mar 26 j 23:57	25° ≈ 13'20	
opposition	-5270 Sep 20 j 22:37	18° ≈ 58′00		max. Earth dist.	-5263 Mar 26 j 11:24		49.01028 AU
min. Earth dist.	-5270 Sep 21 j 02:32		47.54104 AU	morning rise	-5263 Apr 04 j 07:02	25° ≈ 24'41	
direct	-5270 Dec 11 j 11:52	17° ≈ 58′27		retrograde	-5263 Jul 07 j 04:45	26° ≈ 43'07	
evening set	-5269 Mar 15 j 10:43	19° ≈ 17'51		opposition	-5263 Sep 27 j 06:19	25° ≈ 43'15	
				min. Earth dist.	-5263 Sep 27 j 18:31		47.02057 AU
conjunction	-5269 Mar 21 j 10:49	19°≈26′01		direct	-5263 Dec 17 j 22:37	24°≈43'13	
minimum elong	-5269 Mar 21 j 11:02		13°56'25	evening set	-5262 Mar 19 j 15:37	25° ≈ 59'42	
max. Earth dist.	-5269 Mar 21 j 05:21		49.44877 AU				
morning rise	-5269 Mar 27 j 11:36	19°≈34'15		conjunction	-5262 Mar 28 j 06:05	26°≈11'29	
retrograde	-5269 Jul 01 j 21:35	20°≈55'35		minimum elong	-5262 Mar 28 j 06:19	26°≈11'29	
opposition	-5269 Sep 22 j 03:06	19°≈55'56		max. Earth dist.	-5262 Mar 27 j 16:39		48.92670 AU
min. Earth dist.	-5269 Sep 22 j 08:09		47.47754 AU	morning rise	-5262 Apr 05 j 21:17	26°≈23'17	
direct	-5269 Dec 12 j 14:54	18°≈56'19		retrograde	-5262 Jul 08 j 08:15	27°≈41'22	12010102
evening set	-5268 Mar 15 j 06:45	20°≈15′11		opposition	-5262 Sep 28 j 10:48	26°≈41'29	
	52(0.M 21:17.00	20022157	12046126	min. Earth dist.	-5262 Sep 28 j 23:15		46.93368 AU
conjunction	-5268 Mar 21 j 17:00	20°≈23'57		direct	-5262 Dec 19 j 05:27	25°≈41'25	
minimum elong max. Earth dist.	-5268 Mar 21 j 17:14 -5268 Mar 21 j 10:29	20°≈23'58		evening set	-5261 Mar 20 j 14:20	26°≈57'37	
			49.36426 AU	aaniumatian	5261 Mar 20 : 12:22	27% 000/50	12022117
morning rise retrograde	-5268 Mar 28 j 03:56 -5268 Jul 02 j 00:39	20°≈32'45 21°≈53'30		conjunction minimum elong	-5261 Mar 29 j 12:33 -5261 Mar 29 j 12:46	27°≈09'50 27°≈09'51	12°32'28
opposition	-5268 Sep 22 j 07:36	21 ≈53 30 20°≈53'49	1.4°16'00	max. Earth dist.	-5261 Mar 28 j 20:55		48.83937 AU
min. Earth dist.	-5268 Sep 22 j 14:40		47.40953 AU	morning rise	-5261 Apr 07 j 11:37	27°≈22'06	40.03937 AU
direct	-5268 Dec 12 j 22:14	20 ≈53 28 19°≈54'07	47.40933 AU	retrograde	-5261 Jul 09 j 14:04	27 ≈22 00 28°≈39'51	
evening set	-5267 Mar 16 j 03:21	19 ≈3407 21°≈12'30		opposition	-5261 Sep 29 j 15:37	28 ≈3951 27°≈39'57	-12°58'06
evening set	3207 Mai 10 j 03.21	21 7012 30		min. Earth dist.	-5261 Sep 30 j 06:14		46.84279 AU
conjunction	-5267 Mar 22 j 23:09	21° ≈ 21'49	-13°36'45	direct	-5261 Dec 20 j 10:40	26°≈39'50	40.04277710
minimum elong	-5267 Mar 22 j 23:21	21°≈21'50		evening set	-5260 Mar 20 j 13:22	27°≈55'47	
max. Earth dist.	-5267 Mar 22 j 15:30		49.31583 AU	evening sec	3200 Mai 20 j 13.22	27 70 33 17	
morning rise	-5267 Mar 29 j 19:34	21°≈31'10	13.51005110	conjunction	-5260 Mar 29 j 19:09	28°≈08'26	-12°20'39
retrograde	-5267 Jul 03 j 03:13	22°≈51'23		minimum elong	-5260 Mar 29 j 19:22	28°≈08'27	
opposition	-5267 Sep 23 j 11:59	21° ≈ 51'39	-14°05'41	max. Earth dist.	-5260 Mar 29 j 03:04		48.74769 AU
min. Earth dist.	-5267 Sep 23 j 19:15		47.33780 AU	morning rise	-5260 Apr 08 j 01:34	28° ≈ 21'09	
direct	-5267 Dec 14 j 05:43	20°≈51'52		retrograde	-5260 Jul 09 j 20:52	29° ≈ 38'34	
evening set	-5266 Mar 17 j 00:11	22° ≈ 09'49		opposition	-5260 Sep 29 j 20:25	28° ≈ 38'40	-12°45'55
C	J			min. Earth dist.	-5260 Sep 30 j 12:09		46.74713 AU
conjunction	-5266 Mar 24 j 05:09	22° ≈ 19'39	-13°26'40	direct	-5260 Dec 20 j 14:47	27°≈38'29	
minimum elong	-5266 Mar 24 j 05:23		13°26'52	evening set	-5259 Mar 21 j 12:47	28° ≈ 54'10	
max. Earth dist.	-5266 Mar 23 j 19:36		49.24380 AU	max. Earth dist.	-5259 Mar 30 j 06:56		48.65114 AU
morning rise	-5266 Mar 31 j 10:55	22° ≈ 29'31			,		
retrograde	-5266 Jul 04 j 08:57	23° ≈ 49'15		conjunction	-5259 Mar 31 j 01:43	29° ≈ 07'16	-12°08'46
opposition	-5266 Sep 24 j 16:33	22° ≈ 49′28	-13°55'06	minimum elong	-5259 Mar 31 j 01:56	29° ≈ 07'17	
min. Earth dist.	-5266 Sep 25 j 01:41		47.26282 AU	morning rise	-5259 Apr 09 j 15:30	29° ≈ 20′25	
direct	-5266 Dec 15 j 10:32	21° ≈ 49'37		-	-5259 May 10 j 20:56	0°) €	
evening set	-5265 Mar 17 j 21:36	23° ≈ 07'09		retrograde	-5259 Jul 11 j 05:39	0°) 37'31	
	-				-5259 Sep 11 j 04:43	30° ₹ ≈	
conjunction	-5265 Mar 25 j 11:28	23° ≈ 17′28	-13°16'19	opposition	-5259 Oct 01 j 01:17	29° ≈ 37'35	-12°33'29
minimum elong	-5265 Mar 25 j 11:40	23° ≈ 17′29	13°16'30	min. Earth dist.	-5259 Oct 01 j 18:15	29° ≈ 36'46	46.64652 AU
max. Earth dist.	-5265 Mar 25 j 01:42	23° ≈ 16′55	49.16874 AU	direct	-5259 Dec 21 j 17:07	28° ≈ 37'19	

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5258 in astronomical counting style is the year 5259 BCE in historical counting style. minimum elong -5258 Mar 22 j 12:15 29°≈52'46 -5252 Apr 07 j 01:55 6°**¥**03'31 10°38'50 evening set -5258 Mar 27 j 18:55 -5252 Apr 18 j 13:14 6°¥19'26 0°\ morning rise -5252 Jul 17 j 23:34 7°**)** 34'45 retrograde -5258 Apr 01 j 08:26 0°\06'17 -11°56'39 -5252 Oct 07 j 12:57 6°\;\;34'18\] -10°59'11 conjunction opposition -5252 Oct 08 j 13:54 -5258 Apr 01 j 08:39 0°**¥**06'18 11°56'50 6°**升**33'05 45.82169 AU minimum elong min. Earth dist. max. Earth dist. -5258 Mar 31 j 12:25 0°**₭**05'08 48.54939 AU direct -5252 Dec 28 j 09:57 5°**X**33'19 6°**)**€47'28 -5258 Apr 11 j 05:17 morning rise 0°**H**19'51 evening set -5251 Mar 27 j 15:57 retrograde -5258 Jul 12 j 10:38 1°**)** 36'40 max. Earth dist. -5251 Apr 07 j 03:10 7°**₭**01'59 47.72304 AU opposition -5258 Oct 02 j 06:19 0°**)** 36'40 -12°20'48 min. Earth dist. -5258 Oct 03 j 01:27 0°**)** 35'44 46.54063 AU conjunction -5251 Apr 08 j 08:49 7°**¥**03'43 -10°24'46 -5258 Nov 05 j 04:41 30°R≈ minimum elong -5251 Apr 08 j 09:02 7°**¥**03'44 10°24'55 29°**≈**36′20 -5251 Apr 20 j 02:21 direct -5258 Dec 22 j 23:56 morning rise 7°**)** €20'01 -5251 Jul 19 j 04:08 -5257 Feb 08 j 12:59 0°**)**€ retrograde 8°**)** 35'09 evening set -5257 Mar 23 j 12:16 0°¥51'32 opposition -5251 Oct 08 j 18:24 7°**¥**34'39 -10°44'36 min. Earth dist. -5251 Oct 09 j 21:16 7°**升**33'20 45.69155 AU conjunction -5257 Apr 02 j 15:15 1°\mathcal{H}05'28 -11°44'18 direct -5251 Dec 29 j 17:11 6°**)** 33'34 minimum elong -5257 Apr 02 j 15:29 1°\mathbf{1}05'29 11°44'27 evening set -5250 Mar 28 j 17:22 7°**)** 47′36 max. Earth dist. -5257 Apr 01 j 17:45 1°**)** €04'14 48.44268 AU max. Earth dist. -5250 Apr 08 j 10:23 8°¥02'29 47.59296 AU morning rise -5257 Apr 12 j 18:56 1°**¥**19′27 retrograde -5257 Jul 13 j 14:23 2°**升**35'57 conjunction -5250 Apr 09 j 16:09 8°\d'14 -10°10'34 opposition -5257 Oct 03 j 11:09 1°**¥**35'54 -12°07'52 minimum elong -5250 Apr 09 j 16:21 8°\;\;04'14 10°10'42 min. Earth dist. -5257 Oct 04 i 06:49 1°**)** 34'57 46.42991 AU morning rise -5250 Apr 21 j 15:19 8° **)** 20'54 -5257 Dec 24 i 07:56 0° **)** 35'27 retrograde -5250 Jul 20 j 10:14 9°**)** 35'53 direct evening set -5256 Mar 23 j 12:21 1°**)** 50'27 opposition -5250 Oct 09 i 23:55 8°\(\frac{10}{35}\)'19 -10°29'43 min. Earth dist. -5250 Oct 11 j 03:26 8°**)** 33'58 45.55817 AU -5256 Apr 02 j 22:03 2°\colon 04'47 -11°31'42 -5250 Dec 30 j 23:26 7°**₩**34'08 conjunction direct -5256 Apr 02 j 22:15 -5249 Mar 29 j 19:18 8° ¥48'05 2°\u00a48 11°31'52 minimum elong evening set -5256 Apr 01 j 22:17 max. Earth dist. 2°**₭**03'25 48.33123 AU -5256 Apr 13 j 08:33 2°**₩**19'09 -5249 Apr 10 j 23:34 9°\;\;05'05 -9°56'06 conjunction morning rise 3°**)** ₹35′24 -5256 Jul 13 j 20:03 -5249 Apr 10 j 23:47 9°\cdot\05'05 9°56'14 minimum elong retrograde -5256 Oct 03 j 16:16 2°**¥**35'16 -11°54'41 -5249 Apr 09 j 15:21 9°**升**03'11 47.45937 AU max. Earth dist. opposition -5256 Oct 04 j 14:04 -5249 Apr 23 j 04:30 9°¥22'07 min. Earth dist. 2°**₭**34'13 46.31489 AU morning rise -5249 Jul 21 j 19:57 -5256 Dec 24 j 13:41 1°**)** 34'43 10°**)** 36′57 direct retrograde -5255 Mar 24 j 12:28 2°**)**49'30 -5249 Oct 11 j 05:28 9°**¥**36′20 -10°14′34 evening set opposition -5255 Apr 03 j 04:47 3°**₭**02'50 48.21581 AU -5249 Oct 12 j 10:20 9°**₭**34'55 45.42108 AU max. Earth dist. min. Earth dist. 8°**)**35'03 direct -5248 Jan 01 j 01:56 -5255 Apr 04 j 04:47 conjunction 3°**)** €04'13 -11°18'51 evening set -5248 Mar 29 j 21:24 9°**)**48′55 -5255 Apr 04 j 05:01 3°¥04'14 11°19'00 max. Earth dist. -5248 Apr 09 j 22:08 10°**升**04'20 47.32153 AU minimum elong morning rise -5255 Apr 14 j 21:40 3°**¥**19′00 retrograde -5255 Jul 15 j 01:34 4° **X** 34'59 conjunction -5248 Apr 11 j 07:18 10°**₭**06'17 -9°41'22 -5255 Oct 04 j 21:20 3°**¥**34'46 -11°41'14 -5248 Apr 11 j 07:31 10°**₭**06'17 9°41'29 opposition minimum elong min. Earth dist. -5255 Oct 05 j 19:44 3°**)** 33'41 46.19604 AU -5248 Apr 23 j 17:34 10°**)**€23'41 morning rise -5255 Dec 25 j 19:40 2°**)**€34'06 -5248 Jul 22 j 03:51 11°**)** 38'24 direct retrograde 3°**)**(48'41 -5248 Oct 11 j 11:23 10°**)** 37'42 -9°59'09 evening set -5254 Mar 25 j 13:03 opposition 4°**)** 62'17 48.09691 AU -5248 Oct 12 j 18:10 10°**)** 36'11 45.27940 AU max. Earth dist. -5254 Apr 04 j 09:25 min. Earth dist. direct -5247 Jan 01 i 07:38 9°**)** 36'17 conjunction -5254 Apr 05 i 11:38 4° \(\frac{1}{4}\)03'48 -11°05'44 evening set -5247 Mar 30 j 23:44 10°**¥** 50′06 minimum elong -5254 Apr 05 j 11:50 4°\(\)49 11°05'53 max. Earth dist. -5247 Apr 11 j 04:10 11°**)** 05'46 47.17900 AU morning rise -5254 Apr 16 j 11:01 4°**)** 18'58 -5254 Jul 16 j 11:08 5°**)** 34'43 -5247 Apr 12 j 14:55 11°\(\pi\)07'49 -9°26'23 retrograde conjunction -5254 Oct 06 j 02:22 4°\ 34'25 -11°27'30 -5247 Apr 12 j 15:08 11°**H**07'50 9°26'30 opposition minimum elong min. Earth dist. -5254 Oct 07 j 01:47 4°**)** 33'17 46.07408 AU -5247 Apr 25 j 06:31 11°\ 25'34 morning rise 3°**)**€33'38 -5247 Jul 23 j 10:48 12°¥40′09 direct -5254 Dec 26 j 21:48 retrograde -5253 Mar 26 j 13:47 evening set 4°**)**(48'03 opposition -5247 Oct 12 j 17:18 11°**)** 39'22 -9°43'27 min. Earth dist. -5247 Oct 14 j 00:44 11°**)** 37'49 45.13276 AU -5246 Jan 02 j 15:24 conjunction -5253 Apr 06 j 18:44 5°\mathbf{1}03'33 -10°52'21 direct 10°**)** 37'49 -5253 Apr 06 j 18:58 5°\(\mathbf{H}\) 03'34 \quad 10°52'30 -5246 Apr 01 j 02:29 11°**)** 51'35 minimum elong evening set -5253 Apr 05 j 15:56 5°**₭**02'00 47.97492 AU -5246 Apr 12 j 09:42 12°**₭**07'27 47.03123 AU max. Earth dist. max. Earth dist. -5253 Apr 18 j 00:15 morning rise 5°**米**19'07 -5253 Jul 17 j 18:46 -5246 Apr 13 j 22:53 12°**米**09'39 -9°11'08 retrograde 6°**)** 34'37 conjunction -5246 Apr 13 j 23:05 12°**米**09'40 9°11'14 opposition -5253 Oct 07 j 07:42 5°**)** 34'15 -11°13'29 minimum elong min. Earth dist. -5253 Oct 08 j 08:44 5°**¥**33'02 45.94918 AU morning rise -5246 Apr 26 j 19:42 12°**)** 27'44 direct -5253 Dec 28 j 02:56 4°**)**€33'22 retrograde -5246 Jul 24 j 16:55 13°**)** 42'13 evening set -5252 Mar 26 j 14:47 5°**)**47'38 opposition -5246 Oct 13 j 23:21 12°**)** 41′19 -9°27′29 max. Earth dist. -5252 Apr 05 j 21:50 6°**₭**01'54 47.85032 AU min. Earth dist. -5246 Oct 15 j 09:14 12°**₭**39'38 44.98097 AU -5245 Jan 03 j 22:58 11°**)** 39'37 direct -5252 Apr 07 j 01:42 6°¥03'31 -10°38'42 -5245 Apr 02 j 05:30 12°**升**53′20 conjunction evening set

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 12 Attention, astronomical year style is used: The year -5245 in astronomical counting style is the year 5246 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -5245 i	in astronomical co	unting style is the year	r 5246 BCE in historical c	ounting style.	
max. Earth dist.	-5245 Apr 13 j 17:09	13°) €09'30	46.87845 AU	min. Earth dist.	-5239 Oct 22 j 14:06	20°) €00'35	43.80980 AU
				direct	-5238 Jan 10 j 21:22	18° ¥ 59'45	
conjunction	-5245 Apr 15 j 07:04	13°) 11'44	-8°55'38	evening set	-5238 Apr 08 j 09:17	20°) 13′40	
minimum elong	-5245 Apr 15 j 07:16	13° ¥ 11'45	8°55'46	max. Earth dist.	-5238 Apr 20 j 19:34	20°) 31'32	45.70598 AU
morning rise	-5245 Apr 28 j 08:45	13° ¥ 30′10					
retrograde	-5245 Jul 25 j 22:24	14°) 44'32		conjunction	-5238 Apr 22 j 18:16	20°) 34′21	-6°59'28
opposition	-5245 Oct 15 j 05:31	13°) 43′30	-9°11'16	minimum elong	-5238 Apr 22 j 18:26	20°) 34′22	
min. Earth dist.	-5245 Oct 16 j 16:10		44.82419 AU	morning rise	-5238 May 07 j 02:54	20°) 55′03	
direct	-5244 Jan 05 j 07:02	12°) (41'39		retrograde	-5238 Aug 02 j 08:09	22°) €09'15	
evening set	-5244 Apr 02 j 08:44	13°) 55'19		opposition	-5238 Oct 22 j 04:03	21°) €07'18	-7°09'27
max. Earth dist.	-5244 Apr 13 j 22:38		46.72092 AU	min. Earth dist.	-5238 Oct 23 j 22:34		43.63132 AU
	1 3			direct	-5237 Jan 12 j 03:38	20°) €04'15	
conjunction	-5244 Apr 15 j 15:02	14°) 14'03	-8°39'53	evening set	-5237 Apr 09 j 14:43	21°) 18'19	
minimum elong	-5244 Apr 15 j 15:15	14°) € 14'04		max. Earth dist.	-5237 Apr 22 j 03:17		45.52736 AU
morning rise	-5244 Apr 28 j 21:45	14°) 32'49				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
retrograde	-5244 Jul 26 j 07:40	15°) (47'06		conjunction	-5237 Apr 24 j 03:28	21°) 39'18	-6°41'44
opposition	-5244 Oct 15 j 11:46	14°)(45'56	-8°54'45	minimum elong	-5237 Apr 24 j 03:38	21°) 39'19	
min. Earth dist.	-5244 Oct 16 j 23:50		44.66308 AU	morning rise	-5237 May 08 j 16:01	22° \ 00'18	0 11 10
direct	-5243 Jan 05 j 11:26	13°) 43'54	11.00500710	retrograde	-5237 Aug 03 j 18:45	23°) 14'34	
evening set	-5243 Apr 03 j 12:04	14° H 57'33		opposition	-5237 Oct 23 j 11:19	22°) 12'31	-6°50'50
max. Earth dist.	-5243 Apr 15 j 06:13		46.55919 AU	min. Earth dist.	-5237 Oct 25 j 06:21		43.44968 AU
max. Earth dist.	324371pt 13 j 00.13	13 7(1411	40.33717710	direct	-5236 Jan 13 j 11:01	21° X 09'19	+3.++700 <i>I</i> (C
conjunction	-5243 Apr 16 j 23:18	15°) 16'37	8023151	evening set	-5236 Apr 09 j 20:18	22°\(\frac{1}{23}\)	
minimum elong	-5243 Apr 16 j 23:30	15° X 16'38		max. Earth dist.	-5236 Apr 22 j 10:48		45.34497 AU
morning rise	-5243 Apr 30 j 10:36	15° X 35'43	8 23 37	max. Earth dist.	-3230 Apr 22 j 10.46	22 /(414/	43.34497 AU
-	-5243 Jul 27 j 16:23	16°) (49'55		aamiumatiam	5226 Amr 24: 12:49	22°) 44′50	6922142
retrograde	=		0027157	conjunction	-5236 Apr 24 j 12:48	22° X 44'50 22° X 44'50	
opposition	-5243 Oct 16 j 18:07	15° ¥ 48'37		minimum elong	-5236 Apr 24 j 12:58		0 23 40
min. Earth dist.	-5243 Oct 18 j 07:51		44.49808 AU	morning rise	-5236 May 09 j 04:58	23°) €06'08	
direct	-5242 Jan 06 j 17:13	14°) (46'23		retrograde	-5236 Aug 04 j 03:46	24°) € 20′29	6021155
evening set	-5242 Apr 04 j 15:46	16°) €00'03	46 20 402 444	opposition	-5236 Oct 23 j 18:56	23°) €18'18	
max. Earth dist.	-5242 Apr 16 j 13:04	16°大16'55	46.39403 AU	min. Earth dist.	-5236 Oct 25 j 16:15		43.26408 AU
	5040 4 40:07.04	1.601/1.0107	000000	direct	-5235 Jan 13 j 19:47	22°) 14'56	
conjunction	-5242 Apr 18 j 07:34	16° ¥ 19'27		evening set	-5235 Apr 11 j 02:20	23°) (29′19	
minimum elong	-5242 Apr 18 j 07:46	16° ¥ 19'27	8°07'38	max. Earth dist.	-5235 Apr 23 j 19:47	23° 光 47'49	45.15847 AU
morning rise	-5242 May 01 j 23:30	16°) € 38'52					
retrograde	-5242 Jul 29 j 00:53	17°) €53'01		conjunction	-5235 Apr 25 j 22:29		
opposition	-5242 Oct 18 j 00:33	16° 米 51'34		minimum elong	-5235 Apr 25 j 22:38	23° ¥ 50′55	6°05'27
min. Earth dist.	-5242 Oct 19 j 14:26		44.32989 AU	morning rise	-5235 May 10 j 18:03	24° € 12'31	
direct	-5241 Jan 07 j 23:58			retrograde	-5235 Aug 05 j 10:28		
evening set	-5241 Apr 05 j 19:45	17°) €02'51		opposition	-5235 Oct 25 j 02:35	24°) (24'38	
max. Earth dist.	-5241 Apr 17 j 19:50	17° 升 19′56	46.22569 AU	min. Earth dist.	-5235 Oct 27 j 00:24		43.07407 AU
				direct	-5234 Jan 15 j 05:50	23° ∺ 21′04	
conjunction	-5241 Apr 19 j 16:02	17° ∺ 22'34		evening set	-5234 Apr 12 j 08:50	24°) 35′37	
minimum elong	-5241 Apr 19 j 16:12	17° ¥ 22'35	7°51'02	max. Earth dist.	-5234 Apr 25 j 02:54	24° ∺ 54'14	44.96738 AU
morning rise	-5241 May 03 j 12:24	17°) 42'19					
retrograde	-5241 Jul 30 j 06:43	18° ¥ 56′26		conjunction	-5234 Apr 27 j 08:17	24°) 57'31	
opposition	-5241 Oct 19 j 07:12	17° ¥ 54'50		minimum elong	-5234 Apr 27 j 08:27	24°) 57′32	5°46'52
min. Earth dist.	-5241 Oct 20 j 23:02		44.15890 AU	morning rise	-5234 May 12 j 07:22	25°) 19′25	
direct	-5240 Jan 09 j 08:35	16° ¥ 52'16		retrograde	-5234 Aug 06 j 19:47	26° ∺ 33'59	
evening set	-5240 Apr 05 j 23:58	18° ¥ 06′01		opposition	-5234 Oct 26 j 10:34	25° ∺ 31′29	
max. Earth dist.	-5240 Apr 18 j 04:27	18° ∺ 23'24	46.05488 AU	min. Earth dist.	-5234 Oct 28 j 10:16		42.87954 AU
				direct	-5233 Jan 16 j 12:57	24°) €27'42	
conjunction	-5240 Apr 20 j 00:40	18° ∺ 26′03		evening set	-5233 Apr 13 j 15:37	25°) 42′26	
minimum elong	-5240 Apr 20 j 00:51	18°) €26′04	7°34'10	max. Earth dist.	-5233 Apr 26 j 12:25	26° ∺ 01'17	44.77165 AU
morning rise	-5240 May 04 j 01:11	18°) (46′07					
retrograde	-5240 Jul 30 j 12:35	20° ₭ 00'13		conjunction	-5233 Apr 28 j 18:29	26° 米 04'37	
opposition	-5240 Oct 19 j 14:01	18° ¥ 58'31		minimum elong	-5233 Apr 28 j 18:37	26° ∺ 04'38	5°27'59
min. Earth dist.	-5240 Oct 21 j 05:58		43.98549 AU	morning rise	-5233 May 13 j 20:31	26° ∺ 26'48	
direct	-5239 Jan 09 j 17:18	17° ¥ 55'47		retrograde	-5233 Aug 08 j 05:52	27°) 41'29	
evening set	-5239 Apr 07 j 04:26	19° ₩ 09'35		opposition	-5233 Oct 27 j 18:42	26°) 38′48	
max. Earth dist.	-5239 Apr 19 j 10:50	19°) 27′10	45.88170 AU	min. Earth dist.	-5233 Oct 29 j 19:52		42.68050 AU
				direct	-5232 Jan 17 j 19:58	25°) (34'47	
conjunction	-5239 Apr 21 j 09:12	19° ¥ 29'57		evening set	-5232 Apr 13 j 22:50	26°) (49′42	
minimum elong	-5239 Apr 21 j 09:22	19°) 29′58	7°17'00	max. Earth dist.	-5232 Apr 26 j 20:40	27°) €08'42	44.57181 AU
morning rise	-5239 May 05 j 14:01	19° ¥ 50′20					
retrograde	-5239 Jul 31 j 22:50	21°) €04'29		conjunction	-5232 Apr 29 j 04:39	27° ¥ 12′10	-5°08'48
opposition	-5239 Oct 20 j 20:59	20° ∺ 02'39	-7°27'46	minimum elong	-5232 Apr 29 j 04:47	27° ¥ 12'11	5°08'51

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5232 in astronomical counting style is the year 5233 BCE in historical counting style. -5232 May 14 i 09:50 27° **)** 34'37 direct -5225 Jan 25 j 10:41 3°Y37'48 morning rise -5232 Aug 08 j 18:08 28°¥49'26 -5225 Apr 22 j 11:35 4°Y54'47 retrograde evening set -5232 Oct 28 j 02:58 27°**)**(46'33 -5°13'16 max. Earth dist. -5225 May 05 j 19:17 5°Υ15'03 43.09753 AU opposition -5232 Oct 30 j 04:41 min. Earth dist. 27°**)** 44'00 42.47769 AU -5231 Jan 18 j 02:02 -5225 May 08 j 10:02 5°Υ19'05 -2°46'35 direct 26°**)** 42'17 conjunction -5225 May 08 j 10:07 5°Υ19'05 2°46'35 evening set -5231 Apr 15 j 06:09 27°**)** 57'25 minimum elong max. Earth dist. -5225 May 24 j 06:59 5°Y43'19 -5231 Apr 28 j 05:33 28°**₭**16'35 44.36821 AU morning rise -5225 Aug 17 j 20:13 6°**Y**59'45 retrograde 5°Y55'25 -2°43'35 conjunction -5231 Apr 30 j 14:57 28°**H**20'09 -4°49'22 opposition -5225 Nov 05 j 19:28 minimum elong -5231 Apr 30 j 15:05 28°**升**20'10 4°49'24 min. Earth dist. -5225 Nov 08 j 03:32 5°**Y**52'27 40.98976 AU morning rise -5231 May 15 j 22:54 28°**)** 42'53 direct -5224 Jan 26 j 22:05 4°Υ49'24 -5231 Aug 10 j 03:29 6°**Y**06'49 retrograde 29°****57'51 evening set -5224 Apr 22 j 22:18 -5231 Oct 29 j 11:33 -5224 May 06 j 05:19 6°Υ27'10 42.87819 AU opposition 28°**)** 54'44 -4°52'50 max. Earth dist. min. Earth dist. -5231 Oct 31 j 15:17 28°**)** 52'04 42.27149 AU direct -5230 Jan 19 j 12:10 27°**升**50'13 conjunction -5224 May 08 j 22:13 6° Y 31'21 -2° 25'06 evening set -5230 Apr 16 j 14:00 29°**₭**05'34 minimum elong -5224 May 08 j 22:17 6°Υ31'21 2°25'05 max. Earth dist. -5230 Apr 29 j 15:50 29°**₭**24'59 44.16159 AU morning rise -5224 May 24 j 20:40 6°Y55'50 retrograde -5224 Aug 18 j 07:25 8°Y12'37 conjunction -5230 May 02 j 01:36 29°\ 28'36 -4°29'39 opposition -5224 Nov 06 j 05:53 7°Υ08'05 -2°20'56 29°**)** 28'36 4°29'40 minimum elong -5230 May 02 j 01:43 min. Earth dist. -5224 Nov 08 j 15:56 7°Υ05'00 40.76838 AU morning rise -5230 May 17 j 12:11 29°**)** €51'35 direct -5223 Jan 27 j 08:34 6°**Y**01'49 -5230 May 23 j 08:00 $0^{\circ}\Upsilon$ evening set -5223 Apr 24 i 09:17 7°**Υ**19'41 retrograde -5230 Aug 11 j 11:23 max. Earth dist. -5223 May 07 j 17:38 7°**Υ**40'13 42.65558 AU opposition -5230 Oct 30 j 20:07 0°Υ03'23 -4°32'05 min. Earth dist. -5230 Nov 01 j 23:59 0°**Υ**00'41 42.06257 AU conjunction -5223 May 10 j 10:44 7°Y44'27 -2°03'19 -5230 Nov 02 j 13:12 -5223 May 10 j 10:48 7°Y44'28 2°03'17 30°**₹** minimum elong direct -5229 Jan 21 j 00:19 28°¥58'35 -5223 May 26 j 10:20 8°Y09'09 morning rise -5229 Apr 08 j 00:24 $0^{\circ}\Upsilon$ -5223 Aug 19 j 17:52 9°Y26'20 retrograde 0°Υ14'12 -5223 Nov 07 j 16:38 8°Y21'35 -1°57'58 evening set -5229 Apr 17 j 22:23 opposition -5223 Nov 10 j 03:32 max. Earth dist. -5229 May 01 j 00:29 0°Υ33'44 43.95243 AU 8°**Υ**18'27 40.54339 AU min. Earth dist. -5222 Jan 28 j 20:01 7°**Y**15′04 direct -5229 May 03 j 12:24 0°**Y**37'30 -4°09'38 8°Y33'24 conjunction evening set -5222 Apr 25 j 21:13 -5229 May 03 j 12:31 0°**Y**37'30 4°09'38 max. Earth dist. -5222 May 09 j 04:07 8°**Y**53'59 42.42925 AU minimum elong -5229 May 19 j 01:32 1°**Y**00'45 morning rise -5229 Aug 12 j 21:15 2°Y16'03 -5222 May 11 j 23:37 8°Υ58'24 -1°41'14 retrograde conjunction 8° **Y**58'24 1°41'12 -5229 Nov 01 j 05:08 1°Υ12'31 -4°11'02 -5222 May 11 j 23:40 opposition minimum elong 1°**Υ**09'44 41.85156 AU -5229 Nov 03 j 10:28 -5222 May 28 j 00:25 9°**Y**23'19 min. Earth dist. morning rise direct -5228 Jan 22 j 09:16 0° $\Upsilon 07'28$ retrograde -5222 Aug 21 j 08:01 10°**Y**40′54 -5228 Apr 18 j 06:50 1°Y23'22 opposition -5222 Nov 09 j 03:32 9°Y35'55 -1°34'42 evening set max. Earth dist. -5228 May 01 j 11:35 1°**Υ**43'08 43.74128 AU min. Earth dist. -5222 Nov 11 j 15:35 9°**Υ**32'42 40.31476 AU direct -5221 Jan 30 j 04:17 8° **Y**29'06 -5228 May 03 j 23:22 1°Y46'55 -3°49'19 -5221 Apr 27 j 09:33 9°Y47'57 conjunction evening set -5228 May 03 j 23:29 1°**Y**46'55 3°49'20 max. Earth dist. -5221 May 10 j 16:28 10°Y08'39 42.19903 AU minimum elong -5228 May 19 j 14:36 2°Υ10'25 morning rise -5228 Aug 13 j 06:26 3°Y25'58 -5221 May 13 j 13:00 10°**Y**13'09 -1°18'53 retrograde conjunction -5228 Nov 01 j 14:24 2°Y22'13 -3°49'39 opposition minimum elong -5221 May 13 j 13:03 10°**Y**13′09 1°18′52 10°**Y**38'17 min. Earth dist. -5228 Nov 03 j 20:16 2°Υ19'24 41.63872 AU morning rise -5221 May 29 j 14:26 direct -5227 Jan 22 j 18:58 1°Y16'55 retrograde -5221 Aug 22 j 21:39 11°Y56'17 evening set -5227 Apr 19 i 15:58 2°Y33'07 opposition -5221 Nov 10 j 15:00 10°Υ51'03 -1°11'06 max. Earth dist. -5227 May 02 j 21:16 2°**Υ**53'02 43.52857 AU min. Earth dist. -5221 Nov 13 j 04:52 10°**Y**47'44 40.08241 AU direct -5220 Jan 31 j 14:57 9°Y43'57 evening set -5227 May 05 j 10:33 2°Y56'55 -3°28'42 -5220 Apr 27 j 22:20 11°Y03'19 conjunction -5227 May 05 j 10:39 2°Y56'56 3°28'43 max. Earth dist. -5220 May 11 j 04:53 11°**Υ**24'07 41.96538 AU minimum elong 3°Y20'41 morning rise -5227 May 21 j 04:01 4°Υ36'30 retrograde -5227 Aug 14 j 19:41 conjunction -5220 May 14 j 02:23 11°Y28'43 -0°56'15 opposition -5227 Nov 02 j 23:44 3°Y32'32 -3°27'57 minimum elong -5220 May 14 j 02:25 11°Υ28'43 0°56'13 11°Y54'02 min. Earth dist. -5227 Nov 05 j 06:01 3°**Y**29'41 41.42445 AU morning rise -5220 May 30 j 04:29 13°**Υ**12'29 -5226 Jan 24 j 01:54 2°Y26'59 -5220 Aug 23 j 12:23 direct retrograde 3°Y43'34 -5220 Nov 11 j 02:36 12°**Y**′07′00 -0°47′13 evening set -5226 Apr 21 j 01:29 opposition -5226 May 04 j 07:57 4°**Υ**03'39 43.31407 AU -5220 Nov 13 j 16:40 12°**Y**03'39 39.84690 AU max. Earth dist. min. Earth dist. 10°Y59'34 direct -5219 Feb 01 j 03:55 conjunction -5226 May 06 j 22:10 4°**Y**07'37 -3°07'48 evening set -5219 Apr 29 j 11:45 12°**Y**19′29 minimum elong -5226 May 06 j 22:15 4°Υ07'38 3°07'48 max. Earth dist. -5219 May 12 j 16:45 12°**Y**40′20 41.72859 AU morning rise -5226 May 22 j 17:25 4°**Υ**31'38 retrograde -5226 Aug 16 j 08:50 5°**Y**47'44 conjunction -5219 May 15 j 16:14 12°**Y**45′05 -0°33′20 -5226 Nov 04 j 09:32 4°Υ43'35 -3°05'56 -5219 May 15 j 16:15 12°**Y**45'05 0°33'19 opposition minimum elong min. Earth dist. -5226 Nov 06 j 17:34 4°**Υ**40'38 41.20826 AU -5219 May 31 j 18:39 13°Y10'35 morning rise

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5219 in astronomical counting style is the year 5220 BCE in historical counting style. 14°**Y**29'31 -5219 Aug 25 j 02:30 min. Earth dist. -5213 Nov 23 i 17:51 21°Υ19'42 38.15153 AU retrograde -5219 Nov 12 j 14:30 13°Y23'45 -0°23'01 -5212 Feb 10 j 23:23 20°**Y**13'43 opposition direct -5219 Nov 15 j 06:35 13°**Y**20'16 39.60874 AU -5212 May 09 j 03:06 21°Y38'36 min. Earth dist. evening set 12°Υ15'59 -5218 Feb 02 j 16:38 -5212 May 21 j 21:45 21°Υ59'48 40.02719 AU max. Earth dist. direct 13°**Y**36'29 evening set -5218 May 01 j 01:40 22°**Υ**05'12 2°14'36 13°**Y**57'29 41.48938 AU max. Earth dist. -5218 May 14 j 06:58 conjunction -5212 May 25 j 02:59 -5212 May 25 j 02:54 22°**Y**05'11 minimum elong 2°14'42 -5212 Jun 10 j 00:14 22°Υ31'39 14°Υ02'16 -0°10'10 conjunction -5218 May 17 j 06:28 morning rise 23°**Y**54'59 0°10'07 minimum elong -5218 May 17 j 06:28 14°**Y**02'16 retrograde -5212 Sep 03 j 13:14 behind sun begin -5218 May 17 j 01:17 14°**Y**01′57 opposition -5212 Nov 21 j 13:10 22°\bar{Y}47'14 2°34'36 behind sun end -5218 May 17 j 11:39 14°**Y**02'36 min. Earth dist. -5212 Nov 24 j 10:18 22°**Y**43'21 37.90473 AU -5218 Jun 02 j 08:54 14°**Y**27'57 -5211 Feb 11 j 13:33 21°Y37'09 morning rise direct 23°**Y**02'55 retrograde -5218 Aug 26 j 13:46 15°**Y**47′22 evening set -5211 May 10 j 21:55 asc. node -5218 Oct 22 j 22:40 15°**Y**09'23 max. Earth dist. -5211 May 23 j 14:49 23°Y24'08 39.77860 AU opposition -5218 Nov 14 j 02:48 14°**Υ**41'19 0°01'30 min. Earth dist. -5218 Nov 16 j 19:01 14°**Y**37'49 39.36842 AU conjunction -5211 May 26 j 20:06 23°**Y**29'35 2°39'35 direct -5217 Feb 04 j 06:54 13°**Y**33'14 minimum elong -5211 May 26 j 20:01 23°**Y**29'35 2°39'40 evening set -5217 May 02 j 16:19 14°Y54'21 morning rise -5211 Jun 11 j 15:17 23°Y56'07 max. Earth dist. -5217 May 15 j 19:29 15°**Y**15'20 41.24827 AU retrograde -5211 Sep 05 j 03:36 25°Y20'15 opposition -5211 Nov 23 j 04:26 24°**Ƴ**12'12 3°01'05 conjunction -5217 May 18 j 20:50 15°Υ20'17 0°13'23 min. Earth dist. -5211 Nov 26 j 02:22 24°Υ08'15 37.65566 AU minimum elong -5217 May 18 j 20:50 15°**Y**20′17 0°13'26 direct -5210 Feb 13 i 05:24 23°Y01'45 behind sun begin -5217 May 18 j 17:18 15°Y20'04 evening set -5210 May 12 j 17:47 24°Y28'26 behind sun end -5217 May 19 j 00:22 15°Y20'31 max. Earth dist. -5210 May 25 j 06:30 24°Υ49'33 39.52763 AU -5217 Jun 03 j 23:13 15°Y46'08 morning rise -5217 Aug 28 j 03:25 17°**Y**′06′06 -5210 May 28 j 13:37 24°Y55'10 3°04'48 retrograde conjunction opposition -5217 Nov 15 j 15:27 15°**Υ**59'45 0°26'18 -5210 May 28 j 13:31 24°**Y**55'10 3°04'54 minimum elong -5217 Nov 18 j 08:40 15°**Y**56'11 39.12675 AU -5210 Jun 13 j 06:42 25°**Y**21'45 min. Earth dist. morning rise -5216 Feb 05 j 18:17 14° **Y**51'20 -5210 Sep 06 j 21:54 26°**Y**46'44 retrograde direct 25°**Υ**38'21 3°27'49 -5216 May 03 j 07:24 16°Y13'05 -5210 Nov 24 j 20:15 opposition evening set 16°**Y**34'13 41.00584 AU -5210 Nov 27 j 18:53 25°Υ34'20 37.40427 AU max. Earth dist. -5216 May 16 j 10:24 min. Earth dist. -5209 Feb 14 j 18:58 24°**Y**27'31 direct 16°**Υ**39'12 0°37'06 -5216 May 19 j 11:44 -5209 May 14 j 14:18 25°**Y**55'09 conjunction evening set 16°**Y**'39'12 0°37'10 -5216 May 19 j 11:43 max. Earth dist. -5209 May 26 j 23:42 26°**Y**16′12 39.27401 AU minimum elong -5216 Jun 04 j 13:29 17°**Y**05′11 morning rise 26°**Y**21'56 3°30'14 -5216 Aug 28 j 17:46 18°**Y**25'45 -5209 May 30 j 07:42 retrograde conjunction $26^{\circ}\Upsilon^{21'56}$ $3^{\circ}30'20$ -5209 May 30 j 07:35 opposition -5216 Nov 16 j 04:37 17°**Y**19'07 0°51'24 minimum elong min. Earth dist. -5216 Nov 18 j 22:44 17°**Υ**15'28 38.88407 AU morning rise -5209 Jun 14 j 22:00 26°**Y**48'33 -5215 Feb 06 j 05:24 16°**Y**10′21 retrograde -5209 Sep 08 j 16:07 28°**Y**14'24 direct -5215 May 04 j 23:10 17°**Y**32'49 opposition -5209 Nov 26 j 12:41 27°**Y**05'40 3°54'47 evening set max. Earth dist. -5215 May 18 j 00:30 17°**Y**′53'59 40.76270 AU min. Earth dist. -5209 Nov 29 j 13:03 27°**Υ**01'32 37.15046 AU -5208 Feb 16 j 09:02 25°**Y**54′26 direct -5215 May 21 j 02:46 17°**Y**′59'04 1°01'05 -5208 May 15 j 11:43 27°Y23'05 conjunction evening set -5215 May 21 j 02:44 17°**Y**59'03 1°01'09 max. Earth dist. -5208 May 27 j 17:32 27°**Υ**44'03 39.01827 AU minimum elong -5215 Jun 06 j 03:58 18°**Y**25'11 morning rise -5208 May 31 i 02:09 27°**Y**'49'52 3°55'52 retrograde -5215 Aug 30 j 10:50 19°**Y**46′23 conjunction -5208 May 31 i 02:01 27°**Ƴ**49'51 opposition -5215 Nov 17 j 18:02 18°**Y**39'28 1°16'47 minimum elong 3°55'58 28°Y16'29 min. Earth dist. -5215 Nov 20 j 12:00 18°**Υ**35'49 38.64080 AU morning rise -5208 Jun 15 i 13:36 29°**Y**43'15 direct -5214 Feb 07 i 16:31 17° Y 30'22 retrograde -5208 Sep 09 j 11:43 -5214 May 06 j 15:45 18°Y53'36 opposition -5208 Nov 27 j 05:26 28°Y34'09 4°21'59 evening set max. Earth dist. -5214 May 19 j 15:04 19°**Y**14'47 40.51867 AU min. Earth dist. -5208 Nov 30 j 05:39 28°**Y**30'01 36.89483 AU direct -5207 Feb 17 j 02:36 27°**Y**22'30 -5214 May 22 j 18:29 19°**Υ**19'58 1°25'21 28°Y52'11 conjunction evening set -5207 May 17 j 09:52 29°Υ12'59 38.76069 AU minimum elong -5214 May 22 j 18:26 19°**Y**19′58 1°25'26 max. Earth dist. -5207 May 29 j 10:43 19°\46'13 -5214 Jun 07 j 18:35 morning rise -5214 Sep 01 j 03:39 retrograde 21°Y08'05 conjunction -5207 Jun 01 j 21:03 29°Υ18'58 4°21'41 -5207 Jun 01 j 20:54 4°21'49 opposition -5214 Nov 19 j 07:56 20°**Y**'00'53 1°42'27 minimum elong 29°**Υ**18'58 19°**Ƴ**57'08 38.39673 AU 29°**Y**45'35 -5214 Nov 22 j 03:35 -5207 Jun 17 j 05:11 min. Earth dist. morning rise 18°Y51'29 -5207 Jun 25 j 19:37 0°8 direct -5213 Feb 09 j 06:48 20°Y15'30 -5207 Sep 11 j 07:52 evening set -5213 May 08 j 09:04 retrograde 1°**8**13'18 20°**Y**36'47 40.27371 AU max. Earth dist. -5213 May 21 j 07:21 opposition -5207 Nov 28 j 22:48 0°**8**03'49 4°49'24 -5207 Dec 01 j 16:58 30°**Ŗ**♈ conjunction -5213 May 24 j 10:37 20°**Y**42′00 1°49′51 min. Earth dist. -5207 Dec 02 j 00:42 29°**Y**59'33 36.63784 AU minimum elong -5213 May 24 j 10:33 20°**Y**42′00 1°49'55 direct -5206 Feb 18 j 20:16 28°**Y**51'44 morning rise -5213 Jun 09 j 09:24 21°**Y**08'21 -5206 May 05 j 19:38 0° 8 -5213 Sep 02 j 20:15 22°Y30'56 -5206 May 19 j 08:58 0°822'32 retrograde evening set -5213 Nov 20 j 22:18 21°**Υ**23'28 2°08'24 max. Earth dist. -5206 May 31 j 06:41 0°843'16 38.50197 AU opposition

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Earth dist. 1°**8**30'25 36.38013 AU morning rise -5199 Sep 24 j 14:42 14°**8**04'13 direct -5205 Feb 20 j 16:07 0°**8**22'11 retrograde -5199 Dec 11 j 14:31 8°33'24 evening set -5205 May 21 j 09:05 1°**8**54'08 opposition 12°**8**51'47 -5199 Dec 14 j 18:32 max. Earth dist. -5205 Jun 02 j 01:03 2°**8**14'38 38.24284 AU min. Earth dist. 12°**8**47'10 34.60097 AU direct -5198 Mar 03 j 08:12 11°**8**36'19 conjunction -5205 Jun 05 j 12:27 2°**8**20'49 5°13'50 evening set -5198 Jun 03 j 14:01 13°**8**18'27 -5205 Jun 05 j 12:16 2°**8**20'48 5°13'58 -5198 Jun 13 j 11:00 13°**8**37'01 36.45324 AU minimum elong max. Earth dist. -5205 Jun 20 j 12:49 2°847'19 morning rise retrograde -5205 Sep 14 j 22:23 4°817'07 conjunction -5198 Jun 17 j 00:02 13°843'45 8°18'58 opposition -5205 Dec 02 j 11:01 3°**8**06'52 5°44'46 minimum elong -5198 Jun 16 j 23:44 13°**8**43'44 8°19'09 min. Earth dist. -5205 Dec 05 j 13:32 3°**8**02'30 36.12266 AU morning rise -5198 Jun 30 j 07:07 14°808'51 direct -5204 Feb 22 j 09:11 1°**8**53'54 -5198 Jul 30 j 00:02 15°8 evening set -5204 May 22 j 09:46 3°**8**27'04 retrograde -5198 Sep 26 j 15:12 15°**8**48'07 max. Earth dist. -5204 Jun 02 j 21:56 3°847'28 37.98401 AU -5198 Nov 26 j 08:41 15°R\ opposition -5198 Dec 13 j 13:29 14°**8**35'18 9°01'37 conjunction -5204 Jun 06 j 08:47 3°**8**53'40 5°40'06 min. Earth dist. -5198 Dec 16 j 18:02 14°**8**30'37 34.35004 AU minimum elong -5204 Jun 06 i 08:35 3°**8**53'39 5°40'14 direct -5197 Mar 05 i 05:34 13°**8**19'23 morning rise -5204 Jun 21 i 04:28 4°**8**20'04 -5197 Jun 04 i 05:19 15°8 retrograde -5204 Sep 15 i 16:58 5°**8**51'00 evening set -5197 Jun 05 i 22:53 15°**8**03'15 opposition -5204 Dec 03 j 06:05 4°**8**40'23 6°12'40 max. Earth dist. -5197 Jun 15 j 12:23 15°**8**21'25 36.19990 AU -5204 Dec 06 j 09:01 4°835'58 35.86590 AU min. Earth dist. -5203 Feb 23 j 03:18 3°**8**26'59 -5197 Jun 19 i 01:05 15°**8**28'11 direct conjunction 8°45'25 -5203 May 24 j 11:45 5°**8**01'27 -5197 Jun 19 j 00:46 15°**8**28'09 minimum elong 8°45'38 evening set -5203 Jun 04 j 18:17 -5197 Jul 02 j 00:04 15°**8**52'54 max. Earth dist. 5°**8**21'38 37.72626 AU morning rise -5197 Sep 28 j 14:54 17°**8**33'48 retrograde -5203 Jun 08 j 05:41 opposition -5197 Dec 15 j 13:26 16°**8**20'34 9°29'47 conjunction 5°**8**27'55 6°06'28 16°**8**15'49 34.09937 AU -5203 Jun 08 j 05:29 -5197 Dec 18 j 18:44 5°**8**27'54 6°06'37 min. Earth dist. minimum elong 5°**8**54'12 -5203 Jun 22 j 20:35 -5196 Mar 06 j 03:32 15°**8**04'12 morning rise direct -5203 Sep 17 j 15:29 7°**8**26'21 -5196 Jun 07 j 08:59 16°**8**49'51 retrograde evening set -5203 Dec 05 j 01:29 6°**8**15'20 6°40'42 -5196 Jun 16 j 13:16 17°**8**07'28 35.94706 AU opposition max. Earth dist. -5203 Dec 08 j 03:56 6°**8**10'56 35.61054 AU min. Earth dist. -5202 Feb 24 j 20:19 5°**8**01'31 -5196 Jun 20 j 02:27 17°**8**14'21 9°11'47 direct conjunction -5202 May 26 j 14:42 6°837'22 minimum elong -5196 Jun 20 j 02:07 17°**8**14'19 9°11'58 evening set max. Earth dist. -5202 Jun 06 j 15:37 6°**8**57'19 37.46970 AU morning rise -5196 Jul 02 j 17:04 17°**8**38'39 retrograde -5196 Sep 29 j 17:46 19°**8**21'14 conjunction -5202 Jun 10 j 03:22 7°**8**03'41 6°32'55 opposition -5196 Dec 16 j 13:53 18°**8**07'35 9°57'51 -5202 Jun 10 j 03:08 7°**8**03'40 6°33'04 min. Earth dist. -5196 Dec 19 j 18:36 18°**8**02'50 33.84947 AU minimum elong -5202 Jun 24 j 12:46 7°**8**29'49 -5195 Mar 08 j 01:30 16°**8**50'43 morning rise direct -5202 Sep 19 j 14:08 9°**8**03'15 -5195 Jun 09 j 20:22 18°**8**38'15 retrograde evening set -5202 Dec 06 j 21:48 7°**8**51'53 7°08'48 max. Earth dist. -5195 Jun 18 j 15:12 18°**8**55'17 35.69494 AU opposition min. Earth dist. -5202 Dec 10 j 01:26 7°**と**47'23 35.35657 AU 6°837'39 -5195 Jun 22 i 04:47 19°802'15 9°38'01 direct -5201 Feb 26 i 14:03 conjunction -5195 Jun 22 i 04:26 evening set -5201 May 28 j 18:45 8°814'58 minimum elong 19°**8**02'14 9°38'14 max. Earth dist. -5201 Jun 08 j 14:19 8°**8**34'42 37.21454 AU morning rise -5195 Jul 04 i 10:13 19°**8**26'04 retrograde -5195 Oct 01 j 20:39 21°810'25 -5201 Jun 12 j 01:30 8°841'05 6°59'25 -5195 Dec 18 j 15:06 19°**8**56'19 10°25'46 conjunction opposition -5201 Jun 12 j 01:15 8°841'04 6°59'35 min. Earth dist. -5195 Dec 21 j 20:59 19°**8**51'28 33.60077 AU minimum elong -5201 Jun 26 j 05:03 9°807'01 direct -5194 Mar 10 j 01:29 18°**8**38'58 morning rise retrograde -5201 Sep 21 j 14:08 10°**8**41'48 evening set -5194 Jun 12 j 09:15 20°828'27 opposition -5201 Dec 08 j 18:38 9°**8**30'06 7°36'58 max. Earth dist. -5194 Jun 20 j 18:58 20°844'55 35.44439 AU min. Earth dist. -5201 Dec 11 j 21:33 9°**8**25'36 35.10391 AU -5200 Feb 28 j 12:14 8°815'28 conjunction -5194 Jun 24 j 07:43 20°**8**51'54 10°04'04 direct -5200 May 29 j 23:57 9°854'18 -5194 Jun 24 j 07:21 20°**8**51'52 10°04'16 evening set minimum elong -5200 Jun 09 j 11:51 10°**8**13'40 36.96030 AU -5194 Jul 06 j 03:22 21°**8**15'09 max. Earth dist. morning rise -5194 Oct 04 j 01:42 23°**8**01'20 retrograde -5200 Jun 13 j 00:19 10°**8**20'12 7°25'56 -5194 Dec 20 j 17:05 21°**8**46'47 10°53'29 conjunction opposition minimum elong -5200 Jun 13 j 00:02 10°**8**20'11 7°26'06 min. Earth dist. -5194 Dec 23 j 21:57 21°**8**41'58 33.35402 AU 10°**8**45'55 morning rise -5200 Jun 26 j 21:35 direct -5193 Mar 12 j 04:20 20°**8**28'56 retrograde -5200 Sep 22 j 15:42 12°**8**22'07 evening set -5193 Jun 14 j 23:16 22°**8**20'27 opposition -5200 Dec 09 j 16:11 11°**8**10'03 8°05'11 max. Earth dist. -5193 Jun 22 j 21:48 22°**8**36'11 35.19601 AU -5200 Dec 12 j 20:16 11°**8**05'28 34.85226 AU min. Earth dist. -5199 Mar 01 j 09:13 9°**8**55'00 -5193 Jun 26 j 11:11 22°**8**43'16 10°29'52 direct conjunction

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Earth dist. -5192 Jun 24 j 03:46 24°**8**29'24 34.95083 AU morning rise 6°**Ⅱ**53'06 retrograde -5186 Oct 20 j 12:53 8°**Ⅱ**58'05 conjunction -5192 Jun 27 j 15:28 24°**8**36'26 10°55'23 opposition -5185 Jan 05 j 15:51 7°**II**40'13 14°20'18 minimum elong -5192 Jun 27 j 15:05 24°**8**36'24 10°55'36 min. Earth dist. -5185 Jan 08 j 16:53 7°**Д**35'25 31.52336 AU -5192 Jul 08 j 13:25 24°**8**58'22 -5185 Mar 27 j 15:06 morning rise direct 6°**Ⅱ**18'49 -5192 Oct 07 j 11:19 26°848'31 -5185 Jul 06 j 05:05 retrograde evening set 8°**Ⅲ**31'01 opposition -5192 Dec 23 j 23:32 25°**8**33'03 11°48'05 max. Earth dist. -5185 Jul 09 j 13:25 8°**Д**38'14 33.35737 AU min. Earth dist. -5192 Dec 27 j 03:53 25°**8**28'12 32.86983 AU direct -5191 Mar 15 j 10:09 24°**8**14'12 conjunction -5185 Jul 12 j 18:58 8°II45'14 13°40'28 evening set -5191 Jun 19 j 07:51 26°810'06 minimum elong -5185 Jul 12 j 18:33 8°**Ⅱ**45'11 13°40'44 max. Earth dist. -5191 Jun 26 j 08:17 26°**8**24'19 34.70962 AU morning rise -5185 Jul 19 j 07:19 8°**Ⅲ**59'19 retrograde -5185 Oct 23 j 01:09 11°**II**07'18 conjunction -5191 Jun 29 j 20:21 26°**8**31'26 11°20'32 opposition -5184 Jan 08 j 01:54 9°**Ⅱ**49'03 14°43'20 minimum elong -5191 Jun 29 j 19:57 26°**8**31'24 11°20'46 min. Earth dist. -5184 Jan 11 j 01:27 9°**Д**44'19 31.31386 AU morning rise -5191 Jul 10 i 06:30 26°**8**52'35 direct -5184 Mar 29 i 01:55 8°**Ⅲ**27'14 retrograde -5191 Oct 09 i 18:15 28°**8**44'53 evening set -5184 Jul 08 i 13:23 10°**I**I42'47 opposition -5191 Dec 26 i 03:58 27°**8**28'59 12°14'49 max. Earth dist. -5184 Jul 10 j 23:54 10°**Ⅱ**48'06 33.14687 AU min. Earth dist. -5191 Dec 29 j 07:47 27°**8**24'08 32.63393 AU -5190 Mar 17 j 13:35 26°809'40 -5184 Jul 14 j 05:35 10°**I**I55'10 14°01'24 direct conjunction -5190 Jun 22 j 02:31 28°807'56 -5184 Jul 14 j 05:10 10°**Ⅱ**55′08 14°01'39 minimum elong evening set -5190 Jun 28 j 15:53 28°**8**21'20 34.47284 AU -5184 Jul 19 j 20:31 11°**Ⅱ**07'26 max. Earth dist. morning rise -5184 Oct 24 j 14:26 13°**Ⅱ**18'41 retrograde 12°**Ⅲ**00′01 15°05′29 -5190 Jul 02 j 02:11 28°**8**28'23 11°45'15 -5183 Jan 09 j 12:41 conjunction opposition -5190 Jul 02 j 01:47 -5183 Jan 12 j 11:54 11°**Д**55'17 31.10878 AU 28°**8**28'21 11°45'29 min. Earth dist. minimum elong -5183 Mar 31 j 11:10 28°**8**48'40 -5190 Jul 11 j 23:24 direct 10°**Ⅲ**37'47 morning rise 12°**I**57′02 -5183 Jul 12 j 02:13 -5190 Aug 19 j 18:54 $0^{\circ}\Pi$ evening set 13°**耳**00′16 32.94094 AU -5190 Oct 11 j 23:58 0°**Ⅱ**43'14 max. Earth dist. -5183 Jul 13 j 13:34 retrograde -5190 Dec 06 j 05:01 30°R₩ 13°**I**107'12 14°21'29 -5190 Dec 28 j 09:22 29°**8**26'54 12°41'06 -5183 Jul 16 j 17:06 opposition conjunction -5190 Dec 31 j 12:49 29°**8**22'03 32.40263 AU -5183 Jul 16 j 16:42 min. Earth dist. minimum elong 13°**Ⅲ**07'10 14°21'46 direct -5189 Mar 19 j 17:34 28°**8**07'09 morning rise -5183 Jul 21 j 06:49 13°**Ⅲ**17'17 -5189 Jun 21 j 02:05 $0^{\circ}II$ retrograde -5183 Oct 27 j 02:24 15°**Ⅲ**32'07 evening set -5189 Jun 24 j 22:59 $0^{\circ}\Pi 07'55$ opposition -5182 Jan 12 j 00:34 14°**Ⅲ**13'04 15°26'41 max. Earth dist. -5189 Jun 30 j 22:48 0°**Д**20'18 34.24094 AU min. Earth dist. -5182 Jan 14 j 22:40 14°**I**108′23 30.90830 AU -5182 Apr 02 j 22:47 12°**Ⅱ**50′25 direct -5189 Jul 04 j 08:40 0°II27'23 12°09'30 -5182 Jul 15 j 22:21 15°**Ⅱ**13'59 conjunction evening set -5189 Jul 04 j 08:15 0°**I**27'21 12°09'45 max. Earth dist. -5182 Jul 16 j 02:02 15°**Ⅱ**14'19 32.74014 AU minimum elong -5189 Jul 13 j 16:16 0°**I**I46'41 morning rise -5189 Oct 14 i 07:45 2°II43'39 -5182 Jul 19 i 05:10 15°**Ⅱ**21'17 14°40'36 retrograde conjunction -5189 Dec 30 i 15:33 -5182 Jul 19 i 04:46 opposition 1°**Д**26'56 13°06'51 minimum elong 15°**Ⅱ**21'15 14°40'53 1°**Д**22'09 32.17628 AU min. Earth dist. -5188 Jan 02 i 17:37 morning rise -5182 Jul 22 i 11:04 15°**Ⅱ**28'30 0°**I**106'45 direct -5188 Mar 20 j 21:44 retrograde -5182 Oct 29 j 17:11 17°**Ⅱ**47'35 -5188 Jun 26 j 21:01 2°**Ⅱ**10'09 opposition -5181 Jan 14 i 13:13 16°**Ⅲ**28'07 15°46'51 evening set max. Earth dist. -5188 Jul 02 j 07:07 2°**Д**21'28 34.01365 AU min. Earth dist. -5181 Jan 17 j 09:52 16°**Ⅲ**23'30 30.71332 AU direct -5181 Apr 05 j 10:13 15°**Ⅱ**05'03 max. Earth dist. -5188 Jul 05 j 15:56 2°II28'32 12°33'11 -5181 Jul 18 j 17:24 17°**Д**30'32 32.54518 AU conjunction 2°**II**28'30 12°33'26 evening set -5181 Jul 20 j 23:39 17°**Ⅲ**35'37 minimum elong -5188 Jul 05 j 15:32 2°**I**I46'45 morning rise -5188 Jul 14 j 08:46 retrograde -5188 Oct 15 j 15:32 4°**Ⅱ**46'15 conjunction -5181 Jul 21 j 18:06 17°**Ⅲ**37′20 14°58'42 opposition -5188 Dec 31 j 22:47 3°**耳**29'09 13°32'00 minimum elong -5181 Jul 21 j 17:44 17°**Ⅲ**37'18 14°59'00 -5187 Jan 04 j 01:04 3°**Ⅲ**24'19 31.95444 AU -5181 Jul 22 j 11:47 17°**Ⅲ**39′00 min. Earth dist. morning rise 2°II08'34 -5181 Nov 01 j 06:36 20°**Ⅱ**04'59 direct -5187 Mar 23 j 01:59 retrograde -5187 Jun 29 j 21:24 4°**Ⅱ**14'44 -5180 Jan 17 j 02:56 18°**Ⅱ**45′07 16°05'52 evening set opposition -5187 Jul 04 j 16:26 4°**Д**24'51 33.79084 AU -5180 Jan 19 j 22:45 18°**耳**40'32 30.52450 AU max. Earth dist. min. Earth dist. direct -5180 Apr 06 j 22:04 17°**Ⅲ**21'39 conjunction -5187 Jul 08 j 00:06 4°**I**31'53 12°56'17 max. Earth dist. -5180 Jul 20 j 08:14 19°**Ⅱ**48'35 32.35712 AU minimum elong -5187 Jul 07 j 23:41 4°**Ⅲ**31'51 12°56'33 morning rise -5187 Jul 16 j 00:58 4°**Ⅱ**48'54 conjunction -5180 Jul 23 j 07:25 19°**Д**55'18 15°15'39 -5187 Oct 18 j 01:43 6°**I**I51′03 -5180 Jul 23 j 07:03 19°**Ⅲ**55'16 15°15'56 retrograde minimum elong -5186 Jan 03 j 06:41 5°**Ⅲ**33'35 13°56'31 -5180 Nov 02 j 21:16 22°**I**I24'17 opposition retrograde

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5179 in astronomical counting style is the year 5180 BCE in historical counting style. -5179 Jan 18 j 17:19 21°**I**I04'01 16°23'38 opposition -5171 Feb 07 i 19:01 10°9540'20 17°49'47 opposition -5179 Jan 21 j 10:33 20°**Д**59'35 30.34287 AU -5171 Feb 09 j 19:12 10°536'59 29.19649 AU min. Earth dist. min. Earth dist. -5179 Apr 09 j 11:20 19°**Ⅱ**40′10 -5171 Apr 29 j 01:03 9°9314'31 direct direct 22°**II**08'35 32.17661 AU -5179 Jul 23 j 00:39 max. Earth dist. max. Earth dist. -5171 Aug 12 j 12:54 11°553'08 31.05212 AU -5179 Jul 25 j 21:39 16°43'32 conjunction 22°**Ⅱ**15'09 15°31'23 conjunction -5171 Aug 14 j 13:45 11°958'02 -5179 Jul 25 j 21:19 15°31'40 -5171 Aug 14 j 13:39 16°43'49 minimum elong 22°**Ⅲ**15′07 minimum elong 11°958'02 -5179 Nov 05 j 11:32 retrograde 24°**II**45′26 retrograde -5171 Nov 25 j 20:57 14°936'58 17°52'33 opposition -5178 Jan 21 j 08:37 23°**Ⅲ**24'48 16°40'02 opposition -5170 Feb 10 j 16:19 13°9514'11 min. Earth dist. -5178 Jan 24 j 00:56 23°**Ц**20'24 30.16911 AU min. Earth dist. -5170 Feb 12 j 13:26 13°511'02 29.09165 AU direct -5178 Apr 11 j 23:46 22°**Ⅱ**00'35 direct -5170 May 01 j 21:37 11°5548'12 -5178 Jul 25 j 18:04 max. Earth dist. 24°**Ⅲ**30′29 32.00473 AU max. Earth dist. -5170 Aug 15 j 11:56 14°527'48 30.95141 AU conjunction -5178 Jul 28 j 12:29 24°**Ⅲ**36′52 15°45'47 conjunction -5170 Aug 17 j 09:09 14°532'22 16°44'58 minimum elong -5178 Jul 28 j 12:10 24°**Ⅲ**36′50 15°46'03 minimum elong -5170 Aug 17 j 09:05 14°932'21 16°45'14 retrograde -5178 Nov 08 j 04:30 27°**Ⅲ**08′26 retrograde -5170 Nov 28 j 17:11 17°5512'00 opposition -5177 Jan 24 j 00:50 25°**Ⅱ**47'27 16°54'59 opposition -5169 Feb 13 j 14:25 15°9549'00 17°53'19 min. Earth dist. -5177 Jan 26 j 13:52 25°**Ⅱ**43'16 30.00399 AU min. Earth dist. -5169 Feb 15 j 09:36 15°**9**45'58 28.99574 AU direct -5177 Apr 14 j 14:02 24°**Ⅲ**22'55 direct -5169 May 04 j 18:35 14°522'53 max. Earth dist. -5177 Jul 28 j 11:30 26°**Д**54'13 31.84178 AU max. Earth dist. -5169 Aug 18 j 09:53 17°503'13 30.86037 AU -5177 Jul 31 i 03:55 27°**I**100'27 15°58'47 conjunction -5169 Aug 20 j 04:31 17°9507'32 16°44'31 conjunction -5177 Jul 31 i 03:38 27°**I**I00'26 15°59'04 minimum elong -5169 Aug 20 j 04:30 17°507'32 16°44'48 minimum elong retrograde -5177 Nov 10 j 21:19 29°**Ⅲ**33'16 retrograde -5169 Dec 01 i 14:46 19°547'47 opposition -5176 Jan 26 j 17:57 28°**Ⅱ**11'59 17°08'23 opposition -5168 Feb 16 j 12:43 18°9524'35 17°52'04 -5176 Jan 29 j 05:47 28°**Д**07'52 29.84781 AU min. Earth dist. -5168 Feb 18 j 04:00 18°921'49 min. Earth dist. 28 90943 AU -5176 Apr 16 j 04:38 -5168 May 06 j 16:34 direct 26°T147'10 direct 16°958'20 -5176 Jul 30 j 07:06 29°**Д**19'58 31.68811 AU max. Earth dist. -5168 Aug 20 j 09:09 19°539'26 30.77947 AU max. Earth dist. 29°**Ⅲ**25'55 16°10'17 -5176 Aug 01 j 20:07 -5168 Aug 22 j 00:16 conjunction 19°5643'24 16°42'11 conjunction -5176 Aug 01 j 19:50 -5168 Aug 22 j 00:17 19°5643'24 29°**Ⅲ**25'53 minimum elong 16°10'34 minimum elong 16°42'27 -5168 Dec 03 j 10:16 -5176 Aug 16 j 12:13 0ಂತಾ 22°524'09 retrograde 17°48'45 1°959'55 -5176 Nov 12 j 15:27 -5167 Feb 18 j 11:22 21°9500'46 retrograde opposition -5175 Jan 28 j 11:40 -5167 Feb 20 j 00:35 opposition 0°\$38'21 17°20'09 min. Earth dist. 20°958'09 28.83338 AU -5175 Jan 30 j 20:30 min. Earth dist. 0°934'25 29.70049 AU direct -5167 May 09 j 13:30 19°934'26 -5175 Feb 21 j 11:13 -5167 Aug 23 j 08:29 30°Ŗ**Ⅱ** max. Earth dist. 22°516'09 30.70967 AU direct -5175 Apr 18 j 22:14 29°**Ⅱ**13'18 -5175 Jun 11 j 23:33 0ಂತಾ conjunction -5167 Aug 24 j 20:05 22°9519'47 16°37'54 max. Earth dist. -5175 Aug 02 j 01:29 1°5647'21 31.54341 AU -5167 Aug 24 j 20:10 22°9519'48 minimum elong 16°38'11 retrograde -5167 Dec 06 j 08:07 25°900'56 conjunction -5175 Aug 04 j 12:56 1°953'11 16°20'15 -5166 Feb 21 j 10:20 23°537'24 17°43'18 opposition -5175 Aug 04 j 12:42 -5166 Feb 22 j 19:09 23°535'06 28.76834 AU minimum elong 1°953'09 16°20'33 min. Earth dist. -5175 Nov 15 j 10:54 -5166 May 12 j 11:50 22°9511'01 retrograde 4°9528'20 direct -5174 Jan 31 j 06:22 3°506'30 17°30'14 -5166 Aug 26 j 07:47 24°553'16 30.65148 AU opposition max. Earth dist. -5174 Feb 02 j 13:37 3°502'41 29.56191 AU min. Earth dist. direct -5174 Apr 21 j 14:12 1°9541'14 conjunction -5166 Aug 27 i 15:54 24°956'33 16°31'39 max. Earth dist. -5174 Aug 04 j 22:34 4°516'39 31.40755 AU minimum elong -5166 Aug 27 i 16:00 24°956'34 16°31'55 retrograde -5166 Dec 09 i 04:23 27°538'03 conjunction -5174 Aug 07 i 06:23 4°522'10 16°28'37 opposition -5165 Feb 24 i 09:44 26°514'24 17°35'43 -5174 Aug 07 j 06:10 4°922'09 min. Earth dist. -5165 Feb 25 i 15:52 26°512'16 28.71504 AU minimum elong 16°28'54 -5174 Nov 18 j 06:13 6°958'24 direct -5165 May 15 j 08:36 24°9548'01 retrograde -5173 Feb 03 j 01:55 5°936'19 17°38'35 max. Earth dist. -5165 Aug 29 j 08:08 27°530'46 30.60572 AU opposition 5°532'40 29.43168 AU min. Earth dist. -5173 Feb 05 j 06:31 direct -5173 Apr 24 j 09:33 4°9510'51 conjunction -5165 Aug 30 j 11:52 27°533'37 16°23'25 -5165 Aug 30 j 12:03 27°533'38 max. Earth dist. -5173 Aug 07 j 17:59 6°9547'21 31.28037 AU minimum elong 16°23'41 -5165 Nov 12 j 22:31 $0^{\circ}\Omega$ -5173 Aug 10 j 00:20 6°952'45 16°35'19 retrograde -5165 Dec 12 j 01:10 0°**£**15′20 conjunction -5173 Aug 10 j 00:10 -5164 Jan 11 j 02:05 minimum elong 6°952'44 16°35'37 30°Rூ -5173 Nov 21 j 04:01 -5164 Feb 27 j 09:02 retrograde 9°9529'59 opposition 28°951'38 17°25'59 -5164 Feb 28 j 10:44 opposition -5172 Feb 05 j 22:06 8°907'39 17°45'07 min. Earth dist. 28°9549'49 28.67378 AU min. Earth dist. -5172 Feb 08 j 00:21 8°**5**04'09 29.30997 AU direct -5164 May 17 j 08:17 27°9525'18 -5172 Apr 26 j 04:49 6°5942'00 -5164 Aug 27 j 21:27 0° Ω direct max. Earth dist. -5172 Aug 09 j 16:12 9°519'42 31.16186 AU max. Earth dist. -5164 Aug 31 j 07:01 0°**Ω**08'21 30.57233 AU conjunction -5172 Aug 11 j 18:52 9°9524'46 16°40'18 conjunction -5164 Sep 01 j 07:42 0°**Ω**10'52 16°13'12 -5172 Aug 11 j 18:43 9°9524'45 -5164 Sep 01 j 07:53 $0^{\circ}\Omega 10'53$ 16°13'28 minimum elong 16°40'35 minimum elong

-5172 Nov 22 j 22:59

retrograde

12°902'54

-5164 Dec 13 j 22:51

retrograde

2°**£**52'45

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5163 in astronomical counting style is the year 5164 BCE in historical counting style. -5163 Mar 01 i 08:33 1°Ω29'01 17°14'07 direct -5156 Jun 07 j 22:08 18°**Ω**17'04 opposition -5163 Mar 02 j 07:07 1°**Ω**27'26 28.64464 AU evening set -5156 Sep 15 j 13:57 20°**Ω**43'35 min. Earth dist. -5163 May 20 j 04:57 direct $0^{\circ}\Omega 02'47$ -5156 Sep 21 j 16:24 -5163 Sep 03 j 07:35 20°Ω58'20 13°46'01 max. Earth dist. 2°**Ω**46'11 30.55124 AU conjunction -5156 Sep 21 j 16:47 20°**Ω**58′23 13°46'14 minimum elong 20°**Ω**58'44 30.71402 AU -5163 Sep 04 j 03:36 max. Earth dist. -5156 Sep 21 j 20:19 conjunction 2°Ω48'14 16°01'02 -5163 Sep 04 j 03:51 16°01'17 -5156 Sep 27 j 19:27 minimum elong 2°**Ω**48'15 morning rise 21°**Ω**13′08 -5163 Dec 16 j 19:38 5°**£**30′09 -5155 Jan 03 j 19:19 retrograde retrograde 23°**Ω**37'37 14°29'28 opposition -5162 Mar 04 j 08:06 4°Ω06'27 17°00'11 opposition -5155 Mar 23 j 00:50 22°**Ω**14'27 min. Earth dist. -5162 Mar 05 j 02:46 4°**Ω**05'08 28.62713 AU min. Earth dist. -5155 Mar 22 j 19:01 22°Ω14'51 28.80465 AU direct -5162 May 23 j 04:21 2°**Ω**40′22 direct -5155 Jun 10 j 21:22 20°**Ω**49'49 -5155 Sep 17 j 08:58 evening set 23°**Ω**13′12 -5162 Sep 06 j 23:17 conjunction 5°**Ω**25'33 15°46'58 minimum elong -5162 Sep 06 j 23:32 5°**Ω**25'35 15°47'13 conjunction -5155 Sep 24 j 09:36 23°**Ω**30'05 13°20'25 max. Earth dist. -5162 Sep 06 j 05:57 5°**Ω**23'47 30.54198 AU minimum elong -5155 Sep 24 j 10:01 23°**Ω**30′08 13°20'36 retrograde -5162 Dec 19 j 18:15 $8^{\circ}\Omega07'26$ max. Earth dist. -5155 Sep 24 j 17:21 23°**Ω**30'52 30.77927 AU opposition -5161 Mar 07 j 07:44 6°**Ω**43'46 16°44'11 morning rise -5155 Oct 01 j 10:49 23°**Ω**47'01 min. Earth dist. -5161 Mar 07 j 22:50 6°**Ω**42'42 28.62114 AU retrograde -5154 Jan 06 j 12:16 26°**Ω**08'37 direct -5161 May 26 j 02:49 5°**Ω**17'51 opposition -5154 Mar 25 j 22:19 24°**Ω**45'33 14°01'17 min. Earth dist. -5154 Mar 25 j 13:50 24°Ω46'08 28.87166 AU conjunction -5161 Sep 09 j 18:52 8°Ω02'41 15°31'03 direct -5154 Jun 13 j 18:06 23°**Ω**21'12 minimum elong -5161 Sep 09 i 19:11 8°**Ω**02'43 15°31'17 evening set -5154 Sep 19 i 05:55 25°**Ω**41'36 max. Earth dist. -5161 Sep 09 i 06:19 8° Ω01'24 30.54418 AU retrograde -5161 Dec 22 j 14:16 10°Ω44'24 conjunction -5154 Sep 27 j 02:16 26°Ω00'22 12°53'29 opposition -5160 Mar 09 i 07:19 9°Ω20'47 16°26'14 minimum elong -5154 Sep 27 j 02:41 26° Ω00'24 12°53'40 -5160 Mar 09 j 19:19 9°**Ω**19'57 28.62596 AU max. Earth dist. -5154 Sep 27 j 13:50 26° **Ω**01'31 30.85576 AU min. Earth dist. -5160 May 28 j 02:21 7°**Ω**55'04 -5154 Oct 04 j 23:09 direct morning rise 26°**Ω**19'10 -5153 Jan 09 j 04:29 retrograde 28°Ω38'04 -5160 Sep 11 j 14:14 10°**Ω**39'24 15°13'21 -5153 Mar 28 j 19:07 conjunction opposition 27°**Ω**15'09 13°31'41 10°**Ω**39'26 15°13'35 27°**Ω**16'03 28.94990 AU -5160 Sep 11 j 14:32 -5153 Mar 28 j 06:05 minimum elong min. Earth dist. -5160 Sep 11 j 04:07 10°**Ω**38'23 30.55731 AU max. Earth dist. direct -5153 Jun 16 j 16:00 25°**Ω**51'05 13°**Ω**20′51 -5160 Dec 24 j 12:23 evening set -5153 Sep 21 j 03:51 28°**Ω**08'41 retrograde -5159 Mar 12 j 06:30 11°**Ω**57'19 16°06'22 opposition -5159 Mar 12 j 14:33 11°**Ω**56'46 28.64139 AU -5153 Sep 29 j 18:13 28°**Ω**29'07 12°25'16 min. Earth dist. conjunction -5159 May 31 j 00:32 10°**Ω**31'48 -5153 Sep 29 j 18:39 28°**Ω**29'09 12°25'25 direct minimum elong -5159 Sep 12 j 15:29 13°**Ω**11'17 -5153 Sep 30 j 09:05 28°**Ω**30'35 30.94361 AU evening set max. Earth dist. -5153 Oct 08 j 09:14 morning rise 28°**Ω**49'35 conjunction -5159 Sep 14 j 09:30 13°**Ω**15'33 14°53'55 -5153 Nov 09 j 11:16 0° m minimum elong -5159 Sep 14 j 09:51 13°Ω15'35 14°54'08 retrograde -5152 Jan 11 j 20:54 1° Mp 05'56 max. Earth dist. -5159 Sep 14 j 03:50 13°**Ω**14'59 30.58099 AU -5152 Mar 20 j 07:21 30° R Ω morning rise -5159 Sep 16 j 04:14 13°**Ω**19'54 opposition -5152 Mar 30 j 15:24 29°**Ω**43'12 13°00'45 -5159 Oct 30 j 20:48 15°**Ω** min. Earth dist. -5152 Mar 29 j 23:06 29°**Ω**44'19 29.03969 AU -5159 Dec 27 j 08:34 15°**Ω**56'37 direct -5152 Jun 18 j 10:31 28°Ω19'27 retrograde -5158 Feb 26 j 20:50 15°RΩ -5152 Sep 07 j 01:52 0° M -5158 Mar 15 j 05:46 14°**Ω**33'10 15°44'41 -5152 Sep 22 j 02:50 0° m 34'23 opposition evening set 14°**Ω**32'47 28.66694 AU min. Earth dist. -5158 Mar 15 j 11:11 13°**Ω**07'52 -5152 Oct 01 i 09:45 0° m 56'19 11°55'53 direct -5158 Jun 03 i 00:49 conjunction -5158 Aug 26 j 22:11 15°Ω minimum elong -5152 Oct 01 i 10:11 0° m 56'21 11°56'03 evening set -5158 Sep 13 j 10:22 15°**Ω**41'47 max. Earth dist. -5152 Oct 02 i 04:48 0° m 58'11 31.04299 AU morning rise -5152 Oct 10 i 17:09 1° mb 18'17 -5158 Sep 17 j 04:09 15°Ω50'53 14°32'50 retrograde -5151 Jan 13 i 11:53 3° m 32'12 conjunction -5158 Sep 17 j 04:30 15°Ω50'56 14°33'04 -5151 Apr 02 j 10:49 2°m09'43 12°28'38 minimum elong opposition max. Earth dist. -5158 Sep 17 j 01:00 15°**Ω**50'34 30.61504 AU min. Earth dist. -5151 Apr 01 j 14:44 2° Mp 11'05 29.14067 AU morning rise -5158 Sep 20 j 22:35 16°Ω00'04 direct -5151 Jun 21 j 06:38 0° m 46'20 retrograde -5158 Dec 30 j 05:25 18°**Ω**31'28 evening set -5151 Sep 24 j 02:28 2° m 58'42 opposition -5157 Mar 18 j 04:35 17°**Ω**08'06 15°21'15 min. Earth dist. -5157 Mar 18 j 05:35 17°**Ω**08'01 28.70264 AU conjunction -5151 Oct 04 j 00:31 3° m 21'58 11°25'26 -5157 Jun 06 j 00:01 15°**Ω**43'01 -5151 Oct 04 j 00:57 3° m/22'00 11°25'34 direct minimum elong -5157 Sep 14 j 21:30 18°**Ω**12'59 -5151 Oct 04 j 22:13 3° m 24'06 31.15345 AU evening set max. Earth dist. -5151 Oct 13 j 23:17 morning rise 3° m/45'18 -5157 Sep 19 j 22:36 18°**Ω**25'13 14°10'11 conjunction retrograde -5150 Jan 16 j 03:43 5° m 56'55 minimum elong -5157 Sep 19 j 23:00 18°**Ω**25'15 14°10'23 min. Earth dist. -5150 Apr 04 j 06:06 4° Mp 36'17 29.25271 AU max. Earth dist. -5157 Sep 19 j 23:33 18°**Ω**25'19 30.65929 AU opposition -5150 Apr 05 j 05:50 4° Mp 34'40 11°55'25 morning rise -5157 Sep 25 j 00:18 18°**Ω**37'31 direct -5150 Jun 24 j 00:08 3° mp 11'41 retrograde -5156 Jan 01 j 23:35 21°**Ω**05′12 evening set -5150 Sep 26 j 02:28 5° Mp 21'36 -5156 Mar 20 j 03:00 19° **Ω**41'55 14°56'09 opposition min. Earth dist. -5156 Mar 20 j 01:40 19°**Ω**42'01 28.74846 AU -5150 Oct 06 j 14:42 5° m/46'05 10°54'02 conjunction

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	nical year style is used: Th	-					
minimum elong	-5150 Oct 06 j 15:07	5° Mp 46'07		evening set	-5143 Oct 08 j 11:53	21° Mp 18'30	
max. Earth dist.	-5150 Oct 07 j 16:51		31.27452 AU				
morning rise	-5150 Oct 17 j 03:26	6° Mp 10′37		conjunction	-5143 Oct 21 j 23:42	21°Mp48'15	
retrograde	-5149 Jan 18 j 17:39	8° Mp 20'03		minimum elong	-5143 Oct 21 j 23:59	21°Mp48'17	
min. Earth dist.	-5149 Apr 06 j 21:37	6° Mp 59′52	29.37491 AU	max. Earth dist.	-5143 Oct 23 j 20:18	21° m 52'23	32.35557 AU
opposition	-5149 Apr 08 j 00:13	6° Mp 58′05	11°21'14	morning rise	-5143 Nov 04 j 12:27	22° Mp 18'06	
direct	-5149 Jun 26 j 18:29	5° m 35'31		retrograde	-5142 Feb 03 j 06:26	24° m 14'22	
evening set	-5149 Sep 28 j 03:09	7° Mp 43'05		min. Earth dist.	-5142 Apr 22 j 13:47	22° m 57'27	30.45954 AU
· ·				opposition	-5142 Apr 24 j 11:44	22° m 54'28	7°04'41
conjunction	-5149 Oct 09 j 04:13	8° m 08'38	10°21'47	direct	-5142 Jul 13 j 09:55	21° m) 34'47	
minimum elong	-5149 Oct 09 j 04:37	8° m 08'40	10°21'54	evening set	-5142 Oct 10 j 13:32	23° m) 28'09	
max. Earth dist.	-5149 Oct 10 j 08:30	•	31.40536 AU	evening set	-3142 Oct 10 j 13.32	23 11/2007	
			31.40330 AU		5142 0-+ 24 : 00.00	220 m 5011 ((920)57
morning rise	-5149 Oct 20 j 06:05	8° Mp 34'15		conjunction	-5142 Oct 24 j 08:09	23° m 58'16	6°20'57
retrograde	-5148 Jan 21 j 09:10	10° m 41'35		minimum elong	-5142 Oct 24 j 08:25	23° m 58'18	
min. Earth dist.	-5148 Apr 08 j 11:12		29.50671 AU	max. Earth dist.	-5142 Oct 26 j 06:38	24° Mp 02'32	32.53800 AU
opposition	-5148 Apr 09 j 17:39	9° m √19'55	10°46'13	morning rise	-5142 Nov 07 j 04:07	24° Mp 28'31	
direct	-5148 Jun 28 j 10:28	7° ₯ 57'46		retrograde	-5141 Feb 05 j 14:26	26° Mp 23'11	
evening set	-5148 Sep 29 j 04:02	10° m 03'05		min. Earth dist.	-5141 Apr 24 j 23:27	25° Mp 06'42	30.64319 AU
				opposition	-5141 Apr 27 j 00:00	25° m 03'34	6°26'46
conjunction	-5148 Oct 10 j 17:15	10° m 29'36	9°48'47	direct	-5141 Jul 15 j 21:16	23° m/44'16	
minimum elong	-5148 Oct 10 j 17:38	10° m/29'38	9°48'55	evening set	-5141 Oct 12 j 15:11	25° m) 35'54	
max. Earth dist.	-5148 Oct 12 j 01:27		31.54516 AU	evening see	5111 Oct 12 j 15.11	23 193331	
	,		31.34310 AU		5141 0 + 26:16.11	2 (0 m 0 (12 1	5045126
morning rise	-5148 Oct 22 j 07:04	10° m 56'11		conjunction	-5141 Oct 26 j 16:11	26° Mp 06'21	
retrograde	-5147 Jan 22 j 22:31	13° Mp 01'29		minimum elong	-5141 Oct 26 j 16:25	26° TO 06'22	
min. Earth dist.	-5147 Apr 11 j 02:13		29.64711 AU	max. Earth dist.	-5141 Oct 28 j 18:08		32.72763 AU
opposition	-5147 Apr 12 j 10:37	11° m 40'08	10°10'29	morning rise	-5141 Nov 09 j 18:16	26° Mp 36'53	
direct	-5147 Jul 01 j 04:21	10° Mp 18′25		retrograde	-5140 Feb 07 j 20:34	28° Mp 30'02	
evening set	-5147 Oct 01 j 05:19	12° Mp 21'33		min. Earth dist.	-5140 Apr 26 j 08:34	27° m 13'58	30.83416 AU
				opposition	-5140 Apr 28 j 11:12	27° mp 10'43	5°48'46
conjunction	-5147 Oct 13 j 05:25	12° m 48'54	9°15'11	direct	-5140 Jul 17 j 08:51	25° m 51'50	
minimum elong	-5147 Oct 13 j 05:47	12° m) 48'57	9°15'16	evening set	-5140 Oct 13 j 16:57	27° mp 41'50	
max. Earth dist.	-5147 Oct 14 j 15:27		31.69314 AU	evening set	3140 Oct 13 j 10.37	27 114 41 50	
			31.09314 AU	agniumation	5140 Oct 27 ; 22:19	200 m 12120	5°09'53
morning rise	-5147 Oct 25 j 06:21	13° Mp 16'20		conjunction	-5140 Oct 27 j 23:18	28° Mp 12'30	
retrograde	-5146 Jan 25 j 13:17	15° m 19'42		minimum elong	-5140 Oct 27 j 23:31	28° m 12'31	5°09'56
min. Earth dist.	-5146 Apr 13 j 14:33		29.79549 AU	max. Earth dist.	-5140 Oct 30 j 02:41		32.92447 AU
opposition	-5146 Apr 15 j 02:46	13° m 58'39	9°34'08	morning rise	-5140 Nov 11 j 07:08	28° Mp 43'17	
direct	-5146 Jul 03 j 21:12	12°₩37'22			-5140 Dec 23 j 07:47	0∘ ⊽	
evening set	-5146 Oct 03 j 06:47	14° m 38'25		retrograde	-5139 Feb 09 j 04:55	0° ჲ 35'00	
					-5139 Mar 31 j 09:58	30°₽,₩	
conjunction	-5146 Oct 15 j 17:07	15° Mp 06'31	8°41'02	min. Earth dist.	-5139 Apr 28 j 15:44	29° m 19'26	31.03263 AU
minimum elong	-5146 Oct 15 j 17:28	15° m 06'33	8°41'08	opposition	-5139 Apr 30 j 21:44	29° m 16'00	5°10'47
max. Earth dist.	-5146 Oct 17 j 06:24	•	31.84855 AU	direct	-5139 Jul 19 j 18:17	27° m 57'32	5 10 .,
	3	15° Mp 34'41	31.0 1 033 AO		-5139 Oct 15 j 18:25	29° m 45'59	
morning rise	-5146 Oct 28 j 04:15			evening set	,	-	
retrograde	-5145 Jan 28 j 00:41	17° Mp 36'11	20.05125.444		-5139 Oct 22 j 09:13	0∘ ⊽	
min. Earth dist.	-5145 Apr 16 j 04:34		29.95125 AU			_	
opposition	-5145 Apr 17 j 18:20	16° Mp 15'26	8°57'17	conjunction	-5139 Oct 30 j 05:43	0° ≏ 16'49	
direct	-5145 Jul 06 j 12:28	14° m 54'34		minimum elong	-5139 Oct 30 j 05:55	0° ჲ 16'50	4°34'23
evening set	-5145 Oct 05 j 08:27	16° ₩ 53'35		max. Earth dist.	-5139 Nov 01 j 12:34	0° ჲ 21'44	33.12836 AU
				morning rise	-5139 Nov 13 j 18:23	0° ჲ 47'47	
conjunction	-5145 Oct 18 j 04:02	17° m 22'19	8°06'27	retrograde	-5138 Feb 11 j 11:11	2° ₽ 38'09	
minimum elong	-5145 Oct 18 j 04:23	17° Mp 22'21	8°06'31	min. Earth dist.	-5138 May 01 j 00:09	1° ഫ 23'00	31.23811 AU
max. Earth dist.	-5145 Oct 19 j 19:28		32.01100 AU	opposition	-5138 May 03 j 07:38	1° ≏ 19'29	
morning rise	-5145 Oct 31 j 00:30	17° mp 51'09	32.01100110	direct	-5138 Jul 22 j 04:23	0° ⊆ 01'27	. 5251
-	-5144 Jan 30 j 12:02	19° Mp 50'50			-	1° ≏ 48'27	
retrograde	3	-	20 11205 411	evening set	-5138 Oct 17 j 20:03	1 ==4827	
min. Earth dist.	-5144 Apr 17 j 15:40	-	30.11385 AU				
opposition	-5144 Apr 19 j 08:54	18° Mp 30′22	8°20'02	conjunction	-5138 Nov 01 j 11:30	2° ≏ 19'23	3°58'56
direct	-5144 Jul 08 j 05:05	17° m 09'54		minimum elong	-5138 Nov 01 j 11:40	2° ≏ 19'24	3°58'57
evening set	-5144 Oct 06 j 10:11	19° m 06'58		max. Earth dist.	-5138 Nov 03 j 19:42		33.33890 AU
				morning rise	-5138 Nov 16 j 04:32	2° ჲ 50′28	
conjunction	-5144 Oct 19 j 14:13	19° m 36'15	7°31'31	retrograde	-5137 Feb 13 j 19:13	4° ₾ 39'33	
minimum elong	-5144 Oct 19 j 14:32	19° m) 36'17	7°31'36	min. Earth dist.	-5137 May 03 j 05:50		31.45013 AU
max. Earth dist.	-5144 Oct 21 j 08:02		32.17991 AU	opposition	-5137 May 05 j 16:33	3° Ω 21'14	3°55'09
morning rise	-5144 Nov 01 j 19:19	20° m 05'38	// 110	direct	-5137 Jul 24 j 12:41	2° ⊆ 03'38	
retrograde	-5143 Jan 31 j 22:36	20° my 03'34			-5137 Oct 19 j 21:35	2 = 03 38 3° £ 49'16	
-	-		20 20227 411	evening set	-515/ Oct 19J 21.33	J ==49 10	
min. Earth dist.	-5143 Apr 20 j 03:41		30.28327 AU		61263X 02:112	40.000	2022122
opposition	-5143 Apr 21 j 22:43	20° m 43'24	7°42'28	conjunction	-5137 Nov 03 j 16:38	4° £ 20'15	3°23'39
direct	-5143 Jul 10 j 19:09	19° m 23'20		minimum elong	-5137 Nov 03 j 16:47	4° ≏ 20'16	3°23'38

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5137 in astronomical counting style is the year 5138 BCE in historical counting style. -5137 Nov 06 i 03:31 4°**2**5′26 33.55524 AU opposition -5130 May 19 j 11:30 16° **2**47'06 -0°19'46 max. Earth dist. -5137 Nov 18 i 13:22 4°**£**51'24 direct -5130 Aug 07 j 10:19 15°**♀**32'21 morning rise -5136 Feb 16 j 00:33 6°**₽**39'16 -5130 Nov 01 j 07:06 17°**♀**10'06 retrograde evening set min. Earth dist. -5136 May 04 j 13:13 5°**£**25'02 31.66786 AU -5136 May 07 j 00:55 -5130 Nov 16 j 11:42 17°**£**40'07 -0°34'48 opposition 5°**£**21'18 3°17'39 conjunction -5136 Jul 25 j 20:31 4°**₽**04'09 -5130 Nov 16 j 11:41 direct minimum elong 17°**2**40'07 0°34'51 -5130 Nov 19 j 08:46 evening set -5136 Oct 20 j 23:06 5°**£**48'28 max. Earth dist. 17°**£**45'51 35.17146 AU -5130 Dec 01 j 18:28 18°**≏**10'19 morning rise conjunction -5136 Nov 04 j 21:11 6°**£**19'27 2°48'34 retrograde -5129 Feb 28 j 18:10 19°**£**51'17 minimum elong -5136 Nov 04 j 21:18 6°**₽**19'28 2°48'34 min. Earth dist. -5129 May 18 j 17:19 18°**2**39'46 33.29155 AU max. Earth dist. -5136 Nov 07 j 09:43 6°**£**24'44 33.77667 AU opposition -5129 May 21 j 14:46 18°**£**35'35 -0°54'21 -5136 Nov 19 j 20:53 -5129 Aug 09 j 14:00 morning rise 6°**£**50'36 direct 17°**£**21'11 -5129 Nov 03 j 07:53 retrograde -5135 Feb 17 j 05:20 8°**≏**37'18 evening set 18°**♀**58'03 min. Earth dist. -5135 May 06 j 18:07 7°**£**23'35 31.89034 AU opposition -5135 May 09 j 08:20 7°**₽**19'42 2°40'25 conjunction -5129 Nov 18 j 11:57 19° 27'46 -1°07'10 direct -5135 Jul 28 j 06:18 6°**£**03'00 minimum elong -5129 Nov 18 j 11:55 19° 27'46 1°07'15 evening set -5135 Oct 23 j 00:44 7°**£**46'05 max. Earth dist. -5129 Nov 21 j 09:56 19°**೨**33'32 35.41288 AU morning rise -5129 Dec 03 j 18:08 19°**♀**57'41 conjunction -5135 Nov 07 j 01:05 8°**₽**17'01 2°13'46 retrograde -5128 Mar 01 j 19:35 21°**♀**37'52 minimum elong -5135 Nov 07 j 01:10 8°**♀**17'02 2°13'44 min. Earth dist. -5128 May 19 j 17:36 20°**£**26'45 33.53483 AU max. Earth dist. -5135 Nov 09 j 15:05 8°**£**22'23 34.00221 AU opposition -5128 May 22 j 17:14 20°**£**22'27 -1°28'22 morning rise -5135 Nov 22 j 03:22 8°**£**48'07 direct -5128 Aug 10 j 17:22 19°**£**08'25 retrograde -5134 Feb 19 i 10:05 10°**♀**33'45 evening set -5128 Nov 04 j 08:36 20°**-**44'27 min. Earth dist. -5134 May 08 j 23:49 9°**2**20'25 32.11699 AU opposition -5134 May 11 j 15:19 9°**₽**16'29 2°03'31 conjunction -5128 Nov 19 j 11:29 21° **△**13'52 -1°39'02 -5134 Jul 30 j 13:26 8°**₽**00'12 -5128 Nov 19 j 11:25 21°**£**13'52 1°39'07 direct minimum elong -5134 Oct 25 j 02:06 9°**£**42'07 max. Earth dist. -5128 Nov 22 i 10:53 21°**2**19'42 35.65729 AU evening set -5128 Dec 04 j 16:45 morning rise 21°<u>₽</u>43'28 -5134 Nov 09 j 04:28 -5127 Mar 03 j 19:20 conjunction 10° 212'57 1°39'17 retrograde 23°**£**22'55 -5134 Nov 09 j 04:32 -5127 May 21 j 18:38 22°**£**12'09 33.78157 AU minimum elong 10°**£**12'58 1°39'15 min. Earth dist. 22°**≏**07'50 -2°01'49 -5134 Nov 11 j 20:31 -5127 May 24 j 19:11 max. Earth dist. 10°**2**18'27 34.23125 AU opposition -5127 Aug 12 j 19:06 -5134 Nov 24 j 08:33 10°**£**43'57 direct 20°**£**54'09 morning rise -5127 Nov 06 j 09:03 -5133 Feb 21 j 11:44 12°**£**28'33 22°**₽**29'26 retrograde evening set 11°**≙**15'38 32.34676 AU -5133 May 11 j 04:41 min. Earth dist. -5133 May 13 j 21:28 -5127 Nov 21 j 10:39 22°**£**58'30 -2°10'21 opposition 11°**≏**11'38 1°27'01 conjunction -5133 Aug 01 j 21:20 -5127 Nov 21 j 10:34 direct 9°**£**55'46 minimum elong 22°**♀**58'29 2°10'27 -5127 Nov 24 j 11:55 evening set -5133 Oct 27 j 03:43 11°**≏**36'33 max. Earth dist. 23°**♀**04'26 35.90508 AU morning rise -5127 Dec 06 j 14:20 23°**£**27'45 conjunction -5133 Nov 11 j 07:15 12°**2**07'15 1°05'08 retrograde -5126 Mar 05 j 16:05 25°**♀**06'32 minimum elong -5133 Nov 11 j 07:18 12°**2**07'15 1°05'06 min. Earth dist. -5126 May 23 j 18:26 23°**♀**56'10 34.03156 AU max. Earth dist. -5133 Nov 13 j 23:38 12°**♀**12'44 34.46289 AU opposition -5126 May 26 j 20:26 23°**2**51'46 -2°34'38 -5133 Nov 26 j 12:54 12°**♀**38'07 direct -5126 Aug 14 j 22:43 22°**△**38'29 morning rise -5132 Feb 23 j 14:11 14°**£**21'43 -5126 Nov 08 j 09:28 24°**£**13′03 retrograde evening set -5132 May 12 j 08:17 13°**೨**09'12 32.57928 AU min. Earth dist. -5132 May 15 j 02:45 13°**≏**05'08 conjunction -5126 Nov 23 j 09:04 24°**2**41'45 -2°41'07 opposition 0°50'57 -5126 Nov 23 i 08:59 direct -5132 Aug 03 i 02:05 11°**-**49'39 minimum elong 24°**△**41'45 2°41'13 evening set -5132 Oct 28 j 05:00 13°**♀**29'22 max. Earth dist. -5126 Nov 26 i 10:45 24°**2**47'41 36.15583 AU morning rise -5126 Dec 08 j 11:08 25°**♀**10'38 conjunction -5132 Nov 12 j 09:30 13°**♀**59'53 0°31'24 retrograde -5125 Mar 07 i 14:25 26°**-**48′50 -5132 Nov 12 i 09:31 13°**♀**59'53 0°31'22 min. Earth dist. -5125 May 25 i 17:34 25°**2**38'52 34.28462 AU minimum elong max. Earth dist. -5132 Nov 15 i 04:09 14°**2**05'31 34.69683 AU opposition -5125 May 28 j 21:10 25°**£**34'24 -3°06'50 -5132 Nov 27 j 15:52 14°**♀**30'33 direct -5125 Aug 16 j 23:21 24°**£**21'30 morning rise -5131 Feb 24 j 14:47 16°**♀**13'15 -5125 Nov 10 j 09:43 25°**£**55'25 retrograde evening set min. Earth dist. -5131 May 14 j 12:37 15°**♀**01'02 32.81407 AU -5131 May 17 j 07:30 opposition 14°**2**56'57 0°15'20 conjunction -5125 Nov 25 j 07:15 26°**£**23'44 -3°11'19 direct -5131 Aug 05 j 07:13 13°**£**41'51 minimum elong -5125 Nov 25 j 07:08 26°**£**23'43 3°11'26 -5131 Oct 24 j 00:56 15°**2**08'34 max. Earth dist. -5125 Nov 28 j 11:04 26°**£**29'47 36.40913 AU desc. node -5131 Oct 30 j 06:07 -5125 Dec 10 j 06:57 evening set 15°**♀**20'33 morning rise 26°**£**52'13 -5124 Mar 08 j 11:01 retrograde 28°**♀**29'52 -5131 Nov 14 j 10:51 conjunction 15°**⊆**50'50 -0°01'59 min. Earth dist. -5124 May 26 j 17:26 27°**£**20'14 34.53993 AU -5131 Nov 14 j 10:50 minimum elong 15°**£**50′50 0°02'03 opposition -5124 May 29 j 21:07 27°**2**15'47 -3°38'24 behind sun begin -5131 Nov 14 j 04:29 15°**⊆**50'20 direct -5124 Aug 18 j 00:11 26°**2**03'17 behind sun end -5131 Nov 14 j 17:12 15°**£**51'20 evening set -5124 Nov 11 j 09:58 27°**£**36'35 max. Earth dist. -5131 Nov 17 j 05:47 15°**⊆**56'27 34.93296 AU morning rise -5131 Nov 29 j 17:43 16°**£**21'17 conjunction -5124 Nov 26 j 04:47 28°**£**04'29 -3°40'56 -5130 Feb 26 j 17:14 18°**≏**03'06 minimum elong -5124 Nov 26 j 04:40 28°**♀**04'28 3°41'03 retrograde min. Earth dist. -5130 May 16 j 14:16 16°**♀**51'18 33.05139 AU max. Earth dist. -5124 Nov 29 j 08:37 28°**♀**10'30 36.66432 AU

•	nical year style is used: Th		•	* * ·			E 21
morning rise	-5124 Dec 11 j 01:58	28° £ 32'34	in astronomicai co	min. Earth dist.	-5117 Jun 08 j 00:14		36.33744 AU
morning rise	-5123 Feb 11 j 20:48	28 = 32 34 0°M			-5117 Jun 11 j 06:52	8°M32'02	
	•	0°M09'42		opposition	3		-7 00 39
retrograde	-5123 Mar 10 j 10:01			direct evening set	-5117 Aug 30 j 11:58	7°M21'52	
i. Dardh diat	-5123 Apr 06 j 13:16	30° ₹ Ω	34.79697 AU	evening set	-5117 Nov 24 j 08:23	8°M51'57	
min. Earth dist.	-5123 May 28 j 15:03				5117 D 07: 22.40	00 M 1/10/	(05110)
opposition	-5123 May 31 j 20:38	28° Ω 55'58	-4°09'19	conjunction	-5117 Dec 07 j 23:46	9°M16'26	
direct	-5123 Aug 19 j 22:15	27° Ω 43'51		minimum elong max. Earth dist.	-5117 Dec 07 j 23:34	9°M16'25	
evening set	-5123 Nov 13 j 09:57	29° £ 16'36			-5117 Dec 11 j 06:52		38.44995 AU
	5100 N	200 0 44104	4000157	morning rise	-5117 Dec 21 j 17:18	9°M41'06	
conjunction	-5123 Nov 28 j 01:49	29° Ω 44'04		retrograde	-5116 Mar 21 j 03:32	11°M15'28	26 50242 444
minimum elong	-5123 Nov 28 j 01:41	29° Ω 44'03		min. Earth dist.	-5116 Jun 08 j 18:28		36.59242 AU
max. Earth dist.	-5123 Dec 01 j 07:18		36.92058 AU	opposition	-5116 Jun 12 j 02:30	10°M03'44	-/°2/16
	-5123 Dec 06 j 12:48	0°M		direct	-5116 Aug 31 j 06:59	8°M53'50	
morning rise	-5123 Dec 12 j 20:02	0°M11'42		evening set	-5116 Nov 25 j 07:34	10°M23'35	
retrograde	-5122 Mar 12 j 08:40	1°M48'23	25.05.400 4.77		51167 00:15.40	100 W 45122	5 01.611.1
min. Earth dist.	-5122 May 30 j 14:34		35.05489 AU	conjunction	-5116 Dec 08 j 17:49	10°M47'32	
opposition	-5122 Jun 02 j 19:47	0°M34'58	-4°39'35	minimum elong	-5116 Dec 08 j 17:37	10°M47'31	
	-5122 Jun 28 j 23:19	30° ₹ Ω		max. Earth dist.	-5116 Dec 12 j 02:05		38.70309 AU
direct	-5122 Aug 21 j 19:56	29° Ω 23'14		morning rise	-5116 Dec 22 j 06:15	11°M11'38	
	-5122 Oct 12 j 09:49	0°M		retrograde	-5115 Mar 22 j 22:58	12°M45'44	
evening set	-5122 Nov 15 j 10:01	0° ™ 55'29		min. Earth dist.	-5115 Jun 10 j 14:19		36.84774 AU
				opposition	-5115 Jun 13 j 21:56	11°M34'15	-7°52'51
conjunction	-5122 Nov 29 j 22:39	1°M22'29		direct	-5115 Sep 02 j 00:43	10°M24'38	
minimum elong	-5122 Nov 29 j 22:30	1°M22'28		evening set	-5115 Nov 27 j 06:26	11° M 54'06	
max. Earth dist.	-5122 Dec 03 j 04:17		37.17730 AU				
morning rise	-5122 Dec 14 j 13:29	1°M49'40		conjunction	-5115 Dec 10 j 11:24	12°M17'30	
retrograde	-5121 Mar 14 j 06:59	3°M25'54		minimum elong	-5115 Dec 10 j 11:11	12° M 17'29	
min. Earth dist.	-5121 Jun 01 j 11:43		35.31287 AU	max. Earth dist.	-5115 Dec 13 j 20:10		38.95672 AU
opposition	-5121 Jun 04 j 18:06	2° ™ 12'49	-5°09'11	morning rise	-5115 Dec 23 j 18:17	12°M41'03	
direct	-5121 Aug 23 j 17:28	1°M01'26		retrograde	-5114 Mar 24 j 16:10	14°M14'54	
evening set	-5121 Nov 17 j 10:05	2°M33'12		min. Earth dist.	-5114 Jun 12 j 08:02		37.10343 AU
				opposition	-5114 Jun 15 j 16:47	13°M03'41	-8°17'46
conjunction	-5121 Dec 01 j 18:58	2°M59'44		direct	-5114 Sep 03 j 20:11	11° M 54'22	
minimum elong	-5121 Dec 01 j 18:48	2°M59'43		evening set	-5114 Nov 29 j 05:27	13°M23'35	
max. Earth dist.	-5121 Dec 05 j 00:48		37.43353 AU				
morning rise	-5121 Dec 16 j 06:18	3°M26'27		conjunction	-5114 Dec 12 j 04:39	13°M46'25	
retrograde	-5120 Mar 15 j 03:14	5° ™ 02'15		minimum elong	-5114 Dec 12 j 04:27	13°M46'24	8°03'59
min. Earth dist.	-5120 Jun 02 j 09:55		35.57034 AU	max. Earth dist.	-5114 Dec 15 j 13:24		39.21060 AU
opposition	-5120 Jun 05 j 16:09	3° ™ 49'29	-5°38'08	morning rise	-5114 Dec 25 j 06:01	14°M09'24	
direct	-5120 Aug 24 j 16:01	2°M38'26			-5113 Jan 26 j 04:40	15° ™	
evening set	-5120 Nov 18 j 09:49	4° ™ 09'44		retrograde	-5113 Mar 26 j 09:47	15°M43'03	
					-5113 May 27 j 02:14	15°RM	
conjunction	-5120 Dec 02 j 14:54	4°M35'47		min. Earth dist.	-5113 Jun 14 j 02:17		37.35951 AU
minimum elong	-5120 Dec 02 j 14:44	4°M35'46		opposition	-5113 Jun 17 j 11:11	14°M32'07	-8°42'00
max. Earth dist.	-5120 Dec 05 j 21:42		37.68893 AU	direct	-5113 Sep 05 j 14:47	13°M23'06	
morning rise	-5120 Dec 16 j 22:04	5° ™ 02'01		evening set	-5113 Dec 01 j 04:10	14°M52'08	
retrograde	-5119 Mar 16 j 20:41	6° ™ 37'25			-5113 Dec 05 j 17:00	15° ™	
min. Earth dist.	-5119 Jun 04 j 07:06		35.82674 AU				
opposition	-5119 Jun 07 j 13:32	5° ™ 24'55	-6°06'25	conjunction	-5113 Dec 13 j 21:41	15°M14'23	-8°26'40
direct	-5119 Aug 26 j 16:34	4° ™ 14'11		minimum elong	-5113 Dec 13 j 21:27	15°M14'22	
evening set	-5119 Nov 20 j 09:35	5° ™ 45'03		max. Earth dist.	-5113 Dec 17 j 07:42		39.46463 AU
				morning rise	-5113 Dec 26 j 16:57	15° ™ 36'48	
conjunction	-5119 Dec 04 j 10:16	6°M10′36	-6°00'03	retrograde	-5112 Mar 27 j 00:22	17° ™ 10'17	
minimum elong	-5119 Dec 04 j 10:05	6° ™ 10'35	6°00'11	min. Earth dist.	-5112 Jun 14 j 20:27	16° ™ 04'08	37.61535 AU
max. Earth dist.	-5119 Dec 07 j 16:25		37.94326 AU	opposition	-5112 Jun 18 j 05:10	15°M59'39	-9°05'34
morning rise	-5119 Dec 18 j 13:20	6° ™ 36'19			-5112 Aug 11 j 02:54	15°RM	
retrograde	-5118 Mar 18 j 16:05	8°M11'21		direct	-5112 Sep 06 j 11:11	14° M 50'57	
min. Earth dist.	-5118 Jun 06 j 03:11		36.08241 AU		-5112 Oct 02 j 05:35	15° ™	
opposition	-5118 Jun 09 j 10:29	6° ™ 59'07	-6°34'02	evening set	-5112 Dec 02 j 02:52	16° ™ 19'48	
direct	-5118 Aug 28 j 13:55	5° ™ 48'39					
evening set	-5118 Nov 22 j 08:58	7° ™ 19'07		conjunction	-5112 Dec 14 j 14:05	16°M41'29	-8°48'56
				minimum elong	-5112 Dec 14 j 13:52	16°M41'28	
conjunction	-5118 Dec 06 j 05:15	7° M 44'08		max. Earth dist.	-5112 Dec 17 j 23:24		39.71819 AU
minimum elong	-5118 Dec 06 j 05:04	7° M 44'08	6°26'13	morning rise	-5112 Dec 27 j 03:15	17°M03'18	
max. Earth dist.	-5118 Dec 09 j 12:50		38.19680 AU	retrograde	-5111 Mar 28 j 17:26	18° M 36'40	
morning rise	-5118 Dec 20 j 03:40	8° ™ 09'20		min. Earth dist.	-5111 Jun 16 j 13:07		37.87060 AU
retrograde	-5117 Mar 20 j 08:34	9° ™ 44'01		opposition	-5111 Jun 19 j 22:49	17° M 26'20	-9°28'28

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5111 in astronomical counting style is the year 5112 BCE in historical counting style. direct -5111 Sep 08 i 04:19 16°ML17'57 retrograde -5104 Apr 07 j 02:55 28°M19'08 -5111 Dec 04 j 01:29 min. Earth dist. -5104 Jun 26 j 08:24 27°M14'50 39.59214 AU evening set 17°M,46'40 opposition -5104 Jun 29 j 15:36 27°M10'34 -11°51'26 -5111 Dec 16 j 06:24 18°ML07'46 -9°10'35 -5104 Sep 17 j 23:45 direct 26°M03'58 conjunction -5111 Dec 16 j 06:11 18°ML07'45 9°10'46 -5104 Dec 15 j 14:31 minimum elong evening set 27°M32'20 -5111 Dec 19 j 16:46 max. Earth dist. 18°M13'44 39.97074 AU -5104 Dec 25 j 16:00 27°M49'04 -11°25'59 morning rise -5111 Dec 28 j 13:07 18°M29'00 conjunction -5104 Dec 25 j 15:46 retrograde -5110 Mar 30 j 09:11 20°M02'17 minimum elong 27°M49'03 11°26'13 -5104 Dec 29 j 00:17 min. Earth dist. -5110 Jun 18 j 07:34 18°M.56'41 38.12453 AU max. Earth dist. 27°M54'38 41.66834 AU opposition -5110 Jun 21 j 16:07 18°M52'14 -9°50'44 morning rise -5103 Jan 04 j 18:43 28° M 05'52direct -5110 Sep 09 j 21:51 17°M44'09 retrograde -5103 Apr 08 j 17:55 29°MJ38'57 -5110 Dec 06 j 00:08 -5103 Jun 28 j 00:13 evening set 19°M12'46 min. Earth dist. 28°M34'47 39.82823 AU -5103 Jul 01 j 06:19 opposition 28° ML30'35 -12°09'27 conjunction -5110 Dec 17 j 22:27 19°M33'16 -9°31'38 direct -5103 Sep 19 j 13:33 27°M24'12 minimum elong -5110 Dec 17 j 22:14 19°M-33'15 9°31'51 evening set -5103 Dec 17 j 12:42 28°M52'37 max. Earth dist. -5110 Dec 21 j 08:06 19°M39'09 40.22166 AU morning rise -5110 Dec 29 j 22:24 19°M53'54 conjunction -5103 Dec 27 j 05:52 29°ML08'41 -11°43'05 retrograde -5109 Apr 01 j 03:12 21°M27'06 minimum elong -5103 Dec 27 j 05:39 29°ML08'40 11°43'18 min. Earth dist. -5109 Jun 19 j 23:48 20°M21'48 38.37636 AU max. Earth dist. -5103 Dec 30 j 14:05 29°M14'13 41.90165 AU opposition -5109 Jun 23 j 08:56 20°M17'22 -10°12'21 morning rise -5102 Jan 05 j 24:00 29°M24'49 direct -5109 Sep 11 j 13:04 19°M09'34 -5102 Jan 28 j 11:00 0°×7 evening set -5109 Dec 07 j 22:50 20°MJ38'06 retrograde -5102 Apr 10 j 09:15 0°**х** 57′57 -5102 Jun 24 j 21:11 30°RML conjunction -5109 Dec 19 j 14:13 20°M58'00 -9°52'06 min. Earth dist. -5102 Jun 29 i 13:54 29°M54'00 40.06288 AU minimum elong -5109 Dec 19 j 14:00 20°M57'59 9°52'18 opposition -5102 Jul 02 j 20:28 29°M49'48 -12°26'52 max. Earth dist. -5109 Dec 22 j 23:39 21°ML03'50 40.46997 AU direct -5102 Sep 21 j 02:11 28°M43'38 -5109 Dec 31 j 07:20 -5102 Dec 11 j 22:28 0°×7 morning rise 21°M-18'02 -5108 Apr 01 j 20:47 -5102 Dec 19 j 10:50 0°**х** 12′08 retrograde 22°M-51'10 evening set -5108 Jun 20 j 17:22 min. Earth dist. 21°M46'04 38.62549 AU -5108 Jun 24 j 01:25 21°M41'42 -10°33'22 -5102 Dec 28 j 19:18 0°**∡**127'31 -11°59'36 opposition conjunction -5108 Sep 12 j 03:25 20°M34'11 -5102 Dec 28 j 19:05 direct minimum elong 0°×27'30 11°59'50 -5108 Dec 08 j 21:22 -5101 Jan 01 j 02:55 22°Mo2'40 max. Earth dist. 0°**х** 32'59 42.13354 AU evening set 0°**∡**¹42'58 -5101 Jan 07 j 04:53 morning rise -5101 Apr 11 j 23:20 -5108 Dec 20 j 05:47 22°M21'57 -10°12'00 2°×16'11 conjunction retrograde -5108 Dec 20 j 05:33 -5101 Jul 01 j 04:14 1°**✗**12'26 40.29626 AU minimum elong 22°M21'56 10°12'13 min. Earth dist. -5108 Dec 23 j 15:16 -5101 Jul 04 j 10:29 1°**х** 08′16 -12°43′42 max. Earth dist. 22°M27'45 40.71543 AU opposition 0°**∡**°02′19 -5108 Dec 31 j 15:34 -5101 Sep 22 j 15:28 morning rise 22°M41'21 direct retrograde -5107 Apr 03 j 10:30 24°M14'27 evening set -5101 Dec 21 j 08:56 1°×30'55 min. Earth dist. -5107 Jun 22 j 09:45 23°ML09'34 38.87141 AU -5101 Dec 30 j 08:38 opposition -5107 Jun 25 j 17:33 23°M05'14 -10°53'47 conjunction 1°**х** 45'38 -12°15'34 direct -5107 Sep 13 j 21:52 21°M57'58 minimum elong -5101 Dec 30 j 08:27 1°**х** 45'37 12°15'49 -5107 Dec 10 j 19:49 23°M26'24 max. Earth dist. -5100 Jan 02 j 17:05 1°**₹**51'07 42.36408 AU evening set -5100 Jan 08 j 09:10 2°**х¹**00′23 morning rise -5107 Dec 21 j 20:44 23°ML45'03 -10°31'20 retrograde -5100 Apr 12 j 09:19 3°**х**³33'43 conjunction -5107 Dec 21 j 20:31 23°M45'02 10°31'32 min. Earth dist. -5100 Jul 01 j 18:21 2°**х** 30′09 40.52796 AU minimum elong -5107 Dec 25 i 04:55 -5100 Jul 04 i 23:58 max. Earth dist. 23°M50'43 40.95766 AU opposition 2°**₹**26'01 -12°59'57 -5106 Jan 01 j 23:14 morning rise 24°M03'49 direct -5100 Sep 23 i 07:56 1°**х** 20′18 retrograde -5106 Apr 05 i 00:39 25°M36'53 evening set -5100 Dec 22 j 07:09 2°×49'04 min. Earth dist. -5106 Jun 24 i 01:43 24°M32'13 39.11431 AU -5106 Jun 27 j 09:25 24°M27'53 -11°13'36 conjunction -5100 Dec 30 i 21:33 3°**₹**03'04 -12°31'00 opposition direct -5106 Sep 15 j 14:53 23°M20'52 minimum elong -5100 Dec 30 i 21:21 3°**₹**03'03 12°31'15 -5106 Dec 12 j 18:08 24°M49'15 max. Earth dist. -5099 Jan 03 j 04:40 3° **₹**08'27 42.59298 AU evening set -5099 Jan 08 j 12:48 3°**х** 17′07 morning rise retrograde 4°**∡**°50'36 conjunction -5106 Dec 23 j 11:38 25°M07'17 -10°50'07 -5099 Apr 13 j 21:25 minimum elong -5106 Dec 23 j 11:24 25°ML07'16 10°50'21 min. Earth dist. -5099 Jul 03 j 07:12 3° ₹ 47'16 40.75791 AU max. Earth dist. -5106 Dec 26 j 20:36 25°M12'58 41.19691 AU opposition -5099 Jul 06 j 13:18 3°**∡**¹43'08 -13°15'37 morning rise -5105 Jan 03 j 06:24 25°M25'24 direct -5099 Sep 24 j 22:12 2°×37'39 -5105 Apr 06 j 12:46 -5099 Dec 24 j 05:17 4°**х** 06'35 retrograde 26°M58'27 evening set -5105 Jun 25 j 18:17 min. Earth dist. 25°M53'55 39.35433 AU -5105 Jun 29 j 00:41 -5098 Jan 01 j 10:17 4° **₹**19'52 -12°45'54 opposition 25°M49'40 -11°32'49 conjunction -5098 Jan 01 j 10:06 direct -5105 Sep 17 j 08:40 24°M42'51 minimum elong 4°**х** 19'51 12°46'09 evening set -5105 Dec 14 j 16:30 26°M11'14 max. Earth dist. -5098 Jan 04 j 18:00 4°**∡**25'16 42.81974 AU morning rise -5098 Jan 09 j 16:00 4°**х**³33'13 conjunction -5105 Dec 25 j 02:03 26°M28'36 -11°08'20 retrograde -5098 Apr 15 j 09:25 6°**х** 06′53 minimum elong -5105 Dec 25 j 01:50 26°M28'35 11°08'33 min. Earth dist. -5098 Jul 04 j 21:58 5°**∡**03'41 40.98538 AU max. Earth dist. -5105 Dec 28 j 09:53 26°M34'11 41.43366 AU -5098 Jul 08 j 02:26 4°**₹**59'39 -13°30'45 opposition -5104 Jan 04 j 12:52 26° M46'05-5098 Sep 26 j 12:10 3°**х** 54′24 morning rise direct

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 23 Attention, astronomical year style is used: The year -5098 in astronomical counting style is the year 5099 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -5098 in astronomical co	ounting style is the year	r 5099 BCE in historical c	ounting style.
evening set	-5098 Dec 26 j 03:53	5° ₹ 23'31	min. Earth dist.	-5091 Jul 13 j 14:46	13° ⊀ 41'31 42.47601 AU
			opposition	-5091 Jul 16 j 14:04	13° ∡ ³37′50 -15°02′28
conjunction	-5097 Jan 02 j 22:59	5° ∡ '36'05 -13°00'17	direct	-5091 Oct 05 j 00:29	12° ∡ ³33'51
minimum elong	-5097 Jan 02 j 22:47	5° ⋌ 36'04 13°00'32	evening set	-5090 Jan 07 j 04:35	14° ₹ 05'34
max. Earth dist.	-5097 Jan 06 j 05:47	5° ⊀ 41'24 43.04384 AU			
morning rise	-5097 Jan 10 j 18:37	5° ⋌ ¹48'42	conjunction	-5090 Jan 11 j 08:56	14° ≯ 12'06 -14°27'38
retrograde	-5097 Apr 16 j 22:44	7° ₹ 122'34	minimum elong	-5090 Jan 11 j 08:46	14° ∡ 12'06 14°27'54
min. Earth dist.	-5097 Jul 06 j 10:21	6° ⊀ 19'36 41.20976 AU	max. Earth dist.	-5090 Jan 14 j 11:31	14° ≯ 16'57 44.50962 AU
opposition	-5097 Jul 09 j 15:00	6° ⊀ 15'34 -13°45'21	morning rise	-5090 Jan 15 j 13:14	14° ≯ 18'38
direct	-5097 Sep 28 j 00:14	5° ∡ 10'32	retrograde	-5090 Apr 25 j 06:56	15° ₹ ¹55'03
evening set	-5097 Dec 28 j 02:37	6° ₹ 39'53	min. Earth dist.	-5090 Jul 15 j 01:42	14° ₹ '53'00 42.67639 AU
	v		opposition	-5090 Jul 18 j 00:53	14° ∡ 749'21 -15°13'35
conjunction	-5096 Jan 04 j 11:23	6° ₹ 51'43 -13°14'11	direct	-5090 Oct 06 j 11:37	13° ∡ ¹45'31
minimum elong	-5096 Jan 04 j 11:12	6° ∡ 751'42 13°14'26	evening set	-5089 Jan 09 j 09:12	15° ⊀ 18′00
max. Earth dist.	-5096 Jan 07 j 17:14	6° ₹ 56'56 43.26445 AU	•	•	
morning rise	-5096 Jan 11 j 20:46	7° ∡ 03'35	conjunction	-5089 Jan 12 j 19:41	15° ∡ ¹23'21 -14°38'13
retrograde	-5096 Apr 17 j 13:33	8° ∡ ³37'40	minimum elong	-5089 Jan 12 j 19:33	15° ∡ ¹23'21 14°38'28
min. Earth dist.	-5096 Jul 07 j 00:21	7° ⋌ ³34'50 41.43048 AU	morning rise	-5089 Jan 16 j 06:07	15° ∡ ¹28'41
opposition	-5096 Jul 10 j 03:37	7° ∡ ³30'54 -13°59'26	max. Earth dist.	-5089 Jan 15 j 20:50	15° ∡ ¹28'05 44.70737 AU
direct	-5096 Sep 28 j 10:42	6° ∡ 126′04	retrograde	-5089 Apr 26 j 17:55	17° ₹ 05'50
evening set	-5096 Dec 29 j 01:30	7° ∡ ¹55'41	min. Earth dist.	-5089 Jul 16 j 12:30	16° ✗ 03'58 42.87480 AU
Č	,		opposition	-5089 Jul 19 j 11:25	16° ∡ 00'19 -15°24'13
conjunction	-5095 Jan 04 j 23:35	8° ∡ 06'45 -13°27'36	direct	-5089 Oct 07 j 21:44	14° ∡ 756'41
minimum elong	-5095 Jan 04 j 23:24	8° ₹ 06'44 13°27'50	evening set	-5088 Jan 11 j 18:00	16° ⋌ ³30′12
max. Earth dist.	-5095 Jan 08 j 05:20	8° ₹ 11'55 43.48122 AU			
morning rise	-5095 Jan 11 j 22:00	8° ⋌ 17'49	conjunction	-5088 Jan 14 j 06:20	16° ∡ ³34′06 -14°48′20
retrograde	-5095 Apr 19 j 00:41	9° ₹ 52'11	minimum elong	-5088 Jan 14 j 06:11	16° ⋌ 34'06 14°48'36
min. Earth dist.	-5095 Jul 08 j 13:29	8° ₹ 49'29 41.64698 AU	morning rise	-5088 Jan 16 j 18:29	16° ⋌ 137'59
opposition	-5095 Jul 11 j 15:54	8° ₹ 45'36 -14°13'01	max. Earth dist.	-5088 Jan 17 j 08:06	16° ₹38'52 44.90312 AU
direct	-5095 Sep 30 j 00:02	7° ∡ 140'57	retrograde	-5088 Apr 27 j 02:08	18° ₹ 16'10
evening set	-5095 Dec 31 j 00:54	9° ₹ 10'53	min. Earth dist.	-5088 Jul 17 j 00:14	17° ₹ 14'25 43.07099 AU
evening set	3073 Dec 31 J 00:54) X 1033	opposition	-5088 Jul 19 j 21:51	17° ₹ 10'51 -15°34'22
conjunction	-5094 Jan 06 j 11:32	9° ∡ 21′08 -13°40′32	direct	-5088 Oct 08 j 09:59	16° ₹ 07′24
minimum elong	-5094 Jan 06 j 11:22	9° \$\frac{7}{21}'07 13°40'48	evening set	-5087 Jan 13 j 16:53	17° ₹ 142'54
max. Earth dist.	-5094 Jan 09 j 15:29	9° ₹26'10 43.69383 AU	evening set	-3007 Jan 13 j 10.33	1/ 🗡 72 57
morning rise	-5094 Jan 12 j 22:34	9° ₹ 31'24	conjunction	-5087 Jan 14 j 16:32	17° ∡ 144'25 -14°58'00
retrograde	-5094 Apr 20 j 11:51	11° ₹ 06'03	minimum elong	-5087 Jan 14 j 16:26	17° ₹ 44'25 14°58'16
min. Earth dist.	-5094 Jul 10 i 01:51	10° ₹03'30 41.85945 AU	morning rise	-5087 Jan 15 j 16:01	17° ₹ 145'56
opposition	-5094 Jul 13 j 03:53	9° 1 59'39 -14°26'07	max. Earth dist.	-5087 Jan 17 j 17:03	17° ₹ 49'05 45.09674 AU
direct	-5094 Oct 01 j 12:33	8° ₹ 55'10	retrograde	-5087 Apr 28 j 11:17	19° ₹26'04
evening set	-5093 Jan 02 j 00:37	10° ₹ 25'27	min. Earth dist.	-5087 Jul 18 j 10:00	18° ₹24'33 43.26483 AU
evening set	-3073 Jan 02 J 00.37	10 × 2327	opposition	-5087 Jul 21 j 08:03	18° ₹ 20'58 -15°44'02
conjunction	-5093 Jan 07 j 23:21	10° ∡ ³34'51 -13°53'01	direct	-5087 Oct 09 j 21:23	17° ₹ 17'42
minimum elong	-5093 Jan 07 j 23:21	10° х 34′51 -13′53′16	uncet	-3087 Oct 09 j 21.23	1/ 🗴 1/ 42
max. Earth dist.	-5093 Jan 11 j 03:30	10° ₹39'53 43.90245 AU	conjunction	-5086 Jan 16 j 02:46	18° ∡ 754'21 -15°07'13
morning rise	-5093 Jan 13 j 22:18	10° ₹ 44'17	minimum elong	-5086 Jan 16 j 02:38	18° ₹ 54'20 15°07'30
retrograde	-5093 Apr 21 j 20:32	10 ≯ 44 17 12° ₹ 19'16	max. Earth dist.	-5086 Jan 19 j 03:01	18° ₹ 58'58 45.28771 AU
min. Earth dist.	-5093 Jul 11 j 15:15	11° 尽 16'48 42.06800 AU	retrograde	-5086 Apr 29 j 22:59	20° ₹35'37
opposition	-5093 Jul 14 j 15:36	11° 🗷 13'02 -14°38'44	min. Earth dist.	-5086 Jul 19 j 21:47	19° ₹34'11 43.45580 AU
direct	-5093 Oct 03 j 03:17	10° ₹ 08'43	opposition	-5086 Jul 22 j 18:05	19° ₹30'43 -15°53'15
evening set	-5092 Jan 04 j 01:02	11° ∡ 39′23	direct	-5086 Oct 11 j 06:43	18° ₹ 27'39
evening set	-3092 Jan 04 J 01.02	11 🛪 39 23	uncet	-5000 Oct 11 j 00.45	10 🗴 27 39
agniumation	5002 Ion 00 : 10:49	110.74754 14005102	agnismation	5005 Ion 17:12:00	200.70255 1501601
conjunction	-5092 Jan 09 j 10:48	11° x 47'54 -14°05'02	conjunction	-5085 Jan 17 j 13:00	20° \$\infty\$ 03'55 -15°16'01
minimum elong	-5092 Jan 09 j 10:38	11° \$\bar{7}47'54 14°05'18	minimum elong	-5085 Jan 17 j 12:54 -5085 Jan 20 j 12:39	20° \$\infty\$ 03'55 15°16'18
max. Earth dist.	-5092 Jan 12 j 13:36	11° ₹ 52'50 44.10757 AU	max. Earth dist.		20° ₹ 08'29 45.47563 AU
morning rise	-5092 Jan 14 j 20:42	11° 🗷 56'27	retrograde	-5085 May 01 j 10:41	21° x ⁷ 44'47
retrograde	-5092 Apr 22 j 08:00	13° x '31'48	min. Earth dist.	-5085 Jul 21 j 07:53	20° 🗷 43'32 43.64314 AU
min. Earth dist.	-5092 Jul 12 j 02:12	12° ₹ 29'31 42.27329 AU	opposition	-5085 Jul 24 j 03:47	20° x ⁷ 40'06 -16°02'02
opposition	-5092 Jul 15 j 02:51	12° ₹ 25'45 -14°50'51	direct	-5085 Oct 12 j 14:34	19° ₹ 37'12
direct	-5092 Oct 03 j 14:40	11° x ⁷ 21'36		5004 I 10:22.55	210.71207 1502424
evening set	-5091 Jan 05 j 02:07	12° ₹ 52'45	conjunction	-5084 Jan 18 j 22:55	21° х 13'07 -15°24'24
	5001 I 00:21 5=	120 700110 1407334	minimum elong	-5084 Jan 18 j 22:48	21° 🗷 13'07 15°24'41
conjunction	-5091 Jan 09 j 21:57	13° 7 00'18 -14°16'34	max. Earth dist.	-5084 Jan 21 j 20:48	21° 🖈 17'33 45.65957 AU
minimum elong	-5091 Jan 09 j 21:47	13° 7 00'18 14°16'49	retrograde	-5084 May 01 j 21:37	22° \$\inf\$ 53'36
max. Earth dist.	-5091 Jan 13 j 00:24	13° ₹05'10 44.30972 AU	min. Earth dist.	-5084 Jul 21 j 18:44	21° \$\infty\$ 52'28 43.82636 AU
morning rise	-5091 Jan 14 j 17:53	13° ₹ 07'53	opposition	-5084 Jul 24 j 13:25	21° x ⁷ 49'06 -16°10'24
retrograde	-5091 Apr 23 j 20:15	14° ∡ ⁴43'43	direct	-5084 Oct 12 j 23:18	20° ∡ ′46′23

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24 Attention, astronomical year style is used: The year -5083 in astronomical counting style is the year 5084 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	e year -5083	in astronomical co	unting style is the year	r 5084 BCE in historical c	ounting style.	,
conjunction	-5083 Jan 19 j 08:55	22° ∡ *21′56	-15°32'24		-5076 Nov 30 j 10:01	8°0	
minimum elong	-5083 Jan 19 j 08:50	22° ₹ '21'56	15°32'41				
max. Earth dist.	-5083 Jan 22 j 06:45	22° ∡ ¹26′21	45.83915 AU	conjunction	-5075 Jan 28 j 09:44		-16°22'37
retrograde	-5083 May 03 j 04:30	24° 尽 02'01		minimum elong	-5075 Jan 28 j 09:41		16°22'54
min. Earth dist.	-5083 Jul 23 j 05:46		44.00483 AU	max. Earth dist.	-5075 Jan 30 j 23:55		47.13211 AU
opposition	-5083 Jul 25 j 22:53	22° ∡ 57'41	-16°18'22	retrograde	-5075 May 11 j 23:47	2° る 52'05	
direct	-5083 Oct 14 j 11:16	21° ₹ 55'06		min. Earth dist.	-5075 Aug 01 j 08:34		45.29216 AU
				opposition	-5075 Aug 03 j 19:10		-17°07'53
conjunction	-5082 Jan 20 j 18:35	23° х 30'18		direct	-5075 Oct 23 j 12:39	0° る 47'15	
minimum elong	-5082 Jan 20 j 18:28	23° x 30'18		. ,.	50741 20:10.04	20710140	1.602711.0
max. Earth dist.	-5082 Jan 23 j 14:11		46.01404 AU	conjunction	-5074 Jan 29 j 18:04		-16°27'10
retrograde	-5082 May 04 j 12:42	25° ₹ 09'59	44.17852 AU	minimum elong max. Earth dist.	-5074 Jan 29 j 18:03		16°27'27 47.28007 AU
min. Earth dist.	-5082 Jul 24 j 15:19 -5082 Jul 27 j 08:08	24 x · 09 04 24° x · 05 ' 48			-5074 Feb 01 j 06:59 -5074 May 13 j 10:02	2 3 25 31	47.28007 AU
opposition direct	-5082 Jul 27 j 08.08 -5082 Oct 15 j 22:01	23°×103'48	-10 23 37	retrograde min. Earth dist.	-5074 May 13 j 10.02 -5074 Aug 02 j 18:02		45.43923 AU
direct	-3082 Oct 13 J 22.01	23 X 03 21		opposition	-5074 Aug 05 j 03:04		-17°12'18
conjunction	-5081 Jan 22 j 04:13	24° ∡ ³38′10	-15°47'15	direct	-5074 Oct 24 j 18:34	1°පි52'06	-17 12 16
minimum elong	-5081 Jan 22 j 04:09	24° ₹ 38′10		direct	30/1000 21/10.51	1 032 00	
max. Earth dist.	-5081 Jan 24 j 23:16		46.18413 AU	conjunction	-5073 Jan 31 j 02:37	3°₹24'23	-16°31'22
retrograde	-5081 May 05 j 20:49	26° ₹ 17'27	10.10115710	minimum elong	-5073 Jan 31 j 02:34		16°31'39
min. Earth dist.	-5081 Jul 26 j 02:33		44.34758 AU	max. Earth dist.	-5073 Feb 02 j 15:22		47.42453 AU
opposition	-5081 Jul 28 j 17:08	25° ₹ 13'24		retrograde	-5073 May 14 j 17:45	5° る 00'53	.,2.03.110
direct	-5081 Oct 17 j 08:42	24° ✓ 11'04	10 33 07	min. Earth dist.	-5073 Aug 04 j 02:45		45.58228 AU
				opposition	-5073 Aug 06 j 10:35		-17°16'22
conjunction	-5080 Jan 23 j 13:39	25° ₹ '45'31	-15°54'07	direct	-5073 Oct 26 j 02:33	2° る 56'42	
minimum elong	-5080 Jan 23 j 13:34	25° ₹ '45'30			,		
max. Earth dist.	-5080 Jan 26 j 07:45		46.35003 AU	conjunction	-5072 Feb 01 j 10:53	4° る 28'45	-16°35'14
retrograde	-5080 May 06 j 06:09	27° ∡ ¹24'23		minimum elong	-5072 Feb 01 j 10:53	4° る 28'45	16°35'31
min. Earth dist.	-5080 Jul 26 j 11:25	26° ₹ 23'36	44.51257 AU	max. Earth dist.	-5072 Feb 03 j 21:19	4° る 32'18	47.56477 AU
opposition	-5080 Jul 29 j 01:52	26° ₹ '20'28	-16°39'57	retrograde	-5072 May 15 j 01:44	6° る 04'57	
direct	-5080 Oct 17 j 17:40	25° ∡ 18'14		min. Earth dist.	-5072 Aug 04 j 10:59	5° る 04'58	45.72086 AU
				opposition	-5072 Aug 06 j 18:08	5° る 02'15	-17°20'05
conjunction	-5079 Jan 23 j 22:35	26° ₹ 52'19	-16°00'35	direct	-5072 Oct 26 j 10:19	4° ට 01'04	
minimum elong	-5079 Jan 23 j 22:31	26° ₹ 52'19	16°00'53				
max. Earth dist.	-5079 Jan 26 j 15:15	26° ₹ 56'21	46.51214 AU	conjunction	-5071 Feb 01 j 19:02	5° る 32'52	-16°38'47
retrograde	-5079 May 07 j 17:43			minimum elong	-5071 Feb 01 j 19:01		16°39'03
min. Earth dist.	-5079 Jul 27 j 21:19		44.67421 AU	max. Earth dist.	-5071 Feb 04 j 04:57		47.70015 AU
opposition	-5079 Jul 30 j 10:35	27° х 27′00	-16°46'20	retrograde	-5071 May 16 j 07:33	7° る 08'49	
direct	-5079 Oct 18 j 23:49	26° ≯ 24'53		min. Earth dist.	-5071 Aug 05 j 20:52		45.85428 AU
		_		opposition	-5071 Aug 08 j 01:42		-17°23'30
conjunction	-5078 Jan 25 j 07:41	27° ∡ ¹58'37		direct	-5071 Oct 27 j 19:51	5° る 05'11	
minimum elong	-5078 Jan 25 j 07:37	27° ₹ 58'37					
max. Earth dist.	-5078 Jan 28 j 00:34		46.67120 AU	conjunction	-5070 Feb 03 j 03:15		-16°42'01
retrograde	-5078 May 09 j 01:14	29° х 36'44	44.02077.444	minimum elong	-5070 Feb 03 j 03:16		16°42'17
min. Earth dist.	-5078 Jul 29 j 06:41		44.83277 AU	max. Earth dist.	-5070 Feb 05 j 11:30		47.83045 AU
opposition direct	-5078 Jul 31 j 18:55 -5078 Oct 20 j 09:21	28° 尽 33'04 27° 尽 31'03	-16°52′19	retrograde min. Earth dist.	-5070 May 17 j 14:48	8°る12'24	45.98241 AU
direct	-30/8 Oct 20 J 09.21	27 X ·31 03		opposition	-5070 Aug 07 j 04:26 -5070 Aug 09 j 08:51		-17°26'35
conjunction	-5077 Jan 26 j 16:31	29° ∡ 04'27	-16°12'22	direct	-5070 Oct 29 j 04:25	6° る 08'59	-17 20 33
minimum elong	-5077 Jan 26 j 16:27	29° × 04'27		direct	-5070 Oct 27 j 04.25	0 00037	
max. Earth dist.	-5077 Jan 29 j 07:40		46.82748 AU	conjunction	-5069 Feb 04 j 11:15	7° 云 40'17	-16°44'56
max. Lattii dist.	-5077 Mar 07 j 11:58	0°る	40.02/40 AO	minimum elong	-5069 Feb 04 j 11:15		16°45'13
retrograde	-5077 May 10 j 08:17	0° る 42'12		max. Earth dist.	-5069 Feb 06 j 17:37		47.95546 AU
retrograde	-5077 Jul 14 j 23:14	30°R. ₹		retrograde	-5069 May 19 j 01:26	9° ට 15'39	47.93540710
min. Earth dist.	-5077 Jul 30 j 14:59		44.98869 AU	min. Earth dist.	-5069 Aug 08 j 13:39		46.10549 AU
opposition	-5077 Aug 02 j 03:10	29° х 38'40		opposition	-5069 Aug 10 j 16:04	8° ට 13'19	
direct	-5077 Oct 21 j 18:35	28° ∡ ³36'47		direct	-5069 Oct 30 j 09:30	7° る 12'26	
	-5076 Jan 21 j 08:23	0°る			 		
	J 11120	-		conjunction	-5068 Feb 05 j 19:06	8° ප් 43'28	-16°47'34
conjunction	-5076 Jan 28 j 01:09	0° る 09'53	-16°17'41	minimum elong	-5068 Feb 05 j 19:08	8° ප් 43'28	
minimum elong	-5076 Jan 28 j 01:07	0° る 09'53		max. Earth dist.	-5068 Feb 08 j 01:09	8° ප 46'43	48.07572 AU
max. Earth dist.	-5076 Jan 30 j 16:17		46.98107 AU	retrograde	-5068 May 19 j 09:03	10° ප් 18'32	
retrograde	-5076 May 10 j 14:45	1° る 47'18		min. Earth dist.	-5068 Aug 08 j 21:32	9° ට 18'44	46.22391 AU
min. Earth dist.	-5076 Jul 31 j 00:45	0° る 46'50	45.14184 AU	opposition	-5068 Aug 10 j 22:56	9° ප 16'18	-17°31'48
opposition	-5076 Aug 02 j 11:18	0° る 43'55	-17°03'06	direct	-5068 Oct 30 j 15:56	8° ප 15'30	
	-5076 Sep 12 j 05:44	30°₽ ,∡ 7					
direct	-5076 Oct 22 j 05:01	29° ∡ ⁴42'11		conjunction	-5067 Feb 06 j 02:41	9° ප 46'17	-16°49'51

Attention astronom	nical waar etyla ie nead: Th	A Maar 5067	in actronomical co	unting ctyle ic the year	5068 BCE in historical c	ounting style	
minimum elong	-5067 Feb 06 j 02:42	e year -3067 1 9° 3 46'17		min. Earth dist.	-5059 Aug 18 j 16:09		47.13883 AU
max. Earth dist.	-5067 Feb 08 j 06:37		48.19182 AU	opposition	-5059 Aug 18 j 10:09	18°る29'44	
retrograde	-5067 May 20 j 16:03	9 04923 11° る 21'03	46.19162 AU	direct	-5059 Nov 09 j 07:08	18 3 2944 17° る 29'40	-1/ 36 32
min. Earth dist.	-5067 Aug 10 j 04:56		46.33860 AU	unect	-3039 NOV 09 J 07.08	17 02940	
opposition	-5067 Aug 12 j 05:41	10 321 18 10°る18'55		conjunction	-5058 Feb 15 j 19:37	18°る58'41	16°56'05
direct	-5067 Oct 31 j 22:49	9°る18'10	-17 33 33	minimum elong	-5058 Feb 15 j 19:41	18°る58'41	
direct	-3007 Oct 31 j 22.49	9 01810		max. Earth dist.	-5058 Feb 17 j 14:28		49.08912 AU
conjunction	-5066 Feb 07 j 10:16	10° る 48'42	-16°51'50	retrograde	-5058 May 30 j 02:21	19 3 0111 20° る 31'19	49.08912 AU
minimum elong	-5066 Feb 07 j 10:18	10 84842 10°る48'43		min. Earth dist.	-5058 Aug 19 j 23:03		47.21975 AU
max. Earth dist.	-5066 Feb 09 j 14:07		48.30435 AU	opposition	-5058 Aug 21 j 13:33	19 3 3201	
retrograde	-5066 May 21 j 19:14	10 3 3149	46.30433 AU	direct	-5058 Nov 10 j 12:20	19 3 3010	-1/ 3808
min. Earth dist.	-5066 Aug 11 j 13:23		46.44984 AU	direct	-3036 NOV 10 J 12.20	16 03009	
opposition	-5066 Aug 13 j 12:23	11° る 23'27		conjunction	-5057 Feb 17 j 02:30	19° る 58'59	16°55'20
direct	-5066 Nov 02 j 09:21	11 3 2109	-17 33 41	minimum elong	-5057 Feb 17 j 02:36	19° ろ 59'00	
direct	-3000 NOV 02 J 09.21	10 02029		max. Earth dist.	-5057 Feb 18 j 18:49		49.16763 AU
conjunction	-5065 Feb 08 j 17:46	11° る 50'47	16053128	retrograde	-5057 May 31 j 10:06	20 3 0121 21° る 31'24	49.10703 AU
minimum elong	-5065 Feb 08 j 17:48	11°る50'47		min. Earth dist.	-5057 Aug 21 j 06:00		47.29562 AU
max. Earth dist.	-5065 Feb 10 j 20:13		48.41385 AU	opposition	-5057 Aug 22 j 19:13	20° ろ 30'19	
retrograde	-5065 May 23 j 00:57	11 03348 13°る25'00	40.41363 AU	direct	-5057 Nov 11 j 16:59	20 3 3019	-1/ 3/08
min. Earth dist.	-5065 Aug 12 j 19:37		46.55811 AU	direct	-3037 NOV 11 J 10.39	19 03021	
	-5065 Aug 14 j 18:42	12 3 23 22 12° 3 23'04		conjunction	-5056 Feb 18 j 09:20	20°る59'02	1605/110
opposition direct	-5065 Nov 03 j 17:31	12 3 23 04 11° る 22'28	-1/3/0/	minimum elong	-5056 Feb 18 j 09:25	20°る59'02	
direct	-3003 NOV 03 J 17.31	11 022 28		max. Earth dist.			49.24126 AU
aaniumatian	-5064 Feb 10 j 01:02	12° る 52'33	16054147		-5056 Feb 20 j 01:10 -5056 May 31 j 13:32	21 30121 22° る 31'14	49.24126 AU
conjunction minimum elong	-5064 Feb 10 j 01:04	12 3 32 33		retrograde min. Earth dist.	-5056 Aug 21 j 13:32		47.36679 AU
max. Earth dist.	-5064 Feb 12 j 02:24		48.52047 AU	opposition	-5056 Aug 23 j 00:53	21° る 30'13	
	-5064 May 23 j 09:25	12 3 3330 14° る 26'31	46.32047 AU	direct	• •	21 83013 20° る 30'17	-1/ 33 32
retrograde min. Earth dist.	, ,		46.66364 AU	direct	-5056 Nov 12 j 01:16	20 03017	
	-5064 Aug 13 j 03:47	13° る 26'34		conjunction	-5055 Feb 18 j 15:51	21°る58'48	16952100
opposition	-5064 Aug 15 j 01:12	13 3 2441 12° 3 24'11	-1/ 3612	,	-	21 3 3848 21° る 58'48	
direct	-5064 Nov 03 j 23:08	12-62411		minimum elong	-5055 Feb 18 j 15:58 -5055 Feb 20 j 06:01		49.31068 AU
· · · · · · · · · ·	50(2 E-L 10:00.11	120754104	1.6055145	max. Earth dist.		22° る 01'01 23° る 30'47	49.31008 AU
conjunction minimum elong	-5063 Feb 10 j 08:11	13°る54'04 13°る54'04		retrograde min. Earth dist.	-5055 Jun 01 j 17:53		47.43397 AU
_	-5063 Feb 10 j 08:14		48.62445 AU		-5055 Aug 22 j 19:12	22° る 29'50	
max. Earth dist.	-5063 Feb 12 j 09:32	15°る27'47	48.02443 AU	opposition	-5055 Aug 24 j 06:21		-1/-3418
retrograde	-5063 May 24 j 17:08 -5063 Aug 14 j 10:33		46.76622 AU	direct	-5055 Nov 13 j 08:46	21° る 29'57	
min. Earth dist.	<i>U</i> ,	14°る2816 14°る26'04		conjunction	5054 Eab 10 : 22:25	220250110	16051125
opposition	-5063 Aug 16 j 07:29		-1/383/	3	-5054 Feb 19 j 22:25	22° る 58'18	
direct	-5063 Nov 05 j 04:52	13° る 25'39		minimum elong	-5054 Feb 19 j 22:31 -5054 Feb 21 j 11:21	22°る58'18	
aaniumatian	5062 Eab 11: 15:10	14° る 55'21	16056125	max. Earth dist. retrograde	-	23° る 00'27 24° る 30'07	49.37627 AU
conjunction minimum elong	-5062 Feb 11 j 15:18			retrograde			
_	5062 Feb. 11 ; 15:20	140-555121	16056141	-	-5054 Jun 03 j 00:30		47 40765 ATT
may Earth dist	-5062 Feb 11 j 15:20	14° ろ 55'21		min. Earth dist.	-5054 Aug 24 j 02:36	23° る 30'50	47.49765 AU
max. Earth dist.	-5062 Feb 13 j 14:33	14° る 58'09	16°56'41 48.72545 AU	min. Earth dist.	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45	23° ට 30'50 23°ට29'14	
retrograde	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43	14°පි58'09 16°පි28'50	48.72545 AU	min. Earth dist.	-5054 Aug 24 j 02:36	23° る 30'50	
retrograde min. Earth dist.	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29	14°ජ58'09 16°ජ28'50 15°ජ29'23	48.72545 AU 46.86570 AU	min. Earth dist. opposition direct	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35	23° ි 30'50 23° ි 529'14 22° ි 529'23	-17°32'27
retrograde min. Earth dist. opposition	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36	14° ප්58'09 16° ප්28'50 15° ප්29'23 15° ප්27'15	48.72545 AU 46.86570 AU	min. Earth dist. opposition direct conjunction	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01	23° පි30'50 23° පි29'14 22° පි29'23 23° පි57'36	-17°32'27 -16°49'33
retrograde min. Earth dist.	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29	14°ජ58'09 16°ජ28'50 15°ජ29'23	48.72545 AU 46.86570 AU	min. Earth dist. opposition direct conjunction minimum elong	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08	23° ් 30'50 23° ් 529'14 22° ් 529'23 23° ් 557'36 23° ් 557'36	-17°32'27 -16°49'33 16°49'49
retrograde min. Earth dist. opposition direct	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09	14° ට 58'09 16° ට 28'50 15° ට 29'23 15° ට 27'15 14° ට 26'55	48.72545 AU 46.86570 AU -17°39'23	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38	23° \(\begin{align*} 23° \(\beta\) 30'50 23° \(\beta\) 29'14 22° \(\beta\) 29'23 23° \(\beta\) 57'36 23° \(\beta\) 559'43	-17°32'27 -16°49'33
retrograde min. Earth dist. opposition direct conjunction	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31	14° ට 58'09 16° ට 28'50 15° ට 29'23 15° ට 27'15 14° ට 26'55	48.72545 AU 46.86570 AU -17°39'23 -16°56'45	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57	23°る30'50 23°る29'14 22°る29'23 23°る57'36 23°る57'36 23°る59'43 25°る29'13	-17°32'27 -16°49'33 16°49'49 49.43871 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35	14° ට 58'09 16° ට 28'50 15° ට 29'23 15° ට 27'15 14° ට 26'55 15° ට 56'27 15° ට 56'27	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14	23° ට 30'50 23° ට 29'14 22° ට 29'23 23° ට 57'36 23° ට 55'43 25° ට 29'13 24° ට 30'00	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35	14° ට 558'09 16° ට 28'50 15° ට 29'23 15° ට 27'15 14° ට 26'55 15° ට 56'27 15° ට 559'14	48.72545 AU 46.86570 AU -17°39'23 -16°56'45	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00	23° ට 30'50 23° ට 29'14 22° ට 29'23 23° ට 57'36 23° ට 57'36 23° ට 59'43 25° ට 29'13 24° ට 30'00 24° ට 28'25	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55	14° ට 558'09 16° ට 28'50 15° ට 29'23 15° ට 27'15 14° ට 26'55 15° ට 56'27 15° ට 55'27 15° ට 59'14 17° ට 29'43	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14	23° ට 30'50 23° ට 29'14 22° ට 29'23 23° ට 57'36 23° ට 55'43 25° ට 29'13 24° ට 30'00	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37	14°る58'09 16°る28'50 15°る29'23 15°る27'15 14°る26'55 15°る56'27 15°る56'27 15°る59'14 17°る29'43 16°る30'17	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48	23°る30'50 23°る29'14 22°る29'23 23°る57'36 23°る57'36 23°る59'43 25°る29'13 24°る30'00 24°る28'25 23°る28'38	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37 -5061 Aug 18 j 19:44	14°る58'09 16°る28'50 15°る29'23 15°る27'15 14°る26'55 15°る56'27 15°る56'27 15°る59'14 17°る29'43 16°る30'17 16°る28'15	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:13	23° る30'50 23° る29'14 22° る29'23 23° る57'36 23° る57'36 23° る59'43 25° る29'13 24° る30'00 24° る28'25 23° る28'38 24° る56'43	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37	14°る58'09 16°る28'50 15°る29'23 15°る27'15 14°る26'55 15°る56'27 15°る56'27 15°る59'14 17°る29'43 16°る30'17	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:13 -5052 Feb 22 j 11:20	23°る30'50 23°る29'14 22°る29'23 23°る57'36 23°る57'36 23°る59'43 25°る29'13 24°る30'00 24°る28'25 23°る28'38 24°る56'43 24°る56'44	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23 16°47'38
retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37 -5061 Aug 18 j 19:44 -5061 Nov 07 j 16:41	14° 云58'09 16° 云28'50 15° 云29'23 15° 云27'15 14° 云26'55 15° 云56'27 15° 云56'27 15° 云59'14 17° 云29'43 16° 云30'17 16° 云28'15 15° 云28'01	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU -17°39'30	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist.	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:13 -5052 Feb 22 j 11:20 -5052 Feb 23 j 21:46	23° \(\frac{3}{3}0' \)50 (23° \(\frac{3}{2}0' \)14 (22° \(\frac{3}{2}2' \)23° \(\frac{3}{5}57' \)36 (23° \(\frac{3}{5}57' \)36 (23° \(\frac{3}{5}59' \)43 (25° \(\frac{3}{2}29' \)13 (24° \(\frac{3}{2}8' \)28' \(\frac{3}{5}6' \)43 (24° \(\frac{3}{5}6' \)44 (24° \(\frac{3}{5}8' \)43	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23
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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 min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. copposition direct conjunction	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37 -5061 Aug 18 j 19:44 -5061 Nov 07 j 16:41 -5060 Feb 14 j 05:31 -5060 Feb 14 j 05:34 -5060 Feb 16 j 02:52 -5060 Aug 17 j 07:54 -5060 Aug 19 j 01:41 -5060 Nov 08 j 00:59	14° 云58'09 16° 云28'50 15° 云29'23 15° 云27'15 14° 云26'55 15° 云56'27 15° 云56'27 15° 云59'14 17° 云29'43 16° 云30'17 16° 云28'15 15° 云28'01 16° 云57'22 16° 云57'23 17° 云00'03 18° 云30'26 17° 云31'06 17° 云29'05	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU -17°39'30 -16°56'49 16°57'05 48.91655 AU 47.05254 AU -17°39'19	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde opposition min. Earth dist. direct conjunction min. Earth dist. direct conjunction min. Earth dist. direct	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:20 -5052 Feb 22 j 11:20 -5052 Feb 23 j 21:46 -5052 Jun 04 j 15:24 -5052 Aug 26 j 22:17 -5052 Aug 25 j 14:19 -5052 Nov 15 j 22:22 -5051 Feb 22 j 17:37 -5051 Feb 22 j 17:44 -5051 Feb 24 j 04:13 -5051 Jun 05 j 20:29	23° \(\delta 30' \)50 23° \(\delta 29' \)14 22° \(\delta 29' \)23 23° \(\delta 57' \)36 23° \(\delta 57' \)36 23° \(\delta 55' \)36 23° \(\delta 59' \)43 24° \(\delta 28' \)25 23° \(\delta 28' \)25 23° \(\delta 28' \)38 24° \(\delta 56' \)43 24° \(\delta 56' \)44 24° \(\delta 58' \)43 26° \(\delta 28' \)11 25° \(\delta 27' \)28 25° \(\delta 27' \)44 25° \(\delta 55' \)44 25° \(\delta 55' \)44 25° \(\delta 55' \)44 25° \(\delta 57' \)44 27° \(\delta 27' \)02	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23 16°47'38 49.49817 AU -17°27'49 47.61587 AU -16°44'55 16°45'11 49.55484 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 min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37 -5061 Aug 18 j 19:44 -5061 Nov 07 j 16:41 -5060 Feb 14 j 05:31 -5060 Feb 14 j 05:34 -5060 Feb 16 j 02:52 -5060 Aug 17 j 07:54 -5060 Aug 17 j 07:54 -5060 Aug 19 j 01:41 -5060 Nov 08 j 00:59 -5059 Feb 14 j 12:31 -5059 Feb 14 j 12:31	14° 云58'09 16° 云28'50 15° 云29'23 15° 云27'15 14° 云26'55 15° 云56'27 15° 云56'27 15° 云59'14 17° 云29'43 16° 云30'17 16° 云28'15 15° 云28'01 16° 云57'22 16° 云57'23 17° 云00'03 18° 云30'26 17° 云31'06 17° 云29'05 16° 云28'56	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU -17°39'30 -16°56'49 16°57'05 48.91655 AU 47.05254 AU -17°39'19 -16°56'35 16°56'51	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde opposition min. Earth dist. direct conjunction min. Earth dist. direct conjunction min. Earth dist. direct conjunction minimum elong max. Earth dist. direct	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:13 -5052 Feb 22 j 11:20 -5052 Feb 23 j 21:46 -5052 Jun 04 j 15:24 -5052 Aug 26 j 22:17 -5052 Aug 25 j 14:19 -5052 Nov 15 j 22:22 -5051 Feb 22 j 17:37 -5051 Feb 22 j 17:44 -5051 Feb 24 j 04:13 -5051 Jun 05 j 20:29 -5051 Aug 26 j 21:07	23° \(\) 30' 50 23° \(\) 29' 14 22° \(\) 29' 23 23° \(\) 557' 36 23° \(\) 55' 43 25° \(\) 29' 13 24° \(\) 30' 00 24° \(\) 28' 25 23° \(\) 28' 38 24° \(\) 556' 43 24° \(\) 556' 44 24° \(\) 558' 43 26° \(\) 228' 11 25° \(\) 227' 28 25° \(\) 227' 28 25° \(\) 555' 44 25° \(\) 555' 44 25° \(\) 555' 44 25° \(\) 557' 44 27° \(\) 227' 02 26° \(\) 327' 52	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23 16°47'38 49.49817 AU -17°27'49 47.61587 AU -16°44'55 16°45'11 49.55484 AU 47.67060 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 min. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. copposition direct conjunction	-5062 Feb 13 j 14:33 -5062 May 26 j 01:43 -5062 Aug 15 j 17:29 -5062 Aug 17 j 13:36 -5062 Nov 06 j 09:09 -5061 Feb 12 j 22:31 -5061 Feb 12 j 22:35 -5061 Feb 14 j 21:35 -5061 May 27 j 06:55 -5061 Aug 17 j 01:37 -5061 Aug 18 j 19:44 -5061 Nov 07 j 16:41 -5060 Feb 14 j 05:31 -5060 Feb 14 j 05:34 -5060 Feb 16 j 02:52 -5060 Aug 17 j 07:54 -5060 Aug 19 j 01:41 -5060 Nov 08 j 00:59	14° 云58'09 16° 云28'50 15° 云29'23 15° 云27'15 14° 云26'55 15° 云56'27 15° 云56'27 15° 云59'14 17° 云29'43 16° 云30'17 16° 云28'15 15° 云28'01 16° 云57'22 16° 云57'23 17° 云00'03 18° 云30'26 17° 云31'06 17° 云29'05 16° 云28'56	48.72545 AU 46.86570 AU -17°39'23 -16°56'45 16°57'02 48.82300 AU 46.96131 AU -17°39'30 -16°56'49 16°57'05 48.91655 AU 47.05254 AU -17°39'19 -16°56'35	min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong max. Earth dist. retrograde opposition min. Earth dist. direct conjunction min. Earth dist. direct conjunction min. Earth dist. direct	-5054 Aug 24 j 02:36 -5054 Aug 25 j 11:45 -5054 Nov 14 j 14:35 -5053 Feb 21 j 05:01 -5053 Feb 21 j 05:08 -5053 Feb 22 j 17:38 -5053 Jun 04 j 06:57 -5053 Aug 25 j 08:14 -5053 Aug 26 j 17:00 -5053 Nov 15 j 19:48 -5052 Feb 22 j 11:20 -5052 Feb 22 j 11:20 -5052 Feb 23 j 21:46 -5052 Jun 04 j 15:24 -5052 Aug 26 j 22:17 -5052 Aug 25 j 14:19 -5052 Nov 15 j 22:22 -5051 Feb 22 j 17:37 -5051 Feb 22 j 17:44 -5051 Feb 24 j 04:13 -5051 Jun 05 j 20:29	23° \(\delta 30' \)50 23° \(\delta 29' \)14 22° \(\delta 29' \)23 23° \(\delta 57' \)36 23° \(\delta 57' \)36 23° \(\delta 55' \)36 23° \(\delta 59' \)43 24° \(\delta 28' \)25 23° \(\delta 28' \)25 23° \(\delta 28' \)38 24° \(\delta 56' \)43 24° \(\delta 56' \)44 24° \(\delta 58' \)43 26° \(\delta 28' \)11 25° \(\delta 27' \)28 25° \(\delta 27' \)44 25° \(\delta 55' \)44 25° \(\delta 55' \)44 25° \(\delta 55' \)44 25° \(\delta 57' \)44 27° \(\delta 27' \)02	-17°32'27 -16°49'33 16°49'49 49.43871 AU 47.55816 AU -17°30'17 -16°47'23 16°47'38 49.49817 AU -17°27'49 47.61587 AU -16°44'55 16°45'11 49.55484 AU 47.67060 AU

•	nical year style is used: Th		•	/ ·		, ,	e 20
conjunction	-5050 Feb 23 j 23:56	ie year -5050 1 26° る 54'39		direct	-5043 Nov 25 j 03:04	ounting style. 3°≈16'07	
minimum elong	-5050 Feb 24 j 00:04	26°る54'40		direct	-3043 NOV 23 J 03.04	3 ≈ 100/	
max. Earth dist.	-5050 Feb 25 j 08:55		49.60863 AU	conjunction	-5042 Mar 04 j 01:54	4°0042!20	-16°11'02
retrograde	-5050 Jun 07 j 00:01	20 33 034 28° る 25'50	49.00003 AU	minimum elong	-5042 Mar 04 j 01:34	4°≈43'20	
min. Earth dist.	-5050 Aug 28 j 02:17		47.72216 AU	max. Earth dist.	-5042 Mar 04 j 22:41		49.87703 AU
opposition	-5050 Aug 29 j 08:32	27° る 25'19		retrograde	-5042 Jun 14 j 23:16	6°≈13'28	49.87703 AU
direct	-5050 Nov 18 j 11:29	26° සි25'44	-17 22 00	opposition	-5042 Sep 05 j 23:43	5°≈13'25	-16°48'22
direct	-3030 NOV 18 J 11.29	20 02344		min. Earth dist.	-5042 Sep 05 j 04:53		47.96641 AU
conjunction	-5049 Feb 25 j 06:16	27° る 53'32	-16°30'08	direct	-5042 Nov 26 j 05:19	4°≈14'01	47.90041 AU
minimum elong	-5049 Feb 25 j 06:23	27° る 53'33		direct	-3042 NOV 20 J 03.19	4 ~1401	
max. Earth dist.	-5049 Feb 26 j 13:50		49.65884 AU	conjunction	-5041 Mar 05 j 08:00	5°22/11/10	-16°06'01
retrograde	-5049 Jun 08 j 05:34	27 3 33 22 29° る 24'36	49.03884 AU	minimum elong	-5041 Mar 05 j 08:09		16°06'15
min. Earth dist.	-5049 Aug 29 j 09:33		47.76993 AU	max. Earth dist.	-5041 Mar 06 j 04:37		49.89025 AU
opposition	-5049 Aug 30 j 13:35	28° ට 23'32		retrograde	-5041 Jun 16 j 04:36	7°≈11'10	47.07023 AO
direct	-5049 Nov 19 j 18:03	28 3 2411 27° 3 24'41	-17 10 -11	min. Earth dist.	-5041 Sep 06 j 10:59		47.97710 AU
direct	-3047 NOV 17 J 10.03	27 02441		opposition	-5041 Sep 07 j 04:19	6°≈11'09	
conjunction	-5048 Feb 26 j 12:40	28°る52'25	-16°35'51	direct	-5041 Nov 27 j 10:18	5°≈11'45	-10 43 01
minimum elong	-5048 Feb 26 j 12:49	28°る52'25		direct	-3041 NOV 27 J 10.16	J ~ 11 4 J	
max. Earth dist.	-5048 Feb 27 j 19:38		49.70510 AU	conjunction	-5040 Mar 05 j 13:54	6°2238'51	-16°00'45
max. Lattii dist.	-5048 Apr 21 j 13:52	0°≈	4)./0310 AO	minimum elong	-5040 Mar 05 j 14:04		16°00'59
retrograde	-5048 Jun 08 j 13:12	0°≈23'21		max. Earth dist.	-5040 Mar 06 j 08:50		49.90037 AU
retrograde	-5048 Jul 27 j 00:24	0 ≈23 21 30°Rる		retrograde	-5040 Jun 16 j 08:38	8°≈08'45	49.90037 AU
opposition	-5048 Aug 30 j 18:34	30 KO 29° る 23'03	17015105	opposition	-5040 Sep 07 j 08:52		-16°37'23
min. Earth dist.	-5048 Aug 29 j 15:19		47.81323 AU	min. Earth dist.	-5040 Sep 07 j 08.32		47.98478 AU
direct	-5048 Nov 19 j 21:54	29 රි2421 28° රි 23'35	47.81323 AU	direct	-5040 Nov 27 j 15:42	6°≈09'23	47.96476 AU
direct	-3046 NOV 19 J 21.34	26 023 33		direct	-3040 NOV 27 J 13.42	0 ~0923	
conjunction	-5047 Feb 26 j 18:49	29° る 51'15	-16°32'18	conjunction	-5039 Mar 06 j 19:41	7°≈36'26	-15°55'12
minimum elong	-5047 Feb 26 j 18:57	29° ට 51'15		minimum elong	-5039 Mar 06 j 19:52		15°55'25
max. Earth dist.	-5047 Feb 27 j 23:13		49.74658 AU	max. Earth dist.	-5039 Mar 07 j 13:27		49.90740 AU
max. Latti dist.	-5047 Mar 05 j 03:08	0°≈	47.74030710	retrograde	-5039 Jun 17 j 12:15	9° ≈ 06'15	49.90740710
retrograde	-5047 Jun 09 j 21:39	0 ∞ 1°≈22'05		opposition	-5039 Sep 08 j 13:34		-16°31'28
opposition	-5047 Aug 31 j 23:39		-17°11'15	min. Earth dist.	-5039 Sep 07 j 22:13		47.98937 AU
min. Earth dist.	-5047 Aug 30 j 21:58		47.85154 AU	direct	-5039 Nov 28 j 22:39	7°≈06'57	17.50557 110
mm. Bartii dist.	-5047 Sep 20 i 10:45	30°Rる	17.03131110	ancet	303) 1101 20 j 22.3)	7 . 4.00 5 7	
direct	-5047 Nov 21 j 00:32	29° පි 22'26		conjunction	-5038 Mar 08 j 01:44	8°≈≈33'58	-15°49'23
	-5046 Jan 20 j 12:38	0°≈		minimum elong	-5038 Mar 08 j 01:54		15°49'37
	20.004411 20 12.30			max. Earth dist.	-5038 Mar 08 j 19:03		49.91141 AU
conjunction	-5046 Feb 28 j 01:18	0°≈50'01	-16°28'32	retrograde	-5038 Jun 18 j 17:56	10° ≈ 03'44	
minimum elong	-5046 Feb 28 j 01:27	0° ≈ 50'01		opposition	-5038 Sep 09 j 17:57	9° ≈ 03'51	-16°25'17
max. Earth dist.	-5046 Mar 01 j 04:57		49.78278 AU	min. Earth dist.	-5038 Sep 09 j 03:07		47.99061 AU
retrograde	-5046 Jun 11 j 01:54	2° ≈ 20'42		direct	-5038 Nov 30 j 03:30	8° ≈ 04'31	
min. Earth dist.	-5046 Sep 01 j 04:55		47.88429 AU		J		
opposition	-5046 Sep 02 j 04:35		-17°07'10	conjunction	-5037 Mar 09 j 07:37	9° ≈ 31'32	-15°43'19
direct	-5046 Nov 22 j 07:09	0° ≈ 21'08		minimum elong	-5037 Mar 09 j 07:49	9° ≈ 31'33	15°43'32
	v			max. Earth dist.	-5037 Mar 09 j 22:38	9° ≈ 32'23	49.91191 AU
conjunction	-5045 Mar 01 j 07:38	1° ≈ 48'38	-16°24'31	retrograde	-5037 Jun 20 j 02:23	11° ≈ 01'15	
minimum elong	-5045 Mar 01 j 07:46	1° ≈ 48'39	16°24'45	opposition	-5037 Sep 10 j 22:32	10° ≈ 01'26	-16°18'51
max. Earth dist.	-5045 Mar 02 j 09:00		49.81361 AU	min. Earth dist.	-5037 Sep 10 j 09:06	10° ≈ 02'04	47.98819 AU
retrograde	-5045 Jun 12 j 05:22	3°≈19'10		direct	-5037 Dec 01 j 05:06	9° ≈ 02'08	
min. Earth dist.	-5045 Sep 02 j 10:25	2°≈20'09	47.91172 AU				
opposition	-5045 Sep 03 j 09:27	2°≈19'03	-17°02'51	conjunction	-5036 Mar 09 j 13:32	10° ≈ 29'09	-15°37'00
direct	-5045 Nov 23 j 14:26	1° ≈ 19'40		minimum elong	-5036 Mar 09 j 13:42	10° ≈ 29'10	15°37'14
				max. Earth dist.	-5036 Mar 10 j 04:07	10° ≈ 29'59	49.90833 AU
conjunction	-5044 Mar 01 j 13:41	2°≈47'05	-16°20'16	retrograde	-5036 Jun 20 j 07:23	11° ≈ 58'50	
minimum elong	-5044 Mar 01 j 13:51	2°≈47'05	16°20'31	opposition	-5036 Sep 11 j 03:04	10° ≈ 59'04	-16°12'09
max. Earth dist.	-5044 Mar 02 j 13:33	2° ≈ 48'27	49.83916 AU	min. Earth dist.	-5036 Sep 10 j 15:23	10° ≈ 59'37	47.98127 AU
retrograde	-5044 Jun 12 j 09:44	4° ≈ 17'29		direct	-5036 Dec 01 j 10:21	9° ≈ 59'47	
opposition	-5044 Sep 03 j 14:23	3° ≈ 17′23	-16°58'17				
min. Earth dist.	-5044 Sep 02 j 17:40	3° ≈ 18′22	47.93416 AU	conjunction	-5035 Mar 10 j 19:32	11° ≈ 26′50	-15°30'26
direct	-5044 Nov 23 j 21:11	2°≈18'00		minimum elong	-5035 Mar 10 j 19:44	11° ≈ 26'51	15°30'39
				max. Earth dist.	-5035 Mar 11 j 07:59	11° ≈ 27'33	49.90015 AU
conjunction	-5043 Mar 02 j 19:53	3° ≈ 45'19	-16°15'47	retrograde	-5035 Jun 21 j 11:31	12° ≈ 56′28	
minimum elong	-5043 Mar 02 j 20:02	3° ≈ 45'19	16°16'01	opposition	-5035 Sep 12 j 07:28	11° ≈ 56'45	-16°05'13
max. Earth dist.	-5043 Mar 03 j 18:59	3° ≈ 46'38	49.86016 AU	min. Earth dist.	-5035 Sep 11 j 20:32	11° ≈ 57'16	47.96943 AU
retrograde	-5043 Jun 13 j 14:43	5° ≈ 15'35		direct	-5035 Dec 02 j 16:28	10° ≈ 57'29	
opposition	-5043 Sep 04 j 19:00	4°≈15'30	-16°53'28				
min. Earth dist.	-5043 Sep 03 j 22:50	4° ≈ 16′28	47.95218 AU	conjunction	-5034 Mar 12 j 01:39	12° ≈ 24'33	-15°23'39

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5034 in astronomical counting style is the year 5035 BCE in historical counting style. -5034 Mar 12 i 01:50 12°≈24'34 15°23'53 conjunction -5027 Mar 18 j 19:03 19°≈07'16 -14°29'34 minimum elong minimum elong -5027 Mar 18 j 19:16 max. Earth dist. -5034 Mar 12 j 12:15 12°≈25'09 19°≈07'17 14°29'46 49 88666 AU -5034 Jun 22 j 15:46 13°≈54'09 -5027 Mar 18 j 19:53 19°≈07'19 49.66471 AU retrograde max. Earth dist. 12°≈54'28 -15°58'04 -5034 Sep 13 j 12:07 -5027 Mar 22 j 23:52 opposition 19°≈13'00 morning rise -5034 Sep 13 j 03:42 12°≈54'52 47.95215 AU -5027 Jun 29 j 06:10 min. Earth dist. retrograde 20°≈36'39 -5034 Dec 03 j 22:55 -5027 Sep 19 j 18:43 direct 11°≈55'12 opposition 19°≈36'58 -15°01'04 -5027 Sep 19 j 18:05 19°≈37'00 47.70818 AU min. Earth dist. -5033 Mar 13 j 07:46 13°≈22'16 -15°16'39 conjunction direct -5027 Dec 10 j 06:54 18°≈37'29 -5033 Mar 13 j 07:58 minimum elong 13°≈22'16 15°16'52 evening set -5026 Mar 15 j 07:28 19°≈58'16 max. Earth dist. -5033 Mar 13 j 17:18 13°≈22'48 49.86783 AU 20°≈04'42 -14°20'49 retrograde -5033 Jun 23 j 20:26 14°≈51'50 conjunction -5026 Mar 20 j 01:06 -5033 Sep 14 j 16:29 -5026 Mar 20 j 01:19 opposition 13°≈52'09 -15°50'41 minimum elong 20°≈04'43 14°21'00 -5026 Mar 20 j 01:45 min. Earth dist. -5033 Sep 14 j 08:45 13°≈52'32 47.92944 AU max. Earth dist. 20°≈04'45 49.61977 AU direct -5033 Dec 05 j 04:40 12°≈52'52 morning rise -5026 Mar 24 j 19:18 20°≈11'11 retrograde -5026 Jun 30 j 12:01 21°≈34'06 conjunction -5032 Mar 13 j 13:41 14°≈19'56 -15°09'25 opposition -5026 Sep 20 j 23:09 20°≈34'26 -14°51'52 minimum elong -5032 Mar 13 j 13:52 14°≈19'56 15°09'38 min. Earth dist. -5026 Sep 20 j 23:46 20°≈34'24 47.66031 AU max. Earth dist. -5032 Mar 13 j 20:35 14°≈20'19 49.84382 AU direct -5026 Dec 11 j 11:18 19°≈34'56 -5032 Apr 13 j 00:27 15°≈ evening set -5025 Mar 16 j 01:18 20°≈55'05 retrograde -5032 Jun 24 j 04:53 15°≈49'27 -5032 Sep 05 j 21:08 15°R≈ conjunction -5025 Mar 21 j 07:00 21°≈02'13 -14°11'48 opposition -5032 Sep 14 j 20:57 14°≈49'47 -15°43'03 minimum elong -5025 Mar 21 i 07:12 21° ≈ 02'14 14°12'00 min. Earth dist. -5032 Sep 14 j 14:54 14°≈50'04 47.90191 AU max. Earth dist. -5025 Mar 21 i 05:52 21°≈02'10 49.57171 AU direct -5032 Dec 05 i 06:38 13°≈50'28 morning rise -5025 Mar 26 j 13:18 21°≈09'23 -5031 Mar 01 j 20:44 15°≈ retrograde -5025 Jul 01 j 17:15 22°≈31'38 -5025 Sep 22 j 03:26 21°≈31'59 -14°42'24 opposition -5031 Mar 14 j 19:37 15°≈17'32 -15°01'57 min. Earth dist. -5025 Sep 22 j 04:35 21°≈31'56 47.60909 AU conjunction -5031 Mar 14 j 19:50 15°≈17'33 15°02'10 -5025 Dec 12 j 16:06 minimum elong direct 20°≈32'27 -5031 Mar 15 j 02:11 -5024 Mar 15 j 20:01 21°≈52'04 max. Earth dist. 15°≈17'54 49.81515 AU evening set -5031 Jun 25 j 10:50 retrograde 16°≈47'00 -5031 Sep 16 j 01:23 -5024 Mar 21 j 13:01 21°≈59'51 -14°02'33 opposition 15°≈47'19 -15°35'11 conjunction -5031 Sep 15 j 20:57 -5024 Mar 21 j 13:14 min. Earth dist. 15°≈47'32 47.86987 AU minimum elong 21°≈59'52 14°02'44 -5031 Nov 02 j 21:23 -5024 Mar 21 j 10:28 15°R≈ max. Earth dist. 21°≈59'42 49.51985 AU -5031 Dec 06 j 10:53 -5024 Mar 27 j 06:41 22°≈07'39 direct 14°≈47'58 morning rise -5030 Jan 08 j 23:32 -5024 Jul 01 j 21:06 15°≈ retrograde 23°≈29'18 -5030 Mar 14 j 06:21 -5024 Sep 22 j 07:56 evening set 16°≈12'36 opposition 22°≈29'39 -14°32'40 22°≈29'30 47.55381 AU -5024 Sep 22 j 11:20 min. Earth dist. conjunction -5030 Mar 16 j 01:33 16°≈15'03 -14°54'14 direct -5024 Dec 12 j 22:25 21°≈30'07 minimum elong -5030 Mar 16 j 01:45 16°≈15'04 14°54'26 evening set -5023 Mar 16 j 15:35 22°≈49'13 max. Earth dist. -5030 Mar 16 j 06:08 16°≈15'19 49.78245 AU morning rise -5030 Mar 17 j 21:11 16°≈17'31 conjunction -5023 Mar 22 j 19:07 22°≈57'36 -13°53'03 retrograde -5030 Jun 26 j 15:50 17°≈44'28 -5023 Mar 22 j 19:19 22°≈57'36 13°53'14 minimum elong -5030 Sep 17 j 05:35 16°≈44'47 -15°27'03 max. Earth dist. -5023 Mar 22 j 15:37 22°≈57'24 49.46371 AU opposition min. Earth dist. -5030 Sep 17 j 01:31 16°≈44'59 47.83410 AU -5023 Mar 28 j 23:14 23°≈06'00 morning rise -5030 Dec 07 j 15:27 15°≈45'23 -5023 Jul 03 j 01:07 24°≈27'05 direct retrograde evening set -5029 Mar 14 j 12:11 17°≈08'40 opposition -5023 Sep 23 i 12:23 23°≈27'27 -14°22'43 min. Earth dist. -5023 Sep 23 i 16:25 23°≈27'15 47.49371 AU -5029 Mar 17 j 07:28 conjunction 17°≈12'29 -14°46'16 direct -5023 Dec 14 i 04:53 22°≈27'52 -5029 Mar 17 j 07:41 minimum elong 17°≈12'30 14°46'29 evening set -5022 Mar 17 j 11:53 23°≈46'30 max. Earth dist. -5029 Mar 17 i 10:47 17°≈12'41 49.74613 AU conjunction -5029 Mar 20 i 03:16 17°≈16'20 -5022 Mar 24 i 01:18 23°≈55'26 -13°43'19 morning rise -5029 Jun 27 j 17:43 18°≈41'53 minimum elong -5022 Mar 24 i 01:32 23°≈55'27 13°43'29 retrograde -5029 Sep 18 j 10:03 17°≈42'12 -15°18'40 max. Earth dist. -5022 Mar 23 j 19:06 23°≈55'05 49.40246 AU opposition 17°≈42'17 47.79501 AU 24°≈04'25 min. Earth dist. -5029 Sep 18 j 07:58 morning rise -5022 Mar 30 j 15:31 direct -5029 Dec 08 j 23:19 16°≈42'46 retrograde -5022 Jul 04 j 08:45 25°224'58 18°**≈**05′03 -5022 Sep 24 j 16:54 evening set -5028 Mar 14 j 00:01 opposition 24°≈25'19 -14°12'31 -5022 Sep 24 j 22:54 min. Earth dist. 24°≈25'02 47.42847 AU -5028 Mar 17 j 13:15 18°≈09'53 -14°38'03 direct -5022 Dec 15 j 07:57 23°≈25'42 conjunction -5028 Mar 17 j 13:27 -5021 Mar 18 j 08:39 24°≈43'52 minimum elong 18°≈09'54 14°38'14 evening set -5028 Mar 17 j 16:14 max. Earth dist. 18°≈10'03 49.70684 AU -5021 Mar 25 j 07:38 morning rise -5028 Mar 21 j 02:57 18°≈14'45 conjunction 24°≈53'21 -13°33'22 retrograde -5028 Jun 27 j 21:43 19°≈39'16 minimum elong -5021 Mar 25 j 07:51 24°≈53'21 13°33'32 opposition -5028 Sep 18 j 14:23 18°≈39'34 -15°10'00 max. Earth dist. -5021 Mar 25 j 00:42 24°≈52'57 49.33594 AU min. Earth dist. -5028 Sep 18 j 12:26 18°≈39'40 47.75295 AU morning rise -5021 Apr 01 j 07:15 25°≈02'52 direct -5028 Dec 09 j 05:38 17°≈40'07 retrograde -5021 Jul 05 j 15:21 26°≈22'55

-5027 Mar 14 j 14:50

evening set

19°≈01'36

-5021 Sep 25 j 21:30

-5021 Sep 26 j 05:10

opposition min. Earth dist. 25°≈23'14 -14°02'06

25°≈22'52 47.35785 AU

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5021 in astronomical counting style is the year 5022 BCE in historical counting style. direct -5021 Dec 16 j 12:00 24°≈23'33 max. Earth dist. -5014 Mar 31 j 10:46 1°**)** 39'09 48.75337 AU -5020 Mar 18 j 05:45 evening set 25°≈41'17 conjunction -5014 Apr 01 j 03:32 1°\dagger40'06 -12°16'54 -5020 Mar 25 j 13:39 -5014 Apr 01 j 03:46 1°**)**40'07 12°17'03 25°≈51'17 -13°23'11 minimum elong conjunction -5014 Apr 10 j 12:24 -5020 Mar 25 j 13:53 25°≈51'18 13°23'22 1° **¥** 52'56 minimum elong morning rise -5014 Jul 12 j 05:29 -5020 Mar 25 j 04:31 3°¥10'11 max. Earth dist. 25°≈50'46 49.26437 AU retrograde -5020 Apr 01 j 22:19 26°≈01'20 -5014 Oct 02 j 05:47 2°**¥**10'15 -12°41'57 morning rise opposition -5020 Jul 05 j 22:08 -5014 Oct 02 j 21:38 retrograde 27°≈20'53 min. Earth dist. 2°**₭**09'29 46.75245 AU opposition -5020 Sep 26 j 02:01 26°≈21'10 -13°51'26 direct -5014 Dec 23 j 00:15 1°**升**10′05 2°**¥**25′35 min. Earth dist. -5020 Sep 26 j 10:20 26°≈20'46 47.28238 AU evening set -5013 Mar 23 j 18:51 direct -5020 Dec 16 j 16:02 25°≈21'24 -5019 Mar 19 j 03:14 -5013 Apr 02 j 10:07 2°**升**38'48 -12°04'56 evening set 26°≈38'45 conjunction -5013 Apr 02 j 10:21 minimum elong 2°**¥**38'49 12°05'04 conjunction -5019 Mar 26 j 19:56 26°≈49'15 -13°12'46 max. Earth dist. -5013 Apr 01 j 16:46 2°**升**37'48 48.65748 AU -5013 Apr 12 j 02:04 minimum elong -5019 Mar 26 j 20:08 26°≈49'16 13°12'56 morning rise 2°**¥**52'04 -5013 Jul 13 j 09:34 max. Earth dist. -5019 Mar 26 j 09:15 26°≈48'39 49.18800 AU retrograde 4° **)** 09'01 morning rise -5019 Apr 03 j 13:22 26°≈59'47 opposition -5013 Oct 03 j 10:34 3°¥09'05 -12°29'25 retrograde -5019 Jul 07 j 01:06 28°≈18'54 min. Earth dist. -5013 Oct 04 j 02:40 3°¥08'18 46.65319 AU opposition -5019 Sep 27 j 06:34 27°≈19'08 -13°40'31 direct -5013 Dec 24 j 07:13 2°\mathcal{H}08'52 min. Earth dist. -5019 Sep 27 j 17:11 27°≈18'37 47.20244 AU evening set -5012 Mar 23 j 18:17 3° **)** 24'09 direct -5019 Dec 17 j 23:08 26°≈19'17 evening set -5018 Mar 20 i 01:15 27°≈36'15 conjunction -5012 Apr 02 j 16:31 3°\(\)46 -11°52'43 minimum elong -5012 Apr 02 j 16:44 3°**)** 37'47 11°52'52 conjunction -5018 Mar 28 i 02:17 27°≈47'14 -13°02'07 max. Earth dist. -5012 Apr 01 j 20:51 3°**)** 36'39 48.55787 AU -5012 Apr 12 j 15:39 -5018 Mar 28 i 02:31 27°≈47'15 13°02'17 morning rise 3°**)**51'28 minimum elong -5018 Mar 27 j 14:56 -5012 Jul 13 j 17:18 5°¥08'10 max. Earth dist. 27°≈46'35 49.10759 AU retrograde -5018 Apr 05 j 04:00 opposition -5012 Oct 03 j 15:33 4°¥08'12 -12°16'38 morning rise 27°≈58'15 retrograde -5018 Jul 08 j 04:32 -5012 Oct 04 j 09:34 4°**升**07'20 46.55000 AU 29°≈16'56 min. Earth dist. -5018 Sep 28 j 11:04 -5012 Dec 24 j 10:41 3°\ 07'56 28°≈17'07 -13°29'21 direct opposition -5018 Sep 28 j 22:04 -5011 Mar 24 j 18:11 4° # 23'00 min. Earth dist. 28°≈16'36 47.11859 AU evening set -5018 Dec 19 j 06:17 27°≈17'12 direct -5017 Mar 20 j 23:23 28°≈33'49 -5011 Apr 03 j 23:25 4°**¥**37'02 -11°40'15 conjunction evening set -5011 Apr 03 j 23:38 minimum elong 4° **★**37'03 11°40'23 -5011 Apr 03 j 03:11 -5017 Mar 29 j 08:27 28°≈45'16 -12°51'12 max. Earth dist. 4°**升**35'52 48.45388 AU conjunction -5017 Mar 29 j 08:40 -5011 Apr 14 j 05:15 4° **\{**51'09 minimum elong 28°≈45'16 12°51'21 morning rise -5017 Mar 28 j 18:45 -5011 Jul 15 j 01:15 6°**₩**07'35 max. Earth dist. 28°≈44′29 49.02346 AU retrograde -5017 Apr 06 j 18:23 -5011 Oct 04 j 20:30 5°**¥**07'35 -12°03'35 morning rise 28°**≈**56'45 opposition -5017 Jun 01 j 13:34 0°**)**€ min. Earth dist. -5011 Oct 05 j 16:04 5°**升**06'38 46.44198 AU retrograde -5017 Jul 09 j 12:37 0°¥15'02 direct -5011 Dec 25 j 14:20 4°**)**€07'14 -5017 Aug 16 j 14:12 30°R≈ evening set -5010 Mar 25 j 18:35 5°**¥**22'06 opposition -5017 Sep 29 j 15:40 29°≈15'11 -13°17'55 max. Earth dist. -5010 Apr 04 j 07:36 5°**¥**35'15 48.34493 AU -5017 Sep 30 j 04:06 29°≈14'35 47.03145 AU min. Earth dist. -5017 Dec 20 j 08:31 28°≈15'12 -5010 Apr 05 j 06:20 5°\(\frac{1}{36}\)'34 -11°27'32 direct conjunction -5016 Mar 20 j 21:46 29°≈31'29 -5010 Apr 05 j 06:32 5°\dagger35 11°27'40 evening set minimum elong -5010 Apr 15 j 18:53 5°**¥**51′04 morning rise 29°≈43'23 -12°40'02 -5010 Jul 16 i 10:40 7°**)**€07'14 conjunction -5016 Mar 29 j 14:49 retrograde -5016 Mar 29 i 15:02 -5010 Oct 06 i 01:36 6°**¥**07'12 -11°50'17 minimum elong 29°≈43'24 12°40'12 opposition -5016 Mar 29 i 01:00 6°**)**€06'12 46.32881 AU max. Earth dist. 29°≈42'36 48.93624 AU min. Earth dist. -5010 Oct 06 i 22:06 -5016 Apr 07 j 08:31 5°**)**€06'46 morning rise 29°≈55'20 direct -5010 Dec 26 i 17:40 evening set -5016 Apr 10 i 19:10 0°**₩** -5009 Mar 26 j 18:58 6°¥21'27 -5016 Jul 09 j 18:48 1°¥13'15 retrograde -5016 Sep 29 j 20:19 0°\dagger13'22 -13°06'12 -5009 Apr 06 j 13:18 6°\ 36'18 -11°14'36 opposition conjunction min. Earth dist. -5016 Sep 30 j 09:51 0°**)** 12'43 46.94127 AU -5009 Apr 06 j 13:31 6°**¥**36'19 11°14'43 minimum elong -5016 Oct 11 j 11:49 -5009 Apr 05 j 12:53 30°R≈ max. Earth dist. 6°**升**34'53 48.23052 AU 29°**≈**13'18 -5009 Apr 17 j 08:20 direct -5016 Dec 20 j 12:46 morning rise 6°**¥**51'12 8°**)**€07'07 -5009 Jul 17 j 15:12 -5015 Feb 27 j 07:29 0°**)**€ retrograde -5015 Mar 21 j 20:29 0°**¥**29′18 opposition -5009 Oct 07 j 06:53 7°**₭**07'00 -11°36'45 evening set -5009 Oct 08 j 05:48 7°**升**05'53 46.21022 AU min. Earth dist. 0°**)**41'39 -12°28'36 -5015 Mar 30 j 21:03 -5009 Dec 28 j 00:35 6°**₩**06'27 conjunction direct -5015 Mar 30 j 21:16 0°\dagger41'39 12°28'44 -5008 Mar 26 j 19:42 7°**)** €20'57 minimum elong evening set -5015 Mar 30 j 05:33 0°**¥**40'46 48.84629 AU max. Earth dist. morning rise -5015 Apr 08 j 22:25 0°**)**54'03 conjunction -5008 Apr 06 j 20:21 7°**¥**36'11 -11°01'25 retrograde -5015 Jul 11 j 01:16 2°**H**11'36 minimum elong -5008 Apr 06 j 20:33 7° **★**36'12 11°01'32 opposition -5015 Oct 01 j 01:00 1°**)** 11'42 -12°54'13 max. Earth dist. -5008 Apr 05 j 18:52 7° **∺**34'42 48.11102 AU min. Earth dist. -5015 Oct 01 j 14:52 1°**升**11'02 46.84836 AU morning rise -5008 Apr 17 j 21:35 7°**₩**51'28 -5015 Dec 21 j 17:21 0°**)** 11'35 -5008 Jul 17 j 17:55 9°**₩**07'08 direct retrograde

-5014 Mar 22 j 19:28

evening set

1°**¥**27'19

-5008 Oct 07 j 12:00

opposition

8°¥06'56 -11°22'57

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -5008 in astronomical counting style is the year 5009 BCE in historical counting style. morning rise -5008 Oct 08 j 11:28 8°**升**05'47 46.08662 AU -5001 Apr 27 j 16:26 14°**)** 57'09 min. Earth dist. -5008 Dec 28 j 09:40 7°**₩**06'15 -5001 Jul 25 j 16:52 16°**₩**11'35 direct retrograde -5007 Mar 27 j 20:35 -5001 Oct 15 j 02:45 15°¥10'42 -9°38'40 8° \ 20'34 evening set opposition -5001 Oct 16 j 10:15 max. Earth dist. -5007 Apr 06 j 23:14 8°**升**34'33 47.98663 AU min. Earth dist. 15°**¥**09'09 45.12072 AU -5000 Jan 05 j 02:07 direct 14°**)** 09'07 -5007 Apr 08 j 03:20 conjunction 8°\(\pm\)36'11 -10°47'59 evening set -5000 Apr 02 j 09:14 15°**¥**22'42 -5007 Apr 08 j 03:34 -5000 Apr 13 j 18:47 minimum elong 8°**¥**36'12 10°48'06 max. Earth dist. 15°**₭**38'42 47.02043 AU -5007 Apr 19 j 10:54 morning rise 8°**X**51'50 retrograde -5007 Jul 19 j 00:47 10°**₩**07'17 conjunction -5000 Apr 15 j 07:03 15°**)** 40′50 -9°06′31 -5000 Apr 15 j 07:15 opposition -5007 Oct 08 j 17:20 9°**₭**06'59 -11°08'54 minimum elong 15°**¥**40′50 9°06′36 min. Earth dist. -5007 Oct 09 j 18:43 9°**₭**05'44 45.95848 AU morning rise -5000 Apr 28 j 05:22 15°**¥**59′00 -5000 Jul 26 j 03:23 direct -5007 Dec 29 j 14:45 8°**₩**06'10 retrograde 17°**₩** 13'22 -5000 Oct 15 j 08:36 evening set -5006 Mar 28 j 21:41 9°**∺**20′18 opposition 16°**升**12'24 -9°22'37 max. Earth dist. -5006 Apr 08 j 06:06 9°**)** 34'38 47.85790 AU min. Earth dist. -5000 Oct 16 j 16:56 16°**)** 10'49 44.97065 AU direct -4999 Jan 05 j 05:26 15°**¥** 10'42 conjunction -5006 Apr 09 j 10:36 9°\ 36'17 -10°34'18 evening set -4999 Apr 03 j 12:05 16°**)** 24'17 minimum elong -5006 Apr 09 j 10:48 9°\ 36'18 10°34'24 max. Earth dist. -4999 Apr 15 j 01:30 16°**)** 40'33 46.86970 AU morning rise -5006 Apr 20 j 23:59 9°**¥**52'19 retrograde -5006 Jul 20 j 07:06 11°**)**€07'32 conjunction -4999 Apr 16 j 15:04 16°\(\pm\)42'46 -8°50'55 opposition -5006 Oct 09 j 22:36 10°**)** € 07'08 -10°54'34 minimum elong -4999 Apr 16 j 15:15 16°**)** 42'46 8°51'00 min. Earth dist. -5006 Oct 11 j 01:10 10°**)** €05'50 45.82623 AU morning rise -4999 Apr 29 j 18:19 17°**)** 01'17 direct -5006 Dec 30 i 20:06 9°**)**6'10 retrograde -4999 Jul 27 i 11:20 18°**)** 15'34 -5005 Mar 29 j 23:06 10°**¥**20′09 opposition -4999 Oct 16 i 14:50 17°**)** 14'32 -9°06'17 evening set max. Earth dist. -5005 Apr 09 j 11:20 10°**)** (34'44 47.72553 AU min. Earth dist. -4999 Oct 18 i 01:27 17°**)** 12'49 44.81626 AU -4998 Jan 06 j 11:31 16°**)**€ 12'42 direct -5005 Apr 10 j 17:43 10°**)** 36'30 -10°20'21 -4998 Apr 04 j 15:28 17°**¥**26′18 conjunction evening set -5005 Apr 10 j 17:56 10°**)** 36'31 10°20'28 -4998 Apr 16 j 08:32 17°**)** 42'49 46.71451 AU max. Earth dist. minimum elong -5005 Apr 22 j 13:02 10°**)** 52′54 morning rise -5005 Jul 21 j 15:47 -4998 Apr 17 j 23:17 12°**)**€07'55 conjunction 17°**)** 45'07 -8°35'04 retrograde -5005 Oct 11 j 04:01 11°**米**07′24 -10°39′58 -4998 Apr 17 j 23:29 minimum elong 17°**)** 45′07 8°35′08 opposition min. Earth dist. -5005 Oct 12 j 07:09 -4998 May 01 j 07:18 11°**米**06′04 45.69072 AU 18°**₩**03'58 morning rise -5004 Jan 01 j 00:04 -4998 Jul 28 j 16:28 10°**₩**06'18 19°**₩**18'12 direct retrograde -5004 Mar 30 j 00:23 11°**∺**20′09 -4998 Oct 17 j 21:00 18°**米**17′04 -8°49′41 evening set opposition -5004 Apr 09 j 17:22 11°**¥**35′02 47.58993 AU -4998 Oct 19 j 08:08 18°**光**15'19 44.65714 AU max. Earth dist. min. Earth dist. -4997 Jan 07 j 20:56 direct 17°**₩** 15'05 -5004 Apr 11 j 00:50 11°**)** 36′52 -10°06′08 conjunction evening set -4997 Apr 05 j 19:06 18°**H**28'42 -5004 Apr 11 j 01:03 minimum elong 11°**X**36'53 10°06'14 max. Earth dist. -4997 Apr 17 j 14:07 18°**¥**45'23 46.55438 AU -5004 Apr 23 j 01:49 11°**)** 53'38 morning rise -5004 Jul 21 j 21:57 13°**)**€08'27 conjunction -4997 Apr 19 j 07:34 18°**¥**47'51 -8°18'57 retrograde -5004 Oct 11 j 09:38 12°**)**€07'49 -10°25'05 minimum elong -4997 Apr 19 j 07:45 18°**)**47'52 8°19'01 opposition -5004 Oct 12 j 14:32 12°**₭**06'24 45.55223 AU morning rise -4997 May 02 j 20:21 19°**)** 07'02 min. Earth dist. -5003 Jan 01 j 07:02 11°**)**€06'35 -4997 Jul 29 j 23:35 20°**)**€21'14 direct retrograde -5003 Mar 31 j 02:12 12°**¥**20′20 -4997 Oct 19 j 03:32 19°**¥**19'59 -8°32'48 evening set opposition -5003 Apr 11 j 00:13 12°**升**35'32 47.45170 AU -4997 Oct 20 j 16:47 19°**升**18'08 44.49320 AU max. Earth dist. min. Earth dist. -4996 Jan 09 j 03:50 18°**¥**17'51 direct conjunction -5003 Apr 12 j 08:14 12°\(\frac{1}{37'25}\) -9°51'39 evening set -4996 Apr 05 i 22:42 19°\ 31'28 -5003 Apr 12 j 08:26 12°**)** 37'25 9°51'45 max. Earth dist. -4996 Apr 17 j 22:04 19°**)**(48'28 46.38947 AU minimum elong morning rise -5003 Apr 24 i 14:42 12°**)** 54'32 retrograde -5003 Jul 23 i 02:30 14°**)** 09'11 conjunction -4996 Apr 19 i 15:56 19°\ 50'58 -8°02'35 -5003 Oct 12 j 15:06 13°¥08'28 -10°09'54 -4996 Apr 19 i 16:08 19°**¥**50′58 8°02′38 opposition minimum elong -5003 Oct 13 j 20:01 13°**¥**07'03 45.41112 AU -4996 May 03 j 09:06 20°¥10′28 min. Earth dist. morning rise -5002 Jan 02 j 15:08 12°**)** 07'06 -4996 Jul 30 j 06:49 21°\ 24'38 direct retrograde -4996 Oct 19 j 10:07 evening set -5002 Apr 01 j 04:21 13°**¥**20'46 opposition max. Earth dist. -5002 Apr 12 j 05:37 13°**)** 36'12 47.31082 AU min. Earth dist. -4996 Oct 21 j 00:27 20°\(\frac{1}{20}\) 44.32449 AU direct -4995 Jan 09 j 10:23 19°**¥**20'57 -5002 Apr 13 j 15:44 13°**¥**38'12 -9°36'53 evening set -4995 Apr 07 j 02:56 20°**)** 34'36 conjunction -5002 Apr 13 j 15:56 13°**¥**38'13 9°36'58 max. Earth dist. -4995 Apr 19 j 04:14 20°**₭**51'45 46.22009 AU minimum elong -5002 Apr 26 j 03:44 morning rise 13°**)** 55'41 -5002 Jul 24 j 09:41 15°**₩**10'13 -4995 Apr 21 j 00:27 retrograde conjunction 20°**X**54'24 -7°45'56 -5002 Oct 13 j 20:55 -4995 Apr 21 j 00:37 20°**)** 54'24 7°46'00 opposition 14°**米**09′25 -9°54′26 minimum elong min. Earth dist. -5002 Oct 15 j 03:31 14°**₭**07'54 45.26744 AU morning rise -4995 May 04 j 22:09 21°**)** 14'14 -5001 Jan 03 j 20:28 13°**)**€07'56 retrograde -4995 Jul 31 j 17:13 22°**)** 28'22 direct evening set -5001 Apr 02 j 06:32 14°**)** 21'32 opposition -4995 Oct 20 j 16:38 21°**H**26'50 -7°58'12 min. Earth dist. -4995 Oct 22 j 08:04 21°**X**24'52 44.15166 AU conjunction -5001 Apr 14 j 23:21 14°**∺**39'19 -9°21'50 direct -4994 Jan 10 j 14:55 20°**)** 24'21 -5001 Apr 14 j 23:33 14°\(\dagger)39'20 9°21'56 -4994 Apr 08 j 07:19 21°**)** 38'02 minimum elong evening set max. Earth dist. -5001 Apr 13 j 13:08 -4994 Apr 20 j 11:52 21° **€** 55'27 46.04662 AU 14°**₭**37'19 47.16718 AU max. Earth dist.

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -4994 in astronomical counting style is the year 4995 BCE in historical counting style. -4994 Apr 22 i 09:15 21° + 58'10 -7°29'01 min. Earth dist. -4988 Oct 29 i 17:49 29° **H** 00'24 42.86254 AU conjunction minimum elong -4994 Apr 22 j 09:26 21°**)** 58'10 7°29'05 -4987 Jan 17 j 19:41 27°\ 58'56 direct -4994 May 06 j 11:05 22°\ 18'18 -4987 Apr 14 j 22:38 29° ¥ 13'34 morning rise evening set -4994 Aug 02 j 02:02 -4987 Apr 27 j 20:34 29°**)** 32'30 44.75688 AU 23°**)** € 32′26 max. Earth dist. retrograde -4994 Oct 21 j 23:32 opposition 22°**)** 30'44 -7°40'27 -4994 Oct 23 j 16:49 -4987 Apr 30 j 02:16 min. Earth dist. 22°**₭**28'40 43.97509 AU conjunction 29°**H**35'49 -5°22'32 -4987 Apr 30 j 02:24 direct -4993 Jan 11 j 22:28 21°**H**28'03 minimum elong 29°**)** 35'49 5°22'33 -4987 May 15 j 05:22 29°¥58'03 evening set -4993 Apr 09 j 11:54 22°**)** 41'49 morning rise $0^{\circ}\Upsilon$ max. Earth dist. -4993 Apr 21 j 19:46 22°**₭**59'29 45.86985 AU -4987 May 16 j 13:59 1°**Y**12'41 retrograde -4987 Aug 09 j 15:28 conjunction -4993 Apr 23 j 17:55 23°**₭**02'15 -7°11'49 opposition -4987 Oct 29 j 03:51 0°Υ09'57 -5°27'40 -4993 Apr 23 j 18:05 minimum elong 23°**₭**02'16 7°11'52 min. Earth dist. -4987 Oct 31 j 04:08 0°**Υ**07'29 42.66737 AU -4993 May 07 j 23:49 morning rise 23°**¥**22'42 -4987 Nov 06 j 06:55 30°₽,**₩** retrograde -4993 Aug 03 j 09:35 24°\ 36'49 direct -4986 Jan 19 j 05:14 29°\cdot\05'56 opposition -4993 Oct 23 j 06:24 23°\dagger34'59 -7°22'25 -4986 Apr 01 j 08:21 $0^{\circ}\Upsilon$ min. Earth dist. -4993 Oct 24 j 23:42 23°**)** 32'54 43.79550 AU evening set -4986 Apr 16 j 05:53 0° Y20'48 direct -4992 Jan 13 j 07:37 22°**)** € 32'06 max. Earth dist. -4986 Apr 29 j 06:33 0°**Υ**39'59 44.56073 AU evening set -4992 Apr 09 j 16:50 23°\ 45'57 max. Earth dist. -4992 Apr 22 j 02:43 24° **)** 63'47 45.69021 AU conjunction -4986 May 01 j 12:40 0°Y43'20 -5°03'19 minimum elong -4986 May 01 j 12:48 0°Y43'21 5°03'20 conjunction -4992 Apr 24 j 02:47 24°\ 06'42 -6°54'20 morning rise -4986 May 16 j 18:36 1°Y05'51 minimum elong -4992 Apr 24 i 02:57 24° **H** 06'42 6°54'23 retrograde -4986 Aug 10 j 23:10 2°Y20'39 -4992 May 08 j 12:41 24° **) (**27'27 opposition -4986 Oct 30 i 12:16 1°Y17'45 -5°07'28 morning rise retrograde -4992 Aug 03 i 16:39 25°**)**(41'36 min. Earth dist. -4986 Nov 01 i 13:19 1°Υ15'14 42.46797 AU -4992 Oct 23 j 13:29 24°\(\)39'36 -7°04'04 -4985 Jan 20 j 15:32 0°Υ13'31 opposition direct -4992 Oct 25 j 08:36 -4985 Apr 17 j 13:34 1°Y28'37 min. Earth dist. 24°**H**37'25 43.61346 AU evening set -4991 Jan 13 j 15:29 23°\ 36'31 -4985 Apr 30 j 14:22 1°Υ47'54 44.36019 AU max Earth dist direct evening set -4991 Apr 10 j 21:58 24°\ 50'28 -4991 Apr 23 j 11:52 25°**)**€08'36 45.50828 AU -4985 May 02 j 23:01 1°Y'51'25 -4°43'48 max. Earth dist. conjunction -4985 May 02 j 23:09 1°Y51'26 4°43'48 minimum elong 25°**光**11'31 -6°36'33 -4985 May 18 j 07:51 2°Y14'13 conjunction -4991 Apr 25 j 11:56 morning rise -4985 Aug 12 j 10:14 3°Y29'12 -4991 Apr 25 j 12:06 25°\dagger11'31 6°36'35 minimum elong retrograde -4985 Oct 31 j 20:54 -4991 May 10 j 01:28 25°**)** €32'35 2°Y26'07 -4°46'58 morning rise opposition -4991 Aug 04 j 23:00 26° ¥ 46'46 -4985 Nov 02 j 23:24 2°**Y**23'30 42.26426 AU retrograde min. Earth dist. 25°**)** 44'37 -6°45'25 -4991 Oct 24 j 20:47 -4984 Jan 21 j 22:34 1°Y21'39 opposition direct -4991 Oct 26 j 16:15 2°Y37'00 min. Earth dist. 25°**)** 43.42913 AU evening set -4984 Apr 17 j 21:32 2°**Υ**56'28 44.15519 AU -4990 Jan 15 j 00:18 direct 24°**)**(41'21 max. Earth dist. -4984 May 01 j 00:13 -4990 Apr 12 j 03:40 25°**¥**55′25 evening set max. Earth dist. -4990 Apr 24 j 19:06 26°**)** 13'44 45.32422 AU conjunction -4984 May 03 j 09:51 3°Y00'04 -4°24'01 minimum elong -4984 May 03 j 09:58 3°Y00'05 4°24'02 conjunction -4990 Apr 26 j 21:09 26°**升**16'47 -6°18'29 morning rise -4984 May 18 j 21:07 3°Y23'07 -4990 Apr 26 j 21:18 26°**)** 16'47 6°18'32 -4984 Aug 12 j 21:09 4°Y38'18 minimum elong retrograde -4990 May 11 j 14:26 26°**)** ₹38′08 -4984 Nov 01 j 05:42 3°Y35'00 -4°26'09 morning rise opposition -4990 Aug 06 j 10:31 27°**¥**52′25 -4984 Nov 03 j 09:58 3°Υ32'18 42.05618 AU retrograde min. Earth dist. -4990 Oct 26 j 04:11 26°**升**50′07 -6°26′27 -4983 Jan 22 j 06:35 2°Y30'18 opposition direct -4990 Oct 28 i 00:25 3°Y45'55 min. Earth dist. 26°**)** 47′52 43.24281 AU evening set -4983 Apr 19 j 06:03 direct -4989 Jan 16 i 04:32 25°**)** € 46'39 max. Earth dist. -4983 May 02 j 09:41 4°Υ05'32 43.94613 AU evening set -4989 Apr 13 i 09:33 27°**)**€00'54 4°Υ09'15 -4°03'56 max. Earth dist. -4989 Apr 26 i 04:07 27°**)** 19'28 45.13791 AU conjunction -4983 May 04 j 20:49 -4983 May 04 i 20:56 4°Υ09'16 4°03'56 minimum elong -4989 Apr 28 j 06:41 27°\ 22'33 -6°00'08 -4983 May 20 i 10:37 4°Y32'34 conjunction morning rise -4989 Apr 28 j 06:51 27°\ 22'33 6°00'09 -4983 Aug 14 j 09:49 5°**Y**47′56 minimum elong retrograde -4989 May 13 j 03:17 27°**)** 44'12 -4983 Nov 02 j 14:41 4°Υ44'26 -4°05'02 morning rise opposition 4°**Υ**41'42 41.84424 AU retrograde -4989 Aug 07 j 21:06 28°****58'35 min. Earth dist. -4983 Nov 04 j 19:21 27°**升**56′09 -6°07′10 -4982 Jan 23 j 15:26 3°Y39'27 opposition -4989 Oct 27 j 11:57 direct min. Earth dist. -4989 Oct 29 j 09:46 27°**)** 53'49 43.05410 AU evening set -4982 Apr 20 j 14:58 4°Υ55'22 -4988 Jan 17 j 10:10 26°**X**52'31 max. Earth dist. -4982 May 03 j 19:00 5°**Y**15′07 43.73317 AU direct -4988 Apr 13 j 15:45 28°\ 06'56 evening set 28°**∺**25'43 44.94911 AU -4982 May 06 j 08:02 5°Υ18'58 -3°43'34 max. Earth dist. -4988 Apr 26 j 12:43 conjunction 5°Υ18'59 3°43'34 minimum elong -4982 May 06 j 08:08 5°**Y**′42'32 -4988 Apr 28 j 16:14 conjunction 28°**H**28'53 -5°41'29 morning rise -4982 May 22 j 00:01 minimum elong -4988 Apr 28 j 16:23 28°**\(\)**28'53 5°41'31 retrograde -4982 Aug 15 j 20:06 6°Y58'08 morning rise -4988 May 13 j 16:12 28°**)** 50'50 opposition -4982 Nov 03 j 23:58 5°**Y**54'24 -3°43'37 $0^{\circ}\Upsilon$ -4988 Jul 17 j 20:02 min. Earth dist. -4982 Nov 06 j 06:50 5°**Υ**51'33 41.62887 AU retrograde -4988 Aug 08 j 06:35 0°**Υ**05'20 direct -4981 Jan 25 j 01:23 4°**Y**49′10 -4988 Aug 29 j 15:28 30°**₹** -4981 Apr 22 j 00:11 6°Y05'24 evening set -4988 Oct 27 j 19:45 29°\cdot\02'45 -5°47'34 max. Earth dist. -4981 May 05 j 06:16 6°**Υ**25'21 43.51715 AU opposition

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -4981 in astronomical counting style is the year 4982 BCE in historical counting style. 6°Υ29'15 -3°22'55 -4981 May 07 j 19:29 evening set -4974 Apr 30 i 06:49 14° Y 36'00 conjunction -4981 May 07 j 19:35 6°Υ29'15 3°22'54 -4974 May 13 j 14:31 14°**Υ**56'54 41.94579 AU minimum elong max. Earth dist. -4981 May 23 j 13:25 6°Y53'03 morning rise -4981 Aug 17 j 04:17 8°Y08'54 -4974 May 16 j 11:09 15°Υ01'27 -0°50'12 retrograde conjunction -4981 Nov 05 j 09:28 7°**Υ**04'57 -3°21'52 -4974 May 16 j 11:10 15°**Y**′01′27 0°50'08 opposition minimum elong -4981 Nov 07 j 16:28 7°**Υ**02'04 41.41074 AU -4974 Jun 01 j 13:20 15°**Y**26'48 min. Earth dist. morning rise 16°**Y**45′21 direct -4980 Jan 26 j 13:33 5°**Y**59′26 retrograde -4974 Aug 25 j 18:36 7°**Υ**16'01 -4974 Nov 13 j 12:22 15°**Y**39'53 -0°40'50 evening set -4980 Apr 22 j 09:49 opposition 15°**Ƴ**36'31 39.82824 AU max. Earth dist. -4980 May 05 j 15:35 7°**Y**36′04 43.29859 AU min. Earth dist. -4974 Nov 16 j 02:26 14°**Y**32'31 direct -4973 Feb 03 j 14:37 7° **Y**40'07 -3°01'58 conjunction -4980 May 08 j 06:54 evening set -4973 May 01 j 20:28 15°Y52'30 -4980 May 08 j 06:59 7°**Υ**'40'07 3°01'57 -4973 May 15 j 02:21 16°Υ13'25 41.71075 AU minimum elong max. Earth dist. -4980 May 24 j 02:50 morning rise 8°Y04'10 retrograde -4980 Aug 17 j 15:43 9°Y20'17 conjunction -4973 May 18 j 01:00 16°Y18'08 -0°27'14 opposition -4980 Nov 05 j 19:15 8°Y16'07 -2°59'49 minimum elong -4973 May 18 j 01:01 16° Y18'080°27'11 min. Earth dist. -4980 Nov 08 j 03:27 8°**Υ**13'09 41.19048 AU morning rise -4973 Jun 03 j 03:37 16°**Y**43'40 direct -4979 Jan 26 j 22:01 7°Υ10'20 retrograde -4973 Aug 27 j 10:18 18° **Y** 02' 43 evening set -4979 Apr 23 j 19:56 8°Y27'17 opposition -4973 Nov 15 j 00:26 16°Υ56'59 -0°16'35 max. Earth dist. -4979 May 07 j 03:30 8°**Y**47'33 43.07792 AU min. Earth dist. -4973 Nov 17 j 15:14 16°**Y**53'35 39.59132 AU -4972 Feb 04 j 23:38 15°**Y**49'18 conjunction -4979 May 09 j 18:55 8°Y51'37 -2°40'44 evening set -4972 May 02 j 10:30 17°Y09'53 minimum elong -4979 May 09 j 19:00 8°Υ51'38 2°40'43 max. Earth dist. -4972 May 15 i 15:24 17°**Υ**30'53 41.47205 AU morning rise -4979 May 25 j 16:18 9°Y15'55 retrograde -4979 Aug 19 j 02:54 10°**Y**32′22 conjunction -4972 May 18 j 15:17 17°**Y**35'41 -0°04'03 -4979 Nov 07 i 05:18 9°Y27'58 -2°37'26 -4972 May 18 i 15:17 17°**Y**35'41 0°03'59 opposition minimum elong -4979 Nov 09 j 14:32 9°**Υ**24'56 40.96832 AU -4972 May 18 j 08:50 17°**Y**35′17 min. Earth dist. behind sun begin -4978 Jan 28 j 06:47 8°Y21'55 -4972 May 18 j 21:44 17°Y36'06 behind sun end direct 9°Y39'17 -4972 Jun 03 j 17:48 18°**Y**01'24 -4978 Apr 25 j 06:43 morning rise evening set -4978 May 08 j 14:26 9°Υ59'41 42.85565 AU -4972 Jul 20 j 03:17 19°Y02'08 max. Earth dist. asc. node -4972 Aug 28 j 01:15 19°Y20'59 retrograde -4978 May 11 j 07:05 10°Υ03'52 -2°19'12 opposition -4972 Nov 15 j 12:58 18° **Y**14'58 $0^{\circ}07'58$ conjunction -4978 May 11 j 07:09 10°Υ03'52 2°19'10 -4972 Nov 18 j 05:48 min. Earth dist. 18°**Y**11′26 39.35087 AU minimum elong -4978 May 27 j 06:01 10°**Y**28'23 -4971 Feb 05 j 10:17 17°**Y**06′57 morning rise direct -4978 Aug 20 j 17:07 11°**Y**45'11 -4971 May 04 j 01:20 18°**Y**28′09 retrograde evening set -4978 Nov 08 j 15:39 10°**Y**40'35 -2°14'44 -4971 May 17 j 05:17 18°**Y**49'13 41.23007 AU opposition max. Earth dist. 10°**Ƴ**37'32 40.74471 AU -4978 Nov 11 j 00:59 min. Earth dist. -4977 Jan 29 j 15:44 9°**Y**34'16 -4971 May 20 j 05:58 18°**Y**54'07 0°19'33 direct conjunction -4977 Apr 26 j 17:46 10°**Y**52'06 minimum elong -4971 May 20 j 05:58 18°**Y**54′07 0°19'37 evening set max. Earth dist. -4977 May 10 j 01:35 11°**Y**12'38 42.63164 AU morning rise -4971 Jun 05 j 08:18 19°**Y**19′59 retrograde -4971 Aug 29 j 16:16 20°**Y**40′06 conjunction -4977 May 12 j 19:29 11°**Y**16'54 -1°57'23 -4971 Nov 17 j 01:36 19°**Ƴ**33'47 0°32'49 opposition -4977 May 12 j 19:32 11°**Υ**16'55 1°57'22 min. Earth dist. -4971 Nov 19 j 18:38 19°**Ƴ**30'13 39.10739 AU minimum elong -4977 May 28 j 19:31 11°**Y**41'38 -4970 Feb 07 j 01:34 18°Y25'24 morning rise direct -4977 Aug 22 j 06:44 12°Y58'51 -4970 May 05 j 16:52 19°**Y**47'16 retrograde evening set -4977 Nov 10 j 02:25 11°**Υ**54'01 -1°51'44 max. Earth dist. -4970 May 18 j 18:11 20°Υ08'18 40.98510 AU opposition min. Earth dist. -4977 Nov 12 j 13:29 11°Υ50'53 40.51938 AU -4970 May 21 j 21:00 20°**Υ**13'23 0°43'19 direct -4976 Jan 31 i 02:49 10°**Y**47′28 conjunction -4970 May 21 i 20:59 evening set -4976 Apr 27 i 05:27 12° Y 05'48 minimum elong 20°**℃**13′23 0°43'24 20°Y39'23 max. Earth dist. -4976 May 10 j 14:17 12°Υ26'31 42.40580 AU morning rise -4970 Jun 06 j 22:51 retrograde -4970 Aug 31 i 07:30 22°Y00'04 -4976 May 13 i 08:18 12°Υ30'50 -1°35'16 opposition -4970 Nov 18 i 14:50 20°Υ53'26 0°57'58 conjunction -4976 May 13 i 08:21 12°Υ30'50 1°35'14 min. Earth dist. -4970 Nov 21 j 09:40 20°**Y**49'45 38.86147 AU minimum elong -4976 May 29 j 09:19 12°**Y**55'47 direct -4969 Feb 08 j 15:49 19°**Y**44'41 morning rise 21° Y 07' 14 retrograde -4976 Aug 22 j 18:48 14°**Y**13′24 evening set -4969 May 07 j 08:41 21°**Υ**28'23 40.73791 AU opposition -4976 Nov 10 j 13:15 13°Υ08'23 -1°28'24 max. Earth dist. -4969 May 20 j 09:42 min. Earth dist. -4976 Nov 13 j 00:25 13°**Υ**05'13 40.29194 AU -4975 Jan 31 j 16:00 12°Υ01'34 conjunction -4969 May 23 j 12:15 21°**Y**33'29 1°07'21 direct -4975 Apr 28 j 17:54 13°Y20'26 -4969 May 23 j 12:13 21°**Y**33'29 1°07'26 evening set minimum elong -4975 May 12 j 01:12 13°**Y**41'11 42.17739 AU -4969 Jun 08 j 13:12 21°Y59'37 max. Earth dist. morning rise -4969 Sep 01 j 20:24 23°Y20'55 retrograde 13°**Y**45'40 -1°12'52 conjunction -4975 May 14 j 21:29 opposition -4969 Nov 20 j 04:23 22°**Y**13′57 1°23'24 -4975 May 14 j 21:32 13°**Υ**45'40 1°12'50 min. Earth dist. -4969 Nov 22 j 23:28 22°Υ10'14 38.61368 AU minimum elong morning rise -4975 May 30 j 23:21 14°Υ10'50 direct -4968 Feb 10 j 07:17 21°**Y**04'49 retrograde -4975 Aug 24 j 07:25 15°**Y**28'54 evening set -4968 May 08 j 01:26 22°Y28'05 opposition -4975 Nov 12 j 00:37 14°**Υ**23'40 -1°04'46 max. Earth dist. -4968 May 20 j 23:36 22°**Y**49'12 40.48919 AU -4975 Nov 14 j 13:39 14°**Υ**20'23 40.06180 AU min. Earth dist.

-4974 Feb 02 j 02:36

direct

13°**Y**16'35

conjunction

-4968 May 24 j 03:51 22°**Υ**54'28 1°31'39

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 32 Attention, astronomical year style is used: The year -4968 in astronomical counting style is the year 4969 BCE in historical counting style. 22°**Υ**′54'28 1°31'45 -4968 May 24 j 03:48 retrograde -4962 Sep 11 j 19:54 3°816'33 minimum elong -4968 Jun 09 j 03:53 23°Y20'43 -4962 Nov 29 j 15:38 2°807'24 4°28'43 opposition morning rise -4968 Sep 02 j 11:24 24°Y42'39 min. Earth dist. -4962 Dec 02 j 15:33 2°803'16 36.86321 AU retrograde -4961 Feb 19 j 14:22 -4968 Nov 20 j 18:09 23°**Y**35'22 1°49'07 0°855'43 opposition direct -4968 Nov 23 j 14:01 23°Υ31'35 38.36490 AU 2°**8**25'34 min. Earth dist. evening set -4961 May 19 j 19:53 -4967 Feb 10 j 19:50 22°Y25'51 direct max. Earth dist. -4961 May 31 j 21:18 2°846'25 38.73044 AU 23°**Y**49'53 evening set -4967 May 09 j 18:46 24°**Υ**11'04 40.23947 AU -4961 Jun 04 j 06:12 max. Earth dist. -4967 May 22 j 15:36 conjunction 2°**8**52'19 4°28'03 -4961 Jun 04 j 06:03 minimum elong 2°**8**52'19 4°28'11 conjunction -4967 May 25 j 20:03 24°Υ16'22 1°56'12 morning rise -4961 Jun 19 j 13:39 3°**8**18'55 minimum elong -4967 May 25 j 19:59 24°Υ16'22 1°56'17 retrograde -4961 Sep 13 j 15:59 4°**8**46'51 -4967 Jun 10 j 18:32 24° Y42'43-4961 Dec 01 j 09:01 morning rise opposition 3°**8**37'21 4°56'07 -4967 Sep 04 j 02:54 retrograde 26°**Y**05′22 min. Earth dist. -4961 Dec 04 j 09:21 3°**8**33'10 36.60936 AU opposition -4967 Nov 22 j 08:37 24°Y57'44 2°15'06 direct -4960 Feb 21 j 05:30 2°**8**25'17 min. Earth dist. -4967 Nov 25 j 05:30 24°**Y**53'53 38.11546 AU evening set -4960 May 20 j 19:10 3°**8**56'16 direct -4966 Feb 12 j 08:49 23°Y47'51 max. Earth dist. -4960 Jun 01 j 16:03 4°816'59 38.47432 AU evening set -4966 May 11 j 12:55 25°**Y**12'42 max. Earth dist. -4966 May 24 j 07:27 25°**Υ**33'54 39.98941 AU conjunction -4960 Jun 05 j 01:53 4°823'00 4°54'02 minimum elong -4960 Jun 05 j 01:42 4°822'59 4°54'10 conjunction -4966 May 27 j 12:27 25°**Ƴ**39'17 2°20'58 morning rise -4960 Jun 20 j 05:24 4°849'33 minimum elong -4966 May 27 j 12:23 25°**Ƴ**39'17 2°21'05 retrograde -4960 Sep 14 j 12:35 6°818'32 morning rise -4966 Jun 12 j 09:21 26°Y05'43 opposition -4960 Dec 02 i 02:57 5°808'41 5°23'42 retrograde -4966 Sep 05 j 21:10 27°**Y**29'06 min. Earth dist. -4960 Dec 05 i 05:00 5°804'23 36.35383 AU opposition -4966 Nov 23 i 23:22 26°**Υ**21'10 2°41'21 direct -4959 Feb 21 i 21:16 3°**8**56'12 min. Earth dist. -4966 Nov 26 j 19:49 26°Υ17'19 37.86595 AU -4959 May 22 j 19:31 5°**8**28'23 evening set -4965 Feb 13 j 21:57 25°**Y**10′55 max. Earth dist. -4959 Jun 03 j 11:47 5°848'57 38.21673 AU direct 26°**Y**36'40 -4965 May 13 j 07:47 evening set -4965 May 25 j 23:19 26°Υ57'49 39.73911 AU -4959 Jun 06 j 22:02 5°855'03 5°20'10 max. Earth dist. conjunction -4959 Jun 06 j 21:51 5°855'02 5°20'18 minimum elong -4965 May 29 j 05:25 27°**Υ**'03'19 2°45'59 -4959 Jun 21 j 21:25 6°821'31 conjunction morning rise -4965 May 29 j 05:20 27°**Y**′03′18 -4959 Sep 16 j 09:56 2°46'05 7°**8**51'36 minimum elong retrograde -4959 Dec 03 j 21:26 -4965 Jun 14 j 00:15 27°**Y**29'49 6°**8**41'23 5°51'28 morning rise opposition -4965 Sep 07 j 14:57 -4959 Dec 06 j 23:12 min. Earth dist. 6°837'04 36.09703 AU 28°**Y**54′01 retrograde -4965 Nov 25 j 14:42 27°**Υ**'45'46 3°07'50 -4958 Feb 23 j 16:01 5°**8**28'28 opposition direct 27°**Υ**'41'48 37.61638 AU -4965 Nov 28 j 12:41 -4958 May 24 j 20:44 7°**8**01'54 min. Earth dist. evening set 26°**Y**35′09 -4958 Jun 05 j 06:48 7°**8**22'12 37.95785 AU direct -4964 Feb 15 j 12:32 max. Earth dist. 28°**Y**01′51 evening set -4964 May 14 j 03:20 max. Earth dist. -4964 May 26 j 17:06 28°**Υ**23'02 39.48863 AU conjunction -4958 Jun 08 j 18:36 7°**8**28'28 5°46'26 -4958 Jun 08 j 18:24 7°**8**28'27 5°46'34 minimum elong conjunction -4964 May 29 j 22:48 28°**Y**28'34 3°11'12 morning rise -4958 Jun 23 j 13:23 7°**8**54'51 -4964 May 29 j 22:41 28°**Y**28'33 3°11'19 retrograde -4958 Sep 18 j 07:35 9°**8**26'04 minimum elong -4964 Jun 14 j 15:18 28°Y55'07 -4958 Dec 05 j 16:36 8°815'27 6°19'22 morning rise opposition -4964 Jul 31 j 05:29 0°8 min. Earth dist. -4958 Dec 08 j 19:53 8°811'02 35.83952 AU -4964 Sep 08 j 08:12 0°820'10 -4957 Feb 25 j 11:13 7°**8**02'06 retrograde direct -4964 Oct 17 j 21:40 -4957 May 26 j 22:50 8°836'51 30°R℃ evening set opposition -4964 Nov 26 i 06:25 29°Y11'37 3°34'34 max. Earth dist. -4957 Jun 07 i 04:40 8°**と**57'00 37.69851 AU min. Earth dist. -4964 Nov 29 i 04:15 29°Υ07'39 37.36638 AU -4957 Jun 10 j 15:47 9°**8**03'16 6°12'48 direct -4963 Feb 16 i 06:22 28°Y00'40 conjunction evening set -4963 May 16 j 00:02 29°Y28'22 minimum elong -4957 Jun 10 j 15:34 9°803'15 6°12'58 max. Earth dist. -4963 May 28 j 09:07 29°**Υ**49'25 39.23731 AU -4957 Jun 25 i 05:26 9°829'31 morning rise -4957 Sep 20 j 03:59 11°801'56 retrograde -4963 May 31 j 16:45 29°Y55'07 3°36'37 -4957 Dec 07 j 12:13 9°**8**50'56 6°47'24 conjunction opposition -4963 May 31 j 16:37 29°Y55'07 3°36'45 min. Earth dist. -4957 Dec 10 j 15:22 9°846'28 35.58196 AU minimum elong -4963 Jun 03 j 12:52 0°8 direct -4956 Feb 27 j 09:03 8°837'07 morning rise -4963 Jun 16 j 06:39 0°821'43 evening set -4956 May 28 j 02:00 10°813'13 1°**8**47'40 -4963 Sep 10 j 02:53 max. Earth dist. -4956 Jun 08 j 00:49 10°833'02 37.43941 AU retrograde -4963 Nov 27 j 22:38 0°**8**38'49 4°01'32 opposition -4963 Nov 30 j 21:48 0°**႘**34'45 37.11554 AU -4956 Jun 11 j 13:19 10°**8**39'29 6°39'16 min. Earth dist. conjunction -4963 Dec 27 j 20:25 30°R℃ -4956 Jun 11 j 13:05 10°**8**39'28 6°39'25 minimum elong 29°**Y**27'30 -4956 Jun 25 j 21:39 11°**8**05'33 direct -4962 Feb 17 j 21:40 morning rise -4956 Sep 21 j 02:37 12°**8**39'14 -4962 Apr 10 j 00:29 0° 8 retrograde evening set -4962 May 17 j 21:31 0°**8**56'16 opposition -4956 Dec 08 j 08:29 11°**8**27'49 7°15'32 max. Earth dist. -4962 May 30 j 03:52 1°**8**17'17 38.98467 AU min. Earth dist. -4956 Dec 11 j 12:05 11°**8**23'19 35.32519 AU direct -4955 Feb 28 j 04:05 10°**8**13'33 conjunction -4962 Jun 02 j 11:23 1°**8**23'02 4°02'15 evening set -4955 May 30 j 06:11 11°**8**51'05 -4962 Jun 02 j 11:14 1°**8**23'01 4°02'22 max. Earth dist. -4955 Jun 09 j 23:45 12°**8**10'41 37.18114 AU minimum elong

-4962 Jun 17 j 22:05

morning rise

1°849'38

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -4955 in astronomical counting style is the year 4956 BCE in historical counting style. 12°**8**17'09 7°05'46 opposition -4955 Jun 13 j 11:41 -4949 Dec 21 j 02:11 23°**8**32'42 10°31'58 conjunction min. Earth dist. -4955 Jun 13 j 11:26 12°**8**17'07 7°05'56 -4949 Dec 24 j 06:34 23°**8**27'57 33.57821 AU minimum elong -4955 Jun 27 j 13:52 12°**8**43'01 -4948 Mar 11 j 14:17 22°**8**15'21 direct morning rise -4955 Sep 22 j 22:30 14°**8**18'01 24°805'12 -4948 Jun 13 j 21:49 retrograde evening set -4955 Dec 10 j 05:28 13°**8**06'13 7°43'42 -4948 Jun 22 j 06:11 opposition max. Earth dist. 24°**8**21'35 35.42274 AU -4955 Dec 13 j 09:27 min. Earth dist. 13°**8**01'39 35.06971 AU 24°**8**28'30 direct -4954 Mar 02 j 00:14 11°**8**51'29 conjunction -4948 Jun 25 j 18:13 10°09'50 -4948 Jun 25 j 17:51 evening set -4954 Jun 01 j 11:39 13°**8**30'31 minimum elong 24°**8**28'28 10°10'02 -4948 Jul 07 j 11:41 max. Earth dist. -4954 Jun 11 j 22:18 13°**8**49'47 36.92460 AU morning rise 24°**8**51'37 retrograde -4948 Oct 05 j 12:28 26°**8**38'11 conjunction -4954 Jun 15 j 10:30 13°**8**56'20 7°32'16 opposition -4948 Dec 22 j 04:31 25°**8**23'39 10°59'34 -4954 Jun 15 j 10:13 13°**8**56'19 -4948 Dec 25 j 09:25 minimum elong 7°32'26 min. Earth dist. 25°**8**18'49 33.33442 AU -4954 Jun 29 j 06:21 14°**8**21'57 -4947 Mar 13 j 15:34 morning rise direct 24°**8**05'50 -4954 Jul 21 j 05:14 15°8 evening set -4947 Jun 16 j 12:32 25°**8**57'46 retrograde -4954 Sep 24 j 22:33 15°**8**58'23 max. Earth dist. -4947 Jun 24 j 09:33 26°**8**13'23 35.17678 AU -4954 Dec 02 j 12:49 15°R₩ opposition -4954 Dec 12 j 03:05 14°**8**46'10 8°11'54 conjunction -4947 Jun 27 j 22:03 26°**8**20'25 10°35'32 min. Earth dist. -4954 Dec 15 j 06:19 14°**8**41'38 34.81635 AU minimum elong -4947 Jun 27 j 21:41 26°**8**20'23 10°35'45 direct -4953 Mar 03 j 19:25 13°**8**31'00 morning rise -4947 Jul 09 j 05:02 26°842'53 -4953 May 28 j 08:37 15°8 retrograde -4947 Oct 07 j 17:49 28°**8**31'26 evening set -4953 Jun 03 j 17:55 15°**8**11'37 opposition -4947 Dec 24 j 07:27 27°**8**16'28 11°26'55 max. Earth dist. -4953 Jun 13 j 21:39 15°**8**30'33 36.67001 AU min. Earth dist. -4947 Dec 27 i 11:43 27°**8**11'39 33.09206 AU direct -4946 Mar 15 i 16:30 25°**8**58'10 conjunction -4953 Jun 17 i 09:55 15°**8**37'09 7°58'46 evening set -4946 Jun 19 j 04:33 27°**8**52'16 -4953 Jun 17 j 09:38 15°**8**37'08 7°58'57 max. Earth dist. -4946 Jun 26 j 14:18 28°807'07 34.93224 AU minimum elong -4953 Jun 30 j 22:44 16°802'29 morning rise -4953 Sep 26 j 22:59 17°**8**40'25 -4946 Jun 30 j 02:45 28°**8**14'13 11°00'56 retrograde conjunction opposition -4953 Dec 14 j 01:29 16°**8**27'49 8°40'04 -4946 Jun 30 j 02:22 28°**8**14'11 11°01'09 minimum elong -4953 Dec 17 j 05:43 16°**8**23'11 34.56518 AU -4946 Jul 10 j 22:20 28°**8**35'58 min. Earth dist. morning rise -4952 Mar 04 j 14:18 15°**8**12'12 -4946 Aug 29 j 09:21 direct $0^{\circ}\Pi$ -4952 Jun 05 j 01:41 -4946 Oct 09 j 22:28 0°**I**I26'35 evening set 16°**8**54'31 retrograde -4952 Jun 14 j 22:33 -4946 Nov 21 j 14:57 max. Earth dist. 17°**8**13'05 36.41767 AU 30°R₩ -4946 Dec 26 j 11:27 opposition 29°**8**11'10 11°53'57 -4952 Jun 18 j 10:06 17°**8**19'42 8°25'13 -4946 Dec 29 j 16:34 29°**8**06'16 32.85158 AU conjunction min. Earth dist. -4952 Jun 18 j 09:48 17°**8**19'41 -4945 Mar 17 j 18:05 27°**8**52'23 minimum elong 8°25'23 direct -4952 Jul 01 j 15:28 17°**8**44'42 -4945 Jun 21 j 22:03 29°**8**48'45 morning rise evening set -4952 Sep 28 j 00:55 19°**8**24'12 -4945 Jun 27 j 11:35 retrograde $0^{\circ}\Pi$ opposition -4952 Dec 15 j 00:20 18°**8**11'14 9°08'12 max. Earth dist. -4945 Jun 28 j 20:24 0°**Д**02'47 34.68999 AU min. Earth dist. -4952 Dec 18 j 03:39 18°**8**06'37 34.31616 AU -4945 Jul 02 j 07:55 direct -4951 Mar 06 j 13:59 16°**8**55'11 conjunction 0°**Ц**09'52 11°26'00 -4951 Jun 07 j 10:44 18°**8**39'16 minimum elong -4945 Jul 02 j 07:31 0°П09'50 11°26'14 evening set max. Earth dist. -4951 Jun 16 j 22:26 18°**8**57'19 36.16707 AU -4945 Jul 12 j 15:22 0°II30'50 morning rise -4945 Oct 12 j 05:25 2°**Ⅲ**23'36 retrograde -4951 Jun 20 j 11:03 19°**8**04'05 8°51'34 -4945 Dec 28 j 16:03 1°**II**07'44 12°20'37 conjunction opposition -4951 Jun 20 j 10:44 19°**8**04'03 8°51'46 min. Earth dist. -4945 Dec 31 j 19:58 1°**Д**02'53 32.61370 AU minimum elong -4951 Jul 03 i 08:26 19°**8**28'41 morning rise -4944 Feb 19 i 15:33 30°R₩ -4951 Sep 30 i 04:58 21°809'50 29°848'27 retrograde direct -4944 Mar 18 j 23:09 19°**8**56'29 9°36'15 opposition -4951 Dec 17 i 00:11 -4944 Apr 15 j 23:04 $0^{\circ}II$ 19°**8**51'48 34.06892 AU min. Earth dist. -4951 Dec 20 i 04:31 evening set -4944 Jun 23 j 17:10 1°**Ⅱ**47'12 direct -4950 Mar 08 j 13:04 18°840'02 max. Earth dist. -4944 Jun 30 j 02:03 2°**Д**00'14 34.45054 AU -4950 Jun 09 j 21:00 20°825'57 evening set max. Earth dist. -4950 Jun 19 j 01:12 20°**8**43'35 35.91791 AU -4944 Jul 03 i 13:56 2°**I**107'26 11°50'40 conjunction -4944 Jul 03 j 13:32 2°**II**07'24 11°50'53 minimum elong -4944 Jul 13 j 08:27 2°**I**27'30 conjunction -4950 Jun 22 j 12:40 20°**8**50'19 9°17'49 morning rise 4°**Ⅲ**22'32 minimum elong -4950 Jun 22 j 12:20 20°850'18 9°18'00 retrograde -4944 Oct 13 j 13:36 -4944 Dec 29 j 21:27 morning rise -4950 Jul 05 j 01:16 21°**8**14'30 opposition 3°II06'12 12°46'51 retrograde -4950 Oct 02 j 07:01 22°**8**57'23 min. Earth dist. -4943 Jan 02 j 01:51 3°**Д**01'18 32.37926 AU 1°**Ⅱ**46′25 -4950 Dec 19 j 00:51 21°**8**43'39 10°04'11 direct -4943 Mar 21 j 03:04 opposition -4950 Dec 22 j 04:53 21°**8**38'56 33.82294 AU -4943 Jun 26 j 14:06 3°**Ⅲ**47'41 min. Earth dist. evening set -4949 Mar 10 j 14:37 20°**8**26'45 -4943 Jul 02 j 10:40 3°**Д**59'48 34.21493 AU direct max. Earth dist. 22°**8**14'36 evening set -4949 Jun 12 j 08:46 max. Earth dist. -4949 Jun 21 j 02:22 22°**8**31'34 35.66986 AU conjunction -4943 Jul 05 j 20:44 4°**I**106'54 12°14'51 minimum elong -4943 Jul 05 j 20:19 4°**Ⅱ**06'52 12°15'06 morning rise conjunction -4949 Jun 24 j 14:59 22°**8**38'28 9°43'55 -4943 Jul 15 j 01:09 4°**I**I25'58 minimum elong -4949 Jun 24 j 14:38 22°**8**38'26 9°44'08 retrograde -4943 Oct 15 j 20:53 6°**Ⅲ**23'24 -4949 Jul 06 j 18:31 23°802'09 -4942 Jan 01 j 03:52 5°II06'37 13°12'33 morning rise opposition

min. Earth dist.

-4942 Jan 04 j 06:53

5°**Ц**01'46 32.14902 AU

-4949 Oct 04 j 10:32 24°846'50

retrograde

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -4942 in astronomical counting style is the year 4943 BCE in historical counting style. -4942 Mar 23 i 09:43 3°**Ⅱ**46'22 retrograde -4936 Oct 31 i 03:51 21°**Ⅱ**28'51 direct -4942 Jun 29 j 12:37 5°**I**I50'14 -4935 Jan 16 j 02:00 20°**I**109'23 15°51'04 opposition evening set max. Earth dist. -4942 Jul 04 j 17:57 6°**Д**01'10 33.98397 AU -4935 Jan 18 j 21:46 20°**Ⅲ**04'49 30.69107 AU min. Earth dist. -4935 Apr 06 j 19:58 18°**Ⅱ**46′19 direct max. Earth dist. -4935 Jul 20 j 05:37 21°**П**12'03 32.52359 AU conjunction -4942 Jul 08 j 04:00 6°**Ⅲ**08'21 12°38'30 -4942 Jul 08 j 03:35 minimum elong 6°**Ⅱ**08'19 12°38'43 -4942 Jul 16 j 17:30 -4935 Jul 23 j 06:34 21°**Ⅱ**18'53 morning rise 6°**Ⅲ**26′19 conjunction 15°02'29 $8^{\circ}\Pi 26'16$ -4935 Jul 23 j 06:11 retrograde -4942 Oct 18 j 06:57 minimum elong 21°**Ⅱ**18'50 15°02'45 -4935 Nov 02 j 19:23 opposition -4941 Jan 03 j 11:07 7°**I**09'03 13°37'38 retrograde 23°**Ⅱ**46'49 16°09'47 min. Earth dist. -4941 Jan 06 j 13:28 7°**Д**04'13 31.92397 AU opposition -4934 Jan 18 j 15:52 22°**Ⅲ**26′58 direct -4941 Mar 25 j 15:50 5°**Ⅱ**48'21 min. Earth dist. -4934 Jan 21 j 11:12 22°**Ⅲ**22'25 30.50455 AU -4934 Apr 09 j 07:43 evening set -4941 Jul 02 j 13:16 7°II55'00 direct 21°**Ⅲ**03'31 -4941 Jul 07 j 04:26 -4934 Jul 22 j 22:02 max. Earth dist. 8°**Д**04'48 33.75840 AU max. Earth dist. 23°**Ⅲ**30'49 32.33717 AU conjunction -4941 Jul 10 j 12:17 8°**Ⅱ**11'51 13°01'30 conjunction -4934 Jul 25 j 20:19 23°**Ⅲ**37′27 15°19'10 minimum elong -4941 Jul 10 j 11:52 8°**Ⅱ**11'49 13°01'44 minimum elong -4934 Jul 25 j 19:58 23°**Ⅲ**37′25 15°19'25 morning rise -4941 Jul 18 j 09:25 8°**Ⅲ**28'33 retrograde -4934 Nov 05 j 10:19 26°**Ⅱ**06'44 retrograde -4941 Oct 20 j 15:48 10°**Ⅲ**31'12 opposition -4933 Jan 21 j 06:36 24°**Ⅱ**46'30 16°27'16 opposition -4940 Jan 05 j 19:15 9°**Ⅱ**13'35 14°02'01 min. Earth dist. -4933 Jan 23 j 23:57 24°**Д**42'03 30.32380 AU min. Earth dist. -4940 Jan 08 j 20:46 9°**П**08'46 31.70447 AU direct -4933 Apr 11 j 22:09 23°**II**22'40 direct -4940 Mar 26 j 23:10 7°**Ⅲ**52'27 max. Earth dist. -4933 Jul 25 j 13:07 25°**Д**51'18 32.15705 AU evening set -4940 Jul 04 i 16:12 10°**Ⅱ**02'04 max. Earth dist. -4940 Jul 08 j 13:53 10°**Ⅱ**10'25 33.53871 AU conjunction -4933 Jul 28 i 10:45 25°**Ⅱ**57'56 15°34'38 minimum elong -4933 Jul 28 i 10:25 25°**Ⅱ**57'54 15°34'54 -4940 Jul 11 i 21:13 10°**Ⅲ**17'30 13°23'48 retrograde -4933 Nov 08 j 04:14 28°**Ⅲ**28'29 conjunction -4940 Jul 11 i 20:49 10°**Ⅱ**17'28 -4932 Jan 23 j 21:57 27°**Ⅱ**07'51 minimum elong 13°24'02 opposition 16°43'25 -4940 Jul 19 j 00:41 10°**Ⅲ**32'47 -4932 Jan 26 j 13:58 27°**Ⅱ**03'29 30.14964 AU morning rise min. Earth dist. -4940 Oct 22 j 02:40 12°**Ⅲ**38′18 -4932 Apr 13 j 12:57 retrograde direct 25° TT43'38 -4939 Jan 07 j 04:14 11°**II**20'18 14°25'39 max. Earth dist. -4932 Jul 27 j 07:25 28°**Д**13'48 31.98392 AU opposition -4939 Jan 10 j 04:12 11°**Д**15'34 31.49085 AU min. Earth dist. -4939 Mar 29 j 06:14 9°**Ⅲ**58'46 -4932 Jul 30 j 01:59 conjunction 28°**I**I 20'11 15°48'49 direct -4932 Jul 30 j 01:40 -4939 Jul 07 j 21:47 12°**Ⅱ**11'32 minimum elong 28°**Ⅱ**20'09 15°49'04 evening set -4932 Sep 15 j 02:22 0ಂತಾ -4939 Jul 11 j 01:26 12°**Ⅱ**18'21 33.32467 AU max. Earth dist. -4932 Nov 09 j 19:56 0°951'58 retrograde -4939 Jul 14 j 07:07 12°**Ⅲ**25'22 13°45'20 -4931 Jan 07 j 13:30 30°R∏ conjunction -4939 Jul 14 j 06:42 12°**Ⅲ**25′19 -4931 Jan 25 j 14:21 29°**Ⅲ**30'57 16°58'08 minimum elong 13°45'36 opposition -4939 Jul 20 j 14:56 12°**Ⅲ**39′02 -4931 Jan 28 j 04:45 29°**Ⅲ**26'41 29.98257 AU morning rise min. Earth dist. retrograde -4939 Oct 24 j 12:08 14°**Ⅱ**47'37 direct -4931 Apr 16 j 05:20 28°**Ⅱ**06'23 opposition -4938 Jan 09 j 14:20 13°**耳**29'15 14°48'26 -4931 Jul 13 j 11:28 0ಂತಾ min. Earth dist. -4938 Jan 12 j 14:05 13°**Д**24'30 31.28282 AU max. Earth dist. -4931 Jul 30 j 00:27 0°937'49 31.81865 AU -4938 Mar 31 j 13:37 12°**Ⅲ**07′20 direct -4938 Jul 11 j 06:51 14°**Ⅲ**23'32 -4931 Aug 01 j 17:33 0°5544'07 16°01'36 evening set conjunction -4938 Jul 13 j 13:22 14°**Д**28'30 33.11639 AU -4931 Aug 01 j 17:16 0°9544'06 max. Earth dist. minimum elong 16°01'53 -4931 Nov 12 j 13:55 3°9517'05 retrograde -4938 Jul 16 j 17:44 14°**Ⅲ**35′28 14°06′02 -4930 Jan 28 j 07:28 1°955'43 17°11'20 conjunction opposition -4938 Jul 16 i 17:19 14°**Ⅱ**35'25 minimum elong 14°06'17 min. Earth dist. -4930 Jan 30 j 19:16 1°551'35 29.82371 AU -4938 Jul 22 i 03:22 14°**Ⅱ**47'16 morning rise direct -4930 Apr 18 j 21:21 0°930'47 retrograde -4938 Oct 27 i 01:09 16°**Ⅲ**59'10 max. Earth dist. -4930 Aug 01 j 20:05 3°503'39 31.66212 AU 15°**Ⅱ**40'27 15°10'19 opposition -4937 Jan 12 i 01:16 min. Earth dist. -4937 Jan 14 j 22:58 15°**Ⅲ**35'48 31.08035 AU -4930 Aug 04 j 09:55 3°909'40 16°12'54 conjunction direct -4937 Apr 02 j 21:59 14°**Ⅱ**18′09 -4930 Aug 04 j 09:39 3°909'39 minimum elong 16°13'10 -4937 Jul 14 j 20:32 16°**Ⅲ**38'10 -4930 Nov 15 j 06:39 5°9643'47 evening set retrograde -4937 Jul 16 j 01:45 16°**Ⅱ**40'51 32.91341 AU -4929 Jan 31 j 01:30 max. Earth dist. opposition 4°9522'03 17°22'53 4°5518'02 29.67382 AU min. Earth dist. -4929 Feb 02 j 11:35 -4929 Apr 21 j 13:46 conjunction -4937 Jul 19 j 05:08 16°**I**I47'47 14°25'51 direct 2°956'50 minimum elong -4937 Jul 19 j 04:44 16°**耳**47'45 14°26'07 max. Earth dist. -4929 Aug 04 j 15:07 5°930'57 31.51538 AU -4937 Jul 23 j 12:38 16°**Ⅲ**57'18 morning rise -4937 Oct 29 j 13:39 19°**Ⅲ**12'57 -4929 Aug 07 j 02:35 retrograde conjunction 5°\$36'48 16°22'38 -4936 Jan 14 j 13:16 17°**I**53'51 15°31'13 -4929 Aug 07 j 02:22 opposition minimum elong 5°936'46 16°22'54 -4936 Jan 17 j 11:03 17°**Ⅱ**49'11 30.88311 AU -4929 Nov 18 j 02:17 min. Earth dist. retrograde 8°9511'59 16°**Ⅲ**31′10 direct -4936 Apr 04 j 06:47 opposition -4928 Feb 02 j 20:05 6°**ॐ**49'58 17°32'42 -4936 Jul 17 j 19:22 18°**Ⅲ**55'46 min. Earth dist. -4928 Feb 05 j 02:38 6°5946'10 29.53367 AU evening set max. Earth dist. -4936 Jul 17 j 16:05 18°**Ⅲ**55'28 32.71583 AU direct -4928 Apr 23 j 07:03 5°524'29 max. Earth dist. -4928 Aug 06 j 11:35 7°959'53 31.37873 AU conjunction -4936 Jul 20 j 17:27 19°**耳**02'17 14°44'41 -4936 Jul 20 j 17:04 19°**Ⅲ**02'15 14°44'56 -4928 Aug 08 j 20:03 8°905'28 16°30'42 minimum elong conjunction -4936 Jul 23 j 14:39 19°**Ⅱ**08'43 -4928 Aug 08 j 19:51 8°905'27 16°30'57 morning rise minimum elong

•	nical year style is used: Th		•	/ /			C 33
retrograde	-4928 Nov 19 j 19:30	10°541'42	in astronomical co	runting style is the year	-4919 Feb 25 j 05:00	30°RS	
opposition	-4927 Feb 04 j 15:27	9°9519'25	17°40'42	min. Earth dist.	-4919 Feb 27 i 04:38	•	28.71471 AU
min. Earth dist.	-4927 Feb 06 j 20:24		29.40357 AU	direct	-4919 May 16 j 23:09	28°932'26	20.71171110
direct	-4927 Apr 25 j 23:50	7°953'44	27.40337710	direct	-4919 Jul 29 j 20:59	0°Ω	
max. Earth dist.	-4927 Aug 09 j 08:44		31.25268 AU	max. Earth dist.	-4919 Aug 30 j 22:09		30.60565 AU
max. Earth dist.	-4927 Aug 09 J 00.44	10 30 22	31.23208 AU	max. Earth dist.	-4919 Aug 30 J 22.09	1 061319	30.00303 AC
conjunction	-4927 Aug 11 j 13:57	10°535'40	16°37'03	conjunction	-4919 Sep 01 j 02:02	1° Ω 18'10	16°21'38
minimum elong	-4927 Aug 11 j 13:47	10°935'39	16°37'19	minimum elong	-4919 Sep 01 j 02:13	1° Ω 18'11	16°21'53
retrograde	-4927 Nov 22 j 15:19	13°9512'53	10 37 17	retrograde	-4919 Dec 13 i 17:30	3° Ω 59'58	10 21 33
opposition	-4926 Feb 07 j 11:32	11°950'23	17°46'50	opposition	-4918 Feb 28 j 22:57	2° Ω 36'21	17°23'55
min. Earth dist.	-4926 Feb 09 j 12:46		29.28363 AU	min. Earth dist.	-4918 Mar 02 j 01:41		28.67308 AU
direct	-4926 Apr 28 j 18:57	10°524'33	27.26303 AC	direct	-4918 May 19 j 22:28	1°Ω10'05	20.07300 AC
max. Earth dist.	-4926 Aug 12 j 05:38		31.13691 AU	direct	-4916 Way 19 J 22.26	1 061003	
max. Latur dist.	-4720 Aug 12 J 05.50	13 302 17	31.13071 AC	conjunction	-4918 Sep 03 j 21:50	3° Ω 55'43	16°11'06
conjunction	-4926 Aug 14 j 08:14	13° © 07'21	16°41'39	minimum elong	-4918 Sep 03 j 22:01	3°Ω55'44	
minimum elong	-4926 Aug 14 j 08:06	13°907'20	16°41'54	max. Earth dist.	-4918 Sep 02 j 20:56		30.57155 AU
retrograde	-4926 Nov 25 j 11:23	15°5645'30	10 41 54	retrograde	-4918 Dec 16 j 16:30	6° Ω 37'36	30.37133 AO
C	-4925 Feb 10 j 08:23	13° © 43'30	17°51'02	•	-4917 Mar 03 j 22:26	5° Ω 13'53	17011144
opposition	3			opposition	•		
min. Earth dist.	-4925 Feb 12 j 07:49		29.17371 AU	min. Earth dist.	-4917 Mar 04 j 20:36 -4917 May 22 j 22:20		28.64284 AU
direct	-4925 May 01 j 12:06	12°956'50	21 02120 411	direct	-4917 May 22 j 22:20	3° Ω 47'40	
max. Earth dist.	-4925 Aug 15 j 04:14	15°935'42	31.03138 AU	:	4017 8 06: 17:46	(0 0 2210(1.595.912.0
	4025 A 17:02:06	15067005	1.6944125	conjunction	-4917 Sep 06 j 17:46	6° Ω 33'06	
conjunction	-4925 Aug 17 j 03:06	15°9540'25	16°44'25	minimum elong	-4917 Sep 06 j 18:01	6° Ω 33'07	
minimum elong	-4925 Aug 17 j 03:01	15°5540'24	16°44'41	max. Earth dist.	-4917 Sep 05 j 21:12		30.54931 AU
retrograde	-4925 Nov 28 j 07:47	18°5519'24	15050116	retrograde	-4917 Dec 19 j 11:54	9° Ω 14'57	1.6055100
opposition	-4924 Feb 13 j 05:35	16°956'32		opposition	-4916 Mar 05 j 21:55	7°Ω51'13	
min. Earth dist.	-4924 Feb 15 j 01:36		29.07341 AU	min. Earth dist.	-4916 Mar 06 j 17:30		28.62448 AU
direct	-4924 May 03 j 09:20	15° © 30'28		direct	-4916 May 24 j 20:39	6° Ω 25′05	
max. Earth dist.	-4924 Aug 17 j 01:29	18°910'12	30.93566 AU				
				conjunction	-4916 Sep 08 j 13:29	9°Ω10'12	
conjunction	-4924 Aug 18 j 22:21	18° © 14'44	16°45'21	minimum elong	-4916 Sep 08 j 13:44	9° Ω 10'14	
minimum elong	-4924 Aug 18 j 22:17	18° © 14'43	16°45'36	max. Earth dist.	-4916 Sep 07 j 20:33		30.53961 AU
retrograde	-4924 Nov 30 j 05:38	20° © 54'28		retrograde	-4916 Dec 21 j 09:01	11° Ω 51'56	
opposition	-4923 Feb 15 j 03:35	19° © 31'26	17°53'31	opposition	-4915 Mar 08 j 21:22	10° Ω 28'12	
min. Earth dist.	-4923 Feb 16 j 21:20		28.98266 AU	min. Earth dist.	-4915 Mar 09 j 12:03		28.61838 AU
direct	-4923 May 06 j 05:15	18° © 05'18		direct	-4915 May 27 j 20:18	9° Ω 02'13	
max. Earth dist.	-4923 Aug 20 j 01:11	20° © 45'59	30.84974 AU				
				conjunction	-4915 Sep 11 j 08:55	11° Ω 46'55	
conjunction	-4923 Aug 21 j 17:57	20° © 50'07	16°44'26	minimum elong	-4915 Sep 11 j 09:14	11° Ω 46′57	
minimum elong	-4923 Aug 21 j 17:57	20°950'07	16°44'41	max. Earth dist.	-4915 Sep 10 j 19:56		30.54239 AU
retrograde	-4923 Dec 03 j 02:15	23° © 30'29		retrograde	-4915 Dec 24 j 05:46	14° Ω 28′27	
opposition	-4922 Feb 18 j 02:07	22° © 07'20	17°51'44	opposition	-4914 Mar 11 j 20:53	13° Ω 04'46	16°22'48
min. Earth dist.	-4922 Feb 19 j 16:49	22° © 04'37	28.90118 AU	min. Earth dist.	-4914 Mar 12 j 08:40	13° Ω 03'57	28.62457 AU
direct	-4922 May 09 j 03:19	20°5541'08		direct	-4914 May 30 j 17:24	11° Ω 38'59	
max. Earth dist.	-4922 Aug 22 j 23:00	23° © 22'26	30.77355 AU				
				conjunction	-4914 Sep 14 j 04:11	14° Ω 23′10	15°09'56
conjunction	-4922 Aug 24 j 13:46	23° © 26'22	16°41'36	minimum elong	-4914 Sep 14 j 04:30	14° Ω 23'12	15°10'09
minimum elong	-4922 Aug 24 j 13:47	23° © 26'22	16°41'51	max. Earth dist.	-4914 Sep 13 j 19:19	14° Ω 22'15	30.55769 AU
retrograde	-4922 Dec 06 j 01:13	26° © 07'17			-4914 Sep 29 j 08:28	15° Ω	
opposition	-4921 Feb 21 j 00:54	24° © 43'59	17°47'54	retrograde	-4914 Dec 27 j 01:19	17° Ω 04'24	
min. Earth dist.	-4921 Feb 22 j 12:39	24° © 41'29	28.82931 AU	opposition	-4913 Mar 14 j 19:57	15° Ω 40'49	16°02'32
direct	-4921 May 12 j 00:38	23° © 17'45		min. Earth dist.	-4913 Mar 15 j 03:12	15° Ω 40'18	28.64269 AU
max. Earth dist.	-4921 Aug 25 j 23:21	25° © 59'46	30.70727 AU		-4913 Apr 09 j 05:12	15° R Ω	
				direct	-4913 Jun 02 j 17:03	14° Ω 15′14	
conjunction	-4921 Aug 27 j 09:51	26° © 03'17	16°36'53		-4913 Jul 24 j 08:05	15° Ω	
minimum elong	-4921 Aug 27 j 09:56	26° © 03'18	16°37'08	evening set	-4913 Sep 14 j 17:04	16° Ω 53'19	
retrograde	-4921 Dec 08 j 22:28	28° 5 344'37					
opposition	-4920 Feb 24 j 00:05	27° 5 21'11	17°42'00	conjunction	-4913 Sep 16 j 23:06	16° Ω 58'49	14°50'07
min. Earth dist.	-4920 Feb 25 j 09:13	27° © 18'52	28.76694 AU	minimum elong	-4913 Sep 16 j 23:28	16° Ω 58'51	14°50'19
direct	-4920 May 14 j 00:34	25° © 54'56		max. Earth dist.	-4913 Sep 16 j 17:24	16° Ω 58'14	30.58482 AU
max. Earth dist.	-4920 Aug 27 j 21:37	28° © 37'20	30.65114 AU	morning rise	-4913 Sep 19 j 05:52	17° Ω 04′23	
				retrograde	-4913 Dec 29 j 20:58	19° Ω 39'40	
conjunction	-4920 Aug 29 j 05:52	28° 5 40'37	16°30'13	opposition	-4912 Mar 16 j 18:56	18° Ω 16′12	15°40'24
minimum elong	-4920 Aug 29 j 05:58	28°9540'38	16°30'28	min. Earth dist.	-4912 Mar 16 j 23:12	18° Ω 15'54	28.67227 AU
-	-4920 Oct 02 j 00:41	$0^{\circ}\Omega$		direct	-4912 Jun 04 j 13:53	16° Ω 50'52	
retrograde	-4920 Dec 10 j 20:42	1° Ω 22'15		evening set	-4912 Sep 14 j 17:13	19° Ω 23'57	
opposition	-4919 Feb 25 j 23:19	29° © 58'43	17°34'01	-	- *		

Planetary Phenomena of Pluto from -5400 through -4898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 36 Attention, astronomical year style is used: The year -4912 in astronomical counting style is the year 4913 BCE in historical counting style. 19°**Ω**33'44 14°28'38 -4912 Sep 18 j 17:44 retrograde -4905 Jan 16 i 03:18 7° m 15'10 conjunction -4912 Sep 18 j 18:06 19°Ω33'46 14°28'50 min. Earth dist. -4905 Apr 04 j 05:23 5° m 54'03 29.16171 AU minimum elong -4912 Sep 18 j 16:22 19°**Ω**33'36 30.62332 AU opposition -4905 Apr 05 j 00:02 max. Earth dist. 5° m 52'47 12°22'06 -4905 Jun 23 j 19:13 -4912 Sep 22 j 18:52 19°**Ω**43'35 direct 4° Tp 29'30 morning rise -4912 Dec 31 j 15:58 22°Ω14'07 -4905 Sep 26 j 13:24 retrograde evening set 6° Mp 41'29 -4911 Mar 19 j 17:37 20° **Ω**50'47 15°16'32 opposition 11°19'17 -4905 Oct 06 j 14:25 min. Earth dist. -4911 Mar 19 j 18:08 20°**Ω**50'45 28.71260 AU conjunction 7°**m** 05'01 7° Mp 05'04 11°19'23 -4905 Oct 06 j 14:51 direct -4911 Jun 07 j 12:23 19°**Ω**25'44 minimum elong evening set -4911 Sep 16 j 05:32 21°**Ω**55'01 max. Earth dist. -4905 Oct 07 j 11:41 7° Mp 07'06 31.17386 AU morning rise -4905 Oct 16 j 16:03 7°m/28'37 conjunction -4911 Sep 21 j 11:57 22°**Ω**07'47 14°05'35 retrograde -4904 Jan 18 j 18:48 9° m 39'47 -4911 Sep 21 j 12:22 22°**Ω**07'49 -4904 Apr 06 j 18:49 minimum elong 14°05'45 opposition 8° **m** 17'37 11°48'45 -4911 Sep 21 j 13:13 -4904 Apr 05 j 19:39 8° Np 19'11 29.27086 AU max. Earth dist. 22°**Ω**07'55 30.67251 AU min. Earth dist. morning rise -4911 Sep 26 j 19:04 22°**Ω**20'37 direct -4904 Jun 25 j 15:18 6° m 54'40 retrograde -4910 Jan 03 j 11:52 24°**Ω**47'37 evening set -4904 Sep 27 j 13:33 9° m 04'12 opposition -4910 Mar 22 j 16:01 23°Ω24'25 14°51'00 min. Earth dist. -4910 Mar 22 j 13:07 23°**Ω**24'37 28.76342 AU conjunction -4904 Oct 08 j 04:26 9°**™**28'55 10°47'45 direct -4910 Jun 10 j 09:17 21°**Ω**59'38 minimum elong -4904 Oct 08 j 04:50 9° m 28'57 10°47'51 evening set -4910 Sep 17 j 22:35 24°**Ω**25'36 max. Earth dist. -4904 Oct 09 j 05:18 9° m 31'20 31.29197 AU morning rise -4904 Oct 18 j 19:57 9° m 53'40 conjunction -4910 Sep 24 j 05:48 24°Ω40'48 13°41'02 retrograde -4903 Jan 20 j 09:17 12° m 02'39 minimum elong -4910 Sep 24 i 06:12 24°**Ω**40'51 13°41'12 min. Earth dist. -4903 Apr 08 i 11:16 10° m 42'27 29.39052 AU max. Earth dist. -4910 Sep 24 i 11:27 24° Ω41'22 30.73198 AU opposition -4903 Apr 09 i 13:06 10° m 40'42 11°14'27 morning rise -4910 Sep 30 i 13:33 24°Ω56'04 direct -4903 Jun 28 i 09:24 9° m 18'09 retrograde -4909 Jan 06 j 05:41 27°**Ω**19'58 evening set -4903 Sep 29 j 14:15 11° m 25'19 -4909 Mar 25 j 13:59 25°Ω56'56 14°23'56 opposition -4909 Mar 25 j 08:04 25°**Ω**57'20 28.82399 AU -4903 Oct 10 i 17:53 11° m 51'04 10° 15'22 min. Earth dist. conjunction -4909 Jun 13 j 08:00 24°**Ω**32'27 -4903 Oct 10 j 18:17 11° **m** 51'06 10°15'28 direct minimum elong -4909 Sep 19 j 18:22 26°**Ω**55'21 -4903 Oct 11 j 22:11 11° Mp 53'48 31.42065 AU max. Earth dist. evening set 12° Mp 16'53 -4903 Oct 21 j 22:06 morning rise -4909 Sep 26 j 23:08 27°Ω12'37 13°15'06 -4902 Jan 22 j 22:43 14° m 23'45 conjunction retrograde -4909 Sep 26 j 23:33 -4902 Apr 11 j 00:33 13° Mp 04'05 29.52059 AU 27°**Ω**12'40 13°15'15 min. Earth dist. minimum elong -4909 Sep 27 j 06:54 $27^{\circ}\Omega$ 13'24 30.80119 AU -4902 Apr 12 j 06:28 13° m/02'05 10°39'18 max. Earth dist. opposition -4909 Oct 04 j 04:33 $27^{\circ}\Omega 29'59$ -4902 Jul 01 j 03:58 11° m/39'55 morning rise direct -4908 Jan 09 j 00:51 29°**Ω**51'03 -4902 Oct 01 j 15:05 13° Mp 44'49 retrograde evening set -4908 Mar 27 j 11:15 28°**Ω**28'10 13°55'24 opposition -4908 Mar 27 j 01:29 28°**Ω**28'51 28.89415 AU -4902 Oct 13 j 06:29 14° m 11'31 9°42'15 min. Earth dist. conjunction direct -4908 Jun 15 j 04:29 27°**Ω**03'58 minimum elong -4902 Oct 13 j 06:52 14° mg 11'33 9°42'21 -4908 Sep 20 j 15:47 29°**Ω**23'59 max. Earth dist. -4902 Oct 14 j 13:36 14° Mp 14'30 31.55943 AU evening set morning rise -4902 Oct 24 j 22:42 14° m/38'16 conjunction -4908 Sep 28 j 16:04 29°**Ω**43'06 12°47'52 retrograde -4901 Jan 25 j 11:04 16° Mp 43'08 -4908 Sep 28 j 16:28 29°Ω43'08 12°48'01 -4901 Apr 14 j 23:12 15° m 21'45 10°03'24 minimum elong opposition max. Earth dist. -4908 Sep 29 j 04:00 29°**Ω**44'17 30.87988 AU min. Earth dist. -4901 Apr 13 j 14:25 15° Mp 23'56 29.66078 AU -4908 Oct 05 j 17:50 -4901 Jul 03 j 19:24 14° Mp 00'01 direct -4908 Oct 06 j 16:49 0°m/02'17 -4901 Oct 03 j 16:14 16° Mp 02'45 morning rise evening set retrograde -4907 Jan 10 j 17:33 2° m 20'42 -4901 Oct 15 i 18:36 16° m 30'16 9°08'29 opposition -4907 Mar 30 i 08:14 0° m 57'59 13°25'31 conjunction min. Earth dist. -4907 Mar 29 j 20:05 0° m 58'49 28.97365 AU minimum elong -4901 Oct 15 i 18:58 16° m 30'19 9°08'33 -4907 May 08 i 06:59 30°RΩ max. Earth dist. -4901 Oct 17 i 05:30 16° m 33'36 31.70786 AU direct -4907 Jun 18 i 01:59 29°Ω34'05 -4901 Oct 27 j 21:34 16° m 57'51 morning rise -4907 Jul 27 j 10:14 0°m -4900 Jan 27 j 21:50 19° m 00'48 retrograde -4907 Sep 22 j 14:17 -4900 Apr 15 j 03:13 17° m 42'06 29.81023 AU evening set 1° m 51'18 min. Earth dist. -4900 Apr 16 j 15:00 17° m/39'44 9°26'54 opposition conjunction -4907 Oct 01 j 08:05 2° m/12'03 12°19'26 direct -4900 Jul 05 j 11:32 16° m 18'26 -4907 Oct 01 j 08:31 minimum elong 2° Mp 12'06 12°19'34 evening set -4900 Oct 04 j 17:41 18° Mp 19'06 2° Mp 13'28 30.96811 AU max. Earth dist. -4907 Oct 01 j 22:23 -4907 Oct 10 j 02:32 2°m/32'52 conjunction -4900 Oct 17 j 05:52 18° mp 47'20 8°34'12 morning rise -4906 Jan 13 j 12:05 4° Tp 48'47 -4900 Oct 17 j 06:13 18° Mp47′22 8°34'17 retrograde minimum elong -4906 Apr 02 j 04:30 -4900 Oct 18 j 18:48 18° M 50'50 31.86510 AU opposition 3° m 26'13 12°54'23 max. Earth dist. 3°M 27'20 29.06276 AU -4900 Oct 29 j 19:03 19° m 15'39 min. Earth dist. -4906 Apr 01 j 12:03 morning rise -4899 Jan 29 j 10:45 direct -4906 Jun 20 j 23:30 2° m 02'37 retrograde 21° Mp 16'46 evening set -4906 Sep 24 j 13:29 4° m 17'10 min. Earth dist. -4899 Apr 17 j 15:11 19° m 58'35 29.96846 AU opposition -4899 Apr 19 j 06:17 19° Mp 56'01 8°49'54 conjunction -4906 Oct 03 j 23:39 4° m 39'24 11°49'52 direct -4899 Jul 08 j 00:56 18° m 35'09 minimum elong -4906 Oct 04 j 00:04 4° Mp 39'26 11°50'00 evening set -4899 Oct 06 j 19:05 20° m 33'50 -4906 Oct 04 j 18:02 4° m/41'12 31.06593 AU max. Earth dist. -4906 Oct 13 j 10:21 5° m 01'40 -4899 Oct 19 j 16:34 21° m 02'42 7°59'28 morning rise conjunction

Attention, astronomical year style is used: The year -4899 in astronomical counting style is the year 4900 BCE in historical counting style.

minimum elong -4899 Oct 19 j 16:54 21° 1002'44 7°59'31 max. Earth dist. -4899 Oct 21 j 09:15 21° 1006'31 32.03045 AU

morning rise -4899 Nov 01 j 14:48 21° Mp 31'39