Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1 Attention, astronomical year style is used: The year -7400 in astronomical counting style is the year 7401 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -7400 i	in astronomical co	unting style is the year	7401 BCE in historical of	counting style.	
direct	-7400 Mar 07 j 14:47	2° <b>8</b> 07'59			-7394 Mar 23 j 15:59	15° <b>8</b>	
evening set	-7400 Jun 13 j 23:41	4° <b>8</b> 13'02		evening set	-7394 Jul 03 j 09:32	17° <b>8</b> 25'42	
max. Earth dist.	-7400 Jun 19 j 02:46	4° <b>8</b> 23'51	33.81524 AU	max. Earth dist.	-7394 Jul 03 j 02:49	17° <b>8</b> 25'04	32.56471 AU
conjunction	-7400 Jun 22 j 12:06	4° <b>8</b> 31'02		conjunction	-7394 Jul 06 j 02:27	17° <b>8</b> 31'46	
minimum elong	-7400 Jun 22 j 11:40	4° <b>8</b> 30'59	12°41'26	minimum elong	-7394 Jul 06 j 02:02	17° <b>8</b> 31'44	14°46'58
morning rise	-7400 Jun 30 j 22:28	4° <b>8</b> 48'52		morning rise	-7394 Jul 08 j 18:26	17° <b>8</b> 37'46	
retrograde	-7400 Oct 02 j 10:11	6° <b>8</b> 49'46		retrograde	-7394 Oct 16 j 09:44	19° <b>8</b> 59'07	
opposition	-7400 Dec 18 j 15:33	5° <b>8</b> 32'25		opposition	-7393 Jan 01 j 11:20	18° <b>8</b> 39'23	
min. Earth dist.	-7400 Dec 21 j 18:23		31.75645 AU	min. Earth dist.	-7393 Jan 04 j 06:32		30.54413 AU
direct	-7399 Mar 09 j 23:20	4° <b>8</b> 11'28		direct	-7393 Mar 23 j 06:03	17° <b>8</b> 16'06	
evening set	-7399 Jun 17 j 00:33	6° <b>8</b> 19'17		max. Earth dist.	-7393 Jul 05 j 17:46	19° <b>8</b> 42'49	32.38049 AU
max. Earth dist.	-7399 Jun 21 j 11:29	6° <b>8</b> 28'47	33.59115 AU				
				conjunction	-7393 Jul 08 j 15:30	19° <b>8</b> 49'25	
conjunction	-7399 Jun 24 j 20:29	6° <b>8</b> 36'00		minimum elong	-7393 Jul 08 j 15:07	19° <b>8</b> 49'22	15°04'26
minimum elong	-7399 Jun 24 j 20:02	6° <b>8</b> 35'57	13°04'24	retrograde	-7393 Oct 19 j 01:33	22° <b>8</b> 18'10	
morning rise	-7399 Jul 02 j 14:35	6° <b>8</b> 52'34		opposition	-7392 Jan 04 j 01:51	20° <b>8</b> 58'05	
retrograde	-7399 Oct 04 j 20:43	8° <b>8</b> 56'10		min. Earth dist.	-7392 Jan 06 j 18:26		30.36602 AU
opposition	-7399 Dec 21 j 00:35	7° <b>8</b> 38'21	14°05'05	direct	-7392 Mar 24 j 20:06	19° <b>8</b> 34'29	
min. Earth dist.	-7399 Dec 24 j 03:11		31.53821 AU	max. Earth dist.	-7392 Jul 07 j 09:21	22° <b>8</b> 02'42	32.20293 AU
direct	-7398 Mar 12 j 06:18	6° <b>8</b> 16'57					
evening set	-7398 Jun 20 j 03:57	8° <b>8</b> 27'41		conjunction	-7392 Jul 10 j 05:29	22° <b>8</b> 09'11	15°20'23
max. Earth dist.	-7398 Jun 23 j 23:20	8° <b>8</b> 35'54	33.37246 AU	minimum elong	-7392 Jul 10 j 05:06	22° <b>8</b> 09'09	15°20'45
				retrograde	-7392 Oct 20 j 17:44	24° <b>8</b> 39'19	
conjunction	-7398 Jun 27 j 05:47	8° <b>8</b> 42'58	13°26'25	opposition	-7391 Jan 05 j 17:33	23° <b>8</b> 18'53	
minimum elong	-7398 Jun 27 j 05:21	8° <b>8</b> 42'55	13°26'42	min. Earth dist.	-7391 Jan 08 j 09:29		30.19451 AU
morning rise	-7398 Jul 04 j 05:53	8° <b>8</b> 58'05		direct	-7391 Mar 27 j 08:58	21° <b>8</b> 55'00	
retrograde	-7398 Oct 07 j 07:05	11° <b>8</b> 04'33		max. Earth dist.	-7391 Jul 10 j 02:29	24° <b>8</b> 24'42	32.03220 AU
opposition	-7398 Dec 23 j 10:23	9° <b>8</b> 46'18	14°28'40				
min. Earth dist.	-7398 Dec 26 j 11:16		31.32567 AU	conjunction	-7391 Jul 12 j 20:02	24° <b>8</b> 31'00	
direct	-7397 Mar 14 j 16:28	8° <b>8</b> 24'28		minimum elong	-7391 Jul 12 j 19:40	24° <b>8</b> 30'58	15°35'47
evening set	-7397 Jun 23 j 09:56	10° <b>8</b> 38'21	22 15005 177	retrograde	-7391 Oct 23 j 10:49	27° <b>8</b> 02'27	1.004.01.5
max. Earth dist.	-7397 Jun 26 j 09:51	10° <b>8</b> 44'53	33.15997 AU	opposition	-7390 Jan 08 j 09:58	25° <b>8</b> 41'41	16°44'17
	7007 X 00:15.46	1001 251150	10045150	min. Earth dist.	-7390 Jan 10 j 23:07	25° <b>8</b> 37'31	30.02949 AU
conjunction	-7397 Jun 29 j 15:46	10° <b>8</b> 51'58		direct	-7390 Mar 30 j 00:51	24° <b>8</b> 17'29	21.06015.411
minimum elong	-7397 Jun 29 j 15:20	10° <b>8</b> 51'55	13°48'09	max. Earth dist.	-7390 Jul 12 j 19:02	26° <b>O</b> 48'30	31.86815 AU
morning rise	-7397 Jul 05 j 20:11	11° <b>8</b> 05'26			7200 I I 15:11.25	0.00	1.50.40100
retrograde	-7397 Oct 09 j 19:42	13° <b>8</b> 14'59	14051101	conjunction minimum elong	-7390 Jul 15 j 11:25		
opposition	-7397 Dec 25 j 21:12			Č	-7390 Jul 15 j 11:05		15°49'32
min. Earth dist.	-7397 Dec 28 j 20:43		31.11976 AU	retrograde	-7390 Oct 26 j 05:07	29° <b>8</b> 27'26 28° <b>8</b> 06'20	1.6959120
direct	-7396 Mar 16 j 00:45	10° <b>8</b> 34'06		opposition	-7389 Jan 11 j 03:10		
evening set	-7396 Jun 25 j 19:18	12° <b>8</b> 51'23	22.05421.411	min. Earth dist.	-7389 Jan 13 j 15:22		29.87123 AU
max. Earth dist.	-7396 Jun 27 j 23:23	12 030 10	32.95431 AU	direct	-7389 Apr 01 j 16:00 -7389 Jul 15 j 14:23	26° <b>8</b> 41'50	31.71126 AU
conjunction	-7396 Jul 01 j 02:34	13° <b>8</b> 03'04	1.4000127	max. Earth dist.	-/369 Jul 13 J 14.23	29 014 18	31./1120 AU
minimum elong	-7396 Jul 01 j 02:08	13° <b>8</b> 03'01	14 08 27 14°08'45	conjunction	-7389 Jul 18 j 03:31	29° <b>8</b> 20'15	16°01'28
morning rise	-7396 Jul 06 j 08:29	13° <b>8</b> 14'37	14 00 43	minimum elong	-7389 Jul 18 j 03:12	29° <b>8</b> 20'14	16°01'52
morning risc	-7396 Aug 31 j 13:01	15°8		minimum ciong	-7389 Aug 04 j 07:01	0° <b>Ⅱ</b>	10 01 32
retrograde	-7396 Oct 11 j 06:07	15° <b>8</b> 27'32		retrograde	-7389 Oct 28 j 23:36	1° <b>∏</b> 54'09	
retrograde	-7396 Nov 22 j 08:51	15°RB		opposition	-7388 Jan 13 j 21:20	0° <b>Д</b> 32'42	17°11'12
opposition	-7396 Dec 27 j 09:05	14° <b>8</b> 08'30	15°13'04	min. Earth dist.	-7388 Jan 16 j 06:56		29.71999 AU
min. Earth dist.	-7396 Dec 30 j 07:11		30.92073 AU	mm. Earth dist.	-7388 Feb 03 j 05:16	30°R8	29.71999710
direct	-7395 Mar 18 j 10:55	12° <b>8</b> 45'53	30.72073 110	direct	-7388 Apr 03 j 10:57	29° <b>8</b> 07'55	
ancer	-7395 Jun 26 j 05:43	15° <b>8</b>		ancer	-7388 May 30 j 15:45	0°II	
evening set	-7395 Jun 29 j 09:34	15° <b>8</b> 07'00		max. Earth dist.	-7388 Jul 17 j 08:11		31.56196 AU
max. Earth dist.	-7395 Jun 30 j 12:04		32.75596 AU	max. Earth dist.	7500 Jul 17 J 00.11	1 11 11 33	31.30170710
				conjunction	-7388 Jul 19 j 19:56	1° <b>Ⅱ</b> 47'25	16°12'19
conjunction	-7395 Jul 03 j 14:03	15° <b>8</b> 16'20	14°28'03	minimum elong	-7388 Jul 19 j 19:39	1° <b>I</b> I47'23	16°12'45
minimum elong	-7395 Jul 03 j 13:37	15° <b>8</b> 16'17		retrograde	-7388 Oct 30 j 18:26	4° <b>∏</b> 22'26	10 12 13
morning rise	-7395 Jul 07 j 17:27	15° <b>8</b> 25'32	- · -v - ·	opposition	-7387 Jan 15 j 16:14	3° <b>I</b> I00'39	17°22'16
retrograde	-7395 Oct 13 j 20:15	17° <b>8</b> 42'14		min. Earth dist.	-7387 Jan 17 j 23:52		29.57657 AU
opposition	-7395 Dec 29 j 21:37	16° <b>8</b> 22'50	15°33'44	direct	-7387 Apr 06 j 03:46	1° <b>∏</b> 35'34	
min. Earth dist.	-7394 Jan 01 j 17:30		30.72900 AU	max. Earth dist.	-7387 Jul 20 j 05:06		31.42099 AU
	-7394 Mar 18 j 00:36	15°R8					
direct	-7394 Mar 20 j 20:25	14° <b>8</b> 59'53		conjunction	-7387 Jul 22 j 13:06	4° <b>Ⅱ</b> 16′04	16°21'37
	, j = 0.20			J	- j00		

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7387 in astronomical counting style is the year 7388 BCE in historical counting style. -7387 Jul 22 j 12:51 4°**I**16'03 16°22'01 min. Earth dist. -7378 Feb 10 i 00:50 26°**I**03'54 28.73303 AU minimum elong -7387 Nov 02 j 12:35 6°II52′08 direct -7378 Apr 29 j 16:57 24°**∏**39'53 retrograde -7386 Jan 18 j 11:45 5°**Ⅲ**30'01 17°31'37 opposition 5°**П**26'20 29.44152 AU -7378 Aug 14 j 15:29 27°**II**25'17 16°24'07 min. Earth dist. -7386 Jan 20 j 16:55 conjunction -7386 Apr 08 j 22:58 4°**I**104'41 -7378 Aug 14 j 15:37 27°**Ⅲ**25′18 16°24'37 direct minimum elong 6°**耳**40'43 31.28919 AU -7386 Jul 23 j 00:25 -7378 Aug 13 j 13:44 27°**П**22'39 30.62363 AU max. Earth dist. max. Earth dist. -7378 Nov 06 j 04:01 0ಂತಾ -7386 Jul 25 j 06:33 -7378 Nov 26 j 08:57 conjunction 6°**I**I46′06 16°29′15 retrograde 0°907'23 -7386 Jul 25 j 06:20 minimum elong 6°**Ⅱ**46'04 16°29'42 -7378 Dec 17 j 00:51 30°R∏ retrograde -7386 Nov 05 j 09:25 9°**Ⅲ**23′08 opposition -7377 Feb 11 j 20:34 28°**耳**43'47 17°27'12 8°**II**00'43 17°39'09 opposition -7385 Jan 21 j 07:57 min. Earth dist. -7377 Feb 12 j 20:57 28°**Ц**42'05 28.69127 AU -7385 Jan 23 j 09:58 27°**Ⅱ**17'51 min. Earth dist. 7°**Д**57'14 29.31584 AU direct -7377 May 02 j 17:39 -7385 Apr 11 j 17:36 -7377 Aug 16 j 03:50 direct  $6^{\circ}\Pi35'08$ 0ಂತಾ max. Earth dist. -7385 Jul 25 j 22:29 9°**Ⅱ**12'22 31.16730 AU conjunction -7377 Aug 17 j 11:21 0°503'14 16°14'52 conjunction -7385 Jul 28 j 00:33 9°**Ⅱ**17'23 16°35'10 minimum elong -7377 Aug 17 j 11:29 0°903'15 16°15'22 minimum elong -7385 Jul 28 j 00:22 9°**Ⅱ**17′22 16°35'36 max. Earth dist. -7377 Aug 16 j 12:02 0°900'50 30.58848 AU retrograde -7385 Nov 08 j 03:34 11°**II**55'20 retrograde -7377 Nov 29 j 07:26 2°545'30 opposition -7384 Jan 24 j 04:57 10°**耳**32'38 17°44'47 opposition -7376 Feb 14 j 20:36 1°921'50 17°16'25 min. Earth dist. -7384 Jan 26 j 04:35 10°**Д**29'19 29.20015 AU min. Earth dist. -7376 Feb 15 j 17:47 1°520'21 28.65952 AU direct -7384 Apr 13 j 12:56 9°**Ⅱ**06'53 -7376 Apr 19 j 05:17 30°RⅡ max. Earth dist. -7384 Jul 27 i 19:34 11°**Д**45'06 31.05630 AU direct -7376 May 04 i 16:07 29°II55'58 -7376 May 19 j 23:32 0ಂತಾ conjunction -7384 Jul 29 i 18:52 11°**Ⅱ**49'51 16°39'16 -7384 Jul 29 j 18:44 11°**Ⅱ**49'51 16°39'44 conjunction -7376 Aug 19 i 07:23 2°9541'11 16°03'44 minimum elong -7384 Nov 10 j 00:16 14°**Ⅲ**28'40 -7376 Aug 19 j 07:36 16°04'14 retrograde minimum elong 2°9641'13 opposition -7383 Jan 26 j 02:23 13°**Ⅱ**05'44 -7376 Aug 18 j 12:34 2°539'16 30.56368 AU 17°48'27 max. Earth dist. -7383 Jan 27 j 21:58 13°**Д**02'41 29.09533 AU -7376 Dec 01 j 04:24 min. Earth dist. retrograde 5°9023'30 -7383 Apr 16 j 08:52 11°**Ⅲ**39'49 -7375 Feb 16 j 20:37 17°03'35 direct opposition 3°959'47 -7383 Jul 30 j 18:12 14°**Д**19'05 30.95650 AU -7375 Feb 17 j 14:27 max. Earth dist. min. Earth dist. 3°958'32 28.63779 AU -7375 May 07 j 16:03 direct 2°934'00 5°517'15 30.54944 AU -7383 Aug 01 j 13:36 14°**Ⅲ**23'28 16°41'32 -7375 Aug 21 j 10:40 max. Earth dist. conjunction -7383 Aug 01 j 13:30 14°**Ⅲ**23′28 16°41'59 minimum elong -7383 Nov 12 j 20:15 17°**Ⅱ**03'04 -7375 Aug 22 j 03:02 retrograde conjunction 5°918'55 15°50'43 -7382 Jan 29 j 00:28 15°**Ⅲ**39'56 17°50'05 -7375 Aug 22 j 03:14 opposition minimum elong 5°9518'57 15°51'13 -7382 Jan 30 j 17:45 15°**Ⅲ**37'03 29.00146 AU -7375 Dec 04 j 03:38 8°901'09 min. Earth dist. retrograde -7374 Feb 19 j 20:26 direct -7382 Apr 19 j 03:41 14°**Ⅱ**13'57 opposition 6°537'23 16°48'44 max. Earth dist. -7382 Aug 02 j 16:36 16°**Д**54'06 30.86816 AU min. Earth dist. -7374 Feb 20 j 10:24 6°536'25 28.62656 AU direct -7374 May 10 j 15:54 5°9911'41 conjunction -7382 Aug 04 j 08:40 16°**耳**58'10 16°41'53 -7382 Aug 04 j 08:37 16°**Ⅲ**58′09 16°42'22 conjunction -7374 Aug 24 j 22:35 7°956'12 15°35'51 minimum elong -7382 Nov 15 j 17:41 19°**Ⅲ**38′27 -7374 Aug 24 j 22:52 7°956'14 15°36'21 retrograde minimum elong -7381 Jan 31 j 22:46 18°**Ⅲ**15'11 17°49'40 max. Earth dist. -7374 Aug 24 j 11:00 7°555'01 30.54608 AU opposition min. Earth dist. -7381 Feb 02 j 11:45 18°**Ⅱ**12'36 28.91855 AU -7374 Dec 06 j 22:58 10°538'14 retrograde -7381 Apr 22 j 00:58 16°**Ⅱ**49'09 -7373 Feb 22 j 20:10 9°514'27 16°31'53 direct opposition 19°**Д**30'06 30.79091 AU max. Earth dist. -7381 Aug 05 j 15:22 min. Earth dist. -7373 Feb 23 i 07:08 9°5513'41 28.62616 AU direct -7373 May 13 j 15:46 7°9548'51 -7381 Aug 07 j 04:05 19°**Ⅱ**33'51 conjunction 16°40'20 -7381 Aug 07 j 04:03 minimum elong 19°**Ⅲ**33'50 16°40'49 conjunction -7373 Aug 27 j 17:43 10°532'51 15°19'10 retrograde -7381 Nov 18 i 14:39 22°**Ⅱ**14'45 minimum elong -7373 Aug 27 i 18:00 10°\$32'52 15°19'40 -7380 Feb 03 i 21:51 20°**I**151'22 17°47'10 max. Earth dist. -7373 Aug 27 j 09:06 10°531'58 30.55429 AU opposition min. Earth dist. -7380 Feb 05 j 08:32 20°**Д**48'57 28.84640 AU retrograde -7373 Dec 09 j 20:23 13°9514'35 direct -7380 Apr 23 j 21:32 19°**Ⅲ**25′20 -7372 Feb 25 j 19:41 11°950'48 16°13'06 opposition min. Earth dist. -7372 Feb 26 j 01:54 11°550'22 28.63744 AU 10°525'20 conjunction -7380 Aug 08 j 23:37 22°II10'23 16°36'51 direct -7372 May 15 j 14:54 22°**Ⅱ**10′23 minimum elong -7380 Aug 08 j 23:40 16°37'21 -7380 Aug 07 j 14:51 max. Earth dist. 22°**Д**07'02 30.72468 AU conjunction -7372 Aug 29 j 12:32 13°**©**08'42 15°00'41 -7380 Nov 20 j 12:35 24°**I**51'47 -7372 Aug 29 j 12:53 13°**©**08'44 15°01'11 retrograde minimum elong -7379 Feb 05 j 21:12 23°**Ⅲ**28′20 17°42'36 -7372 Aug 29 j 08:46 13°**©**08'19 30.57452 AU opposition max. Earth dist. -7379 Feb 07 j 03:44 23°**Ⅱ**26'11 28.78461 AU -7372 Dec 11 j 15:47 min. Earth dist. retrograde 15°950'03 -7379 Apr 26 j 20:08 22°**I**102'18 -7371 Feb 27 j 19:02 direct opposition 14°**©**26'18 15°52'24 min. Earth dist. -7371 Feb 27 j 22:14 14°526'05 28.66074 AU conjunction -7379 Aug 11 j 19:26 24°**Ⅱ**47'35 16°31'27 direct -7371 May 18 j 13:41 13°901'02 minimum elong -7379 Aug 11 j 19:30 24°**Ⅱ**47'36 16°31'56 evening set -7371 Aug 29 j 03:37 15°936'00 max. Earth dist. -7379 Aug 10 j 13:28 24°**I**I44'32 30.66894 AU -7379 Nov 23 j 10:45 27°**Ⅲ**29'25 -7371 Sep 01 j 07:01 15°9543'41 14°40'30 retrograde conjunction

-7378 Feb 08 j 20:44

opposition

26°**Ⅲ**05'52 17°35'56

-7371 Sep 01 j 07:21

minimum elong

15°5543'43

14°40'59

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Earth dist. 3°**Ω**19'33 31.15722 AU -7364 Sep 27 j 19:50 morning rise 3°**£**39′56 -7370 Sep 04 j 01:09 conjunction 18°**©**17'42 14°18'39 retrograde -7364 Dec 31 j 15:27 5°**Ω**52'46 minimum elong -7370 Sep 04 j 01:33 18°9517'44 14°19'08 opposition -7363 Mar 20 j 21:10 4°Ω30'27 12°09'18 4° Ω32'13 29.25661 AU max. Earth dist. -7370 Sep 04 j 04:59 18°9518'05 30.65243 AU min. Earth dist. -7363 Mar 19 j 19:00 -7370 Sep 08 j 15:45 morning rise 18°928'54 direct -7363 Jun 08 j 10:33 3°Ω07'42 -7363 Sep 10 j 12:17 retrograde -7370 Dec 17 j 05:38 20°958'02 evening set 5°**Ω**18'05 opposition -7369 Mar 05 j 16:19 19°**©**34'30 15°05'35 min. Earth dist. -7369 Mar 05 j 11:35 19°**©**34'50 28.74415 AU conjunction -7363 Sep 20 j 18:11 5°**Ω**42'00 11°07'26 direct -7369 May 24 j 09:26 18°909'44 minimum elong -7363 Sep 20 j 18:35 5°**Ω**42'03 11°07'52 evening set -7369 Sep 01 j 01:56 20°936'54 max. Earth dist. -7363 Sep 21 j 22:17 5°**Ω**44'45 31.27468 AU morning rise -7363 Oct 01 j 00:47 6°₽06'00 conjunction -7369 Sep 06 j 18:43 20°950'42 13°55'13 retrograde -7362 Jan 03 j 05:54 8°£16'33 minimum elong -7369 Sep 06 j 19:06 20°950'44 13°55'43 min. Earth dist. -7362 Mar 22 j 11:14 6°**Ω**56'23 29.37456 AU max. Earth dist. -7369 Sep 07 j 02:24 20°551'28 30.70984 AU opposition -7362 Mar 23 j 15:38 6°**Ω**54'28 11°35'53 morning rise -7369 Sep 12 j 12:09 21°9504'33 direct -7362 Jun 11 j 06:12 5°**Ω**32'05 retrograde -7369 Dec 20 i 00:42 23°930'24 evening set -7362 Sep 12 j 12:48 7°**Ω**40′02 opposition -7368 Mar 07 j 14:26 22°9507'03 14°39'40 min. Earth dist. -7368 Mar 07 i 04:57 22°**©**07'42 28.80368 AU conjunction -7362 Sep 23 j 07:51 8°**Ω**05′03 10°35'52 -7368 May 26 j 07:12 20°9542'34 -7362 Sep 23 j 08:16 8°Ω05'06 10°36'18 direct minimum elong -7368 Sep 01 j 20:04 23°906'33 -7362 Sep 24 j 14:01 8°**Ω**07'59 31.40080 AU evening set max. Earth dist. -7362 Oct 04 j 03:55 8°**Q**30'10 morning rise -7368 Sep 08 j 11:56 23°922'36 13°30'20 -7361 Jan 05 j 21:15 10°**Ω**38'32 conjunction retrograde 9°**Ω**18'51 29.50134 AU -7368 Sep 08 j 12:21 -7361 Mar 25 j 00:56 minimum elong 23°9522'38 13°30'49 min. Earth dist. -7361 Mar 26 j 09:26 -7368 Sep 08 j 23:10 9°Ω16'41 11°01'36 max. Earth dist. 23°523'43 30.77876 AU opposition 7°**Ω**54'38 -7368 Sep 15 j 04:31 23°**©**38'42 -7361 Jun 13 j 23:53 morning rise direct 10°**Ω**00'15 -7368 Dec 21 j 18:45 26°901'37 -7361 Sep 14 j 13:16 retrograde evening set -7367 Mar 10 j 12:07 24°538'27 14°12'12 opposition 24°539'18 28.87450 AU -7367 Mar 09 j 23:46 -7361 Sep 25 j 20:47 10°**Ω**26'16 10°03'33 min. Earth dist. conjunction -7367 May 29 j 02:31 -7361 Sep 25 j 21:10 10°**Ω**26'18 10°03'59 direct 23°9514'18 minimum elong -7361 Sep 27 j 06:54 10°**Ω**29'33 31.53563 AU evening set -7367 Sep 03 j 16:22 25°**©**35'19 max. Earth dist. -7361 Oct 07 j 05:13 morning rise 10°**Ω**52'22 conjunction -7367 Sep 11 j 04:42 25°953'18 13°04'04 retrograde -7360 Jan 08 j 09:49 12°**Ω**58'37 -7367 Sep 11 j 05:06 25°953'20 13°04'33 min. Earth dist. -7360 Mar 26 j 16:00 11°**Ω**39'19 29.63713 AU minimum elong max. Earth dist. -7367 Sep 11 j 19:58 25°554'50 30.85871 AU opposition -7360 Mar 28 j 02:37 11°**Ω**37'00 10°26'32 -7367 Sep 18 j 17:39 26°9511'22 -7360 Jun 15 j 18:13 10°**Ω**15′20 morning rise direct -7367 Dec 24 j 11:54 28°931'34 -7360 Sep 15 j 14:13 12°Ω18'41 retrograde evening set -7366 Mar 13 j 09:11 27°508'36 13°43'19 opposition -7366 Mar 12 j 16:52 27°509'43 28.95570 AU -7360 Sep 27 j 09:01 12°**Ω**45'35 9°30'33 min. Earth dist. conjunction -7360 Sep 27 i 09:25 direct -7366 Jun 01 i 00:30 25°5544'48 minimum elong 12°Ω45'37 9°30'57 -7360 Sep 28 i 21:38 12°Ω49'05 31.67963 AU evening set -7366 Sep 05 i 14:01 28°902'59 max. Earth dist. -7360 Oct 09 i 04:55 morning rise 13°Ω12'34 conjunction -7366 Sep 13 j 20:49 28°522'43 12°36'33 -7360 Dec 08 i 20:39 15°Ω -7366 Sep 13 i 21:15 28°\$22'45 12°37'00 -7359 Jan 09 i 23:44 15°Ω16'47 minimum elong retrograde max. Earth dist. -7366 Sep 14 j 14:43 28°524'30 30.94874 AU -7359 Feb 11 j 22:52 15°RΩ -7366 Sep 22 j 04:26 28°9642'31 min. Earth dist. -7359 Mar 29 j 03:50 13°Ω58'00 29.78230 AU morning rise -7366 Oct 27 j 19:45  $0^{\circ}\Omega$ -7359 Mar 30 j 18:39 13°**Ω**55′26 9°50'49 opposition 12°**Ω**34′08 retrograde -7366 Dec 27 j 05:54 1°**Ω**00'09 direct -7359 Jun 18 j 11:28 -7359 Sep 17 j 15:11 -7365 Mar 02 j 05:33 30°R55 evening set 14°Ω35'20 min. Earth dist. -7365 Mar 15 j 10:16 29°538'44 29.04685 AU -7359 Sep 28 j 12:53 15°**Ω** opposition -7365 Mar 16 j 05:47 29°537'24 13°13'08 -7365 Jun 03 j 19:04 28°9513'57 -7359 Sep 29 j 20:32 15°**Ω**03'00 8°56'57 direct conjunction -7365 Aug 25 j 18:20  $0^{\circ}\Omega$ -7359 Sep 29 j 20:54 15°**Ω**03'02 8°57'21 minimum elong -7365 Sep 07 j 12:47  $0^{\circ}\Omega 29'26$ -7359 Oct 01 j 12:31 15°**Ω**06'48 31.83285 AU evening set max. Earth dist. -7359 Oct 12 j 03:04 15°**Ω**30'46 morning rise conjunction -7365 Sep 16 j 12:37 0°**Ω**50'43 12°07'52 retrograde -7358 Jan 12 j 09:55 17°**Ω**33'04 minimum elong -7365 Sep 16 j 13:02 0°**Ω**50'45 12°08'19 min. Earth dist. -7358 Mar 31 j 17:08 16°**Ω**14'42 29.93696 AU max. Earth dist. -7365 Sep 17 j 10:36 0°**Ω**52'53 31.04845 AU opposition -7358 Apr 02 j 10:08 16°Ω12'00 9°14'31 morning rise -7365 Sep 25 j 13:05 1°**Ω**12′04 -7358 May 28 j 07:05 15°RΩ -7365 Dec 29 j 21:45 3°**Ω**27'15 -7358 Jun 21 j 02:17 14°Ω51'06 retrograde direct

-7364 Mar 17 j 03:14

min. Earth dist.

2°Ω06'16 29.14723 AU

-7358 Jul 14 j 07:14

15°**Ω** 

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4 Attention, astronomical year style is used: The year -7358 in astronomical counting style is the year 7359 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	e year -7358 i	n astronomical cou	unting style is the year	7359 BCE in	historical co	ounting style.	
evening set	-7358 Sep 19 j 16:18	16° <b>Ω</b> 50′14		max. Earth dist.	-7352 Oct	16 j 19:45	0° Mp 20′10	33.13289 AU
				morning rise	-7352 Oct	28 j 20:35	0° Mp 45'48	
conjunction	-7358 Oct 02 j 07:19	17° <b>Ω</b> 18'34	8°22'52	retrograde	-7351 Jan	27 j 02:36	2° My 36'49	
minimum elong	-7358 Oct 02 j 07:40	17° <b>Ω</b> 18'36	8°23'14	min. Earth dist.	-7351 Apr	15 j 13:55	1° <b>m</b> 21'49	31.24339 AU
max. Earth dist.	-7358 Oct 04 j 02:24	17° <b>Ω</b> 22'38	31.99543 AU	opposition	-7351 Apr		1° <b>m</b> )18'08	4°52'41
morning rise	-7358 Oct 14 j 23:27	17° <b>Ω</b> 47'02		direct	-7351 Jul	-	0° m 00'19	
retrograde	-7357 Jan 14 j 19:49	19° <b>Ω</b> 47'29		evening set	-7351 Oct	-	1° m 47'23	
min. Earth dist.	-7357 Apr 03 j 03:51		30.10085 AU	C		3	•	
opposition	-7357 Apr 05 j 00:40	18° <b>Ω</b> 26'43	8°37'44	conjunction	-7351 Oct	16 j 16:04	2° m 18'11	4°17'42
direct	-7357 Jun 23 j 17:37	17° <b>Ω</b> 06'15		minimum elong	-7351 Oct		2° m 18'12	
evening set	-7357 Sep 21 j 17:35	19° <b>Ω</b> 03'25		max. Earth dist.	-7351 Oct	19 i 02:59		33.34216 AU
Ü	1 3			morning rise	-7351 Oct	2	2° m 49'08	
conjunction	-7357 Oct 04 j 17:20	19° <b>Ω</b> 32'21	7°48'22	retrograde	-7350 Jan	-	4° m/38'48	
minimum elong	-7357 Oct 04 j 17:40	19° <b>Ω</b> 32'23	7°48'44	min. Earth dist.	-7350 Apr			31.45299 AU
max. Earth dist.	-7357 Oct 06 j 14:58		32.16690 AU	opposition	-7350 Apr	-	3° m 20'26	
morning rise	-7357 Oct 17 j 18:35	20° <b>Ω</b> 01'24		direct	-7350 Jul		2° m 03'01	
retrograde	-7356 Jan 17 j 06:31	22°Ω00'06		evening set	-7350 Oct	-	3° m 48'39	
min. Earth dist.	-7356 Apr 04 j 15:10		30.27375 AU				- · · · · · · · · · · · · · · · · · · ·	
opposition	-7356 Apr 06 j 14:34	20° <b>Ω</b> 39'40	8°00'36	conjunction	-7350 Oct	18 i 21:24	4° <b>m</b> ) 19'31	3°42'41
direct	-7356 Jun 25 j 05:04	19° <b>Ω</b> 19'39	0 0000	minimum elong	-7350 Oct		4° m 19'32	
evening set	-7356 Sep 22 j 18:48	21° <b>Ω</b> 14'56		max. Earth dist.	-7350 Oct	-	-	33.55533 AU
e vennig see	7500 Sep 22 j 10.10	21 001.00		morning rise	-7350 Nov		4° m/ 50'33	33.00033110
conjunction	-7356 Oct 06 j 02:47	21° <b>Ω</b> 44'21	7°13'33	retrograde	-7349 Jan	3	6° m 38'56	
minimum elong	-7356 Oct 06 j 03:06	21°Ω44'23		min. Earth dist.	-7349 Apr		•	31.66685 AU
max. Earth dist.	-7356 Oct 08 j 03:50		32.34683 AU	opposition	-7349 Apr		5° m/ 20'52	
morning rise	-7356 Oct 19 j 12:03	22°Ω13'55	32.54003 NO	direct	-7349 Jul	3	4° <b>m</b> 03'49	3 31 37
retrograde	-7355 Jan 18 j 15:25	24°Ω10'56		evening set	-7349 Oct	3	5° <b>m</b> ) 48'04	
min. Earth dist.	-7355 Apr 07 j 01:31		30.45468 AU	evening set	-7349 OCI	00 J 03.23	J 11/40 04	
opposition	-7355 Apr 09 j 03:35	$22^{\circ}\Omega50'52$		conjunction	-7349 Oct	21 ; 02:12	6° <b>™</b> 18'57	3°07'52
direct	-7355 Jun 27 j 19:11	$21^{\circ}\Omega 31'18$	/ 2311	minimum elong	-7349 Oct			3°08'08
evening set	-7355 Sep 24 j 20:20	$23^{\circ}\Omega 24'47$		max. Earth dist.	-7349 Oct	2		33.77267 AU
evening set	-/333 Sep 24 j 20.20	23 662441		morning rise	-7349 Oct -7349 Nov	3	6° TQ 50'01	33.11201 AU
conjunction	-7355 Oct 08 j 11:27	23° <b>Ω</b> 54'38	6020120	retrograde	-7349 Nov		8° m <sub>2</sub> 37'09	
•	·	$23^{\circ}\Omega54'39$		_				21 00502 ATT
minimum elong	-7355 Oct 08 j 11:44			min. Earth dist.	-7348 Apr			31.88503 AU
max. Earth dist.	-7355 Oct 10 j 14:03	$23^{\circ} 0.39^{\circ} 17$ $24^{\circ} \Omega 24'37$	32.53418 AU	opposition direct	-7348 Apr -7348 Jul	-	7° Mp 19'23	3°01'00
morning rise retrograde	-7355 Oct 22 j 04:17	$26^{\circ}\Omega 20'02$				9	6° Mp 02'43 7° Mp 45'39	
C	-7354 Jan 21 j 02:04 -7354 Apr 09 j 10:54		20 (4202 ATT	evening set	-7348 Oct	0/ J 06:42	/° IIJ45'39	
min. Earth dist.	1 3		30.64302 AU	:	7249.0-4	22:06.07	00 <b>m</b> , 1 (12 0	2022117
opposition	-7354 Apr 11 j 15:44		6 45 36	conjunction	-7348 Oct		8° Mp 16'30	
direct	-7354 Jun 30 j 05:31	23° <b>Ω</b> 41'12		minimum elong	-7348 Oct		8° Mp 16'31	
evening set	-7354 Sep 26 j 21:47	25° <b>Ω</b> 32'59		max. Earth dist.	-7348 Oct			33.99418 AU
	72540 + 10:10:20	260 002110	(002120	morning rise	-7348 Nov		8° Mp 47'32	
conjunction	-7354 Oct 10 j 19:38	26° <b>Ω</b> 03'10		retrograde	-7347 Feb		10° Mp 33'30	22 10707 ATT
minimum elong	-7354 Oct 10 j 19:54	26° <b>Ω</b> 03'12		min. Earth dist.	-7347 Apr			32.10797 AU
max. Earth dist.	-7354 Oct 13 j 01:37		32.72823 AU	opposition	-7347 Apr		9° Mp 16'02	2-24-19
morning rise	-7354 Oct 24 j 18:59	26° <b>Ω</b> 33'30		direct	-7347 Jul		7° Mp 59'44	
retrograde	-7353 Jan 23 j 10:01	28° <b>Ω</b> 27'24	20.02772 ATT	evening set	-7347 Oct	09] 07:46	9° <b>m</b> 41'26	
min. Earth dist.	-7353 Apr 11 j 21:00		30.83773 AU	:	7247.0-+	24:00.22	100 m 12112	1050150
opposition	-7353 Apr 14 j 03:20	27° <b>Ω</b> 08'02	0 07 30	conjunction	-7347 Oct		10° Mp 12'12	1°58'58
direct	-7353 Jul 02 j 16:56	25° <b>Ω</b> 49'22		minimum elong	-7347 Oct	-	10° Mp 12'13	1°59'11
evening set	-7353 Sep 28 j 23:22	27° <b>Ω</b> 39'30		max. Earth dist.	-7347 Oct	-		34.22031 AU
	7252 0 4 12 : 02 57	200 000150	5020105	morning rise	-7347 Nov		10° Mp 43'10	
conjunction	-7353 Oct 13 j 02:57	28° <b>Ω</b> 09'58		retrograde	-7346 Feb		12° Tp 28'03	22 22567 ATT
minimum elong	-7353 Oct 13 j 03:11	28° <b>Ω</b> 09'59		min. Earth dist.	-7346 Apr		-	32.33567 AU
max. Earth dist.	-7353 Oct 15 j 10:04		32.92809 AU	opposition	-7346 Apr	-	11° <b>m</b> 10'53	1°48'00
morning rise	-7353 Oct 27 j 08:24	28° <b>Ω</b> 40'34		direct	-7346 Jul	-	9° Mp 54'58	
	-7353 Dec 10 j 04:43	0° Mp		evening set	-7346 Oct	11 J 08:53	11° <b>m</b> 35'31	
retrograde	-7352 Jan 25 j 19:30	0° m/33'00			72460	26:12.00	100m-00110	1025100
min D-41-31-4	-7352 Mar 14 j 11:08	30°R€ 20° € 17'2°	21 02012 411	conjunction	-7346 Oct		12° Mp 06'10	1°25'00
min. Earth dist.	-7352 Apr 13 j 04:45		31.03813 AU	minimum elong	-7346 Oct	-	12° Mp 06'10	1°25'11
opposition	-7352 Apr 15 j 14:07	29° <b>Ω</b> 13'59	3-30-17	max. Earth dist.	-7346 Oct		-	34.45118 AU
direct	-7352 Jul 04 j 03:13	27° <b>Ω</b> 55'45		morning rise	-7346 Nov		12° m 37'01	
evening set	-7352 Sep 30 j 00:59	29° <b>Ω</b> 44'20		retrograde	-7345 Feb		14° Mp 20'51	22.56047.433
	-7352 Oct 07 j 10:22	0° <b>m</b> )		min. Earth dist.	-7345 Apr			32.56847 AU
	7252 0 - 14:00 55	00% 1450	4052152	opposition	-7345 Apr		13° Mp 04'01	1°12'04
conjunction	-7352 Oct 14 j 09:52	0° Mp 14'59	4°52'52	direct	-7345 Jul	9	11° Mp 48'31	
minimum elong	-7352 Oct 14 j 10:05	0° Mg 15′00	4~53.09	evening set	-7345 Oct	13 J 09:38	13° <b>m</b> ,27'59	

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7345 in astronomical counting style is the year 7346 BCE in historical counting style. -7345 Oct 28 i 14:12 13° m 58'28 0°51'23 retrograde -7338 Feb 20 i 05:55 26° m 49'22 conjunction 25° Mp 39'33 34.29223 AU -7345 Oct 28 j 14:14 13° m 58'28 min. Earth dist. -7338 May 10 j 07:51 minimum elong 0°51'35 max. Earth dist. -7345 Oct 31 j 12:31 14° Mp 04'24 34.68673 AU -7338 May 13 j 13:15 25° m 34'59 -2°45'21 opposition -7345 Nov 12 j 21:08 14° m 29'10 direct -7338 Aug 01 j 07:08 24° m 22'17 morning rise -7344 Feb 10 j 05:20 -7338 Oct 25 j 13:38 retrograde 16° Mp 12'04 evening set 25° m 55'55 -7344 Apr 29 j 01:28 min. Earth dist. 14° m 59'52 32.80590 AU 14° **m** 55'34 -7338 Nov 09 j 13:32 opposition -7344 May 01 j 23:53 0°36'35 conjunction 26° m 24'23 -2°51'00 -7338 Nov 09 j 13:25 direct -7344 Jul 20 j 16:28 13° m 40'28 minimum elong 26° m 24'23 2°50'55 -7338 Nov 12 j 19:11 evening set -7344 Oct 14 j 10:29 15° m 18'56 max. Earth dist. 26° M 30'35 36.41556 AU morning rise -7338 Nov 24 j 16:03  $26^{\circ}$  My 53'03conjunction -7344 Oct 29 j 15:42 15° Mp 49'14 0°18'12 retrograde -7337 Feb 22 j 03:38  $28^{\circ}$  Mp 30'48-7344 Oct 29 j 15:43 -7337 May 12 j 08:28 minimum elong 15° m/49'14 0°18'23 min. Earth dist. 27° Mp 21'14 34.54394 AU -7344 Nov 01 j 14:45 max. Earth dist. 15° Mp 55'10 34.92659 AU opposition -7337 May 15 j 13:25 27° m 16'43 -3°16'58 morning rise -7344 Nov 13 j 23:26 16° m 19'44 direct -7337 Aug 03 j 07:11 26° Mp 04'21 retrograde -7343 Feb 11 j 08:04 18° Mp 01'44 evening set -7337 Oct 27 j 13:39 27° m/37'19 min. Earth dist. -7343 May 01 j 02:35 16° M 50'01 33.04752 AU opposition -7343 May 04 j 03:33  $16^{\circ}$  To 45'360°01'34 conjunction -7337 Nov 11 j 11:17 28° m 05'23 -3°20'41 desc. node -7343 May 20 j 16:37 16° TD 21'54 minimum elong -7337 Nov 11 j 11:10 28° m 05'23 3°20'37 direct -7343 Jul 22 j 20:00 15° m 30'55 max. Earth dist. -7337 Nov 14 j 16:48 28° m 11'31 36.66656 AU evening set -7343 Oct 16 j 11:15 17° m 08'28 morning rise -7337 Nov 26 j 11:35 28° m 33'40 -7336 Jan 26 j 22:44 0∘**⊽** conjunction -7343 Oct 31 i 16:36 17° m 38'31 -0°14'37 retrograde -7336 Feb 24 i 02:53 0°**£**10'48 minimum elong -7343 Oct 31 i 16:36 17° m 38'31 0°14'27 -7336 Mar 23 i 17:58 30°R M behind sun begin -7343 Oct 31 i 13:35 17° m 38'17 min. Earth dist. -7336 May 13 i 06:16 29° m 01'35 34.79617 AU behind sun end -7343 Oct 31 j 19:36 17° m 38'46 opposition -7336 May 16 j 12:52 28° m 57'00 -3°47'58 max. Earth dist. -7343 Nov 03 j 17:32 17° m/44'34 35.16998 AU direct -7336 Aug 04 j 07:02 27° m 44'57 -7343 Nov 16 j 00:37 18° m 08'48 -7336 Oct 28 j 13:38 29° m 17'18 morning rise evening set -7342 Feb 13 j 08:43 19° m 49'58 retrograde -7342 May 03 j 05:31 18° Mp 38'38 33.29263 AU -7336 Nov 12 j 08:35 29° m/ 44'57 -3°49'47 min. Earth dist. conjunction -7342 May 06 j 06:49 18° m/34'12 -0°32'56 minimum elong -7336 Nov 12 j 08:26 29° m 44'56 3°49'43 opposition -7342 Jul 25 j 00:22 17° m 19'57 max. Earth dist. -7336 Nov 15 j 15:19 29° m 51'07 36.91797 AU direct -7342 Oct 18 j 11:43 -7336 Nov 20 j 08:47 18° m 56'37 0∘∙ evening set -7336 Nov 27 j 06:18 0°**£**12'48 morning rise 19° m 26'25 -0°46'54 1°**-**49'22 -7342 Nov 02 j 16:54 -7335 Feb 25 j 00:51 conjunction retrograde 0°**ჲ**40'24 35.04931 AU -7342 Nov 02 j 16:52 19° Mg 26'25 0°46'45 -7335 May 15 j 05:18 minimum elong min. Earth dist. -7342 Nov 05 j 19:02 19° Mg 32'31 35.41636 AU -7335 May 18 j 11:39 0°**2**35'50 -4°18'19 max. Earth dist. opposition -7342 Nov 18 j 00:34 -7335 Jun 14 j 06:34 morning rise 19° Mp 56'26 30°R, My retrograde -7341 Feb 15 j 08:27 21° m/36'50 direct -7335 Aug 06 j 06:26 29° m 24'06 min. Earth dist. -7341 May 05 j 06:22 20° m 25'56 33.54035 AU -7335 Sep 26 j 03:22 0∘**⊽** opposition -7341 May 08 j 09:21 20° m 21'26 -1°06'53 evening set -7335 Oct 30 j 13:19 0°**£**55'52 direct -7341 Jul 27 j 04:50 19° Mp 07'36 -7341 Oct 20 j 12:25 20° M 43'26 conjunction -7335 Nov 14 j 05:23 1°**2**23'05 -4°18'17 evening set -7335 Nov 14 j 05:15 1°**2**23'04 4°18'15 minimum elong -7341 Nov 04 j 16:45 21° m 12'57 -1°18'42 max. Earth dist. -7335 Nov 17 j 12:54 1°**2**29'17 37.17046 AU conjunction -7341 Nov 04 j 16:42 21° m 12'57 1°18'34 -7335 Nov 28 j 23:59 1°**£**50'30 minimum elong morning rise -7341 Nov 07 j 19:34 -7334 Feb 26 i 20:00 max. Earth dist. 21° m 19'04 35.66474 AU retrograde 3°**£**26'33 -7341 Nov 19 i 23:54 morning rise 21° m 42'40 min. Earth dist. -7334 May 17 j 02:10 2° № 17'54 35.30368 AU retrograde -7340 Feb 17 i 08:21 23° m 22'22 opposition -7334 May 20 j 09:49 2°**£**13'17 -4°48'01 min. Earth dist. -7340 May 06 i 07:40 22° m 11'50 33.79010 AU direct -7334 Aug 08 i 06:37 1°**£**01'51 -7340 May 09 i 11:19 22° m 07'19 -1°40'18 evening set -7334 Nov 01 j 12:51 2°**£**33'06 opposition direct -7340 Jul 28 j 06:04 20° m 53'53 -7340 Oct 21 j 12:51 22° m 28'57 -7334 Nov 16 j 01:25 2°**£**59'51 -4°46'12 evening set conjunction -7334 Nov 16 j 01:15 2°**£**59'50 4°46'10 minimum elong conjunction -7340 Nov 05 j 16:15 22° m 58'08 -1°50'00 max. Earth dist. -7334 Nov 19 j 09:19 3°**♀**06'02 37.42421 AU minimum elong -7340 Nov 05 j 16:10 22° m 58'08 1°49'54 morning rise -7334 Nov 30 j 16:49 3°**£**26'49 -7333 Feb 28 j 14:46 5°**Ω**02'24 max. Earth dist. -7340 Nov 08 j 20:41 23°Mp04'20 35.91453 AU retrograde morning rise -7340 Nov 20 j 22:09 23° m 27'32 min. Earth dist. -7333 May 18 j 23:17 3°**♀**54'03 35.55975 AU -7339 Feb 18 j 05:38 25° m 06'32 -7333 May 22 j 07:38 3° 249'25 -5°17'04 retrograde opposition -7339 May 08 j 08:30  $23^{\circ}$  To 56'21 34.04084 AU 2°**£**38'18 min. Earth dist. direct -7333 Aug 10 j 04:53 23° m 51'50 -2°13'07 -7333 Nov 03 j 12:12 4°**£**09'03 opposition -7339 May 11 j 12:35 evening set 22° m/38'47 direct -7339 Jul 30 j 08:34 evening set -7339 Oct 23 j 13:23 24° m 13'07 conjunction -7333 Nov 17 j 21:19 4°**2**35'20 -5°13'30 minimum elong -7333 Nov 17 j 21:09 4°**2**35'19 5°13'29 conjunction -7339 Nov 07 j 15:05 24° m 41'57 -2°20'47 max. Earth dist. -7333 Nov 21 j 06:59 4°**2**41'37 37.67959 AU minimum elong -7339 Nov 07 j 15:00 24° m 41'57 2°20'41 morning rise -7333 Dec 02 j 08:54 5°**£**01'49 max. Earth dist. -7339 Nov 10 j 19:05 24° Mp 48'04 36.16489 AU retrograde -7332 Mar 01 j 07:58 6°**£**36'59 -7339 Nov 22 j 19:36 25° m 11'00 min. Earth dist. -7332 May 19 j 20:03 5°**2**28'56 35.81730 AU morning rise

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7332 in astronomical counting style is the year 7333 BCE in historical counting style. -7332 May 23 j 04:42 5°**£**24'17 -5°45'26 morning rise -7326 Dec 11 i 06:38 15°**♀**36'32 opposition -7332 Aug 11 j 03:43 4°**£**13'31 -7325 Mar 12 j 14:54 17°**£**09'46 direct retrograde -7332 Nov 04 j 11:33 5°**£**43'49 min. Earth dist. -7325 May 31 j 10:18 16°**2**03'42 37.62187 AU evening set -7325 Jun 03 j 19:35 15° 259'10 -8° 45'33 opposition -7332 Nov 18 j 16:37 conjunction 6° 209'37 -5°40'11 direct -7325 Aug 22 j 19:18 14°**£**50'37 -7332 Nov 18 j 16:26 -7325 Nov 17 j 04:00 minimum elong 6°**2**09'36 5°40'10 evening set 16°**△**18'55 -7332 Nov 22 j 01:56 max. Earth dist. 6°**£**15'49 37.93631 AU -7325 Nov 29 j 21:44 16°**△**41'00 -8°30'01 morning rise -7332 Dec 03 j 00:21 6°**£**35'37 conjunction retrograde -7331 Mar 03 j 04:27 8°**£**10′24 minimum elong -7325 Nov 29 j 21:30 16°**♀**40'59 8°30'06 min. Earth dist. -7331 May 21 j 15:12 7°**೨**02'43 36.07621 AU max. Earth dist. -7325 Dec 03 j 08:10 16°**♀**47'00 39.72450 AU opposition -7331 May 25 j 01:20 6°**2**58'01 -6°13'08 morning rise -7325 Dec 12 j 17:35 17°**2**03'15 -7324 Mar 13 j 08:48 direct -7331 Aug 12 j 22:50 5°**-**47'34 retrograde 18°**♀**36'17 -7331 Nov 06 j 10:39 evening set 7°**£**17'30 min. Earth dist. -7324 Jun 01 j 02:57 17°**2**30'29 37.87324 AU opposition -7324 Jun 04 j 12:59 17°**£**25'57 -9°08'43 conjunction -7331 Nov 20 j 11:32 7°**Ω**42'48 -6°06'15 direct -7324 Aug 23 j 11:39 16° 217'39 minimum elong -7331 Nov 20 j 11:21 7°**≗**42'47 6°06'17 evening set -7324 Nov 18 j 02:29 17°**-**45'45 max. Earth dist. -7331 Nov 23 j 22:26 7°**£**49'04 38.19393 AU morning rise -7331 Dec 04 j 14:55 8°**2**08'17 conjunction -7324 Nov 30 j 14:11 18°**≏**07'16 -8°51'55 retrograde -7330 Mar 04 j 23:24 9°**£**42'44 minimum elong -7324 Nov 30 j 13:57 18°**△**07'15 8°52'00 min. Earth dist. -7330 May 23 j 11:59 8°**2**35'19 36.33580 AU max. Earth dist. -7324 Dec 04 j 01:13 18°**2**13'15 39.97281 AU opposition -7330 May 26 j 21:30 8°**△**30'40 -6°40'10 morning rise -7324 Dec 13 j 03:55 18°**2**28'56 direct -7330 Aug 14 j 18:46 7°**£**20'34 retrograde -7323 Mar 15 j 01:44 20°**₽**01'48 evening set -7330 Nov 08 j 09:43 8°**♀**50'08 min. Earth dist. -7323 Jun 02 j 21:15 18° **2**56'10 38.12278 AU opposition -7323 Jun 06 i 06:05 18° **2**51'42 -9°31'15 conjunction -7330 Nov 22 i 06:05 9° £ 14'56 -6°31'43 direct -7323 Aug 25 j 04:27 17°**£**43'39 -7330 Nov 22 j 05:53 9°**£**14'55 6°31'44 -7323 Nov 20 j 00:46 19°**£**11'36 minimum elong evening set max. Earth dist. -7330 Nov 25 j 16:47 9°**2**21'08 38.45205 AU -7330 Dec 06 j 04:52 9°**£**39'55 -7323 Dec 02 j 06:10 19°**△**32'32 -9°13'13 conjunction morning rise -7329 Mar 06 j 19:44 -7323 Dec 02 j 05:56 retrograde 11°**£**14'03 19°Ω32'31 9°13'21 minimum elong 10°**≙**06'59 36.59558 AU -7329 May 25 j 06:23 -7323 Dec 05 j 16:59 min. Earth dist. max. Earth dist. 19°**2**38'28 40.21960 AU -7329 May 28 j 17:09 -7323 Dec 14 j 13:22 10°**2**02'18 -7°06'33 morning rise 19°**£**53'36 opposition -7322 Mar 16 j 18:12 -7329 Aug 16 j 13:46 8° £ 52'31 retrograde 21°**£**26′19 direct -7322 Jun 04 j 13:02 -7329 Nov 10 j 08:43 10°**£**21'47 min. Earth dist. 20°**£**20'57 38.37098 AU evening set -7322 Jun 07 j 22:35 opposition 20°**£**16'28 -9°53'09 -7329 Nov 24 j 00:13 10°**Ω**46'04 -6°56'34 -7322 Aug 26 j 21:25 conjunction direct 19°**♀**08'40 -7329 Nov 24 j 00:00 -7322 Nov 21 j 23:03 minimum elong 10°**£**46'03 6°56'37 evening set 20°**♀**36'30 -7329 Nov 27 j 11:29 max. Earth dist. 10°**£**52'16 38.70976 AU morning rise -7329 Dec 07 j 18:16 11°**≏**10'31 conjunction -7322 Dec 03 j 21:45 20°**£**56'50 -9°33'55 retrograde -7328 Mar 07 j 15:02 12°**-**44′24 minimum elong -7322 Dec 03 j 21:31 20°**2**56'49 9°34'03 min. Earth dist. -7328 May 26 j 02:26 11°**♀**37'35 36.85479 AU max. Earth dist. -7322 Dec 07 j 08:27 21°**£**02'44 40.46525 AU opposition -7328 May 29 j 12:31 11°**△**32'57 -7°32'15 morning rise -7322 Dec 15 j 22:27 21°**♀**17'19 -7328 Aug 17 j 08:34 10°**£**23'31 retrograde -7321 Mar 18 j 09:23 22°**₽**49'55 direct -7328 Nov 11 j 07:41 11°**♀**52'30 -7321 Jun 06 j 05:38 21°**△**44'46 38.61848 AU evening set min. Earth dist. -7321 Jun 09 j 14:53 21°**2**40'19 -10°14'24 opposition -7328 Nov 24 j 18:15 12°**2**16'15 -7°20'49 20°**♀**32'46 conjunction direct -7321 Aug 28 j 13:55 -7328 Nov 24 j 18:02 minimum elong 12°**△**16'14 7°20'52 evening set -7321 Nov 23 j 21:03 22°**♀**00'30 max. Earth dist. -7328 Nov 28 i 05:51 12°**£**22'27 38.96648 AU -7321 Dec 05 i 13:09 morning rise -7328 Dec 08 i 06:59 12°**-**40′10 conjunction 22°**£**20'14 -9°54'02 retrograde -7327 Mar 09 i 06:33 14°**₽**13'48 minimum elong -7321 Dec 05 i 12:54 22°**2**20'13 9°54'11 min. Earth dist. -7327 May 27 i 20:52 13°**♀**07'16 37.11251 AU max. Earth dist. -7321 Dec 09 i 00:45 22°**2**26'10 40.71029 AU -7327 May 31 j 07:06 13°**£**02'39 -7°57'19 -7321 Dec 17 i 06:50 22°**£**40′07 opposition morning rise -7327 Aug 19 j 05:32 11°**£**53'31 retrograde -7320 Mar 18 j 21:03 24°**£**12'39 direct 13°**≏**22'16 -7327 Nov 13 j 06:41 min. Earth dist. -7320 Jun 06 j 21:34 23°**2**07'43 38.86517 AU evening set opposition -7320 Jun 10 j 06:40 23°**£**03'17 -10°35'02 conjunction -7327 Nov 26 j 11:45 13°**-**45′28 -7°44′28 direct -7320 Aug 29 j 08:44 21°**♀**56'00 minimum elong -7327 Nov 26 j 11:32 13°**2**45'27 7°44'33 evening set -7320 Nov 24 j 19:13 23°**£**23'40 max. Earth dist. -7327 Nov 29 j 22:25 13°**£**51'34 39.22135 AU -7327 Dec 09 j 19:15 14°**£**08'51 -7320 Dec 06 j 04:10 morning rise conjunction 23°**△**42'48 -10°13'34 -7326 Mar 10 j 23:23 15°**£**42'15 -7320 Dec 06 j 03:56 10°13'42 retrograde minimum elong 23°**♀**42'47 -7320 Dec 09 j 14:41 min. Earth dist. -7326 May 29 j 15:21 14°**2**36′00 37.36838 AU max. Earth dist. 23°**△**48'38 40.95457 AU -7320 Dec 17 j 14:49 opposition -7326 Jun 02 j 01:35 14°**2**31'24 -8°21'45 morning rise 24°**£**02'04 direct -7326 Aug 21 j 00:19 13°**£**22'34 retrograde -7319 Mar 20 j 11:57 25°**£**34'33 evening set -7326 Nov 15 j 05:17 14°**£**51'04 min. Earth dist. -7319 Jun 08 j 12:19 24°**£**29'54 39.11118 AU opposition -7319 Jun 11 j 22:00 24°**£**25'28 -10°55'02 conjunction -7326 Nov 28 j 04:55 15°**£**13'44 -8°07'32 direct -7319 Aug 30 j 23:56 23°**£**18'27 minimum elong -7326 Nov 28 j 04:42 15°**≙**13'43 8°07'36 -7319 Nov 26 j 17:05 24°**Ω**46'04 evening set

max. Earth dist.

-7326 Dec 01 j 16:31

15°**≙**19'51 39.47407 AU

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7319 in astronomical counting style is the year 7320 BCE in historical counting style. -7319 Dec 07 i 18:54 25°**2**04'36 -10°32'31 retrograde -7312 Mar 29 j 12:17 4°M48'22 conjunction -7319 Dec 07 j 18:39 25°**2**04'35 10°32'40 min. Earth dist. -7312 Jun 17 j 19:32 3°ML45'05 40.77054 AU minimum elong max. Earth dist. -7319 Dec 11 j 06:30 25°**£**10'28 41.19795 AU -7312 Jun 21 j 01:15 3°M40'58 -12°58'45 opposition -7319 Dec 18 j 22:13 -7312 Sep 09 j 04:40 25°**£**23'15 direct 2°M,35'35 morning rise -7318 Mar 22 j 02:22 -7312 Dec 08 j 02:52 4°ML03'38 retrograde 26°**Ω**55'44 evening set -7318 Jun 10 j 04:39 min. Earth dist. 25°**£**51'16 39.35606 AU -7312 Dec 16 j 19:02 opposition -7318 Jun 13 j 13:11 25°**£**46'54 -11°14'25 conjunction 4°M17'38 -12°29'59 4°M17'37 12°30'14 -7312 Dec 16 j 18:49 direct -7318 Sep 01 j 14:52 24°**₽**40'09 minimum elong evening set -7318 Nov 28 j 14:55 26°**₽**07'46 max. Earth dist. -7312 Dec 20 j 02:35 4°M22'59 42.83236 AU morning rise -7312 Dec 25 j 12:03 4°ML31'41 conjunction -7318 Dec 09 j 09:13 26° 25'41 -10° 50' 53 retrograde -7311 Mar 31 j 01:32 6°ML04'35 -7318 Dec 09 j 08:59 -7311 Jun 19 j 10:12 minimum elong 26° **2**5'40 10°51'03 min. Earth dist. 5°M01'22 40.99384 AU -7318 Dec 12 j 20:05 -7311 Jun 22 j 14:07 4°ML57'21 -13°14'16 max. Earth dist. 26°**2**31'27 41.44011 AU opposition morning rise -7318 Dec 20 j 04:54 26°**£**43'43 direct -7311 Sep 10 j 16:52 3°M52'10 retrograde -7317 Mar 23 j 18:26 28°**£**16'12 evening set -7311 Dec 10 j 00:57 5°M20'20 min. Earth dist. -7317 Jun 11 j 18:39 27°**£**12'01 39.59937 AU opposition -7317 Jun 15 j 03:58 27°**2**07'38 -11°33'13 conjunction -7311 Dec 18 j 07:44 5°M33'38 -12°44'44 direct -7317 Sep 03 j 04:13 26°**₽**01'09 minimum elong -7311 Dec 18 j 07:30 5°ML33'37 12°44'58 evening set -7317 Nov 30 j 12:51 27°**≏**28'48 max. Earth dist. -7311 Dec 21 j 14:47 5°M38'56 43.05224 AU morning rise -7311 Dec 26 j 15:06 5°M46'59 conjunction -7317 Dec 10 j 23:25 27°**2**46'06 -11°08'42 retrograde -7310 Apr 01 j 13:30 7°M20'01 minimum elong -7317 Dec 10 j 23:10 27°**2**46'04 11°08'53 min. Earth dist. -7310 Jun 20 j 22:28 6°M16'58 41.21425 AU max. Earth dist. -7317 Dec 14 i 10:09 27°**£**51'49 41.68025 AU opposition -7310 Jun 24 i 02:35 6°M12'58 -13°29'14 morning rise -7317 Dec 21 i 11:26 28°**₽**03'29 direct -7310 Sep 12 j 06:22 5°M07'56 retrograde -7316 Mar 24 j 10:22 29°**₽**36'00 evening set -7310 Dec 11 j 22:56 6°M36'17 -7316 Jun 12 j 10:27 28°**△**31'59 39.84049 AU min. Earth dist. opposition -7316 Jun 15 j 18:26 28°**£**27'42 -11°51'25 -7310 Dec 19 j 19:53 6°M48'52 -12°58'58 conjunction -7316 Sep 03 j 17:41 27°**₽**21'28 -7310 Dec 19 j 19:40 6°M48'52 12°59'13 minimum elong direct -7316 Dec 01 j 10:50 28°**₽**49'10 -7310 Dec 23 j 02:01 6°M54'05 43.26950 AU max. Earth dist. evening set -7310 Dec 27 j 17:33 7°**ጤ**01'30 morning rise -7316 Dec 11 j 13:33 29°**2**05'50 -11°25'59 -7309 Apr 03 j 01:26 8°M34'41 conjunction retrograde -7316 Dec 11 j 13:19 -7309 Jun 22 j 11:30 minimum elong 29°**£**05'49 11°26'11 min. Earth dist. 7°ML31'47 41.43246 AU -7316 Dec 15 j 00:08 -7309 Jun 25 j 14:57 max. Earth dist. 29°**£**11'31 41.91790 AU 7°M27'49 -13°43'40 opposition 29°**≏**22'34 -7316 Dec 21 j 17:22 -7309 Sep 13 j 19:07 6°M22'58 morning rise direct -7315 Jan 14 j 20:30 -7309 Dec 13 j 21:13 0°M evening set 7°M51'32 -7315 Mar 25 j 23:12 retrograde 0°M55'08 -7315 Jun 07 j 06:06 -7309 Dec 21 j 08:10  $8^{\circ}$ ML03'24 -13°12'41 conjunction min. Earth dist. -7315 Jun 14 j 00:57 29°**♀**51'21 40.07855 AU minimum elong -7309 Dec 21 j 07:57 8°ML03'23 13°12'56 opposition -7315 Jun 17 j 08:31 29°**2**47'05 -12°09'03 max. Earth dist. -7309 Dec 24 j 14:50 8°ML08'37 43.48476 AU direct -7315 Sep 05 j 09:23 28°**£**41'06 morning rise -7309 Dec 28 j 19:32 8°ML15'17 -7315 Nov 27 j 20:45  $0^{\circ}$ M retrograde -7308 Apr 03 j 10:40 9°M48'41 -7315 Dec 03 j 08:48  $0^{\circ}$ ML08'53min. Earth dist. -7308 Jun 23 j 00:10 8°M45'55 41.64860 AU evening set -7308 Jun 26 j 02:46 8°M42'00 -13°57'34 opposition -7315 Dec 13 j 03:10 0°M24'53 -11°42'45 -7308 Sep 14 j 09:32 7°M37'20 conjunction direct -7315 Dec 13 j 02:55 0°ML24'52 11°42'57 -7308 Dec 14 j 19:46 9°MJ06'10 minimum elong evening set -7315 Dec 16 j 12:17 max. Earth dist. 0°M230'27 42.15216 AU -7315 Dec 22 i 22:45 -7308 Dec 21 j 20:02 9°M17'16 -13°25'55 morning rise 0°M40'58 conjunction -7308 Dec 21 j 19:49 retrograde -7314 Mar 27 j 12:01 2°M13'37 minimum elong 9°M17'15 13°26'11 min. Earth dist. -7314 Jun 15 i 15:24 1°ML10'00 40.31314 AU max. Earth dist. -7308 Dec 25 i 01:18 9°M22'22 43.69818 AU -7314 Jun 18 i 22:27 1°ML05'48 -12°26'09 morning rise -7308 Dec 28 i 20:43 9°M28'24 opposition direct -7314 Sep 06 j 23:49 0°M00'02 retrograde -7307 Apr 04 j 22:08 11°ML02'03 -7314 Dec 05 j 06:46 1°M27'53 min. Earth dist. -7307 Jun 24 j 11:30 9°ML59'29 41.86297 AU evening set -7307 Jun 27 j 14:27 9°ML55'34 -14°10'57 opposition conjunction -7314 Dec 14 j 16:47 1°M43'14 -11°59'00 direct -7307 Sep 15 j 21:17 8°M51'07 minimum elong -7314 Dec 14 j 16:34 1°ML43'13 11°59'12 evening set -7307 Dec 16 j 18:19 10°M20'15 max. Earth dist. -7314 Dec 18 j 02:15 1°ML48'47 42.38273 AU 10°M30'34 -13°38'38 -7314 Dec 24 j 03:46 1°M58'39 conjunction -7307 Dec 23 j 07:35 morning rise -7313 Mar 28 j 22:18 3°M31'22 -7307 Dec 23 j 07:23 10°M30'33 13°38'54 retrograde minimum elong -7313 Jun 17 j 06:28  $2^{\circ}$ ML27'54 40.54375 AU-7307 Dec 26 j 13:20 10°M35'41 43.90970 AU min. Earth dist. max. Earth dist. -7313 Jun 20 j 12:02 -7307 Dec 29 j 21:11 10°M40'55 opposition 2°M23'46 -12°42'43 morning rise -7306 Apr 06 j 10:17 12°M14'52 direct -7313 Sep 08 j 16:10 1°M18'13 retrograde evening set -7313 Dec 07 j 04:51 2°M46'09 min. Earth dist. -7306 Jun 26 j 00:25 11°M12'27 42.07531 AU opposition -7306 Jun 29 j 01:59 11°ML08'37 -14°23'48 conjunction -7313 Dec 16 j 06:02 3°ML00'50 -12°14'44 direct -7306 Sep 17 j 08:12 10°M04'22 minimum elong -7313 Dec 16 j 05:48 3°ML00'49 12°14'57 evening set -7306 Dec 18 j 17:31 11°M33'51 max. Earth dist. -7313 Dec 19 j 13:41 3°ML06'14 42.60945 AU -7313 Dec 25 j 08:07 -7306 Dec 24 j 19:04 11°M 43'22 -13°50'52 morning rise 3°M15'35 conjunction

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							23, pag	
	ical year style is used: Th	-						
minimum elong	-7306 Dec 24 j 18:52	11°M43'21		max. Earth dist.		03 j 11:38		45.30420 AU
max. Earth dist.	-7306 Dec 27 j 23:59		44.11929 AU	retrograde		14 j 15:05	20°M31'55	
morning rise	-7306 Dec 30 j 20:49	11°M52'54		min. Earth dist.		04 j 08:38		43.46803 AU
retrograde	-7305 Apr 07 j 23:35	13° <b>M</b> ⋅27'12		opposition		07 j 03:39	19°M27'03	-15°40'38
min. Earth dist.	-7305 Jun 27 j 11:17		42.28537 AU	direct	-7299 Sep	25 j 09:54	18°M24'02	
opposition	-7305 Jun 30 j 13:05	12°M21'11	-14°36'09				w	
direct	-7305 Sep 18 j 17:17	11°M17'08		conjunction		01 j 22:38	20°M00'09	
evening set	-7305 Dec 20 j 17:11	12° <b>M</b> 47′03		minimum elong		01 j 22:30	20°M00'09	15°04'30
	5005 D 00:0010	100M 55140	1.400.010.0	max. Earth dist.		04 j 21:31		45.48734 AU
conjunction	-7305 Dec 26 j 06:19	12°M55'43		retrograde		15 j 23:25	21°M40'53	42 (5001 ATT
minimum elong	-7305 Dec 26 j 06:08	12°M55'42		min. Earth dist.		05 j 18:45		43.65081 AU
max. Earth dist.	-7305 Dec 29 j 10:22		44.32625 AU	opposition		08 j 13:13	20°M36'10	-15°49'52
morning rise	-7305 Dec 31 j 19:39	13°M04'24		direct	-/298 Sep	26 j 20:53	19°M33'16	
retrograde	-7304 Apr 08 j 11:04	14°M39'06	42 40262 ATT	· · · · · · · · · · · · ·	7207 1	02:00.22	210M 00150	15012157
min. Earth dist.	-7304 Jun 27 j 23:44		42.49263 AU	conjunction		03 j 08:32	21°M08'59	
opposition	-7304 Jul 01 j 00:09	13°M33'18	-14-48-01	minimum elong		03 j 08:22	21°M08'59	
direct	-7304 Sep 19 j 04:08	12°M29'28		max. Earth dist.		06 j 05:44		45.66722 AU
evening set	-7304 Dec 21 j 17:49	13° <b>™</b> 59'52		retrograde		17 j 07:23	22°M49'17	42.02074.444
. ,.	7204 D 26:17.25	1.40 <b>M</b> .07120	1.401.2157	min. Earth dist.		07 j 04:39		43.83074 AU
conjunction	-7304 Dec 26 j 17:35	14°M07'39		opposition		09 j 22:35	21°M44'42	-15°58'39
minimum elong	-7304 Dec 26 j 17:24	14°M07'38		direct	-7297 Sep	28 j 07:43	20°M41'56	
max. Earth dist.	-7304 Dec 29 j 21:38		44.53012 AU				w	
morning rise	-7304 Dec 31 j 17:22	14°M 15'25		conjunction		04 j 18:25	22°M17'16	
	-7303 Jan 31 j 00:02	15°M₁		minimum elong		04 j 18:17	22°M17'16	
retrograde	-7303 Apr 09 j 19:03	15° <b>™</b> 50'35		max. Earth dist.		07 j 16:02		45.84441 AU
	-7303 Jun 20 j 05:30	15°RM		retrograde	_	17 j 13:35	23°M57'10	
min. Earth dist.	-7303 Jun 29 j 11:18		42.69626 AU	min. Earth dist.		07 j 15:17		44.00797 AU
opposition	-7303 Jul 02 j 10:44	14°M45'00	-14°59'25	opposition		10 j 07:47	22°M52'43	-16°07'00
direct	-7303 Sep 20 j 17:47	13°M41'22		direct	-7296 Sep	28 j 20:20	21°M50'05	
	-7303 Dec 15 j 18:35	15° <b>M</b> ₊						
evening set	-7303 Dec 23 j 19:36	15° <b>M</b> ₊12'21		conjunction		05 j 04:01	23°M25'03	
				minimum elong		05 j 03:52	23°M25'02	
conjunction	-7303 Dec 28 j 04:32	15°M19'09		max. Earth dist.		08 j 00:06		46.01921 AU
minimum elong	-7303 Dec 28 j 04:22	15° <b>M</b> ₁9'08		retrograde		18 j 23:27	25°M04'32	
max. Earth dist.	-7303 Dec 31 j 06:30		44.73018 AU	min. Earth dist.		08 j 23:45		44.18284 AU
morning rise	-7302 Jan 01 j 13:30	15° <b>™</b> 25'56		opposition		11 j 16:36	24°M00'15	-16°14'54
retrograde	-7302 Apr 11 j 05:17	17° <b>M</b> ₀01'39		direct	-7295 Sep	30 j 04:57	22°M57'46	
min. Earth dist.	-7302 Jun 30 j 22:19		42.89592 AU					
opposition		15°M56'16	-15°10'22	conjunction	-7294 Ian	06 j 13:24	24°m.32'22	-15°36'48
	-7302 Jul 03 j 21:20			-		-		
	-7302 Aug 28 j 18:08	15°RM		minimum elong	-7294 Jan	06 j 13:17	24°M32'22	
direct	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15	15°RM 14°M52'49		minimum elong max. Earth dist.	-7294 Jan -7294 Jan	06 j 13:17 09 j 09:06	24°M32'22 24°M36'36	15°37'11 46.19165 AU
	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28	15°RM 14°M52'49 15°M		minimum elong max. Earth dist. retrograde	-7294 Jan -7294 Jan -7294 Apr	06 j 13:17 09 j 09:06 20 j 09:57	24°M32'22 24°M36'36 26°M11'29	46.19165 AU
direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15	15°RM 14°M52'49		minimum elong max. Earth dist. retrograde min. Earth dist.	-7294 Jan -7294 Jan -7294 Apr -7294 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18	24°M32'22 24°M36'36 26°M11'29 25°M10'33	46.19165 AU 44.35534 AU
evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03	15°RM 14°M52'49 15°M 16°M24'31		minimum elong max. Earth dist. retrograde min. Earth dist. opposition	-7294 Jan -7294 Jan -7294 Apr -7294 Jul -7294 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22	46.19165 AU 44.35534 AU
evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20	15°RM 14°M52'49 15°M	-14°35'17	minimum elong max. Earth dist. retrograde min. Earth dist.	-7294 Jan -7294 Jan -7294 Apr -7294 Jul -7294 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18	24°M32'22 24°M36'36 26°M11'29 25°M10'33	46.19165 AU 44.35534 AU
evening set  conjunction  minimum elong	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09	15°RM 14°M52'49 15°M 16°M24'31 16°M30'11 16°M30'10		minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-7294 Jan -7294 Jan -7294 Apr -7294 Jul -7294 Oct	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02	46.19165 AU 44.35534 AU -16°22'23
evening set  conjunction minimum elong morning rise	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29	15°RM 14°M.52'49 15°M 16°M.24'31 16°M.30'11 16°M.30'10 16°M.35'52	14°35'36	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-7294 Jan -7294 Jan -7294 Apr -7294 Jul -7294 Oct -7293 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02	46.19165 AU 44.35534 AU -16°22'23 -15°43'55
evening set  conjunction minimum elong morning rise max. Earth dist.	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13	15°RM 14°M.52'49 15°M. 16°M.24'31 16°M.30'11 16°M.35'52 16°M.34'57		minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct conjunction minimum elong	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'18 25°M39'17	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39	15°RM 14°M52'49 15°M 16°M24'31 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16	14°35'36 44.92596 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist.	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'18 25°M39'17 25°M33'17	46.19165 AU 44.35534 AU -16°22'23 -15°43'55
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist.	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03 -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51	15°RM 14°M.52'49 15°M. 16°M.24'31 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37	14°35'36 44.92596 AU 43.09100 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jan -7293 Apr	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'18 25°M39'17 25°M43'30 27°M18'02	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46	15°RM 14°M.52'49 15°M. 16°M.24'31 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04	14°35'36 44.92596 AU 43.09100 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist.	-7294 Jan -7294 Jan -7294 Apr -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jan -7293 Apr -7293 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08	24° M32'22 24° M36'36 26° M11'29 25° M07'22 24° M05'02 25° M39'18 25° M39'17 25° M43'30 27° M18'02 26° M17'16	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06	15°RM 14°M52'49 15°M 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48	14°35'36 44.92596 AU 43.09100 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Apr -7293 Jul -7293 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'17 25°M39'17 25°M43'30 27°M18'02 26°M17'16 26°M14'06	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU
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evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07	15°RM 14°M52'49 15°M 16°M24'31 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M36'23	14°35'36 44.92596 AU 43.09100 AU -15°20'53	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Oct	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07	24° M.32'22 24° M.36'36 26° M.11'29 25° M.10'33 25° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.11'54	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU -16°29'26
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07	15°RM 14°M52'49 15°M 16°M24'31 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M36'23	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Oct -7292 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'18 25°M39'17 25°M43'30 27°M18'02 26°M17'16 26°M17'16 26°M11'54	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU -16°29'26 -15°50'39
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.36'23	14°35'36 44.92596 AU 43.09100 AU -15°20'53	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7293 Oct -7292 Jan -7292 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45	24°M32'22 24°M36'36 26°M11'29 25°M10'33 25°M07'22 24°M05'02 25°M39'18 25°M39'17 25°M43'30 27°M18'02 26°M17'16 26°M17'16 26°M11'54 26°M45'52	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU -16°29'26 -15°50'39 15°51'02
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53	15°RM 14°M.52'49 15°M. 16°M.24'31 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.03'48 17°M.03'48 17°M.36'23 17°M.40'44 17°M.40'44 17°M.40'43	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist.	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Oct -7292 Jan -7292 Jan -7292 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'06 25° M.11'54 26° M.45'52 26° M.45'52	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU -16°29'26 -15°50'39
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist.	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.36'23 17°M.40'44 17°M.40'43 17°M.40'43 17°M.45'05 17°M.45'22	14°35'36 44.92596 AU 43.09100 AU -15°20'53	minimum elong max. Earth dist. 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	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Oct -7292 Jan -7292 Jan -7292 Jan -7292 Jan -7292 Apr	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'06 25° M.11'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52	46.19165 AU 44.35534 AU -16°22'23 -15°43'55 15°44'17 46.36175 AU 44.52508 AU -16°29'26 -15°50'39 15°51'02 46.52889 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21	15°RM 14°M52'49 15°M 16°M24'31 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M36'23 17°M40'44 17°M40'44 17°M40'43 17°M45'05 17°M45'22	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU	minimum elong max. Earth dist. 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.	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Oct -7292 Jan -7292 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist.	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21 -7300 Jul 02 j 20:56	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.40'44 17°M.40'43 17°M.40'43 17°M.45'22 19°M.42'22 18°M.22'22 18°M.20'52	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31 14 j 18:26	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'06 25° M.11'54 26° M.45'52 26° M.45'52 26° M.49'57 28° M.24'15 27° M.23'36 27° M.20'30	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21 -7300 Jul 02 j 20:56 -7300 Jul 02 j 20:56 -7300 Jul 05 j 17:43	15°RM 14°M52'49 15°M 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M40'44 17°M40'43 17°M45'05 17°M45'05 17°M45'22 19°M22'22 18°M17'21	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU	minimum elong max. Earth dist. 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.	-7294 Jan -7294 Apr -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21 -7300 Jul 02 j 20:56 -7300 Jul 05 j 17:43 -7300 Sep 24 j 02:08	15°RM 14°M52'49 15°M 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M40'44 17°M40'43 17°M45'05 17°M45'22 19°M22'22 18°M20'52 18°M17'21 17°M14'12	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul -7292 Jul -7292 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 04:27 12 j 04:31 14 j 18:26 03 j 05:26	24° M.32'22 24° M.36'36 26° M.11'29 25° M.10'33 25° M.07'22 24° M.05'02 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.11'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.24'15 27° M.23'36 27° M.20'30 26° M.18'28	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU -16°36'05
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21 -7300 Jul 02 j 20:56 -7300 Jul 02 j 20:56 -7300 Jul 05 j 17:43	15°RM 14°M52'49 15°M 16°M30'11 16°M30'10 16°M35'52 16°M34'57 18°M12'16 17°M10'37 17°M07'04 16°M03'48 17°M40'44 17°M40'43 17°M45'05 17°M45'05 17°M45'22 19°M22'22 18°M17'21	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul -7292 Jul -7292 Jul	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 04:31 14 j 18:26 03 j 05:26	24° M.32'22 24° M.36'36 26° M.11'29 25° M.10'33 25° M.07'22 24° M.05'02 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.11'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.24'15 27° M.23'36 27° M.20'30 26° M.18'28 27° M.52'08	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU -16°36'05  -15°57'00
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 02 j 10:61 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Jul 02 j 20:56 -7300 Jul 02 j 20:56 -7300 Jul 05 j 17:43 -7300 Sep 24 j 02:08 -7300 Dec 29 j 21:16	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.40'44 17°M.40'44 17°M.40'43 17°M.45'05 17°M.45'05 17°M.45'22 18°M.20'52 18°M.17'21 17°M.14'12 18°M.48'14	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU -15°30'59	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul -7292 Oct -7291 Jan -7291 Jan -7291 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31 14 j 18:26 03 j 05:26 09 j 17:05 09 j 16:59	24° M.32'22 24° M.36'36 26° M.11'29 25° M.10'33 25° M.07'22 24° M.05'02 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.11'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.22'36 27° M.23'36 27° M.20'30 26° M.18'28 27° M.52'08 27° M.52'08	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU -16°36'05  -15°57'00 15°57'23
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 05 j 07:46 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Apr 13 j 02:21 -7300 Jul 05 j 17:43 -7300 Sep 24 j 02:08 -7300 Dec 29 j 21:16	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.40'44 17°M.40'44 17°M.40'43 17°M.45'05 17°M.45'22 19°M.22'22 18°M.17'21 17°M.14'12 18°M.48'14	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU -15°30'59	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist.	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Jul -7292 Jul -7292 Jul -7292 Jul -7291 Jan -7291 Jan -7291 Jan -7291 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31 14 j 18:26 03 j 05:26 09 j 17:05 09 j 16:59 12 j 10:44	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'06 25° M.11'54 26° M.45'52 26° M.45'52 26° M.45'52 26° M.45'52 26° M.24'15 27° M.22'36 27° M.22'36 27° M.22'38 27° M.52'08 27° M.52'08 27° M.52'08 27° M.52'08 27° M.52'08	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU -16°36'05  -15°57'00
evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. opposition direct evening set  conjunction minimum elong morning rise max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct evening set	-7302 Aug 28 j 18:08 -7302 Sep 22 j 05:15 -7302 Oct 16 j 07:28 -7302 Dec 25 j 23:03  -7302 Dec 29 j 15:20 -7302 Dec 29 j 15:09 -7301 Jan 02 j 07:29 -7301 Jan 01 j 17:13 -7301 Apr 12 j 14:39 -7301 Jul 02 j 10:51 -7301 Jul 02 j 10:61 -7301 Sep 23 j 17:06 -7301 Dec 28 j 06:07  -7301 Dec 31 j 02:05 -7301 Dec 31 j 01:56 -7300 Jan 02 j 21:53 -7300 Jan 03 j 02:17 -7300 Jul 02 j 20:56 -7300 Jul 02 j 20:56 -7300 Jul 05 j 17:43 -7300 Sep 24 j 02:08 -7300 Dec 29 j 21:16	15°RM 14°M.52'49 15°M. 16°M.30'11 16°M.30'10 16°M.35'52 16°M.34'57 18°M.12'16 17°M.10'37 17°M.07'04 16°M.03'48 17°M.40'44 17°M.40'44 17°M.40'43 17°M.45'05 17°M.45'05 17°M.45'22 18°M.20'52 18°M.17'21 17°M.14'12 18°M.48'14	14°35'36 44.92596 AU 43.09100 AU -15°20'53 -14°45'19 14°45'38 45.11730 AU 43.28158 AU -15°30'59	minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. opposition direct  conjunction minimum elong max. Earth dist. retrograde min. Earth dist. retrograde min. Earth dist. opposition direct  conjunction minimum elong	-7294 Jan -7294 Jan -7294 Jul -7294 Jul -7294 Oct -7293 Jan -7293 Jan -7293 Jul -7293 Jul -7293 Jul -7293 Jul -7292 Jan -7292 Jan -7292 Jan -7292 Jul -7292 Jul -7292 Oct -7291 Jan	06 j 13:17 09 j 09:06 20 j 09:57 10 j 10:18 13 j 01:30 01 j 12:25 07 j 22:41 07 j 22:34 10 j 18:08 21 j 19:10 11 j 19:08 14 j 10:04 02 j 21:07 09 j 07:51 09 j 07:45 12 j 01:31 22 j 04:27 12 j 04:31 14 j 18:26 03 j 05:26 09 j 17:05 09 j 16:59	24° M.32'22 24° M.36'36 26° M.11'29 25° M.07'22 24° M.05'02 25° M.39'18 25° M.39'17 25° M.43'30 27° M.18'02 26° M.17'16 26° M.14'06 25° M.11'54 26° M.45'52 26° M.45'52 27° M.52'08 27° M.52'08 27° M.52'08 27° M.56'12 29° M.30'11	46.19165 AU  44.35534 AU -16°22'23  -15°43'55 15°44'17 46.36175 AU  44.52508 AU -16°29'26  -15°50'39 15°51'02 46.52889 AU  44.69171 AU -16°36'05  -15°57'00 15°57'23

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7291 in astronomical counting style is the year 7292 BCE in historical counting style. -7291 Jul 16 i 02:45 28°M26'36 -16°42'22 retrograde -7283 May 02 j 03:04 8°**₹**05'22 opposition direct -7291 Oct 04 j 15:59 27°M24'44 min. Earth dist. -7283 Jul 22 j 11:41 7°**∡**105'26 45.99397 AU opposition -7283 Jul 24 j 15:26 7°**х** 02'53 -17°19'50 -7290 Jan 11 j 01:58 28°ML58'06 -16°02'59 -7283 Oct 13 j 08:07 direct 6° ×701'52 conjunction -7290 Jan 11 j 01:52 28°M58'05 16°03'23 minimum elong -7290 Jan 13 j 17:36 29°ML02'01 46.85216 AU -7282 Jan 19 j 21:10 7°**∡**133'02 -16°38'37 max. Earth dist. conjunction -7282 Jan 19 j 21:07 -7290 Feb 25 j 08:57 0°**∡**¹ minimum elong 7°**∡**³33′02 16°39′02 -7282 Jan 22 j 03:34 0°**х** 35′49 retrograde -7290 Apr 24 j 19:10 max. Earth dist. 7°**х** 36'18 47.96966 AU -7290 Jun 23 j 14:51 30°RM retrograde -7282 May 03 j 12:39 9°×708'13  $29^{\circ}$ ML35'24 45.01267 AU -7282 Jul 23 j 19:52 8°**≯**08'21 46.12058 AU min. Earth dist. -7290 Jul 14 j 23:05 min. Earth dist. opposition -7290 Jul 17 j 10:55 29°M32'25 -16°48'16 opposition -7282 Jul 25 j 22:27 8° × 05'52 -17°22'54 28°M30'41 -7282 Oct 14 j 13:01 direct -7290 Oct 06 j 00:52 direct 7°**∡**04'58 -7289 Jan 09 j 21:44 0°×7 conjunction -7281 Jan 21 j 05:04 8°**∡**35'55 -16°41'30 conjunction -7289 Jan 12 j 10:55 0°**∡**03'45 -16°08'38 minimum elong -7281 Jan 21 j 05:03 8°**∡**35'55 16°41'57 minimum elong -7289 Jan 12 j 10:51 0° **₹**03'45 16°09'01 max. Earth dist. -7281 Jan 23 j 11:35 8°**≯**39'11 48.09427 AU max. Earth dist. -7289 Jan 15 j 01:35 0°**҂**07'36 47.00697 AU retrograde -7281 May 04 j 18:06 10°**₹**10'50 retrograde -7289 Apr 26 j 05:26 1°**х** 41′09 min. Earth dist. -7281 Jul 25 j 03:52 9°**≯**11'02 46.24404 AU min. Earth dist. -7289 Jul 16 j 09:26 0°**х** 40'46 45.16598 AU opposition -7281 Jul 27 j 05:10 9°**∡**108'37 -17°25'37 0°**∡**37'54 -16°53'50 opposition -7289 Jul 18 j 19:00 direct -7281 Oct 15 j 21:49 8°**х**¹07'50 -7289 Aug 21 j 20:23 30°RM direct -7289 Oct 07 i 07:54 29°MJ36'17 conjunction -7280 Jan 22 j 12:48 9°**x**<sup>7</sup>38'34 -16°44'04 -7289 Nov 21 j 23:47 0°×7 minimum elong -7280 Jan 22 j 12:46 9°**х** 38'34 16°44'30 max. Earth dist. -7280 Jan 24 i 17:15 9° **₹**'41'42 48.21572 AU conjunction -7288 Jan 13 j 19:52 1°**х** 09'05 -16°13'56 retrograde -7280 May 04 j 23:22 11°**₹**13'14 -7288 Jan 13 i 19:47 1°**₹**09'04 16°14'21 -7280 Jul 25 j 10:56 10°**₹**13'33 46.36411 AU minimum elong min. Earth dist. max. Earth dist. -7288 Jan 16 j 09:17 1° ₹ 12'50 47.15690 AU -7280 Jul 27 j 11:50 10°**₹**11'09 -17°28'00 opposition -7288 Apr 26 j 14:36 2°**х** 46′08 -7280 Oct 16 j 06:20 9°×10'29 retrograde direct -7288 Jul 16 j 17:55 min. Earth dist. 1° ₹ 45'51 45.31414 AU 1°**х** 43′02 -16°59′03 -7288 Jul 19 j 02:49 -7279 Jan 22 j 20:26 10°**∡**741'01 -16°46'18 opposition conjunction -7288 Oct 07 j 14:56 -7279 Jan 22 j 20:26 direct 0°**х** 41′31 minimum elong 10° ₹ 41'01 16° 46'46 -7279 Jan 25 j 00:19 10° ₹ 44'07 48.33334 AU max. Earth dist. 2°**₹**14'01 -16°18'55 -7287 Jan 14 j 04:26 -7279 May 06 j 06:08 conjunction 12°**х** 15′27 retrograde -7279 Jul 26 j 19:44 11°**∡**15'48 46.48003 AU -7287 Jan 14 j 04:23 2° ₹ 14'01 16°19'19 minimum elong min. Earth dist. 2°**₹**17'39 47.30176 AU -7287 Jan 16 j 15:46 -7279 Jul 28 j 18:25 11°**✗**13'31 -17°30'04 max. Earth dist. opposition -7287 Apr 27 j 22:40 -7279 Oct 17 j 14:19 10°**х** 12'57 retrograde 3°×750'45 direct -7287 Jul 18 j 03:06 min. Earth dist. 2°**≯**50'30 45.45757 AU opposition -7287 Jul 20 j 10:30 2°**∡**147'45 -17°03'55 conjunction -7278 Jan 24 j 04:06 11°**∡**¹43'17 -16°48'14 direct -7287 Oct 08 j 23:06 1°×746'21 minimum elong -7278 Jan 24 j 04:06 11° 🗷 43'17 16° 48'41 max. Earth dist. -7278 Jan 26 j 06:32 11°**х** 46'17 48.44675 AU conjunction -7286 Jan 15 j 12:58 3°**х** 18'34 -16°23'33 retrograde -7278 May 07 j 15:12 13°**∡**17′28 -7286 Jan 15 j 12:53 3°**∡**18'34 16°23'58 min. Earth dist. -7278 Jul 28 j 02:35 12°**₹**17'55 46.59129 AU minimum elong max. Earth dist. -7286 Jan 18 j 00:12 3°**尽**22'10 47.44221 AU -7278 Jul 30 j 00:47 12°**∡**15'40 -17°31'49 opposition -7286 Apr 29 j 02:53 4°**∡**¹54'57 direct -7278 Oct 18 j 19:13 11°**∡**15'11 retrograde -7286 Jul 19 j 12:03 3°**₹**'54'46 45.59672 AU min. Earth dist. 12°**х** 45′19 -16°49′53 opposition -7286 Jul 21 i 17:59 3°**₹**52'05 -17°08'26 conjunction -7277 Jan 25 i 11:34 direct -7286 Oct 10 j 10:18 2°**х** 50'47 minimum elong -7277 Jan 25 i 11:33 12°**х** 45'19 16°50'21 max. Earth dist. -7277 Jan 27 i 11:54 12°**₹**48'11 48.55516 AU conjunction -7285 Jan 16 j 21:10 4° ₹22'43 -16°27'50 retrograde -7277 May 08 j 23:42 14°**∡**19'15 minimum elong -7285 Jan 16 i 21:07 4°**₹**22'42 16°28'16 min. Earth dist. -7277 Jul 29 i 11:07 13°**х** 19'43 46.69742 AU max. Earth dist. -7285 Jan 19 j 06:23 4° ₹ 26'11 47.57882 AU opposition -7277 Jul 31 j 07:16 13°**₹**17'34 -17°33'17 -7285 Apr 30 j 10:07 5°**х** 58'47 direct -7277 Oct 20 j 00:30 12°**х** 17′10 retrograde -7285 Jul 20 j 19:32 4° ₹ 58'42 45.73227 AU min. Earth dist. opposition -7285 Jul 23 j 01:18 4°**₹**56'02 -17°12'36 conjunction -7276 Jan 26 j 19:15 13°**₹**47'06 -16°51'15 direct -7285 Oct 11 j 18:44 3°×754'49 minimum elong -7276 Jan 26 j 19:16 13°**∡**¹47'06 16°51'41 13°**∡**′49'55 48.65835 AU max. Earth dist. -7276 Jan 28 j 18:58 5°**х** 26′29 -16°31′47 -7276 May 09 j 04:35 conjunction -7284 Jan 18 j 05:24 retrograde 15°**х** 20'45 -7284 Jan 18 j 05:20 -7276 Jul 29 j 18:45 14°**✗**21'14 46.79809 AU minimum elong 5°**₹**'26'28 16°32'12 min. Earth dist. -7284 Jan 20 j 14:09 5°**₹**'29'54 47.71197 AU -7276 Jul 31 j 13:25 14°**∡**19'10 -17°34'28 max. Earth dist. opposition -7284 Apr 30 j 18:13 -7276 Oct 20 j 09:02 13°**∡**18'49 retrograde 7°×702'15 direct -7284 Jul 21 j 04:41 min. Earth dist. 6°**✗**02'11 45.86459 AU opposition -7284 Jul 23 j 08:26 5°**₹**59'37 -17°16'24 conjunction -7275 Jan 27 j 02:35 14°**∡**′48'33 -16°52'20 direct -7284 Oct 12 j 02:11 4°**х** 58'30 minimum elong -7275 Jan 27 j 02:35 14°**∡**′48'33 16°52'48 max. Earth dist. -7275 Jan 28 j 23:41 14°**尽**51'12 48.75636 AU conjunction -7283 Jan 18 j 13:31 6°**₹**29'54 -16°35'22 retrograde -7275 May 10 j 10:04 16°**х** 21′56 minimum elong -7283 Jan 18 j 13:29 6° ₹29'54 16°35'48 -7275 Jul 31 j 01:39 15°**₹**22'27 46.89382 AU min. Earth dist.

max. Earth dist.

-7283 Jan 20 j 21:31

6°**₹**33'17 47.84225 AU

opposition

-7275 Aug 01 j 19:32

15°**∡**120'25 -17°35'21

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 10 Attention, astronomical year style is used: The year -7275 in astronomical counting style is the year 7276 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	e year -7275 i	in astronomical cou	nting style is the year	7276 BCE in historical co	ounting style.	
direct	-7275 Oct 21 j 16:49	14° <b>₹</b> ′20′08		minimum elong	-7266 Feb 05 j 16:14	23° <b>₹</b> ′49′11	16°49'10
				max. Earth dist.	-7266 Feb 07 j 04:00	23° <b>х</b> 51′15	49.47395 AU
conjunction	-7274 Jan 28 j 09:41	15° <b>∡</b> ¹49'38	-16°53'08	retrograde	-7266 May 19 j 18:45	25° <b>∡</b> ¹20'45	
minimum elong	-7274 Jan 28 j 09:43	15° <b>∡</b> ¹49'38	16°53'35	opposition	-7266 Aug 10 j 21:42	24° <b>∡</b> °20′06	-17°29'32
max. Earth dist.	-7274 Jan 30 j 06:14	15° <b>₹</b> ′52'15	48.84956 AU	min. Earth dist.	-7266 Aug 09 j 14:20	24° <b>∡</b> °21'36	47.59455 AU
retrograde	-7274 May 11 j 14:53	17° <b>∡</b> ¹22'47		direct	-7266 Oct 30 j 22:09	23° <b>∡</b> ¹20'24	
min. Earth dist.	-7274 Aug 01 j 09:55		46.98498 AU				
opposition	-7274 Aug 03 j 01:37	16° <b>∡</b> "21′20	-17°35'57	conjunction	-7265 Feb 06 j 22:47	24° <b>∡</b> °48'37 −	
direct	-7274 Oct 23 j 01:03	15° <b>∡</b> ′21′05		minimum elong	-7265 Feb 06 j 22:52	24° <b>∡</b> ¹48'37	
				max. Earth dist.	-7265 Feb 08 j 07:55		49.53546 AU
conjunction	-7273 Jan 29 j 16:51	16° ₹ 50′22		retrograde	-7265 May 20 j 23:58	26° <b>₹</b> 20'02	45 65210 433
minimum elong	-7273 Jan 29 j 16:52	16° ₹ 50′22		min. Earth dist.	-7265 Aug 10 j 20:35		47.65319 AU
max. Earth dist.	-7273 Jan 31 j 12:07		48.93872 AU	opposition	-7265 Aug 12 j 02:52	25° <b>₹</b> 19'28	-1/2/2/
retrograde	-7273 May 12 j 21:38	18° × 23'16	47.07220 ATT	direct	-7265 Nov 01 j 04:40	24° <b>∡</b> 19'49	
min. Earth dist. opposition	-7273 Aug 02 j 15:49 -7273 Aug 04 j 07:18	17 <b>x</b> · 23 48 17° <b>x</b> 21'53	47.07230 AU	conjunction	-7264 Feb 08 j 05:31	25° <b>∡</b> ¹47'56	16011116
direct	-7273 Oct 24 j 07:10	16° <b>₹</b> 21'41	-1/ 30 14	minimum elong	-7264 Feb 08 j 05:36	25° <b>x</b> 47'57	
direct	-7273 Oct 24 j 07.10	10 8.2141		max. Earth dist.	-7264 Feb 09 j 13:45		49.59174 AU
conjunction	-7272 Jan 30 j 23:51	17° <b>∡</b> 750'47	-16°53'50	retrograde	-7264 May 21 j 03:47	27° <b>х</b> 19'12	49.39174 AU
minimum elong	-7272 Jan 30 j 23:54	17° <b>х</b> 50'47		min. Earth dist.	-7264 Aug 11 j 04:23		47.70642 AU
max. Earth dist.	-7272 Feb 01 j 17:24		49.02424 AU	opposition	-7264 Aug 12 j 08:09	26° × 18'43	
retrograde	-7272 May 13 j 06:39	19° <b>×</b> 23'26	49.02424710	direct	-7264 Nov 01 j 12:23	25° × 10°43	17 23 00
min. Earth dist.	-7272 Aug 02 j 23:14		47.15630 AU	ancet	7204110V 01 j 12.23	23 × 1707	
opposition	-7272 Aug 04 j 13:07	18° <b>×</b> 22'08		conjunction	-7263 Feb 08 j 11:59	26° <b>х</b> 47′06	-16°42'26
direct	-7272 Oct 24 j 10:50	17° <b>₹</b> '21'59	1, 3012	minimum elong	-7263 Feb 08 j 12:05	26° <b>х</b> 47'07	
		-, , =-,,		max. Earth dist.	-7263 Feb 09 j 18:27		49.64285 AU
conjunction	-7271 Jan 31 j 06:46	18° <b>∡</b> ¹50'54	-16°53'44	retrograde	-7263 May 22 j 09:21	28° <b>×</b> 18'13	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
minimum elong	-7271 Jan 31 j 06:48	18° <b>∡</b> ¹50'54		min. Earth dist.	-7263 Aug 12 j 09:39		47.75452 AU
max. Earth dist.	-7271 Feb 02 j 00:16		49.10671 AU	opposition	-7263 Aug 13 j 13:07	27° <b>∡</b> 17'47	
retrograde	-7271 May 14 j 11:48	20° <b>∡</b> °23′20		direct	-7263 Nov 02 j 18:31	26° <b>∡</b> 18'13	
min. Earth dist.	-7271 Aug 04 j 05:40	19° <b>∡</b> ¹23'55	47.23723 AU		·		
opposition	-7271 Aug 05 j 18:41	19° <b>∡</b> ¹22'07	-17°35'52	conjunction	-7262 Feb 09 j 18:20	27° <b>∡</b> ¹46′05	-16°39'50
direct	-7271 Oct 25 j 17:40	18° <b>∡</b> °22'01		minimum elong	-7262 Feb 09 j 18:25	27° <b>∡</b> ¹46′05	16°40'20
				max. Earth dist.	-7262 Feb 10 j 22:47	27° <b>∡</b> °47'43	49.68901 AU
conjunction	-7270 Feb 01 j 13:28	19° <b>∡</b> 50'47	-16°53'19	retrograde	-7262 May 23 j 18:08	29° <b>х</b> 17′01	
minimum elong	-7270 Feb 01 j 13:32	19° <b>∡</b> 50'48	16°53'47	opposition	-7262 Aug 14 j 18:09	28° <b>∡</b> 16'39	-17°19'38
max. Earth dist.	-7270 Feb 03 j 05:02	19° <b>∡</b> 53′06	49.18641 AU	min. Earth dist.	-7262 Aug 13 j 16:45	28° <b>∡</b> 17'52	47.79805 AU
retrograde	-7270 May 15 j 16:56	21° <b>×</b> °23'01		direct	-7262 Nov 03 j 21:20	27° <b>∡</b> °17′05	
min. Earth dist.	-7270 Aug 05 j 11:38		47.31550 AU				
opposition	-7270 Aug 07 j 00:13	20° <b>∡</b> ¹21'54	-17°35'12	conjunction	-7261 Feb 11 j 00:46	28° <b>∡</b> °44'50 −	
direct	-7270 Oct 27 j 00:05	19° <b>∡</b> ¹21'53		minimum elong	-7261 Feb 11 j 00:53	28° <b>√</b> 44'50	
				max. Earth dist.	-7261 Feb 12 j 04:53		49.73096 AU
conjunction	-7269 Feb 02 j 20:11	20° 🗷 50'31			-7261 Apr 16 j 02:05	0°る	
minimum elong	-7269 Feb 02 j 20:14	20° \$\stacksquare 50'31	16°53'04	retrograde	-7261 May 25 j 00:13	0°る15'35	
max. Earth dist.	-7269 Feb 04 j 11:26		49.26333 AU	***	-7261 Jul 02 j 23:24	30°₹ <b>৴</b>	17017120
retrograde	-7269 May 16 j 21:17	22° <b>x</b> <sup>7</sup> 22'34	47 20077 ATT	opposition min. Earth dist.	-7261 Aug 15 j 23:00	29° 🖈 15'16	
min. Earth dist.	-7269 Aug 06 j 19:00		47.39077 AU		-7261 Aug 14 j 22:34		47.83742 AU
opposition direct	-7269 Aug 08 j 05:47 -7269 Oct 28 j 08:12	21° <b>尽</b> 21'33 20° <b>尽</b> 21'37	-1/ 34 13	direct	-7261 Nov 05 j 02:00	28° <b>∡</b> 15'42	
direct	-7209 Oct 28 J 08.12	20 8 2137		agniumation	-7260 Feb 12 j 07:00	29° <b>∡</b> ¹43'21	16022152
conjunction	-7268 Feb 04 j 02:57	21° <b>∡</b> ¹50'07	-16°51'34	conjunction minimum elong	-7260 Feb 12 j 07:06	29 <b>x</b> 43 21 29° <b>x</b> 43'22	16°34'22
minimum elong	-7268 Feb 04 j 03:02	21° <b>x</b> 50'08	16°52'03	max. Earth dist.	-7260 Feb 13 j 08:49		49.76909 AU
max. Earth dist.	-7268 Feb 05 j 16:55		49.33729 AU	max. Earth dist.	-7260 Feb 24 j 10:36	0°る	47.70707710
retrograde	-7268 May 17 j 04:55	23° <b>×</b> 22'00	19.55729110	retrograde	-7260 May 25 j 05:28	°る13'57	
min. Earth dist.	-7268 Aug 07 j 00:28		47.46274 AU	min. Earth dist.	-7260 Aug 15 j 04:06		47.87335 AU
opposition	-7268 Aug 08 j 11:00	22° <b>×</b> <sup>2</sup> 21'07		opposition	-7260 Aug 16 j 03:42	0°る13'40	
direct	-7268 Oct 28 j 12:43	21° <b>×</b> <sup>7</sup> 21'16	1, 5250	оррозион	-7260 Aug 28 j 03:18	30°R <b>✓</b>	1, 15 05
				direct	-7260 Nov 05 j 07:14	29° <b>х</b> 14′07	
conjunction	-7267 Feb 04 j 09:34	22° <b>∡</b> ¹49'40	-16°50'16		-7259 Jan 12 j 00:23	0°ਰ	
minimum elong	-7267 Feb 04 j 09:38	22° <b>х</b> 49'40	16°50'44		,	-	
max. Earth dist.	-7267 Feb 05 j 21:49		49.40765 AU	conjunction	-7259 Feb 12 j 13:16	0°る41'40	-16°30'30
retrograde	-7267 May 18 j 13:17	24° <b>х</b> 21'24		minimum elong	-7259 Feb 12 j 13:24	0° <b>る</b> 41'41	16°30'59
min. Earth dist.	-7267 Aug 08 j 07:51		47.53094 AU	max. Earth dist.	-7259 Feb 13 j 14:44		49.80393 AU
opposition	-7267 Aug 09 j 16:25	23° <b>∡</b> ¹20'39		retrograde	-7259 May 26 j 06:57	2°る12'07	
direct	-7267 Oct 29 j 15:42	22° <b>∡</b> ¹20'52		min. Earth dist.	-7259 Aug 16 j 10:38		47.90610 AU
				opposition	-7259 Aug 17 j 08:33	1° <b>る</b> 11'53	-17°09'23
conjunction	-7266 Feb 05 j 16:10	23° <b>₹</b> ′49′10	-16°48'41	direct	-7259 Nov 06 j 16:09	0° <b>る</b> 12'22	

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7258 in astronomical counting style is the year 7259 BCE in historical counting style. -7258 Feb 13 i 19:16 1°る39'49 -16°26'49 retrograde -7250 Jun 04 i 12:07 10°る52'44 conjunction opposition -7258 Feb 13 i 19:22 1°る39'50 16°27'18 -7250 Aug 26 j 01:59 9°**ප**53'00 -16°24'08 minimum elong 1°る41'13 49.83595 AU -7258 Feb 14 j 19:29 min. Earth dist. -7250 Aug 25 j 15:24 9°る53'31 48.02852 AU max. Earth dist. -7258 May 27 j 12:00 3°₹10'08 -7250 Nov 15 j 10:28 8°**궁**53'39 direct retrograde -7258 Aug 18 j 13:14 2°る09'58 -17°05'24 opposition -7249 Feb 23 j 02:31 10°る20'47 -15°42'18 min. Earth dist. -7258 Aug 17 j 15:21 2°る11'01 47.93597 AU conjunction -7258 Nov 07 j 22:04 -7249 Feb 23 j 02:40 10°る20'48 15°42'47 direct 1°る10'28 minimum elong -7249 Feb 23 j 13:32 max. Earth dist. 10°る21'25 49.94596 AU -7249 Jun 05 j 13:34 conjunction -7257 Feb 15 j 01:23 2°る37'51 -16°22'53 retrograde 11°**る**50'18 minimum elong -7257 Feb 15 j 01:31 2°**る**37'52 16°23'22 opposition -7249 Aug 27 j 06:22 10°る50'35 -16°17'53 2°る39'09 49.86500 AU -7249 Aug 26 j 21:48 max. Earth dist. -7257 Feb 16 j 00:06 min. Earth dist. 10°る50'59 48.01808 AU 4°る08'04 -7249 Nov 16 j 18:49 retrograde -7257 May 28 j 19:46 direct 9°**る**51'13 opposition -7257 Aug 19 j 17:55 3°**る**07'57 -17°01'08 min. Earth dist. -7257 Aug 18 j 21:56 3°る08'55 47.96288 AU conjunction -7248 Feb 24 j 08:34 11°る18'20 -15°36'09 direct -7257 Nov 09 j 00:48 2°る08'30 minimum elong -7248 Feb 24 j 08:44 11°る18'20 15°36'39 max. Earth dist. -7248 Feb 24 j 18:03 11°る18'52 49.93465 AU conjunction -7256 Feb 16 j 07:39 3°る35'49 -16°18'39 retrograde -7248 Jun 05 j 17:39 12°る47'46 minimum elong -7256 Feb 16 j 07:46 3°る35'50 16°19'08 opposition -7248 Aug 27 j 10:42 11°る48'04 -16°11'22 max. Earth dist. -7256 Feb 17 j 06:02 3°る37'06 49.89106 AU min. Earth dist. -7248 Aug 27 j 02:23 11°る48'28 48.00387 AU retrograde -7256 May 29 j 01:32 5°る05'55 direct -7248 Nov 17 j 01:08 10°**ප්**48'41 opposition -7256 Aug 19 j 22:33 4°る05'53 -16°56'35 min. Earth dist. -7256 Aug 19 j 03:19 4°る06'48 47.98639 AU conjunction -7247 Feb 24 i 14:21 12°る15'47 -15°29'46 -7256 Nov 09 j 05:48 direct 3°る06'28 minimum elong -7247 Feb 24 i 14:30 12°る15'47 15°30'15 max. Earth dist. -7247 Feb 24 i 22:13 12°る16'14 49.91967 AU conjunction -7255 Feb 16 i 13:36 4°る33'46 -16°14'10 retrograde -7247 Jun 07 j 01:07 13°る45'10 -7255 Feb 16 j 13:45 4°る33'46 16°14'41 -7247 Aug 28 j 15:10 12°る45'29 -16°04'36 minimum elong opposition max. Earth dist. -7255 Feb 17 j 09:38 4°る34'54 49.91353 AU -7247 Aug 28 j 08:44 12°る45'48 47.98633 AU min Earth dist -7255 May 30 j 07:35 6°**る**03'46 -7247 Nov 18 j 03:40 11°る46'05 retrograde direct -7255 Aug 20 j 09:00 5°る04'40 48.00611 AU min. Earth dist. 5°る03'49 -16°51'46 opposition -7255 Aug 21 j 03:09 -7246 Feb 25 j 20:19 13°る13'11 -15°23'06 conjunction -7255 Nov 10 j 10:07 4°る04'25 -7246 Feb 25 j 20:30 direct minimum elong 13°る13'12 15°23'36 -7246 Feb 26 j 03:57 13°る13'37 49.90169 AU max. Earth dist. 5°る31'42 -16°09'26 -7254 Feb 17 j 19:49 -7246 Jun 08 j 06:30 conjunction 14°る42'32 retrograde -7254 Feb 17 j 19:57 5°る31'43 16°09'56 -7246 Aug 29 j 19:24 13°**る**42'53 -15°57'33 minimum elong opposition -7254 Feb 18 j 15:12 5°る32'48 49.93180 AU -7246 Aug 29 j 13:28 13°る43'10 47.96572 AU max. Earth dist. min. Earth dist. -7254 May 31 j 11:16 7°る01'37 -7246 Nov 19 j 08:11 12°**る**43'28 retrograde direct 6°る01'44 -16°46'43 opposition -7254 Aug 22 j 07:46 min. Earth dist. -7254 Aug 21 j 15:50 6°る02'30 48.02122 AU conjunction -7245 Feb 27 j 02:09 14°る10'36 -15°16'11 direct -7254 Nov 11 j 16:56 5°**る**02'23 minimum elong -7245 Feb 27 j 02:19 14°る10'36 15°16'40 max. Earth dist. -7245 Feb 27 j 07:32 14°る10'54 49.88079 AU conjunction -7253 Feb 19 j 02:02 6°る29'38 -16°04'28 retrograde -7245 Jun 09 j 13:03 15°**る**39'54 -7253 Feb 19 j 02:10 6°る29'38 16°04'58 -7245 Aug 30 j 23:46 14°る40'17 -15°50'13 minimum elong opposition max. Earth dist. -7253 Feb 19 j 19:28 6°る30'38 49.94529 AU min. Earth dist. -7245 Aug 30 j 18:47 14°る40'31 47.94220 AU -7253 Jun 01 j 16:00 7°**る**59'29 -7245 Nov 20 j 11:38 13°る40'52 retrograde direct -7253 Aug 23 j 12:20 6°る59'39 -16°41'25 opposition -7244 Feb 28 i 08:12 15°る08'02 -15°08'59 min. Earth dist. -7253 Aug 22 j 21:01 7°る00'23 48.03114 AU conjunction -7244 Feb 28 i 08:23 direct -7253 Nov 12 j 22:56 6°る00'19 minimum elong 15°る08'03 15°09'29 max. Earth dist. -7244 Feb 28 i 13:14 15°る08'19 49.85676 AU -7252 Feb 20 i 08:14 7°る27'32 -15°59'16 conjunction retrograde -7244 Jun 09 j 16:10 16°る37'19 opposition minimum elong -7252 Feb 20 i 08:24 7°る27'33 15°59'45 -7244 Aug 31 j 04:05 15°る37'44 -15°42'38 max. Earth dist. -7252 Feb 20 j 23:23 7°る28'24 49.95327 AU min. Earth dist. -7244 Aug 31 j 00:56 15°る37'53 47.91535 AU -7252 Jun 01 j 23:25 8°**궁**57'19 direct -7244 Nov 20 j 18:34 14°る38'20 retrograde -7252 Aug 23 j 16:57 7°る57'32 -16°35'53 opposition min. Earth dist. -7252 Aug 23 j 04:01 7°る58'09 48.03553 AU conjunction -7243 Feb 28 j 14:08 16°る05'33 -15°01'33 direct -7252 Nov 13 j 02:27 6°**る**58'12 minimum elong -7243 Feb 28 j 14:19 16°る05'33 15°02'02 max. Earth dist. -7243 Feb 28 j 17:35 16°る05'44 49.82945 AU -7243 Jun 10 j 19:55 conjunction -7251 Feb 20 j 14:30 8°る25'23 -15°53'51 retrograde 17°る34'49 -7251 Feb 20 j 14:38 8°る25'24 15°54'21 -7243 Sep 01 j 08:21 16°**ප**35'17 -15°34'47 minimum elong opposition -7251 Feb 21 j 04:52 8°る26'12 49.95587 AU min. Earth dist. -7243 Sep 01 j 05:27 16°る35'25 47.88489 AU max. Earth dist. -7251 Jun 03 j 05:46 9°る55'04 -7243 Nov 22 j 00:36 15°**る**35'52 retrograde direct -7242 Feb 28 j 00:20 17°る00'40 opposition -7251 Aug 24 j 21:29 8°る55'19 -16°30'08 evening set min. Earth dist. -7251 Aug 24 j 09:41 8°る55'53 48.03446 AU direct -7251 Nov 14 j 06:25 7°**る**55'59 conjunction -7242 Mar 01 j 20:01 17°る03'08 -14°53'51 minimum elong -7242 Mar 01 j 20:12 17°る03'09 14°54'21 conjunction -7250 Feb 21 j 20:22 9°る23'09 -15°48'12 max. Earth dist. -7242 Mar 01 j 21:35 17°る03'14 49.79805 AU minimum elong -7250 Feb 21 j 20:32 9°る23'09 15°48'41 -7242 Mar 03 j 16:07 17°る05'39 morning rise max. Earth dist. -7250 Feb 22 j 08:08 9°る23'49 49.95328 AU -7242 Jun 12 j 02:28 18°る32'26 retrograde

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Earth dist. 18°る00'52 49.76204 AU -7234 Mar 09 j 20:55 morning rise -7241 Mar 05 j 22:22 18°**ට**04'41 conjunction 24°る44'07 -13°43'56 retrograde -7241 Jun 13 j 09:48 19°る30'07 minimum elong -7234 Mar 09 j 21:06 24°る44'08 13°44'23 opposition -7241 Sep 03 j 17:05 18°る30'37 -15°18'22 max. Earth dist. -7234 Mar 09 j 11:15 24°る43'34 49.37628 AU -7234 Mar 16 j 10:31 24°る53'04 min. Earth dist. -7241 Sep 03 j 17:36 18°る30'36 47.81019 AU morning rise -7234 Jun 19 j 21:05 26°る13'24 direct -7241 Nov 24 j 07:46 17°**ප**31'11 retrograde evening set -7240 Feb 28 j 19:00 18°る53'43 opposition -7234 Sep 09 j 23:52 25°る13'45 -14°13'15 min. Earth dist. -7234 Sep 10 j 09:45 25°る13'16 47.40071 AU conjunction -7240 Mar 03 j 08:24 18°る58'33 -14°37'47 direct -7234 Nov 30 j 20:10 24°る13'53 minimum elong -7240 Mar 03 j 08:35 18°る58'34 14°38'16 evening set -7233 Mar 04 j 04:39 25°る32'15 max. Earth dist. -7240 Mar 03 j 06:21 18°**궁**58'26 49.72081 AU morning rise -7240 Mar 06 j 22:16 19°る03'25 conjunction -7233 Mar 11 j 03:03 25°る41'43 -13°34'04 retrograde -7240 Jun 13 j 17:38 20°る27'50 minimum elong -7233 Mar 11 j 03:16 25°る41'43 13°34'31 opposition -7240 Sep 03 j 21:33 19°る28'20 -15°09'48 max. Earth dist. -7233 Mar 10 j 15:56 25°る41'05 49.30707 AU min. Earth dist. -7240 Sep 03 i 23:33 19°る28'14 47.76507 AU morning rise -7233 Mar 18 i 02:04 25°る51'11 direct -7240 Nov 24 j 10:29 18°る28'51 retrograde -7233 Jun 21 i 01:09 27°る11'02 evening set -7239 Feb 28 i 10:08 19°る50'35 opposition -7233 Sep 11 j 04:10 26°る11'23 -14°02'53 min. Earth dist. -7233 Sep 11 j 14:08 26°る10'54 47.32865 AU -7239 Mar 04 j 14:30 19° ප් 56'17 -14°29'25 -7233 Dec 02 j 02:05 25°る11'28 conjunction direct -7239 Mar 04 j 14:42 19°**ප**56'17 14°29'53 evening set -7232 Mar 04 j 01:42 26°**る**29'28 minimum elong -7239 Mar 04 j 11:33 19°る56'07 49.67424 AU max. Earth dist. -7239 Mar 08 j 19:21 -7232 Mar 11 j 09:15 26°**る**39'26 -13°23'56 morning rise 20°**ට**01'59 conjunction -7239 Jun 14 j 19:59 21°る25'32 -7232 Mar 11 j 09:27 26°る39'27 13°24'23 retrograde minimum elong -7239 Sep 05 j 02:02 -7232 Mar 10 j 20:34 26°る38'43 49.23495 AU opposition 20°る26'01 -15°01'00 max. Earth dist. 26°る49'27 -7239 Sep 05 j 06:02 -7232 Mar 18 j 17:26 min. Earth dist. 20°る25'50 47.71459 AU morning rise 28°**る**08'51 -7232 Jun 21 j 07:03 -7239 Nov 25 j 18:01 19°**る**26'29 direct retrograde 27°る09'12 -13°52'16 -7238 Mar 01 j 03:07 20°る47'30 -7232 Sep 11 j 08:47 evening set opposition -7232 Sep 11 j 20:45 27°る08'37 47.25364 AU min. Earth dist. -7238 Mar 05 j 20:36 20°る53'57 -14°20'48 -7232 Dec 02 j 06:40 26°**る**09'15 conjunction direct -7238 Mar 05 j 20:47 -7231 Mar 04 j 23:08 27°**る**26'53 minimum elong 20°る53'58 14°21'17 evening set max. Earth dist. -7238 Mar 05 j 15:49 20°る53'41 49.62272 AU morning rise -7238 Mar 10 j 14:34 21°る00'25 conjunction -7231 Mar 12 j 15:25 27°る37'21 -13°13'32 retrograde -7238 Jun 15 j 22:44 22°**る**23'11 minimum elong -7231 Mar 12 j 15:38 27°る37'22 13°14'00 opposition -7238 Sep 06 j 06:15 21°る23'39 -14°51'58 max. Earth dist. -7231 Mar 12 j 02:29 27°る36'37 49.15979 AU min. Earth dist. -7238 Sep 06 j 10:51 21°る23'26 47.65936 AU morning rise -7231 Mar 20 j 08:12 27°る47'53 -7238 Nov 27 j 01:25 20°る24'02 retrograde -7231 Jun 22 j 14:09 29°**る**06'52 direct -7237 Mar 01 j 21:12 21°₹44'26 -7231 Sep 12 j 13:16 28°**ට**07'13 -13°41'22 evening set opposition min. Earth dist. -7231 Sep 13 j 01:51 28°る06'37 47.17515 AU -7237 Mar 07 j 02:43 conjunction 21°る51'33 -14°11'58 direct -7231 Dec 03 i 10:05 27°る07'15 minimum elong -7237 Mar 07 i 02:56 21°る51'34 14°12'26 evening set -7230 Mar 05 j 21:04 28°る24'33 max. Earth dist. -7237 Mar 06 j 20:01 21°る51'10 49.56654 AU morning rise -7237 Mar 12 j 08:50 21°る58'42 conjunction -7230 Mar 13 j 21:40 28°る35'31 -13°02'53 retrograde -7237 Jun 17 i 04:46 23°る20'47 minimum elong -7230 Mar 13 i 21:53 28°る35'32 13°03'20 -7237 Sep 07 j 10:42 22°පි21'13 -14°42'41 max. Earth dist. -7230 Mar 13 j 06:11 28°る34'38 49.08089 AU opposition min. Earth dist. -7237 Sep 07 j 17:29 22°る20'53 47.59981 AU -7230 Mar 21 j 22:58 28°**⋜**46'31 morning rise -7237 Nov 28 j 05:52 21°**る**21'32 -7230 Jun 01 j 22:19 0°**≈** direct evening set -7236 Mar 01 j 16:15 22°**る**41'21 retrograde -7230 Jun 23 j 23:10 0°≈05'08 -7230 Jul 15 j 18:13 30°Rる -7230 Sep 13 j 17:46 conjunction -7236 Mar 07 j 08:54 22°る49'06 -14°02'53 opposition 29°る05'30 -13°30'12 minimum elong -7236 Mar 07 j 09:05 22°る49'06 14°03'21 min. Earth dist. -7230 Sep 14 j 07:47 29°る04'49 47.09271 AU 22°る48'41 49.50639 AU -7236 Mar 07 j 01:42 direct -7230 Dec 04 j 11:56 28°る05'29 max. Earth dist. -7236 Mar 13 j 02:02 22°る56'53 -7229 Mar 06 j 19:25 29°る22'29 morning rise evening set -7236 Jun 17 j 09:55 24°る18'20 -7229 Mar 14 j 11:57 29°る33'00 48.99751 AU retrograde max. Earth dist. 23°る18'43 -14°33'09 opposition -7236 Sep 07 j 14:58 min. Earth dist. -7236 Sep 07 j 22:18 23°る18'22 47.53647 AU conjunction -7229 Mar 15 j 04:16 29°る33'56 -12°52'00 direct -7236 Nov 28 j 10:38 22°る18'58 minimum elong -7229 Mar 15 j 04:29 29°**る**33'56 12°52'28 evening set -7235 Mar 02 j 11:52 23°**る**38'16 morning rise -7229 Mar 23 j 13:40 29°る45'24 -7229 Apr 03 j 10:59 0°≈ -7235 Mar 08 j 14:53 23°る46'36 -13°53'32 -7229 Jun 25 j 03:36 1°≈03'39 conjunction retrograde -7235 Mar 08 j 15:06 23°₹46'37 13°54'00 -7229 Sep 14 j 22:32 0°≈04'00 -13°18'48 minimum elong opposition

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Earth dist. -7221 Mar 22 j 06:16 7°≈24'46 48.16412 AU morning rise -7228 Mar 24 j 04:01 0°≈44'29 retrograde -7228 Jun 25 j 06:47 2°≈02'22 conjunction -7221 Mar 23 j 09:57 7°≈26'23 -11°16'09 -7221 Mar 23 j 10:10 opposition -7228 Sep 15 j 03:11 1°≈02'42 -13°07'10 minimum elong 7°≈26'23 11°16'34 -7221 Apr 03 j 04:11 min. Earth dist. -7228 Sep 15 j 19:53 1°≈01'54 46.91289 AU morning rise 7°≈41'15 direct -7228 Dec 06 j 02:18 0°≈02'34 retrograde -7221 Jul 02 j 23:50 8°≈57'00 evening set -7227 Mar 07 j 17:09 1°≈19'00 opposition -7221 Sep 22 j 13:44 7°≈56'53 -11°38'27 min. Earth dist. -7221 Sep 23 j 15:09 7°≈55'38 46.14369 AU conjunction -7227 Mar 16 j 17:26 1°≈31'21 -12°29'31 direct -7221 Dec 13 j 17:04 6°≈56'02 minimum elong -7227 Mar 16 j 17:38 1°≈31'21 12°29'58 evening set -7220 Mar 12 j 16:45 8°≈10'50 1°≈30'10 48.81554 AU max. Earth dist. -7227 Mar 15 j 20:56 max. Earth dist. -7220 Mar 22 j 10:52 8°≈24'19 48.04435 AU morning rise -7227 Mar 25 j 18:20 1°≈43'44 retrograde -7227 Jun 26 j 12:37 3°≈01'16 conjunction -7220 Mar 23 j 16:51 8°≈26'03 -11°02'59 opposition -7227 Sep 16 i 08:05 2°≈01'33 -12°55'17 minimum elong -7220 Mar 23 j 17:05 8°≈26'04 11°03'25 min. Earth dist. -7227 Sep 17 i 03:11 2°≈00'38 46.81523 AU morning rise -7220 Apr 03 j 17:33 8°≈41'19 direct -7227 Dec 07 i 07:38 1°≈01'21 retrograde -7220 Jul 03 i 09:42 9°≈56'51 -7226 Mar 08 j 16:21 2°≈17'30 opposition -7220 Sep 22 j 18:57 8°≈56'40 -11°24'41 evening set -7226 Mar 17 j 02:50 2°≈29'03 48.71696 AU -7220 Sep 23 j 21:38 8°≈55'22 46.02094 AU max. Earth dist. min. Earth dist. -7220 Dec 13 j 18:55 direct 7°≈55'43 -7226 Mar 18 j 00:03 2°≈30'16 -12°17'55 -7219 Mar 13 j 17:35 9°≈10'23 conjunction evening set -7226 Mar 18 j 00:17 -7219 Mar 23 j 17:42 9°≈24'14 47.92151 AU 2°≈30'17 12°18'21 max. Earth dist. minimum elong -7226 Mar 27 j 08:14 2°≈43'05 morning rise -7226 Jun 27 j 18:42 -7219 Mar 25 j 00:02 4°≈00'18 conjunction 9°≈26'00 -10°49'34 retrograde -7226 Sep 17 j 12:52 minimum elong -7219 Mar 25 j 00:15 3°**≈**00'32 -12°43'09 9°**≈**26′01 10°49'58 opposition -7219 Apr 05 j 06:45 min. Earth dist. -7226 Sep 18 j 08:41 2°≈59'34 46.71260 AU 9°≈41'39 morning rise -7226 Dec 08 j 12:20 -7219 Jul 04 j 16:21 direct 2°≈00'13 retrograde 10°≈56'59 -7225 Mar 09 j 15:55 -7219 Sep 24 j 00:18 evening set 3°≈16'05 opposition 9°≈56'44 -11°10'37 -7225 Mar 18 j 06:54 -7219 Sep 25 j 04:30 max. Earth dist. 3°≈27'55 48.61363 AU min. Earth dist. 9°≈55'22 45.89480 AU -7219 Dec 15 j 00:26 direct 8°≈55'42 conjunction -7225 Mar 19 j 06:44 3°≈29'17 -12°06'05 evening set -7218 Mar 14 j 18:47 10°≈10'15 -7225 Mar 19 j 06:56 3°≈29'18 12°06'31 max. Earth dist. -7218 Mar 24 j 23:06 10°≈24'23 47.79514 AU minimum elong morning rise -7225 Mar 28 j 22:13 3°≈42'33 retrograde -7225 Jun 29 j 03:18 4°≈59'25 conjunction -7218 Mar 26 j 07:10 10°≈26'14 -10°35'52 -7225 Sep 18 j 17:39 3°≈59'35 -12°30'45 -7218 Mar 26 j 07:23 10°≈26'15 10°36'17 opposition minimum elong min. Earth dist. -7225 Sep 19 j 15:03 3°≈58'33 46.60566 AU -7218 Apr 06 j 19:58 10°**≈**42'16 morning rise -7225 Dec 09 j 15:20 2°≈59'09 -7218 Jul 05 j 21:49 11°≈57'25 direct retrograde -7224 Mar 09 j 15:38 4°≈14'46 -7218 Sep 25 j 05:40 10°≈57'07 -10°56'17 evening set opposition min. Earth dist. -7218 Sep 26 i 10:31 10°≈55'43 45.76474 AU conjunction -7224 Mar 19 j 13:35 4°≈28'24 -11°54'00 direct -7218 Dec 16 i 07:55 9°≈55'59 minimum elong -7224 Mar 19 j 13:48 4°≈28'25 11°54'26 evening set -7217 Mar 15 j 20:20 11°≈10'26 max. Earth dist. -7224 Mar 18 j 13:14 4°≈27'00 48.50614 AU max. Earth dist. -7217 Mar 26 j 04:36 11°≈24'49 47.66425 AU -7224 Mar 29 i 11:58 4°≈42'04 morning rise -7224 Jun 29 j 08:31 5°≈58'37 conjunction -7217 Mar 27 j 14:39 11°≈26'48 -10°21'55 retrograde -7224 Sep 18 j 22:38 4°≈58'42 -12°18'06 -7217 Mar 27 i 14:52 11°≈26'49 10°22'18 opposition minimum elong -7224 Sep 19 j 21:37 4°≈57'36 46.49477 AU -7217 Apr 08 j 09:20 11°≈43'12 min. Earth dist. morning rise direct -7224 Dec 09 j 22:04 3°≈58'11 retrograde -7217 Jul 07 j 03:19 12°≈58'11 -7223 Mar 10 j 15:30 5°≈13'34 opposition -7217 Sep 26 j 11:15 11°≈57'50 -10°41'40 evening set min. Earth dist. -7217 Sep 27 j 18:31 11°≈56'18 45.62997 AU conjunction -7223 Mar 20 j 20:08 5°≈27'36 -11°41'39 direct -7217 Dec 17 j 15:01 10°≈56'35 -7223 Mar 20 j 20:20 -7216 Mar 15 j 22:12 minimum elong 5°≈27'37 11°42'04 evening set 12°≈10′56 -7216 Mar 26 j 11:21 max. Earth dist. -7223 Mar 19 j 18:13 5°≈26'06 48.39516 AU max. Earth dist. 12°≈25'37 47.52853 AU morning rise -7223 Mar 31 j 01:19 5°≈41'40 -7216 Mar 27 j 22:18 retrograde -7223 Jun 30 j 13:20 6°≈57'56 conjunction 12°≈27'40 -10°07'42 -7223 Sep 20 j 03:34 5°≈57'57 -12°05'10 minimum elong -7216 Mar 27 j 22:30 12°**≈**27'41 10°08'06 opposition min. Earth dist. -7223 Sep 21 j 02:42 5°≈56'49 46.38066 AU morning rise -7216 Apr 08 j 22:31 12°≈44'26 direct -7223 Dec 11 j 04:48 4°≈57'18 retrograde -7216 Jul 07 j 09:43 13°≈59'16 opposition evening set -7222 Mar 11 j 15:36 6°≈12'29 -7216 Sep 26 j 16:58 12°≈58'50 -10°26'49 max. Earth dist. -7222 Mar 20 j 23:34 6°≈25'20 48.28100 AU min. Earth dist. -7216 Sep 28 j 00:55 12°≈57'16 45.49006 AU

-7216 Dec 17 j 21:10

11°≈57'28

direct

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Earth dist. 20°≈11'01 44.39169 AU -7215 Jul 01 j 08:19 15°≈ direct -7209 Dec 25 j 15:07 19°≈10'34 15°≈00'38 20°**≈**24'38 retrograde -7215 Jul 08 j 18:57 evening set -7208 Mar 22 j 21:28 20°≈41'23 46.28748 AU -7215 Jul 16 j 05:20 15°R≈ max. Earth dist. -7208 Apr 03 j 15:50 opposition -7215 Sep 27 j 22:50 14°≈00'06 -10°11'41 min. Earth dist. -7215 Sep 29 j 08:37 13°≈58'26 45.34508 AU conjunction -7208 Apr 05 j 14:09 20°≈44'09 -8°04'32 -7215 Dec 19 j 01:05 -7208 Apr 05 j 14:20 direct 12°≈58'35 minimum elong 20°**≈**44′09 8°04'53 -7208 Apr 19 j 06:40 evening set -7214 Mar 18 j 02:25 14°≈12'45 morning rise 21°≈03'39 -7208 Jul 15 j 23:53 max. Earth dist. -7214 Mar 28 j 23:10 14°≈27'57 47.24159 AU retrograde 22°≈17'44 opposition -7208 Oct 04 j 18:08 21°≈16'23 -8°17'46 conjunction -7214 Mar 30 j 13:35 14°≈30'13 -9°38'32 min. Earth dist. -7208 Oct 06 j 11:13 21°≈14'20 44.22313 AU minimum elong -7214 Mar 30 j 13:48 14°≈30'13 9°38'56 direct -7208 Dec 25 j 22:32 20°≈13'46 morning rise -7214 Apr 12 j 00:45 14°≈47'42 evening set -7207 Mar 24 j 01:23 21°≈27'54 -7214 Apr 21 j 01:20 max. Earth dist. -7207 Apr 04 j 23:05 21°≈44'53 46.11893 AU retrograde -7214 Jul 10 j 02:15 16°≈02'14 opposition -7214 Sep 29 j 04:38 15°≈01'36 -9°56'17 conjunction -7207 Apr 06 j 22:36 21°≈47'44 -7°47'52 -7214 Sep 30 i 13:00 15°R≈ minimum elong -7207 Apr 06 i 22:47 21°**≈**47'45 7°48'13 min. Earth dist. -7214 Sep 30 i 16:06 14°≈59'51 45.19513 AU -7207 Apr 20 i 19:27 22°≈07'34 morning rise direct -7214 Dec 20 i 07:44 13°≈59'56 retrograde -7207 Jul 17 i 06:01 23°≈21'39 -7213 Mar 08 j 21:11 15°≈ -7207 Oct 06 j 01:00 22°≈20'11 -8°00'17 opposition -7213 Mar 19 j 05:07 -7207 Oct 07 j 20:01 22°≈18'02 44.05179 AU 15°≈14'02 min. Earth dist. evening set -7213 Mar 30 j 05:00 15°≈29'28 47.09102 AU -7207 Dec 27 j 07:50 max. Earth dist. direct 21° 217'26 -7206 Mar 25 j 05:53 22°8831'39 evening set -7206 Apr 06 j 07:21 22°≈48'55 45.94746 AU conjunction -7213 Mar 31 j 21:27 15°≈31'51 -9°23'34 max. Earth dist. -7213 Mar 31 j 21:39 15°≈31'52 9°23'56 minimum elong -7206 Apr 08 j 07:25 -7213 Apr 13 j 13:57 15°≈49'41 conjunction 22°≈51'49 -7°30'55 morning rise -7213 Jul 11 j 09:43 17°**≈**04'05 minimum elong -7206 Apr 08 j 07:36 22°≈51'49 7°31'15 retrograde -7206 Apr 22 j 08:27 -7213 Sep 30 j 10:33 16°≈03'20 -9°40'36 opposition morning rise 23°≈11'58 -7213 Oct 01 j 22:35 -7206 Jul 18 j 12:31 min. Earth dist. 16°≈01'33 45.04089 AU retrograde 24°≈26′04 -7206 Oct 07 j 07:46 direct -7213 Dec 21 j 14:55 15°**≈**01'30 opposition 23°**≈**24'31 -7°42'30 -7212 Mar 19 j 07:50 -7206 Oct 09 j 03:09 evening set 16°≈15'34 min. Earth dist. 23°≈22'20 43.87711 AU max. Earth dist. -7212 Mar 30 j 11:23 16°≈31'15 46.93621 AU direct -7206 Dec 28 j 16:19 22°≈21'35 evening set -7205 Mar 26 j 10:53 23°≈35'54 conjunction -7212 Apr 01 j 05:22 16°≈33'44 -9°08'19 max. Earth dist. -7205 Apr 07 j 13:54 23°≈53'20 45.77218 AU -7212 Apr 01 j 05:34 16°≈33'44 9°08'42 minimum elong morning rise -7212 Apr 14 j 02:56 16°≈51'54 conjunction -7205 Apr 09 j 16:27 23°≈56'23 -7°13'40 -7212 Jul 11 j 14:46 18°**≈**06'12 -7205 Apr 09 j 16:38 23°≈56'24 7°14'01 retrograde minimum elong -7212 Sep 30 j 16:40 17°≈05'19 -9°24'38 -7205 Apr 23 j 21:41 24°≈16'52 opposition morning rise -7212 Oct 02 j 06:52 17°≈03'25 44.88286 AU -7205 Jul 19 j 22:35 min. Earth dist. retrograde 25°≈31'01 16°**≈**03'19 -7212 Dec 21 j 22:51 -7205 Oct 08 j 14:59 direct opposition 24°≈29'20 -7°24'25 evening set -7211 Mar 20 j 10:49 17°≈17'21 min. Earth dist. -7205 Oct 10 j 12:23 24°≈27'02 43.69848 AU max. Earth dist. -7211 Mar 31 i 19:00 17°≈33'20 46.77807 AU direct -7205 Dec 29 j 21:35 23°≈26'15 evening set -7204 Mar 26 i 16:01 24°≈40'40 conjunction -7211 Apr 02 j 13:23 17°≈35'51 -8°52'48 max. Earth dist. -7204 Apr 07 j 22:37 24°≈58'22 45.59255 AU -7211 Apr 02 i 13:36 17°≈35'52 8°53'10 minimum elong -7211 Apr 15 j 15:49 17°≈54'22 -7204 Apr 10 i 01:44 25°≈01'28 -6°56'09 morning rise conjunction -7211 Jul 12 j 20:36 19°≈08'34 -7204 Apr 10 i 01:54 25°≈01'28 retrograde minimum elong 6°56'28 -7211 Oct 01 j 22:45 18°≈07'34 -9°08'22 -7204 Apr 24 j 10:40 25°≈22'15 opposition morning rise 18°**≈**05'40 44.72172 AU -7204 Jul 20 i 08:27 min. Earth dist. -7211 Oct 03 j 13:06 retrograde 26°≈36'27 -7211 Dec 23 j 06:23 17°≈05'24 opposition -7204 Oct 08 j 22:23 25°≈34'37 -7°06'03 direct -7210 Mar 21 j 14:02 18°≈19'25 min. Earth dist. -7204 Oct 10 j 21:02 25°≈32'16 43.51523 AU evening set max. Earth dist. -7210 Apr 02 j 00:44 18°≈35'36 46.61702 AU -7204 Dec 30 j 04:10 24°≈31'21 direct -7203 Mar 27 j 21:40 evening set 25°≈45'53 -7210 Apr 03 j 21:23 -7203 Apr 09 j 05:38 conjunction 18°**≈**38'15 -8°37'00 max. Earth dist. 26°≈03'45 45.40840 AU minimum elong -7210 Apr 03 j 21:34 18°**≈**38'16 8°37'21 morning rise -7210 Apr 17 j 04:47 18°≈57'06 conjunction -7203 Apr 11 j 11:04 26°≈07'00 -6°38'22 retrograde -7210 Jul 14 j 07:14 20°≈11'15 minimum elong -7203 Apr 11 j 11:14 26°**≈**07'00 6°38'41 morning rise opposition -7210 Oct 03 j 05:06 19°≈10'07 -8°51'48 -7203 Apr 25 j 23:55 26°≈28'05 min. Earth dist. -7210 Oct 04 j 20:50 19°≈08'09 44.55797 AU retrograde -7203 Jul 21 j 20:04 27°≈42'20 direct -7210 Dec 24 j 09:23 18°≈07'48 opposition -7203 Oct 10 j 05:49 26°≈40'20 -6°47'23 -7209 Mar 22 j 17:32 -7203 Oct 12 j 05:22 26°≈37'56 43.32752 AU evening set 19°≈21'50 min. Earth dist.

-7203 Dec 31 j 10:42

25°≈36'51

-7209 Apr 03 j 09:04

19°≈38'21 46.45339 AU

direct

max. Earth dist.

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Earth dist. -7202 Oct 13 j 15:24 27°≈43′56 43.13530 AU direct -7201 Jan 01 j 19:47 26°≈42'45 conjunction -7195 Apr 20 j 20:43 5°**¥**06'47 -4°05'35 evening set -7201 Mar 30 j 09:45 27°≈57'34 minimum elong -7195 Apr 20 j 20:49 5°**\**06'47 4°05'51 -7195 May 06 j 09:35 max. Earth dist. -7201 Apr 11 j 22:42 28°≈15'51 45.02662 AU morning rise 5°**)** 30′07 -7195 Jul 30 j 22:24 retrograde 6°**)** 45′29 conjunction -7201 Apr 14 j 06:30 28°≈19'17 -6°01'55 opposition -7195 Oct 19 j 00:59 5°**)**(42'00 -4°06'49 minimum elong -7201 Apr 14 j 06:39 28°**≈**19'18 6°02'14 min. Earth dist. -7195 Oct 21 j 09:21 5°**升**39'04 41.70864 AU morning rise -7201 Apr 29 j 02:18 28°≈40'58 direct -7194 Jan 09 j 10:09 4° **)** 36'41 retrograde -7201 Jul 24 j 10:11 29°≈55'20 evening set -7194 Apr 06 j 15:17 5°\ 53'11 opposition -7201 Oct 12 j 21:21 28°≈52'59 -6°09'08 max. Earth dist. -7194 Apr 19 j 17:06 6°¥12'52 43.59860 AU min. Earth dist. -7201 Oct 14 j 23:28 28°≈50'25 42.93913 AU direct -7200 Jan 03 j 06:47 27°≈49'02 conjunction -7194 Apr 22 j 08:03 6°¥16'52 -3°45'09 evening set -7200 Mar 30 j 16:22 29°≈04'00 minimum elong -7194 Apr 22 j 08:10 6°¥16'52 3°45'24 max. Earth dist. -7200 Apr 12 i 06:17 29°≈22'25 44.82987 AU morning rise -7194 May 07 j 23:03 6°**)** 40′28 retrograde -7194 Aug 01 i 08:57 7°\ 56'07 conjunction -7200 Apr 14 i 16:23 29°≈26'00 -5°43'17 opposition -7194 Oct 20 i 10:28 6°\f52'29 -3°45'18 -7200 Apr 14 j 16:33 29°**≈**26′01 5°43'34 min. Earth dist. -7194 Oct 22 j 19:26 6°**)** 49'30 41.49588 AU minimum elong -7200 Apr 29 j 15:33 29°≈47'58 -7193 Jan 10 j 19:21 5° ¥ 46'57 morning rise direct -7200 May 08 j 02:59 0°₩ -7193 Apr 08 j 00:56 7° **H** 03'49 evening set -7200 Jul 24 j 19:32 1°**)**€02'26 -7193 Apr 21 j 02:22 7°**升**23'35 43.38511 AU max. Earth dist. retrograde -7200 Oct 13 j 05:29 29°≈59'53 -5°49'33 opposition -7200 Oct 13 j 03:12 -7193 Apr 23 j 19:37 7°**)** 27'45 -3°24'25 30°R≈ conjunction -7193 Apr 23 j 19:43 -7200 Oct 15 j 09:21 min. Earth dist. 29°≈57'14 42.73970 AU minimum elong 7°**升**27'46 3°24'38 -7193 May 09 j 12:46 -7199 Jan 03 j 14:06 28°≈55'42 7°\ 51'37 direct morning rise -7193 Aug 02 j 23:34 9°**)**€07'34 -7199 Mar 24 j 08:26 0°**)**€ retrograde 8°**¥**03'45 -3°23'28 -7199 Mar 31 j 22:58 0°**)** 10′49 -7193 Oct 21 j 20:11 evening set opposition 0°**米**29'32 44.63005 AU -7193 Oct 24 j 06:20 8°**₭**00'42 41.27990 AU max. Earth dist. -7199 Apr 13 j 16:19 min. Earth dist. -7192 Jan 12 j 01:54 direct 6°\ 57'59 -7199 Apr 16 j 02:21 conjunction 0°**)** 33'07 -5°24'20 evening set -7192 Apr 08 j 10:56 8°**₩**15'16 minimum elong -7199 Apr 16 j 02:30 0°**)** 33'08 5°24'37 max. Earth dist. -7192 Apr 21 j 13:35 8°**¥**35'13 43.16788 AU morning rise -7199 May 01 j 04:29 0°**¥**55′22 retrograde -7199 Jul 26 j 04:41 2°**₩**09'58 conjunction -7192 Apr 24 j 07:40 8°\;\;39'27 -3°03'23 -7199 Oct 14 j 13:45 1°**¥**07'12 -5°29'38 -7192 Apr 24 j 07:46 8°\mathbf{3}9'27 3°03'37 opposition minimum elong min. Earth dist. -7199 Oct 16 j 18:18 1°**)** €04'30 42.53743 AU -7192 May 10 j 02:26 9°\(\)03'33 morning rise -7198 Jan 04 j 21:59 0°**)**€02'46 -7192 Aug 03 j 12:03 10°**¥**19'50 direct retrograde -7198 Apr 02 j 06:17 1°**)** 18'07 -7192 Oct 22 j 06:26 9°¥15'49 -3°01'19 evening set opposition -7198 Apr 15 j 00:42 1°**)** 36′58 44.42777 AU -7192 Oct 24 j 18:26 9°**¥**12'39 41.06003 AU max. Earth dist. min. Earth dist. 8°**)** (09'49 direct -7191 Jan 12 j 11:14 -7198 Apr 17 j 12:32 conjunction 1°\(\)40'41 -5°05'06 evening set -7191 Apr 09 j 21:21 9°**)**27'30 minimum elong -7198 Apr 17 j 12:41 1°**)**(40'42 5°05'22 max. Earth dist. -7191 Apr 23 j 00:18 9°\(\)47'35 42.94675 AU morning rise -7198 May 02 j 17:46 2°\ 03'13 -7198 Jul 27 j 16:41 3°**¥**17'57 -7191 Apr 25 j 19:43 9°\ 51'56 -2°42'04 retrograde conjunction -7198 Oct 15 j 22:04 2°\H15'00 -5°09'25 -7191 Apr 25 j 19:48 9°\ 51'56 2°42'16 opposition minimum elong min. Earth dist. -7198 Oct 18 j 03:15 2°**升**12'15 42.33307 AU -7191 May 11 j 16:13 10°**¥**16′16 morning rise -7197 Jan 06 j 04:57 1°**¥**10′20 -7191 Aug 04 j 23:24 11°\ 32'53 direct retrograde -7191 Oct 23 j 16:48 evening set -7197 Apr 03 j 13:55 2°\ 25'55 opposition 10°**)** €28'39 -2°38'51 max. Earth dist. -7197 Apr 16 j 10:32 2°**)** 44.22333 AU min. Earth dist. -7191 Oct 26 j 05:12 10°**升**25'27 40.83618 AU direct -7190 Jan 14 j 00:10 9°¥22'23 10°**)** 40′29 conjunction -7197 Apr 18 j 23:08 2°\(\pm\)48'46 -4°45'34 evening set -7190 Apr 11 j 08:26 -7197 Apr 18 j 23:16 2°**)**(48'46 4°45'50 -7190 Apr 24 j 10:41 11°**米**00'39 42.72142 AU minimum elong max. Earth dist. -7197 May 04 j 06:59 3°**)** 11'34 morning rise -7197 Jul 29 j 02:38 -7190 Apr 27 j 08:18 11°**米**05′10 -2°20′27 retrograde 4°**∺**26′29 conjunction -7190 Apr 27 j 08:23 11°**米**05'10 2°20'40 opposition -7197 Oct 17 j 06:54 3°**\**23'20 -4°48'52 minimum elong min. Earth dist. -7197 Oct 19 j 13:35 3°**¥**20'30 42.12674 AU morning rise -7190 May 13 j 06:10 11°**)** 29'44 direct -7196 Jan 07 j 15:07 2°**H** 18'27 retrograde -7190 Aug 06 j 10:12 12°**)** 46'41 evening set -7196 Apr 03 j 21:54 3°**)**34'18 opposition -7190 Oct 25 j 03:28 11°**)** 42'13 -2°16'04 max. Earth dist. -7196 Apr 16 j 20:39 3°**¥**53'36 44.01716 AU min. Earth dist. -7190 Oct 27 j 18:06 11°**¥**38'54 40.60839 AU -7189 Jan 15 j 12:10 10°**)** ₹35'40 direct -7196 Apr 19 j 09:45 3°¥57'26 -4°25'44 -7189 Apr 12 j 19:59 11°**)** 54'13 conjunction evening set

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Earth dist. -7189 Oct 29 j 05:31 direct -7188 Jan 17 j 00:07 11°**)** 49'39 conjunction -7182 May 07 j 23:10 21°\mathbf{1}8'14 0°42'51 evening set -7188 Apr 13 j 08:00 13°¥08'39 minimum elong -7182 May 07 j 23:09 21°**)** 18′14 0°42'43 max. Earth dist. -7188 Apr 26 j 10:02 13°**¥**29'02 42.25989 AU morning rise -7182 May 23 j 23:43 21°**)**44'18 -7182 Aug 16 j 22:11 retrograde 23°**₩**05'07 -7188 Apr 29 j 10:09 -7182 Nov 04 j 04:42 conjunction 13°**)** 33'46 -1°36'21 opposition 21°**¥**58′28 0°57'30 minimum elong -7188 Apr 29 j 10:12 13°**¥**33'47 1°36'33 min. Earth dist. -7182 Nov 07 j 01:37 21°**)** 54'40 38.70480 AU morning rise -7188 May 15 j 10:13 13°**)** 58'47 direct -7181 Jan 25 j 11:33 20°**)** 49′22 retrograde -7188 Aug 08 j 10:38 15°**¥**16'30 evening set -7181 Apr 23 j 12:03 22°¥12'38 opposition -7188 Oct 27 j 01:45 14°**光**11'31 -1°29'33 max. Earth dist. -7181 May 06 j 09:02 22°**)**€33'39 40.58275 AU min. Earth dist. -7188 Oct 29 j 18:08 14°**)**€08'03 40.14284 AU direct -7187 Jan 17 j 09:22 13°**)**€04'20 conjunction -7181 May 09 j 14:42 22°**)** 38'59 1°07'00 evening set -7187 Apr 14 j 20:25 14°**)** 23'49 minimum elong -7181 May 09 j 14:40 22°**)** 38'59 1°06'53 max. Earth dist. -7187 Apr 27 j 23:14 14°**)** 44'22 42.02473 AU morning rise -7181 May 25 j 14:34 23°**)** 05'12 retrograde -7181 Aug 18 j 16:11 24°\ 26'40 conjunction -7187 Apr 30 i 23:35 14°\(\dagger49'09\) -1°13'51 opposition -7181 Nov 05 i 18:37 23°**)** 19'45 1°23'04 minimum elong -7187 Apr 30 j 23:37 14°**)** 49'09 1°14'02 min. Earth dist. -7181 Nov 08 i 16:11 23°¥15'54 38.46024 AU -7187 May 17 j 00:12 15°**)** 14'21 direct -7180 Jan 26 j 23:28 22°\(\overline{1}\)10'19 morning rise -7187 Aug 10 j 00:35 16°**¥**32'30 -7180 Apr 24 j 04:58 23°**)** 34'22 retrograde evening set opposition -7187 Oct 28 j 13:19 15°**¥**27'13 -1°05'49 -7180 May 07 j 00:06 23°¥55'25 40.33651 AU max Earth dist -7187 Oct 31 j 06:50 15°**)** €23'41 39.90632 AU min. Earth dist. -7186 Jan 18 j 20:03 -7180 May 10 j 06:41 24°**₭**00'51 1°31'25 14°**)** 19′42 conjunction direct -7186 Apr 16 j 09:30 15°**)** 39'44 -7180 May 10 j 06:38 minimum elong 24°**₩**00'51 1°31'19 evening set -7186 Apr 29 j 11:35 -7180 May 26 j 05:15 max. Earth dist. 16°**₭**00'22 41.78764 AU 24°**)** 27'10 morning rise -7180 Aug 19 j 09:32 25°**)** 49′22 retrograde -7186 May 02 j 13:08 16°**₭**05'15 -0°51'05 -7180 Nov 06 j 09:09 24°**\(\)**42'09 1°48'55 conjunction opposition 16°**₭**05'15 0°51'15 -7186 May 02 j 13:10 -7180 Nov 09 j 08:28 24° ₭ 38'10 38.21313 AU minimum elong min. Earth dist. -7186 May 18 j 14:25 16°**)** € 30'39 -7179 Jan 27 j 13:43 23°**)** € 32'23 morning rise direct -7186 Aug 11 j 16:39 -7179 Apr 25 j 22:47 retrograde 17°**)(**49'14 evening set 24°**)** 57'15 -7186 Oct 30 j 01:11 25°**₭**18'18 40.08770 AU opposition 16°**)** 43'41 -0°41'46 max. Earth dist. -7179 May 08 j 15:49 min. Earth dist. -7186 Nov 01 j 18:42 16°**)** 40′08 39.66820 AU -7185 Jan 20 j 07:26 15°**¥**35'50 conjunction -7179 May 11 j 23:07 25°¥23'50 1°56'06 direct -7185 Apr 17 j 23:08 16°**¥**56′26 minimum elong -7179 May 11 j 23:02 25°**¥**23′50 1°56'00 evening set max. Earth dist. -7185 May 01 j 00:32 17°**升**17'09 41.54890 AU morning rise -7179 May 27 j 20:21 25°**¥**50′15 -7179 Aug 21 j 02:30 27°**米** 13'10 retrograde -7185 May 04 j 03:09 17°**¥**22'08 -0°28'02 -7179 Nov 07 j 23:52 26°**₭**05'39 2°15'03 conjunction opposition -7185 May 04 j 03:10 17°**¥**22'08 0°28'10 min. Earth dist. -7179 Nov 10 j 23:12 26°**₭**01'39 37.96343 AU minimum elong -7185 May 20 j 04:33 17°**)(**47'43 -7178 Jan 29 j 05:51 24°\£55'31 morning rise direct retrograde -7185 Aug 13 i 05:29 19°**)**€06'48 evening set -7178 Apr 27 i 17:24 26°**)**€21'14 opposition -7185 Oct 31 i 13:33 18°**)** € 00'57 -0°17'24 max. Earth dist. -7178 May 10 j 06:46 26°\(\frac{12}{42}\) 39.83606 AU -7185 Nov 03 i 08:44 min. Earth dist. 17°**)** € 57'18 39.42886 AU direct -7184 Jan 21 i 20:27 16°**)** € 52'48 conjunction -7178 May 13 j 16:03 26°\(\frac{1}{47}\)'55 2°21'01 -7184 Apr 18 i 13:20 18°**¥**13'59 -7178 May 13 i 15:59 26°\dagger47'55 2°20'56 evening set minimum elong max. Earth dist. -7184 May 01 j 14:59 18°**)** 34′51 41.30922 AU -7178 May 29 j 11:35 27°**₩**14'26 morning rise -7178 Aug 22 j 18:24 28°\ 38'06 retrograde -7184 May 04 j 17:28 18°**)** 39'53 -0°04'45 -7178 Nov 09 j 15:14 27°**)** 30'16 2°41'28 conjunction opposition minimum elong -7184 May 04 j 17:28 18°**¥**39'53 0°04'54 min. Earth dist. -7178 Nov 12 j 16:31 27°**升**26′08 37.71116 AU behind sun begin -7184 May 04 j 11:07 18°**¥**39'29 direct -7177 Jan 30 j 20:50 26°**¥**19'45 -7184 May 04 j 23:49 18°**)** 40′17 behind sun end evening set -7177 Apr 29 j 12:42 27° ¥46'21 -7184 May 20 j 18:51 19°**₩**05'37 max. Earth dist. -7177 May 12 j 00:17 28°**₭**07'21 39.58192 AU morning rise -7184 Jul 16 j 19:16 20°**升**15′16 asc. node -7184 Aug 13 j 17:24 20°**¥**25′14 -7177 May 15 j 09:28 28°**¥**13'07 2°46'11 retrograde conjunction -7184 Nov 01 j 02:13 19°**升**19′08 0°07′16 2°46'07 opposition minimum elong -7177 May 15 j 09:22 28° **★**13'06 28°**)** 39'41 min. Earth dist. -7184 Nov 03 j 21:04 19°**₭**15'28 39.18865 AU morning rise -7177 May 31 j 02:51  $0^{\circ}\Upsilon$ -7183 Jan 22 j 11:27 18°**米**10'39 -7177 Aug 06 j 22:54 direct evening set -7183 Apr 20 j 04:06 19°**)** 32'29 retrograde -7177 Aug 24 j 09:30 0°**Y**04'09 max. Earth dist. -7183 May 03 j 03:40 19°**¥**53'22 41.06852 AU -7177 Sep 11 j 01:43 30°**₹**₩ opposition -7177 Nov 11 j 07:00 28°**\**55'59 3°08'08 -7183 May 06 j 07:58 19°**¥**58'33 0°18'58 -7177 Nov 14 j 08:35 28°**升**51'48 37.45665 AU conjunction min. Earth dist. -7183 May 06 j 07:57 19°**¥**58'33 0°18'50 -7176 Feb 01 j 13:21 27°**)** 45'04 minimum elong direct

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7176 in astronomical counting style is the year 7177 BCE in historical counting style. minimum elong -7176 Apr 30 j 08:53 29°**升** 12'35 -7170 May 25 j 23:19 8°**Y**43'07 5°47'43 evening set -7176 May 12 j 16:05 29°**)** 33'28 39.32583 AU -7170 Jun 09 j 16:31 9°Y09'33 max. Earth dist. morning rise -7170 Sep 04 j 02:03 10°**Y**41′06 retrograde 29°\(\frac{1}{3}\)39'24 3°11'34 -7170 Nov 21 j 11:43 9°**Ƴ**30'25 -7176 May 16 j 03:10 6°20'49 conjunction opposition -7170 Nov 24 j 16:20 -7176 May 16 j 03:03 29°\ 39'24 3°11'31 9°Υ25'53 35.66729 AU minimum elong min. Earth dist.  $0^{\circ}\Upsilon$ -7176 May 28 j 04:23 8°Y16'41 direct -7169 Feb 11 j 12:53 9°**Y**52'18 0°**Υ**06'02 morning rise -7176 May 31 j 18:19 evening set -7169 May 13 j 05:27 10°**Y**12'19 37.52826 AU 1°Y31'21 retrograde -7176 Aug 25 j 04:21 max. Earth dist. -7169 May 24 j 07:33 opposition -7176 Nov 11 j 23:12  $0^{\circ}$ **Y**22'48  $3^{\circ}$ 35'03 min. Earth dist. -7176 Nov 15 j 01:36 0°**Υ**18'34 37.20076 AU conjunction -7169 May 27 j 20:47 10°**Y**18'49 6°14'10 -7176 Nov 28 j 22:19 30°**₹** minimum elong -7169 May 27 j 20:33 10°**Y**18'48 6°14'12 29°**)** 11'30 -7169 Jun 11 j 08:48 10°**Y**45′06 direct -7175 Feb 02 j 02:36 morning rise  $0^{\circ}\Upsilon$ 12°Y17'55 -7175 Apr 06 j 15:59 retrograde -7169 Sep 06 j 01:19 evening set -7175 May 02 j 05:31 0°Y39'59 opposition -7169 Nov 23 j 07:52 11°**Y**06'53 6°48'58 max. Earth dist. -7175 May 14 j 10:18 1°**Υ**00'51 39.06837 AU min. Earth dist. -7169 Nov 26 j 12:39 11°**Y**′02'20 35.41421 AU -7168 Feb 13 j 05:52 9°Y52'46 conjunction -7175 May 17 j 21:19 1°**Y**06'50 3°37'10 evening set -7168 May 14 j 08:56 11° Y 29'48 minimum elong -7175 May 17 j 21:11 1°Y06'49 3°37'08 max. Earth dist. -7168 May 25 j 05:36 11°**Υ**49'35 37.27324 AU morning rise -7175 Jun 02 j 09:36 1°Y33'29 retrograde -7175 Aug 26 j 22:20 2°Υ59'42 conjunction -7168 May 28 j 18:52 11°**Y**56'08 6°40'44 opposition -7175 Nov 13 j 15:59 1°**Y**50'48 4°02'13 minimum elong -7168 May 28 j 18:36 11°Y56'07 6°40'47 min. Earth dist. -7175 Nov 16 j 19:20 1°**Y**46'28 36.94389 AU morning rise -7168 Jun 12 j 01:11 12°Y22'15 direct -7174 Feb 03 i 18:25 0°Y39'04 retrograde -7168 Sep 07 i 00:23 13°Y56'24 -7174 May 04 i 03:16 2°Y08'35 opposition -7168 Nov 24 i 04:53 12°**Y**45′00 7°17′13 evening set max. Earth dist. -7174 May 16 j 04:16 2°Υ29'21 38.81036 AU min. Earth dist. -7168 Nov 27 i 10:47 12°**Υ**40'21 35.16106 AU -7167 Feb 14 j 01:36 11°Y30'28 direct -7174 May 19 j 15:54 2°Y35'26 4°02'58 -7167 May 16 j 13:35 13°Y08'58 conjunction evening set -7174 May 19 j 15:45 2°Y35'25 -7167 May 27 j 03:49 13°**Υ**28'28 37.01808 AU 4°02'57 max. Earth dist. minimum elong -7174 Jun 04 j 01:14 3°Y02'05 morning rise -7174 Aug 28 j 19:14 4°Υ29'15 -7167 May 30 j 17:21 13°**Y**35′06 7°07′21 conjunction retrograde -7174 Nov 15 j 09:03 -7167 May 30 j 17:05 3°**Y**19'58 4°29'35 minimum elong 13°**Y**35′04 7°07′24 opposition -7167 Jun 13 j 17:46 min. Earth dist. -7174 Nov 18 j 12:07 3°**Y**15'39 36.68699 AU 14°**Y**′01′00 morning rise 2°**Y**07'49 -7167 Sep 09 j 02:01 -7173 Feb 05 j 12:02 15°**Y**36'32 direct retrograde 14°**Υ**24'45 7°45'31 3°Y38'26 -7167 Nov 26 j 02:25 evening set -7173 May 06 j 01:50 opposition -7167 Nov 29 j 07:52 14°**Y**20′06 34.90770 AU max. Earth dist. -7173 May 17 j 22:43 3°**Y**59'06 38.55233 AU min. Earth dist. 13°**Y**′09′46 direct -7166 Feb 15 j 23:15  $4^{\circ}$ **Y**05'17  $4^{\circ}$ 28'56 -7173 May 21 j 11:05 14°**Ƴ**49'49 conjunction evening set -7166 May 18 j 19:26 -7173 May 21 j 10:55 4°Υ05'16 4°28'55 max. Earth dist. -7166 May 29 j 02:05 15°**Y**08'56 36.76239 AU minimum elong morning rise -7173 Jun 05 j 16:51 4°**Υ**31'55 15°**Y**15'42 7°33'59 retrograde -7173 Aug 30 j 16:08 6°Y00'04 conjunction -7166 Jun 01 j 16:43 -7173 Nov 17 j 02:58 4°Υ50'26 4°57'09 -7166 Jun 01 j 16:25 15°Υ15'40 7°34'05 opposition minimum elong min. Earth dist. -7173 Nov 20 j 07:18 4°Υ46'00 36.43058 AU -7166 Jun 15 j 10:34 15°**Y**41'21 morning rise -7172 Feb 07 j 05:46 3°Y37'53 -7166 Sep 11 j 02:29 17°**Y**18′19 direct retrograde -7172 May 07 j 01:08 5°Y09'39 -7166 Nov 28 j 00:44 16°**Y**′06′07 8°13′53 evening set opposition 5°**Υ**30'15 38.29506 AU min. Earth dist. -7166 Dec 01 j 07:43 16°**Υ**01'21 34.65412 AU max. Earth dist. -7172 May 18 j 18:51 14°Y50'42 direct -7165 Feb 17 j 20:37 conjunction -7172 May 22 j 06:34 5°Υ36'26 4°55'04 evening set -7165 May 21 j 02:32 16°**Y**32′20 minimum elong -7172 May 22 j 06:23 5°Υ36'26 4°55'04 max. Earth dist. -7165 May 31 j 02:43 16°Υ51'07 36.50663 AU 6°**Y**'03'02 morning rise -7172 Jun 06 i 08:29 -7172 Aug 31 j 10:35 7°**Y**32'15 -7165 Jun 03 j 16:44 16°Υ57'55 8°00'38 retrograde conjunction -7172 Nov 17 j 21:19 6°Υ22'16 5°24'54 -7165 Jun 03 i 16:25 16°**Y**57'53 8°00'43 opposition minimum elong min. Earth dist. -7172 Nov 21 j 00:49 6°Υ17'51 36.17514 AU -7165 Jun 17 j 03:30 17°Y23'16 morning rise -7171 Feb 08 j 01:17 5°**Y**09'19 -7165 Sep 13 j 02:01 19°**Y**01'43 direct retrograde 17°**Y**49'07 8°42'15 evening set -7171 May 09 j 01:33 6°**Y**42'18 opposition -7165 Nov 29 j 23:47 17°**Υ**44'20 34.40069 AU max. Earth dist. -7171 May 20 j 13:43 7°**Υ**02'41 38.03872 AU min. Earth dist. -7165 Dec 03 j 06:10 direct -7164 Feb 19 j 21:01 16°Y33'13 18° **Y** 16'30 conjunction -7171 May 24 j 02:40 7°**Υ**09'01 5°21'19 evening set -7164 May 22 j 10:37 18°**Ƴ**34'47 36.25114 AU -7171 May 24 j 02:28 7°**Υ**'09'01 5°21'19 -7164 Jun 01 j 01:49 minimum elong max. Earth dist. -7171 Jun 08 j 00:26 7°**Y**35'33 morning rise 9°Y05'54 -7164 Jun 04 j 17:07 18°**Y**41'44 8°27'15 retrograde -7171 Sep 02 j 06:27 conjunction -7164 Jun 04 j 16:47 18°**Y**41'43 8°27'22 opposition -7171 Nov 19 j 16:07 7°**Y**55'34 5°52'47 minimum elong min. Earth dist. -7171 Nov 22 j 20:34 7°**Υ**51'04 35.92087 AU morning rise -7164 Jun 17 j 20:27 19°**Y**06'45 direct -7170 Feb 09 j 18:38 6°**Y**42′13 retrograde -7164 Sep 14 j 03:15 20°**Y**46'46 evening set -7170 May 11 j 02:54 8°**Y**16′29 opposition -7164 Nov 30 j 23:29 19°**Y**33'43 9°10'35 max. Earth dist. -7170 May 22 j 11:26 8°**Y**36'47 37.78325 AU min. Earth dist. -7164 Dec 04 j 06:34 19°**Y**28′52 34.14809 AU -7163 Feb 20 j 19:30 18° **Y**17'21 direct -7170 May 25 j 23:32 8°Y43'08 5°47'42 -7163 May 24 j 19:56 20°**Y**′02'21 conjunction evening set

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Earth dist. -7163 Dec 06 j 06:53 20°Y03'06 direct -7162 Feb 22 j 19:12 conjunction -7156 Jun 19 j 21:58 3°**8**36'17 11°53'10 evening set -7162 May 27 j 06:40 21°\partial 49'55 minimum elong -7156 Jun 19 j 21:32 3°**8**36'15 11°53'24 max. Earth dist. -7162 Jun 05 j 05:26 22°**Υ**07'14 35.74384 AU morning rise -7156 Jun 29 j 13:45 3°**8**56'17 -7156 Sep 29 j 17:11 5°**8**52'08 retrograde -7162 Jun 08 j 20:09 22° \boldsymbol{\gamma}14'17 9° 20'13 -7156 Dec 16 j 01:31 4°**8**35'44 12°49'38 conjunction opposition minimum elong -7162 Jun 08 j 19:48 22°Υ14'15 9°20'21 min. Earth dist. -7156 Dec 19 j 05:20 4°830'51 32.22890 AU morning rise -7162 Jun 21 j 06:41 22° Y 38'27 direct -7155 Mar 07 j 12:03 3°815'49 retrograde -7162 Sep 18 j 06:22 24°\bar{Y}21'49 evening set -7155 Jun 13 j 01:00 5°818'09 opposition -7162 Dec 05 j 00:56 23°**Y**07'52 10°06'57 max. Earth dist. -7155 Jun 18 j 18:48 5°830'08 34.06742 AU min. Earth dist. -7162 Dec 08 j 07:32 23°**Υ**03'00 33.64793 AU direct -7161 Feb 24 j 18:18 21°Y50'31 conjunction -7155 Jun 22 j 05:00 5°**8**37'19 12°17'16 evening set -7161 May 29 j 18:28 23°Y39'14 minimum elong -7155 Jun 22 j 04:35 5°**8**37'17 12°17'30 max. Earth dist. -7161 Jun 07 j 08:46 23°Υ′56'03 35.49347 AU morning rise -7155 Jul 01 j 06:55 5°856'18 retrograde -7155 Oct 02 i 01:54 7°**8**54'36 conjunction -7161 Jun 10 j 22:39 24°**Y**'03'06 9°46'27 opposition -7155 Dec 18 j 08:32 6°**8**37'49 13°15'15 minimum elong -7161 Jun 10 j 22:17 24°**Y**′03′04 9°46'36 min. Earth dist. -7155 Dec 21 i 11:45 6°832'57 32.00485 AU morning rise -7161 Jun 22 j 23:41 24°Y26'45 direct -7154 Mar 09 j 16:09 5°817'28 -7161 Sep 20 j 09:19 26°**Y**11′56 -7154 Jun 16 j 00:10 7°**8**22'29 retrograde evening set opposition -7161 Dec 07 j 03:02 24°Y57'32 10°34'52 -7154 Jun 21 j 04:12 7°**と**33'23 33.84166 AU max. Earth dist. -7161 Dec 10 j 09:54 24°**Υ**52'37 33.40192 AU min. Earth dist. -7160 Feb 26 j 18:29 23°Y39'43 -7154 Jun 24 j 13:03 7°840'31 12°40'49 conjunction direct -7160 May 31 j 07:48 25°**Y**30′26 -7154 Jun 24 j 12:36 7°**8**40'29 12°41'05 minimum elong evening set -7160 Jun 08 j 12:33 25°Υ46'38 35.24649 AU -7154 Jul 02 j 23:46 7°858'22 max. Earth dist. morning rise -7154 Oct 04 j 10:13 9°**8**59'16 retrograde -7154 Dec 20 j 16:48 -7160 Jun 12 j 01:45 25°**Y**53'43 10°12'28 8°842'04 13°40'16 conjunction opposition -7160 Jun 12 j 01:22 25°**Y**53'41 -7154 Dec 23 j 20:05 8°837'09 31.78390 AU minimum elong 10°12'38 min. Earth dist. -7160 Jun 23 j 16:53 26°**Y**16'47 -7153 Mar 11 j 21:13 7°**8**21'17 morning rise direct -7160 Sep 21 j 14:47 28°**Y**03′53 -7153 Jun 19 j 01:25 9°**8**29'05 retrograde evening set 26°**Y**49'03 11°02'32 -7160 Dec 08 j 05:43 -7153 Jun 23 j 13:19 opposition max. Earth dist. 9°**8**38'40 33.61931 AU min. Earth dist. -7160 Dec 11 j 11:02 26°Υ 44'12 33.15966 AU direct -7159 Feb 27 j 20:07 25°**Y**30'47 conjunction -7153 Jun 26 j 21:37 9°845'50 13°03'46 -7159 Jun 02 j 22:19 27°Y23'36 minimum elong -7153 Jun 26 j 21:11 9°**8**45'47 13°04'02 evening set max. Earth dist. -7159 Jun 10 j 16:37 27°**Υ**39'07 35.00322 AU morning rise -7153 Jul 04 j 16:02 10°**8**02'25 -7153 Oct 06 j 21:03 12°806'01 retrograde -7159 Jun 14 j 05:37 27°**Y**'46'14 10°38'11 -7153 Dec 23 j 01:50 10°**8**48'24 14°04'38 conjunction opposition -7159 Jun 14 j 05:14 27°**Y**'46'12 10°38'21 min. Earth dist. -7153 Dec 26 j 03:33 10°**8**43'34 31.56655 AU minimum elong -7159 Jun 25 j 10:07 28°**Y**08'39 -7152 Mar 13 j 04:53 9°**8**27'11 morning rise direct -7159 Sep 23 i 20:28 29°**Y**57'47 retrograde evening set -7152 Jun 21 i 04:49 11°**8**37'55 -7159 Dec 10 i 09:22 opposition 28°**Y**42'33 11°29'54 max. Earth dist. -7152 Jun 24 i 23:38 11°846'04 33.40065 AU min. Earth dist. -7159 Dec 13 j 15:10 28°Υ37'38 32.92133 AU -7152 Jun 28 i 07:07 direct -7158 Mar 01 j 22:01 27°Y23'51 conjunction 11°**8**53'13 13°26'03 minimum elong -7158 Jun 05 j 14:36 29°Y18'53 -7152 Jun 28 i 06:40 11°**8**53'11 13°26'20 evening set max. Earth dist. -7158 Jun 12 j 22:57 29°**Υ**33'43 34.76391 AU -7152 Jul 05 j 07:41 12°808'23 morning rise -7152 Oct 08 j 07:57 14°**8**14'51 retrograde -7152 Dec 24 j 11:47 -7158 Jun 16 j 10:19 29°**Y**40'47 11°03'35 12°**8**56'46 14°28'14 conjunction opposition -7158 Jun 16 j 09:54 29°**Y**'40'45 11°03'47 -7152 Dec 27 j 13:39 minimum elong min. Earth dist. 12°**8**51'55 31.35325 AU -7158 Jun 25 j 21:44 0°8 direct -7151 Mar 15 j 13:07 11°**8**35'07 -7151 Jun 24 j 11:02 morning rise -7158 Jun 27 j 03:20 0°802'29 evening set 13°**8**49'00 -7158 Sep 26 j 03:09 1°**8**53'44 max. Earth dist. -7151 Jun 27 j 11:26 13°**8**55'33 33.18652 AU retrograde -7158 Dec 12 j 13:45 0°**8**38'06 11°56'55 opposition -7158 Dec 15 j 18:12 0°**႘**33'14 32.68688 AU -7151 Jun 30 j 17:13 14°**8**02'37 13°47'33 min. Earth dist. conjunction -7157 Jan 07 j 14:26 30°R℃ -7151 Jun 30 j 16:48 14°**8**02'35 minimum elong 13°47'51 29°**Ƴ**19′00 -7151 Jul 06 j 21:57 14°**8**16'08 direct -7157 Mar 04 j 03:20 morning rise -7157 Apr 26 j 20:35 0°8 -7151 Jul 27 j 17:00 15°8 evening set -7157 Jun 08 j 08:23 1°**8**16'22 retrograde -7151 Oct 10 j 20:22 16°**8**25'40 max. Earth dist. -7157 Jun 15 j 04:03 1°**8**30'17 34.52833 AU opposition -7151 Dec 26 j 22:34 15°**8**07'09 14°51'01 min. Earth dist. -7151 Dec 29 j 22:19 15°**8**02'24 31.14465 AU -7157 Jun 18 j 15:46 1°837'27 11°28'35 -7151 Dec 31 j 10:34 15°R₩ conjunction -7157 Jun 18 j 15:22 1°837'25 11°28'48 -7150 Mar 17 j 23:52 13°**8**45'02 minimum elong direct

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,	nical year style is used: Th		•	//		, ,	<b>0</b> 19
ŕ	-7150 May 28 j 22:10	15° <b>8</b>			-7143 Apr 27 j 10:14	0°I	
evening set	-7150 Jun 27 j 20:29	16° <b>8</b> 02'18		max. Earth dist.	-7143 Jul 16 j 14:54	2° <b>Ⅱ</b> 22'22	31.72115 AU
max. Earth dist.	-7150 Jun 29 j 22:59	16° <b>8</b> 06'55	32.97744 AU				
				conjunction	-7143 Jul 19 j 04:09	2° <b>Ⅱ</b> 28′20	16°01'41
conjunction	-7150 Jul 03 j 04:06	16° <b>8</b> 14'00	14°08'14	minimum elong	-7143 Jul 19 j 03:51	2° <b>∏</b> 28′18	16°02'05
minimum elong	-7150 Jul 03 j 03:39	16° <b>8</b> 13'57	14°08'33	retrograde	-7143 Oct 29 j 22:03	5° <b>Ⅱ</b> 02'05	
morning rise	-7150 Jul 08 j 10:24	16° <b>8</b> 25'35		opposition	-7142 Jan 14 j 21:36	3° <b>Ⅱ</b> 40′37	
retrograde	-7150 Oct 13 j 09:15	18° <b>8</b> 38'26		min. Earth dist.	-7142 Jan 17 j 07:33		29.73104 AU
opposition	-7150 Dec 29 j 10:19	17° <b>8</b> 19'29		direct	-7142 Apr 05 j 09:15	2° <b>Ⅱ</b> 15'48	
min. Earth dist.	-7149 Jan 01 j 09:45		30.94167 AU	max. Earth dist.	-7142 Jul 19 j 09:52	4°Щ49'27	31.57399 AU
direct	-7149 Mar 20 j 09:25	15° <b>と</b> 56'56 18° <b>と</b> 18'00		:	7142 I1 21:20.27	4° <b>∏</b> 55'14	1.001.212.0
evening set max. Earth dist.	-7149 Jul 01 j 11:03 -7149 Jul 02 j 13:26		32.77454 AU	conjunction minimum elong	-7142 Jul 21 j 20:37 -7142 Jul 21 j 20:20	4° <b>П</b> 55'12	16°12'30 16°12'56
max. Earm dist.	-/149 Jul 02 j 13.20	18 02020	32.77434 AU	retrograde	-7142 Jul 21 j 20:20	7° <b>П</b> 30'09	10 12 30
conjunction	-7149 Jul 05 j 15:42	18° <b>8</b> 27'18	1.4°27'57	opposition	-7141 Jan 17 j 16:23		17°22'25
minimum elong	-7149 Jul 05 j 15:17	18° <b>8</b> 27'16		min. Earth dist.	-7141 Jan 19 j 23:06		29.58954 AU
morning rise	-7149 Jul 09 j 19:15	18° <b>8</b> 36'32	11 20 17	direct	-7141 Apr 08 j 02:42	4° <b>∏</b> 43'21	2).30)31710
retrograde	-7149 Oct 15 j 23:16	20° <b>8</b> 53'08		max. Earth dist.	-7141 Jul 22 j 05:07		31.43471 AU
opposition	-7149 Dec 31 j 23:02	19° <b>8</b> 33'45	15°33'40		, <b>,</b>		
min. Earth dist.	-7148 Jan 03 j 20:09		30.74516 AU	conjunction	-7141 Jul 24 j 13:49	7° <b>Ⅱ</b> 23'50	16°21'46
direct	-7148 Mar 21 j 23:09	18° <b>8</b> 10'47		minimum elong	-7141 Jul 24 j 13:34	7° <b>Ⅱ</b> 23'48	16°22'11
evening set	-7148 Jul 04 j 10:57	20° <b>8</b> 36'30		retrograde	-7141 Nov 04 j 12:23	9° <b>∏</b> 59'51	
max. Earth dist.	-7148 Jul 04 j 02:26	20° <b>8</b> 35'42	32.57868 AU	opposition	-7140 Jan 20 j 12:04	8° <b>Ⅱ</b> 37'49	17°31'45
				min. Earth dist.	-7140 Jan 22 j 17:28	8° <b>Ⅱ</b> 34′07	29.45590 AU
conjunction	-7148 Jul 07 j 03:49	20° <b>8</b> 42'33	14°46'39	direct	-7140 Apr 09 j 19:54	7° <b>Ⅱ</b> 12'32	
minimum elong	-7148 Jul 07 j 03:24	20° <b>8</b> 42'31	14°47'00	max. Earth dist.	-7140 Jul 24 j 02:04	9° <b>Ⅱ</b> 48'40	31.30373 AU
morning rise	-7148 Jul 09 j 19:46	20° <b>8</b> 48'32					
retrograde	-7148 Oct 17 j 14:17	23° <b>8</b> 09'46		conjunction	-7140 Jul 26 j 07:25	9° <b>∏</b> 53'58	
opposition	-7147 Jan 02 j 12:34	21° <b>8</b> 49'57		minimum elong	-7140 Jul 26 j 07:12	9° <b>∏</b> 53'57	16°29'52
min. Earth dist.	-7147 Jan 05 j 08:14		30.55610 AU	retrograde	-7140 Nov 06 j 08:30	12° <b>Ⅲ</b> 31′00	15020110
direct	-7147 Mar 24 j 10:50	20° <b>8</b> 26'36	22 20061 ATT	opposition	-7139 Jan 22 j 08:17	11° <b>∏</b> 08'41	
max. Earth dist.	-7147 Jul 06 j 18:45	22°053'08	32.39061 AU	min. Earth dist. direct	-7139 Jan 24 j 10:29	9° <b>П</b> 43'12	29.33026 AU
conjunction	-7147 Jul 09 j 16:56	22° <b>8</b> 59'45	15°04'14	max. Earth dist.	-7139 Apr 12 j 16:35 -7139 Jul 26 j 22:02		31.18123 AU
minimum elong	-7147 Jul 09 j 16:32	22° <b>8</b> 59'43	15°04'34	max. Earth dist.	-/139 Jul 20 J 22.02	12 112021	31.16123 AU
retrograde	-7147 Oct 20 j 03:33	25° <b>8</b> 28'19	15 0454	conjunction	-7139 Jul 29 j 01:33	12° <b>∏</b> 25'29	16°35'23
opposition	-7146 Jan 05 j 02:55	24° <b>8</b> 08'08	16°11'45	minimum elong	-7139 Jul 29 j 01:22	12° <b>Д</b> 25'28	16°35'49
min. Earth dist.	-7146 Jan 07 j 20:35		30.37484 AU	retrograde	-7139 Nov 09 j 04:52	15° <b>∏</b> 03'28	
direct	-7146 Mar 27 j 00:21	22° <b>8</b> 44'26		opposition	-7138 Jan 25 j 05:03	13° <b>Ⅱ</b> 40′52	17°45'02
max. Earth dist.	-7146 Jul 09 j 09:45		32.21085 AU	min. Earth dist.	-7138 Jan 27 j 05:19		29.21323 AU
	-			direct	-7138 Apr 15 j 11:14	12° <b>Ⅱ</b> 15'10	
conjunction	-7146 Jul 12 j 06:39	25° <b>8</b> 18'56	15°20'35	max. Earth dist.	-7138 Jul 29 j 20:37	14° <b>∏</b> 53′27	31.06797 AU
minimum elong	-7146 Jul 12 j 06:15	25° <b>8</b> 18'53	15°20'57				
retrograde	-7146 Oct 22 j 20:06	27° <b>8</b> 48'50		conjunction	-7138 Jul 31 j 20:09	14° <b>∏</b> 58'14	16°39'36
opposition	-7145 Jan 07 j 18:13	26° <b>8</b> 28'18	16°28'50	minimum elong	-7138 Jul 31 j 20:01	14° <b>Ⅱ</b> 58'13	16°40'04
min. Earth dist.	-7145 Jan 10 j 09:33		30.20189 AU	retrograde	-7138 Nov 12 j 01:11	17° <b>Ⅲ</b> 37'01	
direct	-7145 Mar 29 j 13:17	25° <b>8</b> 04'17		opposition	-7137 Jan 28 j 02:33	16° <b>∏</b> 14'11	
max. Earth dist.	-7145 Jul 12 j 03:27	27° <b>8</b> 33'48	32.03939 AU	min. Earth dist.	-7137 Jan 29 j 23:36		29.10534 AU
	5145 X 1 44:01.05	2701 4 1010 6	1.502.514.0	direct	-7137 Apr 18 j 08:48	14° <b>∏</b> 48'19	20.06462.477
conjunction	-7145 Jul 14 j 21:07	27° <b>8</b> 40'06	15°35'40	max. Earth dist.	-7137 Aug 01 j 17:26	1/°Щ27'26	30.96462 AU
minimum elong	-7145 Jul 14 j 20:45	27° <b>႘</b> 40'04 0° <b>Ⅱ</b>	15°36'02	agniumation	7127 4 02:14.45	17° <b>Ⅲ</b> 32'00	16°42'00
rotro aro do	-7145 Sep 29 j 23:45	0° <b>П</b> 0° <b>П</b> 11'20		conjunction minimum elong	-7137 Aug 03 j 14:45	17° <b>Д</b> 32'00 17° <b>Д</b> 32'00	16°42'27
retrograde	-7145 Oct 25 j 11:43 -7145 Nov 20 j 12:27	30°R₩		retrograde	-7137 Aug 03 j 14:39 -7137 Nov 14 j 23:39	17° <b>Щ</b> 32'00 20° <b>Щ</b> 11'33	10 422/
opposition	-7144 Jan 10 j 10:36	28° <b>8</b> 50'28	16°44'31	opposition	-7136 Jan 31 j 00:30	18° <b>∏</b> 48'28	17°50'40
min. Earth dist.	-7144 Jan 13 j 00:30		30.03701 AU	min. Earth dist.	-7136 Feb 01 j 18:26		29.00760 AU
direct	-7144 Mar 31 j 02:48	27° <b>8</b> 26'10	30.03701710	direct	-7136 Apr 20 j 05:43	17° <b>Ⅲ</b> 22'27	29.00700710
max. Earth dist.	-7144 Jul 13 j 20:27		31.87630 AU	max. Earth dist.	-7136 Aug 03 j 17:09		30.87204 AU
	-7144 Jul 15 j 02:38	0°II					
	,			conjunction	-7136 Aug 05 j 09:54	20° <b>Ⅱ</b> 06'41	16°42'32
conjunction	-7144 Jul 16 j 12:13	0°Щ03′15	15°49'23	minimum elong	-7136 Aug 05 j 09:52	20° <b>Ⅱ</b> 06'41	16°43'00
minimum elong	-7144 Jul 16 j 11:52	0° <b>Ⅲ</b> 03′13	15°49'47	retrograde	-7136 Nov 16 j 19:05	22° <b>Ⅱ</b> 46'53	
retrograde	-7144 Oct 27 j 05:04	2° <b>∏</b> 35'46		opposition	-7135 Feb 01 j 22:49	21° <b>Ⅱ</b> 23'36	17°50'25
opposition	-7143 Jan 12 j 03:31	1° <b>Ⅱ</b> 14'36	16°58'43	min. Earth dist.	-7135 Feb 03 j 13:44		28.92059 AU
min. Earth dist.	-7143 Jan 14 j 14:35		29.88019 AU	direct	-7135 Apr 23 j 03:31	19° <b>∏</b> 57'29	
	-7143 Mar 08 j 15:39	30° <b>₹</b> 8		max. Earth dist.	-7135 Aug 06 j 15:01	22° <b>∏</b> 38′16	30.79102 AU
direct	-7143 Apr 02 j 18:08	29° <b>8</b> 50'02					

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7135 in astronomical counting style is the year 7136 BCE in historical counting style. -7135 Aug 08 j 05:07 22°**Ⅱ**42'09 16°41'07 minimum elong -7127 Aug 28 j 18:40 13°939'35 15°20'27 conjunction -7135 Aug 08 j 05:06 22°**II**42'09 max. Earth dist. -7127 Aug 28 j 10:24 13°538'45 30.56399 AU minimum elong 16°41'35 -7135 Nov 19 j 17:21 25°**Ⅲ**22'55 -7127 Dec 10 j 18:07 retrograde retrograde 16°921'19 -7134 Feb 04 j 21:32 -7126 Feb 26 j 18:49 23°**I**59'28 17°48'05 opposition 14°957'40 16°13'58 opposition -7134 Feb 06 j 08:23 23°**Д**57'01 28.84513 AU -7126 Feb 27 j 01:41 min. Earth dist. min. Earth dist. 14°557'12 28.64750 AU -7126 May 17 j 11:58 direct -7134 Apr 26 j 00:49 22°**Ⅲ**33'17 direct 13°932'18 max. Earth dist. -7134 Aug 09 j 15:12 25°**Ⅱ**14'53 30.72196 AU conjunction -7126 Aug 31 j 13:20 16°9515'47 15°01'33 16°37'45 conjunction -7134 Aug 11 j 00:37 25°**Ⅱ**18'18 minimum elong -7126 Aug 31 j 13:40 16°9515'49 15°02'02 minimum elong -7134 Aug 11 j 00:40 25°**Ⅲ**18'18 16°38'14 max. Earth dist. -7126 Aug 31 j 08:00 16°515'14 30.58431 AU retrograde -7134 Nov 22 j 14:12 27°**Ⅲ**59'33 retrograde -7126 Dec 13 j 15:36 18°957'09 -7133 Feb 07 j 20:48 -7125 Mar 01 j 18:16 opposition 26°**Ⅲ**35'59 17°43'36 opposition 17°**©**33'33 15°53'20 min. Earth dist. -7133 Feb 09 j 04:48 26°**Ⅲ**33'44 28.78137 AU min. Earth dist. -7125 Mar 01 j 21:42 17°533'18 28.67003 AU direct -7133 Apr 28 j 22:29 25°**Ⅱ**09'49 direct -7125 May 20 j 10:35 16°908'20 evening set -7125 Aug 31 j 06:33 18°9543'37 conjunction -7133 Aug 13 j 20:13 27°II55'02 16°32'25 minimum elong -7133 Aug 13 j 20:17 27°**Ⅲ**55′02 16°32'53 conjunction -7125 Sep 03 j 08:07 18°951'06 14°41'26 max. Earth dist. -7133 Aug 12 j 13:55 27°**Д**51'56 30.66523 AU minimum elong -7125 Sep 03 j 08:27 18°951'08 14°41'55 18°**©**51'02 -7133 Oct 10 j 22:20 0ಂತಾ max. Earth dist. -7125 Sep 03 j 07:26 30.61535 AU retrograde -7133 Nov 25 j 12:25 0°536'42 morning rise -7125 Sep 06 j 10:20 18°958'39 -7132 Jan 12 j 06:17 30°RⅡ retrograde -7125 Dec 16 j 10:24 21°931'59 opposition -7132 Feb 10 j 20:08 29° II 13'03 17°37'00 opposition -7124 Mar 03 i 17:15 20°9508'25 15°30'55 min. Earth dist. -7132 Feb 11 i 23:28 29°**Ⅱ**11'08 28.72954 AU min. Earth dist. -7124 Mar 03 i 17:17 20°9508'25 28.70314 AU direct -7132 Apr 30 j 20:37 27°**Ⅱ**46'55 direct -7124 May 22 j 10:12 18°9543'24 -7132 Aug 02 j 10:45 0000 evening set -7124 Aug 31 j 13:43 21°9514'21 -7132 Aug 15 j 15:56 0°932'16 16°25'06 -7124 Sep 05 j 02:12 21°925'20 14°19'42 conjunction conjunction -7132 Aug 15 j 16:04 -7124 Sep 05 j 02:36 21°925'22 14°20'10 0°932'16 16°25'36 minimum elong minimum elong -7132 Aug 14 j 13:52 -7124 Sep 05 j 04:17 21°525'32 30.65745 AU max. Earth dist. 0°529'35 30 62046 AU max. Earth dist. -7132 Nov 27 j 08:23 -7124 Sep 09 j 15:26 retrograde 3°9514'13 morning rise 21°936'23 -7131 Feb 12 j 19:51 -7124 Dec 18 j 07:03 1°950'32 17°28'15 retrograde 24°905'39 opposition -7123 Mar 06 j 15:48 min. Earth dist. -7131 Feb 13 j 20:40 1°**9**548'47 22°5642'09 15°06'46 28.68917 AU opposition -7131 May 03 j 18:07 0°924'29 min. Earth dist. -7123 Mar 06 j 11:36 22°**©**42'27 28.74747 AU direct -7123 May 25 j 08:04 21°9517'21 direct -7131 Aug 18 j 11:41 conjunction 3°909'49 16°15'50 evening set -7123 Sep 02 j 04:16 23°9544'42 -7131 Aug 18 j 11:50 minimum elong 3°909'50 16°16'19 -7123 Sep 07 j 19:59 max. Earth dist. -7131 Aug 17 j 13:04 3°507'30 30.58741 AU conjunction 23°958'23 13°56'24 retrograde -7131 Nov 30 j 07:03 5°951'58 minimum elong -7123 Sep 07 j 20:22 23°958'25 13°56'51 -7130 Feb 15 j 19:30 4°9528'16 17°17'25 max. Earth dist. -7123 Sep 08 j 02:54 23°559'05 30.71101 AU opposition min. Earth dist. -7130 Feb 16 j 15:46 4°526'50 28.65990 AU morning rise -7123 Sep 13 j 12:17 24°9512'07 direct -7130 May 06 j 16:29 3°502'19 retrograde -7123 Dec 21 j 01:18 26°938'02 -7122 Mar 09 j 13:56 25°9514'39 14°40'59 opposition -7130 Aug 21 j 07:32 5°5647'32 16°04'39 min. Earth dist. -7122 Mar 09 j 06:34 25°515'10 28.80327 AU conjunction -7130 Aug 21 j 07:45 5°9547'34 -7122 May 28 j 07:19 23°950'07 minimum elong 16°05'09 direct -7130 Aug 20 j 12:33 5°545'36 30.56548 AU -7122 Sep 03 j 22:23 26°9514'14 max. Earth dist. evening set -7130 Dec 03 i 03:29 retrograde 8°929'46 -7122 Sep 10 i 13:08 opposition -7129 Feb 18 i 19:34 7°506'04 17°04'32 conjunction 26°530'10 13°31'37 min. Earth dist. -7129 Feb 19 i 13:23 7°504'49 28.64141 AU minimum elong -7122 Sep 10 i 13:33 26°930'13 13°32'04 direct -7129 May 09 j 14:01 5°9540'15 max. Earth dist. -7122 Sep 10 j 22:59 26°531'10 30.77652 AU -7122 Sep 17 j 04:37 26°5946'10 morning rise -7129 Aug 24 j 03:14 8°925'13 15°51'35 -7122 Dec 23 j 20:52 29°909'07 conjunction retrograde -7129 Aug 24 j 03:27 8°925'14 15°52'03 -7121 Mar 12 j 11:32 27°945'53 14°13'37 minimum elong opposition max. Earth dist. -7129 Aug 23 j 12:10 8°523'40 30.55453 AU 27°5046'44 28.87102 AU min. Earth dist. -7121 Mar 11 j 23:16 26°521'38 retrograde -7129 Dec 06 j 00:34 11°907'24 direct -7121 May 31 j 04:48 opposition -7128 Feb 21 j 19:28 9°543'43 16°49'37 evening set -7121 Sep 05 j 18:23 28°9542'46 9°542'46 28.63327 AU min. Earth dist. -7128 Feb 22 j 08:58 direct -7128 May 11 j 14:21 8°9518'02 conjunction -7121 Sep 13 j 05:50 29°**©**00'40 13°05'26 -7121 Sep 13 j 06:14 13°05'52 minimum elong 29°9500'43 -7128 Aug 25 j 22:52 -7121 Sep 13 j 20:13 conjunction 11°**©**02'38 15°36'41 max. Earth dist. 29°502'07 30.85390 AU -7128 Aug 25 j 23:09 -7121 Sep 20 j 17:55 29°9518'38 minimum elong 11°9502'40 15°37'10 morning rise -7121 Oct 08 j 13:55 max. Earth dist. -7128 Aug 25 j 10:45 11°**©**01'23 30.55402 AU 0 $^{\circ}$  $\Omega$ retrograde -7128 Dec 07 j 21:47 13°5544'40 retrograde -7121 Dec 26 j 13:15 1°**Ω**38'51 opposition -7127 Feb 23 j 19:10 12°9520'59 16°32'45 opposition -7120 Mar 14 j 08:42 0°**Ω**15'49 13°44'48 min. Earth dist. -7127 Feb 24 j 05:58 12°**©**20'14 28.63538 AU min. Earth dist. -7120 Mar 13 j 17:41 0°**Ω**16'51 28.95043 AU direct -7127 May 14 j 11:32 10°955'27 -7120 Mar 24 j 01:11 30°Rூ -7120 Jun 02 j 01:27 28°951'55 direct -7127 Aug 28 j 18:23 13°939'34 15°19'59 -7120 Aug 05 j 19:54  $0^{\circ}\Omega$ conjunction

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 21 Attention, astronomical year style is used: The year -7120 in astronomical counting style is the year 7121 BCE in historical counting style.

Attention, astronomi	cal year style is used: The	e year -7120 i	n astronomical cou	nting style is the year	7121 BCE in historical c	ounting style.	
evening set	-7120 Sep 06 j 16:00	1° <b>Ω</b> 10′13		max. Earth dist.	-7114 Sep 30 j 23:13	15° <b>Ω</b> 57'40	31.68210 AU
				morning rise	-7114 Oct 11 j 05:52	16° <b>Ω</b> 21'07	
conjunction	-7120 Sep 14 j 21:58	1° <b>Ω</b> 29'52		retrograde	-7113 Jan 11 j 22:17	18° <b>Ω</b> 25'31	
minimum elong	-7120 Sep 14 j 22:24	1° <b>Ω</b> 29'55		min. Earth dist.	-7113 Mar 31 j 05:17		29.78430 AU
max. Earth dist.	-7120 Sep 15 j 15:28		30.94294 AU	opposition	-7113 Apr 01 j 18:30	17° <b>Ω</b> 04'19	9°52'09
morning rise	-7120 Sep 23 j 04:40	1° <b>Ω</b> 49'35		direct	-7113 Jun 20 j 08:18	15° <b>Ω</b> 43'07	
retrograde	-7120 Dec 28 j 07:20	4° <b>Ω</b> 07'13		evening set	-7113 Sep 19 j 17:11	17° <b>Ω</b> 44'33	
min. Earth dist.	-7119 Mar 16 j 09:18		29.04110 AU				
opposition	-7119 Mar 17 j 04:56	2° <b>Ω</b> 44'25	13°14'39	conjunction	-7113 Oct 01 j 22:06	18° <b>Ω</b> 12'12	
direct	-7119 Jun 04 j 22:02	1° <b>Ω</b> 20'52		minimum elong	-7113 Oct 01 j 22:28	18° <b>Ω</b> 12'14	
evening set	-7119 Sep 08 j 14:28	3° <b>Ω</b> 36′30		max. Earth dist.	-7113 Oct 03 j 12:29		31.83373 AU
	7110 0 17:12:24	20 0 5 7142	12000116	morning rise	-7113 Oct 14 j 04:16	18° <b>Ω</b> 39'57 20° <b>Ω</b> 42'24	
conjunction	-7119 Sep 17 j 13:34 -7119 Sep 17 j 13:59	3° <b>Ω</b> 57'43 3° <b>Ω</b> 57'45		retrograde min. Earth dist.	-7112 Jan 14 j 11:28 -7112 Apr 01 j 17:21		29.93637 AU
minimum elong max. Earth dist.	-7119 Sep 17 j 13.39		31.04287 AU	opposition	-7112 Apr 03 j 10:05	$19^{\circ} \Omega 24^{\circ} 08$ $19^{\circ} \Omega 21^{\circ} 27$	
morning rise	-7119 Sep 18 j 10.33	4° <b>Ω</b> 18'59	31.04267 AU	direct	-7112 Apr 03 j 10:03	19 <b>δί</b> 21 27 18° <b>Ω</b> 00'37	9 13 33
retrograde	-7119 Dec 30 j 23:12	6°Ω34'12		evening set	-7112 Sun 21 j 22:34 -7112 Sep 20 j 18:26	19° <b>Ω</b> 59'57	
min. Earth dist.	-7118 Mar 19 j 02:52		29.14246 AU	evening sec	/112 Sep 20 j 10.20	17 063737	
opposition	-7118 Mar 20 j 00:58	5° <b>Ω</b> 11'39		conjunction	-7112 Oct 03 j 09:10	20° <b>Ω</b> 28'17	8°24'09
direct	-7118 Jun 07 j 16:23	3° <b>Ω</b> 48'30	12 13 13	minimum elong	-7112 Oct 03 j 09:31	20° <b>Ω</b> 28'19	
evening set	-7118 Sep 10 j 13:46	6° <b>Ω</b> 01'32		max. Earth dist.	-7112 Oct 05 j 03:13		31.99279 AU
evening sec	,110 Sep 10 j 15.10	0 000132		morning rise	-7112 Oct 16 j 00:59	20°Ω56'43	51.992,9110
conjunction	-7118 Sep 20 j 04:30	6° <b>Ω</b> 24'09	11°39'30	retrograde	-7111 Jan 15 j 22:20	22° <b>Ω</b> 57'16	
minimum elong	-7118 Sep 20 j 04:56	6° <b>Ω</b> 24'11		min. Earth dist.	-7111 Apr 04 j 06:15		30.09612 AU
max. Earth dist.	-7118 Sep 21 j 05:16		31.15317 AU	opposition	-7111 Apr 06 j 00:45	21° <b>Ω</b> 36'34	8°39'09
morning rise	-7118 Sep 29 j 19:58	6° <b>Ω</b> 46'50		direct	-7111 Jun 24 j 15:38	20° <b>Ω</b> 16′06	
retrograde	-7117 Jan 02 j 14:14	8° <b>Ω</b> 59'42		evening set	-7111 Sep 22 j 19:50	22° <b>Ω</b> 13'25	
opposition	-7117 Mar 22 j 20:16	7° <b>Ω</b> 37'26	12°10'46	C	1 ,		
min. Earth dist.	-7117 Mar 21 j 18:00	7° <b>Ω</b> 39'13	29.25367 AU	conjunction	-7111 Oct 05 j 19:19	22° <b>Ω</b> 42′20	7°49'41
direct	-7117 Jun 10 j 12:22	6° <b>Ω</b> 14'41		minimum elong	-7111 Oct 05 j 19:39	22° <b>£</b> 42′22	7°50'01
evening set	-7117 Sep 12 j 13:41	8° <b>Ω</b> 25'15		max. Earth dist.	-7111 Oct 07 j 15:15	22° <b>Ω</b> 46′26	32.15966 AU
				morning rise	-7111 Oct 18 j 20:09	23° <b>Ω</b> 11′22	
conjunction	-7117 Sep 22 j 18:54	8° <b>Ω</b> 49'06	11°08'47	retrograde	-7110 Jan 18 j 10:35	25° <b>Ω</b> 10′06	
minimum elong	-7117 Sep 22 j 19:19	8° <b>Ω</b> 49'09	11°09'11	min. Earth dist.	-7110 Apr 06 j 16:15	23° <b>£</b> 52'42	30.26401 AU
max. Earth dist.	-7117 Sep 23 j 22:29	8° <b>Ω</b> 51'48	31.27286 AU	opposition	-7110 Apr 08 j 14:38	23° <b>Ω</b> 49'40	8°02'03
morning rise	-7117 Oct 03 j 01:03	9° <b>Ω</b> 13′03		direct	-7110 Jun 27 j 06:48	22° <b>Ω</b> 29'35	
retrograde	-7116 Jan 05 j 05:19	11° <b>Ω</b> 23'42		evening set	-7110 Sep 24 j 21:05	24° <b>Ω</b> 24'59	
min. Earth dist.	-7116 Mar 23 j 10:05		29.37418 AU				
opposition	-7116 Mar 24 j 14:54	10° <b>Ω</b> 01'42	11°37'18	conjunction	-7110 Oct 08 j 04:41	24° <b>Ω</b> 54'24	
direct	-7116 Jun 12 j 04:29	8° <b>Ω</b> 39'21		minimum elong	-7110 Oct 08 j 05:00	24° <b>Ω</b> 54'25	
evening set	-7116 Sep 13 j 14:07	10° <b>Ω</b> 47'31		max. Earth dist.	-7110 Oct 10 j 04:03		32.33448 AU
				morning rise	-7110 Oct 21 j 13:42	25° <b>Ω</b> 23'56	
conjunction	-7116 Sep 24 j 08:49	11°Ω12'30	10°37'11	retrograde	-7109 Jan 20 j 19:05	27° <b>Ω</b> 20'57	20 44022 477
minimum elong	-7116 Sep 24 j 09:14	11°Ω12'32	10°37'34	min. Earth dist.	-7109 Apr 09 j 03:42		30.44023 AU
max. Earth dist.	-7116 Sep 25 j 15:53		31.40139 AU	opposition	-7109 Apr 11 j 03:52	26° <b>Ω</b> 00'48	7°24'40
morning rise	-7116 Oct 05 j 04:16	11° <b>Ω</b> 37'34		direct	-7109 Jun 29 j 20:05	24° <b>Ω</b> 41'06	
retrograde min. Earth dist.	-7115 Jan 06 j 19:09	13° <b>Ω</b> 46′04	20.50202 ATT	evening set	-7109 Sep 26 j 22:32	26° <b>Ω</b> 34'40	
opposition	-7115 Mar 26 j 00:49 -7115 Mar 27 j 08:47	$12^{\circ}\Omega 24'21$	29.50302 AU 11°02'58	conjunction	-7109 Oct 10 j 13:29	27° <b>Ω</b> 04'29	6°39'53
direct	-7115 Jun 14 j 22:49	11° <b>Ω</b> 02'23	11 02 38	minimum elong	-7109 Oct 10 j 13:29	27° <b>Ω</b> 04'29	6°40'11
evening set	-7115 Sep 15 j 14:55	11° <b>0</b> 02′23		max. Earth dist.	-7109 Oct 10 j 15:40		32.51752 AU
evening set	-/113 Sep 13 j 14.33	13 0600 14		morning rise	-7109 Oct 12 j 15:20 -7109 Oct 24 j 05:52	27° <b>Ω</b> 34'27	32.31732 AU
conjunction	-7115 Sep 26 j 21:52	13° <b>Ω</b> 34'13	10°04'50	retrograde	-7109 Oct 24 j 03:32 -7108 Jan 23 j 03:08	29° <b>Ω</b> 29'49	
minimum elong	-7115 Sep 26 j 22:15	13° <b>Ω</b> 34'15	10°05'12	min. Earth dist.	-7108 Apr 10 j 12:10		30.62465 AU
max. Earth dist.	-7115 Sep 28 j 06:52		31.53789 AU	opposition	-7108 Apr 10 j 12:10	28° <b>Ω</b> 09'59	6°47'05
morning rise	-7115 Oct 08 j 05:54	14° <b>Ω</b> 00'18	31.33767 AO	direct	-7108 Apr 12 j 19:30	26° <b>Ω</b> 50'42	0 47 03
	-7115 Oct 08 j 03:34	14 <b>%</b> 00 18		evening set	-7108 Sep 27 j 23:59	28° <b>Ω</b> 42'31	
retrograde	-7114 Jan 09 j 09:46	16° <b>Ω</b> 06'42			,100 Sep 2, j 25.5)	_0 UC 12 J1	
0	-7114 Mar 20 j 18:51	15°RΩ		conjunction	-7108 Oct 11 j 21:28	29° <b>Ω</b> 12'42	6°04'42
min. Earth dist.	-7114 Mar 28 j 15:07		29.63988 AU	minimum elong	-7108 Oct 11 j 21:44	29°Ω12'43	6°04'59
opposition	-7114 Mar 30 j 02:01	14°Ω45'15		max. Earth dist.	-7108 Oct 14 j 01:46		32.70834 AU
direct	-7114 Jun 17 j 15:08	13° <b>Ω</b> 23'41	- v <del></del>	morning rise	-7108 Oct 25 j 20:40	29° <b>Ω</b> 43'00	
	-7114 Sep 05 j 07:16	15° <b>Ω</b>		0*	-7108 Nov 02 j 22:38	0° m)	
evening set	-7114 Sep 17 j 15:57	15° <b>Ω</b> 27'17		retrograde	-7107 Jan 24 j 11:08	1° <b>m</b> <sub>2</sub> 36'50	
-	. ,			min. Earth dist.	-7107 Apr 12 j 21:36		30.81698 AU
conjunction	-7114 Sep 29 j 10:28	15° <b>Ω</b> 54'09	9°31'48	opposition	-7107 Apr 15 j 03:27	0° <b>m</b> 17'19	6°09'25
minimum elong	-7114 Sep 29 j 10:52	15° <b>Ω</b> 54'11	9°32'10		-7107 Apr 26 j 11:26	30°R <b>Ω</b>	
-					-		

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7107 in astronomical counting style is the year 7108 BCE in historical counting style. 28°**Ω**58'28 direct -7107 Jul 03 j 20:30 morning rise -7101 Nov 10 j 15:10 13° m 52'25 -7107 Sep 05 j 11:30 0° m -7100 Feb 08 j 03:19 15° m 37'24 retrograde -7107 Sep 30 j 01:14 0° m 48'38 -7100 Apr 26 j 19:51 min. Earth dist. 14° m 24'24 32.32215 AU evening set -7100 Apr 29 j 14:15 14°**m** 20'19 1°49'05 opposition -7100 Jul 18 j 07:47 -7107 Oct 14 j 04:45 conjunction 1°**m**) 19'05 5°29'26 direct 13° Mp 04'27 -7107 Oct 14 j 04:59 -7100 Oct 12 j 10:52 minimum elong 1°**M**)19′06 5°29'43 evening set 14° m/45'10 -7107 Oct 16 j 11:59 max. Earth dist. 1° Mg 24'04 32.90659 AU -7100 Oct 27 j 14:12 morning rise -7107 Oct 28 j 09:48 1° Mp 49'40 conjunction 15° mg 15'51 1°26'00 -7100 Oct 27 j 14:16 retrograde -7106 Jan 26 j 17:25 3° Mp 42'02 minimum elong 15° m 15'51 1°26'10 min. Earth dist. -7106 Apr 15 j 05:38 2°Mp26'29 31.01642 AU max. Earth dist. -7100 Oct 30 j 09:29 15° m 21'35 34.43674 AU opposition -7106 Apr 17 j 14:06 2° m/22'52 5°31'43 morning rise -7100 Nov 11 j 19:44 15° Mp 46'43 -7106 Jul 06 j 08:11 direct 1° Mp 04'28 retrograde -7099 Feb 09 j 04:01 17° m 30'39 -7106 Oct 02 j 02:46 evening set 2° m 53'04 min. Earth dist. -7099 Apr 28 j 23:09 16° Mp 18'05 32.55265 AU opposition -7099 May 01 j 19:33 16° Mp 13'53 1°13'06 conjunction -7106 Oct 16 j 11:20 3° m 23'42 4°54'10 direct -7099 Jul 20 j 15:17 14° m 58'24 minimum elong -7106 Oct 16 j 11:33 3° m 23'43 4°54'26 evening set -7099 Oct 14 j 11:49 16° m 38'01 max. Earth dist. -7106 Oct 18 j 20:04 3° m 28'48 33.11142 AU morning rise -7106 Oct 30 j 21:53 3° m 54'31 conjunction -7099 Oct 29 j 16:09 17° Mp 08'31 0°52'20 retrograde -7105 Jan 29 j 00:56 5° m 45'29 minimum elong -7099 Oct 29 j 16:11 17° m 08'32 0°52'30 min. Earth dist. -7105 Apr 17 j 13:12 4° Mp 30'25 31.22251 AU max. Earth dist. -7099 Nov 01 j 12:29 17° Mp 14'18 34.66943 AU opposition -7105 Apr 20 j 00:03 4° m 26'41 4°54'04 morning rise -7099 Nov 13 j 23:04 17° m 39'14 direct -7105 Jul 08 j 16:20 3° m 08'44 retrograde -7098 Feb 11 i 05:34 19° m 22'12 evening set -7105 Oct 04 j 04:04 4° m 55'50 min. Earth dist. -7098 May 01 i 02:25 18° m 10'00 32.78694 AU opposition -7098 May 04 j 00:18 18° m 05'44 0°37'34 conjunction -7105 Oct 18 j 17:24 5° m 26'38 4°18'58 -7098 Jul 22 j 19:25 16° m 50'37 direct -7105 Oct 18 j 17:35 5° m 26'39 4°19'13 evening set -7098 Oct 16 j 12:34 18° m 29'11 minimum elong -7105 Oct 21 j 05:14 5° m 31'57 33.32213 AU max. Earth dist. -7105 Nov 02 j 08:30 -7098 Oct 31 j 17:45 18° m 59'30 0°19'06 5° m 57'34 conjunction morning rise -7104 Jan 31 j 06:37 -7098 Oct 31 j 17:46 7° Tp 47'14 18° m 59'30 0°19'14 retrograde minimum elong 6° Mp 32'35 31.43410 AU -7104 Apr 18 j 21:01 -7098 Nov 03 j 16:29 19° M 05'26 34.90586 AU min. Earth dist. max. Earth dist. -7104 Apr 21 j 09:12 6° m 28'48 4°16'34 -7098 Nov 16 j 01:14 morning rise 19° m 30'01 opposition -7104 Jul 10 j 01:22 -7097 Feb 13 j 05:28 5° m 11'17 retrograde 21° m 12'04 direct -7097 May 03 j 05:07 -7104 Oct 05 j 05:38 6° m 57'00 min. Earth dist. 20° 100'13 33.02516 AU evening set -7097 May 06 j 04:09 19° m 55'54 0°02'30 opposition -7104 Oct 19 j 22:46 7° m/27'52 3°43'54 -7097 Jun 01 j 12:14 19° m 19'08 conjunction desc. node  $7^{\circ}$  To 27'52  $3^{\circ}44'07$ -7104 Oct 19 j 22:56 -7097 Jul 25 j 00:23 18° m/41'10 minimum elong direct -7104 Oct 22 j 11:22 7° mp 33'12 33.53773 AU -7097 Oct 18 j 13:19 20° m 18'46 max. Earth dist. evening set morning rise -7104 Nov 03 j 18:02 7° m 58'54 retrograde -7103 Feb 01 j 13:44 9°m/47'18 conjunction -7097 Nov 02 j 18:34 20° m/48'50 -0°13'46 min. Earth dist. -7103 Apr 21 j 02:36 8° m/33'09 31.65051 AU minimum elong -7097 Nov 02 j 18:34 20° m/48'50 0°13'39 -7103 Apr 23 j 17:27 8° m 29'13 3°39'15 behind sun begin -7097 Nov 02 j 14:59 20° Mp 48'34 opposition -7103 Jul 12 j 08:22 7° m 12'09 behind sun end -7097 Nov 02 j 22:08 20° m/49'07 direct -7103 Oct 07 j 07:04 8° m 56'31 max. Earth dist. -7097 Nov 05 j 17:51 20° m 54'46 35.14617 AU evening set -7097 Nov 18 j 02:29 21°M 19'08 morning rise -7103 Oct 22 j 03:37 9° m/27'25 3°09'01 -7096 Feb 15 j 07:47 23° M 00'20 conjunction retrograde -7103 Oct 22 i 03:45 minimum elong 9° m 27'26 3°09'14 min. Earth dist. -7096 May 04 i 06:03 21° m 48'55 33.26756 AU 9° m 32'56 33.75747 AU max. Earth dist. -7103 Oct 24 i 18:49 opposition -7096 May 07 i 07:20 21° m 44'29 -0°32'03 morning rise -7103 Nov 06 j 02:13 9° m 58'29 direct -7096 Jul 26 i 02:00 20° m 30'07 retrograde -7102 Feb 03 i 18:43 11° m 45'42 evening set -7096 Oct 19 j 13:51 22° m 06'50 min. Earth dist. -7102 Apr 23 j 09:48 10° 10° 10° 31'55 31.87095 AU -7102 Apr 26 j 01:13 10° m 27'58 3°02'12 -7096 Nov 03 i 18:55 22° m 36'38 -0°46'06 opposition conjunction -7102 Jul 14 j 17:15 9° m 11'19 -7096 Nov 03 i 18:54 22° m 36'38 0°45'59 direct minimum elong -7102 Oct 09 j 08:24 10° m 54'25 -7096 Nov 06 j 20:45 22° m 42'43 35.39029 AU evening set max. Earth dist. -7096 Nov 19 j 02:29 morning rise 23° m 06'39 conjunction -7102 Oct 24 j 07:44 11° m/25'17 2°34'22 retrograde -7095 Feb 16 j 08:34 24° m 47'04 minimum elong -7102 Oct 24 j 07:50 11° m 25'18 2°34'34 min. Earth dist. -7095 May 06 j 08:04 23° m 35'59 33.51380 AU -7102 Oct 26 j 23:41 11°Mp30'49 33.98083 AU opposition -7095 May 09 j 09:49 23° m 31'34 -1°06'04 max. Earth dist. -7102 Nov 08 j 09:14 -7095 Jul 28 j 03:55 22° m 17'36 morning rise 11° m 56'20 direct -7101 Feb 06 j 00:37 -7095 Oct 21 j 14:18 retrograde 13° m 42'24 evening set 23° m 53'28 12° Mp 29'05 32.09490 AU min. Earth dist. -7101 Apr 25 j 14:13 -7095 Nov 05 j 18:40 opposition -7101 Apr 28 j 08:08 12° m 25'00 2°25'28 conjunction 24° m 22'59 -1°17'57 direct -7101 Jul 17 j 01:20 11° Mp 08'45 minimum elong -7095 Nov 05 j 18:37 24° m/22'59 1°17'51 evening set -7101 Oct 11 j 09:46 12° m 50'38 max. Earth dist. -7095 Nov 08 j 21:01 24° m 29'03 35.63809 AU morning rise -7095 Nov 21 j 01:36 24° m 52'42 conjunction -7101 Oct 26 j 11:18 13° m 21'26 2°00'01 retrograde -7094 Feb 18 j 10:07 26° m 32'22 minimum elong -7101 Oct 26 j 11:23 13° Mp 21'27 -7094 May 08 j 07:31 25° m 21'46 33.76361 AU 2°00'13 min. Earth dist.

max. Earth dist.

-7101 Oct 29 j 05:03

13°M27'05 34.20720 AU

opposition

-7094 May 11 j 11:42

25° m 17'13 -1°39'30

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 23 Attention, astronomical year style is used: The year -7094 in astronomical counting style is the year 7095 BCE in historical counting style. -7094 Jul 30 i 04:33 24° m 03'39 minimum elong -7088 Nov 17 i 03:24 6°**£**10'28 4°45'38 direct -7094 Oct 23 j 14:35 25° m 38'45 -7088 Nov 20 j 11:04 6°**2**16'37 37.41647 AU max Earth dist evening set -7088 Dec 01 j 18:45 6°**£**37'27 morning rise 26° m 07'56 -1°49'17 -7094 Nov 07 j 17:48 -7087 Mar 01 j 17:10 8° £13'07 conjunction retrograde 26° Mp 07'56 1°49'12 7°**2**04'51 35.55133 AU -7094 Nov 07 j 17:44 -7087 May 20 j 00:16 minimum elong min. Earth dist. -7094 Nov 10 j 21:56 max. Earth dist. 26° Mp 14'06 35.88886 AU opposition -7087 May 23 j 08:31 7°**2**00'13 -5°16'31 -7094 Nov 22 j 23:43 morning rise 26° Mp 37'21 direct -7087 Aug 11 j 04:21 5°**£**49'09 retrograde -7093 Feb 20 j 09:05 28° m 16'19 evening set -7087 Nov 04 j 14:33 7°**₽**20'01  $27^{\circ}$  Mp 06'03 34.01633 AU min. Earth dist. -7093 May 10 j 08:48 7°**2**46'19 -5°13'01 opposition -7093 May 13 j 13:07 27° m 01'31 -2°12'22 conjunction -7087 Nov 18 j 23:28 direct -7093 Aug 01 j 07:03 25° m 48'21 minimum elong -7087 Nov 18 j 23:18 7°**2**46'18 5°13'02 evening set -7093 Oct 25 j 14:51 27° m 22'44 max. Earth dist. -7087 Nov 22 j 07:48 7°**♀**52'29 37.67031 AU morning rise -7087 Dec 03 j 11:04 8°**£**12'49 conjunction -7093 Nov 09 j 16:40 27° m 51'34 -2°20'05 retrograde -7086 Mar 03 j 13:16 9°**£**48'03 minimum elong -7093 Nov 09 j 16:35 27° m 51'34 2°20'01 min. Earth dist. -7086 May 21 j 22:06 8°**೨**39'59 35.80679 AU max. Earth dist. -7093 Nov 12 j 21:49 27° Mp 57'47 36.14204 AU opposition -7086 May 25 j 05:55 8°**2**35'24 -5°44'58 morning rise -7093 Nov 24 j 20:59  $28^{\circ}$  Mp 20'38direct -7086 Aug 13 j 02:27 7°**£**24'39 retrograde -7092 Feb 22 j 07:08 29° m 58'57 evening set -7086 Nov 06 j 13:50 8°**£**55'02 min. Earth dist. -7092 May 11 j 07:53 28° Mp 49'06 34.27105 AU opposition -7092 May 14 j 13:34 28° mp 44'31 -2°44'37 conjunction -7086 Nov 20 j 18:56 9° 20'51 -5°39'46 direct -7092 Aug 02 j 09:52 27° m 31'44 minimum elong -7086 Nov 20 j 18:45 9°**£**20′50 5°39'48 evening set -7092 Oct 26 i 15:10 29° m 05'26 max. Earth dist. -7086 Nov 24 i 04:00 9°**2**27'02 37.92434 AU morning rise -7086 Dec 05 i 02:26 9°**£**46'52 conjunction -7092 Nov 10 j 14:54 29° m 33'55 -2°50'20 retrograde -7085 Mar 05 i 07:12 11°**£**21'41 -7092 Nov 10 j 14:48 29° m 33'55 2°50'16 min. Earth dist. -7085 May 23 j 17:54 10° **2**13'55 36.06253 AU minimum elong max. Earth dist. -7092 Nov 13 j 20:29 29° Mp 40'07 36.39660 AU -7085 May 27 j 02:37 10°**♀**09'19 -6°12'45 opposition -7092 Nov 24 j 08:03 0∘**⊽** -7085 Aug 15 j 01:25 8°**£**58'51 direct -7092 Nov 25 j 17:28 0°**£**02'36 -7085 Nov 08 j 13:13 10°**£**28′50 morning rise evening set -7091 Feb 23 j 05:38 1°**-**40′21 retrograde -7091 May 13 j 07:30 -7085 Nov 22 j 13:56 10°**♀**54'09 -6°05'55 min. Earth dist. 0°**♀**30'50 34.52713 AU conjunction -7091 May 16 j 13:46 0°**2**26'14 -3°16'16 minimum elong -7085 Nov 22 j 13:44 10°**2**54'08 6°05'58 opposition -7091 Jun 04 j 13:49 -7085 Nov 25 j 22:58 11°**≏**00'17 30°R, Mp max. Earth dist. 38.17873 AU 29° m 13'51 direct -7091 Aug 04 j 09:48 -7085 Dec 06 j 17:18 11°**≏**19'39 morning rise -7091 Oct 01 j 01:13 -7084 Mar 06 j 01:36 0∘**⊽** retrograde 12°**£**54'06 -7091 Oct 28 j 15:08 -7084 May 24 j 13:30 evening set 0°**Ω**46'55 min. Earth dist. 11°**≏**46'38 36.31908 AU -7084 May 27 j 22:45 opposition 11°**£**42'01 -6°39'51 -7091 Nov 12 j 12:43 1° 214'59 -3°20'01 conjunction direct -7084 Aug 15 j 21:30 10°**£**31'51 minimum elong -7091 Nov 12 j 12:36 1°**2**14'59 3°19'59 evening set -7084 Nov 09 j 12:16 12°**2**01'28 max. Earth dist. -7091 Nov 15 j 19:49 1°**£**21'15 36.65195 AU -7091 Nov 27 j 12:49 1°**£**43'17 conjunction -7084 Nov 23 j 08:36 12°**2**26'16 -6°31'27 morning rise retrograde -7090 Feb 25 j 01:01 3°**£**20′28 minimum elong -7084 Nov 23 j 08:24 12°**2**26'16 6°31'29 -7090 May 15 j 06:53 2°**2**11'17 34.78359 AU max. Earth dist. -7084 Nov 26 j 19:13 12°**2**32'29 38.43389 AU min. Earth dist. -7090 May 18 j 13:21 2°**2**06'41 -3°47'17 -7084 Dec 07 j 07:13 12°**♀**51'16 opposition morning rise -7090 Aug 06 j 10:53 0°**£**54'40 -7083 Mar 07 j 17:52 14°**≏**25'25 direct retrograde -7090 Oct 30 j 15:18 2°**£**27'08 -7083 May 26 j 09:12 13°**≙**18'13 36.57630 AU evening set min. Earth dist. opposition -7083 May 29 j 18:28 13°**£**13'36 -7°06'18 -7090 Nov 14 j 10:07 2°**2**54'47 -3°49'09 conjunction direct -7083 Aug 17 i 18:42 12°**♀**03'46 minimum elong -7090 Nov 14 i 09:59 2°**£**54'47 3°49'06 evening set -7083 Nov 11 j 11:10 13°**♀**33'04 max. Earth dist. -7090 Nov 17 j 16:35 3°**2**00'58 36.90730 AU -7090 Nov 29 i 07:43 3°**£**22'40 -7083 Nov 25 i 02:34 13°**£**57'20 -6°56'21 morning rise conjunction -7089 Feb 26 i 23:22 4°**£**59'19 -7083 Nov 25 i 02:22 13°**£**57'20 6°56'25 retrograde minimum elong -7089 May 17 j 04:45 3°**2**50'29 35.04004 AU -7083 Nov 28 j 12:41 14°**2**03'29 38.68970 AU min. Earth dist. max. Earth dist. -7089 May 20 j 12:19 3°**£**45'51 -4°17'40 -7083 Dec 08 j 20:26 14°**£**21'48 opposition morning rise direct -7089 Aug 08 j 08:24 2°**2**34'10 retrograde -7082 Mar 09 j 13:38 15°**Ω**55'41 evening set -7089 Nov 01 j 15:13 4°**£**06'04 min. Earth dist. -7082 May 28 j 03:09 14°**£**48'50 36.83420 AU -7082 May 31 j 13:47 14°**△**44'11 -7°32'04 opposition conjunction -7089 Nov 16 j 07:10 4° 233'18 -4°17'41 -7082 Aug 19 j 11:56 13°**£**34'40 direct -7089 Nov 16 j 07:01 4° 233'17 4°17'40 -7082 Nov 13 j 10:00 15°**2**03'41 minimum elong evening set -7089 Nov 19 j 15:03 4°**೨**39'31 37.16218 AU max. Earth dist. -7082 Nov 26 j 20:24 morning rise -7089 Dec 01 j 01:42 5°**♀**00'44 conjunction 15°**£**27'26 -7°20'38 retrograde -7088 Feb 28 j 19:56 6°**£**36'53 minimum elong -7082 Nov 26 j 20:11 15°**≏**27'25 7°20'42 min. Earth dist. -7088 May 18 j 03:58 5°**♀**28'16 35.29591 AU max. Earth dist. -7082 Nov 30 j 07:52 15°**£**33'37 38.94584 AU opposition -7088 May 21 j 10:47 5°**£**23'42 -4°47'25 morning rise -7082 Dec 10 j 09:08 15°**£**51'22 direct -7088 Aug 09 j 06:27 4°£12'21 retrograde -7081 Mar 11 j 07:53 17°**£**25′00

evening set

conjunction

-7088 Nov 02 j 14:57

-7088 Nov 17 j 03:34

5°**£**43'42

6° 210'28 -4° 45'39

min. Earth dist.

opposition

direct

-7081 May 29 j 22:49

-7081 Jun 02 j 08:35

-7081 Aug 21 j 05:48

16° **2**18'24 37.09225 AU

16° **△**13'49 -7°57'10

15°**≏**04'38

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24 Attention, astronomical year style is used: The year -7081 in astronomical counting style is the year 7082 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	e year -7081 i	n astronomical cou	nting style is the year	7082 BCE in historical c	ounting style.	
evening set	-7081 Nov 15 j 08:46	16° <b>≏</b> 33'24		min. Earth dist.	-7074 Jun 09 j 00:51	26° <b>ჲ</b> 20'55	38.85235 AU
				opposition	-7074 Jun 12 j 08:51	26° <b>≏</b> 16'33	-10°35'05
conjunction	-7081 Nov 28 j 13:54	16° <b>≙</b> 56'37		direct	-7074 Aug 31 j 08:01	25° <b>ჲ</b> 09'18	
minimum elong	-7081 Nov 28 j 13:40	16° <b>≏</b> 56'36	7°44'25	evening set	-7074 Nov 26 j 22:01	26° <b>₽</b> 37'02	
max. Earth dist.	-7081 Dec 02 j 01:10		39.20188 AU				
morning rise	-7081 Dec 11 j 21:09	17° <b>≏</b> 20'00		conjunction	-7074 Dec 08 j 06:54	26° <b>≏</b> 56'11	
retrograde	-7080 Mar 12 j 02:17	18° <b>≏</b> 53'26		minimum elong	-7074 Dec 08 j 06:41	26° <b>≏</b> 56'10	
min. Earth dist.	-7080 May 30 j 16:07		37.34981 AU	max. Earth dist.	-7074 Dec 11 j 17:12		40.93991 AU
opposition	-7080 Jun 03 j 02:54	17° <b>≙</b> 42'33	-8°21'36	morning rise	-7074 Dec 19 j 17:17	27° <b>≏</b> 15′27	
direct	-7080 Aug 22 j 00:27	16° <b>≙</b> 33'41		retrograde	-7073 Mar 22 j 16:40	28° <b>≏</b> 47'59	
evening set	-7080 Nov 16 j 07:29	18° <b>≏</b> 02'16		min. Earth dist.	-7073 Jun 10 j 15:49		39.09445 AU
	#0003Y 00:06 #0	10000455	0005100	opposition	-7073 Jun 14 j 00:11	27° <b>△</b> 38'53	-10°55'11
conjunction	-7080 Nov 29 j 06:52	18° <b>£</b> 24'55		direct	-7073 Sep 02 j 00:51	26° <b>Ω</b> 31'50	
minimum elong	-7080 Nov 29 j 06:39	18° <b>£</b> 24'54		evening set	-7073 Nov 28 j 20:07	27° <b>≏</b> 59'31	
max. Earth dist.	-7080 Dec 02 j 18:15		39.45691 AU		7072 D 00 : 21.20	200 0 10102	10022141
morning rise	-7080 Dec 12 j 08:35	18° <b>£</b> 47'45		conjunction minimum elong	-7073 Dec 09 j 21:36	28° <b>£</b> 18'03 28° <b>£</b> 18'02	
retrograde min. Earth dist.	-7079 Mar 13 j 20:11 -7079 Jun 01 j 10:46	20° <b>£</b> 21'01	37.60625 AU	max. Earth dist.	-7073 Dec 09 j 21:21 -7073 Dec 13 j 07:15		41.17915 AU
opposition	-7079 Jun 04 j 20:56	19 <b>≗</b> 13 00		morning rise	-7073 Dec 13 j 07:13	28° <b>2</b> 36'41	41.1/913 AU
direct	-7079 Aug 23 j 18:31	19 <b>=</b> 10 20 18° <b>⊆</b> 01'54	-0 43 24	morning rise	-7072 Feb 24 j 20:48	28 <b>=</b> 30 41 0° <b>M</b>	
evening set	-7079 Nov 18 j 06:04	18 <b>⊆</b> 01 34 19° <b>⊆</b> 30'17		retrograde	-7072 Mar 23 j 07:04	0°M09'11	
evening set	-7077 NOV 10 J 00.04	17 -30 17		retrograde	-7072 Mar 23 j 07:04 -7072 Apr 19 j 23:05	30°R <u>Ω</u>	
conjunction	-7079 Nov 30 j 23:47	19° <b>≏</b> 52'24	-8°29'52	min. Earth dist.	-7072 Jun 11 j 07:12	•	39.33529 AU
minimum elong	-7079 Nov 30 j 23:33	19° <b>⊆</b> 52'23		opposition	-7072 Jun 14 j 15:21	29° <b>⊆</b> 00'17	
max. Earth dist.	-7079 Dec 04 j 11:36		39.71051 AU	direct	-7072 Sep 02 j 16:35	27° <b>♀</b> 53'27	11 11 10
morning rise	-7079 Dec 13 j 19:25	20° <b>£</b> 14'39		evening set	-7072 Nov 29 j 17:55	29° <b>₽</b> 21'06	
retrograde	-7078 Mar 15 j 10:56	21° <b>£</b> 47'46			, , , , , , , , , , , , , , , , , , ,	_,,	
min. Earth dist.	-7078 Jun 03 j 04:32		37.86076 AU	conjunction	-7072 Dec 10 j 12:02	29° <b>ჲ</b> 39'00	-10°51'08
opposition	-7078 Jun 06 j 14:28	20° <b>≏</b> 37'29		minimum elong	-7072 Dec 10 j 11:48	29° <b>≏</b> 38'59	
direct	-7078 Aug 25 j 14:12	19° <b>≙</b> 29'14		max. Earth dist.	-7072 Dec 13 j 22:36	29° <b>≏</b> 44'45	41.41728 AU
evening set	-7078 Nov 20 j 04:45	20° <b>≏</b> 57'28		morning rise	-7072 Dec 21 j 07:27	29° <b>≙</b> 57'00	
_	-			-	-7072 Dec 23 j 03:03	$0^{\circ}$ M	
conjunction	-7078 Dec 02 j 16:13	21° <b>≏</b> 19'00	-8°51'46	retrograde	-7071 Mar 24 j 18:04	1°M29'29	
minimum elong	-7078 Dec 02 j 16:00	21° <b>≏</b> 18'59	8°51'53	min. Earth dist.	-7071 Jun 12 j 22:25	0°M25'07	39.57495 AU
max. Earth dist.	-7078 Dec 06 j 02:53	21° <b>≏</b> 24'59	39.96181 AU	opposition	-7071 Jun 16 j 06:05	0°M20'48	-11°33'32
morning rise	-7078 Dec 15 j 05:50	21° <b>≏</b> 40'41			-7071 Jul 02 j 13:33	30° <b>₹</b> Ω	
retrograde	-7077 Mar 17 j 02:33	23° <b>≙</b> 13'40		direct	-7071 Sep 04 j 09:48	29° <b>≏</b> 14'12	
min. Earth dist.	-7077 Jun 04 j 21:46		38.11287 AU		-7071 Nov 04 j 09:29	$0^{\circ}$ M	
opposition	-7077 Jun 08 j 07:44	22° <b>ჲ</b> 03'39	-9°31'06	evening set	-7071 Dec 01 j 15:51	0° <b>M</b> 41′50	
direct	-7077 Aug 27 j 07:43	20° <b>£</b> 55'42					
evening set	-7077 Nov 22 j 03:17	22° <b>≏</b> 23'47		conjunction	-7071 Dec 12 j 02:06	0° <b>™</b> 59'06	
				minimum elong	-7071 Dec 12 j 01:51	0° <b>™</b> 59'05	11°09'14
conjunction	-7077 Dec 04 j 08:34	22° <b>≏</b> 44'44		max. Earth dist.	-7071 Dec 15 j 11:35		41.65446 AU
minimum elong	-7077 Dec 04 j 08:20	22° <b>£</b> 44'43	9°13'14	morning rise	-7071 Dec 22 j 13:43	1°M16'29	
max. Earth dist.	-7077 Dec 07 j 19:56		40.21035 AU	retrograde	-7070 Mar 26 j 07:53	2°M48'58	20.01255 444
morning rise	-7077 Dec 16 j 15:42	23° <b>Ω</b> 05'49		min. Earth dist.	-7070 Jun 14 j 12:07		39.81377 AU
retrograde min. Earth dist.	-7076 Mar 17 j 17:18	24° <b>£</b> 38'41	38.36200 AU	opposition direct	-7070 Jun 17 j 20:29	1°M40'31 0°M34'09	-11°51′48
opposition	-7076 Jun 05 j 15:46 -7076 Jun 09 j 00:25	23° <b>£</b> 28'55		evening set	-7070 Sep 06 j 00:13 -7070 Dec 03 j 13:35	2°M01'49	
direct	-7076 Aug 28 j 01:23	23 <b>≗</b> 28 33 22° <b>£</b> 21'13	-9 33 02	evening set	-7070 Dec 03 J 13.33	Z 11601 49	
evening set	-7076 Nov 23 j 01:45	22 <b>=</b> 21 13 23° <b>£</b> 49'10		conjunction	-7070 Dec 13 j 15:57	2° <b>M</b> .18'27	1102621
evening set	-7070 NOV 23 J 01.43	23 ==4910		minimum elong	-7070 Dec 13 j 15:37	2°M18'26	11°26'34
conjunction	-7076 Dec 05 j 00:24	24° <b>≏</b> 09'31	-0°33'51	max. Earth dist.	-7070 Dec 13 j 13:44 -7070 Dec 17 j 02:20		41.89059 AU
minimum elong	-7076 Dec 05 j 00:10	24° <b>⊆</b> 09'30		morning rise	-7070 Dec 23 j 19:34	2°M35'11	41.07037710
max. Earth dist.	-7076 Dec 08 j 10:26		40.45603 AU	retrograde	-7069 Mar 27 j 22:23	4°M07'42	
morning rise	-7076 Dec 17 j 00:51	24° <b>⊆</b> 30'01	40.43003710	min. Earth dist.	-7069 Jun 16 j 03:33		40.05131 AU
retrograde	-7075 Mar 19 j 10:25	26° <b>♀</b> 02'45		opposition	-7069 Jun 19 j 10:41	2°M59'30	
min. Earth dist.	-7075 Jun 07 j 07:26		38.60837 AU	direct	-7069 Sep 07 j 13:35	1°M53'22	0, 2,
opposition	-7075 Jun 10 j 16:46	24° <b>⊆</b> 53'14		evening set	-7069 Dec 05 j 11:29	3°M21'06	
direct	-7075 Aug 29 j 16:10	23° <b>£</b> 45'45	· · · · · · · · · · · · · · · · · · ·			- 110-21 00	
evening set	-7075 Nov 24 j 23:51	25° <b>£</b> 13'35		conjunction	-7069 Dec 15 j 05:37	3°M37'05	-11°43'07
	<b>, _ ,</b>	. —		minimum elong	-7069 Dec 15 j 05:23	3°M37'04	11°43'20
conjunction	-7075 Dec 06 j 15:42	25° <b>≏</b> 33'21	-9°54'02	max. Earth dist.	-7069 Dec 18 j 15:18		42.12536 AU
minimum elong	-7075 Dec 06 j 15:28	25° <b>£</b> 33'19		morning rise	-7069 Dec 25 j 00:47	3°M53'10	
max. Earth dist.	-7075 Dec 10 j 02:03		40.69899 AU	retrograde	-7068 Mar 28 j 12:43	5°M25'45	
morning rise	-7075 Dec 18 j 09:22	25° <b>£</b> 53'14	. ~	min. Earth dist.	-7068 Jun 16 j 16:34		40.28717 AU
retrograde	-7074 Mar 21 j 02:08	27° <b>♀</b> 25'52		opposition	-7068 Jun 20 j 00:16	4° <b>™</b> 17'48	
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Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7068 in astronomical counting style is the year 7069 BCE in historical counting style. direct -7068 Sep 08 i 02:16 3°M11'55 retrograde -7061 Apr 07 j 03:04 14°ML15'05 -7068 Dec 06 j 09:19 4°M39'45 min. Earth dist. -7061 Jun 26 j 14:46 13°ML12'31 41.84986 AU evening set opposition -7061 Jun 29 j 16:53 13°ML08'39 -14°11'18 -7068 Dec 15 j 18:55 4°ML55'05 -11°59'21 -7061 Sep 17 j 21:35 direct 12°M04'13 conjunction -7068 Dec 15 j 18:41 4°ML55'04 11°59'36 -7061 Dec 18 j 21:28 minimum elong evening set 13°M33'27 -7068 Dec 19 j 04:07 max. Earth dist. 5°ML00'37 42.35813 AU -7061 Dec 25 j 10:13 morning rise -7068 Dec 25 j 05:38 5°M10'29 conjunction 13°M43'45 -13°38'59 -7061 Dec 25 j 10:01 retrograde -7067 Mar 30 j 02:35 6°M43'11 minimum elong 13°M43'44 13°39'17 min. Earth dist. -7067 Jun 18 j 07:17 5°M39'40 40.52089 AU max. Earth dist. -7061 Dec 28 j 14:26 13°M48'46 43.89551 AU opposition -7067 Jun 21 j 13:53 5°M35'29 -12°43'06 morning rise -7061 Dec 31 j 23:21 13°M54'05 direct -7067 Sep 09 j 15:45 4°M29'51 -7060 Feb 17 j 14:04 15°M -7067 Dec 08 j 07:06 -7060 Apr 07 j 12:57 evening set 5°M57'49 retrograde 15°M28'07 -7060 May 28 j 14:48 15°RM -7067 Dec 17 j 08:03 conjunction 6°M12'29 -12°15'04 min. Earth dist. -7060 Jun 27 j 02:38 14°M25'42 42.06003 AU minimum elong -7067 Dec 17 j 07:49 6°M12'28 12°15'18 opposition -7060 Jun 30 j 04:18 14°M21'52 -14°24'13 max. Earth dist. -7067 Dec 20 j 17:31 6°M18'00 42.58848 AU direct -7060 Sep 18 j 10:32 13°M17'36 morning rise -7067 Dec 26 j 09:48  $6^{\circ}$ M27'12 evening set -7060 Dec 19 j 20:37 14°ML47'11 retrograde -7066 Mar 31 j 13:19  $8^{\circ}$ M.00'02min. Earth dist. -7066 Jun 19 j 21:10 6°M56'43 40.75163 AU conjunction -7060 Dec 25 j 21:44 14°M56'41 -13°51'17 opposition -7066 Jun 23 j 03:06 6°ML52'35 -12°59'05 minimum elong -7060 Dec 25 j 21:32 14°M56'40 13°51'35 direct -7066 Sep 11 j 07:27 5°M47'11 -7060 Dec 28 j 00:23 evening set -7066 Dec 10 i 05:15 7°M15'18 max. Earth dist. -7060 Dec 29 i 02:40 15°M01'43 44.10277 AU morning rise -7060 Dec 31 i 23:01 15°ML06'11 conjunction -7066 Dec 18 j 21:02 7°M29'17 -12°30'16 retrograde -7059 Apr 08 j 21:26 16°M40'33 -7066 Dec 18 j 20:48 7°M29'16 12°30'31 min. Earth dist. -7059 Jun 28 i 15:01 15°MJ38'15 42.26802 AU minimum elong -7066 Dec 22 j 04:49 7°M34'40 42.81554 AU -7059 Jul 01 j 15:32 15°MJ34'29 -14°36'37 max. Earth dist. opposition -7066 Dec 27 j 13:42 -7059 Jul 30 j 19:45 morning rise 7°M.43'19 15°RM. -7065 Apr 02 j 02:22 -7059 Sep 20 j 00:27 14°MJ30'25 retrograde 9°M.16'18 direct -7065 Jun 21 j 10:23 8°M13'11 40.97894 AU -7059 Nov 08 j 15:40 min. Earth dist. 15°M. -7065 Jun 24 j 15:59 8°ML09'05 -13°14'32 -7059 Dec 21 j 20:19 evening set 16°ML00'23 opposition -7065 Sep 12 j 20:25 7°M03'54 direct -7065 Dec 12 j 03:23 -7059 Dec 27 j 08:50 16°ML09'01 -14°03'05 8°M32'12 conjunction evening set -7059 Dec 27 j 08:39 minimum elong 16°M09'00 14°03'23 -7059 Dec 30 j 12:27 -7065 Dec 20 j 09:54 8°M45'29 -12°44'58 max. Earth dist. 16°ML13'57 44.30811 AU conjunction -7065 Dec 20 j 09:41 -7058 Jan 01 j 21:30 minimum elong 8°M45'28 12°45'13 morning rise 16°**™**17'40 -7065 Dec 23 j 17:49 -7058 Apr 10 j 09:00 max. Earth dist. 8°M50'51 43.03885 AU retrograde 17°ML52'25 -7065 Dec 28 j 17:06 -7058 Jun 30 j 01:24 morning rise 8°M58'50 min. Earth dist. 16°M50'20 42.47409 AU retrograde -7064 Apr 02 j 13:26 10°M31'58 opposition -7058 Jul 03 j 02:30 16°M46'33 -14°48'31 min. Earth dist. -7064 Jun 22 j 00:52 9°M28'58 41.20220 AU direct -7058 Sep 21 j 11:04 15°M42'39 -7064 Jun 25 j 04:42 9°M24'58 -13°29'29 evening set -7058 Dec 23 j 20:46 17°M13'06 opposition direct -7064 Sep 13 j 10:33  $8^{\circ}$ M20'00 -7064 Dec 13 j 01:38 9°M48'29 -7058 Dec 28 j 19:53 17°M20'49 -14°14'25 evening set conjunction -7058 Dec 28 j 19:42 17°M20'48 14°14'44 minimum elong -7064 Dec 20 j 22:20 10°ML01'03 -12°59'12 max. Earth dist. -7058 Dec 31 j 23:31 17°M25'43 44.51144 AU conjunction -7064 Dec 20 j 22:07 10°M01'03 12°59'28 -7057 Jan 02 j 19:04 minimum elong morning rise 17°M28'33 -7064 Dec 24 i 04:41 max. Earth dist. 10°ML06'18 43.25822 AU retrograde -7057 Apr 11 j 21:19 19°M03'46 -7064 Dec 28 i 19:35 morning rise 10°M13'41 min. Earth dist. -7057 Jul 01 i 13:43 18° ML01'48 42.67808 AU retrograde -7063 Apr 04 i 03:21 11°ML47'00 opposition -7057 Jul 04 i 13:12 17°M58'06 -14°59'56 min. Earth dist. -7063 Jun 23 j 13:05 10°M.44'12 41.42150 AU direct -7057 Sep 22 i 20:31 16°M54'24 -7063 Jun 26 i 17:03 10°M40'12 -13°43'56 evening set -7057 Dec 25 j 22:36 18°M25'25 opposition -7063 Sep 14 j 21:32 9°M35'26 direct -7063 Dec 14 j 23:58 11°M04'07 -7057 Dec 30 i 06:51 18°ML32'09 -14°25'17 evening set conjunction -7057 Dec 30 j 06:42 minimum elong 18°M.32'08 14°25'36 -7056 Jan 02 j 10:01 conjunction -7063 Dec 22 j 10:31 11°ML15'58 -13°12'57 max. Earth dist. 18°M37'00 44.71270 AU minimum elong -7063 Dec 22 j 10:18 11°M 15'57 13°13'12 morning rise -7056 Jan 03 j 15:05 18°MJ38'53 max. Earth dist. -7063 Dec 25 j 16:25 11°M21'08 43.47374 AU retrograde -7056 Apr 12 j 09:39 20°M14'38 -7063 Dec 29 j 21:38 11°M27'51 min. Earth dist. -7056 Jul 02 j 00:09 19°**M**12'52 42.87960 AU morning rise -7062 Apr 05 j 17:25 13°M01'23 -7056 Jul 04 j 23:38 19°M09'12 -15°10'51 retrograde opposition -7062 Jun 25 j 02:49 -7056 Sep 23 j 05:37 18°M05'41 min. Earth dist. 11°ML58'39 41.63726 AU direct -7062 Jun 28 j 05:11 -7056 Dec 27 j 01:55 19°M37'24 opposition 11°M54'46 -13°57'52 evening set direct -7062 Sep 16 j 07:31 10°M50'10 evening set -7062 Dec 16 j 22:35 12°M19'06 conjunction -7056 Dec 30 j 17:20 19°M43'02 -14°35'42 minimum elong -7056 Dec 30 j 17:09 19°M43'01 14°36'02 conjunction -7062 Dec 23 j 22:34 12°M30'12 -13°26'12 morning rise -7055 Jan 03 j 08:38 19°M48'39 minimum elong -7062 Dec 23 j 22:22 12°M30'11 13°26'30 max. Earth dist. -7055 Jan 02 j 19:15 19°M47'47 44.91124 AU -7062 Dec 27 j 04:13 12°MJ35'20 43.68606 AU -7055 Apr 13 j 20:59 21°M25'06 max. Earth dist. retrograde -7062 Dec 30 j 22:53 12°M41'19 min. Earth dist. -7055 Jul 03 j 11:30 20°M23'28 43.07828 AU morning rise

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7055 in astronomical counting style is the year 7056 BCE in historical counting style. -7055 Jul 06 j 10:01 20°M19'52 -15°21'19 retrograde -7047 Apr 22 j 19:21 0°**х** 32′08 opposition direct -7055 Sep 24 j 15:14 -7047 Jun 17 j 22:16 30°RML 19°M16'32 -7055 Dec 29 j 08:57 20°M49'12 min. Earth dist. -7047 Jul 12 j 23:33 29°M31'17 44.51661 AU evening set -7047 Jul 15 j 13:09 opposition 29°M28'10 -16°29'55 -7054 Jan 01 j 04:01 -7047 Oct 04 j 03:01 conjunction 20°M53'30 -14°45'40 direct 28°M25'58 -7054 Jan 01 j 03:52 minimum elong 20°M53'29 14°46'01 -7054 Jan 03 j 22:55 -7046 Jan 10 j 10:46 29°M59'55 -15°51'08 morning rise 20°M57'47 conjunction -7054 Jan 04 j 06:06 -7046 Jan 10 j 10:40 max. Earth dist. 20°M.58'15 45.10666 AU minimum elong 29°M59'55 15°51'31 -7046 Jan 10 j 12:05 retrograde -7054 Apr 15 j 03:42 22°M35'09 0°**∡**7 -7046 Jan 13 j 04:16 min. Earth dist. -7054 Jul 04 j 22:56 21°M33'39 43.27331 AU max. Earth dist. 0°**х** 03'59 46.51874 AU opposition -7054 Jul 07 j 20:04 21°M30'06 -15°31'19 retrograde -7046 Apr 24 j 05:49 1°**х** 38′19 -7046 Jul 14 j 07:47 direct -7054 Sep 26 j 04:33  $20^{\circ}$ M $_{2}6'58$ min. Earth dist. 0°**х** 37'36 44.68028 AU -7053 Jan 01 j 00:33 -7046 Jul 16 j 21:31 evening set 22°M01'07 opposition 0°**∡**³34'30 -16°36'38 -7046 Aug 16 j 04:58 30°RM conjunction -7053 Jan 02 j 14:29 22°ML03'32 -14°55'14 direct -7046 Oct 05 j 10:09 29°M32'26 minimum elong -7053 Jan 02 j 14:19 22°M03'32 14°55'34 -7046 Nov 23 j 13:59 0°**⊼** morning rise -7053 Jan 04 j 04:09 22°M05'57 max. Earth dist. -7053 Jan 05 j 14:25 22°MJ08'08 45.29822 AU conjunction -7045 Jan 11 j 19:47 1°**≯**06'05 -15°57'32 23°M44'46 retrograde -7053 Apr 16 j 13:05 minimum elong -7045 Jan 11 j 19:42 1°**≯**06'04 15°57'54 min. Earth dist. -7053 Jul 06 j 09:13 22°M43'26 43.46417 AU max. Earth dist. -7045 Jan 14 j 12:17 1°**≯**10'04 46.68000 AU opposition -7053 Jul 09 j 05:59 22°M39'56 -15°40'55 retrograde -7045 Apr 25 j 16:44 2°**х** 44'07 direct -7053 Sep 27 i 15:44 21°MJ36'57 min. Earth dist. -7045 Jul 15 i 17:37 1° ₹ 43'30 44.84132 AU opposition -7045 Jul 18 i 05:56 1° x 40'29 -16° 42'57 conjunction -7052 Jan 04 i 00:53 23°M13'09 -15°04'24 direct -7045 Oct 06 j 16:05 0°**х** 38′33 minimum elong -7052 Jan 04 i 00:44 23°M13'08 15°04'45 max. Earth dist. -7052 Jan 07 j 00:24 23°M17'41 45.48520 AU -7044 Jan 13 j 04:46 2°**₹**11'54 -16°03'32 conjunction -7052 Apr 16 j 23:23 24°ML53'58 minimum elong -7044 Jan 13 j 04:40 2°**х** 11′54 16°03′56 retrograde -7052 Jul 06 j 21:12 23°M52'40 43.65023 AU max. Earth dist. -7044 Jan 15 j 21:12 2° ₹15'52 46.83862 AU min. Earth dist. -7052 Jul 09 j 15:43 23°M49'17 -15°50'06 -7044 Apr 25 j 23:11 3°**х** 49'37 retrograde opposition -7052 Sep 28 j 01:38 22°M46'28 -7044 Jul 16 j 02:22 2° ₹ 49'07 44.99935 AU direct min. Earth dist. -7044 Jul 18 j 13:57 2°**₹**'46'09 -16°48'52 opposition -7044 Oct 07 j 02:25 -7051 Jan 04 j 11:06 24°M22'16 -15°13'10 1°**х** 44′22 conjunction direct -7051 Jan 04 j 10:56 24°M22'15 15°13'30 minimum elong -7051 Jan 07 j 09:11 -7043 Jan 13 j 13:27 24°M26'42 45.66754 AU 3°**∡**17'27 -16°09'10 max. Earth dist. conjunction -7051 Apr 18 j 09:44 -7043 Jan 13 j 13:23 retrograde 26°M₀02'39 minimum elong 3°**✓**17'26 16°09'34 -7051 Jul 08 j 06:54 -7043 Jan 16 j 03:56 3°**尽**21'17 46.99423 AU min. Earth dist. 25°M01'30 43.83148 AU max. Earth dist. -7051 Jul 11 j 01:12 -7043 Apr 27 j 06:20 4°**х** 54′50 opposition 24°M58'08 -15°58'52 retrograde direct -7051 Sep 29 j 10:40 23°M55'27 min. Earth dist. -7043 Jul 17 j 10:56 3°**≯**54'30 45.15424 AU opposition -7043 Jul 19 j 21:58 3°**∡**751'33 -16°54'23 conjunction -7050 Jan 05 j 20:53 25°M30'51 -15°21'33 direct -7043 Oct 08 j 11:44 2°**х¹**49'55 minimum elong -7050 Jan 05 j 20:45 25°MJ30'51 15°21'55 max. Earth dist. -7050 Jan 08 j 17:25 25°M35'10 45.84513 AU -7042 Jan 14 j 22:07 4°**₹**22'44 -16°14'26 conjunction retrograde -7050 Apr 19 j 20:34 27°M10'49 -7042 Jan 14 j 22:01 4°**₹**22'44 16°14'51 minimum elong min. Earth dist. -7050 Jul 09 j 17:58 26°MJ09'43 44.00826 AU max. Earth dist. -7042 Jan 17 j 12:34 4°**≯**26'34 47.14632 AU -7050 Jul 12 j 10:38  $26^{\circ}$ ML $06'26 - 16^{\circ}07'15$ -7042 Apr 28 j 13:12 5°**₹**'59'50 opposition retrograde -7050 Sep 30 j 19:22 -7042 Jul 18 j 20:56 4° ₹ 59'33 45.30517 AU direct 25°M03'52 min. Earth dist. 4°**х** 56′43 -16°59′33 opposition -7042 Jul 21 i 05:53 -7049 Jan 07 i 06:47 -7042 Oct 09 j 21:38 conjunction 26°M38'54 -15°29'32 direct 3°×755'14 -7049 Jan 07 i 06:39 minimum elong 26°M38'53 15°29'54 max. Earth dist. -7049 Jan 10 i 03:13 26°ML43'11 46.01854 AU -7041 Jan 16 j 06:50 5°**₹**27'47 -16°19'21 conjunction retrograde -7049 Apr 21 i 03:24 28°M18'26 minimum elong -7041 Jan 16 i 06:47 5°**₹**27'47 16°19'46 min. Earth dist. -7049 Jul 11 j 04:03 27°ML17'24 44.18093 AU max. Earth dist. -7041 Jan 18 i 19:29 5° ₹31'30 47.29429 AU retrograde -7049 Jul 13 j 19:33 27°M14'11 -16°15'13 -7041 Apr 29 j 22:23 7°**х** 04'35 opposition -7041 Jul 20 j 04:46 -7049 Oct 02 j 07:00 direct 26°M11'44 min. Earth dist. 6° **₹**04'27 45.45159 AU opposition -7041 Jul 22 j 13:24 6°**∡**101'38 -17°04'22 conjunction -7048 Jan 08 j 16:18 27°M46'23 -15°37'08 direct -7041 Oct 11 j 04:52 5°**х** 00′17 minimum elong -7048 Jan 08 j 16:11 27°M46'23 15°37'31 -7048 Jan 11 j 10:48 -7040 Jan 17 j 15:22 6°**х** 32'34 -16°23'57 max. Earth dist. 27°ML50'33 46.18825 AU conjunction -7048 Apr 21 j 11:56  $29^{\circ}$ ML25'31-7040 Jan 17 j 15:17 retrograde minimum elong 6°**х** 32'34 16°24'21 -7048 Jul 11 j 13:09  $28^{\circ}$ ML24'37 44.35028 AU -7040 Jan 20 j 02:25 min. Earth dist. max. Earth dist. 6°**∡**36'10 47.43742 AU -7040 Apr 30 j 08:57 opposition -7048 Jul 14 j 04:24 28°M21'25 -16°22'46 retrograde 8°**₹**09'04 -7040 Jul 20 j 14:37 direct -7048 Oct 02 j 16:26 27°M19'05 min. Earth dist. 7°**∡**08'57 45.59305 AU opposition -7040 Jul 22 j 21:05 7°**₹**06'16 -17°08'51 conjunction -7047 Jan 09 j 01:32 28°M53'22 -15°44'20 direct -7040 Oct 11 j 10:37 6°**₹**05'01 minimum elong -7047 Jan 09 j 01:26 28°M53'22 15°44'42 max. Earth dist. -7047 Jan 11 j 20:08 28°M57'32 46.35480 AU -7039 Jan 17 j 23:45 7°**∡**37'02 -16°28'13 conjunction -7047 Feb 26 j 22:40 0°×7 -7039 Jan 17 j 23:43 7°**∡**137'02 16°28'38 minimum elong

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-	nical year style is used: Th		•	· · · · · · · · · · · · · · · · · · ·			0 21
max. Earth dist.	-7039 Jan 20 j 10:11	-	47.57559 AU	opposition	-7031 Aug 01 j 10:16		
retrograde	-7039 May 01 j 16:56	9° <b>∡</b> 13'13		direct	-7031 Oct 21 j 07:43	15° <b>∡</b> ³30'31	
min. Earth dist.	-7039 Jul 21 j 23:04	8° <b>∡</b> 13'10	45.72929 AU		•		
opposition	-7039 Jul 24 j 04:31	8° <b>√</b> 10'32	-17°13'00	conjunction	-7030 Jan 27 j 21:13	17° <b>∡</b> ¹00′23	-16°51'46
direct	-7039 Oct 12 j 18:10	7° <b>х</b> 09′23		minimum elong	-7030 Jan 27 j 21:14	17° <b>∡</b> 00′23	16°52'13
				max. Earth dist.	-7030 Jan 29 j 21:32	17° <b>∡</b> 03'14	48.64700 AU
conjunction	-7038 Jan 19 j 07:58	8° <b>∡</b> ′41′08	-16°32'10	retrograde	-7030 May 11 j 05:33	18° <b>≯</b> 34'01	
minimum elong	-7038 Jan 19 j 07:55		16°32'35	min. Earth dist.	-7030 Jul 31 j 20:50		46.78909 AU
max. Earth dist.	-7038 Jan 21 j 16:00		47.70875 AU	opposition	-7030 Aug 02 j 16:29	17° <b>∡</b> ³32'21	-17°34'58
retrograde	-7038 May 03 j 00:47	10° <b>∡</b> 16'59		direct	-7030 Oct 22 j 13:23	16° <b>₹</b> 31'59	
min. Earth dist.	-7038 Jul 23 j 07:19		45.86080 AU			=	
opposition	-7038 Jul 25 j 11:44		-17°16'49	conjunction	-7029 Jan 29 j 04:41	18° <b>∡</b> 01'40	
direct	-7038 Oct 14 j 01:45	8° <b>∡</b> 13'21		minimum elong	-7029 Jan 29 j 04:41	18° <b>∡</b> *01'40	
. ,.	7027 I 20 1 ( 12	00.74440	1.602.5140	max. Earth dist.	-7029 Jan 31 j 04:10		48.74960 AU
conjunction	-7037 Jan 20 j 16:13		-16°35'48	retrograde	-7029 May 12 j 13:46	19° <b>∡</b> 35′05	46 00045 ATT
minimum elong	-7037 Jan 20 j 16:11	9° <b>х</b> 44'49		min. Earth dist.	-7029 Aug 02 j 03:45		46.88945 AU
max. Earth dist.	-7037 Jan 22 j 23:57	11°×720'21	47.83734 AU	opposition	-7029 Aug 03 j 22:34	18° 🗷 33'33	-1/-3540
retrograde min. Earth dist.	-7037 May 04 j 03:58 -7037 Jul 24 j 16:21		45.98787 AU	direct	-7029 Oct 23 j 18:30	17° <b>∡</b> ³33′16	
opposition	-7037 Jul 26 j 18:51	10 <b>x</b> 20 22 10° <b>x</b> 17'52		conjunction	-7028 Jan 30 j 11:51	19° <b>∡</b> 02'48	16053128
direct	-7037 Oct 15 j 13:00	9° <b>x</b> 16'53	-1/ 2016	minimum elong	-7028 Jan 30 j 11:53	19°×102'48	
direct	-7037 Oct 13 j 13.00	7 × 1033		max. Earth dist.	-7028 Feb 01 j 08:53		48.84736 AU
conjunction	-7036 Jan 22 j 00:08	10° <b>∡</b> ¹48'04	-16°39'05	retrograde	-7028 May 12 j 21:57	20°×736'00	40.04730 AC
minimum elong	-7036 Jan 22 j 00:06	10° <b>х</b> 10°14		min. Earth dist.	-7028 Aug 02 j 11:15		46.98485 AU
max. Earth dist.	-7036 Jan 24 j 06:09		47.96198 AU	opposition	-7028 Aug 04 j 04:38	19° <b>∡</b> ³34'35	
retrograde	-7036 May 04 j 10:57	12° <b>∡</b> *23'17		direct	-7028 Oct 23 j 23:33	18° <b>х</b> 34′24	
min. Earth dist.	-7036 Jul 24 j 23:13		46.11126 AU		,		
opposition	-7036 Jul 27 j 01:38	11° <b>₹</b> 20'54		conjunction	-7027 Jan 30 j 19:08	20° <b>∡</b> 03'45	-16°53'55
direct	-7036 Oct 15 j 21:03	10° <b>∡</b> 19'59		minimum elong	-7027 Jan 30 j 19:09	20° <b>х</b> 03'45	16°54'22
				max. Earth dist.	-7027 Feb 01 j 15:34	20° <b>х</b> 06′22	48.94004 AU
conjunction	-7035 Jan 22 j 07:53	11° <b>∡</b> ′50′54	-16°42'03	retrograde	-7027 May 14 j 01:16	21° <b>∡</b> ³36'44	
minimum elong	-7035 Jan 22 j 07:52	11° <b>∡</b> ′50′54	16°42'30	min. Earth dist.	-7027 Aug 03 j 19:10	20° <b>х</b> 37′20	47.07494 AU
max. Earth dist.	-7035 Jan 24 j 13:02	11° <b>₹</b> ′54′06	48.08319 AU	opposition	-7027 Aug 05 j 10:37	20° <b>х</b> 35′25	-17°36'30
retrograde	-7035 May 05 j 20:31	13° <b>∡</b> ²25'49		direct	-7027 Oct 25 j 08:41	19° <b>∡</b> ³35'18	
min. Earth dist.	-7035 Jul 26 j 07:52		46.23155 AU				
opposition	-7035 Jul 28 j 08:29	12° <b>₹</b> 23'32	-17°26'14	conjunction	-7026 Feb 01 j 02:11	21° <b>₹</b> 04'29	
direct	-7035 Oct 17 j 02:03	11° <b>∡</b> 22'41		minimum elong	-7026 Feb 01 j 02:14	21° <b>₰</b> 04'29	
		_		max. Earth dist.	-7026 Feb 02 j 20:23		49.02764 AU
conjunction	-7034 Jan 23 j 15:35	12° <b>∡</b> 53′22		retrograde	-7026 May 15 j 06:33	22° <b>∡</b> ³37'14	.= . =
minimum elong	-7034 Jan 23 j 15:34	12° ₹ 53'22	16°45'05	min. Earth dist.	-7026 Aug 05 j 01:32		47.15999 AU
max. Earth dist.	-7034 Jan 25 j 20:24		48.20163 AU	opposition	-7026 Aug 06 j 16:25	21° <b>х</b> 36'01	-17/036/27
retrograde	-7034 May 07 j 03:08	14° <b>∡</b> *27'59	46 24004 ATT	direct	-7026 Oct 26 j 16:29	20° <b>∡</b> ³35'57	
min. Earth dist.	-7034 Jul 27 j 14:45	13°×'28'11 13°×'25'49	46.34894 AU	conjunction	-7025 Feb 02 j 09:13	22° <b>҂</b> 04'57	16052150
opposition direct	-7034 Jul 29 j 15:04 -7034 Oct 18 j 09:20	13 <b>x</b> ·23 49 12° <b>x</b> 25'02	-1/ 2840	minimum elong	-7025 Feb 02 j 09:15	22° <b>x</b> '04'57	
direct	-7034 Oct 18 j 09.20	12 🗶 23 02		max. Earth dist.	-7025 Feb 04 j 02:08	22°×04'37' 22°×7'07'21	
conjunction	-7033 Jan 24 j 23:08	13° <b>∡</b> 55'29	-16°46'56	retrograde	-7025 May 16 j 14:26	23°×37'29	49.11020 AO
minimum elong	-7033 Jan 24 j 23:07	13° <b>x</b> 55'29		min. Earth dist.	-7025 Aug 06 j 09:30		47.24038 AU
max. Earth dist.	-7033 Jan 27 j 02:00		48.31730 AU	opposition	-7025 Aug 07 j 22:05	22° <b>х</b> 36′21	
retrograde	-7033 May 08 j 10:27	15° <b>₹</b> 29'50		direct	-7025 Oct 27 j 21:41	21° <b>х</b> 36'21	
min. Earth dist.	-7033 Jul 28 j 22:06		46.46370 AU		. 3		
opposition	-7033 Jul 30 j 21:32	14° <b>∡</b> ¹27'46		conjunction	-7024 Feb 03 j 16:11	23° <b>₹</b> 05'10	-16°53'35
direct	-7033 Oct 19 j 15:36	13° <b>∡</b> ′27′05		minimum elong	-7024 Feb 03 j 16:14	23° <b>∡</b> 05'11	16°54'03
	-			max. Earth dist.	-7024 Feb 05 j 08:18	23° <b>∡</b> °07'31	49.18871 AU
conjunction	-7032 Jan 26 j 06:40	14° <b>∡</b> ′57′20	-16°48'52	retrograde	-7024 May 16 j 20:51	24° <b>∡</b> ³37'29	
minimum elong	-7032 Jan 26 j 06:41	14° <b>∡</b> 57′20	16°49'18	min. Earth dist.	-7024 Aug 06 j 15:25	23° <b>₹</b> 38′11	47.31672 AU
max. Earth dist.	-7032 Jan 28 j 09:44	15° <b>₹</b> 00'22	48.43029 AU	opposition	-7024 Aug 08 j 03:36	23° <b>х</b> 36′26	-17°35'29
retrograde	-7032 May 08 j 14:52	16° <b>∡</b> ³31'25		direct	-7024 Oct 28 j 02:57	22° <b>₹</b> 36′28	
min. Earth dist.	-7032 Jul 29 j 06:04		46.57552 AU				
opposition	-7032 Jul 31 j 03:59	15° <b>∡</b> ¹29'29	-17°32'29	conjunction	-7023 Feb 03 j 22:42	24° <b>₹</b> 05'08	
direct	-7032 Oct 20 j 00:43	14° <b>∡</b> °28'54		minimum elong	-7023 Feb 03 j 22:45	24° <b>₹</b> 05'08	16°53'21
				max. Earth dist.	-7023 Feb 05 j 12:47		49.26339 AU
conjunction	-7031 Jan 26 j 13:52	15° <b>∡</b> 58'56		retrograde	-7023 May 18 j 04:19	25° <b>∡</b> 37'14	
minimum elong	-7031 Jan 26 j 13:52	15° <b>₹</b> 58'56	16°50'56	min. Earth dist.	-7023 Aug 07 j 22:12		47.38968 AU
max. Earth dist.	-7031 Jan 28 j 15:15		48.54040 AU	opposition	-7023 Aug 09 j 09:10	24° ₹ 36'16	-17°34'34
retrograde	-7031 May 09 j 21:20	17° <b>∡</b> ³32'48	46 60 400 433	direct	-7023 Oct 29 j 07:31	23° <b>∡</b> ³36′20	
min. Earth dist.	-7031 Jul 30 j 12:25	16° <b>x</b> '33'14	46.68420 AU				

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7022 in astronomical counting style is the year 7023 BCE in historical counting style. 25°**₹**'04'52 -16°51'55 -7022 Feb 05 i 05:30 direct -7015 Nov 06 j 08:14 1°る30'27 conjunction -7022 Feb 05 i 05:34 25°**₹**'04'53 16°52'23 minimum elong -7022 Feb 06 j 19:40 25° ₹ 07'05 49.33489 AU -7014 Feb 13 j 09:36 2°**ප**58'07 -16°33'59 max. Earth dist. conjunction -7022 May 19 j 07:32 26°**х** 36'46 -7014 Feb 13 j 09:42 2°**ප**58'08 16°34'26 minimum elong retrograde -7014 Feb 14 j 12:30 -7022 Aug 09 j 04:59 25°**✗**37'30 47.45944 AU 2°る59'40 49.77906 AU min. Earth dist. max. Earth dist. -7022 Aug 10 j 14:30 retrograde -7014 May 27 j 06:12 4°る28'47 opposition 25°**尽**35'53 -17°33'19 -7022 Oct 30 j 15:52 -7014 Aug 17 j 07:40 3°る29'42 47.88303 AU direct 24°**х** 36'01 min. Earth dist. opposition -7014 Aug 18 j 07:27 3°**ප**28'34 -17°13'11 -7014 Nov 07 j 13:14 conjunction -7021 Feb 06 j 12:08 26°**₹**04'24 -16°50'39 direct 2°る29'05 minimum elong -7021 Feb 06 j 12:12 26°**√**04'25 16°51'06 max. Earth dist. -7021 Feb 08 j 00:23 26°**✗**06'31 49.40349 AU conjunction -7013 Feb 14 j 15:56 3°**る**56'39 -16°30'36 -7021 May 20 j 12:27 27°**х** 36′08 -7013 Feb 14 j 16:04 3°る56'40 16°31'05 retrograde minimum elong -7021 Aug 10 j 10:20 26°**✗**36'56 47.52632 AU -7013 Feb 15 j 16:23 3°る58'03 49.81294 AU min. Earth dist. max. Earth dist. opposition -7021 Aug 11 j 19:48 26°**∡** 35′20 -17°31′47 retrograde -7013 May 28 j 13:52 5°る27'09 direct -7021 Oct 31 j 22:19 25°**х** 35'31 opposition -7013 Aug 19 j 12:22 4°る26'58 -17°09'31 min. Earth dist. -7013 Aug 18 j 14:26 4°る28'01 47.91395 AU conjunction -7020 Feb 07 j 18:36 27°**∡**103'47 -16°49'04 direct -7013 Nov 08 j 16:47 3°る27'30 minimum elong -7020 Feb 07 j 18:40 27°**∡**03'48 16°49'33 max. Earth dist. -7020 Feb 09 j 06:01 27°**₹**05'51 49.46908 AU conjunction -7012 Feb 15 j 22:11 4°る54'58 -16°26'59 retrograde -7020 May 20 j 18:22 28°**х** 35′22 minimum elong -7012 Feb 15 j 22:18 4°る54'58 16°27'27 min. Earth dist. -7020 Aug 10 j 17:40 27°**₹**36'10 47.59014 AU max. Earth dist. -7012 Feb 16 j 22:19 4°る56'21 49.84218 AU opposition -7020 Aug 12 j 01:08 27° x 34'39 -17°29'56 retrograde -7012 May 28 j 17:36 6°**ප**25'18 direct -7020 Nov 01 i 04:41 26°**х** 34'55 opposition -7012 Aug 19 j 17:08 5°る25'09 -17°05'35 min. Earth dist. -7012 Aug 18 j 20:37 5°る26'08 47.94041 AU conjunction -7019 Feb 08 i 01:10 28° **2**03'04 -16°47'12 direct -7012 Nov 08 j 23:34 4°る25'40 -7019 Feb 08 i 01:15 28° **2**03'05 16°47'40 minimum elong max. Earth dist. -7019 Feb 09 j 11:57 28° ₹ 05'05 49.53172 AU -7011 Feb 16 i 04:16 5° ප් 53'03 -16°23'05 conjunction -7019 May 22 j 02:24 29°×734'29 -7011 Feb 16 j 04:24 5°る53'03 16°23'35 retrograde minimum elong -7019 Aug 11 j 23:08 28°**✗**35'23 47.65063 AU max. Earth dist. -7011 Feb 17 j 02:18 5°る54'19 49.86748 AU min. Earth dist. -7011 May 29 j 22:07 -7019 Aug 13 j 06:13 28°**∡**133'53 -17°27'48 7°る23'15 opposition retrograde -7019 Nov 02 j 08:25 27°**∡**³34'13 -7011 Aug 20 j 21:43 6°る23'07 -17°01'23 direct opposition -7011 Aug 20 j 01:36 6°る24'05 47.96326 AU min. Earth dist. -7018 Feb 09 j 07:34 29°**∡**02'17 -16°45'04 -7011 Nov 10 j 05:20 conjunction direct 5°る23'39 -7018 Feb 09 j 07:39 29° **x** 02'17 16°45'33 minimum elong -7010 Feb 17 j 10:22 max. Earth dist. -7018 Feb 10 j 16:08 29°**✗**04'09 49.59075 AU 6°**る**50'57 -16°18'56 conjunction -7018 Mar 26 j 08:24 -7010 Feb 17 j 10:30 6°る50'58 16°19'24 0°궁 minimum elong -7018 May 23 j 11:28 0°**る**33'32 -7010 Feb 18 j 07:30 6°る52'09 49.88927 AU retrograde max. Earth dist. -7010 May 31 j 02:15 -7018 Jul 21 j 04:32 30°₽**⋌** retrograde 8°る21'02 min. Earth dist. -7018 Aug 13 j 05:55 29°**✗**34'27 47.70727 AU min. Earth dist. -7010 Aug 21 j 08:21 7°る21'49 47.98276 AU opposition -7018 Aug 14 j 11:25 29°**∡**33'02 -17°25'23 opposition -7010 Aug 22 j 02:28 7°る20'57 -16°56'55 direct -7018 Nov 03 j 10:42 28°**х¹**33'26 direct -7010 Nov 11 j 12:00 6°る21'29 -7017 Feb 09 j 13:44 0°정 conjunction -7009 Feb 18 j 16:31 7°る48'43 -16°14'31 -7017 Feb 10 j 14:14 0°る01'25 -16°42'40 minimum elong -7009 Feb 18 j 16:40 7°る48'44 16°14'59 conjunction -7017 Feb 10 j 14:21 0°る01'25 16°43'08 max. Earth dist. -7009 Feb 19 j 12:56 7°る49'53 49.90804 AU minimum elong -7017 Feb 11 i 22:21 0°る03'16 49.64552 AU -7009 Jun 01 i 08:24 9°る18'42 max. Earth dist. retrograde -7009 Aug 23 i 06:54 8°る18'40 -16°52'09 retrograde -7017 May 24 j 15:16 1°る32'31 opposition 0°る32'07 -17°22'42 8°る19'32 47.99922 AU opposition -7017 Aug 15 i 16:26 min. Earth dist. -7009 Aug 22 i 12:59 min. Earth dist. -7017 Aug 14 j 12:42 0°る33'27 47.75917 AU direct -7009 Nov 12 j 16:21 7°る19'13 -7017 Sep 14 i 03:03 30°R*x*7 direct -7017 Nov 04 j 18:03 29°×732'34 conjunction -7008 Feb 19 i 22:27 8°**ප්**46'25 -16°09'49 -7017 Dec 25 j 18:20 0°궁 minimum elong -7008 Feb 19 i 22:36 8°**ප්**46'26 16°10'17 max. Earth dist. -7008 Feb 20 j 16:49 8°る47'28 49.92385 AU -7008 Jun 01 j 17:07 conjunction -7016 Feb 11 j 20:44 1°る00'27 -16°40'00 retrograde 10°중16'18 minimum elong -7016 Feb 11 j 20:49 1°る00'28 16°40'28 opposition -7008 Aug 23 j 11:32 9°**ප**16'21 -16°47'07 max. Earth dist. -7016 Feb 13 j 02:23 1°る02'10 49.69544 AU min. Earth dist. -7008 Aug 22 j 18:57 9°る17'08 48.01282 AU retrograde -7016 May 24 j 18:48 2°る31'25 direct -7008 Nov 12 j 17:42 8°**ප**16'56 -7016 Aug 15 j 21:30 1°る31'06 -17°19'46 opposition -7016 Aug 14 j 18:33 1°る32'23 47.80597 AU -7007 Feb 20 j 04:24 9°る44'06 -16°04'51 min. Earth dist. conjunction -7016 Nov 05 j 01:41 0°る31'35 -7007 Feb 20 j 04:32 9°る44'07 16°05'19 direct minimum elong -7007 Feb 20 j 22:43 9°る45'09 49.93673 AU max. Earth dist. conjunction -7015 Feb 12 j 03:05 1°る59'22 -16°37'07 retrograde -7007 Jun 02 j 21:34 11°る13'55 minimum elong -7015 Feb 12 j 03:12 1°る59'23 16°37'35 opposition -7007 Aug 24 j 16:05 10°る14'01 -16°41'48 max. Earth dist. -7015 Feb 13 j 07:22 2°る01'00 49.73993 AU min. Earth dist. -7007 Aug 24 j 00:47 10°る14'45 48.02312 AU retrograde -7015 May 26 j 00:08 3°**る**30'12 direct -7007 Nov 13 j 23:27 9°**る**14'39 -7015 Aug 16 j 02:11 2°る31'06 47.84721 AU min. Earth dist.

-7015 Aug 17 j 02:39

opposition

2°る29'56 -17°16'36

conjunction

-7006 Feb 21 j 10:25 10°₹41'49 -15°59'37

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7006 in astronomical counting style is the year 7007 BCE in historical counting style. 10°る41'50 16°00'05 opposition -7006 Feb 21 i 10:35 -6998 Sep 02 i 07:43 18°る52'49 -15°42'50 minimum elong 18°る52'58 47.91219 AU max. Earth dist. -7006 Feb 22 j 02:40 10°る42'45 49.94626 AU min. Earth dist. -6998 Sep 02 j 04:30 -7006 Jun 04 j 01:00 12°る11'34 -6998 Nov 22 j 20:36 17°る53'21 retrograde direct 11°る11'45 -16°36'13 -7006 Aug 25 j 20:26 opposition 11°る12'27 48.02982 AU -7006 Aug 25 j 05:49 -6997 Mar 02 j 16:41 19°る20'28 -15°01'45 min. Earth dist. conjunction 19°る20'29 15°02'12 -7006 Nov 15 j 05:58 -6997 Mar 02 j 16:52 direct 10°る12'25 minimum elong -6997 Mar 02 j 20:29 max. Earth dist. 19°る20'41 49.82512 AU -6997 Jun 13 j 02:08 -7005 Feb 22 j 16:34 11°る39'35 -15°54'08 conjunction retrograde 20°る49'42 -7005 Feb 22 j 16:42 minimum elong 11°る39'36 15°54'36 opposition -6997 Sep 03 j 12:04 19°る50'04 -15°35'01 max. Earth dist. -7005 Feb 23 j 07:35 11°る40'27 49.95168 AU min. Earth dist. -6997 Sep 03 j 09:49 19°る50'10 47.87987 AU retrograde -7005 Jun 05 j 05:26 13°る09'18 direct -6997 Nov 24 j 01:14 18°る50'34 12°る09'32 -16°30'23 -6996 Mar 01 j 03:29 20°る15'18 opposition -7005 Aug 27 j 01:02 evening set min. Earth dist. -7005 Aug 26 j 12:46 12°る10'08 48.03210 AU direct -7005 Nov 16 j 12:29 11°る10'14 conjunction -6996 Mar 02 j 22:22 20°る17'44 -14°54'05 minimum elong -6996 Mar 02 j 22:33 20°る17'44 14°54'32 conjunction -7004 Feb 23 j 22:36 12°る37'24 -15°48'24 max. Earth dist. -6996 Mar 03 j 00:18 20°る17'50 49.79268 AU minimum elong -7004 Feb 23 j 22:47 12°る37'25 15°48'52 morning rise -6996 Mar 04 j 17:40 20°る20'11 max. Earth dist. -7004 Feb 24 j 12:23 12°る38'11 49.95254 AU retrograde -6996 Jun 13 j 06:20 21°る46'55 20°る47'18 -15°26'55 retrograde -7004 Jun 05 j 11:47 14°る07'04 opposition -6996 Sep 03 j 16:22 opposition -7004 Aug 27 j 05:28 13°る07'22 -16°24'19 min. Earth dist. -6996 Sep 03 j 14:32 20°る47'23 47.84482 AU min. Earth dist. -7004 Aug 26 j 17:46 13°る07'56 48.02939 AU direct -6996 Nov 24 j 06:32 19°る47'48 direct -7004 Nov 16 i 16:33 12°る08'05 evening set -6995 Mar 01 i 09:05 21°る11'11 conjunction -7003 Feb 24 i 04:39 13°る35'14 -15°42'27 conjunction -6995 Mar 04 i 04:18 21°**ට**15'00 -14°46'08 minimum elong -7003 Feb 24 i 04:48 13°る35'15 15°42'55 minimum elong -6995 Mar 04 i 04:30 21°る15'01 14°46'35 -7003 Feb 24 i 15:50 13°る35'53 49.94819 AU max. Earth dist. -6995 Mar 04 j 05:22 21°る15'04 49.75734 AU max. Earth dist. -7003 Jun 06 j 19:37 15°る04'50 -6995 Mar 06 j 23:58 21°る18'50 retrograde morning rise -7003 Aug 28 j 09:59 14°る05'11 -16°18'00 -6995 Jun 14 j 09:17 22°る44'12 opposition retrograde 14°る05'38 48.02147 AU 21°**ප්**44'36 -15°18'33 -7003 Aug 28 j 00:22 -6995 Sep 04 j 20:43 min. Earth dist. opposition -7003 Nov 17 j 19:08 13°**る**05'53 -6995 Sep 04 j 20:49 21°る44'35 47.80672 AU direct min. Earth dist. -6995 Nov 25 j 13:36 20°る45'05 direct 22°**る**07'31 -7002 Feb 25 j 10:51 14°る33'03 -15°36'16 -6994 Mar 01 j 21:12 conjunction evening set -7002 Feb 25 j 11:02 14°る33'03 15°36'45 minimum elong -6994 Mar 05 j 10:19 22°**ට**12'21 -14°37'56 -7002 Feb 25 j 21:24 14°る33'39 49.93860 AU max. Earth dist. conjunction -7002 Jun 08 j 00:28 16°**ප**02'34 -6994 Mar 05 j 10:30 retrograde minimum elong 22°る12'22 14°38'24 -7002 Aug 29 j 14:28 15°**る**02'56 -16°11'28 -6994 Mar 05 j 10:25 22°る12'21 49.71892 AU opposition max. Earth dist. -7002 Aug 29 j 06:24 15°る03'19 48.00815 AU -6994 Mar 08 j 23:53 22°**⋜**17'12 min. Earth dist. morning rise direct -7002 Nov 19 j 00:42 14°る03'37 retrograde -6994 Jun 15 j 14:31 23°**る**41'34 opposition -6994 Sep 06 j 00:58 22°る42'00 -15°09'55 -7001 Feb 26 j 16:53 conjunction 15°る30'46 -15°29'52 min. Earth dist. -6994 Sep 06 j 01:26 22°る41'58 47.76508 AU minimum elong -7001 Feb 26 j 17:03 15°る30'46 15°30'19 direct -6994 Nov 26 j 18:36 21°る42'28 max. Earth dist. -7001 Feb 27 j 00:52 15°る31'13 49.92393 AU -6993 Mar 02 j 12:07 23°る04'08 evening set retrograde -7001 Jun 09 j 05:02 17°る00'12 -7001 Aug 30 j 18:44 16°る00'34 -16°04'42 -6993 Mar 06 j 16:19 23°る09'49 -14°29'29 opposition conjunction min. Earth dist. -7001 Aug 30 j 11:28 16°る00'55 47.99005 AU -6993 Mar 06 j 16:31 23°る09'49 14°29'56 minimum elong -7001 Nov 20 j 06:26 15°**ප**01'13 -6993 Mar 06 i 14:09 23°る09'41 49.67652 AU direct max. Earth dist. -6993 Mar 10 j 21:04 morning rise 23°る15'32 -7000 Feb 27 i 22:54 16°පි28'21 -15°23'13 -6993 Jun 16 j 22:12 conjunction retrograde 24°る39'03 -7000 Feb 27 i 23:05 minimum elong 16°る28'22 15°23'41 opposition -6993 Sep 07 i 05:20 23°る39'31 -15°01'02 max. Earth dist. -7000 Feb 28 i 05:48 16°る28'45 49.90461 AU min. Earth dist. -6993 Sep 07 j 07:50 23°る39'24 47.71928 AU retrograde -7000 Jun 09 j 07:37 17°**ප**57'44 direct -6993 Nov 27 j 20:57 22°る39'59 evening set -7000 Aug 30 j 23:11 16°る58'06 -15°57'40 -6992 Mar 02 j 04:59 24°る00'59 opposition min. Earth dist. -7000 Aug 30 j 18:07 16°る58'20 47.96763 AU -7000 Nov 20 j 13:31 15°る58'43 direct conjunction -6992 Mar 06 j 22:32 24°る07'25 -14°20'48 minimum elong -6992 Mar 06 j 22:43 24°る07'25 14°21'15 conjunction -6999 Feb 28 j 04:45 17°る25'49 -15°16'19 max. Earth dist. -6992 Mar 06 j 19:45 24°る07'15 49.62965 AU -6992 Mar 11 j 16:34 minimum elong -6999 Feb 28 j 04:55 17°る25'50 15°16'46 morning rise 24°る13'52 17°る26'10 49.88146 AU -6999 Feb 28 j 10:46 -6992 Jun 17 j 04:05 25°る36'40 max. Earth dist. retrograde -6999 Jun 10 j 12:12 18°る55'08 -6992 Sep 07 j 09:46 24°る37'09 -14°51'55 retrograde opposition -6999 Sep 01 j 03:26 17°る55'30 -15°50'23 -6992 Sep 07 j 13:40 24°る36'58 47.66856 AU opposition min. Earth dist. 17°る55'44 47.94149 AU 23°る37'36 min. Earth dist. -6999 Aug 31 j 22:37 direct -6992 Nov 28 j 01:37 direct -6999 Nov 21 j 19:16 16°**ප**56'04 evening set -6991 Mar 02 j 23:00 24°る58'00 conjunction -6998 Mar 01 j 10:38 18°る23'11 -15°09'10 conjunction -6991 Mar 08 j 04:33 25°る05'07 -14°11'54 minimum elong -6998 Mar 01 j 10:49 18°る23'12 15°09'38 minimum elong -6991 Mar 08 j 04:46 25°る05'08 14°12'20 -6998 Mar 01 j 14:30 18°る23'24 49.85478 AU max. Earth dist. -6991 Mar 07 j 23:11 25°る04'49 49.57775 AU max. Earth dist.

retrograde

-6998 Jun 11 j 20:54

19°る52'27

-6991 Mar 13 j 10:42

morning rise

25°る12'16

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6991 in astronomical counting style is the year 6992 BCE in historical counting style. retrograde 26°る34'24 -6991 Jun 18 i 09:49 min. Earth dist. -6985 Sep 15 i 06:33 1°≈21'41 47.17975 AU -6991 Sep 08 j 14:12 25°₹34'54 -14°42'34 direct -6985 Dec 05 j 14:46 0°≈22'22 opposition min. Earth dist. -6991 Sep 08 j 19:07 25°る34'40 47.61264 AU -6984 Mar 06 j 23:39 1°≈39'38 evening set -6991 Nov 29 j 06:45 24°る35'18 -6984 Mar 14 j 09:33 1°≈49'45 49.08441 AU max. Earth dist. direct -6990 Mar 03 j 18:03 25°る55'09 evening set -6984 Mar 15 j 00:17 conjunction 1°≈50'35 -13°02'53 -6990 Mar 09 j 10:53 -6984 Mar 15 j 00:30 conjunction 26°る02'55 -14°02'45 minimum elong 1°**≈**50'36 13°03'18 -6990 Mar 09 j 11:04 -6984 Mar 23 j 01:28 minimum elong 26°る02'56 14°03'11 morning rise 2°≈01'35 -6990 Mar 09 j 04:03 -6984 Jun 24 j 20:35 max. Earth dist. 26°る02'32 49.52042 AU retrograde 3°≈20'11 morning rise -6990 Mar 15 j 04:15 26°る10'42 opposition -6984 Sep 14 j 21:36 2°≈20'30 -13°30'12 retrograde -6990 Jun 19 j 13:20 27°る32'14 min. Earth dist. -6984 Sep 15 j 11:06 2°≈19'51 47.09552 AU -6990 Sep 09 j 18:41 26°る32'42 -14°32'59 -6984 Dec 05 j 20:49 opposition direct 1°≈20'29 -6983 Mar 07 j 21:42 min. Earth dist. -6990 Sep 10 j 02:06 26°る32'21 47.55130 AU evening set 2°≈37'25 direct -6990 Nov 30 j 13:25 25°る33'04 evening set -6989 Mar 04 j 14:00 26°る52'24 conjunction -6983 Mar 16 j 06:27 2°≈48'51 -12°52'00 minimum elong -6983 Mar 16 j 06:40 2°≈48'51 12°52'26 conjunction -6989 Mar 10 j 17:12 27°る00'45 -13°53'23 max. Earth dist. -6983 Mar 15 j 13:43 2°≈47'53 49.00017 AU minimum elong -6989 Mar 10 j 17:25 27°る00'46 13°53'50 morning rise -6983 Mar 24 j 15:56 3°≈00'19 max. Earth dist. -6989 Mar 10 j 09:02 27°る00'17 49.45798 AU retrograde -6983 Jun 26 j 04:28 4°≈18'33 morning rise -6989 Mar 16 j 20:57 27°る09'09 opposition -6983 Sep 16 j 02:19 3°≈18'51 -13°18'48 retrograde -6989 Jun 20 j 17:45 28°る30'06 min. Earth dist. -6983 Sep 16 j 17:39 3°≈18'07 47.00826 AU opposition -6989 Sep 10 j 23:06 27°る30'34 -14°23'10 direct -6983 Dec 06 i 23:14 2°≈18'47 -6982 Mar 08 j 20:19 min. Earth dist. -6989 Sep 11 i 07:02 27°る30'11 47.48494 AU evening set 3°≈35'25 direct -6989 Dec 01 i 19:30 26°る30'51 evening set -6988 Mar 04 j 10:08 27°る49'43 conjunction -6982 Mar 17 j 13:02 3°≈47'18 -12°40'52 -6982 Mar 17 j 13:15 3°≈47'19 12°41'16 minimum elong -6988 Mar 10 j 23:13 27°₹58'37 -13°43'48 max. Earth dist. -6982 Mar 16 j 20:01 3°≈46'20 48.91272 AU conjunction -6988 Mar 10 j 23:25 27°る58'38 13°44'14 -6982 Mar 26 j 06:15 3°≈59'14 minimum elong morning rise -6988 Mar 10 j 12:37 27°る58'01 49.39068 AU -6982 Jun 27 j 11:22 max. Earth dist. retrograde 5°≈17'07 4°≈17'24 -13°07'08 -6988 Mar 17 j 12:58 28°**る**07'35 -6982 Sep 17 j 06:55 morning rise opposition -6988 Jun 21 j 02:11 29°**る**28'00 -6982 Sep 17 j 23:16 retrograde min. Earth dist. 4°≈16'37 46.91742 AU opposition -6988 Sep 11 j 03:37 -6982 Dec 08 j 03:36 28°**る**28'26 -14°13'06 direct 3°≈17'16 -6981 Mar 09 j 19:19 min. Earth dist. -6988 Sep 11 j 13:27 28°る27'58 47.41412 AU 4°≈33'37 evening set -6988 Dec 01 j 21:31 27°**る**28'40 direct -6987 Mar 05 j 06:56 28°**る**47'05 -6981 Mar 18 j 19:32 4°≈45'58 -12°29'28 evening set conjunction -6981 Mar 18 j 19:44 minimum elong 4°≈45'59 12°29'53 -6987 Mar 12 j 05:31 28°**る**56'32 -13°33'57 -6981 Mar 18 j 00:10 conjunction max. Earth dist. 4°≈44'52 48.82151 AU minimum elong -6987 Mar 12 j 05:44 28°る56'32 13°34'24 morning rise -6981 Mar 27 j 20:27 4°≈58'22 max. Earth dist. -6987 Mar 11 j 18:41 28°る55'55 49.31921 AU retrograde -6981 Jun 28 j 18:54 6°≈15'53 morning rise -6987 Mar 19 j 04:38 29°**る**06'02 opposition -6981 Sep 18 j 11:40 5°≈16'10 -12°55'12 -6987 May 02 j 18:05 0°≈ min. Earth dist. -6981 Sep 19 j 05:02 5°≈15'19 46.82257 AU -6987 Jun 22 j 08:25 0°≈25'57 -6981 Dec 09 j 07:49 4°≈15'58 retrograde direct -6987 Aug 12 j 03:37 30°Ŗ⋜ -6980 Mar 09 j 18:20 5°≈32'04 evening set -6987 Sep 12 j 08:01 29°る26'20 -14°02'47 max. Earth dist. -6980 Mar 18 j 05:35 5°≈43'41 48.72574 AU opposition min. Earth dist. -6987 Sep 12 j 19:00 29°る25'49 47.33930 AU -6980 Mar 19 i 02:05 5°≈44'52 -12°17'50 direct -6987 Dec 03 i 01:34 28°る26'30 conjunction -6980 Mar 19 i 02:19 evening set -6986 Mar 06 j 04:12 29°る44'30 minimum elong 5°≈44'53 12°18'14 -6980 Mar 28 i 10:25 morning rise 5°≈57'41 29°ප්54'28 -13°23'51 conjunction -6986 Mar 13 j 11:43 retrograde -6980 Jun 28 i 23:31 7°≈14'54 minimum elong -6986 Mar 13 i 11:55 29°る54'29 13°24'17 opposition -6980 Sep 18 i 16:38 6°≈15'08 -12°43'01 max. Earth dist. -6986 Mar 12 j 22:43 29°る53'44 49.24412 AU min. Earth dist. -6980 Sep 19 j 12:19 6°≈14'11 46.72287 AU -6986 Mar 17 j 12:58 direct -6980 Dec 09 j 14:29 5°≈14'52 0°≈≈ morning rise -6986 Mar 20 j 19:53 0°≈04'29 -6979 Mar 10 j 17:56 6°≈30'44 evening set retrograde -6986 Jun 23 j 13:57 1°223'56 max. Earth dist. -6979 Mar 19 j 10:51 6°≈42'40 48.62508 AU opposition -6986 Sep 13 j 12:29 0°≈24'18 -13°52'12 min. Earth dist. -6986 Sep 14 j 00:07 0°≈23'44 47.26111 AU conjunction -6979 Mar 20 j 08:50 6°≈43'56 -12°05'57 -6986 Oct 05 j 05:35 30°Rる minimum elong -6979 Mar 20 j 09:03 6°≈43'57 12°06'21 -6986 Dec 04 j 06:24 29°る24'23 -6979 Mar 30 j 00:16 6°≈57'11 direct morning rise -6985 Feb 01 j 16:51 -6979 Jun 30 j 03:02 0°≈ retrograde 8°≈14'05 -6985 Mar 07 j 01:41 -6979 Sep 19 j 21:25 evening set 0°≈42'00 opposition 7°≈14'17 -12°30'35 -6979 Sep 20 j 17:41 min. Earth dist. 7°≈13'18 46.61799 AU conjunction -6985 Mar 14 j 18:00 0°≈52'29 -13°13'30 direct -6979 Dec 10 j 21:57 6°≈13'55 minimum elong -6985 Mar 14 j 18:12 0°≈52'30 13°13'56 evening set -6978 Mar 11 j 17:47 7°≈29'32 max. Earth dist. -6985 Mar 14 j 04:04 0°≈51'41 49.16567 AU morning rise -6985 Mar 22 j 10:55 1°≈02'59 conjunction -6978 Mar 21 j 15:40 7°≈43'09 -11°53'50 -6985 Jun 24 j 16:04 2°≈22'00 minimum elong -6978 Mar 21 j 15:54 7°≈43'10 11°54'14 retrograde -6985 Sep 14 j 17:05 1°≈22'20 -13°41'20 max. Earth dist. -6978 Mar 20 j 15:00 7°≈41'44 48.51905 AU opposition

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6978 in astronomical counting style is the year 6979 BCE in historical counting style. -6978 Mar 31 i 14:16 7°≈56'50 evening set -6971 Mar 16 j 22:26 14°≈24'30 morning rise -6978 Jul 01 j 10:24 9°≈13'26 -6971 Mar 27 j 07:00 14°≈38'54 47.66040 AU retrograde max. Earth dist. -6978 Sep 21 j 02:30 8°≈13'33 -12°17'54 opposition -6978 Sep 22 j 01:01 -6971 Mar 28 j 16:40 14°≈40'52 -10°21'54 min. Earth dist. 8°≈12'28 46.50783 AU conjunction -6978 Dec 12 j 02:13 -6971 Mar 28 j 16:53 direct 7°≈13'05 minimum elong 14°≈40'53 10°22'16 -6971 Apr 09 j 11:22 evening set -6977 Mar 12 j 17:48 8°≈28'27 morning rise 14°≈57'15 -6971 Apr 11 j 11:23 15°≈ 16°≈12'11 conjunction -6977 Mar 22 j 22:37 8°≈42'29 -11°41'28 retrograde -6971 Jul 08 j 08:16 minimum elong -6977 Mar 22 j 22:50 8°≈42'30 11°41'52 opposition -6971 Sep 27 j 14:51 15°≈11'44 -10°41'39 max. Earth dist. -6977 Mar 21 j 21:23 8°≈41'02 48.40786 AU min. Earth dist. -6971 Sep 28 j 20:42 15°≈10'17 45.62635 AU morning rise -6977 Apr 02 j 03:50 8°≈56'34 -6971 Oct 07 j 15:51 15°R≈ -6977 Jul 02 j 17:25 -6971 Dec 18 j 15:57 retrograde 10°≈12'52 direct 14°≈10′26 -6970 Feb 27 j 08:11 opposition -6977 Sep 22 j 07:30 9°≈12'55 -12°04'59 15°≈ min. Earth dist. -6977 Sep 23 j 07:12 9°**≈**11'46 46.39258 AU evening set -6970 Mar 18 j 00:02 15°≈24'41 direct -6977 Dec 13 j 06:38 8°≈12'19 max. Earth dist. -6970 Mar 28 j 13:46 15°≈39'25 47.52571 AU evening set -6976 Mar 12 j 18:07 9°≈27'28 max. Earth dist. -6976 Mar 22 j 01:46 9°**≈**40'18 48.29197 AU conjunction -6970 Mar 30 j 00:10 15°≈41'25 -10°07'41 minimum elong -6970 Mar 30 j 00:23 15°**≈**41'26 10°08'03 conjunction -6976 Mar 23 j 05:25 9°≈41'54 -11°28'52 morning rise -6970 Apr 11 j 00:30 15°≈58'11 minimum elong -6976 Mar 23 j 05:39 9°≈41'55 11°29'17 retrograde -6970 Jul 09 j 14:48 17°≈12'58 morning rise -6976 Apr 02 j 17:23 9°≈56'23 opposition -6970 Sep 28 j 20:31 16°≈12'28 -10°26'46 retrograde -6976 Jul 03 i 01:06 11°≈12'24 min. Earth dist. -6970 Sep 30 i 04:17 16°≈10'54 45.48855 AU opposition -6976 Sep 22 j 12:30 10°≈12'21 -11°51'47 direct -6970 Dec 19 i 22:50 15°≈11'04 min. Earth dist. -6976 Sep 23 i 13:12 10°≈11'09 46.27304 AU evening set -6969 Mar 19 j 02:02 16°≈25'16 direct -6976 Dec 13 j 10:43 9°**≈**11'38 max. Earth dist. -6969 Mar 29 j 20:06 16°≈40'16 47.38780 AU evening set -6975 Mar 13 j 18:23 10°≈26'34 -6975 Mar 23 j 07:39 10°≈39'44 48.17188 AU -6969 Mar 31 j 07:39 16°≈42'21 -9°53'11 max. Earth dist. conjunction -6969 Mar 31 j 07:52 minimum elong 16°≈42'22 9°53'32 -6969 Apr 12 j 13:30 conjunction -6975 Mar 24 j 12:21 10°≈41'24 -11°16'01 16°≈59'28 morning rise -6975 Mar 24 j 12:33 -6969 Jul 10 j 19:38 minimum elong 10°≈41'24 11°16'24 retrograde 18°≈14'09 -6975 Apr 04 j 06:44 -6969 Sep 30 j 02:07 10°≈56'16 opposition 17°≈13'35 -10°11'35 morning rise -6975 Jul 04 j 04:48 12°≈12'01 -6969 Oct 01 j 10:10 min. Earth dist. 17°≈12'01 45.34718 AU retrograde -6969 Dec 21 j 06:35 11°≈11′52 -11°38′20 16°≈12'05 -6975 Sep 23 j 17:42 opposition direct -6975 Sep 24 j 20:19 -6968 Mar 19 j 04:15 min. Earth dist. 11°≈10'34 46.14955 AU evening set 17°≈26′14 -6968 Mar 30 j 01:28 direct -6975 Dec 14 j 19:01 10°≈11'01 max. Earth dist. 17°≈41'28 47.24586 AU -6974 Mar 14 j 19:10 evening set 11°**≈**25'46 -6968 Mar 31 j 15:18 conjunction 17°≈43'41 -9°38'26 conjunction -6974 Mar 25 j 19:23 11°≈40'59 -11°02'54 minimum elong -6968 Mar 31 j 15:30 17°≈43'42 9°38'47 -6974 Mar 25 j 19:37 11°≈41'00 11°03'17 morning rise -6968 Apr 13 j 02:39 18°≈01'10 minimum elong max. Earth dist. -6974 Mar 24 j 13:44 11°≈39'16 48.04829 AU retrograde -6968 Jul 11 j 02:58 19°≈15'45 morning rise -6974 Apr 05 j 20:02 11°≈56'14 -6968 Sep 30 j 08:01 18°≈15'07 -9°56'08 opposition -6974 Jul 05 j 08:58 13°≈11'45 -6968 Oct 01 j 18:18 18°≈13'26 45.20160 AU retrograde min. Earth dist. -6974 Sep 24 j 22:43 12°≈11'31 -11°24'36 -6968 Dec 21 j 12:01 opposition direct 17°≈13'31 -6974 Sep 26 j 01:32 12°≈10'12 46.02279 AU -6967 Mar 20 j 06:42 min. Earth dist. evening set 18°≈27'37 -6974 Dec 16 j 02:37 max. Earth dist. -6967 Mar 31 j 08:51 18°≈43'10 47.09942 AU direct 11°≈10'32 evening set -6973 Mar 15 j 20:05 12°≈25'07 -6967 Apr 01 i 23:12 max. Earth dist. -6973 Mar 25 j 18:48 12°≈38'53 47.92157 AU conjunction 18°≈45'26 -9°23'24 minimum elong -6967 Apr 01 i 23:25 18°≈45'26 9°23'44 conjunction -6973 Mar 27 i 02:26 12°≈40'43 -10°49'30 morning rise -6967 Apr 14 j 15:40 19°≈03'16 -6973 Mar 27 i 02:39 12°≈40'44 10°49'52 -6967 Jul 12 i 11:36 20°≈17'45 minimum elong retrograde -6973 Apr 07 j 09:20 12°≈56'21 -6967 Oct 01 j 14:02 19°≈17'01 -9°40'24 morning rise opposition -6973 Jul 06 j 16:27 min. Earth dist. -6967 Oct 03 j 01:21 19°≈15'17 45.05113 AU retrograde 14°≈11'39 13°≈11'20 -11°10'34 -6973 Sep 26 j 04:07 -6967 Dec 22 j 16:40 opposition direct 18°≈15'17 min. Earth dist. -6973 Sep 27 j 08:40 13°≈09'56 45.89325 AU evening set -6966 Mar 21 j 09:41 19°≈29'21 -6966 Apr 01 j 14:04 direct -6973 Dec 17 j 06:38 12°≈10'14 max. Earth dist. 19°≈45'06 46.94805 AU evening set -6972 Mar 15 j 21:00 13°≈24'41 max. Earth dist. -6972 Mar 26 j 01:51 13°≈38'49 47.79223 AU conjunction -6966 Apr 03 j 07:11 19°≈47'31 -9°08'07 -6966 Apr 03 j 07:23 minimum elong 19°**≈**47'32 9°08'27 -6972 Mar 27 j 09:29 -6966 Apr 16 j 04:54 conjunction 13°≈40'39 -10°35'50 morning rise 20°≈05'42 -6972 Mar 27 j 09:42 -6966 Jul 13 j 21:40 minimum elong 13°≈40'40 10°36'13 retrograde 21°≈20'05 -6972 Apr 07 j 22:13 morning rise 13°≈56'40 opposition -6966 Oct 02 j 20:04 20°≈19'16 -9°24'24 -6972 Jun 04 j 00:13 15°≈ min. Earth dist. -6966 Oct 04 j 08:45 20°≈17'27 44.89581 AU retrograde -6972 Jul 06 j 23:15 15°≈11'47 direct -6966 Dec 23 j 20:21 19°≈17'22 -6972 Aug 09 j 01:11 15°R≈ evening set -6965 Mar 22 j 12:45 20°≈31'25 opposition -6972 Sep 26 j 09:31 14°≈11'23 -10°56'16 max. Earth dist. -6965 Apr 02 j 21:12 20°≈47'26 46.79173 AU -6972 Sep 27 j 14:34 14°≈09'58 45.76105 AU min. Earth dist.

-6965 Apr 04 j 15:25 20°≈49'56 -8°52'35

-6972 Dec 17 j 12:07

13°≈10'11

conjunction

direct

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minimum elong	-6965 Apr 04 j 15:38	20° <b>≈</b> 49'56		max. Earth dist.	-6958 Apr 10 j 00:17		
morning rise	-6965 Apr 17 j 17:59	21°≈08'27	0 0200	man. Bartir tilot.	0,0011pr 10 j 00.17	20 10 11 100	.0.03372110
retrograde	-6965 Jul 15 j 03:53	22°≈22'44		conjunction	-6958 Apr 12 j 03:22	28° <b>≈</b> 14'59	-6°56'00
opposition	-6965 Oct 04 j 02:25	21°≈21'47	-9°08'07	minimum elong	-6958 Apr 12 j 03:33	28°≈14'59	
min. Earth dist.	-6965 Oct 05 j 17:03		44.73570 AU	morning rise	-6958 Apr 26 j 12:34	28°≈35'45	0 30 10
direct	-6965 Dec 25 j 05:01	20°≈19'44	44.73370 AC	retrograde	-6958 Jul 22 j 09:45	29°≈49'52	
evening set	-6964 Mar 22 j 15:59	20 ≈1344 21°≈33'46		opposition	-6958 Oct 11 j 01:39	29 <b>≈</b> 49 32 28° <b>≈</b> 47'57	7905152
max. Earth dist.	-6964 Apr 03 j 03:56		46.63102 AU	min. Earth dist.	-6958 Oct 12 j 23:34		43.52378 AU
max. Earm dist.	-0904 Apr 03 J 03.30	21 ~ 30 01	40.03102 AU	direct	-6957 Jan 01 j 08:46	27°≈44'39	43.32378 AU
conjunction	-6964 Apr 04 j 23:27	21° <b>≈</b> 52'37	9926146	evening set	-6957 Mar 29 j 23:09	28°≈59'05	
minimum elong	-6964 Apr 04 j 23:38	21°≈52'37		max. Earth dist.	-6957 Apr 11 j 09:30		45.41869 AU
morning rise	-6964 Apr 18 j 06:51	21 ≈3237 22°≈11'28	8 37 00	max. Earth dist.	-0937 Apr 11 J 09.30	29 ~1703	43.41809 AU
-	-6964 Jul 15 j 09:10	22 ≈11 28 23°≈25'40		conjunction	6057 Apr 12 i 12:46	29° <b>≈</b> 20'11	6020111
retrograde	-6964 Oct 04 j 08:41	23 ≈23 40 22°≈24'35	0051124	minimum elong	-6957 Apr 13 j 12:46	29 ≈2011 29°≈20'11	6°38'28
opposition min. Earth dist.	-6964 Oct 05 j 23:42		-6 31 34 44.57141 AU	morning rise	-6957 Apr 13 j 12:56	29 ≈2011 29°≈41'16	0 38 28
	-6964 Dec 25 j 14:36	22 ≈22 39 21°≈22'21	44.3/141 AU	morning rise	-6957 Apr 28 j 01:36	29 <b>≈</b> 41 16 0° <b>)</b> €	
direct	-6963 Mar 23 j 19:34				-6957 May 11 j 14:16	0° <b>X</b> 55'27	
evening set	•	22°≈36'22	46 46622 AII	retrograde	-6957 Jul 23 j 17:40		
max. Earth dist.	-6963 Apr 04 j 10:11	22°≈52′50	46.46622 AU	•,•	-6957 Oct 06 j 23:05	30°R≈	(0.4711.0
	(0(2)) 0(:07)45	220 55122	0020142	opposition	-6957 Oct 12 j 09:08	29°≈53'25	
conjunction	-6963 Apr 06 j 07:45	22°≈55'33		min. Earth dist.	-6957 Oct 14 j 07:35		43.33973 AU
minimum elong	-6963 Apr 06 j 07:57	22°≈55'34	8°21'01	direct	-6956 Jan 02 j 16:42	28°≈49'57	
morning rise	-6963 Apr 19 j 19:54	23°≈14'44			-6956 Mar 27 j 00:28	0° <b>)</b> {	
retrograde	-6963 Jul 16 j 15:55	24°≈28'52	000 4440	evening set	-6956 Mar 30 j 04:57	0° <b>)</b> €04'32	45.00406.444
opposition	-6963 Oct 05 j 15:06	23°≈27'39		max. Earth dist.	-6956 Apr 11 j 16:22	0° <b>大</b> 22'39	45.23406 AU
min. Earth dist.	-6963 Oct 07 j 08:15		44.40348 AU				
direct	-6963 Dec 26 j 21:40	22° <b>≈</b> 25'13		conjunction	-6956 Apr 13 j 22:06	0° <b>)</b> €25'56	
evening set	-6962 Mar 24 j 23:24	23° <b>≈</b> 39'15		minimum elong	-6956 Apr 13 j 22:16	0° <b>∺</b> 25'57	6°20'20
max. Earth dist.	-6962 Apr 05 j 18:29	23°≈56′01	46.29808 AU	morning rise	-6956 Apr 28 j 14:42	0° <b>)</b> 47′19	
				retrograde	-6956 Jul 24 j 05:08	2° <b>∺</b> 01'37	
conjunction	-6962 Apr 07 j 16:18	23° <b>≈</b> 58'45		opposition	-6956 Oct 12 j 16:49	0° <b>¥</b> 59'27	
minimum elong	-6962 Apr 07 j 16:29	23° <b>≈</b> 58'46	8°04'38	min. Earth dist.	-6956 Oct 14 j 16:49		43.15188 AU
morning rise	-6962 Apr 21 j 08:49	24°≈18'16			-6956 Dec 14 j 17:24	30° <b>₹</b> ≈	
retrograde	-6962 Jul 17 j 22:55	25° <b>≈</b> 32'21		direct	-6955 Jan 02 j 21:25	29° <b>≈</b> 55'48	
opposition	-6962 Oct 06 j 21:41	24° <b>≈</b> 30′59	-8°17'33		-6955 Jan 22 j 03:51	0° <b>∀</b>	
min. Earth dist.	-6962 Oct 08 j 15:13	24° <b>≈</b> 28'54	44.23238 AU	evening set	-6955 Mar 31 j 11:10	1° <b>₩</b> 10'33	
direct	-6962 Dec 28 j 05:04	23° <b>≈</b> 28′22		max. Earth dist.	-6955 Apr 13 j 01:27	1° <b>¥</b> 28'55	45.04513 AU
evening set	-6961 Mar 26 j 03:33	24° <b>≈</b> 42'25					
max. Earth dist.	-6961 Apr 07 j 00:48	24°≈59′22	46.12704 AU	conjunction	-6955 Apr 15 j 08:01	1° <b>)</b> 32′16	-6°01'42
				minimum elong	-6955 Apr 15 j 08:11	1° <b>)</b> 32′16	6°01'57
conjunction	-6961 Apr 09 j 00:42	25°≈02'14	-7°47'41	morning rise	-6955 Apr 30 j 03:54	1° <b>¥</b> 53'57	
minimum elong	-6961 Apr 09 j 00:53	25°≈02'15	7°48'00	retrograde	-6955 Jul 25 j 15:00	3° <b>)</b> €08'21	
morning rise	-6961 Apr 22 j 21:43	25° <b>≈</b> 22'05		opposition	-6955 Oct 14 j 00:44	2° <b>)</b> €06'02	-6°08'52
retrograde	-6961 Jul 19 j 09:54	26° <b>≈</b> 36′08		min. Earth dist.	-6955 Oct 16 j 02:29	2° <b>)</b> €03'30	42.95946 AU
opposition	-6961 Oct 08 j 04:24	25° <b>≈</b> 34'37	-8°00'06	direct	-6954 Jan 04 j 05:35	1° <b>∺</b> 02'11	
min. Earth dist.	-6961 Oct 09 j 22:55	25° <b>≈</b> 32'29	44.05877 AU	evening set	-6954 Apr 01 j 17:59	2° <b>) 17</b> ′09	
direct	-6961 Dec 29 j 09:01	24° <b>≈</b> 31'49		max. Earth dist.	-6954 Apr 14 j 09:41	2° <b>)</b> ₹35'40	44.85164 AU
evening set	-6960 Mar 26 j 07:51	25° <b>≈</b> 45'55					
max. Earth dist.	-6960 Apr 07 j 09:13	26° <b>≈</b> 03'10	45.95354 AU	conjunction	-6954 Apr 16 j 18:06	2° <b>)</b> €39'09	
				minimum elong	-6954 Apr 16 j 18:15	2° <b>)</b> 39′09	5°43'17
conjunction	-6960 Apr 09 j 09:27	26° <b>≈</b> 06′04	-7°30'45	morning rise	-6954 May 01 j 17:21	3° <b>₩</b> 01'07	
minimum elong	-6960 Apr 09 j 09:38	26° <b>≈</b> 06'05	7°31'03	retrograde	-6954 Jul 27 j 01:05	4° <b>升</b> 15'38	
morning rise	-6960 Apr 23 j 10:33	26° <b>≈</b> 26′13		opposition	-6954 Oct 15 j 08:51	3° <b>¥</b> 13′10	-5°49'15
retrograde	-6960 Jul 19 j 19:10	27° <b>≈</b> 40′16		min. Earth dist.	-6954 Oct 17 j 11:16	3° <b>¥</b> 10′35	42.76242 AU
opposition	-6960 Oct 08 j 11:21	26° <b>≈</b> 38'37	-7°42'20	direct	-6953 Jan 05 j 15:15	2° <b>₩</b> 09'06	
min. Earth dist.	-6960 Oct 10 j 07:15	26° <b>≈</b> 36′24	43.88281 AU	evening set	-6953 Apr 03 j 00:59	3° <b>¥</b> 24'15	
direct	-6960 Dec 29 j 15:52	25° <b>≈</b> 35'38		max. Earth dist.	-6953 Apr 15 j 17:52	3° <b>)</b> 42′56	44.65334 AU
evening set	-6959 Mar 27 j 12:33	26° <b>≈</b> 49'49					
max. Earth dist.	-6959 Apr 08 j 16:52	27° <b>≈</b> 07'19	45.77792 AU	conjunction	-6953 Apr 18 j 04:18	3° <b>)</b> 46′33	
				minimum elong	-6953 Apr 18 j 04:26	3° <b>){</b> 46'34	5°24'20
conjunction	-6959 Apr 10 j 18:14	27° <b>≈</b> 10'18	-7°13'31	morning rise	-6953 May 03 j 06:36	4° <b>)</b> €08'49	
minimum elong	-6959 Apr 10 j 18:25	27° <b>≈</b> 10'18	7°13'49	retrograde	-6953 Jul 28 j 09:45	5° <b>)</b> €23′28	
morning rise	-6959 Apr 24 j 23:30	27° <b>≈</b> 30'45		opposition	-6953 Oct 16 j 17:16	4° <b>)</b> €20'49	-5°29'21
retrograde	-6959 Jul 21 j 02:58	28° <b>≈</b> 44'49		min. Earth dist.	-6953 Oct 18 j 22:02	4° <b>)</b> €18'06	42.56083 AU
opposition	-6959 Oct 09 j 18:22	27° <b>≈</b> 43'02	-7°24'15	direct	-6952 Jan 07 j 00:55	3° <b>)</b> 16′31	
min. Earth dist.	-6959 Oct 11 j 14:17	27° <b>≈</b> 40'49	43.70462 AU	evening set	-6952 Apr 03 j 08:19	4° <b>)</b> €31'53	
direct	-6959 Dec 31 j 00:09	26° <b>≈</b> 39'53		max. Earth dist.	-6952 Apr 16 j 03:44	4° <b>)</b> € 50'48	44.45078 AU
evening set	-6958 Mar 28 j 17:41	27° <b>≈</b> 54'11					

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6952 in astronomical counting style is the year 6953 BCE in historical counting style. 4°**¥**54'28 -5°04'50 -6952 Apr 18 j 14:45 evening set -6945 Apr 11 i 22:59 12°**)**(41'15 conjunction minimum elong -6952 Apr 18 j 14:54 4°\ 54'29 5°05'05 max. Earth dist. -6945 Apr 25 j 03:10 13°**₭**01'24 42.95315 AU -6952 May 03 j 19:56 5° ¥ 17'01 morning rise 6°**)**€31'49 -6952 Jul 28 j 17:40 13°**)**€05'41 -2°41'53 conjunction -6945 Apr 27 j 21:33 retrograde -6952 Oct 17 j 01:41 5°**升**28'58 -5°09'08 -6945 Apr 27 j 21:38 13°¥05'41 2°42'03 opposition minimum elong -6952 Oct 19 j 06:50 -6945 May 13 j 18:04 min. Earth dist. 5°**¥**26'13 42.35517 AU morning rise 13°**X**30'01 direct -6951 Jan 07 j 10:54 4°**)**€24'26 retrograde -6945 Aug 06 j 22:43 14°**)** 46'36 -6945 Oct 25 j 20:04 evening set -6951 Apr 04 j 16:05 5°**)**40'01 opposition 13°**)** 42′18 -2°38′39 13°**¥**39'08 40.84364 AU max. Earth dist. -6951 Apr 17 j 11:51 5°**¥**59'03 44.24434 AU min. Earth dist. -6945 Oct 28 j 08:07 direct -6944 Jan 16 j 03:25 12°**)** 36′02 conjunction -6951 Apr 20 j 01:16 6°**)**€02'53 -4°45'18 evening set -6944 Apr 12 j 09:58 13°**)** 54′02 -6951 Apr 20 j 01:24 -6944 Apr 25 j 13:39 minimum elong 6°**)**€02'53 4°45'32 max. Earth dist. 14°**光**14'16 42.73033 AU -6951 May 05 j 09:22 morning rise 6°**¥**25'42 retrograde -6951 Jul 30 j 05:18 7°**)** 40′41 conjunction -6944 Apr 28 j 09:52 14° **X** 18'42 -2°20'16 opposition -6951 Oct 18 j 10:25 6°\(\)437'37 -4°48'36 minimum elong -6944 Apr 28 j 09:57 14° **H** 18'42 2°20'27 min. Earth dist. -6951 Oct 20 j 17:10 6°**)** 34'47 42.14604 AU morning rise -6944 May 14 j 07:57 14°**)**€43'16 direct -6950 Jan 08 j 17:26 5°**¥**32'50 retrograde -6944 Aug 07 j 14:04 16°**₩**00'13 evening set -6950 Apr 06 j 00:10 6°**)** 48'41 opposition -6944 Oct 26 j 06:33 14°\\$55'43 -2°15'52 max. Earth dist. -6950 Apr 18 j 22:32 7°**升**07'57 44.03454 AU min. Earth dist. -6944 Oct 28 j 19:25 14°**)** 52′29 40.61874 AU direct -6943 Jan 16 j 11:46 13°**)** 49′10 conjunction -6950 Apr 21 j 12:11 7°**)** 11'49 -4°25'29 evening set -6943 Apr 13 j 21:25 15°**)**€07'39 minimum elong -6950 Apr 21 j 12:19 7°\;\;\\11'49 4°25'42 max. Earth dist. -6943 Apr 27 i 01:18 15°**)** €28'01 42.50412 AU -6950 May 06 j 22:41 7°**)** 34'54 morning rise -6950 Jul 31 j 16:44 retrograde 8°**)** 50'04 conjunction -6943 Apr 29 i 22:44 15°\(\)32'33 -1°58'21 -6950 Oct 19 j 19:23 7°**)**(46'48 -4°27'45 -6943 Apr 29 i 22:48 15°**)** € 32'33 1°58'30 opposition minimum elong -6950 Oct 22 j 03:18 7°**)** 43′54 41.93389 AU -6943 May 15 j 21:51 15° ¥ 57'20 min. Earth dist. morning rise -6949 Jan 10 j 01:25 6°**¥**41'45 -6943 Aug 09 j 04:17 17°**¥** 14'40 retrograde direct -6949 Apr 07 j 08:45 opposition -6943 Oct 27 j 17:38 16°¥09'56 -1°52'45 7° ¥ 57'53 evening set -6949 Apr 20 j 07:57 8°**升**17'18 43.82219 AU -6943 Oct 30 j 08:35 16°**႘**06'35 40.39026 AU max. Earth dist. min. Earth dist. -6942 Jan 17 j 22:40 15°**₩**03'07 direct 8°**¥**21'17 -4°05'21 -6949 Apr 22 j 23:07 -6942 Apr 15 j 09:32 conjunction evening set 16°¥22'05 -6942 Apr 28 j 13:26 16°**)** 42'35 42.27427 AU -6949 Apr 22 j 23:14 8°**H**21'18 4°05'34 max. Earth dist. minimum elong -6949 May 08 j 12:09 8°**)**44'38 morning rise -6942 May 01 j 11:52 -6949 Aug 02 j 05:14 10°**)** €00'01 16°**¥**47'12 -1°36'09 retrograde conjunction 16°**)**47′12 1°36′18 -6949 Oct 21 j 04:33 8°\;\;56'32 -4°06'34 -6942 May 01 j 11:55 opposition minimum elong -6949 Oct 23 j 12:38 -6942 May 17 j 11:58 17°**)** 12′12 min. Earth dist. 8°**¥**53'37 41.71959 AU morning rise direct -6948 Jan 11 j 09:36 7°**)** 51'14 retrograde -6942 Aug 10 j 15:40 18°**米**29'56 -6948 Apr 07 j 17:28 9°**)**(07'41 -6942 Oct 29 j 04:52 17°**)** €24'57 -1°29'20 evening set opposition max. Earth dist. -6948 Apr 20 j 17:58 9°**升**27'17 43.60765 AU min. Earth dist. -6942 Oct 31 j 20:03 17°**₭**21'34 40.15809 AU direct -6941 Jan 19 j 12:09 16°**)** 17′50 evening set conjunction -6948 Apr 23 j 10:12 9°\;\;31'21 -3°44'56 -6941 Apr 16 j 22:13 17°**)** 37'18 -6948 Apr 23 j 10:19 9°\(\)31'21 3°45'09 max. Earth dist. -6941 Apr 30 j 00:35 17°**升**57'49 42.04060 AU minimum elong -6948 May 09 j 01:22 9°**¥**54'57 morning rise -6948 Aug 02 j 14:20 11°**)** 10′35 -6941 May 03 j 01:18 18°**¥**02'38 -1°13'40 retrograde conjunction -6948 Oct 21 j 14:07 10°**₭**06'53 -3°45'05 -6941 May 03 j 01:21 18°**)** €02'38 1°13'48 opposition minimum elong -6948 Oct 23 i 23:53 10°**¥**03'52 41.50337 AU -6941 May 19 i 02:09 min. Earth dist. morning rise 18°**¥**27'50 direct -6947 Jan 11 i 21:25 9°\(\frac{1}{20}\) retrograde -6941 Aug 12 i 03:24 19°**)** 45'59 evening set -6947 Apr 09 i 02:48 10°**)** 18′08 opposition -6941 Oct 30 i 16:36 18°\(\)40'44 -1°05'36 18°**)** 37'14 39.92241 AU max. Earth dist. -6947 Apr 22 j 05:21 10°**)** € 37'57 43.39143 AU min. Earth dist. -6941 Nov 02 i 09:45 direct -6940 Jan 21 i 00:15 17°**¥**33'18 -6947 Apr 24 i 21:43 10°¥42'03 -3°24'13 -6940 Apr 17 j 11:08 18° ¥ 53'17 conjunction evening set 10°**)** 42'04 3°24'25 -6947 Apr 24 j 21:49 max. Earth dist. -6940 Apr 30 j 14:12 19°**升**13'58 41.80352 AU minimum elong -6947 May 10 j 14:53 11°**)** 05'54 morning rise retrograde -6947 Aug 03 j 23:01 12°**)** 21'49 conjunction -6940 May 03 j 14:59 19°**)** 18'48 -0°50'53 -6947 Oct 22 j 23:40 opposition 11°**光**17'55 -3°23'16 minimum elong -6940 May 03 j 15:00 19°**¥**18'48 0°51'02 min. Earth dist. -6947 Oct 25 j 09:22 11°**)** 14'53 41.28546 AU morning rise -6940 May 19 j 16:14 19°**)** 44'12 -6946 Jan 13 j 09:31 10°**升**12′08 -6940 Aug 12 j 14:59 21°**)** 02'48 direct retrograde -6946 Apr 10 j 12:47 11°**)**29'18 -6940 Oct 31 j 04:33 19°**)** 57'17 -0°41'33 evening set opposition 11°**光**49'13 43.17336 AU -6940 Nov 02 j 22:22 19°**₭**53'43 39.68348 AU max. Earth dist. -6946 Apr 23 j 15:04 min. Earth dist. -6939 Jan 21 j 12:38 18°**¥**49'30 direct -6946 Apr 26 j 09:29 20°\ 10'01 conjunction 11°**X**53'29 -3°03'12 evening set -6939 Apr 19 j 00:58 minimum elong -6946 Apr 26 j 09:35 11°**X**53'29 3°03'24 max. Earth dist. -6939 May 02 j 02:06 20°**₭**30'43 41.56344 AU morning rise -6946 May 12 j 04:34 12°**升** 17'35 retrograde -6946 Aug 05 j 11:10 13°**)** 33'48 conjunction -6939 May 05 j 04:59 20°**)** 35'44 -0°27'50 opposition -6946 Oct 24 j 09:44 12°**¥**29'43 -3°01'07 minimum elong -6939 May 05 j 05:00 20°**H**35'44 0°27'57 -6946 Oct 26 j 21:00 12°**升**26'35 41.06576 AU -6939 May 21 j 06:40 21°**)** 01'19 min. Earth dist. morning rise

-6945 Jan 14 j 17:29

direct

11°**)**€23'41

-6939 Aug 14 j 06:07

retrograde

22°**)** € 20'24

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6939 in astronomical counting style is the year 6940 BCE in historical counting style. -6939 Nov 01 i 16:40 21° ★ 14'34 -0°17'12 direct -6932 Jan 31 i 06:04 28° **)** 07'14 opposition -6939 Nov 04 j 11:28 21°**)** 10′56 39.44204 AU -6932 Apr 28 j 18:25 29°\ 32'51 min. Earth dist. evening set 29°**¥**53'56 39.84429 AU -6938 Jan 22 j 22:36 20°₩06'26 -6932 May 11 j 09:40 direct max. Earth dist. -6938 Apr 20 j 15:13 21°**∺**27'33 evening set -6938 May 03 j 16:06 29°**升**59'31 2°21'09 max. Earth dist. 21°**X**48'21 41.32089 AU conjunction -6932 May 14 j 17:10 -6932 May 14 j 17:05 minimum elong 29°**X**59'31 2°21'06 -6932 May 14 j 23:56  $0^{\circ}$ conjunction -6938 May 06 j 19:29 21°**X**53'26 -0°04'33 -6938 May 06 j 19:29 0°Y26'02 minimum elong 21°**)** 53'26 0°04'40 morning rise -6932 May 30 j 12:56 -6938 May 06 j 13:07 1° Y 49' 41 behind sun begin 21°**)**53'01 retrograde -6932 Aug 23 j 20:29 behind sun end -6938 May 07 j 01:52 21°**)** 53'50 opposition -6932 Nov 10 j 17:40 0°**Υ**41'50 2°41'35 morning rise -6938 May 22 j 20:59 22°**)** 19'11 min. Earth dist. -6932 Nov 13 j 16:54 0°**Υ**37'49 37.72147 AU asc. node -6938 Jul 15 j 19:20 23°**)** 26'31 -6932 Dec 13 j 20:37 30°₽**Ж** 29°**₩**31'21 retrograde -6938 Aug 15 j 20:45 23°**)** ₹38'46 direct -6931 Jan 31 j 19:34 opposition -6938 Nov 03 j 05:25 22°**)** €32'38 0°07'28 -6931 Mar 21 j 05:59  $0^{\circ}\Upsilon$ min. Earth dist. -6938 Nov 06 j 01:33 22°\\\28'55 39.19857 AU evening set -6931 Apr 30 j 13:40 0°Y57'53 direct -6937 Jan 24 j 11:20 21°**)** 24'09 max. Earth dist. -6931 May 13 j 01:53 1°Υ18'56 39.59441 AU evening set -6937 Apr 22 j 06:01 22°\ 45'54 max. Earth dist. -6937 May 05 j 06:01 23°**₭**06'47 41.07674 AU conjunction -6931 May 16 j 10:31 1°**Y**24'39 2°46'17 minimum elong -6931 May 16 j 10:25 1°Y24'38 2°46'14 conjunction -6937 May 08 j 09:59 23°\dagger 11'56 0°19'10 morning rise -6931 Jun 01 j 04:07 1°Y51'13 minimum elong -6937 May 08 j 09:58 23°**)**€11'56 0°19'04 retrograde -6931 Aug 25 j 14:56 3°Y15'43 morning rise -6937 May 24 j 11:19 23°**)**(37'50 opposition -6931 Nov 12 i 09:25 2°\bar{\gamma}07'34 3°08'13 retrograde -6937 Aug 17 j 12:35 24° **\(** 57'59 min. Earth dist. -6931 Nov 15 j 10:28 2°**Υ**03'26 37.47137 AU opposition -6937 Nov 04 j 18:22 23°**)** 51'32 0°32'26 direct -6930 Feb 02 i 12:04 0°Υ56'44 min. Earth dist. -6937 Nov 07 j 14:15 23°**)**(47'49 38.95391 AU evening set -6930 May 02 j 09:49 2°Y24'15 -6936 Jan 26 j 01:25 22°\ 42'42 max. Earth dist. -6930 May 14 j 19:26 2°Υ45'17 39.34252 AU direct 24° ¥ 05'07 -6936 Apr 22 j 21:29 evening set -6936 May 05 j 19:45 24°**)** 40.83144 AU -6930 May 18 j 04:20 2°Υ51'04 3°11'38 max. Earth dist. conjunction -6930 May 18 j 04:13 2°Y51'03 3°11'37 minimum elong -6930 Jun 02 j 19:34 -6936 May 09 j 01:00 24°**)** 31'19 0°43'02 3°**Y**17'41 conjunction morning rise -6936 May 09 j 00:59 -6930 Aug 27 j 09:21 4°Y43'03 24°**)** 31'19 retrograde minimum elong 0°42'57 3°**Υ**34'35 3°35'07 -6936 May 25 j 01:44 -6930 Nov 14 j 01:41 24°**)** 57'22 morning rise opposition 3°**Y**30′25 37.21920 AU -6936 Aug 18 j 03:24 26°**)** 18′07 min. Earth dist. -6930 Nov 17 j 02:40 retrograde -6936 Nov 05 j 07:44 25°**₭**11'22 0°57'42 -6929 Feb 04 j 06:20 2°Y23'23 opposition direct -6936 Nov 08 j 05:13 25°**₭**07'32 38.70857 AU -6929 May 04 j 06:43 3°Y51'53 min. Earth dist. evening set 24°**₩**02'12 4°**Υ**12'46 39.08834 AU -6935 Jan 26 j 14:55 -6929 May 16 j 11:37 direct max. Earth dist. evening set -6935 Apr 24 j 13:35 25°**∺**25′20 max. Earth dist. -6935 May 07 j 11:33 25°**)** 46'23 40.58564 AU conjunction -6929 May 19 j 22:27 4°Υ18'44 3°37'13 minimum elong -6929 May 19 j 22:19 4°Υ18'44 3°37'11 4°**Υ**45'24 conjunction -6935 May 10 j 16:28 25°**¥**51'40 1°07'11 morning rise -6929 Jun 04 j 10:59 -6935 May 10 j 16:26 25°**)** €51'40 1°07'06 retrograde -6929 Aug 29 j 03:10 6°Υ11'40 minimum elong -6935 May 26 j 16:22 26°**)** 17′51 -6929 Nov 15 j 18:31 5°Υ02'52 4°02'15 morning rise opposition -6935 Aug 19 j 16:32 27°**¥**39'15 min. Earth dist. -6929 Nov 18 j 21:11 4°Υ58'35 36.96505 AU retrograde -6935 Nov 06 j 21:33 26°**)** 32'14 1°23'15 -6928 Feb 05 j 22:04 3°Y51'16 opposition direct -6935 Nov 09 j 18:43 26°**升**28'23 38.46276 AU -6928 May 05 j 04:26 5°Y20'49 min. Earth dist. evening set 5°**Υ**41'39 38.83217 AU direct -6934 Jan 28 i 05:54 25°**)**€22'43 max. Earth dist. -6928 May 17 j 06:38 evening set -6934 Apr 26 i 06:32 26°\ 46'38 5°**Y**47'40 4°02'59 max. Earth dist. -6934 May 09 i 01:37 27°**)**€07'39 40.33931 AU conjunction -6928 May 20 j 17:17 5°**Y**47'40 4°02'59 minimum elong -6928 May 20 j 17:09 -6934 May 12 j 08:14 27°¥13'06 1°31'35 -6928 Jun 05 i 02:38 6°Y14'20 conjunction morning rise -6934 May 12 i 08:11 27°¥13'06 1°31'31 retrograde -6928 Aug 29 j 19:21 7°**Y**41'33 minimum elong -6934 May 28 j 07:07 27°**)** 39'24 -6928 Nov 16 j 11:41 6°Y32'23 4°29'36 morning rise opposition 29°**)**€01'30 -6934 Aug 21 j 08:57 min. Earth dist. -6928 Nov 19 j 14:46 6°**Y**28'03 36.70912 AU retrograde 5°Y20'23 opposition -6934 Nov 08 j 11:46 27°**\**54'12 1°49'05 direct -6927 Feb 06 j 15:41 min. Earth dist. -6934 Nov 11 j 09:54 27°**升**50'17 38.21661 AU evening set -6927 May 07 j 03:12 6°Υ51'00 26°**) (**44′22 -6933 Jan 29 j 17:31 max. Earth dist. -6927 May 19 j 00:06 7°Υ11'39 38.57447 AU direct -6933 Apr 28 j 00:05 28°**₩**09'06 evening set -6933 May 10 j 18:19 28°**₭**30'13 40.09232 AU -6927 May 22 j 12:30 7°Υ17'51 4°28'57 max. Earth dist. conjunction -6927 May 22 j 12:20 7°**Υ**17'50 4°28'57 minimum elong 7°**Y**44'29 -6933 May 14 j 00:37 28°\dagger35'41 1°56'15 -6927 Jun 06 j 18:33 conjunction morning rise 9°**Υ**12'42 minimum elong -6933 May 14 j 00:33 28°**)** 35'41 1°56'11 retrograde -6927 Aug 31 j 15:46 morning rise -6933 May 29 j 21:55 29°**)** 02'06 opposition -6927 Nov 18 j 05:26 8°**Y**03'09 4°57'10 -6933 Jul 10 j 01:41 0° $\gamma$ min. Earth dist. -6927 Nov 21 j 09:04 7°**Υ**58'46 36.45209 AU retrograde -6933 Aug 23 j 01:19 0°**Υ**24'58 direct -6926 Feb 08 j 06:30 6°**Y**50'43 -6933 Oct 06 j 19:05 30°**₹** evening set -6926 May 09 j 02:40 8°**Y**22'28 -6933 Nov 10 j 02:33 29°\ 17'23 2°15'12 max. Earth dist. -6926 May 20 j 19:53 8°Υ43'01 38.31563 AU opposition

-6933 Nov 13 j 01:33

min. Earth dist.

29°**₭**13'24 37.96965 AU

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6926 in astronomical counting style is the year 6927 BCE in historical counting style. 8°**Υ**49'16 4°55'05 -6926 May 24 i 08:17 evening set -6919 May 22 j 03:30 19°Y43'25 conjunction max. Earth dist. 20°**Υ**02'14 36.52276 AU -6926 May 24 j 08:06 8°Υ49'15 4°55'07 -6919 Jun 01 j 04:17 minimum elong -6926 Jun 08 j 10:19 9°Y15'52 morning rise -6926 Sep 02 j 11:19 10°**Y**45′07 -6919 Jun 04 j 17:54 20°**Y**′08′59 conjunction 8°00'37 retrograde 20°**Y**08′58 -6919 Jun 04 j 17:36 -6926 Nov 19 j 23:52 9°**Υ**35'11 5°24'56 8°00'43 opposition minimum elong 20°**Ƴ**34'21 9°**Υ**30'42 36.19444 AU -6926 Nov 23 j 04:37 -6919 Jun 18 j 04:52 min. Earth dist. morning rise 8°Y22'19 22°Y12'46 direct -6925 Feb 09 j 22:45 retrograde -6919 Sep 14 j 02:11 -6925 May 11 j 03:10 9°Y55'14 -6919 Dec 01 j 01:50 21°**Y**00'09 evening set opposition 8°42'11 10°**Y**°15'38 38.05664 AU 20°**Y**55′23 34.41831 AU max. Earth dist. -6925 May 22 j 15:44 min. Earth dist. -6919 Dec 04 j 08:14 19°**Y**44'19 direct -6918 Feb 20 j 19:24 conjunction -6925 May 26 j 04:26 10°**Y**21'57 5°21'22 evening set -6918 May 24 j 11:46 21°Y27'31 -6925 May 26 j 04:14 -6918 Jun 03 j 04:47 21°Υ45'56 36.27010 AU minimum elong 10°**Y**21′56 5°21'23 max. Earth dist. -6925 Jun 10 j 02:20 10°**Y**48′28 morning rise retrograde -6925 Sep 04 j 09:36 12° Y 18'49 conjunction -6918 Jun 06 j 18:25 21°**Y**52'45 8°27'11 opposition -6925 Nov 21 j 18:43 11°**Υ**08'29 5°52'50 minimum elong -6918 Jun 06 j 18:06 21°**Y**52'43 8°27'20 min. Earth dist. -6925 Nov 24 j 22:54 11°**Υ**04'01 35.93715 AU morning rise -6918 Jun 19 j 21:53 22°Y17'46 direct -6924 Feb 11 j 18:29 9°Y55'11 retrograde -6918 Sep 16 j 05:22 23°Y57'46 evening set -6924 May 12 j 04:24 11°Y29'21 opposition -6918 Dec 03 j 01:31 22°**Y**44'46 9°10'29 max. Earth dist. -6924 May 23 j 11:34 11°**Y**49'32 37.79801 AU min. Earth dist. -6918 Dec 06 j 07:19 22°**Y**40'01 34.16819 AU -6917 Feb 22 j 19:28 21°Y28'30 conjunction -6924 May 27 j 01:04 11°Υ55'58 5°47'45 evening set -6917 May 26 j 21:13 23°Y13'28 minimum elong -6924 May 27 j 00:51 11°**Υ**55'57 5°47'49 max. Earth dist. -6917 Jun 05 i 05:11 23°**Υ**31'21 36.01761 AU morning rise -6924 Jun 10 j 18:17 12°Y22'23 retrograde -6924 Sep 05 i 08:16 13°Y53'54 conjunction -6917 Jun 08 i 19:44 23°**Y**38'19 8°53'42 opposition -6924 Nov 22 j 14:19 12°**Y**43′09 6°20'53 minimum elong -6917 Jun 08 i 19:24 23°**Y**38'17 8°53'50 -6924 Nov 25 j 19:41 12°**Y**38'36 35.68069 AU -6917 Jun 21 j 15:04 24°Y02'56 min. Earth dist. morning rise -6923 Feb 12 j 14:05 11°Y29'25 -6917 Sep 18 j 08:51 25°**Y**'44'37 direct retrograde -6923 May 14 j 06:49 13°Y04'54 -6917 Dec 05 j 02:02 24°Y31'12 9°38'42 opposition evening set -6923 May 25 j 09:43 13°**Υ**24'57 37.54046 AU -6917 Dec 08 j 09:07 24°Υ26'20 33.91853 AU max. Earth dist. min. Earth dist. -6916 Feb 24 j 18:52 23°Y14'28 direct 13°**Υ**31'23 6°14'15 -6923 May 28 j 22:25 -6916 May 28 j 07:55 25°**Y**01'17 conjunction evening set -6923 May 28 j 22:11 -6916 Jun 06 j 07:53 25°Υ18'42 35.76569 AU 13°**Y**31'22 6°14'18 max. Earth dist. minimum elong -6923 Jun 12 j 10:29 13°**Y**57'39 morning rise 25°**Y**'25'40 9°20'06 -6923 Sep 07 j 05:15 15°**Y**30′23 -6916 Jun 09 j 21:40 retrograde conjunction -6923 Nov 24 j 10:23 14°**Υ**19'16 6°49'02 -6916 Jun 09 j 21:19 25°**Y**25'38 opposition minimum elong 9°20'16 -6923 Nov 27 j 14:57 -6916 Jun 22 j 08:15 25°**Y**49′50 min. Earth dist. 14°**Υ**14'44 35.42555 AU morning rise 13°**Y**05′06 -6916 Sep 19 j 10:36 27°**Y**33'15 direct -6922 Feb 14 j 11:38 retrograde -6922 May 16 j 10:23 14°**Y**41'59 opposition -6916 Dec 06 j 03:15 26°Υ19'25 10°06'49 evening set max. Earth dist. -6922 May 27 j 06:30 15°**Y**01'43 37.28426 AU min. Earth dist. -6916 Dec 09 j 09:38 26°Υ14'33 33.66954 AU direct -6915 Feb 25 j 20:52 25°**Y**02′13 evening set conjunction -6922 May 30 j 20:18 15°**Υ**08'18 6°40'48 -6915 May 30 j 20:02 26°**Y**50′57 -6922 May 30 j 20:03 15°Υ08'17 6°40'53 max. Earth dist. -6915 Jun 08 j 09:22 27°Υ07'41 35.51455 AU minimum elong -6922 Jun 14 j 02:56 15°**Y**34'24 morning rise -6922 Sep 09 j 03:18 17°**Y**′08′26 -6915 Jun 12 j 00:17 27°**Ƴ**14'49 9°46'21 retrograde conjunction -6922 Nov 26 j 07:14 15°**Υ**56'57 7°17'16 -6915 Jun 11 j 23:56 27°**Ƴ**14'47 9°46'31 opposition minimum elong -6915 Jun 24 i 01:38 27°**Y**38'28 min. Earth dist. -6922 Nov 29 j 12:31 15°Υ52'20 35.17206 AU morning rise 29°**Y**23'42 direct -6921 Feb 16 i 06:34 14°\bar{Y}42'21 retrograde -6915 Sep 21 i 14:05 28°**Y**′09′26 evening set -6921 May 18 j 14:45 16°**Y**20'42 opposition -6915 Dec 08 i 05:09 10°34'46 28°**Υ**'04'30 33.42188 AU max. Earth dist. -6921 May 29 j 06:02 16°**Υ**40'15 37.02946 AU min. Earth dist. -6915 Dec 11 i 12:07 direct -6914 Feb 27 j 21:20 26°**Y**51'45 -6921 Jun 01 i 18:47 16°**Y**′46'49 7°07'24 -6914 Jun 02 j 09:26 28°Y42'29 conjunction evening set -6921 Jun 01 i 18:31 16°**Y**′46'48 7°07'28 max. Earth dist. -6914 Jun 10 j 14:05 28°Υ58'40 35.26494 AU minimum elong -6921 Jun 15 j 19:14 17°**Y**12'42 morning rise 29°**Υ**05'46 10°12'24 retrograde -6921 Sep 11 j 00:27 18°Y48'08 conjunction -6914 Jun 14 j 03:42 opposition -6921 Nov 28 j 04:47 17°**Υ**36'16 7°45'34 minimum elong -6914 Jun 14 j 03:18 29°**Y**05'44 10°12'36 -6914 Jun 25 j 18:54 29°Y28'50 min. Earth dist. -6921 Dec 01 j 10:07 17°**Y**31'37 34.91989 AU morning rise -6920 Feb 18 j 03:10 16°**Y**21'16 -6914 Jul 12 j 03:52 0°8 direct -6920 May 19 j 20:34 18°**Y**01′09 -6914 Sep 23 j 16:44 1°**8**15'58 evening set retrograde -6920 May 30 j 04:12 18°**Y**20'19 36.77583 AU -6914 Dec 10 j 08:04 max. Earth dist. opposition 0°**8**01'15 11°02'30 -6914 Dec 11 j 03:54 30°**R**Υ -6920 Jun 02 j 17:53 18°**Y**27′01 7°34′01 min. Earth dist. 29°**Y**56'18 33.17617 AU conjunction -6914 Dec 13 j 14:47 28°**Y**43′05 minimum elong -6920 Jun 02 j 17:36 18°**Y**27′00 7°34'07 direct -6913 Mar 01 j 23:06 morning rise -6920 Jun 16 j 12:01 18°**Y**52'40 -6913 May 17 j 04:14  $0^{\circ}$ 8 retrograde -6920 Sep 12 j 01:34 20°**Y**29'33 evening set -6913 Jun 05 j 00:07 0°**8**35'54 opposition -6920 Nov 29 j 02:46 19°**Y**17′19 8°13'52 max. Earth dist. -6913 Jun 12 j 17:34 0°**8**51'19 35.01773 AU min. Earth dist. -6920 Dec 02 j 08:04 19°**Y**12'39 34.66886 AU

-6919 Feb 18 j 22:08

direct

18°**Y**01'54

-6913 Jun 16 j 07:26

conjunction

0°**8**58'31 10°38'12

Planetary Phenomena of Pluto from -7400 through -6898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -6913 in astronomical counting style is the year 6914 BCE in historical counting style. -6913 Jun 16 i 07:02 0°858'29 10°38'24 direct -6906 Mar 15 i 09:12 12°**8**37'36 minimum elong -6913 Jun 27 j 12:06 1°820'57 -6906 Jun 23 j 05:54 14°848'16 evening set morning rise -6913 Sep 25 j 22:06 3°810'05 -6906 Jun 27 j 00:55 14°**8**56'26 33.40583 AU max. Earth dist. retrograde -6913 Dec 12 j 11:34 -6906 Jun 28 j 16:33 1°**8**54'54 11°29'57 15°8 opposition -6913 Dec 15 j 17:34 min. Earth dist. 1°**8**49'58 32.93345 AU -6906 Jun 30 j 08:03 15°**8**03'33 13°26'12 direct -6912 Mar 03 j 00:18 0°**8**36'15 conjunction -6906 Jun 30 j 07:36 evening set -6912 Jun 06 j 16:14 2°**8**31'14 minimum elong 15°**8**03'31 13°26'30 -6906 Jul 07 j 08:37 max. Earth dist. -6912 Jun 13 j 23:19 2°**8**45'57 34.77363 AU morning rise 15°**8**18'42 retrograde -6906 Oct 10 j 11:14 17°**8**25'07 conjunction -6912 Jun 17 j 12:09 2°**8**53'08 11°03'41 opposition -6906 Dec 26 j 13:01 16°**8**07'02 14°28'22 minimum elong -6912 Jun 17 j 11:44 2°**8**53'06 11°03'53 min. Earth dist. -6906 Dec 29 j 13:36 16°**8**02'15 31.35972 AU -6912 Jun 28 j 05:16 3°814'49 -6905 Feb 14 j 06:29 morning rise 15°R₩ -6912 Sep 27 j 02:47 5°**8**06'03 -6905 Mar 17 j 16:45 retrograde direct 14°**8**45'22 opposition -6912 Dec 13 j 15:55 3°850'25 11°57'03 -6905 Apr 17 j 12:02 15°8 min. Earth dist. -6912 Dec 16 j 22:03 3°**8**45'27 32.69435 AU evening set -6905 Jun 26 j 11:58 16°**8**59'12 direct -6911 Mar 05 j 02:55 2°831'17 max. Earth dist. -6905 Jun 29 j 13:08 17°**8**05'50 33.19410 AU evening set -6911 Jun 09 j 10:08 4°828'35 max. Earth dist. -6911 Jun 16 j 05:34 4°842'28 34.53368 AU conjunction -6905 Jul 02 j 18:12 17°**8**12'50 13°47'39 minimum elong -6905 Jul 02 j 17:47 17°**8**12'48 13°47'57 conjunction -6911 Jun 19 j 17:30 4°**8**49'39 11°28'46 morning rise -6905 Jul 08 j 22:54 17°**8**26'20 minimum elong -6911 Jun 19 j 17:06 4°**8**49'37 11°28'59 retrograde -6905 Oct 12 j 21:53 19°835'50 morning rise -6911 Jun 29 i 22:27 5°**8**10'32 opposition -6905 Dec 28 i 23:56 18°**8**17'21 14°51'05 retrograde -6911 Sep 29 i 10:34 7°**8**03'58 min. Earth dist. -6904 Jan 01 i 00:00 18°**8**12'34 31.15337 AU opposition -6911 Dec 15 j 21:08 5°**8**47'53 12°23'44 direct -6904 Mar 19 j 01:27 16°**8**55'17 min. Earth dist. -6911 Dec 19 j 01:31 5°843'00 32.45973 AU evening set -6904 Jun 28 i 21:35 19°812'30 -6910 Mar 07 j 06:43 4°**8**28'18 max. Earth dist. -6904 Jul 01 j 00:37 19°**8**17'11 32.98702 AU direct -6910 Jun 12 j 05:21 6°828'00 evening set -6910 Jun 18 j 12:17 6°840'58 34.29826 AU -6904 Jul 04 j 05:07 19°**8**24'12 14°08'17 max. Earth dist. conjunction -6904 Jul 04 j 04:41 19°**8**24'10 minimum elong 14°08'36 -6910 Jun 21 j 23:36 6°848'09 11°53'24 -6904 Jul 09 j 11:24 19°**8**35'46 conjunction morning rise -6910 Jun 21 j 23:10 -6904 Oct 14 j 10:45 21°**8**48'37 6°**8**48'07 11°53'38 retrograde minimum elong -6910 Jul 01 j 15:29 7°**8**08'08 -6904 Dec 30 j 11:27 20°**8**29'43 15°12'54 morning rise opposition -6910 Oct 01 j 18:25 9°**8**03'54 -6903 Jan 02 j 09:49 min. Earth dist. 20°**8**25'02 30.95177 AU retrograde -6910 Dec 18 j 03:22 7°**8**47'24 12°49'54 -6903 Mar 21 j 11:06 19°**8**07'14 opposition direct -6910 Dec 21 j 07:56 7°**8**42'29 32.23001 AU -6903 Jul 02 j 12:18 21°**8**28'17 min. Earth dist. evening set -6909 Mar 09 j 10:30 6°**8**27'22 -6903 Jul 03 j 14:01 21°**8**30'39 32.78477 AU direct max. Earth dist. -6909 Jun 15 j 02:32 8°**8**29'36 evening set max. Earth dist. -6909 Jun 20 j 21:09 8°**8**41'39 34.06798 AU conjunction -6903 Jul 06 j 16:59 21°**8**37'36 14°28'01 minimum elong -6903 Jul 06 j 16:35 21°**8**37'34 14°28'20 conjunction -6909 Jun 24 j 06:31 8°848'44 12°17'31 morning rise -6903 Jul 10 j 20:34 21°**8**46'49 -6909 Jun 24 j 06:06 8°848'42 12°17'46 retrograde -6903 Oct 16 j 22:40 24°**8**03'25 minimum elong -6909 Jul 03 j 08:17 9°807'43 -6902 Jan 02 j 00:13 22°**8**44'06 15°33'43 morning rise opposition -6909 Oct 04 j 03:57 11°**8**05'56 min. Earth dist. -6902 Jan 04 j 22:16 22°**8**39'24 30.75523 AU retrograde -6909 Dec 20 j 10:17 9°849'02 13°15'31 -6902 Mar 23 j 21:47 21°**8**21'11 opposition direct -6909 Dec 23 j 13:03 9°844'11 32.00537 AU -6902 Jul 06 j 12:39 23°**8**46'54 min. Earth dist. evening set -6902 Jul 06 i 04:06 23°846'06 32.58816 AU direct -6908 Mar 10 j 18:20 8°**8**28'35 max. Earth dist. evening set -6908 Jun 17 i 01:22 10°833'29 -6908 Jun 22 j 04:47 10°**8**44'19 33.84262 AU -6902 Jul 09 i 05:18 23°**8**52'57 14°46'44 max. Earth dist. conjunction -6902 Jul 09 i 04:53 minimum elong 23°**8**52'55 14°47'05 -6908 Jun 25 j 14:09 10°851'29 12°41'04 -6902 Jul 11 i 21:02 23°**8**58'55 conjunction morning rise -6908 Jun 25 i 13:43 10°851'27 12°41'20 retrograde -6902 Oct 19 j 13:13 26°820'09 minimum elong -6908 Jul 04 j 00:56 11°**8**09'20 -6901 Jan 04 j 13:43 25°**8**00'23 15°53'26 morning rise opposition min. Earth dist. -6908 Oct 05 j 15:06 13°810'08 -6901 Jan 07 j 09:17 24°855'50 30.56453 AU retrograde opposition -6908 Dec 21 j 18:13 11°**8**52'50 13°40'31 direct -6901 Mar 26 j 10:19 23°**8**37'04 26°803'26 32.39777 AU min. Earth dist. -6908 Dec 24 j 20:52 11°**8**47'58 31.78564 AU max. Earth dist. -6901 Jul 08 j 18:40 -6907 Mar 13 j 00:46 10°**8**31'59 direct -6907 Jun 20 j 02:31 12°**8**39'42 conjunction -6901 Jul 11 j 18:27 26°**8**10'12 15°04'23 evening set -6907 Jun 24 j 15:34 12°**8**49'23 33.62197 AU -6901 Jul 11 j 18:04 26°**8**10'10 max. Earth dist. minimum elong 15°04'44 -6901 Oct 22 j 04:00 28°**8**38'44 retrograde -6907 Jun 27 j 22:45 12°**8**56'26 13°03'59 -6900 Jan 07 j 04:03 27°**8**18'34 16°11'57 conjunction opposition -6907 Jun 27 j 22:19 12°**8**56'23 -6900 Jan 09 j 23:02 27°**8**14'02 30.38050 AU minimum elong 13°04'16 min. Earth dist. morning rise -6907 Jul 05 j 17:04 13°**8**13'00 direct -6900 Mar 27 j 22:05 25°**8**54'50 -6907 Sep 06 j 04:20 15°8 max. Earth dist. -6900 Jul 10 j 11:18 28°**8**22'45 32.21469 AU retrograde -6907 Oct 07 j 23:45 15°**8**16'32 -6907 Nov 09 j 10:37 15°R₩ conjunction -6900 Jul 13 j 08:12 28°**8**29'18 15°20'51 -6907 Dec 24 j 03:08 13°858'51 14°04'49 -6900 Jul 13 j 07:48 28°**8**29'15 15°21'13 opposition minimum elong

min. Earth dist.

-6907 Dec 27 j 04:34

13°**8**54'02 31.57039 AU

-6900 Aug 24 j 20:40

 $0^{\circ}\Pi$ 

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Attention, astronomical year style is used: The year -6900 in astronomical counting style is the year 6901 BCE in historical counting style.

-6900 Oct	23 j 20:07	0° <b>Ⅱ</b> 59'09	
-6900 Dec	26 j 12:36	30° <b>₹</b> 8	
-6899 Jan	08 j 19:16	29° <b>8</b> 38'34	16°29'10
-6899 Jan	11 j 11:27	29° <b>8</b> 34'12	30.20390 AU
-6899 Mar	30 j 14:03	28° <b>8</b> 14'28	
-6899 Jun	23 j 16:36	$\Pi^{\circ}0$	
-6899 Jul	13 j 03:04	0° <b>Ⅱ</b> 43'45	32.03960 AU
-6899 Jul	15 j 22:33	0° <b>Ⅱ</b> 50′13	15°36'02
-6899 Jul	15 j 22:12	0° <b>Ⅱ</b> 50′11	15°36'24
-6899 Oct	26 j 13:34	3° <b>Ⅱ</b> 21′22	
	-6900 Dec -6899 Jan -6899 Jan -6899 Jun -6899 Jul -6899 Jul	-6899 Jul 15 j 22:33	-6900 Dec 26 j 12:36 30°R8 -6899 Jan 08 j 19:16 29°838'34 -6899 Jan 11 j 11:27 29°834'12 -6899 Mar 30 j 14:03 28°814'28 -6899 Jul 23 j 16:36 0°П -6899 Jul 13 j 03:04 0°П 43'45 -6899 Jul 15 j 22:33 0°П 50'13 -6899 Jul 15 j 22:12 0°П 50'11