

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 1

Attention, astronomical year style is used: The year -11400 in astronomical counting style is the year 11401 BCE in historical counting style.

evening set	-11400 Feb 27 j 21:28	29° <del>2</del> 22'04		conjunction	-11394 Mar 20 j 16:35	6° <del>3</del> 23'40	-5°08'55
max. Earth dist.	-11400 Mar 10 j 17:08	29° <del>2</del> 39'09	45.57902 AU	minimum elong	-11394 Mar 20 j 16:43	6° <del>3</del> 23'41	5°09'33
				morning rise	-11394 Apr 04 j 19:08	6° <del>3</del> 46'10	
conjunction	-11400 Mar 13 j 05:50	29° <del>2</del> 42'51	-6°58'31	retrograde	-11394 Jun 29 j 02:45	8° <del>3</del> 00'49	
minimum elong	-11400 Mar 13 j 05:59	29° <del>2</del> 42'52	6°59'09	opposition	-11394 Sep 17 j 03:20	6° <del>3</del> 58'10	-5°13'36
	-11400 Mar 25 j 01:03	0° <del>3</del>		min. Earth dist.	-11394 Sep 19 j 14:52	6° <del>3</del> 55'07	42.28093 AU
morning rise	-11400 Mar 27 j 12:50	0° <del>3</del> 03'34		direct	-11394 Dec 08 j 23:57	5° <del>3</del> 53'23	
retrograde	-11400 Jun 21 j 19:01	1° <del>3</del> 17'29		evening set	-11393 Mar 06 j 19:52	7° <del>3</del> 09'39	
opposition	-11400 Sep 10 j 02:11	0° <del>3</del> 15'52	-7°08'44	max. Earth dist.	-11393 Mar 19 j 07:07	7° <del>3</del> 28'15	44.16853 AU
min. Earth dist.	-11400 Sep 12 j 09:06	0° <del>3</del> 13'06	43.49732 AU				
	-11400 Sep 23 j 08:16	30° <del>4</del>		conjunction	-11393 Mar 22 j 03:09	7° <del>3</del> 32'31	-4°49'35
direct	-11400 Dec 01 j 21:35	29° <del>2</del> 12'23		minimum elong	-11393 Mar 22 j 03:16	7° <del>3</del> 32'31	4°50'14
	-11399 Feb 07 j 23:11	0° <del>3</del>		morning rise	-11393 Apr 06 j 08:30	7° <del>3</del> 55'17	
evening set	-11399 Feb 28 j 03:06	0° <del>3</del> 27'23		retrograde	-11393 Jun 30 j 16:30	9° <del>3</del> 10'09	
max. Earth dist.	-11399 Mar 12 j 02:14	0° <del>3</del> 44'44	45.38539 AU	opposition	-11393 Sep 18 j 12:14	8° <del>3</del> 07'20	-4°53'17
				min. Earth dist.	-11393 Sep 21 j 01:27	8° <del>3</del> 04'11	42.06989 AU
conjunction	-11399 Mar 14 j 15:15	0° <del>3</del> 48'28	-6°41'00	direct	-11393 Dec 10 j 06:10	7° <del>3</del> 02'20	
minimum elong	-11399 Mar 14 j 15:24	0° <del>3</del> 48'28	6°41'38	evening set	-11392 Mar 07 j 04:06	8° <del>3</del> 18'55	
morning rise	-11399 Mar 29 j 01:50	1° <del>3</del> 09'29		max. Earth dist.	-11392 Mar 19 j 17:58	8° <del>3</del> 37'46	43.95670 AU
retrograde	-11399 Jun 23 j 05:15	2° <del>3</del> 23'27					
opposition	-11399 Sep 11 j 09:48	1° <del>3</del> 21'40	-6°50'21	conjunction	-11392 Mar 22 j 14:12	8° <del>3</del> 42'04	-4°29'57
min. Earth dist.	-11399 Sep 13 j 17:04	1° <del>3</del> 18'53	43.30065 AU	minimum elong	-11392 Mar 22 j 14:18	8° <del>3</del> 42'04	4°30'35
direct	-11399 Dec 03 j 04:11	0° <del>3</del> 17'57		morning rise	-11392 Apr 06 j 21:54	9° <del>3</del> 05'06	
evening set	-11398 Mar 01 j 09:05	1° <del>3</del> 33'06		retrograde	-11392 Jul 01 j 03:16	10° <del>3</del> 20'12	
max. Earth dist.	-11398 Mar 13 j 09:31	1° <del>3</del> 50'37	45.18845 AU	opposition	-11392 Sep 18 j 21:37	9° <del>3</del> 17'12	-4°32'38
				min. Earth dist.	-11392 Sep 21 j 12:05	9° <del>3</del> 13'59	41.85523 AU
conjunction	-11398 Mar 16 j 00:43	1° <del>3</del> 54'30	-6°23'11	direct	-11392 Dec 10 j 16:47	8° <del>3</del> 11'59	
minimum elong	-11398 Mar 16 j 00:51	1° <del>3</del> 54'30	6°23'49	evening set	-11391 Mar 08 j 12:59	9° <del>3</del> 28'53	
morning rise	-11398 Mar 30 j 14:55	2° <del>3</del> 15'49		max. Earth dist.	-11391 Mar 21 j 03:04	9° <del>3</del> 47'51	43.74108 AU
retrograde	-11398 Jun 24 j 15:39	3° <del>3</del> 29'52					
opposition	-11398 Sep 12 j 17:42	2° <del>3</del> 27'54	-6°31'39	conjunction	-11391 Mar 24 j 01:20	9° <del>3</del> 52'18	-4°10'01
min. Earth dist.	-11398 Sep 15 j 02:15	2° <del>3</del> 25'02	43.10120 AU	minimum elong	-11391 Mar 24 j 01:26	9° <del>3</del> 52'18	4°10'39
direct	-11398 Dec 04 j 11:01	1° <del>3</del> 23'58		morning rise	-11391 Apr 08 j 11:31	10° <del>3</del> 15'37	
evening set	-11397 Mar 02 j 15:04	2° <del>3</del> 39'17		retrograde	-11391 Jul 02 j 13:24	11° <del>3</del> 30'57	
max. Earth dist.	-11397 Mar 14 j 19:04	2° <del>3</del> 57'05	44.98884 AU	opposition	-11391 Sep 20 j 07:11	10° <del>3</del> 27'46	-4°11'39
				min. Earth dist.	-11391 Sep 22 j 22:24	10° <del>3</del> 24'29	41.63669 AU
conjunction	-11397 Mar 17 j 10:20	3° <del>3</del> 00'59	-6°05'04	direct	-11391 Dec 12 j 03:21	9° <del>3</del> 22'17	
minimum elong	-11397 Mar 17 j 10:28	3° <del>3</del> 00'59	6°05'43	evening set	-11390 Mar 09 j 22:10	10° <del>3</del> 39'31	
morning rise	-11397 Apr 01 j 03:45	3° <del>3</del> 22'36		max. Earth dist.	-11390 Mar 22 j 13:14	10° <del>3</del> 58'38	43.52127 AU
retrograde	-11397 Jun 25 j 22:12	4° <del>3</del> 36'45					
opposition	-11397 Sep 14 j 01:49	3° <del>3</del> 34'37	-6°12'38	conjunction	-11390 Mar 25 j 12:53	11° <del>3</del> 03'12	-3°49'47
min. Earth dist.	-11397 Sep 16 j 11:23	3° <del>3</del> 31'41	42.89923 AU	minimum elong	-11390 Mar 25 j 12:59	11° <del>3</del> 03'13	3°50'25
direct	-11397 Dec 05 j 22:31	2° <del>3</del> 30'27		morning rise	-11390 Apr 10 j 01:06	11° <del>3</del> 26'46	
evening set	-11396 Mar 02 j 21:45	3° <del>3</del> 45'58		retrograde	-11390 Jul 03 j 22:07	12° <del>3</del> 42'22	
max. Earth dist.	-11396 Mar 15 j 03:30	4° <del>3</del> 03'58	44.78705 AU	opposition	-11390 Sep 21 j 17:10	11° <del>3</del> 38'58	-3°50'22
				min. Earth dist.	-11390 Sep 24 j 10:27	11° <del>3</del> 35'34	41.41404 AU
conjunction	-11396 Mar 17 j 20:09	4° <del>3</del> 07'58	-5°46'40	direct	-11390 Dec 13 j 14:54	10° <del>3</del> 33'13	
minimum elong	-11396 Mar 17 j 20:17	4° <del>3</del> 07'59	5°47'17	evening set	-11389 Mar 11 j 07:42	11° <del>3</del> 50'47	
morning rise	-11396 Apr 01 j 16:54	4° <del>3</del> 29'53		max. Earth dist.	-11389 Mar 24 j 00:06	12° <del>3</del> 10'05	43.29750 AU
retrograde	-11396 Jun 26 j 06:21	5° <del>3</del> 44'09					
opposition	-11396 Sep 14 j 09:57	4° <del>3</del> 41'51	-5°53'17	conjunction	-11389 Mar 27 j 00:30	12° <del>3</del> 14'44	-3°29'15
min. Earth dist.	-11396 Sep 16 j 19:39	4° <del>3</del> 38'54	42.69526 AU	minimum elong	-11389 Mar 27 j 00:36	12° <del>3</del> 14'45	3°29'53
direct	-11396 Dec 06 j 08:19	3° <del>3</del> 37'28		morning rise	-11389 Apr 11 j 14:46	12° <del>3</del> 38'34	
evening set	-11395 Mar 04 j 04:45	4° <del>3</del> 53'13		retrograde	-11389 Jul 05 j 09:11	13° <del>3</del> 54'26	
max. Earth dist.	-11395 Mar 16 j 12:38	5° <del>3</del> 11'25	44.58311 AU	opposition	-11389 Sep 23 j 03:15	12° <del>3</del> 50'47	-3°28'45
				min. Earth dist.	-11389 Sep 25 j 20:46	12° <del>3</del> 47'21	41.18746 AU
conjunction	-11395 Mar 19 j 06:22	5° <del>3</del> 15'31	-5°27'56	direct	-11389 Dec 15 j 00:39	11° <del>3</del> 44'45	
minimum elong	-11395 Mar 19 j 06:29	5° <del>3</del> 15'31	5°28'35	evening set	-11388 Mar 11 j 17:53	13° <del>3</del> 02'40	
morning rise	-11395 Apr 03 j 06:03	5° <del>3</del> 37'43		max. Earth dist.	-11388 Mar 24 j 09:52	13° <del>3</del> 22'04	43.06985 AU
retrograde	-11395 Jun 27 j 16:04	6° <del>3</del> 52'10					
opposition	-11395 Sep 15 j 18:36	5° <del>3</del> 49'41	-5°33'36	conjunction	-11388 Mar 27 j 12:30	13° <del>3</del> 26'52	-3°08'25
min. Earth dist.	-11395 Sep 18 j 06:09	5° <del>3</del> 46'38	42.48924 AU	minimum elong	-11388 Mar 27 j 12:36	13° <del>3</del> 26'53	3°09'03
direct	-11395 Dec 07 j 15:49	4° <del>3</del> 45'06		morning rise	-11388 Apr 12 j 04:36	13° <del>3</del> 50'57	
evening set	-11394 Mar 05 j 12:00	6° <del>3</del> 01'06		retrograde	-11388 Jul 05 j 22:24	15° <del>3</del> 07'06	
max. Earth dist.	-11394 Mar 17 j 22:43	6° <del>3</del> 19'33	44.37713 AU	opposition	-11388 Sep 23 j 13:35	14° <del>3</del> 03'13	-3°06'48

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -11388 in astronomical counting style is the year 11389 BCE in historical counting style.

min. Earth dist.	-11388 Sep 26 j 09:04	13° $\overline{35}$ 9'40	40.95747 AU	morning rise	-11381 Apr 22 j 06:30	22° $\overline{37}$ 0'1	
direct	-11388 Dec 15 j 08:44	12° $\overline{35}$ 6'52		retrograde	-11381 Jul 15 j 19:27	23° $\overline{35}$ 6'09	
evening set	-11387 Mar 13 j 04:24	14° $\overline{31}$ 5'10		opposition	-11381 Oct 02 j 23:17	22° $\overline{35}$ 0'29	-0°23'59
max. Earth dist.	-11387 Mar 25 j 22:12	14° $\overline{33}$ 4'47	42.83899 AU	min. Earth dist.	-11381 Oct 05 j 23:22	22° $\overline{34}$ 6'35	39.29602 AU
				direct	-11381 Dec 24 j 16:19	21° $\overline{34}$ 2'03	
conjunction	-11387 Mar 29 j 00:51	14° $\overline{33}$ 9'37	-2°47'17	evening set	-11380 Mar 21 j 20:22	23° $\overline{34}$ 0'05	
minimum elong	-11387 Mar 29 j 00:55	14° $\overline{33}$ 9'37	2°47'55	max. Earth dist.	-11380 Apr 03 j 14:25	23° $\overline{34}$ 2'36	41.17461 AU
morning rise	-11387 Apr 13 j 18:24	15° $\overline{30}$ 3'55					
retrograde	-11387 Jul 07 j 10:26	16° $\overline{30}$ 2'04		conjunction	-11380 Apr 06 j 22:24	23° $\overline{33}$ 0'02	-0°10'58
opposition	-11387 Sep 25 j 00:21	15° $\overline{31}$ 6'14	-2°44'31	minimum elong	-11380 Apr 06 j 22:25	23° $\overline{33}$ 0'02	0°11'34
min. Earth dist.	-11387 Sep 27 j 20:24	15° $\overline{31}$ 2'39	40.72457 AU	behind sun begin	-11380 Apr 06 j 17:49	23° $\overline{32}$ 9'44	
direct	-11387 Dec 16 j 20:43	14° $\overline{30}$ 9'35		behind sun end	-11380 Apr 07 j 03:01	23° $\overline{33}$ 0'19	
evening set	-11386 Mar 14 j 15:20	15° $\overline{32}$ 8'18		morning rise	-11380 Apr 22 j 20:56	23° $\overline{35}$ 5'47	
max. Earth dist.	-11386 Mar 27 j 08:43	15° $\overline{34}$ 8'00	42.60559 AU	retrograde	-11380 Jul 16 j 08:58	25° $\overline{31}$ 5'30	
				asc. node	-11380 Sep 25 j 05:23	24° $\overline{32}$ 0'24	
conjunction	-11386 Mar 30 j 13:04	15° $\overline{35}$ 2'59	-2°25'51	opposition	-11380 Oct 03 j 12:29	24° $\overline{30}$ 9'36	0°00'34
minimum elong	-11386 Mar 30 j 13:09	15° $\overline{35}$ 2'59	2°26'28	min. Earth dist.	-11380 Oct 06 j 13:55	24° $\overline{30}$ 5'36	39.05261 AU
morning rise	-11386 Apr 15 j 08:10	16° $\overline{31}$ 7'31		direct	-11380 Dec 25 j 07:43	23° $\overline{30}$ 0'52	
retrograde	-11386 Jul 08 j 23:34	17° $\overline{33}$ 4'20		evening set	-11379 Mar 23 j 11:35	24° $\overline{32}$ 3'35	
opposition	-11386 Sep 26 j 11:17	16° $\overline{32}$ 9'55	-2°21'55	max. Earth dist.	-11379 Apr 05 j 04:07	24° $\overline{34}$ 4'10	40.93002 AU
min. Earth dist.	-11386 Sep 29 j 07:51	16° $\overline{32}$ 6'16	40.48963 AU				
direct	-11386 Dec 18 j 08:20	15° $\overline{32}$ 2'56		conjunction	-11379 Apr 08 j 13:18	24° $\overline{34}$ 9'43	0°12'38
evening set	-11385 Mar 16 j 02:43	16° $\overline{34}$ 2'07		minimum elong	-11379 Apr 08 j 13:17	24° $\overline{34}$ 9'43	0°12'03
max. Earth dist.	-11385 Mar 28 j 21:11	17° $\overline{30}$ 1'59	42.37019 AU	behind sun begin	-11379 Apr 08 j 08:56	24° $\overline{34}$ 9'26	
				behind sun end	-11379 Apr 08 j 17:39	24° $\overline{35}$ 0'00	
conjunction	-11385 Apr 01 j 01:52	17° $\overline{30}$ 7'01	-2°04'06	morning rise	-11379 Apr 24 j 11:42	25° $\overline{31}$ 5'39	
minimum elong	-11385 Apr 01 j 01:55	17° $\overline{30}$ 7'01	2°04'43	retrograde	-11379 Jul 17 j 23:54	26° $\overline{33}$ 5'58	
morning rise	-11385 Apr 16 j 21:58	17° $\overline{33}$ 1'47		opposition	-11379 Oct 05 j 02:08	25° $\overline{32}$ 9'48	0°25'25
retrograde	-11385 Jul 10 j 10:40	18° $\overline{34}$ 8'58		min. Earth dist.	-11379 Oct 08 j 03:41	25° $\overline{32}$ 5'46	38.80666 AU
opposition	-11385 Sep 27 j 22:33	17° $\overline{34}$ 4'17	-1°58'59	direct	-11379 Dec 26 j 22:12	24° $\overline{32}$ 0'46	
min. Earth dist.	-11385 Sep 30 j 20:33	17° $\overline{34}$ 0'33	40.25306 AU	evening set	-11378 Mar 25 j 03:14	25° $\overline{34}$ 4'11	
direct	-11385 Dec 19 j 20:47	16° $\overline{33}$ 7'00		max. Earth dist.	-11378 Apr 06 j 18:02	26° $\overline{30}$ 4'48	40.68246 AU
evening set	-11384 Mar 16 j 14:44	17° $\overline{35}$ 6'39					
max. Earth dist.	-11384 Mar 29 j 09:42	18° $\overline{31}$ 6'41	42.13354 AU	conjunction	-11378 Apr 10 j 04:34	26° $\overline{31}$ 0'29	0°36'24
				minimum elong	-11378 Apr 10 j 04:32	26° $\overline{31}$ 0'29	0°35'48
conjunction	-11384 Apr 01 j 14:52	18° $\overline{32}$ 1'48	-1°42'04	morning rise	-11378 Apr 26 j 02:20	26° $\overline{33}$ 6'35	
minimum elong	-11384 Apr 01 j 14:55	18° $\overline{32}$ 1'48	1°42'41	retrograde	-11378 Jul 19 j 14:27	27° $\overline{35}$ 7'32	
morning rise	-11384 Apr 17 j 12:02	18° $\overline{34}$ 6'46		opposition	-11378 Oct 06 j 16:20	26° $\overline{35}$ 1'05	0°50'36
retrograde	-11384 Jul 10 j 22:11	20° $\overline{30}$ 4'22		min. Earth dist.	-11378 Oct 09 j 19:53	26° $\overline{34}$ 6'56	38.55784 AU
opposition	-11384 Sep 28 j 10:09	18° $\overline{35}$ 9'26	-1°35'43	direct	-11378 Dec 28 j 11:05	25° $\overline{34}$ 1'43	
min. Earth dist.	-11384 Oct 01 j 07:46	18° $\overline{35}$ 5'42	40.01541 AU	evening set	-11377 Mar 26 j 19:42	27° $\overline{30}$ 5'52	
direct	-11384 Dec 20 j 08:55	17° $\overline{35}$ 1'51		max. Earth dist.	-11377 Apr 08 j 09:38	27° $\overline{32}$ 6'34	40.43207 AU
evening set	-11383 Mar 18 j 03:17	19° $\overline{31}$ 2'02					
max. Earth dist.	-11383 Mar 30 j 21:36	19° $\overline{33}$ 2'10	41.89570 AU	conjunction	-11377 Apr 11 j 20:21	27° $\overline{33}$ 2'19	1°00'28
				minimum elong	-11377 Apr 11 j 20:19	27° $\overline{33}$ 2'19	0°59'53
conjunction	-11383 Apr 03 j 04:12	19° $\overline{33}$ 7'23	-1°19'43	morning rise	-11377 Apr 27 j 17:21	27° $\overline{35}$ 8'33	
minimum elong	-11383 Apr 03 j 04:14	19° $\overline{33}$ 7'23	1°20'20	retrograde	-11377 Jul 21 j 05:51	29° $\overline{32}$ 0'10	
morning rise	-11383 Apr 19 j 02:02	20° $\overline{30}$ 2'34		opposition	-11377 Oct 08 j 06:41	28° $\overline{31}$ 3'25	1°16'05
retrograde	-11383 Jul 12 j 12:43	21° $\overline{30}$ 2'39		min. Earth dist.	-11377 Oct 11 j 10:19	28° $\overline{30}$ 9'14	38.30627 AU
opposition	-11383 Sep 29 j 22:13	20° $\overline{31}$ 5'28	-1°12'08	direct	-11377 Dec 30 j 01:05	27° $\overline{30}$ 3'42	
min. Earth dist.	-11383 Oct 02 j 21:17	20° $\overline{31}$ 1'39	39.77683 AU	evening set	-11376 Mar 27 j 12:59	28° $\overline{32}$ 8'37	
direct	-11383 Dec 21 j 18:14	19° $\overline{30}$ 7'36		max. Earth dist.	-11376 Apr 08 j 23:42	28° $\overline{34}$ 9'15	40.17896 AU
evening set	-11382 Mar 19 j 16:19	20° $\overline{32}$ 8'20					
max. Earth dist.	-11382 Apr 01 j 11:51	20° $\overline{34}$ 8'41	41.65691 AU	conjunction	-11376 Apr 12 j 12:32	28° $\overline{35}$ 5'11	1°24'48
				minimum elong	-11376 Apr 12 j 12:29	28° $\overline{35}$ 5'11	1°24'13
conjunction	-11382 Apr 04 j 17:55	20° $\overline{35}$ 3'54	-0°57'05	morning rise	-11376 Apr 28 j 08:33	29° $\overline{32}$ 1'33	
minimum elong	-11382 Apr 04 j 17:57	20° $\overline{35}$ 3'54	0°57'43		-11376 May 23 j 16:46	0° $\approx$	
morning rise	-11382 Apr 20 j 16:11	21° $\overline{31}$ 9'18		retrograde	-11376 Jul 22 j 01:05	0° $\approx$ 43'51	
retrograde	-11382 Jul 14 j 03:17	22° $\overline{33}$ 7'53			-11376 Sep 21 j 03:01	30° $\overline{R}$ $\overline{3}$	
opposition	-11382 Oct 01 j 10:34	21° $\overline{33}$ 2'27	-0°48'13	opposition	-11376 Oct 08 j 21:38	29° $\overline{33}$ 6'46	1°41'51
min. Earth dist.	-11382 Oct 04 j 09:40	21° $\overline{32}$ 8'37	39.53715 AU	min. Earth dist.	-11376 Oct 12 j 02:40	29° $\overline{33}$ 2'30	38.05240 AU
direct	-11382 Dec 23 j 05:14	20° $\overline{32}$ 4'18		direct	-11376 Dec 30 j 12:42	28° $\overline{32}$ 6'41	
evening set	-11381 Mar 21 j 06:00	21° $\overline{34}$ 5'40		evening set	-11375 Mar 29 j 06:44	29° $\overline{35}$ 2'24	
max. Earth dist.	-11381 Apr 03 j 00:01	22° $\overline{30}$ 6'03	41.41678 AU		-11375 Apr 02 j 20:59	0° $\approx$	
				max. Earth dist.	-11375 Apr 10 j 16:36	0° $\approx$ 13'08	39.92362 AU
conjunction	-11381 Apr 06 j 07:49	22° $\overline{31}$ 1'26	-0°34'09				
minimum elong	-11381 Apr 06 j 07:50	22° $\overline{31}$ 1'26	0°34'45	conjunction	-11375 Apr 14 j 05:06	0° $\approx$ 19'05	1°49'24

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Attention, astronomical year style is used: The year -11375 in astronomical counting style is the year 11376 BCE in historical counting style.

minimum elong	-11375 Apr 14 j 05:03	0° $\approx$ 19'05	1°48'50	direct	-11368 Jan 10 j 06:37	8° $\approx$ 38'58	
morning rise	-11375 Apr 29 j 23:36	0° $\approx$ 45'33		evening set	-11368 Apr 09 j 09:27	10° $\approx$ 11'41	
retrograde	-11375 Jul 23 j 17:29	2° $\approx$ 08'35		max. Earth dist.	-11368 Apr 20 j 22:26	10° $\approx$ 32'08	38.12184 AU
opposition	-11375 Oct 10 j 13:06	1° $\approx$ 01'10	2°07'55				
min. Earth dist.	-11375 Oct 13 j 18:46	0° $\approx$ 56'50	37.79664 AU	conjunction	-11368 Apr 24 j 13:18	10° $\approx$ 38'37	4°47'55
	-11375 Dec 04 j 19:01	30° $\approx$ 8'3		minimum elong	-11368 Apr 24 j 13:08	10° $\approx$ 38'37	4°47'24
direct	-11374 Jan 01 j 04:01	29° $\approx$ 3'50'41		morning rise	-11368 May 09 j 13:06	11° $\approx$ 05'19	
	-11374 Jan 28 j 11:45	0° $\approx$		retrograde	-11368 Aug 03 j 05:51	12° $\approx$ 34'50	
evening set	-11374 Mar 31 j 01:21	1° $\approx$ 17'15		opposition	-11368 Oct 20 j 15:08	11° $\approx$ 25'00	5°17'21
max. Earth dist.	-11374 Apr 12 j 08:15	1° $\approx$ 37'56	39.66680 AU	min. Earth dist.	-11368 Oct 23 j 23:31	11° $\approx$ 20'19	36.00128 AU
				direct	-11367 Jan 11 j 01:33	10° $\approx$ 11'49	
conjunction	-11374 Apr 15 j 21:57	1° $\approx$ 44'01	2°14'16	evening set	-11367 Apr 11 j 10:07	11° $\approx$ 45'45	
minimum elong	-11374 Apr 15 j 21:52	1° $\approx$ 44'01	2°13'41	max. Earth dist.	-11367 Apr 22 j 18:10	12° $\approx$ 06'02	37.86410 AU
morning rise	-11374 May 01 j 14:57	2° $\approx$ 10'35					
retrograde	-11374 Jul 25 j 11:31	3° $\approx$ 34'22		conjunction	-11367 Apr 26 j 09:38	12° $\approx$ 12'37	5°14'09
opposition	-11374 Oct 12 j 04:50	2° $\approx$ 26'37	2°34'16	minimum elong	-11367 Apr 26 j 09:27	12° $\approx$ 12'37	5°13'39
min. Earth dist.	-11374 Oct 15 j 10:37	2° $\approx$ 22'14	37.53996 AU	morning rise	-11367 May 11 j 05:27	12° $\approx$ 39'15	
direct	-11373 Jan 02 j 20:38	1° $\approx$ 15'43		retrograde	-11367 Aug 05 j 03:55	14° $\approx$ 09'55	
evening set	-11373 Apr 01 j 20:28	2° $\approx$ 43'10		opposition	-11367 Oct 22 j 10:57	12° $\approx$ 59'44	5°45'14
max. Earth dist.	-11373 Apr 14 j 01:16	3° $\approx$ 03'53	39.40903 AU	min. Earth dist.	-11367 Oct 25 j 19:05	12° $\approx$ 55'03	35.74457 AU
				direct	-11366 Jan 12 j 22:10	11° $\approx$ 46'09	
conjunction	-11373 Apr 17 j 15:16	3° $\approx$ 10'02	2°39'21	evening set	-11366 Apr 13 j 11:44	13° $\approx$ 21'22	
minimum elong	-11373 Apr 17 j 15:11	3° $\approx$ 10'02	2°38'49	max. Earth dist.	-11366 Apr 24 j 14:36	13° $\approx$ 41'27	37.60532 AU
morning rise	-11373 May 03 j 06:10	3° $\approx$ 36'40					
retrograde	-11373 Jul 27 j 03:47	5° $\approx$ 01'16		conjunction	-11366 Apr 28 j 06:48	13° $\approx$ 48'10	5°40'31
opposition	-11373 Oct 13 j 21:16	3° $\approx$ 53'09	3°00'52	minimum elong	-11366 Apr 28 j 06:36	13° $\approx$ 48'09	5°40'02
min. Earth dist.	-11373 Oct 17 j 04:15	3° $\approx$ 48'40	37.28276 AU	morning rise	-11366 May 12 j 21:57	14° $\approx$ 14'42	
direct	-11372 Jan 04 j 14:26	2° $\approx$ 41'52			-11366 Jun 09 j 08:12	15° $\approx$	
evening set	-11372 Apr 02 j 16:35	4° $\approx$ 10'15		retrograde	-11366 Aug 07 j 01:30	15° $\approx$ 46'34	
max. Earth dist.	-11372 Apr 14 j 19:07	4° $\approx$ 30'58	39.15109 AU		-11366 Oct 06 j 23:39	15° $\approx$	
				opposition	-11366 Oct 24 j 07:29	14° $\approx$ 36'01	6°13'17
conjunction	-11372 Apr 18 j 09:01	4° $\approx$ 37'10	3°04'40	min. Earth dist.	-11366 Oct 27 j 17:07	14° $\approx$ 31'12	35.48701 AU
minimum elong	-11372 Apr 18 j 08:55	4° $\approx$ 37'09	3°04'08	direct	-11365 Jan 14 j 17:43	13° $\approx$ 22'01	
morning rise	-11372 May 03 j 21:41	5° $\approx$ 03'51		evening set	-11365 Apr 15 j 14:23	14° $\approx$ 58'34	
retrograde	-11372 Jul 27 j 20:49	6° $\approx$ 29'18			-11365 Apr 16 j 09:28	15° $\approx$	
opposition	-11372 Oct 14 j 14:01	5° $\approx$ 20'51	3°27'44	max. Earth dist.	-11365 Apr 26 j 12:28	15° $\approx$ 18'28	37.34570 AU
min. Earth dist.	-11372 Oct 17 j 20:15	5° $\approx$ 16'23	37.02570 AU				
direct	-11371 Jan 05 j 07:39	4° $\approx$ 09'10		conjunction	-11365 Apr 30 j 04:26	15° $\approx$ 25'14	6°07'01
evening set	-11371 Apr 04 j 13:31	5° $\approx$ 38'32		minimum elong	-11365 Apr 30 j 04:12	15° $\approx$ 25'13	6°06'32
max. Earth dist.	-11371 Apr 16 j 12:23	5° $\approx$ 59'10	38.89331 AU	morning rise	-11365 May 14 j 14:40	15° $\approx$ 51'39	
				retrograde	-11365 Aug 08 j 22:46	17° $\approx$ 24'46	
conjunction	-11371 Apr 20 j 03:18	6° $\approx$ 05'30	3°30'12	opposition	-11365 Oct 26 j 04:35	16° $\approx$ 13'50	6°41'28
minimum elong	-11371 Apr 20 j 03:11	6° $\approx$ 05'29	3°29'40	min. Earth dist.	-11365 Oct 29 j 13:36	16° $\approx$ 09'01	35.22861 AU
morning rise	-11371 May 05 j 13:18	6° $\approx$ 32'13			-11364 Jan 09 j 20:31	15° $\approx$	
retrograde	-11371 Jul 29 j 15:31	7° $\approx$ 58'36		direct	-11364 Jan 16 j 14:39	14° $\approx$ 59'24	
opposition	-11371 Oct 16 j 07:32	6° $\approx$ 49'47	3°54'49		-11364 Jan 23 j 05:46	15° $\approx$	
min. Earth dist.	-11371 Oct 19 j 14:53	6° $\approx$ 45'15	36.76918 AU	evening set	-11364 Apr 16 j 18:08	16° $\approx$ 37'20	
direct	-11370 Jan 06 j 22:30	5° $\approx$ 37'44		max. Earth dist.	-11364 Apr 27 j 09:22	16° $\approx$ 56'55	37.08522 AU
evening set	-11370 Apr 06 j 11:05	7° $\approx$ 08'08					
max. Earth dist.	-11370 Apr 18 j 08:04	7° $\approx$ 28'48	38.63603 AU	conjunction	-11364 May 01 j 02:41	17° $\approx$ 03'50	6°33'36
				minimum elong	-11364 May 01 j 02:27	17° $\approx$ 03'49	6°33'09
conjunction	-11370 Apr 21 j 22:00	7° $\approx$ 35'07	3°55'56	morning rise	-11364 May 15 j 07:34	17° $\approx$ 30'06	
minimum elong	-11370 Apr 21 j 21:52	7° $\approx$ 35'06	3°55'24	retrograde	-11364 Aug 09 j 22:09	19° $\approx$ 04'32	
morning rise	-11370 May 07 j 04:55	8° $\approx$ 01'51		opposition	-11364 Oct 27 j 02:22	17° $\approx$ 53'11	7°09'45
retrograde	-11370 Jul 31 j 10:55	9° $\approx$ 29'13		min. Earth dist.	-11364 Oct 30 j 12:32	17° $\approx$ 48'17	34.96986 AU
opposition	-11370 Oct 18 j 01:30	8° $\approx$ 20'04	4°22'08	direct	-11363 Jan 17 j 09:29	16° $\approx$ 38'18	
min. Earth dist.	-11370 Oct 21 j 08:31	8° $\approx$ 15'31	36.51312 AU	evening set	-11363 Apr 18 j 22:52	18° $\approx$ 17'41	
direct	-11369 Jan 08 j 15:06	7° $\approx$ 07'38		max. Earth dist.	-11363 Apr 29 j 09:19	18° $\approx$ 37'04	36.82454 AU
evening set	-11369 Apr 08 j 09:50	8° $\approx$ 39'09					
max. Earth dist.	-11369 Apr 20 j 01:59	8° $\approx$ 59'40	38.37904 AU	conjunction	-11363 May 03 j 01:37	18° $\approx$ 43'59	7°00'15
				minimum elong	-11363 May 03 j 01:21	18° $\approx$ 43'58	6°59'48
conjunction	-11369 Apr 23 j 17:15	9° $\approx$ 06'08	4°21'50	morning rise	-11363 May 17 j 00:30	19° $\approx$ 10'02	
minimum elong	-11369 Apr 23 j 17:05	9° $\approx$ 06'07	4°21'19	retrograde	-11363 Aug 11 j 21:48	20° $\approx$ 45'51	
morning rise	-11369 May 08 j 20:58	9° $\approx$ 32'52		opposition	-11363 Oct 29 j 00:55	19° $\approx$ 34'04	7°38'07
retrograde	-11369 Aug 02 j 09:20	11° $\approx$ 01'16		min. Earth dist.	-11363 Nov 01 j 10:51	19° $\approx$ 29'09	34.71130 AU
opposition	-11369 Oct 19 j 19:51	9° $\approx$ 51'47	4°49'38	direct	-11362 Jan 19 j 06:40	18° $\approx$ 18'44	
min. Earth dist.	-11369 Oct 23 j 03:24	9° $\approx$ 47'11	36.25739 AU	evening set	-11362 Apr 21 j 04:37	19° $\approx$ 59'37	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 4

Attention, astronomical year style is used: The year -11362 in astronomical counting style is the year 11363 BCE in historical counting style.

max. Earth dist.	-11362 May 01 j 07:40	20° $\approx$ 18'38	36.56438 AU	morning rise	-11356 May 27 j 02:03	1° $\mathbb{H}$ 35'18	
				retrograde	-11356 Aug 24 j 16:21	3° $\mathbb{H}$ 22'56	
conjunction	-11362 May 05 j 00:48	20° $\approx$ 25'41	7°26'56	opposition	-11356 Nov 10 j 10:44	2° $\mathbb{H}$ 08'12	10°55'00
minimum elong	-11362 May 05 j 00:32	20° $\approx$ 25'40	7°26'30	min. Earth dist.	-11356 Nov 13 j 17:51	2° $\mathbb{H}$ 03'14	32.96555 AU
morning rise	-11362 May 18 j 17:32	20° $\approx$ 51'30		direct	-11355 Jan 31 j 06:30	0° $\mathbb{H}$ 49'48	
retrograde	-11362 Aug 13 j 23:44	22° $\approx$ 28'46		evening set	-11355 May 06 j 06:58	2° $\mathbb{H}$ 43'30	
opposition	-11362 Oct 30 j 24:00	21° $\approx$ 16'32	8°06'31	max. Earth dist.	-11355 May 14 j 02:01	2° $\mathbb{H}$ 59'15	34.81077 AU
min. Earth dist.	-11362 Nov 03 j 09:51	21° $\approx$ 11'36	34.45385 AU				
direct	-11361 Jan 21 j 03:15	20° $\approx$ 00'44		conjunction	-11355 May 17 j 14:52	3° $\mathbb{H}$ 06'26	10°30'53
evening set	-11361 Apr 23 j 11:27	21° $\approx$ 43'12		minimum elong	-11355 May 17 j 14:28	3° $\mathbb{H}$ 06'24	10°30'33
max. Earth dist.	-11361 May 03 j 08:35	22° $\approx$ 01'56	36.30541 AU	morning rise	-11355 May 28 j 20:02	3° $\mathbb{H}$ 29'09	
				retrograde	-11355 Aug 27 j 00:05	5° $\mathbb{H}$ 18'50	
conjunction	-11361 May 07 j 00:54	22° $\approx$ 08'59	7°53'36	opposition	-11355 Nov 12 j 15:28	4° $\mathbb{H}$ 03'41	11°22'20
minimum elong	-11361 May 07 j 00:35	22° $\approx$ 08'57	7°53'10	min. Earth dist.	-11355 Nov 15 j 22:04	3° $\mathbb{H}$ 58'44	32.72855 AU
morning rise	-11361 May 20 j 10:37	22° $\approx$ 34'31		direct	-11354 Feb 02 j 08:24	2° $\mathbb{H}$ 44'52	
retrograde	-11361 Aug 16 j 00:47	24° $\approx$ 13'17		evening set	-11354 May 08 j 22:55	4° $\mathbb{H}$ 40'44	
opposition	-11361 Nov 01 j 23:48	23° $\approx$ 00'37	8°34'54	max. Earth dist.	-11354 May 16 j 08:24	4° $\mathbb{H}$ 55'50	34.57207 AU
min. Earth dist.	-11361 Nov 05 j 09:57	22° $\approx$ 55'38	34.19810 AU				
direct	-11360 Jan 23 j 03:44	21° $\approx$ 44'21		conjunction	-11354 May 19 j 19:49	5° $\mathbb{H}$ 02'58	10°56'15
evening set	-11360 Apr 24 j 19:38	23° $\approx$ 28'29		minimum elong	-11354 May 19 j 19:25	5° $\mathbb{H}$ 02'56	10°55'57
max. Earth dist.	-11360 May 04 j 09:30	23° $\approx$ 46'50	36.04860 AU	morning rise	-11354 May 30 j 13:51	5° $\mathbb{H}$ 25'00	
				retrograde	-11354 Aug 29 j 07:14	7° $\mathbb{H}$ 16'48	
conjunction	-11360 May 08 j 01:28	23° $\approx$ 53'55	8°20'12	opposition	-11354 Nov 14 j 21:12	6° $\mathbb{H}$ 01'13	11°49'20
minimum elong	-11360 May 08 j 01:10	23° $\approx$ 53'54	8°19'48	min. Earth dist.	-11354 Nov 18 j 03:46	5° $\mathbb{H}$ 56'14	32.49410 AU
morning rise	-11360 May 21 j 03:57	24° $\approx$ 19'07		direct	-11353 Feb 04 j 13:03	4° $\mathbb{H}$ 41'58	
retrograde	-11360 Aug 17 j 04:10	25° $\approx$ 59'29		evening set	-11353 May 11 j 16:43	6° $\mathbb{H}$ 40'06	
opposition	-11360 Nov 03 j 00:22	24° $\approx$ 46'23	9°03'14	max. Earth dist.	-11353 May 18 j 14:23	6° $\mathbb{H}$ 54'21	34.33604 AU
min. Earth dist.	-11360 Nov 06 j 09:15	24° $\approx$ 41'27	33.94500 AU				
direct	-11359 Jan 24 j 04:51	23° $\approx$ 29'40		conjunction	-11353 May 22 j 01:32	7° $\mathbb{H}$ 01'32	11°21'15
evening set	-11359 Apr 27 j 04:45	25° $\approx$ 15'32		minimum elong	-11353 May 22 j 01:07	7° $\mathbb{H}$ 01'30	11°20'57
max. Earth dist.	-11359 May 06 j 11:06	25° $\approx$ 33'29	35.79447 AU	morning rise	-11353 Jun 01 j 07:54	7° $\mathbb{H}$ 22'47	
				retrograde	-11353 Aug 31 j 16:13	9° $\mathbb{H}$ 16'47	
conjunction	-11359 May 10 j 02:42	25° $\approx$ 40'36	8°46'43	opposition	-11353 Nov 17 j 03:32	8° $\mathbb{H}$ 00'46	12°15'56
minimum elong	-11359 May 10 j 02:22	25° $\approx$ 40'34	8°46'19	min. Earth dist.	-11353 Nov 20 j 08:43	7° $\mathbb{H}$ 55'51	32.26245 AU
morning rise	-11359 May 22 j 21:13	26° $\approx$ 05'25		direct	-11352 Feb 06 j 18:14	6° $\mathbb{H}$ 41'04	
retrograde	-11359 Aug 19 j 06:06	27° $\approx$ 47'28		evening set	-11352 May 13 j 11:55	8° $\mathbb{H}$ 41'34	
opposition	-11359 Nov 05 j 01:52	26° $\approx$ 33'57	9°31'27	max. Earth dist.	-11352 May 19 j 21:44	8° $\mathbb{H}$ 54'55	34.10273 AU
min. Earth dist.	-11359 Nov 08 j 11:12	26° $\approx$ 28'56	33.69503 AU				
direct	-11358 Jan 26 j 04:38	25° $\approx$ 16'47		conjunction	-11352 May 23 j 08:10	9° $\mathbb{H}$ 02'07	11°45'49
evening set	-11358 Apr 29 j 15:19	27° $\approx$ 04'29		minimum elong	-11352 May 23 j 07:45	9° $\mathbb{H}$ 02'05	11°45'33
max. Earth dist.	-11358 May 08 j 14:31	27° $\approx$ 22'01	35.54372 AU	morning rise	-11352 Jun 02 j 01:56	9° $\mathbb{H}$ 22'30	
				retrograde	-11352 Sep 02 j 00:17	11° $\mathbb{H}$ 18'47	
conjunction	-11358 May 12 j 04:39	27° $\approx$ 29'06	9°13'05	opposition	-11352 Nov 18 j 11:05	10° $\mathbb{H}$ 02'19	12°42'04
minimum elong	-11358 May 12 j 04:18	27° $\approx$ 29'04	9°12'42	min. Earth dist.	-11352 Nov 21 j 16:33	9° $\mathbb{H}$ 57'21	32.03384 AU
morning rise	-11358 May 24 j 14:43	27° $\approx$ 53'29		direct	-11351 Feb 08 j 00:28	8° $\mathbb{H}$ 42'10	
retrograde	-11358 Aug 21 j 07:46	29° $\approx$ 37'18		evening set	-11351 May 16 j 08:48	10° $\mathbb{H}$ 45'05	
opposition	-11358 Nov 07 j 03:53	28° $\approx$ 23'22	9°59'31	max. Earth dist.	-11351 May 22 j 06:29	10° $\mathbb{H}$ 57'32	33.87286 AU
min. Earth dist.	-11358 Nov 10 j 11:41	28° $\approx$ 18'25	33.44857 AU				
direct	-11357 Jan 28 j 06:02	27° $\approx$ 05'47		conjunction	-11351 May 25 j 15:20	11° $\mathbb{H}$ 04'40	12°09'54
evening set	-11357 May 02 j 03:05	28° $\approx$ 55'24		minimum elong	-11351 May 25 j 14:53	11° $\mathbb{H}$ 04'37	12°09'38
max. Earth dist.	-11357 May 10 j 16:49	29° $\approx$ 12'21	35.29632 AU	morning rise	-11351 Jun 03 j 19:37	11° $\mathbb{H}$ 24'04	
				retrograde	-11351 Sep 04 j 10:02	13° $\mathbb{H}$ 22'45	
conjunction	-11357 May 14 j 07:17	29° $\approx$ 19'32	9°39'16	opposition	-11351 Nov 20 j 19:23	12° $\mathbb{H}$ 05'50	13°07'40
minimum elong	-11357 May 14 j 06:55	29° $\approx$ 19'30	9°38'53	min. Earth dist.	-11351 Nov 23 j 22:53	12° $\mathbb{H}$ 00'57	31.80893 AU
morning rise	-11357 May 26 j 08:24	29° $\approx$ 43'25		direct	-11350 Feb 10 j 09:07	10° $\mathbb{H}$ 45'13	
	-11357 Jun 03 j 22:00	0° $\mathbb{H}$		evening set	-11350 May 19 j 07:16	12° $\mathbb{H}$ 50'40	
retrograde	-11357 Aug 23 j 12:04	1° $\mathbb{H}$ 29'06		max. Earth dist.	-11350 May 24 j 14:52	13° $\mathbb{H}$ 01'59	33.64689 AU
opposition	-11357 Nov 09 j 06:51	0° $\mathbb{H}$ 14'46	10°27'23				
min. Earth dist.	-11357 Nov 12 j 14:50	0° $\mathbb{H}$ 09'47	33.20554 AU	conjunction	-11350 May 27 j 23:18	13° $\mathbb{H}$ 09'09	12°33'24
	-11357 Nov 19 j 05:07	30° $\mathbb{R}$		minimum elong	-11350 May 27 j 22:52	13° $\mathbb{H}$ 09'07	12°33'11
direct	-11356 Jan 30 j 04:49	28° $\approx$ 56'46		morning rise	-11350 Jun 05 j 13:17	13° $\mathbb{H}$ 27'28	
	-11356 Apr 07 j 16:16	0° $\mathbb{H}$		retrograde	-11350 Sep 06 j 19:44	15° $\mathbb{H}$ 28'40	
evening set	-11356 May 03 j 16:16	0° $\mathbb{H}$ 48'24		opposition	-11350 Nov 23 j 04:27	14° $\mathbb{H}$ 11'16	13°32'38
max. Earth dist.	-11356 May 11 j 22:08	1° $\mathbb{H}$ 04'52	35.05209 AU	min. Earth dist.	-11350 Nov 26 j 07:53	14° $\mathbb{H}$ 06'22	31.58850 AU
				direct	-11349 Feb 12 j 15:26	12° $\mathbb{H}$ 50'12	
conjunction	-11356 May 15 j 10:44	1° $\mathbb{H}$ 11'58	10°05'12	evening set	-11349 May 22 j 07:42	14° $\mathbb{H}$ 58'18	
minimum elong	-11356 May 15 j 10:22	1° $\mathbb{H}$ 11'56	10°04'53	max. Earth dist.	-11349 May 27 j 02:02	15° $\mathbb{H}$ 08'33	33.42583 AU

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Attention, astronomical year style is used: The year -11349 in astronomical counting style is the year 11350 BCE in historical counting style.

conjunction	-11349 May 30 j 07:59	15° $\mathbf{\text{X}}$ 15'34	12°56'16	min. Earth dist.	-11343 Dec 11 j 13:02	29° $\mathbf{\text{X}}$ 41'56	30.22903 AU
minimum elong	-11349 May 30 j 07:33	15° $\mathbf{\text{X}}$ 15'32	12°56'03	direct	-11342 Feb 27 j 17:25	28° $\mathbf{\text{X}}$ 22'36	
morning rise	-11349 Jun 07 j 06:20	15° $\mathbf{\text{X}}$ 32'40			-11342 May 19 j 23:48	0° $\mathbf{\text{Y}}$	
retrograde	-11349 Sep 09 j 04:37	17° $\mathbf{\text{X}}$ 36'31		max. Earth dist.	-11342 Jun 12 j 02:14	0° $\mathbf{\text{Y}}$ 51'41	32.07089 AU
opposition	-11349 Nov 25 j 14:32	16° $\mathbf{\text{X}}$ 18'39	13°56'53				
min. Earth dist.	-11349 Nov 28 j 15:49	16° $\mathbf{\text{X}}$ 13'51	31.37324 AU	conjunction	-11342 Jun 14 j 17:20	0° $\mathbf{\text{Y}}$ 57'45	15°11'03
direct	-11348 Feb 15 j 00:52	14° $\mathbf{\text{X}}$ 57'09		minimum elong	-11342 Jun 14 j 16:57	0° $\mathbf{\text{Y}}$ 57'42	15°11'02
evening set	-11348 May 24 j 09:59	17° $\mathbf{\text{X}}$ 08'02		retrograde	-11342 Sep 25 j 10:58	3° $\mathbf{\text{Y}}$ 28'44	
max. Earth dist.	-11348 May 28 j 11:57	17° $\mathbf{\text{X}}$ 16'55	33.21043 AU	opposition	-11342 Dec 11 j 14:56	2° $\mathbf{\text{Y}}$ 08'11	16°18'47
				min. Earth dist.	-11342 Dec 14 j 02:27	2° $\mathbf{\text{Y}}$ 04'09	30.06403 AU
conjunction	-11348 May 31 j 17:15	17° $\mathbf{\text{X}}$ 23'56	13°18'24	direct	-11341 Mar 02 j 09:36	0° $\mathbf{\text{Y}}$ 44'22	
minimum elong	-11348 May 31 j 16:49	17° $\mathbf{\text{X}}$ 23'54	13°18'14	max. Earth dist.	-11341 Jun 14 j 18:32	3° $\mathbf{\text{Y}}$ 14'50	31.90691 AU
morning rise	-11348 Jun 07 j 22:53	17° $\mathbf{\text{X}}$ 39'41					
retrograde	-11348 Sep 10 j 16:16	19° $\mathbf{\text{X}}$ 46'20		conjunction	-11341 Jun 17 j 08:04	3° $\mathbf{\text{Y}}$ 20'46	15°25'48
opposition	-11348 Nov 27 j 01:31	18° $\mathbf{\text{X}}$ 28'00	14°20'18	minimum elong	-11341 Jun 17 j 07:41	3° $\mathbf{\text{Y}}$ 20'44	15°25'47
min. Earth dist.	-11348 Nov 30 j 01:32	18° $\mathbf{\text{X}}$ 23'16	31.16424 AU	retrograde	-11341 Sep 28 j 04:23	5° $\mathbf{\text{Y}}$ 53'06	
direct	-11347 Feb 16 j 08:04	17° $\mathbf{\text{X}}$ 06'04		opposition	-11341 Dec 14 j 08:29	4° $\mathbf{\text{Y}}$ 32'13	16°34'07
evening set	-11347 May 27 j 14:42	19° $\mathbf{\text{X}}$ 19'56		min. Earth dist.	-11341 Dec 16 j 18:48	4° $\mathbf{\text{Y}}$ 28'15	29.90608 AU
max. Earth dist.	-11347 May 31 j 01:14	19° $\mathbf{\text{X}}$ 27'29	33.00165 AU	direct	-11340 Mar 04 j 00:02	3° $\mathbf{\text{Y}}$ 08'08	
				max. Earth dist.	-11340 Jun 16 j 13:12	5° $\mathbf{\text{Y}}$ 40'03	31.75027 AU
conjunction	-11347 Jun 03 j 03:27	19° $\mathbf{\text{X}}$ 34'18	13°39'42				
minimum elong	-11347 Jun 03 j 03:00	19° $\mathbf{\text{X}}$ 34'15	13°39'32	conjunction	-11340 Jun 18 j 23:25	5° $\mathbf{\text{Y}}$ 45'43	15°39'12
morning rise	-11347 Jun 09 j 14:36	19° $\mathbf{\text{X}}$ 48'31		minimum elong	-11340 Jun 18 j 23:05	5° $\mathbf{\text{Y}}$ 45'41	15°39'14
retrograde	-11347 Sep 13 j 03:32	21° $\mathbf{\text{X}}$ 58'08		retrograde	-11340 Sep 29 j 21:34	8° $\mathbf{\text{Y}}$ 19'18	
opposition	-11347 Nov 29 j 13:32	20° $\mathbf{\text{X}}$ 39'23	14°42'50	opposition	-11340 Dec 16 j 02:51	6° $\mathbf{\text{Y}}$ 58'05	16°47'59
min. Earth dist.	-11347 Dec 02 j 11:39	20° $\mathbf{\text{X}}$ 34'44	30.96213 AU	min. Earth dist.	-11340 Dec 18 j 10:09	6° $\mathbf{\text{Y}}$ 54'18	29.75522 AU
direct	-11346 Feb 18 j 17:29	19° $\mathbf{\text{X}}$ 17'03		direct	-11339 Mar 06 j 17:33	5° $\mathbf{\text{Y}}$ 33'45	
evening set	-11346 May 30 j 22:04	21° $\mathbf{\text{X}}$ 34'06		max. Earth dist.	-11339 Jun 19 j 06:38	8° $\mathbf{\text{Y}}$ 06'52	31.60116 AU
max. Earth dist.	-11346 Jun 02 j 13:14	21° $\mathbf{\text{X}}$ 39'56	32.80027 AU				
conjunction	-11346 Jun 05 j 14:09	21° $\mathbf{\text{X}}$ 46'41	14°00'05	conjunction	-11339 Jun 21 j 15:24	8° $\mathbf{\text{Y}}$ 12'26	15°51'11
minimum elong	-11346 Jun 05 j 13:43	21° $\mathbf{\text{X}}$ 46'39	13°59'58	minimum elong	-11339 Jun 21 j 15:04	8° $\mathbf{\text{Y}}$ 12'24	15°51'13
morning rise	-11346 Jun 11 j 04:56	21° $\mathbf{\text{X}}$ 59'10		retrograde	-11339 Oct 02 j 16:59	10° $\mathbf{\text{Y}}$ 47'13	
retrograde	-11346 Sep 15 j 18:05	24° $\mathbf{\text{X}}$ 12'00		opposition	-11339 Dec 18 j 21:57	9° $\mathbf{\text{Y}}$ 25'40	17°00'17
opposition	-11346 Dec 02 j 02:17	22° $\mathbf{\text{X}}$ 52'50	15°04'21	min. Earth dist.	-11339 Dec 21 j 03:13	9° $\mathbf{\text{Y}}$ 22'01	29.61207 AU
min. Earth dist.	-11346 Dec 04 j 22:06	22° $\mathbf{\text{X}}$ 48'19	30.76757 AU	direct	-11338 Mar 09 j 09:11	8° $\mathbf{\text{Y}}$ 01'05	
direct	-11345 Feb 21 j 03:38	21° $\mathbf{\text{X}}$ 30'09		max. Earth dist.	-11338 Jun 22 j 03:02	10° $\mathbf{\text{Y}}$ 35'32	31.46012 AU
evening set	-11345 Jun 03 j 09:19	23° $\mathbf{\text{X}}$ 50'42		conjunction	-11338 Jun 24 j 07:59	10° $\mathbf{\text{Y}}$ 40'46	16°01'40
max. Earth dist.	-11345 Jun 05 j 03:47	23° $\mathbf{\text{X}}$ 54'40	32.60646 AU	minimum elong	-11338 Jun 24 j 07:41	10° $\mathbf{\text{Y}}$ 40'45	16°01'45
				retrograde	-11338 Oct 05 j 10:44	13° $\mathbf{\text{Y}}$ 16'41	
conjunction	-11345 Jun 08 j 01:53	24° $\mathbf{\text{X}}$ 01'13	14°19'30	opposition	-11338 Dec 21 j 17:47	11° $\mathbf{\text{Y}}$ 54'47	17°10'56
minimum elong	-11345 Jun 08 j 01:27	24° $\mathbf{\text{X}}$ 01'10	14°19'22	min. Earth dist.	-11338 Dec 23 j 20:21	11° $\mathbf{\text{Y}}$ 51'18	29.47685 AU
morning rise	-11345 Jun 12 j 17:14	24° $\mathbf{\text{X}}$ 11'37		direct	-11337 Mar 12 j 03:37	10° $\mathbf{\text{Y}}$ 29'58	
retrograde	-11345 Sep 18 j 08:05	26° $\mathbf{\text{X}}$ 27'58		max. Earth dist.	-11337 Jun 24 j 21:54	13° $\mathbf{\text{Y}}$ 05'29	31.32773 AU
opposition	-11345 Dec 04 j 16:02	25° $\mathbf{\text{X}}$ 08'26	15°24'47				
min. Earth dist.	-11345 Dec 07 j 10:32	25° $\mathbf{\text{X}}$ 03'59	30.58054 AU	conjunction	-11337 Jun 27 j 00:55	13° $\mathbf{\text{Y}}$ 10'34	16°10'35
direct	-11344 Feb 23 j 15:28	23° $\mathbf{\text{X}}$ 45'26		minimum elong	-11337 Jun 27 j 00:38	13° $\mathbf{\text{Y}}$ 10'32	16°10'41
evening set	-11344 Jun 06 j 02:34	26° $\mathbf{\text{X}}$ 10'00		retrograde	-11337 Oct 08 j 06:07	15° $\mathbf{\text{Y}}$ 47'31	
max. Earth dist.	-11344 Jun 06 j 18:09	26° $\mathbf{\text{X}}$ 11'28	32.42049 AU	opposition	-11337 Dec 24 j 14:10	14° $\mathbf{\text{Y}}$ 25'18	17°19'51
				min. Earth dist.	-11337 Dec 26 j 13:45	14° $\mathbf{\text{Y}}$ 22'01	29.35053 AU
conjunction	-11344 Jun 09 j 14:15	26° $\mathbf{\text{X}}$ 17'54	14°37'50	direct	-11336 Mar 13 j 21:27	13° $\mathbf{\text{Y}}$ 00'14	
minimum elong	-11344 Jun 09 j 13:50	26° $\mathbf{\text{X}}$ 17'51	14°37'45	max. Earth dist.	-11336 Jun 26 j 19:41	15° $\mathbf{\text{Y}}$ 36'59	31.20479 AU
morning rise	-11344 Jun 13 j 00:57	26° $\mathbf{\text{X}}$ 25'42					
retrograde	-11344 Sep 20 j 00:33	28° $\mathbf{\text{X}}$ 46'06		conjunction	-11336 Jun 28 j 18:30	15° $\mathbf{\text{Y}}$ 41'40	16°17'50
opposition	-11344 Dec 06 j 06:44	27° $\mathbf{\text{X}}$ 26'12	15°44'03	minimum elong	-11336 Jun 28 j 18:17	15° $\mathbf{\text{Y}}$ 41'39	16°17'58
min. Earth dist.	-11344 Dec 08 j 22:15	27° $\mathbf{\text{X}}$ 21'57	30.40114 AU	retrograde	-11336 Oct 10 j 00:41	18° $\mathbf{\text{Y}}$ 19'35	
direct	-11343 Feb 25 j 04:20	26° $\mathbf{\text{X}}$ 02'55		opposition	-11336 Dec 26 j 11:26	16° $\mathbf{\text{Y}}$ 57'03	17°26'57
max. Earth dist.	-11343 Jun 09 j 09:33	28° $\mathbf{\text{X}}$ 30'30	32.24197 AU	min. Earth dist.	-11336 Dec 28 j 08:22	16° $\mathbf{\text{Y}}$ 53'56	29.23376 AU
evening set	-11343 Jun 10 j 11:16	28° $\mathbf{\text{X}}$ 32'56		direct	-11335 Mar 16 j 16:10	15° $\mathbf{\text{Y}}$ 31'48	
				max. Earth dist.	-11335 Jun 29 j 16:05	18° $\mathbf{\text{Y}}$ 09'30	31.09226 AU
conjunction	-11343 Jun 12 j 03:23	28° $\mathbf{\text{X}}$ 36'45	14°55'03				
minimum elong	-11343 Jun 12 j 02:58	28° $\mathbf{\text{X}}$ 36'43	14°54'59	conjunction	-11335 Jul 01 j 12:11	18° $\mathbf{\text{Y}}$ 13'56	16°23'20
morning rise	-11343 Jun 13 j 18:40	28° $\mathbf{\text{X}}$ 40'29		minimum elong	-11335 Jul 01 j 11:58	18° $\mathbf{\text{Y}}$ 13'55	16°23'29
	-11343 Jul 20 j 16:22	0° $\mathbf{\text{Y}}$		retrograde	-11335 Oct 12 j 22:05	20° $\mathbf{\text{Y}}$ 52'45	
retrograde	-11343 Sep 22 j 16:41	1° $\mathbf{\text{Y}}$ 06'23		opposition	-11335 Dec 29 j 09:06	19° $\mathbf{\text{Y}}$ 29'57	17°32'08
	-11343 Nov 30 j 08:17	30° $\mathbf{\text{R}}$ $\mathbf{\text{X}}$		min. Earth dist.	-11335 Dec 31 j 01:51	19° $\mathbf{\text{Y}}$ 27'07	29.12753 AU
opposition	-11343 Dec 08 j 22:32	29° $\mathbf{\text{X}}$ 46'09	16°02'04	direct	-11334 Mar 19 j 11:15	18° $\mathbf{\text{Y}}$ 04'32	

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Attention, astronomical year style is used: The year -11334 in astronomical counting style is the year 11335 BCE in historical counting style.

max. Earth dist.	-11334 Jul 02 j 14:32	20° $\Upsilon$ 43'16	30.99073 AU	conjunction	-11326 Jul 24 j 16:57	11° $\mathcal{B}$ 40'33	15°48'37
				minimum elong	-11326 Jul 24 j 17:07	11° $\mathcal{B}$ 40'34	15°49'00
conjunction	-11334 Jul 04 j 06:32	20° $\Upsilon$ 47'18	16°27'03	max. Earth dist.	-11326 Jul 24 j 05:34	11° $\mathcal{B}$ 39'23	30.58578 AU
minimum elong	-11334 Jul 04 j 06:23	20° $\Upsilon$ 47'17	16°27'14	retrograde	-11326 Nov 06 j 02:53	14° $\mathcal{B}$ 23'14	
retrograde	-11334 Oct 15 j 17:39	23° $\Upsilon$ 26'56		opposition	-11325 Jan 23 j 05:18	12° $\mathcal{B}$ 59'24	16°47'14
opposition	-11333 Jan 01 j 07:16	22° $\Upsilon$ 03'53	17°35'20	min. Earth dist.	-11325 Jan 23 j 14:23	12° $\mathcal{B}$ 58'46	28.66308 AU
min. Earth dist.	-11333 Jan 02 j 21:27	22° $\Upsilon$ 01'13	29.03228 AU	direct	-11325 Apr 12 j 18:45	11° $\mathcal{B}$ 34'14	
direct	-11333 Mar 22 j 07:48	20° $\Upsilon$ 38'21					
max. Earth dist.	-11333 Jul 05 j 12:30	23° $\Upsilon$ 17'58	30.90090 AU	conjunction	-11325 Jul 27 j 12:28	14° $\mathcal{B}$ 17'57	15°35'22
				minimum elong	-11325 Jul 27 j 12:39	14° $\mathcal{B}$ 17'58	15°35'47
conjunction	-11333 Jul 07 j 01:07	23° $\Upsilon$ 21'41	16°28'54	max. Earth dist.	-11325 Jul 27 j 05:47	14° $\mathcal{B}$ 17'16	30.58324 AU
minimum elong	-11333 Jul 07 j 00:59	23° $\Upsilon$ 21'40	16°29'06		-11325 Aug 13 j 19:28	15° $\mathcal{B}$	
retrograde	-11333 Oct 18 j 15:50	26° $\Upsilon$ 02'02		retrograde	-11325 Nov 08 j 22:38	17° $\mathcal{B}$ 00'30	
opposition	-11332 Jan 04 j 05:54	24° $\Upsilon$ 38'47	17°36'31	opposition	-11324 Jan 26 j 05:28	15° $\mathcal{B}$ 36'38	16°32'08
min. Earth dist.	-11332 Jan 05 j 15:24	24° $\Upsilon$ 36'27	28.94840 AU	min. Earth dist.	-11324 Jan 26 j 11:16	15° $\mathcal{B}$ 36'14	28.66350 AU
direct	-11332 Mar 24 j 05:04	23° $\Upsilon$ 13'12			-11324 Feb 17 j 21:42	15° $\mathcal{R}$ $\mathcal{B}$	
max. Earth dist.	-11332 Jul 07 j 11:13	25° $\Upsilon$ 53'39	30.82268 AU	direct	-11324 Apr 14 j 18:15	14° $\mathcal{B}$ 11'36	
					-11324 Jun 07 j 06:43	15° $\mathcal{B}$	
conjunction	-11332 Jul 08 j 19:58	25° $\Upsilon$ 56'59	16°28'51	conjunction	-11324 Jul 29 j 07:25	16° $\mathcal{B}$ 54'48	15°20'19
minimum elong	-11332 Jul 08 j 19:54	25° $\Upsilon$ 56'58	16°29'06	minimum elong	-11324 Jul 29 j 07:39	16° $\mathcal{B}$ 54'49	15°20'45
retrograde	-11332 Oct 20 j 13:06	28° $\Upsilon$ 38'00		max. Earth dist.	-11324 Jul 29 j 03:38	16° $\mathcal{B}$ 54'24	30.59168 AU
opposition	-11331 Jan 06 j 05:14	27° $\Upsilon$ 14'35	17°35'39	retrograde	-11324 Nov 10 j 20:48	19° $\mathcal{B}$ 37'07	
min. Earth dist.	-11331 Jan 07 j 12:11	27° $\Upsilon$ 12'26	28.87587 AU	opposition	-11323 Jan 28 j 05:20	18° $\mathcal{B}$ 13'14	16°15'05
direct	-11331 Mar 27 j 01:14	25° $\Upsilon$ 49'00		min. Earth dist.	-11323 Jan 28 j 06:33	18° $\mathcal{B}$ 13'09	28.67497 AU
max. Earth dist.	-11331 Jul 10 j 10:27	28° $\Upsilon$ 30'11	30.75616 AU	direct	-11323 Apr 17 j 16:31	16° $\mathcal{B}$ 48'20	
conjunction	-11331 Jul 11 j 15:09	28° $\Upsilon$ 33'07	16°26'54	conjunction	-11323 Aug 01 j 02:19	19° $\mathcal{B}$ 30'55	15°03'30
minimum elong	-11331 Jul 11 j 15:05	28° $\Upsilon$ 33'07	16°27'10	minimum elong	-11323 Aug 01 j 02:34	19° $\mathcal{B}$ 30'57	15°03'57
	-11331 Aug 18 j 00:40	0° $\mathcal{B}$		max. Earth dist.	-11323 Aug 01 j 03:16	19° $\mathcal{B}$ 31'01	30.61151 AU
retrograde	-11331 Oct 23 j 12:05	1° $\mathcal{B}$ 14'41		retrograde	-11323 Nov 13 j 14:52	22° $\mathcal{B}$ 12'54	
	-11330 Jan 03 j 21:43	30° $\mathcal{R}$ $\Upsilon$		opposition	-11322 Jan 31 j 04:50	20° $\mathcal{B}$ 49'02	15°56'08
opposition	-11330 Jan 09 j 04:38	29° $\Upsilon$ 51'09	17°32'42	min. Earth dist.	-11322 Jan 31 j 03:03	20° $\mathcal{B}$ 49'10	28.69789 AU
min. Earth dist.	-11330 Jan 10 j 07:01	29° $\Upsilon$ 49'19	28.81444 AU	direct	-11322 Apr 20 j 15:13	19° $\mathcal{B}$ 24'18	
direct	-11330 Mar 30 j 00:44	28° $\Upsilon$ 25'35		evening set	-11322 Aug 01 j 02:46	21° $\mathcal{B}$ 59'28	
	-11330 Jun 14 j 22:56	0° $\mathcal{B}$					
max. Earth dist.	-11330 Jul 13 j 08:59	1° $\mathcal{B}$ 07'20	30.70078 AU	conjunction	-11322 Aug 03 j 20:43	22° $\mathcal{B}$ 06'11	14°44'57
conjunction	-11330 Jul 14 j 10:29	1° $\mathcal{B}$ 09'57	16°23'02	minimum elong	-11322 Aug 03 j 21:00	22° $\mathcal{B}$ 06'13	14°45'25
minimum elong	-11330 Jul 14 j 10:30	1° $\mathcal{B}$ 09'57	16°23'20	max. Earth dist.	-11322 Aug 04 j 01:00	22° $\mathcal{B}$ 06'37	30.64341 AU
retrograde	-11330 Oct 26 j 10:42	3° $\mathcal{B}$ 51'58		morning rise	-11322 Aug 06 j 15:15	22° $\mathcal{B}$ 12'58	
opposition	-11329 Jan 12 j 04:32	2° $\mathcal{B}$ 28'21	17°27'41	retrograde	-11322 Nov 16 j 11:20	24° $\mathcal{B}$ 47'43	
min. Earth dist.	-11329 Jan 13 j 04:17	2° $\mathcal{B}$ 26'42	28.76373 AU	opposition	-11321 Feb 03 j 03:55	23° $\mathcal{B}$ 23'55	15°35'22
direct	-11329 Apr 01 j 22:18	1° $\mathcal{B}$ 02'49		min. Earth dist.	-11321 Feb 02 j 21:04	23° $\mathcal{B}$ 24'23	28.73280 AU
max. Earth dist.	-11329 Jul 16 j 08:50	3° $\mathcal{B}$ 45'08	30.65630 AU	direct	-11321 Apr 23 j 13:13	21° $\mathcal{B}$ 59'23	
				evening set	-11321 Aug 02 j 09:22	24° $\mathcal{B}$ 30'13	
conjunction	-11329 Jul 17 j 06:03	3° $\mathcal{B}$ 47'19	16°17'16	conjunction	-11321 Aug 06 j 14:44	24° $\mathcal{B}$ 40'29	14°24'44
minimum elong	-11329 Jul 17 j 06:05	3° $\mathcal{B}$ 47'19	16°17'35	minimum elong	-11321 Aug 06 j 15:02	24° $\mathcal{B}$ 40'31	14°25'14
retrograde	-11329 Oct 29 j 08:27	6° $\mathcal{B}$ 29'40		max. Earth dist.	-11321 Aug 06 j 23:32	24° $\mathcal{B}$ 41'23	30.68751 AU
opposition	-11328 Jan 15 j 04:35	5° $\mathcal{B}$ 05'59	17°20'37	morning rise	-11321 Aug 10 j 20:41	24° $\mathcal{B}$ 50'49	
min. Earth dist.	-11328 Jan 16 j 00:06	5° $\mathcal{B}$ 04'37	28.72330 AU	retrograde	-11321 Nov 19 j 05:51	27° $\mathcal{B}$ 21'31	
direct	-11328 Apr 03 j 21:59	3° $\mathcal{B}$ 40'32		opposition	-11320 Feb 06 j 02:47	25° $\mathcal{B}$ 57'48	15°12'49
max. Earth dist.	-11328 Jul 18 j 07:10	6° $\mathcal{B}$ 23'07	30.62235 AU	min. Earth dist.	-11320 Feb 05 j 16:57	25° $\mathcal{B}$ 58'29	28.77988 AU
				direct	-11320 Apr 25 j 09:19	24° $\mathcal{B}$ 33'31	
conjunction	-11328 Jul 19 j 01:41	6° $\mathcal{B}$ 25'01	16°09'36	evening set	-11320 Aug 03 j 00:01	27° $\mathcal{B}$ 00'48	
minimum elong	-11328 Jul 19 j 01:47	6° $\mathcal{B}$ 25'01	16°09'56				
retrograde	-11328 Oct 31 j 07:48	9° $\mathcal{B}$ 07'36		conjunction	-11320 Aug 08 j 08:23	27° $\mathcal{B}$ 13'45	14°02'55
opposition	-11327 Jan 17 j 04:56	7° $\mathcal{B}$ 43'51	17°11'30	minimum elong	-11320 Aug 08 j 08:44	27° $\mathcal{B}$ 13'47	14°03'25
min. Earth dist.	-11327 Jan 17 j 21:19	7° $\mathcal{B}$ 42'42	28.69318 AU	max. Earth dist.	-11320 Aug 08 j 21:03	27° $\mathcal{B}$ 15'02	30.74416 AU
direct	-11327 Apr 06 j 20:13	6° $\mathcal{B}$ 18'29		morning rise	-11320 Aug 13 j 17:24	27° $\mathcal{B}$ 26'47	
conjunction	-11327 Jul 21 j 21:23	9° $\mathcal{B}$ 02'50	16°00'02	retrograde	-11320 Nov 21 j 01:27	29° $\mathcal{B}$ 54'11	
minimum elong	-11327 Jul 21 j 21:29	9° $\mathcal{B}$ 02'51	16°00'24	min. Earth dist.	-11319 Feb 07 j 10:07	28° $\mathcal{B}$ 31'38	28.83914 AU
max. Earth dist.	-11327 Jul 21 j 07:27	9° $\mathcal{B}$ 01'24	30.59889 AU	opposition	-11319 Feb 08 j 01:03	28° $\mathcal{B}$ 30'37	14°48'36
retrograde	-11327 Nov 03 j 05:02	11° $\mathcal{B}$ 45'32		direct	-11319 Apr 28 j 08:18	27° $\mathcal{B}$ 06'37	
opposition	-11326 Jan 20 j 05:15	10° $\mathcal{B}$ 21'44	17°00'22	evening set	-11319 Aug 04 j 18:02	29° $\mathcal{B}$ 30'43	
min. Earth dist.	-11326 Jan 20 j 17:59	10° $\mathcal{B}$ 20'50	28.67300 AU				
direct	-11326 Apr 09 j 20:27	8° $\mathcal{B}$ 56'28		conjunction	-11319 Aug 11 j 01:32	29° $\mathcal{B}$ 45'55	13°39'36

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Attention, astronomical year style is used: The year -11319 in astronomical counting style is the year 11320 BCE in historical counting style.

minimum elong	-11319 Aug 11 j 01:52	29° <b>8</b> 45'57	13°40'08	min. Earth dist.	-11312 Feb 25 j 06:44	15° <b>II</b> 45'10	29.54726 AU
max. Earth dist.	-11319 Aug 11 j 17:59	29° <b>8</b> 47'35	30.81282 AU	opposition	-11312 Feb 26 j 21:03	15° <b>II</b> 42'37	11°21'14
	-11319 Aug 16 j 21:38	0° <b>II</b>		direct	-11312 May 16 j 03:05	14° <b>II</b> 21'03	
morning rise	-11319 Aug 17 j 09:45	0° <b>II</b> 01'13		evening set	-11312 Aug 16 j 10:48	16° <b>II</b> 26'43	
retrograde	-11319 Nov 23 j 20:17	2° <b>II</b> 25'41					
opposition	-11318 Feb 10 j 22:56	1° <b>II</b> 02'17	14°22'48	conjunction	-11312 Aug 27 j 11:05	16° <b>II</b> 52'03	10°22'44
min. Earth dist.	-11318 Feb 10 j 05:05	1° <b>II</b> 03'30	28.91016 AU	minimum elong	-11312 Aug 27 j 11:27	16° <b>II</b> 52'05	10°23'20
	-11318 Mar 25 j 13:50	30° <b>8</b>		max. Earth dist.	-11312 Aug 29 j 02:49	16° <b>II</b> 55'52	31.57999 AU
direct	-11318 May 01 j 04:05	29° <b>8</b> 38'36		morning rise	-11312 Sep 07 j 12:37	17° <b>II</b> 17'30	
	-11318 Jun 05 j 15:05	0° <b>II</b>		retrograde	-11312 Dec 10 j 13:11	19° <b>II</b> 25'09	
evening set	-11318 Aug 06 j 14:21	1° <b>II</b> 59'45		min. Earth dist.	-11311 Feb 26 j 22:00	18° <b>II</b> 05'59	29.68441 AU
				opposition	-11311 Feb 28 j 14:16	18° <b>II</b> 03'18	10°47'33
conjunction	-11318 Aug 13 j 18:18	2° <b>II</b> 16'55	13°14'53	direct	-11311 May 18 j 20:34	16° <b>II</b> 42'05	
minimum elong	-11318 Aug 13 j 18:40	2° <b>II</b> 16'57	13°15'25	evening set	-11311 Aug 18 j 11:35	18° <b>II</b> 45'28	
max. Earth dist.	-11318 Aug 14 j 14:48	2° <b>II</b> 18'58	30.89309 AU				
morning rise	-11318 Aug 20 j 22:58	2° <b>II</b> 34'10		conjunction	-11311 Aug 29 j 23:30	19° <b>II</b> 11'41	9°51'00
retrograde	-11318 Nov 26 j 14:24	4° <b>II</b> 55'56		minimum elong	-11311 Aug 29 j 23:51	19° <b>II</b> 11'43	9°51'37
opposition	-11317 Feb 13 j 20:01	3° <b>II</b> 32'44	13°55'32	max. Earth dist.	-11311 Aug 31 j 17:31	19° <b>II</b> 15'43	31.72501 AU
min. Earth dist.	-11317 Feb 12 j 21:49	3° <b>II</b> 34'14	28.99218 AU	morning rise	-11311 Sep 10 j 12:52	19° <b>II</b> 38'04	
direct	-11317 May 04 j 01:22	2° <b>II</b> 09'23		retrograde	-11311 Dec 13 j 01:42	21° <b>II</b> 43'37	
evening set	-11317 Aug 08 j 11:56	4° <b>II</b> 27'43		min. Earth dist.	-11310 Mar 01 j 10:14	20° <b>II</b> 24'58	29.83030 AU
				opposition	-11310 Mar 03 j 06:30	20° <b>II</b> 22'02	10°13'09
conjunction	-11317 Aug 16 j 10:28	4° <b>II</b> 46'38	12°48'51	direct	-11310 May 21 j 12:58	19° <b>II</b> 01'09	
minimum elong	-11317 Aug 16 j 10:50	4° <b>II</b> 46'40	12°49'25	evening set	-11310 Aug 20 j 12:25	21° <b>II</b> 02'20	
max. Earth dist.	-11317 Aug 17 j 09:54	4° <b>II</b> 48'58	30.98411 AU				
morning rise	-11317 Aug 24 j 09:56	5° <b>II</b> 05'39		conjunction	-11310 Sep 01 j 11:12	21° <b>II</b> 29'22	9°18'39
retrograde	-11317 Nov 29 j 09:12	7° <b>II</b> 24'50		minimum elong	-11310 Sep 01 j 11:33	21° <b>II</b> 29'24	9°19'15
opposition	-11316 Feb 16 j 16:51	6° <b>II</b> 01'51	13°26'55	max. Earth dist.	-11310 Sep 03 j 08:41	21° <b>II</b> 33'41	31.87864 AU
min. Earth dist.	-11316 Feb 15 j 15:38	6° <b>II</b> 03'33	29.08476 AU	morning rise	-11310 Sep 13 j 11:35	21° <b>II</b> 56'34	
direct	-11316 May 05 j 21:07	4° <b>II</b> 38'52		retrograde	-11310 Dec 15 j 12:37	24° <b>II</b> 00'07	
evening set	-11316 Aug 09 j 10:31	6° <b>II</b> 54'29		min. Earth dist.	-11309 Mar 03 j 23:39	22° <b>II</b> 41'50	29.98519 AU
				opposition	-11309 Mar 05 j 21:57	22° <b>II</b> 38'47	9°38'09
conjunction	-11316 Aug 18 j 02:11	7° <b>II</b> 14'58	12°21'37	direct	-11309 May 24 j 03:06	21° <b>II</b> 18'17	
minimum elong	-11316 Aug 18 j 02:34	7° <b>II</b> 15'00	12°22'10	evening set	-11309 Aug 22 j 13:24	23° <b>II</b> 17'20	
max. Earth dist.	-11316 Aug 19 j 05:53	7° <b>II</b> 17'43	31.08534 AU				
morning rise	-11316 Aug 26 j 18:41	7° <b>II</b> 35'33		conjunction	-11309 Sep 03 j 22:13	23° <b>II</b> 45'06	8°45'44
retrograde	-11316 Dec 01 j 02:27	9° <b>II</b> 52'17		minimum elong	-11309 Sep 03 j 22:33	23° <b>II</b> 45'08	8°46'22
min. Earth dist.	-11315 Feb 17 j 08:23	8° <b>II</b> 31'27	29.18700 AU	max. Earth dist.	-11309 Sep 05 j 22:35	23° <b>II</b> 49'39	32.04140 AU
opposition	-11315 Feb 18 j 13:00	8° <b>II</b> 29'31	12°57'04	morning rise	-11309 Sep 16 j 08:39	24° <b>II</b> 13'00	
direct	-11315 May 08 j 18:45	7° <b>II</b> 06'53		retrograde	-11309 Dec 17 j 23:53	26° <b>II</b> 14'38	
evening set	-11315 Aug 11 j 09:59	9° <b>II</b> 19'54		min. Earth dist.	-11308 Mar 05 j 10:17	24° <b>II</b> 56'54	30.14927 AU
				opposition	-11308 Mar 07 j 12:32	24° <b>II</b> 53'36	9°02'37
conjunction	-11315 Aug 20 j 17:20	9° <b>II</b> 41'48	11°53'18	direct	-11308 May 25 j 18:12	23° <b>II</b> 33'30	
minimum elong	-11315 Aug 20 j 17:43	9° <b>II</b> 41'50	11°53'52	evening set	-11308 Aug 23 j 14:22	25° <b>II</b> 30'32	
max. Earth dist.	-11315 Aug 21 j 23:15	9° <b>II</b> 44'45	31.19597 AU				
morning rise	-11315 Aug 30 j 01:48	10° <b>II</b> 03'48		conjunction	-11308 Sep 05 j 08:22	25° <b>II</b> 58'55	8°12'23
retrograde	-11315 Dec 03 j 19:09	12° <b>II</b> 18'09		minimum elong	-11308 Sep 05 j 08:41	25° <b>II</b> 58'57	8°13'00
min. Earth dist.	-11314 Feb 20 j 00:22	10° <b>II</b> 57'46	29.29853 AU	max. Earth dist.	-11308 Sep 07 j 11:25	26° <b>II</b> 03'41	32.21311 AU
opposition	-11314 Feb 21 j 08:20	10° <b>II</b> 55'37	12°26'06	morning rise	-11308 Sep 18 j 04:18	26° <b>II</b> 27'28	
direct	-11314 May 11 j 12:47	9° <b>II</b> 33'20		retrograde	-11308 Dec 19 j 11:14	28° <b>II</b> 27'16	
evening set	-11314 Aug 13 j 09:56	11° <b>II</b> 43'50		min. Earth dist.	-11307 Mar 07 j 21:53	27° <b>II</b> 09'58	30.32252 AU
				opposition	-11307 Mar 10 j 02:27	27° <b>II</b> 06'33	8°26'40
conjunction	-11314 Aug 23 j 08:02	12° <b>II</b> 07'00	11°23'59	direct	-11307 May 28 j 06:50	25° <b>II</b> 46'52	
minimum elong	-11314 Aug 23 j 08:25	12° <b>II</b> 07'03	11°24'33	evening set	-11307 Aug 25 j 15:26	27° <b>II</b> 41'59	
max. Earth dist.	-11314 Aug 24 j 17:59	12° <b>II</b> 10'19	31.31551 AU				
morning rise	-11314 Sep 02 j 07:07	12° <b>II</b> 30'17		conjunction	-11307 Sep 07 j 18:04	28° <b>II</b> 10'54	7°38'40
retrograde	-11314 Dec 06 j 09:35	14° <b>II</b> 42'19		minimum elong	-11307 Sep 07 j 18:22	28° <b>II</b> 10'56	7°39'18
min. Earth dist.	-11313 Feb 22 j 16:34	13° <b>II</b> 22'20	29.41862 AU	max. Earth dist.	-11307 Sep 10 j 00:29	28° <b>II</b> 15'56	32.39364 AU
opposition	-11313 Feb 24 j 03:04	13° <b>II</b> 20'01	11°54'07	morning rise	-11307 Sep 20 j 22:29	28° <b>II</b> 40'00	
direct	-11313 May 14 j 09:01	11° <b>II</b> 58'06			-11307 Nov 02 j 06:01	0° <b>☾</b>	
evening set	-11313 Aug 15 j 10:16	14° <b>II</b> 06'09		retrograde	-11307 Dec 21 j 21:27	0° <b>☾</b> 38'02	
					-11306 Feb 12 j 00:04	30° <b>8</b> <b>II</b>	
conjunction	-11313 Aug 25 j 21:48	14° <b>II</b> 30'27	10°53'46	min. Earth dist.	-11306 Mar 10 j 07:47	29° <b>II</b> 21'16	30.50427 AU
minimum elong	-11313 Aug 25 j 22:10	14° <b>II</b> 30'29	10°54'22	opposition	-11306 Mar 12 j 15:14	29° <b>II</b> 17'41	7°50'24
max. Earth dist.	-11313 Aug 27 j 09:39	14° <b>II</b> 33'56	31.44356 AU	direct	-11306 May 30 j 20:13	27° <b>II</b> 58'26	
morning rise	-11313 Sep 05 j 10:38	14° <b>II</b> 54'52		evening set	-11306 Aug 27 j 16:39	29° <b>II</b> 51'45	
retrograde	-11313 Dec 09 j 01:28	17° <b>II</b> 04'41			-11306 Aug 31 j 12:01	0° <b>☾</b>	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -11306 in astronomical counting style is the year 11307 BCE in historical counting style.

conjunction	-11306 Sep 10 j 02:53	0°02'07	7°04'40	direct	-11299 Jun 14 j 19:26	12°03'34	
minimum elong	-11306 Sep 10 j 03:09	0°02'09	7°05'18	evening set	-11299 Sep 09 j 00:46	14°01'30	
max. Earth dist.	-11306 Sep 12 j 11:05	0°02'17	32.58220 AU				
morning rise	-11306 Sep 23 j 15:21	0°05'04		conjunction	-11299 Sep 23 j 22:53	14°04'48	3°05'25
retrograde	-11306 Dec 24 j 07:53	2°04'04		minimum elong	-11299 Sep 23 j 23:00	14°04'49	3°06'03
min. Earth dist.	-11305 Mar 12 j 17:17	1°03'04	30.69407 AU	max. Earth dist.	-11299 Sep 26 j 20:13	14°04'48	34.06270 AU
opposition	-11305 Mar 15 j 03:26	1°02'04	7°13'54	morning rise	-11299 Oct 09 j 00:01	15°01'44	
direct	-11305 Jun 02 j 06:58	0°08'17		retrograde	-11298 Jan 07 j 02:55	17°01'13	
evening set	-11305 Aug 29 j 17:37	1°05'51		min. Earth dist.	-11298 Mar 26 j 20:14	15°04'04	32.17876 AU
				opposition	-11298 Mar 29 j 18:26	15°04'43	2°58'46
				direct	-11298 Jun 17 j 00:48	14°02'50	
				evening set	-11298 Sep 11 j 01:30	16°09'08	
conjunction	-11305 Sep 12 j 11:03	2°02'36	6°30'29				
minimum elong	-11305 Sep 12 j 11:18	2°02'38	6°31'08				
max. Earth dist.	-11305 Sep 14 j 22:47	2°03'02	32.77813 AU				
morning rise	-11305 Sep 26 j 06:32	2°05'34		conjunction	-11298 Sep 26 j 02:32	16°03'46	2°31'48
retrograde	-11305 Dec 26 j 16:24	4°05'20		minimum elong	-11298 Sep 26 j 02:38	16°03'47	2°32'24
min. Earth dist.	-11304 Mar 14 j 02:56	3°03'34	30.89087 AU	max. Earth dist.	-11298 Sep 29 j 02:17	16°04'55	34.29089 AU
opposition	-11304 Mar 16 j 14:53	3°03'44	6°37'15	morning rise	-11298 Oct 11 j 06:21	17°01'39	
direct	-11304 Jun 03 j 20:28	2°01'25		retrograde	-11297 Jan 09 j 06:14	18°05'57	
evening set	-11304 Aug 30 j 18:57	4°06'19		min. Earth dist.	-11297 Mar 29 j 00:38	17°04'10	32.40803 AU
				opposition	-11297 Apr 01 j 00:12	17°03'45	2°23'08
				direct	-11297 Jun 19 j 07:12	16°02'15	
				evening set	-11297 Sep 13 j 02:08	18°03'20	
conjunction	-11304 Sep 13 j 18:36	4°03'23	5°56'11				
minimum elong	-11304 Sep 13 j 18:51	4°03'24	5°56'49				
max. Earth dist.	-11304 Sep 16 j 07:26	4°04'52	32.98051 AU				
morning rise	-11304 Sep 27 j 20:43	5°06'39		conjunction	-11297 Sep 28 j 05:13	18°03'53	1°58'28
retrograde	-11304 Dec 28 j 02:21	6°05'54		minimum elong	-11297 Sep 28 j 05:18	18°03'53	1°59'05
min. Earth dist.	-11303 Mar 16 j 10:35	5°04'41	31.09401 AU	max. Earth dist.	-11297 Oct 01 j 05:43	18°04'02	34.52325 AU
opposition	-11303 Mar 19 j 01:24	5°04'01	6°00'34	morning rise	-11297 Oct 13 j 11:30	19°04'41	
direct	-11303 Jun 06 j 07:11	4°02'24		retrograde	-11296 Jan 11 j 10:07	20°04'48	
evening set	-11303 Sep 01 j 20:09	6°01'07		min. Earth dist.	-11296 Mar 30 j 03:32	19°03'30	32.64200 AU
				opposition	-11296 Apr 02 j 05:20	19°03'59	1°47'52
				direct	-11296 Jun 20 j 11:35	18°01'51	
				evening set	-11296 Sep 14 j 02:39	19°05'48	
conjunction	-11303 Sep 16 j 01:37	6°04'26	5°21'51				
minimum elong	-11303 Sep 16 j 01:50	6°04'27	5°22'30				
max. Earth dist.	-11303 Sep 18 j 17:20	6°04'08	33.18843 AU				
morning rise	-11303 Sep 30 j 09:30	7°01'58		conjunction	-11296 Sep 29 j 07:35	20°02'13	1°25'28
retrograde	-11303 Dec 30 j 07:36	9°03'45		minimum elong	-11296 Sep 29 j 07:38	20°02'14	1°26'03
min. Earth dist.	-11302 Mar 18 j 19:43	7°04'55	31.30243 AU	max. Earth dist.	-11296 Oct 02 j 10:46	20°03'32	34.76007 AU
opposition	-11302 Mar 21 j 11:15	7°04'54	5°23'54	morning rise	-11296 Oct 14 j 15:32	20°05'54	
direct	-11302 Jun 08 j 17:44	6°02'28		retrograde	-11295 Jan 12 j 11:30	22°04'01	
evening set	-11302 Sep 03 j 21:27	8°01'45		min. Earth dist.	-11295 Apr 01 j 07:08	21°02'80	32.88052 AU
				opposition	-11295 Apr 04 j 09:34	21°02'29	1°12'59
				direct	-11295 Jun 22 j 18:12	20°08'43	
				evening set	-11295 Sep 16 j 03:05	21°04'36	
conjunction	-11302 Sep 18 j 07:57	8°04'45	4°47'33				
minimum elong	-11302 Sep 18 j 08:09	8°04'46	4°48'10				
max. Earth dist.	-11302 Sep 21 j 00:38	8°05'09	33.40112 AU				
morning rise	-11302 Oct 02 j 21:00	9°01'57		conjunction	-11295 Oct 01 j 09:14	22°01'53	0°52'49
retrograde	-11301 Jan 01 j 13:10	11°05'50		minimum elong	-11295 Oct 01 j 09:16	22°01'53	0°53'26
min. Earth dist.	-11301 Mar 21 j 01:54	9°05'13	31.51544 AU	max. Earth dist.	-11295 Oct 04 j 12:56	22°02'31	35.00130 AU
opposition	-11301 Mar 23 j 20:09	9°04'72	4°47'19	morning rise	-11295 Oct 16 j 18:34	22°04'72	
direct	-11301 Jun 11 j 03:30	8°03'02		retrograde	-11294 Jan 14 j 14:09	24°02'31	
evening set	-11301 Sep 05 j 22:42	10°01'54		min. Earth dist.	-11294 Apr 03 j 08:12	23°01'80	33.12347 AU
				opposition	-11294 Apr 06 j 13:05	23°01'30	0°38'33
				direct	-11294 Jun 24 j 22:43	21°05'58	
				evening set	-11294 Sep 18 j 03:21	23°03'52	
conjunction	-11301 Sep 20 j 13:37	10°04'16	4°13'21				
minimum elong	-11301 Sep 20 j 13:47	10°04'17	4°13'59				
max. Earth dist.	-11301 Sep 23 j 08:21	10°05'09	33.61786 AU				
morning rise	-11301 Oct 05 j 07:17	11°01'06		conjunction	-11294 Oct 03 j 10:13	24°05'56	0°20'36
retrograde	-11300 Jan 03 j 17:52	13°06'09		minimum elong	-11294 Oct 03 j 10:14	24°05'57	0°21'11
min. Earth dist.	-11300 Mar 22 j 09:36	11°05'21	31.73264 AU	max. Earth dist.	-11294 Oct 06 j 16:00	24°01'22	35.24639 AU
opposition	-11300 Mar 25 j 04:31	11°04'80	4°10'54	morning rise	-11294 Oct 18 j 20:21	24°03'16	
direct	-11300 Jun 12 j 11:00	10°03'12		retrograde	-11293 Jan 16 j 13:23	26°01'29	
evening set	-11300 Sep 06 j 23:41	12°01'51		min. Earth dist.	-11293 Apr 05 j 10:55	25°06'19	33.37028 AU
				opposition	-11293 Apr 08 j 16:02	25°01'40	0°04'35
				desc. node	-11293 May 28 j 09:51	24°00'17	
				direct	-11293 Jun 27 j 02:07	23°04'42	
				evening set	-11293 Sep 20 j 03:28	25°02'34	
conjunction	-11300 Sep 21 j 18:37	12°04'58	3°39'17				
minimum elong	-11300 Sep 21 j 18:46	12°04'59	3°39'54				
max. Earth dist.	-11300 Sep 24 j 14:54	12°05'16	33.83851 AU				
morning rise	-11300 Oct 06 j 16:12	13°01'52		conjunction	-11293 Oct 05 j 10:45	25°05'30	-0°11'17
retrograde	-11299 Jan 04 j 22:03	15°04'37		minimum elong	-11293 Oct 05 j 10:45	25°05'30	0°10'41
min. Earth dist.	-11299 Mar 24 j 14:48	13°05'06	31.95366 AU	behind sun begin	-11293 Oct 05 j 05:47	25°05'30	
opposition	-11299 Mar 27 j 11:54	13°04'48	3°34'42				



## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 9

Attention, astronomical year style is used: The year -11293 in astronomical counting style is the year 11294 BCE in historical counting style.

behind sun end	-11293 Oct 05 j 15:42	25° $\Omega$ 53'54		min. Earth dist.	-11286 Apr 17 j 09:20	7° $\Omega$ 05'31	35.14744 AU
max. Earth dist.	-11293 Oct 08 j 17:37	25° $\Omega$ 59'59	35.49501 AU	opposition	-11286 Apr 20 j 18:28	7° $\Omega$ 00'47	-3°38'12
morning rise	-11293 Oct 20 j 21:10	26° $\Omega$ 23'37		direct	-11286 Jul 09 j 07:05	5° $\Omega$ 49'23	
retrograde	-11292 Jan 18 j 12:31	28° $\Omega$ 03'58		evening set	-11286 Oct 02 j 01:48	7° $\Omega$ 20'15	
min. Earth dist.	-11292 Apr 06 j 11:11	26° $\Omega$ 53'16	33.62032 AU				
opposition	-11292 Apr 09 j 18:12	26° $\Omega$ 48'31	-0°28'54	conjunction	-11286 Oct 17 j 00:05	7° $\Omega$ 47'47	-3°40'14
direct	-11292 Jun 28 j 05:07	25° $\Omega$ 34'58		minimum elong	-11286 Oct 16 j 23:57	7° $\Omega$ 47'46	3°39'43
evening set	-11292 Sep 21 j 03:36	27° $\Omega$ 10'03		max. Earth dist.	-11286 Oct 20 j 11:21	7° $\Omega$ 54'14	37.27081 AU
				morning rise	-11286 Nov 01 j 01:27	8° $\Omega$ 15'33	
conjunction	-11292 Oct 06 j 10:38	27° $\Omega$ 39'39	-0°42'37	retrograde	-11285 Jan 29 j 22:37	9° $\Omega$ 51'06	
minimum elong	-11292 Oct 06 j 10:36	27° $\Omega$ 39'39	0°42'03	min. Earth dist.	-11285 Apr 19 j 05:57	8° $\Omega$ 42'46	35.40323 AU
max. Earth dist.	-11292 Oct 09 j 18:21	27° $\Omega$ 46'08	35.74617 AU	opposition	-11285 Apr 22 j 16:15	8° $\Omega$ 37'59	-4°07'41
morning rise	-11292 Oct 21 j 21:07	28° $\Omega$ 09'30		direct	-11285 Jul 11 j 06:41	7° $\Omega$ 26'54	
retrograde	-11291 Jan 19 j 13:03	29° $\Omega$ 49'03		evening set	-11285 Oct 04 j 00:59	8° $\Omega$ 57'11	
min. Earth dist.	-11291 Apr 08 j 12:27	28° $\Omega$ 38'43	33.87285 AU				
opposition	-11291 Apr 11 j 19:54	28° $\Omega$ 33'59	-1°01'51	conjunction	-11285 Oct 18 j 20:24	9° $\Omega$ 24'18	-4°07'57
direct	-11291 Jun 30 j 04:54	27° $\Omega$ 20'50		minimum elong	-11285 Oct 18 j 20:16	9° $\Omega$ 24'17	4°07'26
evening set	-11291 Sep 23 j 03:37	28° $\Omega$ 55'06		max. Earth dist.	-11285 Oct 22 j 08:00	9° $\Omega$ 30'44	37.52589 AU
				morning rise	-11285 Nov 02 j 19:10	9° $\Omega$ 51'39	
conjunction	-11291 Oct 08 j 10:16	29° $\Omega$ 24'25	-1°13'30	retrograde	-11284 Jan 31 j 19:00	11° $\Omega$ 26'40	
minimum elong	-11291 Oct 08 j 10:13	29° $\Omega$ 24'25	1°12'56	min. Earth dist.	-11284 Apr 20 j 03:05	10° $\Omega$ 18'36	35.66018 AU
max. Earth dist.	-11291 Oct 11 j 19:24	29° $\Omega$ 30'58	35.99921 AU	opposition	-11284 Apr 23 j 13:36	10° $\Omega$ 13'51	-4°36'33
morning rise	-11291 Oct 23 j 20:03	29° $\Omega$ 53'59		direct	-11284 Jul 12 j 02:36	9° $\Omega$ 03'04	
	-11291 Oct 27 j 01:15	0° $\Omega$		evening set	-11284 Oct 04 j 23:49	10° $\Omega$ 32'49	
retrograde	-11290 Jan 21 j 11:45	1° $\Omega$ 32'47					
min. Earth dist.	-11290 Apr 10 j 12:43	0° $\Omega$ 22'49	34.12681 AU	conjunction	-11284 Oct 19 j 16:23	10° $\Omega$ 59'30	-4°35'06
opposition	-11290 Apr 13 j 20:39	0° $\Omega$ 18'04	-1°34'16	minimum elong	-11284 Oct 19 j 16:14	10° $\Omega$ 59'29	4°34'36
	-11290 Apr 26 j 15:56	30° $\Omega$		max. Earth dist.	-11284 Oct 23 j 05:24	11° $\Omega$ 05'59	37.78216 AU
direct	-11290 Jul 02 j 06:21	29° $\Omega$ 05'18		morning rise	-11284 Nov 03 j 11:55	11° $\Omega$ 26'25	
	-11290 Sep 03 j 00:36	0° $\Omega$		retrograde	-11283 Feb 01 j 13:59	13° $\Omega$ 00'56	
evening set	-11290 Sep 25 j 03:40	0° $\Omega$ 38'50		min. Earth dist.	-11283 Apr 21 j 23:25	11° $\Omega$ 53'10	35.91831 AU
				opposition	-11283 Apr 25 j 10:17	11° $\Omega$ 48'24	-5°04'47
conjunction	-11290 Oct 10 j 09:13	1° $\Omega$ 07'50	-1°43'53	direct	-11283 Jul 14 j 00:26	10° $\Omega$ 37'56	
minimum elong	-11290 Oct 10 j 09:09	1° $\Omega$ 07'49	1°43'20	evening set	-11283 Oct 06 j 22:43	12° $\Omega$ 07'13	
max. Earth dist.	-11290 Oct 13 j 18:01	1° $\Omega$ 14'17	36.25321 AU				
morning rise	-11290 Oct 25 j 18:13	1° $\Omega$ 37'05		conjunction	-11283 Oct 21 j 11:48	12° $\Omega$ 33'27	-5°01'39
retrograde	-11289 Jan 23 j 12:51	3° $\Omega$ 15'10		minimum elong	-11283 Oct 21 j 11:39	12° $\Omega$ 33'27	5°01'10
min. Earth dist.	-11289 Apr 12 j 12:08	2° $\Omega$ 05'35	34.38175 AU	max. Earth dist.	-11283 Oct 25 j 00:19	12° $\Omega$ 39'51	38.03962 AU
opposition	-11289 Apr 15 j 21:04	2° $\Omega$ 00'49	-2°06'07	morning rise	-11283 Nov 05 j 04:04	12° $\Omega$ 59'55	
direct	-11289 Jul 04 j 05:44	0° $\Omega$ 48'25		retrograde	-11282 Feb 03 j 11:54	14° $\Omega$ 33'58	
evening set	-11289 Sep 27 j 03:20	2° $\Omega$ 21'13		min. Earth dist.	-11282 Apr 23 j 18:23	13° $\Omega$ 26'33	36.17786 AU
				opposition	-11282 Apr 27 j 06:23	13° $\Omega$ 21'46	-5°32'23
conjunction	-11289 Oct 12 j 07:41	2° $\Omega$ 49'54	-2°13'46	direct	-11282 Jul 15 j 18:44	12° $\Omega$ 11'36	
minimum elong	-11289 Oct 12 j 07:37	2° $\Omega$ 49'53	2°13'13	evening set	-11282 Oct 08 j 21:17	13° $\Omega$ 40'28	
max. Earth dist.	-11289 Oct 15 j 18:09	2° $\Omega$ 56'26	36.50762 AU				
morning rise	-11289 Oct 27 j 15:14	3° $\Omega$ 18'49		conjunction	-11282 Oct 23 j 06:50	14° $\Omega$ 06'15	-5°27'37
retrograde	-11288 Jan 25 j 11:07	4° $\Omega$ 56'13		minimum elong	-11282 Oct 23 j 06:39	14° $\Omega$ 06'14	5°27'08
min. Earth dist.	-11288 Apr 13 j 12:25	3° $\Omega$ 46'55	34.63688 AU	max. Earth dist.	-11282 Oct 26 j 21:00	14° $\Omega$ 12'43	38.29827 AU
opposition	-11288 Apr 16 j 20:54	3° $\Omega$ 42'11	-2°37'24	morning rise	-11282 Nov 06 j 19:20	14° $\Omega$ 32'15	
direct	-11288 Jul 05 j 07:06	2° $\Omega$ 30'09			-11282 Nov 23 j 04:56	15° $\Omega$	
evening set	-11288 Sep 28 j 03:05	4° $\Omega$ 02'16		retrograde	-11281 Feb 05 j 07:02	16° $\Omega$ 05'53	
					-11281 Apr 24 j 16:19	15° $\Omega$	
conjunction	-11288 Oct 13 j 05:43	4° $\Omega$ 30'35	-2°43'08	min. Earth dist.	-11281 Apr 25 j 14:40	14° $\Omega$ 58'44	36.43848 AU
minimum elong	-11288 Oct 13 j 05:38	4° $\Omega$ 30'35	2°42'35	opposition	-11281 Apr 29 j 02:08	14° $\Omega$ 53'59	-5°59'20
max. Earth dist.	-11288 Oct 16 j 15:37	4° $\Omega$ 37'02	36.76204 AU	direct	-11281 Jul 17 j 14:38	13° $\Omega$ 44'09	
morning rise	-11288 Oct 28 j 11:39	4° $\Omega$ 59'09			-11281 Oct 03 j 11:53	15° $\Omega$	
retrograde	-11287 Jan 26 j 09:43	6° $\Omega$ 35'53		evening set	-11281 Oct 10 j 19:38	15° $\Omega$ 12'38	
min. Earth dist.	-11287 Apr 15 j 10:04	5° $\Omega$ 26'58	34.89210 AU				
opposition	-11287 Apr 18 j 19:54	5° $\Omega$ 22'11	-3°08'06	conjunction	-11281 Oct 25 j 01:17	15° $\Omega$ 37'56	-5°53'00
direct	-11287 Jul 07 j 06:37	4° $\Omega$ 10'28		minimum elong	-11281 Oct 25 j 01:07	15° $\Omega$ 37'55	5°52'32
evening set	-11287 Sep 30 j 02:39	5° $\Omega$ 41'57		max. Earth dist.	-11281 Oct 28 j 15:12	15° $\Omega$ 44'21	38.55783 AU
				morning rise	-11281 Nov 08 j 09:50	16° $\Omega$ 03'28	
conjunction	-11287 Oct 15 j 03:14	6° $\Omega$ 09'53	-3°11'58	retrograde	-11280 Feb 07 j 00:50	17° $\Omega$ 36'44	
minimum elong	-11287 Oct 15 j 03:07	6° $\Omega$ 09'52	3°11'25	min. Earth dist.	-11280 Apr 26 j 08:32	16° $\Omega$ 29'58	36.69978 AU
max. Earth dist.	-11287 Oct 18 j 14:06	6° $\Omega$ 16'21	37.01630 AU	opposition	-11280 Apr 29 j 21:21	16° $\Omega$ 25'10	-6°25'38
morning rise	-11287 Oct 30 j 07:08	6° $\Omega$ 38'04		direct	-11280 Jul 18 j 11:02	15° $\Omega$ 15'39	
retrograde	-11286 Jan 28 j 04:07	8° $\Omega$ 14'11		evening set	-11280 Oct 11 j 18:06	16° $\Omega$ 43'46	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 10

Attention, astronomical year style is used: The year -11280 in astronomical counting style is the year 11281 BCE in historical counting style.

conjunction	-11280 Oct 25 j 19:31	17° $\Omega$ 08'36	-6°17'48	direct	-11273 Jul 29 j 18:04	25° $\Omega$ 28'04	
minimum elong	-11280 Oct 25 j 19:19	17° $\Omega$ 08'35	6°17'20	evening set	-11273 Oct 24 j 03:57	26° $\Omega$ 54'26	
max. Earth dist.	-11280 Oct 29 j 10:04	17° $\Omega$ 15'01	38.81755 AU				
morning rise	-11280 Nov 08 j 23:55	17° $\Omega$ 33'39		conjunction	-11273 Nov 05 j 17:10	27° $\Omega$ 15'37	-8°55'26
retrograde	-11279 Feb 07 j 16:58	19° $\Omega$ 06'35		minimum elong	-11273 Nov 05 j 16:56	27° $\Omega$ 15'36	8°55'04
min. Earth dist.	-11279 Apr 28 j 04:07	18° $\Omega$ 00'03	36.96111 AU	max. Earth dist.	-11273 Nov 09 j 06:09	27° $\Omega$ 21'38	40.59397 AU
opposition	-11279 May 01 j 16:05	17° $\Omega$ 55'19	-6°51'19	morning rise	-11273 Nov 18 j 08:45	27° $\Omega$ 36'57	
direct	-11279 Jul 20 j 07:33	16° $\Omega$ 46'09		retrograde	-11272 Feb 18 j 09:39	29° $\Omega$ 08'09	
evening set	-11279 Oct 13 j 16:23	18° $\Omega$ 13'56		min. Earth dist.	-11272 May 08 j 05:20	28° $\Omega$ 03'17	38.74414 AU
				opposition	-11272 May 11 j 15:19	27° $\Omega$ 58'47	-9°33'56
conjunction	-11279 Oct 27 j 13:30	18° $\Omega$ 38'17	-6°42'01	direct	-11272 Jul 30 j 10:45	26° $\Omega$ 51'29	
minimum elong	-11279 Oct 27 j 13:18	18° $\Omega$ 38'16	6°41'34	evening set	-11272 Oct 25 j 01:22	28° $\Omega$ 17'41	
max. Earth dist.	-11279 Oct 31 j 04:16	18° $\Omega$ 44'41	39.07694 AU				
morning rise	-11279 Nov 10 j 13:14	19° $\Omega$ 02'49		conjunction	-11272 Nov 06 j 08:40	28° $\Omega$ 38'19	-9°15'42
retrograde	-11278 Feb 09 j 08:47	20° $\Omega$ 35'27		minimum elong	-11272 Nov 06 j 08:26	28° $\Omega$ 38'18	9°15'20
min. Earth dist.	-11278 Apr 29 j 22:04	19° $\Omega$ 29'15	37.22162 AU	max. Earth dist.	-11272 Nov 09 j 22:10	28° $\Omega$ 44'20	40.84049 AU
opposition	-11278 May 03 j 10:20	19° $\Omega$ 24'31	-7°16'22	morning rise	-11272 Nov 18 j 17:53	28° $\Omega$ 59'06	
direct	-11278 Jul 22 j 03:21	18° $\Omega$ 15'39			-11272 Dec 30 j 18:18	0° $\Upsilon$	
evening set	-11278 Oct 15 j 14:38	19° $\Omega$ 43'09		retrograde	-11271 Feb 18 j 23:02	0° $\Upsilon$ 30'08	
					-11271 Apr 11 j 14:37	30° $\Upsilon$ $\Omega$	
conjunction	-11278 Oct 29 j 06:51	20° $\Omega$ 07'00	-7°05'39	min. Earth dist.	-11271 May 09 j 20:41	29° $\Omega$ 25'30	38.99209 AU
minimum elong	-11278 Oct 29 j 06:38	20° $\Omega$ 06'59	7°05'13	opposition	-11271 May 13 j 06:26	29° $\Omega$ 21'02	-9°54'44
max. Earth dist.	-11278 Nov 01 j 20:56	20° $\Omega$ 13'17	39.33501 AU	direct	-11271 Aug 01 j 03:09	28° $\Omega$ 13'57	
morning rise	-11278 Nov 12 j 01:56	20° $\Omega$ 31'02		evening set	-11271 Oct 26 j 22:46	29° $\Omega$ 40'03	
retrograde	-11277 Feb 11 j 02:58	22° $\Omega$ 03'23					
min. Earth dist.	-11277 May 01 j 16:14	20° $\Omega$ 57'27	37.48076 AU	conjunction	-11271 Nov 07 j 23:37	0° $\Upsilon$ 00'07	-9°35'25
opposition	-11277 May 05 j 04:18	20° $\Omega$ 52'45	-7°40'48	minimum elong	-11271 Nov 07 j 23:23	0° $\Upsilon$ 00'06	9°35'04
direct	-11277 Jul 23 j 20:05	19° $\Omega$ 44'11			-11271 Nov 07 j 21:53	0° $\Upsilon$	
evening set	-11277 Oct 17 j 12:44	21° $\Omega$ 11'25		max. Earth dist.	-11271 Nov 11 j 12:06	0° $\Upsilon$ 06'01	41.08610 AU
				morning rise	-11271 Nov 20 j 02:33	0° $\Upsilon$ 20'20	
conjunction	-11277 Oct 31 j 00:10	21° $\Omega$ 34'45	-7°28'44	retrograde	-11270 Feb 20 j 15:32	1° $\Upsilon$ 51'15	
minimum elong	-11277 Oct 30 j 23:58	21° $\Omega$ 34'44	7°28'19	min. Earth dist.	-11270 May 11 j 11:18	0° $\Upsilon$ 46'52	39.23938 AU
max. Earth dist.	-11277 Nov 03 j 15:01	21° $\Omega$ 41'03	39.59135 AU	opposition	-11270 May 14 j 21:25	0° $\Upsilon$ 42'24	-10°14'57
morning rise	-11277 Nov 13 j 14:05	21° $\Omega$ 58'15			-11270 Jun 19 j 00:05	30° $\Upsilon$ $\Omega$	
retrograde	-11276 Feb 12 j 19:53	23° $\Omega$ 30'20		direct	-11270 Aug 02 j 16:28	29° $\Omega$ 35'35	
min. Earth dist.	-11276 May 02 j 10:35	22° $\Omega$ 24'37	37.73778 AU		-11270 Sep 15 j 07:10	0° $\Upsilon$	
opposition	-11276 May 05 j 21:45	22° $\Omega$ 20'00	-8°04'38	evening set	-11270 Oct 28 j 19:46	1° $\Upsilon$ 01'36	
direct	-11276 Jul 24 j 13:48	21° $\Omega$ 11'43					
evening set	-11276 Oct 18 j 10:51	22° $\Omega$ 38'42		conjunction	-11270 Nov 09 j 14:13	1° $\Upsilon$ 21'06	-9°54'33
				minimum elong	-11270 Nov 09 j 14:00	1° $\Upsilon$ 21'05	9°54'12
conjunction	-11276 Oct 31 j 17:02	23° $\Omega$ 01'30	-7°51'15	max. Earth dist.	-11270 Nov 13 j 03:47	1° $\Upsilon$ 27'02	41.33096 AU
minimum elong	-11276 Oct 31 j 16:49	23° $\Omega$ 01'29	7°50'49	morning rise	-11270 Nov 21 j 10:30	1° $\Upsilon$ 40'45	
max. Earth dist.	-11276 Nov 04 j 06:22	23° $\Omega$ 07'39	39.84540 AU	retrograde	-11269 Feb 22 j 06:30	3° $\Upsilon$ 11'34	
morning rise	-11276 Nov 14 j 01:46	23° $\Omega$ 24'29		min. Earth dist.	-11269 May 13 j 02:55	2° $\Upsilon$ 07'23	39.48579 AU
retrograde	-11275 Feb 13 j 14:50	24° $\Omega$ 56'19		opposition	-11269 May 16 j 12:04	2° $\Upsilon$ 03'00	-10°34'34
min. Earth dist.	-11275 May 04 j 03:11	23° $\Omega$ 50'52	37.99246 AU	direct	-11269 Aug 04 j 06:59	0° $\Upsilon$ 56'26	
opposition	-11275 May 07 j 14:49	23° $\Omega$ 46'14	-8°27'51	evening set	-11269 Oct 30 j 16:54	2° $\Upsilon$ 22'24	
direct	-11275 Jul 26 j 05:44	22° $\Omega$ 38'12					
evening set	-11275 Oct 20 j 08:46	24° $\Omega$ 04'58		conjunction	-11269 Nov 11 j 04:37	2° $\Upsilon$ 41'21	-10°13'08
				minimum elong	-11269 Nov 11 j 04:22	2° $\Upsilon$ 41'20	10°12'48
conjunction	-11275 Nov 02 j 09:34	24° $\Omega$ 27'14	-8°13'12	max. Earth dist.	-11269 Nov 14 j 17:10	2° $\Upsilon$ 47'11	41.57499 AU
minimum elong	-11275 Nov 02 j 09:20	24° $\Omega$ 27'13	8°12'49	morning rise	-11269 Nov 22 j 18:03	3° $\Upsilon$ 00'24	
max. Earth dist.	-11275 Nov 05 j 23:24	24° $\Omega$ 33'23	40.09691 AU	retrograde	-11268 Feb 23 j 22:13	4° $\Upsilon$ 31'10	
morning rise	-11275 Nov 15 j 12:47	24° $\Omega$ 49'41		min. Earth dist.	-11268 May 13 j 16:22	3° $\Upsilon$ 27'17	39.73117 AU
retrograde	-11274 Feb 15 j 06:02	26° $\Omega$ 21'16		opposition	-11268 May 17 j 02:13	3° $\Upsilon$ 22'53	-10°53'35
min. Earth dist.	-11274 May 05 j 21:18	25° $\Omega$ 15'58	38.24475 AU	direct	-11268 Aug 04 j 20:45	2° $\Upsilon$ 16'35	
opposition	-11274 May 09 j 07:23	25° $\Omega$ 11'27	-8°50'29	evening set	-11268 Oct 31 j 13:57	3° $\Upsilon$ 42'32	
direct	-11274 Jul 27 j 23:12	24° $\Omega$ 03'39					
evening set	-11274 Oct 22 j 06:28	25° $\Omega$ 30'13		conjunction	-11268 Nov 11 j 18:45	4° $\Upsilon$ 00'54	-10°31'11
				minimum elong	-11268 Nov 11 j 18:31	4° $\Upsilon$ 00'53	10°30'51
conjunction	-11274 Nov 04 j 01:39	25° $\Omega$ 51'56	-8°34'36	max. Earth dist.	-11268 Nov 15 j 07:23	4° $\Upsilon$ 06'43	41.81763 AU
minimum elong	-11274 Nov 04 j 01:26	25° $\Omega$ 51'55	8°34'12	morning rise	-11268 Nov 23 j 01:18	4° $\Upsilon$ 19'23	
max. Earth dist.	-11274 Nov 07 j 14:51	25° $\Omega$ 58'00	40.34634 AU	retrograde	-11267 Feb 24 j 10:07	5° $\Upsilon$ 50'08	
morning rise	-11274 Nov 16 j 23:02	26° $\Omega$ 13'50		min. Earth dist.	-11267 May 15 j 07:47	4° $\Upsilon$ 46'26	39.97495 AU
retrograde	-11273 Feb 16 j 19:33	27° $\Omega$ 45'12		opposition	-11267 May 18 j 16:14	4° $\Upsilon$ 42'06	-11°12'02
min. Earth dist.	-11273 May 07 j 12:44	26° $\Omega$ 40'10	38.49511 AU	direct	-11267 Aug 06 j 12:16	3° $\Upsilon$ 36'05	
opposition	-11273 May 10 j 23:28	26° $\Omega$ 35'37	-9°12'30	evening set	-11267 Nov 02 j 10:58	5° $\Upsilon$ 02'03	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11

Attention, astronomical year style is used: The year -11267 in astronomical counting style is the year 11268 BCE in historical counting style.

conjunction	-11267 Nov 13 j 08:44	5° $\mathring{M}$ 19'50	-10°48'42	direct	-11260 Aug 15 j 10:22	12° $\mathring{M}$ 33'47	
minimum elong	-11267 Nov 13 j 08:29	5° $\mathring{M}$ 19'49	10°48'24	evening set	-11260 Nov 13 j 13:37	14° $\mathring{M}$ 00'13	
max. Earth dist.	-11267 Nov 16 j 21:10	5° $\mathring{M}$ 25'36	42.05838 AU				
morning rise	-11267 Nov 24 j 07:53	5° $\mathring{M}$ 37'43		conjunction	-11260 Nov 22 j 03:18	14° $\mathring{M}$ 13'42	-12°37'31
retrograde	-11266 Feb 25 j 20:54	7° $\mathring{M}$ 08'27		minimum elong	-11260 Nov 22 j 03:04	14° $\mathring{M}$ 13'41	12°37'19
min. Earth dist.	-11266 May 16 j 21:24	6° $\mathring{M}$ 05'01	40.21637 AU	max. Earth dist.	-11260 Nov 25 j 10:39	14° $\mathring{M}$ 18'55	43.65029 AU
opposition	-11266 May 20 j 05:41	6° $\mathring{M}$ 00'43	-11°29'56	morning rise	-11260 Nov 30 j 17:38	14° $\mathring{M}$ 27'14	
direct	-11266 Aug 08 j 04:24	4° $\mathring{M}$ 54'58		retrograde	-11259 Mar 06 j 09:56	15° $\mathring{M}$ 58'16	
evening set	-11266 Nov 04 j 08:02	6° $\mathring{M}$ 20'57		min. Earth dist.	-11259 May 25 j 18:38	14° $\mathring{M}$ 55'54	41.81009 AU
				opposition	-11259 May 28 j 20:42	14° $\mathring{M}$ 52'02	-13°20'48
				direct	-11259 Aug 16 j 23:39	13° $\mathring{M}$ 47'38	
				evening set	-11259 Nov 15 j 10:35	15° $\mathring{M}$ 14'12	
conjunction	-11266 Nov 14 j 22:20	6° $\mathring{M}$ 38'09	-11°05'42				
minimum elong	-11266 Nov 14 j 22:06	6° $\mathring{M}$ 38'08	11°05'24				
max. Earth dist.	-11266 Nov 18 j 09:24	6° $\mathring{M}$ 43'47	42.29648 AU				
morning rise	-11266 Nov 25 j 14:11	6° $\mathring{M}$ 55'26		conjunction	-11259 Nov 23 j 15:04	15° $\mathring{M}$ 27'02	-12°51'09
retrograde	-11265 Feb 27 j 11:19	8° $\mathring{M}$ 26'12		minimum elong	-11259 Nov 23 j 14:50	15° $\mathring{M}$ 27'01	12°50'56
min. Earth dist.	-11265 May 18 j 11:27	7° $\mathring{M}$ 22'58	40.45501 AU	max. Earth dist.	-11259 Nov 26 j 20:45	15° $\mathring{M}$ 32'07	43.86537 AU
opposition	-11265 May 21 j 19:05	7° $\mathring{M}$ 18'43	-11°47'18	morning rise	-11259 Dec 01 j 20:15	15° $\mathring{M}$ 39'54	
direct	-11265 Aug 09 j 16:20	6° $\mathring{M}$ 13'13		retrograde	-11258 Mar 07 j 23:03	17° $\mathring{M}$ 11'04	
evening set	-11265 Nov 06 j 04:54	7° $\mathring{M}$ 39'14		min. Earth dist.	-11258 May 27 j 05:33	16° $\mathring{M}$ 08'53	42.02604 AU
				opposition	-11258 May 30 j 07:51	16° $\mathring{M}$ 05'01	-13°34'37
				direct	-11258 Aug 18 j 08:58	15° $\mathring{M}$ 00'48	
				evening set	-11258 Nov 17 j 07:25	16° $\mathring{M}$ 27'33	
conjunction	-11265 Nov 16 j 11:50	7° $\mathring{M}$ 55'50	-11°22'12				
minimum elong	-11265 Nov 16 j 11:35	7° $\mathring{M}$ 55'49	11°21'56				
max. Earth dist.	-11265 Nov 19 j 23:07	8° $\mathring{M}$ 01'28	42.53138 AU	conjunction	-11258 Nov 25 j 02:41	16° $\mathring{M}$ 39'42	-13°04'17
morning rise	-11265 Nov 26 j 19:58	8° $\mathring{M}$ 12'32		minimum elong	-11258 Nov 25 j 02:27	16° $\mathring{M}$ 39'42	13°04'06
retrograde	-11264 Feb 28 j 24:00	9° $\mathring{M}$ 43'19		max. Earth dist.	-11258 Nov 28 j 08:46	16° $\mathring{M}$ 44'47	44.07852 AU
min. Earth dist.	-11264 May 19 j 02:05	8° $\mathring{M}$ 40'14	40.68996 AU	morning rise	-11258 Dec 02 j 22:29	16° $\mathring{M}$ 51'54	
opposition	-11264 May 22 j 08:10	8° $\mathring{M}$ 36'05	-12°04'09	retrograde	-11257 Mar 09 j 10:25	18° $\mathring{M}$ 23'14	
direct	-11264 Aug 10 j 06:01	7° $\mathring{M}$ 30'48		min. Earth dist.	-11257 May 28 j 18:09	17° $\mathring{M}$ 21'09	42.24004 AU
evening set	-11264 Nov 07 j 02:05	8° $\mathring{M}$ 56'53		opposition	-11257 May 31 j 18:53	17° $\mathring{M}$ 17'22	-13°47'56
				direct	-11257 Aug 19 j 20:00	16° $\mathring{M}$ 13'20	
				evening set	-11257 Nov 19 j 04:29	17° $\mathring{M}$ 40'17	
conjunction	-11264 Nov 17 j 01:08	9° $\mathring{M}$ 12'53	-11°38'13				
minimum elong	-11264 Nov 17 j 00:55	9° $\mathring{M}$ 12'52	11°37'57				
max. Earth dist.	-11264 Nov 20 j 10:28	9° $\mathring{M}$ 18'21	42.76249 AU	conjunction	-11257 Nov 26 j 14:02	17° $\mathring{M}$ 51'47	-13°16'57
morning rise	-11264 Nov 27 j 01:24	9° $\mathring{M}$ 28'58		minimum elong	-11257 Nov 26 j 13:48	17° $\mathring{M}$ 51'46	13°16'46
retrograde	-11263 Mar 01 j 15:13	10° $\mathring{M}$ 59'46		max. Earth dist.	-11257 Nov 29 j 19:08	17° $\mathring{M}$ 56'46	44.28987 AU
min. Earth dist.	-11263 May 20 j 14:49	9° $\mathring{M}$ 56'54	40.92102 AU	morning rise	-11257 Dec 03 j 23:58	18° $\mathring{M}$ 03'17	
opposition	-11263 May 23 j 20:48	9° $\mathring{M}$ 52'46	-12°20'29	retrograde	-11256 Mar 09 j 21:13	19° $\mathring{M}$ 34'48	
direct	-11263 Aug 11 j 17:18	8° $\mathring{M}$ 47'41		min. Earth dist.	-11256 May 29 j 04:30	18° $\mathring{M}$ 32'56	42.45196 AU
evening set	-11263 Nov 08 j 23:01	10° $\mathring{M}$ 13'50		opposition	-11256 Jun 01 j 05:32	18° $\mathring{M}$ 29'09	-14°00'44
				direct	-11256 Aug 20 j 07:52	17° $\mathring{M}$ 25'18	
				evening set	-11256 Nov 20 j 01:43	18° $\mathring{M}$ 52'31	
conjunction	-11263 Nov 18 j 14:09	10° $\mathring{M}$ 29'14	-11°53'45				
minimum elong	-11263 Nov 18 j 13:54	10° $\mathring{M}$ 29'13	11°53'30				
max. Earth dist.	-11263 Nov 21 j 23:15	10° $\mathring{M}$ 34'38	42.98955 AU	conjunction	-11256 Nov 27 j 01:13	19° $\mathring{M}$ 03'19	-13°29'10
morning rise	-11263 Nov 28 j 06:23	10° $\mathring{M}$ 44'41		minimum elong	-11256 Nov 27 j 01:00	19° $\mathring{M}$ 03'18	13°29'00
retrograde	-11262 Mar 03 j 04:18	12° $\mathring{M}$ 15'31		max. Earth dist.	-11256 Nov 30 j 05:35	19° $\mathring{M}$ 08'14	44.49890 AU
min. Earth dist.	-11262 May 22 j 05:16	11° $\mathring{M}$ 12'44	41.14810 AU	morning rise	-11256 Dec 04 j 01:08	19° $\mathring{M}$ 14'07	
opposition	-11262 May 25 j 09:21	11° $\mathring{M}$ 08'44	-12°36'19	retrograde	-11255 Mar 11 j 07:11	20° $\mathring{M}$ 45'51	
direct	-11262 Aug 13 j 06:30	10° $\mathring{M}$ 03'50		min. Earth dist.	-11255 May 30 j 16:22	19° $\mathring{M}$ 44'07	42.66152 AU
evening set	-11262 Nov 10 j 19:51	11° $\mathring{M}$ 30'03		opposition	-11255 Jun 02 j 15:59	19° $\mathring{M}$ 40'25	-14°13'05
				direct	-11255 Aug 21 j 19:23	18° $\mathring{M}$ 36'46	
				evening set	-11255 Nov 21 j 23:18	20° $\mathring{M}$ 04'18	
conjunction	-11262 Nov 20 j 02:44	11° $\mathring{M}$ 44'49	-12°08'49				
minimum elong	-11262 Nov 20 j 02:30	11° $\mathring{M}$ 44'48	12°08'35				
max. Earth dist.	-11262 Nov 23 j 10:52	11° $\mathring{M}$ 50'08	43.21292 AU	conjunction	-11255 Nov 28 j 12:22	20° $\mathring{M}$ 14'22	-13°40'55
morning rise	-11262 Nov 29 j 10:30	11° $\mathring{M}$ 59'38		minimum elong	-11255 Nov 28 j 12:09	20° $\mathring{M}$ 14'21	13°40'46
retrograde	-11261 Mar 04 j 14:21	13° $\mathring{M}$ 30'31		max. Earth dist.	-11255 Dec 01 j 16:35	20° $\mathring{M}$ 19'15	44.70541 AU
min. Earth dist.	-11261 May 23 j 17:21	12° $\mathring{M}$ 27'55	41.37155 AU	morning rise	-11255 Dec 05 j 01:37	20° $\mathring{M}$ 24'27	
opposition	-11261 May 26 j 21:26	12° $\mathring{M}$ 23'55	-12°51'40	retrograde	-11254 Mar 12 j 15:31	21° $\mathring{M}$ 56'27	
direct	-11261 Aug 14 j 20:57	11° $\mathring{M}$ 19'12		min. Earth dist.	-11254 Jun 01 j 03:19	20° $\mathring{M}$ 54'54	42.86805 AU
evening set	-11261 Nov 12 j 16:44	12° $\mathring{M}$ 45'31		opposition	-11254 Jun 04 j 02:11	20° $\mathring{M}$ 51'14	-14°24'57
				direct	-11254 Aug 23 j 07:44	19° $\mathring{M}$ 47'47	
				evening set	-11254 Nov 23 j 21:04	21° $\mathring{M}$ 15'39	
conjunction	-11261 Nov 21 j 15:03	12° $\mathring{M}$ 59'38	-12°23'25				
minimum elong	-11261 Nov 21 j 14:48	12° $\mathring{M}$ 59'37	12°23'11				
max. Earth dist.	-11261 Nov 24 j 22:02	13° $\mathring{M}$ 04'51	43.43291 AU	conjunction	-11254 Nov 29 j 23:01	21° $\mathring{M}$ 24'58	-13°52'15
morning rise	-11261 Nov 30 j 14:20	13° $\mathring{M}$ 13'49		minimum elong	-11254 Nov 29 j 22:48	21° $\mathring{M}$ 24'57	13°52'07
retrograde	-11260 Mar 05 j 00:12	14° $\mathring{M}$ 44'46		max. Earth dist.	-11254 Dec 03 j 01:21	21° $\mathring{M}$ 29'43	44.90865 AU
min. Earth dist.	-11260 May 24 j 06:19	13° $\mathring{M}$ 42'17	41.59212 AU	morning rise	-11254 Dec 06 j 01:09	21° $\mathring{M}$ 34'18	
opposition	-11260 May 27 j 09:14	13° $\mathring{M}$ 38'21	-13°06'29				

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 12

Attention, astronomical year style is used: The year -11253 in astronomical counting style is the year 11254 BCE in historical counting style.

retrograde	-11253 Mar 14 j 03:12	23° $\mathring{M}$ 06'37		max. Earth dist.	-11247 Dec 10 j 17:26	29° $\mathring{M}$ 30'04	46.21703 AU
min. Earth dist.	-11253 Jun 02 j 14:04	22° $\mathring{M}$ 05'14	43.07116 AU		-11247 Dec 31 j 06:48	0° $\underline{A}$	
opposition	-11253 Jun 05 j 12:16	22° $\mathring{M}$ 01'37	-14°36'23	retrograde	-11246 Mar 21 j 21:48	1° $\underline{A}$ 04'33	
direct	-11253 Aug 24 j 16:41	20° $\mathring{M}$ 58'22		min. Earth dist.	-11246 Jun 10 j 13:21	0° $\underline{A}$ 03'55	44.37648 AU
evening set	-11253 Nov 25 j 19:31	22° $\mathring{M}$ 26'36		opposition	-11246 Jun 13 j 04:20	0° $\underline{A}$ 00'44	-15°44'46
					-11246 Jun 13 j 18:56	30° $\mathring{R}$ $\mathring{M}$	
conjunction	-11253 Dec 01 j 09:52	22° $\mathring{M}$ 35'09	-14°03'09	direct	-11246 Sep 01 j 12:05	28° $\mathring{M}$ 58'28	
minimum elong	-11253 Dec 01 j 09:40	22° $\mathring{M}$ 35'08	14°03'01		-11246 Nov 16 j 22:00	0° $\underline{A}$	
max. Earth dist.	-11253 Dec 04 j 12:11	22° $\mathring{M}$ 39'52	45.10808 AU				
morning rise	-11253 Dec 07 j 00:18	22° $\mathring{M}$ 43'42		conjunction	-11246 Dec 09 j 07:33	0° $\underline{A}$ 32'36	-15°08'24
retrograde	-11252 Mar 14 j 14:36	24° $\mathring{M}$ 16'22		minimum elong	-11246 Dec 09 j 07:22	0° $\underline{A}$ 32'36	15°08'21
min. Earth dist.	-11252 Jun 03 j 01:55	23° $\mathring{M}$ 15'04	43.27005 AU	max. Earth dist.	-11246 Dec 12 j 02:16	0° $\underline{A}$ 36'44	46.39069 AU
opposition	-11252 Jun 05 j 22:05	23° $\mathring{M}$ 11'34	-14°47'23	retrograde	-11245 Mar 23 j 07:50	2° $\underline{A}$ 10'52	
direct	-11252 Aug 25 j 01:45	22° $\mathring{M}$ 08'29		min. Earth dist.	-11245 Jun 11 j 23:25	1° $\underline{A}$ 10'18	44.55031 AU
evening set	-11252 Nov 26 j 18:47	23° $\mathring{M}$ 37'10		opposition	-11245 Jun 14 j 12:47	1° $\underline{A}$ 07'12	-15°52'51
				direct	-11245 Sep 02 j 20:01	0° $\underline{A}$ 05'05	
conjunction	-11252 Dec 01 j 20:32	23° $\mathring{M}$ 44'53	-14°13'40				
minimum elong	-11252 Dec 01 j 20:20	23° $\mathring{M}$ 44'52	14°13'33	conjunction	-11245 Dec 10 j 16:51	1° $\underline{A}$ 38'53	-15°16'07
max. Earth dist.	-11252 Dec 04 j 20:49	23° $\mathring{M}$ 49'28	45.30323 AU	minimum elong	-11245 Dec 10 j 16:41	1° $\underline{A}$ 38'53	15°16'05
morning rise	-11252 Dec 06 j 22:17	23° $\mathring{M}$ 52'35		max. Earth dist.	-11245 Dec 13 j 11:03	1° $\underline{A}$ 42'58	46.56218 AU
retrograde	-11251 Mar 16 j 02:08	25° $\mathring{M}$ 25'40		retrograde	-11244 Mar 23 j 13:39	3° $\underline{A}$ 16'46	
min. Earth dist.	-11251 Jun 04 j 11:44	24° $\mathring{M}$ 24'31	43.46439 AU	min. Earth dist.	-11244 Jun 12 j 07:39	2° $\underline{A}$ 16'21	44.72169 AU
opposition	-11251 Jun 07 j 07:42	24° $\mathring{M}$ 21'04	-14°57'59	opposition	-11244 Jun 14 j 20:48	2° $\underline{A}$ 13'17	-16°00'32
direct	-11251 Aug 26 j 10:29	23° $\mathring{M}$ 18'08		direct	-11244 Sep 03 j 06:52	1° $\underline{A}$ 11'18	
evening set	-11251 Nov 28 j 18:45	24° $\mathring{M}$ 47'18					
conjunction	-11251 Dec 03 j 06:52	24° $\mathring{M}$ 54'08	-14°23'47	conjunction	-11244 Dec 11 j 01:53	2° $\underline{A}$ 44'48	-15°23'26
minimum elong	-11251 Dec 03 j 06:41	24° $\mathring{M}$ 54'07	14°23'41	minimum elong	-11244 Dec 11 j 01:43	2° $\underline{A}$ 44'47	15°23'24
max. Earth dist.	-11251 Dec 06 j 06:01	24° $\mathring{M}$ 58'37	45.49366 AU	max. Earth dist.	-11244 Dec 13 j 18:22	2° $\underline{A}$ 48'45	46.73112 AU
morning rise	-11251 Dec 07 j 18:59	25° $\mathring{M}$ 00'57		retrograde	-11243 Mar 24 j 20:44	4° $\underline{A}$ 22'20	
retrograde	-11250 Mar 17 j 10:07	26° $\mathring{M}$ 34'29		min. Earth dist.	-11243 Jun 13 j 16:42	3° $\underline{A}$ 22'02	44.89046 AU
min. Earth dist.	-11250 Jun 05 j 23:15	25° $\mathring{M}$ 33'24	43.65415 AU	opposition	-11243 Jun 16 j 04:52	3° $\underline{A}$ 19'01	-16°07'49
opposition	-11250 Jun 08 j 17:10	25° $\mathring{M}$ 30'03	-15°08'10	direct	-11243 Sep 04 j 16:18	2° $\underline{A}$ 17'12	
direct	-11250 Aug 27 j 22:13	24° $\mathring{M}$ 27'16					
evening set	-11250 Nov 30 j 20:12	25° $\mathring{M}$ 57'02		conjunction	-11243 Dec 12 j 10:50	3° $\underline{A}$ 50'23	-15°30'23
conjunction	-11250 Dec 04 j 17:07	26° $\mathring{M}$ 02'52	-14°33'30	minimum elong	-11243 Dec 12 j 10:40	3° $\underline{A}$ 50'22	15°30'23
minimum elong	-11250 Dec 04 j 16:55	26° $\mathring{M}$ 02'51	14°33'25	max. Earth dist.	-11243 Dec 15 j 03:32	3° $\underline{A}$ 54'21	46.89721 AU
morning rise	-11250 Dec 08 j 13:51	26° $\mathring{M}$ 08'42		retrograde	-11242 Mar 26 j 04:20	5° $\underline{A}$ 27'35	
max. Earth dist.	-11250 Dec 07 j 15:37	26° $\mathring{M}$ 07'18	45.67983 AU	min. Earth dist.	-11242 Jun 15 j 02:03	4° $\underline{A}$ 27'23	45.05596 AU
retrograde	-11249 Mar 18 j 16:11	27° $\mathring{M}$ 42'47		opposition	-11242 Jun 17 j 12:40	4° $\underline{A}$ 24'27	-16°14'43
min. Earth dist.	-11249 Jun 07 j 09:04	26° $\mathring{M}$ 41'49	43.83964 AU	direct	-11242 Sep 06 j 01:12	3° $\underline{A}$ 22'47	
opposition	-11249 Jun 10 j 02:15	26° $\mathring{M}$ 38'30	-15°17'57				
direct	-11249 Aug 29 j 10:59	25° $\mathring{M}$ 35'51		conjunction	-11242 Dec 13 j 19:37	4° $\underline{A}$ 55'40	-15°36'58
evening set	-11249 Dec 02 j 23:51	27° $\mathring{M}$ 06'22		minimum elong	-11242 Dec 13 j 19:28	4° $\underline{A}$ 55'39	15°36'58
conjunction	-11249 Dec 06 j 02:57	27° $\mathring{M}$ 11'04	-14°42'50	max. Earth dist.	-11242 Dec 16 j 10:13	4° $\underline{A}$ 59'29	47.05995 AU
minimum elong	-11249 Dec 06 j 02:47	27° $\mathring{M}$ 11'04	14°42'46	retrograde	-11241 Mar 27 j 15:03	6° $\underline{A}$ 32'32	
morning rise	-11249 Dec 09 j 05:52	27° $\mathring{M}$ 15'46		min. Earth dist.	-11241 Jun 16 j 09:54	5° $\underline{A}$ 32'29	45.21781 AU
max. Earth dist.	-11249 Dec 08 j 23:32	27° $\mathring{M}$ 15'22	45.86203 AU	opposition	-11241 Jun 18 j 20:16	5° $\underline{A}$ 29'35	-16°21'15
retrograde	-11248 Mar 19 j 01:51	28° $\mathring{M}$ 50'33		direct	-11241 Sep 07 j 06:40	4° $\underline{A}$ 28'03	
min. Earth dist.	-11248 Jun 07 j 18:50	27° $\mathring{M}$ 49'42	44.02155 AU				
opposition	-11248 Jun 10 j 11:14	27° $\mathring{M}$ 46'25	-15°27'18	conjunction	-11241 Dec 15 j 04:23	6° $\underline{A}$ 00'39	-15°43'12
direct	-11248 Aug 29 j 19:56	26° $\mathring{M}$ 43'54		minimum elong	-11241 Dec 15 j 04:14	6° $\underline{A}$ 00'39	15°43'14
evening set	-11248 Dec 04 j 08:26	28° $\mathring{M}$ 15'29		max. Earth dist.	-11241 Dec 17 j 18:10	6° $\underline{A}$ 04'24	47.21857 AU
conjunction	-11248 Dec 06 j 12:50	28° $\mathring{M}$ 18'44	-14°51'46	retrograde	-11240 Mar 27 j 23:57	7° $\underline{A}$ 37'12	
minimum elong	-11248 Dec 06 j 12:38	28° $\mathring{M}$ 18'44	14°51'42	min. Earth dist.	-11240 Jun 16 j 19:58	6° $\underline{A}$ 37'10	45.37519 AU
morning rise	-11248 Dec 08 j 16:55	28° $\mathring{M}$ 21'59		opposition	-11240 Jun 19 j 03:56	6° $\underline{A}$ 34'24	-16°27'26
max. Earth dist.	-11248 Dec 09 j 09:30	28° $\mathring{M}$ 23'01	46.04089 AU	direct	-11240 Sep 07 j 14:10	5° $\underline{A}$ 32'59	
retrograde	-11247 Mar 20 j 10:33	29° $\mathring{M}$ 57'48					
min. Earth dist.	-11247 Jun 09 j 05:03	28° $\mathring{M}$ 57'00	44.20029 AU	conjunction	-11240 Dec 15 j 13:13	7° $\underline{A}$ 05'19	-15°49'06
opposition	-11247 Jun 11 j 19:51	28° $\mathring{M}$ 53'50	-15°36'15	minimum elong	-11240 Dec 15 j 13:06	7° $\underline{A}$ 05'19	15°49'08
direct	-11247 Aug 31 j 05:26	27° $\mathring{M}$ 51'26		max. Earth dist.	-11240 Dec 18 j 01:40	7° $\underline{A}$ 08'59	47.37260 AU
conjunction	-11247 Dec 07 j 22:22	29° $\mathring{M}$ 25'54	-15°00'17	retrograde	-11239 Mar 29 j 06:37	8° $\underline{A}$ 41'31	
minimum elong	-11247 Dec 07 j 22:12	29° $\mathring{M}$ 25'54	15°00'14	min. Earth dist.	-11239 Jun 18 j 03:55	7° $\underline{A}$ 41'36	45.52761 AU
				opposition	-11239 Jun 20 j 11:12	7° $\underline{A}$ 38'51	-16°33'16
				direct	-11239 Sep 08 j 23:48	6° $\underline{A}$ 37'34	
conjunction	-11247 Dec 07 j 22:22	29° $\mathring{M}$ 25'54	-15°00'17	conjunction	-11239 Dec 16 j 21:43	8° $\underline{A}$ 09'37	-15°54'41
minimum elong	-11247 Dec 07 j 22:12	29° $\mathring{M}$ 25'54	15°00'14	minimum elong	-11239 Dec 16 j 21:35	8° $\underline{A}$ 09'36	15°54'44

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 13

Attention, astronomical year style is used: The year -11239 in astronomical counting style is the year 11240 BCE in historical counting style.

max. Earth dist.	-11239 Dec 19 j 07:57	8° <u>♁</u> 13'08	47.52159 AU	opposition	-11230 Jun 29 j 23:09	17° <u>♁</u> 02'31	-17°10'36
retrograde	-11238 Mar 30 j 13:34	9° <u>♁</u> 45'28		direct	-11230 Sep 18 j 16:53	16° <u>♁</u> 02'08	
min. Earth dist.	-11238 Jun 19 j 12:52	8° <u>♁</u> 45'36	45.67511 AU				
opposition	-11238 Jun 21 j 18:34	8° <u>♁</u> 42'57	-16°38'47	conjunction	-11230 Dec 26 j 20:20	17° <u>♁</u> 32'00	-16°30'06
direct	-11238 Sep 10 j 08:33	7° <u>♁</u> 41'46		minimum elong	-11230 Dec 26 j 20:16	17° <u>♁</u> 32'00	16°30'16
				max. Earth dist.	-11230 Dec 28 j 20:55	17° <u>♁</u> 34'52	48.69188 AU
conjunction	-11238 Dec 18 j 06:05	9° <u>♁</u> 13'30	-15°59'57	retrograde	-11229 Apr 09 j 05:41	19° <u>♁</u> 05'17	
minimum elong	-11238 Dec 18 j 05:58	9° <u>♁</u> 13'30	16°00'00	min. Earth dist.	-11229 Jun 29 j 09:06	18° <u>♁</u> 06'05	46.83519 AU
max. Earth dist.	-11238 Dec 20 j 15:56	9° <u>♁</u> 16'59	47.66577 AU	opposition	-11229 Jul 01 j 05:09	18° <u>♁</u> 03'56	-17°13'05
retrograde	-11237 Mar 31 j 18:49	10° <u>♁</u> 49'02		direct	-11229 Sep 19 j 23:23	17° <u>♁</u> 03'39	
min. Earth dist.	-11237 Jun 20 j 21:37	9° <u>♁</u> 49'12	45.81773 AU				
opposition	-11237 Jun 23 j 01:41	9° <u>♁</u> 46'37	-16°43'58	conjunction	-11229 Dec 28 j 03:45	18° <u>♁</u> 33'22	-16°32'27
direct	-11237 Sep 11 j 18:12	8° <u>♁</u> 45'31		minimum elong	-11229 Dec 28 j 03:41	18° <u>♁</u> 33'21	16°32'35
				max. Earth dist.	-11229 Dec 30 j 02:16	18° <u>♁</u> 36'05	48.80462 AU
conjunction	-11237 Dec 19 j 14:19	10° <u>♁</u> 16'58	-16°04'53	retrograde	-11228 Apr 09 j 11:55	20° <u>♁</u> 06'25	
minimum elong	-11237 Dec 19 j 14:11	10° <u>♁</u> 16'58	16°04'57	min. Earth dist.	-11228 Jun 29 j 17:02	19° <u>♁</u> 07'14	46.94600 AU
max. Earth dist.	-11237 Dec 21 j 21:53	10° <u>♁</u> 20'19	47.80548 AU	opposition	-11228 Jul 01 j 11:06	19° <u>♁</u> 05'11	-17°15'16
retrograde	-11236 Apr 01 j 03:49	11° <u>♁</u> 52'10		direct	-11228 Sep 20 j 06:33	18° <u>♁</u> 05'01	
min. Earth dist.	-11236 Jun 21 j 04:56	10° <u>♁</u> 52'25	45.95621 AU				
opposition	-11236 Jun 23 j 08:29	10° <u>♁</u> 49'52	-16°48'49	conjunction	-11228 Dec 28 j 11:19	19° <u>♁</u> 34'33	-16°34'30
direct	-11236 Sep 12 j 00:09	9° <u>♁</u> 48'51		minimum elong	-11228 Dec 28 j 11:14	19° <u>♁</u> 34'32	16°34'40
				max. Earth dist.	-11228 Dec 30 j 09:06	19° <u>♁</u> 37'14	48.91248 AU
conjunction	-11236 Dec 19 j 22:29	11° <u>♁</u> 20'02	-16°09'30	retrograde	-11227 Apr 10 j 15:47	21° <u>♁</u> 07'22	
minimum elong	-11236 Dec 19 j 22:23	11° <u>♁</u> 20'01	16°09'34	min. Earth dist.	-11227 Jul 01 j 00:32	20° <u>♁</u> 08'14	47.05149 AU
max. Earth dist.	-11236 Dec 22 j 05:32	11° <u>♁</u> 23'19	47.94120 AU	opposition	-11227 Jul 02 j 17:01	20° <u>♁</u> 06'16	-17°17'10
retrograde	-11235 Apr 02 j 12:52	12° <u>♁</u> 54'54		direct	-11227 Sep 21 j 15:31	19° <u>♁</u> 06'11	
min. Earth dist.	-11235 Jun 22 j 13:48	11° <u>♁</u> 55'09	46.09098 AU				
opposition	-11235 Jun 24 j 15:20	11° <u>♁</u> 52'42	-16°53'19	conjunction	-11227 Dec 29 j 18:26	20° <u>♁</u> 35'30	-16°36'18
direct	-11235 Sep 13 j 05:59	10° <u>♁</u> 51'46		minimum elong	-11227 Dec 29 j 18:23	20° <u>♁</u> 35'30	16°36'27
				max. Earth dist.	-11227 Dec 31 j 13:33	20° <u>♁</u> 38'02	49.01502 AU
conjunction	-11235 Dec 21 j 06:22	12° <u>♁</u> 22'41	-16°13'46	retrograde	-11226 Apr 11 j 22:30	22° <u>♁</u> 08'06	
minimum elong	-11235 Dec 21 j 06:15	12° <u>♁</u> 22'41	16°13'51	min. Earth dist.	-11226 Jul 02 j 07:14	21° <u>♁</u> 09'01	47.15168 AU
max. Earth dist.	-11235 Dec 23 j 12:19	12° <u>♁</u> 25'54	48.07367 AU	opposition	-11226 Jul 03 j 22:49	21° <u>♁</u> 07'06	-17°18'48
retrograde	-11234 Apr 03 j 19:08	13° <u>♁</u> 57'14		direct	-11226 Sep 22 j 21:40	20° <u>♁</u> 07'04	
min. Earth dist.	-11234 Jun 23 j 20:23	12° <u>♁</u> 57'36	46.22257 AU				
opposition	-11234 Jun 25 j 21:51	12° <u>♁</u> 55'11	-16°57'28	conjunction	-11226 Dec 31 j 01:38	21° <u>♁</u> 36'12	-16°37'49
direct	-11234 Sep 14 j 13:38	11° <u>♁</u> 54'20		minimum elong	-11226 Dec 31 j 01:34	21° <u>♁</u> 36'12	16°38'00
				max. Earth dist.	-11225 Jan 01 j 19:55	21° <u>♁</u> 38'40	49.11229 AU
conjunction	-11234 Dec 22 j 14:05	13° <u>♁</u> 25'01	-16°17'42	retrograde	-11225 Apr 13 j 06:39	23° <u>♁</u> 08'33	
minimum elong	-11234 Dec 22 j 13:59	13° <u>♁</u> 25'00	16°17'48	min. Earth dist.	-11225 Jul 03 j 15:17	22° <u>♁</u> 09'26	47.24670 AU
max. Earth dist.	-11234 Dec 24 j 18:28	13° <u>♁</u> 28'08	48.20315 AU	opposition	-11225 Jul 05 j 04:30	22° <u>♁</u> 07'38	-17°20'09
retrograde	-11233 Apr 05 j 00:41	14° <u>♁</u> 59'17		direct	-11225 Sep 24 j 02:18	21° <u>♁</u> 07'39	
min. Earth dist.	-11233 Jun 25 j 04:17	13° <u>♁</u> 59'42	46.35141 AU				
opposition	-11233 Jun 27 j 04:22	13° <u>♁</u> 57'20	-17°01'15	conjunction	-11224 Jan 01 j 08:43	22° <u>♁</u> 36'35	-16°39'04
direct	-11233 Sep 15 j 21:58	12° <u>♁</u> 56'36		minimum elong	-11224 Jan 01 j 08:41	22° <u>♁</u> 36'35	16°39'15
				max. Earth dist.	-11224 Jan 03 j 01:17	22° <u>♁</u> 38'57	49.20482 AU
conjunction	-11233 Dec 23 j 21:51	14° <u>♁</u> 27'03	-16°21'17	retrograde	-11224 Apr 13 j 14:22	24° <u>♁</u> 08'41	
minimum elong	-11233 Dec 23 j 21:45	14° <u>♁</u> 27'02	16°21'23	min. Earth dist.	-11224 Jul 03 j 21:05	23° <u>♁</u> 09'37	47.33709 AU
max. Earth dist.	-11233 Dec 26 j 02:17	14° <u>♁</u> 30'10	48.32998 AU	opposition	-11224 Jul 05 j 09:56	23° <u>♁</u> 07'50	-17°21'14
retrograde	-11232 Apr 05 j 05:17	16° <u>♁</u> 01'03		direct	-11224 Sep 24 j 06:41	22° <u>♁</u> 07'53	
min. Earth dist.	-11232 Jun 25 j 11:46	15° <u>♁</u> 01'33	46.47732 AU				
opposition	-11232 Jun 27 j 10:45	14° <u>♁</u> 59'15	-17°04'42	conjunction	-11223 Jan 01 j 15:36	23° <u>♁</u> 36'38	-16°40'01
direct	-11232 Sep 16 j 07:11	13° <u>♁</u> 58'37		minimum elong	-11223 Jan 01 j 15:32	23° <u>♁</u> 36'38	16°40'14
				max. Earth dist.	-11223 Jan 03 j 06:20	23° <u>♁</u> 38'53	49.29292 AU
conjunction	-11232 Dec 24 j 05:26	15° <u>♁</u> 28'52	-16°24'33	retrograde	-11223 Apr 14 j 19:06	25° <u>♁</u> 08'28	
minimum elong	-11232 Dec 24 j 05:21	15° <u>♁</u> 28'52	16°24'40	min. Earth dist.	-11223 Jul 05 j 04:22	24° <u>♁</u> 09'23	47.42353 AU
max. Earth dist.	-11232 Dec 26 j 07:44	15° <u>♁</u> 31'51	48.45393 AU	opposition	-11223 Jul 06 j 15:19	24° <u>♁</u> 07'41	-17°22'00
retrograde	-11231 Apr 06 j 14:04	17° <u>♁</u> 02'37		direct	-11223 Sep 25 j 14:02	23° <u>♁</u> 07'47	
min. Earth dist.	-11231 Jun 26 j 18:16	16° <u>♁</u> 03'15	46.60027 AU				
opposition	-11231 Jun 28 j 16:54	16° <u>♁</u> 00'58	-17°07'49	conjunction	-11222 Jan 02 j 22:29	24° <u>♁</u> 36'21	-16°40'42
direct	-11231 Sep 17 j 11:52	15° <u>♁</u> 00'27		minimum elong	-11222 Jan 02 j 22:28	24° <u>♁</u> 36'21	16°40'55
				max. Earth dist.	-11222 Jan 04 j 13:04	24° <u>♁</u> 38'35	49.37748 AU
conjunction	-11231 Dec 25 j 12:59	16° <u>♁</u> 30'30	-16°27'29	retrograde	-11222 Apr 15 j 20:56	26° <u>♁</u> 07'57	
minimum elong	-11231 Dec 25 j 12:53	16° <u>♁</u> 30'30	16°27'36	min. Earth dist.	-11222 Jul 06 j 10:32	25° <u>♁</u> 08'53	47.50651 AU
max. Earth dist.	-11231 Dec 27 j 14:49	16° <u>♁</u> 33'27	48.57469 AU	opposition	-11222 Jul 07 j 20:35	25° <u>♁</u> 07'14	-17°22'28
retrograde	-11230 Apr 07 j 22:20	18° <u>♁</u> 04'02		direct	-11222 Sep 26 j 23:34	24° <u>♁</u> 07'22	
min. Earth dist.	-11230 Jun 28 j 02:37	17° <u>♁</u> 04'42	46.71975 AU				

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 14

Attention, astronomical year style is used: The year -11221 in astronomical counting style is the year 11222 BCE in historical counting style.

conjunction	-11221 Jan 04 j 04:58	25° $\underline{\text{A}}$ 35'46	-16°41'04	direct	-11214 Oct 04 j 16:32	1° $\text{M}$ 57'54	
minimum elong	-11221 Jan 04 j 04:55	25° $\underline{\text{A}}$ 35'45	16°41'18				
max. Earth dist.	-11221 Jan 05 j 17:21	25° $\underline{\text{A}}$ 37'52	49.45894 AU	conjunction	-11213 Jan 12 j 08:49	3° $\text{M}$ 25'22	-16°33'57
retrograde	-11221 Apr 17 j 02:55	27° $\underline{\text{A}}$ 07'09		minimum elong	-11213 Jan 12 j 08:50	3° $\text{M}$ 25'22	16°34'15
min. Earth dist.	-11221 Jul 07 j 16:12	26° $\underline{\text{A}}$ 08'08	47.58658 AU	max. Earth dist.	-11213 Jan 13 j 10:10	3° $\text{M}$ 26'49	49.98623 AU
opposition	-11221 Jul 09 j 01:47	26° $\underline{\text{A}}$ 06'30	-17°22'38	retrograde	-11213 Apr 25 j 03:25	4° $\text{M}$ 55'26	
direct	-11221 Sep 28 j 05:20	25° $\underline{\text{A}}$ 06'41		opposition	-11213 Jul 16 j 16:58	3° $\text{M}$ 55'31	-17°13'41
				min. Earth dist.	-11213 Jul 15 j 18:36	3° $\text{M}$ 56'35	48.09587 AU
conjunction	-11220 Jan 05 j 11:41	26° $\underline{\text{A}}$ 34'55	-16°41'09	direct	-11213 Oct 05 j 21:59	2° $\text{M}$ 56'09	
minimum elong	-11220 Jan 05 j 11:40	26° $\underline{\text{A}}$ 34'55	16°41'23				
max. Earth dist.	-11220 Jan 06 j 23:47	26° $\underline{\text{A}}$ 37'00	49.53750 AU	conjunction	-11212 Jan 13 j 15:14	4° $\text{M}$ 23'31	-16°31'56
retrograde	-11220 Apr 17 j 09:11	28° $\underline{\text{A}}$ 06'06		minimum elong	-11212 Jan 13 j 15:14	4° $\text{M}$ 23'31	16°32'15
min. Earth dist.	-11220 Jul 07 j 23:15	27° $\underline{\text{A}}$ 07'04	47.66373 AU	max. Earth dist.	-11212 Jan 14 j 15:55	4° $\text{M}$ 24'55	50.03141 AU
opposition	-11220 Jul 09 j 06:53	27° $\underline{\text{A}}$ 05'33	-17°22'29	retrograde	-11212 Apr 25 j 05:01	5° $\text{M}$ 53'25	
direct	-11220 Sep 28 j 10:38	26° $\underline{\text{A}}$ 05'47		opposition	-11212 Jul 16 j 21:25	4° $\text{M}$ 53'33	-17°11'25
				min. Earth dist.	-11212 Jul 16 j 00:13	4° $\text{M}$ 54'34	48.13832 AU
conjunction	-11219 Jan 05 j 18:19	27° $\underline{\text{A}}$ 33'52	-16°40'56	direct	-11212 Oct 06 j 06:50	3° $\text{M}$ 54'12	
minimum elong	-11219 Jan 05 j 18:16	27° $\underline{\text{A}}$ 33'52	16°41'10				
max. Earth dist.	-11219 Jan 07 j 05:05	27° $\underline{\text{A}}$ 35'52	49.61335 AU	conjunction	-11211 Jan 13 j 21:23	5° $\text{M}$ 21'29	-16°29'39
retrograde	-11219 Apr 18 j 16:24	29° $\underline{\text{A}}$ 04'52		minimum elong	-11211 Jan 13 j 21:25	5° $\text{M}$ 21'29	16°29'58
min. Earth dist.	-11219 Jul 09 j 04:19	28° $\underline{\text{A}}$ 05'56	47.73795 AU	max. Earth dist.	-11211 Jan 14 j 19:32	5° $\text{M}$ 22'44	50.07222 AU
opposition	-11219 Jul 10 j 11:52	28° $\underline{\text{A}}$ 04'25	-17°22'03	retrograde	-11211 Apr 26 j 09:44	6° $\text{M}$ 51'14	
direct	-11219 Sep 29 j 14:44	27° $\underline{\text{A}}$ 04'43		min. Earth dist.	-11211 Jul 17 j 05:36	5° $\text{M}$ 52'23	48.17681 AU
				opposition	-11211 Jul 18 j 01:57	5° $\text{M}$ 51'24	-17°08'53
conjunction	-11218 Jan 07 j 00:37	28° $\underline{\text{A}}$ 32'41	-16°40'25	direct	-11211 Oct 07 j 12:46	4° $\text{M}$ 52'04	
minimum elong	-11218 Jan 07 j 00:37	28° $\underline{\text{A}}$ 32'41	16°40'41				
max. Earth dist.	-11218 Jan 08 j 09:50	28° $\underline{\text{A}}$ 34'36	49.68605 AU	conjunction	-11210 Jan 15 j 03:22	6° $\text{M}$ 19'15	-16°27'06
	-11218 Apr 01 j 17:23	0° $\text{M}$		minimum elong	-11210 Jan 15 j 03:23	6° $\text{M}$ 19'15	16°27'26
retrograde	-11218 Apr 19 j 23:00	0° $\text{M}$ 03'31		max. Earth dist.	-11210 Jan 16 j 01:09	6° $\text{M}$ 20'29	50.10923 AU
	-11218 May 08 j 02:04	30° $\text{R}$ $\underline{\text{A}}$		retrograde	-11210 Apr 27 j 14:54	7° $\text{M}$ 48'52	
min. Earth dist.	-11218 Jul 10 j 11:09	29° $\underline{\text{A}}$ 04'35	47.80894 AU	opposition	-11210 Jul 19 j 06:28	6° $\text{M}$ 49'06	-17°06'04
opposition	-11218 Jul 11 j 16:55	29° $\underline{\text{A}}$ 03'09	-17°21'18	min. Earth dist.	-11210 Jul 18 j 12:02	6° $\text{M}$ 49'59	48.21173 AU
direct	-11218 Sep 30 j 19:30	28° $\underline{\text{A}}$ 03'32		direct	-11210 Oct 08 j 18:00	5° $\text{M}$ 49'47	
conjunction	-11217 Jan 08 j 07:10	29° $\underline{\text{A}}$ 31'24	-16°39'38	conjunction	-11209 Jan 16 j 09:21	7° $\text{M}$ 16'52	-16°24'18
minimum elong	-11217 Jan 08 j 07:09	29° $\underline{\text{A}}$ 31'24	16°39'53	minimum elong	-11209 Jan 16 j 09:24	7° $\text{M}$ 16'52	16°24'38
max. Earth dist.	-11217 Jan 09 j 15:59	29° $\underline{\text{A}}$ 33'17	49.75537 AU	max. Earth dist.	-11209 Jan 17 j 05:47	7° $\text{M}$ 18'02	50.14315 AU
	-11217 Jan 29 j 10:09	0° $\text{M}$		retrograde	-11209 Apr 28 j 21:48	8° $\text{M}$ 46'21	
retrograde	-11217 Apr 21 j 02:14	1° $\text{M}$ 02'04		opposition	-11209 Jul 20 j 10:42	7° $\text{M}$ 46'38	-17°02'58
opposition	-11217 Jul 12 j 21:43	0° $\text{M}$ 01'49	-17°20'17	min. Earth dist.	-11209 Jul 19 j 16:20	7° $\text{M}$ 47'31	48.24364 AU
min. Earth dist.	-11217 Jul 11 j 17:07	0° $\text{M}$ 03'11	47.87605 AU	direct	-11209 Oct 09 j 20:53	6° $\text{M}$ 47'20	
	-11217 Jul 14 j 11:24	30° $\text{R}$ $\underline{\text{A}}$					
direct	-11217 Oct 02 j 03:17	29° $\underline{\text{A}}$ 02'16		conjunction	-11208 Jan 17 j 15:19	8° $\text{M}$ 14'22	-16°21'13
	-11217 Dec 18 j 06:38	0° $\text{M}$		minimum elong	-11208 Jan 17 j 15:20	8° $\text{M}$ 14'22	16°21'33
				max. Earth dist.	-11208 Jan 18 j 10:05	8° $\text{M}$ 15'26	50.17409 AU
conjunction	-11216 Jan 09 j 13:37	0° $\text{M}$ 30'02	-16°38'35	retrograde	-11208 Apr 29 j 04:49	9° $\text{M}$ 43'44	
minimum elong	-11216 Jan 09 j 13:37	0° $\text{M}$ 30'02	16°38'52	opposition	-11208 Jul 20 j 15:11	8° $\text{M}$ 44'04	-16°59'36
max. Earth dist.	-11216 Jan 10 j 19:54	0° $\text{M}$ 31'46	49.82057 AU	min. Earth dist.	-11208 Jul 19 j 22:32	8° $\text{M}$ 44'52	48.27268 AU
retrograde	-11216 Apr 21 j 07:42	2° $\text{M}$ 00'33		direct	-11208 Oct 10 j 00:16	7° $\text{M}$ 44'48	
min. Earth dist.	-11216 Jul 11 j 23:07	1° $\text{M}$ 01'43	47.93876 AU				
opposition	-11216 Jul 13 j 02:35	1° $\text{M}$ 00'24	-17°19'01	conjunction	-11207 Jan 17 j 21:20	9° $\text{M}$ 11'47	-16°17'51
direct	-11216 Oct 02 j 08:53	0° $\text{M}$ 00'55		minimum elong	-11207 Jan 17 j 21:23	9° $\text{M}$ 11'47	16°18'13
				max. Earth dist.	-11207 Jan 18 j 15:54	9° $\text{M}$ 12'50	50.20226 AU
conjunction	-11215 Jan 09 j 20:11	1° $\text{M}$ 28'35	-16°37'17	retrograde	-11207 Apr 30 j 07:32	10° $\text{M}$ 41'02	
minimum elong	-11215 Jan 09 j 20:11	1° $\text{M}$ 28'35	16°37'34	opposition	-11207 Jul 21 j 19:25	9° $\text{M}$ 41'27	-16°55'57
max. Earth dist.	-11215 Jan 11 j 01:35	1° $\text{M}$ 30'16	49.88091 AU	min. Earth dist.	-11207 Jul 21 j 03:33	9° $\text{M}$ 42'12	48.29870 AU
retrograde	-11215 Apr 22 j 14:07	2° $\text{M}$ 58'58		direct	-11207 Oct 11 j 07:25	8° $\text{M}$ 42'13	
min. Earth dist.	-11215 Jul 13 j 06:16	2° $\text{M}$ 00'07	47.99632 AU				
opposition	-11215 Jul 14 j 07:26	1° $\text{M}$ 58'54	-17°17'29	conjunction	-11206 Jan 19 j 03:09	10° $\text{M}$ 09'10	-16°14'14
direct	-11215 Oct 03 j 13:41	0° $\text{M}$ 59'29		minimum elong	-11206 Jan 19 j 03:11	10° $\text{M}$ 09'10	16°14'35
				max. Earth dist.	-11206 Jan 19 j 19:29	10° $\text{M}$ 10'05	50.22745 AU
conjunction	-11214 Jan 11 j 02:37	2° $\text{M}$ 27'03	-16°35'44	retrograde	-11206 May 01 j 11:39	11° $\text{M}$ 38'20	
minimum elong	-11214 Jan 11 j 02:37	2° $\text{M}$ 27'03	16°36'02	opposition	-11206 Jul 22 j 23:41	10° $\text{M}$ 38'49	-16°52'01
max. Earth dist.	-11214 Jan 12 j 05:59	2° $\text{M}$ 28'36	49.93621 AU	min. Earth dist.	-11206 Jul 22 j 08:40	10° $\text{M}$ 39'31	48.32166 AU
retrograde	-11214 Apr 23 j 22:06	3° $\text{M}$ 57'16		direct	-11206 Oct 12 j 12:45	9° $\text{M}$ 39'37	
min. Earth dist.	-11214 Jul 14 j 11:33	2° $\text{M}$ 58'28	48.04865 AU				
opposition	-11214 Jul 15 j 12:10	2° $\text{M}$ 57'17	-17°15'43	conjunction	-11205 Jan 20 j 09:03	11° $\text{M}$ 06'32	-16°10'21

Attention, astronomical year style is used: The year -11205 in astronomical counting style is the year 11206 BCE in historical counting style.

minimum elong	-11205 Jan 20 j 09:06	11°M.06'32	16°10'44	conjunction	-11197 Jan 28 j 08:30	18°M.43'38	-15°30'56
max. Earth dist.	-11205 Jan 21 j 00:55	11°M.07'25	50.24920 AU	minimum elong	-11197 Jan 28 j 08:35	18°M.43'39	15°31'22
retrograde	-11205 May 02 j 16:13	12°M.35'37		max. Earth dist.	-11197 Jan 28 j 11:56	18°M.43'50	50.25202 AU
opposition	-11205 Jul 24 j 04:01	11°M.36'11	-16°47'51	retrograde	-11197 May 10 j 08:48	20°M.12'05	
min. Earth dist.	-11205 Jul 23 j 15:05	11°M.36'48	48.34074 AU	opposition	-11197 Jul 31 j 13:23	19°M.12'51	-16°05'54
direct	-11205 Oct 13 j 18:36	10°M.37'02		min. Earth dist.	-11197 Jul 31 j 11:10	19°M.12'58	48.31858 AU
				direct	-11197 Oct 21 j 09:00	18°M.13'37	
conjunction	-11204 Jan 21 j 15:05	12°M.03'54	-16°06'13				
minimum elong	-11204 Jan 21 j 15:09	12°M.03'55	16°06'36	conjunction	-11196 Jan 29 j 14:15	19°M.40'21	-15°24'55
max. Earth dist.	-11204 Jan 22 j 05:05	12°M.04'42	50.26691 AU	minimum elong	-11196 Jan 29 j 14:21	19°M.40'22	15°25'21
retrograde	-11204 May 03 j 00:17	13°M.32'55		max. Earth dist.	-11196 Jan 29 j 15:24	19°M.40'25	50.23360 AU
opposition	-11204 Jul 24 j 08:07	12°M.33'33	-16°43'25	retrograde	-11196 May 10 j 13:15	21°M.08'46	
min. Earth dist.	-11204 Jul 23 j 19:45	12°M.34'08	48.35537 AU	opposition	-11196 Jul 31 j 17:22	20°M.09'34	-15°59'32
direct	-11204 Oct 13 j 20:38	11°M.34'25		min. Earth dist.	-11196 Jul 31 j 16:05	20°M.09'37	48.29772 AU
				direct	-11196 Oct 21 j 13:54	19°M.10'19	
conjunction	-11203 Jan 21 j 21:08	13°M.01'17	-16°01'52				
minimum elong	-11203 Jan 21 j 21:12	13°M.01'18	16°02'16	conjunction	-11195 Jan 29 j 20:07	20°M.37'04	-15°18'39
max. Earth dist.	-11203 Jan 22 j 09:04	13°M.01'58	50.27973 AU	minimum elong	-11195 Jan 29 j 20:12	20°M.37'05	15°19'05
retrograde	-11203 May 04 j 06:58	14°M.30'13		max. Earth dist.	-11195 Jan 29 j 20:50	20°M.37'07	50.21216 AU
opposition	-11203 Jul 25 j 12:31	13°M.30'54	-16°38'46	retrograde	-11195 May 11 j 16:49	22°M.05'28	
min. Earth dist.	-11203 Jul 25 j 02:35	13°M.31'22	48.36494 AU	opposition	-11195 Aug 01 j 21:33	21°M.06'18	-15°52'54
direct	-11203 Oct 14 j 23:37	12°M.31'47		min. Earth dist.	-11195 Aug 01 j 21:56	21°M.06'17	48.27375 AU
				direct	-11195 Oct 22 j 20:01	20°M.07'04	
conjunction	-11202 Jan 23 j 03:05	13°M.58'38	-15°57'17				
minimum elong	-11202 Jan 23 j 03:10	13°M.58'38	15°57'40	conjunction	-11194 Jan 31 j 01:41	21°M.33'51	-15°12'07
max. Earth dist.	-11202 Jan 23 j 14:10	13°M.59'15	50.28737 AU	minimum elong	-11194 Jan 31 j 01:48	21°M.33'51	15°12'35
	-11202 Mar 14 j 00:36	15°M.		max. Earth dist.	-11194 Jan 31 j 01:01	21°M.33'49	50.18777 AU
retrograde	-11202 May 05 j 09:30	15°M.27'28		retrograde	-11194 May 13 j 00:15	23°M.02'14	
	-11202 Jun 27 j 04:26	15°R.M.		opposition	-11194 Aug 03 j 01:33	22°M.03'07	-15°46'00
opposition	-11202 Jul 26 j 16:47	14°M.28'11	-16°33'53	min. Earth dist.	-11194 Aug 03 j 02:10	22°M.03'05	48.24658 AU
min. Earth dist.	-11202 Jul 26 j 07:57	14°M.28'36	48.36901 AU	direct	-11194 Oct 23 j 22:06	21°M.03'53	
direct	-11202 Oct 16 j 07:25	13°M.29'04					
				conjunction	-11193 Feb 01 j 07:28	22°M.30'44	-15°05'21
conjunction	-11201 Jan 24 j 09:00	14°M.55'53	-15°52'29	minimum elong	-11193 Feb 01 j 07:34	22°M.30'45	15°05'48
minimum elong	-11201 Jan 24 j 09:04	14°M.55'53	15°52'53	max. Earth dist.	-11193 Feb 01 j 05:05	22°M.30'36	50.15985 AU
max. Earth dist.	-11201 Jan 24 j 17:10	14°M.56'21	50.28960 AU	retrograde	-11193 May 14 j 07:57	23°M.59'08	
	-11201 Jan 27 j 10:05	15°M.		opposition	-11193 Aug 04 j 05:37	23°M.00'03	-15°38'51
retrograde	-11201 May 06 j 13:07	16°M.24'38		min. Earth dist.	-11193 Aug 04 j 08:26	22°M.59'55	48.21572 AU
opposition	-11201 Jul 27 j 20:55	15°M.25'22	-16°28'46	direct	-11193 Oct 24 j 23:26	22°M.00'49	
min. Earth dist.	-11201 Jul 27 j 13:28	15°M.25'43	48.36781 AU	evening set	-11192 Feb 01 j 17:28	23°M.26'38	
	-11201 Aug 19 j 20:53	15°R.M.					
direct	-11201 Oct 17 j 13:44	14°M.26'14		conjunction	-11192 Feb 02 j 13:29	23°M.27'45	-14°58'20
	-11201 Dec 14 j 11:52	15°M.		minimum elong	-11192 Feb 02 j 13:35	23°M.27'46	14°58'49
				max. Earth dist.	-11192 Feb 02 j 10:24	23°M.27'35	50.12798 AU
conjunction	-11200 Jan 25 j 15:05	15°M.53'01	-15°47'27	morning rise	-11192 Feb 03 j 09:45	23°M.28'54	
minimum elong	-11200 Jan 25 j 15:11	15°M.53'01	15°47'52	retrograde	-11192 May 14 j 11:02	24°M.56'09	
max. Earth dist.	-11200 Jan 25 j 22:26	15°M.53'26	50.28662 AU	opposition	-11192 Aug 04 j 09:41	23°M.57'07	-15°31'28
retrograde	-11200 May 06 j 17:05	17°M.21'41		min. Earth dist.	-11192 Aug 04 j 13:30	23°M.56'56	48.18038 AU
opposition	-11200 Jul 28 j 01:10	16°M.22'25	-16°23'26	direct	-11192 Oct 25 j 06:32	22°M.57'53	
min. Earth dist.	-11200 Jul 27 j 19:55	16°M.22'40	48.36153 AU	evening set	-11191 Jan 31 j 13:44	24°M.21'53	
direct	-11200 Oct 17 j 19:46	15°M.23'16					
				conjunction	-11191 Feb 02 j 19:18	24°M.24'54	-14°51'05
conjunction	-11199 Jan 25 j 20:57	16°M.50'00	-15°42'11	minimum elong	-11191 Feb 02 j 19:24	24°M.24'54	14°51'33
minimum elong	-11199 Jan 25 j 21:01	16°M.50'00	15°42'37	max. Earth dist.	-11191 Feb 02 j 13:26	24°M.24'34	50.09136 AU
max. Earth dist.	-11199 Jan 26 j 02:28	16°M.50'19	50.27900 AU	morning rise	-11191 Feb 05 j 01:07	24°M.27'55	
retrograde	-11199 May 07 j 23:07	18°M.18'35		retrograde	-11191 May 15 j 14:27	25°M.53'18	
opposition	-11199 Jul 29 j 05:09	17°M.19'20	-16°17'51	opposition	-11191 Aug 05 j 13:48	24°M.54'17	-15°23'51
min. Earth dist.	-11199 Jul 29 j 00:17	17°M.19'34	48.35087 AU	min. Earth dist.	-11191 Aug 05 j 19:02	24°M.54'02	48.14013 AU
direct	-11199 Oct 18 j 23:16	16°M.20'09		direct	-11191 Oct 26 j 12:58	23°M.55'02	
				evening set	-11190 Jan 31 j 23:54	25°M.17'59	
conjunction	-11198 Jan 27 j 02:43	17°M.46'52	-15°36'41				
minimum elong	-11198 Jan 27 j 02:49	17°M.46'52	15°37'07	conjunction	-11190 Feb 04 j 01:20	25°M.22'07	-14°43'37
max. Earth dist.	-11198 Jan 27 j 06:28	17°M.47'05	50.26722 AU	minimum elong	-11190 Feb 04 j 01:27	25°M.22'08	14°44'07
retrograde	-11198 May 09 j 05:48	19°M.15'23		max. Earth dist.	-11190 Feb 03 j 18:35	25°M.21'44	50.04954 AU
opposition	-11198 Jul 30 j 09:19	18°M.16'08	-16°12'00	morning rise	-11190 Feb 07 j 03:00	25°M.26'16	
min. Earth dist.	-11198 Jul 30 j 06:24	18°M.16'17	48.33645 AU	retrograde	-11190 May 16 j 18:09	26°M.50'33	
direct	-11198 Oct 20 j 02:23	17°M.16'55		opposition	-11190 Aug 06 j 18:01	25°M.51'32	-15°16'00

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 16

Attention, astronomical year style is used: The year -11190 in astronomical counting style is the year 11191 BCE in historical counting style.

min. Earth dist.	-11190 Aug 07 j 01:29	25° $\mathbb{M}$ .51'11	48.09450 AU	evening set	-11183 Feb 04 j 06:24	1° $\mathbb{A}$ 53'34	
direct	-11190 Oct 27 j 19:15	24° $\mathbb{M}$ .52'15					
evening set	-11189 Feb 01 j 14:03	26° $\mathbb{M}$ .14'21		conjunction	-11183 Feb 10 j 18:51	2° $\mathbb{A}$ 02'23	-13°44'47
				minimum elong	-11183 Feb 10 j 19:00	2° $\mathbb{A}$ 02'23	13°45'19
conjunction	-11189 Feb 05 j 07:14	26° $\mathbb{M}$ .19'23	-14°35'56	max. Earth dist.	-11183 Feb 10 j 01:33	2° $\mathbb{A}$ 01'24	49.63060 AU
minimum elong	-11189 Feb 05 j 07:22	26° $\mathbb{M}$ .19'23	14°36'25	morning rise	-11183 Feb 17 j 07:40	2° $\mathbb{A}$ 11'14	
max. Earth dist.	-11189 Feb 04 j 22:25	26° $\mathbb{M}$ .18'53	50.00252 AU	retrograde	-11183 May 23 j 08:28	3° $\mathbb{A}$ 30'53	
morning rise	-11189 Feb 09 j 00:44	26° $\mathbb{M}$ .24'25		opposition	-11183 Aug 12 j 23:05	2° $\mathbb{A}$ 31'41	-14°14'13
retrograde	-11189 May 18 j 00:31	27° $\mathbb{M}$ .47'49		min. Earth dist.	-11183 Aug 13 j 15:01	2° $\mathbb{A}$ 30'56	47.65350 AU
opposition	-11189 Aug 07 j 22:07	26° $\mathbb{M}$ .48'47	-15°07'55	direct	-11183 Nov 03 j 01:29	1° $\mathbb{A}$ 31'57	
min. Earth dist.	-11189 Aug 08 j 06:08	26° $\mathbb{M}$ .48'24	48.04357 AU	evening set	-11182 Feb 05 j 03:20	2° $\mathbb{A}$ 50'17	
direct	-11189 Oct 28 j 22:48	25° $\mathbb{M}$ .49'27		max. Earth dist.	-11182 Feb 11 j 07:18	2° $\mathbb{A}$ 58'38	49.55778 AU
evening set	-11188 Feb 02 j 06:22	27° $\mathbb{M}$ .10'51					
				conjunction	-11182 Feb 12 j 00:54	2° $\mathbb{A}$ 59'38	-13°35'22
conjunction	-11188 Feb 06 j 13:16	27° $\mathbb{M}$ .16'38	-14°28'01	minimum elong	-11182 Feb 12 j 01:02	2° $\mathbb{A}$ 59'38	13°35'53
minimum elong	-11188 Feb 06 j 13:23	27° $\mathbb{M}$ .16'38	14°28'31	morning rise	-11182 Feb 18 j 22:41	3° $\mathbb{A}$ 08'59	
max. Earth dist.	-11188 Feb 06 j 02:15	27° $\mathbb{M}$ .16'01	49.95022 AU	retrograde	-11182 May 24 j 12:37	4° $\mathbb{A}$ 28'12	
morning rise	-11188 Feb 10 j 20:28	27° $\mathbb{M}$ .22'27		opposition	-11182 Aug 14 j 03:16	3° $\mathbb{A}$ 28'59	-14°04'20
retrograde	-11188 May 18 j 07:48	28° $\mathbb{M}$ .45'03		min. Earth dist.	-11182 Aug 14 j 19:39	3° $\mathbb{A}$ 28'12	47.57776 AU
opposition	-11188 Aug 08 j 02:16	27° $\mathbb{M}$ .46'00	-14°59'37	direct	-11182 Nov 04 j 07:22	2° $\mathbb{A}$ 29'12	
min. Earth dist.	-11188 Aug 08 j 12:40	27° $\mathbb{M}$ .45'31	47.98770 AU	evening set	-11181 Feb 06 j 00:36	3° $\mathbb{A}$ 47'11	
direct	-11188 Oct 29 j 01:32	26° $\mathbb{M}$ .46'36		max. Earth dist.	-11181 Feb 12 j 10:57	3° $\mathbb{A}$ 55'54	49.48186 AU
evening set	-11187 Feb 02 j 00:10	28° $\mathbb{M}$ .07'22					
				conjunction	-11181 Feb 13 j 06:51	3° $\mathbb{A}$ 57'02	-13°25'41
conjunction	-11187 Feb 06 j 19:19	28° $\mathbb{M}$ .13'51	-14°19'52	minimum elong	-11181 Feb 13 j 07:00	3° $\mathbb{A}$ 57'02	13°26'14
minimum elong	-11187 Feb 06 j 19:28	28° $\mathbb{M}$ .13'51	14°20'22	morning rise	-11181 Feb 20 j 13:29	4° $\mathbb{A}$ 06'53	
max. Earth dist.	-11187 Feb 06 j 07:48	28° $\mathbb{M}$ .13'12	49.89335 AU	retrograde	-11181 May 25 j 17:19	5° $\mathbb{A}$ 25'41	
morning rise	-11187 Feb 11 j 14:45	28° $\mathbb{M}$ .20'21		opposition	-11181 Aug 15 j 07:35	4° $\mathbb{A}$ 26'28	-13°54'11
retrograde	-11187 May 19 j 12:02	29° $\mathbb{M}$ .42'15		min. Earth dist.	-11181 Aug 16 j 01:15	4° $\mathbb{A}$ 25'37	47.49871 AU
opposition	-11187 Aug 09 j 06:24	28° $\mathbb{M}$ .43'10	-14°51'04	direct	-11181 Nov 05 j 12:58	3° $\mathbb{A}$ 26'38	
min. Earth dist.	-11187 Aug 09 j 17:35	28° $\mathbb{M}$ .42'38	47.92743 AU	evening set	-11180 Feb 06 j 22:23	4° $\mathbb{A}$ 44'17	
direct	-11187 Oct 30 j 07:18	27° $\mathbb{M}$ .43'42					
evening set	-11186 Feb 02 j 18:35	29° $\mathbb{M}$ .03'53		conjunction	-11180 Feb 14 j 13:10	4° $\mathbb{A}$ 54'37	-13°15'46
max. Earth dist.	-11186 Feb 07 j 11:04	29° $\mathbb{M}$ .10'13	49.83244 AU	minimum elong	-11180 Feb 14 j 13:19	4° $\mathbb{A}$ 54'38	13°16'17
				max. Earth dist.	-11180 Feb 13 j 16:41	4° $\mathbb{A}$ 53'27	49.40217 AU
conjunction	-11186 Feb 08 j 01:00	29° $\mathbb{M}$ .11'00	-14°11'29	morning rise	-11180 Feb 22 j 04:10	5° $\mathbb{A}$ 04'58	
minimum elong	-11186 Feb 08 j 01:07	29° $\mathbb{M}$ .11'01	14°11'59	retrograde	-11180 May 25 j 20:51	6° $\mathbb{A}$ 23'22	
morning rise	-11186 Feb 13 j 07:45	29° $\mathbb{M}$ .18'08		opposition	-11180 Aug 15 j 11:58	5° $\mathbb{A}$ 24'09	-13°43'48
	-11186 Mar 18 j 07:36	0° $\mathbb{A}$		min. Earth dist.	-11180 Aug 16 j 07:37	5° $\mathbb{A}$ 23'12	47.41551 AU
retrograde	-11186 May 20 j 16:41	0° $\mathbb{A}$ 39'25		direct	-11180 Nov 05 j 19:50	4° $\mathbb{A}$ 24'17	
	-11186 Jul 23 j 20:33	30° $\mathbb{K}$ $\mathbb{M}$ .		evening set	-11179 Feb 06 j 20:38	5° $\mathbb{A}$ 41'37	
opposition	-11186 Aug 10 j 10:32	29° $\mathbb{M}$ .40'18	-14°42'15				
min. Earth dist.	-11186 Aug 10 j 22:47	29° $\mathbb{M}$ .39'43	47.86354 AU	conjunction	-11179 Feb 14 j 19:26	5° $\mathbb{A}$ 52'25	-13°05'36
direct	-11186 Oct 31 j 12:33	28° $\mathbb{M}$ .40'45		minimum elong	-11179 Feb 14 j 19:35	5° $\mathbb{A}$ 52'25	13°06'09
evening set	-11185 Feb 03 j 13:58	0° $\mathbb{A}$ 00'24		max. Earth dist.	-11179 Feb 13 j 21:00	5° $\mathbb{A}$ 51'08	49.31818 AU
	-11185 Feb 03 j 06:49	0° $\mathbb{A}$		morning rise	-11179 Feb 22 j 18:31	6° $\mathbb{A}$ 03'14	
				retrograde	-11179 May 27 j 03:13	7° $\mathbb{A}$ 21'16	
conjunction	-11185 Feb 09 j 07:00	0° $\mathbb{A}$ 08'07	-14°02'50	opposition	-11179 Aug 16 j 16:24	6° $\mathbb{A}$ 22'02	-13°33'09
minimum elong	-11185 Feb 09 j 07:08	0° $\mathbb{A}$ 08'08	14°03'21	min. Earth dist.	-11179 Aug 17 j 12:35	6° $\mathbb{A}$ 21'04	47.32768 AU
max. Earth dist.	-11185 Feb 08 j 16:39	0° $\mathbb{A}$ 07'19	49.76806 AU	direct	-11179 Nov 06 j 23:49	5° $\mathbb{A}$ 22'07	
morning rise	-11185 Feb 15 j 00:19	0° $\mathbb{A}$ 15'51		evening set	-11178 Feb 07 j 18:54	6° $\mathbb{A}$ 39'09	
retrograde	-11185 May 21 j 18:15	1° $\mathbb{A}$ 36'33		max. Earth dist.	-11178 Feb 15 j 01:09	6° $\mathbb{A}$ 49'01	49.22917 AU
opposition	-11185 Aug 11 j 14:39	0° $\mathbb{A}$ 37'24	-14°33'11				
min. Earth dist.	-11185 Aug 12 j 04:34	0° $\mathbb{A}$ 36'44	47.79633 AU	conjunction	-11178 Feb 16 j 01:38	6° $\mathbb{A}$ 50'24	-12°55'12
	-11185 Sep 15 j 22:49	30° $\mathbb{K}$ $\mathbb{M}$ .		minimum elong	-11178 Feb 16 j 01:48	6° $\mathbb{A}$ 50'25	12°55'44
direct	-11185 Nov 01 j 20:11	29° $\mathbb{M}$ .37'46		morning rise	-11178 Feb 24 j 08:40	7° $\mathbb{A}$ 01'42	
	-11185 Dec 18 j 06:54	0° $\mathbb{A}$		retrograde	-11178 May 28 j 10:44	8° $\mathbb{A}$ 19'22	
evening set	-11184 Feb 04 j 10:02	0° $\mathbb{A}$ 56'57		opposition	-11178 Aug 17 j 21:04	7° $\mathbb{A}$ 20'07	-13°22'16
				min. Earth dist.	-11178 Aug 18 j 19:39	7° $\mathbb{A}$ 19'02	47.23473 AU
conjunction	-11184 Feb 10 j 12:58	1° $\mathbb{A}$ 05'14	-13°53'56	direct	-11178 Nov 08 j 02:55	6° $\mathbb{A}$ 20'07	
minimum elong	-11184 Feb 10 j 13:05	1° $\mathbb{A}$ 05'14	13°54'27	evening set	-11177 Feb 08 j 17:45	7° $\mathbb{A}$ 36'52	
max. Earth dist.	-11184 Feb 09 j 21:09	1° $\mathbb{A}$ 04'20	49.70078 AU	max. Earth dist.	-11177 Feb 16 j 06:49	7° $\mathbb{A}$ 47'08	49.13507 AU
morning rise	-11184 Feb 16 j 16:12	1° $\mathbb{A}$ 13'32					
retrograde	-11184 May 22 j 00:18	2° $\mathbb{A}$ 33'41		conjunction	-11177 Feb 17 j 08:08	7° $\mathbb{A}$ 48'34	-12°44'34
opposition	-11184 Aug 11 j 18:47	1° $\mathbb{A}$ 34'31	-14°23'50	minimum elong	-11177 Feb 17 j 08:17	7° $\mathbb{A}$ 48'35	12°45'07
min. Earth dist.	-11184 Aug 12 j 08:50	1° $\mathbb{A}$ 33'50	47.72630 AU	morning rise	-11177 Feb 25 j 22:39	8° $\mathbb{A}$ 00'18	
direct	-11184 Nov 02 j 00:10	0° $\mathbb{A}$ 34'49		retrograde	-11177 May 29 j 16:17	9° $\mathbb{A}$ 17'37	



Attention, astronomical year style is used: The year -11177 in astronomical counting style is the year 11178 BCE in historical counting style.

opposition	-11177 Aug 19 j 01:31	8°♂18'20	-13°11'09	minimum elong	-11170 Feb 24 j 06:17	14°♂39'34	11°23'45
min. Earth dist.	-11177 Aug 20 j 01:05	8°♂17'12	47.13654 AU	morning rise	-11170 Mar 06 j 20:30	14°♂54'09	
direct	-11177 Nov 09 j 08:29	7°♂18'15		retrograde	-11170 Jun 05 j 05:52	16°♂09'31	
evening set	-11176 Feb 09 j 16:54	8°♂34'44		opposition	-11170 Aug 25 j 11:12	15°♂09'49	-11°45'56
max. Earth dist.	-11176 Feb 17 j 10:28	8°♂45'17	49.03589 AU	min. Earth dist.	-11170 Aug 26 j 19:13	15°♂08'16	46.34046 AU
				direct	-11170 Nov 16 j 00:37	14°♂09'03	
conjunction	-11176 Feb 18 j 14:36	8°♂46'53	-12°33'42	evening set	-11169 Feb 14 j 16:22	15°♂24'07	
minimum elong	-11176 Feb 18 j 14:45	8°♂46'53	12°34'15	max. Earth dist.	-11169 Feb 24 j 00:39	15°♂37'00	48.23852 AU
morning rise	-11176 Feb 27 j 12:37	8°♂59'02					
retrograde	-11176 May 29 j 22:12	10°♂16'01		conjunction	-11169 Feb 25 j 12:59	15°♂39'06	-11°10'28
opposition	-11176 Aug 19 j 06:10	9°♂16'40	-12°59'47	minimum elong	-11169 Feb 25 j 13:09	15°♂39'06	11°11'03
min. Earth dist.	-11176 Aug 20 j 07:11	9°♂15'28	47.03355 AU	morning rise	-11169 Mar 08 j 09:37	15°♂54'05	
direct	-11176 Nov 09 j 14:03	8°♂16'30		retrograde	-11169 Jun 06 j 12:01	17°♂09'15	
evening set	-11175 Feb 09 j 16:04	9°♂32'43		opposition	-11169 Aug 26 j 16:09	16°♂09'30	-11°32'39
				min. Earth dist.	-11169 Aug 28 j 00:31	16°♂07'56	46.21434 AU
conjunction	-11175 Feb 18 j 21:06	9°♂45'18	-12°22'35	direct	-11169 Nov 17 j 06:03	15°♂08'39	
minimum elong	-11175 Feb 18 j 21:15	9°♂45'18	12°23'10	evening set	-11168 Feb 15 j 17:20	16°♂23'36	
max. Earth dist.	-11175 Feb 17 j 16:18	9°♂43'39	48.93201 AU	max. Earth dist.	-11168 Feb 25 j 06:04	16°♂36'45	48.11194 AU
morning rise	-11175 Feb 28 j 02:11	9°♂57'52					
retrograde	-11175 May 31 j 00:37	11°♂14'33		conjunction	-11168 Feb 26 j 20:08	16°♂38'57	-10°57'31
opposition	-11175 Aug 20 j 10:52	10°♂15'08	-12°48'09	minimum elong	-11168 Feb 26 j 20:18	16°♂38'58	10°58'07
min. Earth dist.	-11175 Aug 21 j 13:40	10°♂13'51	46.92610 AU	morning rise	-11168 Mar 08 j 22:50	16°♂54'19	
direct	-11175 Nov 10 j 21:50	9°♂14'52		retrograde	-11168 Jun 06 j 20:12	18°♂09'19	
evening set	-11174 Feb 10 j 15:38	10°♂30'50		opposition	-11168 Aug 26 j 21:31	17°♂09'31	-11°19'06
max. Earth dist.	-11174 Feb 18 j 21:10	10°♂42'05	48.82419 AU	min. Earth dist.	-11168 Aug 28 j 08:16	17°♂07'50	46.08426 AU
				direct	-11168 Nov 17 j 09:40	16°♂08'34	
conjunction	-11174 Feb 20 j 03:32	10°♂43'49	-12°11'14	evening set	-11167 Feb 15 j 18:33	17°♂23'24	
minimum elong	-11174 Feb 20 j 03:43	10°♂43'50	12°11'48	max. Earth dist.	-11167 Feb 25 j 12:36	17°♂36'54	47.98112 AU
morning rise	-11174 Mar 01 j 15:38	10°♂56'49					
retrograde	-11174 Jun 01 j 06:28	12°♂13'12		conjunction	-11167 Feb 27 j 03:18	17°♂39'08	-10°44'19
opposition	-11174 Aug 21 j 15:26	11°♂13'43	-12°36'16	minimum elong	-11167 Feb 27 j 03:28	17°♂39'09	10°44'54
min. Earth dist.	-11174 Aug 22 j 18:34	11°♂12'25	46.81500 AU	morning rise	-11167 Mar 10 j 11:45	17°♂54'53	
direct	-11174 Nov 12 j 02:50	10°♂13'20		retrograde	-11167 Jun 08 j 04:14	19°♂09'43	
evening set	-11173 Feb 11 j 15:13	11°♂29'05		opposition	-11167 Aug 28 j 02:53	18°♂09'51	-11°05'17
max. Earth dist.	-11173 Feb 20 j 02:02	11°♂40'38	48.71280 AU	min. Earth dist.	-11167 Aug 29 j 14:22	18°♂08'07	45.94949 AU
				direct	-11167 Nov 18 j 14:31	17°♂08'47	
conjunction	-11173 Feb 21 j 10:04	11°♂42'28	-11°59'37	evening set	-11166 Feb 16 j 20:07	18°♂23'31	
minimum elong	-11173 Feb 21 j 10:13	11°♂42'29	12°00'11	max. Earth dist.	-11166 Feb 26 j 17:00	18°♂37'13	47.84540 AU
morning rise	-11173 Mar 03 j 05:05	11°♂55'53					
retrograde	-11173 Jun 02 j 15:33	13°♂11'59		conjunction	-11166 Feb 28 j 10:34	18°♂39'38	-10°30'51
opposition	-11173 Aug 22 j 20:18	12°♂12'26	-12°24'06	minimum elong	-11166 Feb 28 j 10:44	18°♂39'38	10°31'27
min. Earth dist.	-11173 Aug 24 j 01:25	12°♂11'02	46.70062 AU	morning rise	-11166 Mar 12 j 00:56	18°♂55'45	
direct	-11173 Nov 13 j 04:35	11°♂11'57		retrograde	-11166 Jun 09 j 12:28	20°♂10'24	
evening set	-11172 Feb 12 j 15:14	12°♂27'29		opposition	-11166 Aug 29 j 08:21	19°♂10'27	-10°51'12
max. Earth dist.	-11172 Feb 21 j 08:27	12°♂39'26	48.59842 AU	min. Earth dist.	-11166 Aug 30 j 21:33	19°♂08'38	45.80977 AU
				direct	-11166 Nov 19 j 19:41	18°♂09'15	
conjunction	-11172 Feb 22 j 16:47	12°♂41'17	-11°47'44	evening set	-11165 Feb 17 j 21:51	19°♂23'54	
minimum elong	-11172 Feb 22 j 16:57	12°♂41'18	11°48'18	max. Earth dist.	-11165 Feb 27 j 23:44	19°♂37'55	47.70448 AU
morning rise	-11172 Mar 03 j 18:18	12°♂55'06					
retrograde	-11172 Jun 02 j 21:06	14°♂10'56		conjunction	-11165 Mar 01 j 18:08	19°♂40'23	-10°17'08
opposition	-11172 Aug 23 j 01:05	13°♂11'19	-12°11'40	minimum elong	-11165 Mar 01 j 18:18	19°♂40'24	10°17'44
min. Earth dist.	-11172 Aug 24 j 06:31	13°♂09'54	46.58328 AU	morning rise	-11165 Mar 13 j 13:59	19°♂56'52	
direct	-11172 Nov 13 j 10:00	12°♂10'44		retrograde	-11165 Jun 10 j 16:36	21°♂11'21	
evening set	-11171 Feb 12 j 15:26	13°♂26'06		opposition	-11165 Aug 30 j 14:04	20°♂11'18	-10°36'51
				min. Earth dist.	-11165 Sep 01 j 05:07	20°♂09'23	45.66468 AU
conjunction	-11171 Feb 22 j 23:24	13°♂40'18	-11°35'35	direct	-11165 Nov 21 j 04:07	19°♂09'58	
minimum elong	-11171 Feb 22 j 23:34	13°♂40'18	11°36'09	evening set	-11164 Feb 19 j 00:01	20°♂24'31	
max. Earth dist.	-11171 Feb 21 j 12:55	13°♂38'19	48.48126 AU	max. Earth dist.	-11164 Feb 29 j 05:12	20°♂38'45	47.55848 AU
morning rise	-11171 Mar 05 j 07:33	13°♂54'31					
retrograde	-11171 Jun 04 j 02:52	15°♂10'05		conjunction	-11164 Mar 02 j 01:41	20°♂41'21	-10°03'10
opposition	-11171 Aug 24 j 06:05	14°♂10'26	-11°58'56	minimum elong	-11164 Mar 02 j 01:50	20°♂41'22	10°03'47
min. Earth dist.	-11171 Aug 25 j 12:37	14°♂08'57	46.46335 AU	morning rise	-11164 Mar 14 j 03:03	20°♂58'11	
direct	-11171 Nov 14 j 15:58	13°♂09'45		retrograde	-11164 Jun 10 j 21:35	22°♂12'31	
evening set	-11170 Feb 13 j 15:35	14°♂24'58		opposition	-11164 Aug 30 j 19:41	21°♂12'21	-10°22'14
max. Earth dist.	-11170 Feb 22 j 19:26	14°♂37'33	48.36136 AU	min. Earth dist.	-11164 Sep 01 j 11:26	21°♂10'24	45.51472 AU
				direct	-11164 Nov 21 j 11:53	20°♂10'51	
conjunction	-11170 Feb 24 j 06:07	14°♂39'33	-11°23'10	evening set	-11163 Feb 19 j 02:14	21°♂25'19	

Attention, astronomical year style is used: The year -11163 in astronomical counting style is the year 11164 BCE in historical counting style.

max. Earth dist.	-11163 Mar 01 j 11:05	21° $\nearrow$ 39'48	47.40766 AU	min. Earth dist.	-11157 Sep 09 j 14:08	28° $\nearrow$ 24'31	44.36899 AU
				direct	-11157 Nov 29 j 07:58	27° $\nearrow$ 24'15	
conjunction	-11163 Mar 03 j 09:21	21° $\nearrow$ 42'31	-9°48'57	evening set	-11156 Feb 26 j 00:30	28° $\nearrow$ 38'45	
minimum elong	-11163 Mar 03 j 09:32	21° $\nearrow$ 42'31	9°49'33	max. Earth dist.	-11156 Mar 08 j 10:53	28° $\nearrow$ 55'03	46.26159 AU
morning rise	-11163 Mar 15 j 16:03	21° $\nearrow$ 59'41					
retrograde	-11163 Jun 12 j 05:39	23° $\nearrow$ 13'53		conjunction	-11156 Mar 10 j 17:29	28° $\nearrow$ 58'19	-8°01'33
opposition	-11163 Sep 01 j 01:36	22° $\nearrow$ 13'36	-10°07'21	minimum elong	-11156 Mar 10 j 17:39	28° $\nearrow$ 58'20	8°02'10
min. Earth dist.	-11163 Sep 02 j 19:33	22° $\nearrow$ 11'32	45.36034 AU	morning rise	-11156 Mar 24 j 09:38	29° $\nearrow$ 17'52	
direct	-11163 Nov 22 j 16:38	21° $\nearrow$ 11'56			-11156 Apr 26 j 08:09	0° $\overline{\searrow}$	
evening set	-11162 Feb 20 j 04:31	22° $\nearrow$ 26'19		retrograde	-11156 Jun 19 j 12:44	0° $\overline{\searrow}$ 31'40	
max. Earth dist.	-11162 Mar 02 j 18:08	22° $\nearrow$ 41'07	47.25282 AU		-11156 Aug 13 j 05:28	30° $\nearrow$ 8'1	
				opposition	-11156 Sep 07 j 21:41	29° $\nearrow$ 30'35	-8°14'49
conjunction	-11162 Mar 04 j 16:55	22° $\nearrow$ 43'51	-9°34'27	min. Earth dist.	-11156 Sep 09 j 22:35	29° $\nearrow$ 28'09	44.19381 AU
minimum elong	-11162 Mar 04 j 17:04	22° $\nearrow$ 43'52	9°35'04	direct	-11156 Nov 29 j 12:51	28° $\nearrow$ 27'49	
morning rise	-11162 Mar 17 j 04:42	23° $\nearrow$ 01'23		evening set	-11155 Feb 26 j 04:53	29° $\nearrow$ 42'25	
retrograde	-11162 Jun 13 j 13:01	24° $\nearrow$ 15'27		max. Earth dist.	-11155 Mar 09 j 19:22	29° $\nearrow$ 59'01	46.08578 AU
opposition	-11162 Sep 02 j 07:27	23° $\nearrow$ 15'02	-9°52'10		-11155 Mar 10 j 11:40	0° $\overline{\searrow}$	
min. Earth dist.	-11162 Sep 04 j 01:45	23° $\nearrow$ 12'57	45.20211 AU	conjunction	-11155 Mar 12 j 02:19	0° $\overline{\searrow}$ 02'19	-7°45'04
direct	-11162 Nov 23 j 22:11	22° $\nearrow$ 13'11		minimum elong	-11155 Mar 12 j 02:29	0° $\overline{\searrow}$ 02'20	7°45'41
evening set	-11161 Feb 21 j 07:14	23° $\nearrow$ 27'32		morning rise	-11155 Mar 25 j 22:31	0° $\overline{\searrow}$ 22'11	
max. Earth dist.	-11161 Mar 03 j 23:37	23° $\nearrow$ 42'32	47.09439 AU	retrograde	-11155 Jun 20 j 19:52	1° $\overline{\searrow}$ 36'01	
				opposition	-11155 Sep 09 j 04:46	0° $\overline{\searrow}$ 34'50	-7°57'32
conjunction	-11161 Mar 06 j 00:38	23° $\nearrow$ 45'25	-9°19'41	min. Earth dist.	-11155 Sep 11 j 07:03	0° $\overline{\searrow}$ 32'19	44.01454 AU
minimum elong	-11161 Mar 06 j 00:49	23° $\nearrow$ 45'26	9°20'17		-11155 Oct 09 j 23:14	30° $\nearrow$ 8'1	
morning rise	-11161 Mar 18 j 17:38	24° $\nearrow$ 03'18		direct	-11155 Nov 30 j 21:29	29° $\nearrow$ 31'55	
retrograde	-11161 Jun 14 j 21:06	25° $\nearrow$ 17'15			-11154 Jan 21 j 07:52	0° $\overline{\searrow}$	
opposition	-11161 Sep 03 j 13:24	24° $\nearrow$ 16'42	-9°36'42	evening set	-11154 Feb 27 j 09:36	0° $\overline{\searrow}$ 46'37	
min. Earth dist.	-11161 Sep 05 j 09:10	24° $\nearrow$ 14'33	45.40073 AU	max. Earth dist.	-11154 Mar 11 j 02:03	1° $\overline{\searrow}$ 03'24	45.90574 AU
direct	-11161 Nov 25 j 04:08	23° $\nearrow$ 14'41					
evening set	-11160 Feb 22 j 10:06	24° $\nearrow$ 29'01		conjunction	-11154 Mar 13 j 11:04	1° $\overline{\searrow}$ 06'50	-7°28'17
max. Earth dist.	-11160 Mar 04 j 07:27	24° $\nearrow$ 44'20	46.93295 AU	minimum elong	-11154 Mar 13 j 11:13	1° $\overline{\searrow}$ 06'51	7°28'54
				morning rise	-11154 Mar 27 j 11:30	1° $\overline{\searrow}$ 27'02	
conjunction	-11160 Mar 06 j 08:39	24° $\nearrow$ 47'15	-9°04'38	retrograde	-11154 Jun 22 j 02:14	2° $\overline{\searrow}$ 40'53	
minimum elong	-11160 Mar 06 j 08:48	24° $\nearrow$ 47'15	9°05'14	opposition	-11154 Sep 10 j 11:55	1° $\overline{\searrow}$ 39'34	-7°39'57
morning rise	-11160 Mar 19 j 06:23	25° $\nearrow$ 05'27		min. Earth dist.	-11154 Sep 12 j 15:01	1° $\overline{\searrow}$ 37'01	43.83084 AU
retrograde	-11160 Jun 15 j 01:47	26° $\nearrow$ 19'19		direct	-11154 Dec 02 j 06:49	0° $\overline{\searrow}$ 36'29	
opposition	-11160 Sep 03 j 19:39	25° $\nearrow$ 18'39	-9°20'56	evening set	-11153 Feb 28 j 14:42	1° $\overline{\searrow}$ 51'17	
min. Earth dist.	-11160 Sep 05 j 16:34	25° $\nearrow$ 16'26	44.87651 AU	max. Earth dist.	-11153 Mar 12 j 09:35	2° $\overline{\searrow}$ 08'16	45.72091 AU
direct	-11160 Nov 25 j 13:36	24° $\nearrow$ 16'29					
evening set	-11159 Feb 22 j 13:14	25° $\nearrow$ 30'49		conjunction	-11153 Mar 14 j 20:18	2° $\overline{\searrow}$ 11'50	-7°11'14
max. Earth dist.	-11159 Mar 05 j 13:45	25° $\nearrow$ 46'22	46.76901 AU	minimum elong	-11153 Mar 14 j 20:27	2° $\overline{\searrow}$ 11'51	7°11'52
				morning rise	-11153 Mar 29 j 00:34	2° $\overline{\searrow}$ 32'20	
conjunction	-11159 Mar 07 j 16:27	25° $\nearrow$ 49'23	-8°49'18	retrograde	-11153 Jun 23 j 10:03	3° $\overline{\searrow}$ 46'15	
minimum elong	-11159 Mar 07 j 16:38	25° $\nearrow$ 49'23	8°49'55	opposition	-11153 Sep 11 j 19:18	2° $\overline{\searrow}$ 44'47	-7°22'04
morning rise	-11159 Mar 20 j 19:04	26° $\nearrow$ 07'55		min. Earth dist.	-11153 Sep 14 j 00:43	2° $\overline{\searrow}$ 42'06	43.64238 AU
retrograde	-11159 Jun 16 j 08:28	27° $\nearrow$ 21'44		direct	-11153 Dec 03 j 14:39	1° $\overline{\searrow}$ 41'30	
opposition	-11159 Sep 05 j 01:55	26° $\nearrow$ 20'57	-9°04'52	evening set	-11152 Feb 29 j 20:14	2° $\overline{\searrow}$ 56'25	
min. Earth dist.	-11159 Sep 06 j 22:55	26° $\nearrow$ 18'43	44.70991 AU	max. Earth dist.	-11152 Mar 12 j 18:03	3° $\overline{\searrow}$ 13'39	45.53154 AU
direct	-11159 Nov 26 j 20:47	25° $\nearrow$ 18'37					
evening set	-11158 Feb 23 j 16:35	26° $\nearrow$ 32'59		conjunction	-11152 Mar 15 j 05:40	3° $\overline{\searrow}$ 17'17	-6°53'55
max. Earth dist.	-11158 Mar 06 j 20:46	26° $\nearrow$ 48'48	46.60257 AU	minimum elong	-11152 Mar 15 j 05:50	3° $\overline{\searrow}$ 17'17	6°54'31
				morning rise	-11152 Mar 29 j 13:42	3° $\overline{\searrow}$ 38'05	
conjunction	-11158 Mar 09 j 00:37	26° $\nearrow$ 51'53	-8°33'40	retrograde	-11152 Jun 23 j 19:41	4° $\overline{\searrow}$ 52'03	
minimum elong	-11158 Mar 09 j 00:47	26° $\nearrow$ 51'54	8°34'17	opposition	-11152 Sep 12 j 02:50	3° $\overline{\searrow}$ 50'25	-7°03'53
morning rise	-11158 Mar 22 j 07:50	27° $\nearrow$ 10'46		min. Earth dist.	-11152 Sep 14 j 08:37	3° $\overline{\searrow}$ 47'42	43.44944 AU
retrograde	-11158 Jun 17 j 16:30	28° $\nearrow$ 24'34		direct	-11152 Dec 03 j 20:48	2° $\overline{\searrow}$ 46'55	
opposition	-11158 Sep 06 j 08:21	27° $\nearrow$ 23'41	-8°48'29	evening set	-11151 Mar 02 j 01:54	4° $\overline{\searrow}$ 01'57	
min. Earth dist.	-11158 Sep 08 j 07:19	27° $\nearrow$ 21'21	44.54087 AU	max. Earth dist.	-11151 Mar 14 j 01:01	4° $\overline{\searrow}$ 19'20	45.33779 AU
direct	-11158 Nov 28 j 02:19	26° $\nearrow$ 21'12					
evening set	-11157 Feb 24 j 20:20	27° $\nearrow$ 35'36		conjunction	-11151 Mar 16 j 14:58	4° $\overline{\searrow}$ 23'07	-6°36'18
max. Earth dist.	-11157 Mar 08 j 04:46	27° $\nearrow$ 51'44	46.43367 AU	minimum elong	-11151 Mar 16 j 15:07	4° $\overline{\searrow}$ 23'08	6°36'55
				morning rise	-11151 Mar 31 j 02:43	4° $\overline{\searrow}$ 44'14	
conjunction	-11157 Mar 10 j 09:00	27° $\nearrow$ 54'51	-8°17'45	retrograde	-11151 Jun 25 j 06:24	5° $\overline{\searrow}$ 58'16	
minimum elong	-11157 Mar 10 j 09:10	27° $\nearrow$ 54'52	8°18'23	opposition	-11151 Sep 13 j 10:35	4° $\overline{\searrow}$ 56'27	-6°45'24
morning rise	-11157 Mar 23 j 20:40	28° $\nearrow$ 14'04		min. Earth dist.	-11151 Sep 15 j 18:14	4° $\overline{\searrow}$ 53'38	43.25258 AU
retrograde	-11157 Jun 19 j 01:48	29° $\nearrow$ 27'51		direct	-11151 Dec 05 j 03:16	3° $\overline{\searrow}$ 52'43	
opposition	-11157 Sep 07 j 14:55	28° $\nearrow$ 26'52	-8°31'48				

Attention, astronomical year style is used: The year -11150 in astronomical counting style is the year 11151 BCE in historical counting style.

evening set	-11150 Mar 03 j 07:50	5° $\overline{3}$ 07'53		opposition	-11144 Sep 20 j 22:21	12° $\overline{3}$ 51'48	-4°26'59
max. Earth dist.	-11150 Mar 15 j 10:32	5° $\overline{3}$ 25'33	45.14034 AU	min. Earth dist.	-11144 Sep 23 j 11:54	12° $\overline{3}$ 48'36	41.80351 AU
				direct	-11144 Dec 12 j 17:28	11° $\overline{3}$ 46'27	
conjunction	-11150 Mar 18 j 00:39	5° $\overline{3}$ 29'22	-6°18'23	evening set	-11143 Mar 10 j 12:05	13° $\overline{3}$ 03'20	
minimum elong	-11150 Mar 18 j 00:48	5° $\overline{3}$ 29'22	6°19'00	max. Earth dist.	-11143 Mar 23 j 03:57	13° $\overline{3}$ 22'25	43.69038 AU
morning rise	-11150 Apr 01 j 15:43	5° $\overline{3}$ 50'46					
retrograde	-11150 Jun 26 j 14:45	7° $\overline{3}$ 04'52		conjunction	-11143 Mar 26 j 01:19	13° $\overline{3}$ 26'49	-4°04'34
opposition	-11150 Sep 14 j 18:23	6° $\overline{3}$ 02'52	-6°26'36	minimum elong	-11143 Mar 26 j 01:25	13° $\overline{3}$ 26'50	4°05'10
min. Earth dist.	-11150 Sep 17 j 03:00	5° $\overline{3}$ 59'59	43.05226 AU	morning rise	-11143 Apr 10 j 12:08	13° $\overline{3}$ 50'11	
direct	-11150 Dec 06 j 13:19	4° $\overline{3}$ 58'53		retrograde	-11143 Jul 04 j 11:53	15° $\overline{3}$ 05'32	
evening set	-11149 Mar 04 j 14:16	6° $\overline{3}$ 14'14		opposition	-11143 Sep 22 j 08:04	14° $\overline{3}$ 02'15	-4°05'54
max. Earth dist.	-11149 Mar 16 j 18:19	6° $\overline{3}$ 32'03	44.93984 AU	min. Earth dist.	-11143 Sep 24 j 23:26	13° $\overline{3}$ 58'57	41.58675 AU
				direct	-11143 Dec 14 j 05:03	12° $\overline{3}$ 56'41	
conjunction	-11149 Mar 19 j 10:21	6° $\overline{3}$ 36'00	-6°00'11	evening set	-11142 Mar 11 j 21:23	14° $\overline{3}$ 13'55	
minimum elong	-11149 Mar 19 j 10:29	6° $\overline{3}$ 36'01	6°00'48	max. Earth dist.	-11142 Mar 24 j 14:17	14° $\overline{3}$ 33'10	43.47272 AU
morning rise	-11149 Apr 03 j 04:55	6° $\overline{3}$ 57'42					
retrograde	-11149 Jun 27 j 23:59	8° $\overline{3}$ 11'53		conjunction	-11142 Mar 27 j 12:46	14° $\overline{3}$ 37'41	-3°44'14
opposition	-11149 Sep 16 j 02:25	7° $\overline{3}$ 09'41	-6°07'29	minimum elong	-11142 Mar 27 j 12:52	14° $\overline{3}$ 37'41	3°44'51
min. Earth dist.	-11149 Sep 18 j 11:31	7° $\overline{3}$ 06'46	42.84926 AU	morning rise	-11142 Apr 12 j 01:48	15° $\overline{3}$ 01'18	
direct	-11149 Dec 07 j 22:53	6° $\overline{3}$ 05'28		retrograde	-11142 Jul 05 j 22:30	16° $\overline{3}$ 16'56	
evening set	-11148 Mar 04 j 20:54	7° $\overline{3}$ 21'00		opposition	-11142 Sep 23 j 17:50	15° $\overline{3}$ 13'28	-3°44'30
max. Earth dist.	-11148 Mar 17 j 03:35	7° $\overline{3}$ 39'03	44.73665 AU	min. Earth dist.	-11142 Sep 26 j 09:29	15° $\overline{3}$ 10'08	41.36628 AU
				direct	-11142 Dec 15 j 15:00	14° $\overline{3}$ 07'39	
conjunction	-11148 Mar 19 j 20:20	7° $\overline{3}$ 43'04	-5°41'40	evening set	-11141 Mar 13 j 07:15	15° $\overline{3}$ 25'15	
minimum elong	-11148 Mar 19 j 20:29	7° $\overline{3}$ 43'04	5°42'17	max. Earth dist.	-11141 Mar 25 j 23:59	15° $\overline{3}$ 44'36	43.25096 AU
morning rise	-11148 Apr 03 j 17:55	8° $\overline{3}$ 05'03					
retrograde	-11148 Jun 28 j 07:04	9° $\overline{3}$ 19'21		conjunction	-11141 Mar 29 j 00:39	15° $\overline{3}$ 49'16	-3°23'36
opposition	-11148 Sep 16 j 10:48	8° $\overline{3}$ 16'58	-5°48'02	minimum elong	-11141 Mar 29 j 00:44	15° $\overline{3}$ 49'17	3°24'12
min. Earth dist.	-11148 Sep 18 j 21:35	8° $\overline{3}$ 13'57	42.64393 AU	morning rise	-11141 Apr 13 j 15:36	16° $\overline{3}$ 13'10	
direct	-11148 Dec 08 j 08:40	7° $\overline{3}$ 12'30		retrograde	-11141 Jul 07 j 11:17	17° $\overline{3}$ 29'06	
evening set	-11147 Mar 06 j 03:57	8° $\overline{3}$ 28'14		opposition	-11141 Sep 25 j 04:08	16° $\overline{3}$ 25'25	-3°22'46
max. Earth dist.	-11147 Mar 18 j 13:17	8° $\overline{3}$ 46'32	44.53155 AU	min. Earth dist.	-11141 Sep 27 j 22:01	16° $\overline{3}$ 21'58	41.14177 AU
				direct	-11141 Dec 16 j 23:15	15° $\overline{3}$ 19'20	
conjunction	-11147 Mar 21 j 06:26	8° $\overline{3}$ 50'36	-5°22'52	evening set	-11140 Mar 13 j 17:28	16° $\overline{3}$ 37'20	
minimum elong	-11147 Mar 21 j 06:34	8° $\overline{3}$ 50'36	5°23'29	max. Earth dist.	-11140 Mar 26 j 11:51	16° $\overline{3}$ 56'53	43.02515 AU
morning rise	-11147 Apr 05 j 07:03	9° $\overline{3}$ 12'52					
retrograde	-11147 Jun 29 j 16:15	10° $\overline{3}$ 27'19		conjunction	-11140 Mar 29 j 12:48	17° $\overline{3}$ 01'36	-3°02'40
opposition	-11147 Sep 17 j 19:18	9° $\overline{3}$ 24'44	-5°28'16	minimum elong	-11140 Mar 29 j 12:53	17° $\overline{3}$ 01'36	3°03'17
min. Earth dist.	-11147 Sep 20 j 05:51	9° $\overline{3}$ 21'44	42.43682 AU	morning rise	-11140 Apr 14 j 05:22	17° $\overline{3}$ 25'44	
direct	-11147 Dec 09 j 17:14	8° $\overline{3}$ 20'03		retrograde	-11140 Jul 07 j 23:58	18° $\overline{3}$ 41'59	
evening set	-11146 Mar 07 j 11:15	9° $\overline{3}$ 36'01		opposition	-11140 Sep 25 j 14:40	17° $\overline{3}$ 38'04	-3°00'43
max. Earth dist.	-11146 Mar 19 j 21:41	9° $\overline{3}$ 54'28	44.32459 AU	min. Earth dist.	-11140 Sep 28 j 09:09	17° $\overline{3}$ 34'34	40.91326 AU
				direct	-11140 Dec 17 j 09:45	16° $\overline{3}$ 31'43	
conjunction	-11146 Mar 22 j 16:38	9° $\overline{3}$ 58'40	-5°03'45	evening set	-11139 Mar 15 j 04:18	17° $\overline{3}$ 50'08	
minimum elong	-11146 Mar 22 j 16:46	9° $\overline{3}$ 58'40	5°04'22	max. Earth dist.	-11139 Mar 27 j 21:49	18° $\overline{3}$ 09'45	42.79557 AU
morning rise	-11146 Apr 06 j 20:09	10° $\overline{3}$ 21'13					
retrograde	-11146 Jul 01 j 05:11	11° $\overline{3}$ 35'51		conjunction	-11139 Mar 31 j 01:06	18° $\overline{3}$ 14'38	-2°41'27
opposition	-11146 Sep 19 j 04:06	10° $\overline{3}$ 33'05	-5°08'10	minimum elong	-11139 Mar 31 j 01:10	18° $\overline{3}$ 14'38	2°42'03
min. Earth dist.	-11146 Sep 21 j 16:11	10° $\overline{3}$ 30'00	42.22796 AU	morning rise	-11139 Apr 15 j 19:21	18° $\overline{3}$ 39'00	
direct	-11146 Dec 10 j 22:40	9° $\overline{3}$ 28'10		retrograde	-11139 Jul 09 j 14:21	19° $\overline{3}$ 55'35	
evening set	-11145 Mar 08 j 19:02	10° $\overline{3}$ 44'25		opposition	-11139 Sep 27 j 01:24	18° $\overline{3}$ 51'26	-2°38'21
max. Earth dist.	-11145 Mar 21 j 08:34	11° $\overline{3}$ 03'09	44.11574 AU	min. Earth dist.	-11139 Sep 29 j 21:01	18° $\overline{3}$ 47'52	40.68140 AU
				direct	-11139 Dec 18 j 19:50	17° $\overline{3}$ 44'47	
conjunction	-11145 Mar 24 j 03:20	11° $\overline{3}$ 07'21	-4°44'20	evening set	-11138 Mar 16 j 15:17	19° $\overline{3}$ 03'38	
minimum elong	-11145 Mar 24 j 03:27	11° $\overline{3}$ 07'21	4°44'56	max. Earth dist.	-11138 Mar 29 j 10:03	19° $\overline{3}$ 23'26	42.56264 AU
morning rise	-11145 Apr 08 j 09:23	11° $\overline{3}$ 30'10					
retrograde	-11145 Jul 02 j 15:27	12° $\overline{3}$ 45'01		conjunction	-11138 Apr 01 j 13:42	19° $\overline{3}$ 28'23	-2°19'55
opposition	-11145 Sep 20 j 13:03	11° $\overline{3}$ 42'05	-4°47'44	minimum elong	-11138 Apr 01 j 13:46	19° $\overline{3}$ 28'23	2°20'31
min. Earth dist.	-11145 Sep 23 j 01:44	11° $\overline{3}$ 38'57	42.01696 AU	morning rise	-11138 Apr 17 j 09:08	19° $\overline{3}$ 52'59	
direct	-11145 Dec 12 j 07:52	10° $\overline{3}$ 36'57		retrograde	-11138 Jul 11 j 01:08	21° $\overline{3}$ 09'56	
evening set	-11144 Mar 09 j 03:28	11° $\overline{3}$ 53'31		opposition	-11138 Sep 28 j 12:33	20° $\overline{3}$ 05'31	-2°15'39
max. Earth dist.	-11144 Mar 21 j 17:33	12° $\overline{3}$ 12'23	43.90458 AU	min. Earth dist.	-11138 Oct 01 j 09:38	20° $\overline{3}$ 01'51	40.44646 AU
				direct	-11138 Dec 20 j 08:28	18° $\overline{3}$ 58'34	
conjunction	-11144 Mar 24 j 14:10	12° $\overline{3}$ 16'43	-4°24'36	evening set	-11137 Mar 18 j 03:02	20° $\overline{3}$ 17'52	
minimum elong	-11144 Mar 24 j 14:17	12° $\overline{3}$ 16'43	4°25'13	max. Earth dist.	-11137 Mar 30 j 21:51	20° $\overline{3}$ 37'48	42.32704 AU
morning rise	-11144 Apr 08 j 22:52	12° $\overline{3}$ 39'49					
retrograde	-11144 Jul 03 j 02:50	13° $\overline{3}$ 54'54		conjunction	-11137 Apr 03 j 02:32	20° $\overline{3}$ 42'51	-1°58'05

Attention, astronomical year style is used: The year -11137 in astronomical counting style is the year 11138 BCE in historical counting style.

minimum elong	-11137 Apr 03 j 02:35	20° $\overline{3}$ 42'51	1°58'40			-11131 Aug 22 j 07:02	30° $\overline{R}$ $\overline{3}$	
morning rise	-11137 Apr 18 j 23:13	21° $\overline{3}$ 07'40		opposition		-11131 Oct 07 j 03:57	29° $\overline{3}$ 07'41	0°32'21
retrograde	-11137 Jul 12 j 11:43	22° $\overline{3}$ 25'00		min. Earth dist.		-11131 Oct 10 j 06:18	29° $\overline{3}$ 03'36	38.75739 AU
opposition	-11137 Sep 29 j 23:47	21° $\overline{3}$ 20'20	-1°52'37	direct		-11131 Dec 28 j 22:38	27° $\overline{3}$ 58'35	
min. Earth dist.	-11137 Oct 02 j 20:56	21° $\overline{3}$ 16'38	40.20926 AU	evening set		-11130 Mar 27 j 04:35	29° $\overline{3}$ 22'08	
direct	-11137 Dec 21 j 21:36	20° $\overline{3}$ 13'03		max. Earth dist.		-11130 Apr 08 j 20:24	29° $\overline{3}$ 42'50	40.63344 AU
evening set	-11136 Mar 18 j 15:14	21° $\overline{3}$ 32'51						
max. Earth dist.	-11136 Mar 31 j 09:44	21° $\overline{3}$ 52'53	42.08924 AU	conjunction		-11130 Apr 12 j 05:56	29° $\overline{3}$ 48'28	0°43'01
				minimum elong		-11130 Apr 12 j 05:55	29° $\overline{3}$ 48'28	0°42'27
conjunction	-11136 Apr 03 j 15:45	21° $\overline{3}$ 58'03	-1°35'57			-11130 Apr 19 j 05:19	0° $\overline{\approx}$	
minimum elong	-11136 Apr 03 j 15:47	21° $\overline{3}$ 58'04	1°36'32	morning rise		-11130 Apr 28 j 03:46	0° $\overline{\approx}$ 14'35	
morning rise	-11136 Apr 19 j 13:15	22° $\overline{3}$ 23'05		retrograde		-11130 Jul 21 j 16:00	1° $\overline{\approx}$ 35'41	
retrograde	-11136 Jul 13 j 00:31	23° $\overline{3}$ 40'51		opposition		-11130 Oct 08 j 18:03	0° $\overline{\approx}$ 29'11	0°57'36
opposition	-11136 Sep 30 j 11:39	22° $\overline{3}$ 35'55	-1°29'15	min. Earth dist.		-11130 Oct 11 j 20:27	0° $\overline{\approx}$ 25'04	38.50904 AU
min. Earth dist.	-11136 Oct 03 j 10:26	22° $\overline{3}$ 32'07	39.97036 AU			-11130 Oct 31 j 12:09	30° $\overline{R}$ $\overline{3}$	
direct	-11136 Dec 22 j 07:50	21° $\overline{3}$ 28'20		direct		-11130 Dec 30 j 12:49	29° $\overline{3}$ 19'45	
evening set	-11135 Mar 20 j 03:45	22° $\overline{3}$ 48'39				-11129 Feb 27 j 01:13	0° $\overline{\approx}$	
max. Earth dist.	-11135 Apr 01 j 23:23	23° $\overline{3}$ 08'53	41.85002 AU	evening set		-11129 Mar 28 j 21:20	0° $\overline{\approx}$ 44'02	
				max. Earth dist.		-11129 Apr 10 j 10:07	1° $\overline{\approx}$ 04'42	40.38341 AU
conjunction	-11135 Apr 05 j 05:04	23° $\overline{3}$ 14'04	-1°13'31					
minimum elong	-11135 Apr 05 j 05:06	23° $\overline{3}$ 14'04	1°14'06	conjunction		-11129 Apr 13 j 21:48	1° $\overline{\approx}$ 10'31	1°07'09
morning rise	-11135 Apr 21 j 03:13	23° $\overline{3}$ 39'18		minimum elong		-11129 Apr 13 j 21:46	1° $\overline{\approx}$ 10'31	1°06'37
retrograde	-11135 Jul 14 j 13:55	24° $\overline{3}$ 57'32		morning rise		-11129 Apr 29 j 18:47	1° $\overline{\approx}$ 36'47	
opposition	-11135 Oct 01 j 23:45	23° $\overline{3}$ 52'20	-1°05'34	retrograde		-11129 Jul 23 j 09:36	2° $\overline{\approx}$ 58'32	
min. Earth dist.	-11135 Oct 04 j 22:13	23° $\overline{3}$ 48'32	39.73019 AU	opposition		-11129 Oct 10 j 08:39	1° $\overline{\approx}$ 51'44	1°23'10
direct	-11135 Dec 23 j 18:39	22° $\overline{3}$ 44'27		min. Earth dist.		-11129 Oct 13 j 12:49	1° $\overline{\approx}$ 47'31	38.25792 AU
evening set	-11134 Mar 21 j 17:06	24° $\overline{3}$ 05'19		direct		-11129 Dec 31 j 23:50	0° $\overline{\approx}$ 41'56	
max. Earth dist.	-11134 Apr 03 j 11:26	24° $\overline{3}$ 25'37	41.60962 AU	evening set		-11128 Mar 29 j 14:41	2° $\overline{\approx}$ 07'01	
				max. Earth dist.		-11128 Apr 11 j 02:35	2° $\overline{\approx}$ 27'45	40.13054 AU
conjunction	-11134 Apr 06 j 18:48	24° $\overline{3}$ 30'56	-0°50'48					
minimum elong	-11134 Apr 06 j 18:50	24° $\overline{3}$ 30'56	0°51'23	conjunction		-11128 Apr 14 j 14:11	2° $\overline{\approx}$ 33'36	1°31'34
morning rise	-11134 Apr 22 j 17:29	24° $\overline{3}$ 56'23		minimum elong		-11128 Apr 14 j 14:08	2° $\overline{\approx}$ 33'36	1°31'02
retrograde	-11134 Jul 16 j 06:12	26° $\overline{3}$ 15'06		morning rise		-11128 Apr 30 j 09:53	3° $\overline{\approx}$ 00'00	
opposition	-11134 Oct 03 j 12:04	25° $\overline{3}$ 09'38	-0°41'34	retrograde		-11128 Jul 24 j 01:44	4° $\overline{\approx}$ 22'27	
min. Earth dist.	-11134 Oct 06 j 11:39	25° $\overline{3}$ 05'46	39.48914 AU	opposition		-11128 Oct 10 j 23:49	3° $\overline{\approx}$ 15'19	1°49'02
direct	-11134 Dec 25 j 05:00	24° $\overline{3}$ 01'27		min. Earth dist.		-11128 Oct 14 j 04:29	3° $\overline{\approx}$ 11'03	38.00403 AU
evening set	-11133 Mar 23 j 06:57	25° $\overline{3}$ 22'57		direct		-11127 Jan 01 j 15:02	2° $\overline{\approx}$ 05'10	
max. Earth dist.	-11133 Apr 05 j 02:00	25° $\overline{3}$ 43'25	41.36812 AU	evening set		-11127 Mar 31 j 08:42	3° $\overline{\approx}$ 31'02	
				max. Earth dist.		-11127 Apr 12 j 17:22	3° $\overline{\approx}$ 51'43	39.87508 AU
conjunction	-11133 Apr 08 j 09:08	25° $\overline{3}$ 48'45	-0°27'47					
minimum elong	-11133 Apr 08 j 09:08	25° $\overline{3}$ 48'45	0°28'22	conjunction		-11127 Apr 16 j 06:39	3° $\overline{\approx}$ 57'44	1°56'15
morning rise	-11133 Apr 24 j 07:50	26° $\overline{3}$ 14'23		minimum elong		-11127 Apr 16 j 06:35	3° $\overline{\approx}$ 57'44	1°55'42
retrograde	-11133 Jul 17 j 20:54	27° $\overline{3}$ 33'38		morning rise		-11127 May 02 j 01:05	4° $\overline{\approx}$ 24'13	
opposition	-11133 Oct 05 j 01:00	26° $\overline{3}$ 27'56	-0°17'15	retrograde		-11127 Jul 25 j 20:43	5° $\overline{\approx}$ 47'25	
min. Earth dist.	-11133 Oct 08 j 01:22	26° $\overline{3}$ 24'00	39.24684 AU	opposition		-11127 Oct 12 j 15:17	4° $\overline{\approx}$ 39'56	2°15'11
direct	-11133 Dec 26 j 19:06	25° $\overline{3}$ 19'27		min. Earth dist.		-11127 Oct 15 j 20:38	4° $\overline{\approx}$ 35'37	37.74796 AU
evening set	-11132 Mar 23 j 21:34	26° $\overline{3}$ 41'36		direct		-11126 Jan 03 j 06:14	3° $\overline{\approx}$ 29'23	
max. Earth dist.	-11132 Apr 05 j 15:12	27° $\overline{3}$ 02'08	41.12530 AU	evening set		-11126 Apr 02 j 03:26	4° $\overline{\approx}$ 56'07	
				max. Earth dist.		-11126 Apr 14 j 10:15	5° $\overline{\approx}$ 16'49	39.61740 AU
conjunction	-11132 Apr 08 j 23:34	27° $\overline{3}$ 07'35	-0°04'32					
minimum elong	-11132 Apr 08 j 23:34	27° $\overline{3}$ 07'35	0°05'07	conjunction		-11126 Apr 17 j 23:50	5° $\overline{\approx}$ 22'54	2°21'11
behind sun begin	-11132 Apr 08 j 17:16	27° $\overline{3}$ 07'11		minimum elong		-11126 Apr 17 j 23:46	5° $\overline{\approx}$ 22'54	2°20'39
behind sun end	-11132 Apr 09 j 05:53	27° $\overline{3}$ 07'59		morning rise		-11126 May 03 j 16:22	5° $\overline{\approx}$ 49'28	
morning rise	-11132 Apr 24 j 22:22	27° $\overline{3}$ 33'23		retrograde		-11126 Jul 27 j 13:39	7° $\overline{\approx}$ 13'26	
asc. node	-11132 Jun 17 j 22:01	28° $\overline{3}$ 41'15		opposition		-11126 Oct 14 j 07:11	6° $\overline{\approx}$ 05'36	2°41'37
retrograde	-11132 Jul 18 j 13:00	28° $\overline{3}$ 53'14		min. Earth dist.		-11126 Oct 17 j 13:56	6° $\overline{\approx}$ 01'09	37.49010 AU
opposition	-11132 Oct 05 j 14:11	27° $\overline{3}$ 47'16	0°07'23	direct		-11125 Jan 04 j 23:28	4° $\overline{\approx}$ 54'38	
min. Earth dist.	-11132 Oct 08 j 14:42	27° $\overline{3}$ 43'19	39.00315 AU	evening set		-11125 Apr 03 j 23:03	6° $\overline{\approx}$ 22'15	
direct	-11132 Dec 27 j 08:38	26° $\overline{3}$ 38'29		max. Earth dist.		-11125 Apr 16 j 03:13	6° $\overline{\approx}$ 42'57	39.35835 AU
evening set	-11131 Mar 25 j 12:46	28° $\overline{3}$ 01'20						
max. Earth dist.	-11131 Apr 07 j 05:22	28° $\overline{3}$ 21'56	40.88052 AU	conjunction		-11125 Apr 19 j 17:20	6° $\overline{\approx}$ 49'07	2°46'22
				minimum elong		-11125 Apr 19 j 17:14	6° $\overline{\approx}$ 49'07	2°45'50
conjunction	-11131 Apr 10 j 14:37	28° $\overline{3}$ 27'29	0°19'09	morning rise		-11125 May 05 j 07:55	7° $\overline{\approx}$ 15'45	
minimum elong	-11131 Apr 10 j 14:36	28° $\overline{3}$ 27'29	0°18'35	retrograde		-11125 Jul 29 j 06:36	8° $\overline{\approx}$ 40'32	
morning rise	-11131 Apr 26 j 12:58	28° $\overline{3}$ 53'28		opposition		-11125 Oct 15 j 23:35	7° $\overline{\approx}$ 32'20	3°08'19
	-11131 Jun 17 j 06:00	0° $\overline{\approx}$		min. Earth dist.		-11125 Oct 19 j 05:53	7° $\overline{\approx}$ 27'53	37.23130 AU
retrograde	-11131 Jul 20 j 01:46	0° $\overline{\approx}$ 13'54		direct		-11124 Jan 06 j 16:47	6° $\overline{\approx}$ 20'57	

Attention, astronomical year style is used: The year -11124 in astronomical counting style is the year 11125 BCE in historical counting style.

evening set	-11124 Apr 04 j 19:17	7°49'30		minimum elong	-11118 Apr 30 j 09:02	17°28'12	5°47'29
max. Earth dist.	-11124 Apr 16 j 20:06	8°10'08	39.09840 AU	morning rise	-11118 May 14 j 23:20	17°54'43	
				retrograde	-11118 Aug 09 j 03:47	19°26'52	
conjunction	-11124 Apr 20 j 11:12	8°16'26	3°11'45	opposition	-11118 Oct 26 j 10:11	18°16'13	6°21'09
minimum elong	-11124 Apr 20 j 11:05	8°16'25	3°11'15	min. Earth dist.	-11118 Oct 29 j 18:23	18°11'29	35.43033 AU
morning rise	-11124 May 05 j 23:18	8°43'07		direct	-11117 Jan 16 j 21:06	17°02'07	
retrograde	-11124 Jul 29 j 23:37	10°08'45		evening set	-11117 Apr 17 j 18:22	18°38'59	
opposition	-11124 Oct 16 j 16:38	9°00'11	3°35'15	max. Earth dist.	-11117 Apr 28 j 14:34	18°58'47	37.28939 AU
min. Earth dist.	-11124 Oct 20 j 00:14	8°55'39	36.97223 AU				
direct	-11123 Jan 07 j 08:23	7°48'24		conjunction	-11117 May 02 j 07:05	19°05'36	6°14'26
evening set	-11123 Apr 06 j 16:20	9°17'57		minimum elong	-11117 May 02 j 06:51	19°05'35	6°13'59
max. Earth dist.	-11123 Apr 18 j 15:21	9°38'36	38.83851 AU	morning rise	-11117 May 16 j 16:04	19°31'58	
				retrograde	-11117 Aug 11 j 02:08	21°05'25	
conjunction	-11123 Apr 22 j 05:34	9°44'54	3°37'22	opposition	-11117 Oct 28 j 07:30	19°54'23	6°49'21
minimum elong	-11123 Apr 22 j 05:26	9°44'53	3°36'51	min. Earth dist.	-11117 Oct 31 j 16:58	19°49'33	35.17381 AU
morning rise	-11123 May 07 j 14:54	10°11'37		direct	-11116 Jan 18 j 15:20	18°39'52	
retrograde	-11123 Jul 31 j 17:54	11°38'11		evening set	-11116 Apr 18 j 22:16	20°18'09	
opposition	-11123 Oct 18 j 10:04	10°29'15	4°02'26	max. Earth dist.	-11116 Apr 29 j 13:48	20°37'47	37.03080 AU
min. Earth dist.	-11123 Oct 21 j 17:05	10°24'43	36.71355 AU				
direct	-11122 Jan 09 j 00:37	9°17'04		conjunction	-11116 May 03 j 05:28	20°44'36	6°41'01
evening set	-11122 Apr 08 j 14:16	10°47'40		minimum elong	-11116 May 03 j 05:13	20°44'35	6°40'36
max. Earth dist.	-11122 Apr 20 j 08:49	11°08'12	38.57915 AU	morning rise	-11116 May 17 j 08:49	21°10'48	
				retrograde	-11116 Aug 12 j 00:43	22°45'35	
conjunction	-11122 Apr 24 j 00:19	11°14'38	4°03'10	opposition	-11116 Oct 29 j 05:29	21°34'09	7°17'38
minimum elong	-11122 Apr 24 j 00:10	11°14'37	4°02'41	min. Earth dist.	-11116 Nov 01 j 14:40	21°29'19	34.91689 AU
morning rise	-11122 May 09 j 06:40	11°41'21		direct	-11115 Jan 19 j 11:23	20°19'13	
retrograde	-11122 Aug 02 j 15:05	13°08'55		evening set	-11115 Apr 21 j 03:23	21°58'58	
opposition	-11122 Oct 20 j 04:03	11°59'37	4°29'49	max. Earth dist.	-11115 May 01 j 11:30	22°18'14	36.77194 AU
min. Earth dist.	-11122 Oct 23 j 11:39	11°55'02	36.45572 AU				
direct	-11121 Jan 10 j 15:14	10°47'03		conjunction	-11115 May 05 j 04:24	22°25'12	7°07'40
evening set	-11121 Apr 10 j 13:03	12°18'47		minimum elong	-11115 May 05 j 04:08	22°25'11	7°07'14
max. Earth dist.	-11121 Apr 22 j 05:06	12°39'18	38.32049 AU	morning rise	-11115 May 19 j 01:54	22°51'12	
				retrograde	-11115 Aug 14 j 02:18	24°27'23	
conjunction	-11121 Apr 25 j 19:48	12°45'44	4°29'08	opposition	-11115 Oct 31 j 03:56	23°15'32	7°46'00
minimum elong	-11121 Apr 25 j 19:38	12°45'43	4°28'38	min. Earth dist.	-11115 Nov 03 j 13:34	23°10'38	34.66015 AU
morning rise	-11121 May 10 j 22:30	13°12'26		direct	-11114 Jan 21 j 07:12	22°00'08	
retrograde	-11121 Aug 04 j 11:19	14°41'04		evening set	-11114 Apr 23 j 09:23	23°41'24	
opposition	-11121 Oct 21 j 22:41	13°31'26	4°57'24	max. Earth dist.	-11114 May 03 j 11:50	24°00'25	36.51321 AU
min. Earth dist.	-11121 Oct 25 j 06:30	13°26'48	36.19867 AU				
direct	-11120 Jan 12 j 09:55	12°18'28		conjunction	-11114 May 07 j 04:04	24°07'24	7°34'20
evening set	-11120 Apr 11 j 12:57	13°51'24		minimum elong	-11114 May 07 j 03:47	24°07'22	7°33'57
max. Earth dist.	-11120 Apr 23 j 00:21	14°11'47	38.06264 AU	morning rise	-11114 May 20 j 18:57	24°33'08	
				retrograde	-11114 Aug 16 j 03:27	26°10'46	
conjunction	-11120 Apr 26 j 15:40	14°18'19	4°55'16	opposition	-11114 Nov 02 j 03:16	24°58'29	8°14'24
minimum elong	-11120 Apr 26 j 15:30	14°18'18	4°54'48	min. Earth dist.	-11114 Nov 05 j 13:18	24°53'32	34.40388 AU
morning rise	-11120 May 11 j 14:43	14°44'59		direct	-11113 Jan 23 j 06:53	23°42'37	
	-11120 May 20 j 07:51	15°		evening set	-11113 Apr 25 j 16:43	25°25'30	
retrograde	-11120 Aug 05 j 09:57	16°14'43		max. Earth dist.	-11113 May 05 j 11:40	25°44'07	36.25535 AU
opposition	-11120 Oct 22 j 17:53	15°04'45	5°25'09				
min. Earth dist.	-11120 Oct 26 j 01:21	15°00'07	35.94247 AU	conjunction	-11113 May 09 j 04:09	25°51'11	8°01'00
	-11120 Oct 26 j 03:21	15°		minimum elong	-11113 May 09 j 03:51	25°51'09	8°00'36
direct	-11119 Jan 13 j 05:18	13°51'25		morning rise	-11113 May 22 j 12:10	26°16'37	
	-11119 Mar 29 j 12:57	15°		retrograde	-11113 Aug 18 j 06:48	27°55'46	
evening set	-11119 Apr 13 j 13:31	15°25'37		opposition	-11113 Nov 04 j 03:09	26°43'02	8°42'46
max. Earth dist.	-11119 Apr 24 j 20:45	15°45'52	37.80507 AU	min. Earth dist.	-11113 Nov 07 j 12:19	26°38'06	34.14900 AU
				direct	-11112 Jan 25 j 06:48	25°26'42	
conjunction	-11119 Apr 28 j 12:08	15°52'28	5°21'32	evening set	-11112 Apr 27 j 01:01	27°11'15	
minimum elong	-11119 Apr 28 j 11:56	15°52'27	5°21'04	max. Earth dist.	-11112 May 06 j 12:50	27°29'28	35.99899 AU
morning rise	-11119 May 13 j 06:47	16°19'04					
retrograde	-11119 Aug 07 j 07:24	17°49'59		conjunction	-11112 May 10 j 04:59	27°36'35	8°27'36
opposition	-11119 Oct 24 j 13:50	16°39'40	5°53'05	minimum elong	-11112 May 10 j 04:39	27°36'33	8°27'14
min. Earth dist.	-11119 Oct 27 j 22:36	16°34'56	35.68647 AU	morning rise	-11112 May 23 j 05:25	28°01'40	
direct	-11118 Jan 15 j 00:42	15°25'58		retrograde	-11112 Aug 19 j 07:42	29°42'26	
evening set	-11118 Apr 15 j 15:24	17°01'28		opposition	-11112 Nov 05 j 04:01	28°29'15	9°11'05
max. Earth dist.	-11118 Apr 26 j 18:02	17°21'34	37.54750 AU	min. Earth dist.	-11112 Nov 08 j 13:51	28°24'14	33.89625 AU
				direct	-11111 Jan 26 j 06:39	27°12'26	
conjunction	-11118 Apr 30 j 09:15	17°28'13	5°47'56	evening set	-11111 Apr 29 j 10:30	28°58'42	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 22

Attention, astronomical year style is used: The year -11111 in astronomical counting style is the year 11112 BCE in historical counting style.

max. Earth dist.	-11111 May 08 j 15:20	29° $\approx$ 16'33	35.74517 AU	morning rise	-11105 Jun 03 j 09:00	11° $\mathbb{H}$ 06'46	
				retrograde	-11105 Sep 02 j 20:37	13° $\mathbb{H}$ 01'17	
conjunction	-11111 May 12 j 06:13	29° $\approx$ 23'38	8°54'05	opposition	-11105 Nov 19 j 08:08	11° $\mathbb{H}$ 45'10	12°23'11
minimum elong	-11111 May 12 j 05:54	29° $\approx$ 23'36	8°53'44	min. Earth dist.	-11105 Nov 22 j 13:39	11° $\mathbb{H}$ 40'13	32.22335 AU
morning rise	-11111 May 24 j 22:38	29° $\approx$ 48'20		direct	-11104 Feb 08 j 22:25	10° $\mathbb{H}$ 25'23	
	-11111 May 31 j 01:52	0° $\mathbb{H}$		evening set	-11104 May 15 j 20:06	12° $\mathbb{H}$ 26'26	
retrograde	-11111 Aug 21 j 09:13	1° $\mathbb{H}$ 30'45		max. Earth dist.	-11104 May 22 j 03:20	12° $\mathbb{H}$ 39'36	34.06430 AU
opposition	-11111 Nov 07 j 05:28	0° $\mathbb{H}$ 17'08	9°39'17				
min. Earth dist.	-11111 Nov 10 j 13:46	0° $\mathbb{H}$ 12'11	33.64642 AU	conjunction	-11104 May 25 j 12:40	12° $\mathbb{H}$ 46'43	11°52'31
	-11111 Nov 18 j 21:25	30° $\mathbb{R}$ $\approx$		minimum elong	-11104 May 25 j 12:14	12° $\mathbb{H}$ 46'41	11°52'18
direct	-11110 Jan 28 j 08:32	28° $\approx$ 59'51		morning rise	-11104 Jun 04 j 02:54	13° $\mathbb{H}$ 06'49	
	-11110 Apr 05 j 11:51	0° $\mathbb{H}$		retrograde	-11104 Sep 04 j 06:41	15° $\mathbb{H}$ 03'41	
evening set	-11110 May 01 j 21:18	0° $\mathbb{H}$ 47'57		opposition	-11104 Nov 20 j 15:45	13° $\mathbb{H}$ 47'09	12°49'09
max. Earth dist.	-11110 May 10 j 17:08	1° $\mathbb{H}$ 05'15	35.49438 AU	min. Earth dist.	-11104 Nov 23 j 19:31	13° $\mathbb{H}$ 42'17	31.99766 AU
				direct	-11103 Feb 10 j 06:00	12° $\mathbb{H}$ 26'57	
conjunction	-11110 May 14 j 08:19	1° $\mathbb{H}$ 12'26	9°20'25	evening set	-11103 May 18 j 17:18	14° $\mathbb{H}$ 30'29	
minimum elong	-11110 May 14 j 07:57	1° $\mathbb{H}$ 12'24	9°20'05	max. Earth dist.	-11103 May 24 j 11:04	14° $\mathbb{H}$ 42'37	33.83705 AU
morning rise	-11110 May 26 j 16:09	1° $\mathbb{H}$ 36'40					
retrograde	-11110 Aug 23 j 12:27	3° $\mathbb{H}$ 20'52		conjunction	-11103 May 27 j 20:06	14° $\mathbb{H}$ 49'46	12°16'26
opposition	-11110 Nov 09 j 07:39	2° $\mathbb{H}$ 06'49	10°07'19	minimum elong	-11103 May 27 j 19:40	14° $\mathbb{H}$ 49'44	12°16'13
min. Earth dist.	-11110 Nov 12 j 16:15	2° $\mathbb{H}$ 01'48	33.40012 AU	morning rise	-11103 Jun 05 j 20:42	15° $\mathbb{H}$ 08'52	
direct	-11109 Jan 30 j 07:41	0° $\mathbb{H}$ 49'05		retrograde	-11103 Sep 06 j 15:36	17° $\mathbb{H}$ 08'12	
evening set	-11109 May 04 j 09:30	2° $\mathbb{H}$ 39'06		opposition	-11103 Nov 23 j 00:19	15° $\mathbb{H}$ 51'13	13°14'34
max. Earth dist.	-11109 May 12 j 21:57	2° $\mathbb{H}$ 55'58	35.24727 AU	min. Earth dist.	-11103 Nov 26 j 04:21	15° $\mathbb{H}$ 46'18	31.77529 AU
				direct	-11102 Feb 12 j 11:53	14° $\mathbb{H}$ 30'36	
conjunction	-11109 May 16 j 11:13	3° $\mathbb{H}$ 03'04	9°46'33	evening set	-11102 May 21 j 16:32	16° $\mathbb{H}$ 36'43	
minimum elong	-11109 May 16 j 10:52	3° $\mathbb{H}$ 03'02	9°46'13	max. Earth dist.	-11102 May 26 j 21:18	16° $\mathbb{H}$ 47'49	33.61340 AU
morning rise	-11109 May 28 j 09:43	3° $\mathbb{H}$ 26'47					
retrograde	-11109 Aug 25 j 15:38	5° $\mathbb{H}$ 12'51		conjunction	-11102 May 30 j 04:24	16° $\mathbb{H}$ 54'53	12°39'46
opposition	-11109 Nov 11 j 10:51	3° $\mathbb{H}$ 58'22	10°35'08	minimum elong	-11102 May 30 j 03:57	16° $\mathbb{H}$ 54'50	12°39'35
min. Earth dist.	-11109 Nov 14 j 18:05	3° $\mathbb{H}$ 53'25	33.15758 AU	morning rise	-11102 Jun 07 j 14:11	17° $\mathbb{H}$ 12'52	
direct	-11108 Feb 01 j 09:41	2° $\mathbb{H}$ 40'13		retrograde	-11102 Sep 09 j 00:15	19° $\mathbb{H}$ 14'44	
evening set	-11108 May 05 j 22:57	4° $\mathbb{H}$ 32'15		opposition	-11102 Nov 25 j 09:37	17° $\mathbb{H}$ 57'20	13°39'21
max. Earth dist.	-11108 May 14 j 01:13	4° $\mathbb{H}$ 48'27	35.00395 AU	min. Earth dist.	-11102 Nov 28 j 11:53	17° $\mathbb{H}$ 52'30	31.55668 AU
				direct	-11101 Feb 14 j 20:39	16° $\mathbb{H}$ 36'17	
conjunction	-11108 May 17 j 14:36	4° $\mathbb{H}$ 55'37	10°12'26	evening set	-11101 May 24 j 17:35	18° $\mathbb{H}$ 45'07	
minimum elong	-11108 May 17 j 14:13	4° $\mathbb{H}$ 55'35	10°12'07	max. Earth dist.	-11101 May 29 j 06:29	18° $\mathbb{H}$ 54'54	33.39388 AU
morning rise	-11108 May 29 j 03:25	5° $\mathbb{H}$ 18'47					
retrograde	-11108 Aug 26 j 21:59	7° $\mathbb{H}$ 06'49		conjunction	-11101 Jun 01 j 13:23	19° $\mathbb{H}$ 02'01	13°02'28
opposition	-11108 Nov 12 j 14:48	5° $\mathbb{H}$ 51'56	11°02'40	minimum elong	-11101 Jun 01 j 12:56	19° $\mathbb{H}$ 01'59	13°02'17
min. Earth dist.	-11108 Nov 15 j 21:34	5° $\mathbb{H}$ 46'59	32.91900 AU	morning rise	-11101 Jun 09 j 07:24	19° $\mathbb{H}$ 18'45	
direct	-11107 Feb 02 j 10:09	4° $\mathbb{H}$ 33'22		retrograde	-11101 Sep 11 j 11:26	21° $\mathbb{H}$ 23'20	
evening set	-11107 May 08 j 13:51	6° $\mathbb{H}$ 27'30		opposition	-11101 Nov 27 j 19:58	20° $\mathbb{H}$ 05'28	14°03'25
max. Earth dist.	-11107 May 16 j 07:26	6° $\mathbb{H}$ 43'08	34.76426 AU	min. Earth dist.	-11101 Nov 30 j 21:32	20° $\mathbb{H}$ 00'39	31.34274 AU
				direct	-11100 Feb 17 j 03:02	18° $\mathbb{H}$ 43'58	
conjunction	-11107 May 19 j 19:00	6° $\mathbb{H}$ 50'14	10°38'01	evening set	-11100 May 26 j 20:37	20° $\mathbb{H}$ 55'40	
minimum elong	-11107 May 19 j 18:37	6° $\mathbb{H}$ 50'12	10°37'43	max. Earth dist.	-11100 May 30 j 18:49	21° $\mathbb{H}$ 04'13	33.17935 AU
morning rise	-11107 May 30 j 21:10	7° $\mathbb{H}$ 12'45					
retrograde	-11107 Aug 29 j 03:55	9° $\mathbb{H}$ 02'51		conjunction	-11100 Jun 02 j 23:00	21° $\mathbb{H}$ 11'09	13°24'25
opposition	-11107 Nov 14 j 19:38	7° $\mathbb{H}$ 47'33	11°29'53	minimum elong	-11100 Jun 02 j 22:33	21° $\mathbb{H}$ 11'06	13°24'16
min. Earth dist.	-11107 Nov 18 j 02:06	7° $\mathbb{H}$ 42'36	32.68394 AU	morning rise	-11100 Jun 09 j 23:38	21° $\mathbb{H}$ 26'29	
direct	-11106 Feb 04 j 13:00	6° $\mathbb{H}$ 28'35		retrograde	-11100 Sep 12 j 21:57	23° $\mathbb{H}$ 33'55	
evening set	-11106 May 11 j 06:22	8° $\mathbb{H}$ 24'56		opposition	-11100 Nov 29 j 07:17	22° $\mathbb{H}$ 15'36	14°26'40
max. Earth dist.	-11106 May 18 j 12:37	8° $\mathbb{H}$ 39'47	34.52798 AU	min. Earth dist.	-11100 Dec 02 j 07:13	22° $\mathbb{H}$ 10'51	31.13412 AU
				direct	-11099 Feb 18 j 12:25	20° $\mathbb{H}$ 53'41	
conjunction	-11106 May 22 j 00:01	8° $\mathbb{H}$ 46'56	11°03'15	evening set	-11099 May 30 j 02:08	23° $\mathbb{H}$ 08'23	
minimum elong	-11106 May 21 j 23:36	8° $\mathbb{H}$ 46'54	11°03'00	max. Earth dist.	-11099 Jun 02 j 06:05	23° $\mathbb{H}$ 15'21	32.97075 AU
morning rise	-11106 Jun 01 j 15:07	9° $\mathbb{H}$ 08'44					
retrograde	-11106 Aug 31 j 12:35	11° $\mathbb{H}$ 01'00		conjunction	-11099 Jun 05 j 09:19	23° $\mathbb{H}$ 22'16	13°45'33
opposition	-11106 Nov 17 j 01:19	9° $\mathbb{H}$ 45'18	11°56'45	minimum elong	-11099 Jun 05 j 08:53	23° $\mathbb{H}$ 22'14	13°45'25
min. Earth dist.	-11106 Nov 20 j 06:34	9° $\mathbb{H}$ 40'23	32.45218 AU	morning rise	-11099 Jun 11 j 15:05	23° $\mathbb{H}$ 36'01	
direct	-11105 Feb 06 j 16:38	8° $\mathbb{H}$ 25'55		retrograde	-11099 Sep 15 j 11:21	25° $\mathbb{H}$ 46'28	
evening set	-11105 May 14 j 00:19	10° $\mathbb{H}$ 24'35		opposition	-11099 Dec 01 j 19:12	24° $\mathbb{H}$ 27'42	14°49'00
max. Earth dist.	-11105 May 20 j 19:30	10° $\mathbb{H}$ 38'38	34.29459 AU	min. Earth dist.	-11099 Dec 04 j 17:16	24° $\mathbb{H}$ 23'04	30.93193 AU
				direct	-11098 Feb 20 j 21:53	23° $\mathbb{H}$ 05'22	
conjunction	-11105 May 24 j 05:59	10° $\mathbb{H}$ 45'46	11°28'07	evening set	-11098 Jun 02 j 10:42	25° $\mathbb{H}$ 23'21	
minimum elong	-11105 May 24 j 05:34	10° $\mathbb{H}$ 45'44	11°27'52	max. Earth dist.	-11098 Jun 04 j 20:00	25° $\mathbb{H}$ 28'39	32.76886 AU

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 23

Attention, astronomical year style is used: The year -11098 in astronomical counting style is the year 11099 BCE in historical counting style.

conjunction	-11098 Jun 07 j 20:29	25° $\mathbf{\text{X}}$ 35'23	14°05'46	minimum elong	-11091 Jun 23 j 22:12	12° $\mathbf{\text{Y}}$ 03'44	15°54'55
minimum elong	-11098 Jun 07 j 20:03	25° $\mathbf{\text{X}}$ 35'20	14°05'40	retrograde	-11091 Oct 04 j 23:01	14° $\mathbf{\text{Y}}$ 38'44	
morning rise	-11098 Jun 13 j 04:55	25° $\mathbf{\text{X}}$ 47'18		opposition	-11091 Dec 21 j 04:52	13° $\mathbf{\text{Y}}$ 17'07	17°04'03
retrograde	-11098 Sep 18 j 00:03	28° $\mathbf{\text{X}}$ 01'01		min. Earth dist.	-11091 Dec 23 j 09:32	13° $\mathbf{\text{Y}}$ 13'30	29.58891 AU
opposition	-11098 Dec 04 j 08:18	26° $\mathbf{\text{X}}$ 41'49	15°10'20	direct	-11090 Mar 11 j 16:47	11° $\mathbf{\text{Y}}$ 52'28	
min. Earth dist.	-11098 Dec 07 j 05:03	26° $\mathbf{\text{X}}$ 37'15	30.73674 AU	max. Earth dist.	-11090 Jun 24 j 09:34	14° $\mathbf{\text{Y}}$ 27'03	31.43746 AU
direct	-11097 Feb 23 j 08:47	25° $\mathbf{\text{X}}$ 19'07					
evening set	-11097 Jun 05 j 23:24	27° $\mathbf{\text{X}}$ 40'42		conjunction	-11090 Jun 26 j 15:11	14° $\mathbf{\text{Y}}$ 32'21	16°04'58
max. Earth dist.	-11097 Jun 07 j 09:34	27° $\mathbf{\text{X}}$ 43'53	32.57460 AU	minimum elong	-11090 Jun 26 j 14:53	14° $\mathbf{\text{Y}}$ 32'19	16°05'04
				retrograde	-11090 Oct 07 j 18:25	17° $\mathbf{\text{Y}}$ 08'27	
conjunction	-11097 Jun 10 j 08:11	27° $\mathbf{\text{X}}$ 50'30	14°24'58	opposition	-11090 Dec 24 j 00:49	15° $\mathbf{\text{Y}}$ 46'30	17°14'17
minimum elong	-11097 Jun 10 j 07:46	27° $\mathbf{\text{X}}$ 50'28	14°24'53	min. Earth dist.	-11090 Dec 26 j 02:56	15° $\mathbf{\text{Y}}$ 43'03	29.45578 AU
morning rise	-11097 Jun 14 j 15:54	28° $\mathbf{\text{X}}$ 00'13		direct	-11089 Mar 14 j 09:44	14° $\mathbf{\text{Y}}$ 21'36	
	-11097 Aug 19 j 10:57	0° $\mathbf{\text{Y}}$		max. Earth dist.	-11089 Jun 27 j 06:44	16° $\mathbf{\text{Y}}$ 57'27	31.30692 AU
retrograde	-11097 Sep 20 j 15:34	0° $\mathbf{\text{Y}}$ 17'34					
	-11097 Oct 23 j 18:00	30° $\mathbf{\text{X}}$		conjunction	-11089 Jun 29 j 08:26	17° $\mathbf{\text{Y}}$ 02'24	16°13'29
opposition	-11097 Dec 06 j 22:14	28° $\mathbf{\text{X}}$ 57'58	15°30'33	minimum elong	-11089 Jun 29 j 08:11	17° $\mathbf{\text{Y}}$ 02'23	16°13'36
min. Earth dist.	-11097 Dec 09 j 15:56	28° $\mathbf{\text{X}}$ 53'35	30.54933 AU	retrograde	-11089 Oct 10 j 12:50	19° $\mathbf{\text{Y}}$ 39'32	
direct	-11096 Feb 25 j 20:29	27° $\mathbf{\text{X}}$ 34'55		opposition	-11089 Dec 26 j 21:36	18° $\mathbf{\text{Y}}$ 17'15	17°22'48
evening set	-11096 Jun 08 j 19:32	0° $\mathbf{\text{Y}}$ 00'46		min. Earth dist.	-11089 Dec 28 j 21:19	18° $\mathbf{\text{Y}}$ 13'57	29.33096 AU
	-11096 Jun 08 j 11:25	0° $\mathbf{\text{Y}}$		direct	-11088 Mar 16 j 04:09	16° $\mathbf{\text{Y}}$ 52'09	
max. Earth dist.	-11096 Jun 09 j 00:36	0° $\mathbf{\text{Y}}$ 01'15	32.38827 AU	max. Earth dist.	-11088 Jun 29 j 02:34	19° $\mathbf{\text{Y}}$ 28'59	31.18547 AU
conjunction	-11096 Jun 11 j 20:50	0° $\mathbf{\text{Y}}$ 07'41	14°43'06	conjunction	-11088 Jul 01 j 02:01	19° $\mathbf{\text{Y}}$ 33'44	16°20'21
minimum elong	-11096 Jun 11 j 20:24	0° $\mathbf{\text{Y}}$ 07'38	14°43'03	minimum elong	-11088 Jul 01 j 01:47	19° $\mathbf{\text{Y}}$ 33'43	16°20'31
morning rise	-11096 Jun 14 j 21:09	0° $\mathbf{\text{Y}}$ 14'31		retrograde	-11088 Oct 12 j 09:35	22° $\mathbf{\text{Y}}$ 11'49	
retrograde	-11096 Sep 22 j 07:09	2° $\mathbf{\text{Y}}$ 36'10		opposition	-11088 Dec 28 j 18:45	20° $\mathbf{\text{Y}}$ 49'14	17°29'28
opposition	-11096 Dec 08 j 13:11	1° $\mathbf{\text{Y}}$ 16'12	15°49'34	min. Earth dist.	-11088 Dec 30 j 14:51	20° $\mathbf{\text{Y}}$ 46'11	29.21538 AU
min. Earth dist.	-11096 Dec 11 j 05:41	1° $\mathbf{\text{Y}}$ 11'52	30.36993 AU	direct	-11087 Mar 18 j 23:08	19° $\mathbf{\text{Y}}$ 23'55	
	-11095 Feb 06 j 00:39	30° $\mathbf{\text{X}}$		max. Earth dist.	-11087 Jul 02 j 00:32	22° $\mathbf{\text{Y}}$ 01'51	31.07373 AU
direct	-11095 Feb 27 j 09:36	29° $\mathbf{\text{X}}$ 52'50					
	-11095 Mar 20 j 13:03	0° $\mathbf{\text{Y}}$		conjunction	-11087 Jul 03 j 20:03	22° $\mathbf{\text{Y}}$ 06'13	16°25'28
max. Earth dist.	-11095 Jun 11 j 16:36	2° $\mathbf{\text{Y}}$ 20'42	32.21025 AU	minimum elong	-11087 Jul 03 j 19:52	22° $\mathbf{\text{Y}}$ 06'12	16°25'39
				retrograde	-11087 Oct 15 j 04:43	24° $\mathbf{\text{Y}}$ 45'10	
conjunction	-11095 Jun 14 j 10:01	2° $\mathbf{\text{Y}}$ 26'56	15°00'03	opposition	-11087 Dec 31 j 16:37	23° $\mathbf{\text{Y}}$ 22'18	17°34'15
minimum elong	-11095 Jun 14 j 09:38	2° $\mathbf{\text{Y}}$ 26'54	15°00'01	min. Earth dist.	-11086 Jan 02 j 10:19	23° $\mathbf{\text{Y}}$ 19'24	29.10958 AU
retrograde	-11095 Sep 25 j 00:50	4° $\mathbf{\text{Y}}$ 56'48		direct	-11086 Mar 21 j 19:18	21° $\mathbf{\text{Y}}$ 56'49	
opposition	-11095 Dec 11 j 04:53	3° $\mathbf{\text{Y}}$ 36'29	16°07'19	max. Earth dist.	-11086 Jul 04 j 21:56	24° $\mathbf{\text{Y}}$ 35'38	30.97265 AU
min. Earth dist.	-11095 Dec 13 j 18:10	3° $\mathbf{\text{Y}}$ 32'21	30.19848 AU				
direct	-11094 Mar 02 j 01:03	2° $\mathbf{\text{Y}}$ 12'51		conjunction	-11086 Jul 06 j 14:18	24° $\mathbf{\text{Y}}$ 39'43	16°28'48
max. Earth dist.	-11094 Jun 14 j 08:29	4° $\mathbf{\text{Y}}$ 42'09	32.04008 AU	minimum elong	-11086 Jul 06 j 14:08	24° $\mathbf{\text{Y}}$ 39'42	16°29'01
				retrograde	-11086 Oct 18 j 02:16	27° $\mathbf{\text{Y}}$ 19'27	
conjunction	-11094 Jun 17 j 00:05	4° $\mathbf{\text{Y}}$ 48'15	15°15'46	opposition	-11085 Jan 03 j 14:48	25° $\mathbf{\text{Y}}$ 56'19	17°37'03
minimum elong	-11094 Jun 16 j 23:41	4° $\mathbf{\text{Y}}$ 48'13	15°15'47	min. Earth dist.	-11085 Jan 05 j 04:01	25° $\mathbf{\text{Y}}$ 53'44	29.01451 AU
retrograde	-11094 Sep 27 j 17:12	7° $\mathbf{\text{Y}}$ 19'29		direct	-11085 Mar 24 j 16:05	24° $\mathbf{\text{Y}}$ 30'43	
opposition	-11094 Dec 13 j 21:33	5° $\mathbf{\text{Y}}$ 58'50	16°23'42	max. Earth dist.	-11085 Jul 07 j 20:30	27° $\mathbf{\text{Y}}$ 10'27	30.88288 AU
min. Earth dist.	-11094 Dec 16 j 09:44	5° $\mathbf{\text{Y}}$ 54'45	30.03478 AU				
direct	-11093 Mar 04 j 14:33	4° $\mathbf{\text{Y}}$ 34'55		conjunction	-11085 Jul 09 j 09:00	27° $\mathbf{\text{Y}}$ 14'09	16°30'15
max. Earth dist.	-11093 Jun 17 j 02:40	7° $\mathbf{\text{Y}}$ 05'44	31.87782 AU	minimum elong	-11085 Jul 09 j 08:53	27° $\mathbf{\text{Y}}$ 14'08	16°30'29
				retrograde	-11085 Oct 20 j 23:02	29° $\mathbf{\text{Y}}$ 54'35	
conjunction	-11093 Jun 19 j 14:55	7° $\mathbf{\text{Y}}$ 11'34	15°30'11	opposition	-11084 Jan 06 j 13:43	28° $\mathbf{\text{Y}}$ 31'14	17°37'48
minimum elong	-11093 Jun 19 j 14:34	7° $\mathbf{\text{Y}}$ 11'32	15°30'13	min. Earth dist.	-11084 Jan 08 j 00:15	28° $\mathbf{\text{Y}}$ 28'50	28.93083 AU
retrograde	-11093 Sep 30 j 10:44	9° $\mathbf{\text{Y}}$ 44'06		direct	-11084 Mar 26 j 12:14	27° $\mathbf{\text{Y}}$ 05'34	
opposition	-11093 Dec 16 j 15:13	8° $\mathbf{\text{Y}}$ 23'08	16°38'41	max. Earth dist.	-11084 Jul 09 j 19:26	29° $\mathbf{\text{Y}}$ 46'06	30.80521 AU
min. Earth dist.	-11093 Dec 19 j 00:19	8° $\mathbf{\text{Y}}$ 19'14	29.87861 AU				
direct	-11092 Mar 06 j 07:27	6° $\mathbf{\text{Y}}$ 58'58		conjunction	-11084 Jul 11 j 03:50	29° $\mathbf{\text{Y}}$ 49'24	16°29'48
max. Earth dist.	-11092 Jun 18 j 19:29	9° $\mathbf{\text{Y}}$ 31'03	31.72320 AU	minimum elong	-11084 Jul 11 j 03:46	29° $\mathbf{\text{Y}}$ 49'24	16°30'04
					-11084 Jul 15 j 11:53	0° $\mathbf{\text{X}}$	
conjunction	-11092 Jun 21 j 06:16	9° $\mathbf{\text{Y}}$ 36'47	15°43'15	retrograde	-11084 Oct 22 j 21:42	2° $\mathbf{\text{X}}$ 30'28	
minimum elong	-11092 Jun 21 j 05:55	9° $\mathbf{\text{Y}}$ 36'45	15°43'18	opposition	-11083 Jan 08 j 12:48	1° $\mathbf{\text{X}}$ 06'57	17°36'29
retrograde	-11092 Oct 02 j 06:00	12° $\mathbf{\text{Y}}$ 10'35		min. Earth dist.	-11083 Jan 09 j 18:35	1° $\mathbf{\text{X}}$ 04'53	28.85891 AU
opposition	-11092 Dec 18 j 09:44	10° $\mathbf{\text{Y}}$ 49'17	16°52'09		-11083 Feb 23 j 08:25	30° $\mathbf{\text{X}}$	
min. Earth dist.	-11092 Dec 20 j 17:04	10° $\mathbf{\text{Y}}$ 45'29	29.73002 AU	direct	-11083 Mar 29 j 11:22	29° $\mathbf{\text{Y}}$ 41'16	
direct	-11091 Mar 08 j 22:43	9° $\mathbf{\text{Y}}$ 24'52			-11083 May 01 j 13:47	0° $\mathbf{\text{X}}$	
max. Earth dist.	-11091 Jun 21 j 15:20	11° $\mathbf{\text{Y}}$ 58'20	31.57635 AU				
				conjunction	-11083 Jul 13 j 23:00	2° $\mathbf{\text{X}}$ 25'26	16°27'26
conjunction	-11091 Jun 23 j 22:30	12° $\mathbf{\text{Y}}$ 03'46	15°54'52	minimum elong	-11083 Jul 13 j 22:58	2° $\mathbf{\text{X}}$ 25'26	16°27'42

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24

Attention, astronomical year style is used: The year -11083 in astronomical counting style is the year 11084 BCE in historical counting style.

max. Earth dist.	-11083 Jul 12 j 18:02	2° <del>8</del> 22'29	30.73959 AU	max. Earth dist.	-11075 Aug 03 j 10:23	23° <del>8</del> 22'56	30.62147 AU
retrograde	-11083 Oct 25 j 19:34	5° <del>8</del> 07'02		retrograde	-11075 Nov 15 j 23:17	26° <del>8</del> 04'44	
opposition	-11082 Jan 11 j 12:09	3° <del>8</del> 43'24	17°33'04	opposition	-11074 Feb 02 j 11:42	24° <del>8</del> 40'57	15°52'19
min. Earth dist.	-11082 Jan 12 j 15:08	3° <del>8</del> 41'32	28.79879 AU	min. Earth dist.	-11074 Feb 02 j 08:28	24° <del>8</del> 41'10	28.70850 AU
direct	-11082 Apr 01 j 08:13	2° <del>8</del> 17'44		direct	-11074 Apr 22 j 22:10	23° <del>8</del> 16'16	
				evening set	-11074 Aug 03 j 02:12	25° <del>8</del> 50'33	
conjunction	-11082 Jul 16 j 18:24	5° <del>8</del> 02'08	16°23'06	conjunction	-11074 Aug 06 j 04:09	25° <del>8</del> 58'03	14°41'10
minimum elong	-11082 Jul 16 j 18:24	5° <del>8</del> 02'08	16°23'25	minimum elong	-11074 Aug 06 j 04:27	25° <del>8</del> 58'05	14°41'40
max. Earth dist.	-11082 Jul 15 j 17:56	4° <del>8</del> 59'38	30.68608 AU	max. Earth dist.	-11074 Aug 06 j 09:17	25° <del>8</del> 58'35	30.65566 AU
retrograde	-11082 Oct 28 j 17:37	7° <del>8</del> 44'10		morning rise	-11074 Aug 09 j 06:40	26° <del>8</del> 05'38	
opposition	-11081 Jan 14 j 11:54	6° <del>8</del> 20'28	17°27'33	retrograde	-11074 Nov 18 j 17:40	28° <del>8</del> 39'27	
min. Earth dist.	-11081 Jan 15 j 10:25	6° <del>8</del> 18'54	28.75012 AU	opposition	-11073 Feb 05 j 10:58	27° <del>8</del> 15'42	15°31'06
direct	-11081 Apr 04 j 07:18	4° <del>8</del> 54'52		min. Earth dist.	-11073 Feb 05 j 04:55	27° <del>8</del> 16'07	28.74542 AU
				direct	-11073 Apr 25 j 19:29	25° <del>8</del> 51'13	
conjunction	-11081 Jul 19 j 13:41	7° <del>8</del> 39'23	16°16'51	evening set	-11073 Aug 04 j 10:57	28° <del>8</del> 21'20	
minimum elong	-11081 Jul 19 j 13:44	7° <del>8</del> 39'23	16°17'11				
max. Earth dist.	-11081 Jul 18 j 16:14	7° <del>8</del> 37'11	30.64416 AU	conjunction	-11073 Aug 08 j 22:01	28° <del>8</del> 32'10	14°20'34
retrograde	-11081 Oct 31 j 17:19	10° <del>8</del> 21'45		minimum elong	-11073 Aug 08 j 22:19	28° <del>8</del> 32'12	14°21'04
opposition	-11080 Jan 17 j 12:00	8° <del>8</del> 57'59	17°19'56	max. Earth dist.	-11073 Aug 09 j 06:56	28° <del>8</del> 33'04	30.70173 AU
min. Earth dist.	-11080 Jan 18 j 07:15	8° <del>8</del> 56'39	28.71271 AU	morning rise	-11073 Aug 13 j 09:42	28° <del>8</del> 43'05	
direct	-11080 Apr 06 j 05:17	7° <del>8</del> 32'29			-11073 Sep 16 j 03:13	0° <del>8</del>	
				retrograde	-11073 Nov 21 j 13:11	1° <del>8</del> 13'00	
conjunction	-11080 Jul 21 j 09:20	10° <del>8</del> 16'59	16°08'40		-11072 Feb 01 j 22:25	30° <del>8</del>	
minimum elong	-11080 Jul 21 j 09:26	10° <del>8</del> 17'00	16°09'02	opposition	-11072 Feb 08 j 09:38	29° <del>8</del> 49'20	15°08'09
max. Earth dist.	-11080 Jul 20 j 16:36	10° <del>8</del> 15'16	30.61360 AU	min. Earth dist.	-11072 Feb 07 j 22:29	29° <del>8</del> 50'06	28.79415 AU
retrograde	-11080 Nov 02 j 14:23	12° <del>8</del> 59'34		direct	-11072 Apr 27 j 18:45	28° <del>8</del> 25'04	
opposition	-11079 Jan 19 j 12:05	11° <del>8</del> 35'47	17°10'17		-11072 Jul 13 j 22:21	0° <del>8</del>	
min. Earth dist.	-11079 Jan 20 j 03:34	11° <del>8</del> 34'42	28.68600 AU	evening set	-11072 Aug 05 j 02:19	0° <del>8</del> 51'42	
direct	-11079 Apr 09 j 05:01	10° <del>8</del> 10'23					
				conjunction	-11072 Aug 10 j 15:36	1° <del>8</del> 05'07	13°58'24
conjunction	-11079 Jul 24 j 04:50	12° <del>8</del> 54'45	15°58'37	minimum elong	-11072 Aug 10 j 15:57	1° <del>8</del> 05'09	13°58'54
minimum elong	-11079 Jul 24 j 04:57	12° <del>8</del> 54'46	15°58'59	max. Earth dist.	-11072 Aug 11 j 04:31	1° <del>8</del> 06'25	30.75981 AU
max. Earth dist.	-11079 Jul 23 j 14:42	12° <del>8</del> 53'18	30.59392 AU	morning rise	-11072 Aug 16 j 05:34	1° <del>8</del> 18'37	
	-11079 Sep 20 j 05:42	15° <del>8</del>		retrograde	-11072 Nov 23 j 07:44	3° <del>8</del> 45'19	
retrograde	-11079 Nov 05 j 12:49	15° <del>8</del> 37'26		opposition	-11071 Feb 10 j 07:49	2° <del>8</del> 21'45	14°43'33
	-11079 Dec 24 j 03:47	15° <del>8</del>		min. Earth dist.	-11071 Feb 09 j 17:38	2° <del>8</del> 22'44	28.85496 AU
opposition	-11078 Jan 22 j 12:15	14° <del>8</del> 13'38	16°58'35	direct	-11071 Apr 30 j 14:37	0° <del>8</del> 57'46	
min. Earth dist.	-11078 Jan 23 j 00:06	14° <del>8</del> 12'48	28.66982 AU	evening set	-11071 Aug 06 j 20:57	3° <del>8</del> 21'14	
direct	-11078 Apr 12 j 02:56	12° <del>8</del> 48'21					
	-11078 Jul 13 j 17:37	15° <del>8</del>		conjunction	-11071 Aug 13 j 08:44	3° <del>8</del> 23'51	13°34'44
conjunction	-11078 Jul 27 j 00:24	15° <del>8</del> 32'27	15°46'41	minimum elong	-11071 Aug 13 j 09:05	3° <del>8</del> 23'53	13°35'15
minimum elong	-11078 Jul 27 j 00:35	15° <del>8</del> 32'28	15°47'06	max. Earth dist.	-11071 Aug 14 j 01:45	3° <del>8</del> 23'33	30.83018 AU
max. Earth dist.	-11078 Jul 26 j 15:00	15° <del>8</del> 31'29	30.58485 AU	morning rise	-11071 Aug 19 j 21:10	3° <del>8</del> 25'33	
retrograde	-11078 Nov 08 j 09:26	18° <del>8</del> 15'06		retrograde	-11071 Nov 26 j 02:23	6° <del>8</del> 16'20	
opposition	-11077 Jan 25 j 12:30	16° <del>8</del> 51'18	16°44'54	min. Earth dist.	-11070 Feb 12 j 10:29	4° <del>8</del> 54'14	28.92761 AU
min. Earth dist.	-11077 Jan 25 j 21:07	16° <del>8</del> 50'42	28.66377 AU	opposition	-11070 Feb 13 j 05:25	4° <del>8</del> 52'56	14°17'23
direct	-11077 Apr 15 j 02:30	15° <del>8</del> 26'10		direct	-11070 May 03 j 12:39	3° <del>8</del> 29'15	
				evening set	-11070 Aug 08 j 17:17	5° <del>8</del> 24'46	
conjunction	-11077 Jul 29 j 19:44	18° <del>8</del> 09'52	15°32'57				
minimum elong	-11077 Jul 29 j 19:56	18° <del>8</del> 09'53	15°33'22	conjunction	-11070 Aug 16 j 01:10	6° <del>8</del> 07'19	13°09'40
max. Earth dist.	-11077 Jul 29 j 12:56	18° <del>8</del> 09'10	30.58636 AU	minimum elong	-11070 Aug 16 j 01:33	6° <del>8</del> 07'21	13°10'13
retrograde	-11077 Nov 11 j 07:41	20° <del>8</del> 52'23		max. Earth dist.	-11070 Aug 16 j 21:29	6° <del>8</del> 09'20	30.91229 AU
opposition	-11076 Jan 28 j 12:33	19° <del>8</del> 28'33	16°29'16	morning rise	-11070 Aug 23 j 09:55	6° <del>8</del> 24'56	
min. Earth dist.	-11076 Jan 28 j 16:50	19° <del>8</del> 28'16	28.66815 AU	retrograde	-11070 Nov 28 j 21:24	8° <del>8</del> 46'02	
direct	-11076 Apr 17 j 01:01	18° <del>8</del> 03'34		min. Earth dist.	-11069 Feb 15 j 04:29	7° <del>8</del> 24'21	29.01188 AU
				opposition	-11069 Feb 16 j 02:40	7° <del>8</del> 22'50	13°49'45
conjunction	-11076 Jul 31 j 14:54	20° <del>8</del> 46'44	15°17'25	direct	-11069 May 06 j 08:42	5° <del>8</del> 59'30	
minimum elong	-11076 Jul 31 j 15:09	20° <del>8</del> 46'46	15°17'52	evening set	-11069 Aug 10 j 15:05	8° <del>8</del> 27'13	
max. Earth dist.	-11076 Jul 31 j 12:40	20° <del>8</del> 46'30	30.59846 AU				
retrograde	-11076 Nov 13 j 02:09	23° <del>8</del> 28'59		conjunction	-11069 Aug 18 j 17:20	8° <del>8</del> 23'62	12°43'18
opposition	-11075 Jan 30 j 12:26	22° <del>8</del> 05'11	16°11'43	minimum elong	-11069 Aug 18 j 17:41	8° <del>8</del> 23'31	12°43'52
min. Earth dist.	-11075 Jan 30 j 13:54	22° <del>8</del> 05'04	28.68289 AU	max. Earth dist.	-11069 Aug 19 j 18:05	8° <del>8</del> 23'56	31.00583 AU
direct	-11075 Apr 20 j 00:00	20° <del>8</del> 40'20		morning rise	-11069 Aug 26 j 20:19	8° <del>8</del> 25'49	
				retrograde	-11069 Dec 01 j 14:50	11° <del>8</del> 24'22	
conjunction	-11075 Aug 03 j 09:41	23° <del>8</del> 22'52	15°00'08	opposition	-11068 Feb 18 j 23:12	9° <del>8</del> 51'24	13°20'47
minimum elong	-11075 Aug 03 j 09:56	23° <del>8</del> 22'54	15°00'36	min. Earth dist.	-11068 Feb 17 j 21:15	9° <del>8</del> 53'10	29.10700 AU



## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 25

Attention, astronomical year style is used: The year -11068 in astronomical counting style is the year 11069 BCE in historical counting style.

direct	-11068 May 08 j 06:10	8° $\Pi$ 28'26		retrograde	-11062 Dec 17 j 18:33	27° $\Pi$ 47'53	
evening set	-11068 Aug 11 j 13:45	10° $\Pi$ 43'29		min. Earth dist.	-11061 Mar 06 j 04:15	26° $\Pi$ 29'52	30.02523 AU
				opposition	-11061 Mar 08 j 03:27	26° $\Pi$ 26'45	9°30'13
conjunction	-11068 Aug 20 j 08:45	11° $\Pi$ 04'16	12°15'46	direct	-11061 May 26 j 09:36	25° $\Pi$ 06'25	
minimum elong	-11068 Aug 20 j 09:08	11° $\Pi$ 04'19	12°16'20	evening set	-11061 Aug 24 j 17:15	27° $\Pi$ 05'08	
max. Earth dist.	-11068 Aug 21 j 12:06	11° $\Pi$ 06'58	31.10989 AU				
morning rise	-11068 Aug 29 j 04:47	11° $\Pi$ 25'09		conjunction	-11061 Sep 06 j 04:08	27° $\Pi$ 33'03	8°38'17
retrograde	-11068 Dec 03 j 08:30	13° $\Pi$ 41'17		minimum elong	-11061 Sep 06 j 04:27	27° $\Pi$ 33'05	8°38'54
opposition	-11067 Feb 20 j 19:10	12° $\Pi$ 18'34	12°50'36	max. Earth dist.	-11061 Sep 08 j 04:09	27° $\Pi$ 37'34	32.08218 AU
min. Earth dist.	-11067 Feb 19 j 13:45	12° $\Pi$ 20'33	29.21239 AU	morning rise	-11061 Sep 18 j 16:48	28° $\Pi$ 01'07	
direct	-11067 May 11 j 00:29	10° $\Pi$ 55'58			-11061 Dec 08 j 03:26	0° $\mathfrak{C}$	
evening set	-11067 Aug 13 j 13:11	13° $\Pi$ 08'27		retrograde	-11061 Dec 20 j 05:50	0° $\mathfrak{C}$ 02'22	
					-11060 Jan 01 j 13:46	30° $\mathfrak{R}$ $\Pi$	
conjunction	-11067 Aug 22 j 23:52	13° $\Pi$ 30'38	11°47'08	min. Earth dist.	-11060 Mar 07 j 16:44	28° $\Pi$ 44'44	30.18929 AU
minimum elong	-11067 Aug 23 j 00:14	13° $\Pi$ 30'40	11°47'42	opposition	-11060 Mar 09 j 18:02	28° $\Pi$ 41'31	8°54'34
max. Earth dist.	-11067 Aug 24 j 07:27	13° $\Pi$ 33'44	31.22373 AU	direct	-11060 May 27 j 22:41	27° $\Pi$ 21'33	
morning rise	-11067 Sep 01 j 11:26	13° $\Pi$ 52'54		evening set	-11060 Aug 25 j 18:18	29° $\Pi$ 18'15	
retrograde	-11067 Dec 05 j 23:57	16° $\Pi$ 06'41					
min. Earth dist.	-11066 Feb 22 j 06:12	14° $\Pi$ 46'24	29.32706 AU	conjunction	-11060 Sep 07 j 14:22	29° $\Pi$ 46'46	8°04'49
opposition	-11066 Feb 23 j 14:20	14° $\Pi$ 44'14	12°19'19	minimum elong	-11060 Sep 07 j 14:41	29° $\Pi$ 46'48	8°05'25
direct	-11066 May 13 j 21:04	13° $\Pi$ 22'02		max. Earth dist.	-11060 Sep 09 j 17:38	29° $\Pi$ 51'33	32.25352 AU
evening set	-11066 Aug 15 j 13:17	15° $\Pi$ 32'02			-11060 Sep 13 j 12:28	0° $\mathfrak{C}$	
				morning rise	-11060 Sep 20 j 12:06	0° $\mathfrak{C}$ 15'27	
conjunction	-11066 Aug 25 j 14:13	15° $\Pi$ 55'27	11°17'32	retrograde	-11060 Dec 21 j 16:02	2° $\mathfrak{C}$ 14'51	
minimum elong	-11066 Aug 25 j 14:37	15° $\Pi$ 55'30	11°18'06	min. Earth dist.	-11059 Mar 10 j 03:08	0° $\mathfrak{C}$ 57'43	30.36178 AU
max. Earth dist.	-11066 Aug 26 j 23:48	15° $\Pi$ 58'44	31.34663 AU	opposition	-11059 Mar 12 j 07:38	0° $\mathfrak{C}$ 54'18	8°18'31
morning rise	-11066 Sep 04 j 16:23	16° $\Pi$ 18'59			-11059 Apr 19 j 11:23	30° $\mathfrak{R}$ $\Pi$	
retrograde	-11066 Dec 08 j 16:56	18° $\Pi$ 30'30		direct	-11059 May 30 j 12:36	29° $\Pi$ 34'43	
min. Earth dist.	-11065 Feb 24 j 20:59	17° $\Pi$ 10'43	29.45063 AU		-11059 Jul 09 j 02:41	0° $\mathfrak{C}$	
opposition	-11065 Feb 26 j 08:56	17° $\Pi$ 08'19	11°47'03	evening set	-11059 Aug 27 j 19:29	1° $\mathfrak{C}$ 29'31	
direct	-11065 May 16 j 15:11	15° $\Pi$ 46'30					
evening set	-11065 Aug 17 j 13:34	17° $\Pi$ 54'06		conjunction	-11059 Sep 09 j 23:42	1° $\mathfrak{C}$ 58'32	7°31'00
				minimum elong	-11059 Sep 09 j 24:00	1° $\mathfrak{C}$ 58'34	7°31'36
conjunction	-11065 Aug 28 j 04:03	18° $\Pi$ 18'38	10°47'03	max. Earth dist.	-11059 Sep 12 j 05:00	2° $\mathfrak{C}$ 03'28	32.43311 AU
minimum elong	-11065 Aug 28 j 04:25	18° $\Pi$ 18'41	10°47'38	morning rise	-11059 Sep 23 j 06:02	2° $\mathfrak{C}$ 27'45	
max. Earth dist.	-11065 Aug 29 j 17:29	18° $\Pi$ 22'16	31.47795 AU	retrograde	-11059 Dec 24 j 02:54	4° $\mathfrak{C}$ 25'24	
morning rise	-11065 Sep 07 j 19:40	18° $\Pi$ 43'18		min. Earth dist.	-11058 Mar 12 j 13:12	3° $\mathfrak{C}$ 08'44	30.54285 AU
retrograde	-11065 Dec 11 j 05:29	20° $\Pi$ 52'38		opposition	-11058 Mar 14 j 20:26	3° $\mathfrak{C}$ 05'10	7°42'09
min. Earth dist.	-11064 Feb 27 j 13:02	19° $\Pi$ 33'15	29.58238 AU	direct	-11058 Jun 02 j 00:42	1° $\mathfrak{C}$ 46'00	
opposition	-11064 Feb 29 j 02:55	19° $\Pi$ 30'43	11°13'54	evening set	-11058 Aug 29 j 20:33	3° $\mathfrak{C}$ 38'58	
direct	-11064 May 18 j 09:23	18° $\Pi$ 09'17					
evening set	-11064 Aug 18 j 14:26	20° $\Pi$ 14'33		conjunction	-11058 Sep 12 j 08:32	4° $\mathfrak{C}$ 08'26	6°56'55
				minimum elong	-11058 Sep 12 j 08:49	4° $\mathfrak{C}$ 08'27	6°57'32
conjunction	-11064 Aug 29 j 17:14	20° $\Pi$ 40'05	10°15'48	max. Earth dist.	-11058 Sep 14 j 17:29	4° $\mathfrak{C}$ 13'39	32.62099 AU
minimum elong	-11064 Aug 29 j 17:37	20° $\Pi$ 40'07	10°16'23	morning rise	-11058 Sep 25 j 22:25	4° $\mathfrak{C}$ 38'05	
max. Earth dist.	-11064 Aug 31 j 08:38	20° $\Pi$ 43'53	31.61732 AU	retrograde	-11058 Dec 26 j 12:23	6° $\mathfrak{C}$ 34'04	
morning rise	-11064 Sep 09 j 21:24	21° $\Pi$ 05'45		min. Earth dist.	-11057 Mar 14 j 22:57	5° $\mathfrak{C}$ 17'52	30.73198 AU
retrograde	-11064 Dec 12 j 19:10	23° $\Pi$ 12'57		opposition	-11057 Mar 17 j 08:28	5° $\mathfrak{C}$ 14'10	7°05'35
min. Earth dist.	-11063 Mar 01 j 02:06	21° $\Pi$ 54'04	29.72209 AU	direct	-11057 Jun 04 j 14:35	3° $\mathfrak{C}$ 55'26	
opposition	-11063 Mar 02 j 19:45	21° $\Pi$ 51'18	10°39'59	evening set	-11057 Aug 31 j 21:41	5° $\mathfrak{C}$ 46'39	
direct	-11063 May 21 j 02:11	20° $\Pi$ 30'15					
evening set	-11063 Aug 20 j 15:16	22° $\Pi$ 33'15		conjunction	-11057 Sep 14 j 16:25	6° $\mathfrak{C}$ 16'29	6°22'40
				minimum elong	-11057 Sep 14 j 16:40	6° $\mathfrak{C}$ 16'31	6°23'17
conjunction	-11063 Sep 01 j 05:41	22° $\Pi$ 59'41	9°43'51	max. Earth dist.	-11057 Sep 17 j 02:51	6° $\mathfrak{C}$ 21'48	32.81651 AU
minimum elong	-11063 Sep 01 j 06:02	22° $\Pi$ 59'43	9°44'28	morning rise	-11057 Sep 28 j 13:30	6° $\mathfrak{C}$ 46'31	
max. Earth dist.	-11063 Sep 03 j 00:24	23° $\Pi$ 03'46	31.76435 AU	retrograde	-11057 Dec 28 j 22:27	8° $\mathfrak{C}$ 40'55	
morning rise	-11063 Sep 12 j 21:32	23° $\Pi$ 26'15		min. Earth dist.	-11056 Mar 16 j 07:02	7° $\mathfrak{C}$ 25'14	30.92873 AU
retrograde	-11063 Dec 15 j 06:59	25° $\Pi$ 31'24		opposition	-11056 Mar 18 j 19:42	7° $\mathfrak{C}$ 21'22	6°28'52
min. Earth dist.	-11062 Mar 03 j 16:44	24° $\Pi$ 12'53	29.86965 AU	direct	-11056 Jun 06 j 01:19	6° $\mathfrak{C}$ 03'04	
opposition	-11062 Mar 05 j 12:05	24° $\Pi$ 10'01	10°05'23	evening set	-11056 Sep 01 j 22:49	7° $\mathfrak{C}$ 52'38	
direct	-11062 May 23 j 17:14	22° $\Pi$ 49'19					
evening set	-11062 Aug 22 j 16:12	24° $\Pi$ 50'09		conjunction	-11056 Sep 15 j 23:54	8° $\mathfrak{C}$ 22'46	5°48'18
				minimum elong	-11056 Sep 16 j 00:09	8° $\mathfrak{C}$ 22'47	5°48'55
conjunction	-11062 Sep 03 j 17:15	25° $\Pi$ 17'21	9°11'20	max. Earth dist.	-11056 Sep 18 j 13:36	8° $\mathfrak{C}$ 28'19	33.01891 AU
minimum elong	-11062 Sep 03 j 17:37	25° $\Pi$ 17'23	9°11'56	morning rise	-11056 Sep 30 j 03:14	8° $\mathfrak{C}$ 53'06	
max. Earth dist.	-11062 Sep 05 j 14:34	25° $\Pi$ 21'39	31.91928 AU	retrograde	-11056 Dec 30 j 04:23	10° $\mathfrak{C}$ 45'58	
morning rise	-11062 Sep 15 j 19:49	25° $\Pi$ 44'43		min. Earth dist.	-11055 Mar 18 j 16:14	9° $\mathfrak{C}$ 30'43	31.13210 AU

Attention, astronomical year style is used: The year -11055 in astronomical counting style is the year 11056 BCE in historical counting style.

opposition	-11055 Mar 21 j 06:00	9°☾26'47	5°52'08	morning rise	-11049 Oct 15 j 15:54	22°☾47'39	
direct	-11055 Jun 08 j 12:48	8°☾08'56		retrograde	-11048 Jan 13 j 12:45	24°☾31'35	
evening set	-11055 Sep 04 j 00:03	9°☾56'55		min. Earth dist.	-11048 Apr 01 j 08:16	23°☾19'13	32.68479 AU
				opposition	-11048 Apr 04 j 08:55	23°☾14'46	1°39'21
conjunction	-11055 Sep 18 j 06:38	10°☾27'16	5°13'55	direct	-11048 Jun 22 j 18:04	21°☾59'40	
minimum elong	-11055 Sep 18 j 06:50	10°☾27'17	5°14'32	evening set	-11048 Sep 16 j 06:27	23°☾38'25	
max. Earth dist.	-11055 Sep 20 j 21:30	10°☾32'53	33.22741 AU				
morning rise	-11055 Oct 02 j 15:40	10°☾57'50		conjunction	-11048 Oct 01 j 11:33	24°☾08'49	1°17'28
retrograde	-11054 Jan 01 j 11:32	12°☾49'15		minimum elong	-11048 Oct 01 j 11:36	24°☾08'49	1°18'02
min. Earth dist.	-11054 Mar 20 j 22:51	11°☾34'32	31.34134 AU	max. Earth dist.	-11048 Oct 04 j 13:16	24°☾15'00	34.80255 AU
opposition	-11054 Mar 23 j 15:34	11°☾30'26	5°15'25	morning rise	-11048 Oct 16 j 19:47	24°☾39'28	
direct	-11054 Jun 10 j 23:20	10°☾13'02		retrograde	-11047 Jan 14 j 16:06	26°☾22'21	
evening set	-11054 Sep 06 j 01:07	11°☾59'30		min. Earth dist.	-11047 Apr 03 j 09:46	25°☾10'26	32.92229 AU
				opposition	-11047 Apr 06 j 12:51	25°☾05'52	1°04'31
conjunction	-11054 Sep 20 j 12:37	12°☾30'01	4°39'35	direct	-11047 Jun 24 j 22:37	23°☾51'08	
minimum elong	-11054 Sep 20 j 12:48	12°☾30'02	4°40'11	evening set	-11047 Sep 18 j 06:51	25°☾28'50	
max. Earth dist.	-11054 Sep 23 j 06:01	12°☾35'48	33.44101 AU				
morning rise	-11054 Oct 05 j 02:43	13°☾00'45		conjunction	-11047 Oct 03 j 13:04	25°☾59'04	0°44'52
retrograde	-11053 Jan 03 j 16:55	14°☾50'48		minimum elong	-11047 Oct 03 j 13:05	25°☾59'04	0°45'25
min. Earth dist.	-11053 Mar 23 j 07:07	13°☾36'28	31.55561 AU	max. Earth dist.	-11047 Oct 06 j 17:07	26°☾05'24	35.04251 AU
opposition	-11053 Mar 26 j 00:34	13°☾32'20	4°38'48	morning rise	-11047 Oct 18 j 22:25	26°☾29'33	
direct	-11053 Jun 13 j 08:07	12°☾15'21		retrograde	-11046 Jan 16 j 15:12	28°☾11'27	
evening set	-11053 Sep 08 j 02:18	14°☾00'23		min. Earth dist.	-11046 Apr 05 j 12:53	26°☾59'53	33.16415 AU
				opposition	-11046 Apr 08 j 16:21	26°☾55'18	0°30'07
conjunction	-11053 Sep 22 j 18:12	14°☾31'00	4°05'20	direct	-11046 Jun 27 j 03:08	25°☾40'58	
minimum elong	-11053 Sep 22 j 18:21	14°☾31'01	4°05'56	evening set	-11046 Sep 20 j 06:55	27°☾17'41	
max. Earth dist.	-11053 Sep 25 j 13:04	14°☾36'52	33.65914 AU				
morning rise	-11053 Oct 07 j 12:39	15°☾01'51		conjunction	-11046 Oct 05 j 13:51	27°☾47'42	0°12'41
retrograde	-11052 Jan 05 j 21:25	16°☾50'34		minimum elong	-11046 Oct 05 j 13:52	27°☾47'42	0°13'15
min. Earth dist.	-11052 Mar 24 j 12:41	15°☾36'43	31.77413 AU	behind sun begin	-11046 Oct 05 j 10:04	27°☾47'24	
opposition	-11052 Mar 27 j 08:31	15°☾32'28	4°02'22	behind sun end	-11046 Oct 05 j 17:40	27°☾48'00	
direct	-11052 Jun 14 j 16:53	14°☾15'53		max. Earth dist.	-11046 Oct 08 j 19:01	27°☾54'05	35.28674 AU
evening set	-11052 Sep 09 j 03:30	15°☾59'32		morning rise	-11046 Oct 20 j 23:53	28°☾17'59	
				retrograde	-11045 Jan 18 j 14:42	29°☾59'00	
conjunction	-11052 Sep 23 j 23:01	16°☾30'12	3°31'15	desc. node	-11045 Feb 28 j 11:18	29°☾37'00	
minimum elong	-11052 Sep 23 j 23:10	16°☾30'13	3°31'51	min. Earth dist.	-11045 Apr 07 j 13:15	28°☾47'54	33.41022 AU
max. Earth dist.	-11052 Sep 26 j 19:04	16°☾36'07	33.88093 AU	opposition	-11045 Apr 10 j 19:03	28°☾43'12	-0°03'48
morning rise	-11052 Oct 08 j 21:27	17°☾01'07		direct	-11045 Jun 29 j 06:58	27°☾29'16	
retrograde	-11051 Jan 07 j 02:27	18°☾48'33		evening set	-11045 Sep 22 j 07:07	29°☾05'04	
min. Earth dist.	-11051 Mar 26 j 19:06	17°☾35'04	31.99645 AU				
opposition	-11051 Mar 29 j 15:52	17°☾30'47	3°26'09	conjunction	-11045 Oct 07 j 14:09	29°☾34'51	-0°19'08
direct	-11051 Jun 16 j 22:44	16°☾14'35		minimum elong	-11045 Oct 07 j 14:09	29°☾34'51	0°18'35
evening set	-11051 Sep 11 j 04:23	17°☾56'55		max. Earth dist.	-11045 Oct 10 j 20:43	29°☾41'18	35.53472 AU
					-11045 Oct 20 j 11:13	0°☾	
conjunction	-11051 Sep 26 j 03:13	18°☾27'35	2°57'23	morning rise	-11045 Oct 23 j 00:33	0°☾04'54	
minimum elong	-11051 Sep 26 j 03:20	18°☾27'36	2°57'59	retrograde	-11044 Jan 20 j 14:50	1°☾45'05	
max. Earth dist.	-11051 Sep 29 j 01:18	18°☾33'38	34.10614 AU	min. Earth dist.	-11044 Apr 08 j 14:42	0°☾34'22	33.66015 AU
morning rise	-11051 Oct 11 j 04:44	18°☾58'30		opposition	-11044 Apr 11 j 21:07	0°☾29'39	-0°37'12
retrograde	-11050 Jan 09 j 05:49	20°☾44'43			-11044 May 03 j 01:05	30°☾R☾	
min. Earth dist.	-11050 Mar 29 j 00:05	19°☾31'37	32.22211 AU	direct	-11044 Jun 30 j 07:25	29°☾16'07	
opposition	-11050 Mar 31 j 22:16	19°☾27'16	2°50'13		-11044 Aug 24 j 16:28	0°☾	
direct	-11050 Jun 19 j 05:47	18°☾11'27		evening set	-11044 Sep 23 j 07:03	0°☾51'04	
evening set	-11050 Sep 13 j 05:18	19°☾52'31					
				conjunction	-11044 Oct 08 j 14:02	1°☾20'36	-0°50'26
conjunction	-11050 Sep 28 j 06:38	20°☾23'08	2°23'46	minimum elong	-11044 Oct 08 j 14:00	1°☾20'36	0°49'52
minimum elong	-11050 Sep 28 j 06:43	20°☾23'09	2°24'21	max. Earth dist.	-11044 Oct 11 j 22:13	1°☾27'07	35.78610 AU
max. Earth dist.	-11050 Oct 01 j 05:17	20°☾29'11	34.33461 AU	morning rise	-11044 Oct 24 j 00:05	1°☾50'23	
morning rise	-11050 Oct 13 j 11:02	20°☾54'00		retrograde	-11043 Jan 21 j 14:00	3°☾29'46	
retrograde	-11049 Jan 11 j 10:33	22°☾39'03		min. Earth dist.	-11043 Apr 10 j 14:51	2°☾19'29	33.91306 AU
min. Earth dist.	-11049 Mar 31 j 04:03	21°☾26'21	32.45155 AU	opposition	-11043 Apr 13 j 22:27	2°☾14'44	-1°10'05
opposition	-11049 Apr 03 j 04:00	21°☾21'56	2°14'36	direct	-11043 Jul 02 j 09:34	1°☾01'36	
direct	-11049 Jun 21 j 11:00	20°☾06'28		evening set	-11043 Sep 25 j 06:59	2°☾35'46	
evening set	-11049 Sep 15 j 05:50	21°☾46'20					
				conjunction	-11043 Oct 10 j 13:07	3°☾05'00	-1°21'14
conjunction	-11049 Sep 30 j 09:25	22°☾16'52	1°50'27	minimum elong	-11043 Oct 10 j 13:04	3°☾05'00	1°20'42
minimum elong	-11049 Sep 30 j 09:29	22°☾16'53	1°51'01	max. Earth dist.	-11043 Oct 13 j 21:30	3°☾11'28	36.03991 AU
max. Earth dist.	-11049 Oct 03 j 10:42	22°☾23'04	34.56666 AU	morning rise	-11043 Oct 25 j 22:41	3°☾34'30	

Attention, astronomical year style is used: The year -11042 in astronomical counting style is the year 11043 BCE in historical counting style.

retrograde	-11042 Jan 23 j 15:42	5°Ω13'09		conjunction	-11036 Oct 21 j 18:40	14°Ω38'57	-4°42'12
min. Earth dist.	-11042 Apr 12 j 14:35	4°Ω03'16	34.16841 AU	minimum elong	-11036 Oct 21 j 18:31	14°Ω38'57	4°41'43
opposition	-11042 Apr 15 j 23:17	3°Ω58'29	-1°42'25	max. Earth dist.	-11036 Oct 25 j 06:27	14°Ω45'21	37.83411 AU
direct	-11042 Jul 04 j 08:21	2°Ω45'45			-11036 Nov 02 j 08:06	15°Ω	
evening set	-11042 Sep 27 j 06:45	4°Ω19'10		morning rise	-11036 Nov 05 j 13:18	15°Ω05'46	
				retrograde	-11035 Feb 03 j 17:58	16°Ω40'13	
conjunction	-11042 Oct 12 j 11:59	4°Ω48'06	-1°51'33	min. Earth dist.	-11035 Apr 24 j 01:00	15°Ω32'32	35.97046 AU
minimum elong	-11042 Oct 12 j 11:55	4°Ω48'06	1°51'01	opposition	-11035 Apr 27 j 12:16	15°Ω27'46	-5°12'13
max. Earth dist.	-11042 Oct 15 j 22:17	4°Ω54'40	36.29555 AU		-11035 May 18 j 04:56	15°Ω	
morning rise	-11042 Oct 27 j 20:22	5°Ω17'17		direct	-11035 Jul 16 j 00:59	14°Ω17'21	
retrograde	-11041 Jan 25 j 14:55	6°Ω55'14			-11035 Sep 10 j 08:38	15°Ω	
min. Earth dist.	-11041 Apr 14 j 14:55	5°Ω45'41	34.42523 AU	evening set	-11035 Oct 09 j 01:56	15°Ω46'36	
opposition	-11041 Apr 17 j 23:29	5°Ω40'57	-2°14'10				
direct	-11041 Jul 06 j 08:54	4°Ω28'36		conjunction	-11035 Oct 23 j 14:00	16°Ω12'43	-5°08'40
evening set	-11041 Sep 29 j 06:32	6°Ω01'19		minimum elong	-11035 Oct 23 j 13:50	16°Ω12'42	5°08'13
				max. Earth dist.	-11035 Oct 27 j 03:27	16°Ω19'10	38.09101 AU
conjunction	-11041 Oct 14 j 10:17	6°Ω29'55	-2°21'21	morning rise	-11035 Nov 07 j 05:01	16°Ω39'04	
minimum elong	-11041 Oct 14 j 10:12	6°Ω29'54	2°20'50	retrograde	-11034 Feb 05 j 12:21	18°Ω13'03	
max. Earth dist.	-11041 Oct 17 j 20:10	6°Ω36'24	36.55218 AU	min. Earth dist.	-11034 Apr 25 j 21:34	17°Ω05'37	36.22923 AU
morning rise	-11041 Oct 29 j 17:21	6°Ω58'45		opposition	-11034 Apr 29 j 08:25	17°Ω00'54	-5°39'42
retrograde	-11040 Jan 27 j 14:22	8°Ω36'03		direct	-11034 Jul 17 j 21:36	15°Ω50'47	
min. Earth dist.	-11040 Apr 15 j 13:05	7°Ω26'55	34.68283 AU	evening set	-11034 Oct 11 j 00:36	17°Ω19'35	
opposition	-11040 Apr 18 j 23:05	7°Ω22'07	-2°45'21				
direct	-11040 Jul 07 j 08:08	6°Ω10'08		conjunction	-11034 Oct 25 j 08:54	17°Ω45'14	-5°34'33
evening set	-11040 Sep 30 j 06:17	7°Ω42'12		minimum elong	-11034 Oct 25 j 08:44	17°Ω45'13	5°34'05
				max. Earth dist.	-11034 Oct 28 j 21:58	17°Ω51'37	38.34889 AU
conjunction	-11040 Oct 15 j 08:14	8°Ω10'26	-2°50'37	morning rise	-11034 Nov 08 j 20:11	18°Ω11'07	
minimum elong	-11040 Oct 15 j 08:08	8°Ω10'25	2°50'06	retrograde	-11033 Feb 07 j 07:44	19°Ω44'41	
max. Earth dist.	-11040 Oct 18 j 19:18	8°Ω16'57	36.80895 AU	min. Earth dist.	-11033 Apr 27 j 15:38	18°Ω37'37	36.48911 AU
morning rise	-11040 Oct 30 j 13:28	8°Ω38'54		opposition	-11033 May 01 j 03:59	18°Ω32'49	-6°06'33
retrograde	-11039 Jan 28 j 10:06	10°Ω15'34		direct	-11033 Jul 19 j 17:55	17°Ω23'01	
min. Earth dist.	-11039 Apr 17 j 12:50	9°Ω06'42	34.94048 AU	evening set	-11033 Oct 12 j 23:06	18°Ω51'25	
opposition	-11039 Apr 20 j 22:04	9°Ω01'58	-3°15'57				
direct	-11039 Jul 09 j 09:46	7°Ω50'20		conjunction	-11033 Oct 27 j 03:25	19°Ω16'36	-5°59'50
evening set	-11039 Oct 02 j 05:47	9°Ω21'46		minimum elong	-11033 Oct 27 j 03:14	19°Ω16'35	5°59'24
				max. Earth dist.	-11033 Oct 30 j 17:36	19°Ω23'02	38.60758 AU
conjunction	-11039 Oct 17 j 05:41	9°Ω49'37	-3°19'21	morning rise	-11033 Nov 10 j 10:43	19°Ω42'00	
minimum elong	-11039 Oct 17 j 05:34	9°Ω49'36	3°18'51	retrograde	-11032 Feb 09 j 01:03	21°Ω15'12	
max. Earth dist.	-11039 Oct 20 j 16:37	9°Ω56'05	37.06560 AU	min. Earth dist.	-11032 Apr 28 j 11:31	20°Ω08'22	36.74975 AU
morning rise	-11039 Nov 01 j 08:41	10°Ω17'42		opposition	-11032 May 01 j 23:14	20°Ω03'38	-6°32'45
retrograde	-11038 Jan 30 j 06:00	11°Ω53'45		direct	-11032 Jul 20 j 14:41	18°Ω54'09	
min. Earth dist.	-11038 Apr 19 j 10:07	10°Ω45'15	35.19788 AU	evening set	-11032 Oct 13 j 21:28	20°Ω22'13	
opposition	-11038 Apr 22 j 20:28	10°Ω40'28	-3°45'56				
direct	-11038 Jul 11 j 10:12	9°Ω29'10		conjunction	-11032 Oct 27 j 21:37	20°Ω46'55	-6°24'32
evening set	-11038 Oct 04 j 05:05	10°Ω59'59		minimum elong	-11032 Oct 27 j 21:26	20°Ω46'54	6°24'06
				max. Earth dist.	-11032 Oct 31 j 11:56	20°Ω53'18	38.86684 AU
conjunction	-11038 Oct 19 j 02:23	11°Ω27'26	-3°47'32	morning rise	-11032 Nov 11 j 00:26	21°Ω11'49	
minimum elong	-11038 Oct 19 j 02:15	11°Ω27'25	3°47'01	retrograde	-11031 Feb 09 j 17:22	22°Ω44'40	
max. Earth dist.	-11038 Oct 22 j 13:40	11°Ω33'53	37.32177 AU	min. Earth dist.	-11031 Apr 30 j 05:09	21°Ω38'13	37.01065 AU
morning rise	-11038 Nov 03 j 03:01	11°Ω55'07		opposition	-11031 May 03 j 17:43	21°Ω33'27	-6°58'19
retrograde	-11037 Feb 01 j 01:48	13°Ω30'37		direct	-11031 Jul 22 j 10:54	20°Ω24'17	
min. Earth dist.	-11037 Apr 21 j 08:25	12°Ω22'21	35.45517 AU	evening set	-11031 Oct 15 j 19:48	21°Ω52'02	
opposition	-11037 Apr 24 j 18:29	12°Ω17'36	-4°15'19				
direct	-11037 Jul 13 j 08:03	11°Ω06'37		conjunction	-11031 Oct 29 j 15:17	22°Ω16'14	-6°48'38
evening set	-11037 Oct 06 j 04:11	12°Ω36'52		minimum elong	-11031 Oct 29 j 15:05	22°Ω16'13	6°48'14
				max. Earth dist.	-11031 Nov 02 j 05:27	22°Ω22'34	39.12600 AU
conjunction	-11037 Oct 20 j 22:52	13°Ω03'53	-4°15'09	morning rise	-11031 Nov 12 j 13:40	22°Ω40'38	
minimum elong	-11037 Oct 20 j 22:43	13°Ω03'52	4°14'40	retrograde	-11030 Feb 11 j 11:00	24°Ω13'13	
max. Earth dist.	-11037 Oct 24 j 11:10	13°Ω10'21	37.57787 AU	min. Earth dist.	-11030 May 01 j 23:46	23°Ω07'02	37.27141 AU
morning rise	-11037 Nov 04 j 20:31	13°Ω31'08		opposition	-11030 May 05 j 12:04	23°Ω02'18	-7°23'15
	-11036 Jan 12 j 13:00	15°Ω		direct	-11030 Jul 24 j 04:19	21°Ω53'28	
retrograde	-11036 Feb 02 j 20:18	15°Ω06'05		evening set	-11030 Oct 17 j 17:49	23°Ω20'56	
	-11036 Feb 24 j 14:13	15°Ω					
min. Earth dist.	-11036 Apr 22 j 05:08	13°Ω58'07	35.71248 AU	conjunction	-11030 Oct 31 j 08:41	23°Ω44'38	-7°12'10
opposition	-11036 Apr 25 j 15:34	13°Ω53'22	-4°44'05	minimum elong	-11030 Oct 31 j 08:29	23°Ω44'38	7°11'45
direct	-11036 Jul 14 j 06:23	12°Ω42'40		max. Earth dist.	-11030 Nov 03 j 23:51	23°Ω51'00	39.38458 AU
evening set	-11036 Oct 07 j 03:16	14°Ω12'23		morning rise	-11030 Nov 14 j 02:04	24°Ω08'32	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 28

Attention, astronomical year style is used: The year -11029 in astronomical counting style is the year 11030 BCE in historical counting style.

retrograde	-11029 Feb 13 j 04:05	25° $\Omega$ 40'51		evening set	-11023 Oct 29 j 02:26	3° $\Upsilon$ 18'07	
min. Earth dist.	-11029 May 03 j 18:02	24° $\Omega$ 34'57	37.53107 AU				
opposition	-11029 May 07 j 05:54	24° $\Omega$ 30'16	-7°47'34	conjunction	-11023 Nov 10 j 01:19	3° $\Upsilon$ 38'03	-9°41'13
direct	-11029 Jul 25 j 22:08	23° $\Omega$ 21'45		minimum elong	-11023 Nov 10 j 01:04	3° $\Upsilon$ 38'01	9°40'54
evening set	-11029 Oct 19 j 16:06	24° $\Omega$ 48'59		max. Earth dist.	-11023 Nov 13 j 14:18	3° $\Upsilon$ 43'58	41.13345 AU
				morning rise	-11023 Nov 22 j 02:02	3° $\Upsilon$ 58'06	
conjunction	-11029 Nov 02 j 01:49	25° $\Omega$ 12'10	-7°35'07	retrograde	-11022 Feb 22 j 17:26	5° $\Upsilon$ 29'07	
minimum elong	-11029 Nov 02 j 01:36	25° $\Omega$ 12'09	7°34'44	min. Earth dist.	-11022 May 13 j 14:17	4° $\Upsilon$ 24'44	39.28596 AU
max. Earth dist.	-11029 Nov 05 j 15:43	25° $\Omega$ 18'24	39.64168 AU	opposition	-11022 May 16 j 23:01	4° $\Upsilon$ 20'21	-10°20'58
morning rise	-11029 Nov 15 j 14:13	25° $\Omega$ 35'32		direct	-11022 Aug 04 j 17:51	3° $\Upsilon$ 13'37	
retrograde	-11028 Feb 14 j 23:30	27° $\Omega$ 07'37		evening set	-11022 Oct 30 j 23:38	4° $\Upsilon$ 39'43	
min. Earth dist.	-11028 May 04 j 11:01	26° $\Omega$ 02'01	37.78910 AU				
opposition	-11028 May 07 j 23:13	25° $\Omega$ 57'20	-8°11'15	conjunction	-11022 Nov 11 j 15:51	4° $\Upsilon$ 59'04	-10°00'17
direct	-11028 Jul 26 j 13:17	24° $\Omega$ 49'07		minimum elong	-11022 Nov 11 j 15:37	4° $\Upsilon$ 59'03	9°59'59
evening set	-11028 Oct 20 j 14:12	26° $\Omega$ 16'09		max. Earth dist.	-11022 Nov 15 j 03:47	5° $\Upsilon$ 04'53	41.37560 AU
				morning rise	-11022 Nov 23 j 09:53	5° $\Upsilon$ 18'33	
conjunction	-11028 Nov 02 j 18:44	26° $\Omega$ 38'49	-7°57'31	retrograde	-11021 Feb 24 j 09:34	6° $\Upsilon$ 49'28	
minimum elong	-11028 Nov 02 j 18:31	26° $\Omega$ 38'48	7°57'08	min. Earth dist.	-11021 May 15 j 03:59	5° $\Upsilon$ 45'21	39.52961 AU
max. Earth dist.	-11028 Nov 06 j 09:13	26° $\Omega$ 45'02	39.89662 AU	opposition	-11021 May 18 j 13:35	5° $\Upsilon$ 40'57	-10°40'30
morning rise	-11028 Nov 16 j 01:43	27° $\Omega$ 01'39		direct	-11021 Aug 06 j 06:55	4° $\Upsilon$ 34'26	
retrograde	-11027 Feb 15 j 15:35	28° $\Omega$ 33'31		evening set	-11021 Nov 01 j 20:47	6° $\Upsilon$ 00'29	
min. Earth dist.	-11027 May 06 j 05:36	27° $\Omega$ 28'06	38.04468 AU				
opposition	-11027 May 09 j 16:17	27° $\Omega$ 23'32	-8°34'21	conjunction	-11021 Nov 13 j 06:14	6° $\Upsilon$ 19'15	-10°18'48
direct	-11027 Jul 28 j 07:06	26° $\Omega$ 15'36		minimum elong	-11021 Nov 13 j 05:59	6° $\Upsilon$ 19'14	10°18'30
evening set	-11027 Oct 22 j 12:05	27° $\Omega$ 42'26		max. Earth dist.	-11021 Nov 16 j 18:36	6° $\Upsilon$ 25'04	41.61672 AU
				morning rise	-11021 Nov 24 j 17:27	6° $\Upsilon$ 38'09	
conjunction	-11027 Nov 04 j 11:07	28° $\Omega$ 04'34	-8°19'21	retrograde	-11020 Feb 25 j 22:03	8° $\Upsilon$ 08'59	
minimum elong	-11027 Nov 04 j 10:53	28° $\Omega$ 04'33	8°19'00	min. Earth dist.	-11020 May 15 j 19:27	7° $\Upsilon$ 05'03	39.77227 AU
max. Earth dist.	-11027 Nov 08 j 00:30	28° $\Omega$ 10'40	40.14899 AU	opposition	-11020 May 19 j 03:45	7° $\Upsilon$ 00'43	-10°59'27
morning rise	-11027 Nov 17 j 12:27	28° $\Omega$ 26'52		direct	-11020 Aug 06 j 23:11	5° $\Upsilon$ 54'27	
retrograde	-11026 Feb 17 j 06:58	29° $\Omega$ 58'31		evening set	-11020 Nov 02 j 17:52	7° $\Upsilon$ 20'28	
min. Earth dist.	-11026 May 07 j 21:42	28° $\Omega$ 53'23	38.29751 AU				
opposition	-11026 May 11 j 08:53	28° $\Omega$ 48'48	-8°56'52	conjunction	-11020 Nov 13 j 20:22	7° $\Upsilon$ 38'39	-10°36'46
direct	-11026 Jul 30 j 01:56	27° $\Omega$ 41'08		minimum elong	-11020 Nov 13 j 20:08	7° $\Upsilon$ 38'39	10°36'29
evening set	-11026 Oct 24 j 09:56	29° $\Omega$ 07'47		max. Earth dist.	-11020 Nov 17 j 08:29	7° $\Upsilon$ 44'26	41.85690 AU
				morning rise	-11020 Nov 25 j 00:19	7° $\Upsilon$ 56'57	
conjunction	-11026 Nov 06 j 03:12	29° $\Omega$ 29'23	-8°40'39	retrograde	-11019 Feb 26 j 09:27	9° $\Upsilon$ 27'45	
minimum elong	-11026 Nov 06 j 02:58	29° $\Omega$ 29'22	8°40'17	min. Earth dist.	-11019 May 17 j 08:51	8° $\Upsilon$ 24'05	40.01371 AU
max. Earth dist.	-11026 Nov 09 j 16:21	29° $\Omega$ 35'26	40.39849 AU	opposition	-11019 May 20 j 17:32	8° $\Upsilon$ 19'44	-11°17'49
morning rise	-11026 Nov 18 j 22:51	29° $\Omega$ 51'07		direct	-11019 Aug 08 j 15:41	7° $\Upsilon$ 13'43	
	-11026 Nov 24 j 07:06	0° $\Upsilon$		evening set	-11019 Nov 04 j 14:44	8° $\Upsilon$ 39'44	
retrograde	-11025 Feb 18 j 21:21	1° $\Upsilon$ 22'36					
min. Earth dist.	-11025 May 09 j 15:12	0° $\Upsilon$ 17'38	38.54770 AU	conjunction	-11019 Nov 15 j 09:53	8° $\Upsilon$ 57'20	-10°54'11
opposition	-11025 May 13 j 01:08	0° $\Upsilon$ 13'08	-9°18'47	minimum elong	-11019 Nov 15 j 09:38	8° $\Upsilon$ 57'19	10°53'55
	-11025 May 23 j 01:51	30° $\kappa$ $\delta$		max. Earth dist.	-11019 Nov 18 j 21:20	9° $\Upsilon$ 03'02	42.09562 AU
direct	-11025 Jul 31 j 19:37	29° $\Omega$ 05'43		morning rise	-11019 Nov 26 j 06:41	9° $\Upsilon$ 15'02	
	-11025 Oct 06 j 00:45	0° $\Upsilon$		retrograde	-11018 Feb 27 j 22:35	10° $\Upsilon$ 45'50	
evening set	-11025 Oct 26 j 07:33	0° $\Upsilon$ 32'11		min. Earth dist.	-11018 May 18 j 23:06	9° $\Upsilon$ 42'22	40.25365 AU
				opposition	-11018 May 22 j 07:11	9° $\Upsilon$ 38'05	-11°35'37
conjunction	-11025 Nov 07 j 19:02	0° $\Upsilon$ 53'14	-9°01'23	direct	-11018 Aug 10 j 05:28	8° $\Upsilon$ 32'18	
minimum elong	-11025 Nov 07 j 18:47	0° $\Upsilon$ 53'13	9°01'03	evening set	-11018 Nov 06 j 11:38	9° $\Upsilon$ 58'20	
max. Earth dist.	-11025 Nov 11 j 08:08	0° $\Upsilon$ 59'15	40.64550 AU				
morning rise	-11025 Nov 20 j 08:29	1° $\Upsilon$ 14'25		conjunction	-11018 Nov 16 j 23:32	10° $\Upsilon$ 15'21	-11°11'05
retrograde	-11024 Feb 20 j 10:29	2° $\Upsilon$ 45'43		minimum elong	-11018 Nov 16 j 23:18	10° $\Upsilon$ 15'20	11°10'50
min. Earth dist.	-11024 May 10 j 07:02	1° $\Upsilon$ 40'59	38.79540 AU	max. Earth dist.	-11018 Nov 20 j 11:28	10° $\Upsilon$ 21'02	42.33257 AU
opposition	-11024 May 13 j 16:49	1° $\Upsilon$ 36'30	-9°40'06	morning rise	-11018 Nov 27 j 12:42	10° $\Upsilon$ 32'27	
direct	-11024 Aug 01 j 13:22	0° $\Upsilon$ 29'19		retrograde	-11017 Mar 01 j 10:26	12° $\Upsilon$ 03'15	
evening set	-11024 Oct 27 j 05:10	1° $\Upsilon$ 55'38		min. Earth dist.	-11017 May 20 j 13:13	10° $\Upsilon$ 59'58	40.49133 AU
				opposition	-11017 May 23 j 20:19	10° $\Upsilon$ 55'45	-11°52'53
conjunction	-11024 Nov 08 j 10:17	2° $\Upsilon$ 16'06	-9°21'35	direct	-11017 Aug 11 j 19:50	9° $\Upsilon$ 50'13	
minimum elong	-11024 Nov 08 j 10:04	2° $\Upsilon$ 16'05	9°21'15	evening set	-11017 Nov 08 j 08:44	11° $\Upsilon$ 16'17	
max. Earth dist.	-11024 Nov 11 j 22:17	2° $\Upsilon$ 22'00	40.89023 AU				
morning rise	-11024 Nov 20 j 17:36	2° $\Upsilon$ 36'44		conjunction	-11017 Nov 18 j 12:52	11° $\Upsilon$ 32'42	-11°27'29
retrograde	-11023 Feb 21 j 02:14	4° $\Upsilon$ 07'53		minimum elong	-11017 Nov 18 j 12:38	11° $\Upsilon$ 32'41	11°27'14
min. Earth dist.	-11023 May 11 j 22:27	3° $\Upsilon$ 03'20	39.04136 AU	max. Earth dist.	-11017 Nov 21 j 23:02	11° $\Upsilon$ 38'14	42.56700 AU
opposition	-11023 May 15 j 08:05	2° $\Upsilon$ 58'54	-10°00'50	morning rise	-11017 Nov 28 j 18:20	11° $\Upsilon$ 49'12	
direct	-11023 Aug 03 j 03:32	1° $\Upsilon$ 51'56		retrograde	-11016 Mar 02 j 02:01	13° $\Upsilon$ 20'02	

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 29

Attention, astronomical year style is used: The year -11016 in astronomical counting style is the year 11017 BCE in historical counting style.

min. Earth dist.	-11016 May 21 j 02:13	12° $\mathring{M}$ 16'58	40.72624 AU	max. Earth dist.	-11010 Nov 30 j 08:32	20° $\mathring{M}$ 20'04	44.11169 AU
opposition	-11016 May 24 j 09:15	12° $\mathring{M}$ 12'46	-12°09'36	morning rise	-11010 Dec 04 j 19:33	20° $\mathring{M}$ 27'01	
direct	-11016 Aug 12 j 06:37	11° $\mathring{M}$ 07'28		retrograde	-11009 Mar 11 j 11:38	21° $\mathring{M}$ 58'30	
evening set	-11016 Nov 09 j 05:41	12° $\mathring{M}$ 33'36		min. Earth dist.	-11009 May 30 j 18:10	20° $\mathring{M}$ 56'27	42.27307 AU
				opposition	-11009 Jun 02 j 19:37	20° $\mathring{M}$ 52'39	-13°52'35
conjunction	-11016 Nov 19 j 02:02	12° $\mathring{M}$ 49'25	-11°43'23	direct	-11009 Aug 21 j 21:11	19° $\mathring{M}$ 48'37	
minimum elong	-11016 Nov 19 j 01:48	12° $\mathring{M}$ 49'24	11°43'10	evening set	-11009 Nov 21 j 08:51	21° $\mathring{M}$ 15'45	
max. Earth dist.	-11016 Nov 22 j 12:23	12° $\mathring{M}$ 54'56	42.79817 AU				
morning rise	-11016 Nov 28 j 23:33	13° $\mathring{M}$ 05'18		conjunction	-11009 Nov 28 j 14:43	21° $\mathring{M}$ 27'00	-13°21'23
retrograde	-11015 Mar 03 j 15:51	14° $\mathring{M}$ 36'10		minimum elong	-11009 Nov 28 j 14:31	21° $\mathring{M}$ 26'59	13°21'14
min. Earth dist.	-11015 May 22 j 16:48	13° $\mathring{M}$ 33'13	40.95760 AU	max. Earth dist.	-11009 Dec 01 j 19:39	21° $\mathring{M}$ 31'58	44.32153 AU
opposition	-11015 May 25 j 21:55	13° $\mathring{M}$ 29'09	-12°25'48	morning rise	-11009 Dec 05 j 21:05	21° $\mathring{M}$ 38'15	
direct	-11015 Aug 13 j 18:42	12° $\mathring{M}$ 24'03		retrograde	-11008 Mar 11 j 22:13	23° $\mathring{M}$ 09'57	
evening set	-11015 Nov 11 j 02:45	13° $\mathring{M}$ 50'16		min. Earth dist.	-11008 May 31 j 06:20	22° $\mathring{M}$ 08'02	42.48377 AU
				opposition	-11008 Jun 03 j 06:23	22° $\mathring{M}$ 04'18	-14°05'18
conjunction	-11015 Nov 20 j 14:59	14° $\mathring{M}$ 05'28	-11°58'48	direct	-11008 Aug 22 j 08:28	21° $\mathring{M}$ 00'28	
minimum elong	-11015 Nov 20 j 14:44	14° $\mathring{M}$ 05'27	11°58'34	evening set	-11008 Nov 22 j 06:13	22° $\mathring{M}$ 27'53	
max. Earth dist.	-11015 Nov 23 j 23:53	14° $\mathring{M}$ 10'51	43.02578 AU				
morning rise	-11015 Nov 30 j 04:10	14° $\mathring{M}$ 20'42		conjunction	-11008 Nov 29 j 01:53	22° $\mathring{M}$ 38'25	-13°33'29
retrograde	-11014 Mar 05 j 03:29	15° $\mathring{M}$ 51'38		minimum elong	-11008 Nov 29 j 01:39	22° $\mathring{M}$ 38'24	13°33'22
min. Earth dist.	-11014 May 24 j 05:02	14° $\mathring{M}$ 48'54	41.18514 AU	max. Earth dist.	-11008 Dec 02 j 06:37	22° $\mathring{M}$ 43'22	44.52957 AU
opposition	-11014 May 27 j 10:16	14° $\mathring{M}$ 44'50	-12°41'31	morning rise	-11008 Dec 05 j 21:46	22° $\mathring{M}$ 48'58	
direct	-11014 Aug 15 j 08:23	13° $\mathring{M}$ 39'56		retrograde	-11007 Mar 13 j 05:38	24° $\mathring{M}$ 20'54	
evening set	-11014 Nov 12 j 23:38	15° $\mathring{M}$ 06'15		min. Earth dist.	-11007 Jun 01 j 16:46	23° $\mathring{M}$ 19'12	42.69240 AU
				opposition	-11007 Jun 04 j 16:42	23° $\mathring{M}$ 15'28	-14°17'31
conjunction	-11014 Nov 22 j 03:31	15° $\mathring{M}$ 20'48	-12°13'45	direct	-11007 Aug 23 j 21:44	22° $\mathring{M}$ 11'51	
minimum elong	-11014 Nov 22 j 03:17	15° $\mathring{M}$ 20'47	12°13'33	evening set	-11007 Nov 24 j 03:50	23° $\mathring{M}$ 39'34	
max. Earth dist.	-11014 Nov 25 j 11:24	15° $\mathring{M}$ 26'06	43.24942 AU				
morning rise	-11014 Dec 01 j 08:26	15° $\mathring{M}$ 35'25		conjunction	-11007 Nov 30 j 12:41	23° $\mathring{M}$ 49'22	-13°45'08
retrograde	-11013 Mar 06 j 13:54	17° $\mathring{M}$ 06'25		minimum elong	-11007 Nov 30 j 12:30	23° $\mathring{M}$ 49'21	13°45'01
min. Earth dist.	-11013 May 25 j 18:53	16° $\mathring{M}$ 03'47	41.40883 AU	max. Earth dist.	-11007 Dec 03 j 15:56	23° $\mathring{M}$ 54'12	44.73550 AU
opposition	-11013 May 28 j 22:30	15° $\mathring{M}$ 59'48	-12°56'43	morning rise	-11007 Dec 06 j 21:51	23° $\mathring{M}$ 59'11	
direct	-11013 Aug 16 j 22:37	14° $\mathring{M}$ 55'06		retrograde	-11006 Mar 14 j 16:20	25° $\mathring{M}$ 31'25	
evening set	-11013 Nov 14 j 20:41	16° $\mathring{M}$ 21'31		min. Earth dist.	-11006 Jun 03 j 03:37	24° $\mathring{M}$ 29'53	42.89887 AU
				opposition	-11006 Jun 06 j 02:57	24° $\mathring{M}$ 26'12	-14°29'16
conjunction	-11013 Nov 23 j 16:03	16° $\mathring{M}$ 35'26	-12°28'13	direct	-11006 Aug 25 j 07:49	23° $\mathring{M}$ 22'47	
minimum elong	-11013 Nov 23 j 15:49	16° $\mathring{M}$ 35'25	12°28'01	evening set	-11006 Nov 26 j 01:47	24° $\mathring{M}$ 50'52	
max. Earth dist.	-11013 Nov 26 j 23:43	16° $\mathring{M}$ 40'42	43.46939 AU				
morning rise	-11013 Dec 02 j 12:08	16° $\mathring{M}$ 49'24		conjunction	-11006 Dec 01 j 23:29	24° $\mathring{M}$ 59'54	-13°56'20
retrograde	-11012 Mar 06 j 23:08	18° $\mathring{M}$ 20'28		minimum elong	-11006 Dec 01 j 23:16	24° $\mathring{M}$ 59'53	13°56'14
min. Earth dist.	-11012 May 26 j 07:19	17° $\mathring{M}$ 17'59	41.62882 AU	max. Earth dist.	-11006 Dec 05 j 03:07	25° $\mathring{M}$ 04'44	44.93898 AU
opposition	-11012 May 29 j 10:06	17° $\mathring{M}$ 14'03	-13°11'26	morning rise	-11006 Dec 07 j 21:17	25° $\mathring{M}$ 08'57	
direct	-11012 Aug 17 j 12:50	16° $\mathring{M}$ 09'31		retrograde	-11005 Mar 16 j 03:07	26° $\mathring{M}$ 41'32	
evening set	-11012 Nov 15 j 17:44	17° $\mathring{M}$ 36'04		min. Earth dist.	-11005 Jun 04 j 15:14	25° $\mathring{M}$ 40'07	43.10240 AU
				opposition	-11005 Jun 07 j 12:58	25° $\mathring{M}$ 36'32	-14°40'34
conjunction	-11012 Nov 24 j 04:05	17° $\mathring{M}$ 49'19	-12°42'14	direct	-11005 Aug 26 j 17:19	24° $\mathring{M}$ 33'19	
minimum elong	-11012 Nov 24 j 03:51	17° $\mathring{M}$ 49'18	12°42'04	evening set	-11005 Nov 28 j 00:34	26° $\mathring{M}$ 01'49	
max. Earth dist.	-11012 Nov 27 j 10:03	17° $\mathring{M}$ 54'27	43.68598 AU				
morning rise	-11012 Dec 02 j 15:13	18° $\mathring{M}$ 02'39		conjunction	-11005 Dec 03 j 10:10	26° $\mathring{M}$ 10'03	-14°07'07
retrograde	-11011 Mar 08 j 11:43	19° $\mathring{M}$ 33'49		minimum elong	-11005 Dec 03 j 09:58	26° $\mathring{M}$ 10'02	14°07'02
min. Earth dist.	-11011 May 27 j 19:05	18° $\mathring{M}$ 31'29	41.84591 AU	max. Earth dist.	-11005 Dec 06 j 11:56	26° $\mathring{M}$ 14'44	45.13932 AU
opposition	-11011 May 30 j 21:36	18° $\mathring{M}$ 27'35	-13°25'39	morning rise	-11005 Dec 08 j 19:51	26° $\mathring{M}$ 18'17	
direct	-11011 Aug 18 j 23:22	17° $\mathring{M}$ 23'13		retrograde	-11004 Mar 16 j 15:31	27° $\mathring{M}$ 51'15	
evening set	-11011 Nov 17 j 14:31	18° $\mathring{M}$ 49'55		min. Earth dist.	-11004 Jun 05 j 00:58	26° $\mathring{M}$ 50'03	43.30248 AU
				opposition	-11004 Jun 07 j 22:36	26° $\mathring{M}$ 46'29	-14°51'25
conjunction	-11011 Nov 25 j 15:47	19° $\mathring{M}$ 02'31	-12°55'46	direct	-11004 Aug 27 j 01:11	25° $\mathring{M}$ 43'27	
minimum elong	-11011 Nov 25 j 15:34	19° $\mathring{M}$ 02'30	12°55'35	evening set	-11004 Nov 28 j 23:54	27° $\mathring{M}$ 12'24	
max. Earth dist.	-11011 Nov 28 j 22:15	19° $\mathring{M}$ 07'38	43.89989 AU				
morning rise	-11011 Dec 03 j 17:39	19° $\mathring{M}$ 15'10		conjunction	-11004 Dec 03 j 20:41	27° $\mathring{M}$ 19'48	-14°17'29
retrograde	-11010 Mar 09 j 23:10	20° $\mathring{M}$ 46'29		minimum elong	-11004 Dec 03 j 20:28	27° $\mathring{M}$ 19'47	14°17'24
min. Earth dist.	-11010 May 29 j 07:44	19° $\mathring{M}$ 44'14	42.06048 AU	max. Earth dist.	-11004 Dec 06 j 21:46	27° $\mathring{M}$ 24'26	45.33579 AU
opposition	-11010 Jun 01 j 08:50	19° $\mathring{M}$ 40'26	-13°39'22	morning rise	-11004 Dec 08 j 17:27	27° $\mathring{M}$ 27'11	
direct	-11010 Aug 20 j 10:43	18° $\mathring{M}$ 36'14		retrograde	-11003 Mar 18 j 01:45	29° $\mathring{M}$ 00'34	
evening set	-11010 Nov 19 j 11:40	20° $\mathring{M}$ 03'07		min. Earth dist.	-11003 Jun 06 j 12:48	27° $\mathring{M}$ 59'27	43.49843 AU
				opposition	-11003 Jun 09 j 08:18	27° $\mathring{M}$ 56'01	-15°01'52
conjunction	-11010 Nov 27 j 03:22	20° $\mathring{M}$ 15'03	-13°08'49	direct	-11003 Aug 28 j 11:38	26° $\mathring{M}$ 53'09	
minimum elong	-11010 Nov 27 j 03:08	20° $\mathring{M}$ 15'02	13°08'39	evening set	-11003 Dec 01 j 00:26	28° $\mathring{M}$ 22'39	

Attention, astronomical year style is used: The year -11003 in astronomical counting style is the year 11004 BCE in historical counting style.

conjunction	-11003 Dec 05 j 06:59	28° <u>0</u> 29'08	-14°27'27	conjunction	-10996 Dec 13 j 02:22	6° <u>0</u> 20'01	-15°26'26
minimum elong	-11003 Dec 05 j 06:48	28° <u>0</u> 29'07	14°27'23	minimum elong	-10996 Dec 13 j 02:13	6° <u>0</u> 20'01	15°26'27
max. Earth dist.	-11003 Dec 08 j 07:01	28° <u>0</u> 33'41	45.52801 AU	max. Earth dist.	-10996 Dec 15 j 19:32	6° <u>0</u> 24'02	46.76059 AU
morning rise	-11003 Dec 09 j 13:27	28° <u>0</u> 35'36		retrograde	-10995 Mar 26 j 19:34	7° <u>0</u> 57'29	
	-11002 Feb 18 j 08:18	0° <u>0</u>		min. Earth dist.	-10995 Jun 15 j 18:04	6° <u>0</u> 57'08	44.91939 AU
retrograde	-11002 Mar 19 j 09:30	0° <u>0</u> 09'28		opposition	-10995 Jun 18 j 05:33	6° <u>0</u> 54'09	-16°10'53
	-11002 Apr 17 j 16:24	30° <u>0</u> 08'00		direct	-10995 Sep 06 j 18:29	5° <u>0</u> 52'20	
min. Earth dist.	-11002 Jun 07 j 22:47	29° <u>0</u> 08'31	43.68972 AU				
opposition	-11002 Jun 10 j 17:42	29° <u>0</u> 05'06	-15°11'54	conjunction	-10995 Dec 14 j 11:04	7° <u>0</u> 25'25	-15°33'19
direct	-11002 Aug 29 j 23:44	28° <u>0</u> 02'24		minimum elong	-10995 Dec 14 j 10:54	7° <u>0</u> 25'24	15°33'20
evening set	-11002 Dec 03 j 02:37	29° <u>0</u> 32'33		max. Earth dist.	-10995 Dec 17 j 02:22	7° <u>0</u> 29'17	46.92482 AU
				retrograde	-10994 Mar 28 j 05:23	9° <u>0</u> 02'33	
conjunction	-11002 Dec 06 j 17:09	29° <u>0</u> 38'00	-14°37'03	min. Earth dist.	-10994 Jun 17 j 02:07	8° <u>0</u> 02'21	45.08326 AU
minimum elong	-11002 Dec 06 j 16:57	29° <u>0</u> 37'59	14°36'58	opposition	-10994 Jun 19 j 13:25	7° <u>0</u> 59'23	-16°17'42
morning rise	-11002 Dec 10 j 07:32	29° <u>0</u> 43'26		direct	-10994 Sep 08 j 01:13	6° <u>0</u> 57'42	
max. Earth dist.	-11002 Dec 09 j 15:12	29° <u>0</u> 42'24	45.71550 AU				
	-11002 Dec 21 j 10:08	0° <u>0</u>		conjunction	-10994 Dec 15 j 19:56	8° <u>0</u> 30'30	-15°39'49
retrograde	-11001 Mar 20 j 18:28	1° <u>0</u> 17'55		minimum elong	-10994 Dec 15 j 19:48	8° <u>0</u> 30'29	15°39'50
min. Earth dist.	-11001 Jun 09 j 09:23	0° <u>0</u> 17'02	43.87640 AU	max. Earth dist.	-10994 Dec 18 j 11:02	8° <u>0</u> 34'20	47.08600 AU
opposition	-11001 Jun 12 j 02:54	0° <u>0</u> 13'42	-15°21'32	retrograde	-10993 Mar 29 j 14:47	10° <u>0</u> 07'18	
	-11001 Jun 23 j 10:44	30° <u>0</u> 08'00		min. Earth dist.	-10993 Jun 18 j 11:52	9° <u>0</u> 07'10	45.24378 AU
direct	-11001 Aug 31 j 09:57	29° <u>0</u> 11'08		opposition	-10993 Jun 20 j 21:05	9° <u>0</u> 04'18	-16°24'09
	-11001 Nov 05 j 23:20	0° <u>0</u>		direct	-10993 Sep 09 j 08:10	8° <u>0</u> 02'47	
evening set	-11001 Dec 05 j 08:03	0° <u>0</u> 42'08					
				conjunction	-10993 Dec 17 j 04:46	9° <u>0</u> 35'18	-15°45'57
conjunction	-11001 Dec 08 j 03:19	0° <u>0</u> 46'20	-14°46'15	minimum elong	-10993 Dec 17 j 04:36	9° <u>0</u> 35'18	15°46'00
minimum elong	-11001 Dec 08 j 03:08	0° <u>0</u> 46'19	14°46'13	max. Earth dist.	-10993 Dec 19 j 18:23	9° <u>0</u> 39'03	47.24373 AU
morning rise	-11001 Dec 10 j 22:21	0° <u>0</u> 50'32		retrograde	-10992 Mar 29 j 23:46	11° <u>0</u> 11'47	
max. Earth dist.	-11001 Dec 11 j 01:07	0° <u>0</u> 50'42	45.89844 AU	min. Earth dist.	-10992 Jun 18 j 19:44	10° <u>0</u> 11'47	45.40040 AU
retrograde	-11000 Mar 21 j 01:35	2° <u>0</u> 25'50		opposition	-10992 Jun 21 j 04:33	10° <u>0</u> 08'58	-16°30'13
min. Earth dist.	-11000 Jun 09 j 19:58	1° <u>0</u> 25'00	44.05846 AU	direct	-10992 Sep 09 j 15:47	9° <u>0</u> 07'35	
opposition	-11000 Jun 12 j 11:53	1° <u>0</u> 21'46	-15°30'47				
direct	-11000 Aug 31 j 21:15	0° <u>0</u> 19'19		conjunction	-10992 Dec 17 j 13:16	10° <u>0</u> 39'51	-15°51'45
evening set	-11000 Dec 06 j 20:28	1° <u>0</u> 51'36		minimum elong	-10992 Dec 17 j 13:09	10° <u>0</u> 39'50	15°51'49
				max. Earth dist.	-10992 Dec 20 j 01:16	10° <u>0</u> 43'29	47.39713 AU
conjunction	-11000 Dec 08 j 13:00	1° <u>0</u> 54'08	-14°55'04	retrograde	-10991 Mar 31 j 07:22	12° <u>0</u> 16'01	
minimum elong	-11000 Dec 08 j 12:49	1° <u>0</u> 54'07	14°55'02	min. Earth dist.	-10991 Jun 20 j 05:06	11° <u>0</u> 16'06	45.55254 AU
morning rise	-11000 Dec 10 j 05:14	1° <u>0</u> 56'38		opposition	-10991 Jun 22 j 12:02	11° <u>0</u> 13'22	-16°35'57
max. Earth dist.	-11000 Dec 11 j 08:37	1° <u>0</u> 58'21	46.07714 AU	direct	-10991 Sep 11 j 00:06	10° <u>0</u> 12'07	
retrograde	-10999 Mar 22 j 12:53	3° <u>0</u> 33'11					
min. Earth dist.	-10999 Jun 11 j 04:52	2° <u>0</u> 32'29	44.23665 AU	conjunction	-10991 Dec 18 j 21:55	11° <u>0</u> 44'07	-15°57'14
opposition	-10999 Jun 13 j 20:33	2° <u>0</u> 29'16	-15°39'37	minimum elong	-10991 Dec 18 j 21:46	11° <u>0</u> 44'07	15°57'18
direct	-10999 Sep 02 j 04:16	1° <u>0</u> 26'56		max. Earth dist.	-10991 Dec 21 j 09:15	11° <u>0</u> 47'43	47.54592 AU
				retrograde	-10990 Apr 01 j 12:04	13° <u>0</u> 20'00	
conjunction	-10999 Dec 09 j 22:34	3° <u>0</u> 01'22	-15°03'30	min. Earth dist.	-10990 Jun 21 j 13:41	12° <u>0</u> 20'09	45.69964 AU
minimum elong	-10999 Dec 09 j 22:23	3° <u>0</u> 01'21	15°03'30	opposition	-10990 Jun 23 j 19:16	12° <u>0</u> 17'30	-16°41'22
max. Earth dist.	-10999 Dec 12 j 17:59	3° <u>0</u> 05'32	46.25222 AU	direct	-10990 Sep 12 j 10:32	11° <u>0</u> 16'22	
retrograde	-10998 Mar 23 j 23:21	4° <u>0</u> 40'00					
min. Earth dist.	-10998 Jun 12 j 15:24	3° <u>0</u> 39'19	44.41150 AU	conjunction	-10990 Dec 20 j 06:17	12° <u>0</u> 48'06	-16°02'24
opposition	-10998 Jun 15 j 05:07	3° <u>0</u> 36'12	-15°48'03	minimum elong	-10990 Dec 20 j 06:11	12° <u>0</u> 48'05	16°02'29
direct	-10998 Sep 03 j 11:34	2° <u>0</u> 33'59		max. Earth dist.	-10990 Dec 22 j 15:00	12° <u>0</u> 51'31	47.68964 AU
				retrograde	-10989 Apr 02 j 20:56	14° <u>0</u> 23'39	
conjunction	-10998 Dec 11 j 08:00	4° <u>0</u> 08'03	-15°11'33	min. Earth dist.	-10989 Jun 22 j 21:47	13° <u>0</u> 23'54	45.84164 AU
minimum elong	-10998 Dec 11 j 07:50	4° <u>0</u> 08'03	15°11'32	opposition	-10989 Jun 25 j 02:26	13° <u>0</u> 21'18	-16°46'27
max. Earth dist.	-10998 Dec 14 j 02:27	4° <u>0</u> 12'10	46.42438 AU	direct	-10989 Sep 13 j 17:16	12° <u>0</u> 20'16	
retrograde	-10997 Mar 25 j 06:21	5° <u>0</u> 46'16					
min. Earth dist.	-10997 Jun 13 j 23:39	4° <u>0</u> 45'44	44.58343 AU	conjunction	-10989 Dec 21 j 14:40	13° <u>0</u> 51'44	-16°07'15
opposition	-10997 Jun 16 j 13:24	4° <u>0</u> 42'38	-15°56'04	minimum elong	-10989 Dec 21 j 14:33	13° <u>0</u> 51'44	16°07'20
direct	-10997 Sep 04 j 22:09	3° <u>0</u> 40'32		max. Earth dist.	-10989 Dec 23 j 22:47	13° <u>0</u> 55'06	47.82825 AU
				retrograde	-10988 Apr 03 j 05:52	15° <u>0</u> 26'58	
conjunction	-10997 Dec 12 j 17:12	5° <u>0</u> 14'15	-15°19'11	min. Earth dist.	-10988 Jun 23 j 07:01	14° <u>0</u> 27'13	45.97863 AU
minimum elong	-10997 Dec 12 j 17:02	5° <u>0</u> 14'15	15°19'12	opposition	-10988 Jun 25 j 09:23	14° <u>0</u> 24'44	-16°51'13
max. Earth dist.	-10997 Dec 15 j 10:12	5° <u>0</u> 18'16	46.59371 AU	direct	-10988 Sep 13 j 23:12	13° <u>0</u> 23'47	
retrograde	-10996 Mar 25 j 13:23	6° <u>0</u> 52'05					
min. Earth dist.	-10996 Jun 14 j 09:03	5° <u>0</u> 51'38	44.75277 AU	conjunction	-10988 Dec 21 j 22:48	14° <u>0</u> 54'59	-16°11'47
opposition	-10996 Jun 16 j 21:33	5° <u>0</u> 48'35	-16°03'41	minimum elong	-10988 Dec 21 j 22:41	14° <u>0</u> 54'59	16°11'54
direct	-10996 Sep 05 j 08:07	4° <u>0</u> 46'37		max. Earth dist.	-10988 Dec 24 j 05:13	14° <u>0</u> 58'14	47.96231 AU

Attention, astronomical year style is used: The year -10987 in astronomical counting style is the year 10988 BCE in historical counting style.

retrograde	-10987 Apr 04 j 13:38	16° <u>♁</u> 29'54		direct	-10979 Sep 23 j 15:37	22° <u>♁</u> 40'38	
min. Earth dist.	-10987 Jun 24 j 13:56	15° <u>♁</u> 30'14	46.11128 AU				
opposition	-10987 Jun 26 j 16:05	15° <u>♁</u> 27'46	-16°55'38	conjunction	-10979 Dec 31 j 18:12	24° <u>♁</u> 09'54	-16°37'51
direct	-10987 Sep 15 j 05:48	14° <u>♁</u> 26'54		minimum elong	-10979 Dec 31 j 18:09	24° <u>♁</u> 09'54	16°38'03
				max. Earth dist.	-10978 Jan 02 j 14:43	24° <u>♁</u> 12'30	49.02070 AU
conjunction	-10987 Dec 23 j 06:31	15° <u>♁</u> 57'51	-16°15'59	retrograde	-10978 Apr 13 j 22:11	25° <u>♁</u> 42'28	
minimum elong	-10987 Dec 23 j 06:24	15° <u>♁</u> 57'50	16°16'06	min. Earth dist.	-10978 Jul 04 j 08:17	24° <u>♁</u> 43'18	47.15810 AU
max. Earth dist.	-10987 Dec 25 j 11:29	16° <u>♁</u> 01'00	48.09228 AU	opposition	-10978 Jul 05 j 23:19	24° <u>♁</u> 41'24	-17°20'20
retrograde	-10986 Apr 05 j 19:50	17° <u>♁</u> 32'27		direct	-10978 Sep 24 j 22:07	23° <u>♁</u> 41'21	
min. Earth dist.	-10986 Jun 25 j 22:24	16° <u>♁</u> 32'47	46.24024 AU				
opposition	-10986 Jun 27 j 22:48	16° <u>♁</u> 30'25	-16°59'44	conjunction	-10977 Jan 02 j 01:26	25° <u>♁</u> 10'25	-16°39'14
direct	-10986 Sep 16 j 14:20	15° <u>♁</u> 29'38		minimum elong	-10977 Jan 02 j 01:22	25° <u>♁</u> 10'25	16°39'26
				max. Earth dist.	-10977 Jan 03 j 19:40	25° <u>♁</u> 12'53	49.11897 AU
conjunction	-10986 Dec 24 j 14:27	17° <u>♁</u> 00'19	-16°19'52	retrograde	-10977 Apr 15 j 06:12	26° <u>♁</u> 42'44	
minimum elong	-10986 Dec 24 j 14:21	17° <u>♁</u> 00'19	16°20'00	min. Earth dist.	-10977 Jul 05 j 14:19	25° <u>♁</u> 43'39	47.25393 AU
max. Earth dist.	-10986 Dec 26 j 19:14	17° <u>♁</u> 03'27	48.21894 AU	opposition	-10977 Jul 07 j 04:51	25° <u>♁</u> 41'47	-17°21'34
retrograde	-10985 Apr 06 j 23:09	18° <u>♁</u> 34'37		direct	-10977 Sep 26 j 02:34	24° <u>♁</u> 41'47	
min. Earth dist.	-10985 Jun 27 j 05:39	17° <u>♁</u> 35'01	46.36592 AU				
opposition	-10985 Jun 29 j 05:08	17° <u>♁</u> 32'41	-17°03'28	conjunction	-10976 Jan 03 j 08:32	26° <u>♁</u> 10'41	-16°40'21
direct	-10985 Sep 18 j 00:42	16° <u>♁</u> 31'59		minimum elong	-10976 Jan 03 j 08:30	26° <u>♁</u> 10'41	16°40'35
				max. Earth dist.	-10976 Jan 05 j 01:01	26° <u>♁</u> 13'02	49.21199 AU
conjunction	-10985 Dec 25 j 22:06	18° <u>♁</u> 02'26	-16°23'24	retrograde	-10976 Apr 15 j 13:01	27° <u>♁</u> 42'45	
minimum elong	-10985 Dec 25 j 22:00	18° <u>♁</u> 02'25	16°23'31	min. Earth dist.	-10976 Jul 05 j 22:17	26° <u>♁</u> 43'38	47.34470 AU
max. Earth dist.	-10985 Dec 28 j 00:48	18° <u>♁</u> 05'26	48.34262 AU	opposition	-10976 Jul 07 j 10:30	26° <u>♁</u> 41'53	-17°22'30
retrograde	-10984 Apr 07 j 06:21	19° <u>♁</u> 36'27		direct	-10976 Sep 26 j 08:32	25° <u>♁</u> 41'56	
min. Earth dist.	-10984 Jun 27 j 12:27	18° <u>♁</u> 36'57	46.48888 AU				
opposition	-10984 Jun 29 j 11:29	18° <u>♁</u> 34'38	-17°06'52	conjunction	-10975 Jan 03 j 15:26	27° <u>♁</u> 10'39	-16°41'12
direct	-10984 Sep 18 j 07:15	17° <u>♁</u> 34'01		minimum elong	-10975 Jan 03 j 15:23	27° <u>♁</u> 10'38	16°41'26
				max. Earth dist.	-10975 Jan 05 j 07:13	27° <u>♁</u> 12'57	49.30027 AU
conjunction	-10984 Dec 26 j 05:35	19° <u>♁</u> 04'14	-16°26'36	retrograde	-10975 Apr 16 j 16:18	28° <u>♁</u> 42'28	
minimum elong	-10984 Dec 26 j 05:29	19° <u>♁</u> 04'14	16°26'45	min. Earth dist.	-10975 Jul 07 j 04:32	27° <u>♁</u> 43'23	47.43080 AU
max. Earth dist.	-10984 Dec 28 j 08:15	19° <u>♁</u> 07'14	48.46359 AU	opposition	-10975 Jul 08 j 15:52	27° <u>♁</u> 41'40	-17°23'10
retrograde	-10983 Apr 08 j 13:30	20° <u>♁</u> 37'59		direct	-10975 Sep 27 j 17:09	26° <u>♁</u> 41'46	
min. Earth dist.	-10983 Jun 28 j 20:26	19° <u>♁</u> 38'31	46.60903 AU				
opposition	-10983 Jun 30 j 17:46	19° <u>♁</u> 36'18	-17°09'55	conjunction	-10974 Jan 04 j 22:09	28° <u>♁</u> 10'18	-16°41'47
direct	-10983 Sep 19 j 13:43	18° <u>♁</u> 35'47		minimum elong	-10974 Jan 04 j 22:07	28° <u>♁</u> 10'18	16°42'02
				max. Earth dist.	-10974 Jan 06 j 11:37	28° <u>♁</u> 12'28	49.38428 AU
conjunction	-10983 Dec 27 j 13:01	20° <u>♁</u> 05'47	-16°29'28	retrograde	-10974 Apr 17 j 21:53	29° <u>♁</u> 41'54	
minimum elong	-10983 Dec 27 j 12:57	20° <u>♁</u> 05'46	16°29'37	min. Earth dist.	-10974 Jul 08 j 10:49	28° <u>♁</u> 42'50	47.51306 AU
max. Earth dist.	-10983 Dec 29 j 14:15	20° <u>♁</u> 08'41	48.58202 AU	opposition	-10974 Jul 09 j 21:07	28° <u>♁</u> 41'11	-17°23'33
retrograde	-10982 Apr 09 j 22:54	21° <u>♁</u> 39'16		direct	-10974 Sep 28 j 23:26	27° <u>♁</u> 41'19	
min. Earth dist.	-10982 Jun 30 j 02:28	20° <u>♁</u> 39'55	46.72644 AU				
opposition	-10982 Jul 01 j 23:45	20° <u>♁</u> 37'43	-17°12'37	conjunction	-10973 Jan 06 j 04:58	29° <u>♁</u> 09'41	-16°42'04
direct	-10982 Sep 20 j 17:47	19° <u>♁</u> 37'17		minimum elong	-10973 Jan 06 j 04:56	29° <u>♁</u> 09'41	16°42'19
				max. Earth dist.	-10973 Jan 07 j 18:09	29° <u>♁</u> 11'50	49.46465 AU
conjunction	-10982 Dec 28 j 20:21	21° <u>♁</u> 07'06	-16°32'00				
minimum elong	-10982 Dec 28 j 20:16	21° <u>♁</u> 07'05	16°32'11	retrograde	-10973 Feb 13 j 13:57	0° <u>♁</u>	
max. Earth dist.	-10982 Dec 30 j 20:21	21° <u>♁</u> 09'55	48.69743 AU		-10973 Apr 19 j 02:39	0° <u>♁</u> 41'05	
retrograde	-10981 Apr 11 j 07:03	22° <u>♁</u> 40'20			-10973 Jun 23 j 20:56	30° <u>♁</u>	
min. Earth dist.	-10981 Jul 01 j 10:29	21° <u>♁</u> 41'01	46.84066 AU	min. Earth dist.	-10973 Jul 09 j 17:47	29° <u>♁</u> 42'00	47.59178 AU
opposition	-10981 Jul 03 j 05:51	21° <u>♁</u> 38'55	-17°15'00	opposition	-10973 Jul 11 j 02:22	29° <u>♁</u> 40'26	-17°23'37
direct	-10981 Sep 21 j 22:51	20° <u>♁</u> 38'36		direct	-10973 Sep 30 j 06:26	28° <u>♁</u> 40'37	
					-10972 Jan 01 j 02:13	0° <u>♁</u>	
conjunction	-10981 Dec 30 j 03:48	22° <u>♁</u> 08'13	-16°34'14	conjunction	-10972 Jan 07 j 11:35	0° <u>♁</u> 08'50	-16°42'03
minimum elong	-10981 Dec 30 j 03:45	22° <u>♁</u> 08'13	16°34'26	minimum elong	-10972 Jan 07 j 11:33	0° <u>♁</u> 08'49	16°42'19
max. Earth dist.	-10980 Jan 01 j 03:16	22° <u>♁</u> 11'00	48.80946 AU	max. Earth dist.	-10972 Jan 08 j 23:04	0° <u>♁</u> 10'52	49.54188 AU
retrograde	-10980 Apr 11 j 10:14	23° <u>♁</u> 41'13		retrograde	-10972 Apr 19 j 10:35	1° <u>♁</u> 40'01	
min. Earth dist.	-10980 Jul 01 j 17:11	22° <u>♁</u> 42'00	46.95100 AU	min. Earth dist.	-10972 Jul 09 j 22:53	0° <u>♁</u> 41'01	47.66750 AU
opposition	-10980 Jul 03 j 11:36	22° <u>♁</u> 39'56	-17°17'04	opposition	-10972 Jul 11 j 07:20	0° <u>♁</u> 39'28	-17°23'23
direct	-10980 Sep 22 j 08:18	21° <u>♁</u> 39'43			-10972 Aug 17 j 12:56	30° <u>♁</u>	
				direct	-10972 Sep 30 j 09:48	29° <u>♁</u> 39'43	
conjunction	-10980 Dec 30 j 11:01	23° <u>♁</u> 09'09	-16°36'11		-10972 Nov 12 j 22:32	0° <u>♁</u>	
minimum elong	-10980 Dec 30 j 10:56	23° <u>♁</u> 09'09	16°36'23				
max. Earth dist.	-10979 Jan 01 j 07:59	23° <u>♁</u> 11'48	48.91741 AU	conjunction	-10971 Jan 07 j 18:03	1° <u>♁</u> 07'47	-16°41'45
retrograde	-10979 Apr 12 j 15:43	24° <u>♁</u> 41'56		minimum elong	-10971 Jan 07 j 18:03	1° <u>♁</u> 07'47	16°42'01
min. Earth dist.	-10979 Jul 03 j 00:11	23° <u>♁</u> 42'47	47.05708 AU	max. Earth dist.	-10971 Jan 09 j 04:28	1° <u>♁</u> 09'46	49.61618 AU
opposition	-10979 Jul 04 j 17:28	23° <u>♁</u> 40'46	-17°18'51	retrograde	-10971 Apr 20 j 18:39	2° <u>♁</u> 38'48	

Attention, astronomical year style is used: The year -10971 in astronomical counting style is the year 10972 BCE in historical counting style.

min. Earth dist.	-10971 Jul 11 j 05:48	1°M.39'49	47.74041 AU	conjunction	-10962 Jan 17 j 03:21	9°M.54'27	-16°26'59
opposition	-10971 Jul 12 j 12:29	1°M.38'20	-17°22'51	minimum elong	-10962 Jan 17 j 03:22	9°M.54'27	16°27'20
direct	-10971 Oct 01 j 12:58	0°M.38'39		max. Earth dist.	-10962 Jan 18 j 00:23	9°M.55'39	50.11034 AU
				retrograde	-10962 Apr 29 j 16:18	11°M.24'07	
conjunction	-10970 Jan 09 j 00:29	2°M.06'37	-16°41'09	opposition	-10962 Jul 21 j 07:11	10°M.24'23	-17°05'54
minimum elong	-10970 Jan 09 j 00:27	2°M.06'37	16°41'26	min. Earth dist.	-10962 Jul 20 j 12:06	10°M.25'17	48.21166 AU
max. Earth dist.	-10970 Jan 10 j 10:27	2°M.08'34	49.68780 AU	direct	-10962 Oct 10 j 17:37	9°M.25'06	
retrograde	-10970 Apr 21 j 21:54	3°M.37'28					
min. Earth dist.	-10970 Jul 12 j 11:16	2°M.38'33	47.81031 AU	conjunction	-10961 Jan 18 j 09:29	10°M.52'12	-16°24'07
opposition	-10970 Jul 13 j 17:25	2°M.37'06	-17°22'01	minimum elong	-10961 Jan 18 j 09:31	10°M.52'12	16°24'28
direct	-10970 Oct 02 j 20:41	1°M.37'30		max. Earth dist.	-10961 Jan 19 j 05:09	10°M.53'19	50.14179 AU
				retrograde	-10961 May 01 j 00:24	12°M.21'43	
conjunction	-10969 Jan 10 j 06:53	3°M.05'22	-16°40'16	opposition	-10961 Jul 22 j 11:37	11°M.22'00	-17°02'45
minimum elong	-10969 Jan 10 j 06:53	3°M.05'22	16°40'33	min. Earth dist.	-10961 Jul 21 j 18:40	11°M.22'48	48.24086 AU
max. Earth dist.	-10969 Jan 11 j 14:39	3°M.07'11	49.75634 AU	direct	-10961 Oct 11 j 19:54	10°M.22'43	
retrograde	-10969 Apr 23 j 02:05	4°M.36'04					
opposition	-10969 Jul 14 j 22:15	3°M.35'49	-17°20'54	conjunction	-10960 Jan 19 j 15:37	11°M.49'44	-16°20'58
min. Earth dist.	-10969 Jul 13 j 17:16	3°M.37'12	47.87702 AU	minimum elong	-10960 Jan 19 j 15:39	11°M.49'44	16°21'19
direct	-10969 Oct 04 j 03:27	2°M.36'18		max. Earth dist.	-10960 Jan 20 j 10:38	11°M.50'49	50.16985 AU
				retrograde	-10960 May 01 j 04:15	13°M.19'06	
conjunction	-10968 Jan 11 j 13:26	4°M.04'04	-16°39'06	opposition	-10960 Jul 22 j 15:59	12°M.19'25	-16°59'19
minimum elong	-10968 Jan 11 j 13:25	4°M.04'04	16°39'25	min. Earth dist.	-10960 Jul 21 j 23:24	12°M.20'13	48.26669 AU
max. Earth dist.	-10968 Jan 12 j 20:55	4°M.05'52	49.82136 AU	direct	-10960 Oct 12 j 01:52	11°M.20'08	
retrograde	-10968 Apr 23 j 07:07	5°M.34'38					
min. Earth dist.	-10968 Jul 14 j 00:08	4°M.35'48	47.93980 AU	conjunction	-10959 Jan 19 j 21:20	12°M.47'05	-16°17'34
opposition	-10968 Jul 15 j 03:10	4°M.34'30	-17°19'30	minimum elong	-10959 Jan 19 j 21:22	12°M.47'06	16°17'56
direct	-10968 Oct 04 j 09:47	3°M.35'03		max. Earth dist.	-10959 Jan 20 j 14:16	12°M.48'03	50.19474 AU
				retrograde	-10959 May 02 j 07:55	14°M.16'20	
conjunction	-10967 Jan 11 j 19:42	5°M.02'44	-16°37'41	opposition	-10959 Jul 23 j 20:23	13°M.16'42	-16°55'37
minimum elong	-10967 Jan 11 j 19:44	5°M.02'44	16°38'00	min. Earth dist.	-10959 Jul 23 j 04:57	13°M.17'26	48.28958 AU
max. Earth dist.	-10967 Jan 13 j 01:06	5°M.04'25	49.88229 AU	direct	-10959 Oct 13 j 07:59	12°M.17'26	
retrograde	-10967 Apr 24 j 15:08	6°M.33'10					
min. Earth dist.	-10967 Jul 15 j 05:21	5°M.34'25	47.99812 AU	conjunction	-10958 Jan 21 j 03:20	13°M.44'20	-16°13'53
opposition	-10967 Jul 16 j 07:56	5°M.33'08	-17°17'50	minimum elong	-10958 Jan 21 j 03:23	13°M.44'20	16°14'15
direct	-10967 Oct 05 j 12:39	4°M.33'46		max. Earth dist.	-10958 Jan 21 j 20:10	13°M.45'17	50.21672 AU
					-10958 Mar 28 j 10:27	15°M.	
conjunction	-10966 Jan 13 j 02:08	6°M.01'22	-16°36'01	retrograde	-10958 May 03 j 10:34	15°M.13'29	
minimum elong	-10966 Jan 13 j 02:07	6°M.01'22	16°36'20		-10958 Jun 08 j 17:41	15°R.M.	
max. Earth dist.	-10966 Jan 14 j 05:47	6°M.02'56	49.93834 AU	min. Earth dist.	-10958 Jul 24 j 10:44	14°M.14'33	48.30939 AU
retrograde	-10966 Apr 25 j 22:16	7°M.31'40		opposition	-10958 Jul 25 j 00:39	14°M.13'54	-16°51'38
opposition	-10966 Jul 17 j 12:45	6°M.31'43	-17°15'56	direct	-10958 Oct 14 j 15:17	13°M.14'39	
min. Earth dist.	-10966 Jul 16 j 12:42	6°M.32'52	48.05134 AU				
direct	-10966 Oct 06 j 16:32	5°M.32'23		conjunction	-10957 Jan 22 j 09:15	14°M.41'30	-16°09'56
				minimum elong	-10957 Jan 22 j 09:17	14°M.41'30	16°10'20
conjunction	-10965 Jan 14 j 08:41	6°M.59'54	-16°34'07	max. Earth dist.	-10957 Jan 23 j 00:07	14°M.42'21	50.23573 AU
minimum elong	-10965 Jan 14 j 08:43	6°M.59'54	16°34'27		-10957 Feb 05 j 02:48	15°M.	
max. Earth dist.	-10965 Jan 15 j 11:15	7°M.01'25	49.98921 AU	retrograde	-10957 May 04 j 17:13	16°M.10'34	
retrograde	-10965 Apr 27 j 02:32	8°M.30'02		opposition	-10957 Jul 26 j 04:52	15°M.11'03	-16°47'23
opposition	-10965 Jul 18 j 17:29	7°M.30'10	-17°13'48	min. Earth dist.	-10957 Jul 25 j 15:14	15°M.11'42	48.32600 AU
min. Earth dist.	-10965 Jul 17 j 18:28	7°M.31'16	48.09900 AU		-10957 Aug 04 j 22:26	15°R.M.	
direct	-10965 Oct 07 j 23:33	6°M.30'52		direct	-10957 Oct 15 j 18:39	14°M.11'51	
					-10957 Dec 25 j 01:39	15°M.	
conjunction	-10964 Jan 15 j 14:58	7°M.58'18	-16°31'59				
minimum elong	-10964 Jan 15 j 14:59	7°M.58'18	16°32'19	conjunction	-10956 Jan 23 j 15:08	15°M.38'40	-16°05'44
max. Earth dist.	-10964 Jan 16 j 14:40	7°M.59'39	50.03453 AU	minimum elong	-10956 Jan 23 j 15:13	15°M.38'41	16°06'08
retrograde	-10964 Apr 27 j 07:07	9°M.28'16		max. Earth dist.	-10956 Jan 24 j 04:44	15°M.39'26	50.25117 AU
opposition	-10964 Jul 18 j 22:07	8°M.28'27	-17°11'25	retrograde	-10956 May 04 j 23:57	17°M.07'40	
min. Earth dist.	-10964 Jul 18 j 00:37	8°M.29'29	48.14135 AU	opposition	-10956 Jul 26 j 09:09	16°M.08'13	-16°42'53
direct	-10964 Oct 08 j 05:59	7°M.29'10		min. Earth dist.	-10956 Jul 25 j 21:48	16°M.08'45	48.33884 AU
				direct	-10956 Oct 15 j 21:32	15°M.09'03	
conjunction	-10963 Jan 15 j 21:18	8°M.56'29	-16°29'36				
minimum elong	-10963 Jan 15 j 21:20	8°M.56'29	16°29'58	conjunction	-10955 Jan 23 j 21:07	16°M.35'52	-16°01'17
max. Earth dist.	-10963 Jan 16 j 20:23	8°M.57'48	50.07471 AU	minimum elong	-10955 Jan 23 j 21:10	16°M.35'52	16°01'42
retrograde	-10963 Apr 28 j 09:46	10°M.26'19		max. Earth dist.	-10955 Jan 24 j 09:53	16°M.36'35	50.26272 AU
min. Earth dist.	-10963 Jul 19 j 07:13	9°M.27'28	48.17866 AU	retrograde	-10955 May 06 j 04:43	18°M.04'47	
opposition	-10963 Jul 20 j 02:44	9°M.26'32	-17°08'47	opposition	-10955 Jul 27 j 13:18	17°M.05'24	-16°38'08
direct	-10963 Oct 09 j 13:29	8°M.27'15		min. Earth dist.	-10955 Jul 27 j 02:44	17°M.05'55	48.34732 AU



Attention, astronomical year style is used: The year -10955 in astronomical counting style is the year 10956 BCE in historical counting style.

direct	-10955 Oct 17 j 02:57	16° $\mathbb{M}$ 06'16		minimum elong	-10946 Feb 02 j 01:50	25° $\mathbb{M}$ 09'10	15°11'13
				max. Earth dist.	-10946 Feb 02 j 00:36	25° $\mathbb{M}$ 09'06	50.15721 AU
conjunction	-10954 Jan 25 j 02:56	17° $\mathbb{M}$ 33'05	-15°56'36	retrograde	-10946 May 15 j 00:40	26° $\mathbb{M}$ 37'36	
minimum elong	-10954 Jan 25 j 03:01	17° $\mathbb{M}$ 33'06	15°57'01	opposition	-10946 Aug 05 j 02:27	25° $\mathbb{M}$ 38'25	-15°44'33
max. Earth dist.	-10954 Jan 25 j 13:00	17° $\mathbb{M}$ 33'39	50.26959 AU	min. Earth dist.	-10946 Aug 05 j 04:11	25° $\mathbb{M}$ 38'20	48.21506 AU
retrograde	-10954 May 07 j 09:29	19° $\mathbb{M}$ 01'57		direct	-10946 Oct 25 j 22:17	24° $\mathbb{M}$ 39'09	
opposition	-10954 Jul 28 j 17:36	18° $\mathbb{M}$ 02'37	-16°33'08				
min. Earth dist.	-10954 Jul 28 j 08:40	18° $\mathbb{M}$ 03'03	48.35090 AU	conjunction	-10945 Feb 03 j 07:37	26° $\mathbb{M}$ 06'00	-15°03'52
direct	-10954 Oct 18 j 08:31	17° $\mathbb{M}$ 03'30		minimum elong	-10945 Feb 03 j 07:44	26° $\mathbb{M}$ 06'01	15°04'20
				max. Earth dist.	-10945 Feb 03 j 05:56	26° $\mathbb{M}$ 05'55	50.12790 AU
conjunction	-10953 Jan 26 j 09:05	18° $\mathbb{M}$ 30'19	-15°51'42	retrograde	-10945 May 16 j 06:05	27° $\mathbb{M}$ 34'25	
minimum elong	-10953 Jan 26 j 09:09	18° $\mathbb{M}$ 30'19	15°52'07	opposition	-10945 Aug 06 j 06:22	26° $\mathbb{M}$ 35'17	-15°37'18
max. Earth dist.	-10953 Jan 26 j 18:19	18° $\mathbb{M}$ 30'50	50.27126 AU	min. Earth dist.	-10945 Aug 06 j 08:29	26° $\mathbb{M}$ 35'11	48.18300 AU
retrograde	-10953 May 08 j 12:21	19° $\mathbb{M}$ 59'07		direct	-10945 Oct 27 j 02:46	25° $\mathbb{M}$ 36'00	
opposition	-10953 Jul 29 j 21:48	18° $\mathbb{M}$ 59'51	-16°27'55	evening set	-10944 Feb 03 j 06:43	27° $\mathbb{M}$ 01'12	
min. Earth dist.	-10953 Jul 29 j 14:56	19° $\mathbb{M}$ 00'10	48.34902 AU				
direct	-10953 Oct 19 j 15:27	18° $\mathbb{M}$ 00'43		conjunction	-10944 Feb 04 j 13:22	27° $\mathbb{M}$ 02'56	-14°56'45
				minimum elong	-10944 Feb 04 j 13:28	27° $\mathbb{M}$ 02'56	14°57'14
conjunction	-10952 Jan 27 j 15:04	19° $\mathbb{M}$ 27'31	-15°46'34	max. Earth dist.	-10944 Feb 04 j 09:18	27° $\mathbb{M}$ 02'42	50.09534 AU
minimum elong	-10952 Jan 27 j 15:09	19° $\mathbb{M}$ 27'32	15°47'00	morning rise	-10944 Feb 05 j 20:15	27° $\mathbb{M}$ 04'40	
max. Earth dist.	-10952 Jan 27 j 21:57	19° $\mathbb{M}$ 27'55	50.26766 AU	retrograde	-10944 May 16 j 11:15	28° $\mathbb{M}$ 31'20	
retrograde	-10952 May 08 j 18:24	20° $\mathbb{M}$ 56'16		opposition	-10944 Aug 06 j 10:30	27° $\mathbb{M}$ 32'13	-15°29'47
opposition	-10952 Jul 30 j 01:59	19° $\mathbb{M}$ 57'01	-16°22'29	min. Earth dist.	-10944 Aug 06 j 14:04	27° $\mathbb{M}$ 32'03	48.14757 AU
min. Earth dist.	-10952 Jul 29 j 19:48	19° $\mathbb{M}$ 57'18	48.34193 AU	direct	-10944 Oct 27 j 07:25	26° $\mathbb{M}$ 32'56	
direct	-10952 Oct 19 j 19:29	18° $\mathbb{M}$ 57'52		evening set	-10943 Feb 02 j 08:30	27° $\mathbb{M}$ 56'38	
conjunction	-10951 Jan 27 j 20:50	20° $\mathbb{M}$ 24'40	-15°41'13	conjunction	-10943 Feb 04 j 19:10	27° $\mathbb{M}$ 59'56	-14°49'23
minimum elong	-10951 Jan 27 j 20:54	20° $\mathbb{M}$ 24'40	15°41'39	minimum elong	-10943 Feb 04 j 19:18	27° $\mathbb{M}$ 59'57	14°49'52
max. Earth dist.	-10951 Jan 28 j 02:03	20° $\mathbb{M}$ 24'57	50.25887 AU	max. Earth dist.	-10943 Feb 04 j 14:47	27° $\mathbb{M}$ 59'41	50.05901 AU
retrograde	-10951 May 10 j 02:12	21° $\mathbb{M}$ 53'20		morning rise	-10943 Feb 07 j 06:07	28° $\mathbb{M}$ 03'15	
opposition	-10951 Jul 31 j 06:13	20° $\mathbb{M}$ 54'06	-16°16'48	retrograde	-10943 May 17 j 13:58	29° $\mathbb{M}$ 28'22	
min. Earth dist.	-10951 Jul 31 j 02:20	20° $\mathbb{M}$ 54'17	48.32991 AU	opposition	-10943 Aug 07 j 14:39	28° $\mathbb{M}$ 29'16	-15°22'02
direct	-10951 Oct 20 j 21:37	19° $\mathbb{M}$ 54'56		min. Earth dist.	-10943 Aug 07 j 19:59	28° $\mathbb{M}$ 29'01	48.10791 AU
				direct	-10943 Oct 28 j 14:19	27° $\mathbb{M}$ 29'58	
conjunction	-10950 Jan 29 j 02:45	21° $\mathbb{M}$ 21'43	-15°35'37	evening set	-10942 Feb 02 j 19:37	28° $\mathbb{M}$ 52'40	
minimum elong	-10950 Jan 29 j 02:51	21° $\mathbb{M}$ 21'43	15°36'04				
max. Earth dist.	-10950 Jan 29 j 07:07	21° $\mathbb{M}$ 21'58	50.24559 AU	conjunction	-10942 Feb 06 j 01:04	28° $\mathbb{M}$ 57'02	-14°41'47
retrograde	-10950 May 11 j 07:01	22° $\mathbb{M}$ 50'19		minimum elong	-10942 Feb 06 j 01:10	28° $\mathbb{M}$ 57'03	14°42'17
opposition	-10950 Aug 01 j 10:09	21° $\mathbb{M}$ 51'05	-16°10'52	max. Earth dist.	-10942 Feb 05 j 18:24	28° $\mathbb{M}$ 56'40	50.01829 AU
min. Earth dist.	-10950 Aug 01 j 06:56	21° $\mathbb{M}$ 51'14	48.31354 AU	morning rise	-10942 Feb 09 j 06:47	29° $\mathbb{M}$ 01'25	
direct	-10950 Oct 22 j 02:10	20° $\mathbb{M}$ 51'53			-10942 Mar 29 j 16:21	0° $\mathbb{X}$	
				retrograde	-10942 May 18 j 18:43	0° $\mathbb{X}$ 25'29	
conjunction	-10949 Jan 30 j 08:33	22° $\mathbb{M}$ 18'40	-15°29'47		-10942 Jul 08 j 09:24	30° $\mathbb{R}$ $\mathbb{M}$	
minimum elong	-10949 Jan 30 j 08:38	22° $\mathbb{M}$ 18'41	15°30'14	opposition	-10942 Aug 08 j 18:39	29° $\mathbb{M}$ 26'25	-15°14'03
max. Earth dist.	-10949 Jan 30 j 10:33	22° $\mathbb{M}$ 18'47	50.22826 AU	min. Earth dist.	-10942 Aug 09 j 00:45	29° $\mathbb{M}$ 26'07	48.06354 AU
retrograde	-10949 May 12 j 10:47	23° $\mathbb{M}$ 47'12		direct	-10942 Oct 29 j 19:19	28° $\mathbb{M}$ 27'05	
opposition	-10949 Aug 02 j 14:16	22° $\mathbb{M}$ 47'59	-16°04'41	evening set	-10941 Feb 03 j 10:20	29° $\mathbb{M}$ 49'00	
min. Earth dist.	-10949 Aug 02 j 12:26	22° $\mathbb{M}$ 48'04	48.29352 AU				
direct	-10949 Oct 23 j 07:59	21° $\mathbb{M}$ 48'45		conjunction	-10941 Feb 07 j 07:08	29° $\mathbb{M}$ 54'13	-14°33'58
				minimum elong	-10941 Feb 07 j 07:17	29° $\mathbb{M}$ 54'13	14°34'28
conjunction	-10948 Jan 31 j 14:22	23° $\mathbb{M}$ 15'32	-15°23'42	max. Earth dist.	-10941 Feb 06 j 22:38	29° $\mathbb{M}$ 53'44	49.97243 AU
minimum elong	-10948 Jan 31 j 14:28	23° $\mathbb{M}$ 15'33	15°24'10	morning rise	-10941 Feb 11 j 04:17	29° $\mathbb{M}$ 59'28	
max. Earth dist.	-10948 Jan 31 j 16:10	23° $\mathbb{M}$ 15'39	50.20745 AU		-10941 Feb 11 j 13:46	0° $\mathbb{X}$	
retrograde	-10948 May 12 j 11:51	24° $\mathbb{M}$ 44'01		retrograde	-10941 May 20 j 01:56	1° $\mathbb{X}$ 22'41	
opposition	-10948 Aug 02 j 18:19	23° $\mathbb{M}$ 44'48	-15°58'15	opposition	-10941 Aug 09 j 22:59	0° $\mathbb{X}$ 23'36	-15°05'50
min. Earth dist.	-10948 Aug 02 j 17:55	23° $\mathbb{M}$ 44'50	48.27016 AU	min. Earth dist.	-10941 Aug 10 j 07:32	0° $\mathbb{X}$ 23'12	48.01389 AU
direct	-10948 Oct 23 j 16:21	22° $\mathbb{M}$ 45'34			-10941 Aug 31 j 05:16	30° $\mathbb{R}$ $\mathbb{M}$	
				direct	-10941 Oct 30 j 22:21	29° $\mathbb{M}$ 24'14	
conjunction	-10947 Jan 31 j 20:03	24° $\mathbb{M}$ 12'21	-15°17'21		-10941 Dec 29 j 21:58	0° $\mathbb{X}$	
minimum elong	-10947 Jan 31 j 20:09	24° $\mathbb{M}$ 12'22	15°17'48	evening set	-10940 Feb 04 j 02:59	0° $\mathbb{X}$ 45'27	
max. Earth dist.	-10947 Jan 31 j 20:01	24° $\mathbb{M}$ 12'21	50.18375 AU				
retrograde	-10947 May 13 j 17:41	25° $\mathbb{M}$ 40'48		conjunction	-10940 Feb 08 j 13:09	0° $\mathbb{X}$ 51'26	-14°25'55
opposition	-10947 Aug 03 j 22:17	24° $\mathbb{M}$ 41'37	-15°51'32	minimum elong	-10940 Feb 08 j 13:16	0° $\mathbb{X}$ 51'26	14°26'25
min. Earth dist.	-10947 Aug 03 j 21:59	24° $\mathbb{M}$ 41'37	48.24404 AU	max. Earth dist.	-10940 Feb 08 j 03:31	0° $\mathbb{X}$ 50'53	49.92137 AU
direct	-10947 Oct 24 j 20:06	23° $\mathbb{M}$ 42'20		morning rise	-10940 Feb 12 j 23:34	0° $\mathbb{X}$ 57'26	
				retrograde	-10940 May 20 j 08:06	2° $\mathbb{X}$ 19'53	
conjunction	-10946 Feb 02 j 01:44	25° $\mathbb{M}$ 09'10	-15°10'45	opposition	-10940 Aug 10 j 03:07	1° $\mathbb{X}$ 20'48	-14°57'23

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34

Attention, astronomical year style is used: The year -10940 in astronomical counting style is the year 10941 BCE in historical counting style.

min. Earth dist.	-10940 Aug 10 j 12:25	1°♂20'22	47.95889 AU	morning rise	-10933 Feb 22 j 16:16	7°♂42'18	
direct	-10940 Oct 31 j 02:04	0°♂21'23		retrograde	-10933 May 27 j 16:47	9°♂01'02	
evening set	-10939 Feb 03 j 20:52	1°♂41'59		opposition	-10933 Aug 17 j 08:48	8°♂01'48	-13°51'16
				min. Earth dist.	-10933 Aug 18 j 03:00	8°♂00'56	47.46162 AU
conjunction	-10939 Feb 08 j 19:04	1°♂48'39	-14°17'39	direct	-10933 Nov 07 j 15:22	7°♂01'58	
minimum elong	-10939 Feb 08 j 19:12	1°♂48'39	14°18'10	evening set	-10932 Feb 08 j 20:21	8°♂19'33	
max. Earth dist.	-10939 Feb 08 j 06:47	1°♂47'57	49.86512 AU				
morning rise	-10939 Feb 13 j 17:38	1°♂55'19		conjunction	-10932 Feb 16 j 13:20	8°♂30'01	-13°12'52
retrograde	-10939 May 21 j 13:16	3°♂17'06		minimum elong	-10932 Feb 16 j 13:30	8°♂30'01	13°13'25
opposition	-10939 Aug 11 j 07:17	2°♂17'59	-14°48'43	max. Earth dist.	-10932 Feb 15 j 16:21	8°♂28'49	49.36498 AU
min. Earth dist.	-10939 Aug 11 j 18:23	2°♂17'28	47.89903 AU	morning rise	-10932 Feb 24 j 06:41	8°♂40'30	
direct	-10939 Nov 01 j 06:50	1°♂18'30		retrograde	-10932 May 27 j 21:49	9°♂58'51	
evening set	-10938 Feb 04 j 15:42	2°♂38'33		opposition	-10932 Aug 17 j 13:08	8°♂59'38	-13°40'46
				min. Earth dist.	-10932 Aug 18 j 07:47	8°♂58'44	47.37746 AU
conjunction	-10938 Feb 10 j 01:07	2°♂45'50	-14°09'09	direct	-10932 Nov 07 j 20:25	7°♂59'46	
minimum elong	-10938 Feb 10 j 01:14	2°♂45'51	14°09'40	evening set	-10931 Feb 08 j 18:26	9°♂17'02	
max. Earth dist.	-10938 Feb 09 j 12:16	2°♂45'07	49.80419 AU				
morning rise	-10938 Feb 15 j 10:48	2°♂53'09		conjunction	-10931 Feb 16 j 19:37	9°♂27'58	-13°02'36
retrograde	-10938 May 22 j 14:44	4°♂14'18		minimum elong	-10931 Feb 16 j 19:46	9°♂27'59	13°03'10
opposition	-10938 Aug 12 j 11:30	3°♂15'10	-14°39'47	max. Earth dist.	-10931 Feb 15 j 21:08	9°♂26'42	49.28019 AU
min. Earth dist.	-10938 Aug 13 j 00:10	3°♂14'33	47.83459 AU	morning rise	-10931 Feb 24 j 21:05	9°♂38'56	
direct	-10938 Nov 02 j 15:11	2°♂15'36		retrograde	-10931 May 29 j 05:05	10°♂56'56	
evening set	-10937 Feb 05 j 11:23	3°♂35'08		opposition	-10931 Aug 18 j 17:38	9°♂57'42	-13°30'00
				min. Earth dist.	-10931 Aug 19 j 14:37	9°♂56'42	47.28919 AU
conjunction	-10937 Feb 11 j 07:06	3°♂43'01	-14°00'24	direct	-10931 Nov 08 j 23:37	8°♂57'48	
minimum elong	-10937 Feb 11 j 07:15	3°♂43'01	14°00'56	evening set	-10930 Feb 09 j 17:03	10°♂14'47	
max. Earth dist.	-10937 Feb 10 j 16:10	3°♂42'10	49.73910 AU	max. Earth dist.	-10930 Feb 17 j 02:35	10°♂24'51	49.19107 AU
morning rise	-10937 Feb 17 j 03:11	3°♂50'55					
retrograde	-10937 May 23 j 19:42	5°♂11'30		conjunction	-10930 Feb 18 j 02:02	10°♂26'11	-12°52'05
opposition	-10937 Aug 13 j 15:33	4°♂12'20	-14°30'37	minimum elong	-10930 Feb 18 j 02:12	10°♂26'11	12°52'39
min. Earth dist.	-10937 Aug 14 j 04:44	4°♂11'42	47.76632 AU	morning rise	-10930 Feb 26 j 11:14	10°♂37'37	
direct	-10937 Nov 03 j 20:08	3°♂12'42		retrograde	-10930 May 30 j 13:14	11°♂55'15	
evening set	-10936 Feb 06 j 07:28	4°♂31'46		opposition	-10930 Aug 19 j 22:10	10°♂56'01	-13°19'00
				min. Earth dist.	-10930 Aug 20 j 19:53	10°♂54'58	47.19606 AU
conjunction	-10936 Feb 12 j 13:09	4°♂40'12	-13°51'25	direct	-10930 Nov 10 j 02:23	9°♂56'02	
minimum elong	-10936 Feb 12 j 13:17	4°♂40'12	13°51'56	evening set	-10929 Feb 10 j 15:58	11°♂12'45	
max. Earth dist.	-10936 Feb 11 j 21:00	4°♂39'17	49.67030 AU	max. Earth dist.	-10929 Feb 18 j 06:14	11°♂23'07	49.09677 AU
morning rise	-10936 Feb 18 j 19:09	4°♂48'40					
retrograde	-10936 May 24 j 02:30	6°♂08'44		conjunction	-10929 Feb 19 j 08:31	11°♂24'36	-12°41'21
opposition	-10936 Aug 13 j 19:55	5°♂09'32	-14°21'11	minimum elong	-10929 Feb 19 j 08:39	11°♂24'37	12°41'54
min. Earth dist.	-10936 Aug 14 j 11:07	5°♂08'48	47.69465 AU	morning rise	-10929 Feb 28 j 01:23	11°♂36'29	
direct	-10936 Nov 03 j 22:52	4°♂09'50		retrograde	-10929 May 31 j 20:10	12°♂53'48	
evening set	-10935 Feb 06 j 03:59	5°♂28'28		opposition	-10929 Aug 21 j 02:49	11°♂54'31	-13°07'45
				min. Earth dist.	-10929 Aug 22 j 02:32	11°♂53'23	47.09772 AU
conjunction	-10935 Feb 12 j 19:01	5°♂37'26	-13°42'10	direct	-10929 Nov 11 j 06:30	10°♂54'27	
minimum elong	-10935 Feb 12 j 19:10	5°♂37'27	13°42'42	evening set	-10928 Feb 11 j 15:11	12°♂10'55	
max. Earth dist.	-10935 Feb 12 j 02:21	5°♂36'30	49.59846 AU				
morning rise	-10935 Feb 19 j 10:19	5°♂46'26		conjunction	-10928 Feb 20 j 15:11	12°♂23'12	-12°30'22
retrograde	-10935 May 25 j 07:53	7°♂06'01		minimum elong	-10928 Feb 20 j 15:22	12°♂23'13	12°30'56
opposition	-10935 Aug 15 j 00:08	6°♂06'48	-14°11'29	max. Earth dist.	-10928 Feb 19 j 12:07	12°♂21'40	48.99715 AU
min. Earth dist.	-10935 Aug 15 j 15:33	6°♂06'04	47.61992 AU	morning rise	-10928 Feb 29 j 15:19	12°♂35'30	
direct	-10935 Nov 05 j 03:36	5°♂07'03		retrograde	-10928 May 31 j 22:09	13°♂52'29	
evening set	-10934 Feb 07 j 01:00	6°♂25'18		opposition	-10928 Aug 21 j 07:37	12°♂53'09	-12°56'17
max. Earth dist.	-10934 Feb 13 j 06:06	6°♂33'43	49.52365 AU	min. Earth dist.	-10928 Aug 22 j 08:56	12°♂51'56	46.99395 AU
				direct	-10928 Nov 11 j 15:25	11°♂53'00	
conjunction	-10934 Feb 14 j 01:01	6°♂34'47	-13°32'40	evening set	-10927 Feb 11 j 14:31	13°♂09'13	
minimum elong	-10934 Feb 14 j 01:10	6°♂34'48	13°33'11				
morning rise	-10934 Feb 21 j 01:25	6°♂44'18		conjunction	-10927 Feb 20 j 21:33	13°♂21'55	-12°19'09
retrograde	-10934 May 26 j 13:41	8°♂03'26		minimum elong	-10927 Feb 20 j 21:43	13°♂21'56	12°19'43
opposition	-10934 Aug 16 j 04:23	7°♂04'12	-14°01'30	max. Earth dist.	-10927 Feb 19 j 16:11	13°♂20'14	48.89238 AU
min. Earth dist.	-10934 Aug 16 j 21:09	7°♂03'24	47.54236 AU	morning rise	-10927 Mar 02 j 04:52	13°♂34'38	
direct	-10934 Nov 06 j 08:03	6°♂04'25		retrograde	-10927 Jun 02 j 02:20	14°♂51'18	
evening set	-10933 Feb 07 j 22:30	7°♂22'18		opposition	-10927 Aug 22 j 12:17	13°♂51'54	-12°44'33
				min. Earth dist.	-10927 Aug 23 j 14:25	13°♂50'39	46.88521 AU
conjunction	-10933 Feb 15 j 07:17	7°♂32'18	-13°22'54	direct	-10927 Nov 12 j 22:23	12°♂51'38	
minimum elong	-10933 Feb 15 j 07:25	7°♂32'18	13°23'27	evening set	-10926 Feb 12 j 14:05	14°♂07'36	
max. Earth dist.	-10933 Feb 14 j 12:11	7°♂31'13	49.44592 AU	max. Earth dist.	-10926 Feb 20 j 21:21	14°♂18'56	48.78268 AU

## Planetary Phenomena of Pluto from -11400 through -10898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 35

Attention, astronomical year style is used: The year -10926 in astronomical counting style is the year 10927 BCE in historical counting style.

conjunction	-10926 Feb 22 j 04:14	14°♄20'43	-12°07'42	evening set	-10919 Feb 17 j 17:23	20°♄59'51	
minimum elong	-10926 Feb 22 j 04:25	14°♄20'43	12°08'17	max. Earth dist.	-10919 Feb 27 j 12:08	21°♄13'24	47.92050 AU
morning rise	-10926 Mar 03 j 18:33	14°♄33'51					
retrograde	-10926 Jun 03 j 08:50	15°♄50'12		conjunction	-10919 Mar 01 j 03:54	21°♄15'42	-10°40'09
opposition	-10926 Aug 23 j 17:02	14°♄50'43	-12°32'34	minimum elong	-10919 Mar 01 j 04:05	21°♄15'43	10°40'44
min. Earth dist.	-10926 Aug 24 j 21:33	14°♄49'21	46.77187 AU	morning rise	-10919 Mar 12 j 14:25	21°♄31'34	
direct	-10926 Nov 14 j 02:43	13°♄50'20		retrograde	-10919 Jun 10 j 06:24	22°♄46'19	
evening set	-10925 Feb 13 j 14:03	15°♄06'03		opposition	-10919 Aug 30 j 04:30	21°♄46'19	-11°00'54
max. Earth dist.	-10925 Feb 22 j 03:13	15°♄17'45	48.66884 AU	min. Earth dist.	-10919 Aug 31 j 16:14	21°♄44'35	45.88814 AU
				direct	-10919 Nov 20 j 14:34	20°♄45'09	
conjunction	-10925 Feb 23 j 10:58	15°♄19'34	-11°56'00	evening set	-10918 Feb 18 j 18:54	21°♄59'48	
minimum elong	-10925 Feb 23 j 11:08	15°♄19'34	11°56'33	max. Earth dist.	-10918 Feb 28 j 19:02	22°♄13'41	47.78438 AU
morning rise	-10925 Mar 05 j 07:56	15°♄33'07					
retrograde	-10925 Jun 04 j 15:08	16°♄49'10		conjunction	-10918 Mar 02 j 11:20	22°♄16'02	-10°26'34
opposition	-10925 Aug 24 j 21:49	15°♄49'36	-12°20'19	minimum elong	-10918 Mar 02 j 11:30	22°♄16'03	10°27'09
min. Earth dist.	-10925 Aug 26 j 02:36	15°♄48'13	46.65459 AU	morning rise	-10918 Mar 14 j 03:24	22°♄32'16	
direct	-10925 Nov 15 j 07:33	14°♄49'05		retrograde	-10918 Jun 11 j 11:04	23°♄46'52	
evening set	-10924 Feb 14 j 13:58	16°♄04'34		opposition	-10918 Aug 31 j 09:56	22°♄46'49	-10°46'42
max. Earth dist.	-10924 Feb 23 j 07:29	16°♄16'33	48.55128 AU	min. Earth dist.	-10918 Sep 01 j 23:06	22°♄45'00	45.74822 AU
				direct	-10918 Nov 21 j 22:43	21°♄45'32	
conjunction	-10924 Feb 24 j 17:28	16°♄18'30	-11°44'02	evening set	-10917 Feb 19 j 20:54	23°♄00'07	
minimum elong	-10924 Feb 24 j 17:38	16°♄18'30	11°44'37	max. Earth dist.	-10917 Mar 02 j 00:08	23°♄14'13	47.64367 AU
morning rise	-10924 Mar 05 j 21:11	16°♄32'27					
retrograde	-10924 Jun 04 j 22:48	17°♄48'13		conjunction	-10917 Mar 03 j 18:48	23°♄16'43	-10°12'44
opposition	-10924 Aug 25 j 02:45	16°♄48'34	-12°07'47	minimum elong	-10917 Mar 03 j 18:59	23°♄16'44	10°13'19
min. Earth dist.	-10924 Aug 26 j 09:04	16°♄47'06	46.53403 AU	morning rise	-10917 Mar 15 j 16:34	23°♄33'19	
direct	-10924 Nov 15 j 11:33	15°♄47'55		retrograde	-10917 Jun 12 j 16:38	24°♄47'46	
evening set	-10923 Feb 14 j 14:08	17°♄03'12		opposition	-10917 Sep 01 j 15:35	23°♄47'39	-10°32'13
max. Earth dist.	-10923 Feb 23 j 14:14	17°♄15'35	48.43067 AU	min. Earth dist.	-10917 Sep 03 j 05:41	23°♄45'47	45.60356 AU
				direct	-10917 Nov 23 j 06:17	22°♄46'14	
conjunction	-10923 Feb 25 j 00:14	17°♄17'32	-11°31'48	evening set	-10916 Feb 20 j 22:51	24°♄00'46	
minimum elong	-10923 Feb 25 j 00:24	17°♄17'32	11°32'22	max. Earth dist.	-10916 Mar 02 j 06:11	24°♄15'08	47.49790 AU
morning rise	-10923 Mar 07 j 10:15	17°♄31'52					
retrograde	-10923 Jun 06 j 02:38	18°♄47'23		conjunction	-10916 Mar 04 j 02:21	24°♄17'43	-9°58'38
opposition	-10923 Aug 26 j 07:41	17°♄47'38	-11°54'59	minimum elong	-10916 Mar 04 j 02:31	24°♄17'44	9°59'14
min. Earth dist.	-10923 Aug 27 j 15:05	17°♄46'07	46.41052 AU	morning rise	-10916 Mar 16 j 05:29	24°♄34'40	
direct	-10923 Nov 16 j 19:24	16°♄46'53		retrograde	-10916 Jun 12 j 23:18	25°♄49'01	
evening set	-10922 Feb 15 j 14:37	18°♄02'00		opposition	-10916 Sep 01 j 21:27	24°♄48'48	-10°17'28
max. Earth dist.	-10922 Feb 24 j 19:04	18°♄14'38	48.30741 AU	min. Earth dist.	-10916 Sep 03 j 13:54	24°♄46'49	45.45385 AU
				direct	-10916 Nov 23 j 12:17	23°♄47'15	
conjunction	-10922 Feb 26 j 06:56	18°♄16'42	-11°19'18	evening set	-10915 Feb 21 j 01:13	25°♄01'43	
minimum elong	-10922 Feb 26 j 07:06	18°♄16'43	11°19'53	max. Earth dist.	-10915 Mar 03 j 12:44	25°♄16'22	47.34734 AU
morning rise	-10922 Mar 08 j 23:21	18°♄31'25					
retrograde	-10922 Jun 07 j 07:43	19°♄46'43		conjunction	-10915 Mar 05 j 10:03	25°♄19'01	-9°44'17
opposition	-10922 Aug 27 j 12:42	18°♄46'54	-11°41'53	minimum elong	-10915 Mar 05 j 10:14	25°♄19'02	9°44'53
min. Earth dist.	-10922 Aug 28 j 20:26	18°♄45'22	46.28442 AU	morning rise	-10915 Mar 17 j 18:26	25°♄36'19	
direct	-10922 Nov 18 j 01:33	17°♄46'01		retrograde	-10915 Jun 14 j 06:51	26°♄50'33	
evening set	-10921 Feb 16 j 15:17	19°♄01'00		opposition	-10915 Sep 03 j 03:10	25°♄50'13	-10°02'27
max. Earth dist.	-10921 Feb 26 j 00:58	19°♄13'57	48.18137 AU	min. Earth dist.	-10915 Sep 04 j 20:02	25°♄48'13	45.29940 AU
				direct	-10915 Nov 24 j 17:32	24°♄48'31	
conjunction	-10921 Feb 27 j 13:55	19°♄16'05	-11°06'31	evening set	-10914 Feb 22 j 03:47	26°♄02'56	
minimum elong	-10921 Feb 27 j 14:06	19°♄16'06	11°07'06	max. Earth dist.	-10914 Mar 04 j 18:00	26°♄17'47	47.19216 AU
morning rise	-10921 Mar 10 j 12:29	19°♄31'11					
retrograde	-10921 Jun 08 j 13:28	20°♄46'17		conjunction	-10914 Mar 06 j 17:48	26°♄20'36	-9°29'40
opposition	-10921 Aug 28 j 17:54	19°♄46'24	-11°28'31	minimum elong	-10914 Mar 06 j 17:58	26°♄20'36	9°30'16
min. Earth dist.	-10921 Aug 30 j 03:32	19°♄44'46	46.15553 AU	morning rise	-10914 Mar 19 j 07:28	26°♄38'15	
direct	-10921 Nov 19 j 07:18	18°♄45'25		retrograde	-10914 Jun 15 j 16:20	27°♄52'21	
evening set	-10920 Feb 17 j 16:18	20°♄00'16		opposition	-10914 Sep 04 j 09:09	26°♄51'54	-9°47'09
max. Earth dist.	-10920 Feb 27 j 07:26	20°♄13'34	48.05263 AU	min. Earth dist.	-10914 Sep 06 j 03:59	26°♄49'48	45.14068 AU
				direct	-10914 Nov 25 j 22:08	25°♄50'03	
conjunction	-10920 Feb 28 j 20:57	20°♄15'44	-10°53'28	evening set	-10913 Feb 23 j 06:32	27°♄04'25	
minimum elong	-10920 Feb 28 j 21:07	20°♄15'44	10°54'04	max. Earth dist.	-10913 Mar 06 j 01:46	27°♄19'36	47.03291 AU
morning rise	-10920 Mar 11 j 01:26	20°♄31'13					
retrograde	-10920 Jun 08 j 21:33	21°♄46'07		conjunction	-10913 Mar 08 j 01:47	27°♄22'26	-9°14'47
opposition	-10920 Aug 28 j 23:07	20°♄46'11	-11°14'51	minimum elong	-10913 Mar 08 j 01:57	27°♄22'27	9°15'23
min. Earth dist.	-10920 Aug 30 j 09:00	20°♄44'33	46.02362 AU	morning rise	-10913 Mar 20 j 20:18	27°♄40'26	
direct	-10920 Nov 19 j 11:11	19°♄45'07		retrograde	-10913 Jun 16 j 22:13	28°♄54'25	

Attention, astronomical year style is used: The year -10913 in astronomical counting style is the year 10914 BCE in historical counting style.

opposition	-10913 Sep 05 j 15:12	27° $\mathring{A}$ 53'51	-9°31'33	direct	-10907 Dec 02 j 23:29	3° $\mathring{Z}$ 09'55	
min. Earth dist.	-10913 Sep 07 j 11:07	27° $\mathring{A}$ 51'41	44.97813 AU	evening set	-10906 Mar 01 j 09:17	4° $\mathring{Z}$ 24'37	
direct	-10913 Nov 27 j 06:43	26° $\mathring{A}$ 51'49		max. Earth dist.	-10906 Mar 13 j 03:59	4° $\mathring{Z}$ 41'33	45.83923 AU
evening set	-10912 Feb 24 j 09:38	28° $\mathring{A}$ 06'11					
max. Earth dist.	-10912 Mar 06 j 07:37	28° $\mathring{A}$ 21'34	46.87031 AU	conjunction	-10906 Mar 15 j 12:20	4° $\mathring{Z}$ 44'58	-7°22'33
				minimum elong	-10906 Mar 15 j 12:30	4° $\mathring{Z}$ 44'59	7°23'10
conjunction	-10912 Mar 08 j 09:39	28° $\mathring{A}$ 24'32	-8°59'37	morning rise	-10906 Mar 29 j 14:07	5° $\mathring{Z}$ 05'16	
minimum elong	-10912 Mar 08 j 09:49	28° $\mathring{A}$ 24'33	9°00'12	retrograde	-10906 Jun 24 j 03:27	6° $\mathring{Z}$ 19'08	
morning rise	-10912 Mar 21 j 09:11	28° $\mathring{A}$ 42'52		opposition	-10906 Sep 12 j 13:53	5° $\mathring{Z}$ 17'44	-7°33'54
retrograde	-10912 Jun 17 j 05:08	29° $\mathring{A}$ 56'46		min. Earth dist.	-10906 Sep 14 j 17:26	5° $\mathring{Z}$ 15'09	43.76455 AU
opposition	-10912 Sep 05 j 21:22	28° $\mathring{A}$ 56'05	-9°15'40	direct	-10906 Dec 04 j 08:42	4° $\mathring{Z}$ 14'34	
min. Earth dist.	-10912 Sep 07 j 17:46	28° $\mathring{A}$ 53'53	44.81264 AU	evening set	-10905 Mar 02 j 14:34	5° $\mathring{Z}$ 29'23	
direct	-10912 Nov 27 j 13:50	27° $\mathring{A}$ 53'52		max. Earth dist.	-10905 Mar 14 j 11:49	5° $\mathring{Z}$ 46'32	45.65585 AU
evening set	-10911 Feb 24 j 12:37	29° $\mathring{A}$ 08'14					
max. Earth dist.	-10911 Mar 07 j 14:47	29° $\mathring{A}$ 23'54	46.70478 AU	conjunction	-10905 Mar 16 j 21:31	5° $\mathring{Z}$ 50'03	-7°05'22
				minimum elong	-10905 Mar 16 j 21:39	5° $\mathring{Z}$ 50'03	7°05'59
conjunction	-10911 Mar 09 j 17:37	29° $\mathring{A}$ 26'56	-8°44'10	morning rise	-10905 Mar 31 j 03:12	6° $\mathring{Z}$ 10'39	
minimum elong	-10911 Mar 09 j 17:47	29° $\mathring{A}$ 26'56	8°44'46	retrograde	-10905 Jun 25 j 11:43	7° $\mathring{Z}$ 24'35	
morning rise	-10911 Mar 22 j 21:49	29° $\mathring{A}$ 45'36		opposition	-10905 Sep 13 j 21:16	6° $\mathring{Z}$ 23'03	-7°15'53
	-10911 Apr 02 j 10:07	0° $\mathring{Z}$		min. Earth dist.	-10905 Sep 16 j 01:12	6° $\mathring{Z}$ 20'26	43.57751 AU
retrograde	-10911 Jun 18 j 10:06	0° $\mathring{Z}$ 59'27		direct	-10905 Dec 05 j 16:25	5° $\mathring{Z}$ 19'42	
	-10911 Sep 06 j 00:09	30° $\mathring{R}$ $\mathring{A}$		evening set	-10904 Mar 02 j 20:11	6° $\mathring{Z}$ 34'38	
opposition	-10911 Sep 07 j 03:48	29° $\mathring{A}$ 58'38	-8°59'29	max. Earth dist.	-10904 Mar 14 j 18:51	6° $\mathring{Z}$ 51'56	45.46771 AU
min. Earth dist.	-10911 Sep 09 j 01:57	29° $\mathring{A}$ 56'20	44.64444 AU				
direct	-10911 Nov 28 j 22:11	28° $\mathring{A}$ 56'15		conjunction	-10904 Mar 17 j 06:55	6° $\mathring{Z}$ 55'36	-6°47'54
	-10910 Feb 17 j 23:08	0° $\mathring{Z}$		minimum elong	-10904 Mar 17 j 07:04	6° $\mathring{Z}$ 55'37	6°48'31
evening set	-10910 Feb 25 j 16:11	0° $\mathring{Z}$ 10'38		morning rise	-10904 Mar 31 j 16:23	7° $\mathring{Z}$ 16'31	
max. Earth dist.	-10910 Mar 08 j 22:25	0° $\mathring{Z}$ 26'35	46.53689 AU	retrograde	-10904 Jun 25 j 22:34	8° $\mathring{Z}$ 30'31	
				opposition	-10904 Sep 14 j 05:01	7° $\mathring{Z}$ 28'50	-6°57'34
conjunction	-10910 Mar 11 j 01:48	0° $\mathring{Z}$ 29'39	-8°28'25	min. Earth dist.	-10904 Sep 16 j 11:10	7° $\mathring{Z}$ 26'06	43.38582 AU
minimum elong	-10910 Mar 11 j 01:59	0° $\mathring{Z}$ 29'40	8°29'01	direct	-10904 Dec 05 j 22:04	6° $\mathring{Z}$ 25'16	
morning rise	-10910 Mar 24 j 10:36	0° $\mathring{Z}$ 48'39		evening set	-10903 Mar 04 j 01:54	7° $\mathring{Z}$ 40'20	
retrograde	-10910 Jun 19 j 18:33	2° $\mathring{Z}$ 02'28		max. Earth dist.	-10903 Mar 16 j 03:59	7° $\mathring{Z}$ 57'55	45.27493 AU
opposition	-10910 Sep 08 j 10:07	1° $\mathring{Z}$ 01'32	-8°42'59				
min. Earth dist.	-10910 Sep 10 j 08:16	0° $\mathring{Z}$ 59'14	44.47392 AU	conjunction	-10903 Mar 18 j 16:27	8° $\mathring{Z}$ 01'37	-6°30'09
	-10910 Nov 20 j 14:18	30° $\mathring{R}$ $\mathring{A}$		minimum elong	-10903 Mar 18 j 16:36	8° $\mathring{Z}$ 01'38	6°30'45
direct	-10910 Nov 30 j 03:48	29° $\mathring{A}$ 58'59		morning rise	-10903 Apr 02 j 05:24	8° $\mathring{Z}$ 22'50	
	-10910 Dec 09 j 15:24	0° $\mathring{Z}$		retrograde	-10903 Jun 27 j 08:23	9° $\mathring{Z}$ 36'54	
evening set	-10909 Feb 26 j 20:03	1° $\mathring{Z}$ 13'24		opposition	-10903 Sep 15 j 12:51	8° $\mathring{Z}$ 35'02	-6°38'56
max. Earth dist.	-10909 Mar 10 j 04:48	1° $\mathring{Z}$ 29'35	46.36662 AU	min. Earth dist.	-10903 Sep 17 j 19:57	8° $\mathring{Z}$ 32'15	43.18942 AU
				direct	-10903 Dec 07 j 06:12	7° $\mathring{Z}$ 31'15	
conjunction	-10909 Mar 12 j 10:11	1° $\mathring{Z}$ 32'46	-8°12'24	evening set	-10902 Mar 05 j 08:16	8° $\mathring{Z}$ 46'29	
minimum elong	-10909 Mar 12 j 10:20	1° $\mathring{Z}$ 32'47	8°13'00	max. Earth dist.	-10902 Mar 17 j 11:12	9° $\mathring{Z}$ 04'11	45.07767 AU
morning rise	-10909 Mar 25 j 23:32	1° $\mathring{Z}$ 52'06					
retrograde	-10909 Jun 21 j 05:43	3° $\mathring{Z}$ 05'54		conjunction	-10902 Mar 20 j 02:11	9° $\mathring{Z}$ 08'03	-6°12'07
opposition	-10909 Sep 09 j 16:52	2° $\mathring{Z}$ 04'51	-8°26'10	minimum elong	-10902 Mar 20 j 02:20	9° $\mathring{Z}$ 08'04	6°12'43
min. Earth dist.	-10909 Sep 11 j 16:40	2° $\mathring{Z}$ 02'28	44.30114 AU	morning rise	-10902 Apr 03 j 18:44	9° $\mathring{Z}$ 29'34	
direct	-10909 Dec 01 j 06:40	1° $\mathring{Z}$ 02'09		retrograde	-10902 Jun 28 j 18:52	10° $\mathring{Z}$ 43'43	
evening set	-10908 Feb 27 j 23:59	2° $\mathring{Z}$ 16'38		opposition	-10902 Sep 16 j 20:43	9° $\mathring{Z}$ 41'40	-6°20'00
max. Earth dist.	-10908 Mar 10 j 13:20	2° $\mathring{Z}$ 33'08	46.19394 AU	min. Earth dist.	-10902 Sep 19 j 05:00	9° $\mathring{Z}$ 38'48	42.98891 AU
				direct	-10902 Dec 08 j 14:06	8° $\mathring{Z}$ 37'38	
conjunction	-10908 Mar 12 j 18:38	2° $\mathring{Z}$ 36'20	-7°56'04	evening set	-10901 Mar 06 j 14:48	9° $\mathring{Z}$ 53'02	
minimum elong	-10908 Mar 12 j 18:49	2° $\mathring{Z}$ 36'20	7°56'40	max. Earth dist.	-10901 Mar 18 j 20:29	10° $\mathring{Z}$ 10'59	44.87634 AU
morning rise	-10908 Mar 26 j 12:09	2° $\mathring{Z}$ 55'59					
retrograde	-10908 Jun 21 j 13:02	4° $\mathring{Z}$ 09'48		conjunction	-10901 Mar 21 j 12:15	10° $\mathring{Z}$ 14'55	-5°53'47
opposition	-10908 Sep 09 j 23:42	3° $\mathring{Z}$ 08'38	-8°09'03	minimum elong	-10901 Mar 21 j 12:23	10° $\mathring{Z}$ 14'56	5°54'23
min. Earth dist.	-10908 Sep 12 j 00:10	3° $\mathring{Z}$ 06'13	44.12566 AU	morning rise	-10901 Apr 05 j 07:54	10° $\mathring{Z}$ 36'43	
direct	-10908 Dec 01 j 14:57	2° $\mathring{Z}$ 05'48		retrograde	-10901 Jun 30 j 01:21	11° $\mathring{Z}$ 50'58	
evening set	-10907 Feb 28 j 04:30	3° $\mathring{Z}$ 20'22		opposition	-10901 Sep 18 j 05:02	10° $\mathring{Z}$ 48'43	-6°00'45
max. Earth dist.	-10907 Mar 11 j 19:55	3° $\mathring{Z}$ 37'03	46.01842 AU	min. Earth dist.	-10901 Sep 20 j 15:03	10° $\mathring{Z}$ 45'46	42.78469 AU
				direct	-10901 Dec 10 j 01:00	9° $\mathring{Z}$ 44'27	
conjunction	-10907 Mar 14 j 03:16	3° $\mathring{Z}$ 40'23	-7°39'27	evening set	-10900 Mar 06 j 21:36	11° $\mathring{Z}$ 00'02	
minimum elong	-10907 Mar 14 j 03:25	3° $\mathring{Z}$ 40'24	7°40'04	max. Earth dist.	-10900 Mar 19 j 05:28	11° $\mathring{Z}$ 18'11	44.67177 AU
morning rise	-10907 Mar 28 j 01:08	4° $\mathring{Z}$ 00'22					
retrograde	-10907 Jun 22 j 20:45	5° $\mathring{Z}$ 14'12		conjunction	-10900 Mar 21 j 22:09	11° $\mathring{Z}$ 22'13	-5°35'10
opposition	-10907 Sep 11 j 06:33	4° $\mathring{Z}$ 12'55	-7°51'38	minimum elong	-10900 Mar 21 j 22:18	11° $\mathring{Z}$ 22'13	5°35'46
min. Earth dist.	-10907 Sep 13 j 07:59	4° $\mathring{Z}$ 10'27	43.94712 AU	morning rise	-10900 Apr 05 j 21:00	11° $\mathring{Z}$ 44'18	

Attention, astronomical year style is used: The year -10900 in astronomical counting style is the year 10901 BCE in historical counting style.

retrograde	-10900 Jun 30 j 09:39	12° <del>3</del> 58'40	
opposition	-10900 Sep 18 j 13:23	11° <del>3</del> 56'14	-5°41'11
min. Earth dist.	-10900 Sep 20 j 23:29	11° <del>3</del> 53'15	42.57754 AU
direct	-10900 Dec 10 j 10:28	10° <del>3</del> 51'43	
evening set	-10899 Mar 08 j 04:49	12° <del>3</del> 07'31	
max. Earth dist.	-10899 Mar 20 j 14:01	12° <del>3</del> 25'50	44.46435 AU

conjunction	-10899 Mar 23 j 08:24	12° <del>3</del> 29'58	-5°16'14
minimum elong	-10899 Mar 23 j 08:32	12° <del>3</del> 29'59	5°16'50
morning rise	-10899 Apr 07 j 10:12	12° <del>3</del> 52'21	
retrograde	-10899 Jul 01 j 21:06	14° <del>3</del> 06'53	
opposition	-10899 Sep 19 j 21:58	13° <del>3</del> 04'14	-5°21'17
min. Earth dist.	-10899 Sep 22 j 09:53	13° <del>3</del> 01'09	42.36799 AU
direct	-10899 Dec 11 j 16:20	11° <del>3</del> 59'29	